

# PATENT JOURNAL

INCLUDING TRADE MARKS, DESIGNS AND  
COPYRIGHT IN CINEMATOGRAPH FILMS

**APRIL 2022**

**VOL 55 • No. 04**



Companies and Intellectual  
Property Commission

a member of the **dtic** group

## Part II of II

---

**ISSUED MONTHLY**

**DATE OF ISSUE: 28 APRIL 2022**

---

**ISSN 2223-4837**

# PATENT JOURNAL

INCLUDING TRADE MARKS, DESIGNS AND  
COPYRIGHT IN CINEMATOGRAPH FILMS

**VOL. 55 No. 04**

**Date of Issue: 28 APRIL 2022**

## **PATENTS, TRADE MARKS, DESIGNS AND COPYRIGHT OFFICE**

*Official notices of proceedings under:*

The Patents Act, 1978

The Designs Act, 1993

The Trade Marks Act, 1963

The Trade Marks Act, 1993

The Registration of Copyright in Cinematograph Films Act, 1977

**Registrar of Patents, Trade Marks, Designs and Copyright**

**Note:** CIPC acting on behalf of the Government of the Republic of South Africa, cannot guarantee the accuracy of its publications or undertake any responsibility for errors or omissions or their consequences.

**TABLE OF CONTENTS**

<b>2. PATENTS</b> .....	4
APPLICATIONS FOR PATENTS .....	5
ASSIGNMENTS IN TERMS OF SECTION 60-REGULATIONS 58-60 AND 64 (1) .....	111
CHANGE OF NAME IN TERMS OF REGULATION 39 .....	113
PATENT LICENSES IN TERMS OF SECTION 53 (7)-REGULATIONS 62 AND 63 .....	114
PATENT APPLICATIONS ABANDONED OR WITHDRAWN .....	114
APPLICATION FOR RESTORATION OF A LAPSED PATENT .....	114
APPLICATION FOR VOLUNTARY SURRENDER OF PATENTS UNDER SECTION 64 (1), REGULATION 67 OF THE ACT .....	116
APPLICATIONS TO AMEND SPECIFICATION .....	116
INSPECTION OF SPECIFICATIONS.....	118
HYPOTHECATIONS .....	441
JUDGMENTS .....	441
OFFICE PRACTISE NOTICES .....	441
<b>3. DESIGNS</b> .....	442
APPLICATIONS FOR REGISTRATION OF DESIGNS IN TERMS OF ACT No. 195 OF 1993 .....	443
CHANGE OF NAME IN TERMS OF REGULATION 24 .....	448
APPLICATION FOR THE RESTORATION OF A LAPSED DESIGN UNDER SECTION 23 OF THE ACT .....	448
APPLICATION TO CORRECT AND/OR AMEND DESIGNS APPLICATION OR REGISTRATION .....	448
NOTICE OF REGISTRATION OF DESIGNS.....	449
HYPOTHECATIONS .....	546
JUDGMENTS .....	546
OFFICE PRACTISE NOTICES .....	546
<b>4. COPYRIGHT</b> .....	547
NOTICES OF ACCEPTANCE .....	548
HYPOTHECATIONS .....	550
JUDGMENTS .....	550
OFFICE PRACTISE NOTICES .....	550
<b>5. CORRECTION NOTICES</b> .....	551
TRADE MARK CORRECTION NOTICES .....	552
PATENT CORRECTION NOTICES .....	552
DESIGNS CORRECTION NOTICES .....	552
COPYRIGHT CORRECTION NOTICES .....	553
<b>PATENTS</b> .....	554
<b>DESIGNS</b> .....	603
<b>OTHER NOTICES</b> .....	610

## 2. PATENTS



**PATENTS****APPLICATIONS FOR PATENTS**

Copies of these specifications cannot be supplied until the applications have been accepted and advertised, or in the case of convention applications, until 18 months from the date of the application in the convention

**THE PARTICULARS APPEAR IN THE FOLLOWING SEQUENCE:**

The numerical references denote the following: **(21)** Number of application. **(22)** Date of application. **(DA)** Date of acceptance. **(51)** Class. **(71)** Name of applicant(s). **(72)** Name of all inventors. **(33)** Country. **(31)** Number and **(32)** Date of convention application. **(54)** Title of invention. **(00)** Number of sheets.

- APPLIED ON 2022/03/28 -

2022/03574 ~ Complete ~54:METHOD AND APPARATUS FOR CHROMINANCE QUANTIZATION PARAMETERS SIGNALLING ~71:Huawei Technologies Co., Ltd., Huawei Administration Building, Bantian, Longgang District, SHENZHEN 518129, GUANGDONG, CHINA (P.R.C.), People's Republic of China ~72: ALSHINA, Elena Alexandrovna;CHERNYAK, Roman Igorevich;IKONIN, Sergey Yurievich;KARABUTOV, Alexander Alexandrovich;SOLOVYEV, Timofey Mikhailovich~ 33:IB ~31:2019/000664 ~32:23/09/2019

2022/03530 ~ Complete ~54:MULTI-STAGE SUPERCHARGING TWIN-SCREW CORE OF REFRIGERATION COMPRESSOR ~71:Tianjin Gasin-Donghui Preservation Technologies Co., Ltd, 104, Floor 1, No. 10, Siwei Road, Dongli District, Tianjin, 300300, People's Republic of China ~72: CAO, Shengqi;CHEN, Lan;DUAN, Lihua;GUO, Bei;JINAG, Yunbin;SHAO, Chongxiao;WANG, Haifen;ZHANG, Zhenjun~ 33:CN ~31:202210274304.1 ~32:21/03/2022

2022/03536 ~ Complete ~54:MULTIFUNCTIONAL EXPERIMENTAL DEVICE FOR TESTING HYDRATE CHARACTERISTICS ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 579, Qianwangang Road, Economic and Technological Development Zone, Qingdao City, Shandong Province, 266510, People's Republic of China ~72: Bin GONG;Lianjun CHEN;Naser Golsanami;Ruiqi ZHANG;Yujing JIANG~

2022/03539 ~ Complete ~54:CULTURE SUBSTRATE BOTTLING, COMPACTING AND PERFORATING DEVICE ~71:SHANDONG ACADEMY OF AGRICULTURAL SCIENCES INSTITUTE OF AGRICULTURAL RESOURCES AND ENVIRONMENT, No. 202, Industrial North Road, Licheng District, Jinan City, Shandong Province, 250100, People's Republic of China;SHANDONG YOUHE BIOTECHNOLOGY CO., LTD., No. 1, Youhe Road, Pingyangsi, Taiping Town, Zoucheng City, Jining City, Shandong Province, 273514, People's Republic of China ~72: CHEN, Fuyong;FAN, Lingling;GONG, Zhiyuan;HAN, Jiandong;HUANG, Chunyan;LI, Jin;SUN, Ruixiang;XIE, Hongyan;YANG, Peng;YAO, Qiang~

2022/03541 ~ Complete ~54:CONVENIENT FIXING DEVICE FOR ORAL DENTAL RADIOGRAPHY ~71:Yan'an Hospital, Kunming City, 245 Renmin East Road, Panlong District, Kunming, Yunnan, People's Republic of China ~72: Liang Jing;Ouyang Qian;Xia Zhigang;Xu Yiming;Yang Xianghong;Yin Lingyun;Yu Hongbin;Zhang Lingpeng~

2022/03544 ~ Complete ~54:MULTIPLE-EFFECT MEMBRANE DISTILLATION AND MULTIPLE-EFFECT EVAPORATION COMPREHENSIVE CRYSTALLIZATION PROCESS ~71:Karamay Xinzhong Petroleum Engineering Technology Service Co., Ltd, No. 300-303 Anding Road, Karamay District, Karamay City, Xinjiang, 834000, People's Republic of China ~72: FENG, Jiacun;LI, Chuanjian;LI, Qier~

2022/03547 ~ Complete ~54:APPARATUS FOR RAPIDLY MONITORING AND COUNTING INDOOR GROWTH AND DEVELOPMENT INDEXES OF SITOBION MISCANTHI ~71:Institute of Plant Protection, Henan Academy of

Agricultural Sciences, No. 116, Huayuan Road, Jinshui District, Zhengzhou City, Henan Province, 450002, People's Republic of China ~72: GONG, Zhongjun;JIANG, Yueli;LI, Shaojian;LI, Tong;WU, Yuqing~ 33:CN ~31:202220345345.0 ~32:21/02/2022

2022/03552 ~ Complete ~54:ELECTRONIC AEROSOL PROVISION SYSTEMS ~71:Nicoventures Trading Limited, Globe House, 1 Water Street, LONDON WC2R 3LA, UNITED KINGDOM, United Kingdom ~72: DICKENS, Colin;FRASER, Rory;JAIN, Siddhartha~ 33:GB ~31:1511349.1 ~32:29/06/2015

2022/03557 ~ Complete ~54:INDUSTRIAL PROCESS FOR THE PREPARATION OF HIGH PURITY ESTETROL ~71:RICHTER GEDEON NYRT., H-1103 Budapest, Hungary ~72: BACSA, Ildikó;LOVAS, Róbert;MAHÉ, Sándor;MAYER, Beatrix~ 33:HU ~31:P1900315 ~32:03/09/2019

2022/03559 ~ Complete ~54:HOLE CLEANING DEVICE FOR CAST-IN-PLACE PILE STEEL CASING ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9, Chunxiu Road, Dongcheng District, Beijing, 100027, People's Republic of China ~72: HUIFENG SUN~ 33:CN ~31:202011230283.0 ~32:06/11/2020

2022/03561 ~ Complete ~54:SYSTEMS AND METHODS FOR CHROMATOGRAPHY USE AND REGENERATION ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, New York, 10591, United States of America ~72: JAMES REILLY;JOHN MATTILA;ROBERT STAIRS;SAMANTHA WADSWORTH~ 33:US ~31:62/905,033 ~32:24/09/2019;33:US ~31:62/958,899 ~32:09/01/2020

2022/03569 ~ Complete ~54:HEADGROUP LIPID COMPOUNDS AND COMPOSITIONS FOR INTRACELLULAR DELIVERY OF THERAPEUTIC AGENTS ~71:ModernaTX, Inc., 200 Technology Square, CAMBRIDGE 02139, MA, USA, United States of America ~72: BENENATO, Kerry E.;CORNEBISE, Mark;HENNESSY, Edward;MCKENZIE, Andrew~ 33:US ~31:62/902,928 ~32:19/09/2019

2022/03570 ~ Complete ~54:INTRODUCING AN ELONGATED ELEMENT INTO A SUBMARINE DUCT ~71:Plumettaz Holding SA, Route de la Gribannaz 7, BEX 1880, SWITZERLAND, Switzerland ~72: GRIFFIOEN, Willem~ 33:CH ~31:01264/19 ~32:04/10/2019;33:CH ~31:01410/19 ~32:08/11/2019

2022/03577 ~ Complete ~54:USE OF CYCLODEXTRINS AS A RADIOSTABILIZER ~71:GE Healthcare Limited, Pollards Wood Nightingales Lane, Chalfont St Giles, BUCKINGHAMSHIRE HP8 4SP, UNITED KINGDOM, United Kingdom ~72: KHAN, Imtiaz Ahmed;MCROBBIE, Graeme;WIKENE, Kristine~ 33:GB ~31:1915206.5 ~32:21/10/2019

2022/03563 ~ Complete ~54:PEDIATRIC SUSPENSION FORMULATION ~71:XEOLAS PHARMACEUTICALS LTD., DCU Campus, Dublin 9, Ireland ~72: DAMIEN PATRICK FLYNN;DENNIS MARK MCDAID;MAURICE JOSEPH ANTHONY CLANCY~ 33:US ~31:62/911,035 ~32:04/10/2019;33:US ~31:62/911,689 ~32:07/10/2019;33:US ~31:63/062,785 ~32:07/08/2020

2022/03573 ~ Complete ~54:COMMUNICATION METHOD AND APPARATUS ~71:Huawei Technologies Co., Ltd., Huawei Administration Building, Bantian, Longgang District, SHENZHEN 518129, GUANGDONG, CHINA (P.R.C.), People's Republic of China ~72: HUANG, Wenwen;TIE, Xiaolei;XUE, Lixia~

2022/03531 ~ Complete ~54:DIVIDED MATERIAL CONVEYING SYSTEM AND ASSOCIATED METHOD ~71:BRUNONE, René, 46, rue du Général Leclerc, France ~72: BRUNONE, René~ 33:FR ~31:21 03195 ~32:29/03/2021

2022/03533 ~ Complete ~54:METHOD FOR SIMULTANEOUSLY DETECTING VARIOUS PLANT HORMONES ~71:Shandong Guocangjian Biotechnology Co., Ltd., 25th Floor, East Tower, Taishan Innovation Valley, No. 28

Zhengyangmen Street, High-tech Zone, Tai'an City, Shandong Province, People's Republic of China ~72: Guo Junling;Liu Zhen;Wang Qunqing;Wang Xizhen;Xu Qian;Zheng Zheng~

2022/03538 ~ Complete ~54:EXPERIMENTAL DEVICE FOR SIMULATING GENERATION AND EXPLOITATION OF SEABED COMBUSTIBLE ICE AND USE METHOD THEREOF ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 579, Qianwangang Road, Economic and Technological Development Zone, Qingdao City, Shandong Province, 266510, People's Republic of China ~72: Bin GONG;Lianjun CHEN;Naser Golsanami;Ruiqi ZHANG;Yujing JIANG~

2022/03543 ~ Complete ~54:METHOD FOR SYNTHESIZING POLYPLOID WHEAT ~71:Crop Research Institute, Sichuan Academy of Agricultural Sciences, No. 4, Shizishan Road, Jinjiang District, Chengdu City, Sichuan, 610066, People's Republic of China ~72: LI, Jun;LIU, Zehou;WAN, Hongshen;WANG, Qin;YANG, Fan;YANG, Ning;YANG, Wuyun~

2022/03545 ~ Complete ~54:PLANT GROWTH REGULATOR, PREPARATION METHOD AND SEEDLING RAISING BY CUTTING METHOD APPLYING PLANT GROWTH REGULATOR FOR FINE BREED SHOOT OF EUCOMMIA ULMOIDES OLIV ~71:Research Institute of Non-timber Forestry, Chinese Academy of Forestry, No. 3, Weiwu Road, Jinshui District, Zhengzhou City, Henan Province, 450003, People's Republic of China ~72: DU, Hongyan;DU, Lanying;DU, Qingxin;LIU, Panfeng;QING, Jun;SUN, Zhiqiang;WANG, Lu~

2022/03548 ~ Complete ~54:COATING AGENT FOR PREVENTING AND CONTROLLING TRUNK BORERS IN ARID AREAS AND ITS PREPARATION METHOD ~71:Shihezi University, No.221 North Fourth Road, Shihezi City, Xinjiang, People's Republic of China ~72: Guangming Chu;Jun Zhang;Ping Jiang;Saiyaremu Halifu~

2022/03556 ~ Complete ~54:AEROSOL-FORMING SUBSTRATE WITH NITROGEN-CONTAINING NUCLEOPHILIC COMPOUND ~71:PHILIP MORRIS PRODUCTS S.A., Quai Jeanrenaud 3, Switzerland ~72: AJITHKUMAR, Anu;DE PALO, Damien~ 33:EP ~31:19217088.4 ~32:17/12/2019

2022/03564 ~ Complete ~54:THE USE OF THE AGENT FOR INDUCING SPECIFIC IMMUNITY AGAINST SEVERE ACUTE RESPIRATORY SYNDROME VIRUS SARS-COV-2 IN SUBJECTS ABOVE 60 YEARS OF AGE AND/OR HAVING CHRONIC DISEASES (VARIANTS) ~71:FEDERAL STATE BUDGETARY INSTITUTION "NATIONAL RESEARCH CENTRE FOR EPIDEMIOLOGY AND MICROBIOLOGY NAMED AFTER THE HONORARY ACADEMICIAN N.F. GAMALEYA" OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION, ul. Gamalei 18, Moscow, 123098, Russian Federation ~72: ALEKSANDR LEONIDOVICH GINTSBURG;ALEKSANDR SERGEEVICH SEMIKHIN;ALINA SERGEEVNA EROKHOVA;ALINA SHAHMIROVNA DZHARULLAEVA;AMIR ILDAROVICH TUKHVATULIN;ANDREI GENNADIEVICH BOTIKOV;BORIS SAVELIEVICH NARODITSKY;DARIA MIKHAILOVNA GROUSOVA;DENIS YURYEVICH LOGUNOV;DMITRII ANATOLIEVICH KUTAEV;DMITRII NIKOLAEVICH SHCHERBININ;DMITRII VIKTOROVICH SHCHEBBLIAKOV;ELIZAVETA ALEXANDROVNA TOKARSKAYA;EVGENII VLADIMIROVICH KRIUKOV;FATIMA MAGOMETOVNA IZHAEVA;ILIAS BULATOVICH ESMAGAMBETOV;INNA VADIMOVNA DOLZHIKOVA;NADEZHDA LEONIDOVNA LUBENETS;NATALIA MIKHAILOVNA TUKHVATULINA;NATALYA ANATOLIEVNA NIKITENKO;OLGA POPOVA;OLGA VADIMOVNA ZUBKOVA;SVETLANA YAKOVLEVNA LOGINOVA;TATIANA ANDREEVNA OZHAROVSKAIA;VLADIMIR ALEKSANDROVICH CHERNETSOV;VLADIMIR FEDOROVICH BABIRA~ 33:RU ~31:2021104430 ~32:21/02/2021

2022/03526 ~ Provisional ~54:MOBILE SEED TREATMENT MACHINE ~71:Mark Ralph Haley, 21c 2nd Ave, South Africa;Raymond Cyril Stains, 21c 2nd Ave, South Africa ~72: Mark Ralph Haley;Raymond Cyril Stains~

2022/03527 ~ Provisional ~54:ADJUSTABLE STEP FOR PHYSIOS ~71:Malcolm. Stewart, 75 Disa Dives, South Africa ~72: M. Stewart~

2022/03529 ~ Provisional ~54:SOFT TOUCH ADJUSTABLE TENSION PULL ROPE ~71:ANDREW ROLAND ANGUS HOGG, 30 MARINE DRIVE, UMHLANGA ROCKS, South Africa ~72: ANDREW ROLAND ANGUS HOGG~

2022/03550 ~ Complete ~54:CUP COVER AND CUP THEREOF ~71:HUHTAMAKI FOODSERVICE (SHANGHAI) LIMITED, No. 218 East Jiangtian Road, Songjiang District, Shanghai, 201613, People's Republic of China ~72: DAN NI;YUEPING ZHU~ 33:CN ~31:202110326224.1 ~32:26/03/2021

2022/03553 ~ Complete ~54:METHOD FOR ADDING LIGNOCELLULOSE TO ACTIVATION-INDUCE LIQUID LENTINUS EDODES STRAIN ~71:Langfang Normal University, No.100, Aimin West Road, Langfang, Hebei, People's Republic of China ~72: Chunyan Xie;Qi An;Sizhu Ren;Wenjie Chen;Xunyou Yan;Zhenxia Shi;Zhiguo Zhou~

2022/03566 ~ Complete ~54:UTILIZATION OF AN AGENT FOR INDUCTION OF SPECIFIC IMMUNITY AGAINST SEVERE ACUTE RESPIRATORY SYNDROME VIRUS SARS-COV-2 IN CHILDREN ~71:FEDERAL STATE BUDGETARY INSTITUTION "NATIONAL RESEARCH CENTRE FOR EPIDEMIOLOGY AND MICROBIOLOGY NAMED AFTER THE HONORARY ACADEMICIAN N.F. GAMALEYA" OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION, ul. Gamalei 18, Moscow, 123098, Russian Federation ~72: ALEKSANDR LEONIDOVICH GINTSBURG;ALEKSANDR SERGEEVICH SEMIKHIN;ALINA SERGEEVNA EROKHOVA;ALINA SHAHMIROVNA DZHARULLAEVA;AMIR ILDAROVICH TUKHVATULIN;ANDREI GENNADIEVICH BOTIKOV;BORIS SAVELIEVICH NARODITSKY;DARIA MIKHAILOVNA GROUSOVA;DENIS YURYEVICH LOGUNOV;DMITRII ANATOLIEVICH KUTAEV;DMITRII NIKOLAEVICH SHCHERBININ;DMITRII VIKTOROVICH SHCHEBBLIAKOV;ELIZAVETA ALEXANDROVNA TOKARSKAYA;EVGENII VLADIMIROVICH KRIUKOV;FATIMA MAGOMETOVNA IZHAeva;ILIAS BULATOVICH ESMAGAMBETOV;INNA VADIMOVNA DOLZHIKOVA;NADEZHDA LEONIDOVNA LUBENETS;NATALIA MIKHAILOVNA TUKHVATULINA;NATALYA ANATOLIEVNA NIKITENKO;OLGA POPOVA;OLGA VADIMOVNA ZUBKOVA;SERGEY VLADIMIROVICH BORISEVICH;SVETLANA YAKOVLEVNA LOGINOVA;TATIANA ANDREEVNA OZHAROVSKAIA;VLADIMIR ALEKSANDROVICH CHERNETSOV;VLADIMIR FEDOROVICH BABIRA~ 33:RU ~31:2021134724 ~32:26/11/2021

2022/03572 ~ Complete ~54:CODING PROCESS FOR GEOMETRIC PARTITION MODE ~71:Huawei Technologies Co., Ltd., Huawei Administration Building, Bantian, Longgang District, SHENZHEN 518129, GUANGDONG, CHINA (P.R.C.), People's Republic of China ~72: ALSHINA, Elena Alexandrovna;ESENLIK, Semih;GAO, Han;KOTRA, Anand Meher;WANG, Biao~ 33:IB ~31:2019/076805 ~32:03/10/2019

2022/03579 ~ Complete ~54:METHOD AND APPARATUS FOR PRODUCING A HIGH PRECISION BLENDED GAS MIXTURE COMPRISING A VOLATILE ANALYTE ~71:Automotive Coalition for Traffic Safety, Inc., 21620 Ridgetop Circle #170, STERLING 20166, VA, USA, United States of America ~72: DALAL, Neeraj;FRATTO, Brian E.;OZDEMIR, Kelly;STROHL, Clair;WILLIS, Michael;ZAOUK, Abdullatif~ 33:US ~31:62/894,038 ~32:30/08/2019

2022/03558 ~ Complete ~54:DEVICE FOR TREATING MUD FOR PILE FOUNDATION CONSTRUCTION ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9, Chunxiu Road, Dongcheng District, Beijing, 100027, People's Republic of China ~72: QIWU YANG~ 33:CN ~31:202011231683.3 ~32:06/11/2020

2022/03560 ~ Complete ~54:UNIVERSAL MODULAR TEST FIXTURE ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, New York, 10591, United States of America ~72: CHRISTOPHER HUNTER;RUCHIKA SHARMA;WESLEY MAHUNIK~ 33:US ~31:62/901,122 ~32:16/09/2019;33:US ~31:62/914,274 ~32:11/10/2019

2022/03562 ~ Complete ~54:BIOCOMPATIBLE POLYMERIC DRUG CARRIERS FOR DELIVERING ACTIVE AGENTS ~71:CIS PHARMA AG, Hauptstrasse 159, 4416, Bubendorf, Switzerland ~72: CHRISTIAN

GERATHS;CHRISTOPHE THOMMEN;DAVIDE PANIGHETTI;HANS HITZ;MICHAEL HACKEBEIL~ 33:US  
~31:62/973,844 ~32:30/10/2019

2022/03571 ~ Complete ~54:DRY POWDER INHALER WITH AN ADHERENCE MONITOR ~71:Vectura Delivery  
Devices Limited, One Prospect West, CHIPPENHAM SN14 6FH, WILTSHIRE, UNITED KINGDOM, United  
Kingdom ~72: CLARKE, Roger;COTTON, Darryl;DEAMER, John;MELINIOTIS, Andreas;SMITH,  
Philip;SWANBURY, Philip;THOMAS, Seth~ 33:EP ~31:19209856.4 ~32:18/11/2019;33:EP ~31:19209857.2  
~32:18/11/2019;33:EP ~31:19209858.0 ~32:18/11/2019

2022/03576 ~ Complete ~54:PYRIDO[3,2-D]PYRIMIDINE COMPOUNDS AS IMMUNOMODULATORS  
~71:Incyte Corporation, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America ~72:  
LI, Jingwei;WU, Liangxing;YAO, Wenqing~ 33:US ~31:62/908,317 ~32:30/09/2019

2022/03578 ~ Complete ~54:ALPHA-D-GALACTOPYRANOSIDE DERIVATIVES ~71:Idorsia Pharmaceuticals  
Ltd, Hegenheimermattweg 91, ALLSCHWIL 4123, SWITZERLAND, Switzerland ~72: BOLLI, Martin;GATFIELD,  
John;GRISOSTOMI, Corinna;REMEN, Lubos;SAGER, Christoph;ZUMBRUNN, Cornelia~ 33:IB  
~31:2019/073063 ~32:29/08/2019

2022/03580 ~ Complete ~54:IL-17A MODULATORS AND USES THEREOF ~71:DICE ALPHA, INC., 279 E.  
Grand Avenue, Suite 300, United States of America ~72: AQUINO, Claudio;CHURCH, Timothy J.;FATHEREE,  
Paul R.;JACOBSEN, John R.;LINSELL, Martin S.;PAULICK, Margot G.;VAN DER LINDEN, Wouter A.~ 33:US  
~31:62/901,249 ~32:16/09/2019;33:US ~31:16/783,268 ~32:06/02/2020;33:WO ~31:PCT/US2020/016925  
~32:06/02/2020;33:US ~31:63/061,719 ~32:05/08/2020

2022/03575 ~ Complete ~54:METHODS FOR DETERMINING RESPONSIVENESS TO ANTI-TUMOR  
NECROSIS FACTOR THERAPY IN THE TREATMENT OF PSORIASIS ~71:The Regents of the University of  
Michigan, Office of Technology Transfer, 1600 Huron Parkway, 2nd Floor, ANN ARBOR 48109-2590, MI, USA,  
United States of America ~72: GUDJONSSON, Johann;TSOI, Lam Cheung~ 33:US ~31:62/910,871  
~32:04/10/2019

2022/03551 ~ Complete ~54:INTELLIGENT DETECTION METHOD FOR BRIDGE DEFLECTION BASED ON  
DIFFERENTIAL TECHNOLOGY ~71:Shandong University, No. 27, Shanda South Road, JINAN CITY 250100,  
SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China ~72: LIU, Junjie;QI, Quanpeng;WANG,  
Dengjie;WANG, Yan;XIONG, Changxin;ZHANG, Hongwei;ZHANG, Shuzheng~

2022/03568 ~ Complete ~54:MNEP MONOMER VARIANT AND APPLICATION THEREOF ~71:QITAN  
TECHNOLOGY LTD., BEIJING, Room 301, Floor 3, Building A5, Northern Territory, Zhongguancun Dongsheng  
Science Park, No.66 Xi Xiaokou Road, Haidian District, People's Republic of China ~72: CHEN, Chengyao;LIU,  
Shaowei;ZHOU, Ya~ 33:CN ~31:201910936954.6 ~32:29/09/2019

2022/03565 ~ Complete ~54:THE USE OF THE AGENT FOR INDUCTION OF SPECIFIC IMMUNITY AGAINST  
SEVERE ACUTE RESPIRATORY SYNDROME VIRUS SARS-COV-2 FOR REVACCINATION OF POPULATION  
(VARIANTS) ~71:FEDERAL STATE BUDGETARY INSTITUTION "NATIONAL RESEARCH CENTRE FOR  
EPIDEMIOLOGY AND MICROBIOLOGY NAMED AFTER THE HONORARY ACADEMICIAN N.F.  
GAMALEYA" OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION, ul. Gamalei 18, Moscow,  
123098, Russian Federation ~72: ALEKSANDR LEONIDOVICH GINTSBURG;ALEKSANDR SERGEEVICH  
SEMIKHIN;ALINA SERGEEVNA EROKHOVA;ALINA SHAHMIROVNA DZHARULLAEVA;AMIR ILDAROVICH  
TUKHVATULIN;ANDREI GENNADIEVICH BOTIKOV;BORIS SAVELIEVICH NARODITSKY;DARIA  
MIKHAILOVNA GROUSOVA;DENIS YURYEVICH LOGUNOV;DMITRII ANATOLIEVICH KUTAEV;DMITRII  
NIKOLAEVICH SHCHERBININ;DMITRII VIKTOROVICH SHCHEBLYAKOV;ELIZAVETA ALEXANDROVNA  
TOKARSKAYA;EVGENII VLADIMIROVICH KRIUKOV;FATIMA MAGOMEDOVNA IZHAEVA;ILIAS BULATOVICH



ESMAGAMBETOV;INNA VADIMOVNA DOLZHIKOVA;NADEZHDA LEONIDOVNA LUBENETS;NATALIA MIKHAILOVNA TUKHVATULINA;NATALYA ANATOLIEVNA NIKITENKO;OLGA POPOVA;OLGA VADIMOVNA ZUBKOVA;TATIANA ANDREEVNA OZHAROVSKAIA;VLADIMIR ALEKSANDROVICH CHERNETSOV;VLADIMIR FEDOROVICH BABIRA~ 33:RU ~31:2021104437 ~32:21/02/2021

2022/03528 ~ Provisional ~54:SURGICAL DEVICE ~71:SHEVEL, Elliot Jack, c/o 45 Empire Road, South Africa ~72: SHEVEL, Elliot Jack~

2022/03534 ~ Complete ~54:CONSTRUCTION METHOD OF PROTECTIVE GRASSLAND IN MOUNTAINOUS AREA OF ARID REGION ~71:Xinjiang Institute of Ecology and Geography, CAS, 818 South Beijing Road, Urumqi, Xinjiang, 830011, People's Republic of China ~72: LI Xiangyi;LIN Lisha~

2022/03537 ~ Complete ~54:TEST METHOD FOR CHANGE OF MECHANICAL PROPERTIES DURING THE DECOMPOSITION PROCESS OF NATURAL GAS HYDRATE ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 579, Qianwangang Road, Economic and Technological Development Zone, Qingdao City, Shandong Province, 266510, People's Republic of China ~72: Bin GONG;Lianjun CHEN;Naser Golsanami;Ruiqi ZHANG;Yujing JIANG~

2022/03540 ~ Complete ~54:AN IOT BASED AUTOMATIC MEDICINE CARRIER ~71:Abhigyan Choudhury, Student, Kazi Nazrul University, Nazrul Road, Kalla Bypass More, Paschim Bardhaman, West Bengal, 713340, India;Dr. Shalu, Assistant Professor, Manav Rachna University, Sector-43, Delhi- Surajkund Road, Faridabad, Haryana, 121004, India;Dr. Indu Sharma, Associate Professor, Department of Biotechnology, Maharishi Markandeshwar (Deemed to be University), Mullana-Ambala, Haryana, 133207, India;Dr. Mohd Ashaq, Senior Assistant Professor, Department of Botany, Govt. PG. College, Rajouri, Jammu and Kashmir, 185131, India;Dr. Parth Sarthi Sen Gupta, Post-Doctoral Fellow, Indian Institute of Science Education and Research, Transit campus, Govt. ITI Building, Engg. School Junction, Berhampur, Odisha, 760010, India;Dr. Raj Singh, Professor, Department of Biotechnology, Maharishi Markandeshwar (Deemed to be University), Mullana-Ambala, Haryana, 133207, India;Jyoti Gupta, Associate Professor, Department of Pharmacognosy, IEC School of Pharmacy, IEC University, Baddi, Himachal Pradesh, 174103, India;Kiran Dobhal, Associate Professor, Uttaranchal Institute of Pharmaceutical sciences, Uttaranchal University, Dehradun, Uttarakhand, 248007, India;Krishna Bikram Shah, Assistant Professor, Department of Computer Science and Engineering, Nepal Engineering College, Bhaktapur, Nepal, 44600, Nepal;Mr. Pankaj Pant, Research Scholar, Faculty of Pharmacy, DIT University, Dehradun, Uttarakhand, 248009, India;Ms. Meenu Bhati, Assistant Professor, School of Pharmaceutical Sciences, MVN University, Palwal, Haryana, 121102, India;Prof. Jyoti Saxena, Department of Pharmacy, Kingston Imperial Institute of Technology and Sciences, Dehradun, Uttarakhand, 248007, India;Prof. Ramesh Chandra Panda, Chief Scientist, We Grow, Bhubaneswar, Odisha, 751001, India;Rinki Chauhan, Assistant Professor, Ajay Kumar Garg Engineering College, 27th KM Milestone, Delhi - Meerut Express High way, Ghaziabad, Uttar Pradesh, 201009, India;Ruchika Garg, Assistant Professor, Department of Pharmacology, Maharaja Agrasen School of Pharmacy, Maharaja Agrasen University, Baddi, Himachal Pradesh, 174103, India;Swarnlata Dakua, Dy. Group Leader, S. kant Healthcare Pvt Ltd-R&D center, Navi Mumbai, Maharastra, 400701, India ~72: Abhigyan Choudhury;Dr. Shalu;Dr. Indu Sharma;Dr. Mohd Ashaq;Dr. Parth Sarthi Sen Gupta;Dr. Raj Singh;Jyoti Gupta;Kiran Dobhal;Krishna Bikram Shah;Mr. Pankaj Pant;Ms. Meenu Bhati;Prof. Jyoti Saxena;Prof. Ramesh Chandra Panda;Rinki Chauhan;Ruchika Garg;Swarnlata Dakua~

2022/03542 ~ Complete ~54:METHOD FOR EXPANDING GENETIC VARIATION OF TRITICUM TURGIDUM L. ~71:Crop Research Institute, Sichuan Academy of Agricultural Sciences, No. 4, Shizishan Road, Jinjiang District, Chengdu City, Sichuan, 610066, People's Republic of China ~72: LI, Jun;LIU, Zehou;WAN, Hongshen;WANG, Qin;YANG, Fan;YANG, Ning;YANG, Wuyun~

2022/03546 ~ Complete ~54:PEANUT SHELLER ~71:Qingdao WoLong Peanut Machinery Co., Ltd, South Side of Qianjiatun Village, Baishahe Sub-district Office, Pingdu City, Qingdao City, Shandong Province, 266000, People's Republic of China ~72: CHEN, Dezhang~ 33:CN ~31:202110655041.4 ~32:11/06/2021

2022/03549 ~ Complete ~54:A BLOCKCHAIN-BASED DIGITAL FORENSIC SYSTEM FOR AUTONOMOUS CONNECTED VEHICLES INCORPORATING ARTIFICIAL INTELLIGENCE ~71:GRAPHIC ERA (DEEMED TO BE UNIVERSITY), 566/6, Bell Road, Clement Town, Dehradun, Uttarakhand, 248002, India ~72: Dr. SACHIN SHARMA;RANU TYAGI~ 33:IN ~31:202111051705 ~32:11/11/2021

2022/03532 ~ Complete ~54:WATERPROOF STEERING ENGINE STRUCTURE FOR PLANT-PROTECTION UNMANNED AERIAL VEHICLES ~71:Moutai Institute, Luban Avenue, Renhuai City, Zunyi City, Guizhou Province, 564500, People's Republic of China ~72: LI, Jiangpeng;PAN, Youshun;YANG, Shenglin~ 33:CN ~31:202110549353.7 ~32:20/05/2021

2022/03535 ~ Complete ~54:NON-INDUCTIVE PAYMENT METHOD AND SYSTEM BASED ON RFID SCANNING AND UWB POSITIONING ~71:Chengdu University of Information Technology, No.24 Block 1, Xuefu Road, Southwest Airport Economic Development Zone, Chengdu, Sichuan Province, 610225, People's Republic of China ~72: CHEN, Yuzhou;CHEN, Ziwei;HAN, Zhiyu;LI, Jingyi;TAN, Xiaoyao;ZHENG, Haoyu;ZHU, Meiji~ 33:CN ~31:202110330394.7 ~32:29/03/2021

2022/03555 ~ Complete ~54:INTERLEUKIN 10 CONJUGATES AND USES THEREOF ~71:SYNTHORX, INC., 11099 North Torrey Pines Road, Suite 290, United States of America ~72: CAFFARO, Carolina E.;MILLA, Marcos;PTACIN, Jerod~ 33:US ~31:62/930,322 ~32:04/11/2019;33:US ~31:62/953,095 ~32:23/12/2019

2022/03567 ~ Complete ~54:IMMUNOMODULATORY IL-2 AGENTS IN COMBINATION WITH IMMUNE CHECKPOINT INHIBITORS ~71:ALKERMES PHARMA IRELAND LIMITED, One Burlington Road, Connaught House, Ireland ~72: LOPES, Jared;LOSEY, Heather C.;WINQUIST, Raymond J.~ 33:US ~31:62/916,936 ~32:18/10/2019

- APPLIED ON 2022/03/29 -

2022/03611 ~ Complete ~54:HETEROCYCLIC AROMATIC ETHER COMPOUND AND METHOD FOR SYNTHESIZING THE SAME ~71:SHANDONG DAGUAN PHARMACEUTICAL TECHNOLOGY CO., LTD., Room 1-102-566, Production Building, No. 2766, Yingxiu Road, High-tech Zone, Jinan City, People's Republic of China ~72: LI, Guangqian;LIU, Fawen;SHENG, Zuntian;ZHOU, Dejun~

2022/03619 ~ Complete ~54:NEURAL NETWORK ARCHITECTURE FOR TRANSACTION DATA PROCESSING ~71:FEATURESPACE LIMITED, 140 Cambridge Science Park, Milton Road, United Kingdom ~72: BARSACCHI, Marco;KIELAK, Kacper;SUTTON, David;WONG, Jason;WONG, Kenny~ 33:US ~31:63/049,873 ~32:09/07/2020

2022/03597 ~ Complete ~54:STIRRING ARM WITH WEAR-RESISTANT STRUCTURE, AND MANUFACTURING METHOD THEREOF ~71:JINCHENG CITY JIN GONG CASTING CO., LTD, Southeast of Dongdun Village, Gaodu Town, Zezhou County, Jincheng City, Shanxi Province, 048004, People's Republic of China ~72: TIAN, Fangfen;WANG, Jinlu;WANG, Tianjing;WANG, Xichun;WANG, Yinhua;XUE, Haibo;XUE, Yuzhu;ZHAO, Zexiang~

2022/03602 ~ Complete ~54:PRESTRESSED WOODEN STRUCTURE HOUSE AND ASSEMBLY METHOD THEREOF ~71:Yangzhou University, No.88 University South Road, Yangzhou City, Jiangsu Province, People's Republic of China ~72: CHEN Jing;JI Jialong;LIU Yan;MA Hongwei;SONG Xingyu;WAN Zeqing;WANG Changyuan;ZOU Xinxing~

2022/03607 ~ Complete ~54:METHOD FOR EVALUATING CHLORINE RESISTANCE OF POULTRY SALMONELLA AND USE THEREOF ~71:ZHEJIANG ACADEMY OF AGRICULTURAL SCIENCES, 198 Shiqiao Rd., Hangzhou City, People's Republic of China ~72: LV, Wentao;WANG, Wen;XIAO, Xingning;XIAO, Yingping;YANG, Hua~ 33:CN ~31:202210024271.5 ~32:07/01/2022

2022/03581 ~ Provisional ~54:A STOVE ~71:PHILLIPS, Charles, 21 TEAK AVENUE, KLERK INDUSTRIA, KLERKSDORP, SOUTH AFRICA, South Africa ~72: PHILLIPS, Charles~

2022/03585 ~ Complete ~54:EQUIPMENT FOR CLEANING LANDSCAPE LAMPS BY KILLING AND COLLECTING INSECTS ~71:Shandong Jianzhu University, No. 1000, Fengming Road, Lingang Development Zone, Jinan City, Shandong Province, 250101, People's Republic of China ~72: LIU Daliang;YAN Jietong;ZHAO Xueqiang~

2022/03586 ~ Complete ~54:SPLICED CARVED STONE ART WITH LIGHTS ~71:Shandong Jianzhu University, No. 1000, Fengming Road, Lingang Development Zone, Jinan City, Shandong Province, 250101, People's Republic of China ~72: LIN Meiling;WANG Zhiyuan;ZHAO Xueqiang~

2022/03590 ~ Complete ~54:POLLUTED CO2 CAPTURING WITH LIME PRODUCED FROM PHOSPHOGYPSUM CALCINATION USING SULFUR AS NON-CO2 FUEL ~71:SAUDI ARABIAN MINING COMPANY (MA'ADEN), PO Box 68861, Saudi Arabia ~72: AQEL, Malik Mohammad Odeh~ 33:EP ~31:EP22164736.5 ~32:28/03/2022

2022/03595 ~ Complete ~54:SURFACE CHROMIUM WHITING WEAR-RESISTANT CASTING PROCESS FOR NODULAR CAST IRON ~71:JINCHENG CITY JIN GONG CASTING CO., LTD, Southeast of Dongdun Village, Gaodu Town, Zezhou County, Jincheng City, Shanxi Province, 048004, People's Republic of China ~72: TIAN, Fangfen;WANG, Jinlu;WANG, Tianjing;WANG, Xichun;WANG, Yinhua;XUE, Haibo;XUE, Yuzhu;ZHAO, Zexiang~

2022/03598 ~ Complete ~54:DESIGN METHOD OF ANTI-RIB SPALLING HOLE FOR SHAFT FREEZING ~71:Anhui University of Science and Technology, No.168 Taifeng Street, Huainan City, Anhui Province, People's Republic of China ~72: CHU Jiansheng;LI Minfeng;LIU Qingsong;PANG Jianyong;SHEN Renwei;SUN Shiyuan;TONG Gejun;WANG Chengbo;WANG Qian;ZHENG Xiaoyu~ 33:CN ~31:202210198349.5 ~32:02/03/2022

2022/03604 ~ Complete ~54:COMPOUND DIESEL FUEL CONTAINING 1-HEXANOL ~71:TIANJIN UNIVERSITY, Tianjin University, Haihe Education Park, Jinnan District Tianjin, People's Republic of China ~72: CHEN, Guanyi;CHENG, Zhanjun;GAO, Xuezhi;YAN, Beibei~

2022/03606 ~ Complete ~54:ELECTROPORATION DEVICE WITH DETACHABLE NEEDLE ARRAY WITH LOCK-OUT SYSTEM ~71:Inovio Pharmaceuticals, Inc., 660 W. Germantown Pike, Suite 110, PLYMOUTH MEETING 19462, PA, USA, United States of America ~72: CAMPILLO-AGUSTI, Alejandro;HO, Eduardo E.;KEMMERRER, Stephen;LOVELL, Nathan;MASTERSON, Steven;STADELMANN, Beat~ 33:US ~31:62/272,758 ~32:30/12/2015

2022/03610 ~ Complete ~54:PRESTRESSED ANCHOR BOLT FOR INDOOR SIMULATION TEST AND TEST METHOD ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 579, Qianwangang Road, Huangdao District, People's Republic of China ~72: TAN, Yunliang;XING, Minglu;YIN, Yanchun;YU, Fenghai;ZHAO, Tongbin~

2022/03612 ~ Complete ~54:ACRYLIC MOULD PLACEMENT RACK AND OVERTURNING CART COMBINED DEVICE ~71:ANHUI MAIMING ACRYLIC TECHNOLOGY LTD., Intersection of Longshu East Road and Wujiao Road, Lu'an Economic Development Zone, People's Republic of China ~72: CHEN, Jiaxin;XU, Zhengqing~



2022/03624 ~ Complete ~54:DEVICE FOR DISTRIBUTING MINERALIZED WATER AND ASSOCIATED METHOD ~71:77 VISION WAY LTD, Suite 140, 21 Botanic Ave, BT7 1JJ, Belfast, United Kingdom ~72: ALBERTO COZZI;MAURO GAZZELLI~

2022/03633 ~ Complete ~54:SYSTEM AND APPARATUS FOR PROVIDING NETWORK ASSISTANCE FOR TRAFFIC HANDLING IN DOWNLINK STREAMING ~71:QUALCOMM Incorporated, ATTN: International IP Administration, 5775 Morehouse Drive, SAN DIEGO 92121-1714, CA, USA, United States of America ~72: BOUAZIZI, Imed;STOCKHAMMER, Thomas~ 33:US ~31:62/912,335 ~32:08/10/2019;33:US ~31:17/064,529 ~32:06/10/2020

2022/03621 ~ Complete ~54:CONSTRUCTION MECHANISM AND CONSTRUCTION METHOD FOR REVERSE SLIP FORM GUIDED CONTROLLABLE SETTLEMENT OF OPEN CAISSON ~71:Qiqihar Pushi Technology Co., Ltd., No. 1401, 4th Floor, Technology Business Incubation Center, High-tech Zone, Qiqihar, Heilongjiang, 150028, People's Republic of China ~72: Aijia ZHANG;Linhao XIE;Shipu ZHANG;Shouyi ZHANG;Yu LIU~ 33:CN ~31:202010224230.1 ~32:26/03/2020

2022/03627 ~ Complete ~54:NK ENGAGER COMPOUNDS THAT BIND VIRAL ANTIGENS AND METHODS OF USE ~71:REGENTS OF THE UNIVERSITY OF MINNESOTA, 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota, 55455-2020, United States of America ~72: DANIEL A VALLERA;JEFFREY S MILLER;MARTIN FELICES;TODD LENVIK~ 33:US ~31:62/906,660 ~32:26/09/2019

2022/03629 ~ Complete ~54:HYBRID ANTIBODY ~71:EPSIOGEN LTD, London BioScience Innovation Centre, 2 Royal College Street, London, NW1 0NH, United Kingdom ~72: KEVIN FITZGERALD;TIM WILSON~ 33:GB ~31:1914165.4 ~32:01/10/2019;33:GB ~31:1917059.6 ~32:22/11/2019;33:GB ~31:2008248.3 ~32:02/06/2020

2022/03637 ~ Complete ~54:EXTRACELLULAR VESICLE COMPOSITIONS ~71:Codiak BioSciences, Inc., 35 Cambridge Park Drive, Suite 500, CAMBRIDGE 02140, MA, USA, United States of America ~72: BOURDEAU, Raymond;DOHERTY, Mike;HARRISON, Rane;NOYES, Aaron;O&#39;NEIL, Conlin~ 33:US ~31:62/906,018 ~32:25/09/2019;33:US ~31:62/906,485 ~32:26/09/2019

2022/03993 ~ Complete ~54:CONCENTRATED AQUEOUS SUSPENSION OF MICROFIBRILLATED CELLULOSE COMPRISING SALTS FOR PLANT NUTRITION ~71:TOTAL GROW LLC, 30 N Gould ST STE R Sheridan, Wyoming 82801, United States of America ~72: AGUST&#205;N CARLOS CASALINS CU&#209;ADO~ 33:US ~31:16/442,561 ~32:17/06/2019

2022/03589 ~ Complete ~54:PREPARATION PROCESS OF ISOSORBIDE DINITRATE ~71:BEIJING JINGFENG PHARMACEUTICAL (SHANDONG) CO.,LTD., No. 9, Jiuzhou Road, Boshan District, Zibo City, Shandong Province, 255202, People's Republic of China ~72: GAO, Chunmei;GONG, Yue;SONG, Fangliang;SUN, Yue;ZHOU, Lixia~ 33:CN ~31:202111154599.0 ~32:29/09/2021

2022/03594 ~ Complete ~54:STORAGE DEVICE FOR ARTIFICIAL INTELLIGENCE ROBOT ~71:Zhengzhou Railway Vocational And Technical College, No.56 of Pengcheng Avenue, Zhengdong New District, Zhengzhou, Henan, People's Republic of China ~72: Bin CHEN;Bo LIU;Chaohui LIANG;Fengjuan TIAN;Jiling SHANG;Wenli HU;Xiangge YANG~

2022/03614 ~ Complete ~54:MULTI-STAGE TREATMENT APPARATUS FOR WASTE GASES OF PLANT ~71:ANHUI HENGXINTONG INTELLIGENT TECHNOLOGY CO., LTD., Liandong U Valley Lu'an Intelligent Manufacturing Industrial Park 26# Plant at the intersection of Shouchun Road and Wujiao Road, Lu&#39;an Economic and Technological Development Zone, People's Republic of China ~72: CHEN, Junzhao~

2022/03732 ~ Provisional ~54:MALATELENG SHIRT LINER/PAD ~71:CLEMENT MOLATELENG CHOEU, 1717 THORNVALLEY, CHANTELE X22, South Africa ~72: CLEMENT MOLATELENG CHOEU ~

2022/03583 ~ Provisional ~54:SMARTFILL, PLASTIC AND PACKAGE FREE RETAIL ~71:Marc Wetselaar, 72 Loop street , Cape Town, South Africa;Nevo Hadas, 72 Loop street , Cape Town, South Africa;Rudi Nienaber, 72 Loop street , Cape Town, South Africa ~72: Nevo Hadas;Rudi Nienaber~

2022/03587 ~ Complete ~54:ROOF FIXING BRACKET FOR SOLAR PHOTOVOLTAIC MODULE ~71:Jilin Jianzhu University, No.5088, Xincheng Street, Changchun City, Jilin Province, 130118, People's Republic of China ~72: CAI Jingwei;JIANG Xin;JIN Yujie;NIU Lei;QIAN Yongmei;TIAN Wei;WANG Ruozhu;XIE Xinying;XU Lina;ZHU Chunfeng~

2022/03593 ~ Complete ~54:SEMI-SMOKED WOOD RECONSTITUTED DECORATIVE VENEER AND FABRICATION METHOD THEREOF ~71:Zhejiang Yunfeng Moganshan Decoration Building Materials Co., Ltd., Zhongguan Industrial Zone, Deqing County, Huzhou City, Zhejiang Province, 313220, People's Republic of China ~72: JI, Kaiming;SHEN, Laibin;SHENG, Na;SHI, Hongliang;SHI, Xiaohong;SONG, Manhua;WANG, Hongping;WU, Lihua;YAO, Guobin;YE, Jiayong;ZHU, Haifeng~ 33:CN ~31:202111231084.6 ~32:22/10/2021

2022/03600 ~ Complete ~54:CONTROL METHOD OF SPODOPTERA FRUGIPERDA ON SORGHUM ~71:Institute of Plant Protection, Guizhou Academy of Agricultural Sciences, No.1 Jinlong Road, Huaxi District, Guiyang City, Guizhou Province, People's Republic of China ~72: HU Yang;LI Hongbo~

2022/03603 ~ Complete ~54:MITORIBOSCINS: MITOCHONDRIAL-BASED THERAPEUTICS TARGETING CANCER CELLS, BACTERIA, AND PATHOGENIC YEAST ~71:LUNELLA BIOTECH, INC., 145 Richmond Road, Ottawa, Ontario, K1Z 1A1, Canada ~72: FEDERICA SOTGIA;MICHAEL P LISANTI~ 33:US ~31:62/471,688 ~32:15/03/2017

2022/03613 ~ Complete ~54:VEHICLE-MOUNTED LOADING AND UNLOADING ELEVATOR ~71:ANHUI MU CONTINENT TECHNOLOGY DEVELOPMENT CO., LTD., Room 320, Wedding Dress Industrial Park 2# Building, Intersection of Yingbin Avenue and Shouchun Road, Lu'an Economic and Technological Development Zone, People's Republic of China ~72: ZHU, Guangzhi~

2022/03623 ~ Complete ~54:A METHOD FOR FORMING A STORAGE STABLE HYDROLYSATE FROM A LIGNOCELLULOSIC MATERIAL ~71:SEKAB E-TECHNOLOGY AB, Box 286, 891 26, &#214;rnsk&#246;ldsvik, Sweden ~72: ADNAN CAVKA;ELIAS SUNDVALL~ 33:EP ~31:19205177.9 ~32:24/10/2019

2022/03632 ~ Complete ~54:METHOD FOR EVALUATING THE OPTICAL QUALITY OF A DELIMITED ZONE OF A GLAZING ~71:Saint-Gobain Glass France, 12 place de l&#39;Iris, Tour Saint-Gobain, COURBEVOIE 92400, FRANCE, France ~72: REMEUR, Laurent;RYBARCZYK, Th&#233;o~ 33:FR ~31:1910824 ~32:30/09/2019

2022/03634 ~ Complete ~54:COMPOUNDS ACTIVE TOWARDS NUCLEAR RECEPTORS ~71:Nuevolution A/S, R&#248;nnegade 8, COPENHAGEN DK-2100, DENMARK, Denmark ~72: CATURLA JAVALOYES, Juan Francisco;ERRA SOL&#192;, Montserrat;FRANCH, Thomas;GOULIAEV, Alex Haahr;NIELSEN, S&#248;ren Jensby;PAG&#200;S SANTACANA, Llu&#237;s Miquel;SARVARY, Ian;SCHR&#216;DER GLAD, Sanne;STASI, Luigi Piero;TABOADA MART&#205;NEZ, Lorena;TALTAVULL MOLL, Joan~ 33:US ~31:62/951,221 ~32:20/12/2019;33:US ~31:63/064,502 ~32:12/08/2020

2022/03582 ~ Provisional ~54:METHODS AND SYSTEMS FOR CALIBRATING AND VERIFYING AN ELECTROCHEMICAL BIOSENSOR ~71:FOURIE, Pieter Rousseau, 7 Buffalo Street, Vygeboom, South Africa ~72: FOURIE, Pieter Rousseau~

2022/03584 ~ Complete ~54:HYDRAULIC ROTARY-PERCUSSIVE HAMMER DRILL ~71:MONTABERT, 203, route de Grenoble, France ~72: ESCOLLE Michel~ 33:FR ~31:21/04/176 ~32:21/04/2021

2022/03591 ~ Complete ~54:MANNISH BASE CURING AGENT FOR EPOXY FLOOR SEALING PRIMER AND PREPARATION METHOD THEREOF ~71:Institute of Chemical Industry of Forest Products, CAF, 16 Suojinwu Village, Xuanwu District, Nanjing City, Jiangsu Province, People's Republic of China;Nanjing Science&Technology Development Co., Ltd., Institute of Chemical Industry of Forest Products, CAF, 16 Suojinwu Village, Xuanwu District, Nanjing City, Jiangsu Province, People's Republic of China ~72: CHEN Yao;LI Mei;LI Shouhai;XIA Jianling;YANG Xiaohua;ZHANG Yan;ZHU Jinhua~

2022/03599 ~ Complete ~54:ATORVASTATIN ETHOSOMES TOPICAL GEL BASED DRUG DELIVERY SYSTEM ~71:Dr. Deepak Sharma, Associate Professor, Department of Pharmaceutical Technology, School of Medical Sciences, Adamas University, Barasat – Barrack pore Road, Jagannathpur,24 Parganas (North), Kolkata, West Bengal, 700126, India;Dr. Dimak Chand Sahu, Associate Professor, Department of Pharmacy, J. K. College of Pharmacy, Near Gatora Railway Station, Karra, Bilaspur, Chhattisgarh, 495001, India;Dr. Girendra Kumar Gautam, Director, Shri Ram College of Pharmacy, Muzaffarnagar, Uttar Pradesh, 251001, India;Dr. Joohee Pradhan, Assistant Professor, Department of Pharmaceutical Sciences, Mohanlal Sukhadia University, Udaipur, Rajasthan, 313001, India;Dr. Satendra Kumar, Director, L. N. Pharmacy College, Deoria, Uttar Pradesh, 211015, India;Dr. Shivendra Agarwal, Principal, Vivekanand College of Pharmacy, Chandpur, Bijnor, Uttar Pradesh, 246725, India;Dr. Sunita Panchawat, Assistant Professor, Department of Pharmaceutical Sciences, Mohanlal Sukhadia University, Udaipur, Rajasthan, 313001, India;Dr. Sweta Shrivastava Koka, Associate Professor, Acropolis Institute of Pharmaceutical Education & Research, Mangliya, Dewas Bypass Road, Indore, Madhya Pradesh, 453771, India;Dr. Virendra Kumar Patel, Professor, SSSIPS, RKDF University, Airport Bypass Road, Gandhinagar, Bhopal, Madhya Pradesh, 462036, India;Ms. Anamika Singh, Assistant Professor, Acropolis Institute of Pharmaceutical Education & Research, Mangliya, Dewas Bypass Road, Indore, Madhya Pradesh, 453771, India;Ms. Bhagyashree Agarwal, Assistant Professor, LCIT School of Pharmacy, Bodri, Bilaspur, Chhattisgarh, 495220, India;Ms. Devshree Gayakwad, Assistant Professor, Acropolis Institute of Pharmaceutical Education & Research, Mangliya, Dewas Bypass Road, Indore, Madhya Pradesh, 453771, India ~72: Dr. Deepak Sharma;Dr. Dimak Chand Sahu;Dr. Girendra Kumar Gautam;Dr. Joohee Pradhan;Dr. Satendra Kumar;Dr. Shivendra Agarwal;Dr. Sunita Panchawat;Dr. Sweta Shrivastava Koka;Dr. Virendra Kumar Patel;Ms. Anamika Singh;Ms. Bhagyashree Agarwal;Ms. Devshree Gayakwad~

2022/03605 ~ Complete ~54:SELECTIVE ESTROGEN RECEPTOR DEGRADERS ~71:Eli Lilly and Company, Lilly Corporate Center, INDIANAPOLIS 46285, IN, USA, United States of America ~72: BASTIAN, Jolie Anne;COHEN, Jeffrey Daniel;MCMAHON, Jennifer Anne;RUBIO, Almudena;SALL, Daniel Jon~ 33:US ~31:62/697,100 ~32:12/07/2018

2022/03609 ~ Complete ~54:FORMULATION OF CURCUMIN LOADED TOPICAL GEL USING SODIUM SALICYLATE HYDROTROPE ~71:Dr. Dinesh Kumar Sharma, Principal, Himalayan Institute of Pharmacy and Research, Rajawala Road, Selakui, Uttarakhand, 248007, India;Dr. Shashi Verma, Associate Professor, Department of Pharmacy, Shri Ram Murti Smarak College of Engineering and Technology, Bareilly, Uttar Pradesh, 243202, India;Mr. Rajat Yadav, Assistant Professor, Department of Pharmacy, Shri Ram Murti Smarak College of Engineering and Technology, Bareilly, Uttar Pradesh, 243202, India;Mr. Ramveer Maurya, Assistant Professor, S.R Institute of Pharmacy, Maikpur Bhuta, Bareilly, Uttar Pradesh, 243126, India;Mr. Ritesh Kumar Tiwari, Assistant Professor, Department of Pharmacy, Shri Ram Murti Smarak College of Engineering and Technology, Bareilly, Uttar Pradesh, 243202, India;Mr. Uday Prakash, Associate Professor, S.R Institute of Pharmacy, Maikpur Bhuta, Bareilly, Uttar Pradesh, 243126, India;Mr. Yadvendra Singh Thenuan, Assistant Professor, School of Pharmacy, Mangalayatan University, Beswan, Uttar Pradesh, 202145, India;Ms. Aafreen, Assistant Professor, Department of Pharmacy, Shri Ram Murti Smarak College of Engineering and Technology, Bareilly, Uttar Pradesh, 243202, India;Ms. Devika Tripathi, Assistant Professor, Institute of Pharmacy, Pranveer

Singh Institute of Technology, Kanpur, Uttar Pradesh, 209305, India;Ms. Priyanka Verma, Assistant Professor, Department of Pharmacy, Shri Ram Murti Smarak College of Engineering and Technology, Bareilly, Uttar Pradesh, 243202, India;Ms. Rizwana Bee, Assistant Professor, Department of Pharmacy, Shri Ram Murti Smarak College of Engineering and Technology, Bareilly, Uttar Pradesh, 243202, India;Ms. Sangeeta Mishra, Research Scholar, Institute of Pharmacy, Pranveer Singh Institute of Technology, Kanpur, Uttar Pradesh, 209305, India ~72: Dr. Dinesh Kumar Sharma;Dr. Shashi Verma;Mr. Rajat Yadav;Mr. Ramveer Maurya;Mr. Ritesh Kumar Tiwari;Mr. Uday Prakash;Mr. Yadvendra Singh Thenuan;Ms. Aafreen;Ms. Devika Tripathi;Ms. Priyanka Verma;Ms. Rizwana Bee;Ms. Sangeeta Mishra~

2022/03618 ~ Complete ~54:MMUP MONOMER VARIANT AND APPLICATION THEREOF ~71:QITAN TECHNOLOGY LTD., BEIJING, Room 301, Floor 3, Building A5, Northern Territory, Zhongguancun Dongsheng Science Park, No.66 Xi Xiaokou Road, Haidian District, People's Republic of China ~72: CHEN, Chengyao;LIU, Shaowei;ZHOU, Ya~ 33:CN ~31:201910936950.8 ~32:29/09/2019

2022/03625 ~ Complete ~54:DRONE ~71:JACQUES VENTER, 3 Le Chanon, Cnr 11th & Stiglingh Streets, Rivonia, 2191, South Africa ~72: JACQUES VENTER~

2022/03631 ~ Complete ~54:SUSPENSION OF NANOPARTICLES OF A MIXED OXIDE ~71:Rhodia Operations, 52 rue de la Haie Coq, AUBERVILLIERS 93300, FRANCE, France ~72: CHABERT, Boris;FAURE, Benjamin;HARLE, Virginie;IFRAH, Simon;LARUE, Olivier~ 33:EP ~31:19315119.8 ~32:01/10/2019

2022/03635 ~ Complete ~54:1,8-NAPHTHYRIDIN-2-ONE COMPOUNDS FOR THE TREATMENT OF AUTOIMMUNE DISEASE ~71:F. Hoffmann-La Roche AG, Grenzacherstrasse 124, BASEL 4070, SWITZERLAND, Switzerland ~72: SHEN, Hong;WANG, Xiaoqing;XU, Hongtao;ZHANG, Zhisen;ZHU, Wei;ZOU, Ge~ 33:IB ~31:2019/120996 ~32:26/11/2019

2022/03588 ~ Complete ~54:FAST-LEVELING AND CALIBRATING SHUT-DOWN CIRCUIT BREAKER CABINET ~71:Jiangsu Suzhong Switch Factory Co. LTD, South side of Jiangping Road, Maqiao Town, Jingjiang City, Jiangsu, 214500, People's Republic of China ~72: LIU, Zhengnan~ 33:CN ~31:202111252672.8 ~32:27/10/2021

2022/03592 ~ Complete ~54:APPLICATION OF A GENE AND ITS ENCODING PROTEIN IN SIMULTANEOUSLY REGULATING OF RICE GRAIN SHAPE, GRAIN WEIGHT AND RESISTANCE ~71:Hunan Agricultural University, No. 1 Nongda Road, Furong District, Changsha City, Hunan Province, 410128, People's Republic of China;Hunan Hybrid Rice Research Center, No. 736, Yuanda 2nd Road, Mapoling, Furong District, Changsha City, Hunan Province, 410125, People's Republic of China ~72: CHEN, Guihua;DENG, Huabing;LU, Xuedan;TANG, Wenbang;WANG, Feng;XIAO, Yunhua;YU, Guiyuan;ZHANG, Guilian;ZHANG, Junwen~

2022/03616 ~ Complete ~54:GPR52 MODULATOR COMPOUNDS ~71:HEPTARES THERAPEUTICS LIMITED, Granta Park Great Abington, Cambridge Cambridgeshire, United Kingdom ~72: BUCKNELL, Sarah, Joanne;DE GRAAF, Chris;O&#39;BRIEN, Michael, Alistair;SWAIN, Nigel, Alan;WATSON, Stephen, Paul~ 33:GB ~31:1916298.1 ~32:08/11/2019;33:GB ~31:1918974.5 ~32:20/12/2019;33:GB ~31:1918992.7 ~32:20/12/2019

2022/03620 ~ Complete ~54:TRAINING A MACHINE LEARNING SYSTEM FOR TRANSACTION DATA PROCESSING ~71:FEATURESPACE LIMITED, 140 Cambridge Science Park, Milton Road, United Kingdom ~72: BARNS-GRAHAM, Alec;PEREZ, Iker;SUTTON, David;WONG, Kenny~ 33:US ~31:63/049,873 ~32:09/07/2020

2022/03628 ~ Complete ~54:HUNTINGTIN (HTT) IRNA AGENT COMPOSITIONS AND METHODS OF USE THEREOF ~71:ALNYLAM PHARMACEUTICALS, INC., 675 West Kendall Street, Henri A. Termeer Square, Cambridge, Massachusetts, 02142, United States of America ~72: ADAM CASTORENO;BRET LEE

BOSTWICK;JAMES D MCININCH;JEFFREY ZUBER;MANGALA MEENAKSHI SOUNDARAPANDIAN;MARK K SCHLEGEL~ 33:US ~31:62/929,174 ~32:01/11/2019

2022/03596 ~ Complete ~54:APPARATUSES, METHODS, AND SYSTEMS FOR VIBRATORY SCREENING ~71:DERRICK CORPORATION, 590 Duke Road, United States of America ~72: COLGROVE, James R.;PERESAN, Michael L.~ 33:US ~31:62/408,514 ~32:14/10/2016;33:US ~31:62/488,293 ~32:21/04/2017

2022/03601 ~ Complete ~54:AN OZONE CONCENTRATION PREDICTION MODEL COUPLED WITH LANDSCAPE PATTERN ~71:South China Institute of Environmental Science, Ministry of Ecology and Environment, No. 18, Ruihe Road, Huangpu District, Guangzhou City, Guangdong Province, 510535, People's Republic of China ~72: CAI, Jianwu;FENG, Lijing;LIANG, Minxuan;LIN, Jinyao;PAN, Cuihong;WANG, Minzhi;WEN, Youyue~

2022/03608 ~ Complete ~54:AGCL CUBIC/POROUS CARBON NANOTUBE COMPOSITE MATERIAL AND PREPARATION METHOD THEREOF ~71:SUZHOU UNIVERSITY, ERPU VILLAGE, ZHUXIANZHUANG TOWN, YONGQIAO DISTRICT, People's Republic of China ~72: WANG, Hongyan;ZHA, Jinlong;ZHANG, Keying;ZHANG, Na;ZHU, Guang~

2022/03615 ~ Complete ~54:FASTENERS FOR SECURITY DEVICES ~71:TEXECOM LIMITED, Bradwood Court, St Crispin Way, United Kingdom ~72: ALEXANDER, Peter;BROWN, Clym~ 33:GB ~31:1915330.3 ~32:23/10/2019

2022/03617 ~ Complete ~54:HETEROARYL-BIPHENYL AMINES FOR THE TREATMENT OF PD-L1 DISEASES ~71:CHEMOCENTRYX, INC., 835 Industrial Road, Suite 600, United States of America ~72: FAN, Pingchen;LANGE, Christopher W.;LUI, Rebecca M.;MCMURTRIE, Darren J.;SCAMP, Ryan J.;YANG, Ju;ZENG, Yibin;ZHANG, Penglie~ 33:US ~31:62/915,771 ~32:16/10/2019

2022/03622 ~ Complete ~54:ANTI-CD47 MONOCLONAL ANTIBODY AND USE THEREOF ~71:AKESO BIOPHARMA, INC, No. 6 Shennong Road, Torch Development Zone, Zhongshan, Guangdong, 528437, People's Republic of China ~72: BAIYONG LI;PENG ZHANG;YU XIA;ZHONGMIN WANG~ 33:CN ~31:201910835819.2 ~32:03/09/2019;33:CN ~31:201910836601.9 ~32:03/09/2019

2022/03626 ~ Complete ~54:ASSAY FOR IMMUNE CELL RECOVERY ~71:RESEARCH INSTITUTE AT NATIONWIDE CHILDREN'S HOSPITAL, 700 Children's Drive, W-148, Columbus, Ohio, 43205, United States of America ~72: DEAN ANTHONY LEE;JENA EDWARDS MOSEMAN~ 33:US ~31:62/898,170 ~32:10/09/2019;33:US ~31:62/904,843 ~32:24/09/2019

2022/03630 ~ Complete ~54:B-CELL MATURATION COMPLEX CAR T CONSTRUCT AND PRIMERS ~71:Janssen Biotech, Inc., 800/850 Ridgeway Drive, HORSHAM 19044, PA, USA, United States of America ~72: GEORGE, Rebecca;SHEN, Dee~ 33:US ~31:62/894,663 ~32:30/08/2019

2022/03636 ~ Complete ~54:BINDING MOLECULE SPECIFIC FOR LIF AND USE THEREOF ~71:Jacobio Pharmaceuticals Co., Ltd., Unit 2, Building 5, BYBP, No. 88 Kechuang Street 6th, Business Development Area, Daxing, BEIJING 101111, CHINA (P.R.C.), People's Republic of China ~72: HE, Shanshan;LIU, Qinghao;TAO, Jun;WANG, Hongling;YANG, Guiqun;YANG, Haiyan;ZHOU, Wenlai~ 33:IB ~31:2019/108904 ~32:29/09/2019;33:IB ~31:2020/077049 ~32:27/02/2020

- APPLIED ON 2022/03/30 -



2022/03643 ~ Complete ~54:A MULTIFUNCTIONAL DRYING OVEN FOR FOOD RESEARCH ~71:Jinzhou Medical University, No.40, Section 3, Songpo Road, Linghe District, Jinzhou City, Liaoning Province, 121001, People's Republic of China ~72: HanDong Wu;Hui Wang;Zheng Liu~

2022/03645 ~ Complete ~54:RAW MATERIAL MIXING EQUIPMENT FOR PRODUCING ANTI-STATIC AND ANTI-BLUE RAY SHAPE MEMORY MATERIALS ~71:SUZHOU YISHENG OPTICAL MATERIAL CO., LTD., No. 168, Jiaotong North Road, Wujiang Economic and Technological Development Zone, Suzhou City, Jiangsu Province, 215000, People's Republic of China ~72: TIAN, Dawei;ZHAO, Jiang;ZHU, Jianfei~ 33:CN ~31:202111021591.7 ~32:01/09/2021

2022/03647 ~ Complete ~54:NEW METHOD FOR PRODUCING REFORMED RICE RICH IN GABA (GAMMA-AMINOBUTYRIC ACID) ~71:HEBEI UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 26, Yuxiang Street, Shijiazhuang City, Hebei Province, 050018, People's Republic of China ~72: HAO, Jianxiang;RAO, Huan;ZHAO, Dandan~

2022/03664 ~ Complete ~54:MATERIALS COMPRISING CARBON-EMBEDDED COBALT NANOPARTICLES, PROCESSES FOR THEIR MANUFACTURE, AND USE AS HETEROGENEOUS CATALYSTS ~71:EVONIK OPERATIONS GMBH, RELLINGHAUSER STRASSE 1-11, 45128 ESSEN, GERMANY, Germany ~72: CHAMSKI, Sarah;KADYROV, Renat;REINSdorf, Arne;WOLF, Dorit~ 33:EP ~31:19195500.4 ~32:05/09/2019

2022/03673 ~ Complete ~54:SALT OF BENZOTHIOPYRONE COMPOUND, AND PREPARATION METHOD THEREFOR AND APPLICATION THEREOF ~71:INSTITUTE OF MATERIA MEDICA ,CHINESE ACADEMY OF MEDICAL SCIENCES, ZHANG, Xubin No.1, Xian Nong Tan Street, Xicheng District, People's Republic of China ~72: HUANG, Haihong;LI, Gang;LI, Peng;LI, Yan;LI, Yan;WANG, Baolian;ZHANG, Tingting~ 33:CN ~31:201910849215.3 ~32:09/09/2019

2022/03675 ~ Complete ~54:NUCLEAR REACTOR HEAD, NUCLEAR REACTOR COMPRISING SUCH A NUCLEAR REACTOR HEAD AND METHOD OF MAINTAINING A NUCLEAR REACTOR ~71:FRAMATOME INC., 3315 Old Forest Road, United States of America ~72: GRAVES, Charles;MELCHER, Ryan~

2022/03677 ~ Complete ~54:CARBOXYLIC ACID DERIVATIVE-SUBSTITUTED IMINOARYL COMPOUND, PREPARATION METHOD THEREFOR, HERBICIDAL COMPOSITION AND USE THEREOF ~71:QINGDAO KINGAGROOT CHEMICAL COMPOUND CO., LTD., No.53, Qinglonghe Road, Huangdao District, Qingdao, Shandong, 266000, People's Republic of China ~72: DE ZHAO;LEI LIAN;QI CUI;RONGBAO HUA;XUEGANG PENG~ 33:CN ~31:202010028477.6 ~32:11/01/2020;33:CN ~31:202010077193.6 ~32:24/01/2020;33:CN ~31:202010117877.4 ~32:25/02/2020;33:CN ~31:202010281666.4 ~32:10/04/2020

2022/03687 ~ Complete ~54:ACTIVE ELEMENT AND METHOD FOR IGNITING AN ACTIVE ELEMENT ~71:Rheinmetall Waffe Munition GmbH, Heinrich-Ehrhardt-Stra&#223;e 2, S&#220;DHEIDE 29345, GERMANY, Germany ~72: HUBER, Florian;KADAVANICH, Vikorn~ 33:DE ~31:10 2019 126 466.9 ~32:01/10/2019

2022/03651 ~ Complete ~54:INQUIRY SYSTEM OF SOIL NUTRIENT FERTILITY IN CITRUS ORCHARD ~71:Institute of Agricultural Resources and Environment, Guangdong Academy of Agricultural Sciences, Jinying Road 66#, Tianhe, Guangzhou, Guangdong Province, People's Republic of China ~72: HE ZHAOHUAN;HU WEIFANG;LI GUOLIANG~

2022/03653 ~ Complete ~54:ANTI-TRANSFERRIN RECEPTOR ANTIBODIES WITH TAILORED AFFINITY ~71:F. Hoffmann-La Roche AG, Grenzacherstrasse 124, BASEL 4070, SWITZERLAND, Switzerland ~72: DENGL, Stefan;GEORGES, Guy;GOEPFERT, Ulrich;NIEWOEHNER, Jens;SCHLOTHAUER, Tilman~ 33:EP ~31:15173508.1 ~32:24/06/2015;33:EP ~31:15176084.0 ~32:09/07/2015

2022/03656 ~ Complete ~54:INSTALLATION FOR THE PRODUCTION AND A METHOD OF PRODUCING OIL, GAS AND CHAR FOR A COAL BLACK FROM ELASTOMERS, ESPECIALLY RUBBER WASTE, IN THE PROCESS OF CONTINUOUS PYROLYSIS ~71:REOIL SP. Z O.O., ul. Przemysłowa 2, Myślenice, Poland ~72: MIKUŚKIEWICZ, Michał;MIKUŚKIEWICZ, Paweł;ROLNIK, Bronisław;ZYGMUNT, Sebastian~ 33:PL ~31:P.431333 ~32:30/09/2019

2022/03658 ~ Complete ~54:A MESENCHYMAL STEM CELL STORING OR TRANSPORT FORMULATION AND METHODS OF MAKING AND USING THE SAME ~71:CELLRESEARCH CORPORATION PTE. LTD., 7500A Beach Road, #06-302, The Plaza, Singapore;THE REGENTS OF THE UNIVERSITY OF COLORADO, 1800 Grant Street, 8th Floor, United States of America ~72: FREED, Brian M.;PHAN, Toan Thang~ 33:US ~31:62/912,368 ~32:08/10/2019

2022/03662 ~ Complete ~54:HEAT-STORAGE MEDIUM CONVEYING SYSTEM FOR SOLAR-THERMAL POWER PLANT ~71:ZHEJIANG COSIN SOLAR TECHNOLOGY CO., LTD., 1-2603, NO. 501, NO. 2 STREET, BAIYANG STREET, HANGZHOU ECONOMIC AND TECHNOLOGICAL DEVELOPMENT ZONE, ZHEJIANG, 310018, China, People's Republic of China ~72: BI, Wenjian;SUN, Feng;TANG, Juan;TANG, Yaping;TONG, Guokai;YU, Zhiyong;ZHOU, Hui;ZHOU, Kai~ 33:CN ~31:201910929445.0 ~32:27/09/2019;33:CN ~31:202010733930.3 ~32:27/07/2020

2022/03672 ~ Complete ~54:LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY (LC-MS) METHODS FOR ANALYZING AMPHOLYTE LOT VARIATION ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, United States of America ~72: HELMING, Stacey;MULLEN, Rachel;O&#39;CONNOR, Seamus;RYAN, Clare~ 33:US ~31:62/913,450 ~32:10/10/2019

2022/03676 ~ Complete ~54:MOBILE WIRELESS BROADBAND NETWORK INTERFACE CARD (MWBNIC) AND K-NET ~71:GALACTIC TELECOM GROUP, 940 Thayer Avenue Suite 7164, United States of America ~72: KAKAIRE, James, Kirunda~ 33:US ~31:62/913,360 ~32:10/10/2019

2022/03679 ~ Complete ~54:COMPOSITIONS FOR USE IN INHIBITING SRC KINASE AND TREATING AND PREVENTING ASSOCIATED DISORDERS ~71:ENZENE BIOSCIENCES LIMITED, Plot NO. 165/1/26, T Block, Midc Bhosar, Pune, 411026, India ~72: ABIR BANERJEE;ARINDAM CHAKRABORTY;HARSHITA LONDHE;HIMANSHU GADGIL;MRUGALI GHAVTE;RENUKA ATIK~ 33:US ~31:62/901,540 ~32:17/09/2019

2022/03682 ~ Complete ~54:UREA CALCIUM SULFATE GRANULES AND METHODS FOR PRODUCING AND USING THE SAME ~71:SABIC GLOBAL TECHNOLOGIES B.V., Plasticlaan 1, 4612 PX, Bergen op Zoom, Netherlands ~72: ANDREW GEORGE KELLS;NILKAMAL BAG;SALEH NAFE AL-SHAMMARI~ 33:US ~31:62/910,167 ~32:03/10/2019

2022/03638 ~ Provisional ~54:MIS-FUELLING PREVENTION TECHNOLOGY (MPT) ~71:Onalenna Tshabangu, 06 Du Donet Complex , 71 Isipingo Road , Paulshof , Johannesburg, South Africa ~72: Onalenna Benedict Tshabangu~

2022/03640 ~ Provisional ~54:CHILD SUPPORT INCOME PROTECTION ~71:Shaun Mills, 56 la Cantera Crecent , Eagle Canyon , Honeydew , Roodepoort, South Africa ~72: Shaun Mills~

2022/03646 ~ Complete ~54:PROCESSING EQUIPMENT AND PROCESSING TECHNOLOGY OF GEL MICROSPHERE MATERIAL ~71:SUZHOU YISHENG OPTICAL MATERIAL CO., LTD., No. 168, Jiaotong North Road, Wujiang Economic and Technological Development Zone, Suzhou City, Jiangsu Province, 215000, People's Republic of China ~72: SHEN, Dong;TIAN, Dawei;ZHAO, Jiang;ZHAO, Xin;ZHU, Jianfei~ 33:CN ~31:202111132782.0 ~32:27/09/2021

2022/03648 ~ Complete ~54:A SUBSTITUTE TEA CONTAINING DENDROBIUM CANDIDUM LEAVES AND ITS PREPARATION METHOD ~71:Suzhou Dongquan Biotechnology Co., Ltd, Unit C, 4th Floor, No. 4 Factory, Modern Industrial Workshop, No. 333 Xingpu Road, Suzhou Industrial Park, Suzhou city, Jiangsu Province, 215000, People's Republic of China ~72: HAN Rong;LI Dao;ZHU Binhui;ZHU Yuanhui~

2022/03650 ~ Complete ~54:A CONTINUOUS FERMENTATION METHOD OF CLOSTRIDIUM BUTYRICUM ~71:College of Animal Sciences Zhejiang University, No. 198, Shiqiao Road, Hangzhou City, Zhejiang Province, People's Republic of China ~72: Lv Wentao;Ma Lingyan;Tang Biao;Wang Wen;Xiao Xingning;Xiao Yingping;Yang Hua~

2022/03655 ~ Complete ~54:ENVIRONMENTALLY FRIENDLY PROCESS FOR TANNING HIDES ~71:BEKEN ITALIA S.R.L., Via Leonardo da Vinci, 20, Arzignano, Italy ~72: NEGRETTO, Mirko~ 33:IT ~31:102020000017719 ~32:22/07/2020

2022/03657 ~ Complete ~54:DOSING REGIMENS FOR TREATING OR PREVENTING C5-ASSOCIATED DISEASES ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, United States of America ~72: DAVIS, John;DICIOCCIO, Albert, Thomas;HARARI, Olivier;LIN, Kuan-Ju;RANKIN, Andrew;RIPPLEY, Ronda;WEYNE, Jonathan;YANCOPOULOS, George;YANG, Feng;ZHANG, Yi~ 33:US ~31:62/926,213 ~32:25/10/2019;33:US ~31:62/992,330 ~32:20/03/2020;33:US ~31:63/019,533 ~32:04/05/2020

2022/03661 ~ Complete ~54:HUMAN RECOMBINANT HYPOSIALYLATED ERYTHROPOIETIN, METHODS OF PURIFICATION AND THERAPEUTIC USES THEREOF ~71:CENTRO DE INMUNOLOGIA MOLECULAR, CALLE 216 ESQ. 15, ATABEY, PLAYA, LA HABANA, HABANA 11600, CUBA, Cuba ~72: AMARO GONZALEZ, Daniel Enrique;AZ GOIRE, Dayli;GARCIA ARTALEJO, Judey Aymed;GIMENEZ, NEZ LINDA;PEZ, Estela;HERNANDEZ DE LA ROSA, Lourdes;RODRIGUEZ GUEZ OBAYA, Teresita de Jesus;SARMIENTO CONDE, Yanara;SOSA TESTA, Iliana Maria~ 33:CU ~31:2019-0077 ~32:05/09/2019

2022/03666 ~ Complete ~54:ROLL CONNECTION ~71:ARCELOMITTAL, 24-26, Boulevard d'Avranches, Luxembourg ~72: Francois NONNE;Pauline BRIAULT~

2022/03671 ~ Complete ~54:CANCER VACCINE ~71:CANCER RESEARCH MALAYSIA, No. 1, Jalan SS12/1A, Subang Jaya, Selangor, 47500, Malaysia;UNIVERSITY OF SOUTHAMPTON, Highfield, Southampton, Hampshire, S017 1BJ, United Kingdom ~72: CHEONG, Sok Ching;LIM, Kue Peng;OTTENSMEIER, Christian;SAVELYEVA, Natalia;THOMAS, Gareth;WANG, Chuan~ 33:GB ~31:1915163.8 ~32:18/10/2019

2022/03680 ~ Complete ~54:SELECTIVE INHIBITORS OF PROTEIN ARGININE METHYLTRANSFERASE 5 (PRMT5) ~71:PRELUDE THERAPEUTICS, INCORPORATED, 200 Powder Mill Road, Experimental Station, E440/3213, Wilmington, Delaware 19803, United States of America ~72: GANFENG CAO;HONGWU YU;HUAPING ZHANG;QUN LI~ 33:US ~31:62/902,322 ~32:18/09/2019

2022/03685 ~ Complete ~54:ACCOUNTING FOR ERRORS IN OPTICAL MEASUREMENTS ~71:S.D. Sight Diagnostics Ltd, 23 Menachem Begin Rd, Floor 15, TEL AVIV 6618356, ISRAEL, Israel ~72: ESHEL, Yochay Shlomo;GLUCK, Dan;HALPERIN, Yonatan;HOURI YAFIN, Arnon;LEVNER, Daniel;LEVY SCHREIER, Sarah;LEZMY, Natalie;PECKER, Sharon;POLLAK, Joseph Joel;WEISS, Itamar;YORAV-RAPHAEL, Noam;ZAIT, Amir~ 33:US ~31:62/924,229 ~32:22/10/2019

2022/03686 ~ Complete ~54:A CONNECTION SYSTEM FOR MONORAIL BEAMS ~71:Sandvik Mining and Construction G.m.b.H., Alpinestrasse 1, ZELTWEG 8740, AUSTRIA, Austria ~72: RIEGER, Hubert~



2022/03641 ~ Complete ~54:METHOD, DEVICE AND SYSTEM FOR PREDICTING EMPLOYMENTS OF UNDERGRADUATES BASED ON PROFESSIONAL COMPETENCE SYSTEM ~71:Qingdao University of Science and Technology, 99 Songling Road, Laoshan District, Qingdao, Shandong Province, 266100, People's Republic of China ~72: WANG, Huadong;WANG, Jun~

2022/03642 ~ Complete ~54:A KIND OF POTATO VIRUS-FREE CUTTING SEEDLING PLANTING METHOD ~71:Kunming Academy of Agricultural Sciences, 701 Huancheng South Road, Xishan District, Kunming city, Yunnan Province, People's Republic of China;Yunnan Pump long Potato Planting Co. LTD, big Qing village committee stone cave village, Xundian County fenghe town, Kunming, Yunnan Province, People's Republic of China ~72: ChuLizhang;HuBishuai;HuRongHai;HuZhengkui;SuChenghui;ZhangLifang;ZhangXiaodong;ZhongYing;ZhuWeixian~

2022/03659 ~ Complete ~54:USER EQUIPMENT AND SCHEDULING NODE ~71:PANASONIC INTELLECTUAL PROPERTY CORPORATION OF AMERICA, 20000 MARINER AVENUE, SUITE 200, TORRANCE, CA 90503, USA, United States of America ~72: HORIUCHI, Ayako;KUANG, Quan;LI, Hongchao;SUZUKI, Hidetoshi~ 33:EP ~31:19201529.5 ~32:04/10/2019

2022/03639 ~ Provisional ~54:BUILDING ELEMENTS ~71:ERASMUS, Rhynhardt, Erf 178, South Africa ~72: ERASMUS, Rhynhardt~

2022/03644 ~ Complete ~54:A KIND OF FOOD MICROBIOLOGY MULTI-POINT SAMPLING DEVICE ~71:Jinzhou Medical University, No.40, Section 3, Songpo Road, Linghe District, Jinzhou City, Liaoning Province, 121001, People's Republic of China ~72: Hui Wang;Xiang Li;Zheng Liu~

2022/03649 ~ Complete ~54:PREPARATION METHOD OF TARTARY BUCKWHEAT BUD TEA ~71:HEBEI UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 26, Yuxiang Street, Shijiazhuang City, Hebei Province, 050018, People's Republic of China ~72: HAO, Jianxiong;RAO, Huan;ZHAO, Dandan~

2022/03652 ~ Complete ~54:VERTICAL CABINET TYPE AIR PURIFIER FOR INDOOR USE ~71:CHAOHU UNIVERSITY, No. 1, Bantang Road, Chaohu Economic Development Zone, People's Republic of China ~72: KONG, Bing;LI, Yuelong;PAN, Huiting;YU, Mei~

2022/03654 ~ Complete ~54:HIGH-EFFICIENCY AND LOW-NOISE REFRIGERATION COMPRESSOR ROTOR ~71:Tianjin Gasin-Donghui Preservation Technologies Co., Ltd, 104, Floor 1, No. 10, Siwei Road, Dongli District, Tianjin, 300300, People's Republic of China ~72: CAO, Shengqi;CHEN, Lan;DUAN, Lihua;GUO, Bei;JINAG, Yunbin;SHAO, Chongxiao;WANG, Haifen;ZHANG, Zhenjun~ 33:CN ~31:202210274303.7 ~32:21/03/2022

2022/03660 ~ Complete ~54:MATERIALS COMPRISING CARBON-EMBEDDED IRON NANOPARTICLES, PROCESSES FOR THEIR MANUFACTURE, AND USE AS HETEROGENEOUS CATALYSTS ~71:EVONIK OPERATIONS GMBH, RELINGHAUSER STRASSE 1-11, 45128 ESSEN, GERMANY, Germany ~72: CHAMSKI, Sarah;KADYROV, Renat;REINSdorf, Arne;WOLF, Dorit~ 33:EP ~31:19195501.2 ~32:05/09/2019

2022/03663 ~ Complete ~54:MATERIALS COMPRISING CARBON-EMBEDDED NICKEL NANOPARTICLES, PROCESSES FOR THEIR MANUFACTURE, AND USE AS HETEROGENEOUS CATALYSTS ~71:EVONIK OPERATIONS GMBH, RELINGHAUSER STRASSE 1-11, 45128 ESSEN, GERMANY, Germany ~72: CHAMSKI, Sarah;KADYROV, Renat;REINSdorf, Arne;WOLF, Dorit~ 33:EP ~31:19195503.8 ~32:05/09/2019

2022/03668 ~ Complete ~54:METHODS OF TREATING ANTIPSYCHOTIC-INDUCED WEIGHT GAIN WITH MIRICORILANT ~71:CORCEPT THERAPEUTICS INCORPORATED, 149 Commonwealth Drive, Menlo Park,

United States of America ~72: BELANOFF, Joseph;HUNT, Hazel;LEE, Ada~ 33:US ~31:62/946,957  
~32:11/12/2019

2022/03683 ~ Complete ~54:DOSING FOR TREATMENT WITH ANTI-TIGIT AND ANTI-PD-L1 ANTAGONIST ANTIBODIES ~71:GENENTECH, INC., 1 DNA Way, South San Francisco, California, 94080-4990, United States of America ~72: NAMRATA SRIVASTAVA PATIL;RAYMOND D MENG;WILLIAM MICHAEL FLANAGAN~ 33:US ~31:62/907,283 ~32:27/09/2019;33:US ~31:62/971,831 ~32:07/02/2020;33:US ~31:63/048,464 ~32:06/07/2020

2022/03667 ~ Complete ~54:FORGED PART OF STEEL AND A METHOD OF MANUFACTURING THEREOF ~71:ARCELORMITTAL, 24-26, Boulevard d&#39;Avranches, Luxembourg ~72: Caroline; PERSEM;Mathieu LHUILLERY;Victor BORDEREAU~

2022/03669 ~ Complete ~54:A SYSTEM AND METHOD FOR GENERATING UTILIZATION DATA OF A VEHICLE ~71:MAHINDRA & MAHINDRA LIMITED, Mahindra & Mahindra Limited, Mahindra Research Valley, Mahindra World City, Plot No:41/1, Anjur P.O., India ~72: NATTERI, Ajay Mangadu;PUSHPARAJ, Karthikesh;RAJ, Bob Paul;SARAVANAN, N;SINGHA, Partha Sarathi;SUBRAMANIAN, Loganathan Gobi;SURENDRAN, Jayalakshmi~ 33:IN ~31:202041053459 ~32:08/12/2020

2022/03665 ~ Complete ~54:VESSEL CLOSURE SEAL AND VESSEL CLOSURE ~71:ACTEGA DS GMBH, Straubinger Strasse 12, Germany ~72: Dany M&#196;NGEL~ 33:EP ~31:PCT/EP2019/084454 ~32:10/12/2019

2022/03670 ~ Complete ~54:HOT ROLLED AND HEAT-TREATED STEEL SHEET AND METHOD OF MANUFACTURING THE SAME ~71:ARCELORMITTAL, 24-26, Boulevard d&#39;Avranches, Luxembourg ~72: Astrid PERLADE;Coralie JUNG;Fr&#233;d&#233;ric KEGEL;Kangying ZHU~ 33:IB ~31:PCT/IB2019/061105 ~32:19/12/2019

2022/03674 ~ Complete ~54:EXPLOSIVES MATRIX LANCE ~71:KILLASSY, Timothy Joseph, 36 Lupine Street, Grimbeek Park, South Africa ~72: FOURIE, Hans Jurgens~ 33:ZA ~31:2019/04746 ~32:19/07/2019

2022/03678 ~ Complete ~54:ENHANCED CONCURRENCY GARBAGE COLLECTION STACK SCANNING ~71:MICROSOFT TECHNOLOGY LICENSING, LLC, One Microsoft Way, Redmond, Washington, 98052-6399, United States of America ~72: ADITYA MANDALEEKA~ 33:US ~31:16/656,522 ~32:17/10/2019

2022/03684 ~ Complete ~54:MUSCARINIC ACETYLCHOLINE M1 RECEPTOR ANTAGONISTS ~71:PIPELINE THERAPEUTICS, INC., 10578 Science Center Drive, Suite 200, San Diego, California, 92121, United States of America ~72: AUSTIN CHIH-YU CHEN;JEFFREY ROPPE;JILL MELISSA BACCEI;THOMAS SCHRADER;YALDA BRAVO;YIFENG XIONG~ 33:US ~31:62/911,807 ~32:07/10/2019

2022/03681 ~ Complete ~54:COMPOSITIONS AND METHODS FOR THE TREATMENT OF VIRAL INFECTIONS ~71:CIDARA THERAPEUTICS, INC., 6310 Nancy Ridge Drive, Suite 101, San Diego, California 92121, United States of America ~72: ALAIN NONCOVICH;ALLEN BORCHARDT;DANIEL C BENSEN;JAMES M BALKOVEC;JASON COLE;LESLIE W TARI;QUYEN-QUYEN THUY DO;SIMON DOEHRMANN;THANH LAM;THOMAS P BRADY;WANLONG JIANG;ZHI-YONG CHEN~ 33:US ~31:62/897,036 ~32:06/09/2019;33:US ~31:62/941,405 ~32:27/11/2019;33:US ~31:62/948,143 ~32:13/12/2019;33:US ~31:62/959,857 ~32:10/01/2020;33:US ~31:62/966,500 ~32:27/01/2020;33:US ~31:62/970,491 ~32:05/02/2020;33:US ~31:62/984,705 ~32:03/03/2020;33:US ~31:62/988,304 ~32:11/03/2020;33:US ~31:63/032,488 ~32:29/05/2020;33:US ~31:63/062,377 ~32:06/08/2020

2022/03733 ~ Provisional ~54:SCHOOLS SECURITY ~71:DONALD TLABYANE, 48 ALUTA CRESCENT HOSPITAL VIEW GAUTENG, South Africa ~72: DONALD TLABYANE ~

2022/03688 ~ Provisional ~54:GRINDER POSITIONER FLUID (GPF) ~71:Sakhile Hopewell Ntuli, 1351 Empumelelweni, Ext 05, South Africa ~72: Sakhile Hopewell Ntuli~

- APPLIED ON 2022/03/31 -

2022/03725 ~ Complete ~54:DRY POWDER INHALER WITH AN ADHERENCE/COMPLIANCE MONITOR ~71:Vectura Delivery Devices Limited, One Prospect West, CHIPPENHAM SN14 6FH, WILTSHIRE, UNITED KINGDOM, United Kingdom ~72: CLARKE, Roger;COTTON, Darryl;DEAMER, John;MELINIOTIS, Andreas;SMITH, Philip;SWANBURY, Philip;THOMAS, Seth~ 33:EP ~31:19209856.4 ~32:18/11/2019;33:EP ~31:19209857.2 ~32:18/11/2019;33:EP ~31:19209858.0 ~32:18/11/2019

2022/03731 ~ Complete ~54:CHIMERIC FILOVIRUS VACCINES ~71:KATHOLIEKE UNIVERSITEIT LEUVEN, KU Leuven R&D Waaistraat 6 - box 5105, Belgium ~72: DALLMEIER, Kai;LEMMENS, Viktor;NEYTS, Johan;SANCHEZ FELIPE, Lorena~ 33:EP ~31:19197322.1 ~32:13/09/2019

2022/03710 ~ Complete ~54:A PORTABLE CROP DISEASE DETECTION DEVICE ~71:Afreen KHURSHEED, Assistant Professor, Department of ECE, Indian Institute of Information Technology (IIIT), Bhopal,, India;Anjna Jayant DEEN, Department of computer Science and Engineering, University Institute of Technology, Rajeev Gandhi State Technological University ,Gandhi Nagar Bhopal,, India;Hema DUBEY, Assistant Professor National Institute of Technology, Ministry of Textiles, Govt. of India. Bhopal, India;Priyank JAIN, Assistant Professor, Department of Information Technology, Indian Institute of Information Technology (IIIT), Bhopal,, India;Raju BARSKAR, Associate Professor, Department of Computer Science & Engineering, University Institute of Technology, RGPV, Bhopal,, India;Sonika SHRIVASTAVA, Department of Computer Engineering, Shri G. S. Institute of Technology and Science, Indore,, India ~72: Afreen KHURSHEED;Anjna Jayant DEEN;Hema DUBEY;Priyank JAIN;Raju BARSKAR;Sonika SHRIVASTAVA~

2022/03708 ~ Complete ~54:LIQUID INJECTION STEEL PIPE PUSH-PULL DEVICE FOR HYDRAULIC FRACTURING ~71:CHINA UNIVERSITY OF MINING AND TECHNOLOGY, Nanhua Campus, China University of Mining and Technology, No. 1 University Road, Xuzhou City, People's Republic of China ~72: GAO, Zhiqiang;LIU, Huaidong;LV, Bo;WU, Fengfeng;ZHANG, Jian~

2022/03716 ~ Complete ~54:DEHUMIDIFICATION SYSTEM ~71:MUNTERS EUROPE AKTIEBOLAG, Box 1150, 164 26, Kista, Sweden ~72: MAGNUS CARLSSON~ 33:SE ~31:1951038-7 ~32:13/09/2019

2022/03722 ~ Complete ~54:GNSS STANDARD POINT POSITIONING METHOD BASED ON SPHERICAL HARMONICS ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 579, Qianwangang Road, Huangdao District, Qingdao, Shandong, 266590, People's Republic of China ~72: GUO, Hengyang;GUO, Jinyun;KONG, Qiaoli;LIU, Xin;XING, Yunpeng;YANG, Zhouming~ 33:CN ~31:202110283670.9 ~32:17/03/2021

2022/03726 ~ Complete ~54:PROCESS OF REDUCING MALODORS ON FABRICS ~71:The Procter & Gamble Company, One Procter & Gamble Plaza, CINCINNATI 45202, OH, USA, United States of America ~72: BIANCHETTI, Giulia Ottavia;MELI, Fabrizio;MIRACLE, Gregory Scot;STENGER, Patrick Christopher~ 33:US ~31:62/932,518 ~32:08/11/2019

2022/03694 ~ Complete ~54:GAS EXTRACTION METHOD BY MEANS OF WEAKENING COAL SEAM ROOF VIA STAGED FRACTURING OF L-SHAPED DRILLING ~71:Chongqing University, No. 174, Shazheng Street, Shapingba District, Chongqing, 400030, People's Republic of China ~72: GUO, Kunyong;LI, Ke;LONG, Haiyang;LUO, Yafei;MA, Zikun;TAI, Yang;XIA, Binwei;ZENG, Tai;ZHOU, Lei~

2022/03703 ~ Complete ~54:PHARMACY PHARMACEUTICAL PULVERIZING DEVICE ~71:WANG, Jingcui, Building 28, Quanxing Jiayuan, Zoucheng, JINING CITY 273518, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China ~72: WANG, Jingcui~

2022/03698 ~ Complete ~54:FILTRATION DEVICE WITH COMBINED FILTER TANKS FOR REFRIGERATION COMPRESSOR ~71:Tianjin Gasin-Donghui Preservation Technologies Co., Ltd, 104, Floor 1, No. 10, Siwei Road, Dongli District, Tianjin, 300300, People's Republic of China ~72: CAO, Shengqi;CHEN, Lan;DUAN, Lihua;GUO, Bei;LI, Xihong;SHAO, Chongxiao;WANG, Haifen;YUAN, Junwei~ 33:CN ~31:202210308499.7 ~32:20/03/2022

2022/03707 ~ Complete ~54:METHOD FOR PREPARING MACROSCOPIC THREE-DIMENSIONAL C3N5/RGO COMPOSITE MATERIAL FOR PHOTOCATALYTIC URANIUM REDUCTION ~71:SOUTHWEST UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 59, Middle Section of Qinglong Avenue, Fucheng District, Mianyang City, People's Republic of China ~72: DUAN, Tao;MENG, Qi;WU, Linzhen~

2022/03714 ~ Complete ~54:COPPER ALLOY MATERIAL, PREPARATION METHOD THEREFOR AND USE THEREOF ~71:HEBEI LI&#39;EN NEW MATERIAL TECHNOLOGY CO., LTD, No. 20, Meishan Road, High Tech Development Zone, Gucheng County, Hengshui, Hebei, 253800, People's Republic of China ~72: CHEN, Haishen;MA, Ming;WANG, Mengke;YANG, Donghua;YANG, Dongna;YANG, Guixiang;YANG, Jinghao;YANG, Jingzhou;YU, Xiaofang~ 33:CN ~31:202010932945.2 ~32:08/09/2020

2022/03719 ~ Complete ~54:KV1.3 BLOCKERS ~71:ZEALAND PHARMA A/S, Sydmarken 11 2860 S&#248;borg, Denmark ~72: HENRIK FISCHER MUNCH;JENS KVIST MADSEN;RASMUS BUGGE JENSEN~ 33:EP ~31:19198763.5 ~32:20/09/2019;33:EP ~31:20172989.4 ~32:05/05/2020

2022/03712 ~ Complete ~54:CHEMICAL MODIFICATIONS OF SMALL INTERFERING RNA WITH MINIMAL FLUORINE CONTENT ~71:DICERNA PHARMACEUTICALS, INC, 75 Hayden Avenue, Lexington, United States of America ~72: NAZEF, Naim;WANG, Weimin~ 33:US ~31:62/909,278 ~32:02/10/2019

2022/03702 ~ Complete ~54:SEATING IN A VEHICLE ~71:INTERNATIONAL TRUCK INTELLECTUAL PROPERTY COMPANY, LLC, 2701 Navistar Drive, Lisle, Illinois, 60532, United States of America ~72: EDWARD HOULIHAN;HECTOR R KIELY;PETER S WONG~ 33:US ~31:17/332,151 ~32:27/05/2021

2022/03706 ~ Complete ~54:DRILLED HOLE DRY-TYPE FILTERING AND DEDUSTING SYSTEM FOR MINE ~71:China University of Mining and Technology, No1, Daxue Road, Xuzhou, Jiangsu, 221116, People's Republic of China ~72: Aihemaiti Aierzeguli;Changgeng Gui;Guangyu Dou;Guoxiang Wen;Hui Cheng;Jun Hou;Keran Huo;Liyuan Liu;Muze Han;Rongting Huang;Shihang Li;Shuda Hu;Tuerdaken Ahejuli;Yihan Lin;Zihao Mao~

2022/03713 ~ Complete ~54:ANTI-CHEMOKIN LIKE RECEPTOR 1 HUMANIZED ANTIBODIES AND THEIR THERAPEUTIC APPLICATIONS ~71:OSE IMMUNOTHERAPEUTICS, 22 boulevard, Benoni Goullin, France ~72: GAUTTIER, Vanessa;MARY, Caroline;POIRIER, Nicolas;TRILLEAUD, Charl&#232;ne~ 33:EP ~31:19306322.9 ~32:09/10/2019;33:EP ~31:19306323.7 ~32:09/10/2019

2022/03718 ~ Complete ~54:IMPROVED METHODS FOR PRODUCTION, RECOVERY AND SECRETION OF HYDROPHOBIC COMPOUNDS IN A FERMENTATION ~71:BIOPHERO APS, Lers&#248; Parkall&#233; 42-44, 4.th, 2100, Copenhagen &#216;., Denmark ~72: BETTINA LOR&#193;NTFY;IRINA BORODINA~ 33:EP ~31:19204554.0 ~32:22/10/2019

2022/03724 ~ Complete ~54:RUXOLITINIB FORMULATION FOR REDUCTION OF ITCH IN ATOPIC DERMATITIS ~71:Incyte Corporation, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America ~72: HOWELL, Michael;KULIGOWSKI, Michael;LEE, Jim;SUN, Kang;VENTURANZA, May Grace E.~

33:US ~31:62/896,421 ~32:05/09/2019;33:US ~31:62/897,059 ~32:06/09/2019;33:US ~31:62/898,873 ~32:11/09/2019;33:US ~31:62/983,252 ~32:28/02/2020;33:US ~31:63/020,668 ~32:06/05/2020

2022/03690 ~ Provisional ~54:GREEN BRICKS ~71:Refilwe Mutloane, House no 20114 Segakwana Section, South Africa ~72: Refilwe Mutloane~ 33:ZA ~31:1 ~32:30/03/2022

2022/03692 ~ Complete ~54:CUTTING CULTIVATION METHOD OF TEA GERMPLASM RESOURCES ~71:Yunnan province academy of agricultural sciences institute of tea, No. 2238, Beijing Road, Panlong District, Kunming City, Yunnan Province, 650214, People's Republic of China ~72: DUAN Zhifen;LIU Benying;SHANG Weiqiong;YANG Shengmei~

2022/03701 ~ Complete ~54:DOSAGE AND ADMINISTRATION OF NON-FUCOSYLATED ANTI-CD40 ANTIBODIES ~71:SEAGEN INC., 21823 30th Drive SE, Bothell, Washington, 98021, United States of America ~72: CHE-LEUNG LAW;HALEY NEFF-LAFORD;JING YANG;SHYRA GARDAI;STANFORD PENG~ 33:US ~31:62/072,031 ~32:29/10/2014;33:US ~31:62/134,955 ~32:18/03/2015

2022/03695 ~ Complete ~54:GAS EXTRACTION METHOD BY MEANS OF ROOF WEAKENING VIA L-SHAPED DRILLING FRACTURING AND PARALLEL HOLE DISTRIBUTION ~71:Chongqing University, No. 174, Shazheng Street, Shapingba District, Chongqing, 400030, People's Republic of China ~72: LI, Ke;LI, Xinling;LONG, Haiyang;PENG, Jiajun;PENG, Jiansong;QIAN, Wenbin;XIA, Binwei;ZENG, Tai;ZHOU, Lei~

2022/03728 ~ Complete ~54:A HYGIENE ARTICLE ~71:WOOLCHEMY NZ LIMITED, 5 Twin lakes Road, Te Maura, New Zealand ~72: JUNAID, Fadi;NEILL, Steven;POTROZ-SMITH, DERELEE;RATHOD, Manoj;ROGERS, Alistair~ 33:NZ ~31:757820 ~32:04/10/2019

2022/03727 ~ Complete ~54:ELECTRO-ASSISTED PICKLING OF STEEL ~71:ARCELORMITTAL, 24-26, Boulevard d&#39;Avranches, Luxembourg ~72: Alexey KOLTISOV;Marie-Christine THEYSSIER;Patrice ALEXANDRE~

2022/03699 ~ Complete ~54:A CONVENIENT STRAIN FERMENTATION DEVICE FOR CLEANING EDIBLE FUNGUS LIQUID ~71:Guangxi Normal University for nationalities, 23 Fozhi Road, Jiangzhou District, Chongzuo City, Guangxi, 532200, People's Republic of China ~72: XIAO Li ling;YANG Xiu zeng~

2022/03689 ~ Provisional ~54:CONVEYOR PULLEY GENERATOR ~71:LAUBSCHER, Bernard Allen, 14 Chelsea Lane, Plantations, South Africa ~72: LAUBSCHER, Bernard Allen~

2022/03691 ~ Complete ~54:THREE-DIMENSIONAL SEISMIC ACQUISITION CABLE AND WORKING METHOD THEREOF ~71:First Institute of Oceanography, Ministry of Natural Resources, No. 6, Xianxialing Road, Laoshan District, Qingdao, People's Republic of China ~72: Baohua LIU;Chenguang LIU;Qingfeng HUA;Xianfeng LI;Xishuang LI;Yanhong LIAN;Yanliang PEI;Zili CHEN~ 33:CN ~31:202110634854.5 ~32:08/06/2021

2022/03693 ~ Complete ~54:METHOD FOR REMOVING HYDROGEN FLUORIDE FROM HYDROGEN CHLORIDE GAS ~71:LIAN, Zhouyang, Puzhu South Road, Pukou District, Nanjing City, Jiangsu Province, 211800, People's Republic of China ~72: LIAN, Zhouyang~

2022/03705 ~ Complete ~54:A DEVICE APPLICABLE TO GROUTING CONSTRUCTION OF PREFABRICATED WALL IN WINTER ~71:THE FIRST CONSTRUCTION ENGINEERING COMPANY LTD. OF CHINA CONSTRUCTION SECOND&#160;ENGINEERING BUREAU, Floors 1 to 7, building 1, Yard 9, Kechuang 4th Street, Beijing Economic-Technological Development Area Daxing District, Beijing, People's Republic of China ~72: He Quan;Li Zelan;Wei Xueqi;Yin Haisong;Zhang Yuanjun;Zhao Qingyu~



2022/03715 ~ Complete ~54:A HIGH-PRECISION THREE-COMPONENT ELECTROMAGNETIC FIELD SENSOR AND ITS DATA TRANSMISSION CONTROL SYSTEM ~71:China University of Mining and Technology, No. 1, Daxue Road, Xuzhou, Jiangsu, 221116, People's Republic of China ~72: LIU, Zhixin;LU, Zhanguo;ZHANG, Xiaokai~ 33:CN ~31:202010968406.4 ~32:15/09/2020

2022/03720 ~ Complete ~54:A METHOD AND SYSTEM FOR THE SECURE TRANSMISSION OF FUNDS ~71:RTGS LIMITED, The Modern Group Offices, Brooklyn Street, St Helier, Jersey JE1 AHE, United Kingdom ~72: ANDREW SMITH;JOSEPH GORDON COOPER;NICK OGDEN~

2022/03721 ~ Complete ~54:SUSPENSION ROASTING SYSTEM AND METHOD FOR INDUSTRIAL PROCESSING OF IRON AND MANGANESE ORES ~71:NORTHEASTERN UNIVERSITY, No. 3-11, Wenhua Road, Heping District, Shenyang, Liaoning 110819, People's Republic of China ~72: PENG GAO;SHUAI YUAN;YANJUN LI;YONGSHENG SUN;YUEXIN HAN~ 33:CN ~31:202010473975.1 ~32:29/05/2020

2022/03729 ~ Complete ~54:SHROUDED COUPLING ~71:VICTAULIC COMPANY, 4901 Kesslersville Road, United States of America ~72: BOWMAN, Matthew A.;FLECK, Michael;MADARA, Scott D.~ 33:US ~31:62/935,785 ~32:15/11/2019

2022/03696 ~ Complete ~54:AN INTELLIGENT STORE MANAGEMENT SYSTEM AND METHOD FOR ARTIFICIAL INTELLIGENCE AND BIG DATA ~71:Anqing Normal University, No. 1318, North Jixian Road, Yixiu&#160;District, Anqing, Anhui Province, People's Republic of China ~72: Liu Deyang;Yao Wei~

2022/03700 ~ Complete ~54:METAL COMPLEX CATALYST FOR CATALYZING HYDROCHLORINATION OF ACETYLENE, PREPARATION METHOD AND APPLICATION THEREOF ~71:Shihezi University, Room 220, Yifu experimental building, Middle District, Shihezi University, Beisi Road, Shihezi, Xinjiang, 832003, People's Republic of China ~72: CAI Ming;DAI Bin;LI Jian;LI Linfeng;LI Yanqin;XIE Dongyang;ZHANG Haiyang;ZHANG Jinli~

2022/03704 ~ Complete ~54:A METHOD FOR ISOLATING RESVERATROL ~71:Fujian University of Traditional Chinese Medicine, No. 282 Wusi Road, FUZHOU CITY 350000, FUJIAN PROVINCE, CHINA (P.R.C.), People's Republic of China ~72: CHEN, Dawei;CHEN, Jianyu;HUANG, Mingqing;LI, Shaohua;ZHENG, Yanfang~ 33:CN ~31:202111183103.2 ~32:11/10/2021

2022/03709 ~ Complete ~54:AN EXTENDED GENETIC TECHNIQUE-BASED PREVENTION SYSTEM AGAINST DENIAL OF SERVICE/DISTRIBUTED DENIAL OF SERVICE FLOOD ATTACKS IN VOICE OVER IP SYSTEMS AND A METHOD THEREOF ~71:Sheeba ARMOOGUM, Faculty of Information, Communication & Digital Technologies, University of Mauritius,, Mauritius ~72: Sheeba ARMOOGUM~

2022/03711 ~ Complete ~54:TARGETING EPHA3 AND USES THEREOF ~71:THE COUNCIL OF THE QUEENSLAND INSTITUTE OF MEDICAL RESEARCH, 300 Herston Road, Herston, Australia ~72: KHANNA, Rajiv;MARTINS, Jose Paulo~ 33:AU ~31:2019903802 ~32:09/10/2019

2022/03717 ~ Complete ~54:BICYCLIC PEPTIDE LIGAND DRUG CONJUGATES ~71:BICYCLETX LIMITED, Building 900, Babraham Research Campus, Cambridge, CB22 3AT, United Kingdom ~72: GEMMA MUDD;MICHAEL RIGBY;PAUL BESWICK~ 33:GB ~31:1914872.5 ~32:15/10/2019

2022/03723 ~ Complete ~54:COFFEE GRINDER WITH DEVICE FOR FILTER HOLDER OR FILTER DETECTION AND METHOD FOR DETECTING A FILTER HOLDER OR FILTER ~71:La Marzocco S.r.l., Via La Torre, 14/H, SCARPERIA (FI) 50038, ITALY, Italy ~72: DIONISIO, Andrea~ 33:IT ~31:102019000019349 ~32:18/10/2019

2022/03730 ~ Complete ~54:LASSAVIRUS VACCINES ~71:KATHOLIEKE UNIVERSITEIT LEUVEN, KU Leuven R&D, Waaistraat 6 - box 5105, Belgium ~72: DALLMEIER, Kai;LEMMENS, Viktor;NEYTS, Johan;SANCHEZ FELIPE, Lorena~ 33:EP ~31:19197202.5 ~32:13/09/2019

2022/03844 ~ Complete ~54:EGFL6 SPECIFIC MONOCLONAL ANTIBODIES AND METHODS OF THEIR USE ~71:THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, 210 West 7th Street, Austin, United States of America ~72: AN, Zhiqiang;SOOD, Anil, K.;ZHANG, Ningyan~ 33:US ~31:62/291,987 ~32:05/02/2016

2022/03697 ~ Complete ~54:ROOF FOR INSTALLING SOLAR PHOTOVOLTAIC POWER GENERATION ~71:Jilin Jianzhu University, No.5088, Xincheng Street, Changchun City, Jilin Province, 130118, People's Republic of China ~72: CAI Jingwei;JIANG Xin;JIN Yujie;NIU Lei;QIAN Yongmei;TIAN Wei;WANG Ruozhu;XIE Xinying;XU Lina;ZHU Chunfeng~

- APPLIED ON 2022/04/01 -

2022/03737 ~ Complete ~54:URETHRAL CATHETER CAPABLE OF MONITORING PRESSURE OF BALLOON AND MONITORING METHOD THEREFOR ~71:JURONG PEOPLE HOSPITAL, No. 66, Ersheng Road, Jurong City, Zhenjiang City, Jiangsu Province, 212400, People's Republic of China ~72: DAI, Jinxiu;HE, Chenghong;HU, Yue;MI, Qun;SONG, Yingqun;TANG, Xiaojuan;WU, Suqing;ZHANG, Gufang;ZHAO, Long~

2022/03738 ~ Complete ~54:UNIVERSAL PRIMER FOR AMPLIFYING OPEN READING FRAME OF HSC70 GENE OF NOCTUID INSECT ~71:Guizhou Institute of Plant Protection, In the Academy of Agricultural Sciences, Jinzhu Town, Huaxi District, Guiyang City, Guizhou, 550006, People's Republic of China ~72: DAI, Changgeng;HU, Yang;LI, Hongbo~

2022/03741 ~ Complete ~54:USE OF METABOLIC MARKERS IN PRODUCTS FOR DIAGNOSIS OF COLORECTAL CANCER ~71:Hospital of Xinjiang Production and Construction Corps, No.232, Qingnian Road, Urumqi City, Xinjiang Uygur Autonomous Region, 830092, People's Republic of China;Peking Union Medical College Hospital, No.1 Shuaifuyuan, Wangfujing, Dongcheng District, Beijing, 100730, People's Republic of China ~72: AI, Wanchao;CHANG, Le;DU, Juan;HONG, Tao;LI, Guohua;SHI, Yang;ZHANG, Chengjian;ZHOU, Xukun;ZHUANG, Feng~ 33:CN ~31:202210212718.1 ~32:04/03/2022

2022/03745 ~ Complete ~54:METHOD FOR IMPROVING THE ANTIBACTERIAL EFFECT OF ANTIMICROBIAL PEPTIDES OF FLY MAGGOTS AND THE APPLICATION OF FLY MAGGOTS IN REGULATING INTESTINAL HEALTH OF AQUATIC ANIMALS ~71:Institute of Hydrobiology, Chinese Academy of Sciences, No. 7, Donghu South Road, Wuchang District, Wuhan City, Hubei Province, 430072, People's Republic of China;Suzhou Teng Kang Environmental Protection Technology Co., Ltd., Suzhou, China, No.2928 Xihuan Road, Gusu District, Suzhou, Jiangsu, 215002, People's Republic of China ~72: LI Ming;LI Wenxiang;QIN Lu;SONG Kaibo;WANG Guitang;WU Shangong;XIANG Jinhua;ZOU Hong~

2022/03746 ~ Complete ~54:A NEW METHOD FOR SEPARATING ETHYLENE GLYCOL AND 1,2-PENTANEDIOL IN AGRICULTURAL PRODUCT PROCESSING ~71:JIAYING University, No. 100, Meisong Road, Meijiang District, Meizhou City, Guangdong Province, 514015, People's Republic of China ~72: CHEN Guiting;DAI Chuanbo;HE Baitian;LI Long;LI Wenchao;WANG Hua~

2022/03748 ~ Complete ~54:METHOD FOR IMPROVING BEARING CAPACITY OF A SINGLE PILE OF AN OPEN PRESTRESSED HIGH-STRENGTH CONCRETE PIPE PILE ~71:China Railway Construction Investment (Qingdao) Urban Development and Construction Co., Ltd., No. 168, Ruichang Road, Shibei District, Qingdao City, Shandong Province, 266031, People's Republic of China;Qingdao Geo-Engineering Surveying Institute (Qingdao Geological Exploration Development Bureau), No. 73, Keyuanweisi Road, Laoshan District, Qingdao City,

Shandong Province, 266101, People's Republic of China; Qingdao University of Technology, No. 777 Jialingjiang East Road, Huangdao District, Qingdao City, Shandong Province, 266520, People's Republic of China ~72: BAI, Xiaoyu; HUANG, Yongfeng; JIA, Shixiang; JING, Desheng; LIN, Zhenhua; LIU, Honghua; MI, Jinwei; SUN, Gan; WANG, Xueling; WANG, Yonghong; WANG, Zhongsheng; YAN, Nan; ZHANG, Guangliang; ZHANG, Li; ZHANG, Mingyi~

2022/03789 ~ Complete ~54: LONG-ACTING INJECTABLE FORMULATIONS OF KETAMINE PAMOATE SALTS ~71: ALAR PHARMACEUTICALS INC., Rm. 312, 3F., No. 19, Keyuan Rd., Taiwan (R.O.C) ~72: CHEN, Chia-Hsien; HOU, Rui-Zhi; LIN, Tong-Ho; LIU, Ying-Ting; WEN, Yung-Shun; WU, Zhi-Rong~ 33:US ~31:62/951,061 ~32:20/12/2019

2022/03763 ~ Complete ~54: IMPROVEMENTS IN OR RELATING TO ASSESSMENT OF MINING DEPOSITS ~71: RIG TECHNOLOGIES INTERNATIONAL PTY LTD, 54 BEACONSFIELD AVENUE, MIDVALE PERTH, WA 6056, AUSTRALIA, Australia ~72: HOPPER, Timothy Andrew John~ 33:AU ~31:2019903706 ~32:02/10/2019

2022/03764 ~ Complete ~54: DEVICE FOR DETECTING INSECT LARVAE AND ADULT INSECTS IN STORED PRODUCTS BY SENSING THEIR VOLATILE PHEROMONES AND SEMIOCHEMICALS ~71: SENSOR DEVELOPMENT CORPORATION, 141 Innovation Dr., SM 322, United States of America ~72: REICHERT, Samuel Firestone; SMILANICH, Nicholas Joseph; TUDRON, Frank Bernarn~ 33:US ~31:16/558,490 ~32:03/09/2019

2022/03769 ~ Complete ~54: A FLOOD PROCESS SIMULATION SYSTEM BASED ON UNSTRUCTURED GRID AND GPU ACCELERATION TECHNIQUE ~71: XI'AN UNIVERSITY OF TECHNOLOGY, No. 5 South Jinhua Road, Xi'an, Shaanxi, 710048, People's Republic of China ~72: HOU Jingming; LI Xuan; MA Liping; WANG Junhui; WANG Xinghua; WANG Yu; ZHANG Zhaoan~ 33:CN ~31:202010650584.2 ~32:08/07/2020

2022/03770 ~ Complete ~54: PHARMACEUTICAL COMBINATION OF PRMT5 INHIBITORS ~71: LUPIN LIMITED, Kalpataru Inspire, 3rd Floor, Off Western Express Highway, India ~72: BHONDE, Mandar Ramesh; KAMBOJ, Rajender Kumar; PALLE, Venkata P.~ 33:IN ~31:201921042899 ~32:22/10/2019

2022/03778 ~ Complete ~54: METHOD FOR INCREASING LYMPHOCYTE COUNT BY USING IL-7 FUSION PROTEIN IN TUMORS ~71: GENEXINE, INC., 4F, Bldg. B, 700, Daewangpangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488, Republic of Korea; NEOIMMUNE TECH, INC., 2400 Research Blvd., Suite 250, Rockville, Maryland, 20850, United States of America ~72: JUNG WON WOO; MIN KYU HEO; SANG IN YANG; SEHWAN YANG; YOUNG CHUL SUNG~ 33:US ~31:62/895,787 ~32:04/09/2019; 33:US ~31:62/935,828 ~32:15/11/2019

2022/03779 ~ Complete ~54: STAINLESS STEEL CAN FOR PRESSURISED METERED DOSE INHALERS ~71: CHIESI FARMACEUTICI S.P.A., Via Palermo 26/A, 43122, Parma, Italy ~72: DIEGO COPELLI; ENRICO ZAMBELLI; FRANCESCA USBERTI; MASSIMILIANO DAGLI ALBERI; SAURO BONELLI~

2022/03785 ~ Complete ~54: NEW COMBINED THERMODYNAMIC CYCLE WITH HIGH ENERGY RECOVERY ~71: I.V.A.R. S.P.A., Via IV Novembre, 181, 25080, Prevalle (bS), Italy ~72: SERGIO OLIVOTTI~ 33:IT ~31:102019000015770 ~32:06/09/2019; 33:IT ~31:102019000015776 ~32:06/09/2019

2022/03786 ~ Complete ~54: A CONTINUOUS FLOW SYNTHESIS METHOD FOR THE MANUFACTURE OF ISONIAZID ~71: NELSON MANDELA UNIVERSITY, University Way, Summerstrand, 6001 Port Elizabeth, South Africa ~72: PAUL WATTS; RUVIMBO MANGWIRO~ 33:GB ~31:1914685.1 ~32:10/10/2019

2022/03749 ~ Complete ~54: AUTOMATIC FISH SORTING DEVICE BASED ON IMAGE RECOGNITION ~71: Shandong University of Technology, 266 Xincun West Road, Zhangdian District, Zibo City, Shandong Province, People's Republic of China ~72: NI Hengjia; ZHU Lanlan~



2022/03753 ~ Complete ~54:OLIGOPEPTIDE OF SERUM METABOLOMICS AND APPLICATION THEREOF  
~71:Zhejiang University, NO.866 Yuhangtang Road, Xihu District, Hangzhou City, Zhejiang Province, People's Republic of China ~72: CHEN Jianghua;JIANG Hong;PENG Xiaofeng~ 33:CN ~31:202111483725.7  
~32:07/12/2021

2022/03754 ~ Complete ~54:SELF-BALANCING ELEVATOR TRACTION SHEAVE AND PRODUCTION METHOD THEREOF ~71:Nantong Lianxiang Machinery Co., Ltd., Group 22, Haibei Village, Haian Town, Haian City, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: XU, Lide~ 33:CN  
~31:202110827639.7 ~32:21/07/2021

2022/03755 ~ Complete ~54:APPLICATION OF GENE VCAN AS A BIOMARKER IN PREPARING REAGENTS AND KITS FOR THE PROGNOSIS PREDICTION OF DIABETIC KIDNEY DISEASE ~71:Zhejiang University, NO.866 Yuhangtang Road, Xihu District, Hangzhou City, Zhejiang Province, People's Republic of China ~72: CHEN Jianghua;JIANG Hong;WANG Cuili;XU Qiannan~ 33:CN ~31:202110498848.1 ~32:08/05/2021

2022/03788 ~ Complete ~54:FUSED PYRIDONE COMPOUND, AND PREPARATION METHOD THEREFOR AND USE THEREOF ~71:JIANGXI JEMINCARE GROUP CO., LTD, Block 14, Zhongxing Nanchang Software Park Industrial Park, No.688 Aixihu North Road Nanchang Hi-Tech Industrial Development Zone, People's Republic of China;SHANGHAI JEMINCARE PHARMACEUTICALS CO., LTD, 1st Floor, Block 1, No.1118 Halei Road, Pilot Free Trade Zone, Pudong New Area, People's Republic of China ~72: BAO, Fang;FAN, Jun;GUO, Haibing;GUO, Shuchun;LIU, Yang;PENG, Jianbiao~ 33:CN ~31:201910892032.X ~32:20/09/2019;33:CN  
~31:201911129688.2 ~32:18/11/2019;33:CN ~31:201911157939.8 ~32:22/11/2019;33:CN  
~31:202010054188.3 ~32:17/01/2020;33:CN ~31:202010102546.3 ~32:19/02/2020;33:CN  
~31:202010230303.8 ~32:27/03/2020;33:CN ~31:202010306926.9 ~32:17/04/2020;33:CN  
~31:202010367694.8 ~32:30/04/2020;33:CN ~31:202010967317.8 ~32:15/09/2020

2022/03791 ~ Provisional ~54:FUEL PERPETUAL MOTION SELF CHARGING GENERATOR ~71:REALIABLE SOURCE ENERGY PTY LTD Reg No 2021/0412614/07, Unit 5 Park Cliff 422 Currie Rd Essen wood, South Africa ~72: GRAIG SCHOULTZ;MARK OFTEBRO~

2022/03743 ~ Complete ~54:PURIFICATION METHOD OF 1-(1- CHLOROCYCLOPROPYL) -2-(1,2,4-TRIAZOLYL) ETHANONE IN PESTICIDE PRODUCTION ~71:JIAYING University, No. 100, Meisong Road, Meijiang District, Meizhou City, Guangdong Province, 514015, People's Republic of China ~72: CHEN Guiting;DAI Chuanbo;HE Baitian;LI Long;LI Wenchao;WANG Hua~

2022/03751 ~ Complete ~54:EQUIPMENT FOR RECOVERING ANTARCTIC KRILL HULLING WASTEWATER ~71:Shandong University of Technology, 266 Xincun West Road, Zhangdian District, Zibo City, Shandong Province, People's Republic of China ~72: KANG Ruining;ZHU Lanlan~

2022/03758 ~ Complete ~54:A METHOD FOR STANDARD EXTENSION CONSTRUCTION OF STEEL MEMBERS IN ANY LENGTH ~71:CHINA CONSTRUCTION SECOND&#160;ENGINEERING BUREAU LTD., No.251 Beiyangwa, Liyuan town, Tongzhou District, Beijing, People's Republic of China;THE FIRST CONSTRUCTION ENGINEERING COMPANY LTD. OF CHINA CONSTRUCTION SECOND&#160;ENGINEERING BUREAU, Floors 1 to 7, building 1, Yard 9, Kechuang 4th Street, Beijing Economic-Technological Development Area Daxing District, Beijing, People's Republic of China ~72: Liu Yu;Qi Haonan;Shi Guangyong;Shi Mingwei;Yang Kai;Zhang Weici~ 33:CN ~31:202110416038.7 ~32:16/04/2021

2022/03760 ~ Complete ~54:METHOD FOR PRODUCING ANTIOXIDANT PEPTIDE FROM VISCERAL PROTEINS OF CUSUMARIA FRONDOSA ~71:Qilu University of Technology (Shandong Academy of Sciences), No.3501, Daxue Road, Changqing District, Jinan, Shandong Province, 250353, People's Republic of China ~72: Xiangzhong Zhao;Yunlong Gao~

2022/03765 ~ Complete ~54:SAMPLE TEST CASSETTE AND ANALYTE TEST SYSTEM UTILIZING THE SAME  
~71:FOSS ANALYTICAL A/S, Nils Foss Alle 1, 3400, Hilleroed, Denmark ~72: ABBONDIO, Allan Bjerre;BORN,  
Christian;MATTHIESEN, Steen Hauge~ 33:DK ~31:PA202000257 ~32:28/02/2020

2022/03767 ~ Complete ~54:ORAL EXAMINATION DEVICE FOR ORAL MEDICINE ~71:HENAN MEDICAL  
COLLEGE, No. 8, Shuanghu County Avenue, Xinzheng Longhu Town, Zhengzhou, Henan, 451191, People's  
Republic of China ~72: LI, Jianbin;LI, Zitong;WANG, Kaiting~ 33:CN ~31:202010904903.8 ~32:01/09/2020

2022/03772 ~ Complete ~54:ADENOVIRUS VECTORS AND USES THEREOF ~71:Batavia Biosciences B.V.,  
Zernikedreef 16, LEIDEN 2333 CL, THE NETHERLANDS, Netherlands;Janssen Vaccines & Prevention  
B.V., Archimedesweg 4, LEIDEN 2333 CN, THE NETHERLANDS, Netherlands;Niklas Arnberg Konsult AB,  
Kopparv&#228;gen 22, UME&#197; 90750, SWEDEN, Sweden;The University Court of the University of  
Edinburgh, Old College, South Bridge, EDINBURGH EH8 9YL, UNITED KINGDOM, United Kingdom ~72:  
ARNBERG, Niklas;BAKER, Andrew;BALLMANN, M&#243;nika;CUSTERS, Jer&#244;me Hubertina Henricus  
Victor;HAVENGA, Menzo Jans Emko;KAJAN, Gyoza;LEMCKERT, Angelique Alida Corina~ 33:US  
~31:62/909,853 ~32:03/10/2019

2022/03777 ~ Complete ~54:SUSTAINABLE BLISTER PACKAGING ~71:GSK Consumer Healthcare SARL,  
Route de l&#39;Etraz, Prangins 1197, SWITZERLAND, Switzerland ~72: RASPAIL, Vincent Jean-Pierre~ 33:EP  
~31:19203030.2 ~32:14/10/2019

2022/03783 ~ Complete ~54:WASTEWATER TREATMENT SYSTEM ~71:TEVET WATER TECHNOLOGIES  
LTD., 39 Weitzman Street, 5401837 Givat Shmuel, Israel ~72: BNAYA ZIDON;EYTAN BARUCH  
LEVY;YEHOYADA AVIAH ZIDON~ 33:IL ~31:269764 ~32:02/10/2019

2022/03790 ~ Complete ~54:PERSONAL DENTAL CARE PRODUCT FOR PREVENTING DEMINERALISATION  
~71:CREDENTIS AG, Dorfstr. 69 5210, Switzerland ~72: HUG, Michael;LYSEK, Dominikus Amadeus~ 33:EP  
~31:19213470.8 ~32:04/12/2019

2022/03734 ~ Provisional ~54:DUST SUPPRESSION AND ROAD STABILISATION ~71:KUPHELA  
ENVIRONMENTAL SOLUTIONS (PTY) LTD, 1st Floor, Block 3, Beaulieu Office Park, Corner of Stallion and  
Papenfus Drive, South Africa ~72: BRITZ, Andries Petrus~

2022/03736 ~ Provisional ~54:A COMPUTERISED SYSTEM FOR PATIENT MANAGEMENT ~71:SIRLESHAN  
POOBALAN MOODLEY, SUITE E202, ISIZULU OFFICE PARK, South Africa ~72: SIRLESHAN POOBALAN  
MOODLEY~

2022/03740 ~ Complete ~54:LENTINUS EDODES FUNCTIONAL WARM TEA DRINK AND PREPARATION  
METHOD THEREOF ~71:Shanxi Institute for Functional Food, Shanxi Agricultural University, No. 79, Longcheng  
Street, Taiyuan City, Shanxi Province, 030031, People's Republic of China ~72: GUO, Shang;GUO, Xiaofei;LI,  
Yanting;NAN, Xiaojie~

2022/03744 ~ Complete ~54:METHOD FOR SYNTHESIZING ALKOXY CHLOROSILANE BY FUNCTIONAL  
GROUP EXCHANGE METHOD ~71:JIAYING University, No. 100, Meisong Road, Meijiang District, Meizhou City,  
Guangdong Province, 514015, People's Republic of China ~72: CHEN Guiting;DAI Chuanbo;HE Baitian;LI  
Long;LI Wenchao;WANG Hua~

2022/03750 ~ Complete ~54:DEVICE AND METHOD FOR CONNECTION OF METAL BAR AND NON-METAL  
BAR ~71:China Railway Construction Investment (Qingdao) Urban Development and Construction Co., Ltd., No.  
168, Ruichang Road, Shibei District, Qingdao City, Shandong Province, 266031, People's Republic of  
China;Qingdao University of Technology, No. 777 Jialingjiang East Road, Huangdao District, Qingdao City,

Shandong Province, 266520, People's Republic of China ~72: BAI, Xiaoyu;FAN, Caihong;FAN, Qinghou;JIN, Zuquan;JING, Desheng;LI, Cuicui;LIANG, Guowei;LIN, Zhenhua;MI, Jinwei;SUN, Gan;WANG, Fengjiao;YAN, Nan;ZHANG, Li;ZHANG, Mingyi;ZHANG, Shengkai~

2022/03752 ~ Complete ~54:DEVICE AND METHOD FOR RAPID DETECTION OF UPLIFT BEARING CAPACITY OF NON-METALLIC ANCHOR ROD ~71:China Railway Construction Investment (Qingdao) Urban Development and Construction Co., Ltd., No. 168, Ruichang Road, Shibei District, Qingdao City, Shandong Province, 266031, People's Republic of China;Qingdao University of Technology, No. 777 Jialingjiang East Road, Huangdao District, Qingdao City, Shandong Province, 266520, People's Republic of China ~72: BAI, Xiaoyu;FANG, Xiang;LI, Cuicui;LI, Ming;LIN, Zhenhua;LV, Chenglu;TU, Bingxiong;WANG, Bo;WANG, Yonghong;WANG, Zhongsheng;YAN, Nan;ZHANG, Changtai;ZHANG, Mingyi;ZHANG, Qijun;ZHANG, Wei~

2022/03756 ~ Complete ~54:BEARING ASSEMBLY WITH WEAR PROTECTION AND USAGE METHOD THEREOF ~71:Haian Hengyi Sliding Bearing Co., Ltd., No. 68 Kaiyuan Avenue, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: LEI, Weichuan;LU, Bin;LU, Wenzhou~ 33:CN ~31:202111497453.6 ~32:09/12/2021

2022/03757 ~ Complete ~54:NUCLEIC ACID SEQUENCE OF NOVEL HIGHLAND BARLEY HIGH MOLECULAR WEIGHT GLUTENIN SUBUNIT CODING GENE AND APPLICATION THEREOF ~71:Sichuan Agricultural University, No.211, Huimin Road, Wenjiang District, Chengdu City, Sichuan Province, People's Republic of China ~72: FENG Zongyun;KONG Deyuan;LIANG Lijing;LIU Xinchun;LIU Yajie~

2022/03761 ~ Complete ~54:SEMI-CLOSED DUST GUIDE DEVICE BETWEEN HYDRAULIC SUPPORTS OF FULLY MECHANIZED COAL MINING FACE OF COAL MINE ~71:China University of Mining and Technology, No1, Daxue Road, Xuzhou, Jiangsu, 221116, People's Republic of China ~72: Aihemaiti Aierzeguli;Changgeng Gui;Guangyu Dou;Guoxiang Wen;Hui Cheng;Jun Hou;Keran Huo;Liyuan Liu;Qiaosong Guo;Rongting Huang;Shihang Li;Shuda Hu;Tuerdaken Ahejuli;Yihan Lin;Yunxi Liu~

2022/03762 ~ Complete ~54:METHODS FOR TREATING IMMUNE THROMBOCYTOPENIA BY ADMINISTERING (R)-2-[3-[4-AMINO-3-(2-FLUORO-4-PHENOXY-PHENYL)PYRAZOLO[3,4-D]PYRIMIDIN-1-YL]PIPERIDINE-1-CARBONYL]-4-METHYL-4-[4-(OXETAN-3-YL)PIPERAZIN-1-YL]PENT-2-ENENITRILE ~71:PRINCIPIA BIOPHARMA INC., 220 East Grand Avenue, South San Francisco, California, United States of America ~72: BANDMAN, Olga;GOURLAY, Steven;LANGRISH, Claire;NEALE, Ann;NUNN, Philip;THOMAS, Dolca~ 33:US ~31:62/914,688 ~32:14/10/2019;33:US ~31:62/951,302 ~32:20/12/2019

2022/03766 ~ Complete ~54:AN INTELLIGENT ORAL IMAGING ELECTRIC TOOTHBRUSH ~71:HENAN MEDICAL COLLEGE, No. 8, Shuanghu County Avenue, Xinzheng Longhu Town, Zhengzhou, Henan, 451191, People's Republic of China ~72: LI, Jianbin;LI, Zitong;WANG, Kaiting~ 33:CN ~31:202010797563.3 ~32:10/08/2020

2022/03768 ~ Complete ~54:FLAT PLATE HEAT PIPE AND MANUFACTURING METHOD THEREFOR, AND HEAT EXCHANGER ~71:SHENZHEN FLUENTROP TECHNOLOGY CO., LTD., 1401, Building 1, Shuimu Yifang Building, No.286, Nanguang Road, Dawangshan Community, Nantou Street, Nanshan District, Shenzhen, Guangdong, 518055, People's Republic of China ~72: LI, YongYao;LV, ChuanWen;YANG, HuiZhu;ZHU, YongGang~ 33:CN ~31:202010797437.8 ~32:10/08/2020

2022/03773 ~ Complete ~54:TAP AND CONTAINER OR BEER KEG HAVING A TAP ~71:OAM GmbH, H&#246;henweg 24, WILHELMSFELD 69259, GERMANY, Germany ~72: OBERHOFER, Timm~ 33:DE ~31:10 2019 213 421.1 ~32:04/09/2019

2022/03774 ~ Complete ~54:STAPHYLOCOCCUS PEPTIDES AND METHODS OF USE ~71:Janssen Vaccines & Prevention B.V., Archimedesweg 4, LEIDEN 2333 CN, THE NETHERLANDS, Netherlands;The University of Chicago, 5801 South Ellis Avenue, CHICAGO 60637, IL, USA, United States of America ~72: CHEN, Xinhai;FERNANDEZ, Jeffrey A.;KIM, Hwan Keun;MISSIAKAS, Dominique;POOLMAN, Jan Theunis;SCHNEEWIND, Olaf;SHI, Miaomiao;SUN, Yan~ 33:US ~31:62/909,458 ~32:02/10/2019;33:US ~31:62/909,473 ~32:02/10/2019

2022/03776 ~ Complete ~54:METHODS OF TREATING EPILEPSY USING THE SAME ~71:Trevena, Inc., 955 Chesterbrook Blvd, Suite 110, CHESTERBROOK 19087, PA, USA, United States of America ~72: DEMITRACK, Mark A.;KRAMER, Michael S.~ 33:US ~31:62/896,116 ~32:05/09/2019

2022/03780 ~ Complete ~54:DETECTION OF SEQUENCES UNIQUELY ASSOCIATED WITH A DNA TARGET REGION ~71:PIONEER HI-BRED INTERNATIONAL, INC., 7100 NW 62nd Avenue, PO Box 1014, Johnston, Iowa, 50131-1014, United States of America ~72: AMANDA MARIE GANNON;ANANTA ACHARYA;CARISA TOWNSEND;GINA MARIE ZASTROW-HAYES;HENA GUO;KEVIN HAYES;LASANTHA UBAYASENA;ROBERT EBOW MCEWAN;ROBYN LYNN LASKOWSKI~ 33:US ~31:16/601,204 ~32:14/10/2019

2022/03782 ~ Complete ~54:SYSTEM AND METHOD FOR SUPPLYING RETURN ACTIVATED SLUDGE ~71:XYLEM WATER SOLUTIONS U.S.A., INC., 9333 North 49th Street, Brown Deer, Wisconsin, 53223, United States of America ~72: DARREN PAUL LAWRENCE~ 33:GB ~31:1913515.1 ~32:19/09/2019

2022/03787 ~ Complete ~54:RARE EARTH ELEMENT CONTAINING ZEOLITIC MATERIAL HAVING THE AEI FRAMEWORK TYPE AND COATED MONOLITH SUBSTRATE ~71:BASF SE, Carl-Bosch-Strasse 38, 67056, Ludwigshafen am Rhein, Germany ~72: ANDREI-NICOLAE PARVULESCU;CHUAN SHI;ROBERT MCGUIRE;ULRICH MUELLER;WEIPING ZHANG~ 33:CN ~31:PCT/CN2019/120528 ~32:25/11/2019

2022/03775 ~ Complete ~54:SUBSTITUTED CYANOPYRROLIDINES WITH ACTIVITY AS USP30 INHIBITORS ~71:Mission Therapeutics Limited, Babraham Hall, Babraham, CAMBRIDGE CB22 3AT, UNITED KINGDOM, United Kingdom ~72: KEMP, Mark Ian;LUCKHURST, Christopher Andrew;THOMPSON, Paul William~ 33:GB ~31:1912674.7 ~32:04/09/2019

2022/03735 ~ Provisional ~54:SNAIL PREPARATION PROCESS ~71:MICALLEF, Stanley Charles, 10 Orange Road, Farrarmere, South Africa ~72: MICALLEF, Stanley Charles~

2022/03739 ~ Complete ~54:SILKWORM CORDYCEPS MILITARIS FUNCTIONAL TEA DRINK AND PREPARATION METHOD THEREOF ~71:Shanxi Institute for Functional Food, Shanxi Agricultural University, No. 79, Longcheng Street, Taiyuan City, Shanxi Province, 030031, People's Republic of China ~72: GUO, Shang;GUO, Xiaofei;LI, Yanting;NAN, Xiaojie~

2022/03742 ~ Complete ~54:ADSORBENT WITH HIERARCHICAL POROUS NETWORK STRUCTURE, PREPARATION METHOD AND APPLICATION THEREOF ~71:Shihezi University, Room 220, Yifu experimental building, Middle District, Shihezi University, Beisi Road, Shihezi, Xinjiang, 832003, People's Republic of China ~72: HAO Yanyan;LI Xueqin;SUN Yu;WEI Zhong;XU Helin~

2022/03747 ~ Complete ~54:APPLICATION OF GDF15, UPAR AND IL1RL1 IN PREPARATION OF AUXILIARY DIAGNOSTIC REAGENT OR KIT FOR ACUTE KIDNEY INJURY ~71:Zhejiang University, NO.866 Yuhangtang Road, Xihu District, Hangzhou City, Zhejiang Province, People's Republic of China ~72: CHEN Jianghua;CHEN Yang;JIANG Hong;ZHANG Yichi~ 33:CN ~31:202111292683.9 ~32:03/11/2021

2022/03759 ~ Complete ~54:A SOLAR WATER HEATING SYSTEM ~71:JAMES ROGER FOURIE, 49 Wembley, Rupee Street, Strubens Valley, Johannesburg, 1735, South Africa ~72: JAMES ROGER FOURIE~ 33:ZA ~31:2021/02212 ~32:01/04/2021

2022/03771 ~ Complete ~54:BIOFOULING PROTECTION OF ELEVATED VOLUME/VELOCITY FLOWS ~71:BIOFOULING TECHNOLOGIES, INC., 105 Vann Place, Aberdeen, North Carolina, 28315, United States of America ~72: CALCUTT, Lindsey;KASTER, Jerry;MCMURRAY, Brian;RALSTON, Emily;SHARPE, Cliff;STEPHENS, Abraham;TERMINI, Mike~ 33:IB ~31:PCT/US2019/059546 ~32:01/11/2019;33:IB ~31:PCT/US2020/022782 ~32:13/03/2020;33:US ~31:63/020,826 ~32:06/05/2020

2022/03781 ~ Complete ~54:SELECTIVE DRUG RELEASE FROM INTERNALIZED CONJUGATES OF BIOLOGICALLY ACTIVE COMPOUNDS ~71:SEAGEN INC., 21823 30th Drive S.E., Bothell, Washington, 98021, United States of America ~72: DIVYA AWASTHI;NICOLE OKELEY;NOAH BINDMAN;PETER SENTER~ 33:US ~31:62/902,888 ~32:19/09/2019

2022/03784 ~ Complete ~54:METHOD AND MOBILE DETECTION UNIT FOR DETECTING ELEMENTS OF INFRASTRUCTURE OF AN UNDERGROUND LINE NETWORK ~71:DEEPU GMBH, Godesberger Allee 139, 53175, Bonn, Germany ~72: MARCO ARNOLD;MARCUS OPDENBERG;MICHAEL PUTZ;PETER R&#220;CKRICH;SINKA ISMAIL~ 33:DE ~31:10 2019 216 548.6 ~32:28/10/2019

- APPLIED ON 2022/04/04 -

2022/03797 ~ Provisional ~54:ENANTIOSELECTIVE METHODS FOR PREPARING PHARMACEUTICAL INTERMEDIATES ~71:UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG, 1 Jan Smuts Avenue, South Africa ~72: BRADY, Dean;MABOYA, Josephine Tshegofatso;PIENAAR, Daniel Petzer~

2022/03803 ~ Complete ~54:VERTICALITY DETECTOR FOR AUTOMOBILE OIL PUMP ROTORS ~71:Haian Eagle Ball Powder Metallurgy Co., Ltd., Haian Industrial Park, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: CHEN, Cunming;CHEN, Lulu;Shen, Chengxiu;WANG, Chunguan~ 33:CN ~31:202111467848.1 ~32:03/12/2021

2022/03810 ~ Complete ~54:A KIND OF PHENYLSILOLE-BASED CONJUGATED MICROPOROUS POLYMER WITH ITS PREPARATION METHOD AND APPLICATION ~71:Anqing Normal University, Jixian North Road 1318, YiXiu district, Anqing City, Anhui Province, People's Republic of China ~72: Geng Tongmou;Hu Chen;Liu Min;Zhu Feng~

2022/03820 ~ Complete ~54:A METHOD FOR SYNTHESIS AND EVALUATION OF IN VITRO ANTITUMOR ACTIVITY OF NOVEL 5-(4-BROMOPHENYL)-1,3-OXAZOLE DERIVATIVES ~71:GOLANI, Pradeep, Gyan Ganga Institute of Technology & Sciences, Tilwara Ghat Road, Near Bargi Hills, Jabalpur, India;LODHI, Devendra Singh, Gyan Ganga Institute of Technology & Sciences, Tilwara Ghat Road, Near Bargi hills, Jabalpur, India;MUDE, Gaurav, Shri. Prakashchand Jain College of Pharmacy & Research, Palaskhede (Bk.), Jamner, India;NAGDEV, Sanjay, Gyan Ganga Institute of Technology & Sciences, Tilwara GhatRoad, Near Bargi hills, Jabalpur, India;PATEL, Bhavesh, Rani Durgavati Vishvavidyalaya, PG Studies in Chemistry & Pharmacy, Department, Jabalpur, India;USMAN, Mohammed Rageeb Mohammed, 2/899 SURMAZ Villa, KGN Colony, Chopda, India;VERMA, Megha, Gyan Ganga Institute of Technology & Sciences, Tilwara GhatRoad, Near Bargi hills, Jabalpur, India ~72: GOLANI, Pradeep;LODHI, Devendra Singh;MUDE, Gaurav;NAGDEV, Sanjay;PATEL, Bhavesh;USMAN, Mohammed Rageeb Mohammed;VERMA, Megha~

2022/03828 ~ Complete ~54:AIR-BOOM SPREADER FOR PARTICULATE MATERIAL ~71:SALFORD GROUP INC, 364018 McBeth Road Salford, Canada ~72: AVERINK, John Mark;BAKER, Bradley William;DYCK, Jesse



Abram;GOVEIA, Simon;GRAY, Geof J;LEHMAN, Adam Peter;PASMA, Chad Derek;POPPE, Christopher Michael;STRAATMAN, Troy Michael~ 33:US ~31:62/908,132 ~32:30/09/2019

2022/03792 ~ Provisional ~54:PV (PHOTO-VOLTAIC) PANEL PROTECTION DEVICE ~71:PowerON Technologies (Pty) Ltd., Unit F16, Misty Bay, Vaal Marina, MEYERTON 1945, Gauteng, SOUTH AFRICA, South Africa ~72: PUTTER, Andries Hercules~

2022/03798 ~ Provisional ~54:PICKPOINT APP (ONLINE MARKETPLACE) ~71:PickPoint, 19 Wilderview, Main Avenue, South Africa ~72: Lukhanyo Manisi~

2022/03809 ~ Complete ~54:QUALITY EVALUATION METHOD AND SYSTEM OF FORESTRY SPATIAL DATA ~71:Institute of Forest Resource Information Techniques, Chinese Academy of Forestry, No. 2 Dongxiaofu, Haidian District, Beijing, 100091, People's Republic of China ~72: HU, Shuping;WANG, Yiquan~

2022/03819 ~ Complete ~54:A METHOD FOR DETERMINATION OF INFLUENCE OF FE DOPING ON PROPERTIES OF CHEMICALLY GROWN CDS THIN FILMS ~71:BAJAJ, Nikhilesh Subhashchandra, Department of Physics, Toshniwal Arts, Commerce and Science College, Sengaon, Hingoli, India;DUDHAMAL, Munjaji Eknath, Department of Physics, Toshniwal Arts, Commerce and Science College, Sengaon, Hingoli, India;GAWANDE, Atul Bapurao, Department of Physics and Electronics, MVPS K. S. K. W. Arts, Science and Commerce College, CIDCO, Nashik, India;GHOSH, Arindam Abhiram, Department of Physics, Ramchandra chandravanshi University, Bishrampur, India;GOSAVI, Sunil Rameshgir, Department of Physics, C.H. C. Arts, S. G. P. Commerce and B.B. J. P. Science College, Taloda, Nandurbar, India;JOSHI, Rajesh Arun, Department of Physics, Toshniwal Arts, Commerce and Science College, Sengaon, Hingoli, India;PAWAR, Jayesh Rajendra, Department of Physics, Toshniwal Arts, Commerce and Science College, Sengaon, Hingoli, India ~72: BAJAJ, Nikhilesh Subhashchandra;DUDHAMAL, Munjaji Eknath;GAWANDE, Atul Bapurao;GHOSH, Arindam Abhiram;GOSAVI, Sunil Rameshgir;JOSHI, Rajesh Arun;PAWAR, Jayesh Rajendra~

2022/03826 ~ Complete ~54:HIGH CARBON STEEL TRACK BUSHING ~71:CATERPILLAR INC., 100 NE Adams Street, United States of America ~72: KEELE, Scott E.;KISER, Matthew Thomas;PICKERILL, Robert Jason;RATHOD, Chandrasen Rameshlal;RECKER, Roger Lee~ 33:US ~31:16/584,158 ~32:26/09/2019

2022/03838 ~ Complete ~54:POLYAMINE ANALOG PRODUCING YEASTS ~71:CHRYSEA LIMITED, The Black Church, St Mary's Place, Dublin, D07 P4AX, Ireland ~72: JENS NIELSEN;JIUFU QIN~ 33:SE ~31:1951231-8 ~32:28/10/2019

2022/03824 ~ Complete ~54:CUTTING EDGE ASSEMBLY FOR A WORK TOOL ASSOCIATED WITH A MACHINE AND METHOD OF ITS MANUFACTURE ~71:CATERPILLAR INC., 100 NE Adams Street, United States of America ~72: CONGDON, Thomas Marshall;MASKA, George;PARZYNSKI Jr., David B.~ 33:US ~31:16/579,130 ~32:23/09/2019

2022/03832 ~ Complete ~54:CO-PRODUCTION OF HIGH PURITY ISOBUTANE AND BUTENE-1 FROM MIXED C4S ~71:LUMMUS TECHNOLOGY LLC, 5825 North Sam Houston Parkway West, United States of America ~72: ALMERING, Martinus Johannes;BARIAS, Rosette;LEMOINE, Romain;SCOTT, Michael Jon~ 33:US ~31:62/911,541 ~32:07/10/2019

2022/03794 ~ Provisional ~54:ALLEN KEY ORGANIZER ~71:Willem Nicolaas van Rensburg, 56 4th street, Linden, South Africa ~72: WILLEM NICOLAAS VAN RENSBURG~

2022/03801 ~ Complete ~54:TURNING OVER AUXILIARY BED FOR MEDICAL CARE ~71:Affiliated Hospital of Youjiang Medical University for Nationalities, 18 Zhongshan 2nd Road, Youjiang District, Baise City, Guangxi

Zhuang Autonomous Region, People's Republic of China ~72: CHEN Qiuru;HUANG Cuimai;HUANG Lianxin;HUANG Yanqiu;WANG Jianyuan~

2022/03805 ~ Complete ~54:RUBBER COMPOSITE AND PREPARATION PROCESS AND USE THEREOF ~71:Qingdao University of Science and Technology, No. 51-1, Wuyang Road, Shibei District, Qingdao City, Shandong, 266042, People's Republic of China ~72: MA, Ji;MA, Yongjie;SUI, Jing;SUN, Chong;YU, Guangshui;ZHUANG, Tao~

2022/03812 ~ Complete ~54:SCANNING METHOD, DEVICE AND SYSTEM BASED ON TOTAL STATION ~71:China Railway Construction Corporation (International) Limited, Part of the 1st floor, 2nd-4th Floor and 7th Floor, China Railway Construction Scientific Research Building, No. 40 Fuxing Road, Haidian District, Beijing, 100040, People's Republic of China ~72: Chen Lei;Huang Taorui;Li Bai;Lin Meikun;Liu Dawei;Ma Gaofeng;Shen Jiayong;Wu Jingjing;Zhang Jian;Zheng Tianli~ 33:CN ~31:202111054245.9 ~32:09/09/2021

2022/03842 ~ Complete ~54:INORGANIC DEGRADABLE PLASTIC MASTERBATCH MATERIAL, AND PREPARATION METHOD THEREFOR ~71:ZHEJIANG SHANLIAN NEW MATERIALS TECHNOLOGY CO., LTD, CAI, Jianyong Langshan Industrial Park, People's Republic of China ~72: CAI, Jianyong;CAI, Lichenxia;LI, Ruiya~ 33:CN ~31:201910845341.1 ~32:09/09/2019

2022/03793 ~ Provisional ~54:COLOR CODED SIGNAL STICK FOR MINI BUS TAXY AND GOLDEN ARROW BUSES ~71:Glynnis, 5 Ishack Road, South Africa;Glynnis Cloete, 5 Ishack Road, South Africa;Glynnis Cloete, 5 Ishack Road, South Africa ~72: Glynnis Cloete~

2022/03799 ~ Complete ~54:MACHINE FOR RECOVERING RESIDUAL MULCH FILM FRAGMENTS IN AGRICULTURAL SOIL BASED ON ELECTROSTATIC ADSORPTION ~71:Guizhou Academy of Tobacco Science, Guiyang, China, No. 29, Longtanba Road, Guanshanhu District, Guiyang City, Guizhou Province, People's Republic of China;Guizhou Ecological Agriculture and Resource Protection Station,China, 75 Yan'an East Road, Guiyang, Guizhou, People's Republic of China;Guizhou Minzu University, Dong Jia Yan, Huaxi District, Guiyang City, Guizhou Province, People's Republic of China ~72: DAI Liangyu;GAO Weichang;LI Liangliang;LIU Bangyu;LIU Taoze;ZHANG Shuyi~

2022/03829 ~ Complete ~54:METHODS OF PROMOTING SCFA PRODUCTION BY GUT MICROBIOTA ~71:Multigerm UK Enterprises Ltd, Sandy Farm Business Centre, The Sands, FARNHAM GU10 1PX, SURREY, UNITED KINGDOM, United Kingdom ~72: BUTLER, Michael;SMITH, Barry~ 33:GB ~31:1915144.8 ~32:18/10/2019

2022/03841 ~ Complete ~54:RODENT TRAPS ~71:RENTOKIL INITIAL 1927 PLC, Riverbank Meadows Business Park, Blackwater, Camberley, Surrey, GU17 9AB, United Kingdom ~72: GARY WINGETT;JOHN MCCAIG;MICHAEL BEST;NEILS HANSEN~ 33:GB ~31:1913904.7 ~32:26/09/2019

2022/03811 ~ Complete ~54:TRADITIONAL CHINESE MEDICINE FORMULA FOR TREATING DIABETES AND PREPARATION METHOD THEREOF ~71:North China University of Science and Technology, No.21 Bohai Avenue, Caofeidian new town, Tangshan City, Hebei Province, People's Republic of China ~72: DU Yangyang;GAO Xiujuan;HUO Yiduo;LI Ji'an;MA Huixia;QIU Changlong;TIAN Chunyu;YAN Hongcan;YAN Xin;YU Rongxia;ZHANG Teng~

2022/03816 ~ Complete ~54:PREPARATION METHOD OF GINSENG PURPLE TEA ~71:Tea Research Institute, Guangdong Academy of Agricultural Sciences, No. 6, Dafeng Road, Wushan, Tianhe District, GUANGZHOU CITY 510640, GUANGDONG PROVINCE, CHINA (P.R.C.), People's Republic of China ~72: FANG, Kaixing;HUANG, Hualin;JIANG, Xiaohui;LI, Bo;LI, Hongjian;NI, Erdong;PAN, Chendong;QIN, Dandan;WANG, Qing;WANG, Qiushuang;WU, Hualing~

2022/03821 ~ Complete ~54:NEW BH3 MIMETIC PEPTIDE ANALOGUE FOR INHIBITING PTP1B ACTIVITY AND APPLICATION THEREOF ~71:Qingdao University of Science and Technology, No.53 Zhengzhou Rd, Shibei District, Qingdao, Shandong, People's Republic of China ~72: Zhang Chuanliang~ 33:CN ~31:202011518318.0 ~32:21/12/2020

2022/03836 ~ Complete ~54:IMMUNOBIOLOGICAL AGENT FOR INDUCING SPECIFIC IMMUNITY AGAINST SEVERE ACUTE RESPIRATORY SYNDROME VIRUS SARS-COV-2 ~71:FEDERAL STATE BUDGETARY INSTITUTION "NATIONAL RESEARCH CENTRE FOR EPIDEMIOLOGY AND MICROBIOLOGY NAMED AFTER THE HONORARY ACADEMICIAN N.F. GAMALEYA" OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION, ul. Gamalei 18, Moscow, 123098, Russian Federation ~72: ALEKSANDR LEONIDOVICH GINTSBURG;ALEKSANDR SERGEEVICH SEMIKHIN;ALINA SHAHMIROVNA DZHARULLAEVA;AMIR ILDAROVICH TUKHVATULIN;ANDREI GENNADEVICH BOTIKOV;BORIS SAVELIEVICH NARODITSKY;DARIA MIKHAILOVNA GROUSOVA;DENIS YURYEVICH LOGUNOV;DMITRII NIKOLAEVICH SHCHERBININ;DMITRII VIKTOROVICH SHCHEBLIAKOV;ELIZAVETA ALEXANDROVNA TOKARSKAYA;ILIAS BULATOVICH ESMAGAMBETOV;INNA VADIMOVNA DOLZHIKOVA;NATALIA MIKHAILOVNA TUKHVATULINA;OLGA POPOVA;OLGA VADIMOVNA ZUBKOVA;SERGEY VLADIMIROVICH BORISEVICH;TATIANA ANDREEVNA OZHAROVSKAIA~ 33:RU ~31:2020114424 ~32:23/04/2020

2022/03839 ~ Complete ~54:POLYAMINE CONJUGATE PRODUCING YEASTS ~71:CHRYSEA LIMITED, The Black Church, St Mary's Place, Dublin, D07 P4AX, Ireland ~72: JENS NIELSEN;JIUFU QIN~ 33:SE ~31:1951232-6 ~32:28/10/2019

2022/03795 ~ Provisional ~54:MONITORING DEVICE ~71:HOWLING WOLF MARKETING & DEVELOPMENT PTY (LTD), 105 Warbler Street, Cotswold, South Africa ~72: LABUSCHAGNE, Austin;O'CONNELL, Justen;PRETORIUS, Willie~

2022/03808 ~ Complete ~54:PROSTATE CANCER PREDICTION SYSTEM BASED ON COPB2 AND NUPR1 ~71:Affiliated Hospital of Jiangnan University, No.1000 Hefeng Road, Binhu District, Wuxi City, Jiangsu Province, People's Republic of China ~72: MI Yuanyuan;WANG Jun;ZHU Lijie~

2022/03815 ~ Complete ~54:METHOD AND APPARATUS FOR CONTROLLING SEMI-PERSISTENT SCHEDULING ~71:NAM, Jungkil, 803-2103, 153, DONGPANGYO-RO, BUNDANG-GU, SEONGNAM-SI, GYEONGGI-DO 13525, REPUBLIC OF KOREA, Republic of Korea ~72: KWON, Ki Bum;PARK, Dong Hyun~ 33:KR ~31:10-2016-0102422 ~32:11/08/2016

2022/03825 ~ Complete ~54:REPLACEABLE BASKET FOR A BUCKET FOR A MACHINE ~71:CATERPILLAR GLOBAL MINING LLC, 875 W. Cushing Street, United States of America ~72: HOOIJMANS, Willem;KINDT, Andre;VAN DER LINDEN, Frank~ 33:WO ~31:PCT/US2019/052629 ~32:24/09/2019

2022/03834 ~ Complete ~54:GLP-1R MODULATING COMPOUNDS ~71:Gilead Sciences, Inc., 333 Lakeside Drive, Foster City, United States of America ~72: AMMANN, Stephen E.;BRIZGYS, Gediminas J.;CASSIDY, James S.;CHIN, Elbert;CHOU, Chienhung;COTTELL, Jeromy J.;GRAUPE, Michael;HUNG, Chao-I;KOLAHDOUZAN, Kavos;SCHROEDER, Scott D.;SHAPIRO, Nathan D.;SHORE, Daniel G.;SZEWCZYK, Suzanne M.;TAYLOR, James G.;THOMAS-TRAN, Rhiannon;WRIGHT, Nathan E.;YANG, Zheng-Yu;ZIPFEL, Sheila M.~ 33:US ~31:62/926,270 ~32:25/10/2019;33:US ~31:63/028,187 ~32:21/05/2020

2022/03837 ~ Complete ~54:PROCESS FOR DOPING GRAPHENE WITH NITROGEN AND SULFUR BY REDUCING GRAPHENE OXIDE WITH MICROORGANISMS, NITROGEN- AND SULFUR-DOPED GRAPHENE THUS OBTAINED AND ITS USE ~71:BIOENE TECHNOLOGIES S.&#192; R.L., 231, Val des Bons Malades, 2121, Luxembourg ~72: VALENTINO IAKIMOV~ 33:IT ~31:102019000017291 ~32:26/09/2019



2022/03818 ~ Complete ~54:MIXING HEAD ~71:JOHAN VOLSCHENK, 338 ONTDEKKERS ROAD, South Africa  
~72: JOHAN VOLSCHENK~

2022/03840 ~ Complete ~54:ELECTRODE FOR ELECTROCHEMICAL EVOLUTION OF HYDROGEN  
~71:INDUSTRIE DE NORA S.P.A., Via Bistolfi 35, 20134, Milan, Italy ~72: ALICE CALDERARA;LUCIANO  
IACOPETTI~ 33:IT ~31:102019000020026 ~32:30/10/2019

2022/03843 ~ Complete ~54:GPR119 AGONISTS ~71:KALLYOPE, INC., 430 East 29th Street, 10th Floor, New  
York, United States of America ~72: HE, Shuwen;MOYES, Christopher;SEBHAT, Iyassu~ 33:US  
~31:62/911,833 ~32:07/10/2019

2022/03807 ~ Complete ~54:LOW-COST EFFICIENT PREMIXED FLUIDIZED SOLIDIFIED SOIL AND  
PREPARATION METHOD THEREOF ~71:Taiyuan University of Technology, No. 79, Yingze West Street,  
Wanbailin District, Taiyuan City, Shanxi, 030024, People's Republic of China ~72: CHENG, Yin;DONG,  
Xiaoqiang;FENG, Wenkui;GAO, Haibiao;KONG, Fansheng;WANG, Linhao;WANG, Zhichao~

2022/03814 ~ Complete ~54:METHOD AND APPARATUS FOR CONTROLLING SEMI-PERSISTENT  
SCHEDULING ~71:NAM, Jungkil, 803-2103, 153, DONGPANGYO-RO, BUNDANG-GU, SEONGNAM-SI,  
GYEONGGI-DO 13525, REPUBLIC OF KOREA, Republic of Korea ~72: KWON, Ki Bum;PARK, Dong Hyun~  
33:KR ~31:10-2016-0102422 ~32:11/08/2016

2022/03822 ~ Complete ~54:METHOD FOR PREPARING ARYL 2-TETRAZOL-2-YL KETONE WITH IMPROVED  
SELECTIVITY ~71:SK BIOPHARMACEUTICALS CO., LTD., 221, Pangyoyeok-ro, Bundang-gu, Republic of  
Korea ~72: CHA, Kyung Mi;LEE, Kyu Woong;WOO, Ji Seon;YEOM, Su Yeon~ 33:KR ~31:10-2019-0133120  
~32:24/10/2019;33:US ~31:16/662,547 ~32:24/10/2019

2022/03830 ~ Complete ~54:HOPPER FOR COFFEE GRINDER MACHINE EQUIPPED WITH A LOWER  
CLOSURE DEVICE TO SAVE BEANS AND COFFEE GRINDER MACHINE EQUIPPED WITH THIS HOPPER  
~71:La Marzocco S.r.l., Via La Torre, 14/H, SCARPERIA (FI) 50038, ITALY, Italy ~72: DIONISIO,  
Andrea;DONNINI, Mario~ 33:IT ~31:102019000019088 ~32:16/10/2019

2022/03800 ~ Complete ~54:METHODS FOR ANALYSIS OF VIRAL CAPSID PROTEIN COMPOSITION  
~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, United States of  
America ~72: WANG, Shunhai~ 33:US ~31:62/750,583 ~32:25/10/2018

2022/03806 ~ Complete ~54:METHOD FOR PREPARING SOIL MATRIX BY RECYCLING DREDGE SEDIMENT  
AND GARBAGE HUMUS SOIL ~71:Environmental Technology Development Of Tiwte (Tianjin) Co., Ltd., NO.  
2618 Xin&#39;gang 2nd Road, Binhai New District, Tianjin City, 300450, People's Republic of China;Tianjin  
Research Institute for Water Transport Engineering, Ministry of Transport, NO. 37 Xin&#39;gang 2nd Road,  
Binhai New District, Tianjin City, 300450, People's Republic of China;Tianjin Survey and Design Institute for Water  
Transport Engineering Co., Ltd., NO.1199 Marine sci-tech park, Xia&#39;men Road, Tanggu Zone, Binhai New  
District, Tianjin City, 300450, People's Republic of China ~72: CAO Lihua;HAN Xue;LI Guangtao;LI Xiuli;WANG  
Jiangong~

2022/03813 ~ Complete ~54:SYSTEM FOR PREDICTING AND ANALYZING MINING SUBSIDENCE IN MINING  
AREA ~71:Anhui University of Science and Technology, No.168 Taifeng Road, Huainan City, Anhui Province,  
232001, People's Republic of China ~72: LIU Chao;TAN Hao;YANG Xu;YU Xuexiang;ZHU Mingfei~

2022/03823 ~ Complete ~54:GAS ULTRASONIC TRANSDUCER SYSTEM AND METHOD FOR OPERATING A  
DIESEL COMMON-RAIL ENGINE ~71:ABLABS, SIA., Rupniecibas iela 15-28, Jurmala, LV-2016, Latvia ~72:  
BONOMI, Alberto~ 33:WO ~31:PCT/IB2019/058736 ~32:14/10/2019

2022/03831 ~ Complete ~54:FAST CONSOLIDATING COMPOUNDS ~71:Universit&#228;t Innsbruck, Innrain 52, INNSBRUCK 6020, AUSTRIA, Austria ~72: BRAUN, Doris Elfride;GRIESSER, Ulrich;NOISTERNIG, Michael F.;SCH&#214;NEMANN, Magdalena Sonja~ 33:EP ~31:19195674.7 ~32:05/09/2019

2022/03796 ~ Provisional ~54:SOCCER HALO - HEAD PROTECTION ~71:Mark Lentin, 36 6th Road, South Africa ~72: Mark Lentin~

2022/03802 ~ Complete ~54:A ROBUST MODEL PREDICTIVE CURRENT CONTROL METHOD AND DEVICE FOR PERMANENT MAGNET SYNCHRONOUS MOTOR ~71:China University of Mining and Technology, Jiangsu Province, Xuzhou City, Tongshan District, No. 1 of Daxue Road, 221116, People's Republic of China ~72: Chao Li;Guojun Tan;Jiazhe Zhang;Jifeng Zhu;Xiang Wu;Xu Zhang;Zehao Lv~ 33:CN ~31:202110634269.5 ~32:07/06/2021

2022/03804 ~ Complete ~54:A SIMULTANEOUS MULTIPLEX TYPING SYSTEM OF X CHROMOSOMAL MULTI-DIPS FOR KINSHIP TESTING ~71:Forensic Medicine School of Guizhou Medical University, No. 9 Beijing Road, Yunyan District, Guiyang City, Guizhou Province, People's Republic of China ~72: DING Jiuyang;HUANG Jiang;JI Jingyan;JIN Xiaoye;LIU Yubo;REN Zheng;WANG Qiyan;XIA Bing;ZHANG Hongling;ZHOU Guiyin~

2022/03817 ~ Complete ~54:FUEL THEFT DETERMINATION APPARATUS, FUEL THEFT DETERMINATION SYSTEM AND COMPUTER-READABLE MEDIUM ~71:Yazaki Energy System Corporation, 4-28, Mita 1-Chome, MINATO-KU, TOKYO 108-8333, JAPAN, Japan ~72: SUZUKI, Hideaki~ 33:JP ~31:2021-064312 ~32:05/04/2021;33:JP ~31:2022-023056 ~32:17/02/2022

2022/03827 ~ Complete ~54:TRACK CHAIN COMPONENTS WITH HARDFACE OVERLAY ~71:CATERPILLAR INC., 100 NE Adams Street, United States of America ~72: KEELE, Scott E.;PICKERILL, Robert J.;RATHOD, Chandrasen R.;RECKER, Roger L.;SORDELET, Daniel J.;WEAVER, Douglas T.~ 33:US ~31:16/591,250 ~32:02/10/2019

2022/03833 ~ Complete ~54:FAÇADE STRUCTURE ~71:ASH & LACY HOLDINGS LIMITED, Ash & Lacy House, Bromford Lane, United Kingdom ~72: EVANS, Jonathan;TIAN, Yisheng~ 33:GB ~31:1912747.1 ~32:05/09/2019

2022/03835 ~ Complete ~54:AIR-COMPRESSION NITROGEN GENERATION SYSTEM ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9, Chunxiu Road, Dongcheng District, Beijing, 100027, People's Republic of China ~72: JIAYAN YANG~ 33:CN ~31:202010839367.8 ~32:19/08/2020

- APPLIED ON 2022/04/05 -

2022/03846 ~ Provisional ~54:SYSTEM AND METHOD TO SECURE REMOTE ANCHOR ~71:JACOBS, Arno, 9 Valk St, South Africa ~72: JACOBS, Arno~

2022/03849 ~ Complete ~54:A PUBLIC KEY ENCRYPTION METHOD WITH PLAINTEXT NON-MALLEABLE AND CIPHERTEXT RANDOMIZABLE ~71:Zhejiang Gongshang University, No.18, Xuezheng Str., Xiasha Higher Education Park, Hangzhou, Zhejiang, 310018, People's Republic of China ~72: Chenyu Zhou;Hualiang Tao;Shi Meng;Xijuan Liu;Zhenyue Chen~

2022/03854 ~ Complete ~54:NOVEL INTELLIGENT MONITORING ROBOT FOR AQUACULTURE WATER ENVIRONMENT ~71:FISHERY MACHINERY AND INSTRUMENT RESEARCH INSTITUTE, CHINESE ACADEMY OF FISHERY SCIENCES, No. 63 Chifeng Road, People's Republic of China ~72: LIU, Andong;ZHANG, Chenglin;ZHANG, Yulei~ 33:CN ~31:202111474198.3 ~32:17/12/2021

2022/03859 ~ Complete ~54:METHOD FOR ROTARY CLEARING IN STRIPPING TOOTH HOLDER OF MINING MACHINE AND ROTARY CLEARING DEVICE IN STRIPPING TOOTH HOLDER ~71:LIU, Suhua, Information Section ZHANG Shide, People's Republic of China ~72: LIU, Suhua~ 33:CN ~31:201910852883.1 ~32:10/09/2019

2022/03867 ~ Complete ~54:HOMOPIPERAZINYL AND HOMOPIPERIDINYL QUINAZOLIN-4(3H)-ONE DERIVATIVES HAVING MULTIMODAL ACTIVITY AGAINST PAIN ~71:ESTEVE PHARMACEUTICALS, S.A., Passeig de la Zona Franca, 109, 4<sup>a</sup> 170; Planta , 08038, Barcelona, Spain ~72: ARIADNA FERNANDEZ-DONIS;CARMEN ALMANSA-ROSALES;JOSÉ;LUIS;S DÍAZ;AZ-FERNÁNDEZ;MARC;NICA GARCIA-LOPEZ;SERGI RODRIGUEZ-ESCRICH;UTE CHRISTMANN~ 33:EP ~31:19382890.2 ~32:10/10/2019

2022/03876 ~ Complete ~54:STEAM WAND AND METHOD FOR FROTHING MILK ~71:La Marzocco S.r.l., Via La Torre, 14/H, SCARPERIA (FI) 50038, ITALY, Italy ~72: DIONISIO, Andrea;PIERI, Simone~ 33:IT ~31:102019000018983 ~32:16/10/2019

2022/03884 ~ Provisional ~54:VAPOUR CIGARATE ~71:NAKEDI MICHAEL DIKGALE, 26 MAKHURUNTSI STREET SAULSVILLE GAUTENG, South Africa ~72: NAKEDI MICHAEL DIKGALE ~

2022/03887 ~ Complete ~54:REDUCING HARMONIC DISTORTION BY DITHERING ~71:ULTRALEAP LIMITED, West Wing One Glass Wharf, United Kingdom ~72: KAPPUS, Brian;LONG, Benjamin John Oliver~ 33:US ~31:62/914,487 ~32:13/10/2019

2022/03852 ~ Complete ~54:DOUBLE-CHANNEL SEWAGE DISCHARGE DEVICE FOR SEA CUCUMBER CULTURE POND AND WORKING METHOD THEREOF ~71:FISHERY MACHINERY AND INSTRUMENT RESEARCH INSTITUTE, CHINESE ACADEMY OF FISHERY SCIENCES, No. 63 Chifeng Road, People's Republic of China ~72: GU, Chuanchuan;ZHANG, Haigeng;ZHANG, Yulei~ 33:CN ~31:202210042947.3 ~32:14/01/2022

2022/03861 ~ Complete ~54:A SYSTEM AND METHOD FOR OBTAINING AN X-RAY IMAGE OF A SUBJECT ~71:ADAPTIX LIMITED, BEGBROKE SCIENCE PARK, CENTRE FOR INNOVATION AND ENTERPRISE (CIE), WOODSTOCK ROAD, BEGBROKE, OXFORDSHIRE OX5 1PF, UNITED KINGDOM, United Kingdom ~72: DIRCKX, Conrad~ 33:GB ~31:1915036.6 ~32:17/10/2019

2022/03871 ~ Complete ~54:PARTIAL DOWNLOADS OF COMPRESSED DATA ~71:MICROSOFT TECHNOLOGY LICENSING, LLC, One Microsoft Way, Redmond, Washington, 98052-6399, United States of America ~72: MIGUEL DE ICAZA AMOZURRUTIA~ 33:US ~31:16/682,937 ~32:13/11/2019

2022/03877 ~ Complete ~54:HEAT RECEIVER FOR URBAN CONCENTRATED SOLAR POWER ~71:Suncom Energy B.V., Atoomweg 9, UTRECHT 3542 AA, THE NETHERLANDS, Netherlands ~72: ARNTZ, Hendrikus Petrus Maria;RAGGI, Claudio;TRIVELLI, Gianluigi~ 33:US ~31:62/916,022 ~32:16/10/2019;33:US ~31:62/969,106 ~32:02/02/2020;33:US ~31:63/028,026 ~32:21/05/2020;33:US ~31:63/058,626 ~32:30/07/2020

2022/03882 ~ Complete ~54:METHOD FOR SYNTHESIZING MOLECULAR SIEVE MEMBRANE WITH HIGH WATER-PERMEABILITY ~71:Huangshan University, No. 39 Xihai Road, Tunxi District, Anhui Province, People's Republic of China ~72: Jiajia Li;Liangqing Li;Liangsong Li~ 33:CN ~31:202110144622.1 ~32:02/02/2021

2022/03886 ~ Complete ~54:DYNAMIC CAPPING WITH VIRTUAL MICROPHONES ~71:ULTRALEAP LIMITED, The West Wing One Glass Wharf, United Kingdom ~72: LONG, Benjamin John Oliver~ 33:US ~31:62/914,502 ~32:13/10/2019

2022/03869 ~ Complete ~54:RESERVOIR-REGULATING DIGITAL LOAD CONTROL ~71:LONE GULL HOLDINGS, LTD., 5331 SW Macadam Ave., Suite 258-332, Portland, Oregon 97239, United States of America ~72: BRIAN LEE MOFFAT; DANIEL WILLIAM PLACE; GARTH ALEXANDER SHELDON-COULSON; IVAR LEE THORSON~ 33:US ~31:62/911,932 ~32:07/10/2019;33:US ~31:63/004,299 ~32:02/04/2020;33:US ~31:63/087,387 ~32:05/10/2020

2022/03874 ~ Complete ~54:PROCESS FOR PREPARING ALUMINA ~71:Alcoa of Australia Limited, Alumina Centre of Excellence, Corner Davy and Marmion Streets, BOORAGOON 6154, WESTERN AUSTRALIA, AUSTRALIA, Australia ~72: BARONI, Travis; BECKHAM, Kevin Ronald; DYE, Shannon Troy; LAMACCHIA, Robert Joseph~ 33:AU ~31:2019903300 ~32:06/09/2019

2022/03862 ~ Complete ~54:ARTICLE AND DRESSING FOR IMPROVED HEALING AND METHODS OF USE ~71:COMPUTER REEL DESIGNS PTY LIMITED, 770 Bagotville Road, Alstonville, Australia ~72: CRAIG, Rosemary~ 33:AU ~31:2019903334 ~32:09/09/2019;33:AU ~31:2020900013 ~32:05/01/2020

2022/03863 ~ Complete ~54:CONDITIONAL CONFIGURATION IN MULTI-CONNECTIVITY OPERATION ~71:TELEFONAKTIEBOLAGET LM ERICSSON (PUBL), 164 83, Sweden ~72: BERGSTR&#214;M, Mattias; DA SILVA, Icaro L. J.; EKL&#214;F, Cecilia~ 33:US ~31:62/927,072 ~32:28/10/2019

2022/03870 ~ Complete ~54:VIRTUAL ENVIRONMENT TYPE VALIDATION FOR POLICY ENFORCEMENT ~71:MICROSOFT TECHNOLOGY LICENSING, LLC, One Microsoft Way, Redmond, Washington, 98052-6399, United States of America ~72: ABHIJAT SINGH; AHMED SARUHAN KARADEMIR; AMBER TIANQI GUO; BALAJI BALASUBRAMANYAN; BENJAMIN M SCHULTZ; CARLOS ERNESTO PEZA RAMIREZ; CHASE THOMAS; GUPTA SHUBHAM; HARI R PULAPAKA; TUSHAR SURESH SUGANDHI~ 33:US ~31:16/672,429 ~32:01/11/2019

2022/03872 ~ Complete ~54:INHIBITING HUMAN INTEGRIN ALPHA4BETA7 ~71:MORPHIC THERAPEUTIC, INC., 35 Gatehouse Drive, A2 Waltham, Massachusetts, 02451, United States of America ~72: ALEKSEY I GERASYUTO; BLAISE S LIPPA; BRUCE N ROGERS; BRYCE A HARRISON; BYUNGCHAN KIM; CHENG ZHONG; DAN CUI; DAWN M TROAST; EUGENE HICKEY; EVELYNE HOUANG; FU-YANG LIN; JAMES E DOWLING; KRISTOPHER N HAHN; KYLE D KONZE; MATTHEW G BURSAVICH; ROBERT ZAHLER; SALMA RAFI; TYLER DAY~ 33:US ~31:62/916,062 ~32:16/10/2019

2022/03878 ~ Complete ~54:INTRAVASCULAR CATHETER DEVICE ~71:ANESTEASY AB, Herrg&#229;rdsv&#228;gen 6 B, Sweden ~72: JONSSON, Ove~ 33:SE ~31:1951198-9 ~32:23/10/2019

2022/03881 ~ Complete ~54:A SHOWER HEAD INSERT ~71:GJOSA SA, La Haute-Route 78, Switzerland ~72: GABELLA, Thomas; GANSHOF VAN DER MEERSCH, Nicolas~ 33:GB ~31:1913116.8 ~32:11/09/2019

2022/03883 ~ Complete ~54:HOSE ~71:SAINT-GOBAIN PLACO, Tour Saint-Gobain, 12 place de l&#39;Iris, France ~72: JAFFEL, Hamouda; KAMLER, Radomir; RANZANI DA COSTA, Andrea; SAINGIER, Guillaume~ 33:EP ~31:19306620.6 ~32:10/12/2019

2022/03845 ~ Provisional ~54:MICROWAVE IMAGER ~71:ADRIAN LANDMAN, 43 MALDON STREET, LYNNWOOD GLEN, South Africa ~72: ADRIAN LANDMAN~

2022/03848 ~ Provisional ~54:AN ACCESSORY FOR TRAFFIC OFFICERS ~71:Adrian Laurence KNOWLES, 14a Tregonning Road, Linksfield, South Africa ~72: Adrian Laurence KNOWLES~

2022/03857 ~ Complete ~54:ANTI-HEMAGGLUTININ ANTIBODIES AND METHODS OF USE THEREOF ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, United States of

America ~72: BAUM, Alina;KYRATSOUS, Christos~ 33:US ~31:62/926,914 ~32:28/10/2019;33:US ~31:63/094,170 ~32:20/10/2020

2022/03864 ~ Complete ~54:GABAA POSITIVE ALLOSTERIC MODULATOR COMPOUNDS, METHODS OF MAKING, AND USES THEREOF ~71:NEUROCYCLE THERAPEUTICS, INC., 12750 High Bluff Drive, United States of America ~72: HE, Yunliang;HUBBS, Jed;LI, Zheng Jane;LIU, Xianglei;NING, YuXi;TOCZKO, Matthew~ 33:US ~31:62/924,276 ~32:22/10/2019

2022/03873 ~ Complete ~54:DECORATIVE PANEL, AND DECORATIVE FLOOR COVERING CONSISTING OF SAID PANELS ~71:I4F LICENSING NV, Oude Watertorenstraat 25, Belgium ~72: BOUCK~201;, Eddy Alberic~ 33:NL ~31:2024192 ~32:08/11/2019

2022/03847 ~ Provisional ~54:METHOD OF DEPICTING AN IMAGE ON A VEHICLE ~71:BROWN, Michael John Walter, 20 Riverside Road, South Africa ~72: BROWN, Michael John Walter~

2022/03879 ~ Complete ~54:A CATHETER DEVICE COMPRISING A LEVERING MEMBER ~71:ANESTEASY AB, Herrg~229;rdsv~228;gen 6 B, Sweden ~72: JONSSON, Ove~ 33:SE ~31:1951197-1 ~32:23/10/2019

2022/03853 ~ Complete ~54:SPRING RETRACTABLE FISH HERDING APPARATUS AND WORKING METHOD THEREFOR ~71:FISHERY MACHINERY AND INSTRUMENT RESEARCH INSTITUTE, CHINESE ACADEMY OF FISHERY SCIENCES, No. 63 Chifeng Road, People's Republic of China ~72: SONG, Hongqiao;ZHANG, Yufei;ZHANG, Yulei~ 33:CN ~31:202111552014.0 ~32:17/12/2021

2022/03858 ~ Complete ~54:FURNACE, FLUID FEED COMPONENT, FLUID REFORMING SYSTEM AND METHOD OF REFORMING A FLUID ~71:BURNSTAR TECHNOLOGIES (PTY) LTD, 26C Kerk Street, South Africa ~72: BRAND, Johan Francois;ESTERHUYSE, Bernard De Waal~ 33:ZA ~31:2019/06187 ~32:19/09/2019

2022/03868 ~ Complete ~54:WATERLESS TOILET ~71:HARRY WELFARE, c/o Loowatt -Unit 20, Newington Industrial Estate, 87 Crampton St, London, SE 17 3AZ, United Kingdom ~72: HARRY WELFARE;IAIN PURVES;MARCUS CORMASCHI~ 33:US ~31:16/577,162 ~32:20/09/2019

2022/03875 ~ Complete ~54:THERMALLY EXPANDABLE PREPARATION ~71:Henkel AG & Co. KGaA, Henkelstrasse 67, D~220;SSELDORF 40589, GERMANY, Germany ~72: CAPPEL, Fiona;KLOTZ, Michael;SAUER, Ralf~ 33:EP ~31:19195801.6 ~32:06/09/2019

2022/03850 ~ Complete ~54:ELECTRICITY GENERATION ~71:COCHRANE, Richard William, 3 Melrose Boulevard, 4 Ground Floor, Melrose Arch., South Africa;COCHRANE, William Thomas, 3 Melrose Boulevard, 4 Ground Floor, Melrose Arch., South Africa ~72: COCHRANE, Richard William;COCHRANE, William Thomas~

2022/03855 ~ Complete ~54:AN IOT BASED SWIRLING BATH SHOWER SYSTEM ~71:ABINASH RATH, Assistant Professor, CHRIST University, Pune, Lavasa, 30 Valor Court, At Post: Dasve Lavasa, Taluka: Mulshi, Pune, India;BHUPAESH GHAI, Associate Professor, RIMT University, Delhi-Jalandhar GT Road (NH1), Sirhind Side, Mandi Gobindgarh, India;DINESH SINGH, Associate Professor, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Sonapat, India;INDU SHARMA, Assistant Professor, RIMT University, Delhi-Jalandhar GT Road (NH1), Sirhind Side, Mandi Gobindgarh, India;PURNENDU BIKASH ACHARJEE, Associate Professor, RIMT University, Delhi-Jalandhar GT Road (NH1), Sirhind Side, Mandi Gobindgarh, India;RAMESH CHANDRA PANDA, Chief Scientist, Wegrow, Bhubaneswar, At- Hatamala, Po- Bandalo, via- Tigiria, Cuttack, India;SHALU SINGH, Assistant Professor, Manav Rachna University, Sector-43, Delhi- Surajkund Road, Faridabad, India;SURBHI SHARMA, Assistant Professor, RIMT University, Delhi-Jalandhar GT Road (NH1), Sirhind Side, Mandi Gobindgarh, India;SUSHIL BHARDWAJ, Assistant Professor, RIMT University, Delhi-Jalandhar GT Road (NH1), Sirhind Side, Mandi Gobindgarh, India;TRIPTI RANI BORAH, Electronics &



Communication Engineering Dept, Gauhati University, Gopinath Bordoloi Nagar, Jalukbari, Guwahati, India ~72: ABINASH RATH;BHUPAESH GHAI;DINESH SINGH;INDU SHARMA;PURNENDU BIKASH ACHARJEE;RAMESH CHANDRA PANDA;SHALU SINGH;SURBHI SHARMA;SUSHIL BHARDWAJ;TRIPTI RANI BORAH~

2022/03860 ~ Complete ~54:METHOD FOR IDENTIFYING RESPONDERS TO SMARCA2/4 DEGRADERS ~71:AURIGENE DISCOVERY TECHNOLOGIES LIMITED, 39-40, KIADB INDUSTRIAL AREA, ELECTRONIC CITY PHASE II, HOSUR ROAD, KARNATAKA, BANGALORE 560 100, INDIA, India ~72: RAMACHANDRA, Muralidhara;SAMAJDAR, Susanta;SASMAL, Sanjita;SATYAM, Leena Khare~ 33:IN ~31:201941036639 ~32:12/09/2019

2022/03866 ~ Complete ~54:METHODS FOR PREPARING MUTANT PLANTS ~71:CARLSBERG A/S, J.C. Jacobsens Gade 1, 1799 , Copenhagen V, Denmark ~72: BIRGITTE SKADHAUGE;GUSTAV HAMBRAEUS;JEPPE THULIN &#216;STERBERG;MAGNUS RASMUSSEN;S&#216;REN KNUDSEN;TONI WENDT~ 33:EP ~31:19202380.2 ~32:10/10/2019

2022/03880 ~ Complete ~54:KRAFT PAPER AND PAPER SACK MANUFACTURED THEREFROM ~71:MONDI AG, Marxergasse 4A, Austria ~72: ARPA, Leo;BERGLUND, Lars G&#246;ran;SCHWAIGER, Elisabeth;VAN WIERINGEN, Rene~ 33:EP ~31:19198690.0 ~32:20/09/2019

2022/03851 ~ Complete ~54:CYCLIC-REDUNDANCY-CHECK-BASED METHOD FOR IMPLEMENTING SINGLE-BIT ERROR CORRECTION IN FPGA ~71:SHANDONG INSTITUTE OF COMMERCE AND TECHNOLOGY, No. 4516, Lvyu Road, Jinan City, People's Republic of China ~72: GUO, Haitao;WANG, Bin;WANG, Jun;WANG, Liangliang;WANG, Xiucui;ZHANG, Jiong~

2022/03856 ~ Complete ~54:A CHRONIC CARE MANAGEMENT SYSTEM AND A METHOD THEREOF ~71:ARJAN SINGH, Assistant Professor in Computer Science, Department of Mathematics, Punjabi University, Patiala, India;BALJIT SINGH KHEHRA, Principal, BAM Khalsa College, Garhshankar, Hoshiarpur, India;BHUPINDER SINGH MAVI, Principal Engineering Architect, WithMe Health, United States of America;HARMANDEEP SINGH GILL, Principal, Bibi Sharan Kaur Khalsa College, Sri Chamkaur Sahib, Roopnagar, India;HARNOOR KAUR KHEHRA, Student, Department of Computer Science & Engineering, BBSB Engineering College, Fatehgarh Sahib, India ~72: ARJAN SINGH;BALJIT SINGH KHEHRA;BHUPINDER SINGH MAVI;HARMANDEEP SINGH GILL;HARNOOR KAUR KHEHRA~

2022/03865 ~ Complete ~54:ADJUSTABLE ROCK KNOCKER BRACKET ~71:AUSTIN ENGINEERING USA SERVICES, INC., 415 First Street, Mills, Wyoming, 82644, United States of America ~72: FREDERICK J REYNOLDS;SETH JOSEPH EARL REYNOLDS~ 33:US ~31:62/907,429 ~32:27/09/2019

2022/03885 ~ Provisional ~54:RATS AND SQUIREL ROLLER TRAPS ~71:NAKEDI MICHAEL DIKGALE, 26 MAKHURUNTSI STREET SAULSVILLE GAUTENG, South Africa ~72: NAKEDI MICHAEL DIKGALE~

- APPLIED ON 2022/04/06 -

2022/03888 ~ Provisional ~54:SANITARY ARTICLE ~71:JOE PUBLIC (PTY) LIMITED, Joe Public United Building, Nicol Main Office Park, South Africa ~72: DE BEER, Hannes;MALEPA, Jack~

2022/03892 ~ Complete ~54:AN IOT BASED UAV SYSTEM FOR CROP MONITORING AND SURVEILLANCE ~71:Dr. Chinmay Chandrakar, Senior Associate Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Dr. Jaspal Bagga, Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Dr. Monica Shrivastava, Associate Professor, Faculty of

Management Studies, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Dr. Smita Selot, Professor, Department of Computer Applications, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Ms. Jaya Mishra, Senior Associate Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India ~72: Dr. Chinmay Chandrakar;Dr. Jaspal Bagga;Dr. Monica Shrivastava;Dr. Smita Selot;Ms. Jaya Mishra~

2022/03903 ~ Complete ~54:FLUORESCENT MOLECULAR SENSOR CAPABLE OF DETECTING FE 3+ , AL 3+ , CU2+ AND ZN2+ IN WATER AND APPLICATION ~71:Dezhou University, No. 566, West Daxue Road, Decheng District, Dezhou City, Shandong Province, 253023, People's Republic of China ~72: CHEN, Yuting;FAN, Wenjie;LI, Chunhui;LV, Xueling;WANG, Fang;ZHAI, Xinyu;ZHANG, Mengxi~ 33:CN ~31:202110407708.9 ~32:15/04/2021

2022/03905 ~ Complete ~54:A MODIFIED ROCK ANCHOR ASSEMBLY ~71:EPIROC HOLDINGS SOUTH AFRICA (PTY) LTD, 682 Innes Road, Jet Park, South Africa ~72: ABREU, Rual;GREYVENSTEIN, James;KNOX, Greig~

2022/03906 ~ Complete ~54:COOKING ~71:Nimer & Partners. Metal Industries & Trading LLC, Misfah, Oman ~72: CHADWICK, Richard Douglas~

2022/03908 ~ Complete ~54:NEW TYPE OF PROTECTION DEVICE FOR MECHATRONICS MOTOR ~71:ANHUI WENDA UNIVERSITY OF INFORMATION ENGINEERING, Zipeng Mountain Scenic Spot, Hefei City, People's Republic of China ~72: He, Youming;Li, Yi;Nian, Fuxue;Yuan, Hongwu~

2022/03893 ~ Complete ~54:METHOD OF REDUCING RESISTANCE OF TRANSPARENT CONDUCTING THIN FILMS USING NOVEL CHEMICAL REDUCTION ~71:MANIPAL UNIVERSITY JAIPUR, Dehmi Kalan, Off Jaipur-Ajmer Expressway, Jaipur, Rajasthan, 303007, India ~72: Mrinmoy Misra;Neeraj Kumar;Shambo Roy Chowdhury~

2022/03896 ~ Complete ~54:APPLICATION OF MACLEAYA CORDATA EXTRACT IN PREPARATION OF ORAL LIQUID FOR PROMOTING ANIMAL GROWTH ~71:Tongren Polytechnic College, No. 137 Qingshui Avenue, Tongren City, Guizhou Province, 554300, People's Republic of China ~72: YU, Jiansheng~ 33:CN ~31:202110425623.3 ~32:20/04/2021

2022/03931 ~ Complete ~54:ARRANGEMENT FOR FEEDING AMMUNITION TO A WEAPON ~71:BAE Systems H&#228;gglunds Aktiebolag, &#214;RNSK&#214;LDSVIK 891 82, SWEDEN, Sweden ~72: ERIKSSON, Claes~ 33:SE ~31:1951170-8 ~32:15/10/2019

2022/03932 ~ Complete ~54:TRUCK BEDSLIDE ASSEMBLY ~71:Truck Accessories Group, LLC, 28858 Ventura Drive, ELKHART 46517 , IN, USA, United States of America ~72: AGARWAL, Sandeep;RASMUSSEN, Jacob;SIVA, Gopinath;SRINIVASA, Sharath Kumar~ 33:US ~31:62/929,387 ~32:01/11/2019;33:US ~31:17/083,889 ~32:29/10/2020

2022/03933 ~ Complete ~54:ANTIBODIES TARGETING FLT3 AND USE THEREOF ~71:Dragonfly Therapeutics, Inc., 35 Gatehouse Drive, WALTHAM 02451, MA, USA, United States of America ~72: BARUAH, Hemanta;CHANG, Gregory P.;CHEUNG, Ann F.;GRINBERG, Asya;JHUO, Zong Sean;MCQUADE, Thomas J.~ 33:US ~31:62/915,120 ~32:15/10/2019

2022/03937 ~ Complete ~54:DYNAMIC FIXATION IMPLANT AND METHOD OF USE ~71:Paragon 28, Inc., 14445 Grasslands Drive, ENGLEWOOD 80112, CO, USA, United States of America ~72: GILL, Sean Patrick;KARAS, Kaitlin~ 33:US ~31:62/899,559 ~32:12/09/2019

2022/03924 ~ Complete ~54:COMPOSITIONS, METHODS, AND KITS FOR SELECTION OF DONORS AND RECIPIENTS FOR IN VITRO FERTILIZATION ~71:VYTELLE, LLC, 80383 N Highway 395, Hermiston, Oregon, 97838, United States of America ~72: AMANDA FONSECA ZANGIROLAMO;BRUNO VALENTE SANCHES;LUCIANO BONILLA;MICHAEL D BISHOP~ 33:US ~31:62/910,802 ~32:04/10/2019

2022/03994 ~ Provisional ~54:POWER IOT ~71:EUSTACEA ITUMELENG VICTOR-IGUN, 270 MARSHALL STREET,, South Africa ~72: EUSTACEA ITUMELENG VICTOR-IGUN~

2022/03898 ~ Complete ~54:A CORROSION RESISTANT AIR PREHEATER FOR REDUCING DUST ACCUMULATION ~71:Huaneng Qufu Thermal Power Co., Ltd, No. 999, Xiaochang Road, West suburb, Qufu City, Jining City, Shandong Province, People's Republic of China ~72: Bai Jiangbo;Bao Jiaoqi;Cao Jingguo;Cheng Xiangzhou;Liu Tongchang;Qi Yunling;Zhang Guozhen;Zhang Jianjun;Zhou Yong~ 33:CN ~31:202111098812.0 ~32:18/09/2021

2022/03925 ~ Complete ~54:CLEANSING COMPOSITION ~71:UNILEVER GLOBAL IP LIMITED, Port Sunlight, Wirral, Merseyside, CH62 4ZD, United Kingdom ~72: JULES ORIOU;PAUL STEPHEN WHITEHEAD;PIERRE STARCK;SHUBHALAXMI MADHUKAR THAKAR~ 33:IN ~31:201921045863 ~32:11/11/2019;33:EP ~31:20153477.3 ~32:23/01/2020

2022/03928 ~ Complete ~54:USER PLANE INTEGRITY PROTECTION (UP IP) CAPABILITY SIGNALING IN 5G/4G SYSTEMS ~71:QUALCOMM Incorporated, ATTN: International IP Administration, 5775 Morehouse Drive, SAN DIEGO 92121-1714, CA, USA, United States of America ~72: ESCOTT, Adrian Edward;LEE, Soo Bum;PALANIGOUNDER, Anand~ 33:US ~31:62/910,632 ~32:04/10/2019;33:US ~31:17/025,367 ~32:18/09/2020

2022/03998 ~ Complete ~54:A DEVICE FOR DECREASING AN OBJECT ~71:CONSOLIDATED WASTE (PTY) LTD, CNR OF ZEISS AND KAJAK AVE, South Africa ~72: Paul Mouton~

2022/03996 ~ Provisional ~54:DLOZI'FFECTED ~71:EUSTACEA ITUMELENG VICTOR-IGUN, 938 Zone 1 Tlhwere Street,, South Africa;HOSEA PHUTI SEGODI, 938 Zone 1 Tlhwere Street,, South Africa ~72: EUSTACEA ITUMELENG VICTOR-IGUN;HOSEA PHUTI SEGODI~

2022/03901 ~ Complete ~54:INFRARED AND VISIBLE LIGHT IMAGE FUSION METHOD AND APPLICATION ~71:Sichuan University of Science and Engineering, No. 180, Xueyuan Street, Huixing Road, Zigong City, Sichuan, 643000, People's Republic of China ~72: DONG, Linlu;WANG, Ze;YANG, Hao;ZHAO, Liangjun~ 33:CN ~31:202110640871.X ~32:18/07/2021

2022/03904 ~ Complete ~54:PERORAL MICROCAPSULES FOR INACTIVATING PORCINE EPIDEMIC DIARRHEA VIRUS AND PREPARATION METHOD THEREOF ~71:Institute of Agricultural Products Quality Standard of Jiangxi Academy of Agricultural Sciences, No.602, Nanlian Road, Nanchang City, Jiangxi Province, 330200, People's Republic of China;Institute of Animal Sciences of Jiangxi Academy of Agricultural Sciences, No.602, Nanlian Road, Nanchang City, Jiangxi Province, 330200, People's Republic of China ~72: Chengcheng Wu;Fanfan Zhang;Huayuan Ji;Jia Tan;Jian Huang;Qun Yang;Yanbing Zeng;Zhiheng Zou~ 33:CN ~31:202210140609.3 ~32:16/02/2022

2022/03907 ~ Complete ~54:PUMP CASING COMPONENT ~71:Weir Minerals Africa (Pty) Limited, 5 Clarke Street, Alrode, ALBERTON, GAUTENG, SOUTH AFRICA, South Africa ~72: COETZEE, Dirk Jacobus Gerhardus;STEHLE, Christian~ 33:AU ~31:2021901873 ~32:22/06/2021

2022/03910 ~ Complete ~54:NOVEL MULTIFUNCTIONAL NURSING BED ~71:WEST CHINA HOSPITAL, SICHUAN UNIVERSITY, No. 37 Guoxue Xiang, Wuhou District, Chengdu, People's Republic of China ~72: LI, Ning;LU, Lingyun~

2022/03913 ~ Complete ~54:CHROMIUM-FREE WATER- AND ACID-STABLE CATALYST FOR HYDROGENATION REACTIONS ~71:CLARIANT INTERNATIONAL LTD, Rothausstrasse 61, Switzerland ~72: BURGFELS, Goetz;DOERFELT, Christoph;GROSSMANN, Frank;PFANZELT, Manuel;PILZ, Maurice, Frederic~ 33:DE ~31:10 2019 131 569.7 ~32:22/11/2019

2022/03918 ~ Complete ~54:COMMINUTION DEVICE ~71:PMS HANDELSKONTOR GMBH, Abteistraße 223, Germany ~72: SCHARFE, Felix~ 33:EP ~31:19212628.2 ~32:29/11/2019

2022/03995 ~ Provisional ~54:TAXI GUIDE ~71:EUSTACEA ITUMELENG VICTOR-IGUN, 270 Marshall Street,, South Africa ~72: EUSTACEA ITUMELENG VICTOR-IGUN~

2022/04034 ~ Provisional ~54:VERY CONVENIENT BOOKHOLDER ~71:HILTON BRIAN THOMAS, 309 THORA COURT, KITE STR, HORISON, South Africa ~72: HILTON BRIAN THOMAS~

2022/03894 ~ Complete ~54:A KIND OF MULTI-FUNCTIONAL MEDICINE DELIVERY CAR FOR NURSING ~71:Affiliated Hospital of Youjiang Medical University for Nationalities, 18 Zhongshan 2nd Road, Youjiang District, Baise City, Guangxi Zhuang Autonomous Region, People's Republic of China ~72: HE Yinlian;HUANG Cuimai;LI Yanfei;TAN Wenping;WANG Jianyuan~

2022/03895 ~ Complete ~54:QUASI SEISMIC SECTION DISPLAY METHOD AND SYSTEM FOR ELECTROMAGNETIC DATA BASED ON NORMALIZED FUNCTION ~71:The Third Geological Exploration Institute of Qinghai Province, No. 61 Xichuan South Road, Chengxi District, Xining City, Qinghai Province, 810029, People's Republic of China ~72: CAI, Zhijie;LIN, Jiafu;MENG, Junhai;WANG, Jinhai;ZHAN, Jun;ZHAO, Liping;ZHONG, Mingfeng~ 33:CN ~31:202110480885.X ~32:30/04/2021

2022/03897 ~ Complete ~54:CONSTRUCTION METHOD OF INTEGRATED TRANSPORTATION SYSTEM OF PORT-PARK-CITY ~71:CCCC First Harbor Consultants Co., Ltd., No.1472 Dagu South Road, Hexi District, Tianjin, People's Republic of China;Shanghai Maritime University, No.1550 Haigang Avenue, Pudong New Area, Shanghai, People's Republic of China ~72: Jiang Mingsheng;Jin Xin;Liu Juanjuan;Liu Zhenfeng;Shao Jungang;Wang Tian;Xiao Guangnian~ 33:CN ~31:202210173795.0 ~32:24/02/2022

2022/03899 ~ Complete ~54:HEAT INSULATION CLOTH CAPABLE OF REGULATING TEMPERATURE INTELLIGENTLY AND HEAT INSULATION CLOTHING ~71:Deep Mining Laboratory Branch of Shandong Gold Mining Technology Co., Ltd, Sanshandao Village, Sanshandao Street, Laizhou City, Yantai City, Shandong Province, 261400, People's Republic of China ~72: CHENG, Li;LI, Guilin;LIU, Huanxin;LIU, Yang;PENG, Chao;WANG, Xi;WU, Qinzhen;ZHU, Mingde~ 33:CN ~31:202123442009.2 ~32:31/12/2021

2022/03936 ~ Complete ~54:METHODS OF TREATING CONDITIONS RELATED TO THE S1P ~71:Arena Pharmaceuticals, Inc., 6154 Nancy Ridge Drive, SAN DIEGO 92121, CA, USA, United States of America ~72: ACEVEDO, Lisette Marie;NGUYEN-CLEARY, Thai Curtis~ 33:US ~31:62/909,113 ~32:01/10/2019

2022/03934 ~ Complete ~54:IMPLANT GUIDES, DEVICES, SYSTEMS, AND METHODS OF USE ~71:Paragon 28, Inc., 14445 Grasslands Drive, ENGLEWOOD 80112, CO, USA, United States of America ~72: LIPKER, Garrett Jeffrey;MAJORS, Benjamin;MLADINICH, Peter Andrew;ROGGOW, Kenneth Allan;WILLIAMS, Thomas R.~ 33:US ~31:62/899,520 ~32:12/09/2019;33:US ~31:62/961,896 ~32:16/01/2020

2022/03889 ~ Provisional ~54:SOLAR ROAD ~71:Sylvester Richards, 27 Lily Road, South Africa ~72: Sylvester Richards~

2022/03891 ~ Complete ~54:AN ARTIFICIAL INTELLIGENCE BASED HAND WEARABLE SYSTEM FOR STRESS AND CARDIAC MONITORING ~71:Dr. Chinmay Chandrakar, Senior Associate Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Dr. Jaspal Bagga, Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Dr. Monica Shrivastava, Associate Professor, Faculty of Management Studies, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Dr. Smita Selot, Professor, Department of Computer Applications, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Ms. Jaya Mishra, Senior Associate Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India ~72: Dr. Chinmay Chandrakar;Dr. Jaspal Bagga;Dr. Monica Shrivastava;Dr. Smita Selot;Ms. Jaya Mishra~

2022/03914 ~ Complete ~54:METHOD FOR MANUFACTURING A PELLET IN A PELLET MILL, A PELLET AND ITS USE ~71:BASF SE, CARL BOSCH STRASSE 38, 67056 LUDWIGSHAFEN AM RHEIN, GERMANY, Germany ~72: GEOERG, Yean, Yik;GFROERER, Thomas, Georg;HERBST, Heinz;O&#39;SULLIVAN, Jennifer, M;PUCH, Florian;SATHYANARAYANA, Shyam, Sundar~ 33:EP ~31:19196747.0 ~32:11/09/2019

2022/03916 ~ Complete ~54:METHOD FOR PREPARING COMPACT WEAR-RESISTANT COATING ON LOW-CARBON STEEL SURFACE ~71:SHANDONG JIAOTONG UNIVERSITY, No. 5 JiaoXiao Road, TianQiao District,, Jinan, Shandong, 250357, People's Republic of China ~72: JIN, Guo;MENG, Junsheng;SHI, Xiaoping;WANG, Yongdong;WANG, You;YU, Limin~

2022/03919 ~ Complete ~54:PRODUCTIVITY ENHANCEMENT APPARATUS FOR POWER OPERATED SKINNING EQUIPMENT ~71:KANDO INNOVATION LIMITED, 61 Leonard Road Mt Wellington, New Zealand ~72: Keith BLENKINSOPP;Winston WICKHAM~ 33:NZ ~31:758927 ~32:06/11/2019;33:NZ ~31:769641 ~32:04/11/2020

2022/03921 ~ Complete ~54:METHOD FOR PILE FOUNDATION CONSTRUCTION OF OFFSHORE PLATFORM ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9,Chunxiu Road, Dongcheng District, Beijing, 100027, People's Republic of China ~72: JUNBIAO HE~ 33:CN ~31:202110886728.9 ~32:03/08/2021

2022/03923 ~ Complete ~54:AMIDE-LINKED, AMINOBENZAZEPINE IMMUNOCONJUGATES, AND USES THEREOF ~71:BOLT BIOTHERAPEUTICS, INC., 900 Chesapeake Drive, Redwood City, California, 94063, United States of America ~72: BRIAN SAFINA;MATTHEW ZHOU;ROMAS KUDIRKA~ 33:US ~31:62/908,253 ~32:30/09/2019

2022/03927 ~ Complete ~54:SYSTEMS AND METHODS OF ISOLATION OF GALLIUM-68 ~71:ARTMS PRODUCTS, INC., 4250 Wesbrook Mall, Vancouver, British Columbia, V6T 1W5, Canada ~72: JOEL OSCAR OLSSON KUMLIN~ 33:US ~31:62/914,476 ~32:12/10/2019

2022/03929 ~ Complete ~54:CONTAINER VISUAL INSPECTION ASSEMBLY AND METHOD ~71:Amgen Inc., One Amgen Center Drive, THOUSAND OAKS 91320-1799, CA, USA, United States of America ~72: FRADKIN, Dmitry;MILNE, Graham F.~ 33:US ~31:62/949,119 ~32:17/12/2019

2022/03930 ~ Complete ~54:SOLAR TRACKING SYSTEM ~71:Array Technologies, Inc., 3901 Midway Place NE, ALBUQUERQUE 87109, NM, USA, United States of America ~72: CREASY, Lucas;GUR, Sourav;LEE,



Kyumin;SHARP, Jon;TOMASSON, Lars~ 33:US ~31:62/909,755 ~32:02/10/2019;33:US ~31:62/909,756 ~32:02/10/2019;33:US ~31:17/061,341 ~32:01/10/2020

2022/03900 ~ Complete ~54:DRILLING RIG FOR COLLECTING UNDERGROUND BROKEN SLOPE ROCK SAMPLES AND METHOD ~71:Deep Mining Laboratory Branch of Shandong Gold Mining Technology Co., Ltd, Sanshandao Village, Sanshandao Street, Laizhou City, Yantai City, Shandong Province, 261400, People's Republic of China ~72: HAO, Yingjie;LIU, Huanxin;LIU, Zhen;SUN, Hongzhou;WANG, Jianbo;YIN, Yantian;ZHU, Mingde;ZHU, Zhengkun~ 33:CN ~31:202111265716.0 ~32:28/10/2021

2022/03902 ~ Complete ~54:METHOD FOR PROLIFERATING ZOSTERA MARINA WITH SEEDS ~71:Qingdao Agricultural University, 700 Changcheng Road, Chengyang District, Qingdao City, Shandong Province, 266109, People's Republic of China ~72: DONG, Xiaoyu;HAN, Zhigang;WEN, Guoyi;ZHOU, Daquan~

2022/03911 ~ Complete ~54:PACKAGE DELIVERY METHOD AND SYSTEM ~71:Dacius, MABUNDA, Unit 7 Chayil, 4 Rautenbach Road, VANDERBIJLPARK 1911, Gauteng, SOUTH AFRICA, South Africa ~72: Dacius, MABUNDA~ 33:ZA ~31:2021/02045 ~32:26/03/2021

2022/03912 ~ Complete ~54:METHODS FOR ANALYZING CHAIN MISPAIRING IN MULTISPECIFIC BINDING PROTEINS ~71:SANOFLI, 54 rue La Boëtie, France ~72: TOUSI, Fateme~ 33:US ~31:62/926,313 ~32:25/10/2019;33:EP ~31:20315271.5 ~32:28/05/2020

2022/03915 ~ Complete ~54:THREE-PHASE ASYNCHRONOUS ELECTRIC MACHINE AND METHOD OF MANUFACTURE THEREOF ~71:U.T.T. UNIQUE TRANSFORMER TECHNOLOGIES LTD., 2 Hailan Street, P.O. Box 203, Israel ~72: ADAR, Eliezer;BOLOTINSKY, Yuri~ 33:IL ~31:269253 ~32:10/09/2019

2022/03917 ~ Complete ~54:CONSTRUCTION AND OPTIMIZATION METHOD OF LIGNITE MOLECULAR STRUCTURE MODEL ~71:Binzhou University, Binzhou University, Huanghewu Road, Bincheng District, Binzhou City, Shandong Province, People's Republic of China ~72: CAO Qing;DU Shuai;FU Mingming;HU Yingying;JIA Xinlei;LI Bo;LI Xiaofei;MA Hui;SHEN Jianjun;XING Xueyang;XU Lanjuan;YIN Zhenjiang;ZANG Jie;ZHANG Qianqian;ZHANG Qingtao;ZHAO Lei;ZHOU Gang~ 33:CN ~31:202111111980.9 ~32:23/09/2021

2022/03920 ~ Complete ~54:METHOD FOR GENERATING NEW MUTATIONS IN ORGANISMS, AND APPLICATION THEREOF ~71:QINGDAO KINGAGROOT CHEMICAL COMPOUND CO., LTD., No.53, Qinglonghe Road, Huangdao District, Qingdao, Shandong, 266000, People's Republic of China ~72: BO CHEN;HUARONG LI;JIYAO WANG;LINJIAN JIANG;SUDONG MO;WEI QI;YUCAI LI~ 33:CN ~31:201911081617.X ~32:07/11/2019;33:CN ~31:202010821877.2 ~32:15/08/2020;33:CN ~31:202010974151.2 ~32:16/09/2020

2022/03922 ~ Complete ~54:STRAINS AND PROCESSES FOR SINGLE CELL PROTEIN OR BIOMASS PRODUCTION ~71:SOLAR FOODS OY, Laserkatu 6, Lappeenranta, 53850, Finland ~72: JUHA-PEKKA PITKÄ;NEN;SAMI HOLMSTRÖM~ 33:EP ~31:19205786.7 ~32:29/10/2019

2022/03926 ~ Complete ~54:METHODS OF TREATING CANCER WITH A COMBINATION OF A PLATINUM-BASED AGENT AND AN ANTI-TISSUE FACTOR ANTIBODY-DRUG CONJUGATE ~71:GENMAB A/S, Kalvebod Brygge 43, 1560, Copenhagen V, Denmark ~72: ESTHER C W BREIJ;LEONARDO V NICACIO;OYEWALE O ABIDOYE;RESHMA A RANGWALA;SANDRA VERPLOEGEN~ 33:US ~31:62/932,181 ~32:07/11/2019

2022/03935 ~ Complete ~54:CONVERTIBLE TRUCK CAP ~71:Truck Accessories Group, LLC, 28858 Ventura Drive, ELKHART 46517, IN, USA, United States of America ~72: BAUS, Matt;BOURNAY, Jr., Fred;D&#39;HOORE, Terry;JAMES, Jesse;MASSAFRA, Anthony~ 33:US ~31:62/929,337 ~32:01/11/2019;33:US ~31:17/084,022 ~32:29/10/2020

2022/03890 ~ Complete ~54:A CLUSTER BASED ROUTING PROTOCOL FOR WIRELESS SENSOR NETWORKS ASSISTED IOT INFRASTRUCTURE ~71:Dr. Jaspal Bagga, Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Ms. Jaya Mishra, Senior Associate Professor, Department of Electronics and Tele-Communication, Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India;Shri Shankaracharya Technical Campus, Junwani, Bhilai, Chhattisgarh, 490020, India ~72: Dr. Jaspal Bagga;Ms. Jaya Mishra~

2022/03909 ~ Complete ~54:COLD-ADAPTED ALGINATE LYASE ALGL2 WITH BROAD PH STABILITY AND APPLICATION THEREOF ~71:LANGFANG YINLIANG AGRICULTURAL DEVELOPMENT CO., LTD., West Longhu Village, Longhu Town, Yongqing County, Langfang, People's Republic of China;XIE, Lisha, No. 62 Zhangju Road, Luancheng District, Shijiazhuang, People's Republic of China;YELLOW SEA FISHERIES RESEARCH INSTITUTE, CHINESE ACADEMY OF FISHERY SCIENCES, No. 106 Nanjing Road, Shinan District, Qingdao, People's Republic of China ~72: LI, Xiaoguang;LI, Zhenxing;LIU, Dongran;MA, Li;QUE, Gailing;TAO, Chuantao;WANG, Haiying;WANG, Zhipeng;XIE, Lisha~

- APPLIED ON 2022/04/07 -

2022/03940 ~ Provisional ~54:PHARMACEUTICAL COMPOSITION ~71:GORAM RESEARCH AND INVESTMENTS PROPRIETARY LIMITED, 8A Avenue Disandt, Fresnaye, Sea Point, Cape Town, 8005, SOUTH AFRICA, South Africa ~72: GORDON, Brent Michael~

2022/03943 ~ Provisional ~54:SATELLITE TV FM MODULATOR ~71:NARAINSAMY, Ashley Clifford, 4 Grand Floridian, 3 Utshani close, La lucia, South Africa ~72: NARAINSAMY, Ashley Clifford~

2022/03945 ~ Provisional ~54:SMART VILLAGE DESIGN ~71:Henderson Mziwoxolo Sirayi, 19 Addison Road, Reef Park, South Africa ~72: Henderson Mziwoxolo Sirayi~

2022/03952 ~ Complete ~54:A KIND OF PREPARATION METHOD OF BITETRAZOLE-BASED POROUS ORGANIC POLYMERS AND THEIR APPLICATION ~71:Anqing Normal University, Jixian south road 1318, Yixiu district, Anqing city, Anhui province, People's Republic of China ~72: Fang Xuechun;Geng Tongmou;Wang Fengqiang;Wang Kang;Zhu Feng~

2022/03956 ~ Complete ~54:IDENTIFICATION METHOD, DISTRIBUTION QUERY SYSTEM AND MEDIUM OF WATER BIRDS IN SEA ISLANDS AND COASTAL WETLANDS ~71:NATIONAL MARINE ENVIRONMENTAL MONITORING CENTER, No. 42, Linghe Street, Shahekou District, Dalian City, Liaoning Province, 116023, People's Republic of China ~72: FU, Yuanbin;KANG, Jing;LEI, Wei;LI, Fang;SUN, Jianan;YIN, Xiaofei;ZHANG, Anguo~ 33:CN ~31:202210057878.3 ~32:19/01/2022

2022/03961 ~ Complete ~54:FLEXOGRAPHIC PRINTING ~71:PMD Dies & Stereos Proprietary Limited, No. 4 Nebula Street, Labore, BRAKPAN 1541, Gauteng Province, SOUTH AFRICA, South Africa ~72: ZEVENBERGEN, LEON MARE (Deceased)~ 33:ZA ~31:2021/02311 ~32:08/04/2021

2022/03972 ~ Complete ~54:COMPOSITIONS AND METHODS FOR RESTORING OR INCREASING TISSUE PERFUSION ~71:VIRGINIA COMMONWEALTH UNIVERSITY, 800 East Leigh Street, Suite 3000, Richmond, Virginia, 23298, United States of America ~72: LOREN K LIEBRECHT;MARTIN J MANGINO~ 33:US ~31:62/907,066 ~32:27/09/2019;33:US ~31:PCT/US2020/025103 ~32:27/03/2020

2022/03977 ~ Complete ~54:PUMP WITH A CONVEYOR DEVICE AT LEAST FOR CONVEYING A FLUID AND SUCH A CONVEYOR DEVICE ~71:WATSON MARLOW GMBH, Kurt-Alder-Strasse 1, Germany ~72: Dr. Alois KRUTZENBICHLER;Lars FREIHERR VARNB&#220;LER VON UND ZU HEMMINGEN-REDSCHLAG;Nico HAUG;Raymond RITSCHKA~ 33:DE ~31:10 2019 128 680.8 ~32:23/10/2019

2022/03987 ~ Complete ~54:OFF-HIGHWAY VEHICLE INCLUDING FRAME COUPLED GAS SPRING WHEEL ASSEMBLIES ~71:GACW Incorporated, 3100 West Ray Road, Suite 201, CHANDLER 85226, AZ, USA, United States of America ~72: KEMENY, Zoltan~ 33:US ~31:16/596,302 ~32:08/10/2019;33:US ~31:16/865,231 ~32:01/05/2020;33:US ~31:16/886,065 ~32:28/05/2020;33:US ~31:16/896,726 ~32:09/06/2020

2022/03941 ~ Provisional ~54:CALCIUM SULPHATE (GYPSUM) PRODUCTS ~71:SYMONS, Michael Windsor, 16 Luipaard Road, Monument Park, Pretoria 0181, Gauteng Province, SOUTH AFRICA, South Africa ~72: SYMONS, Michael Windsor~

2022/03963 ~ Complete ~54:METHOD FOR PROMOTING MAGNETIC PROPERTIES OF SINTERED NEODYMIUM-IRON-BORON (ND-FE-B) MAGNET ~71:GUORUI SCIENTIFIC INNOVATION RARE EARTH FUNCTIONAL MATERIALS (GANZHOU) CO., LTD, No. 6 Huilong Avenue, Ganzhou High-tech Zone, Ganzhou City, People's Republic of China;JIANGXI RARE EARTH FUNCTIONAL MATERIALS TECHNOLOGY CO., LTD., No. 156, Kejia Avenue, Zhanggong District, Ganzhou City, People's Republic of China;JIANGXI UNIVERSITY OF SCIENCE AND TECHNOLOGY, No.86, Hongqi Avenue, Zhanggong District, Ganzhou City, People's Republic of China ~72: LUO, Sangen;MEI, Jun;XIONG, Shuhua;YANG, Bin;YANG, Munan;ZHONG, Shuwei;ZOU, Zhenggang~

2022/03967 ~ Complete ~54:HIGHWAY CONSTRUCTION DEVICE AND CONSTRUCTION METHOD THEREOF ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9, Chunxiu Road, Dongcheng District, Dongcheng District, Beijing, 100027, People's Republic of China ~72: WEI JIANG~ 33:CN ~31:202111064476.8 ~32:10/09/2021

2022/03973 ~ Complete ~54:A MULTILAYER COVER ELEMENT FOR SEALING CAPSULES FOR MAKING BEVERAGES ~71:GOGLIO S.P.A., Via Andrea Solari 10, 20144, Milano MI, Italy ~72: ANDREA MACCAGNAN;FRANCO GOGLIO;OSVALDO BOSETTI;ROBERTO GALBASINI~ 33:IT ~31:102019000019355 ~32:18/10/2019

2022/03981 ~ Complete ~54:EARLY MANAGEMENT AND PREVENTION OF SEPSIS AND SEPSIS-LIKE SYNDROMES ~71:OPHIREX, INC., 5643 Paradise Drive #2, United States of America ~72: CARTER, Rebecca;LEWIN, Matthew R.~ 33:US ~31:62/915,209 ~32:15/10/2019;33:US ~31:62/990,020 ~32:16/03/2020;33:US ~31:63/017,966 ~32:30/04/2020

2022/03983 ~ Complete ~54:ACCOUNTING FOR ERRORS IN OPTICAL MEASUREMENTS ~71:S.D. Sight Diagnostics Ltd, 23 Menachem Begin Rd, Floor 15, TEL AVIV 6618356, ISRAEL, Israel ~72: ESHEL, Yochay Shlomo;GLUCK, Dan;HALPERIN, Yonatan;HOURI YAFIN, Arnon;LEVNER, Daniel;LEVY SCHREIER, Sarah;LEZMY, Natalie;PECKER, Sharon;POLLAK, Joseph Joel;WEISS, Itamar;YORAV-RAPHAEL, Noam;ZAIT, Amir~ 33:US ~31:62/924,229 ~32:22/10/2019

2022/03991 ~ Complete ~54:SEMI-FINISHED POWDERY FOOD PRODUCT BASED ON VEGETABLE FOOD AND A PROCESS FOR PRODUCTION THEREOF ~71:Di Bartolo Srl, Via Garibaldi, 165, CALATABIANO (CT) 95011, ITALY, Italy ~72: DI BARTOLO, Rosario~ 33:IT ~31:102019000016880 ~32:20/09/2019

2022/03959 ~ Complete ~54:METHOD FOR SYNTHESIZING 3,8-DIMETHYL-3,5,7-OCTATRIENE-1,10-DIALDEHYDE ~71:Kevin Food Co., Ltd, No. 19, Jinhui Road, Licheng street, Zengcheng, Guangzhou, Guangdong Province, People's Republic of China ~72: CHEN Guo;LUO Kaiwen;YAN Binming;YAN Rian;YANG Jie;YUAN Fenglan;ZHOU Jianping;ZHOU Lijuan~

2022/03964 ~ Complete ~54:SEED TABS FOR PLANTERS ~71:PRECISION PLANTING LLC, 23207 Townline Road, Tremont, United States of America ~72: COLSON, David;PLATTNER, Chad~ 33:US ~31:62/942,909 ~32:03/12/2019

2022/03968 ~ Complete ~54:ANTI-TIGIT ANTIBODIES AND USES THEREOF ~71:MERCK PATENT GMBH, Frankfurter Strasse 250, 64293, Darmstadt, Germany ~72: CHRISTEL IFFLAND;CHRISTIE KELTON;DAVID NANNEMANN;DONG ZHANG;JOHANNES YEH;LIWEI LI;QI AN;XINYAN ZHAO~ 33:US ~31:62/930,651 ~32:05/11/2019;33:US ~31:63/048,351 ~32:06/07/2020

2022/03974 ~ Complete ~54:CANINE DISTEMPER VIRUS HEMAGGLUTININ AND FUSION POLYPEPTIDES ~71:MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH, 200 First Street SW, Rochester, Minnesota, 55905, United States of America ~72: MIGUEL A MUNOZ ALIA;STEPHEN JAMES RUSSELL~ 33:US ~31:62/913,111 ~32:09/10/2019

2022/03988 ~ Complete ~54:BICYCLIC HETEROCYCLES AS FGFR INHIBITORS ~71:Incyte Corporation, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America ~72: NGUYEN, Minh;QI, Chao;VECHORKIN, Oleg;WANG, Anlai;WITTEN, Michael;XU, Yao;YAO, Wenqing;YE, Hai FEN;ZHANG, Ke;ZHAO, Peng~ 33:US ~31:62/914,766 ~32:14/10/2019;33:US ~31:63/004,972 ~32:03/04/2020

2022/03938 ~ Provisional ~54:LIGHTNING STEAM ROCKET FLYWHEEL ~71:Johannes Diederick Fritz, 13 La Toscana, 22 Sabie Road, Bardene, BOKSBURG, GAUTENG, 1459, South Africa ~72: Johannes Diederick Fritz~

2022/03942 ~ Provisional ~54:SUPPORT PROP ~71:ADAPTIVE LOGIC SYSTEMS (PTY) LTD, 569 Retriever Street, South Africa ~72: JACINTO, Jo&#227;o Ribeiro;RATNER, Gavin Charles~

2022/03948 ~ Complete ~54:RECOMBINANT CHIMERIC VECTOR FOR HSV-2 DNA VACCINE AND ITS APPLICATION ~71:The Fifth People&#39;s Hospital of Wuxi, The Fifth People&#39;s Hospital of Wuxi, Affiliated Hospital of Jiangnan University, No.1215 Guangrui Road, Liangxi District, Wuxi, Jiangsu Province, 214000, People's Republic of China ~72: YAN Yan~

2022/03950 ~ Complete ~54:EASY-TO-INSTALL ELEVATOR CAR DOOR OPENING AND CLOSING CONTROL DEVICE ~71:JIANGSU WELM TECHNOLOGY CO., LTD, No. 158, Jianghai West Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: CAO, Yang;HUANG, Jianwu;ZHOU, Shijie~ 33:CN ~31:202111401930.4 ~32:19/11/2021

2022/03955 ~ Complete ~54:THERMAL RESPONSE COMPOSITE PROTON MEMBRANE AND PREPARATION METHOD AND APPLICATION THEREOF ~71:Harbin Normal University, No. 1, Shida Road, Limin Economic Development Zone, Harbin, Heilongjiang, 150000, People's Republic of China ~72: QU, Fengyu;ZHANG, Feng~ 33:CN ~31:202210170063.6 ~32:24/02/2022

2022/03958 ~ Complete ~54:INTERNAL STRESS TESTING SYSTEM FOR OIL-GAS PIPELINES BASED ON MAGNETIC FLUX LEAKAGE SIGNAL CHARACTERISTICS ~71:Shenyang University of Technology, No. 111, Shenliao West Road, Economic and Technological Development Zone, Shenyang City, Liaoning, 110870, People's Republic of China ~72: HAN, Chongpeng;HE, Luyao;LIAN, Zheng;LIANG, Yusen;LIU, Bin;LIU, Tong;MA, Haoning;NI, Tianyu;NIAN, Fuqiang;REN, Jian;YANG, Lijian;ZHANG, Song~

2022/03971 ~ Complete ~54:CHEMISTRY VESSEL AGITATOR ~71:BWXT ISOTOPE TECHNOLOGY GROUP, INC., 800 Main St, Lynchburg, Virginia, 24504, United States of America ~72: BENJAMIN ISAIAH BISHOP;CURTIS GRAHAM HAMILTON;RONALD CLIFTON WATSON~ 33:US ~31:62/906,901 ~32:27/09/2019

2022/03978 ~ Complete ~54:CONVEYING DEVICE AT LEAST FOR CONVEYING A FLUID AND PUMP HAVING SUCH A CONVEYING DEVICE ~71:WATSON MARLOW GMBH, Kurt-Alder-Strasse 1, Germany ~72: Dr. Alois KRUTZENBICHLER;Lars FREIHERR VARNB&#220;LER VON UND ZU HEMMINGEN-REDSCHLAG;Nico HAUG;Raymond RITSCHKA~ 33:DE ~31:10 2019 128 678.6 ~32:23/10/2019

2022/03986 ~ Complete ~54:WHEEL ASSEMBLY INCLUDING SIDEWALL COVER ASSEMBLY AND RELATED METHODS ~71:GACW Incorporated, 3100 West Ray Road, Suite 201, CHANDLER 85226, AZ, USA, United States of America ~72: KEMENY, Zoltan~ 33:US ~31:16/596,302 ~32:08/10/2019;33:US ~31:16/865,231 ~32:01/05/2020;33:US ~31:16/886,065 ~32:28/05/2020

2022/03944 ~ Provisional ~54:ELECTRICAL LOAD SHEDDING PROTECTION SYSTEM ~71:NARAINSAMY, Ashley Clifford, 4 Grand Floridian, 3 Utshani close, La Lucia, South Africa ~72: NARAINSAMY, Ashley Clifford~

2022/03947 ~ Complete ~54:METHOD FOR CONSTRUCTING THE LARGE-SCALE SHEET FOREST ~71:Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, No.818, South Beijing Road, Urumqi, Xinjiang~160;Uygur~160; Autonomous~160;Region, People's Republic of China ~72: WANG Xiaojing;WANG Yongdong;YOU Yuan~

2022/03949 ~ Complete ~54:METHOD FOR DISSOLVING DANSYL CHLORIDE DERIVATIVE SOLUTION AND ITS CONFIGURING REAGENT BOTTLE COMPONENT ~71:ShangHai Ocean University, No.999, Huchenghuan Rd, Nanhui New City, Shanghai, People's Republic of China ~72: Jin Yinzhe;Mei Jun;Qiu Weiqiang;Xie Jing;Yang Fan~

2022/03957 ~ Complete ~54:A TABLE TENNIS BALL PICKING DEVICE ~71:Henan Communication Vocational Technology College, 165 hanghai Middle Road, Erqi District, Zhengzhou City, Henan Province, People's Republic of China;Zhengzhou University of Aeronautics, No.15 Wenyuan West Road, Zhengdong New District, Zhengzhou, Henan Province, People's Republic of China ~72: Dong Xinjing;Gui Xue;Huo Fang;Li Qinfeng;Pan Wandong;Sun Yong;Wang Yanyuan;You Yuandeng~

2022/03965 ~ Complete ~54:SPICE MILL PART AND METHOD FOR PRODUCING A SPICE MILL PART ~71:JOMA KUNSTSTOFFTECHNIK GMBH, Wolfholzgasse 14-16, Austria ~72: FRIES, Rudolf~ 33:AT ~31:A 50939/2019 ~32:04/11/2019

2022/03975 ~ Complete ~54:EXTRUSION BLOW MOULDED CONTAINER ~71:ALPLA WERKE ALWIN LEHNER GMBH & CO. KG, Allmendstrasse 81, Austria ~72: Oliver UNTERLECHNER~ 33:CH ~31:01377/19 ~32:31/10/2019

2022/03989 ~ Complete ~54:COMPUTER-IMPLEMENTED SYSTEM AND METHOD ~71:nChain Holdings Limited, Fitzgerald House, 44 Church Street, ST. JOHN~39;S, ANTIGUA & BARBUDA, Antigua and Barbuda ~72: COUGHLAN, Steven;SRAHA, Ambrose;WEERASINHA, Dulan~ 33:GB ~31:1914043.3 ~32:30/09/2019;33:GB ~31:2010339.6 ~32:06/07/2020

2022/03999 ~ Complete ~54:QUINOLINE DERIVATIVES AS ALPHA4BETA7 INTEGRIN INHIBITORS ~71:GILEAD SCIENCES, INC., 333 LAKESIDE DRIVE FOSTER CITY, United States of America ~72: BLOMGREN, PETER A.;CAMPBELL, TARYN;CHANDRASEKHAR, JAYARAMAN;CLARK, CHRISTOPHER T.;CODELLI, JULIAN A.;CURRIE, KEVIN S.;KROPF, JEFFREY E.;MOAZAMI, YASAMIN;NAVA, NICOLE;PATEL, LEENA;PERREAULT, STEPHANE;PERRY, JASON K.;SEDILLO, KASSANDRA F.;SEEGER, NATALIE;STEVENS, KIRK L.;TREIBERG, JENNIFER ANNE;YEUNG, SUET C.;ZHAO, ZHONGDONG~ 33:US ~31:62/752,805 ~32:30/10/2018;33:US ~31:62/823,987 ~32:26/03/2019

2022/03969 ~ Complete ~54:METHOD FOR PRODUCING A PIPELINE ARRANGEMENT, AND PIPELINE ARRANGEMENT ~71:GLATT GESELLSCHAFT MIT BESCHR~196;NKTER HAFTUNG, Werner-Glatt-Stra~223;e 1, 79589, Binzen, Germany ~72: JESKO JAY NOWAK;REINHARD NOWAK~ 33:DE ~31:10 2019 214 700.3 ~32:25/09/2019



2022/03980 ~ Complete ~54:CONVEYOR DEVICE AT LEAST FOR CONVEYING A FLUID AND PUMP WITH SUCH A CONVEYOR DEVICE ~71:WATSON MARLOW GMBH, Kurt-Alder-Strasse 1, Germany ~72: Dr. Alois KRUTZENBICHLER;Lars FREIHERR VARNB&#220;LER VON UND ZU HEMMINGEN-REDSCHLAG;Nico HAUG;Raymond RITSCHKA~ 33:DE ~31:10 2019 128 679.4 ~32:23/10/2019

2022/03984 ~ Complete ~54:PREAMBLE AND PHYSICAL UPLINK SHARED CHANNEL RESOURCE ORDERING AND SCRAMBLING IDENTIFIER GENERATION FOR TWO-STEP RANDOM ACCESS CHANNEL PROCEDURE ~71:QUALCOMM Incorporated, ATTN: International IP Administration, 5775 Morehouse Drive, SAN DIEGO 92121-1714, CA, USA, United States of America ~72: CHEN, Wanshi;GAAL, Peter;LEI, Jing~ 33:US ~31:62/913,118 ~32:09/10/2019;33:US ~31:16/947,493 ~32:04/08/2020

2022/03990 ~ Complete ~54:LIPIDOIDS FOR NUCLEIC ACID TRANSFECTION AND USE THEREOF ~71:Ustav organické chemie a biochemie AV CR, v. v. i., Flemingovo náměstí 542/2, PRAHA 6 16000, CZECH REPUBLIC, Czech Republic ~72: CIGLER, Petr;GRANTZ SASKOVA, Klara;KRUIKOVÁ, Zuzana;SEDLÁK, František;VANEK, Václav~ 33:CZ ~31:PV 2020-529 ~32:23/09/2020

2022/03939 ~ Provisional ~54:METHOD OF ACCESS CONTROL ~71:Devon Gregory Powell Beynon, 3 Craig Avenue, Malanshof, South Africa ~72: DEVON GREGORY POWELL BEYNON~

2022/03951 ~ Complete ~54:ARTIFICIAL INTELLIGENT CONTROL DEVICE FOR ENDURANCE TEST OF ENGINE ~71:ShanDong JiaoTong University, No.5 Jiaoxiao Road, Jinan City, Shandong Province, 250023, People's Republic of China ~72: CHEN, Baoyi;CUI, Yukun;JIA, Yantao;WANG, Mingjie;WANG, Yanwei;ZHANG, Jianhua;ZHANG, Qinglin;ZHAO, Fushuai;ZHAO, Jiyan~ 33:CN ~31:202120714714.4 ~32:08/04/2021

2022/03960 ~ Complete ~54:CONTAINERS ~71:BRITZ, Jacques, 9 James Avenue, Bardene, South Africa;BRITZ, Pierre, 9 James Avenue, Bardene, South Africa ~72: BRITZ, Jacques;BRITZ, Pierre~ 33:ZA ~31:2021/02803 ~32:28/04/2021

2022/03946 ~ Provisional ~54:PARASOL BANNER ~71:SCREEN GRAPHICS CC, 1 Beechfield Crescent, Springfield Industrial Park, South Africa ~72: DE VILLIERS, Byron Allan~

2022/03954 ~ Complete ~54:POWER DISTRIBUTION SYSTEM AND POWER TAKE-OFF STRUCTURE FOR BUS DUCTS THEREOF ~71:Guangzhou JiaMin-Tech Co., Ltd, Room A402, No. 1, Longzhu Road, Huangbei, Huangpu District, Guangzhou City, Guangdong Province, 510720, People's Republic of China ~72: LIN, Han~ 33:CN ~31:202110605763.9 ~32:31/05/2021

2022/03970 ~ Complete ~54:NITROGEN CONTAINING BICYCLIC COMPOUNDS ~71:WOCKHARDT LIMITED, D-4, MIDC Area, Chikalthana, Aurangabad, Maharashtra, 431006, India ~72: MAHESH VITHALBHAI PATEL;PIYUSH AMBALAL PATEL;PRASHANT RATNAKAR JOSHI;RAJESH CHAVAN;RAJIB BHUNIYA;RAVIKUMAR TADIPARTHI;RAVINDRA DATTATRAYA YEOLE;SWAPNA SHRIPAD TAKALKAR;VIJAYKUMAR JAGDISHWAR PATIL;VIKAS VITTHALRAO DESHMUKH;ZAKI AHMED BURHANUDDIN MUNSHI~ 33:IN ~31:201921042452 ~32:18/10/2019

2022/03979 ~ Complete ~54:CONVEYOR DEVICE AT LEAST FOR CONVEYING A FLUID AND PUMP COMPRISING SUCH A CONVEYOR DEVICE ~71:WATSON MARLOW GMBH, Kurt-Alder-Strasse 1, Germany ~72: Dr. Alois KRUTZENBICHLER;Lars FREIHERR VARNB&#220;LER VON UND ZU HEMMINGEN-REDSCHLAG;Nico HAUG;Raymond RITSCHKA~ 33:DE ~31:10 2019 128 682.4 ~32:23/10/2019

2022/03985 ~ Complete ~54:EDIBLE CAN HOLDER WITH FLAPS ~71:E6PR, S.A.P.I. DE C.V., Bosque de Radiatas 22, interior 404, Col. Bosques de Las Lomas, Alcald&#237;a Cuajimalpa, CIUDAD DE M&#201;XICO

05120, MEXICO, Mexico ~72: GARCIA; A CENDEJAS, Juan Francisco~ 33:MX ~31:MX/u/2019/000467  
~32:20/09/2019

2022/03953 ~ Complete ~54:A KIND OF FLUORINE-CONTAINING COUMARIN PHOSPHATE DERIVATIVE AND ITS PREPARATION METHOD AND APPLICATION ~71:Henan Agricultural University, 63 Nongye Road, Jinshui District, Zhengzhou City, Henan Province, People's Republic of China ~72: Fan Liangxin; Fan Sufang; Pan Zhenliang; Shi Lijun; Wang Caixia; Wu Lulu; Xu Cuilian; Yang Guoyu; Yuan Xinxin~

2022/03962 ~ Complete ~54:FATTENING BREEDING METHOD OF ABERDEEN ANGUS ~71:INSTITUTE OF ANIMAL HUSBANDRY, HEILONGJIANG ACADEMY OF AGRICULTURAL SCIENCES, ROOM 704 INNOVATION BUILDING, 368 XUEFU ROAD, People's Republic of China ~72: BU, Ye; JIANG, Ying; LIU, Li; MAO, Lijuan; MENG, Xiangren; SUN, Fang; WANG, Yuelong; XU, Shanshan; ZHAO, Xiaochuan~

2022/03966 ~ Complete ~54:MUD PREPARATION AND CYCLING SEPARATION SYSTEM ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9, Chunxiu Road, Dongcheng District, Dongcheng District, Beijing, 100027, People's Republic of China ~72: JUNBIAO HE~ 33:CN ~31:202110886732.5 ~32:03/08/2021

2022/03976 ~ Complete ~54:TWO-STAGE MICROCHIP DRUG DELIVERY DEVICE AND METHODS ~71:DARE MB INC., 3655 Nobel Drive Suite 260 San Diego, United States of America ~72: FARRA, Robert; JAMES, Scott W; PACELLI, Nicolas J; PROOS, Elizabeth; WANG, Hong-Ren~ 33:US ~31:62/929,432 ~32:01/11/2019

2022/03982 ~ Complete ~54:SYSTEMS AND METHODS FOR INDUSTRIAL ROBOTICS ~71:OFF-WORLD, INC., 2031 E Foothill Blvd, Pasadena, United States of America ~72: IZENBERG, Joshua Jeremy; KAVELAARS, Alicia Teresa; KERAVALA, James; KOLLIPARA, Amaresh; MURRAY, James Jason; NALL, Mark Eugene~ 33:US ~31:62/923,357 ~32:18/10/2019; 33:US ~31:62/923,376 ~32:18/10/2019

2022/03992 ~ Complete ~54:HERBICIDAL COMPOUNDS ~71:Syngenta Crop Protection AG, Rosentalstrasse 67, BASEL 4058, SWITZERLAND, Switzerland ~72: BURNS, David; BURTON, Paul Matthew; EMERY, Katie; MCGRANAGHAN, Andrea; MITCHELL, Glynn; RAJAN, Ramya~ 33:IN ~31:201911046699 ~32:15/11/2019

- APPLIED ON 2022/04/08 -

2022/04022 ~ Complete ~54:PROCESS AND APPARATUS FOR CONVERTING POLYMERS INTO PRODUCTS ~71:MURA TECHNOLOGY LIMITED, 141-145 Curtain Road, 3rd Floor, London, EC2A 3BX, United Kingdom ~72: RICHARD DALEY; WILLIAM ROWLANDS~ 33:AU ~31:2019903756 ~32:04/10/2019

2022/04026 ~ Complete ~54:DECORATIVE PANEL SUITABLE FOR ASSEMBLING A FLOOR, CEILING OR WALL COVERING BY INTERCONNECTING A PLURALITY OF SAID PANELS WITH EACH OTHER, AND DECORATIVE COVERING OF SUCH INTERCONNECTED PANELS ~71:I4F LICENSING NV, Oude Watertorenstraat 25, Belgium ~72: BOUCK; Eddy Alberic~ 33:NL ~31:2024193 ~32:08/11/2019

2022/04003 ~ Complete ~54:ENERGY-CONSERVATION AND ENVIRONMENTAL-PROTECTION TOBACCO LEAF BAKING PROCESS ~71:China Tobacco Guangxi Industry Co., Ltd., No. 28, Beihu South Road, Nanning City, Guangxi Zhuang Autonomous Region, 530001, People's Republic of China; Yunnan Agricultural University, No. 95, Jinhe Road, Panlong District, Kunming City, Yunnan, 650201, People's Republic of China ~72: AO, Jincheng; CHENG, Yi; HUANG, Chongjun; JIA, Haijiang; JIN, Yabo; LI, Bo; LI, Zhi; QIN, Shangzhong; SHI, Baofeng; WANG, Zheng; WEI, Jianyu; WEI, Zhengyu; YANG, Qigang; ZHANG, Jili; ZHOU, Zhaofeng~

2022/04005 ~ Complete ~54:2-PYRIDONE DRUG, SYNTHESIS METHOD AND USE THEREOF ~71:North China University of Science and Technology, No. 21, Bohai Avenue, Caofeidian District, Tangshan City, Hebei

Province, 063210, People's Republic of China ~72: CHEN, Haodong;FENG, Cuiyue;LI, Yang;LV, Ruijie;WANG, Wenbang;YANG, Lin;ZHANG, Zhifei;ZHONG, Qidi~

2022/04008 ~ Complete ~54:OPTIC FIBER CONNECTOR ~71:ACON OPTICS COMMUNICATIONS INC., 5F., No. 4, Alley 9, Lane 45, Baoxing Rd., Xindian Dist., New Tapei City, Taiwan, Province of China ~72: JIA RONG WU;TSUNG YAO HSU~ 33:TW ~31:110203921 ~32:12/04/2021

2022/04019 ~ Complete ~54:METHOD FOR PREPARING DISODIUM 5'-GUANYLATE HEPTAHYDRATE CRYSTAL ~71:CJ CHEILJEDANG CORPORATION, 330, Dongho-ro, Jung-gu, Seoul, 04560, Republic of Korea ~72: CHANG YUB OH;HWA YEON LIM;IL CHUL KIM;JAE HUN YU;JI HUN KANG;JUNG HWA CHOI;MIN JONG KIM;SEOK HYUN KANG;YU SHIN KIM~ 33:KR ~31:10-2019-0124774 ~32:08/10/2019

2022/04021 ~ Complete ~54:METHODS TO TREAT HEPATITIS DELTA VIRAL INFECTIONS ~71:EIGER BIOPHARMACEUTICALS, INC., 2155 Park Boulevard, Palo Alto, California, 94306, United States of America ~72: INGRID CHOONG;JEFFREY GLENN~ 33:US ~31:62/915,933 ~32:16/10/2019;33:US ~31:63/014,774 ~32:24/04/2020;33:US ~31:63/070,047 ~32:25/08/2020

2022/04030 ~ Complete ~54:PROCESS FOR RECOVERY OF PROPYLENE FROM PROPANE DEHYDROGENATION PROCESS ~71:Kellogg Brown & Root LLC, 601 Jefferson Avenue, HOUSTON 77002, TX, USA, United States of America ~72: REYNEKE, Rian~ 33:US ~31:62/898,416 ~32:10/09/2019

2022/04000 ~ Complete ~54:AN EXCAVATION MEASURING DEVICE FOR PAVEMENT SETTLEMENT PREDICTION AFTER SHIELD TUNNEL CONSTRUCTION ~71:Zhejiang University City College, No. 51, Huzhou Street, Gongshu District, Hangzhou City, Zhejiang Province, People's Republic of China ~72: Chen Bin;Hu Chengbao;Jin Tao;Su Shuming;Wu Xi~ 33:CN ~31:202210305194.0 ~32:25/03/2022

2022/04006 ~ Complete ~54:HORIZONTAL STIRRING EQUIPMENT ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No.579 Qianwangang Road, Huangdao District, Qingdao, Shandong Province, 266000, People's Republic of China ~72: CHEN, Sheng;GAO, Kuidong;LIN, Lisong;LIU, Jihai;SUN, Liqing;WU, Tianjiao;XU, Wenqian;ZENG, Qingliang;ZHANG, Xiaodi;ZHANG, Yuanjin~ 33:CN ~31:202110632332.1 ~32:07/06/2021

2022/04009 ~ Complete ~54:SEEDLING RAISING SUBSTRATE AND CONTAINER SEEDLING RAISING METHOD OF ROOTSTOCK OF CHINESE CHESTNUT (CASTANEA MOLLISSIMA BLUME) ~71:Research Institute of Subtropical Forestry, Chinese Academy of Forestry, No.73, Daqiao Road, Fuyang District, Hangzhou city, Zhejiang Province, People's Republic of China ~72: Fan Jingen;Fang Zhou;Gong Bangchu;Jiang Xibing;Lai Junsheng;Liu Cuiyu;Teng Guoxin;Wang Yanpeng;Wu Jian;Wu Qiang~

2022/04013 ~ Complete ~54:A METHOD SUITABLE FOR DETERMINING AMMONIA EMITTED IN HIGHLY HUMID FLUE GAS ~71:China University of Mining and Technology, No1, Daxue Road, Xuzhou, Jiangsu, 221116, People's Republic of China ~72: Chunyu Chen;Fengtao Gao;Jiang Shao;Jintuo Zhu;Lin Lei;Rongting Huang;Shihang Li;Yuxin Wu~

2022/04016 ~ Complete ~54:MULTIPURPOSE INFUSION MONITORING AND CONTROLLING UNIT AND METHOD THEREOF ~71:Dr. Vijay Mohanlal MEHTA, A3, Nyati Chesterfield Nyati County, Mohammed Wadi, Pune, Maharashtra, 411060, India ~72: Dr. Vijay Mohanlal MEHTA~ 33:IN ~31:201921042897 ~32:22/10/2019

2022/04018 ~ Complete ~54:TEST METHOD FOR EVALUATING AMOUNT OF ASPHALT USED IN ASPHALT MIXTURE ~71:CHINA FIRST HIGHWAY ENGINEERING COMPANY LTD, Shitong International Building, Zhoujiajing, Guanzhuang, Chaoyang District, Beijing, 100024, People's Republic of China ~72: YANDONG ZHOU;YUGUO WANG~ 33:CN ~31:201910937357.5 ~32:30/09/2019

2022/04028 ~ Complete ~54:GLP-1 RECEPTOR AGONISTS IN DEMENTIA ~71:Novo Nordisk A/S, Novo All&#233;, BAGSVAERD 2880, DENMARK, Denmark ~72: FRIEDRICH, Sarah;HANSEN, Charlotte Christine Thim;KNUDSEN, Lotte Bjerre;SECHER, Anna~ 33:EP ~31:19207501.8 ~32:06/11/2019;33:EP ~31:20186623.3 ~32:20/07/2020

2022/04032 ~ Complete ~54:PROTEINS BINDING NKG2D, CD16 AND FLT3 ~71:Dragonfly Therapeutics, Inc., 35 Gatehouse Drive, WALTHAM 02451, MA, USA, United States of America ~72: BARUAH, Hemanta;CHANG, Gregory P.;CHEUNG, Ann F.;FALLON, Daniel;GRINBERG, Asya;HANEY, William;JUO, Zong Sean;MCQUADE, Thomas J.;O&#39;NEIL, Steven;WEI, Ronnie~ 33:US ~31:62/915,123 ~32:15/10/2019

2022/04025 ~ Complete ~54:INOSITOL PHOSPHATE COMPOUNDS FOR USE IN TREATING, INHIBITING THE PROGRESSION, OR PREVENTING CARDIOVASCULAR CALCIFICATION ~71:SANIFIT THERAPEUTICS, S.A., Parc Bit, Europa Building, 2nd floor, Palma de Mallorca, Spain ~72: FERRER REYN&#201;S, Miquel David;PERELL&#211; BESTARD, Joan;SALCEDO ROCA, Carolina~ 33:EP ~31:19382990.0 ~32:11/11/2019

2022/04029 ~ Complete ~54:THREAD-TOGETHER WHEEL RIM ~71:Hutchinson S.A., 2 Rue Balzac, PARIS 75008, FRANCE, France ~72: BRUDER, Daniel;HARTMAN, Michael G.;HOBE, Peter;NOBLANC, Olivier;RENSON, Christopher;STUCK, Larry William~ 33:US ~31:62/913,505 ~32:10/10/2019

2022/04033 ~ Complete ~54:ANTI-BETA-AMYLOID ANTIBODY FOR TREATING ALZHEIMER'S DISEASE ~71:Biogen MA Inc., 225 Binney Street, CAMBRIDGE 02142, MA, USA, United States of America;Neurimmune AG, Wagistrasse 13, SCHLIEREN 8952, SWITZERLAND, Switzerland ~72: BEAVER, John;BUDD HAEBERLEIN, Samantha;BUSSIERE, Thierry;DENT, Gersham;NISENBAUM, Laura;NITSCH, Roger;PLOWEY, Edward;RAJAGOVINDAN, Raj;TIAN, Ying~ 33:US ~31:62/924,633 ~32:22/10/2019

2022/03997 ~ Provisional ~54:POPS SODA A UNIQUE BLEND OF CBD INFUSED SOFT DRINKS WITH DELICIOUS FLAVORS ~71:Gerald mandebvu, Hyde Park Lane, South Africa ~72: Gerald mandebvu~

2022/04001 ~ Complete ~54:BACKGROUND FILTERING METHOD BASED ON ROAD TRAFFIC POINT CLOUD DATA ~71:SHANDONG HI-SPEED GROUP CO,LTD, No.8 Long&#39;ao North Road, Lixia District, Jinan City, Shandong Province, People's Republic of China;Shandong Hi-Speed Construction Management Group CO.LTD., Floor 5-9, Block A1, Haier Greentown Central Plaza, No.0 Long Ding Avenue, Longdong Street, Lixia District, Jinan City, Shandong Province, People's Republic of China;Shandong University, C315, Expressway Building, Xinglongshan Campus, Shandong University, No.12550 Erhuan East Road, Shizhong District, Jinan City, Shandong Province, People's Republic of China ~72: HOU Fujin;LI Liping;LI Tao;LIU Qun;RUI Yikang;TANG Haotian;TIAN Yuan;WU Jianqing;XU Jiabin;YANG Ziliang;ZHOU Yong;ZUO Zhiwu~

2022/04002 ~ Complete ~54:AUTOMATIC MONITORING SYSTEM AND METHOD FOR WATER SEEPAGE OR WATER LEAKAGE ON SURFACE OF STRUCTURES ~71:SHANDONG HI-SPEED GROUP CO,LTD, No.8 Long&#39;ao North Road, Lixia District, Jinan City, Shandong Province, People's Republic of China;Shandong Hi-Speed Construction Management Group CO.LTD., Floor 5-9, Block A1, Haier Greentown Central Plaza, No.0 Long Ding Avenue, Longdong Street, Lixia District, Jinan City, Shandong Province, People's Republic of China;Shandong University, C315, Expressway Building, Xinglongshan Campus, Shandong University, No.12550 Erhuan East Road, Shizhong District, Jinan City, Shandong Province, People's Republic of China ~72: HOU Fujin;LI Liping;LI Tao;RUI Yikang;TIAN Yuan;WU Jianqing;XU Jiabin;YANG Ziliang;ZHANG Wei;ZHOU Yong;ZUO Zhiwu~

2022/04007 ~ Complete ~54:PANAROMIC ELEVATOR CAR WITH SAFETY PROTECTION STRUCTURES ~71:Nantong Runya Electromechanical Technology Co., Ltd., No.266, Yuanzhuang Road, Haian High-tech Zone, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: TIAN, Zhenyu~ 33:CN ~31:202110827648.6 ~32:21/07/2021

2022/04011 ~ Complete ~54:VISUAL TEST APPARATUS FOR PERMEABLE GROUTING OF FRACTURED COAL ROCK MASS AND TEST METHOD THEREOF ~71:China University of Mining and Technology, No. 1 University Road, XUZHOU CITY 221116, JIANGSU, CHINA (P.R.C.), People's Republic of China ~72: HUANG, Bingxiang;LI, Weiteng;LIU, Hui;LU, Yinlong;MENG, Qingbin;SHEN, Shibao;WANG, Gang;WANG, Hongtao;WANG, Qi;YAO, Qiangling;ZHANG, Mengliang;ZHOU, Yuejin~

2022/04014 ~ Complete ~54:A GYNECOLOGICAL SIALIDASE TEST KIT ~71:ANHUI DEEPBLUE MEDICAL TECHNOLOGY CO., LTD., 4th Floor D-1# Zone, Pearl Industrial Park, 106 Innovation Avenue, High-Tech Development Zone, Hefei, Anhui, 230088, People's Republic of China ~72: Bin WANG;Chao ZHANG;Chuanxiang GUO;Fengling CHEN;Jing XU;Yicheng ZHANG~

2022/04004 ~ Complete ~54:STEPWISE MULTIPLE REGRESSION ANALYSIS METHOD FOR VEGETATION GROWTH CHANGE COUPLED WITH CLIMATE ACCUMULATIVE EFFECTS ~71:South China Institute of Environmental Science, Ministry of Ecology and Environment, No. 18, Ruihe Road, Huangpu District, Guangzhou City, Guangdong Province, 510535, People's Republic of China ~72: FENG, Lijing;LIANG, Minxuan;LUO, Zhaohui;PAN, Cuihong;QIU, Zhiyuan;WEI, Zushuai~

2022/04010 ~ Complete ~54:DEVICE AND METHOD FOR TIME-UNLIMITED ROCK CRACK ORIENTATION IN SUPERDEEP BOREHOLE BY HYDRAULIC FRACTURING ~71:CHANGJIANG RIVER SCIENTIFIC RESEARCH INSTITUTE OF CHANGJIANG WATER RESOURCES COMMISSION, NO. 23, HUANGPU ROAD, JIANGSU PROVINCE, NANJING CITY, People's Republic of China;SHANGHAI INVESTIGATION, DESIGN & RESEARCH INSTITUTE CO., LTD., NO. 388, YIXIAN ROAD, People's Republic of China ~72: AI, Kai;CHEN, Jin;DING, Xiuli;DONG, Zhihong;FU, Jing;FU, Ping;HAN, Xiaoyu;HUANG, Shuling;LIU, Yuankun;LUO, Sheng;PENG, Qian;WANG, Bin;WANG, Fagang;WU, Aiqing;XU, Bing;YIN, Jianmin;ZHANG, Xinhui;ZHOU, Chao;ZHOU, Chunhua~

2022/04012 ~ Complete ~54:ROOT-TYPE WATER DRAINING AND PLUGGING INTEGRATED CONSTRUCTION METHOD FOR ROADWAYS PASSING THROUGH WATER-RICH FAULTS ~71:China University of Mining and Technology, No. 1 University Road, XUZHOU CITY 221116, JIANGSU, CHINA (P.R.C.), People's Republic of China ~72: CHEN, Yanlong;HUANG, Bingxiang;LI, Ming;LIU, Jiangfeng;LU, Haoran;MA, Dan;MENG, Qingbin;PU, Hai;SHAO, Bangbang;YAO, Ruoyao;ZHANG, Zhaoyun;ZHAO, Renbao~

2022/04015 ~ Complete ~54:A GOSSYPOL DEGRADING ENZYME CCE001A GENE AND AMINO ACID SEQUENCE AND THE APPLICATION THEREOF ~71:Shihezi University, College of Animal Science and Technology, North Campus of Shihezi University, Xiangyang Street, Beisi Road, Shihezi, Xinjiang Uygur Autonomous Region, 832000, People's Republic of China ~72: Cheng Chen;Li Zhang;Wenju Zhang;Xiaolong Yang~

2022/04023 ~ Complete ~54:AN ONCOLYTIC VIRUS VECTOR CODING FOR VARIANT INTERLEUKIN-2 (VIL-2) POLYPEPTIDE ~71:TILT BIOTHERAPEUTICS OY, c/o Biomedicum 2B Tukholmankatu 8 B 00290 Helsinki, Finland ~72: AKSELI HEMMINKI;DAFNE QUIXABEIRA;RIIKKA HAVUNEN;SADIA ZAFAR~ 33:FI ~31:20195876 ~32:11/10/2019

2022/04031 ~ Complete ~54:REFRIGERATION RECOVERY FROM REACTOR FEED IN A PROPANE DEHYDROGENATION SYSTEM ~71:Kellogg Brown & Root LLC, 601 Jefferson Avenue, HOUSTON 77002, TX, USA, United States of America ~72: REYNEKE, Rian~ 33:US ~31:62/898,439 ~32:10/09/2019

2022/04017 ~ Complete ~54:AN IMPROVED PROCESS FOR THE RECOVERY OF ZINC FROM ZINC-BEARING RAW MATERIALS ~71:T&C CNICAS REUNIDAS, S.A., Avenida de Burgos, 89, Adequa - Edificio 6, E-28050, Madrid, Spain ~72: ANA BELLO;N MEJIA;AS CORDERO;EMILIO PECHARROM~ 33:N



MERCADO;MAR&#205;A FRADES TAPIA;SERGIO SANGUILINDA SOL&#193;N~ 33:EP ~31:19382898.5  
~32:14/10/2019

2022/04020 ~ Complete ~54:METHOD OF PREDICTING REQUIREMENT FOR BIOLOGIC THERAPY  
~71:QUEEN MARY UNIVERSITY OF LONDON, Mile End Road, London, E1 4NS, United Kingdom ~72:  
COSTANTINO PITZALIS;FRANCES CLARE HUMBY;MYLES J LEWIS~ 33:GB ~31:1914079.7 ~32:30/09/2019

2022/04024 ~ Complete ~54:COMPLEMENT COMPONENT C3 IRNA COMPOSITIONS AND METHODS OF  
USE THEREOF ~71:ALNYLAM PHARMACEUTICALS, INC., 675 West Kendall Street, Henri A. Termeer Square,  
Cambridge, Massachusetts, 02142, United States of America ~72: ADAM CASTORENO;CHARALAMBOS  
KAITTANIS;ELANE FISHILEVICH;JAMES D MCININCH;KRISTINA YUCIUS;MARK K SCHLEGEL;MARK  
KEATING;SARAH SOLOMON~ 33:US ~31:62/924,210 ~32:22/10/2019

2022/04027 ~ Complete ~54:WIRELESS POWER TRANSFER ~71:Koninklijke Philips N.V., High Tech Campus  
52, EINDHOVEN 5656 AG, THE NETHERLANDS, Netherlands ~72: DRAAK, Johannes Wilhelmus;LEBENS,  
Pascal Leonard Maria Theodoor;LULOFS, Klaas Jacob;VAN WAGENINGEN, Andries~ 33:EP ~31:19196160.6  
~32:09/09/2019

- APPLIED ON 2022/04/11 -

2022/04052 ~ Complete ~54:FLAVONE-RICH PHRAGMITES AUSTRALIS-FLAVORED SWEET FERMENTED  
RICE AND PREPARATION METHOD THEREOF ~71:YANCHENG TEACHERS UNIVERSITY, No. 2 South  
Road, Xiwang Avenue, Yancheng City, Jiangsu Province, 224002, People's Republic of China ~72: LIU,  
Zhongquan;QIN, Yanjun;WANG, Huanli;ZHANG, Shuai;ZHANG, Yanzhou~ 33:CN ~31:202110937705.6  
~32:16/08/2021

2022/04053 ~ Complete ~54:APPLICATION OF ICARIIN IN ANTIDEPRESSANT DRUG AND  
ANTIDEPRESSANT DRUG THEREOF ~71:North China University of Science and Technology, No. 21, Bohai  
Avenue, Caoheidian District, Tangshan City, Hebei Province, 063210, People's Republic of China ~72: BAI,  
Yanan;DI, Xiaoke;DING, Chong;LI, Yang;WAN, Meiyu;WANG, Ruiwen;ZHANG, Zhifei~

2022/04057 ~ Complete ~54:METHOD OF GRAFTING WITH STICKING BUD FOR EUCOMMIA ULMOIDES  
OLIV. ELITE VARIETY ~71:Research Institute of Non-timber Forestry, Chinese Academy of Forestry, No. 3,  
Weiwu Road, Jinshui District, Zhengzhou City, Henan Province, 450003, People's Republic of China ~72: DU,  
Hongyan;DU, Lanying;DU, Qingxin;LIU, Panfeng;SUN, Zhiqiang;WANG, Lu~ 33:CN ~31:202110721408.8  
~32:28/06/2021

2022/04064 ~ Complete ~54:EYE TRACKER WITH SPORT ANTI-SHAKING FUNCTION ~71:China University of  
Mining and Technology, No1, Daxue Road, Xuzhou, Jiangsu, 221116, People's Republic of China ~72: Canpeng  
Liu;Fan Jiang;Fangyuan Tian;Jiang Shao;Jintuo Zhu;Jun Yao;Lulu Chen;Mengling Geng;Rongting  
Huang;Shihang Li;Xijie Zhao;Ying Zhang;Yuxin Bai~

2022/04090 ~ Complete ~54:SUBSTITUTED 1, 6-NAPHTHYRIDINE INHIBITORS OF CDK5 ~71:Goldfinch Bio,  
Inc., 215 First Street, CAMBRIDGE 02142, MA, USA, United States of America ~72: DANIELS, Matthew  
H.;HARMANGE, Jean-Christophe P.;LEDEBOER, Mark W.;MALOJCIC, Goran;WANG, Jenna Lijie;WILLIAMS,  
Brett D.;YU, Maolin~ 33:US ~31:62/908,952 ~32:01/10/2019;33:US ~31:63/050,384 ~32:10/07/2020

2022/04035 ~ Provisional ~54:PROPSALE BRIDGE FACILITY ~71:Theobald Mbadaliga, 11 The Views, 44  
Sydney Road, South Africa ~72: Theobald Mbadaliga~

2022/04037 ~ Provisional ~54:SMART LOAD SHEDDING MECHANISM ON ENERGY SMART METER

~71:Phumo Kenneth Maduna, 57 Calomel Street, South Africa ~72: Phumo Kenneth Maduna~

2022/04038 ~ Provisional ~54:LOAD MEASURING AND LOAD INDICATOR DEVICE - LOAD CELL ~71:Mining

Product Developments (Pty)Ltd, 10 Vegkop Street, Noordheuwel, South Africa ~72: Frans Roelof Petrus Pienaar / Mark Howell~

2022/04042 ~ Complete ~54:AN EXPERIMENTAL DEVICE FOR SIMULATING SOIL SETTLEMENT ABOVE

TUNNEL CONSTRUCTION ~71:Zhejiang University City College, No. 51, Huzhou Street, Gongshu District, Hangzhou City, Zhejiang Province, People's Republic of China ~72: Fang Yaoyue;Hu Chengbao;Li Bing;Su Shuming;Yu Junye;Zhang Yuanjian~ 33:CN ~31:202220556584.0 ~32:15/03/2022

2022/04092 ~ Complete ~54:NEW BRAF INHIBITORS AS PARADOX BREAKERS ~71:F. Hoffmann-La Roche

AG, Grenzacherstrasse 124, BASEL 4070, SWITZERLAND, Switzerland ~72: DOLENTE, Cosimo;HEWINGS, David Stephen;HUNZIKER, Daniel;KRUMMENACHER, Daniela;PETTAZZONI, Piergiorgio Francesco Tommaso;WICHMANN, Juergen~ 33:EP ~31:19214867.4 ~32:10/12/2019

2022/04043 ~ Complete ~54:A COMPUTATIONAL MODEL OF CONSCIOUSNESS ~71:DONGRE, Anil

Pruthviraj, Director, School of Management Studies, KBC North Maharashtra University, Jalgaon, Jalgaon, India;GHARDE, Asmina Sanjay, Ashoknagar, Post. Shahapur, Tal. Dist. Bhandara, India;GHARDE, Sanjay Sadashio, Ashoknagar, Post. Shahapur, Tal. Dist. Bhandara, India;RAMTEKE, Rakesh Jagdish, Professor, School of Computer Sciences, KBC North Maharashtra University, Jalgaon, India ~72: DONGRE, Anil Pruthviraj;GHARDE, Asmina Sanjay;GHARDE, Sanjay Sadashio;RAMTEKE, Rakesh Jagdish~

2022/04049 ~ Complete ~54:A KIND OF EQUIPMENT AND METHOD FOR MEASURING SIDE COVERAGE OF

VEGETATION ~71:Institute Of Water Resources for Pastoral Area,MWR, No. 128, University East Road, Saihan District, Hohhot, Inner Mongolia Autonomous Region, People's Republic of China ~72: Bao Lili;Dang Xiaohong;Dong Lei;Gao Yong;Han Yanlong;Han Zhaoen;Li Jinrong;Li Qi;Li Xiting;Li Ying;Luo Xiangying;Wang Ru;Zheng Ying~

2022/04050 ~ Complete ~54:TEST METHOD OF PARTICLE SIZE AND PARTICLE SIZE DISTRIBUTION OF

EPRISTERIDE DRUG SUBSTANCE ~71:Jiangsu Lianhuan Pharmaceutical Co., Ltd., No. 9, Jiankangyi Road, Biological Health Industry Park, Yangzhou, Jiangsu, 225000, People's Republic of China ~72: HUANG, Kun;JIA, Zhixiang;LU, Qiang;NIU, Ben;SUN, Linlin;ZHAO, Jian~ 33:CN ~31:202110403374.8 ~32:14/04/2021

2022/04056 ~ Complete ~54:METHOD FOR MEASUREMENT OF DRAFT OF SHIP ~71:ShanDong JiaoTong

University, No. 5 Jiaoxiao Road, Tianqiao District, Jinan City, Shandong, 250023, People's Republic of China ~72: LIN, Haihua;SUN, Chengmeng;ZHANG, Baihu;ZHANG, Yang~

2022/04058 ~ Complete ~54:USE OF INVS PROTEIN IN PREPARATION OF MEDICAMENT FOR REPAIRING

HEAVY METAL-INDUCED TESTICULAR INJURY ~71:The Second Affiliated Hospital and Yuying Children's Hospital of Wenzhou Medical University, 109 Xueyuan Western Road, Wenzhou City, Zhejiang Province, 325000, People's Republic of China ~72: CAO, Shuyan;CHU, Jinjin;GE, Renshan;LI, Linxi;LI, Xiaoheng;LV, Lixiu;WANG, Yiyang;WU, Ying~ 33:CN ~31:202111486020.0 ~32:07/12/2021

2022/04061 ~ Complete ~54:IMMUNOCOLLOIDAL GOLD TEST STRIP FOR DETECTING TOMATO BROWN

RUGOSE FRUIT VIRUS AND PREPARATION METHOD THEREOF ~71:Shandong Agricultural University, 61 Daizong Street, Tai'an City, Shandong Province, 271018, People's Republic of China ~72: Geng Chao;Li Xiangdong;Ma Huayu;Mo Xiuqi;Tian Yanping;Yan Zhiyong~ 33:CN ~31:202110941685X ~32:17/08/2021

2022/04066 ~ Complete ~54:MULTIMODAL BIOMETRICS SYSTEM BASED ON TOUCH AND TOUCHLESS FINGERPRINT BIOMETRICS OF AN INDIVIDUAL FOR EFFICIENT PERSON IDENTIFICATION ~71:JOSHI, Suvarna, Balaji Institute of Telecom & Management, Sri Balaji University, Tathawade, Pune, India ~72: JOSHI, Suvarna~

2022/04074 ~ Complete ~54:URBAN AIR MOBILITY CARGO MODULE SWAPPING SYSTEM ~71:MOMBRINIE, Bruno, PO Box 700, Forestville, CA 95436, United States of America ~72: MOMBRINIE, Bruno~ 33:US ~31:62/904,328 ~32:23/09/2019

2022/04089 ~ Complete ~54:ORALLY IMPLANTABLE DRUG DELIVERY DEVICE ~71:Oak Crest Institute of Science, Oak Crest Institute Of Science, 132 West Chestnut Avenue, MONROVIA 91016, CA, USA, United States of America ~72: ANTON, Peter A.;BAUM, Marc M.;MOSS, John A.~ 33:US ~31:62/911,765 ~32:07/10/2019;33:US ~31:62/941,267 ~32:27/11/2019;33:US ~31:63/061,483 ~32:05/08/2020

2022/04069 ~ Complete ~54:IN-LINE PRODUCT MONITORING IN INTEGRATED CONTINUOUS BIO-MANUFACTURING ~71:GENZYME CORPORATION, 50 Binney Street, Cambridge, MA, United States of America ~72: KANG, Xuezheng;KUTZKO, Joseph, P.;SNOW, Robert~ 33:US ~31:62/924,551 ~32:22/10/2019

2022/04087 ~ Complete ~54:TREATMENT OF HIDRADENITIS WITH JAK INHIBITORS ~71:Pfizer Inc., 235 East 42nd Street, NEW YORK 10017, NY, USA, United States of America ~72: FENSOME, Andrew;GERSTENBERGER, Brian Stephen;OWEN, Dafydd Rhys~ 33:US ~31:62/899,133 ~32:11/09/2019

2022/04093 ~ Complete ~54:SOLID COMPOSITIONS COMPRISING A PCSK9 INHIBITOR AND A SALT OF N-(8-(2-HYDROXYBENZOYL)AMINO)CAPRYLIC ACID ~71:Novo Nordisk A/S, Novo Allé 233, BAGSVAERD 2880, DENMARK, Denmark ~72: BJERREGAARD, Simon;NAELAP, Kaisa;RAHBK, Ulrik Lytt;SASSENE, Philip Jonas;VEGGE, Andreas;WATER, Jorrit Jeroen~ 33:EP ~31:19207564.6 ~32:07/11/2019

2022/04036 ~ Provisional ~54:GRAVIGEM ~71:Peter Jordaan, 28 Marseille Crescent, South Africa ~72: Peter Phillip Jordaan~ 33:ZA ~31:1 ~32:08/04/2022

2022/04040 ~ Provisional ~54:POWERBALL SUPER POWER PLAY ~71:LLOYD, 1309, TLEBEBE SECTION, LUKA, South Africa ~72: LLOYD~ 33:US ~31:2015/0508 ~32:05/08/2015

2022/04047 ~ Complete ~54:PHARMACEUTICAL COMPOSITION COMPRISING AN ANTICOAGULANT AGENT AND METHOD FOR THE PREPARATION THEREOF ~71:PHARMATHEN S.A., 6 DERVENAKION STREET, 15351 PALLINI ATTIKIS, GREECE, Greece ~72: DRAGANOUDI, Christina;KALASKANI, Anastasia;KARAVAS, Evangelos;KIZIRIDI, Christina;KOUTRI, Ioanna;KOUTRIS, Efthymios;SAMARA, Vasiliki~

2022/04051 ~ Complete ~54:THREE-DIMENSIONAL ECOLOGICAL RESTORATION METHOD FOR COAL MINING SUBSIDENCE AREA ~71:Shandong Provincial Lunan Geology and Exploration Institute (The Second Geological Brigade of Shandong Provincial Bureau of Geology and Mineral Exploration and Development), No. 107, Jiuzhou Middle Road, Yanzhou District, Jining City, Shandong, 272100, People's Republic of China ~72: CHEN, Hongnian;GE, Jiangkun;LI, Hongliang;LI, Zhifeng;LIU, Hong;TAN, Xianfeng;WANG, Ning;WANG, Yuanxin;ZHANG, Yan;ZHOU, Jianwei~

2022/04054 ~ Complete ~54:SPROUTING INHIBITOR FOR INHIBITING GROWTH OF GRAFTED LATERAL BUDS OF MELONS AND PREPARATION METHOD THEREOF ~71:Weifang Academy of Agricultural Sciences (Weifang Branch of Shandong Academy of Agricultural Sciences), No. 1921, Shengli East Street, Weifang City, Shandong Province, 261071, People's Republic of China ~72: SUN, Shasha;YANG, Xiaodong;ZHANG, Yuanguo~ 33:CN ~31:202111335782.0 ~32:12/11/2021

2022/04062 ~ Complete ~54:APPLICATION OF ICARIIN IN PREVENTION AND TREATMENT OF NEURODEGENERATIVE DISEASES AND DRUG ~71:North China University of Science and Technology, No. 21, Bohai Avenue, Caoheidian District, Tangshan City, Hebei Province, 063210, People's Republic of China ~72: BAI, Yanan;DI, Xiaoke;DING, Chong;LI, Yang;WAN, Meiyu;WANG, Ruiwen;ZHANG, Zhifei~

2022/04065 ~ Complete ~54:A PILOT-SCALE MULTI-FUNCTIONAL CEMENTED PASTE BACKFILL TEST PLATFORM AND A TEST METHOD ~71:UNIVERSITY OF SCIENCE AND TECHNOLOGY BEIJING, No. 30 Xueyuan Road, Haidian District, People's Republic of China ~72: RUAN, Zhuen;WANG, Hongjiang;WANG, Jiandong;WANG, Shaoyong;WU, Aixiang~

2022/04068 ~ Complete ~54:MULTIPLEXED GENOME EDITING ~71:PRESIDENT AND FELLOWS OF HARVARD COLLEGE, 17 Quincy Street, Cambridge, Massachusetts, 02138, United States of America ~72: GEORGE M CHURCH;LUHAN YANG;MARC GUELL~ 33:US ~31:62/239,239 ~32:08/10/2015

2022/04071 ~ Complete ~54:4-SUBSTITUTED INDOLE AND INDAZOLE SULFONAMIDO DERIVATIVES AS PARG INHIBITORS ~71:IDEAYA BIOSCIENCES, INC., 7000 Shoreline Court, Suite 350, United States of America ~72: DILLON, Michael Patrick;SUTTON, JR., James Clifford~ 33:US ~31:62/903,438 ~32:20/09/2019

2022/04075 ~ Complete ~54:COMPOSITIONS COMPRISING CYTISINE IN THE TREATMENT AND/OR PREVENTION OF ADDICTION IN SUBJECTS IN NEED THEREOF ~71:ACHIEVE LIFE SCIENCES, INC., 520 Pike Street, Suite 2250, Seattle, Washington, 98101, United States of America ~72: ANTHONY CLARKE;CINDY A JACOBS;DANIEL F CAIN~ 33:US ~31:62/899,637 ~32:12/09/2019;33:US ~31:62/988,890 ~32:12/03/2020

2022/04076 ~ Complete ~54:COMPOSITIONS HAVING PESTICIDAL UTILITY AND PROCESSES RELATED THERETO ~71:CORTEVA AGRISCIENCE LLC, 9330 Zionsville Road, Indiana, 46268, United States of America ~72: KENT DAVIES;LUIS ENRIQUE GOMEZ;MARTIN J WALSH;RICKY HUNTER~ 33:US ~31:62/944,437 ~32:06/12/2019

2022/04080 ~ Complete ~54:WATER INLET SOLENOID VALVE CAPABLE OF IMPROVING ELECTROMAGNETIC ATTRACTION AND IMPLEMENTING METHOD THEREFOR ~71:JIANGMEN TIANDI ELECTRICAL APPLIANCE CO., LTD, No.1, Jingmianer Road, Duruan Town, Pengjiang District, Jiangmen, Guangdong, 529075, People's Republic of China ~72: HONGBIAO WANG;LIN AO~ 33:CN ~31:201910898273.5 ~32:23/09/2019

2022/04081 ~ Complete ~54:COMPRESSED NICOTINE LOZENGE ~71:FERTIN PHARMA A/S, Dandyvej 19, 7100, Vejle, Denmark ~72: BRUNO PROVSTGAARD NIELSEN;DORTHE SCHACKINGER BOESEN;HEIDI ZIEGLER BRUUN;KENT ALBIN NIELSEN;RIKKE PRANGER-RASMUSSEN~ 33:US ~31:16/599,629 ~32:11/10/2019

2022/04083 ~ Complete ~54:DEODORANT COMPOSITIONS ~71:UNILEVER GLOBAL IP LIMITED, Port Sunlight, Wirral, Merseyside, CH62 4ZD, United Kingdom ~72: CERI ANNE EVANS;JOY MCWALTER~ 33:EP ~31:19209486.0 ~32:15/11/2019

2022/04085 ~ Complete ~54:3-(4-(11H-DIBENZO[B,E][1,4]AZEPIN-6-YL)PIPERAZIN-1-YL)- AND 3-(4-(DIBENZO[B,F][1,4]OXAZEPIN/THIAZEPIN/DIAZEPIN-11-YL)PIPERAZIN-1-YL)-PROPANOIC ACID DERIVATIVES AS H1 AND 5-HT2A-RECEPTOR MODULATORS FOR THE TREATMENT OF SLEEP DISORDERS ~71:Alairion, Inc., P.O. Box 440, BELMONT 02148, MA, USA, United States of America ~72: DUGGAN, Mark E.;EDGAR, Dale M.~ 33:US ~31:62/923,762 ~32:21/10/2019;33:US ~31:63/002,096 ~32:30/03/2020

2022/04088 ~ Complete ~54:COMPOSITE BASED ON CUBIC BORON NITRIDE AND METHOD OF MAKING THEREOF ~71:Diamond Innovations, Inc., 6525 Huntley Road, WORTHINGTON 45085, OH, USA, United States of America ~72: DUES, Lawrence;SHAO, Rui~ 33:US ~31:62/952,820 ~32:23/12/2019

2022/04097 ~ Complete ~54:COMPRESSION TYPE STRAND OF TEXTURED FILAMENT FOR WIGS AND METHOD FOR PRODUCTION OF THE SAME ~71:LEE, Hae Ju, C-801, 56, Eonju-ro 30-gil, Gangnam-gu, SEOUL 06294, REPUBLIC OF KOREA, Republic of Korea ~72: LEE, Hae Ju~ 33:KR ~31:10-2020-0130478 ~32:08/10/2020

2022/04100 ~ Complete ~54:PYRIDINE OXYNITRIDE, PREPARATION METHOD THEREFOR AND USE THEREOF ~71:JIANGXI JEMINCARE GROUP CO., LTD, Block 14, Zhongxing Nanchang Software Park Industrial Park, No.688 Aixihu North Road, People's Republic of China;SHANGHAI JEMINCARE PHARMACEUTICALS CO., LTD, 1st Floor, Block 1, No.1118 Halei Road, Pilot Free Trade Zone, Pudong New Area, People's Republic of China ~72: CHENG, Fengkai;DAI, Ming;GUO, Haibing;LUO, Jiu;PENG, Jianbiao;WANG, Zhongli;YE, Yan;ZHANG, Qiong~ 33:CN ~31:201910863718.6 ~32:12/09/2019;33:CN ~31:201911094782.9 ~32:11/11/2019;33:CN ~31:202010531381.1 ~32:11/06/2020;33:CN ~31:202010923311.0 ~32:04/09/2020

2022/04094 ~ Complete ~54:METHOD OF MAKING PURIFIED PRECIPITATED CALCIUM CARBONATE FROM LIME MUD ~71:Specialty Minerals (Michigan) Inc., 30600 Telegraph Road, BINGHAM FARMS 48025, MI, USA, United States of America ~72: COX, Sherman;DAIGLE, Mark;SAMMARCO, Timothy~ 33:US ~31:62/924,563 ~32:22/10/2019

2022/04070 ~ Complete ~54:FUEL CELL SYSTEM ~71:AVL LIST GMBH, Hans-List-Platz 1, Austria ~72: LERCH, Matthias;MAKINSON, Julian;NEUBAUER, Raphael;P&#214;SCHL, Robert;SOUKUP, Nikolaus~ 33:AT ~31:A51078/2019 ~32:09/12/2019

2022/04073 ~ Complete ~54:A MEDICAL THERAPEUTIC DEVICE ~71:ROHERA, Hemant Karamchand, Flemingo Raheja Gardens, Wanowrie,, India ~72: ROHERA, Hemant Karamchand~ 33:IN ~31:201921036412 ~32:10/09/2019

2022/04077 ~ Complete ~54:USE OF A GLYCINE BETAINE DERIVATIVE AS AN AGENT FOR CONDITIONING KERATIN FIBRES ~71:SURFACTGREEN, Carrefour Jean Monnet - BP20101, 60201, Compiègne Cedex, France ~72: FRANCIS GALLE;FREDDY PESSEL;XAVIER ROUSSEL~ 33:FR ~31:1913084 ~32:22/11/2019;33:FR ~31:2008156 ~32:31/07/2020

2022/04079 ~ Complete ~54:LOW PRESSURE STUNNER ~71:JARVIS PRODUCTS CORPORATION, 33 Anderson Road, Middletown, Connecticut, 06457, United States of America ~72: ARTHUR JONES;TRENT JONES~ 33:US ~31:63/010,314 ~32:15/04/2020;33:US ~31:17/123,748 ~32:16/12/2020

2022/04082 ~ Complete ~54:METHODS OF USING ANTI-CD79B IMMUNOCONJUGATES TO TREAT DIFFUSE LARGE B-CELL LYMPHOMA ~71:F. HOFFMANN-LA ROCHE AG, Grenzacherstrasse 124, 4070, Basel, Switzerland;GENENTECH, INC., 1 DNA Way, South San Francisco, California, 94080, United States of America ~72: JAMIE HARUE HIRATA;JUANA ELVA HERNANDEZ MONTALVO;NASEER UL DIN QAYUM~ 33:US ~31:62/923,359 ~32:18/10/2019

2022/04095 ~ Complete ~54:COMPUTER IMPLEMENTED METHOD AND SYSTEM FOR STORING CERTIFIED DATA ON A BLOCKCHAIN ~71:nChain Holdings Limited, Fitzgerald House, 44 Church Street, ST. JOHN&#39;S, ANTIGUA & BARBUDA, Antigua and Barbuda ~72: MACKAY, Alexander Tennyson;TARTAN, Chloe Ceren;WRIGHT, Craig Steven~ 33:GB ~31:1913704.1 ~32:23/09/2019



2022/04096 ~ Complete ~54:CALL-BACK MECHANISMS FOR BLOCKCHAIN TRANSACTIONS ~71:nChain Holdings Limited, Fitzgerald House, 44 Church Street, ST. JOHN&#39;S, ANTIGUA & BARBUDA, Antigua and Barbuda ~72: COUGHLAN, Steven;MEE, Andrew James;SRAHA, Ambrose;WEERASINHA, Dulan~ 33:GB ~31:1914043.3 ~32:30/09/2019;33:GB ~31:2007597.4 ~32:21/05/2020;33:GB ~31:2010339.6 ~32:06/07/2020;33:GB ~31:2015358.1 ~32:29/09/2020

2022/04098 ~ Complete ~54:A METHOD FOR SEPARATING AND RECOVERING SUPER-ABSORBENT POLYMERS (SAP) FROM POST-CONSUMER ABSORBENT SANITARY PRODUCTS ~71:Fater S.p.A., Via Mare Adriatico, 122, SPOLTRE (PESCARA) I-65010, ITALY, Italy ~72: CARUSO, Tonino;D&#39;ALESSIO, Nicola~ 33:IT ~31:102019000025570 ~32:24/12/2019

2022/04039 ~ Provisional ~54:A MINE PROP ~71:THE TREVOR CHARLES FROST FAMILY TRUST (IT 3642/95), 4 NUT AVENUE, OLIFANTSFONTEIN, GAUTENG, 1665, SOUTH AFRICA, South Africa ~72: FROST, Trevor, Charles;THOMPSON, Kenneth, Mackay~

2022/04044 ~ Complete ~54:ANALYTIC HIERARCHY PROCESS BASED IMAGE PROCESSING SYSTEM ~71:ADYASHA RATH, Department of Computer Science and Engineering, Siksha O Anusandhan (Deemed to be)University, Bhubaneswar, India;GANAPATI PANDA, Department of Electronics and Tele Communication, C. V. Raman Global University, Bhubaneswar, India;HARISH KUMAR SAHOO, Professor, Department of Electronics and Telecommunication Engineering, Veer Surendra Sai University of Technology, Burla, Sambalpur, India;NARENDRA KUMAR ROUT, Computer Science Rajendra University Balangir, India;NIRJHARINEE PARIDA, C/O- Nirmal Chandra Parida Plot no 3D/454, CDA SECTOR 8,Cuttack, Near JIO office, India;SARTHAK PANDA, Research Scholar, Department of Electronics and Telecommunication Engineering, Veer Surendra Sai University of Technology, Burla, Sambalpur, India ~72: ADYASHA RATH;GANAPATI PANDA;HARISH KUMAR SAHOO;NARENDRA KUMAR ROUT;NIRJHARINEE PARIDA;SARTHAK PANDA~

2022/04048 ~ Complete ~54:INTELLIGENT CHEMICAL INDUSTRIAL PARK EMEGENCY COMPREHENSIVE MANAGEMENT SYSTEM BASED ON BIM AND GIS ~71:CHINA ACADEMY OF SAFETY SCIENCE AND TECHNOLOGY, Security Building, No. 32 Beiyuan Road, Chaoyang District, Beijing, People's Republic of China;DALIAN UNIVERSITY OF TECHNOLOGY, No.2 Linggong Road, Ganjingzi District, Dalian, Liaoning, 116024, People's Republic of China ~72: Daqing MA;Lijun WEI;Mingshu BI;Rujun WANG;Tianyi CHEN;Yingquan DUO;Yuanyuan WANG~ 33:CN ~31:202110622798.3 ~32:04/06/2021

2022/04055 ~ Complete ~54:RACK POST PROTECTOR ~71:Almoguera Injection and Blow Moulding (Pty) Ltd, 98 Newton Rd, Meadowdale, Edenvale, 1614, South Africa ~72: Francisco Almoguera~ 33:ZA ~31:2021/02858 ~32:29/04/2021

2022/04060 ~ Complete ~54:FOUR-CHANNEL CAPACITANCE SIGNAL ACQUISITION DEVICE FOR GESTURE RECOGNITION AND RECOGNITION METHOD ~71:Hangzhou Normal University Qianjiang College, No. 16, Xuelin Road, Qiantang District, Hangzhou City, Zhejiang, 310018, People's Republic of China ~72: HU, Keyong;LI, Jing;LIU, Jiale;WANG, Yuyuan;YING, Haozhe;YU, Jiacheng~

2022/04063 ~ Complete ~54:SECONDARY FOREST THINNING METHOD BASED ON STAND DEVELOPMENT INDEX ~71:Institute of Forest Resource Information Techniques, Chinese Academy of Forestry, No. 2 Dongxiaofu, Haidian District, Beijing, 100091, People's Republic of China ~72: CHENG, Guixia;HU, Shuping~ 33:CN ~31:202110913694.8 ~32:10/08/2021

2022/04072 ~ Complete ~54:CO-DELIVERY OF TGF-B SIRNA AND PDL1 SIRNA TO TREAT CANCER ~71:SIRNAOMICS, INC., 401 PROFESSIONAL DR., SUITE 280, GAITHERSBURG, MARYLAND 20879, USA, United States of America ~72: EVANS, David, M.;LU, Patrick, Y.~ 33:US ~31:62/899,535 ~32:12/09/2019

2022/04045 ~ Complete ~54:HARD DISK INSTALLATION STRUCTURE FOR COMPUTER ~71:JIANGSU OCEAN UNIVERSITY, No. 59 Cangwu Road, Haizhou District, Lianyungang City, People's Republic of China ~72: DOU, Yuxiang;MA, Juanli;ZHOU, Tao~

2022/04046 ~ Complete ~54:A POWER SYSTEM DISTURBANCE CLASSIFICATION USING SUPPORT VECTOR MACHINE AND A METHOD THEREOF ~71:AMIT KUMAR PANDEY, Assistant Professor Department of Applied Science & Humanities, Rajkiya Engineering College, India;ASEEM CHANDEL, Associate Professor Department of Electrical Engineering, Rajkiya Engineering College Mainpuri, Agra Road, India;PRINCE RAJPOOT, Assistant Professor Department of Information Technology, Rajkiya Engineering College, India;SANJEEV KUMAR TRIVEDI, Professor Department of Applied science and humanities, Khawaja Moinuddin chishti Language university, India;SHIKHA CHOUDHARY, Research Scholar Department of Electronics and Communication Engineering, Madan Mohan Malaviya University of Technology, India;TARUN KUMAR GUPTA, Assistant Professor Department of Electronics and Communication Engineering, Maulana Azad National Institute of Technology, Bhopal, India;VIKAS PATEL, Assistant Professor Department of Electrical Engineering, Rajkiya Engineering College, India;VISHAL SINGH CHANDEL, Professor Department of Applied Science & Humanities, Rajkiya Engineering College, India;VIVEK PATEL, Research Scholar Department of Electrical Engineering, Motilal Nehru National Institute of Technology Allahabad, India;YUDHISTHIR PANDEY, Assistant Professor Department of Electrical Engineering, Rajkiya Engineering College, India ~72: AMIT KUMAR PANDEY;ASEEM CHANDEL;PRINCE RAJPOOT;SANJEEV KUMAR TRIVEDI;SHIKHA CHOUDHARY;TARUN KUMAR GUPTA;VIKAS PATEL;VISHAL SINGH CHANDEL;VIVEK PATEL;YUDHISTHIR PANDEY~

2022/04041 ~ Provisional ~54:MOUNTING BASE BOARD FOR A SUCTION CUP DILDO ~71:Bronwen del Paggio, 58 Lloyds Ellis Ave, South Africa;Matthew Davey, 58 Lloyds Ellis Ave, South Africa ~72: Bronwen del Paggio;Matthew Davey~

2022/04059 ~ Complete ~54:BRACKET WITH PROTECTION FUNCTION FOR WIRELESS TEMPERATURE MEASURING EQUIPMENT AND METHOD OF APPLICATION ~71:Xuzhou College of Industrial Technology, No.1, Xiangwang Road, Gulou District, Xuzhou City, Jiangsu Province, People's Republic of China ~72: SONG Peisen;WANG Chixi;XU Yunhui;YU Bencheng~ 33:CN ~31:202210189141.7 ~32:28/02/2022

2022/04067 ~ Complete ~54:A VARYING LOAD CREEP TESTING MACHINE ~71:AWARI, G. K., HEAD OF AUTOMOBILE ENGINEERING DEPARTMENT, GOVERNMENT POLYTECHNIC, India;RAMANI, Hardik, DEPARTMENT OF MECHANICAL ENGINEERING, DR. A.P.J. ABDULKALAM UNIVERSITY, India;TOTEY, Arvind Balkrishna, DEPARTMENT OF MECHANICAL ENGINEERING, DR. A.P.J. ABDUL KALAM UNIVERSITY, India ~72: ADE, Anand Subhash;AWARI, G. K.;BANPURKAR, Ritesh Diliprao;BANSOD, Hemant Murlidharappa;BORKAR, Gayatri Bhujangrao;DHONE, Nandadeep Deepak;DONGRE, Apurva Sanjay;JAISWAL, Pankaj Harnarayan;JOSHI, Yogesh;KOSARE, Harsh Suresh;MAHULKAR, Yogesh Ramdas;NAGDAVNE, Rahul Shivdas;PACHARE, Aman Deepak;RAMANI, Hardik;RANDIVE, Praful Ramesh Rao;SAHARE, Neeraj Sushilkumar;SAWAI, Nandkishor Marotrao;TALMALE, Rajat Vilas;TALODHIKAR, Vijay Pundalik;THAKUR, Gaurav Vivekanand;TIWARI, Aman Krishnamohan;TOTEY, Arvind Balkrishna;VAIRAGADE, Aniket Sanjay~

2022/04078 ~ Complete ~54:DISK CUTTER ~71:ELEMENT SIX (UK) LIMITED, Global Innovation Centre, Fermi Avenue, Harwell Oxford, Didcot, Oxfordshire, OX11 0QR, United Kingdom ~72: SHUO LU~ 33:GB ~31:1917708.8 ~32:04/12/2019;33:GB ~31:2005020.9 ~32:06/04/2020

2022/04084 ~ Complete ~54:BICYCLIC AMINES AS CDK2 INHIBITORS ~71:CHEN, Yingnan, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America;FAVATA, Margaret, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America;HUMMEL, Joshua, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America;Incyte Corporation, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America;LO, Yvonne, 1801 Augustine Cut-Off, WILMINGTON

19803, DE, USA, United States of America;XU, Meizhong, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America;YE, Min, 1801 Augustine Cut-Off, WILMINGTON 19803, DE, USA, United States of America ~72: CHEN, Yingnan;FAVATA, Margaret;HUMMEL, Joshua;LI, Zhenwu;LO, Yvonne;QIAN, Ding-Quan;WINTERTON, Sarah;WU, Liangxing;XIAO, Kaijiong;XU, Meizhong;YAO, Wenqing;YE, Min;YE, Yingda~ 33:US ~31:62/914,114 ~32:11/10/2019

2022/04086 ~ Complete ~54:ANTI-PATHOGEN COMPOSITIONS ~71:CLAW Biotech Holdings, LLC, 12710 Wyndrose Ct., ST. LOUIS 63131, MO, USA, United States of America ~72: DUDDING, Jeffery L.;PARANJPE, Amod P.~ 33:US ~31:62/893,513 ~32:29/08/2019;33:US ~31:63/007,743 ~32:09/04/2020

2022/04091 ~ Complete ~54:BEVERAGE CONTAINER FOR FORMING A HEAD ON A POURED BEVERAGE ~71:Diageo Ireland Unlimited Company, St James's Gate, The Liberties, DUBLIN, IRELAND, Ireland ~72: BOYCE, Jeff;HEINTZ, Amy~ 33:GB ~31:1917194.1 ~32:26/11/2019

2022/04099 ~ Complete ~54:SPECIFIC BINDING MOLECULES ~71:Immunocore Limited, 92 Park Drive, Milton Park, ABINGDON OX14 4RY, OXFORDSHIRE, UNITED KINGDOM, United Kingdom ~72: CHILLAKURI, Chandramouli;DIAS DO NASCIMENTO, Jorge;HAYES, Conor;JAMES, Peter;O'DWYER, Ronan;PARKER, James;POOLE, Andrew~ 33:GB ~31:1915282.6 ~32:22/10/2019

2022/04101 ~ Complete ~54:PRECISE HOLE MAKING DEVICE FOR GRAPE PRESERVATIVE SLOW-RELEASE PACKAGING AND METHOD FOR USING SAME ~71:National Engineering and Technology Research Center for Preservation of Agricultural Products (Tianjin), 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China;Tianjin Academy of Agricultural Sciences, 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China;Tianjin Guojia Agricultural Products Preservation Productivity Promotion Co., Ltd., 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China ~72: CHEN, Cunkun;DONG, Chenghu;JI, Haipeng;WANG, Wensheng;YU, Jinze;ZHANG, Na~

- APPLIED ON 2022/04/12 -

2022/04104 ~ Complete ~54:ELECTROCHROMIC DEVICE AND PREPARATION METHOD THEREOF, AND APPARATUS ~71:Sun Yat-sen University, No. 135, Xingang Xi Road, Guangzhou, People's Republic of China ~72: LIN, Yu-Sheng;WEN, Yao~ 33:CN ~31:202111313748.3, ~32:08/11/2021

2022/04106 ~ Complete ~54:SEED GERMINATION DISH ~71:Institute Of Water Resources for Pastoral Area, MWR, No. 128, University East Street, Hohhot, Inner Mongolia, 010010, People's Republic of China ~72: ABIYASI;CHENG, Bo;GE, Nan;LI, Hongfang;LI, Jinrong;RONG, Hao;WANG, Jian;YIN, Ruiping;ZHANG, Ziqi~

2022/04118 ~ Complete ~54:INTELLIGENT FOREST FIRE PREDICTION DEVICE AND METHOD ~71:Sichuan Normal University, No.5, Jing'an Road, Jinjiang District, Chengdu, Sichuan, People's Republic of China ~72: LUO Hongsen~

2022/04124 ~ Complete ~54:ACCURATE AND CONTINUOUS MEASUREMENT AND RECORDING DEVICE AND DETERMINATION METHOD FOR FREEZING POINTS OF LIVING TISSUES OF FRUITS AND VEGETABLES ~71:National Engineering and Technology Research Center for Preservation of Agricultural Products (Tianjin), 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China;Tianjin Academy of Agricultural Sciences, 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China;Tianjin Guojia Agricultural Products Preservation Productivity Promotion Co., Ltd., 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China;Tianjin Xingyou Fruit and Vegetable Planting Professional Cooperative, Xiaoshahe Village, Hexiwu Town, Wuqing District, TIANJIN 301714, CHINA (P.R.C.), People's

Republic of China ~72: CHEN, Cunkun;DONG, Chenghu;FU, Jinming;JI, Haipeng;YU, Jinze;ZHANG, Na;ZHENG, Xuewei~

2022/04132 ~ Complete ~54:METHOD FOR PREDICTING MACHINING ACCURACY OF NUMERICAL CONTROL MILLING AND BORING MACHINE BASED ON THERMAL ANALYSIS ~71:ANHUI JIANGJI HEAVY DUTY CNC MACHINE TOOL CO., LTD., Dongqi Road, Economic Development Zone, Lu'an City, People's Republic of China ~72: SI, Wenfeng~

2022/04103 ~ Provisional ~54:A CAP TO SECURE A COMPRESSED GAS CARTRIDGE IN A HOLDER ~71:SUSANNA DORATHEA JANSEN, 25 Andries Pretorius Street, Sandbaai, South Africa ~72: JACOBUS MARTHINUS JOHANNES JANSEN~

2022/04108 ~ Complete ~54:SAMPLING MIXER FOR COLLECTING BASIN IN RUNOFF PLOT ~71:Institute Of Water Resources for Pastoral Area, MWR, No. 128, University East Street, Hohhot, Inner Mongolia, 010010, People's Republic of China ~72: ABIYASI;CHENG, Bo;DONG, Lei;JIN, Lingna;LIU, Hu;MIAO, Henglu;TIAN, Xiumin;YIN, Ruiping;ZHANG, Ziqi~

2022/04111 ~ Complete ~54:METHOD FOR MANUFACTURING ARCHAIZING STUB POTTED LANDSCAPE THROUGH GRAFTING OF LAGERSTROEMIA INDICA THICK BRANCH ~71:Taishan University, No. 525, Dongyue Street, Tai'an City, Shandong Province, 271000, People's Republic of China ~72: LIANG, Wei;YU, Yongchang;ZHANG, Liqin;ZHANG, Qinghua;ZHANG, Ting;ZHENG, Mingjing;ZHU, Cuicui~

2022/04116 ~ Complete ~54:VASCULAR CLAMP FOR VASCULAR SURGERY ~71:LV, Zhongjun, No. 312 Gongnong Road, Nanyang City, Henan, 473001, People's Republic of China ~72: LV, Zhongjun~

2022/04119 ~ Complete ~54:WATERPROOF CONTROL METHOD BY GROUTING FOR WORKING FACE PASSING THROUGH COLLAPSE COLUMN ~71:China University of Mining & Technology, Beijing, No.11 Xueyuan Road, Haidian District, Beijing City, People's Republic of China;Jiangsu hengyichuang intelligent technology co., ltd, (CNK) Room 216, Unit 2, South B-17, Big Data Industrial Park, Yannan High-tech New Area, Yancheng City, Jiangsu Province, People's Republic of China;North China Institute of Science and Technology, No.368, North Shimen Road, Wulituo Nangong Station, Shijingshan District, Beijing City, People's Republic of China;Yulin Vocational and Technical College Shenmu Campus, No.1 Xueyuan Road, Binhe New District, Shenmu City, Shaanxi Province, People's Republic of China ~72: AI Guo;CHEN Haoyi;CHEN Liang;CHENG Zhiheng;GAO Haobin;GUO Kai;LI Jianfa;LI Rui;LIU Qiang;PAN Hui;ZHANG Jingui;ZHAO Zhiqiang~

2022/04125 ~ Complete ~54:ADJUSTABLE TOW BAR LOAD STABILISER ~71:STYLE, Leon Edward, 11 Dryden Avenue, Comet, BOKSBURG 1459, Gauteng, SOUTH AFRICA, South Africa ~72: STYLE, Leon Edward~

2022/04127 ~ Complete ~54:A RAPID BOOK ACCESS DEVICE ~71:CHAUDHARI, Anagha, Pimpri Chinchwad College of Engineering, Pune, India;JADHAV, Anuja, Pimpri Chinchwad College of Engineering, Pune, India;JAISWAL, Swati, Pimpri Chinchwad College of Engineering, Pune, India;JHAVERI, Rutvij, Pandit Deendayal Energy University, Gandhinagar, India;MANE, Deepak, JSPM's Rajarshi Shahu College of Engineering, Pune, India;PATIL, Sonali, Pimpri Chinchwad College of Engineering, Pune, India;RAUT, Roshani, Pimpri Chinchwad College of Engineering, Pune, India;SURYAWANSHI, Kavita, D. Y. Patil Institute of Master of Computer Applications and Management, Akurdi, Pune, India ~72: CHAUDHARI, Anagha;JADHAV, Anuja;JAISWAL, Swati;JHAVERI, Rutvij;MANE, Deepak;PATIL, Sonali;RAUT, Roshani;SURYAWANSHI, Kavita~

2022/04130 ~ Complete ~54:SMALL MOLECULAR MARKER FOR DETECTING ADULTERATED COW'S MILK IN RAW MARE'S MILK AND MARE'S MILK POWDER AND MEASUREMENT METHOD THEREOF ~71:QINGDAO AGRICULTURAL UNIVERSITY, No. 700 Changcheng Road, Chengyang District, Qingdao, People's Republic of China;XINJIANG AGRICULTURAL UNIVERSITY, No. 42, Nanchang Road, Shaybak



District, People's Republic of China ~72: DU, Qijing;FAN, Rongbo;HAN, Rongwei;JI, Zhongyuan;WANG, Jun;YANG, Yongxin;YU, Zhongna;ZANG, Changjiang;ZHANG, Junyu~

2022/04134 ~ Complete ~54:A CHILD-MOTHER EXPANSION SCREW ASSEMBLY ~71:HEBEI XINTAI BEARING FORGING CO., LTD, Two Kilometers East of Linxi County, Xingtai City, People's Republic of China ~72: BAI, Song;HU, Jiyong;LI, Jingui~

2022/04136 ~ Complete ~54:USE OF IMIDAZOPYRIMIDINE OR IMIDAZOTRIAZINE COMPOUNDS FOR PREVENTION, ALLEVIATION, OR TREATMENT OF COGNITIVE DISORDERS, OR FOR IMPROVING COGNITIVE FUNCTION ~71:SK BIOPHARMACEUTICALS CO., LTD., 221, Pangyoyeok-ro, Bundang-gu, Republic of Korea ~72: CHUNG, Jin Yong;JOUNG, Chan Mi~ 33:KR ~31:10-2019-0130384 ~32:21/10/2019

2022/04140 ~ Complete ~54:SHORT-DISTANCE HIGH-PRECISION POSITIONING METHOD AND POSITIONING SYSTEM ~71:YUNNAN BINFEI TECHNOLOGY CO., LTD, Inside The Innovation and Entrepreneurship Center, No.227 Zixi Avenue, Chuxiong High Tech Zone, Chuxiongzhou, Yunnan, 675000, People's Republic of China ~72: LI, Shaobin~ 33:CN ~31:201911045865.9 ~32:30/10/2019

2022/04143 ~ Complete ~54:FILM AND PREPARATION METHOD THEREOF ~71:JIANGYIN CITY DEHUI HEAT SHRINKABLE PACKING MATERIAL, NO. 1-1, Hexin Road, Huangtu Industrial Park, Jiangyin District, Wuxi, Jiangsu, 214000, People's Republic of China ~72: LI, Jerry~ 33:CN ~31:201911010084.6 ~32:23/10/2019

2022/04150 ~ Complete ~54:COMBINATION THERAPY FOR CANCERS WITH KRAS MUTATION ~71:COTHERA BIOSCIENCE, INC., Cricket Square, Hutchins Drive, PO Box 2681, Grand Cayman, KY1-1111, Cayman Islands ~72: CHUN JIANG;YIYOU CHEN~ 33:CN ~31:PCT/CN2019/110113 ~32:09/10/2019

2022/04151 ~ Complete ~54:COMBINATION THERAPY FOR CANCERS WITH KRAS MUTATION ~71:COTHERA BIOSCIENCE, INC., Cricket Square, Hutchins Drive, PO Box 2681, Grand Cayman, KY1-1111, Cayman Islands ~72: CHUN JIANG;YIYOU CHEN~ 33:CN ~31:PCT/CN2019/110112 ~32:09/10/2019

2022/04155 ~ Complete ~54:A MULTI-STAGE ROTOR ~71:GAFFOOR, Feizal Alli, 15 Terrace Road, Fordsburg, Johannesburg, Gauteng, 2092, South Africa ~72: GAFFOOR, Ali Feizal;GAFFOOR, Feizal Alli~ 33:US ~31:62/907,730 ~32:30/09/2019

2022/04160 ~ Complete ~54:PROCESS FOR PRODUCING AND REGENERATING HYDROGEN CARRIER COMPOUNDS ~71:Hysilabs SAS, Batiment Lavoisier, Avenue Louis Philibert, Technopole de l'environnement, Arbois-Mediterranee, AIX-EN-PROVENCE 13100, FRANCE, France ~72: BENOIT, Remy;BURCHER, Benjamin;LOME, Vincent~ 33:EP ~31:19306415.1 ~32:31/10/2019;33:EP ~31:20305574.4 ~32:02/06/2020

2022/04162 ~ Complete ~54:PROTEIN-MACROMOLECULE CONJUGATES AND METHODS OF USE THEREOF ~71:Beijing Xuanyi PharmaSciences Co., Ltd., No. 13, Guangyuan West Street, Tongzhou District, BEIJING 101113, CHINA (P.R.C.), People's Republic of China ~72: LI, Hui;LIAO, Chuan;SONG, Yuntao;ZHOU, Haiping~ 33:US ~31:62/908,435 ~32:30/09/2019

2022/04113 ~ Complete ~54:METHOD FOR AFFORESTATION OF ARTIFICIAL LANDSCAPE FORESTS IN BARREN MOUNTAINS ~71:Taishan University, No. 525, Dongyue Street, Tai'an City, Shandong Province, 271000, People's Republic of China ~72: LI, Weimei;LI, Yuhan;LV, Chen;SHI, Weidong;WEI, Yungang;YU, Yongchang;ZHU, Xiujing~

2022/04117 ~ Complete ~54:PASSIVE WIRELESS SENSOR FOR COAL GANGUE MIXING RATIO MONITORING BASED ON SECOND ORDER EP POINTS ~71:Shanxi Datong University, No.405 Xingyun Street,



Datong City, Shanxi Province, People's Republic of China;Shanxi University, No.92 Wucheng Road, Taiyuan City, Shanxi Province, People's Republic of China ~72: DONG Lijuan;DONG Yong;LI Zhijian;LIU Yanhong;SHI Yunlong;SU Xiaoqiang;WEI Yihao;XI Haoyan;ZHANG Lei~

2022/04121 ~ Complete ~54:A SCREENING METHOD OF CONJUGATED LINOLEIC ACID PRODUCING BACTERIA ~71:Northwest A&F University, No. 3, Taicheng Road, Yangling District, Xianyang City, Shaanxi Province, People's Republic of China ~72: Jin Guojie;Tao Yongsheng;Xue Shijin;Yang Xiaobing;Zhang Hongyan~

2022/04122 ~ Complete ~54:ROCK DRILL GUIDE FRAME ~71:HYDRO POWER EQUIPMENT (PTY) LTD, 19 Precision Street, Kya Sands, South Africa ~72: B&#220;HRMANN, Rudolph;CRONJE, Johan Marthinus;FRASER, Peter Duncan~ 33:ZA ~31:2020/06978 ~32:10/11/2020

2022/04123 ~ Complete ~54:SPECIAL TEMPERATURE DISPLAYING DEVICE FOR ACCURATE TEMPERATURE CONTROL STORAGE OF FRUITS AND VEGETABLES AND USING METHOD THEREOF ~71:National Engineering and Technology Research Center for Preservation of Agricultural Products (Tianjin), 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China;Tianjin Academy of Agricultural Sciences, 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China;Tianjin Guojia Agricultural Products Preservation Productivity Promotion Co., Ltd., 17 Kilometers Away From Jinjing Highway, Xiqing District, TIANJIN 300384, CHINA (P.R.C.), People's Republic of China ~72: CHEN, Cunkun;DONG, Chenghu;JI, Haipeng;WANG, Wensheng;YU, Jinze;ZHANG, Na~

2022/04126 ~ Complete ~54:A SYSTEM FOR DEVELOPING CYBER PHYSICAL SYSTEMS USING DEEP LEARNING APPROACH AND A METHOD THEREOF ~71:DEEPTI JOON, GD Goenka University, Gate No 3: G D Goenka education city, Sohna - Gurgaon Rd, Sohna, India;KHYATI CHOPRA, Jamia Hamdard, Mehrauli - Badarpur Rd, near Batra Hospital, Block D, Hamdard Nagar, New Delhi, India ~72: DEEPTI JOON;KHYATI CHOPRA~

2022/04129 ~ Complete ~54:RISK ASSESSMENT SYSTEM FOR SALMONELLA IN CHICKEN BASED ON RAPID DETECTION TECHNOLOGY ~71:QINGDAO AGRICULTURAL UNIVERSITY, No. 700 Changcheng Road, Chengyang District, Qingdao, People's Republic of China ~72: DU, Qijing;FAN, Rongbo;HAN, Rongwei;JIANG, Hongning;LI, Peng;PANG, Bin;WANG, Jun;YANG, Yongxin;YU, Zhongna~

2022/04109 ~ Complete ~54:BIOGAS ADMINISTRATION SYSTEM FOR DRY FARMLANDS AND BIOGAS ADMINISTRATION METHOD THEREFOR ~71:Huaiyin Institute of Agricultural Sciences in Xuhuai area of Jiangsu Province, 104 Huaihai North Road, qingjiangpu District, Huai&#39;an City, Jiangsu Province, People's Republic of China;Research Institute of Jianghuai Agricultural Industry, 104 Huaihai North Road, qingjiangpu District, Huai&#39;an City, Jiangsu Province, People's Republic of China ~72: Chen Qingxiu;Chen Yihang;Cheng Suyun;Li Chuang;Lu Yuhan;Qin Yi;Wang Guolian;Wang Liwei;Wang Qing;Zhao Chen;Zhou Gang~

2022/04120 ~ Complete ~54:REAMING AND HOLE SEALING METHOD ~71:China University of Mining & Technology, Beijing, No.11 Xueyuan Road, Haidian District, Beijing, People's Republic of China;Jiangsu hengyichuang intelligent technology co., ltd, (CNK) Room 216, Unit 2, South B-17, Big Data Industrial Park, Yannan High-tech New Area, Yancheng City, Jiangsu Province, People's Republic of China;North China Institute of Science and Technology, No.368, North Shimen Road, Wulituo Nangong Station, Shijingshan District, Beijing, People's Republic of China ~72: CHEN Haoyi;CHEN Liang;CHEN Xiaojian;CHENG Zhiheng;CUI Guibo;GAO Haobin;GUO Kai;HAO Fuqiang;KONG Junwei;WANG Junyan;XUE Ao;ZHANG Xiapeng~

2022/04128 ~ Complete ~54:AN IOT BASED CONTACTLESS DOOR BUZZER AND HOME SECURITY SYSTEM AND A METHOD THEREOF ~71:ARUN KUMAR RANA, PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY, 70, MILESTONE GT ROAD, SAMALKHA, PANIPAT, India;NIRAV KARELIA,

DEPARTMENT OF ELECTRICAL ENGINEERING-SOT, PANDIT DEENDAYAL ENERGY UNIVERSITY, RAISAN, India; RAJU KUMAR SWAMI, ELECTRICAL ENGINEERING DEPARTMENT, FACULTY OF ENGINEERING, PACIFIC ACADEMY OF HIGHER EDUCATION & RESEARCH UNIVERSITY, UDAIPUR, India; SOUVIK GANGULI, DEPARTMENT OF ELECTRICAL AND INSTRUMENTATION ENGINEERING, THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY, PATIALA, India; SUSHOVAN CHAUDHURY, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, UNIVERSITY OF ENGINEERING AND MANAGEMENT, PLOT NO. III, B/5, NEW TOWN RD, ACTION AREA III, NEWTOWN, KOLKATA, India; VIPIN CHANDRA PAL, DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGG. NIT SILCHAR, India ~72: ARUN KUMAR RANA; NIRAV KARELIA; RAJU KUMAR SWAMI; SOUVIK GANGULI; SUSHOVAN CHAUDHURY; VIPIN CHANDRA PAL~

2022/04131 ~ Complete ~54: CONTROL METHOD AND SYSTEM FOR PREVENTING SHAKING IN SHUT-DOWN OF NUMERICAL CONTROL MACHINE TOOL ~71: ANHUI JIANGJI HEAVY DUTY CNC MACHINE TOOL CO., LTD., Dongqi Road, Economic Development Zone, Lu'an City, People's Republic of China ~72: SI, Wenfeng~

2022/04133 ~ Complete ~54: A NEW ENERGY VEHICLE CHARGING METHOD AND DEVICE BASED ON VEHICLE ELECTRONIC IDENTIFICATION ~71: CHENGDU VOCATIONAL AND TECHNICAL COLLEGE OF INDUSTRY, No. 818, Da'an Road, Zhengxing Street, Tianfu New District, Chengdu City, People's Republic of China ~72: WANG, Congming~

2022/04137 ~ Complete ~54: PROCESS FOR PREPARING (15ALPHA,16ALPHA,17BETA)-ESTRA-1,3,5(10)-TRIENE-3,15,16,17-TETROL (ESTETROL) AND INTERMEDIATES OF SAID PROCESS ~71: INDUSTRIALE CHIMICA S.R.L., Via Abbondio Sangiorgio 12, MILANO, Italy ~72: FASANA, Andrea; LENNA, Roberto; LUCENTINI, Riccardo~ 33: IT ~31: 102019000017414 ~32: 27/09/2019; 33: IT ~31: 102019000021879 ~32: 22/11/2019

2022/04145 ~ Complete ~54: ATF6 MODULATORS AND USES THEREOF ~71: PRAXIS BIOTECH LLC, 1700 Owens Street, Suite 515, San Francisco, California, 94158, United States of America ~72: BALAJI DASHRATH SATHE; BRAHMAM PUJALA; GONZALO ANDRÉS URETA DÍAZ; POOJA THAKRAL; SEBASTIAN BELMAR; SEBASTIAN BERNALES~ 33: US ~31: 62/913,126 ~32: 09/10/2019

2022/04156 ~ Complete ~54: IN-LOOP FILTER-BASED IMAGE ENCODING/DECODING METHOD AND APPARATUS ~71: B1 INSTITUTE OF IMAGE TECHNOLOGY, INC., 1213-ho, 525, Gonghangdae-ro Gangseo-gu, Republic of Korea ~72: KIM, Ki Baek~ 33: KR ~31: 10-2019-0115073 ~32: 18/09/2019

2022/04112 ~ Complete ~54: STABLE WATER-SOLUBLE NANO-SELENIUM AND PREPARATION METHOD THEREOF ~71: Shandong Anweixian Biological Technology Co., Ltd., Chaoquan Town Industrial Park, Feicheng City, Tai'an City, Shandong, 271614, People's Republic of China ~72: GUO, Baozhen; GUO, Sihua; SHEN, Caiqin; WANG, Yong; ZHAI, Ting; ZHANG, Qinqiang~ 33: CN ~31: 202111114614.9 ~32: 23/09/2021

2022/04114 ~ Complete ~54: GROUTING MINIATURE STEEL PIPE PILE AND METHOD FOR REINFORCEMENT ~71: Shandong Hi-speed Group Co. Ltd, 8 Longao Bei Lu, Lixia District, Jinan City, Shandong Province, People's Republic of China; Shandong University, 27 Shanda Nan Lu, Jinan City, Shandong Province, People's Republic of China ~72: Ge Zhi; Guan Yanhua; Ling Yifeng; Sun Renjuan; Tian Yuhe; Wang Lin; Yang Rudong; Zhang Hongzhi; Zhuang Peizhi; Zuo Zhiwu~

2022/04115 ~ Complete ~54: STRAIGHT WING FLIGHT STABILIZER ~71: North University of China, No.3 Xueyuan Road, Taiyuan City, Shanxi Province, People's Republic of China ~72: CHEN Zhigang; LI Kuiwu; PAN Yutian; WANG Baoguo; ZHAO Taiyong; ZHAO Xiaoyao~

2022/04152 ~ Complete ~54:A SOLUBILIZING COMPOSITION ~71:ORO AGRI INC., 2788 S. Maple Avenue, Fresno, California, 93725, United States of America ~72: JARED VANDERZYL;MELVIN DONOVAN PULLEN;PAULO SERGIO BERG~ 33:US ~31:62/913,660 ~32:10/10/2019

2022/04159 ~ Complete ~54:DOSING REGIMENS FOR TREATMENT OF PATIENTS WITH LOCALLY ADVANCED SQUAMOUS CELL CARCINOMA ~71:Debiopharm International S.A., Forum "apr&#232;s-demain", Chemin Messidor 5-7, LAUSANNE 1002, SWITZERLAND, Switzerland ~72: BOURHIS, Jean;BRIENZA, Silvano;SZYLDERGEMAJN ALTMAN, Sergio Adrian;ZANNA, Claudio~ 33:US ~31:62/905,703 ~32:25/09/2019;33:US ~31:63/016,762 ~32:28/04/2020;33:EP ~31:20184601.1 ~32:07/07/2020

2022/04141 ~ Complete ~54:LOW PRESSURE INJECTION MOLD ~71:PAN, Yong, Room 301, Unit 1, Building 63, Baiyang New Village, Dongcheng Street, Huangyan District, Taizhou, Zhejiang, 318020, People's Republic of China ~72: PAN, Yong~ 33:CN ~31:202111355777.6 ~32:16/11/2021

2022/04147 ~ Complete ~54:N-TERMINAL SCFV MULTISPECIFIC BINDING MOLECULES ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, New York, 10591, United States of America ~72: ANN-HWEE LEE;CHIA-YANG LIN;YAN YANG;YANG SHEN~ 33:US ~31:62/930,916 ~32:05/11/2019

2022/04163 ~ Complete ~54:SENSOR INTEGRATION IN CARDIAC IMPLANT DEVICES ~71:Edwards Lifesciences Corporation, One Edwards Way, Legal Department, IRVINE 92614, CA, USA, United States of America ~72: ISLAS, Jose;MCCONNELL, Steven;MIRI, Behnood;MURRAY, Daniel James;POOL, Scott Louis;VALDEZ, Michael G.~ 33:US ~31:62/926,829 ~32:28/10/2019

2022/04107 ~ Complete ~54:ENERGY-BASED SOIL EROSION SIMULATION METHOD ~71:Beijing Normal University at Zhuhai, No.18 Jinfeng Road, Tangjiawan Town, Xiangzhou District, Zhuhai City, Guangdong Province, People's Republic of China ~72: Du Jizeng;Liu Hongxi;Yi Yujun~

2022/04110 ~ Complete ~54:PROSPECTING METHOD FOR FLUORITE MINES ~71:Qaidam Comprehensive Geological and Mineral Exploration Institute of Qinghai Province, No. 12, Kunlun South Road, Golmud City, Haixi Mongolian Tibetan Autonomous Prefecture, Qinghai Province, 816099, People's Republic of China ~72: CUI, Qiangqiang;HUANG, Guobiao;JIAO, He;LI, Dongsheng;LU, Haifeng;PENG, Jian~

2022/04135 ~ Complete ~54:1-(((2S,3S,4S)-3-ETHYL-4-FLUORO-5-OXOPYRROLIDIN-2-YL)METHOXY)-7-METHOXYISOQUINOLINE-6-CARBOXAMIDE COMBINATIONS AND ORAL DOSAGE FORMS ~71:PFIZER INC., 235 East 42nd Street, New York, United States of America ~72: HUTCHINS, Allan, Joseph;MACDONALD, Bruce, Clinton;RAO, Vikram, Rama;TANG, Degui;YU, Weili~ 33:US ~31:62/935,450 ~32:14/11/2019;33:US ~31:63/024,174 ~32:13/05/2020

2022/04139 ~ Complete ~54:NANO-SILICON PARTICLES/WIRE PRODUCTION BY ARC FURNACE FOR RECHARGEABLE BATTERIES ~71:HPQ NANO SILICON POWDERS INC., 3000 Omer-Lavall&#233;e St., Suite 306 Montr&#233;al, Canada ~72: CARABIN, Pierre;MARDAN, Milad;SHAHVERDI, Ali~ 33:US ~31:62/913,152 ~32:09/10/2019

2022/04144 ~ Complete ~54:PARTIALLY COLLAPSIBLE GLAMPING AND LIVING UNIT ~71:METZ, Cherise Mandy, 19470 Ambassador Court, Miami, United States of America;METZ, Darryl Clive, 19470 Ambassador Court, Miami, United States of America ~72: METZ, Cherise Mandy;METZ, Darryl Clive~ 33:US ~31:16/814,365 ~32:10/03/2020

2022/04149 ~ Complete ~54:CAP FOR A CONTAINER ~71:SACMI COOPERATIVA MECCANICI IMOLA SOCIET&#192; COOPERATIVA, Via Selice Provinciale 17/A, 40026, Imola (Bologna), Italy ~72: ZENO ZUFFA~ 33:IT ~31:102019000018737 ~32:14/10/2019

2022/04154 ~ Complete ~54:TRANSPORTING AND STORAGE CONTAINER FOR LIQUIDS ~71:UNITED INITIATORS GMBH, Dr.-Gustav-Adolph-Str. 3, Germany ~72: Agnes UHL;Dominik HERMANN;Iris NAGL;Sven GUTEWORT~ 33:DE ~31:10 2020 201 219.9 ~32:31/01/2020

2022/04161 ~ Complete ~54:BINDER COMPOSITION AND METHOD COMPRISING MICROFIBRILLATED CELLULOSE AND RECYCLED CELLULOSIC MATERIALS ~71:FiberLean Technologies Limited, Par Moor Centre, Par Moor Road, PAR PL24 2SQ, CORNWALL, UNITED KINGDOM, United Kingdom ~72: IRELAND, Sean;LARSON, Thomas Phillip;SKUSE, David;YUN, Jin~ 33:US ~31:62/930,774 ~32:05/11/2019

2022/04165 ~ Complete ~54:ADVANCED LARGE SCALE FIELD-ERECTED AIR COOLED INDUSTRIAL STEAM CONDENSER ~71:EVAPCO, INC., 5151 Allendale Lane, Taneytown, Maryland, 21787, United States of America ~72: ATHRON, Toby;BUGLER, Thomas W.;HILDEBRANDT, Ben;HUBER, Mark;LIBERT, Jean-Pierre;SEXTON, Wayne~ 33:US ~31:62/900,195 ~32:13/09/2019;33:US ~31:62/902,521 ~32:19/09/2019;33:US ~31:62/928,116 ~32:30/10/2019;33:US ~31:62/946,039 ~32:10/12/2019;33:US ~31:16/796,200 ~32:20/02/2020;33:US ~31:16/815,862 ~32:11/03/2020

2022/04138 ~ Complete ~54:PANEL, IN PARTICULAR A FLOOR PANEL OR A WALL PANEL ~71:I4F LICENSING NV, Oude Watertorenstraat 25, Belgium ~72: SETTELS, Dani&#235;l Casper~ 33:NL ~31:2024191 ~32:08/11/2019

2022/04146 ~ Complete ~54:ATF6 MODULATORS AND USES THEREOF ~71:PRAXIS BIOTECH LLC, 1700 Owens Street, Suite 515, San Francisco, California, 94158, United States of America ~72: BALAJI DASHRATH SATHE;BRAHMAM PUJALA;GONZALO ANDR&#201;S URETA D&#205;AZ;SEBASTIAN BELMAR;SEBASTIAN BERNALES~ 33:US ~31:62/913,122 ~32:09/10/2019;33:US ~31:62/913,125 ~32:09/10/2019

2022/04157 ~ Complete ~54:USE OF ACYLCYANAMIDES OR SALTS THEREOF FOR REGULATING PLANT GROWTH ~71:Alzchem Trostberg GmbH, Dr.-Albert-Frank-Strasse 32, Germany ~72: Hubertus GEHRMANN;Jos&#233; Mart&#237;nez RAMOS;Martin EBERL;Thomas G&#220;THNER~ 33:DE ~31:10 2019 130 148.3 ~32:08/11/2019

2022/04102 ~ Provisional ~54:APPLICATIONS CENTRAL PROCESS ~71:TSHEPISO VUYANI BIYASE, N76 MFUNSAMVU CLOSE, South Africa ~72: TSHEPISO VUYANI BIYASE~

2022/04105 ~ Complete ~54:WIRELESS TEMPERATURE MEASUREMENT SYSTEM AND METHOD CAPABLE OF REAL-TIME MOBILE MONITORING ~71:Xuzhou College of Industrial Technology, No.1, Xiangwang Road, Gulou District, Xuzhou City, Jiangsu Province, People's Republic of China ~72: SONG Peisen;XU Yunhui;YANG Yong;YU Bencheng~ 33:CN ~31:202210191745.5 ~32:28/02/2022

2022/04142 ~ Complete ~54:HIGH-PRESSURE MULTI-WAY VALVE ~71:Shaanxi Zhengze Biotechnology Co., Ltd., Workshop 101 And 103, No.2, Jingwei Middle And Small Industrial Park, Jingwei New City, Xi&#39;an Economic And Technological Development Zone, Xi&#39;an, Shaanxi 710000, People's Republic of China ~72: DUAN, Zhifu;LI, Xing;LIANG, Dusheng;LIANG, Shiwei;LIANG, Wansheng;LIU, Dazhi;LIU, Jing;LIU, Yang;NING, Kuan;PANG, Yan;SHAO, Yahui;WANG, Bo;WANG, Wei~ 33:CN ~31:201910716863.1 ~32:05/08/2019

2022/04148 ~ Complete ~54:SEPARATION OF GASES FROM AIR ~71:ARKEMA FRANCE, 420, rue d&#39;Estienne d&#39;Orves, 92700, Colombes, France ~72: GUILLAUME ORTIZ;QUITTERIE PERSILLON~ 33:FR ~31:FR1913287 ~32:27/11/2019

2022/04153 ~ Complete ~54:A FLOATING METAL PLATFORM ~71:CLOVERS AS, c/o Eivind S&#248;nju R&#229;dyrveien 32, N-1555, Son, Norway ~72: EIVIND S&#216;NJU~ 33:NO ~31:20191156 ~32:25/09/2019;33:NO ~31:20191179 ~32:02/10/2019;33:NO ~31:20200815 ~32:10/07/2020

2022/04158 ~ Complete ~54:ROTARY VACUUM VESSEL CLOSURE WITH VESSEL CLOSURE SEAL ~71:ACTEGA DS GMBH, Straubinger Str. 12, Germany ~72: Dany M&#196;NGEL~

2022/04164 ~ Complete ~54:LAUNDRY COMPOSITION ~71:Firmenich SA, Corporate Legal & Compliance - IP Group, 7, rue de la Berg&#232;re, SATIGNY 1242, SWITZERLAND, Switzerland ~72: FADEL, Addi;OUALI, Lahoussine;STRUILLOU, Arnaud;VAN GRUIJTHUIJSEN, Kitty~ 33:US ~31:62/950,163 ~32:19/12/2019;33:EP ~31:20155414.4 ~32:04/02/2020

- APPLIED ON 2022/04/13 -

2022/04195 ~ Complete ~54:METHODS AND APPARATUSES FOR EVENT EXPOSURE OF LOCATION REPORTING FOR A TERMINAL DEVICE ~71:TELEFONAKTIEBOLAGET LM ERICSSON (PUBL), SE-164 83 STOCKHOLM, SWEDEN, Sweden ~72: LONG, Hongxia~ 33:CN ~31:PCT/CN2019/107059 ~32:20/09/2019

2022/04184 ~ Complete ~54:FLUOROIMMUNOASSAY DEVICE AND FLUOROIMMUNOASSAY SYSTEM ~71:Shanghai University of Medicine And Health Sciences, No. 279, Zhouzhu Highway, Pudong New Area, Shanghai, 201318, People's Republic of China ~72: DUAN, Baoyu;LI, Yanfei;NAN, Dehong;WANG, Dun;WANG, Shanshan;XU, Zhaixiang;YANG, Zhifang;YU, Yang~ 33:CN ~31:202220492239.5 ~32:09/03/2022

2022/04201 ~ Complete ~54:IFIT POLYPEPTIDES AND USES FOR TREATING TUBERCULOSIS INFECTION ~71:STELLENBOSCH UNIVERSITY, Admin B, Victoria Street, Stellenbosch, Western Cape, 7600, South Africa ~72: ABHILASHA MADHVI MISHRA;BIENYAMEEN BAKER~ 33:ZA ~31:2019/06603 ~32:08/10/2019

2022/04489 ~ Provisional ~54:SYSTEMS AND METHODS FOR DEFINITELY AUTHENTICATING THE REAL USER OF A VIRTUAL USER ONLINE ~71:YOSHIHITO YAME, 42 MATROSE STREET, KWMAMAGXAKI, South Africa ~72: YOSHIHITO YAME~

2022/04168 ~ Provisional ~54:HEALTH AND EARTH CARE SOLUTIONS (PTY) LTD ~71:HEALTH AND EARTH CARE SOLUTIONS (PTY) LTD, 5 Lynx Road, South Africa ~72: DU PLESSIS, Hendrik Gerhardus;ROSSOUW, Rachel Cornelia~

2022/04192 ~ Complete ~54:SITE-SPECIFIC QUANTITATION OF DRUG CONJUGATIONS ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, United States of America ~72: YANG, Xiangkun~ 33:US ~31:62/916,876 ~32:18/10/2019;33:US ~31:63/043,756 ~32:24/06/2020

2022/04196 ~ Complete ~54:HEAT TRANSFER MIXTURE ~71:HT MATERIALS SCIENCE (IP) LIMITED, 1 GRANT&#39;S ROW, LOWER MOUNT STREET, DUBLIN 2, IRELAND, Ireland ~72: DE RISI, Arturo;MICALI, Francesco;MILANESE, Marco~ 33:US ~31:16/577,292 ~32:20/09/2019

2022/04202 ~ Complete ~54:SYSTEM AND METHOD FOR TREATING INDIVIDUAL SEEDS WITH LIQUID CHEMICALS DURING THE PLANTING PROCESS ~71:AMVAC HONG KONG LIMITED, 11/F., Unit B, Winbase Centre, 208 Queen&#39;s Road Central, Sheung Wan, Hong Kong ~72: LARRY M CONRAD;RICHARD L RICE~ 33:US ~31:16/598,937 ~32:10/10/2019;33:US ~31:17/000,571 ~32:24/08/2020

2022/04205 ~ Complete ~54:HYDROGEN CARRIER COMPOUNDS ~71:Hysilabs SAS, Batiment Lavoisier, Avenue Louis Philibert, Technopole de l&#39;environnement, Arbois-Mediterranee, AIX-EN-PROVENCE 13100, FRANCE, France ~72: AIRIAU, Etienne;BENOIT, Remy;BOSSET, Cyril;BURCHER, Benjamin;ESCUDE, Yannick;LOME, Vincent~ 33:EP ~31:19306419.3 ~32:31/10/2019



2022/04212 ~ Complete ~54:PRODUCTION OF MALIC ACID USING TUBULAR AND STIRRED TANK REACTORS ~71:Thirumalai Chemicals Limited, Thirumalai House, Plot No. 101-102, Road No. 29, Sion (East), MUMBAI 400 022, INDIA, India ~72: RANGASWAMY, Parthasarathy~ 33:IN ~31:201921040419 ~32:04/10/2019

2022/04216 ~ Complete ~54:MOULD ~71:PATTERSON, Roy, 15 Drakensberg Avenue, Kempton Park, 1619, South Africa ~72: PATTERSON, Roy~ 33:ZA ~31:2019/04679 ~32:17/07/2019

2022/04249 ~ Complete ~54:FINANCIAL MANAGEMENT METHOD AND SYSTEM ~71:JACOB STEPHANUS JANSE VAN RENSBURG, 253 SMIT STREET, FAIRLAND, South Africa ~72: JACOB STEPHANUS JANSE VAN RENSBURG~ 33:ZA ~31:2019/06746 ~32:14/10/2019

2022/04198 ~ Complete ~54:DETECTION OF MYCOBACTERIUM SPECIES ~71:THE QUEEN'S UNIVERSITY OF BELFAST, UNIVERSITY ROAD, BELFAST, ANTRIM BT7 INN, UNITED KINGDOM, United Kingdom ~72: FODDAI, Antonio;GRANT, Irene~ 33:GB ~31:1913705.8 ~32:23/09/2019

2022/04203 ~ Complete ~54:ISOINDOLINONE AND INDAZOLE COMPOUNDS FOR THE DEGRADATION OF EGFR ~71:C4 THERAPEUTICS, INC., 490 Arsenal Way, Suite 200 , Watertown , Massachusetts, 02472, United States of America ~72: ALEXANDER W HIRD;ANNICK GOERGLER;ANTONIO RICCI;CHRISTOPHER G NASVESCHUK;DANIEL RUEHER;GEORG JAESCHKE;JAE YOUNG AHN;KIEL LAZARSKI;MARTIN DUPLESSIS;RYAN E MICHAEL;YANKE LIANG~ 33:US ~31:62/951,464 ~32:20/12/2019;33:US ~31:62/951,467 ~32:20/12/2019

2022/04170 ~ Provisional ~54:BRALETTE WITH GEMSTONE ~71:Ashleigh Harrison, 4 Marine Drive, Tableview, South Africa ~72: Ashleigh Harrison~

2022/04171 ~ Provisional ~54:EASY MEETING ~71:Motlalepula Mosia, 20126 peter mokaba street, mandela park,khayelitsha, South Africa ~72: Motlalepula Mosia~

2022/04173 ~ Complete ~54:OPTIMIZED FERTILIZATION TECHNOLOGY COMBINED WITH AGRICULTURAL MACHIN-ERY AND AGRONOMY FOR HIGH YIELD AND INCREASED EFFICIENCY OF CORNS IN COLD REGIONS ~71:Northeast Agricultural University, No. 600 Changjiang Street, Xiangfang District,, People's Republic of China ~72: Baiwen, JIANG;Chunhong, Wang;Dianhao,WANG;Hui ,SHAO;Hui, YANG;Juan, ZHANG;Jujuan, JIANG;Wei, LI;Xuesheng;LIU;Zhiyuan, YANG~

2022/04175 ~ Complete ~54:SPIRAL CONVEYOR SYSTEM ~71:ASHWORTH BROS., INC., 222 Milliken Blvd., Suite 7, Fall River, Massachusetts, 02721, United States of America ~72: BRYAN HOBBS;DARROLL JOSEPH NEELY~ 33:US ~31:62/196,582 ~32:24/07/2015;33:US ~31:15/216,210 ~32:21/07/2016

2022/04177 ~ Complete ~54:SYSTEM AND METHOD FOR EXTRACTING AND CATALOGING SPECIFIED FILE ACTIVITY DATA ~71:TERACLOUD SA, Rue de Beggen 196, Luxembourg, L-1220, Luxembourg ~72: PAUL J ECKERT~ 33:US ~31:63/175,798 ~32:16/04/2021

2022/04186 ~ Complete ~54:MONITORING METHOD FOR AMOUNT OF SOIL EROSION ~71:Institute of Loess Plateau, Shanxi University, No.92 Wucheng Road, Xiaodian District, Taiyuan, Shanxi province, 030006, People's Republic of China;Northeast Institute of Geography and AgroEcology, Chinese Academy of Sciences, No.4888 Shengbei Street, Changchun, Jilin Province, 130102, People's Republic of China ~72: Wang Ranghu;Yang Jiuchun;Yu Lingxue~

2022/04187 ~ Complete ~54:DYNAMIC DENOISING MAGNETIC RESONANCE IMAGING METHOD COMBINING PARALLEL IMAGING AND PRINCIPAL COMPONENT ANALYSIS ~71:Shandong Provincial

Hospital affiliated to Shandong First Medical University, No.324 Jingwu Road, Jinan City, Shandong Province, People's Republic of China ~72: LI Yao;WANG Manqing;WANG Xizhen;XU Zhongbiao;YUAN Ze;YUAN Zhenguo~

2022/04194 ~ Complete ~54:SYSTEM, METHOD AND APPARATUS FOR PROVIDING A SOLAR PUMP SYSTEM FOR USE WITHIN A MECHANIZED IRRIGATION SYSTEM ~71:VALMONT INDUSTRIES, INC., One Valmont Plaza, Omaha, United States of America ~72: STROMP, Daniel J.~ 33:US ~31:62/947,040 ~32:12/12/2019

2022/04199 ~ Complete ~54:SAFETY ASSEMBLY FOR OFF-HIGHWAY TRUCK ~71:CATERPILLAR INC., 100 NE Adams Street, United States of America ~72: KESANI, Sharath~ 33:US ~31:16/656,381 ~32:17/10/2019

2022/04206 ~ Complete ~54:PESTICIDALLY ACTIVE FUSED BICYCLIC HETEROAROMATIC COMPOUNDS ~71:Syngenta Crop Protection AG, Rosentalstrasse 67, BASEL 4058, SWITZERLAND, Switzerland ~72: EDMUNDS, Andrew;EMERY, Daniel;HALL, Roger Graham;IOSUB, Viorel Andrei;JEANGUENAT, Andr&#233;;KILARU, Jagadeesh Prathap;KOLLETH KRIEGER, Amandine;LE CHAPELAIN, Camille;PHADTE, Mangala;PITTERNA, Thomas;SCARBOROUGH, Christopher Charles~ 33:EP ~31:19206744.5 ~32:01/11/2019;33:IN ~31:202011005892 ~32:11/02/2020;33:IN ~31:202011025125 ~32:15/06/2020

2022/04207 ~ Complete ~54:AEROSOL PROVISION SYSTEMS ~71:Nicoventures Trading Limited, Globe House, 1 Water Street, LONDON WC2R 3LA, UNITED KINGDOM, United Kingdom ~72: HUGHES, Steve~ 33:GB ~31:1914831.1 ~32:14/10/2019

2022/04208 ~ Complete ~54:SMALL MOLECULE DEGRADERS OF HELIOS AND METHODS OF USE ~71:Dana-Farber Cancer Institute, Inc., 450 Brookline Avenue, BOSTON 02215, MA, USA, United States of America ~72: CHE, Jianwei;GRAY, Nathanael S.;JONES, Lyn Howard;LIU, Hu;ZHANG, Tinghu~ 33:US ~31:62/928,139 ~32:30/10/2019;33:US ~31:63/035,272 ~32:05/06/2020;33:US ~31:63/047,411 ~32:02/07/2020

2022/04211 ~ Complete ~54:ALLOY FOR HIGH-STRESS GOUGING ABRASION ~71:Weir Minerals Australia Ltd, 1 Marden Street, ARTARMON 2064, NSW, AUSTRALIA, Australia ~72: HINCKLEY, Brook~ 33:AU ~31:2019904197 ~32:07/11/2019

2022/04213 ~ Complete ~54:CONFIGURABLE HANDHELD BIOLOGICAL ANALYZERS FOR IDENTIFICATION OF BIOLOGICAL PRODUCTS BASED ON RAMAN SPECTROSCOPY ~71:Amgen Inc., One Amgen Center Drive, THOUSAND OAKS 91320-1799, CA, USA, United States of America ~72: MERIAGE, David;SOTO, Robert~ 33:US ~31:62/925,893 ~32:25/10/2019;33:US ~31:63/043,976 ~32:25/06/2020

2022/04214 ~ Complete ~54:SYNTHETIC MODIFIED RNA AND USES THEREOF ~71:ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI, One Gustave L. Levy Place, United States of America ~72: HADAS, Yoav;SULTANA, Nishat;ZANGI, Lior~ 33:US ~31:62/932,255 ~32:07/11/2019

2022/04217 ~ Complete ~54:A METHOD AND A DRILL BIT FOR SEALING A BLASTHOLE WALL ~71:L&T MINING SOLUTIONS OY, Halkovaarantie 12 D, FI-83720, Kuorevaara, Finland ~72: TANSKANEN, Lasse;TANSKANEN, Timo~ 33:EP ~31:19206360.0 ~32:30/10/2019

2022/04180 ~ Complete ~54:HIGH-STABILITY ELECTRIC BALANCE SCOOTER ~71:Jiangsu Shuangshuang High-tech Co., Ltd., No. 188, Baichuan Road, Haian High-tech Zone, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: WANG, Weiwei~ 33:CN ~31:202111409280.8 ~32:25/11/2021

2022/04200 ~ Complete ~54:VARIANTS OF CAS12A NUCLEASES AND METHODS OF MAKING AND USE THEREOF ~71:PAIRWISE PLANTS SERVICES, INC., 110 TW Alexander Drive, Research Triangle Park, United States of America ~72: JALI, Sathya Sheela;WATTS, Joseph Matthew~ 33:US ~31:62/916,392 ~32:17/10/2019

2022/04210 ~ Complete ~54:POSITIONING APPARATUS, ROCK DRILLING RIG AND METHOD FOR POSITIONING ~71:Sandvik Mining and Construction Oy, Pihtisulunkatu 9, TAMPERE 33330, FINLAND, Finland ~72: PESOLA, Mikko~ 33:EP ~31:19218039.6 ~32:19/12/2019

2022/04191 ~ Complete ~54:PHARMACEUTICAL COMPOSITIONS COMPRISING CABOTEGRAVIR ~71:VIIV HEALTHCARE COMPANY, 251 Little Falls Drive, Wilmington, Delaware, United States of America ~72: AKHAVEIN, Nima;CHU, Kevin;VELTHUISEN, Emile~ 33:US ~31:62/945,412 ~32:09/12/2019;33:US ~31:62/982,305 ~32:27/02/2020

2022/04190 ~ Complete ~54:A READY-TO-EAT EDIBLE CORDYCEPS MILITARIS SINENSIS RICE AND IT'S PREPARATION METHOD ~71:Liaoning University, No. 58 Daoyi South Street, Shenbei New District, Shenyang City, Liaoning Province, 110000, People's Republic of China ~72: Chen Junzhe;Hu Fengqing;Huang Shiyang;Li Jiaqi;Ma Qingwen;Ning Chong;Zhou Jingqiu;Zou Yunxia~

2022/04221 ~ Provisional ~54:ITHUBA SOFTWARE PROPOSAL AND SOLUTIONS ~71:Taunyane Stephen Nkitseng, 12 Sibeko Street, Phirituna,, South Africa ~72: Taunyane Stephen Nkitseng~

2022/04178 ~ Complete ~54:KNEE SPREADER ~71:MOKETE, &#160;Lipalo, 16 QUEENS ROAD, BRYANSTON, 2191, SOUTH AFRICA, South Africa ~72: MOKETE, &#160;Lipalo;VERBEEK, Reinder, Boudewyn~ 33:ZA ~31:2021/02165 ~32:31/03/2021

2022/04182 ~ Complete ~54:INTEGRATED GROUND-AIR-SPACE STEREOSCOPIC MONITORING AND EARLY WARNING SYSTEM FOR SOIL EROSION ~71:Institute of Loess Plateau, Shanxi University, No.92 Wucheng Road, Xiaodian District, Taiyuan, Shanxi province, 030006, People's Republic of China;Northeast Institute of Geography and AgroEcology, Chinese Academy of Sciences, No.4888 Shengbei Street, Changchun, Jilin Province, 130102, People's Republic of China ~72: Wang Ranghu;Yang Jiuchun;Yu Lingxue~

2022/04185 ~ Complete ~54:UNDERGROUND ROADWAY MAP AND RAPID POSITIONING METHOD OF ELECTRIC LOCOMOTIVE BASED ON FUSION SENSING MULTI ROADWAY SEGMENTATION ~71:Shanghai Shenchuan Electric Co., Ltd., No. 1038 caoxin Road, Jiading District, Shanghai City, People's Republic of China ~72: Zhang Hua;Zhang Sai;Zheng Yifei~ 33:CN ~31:202111058226.3 ~32:09/09/2021

2022/04188 ~ Complete ~54:DYNAMIC AND STATIC COUPLING METHOD FOR EVALUATING COAL MINE ROCK-BURST HAZARDS BASED ON BAYESIAN METHOD ~71:Chongqing University, No. 174, Shazheng Street, Shapingba District, Chongqing, 400044, People's Republic of China ~72: CHEN, Jie;CHEN, Ziyang;DU, Junsheng;JIANG, Deyi;PAN, Pengzhi;PU, Yuanyuan;YUAN, Qiang;ZHANG, Yunrui~ 33:CN ~31:202111044168.9 ~32:07/09/2021

2022/04209 ~ Complete ~54:PROCESS FOR PRODUCING AN ARTIFICIAL AGGREGATE FROM MINING WASTE, ARTIFICIAL AGGREGATE, CONCRETE COMPOSITION AND USE ~71:Funda&#231;&#227;o de Amparo &#224; Pesquisa do Estado de Minas Gerais – FAPEMIG, Av. Jos&#233; C&#226;ndido da Silveira, n&#186; 1500, bairro Horto, BELO HORIZONTE - MG 31035-536, BRAZIL, Brazil;Universidade Federal De Minas Gerais - UFMG, Av. Ant&#244;nio Carlos, N&#186; 6.627, BELO HORIZONTE - MG, BRAZIL, Brazil;Vale S.A., Torre Oscar Niemeyer - Praia de Botafogo n&#186; 186, sala 701 a sala 1901, Botafogo, RIO DE JANEIRO 22250-145, BRAZIL, Brazil ~72: DA GAMA, Evandro Moraes;FAGUNDES, Larissa Virg&#237;nia Queiroz;GOMES, Abdias Magalh&#227;es~ 33:BR ~31:1020190227249 ~32:30/10/2019

2022/04166 ~ Provisional ~54:SLEEVE AND METHOD FOR THERMALLY-INSULATING BLAST HOLE  
~71:GLENCORE OPERATIONS SOUTH AFRICA (PTY) LIMITED, 39 Melrose BLVD., South Africa ~72:  
STENZEL, Gerhard Johann~

2022/04167 ~ Provisional ~54:MORE CONVINIENT SYSTEM ~71:Mike Junior McKerson, 7 Quibeba, Arboretum,  
South Africa ~72: Mike Junior McKerson~

2022/04169 ~ Provisional ~54:WATER TREATMENT ~71:Oxidane (Pty) Ltd., Fisantezicht, Francis Albert Avenue,  
DURBANVILLE, Cape Town 7550, Western Cape, SOUTH AFRICA, South Africa ~72: DAVIS, Grant Nicolas~

2022/04172 ~ Provisional ~54:OVERTAKE SAFETY SYSTEM ~71:Sylvester Richards, 27 Lily Road, South Africa  
~72: Sylvester Richards~

2022/04193 ~ Complete ~54:A METHOD OF FORMING A CONJUGATE OF A SULFONAMIDE AND A  
POLYPEPTIDE ~71:SANOI, 54 rue La Boëtie, France ~72: BOEHME, Thomas;BOSCHEN, Oliver;  
GERKEN, Manfred;RAEDISCH, Marisa;SCHEPS, Daniel;STEYER, Oliver;WEHLAN, Hermut~ 33:EP  
~31:19306610.7 ~32:10/12/2019

2022/04197 ~ Complete ~54:AN APPARATUS, A METHOD AND A COMPUTER PROGRAM FOR VIDEO  
CODING AND DECODING ~71:NOKIA TECHNOLOGIES OY, KARAKAARI 7, 02610 ESPOO, FINLAND, Finland  
~72: LAINEMA, Jani~ 33:US ~31:62/903,116 ~32:20/09/2019

2022/04204 ~ Complete ~54:METHODS FOR PRODUCING RETINAL PIGMENT EPITHELIUM CELLS  
~71:ASTELLAS INSTITUTE FOR REGENERATIVE MEDICINE, 33 Locke Drive, Marlborough, Massachusetts,  
01752, United States of America ~72: IRINA KLIMANSKAYA;MENG-JIAO SHI;MI SOOK CHANG;YASUHIRO  
TAKAGI~ 33:US ~31:62/928,125 ~32:30/10/2019

2022/04215 ~ Complete ~54:METHODS FOR PRODUCING AND USING ALKALINE AQUEOUS FERRIC IRON  
SOLUTIONS ~71:NEW SKY ENERGY, LLC, 7140 Oriole Lane, Longmont,, United States of America ~72:  
LITTLE, Charles Deane;YEAGER, Yasmina~ 33:US ~31:62/924,166 ~32:21/10/2019;33:US ~31:63/029,405  
~32:23/05/2020;33:US ~31:63/032,600 ~32:30/05/2020

2022/04219 ~ Complete ~54:APPARATUS AND METHOD FOR COATING SUBSTRATES WITH WASHCOATS  
~71:JOHNSON MATTHEY PUBLIC LIMITED COMPANY, 5th Floor, 25 Farringdon Street, United Kingdom ~72:  
BURGESS, Neil;HAYTON, Christopher;THOMSON, Craig~ 33:EP ~31:19215030.8 ~32:10/12/2019

2022/04220 ~ Complete ~54:APPARATUS AND METHOD FOR COATING SUBSTRATES WITH WASHCOATS  
~71:JOHNSON MATTHEY PUBLIC LIMITED COMPANY, 5th Floor, 25 Farringdon Street, United Kingdom ~72:  
BURGESS, Neil;HAYTON, Christopher;THOMSON, Craig~ 33:EP ~31:19215031.6 ~32:10/12/2019

2022/04174 ~ Complete ~54:AN ELECTRONIC SYSTEM FOR ADMINISTRATION OF DRIVER LICENSE TEST  
~71:SELBY MOLAKENG, 133 JAPIE NESA UITSIG, South Africa ~72: SELBY MOLAKENG~

2022/04176 ~ Complete ~54:LAYERED CODING FOR COMPRESSED SOUND OR SOUND FIELD  
REPRESENTATIONS ~71:DOLBY INTERNATIONAL AB, Apollo Building, 3E Herikerbergweg 1-35, 1101 CN,  
Amsterdam Zuidoo, Netherlands ~72: ALEXANDER KRUEGER;SVEN KORDON~ 33:EP ~31:15306589.1  
~32:08/10/2015;33:EP ~31:15306653.5 ~32:15/10/2015;33:US ~31:62/361,416 ~32:12/07/2016;33:US  
~31:62/361,461 ~32:12/07/2016

2022/04179 ~ Complete ~54:WEATHER-RESISTANT ASA-BASED COMPOSITE MATERIAL, CO-EXTRUDED  
PLASTIC PRODUCT AND PLASTIC PRODUCT ~71:Shenzhen Yicaihongxiang New Materials Technology  
Co.,Ltd, No. 8 (Factory), First Industrial Zone, Pingdong Community, Pingdi Street, Longgang District,

SHENZHEN 518100, GUANGDONG, CHINA (P.R.C.), People's Republic of China ~72: AN, La;AN, Xiaoge;HOU, Jianhui;WANG, Huanyou;WANG, Yuanxing;YUE, Annan~

2022/04181 ~ Complete ~54:AUTOMATED MANAGEMENT OPERATION DEVICE FOR CROP CULTIVATION ~71:Yangzhou University, Yangzhou University, Yangzhou City, Jiangsu Province, 225009, People's Republic of China ~72: GUO, Xiaoqian;LIU, Jiao;TAO, Jun;WU, Yanqing;YAN, Linling;ZHAO, Daqiu;ZHOU, Guisheng;ZHU, Guanglong~ 33:CN ~31:202110700834.3 ~32:23/06/2021

2022/04183 ~ Complete ~54:REMOTE DATA TRANSMISSION TYPE PORTABLE MULTIFUNCTIONAL FLUORESCENCE IMMUNOASSAY SYSTEM ~71:Shanghai University of Medicine And Health Sciences, No. 279, Zhouzhu Highway, Pudong New Area, Shanghai, 201318, People's Republic of China ~72: CHEN, Nannan;DUAN, Baoyu;LI, Yanfei;NAN, Dehong;WANG, Shanshan;YANG, Zhifang~ 33:CN ~31:202220518648.8 ~32:10/03/2022

2022/04189 ~ Complete ~54:VARIABLE-PARAMETER-BASED DYNAMIC CALCULATION METHOD FOR MINE WATER INFLOW IN SLICE MINING OF EXTRA-THICK COAL SEAMS ~71:Jiangsu Guoneng Deep Mine Safety Mining Technology Co., Ltd, No. 235, Huaihai West Road, Xuzhou City, Jiangsu Province, People's Republic of China;Xuzhou Mining Group Co., Ltd, No. 7, Qiantang Road, Yunlong District, Xuzhou City, Jiangsu Province, People's Republic of China ~72: CHEN, Zhongsheng;FENG, Xingzhen;HE, Ye;LI, Jianfeng;LIU, Jinhu;SHI, Binghua~ 33:CN ~31:202210136689.5 ~32:15/02/2022

2022/04218 ~ Complete ~54:A DEVICE FOR GENERATING STRONG FIELD PULSE WITH ABLATION PRE-PULSE AND ITS REALIZATION METHOD ~71:BINZHOU UNIVERSITY, No. 391, Huanghe 5th Road, Binzhou, Shandong, 256600, People's Republic of China ~72: MA, Guoli;YIN, Xueai;ZHANG, Xin~ 33:CN ~31:202011209127.6 ~32:03/11/2020

- APPLIED ON 2022/04/14 -

2022/04223 ~ Complete ~54:VACCINATION WITH MICA/B ALPHA 3 DOMAIN FOR THE TREATMENT OF CANCER ~71:DANA-FARBER CANCER INSTITUTE, INC., 450 Brookline Avenue, Boston, United States of America ~72: BADRINATH, Soumya;WUCHERPFENNIG, Kai~ 33:US ~31:62/263,377 ~32:04/12/2015;33:US ~31:62/422,454 ~32:15/11/2016

2022/04225 ~ Complete ~54:WASTEWATER TREATMENT MEMBRANE WITH HIGH PERMEABILITY AND PREPARATION METHOD THEREOF ~71:Nantong Kangda Composite Materials Co., Ltd., Group 8, West Park, Haian Industrial Park, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: WAN, Baolin~ 33:CN ~31:202111329380.X ~32:10/11/2021

2022/04235 ~ Complete ~54:AN AUTOMATIC EXTRACTION METHOD OF WATER BODY INFORMATION BASED ON SATELLITE IMAGES ~71:Suzhou University, Erpu Village, Zhuxianzhuang Town, Yongqiao District, Suzhou City, Anhui Province, People's Republic of China ~72: Chen Zhen;Fang Gang~

2022/04248 ~ Complete ~54:METHOD, DEVICE AND ELECTRONIC EQUIPMENT FOR IDENTIFYING BLASTING FRAGMENTATION ~71:BGRIMM Explosives And Blasting Technology Co., Ltd., Building 23, Zone 18 of ABP, No. 188, South 4th Ring Road West, People's Republic of China;BGRIMM Technology Group, Building 23, Zone 18 of ABP, No. 188, South 4th Ring Road West, People's Republic of China ~72: DUAN, Yun;WANG, Bonan;XU, Wei~

2022/04265 ~ Complete ~54:EDIBLE CHEW FOR A HUMAN CHILD AND METHODS OF MAKING AND USING THE EDIBLE CHEW ~71:Soci&#233;t&#233; des Produits Nestl&#233; S.A., Avenue Nestl&#233; 55, VEVEY 1800, SWITZERLAND, Switzerland ~72: DARU, Stephanie Carole Henriette;MAHE, Yannick;SCHNEIDER,



Nora;SISIAK, Laurent Jean-Jacques;SMITH-SIMPSON, Sarah Elizabeth;TAHIR, Zoobia~ 33:US ~31:62/906,773 ~32:27/09/2019;33:US ~31:16/691,997 ~32:22/11/2019

2022/04275 ~ Complete ~54:METHODS FOR THE PREPARATION OF 5-BROMO-2-(3-CHLORO-PYRIDIN-2-YL)-2H-PYRAZOLE-3-CARBOXYLIC ACID ~71:FMC AGRO SINGAPORE PTE. LTD., 10 Marina Boulevard #40 - 01 Marina Bay Financial Centre, Singapore, 018983, Singapore;FMC CORPORATION, 2929 Walnut Street, Philadelphia, Pennsylvania, 19104, United States of America ~72: JIANHUA MAO;LIANG CHEN;YANCHUN CAO;ZHIJIAN XU~ 33:US ~31:62/916,832 ~32:18/10/2019;33:US ~31:62/931,310 ~32:06/11/2019

2022/04237 ~ Complete ~54:COMPOUND TRADITIONAL CHINESE MEDICINE FOR TREATING NON-SMALL CELL LUNG CANCER AND PREPARATION METHOD THEREOF ~71:Nanjing University of Chinese Medicine, No.138 Xianlin Avenue, Qixia District, Nanjing city, Jiangsu Province, People's Republic of China ~72: WANG Yuanchun;WU Mianhua;ZHU Yeping~

2022/04242 ~ Complete ~54:ANTI-NOISE PERTURBATION INFORMATION TRANSMISSION SCHEME BASED ON MULTI-SPACE-TIME QUANTUM ERROR CORRECTION CODES ~71:Qingdao University of Technology, No. 11, Fushun Road, Huangdao District, Qingdao City, Shandong Province, 266033, People's Republic of China ~72: LI, Zhuang;MA, Hongyang;TIAN, Yanbing;WANG, Haowen;WANG, Shumei;XUE, Yunjia~

2022/04258 ~ Complete ~54:TOOTH-BRUSHING CUP AND HEATING DEVICE ~71:TAISHAN UNIVERSITY, 525 Dongyue Street, Daiyue District, Tai'an City, Shandong, 271021, People's Republic of China ~72: CHEN, Hongsheng~ 33:CN ~31:201911097297.7 ~32:12/11/2019

2022/04283 ~ Complete ~54:DEVICE FOR SORTING POWDER PARTICLES ~71:VALUE ASH TECHNOLOGIES NV, Oosterveldlaan 196, Belgium;VITO NV, Boeretang 200, Belgium ~72: GEURTS, Roeland;LOOTS, Michel;SNELLINGS, Ruben;ZYRYANOV, Vladimir~ 33:EP ~31:19020552.6 ~32:03/10/2019

2022/04227 ~ Complete ~54:A KIND OF DOUBLE-LAYER METHOD OF PLANTING ALFALFA IN ARID MOUNTAINOUS AREA ~71:XINJIANG INSTITUTE OF ECOLOGY AND GEOGRAPHY CHINESE ACADEMY OF SCIENCES, No.818, South Beijing Road, Urumqi, Xinjiang, People's Republic of China ~72: LI Xiangyi;LIN Lisha~

2022/04256 ~ Complete ~54:AUTOMATED APPARATUS FOR STORING, TRANSPORTING, DISPENSING AND ASSEMBLING INITIATION DEVICES CONFIGURABLE FOR INITIATING EXPLOSIVE MATERIAL COMPOSITIONS ~71:ORICA INTERNATIONAL PTE LTD, 78 Shenton Way, Tower 2 06-15, Singapore ~72: CHAFFIN, Chad;MANNEY, Tom;SANCHEZ, Francisco~ 33:US ~31:62/924,716 ~32:23/10/2019

2022/04263 ~ Complete ~54:STABILIZED CONAZOLE COMPOSITION ~71:UPL Corporation Limited, 5th Floor Newport Building, Louis Pasteur Street, PORT LOUIS, MAURITIUS, Mauritius;UPL Europe Ltd, The Center, 1st Floor Birchwood Park, WARRINGTON WA3 6YN, CHESHIRE, UNITED KINGDOM, United Kingdom ~72: BOS, Masha Wine Sylvia;DEGHATI, Paymaneh Yousefzadeh Faal;LAAN, Alexander Cornelis Van Der;SMIDT, Jeroen~ 33:IN ~31:201921041767 ~32:15/10/2019

2022/04273 ~ Complete ~54:CRYSTAL FORM OF HEPATITIS B SURFACE ANTIGEN INHIBITOR AND APPLICATION THEREOF ~71:FUJIAN AKEYLINK BIOTECHNOLOGY CO., LTD., Building 1-7, Fuyuan Industrial Zone, Zherong County Ningde, Fujian, 355300, People's Republic of China ~72: CHARLES Z DING;FEI SUN;ZHE CAI~ 33:CN ~31:201910887908.1 ~32:19/09/2019

2022/04239 ~ Complete ~54:A HEALTH MONITORING DEVICE FOR PERMANENT MAGNET SYNCHRONOUS MOTOR DRIVING PART OF MONORAIL CRANE ~71:Shanghai Shenchuan Electric Co., Ltd., No. 1038 caoxin Road, Jiading District, Shanghai City, People's Republic of China ~72: Zhang Hua;Zhang Sai;Zheng Changlu~ 33:CN ~31:202111368185.8 ~32:18/11/2021

2022/04240 ~ Complete ~54:OYSTER PROTEIN SOLID BEVERAGE RICH IN BIOLOGICAL ZINC AND PREPARATION METHOD THEREOF ~71:Guangdong Ocean University, No.1, Haida Road, Mazhang District, Zhanjiang City, Guangdong Province, People's Republic of China ~72: CAO Wenhong;CHEN Zhongqin;GAO Jialong;LIN Haisheng;QIN Xiaoming;ZHANG Chaohua;ZHENG Huina~

2022/04245 ~ Complete ~54:OPERATING MECHANISM ~71:EATON INTELLIGENT POWER LIMITED, 30 Pembroke Road, Ireland ~72: HESSELINK, Mathieu;KNOL, Bert;LAMMERS, Adri;POSTMUS, Albert~ 33:GB ~31:2105356.6 ~32:15/04/2021

2022/04247 ~ Complete ~54:AN APPLICATION OF OATP1B3 AS A MAGNETIC RESONANCE / NEAR-INFRARED REPORTER FOR MONITORING AND/OR IN VIVO TRACING TRANSPLANTED CELLS ~71:LIFE SCIENCES COLLEGE OF PEKING UNIVERSITY, No. 5, Yiheyuan Road, Haidian District, People's Republic of China;SHENZHEN LUNGGENE BIOTECH LTD., No. 1301, Guanguang Avenue, Longhua District, Shenzhen City, People's Republic of China ~72: Arshad Pedhiar;Guangqian ZHOU;Ting WANG;Yunzhi ZHAO~

2022/04251 ~ Complete ~54:COMPOUNDS AND COMPOSITIONS FOR THE TREATMENT OF PARASITIC DISEASES ~71:NOVARTIS AG, Lichtstrasse 35, Switzerland ~72: BLAQUIERE, Nicole, Alice;HUANG, Richard, Yichong;KIRRRANE, Thomas, Martin, Jr.;KORDIKOWSKI, Andreas;MATA, Anne-Catherine;SARKO, Christopher, Ronald;TAFT, Benjamin, Robert;WALDRON, Grace, Lamprecht;YOKOKAWA, Fumiaki;ZHU, Tingying~ 33:US ~31:62/923,915 ~32:21/10/2019

2022/04260 ~ Complete ~54:MULTI-CRITERIA BLOCKCHAIN PROTOCOL ~71:nChain Holdings Limited, Fitzgerald House, 44 Church Street, ST. JOHN&#39;S, ANTIGUA & BARBUDA, Antigua and Barbuda ~72: JOSEPH, Daniel;MEE, Andrew James;WRIGHT, Craig Steven~ 33:GB ~31:1913385.9 ~32:17/09/2019

2022/04270 ~ Complete ~54:VACCINE PRODUCT ~71:Janssen Vaccines & Prevention B.V., Archimedesweg 4, LEIDEN 2333 CN, THE NETHERLANDS, Netherlands ~72: CALADO DA SILVA FREIRE, Joao Miguel;CAPELLE, Martinus;LABOVITIADI, Olga;TIMMER, Willem Jan~ 33:EP ~31:19386042.6 ~32:16/10/2019

2022/04284 ~ Complete ~54:INHIBITORS OF RAF KINASES ~71:KINNATE BIOPHARMA INC., 12830 EI Camino Real, Suite 150, United States of America ~72: KALDOR, Stephen W.;KANOUNI, Toufike;MURPHY, Eric A.;TYHONAS, John~ 33:US ~31:62/925,596 ~32:24/10/2019;33:US ~31:63/044,898 ~32:26/06/2020

2022/04226 ~ Complete ~54:A KIND OF NEW DE-ENZYME MACHINE WITH SELF-ADAPTIVE METAL CASTING HEATING FEATURE ~71:Zhejiang Normal University, Yingbin Road No. 688, Zhejiang Normal University, Jinhua City, Zhejiang province, People's Republic of China ~72: Liu Zhiqiang;Zhang Kehua~

2022/04255 ~ Complete ~54:AUTOMATED SYSTEMS AND APPARATUSES FOR STORING, TRANSPORTING, DISPENSING, AND TRACKING INITIATION DEVICE COMPONENTS CONFIGURABLE FOR INITIATING EXPLOSIVE MATERIAL COMPOSITIONS ~71:ORICA INTERNATIONAL PTE LTD, 78 Shenton Way, Tower 2 06-15, Singapore ~72: CHAFFIN, Chad;SANCHEZ, Francisco~ 33:US ~31:62/924,719 ~32:23/10/2019

2022/04262 ~ Complete ~54:TRUCK CAP ~71:Truck Accessories Group, LLC, 28858 Ventura Drive, ELKHART 46517, IN, USA, United States of America ~72: BECKER, Terrill D.;FLETCHER, James Dillard;HICKEY, Jeffrey Joal;IRELAND, Donald Richard;WESTRA, Mitchell Austin~ 33:US ~31:62/930,428 ~32:04/11/2019;33:US ~31:17/086,857 ~32:02/11/2020

2022/04280 ~ Complete ~54:METHODS FOR THE PREPARATION OF 5-BROMO-2-(3-CHLORO-PYRIDIN-2-YL)-2H-PYRAZOLE-3-CARBOXYLIC ACID ~71:FMC AGRO SINGAPORE PTE. LTD., 10 Marina Boulevard #40 - 01 Marina Bay Financial Centre, Singapore, 018983, Singapore;FMC CORPORATION, 2929 Walnut Street,

Philadelphia, Pennsylvania, 19104, United States of America ~72: JIANHUA MAO;XIN LIU;YANCHUN CAO;ZHIJIAN XU~ 33:US ~31:62/916,836 ~32:18/10/2019;33:US ~31:62/931,320 ~32:06/11/2019

2022/04238 ~ Complete ~54:NEW METHOD FOR PREDICTING DEVELOPMENT HEIGHT OF WATER-CONDUCTING FRACTURE ZONE IN OVERLYING ROCK IN MULTI-LAYER MINING OF EXTRA-THICK COAL SEAMS ~71:Jiangsu Guoneng Deep Mine Safety Mining Technology Co., Ltd, No. 235, Huaihai West Road, Xuzhou City, Jiangsu Province, People's Republic of China;Xuzhou Mining Group Co., Ltd, No. 7, Qiantang Road, Yunlong District, Xuzhou City, Jiangsu Province, People's Republic of China ~72: CHEN, Zhongsheng;FENG, Xingzhen;HE, Ye;LI, Jianfeng;LIU, Jinhu;SHI, Binghua~ 33:CN ~31:202210137026.5 ~32:15/02/2022

2022/04252 ~ Complete ~54:METHODS OF CANCER TREATMENT USING ANTI-OX40 ANTIBODIES IN COMBINATION WITH ANTI-TIM3 ANTIBODIES ~71:BEIGENE, LTD., c/o Maurant Ozannes Corporate Services (Cayman) Limited, 94 Solaris Avenue, Camana Bay, Cayman Islands ~72: JIANG, Beibei;LIU,Ye;SONG, Xiaomin~ 33:CN ~31:PCT/CN2019/120040 ~32:21/11/2019

2022/04266 ~ Complete ~54:ANTI-TNFR2 ANTIBODIES AND METHODS OF USE ~71:Apexigen, Inc., 75 Shoreway Road, Suite C, SAN CARLOS 94070, CA, USA, United States of America ~72: ALVARADO, Ryan;BAHJAT, Rena;FILBERT, Erin L.;KRISHNAN, Sushma;TAN, Christine;YANG, Xiaodong~ 33:US ~31:62/901,364 ~32:17/09/2019;33:US ~31:62/985,509 ~32:05/03/2020;33:US ~31:63/047,824 ~32:02/07/2020;33:US ~31:63/058,016 ~32:29/07/2020

2022/04268 ~ Complete ~54:AZOLE-FUSED PYRIDAZIN-3(2H)-ONE DERIVATIVES ~71:Takeda Pharmaceutical Company Limited, 1-1, Doshomachi 4-chome, Chuo-ku, OSAKA-SHI 541-0045, OSAKA, JAPAN, Japan ~72: DAVIS, Melinda;LAM, Betty;MONENSCHEN, Holger;MURPHY, Sean;O&#39;ROURKE, Natasha;OLSEN, Scott;REICHARD, Holly~ 33:US ~31:62/901,052 ~32:16/09/2019

2022/04276 ~ Complete ~54:METHODS FOR THE PREPARATION OF 5-BROMO-2-(3-CHLORO-PYRIDIN-2-YL)-2H-PYRAZOLE-3-CARBOXYLIC ACID ~71:FMC AGRO SINGAPORE PTE. LTD., 10 Marina Boulevard #40 - 01 Marina Bay Financial Centre, Singapore, 018983, Singapore;FMC CORPORATION, 2929 Walnut Street, Philadelphia, Pennsylvania, 19104, United States of America ~72: JAMES WRIGHT;JOHN HERBERT FREUDENBERGER;YUZHONG CHEN~ 33:US ~31:62/916,827 ~32:18/10/2019

2022/04222 ~ Provisional ~54:A SAVING WALLET FOR WEDDINGS ~71:Ahmed Khan, No2 Ncondo Place, South Africa ~72: Ahmed Khan~

2022/04224 ~ Complete ~54:BENEFICIATION OF CHALCOPYRITE ~71:NORTH-WEST UNIVERSITY, 11 Hoffman Street, POTCHEFSTROOM 2520, SOUTH AFRICA, South Africa ~72: FOSSO-KANKEU, Elvis;MKANDAWIRE, Martin;NYEMBWE, Kolela;WAANDERS, Frans Boudewijn~ 33:ZA ~31:2021/02859 ~32:29/04/2021

2022/04231 ~ Complete ~54:SYSTEM AND METHOD FOR SAFETY TRACEABILITY OF AGRICULTURAL PRODUCT BASED ON SPATIO-TEMPORAL INFORMATION ~71:Shandong Agricultural University, 61 Daizong Street, Tai&#39;an City, Shandong Province, 271018, People's Republic of China ~72: Han Wei;Liu Jianzeng;Liu Pingzeng;Zhang Dalei;Zhang Yan~ 33:CN ~31:2022100917316 ~32:26/01/2022

2022/04236 ~ Complete ~54:METHOD FOR PREVENTING AND TREATING APPLE BITTER PIT ~71:Shandong Institute of Pomology, No.66 Longtan Road, Tai&#39;an City, Shandong Province, People's Republic of China;Shandong Province Agricultural Technology Extension Center, No.15 Jiefang Road, Lixia District, Jinan City, Shandong Province, People's Republic of China ~72: HAN Xueping;LI Mingli;NIE Peixian;WANG Laiping;XUE Xiaomin~

2022/04243 ~ Complete ~54:METHOD OF LOADING CREDIT TO A PREPAID ACCOUNT ~71:MADALA CHARLES RASISU, 626 TSHIKOTA LOCATION, ITIRELENG STREET, South Africa ~72: MADALA CHARLES RASISU~ 33:ZA ~31:2021/02479 ~32:15/04/2021

2022/04272 ~ Complete ~54:X-RAY SEED IMAGING SYSTEM, CABINET X-RAY DEVICE, AND METHODS OF EVALUATING SEEDS ~71:Monsanto Technology LLC, 800 North Lindbergh Boulevard, ST. LOUIS 63167, MO, USA, United States of America ~72: BORROWMAN, Eric L.;CHAUDHARY, Govind;ESSNER, Donald J.;GARSON, Alfred B.;KOTYK, Johnny J.~ 33:US ~31:62/934,855 ~32:13/11/2019

2022/04279 ~ Complete ~54:HETEROCYCLIC AMIDE COMPOUND, PHARMACEUTICALLY ACCEPTABLE SALT THEREOF, AND PREPARATION METHOD THEREFOR AND USE THEREOF ~71:CHINA PHARMACEUTICAL UNIVERSITY, No. 24 Tong Jiaxiang, Gulou District Nanjing, Jiangsu, 210009, People's Republic of China;SHANGHAI INSTITUTE OF MATERIA MEDICA, CHINESE ACADEMY OF SCIENCES, 555 Zuchong Zhi Road, Zhang Jiang, Pudong, Shanghai, 201203, People's Republic of China ~72: HUIBIN ZHANG;JIAN DING;JINPEI ZHOU;MEIYU GENG;WENHU DUAN;XIAOJUN YANG;XIYUAN WANG;YAN ZHANG;YIFEI YANG;ZHAOXUE HU;ZUOQUAN XIE~ 33:CN ~31:201910891002.7 ~32:19/09/2019

2022/04230 ~ Complete ~54:PREPARATION AND APPLICATION OF PRE-MIXED PUMPING CONCRETE BY USING FLY ASH LOW-CARBON CEMENTITIOUS MATERIAL ~71:University of Science and Technology Beijing, No.30 Xueyuan Road, Haidian District, Beijing City, 100083, People's Republic of China ~72: BA Haojing;JU Yongjian;LI Qian;MU Xinli;NI Wen;ZHANG Siqu~

2022/04233 ~ Complete ~54:AUXILIARY DEVICE FOR HOLE EXPLORATION ~71:Anhui Province Coalfield Geology Bureau No.1 Exploration Team.China, Wolongshan Road No.1 Exploration Team, Xiejiaji District, Huainan City, Anhui Province, People's Republic of China ~72: FENG Peipei;LIU Yongshuan;YANG Yang~

2022/04244 ~ Complete ~54:A METHOD FOR SEPARATING AND EXTRACTING SULFUR FROM METAL SULFIDES AND ITS APPLICATION ~71:SOUTH CHINA UNIVERSITY OF TECHNOLOGY, Wushan Road No. 381, Tianhe District, Guangzhou City, People's Republic of China ~72: DANG, Zhi;GUO, Chuling;LU, Guining;REN, Meihui;YAN, Xinyi;YE, Han;YI, Xiaoyun~ 33:CN ~31:202110421801.5 ~32:20/04/2021

2022/04253 ~ Complete ~54:USE OF SGLT-2 INHIBITORS IN THE DRYING-OFF OF NON-HUMAN MAMMALS ~71:BOEHRINGER INGELHEIM VETMEDICA GMBH, Binger Strasse 173, Germany ~72: REICHE, Dania, Birte~ 33:EP ~31:19212134.1 ~32:28/11/2019;33:EP ~31:20200103.8 ~32:05/10/2020

2022/04257 ~ Complete ~54:PHARMACEUTICAL COMBINATION AND USE THEREOF ~71:CSTONE PHARMACEUTICALS, P. O. Box 31119, Grand Pavilion, Hibiscus Way, 802 West Bay Road, People's Republic of China;CSTONE PHARMACEUTICALS (SHANGHAI) CO., LTD., Room 211-20, 2F, Building 1, 38 Debao Road, Shanghai Pilot Free Trade Zone, People's Republic of China;CSTONE PHARMACEUTICALS (SUZHOU) CO., LTD., 218 Xinghu St, Building A1 E168, Suzhou Industrial Park, Suzhou, People's Republic of China ~72: ZHANG, Juan~ 33:CN ~31:PCT/CN2019/117155 ~32:11/11/2019

2022/04264 ~ Complete ~54:ANTI-PATHOGEN COMPOSITIONS ~71:CLAW Biotech Holdings, LLC, 12710 Wyndrose Ct., ST. LOUIS 63131, MO, USA, United States of America ~72: DUDDING, Jeffery L.;PARANJPE, Amod P.~ 33:US ~31:62/893,513 ~32:29/08/2019;33:US ~31:63/007,743 ~32:09/04/2020

2022/04274 ~ Complete ~54:A DECENTRALIZED SYNCHRONIZATION SOLUTION FOR WIRELESS COMMUNICATION NETWORKS ~71:WIREPAS OY, Visiokatu 4, Tampere, 33720, Finland ~72: JUHA SALOKANNEL;VILLE JUVEN;VILLE KASEVA~ 33:FI ~31:20195779 ~32:18/09/2019

2022/04281 ~ Complete ~54:QUINOLONE CARBOXYLIC ACID DERIVATIVES ~71:TAIGEN BIOTECHNOLOGY CO., LTD., 7F, 138 Shin Ming Road, Taiwan, Province of China ~72: CHEN, Chih-Ming;CHEN, Hung-Chuan;CHIANG, Chiayn;LIN, Chu-Chung~ 33:US ~31:62/924,763 ~32:23/10/2019

2022/04285 ~ Complete ~54:COMPOSITIONS, METHODS AND KITS FOR BIOLOGICAL SAMPLE AND RNA STABILIZATION ~71:LIQUID BIOPSY RESEARCH LLC, Hunkins Waterfront Plaza, P.O. Box 556, Main Street, Saint Kitts and Nevis ~72: DROZDOV, Ignat;KIDD, Mark;MODLIN, Irvin Mark~ 33:US ~31:62/913,458 ~32:10/10/2019

2022/04229 ~ Complete ~54:ON-SITE MONITORING DEVICE FOR RELATIONSHIP BETWEEN LAKE WATER AND GROUNDWATER INTERACTION ~71:Henan University of Urban Construction, Longxiang Street, Xincheng District, Pingdingshan City, Henan Province, People's Republic of China ~72: Fan Yanru;Gao Hongbin;Jiang Zhongfeng;Li Songya;Mao Yanli;Wu Junfeng;Wu Li;Zhu Xinfeng~

2022/04234 ~ Complete ~54:A METHOD FOR CALCULATING CURVATURE RADIUS OF THE BEST FITTING SPHERE OF THE ANNULAR APERTURE QUADRIC SURFACE ~71:Nantong University, No. 9 Seyuan Road, Nantong City, Jiangsu Province, People's Republic of China ~72: CUI Ronghua;GONG Tianlin;HUANG Shiwen;PAN Baozhu;TANG Jing;WU Di~

2022/04269 ~ Complete ~54:BIOMARKER-BASED TREATMENT OF FOCAL SEGMENTAL GLOMERULOSCLEROSIS AND DIABETIC KIDNEY DISEASE ~71:Goldfinch Bio, Inc., 215 First Street, CAMBRIDGE 02142, MA, USA, United States of America ~72: COEFFET-LE GAL, Marie-Francoise Yveline;DAGON, Yossi;DANIELS, Matthew H.;HARMANGE, Jean-Christophe P.;LEDEBOER, Mark W.;MUNDEL, Peter H.;RAGHU, Hari;REILLY, John Francis;YU, Maolin~ 33:US ~31:62/910,758 ~32:04/10/2019

2022/04277 ~ Complete ~54:METHODS FOR THE PREPARATION OF 5-BROMO-2-(3-CHLORO-PYRIDIN-2-YL)-2H-PYRAZOLE-3-CARBOXYLIC ACID ~71:FMC AGRO SINGAPORE PTE. LTD., 10 Marina Boulevard #40 - 01 Marina Bay Financial Centre, Singapore, 018983, Singapore;FMC CORPORATION, 2929 Walnut Street, Philadelphia, Pennsylvania, 19104, United States of America ~72: JIANHUA MAO;XIN LIU;YANCHUN CAO;ZHIJIAN XU~ 33:US ~31:62/916,840 ~32:18/10/2019;33:US ~31:62/982,248 ~32:27/02/2020

2022/04228 ~ Complete ~54:CORN NO-TILLAGE STUBBLE-REMAINING WATER-REPLENISHING SOWING METHOD ~71:Inner Mongolia Academy of Agricultural & Animal Husbandry Sciences, NO.22 Zhaojun Road, Yuquan District, Hohhot, Inner Mongolia Autonomous Region, People's Republic of China ~72: AN Xiaoyu;FENG Yong;FU Zengjuan;GUO Jingchun;HE Dongdong;HOU Xuguang;LI Xinjie;LIU Baolin;LIU Yanan;LU Zhanyuan;SUN Fengcheng;SUN Lin;WANG Kun;WANG Weidong;WU Jiayuan;XUE Chunlei;ZANG Jian;ZHANG Xiquan;ZHANG Yongsheng~

2022/04232 ~ Complete ~54:ANTAGONISTIC BACTERIUM STREPTOMYCES GLOBOSUS LZH-48 FOR CONTROLLING PEAR ROOT ROT AND APPLICATION THEREOF ~71:Shandong Institute of Pomology, No.66 Longtan Road, Tai'an City, Shandong Province, People's Republic of China ~72: DONG Ran;DONG Xiaochang;LI Xinmin;LI Zhenghua;RAN Kun;WANG Hongwei;WANG Shaomin;WANG Xiaoyang~

2022/04241 ~ Complete ~54:QUANTUM CLASSIFIER SUPERVISED LEARNING SCHEME BASED ON QUANTUM NEURAL NETWORK AND GROVER ALGORITHM ~71:Qingdao University of Technology, No. 11, Fushun Road, Huangdao District, Qingdao City, Shandong Province, 266033, People's Republic of China ~72: LI, Zhuang;MA, Hongyang;QIU, Tianhui;TIAN, Yanbing;WANG, Haowen;WANG, Shumei;ZHAO, Wenlin~

2022/04250 ~ Complete ~54:METHODS FOR WHOLE-CELL GLYCOPROTEOMIC ANALYSIS ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, United States of America ~72: MAO, Yuan;NAYAK, Shruti~ 33:US ~31:62/968,536 ~32:31/01/2020



2022/04254 ~ Complete ~54:A MATERIAL PROCESSING BARREL AND ASSOCIATED MATERIAL PROCESSING SYSTEM ~71:SEED TERMINATOR HOLDINGS PTY LTD, 12 Ewen Street, Kingscote, Australia ~72: BERRY, Nicholas Kane~ 33:AU ~31:2019904039 ~32:25/10/2019;33:AU ~31:2020900304 ~32:04/02/2020;33:AU ~31:2020901832 ~32:03/06/2020

2022/04261 ~ Complete ~54:NOVEL CLOTHIANIDIN COMPOSITIONS AND METHODS OF USE THEREOF ~71:Valent U.S.A. LLC, 4600 Norris Canyon Road, SAN RAMON 94583, CA, USA, United States of America ~72: LIU, Jane~ 33:US ~31:62/926,642 ~32:28/10/2019

2022/04267 ~ Complete ~54:DRAIN PLUG WITH PERIMETER LABYRINTH FOR CASINGS OF ROTARY ELECTRIC MACHINES AND CORRESPONDING CASING ~71:WEG Equipamentos El&#233;tricos S.A., Av. Prefeito Waldemar Grubba, 3.000 – Vila Lalau, ARAGU&#193; DO SUL – SC 89.256-900, BRAZIL, Brazil ~72: BAGGIO, Tiago;DA ROSA KAIZER, Gustavo;HENRIQUE NICOLAU, Paulo;OSCAR CASTELLA, Milton~

2022/04271 ~ Complete ~54:PERFUME DELIVERY SYSTEM ~71:Firmenich SA, Corporate Legal & Compliance - IP Group, 7, rue de la Berg&#232;re, SATIGNY 1242, SWITZERLAND, Switzerland ~72: FADEL, Addi;OUALI, Lahoussine;STRUILLOU, Arnaud;VAN GRUIJTHUIJSEN, Kitty~ 33:US ~31:62/950,155 ~32:19/12/2019;33:EP ~31:20155399.7 ~32:04/02/2020

2022/04278 ~ Complete ~54:METHODS FOR THE PREPARATION OF 5-BROMO-2-(3-CHLORO-PYRIDIN-2-YL)-2H-PYRAZOLE-3-CARBOXYLIC ACID ~71:FMC AGRO SINGAPORE PTE. LTD., 10 Marina Boulevard #40 - 01 Marina Bay Financial Centre, Singapore, 018983, Singapore;FMC CORPORATION, 2929 Walnut Street, Philadelphia, Pennsylvania, 19104, United States of America ~72: JIANHUA MAO;XIN LIU;YANCHUN CAO;ZHIJIAN XU~ 33:US ~31:62/916,840 ~32:18/10/2019;33:US ~31:62/982,248 ~32:27/02/2020

2022/04246 ~ Complete ~54:OPERATING MECHANISM FOR A SWITCH ~71:EATON INTELLIGENT POWER LIMITED, 30 Pembroke Road, Ireland ~72: KNOL, Bert;POSTMUS, Albert~ 33:GB ~31:2105357.4 ~32:15/04/2021;33:GB ~31:2115136.0 ~32:21/10/2021

2022/04259 ~ Complete ~54:COCOA AND/OR MALT BEVERAGE PRODUCTS ~71:Soci&#233;t&#233; des Produits Nestl&#233; S.A., Avenue Nestl&#233; 55, VEVEY 1800, SWITZERLAND, Switzerland ~72: ANANTA, Edwin;JAIN, Vishist Kumar;MULLER, Jeroen Andr&#233;;TEOH, Hooi Khim;WAING, Seinn Lae;YE, Lijuan~ 33:SG ~31:10201909063T ~32:27/09/2019

2022/04282 ~ Complete ~54:A STABLE PARENTERAL DOSAGE FORM OF CETRORELIX ACETATE ~71:SUN PHARMACEUTICAL INDUSTRIES LIMITED, Sun House, Plot No. 201 B/1, Western Express Highway, Goregaon (E), India ~72: AGRAWAL, Sudeep;BHOWMICK, Subhas Balaram;JOSHI, Jaydip;THENNATI, Rajamannar;THUMMAR, Rakesh;YADAV, Arunkumar~ 33:IN ~31:201921043355 ~32:24/10/2019

- APPLIED ON 2022/04/19 -

2022/04333 ~ Complete ~54:TRADITIONAL CHINESE MEDICINE COMPOSITION FOR WARMING YANG AND RESOLVING DAMPNES OF COVID-19 AND PREPARATION METHOD THEREOF ~71:Shijiazhuang People&#39;s Hospital, No. 365, Jianhua South Street, Yuhua District, Shijiazhuang City, Hebei Province, 050000, People's Republic of China ~72: CUI, Shuhua;PENG, Antang;ZHAO, Yubin~ 33:CN ~31:202210066229.X ~32:20/01/2022

2022/04336 ~ Complete ~54:PREPARATION METHOD AND APPLICATION OF SCALY NITROGEN-DOPED CARBON COMPOSITE MOLYBDENUM-DOPED TITANIUM DIOXIDE-SULFUR ELECTRODE FOR POTASSIUM-SULFUR BATTERIES ~71:Bohai University, No.19 Keji Road, New Songshan District, Jinzhou City,

Liaoning Province, People's Republic of China ~72: CAI Kedi;LANG Xiaoshi;LU Yan;WANG Tan;XI Xue;YAO Chuangang~

2022/04337 ~ Complete ~54:A UNIVERSAL NESTED PCR METHOD FOR DETECTING PSEUDORABIES VIRUS ~71:Yangtze University, No. 1 South Ring Road, Jingzhou District, Jingzhou City, Hubei Province, People's Republic of China ~72: Guo Liwei;Hu Liqun;Li Tong;Liu Guoping;Wang Yu;Yang Xiaolin;Zeng Pan~

2022/04339 ~ Complete ~54:METHOD OF DOUBLE-NESTED PCR FOR DETECTING WILD STRAIN AND GENE-DELETED VACCINE STRAIN OF PSEUDORABIES VIRUS AND ITS APPLICATION ~71:Yangtze University, No. 1 South Ring Road, Jingzhou District, Jingzhou City, Hubei Province, People's Republic of China ~72: Deng Wei;Guo Liwei;Li Chunqi;Liu Guoping;Yang Jie;Yang Xiaolin~

2022/04346 ~ Complete ~54:DEVICE FOR COLLECTION AND RECOVERY OF NITROGEN AND PHOSPHORUS NUTRIENTS AND ITS APPLICATION IN PURIFICATION OF AGRICULTURAL DRAINAGE ~71:China Urban Construction Design & Research Institute Co., Ltd., No. 36, Deshengmenwai Street, Xicheng District, Beijing, 100120, People's Republic of China ~72: YANG, Long~ 33:CN ~31:202210286198.9 ~32:23/03/2022

2022/04347 ~ Complete ~54:METHOD AND DEVICE FOR RECONSTRUCTING THREE-DIMENSIONAL CHROMOSOME STRUCTURE ~71:Shandong University of Finance and Economics, No. 7366, East Second Ring Road, Lixia District, Jinan City, Shandong Province, 250014, People's Republic of China ~72: LI, Fangzhen~ 33:CN ~31:202111097170.2 ~32:18/09/2021

2022/04350 ~ Complete ~54:VISION-BASED AUTOMATIC MEASUREMENT SYSTEM AND METHOD FOR OVERALL DIMENSIONS OF VEHICLE ~71:SHANDONG JIAOTONG UNIVERSITY, NO. 5001, HAITANG ROAD, CHANGQING UNIVERSITY SCIENCE PARK, CHANGQING DISTRICT, People's Republic of China ~72: CAO, Fengping;LI, Wei;WANG, Huiwen;WANG, Yanjie;YUE, Hongwei~

2022/04358 ~ Complete ~54:ELECTRIC POWER FACILITY EMERGENCY REPAIR TOOL VEHICLE ~71:STATE GRID HUZHOU POWER SUPPLY COMPANY, 777 Fenghuang Road. Huzhou, Zhejiang 313000, People's Republic of China;ZHEJIANG TAILUN POWER GROUP CO., LTD., Floor 4-8, No.345 West Huancheng Road, Huzhou, Zhejiang 313000, People's Republic of China ~72: FENG ZHOU;JIAN WU;JIE CHAI;JIN GU;JING XU;SHIJUN CHEN;SIZE ZHANG;WEIXUN QIN;XIAOBIN SHEN;XIAODONG SHEN;XIAOXIAO WU;XINLONG WU;YONGSHENG XU;ZHEN WANG~ 33:CN ~31:202210009975.5 ~32:06/01/2022

2022/04361 ~ Complete ~54:CULTIVATION METHOD FOR PEANUT HAVING GOOD CHARACTERS ~71:SHANDONG PEANUT RESEARCH INSTITUTE, No. 126 Fushan Road, Licang District, Qingdao, People's Republic of China ~72: CHEN, Na;CHI, Xiaoyuan;JIANG, Xiao;PAN, Lijuan;WANG, Tong;XU, Jing;YANG, Zhen;YU, Shanlin~ 33:CN ~31:202210349723.7 ~32:02/04/2022

2022/04362 ~ Complete ~54:METHODOLOGY FOR IMPROVED COYOTE OPTIMIZATION BASED CLASSIFICATION (ICOAC) FOR BIG DATASET TO ENLARGE THE EMERGENCE OF HETEROGENEOUS DISTRIBUTED CIRCUMSTANCES ~71:PANDEY, Rajeev, Associate Professor, Department of Computer Science & Engineering, University Institute of Technology, Rajiv Gandhi Proudhyogiki Vishwavidyalaya (Technological University of Madhya Pradesh), Bhopal, India;SILAKARI, Sanjay, Professor, Department of Computer Science & Engineering, University Institute of Technology, Rajiv Gandhi Proudhyogiki Vishwavidyalaya (Technological University of Madhya Pradesh), Bhopal, India ~72: PANDEY, Rajeev;SILAKARI, Sanjay~

2022/04368 ~ Complete ~54:MOUNTING BRACKET FOR NUMERICAL CONTROL MACHINE TOOL  
~71:SHANGHAI MARITIME UNIVERSITY, No. 1550 Haigang Avenue, Pudong New Area, People's Republic of China ~72: HOU, Dongkang;ZANG, Zhaoliang~

2022/04371 ~ Complete ~54:GOLDEN POMFRET FISH PRODUCT AND PREPARATION METHOD THEREOF  
~71:HAINAN TROPICAL OCEAN UNIVERSITY, No.1 Yucai Road, Sanya, Hainan, 572022, People's Republic of China ~72: HU, Lingping;HU, Yaqin;HU, Zhiheng;PEI, Zhisheng~ 33:CN ~31:202111113646.7 ~32:23/09/2021

2022/04373 ~ Complete ~54:DEVELOPMENT OF A NOVEL LIVE ATTENUATED AFRICAN SWINE FEVER VACCINE BASED IN THE DELETION OF GENE I177L ~71:THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY OF AGRICULTURE, 1400 Independence Ave., S.W. Washington, United States of America ~72: BORCA, Manuel V.;GLADUE, Douglas P.~ 33:US ~31:16/580,058 ~32:24/09/2019

2022/04378 ~ Complete ~54:FREE BASE CRYSTALLINE FORM OF A COMPLEMENT COMPONENT C5A RECEPTOR ~71:CHEMOCENTRYX, INC., 835 Industrial Road, Suite 600, United States of America ~72: KRASINSKI, Antoni;LUI, Rebecca M.;SINGH, Rajinder;YAU, Kwok;ZENG, Yibin;ZHANG, Penglie~ 33:US ~31:62/932,652 ~32:08/11/2019

2022/04382 ~ Complete ~54:SINGLE-DOMAIN ANTIBODIES DIRECTED AGAINST LILRB2 ~71:Invectys SAS, 28 rue du Docteur Roux, PARIS 75015, FRANCE, France ~72: CAUMARTIN, Julien;HUNAUT, Lise;LANGLADE-DEMOYEN, Pierre;LOUSTAU, Maria~ 33:EP ~31:19306148.8 ~32:20/09/2019

2022/04385 ~ Complete ~54:INJECTION SYSTEMS AND METHODS OF THEIR USE ~71:MEIRAGTX THERAPEUTICS, INC., 450 East 29th Street, 14th Floor, New York, New York, 10016, United States of America ~72: BRYAN LAULICHT;EDWARD AHN;GIRISH CHITNIS;JEFF KARP~ 33:US ~31:62/903,406 ~32:20/09/2019;33:US ~31:63/052,518 ~32:16/07/2020

2022/04387 ~ Provisional ~54:DATA2AIRTIME ~71:Sylvester Richards, 27 Lily Road, South Africa ~72: Sylvester Richards~

2022/04288 ~ Provisional ~54:YIELDING ROOF ANCHOR ~71:Johannes Jacobus Naude, 12 Arend Avenue, South Africa ~72: Jacobus Cornelius Pretorius~

2022/04291 ~ Complete ~54:DEVICE FOR PREPARING ALUMINUM BORATE WHISKERS ~71:Nantong Auxin Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China;Nantong Auxin Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China;Nantong Auxin Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: XI, Chen;XI, Chen;XI, Chen~ 33:CN ~31:202111093172.4 ~32:17/09/2021

2022/04294 ~ Complete ~54:TEST DEVICE FOR MECHANICAL PROPERTIES CHANGE IN NATURAL GAS HYDRATE DECOMPOSITION PROCESS ~71:Shandong University of Science and Technology, No.579 Qianwan&#39;gang Road, Huangdao District, Qingdao City, Shandong Province, People's Republic of China ~72: GONG Bin;Naser Golsanami;YU Haiyang;ZHANG Ruiqi;ZHOU Kang~

2022/04298 ~ Complete ~54:METHOD FOR EXTRACTING TOTAL FLAVONOIDS FROM STROPHARIA RUGOSO-ANNULATA ~71:JIAXING VOCATIONAL& TECHNICAL COLLEGE, No. 547, Tongxiang Avenue, Jiaxing City, Zhejiang Province, People's Republic of China ~72: HE Weiqiang~

2022/04301 ~ Complete ~54:SELF-INCOMPATIBILITY-RELATED GENE AND SELF-INCOMPATIBILITY-RELATED SINGLE-NUCLEOTIDE POLYMORPHISM (SNP) MOLECULAR MARKER OF CAMELLIA OLEIFERA, AND USE ~71:CENTRAL SOUTH UNIVERSITY OF FORESTRY AND TECHNOLOGY, No. 498, Shaoshan South Road, Changsha City, Hunan Province, 410004, People's Republic of China;HUNAN UNIVERSITY OF TECHNOLOGY, No. 88 Taishan West Road, Zhuzhou City, Hunan Province, 412000, People's Republic of China ~72: JIANG, Nan;TAN, Xiaofeng;ZHOU, Junqin~ 33:CN ~31:202110978700.8 ~32:25/08/2021

2022/04311 ~ Complete ~54:BAGGED THROAT-MOISTENING TEA ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72: Yang Xu~

2022/04327 ~ Complete ~54:EMERGENCY RESCUE DEVICE FOR CIVIL AVIATION AIRPORT ~71:Zhengzhou University of Aeronautics, No. 15, Wenyuan West Road, Zhengdong New District, Zhengzhou, Henan, People's Republic of China ~72: FU Shuai;GUO Xinyao;LI Xirui;NIU Linqing;SI Qingmin~

2022/04331 ~ Complete ~54:A METHOD OF PREPARING FECAL BACTERIA FOR PREVENTING POST-WEANING DIARRHEA AND REMODELING INTESTINAL MICROFLORA IN CALVES USING FECAL MICROORGANISM TRANSPLANTATION TECHNOLOGY ~71:Shihezi University, Beisi Road, Shihezi, Xinjiang Uygur Autonomous Region, 832000, People's Republic of China ~72: Cheng Chen;Cunxi Nie;Wenju Zhang;Xin Li;Yuanyuan Li~

2022/04344 ~ Complete ~54:UNIVERSAL NESTED PCR DETECTION METHOD FOR PORCINE EPIDEMIC DIARRHEA VIRUS ~71:Yangtze University, No. 1 South Ring Road, Jingzhou District, Jingzhou City, Hubei Province, People's Republic of China ~72: Hu Liqun;Li Tong;Liu Guoping;Tan Xu;Wang Yan;Zeng Pan~

2022/04351 ~ Complete ~54:A FEED ADDITIVE FOR IMPROVING IMMUNITY OF SOW AND THE PIG FEED PREPARATION METHOD ~71:Institute of Agricultural Products Quality Standard of Jiangxi Academy of Agricultural Sciences, No.602, Nanlian Road, Nanchang City, Jiangxi Province, 330200, People's Republic of China;Institute of Animal Sciences of Jiangxi Academy of Agricultural Sciences, No.602, Nanlian Road, Nanchang City, Jiangxi Province, 330200, People's Republic of China;Jiangxi Wangda Animal Science and Technology Co., Ltd., No.212, Lianliang Road, Liantang Town, Nanchang County, Nanchang City, Jiangxi Province, 330000, People's Republic of China ~72: Chengde Huang;Fanfan Zhang;Han Yan;Hui Qiu;Jian Huang;Jinyan Zhang;Qinglan Liu~ 33:CN ~31:202210140455.8 ~32:16/02/2022

2022/04356 ~ Complete ~54:GAS-FED FERMENTATION REACTORS, SYSTEMS AND PROCESSES UTILIZING GAS/LIQUID SEPARATION VESSELS ~71:Calysta, Inc., 1140 O'Brien Drive, Suite B, MENLO PARK 94025, CA, USA, United States of America ~72: AYLEN, Graham Ian;NGUYEN, Luan Thanh;SILVERMAN, Joshua A.~ 33:US ~31:62/545,347 ~32:14/08/2017

2022/04363 ~ Complete ~54:WHEELCHAIR WITH A TRANSFER ASSIST FUNCTION ~71:DHATRAK, Pankaj Nivrutti, A-1/10, SunderRachana, Anand Nagar, Sinhgad Road, Pune, India;Dr.Vishwanath Karad MIT World Peace University, Dr. Vishwanath Karad MIT World Peace University S.No.124, Paud Road, Kothrud, Pune, India;JADHAV, Atharva Sanjay, Q-102, Mantri Kishor Market, Hadapsar, Pune, India;JAIN, Tejas Pravin, Arihant, Plot No. 27 GatNo.95/3B, Shri RamNagar, Jalgaon, India;PALANGE, Atul Uddhavrao, Runwal Palorama,Bldg. No.7, Flat No.5,Warje, Pune, India ~72: DHATRAK, Pankaj Nivrutti;JADHAV, Atharva Sanjay;JAIN, Tejas Pravin;PALANGE, Atul Uddhavrao~

2022/04365 ~ Complete ~54:A MODEL OF RURAL RESIDENTS' LIVELIHOOD ADAPTATION BASED ON FOUR-DIMENSIONAL GRID NODES ~71:INSTITUTE OF MOUNTAIN HAZARDS AND ENVIRONMENT, CHINESE ACADEMY OF SCIENCES, No. 189, Qunxian South Street, Tianfu New District, Chengdu City, People's Republic of China ~72: FANG, Yiping~

2022/04372 ~ Complete ~54:A VISUAL DISINFECTION AND CLEANING DEVICE FOR ORAL TREATMENT  
~71:HENAN MEDICAL COLLEGE, No. 8, Shuanghu County Avenue, Xinzheng Longhu Town, Zhengzhou,  
Henan, 451191, People's Republic of China ~72: LI, Jianbin;WANG, Kaiting~ 33:CN ~31:202010839345.1  
~32:19/08/2020

2022/04381 ~ Complete ~54:COMBINATION OF A POXVIRUS ENCODING HPV POLYPEPTIDES AND IL-2  
WITH AN ANTI-PD-L1 ANTIBODY ~71:Merck Patent GmbH, Frankfurter Strasse 250, DARMSTADT 64293 ,  
GERMANY, Germany;Pfizer Inc., 235 East 42nd Street, NEW YORK 10017, NY, USA, United States of  
America;Transgene, Parc d'innovation Boulevard Gonther d'Andernach, ILLKIRCH  
GRAFFENSTADEN 67400, FRANCE, France ~72: BENDJAMA, Kaidre;BRANDELY TALBOT,  
Maud;TAVERNARO, Annette~ 33:EP ~31:19306159.5 ~32:20/09/2019;33:EP ~31:20305697.3 ~32:24/06/2020

2022/04289 ~ Provisional ~54:EMBOSSSED HEAT EXCHANGER TUBE ~71:BOSCH MANAGEMENT SERVICES  
(PTY) LTD, 1 Holwood Park, 5 Canegate Road, La Lucia Office Estate, Kwazulu Natal, 4320, South Africa ~72:  
MEETHAN GOKOOL~

2022/04291 ~ Complete ~54:DEVICE FOR PREPARING ALUMINUM BORATE WHISKERS ~71:Nantong Auxin  
Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu  
Province, 226600, People's Republic of China;Nantong Auxin Electronic Technology Co., Ltd., No. 16, Hengtian  
Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China;Nantong  
Auxin Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu  
Province, 226600, People's Republic of China ~72: XI, Chen;XI, Chen;XI, Chen~ 33:CN ~31:202111093172.4  
~32:17/09/2021

2022/04293 ~ Complete ~54:EASY-TO-USE SLUDGE TREATMENT DEVICE ~71:ZOU, Lina, No. 4288, Xinhua  
North Road, Jiayuguan City, Gansu Province, 675907, People's Republic of China ~72: WANG, Chengxi;WANG,  
Dong;ZOU, Lina~

2022/04308 ~ Complete ~54:TRADITIONAL CHINESE MEDICINE MASK AND PREPARATION METHOD  
THEREOF ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant  
Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72:  
Yang Xu~

2022/04315 ~ Complete ~54:TRANSFORMER OPTICAL FIBER TEMPERATURE MEASURING SYSTEM AND  
MEASURING METHOD THEREOF ~71:NORTH CHINA ELECTRIC POWER UNIVERSITY (BAODING), No.619,  
Yonghua North Street, Lianchi District, Baoding, Hebei, 071000, People's Republic of China ~72: DUAN Ran;FAN  
Xiaozhou~ 33:CN ~31:202210251267.2 ~32:15/03/2022

2022/04318 ~ Complete ~54:LACTIC ACID BACTERIA AND ITS APPLICATION IN AQUACULTURE ~71:Huzhou  
Fengshengwan Aquatic Products Co.,Ltd, Zuoxu-1, Lucun Village, Balidian Town, Wuxing District, Huzhou City,  
Zhejiang Province, People's Republic of China ~72: LI Beilei;TANG Yuwei~

2022/04319 ~ Complete ~54:CLONING METHOD OF CSPPO GENE OF GUIZHOU-MIST HYSON AND  
APPLICATION THEREOF ~71:Guizhou Province Institute of Biology, No. 1 Longjiang Lane, Xiaohe District,  
Guiyang City, Guizhou Province, People's Republic of China ~72: LI Leijia;WAN Cheng;WANG Jihong;WANG  
Ying;XI Peiyu;XIANG Zhun~

2022/04322 ~ Complete ~54:DEWATERING SYSTEM AND CONSTRUCTION METHOD FOR DEWATERING  
SYSTEM ~71:Anhui University of Science and Technology, No. 168, Taifeng Street, Huainan City, Anhui  
Province, 232001, People's Republic of China;Shenhua Geological Exploration Co., Ltd., Building 202, National  
Energy Group Park, Future Science City, Beiqijia Town, Changping District, Beijing, 102209, People's Republic of



China;Shenshuo Railway Branch of China Shenhua Energy Company Limited, Dianta Town, Shenmu City, Yulin City, Shaanxi Province, 719316, People's Republic of China ~72: LI, Jianwei;NIU, Xiaodong;ZHANG, Lei~

2022/04325 ~ Complete ~54:AMORPHOUS MAGNESIUM ALLOY PRODUCTION DEVICE ~71:Leshan Normal University, No. 778 Binhe Road, Shizhong District, Leshan City, Sichuan Province, People's Republic of China;Leshan Western Silicon Materials Photovoltaic New Energy Industry Technology Research Institute, No. 7, Quality Inspection Center Building, High Tech Zone, Leshan City, Sichuan Province, People's Republic of China;Sichuan Jianyang Energy Investment and Construction Development Co., Ltd., Floor 1, Building 9, No. 141-1, Dongxi Avenue, Shehongba sub district office, Jianyang City, Sichuan Province, People's Republic of China ~72: CAO Fenghong;CHEN Yu;CHEN Zhiru;FAN Kai;LI Ming;SHI Fulong;WANG Feng;XIONG Zubin;ZHANG Yong~

2022/04329 ~ Complete ~54:INTERESTING LEARNING DEVICE FOR LANGUAGE AND LITERATURE EDUCATION ~71:Zhengzhou Railway Vocational And Technical College, No.56 of Pengcheng Avenue, Zhengdong New District, Zhengzhou, Henan, People's Republic of China ~72: Anashkina Natalia;CAI Mengdi;Galuk Alyona;Gnativ Marina;JI Haiyang;QIAO Cong;Shestopalova Olga;XING Huayan;XUE Ming;YANG Yuanyuan;YU Shui;ZHANG Luyuan~

2022/04290 ~ Provisional ~54:A CLOSURE MEMBER ~71:BISTOLI, MUSA, MTATI LOCATION, WARD 1, NGQUSHWA MUNICIPAL AREA, South Africa ~72: BISTOLI, MUSA~

2022/04292 ~ Complete ~54:PLANT DISEASE CLEARANCE SUSPENSION CONCENTRATE AND PREPARATION METHOD THEREFOR, AND USE THEREOF ~71:Zhejiang Citrus Research Institute, Yushanping, Toutuo Town, Huangyan District, Taizhou City, Zhejiang Province, People's Republic of China ~72: HuDeJun;HuGuodong;HuGuoqing;HuShuang;HuXiuRong;HuangZhendong;LuLianming;PuZhanxu~ 33:CN ~31:202210073499.3 ~32:21/01/2022

2022/04306 ~ Complete ~54:MNS LOW-VOLTAGE WITHDRAWABLE SWITCHGEAR WITH PROTECTION AGAINST MISOPERATION ~71:Nan Tong Huawei Power Equipment Co., LTD, No. 68, Qiaogang Road, Haian Industrial Park, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: HONG, Jin;LI, Lei;LIU, Bing;ZHU, Hualin~ 33:CN ~31:202110992260.1 ~32:27/08/2021

2022/04310 ~ Complete ~54:MEDICINAL MOXA STICK WITH ASTHENOPIA RELIEVING EFFECT AND PREPARATION METHOD THEREOF ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72: Yang Xu~

2022/04317 ~ Complete ~54:MOLDING DEVICE OF HYDRATE TWO-DIMENSIONAL HEAT TRANSFER MODEL AND PARTICLE CEMENTATION MODEL ~71:Shandong University of Science and Technology, No.579 Qianwan&#39;gang Road, Huangdao District, Qingdao City, Shandong Province, People's Republic of China ~72: GONG Bin;Naser Golsanami;YU Haiyang;ZHANG Ruiqi;ZHOU Kang~

2022/04324 ~ Complete ~54:BACILLUS METHYLOTROPHICUS STRAIN, MICROBIAL INOCULANT COMPRISING BACILLUS METHYLOTROPHICUS STRAIN, AND USE THEREOF ~71:Liaoning Academy of Agricultural Sciences, No. 84, Dongling Road, Shenhe District, Shenyang City, Liaoning Province, 110161, People's Republic of China ~72: AN, Futao;BAI, Yuanjun;CHU, Jin;DONG, Hai;JIA, Shu;LI, Tianya;LIU, Xingyuan;MEI, Qiong;MIAO, Jiankun;SUN, Qian;XU, Han;XUAN, Yuanhu;YAN, Han;YANG, Hao;YANG, Mei;ZHENG, Nan~ 33:CN ~31:202110824883.8 ~32:21/07/2021

2022/04342 ~ Complete ~54:METHOD FOR MINING COAL SEAM GROUP ~71:China Coal Technology and Engineering Group Chongqing Research Institute, No. 6, Kecheng Road, Jiulongpo District, Chongqing, 400039,

People's Republic of China;Ping'an Coal Mining Engineering Technology Research Institute Co., Ltd., Building 6, Zhihuigu, Shannan New District, Huainan City, Anhui Province, 232001, People's Republic of China ~72: BI, Bo;CAO, Jianjun;FENG, Anxiang;LI, Siqian;LIANG, He;LIU, Huaifu;REN, Qihan;TONG, Xiaozhang;XU, Zunyu;YANG, Yang;YE, Chunhui;YUAN, Benqing;ZHOU, Tao;ZHOU, Yan'an~

2022/04354 ~ Complete ~54:GAS-FED FERMENTATION REACTORS, SYSTEMS AND PROCESSES UTILIZING GAS/LIQUID SEPARATION VESSELS ~71:Calysta, Inc., 1140 O'Brien Drive, Suite B, MENLO PARK 94025, CA, USA, United States of America ~72: AYLEN, Graham Ian;NGUYEN, Luan Thanh;SILVERMAN, Joshua A.~ 33:US ~31:62/545,347 ~32:14/08/2017

2022/04287 ~ Provisional ~54:YIELDING ROOF ANCHOR ~71:Fabchem Mining Pty Ltd, 58 Watt Road, New Era, South Africa ~72: Jacobus Cornelius Pretorius;Johannes Jacobus Naude~

2022/04299 ~ Complete ~54:POLYVINYL ALCOHOL-ZINC OXIDE COMPOSITE MICROSPHERE AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF ~71:Central South University of Forestry & Technology, No. 498, South Shaoshan Road, Changsha, Hunan Province, 410004, People's Republic of China ~72: DENG Jing;DING Yuqin;JIAO Feipeng;LI Jiangtao;LI Wen;SUN Shuguo;ZHANG Lin~

2022/04303 ~ Complete ~54:CUTTING TOOL WITH ADJUSTABLE STRUCTURE ~71:Heyuan Lanhai Mick Mould and Cutting Tools Co., LTD, North of Guihua Road, East of Xinggongnan Road, High-tech Development Zone, Heyuan, Guangdong, 517000, People's Republic of China ~72: Xile LING~ 33:CN ~31:202110511116.1 ~32:11/05/2021

2022/04307 ~ Complete ~54:TRADITIONAL CHINESE MEDICINE (TCM) BREATH FRESHENING MOUTHWASH AND PREPARATION METHOD THEREOF ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72: Yang Xu~

2022/04316 ~ Complete ~54:SIMPLE AND EFFICIENT IONIC MEMBRANE INSERTING PIECE AND USE THEREOF ~71:Shandong Academy of Agricultural Sciences, No. 202, Industry North Road, Licheng District, Jinan City, Shandong Province, 250131, People's Republic of China ~72: CUI, Rongzong;LI, Yan;LIU, Zhaohui;MA, Lei;TAN, Deshui;WANG, Li;WEI, Jianlin;WU, Xiaobin;ZHENG, Fuli~

2022/04323 ~ Complete ~54:ALGORITHM FOR MANAGING WATER METER POWER CONSUMPTION BY ACQUIRING SIGNAL STRENGTH FOR NB-IOT WATER METER ~71:Shandong Weiwei Technology Co., Ltd., No. 7188, Yiwangfu North Road, Qingzhou City, Weifang City, Shandong Province, 262500, People's Republic of China ~72: DU, Daobing;FENG, Qian;LIU, Peng;LIU, Xuezhu;WANG, Xing;WEN, Chuanjun~ 33:CN ~31:202110813027.2 ~32:19/07/2021

2022/04326 ~ Complete ~54:ACID COAL MINE DRAINAGE TREATMENT SYSTEM ~71:Institute of Geochemistry, Chinese Academy of Sciences, 99 West Lincheng Road, Guanshanhu District, Guiyang, Guizhou Province, 550081, People's Republic of China ~72: HUANG, Zhengyu;LIU, Yizhang;NING, Zengping;SUN, Min;XIAO, Tangfu;ZHAO, Yanlong~

2022/04340 ~ Complete ~54:A UNIVERSAL NESTED RT-PCR DETECTION METHOD FOR PORCINE DELTA-CORONAVIRUS ~71:Yangtze University, No. 1 South Ring Road, Jingzhou District, Jingzhou City, Hubei Province, People's Republic of China ~72: Guo Liwei;Hu Liqun;Liu Guoping;Tan Xu;Wang Yan;Yang Xiaolin;Zeng Pan~

2022/04345 ~ Complete ~54:METHOD OF TRI-CROSSBREEDING OF NATIVE BLACK PIGS ~71:Guizhou Good Ecological Alliance Animal Husbandry Development Co., Ltd., Guizhou Institute of Animal Husbandry and

Veterinary Science, Jianlong Community Service Center, Nanming District, Guiyang City, Guizhou Province, 550006, People's Republic of China;Guizhou Institute of Animal Husbandry and Veterinary Science, Guizhou Institute of Animal Husbandry and Veterinary Science, Jianlong Community Service Center, Nanming District, Guiyang City, Guizhou Province, 550006, People's Republic of China;Guizhou Xingmuren Technology Co., Ltd., Guizhou Institute of Animal Husbandry and Veterinary Science, Jianlong Community Service Center, Nanming District, Guiyang City, Guizhou Province, 550006, People's Republic of China ~72: HAN, Yong;LI, Dongguang;WANG, Defeng;WEN, Yuxiang;YANG, Xiuqiao;YUAN, Chao~

2022/04355 ~ Complete ~54:DEOILED CINNAMOMUM CAMPHORA BRANCH AND LEAF SILAGE AND PREPARATION METHOD THEREOF ~71:Jiangxi Agricultural University, No. 1101, Zhimin Avenue, NANCHANG CITY 330045, JIANGXI, CHINA (P.R.C.), People's Republic of China ~72: CHEN, Chuanbin;CHEN, Shangxing;LIANG, Huan;MEI, Wenliang;QU, Mingren;WANG, Long;WU, Huansheng;XU, Lanjiao;YANG, Yuling;ZHANG, Fengwei~ 33:CN ~31:202111453497.9 ~32:01/12/2021

2022/04364 ~ Complete ~54:LOW COST ULTRASONICALLY SYNTHESIZED ZNO DOPED FLY ASH COMPOSITE FOR ADSORPTION AND PHOTODEGRADATION OF ORGANIC CONTAMINANT FROM WATER ~71:Dr.Vishwanath Karad MIT World Peace University, Dr. Vishwanath Karad MIT World Peace University S.No.124, Paud Road, Kothrud, Pune, India;INGALE, Raju S, Dr. Vishwanath Karad MIT World Peace University S.No.124, Paud Road, Kothrud, Pune, India ~72: INGALE, Raju S;KARAD, Sunil;KHAMKAR, Kashmiri A;PATIL, Ishwar;SHINDE, Nitin;SHINDE, Sachin G~

2022/04366 ~ Complete ~54:CONTROL SYSTEM FOR STEERING STABILITY OF TRACTOR-SEMITRAILER ~71:ANHUI SCIENCE AND TECHNOLOGY UNIVERSITY, No. 9 Donghua Road, Fengyang, People's Republic of China ~72: LI, Jin;LIU, Chunhui;ZHANG, Wei~

2022/04369 ~ Complete ~54:PEG-LIPID ~71:ICOAT MEDICAL AB, Norrbackagatan, 70A 113 34, Stockholm, Sweden ~72: JENSEN WAERN, Marianne;NILSSON EKDAHL, Kristina;NILSSON, Bo;TERAMURA, Yuji~ 33:SE ~31:2050025-2 ~32:15/01/2020

2022/04380 ~ Complete ~54:CODING SCHEME FOR DEPTH DATA ~71:Koninklijke Philips N.V., High Tech Campus 52, EINDHOVEN 5656 AG, THE NETHERLANDS, Netherlands ~72: KROON, Bart~ 33:EP ~31:19198801.3 ~32:20/09/2019

2022/04286 ~ Provisional ~54:CLOUD BASED MEDICAL INFORMATION STORAGE INITIATED THROUGH NEAR FILED COMMUNICATION (NFC) FUNCTIONALITIES. ~71:Michael Greer, 47 Oakleigh Avenue, Wembley, Pietermaritzburg, Kwa-Zulu-Natal, 3201, South Africa ~72: Malcolm Lucien Moodley;Michael Greer~

2022/04297 ~ Complete ~54:TEA DRINK BASED ON PEAR YOUNG FRUITS AND PREPARATION METHOD THEREOF ~71:Shandong Institute of Pomology, No.66 Longtan Road, Tai'an City, Shandong Province, People's Republic of China ~72: LI Xinmin;WANG Shaomin;WANG Xiaoyang;WEI Shuwei;XU Yan~

2022/04302 ~ Complete ~54:PREPARATION METHOD OF MOLECULAR SIEVE ~71:INSTITUTE OF APPLIED CHEMISTRY, JIANGXI ACADEMY OF SCIENCES, No. 7777, Changdong Avenue, High-tech Development Zone, Nanchang, Jiangxi, 330096, People's Republic of China ~72: CHEN, Wei;HAN, Fei;HU, Yin;WANG, Lingling;ZHANG, Fen~

2022/04304 ~ Complete ~54:LITHOLOGY IDENTIFICATION SYSTEM AND METHOD OF BLASTHOLES ~71:BGRIMM Explosives And Blasting Technology Co., Ltd., Building 23, Zone 18 of ABP, No. 188, South 4th Ring Road West, Beijing, 100160, People's Republic of China;BGRIMM Technology Group, Building 23, Zone 18 of ABP, No. 188, South 4th Ring Road West, Beijing, 100160, People's Republic of China ~72: DUAN, Yun;XU, Wei~

2022/04309 ~ Complete ~54:WORMWOOD ANALGESIC TINCTURE FOR PROMOTING BLOOD CIRCULATION TO ALLEVIATE PAIN AND PREPARATION METHOD THEREOF ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72: Yang Xu~

2022/04320 ~ Complete ~54:A PILE HOLE PROTECTION DEVICE USED FOR ROTARY DRILLING PILE CONSTRUCTION ~71:CHINA CONSTRUCTION SECOND&#160;ENGINEERING BUREAU LTD., No.251 Beiyangwa, Liyuan town, Tongzhou District, Beijing, People's Republic of China;THE FIRST CONSTRUCTION ENGINEERING COMPANY LTD. OF CHINA CONSTRUCTION SECOND&#160;ENGINEERING BUREAU, Floors 1 to 7, building 1, Yard 9, Kechuang 4th Street, Beijing Economic-Technological Development Area Daxing District, Beijing, People's Republic of China ~72: Huo Dawang;Li Weiyong;Tang Yuexin;Wang Hai;Xu Chengkai;Yu Jie;Zhao Hailong~ 33:CN ~31:202220591583.X ~32:18/03/2022

2022/04330 ~ Complete ~54:OBSTACLE LASER DETECTION STRUCTURE FOR HIGH-SPEED RAIL PLATFORM SAFETY SCREEN DOOR ~71:Zhengzhou Railway Vocational And Technical College, No.56 of Pengcheng Avenue, Zhengdong New District, Zhengzhou, Henan, People's Republic of China ~72: Anashkina Natalia;CAI Mengdi;Galuk Alyona;Gnativ Marina;LI Zhenghui;NIU Ke;QIAO Cong;Shestopalova Olga;XING Huayan;XUE Ming;YANG Yuanyuan;ZHANG Yingchao~

2022/04332 ~ Complete ~54:A METHOD OF CALCULATING THE INDIVIDUAL SURVIVAL PRESSURE OF A RARE AND ENDANGERED TREE SPECIES ~71:Nanjing Institute of Environmental Sciences.MEE, No. 8 Jiangwang Temple, Xuanwu District, Nanjing City, Jiangsu Province, People's Republic of China ~72: Qu Chang;Wang Ye;Yu Huanxi;Yuan Huanhuan;Zhang Jianliang~

2022/04353 ~ Complete ~54:METHOD AND KIT FOR IDENTIFYING TOBACCO RAW MATERIAL WITH DNA MOLECULAR MARKER ~71:YUNNAN TOBACCO QUALITY SUPERVISION MONITORING STATION, No.41 of Yike Road, High-tech Development Zone, Kunming, Yunnan, People's Republic of China;Yunnan Academy of Tobacco Agricultural Sciences, No.33 of Yuantong Road, Kunming, Yunnan, People's Republic of China ~72: CAI, Jieyun;CHEN, Dan;CHEN, Xuejun,;CHI, Yuan;FANG, Dunhuang;GAI, Xiaolei;GU, Jianlong;HAN, Xiaoyuan;LI, Dan;LI, Haiyan;LIU, Zhonghua;LONG, Jie;PENG, Lijuan;SUI, Xueyi;SUN, Haowei;TONG, Zhijun;WANG, Chunqiong;WANG, Lu;WEI, Jia;XIAO, Bingguang;XU, Jichao;YANG, Bing;ZHANG, Jiwu;ZHANG, Ke;ZHANG, Xiaowei;ZHAO, Lin~ 33:CN ~31:202110558610.3 ~32:21/05/2021

2022/04296 ~ Complete ~54:CONSTRUCTION METHOD OF COW RUMEN EPITHELIAL TISSUE IN VITRO CULTURE SYSTEM ~71:Heilongjiang Bayi Agricultural University, No.2 Xinyang Road, Gaoxin District, Daqing City, Heilongjiang Province, 163319, People's Republic of China ~72: Cui Yizhe;Ren Yulong;Wang Qiuju;Xu Chuang~

2022/04313 ~ Complete ~54:COSMETIC MEDICINAL MOXA ROLL ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72: Yang Xu~

2022/04334 ~ Complete ~54:VEHICLE ROUTING METHOD AND SYSTEM FOR DISTRIBUTION ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 579, Qianwangang Road, Huangdao District, Qingdao City, Shandong Province, 266590, People's Republic of China;Shandong Junpeng Energy Saving Technology Co., Ltd., 5th Floor, Qiushi Building, No.195 Shengli East Street, Jinma Community, Xincheng Street, High-tech Zone, Weifang City, Shandong, 261000, People's Republic of China ~72: CAO, Jianfeng;FU, Yingjun;JIA, Shun;LI, Haoran;LI, Meiyang;LIU, Daoxing;LIU, Jian;MA, Lingji;YAN, Wei;ZHANG, Duo;ZHAO, Hongxiang;ZHENG, Yujie~ 33:CN ~31:202210154596.5 ~32:21/02/2022

2022/04341 ~ Complete ~54:DOUBLE ETHERIFIED STARCH, PREPARATION METHOD AND APPLICATION THEREOF ~71:Anhui Polytechnic University, Beijing Middle Road, Jiujiang District, Wuhu City, Anhui Province, People's Republic of China ~72: DING Xiaocui;LI Wei;XU Zhenzhen~

2022/04343 ~ Complete ~54:THERMAL INDUCTION IMAGING DETECTION METHOD FOR RIVER MANAGEMENT ~71:Qingdao Jielida Geographic Information Group Co., Ltd., Resident in Poli Town, Huangdao District, Qingdao City, Shandong Province, 266400, People's Republic of China ~72: AN, Xianliang;CUI, Zhen;QU, Guo;QU, Weirong;XU, Yuzhang;ZHANG, Tao;ZHANG, Yongsheng;ZHENG, Bingyu~ 33:CN ~31:202110811918.4 ~32:19/07/2021

2022/04352 ~ Complete ~54:AN IMPERIAL GREEN GLASS AND ITS PREPARATION METHOD ~71:Shandong Sanhui Glass Co., Ltd., Kuishan Street, Economic Development Zone, Rizhao City, Shandong Province, 276800, People's Republic of China ~72: Ming Li;Zongzhi Li~ 33:CN ~31:202210141559.0 ~32:16/02/2022

2022/04328 ~ Complete ~54:ECOLOGICAL RESTORATION SYSTEM FOR HIGH AND STEEP ROCKY SLOPES IN LIMESTONE MINES ~71:Anhui University Of Science & Technology, 168 Taifeng Street, Huainan, Anhui Province, People's Republic of China ~72: Bu zhongyuan;Chen fei;Zhang shiwen;Zhou pengfei~

2022/04338 ~ Complete ~54:PLANT IMMUNE INDUCER AND APPLICATION THEREOF ~71:Northwest A&F University, Northwest A&F University, Yangling District, Xianyang City, Shaanxi Province, People's Republic of China ~72: YAN He~

2022/04349 ~ Complete ~54:GRASS GRID DEVICE FOR DESERTIFICATION CONTROL ACCORDING TO WIND DIRECTIONS ~71:GANSU DESERT CONTROL RESEARCH INSTITUTE, NO. 1856 QILIAN AVENUE, XIGUAN STREET, People's Republic of China ~72: CAO, Lei;WU, Zhen;ZHANG, Huiwen;ZHANG, Zhiping~

2022/04375 ~ Complete ~54:SYSTEM AND METHOD FOR CONTROL OF SILVICULTURAL EQUIPMENT ~71:TIGERCAT INDUSTRIES INC., 54 Morton Avenue East, Brantford, Canada ~72: OLYNIK, Jason;SIMATOVIC, David~ 33:US ~31:62/905,845 ~32:25/09/2019

2022/04384 ~ Complete ~54:AN INHALABLE DRY POWDER COMPOSITION FOR PULMONARY DISEASES ~71:GLENMARK SPECIALTY S.A., Avenue L&#233;opold-Robert 37, 2300, La Chaux-de-Fonds, Switzerland ~72: RAJESH VERBEERABHADRARAO ANKAM;RAKSHIT KANUBHAI TRIVEDI;SOMESHWAR DASHRATH NAVHAT;SUSHRUT KULKARNI;VAIJNATH SHADAKSHARI ARAVAT;VIJAY GANPAT LUGADE~ 33:IN ~31:201921041251 ~32:11/10/2019

2022/04291 ~ Complete ~54:DEVICE FOR PREPARING ALUMINUM BORATE WHISKERS ~71:Nantong Auxin Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China;Nantong Auxin Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China;Nantong Auxin Electronic Technology Co., Ltd., No. 16, Hengtian Road, Haian Town, Haian County, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: XI, Chen;XI, Chen;XI, Chen~ 33:CN ~31:202111093172.4 ~32:17/09/2021

2022/04295 ~ Complete ~54:THE DETECTION KIT, DETECTION SYSTEM AND THE OPERATION METHOD OF THE CELL-FREE DNA ~71:Anqing Normal University, 128 South Linghu road, Anqing, Anhui, People's Republic of China ~72: Gao hongcheng;Mao xiaoxia;Shi mengqin;Sun huiqun;Zhao wenrui~

2022/04300 ~ Complete ~54:A KIND OF METHOD OF BREEDING RED-GRAIN, EARLY-MATURING, STRONG-GLUTEN AND HIGH-QUALITY WHEAT ~71:Crop Research Institute, Shandong Academy of Agricultural Sciences, No. 6, sangyuan Road, Licheng District, Jinan City, Shandong Province, People's Republic of



China;Shandong Luyan Agricultural Co.,Ltd, No. 6, sangyuan Road, Licheng District, Jinan City, Shandong Province, People's Republic of China ~72: CUI Zhengyong;LI Peng;LI Xinhua;LIU Ying;SONG Huadong;SUN Mingzhu;SUN Xin;XUE Chunzhi;YANG Zaidong~

2022/04305 ~ Complete ~54:PREPARATION METHOD AND PRODUCT OF SUPER-HYDROPHOBIC SILK FIBROIN FILM ~71:Anhui Polytechnic University, Beijing Middle Road, Jiujiang District, Wuhu City, Anhui Province, People's Republic of China ~72: BU fan;SUN Ruixia;WANG Xinyu;WANG Yong;WANG Zongqian;YANG Haiwei~

2022/04312 ~ Complete ~54:COMPLETELY VEGETABLE CIGARETTE SUBSTITUTE COMPOSITE AND PREPARATION METHOD ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72: Yang Xu~

2022/04314 ~ Complete ~54:NOVEL APPLICATION OF CORTEX DICTAMNI EXTRACT ~71:Chinese Academy of Medical Sciences-Peking Union Medical College Institute of Medicinal Plant Development, No. 151 Malianwa North Road, Haidian District, Beijing, 100193, People's Republic of China ~72: Yang Xu~

2022/04321 ~ Complete ~54:SUPPLEMENTARY STRUCTURE OF MEDICAL CONSUMABLES IN DSA EXAMINATION ROOM ~71:CHINA CONSTRUCTION SECOND&#160;ENGINEERING BUREAU LTD., No.251 Beiyangwa, Liyuan town, Tongzhou District, Beijing, People's Republic of China ~72: He Dongnan;Shi Jiawei;Xu Kailong~ 33:CN ~31:202220695662.5 ~32:28/03/2022

2022/04335 ~ Complete ~54:POWER AMPLIFIER WITH CLUTTER FILTERING PROTECTION ~71:Uniflight(Nantong)Technology Co.,Ltd, No. 3, Xisu Road, Haian High-tech Industrial Development Zone, Nantong City, Jiangsu Province, 226600, People's Republic of China ~72: QIN, Yongfei;TANG, Yong~ 33:CN ~31:202111327854.7 ~32:10/11/2021

2022/04348 ~ Complete ~54:FEEDING METHOD FOR SHORTENING LABOR STAGES OF DELIVERY SOWS ~71:INSTITUTE OF ANIMAL SCIENCE, GUANGDONG ACADEMY OF AGRICULTURAL SCIENCES, NO. 1 DAFENG FIRST STREET, WUSHAN ROAD, People's Republic of China ~72: GAO, Kaiguo;JIANG, Zongyong;WANG, Li;WEN, Xiaolu;YANG, Xuefen~

2022/04357 ~ Complete ~54:ALPHA-1 ANTITRYPSIN (AAT) RNAI AGENTS, COMPOSITIONS INCLUDING AAT RNAI AGENTS, AND METHODS OF USE ~71:ARROWHEAD PHARMACEUTICALS, INC., 225 South Lake Avenue, Suite 1050, Pasadena, California, 91101, United States of America ~72: CHRISTINE I WOODDELL;RUI ZHU;TAO PEI;ZHEN LI~ 33:US ~31:62/444,452 ~32:10/01/2017;33:US ~31:62/486,720 ~32:18/04/2017;33:US ~31:62/596,232 ~32:08/12/2017

2022/04359 ~ Complete ~54:AUXILIARY TRAILER ~71:ROUTE HOLDINGS (PTY) LTD, 43 George Lubbe Street, Bloemfontein, South Africa ~72: BURGER, Marco~

2022/04360 ~ Complete ~54:FERTILISER BOOT AND SHIELD ~71:AUSPLOW PTY. LTD., 6 Davison Road, Australia ~72: John William RYAN~ 33:AU ~31:AU202190121 ~32:23/04/2021;33:AU ~31:AU2021221571 ~32:25/08/2021;33:AU ~31:AU2022200972 ~32:14/02/2022

2022/04367 ~ Complete ~54:ARCHITECTURAL CONCRETE POLISHER ~71:SHANGHAI MARITIME UNIVERSITY, No. 1550 Haigang Avenue, Pudong New Area, People's Republic of China ~72: SHI, Chongyao;ZANG, Zhaoliang~

2022/04370 ~ Complete ~54:USES OF COMPLEX OF ANGIOTENSIN II RECEPTOR ANTAGONIST METABOLITE AND NEP INHIBITOR IN TREATING HEART FAILURE ~71:SHENZHEN SALUBRIS PHARMACEUTICALS CO. LTD, 37F, Main Tower, Lvjing Plaza, Che Gong Miao No. 6009 Shennan Road, Futian District Shenzhen, Guangdong, 518040, People's Republic of China ~72: JING, Xiaolong;SUN, Jingchao~ 33:CN ~31:201910890853.X ~32:20/09/2019;33:CN ~31:202010901984.6 ~32:01/09/2020

2022/04376 ~ Complete ~54:FILLING ADAPTER FOR FILLING VEHICLES AT ASSEMBLY LINES IN THE AUTOMOTIVE INDUSTRY ~71:D&#220;RR SOMAC GMBH, Zwickauer Strasse 30, Germany ~72: Karlheinz SCHMIDT~ 33:DE ~31:10 2019 007 352.5 ~32:21/10/2019

2022/04379 ~ Complete ~54:SPINAL IMPLANT WITH SURFACE PROJECTIONS ~71:Beacon Biomedical, LLC, 967 Alternate A1A #1, JUPITER 33477, FL, USA, United States of America ~72: TY, Dennis~ 33:US ~31:62/903,283 ~32:20/09/2019

2022/04383 ~ Complete ~54:ADENO-ASSOCIATED VIRAL VECTORS FOR TREATMENT OF NIEMANN-PICK DISEASE TYPE C ~71:STRIDEBIO, INC., 5 Laboratory Drive, Suite 1200, Research Triangle, North Carolina, 27709, United States of America ~72: DANIEL MCCOY;DAVID DISMUKE;GARRETT BERRY~ 33:US ~31:62/916,749 ~32:17/10/2019;33:US ~31:62/923,253 ~32:18/10/2019;33:US ~31:63/082,425 ~32:23/09/2020;33:US ~31:63/082,899 ~32:24/09/2020

2022/04386 ~ Complete ~54:HETEROCYCLIC CARBOXYLATE COMPOUNDS AS GLYCOLATE OXIDASE INHIBITORS ~71:GYANRX SCIENCES, INC., 854 Carter Acres Lane, Martinez, California, 94553, United States of America ~72: AMY S LEE;AURPON W MITRA;DEVLEENA M SHIVAKUMAR;HONGYAN GUO;HYUNG-JUNG PYUN;JOHN E KNOX;JULIAN A CODELLI;LIANHONG XU;MANOJ C DESAI~ 33:US ~31:62/929,476 ~32:01/11/2019;33:US ~31:63/093,094 ~32:16/10/2020

2022/04490 ~ Provisional ~54:BOS.PAY-MOBILE APPLICATION BUSINESS WALLET ~71:Mohammed Y. Munshi, 129 Nelson Road, South Africa ~72: Mohammed Y. Munshi~

2022/04374 ~ Complete ~54:NOVEL PROTECTIVE BARRIER COMPOSITIONS, AND USES THEREOF ~71:QUORUM INNOVATIONS, LLC, 2088 Hawthorne Street, Sarasota, United States of America ~72: BERKES, Eva, A.;BOEHM, Frederick T.;MONSUL, Nicholas, T.~ 33:US ~31:62/940,598 ~32:26/11/2019;33:US ~31:63/016,336 ~32:28/04/2020

2022/04377 ~ Complete ~54:PORTABLE HYDRAULIC SYSTEM LEAKAGE SIGNAL ACQUISITION APPARATUS AND ACQUISITION METHOD THEREOF ~71:YANG, Lixuan, No. 94, Weijin Road, Nankai District, Tianjin, 300100, People's Republic of China ~72: YANG, Chenggang;YANG, Lixuan~ 33:CN ~31:201910907022.9 ~32:24/09/2019

- APPLIED ON 2022/04/20 -

2022/04395 ~ Complete ~54:UNIVERSAL DOUBLE NESTED RT-PCR PRIMERS FOR PORCINE EPIDEMIC DIARRHEA VIRUS AND PORCINE DELTACORONAVIRUS, AND ITS DETECTION METHOD AND APPLICATION ~71:Yangtze University, No. 1 South Ring Road, Jingzhou District, Jingzhou City, Hubei Province, People's Republic of China ~72: Guo Liwei;Hu Liqun;Li Chunqi;Liu Guoping;Yang Jie;Yang Xiaolin~

2022/04398 ~ Complete ~54:UNIVERSAL NESTED PCR DETECTION PRIMER AND METHOD FOR PORCINE CIRCOVIRUS TYPE 3 ~71:Yangtze University, No. 1 South Ring Road, Jingzhou District, Jingzhou City, Hubei Province, People's Republic of China ~72: Guo Liwei;Hu Liqun;Li Chunqi;Liu Guoping;Yang Jie;Yang Xiaolin~

2022/04401 ~ Complete ~54:A LARGE-SECTION PROFILE STEEL REINFORCED CONCRETE COLUMN-STEEL TRUSS CONNECTION STRUCTURE ~71:THE FIRST CONSTRUCTION ENGINEERING COMPANY LTD. OF CHINA CONSTRUCTION SECOND&#160;ENGINEERING BUREAU, Floors 1 to 7, building 1, Yard 9, Kechuang 4th Street, Beijing Economic-Technological Development Area Daxing District, Beijing, People's Republic of China ~72: Li Yan;Liu Feihu;Wu Chaoping;Zhang xuan;Zhao Xingchen~ 33:CN ~31:202210232533.7 ~32:09/03/2022

2022/04409 ~ Complete ~54:CENTRIFUGAL GRANULAR FERTILIZER APPLICATION DEVICE ~71:Lingnan Normal University, 29 Cunjin Road, Chikan, Zhanjiang, Guangdong, 524048, People's Republic of China ~72: Dongxue Chen;Jinlong Feng~

2022/04388 ~ Provisional ~54:PET TOY AND DENTAL CARE DEVICE ~71:Neill Human, 18 Dinathus, South Africa ~72: Neill Human~

2022/04404 ~ Complete ~54:SEEDLING STRENGTHENING AGENT FOR WINTER WHEAT ~71:Dezhou Academy of Agricultural Sciences, 926 Dexing Middle Avenue, Decheng District, Dezhou City, Shandong Province, People's Republic of China ~72: DONG Yanfang;DU Mengyang;LI Hongjie;LI Zishuang;LIU Bailin;WANG Fujian;WANG Wei;WANG Yuxia;ZHAO Tongkai;ZHOU Xiaolin~

2022/04412 ~ Complete ~54:PREFABRICATED EXCRETA TROUGH ~71:Jinan Lixia District Urban and Rural Construction Development Service Center, No. 607, Fuyou Street, Lixia District, JINAN CITY 250014, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Linyi City Construction Engineering Working Drawing Examination Co., Ltd., Floor 22-23, Fudong Building, Shanghai Road, Lanshan District, LINYI 276000, SHANDONG, CHINA (P.R.C.), People's Republic of China;Qingdao Xinguangzheng Steel Structure Co., Ltd., No. 268, Shenzhen Road, Pingdu City, QINGDAO 266700, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Shandong Qianyue Construction Technology Co., Ltd., No. 17923, Jingshi Road, JINAN CITY 250061, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Shandong University, No. 27, Shanda South Road, JINAN CITY 250000, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Zhengzhou Chengjian Group Investment Co., Ltd., Huashan Road, Zhongyuan District, ZHENGZHOU CITY 450000, HENAN, CHINA (P.R.C.), People's Republic of China ~72: GAO, Mengqi;HOU, Hetao;LU, Baoling;MOU, Yinlin;XIONG, Fangming;XU, Haobo;YANG, Yonghuan;ZENG, Xiaozhen;ZHANG, Chunliang;ZHANG, Xinghai~

2022/04417 ~ Complete ~54:PRESSURE SPREADING DEVICE FOR A CORNER CONNECTOR ARRANGEMENT FOR A FENESTRATION SYSTEM ~71:KELLER, Izaan Louis, 31 Mount Pleasant, 5th Avenue, Denneoord, George 6529, Western Cape, SOUTH AFRICA, South Africa ~72: FOURIE, Waldo~ 33:ZA ~31:2022/03122 ~32:16/03/2022

2022/04425 ~ Complete ~54:AMORPHOUS FORM OF A COMPLEMENT COMPONENT C5A RECEPTOR ~71:CHEMOCENTRYX, INC., 835 Industrial Road, Suite 600, United States of America ~72: LELETI, Manmohan Reddy;LUI, Rebecca M.;LUONG, Kenken;SINGH, Rajinder;YAU, Kwok;ZENG, Yibin;ZHANG, Penglie~ 33:US ~31:62/932,644 ~32:08/11/2019

2022/04428 ~ Complete ~54:USER EQUIPMENT, SCHEDULING NODE, METHOD FOR USER EQUIPMENT, AND METHOD FOR SCHEDULING NODE ~71:PANASONIC INTELLECTUAL PROPERTY CORPORATION OF AMERICA, 20000 MARINER AVENUE, SUITE 200, TORRANCE, CA 90503, USA, United States of America ~72: KUANG, Quan;LI, Hongchao;SUZUKI, Hidetoshi;TEO, Tiong Hou~ 33:EP ~31:19209581.8 ~32:15/11/2019

2022/04440 ~ Complete ~54:A LIGHTING DEVICE FOR OBSERVATION AND DETECTION IN PEDIATRIC ORAL MEDICINE ~71:HENAN MEDICAL COLLEGE, No. 8, Shuanghu County Avenue, Xinzheng Longhu Town,

Zhengzhou, Henan, 451191, People's Republic of China ~72: LI, Jianbin;WANG, Kaiting~ 33:CN  
~31:202010834206.X ~32:19/08/2020

2022/04444 ~ Complete ~54:RENEWABLE RESIN COMPOSITION AND PRODUCT MANUFACTURED FROM SAME ~71:Green Whale Global Co., Ltd., (Nonhyeon-dong) 2F, Korea Construction Engineers Association Bldg., 650, Eonju-ro, Gangnam-gu, SEOUL 06098, REPUBLIC OF KOREA, Republic of Korea ~72: HWANG, Jiyoung;NHAN CHI, Ha Thuc~ 33:KR ~31:10-2019-0130936 ~32:21/10/2019

2022/04413 ~ Complete ~54:WATERPROOFING METHOD FOR PLATE SEAMS OF PREFABRICATED EXCRETA TROUGH ~71:Jinan Lixia District Urban and Rural Construction Development Service Center, No. 607, Fuyou Street, Lixia District, JINAN CITY 250014, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Linyi City Construction Engineering Working Drawing Examination Co., Ltd., Floor 22-23, Fudong Building, Shanghai Road, Lanshan District, LINYI 276000, SHANDONG, CHINA (P.R.C.), People's Republic of China;Qingdao Xinguangzheng Steel Structure Co., Ltd., No. 268, Shenzhen Road, Pingdu City, QINGDAO 266700, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Shandong Qianyu Construction Technology Co., Ltd., No. 17923, Jingshi Road, JINAN CITY 250061, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Shandong University, No. 27, Shanda South Road, JINAN CITY 250000, SHANDONG PROVINCE, CHINA (P.R.C.), People's Republic of China;Zhengzhou Chengjian Group Investment Co., Ltd., Huashan Road, Zhongyuan District, ZHENGZHOU CITY 450000, HENAN, CHINA (P.R.C.), People's Republic of China ~72: GAO, Mengqi;HOU, Hetao;LU, Baoling;MOU, Yinlin;XIONG, Fangming;XU, Haobo;YANG, Fuhang;YANG, Yonghuan;ZENG, Xiaozhen;ZHANG, Xinghai~

2022/04418 ~ Complete ~54:ADJUSTABLE SUPPORT TRAY FOR A TELEVISION SET ~71:HATTON-JONES, Ronald Joseph, 19 Strelitzia Street, Brackenhurst, ALBERTON 1450, Gauteng Province, SOUTH AFRICA, South Africa ~72: HATTON-JONES, Ronald Joseph~

2022/04426 ~ Complete ~54:PALLET CONTAINER ~71:MAUSER-WERKE GMBH, Schildgesstr. 71-163, Germany ~72: BISCHOFF, Sebastian;MEYER, Markus;SCHMIDT, Klaus-Peter~ 33:DE ~31:20 2019 004 962.2 ~32:12/05/2019;33:DE ~31:20 2019 004 316.0 ~32:18/10/2019

2022/04434 ~ Complete ~54:PROCESS FOR DETECTING WATER LEAKS FROM SMELTING FURNACES IN METAL OR ALLOY PRODUCTION PLANTS AND RELATED PLANT ~71:DANIELI & C. OFFICINE MECCANICHE S.P.A., Via Nazionale 41, Italy ~72: Alessandra PRIMAVERA;Alessio MILOCCO;Stefano TERLICHER~ 33:IT ~31:102019000020470 ~32:06/11/2019

2022/04443 ~ Complete ~54:METHODS AND COMPOSITIONS FOR TREATING SICKLE CELL DISEASE WITH A FERROPORTIN INHIBITOR (VIT-2763) ~71:Vifor (International) AG, Rechenstrasse 37, ST. GALLEN 9001, SWITZERLAND, Switzerland ~72: D&#220;RRENBARGER, Franz;MANOLOVA, Vania;NYFFENEGGER, Naja~ 33:EP ~31:19000483.8 ~32:22/10/2019;33:US ~31:62/924,556 ~32:22/10/2019;33:EP ~31:20163777.4 ~32:17/03/2020;33:EP ~31:20176336.4 ~32:25/05/2020

2022/04446 ~ Complete ~54:METHODS OF TREATING CHRONIC LYMPHOCYTIC LEUKEMIA USING 2-(2,6-DIOXOPIPERIDIN-3YL)-4-((2-FLUORO-4-((3-MORPHOLINOAZETIDIN-1-YL)METHYL)BENZYL)AMINO)ISOINDOLINE-1, 3-DIONE ~71:Celgene Corporation, 86 Morris Avenue, SUMMIT 07901, NJ, USA, United States of America ~72: JANARDHANAN, Preethi;KASIBHATLA, Shailaja;LOPEZ-GIRONA, Antonia;POURDEHNAD, Michael~ 33:US ~31:62/923,955 ~32:21/10/2019;33:US ~31:63/011,147 ~32:16/04/2020

2022/04396 ~ Complete ~54:NOVEL GAS EXTRACTION DEVICE ~71:Anhui University of Science and Technology, No.168 Taifeng Street, Huainan City, Anhui Province, People's Republic of China ~72: LI Yaobin;LIU Zegong;QI Xiang;SHEN Sihuai~ 33:CN ~31:202210292995.8 ~32:24/03/2022

2022/04397 ~ Complete ~54:CONSTRUCTION SUPPORT STRUCTURE AND METHOD FOR INCLINED CONCRETE COLUMN SLAB

~71:Shandong Expressway Weir Highway Co., Ltd., Room 01, Building 3, Information Electronic Parts Assembly Project, No.2600 Zhuangjian Road, Kuiwen District, Weifang City, Shandong Province, People's Republic of China ~72: DU Yang;FAN Junying;LI Shimin;TANG Xianpeng;WANG Guan;WANG Youzhi;XIAO Gang;XU Tao;ZHANG Fengping;ZHAO Guinan~

2022/04400 ~ Complete ~54:ORGANOMETALLIC DRUG-LOADED NANO-PARTICLE FOR TARGETED TREATMENT OF TUMORS AND A PREPARATION METHOD THEREOF ~71:THE FIRST AFFILIATED HOSPITAL OF GUANGXI MEDICAL UNIVERSITY, No. 6, Shuangyong Road, Qingxiu District, Nanning City, Guangxi Zhuang Autonomous Region, 530021, People's Republic of China ~72: CAO, Wenlong;CHEN, Junqiang;HAN, Chuangye;MO, Shutian;YU, Zhu~ 33:CN ~31:202110982602.1 ~32:25/08/2021

2022/04414 ~ Complete ~54:A PENDULUM TESTER ~71:Qingdao Qingjian Institute of Construction Industrialization Research Institute Co., Ltd., No. 306, Block A, Fangte Animation Valley Office Building, East side of Aodongnan Road, Hongdao Street, Hongdao Economic Zone, QINGDAO CITY 266000, SHANDONG, CHINA (P.R.C.), People's Republic of China;Qingdao University of Technology, No. 11, Fushun Road, Shibei District, QINGDAO CITY 266033, SHANDONG, CHINA (P.R.C.), People's Republic of China;Qingjian Group Co., Ltd., No. 11, Tangyi Road, North District, QINGDAO CITY 266011, SHANDONG, CHINA (P.R.C.), People's Republic of China;Ronghua (Qingdao) Construction Technology Co., Ltd., No. 118, Mumashan Road, Sino-German Ecological Park, Huangdao District, QINGDAO CITY 266500, SHANDONG, CHINA (P.R.C.), People's Republic of China;The Second Construction Limited Company Of China Construction Eighth Engineering Division, 18th Floor, Zhongjian Building, No. 16 Wenhua East Road, Lixia District, JINAN CITY 250014, SHANDONG, CHINA (P.R.C.), People's Republic of China ~72: CHEN, Degang;CHEN, Jiguang;JIANG, Yunlei;LIANG, Haizhi;LIU, Feifei;SHANG, Hongkun;SHAO, Feng;SHI, Chenglong;WANG, Xiangying;WU, Shuyi;YAN, Nan;YAN, Qingfeng;YANG, Yingchun;ZHANG, Jigang;ZHANG, Yuteng~

2022/04420 ~ Complete ~54:AN SMELL CONTROL SYSTEM AND A PAIR OF MOVIE-WATCHING GLASSES ~71:YANGTZE NORMAL UNIVERSITY, No. 16, Juxian Road, Fuling District, People's Republic of China ~72: FENG, Jiazhu~

2022/04423 ~ Complete ~54:METHODS OF CANCER TREATMENT USING ANTI-OX40 ANTIBODIES IN COMBINATION WITH ANTI-PD1 OR ANTI-PDL1 ANTIBODIES ~71:BEIGENE, LTD., c/o Maurant Ozannes Corporate Services (Cayman) Limited, 94 Solaris Avenue, Camana Bay, Cayman Islands ~72: JIANG, Beibei;LIU, Ye;SONG, Xiaomin~ 33:CN ~31:PCT/CN2019/120055 ~32:21/11/2019

2022/04430 ~ Complete ~54:REPORTING LISTEN-BEFORE-TALK FAILURES IN A WIRELESS NETWORK ~71:TELEFONAKTIEBOLAGET LM ERICSSON (PUBL), SE-164 83 STOCKHOLM, SWEDEN, Sweden ~72: KARLSSON, Robert;WANG, Min~ 33:US ~31:62/909,872 ~32:03/10/2019

2022/04436 ~ Complete ~54:SYSTEMS AND METHODS FOR STRUCTURED ILLUMINATION MICROSCOPY ~71:ILLUMINA, INC., 5200 Illumina Way, United States of America ~72: HEIBERG, Andrew Dodge;LANGLOIS, Robert Ezra;LU, Bo;YOUNG, Andrew James~ 33:US ~31:62/924,130 ~32:21/10/2019;33:US ~31:62/924,138 ~32:21/10/2019;33:US ~31:17/075,692 ~32:21/10/2020;33:US ~31:17/075,694 ~32:21/10/2020

2022/04445 ~ Complete ~54:SUBSTITUTED 4-AMINOISOINDOLINE-1,3-DIONE COMPOUNDS AND SECOND ACTIVE AGENTS FOR COMBINED USE ~71:Celgene Corporation, 86 Morris Avenue, SUMMIT 07901, NJ, USA, United States of America ~72: ANTON, Maria Soraya Carrancio;BUCHHOLZ, Tonia J.;CHANG, Henry;FILVAROFF, Ellen;KASIBHATLA, Shailaja;LOPEZ-GIRONA, Antonia;MOHAN, Adithi;NARLA, Rama



Krishna;PIERCEALL, William Edward;POURDEHNAD, Michael;THAKURTA, Anjan~ 33:US ~31:62/923,945 ~32:21/10/2019

2022/04488 ~ Provisional ~54:CAR DOORS HANDLES SIGNAL (CDHS) ~71:SAKHILE HOPEWELL NTULI, 1351 Empumelelweni, Ext 5,, South Africa ~72: SAKHILE HOPEWELL NTULI~

2022/04432 ~ Complete ~54:CLADDING WELDING METHOD APPLIED TO HYDRAULIC SUPPORT COLUMN ~71:CHINA UNIVERSITY OF MINING AND TECHNOLOGY, No. 1 Daxue Road, Tongshan District, People's Republic of China;JINGNENG HOLDING GROUP, Taihe Road, Pingcheng District, People's Republic of China;NANJING LINLI SCIENCE AND TECHNOLOGY CO., LTD., 10th floor, Building 5, Juhui Park, Xuzhuang High-tech Zone Phase II, 108 Xuanwu Avenue, Xuanwu District, People's Republic of China;SHAOXING HENGSHENG ENVIRONMENTAL TECHNOLOGY CO., LTD., Room 120, Kechuang Building A, Kechuang Center, No. 388 Punan Avenue, People's Republic of China ~72: AN, Ze;CHEN, Zheng;FAN, Yu;LI, Yongchao;LIU, Yi;LIU, Yilin;MENG, Fei;WANG, Lidong;WANG, Wenying;WEI, Jianhui;XU, Bo;XU, Jie;ZHANG, Jun;ZHANG, Lixiang~ 33:CN ~31:201910996709.4 ~32:19/10/2019

2022/04438 ~ Complete ~54:AAV TRANSFER CASSETTE ~71:STRIDEBIO, INC., 5 Laboratory Drive, Suite 1200, Research Triangle, North Carolina, 27709, United States of America ~72: DAVID DISMUKE~ 33:US ~31:62/916,749 ~32:17/10/2019;33:US ~31:62/923,253 ~32:18/10/2019

2022/04442 ~ Complete ~54:SALT FORMS OF A COMPLEMENT COMPONENT C5A RECEPTOR ~71:CHEMOCENTRYX, INC., 835 Industrial Road, Suite 600, United States of America ~72: LUI, Rebecca M.;ROTH, Howard S.;SINGH, Rajinder;YANG, Ju;YAU, Kwok;ZENG, Yibin;ZHANG, Penglie~ 33:US ~31:62/932,658 ~32:08/11/2019

2022/04473 ~ Complete ~54:METHODS AND COMPOSITIONS FOR CANCER TREATMENT USING NANOPARTICLES CONJUGATED WITH MULTIPLE LIGANDS FOR BINDING RECEPTORS ON NK CELL ~71:THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, 109 Church Street, Chapel Hill, United States of America ~72: AU, KIN MAN;WANG, ANDREW~ 33:US ~31:62/923,060 ~32:18/10/2019

2022/04390 ~ Provisional ~54:FAILSAFE DETONATOR ~71:DETNET SOUTH AFRICA (PTY) LTD, AECI Place, The Woodlands, Woodlands Drive, Woodmead, South Africa ~72: KRUGER, Michiel Jacobus~

2022/04394 ~ Complete ~54:UNIVERSAL NESTED PCR DETECTION METHOD FOR PORCINE CIRCOVIRUS TYPE 2 ~71:Yangtze University, No. 1 South Ring Road, Jingzhou District, Jingzhou City, Hubei Province, People's Republic of China ~72: Guo Liwei;Hu Liqun;Li Chunqi;Liu Guoping;Yang Jie;Yang Xiaolin~

2022/04403 ~ Complete ~54:EXPRESSION AND PURIFICATION METHOD OF RECOMBINANT HUMAN PROTEIN KINASE NEK2 PROTEIN ~71:Guangxi Medical University, No.22 Shuangyong Road, Qingxiu District, Nanning City, Guangxi Zhuang Autonomous Region, People's Republic of China ~72: CHEN Qiuli;HE Min;LI Hui;WEI Peiqi;WEN Sha;YANG Lichao~

2022/04408 ~ Complete ~54:NOVEL COMPUTER PS2 CONVERTER ~71:Lingnan Normal University, 29 Cunjin Road, Chikan, Zhanjiang, Guangdong, 524048, People's Republic of China ~72: Wei Jiang~

2022/04416 ~ Complete ~54:PREPARATION METHOD OF RUBI FRUCTUS-BREWED HEALTH WINE ~71:Hangzhou Qiandao Lake Heling Family Farm Co., Ltd., Tea Factory, Yejiawan Village, Linqi Town, CHUN#39;AN COUNTY 311700, ZHEJIANG PROVINCE, CHINA (P.R.C.), People's Republic of China ~72: FANG, Guangsheng;HONG, Suting;YU, Yunlin;ZHENG, Pinghan~

2022/04421 ~ Complete ~54:PALLET CONTAINER ~71:MAUSER-WERKE GMBH, Schildgesstr. 71-163, Germany ~72: BISCHOFF, Sebastian;MEYER, Markus;SCHMIDT, Klaus-Peter~ 33:DE ~31:20 2019 004 316.0 ~32:18/10/2019;33:DE ~31:20 2019 004 962.2 ~32:05/12/2019

2022/04437 ~ Complete ~54:ANTI-PD-L1 ANTIBODIES AND ANTIBODY-DRUG CONJUGATES ~71:SEAGEN INC., 21823 30th Drive SE, Bothell, Washington, 98021, United States of America ~72: ANDREW WAIGHT;BYRON HUA KWAN;HEATHER VAN EPPS;RYAN LYSKI;SCOTT JEFFREY~ 33:US ~31:62/910,988 ~32:04/10/2019

2022/04448 ~ Complete ~54:ELECTRICAL SYSTEM FOR TREATMENT OF A SUBJECT ~71:TheraBionic, Inc., 4108 Ryan Way, WINSTON-SALEM 27106-3567, NC, USA, United States of America ~72: BARBAULT, Alexandre~ 33:US ~31:62/923,908 ~32:21/10/2019;33:US ~31:62/934,212 ~32:12/11/2019

2022/04392 ~ Complete ~54:SALT-RESISTANT DEEP PHOSPHORUS REMOVAL AGENT AND THE PREPARATION METHOD THEREOF ~71:Tianjin research institute for water transport engineering,M.O.T., No.2618 Xingang No.2 Road, Binhai New District, Tianjin, People's Republic of China ~72: CHANG Fang;LI Huiting;LI Zhendong;SGANG Hao;WANG Jiangnan;WANG Tingfeng;YI Malan;ZHANG Lu~

2022/04391 ~ Complete ~54:TAMPER EVIDENT PLASTIC CLOSURE FOR VIALS FOR STORING SUBSTANCES FOR MEDICAL OR PHARMACEUTICAL APPLICATIONS AND USE THEREOF ~71:KAISHA PACKAGING PRIVATE LTD, 72-73, 7th Floor, Plot 215, Free Press House, Free Press Journal Marg, Nariman Point, Mumbai,, India ~72: DADACHANJI, Rishad Kairus;PATEL, Keyurkumar Arvindbhai~ 33:IN ~31:202121020675 ~32:06/05/2021

2022/04405 ~ Complete ~54:BENZOYL HYDRAZINE DERIVATIVE CONTAINING DIHYDRO-PYRAZOLE STRUCTURE AND PREPARATION METHOD THEREOF ~71:Suzhou University, Erpu Village, Zhuxianzhuang Town, Yongqiao District, Suzhou City, Anhui Province, People's Republic of China ~72: SUN, Shu;WANG, Haichao;ZHANG, Dongjing;ZHANG, Xingtao~

2022/04407 ~ Complete ~54:A LARGE DEFORMATION CONTROL METHOD FOR ROADWAY ALONG GOAF WITH HARD ROOF IN COAL MINE ~71:GUIZHOU PAN JIANG COAL AND ELECTRICITY REFCO GROUP LTD, 95 Lincheng West Road, Guanshanhu District, Guiyang, Guizhou Province, 550081, People's Republic of China;Guizhou University, Huaxi District, Guiyang, Guizhou Province, 550025, People's Republic of China ~72: Hanghang Zheng;Lang Zhou;Shaojie Zuo;Xiaolei Feng;Yuan Deng;Zhengxing Guan;Zhenqian Ma;Zhizhong Jiang~

2022/04411 ~ Complete ~54:METHOD AND KIT FOR RAPID IN-SITU DETECTION OF LEAD IONS IN WATER, AND USE THEREOF ~71:Institute of Environmental and Operational Medicine, No. 1 Dali Road, Heping District, 300050, TIANJIN, CHINA (P.R.C.), People's Republic of China ~72: LI, Chenyu;QIU, Zhigang;SHEN, Zhiqiang;WANG, Jingfeng;WANG, Shang;XUE, Bin;YANG, Xiaobo;ZHANG, Xi;ZHANG, Yongkang;ZHAO, Chen~ 33:CN ~31:202210007532.2 ~32:06/01/2022

2022/04419 ~ Complete ~54:AN URBAN SOUND CLASSIFICATION METHOD BASED ON IMPROVED DEEP RESIDUAL NETWORK ~71:GUILIN UNIVERSITY OF TECHNOLOGY, No. 12, Jiangan Road, Qixing District, Guilin City, People's Republic of China ~72: HUANG, Feiyang;HUANG, Haibin;LIU, Yarong;WU, Xuetao;XIE, Xiaolan~

2022/04422 ~ Complete ~54:METHODS OF CANCER TREATMENT USING ANTI-OX40 ANTIBODIES IN COMBINATION WITH ANTI-TIGIT ANTIBODIES ~71:BEIGENE, LTD., c/o Maurant Ozannes Corporate Services (Cayman) Limited, 94 Solaris Avenue, Camana Bay, Cayman Islands ~72: JIANG, Beibei;LIU, Ye;SONG, Xiaomin~ 33:CN ~31:PCT/CN2019/120033 ~32:21/11/2019

2022/04424 ~ Complete ~54:METHODS FOR CHARACTERIZING HOST-CELL PROTEINS ~71:REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road, Tarrytown, United States of America ~72: GREER, Tyler;O&#39;BRIEN JOHNSON, Reid;ZHENG, Xiaojing~ 33:US ~31:62/915,344 ~32:15/10/2019;33:US ~31:62/986,324 ~32:06/03/2020

2022/04427 ~ Complete ~54:APPARATUS, METHOD, AND COMPUTER PROGRAM ~71:NOKIA TECHNOLOGIES OY, KARAKAARI 7, 02610 ESPOO, FINLAND, Finland ~72: KOZIOL, Dawid;KUO, Ping-Heng;SEBIRE, Benoist;TURTINEN, Samuli;WU, Chunli~

2022/04429 ~ Complete ~54:BALLISTIC CALCULATOR HUB ~71:SHELTERED WINGS, INC. d/b/a VORTEX OPTICS, BARNEVELD, WI 53507, USA, United States of America ~72: CLERMONT, Todd;FARRELL, Ben~ 33:US ~31:62/906,235 ~32:26/09/2019

2022/04435 ~ Complete ~54:NOVEL CEMENTITIOUS COMPOSITION ~71:UNIVERSITY OF PRETORIA, Cnr. Lynnwood & University Roads, Hatfield, South Africa ~72: KOVTUN, Maxim, Nikolaevich~ 33:ZA ~31:2019/07315 ~32:05/11/2019

2022/04439 ~ Complete ~54:SMALL MOLECULE INHIBITORS OF ID PROTEINS ~71:MEMORIAL SLOAN KETTERING CANCER CENTER, 1275 York Avenue, New York, New York, 10065, United States of America ~72: GUANGLI YANG;OUATHEK OUFELLI;ROBERT BENEZRA~ 33:US ~31:62/909,036 ~32:01/10/2019

2022/04441 ~ Complete ~54:IRAK INHIBITOR AND PREPARATION METHOD THEREFOR AND USE THEREOF ~71:SHANGHAI MEIYUE BIOTECH DEVELOPMENT CO., LTD., 3333 Shenjiang Road, Building 1, Floor 5, Bloack A Pudong New District, People's Republic of China ~72: DING, Chenli;DING, Yawen;HE, Qian;WANG, Chaodong;YE, Guozhong~ 33:CN ~31:201910906833.7 ~32:24/09/2019

2022/04447 ~ Complete ~54:COMPOSITION FOR LICE CONTROL ~71:Intervet International B.V., Wim de K&#246;rverstraat 35, BOXMEER 5831 AN, THE NETHERLANDS, Netherlands ~72: FISARA, Petr;FLOCHLAY-SIGOGNAULT, Annie;HUYGHE, Bruno;O&#39;NEILL, Peter Andrew~ 33:EP ~31:19216377.2 ~32:16/12/2019

2022/04389 ~ Provisional ~54:SAUSAGE FILLER WITH MULTI LAYERS ~71:Amanda Le Roux, 25 Munnik Street, South Africa;Christo Le Roux, 25 Munnik Street, South Africa ~72: Amanda Le Roux;Christo Le Roux~

2022/04393 ~ Complete ~54:MANUFACTURE METHOD OF NATURAL GAS HYDRATE SAMPLE ~71:Shandong University of Science and Technology, No.579 Qianwan&#39;gang Road, Huangdao District, Qingdao City, Shandong Province, People's Republic of China ~72: GONG Bin;Naser Golsanami;YU Haiyang;ZHANG Ruiqi;ZHOU Kang~

2022/04399 ~ Complete ~54:A SPRINGBOARD FOR TRACK AND FIELD TRAINING ~71:Qingdao University of Technology, No. 777, Jialingjiang East Road, Huangdao District, Qingdao, Shandong, People's Republic of China ~72: Dai Bin;Zhou Wei~

2022/04402 ~ Complete ~54:AN INTELLIGENT WIRELESS TEMPERATURE MEASURING DEVICE WITH A CLEANING MECHANISM AND THE USE METHOD THEREOF ~71:Xuzhou Industrial Vocational and Technical College, No. 1 Xiangwang South Road, Gulou District, Xuzhou, Jiangsu, People's Republic of China ~72: SONG, Peisen;XU, Yunhui;YANG, Yong;YU, Bencheng~ 33:CN ~31:202210191755. 9 ~32:28/02/2022

2022/04406 ~ Complete ~54:METHOD FOR DETECTING CONTENT OF EFFECTIVE RUBBER POWDER IN RUBBER ASPHALT ~71:Guangxi Jiaoke New Material Technology Co., Ltd, No. 6, Gaoxin 2nd Road, Xixiangtang District, Nanning City, Guangxi Zhuang Autonomous Region, 530007, People's Republic of China;Guangxi Transportation Science and Technology Group Co., Ltd, No. 158, Xinkang West Road,

Xixiangtang District, Nanning City, Guangxi Zhuang Autonomous Region, 530007, People's Republic of China ~72: LIU, Ping;PAN, Zhiqiong;TAN, Jizong;WANG, Qiumin;WANG, Xiaolei;WANG, Yong;XIONG, Baolin;YIN, Yehao;YUAN, Haitao;ZHANG, Hongbo;ZHANG, Honggang~ 33:CN ~31:202111156801.3 ~32:29/09/2021

2022/04410 ~ Complete ~54:NOVEL EXTERNAL FAN OF COMPUTER MACHINE CASE BAFFLE ~71:Lingnan Normal University, 29 Cunjin Road, Chikan, Zhanjiang, Guangdong, 524048, People's Republic of China ~72: Wei Jiang~

2022/04415 ~ Complete ~54:PREPARATION METHOD OF SOLID BEVERAGE BASED ON EXTRACTION AND COMPOUNDING OF CYCLOCARYA PALIURUS POLYSACCHARIDE ~71:Hangzhou Qiandao Lake Heling Family Farm Co., Ltd., Tea Factory, Yejiawan Village, Linqi Town, CHUNAN COUNTY 311700, ZHEJIANG PROVINCE, CHINA (P.R.C.), People's Republic of China ~72: LI, Hongjun;YU, Yunlin;ZHENG, Peng;ZHENG, Pinghan~

2022/04431 ~ Complete ~54:FOAM SEPARATOR FOR POLYURETHANE FOAMS ~71:BASF SE, CARL BOSCH STRASSE 38, 67056 LUDWIGSHAFEN AM RHEIN, GERMANY, Germany ~72: WEICKERT, Mathias~ 33:EP ~31:19200113.9 ~32:27/09/2019

2022/04433 ~ Complete ~54:HIGH-ENTROPY ALLOY ALCOCRFENI/27SIMN STEEL COMPOSITE LAYER PREPARED BY LASER CLADDING WELDING AND PREPARATION METHOD THEREOF ~71:CHINA UNIVERSITY OF MINING AND TECHNOLOGY, No. 1 Daxue Road, Tongshan District, People's Republic of China;JIANGSU RUNYANG AUTOMOBILE PARTS MANUFACTURING CO., LTD., West Side Of Qunying Village, Fuxing Road, People's Republic of China;XUZHOU XCMG EXCAVATOR MACHINERY CO., LTD., No.39, Gaoxin Road, Economic And Technological Development Zone Xuzhou, People's Republic of China ~72: AN, Ze;CHEN, Zheng;DING, He;FAN, Peng;FAN, Yu;FANG, Rongchao;LI, Yongchao;SONG, Zhike;XU, Jie;YANG, Yong;ZHANG, Jun;ZHANG, Lixiang~ 33:CN ~31:201911165986.7 ~32:25/11/2019

2022/04449 ~ Complete ~54:INCREASED CALCULATION EFFICIENCY FOR STRUCTURED ILLUMINATION MICROSCOPY ~71:ILLUMINA, INC., 5200 Illumina Way, United States of America ~72: HEIBERG, Andrew Dodge;LANGLOIS, Robert Ezra;LU, Bo;YOUNG, Andrew James~ 33:US ~31:62/924,130 ~32:21/10/2019;33:US ~31:62/924,138 ~32:21/10/2019;33:US ~31:17/075,694 ~32:21/10/2020;33:ZA ~31:17/075,692 ~32:21/10/2020

- APPLIED ON 2022/04/21 -

2022/04519 ~ Complete ~54:METHODS FOR THE PRODUCTION OF PSILOCYBIN AND INTERMEDIATES OR SIDE PRODUCTS ~71:MIAMI UNIVERSITY, 215 Roubidoux Hall, 501 E High St., United States of America ~72: ADAMS, Alexandra;JONES, J. Andrew;KAPLAN, Nicholas~ 33:US ~31:62/926,875 ~32:28/10/2019;33:US ~31:62/990,633 ~32:17/03/2020

2022/04452 ~ Provisional ~54:HEMP PROCESSING SYSTEM AND METHOD ~71:AFRIMAT HEMP (PTY) LTD., Karoo Vlakke, Vredendal, Western Cape, 8160, South Africa ~72: FRANCOIS ALLEWYN LANDSBERG;JOHAN STEMMET;NEIL VAN BRAKEL;OLIVER MICHAEL WOLF;PIETER VAN EEDEN;WILLEM HENDRIK BOSHOFF MULLER~

2022/04454 ~ Complete ~54:ENVIRONMENTALLY-FRIENDLY COMPOSITIONS AND METHODS FOR EXTRACTING MINERALS AND METALS FROM ORE ~71:LOCUS IP COMPANY, LLC, 30600 Aurora Road, Suite 180, United States of America ~72: FARMER, Sean;KARATHUR, Karthik, N.~ 33:US ~31:17/521,290 ~32:08/11/2021;33:US ~31:63/329,715 ~32:11/04/2022

2022/04458 ~ Complete ~54:HIGH-LIGHT-EFFICIENCY TREE SHAPING METHOD FOR PEACH TREES  
~71:Weifang Academy of Agricultural Sciences, No.1921 Shengli East Street, High-tech Zone, Weifang City,  
Shandong Province, People's Republic of China ~72: HAN Xia;LI Tian;LIN Yundi;XIAO Long;ZHAO Jingjie~

2022/04460 ~ Complete ~54:METAL-ORGANIC FRAMEWORK MATERIAL/MEMBRANE COMPOSITE  
MATERIAL, PREPARATION METHOD AND USE THEREOF ~71:Jilin Jianzhu University, No. 5088, Xincheng  
Street, Nangan District, Changchun, Jilin, 130000, People's Republic of China ~72: LI, Siwen;LIN, Yingzi;LIU,  
Gen;REN, Ruijun;SHI, Chunyan;XIAO, Feng~

2022/04462 ~ Complete ~54:A CHLOROFORM FUMIGATION DEVICE FOR MEASURING SOIL MICROBIAL  
BIOMASS CARBON AND NITROGEN ~71:Zhejiang Academy of Agricultural Sciences, No.198 Shiqiao Road,  
Jiangan District, Hangzhou, City, Zhejiang Province, People's Republic of China ~72: LI Yan;TANG Xu;WU  
Chunyan;YIN Chang~

2022/04465 ~ Complete ~54:ADAPTIVE DIGITAL TEACHING SYSTEM AND METHOD BASED ON  
INTELLIGENT INTERACTION ~71:Shenyang University Of Technology, No.111 Shenliao West Road, Shenyang  
Economic and Technological Development Zone, Shenyang City, Liaoning Province, People's Republic of China  
~72: LIU Peng;SONG Qian~

2022/04468 ~ Complete ~54:ROBOT GRASPING GRIPPER FOR SPECIAL-SHAPED OBJECTS ~71:Anhui  
Polytechnic University, NO.8, Beijing Middle Road, Wuhu City, Anhui Province, People's Republic of China ~72:  
JIANG Benchu~

2022/04472 ~ Complete ~54:METHOD FOR SCREENING KEY AMINO ACID SITES TO IMPROVE  
SESQUITERPENE SYNTHASE ACTIVITY OF ALOES BASED ON ADAPTIVE EVOLUTION MODEL  
~71:Guangdong Medical University, No.1 Xincheng Road, Songshan Lake Science and Technology Park,  
Dongguan, Guangdong, 523808, People's Republic of China ~72: Jingan Chen;Mingbin Zheng;Yong Liu;Zunnan  
Huang~

2022/04474 ~ Complete ~54:CRIZANLIZUMAB CONTAINING ANTIBODY FORMULATION ~71:NOVARTIS AG,  
Lichtstrasse 35, Switzerland ~72: ANKO, Maja;BICKEL, Fabian;BOADO, Lina;CHELIUS, Dirk;GRIAUD,  
Francois;HILBERT, Caroline;JELENKO, Aljosa;KROENER, Frieder;PAUL, Rajsekhar;SIGG, Juergen~ 33:US  
~31:62/927,716 ~32:30/10/2019;33:US ~31:62/927,720 ~32:30/10/2019;33:US ~31:62/933,692  
~32:11/11/2019;33:US ~31:62/936,269 ~32:15/11/2019

2022/04476 ~ Complete ~54:INFORMATION PROCESSING SYSTEM BASED ON DEEP NEURAL NETWORK  
~71:LANGDA NETWORK TECHNOLOGY (ZHEJIANG) CO.,LTD, No.113 Chaoyang Road, Fuying Street, Xianju  
County, Taizhou, Zhejiang, People's Republic of China ~72: Xiaofei YU~ 33:CN ~31:2021101415952  
~32:01/02/2021

2022/04482 ~ Complete ~54:ACCELERATED SETTLEMENT OF FLOCS AFTER  
ELECTROCOAGULATION/ELECTROCHEMICAL PROCESS USING BALLASTED FLOCCULATION  
~71:EVOQUA WATER TECHNOLOGIES LLC, 210 Sixth Avenue, Suite 3300, Pittsburgh, Pennsylvania, 15222,  
United States of America ~72: HAO DANG;SIMON DUKES;WENXIN DU~ 33:US ~31:62/932,871  
~32:08/11/2019

2022/04484 ~ Complete ~54:FLEXIBLE TENSIONED CRASH BARRIER ~71:HUDSON, David Marshall, 16A  
Arney Road, REMUERA 1050, AUCKLAND, NEW ZEALAND, New Zealand ~72: HUDSON, David Marshall~  
33:NZ ~31:757996 ~32:09/10/2019;33:NZ ~31:764015 ~32:29/04/2020



2022/04493 ~ Complete ~54:LIQUID DISPENSING TAP ~71:RUBEN ARTHUR PHEIFFER, 17 Zandberg Street, Jacarandas, Kuilsriver, South Africa ~72: RUBEN ARTHUR PHEIFFER~

2022/04518 ~ Complete ~54:METHOD FOR PROCESSING PLASTIC PYROLYSIS OILS WITH A VIEW TO THEIR USE IN A STEAM-CRACKING UNIT ~71:IFP ENERGIES NOUVELLES, 1 & 4 avenue du Bois-Préau, France ~72: BONNARDOT, Jerome;WEISS, Wilfried~ 33:FR ~31:FR1913625 ~32:02/12/2019

2022/04450 ~ Provisional ~54:A VEHICLE-IMMOBILIZATION DEVICE ~71:ABRAHAMS, Mogamat Tape, 380 Third Avenue, South Africa ~72: ABRAHAMS, Mogamat Nazier;ABRAHAMS, Mogamat Tape~

2022/04453 ~ Provisional ~54:YIELDING ROOF ANCHOR ~71:Johannes Jacobus Naude, 12 Arend avenue, South Africa ~72: Jacobus Cornelius Pretorius;Johannes Jacobus Naude~

2022/04455 ~ Complete ~54:A WINE VALUE KIT ~71:GREEN, Malcolm, 43 MARA ROAD, WELGEMOED, CAPE TOWN 7530, SOUTH AFRICA, South Africa;GREEN, Ricardo, 12 PAARLBERG CRESCENT, THE CREST, DURBANVILLE, CAPE TOWN 7550, SOUTH AFRICA, South Africa ~72: GREEN, Malcolm;GREEN, Ricardo~

2022/04456 ~ Complete ~54:AN AUTOCLAVE ~71:NORTHSWAN ENGINEERING (PTY) LTD., 15 Turf Road, ANDERBOLT, Boksburg 1459, Gauteng Province, SOUTH AFRICA, South Africa ~72: NOTHING, Warren John~

2022/04466 ~ Complete ~54:METHOD FOR IDENTIFYING SALINITY TOLERANCE OF COTTON AT SEEDLING STAGE ~71:Economic Crops Research Institute of Xinjiang Academy of Agricultural Sciences, No.403 Nanchang Road, Urumqi, Xinjiang Uygur Autonomous Region, People's Republic of China ~72: CUI Jianping;GUO Rensong;KONG Jie;LI Chunping;LIN Tao;LIU Zhongshan;TIAN Liwen;WANG Weiran;WEI Xin;XU Haijiang;XU Jianhui;YANG Honglan;ZHANG Dawei;ZHANG Fuchun~

2022/04470 ~ Complete ~54:ENVIRONMENTAL-FRIENDLY SYNTHESIS METHOD OF BIOLOGICAL DUST SUPPRESSANT ~71:China University of Mining and Technology, No.1, Daxue Road, Xuzhou, Jiangsu, 221116, People's Republic of China ~72: Guangran Xie;Hetang Wang;Lan Fan;Qi Zhang;Sheng He;Xia Zhao~

2022/04471 ~ Complete ~54:COLLOIDAL GOLD TEST STRIP FOR DETECTING CUCUMBER MOSAIC VIRUS (CMV) AND PREPARATION METHOD THEREOF ~71:QINGDAO AGRICULTURAL UNIVERSITY, 700 Changcheng Road, Chengyang District, Qingdao City, People's Republic of China ~72: CAO, Xinran;CHEN, Fanglong;CHI, Shengqi;GUO, Jingjing;IDA BAGUS ANDIKA;LI, Xiaoya~ 33:CN ~31:202210296288.6 ~32:24/03/2022

2022/04475 ~ Complete ~54:A METHOD OF MANUFACTURING A BLOWN FILM WITH A PROFILE OF A CHARACTERISTIC PROPERTY OF THE FILM BEING DETERMINED ~71:ALEPH, Zac Il Savoie Technolac, 108 avenue du Lac Léman, France ~72: AVILA, Jean-Noël~ 33:FR ~31:FR1913386 ~32:28/11/2019

2022/04477 ~ Complete ~54:RANGE HOOD WITH GOOD FILTERING EFFECT AND CLEANING DEVICE FOR RANGE HOOD ~71:Gao Wei, Room 110, No. 90, Shenglong Road, Shengping Community, Longcheng Street, Longgang District, Shenzhen City, Guangdong Province, People's Republic of China ~72: Gao Wei~

2022/04480 ~ Complete ~54:MATERIAL FOR WAVE WALL ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9, Chunxiu Road, Dongcheng District, Beijing 100027, People's Republic of China ~72: JIAYAN YANG~ 33:CN ~31:202010731679.7 ~32:27/07/2020

2022/04483 ~ Complete ~54:RAILROAD CAR TRUCK DAMPER WEDGE FITTINGS ~71:National Steel Car Limited, 600 Kenilworth Avenue North, HAMILTON L8N 3J4, ONTARIO, CANADA, Canada ~72: HEMATIAN, Jamal~

2022/04486 ~ Complete ~54:SYSTEM, METHOD AND APPARATUS FOR INTEGRATION OF FIELD, CROP AND IRRIGATION EQUIPMENT DATA FOR IRRIGATION MANAGEMENT ~71:VALMONT INDUSTRIES, INC., One Valmont Plaza Omaha, United States of America ~72: BURGARD, Daniel J.;LARUE, Jacob L.;MOREIRA, Hiran M.~ 33:US ~31:62/945,268 ~32:09/12/2019

2022/04485 ~ Complete ~54:COMPOSITIONS AND METHODS FOR MINIMIZING PROTEIN LOSS AT LOW PROTEIN CONCENTRATIONS ~71:Amgen Inc., One Amgen Center Drive, Mail Stop 28-5-A, THOUSAND OAKS 91320-1799, CA, USA, United States of America ~72: GREENE, Daniel Gerard;HAO, Qi;KANAPURAM, Sekhar;TREUHEIT, Michael John;ZHU, Chen~ 33:US ~31:62/926,089 ~32:25/10/2019

2022/04487 ~ Complete ~54:GENE DELIVERY SYSTEMS FOR TREATMENT OF HEART FAILURE ~71:ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI, One Gustave L. Levy Place, United States of America ~72: MAGADUM, Ajit;ZANGI, Lior~ 33:US ~31:62/933,681 ~32:11/11/2019

2022/04464 ~ Complete ~54:METHOD FOR INDUCING POST-HARVEST RED MANGIFERA INDICA L. TO BE COLORED ~71:Hainan University, No. 58, Renmin Avenue, Meilan District, Haikou City, Hainan Province, People's Republic of China ~72: Bin SHI;Chengkun YANG;Hongxia WU;Kaibing ZHOU;Minjie QIAN~ 33:CN ~31:202111100864.7 ~32:18/09/2021

2022/04469 ~ Complete ~54:GREEN PREVENTION AND CONTROL METHOD OF POTATO FUSARIUM WILT ~71:Agriculture, Animal Husbandry and Technology Bureau of Liangcheng County, Donghuan Road, Hongmao Town, Liangcheng County, Ulanqab City, Inner Mongolia Autonomous Region, People's Republic of China;Inner Mongolia Academy of Agricultural & Animal Husbandry Sciences, 22 Zhaojun Road, Yuquan District, Hohhot City, Inner Mongolia Autonomous Region, People's Republic of China;Inner Mongolia Agricultural University, No.29, Ordos East Street, Saihan District, Hohhot City, Inner Mongolia Autonomous Region, People's Republic of China ~72: AN Hao;AN Le;DUAN Tingting;DUAN Yu;GUO Jingshan;JIA Ruifang;LIANG Junmei;WANG Dong;XU Limin;ZHANG Jun;ZHANG Jun;ZHAO Yuanzheng~

2022/04478 ~ Complete ~54:MULTI-FUNCTIONAL GAS STOVE ~71:Gao Wei, Room 110, No. 90, Shenglong Road, Shengping Community, Longcheng Street, Longgang District, Shenzhen City, Guangdong Province, People's Republic of China ~72: Gao Wei~ 33:CN ~31:202111373782X ~32:19/11/2021

2022/04481 ~ Complete ~54:SUBMERGED FIXED POINT INSTALLATION DEVICE FOR ACCOROPODE, AND INSTALLATION METHOD THEREOF ~71:CHINA HARBOUR ENGINEERING COMPANY LTD., No. 9, Chunxiu Road, Dongcheng District, Beijing 100027, People's Republic of China ~72: YANSONG SU~ 33:CN ~31:202111659587.3 ~32:30/12/2021

2022/04451 ~ Provisional ~54:V SHAPE RESISTANCE BAND ~71:ANDREW ROLAND ANGUS HOGG, 30 MARINE DRIVE, South Africa ~72: ANDREW ROLAND ANGUS HOGG;ANDREW ROLAND ANGUS HOGG~

2022/04457 ~ Complete ~54:BIOLOGICAL MORPH-GENETIC WO<sub>3</sub> PHOTOCATALYST AND PREPARATION METHOD AND APPLICATION THEREOF ~71:Jilin Jianzhu University, No. 5088, Xincheng Street, Nangan District, Changchun City, Jilin, 130000, People's Republic of China ~72: LI, Ang;LI, Siwen;LIN, Huan;LIN, Yingzi;LIU, Gen;ZHU, Yang~

2022/04461 ~ Complete ~54:TRADITIONAL CHINESE MEDICINE FORMULA FOR PREVENTING ECOLOGICAL BREEDING DISEASES OF SOFT-SHELLED TURTLES AND PREPARATION METHOD AND USE METHOD THEREOF ~71:Hangzhou Haolin Agricultural Development Co., Ltd., Baijiang Village, Baijiang Town, Tonglu County, Hangzhou City, Zhejiang Province, 311522, People's Republic of China;Tonglu Agricultural Technology Extension Center, 24th Floor, Guozi Building, No. 258, Yingchun South Road, Chengnan Street, Tonglu County, Zhejiang Province, 311500, People's Republic of China;Zhejiang Fishery Technology Promotion

Station, No. 181, Jingchang Road, Wuchang Street, Yuhang District, Hangzhou City, Zhejiang Province, 311028, People's Republic of China ~72: CHENG, Dajun;JIN, Hao;JIN, Jianrong;LAN, Xin;LI, Hong;SHEN, Tu;WANG, Jie;YE, Shengyue;ZHOU, Fan;ZHU, Xiaolan~

2022/04467 ~ Complete ~54:CARDIOPULMONARY RESUSCITATION ASSISTING DEVICE ~71:The Affiliated Hospital of Youjiang Medical University for Nationalities, No.18 Zhongshan 2nd Road, Youjiang District, Baise City, Guangxi Zhuang Autonomous Region, 533000, People's Republic of China ~72: LIN Qiqing;PENG Hao;XU Shuzhen~

2022/04459 ~ Complete ~54:A MEDICINAL POWDER FOR TREATING TRAUMATIC INJURIES AND CUTS ~71:Yunjie Wu, No. 12, Xiangzhang Xiangshan Village, Shibao Town, Gaozhou, Maoming City, Guangdong, People's Republic of China ~72: Yunjie Wu~

2022/04463 ~ Complete ~54:PREPARATION METHOD FOR PHOTOCURING HYDROGEL MICROSPHERE CAPABLE OF PROMOTING ANGIOGENESIS ~71:Kunming University of Science and Technology, No. 253, Xuefu Road, Wuhua District, Kunming City, Yunnan Province, 650093, People's Republic of China ~72: JI, Weizhi;LI, Pengfei;LI, Yong;SI, Wei;WEI, Jingkuan;ZHANG, Lei~ 33:CN ~31:202111178821.0 ~32:09/10/2021

2022/04479 ~ Complete ~54:ELECTRICAL PLUG CONNECTOR ~71:NEUTRIK AG, Im alten Riet 143, 9494 Schaan, Liechtenstein ~72: OLIVER DOBLER~ 33:AT ~31:A 50816/2019 ~32:24/09/2019;33:AT ~31:A 50609/2020 ~32:14/07/2020

- APPLIED ON 2022/04/22 -

2022/04491 ~ Provisional ~54:A TAMPER-RESISTANT, LOCKING MECHANISM FOR A CONTAINER ~71:VILJOEN, Phillippus Rudolph, 213 Gouws street, Plot 11,, South Africa ~72: VILJOEN, Phillippus Rudolph~

2022/04498 ~ Complete ~54:MEDIUM AND HIGH VOLTAGE ELECTRONIC ALUMINUM FOIL FOR HIGH-CAPACITY AND HIGH-STRENGTH CAPACITORS AND PREPARATION METHOD THEREOF ~71:Guangxi Zhengrun New Material Technology Co., Ltd., No. 3 Tianhe road, eco-industrial park Pinggui district, Hezhou city, Guangxi, People's Republic of China ~72: Hu Chuanbin;Huang Kui;Li Yongchun;Long Zhouguo;Qin Xue~

2022/04509 ~ Complete ~54:A LANDSCAPE POOL WITH AUTOMATIC REGULATION AND STORAGE WITH SPONGE FUNCTION ~71:Zhengzhou University of Aeronautics, No.2, University Middle Road, Zhengzhou City, Henan Province, People's Republic of China ~72: Li Shuyin~

2022/04510 ~ Complete ~54:BARLEY-SPECIFIC 40K SNP LIQUID ARRAY ~71:Northwest A and F University, No. 3 Taicheng Road, Yangling Demonstration Zone, Shaanxi Province, 712100, People's Republic of China ~72: CUI, Licao;NIE, Xiaojun;PAN, Wenqiu;SHE, Kuijun;SONG, Weining;WEI, Xinyu;YANG, Guang~

2022/04512 ~ Complete ~54:SWEET CORN FERTILIZER AND PREPARATION METHOD THEREOF ~71:Dezhou Academy of Agricultural Sciences, No.926, Dexing Middle Road, Decheng District, Dezhou, Shandong, 253000, People's Republic of China ~72: Hongjie Li;Mengyang Du;Tongkai Zhao;Xiaolin Zhou;Yanfang Dong;Yuxia Wang;Zishuang Li~

2022/04513 ~ Complete ~54:INTELLIGENT TOMATO BREEDING DEVICE AND ITS BREEDING METHOD ~71:Weifang University of Science and Technology, 166 Xueyuan Road, Shouguang County, Weifang City, Shandong Province, 262700, People's Republic of China ~72: Guiyu Lin;Hu Sun;Jinfu Lv;Meiqin Li;Qiqin Xue;Xiumei Ni;Yuanyuan Yang~ 33:CN ~31:2022103533816 ~32:06/04/2022

2022/04520 ~ Complete ~54:PROCESS FOR RECOVERING PRECIOUS METAL ~71:HERAEUS DEUTSCHLAND GMBH & CO. KG, Heraeusstr. 12-14, Germany ~72: STEMMLER, Marco~ 33:EP ~31:19209661.8 ~32:18/11/2019

2022/04533 ~ Complete ~54:REMOTE PLACEMENT INTELLIGENT MOORING SYSTEM TOWED BY UNMANNED BOAT ~71:Guangdong Ocean University, No. 1, Haida Road, Mazhang District, Zhanjiang City, Guangdong Province, People's Republic of China ~72: LEI Guibin;LING Zheng;LIU Dazhao;PENG Yinqiao;WANG Shuqing;XIE Lingling;ZHANG Tianyu~ 33:CN ~31:202110607615.0 ~32:01/06/2021

2022/04536 ~ Complete ~54:TREATMENT OF EPILEPTIC CONDITIONS WITH GABAA RECEPTOR MODULATORS ~71:NEUROCYCLE THERAPEUTICS, INC., 12750 High Bluff Drive, United States of America ~72: HUBBS, Jed;TOCZKO, Matthew~ 33:US ~31:62/925,081 ~32:23/10/2019;33:US ~31:62/950,674 ~32:19/12/2019

2022/04537 ~ Complete ~54:PANEL COMPRISING COUPLING PARTS ~71:FLOORING INDUSTRIES LIMITED, SARL, 10b, Rue des M&#233;rovingiens (ZI Bourmicht), 8070 Bertrange, Luxembourg ~72: JAN DE RICK~ 33:BE ~31:2019/5834 ~32:25/11/2019

2022/04548 ~ Complete ~54:A KIT FOR DETECTION OF MUTATIONS CAUSING GENETIC DISORDERS ~71:Council of Scientific & Industrial Research, Anusandhan Bhawan, 2 Rafi Marg, NEW DELHI 110 001, INDIA, India ~72: BAYYANA, Swati;CHANDAK, Giriraj Ratan;DONIPADI, Vinay;PALIWAL, Sumit~ 33:IN ~31:201911038617 ~32:25/09/2019

2022/04557 ~ Complete ~54:HUMANIZED ANTIBODIES TO TNF-LIKE LIGAND 1A (TL1A) AND USES THEREOF ~71:CEDARS-SINAI MEDICAL CENTER, 8700 Beverly Blvd., United States of America;PROMETHEUS BIOSCIENCES, INC., 9410 Carroll Park Drive, United States of America ~72: BILSBOROUGH, Janine;DICKERSON, Cindy T.;HENKLE, Bradley;MCNEELEY, Patricia;REISSMAN, Matthew;ROJAS, Rafael;TARGAN, Stephan R.;WATKINS, Jeffry D.~ 33:US ~31:62/925,736 ~32:24/10/2019

2022/04494 ~ Complete ~54:A PIEZOELECTRIC-DRIVEN MICRO-POWDER ELEVATING CONVEYOR AND CONTROL METHOD THEREOF ~71:Zhangshu Yangfu Mechanical and Electrical Equipment Co., Ltd, No. 12, building G1, Zhongyao Cheng, Zhangshu City, Yichun City, Jiangxi Province, People's Republic of China ~72: Chen Wei;Feng Chenyang;Feng Fu~

2022/04496 ~ Complete ~54:WORKING FACE LAYOUT METHOD WITH COAL PILLAR INTERVAL STAGGERED FORMS FOR WEAKENING DEVELOPMENT OF MINING-INDUCED GROUND FISSURE FROM THE SOURCE ~71:SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, No. 579, Qianwangang Road, Huangdao District, Qingdao City, Shandong Province, 266590, People's Republic of China ~72: CHEN, Shaojie;YIN, Dawei;ZANG, Chuanwei;ZHANG, Guangchao;ZHU, Hengzhong~ 33:CN ~31:202110937672.5 ~32:16/08/2021

2022/04499 ~ Complete ~54:APPLICATION METHOD OF A QUANTITATIVE DETERMINATION DEVICE FOR THE SATURATED SURFACE DRY CONDITION OF FINE AGGREGATES ~71:Shandong Dongqing Highway Co. Ltd, 336 Yunhe Lu, Dongying District, Dongying City, Shandong Province, People's Republic of China;Shandong Hi-speed Group Co. Ltd., 8 Longao Bei Lu, Lixia District, Jinan City, Shandong Province, People's Republic of China;Shandong University, 27 Shanda Nan Lu, Licheng district, Jinan City, Shandong Province, People's Republic of China ~72: Ge Zhi;Guan Yanhua;Li Baowei;Li Zhenhuan;Ling Yifeng;Lu Wei;Sun Renjuan;Wang Chuan;Yuan Huaqiang;Zhang Hongzhi~

2022/04502 ~ Complete ~54:METHOD FOR RECYCLING WASTE PLASTIC ~71:China University of Petroleum, No. 66, West Changjiang Road, Huangdao District, Qingdao, Shandong, People's Republic of China;Qingdao

Huicheng Environmental Technology Co., Ltd., No. 7 Xiaoshan Road, Huangdao District, Qingdao, Shandong, People's Republic of China ~72: LIN Han;SUN Zhiqiang;WANG Guogang;WANG Ting;YANG Chaohe;ZHANG Jinqing;ZHANG Xingong~

2022/04504 ~ Complete ~54:ULTRAFINE PARTICLE COMPOUND TRACE ELEMENT FEED ADDITIVE AND PREPARATION METHOD THEREOF ~71:Institute of Animal Husbandry and Veterinary Medicine, NingXia Academy of Agricultural and Forestry Sciences (Co., Ltd.), No.100 ningqin lane, middle Beijing Road, Jinfeng District, Yinchuan City, Ningxia Hui Autonomous Region, People's Republic of China ~72: AN Yuping;LIU Zixin;MA Xuefeng;MEI Ning~39;an;YUN Hua~

2022/04516 ~ Complete ~54:PREPARATION METHOD AND USE OF ELECTROLYTE HAVING HIGH SAFETY AND HIGH PERFORMANCE FOR LITHIUM BATTERY ~71:LINYI UNIVERSITY, Middle Section of Shuangling Road, Linyi City, People's Republic of China ~72: LI, Faqiang;LI, Yinwen;QIN, Enbo;QIU, Hongrun;SHANGGUAN, Xuehui;SHANGGUAN, Yuewei;SONG, Yuanmei;WANG, Jinxin;WANG, Qinglei;WANG, Xinran;ZHAO, Yifan~

2022/04523 ~ Complete ~54:METHOD FOR STORING POTENTIAL ENERGY ~71:EICKHOFF ANTRIEBSTECHNIK GMBH, Am Eickhoffpark 1, Germany ~72: VOLBERS, Thomas~ 33:DE ~31:10 2019 125 840.5 ~32:25/09/2019

2022/04503 ~ Complete ~54:PREPARATION METHOD OF HIGH-STRENGTH CORROSION-RESISTANT ZN-CU-TI-CE ALLOY ~71:China University of Mining and Technology, Tongshan Street, Xuzhou City, Jiangsu Province, People's Republic of China ~72: HUANG Mengyuan;MENG Qingkun;NI Ya;QI Jiqui;REN Yaojian;SUI Yanwei;WEI Fuxiang;ZHU Lei~

2022/04495 ~ Complete ~54:A MICRO-POWDER CONVEYING DEVICE AND CONTROL METHOD THEREOF ~71:Zhangshu Yangfu Mechanical and Electrical Equipment Co., Ltd, No. 12, building G1, Zhongyao Cheng, Zhangshu City, Yichun City, Jiangxi Province, People's Republic of China ~72: Chen Wei;Feng Chenyang;Feng Fu~

2022/04497 ~ Complete ~54:PRODUCTION EQUIPMENT OF QUICK-SETTING MATERIAL FOR REPAIRING CRACKS OF CEMENT CONCRETE PAVEMENT ~71:GuangXi Beitou Transportation Maintenance Technology Group Co.,Ltd., Room 1501, Block D, Guangxi Energy Building, No.2 Jinlong Road, Wuxiang Avenue, Liangqing District, Nanning City, Guangxi Zhuang Autonomous Region, People's Republic of China ~72: CHANG Zhenchao;CHEN Jiangcai;CHEN Qinglin;HUANG Haifeng;HUANG Xiaofeng;LIAO Laixing;LIU Haobin;LU Yeqing;LUO Junhui;MING Yang;MO Peng;REN Tianzeng;WANG Qimin;WU Chunwei;XIE Cheng~

2022/04526 ~ Complete ~54:THREE-VESSEL REACTOR SYSTEM FOR PRODUCING MICROBIAL BIOSURFACTANTS AND OTHER METABOLITES ~71:LOCUS IP COMPANY, LLC, 30500 Aurora Road, Suite 180, United States of America ~72: ALIBEK, Ken;CALLOW, Nicholas;DIXON, Tyler;KRAVTSOV, Sergey~ 33:US ~31:62/929,346 ~32:01/11/2019

2022/04528 ~ Complete ~54:CONTROL SCHEMES FOR THERMAL MANAGEMENT OF POWER PRODUCTION SYSTEMS AND METHODS ~71:8 RIVERS CAPITAL, LLC, 406 Blackwell Street, Durham, United States of America ~72: FETVEDT, Jeremy Eron;FORREST, Brock Alan;LU, Xijia;RAFATI, Navid~ 33:US ~31:62/924,525 ~32:22/10/2019

2022/04529 ~ Complete ~54:SSAO INHIBITORS AND USE THEREOF ~71:ECCOGENE (SHANGHAI) CO., LTD., Room 402A, Aidisheng Road 326, People's Republic of China ~72: REN, Zaifang;SUN, Xuefeng;XU, Qing~ 33:WO ~31:PCT/CN2019/113957 ~32:29/10/2019;33:WO ~31:PCT/CN2020/087022 ~32:26/04/2020



2022/04531 ~ Complete ~54:REMOTE PLACEMENT INTELLIGENT SEABED OBSERVATION SYSTEM TOWED BY UNMANNED BOAT ~71:Guangdong Ocean University, No. 1, Haida Road, Mazhang District, Zhanjiang City, Guangdong Province, People's Republic of China ~72: LEI Guibin;LING Zheng;LIU Dazhao;PENG Yingqiao;WANG Shuqing;XIE Lingling;ZHANG Tianyu~ 33:CN ~31:202110607467.2 ~32:01/06/2021

2022/04532 ~ Complete ~54:HIGH-PRECISION METHOD FOR EXTRACTING FARMLAND VEGETATION INFORMATION ~71:Guangdong Ocean University, No. 1, Haida Road, Mazhang District, Zhanjiang City, Guangdong Province, People's Republic of China ~72: GUO Bifeng;LI Zhuo;LIU Dazhao;LIU Qiubin~ 33:CN ~31:202111001811.X ~32:30/08/2021

2022/04562 ~ Complete ~54:CONSTRUCTION ELEMENT ~71:PARSONS, Stephen, 5 Eugene Street, Malanshof, South Africa ~72: PARSONS, Stephen~ 33:ZA ~31:2021/02681 ~32:22/04/2021

2022/04538 ~ Complete ~54:PHARMACEUTICAL COMPOSITIONS OF ALBUMIN AND RAPAMYCIN ~71:ABRAXIS BIOSCIENCE, LLC, 86 Morris Avenue, Summit, New Jersey, 07901, United States of America ~72: NEIL P DESAI~ 33:US ~31:62/927,047 ~32:28/10/2019;33:US ~31:62/936,212 ~32:15/11/2019

2022/04540 ~ Complete ~54:METHOD AND SYSTEM FOR AUTOMATICALLY CONTROLLING ELECTRICAL POWER SUPPLY BASED ON PAYMENT STATUS ~71:HELGESEN, Xavier, 747 Lawton Street, San Francisco, United States of America;PIERCE, Joshua, 2524 England Street, Chico, United States of America;VERGARA, Claudio, 455 Anderson Street, San Francisco, United States of America;ZOLA ELECTRIC LABS INC., 555 De Haro Street Suite 220, San Francisco, United States of America ~72: HELGESEN, Xavier;PIERCE, Joshua;VERGARA, Claudio~ 33:US ~31:62/934,515 ~32:12/11/2019;33:US ~31:17/079,401 ~32:23/10/2020

2022/04541 ~ Complete ~54:CHARGING SYSTEM FOR CHARGING AT LEAST ONE CHARGING HOLE ~71:NORMET OY, Ahmolantie 6, Finland ~72: KUKKONEN, Samu;M&#196;&#196;TT&#196;, Kalle;MYKK&#196;NEN, Anssi;PUUMALAINEN, Harri~ 33:FI ~31:20195802 ~32:24/09/2019

2022/04544 ~ Complete ~54:DRUG ADMINISTRATION SYSTEM CONFIGURED TO DETERMINE A DRUG DOSING SCHEME ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Road, TITUSVILLE 08560, NJ, USA, United States of America ~72: ALBERTINI, Francesco N.;BAKOS, Gregory J.;DIUBALDI, Anthony R.;HARRIS, Jason L.;HUTCHINSON, Michael;LEQUIEU, Wouter Jacques Noel;SHELTON, IV, Frederick E.;SZABO, George;VESOLE, Steven M.~ 33:US ~31:62/905,463 ~32:25/09/2019;33:US ~31:63/020,947 ~32:06/05/2020

2022/04547 ~ Complete ~54:FREEZABLE INSULATED CRATE LINER ~71:PackIt LLC, 30501 Agoura Rd., Suite 110, AGOURA HILLS 91301, CA, USA, United States of America ~72: ECARMA, Roland;GROSS, Kenneth;KIELING, Melissa~ 33:US ~31:62/926,259 ~32:25/10/2019;33:US ~31:62/948,901 ~32:17/12/2019;33:US ~31:63/072,994 ~32:01/09/2020;33:US ~31:63/073,004 ~32:01/09/2020

2022/04550 ~ Complete ~54:DRUG DELIVERY DEVICE INCORPORATING ELECTRICAL SYSTEM CONTAMINATION PROTECTION, POWER SOURCE MANAGEMENT, POWER SOURCE MONITORING, AND/OR POWER SOURCE OPERATION ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Road, TITUSVILLE 08560, NJ, USA, United States of America ~72: HARRIS, Jason L.;KRULEVITCH, Peter;SHELTON, IV, Frederick E.;SZABO, George~ 33:US ~31:62/905,475 ~32:25/09/2019;33:US ~31:62/905,478 ~32:25/09/2019

2022/04551 ~ Complete ~54:INTERCONNECTION OF DRUG ADMINISTRATION SYSTEMS ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Rd., TITUSVILLE 08560, NJ, USA, United States of America ~72: BAKOS, Gregory J.;BARATTA, Michael A.;DOU, Yueheng;HARRIS, Jason L.;HUBERT, Emma

Louise;KAPIL, Monica A.;KRULEVITCH, Peter;LEQUIEU, Wouter Jacques Noel;PEREZ, Dolores;PHILLIPS, Whitney;SHELTON, IV, Frederick E.;YAN, Hong~ 33:US ~31:62/905,441 ~32:25/09/2019;33:US ~31:62/905,442 ~32:25/09/2019;33:US ~31:62/905,443 ~32:25/09/2019;33:US ~31:62/905,445 ~32:25/09/2019;33:US ~31:63/020,928 ~32:06/05/2020

2022/04549 ~ Complete ~54:DRUG ADMINISTRATION DEVICES THAT COMMUNICATE WITH EXTERNAL SYSTEMS AND/OR OTHER DEVICES ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Rd., TITUSVILLE 08560, NJ, USA, United States of America ~72: ALBERTINI, Francesco N.;BAKOS, Gregory J.;DANIEL, Jeffrey;DIUBALDI, Anthony R.;FLEMING, James A.;HARRIS, Jason L.;HOUSER, Kevin L.;HUBERT, Emma Louise;HUTCHINSON, Michael;KALIKHMAN, David;KAPIL, Monica A.;LEQUIEU, Wouter Jacques Noel;RAMOS, David;SCRIMGEOUR, Ian;SHELTON, IV, Frederick E.;SINGH, Jaskaran;VESOLE, Steven M.;WANG, Jingli;YAN, Hong~ 33:US ~31:62/905,465 ~32:25/09/2019;33:US ~31:62/905,468 ~32:25/09/2019;33:US ~31:62/905,471 ~32:25/09/2019;33:US ~31:62/905,473 ~32:25/09/2019;33:US ~31:63/020,940 ~32:06/05/2020

2022/04500 ~ Complete ~54:ROBOT JOINT MOMENT BALANCING DEVICE ~71:Anhui Polytechnic University, NO.8, Beijing Middle Road, Wuhu, Anhui, People's Republic of China;CMA (WUHU) Robotics Co.,LTD., No.96, Wanchun East Road, Wuhu, Anhui, People's Republic of China;EFORT Intelligent Equipment Co., LTD., No.96, Wanchun East Road, Wuhu, Anhui, People's Republic of China ~72: FANG Yu;FANG Ming;JIANG Lijun;XIAO Yongqiang;ZHANG Zhen~

2022/04506 ~ Complete ~54:DUST TREATMENT APPARATUS AND DUST TREATMENT METHOD THEREOF ~71:Hangzhou Haolin Agricultural Development Co., Ltd., Baijiang Village, Baijiang Town, Tonglu County, Hangzhou City, Zhejiang Province, 311522, People's Republic of China;Tonglu Agricultural Technology Extension Center, 24th Floor, Guozi Building, No. 258, Yingchun South Road, Chengnan Street, Tonglu County, Zhejiang Province, 311500, People's Republic of China;Tonglu County Agricultural Industrialization Development Service Center, 21th Floor, Guozi Building, No. 258, Yingchun South Road, Chengnan Street, Tonglu County, Zhejiang Province, 311500, People's Republic of China ~72: HONG, Meiping;JIN, Hao;JIN, Jianrong;LAN, Xin;LI, Hong;SHEN, Tu;SHI, Yijun;WANG, Jie;YE, Shengyue;YIN, Wei~

2022/04508 ~ Complete ~54:GROUTING SIMULATION TEST DEVICE ~71:Central South University, No. 932, Lushan South Road, Yuelu District, Changsha City, Hunan Province, 410000, People's Republic of China;Central South University of Forestry and Technology, No. 498, Shaoshan South Road, Changsha City, Hunan Province, 410000, People's Republic of China ~72: FANG, Xinghua;FU, Jinyang;LI, Linyi;LIU, Xu;WANG, Shuying;XIE, Mengshan;XIE, Yipeng;YANG, Junsheng;YANG, Lei;ZHANG, Cong~ 33:CN ~31:202220750190.9 ~32:29/03/2022

2022/04511 ~ Complete ~54:WATER-SAVING AND FERTILIZER-SAVING DEVICE FOR WHEAT ~71:Dezhou Academy of Agricultural Sciences, No.926, Dexing Middle Road, Decheng District, Dezhou, Shandong, 253000, People's Republic of China ~72: Hongjie Li;Mengyang Du;Tongkai Zhao;Xiaolin Zhou;Yanfang Dong;Yuxia Wang;Zishuang Li~

2022/04514 ~ Complete ~54:LAYERED CODING AND DATA STRUCTURE FOR COMPRESSED HIGHER-ORDER AMBISONICS SOUND OR SOUND FIELD REPRESENTATIONS ~71:DOLBY INTERNATIONAL AB, Apollo Building, 3E Herikerbergweg 1-35, 1101 CN, Amsterdam Zuidoost, Netherlands ~72: ALEXANDER KRUEGER;SVEN KORDON~ 33:EP ~31:15306591.7 ~32:08/10/2015;33:US ~31:62/361,863 ~32:13/07/2016

2022/04515 ~ Complete ~54:LIQUID LEVEL INDICATOR ~71:EDUAN-TEK VERVAARDIGINGS KP, 12 Arend Avenue, Windsor Glen, South Africa ~72: JOHANNES JACOBUS NAUDE~ 33:ZA ~31:2021/02477 ~32:15/04/2021;33:ZA ~31:2021/04341 ~32:24/06/2021

2022/04521 ~ Complete ~54:ANNULAR SUPPORT STRUCTURE FOR TRACK VEHICLE ~71:CATERPILLAR INC., 100 NE Adams Street, United States of America ~72: SUANNO, Gennaro~ 33:US ~31:16/659,136 ~32:21/10/2019

2022/04527 ~ Complete ~54:METHODS OF PRODUCING COMPOSITIONS COMPRISING HYDROPHILIC SOPHOROLIPIDS ~71:LOCUS IP COMPANY, LLC, 30500 Aurora Road, Suite 180, United States of America ~72: ALIBEK, Ken;DA SILVA DE AGUIAR, Janaina, Izabel;FARMER, Sean;MAHMOUDKHANI, Amir~ 33:US ~31:63/027,676 ~32:20/05/2020

2022/04530 ~ Complete ~54:TREATMENT PLANT WITH OPTIMISED DENSIMETRIC SORTING AND RELATED TREATMENT PROCESS ~71:AVENIR INNOVATION, 5 Place Du Marchedial, France ~72: CHARREYRE, Fabien Michel Alain~ 33:FR ~31:1912159 ~32:29/10/2019

2022/04556 ~ Complete ~54:SYSTEM AND METHOD FOR INTELLIGENT GASIFICATION BLENDING ~71:CHINA PETROLEUM & CHEMICAL CORPORATION, 22 Chaoyangmen North Street, Chaoyang District, People's Republic of China;RESEARCH INSTITUTE OF PETROLEUM PROCESSING, SINOPEC, 18 Xueyuan Road Haidian District, People's Republic of China ~72: CUI, Longpeng;WANG, Dachuan;WANG, Fangjie;WANG, Shuqing;XIA, Guofu~ 33:CN ~31:201910906678.9 ~32:24/09/2019

2022/04492 ~ Provisional ~54:A MAGNETIC SENSOR ~71:CONLOG (PTY) LTD, 10 Mzimkhulu Drive, Dube Trade Port, La Mercy, KwaZulu Natal, 4407, South Africa ~72: CHRISTOPHER STRAUSS~

2022/04501 ~ Complete ~54:FLAT COCOON UNIFORM FORMING CONTROL DEVICE ~71:Yancheng Polytechnic College, 285 Jiefang South Road, Yancheng City, Jiangsu Province, People's Republic of China ~72: CHEN Jiali;DING Chen;GAO Yuan;PENG Zixuan;WANG Huiling;WEI Xinyu;XU Yuchen;ZHAO Jumei;ZHOU Bin;ZHOU Hongtao~ 33:CN ~31:202210150410.9 ~32:18/02/2022

2022/04554 ~ Complete ~54:DRUG ADMINISTRATION DEVICE AND SYSTEM FOR ESTABLISHING A DOSAGE REGIMEN AND COMPATIBILITY OF COMPONENTS ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Road, TITUSVILLE 08560, NJ, USA, United States of America ~72: ALBERTINI, Francesco N.;BAKOS, Gregory J.;HARRIS, Jason L.;HUBERT, Emma Louise;KAPIL, Monica A.;KRULEVITCH, Peter;RAMOS, David;SHELTON, IV, Frederick E.;WANG, Jingli~ 33:US ~31:62/905,452 ~32:25/09/2019;33:US ~31:62/905,453 ~32:25/09/2019;33:US ~31:63/020,935 ~32:06/05/2020

2022/04555 ~ Complete ~54:DRUG DELIVERY ADJUSTMENT ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Rd., TITUSVILLE 08560, NJ, USA, United States of America ~72: ALBERTINI, Francesco N.;BAKOS, Gregory J.;BARATTA, Michael A.;CANNAMELA, Michael;DIUBALDI, Anthony R.;DOU, Yueheng;DREVETS, Wayne;FLEMING, James A.;HARRIS, Jason L.;HOUSER, Kevin L.;HUBERT, Emma Louise;HUTCHINSON, Michael;KAPIL, Monica A.;KRULEVITCH, Peter;LARSON, Chaley John;LEQUIEU, Wouter Jacques Noel;LIU, Kui;SHELTON, IV, Frederick E.;SZABO, George;VESOLE, Steven M.;WANG, Jingli;YAN, Hong~ 33:US ~31:62/905,446 ~32:25/09/2019;33:US ~31:62/905,448 ~32:25/09/2019;33:US ~31:62/905,451 ~32:25/09/2019;33:US ~31:63/020,931 ~32:06/05/2020

2022/04505 ~ Complete ~54:A MULTIMEDIA ART INTERACTIVE COUNTER ~71:Zhengzhou University of Aeronautics, No.2, University Middle Road, Zhengzhou City, Henan Province, People's Republic of China ~72: Yue Jingya~

2022/04507 ~ Complete ~54:3D-PRINTED GREEN MAGNESIUM-BASED CEMENT CONCRETE PRODUCT AND CURING METHOD THEREOF ~71:Tianying (Shenzhen) Ecological Building Materials Technology Co., Ltd., Room 201, Building A, No. 1, Qianwan 1st Road, Qianhai Shenzhen-Hong Kong Cooperation Zone, Nanshan

District, Shenzhen, Guangdong, 518054, People's Republic of China ~72: CUI, Peng;KOU, Shicong;LUO, Fuming~ 33:CN ~31:202110575510.1 ~32:26/05/2021

2022/04517 ~ Complete ~54:INTEGRATED PROCESS TO UPGRADE LOW GRADE CALCAREOUS PHOSPHATE ORE WITH LOW CO<sub>2</sub> EMISSIONS AND LOW PHOSPHOGYPSUM WASTE ~71:SAUDI ARABIAN MINING COMPANY (MA'ADEN), PO Box 68861, Saudi Arabia ~72: AQEL, Malik Mohammad Odeh~ 33:CA ~31:3,153,419 ~32:25/03/2022

2022/04522 ~ Complete ~54:TANNIN-BASED CLOUDING AGENTS ~71:KERRY LUXEMBOURG S.&#192;.R.L., 17 RUE ANTOINE JANS, L-1820 LUXEMBOURG, LUXEMBOURG, Luxembourg ~72: DOYLE, Jonathan;KADAM, Shekhar, Umakantrao;LALOR, Eoin~ 33:US ~31:62/907,966 ~32:30/09/2019;33:US ~31:16/665,666 ~32:28/10/2019

2022/04524 ~ Complete ~54:PROCESS FOR OBTAINING A PURIFIED DIESTER EFFLUENT BY DEPOLYMERIZATION OF A POLYESTER COMPRISING OPAQUE POLYETHYLENE TEREPHTHALATE ~71:IFP ENERGIES NOUVELLES, 1 & 4 avenue du Bois-Pr&#233;au, France ~72: BOUNIE, Christine;CHICHE, David;LEINEKUGEL LE COCQ, Damien~ 33:FR ~31:FR1914992 ~32:19/12/2019

2022/04534 ~ Complete ~54:ARRAY-TYPE ULTRASOUND THERAPY SYSTEM ~71:ZHEJIANG UNIVERSITY, 866 Yuhangtang Road, Xihu District, Hangzhou, Zhejiang, 310013, People's Republic of China ~72: XU, Jian;ZHENG, Yinfei~ 33:CN ~31:202010522960.X ~32:10/06/2020

2022/04535 ~ Complete ~54:METHODS AND SYSTEMS FOR PROVIDING ELECTRIC ENERGY PRODUCTION AND STORAGE ~71:HELGESEN, Xavier, 747 Lawton Street, San Francisco, United States of America;PIERCE, Joshua, 2524 England Street, Chico, United States of America;VERGARA, Claudio, 455 Anderson Street, San Francisco, United States of America;ZOLA ELECTRIC LABS INC., 555 De Haro Street Suite 220, San Francisco, United States of America ~72: HELGESEN, Xavier;PIERCE, Joshua;VERGARA, Claudio~ 33:US ~31:62/934,513 ~32:12/11/2019;33:US ~31:17/083,294 ~32:29/10/2020

2022/04553 ~ Complete ~54:REMOTE AGGREGATION OF DATA FOR DRUG ADMINISTRATION DEVICES ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Rd., TITUSVILLE 08560, NJ, USA, United States of America ~72: ALBERTINI, Francesco N.;BARATTA, Michael A.;HARRIS, Jason L.;HUBERT, Emma Louise;HUTCHINSON, Michael;KALIKHMAN, David;KAPIL, Monica A.;KRULEVITCH, Peter;POPLI, Shagun;SHELTON, IV, Frederick E.;SINGH, Jaskaran;WANG, Jingli~ 33:US ~31:62/905,440 ~32:25/09/2019;33:US ~31:63/020,925 ~32:06/05/2020

2022/04539 ~ Complete ~54:SEROTONIN PRODUCING BACTERIA ~71:BIOGAIA AB, Kungsbrogatan 3, 112 27 Stockholm, Sweden ~72: BO M&#214;LLSTAM;ESTELLE GRASSET;MUHAMMAD KHAN;STEFAN ROOS~ 33:SE ~31:1951292-0 ~32:08/11/2019

2022/04542 ~ Complete ~54:PROCESS FOR THE PRODUCTION OF 5-(4-((2 S,5 S)-5-(4-CHLOROBENZYL)-2-METHYLMORPHOLINO)PIPERIDIN-1-YL)-1 H-1,2,4-TRIAZOL-3-AMINE ~71:OncoArendi Therapeutics S.A., Źwirki i Wigury 101, WARSZAWA 02-089, POLAND, Poland ~72: MAGDYCZ, Marta;PIKUL, Stanislaw;TYSZKIEWICZ, Magdalena;WITKOWSKI, Grzegorz;ZAKRZEWSKI, Marcin~ 33:PL ~31:P.431269 ~32:25/09/2019;33:US ~31:62/905,494 ~32:25/09/2019

2022/04545 ~ Complete ~54:MEASURING PARAMETERS ASSOCIATED WITH DRUG ADMINISTRATION AND DRUG ADMINISTRATION DEVICES INCORPORATING SAME ~71:Janssen Pharmaceuticals, Inc., 1125 Trenton-Harbourton Rd., TITUSVILLE 08560, NJ, USA, United States of America ~72: ALBERTINI, Francesco N.;BAKOS, Gregory J.;DIUBALDI, Anthony R.;HARRIS, Jason L.;HUBERT, Emma Louise;HUTCHINSON, Michael;KALIKHMAN, David;KAPIL, Monica A.;KRULEVITCH, Peter;LEQUIEU, Wouter Jacques Noel;SHELTON,

IV, Frederick E.;SINGH, Jaskaran;SZABO, George;VESOLE, Steven M.;WANG, Jingli~ 33:US ~31:62/905,454  
~32:25/09/2019;33:US ~31:62/905,457 ~32:25/09/2019;33:US ~31:62/905,460 ~32:25/09/2019;33:US  
~31:63/020,942 ~32:06/05/2020

2022/04546 ~ Complete ~54:METHODS OF TREATING THE SYMPTOMS OF AUTISM SPECTRUM DISORDER  
~71:MapLight Therapeutics, Inc., 501 2nd Street, SAN FRANCISCO 94107, CA, USA, United States of America  
~72: LILLIE, James;WOOD, Michael~ 33:US ~31:62/925,023 ~32:23/10/2019;33:US ~31:63/011,715  
~32:17/04/2020

2022/04552 ~ Complete ~54:DRUG DELIVERY SYSTEMS AND METHODS ~71:Janssen Pharmaceuticals, Inc.,  
1125 Trenton-Harbourton Rd., TITUSVILLE 08560, NJ, USA, United States of America ~72: ALBERTINI,  
Francesco N.;BAKOS, Gregory J.;DIUBALDI, Anthony R.;HARRIS, Jason L.;HUBERT, Emma  
Louise;HUTCHINSON, Michael;KAPIL, Monica A.;KRULEVITCH, Peter;LARSON, Chaley John;LEQUIEU,  
Wouter Jacques Noel;SHELTON, IV, Frederick E.;VENDELY, Michael J.;VESOLE, Steven M.~ 33:US  
~31:62/905,437 ~32:25/09/2019;33:US ~31:62/905,438 ~32:25/09/2019;33:US ~31:63/020,865  
~32:06/05/2020

2022/04525 ~ Complete ~54:OPTIMIZED METHOD FOR DEPOLYMERIZING A POLYESTER COMPRISING  
POLYETHYLENE TEREPHTHALATE ~71:IFP ENERGIES NOUVELLES, 1 & 4 avenue du Bois-  
Pr&#233;au, France ~72: HAROUN, Yacine;MEKKI-BERRADA, Adrien;THINON, Olivier~ 33:FR  
~31:FR1914995 ~32:19/12/2019

2022/04543 ~ Complete ~54:CODING SCHEME FOR IMMERSIVE VIDEO WITH ASYMMETRIC DOWN-  
SAMPLING AND MACHINE LEARNING ~71:Koninklijke Philips N.V., High Tech Campus 52, EINDHOVEN 5656  
AG, THE NETHERLANDS, Netherlands ~72: KROON, Bart;VAREKAMP, Christiaan~ 33:EP ~31:19199240.3  
~32:24/09/2019

#### ASSIGNMENTS IN TERMS OF SECTION 60-REGULATIONS 58-60 AND 64 (1)

Application Number	Assignor	Assignee
2008/04692	HOWDEN ROTHEMUHLE GMBH	BALCKE-DURR POLSKA SP. Z O.O.
2010/09002	BAYER BIOSCIENCE N.V.	BAYER CROPSCIENCE NV
2010/09002	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2010/03117	BAYER BIOSCIENCE N.V.	BAYER CROPSCIENCE NV
2010/03117	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2009/08886	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2009/08664	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2009/06298	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2008/00909	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2012/03654	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2018/01535	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2004/00644	BAYER CROPSCIENCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC



Application Number	Assignor	Assignee
2004/08707	BAYER CROPSOURCE NV	BASF AGRICULTURAL SOLUTIONS SEED US LLC
2017/05803	GENERAL ELECTRIC COMPANY	GE GLOBAL SOURCING LLC
2013/07498	KVERNELAND AS	KVERNELAND GROUP SOEST GMBH
2015/03575	KVERNELAND AS	KVERNELAND GROUP SOEST GMBH
2006/06858	EID PARRY (INDIA) LIMITED	COROMANDEL INTERNATIONAL LTD.
2021/01278	VAXIMM AG	NEC ONCOLMMUNITY AS
2018/08379	VAXIMM AG	NEC ONCOLMMUNITY AS
2014/01222	ORTHOGRID SYSTEMS, INC.	ORTHOGRID SYSTEMS HOLDINGS, LLC
2011/02619	NDC CORPORATION	TOUCH ONE CORPORATION
2018/03843	NDC CORPORATION	TOUCH ONE CORPORATION
2014/08438	ZOETIS LLC	ZOETIS SERVICES LLC
2015/00134	ZOETIS LLC	ZOETIS SERVICES LLC
2019/08498	ASTELLAS US LLC	AFFINIVAX, INC.
2021/05661	QUINLAN, STEPHEN JOHN	GLOVE IP (PTY) LTD
2019/02381	VICTORIA LINK LIMITED	MARAMA LABS LIMITED
2018/07167	MAB DISCOVERY GMBH	SANOFI BIOTECHNOLOGY
2014/06288	SANDVIK INTELLECTUAL PROPERTY AB	SANDVIK HYPERION AB
2014/07687	PERPETUAL GLOBAL TECHNOLOGIES LIMITED	PERPETUAL TECHNOLOGIES GMBH
2004/08476	HYDROMET (PTY) LTD	GRENIL MARQUIS DUNN
2020/00658	ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD	LKQ CORPORARTION (HYPOTHECATION)
2019/03599	ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD	LKQ CORPORARTION (HYPOTHECATION)
2018/04114	ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD	LKQ CORPORARTION (HYPOTHECATION)
2018/02062	ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD	LKQ CORPORARTION (HYPOTHECATION)
2017/02712	ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD	LKQ CORPORARTION (HYPOTHECATION)
2020/07155	G&G MINING FABRICATION PTY LTD	SSAB TECHNOLOGY AB
2013/08656	BRIAN INVESTMENTS PTY LTD	METSO MINERALS OY
2014/04473	BEREND JAN WERKMAN	WJ CONVEYANCES (PTY) LTD
2021/02076	FIREXO GROUP LIMITED	FIREXO COTM LIMITED
2007/09341	BRIAN INVESTMENTS PTY LTD	METSO MINERALS OY
2017/06293	BRIAN INVESTMENTS PTY LTD	METSO MINERALS OY
2007/05053	BRIAN INVESTMENTS PTY LTD	METSO MINERALS OY
2014/00795	BRIAN INVESTMENTS PTY LTD	METSO MINERALS OY
2021/10174	XRIS CORPORATION	APPLE INC.
2021/10173	XRIS CORPORATION	APPLE INC.
2021/10172	XRIS CORPORATION	APPLE INC.
2021/04683	XRIS CORPORATION	APPLE INC.
2021/04756	XRIS CORPORATION	APPLE INC.
2021/04756	XRIS CORPORATION	APPLE INC.
2021/04757	XRIS CORPORATION	APPLE INC.
2021/02634	LABTECH AFRICA (PTY) LIMITED	JAN JOHANNES DU PLESSIS

Application Number	Assignor	Assignee
2017/05186	AMALGAMATED ELECTRONIC CORPORATION LTD	AMECOR (PTY) LTD
2017/05186	AMALGAMATED ELECTRONIC CORPORATION LTD	AMECOR (PTY) LTD
2019/02981	MAGNETO THERMALS (PROPRIETARY) LIMITED	DIEDERIKS, FRANCO
2021/04816	MITSUBISHI CHEMICAL CORPORATION	MAFTEC CO., LTD.
2021/04571	MITSUBISHI CHEMICAL CORPORATION	MAFTEC CO., LTD.
2021/05141	SCHMITT, FRITZ	LUXCAN INNOVATION S.A.
2021/05146	SCHMITT, FRITZ	LUXCAN INNOVATION S.A.
2021/05145	SCHMITT, FRITZ	LUXCAN INNOVATION S.A.
2021/05142	SCHMITT, FRITZ	LUXCAN INNOVATION S.A.
2012/05694	SUDOKWON LANDFILL SITE MANAGEMENT CORPORATION, DAEWOO ENGINEERING & CONSTRUCTION CO., LTD., KOREA ENGINEERING CONSULTANTS CORPORATION, INSUN ENT CO., LTD. DOHWA ENGINEERING CO., LTD.	INSUN ENT CO., LTD DOHWA ENGINEERING CO., LTD.
2007/10670	EVEREADY (PROPRIETARY) LIMITED	EVEREADY DIVERSIFIED PRODUCTS (PTY) LTD

**CHANGE OF NAME IN TERMS OF REGULATION 39**

Application Number	In the name of	New name
2008/04692	BALCKE-DURR ROTHEMUHLE GMBH	HOWDEN ROTHEMUHLE GMBH
2008/04692	BALCKE-DURR POLSKA SP. Z O.O.	WALLSTEIN ROTHEMUHLE SP. Z O.O.
2017/05803	GE GLOBAL SOURCING LLC	TRANSPORTATION IP HOLDINGS, LLC
2014/04516	VACCIBODY AS	NYKODE THERAPEUTICS AS
2016/07049	NUCANA BIOMED LIMIED	NUCANA PLC
2016/03605	KVERNELAND AS	KVERNELAND GROUP SOEST GMBH
2015/01133	KVERNELAND AS	KVERNELAND GROUP SOEST GMBH
2017/01100	DEZIMA PHARMA B.V.	NEWAMSTERDAM PHARMA B.V.
2007/10933	ECOMAISTER CO., LTD.	UNECO CO., LTD.
2006/10200	ECOMAISTER CO., LTD.	UNECO CO., LTD.
2021/06939	ABB POWER GRIDS SWITZERLAND AG	ABB POWER GRIDS SWITZERLAND SA
2021/06939	ABB POWER GRIDS SWITZERLAND SA	HITACHI ENERGY SWITZERLAND AG
2014/00795	METSO MINERALS OY	METSO OUTOTEC FINLAND OY
2013/08656	METSO MINERALS OY	METSO OUTOTEC FINLAND OY
2007/09341	METSO MINERALS OY	METSO OUTOTEC FINLAND OY

Application Number	In the name of	New name
2007/05053	METSO MINERALS OY	METSO OUTOTEC FINLAND OY
2017/06293	METSO MINERALS OY	METSO OUTOTEC FINLAND OY
2019/03574	LONGEVERON LLC	LONGEVERON INC.
2020/00574	LONGEVERON LLC	LONGEVERON INC.
2018/05159	LONGEVERON LLC	LONGEVERON INC.
2019/08451	LONGEVERON LLC	LONGEVERON INC.
2016/08076	TOKAI CARBON SAVOIE	TOKAI COBEX SAVOIE
2020/05635	TOKAI CARBON SAVOIE	TOKAI COBEX SAVOIE

**PATENT LICENSES IN TERMS OF SECTION 53 (7)-REGULATIONS 62 AND 63**

Application Number	Licensor	Licensee
2021/05156	SICHUAN KELUN-BIOTECH BIOPHARMACEUTICAL CO. LTD.	ELLIPSES PHARMA LTD

**PATENT APPLICATIONS ABANDONED OR WITHDRAWN**

Application Number	Not Open	Date
2021/03949	WITHDRAWN	13/04/2022

**APPLICATION FOR RESTORATION OF A LAPSED PATENT**

THE PATENTS ACT, No. 57 OF 1978

**APPLICATION FOR THE RESTORATION OF A LAPSED PATENT UNDER SECTION 47 OF THE ACT**

Notice is hereby given **UNIVERSITEIT GENT OF DENNEMEYER & ASSOCIATES SUITE 415 HYDE PARK CORNER OFFICES CORNER OF WILLIAM NICOL AND JAN SMUTS AVENUE 2196, JOHANNESBURG** that made application for the restoration of the patent granted to said **UNIVERSITEIT GENT** an invention **RADIOTHERAPY BOARD AND COUCH** numbered **2016/06349** dated **14/09/2016** which became void **24/03/2021** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

Notice is hereby given **PHILIP MORRIS PRODUCTS S.A. OF DENNEMEYER & ASSOCIATES SUITE 415 HYDE PARK CORNER OFFICES CORNER OF WILLIAM NICOL AND JAN SMUTS AVENUE 2196, JOHANNESBURG** that made application for the restoration of the patent granted to said **PHILIP MORRIS PRODUCTS S.A.** an invention **FLAVOURED NICOTINE POWDER INHALER** numbered **2016/06005** dated **2016/08/30** which became void **23/04/2021** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

---

Notice is hereby given **SHENZHEN KYD BIOMEDICAL TECHNOLOGY CO LTD OF DENNEMEYER & ASSOCIATES SUITE 415 HYDE PARK CORNER OFFICES CORNER OF WILLIAM NICOL AND JAN SMUTS AVENUE 2196, JOHANNESBURG** that made application for the restoration of the patent granted to said **SHENZHEN KYD BIOMEDICAL TECHNOLOGY CO LTD.** an invention **INFERIOR VENA COVER FILTER** numbered **2018/07923** dated **23/11/2018** which became void **18/04/2021** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

---

Notice is hereby given **ARB GLOBAL PROPRIETARY LIMITED OF ADAMS & ADAMS INC, 1140 PROSPECT STREET. PRETORIA. 0001** that made application for the restoration of the patent granted to said **ARB GLOBAL PROPRIETARY LIMITED.** an invention **POLE SUPPORTED POWER AND COMMUNICATIONS CONNECTION HUB** numbered **2006/09482** dated **24/11/2004** which became void **15/11/2020** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

---

Notice is hereby given **JOHANNES ANDRIES HARZENBERG OF 22 ELVIRA STREET, FLAMWOOD. KLERKSDORP, 2571** that made application for the restoration of the patent granted to said **JOHANNES ANDRIES HARZENBERG.** an invention **ROOFING MATERIAL AT LEAST GENERALLY CO-EXTENDING SOLAR WATER HEATING EQUIPMENT** numbered **2016/03534** dated **24/05/2016** which became void **21/08/2020** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

---

Notice is hereby given **INSTITUTE OF PROCESS ENGINEERING, CHINESE ACADEMY OF SCIENCES AND JIANGXI KINGAN HI-TECH CO LTD, OF BOUWERS INC, 13 STANVRAG STREET, VAL DE GRACE. PRETORIA. 0001** that made application for the restoration of the patent granted to said **INSTITUTE OF PROCESS ENGINEERING, CHINESE ACADEMY OF SCIENCES AND JIANGXI KINGAN HI-TECH CO LTD** an invention **METHOD FOR PREPARING ZIRCONIUM OXYCHLORIDE FROM ZIRCON SAND** numbered **2016/02080** dated **29/03/2016** which became void **20/12/2021** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

---

Notice is hereby given **DRINDEKS, A JOINT STOCK COMPANY OF OFHAHN AND HAHN, 222 RICHARD STREET, HATFIELD. PRETORIA 0001** that made application for the restoration of the patent granted to said **GRINDRIKS, A JOINT COMPANY** an invention **USE OF 4-[ETHYL(DIMETHYL)AMMONIO]BUTANOATE IN THE TREATMENT OF CARDIOVASCULAR DISEASE** numbered **2012/02916** dated **20/04/2012** which became void **22/10/2020** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

---

Notice is hereby given **DRINDEKS, A JOINT STOCK COMPANY OF OFHAHN AND HAHN, 222 RICHARD STREET, HATFIELD. PRETORIA 0001** that made application for the restoration of the patent granted to said **GRINDRIKS, A JOINT COMPANY** an invention **USE OF 3-CARBOXY-N-ETHYL-N,N-DIMETHYLPROPAN-1-AMINIUM SALTS IN THE TREATMENT OF CARDIOVASCULAR DISEASE** numbered **2013/07614** dated **01/10/2013** which became void **27/04/2019** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

Notice is hereby given **NANCY TEDESCHI OF SPOOR AND FISHER, 11 BYLS BRIDGE BOULEVARD, HIGHVELD EXT 73. CENTURION. PRETORIA 0001** that made application for the restoration of the patent granted to said **NANCY TEDESCHI** an invention **SCREW WITH BREAKAWAY AND METHODS OF USING THE SAME** numbered **2010/03664** dated **24/05/2010** which became void **06/08/2019** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

Notice is hereby given **HENTIC 1627 (PTY) t/a TOOLTECH PLASTICS OF EDWARD NATHAN SONNENBERGS, DOCEX 161 DURBAN** that made application for the restoration of the patent granted to said **HENTIC 1627 (PTY) t/a PLASICS** an invention **METHOD OF MANUFACTURING FURNISHER** numbered **2014/05616** dated **30/07/2014** which became void **30/07/2019** owing to the non-payment of the prescribed renewal fee.

Any person may give notice on Patent Form No. 19 of opposition to the restoration of the patent within two months of the advertisement hereof.

#### THE PATENTS ACT, No. 57 OF 1978

#### APPLICATION FOR VOLUNTARY SURRENDER OF PATENTS UNDER SECTION 64 (1), REGULATION 67 OF THE ACT

No records available

#### APPLICATIONS TO AMEND SPECIFICATION

THE PATENTS ACT, 1978

#### APPLICATIONS TO AMEND SPECIFICATION

**Applicant: Seal Chemistry (Pty) Ltd 10 Darby Place, Mariann Industrial Park 3610 Pinetown South Africa.**  
Request permission to amend the specification of letters patent application no: **2019/01612** of **15/3/2019** for **COATED PAPERBOARD SOAP STIFFENER TO REPLACE PAPERBOARD/FILM LAMINATES.**

A copy of the original specification on which the proposed amendment is indicated in red, is now available for public inspection at the Patent Office.



Any notice of opposition (on Patent Form 19) must be lodged at the Patent Office within two months from the date hereof.

**Registrar of Patents**

---

**Applicant: Seal Chemistry (Pty) Ltd 10 Darby Place, Mariann Industrial Park 3610 Pinetown South Africa.** Request permission to amend the specification of letters patent application no: **2018/06500** of **01/10/2018** for **ALTERNATIVE TO METALLISED PAPER AND FOIL/FILM/PAPER LAMINATES FOR THE WRAPPING OF MARGARINE AND BUTTER PRODUCTS.**

A copy of the original specification on which the proposed amendment is indicated in red, is now available for public inspection at the Patent Office.

Any notice of opposition (on Patent Form 19) must be lodged at the Patent Office within two months from the date hereof.

**Registrar of Patents**

---

**Applicant: NOKIA SIEMENS NETWORKS OY Karaportti 3, FI-02610 Espoo Finland.** Request permission to amend the specification of letters patent application no: **2010/02343** of **05/6/2008** for **ALLOCATION OF PREAMBLE SEQUENCES.**

A copy of the original specification on which the proposed amendment is indicated in red, is now available for public inspection at the Patent Office.

Any notice of opposition (on Patent Form 19) must be lodged at the Patent Office within two months from the date hereof.

**Registrar of Patents**

---

**Applicant: NOKIA TECHNOLOGIES OY KARAPORTTI 3, 02610 ESPOO Finland.** Request permission to amend the specification of letters patent application no: **2008/02327** of **12/03/2008** for **COMPOSITION FOR TREATING DIABETES MELLITUS COMPRISING INSULIN AND A GLP-1/GLUCAGON DUAL AGONIST.**

A copy of the original specification on which the proposed amendment is indicated in red, is now available for public inspection at the Patent Office.

Any notice of opposition (on Patent Form 19) must be lodged at the Patent Office within two months from the date hereof.

**Registrar of Patents**

---

**Applicant: BROWN & WATSON INTERNATIONAL LIMITED of 23-7 Dongtansandan 9-gil, Dongtan-myeon, Hwaseong-si, Gyeonggi-do, 18487 Republic of Korea.** Request permission to amend the specification of letters patent application no: **2019/01245** of **27/02/2019** for **LAMP ASSEMBLY WITH IMPROVED ASSEMBLY CONVENIENCE AND WATERPROOF PERFORMANCE.**

A copy of the original specification on which the proposed amendment is indicated in red, is now available for public inspection at the Patent Office.

Any notice of opposition (on Patent Form 19) must be lodged at the Patent Office within two months from the date hereof.

**Registrar of Patents**

---

**Applicant: THE CHINESE UNIVERSITY OF HONG KONG of TECHNOLOGY LICENSING OFFICE ROOM 226 PI CH'U BUILDING SHATIN, NEW TERRITORIES, HONG KONG.** Request permission to amend the specification of letters patent no: **2010/00524** of **22 JANUARY 2010** for **DIAGNOSING FETAL CHROMOSOMAL ANEUPLOIDY USING GENOMIC SEQUENCING.**

A copy of the original specification on which the proposed amendment is indicated in red, is now available for public inspection at the Patent Office.

Any notice of opposition (on Patent Form 19) must be lodged at the Patent Office within two months from the date hereof.

**Registrar of Patents**

---

**Applicant: Seal Chemistry (Pty) Ltd 10 Darby Place, Mariann Industrial Park 3610 Pinetown South Africa.** Request permission to amend the specification of letters patent application no: **2019/01206** of **26/2/2019** for **TOBACCO PRODUCTS INNER BUNDLING WRAPPING MATERIAL TO REPLACE METALLISED PAPER AND PAPER/METALLIC FOIL LAMINATES.**

A copy of the original specification on which the proposed amendment is indicated in red, is now available for public inspection at the Patent Office.

Any notice of opposition (on Patent Form 19) must be lodged at the Patent Office within two months from the date hereof.

**Registrar of Patents**

---

**INSPECTION OF SPECIFICATIONS**

A complete specification may, after acceptance is advertised, be inspected during office hours at the Patent Office, Pretoria, at a charge of **R4, 00**. Please note, that in terms of section 43 (3) if the acceptance of an application which claims priority in terms of section 31 (1) (c) is not published in terms of section 42 within 18 months from the earliest priority claimed from the relevant application in a convention country, it shall be opened to public inspection after the expiration of 18 months from the earliest priority so claimed.

**COPIES OF DOCUMENTS**

The Patent Office, Private Bag X400, Pretoria, supplies copies of all patent and trade mark documents at the following rate:

Photocopies: **R1, 00 per page**

(Payment to be affected by means of revenue stamps only.)

**COMPLETE SPECIFICATIONS ACCEPTED AND ABRIDGEMENTS OR ABSTRACTS THEREOF**

---

Complete specifications in respect of the under mentioned applications for letters Patent have been accepted by the Registrar of Patents.

### THE PATENTS ACT, 1978 (ACT NO. 57 OF 1978)

In terms of section 42 (b) of the Patents Act, 1978, a patent shall be deemed to have been sealed and granted as from the date of publication of the acceptance.

The numerical references denote the following: **(21)** Number of application. **(22)** Date of application. **(DA)** Date of acceptance. **(51)** Class. **(71)** Name of applicant(s). **(72)** Name of all inventors. **(33)** Country. **(31)** Number and **(32)** Date of convention application. **(54)** Title of invention. **(00)** Number of sheets.

Registrar of Patents

21: 2012/08254. 22: 2012/11/02. 43: 2022/03/28

51: F42B; F42C; F42D

71: ORICA INTERNATIONAL PTE LTD

72: GOODRIDGE RICHARD JOHN, APPLEBY  
RODNEY WAYNE, JOHNSON DAVID OLAF,  
MILLER THOMAS M

33: AU 31: 2010901993 32: 2010-05-07

#### **54: METHOD OF BLASTING**

00: -

An initiation device for initiation of an explosives charge, which comprises: a transceiver for receipt of wireless command signals; a control circuit for processing of wireless command signals received by the transceiver; and a light source that is suitable for initiation of the explosives charge and that is activated by the control circuit.

21: 2014/05879. 22: 2014/08/11. 43: 2022/01/27

51: B05D; B65D; C08L; C09D

71: SWIMC LLC

72: SKILLMAN, Charles, CAVALLIN, Carl, EVANS,  
Richard H., BRANDENBURGER, Larry B.,  
KILLILEA, T. Howard, O'DELL, George W.

33: US 31: 61/600,430 32: 2012-02-17

#### **54: METHODS AND MATERIALS FOR THE FUNCTIONALIZATION OF POLYMERS AND COATINGS INCLUDING FUNCTIONALIZED POLYMER**

00: -

The disclosure provides a functionalized polymer for use in coating compositions and a method for making the functionalized polymer. In some embodiments, the functionalized polymer is a water-dispersible polymer, more preferably a water-dispersible polyester polymer, having one or more side groups including one or more salt groups.

Packaging containers (e.g., food or beverage cans) comprising the functionalized polymer and methods of making such containers are also provided.

21: 2014/08852. 22: 2014/12/03. 43: 2022/02/25

51: C07K; A61K

71: GENENTECH, INC.

72: IRVING, BRYAN, MAECKER, HEATHER

33: US 31: 61/653,861 32: 2012-05-31

#### **54: METHODS OF TREATING CANCER USING PD-L1 AXIS BINDING ANTAGONISTS AND VEGF ANTAGONISTS**

00: -

The present invention describes combination treatment comprising a PD-1 axis binding antagonist, chemotherapy and optionally a VEGF antagonist and methods for use thereof, including methods of treating conditions where enhanced immunogenicity is desired such as increasing tumor immunogenicity for the treatment of cancer.

21: 2016/03453. 22: 2016/05/20. 43: 2022/02/04

51: C12N A61K

71: INVECTYS, CENTRE NATIONAL DE LA  
RECHERCHE SCIENTIFIQUE (CNRS)

72: LANGLADE DEMOYEN, Pierre, HUET, Thierry,  
LIARD, Christelle, THALMENSI, Jessie, MIR, Luis,  
M., CALVET, Christophe

33: EP 31: 13190550.7 32: 2013-10-28

#### **54: GENE ELECTROTRANSFER INTO SKIN CELLS**

00: -

The present invention relates to methods for transferring a nucleic acid in vivo into skin cells wherein the nucleic acid is injected by intradermal

(ID) injection and is electrically transferred into skin cells with a single pulse of a High Voltage, followed, after a defined lag time, by a single pulse of Low Voltage.

21: 2016/03623. 22: 2016/05/27. 43: 2022/02/11  
51: B22D; C22C

71: Weir Minerals Australia Ltd

72: TANG, Xinhua, DOLMAN, Kevin Francis

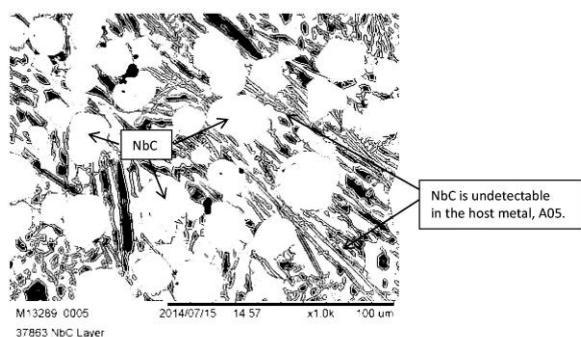
33: AU 31: 2013905093 32: 2013-12-30

#### 54: COMPOSITE METAL PRODUCT

00: -

A centrifugally cast composite metal product having an axis of rotational symmetry and a mass of at least 5kg, comprises a host metal and insoluble solid refractory particles of & refractory material in a non-uniform distribution throughout the host metal. The particles have a density that is within 30% of the density of the host metal at its casting temperature.

NbC, refractory carbide, is insoluble in A05.



21: 2016/04295. 22: 2016/06/24. 43: 2022/03/16  
51: A61K

71: THE UNIVERSITY OF NOTTINGHAM

72: DIXON, James, SHAKESHEFF, Kevin, DENNING, Chris

33: GB 31: 1322396.1 32: 2013-12-18

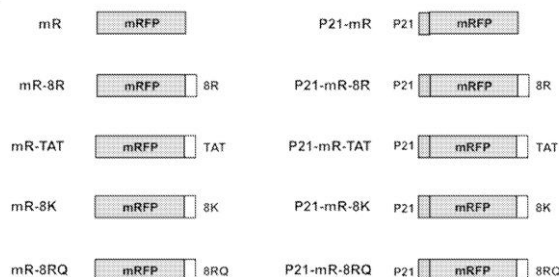
#### 54: TRANSDUCTION

00: -

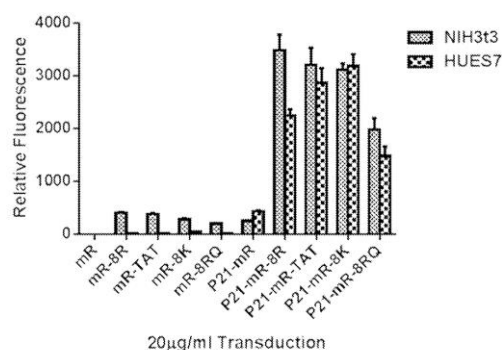
This invention relates to transduction of cargo molecules into living cells, such as protein transduction, in particular a delivery molecule for transduction of a cargo into a cell comprising: a cargo-binding molecule and/or a cargo; a glycosaminoglycan (GAG) binding element, which is capable of binding to GAG on the surface of the cell; and a protein transduction domain. Methods of transduction, methods of producing or modifying

cargo for transduction, delivery molecules for transduction and methods of treatment using transduction, or using transduced cells are also provided.

a



b



21: 2016/04730. 22: 2016/07/11. 43: 2022/02/11  
51: C07G

71: Solenis Technologies, L.P.

72: LIU, Zhaoqing, GAST, John C., BOTTORFF, Kyle J.

33: US 31: 61/915,442 32: 2013-12-12

#### 54: LIGNIN NANOPARTICLE DISPERSIONS AND METHODS FOR PRODUCING AND USING THE SAME

00: -

A mild, simple process of preparing lignin nanoparticle dispersions is disclosed. Additionally, compositions and methods of making lignin nanoparticle-polymer complexes comprising derivatized and/or non-derivatized lignin nanoparticle dispersions and water soluble and/or water dispersible polymers are disclosed. Further, methods of using at least one of the lignin nanoparticle dispersions, derivatized lignin nanoparticle dispersions, and/or the lignin nanoparticle-polymer complex to impart rinse-resistant properties, such as

hydrophilic properties, to substrates, or function as tunable nanoparticle surfactants are disclosed.

21: 2016/05770. 22: 2016/08/18. 43: 2022/02/18

51: C07K

71: MERUS N.V.

72: GEUIJEN, CECILIA ANNA WILHELMINA, DE KRUIF, CORNELIS ADRIAAN, THROSBY, MARK, LOGTENBERG, TON, BAKKER, ALEXANDER BERTHOLD HENDRIK

33: EP 31: 14157360.0 32: 2014-02-28

33: EP 31: 14167066.1 32: 2014-05-05

#### **54: ANTIBODY THAT BINDS ERBB-2 AND ERBB-3**

00: -

The invention relates among others to antibodies comprising a first antigen-binding site that binds Erb B-2 and a second antigen-binding site that binds Erb B-3. The antibodies can typically reduce a ligand-induced receptor function of Erb B-3 on a Erb B-2 and Erb B-3 positive cell. Also described are method for the treatment and use of the antibodies in imaging and in the treatment of subjects having an Erb B-2, Erb B-3 or Erb B-2/3 positive tumor.

21: 2016/06045. 22: 2016/08/31. 43: 2022/03/14

51: H01H

71: S&C ELECTRIC COMPANY

72: FALKINGHAM, Leslie Thomas

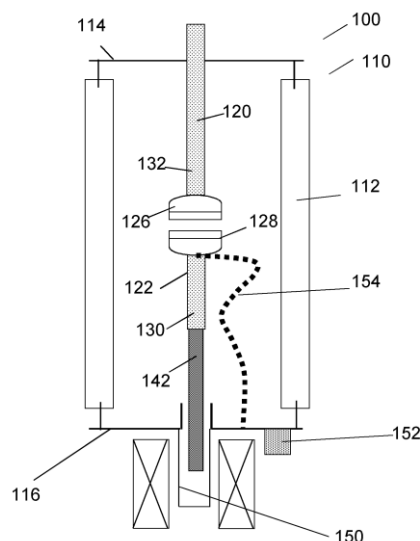
33: GB 31: 1401824.6 32: 2014-02-03

33: GB 31: 1420303.8 32: 2014-11-14

#### **54: VACUUM SWITCHING DEVICES**

00: -

An alternating current vacuum switching device (100) for switching an electrical circuit under load and no load conditions, and optionally short-circuit conditions is disclosed. In particular, a the switching device (100) comprises: a vacuum evacuated housing (110); first (122) and second (120) electrodes within the housing; and an actuator (144) for moving the first electrode (122) relative to the second electrode (120) to mechanically engage and disengage the electrodes to perform a switching function, wherein the first electrode (122) is wholly located within the vacuum evacuated housing (110) such that movement of the switching function occurs solely within the housing (110). By having movement of the switching function solely within the housing, the reliability of the vacuum switching device is improved.



21: 2016/07351. 22: 2016/10/25. 43: 2022/03/28

51: B05B

71: L'OREAL

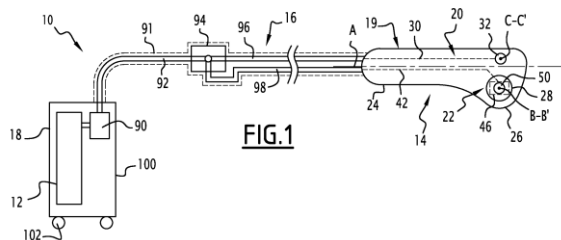
72: FARCET, Céline, GILBERT, Laurent, DELISLE, Ronan

33: FR 31: 14 53876 32: 2014-04-29

#### **54: ELEMENT FOR SELECTIVELY DISPENSING TWO LIQUIDS, ASSOCIATED DEVICE AND METHOD**

00: -

The element comprises: - a hollow body (19); - a delivery nozzle (32) for delivering a first liquid carried by the hollow body (19); - a dispensing nozzle (50) for dispensing a second liquid carried by the hollow body (19); The dispensing nozzle (50) is suitable for producing droplets having a diameter less than 1 mm, particularly comprised between 1  $\mu$ m and 1000  $\mu$ m and the delivery nozzle (32) is suitable for producing droplets having a diameter greater than 1 mm, and particularly comprised between 1 mm and 5 mm.



21: 2016/07980. 22: 2016/11/17. 43: 2022/02/04



51: A61K; A61P

71: GERON CORPORATION

72: STUART, MONIC J, KELSEY, STEPHEN

33: US 31: 61/734,941 32: 2012-12-07

33: US 31: 61/799,069 32: 2013-03-15

33: US 31: 13/841,711 32: 2013-03-15

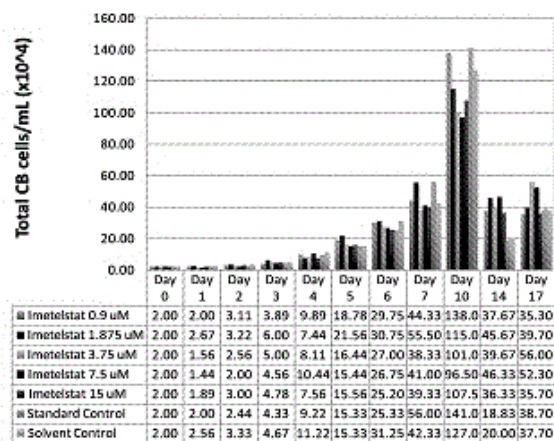
33: US 31: 61/900,347 32: 2013-11-05

**54: USE OF TELOMERASE INHIBITORS FOR THE TREATMENT OF MYELOPROLIFERATIVE DISORDERS AND MYELOPROLIFERATIVE NEOPLASMS**

00: -

Provided herein are methods for reducing neoplastic progenitor cell proliferation and alleviating symptoms associated in individuals diagnosed with or thought to have myeloproliferative disorders, such as Essential Thrombocythemia (ET). Also provided herein are methods for using telomerase inhibitors for maintaining blood platelet counts at relatively normal ranges in the blood of individuals diagnosed with or suspected of having myeloproliferative disorders, such as ET.

A



21: 2016/08889. 22: 2016/12/22. 43: 2022/02/11

51: C08F; C08G

71: MASSACHUSETTS INSTITUTE OF TECHNOLOGY, THE BRIGHAM AND WOMEN'S HOSPITAL, INC.

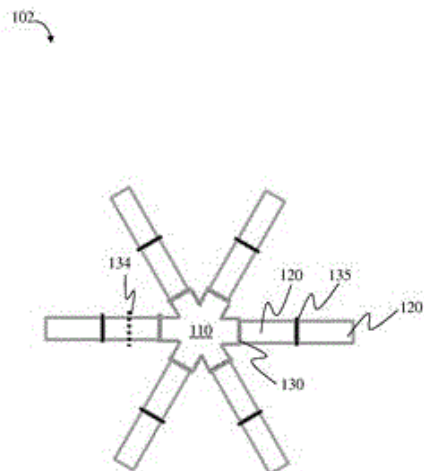
72: BELLINGER, ANDREW, ZHANG, SHIYI, TRAVERSO, CARLO GIOVANNI, LANGER, ROBERT S, MO, STACY, GRANT, TYLER, JAFARI, MOUSA, GLETTIG, DEAN LIANG, DICICCIO, ANGELA, WOOD, LOWELL L JR, ECKHOFF, PHILIP A

33: US 31: 62/010,992 32: 2014-06-11

**54: RESIDENCE STRUCTURES AND RELATED METHODS**

00: -

Residence structures, systems, and related methods are generally provided. Certain embodiments comprise administering (e.g., orally) a residence structure to a subject (e.g., a patient) such that the residence structure is retained at a location internal to the subject for a particular amount of time (e.g., at least about 24 hours) before being released. The residence structure may be, in some cases, a gastric residence structure. In some embodiments, the structures and systems described herein comprise one or more materials configured for high levels of active substances (e.g., a therapeutic agent) loading, high active substance and/or structure stability in acidic environments, mechanical flexibility and strength in an internal orifice (e.g., gastric cavity), easy passage through the GI tract until delivery to at a desired internal orifice (e.g., gastric cavity), and/or rapid dissolution/degradation in a physiological environment (e.g., intestinal environment) and/or in response to a chemical stimulant (e.g., ingestion of a solution that induces rapid dissolution/degradation). In certain embodiments, the structure has a modular design, combining a material configured for controlled release of therapeutic, diagnostic, and/or enhancement agents with a structural material necessary for gastric residence but configured for controlled and/or tunable degradation/dissolution to determine the time at which retention shape integrity is lost and the structure passes out of the gastric cavity. For example, in certain embodiments, the residence structure comprises a first elastic component, a second component configured to release an active substance (e.g., a therapeutic agent), and, optionally, a linker. In some such embodiments, the linker may be configured to degrade such that the residence structure breaks apart and is released from the location internally of the subject after a predetermined amount of time.



21: 2017/03313. 22: 2017/05/12. 43: 2022/03/14

51: A01N

71: ICB PHARMA

72: SWIETOSLAWSKI, Janusz, WIECZOREK, Wojciech, LISZKA, Dawid

33: US 31: 62/063,504 32: 2014-10-14

#### **54: PESTICIDE FORMULATIONS HAVING PHYSICAL MODE OF ACTION**

00: -

The invention relates to pesticidal compositions comprising trisiloxane surfactants and a matrix-forming agent, which compositions are capable of controlling pests and pathogens using a physical mode of action. Accordingly, in one aspect, the present disclosure provides a pesticidal composition for controlling pests and pathogens with a physical mode of action. The composition comprises trisiloxane surfactants and matrix-forming agents. The composition may form a gel matrix or a film matrix. The trisiloxane surfactants may be selected from the group consisting of Silwet L-77, Silwet 408, Break-Thru S-240, and Silibase 2848. The matrix-forming agents of a pesticidal composition are selected from the group consisting of chitosan salts and sol-gel precursors.

21: 2017/03437. 22: 2017/05/18. 43: 2022/02/11

51: B65D

71: British American Tobacco (Investments) Limited

72: BRAY, Andrew Jonathan, FALLON, Gary, GIBSON, Paul

33: GB 31: 1421707.9 32: 2014-12-05

#### **54: PACK OF TOBACCO INDUSTRY PRODUCTS**

00: -

Pack (27) having a group of tobacco industry products wrapped in a laminate (2) to form a bundle (22). The pack has a base (28) containing the bundle, and a lid (30) mounted to the base for rotation between open and closed positions. The laminate has an outer layer (3) having a first cut (5) that defines an outer layer region bounded by said first cut and, an inner layer (4) having a second cut (6) that defines an inner layer region bounded by said second cut. A part of the outer layer region is attached to an inside surface of the lid such that, as the lid is rotated into its open position, the inner and outer layer regions are lifted causing the inner and outer layers to delaminate in a peripheral region (15) between the first and second cuts and an opening (19).

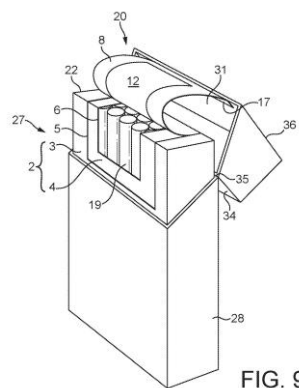


FIG. 9

21: 2017/07063. 22: 2017/10/18. 43: 2022/03/14

51: A61F

71: LAMBERT, Leanne Joy, LAMBERT, Geoffrey James

72: LAMBERT, Geoffrey James

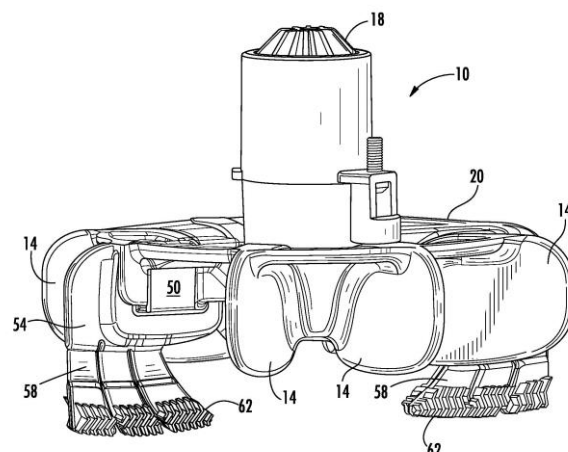
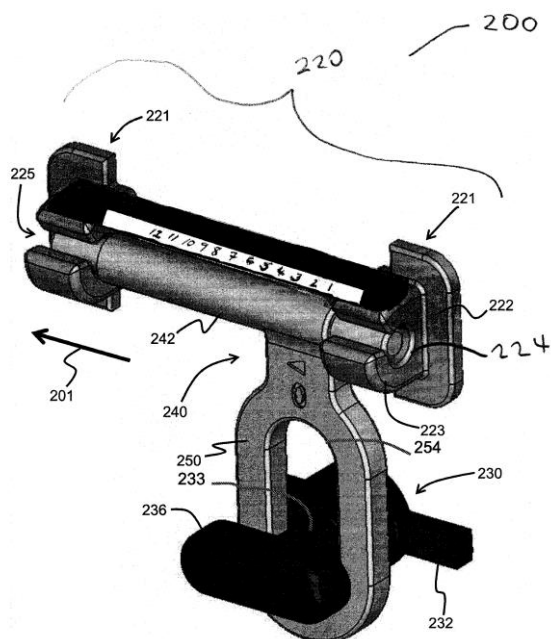
33: AU 31: 2015901013 32: 2015-03-20

33: AU 31: 2015101689 32: 2015-11-19

#### **54: MANDIBULAR REPOSITION DEVICE AND COUPLING THEREFOR**

00: -

The present invention provides an adjustable mandibular repositioning appliance including first and second connecting members and a link arm which is pivotable about an axis wherein protrusive positioning of the mandible is provided by relative positioning of the link arm along said axis, to kits and couplings for making a readily adjustable mandibular appliance, to a system for providing a readily adjustable mandibular repositioning appliance and methods of use.



21: 2017/07219. 22: 2017/10/24. 43: 2022/02/11  
51: E04H

71: Zodiac Pool Systems LLC

72: VAN DER MEIJDEN, Hendrikus Johannes,  
HARBOTTLE, Bruce

33: US 31: 14/711,499 32: 2015-05-13

#### **54: COMPONENTS OF AUTOMATIC POOL CLEANERS**

00: -

Components of automatic pool cleaners (APCs) are detailed. The components may include brushes (42) configured to attach to blades (14) of scrubbers (10) of the APCs. The flexible brushes may rotate as their associated blades rotate and have fingers (58) which flex so as to adduce contact between a to-be-cleaned pool or spa surface and bristles (62) protruding outward from sides of the fingers.

21: 2017/07310. 22: 2017/10/27. 43: 2022/02/04  
51: A61K

71: MILLENNIUM PHARMACEUTICALS, INC.

72: DILUZIO, WILLOW, NGUYEN, PHUONG M,  
VARGA, CSANAD M, PALANIAPPAN,  
VAITHIANATHAN, BROWN, JASON, FOX, IRVING  
H, SCHOLZ, CATHERINE, JENKINS, HELEN,  
ROSARIO, MARIA

33: US 31: 61/544,054 32: 2011-10-06

33: US 31: 61/481,522 32: 2011-05-02

#### **54: FORMULATION FOR ANTI-A4B7 ANTIBODY** 00: -

Antibody formulations are described comprising a mixture of an anti-<sub>4\_7</sub> antibody, an antioxidant or chelator, and at least one free amino acid. The disclosed formulations may have improved stability, reduced aggregate formation, or both. The present invention further provides a safe dosing regimen of these antibody formulations that is easy to follow, and which results in a therapeutically effective amount of the anti-<sub>4\_7</sub> antibody in vivo.

21: 2017/07848. 22: 2017/11/20. 43: 2022/03/11  
51: C07D; A61P

71: KURA ONCOLOGY, INC., THE REGENTS OF  
THE UNIVERSITY OF MICHIGAN

72: GREMBECKA, Jolanta, BORKIN, Dmitry,  
CIERPICKI, Tomasz, POLLOCK, Jonathan, LI,  
Liansheng, WU, Tao, FENG, Jun, REN, Pingda, LIU,  
Yi, KLOSSOWSKI, Szymon

33: US 31: 62/171,108 32: 2015-06-04

33: AR 31: P 20160100689 32: 2016-03-15

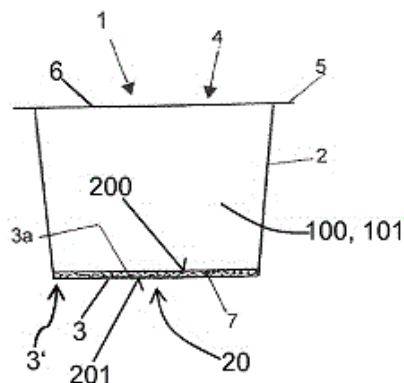
#### **54: METHODS AND COMPOSITIONS FOR INHIBITING THE INTERACTION OF MENIN WITH MLL PROTEINS**

00: -

The present disclosure provides compositions and methods of use to inhibit the interaction of menin with MLL1, MLL2 and MLL-fusion oncoproteins. The compositions and methods of use are useful for the treatment of leukemia, solid cancers, diabetes and other diseases dependent on activity of MLL1, MLL2, MLL fusion proteins, and/or menin.

Amino acid sequence of human menin, isoform 1 (SEQ ID NO: 1):

```
MGLKAAQKTLFPLRSIDVVRLFAAELGREEPDLVLLSLVLGFVEHFLAVNRVPTNVPE
LTFQSPAPDPPGGLTYFPVADLSIIAALYARFTAIRGAVDLSLYPREGGVSSRELVKK
VSDVIWNSLSRSYFKDRAHIQSLFSFITGWSFVGTKLDSSGVAFAVVGACQALGLRDVHL
ALSEDHAWVVFPGNGEQTAEVTWHGKGNEDRRGQTVNAGVAERSWLYLKGSYMRCDRKME
VAFMVCAINPSIDLHTDSLELLQLQKLLWLLYDLGHLERYPMALGNLADLEELEPTPGR
PDPLTLYHKGIASAKTYRDEHIYPYMYLAGYHCRNRNVRREALQAWADTATVIQDYNVCR
EDEEIKYKEFFEVDVPIPNLLKEAASLLEAGEERPGEQSQGTQSQGSALQDPECFAHLRR
FYDGICKWEEGSPFVLHVGWATFLVQSLGRFEGQVRQKVRIVSREAAEAEEEPWGEAA
REGRRRGPRRESKPEEPPPPKPPALDKGLGTGQGAVSGPPRPPGTAGTARGPEGGSTA
QVPAPTASPPPEGPVLTQSEKMKMKELLVATKINSSAIKQLTAQSQVQMKQKQVSTP
SDYTLFLKQRKGL
```



21: 2017/08292. 22: 2017/12/06. 43: 2022/02/04  
51: B65D  
71: K-FEE SYSTEM GMBH  
72: KRÜGER, MARC, HANISCH, MARCO, EMPL,  
GÜNTER  
33: DE 31: 10 2015 210 606.3 32: 2015-06-10  
**54: PORTION CAPSULE WITH A THREE-PLY  
NONWOVEN FABRIC**  
00: -

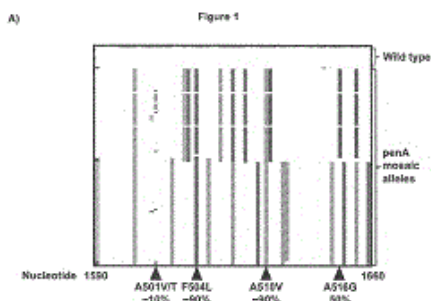
The invention relates to a portion capsule for producing a beverage, having a capsule body with a capsule base and a filling side. A cavity for receiving a pulverulent or liquid beverage substrate is formed between the capsule base and the filling side, and a filter element is arranged between the beverage substrate and the capsule base. The filter element comprises an open-pore felt and/or nonwoven fabric, and the felt and/or nonwoven fabric has a first average pore size in a first region facing the beverage substrate and a second average pore size in a second region facing the capsule base, said first pore size being smaller than the second pore size.

21: 2018/00037. 22: 2018/01/03. 43: 2022/02/11  
51: C12Q

71: CAMBRIDGE ENTERPRISE LIMITED  
72: LEE, HELEN, POWELL, MICHAEL  
33: GB 31: 1510876.4 32: 2015-06-19  
33: GB 31: 1609529.1 32: 2016-05-31  
**54: DIAGNOSIS AND TREATMENT OF  
INFECTIOUS DISEASE**

00: -

Methods are described for determining whether a subject suffering from, or suspected of suffering from, an infectious disease caused by a microbe is infected with a strain of the microbe that is susceptible to an antimicrobial agent, where there exist different strains of the microbe that are resistant to the antimicrobial agent. The methods comprise determining whether nucleic acid of the strain of the microbe infecting the subject comprises wild-type nucleotide sequence at a conserved nucleotide position at which mutation is associated with resistance to the antimicrobial agent in nucleic acid of the different resistant strains. The methods are particularly applicable for determining whether a subject suffering from, or suspected of suffering from, Gonorrhoea is infected with a strain of *Neisseria gonorrhoeae* that is susceptible to an antimicrobial agent. Kits for use in the methods are described, as well as methods for treatment of infectious disease. Methods for reducing the prevalence of resistance of microbes causing infectious disease to antimicrobial agents are also described.



21: 2018/00085. 22: 2018/01/05. 43: 2022/02/11

51: F01N

71: BASF CORPORATION

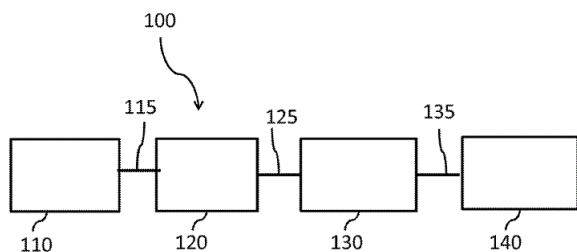
72: XUE, Wen-Mei, HOCHMUTH, John, K.

33: US 31: 62/174,862 32: 2015-06-12

#### **54: EXHAUST GAS TREATMENT SYSTEM**

00: -

Described are exhaust gas treatment systems for treatment of a gasoline engine exhaust gas stream. The exhaust gas treatment systems comprise an ammonia generating and hydrocarbon oxidation catalyst, a TWC catalyst, and an ammonia selective catalytic reduction (SCR) catalyst downstream of the TWC catalyst. The ammonia generating and hydrocarbon oxidation catalyst comprises a refractory metal oxide support, a platinum component, and a palladium component. The ammonia generating and hydrocarbon oxidation catalyst is substantially free of ceria and substantially free of NO<sub>x</sub> storage components. The platinum and palladium components are present in a platinum to palladium ratio of greater than about 1 to 1.



21: 2018/00086. 22: 2018/01/05. 43: 2022/02/11

51: F01N

71: BASF CORPORATION

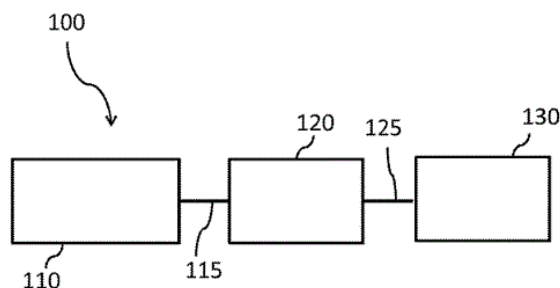
72: XUE, Wen-Mei, HOCHMUTH, John, K.

33: US 31: 62/174,856 32: 2015-06-12

#### **54: EXHAUST GAS TREATMENT SYSTEM**

00: -

Described are exhaust gas treatment systems for treatment of a gasoline engine exhaust gas stream. The exhaust gas treatment systems comprise an ammonia generating catalyst and an ammonia selective catalytic reduction (SCR) catalyst downstream of the ammonia generating catalyst. The ammonia generating catalyst comprises a NO<sub>x</sub> storage component, a refractory metal oxide support, a platinum component, and a palladium component. The ammonia generating catalyst is substantially free of ceria. The platinum and palladium components are present in a platinum to palladium ratio of greater than about 1 to 1.



21: 2018/00104. 22: 2018/01/05. 43: 2022/02/11

51: C12Q

71: BAVARIAN NORDIC A/S

72: DELCAYRE, ALAIN, LI, ZENGJI, ROUNTREE, RYAN

33: US 31: 62/199,681 32: 2015-07-31

#### **54: PROMOTERS FOR ENHANCING EXPRESSION IN POXVIRUSES**

00: -

The present invention relates to one or more promoters and/or expression cassettes that can be used for enhancing expression of a heterologous gene, such as Brachyury. In particular, the one or more promoters and/or expression cassettes enhance expression of heterologous genes as part of a viral vector, such as a poxvirus.

21: 2018/00186. 22: 2018/01/10. 43: 2022/02/11

51: A61K; A61P

71: AXOVANT SCIENCES GMBH

72: FRIEDHOFF, LAWRENCE TIM, RAMASWAMY, SHANKAR, WEN, YANDONG

33: US 31: 62/174,983 32: 2015-06-12

33: US 31: 62/236,562 32: 2015-10-02

33: US 31: 62/278,198 32: 2016-01-13



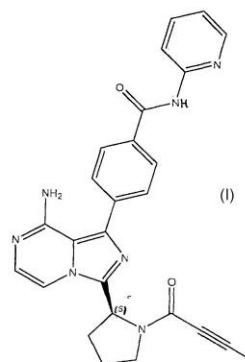
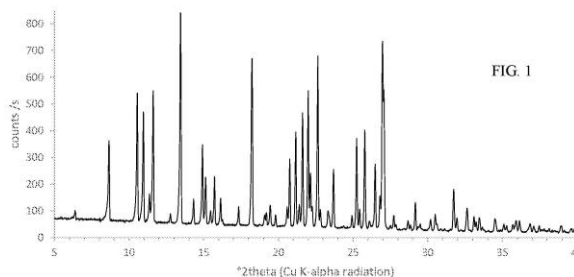
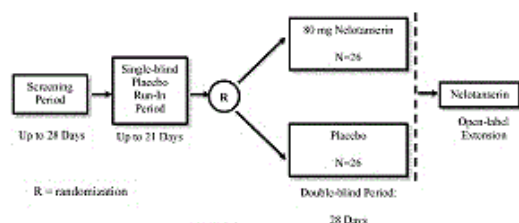
33: US 31: 62/263,967 32: 2015-12-07

33: US 31: 62/194,084 32: 2015-07-17

**54: DIARYL AND ARYLHETEROARYL UREA DERIVATIVES USEFUL FOR THE PROPHYLAXIS AND TREATMENT OF REM SLEEP BEHAVIOR DISORDER**

00: -

The present invention relates to certain pyrazole derivatives of Formula (I) and pharmaceutical compositions thereof that modulate the activity of the 5-HT<sub>2A</sub> serotonin receptor and their uses for the treatment of REM sleep behavior disorder.



21: 2018/00329. 22: 2018/01/17. 43: 2022/02/11

51: A61K; A61P; C07D

71: Acerta Pharma B.V.

72: BLATTER, Fritz, INGALLINERA, Tim, BARF, Tjeerd, ARET, Edwin, KREJSA, Cecile, EVARTS, Jerry

33: US 31: 62/188,468 32: 2015-07-02

**54: SOLID FORMS AND FORMULATIONS OF (S)-4-(8-AMINO-3-(1-(BUT-2-YNOYL)PYRROLIDIN-2-YL)IMIDAZO[1,5-A]PYRAZIN-1-YL)-N-(PYRIDIN-2-YL)BENZAMIDE**

00: -

In some embodiments, the invention relates to crystalline solid forms, including polymorphs, hydrates, and salt forms, of (S)-4-(8-amino-3-(1-(but-2-ynoyl)pyrrolidin-2-yl)imidazo[1,5-a]pyrazin-1-yl)-N-(pyridin-2-yl)benzamide. In some embodiments, the invention also relates to pharmaceutical compositions containing the crystalline solid forms, and methods for treating conditions or disorders by administering to a subject a pharmaceutical composition that includes the forms, including pharmaceutical compositions and methods for overcoming the effects of acid reducing agents. Formula (I)

21: 2018/00366. 22: 2018/01/18. 43: 2022/02/11

51: A61K

71: ABRAXIS BIOSCIENCE, LLC

72: DESAI, NEIL P, ALLES, MARK

33: US 31: 62/186,320 32: 2015-06-29

**54: METHODS OF TREATING HEMATOLOGICAL MALIGNANCY USING NANOPARTICLE MTOR INHIBITOR COMBINATION THERAPY**

00: -

The present invention relates to methods and compositions for the treatment of hematological malignancy by administering compositions comprising nanoparticles that comprise an mTOR inhibitor (such as a limus drug, e.g., sirolimus or a derivative thereof) and an albumin in combination with compositions comprising a second therapeutic agent.

21: 2018/00419. 22: 2018/01/19. 43: 2022/02/11

51: A61L

71: CRESILON, INC.

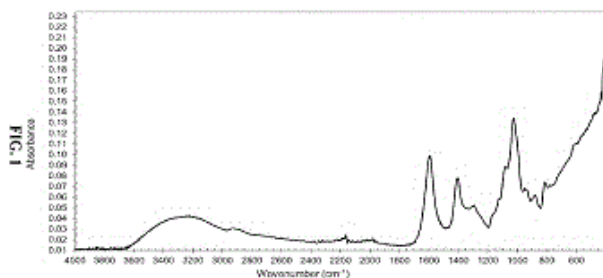
72: LANDOLINA, JOSEPH A, AHMAD, OMAR M

**54: HIGHLY EFFICACIOUS HEMOSTATIC ADHESIVE POLYMER SCAFFOLD**

00: -

The invention relates to biocompatible polymer gel compositions useful in facilitating and maintaining hemostasis. The biocompatible polymeric gel composition is comprised of (a) one or more than

one polyanionic polymer, (b) one or more than one polycationic polymer, and (c) a solvent. A preferred composition includes sodium alginate, chitosan, and water to produce an adhesive hemostatic device that is useful in facilitating and maintaining rapid hemostasis.



21: 2018/00570. 22: 2018/01/26. 43: 2022/02/11  
51: A61K

71: AMUNIX PHARMACEUTICALS, INC.

72: SCHELLENBERGER, VOLKER, YANG, FAN, THAYER, DESIREE, SIM, BEE-CHENG, WANG, CHIA-WEI

33: US 31: 62/211,532 32: 2015-08-28

33: US 31: 62/278,755 32: 2016-01-14

33: US 31: 62/379,673 32: 2016-08-25

33: US 31: 62/363,046 32: 2016-07-15

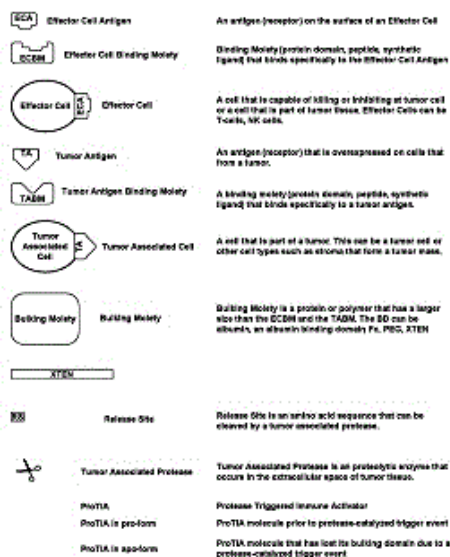
33: US 31: 62/263,319 32: 2015-12-04

33: US 31: 62/338,285 32: 2016-05-18

#### 54: CHIMERIC POLYPEPTIDE ASSEMBLY AND METHODS OF MAKING AND USING THE SAME

00: -

The present invention relates to bispecific chimeric polypeptide assembly compositions comprising bulking moieties linked to binding domains by cleavable release segments that, when cleaved are capable of concurrently binding effector T cells with targeted tumor or cancer cells and effecting cytolysis of the tumor cells or cancer cells. The invention also provides compositions and methods of making and using the cleavable chimeric polypeptide assembly compositions.



21: 2018/00573. 22: 2018/01/26. 43: 2022/02/11

51: B05B; B07C; G01N

71: TOMRA SORTING GMBH

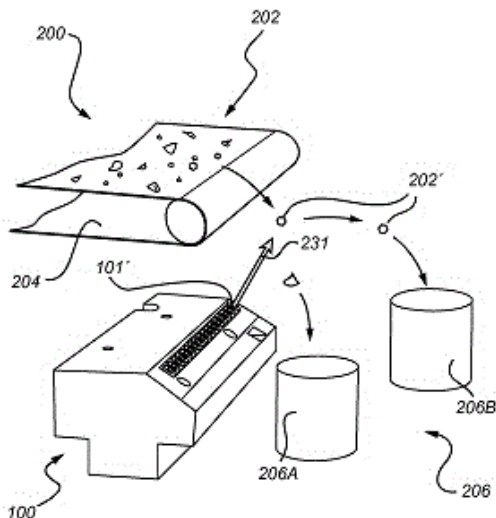
72: FLEISCHER, UWE

33: EP 31: 15175494.2 32: 2015-07-06

#### 54: NOZZLE DEVICE AND SYSTEM FOR SORTING OBJECTS

00: -

The present inventive concept relates to a nozzle device for sorting objects by ejecting a gaseous media towards said object. The nozzle device nozzle device comprising: a nozzle unit comprising at least one nozzle; a nozzle bar comprising gas supply means for providing a gaseous media to said nozzle unit; and a nozzle fixation bracket adapted for holding said nozzle unit in place; said at least one nozzle comprising: an inlet for receiving the gaseous media; and having one outlet, having an outlet area, for ejecting the gaseous media towards an object to be sorted; a channel extending between said inlet and said outlet; an outlet portion surrounding at least said outlet, wherein said outlet portion comprises a flexible material, which deflects upon ejection of the gaseous media, received from said nozzle bar, through said outlet whereby said outlet area increases. The present inventive concept also relates to a system for sorting objects.



21: 2018/02108. 22: 2018/04/03. 43: 2022/02/18

51: A61K; C07K

71: EAGLE BIOLOGICS, INC.

72: LARSON, ALYSSA M, LOVE, KEVIN, WEIGHT, ALISHA K, CRANE, ALAN, LANGER, ROBERT S, KLIBANOV, ALEXANDER M

33: US 31: 61/988,005 32: 2014-05-02

33: US 31: 61/876,621 32: 2013-09-11

33: US 31: 61/940,227 32: 2014-02-14

33: US 31: 62/008,050 32: 2014-06-05

33: US 31: 62/026,497 32: 2014-07-18

33: US 31: 61/946,436 32: 2014-02-28

33: US 31: 61/943,197 32: 2014-02-21

33: US 31: 62/030,521 32: 2014-07-29

**54: LIQUID PROTEIN FORMULATIONS CONTAINING VISCOSITY-LOWERING AGENTS**

00: -

Concentrated, low- viscosity, low- volume liquid pharmaceutical formulations of proteins have been developed. Such formulations can be rapidly and conveniently administered by subcutaneous or intramuscular injection, rather than by lengthy intravenous infusion. These formulations include lowmolecular-weight and/or high-molecular-weight proteins, such as mAbs, and viscosity-lowering agents that are typically bulky polar organic compounds, such as many of the GRAS (US Food and Drug Administration List of compounds generally regarded as safe) and inactive injectable ingredients and FDA approved therapeutics.

21: 2018/03198. 22: 2018/05/15. 43: 2022/02/11

51: C07D A61K C07C A61P

71: MANGOSUTHU UNIVERSITY OF TECHNOLOGY

72: GUMEDE, Njabulo, Joyfull

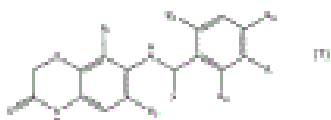
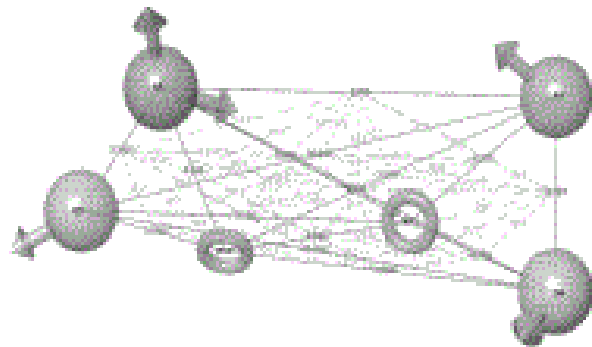
33: ZA 31: 2015/07849 32: 2015-10-22

**54: PHARMACOPHORES, COMPOUNDS AND METHODS HAVING APPLICATION IN THE TREATMENT OF CANCER THROUGH INHIBITION OF CYP17A1 AND CYP19A1**

00: -

The invention provides compounds for use as medicaments, which act by inhibiting CYP17A1 and CYP19A1 enzymes. The compounds have particular application in the treatment of cancer especially prostate cancer and breast cancer. The compounds have the formula: [Chem. 1] wherein: R is independently selected from the group consisting of optionally substituted arylamide; optionally substituted alkylarylamine; optionally substituted aryl carboxamide; optionally substituted cyanopiperidine; optionally substituted oxopiperidine; optionally substituted N-(pyridin-3-yl); optionally substituted pyridin-3-yl; optionally substituted pyrazole-4-carboxamide; optionally substituted pyrimidin-4-ylcarboxamide; optionally substituted pyrimidin-4-ylcarboxamide; optionally substituted 1H-pyrrol-2-ylcarboxamide; optionally substituted morpholin carboxamide; optionally substituted 1H-indazol-3-ylcarboxamide; optionally substituted 5-cyanopiperidin-3-ylcarboxamide; optionally substituted quinolin-7-yl; optionally substituted pyrazin-2-ylcarboxamide; optionally substituted 1H-1,3-benzodiazole-6-carboxamide; and optionally substituted 3-oxo-3,4-dihydro-2H-1,4-benzoxazin-7-ylcarboxamide; Each R1, R2, R3, R4, R5 is independently selected from the group consisting of H; OH; a halogen atom; OCH3; and NH2; and X is independently selected from the group consisting of O, H and OH. Some of the compounds are claimed per se and the invention also encompasses pharmaceutically acceptable salts, solvates, hydrates, primary metabolites and prodrugs thereof.

[Fig. 1]



21: 2018/03199. 22: 2018/05/15. 43: 2022/02/04

51: G06F C07D A61K C07C A61P

71: MANGOSUTHU UNIVERSITY OF TECHNOLOGY

72: GUMEDE, Njabulo, Joyfull

33: ZA 31: 2015/07849 32: 2015-10-22

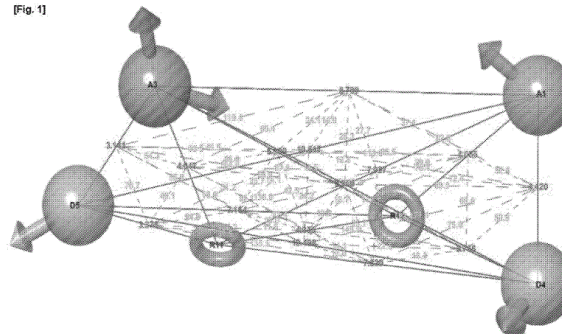
**54: PHARMACOPHORES, COMPOUNDS AND METHODS HAVING APPLICATION IN THE TREATMENT OF CANCER THROUGH INHIBITION OF CYP17A1 AND CYP19A1**

00: -

The invention provides pharmacophores for use in the design, screening and identification of inhibitors of CYP17A1 and CYP19A1 enzymes. A preferred pharmacophore has a spatial arrangement of atoms as shown in the accompanying Figure 1, wherein: • A represents hydrogen bond acceptors; • D represents hydrogen bond donors; and • R represents aromatic rings. Compounds conforming to the preferred pharmacophore are provided for use as medicaments in the treatment of cancer, especially prostate cancer and breast cancer. By way of example, these compounds include N-(4-ethylphenyl)-5-(2-hydroxy-5-methoxybenzoyl)-2-imino-2H-pyran-3-carboxamide and 2-(4-sulfamoylphenoxy) ethyl 2-amino-3-methylbenzoate. Also provided are methods for the treatment of prostate cancer and breast cancer using the compounds of the invention as well as their salts, solvates, hydrates, primary metabolites and prodrugs. Methods of inhibiting CYP17A1 and CYP19A1, and hence of inhibiting androgen activity in a subject, are disclosed. The invention also provides processes for designing, screening and

identifying compounds which can inhibit CYP17A1 and CYP19A1.

[Fig. 1]



21: 2018/03900. 22: 2018/06/12. 43: 2022/02/03

51: B01J B01D F01N

71: BASF CORPORATION

72: MOHANAN, Jaya, L., GRAMICCONI, Gary, A.,

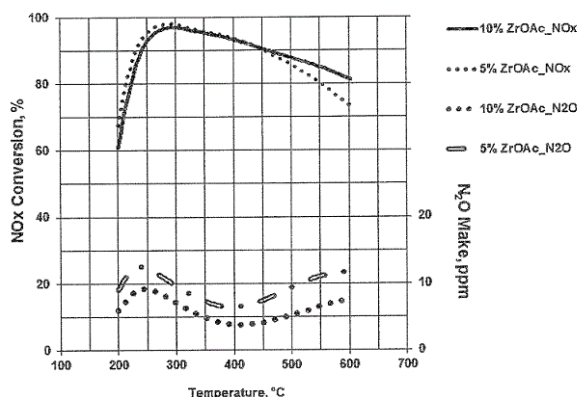
HOCHMUTH, John, VOSS, Kenneth

33: US 31: 62/256,258 32: 2015-11-17

**54: EXHAUST GAS TREATMENT CATALYST**

00: -

Described is a catalyst composition suitable for use as a selective catalytic reduction catalyst, comprising small-pore molecular sieve particles having a pore structure and a maximum ring size of eight tetrahedral atoms and impregnated with a promoter metal, and metal oxide particles dispersed within the small-pore molecular sieve particles and external to the pore structure of the small-pore molecular sieve particles, wherein the metal oxide particles comprise one or more oxides of a transition metal or lanthanide of Group 3 or Group 4 of the Periodic Table. A method for preparing the catalyst, a method for selectively reducing nitrogen oxides, and an exhaust gas treatment system are also described.



21: 2018/03984. 22: 2018/06/14. 43: 2022/02/11  
51: A61K; A61M; C23C

71: SIO2 MEDICAL PRODUCTS, INC.

72: WEIKART, CHRISTOPHER, BENNETT,  
MURRAY STEPHEN, GIRAUD, JEAN-PIERRE

33: US 31: 62/257,208 32: 2015-11-18

#### 54: PHARMACEUTICAL PACKAGE FOR OPHTHALMIC FORMULATIONS

00: -

A liquid formulation of an ophthalmic drug in a pharmaceutical package, for example a syringe, cartridge, or vial, made in part or in whole of a thermoplastic polymer, coated on the interior with a tie coating or layer, a barrier coating or layer, a pH protective coating or layer, and optionally a lubricity coating or layer.

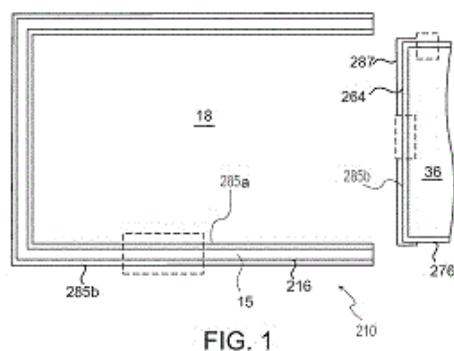


FIG. 1

21: 2018/03985. 22: 2018/06/14. 43: 2022/02/04  
51: A61B; A61H; F41H

71: Q30 SPORTS SCIENCE, LLC

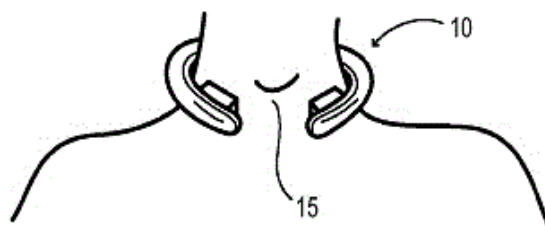
72: ELVIRA, GEORGE, GEORGIEV, STEPHAN,  
TREMBLAY, MARTIN

33: US 31: 62/256,093 32: 2015-11-16

#### 54: TRAUMATIC BRAIN INJURY PROTECTION DEVICES

00: -

The disclosure provides neck collar devices and systems for the mitigation and prevention of traumatic brain injury, including concussion. Specifically disclosed are adjustable collars and systems, and collars having certain pressure sensing devices.



21: 2018/04150. 22: 2018/06/21. 43: 2022/02/11  
51: A41D; A61M

71: TOOKIE LTD

72: TOOKE, Stephen

33: GB 31: 1515389.3 32: 2015-08-28

#### 54: A MEDICAL TUBE STORAGE SYSTEM

00: -

A medical tube holder (10) comprising a harness (11) and a pouch (26). The harness comprises a front panel (12) and a back panel (14) with two shoulder straps (16a, 16b) connecting an upper part of the front panel to an upper part of the back panel, with a head aperture (18) between the shoulder straps. The lower part of back panel comprises a first part of a connection mechanism (22) and the lower part of the front panel comprises two laterally extending straps (20a, 20b). The two laterally extending straps form a second part of the connection mechanism and the pouch is connected to one of the laterally extending straps.

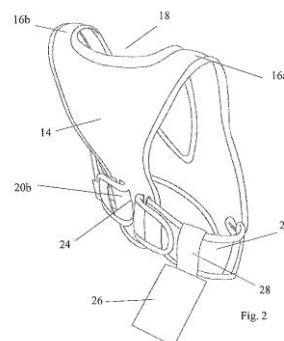


Fig. 2



21: 2018/04519. 22: 2018/07/06. 43: 2022/02/11

51: A61K

71: Ardea Biosciences, Inc., AstraZeneca AB

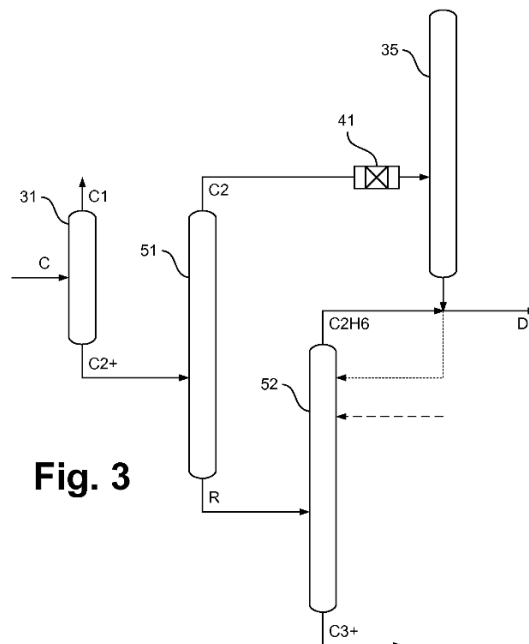
72: REILAND WAKEMAN, Joanne, ROWLINGS, Colin, LIU, Sha, BURKE, Gerry, VON CORSWANT, Christian, TANNERGREN, Christer, HJÄRTSTAM, Johan

33: US 31: 62/264,792 32: 2015-12-08

**54: PHARMACEUTICAL COMPOSITION COMPRISING A POTENT INHIBITOR OF URAT1**

00: -

The present invention relates to pharmaceutical compositions containing 2-((3-(4-cyanonaphthalen-1-yl)pyridine-4-yl)thio)-2-methylpropanoic acid or a pharmaceutically acceptable salt (hereinafter referred to as the "Agent"), more particularly to orally deliverable compositions containing the Agent; to the use of said compositions as a medicament; and to processes for the preparation of said compositions.



**Fig. 3**

21: 2018/05021. 22: 2018/07/24. 43: 2022/02/11

51: C01G

71: LINDE AKTIENGESSELLSCHAFT

72: FRITZ, HELMUT, SINN, TOBIAS

33: EP 31: 13005355.6 32: 2013-11-14

**54: METHOD FOR SEPARATING OUT A HYDROCARBON MIXTURE**

00: -

The invention relates to a method for separating a hydrocarbon mixture (C), which is obtained at least in part by steam cracking (10) and which contains at least hydrocarbons, including ethane and ethylene, a first fraction (C2+) initially being obtained from the hydrocarbon mixture (C) by separating off other components at least in part. A fraction (R) containing ethane is separated off, downstream from the at least partial separation of the other components from the hydrocarbon mixture (C) and prior to the obtaining of further fractions (C2, C2H4, C3+, C2H6), in an amount which reduces the ethane content in the first fraction (C2+) to less than 25%, the fraction (R) containing ethane comprising at most 10% of other hydrocarbons having two carbon atoms on a molar basis. The present invention further relates to a separation system (30).

21: 2018/05606. 22: 2018/08/22. 43: 2022/02/11

51: E02B; F03B

71: Bombora Wave Power Pty Ltd

72: LEIGHTON, Sam, ALGIE, Campbell, RYAN, Shawn

33: AU 31: 2016900640 32: 2016-02-23

**54: WAVE ENERGY CONVERSION/CONVERTORS**

00: -

**ABSTRACT** Wave energy convertor (WEC) 100 and related control methods. The WEC has at least one cell 102 of variable volume containing an energy transfer fluid and at least partially bounded by a movable flexible membrane 106, and the at least one cell has a substantially constant membrane pressure differential during at least part of a respective cell volume deflation or inflation stroke. Pressure differential between the exterior and interior surfaces of the membrane of the respective cell can be maintained as stable and constant as possible for a substantial part of the volume change during deflation and inflation of the membrane/cell. Membrane and/or cell inclination angle can range between 35° and 50°. Chord ratio of the flexible membrane of at least one cell can be between 1.01 and 1.3 during operation. A control surface 108 can modify the available membrane surface or limit of operation of the membrane for operation and/or modify an internal wall or surface of the cell.

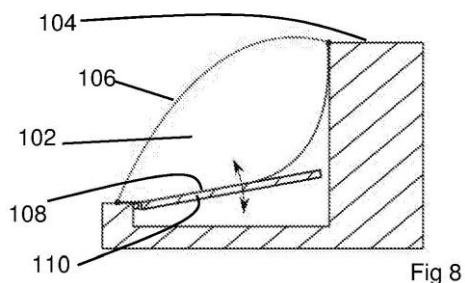


Fig 8

21: 2018/06016. 22: 2018/09/07. 43: 2022/02/11

51: A61K; A61P; C07D; C07H

71: Janssen Pharmaceutica NV

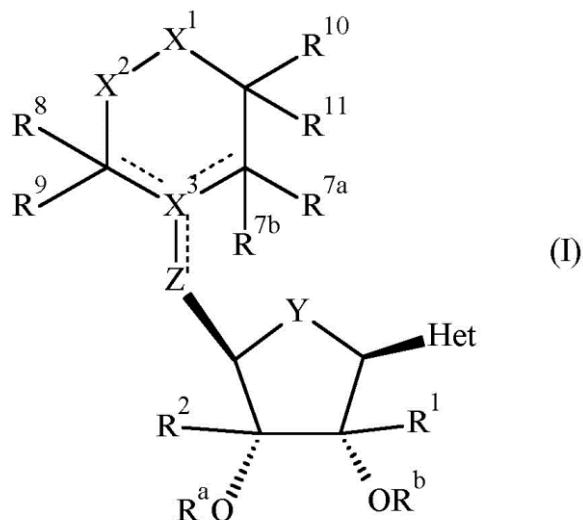
72: BERTHELOT, Didier Jean-Claude, BREHMER, Dirk, BEKE, Lijs, BOECKX, An, DIELS, Gaston Stanislas Marcella, GILISSEN, Ronaldus Arnodus Hendrika Joseph, LAWSON, Edward Charles, PANDE, Vineet, PARADÉ, Marcus Cornelis Bernardus Catharina, SCHEPENS, Wim Bert Griet, SHOOK, Brian Christopher, THURING, Johannes Wilhelmus John F., VIELLEVOYE, Marcel, SUN, Weimei, WU, Tongfei, MEERPOEL, Lieven

33: US 31: 62/306,222 32: 2016-03-10

#### 54: SUBSTITUTED NUCLEOSIDE ANALOGUES FOR USE AS PRMT5 INHIBITORS

00: -

The present invention relates novel substituted nucleoside analogues of Formula (I) wherein the variables have the meaning defined in the claims. The compounds according to the present invention are useful as PRMT5 inhibitors. The invention further relates to pharmaceutical compositions comprising said compounds as an active ingredient as well as the use of said compounds as a medicament.



(I)

21: 2018/06061. 22: 2018/09/10. 43: 2022/03/16

51: A61K; A61P

71: CIPLA LIMITED

72: MALHOTRA, Geena, JOSHI, Kalpana, RAUT, Preeti, GHOSALKAR, Jeevan

33: IN 31: 201621005051 32: 2016-02-12

33: IN 31: 201621032504 32: 2016-09-23

33: IN 31: 201621040945 32: 2016-11-30

#### 54: PHARMACEUTICAL COMPOSITIONS COMPRISING AN ANTI-RETROVIRAL DRUG AND A PHARMACOKINETIC ENHANCER

00: -

An oral or injectable pharmaceutical composition is provided for treating diseases caused by retroviruses or hepatitis B viruses. The composition comprises a therapeutically effective amount of at least one anti-retroviral drug and a therapeutically effective amount of at least one pharmacokinetic booster or enhancer or derivative thereof. Methods and kits are also provided.

21: 2018/06632. 22: 2018/10/05. 43: 2022/02/25

51: A61K; C07D

71: CHEMOCENTRYX, INC.

72: FAN, Pingchen, KRASINSKI, Antoni, MALI, Venkat Reddy, MIAO, Shichang, PUNNA, Sreenivas, SONG, Yang, STELLA, Valentino J., ZENG, Yibin, ZHANG, Penglie

33: US 31: 62/317,721 32: 2016-04-04

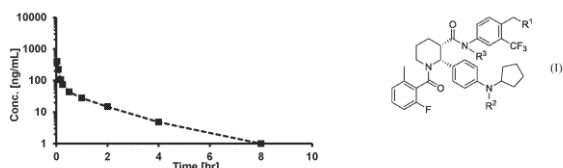
#### 54: SOLUBLE C5AR ANTAGONISTS

00: -

Compounds are provided to modulate the C5a receptor. The compounds have the following

Formula (I) including stereoisomers and pharmaceutically acceptable salts thereof, wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are as defined herein. Methods associated with preparation and use of such compounds, as well as pharmaceutical compositions comprising such compounds, are also disclosed.

Figure 1. Release of active compound 1.543 (from WO 2011/163640) from the compound of Example 22 (0.5 mg/kg mole equiv., AUC=137 ng.hr/mL.)



21: 2018/06768. 22: 2018/10/11. 43: 2022/02/11  
51: A61K; A61P

71: QureTech Bio AB, Washington University in Saint Louis

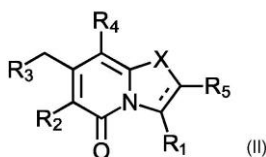
72: STALLINGS, Christina L., ALMQVIST, Fredrik, FLENTIE, Kelly, GOOD, James Arthur Dudley, PONTÉN, Fritiof

33: US 31: 62/319,838 32: 2016-04-08

**54: RING-FUSED THIAZOLINO 2-PYRIDONES, METHODS FOR PREPARATION THEREOF AND THEIR USE IN THE TREATMENT AND/OR PREVENTION OF TUBERCULOSIS**

00: -

The present disclosure provides a combination comprising: (i) a drug against tuberculosis, or a pharmaceutically acceptable salt thereof, and (ii) a compound of Formula (II), or a pharmaceutically acceptable combination thereof. The combination may be used in the treatment and/or prevention of tuberculosis.



21: 2018/06775. 22: 2018/10/11. 43: 2022/02/25

51: H04L; G06Q; H04W

71: ARI KAHN

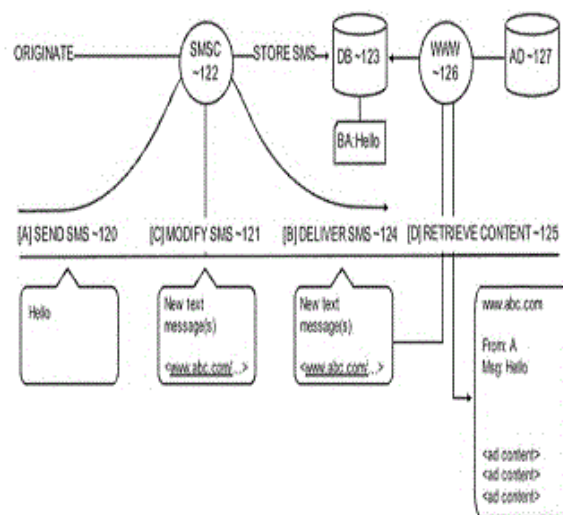
72: ARI KAHN

33: US 31: 15/044,101 32: 2016-02-15

**54: THIRD PARTY SPONSORED SHORT MESSAGING SERVICE**

00: -

The methods and systems disclosed herein, enable mobile communications operators to modify and reposition the SMS messaging platform by allowing users to send SMS messages sponsored by third party content that tags along with the original user content. An example of the method comprises: a) receiving at an intermediary network service node, a mobile originating message from a first user on a first telephony device, addressed to a second user on a second telephony device; b) modifying the content of the original message to include additional third party text; and c) sending the modified message to the second user on the second telephony device. In a variant of the method, the original text message content is replaced with an Internet uniform resource locator (URL) referencing the original text content.



21: 2018/06902. 22: 2018/10/16. 43: 2022/02/25

51: A01H; C12N; C12Q

71: BASF AGRICULTURAL SOLUTIONS SEED US LLC

72: JANSSENS, STEFAN, DREESEN, ROZEMARIJN, AARTSEN, WENDY, VANHAELLEN, JONAS, MOSER, HAL, LIGHT, GINGER

33: US 31: 62/324,922 32: 2016-04-20

33: US 31: 62/325,965 32: 2016-04-21

**54: ELITE EVENT EE-GH7 AND METHODS AND KITS FOR IDENTIFYING SUCH EVENT IN BIOLOGICAL SAMPLES**

00: -

The invention provides specific transgenic cotton plants, plant material and seeds, characterized in that these products harbor a specific herbicide

tolerance transformation event at a specific location in the cotton genome. Tools are also provided which allow rapid and unequivocal identification of the event in biological samples.

21: 2018/06958. 22: 2018/10/18. 43: 2022/02/11

51: C10G

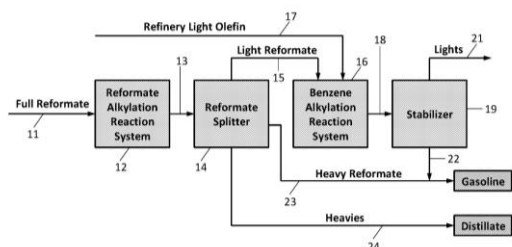
71: Badger Licensing LLC

72: HWANG, Shyh-Yuan H.

#### **54: PROCESS FOR REDUCING THE BENZENE CONTENT OF GASOLINE**

00: -

A process is described for reducing the level of benzene in a refinery gasoline feed containing benzene and at least one  $C_5$ -olefin, in which the refinery gasoline feed is contacted with a first alkylation catalyst under conditions effective to react at least part of the  $C_5$ -olefin and benzene in the refinery gasoline feed and produce a first alkylation effluent. The first alkylation effluent is separated into at least (i) a first fraction rich in benzene, (ii) a second fraction rich in  $C_7$  to  $C_{12}$  hydrocarbons and (iii) a third fraction rich in  $C_{13}$ -hydrocarbons. At least part of the first fraction is contacted with an alkylating agent comprising one or more  $C_2$  to  $C_4$  olefins in the presence of a second alkylation catalyst under conditions effective to produce a second alkylation effluent which has reduced benzene content as compared with the first fraction.



21: 2018/07210. 22: 2018/10/29. 43: 2022/02/25

51: A61K

71: NOVALON S.A.

72: JASPART, Séverine

33: EP 31: 16168390.9 32: 2016-05-04

#### **54: USE OF SUGAR-ALCOHOLS IN TIBOLONE COMPOSITIONS**

00: -

The present invention relates to the use of a sugar-alcohol for stabilizing tibolone in a solid dosage form. The invention also pertains to a pharmaceutical composition, in particular a solid dosage form such as a tablet, comprising tibolone and a sugar-alcohol and a non-sugar-alcohol diluent, wherein the weight ratio of the sugar-alcohol to the non-sugar-alcohol diluent is comprised between 4:1 and 1:4, and a method for preparing the same.

21: 2018/07359. 22: 2018/11/02. 43: 2022/02/04

51: A61K; A61Q

71: Colgate-Palmolive Company

72: CHEN, Dandan, YANG, Ying, D'AMBROGIO, Robert, THOMSON, Paul, TRIVEDI, Harsh Mahendra, PRENCIPE, Michael, MASTERS, James Gerard, JARACZ, Stanislav

33: US 31: 62/354,285 32: 2016-06-24

#### **54: ORAL CARE COMPOSITIONS AND METHODS OF USE**

00: -

This invention relates to oral care compositions comprising zingerone, a stannous ion source, zinc oxide, and zinc citrate, as well as to methods of using and of making these compositions.

21: 2018/07414. 22: 2018/11/05. 43: 2022/02/11

51: B01J; C07C

71: SHANGHAI ADVANCED RESEARCH

INSTITUTE, CHINESE ACADEMY OF SCIENCES, SHANXI LU'AN ENVIRONMENTAL ENERGY DEVELOPMENT CO., LTD.

72: LI, Zhengjia, ZHONG, Liangshu, SUN, Yuhua, YU, Fei, AN, Yunlei, QI, Xingzhen, LIN, Tiejun, XIAO, Yaning, LIU, Bin, WANG, Dongfei

33: CN 31: 201610210920.5 32: 2016-04-06

#### **54: COBALT CARBIDE-BASED CATALYST FOR DIRECT PREPARATION OF OLEFIN FROM SYNTHESIS GAS, PREPARATION METHOD THEREFOR AND APPLICATION THEREOF**

00: -

A cobalt carbide-based catalyst for direct preparation of olefin from syngas, as well as a preparation method therefor and an application thereof. The method for preparing the catalyst comprises the following steps: mixing a cobalt source with water or a cobalt source, an electron additive and water to obtain a first solution; mixing a precipitant with water to obtain a second solution; 2) adding the first solution and the second solution to water, or water and a structural additive, for precipitation, crystallization, separation, drying and calcination; and 3) reducing a solid obtained in step 2) in a reducing atmosphere, and then carbonizing in a carbonizing atmosphere. The prepared catalyst has good selectivity and high conversion rate in the reaction of olefin preparation by direct conversion of syngas.

21: 2018/07509. 22: 2018/11/08. 43: 2022/02/11

51: C07D; A61K; A61P

71: FGH BIOTECH, INC.

72: HUFF, JOEL, UESUGI, MOTONARI, KINCAID, JOHN

33: US 31: 62/330,049 32: 2016-04-29

#### **54: DI-SUBSTITUTED PYRAZOLE COMPOUNDS FOR THE TREATMENT OF DISEASES**

00: -

Provided herein are compounds, pharmaceutical compositions comprising the compounds, and methods of using the compounds and compositions in treating a condition, disease, or disorder associated with abnormal activation of the SREBP pathway, including metabolic disorders such as obesity, cancer, cardiovascular disease, and nonalcoholic fatty liver disease (NAFLD) wherein the compound is according to Formula (I).

21: 2018/07696. 22: 2018/11/15. 43: 2022/02/11

51: A61C

71: NOBEL BIOCARE SERVICES AG

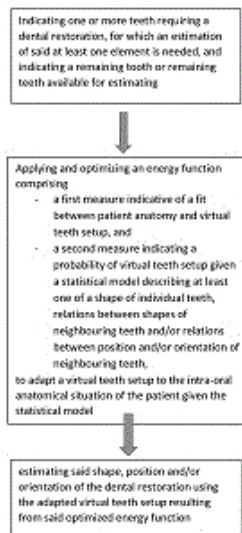
72: KEUSTERMANS, JOHANNES, VAN LEEMPUT, PIETER, WOUTERS, VEERLE, MOLLEMANS, WOUTER

33: EP 31: 16175446.0 32: 2016-06-21

**54: METHOD FOR ESTIMATING AT LEAST ONE OF SHAPE, POSITION AND ORIENTATION OF A DENTAL RESTORATION**

00: -

The present invention provides a method for obtaining an estimation of the shape, position and/or orientation of one or more existing teeth of a patient or of one or more teeth to be included in a dental restoration destined to replace one or more missing teeth in a partially edentulous patient. The method involves adapting a virtual teeth setup to the intra-oral anatomical situation of the patient, wherein said virtual teeth setup comprises separated surface meshes of individual teeth positioned in a dental arch or segment thereof. The virtual teeth setup is adapted by optimizing an energy function, which represents a quality measure for said virtual teeth setup, and using a statistical model, which describes for a given dentition or segment thereof a probability distribution for at least the shapes of individual teeth, the relations between shapes of neighbouring teeth and/or relations between positions and/or orientations of neighbouring teeth. The adapted virtual teeth setup resulting from said optimized energy function is subsequently used to estimate said sought for shape, position and/or orientation.



21: 2018/07704. 22: 2018/11/15. 43: 2022/02/11

51: B01J; B01D; F01N

71: BASF CORPORATION

72: YANG, XIAOFAN, CAUDLE, MATTHEW TYLER

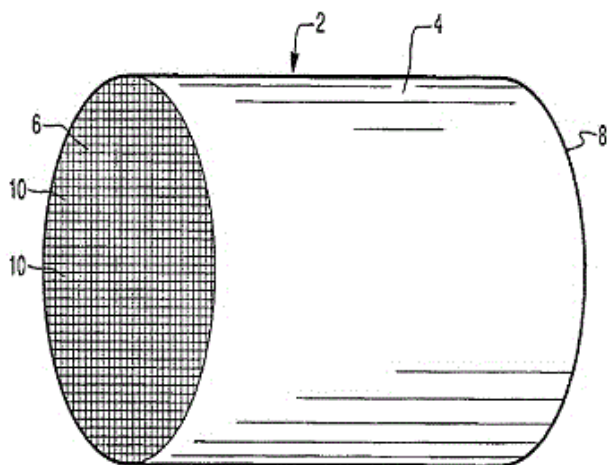
33: US 31: 62/334,811 32: 2016-05-11

**54: CATALYST COMPOSITION COMPRISING MAGNETIC MATERIAL ADAPTED FOR INDUCTIVE HEATING**

00: -

The invention provides a catalyst composition, including a mixture of catalytically active particles and a magnetic material, such as superparamagnetic iron oxide nanoparticles, capable of inductive heating in response to an applied alternating electromagnetic field. The catalytically active particles will typically include a base metal, platinum group metal, oxide of base metal or platinum group metal, or combination thereof, and will be adapted for use in various catalytic systems, such as diesel oxidation catalysts, catalyzed soot filters, lean NO<sub>x</sub> traps, selective catalytic reduction catalysts, ammonia oxidation catalysts, or three- way catalysts. The invention also includes a system and method for heating a catalyst material, which includes a catalyst article that includes the catalyst composition and a conductor for receiving current and generating an alternating electromagnetic field in response thereto, the conductor positioned such that the generated alternating electromagnetic field is applied to at least a portion of the magnetic material.

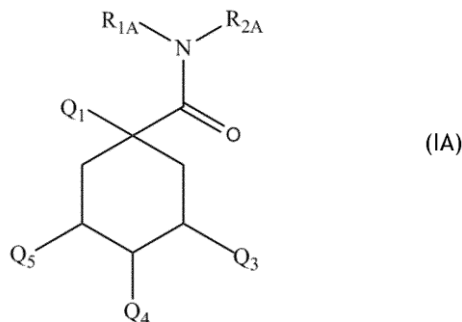




21: 2018/07761. 22: 2018/11/19. 43: 2022/03/11  
 51: A61K; C07C  
 71: TEMISIS  
 72: BOEGLIN, Damien, WARNAULT, Pierre  
 33: FR 31: 1653693 32: 2016-04-26  
**54: AMIDE DERIVATIVES OF  
 POLYCAFFEYOYLQUINIC ACIDS, PROCESS FOR  
 PRODUCING SAME AND USES THEREOF**  
 00: -

The present invention thus relates to amide derivatives of polysubstituted quinic acids (abbreviated to "QPS"), of general formula (IA): (IA), in which - R<sub>1A</sub> and R<sub>2A</sub> are, independently of one another: H, with the proviso that R<sub>1A</sub> and R<sub>2A</sub> are not both a hydrogen atom, a butyl group, a C<sub>7</sub>-C<sub>30</sub> alkyl group, - a C<sub>7</sub>-C<sub>30</sub> alkylaryl or arylalkyl group, or a C<sub>7</sub>-C<sub>18</sub> aryl group; and - Q<sub>1</sub>, Q<sub>3</sub>, Q<sub>4</sub> and Q<sub>5</sub> are, independently of one another, an OH, caffeoyl, maloyl, caffeoylmaloyl ou maloylcaffeoyl group, with the proviso that at least one of these radicals is not an OH group, or to a pharmaceutically acceptable salt or stereoisomer or hydrate thereof, and also to the process for producing same, to the use thereof as a medicament, in particular for the treatment and/or prevention of inflammation and of inflammatory diseases, and to the pharmaceutical, cosmetic and nutraceutical compositions containing same.

The present invention thus relates to amide derivatives of polysubstituted quinic acids (abbreviated to "QPS"), of general formula (IA): (IA), in which - R<sub>1A</sub> and R<sub>2A</sub> are, independently of one another: H, with the proviso that R<sub>1A</sub> and R<sub>2A</sub> are not both a hydrogen atom, a butyl group, a C<sub>7</sub>-C<sub>30</sub> alkyl group, - a C<sub>7</sub>-C<sub>30</sub> alkylaryl or arylalkyl group, or a C<sub>7</sub>-C<sub>18</sub> aryl group; and - Q<sub>1</sub>, Q<sub>3</sub>, Q<sub>4</sub> and Q<sub>5</sub> are, independently of one another, an OH, caffeoyl, maloyl, caffeoylmaloyl ou maloylcaffeoyl group, with the proviso that at least one of these radicals is not an OH group, or to a pharmaceutically acceptable salt or stereoisomer or hydrate thereof, and also to the process for producing same, to the use thereof as a medicament, in particular for the treatment and/or prevention of inflammation and of inflammatory diseases, and to the pharmaceutical, cosmetic and nutraceutical compositions containing same.



21: 2018/07851. 22: 2018/11/21. 43: 2022/03/11  
 51: A61K; A61P  
 71: F2G LIMITED  
 72: LAW, Derek, SIBLEY, Graham Edward Morris  
 33: GB 31: 1609222.3 32: 2016-05-25  
**54: PHARMACEUTICAL FORMULATION**  
 00: -

A pharmaceutical composition suitable for oral administration comprising particles of 2-(1,5-dimethyl-3-phenyl-1H-pyrrol-2-yl)-N-(4-(4-(5-fluoropyrimidin-2-yl)piperazin-1-yl)phenyl)-2-oxoacetamide is provided. Also provided is a pharmaceutical composition suitable for parenteral administration wherein the composition comprises 2-(1,5-dimethyl-3-phenyl-1H-pyrrol-2-yl)-N-(4-(4-(5-fluoropyrimidin-2-yl)piperazin-1-yl)phenyl)-2-oxoacetamide. The compositions are useful in the treatment of fungal infection in a subject in need thereof.

21: 2018/08186. 22: 2018/12/04. 43: 2022/02/11  
 51: A61K; C07K  
 71: SORBONNE UNIVERSITE, CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE  
 72: KAROYAN, PHILIPPE  
 33: EP 31: 16305543.7 32: 2016-05-10  
**54: AGONIST AGENTS OF CD47 INDUCING  
 PROGRAMMED CELL DEATH AND THEIR USE IN  
 THE TREATMENTS OF DISEASES ASSOCIATED  
 WITH DEFECTS IN PROGRAMMED CELL DEATH**  
 00: -  
 The present invention relates to cyclic peptides mimetics of the C-terminal binding domain of TSP-1.

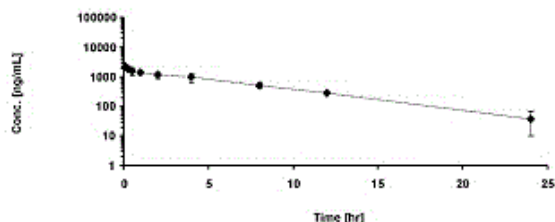
The present invention also relates to the use of these cyclic peptides as agonists of CD47 and their ability to trigger programmed cell death (PCD). The present invention further relate to a pharmaceutical composition for use in the treatment of diseases associated with defects in PCD such as cancers and immunological disorders (including chronic inflammation) and comprising at least one cyclic peptide according to the invention.

21: 2018/08258. 22: 2018/12/06. 43: 2022/02/11  
51: A61K; C07D  
71: CHEMOCENTRYX, INC.  
72: BEKKER, PETRUS, MIAO, SHICHANG, CHARO, ISRAEL, SCHALL, TOM  
33: US 31: 62/349,217 32: 2016-06-13  
33: US 31: 62/382,689 32: 2016-09-01  
**54: METHODS OF TREATING PANCREATIC CANCER**

00: -

The present disclosure describes methods of treating pancreatic cancer and limiting over-expression of oncogenes, activating tumor suppressor genes or regulating signaling proteins in patients comprising administering compounds and pharmaceutical combinations as described herein.

**Figure 1:** Mean plasma concentration – Time profile of Compound Ib following i.v. dosing in dog of Compound Ib



21: 2018/08270. 22: 2018/12/07. 43: 2022/03/14  
51: A61K; C07K; G01N  
71: NEURIMMUNE HOLDING AG  
72: MONTRASIO, Fabio, GRIMM, Jan  
33: EU 31: 14187180.6 32: 2014-09-30  
33: EU 31: 15180310.3 32: 2015-08-07  
**54: HUMAN-DERIVED ANTI-DIPEPTIDE REPEATS (DPRS) ANTIBODY**

00: -

Provided are novel human-derived dipeptide repeat (DPR) specific antibodies as well as synthetic variants and biotechnological derivatives thereof,

preferably capable of binding C9ORF72 DPRs, as well as methods related thereto. Assays, kits, and solid supports related to antibodies specific for DPRs and DPR proteins such C9ORF72 DPRs are also disclosed. The antibody of the present invention can be used in pharmaceutical and diagnostic compositions for DPR protein-targeted immunotherapy and diagnostics.

21: 2018/08327. 22: 2018/12/10. 43: 2022/02/11  
51: C07F; A61K; A61P  
71: QPEX BIOPHARMA, INC.  
72: HECKER, SCOTT, REDDY, RAJA K, GLINKA, TOMASZ, RODNY, OLGA  
33: US 31: 62/357,165 32: 2016-06-30  
**54: BORONIC ACID DERIVATIVES AND THERAPEUTIC USES THEREOF**

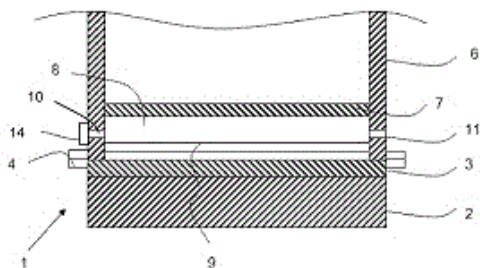
00: -

Disclosed herein are antimicrobial compounds compositions, pharmaceutical compositions, the method of use and preparation thereof. Some embodiments relate to boronic acid derivatives and their use as therapeutic agents, for example,  $\beta$ -lactamase inhibitors (BLIs).

21: 2018/08330. 22: 2018/12/10. 43: 2022/02/11  
51: F27D; F27B; C21C  
71: OUTOKUMPU OYJ  
72: VÄÄNÄNEN, EERO  
33: FI 31: 20165473 32: 2016-06-07  
**54: ARC FURNACE BOTTOM CONSTRUCTION**

00: -

The present invention relates to an arc furnace bottom construction for maintaining the outer surface temperature of the bottom construction essentially at least on the lower part of the arc furnace essentially close to the temperature surrounding the arc furnace. The bottom construction contains at least two constructions (3,7) to be cooled and being positioned to each other in different heights seen from the side view.



21: 2018/08480. 22: 2018/12/14. 43: 2022/02/04

51: A61K; A61P

71: BIOMED VALLEY DISCOVERIES, INC.

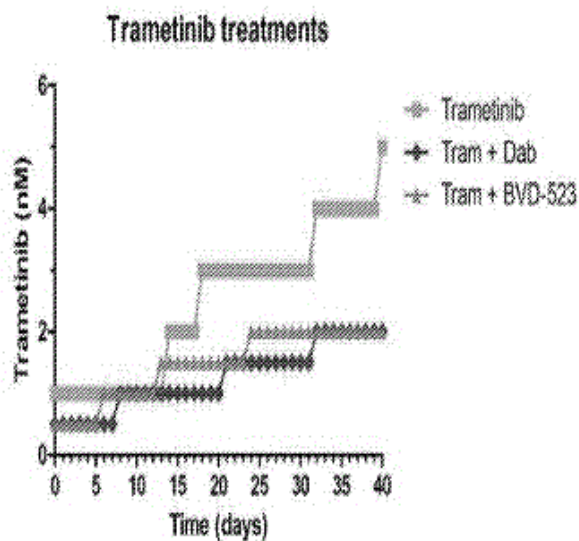
72: SAHA, SAURABH, WELSCH, DEAN, DECRESCENZO, GARY, ROIX, JEFFREY JAMES

33: US 31: 15/161,137 32: 2016-05-20

**54: METHODS AND COMPOSITIONS FOR TREATING NON-ERK MAPK PATHWAY INHIBITOR-RESISTANT CANCERS**

00: -

The present invention provides, inter alia, methods, pharmaceutical compositions, and kits for treating or ameliorating the effects of a cancer in a subject, which cancer is refractory or resistant to non-ERK MAPK pathway inhibitor therapy. Also provided are methods for identifying a subject having cancer who would benefit from therapy with an ERK inhibitor and methods for inhibiting phosphorylation of RSK in a cancer cell that is refractory or resistant to a non-ERK MAPK pathway inhibitor.



21: 2018/08524. 22: 2018/12/18. 43: 2022/03/14

51: B01D; C10G

71: NANO GAS TECHNOLOGIES, INC.

72: FOLDS, Rudy, M, FIEDLER, Scott, A, HARDIN, Jeffrey, K

33: US 31: 62/337,431 32: 2016-05-17

**54: METHODS OF AFFECTING SEPARATION**

00: -

Herein is provided processes for affecting the separation of oil from emulsions by the addition of nanogas solutions. For example, the nanogas solutions can be used to affect the viscosity and/or density of oil droplets in oil-in-water emulsions, break the oil-in-water emulsion; and form an oil phase floating on a water phase. In another example, the nanogas solutions can be used in conjunction with a floatation tank to separate oil from, for example, produced water. In other examples selection of the gasses in the nanogas solution can be used to affect reactions and/or separation.

21: 2019/00043. 22: 2019/01/03. 43: 2022/02/25

51: A61K; A61P; C07K

71: INTERNATIONAL AIDS VACCINE INITIATIVE, INC. (IAVI), OREGON HEALTH AND SCIENCE UNIVERSITY

72: EVANS, THOMAS G, ANANTHA, RAVI P, BONAVIA, AURELIO M, LADDY, DOMINICK J, PICKER, LOUIS, HANSEN, SCOTT, XU, GUANGWU

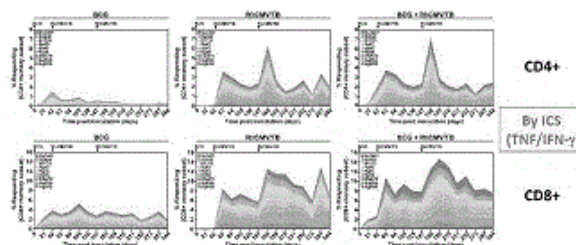
33: US 31: 62/353,432 32: 2016-06-22

33: US 31: 62/478,099 32: 2017-03-29

**54: RECOMBINANT CYTOMEGALOVIRUS VECTORS AS VACCINES FOR TUBERCULOSIS**

00: -

The present disclosure provides cytomegalovirus vectors encoding fusion proteins comprising Mycobacterium tuberculosis (Mtb) antigens, nucleic acid molecules encoding the same, cytomegalovirus vectors comprising nucleic acid molecules, compositions comprising the same, and methods of eliciting an immune response against tuberculosis.



71: BOARD OF SUPERVISORS OF LOUISIANA  
STATE UNIVERSITY AND AGRICULTURAL AND  
MECHANICAL COLLEGE

33: US 31: 62/352.278 32: 2016-06-20

## 00: -

Provided herein are green alga Cia8 polypeptides and the polynucleotides that encode them. Also provided herein are transformed cells and transgenic plants that include one or more of the polynucleotides and/or polypeptides provided herein.

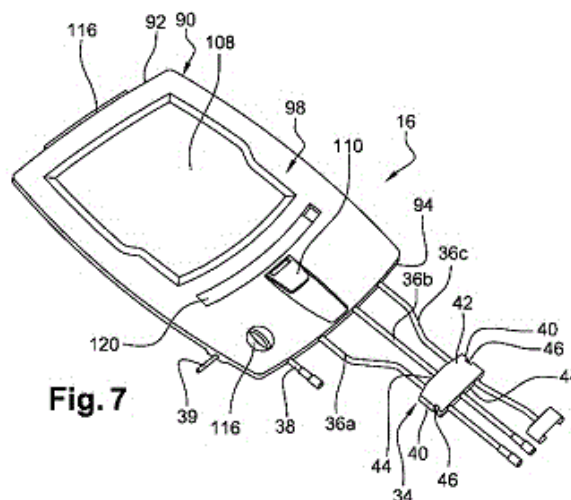


71: CELLPROTHERA

33: FR 31: 1655922 32: 2016-06-24

## 00: -

The invention concerns a cassette (16) for cell culture comprising: - an at least partially rigid housing (90) internally defining an internal space inside which a cell culture bag (100) defining an internal volume is arranged and attached, - conduits (36, 38) each connected at one end to the internal volume of the bag (100) and each having a second end situated outside the housing (90), - valves (128, 130) for enabling/preventing the flow of fluid through the conduits (36, 38) that are mounted on the housing (90).



71: CP KELCO OY

33: US 31: 62/519,687 32: 2017-06-14

33: US 31: 62/400,752 32: 2016-09-28

## 00: -

Detergent compositions are provided that include a polysaccharide selected from a carboxymethyl cellulose component, an anionic cellulose derivative, or mixtures thereof and a surfactant system, wherein the polysaccharide has a molecular weight of no greater than from about 1,000 Dalton to 80,000 Dalton.

71: X-CHEM. INC.

33: US 31: 61/671,406 32: 2012-07-13

00: -

The present invention relates to complexes of oligonucleotide-encoded libraries and methods of tagging and using such libraries. In particular, the oligonucleotides and methods can include complexes having at least one linkage for which a



polymerase has reduced ability to read or translocate through.

21: 2019/00278. 22: 2019/01/15. 43: 2022/02/15  
51: C07K; C12N; A61K

71: HOWARD HUGHES MEDICAL INSTITUTE,  
THE REGENTS OF THE UNIVERSITY OF  
CALIFORNIA

72: LOOGER, LOREN, HANTMAN, ADAM, TERVO,  
DOUGAL GOWANLOCK ROBINSON, DUDMAN,  
JOSHUA, RITOLA, KIMBERLY, VISWANATHAN,  
SARADA, KARPOVA, ALLA, HWANG, BUM-YEOL,  
SCHAFFER, DAVID

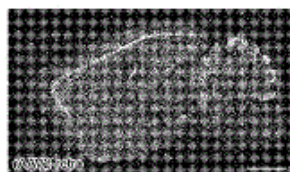
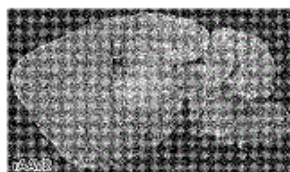
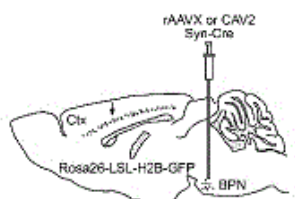
33: US 31: 62/350,361 32: 2016-06-15

33: US 31: 62/404,585 32: 2016-10-05

#### **54: VARIANT ADENO-ASSOCIATED VIRUSES AND METHODS OF USING**

00: -

The present disclosure provides AAV variants that exhibit a preference for retrograde movement in neurons and methods of using such variants.



21: 2019/00504. 22: 2019/01/24. 43: 2022/02/25  
51: F01N

71: BASF CORPORATION

72: CRAVILLON, JANOSCH, SIEMUND, STEPHAN,  
SIANI, ATTILIO, SCHMITZ, THOMAS, SEEL,  
OLIVER, WASSERMANN, KNUT

33: EP 31: 16182968.4 32: 2016-08-05

#### **54: FOUR WAY CONVERSION CATALYSTS FOR GASOLINE ENGINE EMISSIONS TREATMENT SYSTEMS**

00: -

Catalyzed particulate filters comprise three-way conversion (TWC) catalytic material that permeates walls of a particulate filter such that the catalyzed particulate filter has a coated porosity that is less than an uncoated porosity of the particulate filter. The coated porosity is linearly proportional to a washcoat loading of the TWC catalytic material. A coated backpressure is non-detrimental to performance of the engine. Such catalyzed particulate filters may be used in an emission treatment system downstream of a gasoline direct injection engine for treatment of an exhaust stream comprising hydrocarbons, carbon monoxide, nitrogen oxides, and particulates.

21: 2019/00527. 22: 2019/01/25. 43: 2022/02/25  
51: B01J; B07B

71: THE UNIVERSITY OF NEWCASTLE

72: GALVIN, Kevin Patrick

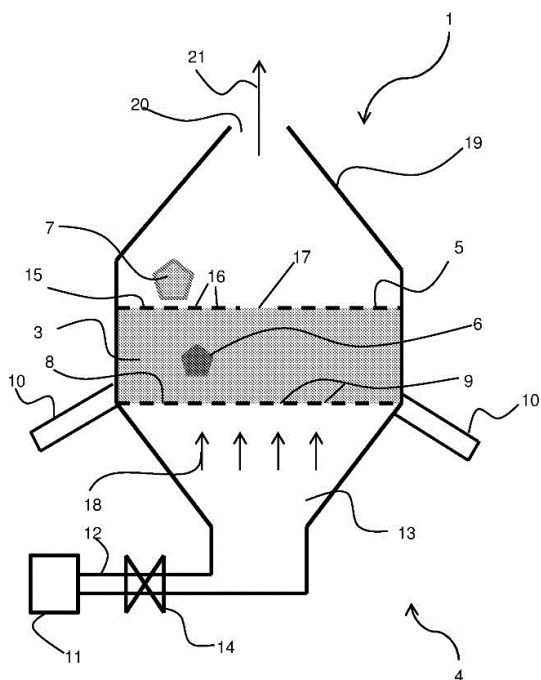
33: AU 31: 2016903017 32: 2016-08-01

#### **54: AN APPARATUS AND METHOD FOR THE DRY SEPARATION OF PARTICLES**

00: -

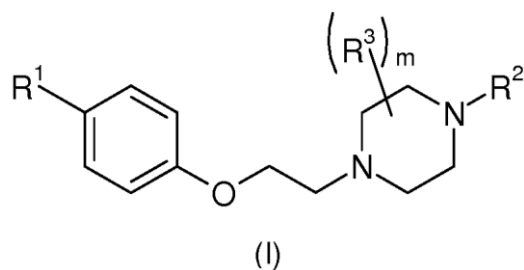
An apparatus and method for the dry separation of bulk particulate material, especially coarse particles, is provided. The apparatus comprises a chamber, a screen adjacent the chamber and a fluidising device fluidly connected to the chamber. The screen has a screen surface, a plurality of apertures and an opening larger in size than the aperture. A mixture of the coarse particles and a fine particulate medium is fed into the chamber. The fluidising device directs a fluidising fluid to fluidise a fine particulate medium and create a fluidised bed directed towards the screen. The fine particulate medium and the coarse particles pass from the chamber through the openings. The fine particulate medium passes back through the apertures to the chamber. Relatively high density coarse particles also pass back through the openings to the chamber. Relatively low density coarse particles are retained on the screen surface. Vibrations may also be used.





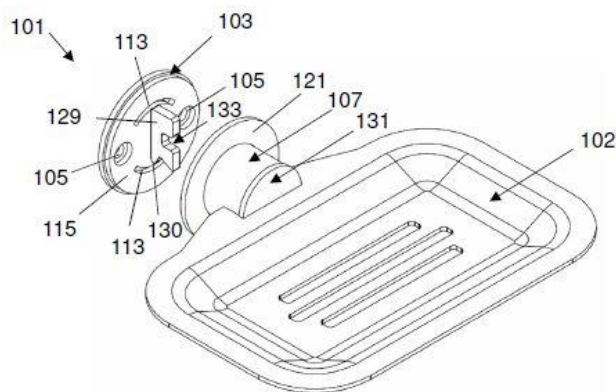
21: 2019/00707. 22: 2019/02/04. 43: 2022/02/25  
 51: A61K  
 71: METABOLYS  
 72: BAVEREL, Gabriel; MOINET, Gérard  
 33: EP 31: 16306010.6 32: 2016-08-04  
**54: NEW TREATMENT FOR THE NON ALCOHOLIC STEATOHEPATITIS AND FIBROSIS**  
 00: -

Compounds of formula (I) or their enantiomers, diastereoisomers thereof and the addition salts thereof with pharmaceutically acceptable bases or acids, for use for the prevention or treatment, preferably treatment, of NASH.



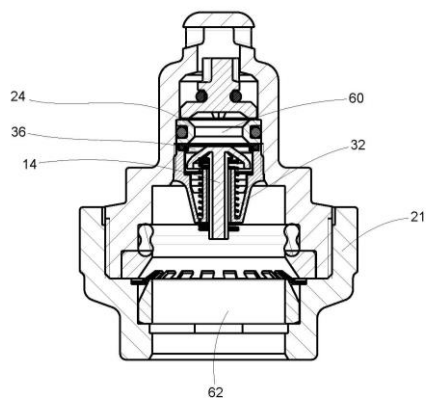
21: 2019/00762. 22: 2019/02/06. 43: 2022/02/25  
 51: A47K  
 71: STYLE IN STAINLESS CC T/A STEELCRAFT  
 72: MARX, Jacobus Jerimias; LOURENS, Wilhelm  
**54: MOUNTING ASSEMBLY**  
 00: -

A mounting assembly for mounting an accessory is provided. The mounting assembly includes a mounting bracket with an aperture arranged to receive a fastener for fastening the mounting bracket to a surface. A supporting structure is provided between the mounting bracket and the accessory with an elongate hollow member substantially surrounding the supporting structure. The elongate hollow member is releasably secured to the mounting bracket with the mounting bracket and the elongate hollow member having complementary male-and-female mating formations which are arranged to inhibit rotation of the elongate hollow member relative to the mounting bracket.



21: 2019/00818. 22: 2019/02/08. 43: 2022/02/25  
 51: E03B; F16K; F16L; F24H  
 71: HALOGRAPH (PTY) LTD  
 72: HALOGRAPH (PTY) LTD  
 33: DE 31: 20 2018 105 820.7 32: 2018-10-11  
**54: VENT VALVE**  
 00: -

The invention provides a vent valve for airing of the warm water system of a drinking water heater. The vent valve comprises a vent housing with at least one opening adapted to connect the warm water system to the atmosphere, a backflow preventer arranged in the vent housing which in the case of pressure loss in the warm water system, opens in the direction towards the warm water system, and a closure arranged on the side of the opening of the backflow preventer by which means the opening of the vent housing can be securely sealed, whereby the closure includes a closing unit for closing of the vent housing. The vent valve is characterised in that the vent housing is one integral part and that both the backflow preventer and the closing unit are arranged inside the vent housing.



21: 2019/00994. 22: 2019/02/15. 43: 2022/02/25  
51: G01N

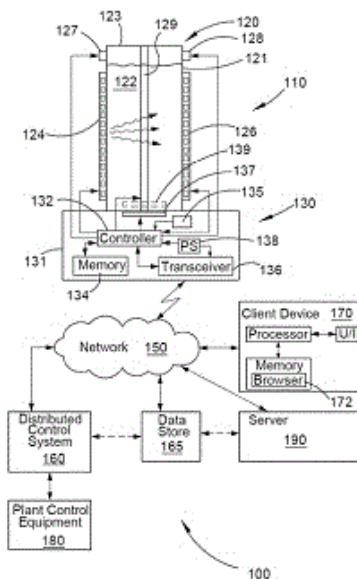
71: COMMONWEALTH SCIENTIFIC AND  
INDUSTRIAL RESEARCH ORGANISATION  
72: MOHANARANGAM, KRISHNA, MONCH,  
ANDREAS

33: AU 31: 2016903332 32: 2016-08-22

## 54: AUTOMATIC SEDIMENTATION AND SEPARATION CURVE GENERATOR

00: -

Described embodiments relate to a hand-held portable sedimentation measurement device, comprising: a closeable fluid container having a container wall and defining a chamber to receive fluid for sedimentation measurement and defining a central longitudinal axis; multiple light sources disposed along the container and generally parallel to the longitudinal axis to direct light through the wall into the chamber; multiple light sensors disposed along the container arranged to detect light passing through the chamber from at least one of the light sources; a controller configured to control emission of light from the sources and to receive detection signals from the light sensors, wherein sedimentation measurements are derived from the light emitted from the light sources and the detection signals; a communication interface coupled to the controller and arranged to transmit sedimentation data to an external computing device; and a housing connected to the container and housing the controller and interface.



21: 2019/00996. 22: 2019/02/15. 43: 2022/02/25  
51: A61F

71: JOINT INNOVATION TECHNOLOGY, LLC  
72: TERMANINI, ZAFER

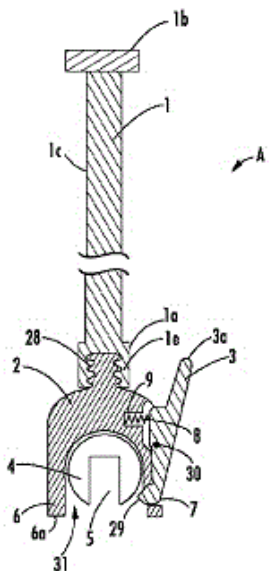
33: US 31: 15/239,189 32: 2016-08-17

## 54: SECUREMENT DEVICE FOR AN ORTHOPEDIC PROSTHESIS, THERMAL TREATMENT DEVICE FOR AN ORTHOPEDIC PROSTHESIS, AND METHODS OF USE

00: -

The present invention relates generally to devices and methods for firmly joining together components of a modular orthopedic prosthesis by securing female to male parts thereof together, and in particular a male part present in a modular component into a correspondingly configured female part (i.e., bore or recess) present in a further modular component thereof. Preferably the male part is tapered, and the bore or recess is correspondingly configured to provide a close tolerance fit therewith. In a preferred embodiment a securement device is used to join the components which securement device includes a heat resistant part or region which shields a heated part from its ambient environment; the securement device is useful in holding a component of an orthopedic prosthesis. In a further preferred embodiment the invention also comprises a heat treatment device which is issued to provide a suitable heat treatment to a component (or part thereof) of a modular orthopedic prosthesis. Methods of utilizing the securement device and the heat treatment device

during surgical implantation of modular orthopedic prosthesis is also disclosed.



21: 2019/01060. 22: 2019/02/19. 43: 2022/02/25

51: A61K: A61P

71: BODOR LABORATORIES, INC.

72: BODOR, NICHOLAS S, KOLENG, JOHN J,

ANGULO, DAVID

33: US 31: 62/365,037 32: 2016-07-21

## 54: FORMULATION FOR SOFT ANTICHOLINERGIC ANALOGS

00: -

Topical formulations comprising soft glycopyrrolates are useful for treating excessive sweating conditions in subjects, such as humans suffering from hyperhidrosis. Preferably, at least one soft anticholinergic agent is provided in an effective amount or concentration in an anhydrous formulation that can inhibit excessive perspiration resulting from a condition such as hyperhidrosis.

21: 2019/01089. 22: 2019/02/20. 43: 2022/02/25

51: C07D: A61P

71: MEDSHINE DISCOVERY INC.

72: WU, Lingyun; ZHANG, Peng; LI, Jian; CHEN, Shuhui

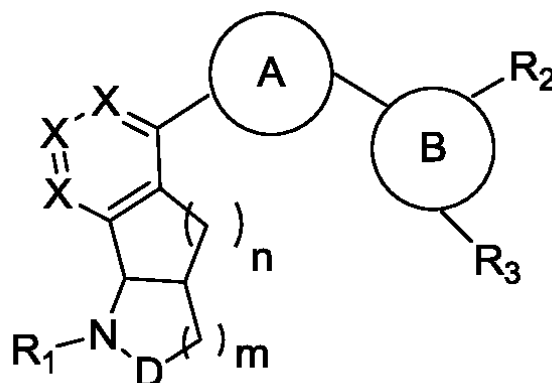
33: CN 31: 201610583286.X 32: 2016-07-22

#### 54: S1P1 AGONIST AND APPLICATION THEREOF

00: -

The present invention relates to a class of tricyclic compounds and an application thereof as a sphingosine 1-phosphate type 1 (S1P1) receptor

agonist. The invention specifically relates to a compound represented by formula (II), and a tautomer and pharmaceutically acceptable salt of same.



( II )

21: 2019/01095. 22: 2019/02/20. 43: 2022/02/25

51: C07K; A61K

71: UNIVERSITY OF UTAH RESEARCH  
FOUNDATION, THE WALTER AND ELIZA HALL  
INSTITUTE OF MEDICAL RESEARCH

72: MENTING, JOHN GERBRANDT TASMAN,  
SMITH, BRIAN, CHOU, DANNY HUNG-CHIEH,  
SAFABI-HEMAMI, HELENA, LAWRENCE,  
MICHAEL COLIN, BALDOMERO, OLIVERA M

33: US 31: 62/483,118 32: 2017-04-07

33: AU 31: 2016902883 32: 2016-07-22

## 54: INSULIN ANALOGS

00: -

The present invention relates to insulin analogs, particularly insulin analogs having shortened B chains. The present invention also relates to the crystal structure of insulin from the venom of cone snails and to methods of using the crystal and related structural information to screen for and design insulin analogs that interact with or modulate the insulin receptor. The present invention also relates to therapeutic and prophylactic methods using insulin analogs.

21: 2019/01276, 22: 2019/02/28, 43: 2022/02/11

51: C03B

71: OWENS-BROCKWAY GLASS CONTAINER  
INC.

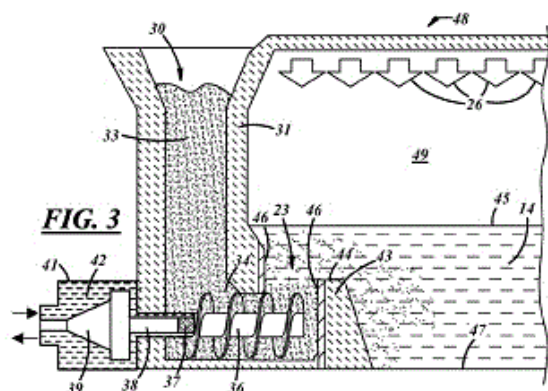
72: WANG, ZHONGMING, WEIL, SCOTT, GULLINKALA, TILAK, VEMPATI, UDAYA, KADUR, SHIVAKUNAR S

33: US 31: 14/262,113 32: 2014-04-25

#### **54: GLASS FURNACE**

00: -

A glass furnace (10, 48, 55, 75) includes a furnace melt chamber (12, 49, 56, 82) to contain a glass melt (14) having a top surface, and a batch feeder (16, 36, 53, 78) to receive glass batch material and feed said material to the furnace melt chamber below the level of the glass melt top surface.



21: 2019/01374. 22: 2019/03/05. 43: 2022/02/18

51: C07K

71: UBI IP HOLDINGS

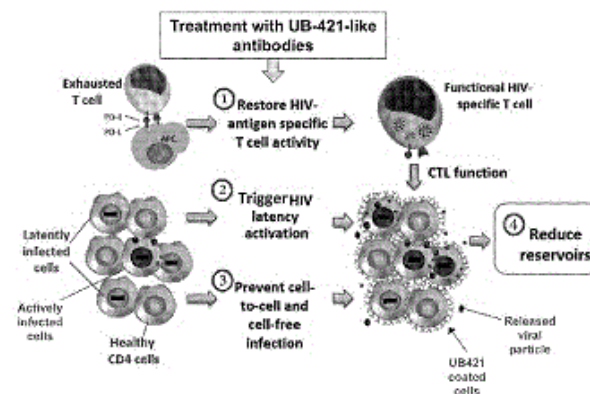
72: WANG, CHANG YI

33: US 31: 62/374,752 32: 2016-08-13

#### **54: TREATMENT AND SUSTAINED VIROLOGIC REMISSION OF HIV INFECTION BY ANTIBODIES TO CD4 IN HAART STABILIZED PATIENTS**

00: -

The present disclosure is directed to compositions and methods for the prevention, treatment, and/or functional cure of HIV infection. One aspect of the present disclosure relates to monoclonal antibodies directed against CD4, compositions thereof, and methods employing such compositions for the prevention, treatment, and functional cure of HIV infection.



21: 2019/01450. 22: 2019/03/08. 43: 2022/02/25

51: B01D; C02F

71: S.P.C.M. SA

72: FAVERO, Cédric, TIZZOTI, Morgan

33: FR 31: 1658425 32: 2016-09-09

#### **54: AQUEOUS EFFLUENT TREATMENT PROCESS**

00: -

The invention relates to the treatment of mine tailings in the form aqueous effluents comprising solid particles. With the process of the invention it is possible to separate all or part of the water from an aqueous effluent comprising solid particles. This process comprises (a) adding to the effluent at least one anionic modified natural polymer selected from among anionic guar gums and/or anionic starches, then (b) adding at least one cationic modified natural polymer selected from among cationic starches and/or cationic dextrans and/or cationic chitosans. The invention also relates to a composition comprising an aqueous effluent comprising solid particles treated with an anionic modified natural polymer and a cationic modified natural polymer. Preferably, it concerns a composition comprising an aqueous effluent comprising solid particles, at least one anionic modified natural polymer selected from among anionic guar gums and/or anionic starches, and at least one cationic modified natural polymer selected from among cationic starches and/or cationic dextrans and/or cationic chitosans.

21: 2019/01458. 22: 2019/03/08. 43: 2022/02/16

51: A23J; A23L

71: Kemin Industries, Inc.

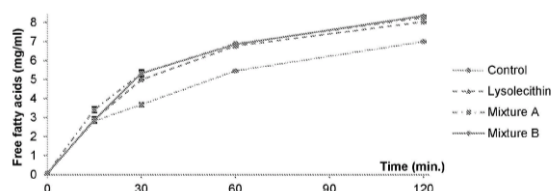
72: JANSEN, Matias, NUYENS, Filip, MAST, Ilse

33: US 31: 62/395,449 32: 2016-09-16

#### **54: ANIMAL FEED SUPPLEMENT**

00: -

An animal feed supplement composition comprising a combination of lysolecithin or purified lysophospholipid-rich compounds, monoglycerides and at least one synthetic emulsifier in amounts sufficient to enhance nutrient digestibility, absorption or utilization of feed.



21: 2019/01532. 22: 2019/03/12. 43: 2022/02/25  
51: E01C; E04B

71: TYAGLIN, Denis Valentinovich

72: TYAGLIN, Denis Valentinovich

33: RU 31: 2016 133160 32: 2016-08-11

#### 54: URBAN TRANSPORTATION AND LOGISTICS SYSTEM

00: -

The invention relates to transportation and logistics systems for large cities, and may be used when building a city of more than five hundred thousand inhabitants. The technical result of the proposed solution consists in optimizing an urban transportation and logistics system, eliminating transport congestion and providing quick travel to any point in a city. An urban transportation and logistics system comprises a first ground level for road and rail freight transport, a second level for piping and utility lines, a third level for passenger transport, and a fourth level for pedestrians, wherein each level is located one above the other, and the levels are connected to each other and to residential and non-residential buildings by means of vertical stair-lift modules.

21: 2019/01544. 22: 2019/03/12. 43: 2022/02/25  
51: H04L

71: GUANGDONG OPPO MOBILE  
TELECOMMUNICATIONS CORP., LTD.

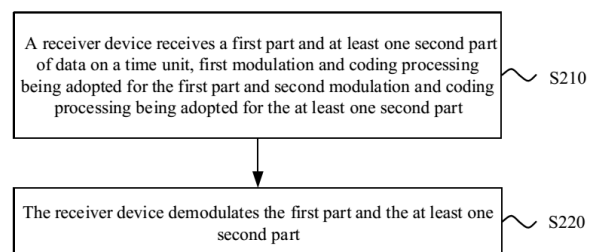
72: LIN, YaNan

#### 54: METHOD FOR TRANSMITTING DATA, RECEIVING-END DEVICE, AND TRANSMITTING-END DEVICE

00: -

Provided in an embodiment of the invention are a method for transmitting data, a receiving-end device, and a transmitting-end device. The method comprises: a receiving-end device receiving, on a time unit, a first part and at least one second part of data, wherein first modulation and coding processing is performed on the first part, and second modulation and coding processing is performed on the at least one second part; and the receiving-end device performing demodulation on the first part and the at least one second part. The method for transmitting data, the receiving-end device, and the transmitting-end device provided in the embodiment of the invention achieve a higher frequency spectrum efficiency, thereby realizing fast demodulation.

200



21: 2019/01555. 22: 2019/03/13. 43: 2022/02/25  
51: B60P; B65D

71: MODULAR TANKING SOLUTIONS  
(MAURITIUS) LTD

72: PROCTOR, Clint, Steel

33: NL 31: 2020593 32: 2018-03-15

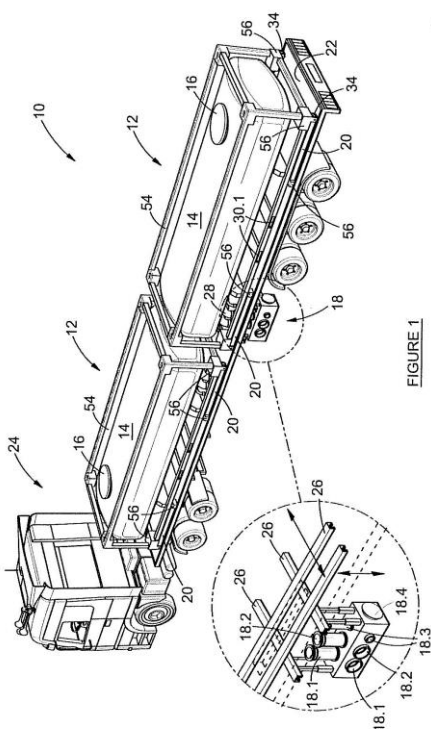
#### 54: A MODULAR CONTAINER SYSTEM

00: -

This invention relates to a transportable modular container system for fluid freight. The transportable modular container system comprises a container module including a reservoir configured to hold a fluid; an adjustable support for the container module, removably securable to a load area of a freight carrying transport and reciprocally adjustable between proximate and distal positions, the container module being located relatively closer to the load area in the proximate position than in the distal position, and wherein a zone for secondary freight is defined between the container module and the load area when the adjustable support is in the distal position and removably secured to the load area of the freight carrying transport; and a removable fluid flow control module for controlling



fluid flow of the fluid between an external reservoir and the container module reservoir and releasably connectable to the container module.



21: 2019/01571. 22: 2019/03/13. 43: 2022/02/25

51: A23B; A23L; A23N

71: TURATTI S.R.L.

72: TURATTI, Antonio

33: IT 31: 102016000095728 32: 2016-09-23

**54: METHOD AND SYSTEM FOR WASHING GRAPES, ESPECIALLY GRAPES FOR WINEMAKING**

00: -

Process and plant for washing of grapes especially for wine making comprising: - a first stage of automated washing able to remove substances and / or foreign bodies from the grapes at least through the effect of chemical agents; - a second stage of automated washing to remove chemical agents from the grape; the phases of washing being such as to preserve the integrity and the organoleptic qualities of the grape.

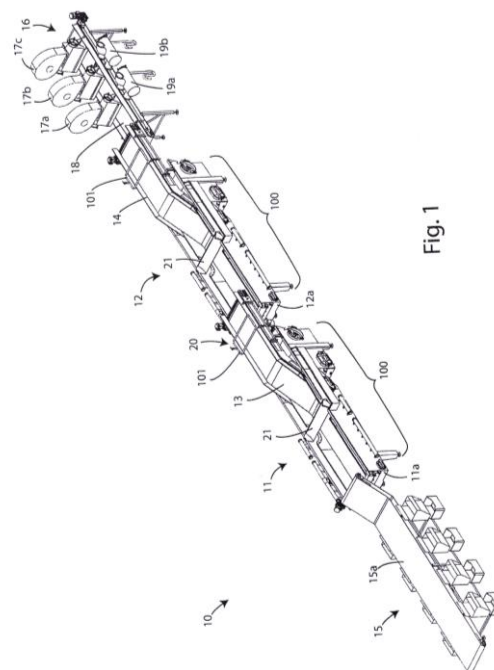


Fig. 1

21: 2019/01578. 22: 2019/03/13. 43: 2022/02/25

51: A61K; A61P

71: ABIVAX

72: CRABE, Sandrine, SCHERRER, Didier, EHRLICH, Hartmut, POULETTY, Philippe

33: EP 31: 16306169.0 32: 2016-09-14

**54: COMBINATIONS INCLUDING ABX196 FOR THE TREATMENT OF CANCER**

00: -

The present invention concerns an antitumor pharmaceutical combination comprising (i) a compound ABX196 and (ii) at least one chemotherapeutic agent and/or at least one immunotherapeutic agent, for use in the treatment of cancer.

21: 2019/01588. 22: 2019/03/14. 43: 2022/02/25

51: G06Q

71: LegaC Human Capital (Pty) Ltd

72: HERPS, Francois Jeremias, COPE, Bradleigh Peter

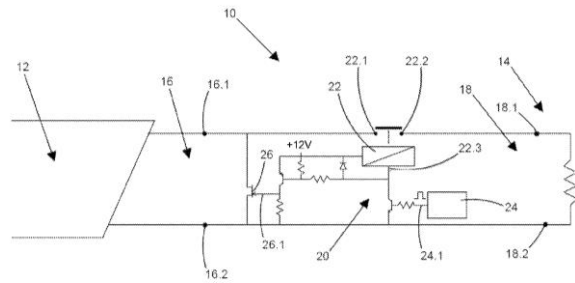
33: ZA 31: 2017/08576 32: 2017-12-18

**54: COMPLAINTS PLATFORM**

00: -

This invention relates to an online complaints platform implemented on a central server configured for Internet communication with remotely located participating computing devices associated with participating complainants and vendors,

respectively. The server is programmed to permit classification of a participating vendor as a competitor of another participating vendor on the platform, to assess a participating vendor's response to a customer complaint and, if the vendor's response is non-responsive, compared against predetermined response criteria, to forward the complaint to a participating competitor of the vendor.



21: 2019/01743. 22: 2019/03/20. 43: 2022/02/25  
51: A61K; A61P  
71: MITOBRIDGE, INC.  
72: LAGU, BHARAT, PATANE, MICHAEL, TOZZO, EFFIE, TRZASKA, SCOTT  
33: US 31: 62/404,390 32: 2016-10-05  
**54: METHODS OF TREATING ACUTE KIDNEY INJURY**

00: -

The present invention is directed to methods of treating a human patient with acute kidney injury.

21: 2019/02129. 22: 2019/04/04. 43: 2022/02/25  
51: H02M  
71: POWEROPTIMAL (PTY) LTD  
72: THERON, Jacob Johannes  
**54: PHOTOVOLTAIC SWITCHING**

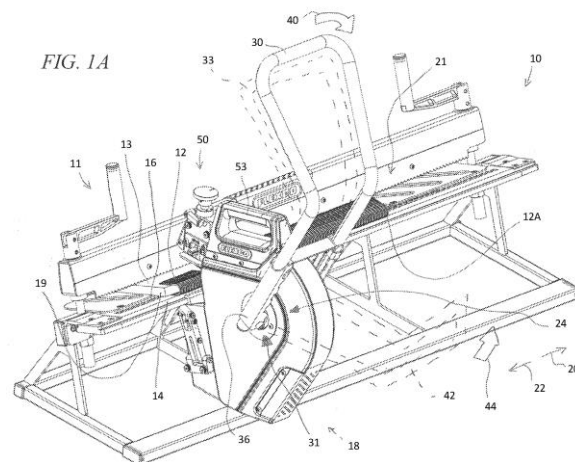
00: -

A photovoltaic switch apparatus, which includes an input port having two input terminals connectable in circuit across an electrical supply output of a photovoltaic cell arrangement, an output port having two output terminals connectable in circuit across an electrical load, a switching arrangement disposed between the input port and the output port, comprising: a latching relay; a switching pulse circuit; and a semiconductor switch connected across the input port terminals operable, when activated, to connect the two input terminals in circuit to each other, in use to short the electrical supply from the photovoltaic arrangement, the semiconductor switch having a switching input connected in circuit to the switching pulse circuit.

21: 2019/02144. 22: 2019/04/05. 43: 2022/02/25  
51: B23P; F16G  
71: FLEXIBLE STEEL LACING COMPANY  
72: VAN'T SCHIP, Joannes Stefanus, KUIPER, Daniel J., CARR, Jason  
33: US 31: 62/398,978 32: 2016-09-23  
**54: APPLICATOR FOR CONVEYOR BELT FASTENERS**

00: -

In accordance with one aspect, an applicator is provided for applying staple fasteners to an end of a conveyor belt. The applicator provides advancing, clenching, staple driving, and final set operations that are coordinated by a drive of the applicator. In one form, the drive includes a cam plate and the applicator includes a handle that may be pivoted to turn the cam plate through a range of motion. Turning of the cam plate causes cam followers received in cam paths of the cam plate to shift and operate the mechanisms of the applicator. A method of using an applicator to apply conveyor belt fasteners is also provided.



21: 2019/02529. 22: 2019/04/23. 43: 2022/02/25  
51: G06F

71: INTERNATIONAL BUSINESS MACHINES CORPORATION

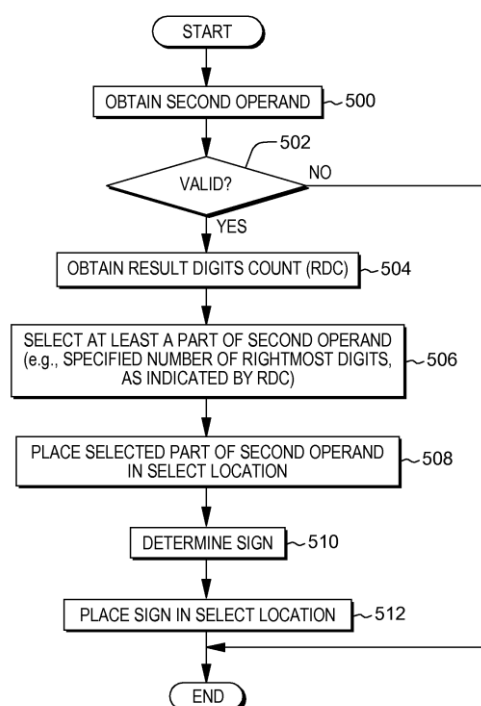
72: COPELAND, Reid, MUELLER, Silvia Melitta, BRADBURY, Jonathan, SLEGEL, Timothy

33: US 31: 15/281,173 32: 2016-09-30

#### **54: PERFORM SIGN OPERATION DECIMAL INSTRUCTION**

00: -

An instruction to perform a sign operation of a plurality of sign operations configured for the instruction. The instruction is executed, and the executing includes selecting at least a portion of an input operand as a result to be placed in a select location. The selecting is based on a control of the instruction, in which the control indicates a user-defined size of the input operand to be selected as the result. A sign of the result is determined based on a plurality of criteria, including a value of the result, obtained based on the control of the instruction, having a first particular relationship or a second particular relationship with respect to a selected value. The result and the sign are stored in the select location to provide a signed output to be used in processing within the computing environment.



21: 2019/02591. 22: 2019/04/24. 43: 2022/02/16  
51: A01H; C12N; C12Q

71: Syngenta Participations AG

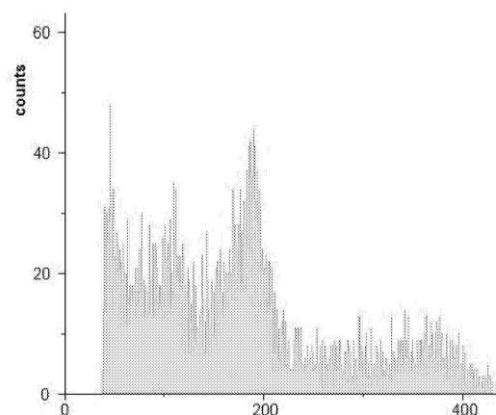
72: KELLIHER, Timothy, QUE, Qiudeng

33: US 31: 62/429,260 32: 2016-12-02

#### **54: SIMULTANEOUS GENE EDITING AND HAPLOID INDUCTION**

00: -

The presently disclosed subject matter relates to using a haploid inducing line (whether existing or created) and transforming the haploid line so that it encodes cellular machinery capable of editing genes. The transformed haploid inducing line is used as a parent in a cross between two plants. During pollination, the parental gametes fuse to form an embryo; and the gene editing machinery is also delivered to the embryo at this time. During embryonic development, one set of parental chromosomes are lost, and the gene editing machinery operates on the remaining set of chromosomes. Thus, at least one haploid progeny with edited genes is produced from the cross.



21: 2019/02626. 22: 2019/04/25. 43: 2022/02/18

51: B01F; C12G

71: Amnity LLC

72: ROBERTS, Nathaniel T.

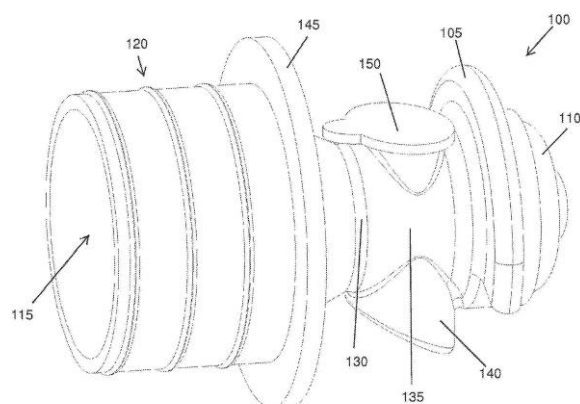
33: US 31: 62/399,687 32: 2016-09-26

#### **54: A TAP AND AERATOR APPARATUS**

00: -

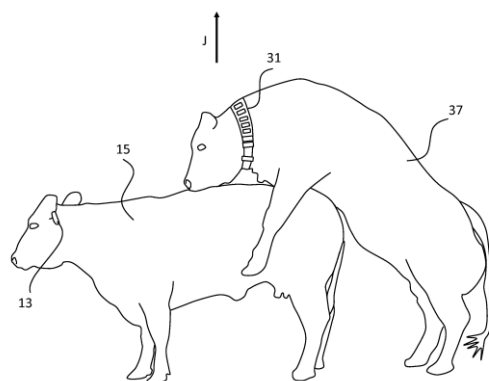
A tap apparatus (500) including a container coupling portion (504) including a liquid inlet portion (518), a body portion (508), and a plug valve portion (510). The body portion (508) includes a liquid outlet portion (538), wherein the liquid outlet portion (538) is in fluid communication with the liquid inlet portion (518) of the container coupling portion (504). The plug valve portion (510) is configured and arranged

to be seated within the body portion (508), wherein the plug valve portion (510) is configured and arranged to be moved relative to the body portion (508) between an open position, in which a liquid is free to flow from the liquid inlet portion (518) and out through the liquid outlet portion (538), and a closed position, in which liquid from the liquid inlet portion (518) is prevented from flowing out through the liquid outlet portion (538). The body portion (508) also includes a plurality of flow channels (536) provided in an interior surface thereof.



21: 2019/02627. 22: 2019/04/25. 43: 2022/02/25  
51: A01K  
71: BULLCALL LIMITED  
72: AUSTIN, Niall, SAVAGE, Emmet, LARKIN, John  
33: GB 31: 1616688.6 32: 2016-09-30  
**54: A METHOD, SYSTEM AND APPARATUS FOR DETECTING WHEN AN ANIMAL IS IN HEAT**  
00: -

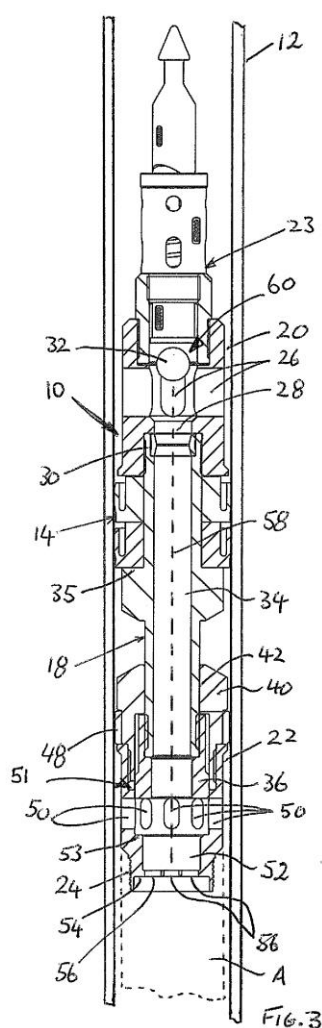
This invention relates to a method, system and apparatus for detecting when an animal is in heat. The invention further relates to a method of alerting a responsible individual that the animal is in heat. The method for detecting when an animal is in heat comprises the steps of, using a sensor mounted on a bull, monitoring the activity of the bull in the proximity of the animal. Thereafter, the activity of the bull is analysed before finally it is determined, based on the analysed activity of the bull, whether or not the animal is in heat. The invention shifts the focus from the animal, such as a cow, to the bull and leans on the natural instincts of the bull to determine when the cow is in heat. By implementing such a system, a more reliable and/or less expensive system than many of the existing offerings is provided.



21: 2019/02645. 22: 2019/04/26. 43: 2022/02/25  
51: E21B  
71: AUSTRALIAN MUD COMPANY PTY LTD  
72: MCLEOD, Gavin  
33: AU 31: 2016904356 32: 2016-10-26  
**54: DEVICE FOR FACILITATING THE TRANSPORT OF AN APPARATUS ALONG AN UPWARD OR A DOWNWARD DIRECTED CONDUIT OR BOREHOLE**  
00: -

A device (10) for facilitating the transport of an apparatus A along an upward or downward directed conduit or bore hole including a drill string (12) is described. The device (10) has a body (13) having an upper body portion (20) and a lower body portion (22) which are coupled together and movable axially relative to each other. A fluid flow path (58) internal of the body (13) selectively enables fluid to flow through the body (13). A first valve system 60 located at a first end of the internal fluid flow path (58) is operable by a pressure differential between a region external of the body (13) and the internal fluid flow path (58). A second valve system (51) is located at second end of the internal fluid flow path. The second valve system (51) is operable by relative movement between the upper body portion (20) and lower body portion (22). One or more openings (56) are provided at an end of the body (13) downstream of the first valve system (60) through which fluid can flow or fluid pressure can be communicated to an apparatus A being transported by the device (10).





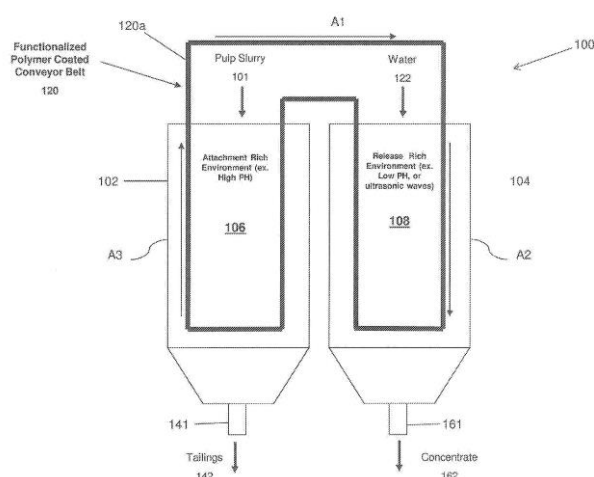
21: 2019/02757. 22: 2019/05/02. 43: 2022/02/18  
 51: B01D; B01J; C22B  
 71: CiDRA Corporate Services LLC  
 72: ROTHMAN, Paul J., FERNALD, Mark R.,  
 DOLAN, Paul, RYAN, Michael, COPPOLA, Michael  
 D., LASSILA, Kevin Rodney, GREENE, Allison K.  
 33: US 31: 62/416,314 32: 2016-11-02

#### 54: POLYMER COATING FOR SELECTIVE SEPARATION OF HYDROPHOBIC PARTICLES IN AQUEOUS SLURRY

00: -

A substrate for use in an aqueous slurry has a polymeric coating to provide a compliant and sticky surface. The polymer coating has a chemical to render the surface hydrophobic so as to attract hydrophobic or hydrophobized mineral particles in the slurry. The substrate can take the form of a

conveyor belt, a bead, a mesh, an impeller, a filter or a flat surface. The substrate can also be an open-cell foam. The polymeric coating can be modified with tackifiers; plasticizers; crosslinking agents; chain transfer agents; chain extenders; adhesion promoters; aryl or alkyl copolymers; fluorinated copolymers and/or additives; hydrophobicizing agents such as hexamethyldisilazane; inorganic particles such as silica, hydrophobic silica, and/or fumed hydrophobic silica; MQ resin; and / or other additives to control and modify the properties of the polymer.



21: 2019/02759. 22: 2019/05/02. 43: 2022/02/25  
 51: A01G

71: EDEN GREEN HYDROPONICS INTERNATIONAL (PTY) LTD

72: VAN BUUREN, Eugene, VAN BUUREN, Jacques Mauritz, EHLERS, Jan Gerhardus

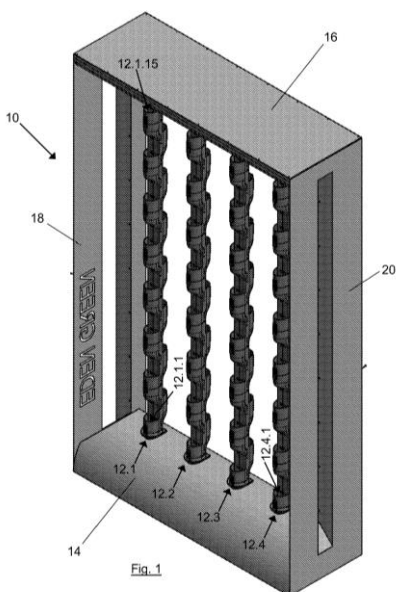
33: SG 31: 10201608326S 32: 2016-10-04

#### 54: HYDROPONICS SYSTEM

00: -

A hydroponics system, which includes at least one upright planter assembly comprising a plurality of vertically spaced apart plant holders and at least one vertically extending liquid channel arranged along the plant holders to direct liquid flowing from top to bottom onto a root portion of plants to be held in the plant holders; a liquid receptacle at a bottom of the at least one planter assembly for collecting liquid at the bottom of the planter assembly and a pump arrangement for pumping liquid from the liquid receptacle to the top of the at least one upright planter assembly.





21: 2019/02965. 22: 2019/05/13. 43: 2022/03/14  
 51: C09D  
 71: Seal Chemistry (Pty) Ltd  
 72: ANGAMUTHOO, Gonaseelan, KNOX, Douglas  
 Alistair Herbert

#### **54: FILM-LESS PAPER REAM WRAPPER**

00: -

The paper used as cut paper for copy machines, computers, printers, and other applications is conventionally packaged in reams. The current standard ream wrapper material is plastic film laminated paper, the production of which requires multiple, separate manufacturing processes and which, because of their composite nature, cannot be treated in either paper or plastics waste recycling streams. This invention provides a film-less ream wrapper comprising a paper substrate coated, in replacement of a plastics film, with a water-based primer and sealer complex which includes a primer component that comprises a water-based coating material formulated for application by printing on paper and a sealer component that comprises a water-based barrier coating with water- and moisture barrier properties formulated for application by printing on paper, preferably gravure printing.

21: 2019/03247. 22: 2019/05/23. 43: 2022/02/25  
 51: B08B  
 71: UNITED LABORATORIES INTERNATIONAL, LLC  
 72: MATZA, STEPHEN D, RICE, ELISA

33: US 31: 16/290,679 32: 2019-03-01

#### **54: SOLVENT SYSTEM FOR CLEANING FIXED BED REACTOR CATALYST IN SITU**

00: -

A method of equipment decontamination may include: introducing a cleaning stream comprising hydrogen and a solvent comprising a fatty acid methyl ester and an oxygenated solvent into the equipment; and introducing a stream comprising nitrogen into the equipment, wherein the equipment comprises deposits and other contaminants.

21: 2019/03336. 22: 2019/05/27. 43: 2022/02/25  
 51: C04B

71: SAROJ VANIJYA PRIVATE LIMITED

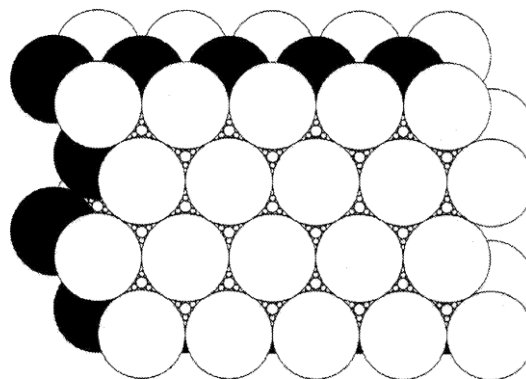
72: BAWRI, Binod Kumar

33: IN 31: 201731003857 32: 2017-02-02

#### **54: ENGINEERED CONCRETE BINDER COMPOSITION**

00: -

A novel engineered concrete binder composition providing overall reduced clinker factor and improved binding properties. The said concrete binder composition includes a primary binder in a ratio of 10-60 weight percent and a secondary binder in a ratio of 40- 90 weight percent. The said primary binder is selected from a primary material group having spontaneous hydration property. The said secondary binder is selected from a secondary material group having induced hydration property.



21: 2019/03369. 22: 2019/05/28. 43: 2022/02/25  
 51: A47J

71: SHENZHEN LANHAIXING TECHNOLOGY CO., LTD

72: LI, Xiaoguang

33: CN 31: 201720913060.1 32: 2017-07-26

#### **54: NUTCRACKER**

00: -

(EN) Disclosed is a nutcracker, comprising a main body assembly (10), a toothed cutter assembly (20), a toothed handle assembly (30), a retaining switch assembly (40) and a handle (50), wherein the toothed cutter assembly (20) comprises a toothed cutter (22); the toothed handle assembly (30) comprises a toothed handle (32); the retaining switch assembly (40) is mounted on the main body assembly (10); a first handle (52) extends from the main body assembly (10); the handle (50) comprises the first handle (52) and the toothed handle (32); under the action of an external force, the handle (50) moves in a reciprocating manner between a first state and a second state so that the toothed handle (32) drives the toothed cutter (22) to move; in the first state, the distance between the first handle (52) and the toothed handle (32) is the shortest, and the toothed handle (32) is engaged with the toothed cutter (22); and in the second state, the distance between the toothed handle (32) and the first handle (52) is the longest, and the toothed cutter (22) is engaged with the retaining switch assembly (40) for preventing the toothed cutter from moving backwards. When the nutcracker is in use, the retaining switch assembly can prevent the toothed cutter from moving backwards so that the toothed cutter can apply a force to a nut bit by bit and a nut shell can be opened, thereby avoiding the problem of a seed of the nut being crushed due to excessive force being applied thereto

21: 2019/03383. 22: 2019/05/28. 43: 2022/02/25

51: B01D; B03B; B07B

71: CDE GLOBAL LIMITED

72: IVANOFF, Enda

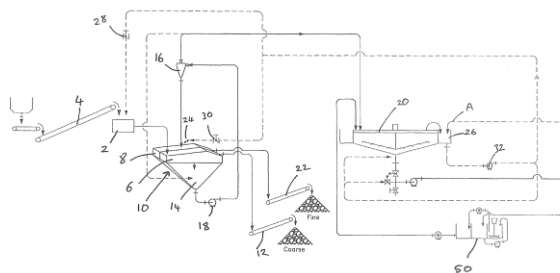
33: GB 31: 1621220.1 32: 2016-12-14

#### 54: METHOD AND APPARATUS FOR WASHING AND GRADING SAND

00: -

An apparatus for washing and grading sand comprises a first vibrating screen having a deck arranged to receive a feed material, oversize material passing over the deck of said first vibrating screen for collection as a first product and undersize material and water being collected in a sump of said first vibrating screen before being pumped to a hydrocyclone; a second vibrating screen receiving an underflow from the hydrocyclone upon a deck

thereof, oversize material passing over the deck of said second vibrating screen for collection as a second product; an overflow from said hydrocyclone being passed into a settling tank, a water storage reservoir receiving water overflowing from the settling tank while sludge is collected and removed from a lower end of said settling tank, water being passed from said water storage reservoir to said first and second vibrating screens to wash and fluidise material thereon.



21: 2019/03463. 22: 2019/05/30. 43: 2022/02/25

51: B01J; C10G

71: CHINA PETROLEUM & CHEMICAL CORPORATION, FUSHUN RESEARCH INSTITUTE OF PETROLEUM AND PETROCHEMICALS, SINOPEC CORP.

72: SUN, Guoquan, FANG, Xiangchen, FAN, Hongfei, YAO, Chunlei, QUAN, Hui

33: CN 31: 201611083230.4 32: 2016-11-30

33: CN 31: 201611084897.6 32: 2016-11-30

#### 54: METHOD FOR PREPARING HEXADECALHYDROPYRENE

00: -

A method for preparing hexadecahydropyrene, comprising: carrying out the hydrogenation reaction to hydrocarbon oil containing pyrene compounds in the presence of a hydrogenation catalyst, wherein the pyrene compounds are selected from at least one of pyrene and unsaturated hydrogenation products thereof; the hydrogenation catalyst contains a carrier and an active metal component loaded on the carrier; the active metal component is Pt and/or Pd; the carrier contains a small-grain Y type molecular sieve, aluminum oxide and amorphous silicon aluminum; the average grain diameter of the small-grain Y type molecular sieve is 200-700 nm; the molar ratio of SiO<sub>2</sub> to Al<sub>2</sub>O<sub>3</sub> is 40-120; the relative crystallinity is ≥95%, the specific surface area is 900-1,200 m<sup>2</sup>/g; the pore volume of secondary pores of 1.7-10 nm is more than 50% of



**54: METHOD FOR TRANSMITTING INFORMATION, NETWORK DEVICE AND TERMINAL DEVICE**

00: -

Provided is a method for transmitting information, a network device and a terminal device. The method includes that: a time-frequency resource for a downlink control channel of at least one terminal device is determined, the time-frequency resource for the downlink control channel of the at least one terminal device being mapped in a first control region within a bandwidth of a system according to a manner of a frequency domain first and then a time domain; and the downlink control channel of the at least one terminal device is sent through the time-frequency resource for the downlink control channel of the at least one terminal device. According to the information transmission method, network device and terminal device of the embodiments of the application, system performance may be improved.

500

A time-frequency resource for a downlink control channel of at least one terminal device is determined, the time-frequency resource for the downlink control channel of the at least one terminal device being mapped in a first control region in a system bandwidth in a manner of mapping in a frequency domain and then in a time domain

S510

The downlink control channel of the at least one terminal device is sent through the time-frequency resource for the downlink control channel of the at least one terminal device

S520

21: 2019/03794. 22: 2019/06/12. 43: 2022/02/25

51: H02H

71: MILLER, Michael Graham

72: MILLER, Michael Graham

33: ZA 31: 2018/03499 32: 2018-05-28

**54: SURGE PROTECTIVE DEVICE**

00: -

A surge protective arrangement to protect a load against a voltage surge on an electrical supply line which includes a sensor circuit which generates an audible alarm when the arrangement is inoperative.

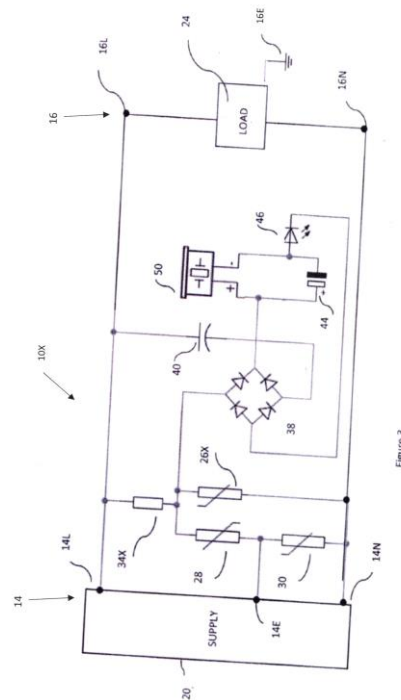


Figure 3

21: 2019/03823. 22: 2019/06/13. 43: 2022/02/25

51: A01C; A01N; C05G

71: STELLENBOSCH UNIVERSITY

72: BRINK, Casparus Johannes, JACOBS, Karin

33: ZA 31: 2018/03939 32: 2018-06-13

**54: METHOD OF ENCAPSULATION**

00: -

A method of encapsulating a biomaterial is provided. The method includes combining the biomaterial with a solution of starch to form an intermediate composition, and introducing the intermediate composition drop-wise into a solution of alginate to form beads in which the biomaterial is encapsulated.



21: 2019/04006. 22: 2019/06/20. 43: 2022/02/16

51: A61K; C07F

71: GE Healthcare AS

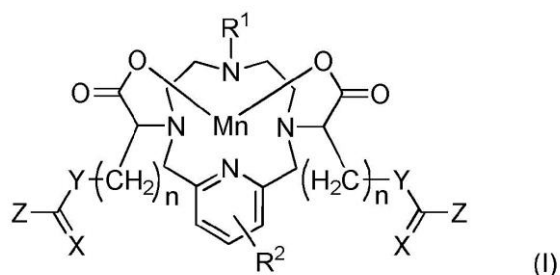
72: MEIJER, Andreas Richard, THANING, Mikkel Jacob, BALES, Brian Christopher, RISHEL, Michael James

33: US 31: 62/437,082 32: 2016-12-21

**54: TETRAAZABICYCLO-MACROCYCLE BASED MANGANESE CHELATE COMPOUNDS SUITABLE AS MRI IMAGING AGENTS**

00: -

The invention provides compounds of formula (I) representing a polyaza-macrocyclic with carboxylic acid side arms complexing Manganese as core metal. The complexes are suitable for use as contrast agents in magnetic resonance imaging (MRI).



21: 2019/04012. 22: 2019/06/20. 43: 2022/02/25

51: H04W

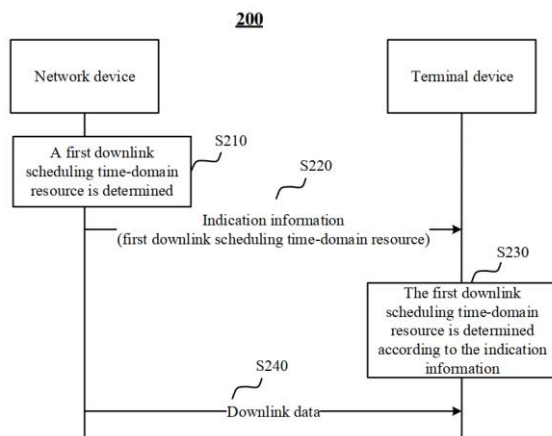
71: GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD.

72: TANG, Hai, XU, Hua

**54: DATA TRANSMISSION METHOD AND APPARATUS**

00: -

Disclosed are a data transmission method and apparatus, which can improve the performance of a system. The method comprises: a terminal device receiving indication information sent by a network device, the indication information being used to indicate a first downlink scheduling time domain resource in a first time-frequency resource region, wherein frequency domain resources comprised in the first time-frequency resource region are a part of a system bandwidth; and the terminal device receiving, on a first downlink data time domain resource, data sent by the network device according to the indication information.



21: 2019/04027. 22: 2019/06/21. 43: 2022/02/25

51: B65G

71: Dale Holdings (Pty) Ltd

72: DALE, Christopher

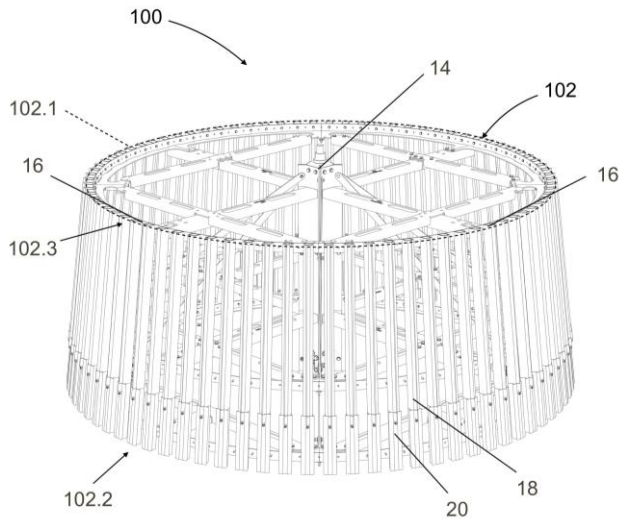
33: ZA 31: 2018/04180 32: 2018-06-22

**54: POSITIVE DRIVE CONVEYOR**

00: -

The invention relates to a positive drive spiral conveyor which includes, a drive tower rotatable about a vertical axis and a plurality of drive members extending in length from a bottom to a top of the drive tower. The drive members are spaced radially around the drive tower, with each drive member having a projecting driving ridge extending in length along at least a section of each drive member with a projecting shaft positioned on each drive member proximate an end of the driving ridge thereby defining an engagement zone. The projecting shaft defines a guiding surface around the shaft, such that in use a positive drive protrusion of a conveyor belt engages the guiding surface of the projecting shaft and is guided towards a leading side of the driving ridge.





21: 2019/04039. 22: 2019/06/21. 43: 2022/02/25

51: H04W

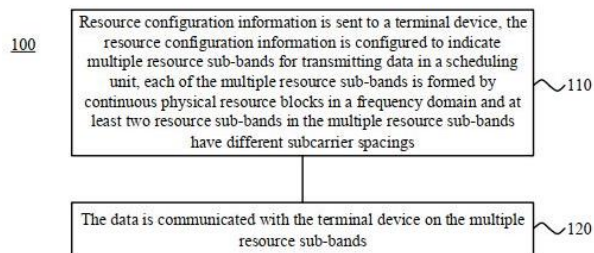
71: GUANGDONG OPPO MOBILE  
TELECOMMUNICATIONS CORP., LTD.

72: TANG, Hai, XU, Hua

**54: DATA TRANSMISSION METHOD, NETWORK  
DEVICE AND TERMINAL DEVICE**

00: -

Disclosed are a data transmission method, a network device, and a terminal device. The method comprises: a resource configuration, the resource configuration, the resource configuration, the resource configuration, and the sub-band resource allocation. is subdivided into two sub-bands of sub-carrier frequencies; and transmitting the data with the terminal device of the sub-bands. By means of the method, the network device and the terminal device of the embodiments of the present invention.



21: 2019/04180. 22: 2019/06/26. 43: 2022/02/25

51: B23K

71: SHANGHAI ELECTRIC NUCLEAR POWER  
EQUIPMENT CO. LTD.

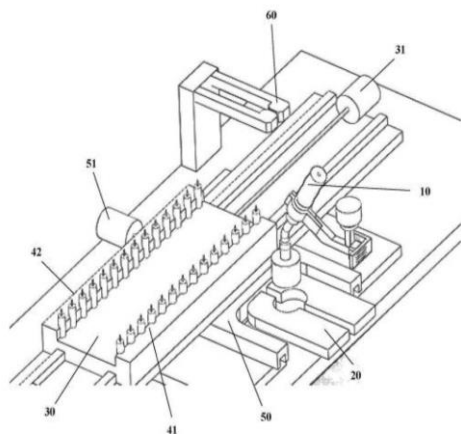
72: YANG, Chengdong, ZHANG, Maolong, TANG,  
Weibao, LUO, Qing

33: CN 31: 201710022485.8 32: 2017-01-12

**54: APPARATUS FOR AUTOMATICALLY  
REPLACING A TUNGSTEN ELECTRODE FOR  
TUNGSTEN INERT GAS WELDING OF A ROBOT  
WELDING SYSTEM AND CORRESPONDING  
METHOD**

00: -

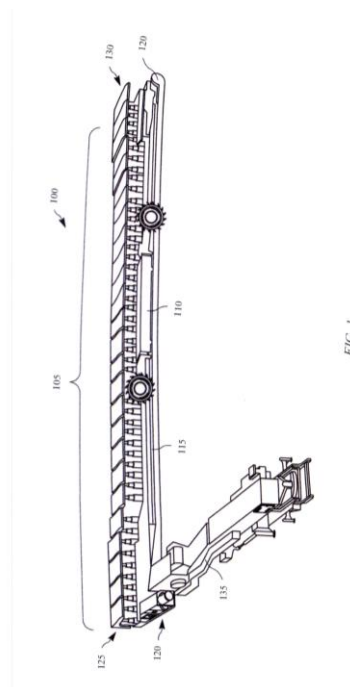
Disclosed are an apparatus for automatically replacing a tungsten electrode for tungsten inert gas welding of a robot welding system and a corresponding method, wherein a gas hood mounting/ removing clamp (20) removes a gas hood from a welding gun (10) with a burnt-off tungsten electrode; a first tungsten electrode seat (41) is moved, along with a first carriage, to a position corresponding to a tungsten electrode mounting/removing clamp (60) or the welding gun (10); the tungsten electrode mounting/removing clamp (60) removes the burnt-off tungsten electrode on the welding gun (10) and rests it on the first tungsten electrode seat (41); a second tungsten electrode seat (42) is moved, along with a second carriage, to the position corresponding to the tungsten electrode mounting/removing clamp (60) or the welding gun (10); the tungsten electrode mounting/removing clamp (60) snaps a new tungsten electrode from the second tungsten electrode seat (42) and mounts it to the welding gun (10); the gas hood mounting/removing clamp (20) mounts the gas hood to the welding gun with the new tungsten electrode. The present disclosure enables automatic replacement of the tungsten electrode, which guarantees weld seam quality of robot welding, improves the automation level of the system, and enhances welding efficiency.



21: 2019/04261. 22: 2019/06/28. 43: 2022/02/25  
 51: E21C  
 71: JOY GLOBAL UNDERGROUND MINING LLC  
 72: LEPRE, Benjamin John Robert  
 33: US 31: 62/792,164 32: 2019-01-14  
**54: SYSTEMS AND METHODS FOR AUTOMATED CONTROL OF A BEAM STAGELoader BOOTEND**

00: -

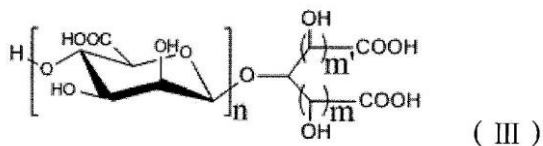
Automated control of a longwall stageloader bootend using a plurality of sensors. The sensors include lift sensors, side shift sensors, advance sensors, angle sensors, and conveyor belt sensors. Signals from the plurality of sensors are received by a controller and used to control the operation of the bootend. Controlling the operation of the bootend includes controlling, for example, one or more lift actuators, one or more side shift actuators, one or more advance actuators, and one or more belt actuators. These various actuators can be controlled to, for example, advance the bootend, level the bootend, or match the interfaces between the bootend and a stageloader or a conveyor structure. By automating the operation of the bootend, the need for human positioning control is reduced and the safety of operators is improved.



21: 2019/04288. 22: 2019/06/28. 43: 2022/02/18  
 51: A61K; A61P; C07H; C08B  
 71: Shanghai Green Valley Pharmaceutical Co., Ltd., Shanghai Institute of Materia Medica, Chinese Academy of Sciences  
 72: GENG, Meiyu, DING, Jian, ZHANG, Zhenqing, XIAO, Zhongping, DU, Xiaoguang, XIN, Xianliang  
 33: PCT/CN 31: 2016/113879 32: 2016-12-30  
**54: COMPOSITION OF MANNURONIC DICARBOXYLIC ACID**

00: -

A mannuronic dicarboxylic acid oligosaccharide composition, which comprises mannuronic dicarboxylic acid of formula (III) or a pharmaceutically acceptable salt thereof, where  $n$  is an integer selected from 1-9,  $M$  is selected from 0, 1, or 2,  $m'$  is selected from 0 or 1, the total weight of mannuronic dicarboxylic acid for which  $n = 1-5$  accounts for 80-95% of the total weight of the composition, and the ratio of the total weight of mannuronic dicarboxylic acid for which  $n = 1-3$  to the total weight of mannuronic dicarboxylic acid for which  $N = 4-7$  is between 1.0 and 3.5.

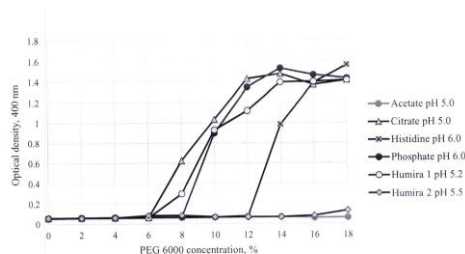


21: 2019/04305. 22: 2019/06/28. 43: 2022/02/25  
 51: A61K; A61P  
 71: CLOSED JOINT STOCK COMPANY "BIOCAD"  
 72: LOMKOVA, Ekaterina Aleksandrovna,  
 IAKOVLEV, Aleksandr Olegovich, SHITIKOVA,  
 Viktoriya Olegovna, RYAKHOVSKAYA, Anastasiya  
 Mikhajlovna, MOROZOV, Dmitry Valentinovich  
 33: RU 31: 2016152691 32: 2016-12-30  
 33: RU 31: 2017146821 32: 2017-12-29

**54: AQUEOUS PHARMACEUTICAL  
 COMPOSITION OF A RECOMBINANT  
 MONOCLONAL ANTIBODY TO TNF $\alpha$**

00: -

The invention relates to improved aqueous pharmaceutical compositions of a recombinant monoclonal antibody to TNF $\alpha$ , and to a method for producing same. The present invention also relates to the use of improved aqueous pharmaceutical compositions of a recombinant monoclonal antibody to TNF $\alpha$  to treat TNF $\alpha$ -mediated diseases. The proposed invention allows prevention of physical-chemical instability expressed in the formation of aggregates and fragments of proteins or in the modification of proteins in a solution, and also prevents instability during freezing/thawing, agitating and shaking.



21: 2019/04311. 22: 2019/06/28. 43: 2022/02/25  
 51: C07H; A61K; A61P  
 71: TAKEDA PHARMACEUTICAL COMPANY  
 LIMITED  
 72: YOSHIKAWA, MASATO, SAITOH, MORIHISA,  
 KATO, TAISUKE, NAKAYAMA, YAYOI, SEKI,  
 TOMOHIRO, NAKAGAWA, YASUO, TOMINARI,  
 YUSUKE, SETO, MASAKI, SASAKI, YUSUKE,  
 OKANIWA, MASANORI, ODA, TSUNEO, SHIBUYA,

AKITO, HIDAKA, KOSUKE, SHIOKAWA, ZENYU,  
 MURATA, SHUMPEI, OKABE, ATSUTOSHI,  
 NAKADA, YOSHIHISA, MOCHIZUKI, MICHIO,  
 FREEZE, BRIAN SCOTT, TAWARAISHI, TAISUKE,  
 WADA, YASUFUMI, GREENSPAN, PAUL D

33: JP 31: 2017-107216 32: 2017-05-30

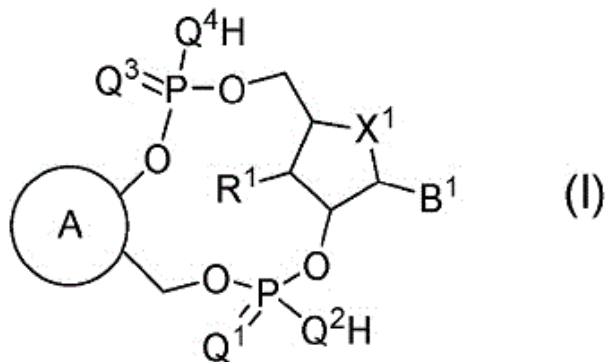
33: JP 31: 2016-234553 32: 2016-12-01

33: US 31: 62/589,300 32: 2017-11-21

**54: CYCLIC DINUCLEOTIDES AS STING  
 (STIMULATOR OF INTERFERON GENES)  
 AGONISTS**

00: -

The present disclosure provides a compound having a STING (stimulator of interferon genes) agonistic activity, which may be expected to be useful as an agent for the prophylaxis or treatment of STING-related diseases, such as cancer. The present disclosure relates to a compound represented by the formula (I) wherein each symbol is as defined in the description, or a salt thereof.



21: 2019/04461. 22: 2019/07/08. 43: 2022/02/18

51: C12N; C12Q

71: Institute of Cotton Research of the Chinese  
 Academy of Agricultural Sciences

72: LI, Wei, YANG, Daigang, MA, Xiongfeng, PEI,  
 Xiaoyu, LIU, Yangai, HE, Kunlun, ZHANG, Fei, REN,  
 Zhongying, ZHOU, Xiaojian, ZHANG, Wensheng,  
 WANG, Zhenyu, SONG, Chengxiang, SUN, Kuan

33: CN 31: 2018109670083 32: 2018-08-23

33: CN 31: 2018115637307 32: 2018-12-20

**54: GENES AND SNP MARKERS ASSOCIATED  
 WITH LINT PERCENTAGE TRAIT IN COTTON,  
 AND USE THEREOF**

00: -

The present disclosure relates to the field of molecular biology for lint percentage trait in cotton, and in particular to genes and SNP markers significantly associated with lint percentage trait in cotton, and use thereof. The genes significantly

associated with the lint percentage trait in cotton are genes Gh\_D05G1124, Gh\_D05G0313, and GhWAKL3. In the present disclosure, a CottonSNP63K gene array is used for genotyping, and genome re-sequencing data are analyzed to identify SNP markers significantly associated with the lint percentage trait in cotton, and the present disclosure also discloses use of the genes and SNP markers, which are significantly associated with the lint percentage trait in cotton, in cotton germplasm identification, breeding, or genetic diversity analysis.

21: 2019/04751. 22: 2019/07/19. 43: 2022/02/25

51: F24F; F25D

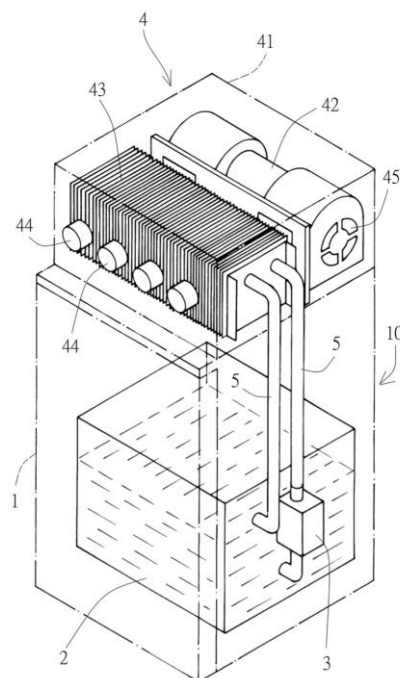
71: CHUNG, Yong-Quan

72: CHUNG, Yong-Quan

#### **54: MOBILE AIR CONDITIONER**

00: -

A mobile air conditioner contains: a movable refrigerator, an antifreeze tank, a water pump, and an air cooler. The air cooler includes at least one evaporator, the antifreeze tank is disposed in the movable refrigerator so as to cool antifreeze, and the antifreeze recycles back to the antifreeze tank from the antifreeze tank via at least one pipe, the water pump, and the evaporator so that environmental hot air is drawn and is cooled by the evaporator, thus recycling cold air.



21: 2019/04780. 22: 2019/07/19. 43: 2022/02/18

51: A45D; A61K; A61P; A61Q

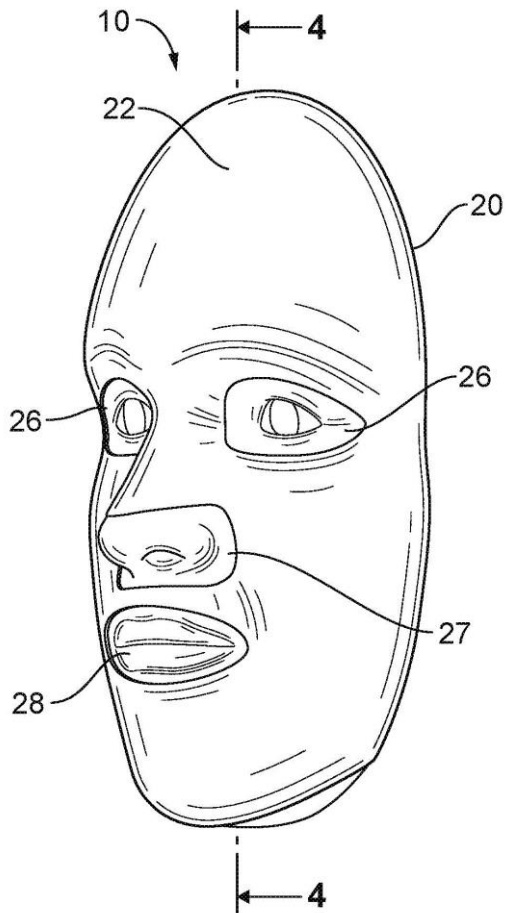
71: Johnson & Johnson Consumer Inc.

72: ALARY, Marc, HOPSON, Peyton, LIU, Jan-Joo, LUNDE, Erik, PATEL, Bharat, MORANO, Emanuel  
33: US 31: 62/437,815 32: 2016-12-22

#### **54: SYSTEM FOR TARGETED APPLICATION OF TOPICAL AGENTS TO AN ISOLATED BODY PART**

00: -

A system includes an applicator mask having an applicator surface having a three dimensional shape corresponding to the isolated body part; and at least one membrane releasably disposed on the applicator surface and having an outer surface in facing relation with the applicator surface and inner adhesive surface opposite thereof. The membrane includes one or more benefit agents disposed in one or more treatment zones.



21: 2019/04787. 22: 2019/07/19. 43: 2022/02/25  
51: G06F

71: INTERNATIONAL BUSINESS MACHINES CORPORATION

72: GIAMEI, Bruce Conrad, JACOBI, Christian, SHUM, Chung-Lung, SCHMIDT, Donald William, ROSA, Daniel, SAPORITO, Anthony

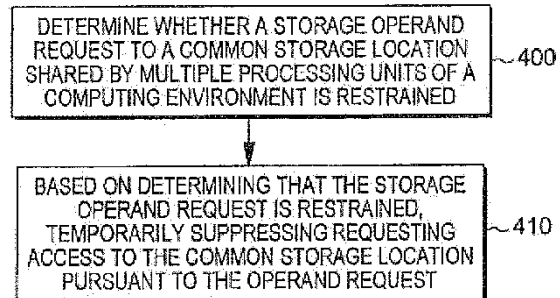
33: US 31: 15/404,254 32: 2017-01-12

**54: TEMPORARILY SUPPRESSING PROCESSING OF A RESTRAINED STORAGE OPERAND REQUEST**

00: -

Processing of a storage operand request identified as restrained is selectively, temporarily suppressed. The processing includes determining whether a storage operand request to a common storage location shared by multiple processing units of a computing environment is restrained, and based on determining that the storage operand request is restrained, then temporarily suppressing requesting access to the common storage location pursuant to the storage operand request. The processing unit

performing the processing may proceed with processing of the restrained storage operand request, without performing the suppressing, where the processing can be accomplished using cache private to the processing unit. Otherwise the suppressing may continue until an instruction, or operation of an instruction, associated with the storage operand request is next to complete.



21: 2019/04850. 22: 2019/07/24. 43: 2022/02/25

51: A61K; C12N

71: PROTALIX LTD.

72: ALMON, Einat, CHERTKOFF, Raul, ALON, Sari, SHAALTIEL, Yoseph

33: US 31: 62/442,537 32: 2017-01-05

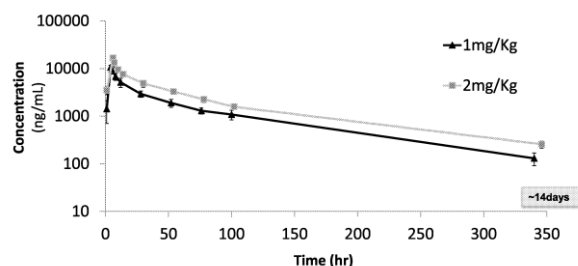
**54: THERAPEUTIC REGIMEN FOR THE TREATMENT OF FABRY USING STABILIZED ALPHA-GALACTOSIDASE**

00: -

Methods of treating Fabry disease via administration of stabilized plant recombinant human alpha galactosidase protein comprising at least two alpha-galactosidase monomers being covalently linked to one another via a linking moiety, and unit dosages of protein are disclosed herein. The disclosed protocols are safe, have greater than 2 week intervals between administrations and exhibit important improvement in patient's disease parameters, in terms of reduced Gb3 accumulation, pain and GI parameters, kidney and cardiac stabilization in the clinical setting.



Plasma pegunigalsidase alfa concentration vs. time



21: 2019/04863. 22: 2019/07/24. 43: 2022/02/18  
51: G06F  
71: INTERNATIONAL BUSINESS MACHINES CORPORATION

72: GIAMEI, Bruce Conrad, JACOBI, Christian, SHUM, Chung-Lung, SCHMIDT, Donald William, ROSA, Daniel, SAPORITO, Anthony

33: US 31: 15/404,247 32: 2017-01-12

#### 54: FACILITY FOR EXTENDING EXCLUSIVE HOLD OF A CACHE LINE IN PRIVATE CACHE

00: -

A computing environment facility is provided to extend a hold of a cache line in private (or local) cache exclusively after processing a storage operand request. The facility includes determining whether a storage operand request to a storage location shared by multiple processing units of the computing environment is designated hold. In addition, a determination is made whether a state of the corresponding cache line in private cache used for processing the storage operand request is owned exclusively. Based on determining that the storage operand request is designated hold, and that the state of the corresponding cache line in private cache used for processing the storage operand request is owned exclusively, continuing to hold the corresponding cache line in the private cache exclusively after completing processing of the storage operand request. The continuing to hold may include initiating a counter to facilitate the continuing hold for a desired, set interval.

400  
DETERMINE WHETHER A STORAGE OPERAND REQUEST TO A STORAGE LOCATION SHARED BY MULTIPLE PROCESSING UNITS OF A COMPUTING ENVIRONMENT IS DESIGNATED HOLD

410  
ASCERTAIN WHETHER A STATE OF A CORRESPONDING CACHE LINE IN PRIVATE CACHE USED TO COMPLETE PROCESSING OF THE STORAGE OPERAND REQUEST IS EXCLUSIVE

420  
BASED ON DETERMINING THAT THE STORAGE OPERAND REQUEST IS DESIGNATED HOLD, AND THAT THE STATE OF THE CORRESPONDING CACHE LINE IN PRIVATE CACHE USED FOR PROCESSING THE STORAGE OPERAND REQUEST IS EXCLUSIVE, CONTINUING TO HOLD THE CORRESPONDING CACHE LINE IN PRIVATE CACHE AFTER COMPLETING PROCESSING OF THE STORAGE OPERAND REQUEST, THE CONTINUING TO HOLD INCLUDING INITIATING A COUNTER TO FACILITATE THE CONTINUING HOLD FOR A DESIRED INTERVAL

21: 2019/05053. 22: 2019/07/31. 43: 2022/02/25  
51: A61B

71: CREO MEDICAL LIMITED

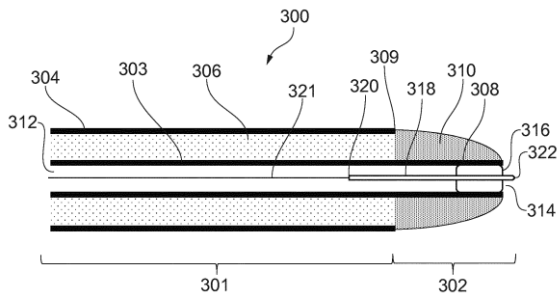
72: HANCOCK, Christopher Paul, BURN, Patrick, CAMPION, Charlie, TURNER, Louis

33: GB 31: 1707112.7 32: 2017-05-04

#### 54: ELECTROSURGICAL APPARATUS FOR TISSUE ABLATION

00: -

An electrosurgical apparatus for treating fluid-filled biological growths by replacing the fluid within the growth with a substance that assists in delivering treatment energy. The treatment energy may be microwave energy or may be thermal energy derived from microwave energy. The apparatus comprises an instrument having a radiating tip portion, and a fluid delivery mechanism for transporting fluid to and from a treatment zone located around the radiating tip portion. The fluid delivery mechanism comprises a rigid insertion element arranged to extend into the treatment zone, whereby fluid can be aspirated from the treatment zone, and a substance injected into the treatment zone to replace the aspirated fluid. The injected substance has dielectric properties selected to facilitate uniform delivery of treatment energy to biological tissue in the treatment zone.



21: 2019/05099. 22: 2019/07/31. 43: 2022/02/18

51: G06F

71: INTERNATIONAL BUSINESS MACHINES CORPORATION

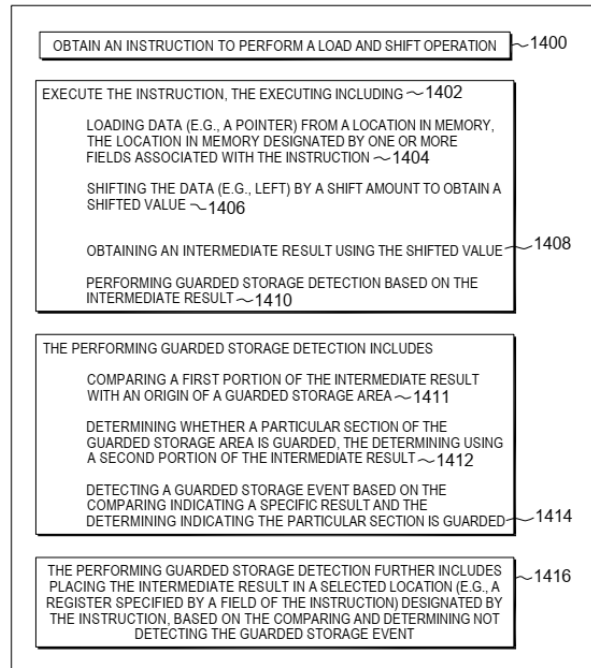
72: GREINER, Dan, SLEGEL, Timothy, JACOBI, Christian, SAPORITO, Anthony, PAPROTSKI, Volodymyr, MITRAN, Marcel

33: US 31: 15/409,684 32: 2017-01-19

#### **54: LOAD LOGICAL AND SHIFT GUARDED INSTRUCTION**

00: -

A guarded storage facility sets up a boundary indicating a range of addresses to be guarded or protected. When a program attempts to access an address in a guarded section defined by the boundary, a guarded storage event occurs. Use of this facility facilitates performance of certain tasks within a computing environment, including storage reclamation.



21: 2019/05567. 22: 2019/08/23. 43: 2022/02/18

51: E21D

71: EPIROC HOLDINGS SOUTH AFRICA (PTY) LTD

72: KNOX, Greig, TYRER, David Charles

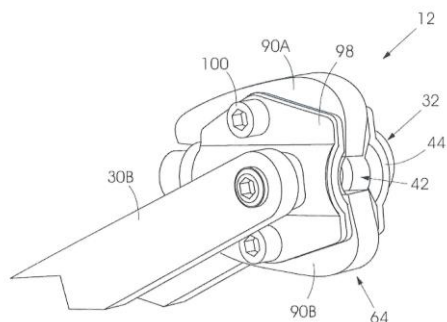
33: ZA 31: 2018/06123 32: 2018-09-13

#### **54: ROCK DRILL ADAPTED NOZZLE**

00: -

The rock drill adapted filler apparatus which includes a nozzle component having a body which includes a passage with has an inlet end and an outlet end, with the outlet end adapted to receive a filler valve connector of a hydraulically inflatable device, a reciprocating element having a forward portion which sealingly engages with the passage from the inlet end, a back portion which projects from the passage, which has an actuating formation and which is adapted to engage a fluid input hose, and a bore through the element, a valve member in the passage or the bore, a clamping element pivotally connected to the nozzle body, which is biased to a release position, in which the element does not engage the connector, which is actuatable to pivot from the release position to a clamped position, in which the element engages the connector to hold the end against the outlet end of the passage, and which engages the actuating formation and an elevating component which is adapted at one end to engage a chuck of the rock drill and to which, at an opposed

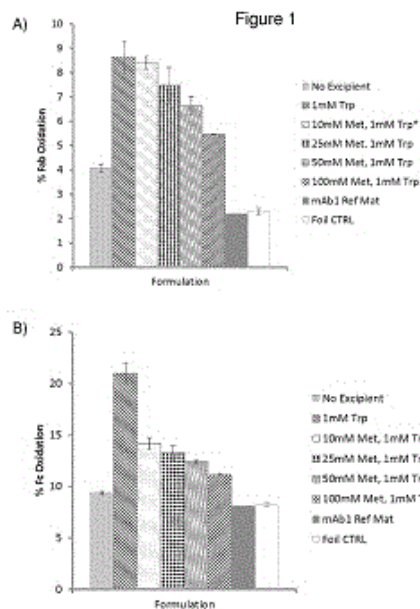
end, the nozzle body is pivotally engaged, wherein the reciprocating element has a forward position in which the actuating formation does not cause the clamping element to pivot to the clamping position and wherein, with an increase in fluid pressure in the passage, the reciprocating formation moves from the forward position to a back position and the actuating formation causes the clamping element to pivot to the clamping position.



21: 2019/06057. 22: 2019/09/13. 43: 2022/02/25  
51: A61K  
71: GENENTECH, INC.  
72: ALAVATTAM, SREEDHARA, MALLANEY, MARY, GREWAL, PARBIR  
33: US 31: 61/780,845 32: 2013-03-13  
33: US 31: 61/909,813 32: 2013-11-27  
**54: FORMULATIONS WITH REDUCED OXIDATION**

00: -

The invention provides formulations comprising a protein in combination with a compound that prevents oxidation of the protein. The invention also provides methods for making such formulations and methods of using such formulations. The invention further provides methods of screening for compounds that prevent oxidation of a protein in a protein composition and methods of preventing oxidation of a protein in a formulation.



21: 2019/06088. 22: 2019/09/13. 43: 2022/01/27

51: B60C; G01B

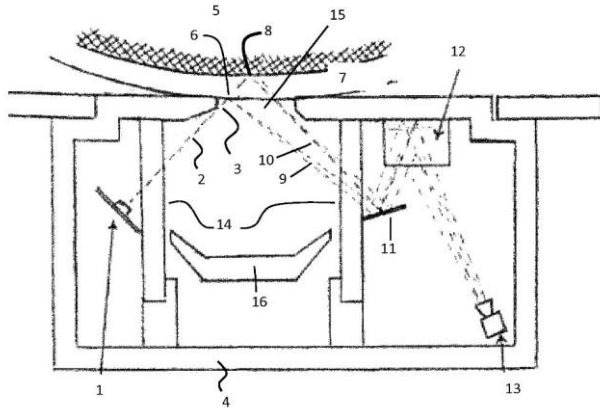
71: WHEELRIGHT LIMITED

72: ROSE, Peter Norman, TAYLOR, Michael

**54: TREAD LINE SCANNER**

00: -

A device for measuring tread depth of tyres, wherein in use a tyre can be driven over the device in a first direction, the device comprising: a light source arranged to illuminate the tyre; an obstruction extending in a second direction substantially perpendicular to the first direction and arranged to partially block the light emitted from the light source such that a shadow is cast on the tyre when the tyre is located above the device, and such that the shadow is cast on the tyre in a direction substantially perpendicular to the tread of the tyre; and a camera arranged to view an illuminated section of the tyre.



21: 2019/06316. 22: 2019/09/25. 43: 2022/02/11  
51: E21B; E21D

71: Sandvik Intellectual Property AB

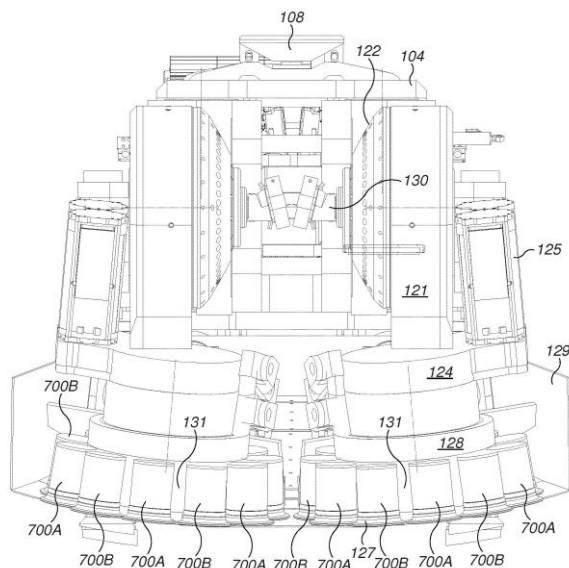
72: GARCIA, Luis, STABER, Guenther

33: EP(SE) 31: 17166804.9 32: 2017-04-18

#### 54: CUTTING APPARATUS

00: -

A cutting head (128) for cutting apparatus (100) for creating tunnels or subterranean roadways having: a rotatable cutting head body (131); a plurality of cutting units (700A, 700B) mounted on the cutting head body (131), said cutting units including different types of cutting units, wherein the different types of cutting units (700A, 700B) are different from one another by at least the arrangements of their buttons (710A, 710B).



21: 2019/06513. 22: 2019/10/03. 43: 2022/02/14  
51: A61K; C07K; C12N

71: R-Pharm Overseas Inc.

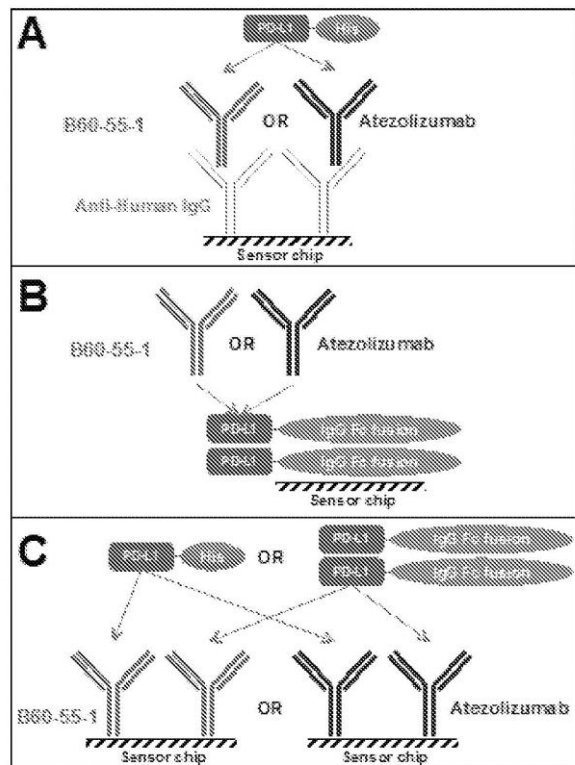
72: LAVROVSKY, Yan, XU, Ting, BARBASHOV, Sergei, REPIK, Alexey, SAMSONOV, Mikhail, IGNATIEV, Vasily, ARCHUADZE, Shorena

33: PCT/US 31: 2017/028206 32: 2017-04-18

#### 54: ANTI-PD-L1 ANTIBODY AND USE THEREOF

00: -

Disclosed are fully human anti-PD-L1 antibodies and their corresponding applications. Fully human antibodies are capable of specifically binding to human PD-L1. Antibodies were obtained by employing a yeast display library-based screening technique and also by affinity maturation to further improve their affinity for PD-L1. The fully human anti-PD-L1 antibodies disclosed show good specificity, affinity and stability. They are capable of enhancing T cell activity by binding to activated T cells, while significantly inhibiting tumor growth. Disclosed fully human anti-PD-L1 antibodies can be used in the diagnosis and treatment of PD-L1-related cancers and other associated diseases.



21: 2019/06629. 22: 2019/10/08. 43: 2022/02/18

51: A61B; A61F; A61M

71: C.R. Bard, Inc.

72: HUGHETT, David, RIESCHER, Russell, GOHDE, John

33: US 31: 15/487,297 32: 2017-04-13



**54: CATHETER INSERTION TRAY WITH INTEGRATED INSTRUCTIONS**

00: -

An improved medical procedure or catheterization tray included in an improved medical procedure or catheterization package. The improved medical procedure or catheterization tray is intuitively arranged and includes instructions printed thereon to improve the medical procedure or catheterization implementation and results. In one example, a catheterization package and catheterization tray has a layout and/or arrangement of components that may help reduce CAUTI rates by facilitating ease of use and aiding in proper aseptic technique during insertion. The medical procedure or catheterization package and/or medical procedure or catheterization tray may include various implements, compartments, and components necessary and/or helpful to the medical procedure or catheterization, including, for example, improved swabs and an improved compartment for holding the swabs.

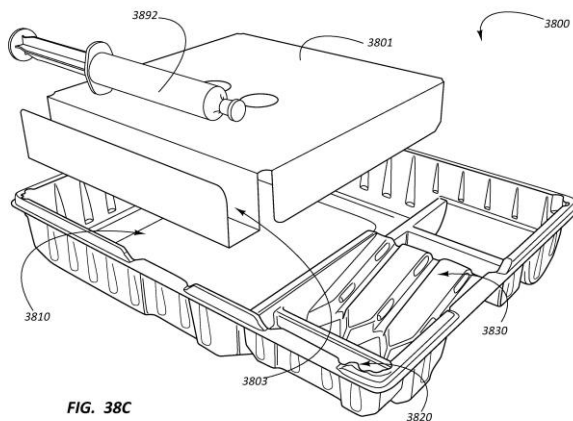


FIG. 38C

21: 2019/06952. 22: 2019/10/22. 43: 2022/02/18

51: F42B; F42D

71: PWS Systems Pty Ltd

72: PARK, Allen

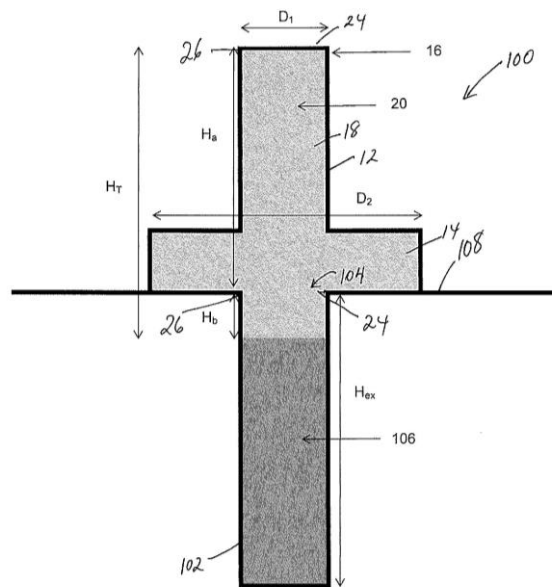
33: AU 31: 2017901046 32: 2017-03-23

**54: BLASTING METHOD AND SYSTEM**

00: -

An above ground stemming device is described which includes a body configured, in use, to cover an open end of a blast hole loaded with explosives to surface or to within 300 mm of surface. The body has a void containing a stem of superabsorbent polymer gel therein and it is positioned in use to allow the stem of superabsorbent polymer gel to be in contact with the explosives in the blast hole. The

body may include a base and an upper portion extending upwardly from the base. The void may extend through the body to an opening in the base. Alternatively, the void may be encased by the body. The body may be fabricated from a rigid material or from a flexible material capable of being inflated with a fluid.



21: 2019/06967. 22: 2019/10/22. 43: 2022/02/25

51: G06Q

71: ISX IP LTD

72: KARANTZIS, Nickolas John

33: AU 31: 2017901038 32: 2017-03-23

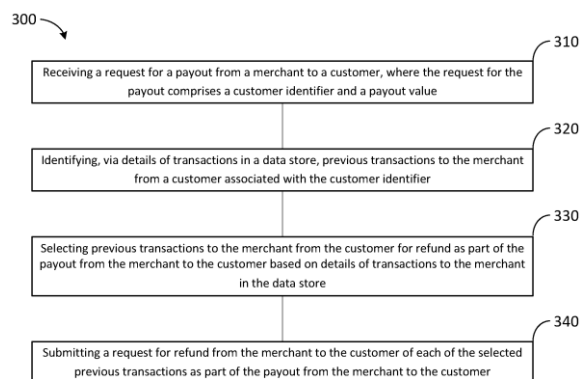
**54: COMPUTER SYSTEMS, COMPUTER-IMPLEMENTED METHODS AND SOFTWARE FOR PROCESSING PAYOUTS**

00: -

The present disclosure relates to a payout processing system. The payout processing system comprises a data store to store details of transactions. A processor communicates with the data store. The processor receives a request for a payout from a merchant to a customer. The request for the payout comprises a customer identifier and a payout value. The processor also identifies, via the details of transactions in the data store, previous transactions to the merchant from a customer associated with the customer identifier. The processor selects previous transactions to the merchant from the customer for refund from the merchant to the customer based on the details of



transactions to the merchant in the data store. The processor also submits a request for refund from the merchant to the customer of each of the selected previous transactions as part of the payout from the merchant to the customer.



21: 2019/06985. 22: 2019/10/23. 43: 2022/02/25

51: A47B; B66B

71: LOFTROBE LTD.

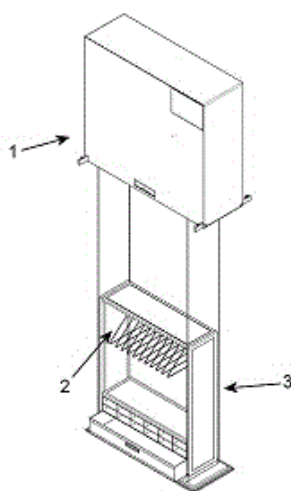
72: EAMES, JAMES ALLEN

33: GB 31: 1705581.5 32: 2017-04-06

**54: A WARDROBE APPARATUS**

00: -

A wardrobe apparatus comprising a body supporting a rail, a frame, and a movement mechanism, wherein the actuation means is arranged to move the rail vertically from a first position distal the frame to a second position proximate the frame.



21: 2019/06999. 22: 2019/10/23. 43: 2022/02/18

51: B65D

71: CARLSBERG BREWERIES A/S

72: CHRISTIANSEN, JONAS

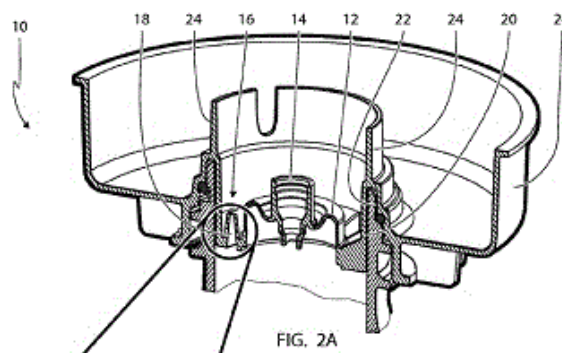
33: EP 31: 17185765.9 32: 2017-08-10

33: EP 31: 17168743.7 32: 2017-04-28

**54: A BEVERAGE CONTAINER HAVING A PRESSURE-RELIEF DEVICE AND A METHOD OF MANUFACTURING A BEVERAGE CONTAINER HAVING A PRESSURE-RELIEF DEVICE**

00: -

The present invention relates to a container assembly for accommodating a beverage. The container assembly comprises a collapsible beverage container having a body part for accommodating the beverage and a cylindrical neck part defining a gas-filled headspace. The container assembly further comprises a closure sealing off an opening of the cylindrical neck part. The closure comprises a closure disc, an inner cylindrical part and an outer cylindrical part. The closure disc comprises a beverage outlet for extracting the beverage. The closure further comprises a pressure-relief device located at the closure disc or the inner cylindrical part. The pressure-relief device is capable of establishing a permanent or reclosable opening through the closure or between the closure and the neck part for allowing a flow of fluid from the headspace to an external space when a pressure difference exceeds a predetermined pressure value being lower than the burst pressure of the container.



21: 2019/07012. 22: 2019/10/24. 43: 2022/02/25

51: A24F

71: PHILIP MORRIS PRODUCTS S.A.

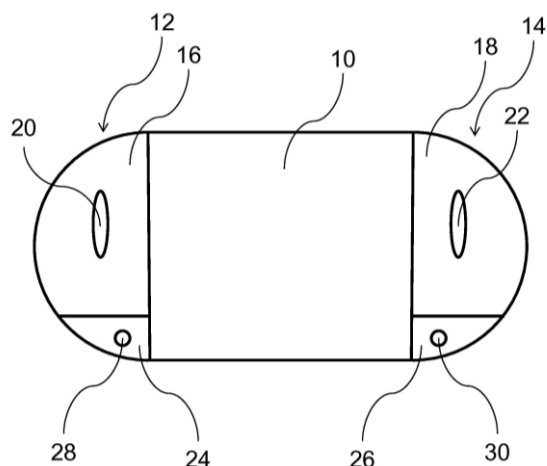
72: BILAT, Stephane

33: EP 31: 17180258.0 32: 2017-07-07

**54: AEROSOL-GENERATING SYSTEM WITH FOUR CONTACTS**

00: -

The present invention proposes an aerosol-generating system which comprises an electric heater (10) and a pair of first contacts (20, 22) for delivering electrical power to the electric heater. The system further comprises a pair of second contacts (28, 30) independently contacting the electric heater for measuring the voltage between the second contacts.



21: 2019/07018. 22: 2019/10/24. 43: 2022/02/18  
 51: A61K; C12N  
 71: BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM  
 72: GEORGIU, George, STONE, Everett, LU, Wei-Cheng  
 33: US 31: 62/505,493 32: 2017-05-12  
**54: HUMAN-ENZYME MEDIATED DEPLETION OF HOMOCYSTEINE FOR TREATING PATIENTS WITH HYPERHOMOCYSTEINEMIA AND HOMOCYSTINURIA**

00: -  
 Methods and compositions relating to the engineering of an improved protein with homocyst(e)inase enzyme activity are described. For example, there are disclosed modified cystathionine-γ-lyase (CGL) enzymes comprising one or more amino acid substitutions and capable of degrading homocysteine. Furthermore, provided are compositions and methods for the treatment of homocystinuria or hyperhomocysteinemia with homocysteine depletion using the disclosed enzymes or nucleic acids.

21: 2019/07072. 22: 2019/10/25. 43: 2022/02/18  
 51: E21D

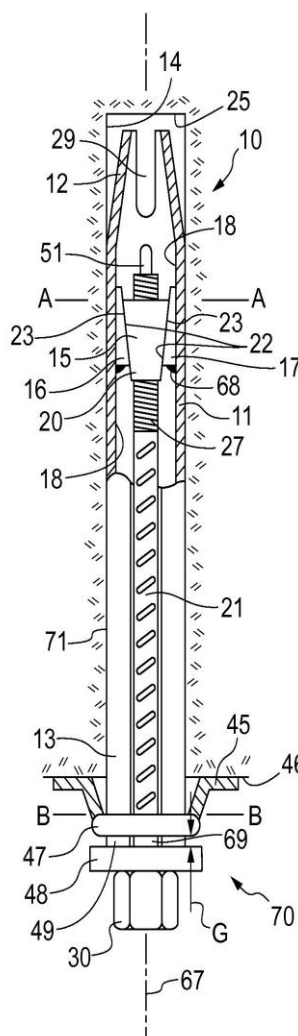
71: Sandvik Intellectual Property AB  
 72: DARLINGTON, Bradley, YOUNG, Peter, RATAJ, Mietek

33: AU 31: 2017901751 32: 2017-05-11

**54: FRICTION ROCK BOLT**

00: -

A friction rock bolt assembly to frictionally engage an internal surface of a bore formed in rock strata. The rock bolt comprises an expander mechanism having at least two radially outer wedge elements engageable by an inner wedge element. The expander mechanism is configured for symmetrical displacement of the expander elements to provide a controlled means of enlargement by the rock bolt within the borehole for secure anchorage.



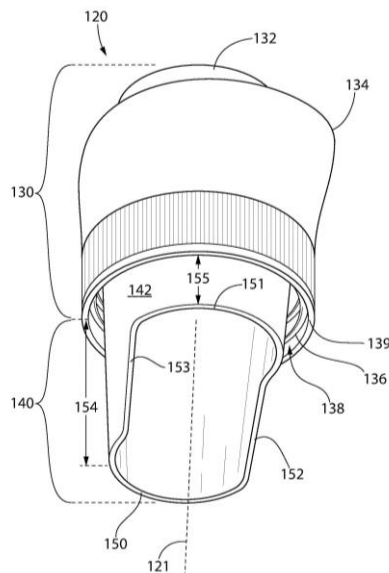
21: 2019/07152. 22: 2019/10/29. 43: 2022/02/18  
 51: B65D; G01F  
 71: Colgate-Palmolive Company

72: CRAWFORD, John C., ROBINSON II, Michael Paul

#### 54: BOTTLE CAP FOR DISPENSING LIQUID

00: -

A cap 120 for a bottle 110 includes an upper portion 130 and a lower portion 140. The upper portion is configured to be positioned on an exterior of the bottle when the cap is engaged with the bottle. The lower portion is configured to be positioned at least partially within the bottle when the cap is engaged with the bottle. A lower end of the lower portion includes a first perimeter portion 150 and a second perimeter portion 151. A first distance between the upper portion and the first perimeter portion is different than a second distance between the upper portion and the second perimeter portion.



21: 2019/07270. 22: 2019/11/01. 43: 2022/02/25

51: H04L

71: GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD.

72: XU, HUA

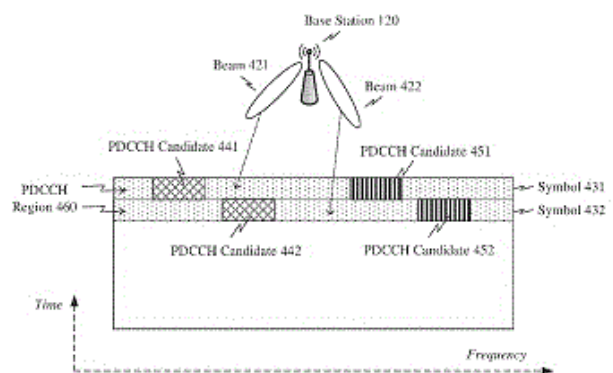
33: US 31: 62/480,702 32: 2017-04-03

#### 54: METHODS AND APPARATUSES FOR CONFIGURING A CONTROL RESOURCE SET IN A WIRELESS COMMUNICATION SYSTEM

00: -

Methods and apparatuses for configuring a control resource set and a search space corresponding thereto in a wireless communication system, the method including transmitting a configuration of a

control resource set and transmitting a control channel on the control resource set in accordance with the configuration of the control resource set. The control resource set is in a control region including time and frequency resources. The configuration of the control resource set includes: an indication of a starting symbol of the search space in the control resource set, an indication of a number of symbols of the control resource set, an indication of physical resource blocks (PRBs) in the control resource set, and an indication of CCE to resource element group (REG) mapping.



21: 2019/07332. 22: 2019/11/05. 43: 2022/02/25

51: A47L; C02F; D06F

71: SWATAB SCANDINAVIAN WATER TECHNOLOGY AB

72: HANSSON, Per

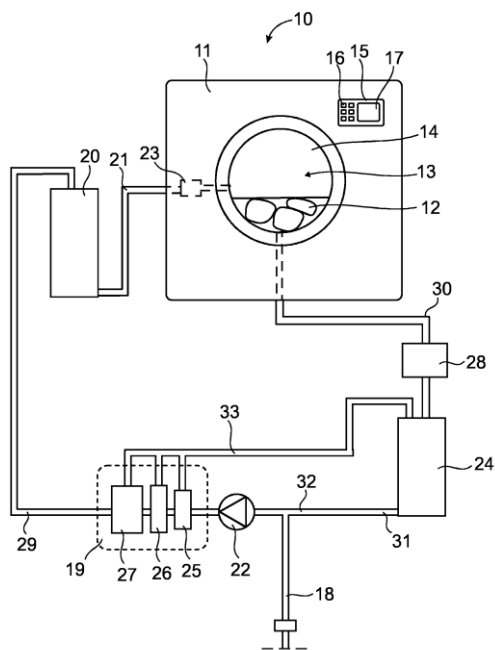
33: EP 31: 17165299.3 32: 2017-04-06

#### 54: A SYSTEM AND A METHOD FOR WASHING ITEMS

00: -

A system (10) for washing items (12) with purified water alone, comprising a washing machine (11), a water purification apparatus (19), and a reservoir (20) for storing purified water, wherein the water purification apparatus (19) comprises a reverse osmosis device (26) and first and second deionizing materials. The washing machine (11) comprises a container (13) for receiving the items (12) to be washed, and said container (13) is arranged with an inlet connected to the reservoir (20), so that the items (12) are washable inside the container (13) with the purified water. The system (10) further comprises a tank (24) for collecting used water from the container (13), wherein an inlet of the tank (24) is connected to an outlet of the container (13). The

system (10) also comprises a sediment filter (28) for filtering off particulate solids from the used water, wherein the sediment filter (28) is arranged between the tank (24) and the water purification apparatus (19).



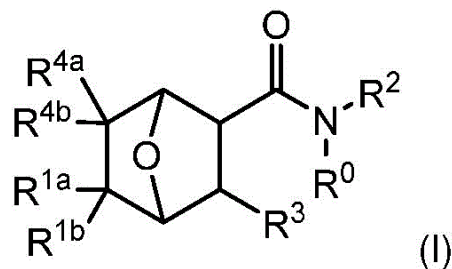
21: 2019/07358. 22: 2019/11/06. 43: 2022/02/25  
51: A61K; C07D  
71: NOVARTIS AG

72: CHOI, Ha-Soon, JIANG, Jiqing, LAJINESS, James, Paul, NGUYEN, Bao, PETRASSI, Hank, Michael, James, WANG, Zhicheng  
33: US 31: 62/517,394 32: 2017-06-09

#### 54: COMPOUNDS AND COMPOSITIONS FOR INDUCING CHONDROGENESIS

00: -

The present invention provides a compound of formula (I) or a pharmaceutically acceptable salt thereof; (I) or a pharmaceutically acceptable salt, tautomer, or stereoisomer thereof, wherein the variables are as defined herein. The present invention further provides pharmaceutical compositions comprising such compounds; and methods of using such compounds for treating joint damage or injury in a mammal, for inducing hyaline cartilage production or for inducing differentiation of chondrogenic progenitor cells into mature chondrocytes.



21: 2019/07370. 22: 2019/11/06. 43: 2022/02/25  
51: A61K; A61P

71: GALERA LABS, LLC

72: BEARDSLEY, ROBERT A, KEENE, JEFFERY L, RILEY, DENNIS P

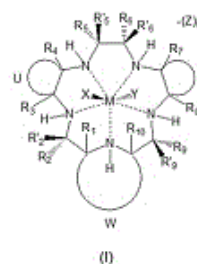
33: US 31: 62/572,377 32: 2017-10-13

33: US 31: 62/485,061 32: 2017-04-13

#### 54: COMBINATION CANCER IMMUNOTHERAPY WITH PENTAAZA MACROCYCLIC RING COMPLEX

00: -

A method of treating a cancer in a mammalian subject afflicted with the cancer, includes administering to the subject an immune checkpoint inhibitor, and administering to the subject a pentaaza macrocyclic ring complex corresponding to the formula (I) below, prior to, concomitantly with, or after administration of the immune checkpoint inhibitor, to increase the response of the cancer to the immune checkpoint inhibitor.



51: A61K; C07K

71: REGENERON PHARMACEUTICALS, INC.

72: ORENGO, Jamie, M., MURPHY, Andrew, J.,  
BADITHE, Ashok, KAMAT, Vishal, LIU, Yashu

33: US 31: 62/513,872 32: 2017-06-01

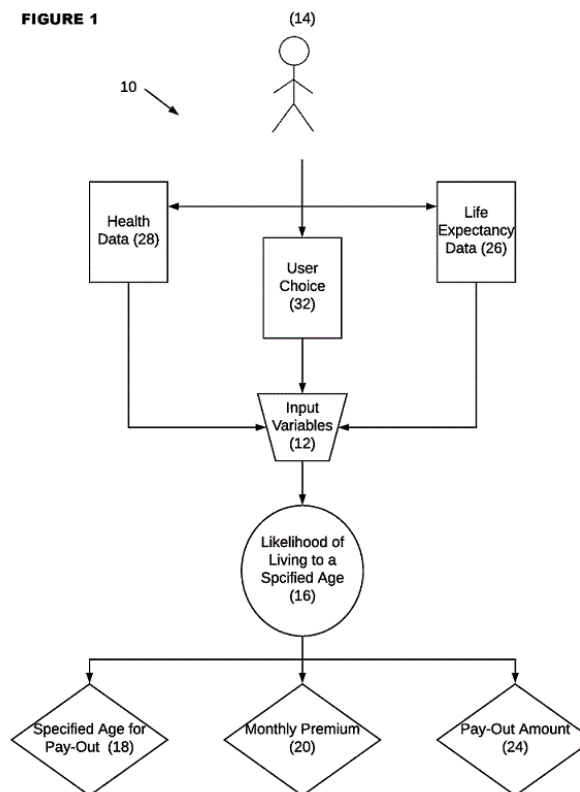
33: US 31: 62/571,696 32: 2017-10-12

33: US 31: 62/662,165 32: 2018-04-24

**54: HUMAN ANTIBODIES TO BET V 1 AND  
METHODS OF USE THEREOF**

00: -

Provided herein are antibodies that bind Fagales allergens, Fagales related allergens, birch pollen, or Bet v 1, compositions comprising the antibodies, nucleic acids encoding the antibodies, and methods of using the antibodies. According to certain embodiments, the antibodies are fully human monoclonal antibodies that bind to Bet v 1. The antibodies are useful for binding Bet v 1 in vivo, thus preventing binding of the allergen to pre-formed IgE on the surface of mast cells or basophils. In doing so, the antibodies act to prevent the release of histamine and other inflammatory mediators from mast cells and/or basophils, thus ameliorating the untoward response to the Fagales allergens in sensitized individuals.

**FIGURE 1**

21: 2019/07829. 22: 2019/11/26. 43: 2022/02/25

51: A61F

71: DRYLOCK TECHNOLOGIES NV

72: SMET, STEVEN, VAN INGELGEM, WERNER,  
DERYCKE, TOM, VERDUYN, DRIES

33: EP 31: 17183453.4 32: 2017-07-27

33: EP 31: 17171110.4 32: 2017-05-15

33: EP 31: 17198349.7 32: 2017-10-25

33: EP 31: 17198368.7 32: 2017-10-25

33: EP 31: 17200847.6 32: 2017-11-09

33: EP 31: 17190395.8 32: 2017-09-11

33: EP 31: 17198652.4 32: 2017-10-26

33: EP 31: 17202006.7 32: 2017-11-16

33: EP 31: 17196434.9 32: 2017-10-13

**54: ABSORBENT ARTICLE WITH CHANNELS  
AND METHOD FOR MANUFACTURING THEREOF**

00: -

An absorbent article comprising a liquid pervious topsheet, a liquid impervious backsheet, and an absorbent core comprising an absorbent material between a top core wrap sheet and a back core wrap sheet, said absorbent core being positioned in between said topsheet and said backsheet; said absorbent core having a first and second longitudinal edge (131, 132) and a front and rear transverse edge (133, 134), wherein the absorbent core is provided with a plurality of attachment zones where

21: 2019/07544. 22: 2019/11/14. 43: 2022/02/04

51: G06Q

71: ROSSOUW, Johannes, Jacobus

72: ROSSOUW, Johannes, Jacobus

33: ZA 31: 2017/02805 32: 2017-04-21

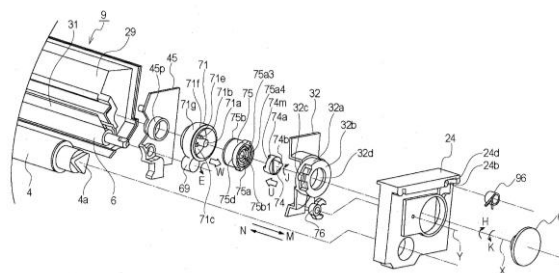
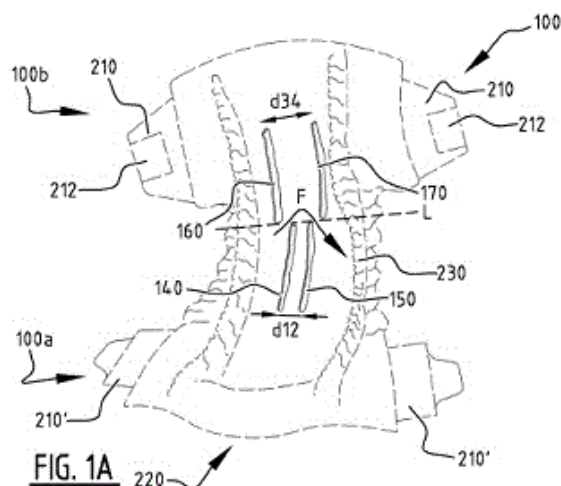
**54: A METHOD FOR OPERATING AN  
INSURANCE SCHEME**

00: -

Method of operating an insurance scheme (10), which includes determining input variables (12) for a particular person (14) to be insured, capturing the input variables (12) according to data of the particular person (14), determining a likelihood (16) of the person (14) living to a specified age (18), the likelihood (16) being based on the input variables (12), determining a monthly premium (20) payable by the insured person (14) based on the likelihood (16) and determining a pay-out amount (24) to be paid to the insured person (14) in the event that the insured person (14) lives to the specified age (18).



the top core wrap sheet is attached to the back core wrap sheet, wherein the plurality of attachment zones comprises: at least a first and a second elongate attachment zone, said first and second elongate attachment zone extending next to each other from a crotch region in the direction of the front and/or rear transverse edge; at least one connecting attachment zone connecting said first attachment zone with said second attachment zone.



21: 2019/08070. 22: 2019/12/04. 43: 2022/02/11  
51: C07D; A61K

71: H LUNDBECK A/S

72: GRICE, CHERYL A, WIENER, JOHN J M,  
WEBER, OLIVIA D, DUNCAN, KATHARINE K  
33: US 31: 62/510,213 32: 2017-05-23

**54: PYRAZOLE MAGL INHIBITORS**

00: -

Provided herein are pyrazole compounds and pharmaceutical compositions comprising said compounds. The subject compounds and compositions are useful as modulators of monoacylglycerol lipase (MAGL). Furthermore, the subject compounds and compositions are useful for the treatment of pain.

21: 2019/08000. 22: 2019/12/02. 43: 2022/02/25  
51: G03G

71: CANON KABUSHIKI KAISHA

72: NISHIDA, Shinichi, FUKUI, Yuichi, UNEME,  
Tetsushi, EGAMI, Yasuyuki, ANZAI, Yohei,  
KAWANAMI, Takeo, FUJINO, Toshiki, SUGIMOTO,  
Sohta, SAWASHIMA, Fumiya

33: JP 31: 2017-117890 32: 2017-06-15

**54: CARTRIDGE AND ELECTROPHOTOGRAPHIC  
IMAGE FORMATION DEVICE**

00: -

A control member 76 for controlling transmission and interruption of a rotational force by a clutch is rotatably supported by a support member for supporting a developing frame body. An action part provided in the developing frame body causes a locking part provided in the control member 76 to rotate between a position to which the locking part retreats from a part to be locked of the clutch and a position at which the locking part engages with the part to be locked.

21: 2019/08108. 22: 2019/12/05. 43: 2022/02/25  
51: H04W

71: TELEFONAKTIEBOLAGET LM ERICSSON  
(PUBL)

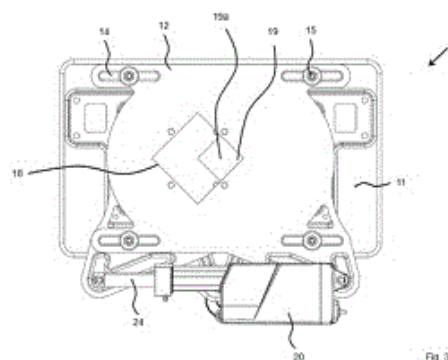
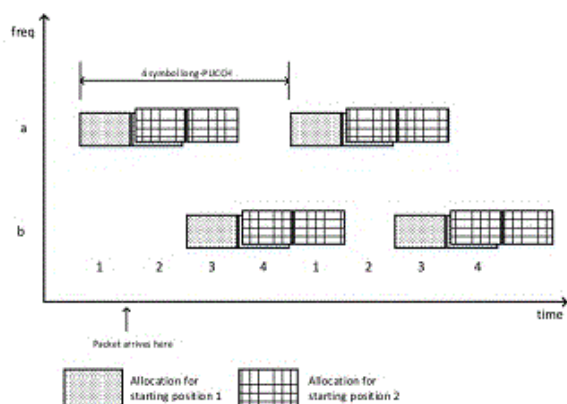
72: ZOU, ZHENHUA, KITTICHOKECHAI,  
KITTIPONG, WIKSTRÖM, GUSTAV, SUNDBERG,  
MÅRTEN

33: US 31: 62/521,183 32: 2017-06-16

**54: SYSTEM AND METHODS FOR CONFIGURING  
USER EQUIPMENTS WITH OVERLAPPING  
PUCCH RESOURCES FOR TRANSMITTING  
SCHEDULING REQUESTS**

00: -

Systems and methods for configuring UEs with overlapping PUCCH resources for transmitting scheduling requests are provided. A network node can transmit a scheduling request configuration message indicating PUCCH resources, including a periodicity parameter being less than the PUCCH length. A wireless device can configure PUCCH resources in accordance with the configuration message and transmit a scheduling request.



21: 2019/08193. 22: 2019/12/10. 43: 2022/02/25  
51: A01C  
71: KVERNELAND GROUP NIEUW-VENNEP B.V.  
72: THYBAUT, MAARTEN

33: EP 31: 19 150 946.2 32: 2019-01-09

**54: ASSEMBLY FOR A DOSING SYSTEM OF A SPREADER MACHINE FOR DISTRIBUTING A GRANULAR MATERIAL OR THE LIKE, DOSING SYSTEM AND SPREADER MACHINE**

00: -

The present disclosure refers to an assembly for a dosing system of a spreader machine for distributing a granular material or the like, comprising: a first member provided with a first opening, a second member provided with a second opening, and an actuator connected to at least one of the first and second members and configured to provide a driving force for relative movement between the first and second members, thereby, adjusting an opening size of a dosing opening provided by an overlapping area in which the first and second openings are overlapping. The first and second members are moveable by the relative movement into a first position providing the dosing opening with a first opening size and a second position different from the first position and providing the dosing opening with a second opening size different from the first opening size, wherein a center portion of the dosing opening is locally fixed when the first and second members are moved between first and second positions. Further, a dosing system for a spreader machine for distributing a granular material or the like comprising the assembly is provided. A spreader machine for distributing a granular material or the like is provided.

21: 2019/08351. 22: 2019/12/13. 43: 2022/02/25

51: A61K; A61P

71: VELOS BIO INC.

72: LANNUTTI, Brian, JESSEN, Katti, VO, Thanh-Trang, WATKINS, Jeffry Dean

33: US 31: 62/524,382 32: 2017-06-23

33: US 31: 62/524,386 32: 2017-06-23

33: US 31: 62/524,388 32: 2017-06-23

**54: ROR1 ANTIBODY IMMUNOCONJUGATES**

00: -

Provided herein are immunoconjugates comprising an anti-ROR1 antibody or an antigen-fragment thereof and a drug moiety. These immunoconjugates are useful for treating ROR1 expressing cancers.

21: 2019/08465. 22: 2019/12/19. 43: 2022/02/25

51: A24F

71: ALTRIA CLIENT SERVICES LLC

72: CADIEUX, EDMOND, BURTON, DOUGLAS, SMITH, BARRY, LIPOWICZ, PETER, COBLER, PATRICK

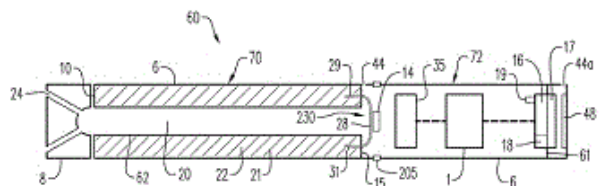
33: US 31: 61/946,376 32: 2014-02-28

**54: ELECTRONIC VAPING DEVICE AND COMPONENTS THEREOF**

00: -

An electronic vaping device which includes a liquid reservoir, a susceptor and a wick. The liquid reservoir is configured to contain a liquid material. The wick is in communication with the liquid reservoir. The wick is also in contact with the susceptor and is configured to be in thermal communication with the susceptor such that the susceptor is operable to heat the liquid material to a temperature to vaporize the liquid material. The device may also comprise an induction source which includes an inductive coil at an end thereof proximate to the susceptor. The inductive coil may

be configured to generate an inductive field to heat the susceptor. The inductive coil may comprise a helix or a planar coil. The induction source may include a cylindrical core which comprises a ferrite material and the inductive coil may be wound about the cylindrical core.



21: 2019/08566. 22: 2019/12/23. 43: 2022/03/14

51: B03B

71: SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

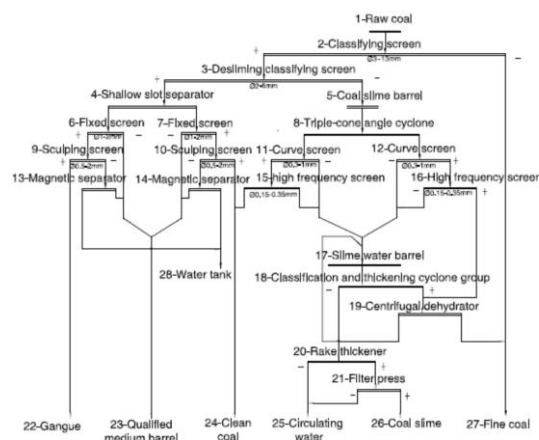
72: CUI, Guangwen, LIU, Huijie, SUI, Wenhao

33: CN 31: 201811609158.3 32: 2018-12-27

#### 54: STEAM COAL SEPARATION METHOD

00: -

The present invention provides a steam coal separation method. The steam coal separation method includes the following steps: (1) classifying raw steam coal through a classifying screen to obtain screen overflow of the classifying screen; (2) desliming, through a desliming classifying screen, the screen overflow of the classifying screen obtained in step (1), to obtain screen overflow of the desliming classifying screen and coal slime; (3) separating, through a heavy medium separator, the screen overflow of the desliming classifying screen obtained in step (2), to obtain coarse clean coal; (4) allowing the coarse clean coal obtained in step (3) to successively pass through a fixed screen and a sculping screen to obtain clean coal I; and (5) separating, through a triple-cone angle cyclone, the coal slime obtained in step (2), allowing obtained overflow to successively pass through a curve screen and a high frequency screen to obtain clean coal II.



21: 2019/08596. 22: 2019/12/23. 43: 2022/02/14

51: H04B

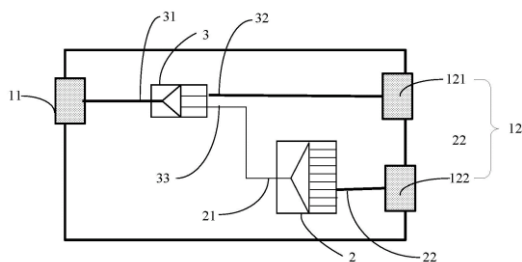
71: Huawei Technologies Co., Ltd.

72: ZHANG, Jinjin, JIA, Xiaoqin

#### 54: OPTICAL SPLITTING APPARATUS

00: -

A light splitting apparatus. The light splitting apparatus comprises a housing, and an isometric light splitter and a non-isometric light splitter provided in the housing; a light inlet and multiple light outlets are provided on the housing, and an optical fiber adapter is provided on the light outlet; the light inlet, the isometric light splitter, and the non-isometric light splitter are connected to the light outlet, so that a light path is formed between the light inlet and the light outlet by means of the isometric light splitter and the non-isometric light splitter; the light inlet is connected to at least one of a light inlet end of the isometric light splitter and a light inlet end of the non-isometric light splitter, and the optical fiber adapter on the light outlet is connected to at least one of a light outlet end of the isometric light splitter and a light outlet end of the non-isometric light splitter. The light splitting apparatus can be used by matching an optical cable of which the end portion is provided with an optical fiber connector, and under the premise of achieving plug-and-play, light output powers on the light outlets can further be flexibly configured according to user distribution conditions; the coverage distance is not only large, and light signal resources are not wasted and users as many as possible are covered.



21: 2020/00370. 22: 2020/01/20. 43: 2022/02/04

51: E21B B25D F16K

71: UGT GROUP PTY LTD

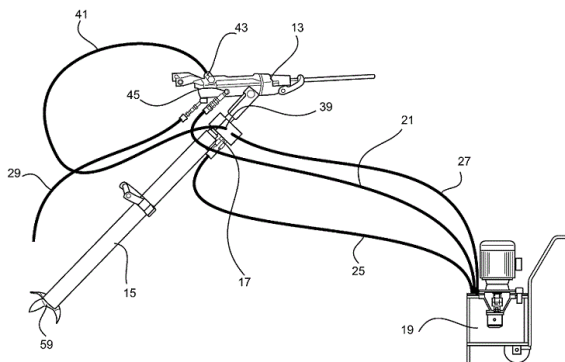
72: SCOTT, Max

33: AU 31: 2017902457 32: 2017-06-26

**54: DRILL ASSEMBLY AND VALVE**

00: -

The present invention provides a drill assembly (11) comprising a drill (13) for drilling rock, a support (15) for supporting the drill, and a valve (17) for releasably securing the support and drill together. The valve is adapted to receive a fluid from a pump means (19) and controllably provide the drill and the support with the fluid for operation of the drill and the support.



21: 2020/00561. 22: 2020/01/28. 43: 2022/02/04

51: A61K; A61P; C07D

71: Theravance Biopharma R&amp;D IP, LLC

72: FENSTER, Erik, LAM, Tom M., LOO, Mandy, MCKINNELL, Robert Murray, PALERMO, Anthony Francesco, WANG, Diana Jin, FRAGA, Breena, NZEREM, Jerry, DABROS, Marta, THALLADI, Venkat R., RAPTA, Miroslav

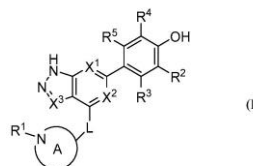
33: US 31: 62/539,642 32: 2017-08-01

**54: PYRAZOLO AND TRIAZOLO BICYCLIC COMPOUNDS AS JAK KINASE INHIBITORS**

00: -

The invention provides compounds of formula (I) or a pharmaceutically-acceptable salt thereof, wherein

the variables are defined in the specification, that are inhibitors of JAK kinases, particularly JAK3. The invention also provides crystalline forms, pharmaceutical compositions comprising such compounds, methods of using such compounds to treat gastrointestinal and other inflammatory diseases, and processes and intermediates useful for preparing such compounds.



21: 2020/00657. 22: 2020/01/31. 43: 2022/02/04

51: E21B

71: Sandvik Mining and Construction Oy

72: VERHO, Samuli, KOKKONEN, Annukka

33: EP(FI) 31: 19156382.4 32: 2019-02-11

**54: DRILLING ARRANGEMENT, DRILLING MACHINE AND METHOD**

00: -

A drilling arrangement, a mine drilling machine and a method. The arrangement comprises - a hollow, flexible and rotatable drill rod (2), - a feed unit (1) for feeding and rotating said drill rod (2), - a feed beam (4) arranged to support the feed unit (1), - a guiding element system (5) arranged to support a section of the drill rod (2) entering the rotation unit (1), the guiding element system (5) comprising-- an inner guide (6), arranged to envelop said section of the drill rod (2),-- an outer support arrangement (9) arranged to support and guide a first length of the inner guide (6) in/on a carrier (10) of the mine drilling machine, and-- the inner guide (6) being movable in its lengthwise direction in the outer support arrangement (9).

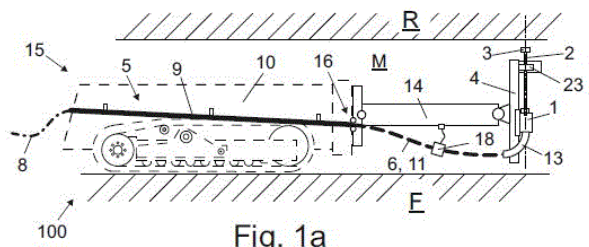


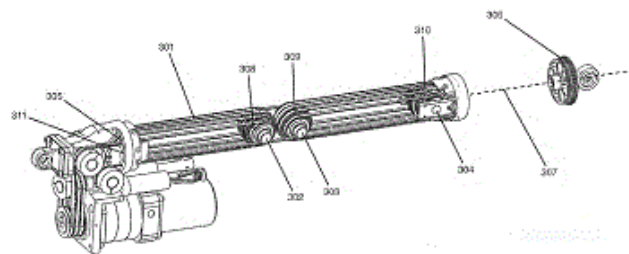
Fig. 1a

21: 2020/01088. 22: 2020/02/20. 43: 2022/02/04

71: LIFTWAVE, INC. DBA RISE ROBOTICS

33: US 31: 62/555.944 32: 2017-09-08

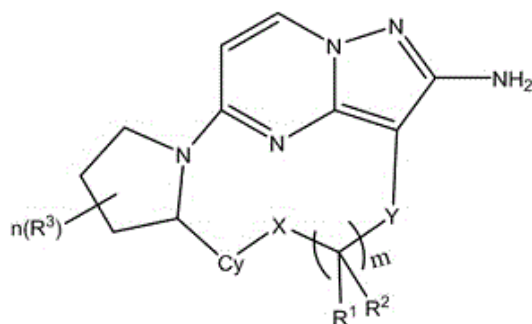
## 00: -



51: C07D: A61K: A61P

72: DAI, LIGUANG, DUAN, XIAOWEI, YANG,  
YANQING, LIU, XIJIE, LI, HONGJUAN, ZHAO, NA,  
SUN, YINGHUI, KONG, FANSHENG, ZHANG,  
JIUQING, ZHU, YIZHONG, YANG, LING, LIU, FEI  
33: CN 31: 201710728132 X 32: 2017-08-23

00: -



Formula (I)

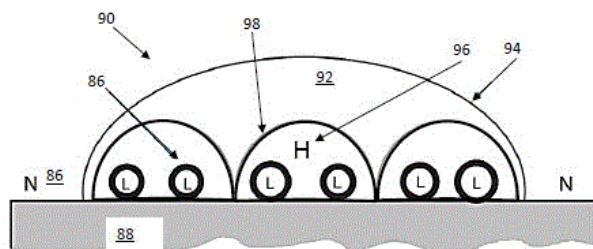
51: A01K

72: David Munday

54: BIOACTIVE HONEY PRODUCTION

00: -

An artificially-created honey-yielding environment is established, comprising a hive and an associated flora cell, within which first and second plant populations cohabit. Within the cell, honey-producing insects from the hive are permitted to forage. One of the populations has been artificially introduced. The other may be indigenous to the cell. The first plant population serves as a primary source of nectar which yields bioactive honey and the second serves as a source of a nutrient, such as protein, which is not abundantly available from the first species at a nutritionally adequate level for sustaining the metabolism and energy of the foraging honey-producing insects for returning to the hive. The first flora population may be a *Leptospermum* species. An example of the second is *Corymbia maculata*.



51: E21F: G06F

71: ERASMUS, FERDINAND PETRUS



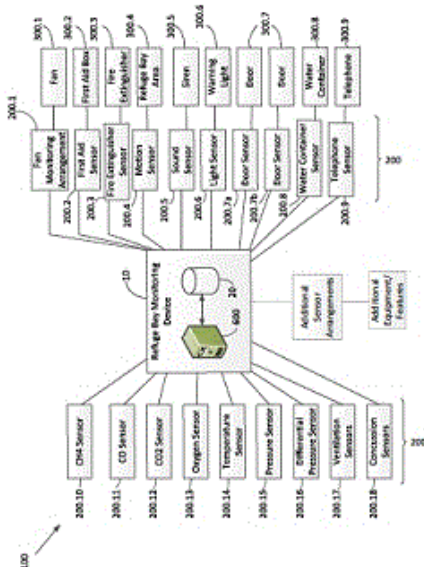
72: ERASMUS, FERDINAND PETRUS

33: ZA 31: 2019/01686 32: 2019-03-19

**54: REFUGE BAY MONITORING SYSTEM, DEVICE AND METHOD**

00: -

A refuge bay/station monitoring system which includes a monitoring module which is operatively connectable/connected to one or more sensing arrangements. The sensing arrangements are operatively connected to safety features and/or equipment which are associated with a refuge bay/station, in order to monitor the one or more safety features and/or equipment. The monitoring module is configured to obtain/determine a monitoring result by utilising sensing data/information received/obtained from the one or more sensing arrangements. The sensing arrangements may be configured to send sensing data/information in real-time to the monitoring module. The monitoring result may include an indication of whether a particular safety feature/equipment is present and/or working correctly.



21: 2020/02126. 22: 2020/05/04. 43: 2022/03/10

51: H04W

71: NOKIA TECHNOLOGIES OY

72: WON, Sung, Hwan, CHANDRAMOULI, Devaki

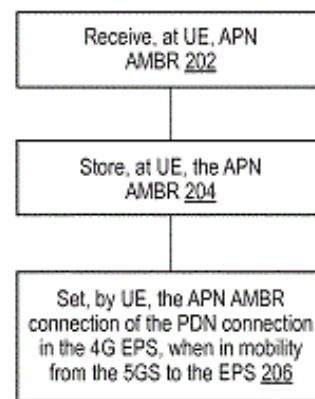
33: US 31: 62/655,165 32: 2018-04-09

**54: SESSION CONTEXT CONVERSION**

00: -

In some example embodiments, there may be provided a method that includes receiving, at a user

equipment while being served by a first system and during protocol data unit session establishment or modification procedure, a message including a default quality of service rule, the default quality of service rule including an access point name aggregate maximum bit rate value; and when there is an inter-system change from the first system to the second system, setting, at the user equipment, the access point name aggregate maximum bit rate value of a session management context for the second system to the received access point name aggregate maximum bit rate value received while being served by the first system. Related systems, methods, and articles of manufacture are also described.

200

21: 2020/02295. 22: 2020/05/04. 43: 2022/02/11

51: E04G

71: TGR CONSTRUCTION, INC.

72: FISHER, THOMAS, SCHAFER, GREGORY

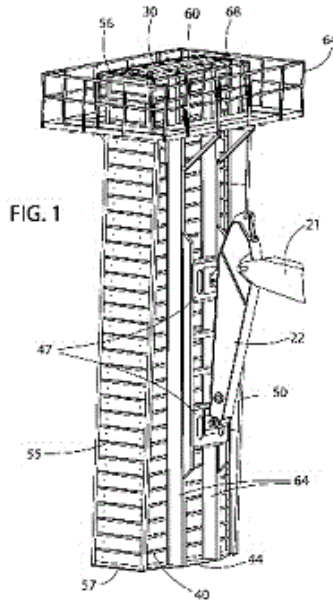
33: US 31: 15/722,417 32: 2017-10-02

**54: CONCRETE FORMING SYSTEM**

00: -

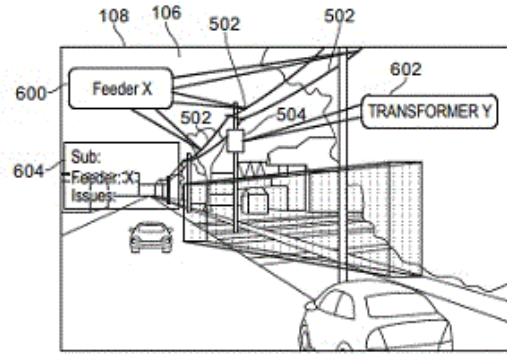
A concrete forming system for reducing the time and labor required for the framing, pouring, and curing of concrete walls. The concrete forming system generally includes concrete forms including a first wall, a second wall opposing the first wall, and a pair of sidewalls. A cavity is formed between the walls; with an opening being fluidly connected to the cavity. A first vehicle is connected to the first wall and a second vehicle is connected to the second wall. Using the vehicles, the positioning and orientation of the walls may be adjusted. After the walls have been

placed and oriented, the vehicles will hold the walls in place as concrete is poured into the cavity through the opening. The concrete is allowed to cure into a structure; after which the vehicles and walls may be moved to another location to repeat the process.



21: 2020/02442. 22: 2020/05/05. 43: 2022/02/04  
51: G06F  
71: GENERAL ELECTRIC TECHNOLOGY GMBH  
72: ANDJELIC, TIGRAN, SIMS, OLIVER  
33: EP 31: 19176536.1 32: 2019-05-24  
**54: METHOD AND APPARATUS FOR  
DISPLAYING INFORMATION**

00: -  
A method and apparatus for displaying information. The method comprises: determining a field of view of a user viewing an environment via a display of a display device; using the field of view, determining a focal region of interest of the user in the environment; providing a database comprising a list of objects and, for each object, a location of that object in the environment; using the list of objects and a location of the focal region in the environment, identifying one or more of the objects that are at least partially located in the environment in or proximate to the focal region; acquiring information related to the identified one or more objects; generating an image element comprising the acquired information; and displaying the generated image element on the display of the display device through which the user is viewing the environment.

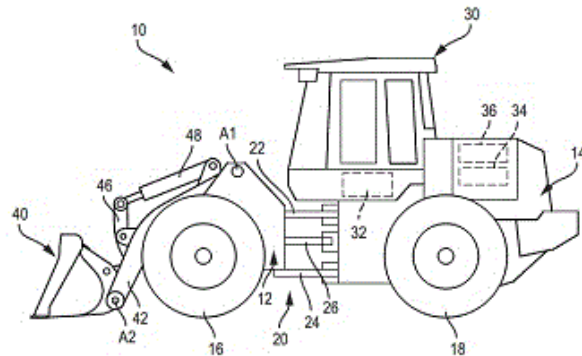


21: 2020/03203. 22: 2020/05/29. 43: 2022/02/04  
51: E02F; E02B  
71: DEERE & COMPANY  
72: KENKEL, AARON R, LEHMANN, DOUG M,  
STAHL, SCOTT R, HENN, GRANT R  
33: US 31: 16/522,113 32: 2019-07-25

**54: VALVE CONFIGURATION FOR FRONT END  
LOADERS**

00: -

An actuator is connected to a frame and a boom arm to pivot the boom arm with respect to the frame. A spool valve directs fluid from a pump into a selected side of the actuator. A first anti-cavitation valve is fluidly positioned between the first end of the actuator and the reservoir to permit fluid flow from the reservoir to the first end of the actuator while the first anti-cavitation valve is open and inhibit fluid flow from the first end of the actuator to the reservoir. A second anti-cavitation valve is fluidly positioned between the second end of the actuator and the reservoir to permit fluid flow from the reservoir to the second end of the actuator while the second anti-cavitation valve is open and inhibit fluid flow from the second end of the actuator to the reservoir.



21: 2020/03473. 22: 2020/06/10. 43: 2022/02/04  
51: G10L

71: FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.

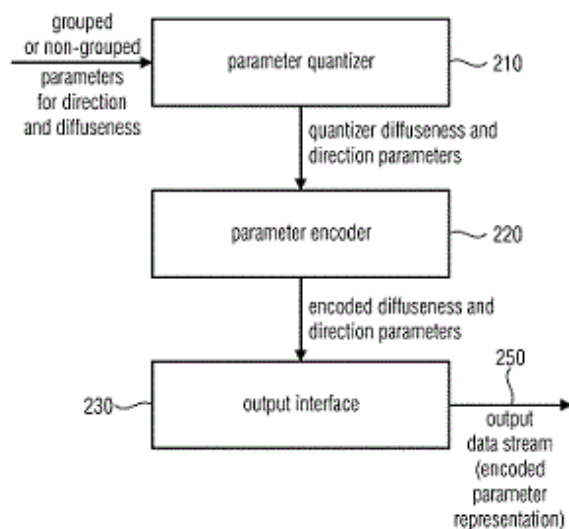
72: FUCHS, Guillaume, HERRE, Jürgen, KÜCH, Fabian, DÖHLA, Stefan, MULTRUS, Markus, THIERGART, Oliver, WÜBBOLT, Oliver, GHIDO, Florin, BAYER, Stefan, JAEGER, Wolfgang

33: EP 31: 17202393.9 32: 2017-11-17

**54: APPARATUS AND METHOD FOR ENCODING OR DECODING DIRECTIONAL AUDIO CODING PARAMETERS USING QUANTIZATION AND ENTROPY CODING**

00: -

An apparatus for encoding directional audio coding parameters comprising diffuseness parameters and direction parameters, comprises: a parameter quantizer (210) for quantizing the diffuseness parameters and the direction parameters; a parameter encoder (220) for encoding quantized diffuseness parameters and quantized direction parameters; and an output interface (230) for generating an encoded parameter representation comprising information on encoded diffuseness parameters and encoded direction parameters.



21: 2020/03658. 22: 2020/06/18. 43: 2022/02/04

51: A42B

71: JANSEN, Britt

72: JANSEN, Britt

33: ZA 31: 2019/04868 32: 2019-07-25

**54: MAKE-UP AND CLOTHING PROTECTOR**

00: -

A make-up and clothing protector which includes a cover manufactured from a perforated transparent

type material and a means for securing the face cover to a person's body.



21: 2020/03696. 22: 2020/06/19. 43: 2022/02/11

51: F42B

71: U.S. GOVERNMENT AS REPRESENTED BY THE SECRETARY OF THE ARMY

72: MANZ, PAUL C, MAGNOTTI, PHILLIP J, NGUYEN, DUCTRI H

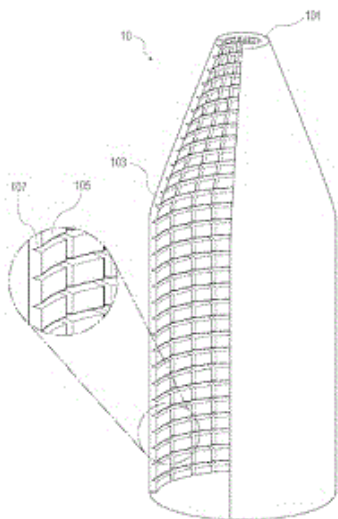
33: US 31: 15/281,250 32: 2016-09-30

33: US 31: 62/314,506 32: 2016-03-29

**54: METHOD OF CREATING A FRAGMENTATION PATTERN ON A WARHEAD**

00: -

The present invention relates to a method of creating a fragmentation pattern on a warhead. The method includes the steps of (i) applying to the interior surface of a warhead a stencil defining a fragmentation pattern and (ii) applying thereto a protective coating. The stencil may have the thickness to impart a required stress raiser to the warhead.



21: 2020/03825. 22: 2020/06/24. 43: 2022/02/04  
 51: C08L C08K  
 71: EVONIK OPERATIONS GMBH  
 72: KÖPFER, Alexander, RÖBEN, Caren, HASSE, Andre, FORSTER, Frank  
 33: DE 31: 10 2017 221 277.2 32: 2017-11-28  
**54: SILANE MIXTURES AND PROCESS FOR PREPARING SAME**

00: -  
 The invention relates to silane mixtures which contain a silane of formula I  $((R_1)_y(R_2)_3-ySi-R_3-SH)$  (I), and a silane of formula II  $(R_1)_y(R_2)_3-ySi-R_3-(S-R_4)_z-Si(R_1)_y(R_2)_3-y$  (II), the molar ratio of the silane of formula I to the silane of formula II being 20:80 to 85:15. The silane mixture according to the invention can be prepared by mixing the silanes of formula I with the silanes of formula II.

21: 2020/04107. 22: 2020/07/06. 43: 2022/02/04  
 51: A61K; A61Q  
 71: Johnson & Johnson Consumer Inc.  
 72: QUEIROZ, Daniel, TESTER, Chantel, GIANO, Michael C., CHEN, Rebecca, GAMBOGI, Robert J.  
 33: US 31: 15/834,537 32: 2017-12-07  
**54: ORAL CARE COMPOSITIONS**

00: -  
 Provided are compositions comprising an orally-acceptable carrier and an anionic copolymer derived from the polymerization of n-vinyl pyrrolidone (VP) with an anionic monomer compound containing phosphorus. Also provided are uses of such compounds in the oral cavity to inhibit demineralization of a tooth.

21: 2020/04175. 22: 2020/07/08. 43: 2022/02/04  
 51: B01D

71: DONALDSON COMPANY, INC.

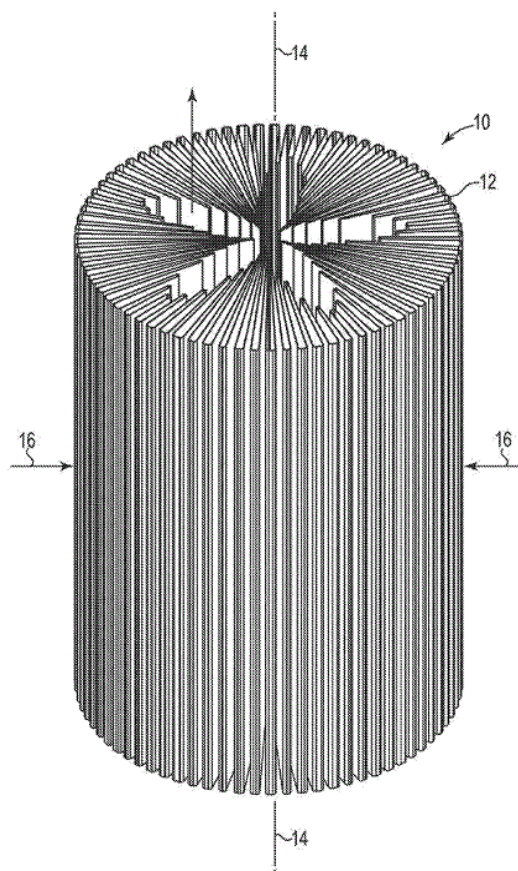
72: SAVSTROM, Jacob, Curtis

33: US 31: 62/598,692 32: 2017-12-14

**54: PERIODIC RADIAL SYMMETRY FOR FILTER PLEATING**

00: -

A cylindrical filter element having a central longitudinal axis and filter media including a plurality of radially extending pleats arranged in a pattern that repeats around the central longitudinal axis. Each of the pleats comprises an inner pleat tip, wherein the inner pleat tips of each pattern define an open area that extends along a height of the filter element, and wherein each pattern of pleats comprises a first series of intermediate pleats that descends in length from a major pleat to a minor pleat and a second series of intermediate pleats that ascends in length from the minor pleat to a major pleat of an adjacent pattern of pleats.



21: 2020/04204. 22: 2020/07/09. 43: 2022/02/04



51: C08J C08B D01F

71: LENZING AKTIENGESELLSCHAFT

72: KLAUS-NIETROST, Christoph, HERCHL, Richard, WEILACH, Christian

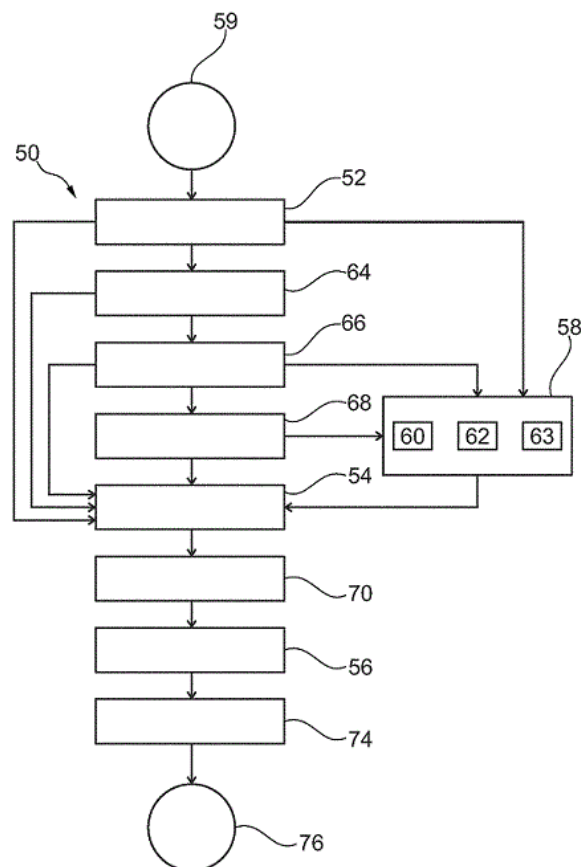
33: EP 31: 18151660.0 32: 2018-01-15

**54: RECYCLING OF INSOLUBLE PARTICLES FROM A CELLULOSE-CONTAINING STARTING MATERIAL**

00: -

A method for producing a regenerated cellulose molded body (102), the method having the steps of:

i) supplying a starting material (110) which has cellulose and insoluble particles, in particular insoluble in solvents which are used in Lyocell processes and/or viscose processes, the starting material (110) being a solid in which the insoluble particles are distributed, and ii) producing the regenerated cellulose molded body (102) based on the starting material (110) in such a way that the regenerated cellulose molded body (102) contains at least a portion of the insoluble particles.



21: 2020/04207. 22: 2020/07/09. 43: 2022/02/04

51: D01F C08J

71: LENZING AKTIENGESELLSCHAFT

72: KLAUS-NIETROST, Christoph, HERCHL, Richard, WEILACH, Christian

33: EP 31: 18151692.3 32: 2018-01-15

**54: FUNCTIONALIZATION OF FOREIGN MATERIAL IN A LYOCCELL METHOD**

00: -

The invention relates to a method for producing a regenerated cellulosic molded body (102). The method has a step of supplying (52) a starting material (110) which has cellulose and at least one foreign material, converting at least a proportion of the starting material (110) together with at least a proportion of the at least one foreign material into a spinning mass which additionally contains a solvent (116) for dissolving (54) at least a proportion of the cellulose of the starting material (110) in the solvent (116), and extruding (70) the spinning mass in order to form the molded compound (102) and subsequently precipitating (56) same into a spinning bath (191), whereby the molded body (102) is obtained, wherein the molded body (102) has cellulose and at least a proportion of the at least one foreign material.

21: 2020/04209. 22: 2020/07/09. 43: 2022/02/04

51: D01F

71: LENZING AKTIENGESELLSCHAFT

72: KLAUS-NIETROST, Christoph, HERCHL, Richard, WEILACH, Christian

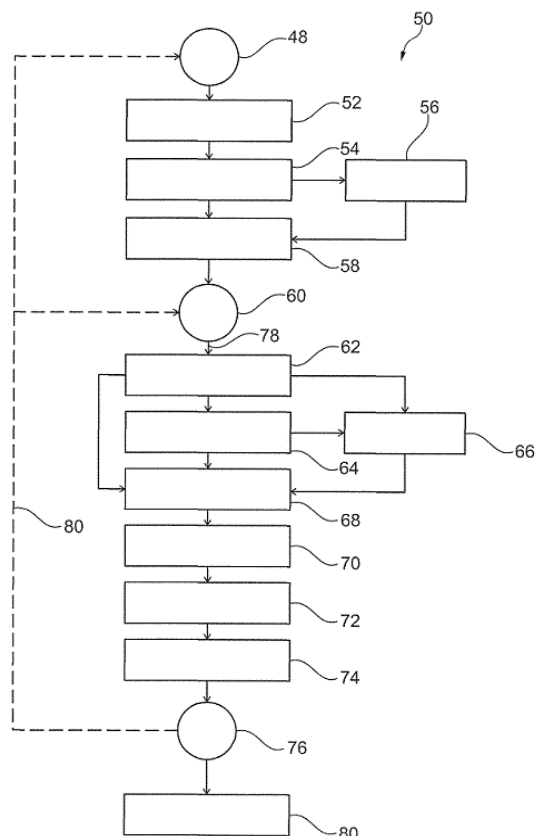
33: EP 31: 18151684.0 32: 2018-01-15

**54: METHOD FOR REUSING A MIXED TEXTILE CONTAINING CELLULOSE AND SYNTHETIC PLASTIC**

00: -

The invention relates to a method for recycling a mixed textile (110), wherein the method comprises the following steps: i) supplying (52) the mixed textile (110), wherein the mixed textile (110) contains cellulosic fibres and synthetic fibres, wherein the synthetic fibres comprise at least one synthetic plastic; ii) at least partially removing (54) the synthetic plastic from the cellulose; and iii) further processing (58) the depleted mixed textile (60) following the removal.





21: 2020/04292. 22: 2020/07/13. 43: 2022/02/11

51: C09K; F25B

71: DAIKIN INDUSTRIES, LTD.

72: ITANO, MITSUSHI, KARUBE, DAISUKE, YOTSUMOTO, YUUKI, TAKAHASHI, KAZUHIRO

33: JP 31: 2017-242186 32: 2017-12-18

33: JP 31: PCT/JP2018/038747 32: 2018-10-17

**54: REFRIGERANT-CONTAINING COMPOSITION, USE THEREOF AND REFRIGERATOR COMPRISING SAME, AND METHOD FOR OPERATING SAID REFRIGERATOR**

00: -

Provided is a refrigerant composition that combines two capabilities, i.e., a coefficient of performance equivalent to that of R410A and a satisfactorily low GWP. Provided is a refrigerant-containing composition wherein the refrigerant contains, each at a prescribed concentration, trans-1,2-difluoroethylene (HFO-1132(E)), trifluoroethylene (HFO-1123), and difluoromethane (R32).

21: 2020/04398. 22: 2020/07/17. 43: 2022/03/29

51: B23K; E04H

71: Anhui University of Science and Technology

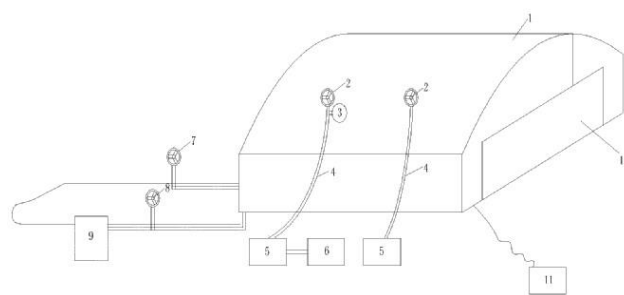
72: LI, Zhimin, WANG, Quan, XU, Ying, WANG, Yinjun, LIN, Chaojian, LIU, Wenzhen, CHENG, Yangfan, LI, Xuejiao, LU, Junwei

33: CN 31: 201910660428.1 32: 2019-07-22

**54: ENVIRONMENT-FRIENDLY VACUUM WORKSHOP FOR EXPLOSIVE WELDING**

00: -

The invention discloses a vacuum environment-friendly explosive welding workshop which comprises a workshop body, a vacuum pump and an explosive welding table. A vacuum gas suction opening is formed in a roof beam at the upper end of the workshop body. The vacuum pump communicates with the vacuum gas suction opening through a vacuum suction pipe. A vacuum valve is further installed at the position of the vacuum gas suction opening. The explosive welding table is installed at the bottom end of the inner side of the workshop body. By means of the vacuum environment-friendly explosive welding workshop, due to the fact that the interior of the airtight workshop body is sucked to be in a vacuum state through the vacuum pump, impact waves and noise generated by exploding are reduced, in addition, energy generated by explosives does not make contact with air and is dispersed, and effective energy of an explosive composite plate is improved; and water-resisting type low-exploding-speed emulsion explosives are selected as the explosives, a water column covering layer is broken at the exploding moment of the explosives, the water column covering layer is broken, splashed flying mist attenuates the exploding impact waves and noise, meanwhile, part of waste gas is diluted, and part of dust is attached; and the rest of waste gas and dust can be recycled in the airtight workshop through a water mist spraying and gas extracting and exhausting system after standing, and the environment is prevented from being polluted



21: 2020/04500. 22: 2020/07/21. 43: 2022/02/11

51: H03F

71: SICPA HOLDING SA

72: PIERSON, Frédéric, BONNY, Joël, BRÜGGER, Samuel, ZAHND, Daniel

33: EP(CH) 31: 17210272.5 32: 2017-12-22

**54: LIGHT SENSOR AND DECAY-TIME SCANNER**

00: -

The disclosed scanner for detecting a decay time of light emitted by a luminescent material has a control unit operable to adapt the drive current, or the value of the drive voltage, powering its light source to accordingly adapt the intensity of excitation light delivered to the luminescent material so that its high sensitivity light sensor can reliably measure the luminescence light emitted in response to the excitation light, and thus accurately determine a corresponding decay time value.

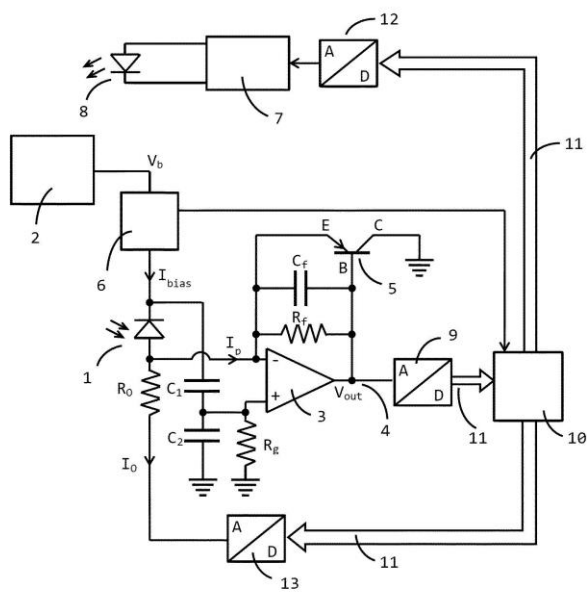


Fig. 4

21: 2020/04545. 22: 2020/07/22. 43: 2022/02/11

51: H04L; H04M

71: First Orion Corp.

72: KNUTH, Jonathan Robert, MURPHY, Brandon Wayne, MCHENRY, Mark Bradley, CALLAWAY, Jay Todd, DE MELO AROXA, Rafael, BECKHAM, Matthew Jack

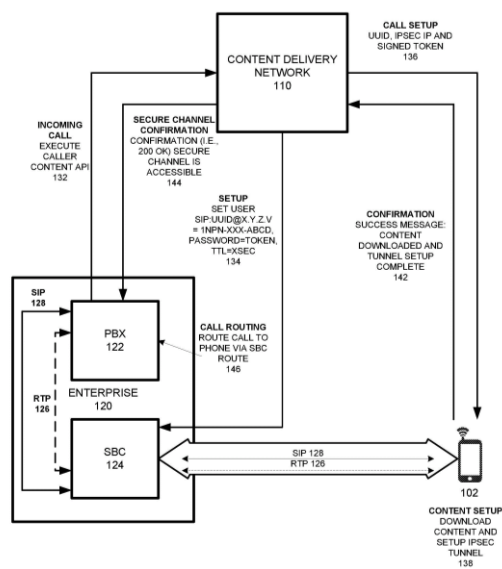
33: US 31: 62/715,677 32: 2018-08-07

**54: CALL CONTENT MANAGEMENT FOR MOBILE DEVICES**

00: -

One example method of operation may include identifying a call to a mobile device, determining whether the call includes call content data intended for the mobile device, initiating an active session and a time to live (TTL) associated with the call content data, forwarding the call content data to the mobile device when the call includes call content data associated with the caller, and receiving a content confirmation from the mobile device that the call content data was received.

100



21: 2020/04851. 22: 2020/08/05. 43: 2022/02/04

51: C07D A61K A61P

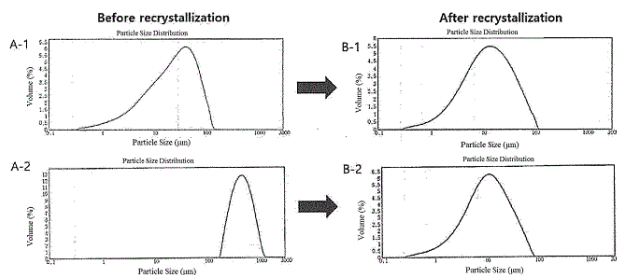
71: BUKWANG PHARMACEUTICAL CO., LTD.

72: LEE, Kwang Ok, LEE, Kyung Hwa, JEONG, Eun Ju

**54: METHOD FOR PREPARING TOLIMIDONE ON LARGE SCALE**

00: -

The present disclosure relates to a method for preparing tolimidone on large scale with maintaining high purity and uniform particle size distribution, and more specifically, a method suitable for preparing tolimidone on industrially large scale by using tetrabutyl ammonium bromide catalyst and recrystallization in ethanol, which can prepare highly pure tolimidone in a time shorter than prior arts while maintaining water content and particle size distribution constantly.



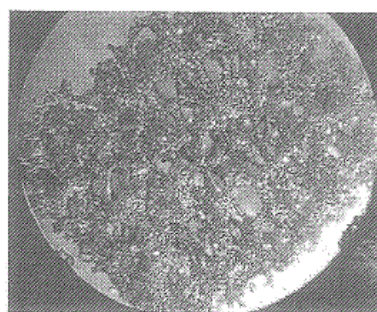
21: 2020/04852. 22: 2020/08/05. 43: 2022/02/04  
 51: C22B C22C  
 71: HERAEUS DEUTSCHLAND GMBH & CO. KG  
 72: RÖHLICH, Christoph  
 33: EP 31: 18155948.5 32: 2018-02-09  
**54: METHOD FOR HYDROMETALLURGICAL PROCESSING OF A NOBLE METAL-TIN ALLOY**  
 00: -

A method for the hydrometallurgical processing of a noble metal-tin alloy consisting of (i) 0.45 to 25 wt.% of at least one metal A selected from the group consisting of gold and platinum, (ii) 35 to 99.2 wt.% of at least one metal B selected from the group consisting of palladium, silver and copper, (iii) 0.3 to 30 wt.% tin and (iv) 0 to 50 wt.% of at least one of an element other than gold, platinum, palladium, silver, copper and tin, the alloy having a metal A : tin ratio by weight of  $> 0.7 : 1$ , comprising the steps: (a1) targeted selection of the noble metal-tin alloy or (a2) targeted production of the noble metal-tin alloy, (b) dissolving the nitric acid-soluble components of the noble metal-tin alloy in nitric acid to form a nitric acid solution comprising the at least one metal B as a dissolved nitrate and an undissolved residue, (c) separating the undissolved residue from the nitric acid solution, and (d) dissolving the separated residue in hydrochloric acid and a medium comprising at least one oxidising agent.

21: 2020/04894. 22: 2020/08/07. 43: 2022/02/04  
 51: B01D  
 71: CIDRA CORPORATE SERVICES LLC  
 72: ROTHMAN, Paul, J., FERNALD, Mark, R., DIDDEN, Francis, O'KEEFE, Christian, V., ADAMSON, Douglas, H., DOLAN, Paul, BAILEY, Timothy, J., RYAN, Michael, Stephen, HUANG, Weiguo, LASSILA, Kevin, Rodney, COPPOLA, Michael, D., GREENE, Allison, K.  
 33: US 31: 62/627,266 32: 2018-02-07  
**54: OPEN-NETWORK FOAM OF HYDROPHOBIC MATERIAL FOR SELECTIVE SEPARATION OF MINERAL PARTICLES**

00: -

An engineered collection medium for use in mineral separation is described. The engineered collection medium has a solid phase body configured with a three-dimensional open-cell structure like foam or sponge to provide collection surfaces. The three-dimensional surface structure is made of a hydrophobic material which is a reaction product of isocyanate and polyol promotes the attraction of mineral particles to the collection surfaces as a hydrophobic foam. The hydrophobic foam can be in the form of a cube, sphere, or sheet and can be used in a filter or conveyor belt in a processor.

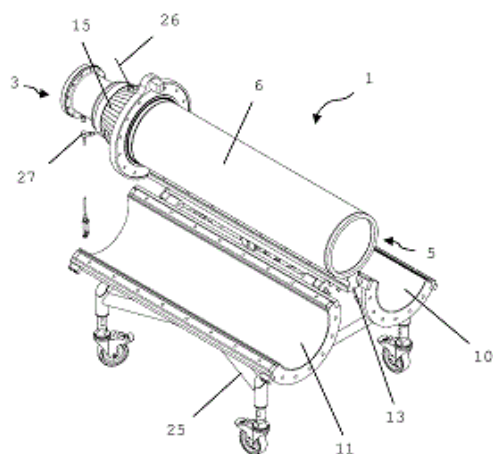


Reticulated Foam with Cu Mineral entrained throughout the structure

21: 2020/04973. 22: 2020/08/12. 43: 2022/02/04  
 51: A23J A23K A23L A23P A21C B29C A23N  
 71: BÜHLER AG  
 72: KLEIN, Frieder, MAUCHLE, Markus, STRÄSSLE, Stefan, WEINBERGER, Michael  
 33: EP 31: 18156558.1 32: 2018-02-13  
**54: COOLING TOOL FOR AN EXTRUDER**  
 00: -

The invention relates to a cooling tool (1) for a food or animal feed extruder (E), the cooling tool having i) an inlet end (3), which can be fixed to a food or animal feed extruder (E) and at which extrudate (4) can be led into the cooling tool (1); ii) an outlet end (5), at which the cooled extrudate can be discharged; iii) an extrudate flow channel (6), which substantially extends from the inlet end to the outlet end; iv) at least one coolant flow channel (7a, 7b, 7b'), to which the extrudate flow channel (6) is connected in a heat-transmitting manner; wherein in the cross section (X-X) to the primary flow direction (8); v) the extrudate flow channel (6) is substantially formed as a ring section, particularly as a circular ring section; and vi) the outer wall (9) of the extrudate flow channel (6) is formed at least from a

first segment (10) and a second segment (11), the first segment and the second segment being connected to each other by mechanical connection elements (12). According to the invention, the cooling tool (1) is particularly suitable for wet texturing of food and animal feed.



21: 2020/04989. 22: 2020/08/12. 43: 2022/02/04  
51: F23N

71: SIT S.P.A.

72: BUSINARO, DANIELE, MARCANZIN, RENZO, CROIN, MARCO, LOLLO, NICOLA, CISCATO, MICHELE, KUPSH, JIM, SIMIONI, DANIELE

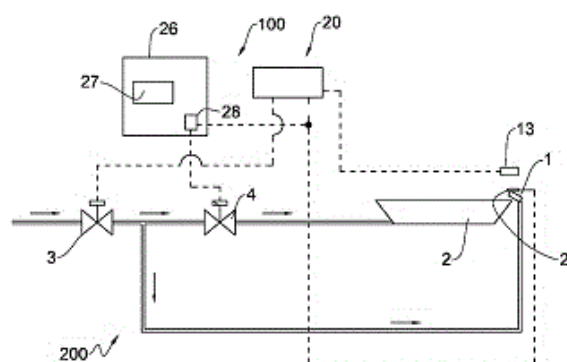
33: IT 31: 102018000003291 32: 2018-03-05

#### **54: CONTROL SYSTEM FOR CONTROLLING THE PILOT FLAME OF A COMBUSTIBLE GAS DEVICE**

00: -

Control system for controlling the pilot flame of a combustible gas device, the gas device (200) comprising a pilot burner (1) for generating a pilot flame, a main burner (2) for generating a main flame, and a valve assembly (300), which comprises a pilot valve (3) that is arranged upstream of the pilot burner (1) in order to allow/intercept a flow of gas directed towards the pilot burner(1), and a main valve (4) that is arranged upstream of the main burner (2) in order to allow/intercept a flow of gas directed towards the main burner (2), the state of the valve assembly (300) being moveable between an OFF state, in which the pilot valve (3) is closed, a PILOT state, in which the pilot valve (3) is open and the main valve (4) is disabled to allow gas to flow towards the main burner(2), and an ON state, in which the pilot valve (3) is open and the main valve (4) is enabled to allow gas to flow towards said main burner (2). The control system (100) comprises a

detection device(19) adapted to detect at least the PILOT state of the valve assembly (300) and to generate a state signal that represents the detected state of the valve assembly (300), and a control unit (20) comprising a timer (24), the control unit (20) being operatively connected to the detection device(19) in order to receive the state signal and to an actuator (10) for the pilot valve (3) in order to close said valve. The control unit (20) is configured to start said timer (24) when the state signal received by the detection device(19) represents the PILOT state, and to actuate the actuator (10) for the pilot valve (3) in order to close said valve when the time measured by the timer (24) reaches a preset limit, thereby extinguishing the pilot flame.



21: 2020/05036. 22: 2020/08/14. 43: 2022/02/04  
51: H04S

71: DOLBY INTERNATIONAL AB

72: KEILER, FLORIAN, BOEHM, JOHANNES

33: EP 31: 13290255.2 32: 2013-10-23

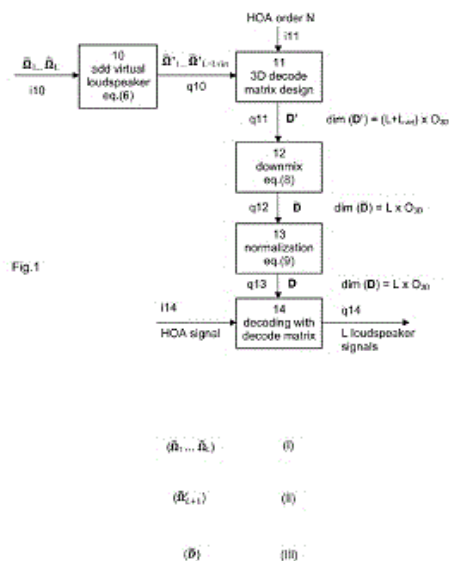
#### **54: METHOD FOR AND APPARATUS FOR DECODING AN AMBISONICS AUDIO SOUNDFIELD REPRESENTATION FOR AUDIO PLAYBACK USING 2D SETUPS**

00: -

Sound scenes in 3D can be synthesized or captured as a natural sound field. For decoding, a decode matrix is required that is specific for a given loudspeaker setup and is generated using the known loudspeaker positions. However, some source directions are attenuated for 2D loudspeaker setups like e.g. 5.1 surround. An improved method for decoding an encoded audio signal in soundfield format for L loudspeakers at known positions comprises steps of adding (10) a position of at least one virtual loudspeaker to the positions of the L loudspeakers, generating (11) a 3D decode matrix



(D'), wherein the positions (Formula I) of the L loudspeakers and the at least one virtual position (Formula II) are used, downmixing (12) the 3D decode matrix (D'), and decoding (14) the encoded audio signal (i14) using the downscaled 3D decode matrix (Formula III). As a result, a plurality of decoded loudspeaker signals (q14) is obtained.



21: 2020/05140. 22: 2020/08/19. 43: 2022/02/04  
51: C22B C10G F23J F23G C01G F23D  
71: HERAEUS DEUTSCHLAND GMBH & CO. KG,  
HERAEUS PRECIOUS METALS NORTH AMERICA  
LLC.

72: PETERS, Brian, TAYLOR, Jimmy, HOBBS, Chris, STOFFNER, Felix, WINKLER, Holger, RICHARDS, Thomas

33: US 31: 15/878,533 32: 2018-01-24

## 54: PROCESS FOR THE RECOVERY OF PRECIOUS METAL FROM PETROCHEMICAL PROCESS RESIDUES

00: -

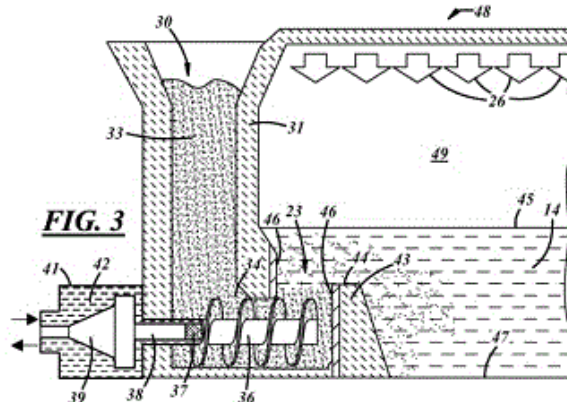
A process for the recovery of precious metal (PM) from PM oil, the process including combustion of PM oil within a furnace, where the PM oil is burned in atomized form.

33: US 31: 14/262.113 32: 2014-04-25

## 54: GLASS FURNACE

00: -

A glass furnace (10, 48, 55, 75) includes a furnace melt chamber (12, 49, 56, 82) to contain a glass melt (14) having a top surface, and a batch feeder (16, 36, 53, 78) to receive glass batch material and feed said material to the furnace melt chamber below the level of the glass melt top surface.



21: 2020/05525, 22: 2020/09/07, 43: 2022/02/04

51: A61K

71: GENENTECH, INC.

72: GOKARN, YATIN, ZARRAGA, ISIDRO E,  
ZARZAR, JONATHAN, PATAPOFF, THOMAS,  
WURTH. CHRISTINE

33: US 31: 61/780,899 32: 2013-03-13

## 54: ANTIBODY FORMULATIONS

00: -

The invention provides stable aqueous pharmaceutical formulations comprising a therapeutic antibody, trehalose, a buffer, and optional surfactant, and having a pH in the range of about 5.5 to about 7.0. The invention also provides methods for making such formulations and methods of using such formulations. In the past years, advances in biotechnology have made it possible to produce a variety of proteins for pharmaceutical applications using recombinant DNA techniques.

21: 2020/05338, 22: 2020/08/27, 43: 2022/02/11

51: C03B

71: OWENS-BROCKWAY GLASS CONTAINER  
INC.

72: WANG, ZHONGMING, WEIL, SCOTT,  
GULLINKALA, TILAK, VEMPATI, UDAYA, KADUR,  
SHIVAKUNAR S



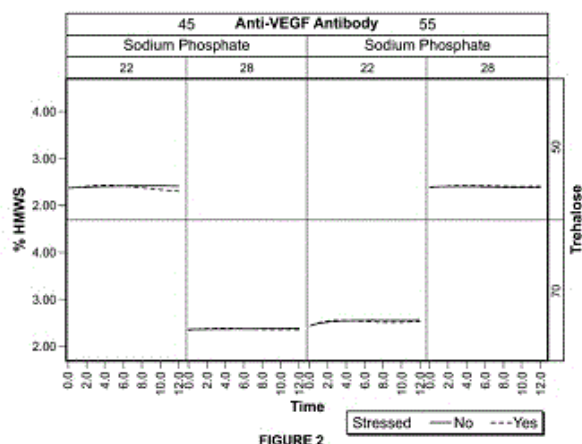


FIGURE 2

21: 2020/05534. 22: 2020/09/07. 43: 2022/02/04  
51: H01Q; H04W

71: HANWHA PHASOR LTD.

72: SZCZEPANIK, JOHN-PAUL, SCHRYBER, PHILIP

33: GB 31: 1803660.8 32: 2018-03-07

#### 54: METHOD OF PROVIDING TIME ALIGNMENT BETWEEN PHASED ARRAYS FOR COMBINED OPERATION

00: -

A method of creating a timed array from a plurality of phased arrays is provided. The method comprises the steps of: phase steering each phased array to a desired pointing; applying processing to signals received from at least one of the phased arrays, wherein applying processing to the signals comprises applying, based on a reference, an adjustment to the signals from at least one of the phased arrays, such that the processed signals are substantially aligned in time with the reference; and combining the processed signals from each of the phased arrays; wherein the adjustment varies based at least in part on the desired pointing and the relative location of the phased arrays.

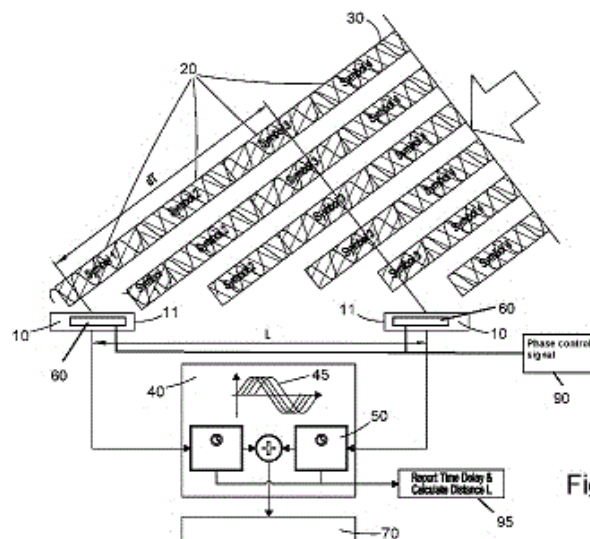


Fig. 1

21: 2020/05702. 22: 2020/09/14. 43: 2022/02/11  
51: A61K; C07D

71: H. LEE MOFFITT CANCER CENTER AND RESEARCH INSTITUTE, INC.

72: CHELLAPPAN, SRIKUMAR, LAWRENCE, NICHOLAS J, MUDIYANSELAGE, SUJEEWA RANATUNGA MAHANTHE

33: US 31: 62/643,032 32: 2018-03-14

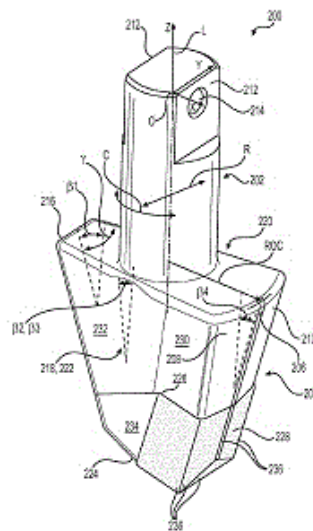
#### 54: YAP1 INHIBITORS THAT TARGET THE INTERACTION OF YAP1 WITH OCT4

00: -

Binding of the transcriptional co-activator, YAP1, to the transcription factor Oct4, induces Sox2, which is a transcription factor necessary for the self-renewal of stem-like cells from non-small cell lung cancer. The WW domain of YAP1 binds to the PPxY motif of Oct4 to induce Sox2. Delivering a peptide corresponding to the WW domain could prevent the induction of Sox2 and stemness. Similarly, peptides and mimetics of the PPxY motif would be able to inhibit stemness. Disclosed are compounds that affect the Yap1:Oct4 interaction.

Structure	ID	% release in 1 h at 37°C	% release in 24 h at 37°C	% release in 48 h at 37°C	% release in 72 h at 37°C	% release in 96 h at 37°C	% release in 120 h at 37°C	% release in 144 h at 37°C	% release in 168 h at 37°C	% release in 192 h at 37°C	% release in 216 h at 37°C	% release in 240 h at 37°C	% release in 264 h at 37°C	% release in 288 h at 37°C	% release in 312 h at 37°C	% release in 336 h at 37°C	% release in 360 h at 37°C	% release in 384 h at 37°C	% release in 408 h at 37°C	% release in 432 h at 37°C	% release in 456 h at 37°C	% release in 480 h at 37°C	% release in 504 h at 37°C	% release in 528 h at 37°C	% release in 552 h at 37°C	% release in 576 h at 37°C	% release in 600 h at 37°C	% release in 624 h at 37°C	% release in 648 h at 37°C	% release in 672 h at 37°C	% release in 696 h at 37°C	% release in 720 h at 37°C	% release in 744 h at 37°C	% release in 768 h at 37°C	% release in 792 h at 37°C	% release in 816 h at 37°C	% release in 840 h at 37°C	% release in 864 h at 37°C	% release in 888 h at 37°C	% release in 912 h at 37°C	% release in 936 h at 37°C	% release in 960 h at 37°C	% release in 984 h at 37°C	% release in 1008 h at 37°C	% release in 1032 h at 37°C	% release in 1056 h at 37°C	% release in 1080 h at 37°C	% release in 1104 h at 37°C	% release in 1128 h at 37°C	% release in 1152 h at 37°C	% release in 1176 h at 37°C	% release in 1200 h at 37°C	% release in 1224 h at 37°C	% release in 1248 h at 37°C	% release in 1272 h at 37°C	% release in 1296 h at 37°C	% release in 1320 h at 37°C	% release in 1344 h at 37°C	% release in 1368 h at 37°C	% release in 1392 h at 37°C	% release in 1416 h at 37°C	% release in 1440 h at 37°C	% release in 1464 h at 37°C	% release in 1488 h at 37°C	% release in 1512 h at 37°C	% release in 1536 h at 37°C	% release in 1560 h at 37°C	% release in 1584 h at 37°C	% release in 1608 h at 37°C	% release in 1632 h at 37°C	% release in 1656 h at 37°C	% release in 1680 h at 37°C	% release in 1704 h at 37°C	% release in 1728 h at 37°C	% release in 1752 h at 37°C	% release in 1776 h at 37°C	% release in 1800 h at 37°C	% release in 1824 h at 37°C	% release in 1848 h at 37°C	% release in 1872 h at 37°C	% release in 1896 h at 37°C	% release in 1920 h at 37°C	% release in 1944 h at 37°C	% release in 1968 h at 37°C	% release in 1992 h at 37°C	% release in 2016 h at 37°C	% release in 2040 h at 37°C	% release in 2064 h at 37°C	% release in 2088 h at 37°C	% release in 2112 h at 37°C	% release in 2136 h at 37°C	% release in 2160 h at 37°C	% release in 2184 h at 37°C	% release in 2208 h at 37°C	% release in 2232 h at 37°C	% release in 2256 h at 37°C	% release in 2280 h at 37°C	% release in 2304 h at 37°C	% release in 2328 h at 37°C	% release in 2352 h at 37°C	% release in 2376 h at 37°C	% release in 2400 h at 37°C	% release in 2424 h at 37°C	% release in 2448 h at 37°C	% release in 2472 h at 37°C	% release in 2496 h at 37°C	% release in 2520 h at 37°C	% release in 2544 h at 37°C	% release in 2568 h at 37°C	% release in 2592 h at 37°C	% release in 2616 h at 37°C	% release in 2640 h at 37°C	% release in 2664 h at 37°C	% release in 2688 h at 37°C	% release in 2712 h at 37°C	% release in 2736 h at 37°C	% release in 2760 h at 37°C	% release in 2784 h at 37°C	% release in 2808 h at 37°C	% release in 2832 h at 37°C	% release in 2856 h at 37°C	% release in 2880 h at 37°C	% release in 2904 h at 37°C	% release in 2928 h at 37°C	% release in 2952 h at 37°C	% release in 2976 h at 37°C	% release in 3000 h at 37°C	% release in 3024 h at 37°C	% release in 3048 h at 37°C	% release in 3072 h at 37°C	% release in 3096 h at 37°C	% release in 3120 h at 37°C	% release in 3144 h at 37°C	% release in 3168 h at 37°C	% release in 3192 h at 37°C	% release in 3216 h at 37°C	% release in 3240 h at 37°C	% release in 3264 h at 37°C	% release in 3288 h at 37°C	% release in 3312 h at 37°C	% release in 3336 h at 37°C	% release in 3360 h at 37°C	% release in 3384 h at 37°C	% release in 3408 h at 37°C	% release in 3432 h at 37°C	% release in 3456 h at 37°C	% release in 3480 h at 37°C	% release in 3504 h at 37°C	% release in 3528 h at 37°C	% release in 3552 h at 37°C	% release in 3576 h at 37°C	% release in 3600 h at 37°C	% release in 3624 h at 37°C	% release in 3648 h at 37°C	% release in 3672 h at 37°C	% release in 3696 h at 37°C	% release in 3720 h at 37°C	% release in 3744 h at 37°C	% release in 3768 h at 37°C	% release in 3792 h at 37°C	% release in 3816 h at 37°C	% release in 3840 h at 37°C	% release in 3864 h at 37°C	% release in 3888 h at 37°C	% release in 3912 h at 37°C	% release in 3936 h at 37°C	% release in 3960 h at 37°C	% release in 3984 h at 37°C	% release in 4008 h at 37°C	% release in 4032 h at 37°C	% release in 4056 h at 37°C	% release in 4080 h at 37°C	% release in 4104 h at 37°C	% release in 4128 h at 37°C	% release in 4152 h at 37°C	% release in 4176 h at 37°C	% release in 4200 h at 37°C	% release in 4224 h at 37°C	% release in 4248 h at 37°C	% release in 4272 h at 37°C	% release in 4296 h at 37°C	% release in 4320 h at 37°C	% release in 4344 h at 37°C	% release in 4368 h at 37°C	% release in 4392 h at 37°C	% release in 4416 h at 37°C	% release in 4440 h at 37°C	% release in 4464 h at 37°C	% release in 4488 h at 37°C	% release in 4512 h at 37°C	% release in 4536 h at 37°C	% release in 4560 h at 37°C	% release in 4584 h at 37°C	% release in 4608 h at 37°C	% release in 4632 h at 37°C	% release in 4656 h at 37°C	% release in 4680 h at 37°C	% release in 4704 h at 37°C	% release in 4728 h at 37°C	% release in 4752 h at 37°C	% release in 4776 h at 37°C	% release in 4800 h at 37°C	% release in 4824 h at 37°C	% release in 4848 h at 37°C	% release in 4872 h at 37°C	% release in 4896 h at 37°C	% release in 4920 h at 37°C	% release in 4944 h at 37°C	% release in 4968 h at 37°C	% release in 4992 h at 37°C	% release in 5016 h at 37°C	% release in 5040 h at 37°C	% release in 5064 h at 37°C	% release in 5088 h at 37°C	% release in 5112 h at 37°C	% release in 5136 h at 37°C	% release in 5160 h at 37°C	% release in 5184 h at 37°C	% release in 5208 h at 37°C	% release in 5232 h at 37°C	% release in 5256 h at 37°C	% release in 5280 h at 37°C	% release in 5304 h at 37°C	% release in 5328 h at 37°C	% release in 5352 h at 37°C	% release in 5376 h at 37°C	% release in 5400 h at 37°C	% release in 5424 h at 37°C	% release in 5448 h at 37°C	% release in 5472 h at 37°C	% release in 5496 h at 37°C	% release in 5520 h at 37°C	% release in 5544 h at 37°C	% release in 5568 h at 37°C	% release in 5592 h at 37°C	% release in 5616 h at 37°C	% release in 5640 h at 37°C	% release in 5664 h at 37°C	% release in 5688 h at 37°C	% release in 5712 h at 37°C	% release in 5736 h at 37°C	% release in 5760 h at 37°C	% release in 5784 h at 37°C	% release in 5808 h at 37°C	% release in 5832 h at 37°C	% release in 5856 h at 37°C	% release in 5880 h at 37°C	% release in 5904 h at 37°C	% release in 5928 h at 37°C	% release in 5952 h at 37°C	% release in 5976 h at 37°C	% release in 6000 h at 37°C	% release in 6024 h at 37°C	% release in 6048 h at 37°C	% release in 6072 h at 37°C	% release in 6096 h at 37°C	% release in 6120 h at 37°C	% release in 6144 h at 37°C	% release in 6168 h at 37°C	% release in 6192 h at 37°C	% release in 6216 h at 37°C	% release in 6240 h at 37°C	% release in 6264 h at 37°C	% release in 6288 h at 37°C	% release in 6312 h at 37°C	% release in 6336 h at 37°C	% release in 6360 h at 37°C	% release in 6384 h at 37°C	% release in 6408 h at 37°C	% release in 6432 h at 37°C	% release in 6456 h at 37°C	% release in 6480 h at 37°C	% release in 6504 h at 37°C	% release in 6528 h at 37°C	% release in 6552 h at 37°C	% release in 6576 h at 37°C	% release in 6600 h at 37°C	% release in 6624 h at 37°C	% release in 6648 h at 37°C	% release in 6672 h at 37°C	% release in 6696 h at 37°C	% release in 6720 h at 37°C	% release in 6744 h at 37°C	% release in 6768 h at 37°C	% release in 6792 h at 37°C	% release in 6816 h at 37°C	% release in 6840 h at 37°C	% release in 6864 h at 37°C	% release in 6888 h at 37°C	% release in 6912 h at 37°C	% release in 6936 h at 37°C	% release in 6960 h at 37°C	% release in 6984 h at 37°C	% release in 7008 h at 37°C	% release in 7032 h at 37°C	% release in 7056 h at 37°C	% release in 7080 h at 37°C	% release in 7104 h at 37°C	% release in 7128 h at 37°C	% release in 7152 h at 37°C	% release in 7176 h at 37°C	% release in 7200 h at 37°C	% release in 7224 h at 37°C	% release in 7248 h at 37°C	% release in 7272 h at 37°C	% release in 7296 h at 37°C	% release in 7320 h at 37°C	% release in 7344 h at 37°C	% release in 7368 h at 37°C	% release in 7392 h at 37°C	% release in 7416 h at 37°C	% release in 7440 h at 37°C	% release in 7464 h at 37°C	% release in 7488 h at 37°C	% release in 7512 h at 37°C	% release in 7536 h at 37°C	% release in 7560 h at 37°C	% release in 7584 h at 37°C	% release in 7608 h at 37°C	% release in 7632 h at 37°C	% release in 7656 h at 37°C	% release in 7680 h at 37°C	% release in 7704 h at 37°C	% release in 7728 h at 37°C	% release in 7752 h at 37°C	% release in 7776 h at 37°C	% release in 7800 h at 37°C	% release in 7824 h at 37°C	% release in 7848 h at 37°C	% release in 7872 h at 37°C	% release in 7896 h at 37°C	% release in 7920 h at 37°C	% release in 7944 h at 37°C	% release in 7968 h at 37°C	% release in 7992 h at 37°C	% release in 8016 h at 37°C	% release in 8040 h at 37°C	% release in 8064 h at 37°C	% release in 8088 h at 37°C	% release in 8112 h at 37°C	% release in 8136 h at 37°C	% release in 8160 h at 37°C	% release in 8184 h at 37°C	% release in 8208 h at 37°C	% release in 8232 h at 37°C	% release in 8256 h at 37°C	% release in 8280 h at 37°C	% release in 8304 h at 37°C	% release in 8328 h at 37°C	% release in 8352 h at 37°C	% release in 8376 h at 37°C	% release in 8400 h at 37°C	% release in 8424 h at 37°C	% release in 8448 h at 37°C	% release in 8472 h at 37°C	% release in 8496 h at 37°C	% release in 8520 h at 37°C	% release in 8544 h at 37°C	% release in 8568 h at 37°C	% release in 8592 h at 37°C	% release in 8616 h at 37°C	% release in 8640 h at 37°C	% release in 8664 h at 37°C	% release in 8688 h at 37°C	% release in 8712 h at 37°C	% release in 8736 h at 37°C	% release in 8760 h at 37°C	% release in 8784 h at 37°C	% release in 8808 h at 37°C	% release in 8832 h at 37°C	% release in 8856 h at 37°C	% release in 8880 h at 37°C	% release in 8904 h at 37°C	% release in 8928 h at 37°C	% release in 8952 h at 37°C	% release in 8976 h at 37°C	% release in 9000 h at 37°C	% release in 9024 h at 37°C	% release in 9048 h at 37°C	% release in 9072 h at 37°C	% release in 9096 h at 37°C	% release in 9120 h at 37°C	% release in 9144 h at 37°C	% release in 9168 h at 37°C	% release in 9192 h at 37°C	% release in 9216 h at 37°C	% release in 9240 h at 37°C	% release in 9264 h at 37°C	% release in 9288 h at 37°C	% release in 9312 h at 37°C	% release in 9336 h at 37°C	% release in 9360 h at 37°C	% release in 9384 h at 37°C	% release in 9408 h at 37°C	% release in 9432 h at 37°C	% release in 9456 h at 37°C	% release in 9480 h at 37°C	% release in 9504 h at 37°C	% release in 9528 h at 37°C	% release in 9552 h at 37°C	% release in 9576 h at 37°C	% release in 9600 h at 37°C	% release in 9624 h at 37°C	% release in 9648 h at 37°C	% release in 9672 h at 37°C	% release in 9696 h at 37°C	% release in 9720 h at 37°C	% release in 9744 h at 37°C	% release in 9768 h at 37°C	% release in 9792 h at 37°C	% release in 9816 h at 37°C	% release in 9840 h at 37°C	% release in 9864 h at 37°C	% release in 9888 h at 37°C	% release in 9912 h at 37°C	% release in 9936 h at 37°C	% release in 9960 h at 37°C	% release in 9984 h at 37°C	% release in 10000 h at 37°C
-----------	----	--------------------------------	---------------------------------	---------------------------------	---------------------------------	---------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	------------------------------------

FIG. 1



21: 2020/06515. 22: 2020/10/20. 43: 2022/02/11  
51: E02F

71: CATERPILLAR INC.

72: PARZYNSKI JR., DAVID B, CONGDON,  
THOMAS M

33: US 31: 15/953,230 32: 2018-04-13

**54: A WEAR MEMBER**

00: -

A wear member (11012, 11012') comprises a shank portion (11018, 11018') defining a longitudinal axis (L), a free end and a perimeter (11020, 11020'), at least one flat surface (11022, 11022') on the perimeter (11020, 11020') extending to the free end and a cross-hole (11024, 11024') defining a cross-hole axis (A11024, A11024') along which the cross-hole (11024, 11024') extends through the at least one flat surface (11022, 11022') perpendicularly, and a wear portion (11014, 11014') extending downwardly axially from the shank portion (11018, 11018'), the wear portion (11014, 11014') including a polygonal configuration.

21: 2020/06532. 22: 2020/10/21. 43: 2022/02/04  
51: C07K

71: NOVARTIS AG

72: BORRAS, LEONARDO, GUNDE, TEA, URECH,  
DAVID

33: US 31: 61/289,446 32: 2009-12-23

**54: METHOD FOR DECREASING  
IMMUNOGENICITY**

00: -

A method for decreasing the immunogenicity of antibody variable domains is disclosed.

21: 2020/06539. 22: 2020/10/21. 43: 2022/02/04  
51: H04W H04B

71: PANASONIC INTELLECTUAL PROPERTY  
CORPORATION OF AMERICA

72: IWAI, Takashi, SUZUKI, Hidetoshi,  
YAMAMOTO, Tetsuya, NUNOME, Tomoya,  
TAKATA, Tomofumi

33: JP 31: 2018-090120 32: 2018-05-08

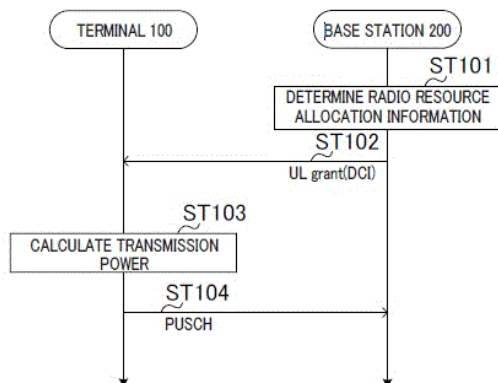
33: JP 31: 2018-135011 32: 2018-07-18

**54: TERMINAL AND TRANSMISSION METHOD**

00: -

Provided is a terminal which can suitably transmit an uplink signal. In a terminal (100), a PC parameter control unit (104) sets a first power control parameter corresponding to a first service, when a prescribed condition relating to a control channel used for transmission of uplink signal allocation is met, and sets a second power control parameter corresponding to a second service, when the prescribed condition is not met. A transmission unit (109) transmits the uplink signal by using

transmission power calculated by using the first power control parameter or the second power control parameter.



21: 2020/07051. 22: 2020/11/12. 43: 2022/02/04

51: G06T

71: ZENIMAX MEDIA INC.

72: KOPIETZ, MICHAEL

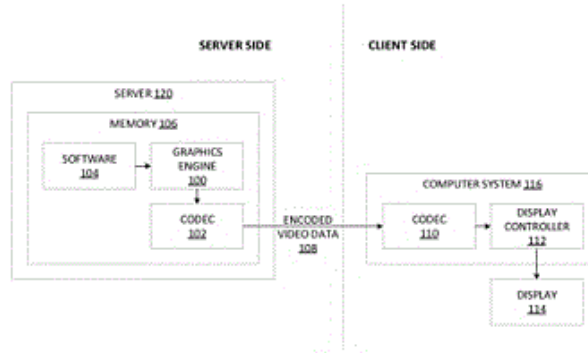
33: US 31: 62/596,325 32: 2017-12-08

33: US 31: 62/488,526 32: 2017-04-21

#### 54: SYSTEMS AND METHODS FOR GAME-GENERATED MOTION VECTORS

00: -

The invention relates to a computer-implemented method for generating graphics and to a graphics generation system. The system includes a graphics engine which converts one or more motion vectors into one or more per-block motion vectors. The graphics engine injects the one or more per-block motion vectors into an encoder, wherein motion compensation is disabled. The encoder converts the one or more per-block motion vectors into encoded video data. The motion compensation may be disabled at the encoder. The one or more motion vectors that are converted may be per-pixel motion vectors.



21: 2020/07139. 22: 2020/11/16. 43: 2022/02/04

51: G01N; B41M; G07D; B42D

71: OMYA INTERNATIONAL AG

72: BOLLSTRÖM, ROGER, HETTMANN, KAI MAX

33: EP 31: 18184769.0 32: 2018-07-20

#### 54: METHOD FOR DETECTING PHOSPHATE AND/OR SULPHATE SALTS ON THE SURFACE OF A SUBSTRATE OR WITHIN A SUBSTRATE, USE OF A LWIR DETECTING DEVICE AND A LWIR IMAGING SYSTEM

00: -

The present invention refers to method for detecting phosphate and/or sulphate salts on the surface of a substrate or within a substrate, use of a LWIR detecting device for detecting the intensity of electromagnetic radiation scattered and/or emitted reflection by phosphate and/or sulphate salts being present on and/or in a substrate, use of a substrate comprising phosphate and/or sulphate salts for providing information via electromagnetic radiation scattering and/or emission as well as a LWIR imaging system for detecting phosphate and/or sulphate salts on and/or within a substrate.

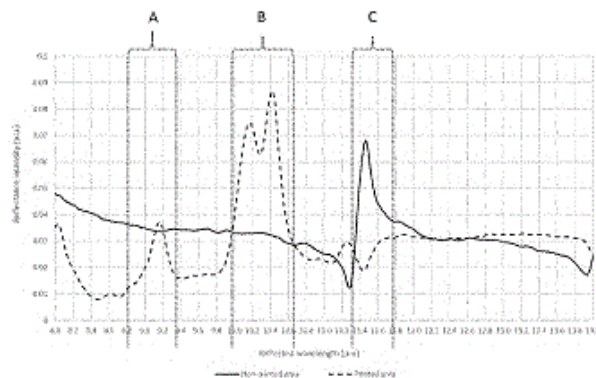


Figure 4. Infrared spectra between 8 and 14 μm

21: 2020/07143. 22: 2020/11/16. 43: 2022/02/04

51: C07D; A61K; A61P

71: JIANGXI CAISHI PHARMACEUTICAL  
TECHNOLOGY CO., LTD72: CHEN, LI, SHAO, QING, XUE, XIAOJIAN, LI,  
XIAOWEN

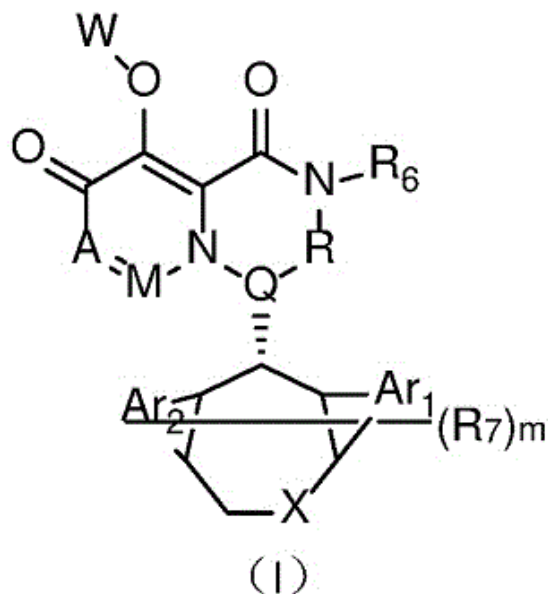
33: CN 31: 201810044308.4 32: 2018-01-17

33: CN 31: 201811517425.4 32: 2018-12-12

**54: PYRIDONE DERIVATIVE, COMPOSITION  
THEREOF AND APPLICATION THEREOF AS  
ANTI-INFLUENZA DRUG**

00: -

The present invention relates to the field of medical chemistry, and relates to a novel pyridone derivative represented by formula (I) or a stereoisomer thereof, a pharmaceutically acceptable salt, a solvate or a crystal thereof, and an application thereof in the preparation of a drug for preventing or treating viral infectious diseases such as influenza A or/and influenza B, in particular an application thereof as a PA subunit cap-dependent endonuclease inhibitor for preventing or treating influenza A and/or influenza B viral infectious diseases. The compound of the present invention has significant activity in inhibiting influenza endonuclease and influenza DNA, and may be used alone or in combination with a neuraminidase inhibitor, a nucleoside drug, a PB2 inhibitor, a PB1 inhibitor, an M2 inhibitor or other anti-influenza drugs, significantly shortening the time of influenza infection, reducing mortality, and having excellent clinical application prospects.



21: 2020/07171. 22: 2020/11/17. 43: 2022/02/04

51: A23J; C07K; A23K

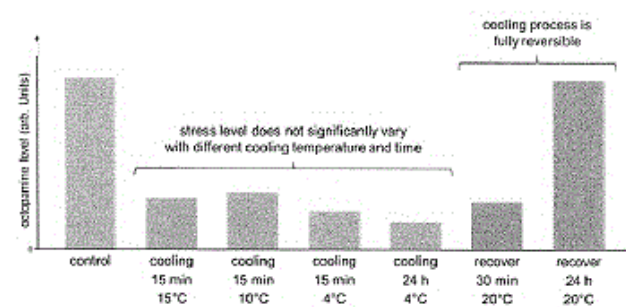
71: BÜHLER INSECT TECHNOLOGY SOLUTIONS  
AG72: AARTS, KEES WILHELMUS PETRUS,  
JANSEN, MAURITS PETRUS MARIA, JACOBS,  
ANNE LOUISE MIA, MESCHER, MARK C,  
PRENTNER, ROBERT, MATHYS, ALEXANDER,  
DE MORAES, CONSUELO M

33: EP 31: 18175914.3 32: 2018-06-05

**54: PROCESSING OF INSECT LARVAE**

00: -

The present invention provides a method and system for processing insect larvae in an ethical manner and without imposing unnecessary stress on them. The method involves anaesthetising the insects by cooling and then cutting them, thereby destroying the nervous system of the insects. Thus, an energy-saving method of processing insects with minimal stress is provided.



21: 2020/07194. 22: 2020/11/18. 43: 2022/02/04

51: H04W

71: NTT DOCOMO, INC.

72: MATSUMURA, YUKI, TAKEDA, KAZUKI,  
TAKAHASHI, HIDEAKI, NAGATA, SATOSHI

33: JP 31: 2018-091749 32: 2018-04-19

**54: USER TERMINAL AND RADIO BASE  
STATION**

00: -

A user terminal includes a receiving section that receives, via higher layer signaling, configuration information related to a physical uplink control channel (PUCCH) resource set including one or more physical uplink control channel (PUCCH) resources, and a control section that determines a PUCCH resource associated with a value of a certain field in downlink control information. According to an aspect of the present disclosure, an uplink control channel resource set can be

configured that includes an appropriate number of uplink control channel resources.

FIG. 2A

PUOCH RESOURCE	CERTAIN FIELD VALUE IN DCI
PUOCH RESOURCE #0	000
PUOCH RESOURCE #1	001
PUOCH RESOURCE #2	010
PUOCH RESOURCE #3	011
PUOCH RESOURCE #4	100
PUOCH RESOURCE #5	101
PUOCH RESOURCE #6	110
PUOCH RESOURCE #7	111

FIG. 2B

PUOCH RESOURCE	CERTAIN FIELD VALUE IN DCI
PUOCH RESOURCE #0	000
PUOCH RESOURCE #1	001
PUOCH RESOURCE #2	010
PUOCH RESOURCE #3	011

FIG. 2C

PUOCH RESOURCE	CERTAIN FIELD VALUE IN DCI
PUOCH RESOURCE #0	000

21: 2020/07196. 22: 2020/11/18. 43: 2022/02/04  
51: C09K

71: SRF LIMITED

72: GEORGE, JOSE, RAJ, SUNIL, MISHRA, AMBUJ KUMAR, KATIYAR, ANURAG, JAIN, ANURAG, MISHRA, MANOJ KUMAR, SHARMA, ADITYA

33: IN 31: 201811018315 32: 2018-05-16

33: IN 31: 201811018316 32: 2018-05-16

33: IN 31: 201811018179 32: 2018-05-15

33: IN 31: 201811018317 32: 2018-05-16

#### **54: AZEOTROPE OR AZEOTROPE LIKE COMPOSITIONS COMPRISING 1234YF**

00: -

The present invention provides azeotropic or azeotrope-like compositions comprising 1234yf and at least one component selected from a group comprising of R-134, and R-134a. The compositions of the present invention are useful as refrigerants, heat transfer fluids, foam blowing agents, aerosol propellants, and fire suppression and fire extinguishing agents.

21: 2020/07209. 22: 2020/11/19. 43: 2021/07/22

51: B01D

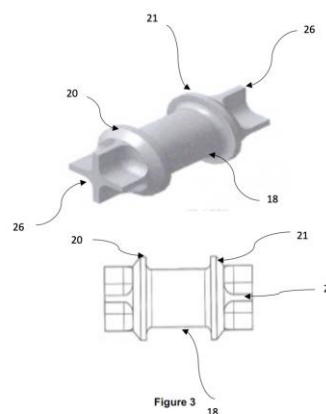
71: ARTIC DRIERS INTERNATIONAL (PTY) LTD

72: Allen Geffrey COCKFIELD

#### **54: A SHUTTLE VALVE**

00: -

The invention relates to a shuttle valve means for controlling flow of gas between at least two towers of a pneumatic system.



21: 2020/07213. 22: 2020/11/19. 43: 2022/02/11

51: H04L; H04N

71: ZENIMAX MEDIA INC.

72: KOPIETZ, MICHAEL

33: US 31: 62/488,526 32: 2017-04-21

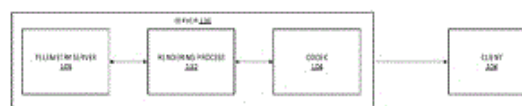
33: US 31: 62/655,901 32: 2018-04-11

33: US 31: 62/647,180 32: 2018-03-23

#### **54: SYSTEMS AND METHODS FOR RENDERING & PRE-ENCODED LOAD ESTIMATION BASED ENCODER HINTING**

00: -

A system and method for encoding data. The system includes a renderer which records a video sequence comprised of a plurality of frames. The system also includes an encoder that records the encoder quality settings. The renderer normalizes the encoder quality settings. The normalized encoder quality settings are used to hint the encoder to code the video sequence. The encoder may code the video sequence in a mode that optimizes the encoder quality settings. The mode used may be a multi-pass mode. The encoder quality settings may be normalized to the first frame of the video sequence.



21: 2020/07214. 22: 2020/11/19. 43: 2022/02/11

51: G06K

71: ZENIMAX MEDIA INC.

72: KOPIETZ, MICHAEL



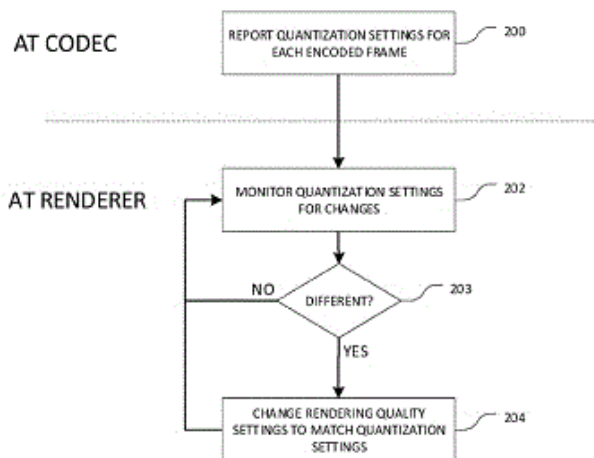
33: US 31: 62/488,526 32: 2017-04-21

33: US 31: 62/653,056 32: 2018-04-05

#### **54: SYSTEMS AND METHODS FOR ENCODER-GUIDED ADAPTIVE-QUALITY RENDERING**

00: -

A system and method for image rendering. The system includes a renderer which reads a reported quantization parameter and compares the reported quantization parameter to effective quantization settings associated with a previously rendered frame. The renderer further changes the rendering quality to match the effective quantization settings, depending on the results of said comparison. The renderer also generates a rendered image based on the altered rendering quality. The renderer may read the reported quantization parameter prior to rendering each frame of the rendered image. The rendering quality may change if the quantization parameter is different from the previously rendered frame or if it is the first frame to be encoded.



21: 2020/07216. 22: 2020/11/19. 43: 2022/02/11

51: G06T

71: ZENIMAX MEDIA INC.

72: KOPIETZ, MICHAEL

33: US 31: 62/488,526 32: 2017-04-21

33: US 31: 62/634,464 32: 2018-02-23

33: US 31: 62/644,164 32: 2018-03-16

33: US 31: 62/640,945 32: 2018-03-09

#### **54: PLAYER INPUT MOTION COMPENSATION BY ANTICIPATING MOTION VECTORS**

00: -

A system comprised of a server. The server transmits one or more motion vectors to a client. The motion vectors are configured to be stored at the

client. The server also transmits an instruction to the client to monitor for input data and an instruction to the client to calculate a motion estimate from the input data. The server further also transmits an instruction to apply the stored motion vectors to initiate motion in a graphic interface based on the motion estimate. The one or more motion vectors may be configured to be stored in a library comprised of one or more lookup tables. The lookup tables may be updated after the stored motion vectors are applied.

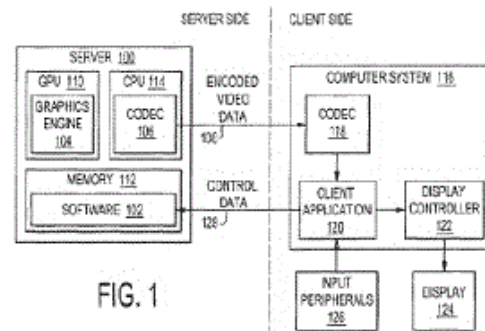


FIG. 1

21: 2020/07217. 22: 2020/11/19. 43: 2022/02/11

51: G06T

71: ZENIMAX MEDIA INC.

72: KOPIETZ, MICHAEL

33: US 31: 62/640,945 32: 2018-03-09

33: US 31: 62/634,464 32: 2018-02-23

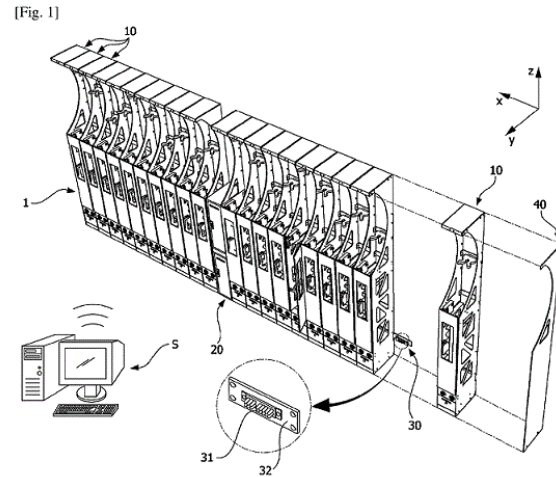
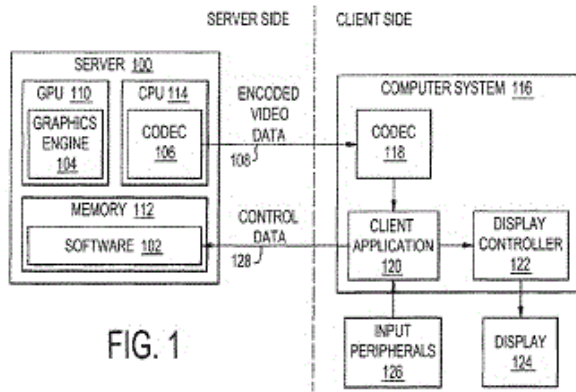
33: US 31: 62/488,526 32: 2017-04-21

33: US 31: 62/644,164 32: 2018-03-16

#### **54: PLAYER INPUT MOTION COMPENSATION BY ANTICIPATING MOTION VECTORS**

00: -

A computer-implemented method and system for processing motion vectors. A server transmits a previously generated motion vector to a client and transmits an instruction to the client to monitor for input data. The server also transmits an instruction to the client to calculate a motion estimate from the input data. Furthermore, the server instructs the client to apply the previously generated motion vector to initiate motion in a graphic interface prior to receiving an actual motion vector from the server. The server may further transmit an instruction to store the previously generated motion vector in a cache. The previously generated motion vector may be rate-scaled.



21: 2020/07223. 22: 2020/11/19. 43: 2022/02/04  
51: A47B G07C G06F

71: JUNG, Kyo Sun, KIM, Chung Sock

72: JUNG, Kyo Sun, KIM, Chung Sock

33: KR 31: 10-2018-0060496 32: 2018-05-28

33: KR 31: 10-2018-0048636 32: 2018-04-26

**54: ASSEMBLED FIREARM STORAGE MODULE AND FIREARM MANAGING DEVICE COMPRISING SAME**

00: -

An embodiment relates to an assembled firearm storage module and a firearm managing device comprising same, the firearm storage module comprising: a pair of frames having a plate shape and spaced apart from each other; a cap covering the frames from above; a case disposed at the lower side of the frames; a door rotatably mounted to one side of one of the frames; a first lock device disposed in the other frame; and a fixing bar and a support bar disposed between the frames so as to support a firearm, wherein the fixing bar and the support bar are assembled to the frames by a fixing member. Therefore, since the firearm storage module and the firearm managing device comprising same have an assembly-type structure, it is easy to separately install the firearm storage modules and extend the firearm managing device according to the number of firearms to be stored.

21: 2020/07232. 22: 2020/11/19. 43: 2022/02/04  
51: B05B

71: DÜRR SYSTEMS AG

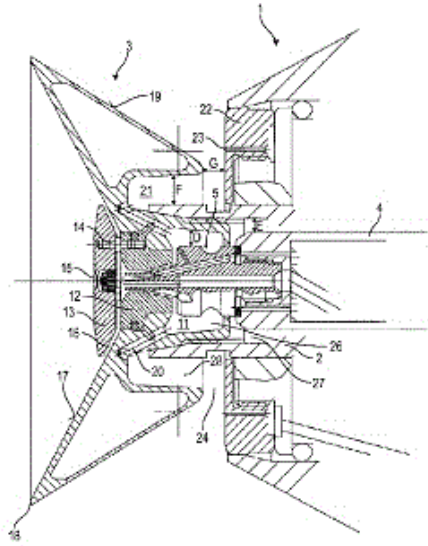
72: NOLTE, HANS-JÜRGEN, FISCHER, ANDREAS

33: DE 31: 10 2018 129 964.8 32: 2018-11-27

**54: ROTARY ATOMIZER**

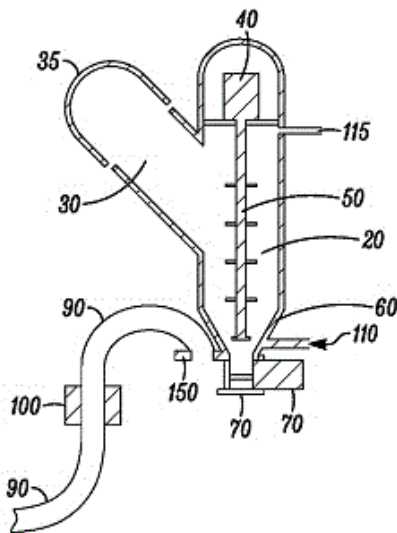
00: -

The invention relates to a rotary atomizer (1) for applying a spray jet of a coating agent (e.g. paint) to a component (e.g. motor vehicle body component). The invention provides that the construction dimensions of the rotary atomizer (1) are adapted to one another so that the air pressure at the outlet opening of the paint nozzle (5) when in operation is lower than the air pressure in the nozzle chamber (11) of the bell cup (3) and in the outer rinsing channels (20), in order to prevent, by means of the pressure difference, a backflow of the coating agent from the outlet opening of the paint nozzle (5) backwards in the direction of the nozzle chamber (11).



21: 2020/07289. 22: 2020/11/23. 43: 2022/02/04  
 51: A01M; A01G; B05B  
 71: PIONEER HI-BRED INTERNATIONAL, INC.  
 72: KRULL, RYAN, MEGARGEL, ROSS  
**54: METHOD AND DEVICE FOR DISTRIBUTING BENEFICIAL ARTHROPODS**

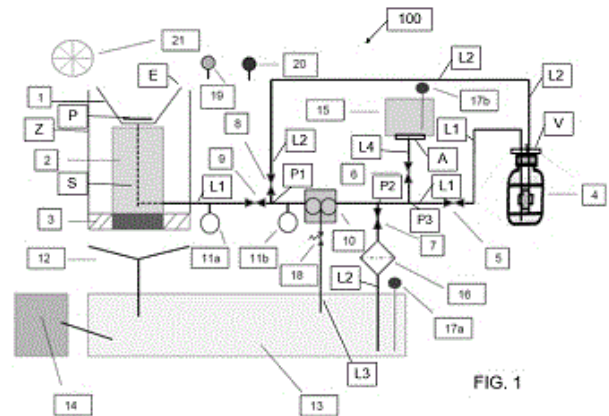
00: -  
 A method and apparatus for distributing beneficial arthropods to plants. The method and apparatus include a temperature control system for maintaining the beneficial arthropods at an optimal temperature prior to dispersal and a pneumatic system for conveying the beneficial arthropods.



21: 2020/07290. 22: 2020/11/23. 43: 2022/02/04  
 51: A61L; B05B

71: DÜRR SYSTEMS AG  
 72: HÄUSSERMANN, PATRICK, SEIZ, BERNHARD, PREUSS, KEVIN, KRUMMA, HARRY, BAUMANN, MICHAEL, DION, MARK V  
 33: DE 31: 10 2018 114 179.3 32: 2018-06-13  
**54: APPARATUS FOR DISINFECTING AT LEAST ONE ROOM, IN PARTICULAR A DWELLING SPACE FOR PERSONS, BY MEANS OF AN ATOMISER**

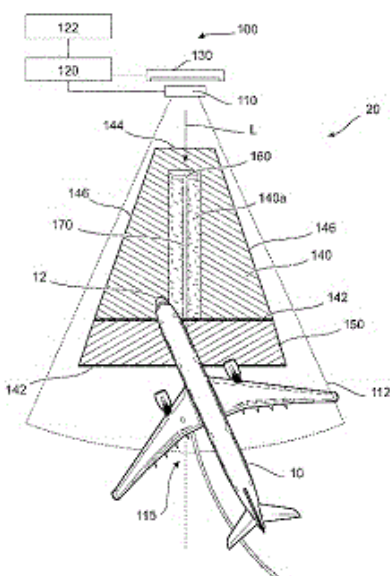
00: -  
 The invention relates in particular to an apparatus (100) for disinfecting at least one room, in particular for one or more persons, preferably a dwelling space or treatment room, for example a treatment room in a building, in particular a sickroom, a patient room and/or an operating theatre, by means of an atomiser. Specifically, the apparatus (100) is characterised in that the atomiser includes a rotatable bell cup (1) for atomising a disinfectant into the room. The invention relates to an associated method and furthermore to the use of a bell cup (1) for atomising a disinfectant in a room for, in particular, one or more persons.



21: 2020/07291. 22: 2020/11/23. 43: 2022/02/04  
 51: B64F; G08G; G01S  
 71: ADB SAFEGATE SWEDEN AB  
 72: BERKMO, ANDERS  
 33: EP 31: 18178233.5 32: 2018-06-18  
**54: A METHOD AND A SYSTEM FOR GUIDING A PILOT OF AN APPROACHING AIRCRAFT TO A STOP POSITION AT A STAND**

00: -  
 The disclosure relates to a method for guiding a pilot of an approaching aircraft (10) to a stop position (160) at a stand (20), said method being characterized by: monitoring a position of the

approaching aircraft (10) within a volume (112) at the stand (20), comparing said monitored position with a first area (140), said first area (140) enclosing the stop position (160), comparing said monitored position with a subsection (140a) of the first area (140) enclosing the stop position (160), if said monitored position is inside said subsection (140a): transmitting information to a display (130) to show an indication to the pilot to proceed approaching the stand (20), and if said monitored position is inside the first area (140) but not inside said subsection (140a): transmitting information to the display (130) to show an indication to the pilot to stop the aircraft (10). The disclosure further relates to an aircraft docking system.



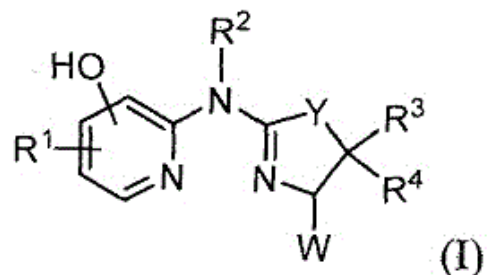
21: 2020/07318. 22: 2020/11/24. 43: 2022/02/05  
51: A61K  
71: GC CORPORATION  
72: YOSHIMITSU, RYOSUKE, SHIMADA, YUSUKE, FUJIMOTO, AYAKA, MATSUMOTO, NAOFUMI, NAKAYAMA, MIZUKI

33: JP 31: 2018-103396 32: 2018-05-30  
**54: DENTAL FLUORO-ALUMINOSILICATE GLASS POWDER**

00: -  
This dental fluoro-aluminosilicate glass powder according to one embodiment of the present invention has a volume-based 50%-diameter of 5.0-9.0  $\mu\text{m}$  and a volume-based 10%-diameter of at least 2.4  $\mu\text{m}$ .

21: 2020/07320. 22: 2020/11/24. 43: 2022/02/04  
51: C07D; A61P; A61K  
71: CERSCI THERAPEUTICS, INC.  
72: DAX, SCOTT L, CONFALONE, PASQUALE N  
33: US 31: 62/677,496 32: 2018-05-29  
**54: COMPOUNDS FOR PAIN TREATMENT, COMPOSITIONS COMPRISING SAME, AND METHODS OF USING SAME**  
00: -

The invention relates to compounds of formula (I), compositions containing the same, and methods for treating and/or diminishing pain in a subject in need thereof. The compounds of formula (I) are effective for treating opioid-induced tachyphylaxis and opioid-induced hyperalgesia.

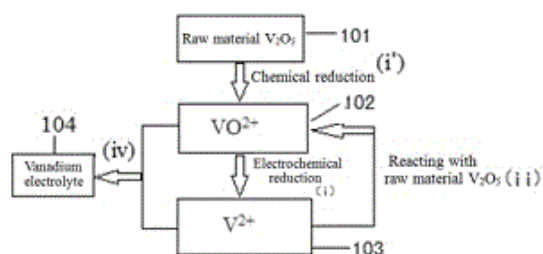


21: 2020/07360. 22: 2020/11/25. 43: 2022/02/04  
51: H01M  
71: JIANGSU TRANSUNIVERSE POWER CO. LTD.  
72: ZU, GE, WANG, JIN, ZHENG, XIAOHAO  
33: CN 31: 201810393023.1 32: 2018-04-27

**54: MANUFACTURING METHOD AND DEVICE OF FLOW BATTERY ELECTROLYTE**

00: -  
The present invention relates to a manufacturing method and device of a flow battery electrolyte. The manufacturing method of a vanadium electrolyte comprises: employing an electrochemical method to reduce a tetravalent vanadium ion to a divalent vanadium ion; and reacting the divalent vanadium ion with a low cost, low purity higher-valence vanadium oxide to form a tetravalent vanadium ion. The invention provides a closed-loop production process for continuous production, can be operated easily, has low material costs and low energy consumption, does not directly consume power, and generates no additional chemical contaminants.





21: 2020/07390. 22: 2020/11/26. 43: 2022/02/04

51: H04W

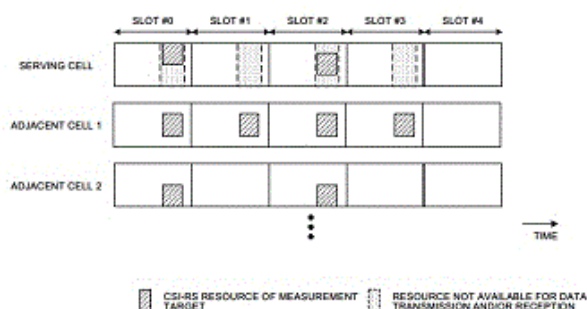
71: NTT DOCOMO, INC.

72: HARADA, HIROKI

**54: USER TERMINAL**

00: -

A user terminal according to one aspect of the present disclosure includes: a measurement section that performs measurement for radio link monitoring (RLM) by using a certain reference signal in a particular frequency band; and a control section that controls data transmission and/or reception on the particular frequency band at a time of the measurement, based on a sub-carrier spacing (SCS) of the certain reference signal. According to one aspect of the present disclosure, even in a case of performing a measurement other than an SSB measurement, data transmission and/or reception which is simultaneous with the measurement can be appropriately controlled.



21: 2020/07391. 22: 2020/11/26. 43: 2022/02/04

51: G01N

71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

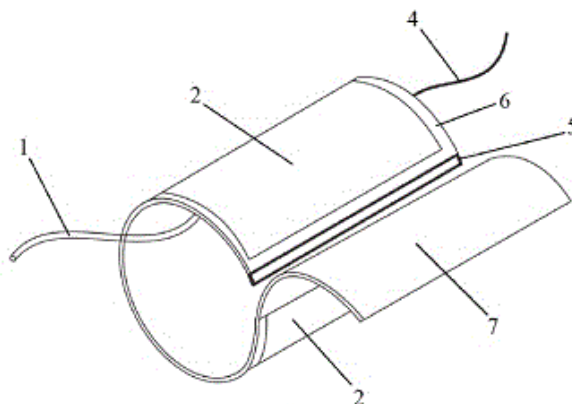
72: ZHANG, PINGSONG, LI, SHENGLIN, LIU, CHANG, SUN, BINYANG, OU, YUANCHAO

33: CN 31: 201910998630.5 32: 2019-10-21

**54: PORTABLE DEVICE AND SIMPLE METHOD FOR MULTI-PARAMETER COMPREHENSIVE TESTING OF CORE**

00: -

The disclosure provides a portable device and simple method for multi-parameter comprehensive testing of a core. The device includes a core wrapping holder and a parameter testing host, where the core wrapping holder includes a wrapping belt and parameter test elements arranged on the wrapping belt. The wrapping belt for wrapping the core includes an inner layer and an outer layer, and the test elements include a resistivity test element, a wave velocity test element and a strain test element which are in signal link with the parameter testing host. The disclosure can implement multi-state geophysical parameter testing of cores with different diameters. A resistivity test and a wave velocity test can be performed when the core is in a free state or subjected to axial pressure; and the strain test is performed when rocks are deformed and destroyed under axial pressure on the core.



21: 2020/07410. 22: 2020/11/27. 43: 2022/02/04

51: G01M

71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: SHEN, YUZHE, WANG, CHENGJUN, HU, HAIXIA, HU, BIAO, MAO, WEIDONG, TAO, YONGSHU

33: CN 31: 201910113055.6 32: 2019-02-13

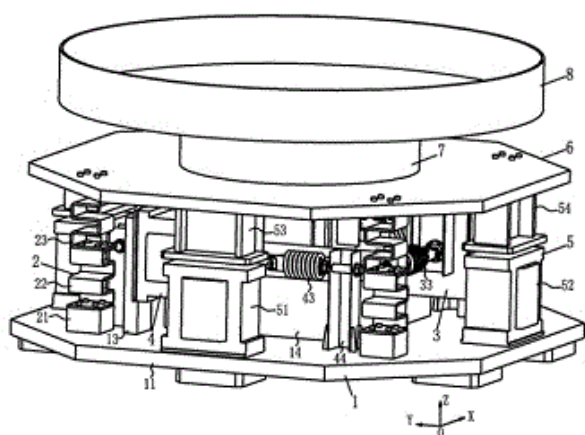
**54: SIX-DEGREE-OF-FREEDOM SERIES-PARALLEL ELECTROMAGNETIC VIBRATION TEST STAND**

00: -

A six-degree-of-freedom series-parallel electromagnetic vibration test stand, comprising a support base (1), a three-degree-of-freedom flexible support (2), an X-direction excitation device (3), a Y-direction excitation device (4), a Z-direction



excitation device (5), a parallel linkage platform (6), a rotating device (7), a test workbench (8), and a controller (9). The X-direction excitation device (4) and the Y-direction excitation device (5) are configured to generate reciprocating vibration in an X direction and a Y direction, respectively; the Z-direction excitation device (5) can generate Z-direction reciprocating vibration and reciprocating swing around axes parallel to the X direction and the Y direction; the rotating device (7) is configured to drive the test workbench (8) to generate rotating or centrifugal movement. The test stand can achieve six degrees of freedom of vibration at most which are independent and adjustable, and has vibration test load, and low energy consumption and low equipment gravity center, thereby meeting requirements of more vibration test work.



21: 2020/07411. 22: 2020/11/27. 43: 2022/02/04  
51: B23K; B25J

71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: WANG, CHENGJUN, SHEN, YUZHE, MAO, WEIDONG, HUANG, SHAOFU, WANG, YUEZHONG, HU, BIAO, TAO, YONGSHU

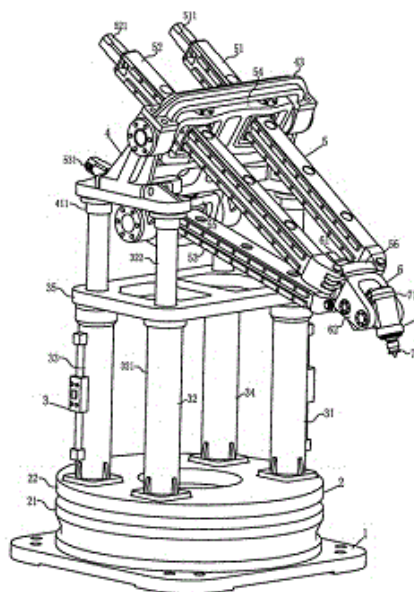
33: CN 31: 201910119053.8 32: 2019-02-18

#### **54: SERIES-PARALLEL TYPE HEAVY-DUTY FRICTION STIR WELDING ROBOT**

00: -

A series-parallel type heavy-duty friction stir welding robot, comprising a base (1), a rotary table (2), a lifting device (3), an adapter platform (4), a parallel work arm (5), a two-degree-of-freedom attitude adjusting mechanism (6), and a friction stir welding head (7). The bottom of the rotary table (2) is fixedly

mounted on the base (1). The bottom of the lifting device (3) is fixedly mounted on the top of the rotary table (2), and the top of the lifting device (3) is fixedly connected to the bottom of the adapter platform (4). The rear end of the parallel work arm (5) is fixedly mounted on the adapter platform (4). The two-degree-of-freedom attitude adjusting mechanism (6) is fixedly mounted on the front end of the parallel work arm (5); the friction stir welding head (7) is connected to the parallel work arm (5) by means of the two-degree-of-freedom attitude adjusting mechanism (6).



21: 2020/07412. 22: 2020/11/27. 43: 2022/02/04  
51: F24S

71: RIOGLASS SOLAR, S.A.U.

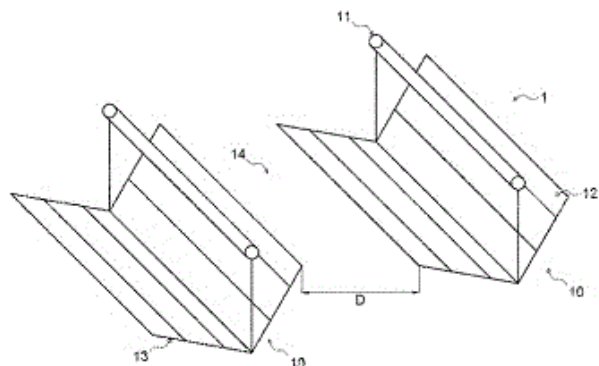
72: AINZ IBARRONDO, FÉLIX, UBACH CARTATEGUI, JOSEP

33: EP 31: 18382454.9 32: 2018-06-21

#### **54: SOLAR CONCENTRATING SYSTEM**

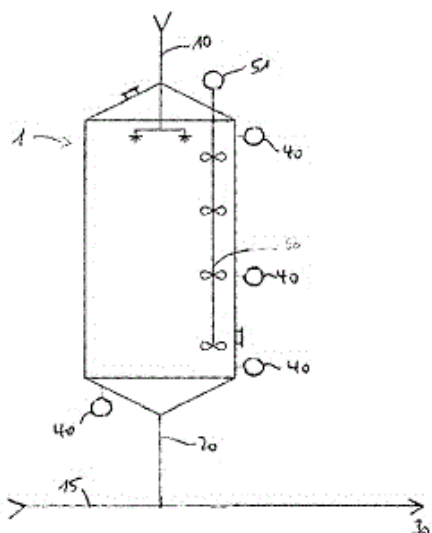
00: -

The present invention relates to a solar concentrating system (1) and installation which comprises a plurality of solar collectors (10) configured for receiving, reflecting, and concentrating radiation in a focal point (F), and allows increasing the efficiency of current solar concentrating systems, such as those based on linear Fresnel collectors, by means of reducing focal distances and increasing the effective surface of the system.



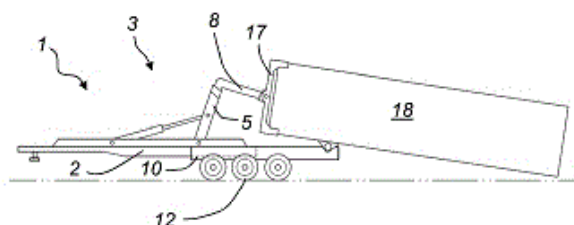
21: 2020/07463. 22: 2020/11/30. 43: 2022/02/04  
 51: A01K  
 71: BÜHLER INSECT TECHNOLOGY SOLUTIONS AG  
 72: MAURITS, PETRUS MARIA JANSEN  
 33: EP 31: 18175908.5 32: 2018-06-05  
**54: LARGE-SCALE, HIGH DENSITY STORAGE OF LARVAE**

00: -  
 The present invention provides a method for storing insect larvae by means of a storage means. The insect larvae are stored in a cooling medium, e.g. water, in the storage means. The amount of water in the larvae-water mixture in the storage means is controlled to be between 30% and 80%. The content of the storage means is maintained at a temperature below 15°C. The content of the storage means is agitated using agitating means included in the storage means.



21: 2020/07488. 22: 2020/12/01. 43: 2022/02/04  
 51: B60P; B62D  
 71: HÖJNER INVEST AB  
 72: HÖJNER, ANDREAS  
 33: SE 31: 1850700-4 32: 2018-06-08  
**54: CONTAINER CARRIER**

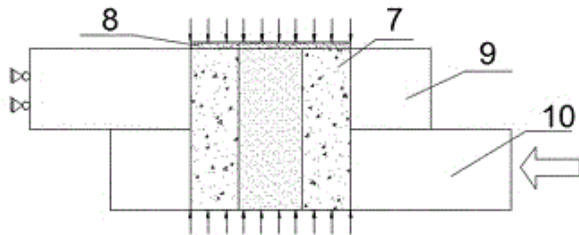
00: -  
 A container carrier (1) comprises an elongate main frame (2). The main frame (2) comprises an articulating lifting apparatus (3). The carrier (1) further comprises a second elongate frame (10) slidably connected to the main frame (2) arranged such that one of the frames is slidably arranged within the other frame in the longitudinal direction. The relative position of the two frames (2, 10) is changeable between a retracted position and an extracted position. The second frame (10) comprises at least one wheel axle with wheels (12).



21: 2020/07489. 22: 2020/12/01. 43: 2022/02/04  
 51: G01N  
 71: CHINA UNIVERSITY OF MINING AND TECHNOLOGY, XUZHOU CUMT BACKFILL TECHNOLOGY CO., LTD.  
 72: LI GUICHEN, SUN YUANTIAN, ZHANG NONG, CHANG QINGLIANG, QIAN DEYU, XU JIAHUI, SUN CHANGLUN, RONG HAOYU, BI RUIYANG  
 33: CN 31: 201910541146X 32: 2019-06-21  
**54: METHOD FOR TESTING STRENGTH OF COAL MASS REINFORCED BY ROTARY-JET GROUTING**

00: -  
 Disclosed is a method for testing the strength of a coal mass reinforced by rotary-jet grouting, which mainly includes the following steps: fabricating a basal coal mass with a through hole in the middle, injecting coal-slurry mixed liquor into the through a hole, and maintaining the pressure for a period of time, to form a test piece; then vertically placing the test piece in two vertically stacked shear boxes, applying a presser device on the top surface of the test piece, adjusting the vertical stress to a set value, moving the lower shear box slowly by displacement

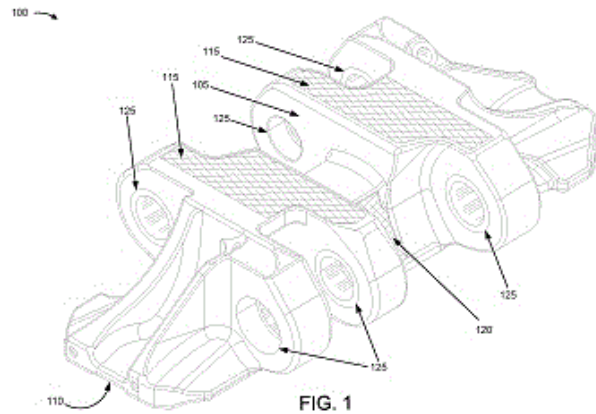
control, and acquiring a shearing force in real time; and after the test piece is completely sheared off, stopping the test, and recording the displacement, a peak shearing force, a residual shearing force, and other parameters; and finally, conducting data fitting to calculate peak and residual cohesion and internal friction angles of the coal mass. A change in the strength of the coal mass reinforced by rotary-jet grouting is evaluated by conducting a comparative experiment. By using a real coal mass as the base, the present invention can quantitatively calculate the strength between structural planes of a coal mass after grouting, and obtain a test result which conforms to in-situ situations.



21: 2020/07490. 22: 2020/12/01. 43: 2022/02/04  
51: B62D  
71: CATERPILLAR INC.  
72: HAKES, DAVID, JONES, BENJAMIN, ABELLO, BENOIT

33: US 31: 15/984,554 32: 2018-05-21  
**54: MULTI-MATERIAL TRACK PAD FOR A CONTINUOUS TRACK ASSEMBLY**  
00: -

A multi-material track pad (100) for a continuous track assembly is disclosed. The track pad (100) may include a body (105) with a ground-engaging surface (110), wherein the body (105) is formed of a metal material with a first hardness; a roller-engaging surface (115), wherein the roller-engaging surface (115) is formed of a ceramic material with a second hardness that is greater than the first hardness; and a sprocket-engaging surface (120) formed of the ceramic material.



21: 2020/07510. 22: 2020/12/02. 43: 2022/02/04  
51: G06F; G10L

71: DOLBY INTERNATIONAL AB  
72: VILLEMOS, LARS, PURNHAGEN, HEIKO, EKSTRAND, PER

33: US 31: 62/475,619 32: 2017-03-23  
**54: BACKWARD-COMPATIBLE INTEGRATION OF HARMONIC TRANSPOSER FOR HIGH FREQUENCY RECONSTRUCTION OF AUDIO SIGNALS**

00: -

A method for decoding an encoded audio bitstream is disclosed. The method includes receiving the encoded audio bitstream and decoding the audio data to generate a decoded lowband audio signal. The method further includes extracting high frequency reconstruction metadata and filtering the decoded lowband audio signal with an analysis filterbank to generate a filtered lowband audio signal. The method also includes extracting a flag indicating whether either spectral translation or harmonic transposition is to be performed on the audio data and regenerating a highband portion of the audio signal using the filtered lowband audio signal and the high frequency reconstruction metadata in accordance with the flag.

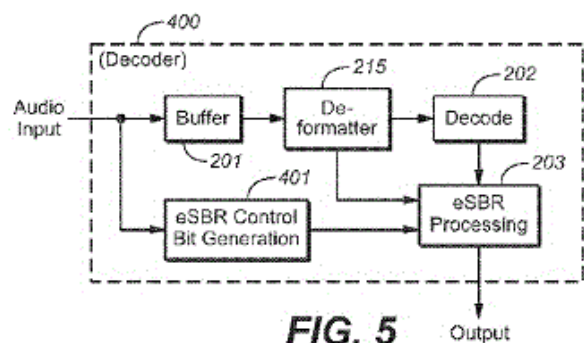


FIG. 5

21: 2020/07548. 22: 2020/12/03. 43: 2022/02/04

51: A46B; A46D; B29C; B29L

71: TEPE MUNHYGIENPRODUKTER AB

72: DINGIZIAN, ALEXANDER

33: SE 31: 1850731-9 32: 2018-06-14

#### 54: TOOTHBRUSH HANDLE, TOOTHBRUSH AND METHODS OF MANUFACTURING

00: -

The disclosure relates to a method of manufacturing a toothbrush handle (10), the method comprising heating (120) a pelletized polyolefin based (preferably polyethylene based) polymeric material having a biobased content of at least 60% by weight, and injection moulding (130) the heated polymeric material into a moulding cavity (30) thereby forming a toothbrush handle (10), wherein the moulding cavity (30) has the shape of a toothbrush handle (10) comprising a gripping portion (11, 31) and a bristle support portion (12, 32). The disclosure also relates to toothbrush handle, a toothbrush and a method of manufacturing a toothbrush.

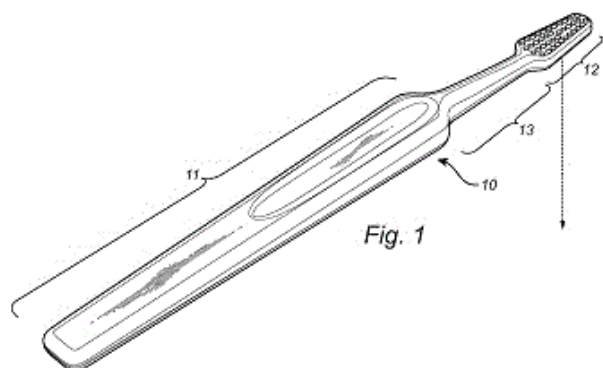


Fig. 1

21: 2020/07549. 22: 2020/12/03. 43: 2022/02/04

51: C08F; C08L

71: VERSALIS S.P.A.

72: PERRETTA, COSTANTINO, DI MARTINO, SILVANA

33: IT 31: 102018000005841 32: 2018-05-30

#### 54: PROCESS FOR PREPARING RANDOM BUTADIENE-ISOPRENE COPOLYMERS HAVING A HIGH CONTENT OF CIS-1,4 UNITS

00: -

Process for preparing a random butadiene-isoprene copolymer having a high content of *cis*-1,4 units comprising copolymerizing butadiene and isoprene, in the presence of at least one organic solvent, and a catalytic system prepared in situ comprising: (a<sub>1</sub>) at least one neodymium carboxylate soluble in said organic solvent, containing a variable amount of water, the H<sub>2</sub>O/Nd molar ratio being between 0.001/1 and 0.50/1; (a<sub>2</sub>) at least one aluminum alkyl compound; (a<sub>3</sub>) at least one aluminum alkyl compound containing at least one halogen atom. The random butadiene-isoprene copolymer having a high content of *cis*-1,4 units obtained from the abovementioned process may be advantageously used in a number of applications ranging from the modification of plastics [for example, obtainment of high impact polystyrene (HIPS)], to the production of tires, in particular the production of tire treads and/or of tire sidewalls.

21: 2020/07551. 22: 2020/12/03. 43: 2022/02/04

51: C08F; B01J

71: VERSALIS S.P.A.

72: MARCHETTI, GIANNI, REGATTIERI, GIOVANNI

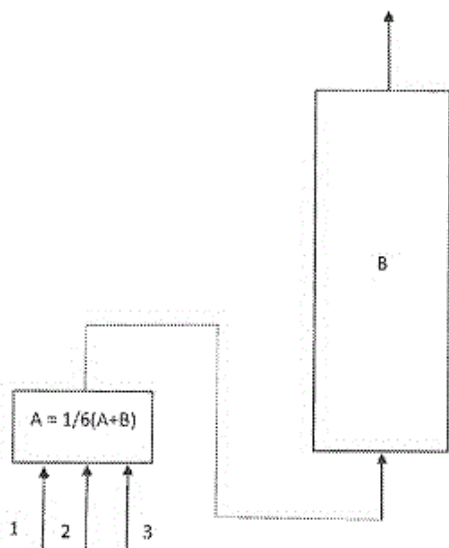
33: IT 31: 102018000006303 32: 2018-06-14

#### 54: REACTION CONFIGURATION AND PROCEDURE FOR POLYMER PRODUCTION

00: -

The present invention relates to a procedure of polymerisation in solution for the production of polymers, comprising the following steps: continuously feeding one or more monomers, one or more solvents in a quantity comprised between 70% and 90% by weight with respect to the reagent mixture, and a catalytic system, to a first, stirred reaction volume, wherein a single mixing cell is formed, in which the polymerisation begins, until a conversion is attained that varies from 20% to 70% with respect to the final conversion achieved, proceeding the polymerisation in at least one second stirred reaction volume connected in series to the first reaction volume, in which two or more mixing

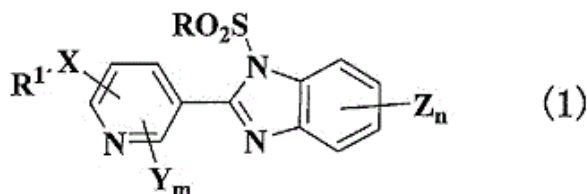
cells are formed, at the outlet of which the final conversion of the monomer is attained. Said procedure being characterised in that, in the first reaction volume, the average residence time of the reagent mixture varies within an interval ranging from 10% to 25% with respect to the average residence time of the entire reaction volume.



21: 2020/07565. 22: 2020/12/04. 43: 2022/02/04  
51: C07D; A01N; A01P; A61K; A61P  
71: NIHON NOHYAKU CO., LTD.  
72: FUJIHARA, HIROKAZU, ABE, YUTAKA, TANAKA, RYOSUKE, FUCHI, SHUNSUKE  
33: JP 31: 2018-097629 32: 2018-05-22  
**54: BENZIMIDAZOLE COMPOUND OR SALT THEREOF, AGRICULTURAL AND HORTICULTURAL INSECTICIDAL AND ACARICIDAL AGENT CONTAINING SAID COMPOUND, AND METHOD FOR USING SAME**  
00: -

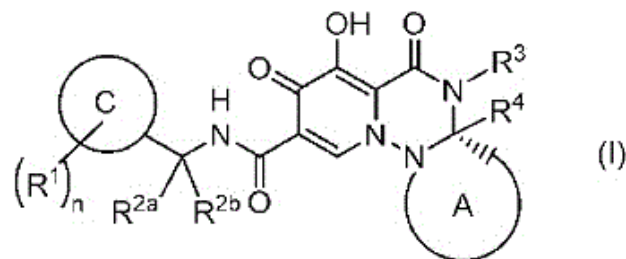
The present invention addresses the problem of developing and providing a novel agricultural and horticultural insecticidal and acaricidal agent for crop production, such as agricultural and horticultural, in view of factors such as damage caused by pests that is currently severe and the emergence of pests resistant to existing agents. The present invention provides: a benzimidazole compound or a salt thereof represented by general formula (1)  
[Compound 1] {In the formula, R denotes an alkyl group or the like, R<sup>1</sup> denotes a haloalkyl group or the like, X denotes an oxygen atom or the like, and m and n are 0 etc.}; an agricultural and horticultural

insecticidal and acaricidal agent containing said compound as an active ingredient; and a method for using same.



21: 2020/07567. 22: 2020/12/04. 43: 2022/02/04  
51: C07D; A61K; A61P  
71: SHIONOGI & CO., LTD.  
72: TAODA, YOSHIYUKI, UNOH, YUTO  
33: JP 31: 2018-104156 32: 2018-05-31  
**54: POLYCYCLIC CARBAMOYLPYRIDONE DERIVATIVE**

00: -  
A compound represented in formula (I) is provided. (In the formula, ring A is a substituted or unsubstituted heterocycle; ring C is a benzene ring, etc.; R<sup>1</sup> is a halogen, etc.; R<sup>2a</sup> and R<sup>2b</sup> are independently a hydrogen, etc.; R<sup>3</sup> is a substituted or unsubstituted alkyl, etc.; R<sup>4</sup> is a hydrogen, etc.; and n is an integer 1 to 3.)

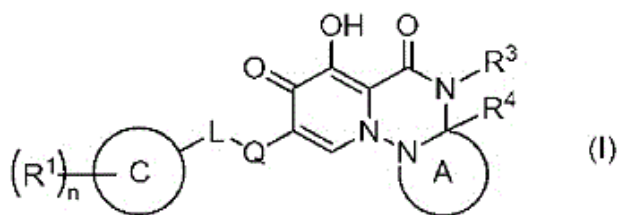


21: 2020/07568. 22: 2020/12/04. 43: 2022/02/04  
51: C07D; A61K; A61P  
71: SHIONOGI & CO., LTD.  
72: TAODA, YOSHIYUKI  
33: JP 31: 2018-104160 32: 2018-05-31  
**54: POLYCYCLIC PYRIDONE DERIVATIVE**  
00: -

A compound represented in formula (I) is provided. (In the formula, ring A is a substituted or unsubstituted non-aromatic heterocycle; ring C is a benzene ring, etc.; Q is a 5-membered aromatic heterocycle, etc.; the R<sup>1</sup>s are independently a halogen, etc.; L is a substituted or unsubstituted



alkylene; R<sup>3</sup> is a substituted or unsubstituted alkyl, etc.; R<sup>4</sup> is a hydrogen, etc.; and n is an integer 1 to 3.)



21: 2020/07569. 22: 2020/12/04. 43: 2022/02/04  
51: B65D  
71: CAPARTIS AG  
72: WOHLGENANT, HERBERT  
33: EP 31: PCT/EP2018/066066 32: 2018-06-18  
**54: PROCESS FOR MANUFACTURING A SAFETY CLOSURE, AND SAFETY CLOSURE**

00: -

Disclosed is a process for manufacturing a safety closure (1), wherein in a first step, a monolithic injection-molded part (2) is made which comprises, one behind the other in the direction of a longitudinal axis (L), a rotary closure (3) with a closure cap (4), a plurality of break-off points (11) and an actuation piece (20), and in a second step, a force acting in the direction of the longitudinal axis (L) is applied to the injection-molded part (2) such that the closure cap (4) and the actuation piece (20) move against each other in the direction of the longitudinal axis (L) and the closure cap (4) slides at least partially into the actuation piece (20), the actuation piece (20) being elastically deformed by the first engagement piece (8) during the sliding-in movement so as to take an oval shape and then regaining its original shape once the sliding-in movement has been completed.

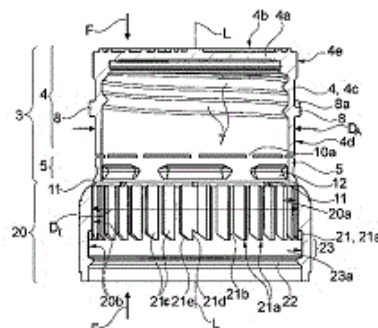


Fig. 6

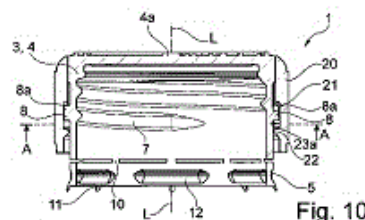


Fig. 10

21: 2020/07626. 22: 2020/12/07. 43: 2022/02/04

51: E02F; E21C

71: CATERPILLAR INC.

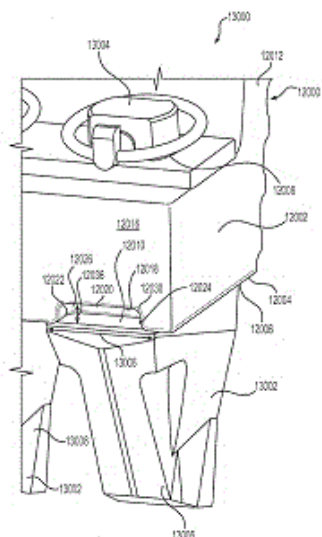
72: PARZYNSKI, DAVID B. JR, CONGDON, THOMAS M

33: US 31: 15/989,508 32: 2018-05-25

**54: ADAPTER BOARD WITH PRY POINTS**

00: -

An adapter board (12000) for use with a blade assembly (13000) includes a lower tool bit attachment portion (12002), terminating in a lower adapter board free end (12004), the lower adapter board free end (12004) defining a bottom surface (12006) defining at least one shank receiving bore (12008) and at least one pry slot (12010). The at least one pry slot (12010) is disposed adjacent the at least one shank receiving bore (12008).



21: 2020/07644. 22: 2020/12/08. 43: 2022/02/04

51: C11D

71: KL-KEPONG OLEOMAS SDN BHD

72: PETKOV, JORDAN TODOROV, XU, HUI, KARUPAYA, KANNAN, UNG, YEE WEI

33: MY 31: PI2018702242 32: 2018-06-07

#### **54: A SYNDET BAR COMPOSITION**

00: -

The invention relates to a syndet bar composition comprising sulfonated methyl ester of a fatty acid having a chain length of 16 to 18 carbon atoms (C16-C18), wherein the sulfonated methyl ester is present in an amount of 5% to 30% by weight of the composition; a co-surfactant selected from the group consisting of alkyl sulfosuccinate, alkyl sulfate, alkyl ether sulfate, alkyl polyglucoside, or the combination thereof; a fatty alcohol selected from the group consisting of cetyl alcohol, stearyl alcohol or cetostearyl alcohol; a saturated fatty acid; a filler; and a humectant/moisturiser. The syndet bar composition is useful as a personal cleaning, laundry or dishwashing bar.

21: 2020/07663. 22: 2020/12/09. 43: 2022/02/04

51: C07C

71: EVONIK OPERATIONS GMBH

72: BLEITH, Tim, KRILL, Steffen, SCHÜTZ, Thorben, SAAL, Doris, TRESKOW, Marcel

33: EP 31: 18173839.4 32: 2018-05-23

#### **54: METHOD FOR PREPARING KETO-FUNCTIONALIZED AROMATIC (METH)ACRYLATES**

00: -

The invention relates to a method for preparing keto-functionalized aromatic (meth)acrylates by reacting keto-functionalized aromatic alcohols or keto-functionalized aromatic amines with (meth)acrylic anhydride having a content of (meth)acrylic acetic anhydride of less than 4.5%.

21: 2020/07684. 22: 2020/12/09. 43: 2022/02/04

51: G06F; H04W; H04L

71: MICROSOFT TECHNOLOGY LICENSING, LLC

72: GILBERT, JAY, GORGENYI, FRANK, GUR, ARIE YEHUDA, KUDRYAVTSEV, MAXIM, MICHAUD, ALAIN L, RAMADAS, RAHUL, RON, URI, WILSON, DARYL M

33: US 31: 62/696,331 32: 2018-07-10

33: US 31: 16/181,308 32: 2018-11-05

#### **54: COUPLING A PEN DEVICE TO A COMPANION DEVICE BASED ON PEN PROXIMITY**

00: -

The disclosure herein describes coupling a stylus and a computing device. Based on a tip of a stylus being brought proximate to a display of a computing device configured to communicate in accordance with a wireless protocol, the computing device is configured to receive a stylus wireless protocol identifier and transmit a wireless protocol identifier of the computing device and one or more security keys to the stylus via a communication channel in response, whereby the stylus and computing device are coupled. Based on receiving a signal associated with user input from the coupled stylus using the wireless protocol, the computing device performs an operation based on the signal. The described "loose coupling" enables streamlined use of styluses with compatible computing devices without requiring full pairing.

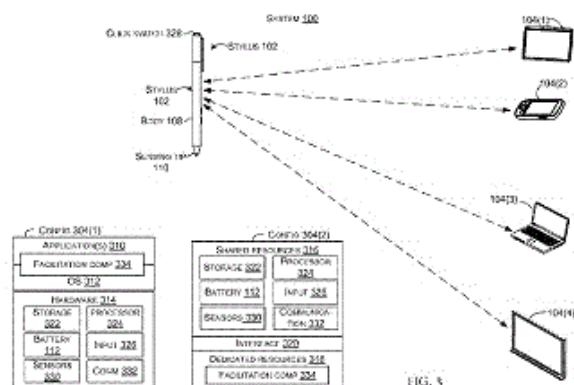
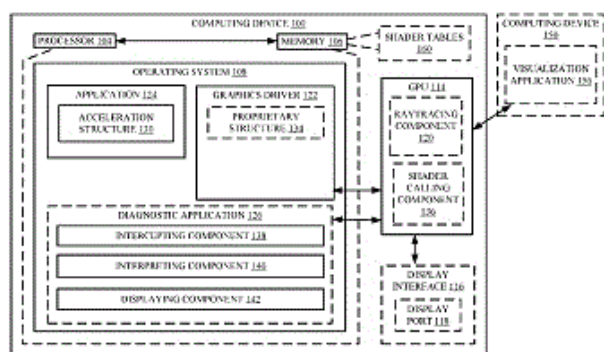


FIG. 3

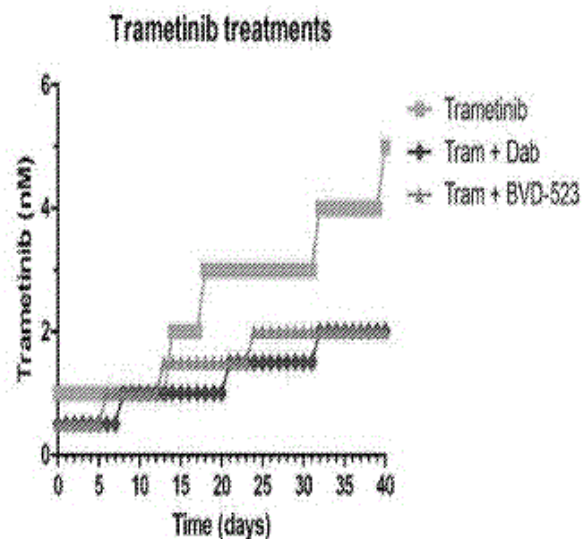
21: 2020/07685. 22: 2020/12/09. 43: 2022/02/04  
 51: G06T  
 71: MICROSOFT TECHNOLOGY LICENSING, LLC  
 72: KINROSS, AUSTIN NEIL, PATEL, AMAR  
 33: US 31: 16/213,746 32: 2018-12-07  
 33: US 31: 62/700,695 32: 2018-07-19  
**54: TECHNIQUES FOR DISPLAYING A SHADER TABLE ASSOCIATED WITH RAYTRACING IMAGES**

00: -  
 Examples described herein generally relate to intercepting, from a graphics processing unit (GPU) or a graphics driver, a buffer that specifies one or more shader records of a shader table to use in generating the image using raytracing, determining, based at least in part on an identifier of the one or more shader records, a layout of the one or more shader records, interpreting, based at least in part on the layout, additional data in the buffer to determine one or more parameters corresponding to the one or more shader records, and displaying, via an application, an indication of the one or more parameters on an interface.



21: 2020/07734. 22: 2020/12/11. 43: 2022/02/04  
 51: A61K; A61P  
 71: BIOMED VALLEY DISCOVERIES, INC.  
 72: SAHA, SAURABH, WELSCH, DEAN, DECRESCENZO, GARY, ROIX, JEFFREY JAMES  
 33: US 31: 15/161,137 32: 2016-05-20  
**54: METHODS AND COMPOSITIONS FOR TREATING NON-ERK MAPK PATHWAY INHIBITOR-RESISTANT CANCERS**  
 00: -

The present invention provides, inter alia, methods, pharmaceutical compositions, and kits for treating or ameliorating the effects of a cancer in a subject, which cancer is refractory or resistant to non-ERK MAPK pathway inhibitor therapy. Also provided are methods for identifying a subject having cancer who would benefit from therapy with an ERK inhibitor and methods for inhibiting phosphorylation of RSK in a cancer cell that is refractory or resistant to a non-ERK MAPK pathway inhibitor.



21: 2020/07757. 22: 2020/12/11. 43: 2022/02/04  
 51: A61N  
 71: SHANGHAI JINGXUN INFOTECH CO., LTD.  
 72: QIU, HUAXUAN  
 33: CN 31: 201810456482.X 32: 2018-05-14  
**54: LOCALISED TRANSDERMAL IONTOPHORETIC DRUG DELIVERY SYSTEM**  
 00: -

A localised transdermal iontophoretic drug delivery system, which controls localised transdermal drug delivery doses, transdermal drug delivery depths and transdermal drug delivery speeds. Specifically, the system comprises a power supply, a current

driving assembly, an optional switch matrix or multiplexer, and electrode assemblies (1, 1', 2, 2', 3a, 3a', 3b, 3b', 4, 4') or an electrode assembly array. The localised transdermal iontophoretic drug delivery system accurately controls a drug delivery current distribution between any electrode combination, so as to locally control a transdermal drug delivery dose, a transdermal drug delivery depth and a transdermal drug delivery speed, in order to implement accurate drug delivery to a user's skin.

21: 2020/07779. 22: 2020/12/14. 43: 2022/02/04  
51: B65G

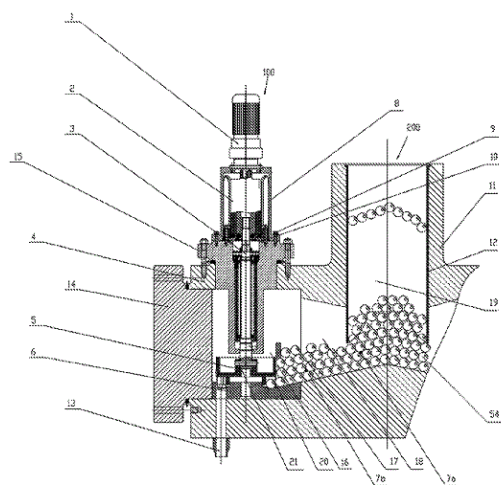
71: TSINGHUA UNIVERSITY

72: ZHANG, Haiquan, ZHANG, Zuoyi, NIE, Junfeng, LI, Hongke, WANG, Xin, LIU, Jiguo, DONG, Yujie  
33: CN 31: 201811633899.5 32: 2018-12-29

#### **54: UNLOADING DEVICE**

00: -

An unloading device, the unloading device comprising a power mechanism (1), a transmission mechanism (2) and an actuating mechanism (3) which are sequentially connected from top to bottom; the actuating mechanism (3) comprises a shaft assembly (300) and a rotary disc assembly (5) which are sequentially connected from top to bottom, the rotary disc assembly (5) comprising an upper-layer auxiliary fence (32), a middle-layer main disturbance disc (33) and a lower-layer material picking part (22) which are sequentially arranged from top to bottom.



21: 2020/07815. 22: 2020/12/15. 43: 2022/02/04  
51: A61F

71: PAUL HARTMANN AG

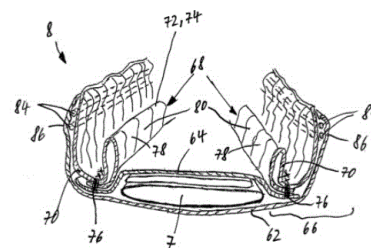
72: BUCH, Tamara, EILERS, Jörg, KESSELMEIER, Rüdiger, BEYRLE, Andreas, ROHRBACHER, Agnes, SCHMIDT, Ann-Cathrin

33: DE 31: 10 2018 112 120.2 32: 2018-05-18

#### **54: INCONTINENCE PRODUCT**

00: -

The invention relates to an incontinence product (2) in the form of briefs, having a front abdomen section (4) and a rear back section (6), and having a step section (8) having an absorption body (7), - wherein the step section (8) has, on both sides, a cuff element (68), forming a lateral discharge block and extending on both sides along the longitudinal extension of the absorption body (7), which are fixed at least along one cuff base line (76) on the side of the product facing the body and have an unsecured free longitudinal edge (74), by means of which they can be raised up from the side of the product facing the body, - wherein the cuff elements (68) are free of elastifying means in the transverse direction (16) within the respective cuff base line (76), that is, in an entire region (80) which can be raised up from the side of the product facing the body.



21: 2020/07839. 22: 2020/12/15. 43: 2022/02/04  
51: C12N; C12Q

71: ILLUMINA, INC., ILLUMINA CAMBRIDGE LIMITED, ILLUMINA SINGAPORE PTE. LTD.

72: KLAUSING, KAY, GHOMI, HAMED TABATABAEI, GOLYNSKIY, MISHA, NIRANTAR, SAURABH, MCDONALD, SETH, PEISAJOVICH, SERGIO

33: US 31: 62/775,662 32: 2018-12-05

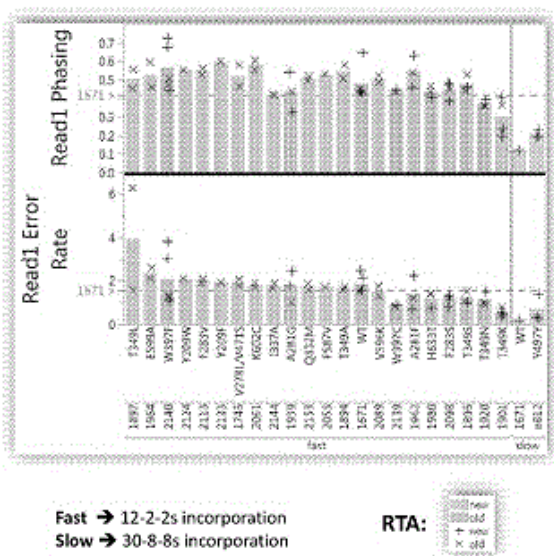
#### **54: POLYMERASES, COMPOSITIONS, AND METHODS OF USE**

00: -

Presented herein are altered polymerase enzymes for improved incorporation of nucleotides and nucleotide analogues, in particular altered polymerases that maintain high fidelity under

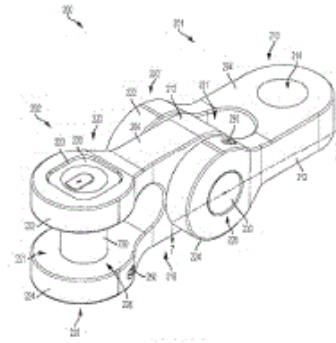


reduced incorporation times, as well as methods and kits using the same.



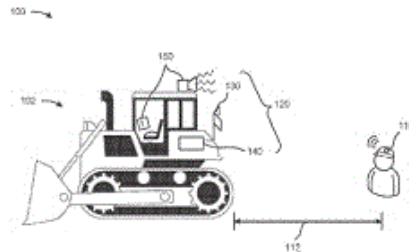
21: 2020/07874. 22: 2020/12/14. 43: 2022/02/04  
51: E02F; F16C  
71: CATERPILLAR INC.  
72: STOLZ, MICHAEL R  
33: US 31: 16/001,207 32: 2018-06-06  
**54: PIN AND RETAINER LOCKING SYSTEM**  
00: -

A pinned connection assembly includes a first rigging component, a second rigging component, a rigging pin, a locking pin, and a lock. The first rigging component has an end with at least one coupling aperture and at least one retention aperture that is transverse to the coupling aperture. The second rigging component has an end with at least one coupling aperture. The rigging pin has an end with a retention groove. The rigging pin is inserted through the coupling apertures of the first and second rigging components. The locking pin has an end with a locking groove. The locking pin is inserted through the retention aperture and the retention groove. The locking groove has guide, transitional, and locking portions for engaging a key of the lock.



21: 2020/07875. 22: 2020/12/14. 43: 2022/02/04  
51: G08B; H04W  
71: CATERPILLAR INC.  
72: BERGERHOUSE, BRADLEY, OLARU, LILIANA, KULICZ, ALBERT, REED, JOSHUA D  
33: US 31: 16/005,768 32: 2018-06-12  
**54: PROXIMITY DETECTION USING A SHORT RANGE WIRELESS COMMUNICATION DEVICE**  
00: -

An example described herein may include receiving a signal associated with a short range wireless communication device. The signal may be received via a receiver device configured to receive the signal when the short range wireless communication device is within an angular range of detection associated with the device. An example may involve determining a value of a parameter associated with the signal and/or determining that the short range wireless communication device is within a threshold distance of a machine based on the value of the parameter. An example may involve performing an action based on the short range wireless communication device being within the threshold distance of the machine.



21: 2020/07897. 22: 2020/12/17. 43: 2022/02/03  
51: G06F  
71: Allfunds Bank S.A.U.  
72: HERNANDEZ ACOSTA, Alberto Miguel, NIETO MARTÍN-VARÉS, Rubén



**54: ARRANGEMENT OF BLOCKCHAINS WITH A RESTRICTED TRANSACTION**

00: -

An arrangement of blockchains configured to distribute simultaneously at least one public transaction and/or one restricted transaction, where the arrangement includes a plurality of participant nodes (12) and a plurality of validator nodes (13) connected via a telecommunications network (14); where a proponent participant node (12) is configured to send to all the validator nodes (13) the content of a tx information transaction register, together with the identifier of a certain preset privacy group; to provide the blockchain system which distributes information transaction register blocks with anonymity and privacy capabilities; in such a way that at least one receiving participant node (12) connected to a blockchain network (11) is capable of deciphering, reading and executing the information transaction register blocks encrypted by the validator or mining nodes (13) of the blockchain network (11).

21: 2020/07928. 22: 2020/12/18. 43: 2021/08/12

51: G01S

71: UNIVERSITA' DEGLI STUDI DI FIRENZE

72: PIERACCINI, Massimiliano, MICCINESI, Lapo, ROJHANI, Neda

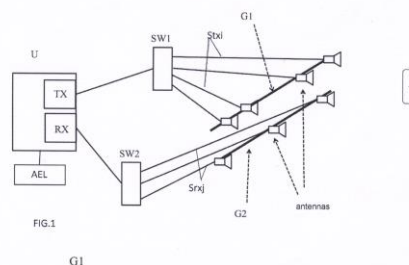
33: IT 31: 102018000006797 32: 2018-06-29

**54: GROUND BASED SYNTHETIC APERTURE RADAR (GBSAR) WITH TRANSMITTING AND RECEIVING MULTIPLE ANTENNAS (MIMO) AND USING THE PROCESSING TECHNIQUE CALLED COMPRESSIVE SENSING (CS)**

00: -

Ground radar apparatus comprising: at least a main radar unit (U) provided with at least a transmitting unit (TX) and at least a receiving unit (RX); two parallel linear guides G1 and G2 with antenna securing systems; NTX antennas connected to the transmitting unit TX; NRX antennas connected to the RX transmitting unit. This radar is a MIMO (Multiple Input Multiple Output) that operates as an interferometric GBSAR (Ground Based Synthetic Aperture Radar) exploiting a particular implementation of the processing technique called Compressive Sensing (CS). In a further configuration of the same radar the parallel linear guides are three, in this way it is possible to acquire two different interferograms of the same scenario

that allow to calculate two different components of the possible displacement of the targets.



21: 2020/07929. 22: 2020/12/18. 43: 2021/09/12

51: G01N

71: PEARTON, Selwyn Peter

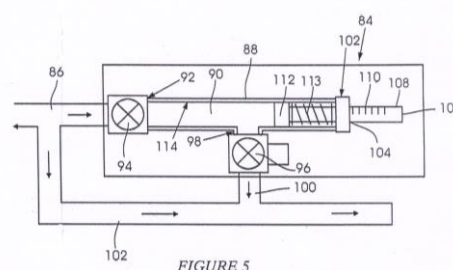
72: PEARTON, Selwyn Peter

33: ZA 31: 2018/03685 32: 2018-06-04

**54: PUMPABLE EXPLOSIVES DENSITY MEASUREMENT**

00: -

A device suitable for providing a reading, which is a measure of a density of an explosive' the device including an expansible chamber for receiving a sensitised emulsion through an inlet to the chamber, an indicating member which is actuated by the expansion of the chamber due to a reaction of the sensitised emulsion, the indicating member thereby providing the reading, and an outlet from the chamber through which air can be displaced form the expansible chamber as the sensitised emulsion is introduced into the chamber.



21: 2020/07960. 22: 2020/12/18. 43: 2022/02/04

51: F01D

71: TRANF TECHNOLOGY (XIAMEN) CO., LTD

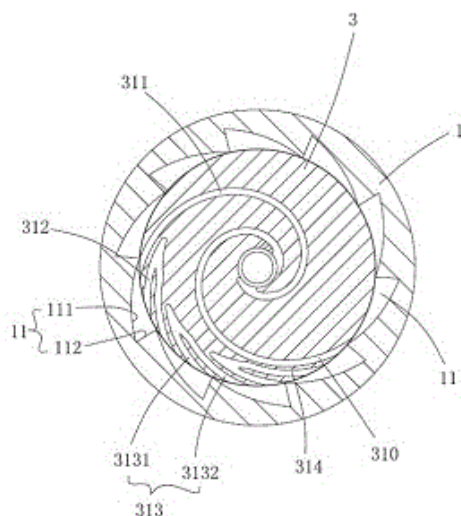
72: XU, SHUIDIAN, LI, YANFU, XU, TAO

33: CN 31: 201810944526.3 32: 2018-08-19

**54: PNEUMATIC DEVICE**

00: -

A pneumatic device, comprising an outer ring (1) and a core body (3), at least one stage of secondary stroke flow channel (300) being provided between a nozzle (301) and an exhaust port (302) which are located at an outer ring surface of the core body (3); gas enters from an intake passage (31), is injected in stages through the nozzle (301) of the core body (3) and the secondary stroke flow channel (300), acts on at least two driving recesses (11) in the circumferential direction of the outer ring (1), and generates a pushing force for the driving recesses (11) to push the outer ring (1) to rotate and produce work, so as to achieve power output, and finally, the gas is discharged, through an exhaust passage (310), from the exhaust port (302) of the core body (3).



21: 2020/07990. 22: 2020/12/21. 43: 2022/02/04  
51: H04N

71: BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD., BYTEDANCE INC.

72: ZHANG, LI, ZHANG, KAI, LIU, HONGBIN, WANG, YUE

33: CN 31: PCT/CN2018/094929 32: 2018-07-07

33: CN 31: PCT/CN2018/101220 32: 2018-08-18

33: CN 31: PCT/CN2018/117627 32: 2018-11-27

33: CN 31: PCT/CN2019/071214 32: 2019-01-10

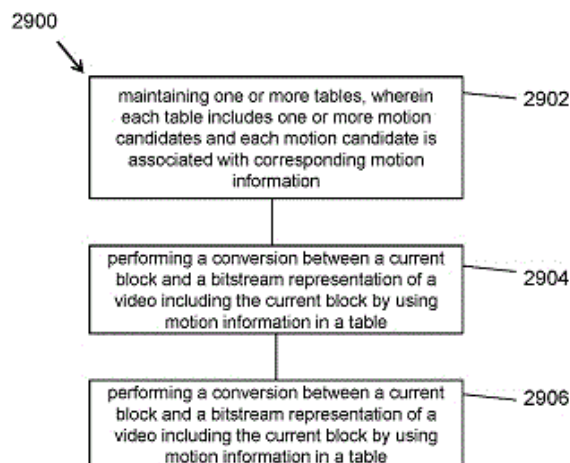
33: CN 31: PCT/CN2018/093663 32: 2018-06-29

**54: UPDATE OF LOOK UP TABLE: FIFO, CONSTRAINED FIFO**

00: -

A method of video processing is provided to include maintaining one or more tables, wherein each table includes one or more motion candidates and each

motion candidate is associated with corresponding motion information; performing a conversion between a current block and a bitstream representation of a video including the current block by using motion information in a table; and updating, after performing of the conversion, one or more tables based on M sets of additional motion information associated with the current block, M being an integer.



21: 2020/07993. 22: 2020/12/21. 43: 2022/02/04  
51: A61K

71: AMARIN PHARMACEUTICALS IRELAND LIMITED

72: SONI, PARESH

33: US 31: 62/735,670 32: 2018-09-24

33: US 31: 62/758,387 32: 2018-11-09

33: US 31: 62/818,514 32: 2019-03-14

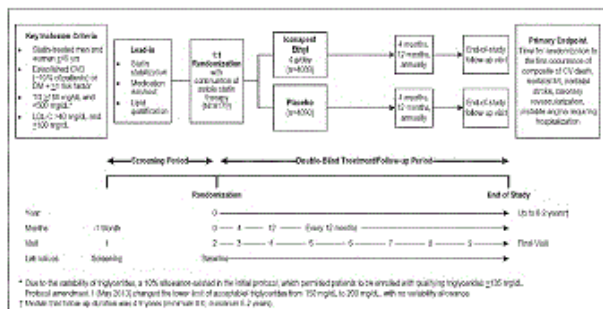
33: US 31: 62/735,680 32: 2018-09-24

33: US 31: 62/813,888 32: 2019-03-05

**54: METHODS OF REDUCING THE RISK OF CARDIOVASCULAR EVENTS IN A SUBJECT**

00: -

In various embodiments, the present disclosure provides methods reducing the risk of cardiovascular events in a subject on statin therapy by administering to the subject a pharmaceutical composition comprising about 1 g to about 4 g of eicosapentaenoic acid ethyl ester or a derivative thereof.



21: 2021/00123. 22: 2021/01/07. 43: 2022/03/14

51: C05G

71: SAWANT, Arun Vitthal, VADAKEKUTTU, Thankapan

72: SAWANT, Arun Vitthal, VADAKEKUTTU, Thankapan

33: WO 31: PCT/IB2018/053251 32: 2018-05-10

33: IN 31: 201821042030 32: 2018-11-06

#### 54: NOVEL CROP NUTRITION AND FORTIFICATION COMPOSITION

00: -

The invention relates to a water dispersible granular composition comprising of 0.1% to 70% by weight of manganese salts, complexes, derivatives or mixtures thereof, 1% to 90% by weight of elemental sulphur and 1% to 30% by weight of dispersing agent, with granules in a size range of 0.1-2.5 mm and comprising particles in the range of 0.1-20 microns. The invention further relates to liquid suspension composition comprising 0.1% to 55% by weight of manganese salts, complexes, derivatives or mixtures thereof, 1% to 60% by weight of elemental sulphur, at least one structuring agent and at least one surfactant, where the composition has particle size range of 0.1-20 microns. The invention further relates to a process of preparing the crop nutrition and fortification composition and to a method of treating the plants, seeds, crops, plant propagation material, locus, parts thereof or the soil with the composition.

21: 2021/00136. 22: 2021/01/08. 43: 2022/04/07

51: C05D

71: SAWANT, Arun Vitthal, VADAKEKUTTU, Thankapan

72: SAWANT, Arun Vitthal, VADAKEKUTTU, Thankapan

33: WO 31: PCT/IB2018/053251 32: 2018-05-10

33: IN 31: 20181033608 32: 2018-09-06

#### 54: NOVEL CROP NUTRITION AND FORTIFICATION COMPOSITION

00: -

The invention relates to a water dispersible granular composition comprising 1% to 70% of one or more of iron salts, complexes, derivatives, mixtures thereof, 1% to 90% of elemental sulphur, and 1-30% of at least one dispersing agent; wherein the granules are in the size range of 0.1-2.5 mm and comprises particles in the size range of 0.1-20 microns. The invention further relates to a liquid suspension composition comprising 1% to 55% of at least one or more of iron salts, complexes, derivatives, mixtures thereof and 1% to 60% elemental sulphur, 0.01-5% of at least one structuring agent and at least one agrochemically acceptable excipient; wherein the composition comprises particles in the size range of 0.1-20 microns. The invention further relates to a process of preparing the composition and to a method of treating the plants, seeds, crops, plant propagation material, locus, parts thereof or the soil with the composition.

21: 2021/00138. 22: 2021/01/08. 43: 2022/03/14

51: A01N; A23L

71: SAWANT, Arun Vitthal, VADAKEKUTTU, Thankapan

72: SAWANT, Arun Vitthal, VADAKEKUTTU, Thankapan

33: WO 31: PCT/IB2018/053251 32: 2018-05-10

33: IN 31: 201821042026 32: 2018-11-06

#### 54: NOVEL CROP NUTRITION AND FORTIFICATION COMPOSITION

00: -

The invention relates to a water dispersible granular composition comprising of 0.1% to 70% by weight of boron salts, complexes, derivatives or mixtures thereof, 1% to 90% by weight of elemental sulphur and 1% to 30% by weight of dispersing agent, with granules in a size range of 0.1-2.5 mm and particles in the range of 0.1-20 microns. The invention further relates to liquid suspension composition comprising 0.1% to 55% by weight of boron salts, complexes, derivatives or mixtures thereof, 1% to 65% by weight of elemental sulphur, at least one structuring agent and at least one surfactant, where the composition has particle size range of 0.1-20 microns. The invention further relates to a process of preparing the crop nutrition and fortification composition and to

a method of treating the plants, seeds, crops, plant propagation material, locus, parts thereof or the soil with the composition.

21: 2021/00148. 22: 2021/01/08. 43: 2022/03/30

51: A61K; C07C; C07D; A61P

71: PHARMAXIS LTD.

72: FINDLAY, Alison Dorothy, TURNER, Craig Ivan, DEODHAR, Mandar, FOOT, Jonathan Stuart, JAROLIMEK, Wolfgang, ZHOU, Wenbin, BUSON, Alberto, GRECO, Angelique Elsa

33: AU 31: 2018902829 32: 2018-08-03

#### 54: HALOALLYLAMINE SULFONE DERIVATIVE INHIBITORS OF LYSYL OXIDASES AND USES

00: -

The present invention relates to novel compounds which are capable of inhibiting certain amine oxidase enzymes. These compounds are useful for treatment of a variety of indications, e.g., fibrosis, cancer and/or angiogenesis in human subjects as well as in pets and livestock. In addition, the present invention relates to pharmaceutical compositions containing these compounds, as well as various uses thereof.

21: 2021/00452. 22: 2021/01/21. 43: 2022/04/08

51: G01H

71: HARBIN INSTITUTE OF TECHNOLOGY, SHENZHEN

72: ZHANG, MINGDI, YU, LEI, XU, YUAN, XU, YONG, LIANG, HONG, XING, CHEN, GUO, JIANFENG, TAO, ZHIXIANG

33: CN 31: 201810649429.1 32: 2018-06-22

#### 54: NOISE MONITORING METHOD AND SYSTEM BASED ON SOUND SOURCE IDENTIFICATION

00: -

A noise monitoring method and system based on sound source identification. The method comprises the following steps: S1. collecting environmental sound by means of a sound collection device; S2. calculating data such as acoustics and psychoacoustics of the collected environmental sound by using noise analysis software and a computer control front end, and sending the data to a sound source analysis module; S3. determining, on the basis of a sound source neural network model and a noise level classification module in the sound source analysis module, the noise levels of different noise sources and calculating a noise correction value according to the noise level results; S4. adding the noise correction value and an

environmental sound level measurement value to finally obtain a noise sound level; and S5. sending the noise sound level back to a terminal control system. Not only the noise sound level is reflected, but also subjective feeling differences caused by different sound sources are also taken into consideration, so that the actual status of noise is truly reflected and the problem of inaccurate noise monitoring is overcome.

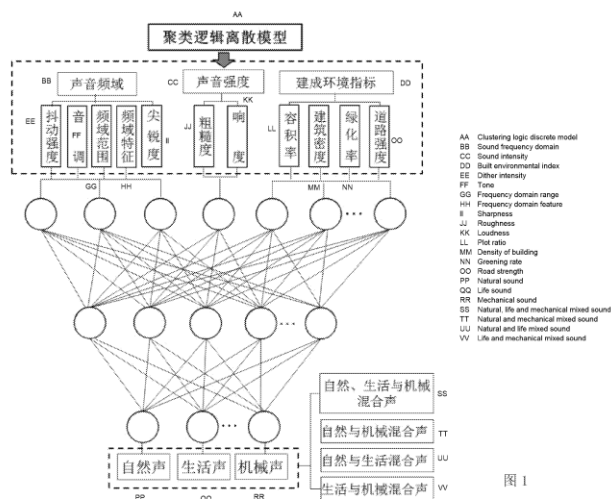


图 1

21: 2021/00585. 22: 2021/01/27. 43: 2022/02/04

51: C01B A61K A61Q

71: EVONIK OPERATIONS GMBH

72: GALLIS, Karl, W., HAGAR, William, J., NASSIVERA, Terry, W., DOLAN, Lawrence, Edward, MIDHA, Sanjeev, SCHNEIDERMAN, Eva

33: US 31: 62/684,073 32: 2018-06-12

#### 54: SPHERICAL STANNOUS COMPATIBLE SILICA PARTICLES FOR REDUCED RDA

00: -

Silica particles having a d50 median particle size from 8 to 20  $\mu\text{m}$ , a sphericity factor (S80) of at least 0.9, a BET surface area from 0.1 to 8  $\text{m}^2/\text{g}$ , a total mercury intrusion pore volume from 0.35 to 0.8  $\text{cc/g}$ , and a loss on ignition from 3 to 7 wt.%, are disclosed, as well as methods for making these silica particles, and dentifrice compositions containing the silica particles.

21: 2021/00697. 22: 2021/02/01. 43: 2022/01/28

51: H04N

71: Huawei Technologies Co., Ltd.

72: GAO, Han, CHEN, Jianle, ESENLIK, Semih, ZHAO, Zhijie, KOTRA, Anand Meher

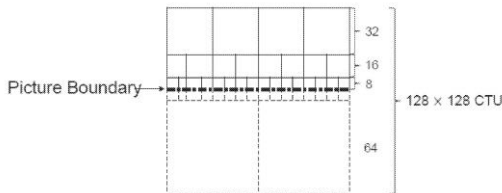


33: US 31: 62/697,274 32: 2018-07-12

#### **54: BOUNDARY BLOCK PARTITIONING IN VIDEO CODING**

00: -

A partitioning method comprises determining whether a current block of a picture is a boundary block and whether the size of the current block is larger than a minimum allowed quadtree leaf node size; and if the current block is the boundary block and the size of the current block is not larger than the minimum allowed quadtree leaf node size (MinQTSIZE), applying forced binary tree (BT) partitioning to the current block. A method comprises making a determination that a current block of a picture is a boundary block and that a size of the current block is less than or equal to a minimum allowed quadtree (QT) leaf node size (MinQTSIZE); and applying, in response to the determination, forced binary tree (BT) partitioning to the current block.



21: 2021/00907. 22: 2021/02/10. 43: 2021/09/10

51: B63B

71: MURIE, Craig Raymond

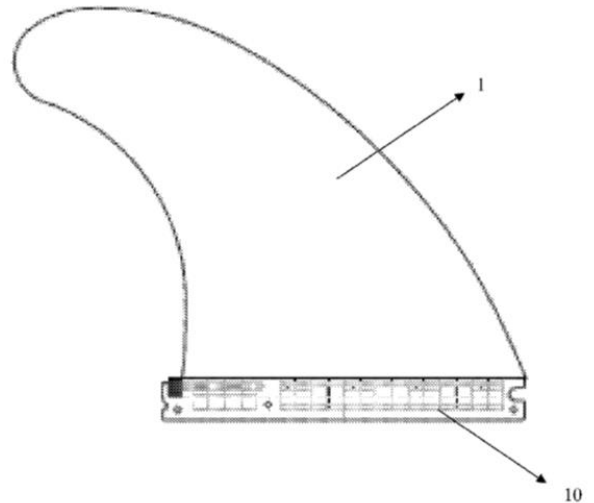
72: MURIE, Craig Raymond, SAVILLE, Garth Basil, NORTJE, Brenen Jon, PITOT DE LA BEAUJARDIERE, Jean-Francois Philippe, BEMONT, Clinton Pierre, WOODS, David Bruce Ray, VAN WIERINGEN, Calvin Sidney

33: ZA 31: 2018/04577 32: 2018-07-10

#### **54: BOARD FIN**

00: -

A board fin including a base for securing the fin to a board, with a fin body extending from the base; the fin body comprising an internal structure covered by a flexible skin, with the internal structure being adjustable to change the external characteristic of the fin body, the fin being provided with means to adjust the internal structure whilst the fin is secured to a board.



21: 2021/01073. 22: 2021/02/17. 43: 2022/02/02

51: F41G

71: Langdon Tactical Technology Inc.

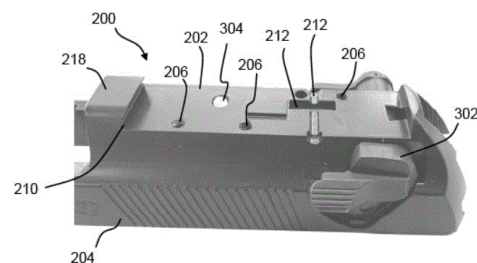
72: LANGDON, Ernest

33: US 31: 62/977,903 32: 2020-02-18

#### **54: METHODS AND APPARATUS FOR OPTICAL ADAPTER FOR FIREARM SLIDE**

00: -

An apparatus and method for modifying a handgun to accept an optical sight comprises and modified slide mechanism adapted to include a flat recessed rear section configured to receive an adapter plate for mounting an optical sight. Various embodiments of the adapter include modified internal components used to replace stock components what will no longer fit within the modified profile of the slide mechanism. Replacement of the slide mechanism and associated internal components will allow a user to add an optical sight to an existing handgun.



21: 2021/01106. 22: 2021/02/18. 43: 2022/02/03

51: E04G

71: RUSSELL, James

72: RUSSELL, James

33: US 31: 62/978,655 32: 2020-02-19

#### **54: SCAFFOLDING**



00: -

A scaffolding assembly adapted to be releasably attached to an elongate support member such as an overhead pipe. The scaffolding assembly has a split collar and a platform assembly adapted to be releasably attached to the split collar. The split collar comprises at least two segments which can encircle the pipe and be secured to one another. The platform assembly which includes a platform deck has a connector formation which extends laterally outwardly from the deck to an extent that it can engage a receiving formation on the collar assembly and thereby attach the platform assembly to the collar assembly.

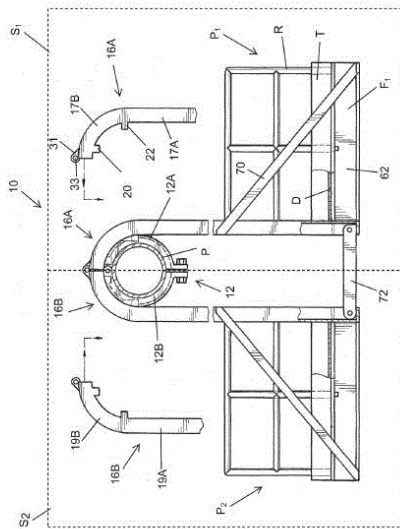


Figure 1

21: 2021/01423. 22: 2021/03/02. 43: 2022/03/11

51: F25B

71: EVAPCO, INC.

72: BUGLER, Thomas, LIBERT, Jean-Pierre, HUBER, Mark

33: US 31: 62/728,269 32: 2018-09-07

33: US 31: 62/730,764 32: 2018-09-13

33: US 31: 16/562,778 32: 2019-09-06

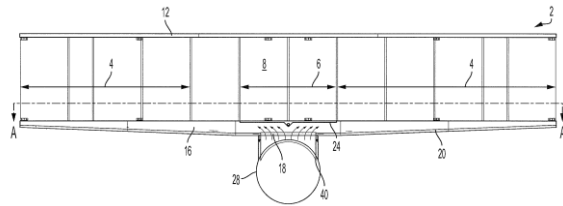
#### 54: ADVANCED LARGE SCALE FIELD-ERECTED AIR COOLED INDUSTRIAL STEAM CONDENSER

00: -

Large scale field erected air cooled industrial steam condenser having heat exchanger bundles constructed with an integral secondary section positioned in the center of the heat exchanger, flanked by identical primary condenser sections. A bottom bonnet for delivering steam to the bottom end of the primary condenser tubes and for receiving

condensate formed in those same tubes.

Uncondensed steam and non-condensables flow into a top bonnet from the primary condenser tubes and flow toward the center of the heat exchanger bundle where they enter the secondary condenser section tubes. Non-condensables and condensate formed in the secondary section tubes enter a secondary bottom bonnet inside the primary bottom bonnet and are withdrawn from the secondary bottom bonnet via outlet nozzle.



21: 2021/01430. 22: 2021/03/02. 43: 2022/03/11

51: A43B

71: BECK, Harald, SCHUMACHER, Tobias

72: BECK, Harald, SCHUMACHER, Tobias

33: CA 31: 3018049 32: 2018-09-20

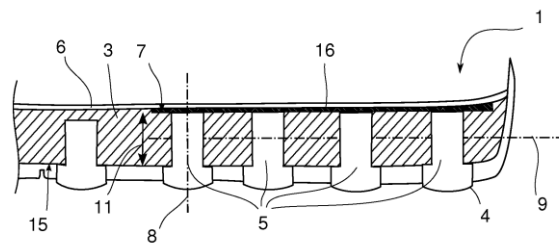
#### 54: MODULAR INSERT SYSTEM FOR SHOE SOLES

00: -

A support customizing system is described for a sole (1) of a shoe. The sole (1) included a relatively soft, resilient midsole (3) and an a harder outsole (4).

Hard insert elements (5) are provided for inserting into vertical cavities (2) in the midsole (3). By varying the hardnesses of different inserts (5) in different vertical cavities, a precisely-tunable pronation control effect on the wearer's gait can be effected.

First-order, second-order and third-order pronation control effects are described. Measures are provided for improving the accuracy of the proprioceptive (sensory motoric) effect on the wearer's foot, for example by limiting the ingress of dirt or water.



21: 2021/01455. 22: 2021/03/03. 43: 2022/02/02

51: C22C C22F

71: KME SPECIAL PRODUCTS GMBH &amp; CO. KG

72: BÖHLKE, Peter, WOBKER, Hans-Günter, SCHULZE, Hark

33: DE 31: 10 2018 122 574.1 32: 2018-09-14

**54: USE OF A COPPER ALLOY**

00: -

The invention relates to the use of a copper alloy which consists, in weight percent (mass proportions of the ladle analysis in %), of: silver (Ag) 0.020-0.50, zirconium (Zr) 0.050-0.50, phosphorus (P) at most 0.060, chromium (Cr) at most 0.005, the remainder copper (Cu) and other alloying elements including unavoidable impurities, the proportion of other alloying elements being less than or equal to ( $\leq$ ) 0.50, as a material for casting molds or casting mold components selected from the following group: mold plates, mold tubes, casting wheels, casting rolls, casting rollers, melting crucibles.

21: 2021/01500. 22: 2021/03/04. 43: 2022/03/11

51: G06F; H04M

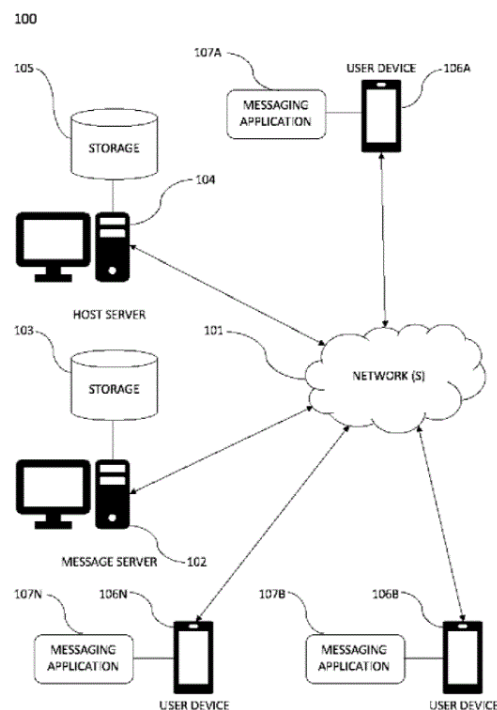
71: Mohamed Abdelfattah Mohamed Ali BAHARIA

72: Mohamed Abdelfattah Mohamed Ali BAHARIA

**54: SYSTEM AND METHOD FOR DELETING OR EDITING SENT MESSAGES FROM YOUR RECIPIENTS CHAT HISTORY**

00: -

The method and computer implemented system disclosed herein provides options to a user for deleting or editing a message (a message may include text, audio, image, video and / or animations) that has been sent in a messaging application in a recipient's device without any restriction (eg without a time limit). In one embodiment, the sending device detects a user request to delete or edit the message that has been sent to one or more recipients (eg group chat), the request is sent to a message server, and the message server further transmits the request to the recipient device so that the recipient device may delete or edit the message.



21: 2021/01550. 22: 2021/03/08. 43: 2022/04/07

51: C08K; C08L

71: NANTONG UNIVERSITY

72: MIAO, Jianwen, LI, Minmin, SONG, Guohua, WANG, Yan, XIA, Jie

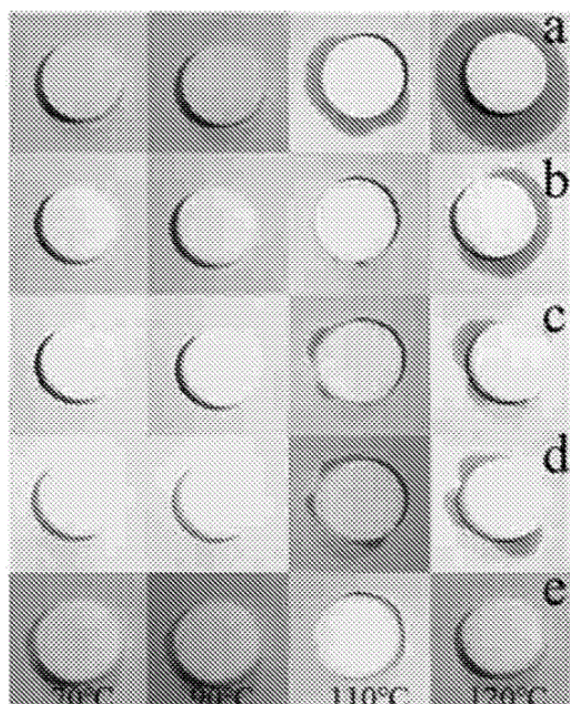
33: CN 31: 202010279157.8 32: 2020-04-10

**54: EPOXY RESIN COMPOSITE FORM-STABLE PHASE CHANGE MATERIAL, PREPARATION METHOD THEREFOR, AND APPLICATION**

00: -

An epoxy resin composite form-stable phase change material, a preparation method therefor, and an application. The epoxy resin composite form-stable phase change material is prepared from a cured epoxy resin, a phase change material, a surfactant and a thermally conductive material by means of a casting and molding method. A curing agent in the cured epoxy resin is polyether ammonia, the phase change material is ethylene glycol distearate, and the surfactant is an ethanol solution of sodium dodecyl benzene sulfonate. The composite form-stable phase change material has excellent high temperature resistance, exhibits solid-solid phase change, and is easy to process and prepare. The phase change material phase changes from a crystalline state to an amorphous form, which enables the material to implement the functions of heat absorption and energy storage. The addition of

the thermally conductive material improves the thermal conductivity and form stability of the composite form-stable phase change material. The epoxy resin composite form-stable phase change material is filled into a temperature-reducing section of an IQOS cigarette in the form of particles, and can significantly reduce the temperature of the first to third puffs at a filter tip.



21: 2021/01704. 22: 2021/03/12. 43: 2022/01/28  
51: H04N

71: Huawei Technologies Co., Ltd.

72: GAO, Han, ESENLIK, Semih, CHEN, Jianle, KOTRA, Anand Meher, WANG, Biao, ZHAO, Zhijie

33: US 31: 62/726,423 32: 2018-09-03

#### 54: RELATION BETWEEN PARTITION CONSTRAINT ELEMENTS

00: -

The present invention relates generally to video coding and picture partitioning methods. In particular, the invention is concerned with relations between partition constraint elements, by setting partitioning rules for different picture partitioning methods. The invention provides devices and corresponding methods for generating or processing a bitstream including encoded pictures, particularly for setting and including partition constraint element into the bitstream. One of the devices is configured

to determine a minimum luma size of a leaf block resulting from quadtree splitting (MinQtSizeY), determine a maximum luma size of a coding block to be split using a binary tree splitting (MaxBtSizeY) based on the MinQtSizeY, and include information for the determined MinQtSizeY into the bitstream.

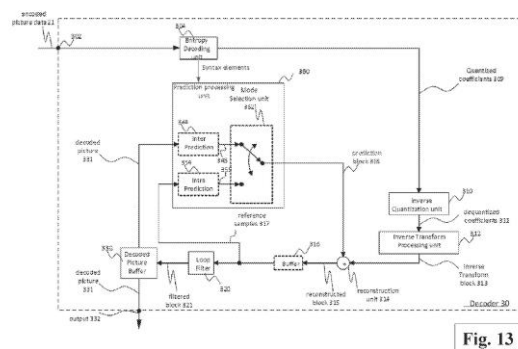


Fig. 13

21: 2021/01716. 22: 2021/03/15. 43: 2022/03/11

51: A01G; A01K; C12M; C12N

71: DOUGLAS, Peter

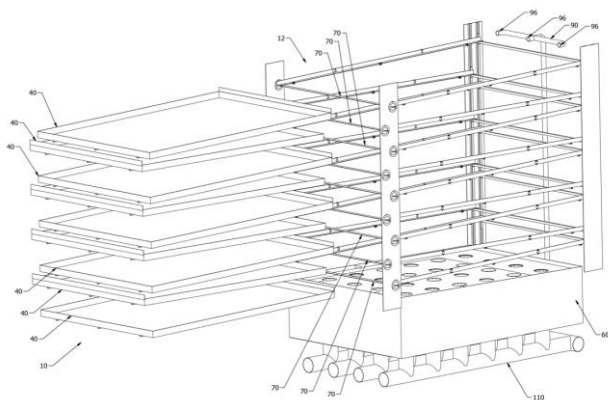
72: DOUGLAS, Peter

33: ZA 31: 2021/00734 32: 2021-02-03

#### 54: APPARATUS FOR ORGANISM REARING OR LIQUID REMEDIATION

00: -

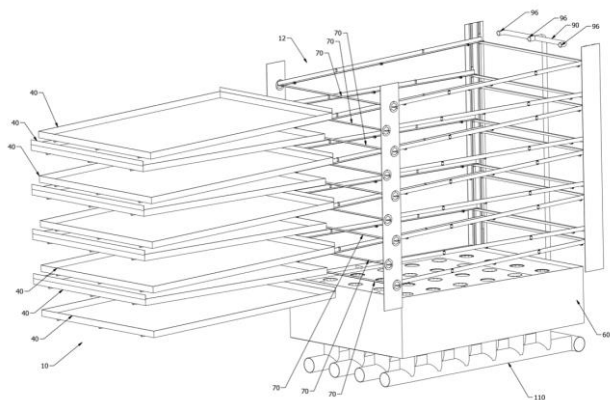
THIS invention relates to a substantially vertically arranged: aquaculture or hydroponics apparatus for rearing animals, plants or other organisms; or remediation apparatus for separating contaminating constituents from polluted liquids such as sewerage water. The apparatus includes a rack and a plurality of trays stackable on the rack, wherein each of the trays have opposing pivotal and displaceable tray ends. The trays are angularly displaceable relative to the rack between non-flow and flow inclinations by displacement means acting on the displaceable tray ends thereby to operatively cause liquid to spill over a spill-over tray end of the trays in the flow inclination.



21: 2021/01717. 22: 2021/03/15. 43: 2022/03/11  
 51: A01G; A01K; C12M; C12N  
 71: DOUGLAS, Peter  
 72: DOUGLAS, Peter  
 33: ZA 31: 2021/00734 32: 2021-02-03  
**54: APPARATUS FOR ORGANISM REARING OR LIQUID REMEDIATION**

00: -

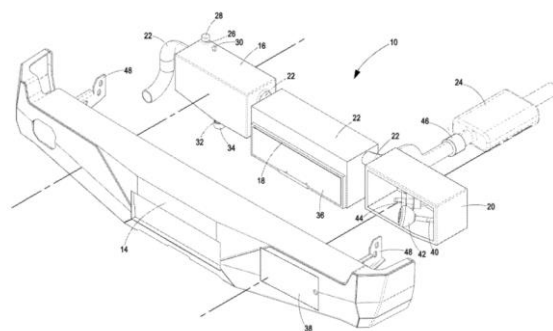
THIS invention relates to a substantially vertically arranged: aquaculture or hydroponics apparatus for rearing animals, plants or other organisms; or remediation apparatus for separating contaminating constituents from polluted liquids such as sewerage water. The apparatus includes a rack and a plurality of trays stackable on the rack, means for configuring the trays between non-flow and flow configurations and a basin subjacent the lowermost tray for collecting the liquid therein. The basin comprises: an upper collection surface, a lower collection surface and a plurality of perforated catchers extending therebetween. The catchers are configured to operatively catch and separate out solids or coarser matter from the liquid while allowing the liquid to pass therethrough towards an inlet end of primary piping, located between the upper and the lower collection surfaces of the basin, for circulation towards an outlet end of the primary piping, located at or near an uppermost tray.



21: 2021/01848. 22: 2021/03/18. 43: 2022/03/11  
 51: A47J; B60H; B60R  
 71: GROBLER, Marthinus Wessel  
 72: GROBLER, Marthinus Wessel, SMITH, John Roy, DU TOIT, Phillippus Johan  
 33: ZA 31: 2018/06552 32: 2018-10-03  
**54: HEATING DEVICE FOR A VEHICLE**

00: -

A heating device (10) for securing to a vehicle includes: a bumper (14); a tank (16) disposed within the bumper (14), for storing a liquid; means for, in use, transferring heat from a vehicle's exhaust gases to the interior of the tank (16); and bumper connectors (48) for securing the heating device (10) to corresponding bumper mounts on a vehicle. By disposing the tank (16) within the bumper, the installation does not: (i) materially impact the aesthetics of the vehicle; (ii) reduce the available space within the vehicle's interior or trunk; or (iii) require installation within the vehicle's engine bay.

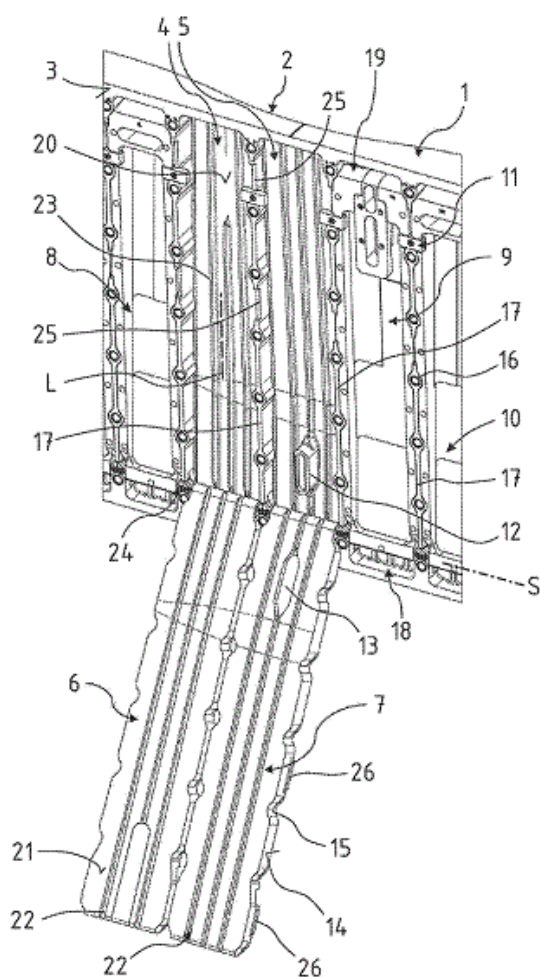


21: 2021/01967. 22: 2021/03/24. 43: 2022/02/02  
 51: B22D  
 71: KME SPECIAL PRODUCTS GMBH & CO. KG  
 72: ROLF, Thomas  
 33: DE 31: 10 2018 123 948.3 32: 2018-09-27  
**54: MOLD PLATE**



00: -

The invention relates to mold plate with a casting side 2 and a rear side 3 facing away from the casting side 2. The rear side 3 is equipped with at least one cooling channel 4, 5 which is open towards the rear side 3, and an insert 6-10 is arranged in the cooling channel 4, 5 in order to reduce the flow cross-section of the cooling channel 4, 5. The insert 6-10 is pivotally secured to the mold plate 2 such that the insert can be pivoted from a closed position into an open position.



21: 2021/01972. 22: 2021/03/24. 43: 2022/01/28

51: C01B; C10J; C10K

71: Linde GmbH

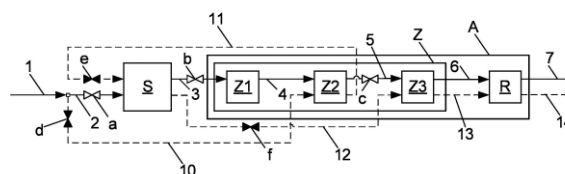
72: HEINZEL, Albrecht, HASELSTEINER, Thomas

33: DE 31: 10 2018 007 868.0 32: 2018-10-05

#### **54: PROCESS AND APPARATUS FOR PRODUCING GAS PRODUCTS USING A SHIFT CONVERTER**

00: -

The invention relates to a process and to an apparatus for producing a hydrogen-containing gas product in a first modification (7) or a second modification (14) having a lower hydrogen content than the first modification, wherein a synthesis gas (1) containing steam, carbon monoxide and hydrogen and provided with a steam/carbon monoxide ratio (S/CO ratio) between 1.8 and 2.5 mol/mol is treated using a shift converter (S) to obtain an intermediate product (3, 12) from which water and acid gases are separated in each case to obtain the hydrogen-containing gas product (7, 14). The characteristic feature here is that the synthesis gas (2) is supplied to the shift converter (S) in the form in which it is provided to obtain the gas product in the first modification (7), while the ratio of steam to carbon monoxide in the synthesis gas (11) is adjusted to a value between 0.1 and 0.6 mol/mol by the removal of water upstream of the shift converter (S) to obtain the gas product in the second modification (14).



21: 2021/02113. 22: 2021/03/29. 43: 2022/01/28

51: H04N

71: Huawei Technologies Co., Ltd.

72: GAO, Han, ESENLIK, Semih, CHEN, Jianle, KOTRA, Anand Meher, WANG, Biao, ZHAO, Zhijie

33: US 31: 62/733,074 32: 2018-09-18

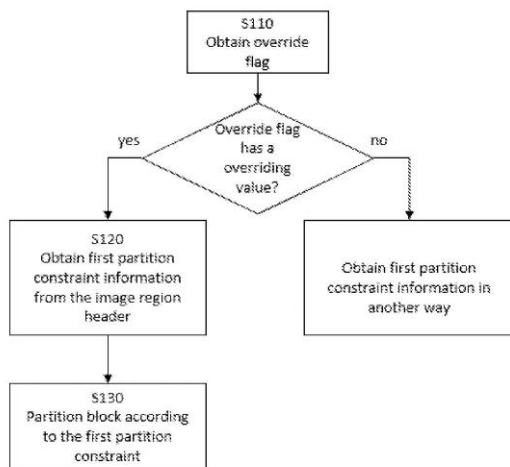
33: US 31: 62/733,076 32: 2018-09-18

#### **54: A VIDEO ENCODER, A VIDEO DECODER AND CORRESPONDING METHODS**

00: -

The present disclosure provides an encoding and decoding apparatus, as well as an encoding and decoding method. In particular, the present disclosure relates to block partitioning and signaling the partitioning parameters in a bitstream. An override flag in an image region header indicates whether or not a block is to be partitioned according to a first partition constraint information. The override flag is included in the bitstream and the block is partitioned accordingly.





21: 2021/02153. 22: 2021/03/30. 43: 2022/02/11

51: A45C; B65D

71: PackIt, LLC

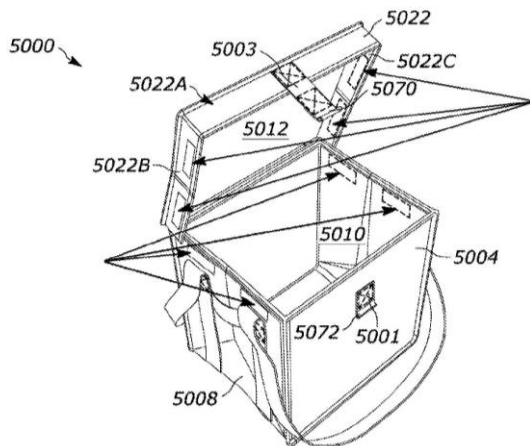
72: KIELING, Melissa, ECARMA, Roland, GROSS, Kenneth

33: US 31: 62/741,206 32: 2018-10-04

**54: INSULATED CARRIER FOR TEMPERATURE-CONTROLLED ITEMS**

00: -

The present application generally relates to devices and methods for transporting items, and it more specifically relates to insulated carriers for use in delivering temperature-controlled items such as perishable food.



21: 2021/02226. 22: 2021/04/01. 43: 2022/03/11

51: A47G

71: Zhengzhou University of Aeronautics

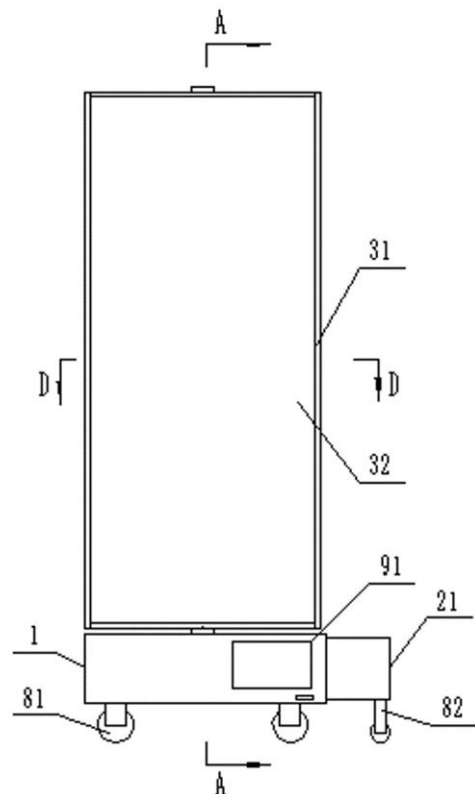
72: WANG, Yanyuan, SUN, Yong, LI, Qinfeng, GUI, Xue, WU, Longji, LI, Xueqi, ZHANG, Wanyue, QI, Wenwen, WANG, Chenyu

33: CN 31: CN202110044739.2 32: 2021-01-13

**54: MOBILE DANCE MIRROR FOR DANCE REHEARSAL**

00: -

The invention relates to a mobile dance mirror for dance rehearsal, belonging to the technical field of dance training equipment, and includes: multiple combined mirror units lined up, multiple connecting components, respectively correspondingly arranged between adjacent combined mirror units, used to realize the connection of multiple combined mirror units; the invention can realize the rapid combination and connection of a plurality of dance mirrors through the connecting pipe and the connecting groove, avoiding limitation of the usability of the dance mirror due to venues and number of people, and improving the flexibility of the dance mirror; through the guide wheel at the bottom of the connecting tube, the dance mirror can be moved flexibly, and the connecting screw not only fixes the adjacent base, but also fixes the guide wheel; the invention has simple operation and strong practicability, and is worthy of popularization.



21: 2021/02255. 22: 2021/04/06. 43: 2022/03/11

51: E04C

71: JUST BIOFIBER STRUCTURAL SOLUTIONS CORP.

72: RADFORD, William Malcolm

33: CA 31: 3,019,781 32: 2018-10-03

**54: A UNIBODY STRUCTURAL FRAME FOR AN INTERLOCKING STRUCTURAL BLOCK**

00: -

A unibody structural frame for an interlocking structural block, an interlocking structural block, and a system of interlocking structural blocks useful for the manufacture of structures, columns, and beams.

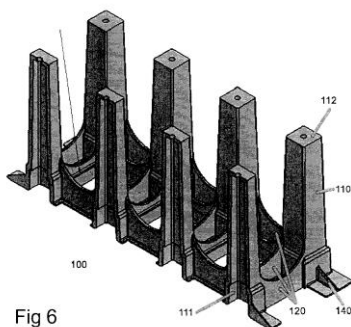


Fig 6

21: 2021/02259. 22: 2021/04/06. 43: 2022/02/01

51: A61K; C07D; C07F; A61P

71: ICHNOS SCIENCES S.A.

72: CHAUDHARI, Sachin Sundarlal, GHARAT, Laxmikant, Atmaram, IYER, Pravin, DHONE, Sachin, Vasantrao, ADIK, Bharat, Gangadhar, WADEKAR, Prashant, Dilip, GOWDA, Nagaraj, BAJPAI, Malini

33: IN 31: 201821037777 32: 2018-10-05

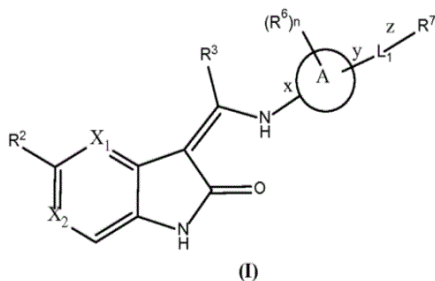
33: IN 31: 201921009045 32: 2019-03-08

33: IN 31: 201921024673 32: 2019-06-21

**54: INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS**

00: -

The present disclosure is directed to compounds of formula (I) and pharmaceutically acceptable salts thereof, wherein ring A, ring C,  $X^1$ ,  $X^2$ ,  $L^1$ ,  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ , m and n are as defined herein, which are useful as MAP4K1 inhibitors for their preparation, pharmaceutical compositions comprising the compounds, and the use of the compounds or compositions in the treatment or prevention of various diseases, conditions and/or disorders mediated by MAP4K1.



(I)

21: 2021/02302. 22: 2021/04/07. 43: 2022/03/11

51: C12N

71: CASE WESTERN RESERVE UNIVERSITY, WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH

72: COLLIER, Jeffery M, SWEET, Thomas, LODISH, Harvey

33: US 31: 62/736,847 32: 2018-09-26

**54: METHODS AND COMPOSITIONS FOR INCREASING PROTEIN EXPRESSION AND/OR TREATING A HAPLOINSUFFICIENCY DISORDER**

00: -

A tRNA that hybridizes to a non-optimal codon can be used to increase expression in a mammalian cell of a gene product encoded by a gene containing the non-optimal codon or to treat a haploinsufficiency disorder in a subject having a haploinsufficient gene containing the non-optimal codon.

21: 2021/02377. 22: 2021/04/12. 43: 2022/03/11

51: F28C; F28F

71: EVAPCO, INC.

72: NEVINS, Scott, HAMILTON, Jennifer

33: US 31: 62/740,620 32: 2018-10-03

33: US 31: 62/740,615 32: 2018-10-03

33: US 31: 62/740,611 32: 2018-10-03

33: US 31: 62/740,606 32: 2018-10-03

33: US 31: 16/592,026 32: 2019-10-03

**54: MODULAR COUNTERFLOW COOLING TOWER**

00: -

A single inlet/single outlet modular counterflow cooling tower having two heat transfer sections installed atop two cold water basin sections and below three fan sections, each heat transfer section having its own water distribution system and draining into its own distinct cold water basin section. The water distribution system can provide flow over both heat transfer sections or over only a single section.

The center fan support section supports the mechanical drive system for the fan and has a sealing plate at its bottom for sealing the gap between the two heat transfer sections.

21: 2021/02447. 22: 2021/04/14. 43: 2022/02/03

51: A61C A61B

71: HUWAIS IP HOLDING, LLC.

72: HUWAIS, Salah

33: US 31: 62/0748,773 32: 2018-10-22

**54: ANCHOR WITH HEALING CHAMBERS**

00: -

An anchor to be screwed into a hole with high primary stability and eventually even higher secondary stability. A right hand thread form winds with continuous turns along the body of the anchor. A trailing flank of the thread form is back-angled. The central region includes an array of flutes having left-hand helical twist. Each flute is composed of distinct flute segments. A condensing ramp is formed along the crest of the thread form between two circumferentially - adjacent flute segments. Each condensing ramp is pitched about 20° so as to apply a localized compressive strain to the interior surface of the host bone with a densifying action when the anchor is screwed into the prepared hole. The condensing ramps create induced stress and super-activated zones in the bone directly adjacent to healing chambers formed by the flute segments. The healing chambers draw bone to naturally encourage and promote healing.

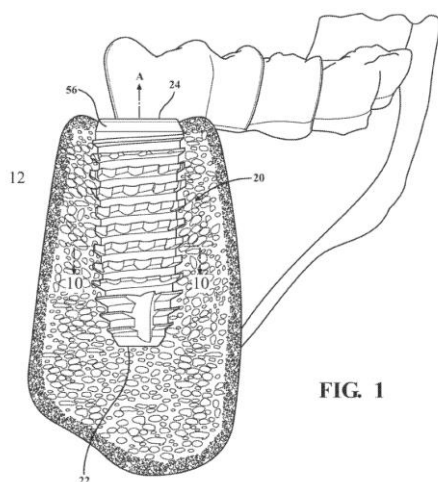


FIG. 1

21: 2021/02516. 22: 2021/04/16. 43: 2022/04/06

51: G01M; G06K; G06N

71: Fuzhou University

72: Yao Ligang, Wang Zhenya, Cai Yongwu

33: CN 31: 201911407048.3 32: 2019-12-31

**54: A ROLLING BEARING FAULT DIAGNOSIS METHOD BASED ON GRCMSE AND MANIFOLD LEARNING**

00: -

The invention relates to a rolling bearing fault diagnosis method based on GRCMSE and manifold learning, including the following steps: using the acceleration sensors to collect the vibration acceleration signals of the rolling bearings. Using GRCMSE algorithm to extract features of vibration

acceleration signals. Using the DDMA manifold learning method to reduce the dimensionality of the rolling bearing fault feature information, and divide the reduced dimensionality of the rolling bearing fault feature information into low-dimensional feature set of training sample and low-dimensional feature set of the testing sample in proportion. Train the PSO-SVM classifier according to the low-dimensional features of the training sample to obtain the trained PSO-SVM classifier. Input the low-dimensional feature set of the test sample into the trained PSO-SVM classifier, and diagnose the fault types. The invention overcomes the shortcomings of coarse-graining in multi-scale sample entropy, solves the problem of information redundancy in high-dimensional fault features, and can effectively diagnose different state types of rolling bearings.

21: 2021/02589. 22: 2021/04/19. 43: 2022/03/11

51: A61K; C07D; A61P

71: EMORY UNIVERSITY

72: SCHINAZI, Raymond, F., AMBLARD, Franck,

COX, Bryan, CHEN, Che, BASSIT, Leda

33: US 31: 62/741,822 32: 2018-10-05

**54: MONOMER AND MULTIMERIC ANTI-HBV AGENTS**

00: -

The present invention is directed to compounds, compositions and methods for preventing, treating or curing hepatitis B (HBV) infection in human subjects or other animal hosts. The compounds are as also pharmaceutically acceptable, salts, prodrugs, and other derivatives thereof as pharmaceutical compositions and methods for treatment, prevention or eradication of HBV infection.

21: 2021/02625. 22: 2021/04/20. 43: 2022/01/28

51: C01B; C08G

71: Hysilabs SAS

72: BURCHER, Benjamin, LOME, Vincent, BENOIT, Remy

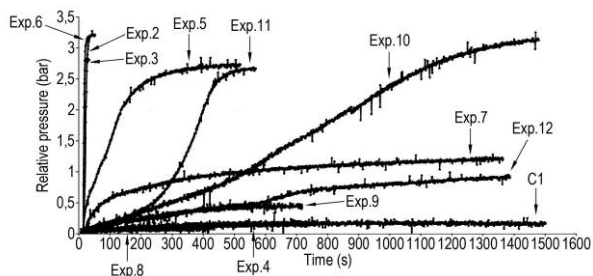
33: EP(FR) 31: 18306578.8 32: 2018-11-28

**54: CATALYSED PROCESS OF PRODUCTION OF HYDROGEN FROM SILYLATED DERIVATIVES AS HYDROGEN CARRIER COMPOUNDS**

00: -

The present invention relates to a catalysed process of production of hydrogen from silylated derivatives as hydrogen carrier compounds. The present invention also relates to a new catalyst used in the

catalysed process of production of hydrogen from silylated derivatives as hydrogen carrier compounds.



21: 2021/02651. 22: 2021/04/21. 43: 2022/02/02  
51: H02H  
71: TECHHOLD, LLC

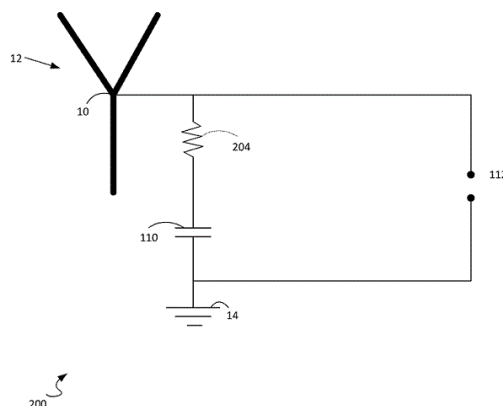
72: ANDERSON, David, FUCHS, Greg, FAXVOG, Frederick, R., ANDERSON, George, JENSEN, Wallace

33: US 31: 62/738,826 32: 2018-09-28

**54: POWER GRID PROTECTION VIA TRANSFORMER NEUTRAL BLOCKING SYSTEMS AND TRIGGERED PHASE DISCONNECTION**

00: -

A protection circuit is disclosed. The protection circuit includes a direct current (DC) blocking component electrically connected between a neutral of the transformer and a ground, and an overvoltage protection device electrically connected in parallel with the DC blocking component. The overvoltage protection device is constructed to repeatedly and reliably provide overvoltage protection in response to a voltage at the transformer neutral above a threshold. The DC blocking component has an impedance below a predetermined value, thereby effectively grounding the neutral of the transformer. The DC blocking component is persistently maintained in connection to the transformer neutral.



21: 2021/02769. 22: 2016/03/30. 43: 2022/02/04  
51: A61K A61P

71: ENANTA PHARMACEUTICALS, INC.

72: WANG, Guoqiang, OR, Yat, Sun, SHEN, Ruichao, XING, Xuechao, LONG, Jiang, DAI, Peng, GRANGER, Brett, HE, Jing

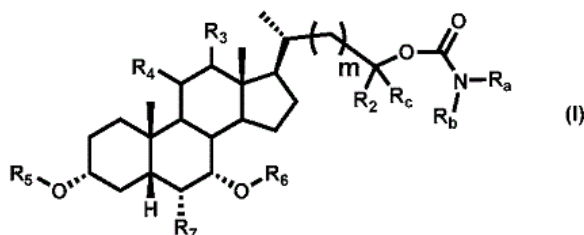
33: US 31: 62/287,267 32: 2016-01-26

33: US 31: 62/140,927 32: 2015-03-31

**54: BILE ACID DERIVATIVES AS FXR/TGR5 AGONISTS AND METHODS OF USE THEREOF**

00: -

The present invention provides compounds represented by Formula I, or pharmaceutically acceptable salts, stereoisomers, solvates, hydrates or combination thereof, (I). The invention also provides pharmaceutical compositions comprising these compounds and methods of using this compounds for treating FXR-mediated or TGR5-mediated diseases or conditions.



21: 2021/02875. 22: 2021/04/29. 43: 2022/03/11  
51: A01K; E04H; H01B

71: VAN DER MERWE, Emile Stassen

72: VAN DER MERWE, Emile Stassen

33: NZ 31: 747855 32: 2018-10-31

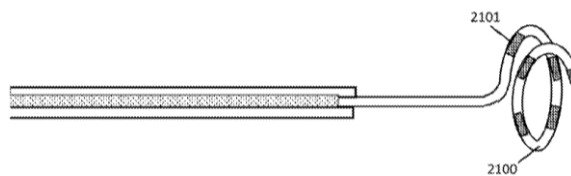
33: NZ 31: 751263 32: 2019-03-05

33: NZ 31: 755631 32: 2019-07-22

**54: DEVICE FOR SUPPORTING AN ELECTRIFIED WIRE**

00: -

A device for supporting an electrified elongate conductor from a fence or other structure, the device comprising: at least one base for attaching the device to a fence or other structure, at least one resilient element adjacent the base, and at least one elongate member extending from the resilient element to extend away from the fence or other structure in use, wherein the resilient element(s) is/are configured to deform elastically to allow the elongate member to move from an un-deflected position with a distal end of the elongate member away from the fence or other structure to a deflected position with the distal end deflected towards the fence or other structure upon application of a force lateral to the elongate member.



21: 2021/03025. 22: 2021/05/05. 43: 2022/01/28

51: B01D

71: POROCEL INTERNATIONAL, LLC

72: SEAMANS, James, MCHUGH, Terence, VISIOLI, Brian

33: US 31: 62/742,524 32: 2018-10-08

**54: METHOD OF PROCESSING SULFUR-BEARING WASTES FROM REFINERIES AND UPGRADERS**

00: -

The methods and systems are disclosed which leverage sulfur abatement resources present at most refineries or other hydrocarbon processing plants, such as natural gas processing plants to capture and treat sulfur-containing byproducts, such as  $\text{SO}_2$ , generated during the regeneration of spent HDP catalysts. Thus, the disclosed methods and systems allow for converting hazardous waste spent catalyst to a salable product at its source while simultaneously capturing the sulfur oxides removed from the catalyst and converting them to a useful product instead of a resultant waste stream requiring management and/or disposal. Thus, spent sulfur bearing refinery wastes, such as HDP catalyst, can be roasted or regenerated at the refinery site to convert the hazardous sulfur-bearing wastes into one or more salable products.

21: 2021/02911. 22: 2021/04/30. 43: 2022/01/28

51: A61B A61N

71: SYMAP MEDICAL (SUZHOU), LTD

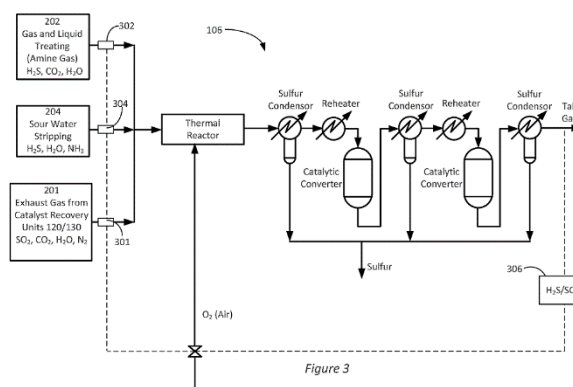
72: WANG, Jie

33: US 31: 62/742,276 32: 2018-10-06

**54: SYSTEM AND METHOD FOR MAPPING FUNCTIONAL NERVES INNERVATING WALL OF ARTERIES, 3-D MAPPING AND CATHETERS FOR SAME**

00: -

Systems and methods for locating and identifying nerves innervating the wall of arteries such as the renal artery. The systems and methods identify areas on vessel walls that are innervated with nerves; provide indication on whether energy is delivered accurately to a targeted nerve; and provide immediate post-procedural assessment of the effect of energy delivered to the nerve. The methods include evaluating change in physiological parameters after energy is delivered to an arterial wall; and determining the type of nerve that the energy is directed to based on the evaluated results. The system includes at least a device (101) for delivering energy to the wall of blood vessel; sensors (103) for detecting physiological signals from a subject and indicators (105) to display results obtained using the method. The system includes catheters for performing mapping and ablating functions.



21: 2021/03026. 22: 2021/05/05. 43: 2022/02/02

51: F28C F24F F28F

71: JS CREATES PTE LTD

72: AGRAWAL, Avichal

33: SG 31: 10201809128Q 32: 2018-10-17

**54: COOLING APPARATUS AND A METHOD FOR COOLING A WATERFLOW**

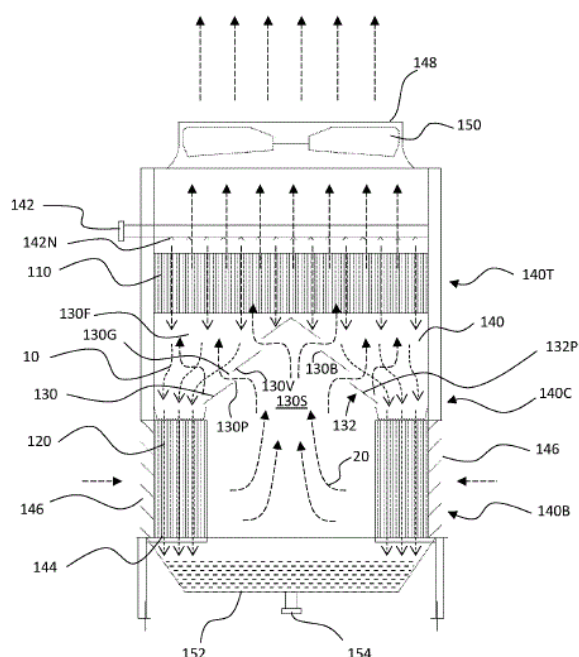
00: -

A cooling apparatus for cooling a waterflow is provided. Cooling apparatus includes a first evaporative cooler adapted to cool the waterflow therethrough, a second evaporative cooler adapted to receive and cool the waterflow from the first evaporative cooler therethrough, wherein the second evaporative cooler is adapted to receive an airflow



therethrough to cool the waterflow therethrough and the first evaporative cooler is adapted to receive the airflow therethrough from the second evaporative cooler to cool the waterflow therethrough, and a deflector adapted to deflect the waterflow from the first evaporative cooler to the second evaporative cooler and allow the airflow from the second evaporative cooler to the first evaporative cooler therethrough. A cooling method for cooling a waterflow is also provided.

100



21: 2021/03142. 22: 2021/05/10. 43: 2022/02/02  
51: F23C

71: Sumitomo SHI FW Energia Oy

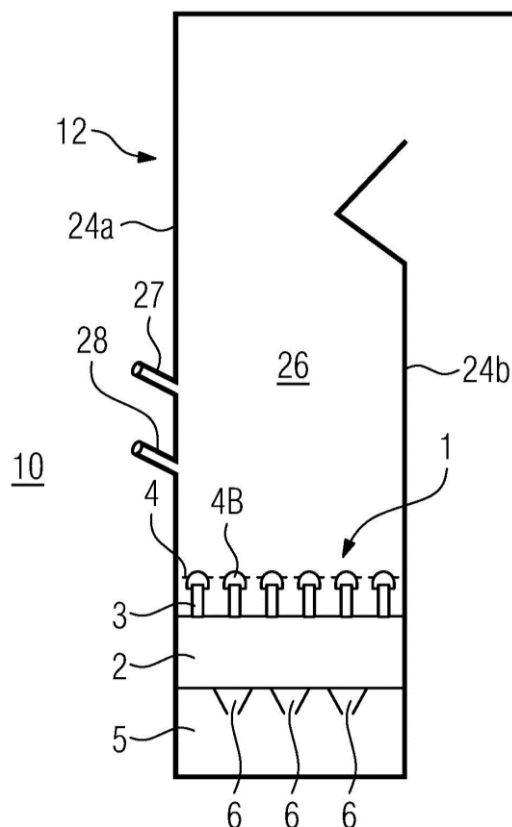
72: CWIELAG, Jan

**54: A COMBUSTOR AIR BAR GRID FOR USE WITHIN A FLUIDIZED BED REACTOR, AND A FLUIDIZED BED REACTOR**

00: -

A combustor air bar grid (1) for use within a fluidized bed 5 reactor (12) comprises- at least two main air collector bars (2) in fluid communication with a source of fluidizing gas; - a plurality of primary air bars (3) that are transversal to said main air collector bars (2) and arranged on said 0 at least two main air

collector bars (2) such that the main air collector bars (2) support them, and in fluid communication to at least two of said main air collector bars (2), the main air collector bars (2) and the primary air bars (3) defining ash removal openings in the air bar 5 grid (1); and- a plurality of fluidizing nozzles (4) arranged to each of the primary air bars (3) for fluidizing the bed reactor (12). The patent application also contains an independent claim for a 0 fluidized bed reactor.



21: 2021/03193. 22: 2021/05/11. 43: 2022/03/11

51: A23L; A61K; A61P

71: ACTIV'INSIDE

72: GAUDOUT, David, REY, Stéphane, LEMAIRE, Benoit, MAZIER, Wilfrid, DUBREUIL, Séverine  
33: FR 31: 1871663 32: 2018-11-21

**54: SINGLE-DOSE USE OF A COMPOSITION COMPRISING A PARTICULAR MIXTURE OF GRAPE EXTRACT AND BLUEBERRY EXTRACT**

00: -

The invention concerns the use of a composition comprising at least a mixture of molecules obtained from *Vitis vinifera* and *Vaccinium angustifolium*, the

mixture comprising: - at least 1% catechins and/or epicatechins, the percentage being given by weight relative to the total weight of the mixture, - at least 5 ppm (parts per million in the mixture) of ferulic acid, and - at least 200 ppm of resveratrol, as a single dose in humans or animals in order to improve or maintain cognitive functions.

21: 2021/03235. 22: 2021/05/13. 43: 2022/02/03

51: F41A; F42B

71: THALES

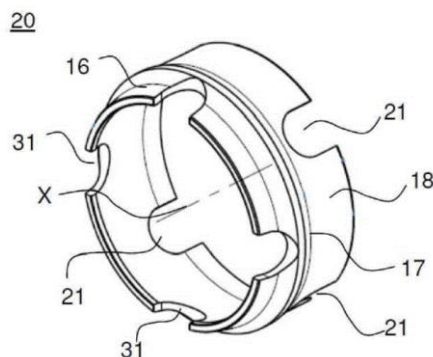
72: RADIGON-LOOTVOET, Léa, LATCHOUMAYA, Pascal, REYNAULT, Lionel

33: FR 31: 2004744 32: 2020-05-14

#### **54: DOUBLE-LOADING PREVENTION RING**

00: -

The invention relates to a ring (20) for an ammunition round having a nominal diameter and a head diameter, the ammunition round being designed to be inserted into a tube comprising an outlet end that has a first inner diameter, said ring (20) being characterized in that it comprises: a) a first circular surface (16) for attaching to the ammunition round, having an inner diameter that is smaller than the head diameter of the ammunition round; b) a second circular surface (17) having an outer diameter that is greater than the first inner diameter of the outlet end of the tube; c) a third circular surface (18) having an outer diameter that is substantially smaller than the first inner diameter of the outlet end of the tube and an inner diameter that is substantially equal to the head diameter of the ammunition round, the ring being symmetric and configured in such a way that the third surface (18) is arranged so as to be centred around the axis X when the ammunition round is inserted into the tube (13). The invention also relates to a method for inserting an ammunition round into a tube.



21: 2021/03280. 22: 2021/05/14. 43: 2022/03/04

51: B64D

71: Patrick G. BEYELER

72: Patrick G. BEYELER

33: CH 31: 01115/19 32: 2019-09-04

33: CH 31: 00404/20 32: 2020-04-03

#### **54: ACCELERATION PROTECTION TROUSERS**

00: -

The anti-G trousers are partially double-walled and partially single-walled and made from an air-permeable, tear-resistant, refractory and stretch-resistant synthetic textile material of max. 130 gram/m<sup>2</sup>. In the double-walled areas, airtight pockets (13, 18, 34, 35) are thereby formed which act as pneumatic muscles and contract when being inflated from an automatic pressure supply and thereby draw the adjacent single-layer textile pieces towards one another. In this way, pressure is applied all over the surface of the pilot's body. The pockets (34) on the outer sides of the trouser legs extend upwards against the lower abdomen into a respective pouch-type bubble (13) and are connected to the pockets (35) for the inner sides of the trouser legs via an inguinal channel (18). The pockets (34) communicate on the rear side of the trousers via a connection channel. From here, in the lower back region, a coccyx channel extends downwards between the buttocks of the wearer. The front sides and rear sides of the trouser legs remain textile strips (14). They are breathable and allow for the discharge of body heat.

21: 2021/03394. 22: 2021/05/19. 43: 2022/02/03

51: C08K

71: LANXESS Corporation

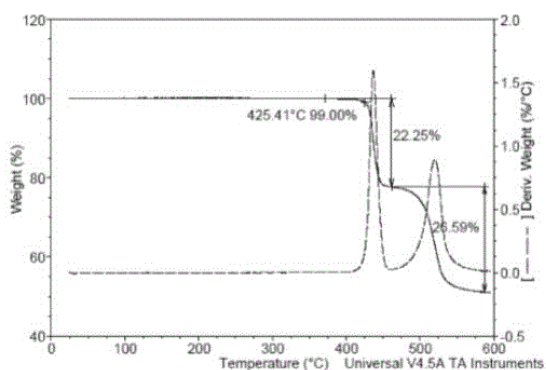
72: BONYHADY, Simon J., LEE, Julia Yue, HE, Qingliang, SHARMA, Ramesh

33: US 31: 62/782,948 32: 2018-12-20

**54: METHOD OF PREPARING PHOSPHORUS-CONTAINING FLAME RETARDANTS AND THEIR USE IN POLYMER COMPOSITIONS**

00: -

A phosphorus-containing flame retardant is produced by reacting at a reaction temperature a mixture including a metal or suitable metal compound and a stoichiometric excess relative to the metal or suitable metal compound of an unsubstituted or alkyl or aryl substituted phosphonic or pyrophosphonic acid, wherein the phosphonic or pyrophosphonic acid is in a molten state at the reaction temperature. The chemical composition of the resulting flame retardant product leads to excellent flame retardancy and exhibits high thermal stability. The presently disclosed flame retardants are useful, for example, in polymer compositions, particularly thermoplastics processed at high temperatures, over a wide range of applications.



21: 2021/03417. 22: 2021/05/20. 43: 2022/03/04

51: G01C; G01F; G05D; H02H

71: InterEnviroCon GmbH

72: Frank PUSTLAUCK, Prof. Dr. Oswald BLUMENSTEIN, Johannes BOISSERÉE

33: DE 31: 10 2020 114 771.6 32: 2020-06-03

**54: LEVEL METER**

00: -

The present invention relates to a measuring system with which the level of a liquid is determined from the difference in transit time between two signals: an acoustic and an electromagnetic signal. The acoustic signal is in the audible frequency range. The measuring system provides a transmitter floating on the liquid, which transmits the signals to a receiver. The receiver is in a known position. The receiver receives the signals from the transmitter,

which it transmits at specified times or on request.

Optionally, a defined temporal offset can be provided between the transmitted signals. The measuring system can be used to determine the level of liquids.

21: 2021/03507. 22: 2021/05/24. 43: 2022/03/11

51: F25B; F25D

71: Evapco, Inc.

72: DENISON, Jake William, HAMILTON, Donald Lee, VINEYARD, Samuel K

33: US 31: 62/772,334 32: 2018-11-28

33: US 31: 16/697,917 32: 2019-11-27

**54: METHOD AND APPARATUS FOR STAGED STARTUP OF AIR-COOLED LOW CHARGED PACKAGED AMMONIA REFRIGERATION SYSTEM**

00: -

Apparatus for staged startup of air-cooled low charged packaged ammonia refrigeration system includes motorized valves on condenser coil inlets, a main compressor discharge motorized valve, a bypass pressure regulator valve in the main compressor piping, check valves on the condenser outlets and speed control of the condenser fans. The condenser inlet motorized valves provide precise control of gas feed to the condensers, so pressure can build without collapsing the oil pressure. The condenser coil outlet contains inline check valves to prevent liquid backflow when a coil is isolated. The compressor discharge line contains a single motorized valve for regulating discharge pressure at start-up. The motorized valve in the compressor discharge piping also includes a bypass with a mechanical pressure regulator to allow precise regulation at the minimum discharge pressure. Once discharge pressure rises above the minimum setpoint, the condenser inlet solenoid coils will open one at a time. The discharge pressure regulating motorized valve will simultaneously regulate the discharge pressure until the condenser coil has warmed up enough to maintain discharge pressure.

21: 2021/03531. 22: 2021/05/24. 43: 2022/03/24

51: G06Q

71: Mohamed JAMOSSI

72: Mohamed JAMOSSI

**54: ANNOUNCED ROAMING LOCATION (AROL) SERVICE**

00: -

ROAMING LOCATION (AROL) SERVICE is a telecom service that permits a better management of received calls when travelling abroad. The ARoL service main idea is to inform a caller – calling an ARoL subscriber – where he is roaming and the local time there. This service is proposed with two levels: Basic ARoL Level – where the caller is simply informed about the country where the called ARoL subscriber is roaming and the local time there. Advanced ARoL Level – where the caller is further offered the option of assuming roaming charges. By offering this service, a Mobile Operator aims further enhancements of its customers' retention and loyalty, and creation of a new revenue stream.

21: 2021/03596. 22: 2021/05/26. 43: 2022/01/28  
51: A61K; A61P; C07K; C12N; C12P

71: Staidson (Beijing) Biopharmaceuticals Co., Ltd.  
72: ZHU, Pingxia, WU, Ran, ZHANG, Qingshuang, HUANG, Qun

33: CN 31: PCT/CN2018/117581 32: 2018-11-27

**54: ANTIBODIES SPECIFICALLY RECOGNIZING GRANULOCYTE-MACROPHAGE COLONY STIMULATING FACTOR RECEPTOR ALPHA AND USES THEREOF**

00: -

The present application provides antibodies including antigen-binding fragment thereof that specifically recognizing Granulocyte-Macrophage Colony Stimulating Factor Receptor (GM-CSFR $\alpha$ ). Also provided are methods of making and using these antibodies.



21: 2021/03681. 22: 2021/05/28. 43: 2022/03/04  
51: C21D; C22C

71: ARCELORMITTAL

72: Lode DUPREZ, Tom WATERSCHOOT, Nele VAN STEENBERGE, Laura MOLI SANCHEZ

33: IB 31: PCT/IB2018/060185 32: 2018-12-17

**54: HOT ROLLED AND STEEL AND A METHOD OF MANUFACTURING THEREOF**

00: -

The invention deals with a hot rolled steel having a composition comprising the following elements, expressed in percentage by weight: 15 % = Nickel =

25 % 6 % = Cobalt = 12% 2% = Molybdenum = 6%  
0.1 % = Titanium = 1% 0.0001% = Carbon = 0.03%  
0.002 % = Phosphorus = 0.02 % 0 % = Sulfur =  
0.005 % 0 % = Nitrogen = 0.01% and can contain one or more of the following optional elements 0% = Aluminum = 0.1 % 0% = Niobium = 0.1% 0% = Vanadium = 0.3% 0% = Copper = 0.5% 0% = Chromium = 0.5% 0% = Boron = 0.001% 0% = Magnesium = 0.0010% the remainder composition being composed of iron and unavoidable impurities caused by processing, the microstructure of said steel sheet comprising in area fraction, 20% to 40% Tempered Martensite, at least 60% of Reverted Austenite and inter-metallic compounds of Molybdenum, Titanium and Nickel.

21: 2021/03731. 22: 2021/05/31. 43: 2022/02/02  
51: B07B; B29C; C08J; C08K; E04C

71: Covestro LLC

72: LORENZO, Michael, RODRIGUES, Jean Paul

33: US 31: 62/781,650 32: 2018-12-19

**54: PROCESS FOR MANUFACTURING FULLY RECYCLABLE MINING SCREENS**

00: -

The present invention provides an environmentally-friendly, fully recyclable composite mining screen which has sufficient rigidity to replace existing metal and metal covered plastic mining screens. The inventive composite screen insert contains stiff reinforcing fibers (glass, carbon, etc.) and exhibits the rigidity of metal and metal-covered plastic mining screen inserts so as to minimize deflection in use. The inventive mining screen is also completely recyclable because at the end of its useful life, the broken and used screen can be ground into polymer particles and the particles incorporated into new screens or other parts.



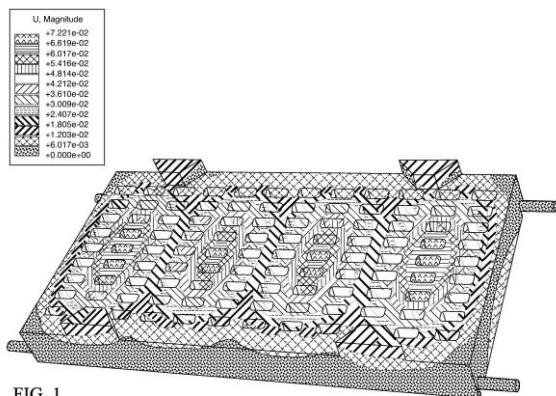


FIG. 1

21: 2021/03781. 22: 2021/06/02. 43: 2022/03/11

51: B24D

71: HOCHSCHULE TRIER - TRIER UNIVERSITY OF APPLIED SCIENCES

72: WITTMANN, Armin, FERRING, Jonas, EHLENZ, Tobias, ROBERT, Dietmar

33: DE 31: 10 2018 008 920.8 32: 2018-11-13

**54: CUTTING, GRINDING AND POLISHING DISK, AND METHOD FOR MACHINING WORKPIECES**

00: -

The invention relates to a disk-shaped cutting tool (1), a radial cutting method for machining axially elongated workpieces, a cutting device and the use of a disk-shaped cutting tool. A disk-shaped cutting tool according to the invention has a defined flexibility and a defined runout. In a radial cutting process according to the invention, a lateral deflection of the axially stationary rotating tool (1) brings it into axial effective contact with the at least one laterally attached grinding and polishing surface (6, 20, 21, 22) on the workpiece to be machined. In a cutting device according to the invention, the cutting tool (1) can only be moved radially for machining the workpiece.

21: 2021/03829. 22: 2021/06/03. 43: 2022/03/14

51: A01N; A01P

71: SHENYANG AGRICULTURAL UNIVERSITY

72: QIN, Peiwen, XU, Jing, CHEN, Yang, WANG, Dan, JI, Mingshan

33: CN 31: 201910801421.7 32: 2019-08-28

**54: EARLY POST-EMERGENCE HERBICIDAL ACTIVE COMPOSITIONS AND HERBICIDES**

00: -

The present disclosure provides an early post-emergence herbicidal active composition, comprising component A, component B and

component C; the mass ratio of component A, component B and component C is (1 to 10) : (1 to 10) : (50 to 100); the component A is quizalofop-P-ethyl or clethodim; the B component is choransulam-methyl; and the C component is acetochlor or S-metolachlor. The early post-emergence herbicidal active composition provided by the present disclosure has the characteristics of being highly effective, safe, broad in herbicidal spectrum, stable under low temperature and drought conditions, and safe to main subsequent crops. The present disclosure also discloses an early post-emergence herbicide. Under the premise of the same effective dosage, the herbicide shows a significantly higher control effect on weeds than that of a single-component herbicide in the prior art.

21: 2021/03971. 22: 2021/06/09. 43: 2022/03/04

51: B01D; B01J; C01B; F01D

71: HERAEUS DEUTSCHLAND GMBH & CO. KG

72: Willi BOLL, Dirk MAIER

33: EP 31: 19151598.0 32: 2019-01-14

**54: CATALYST SYSTEM AND METHOD FOR THE CATALYTIC COMBUSTION OF AMMONIA TO FORM NITROGEN OXIDES IN A MEDIUM-PRESSURE SYSTEM**

00: -

Known catalyst systems for the catalytic combustion of ammonia to form nitrogen oxides consist of a plurality of single- or multi-layer catalyst gauzes which are knitted, braided or woven from platinum-based precious metal wire, and when arranged after one another when viewed in a fresh gas flow direction, they form a front group of gauze layers and at least one downstream group of gauze layers arranged after the front group. In order to provide a catalyst system on this basis for use in a medium-pressure system for ammonia oxidation, with which a long lifespan and a high yield of the main product NO can be achieved, according to the invention: the front group comprises one gauze layer or multiple gauze layers made from a first rhodium-rich precious metal wire, wherein the gauze layer or one of the gauze layers made from the rhodium-rich precious metal wire is a front-most gauze layer facing the fresh gas; and the downstream group comprises gauze layers made from a second low-rhodium precious metal wire, wherein the rhodium content in the rhodium-rich precious metal wire is at least 7



wt.% and max. 9 wt.% and is at least one percentage point higher than the rhodium proportion in the low-rhodium precious metal wire.

21: 2021/04033. 22: 2021/06/11. 43: 2022/03/04  
51: B01J; C01B

71: HERAEUS DEUTSCHLAND GMBH & CO. KG

72: Willi BOLL, Dirk MAIER

33: EP 31: 19151608.7 32: 2019-01-14

**54: CATALYST SYSTEM AND METHOD FOR THE CATALYTIC COMBUSTION OF AMMONIA TO FORM NITROGEN OXIDES IN A MEDIUM-PRESSURE SYSTEM**

00: -

Known catalyst systems for the catalytic combustion of ammonia to form nitrogen oxides consist of a plurality of catalyst gauze layers which are knitted, woven or braided from platinum-based precious metal wire, which form a catalyst package when arranged after one another when viewed in a fresh gas flow direction. In order to provide a catalyst system on this basis for use in a medium-pressure system, with which a yield of the main product NO comparable to the industry standard can be achieved despite the reduced precious metal use, according to the invention, the catalyst package is formed from a front assembly with three catalyst gauzes with a first average mass per unit area and a downstream assembly of catalyst gauze layers arranged after the front assembly and having a second average mass per unit area, wherein the average mass per unit area of the front assembly has a short weight in the region of 1.5 % to 29% in relation to the second average mass per unit area, and the first average mass per unit area lies in the regions of 410 to 30 g/m<sup>2</sup> and the second average mass per unit area lies in the region of 540 to 790 g/m<sup>2</sup>.

21: 2021/04050. 22: 2021/06/11. 43: 2022/03/11  
51: A61K; C07J; A61P

71: ACERUS BIOPHARMA INC.

72: BRYSON, Nathan, SHARMA, Avinash Chander

33: US 31: 62/779,854 32: 2018-12-14

**54: ACTIVE ESTER DERIVATIVES OF TESTOSTERONE, COMPOSITIONS AND USES THEREOF**

00: -

The present invention relates to new compounds and compositions comprising active ingredient

derivatives of testosterone, and novel testosterone derivatives, novel testosterone methods, novel testosterone compositions, novel testosterone articles of manufacture of pharmaceutical preparations and novel testosterone therapeutic uses thereof.

21: 2021/04103. 22: 2021/06/15. 43: 2022/03/04  
51: B23K

71: ARCELORMITTAL

72: Francis SCHMIT, Maria POIRIER, Cristian ALVAREZ, Lucille GOUTON, Thierry DAVID, Ivan VIAUX

33: IB 31: PCT/IB2018/060585 32: 2018-12-24

**54: METHOD FOR PRODUCING A WELDED STEEL BLANK AND ASSOCIATED WELDED STEEL BLANK**

00: -

Method for producing a welded steel blank (1) comprising: - providing two precoated sheets (2), each comprising a steel substrate (3) having a precoating (5) on each of its two main faces (4), each sheet (2) comprising, on each main face (4), at a weld edge (14), a removal zone (18) in which the precoating (5) is removed over a removal fraction; - butt welding the sheets (2) using a filler wire (20) so as to create a weld joint (22) having an aluminum content AIWJ comprised between 0.1 wt.% and 1.2 wt.%. The composition of the wire (20) and the proportion of wire (20) added is such that the weld joint (22) has: (a) a quenching factor FTWJ such that  $FTWJ - 0.96 FTBM > 0$ , (b) a nickel content NiWj =  $14 - 3.4XAIWJ$  and a chromium content CrWj =  $5 - 2XAIWJ$ , where AIWJ is the aluminum content of the weld joint (22).

21: 2021/04250. 22: 2021/06/21. 43: 2022/03/04  
51: H02G

71: OBO BETTERMANN HUNGARY KFT.

72: Jan MEPPPELINK, Jürgen TRINKWALD, Martin BISCHOFF

33: DE 31: 10 2019 101 577.4 32: 2019-01-23

**54: LIGHTNING CURRENT ARRESTER DEVICE**

00: -

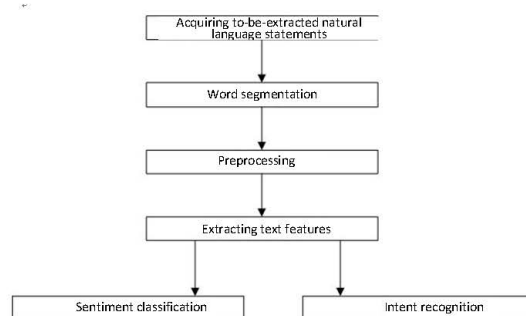
The invention relates to a lightning current arrester device consisting of an interception device (4) which is connected via an electrical conductor (6a) to an earthing system (12, 21), wherein the electrical conductor (6a) is surrounded by an insulation (6c), wherein the insulation (6c) is surrounded by a layer

(6d) which is made of a weakly conductive material and which is continuous in the longitudinal direction of the conductor, wherein a connecting part (3) made of an electrically conductive material is arranged in the end region of the layer (6d) facing the interception device (4), by means of which connecting part the electrical conductor (6a) is connected to the layer (6d), and wherein a connecting part (8) made of an electrically conductive material is arranged in the end region of the layer (6d) facing the earthing system (12, 21), by means of which connecting part the electrical conductor (6a) is connected to the layer (6d) surrounding the insulation (6c), wherein the electrical connection between the electrical conductor (6a) and the conductive layer (6d) in the connecting part (3) is established serially only by an adaptive switching element (13, 23) which, in a normal operating condition in which there is no lightning strike, keeps the electrical connection in a disconnected position (open position) and which, in the event of a lightning strike, is closed by the then occurring or exceeded response voltage of the switching element (23) and establishes the connection.

21: 2021/04386. 22: 2021/06/25. 43: 2022/04/12  
51: G06F; G06N  
71: WEI ZHUANG  
72: WEI ZHUANG  
**54: SEMANTIC EXTRACTION METHOD FOR NATURAL LANGUAGE**  
00: -

The present invention relates to the technical field of computer science, and particularly relates to a semantic extraction method for natural language. The semantic extraction method for natural language includes the steps of acquiring to-be-extracted natural language statements; performing word segmentation on the to-be-extracted natural language statements by a forward maximum matching method to obtain different entries; preprocessing each of the entries subjected to word segmentation; and extracting different text features of each of the entries; performing sentiment classification on the entries by a trained sentiment classifier; and judging overall sentiment situations of the to-be-extracted natural language statements; performing intent recognition on the entries by a

trained intent classification model; and acquiring overall intent recognition results of the to-be-extracted natural language statements.



21: 2021/04437. 22: 2021/06/25. 43: 2022/04/12  
51: A61M; G08B  
71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY  
72: DING, Pingping, CHEN, SAI, JIANG, Kuosheng  
**54: INTELLIGENT INFUSION ALARM DEVICE BASED ON CAPACITIVE INFUSION SET**  
00: -

The present invention relates to the field of intelligent infusion, and particularly relates to an intelligent infusion alarm device for hospitals. The present invention comprises a capacitive infusion set connected to a slave-computer STM32 single-chip microcomputer which is fixed at the center base of a slave computer acrylic board shell. The slave-computer is connected to a power supply on the left and slave-computer ZigBee module on the right. A hook is mounted at the right-side plate of the slave computer acrylic board shell. A principal computer STM32 single-chip microcomputer is fixed in the center of a base of a principle-computer acrylic board shell. The principal computer STM32 is connected to a principal-computer ZigBee module on its left, a buzzer on its right and an LCD screen on an upper cover of the principal-computer acrylic board shell. The principal-computer STM32 is powered by a principal-computer power supply right of the buzzer.

21: 2021/04499. 22: 2021/06/29. 43: 2022/03/04  
51: D01D; D04H  
71: SOFT N.W. S.P.A.  
72: Ivan PAPETTI, Marco ROVELLINI, Daniele SANELLA, Stefano BRIGA, Olmo FALCO, Paolo FALCO, Giovanni VERZOLETTO

33: IT 31: 102018000021523 32: 2018-12-31

**54: HIGH PRODUCTIVITY AND FLEXIBILITY  
PLANT OF THE SPUN BONDING TYPE FOR THE  
PRODUCTION OF A NON-WOVEN WEB**

00: -

An innovative plant (10) for the production with the "spun bonding" technology or similar of a web (V) of non-woven fabric, comprising: - a melting station (11) suitable for receiving and melting a polymeric base material (MR), - an extrusion bar or head (12) with a plurality of extrusion or drawing nozzles (12a) adapted to receive from the melting station (11) the polymeric material (MR) in the molten state to produce a plurality or bundle of continuous filaments (FF); - a conveyor belt (13) adapted to advance along a direction of advancement (A) and to receive from the above the continuous filaments (F), produced by the extrusion nozzles (12a), so as to form a web (V) of non-woven fabric; and - consolidation means (14) designed to consolidate the non-woven web (V) formed on the conveyor belt (13); wherein the plant (10) is characterized by a special structure (20) comprising a base platform (21), rotatable (f, f, f'') around a respective vertical rotation axis (X), and wherein the melting station (11), suitable for receiving and melting the base polymeric material (MR), and the extrusion bar (12), suitable for receiving from the melting station (11) the polymeric material (MR) in the molten state, are totally built and solidly supported by this rotatable base platform (21) (f, f, f), so as to be rigidly connected to each other without the interposition of any rotating joint. Advantageously, the plant (10) allows to vary, without interrupting its operation, the width (L, L', L'') of the non-woven web (V) produced by the same plant, by rotating (f, f, f'') and adjusting the base platform (21) around the respective vertical rotation axis (X), so as to vary the inclination (a) of the extrusion bar (12) with respect to the direction of advancement (A) the conveyor belt (13).

21: 2021/04554. 22: 2021/06/30. 43: 2022/02/01

51: B60L H02J

71: EASEE AS

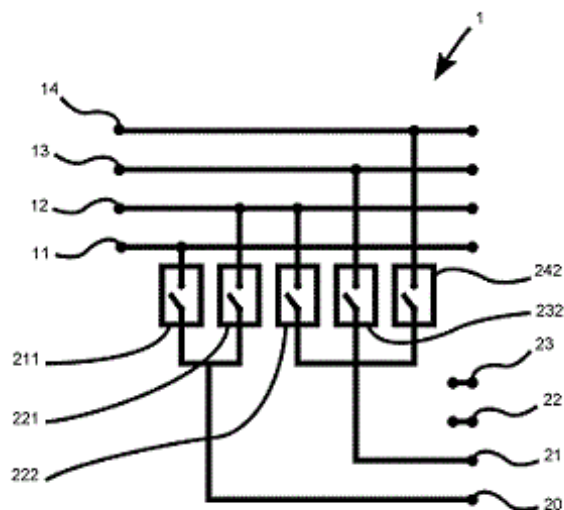
72: NÆSJE, Kjetil, HELMIKSTØL, Jonas,  
MØLGAARD, Steffen, STENGEL, Ola

33: NO 31: 20190184 32: 2019-02-11

**54: CHARGING STATION AND ARRANGEMENT  
OF ELECTRIC COMPONENTS FOR  
CONTROLLING THE DELIVERY OF ELECTRICITY****FROM AN ELECTRICAL GRID TO AN ELECTRIC  
VEHICLE**

00: -

Disclosed is an arrangement (1) of electric components for controlling the delivery of electricity from an electrical grid to an electric vehicle (102), the arrangement (1) having a first, a second, a third, and a fourth input terminals (11, 12, 13, 14), each for receiving an electric signal from the electrical grid. The arrangement (1) also includes two switching components (211, 221) for controlling two connections between a neutral output terminal (20) connectable to the electric vehicle (102) and the first and the second input terminals (11, 12). Moreover, the arrangement (1) includes three switching components (222, 232, 242) for controlling three connections between a first-phase output terminal (21) connectable to the electric vehicle (102) and the second, the third, and the fourth input terminals (12, 13, 14).



21: 2021/04625. 22: 2021/07/02. 43: 2022/04/01

51: A61K; A61P

71: HAEMES VERWALTUNGSGESELLSCHAFT  
MBH

72: Heinrich Maria SCHULTE

33: DE 31: 10 2019 000 490.6 32: 2019-01-23

**54: USE OF OLIGONUCLEOTIDES FOR THE  
TREATMENT OF TUMOURS**

00: -

The invention relates to the use of an oligonucleotide that is effective against tumours in tumour patients after complete or partial resection or ablation of a solid tumour in this patient by applying said

oligonucleotide in a bodily cavity formed in the resection or ablation, in order to fight tumour cells or metastases remaining in the tumour bed and its environment from the operation or ablation, and to counteract the formation of recurrences or new metastases in this region. The problem addressed was that of providing a simple, adjuvant form of treatment which can be applied locally in the surgical cavity and which destroys tumour cells that remain after a tumour resection and develop after the resection, in and nearby the tumour bed, or drop metastases near or in the environment of the primary tumour. According to the invention, oligonucleotides are used adjuvantly and in a high concentration in the surgical cavity. Loading carriers with oligonucleotides allows an elution over an extended period of time and therefore a prolonged, continuous effect on tumour cells near the surgical cavity.

21: 2021/04914. 22: 2021/07/13. 43: 2022/03/14  
51: B60K; B60L  
71: ECO EOLIC TOP SYSTEM S.L.  
72: ESTEFAN BELLAN, Abdon Miguel, VARGAS MACHADO, Carlos Mauricio, FINO PUERTO, Pedro Antonio  
33: ES 31: P201831284 32: 2018-12-26  
**54: ECOLOGICAL SYSTEM EXPLOITING KINETIC ENERGY IN VEHICLES**

00: -

An ecological system for use in land or marine vehicles is provided, which uses wasted air mass making it to pass through two subsystems which allow lighten the load of the moving vehicle and generates electrical energy. Therefore, showing an economy in fuel, tires, and general maintenance savings, as well as a decrease of contaminants thrown to the environment.

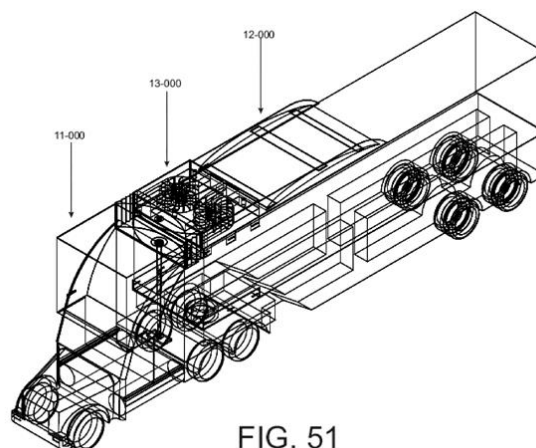


FIG. 51

21: 2021/05016. 22: 2021/07/16. 43: 2022/02/03  
51: H04S

71: FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.

72: HERRE, Jürgen, HABETS, Emanuel, SCHLECHT, Sebastian, ADAMI, Alexander  
33: EP 31: 18214182.0 32: 2018-12-19

**54: APPARATUS AND METHOD FOR REPRODUCING A SPATIALLY EXTENDED SOUND SOURCE OR APPARATUS AND METHOD FOR GENERATING A BITSTREAM FROM A SPATIALLY EXTENDED SOUND SOURCE**

00: -

Apparatus for reproducing a spatially extended sound source having a defined position and geometry in a space, the apparatus comprises an interface (100) for receiving a listener position; a projector (120) for calculating a projection of a two-dimensional or three-dimensional hull associated with the spatially extended sound source onto a projection plane using the listener position, information on the geometry of the spatially extended sound source, and information on the position of the spatially extended sound source; a sound position calculator (140) for calculating positions of at least two sound sources for the spatially extended sound source using the projection plane; and a renderer (160) for rendering the at least two sound sources at the positions to obtain a reproduction of the spatially extended sound source having two or more output signals, wherein the renderer (160) is configured to use different sound signals for the different positions, wherein the



different sound signals are associated with the spatially extended sound source.

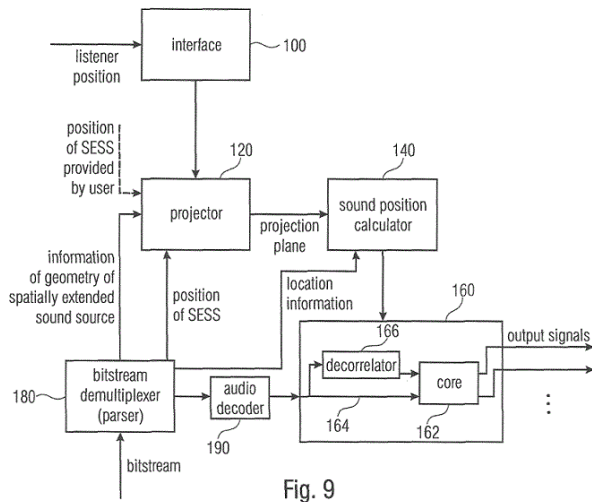


Fig. 9

21: 2021/05028. 22: 2021/07/16. 43: 2022/01/28  
51: G10L

71: Huawei Technologies Co., Ltd.

72: GAO, Yang

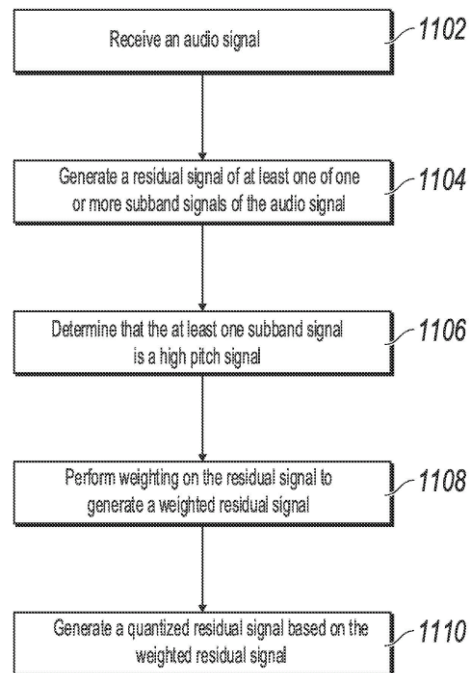
33: US 31: 62/791,820 32: 2019-01-13

**54: HIGH RESOLUTION AUDIO CODING**

00: -

Methods, systems, and apparatus, including computer programs encoded on computer storage media, for performing audio coding are described. One example of the methods includes receiving an audio signal that includes one or more subband signals. A residual signal of at least one of the one or more subband signals is generated based on the at least one of the one or more subband signals. It is determined that the at least one of the one or more subband signals is a high pitch signal. In response to determining that the at least one of the one or more subband signals is a high pitch signal, weighting is performed on the residual signal of the at least one of the one or more subband signal to generate a weighted residual signal.

1100



21: 2021/05121. 22: 2021/07/20. 43: 2022/02/11  
51: H01R; H02G

71: Volex Cable Assembly (Shenzhen) Co., Ltd.

72: ZHAO, ChangChun, TOH, Mui Lian Jessica, MO, Yuanwen

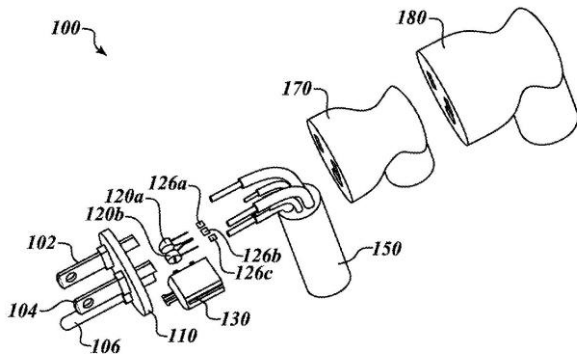
33: CN 31: 201811571707.2 32: 2018-12-21

**54: SEALED ELECTRIC PLUG**

00: -

A sealed electric plug (100) comprises: one or more temperature sensors (120a, 120b) used to monitor a temperature inside the electric plug (100); a data cable (166) housed within a blocking enclosure (162) used to block electric noise so as to precisely acquire and transmit temperature data; and a housing or a supporting member (130) used to receive the one or more temperature sensors (120a, 120b) and capable of being inserted into an internal casing (170) of the electric plug (100) and positioned near one or more pins (102, 104, 106). One or more sealing members (910) can be placed at the one or more pins (102, 104, 106), the internal casing (170), and regions at connections between wires of the data cable (166), thereby insulating the internal casing (170) from air, moisture and particles.





21: 2021/05340. 22: 2021/07/28. 43: 2022/02/03

51: B22D

71: KME SPECIAL PRODUCTS GMBH & CO. KG

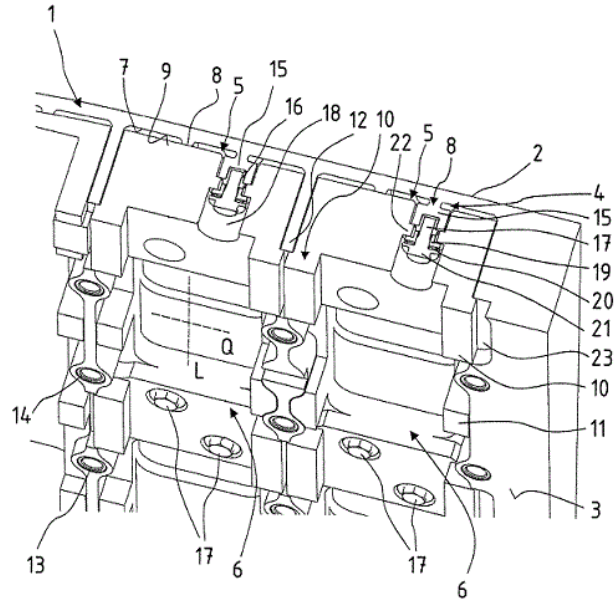
72: HUGENSCHÜTT, Gerhard, ROLF, Thomas

33: DE 31: 10 2019 102 313.0 32: 2019-01-30

#### **54: MOULD PLATE**

00: -

The invention relates to a mould plate comprising a casting side (2) and a rear side (3) facing away from the casting side (2), wherein at least one cooling channel (5) open towards the rear side (3) is located in the rear side (3), and comprising a cooling surface (9) which is opposite the casting side (3), wherein an insert (6) is located in the cooling channel (4, 5) in order to form a cooling gap (4) between an inner surface (7) of the insert (6) and the cooling surface (9). The insert (6) is connected to fastening points (15) in the cooling surface (9) by means of fastening bolts (17).



21: 2021/05811. 22: 2021/08/06. 43: 2022/03/14

51: G06Q

71: ENTERSEKT INTERNATIONAL LIMITED

72: NOLTE, DEWALD DE RIDDER., OOSTHUIZEN, GERHARD GYSBERT., BESTER, DANIEL DEETLEFS.

33: ZA 31: 2018/00548 32: 2018-01-26

#### **54: A SYSTEM AND METHOD FOR PROCESSING A TRANSACTION**

00: -

A system and method for processing a transaction are provided. The system includes a server computer operated by or on behalf of an issuer of consumer payment credentials; and, a software application for executing on a mobile device of a consumer. The software application is registered with the issuer and is uniquely linked to the consumer. The software application is configured to obtain transaction data from a graphical code displayed by a merchant and relating to a transaction with the merchant being conducted by the consumer, and to transmit a transaction request including the transaction data to the server computer. The server computer is configured to receive the transaction request from the software application, obtain a cryptogram based on the transaction data, and to provide the cryptogram to the merchant for the merchant to submit the cryptogram for processing a three-domain secure (3DS) compliant transaction.

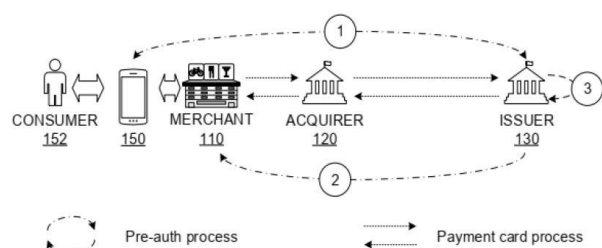


Figure 2

21: 2021/05860. 22: 2021/08/17. 43: 2022/04/07  
51: A61K

71: ZHU, Fengtang

72: WANG, Fang, ZHU, Fengtang

#### **54: TRADITIONAL CHINESE MEDICINE COMPOSITION AND PREPARATION METHOD THEREOF**

00: -

A purpose of the present invention is to provide a traditional Chinese medicine composition and a preparation method thereof. The traditional Chinese medicine composition is excellent in drug effect, controllable in quality and safe in medication. The traditional Chinese medicine composition is composed of the following bulk drugs in parts by weight: 15-35 parts of amber, 10-35 parts of Bambusae concretio silicea, 10-20 parts of Uncaria rhynchophylla, 20-40 parts of Codonopsis pilosula, 10-20 parts of Atractylodes macrocephala, 5-15 parts of Poria cocos, 5-15 parts of mint, 5-15 parts of Bombyx batryticatus, 0.1-1 part of cinnabar and 10-35 parts of glycyrrhiza.

21: 2021/06204. 22: 2021/08/26. 43: 2022/03/14  
51: A61K; C07K; A61P

71: RAMPART HEALTH, L.L.C.

72: BOSTWICK, David Granger, BOSTWICK, Brian Rafferty

33: US 31: 62/812,703 32: 2019-03-01

#### **54: PHARMACEUTICAL COMPOSITION COMBINING IMMUNOLOGIC AND CHEMOTHERAPEUTIC METHOD FOR THE TREATMENT OF CANCER**

00: -

This invention relates to a pharmaceutical composition comprising at least two immune checkpoint inhibitors, at least one cytotoxic or cytostatic chemotherapeutic drug. This invention also relates to a method of treating a tumor or a cancer in a patient comprising administering to a patient in need thereof the pharmaceutical

composition in an amount effective to treat the tumor or cancer, and optionally a step of ablating at least a portion of the tumor or cancer.

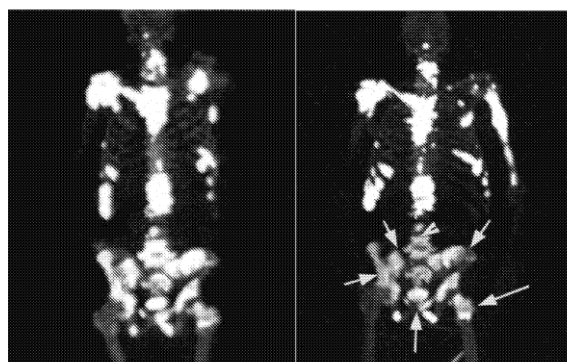


Figure 1A

Figure 1B

21: 2021/06423. 22: 2021/09/02. 43: 2022/03/14  
51: H04W

71: TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)

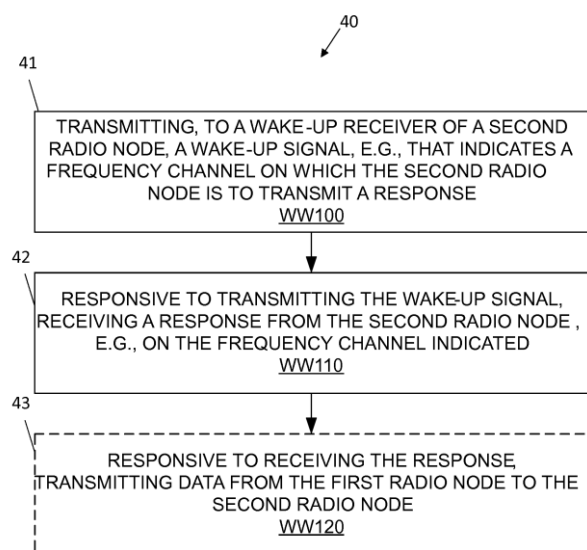
72: WILHELMSSON, Leif, DI MARCO, Piergiuseppe, OLSSON, Magnus L., RIMHAGEN, Thomas, SJÖLAND, Henrik

33: US 31: 62/824,745 32: 2019-03-27

#### **54: USE OF WAKE-UP RECEIVER WITH BLUETOOTH LOW ENERGY**

00: -

A method of establishing connection between a first node in a wireless network and a second node in said wireless network, wherein each of said first and second nodes comprise a primary radio receiver and a wake up receiver, each of said nodes comprising a Radio Frequency, RF, switch, arranged to connect one of said primary or secondary radios to a radio antenna, said method comprising the steps of transmitting, by said first node, to a wake-up receiver of a second radio node, a wake-up signal that indicates a frequency channel on which the second radio node is to transmit a response, receiving, by said first node, in response to transmitting said wake-up signal, response from said second radio node on the frequency channel indicated, and establishing, by said first node, a connection between said first and second nodes in order to transfer data between said first and second nodes. The present disclosure also relates to corresponding mesh nodes and a computer program product.



21: 2021/07622. 22: 2021/10/11. 43: 2022/04/12

51: A01G

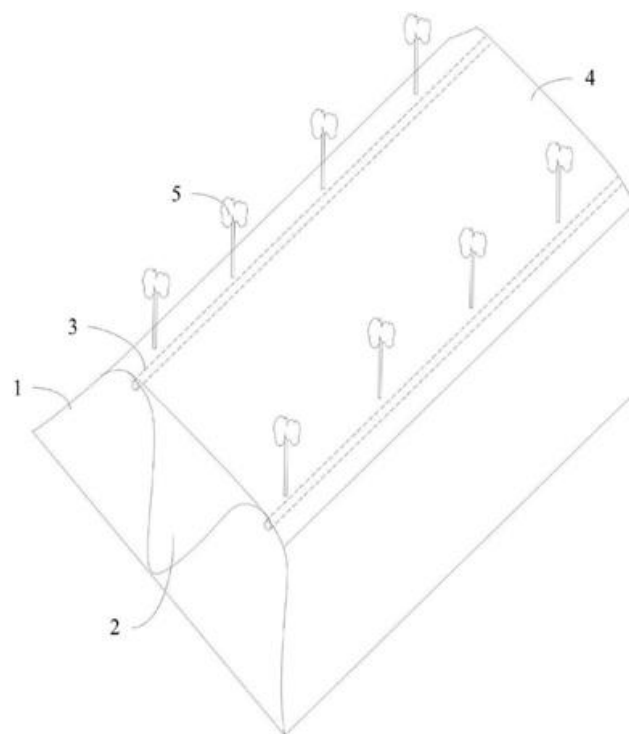
71: SHANGDU SCIENCE AND TECHNOLOGY COMMISSIONER WORKSTATION

72: GAO, JINHE, ZHANG, XIU, LI, JUNZI, WANG, FUTIAN, DU, XIAOYUN, LIU, LIXIN, WEN, JIANPING, SUN, XUDONG, SUN, LIFANG, ZHAO, SHUFEN, LI, XINMIN

#### **54: FILM MULCHING PLANTING METHOD FOR CROPS IN DRY LAND**

00: -

The present invention relates to the technical field of agriculture, and particularly relates to a film mulching planting method for crops in dry land. The present invention discloses a film mulching planting method for crops in dry land, which comprises the following steps: making cultivated land into M-shaped ridges; covering the M-shaped ridges with mulching film to form film fully-mulched M-shaped ridges; and planting crops such as potato, vegetable and beet on the ridges; Compared with the prior art, the present invention is suitable for dry farming areas, gathers natural precipitation to the maximum extent, creates favorable conditions for crop growth, generally increases the yield by 24%-34% and the efficiency by 14%, and has popularization and use values.



21: 2021/08472. 22: 2021/11/02. 43: 2022/04/05

51: A23C

71: Qinghai Huashi Technology Investment Management Co., Ltd., Qinghai Huashi Highland Barley Biological Technology Development Co., Ltd.  
72: DU, Yan, HAO, Jing, LIU, Yu, MA, Ping, CHEN, Danshuo, ZHANG, Chengping, YANG, YANHONG, JI, Chengjun, ZHANG, Falin

33: CN 31: 202110462796.2 32: 2021-04-28

#### **54: HIGHLAND BARLEY GRAIN MEAL REPLACEMENT MILKSHAKE POWDER CAPABLE OF ASSISTING IN LOWERING HYPERTENSION, HYPERLIPEMIA AND HYPERGLYCAEMIA AND PREPARATION METHOD THEREOF**

00: -

The present disclosure discloses a highland barley grain meal replacement milkshake powder capable of assisting in lowering hypertension, hyperlipemia and hyperglycaemia and a preparation method thereof. The meal replacement milkshake powder is composed of skimmed milk powder, skimmed yak milk powder, resistant dextrin, sprouted black highland barley powder, highland barley aleurone layer powder, soybean protein isolate, crystalline fructose, maltodextrin, oat flour, quinoa flour, xylitol, inulin, Psyllium seed husk, white kidney bean extract, whey protein, and taste accessories. The formula of the meal replacement milkshake powder

contain proteins, fats and dietary fibers, with scientific combination of nutrition, and the product nutrition meets the relevant standard of the "meal replacement products". Wherein, the formula is added with highland barley aleurone layer powder obtained from highland barley through physical technologies as the raw material.

21: 2021/08519. 22: 2021/11/02. 43: 2022/03/24

51: C12Q

71: DYNAMIKER BIOTECHNOLOGY (TIANJIN) CO., LTD.

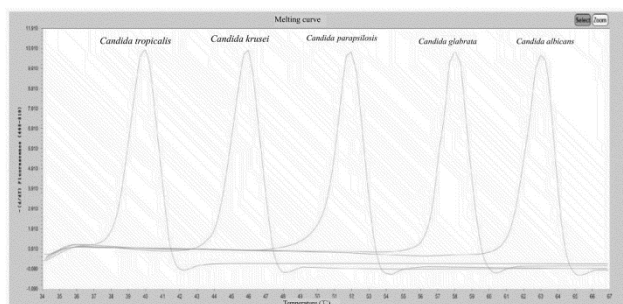
72: WANG, Zhixian, YAN, Xiangyan, SHENG, Changzhong, ZHOU, Zeqi, SU, Yan

33: CN 31: 201910375345.8 32: 2019-05-07

**54: PRIMER PROBE COMBINATION, KIT, DETECTION METHOD AND APPLICATION FOR DETECTING SEPARATE CANDIDA TYPES**

00: -

The present invention provides a primer probe combination, a kit, a detection method and an application for detecting separate *Candida* types. The primer probe combination for detecting separate *Candida* types includes specific primers, detection probes and complementary probes for *Candida albicans*, *Candida tropicalis*, *Candida parapsilosis*, *Candida krusei* and *Candida glabrata*. The complementary probes and the detection probes are in incomplete complementary pairing. The primer probe combination in the present invention can detect and determine whether infection is caused by *Candida* in one step and simultaneously distinguish *Candida albicans*, *Candida tropicalis*, *Candida parapsilosis*, *Candida krusei* and *Candida glabrata* in the same fluorescence channel.



21: 2021/08520. 22: 2021/11/02. 43: 2022/03/24

51: G01N

71: Jiangsu University

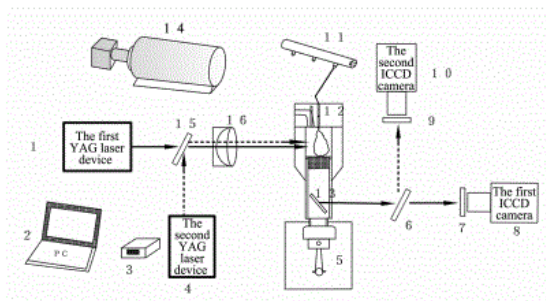
72: ZHONG, Wenjun, YUAN, Qifei, HE, Zhixia, XIANG, Qilong, JIANG, Peng, LIU, Qing, YAN, Feibin, WANG, Qian

33: CN 31: 201910778649.9 32: 2019-08-22

**54: APPARATUS AND METHOD FOR JOINTLY MEASURING SOOT PRECURSOR AND SOOT ON BASIS OF OPTICAL ENGINE**

00: -

The present disclosure relates to an engine combustion performance test technology, and provides an apparatus and method for jointly measuring a soot precursor and soot on basis of an optical engine. The spatial distribution of a soot precursor and soot under the combustion situation is measured by exciting and inducing a fluorescent signal of a PAH group using laser with the wavelength of 355 nm and inducing an incandescent signal using laser with the wavelength of 532 nm, and through the time sequence difference in the occurrences of the PAH and the soot and the attenuation rate of signals, PAH and soot images in the one-time spray combustion process are successfully obtained by controlling a shooting strategy, and joint measurement of precursor development of the soot and soot spatial distribution under the combustion condition of a power mechanical system is achieved. apparatusapparatus



21: 2021/08529. 22: 2021/11/02. 43: 2022/03/24

51: G01N; G06N

71: SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: HE, Kaixun, SU, Zhaoyang

33: CN 31: 201910806825.5 32: 2019-08-29

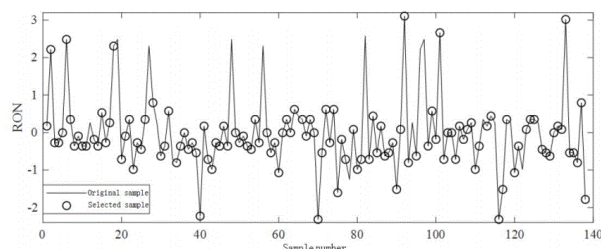
**54: NEAR-INFRARED QUANTITATIVE ANALYSIS MODEL CONSTRUCTION METHOD BASED ON BIASED ESTIMATION**

00: -

Disclosed is a near-infrared quantitative analysis model construction method based on a biased estimation. The method comprises: firstly, primarily



selecting a training sample from a historical data set; selecting, according to a target working condition and from a sample set, a suitable modeling sample to constitute a subset, and an optimally selected sample serving as a modeling sample for a near-infrared quantitative analysis model; using the modeling sample to establish a biased minimax probability regression model between an attribute and a near-infrared spectrum, wherein by means of the selection of an error infimum, a prediction bias of the model has the maximum probability of being in a desired direction; and introducing a test set near-infrared spectrum into the model for prediction, calculating, according to an output prediction value and a reference value, a root-mean-square error corresponding to the model for comparison, and selecting the optimal model parameter. The beneficial effect lies in being able to consider the effect of a prediction bias on production from the essence of modeling, such that a prediction result applicable to quality feedback control is acquired.



21: 2021/08549. 22: 2021/11/02. 43: 2022/04/12  
51: C12Q

71: CHINESE ACADEMY OF INSPECTION AND QUARANTINE

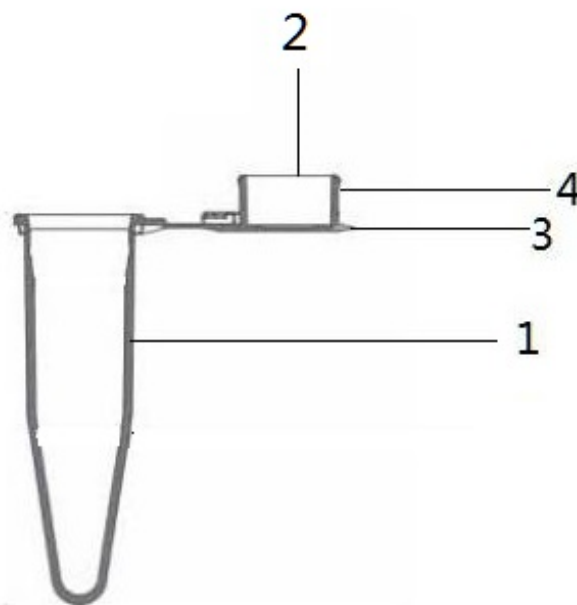
72: WANG, Jing, LI, Li, YANG, Yu, CI, YING, ZHANG, QIAO, LIU, Wei, SHI, QI, NIE, CONG, ZOU, DAYANG

#### 54: KIT FOR RAPID DETECTION OF YERSINIA PESTIS

00: -

The present invention discloses a kit for rapid detection of *Yersinia pestis*, which includes a specific primer pair and a kit including the primer pair, wherein the kit includes a reagent I, a reagent II and a sealant; the reagent I includes primers FP, BP and IF, dNTP, a Bst DNA polymerase and an indicator; and the reagent II includes Tris-HCl, ammonium sulfate, potassium chloride, magnesium

sulfate, Tween-20 and betaine, with pH of 8.8. By adopting a unique buffer system, the kit provided by the present invention has an advantage of relatively strong amplification compatibility, and can perform efficient specific amplification without thoroughly removing impurities such as proteins. The kit not only meets the requirements of field sensitivity monitoring and detection as well as field quarantine inspection and detection in the cases of large people flow and fast passage, but also is suitable for rapid detection in a laboratory.



21: 2021/08550. 22: 2021/11/02. 43: 2022/04/12  
51: B01L; C12M; G05D

71: CHINESE ACADEMY OF INSPECTION AND QUARANTINE

72: WANG, Jing, ZHANG, QIAO, LI, Li, YANG, Yu, CI, YING, LIU, Wei, SHI, QI, NIE, CONG, ZOU, DAYANG

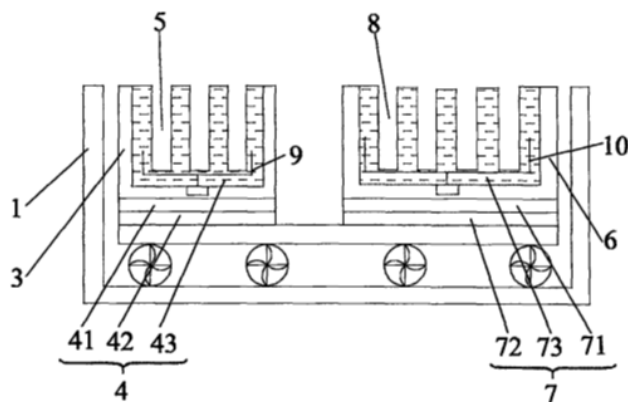
#### 54: INTELLIGENT THERMOSTAT

00: -

The present invention discloses an intelligent thermostat, comprising a box body, display control module, cracking module, amplification module and power supply module. The display control module comprises a controller, display screen and control button. The cracking module comprises a cracking box body, cracking heater, cracking time controller, cracking temperature sensor and sample tube slot. The cracking heater comprises a first heat conducting plate, film and conducting liquid. The



amplification module comprises an amplification box body, heater, time controller, temperature sensor and a reaction tube slot. The amplification heater comprises a second heat conducting plate, heating film and heat conducting liquid and the power supply module is electrically connected with the controller. The intelligent thermostat provided by the present invention comprises the cracking module and the amplification module at the same time, so that the intelligent thermostat is convenient to carry. The temperature is rapidly raised and balanced.



21: 2021/08562. 22: 2021/11/03. 43: 2022/04/07

51: C12G

71: SHANXI DATONG UNIVERSITY, CUI, Naizhong

72: CUI, Naizhong, MI, Zhi, WU, Juan, LIU, Rui, LIU, Lizhen, LI, Hui, WANG, Runmei

#### **54: METHOD FOR BREWING TARTARY BUCKWHEAT SEEDLING BRANDY**

00: -

The present disclosure discloses a method for brewing tartary buckwheat seedling brandy. The method is as follows: fermenting tartary buckwheat seedlings and grapes together, adding tartary buckwheat seedlings in a rectifying tower between a distillation still and a condenser during distillation, distilling twice to obtain an original brandy, then putting the original brandy into an oak barrel and aging for more than two months, finally blending the original brandy into tartary buckwheat seedling brandy after aging.

21: 2021/08570. 22: 2021/11/02. 43: 2022/04/12

51: A24F

71: XIAMEN FENGTAO CERAMICS CO., LTD

72: ZHU, XIAOHUA, XIONG, ZHAORONG, FU, ZENGXUE, YU, XIANGYI, LIU, MAOQI

33: CN 31: 201920703370.X 32: 2019-05-16

33: CN 31: 201921496439.2 32: 2019-09-10

#### **54: NON-CONTACT HEAT NOT BURN HEATING DEVICE**

00: -

A non-contact electronic cigarette heater, comprising a ceramic heating element (10), a smoke formation product bearing component (20), and a cooling tube (60). The ceramic heating element (10) comprises a heating body (11) and a heating circuit (12), the heating body (11) is in a column shape and the heating body (11) is internally provided with a porous channel (101), and the heating circuit (12) is provided on the heating body (11) so as to heat air by means of the porous channel (101); the smoke formation product bearing component (20) comprises a ceramic tube (21) and a blocking sheet (22), the blocking sheet (22) is provided in a cavity defined by the ceramic tube (21) to divide the cavity into a first cavity and a second cavity, the first cavity is suitable for placing a smoke formation product, and the second cavity is suitable for placing at least part of the ceramic heating element (10); the cooling tube (60) is provided above the ceramic tube (21) and separated from the ceramic tube (21), the inner diameter of the cavity defined by the cooling tube (60) is the same as the inner diameter of the first cavity to enable a cigarette holder of the smoke formation product to pass through, and the cooling tube (60) is used for cooling smoke passing through the cigarette holder. The temperature of the smoke produced is reduced and taste is improved while the amount of smoke is increased.

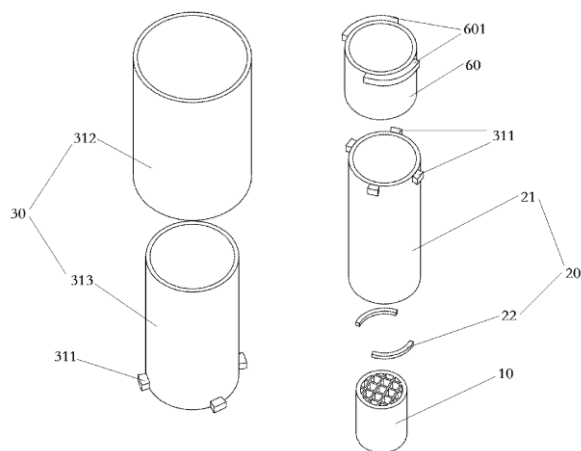


图 9

21: 2021/08571. 22: 2021/11/02. 43: 2022/04/12  
51: A24F

71: XIAMEN FENGTAO CERAMICS CO., LTD  
72: ZHU, XIAOHUA, XIONG, ZHAORONG, FU,  
ZENGXUE, YU, XIANGYI, LIU, MAOQI

33: CN 31: 201920703370.X 32: 2019-05-16

33: CN 31: 201911397002.8 32: 2019-12-30

33: CN 31: 201922448707.X 32: 2019-12-30

33: CN 31: 201922439531.1 32: 2019-12-30

33: CN 31: 202020734040.X 32: 2020-05-07

33: CN 31: 202020733034.2 32: 2020-05-07

#### **54: NON-CONTACT HEAT NOT BURN HEATING DEVICE**

00: -

The present invention discloses a non-contact heat not burn heating device which comprises a ceramic heating element, a smoking product bearing assembly and a sealing sleeve, wherein the ceramic heating element comprises a heating body and a heating circuit, the heating body is internally provided with a porous channel, and the heating circuit heats air passing through the porous channel; the smoking product bearing assembly comprises a preheating tube and a blocking piece, the blocking piece is arranged in a cavity defined by the preheating tube to divide the cavity into a first cavity and a second cavity, the first cavity is used for placing the part of the smoking product, and the second cavity is used for placing at least one part of the ceramic heating element; and the sealing sleeve is arranged in the hollow mode to form a bearing cavity, the ceramic heating element and the smoking product bearing assembly are arranged in the bearing cavity, the sealing sleeve is made of bushings to reduce the heat transmission of the ceramic heating element to the outside and reduce the outer wall temperature of the device, and the sealing sleeve is simple in structure and low in cost.

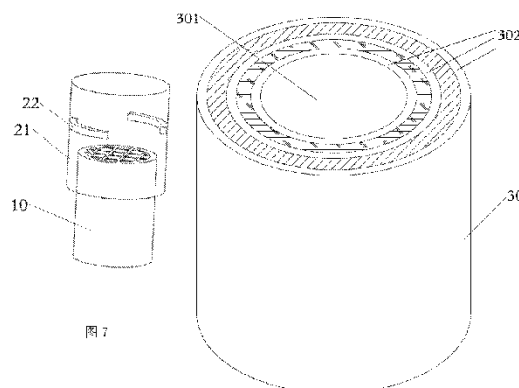


图 7

21: 2021/08572. 22: 2021/11/02. 43: 2022/03/29  
51: A24F

71: XIAMEN FENGTAO CERAMICS CO., LTD  
72: ZHU, XIAOHUA, XIONG, ZHAORONG, FU,  
ZENGXUE, YU, XIANGYI, LIU, MAOQI

33: CN 31: 201910409470.6 32: 2019-05-16

33: CN 31: 201920703126.3 32: 2019-05-16

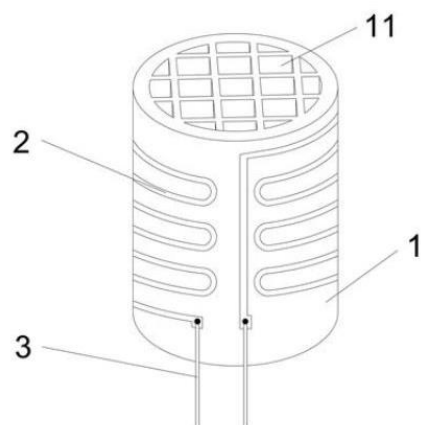
33: CN 31: 201920703695.8 32: 2019-05-16

33: CN 31: 201920707429.2 32: 2019-05-16

#### **54: AN AIR-HEATING TYPE HEAT NOT BURN HEATING DEVICE, A CERAMIC HEATING ELEMENT AND A PREPARATION METHOD THEREOF**

00: -

Disclosed is an air-heating type heat not burn heating device, a ceramic heating element and a preparation method thereof, wherein the heating element comprises a honeycomb ceramic body, porous channels are arranged in the honeycomb body, the porous channels are circular or polygonal holes; a heating printed circuit, arranged around an outer surface of the ceramic body to heat the air passing through the channels. The surface of the heating element is made of high purity alumina honeycomb ceramic having high compactness, to effectively prevent absorption of smoke dust particles to prevent odd smells; honeycomb ceramic has good thermal conductivity of 33W/mk; the wall thickness and pore diameter in the honeycomb structure are both small, with excellent thermal conductivity; the shape of the honeycomb porous can increase the contact area with air, the alumina honeycomb ceramics has large specific area, and high heating efficiency, for quickly heating the air.



21: 2021/08573. 22: 2021/11/02. 43: 2022/04/12  
51: A24F

71: XIAMEN FENGTAO CERAMICS CO., LTD  
72: ZHU, XIAOHUA, XIONG, ZHAORONG, FU,  
ZENGXUE, YU, XIANGYI, LIU, MAOQI

33: CN 31: 201920703370.X 32: 2019-05-16

33: CN 31: 201921493371.2 32: 2019-09-10

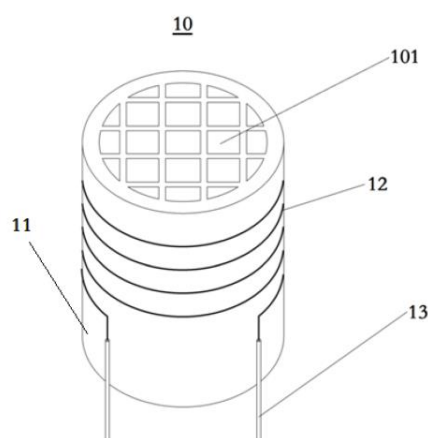
33: CN 31: 201921496504.1 32: 2019-09-10

33: CN 31: 201910851288.6 32: 2019-09-10

#### **54: CERAMIC HEATING ELEMENT AND NON-CONTACT HEAT NOT BURN HEATING DEVICE WITH SAME**

00: -

The present invention discloses a ceramic heating element comprising a heating body which is cylindrical and internally provided with a porous channel; and a heating circuit which is arranged on the heating body to heat air passing through the porous channel. The ceramic heating element of the embodiment of the present invention can increase the contact area between the heating body and the air to achieve sufficient heating of the air. The ceramic heating element not only has high heating efficiency and high thermal conductivity, and is energy saving and power saving, but also has good compactness, will not adsorb smoke particles and thus has no peculiar smell. The present invention further discloses a non-contact heat not burn heating device with the ceramic heating element



21: 2021/08587. 22: 2021/11/03. 43: 2022/04/12  
51: A24F

71: XIAMEN FENGTAO CERAMICS CO., LTD  
72: ZHU, XIAOHUA, XIONG, ZHAORONG, FU,  
ZENGXUE, YU, XIANGYI, LIU, MAOQI

33: CN 31: 201920703370.X 32: 2019-05-16

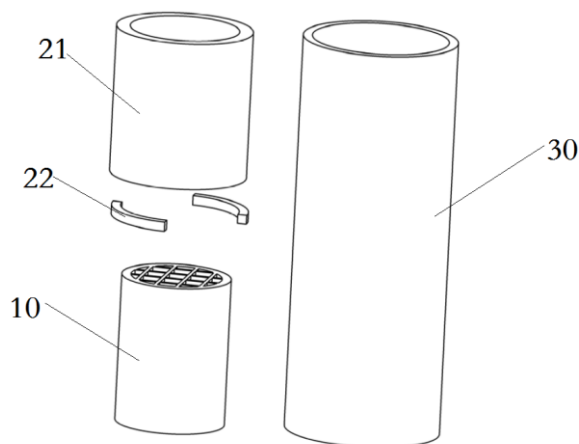
33: CN 31: 201921496546.5 32: 2019-09-10

33: CN 31: 201910850981.1 32: 2019-09-10

#### **54: NON-CONTACT HEAT NOT BURN HEATING DEVICE**

00: -

The present invention relates to the technical field of heat not burn products and in particular to a non-contact heat not burn heating device. The invention comprises a ceramic heating element, a smoking product bearing assembly and a sealing sleeve. The sealing sleeve is arranged in the hollow mode to sleeve the ceramic heating element and the smoking product bearing assembly inside. The ceramic heating element and smoking product bearing assembly are mutually separated. The ceramic heating element comprises a heating body and heating circuit. The heating body is cylindrical and internally provided with a porous channel. The heating circuit is arranged on the heating body to heat the air passing through the porous channel. The smoking product comprises a ceramic tube and blocking piece. The blocking piece is connected to the ceramic tube and adjacent to the ceramic heating element to limit the position of the smoking product.



21: 2021/08799. 22: 2021/11/09. 43: 2022/02/09  
51: A61K; A61P; B82Y

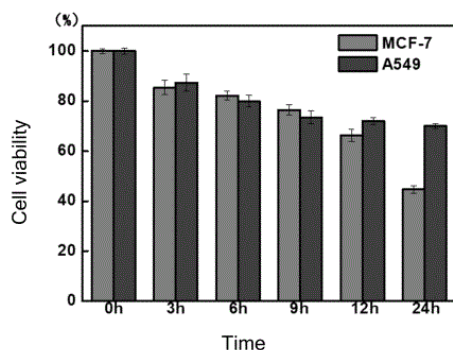
71: Qilu University of Technology

72: GUO, Yingshu, CAO, Xiuping

**54: CELL MEMBRANE-COATED AU-FE<sub>3</sub>O<sub>4</sub> TARGETED NANOMATERIAL, AND PREPARATION METHOD AND USE THEREOF**

00: -

The present disclosure provides a cell membrane-coated Au-Fe<sub>3</sub>O<sub>4</sub> targeted nanomaterial and a preparation method and use thereof, belonging to the technical field of targeted nanomaterials. The targeted nanomaterial includes a cancer cell membrane, Au-Fe<sub>3</sub>O<sub>4</sub> nanoparticles coated in the cancer cell membrane, tannic acid and phorbol-12-myristate-13-acetate.



21: 2021/08818. 22: 2021/11/09. 43: 2022/04/11  
51: G05D

71: SHANDONG INSTITUTE OF GEOPHYSICAL AND GEOCHEMICAL EXPLORATION

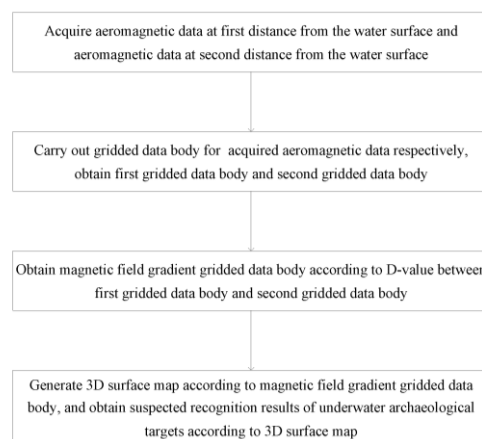
72: ZHAO, Faqiang, LI, Bin, ZHANG, Yanhui, GUO, Peng, SUN, Huaifeng, LI, Dianchao

33: CN 31: 202111263404.6 32: 2021-10-28

**54: METHOD AND SYSTEM FOR UNDERWATER ARCHAEOLOGICAL TARGET IDENTIFICATION BASED ON UAV AEROMAGNETIC MEASUREMENT**

00: -

The invention provides a method and system for underwater archaeological target recognition based on UAV aeromagnetic measurement, comprising: acquiring an aeromagnetic data at a first distance from the water surface and an aeromagnetic data at a second distance from the water surface; carrying out a gridded data body for the acquired aeromagnetic data respectively, obtaining a first gridded data body and a second gridded data body; obtaining a magnetic field gradient gridded data body according to a D-value between the first gridded data body and the second gridded data body; generating a three-dimensional surface map according to the magnetic field gradient gridded data body; obtaining suspected recognition results of underwater archaeological targets according to the three-dimensional surface map. The present invention has the characteristics of simple operation, no restriction of topographic conditions, rapid archaeological target recognition and high accuracy, can quickly complete the survey area scanning and anomaly screening.



21: 2021/08819. 22: 2021/11/09. 43: 2022/04/12  
51: G01M

71: ATOMHORIZON ELECTRIC (JINAN) CO., LTD.

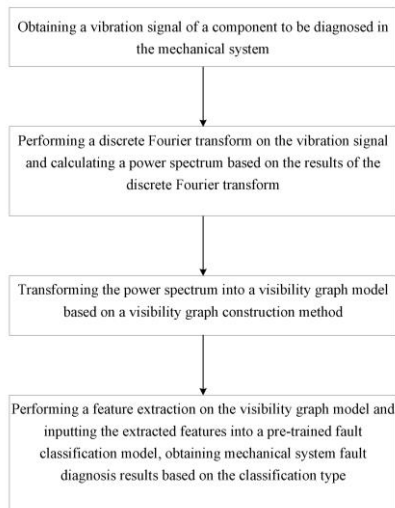
72: LI, Su, LIU, Haitao, LI, Luya, ZHANG, Wentao

33: CN 31: 202110825641.0 32: 2021-07-21

**54: METHOD AND SYSTEM FOR MECHANICAL SYSTEM FAULT DIAGNOSIS BASED ON VISIBILITY GRAPH**

00: -

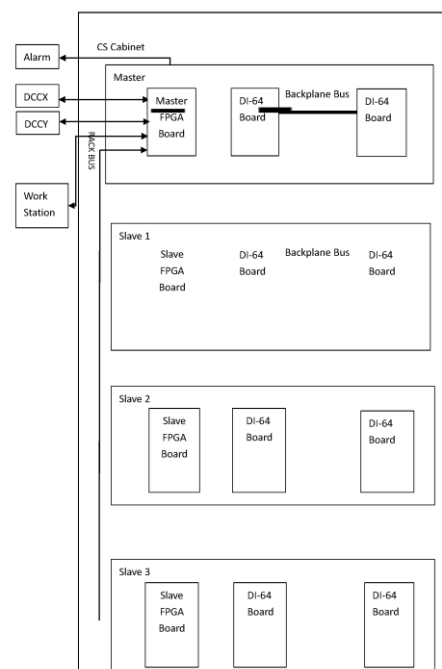
The present disclosure provides a method and system for mechanical system fault diagnosis based on the visibility graph, comprising: obtaining a vibration signal of a component to be diagnosed in the mechanical system; performing a discrete Fourier transform on the vibration signal and calculating a power spectrum based on the results of the discrete Fourier transform; transforming the power spectrum into a visibility graph model based on a visibility graph construction method; performing a feature extraction on the visibility graph model and inputting the extracted features into a pre-trained fault classification model, obtaining mechanical system fault diagnosis results based on the classification type. The present disclosure uses the visibility graph to model the spectral analysis results of the vibration signal, so as to extract the correlation between the frequency components of the signal.



21: 2021/08820. 22: 2021/11/09. 43: 2022/04/12  
 51: F17D  
 71: ATOMHORIZON ELECTRIC (JINAN) CO., LTD.  
 72: LI, Su, LI, Luya, HUANG, Baozhong, LI, Hui, WANG, Yanlei  
 33: CN 31: 202110955168.8 32: 2021-08-19  
**54: DEVICE FOR CONTACTS SCANNING OF MULTI-CHANNEL NUCLEAR POWER EQUIPMENT AND WORKING METHOD THEREOF**

00: -

The present invention discloses a multi-channel nuclear power equipment contact scanning device and its working method, which relates to the technical field of nuclear power plant control system, including: receiving the nuclear power equipment switching contact signals through a multi-channel receiver; performing non-arithmetic operations on the preset single-channel signal through a logic unit; performing XOR preprocessing of the arithmetic results and the switching contact signals of corresponding channels of the nuclear power equipment through an arithmetic unit; sending the pre-processed switching contact signals of nuclear power equipment to the first processing module and the second processing module respectively, so that they obtain the contact scan results according to the pre-processed nuclear power equipment switching contact signals and the configuration information set; the first processing module determines the fault channel according to its own contact scan results and the contact scan results of the second processing module.



21: 2021/08821. 22: 2021/11/09. 43: 2022/04/12  
 51: G05B



71: ATOMHORIZON ELECTRIC (JINAN) CO., LTD.

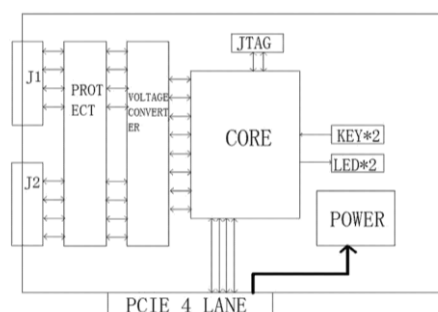
72: LI, Su, LI, Luya, HUANG, Baozhong, LI, Hui, SUN, Xingjian

33: CN 31: 202111078312.0 32: 2021-09-15

**54: COMMUNICATION TRANSMISSION DEVICE FOR HEAVY-WATER REACTOR CONTROL SYSTEM**

00: -

The present invention discloses a communication transmission device for heavy-water reactor control system, which relates to the field of nuclear power plant control system, including: virtual status register module, which is used to receive the read-write request operation instructions transmitted between the heavy-water reactor control system and peripheral terminal device; virtual read-write request logic module, which is used to control the high and low level signals of trigger and lock the idle buffer based on the read-write request operation instructions; virtual protocol conversion module, which is used to convert the bus protocol; virtual data buffer module, which is used to read the status data to be read and written into the idle buffer, and bidirectionally transmit such data between the parallel interface and virtual protocol conversion module; virtual interrupt generation logic module.



21: 2021/09031. 22: 2021/11/15. 43: 2022/03/30

51: E01C

71: Shandong University

72: WANG, Jianhong, SHI, Luyu, JIA, Sijia, GUO, Jianghao, LIU, Jian, CHANG, Honglei

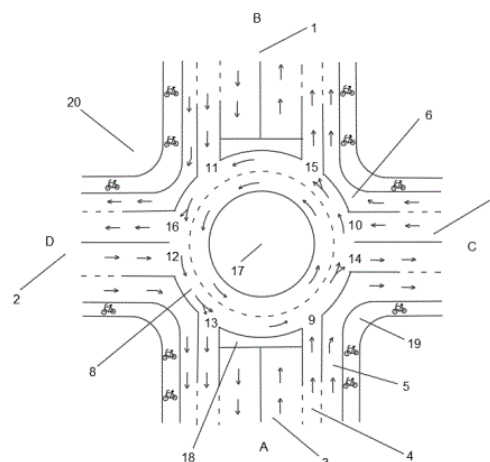
33: CN 31: 202011327682.9 32: 2020-11-24

**54: CROSSROAD PASS SYSTEM AND METHOD WITHOUT SIGNAL LAMP CONTROL**

00: -

The present invention discloses a crossroad pass system and method without signal lamp control, including a primary main road, a secondary main road, a ground roundabout, and an underground

tunnel. The ground roundabout with a counterclockwise lane is arranged in the center of a crossroad formed by the primary main road and the secondary main road; entrances and exits are set up at intersections formed by the ground roundabout and the main roads; the entrances connect a left-turning lane of the primary main road and a straight-going and left-turning combined lane of the secondary main road to the ground roundabout, and left turning and turning around on the primary main road and straight going, left turning, and turning around on the secondary main road are completed through the exits; the straight-going lane of the primary main road is connected to the underground tunnel set up below the ground roundabout.



21: 2021/09119. 22: 2021/11/16. 43: 2022/03/07

51: C02F

71: JIANGSU YIHUAN GROUP CO., LTD.

72: Yiming YIN, Junliang HANG, Lei ZHU, Chengliang QIANG, Fei ZOU

33: CN 31: 202011282845.6 32: 2020-11-17

**54: STEEL WIRE ROPE GRILLE OVERLOAD PROTECTION APPARATUS**

00: -

The invention discloses a steel wire rope grille overload protection apparatus, which includes a base plate, on which a bracket, a spring sleeve, and a rotating plate are provided, rests at both ends of the rotating plate rest on the bracket and the spring sleeve respectively, the rotating plate and the bracket are connected through a pin, the rotating plate is rotatable along the pin, the spring sleeve

includes a cannula with a top opening, the cannula has a spring therein, the spring has a cap thereon, the cap has a top surface lower than a top surface of the cannula, a threaded hole is provided on the rotating plate and is threadably engaged with a screw therein, the screw has an end bracing against the cap; a pulley is provided on the rotating plate and is fixed on the rotating plate through a support base; the base plate is further provided thereon with a proximity switch which is located at the spring sleeve. The load limit of the steel wire rope in the invention is controlled by a deformation amount of the spring. When an overload is applied, the amount of compression of the spring increases, the rotating plate contacts the proximity switch, and the steel wire rope grille stops operating.

21: 2021/09120. 22: 2021/11/16. 43: 2022/03/07  
51: B01D; C02F

71: Jiangsu YiHuan Group Co., Ltd  
72: Yiming YIN, Junliang HANG, Qianbin HANG, Lei ZHU, Chao YANG

33: CN 31: 202110998720.1 32: 2021-08-27

**54: STIRRING MUD-SCRAPING SYSTEM FOR MECHANICALLY ACCELERATED CLARIFICATION TANK AND USING METHOD THEREOF**

00: -

The present invention discloses a stirring mud-scraping system for a mechanically accelerated clarification tank and a using method thereof, and belongs to the technical field of sludge treatment.

The stirring mud-scraping system for the mechanically accelerated clarification tank includes a tank body, a mud-scraping mechanism, a stirring mechanism, a cleaning mechanism and a deslagging mechanism. The mud-scraping mechanism is rotatably installed on the tank body, the stirring mechanism is installed on the tank body, the cleaning mechanism is slidably installed on the tank body, the cleaning mechanism includes a driving mechanism and two cleaning assemblies, the driving mechanism is installed on the tank body, the two cleaning assemblies are both slidably installed on the driving mechanism, and the deslagging mechanism is rotatably installed on the tank body. The present invention provides a stirring mud-scraping system for a mechanically accelerated

clarification tank and a using method thereof. The sediment generated in the clarification tank is scraped, the remaining sediment on the mud-scraping mechanism is cleaned at the same time, and then water and the sediment are discharged separately. The present invention also provides the using method thereof.

21: 2021/09239. 22: 2021/11/18. 43: 2022/03/24  
51: E21D

71: Droplet Bag Mine Support Innovations (Pty) Ltd

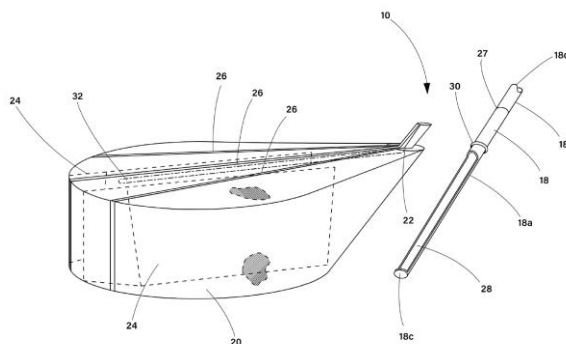
72: Oliver Bernard Barker, Johan Heinrich van Vuuren

33: ZA 31: 2021/00966 32: 2021-02-12

**54: SUPPORT**

00: -

A support includes: (i) a porous bag that defines an aperture; and (ii) an elongate anchor that extends into the bag via the aperture defined by the bag such that: (a) a first axial end of the anchor is disposed within the bag; and (b) a second axial end of the anchor is disposed outside the bag. The anchor defines a bore that: (i) extends at least partly along the length of the anchor for conveying a settable material there along; and (ii) defines an outlet between the first axial end of the anchor and the aperture defined by the bag, for discharging settable material into the bag, wherein at least a portion of the outlet defined by the anchor bore is axially spaced from the first axial end of the anchor.



21: 2021/09247. 22: 2021/11/18. 43: 2022/03/29  
51: A01G

71: Yan LI

72: Yan LI, Hua CHEN

33: CN 31: 201910420714.0 32: 2019-05-20

**54: SMART IRRIGATION CONTROL SYSTEM, AND CONTROL METHOD THEREFOR**

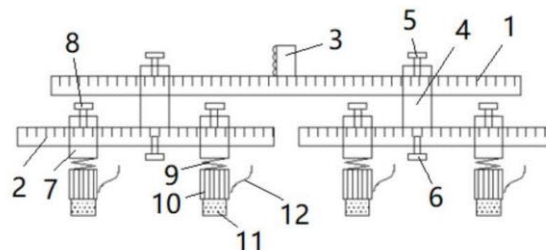
00: -

A smart irrigation control system, an irrigation apparatus, and a control method therefor. The smart irrigation control system comprises: a data acquisition module (201), a data receiving module (202), a central processing module (203), an irrigation apparatus management module (204), an irrigation apparatus terminal execution module (205), and a feedback data module (206). The data acquisition module (201) is used to acquire and send related data to the data receiving module (202). The data receiving module (202) sends the received data to the central processing module (203) to be processed and form an irrigation request. The central processing module (203) sends the irrigation request to the irrigation apparatus management module (204). The irrigation apparatus forms an irrigation instruction, and sends the irrigation instruction to the irrigation apparatus terminal execution module (205). The irrigation apparatus terminal execution module (205) controls the corresponding irrigation apparatus to execute a corresponding operation. The feedback data module (206) sends feedback of the irrigation apparatus terminal execution data to the data acquisition module (201). The invention achieves water-, fertilizer-, and pesticide-integrated automatic irrigation control, thereby eliminating the need of manually opening valves, and saving time and labor.

21: 2021/09286. 22: 2021/11/19. 43: 2022/04/07  
51: G01B; G01R; G01V  
71: Shanghai Institute of Technology  
72: HUANG, Junge, XIE, Sheng, LU, Sitong, ZHANG, Yu, LIU, Yu, LU, Ningqi  
33: CN 31: 202011314672 .1 32: 2020-10-20  
**54: HANDHELD DEVICE OF RESISTIVITY AND POLARIZABILITY INTEGRATED DETECTOR AND DETECTOR THEREOF**  
00: -

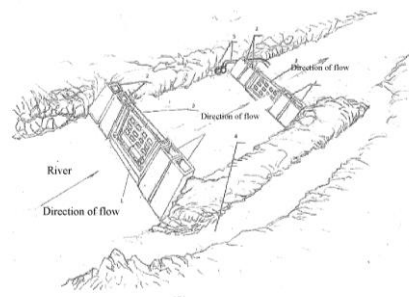
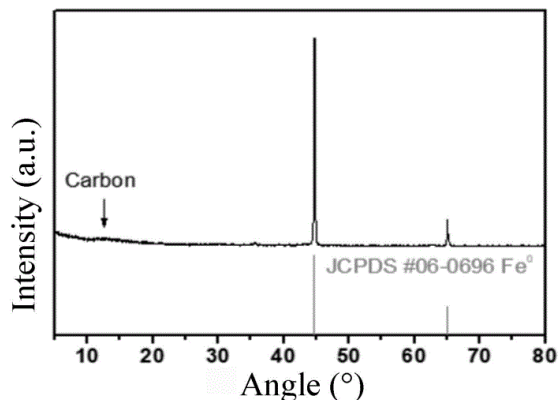
The present disclosure discloses a handheld device of a resistivity and polarizability integrated detector, which comprises a first scale, two second scales, two first connectors and four electrodes. The four electrodes are divided into two power supply electrodes and two observation electrodes. The power supply electrodes are configured to be electrically connected with external power supply devices, and the observation electrodes are configured to be electrically connected with external observation devices. One end of the two first connectors is slidably connected with the first scale,

respectively, and the sliding direction is the scale direction of the first scale for locking the relative position with the first scale. The two scales are rotatably connected with the other end of the corresponding first connector, respectively, and the rotation axis is perpendicular to the scale direction.



21: 2021/09297. 22: 2021/11/19. 43: 2022/03/24  
51: B09C; B22F; B82Y  
71: SOUTH CHINA UNIVERSITY OF TECHNOLOGY  
72: ZHU, Zhihua, YE, Daiqi  
33: CN 31: 201911356297.4 32: 2019-12-25  
**54: CARBON-LOADED NANO ZERO-VALENT IRON MATERIAL, PREPARATION METHOD THEREFOR AND APPLICATION THEREOF**  
00: -

A method for preparing a carbon-loaded nano zero-valent iron material. The method comprises: firstly, preparing an MIL-88A type iron MOF; roasting an MOF precursor in a reducing atmosphere (H<sub>2</sub>/Ar mixed atmosphere); and then preparing a carbon-loaded nano zero-valent iron material the morphology of which still being shuttle-shaped. The present invention also relates to a carbon-loaded nano zero-valent iron material obtained by the described method and an application of a carbon-loaded nanoscale zero-valent iron material in the remediation of chromium-contaminated soil. The preparation method is simple, and an in-situ reduction mode can ensure the high dispersion of zero-valent iron, thereby enabling the capability thereof in reducing and fixing chromium is significantly improved relative to pure zero-valent iron; in addition, the method may be widely applied to the field of heavy metal-contaminated soil remediation.



21: 2021/09318. 22: 2021/11/19. 43: 2022/04/12  
51: E02B

71: GUI, Linsheng

72: GUI, Linsheng

33: CN 31: 202010711544.4 32: 2020-07-22

**54: A NEW TYPE OF CUT-OFF DAM AND COFFERDAM BODY OF HYDROPOWER STATION AND DAM BODY CONSTRUCTION METHOD**

00: -

The present invention discloses a new type of cut-off dam and cofferdam body for hydroelectric power station, comprising a concrete frame dam body. The said concrete frame dam body is provided with concrete dams attachment on both sides, the said concrete frame dam body is provided with a rolled mat frame, the said rolled mat frame includes a metal frame, and the said metal frame is provided with plural water crossing holes. The water facing surface of the metal frame is fixedly connected with a rolled mat, one end of the rolled mat is fixedly connected with the metal frame, the other end is fixedly connected with a floating body. The said metal frame is also provided with a rolled mat locking device to fix the rolled mat when the rolled mat is rolled up.

21: 2021/09404. 22: 2021/11/23. 43: 2022/03/29

51: A61K

71: Dalian Polytechnic University

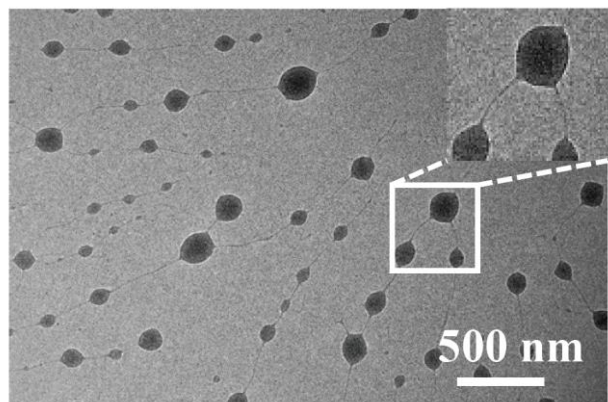
72: Mingqian TAN, Shanshan TIE, Yannan CHEN, Xuedi ZHANG, Shikui WU, Jiaxuan LI, Long YUAN

33: CN 31: 202110728066.2 32: 2021-06-29

**54: THE PREPARATION OF A HYALURONIC ACID-BASED SEQUENTIAL TARGETING FUNCTIONAL FACTOR DELIVERY SYSTEM AND ITS APPLICATION IN INFLAMMATORY BOWEL DISEASE**

00: -

The disclosure provides a kind of hyaluronic acid-based sequential targeting functional factor delivery system. The sequential targeting proanthocyanidins (PCs) delivery systems are prepared with amphiphilic stearic acid modified hyaluronic acid using cystamine dihydrochloride as a linker via an emulsion solvent evaporation approach for encapsulation of (5-carboxypentyl) (triphenyl) phosphonium bromide conjugated PCs. The delivery system could release PCs under the stimulation of glutathione, aggregate in the inflammatory sites and mitochondria, thus effectively alleviating the symptoms of inflammatory bowel disease. The hyaluronic acid delivery systems can be designed and prepared in a facile method with low price and mass production.



21: 2021/09414. 22: 2021/11/23. 43: 2022/04/12

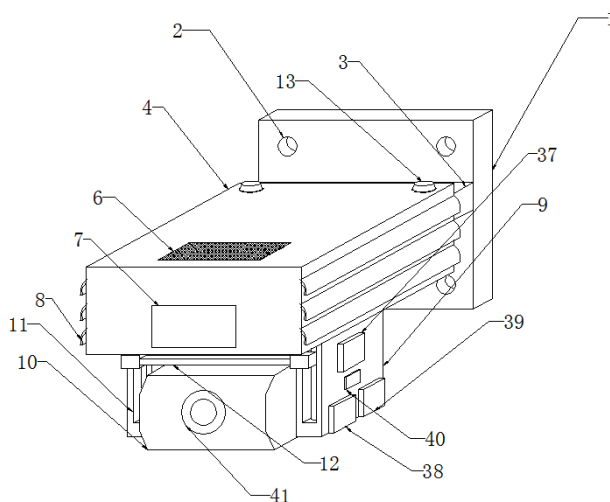
51: A01K; G06K

71: ANHUI SCIENCE AND TECHNOLOGY UNIVERSITY, TIANCHANG GOLDEN FEATHER POULTRY INDUSTRY CO., LTD.

72: ZHAO, CHUNFANG, JIN, ERHUI, YE, SHENGSHAN, REN, MAN, LI, SHENGHE

**54: MULTI-ANGLE DYNAMIC IMAGE ACQUISITION EQUIPMENT FOR POULTRY FARMING AND ENVIRONMENTAL MONITORING**  
00: -

The present invention belongs to the technical field of poultry farming, and particularly discloses multi-angle dynamic image acquisition equipment for poultry farming and environmental monitoring. The multi-angle dynamic image acquisition equipment comprises a fixing plate, fixed seat and image acquisition box. A slot is formed in the fixed seat. An inserting plate is inserted in the slot. An elastic limiting mechanism is arranged in the inserting plate. Elastic limiting ends of the elastic limiting mechanism penetrate through the longitudinal fixed seat. The other end of the inserting plate is connected with the fixing plate. A movable groove is formed in the fixed seat and a partition plate is arranged in the movable groove. A telescopic cleaning mechanism is arranged in the fixed seat to scour the image acquisition box in a harsh environment. An environmental parameter acquisition module is arranged on a mounting seat to acquire various environmental indicators.



21: 2021/09466. 22: 2021/11/24. 43: 2022/03/29

51: A61K

71: Dalian Polytechnic University

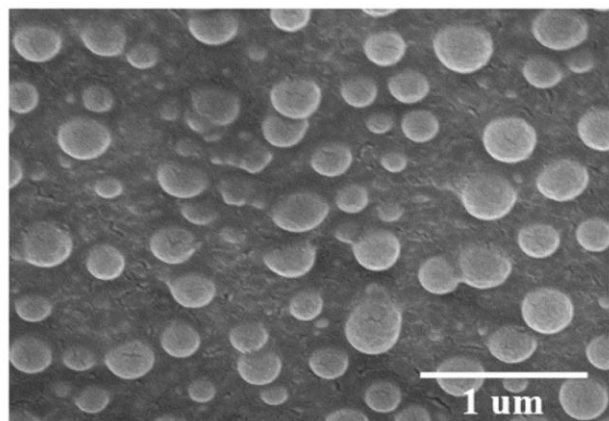
72: Mingqian TAN, Xuedi ZHANG, Xiaoting YU, Yannan CHEN, Kangjing LIU, Long YUAN

33: CN 31: 202110816654.1 32: 2021-07-20

**54: ROS STIMULATED RESPONSIVE ASTAXANTHIN NANOPARTICLE AND ITS PREPARATION METHOD AND APPLICATION**  
00: -

The disclosure discloses a ROS stimulated responsive astaxanthin nanoparticle and its preparation method and application. The main components include: 6%-10% w/w sodium alginate, 5%-12% w/w adipic dihydrazide, 10%-13% w/w 4-maleimidobutyric acid, 0.05%-0.2% w/w rhodamine 123, 60%-75% w/w polypropylene sulfide, 2%-10% w/w astaxanthin. The invention uses sodium alginate covalently combined with hydrophobic polypropylene sulfide to form a delivery system with amphiphilic property, which enables the transport and delivery of hydrophobic active factors by a self-assembly way. It has ROS stimulated responsive release property, which can promote the concentrated release of astaxanthin in the reactive oxygen enrichment site, so as to efficiently exert its biological efficacy, to fully enhance the bioavailability of nutrients, and to alleviate colonic inflammation more effectively.





21: 2021/09529. 22: 2021/11/25. 43: 2022/03/30  
51: A23L

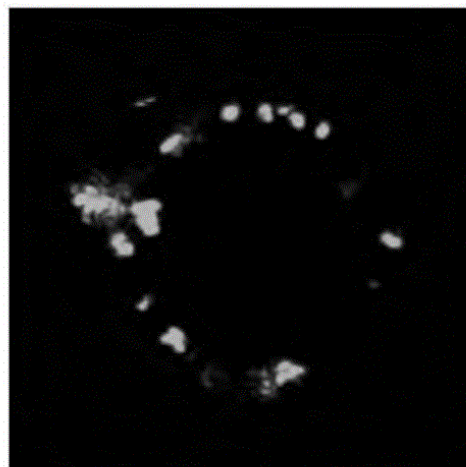
71: Qingdao Agricultural University

72: TANG, Wenting, PU, Chuanfen, SUN, Yue

**54: EMULSION STABILIZED BY LIPOSOME AND PREPARATION METHOD THEREOF**

00: -

The disclosure discloses an emulsion stabilized by liposome and a preparation method of the emulsion, and relates to the field of food processing. The preparation method of the emulsion stabilized by liposome includes the following steps: a liposome film is prepared, a dispersion liquid is prepared, a coarse emulsion is prepared, and the emulsion stabilized by liposome is prepared. The load rates of Vitamin E, Vitamin B2 and beta-carotene are improved by reasonably proportioning the components of the liposome and optimizing preparation steps and parameters. Meanwhile, the thermodynamic stability of the emulsion stabilized by liposome is improved, so that the emulsion may keep stable during ultrahigh-temperature instant sterilization, Vitamin B2, Vitamin E and beta-carotene in the emulsion are transported in a targeted mode, digestion and absorption are promoted, the effect of preventing maculopathy is achieved, and meanwhile, the beneficial health care function is achieved.



21: 2021/09539. 22: 2021/11/25. 43: 2022/03/30  
51: G06F

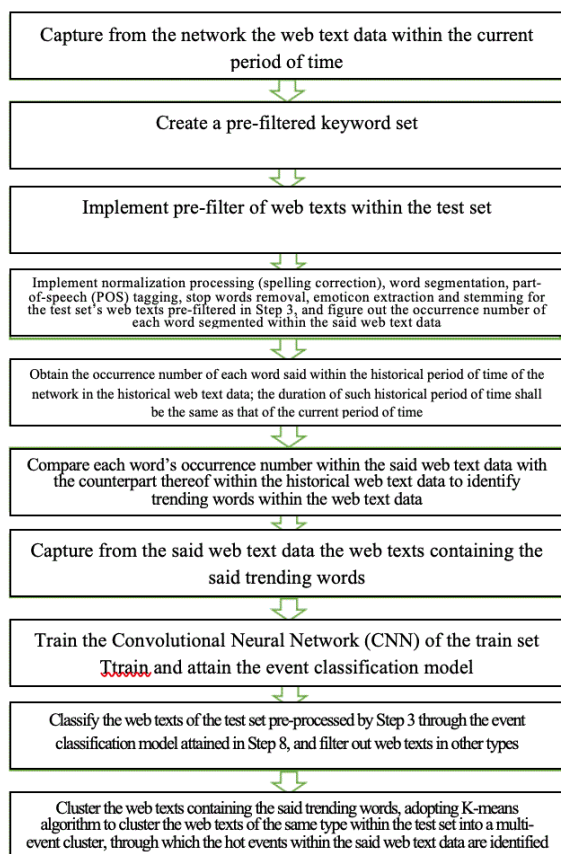
71: QINGDAO UNIVERSITY

72: HE, Ying, YANG, Tianjiao, ZHENG, Xin, YUN, Hongyan, ZHANG, Xiuhua

**54: A HOT-EVENT DETECTION METHOD UTILIZING THE CONVOLUTIONAL NEURAL NETWORK (CNN) AND THE KEYWORD CLUSTERING**

00: -

This invention is a kind of hot-event detection method utilizing the Convolutional Neural Network (CNN) and the keyword clustering, the features of which are: The following steps are included: capture from the network the web text data; create a pre-filtered keyword set; implement pre-filter of web texts within the test set; carry out word segmentation for the pre-filtered web texts within the test set and figure out the occurrence number of each word segmented within the web text data; compare each word's occurrence number within the said web text data with the counterpart thereof within the historical web text data to identify trending words within the web text data; capture from the web text data the web texts containing the said trending words; train the Convolutional Neural Network (CNN) and attain the event classification model; classify the processed web texts of the test set, and cluster the web texts containing the said trending words, adopting K-means algorithm to cluster the web texts of the same type within the test set into a multi-event cluster, through which the hot events within the said web text data are identified.



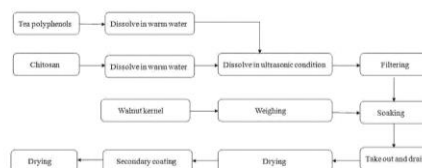
21: 2021/09570. 22: 2021/11/25. 43: 2022/03/29  
51: A61K

71: QINGDAO AGRICULTURAL UNIVERSITY  
72: LI, Xiaodan, WANG, Zetong, LI, Zhaoyang, XIAO, Junxia, GUO, Liping, HUANG, Guoqing  
**54: METHOD FOR CONTROLLING OXIDATION OF RAW NUTS**

00: -

The present invention discloses a method for controlling oxidation of raw nuts, comprising the following steps: (1) stirring and dissolving a film-forming material chitosan in a solvent to obtain a film-forming solution; (2) adding an antioxidant tea polyphenols to the film-forming solution and dissolving, performing ultrasonic treatment, sieving, to obtain a coating solution; (3) soaking nuts in the coating solution for a short period of time, and taking out and draining off; (4) drying the drained nuts in a blast air oven; (5) soaking the dried nuts in the coating solution for a short period of time again, then taking out and draining off, and performing forced-air drying. The present invention achieves the effect of controlling the oxidation of walnut kernels by adding natural antioxidant substances to the film-forming

solution and controlling the contact of the nuts with moisture and oxygen in the air after film formation.



21: 2021/09614. 22: 2021/11/26. 43: 2022/03/24  
51: A01N

71: Qingdao Agricultural University  
72: Zheng Xiaodong, Sun Zhijuan, Wang Caihong, Tian Yike, Ma Changqing

**54: APPLICATION METHOD OF NEW COMPOUND IN IMPROVING PLANT RESISTANCE TO SOIL ALUMINUM TOXICITY**  
00: -

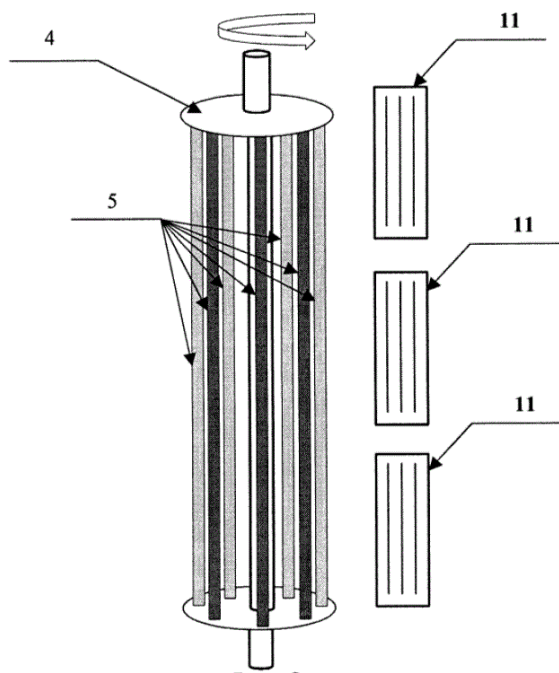
The invention discloses an application method of a new compound in improving plant resistance to soil aluminum poisoning, and relates to the technical field of plant planting, which includes: the application method of the new compound in improving plant resistance to soil aluminum poisoning. By adding the compound to a petri dish for plant cultivation, the activities of SOD, POD, and CAT in plants that are oppressed by aluminum poisoning can be significantly enhanced. That is, under normal growth and aluminum stress, the compound can significantly reduce the degree of oxidative damage to plants, thereby effectively removing ROS caused by aluminum stress, reducing root damage, and reducing the possibility of plant death due to aluminum toxicity. Furthermore, it solves the problem that the current compound application methods for treating and preventing plant aluminum poisoning have certain deficiencies and seriously affect the growth and development of plants.

21: 2021/09640. 22: 2021/11/26. 43: 2022/03/07  
51: C23C

71: JOINT-STOCK COMPANY "TVEL"  
72: ORLOV, Vladislav Konstantinovich, TITOV, Alexander Olegovich, KORNIENKO, Michail Yurjevich, KRASNOBAEV, Nikolay Nikolaevich, MASLOV, Alexander Alexandrovich, NOVIKOV, Vladimir Vladimirovich, SAENKO, Denis Sergeevich  
**54: METHOD OF ION-PLASMA APPLICATION OF CORROSION-RESISTANT FILM COATINGS ON ARTICLES MADE FROM ZIRCONIUM ALLOYS**

00: -

A method of ion-plasma application of corrosion-resistant film coatings on articles made from zirconium alloys includes placing articles in a planetary carousel mechanism, heating the articles, and ion-beam etching and surface activation of the articles using water-cooled unbalanced magnetrons. In addition, the surface of the articles is activated using an ion source which generates gas ions with an accelerating voltage of up to 5000 V and with feeding of a bias voltage to the articles. The coating is applied by using unbalanced and balanced magnetrons simultaneously with a residual induction of the magnetic field from 0.03 T to 0.1 T. The coating is applied to articles which are made from zirconium alloys and are placed vertically in a planetary carousel mechanism. The articles are heated in the coating application process to a temperature of 150 - 600 ° C, wherein the heaters are accommodated along the entire length of the articles. This produces corrosion-resistant film coatings of uniform thickness along the outer surface of articles made from zirconium alloys and raises productivity due to an increase in the discharge power density of magnetrons.



21: 2021/09666. 22: 2021/11/29. 43: 2022/03/24

51: G01N

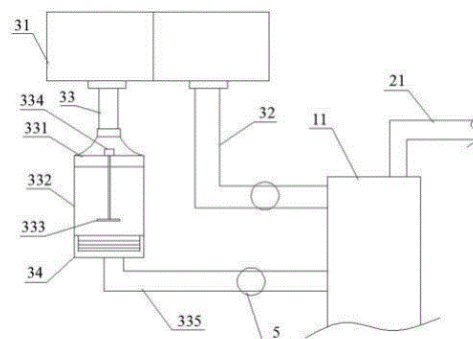
71: Inner Mongolia Agricultural University

72: LIU, Jiangping, XUE, Heru, CHEN, Chen, MA, Lili, HU, Pengwei

#### 54: DEVICE FOR DETECTING PROTEIN CONTENT IN DAIRY PRODUCT

00: -

The invention belongs to the field of food detection equipment technologies and relates to a device for detecting a protein content in a dairy product.



21: 2021/09667. 22: 2021/11/29. 43: 2022/03/24

51: G09B

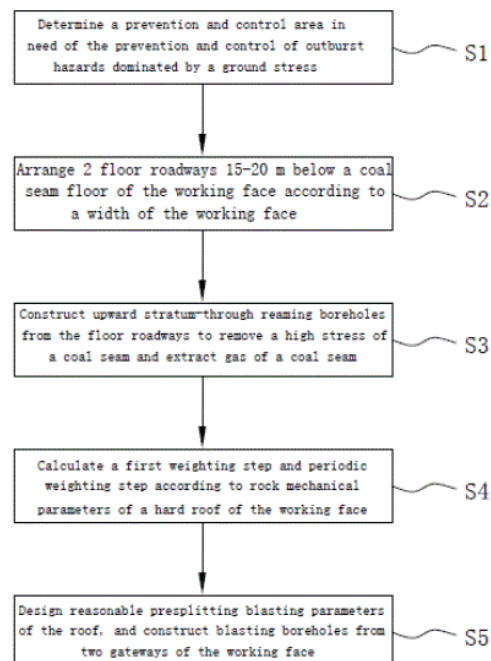
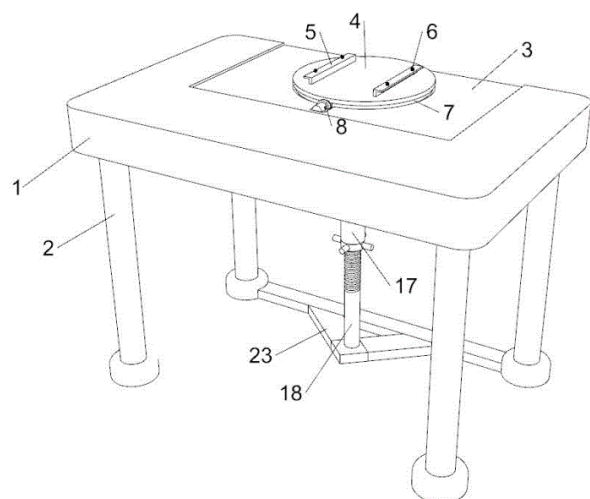
71: Linyi University, Jinzhongzheng Project Management Co., Ltd.

72: Song Xiaoyuan, Yuan Zhongxiang, Wang Jingbo, Ji Chaowen, Wu Jinyi, Chen Ben, Fan Jinjuan

#### 54: AN EXPERIMENTAL PLATFORM OF BIM BUILDING

00: -

The invention discloses an experimental platform of BIM building, including platform, supporting leg is installed at the bottom corner of platform, rotating installation plate is installed on platform, rotating installation table is installed on installation plate, installation groove is provided on the installation plate, positioning components are provided in the installation groove, track plate is installed in the middle of the bottom surface of installation plate, angle lifting structure is provided below track plate, by rotating installation plate is installed on the platform, and angle lifting structure is provided below the installation plate, so that in the process of use, the angle of installation plate needs to lift, in order to display the instrument better view and operation, rotates screw ring, drives the screw rod to lift the angle of installation plate, simple and convenient operation.



21: 2021/09671. 22: 2021/11/29. 43: 2022/03/24  
51: E21F

71: China Coal Technology and Engineering Group  
Chongqing Research Institute Co., Ltd., Shaanxi  
Shanmei Hancheng Mining Co., Ltd

72: LI, Shengzhou, LIU, Jun, ZHAO, Junli, WANG,  
Jianli, LI, Siqian, CHEN, Shaoxiang, WANG,  
Zhonghua, YUAN, Benqing, LI, Chengcheng, XU,  
Zunyu, LU, Zhanjin, XU, Junjian, HE, Linpeng,  
CHEN, Zhiyong, REN, Qihan

#### 54: METHOD FOR PREVENTING AND CONTROLLING OUTBURST DISASTERS DOMINATED BY GROUND STRESS OF HARD ROOF WORKING FACE

00: -

The present invention discloses a method for preventing and controlling outburst disasters dominated by a ground stress of a hard roof working face, including: firstly determining a prevention and control area in need of the prevention and control of outburst hazards dominated by the ground stress; arranging 2 floor roadways at 20 m below a coal seam floor of the working face according to a width of the working face; constructing upward stratum-through hydraulic reaming boreholes from the floor roadways, and extracting gas of the coal seam at the same time to reduce elastic energy and intrinsic gas energy concentrated inside the coal seam; and calculating a first weighting step and periodic weighting step, designing reasonable presplitting blasting parameters of the roof, and constructing blasting boreholes from two gateways of the working face to shorten the weighting step of the roof and reduce the weighting intensity of the roof.

21: 2021/09685. 22: 2021/11/29. 43: 2022/03/02  
51: A01N; C07K; C12N; C12R; A01P

71: Hainan Normal University, HSY Biotechnology Co., Ltd.

72: ZHANG, Wenfei, WU, Jiangyu, JIA, Luyu, HE, Jiali, FAN, Ziyu, CAI, Yuchen, ZHANG, Xudong, WANG, Ruiping

#### 54: NEW BACILLUS STRAIN HSY204 AND INSECTICIDAL GENES AND USE THEREOF

00: -

The present disclosure provides a new Bacillus strain HSY204 and insecticidal genes and use thereof. The new Bacillus strain HSY204 is classified and named as Bacillus cereus HSY204, and includes three new insecticidal protein genes. Biological activity tests show that, the strain HSY204 and insecticidal proteins thereof are highly toxic to Aedes aegypti larvae and have a significant impact on the growth of mosquitoes. Therefore, the strain HSY204 and the insecticidal proteins thereof can be used to control mosquitoes to effectively reduce the risk of large-scale propagations of mosquito-borne diseases.

21: 2021/09694. 22: 2021/11/29. 43: 2022/03/24  
51: C05F; C05G

71: Dongying Huake Agricultural Technology Co., Ltd.

72: CUI, Shujun, XU, Fengqin, SHAO, Guangjie



#### 54: SPECIAL FERTILIZER FOR RICE SEEDLING RAISING AND PREPARATION METHOD THEREOF

00: -

The present disclosure discloses a special fertilizer for rice seedling raising and a preparation method thereof. The special fertilizer for rice seedling raising is prepared from the following raw materials in parts by weight; 15-20 parts of straw powder, 15-20 parts of fucoidin, 10-15 parts of nano water-based adhesive, 5-10 parts of glycan polypeptide biological potassium, 0.3-0.7 part of proteoglycan, 10-15 parts of plant ash, 10-20 parts of hydrolytic active amino acid, 5-10 parts of rapeseed dregs, 2-3 parts of carbon enzyme, 10-20 parts of oyster shell powder, 5-10 parts of monoammonium phosphate, 3-5 parts of wood vinegar, 5-10 parts of 5-nitroguaiacol sodium salt, 5-10 parts of mixed bacterial liquid, 3-6 parts of boron amino acid chelate and 5-10 parts of triacontanol.

21: 2021/09705. 22: 2021/11/29. 43: 2022/03/30

51: B23C

71: QINGDAO UNIVERSITY OF TECHNOLOGY, QINGDAO KAWS INTELLIGENT MANUFACTURING CO. LTD.

72: LI, Changhe, SHI, Zhuang, QIN, Aiguo, LIU, Bo, CHEN, Yun, CAO, Huajun, ZHOU, Zongming, ZHANG, Naiqing, WU, Qidong, LU, Bingheng, GAO, Teng, ZHANG, Yanbin, YANG, Min, LIU, Mingzheng, WANG, Xiaoming

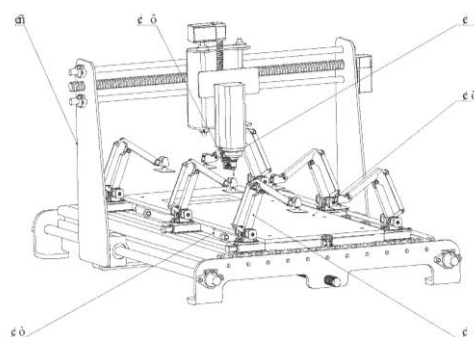
33: CN 31: 202110555381.X 32: 2021-05-20

#### 54: POSITIONING SYSTEM WITH ADJUSTABLE CLAMPING FORCE AND MILLING EQUIPMENT FOR RAIL TRANSIT HONEYCOMB WORKPIECE

00: -

The present invention discloses a positioning system with an adjustable clamping force and a milling equipment for a rail transit honeycomb workpiece. The positioning system includes: a positioning apparatus, including a positioning table to support a workpiece; and a clamping apparatus, including a turntable, where the turntable is fixedly disposed on a periphery of the positioning table, a top of the turntable is connected to a mechanical arm, a pressure plate is disposed at an end of the mechanical arm, and the pressure plate is capable of cooperating with the positioning table to clamp the workpiece, where there are a plurality of clamping apparatuses, working regions of adjacent clamping

apparatuses have an intersection, and working regions of all the clamping apparatuses are capable of covering a machining surface of the workpiece; and when machining is performed in an intersection region, a clamping apparatus corresponding to the region clamps the workpiece.



21: 2021/09804. 22: 2021/12/01. 43: 2022/02/22

51: E21B

71: VAN ASWEGEN, Hendrik Willem Troskie, VAN DER MERWE, Willem Johannes Jacobus

72: VAN ASWEGEN, Hendrik Willem Troskie

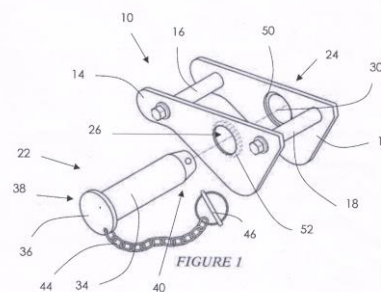
33: ZA 31: 2021/03606 32: 2021-05-27

33: ZA 31: 2021/06215 32: 2021-08-27

#### 54: SAFETY AND CONTROL DEVICE

00: -

A device for use with a support structure and a drilling machine which is mounted to the support structure for pivotal movement about an axis, the device including a first stop member for preventing pivotal movement of the drilling machine about the axis in a first direction beyond a first stop position.



21: 2021/09898. 22: 2021/12/02. 43: 2022/03/29

51: F04D

71: Anhui Jinwan Pump Technology Co., Ltd.

72: ZHU, Jie, NI, Hualong, CHEN, Xiang, HOU, Yueli

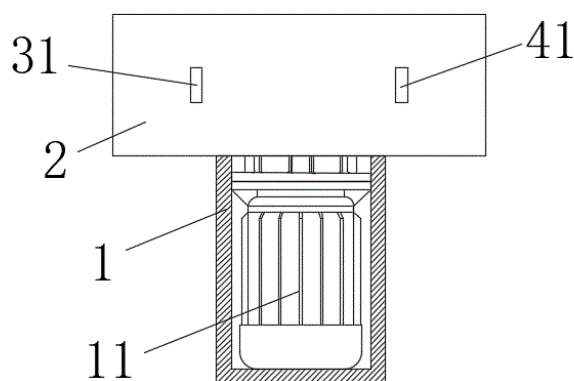


33: CN 31: 2021109760240 32: 2021-08-24

**54: AN INDUSTRIAL PUMP WITH A SAFETY PROTECTION MECHANISM**

00: -

The invention relates to the technical field of industrial pump, in particular to an industrial pump with a safety protection mechanism, comprising a housing and a cylinder, wherein one end of the housing is arranged with a port box, the cylinder is arranged inside the housing, a water-inlet end and a water-outlet end of the cylinder are arranged inside the port box, the top of the port box is provided with an electric control box, a level is arranged at bottom inside the port box, and a shock absorbing assembly is arranged below the housing. In the invention, shock absorbing assembly is arranged on bottom of the industrial pump, due to the industrial pump water inlet and water outlet in use are rigid connection, thereby in the operation process of the pump, it will produce vibration because of the action of the cylinder, which is easy to produce irreversible effects on the industrial pump, and by providing the shock absorbing assembly, can avoid the problems that the industrial pump produces irreversible effects in the operation process because of the vibration.



21: 2021/09944. 22: 2021/12/03. 43: 2022/03/24

51: G01L

71: QINGDAO UNIVERSITY OF TECHNOLOGY

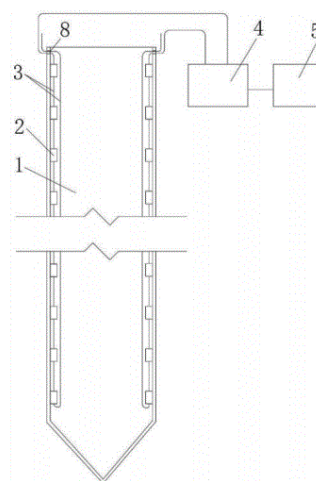
72: BAI, Xiaoyu, YAN, Nan, ZHANG, Li, ZHOU, Haizuo, XU, Shaoshuai, SUN, Linna, YU, Longtao, MI, Jinwei, LI, Cuicui, LV, Chenglu

**54: PILE BODY STRESS TESTING METHOD FOR MICRO STEEL PIPE PILE**

00: -

The present disclosure relates to a pile body stress testing method for micro steel pipe pile, which

belongs to a technical field of geotechnical in-situ test, in particular to a pile body stress testing method for micro steel pipe pile. The test process is simple, the measurement accuracy is high, the sensitivity is high, the error is small, the anti electromagnetic interference ability is strong, the survival rate is high, and it is easy to realize quasi- distributed and automatic monitoring.



21: 2021/10022. 22: 2021/12/06. 43: 2022/03/15

51: G06Q

71: Dr. Namita Mishra, Dr. Anita Sharma, Dr. Richa Nangia, Dr. Richa Arora, Dr. Rama Sharma, Dr. Pankaj Sharma, Dr. Sonia Gupta, Nikita Tomar, Ajay Bhardwaj, Dr. Ritwik Sahai Bisariya, Dr. Nitin Saxena, Dr. Kirti Jainani, Dr. Madhavendra Nath Jha, Dr. Leena Jenefa, Prof. Ramesh Chandra Panda

72: Dr. Namita Mishra, Dr. Anita Sharma, Dr. Richa Nangia, Dr. Richa Arora, Dr. Rama Sharma, Dr. Pankaj Sharma, Dr. Sonia Gupta, Nikita Tomar, Ajay Bhardwaj, Dr. Ritwik Sahai Bisariya, Dr. Nitin Saxena, Dr. Kirti Jainani, Dr. Madhavendra Nath Jha, Dr. Leena Jenefa, Prof. Ramesh Chandra Panda

**54: A METHOD FOR IMPLEMENTATION OF DONATION BASED CROWD FUNDING TO SUPPORT RIGHT TO EDUCATION**

00: -

The present invention relates to a method (100) for the implementation of donation-based crowdfunding to support the right to education. The method (100) includes six steps. The first step (104) is to form a student's committee for IC & SR. The second step (106) is to create networking with the donor. The third step (108) is to create networking with

institutions. The fourth step (110) is to select needy students by the principals of the institute. The fifth step (112,114) is to the distribution of the funds to beneficiaries. The sixth step (116) includes a live project assessment for students' members. The present invention provides the method (100) for the implementation of donation-based crowdfunding to support the right to education which includes better funding and savings.

21: 2021/10027. 22: 2021/12/06. 43: 2022/03/30  
51: B01D

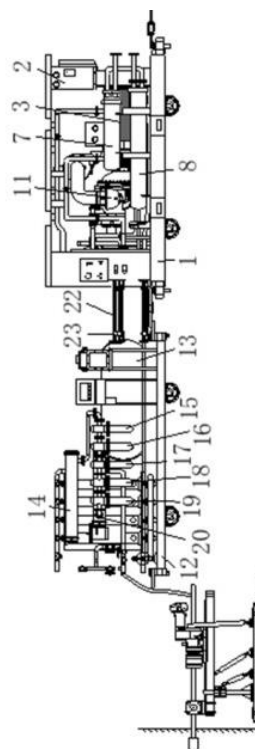
71: SHENYANG COAL SCIENCE RESEARCH INSTITUTE CO., LTD

72: ZHU, Zhao, LI, Yanfu, CHEN, Cheng, LI, Baocun, ZHU, Qi, HOU, Junwei, LIU, Yu, TAI, Weiwei, WANG, Wenxue, MENG, Xiangjun, BAI, Xue, SUN, Xiaodong, ZHU, Mingliang, CAO, Peng, HUA, Mingchi, HE, Guangjie, SUN, Na, WANG, Gang

#### **54: MOBILE NITROGEN GENERATING DEVICE IN UNDERGROUND COAL MINE AND PROCESS THEREOF**

00: -

The present disclosure provides a mobile nitrogen generating device in an underground coal mine and a process thereof, and belongs to the technical field of underground nitrogen generation. The mobile nitrogen generating device includes an air compression mechanism, a membrane separation nitrogen generating mechanism, and an expansion and retraction constraining component. According to the mobile nitrogen generating device in the underground coal mine and a process thereof, the air is filtered and compressed through the air compression mechanism to obtain the high-pressure air, and the high-pressure nitrogen is then generated through the membrane separation nitrogen generating mechanism, so that the needs of medium and long boreholes in the underground coal mine can be fully met; meanwhile, the pressure loss in the nitrogen conveying process can be compensated, and the nitrogen slagging effect in the drilling process is enhanced; a filter plate can be replaced in a non-stop state.



21: 2021/10068. 22: 2021/12/07. 43: 2022/03/24  
51: B07B

71: Qinghai Huashi Technology Investment Management Co., Ltd., Qinghai Zhongcheng Food Testing Co., Ltd., Qinghai Huashi Highland Barley Biological Technology Development Co., Ltd.

72: DU, Yan, LIANG, Feng, ZHANG, Falin, LIU, Yu, JI, Chengjun, WU, Jing, WAN, Youcun, ZHANG, Jianling, FAN, Meixiang

#### **54: SPECIAL SCREENING MACHINE FOR HIGHLAND BARLEY**

00: -

The present disclosure discloses a special screening machine for highland barley, and relates to the technical field of food production devices. The present disclosure comprises a screening kinetic energy structure and a multi-stage screening structure, wherein one side of the top of the screening kinetic energy structure is fixedly connected with the multi-stage screening structure, the screening kinetic energy structure is used to provide long-distance and high-stroke screening kinetic energy for screening, and the multi-stage screening structure is used for multi-stage screening of highland barley. The present disclosure further comprises a turnover cooling structure. According to the present disclosure, through the matching design

of the screening kinetic energy structure and the multi-stage screening structure, it is convenient for the device to complete the automatic high-efficiency multi-layer reciprocating screening of highland barley according to the particle size, greatly improving the quality control effect of highland barley.

21: 2021/10077. 22: 2021/12/07. 43: 2022/03/17  
51: H01F

71: Foshan Mingfuxing Metal Materials Co., Ltd.

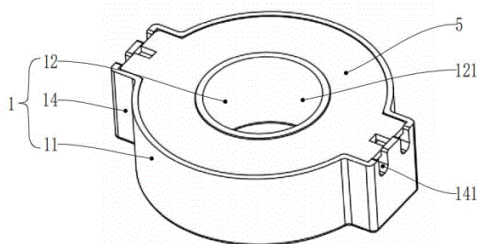
72: Mingxing CAI

33: CN 31: 2021111862064 32: 2021-10-12

#### **54: BIPOLAR CURRENT TRANSFORMER**

00: -

A bipolar current transformer comprises a housing, a hollow coil, a solid coil, a sponge, a top cover, a first wire and a second wire, wherein the housing is provided with a first through hole; the hollow coil, the solid coil and the sponge are all arranged in the housing; the sponge is positioned between the hollow coil and the solid coil; the solid coil is positioned above the hollow coil; the first wire is connected to the hollow coil; the second wire is connected to the solid coil; the top cover is covered in the housing; and the top cover penetrates through the second through hole. The invention provides a bipolar current transformer according to the above contents, which solves the problems that the current transformer in the prior art can only monitor large current or small arc, the monitoring quality is low and the universality is poor.



21: 2021/10243. 22: 2021/12/10. 43: 2022/03/30  
51: A01N

71: Dalian Ocean University

72: Chang Yaqing, Zhan Yaoyao, Zhao Tanjun,  
Zhang Weijie, Song Jian

#### **54: METHOD OF RAPID VITRIFIED CRYOPRESERVATION AND RECOVERY OF STRONGYLOCENTROTUS INTERMEDIUS EMBRYO**

00: -

The disclosure discloses a method for rapid vitrified cryopreservation and recovery of the embryo of the Strongylocentrotus intermedius, which is characterized in that dimethyl sulfoxide (DMSO), methanol (MeOH) and 1,2-propylene glycol (1,2-PG) are mixed with filtered sterilized seawater, precooled at 2 degree Celsius for 15 min, and the volume concentrations of DMSO, methanol and propylene glycol are 1.0-2.0 percent, 1.5-2.0 percent and 1.5-2.0 percent respectively. The recovery method includes thawing with 25 degree Celsius waterbath, etc. The intact rate of embryo gastrula of the thawed sea urchin can reaches 47.81 percent, which embodies the advantages of high intact rate of embryo gastrula, easy operation and low cost of the method.

21: 2021/10286. 22: 2021/12/10. 43: 2022/02/11  
51: C22B; C21C

71: CHENGDU ADVANCED METAL MATERIAL  
INDUSTRIAL TECHNOLOGY RESEARCH  
INSTITUTE CO., LTD.

72: CHEN, LIAN, YANG, SENXIANG, DIAO, JIANG,  
GE, WENSUN

33: CN 31: 201910398310.6 32: 2019-05-14

#### **54: METHOD FOR VANADIUM EXTRACTION BY DIRECT LEACHING OF SODIUM-CONTAINING VANADIUM SLAG IN MOLTEN IRON**

00: -

The invention relates to a method for vanadium extraction by direct leaching of sodium-containing vanadium slag in molten iron, belonging to the field of ferrous metallurgy and chemical engineering of vanadium and titanium. The technical problems to be solved by the invention are low oxidation rate and great heat loss of vanadium during producing vanadium slag. The invention discloses a method for vanadium extraction by direct leaching of sodium-containing vanadium slag in molten iron, comprising the following steps: putting molten iron into a converter for Phase-I blowing and oxidation first and adding coolant and soda ash during the blowing, and then pouring out the semi-steel after completing the Phase-I blowing, leaving the sodium-containing vanadium slag in the converter for Phase-II blowing and oxidation, at last carrying out water leaching after completing the blowing and oxidation to obtain a vanadium-containing leachate. The invention shortens the procedures of producing vanadium-

containing leachate with molten iron, improves the oxidation rate of vanadium and reduces energy consumption during the process, which facilitates resource utilization and lowers the cost of vanadium extraction, so that enterprises can save cost and increase revenue.

21: 2021/10287. 22: 2021/12/10. 43: 2022/02/11  
51: C21C; C22B

71: CHENGDU ADVANCED METAL MATERIAL INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE CO., LTD.

72: CHEN, LIAN, ZHOU, HAILONG, DIAO, JIANG, GE, WENSUN

33: CN 31: 201910409630.7 32: 2019-05-16

**54: METHOD FOR PRODUCING CALCIUM-CONTAINING VANADIUM SLAG BY ADDING LIME TO CONVERTER WITH MOLTEN IRON AND LEACHING METHOD THEREFOR**

00: -

The invention discloses a method for producing calcium-containing vanadium slag by adding lime to converter with molten iron and a leaching method therefor, belonging to the technical field of metallurgy with heavy metal vanadium. To address the problems in the prior art such as tedious process of producing vanadium-containing leachate from molten iron, low vanadium oxidation rate in vanadium extraction in converter and huge energy consumption, the invention provides a method for producing calcium-containing vanadium slag by adding lime to converter with molten iron and a leaching method therefor, comprising the following steps: putting molten iron into a converter first and adding coolant and lime, and then blowing oxygen at the top and nitrogen at the bottom; after finishing the blowing, leaving the vanadium slag in the converter, changing the gas for bottom blowing to oxygen, adding  $\text{CaF}_2$  to generate calcium-containing vanadium slag from which a leachate is obtained with acid leaching. The invention combines calcium roasting with vanadium extraction in converter, which shortens the process flow of producing vanadium-containing leachate with molten iron. In addition, it reduces the energy consumption as there is no need to re-roast the vanadium slag after cooling, and significantly improves the oxidation rate and leaching rate of vanadium.

21: 2021/10378. 22: 2021/12/14. 43: 2022/03/02  
51: C08K; C08L

71: Anhui University Of Science and Technology  
72: LU, Yiheng, WANG, Bing, LI, Kang, XUE, Mengyao, CHEN, Yan, MA, Longjuan

**54: COMPOUND HEAT STABILIZER CONTAINING ORGANOTIN, CALCIUM-ZINC AND TITANIUM AND USE THEREOF**

00: -

The present disclosure discloses a compound heat stabilizer containing organotin, calcium-zinc and titanium and use thereof. The compound heat stabilizer is compounded by a main stabilizer and auxiliary stabilizers; the main stabilizer is selected from the group consisting of methyltin mercaptide, octyltin mercaptide, butyltin mercaptide and dioctyltin dilaurate; and the auxiliary stabilizers are commercially available calcium-zinc, dipentaerythritol, butyl titanate and nano titanium dioxide (nano- $\text{TiO}_2$ ). In the present disclosure, a synergistic stabilizing effect among the commercially available calcium-zinc, the dipentaerythritol, the butyl titanate and the nano- $\text{TiO}_2$  can reduce an amount of the methyltin mercaptide used, with an effect better than using a methyltin mercaptide stabilizer alone. The compound heat stabilizer can effectively improve polyvinyl chloride (PVC) stability, and has a potential of environmental photodegradation.

21: 2021/10392. 22: 2021/12/14. 43: 2022/04/06  
51: G01S

71: XIJING UNIVERSITY

72: WANG, YANWEN, ZHOU, FENG, SHEN, ZHOU, ZHAO, PEIYAN, WANG, YU, LEI, XIAOLONG, MA, XIAOFAN

33: CN 31: 202111235531.5 32: 2021-10-22

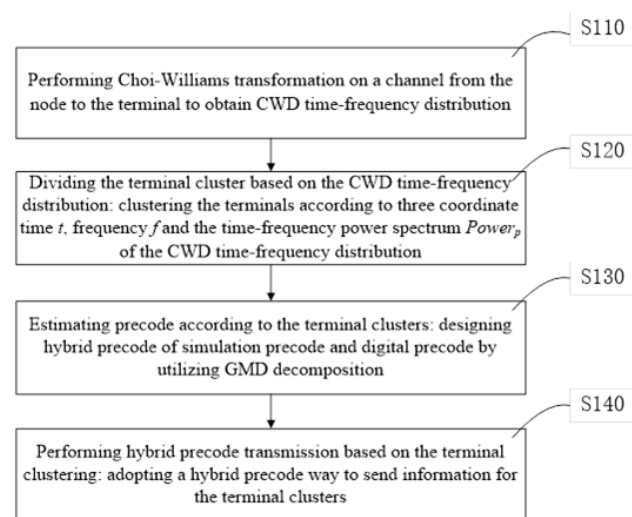
**54: TERMINAL CLUSTER INDOOR POSITIONING METHOD AND POSITIONING SYSTEM BASED ON TIME-FREQUENCY ANALYSIS**

00: -

The present invention discloses a terminal cluster indoor positioning method and positioning system based on time-frequency analysis. A terminal cluster-based indoor positioning system corresponding to the method includes an indoor access node Ta and a plurality of terminals Qp, wherein p is a serial number of the terminal, a is a serial number of the node; at least four nodes T1, T2, T3 and T4 that are not on a same plane are included; the node is a base station around a to-be-positioned environment; the terminal indicates any to-be-positioned terminal of the plurality of terminals in an area, and the terminal has a read-write



function. The positioning method includes: (S100) sending, by the node, information in a hybrid precode way; (S200) detecting, by the terminal, a signal received from the node Ta; and (S300) estimating a three-dimensional spatial position of the terminal Q1.



21: 2021/10483. 22: 2021/12/15. 43: 2022/04/06

51: A23L; A61K; A61P

71: JIANGNAN UNIVERSITY

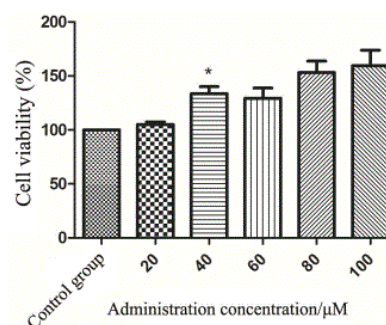
72: QIU, Liying, SHI, Xuelin, HOU, Bao, CAI, Weiwei, NI, Lulu, ZHOU, Yuetao

33: CN 31: 201910945579.1 32: 2019-09-30

#### **54: LIGNAN GLYCOSIDE COMPOUND FROM BARK OF ALBIZIA JULIBRISSIN FOR PROMOTING ENDOTHELIAL CELL PROLIFERATION AND USE THEREOF**

00: -

Provided is use of Icarisid E5 in promoting endothelial cell proliferation and migration and promoting angiogenesis. It is proved by experiments that 24 hours after administration of said compound in 40 micronM, HUVEC cell activity can increase to 133.65 percentage of the activity of the control. The compound can significantly promote cell migration, and promote wound healing in vivo experiments. The prepared monomer compound Icarisid E5 can significantly promote cell proliferation viability and promote the HUVEC cell migration and self-replication, and can be used to transfer exogenous angiogenesis-inducing factors into tissues, promote angiogenesis, and enhance the cell proliferation ability.



21: 2021/10508. 22: 2021/12/17. 43: 2022/03/28

51: A01K

71: Hainan Academy of Ocean and Fisheries Sciences

72: FU, Shuyuan, GUO, Yilan, WANG, Yongbo, GAO, Jin, TAN, Wei

#### **54: CHEILINUS UNDULATUS CONSERVATION METHOD**

00: -

The invention, belonging to the technical field of tropical rare marine fish culture, in particular discloses a cheilinus undulatus conservation method. A conservation group with a conservation density less than or equal to 5 kg/m<sup>3</sup> is constructed in each conservation pool; in the conservation group, (the largest weight of cheilinus undulatus)/(the second largest weight of cheilinus undulatus) is more than or equal to 3. Through constructing a stable conservation group, the cheilinus undulatus conservation method of the invention can effectively prevent mutual killing behavior among cheilinus undulatus individuals, reduce conservation loss and improve conservation survival rate, and meanwhile properly increase conservation density, reduce conservation cost and improve conservation efficiency.

21: 2021/10509. 22: 2021/12/17. 43: 2022/03/28

51: G01N

71: East China Normal University

72: LI, Yue, YANG, Jing, DENG, Hua, QU, Jianguo

#### **54: METHOD FOR DETECTING HEAVY METALS IN POLYETHYLENE PLASTICS**

00: -

The present disclosure provides a method for detecting heavy metals in polyethylene plastics. After mixing a polyethylene plastic sample with concentrated nitric acid and hydrogen peroxide, the



polyethylene plastic sample can be digested quickly and completely by pre-digestion and digestion. The method consumes few samples and the amount of reagents is small, and is suitable for analysis of multiple elements. Meanwhile, the obtained digestion solution is tested with ICP-OES, then heavy metals in the digestion solution can be detected with high sensitivity and high precision.

21: 2021/10510. 22: 2021/12/17. 43: 2022/03/28  
51: A01C

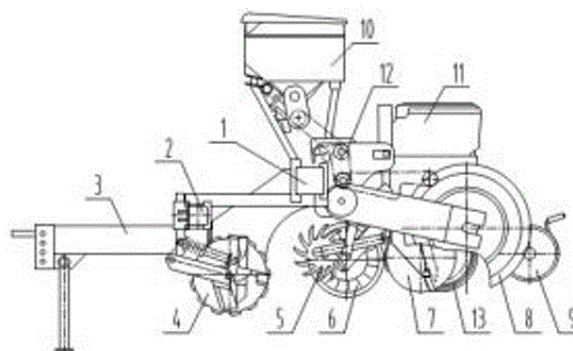
71: Heilongjiang Academy of Agricultural Machinery Sciences

72: Liang Yucheng, Xu Jianping, Xie Yufeng, Lin Juntang, Sun Shiming, Jin Xiaoyan, Yang Jinzhuan, Ye Tong, Xing Lulu, Li Cunbin, Lan Haitao, Wang Haiyang, Nie Meiling, Qi Zhongjun, Hao Lei, Wang Tao, Zou Xuejian, Wang Xiaoyong, Li Dexin, Zhou Weiyang

#### **54: TRACTION TYPE NO-TILLAGE PRECISION SEEDER**

00: -

The invention discloses a traction no-tillage precision seeder, aiming at providing a traction no-tillage precision seeder with low production cost and good operation quality. The traction no-tillage precision seeder comprises a main cross beam, ground wheels, a fertilizer box, a seed box and a transmission system installed on the main cross beam, wherein an auxiliary cross beam is arranged in front of the main cross beam, a traction beam is arranged on the auxiliary cross beam along the longitudinal direction, a notched disk fertilizing furrower is arranged on the auxiliary cross beam, and the traction beam is located behind the notched disk fertilizing furrower, and a corrugated disk, a double disk furrower, a copy soil covering device and a V-shaped compacting device are sequentially arranged on the main cross beam from front to back. The invention is suitable for tillage-free sowing in the original stubble of dry land.



21: 2021/10511. 22: 2021/12/17. 43: 2022/03/28  
51: E21B

71: Taiyuan University of Technology

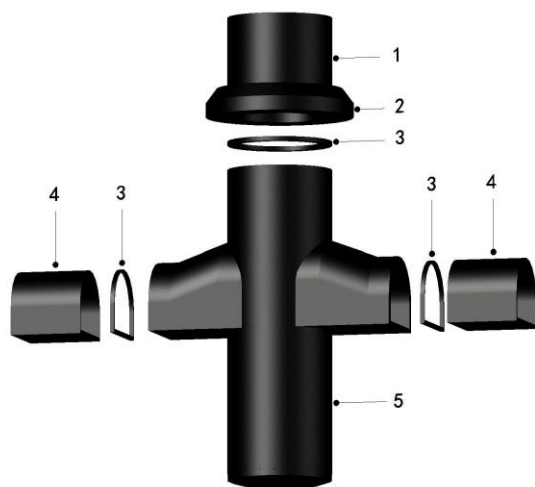
72: Xiang Li, Zhishu Yao, Kun Hu, Hui Li

#### **54: NEW LINING STRUCTURE AT INGATE OF DEEP WELL**

00: -

The invention discloses a novel lining structure at the deep well ingate: (1) the lining structure within 10 m above the deep well ingate and 10 m horizontally adopts steel fiber reactive powder concrete structure, and the concrete strength grade is 120 MPa; (2) A circle of continuous convex downward flat skirt wall seat is arranged on the outer wall of the shaft wall at the position of 5 m above the upper mouth of the ingate; (3) The lower end of the wall seat and the end of the horizontal lining of the ingate are provided with a circle of full-section isolation joints and filled with waterproof asphalt. The lining structure is a steel fiber reactive powder concrete structure with inner and outer steel bars, that is, steel fibers are mixed into the reactive powder concrete, and inner and outer steel bars are arranged in the reactive powder concrete. Because of the complex stress of the lining structure at the ingate, concrete is not only subjected to compressive stress, but also to tensile stress and shear stress. Besides, construction disturbance frequently affects the strength of the lining structure, and the lining structure is prone to crack. Therefore, the use of steel fiber reactive powder concrete instead of ordinary concrete at the ingate of deep well is to improve the material strength, the skirt-shaped annular wall seat is to reduce the structural pressure, and the asphalt buffer layer is to buffer the upper pressure and horizontal construction disturbance, so as to finally improve the structural

bearing capacity, eliminate stress concentration and enhance anti-disturbance.



21: 2021/10512. 22: 2021/12/17. 43: 2022/03/30  
51: A23B; B32B; B65D; C08K; C09K  
71: Guizhou Normal University  
72: LI, Li, WANG, Xulin, HU, Xian, CHEN, Zhengwei, LUO, Lilin, WEI, Yun

33: CN 31: 202111270417.6 32: 2021-10-29

#### **54: SOXHLET EXTRACTION METHOD FOR CHAENOMELES PLANT SEED OIL**

00: -

The present disclosure provides a soxhlet extraction method for a chaenomeles plant seed oil. The method mainly comprises steps of: putting treated papaya seeds into a soxhlet extractor, adding an organic solvent, carrying out extraction for 2h at a temperature set to 40-55 degrees centigrade, and then carrying out extraction for 4h at a temperature set to 75-85 degrees centigrade; subsequently, after an extraction device is cooled for a period of time, washing the soxhlet extractor with a corresponding organic solvent; and finally, evaporating extract liquid at temperatures respectively set according to types of added organic solvents, and carrying out condensation reflux, to obtain an oil sample after the solvents are volatilized. Papaya seed oil extracted by using the method for extracting papaya seed oils provided by the invention has a quality meeting edible standards, contains multiple fatty acids and has multiple healthcare functions.

21: 2021/10513. 22: 2021/12/17. 43: 2022/03/30  
51: C12N; C12Q

71: Fuwai Hospital Chinese Academy of Medical Sciences

72: LIU, Yaxin, ZHANG, Di, DONG, Xueqi, YANG, Kunqi, ZHOU, Xianliang, WANG, Linping, GAO, Linggen, QU, Yi, HU, Yuxiao, YANG, Chunxue

#### **54: GENETIC MARKER FOR DIAGNOSIS OF LIDDLE SYNDROME AND USE THEREOF IN PREPARATION OF DIAGNOSTIC KIT FOR LIDDLE SYNDROME**

00: -

The present disclosure relates to a genetic marker for diagnosis and treatment of Liddle syndrome and use thereof in preparation of a diagnostic kit for the Liddle syndrome. The marker is a SCNN1G gene fragment carrying a mutation site c.1711G>T. The present disclosure realizes early diagnosis of a patient with Liddle syndrome and early detection of disease-causing genes carried by family members, and provides a pre-pregnancy screening kit for genetic diseases. The kit can guide childbirth according to genotypes of both parents and block the genetic inheritance of the disease-causing genes.

21: 2021/10514. 22: 2021/12/17. 43: 2022/03/28  
51: F42B

71: North University of China

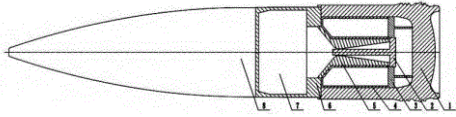
72: ZHAO, Xiaoyao, CHEN, Zhigang, PAN, Yutian, WANG, Baoguo, GUO, Baoquan, ZHAO, Yongjuan

#### **54: ARTILLERY PROJECTILE WITH SEPARABLE PROJECTILE BASE FOR REDUCED MASS AND EXTENDED RANGE**

00: -

An artillery projectile with a separable projectile base for reduced mass and extended range sequentially includes a warhead, a solid engine and a separable projectile base mechanism. The solid engine includes a solid engine shell, a solid engine cartridge, a spray pipe and a solid engine igniter. The solid engine cartridge is disposed in the solid engine shell. The separable projectile base mechanism includes a projectile base, a base bleed shell and a base bleed igniter. The separable projectile base mechanism is separated from the projectile by utilizing gas generated by base bleed charging and solid engine charging, and the solid engine continues to push the remaining effective load for flying. The negative mass in the flying process of the projectile is effectively reduced through the separable projectile base mechanism,

so the purpose that the flying distance of the projectile is longer under the same charging condition is achieved.



21: 2021/10515. 22: 2021/12/17. 43: 2022/03/25  
51: G01N; G01V

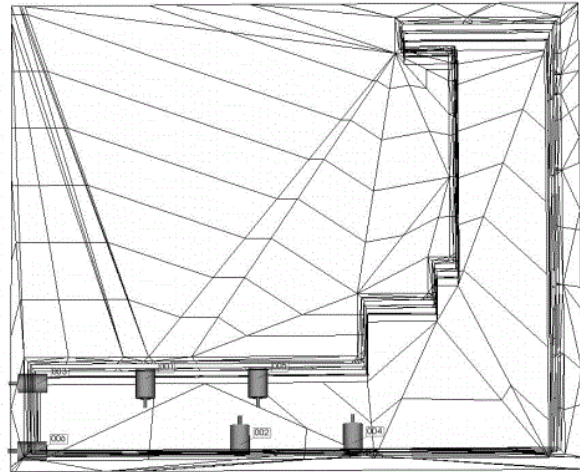
71: QINGDAO UNIVERSITY OF TECHNOLOGY,  
CHINA RAILWAY 19TH BUREAU GROUP FIFTH  
ENGINEERING CO., LTD.

72: LIU, Fei, ZHANG, Yongjun, YAN, Mingdong,  
ZHU, Ming, MA, Tianhui, TANG, Chun'an, MIAO,  
Jijun, WANG, Yan, WU, Honggang, DU, Mingqing,  
LIU, Sijia, LIU, Dejin, NI, Xiangyang, ZHAO, Jie,  
ZHANG, Weiguo

**54: ROCK MASS DAMAGE MONITORING  
METHOD IN ROCK FOUNDATION PIT  
EXCAVATION PROCESS**

00: -

The present disclosure relates to a rock mass damage monitoring method in rock foundation pit excavation process, which specifically includes: performing a three-dimensional numerical simulation on a foundation pit and determining a microseismic monitoring area in combination with monitoring information during construction; in the monitoring area, preliminarily determining X layout schemes of the microseismic sensor, and selecting an optimal layout scheme through a large number of simulation experiments; deploying a positon to install the determined sensor; placing a microseismic monitoring base station on the upper part of the foundation pit; connecting the installed microseismic sensor to the monitoring base station through optical fiber; performing blasting positioning test, debugging system parameters and checking positioning error after an installation of the microseismic sensor; evaluating the current rock mass damage degree of foundation pit according to the monitoring data of the microseismic base station.



21: 2021/10516. 22: 2021/12/17. 43: 2022/03/25  
51: G06F; G06Q

71: QINGDAO UNIVERSITY OF TECHNOLOGY  
72: ZHANG, Yongjun, MIAO, Jijun, SUN, Mengzhuo,  
HU, Tongxu, XIAO, Jianzhuang, CHEN, Bing, LIU,  
Yanchun, LIU, Hongzhi, HUA, Yuan, JIA, Wei, WU,  
Honggang, ZHANG, Weiguo

**54: BIM STANDARDIZED MODELING METHOD  
FOR HIGH-SPEED RAILWAY SWIVEL BRIDGE**

00: -

The present disclosure provides a BIM (Building Information Modeling) standardized modeling method for a high-speed railway swivel bridge. The method comprises steps of data preparation, reasonable software selection, creation of a bridge cast-in-place structural element, creation of a spherical hinge prefabricated element, creation of a site temporary facility, creation of a site layout model, fine correction, model space integration, and the like.

21: 2021/10517. 22: 2021/12/17. 43: 2022/03/30  
51: E05B

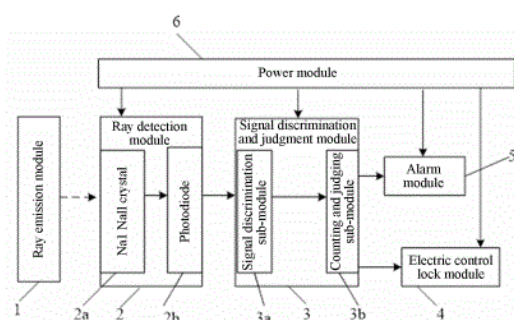
71: Southwest University  
72: LI, Jiaxing, LIU, Pingping

**54: DOOR LOCK SYSTEM BASED ON WEAK  
RADIOACTIVE SOURCE**

00: -

The present disclosure discloses a door lock system based on a weak radioactive source. The door lock system comprises a key part and a door lock part, wherein the key part comprises a ray emission module, which is configured to emit gamma rays; the door lock part comprises: a ray detection module; a signal discrimination and judgment module, and the

signal discrimination and judgment module is electrically connected with the ray emission module; an electric control lock module, which is configured to perform unlocking operation based on the unlocking control signal and is electrically connected with the signal discrimination and judgment module; a power module, which is electrically connected with the ray detection module, the signal discrimination and judgment module, and the electric control lock module and configured to supply power to the ray detection module, the signal discrimination and judgment module, and the electric control lock module.



21: 2021/10518. 22: 2021/12/17. 43: 2022/03/30  
51: B60C; G01M

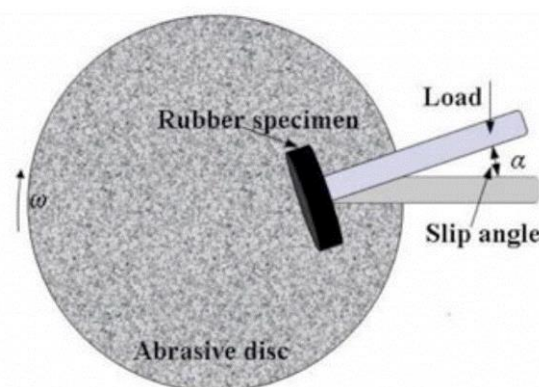
71: Qingdao University of Science and Technology  
72: YIN, Haishan, QIU, Xingwen, MA, Lianxiang, WANG, Chuansheng, HU, Shanjun

#### **54: CHARACTERIZATION METHOD OF RUBBER WEARING LOSS**

00: -

Aiming at problems that in existing rubber wear analysis method, influence of temperature and frictional energy is not considered, and accuracy of the analysis structure cannot meet requirements in practical applications, the present invention provides a rubber wear representation method. Step 1: Using an wear tester to carry out rubber wear tests, constructing a finite element model of rubber wear, calculating frictional energy, and getting a frictional energy function  $AE = CEE_m$  by regression analysis of experimental data; Step 2: Using variable temperature wear test devices to carry out variable temperature wear tests of rubbers, and obtaining a second-degree polynomial  $AT = aT^2 + bT + C$  expressing relationship between the rubber wear and the temperature by fitting experimental data; and Step 3: Introducing intermediate variables, so

that reference wear value at normal temperature  $T_0$  and constant speed  $V_0$  is  $A_0$  and  $E_0$  is the corresponding frictional energy of  $A_0$ . Integrating and deducing formulas in step 1 and step 2 to obtain an expression  $A/CmEm(a_1T^2 + a_2T + a_3)$ . The present invention establishes a comprehensive expression of variables of wear, temperature and frictional energy. The present invention is an innovation in research of rubber wear mechanism and has important scientific value.



21: 2021/10519. 22: 2021/12/17. 43: 2022/03/25  
51: E01D; G06F

71: QINGDAO UNIVERSITY OF TECHNOLOGY, THE FOURTH CONSTRUCTION CO., LTD OF CHINA CONSTRUCTION EIGHTH ENGINEERING DIVISION

72: ZHANG, Yongjun, LI, Mingfei, SUN, Bo, LIU, Jijian, LIU, Bing, HU, Tongxu, GUO, Wei, WANG, Yan, WANG, Qingsong, LI, Shuguang, DING, Dangsheng, WANG, Junyi

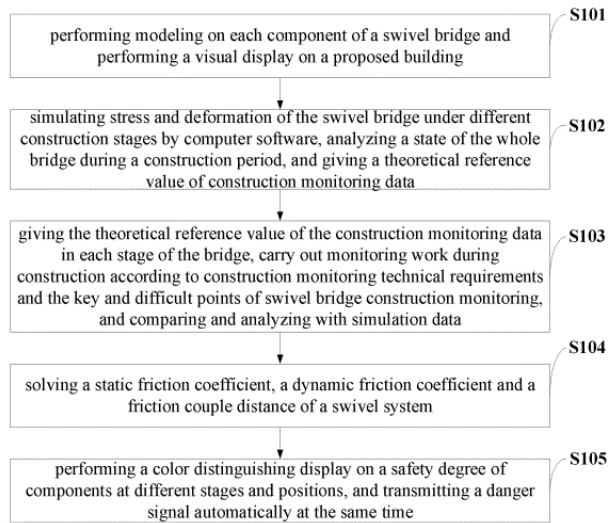
#### **54: SAFETY MONITORING AND EARLY WARNING METHOD AND SYSTEM, STORAGE MEDIUM AND EARLY WARNING PLATFORM FOR SWIVEL BRIDGE**

00: -

The present disclosure discloses a safety monitoring and early warning method and system, storage medium and early warning platform for swivel bridge, including performing modeling on each component of a swivel bridge and performing a visual display on a proposed building; simulating stress and deformation of the swivel bridge under different construction stages by computer software, analyzing a state of the whole bridge during a construction period, and giving a theoretical reference value of construction monitoring data; giving the theoretical reference value of the construction monitoring data



in each stage of the bridge, carry out monitoring work during construction, and comparing and analyzing with simulation data; solving a static friction coefficient, a dynamic friction coefficient and a friction couple distance of a swivel system; performing a color distinguishing display on a safety degree of components at different stages and positions, and transmitting a danger signal automatically at the same time.



21: 2021/10520. 22: 2021/12/17. 43: 2022/03/28  
51: E21F

71: QINGDAO UNIVERSITY OF TECHNOLOGY, CHINA RAILWAY 19TH BUREAU GROUP FIFTH ENGINEERING CO., LTD.

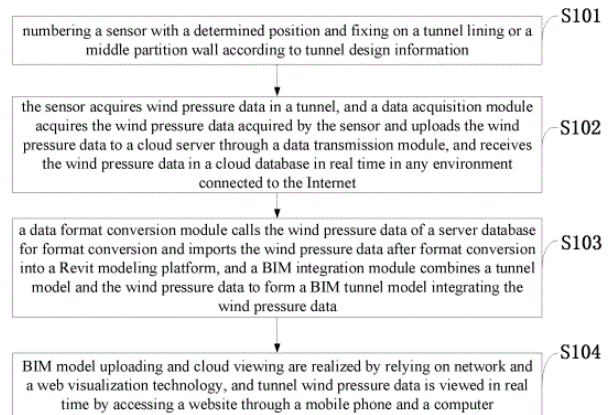
72: LIU, Yanchun, MIAO, Jijun, ZHANG, Yongjun, SUN, Mengzhuo, YAN, Mingdong, XIAO, Jianzhuang, WANG, Fulai, WANG, Guanqun, LIU, Hongzhi, HUA, Yuan, ZHANG, Zhenyuan, ZHAO, Jie, DU, Mingqing, WANG, Yan, XU, Meng

#### **54: TUNNEL WIND PRESSURE VISUAL MONITORING METHOD, SYSTEM, STORAGE MEDIUM AND DEVICE**

00: -

The present disclosure belongs to a technical field of tunnel wind pressure monitoring, and discloses a tunnel wind pressure visual monitoring method, system, storage medium and device, including numbering sensors with determined position and fixing on a tunnel lining or a middle partition wall according to tunnel design information; the sensors acquire wind pressure data in a tunnel, and a data acquisition module acquires the wind pressure data acquired by the sensors and uploads the wind pressure data to a cloud server through a data

transmission module, and receives the wind pressure data in a cloud database in real time in any environment connected to the Internet; a data format conversion module calls the wind pressure data of a server database for format conversion and imports the wind pressure data after format conversion into a Revit modeling platform.



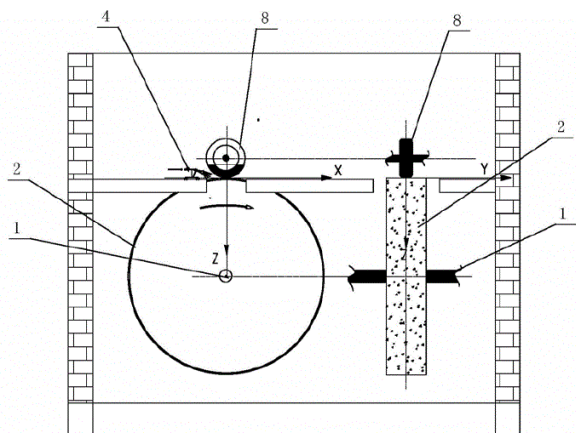
21: 2021/10521. 22: 2021/12/17. 43: 2022/03/28  
51: G01M

#### **71: Qingdao University of Science and Technology 72: YIN, Haishan, QIU, Xingwen, ZHANG, Chunsheng, LI, Shaoming, HOU, Dandan 54: INDOOR TEST METHOD OF TIRE WET SKID RESISTANCE**

00: -

Indoor test method of tire wet skid resistances in the present invention realizes a conversion from outdoor certification testing to indoor machine tool testing based on indoor rotating drum experimental device, in order to directly fill the research gap in China, significantly improve test efficiency and reduce test costs, and provide strong supports for systematic researches on tire wet skid resistances. The test method is based on a rotating drum experimental device, and water is sprayed on surface of the drum while the drum is rotating for realizing tests of the wet skid resistances of tires. In the present application, existing testing equipment is innovatively used, the indoor rotating drum which can simulate various road conditions is designed and applied, and water spraying experimental device for humidifying the surface of the drum is added, so as to establish a new test method of wet skid resistance based on the rotating drum experimental machine.





21: 2021/10522. 22: 2021/12/17. 43: 2022/03/28  
51: C08K; C08L

71: Qingdao University of Science and Technology  
72: LI, Lin, DU, Yuqian, ZHAO, Shuai, WANG, Xueya, ZHOU, Ziwen, SONG, Shikai, ZHAO, Feng  
**54: LIGHTWEIGHT POLYMER NANOCOMPOSITE MATERIAL WITH ISOLATION STRUCTURE AND PREPARATION METHOD THEREOF**

00: -

The present disclosure discloses a lightweight polymer nanocomposite material with an isolation structure and a preparation method thereof. The composite material includes a polymer matrix, hollow microspheres and nanofillers, wherein the polymer matrix is a "sea phase", that is, a continuous phase; and the hollow microspheres are an "island phase", which can reduce the density of the composite material while exerting a volume exclusion effect in the matrix to promote formation of a dense three-dimensional network with a lower content of nanofillers in the matrix, and realize preparation of the lightweight polymer nanocomposite material with an isolation structure. The method for preparing the composite material includes: first, coating surfaces of the hollow microspheres with the nanofillers, then uniformly dispersing the coated hollow microspheres in the polymer matrix, and finally processing and molding a resulting mixture to obtain the lightweight polymer nanocomposite material with an isolation structure.

21: 2021/10523. 22: 2021/12/17. 43: 2022/03/28  
51: C08K; C08L

71: Qingdao University of Science and Technology  
72: ZHAO, Shuai, ZHENG, Xingfu, LI, Lin, ZHOU, Ziwen, WANG, Xueya, SONG, Shikai, ZHAO, Feng

#### **54: GRAPHENE SUPPORTED SILICA HYBRID FILLER AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF**

00: -

The present disclosure belongs to the field of new materials, in particular to a graphene supported silica hybrid filler as well as a preparation method and application thereof. The graphene supported silica hybrid filler is self-assembled from graphene physically modified with a plant polyphenol and silica chemically modified with a silane coupling agent through physical effects such as hydrogen bonding. The graphene supported silica hybrid filler of the present disclosure has excellent electrical and thermal conductivity, simple preparation process, low cost and less pollution, and can be evenly dispersed in a polymer matrix, so as to significantly improve mechanical properties, electrical and thermal properties of a polymeric nanocomposite.

21: 2021/10524. 22: 2021/12/17. 43: 2022/03/30  
51: C09D

71: Qingdao University of Science and Technology  
72: ZHAO, Shuai, WANG, Jingchao, LI, Lin, SONG, Shikai, WANG, Xueya, ZHOU, Ziwen, ZHAO, Feng  
**54: FLAME-RETARDANT PROTECTIVE COATING OF RUBBER AND PLASTIC PRODUCTS AND PREPARATION METHOD THEREOF**

00: -

The present disclosure belongs to the technical field of flame retardance of polymers, and particularly relates to a flame-retardant protective coating of rubber and plastic products and a preparation method thereof. The flame-retardant protective coating of rubber and plastic products is prepared from the following components: 100 parts by mass of a polar polymer, 0.5-20 parts by mass of a two-dimensional nano packing, 5-50 parts by mass of a flame retardant, 0.01-10 parts by mass of an amine compound, 1-50 parts by mass of a polyphenol compound, and 0.01-10 parts by mass of a polyvalent metal salt.

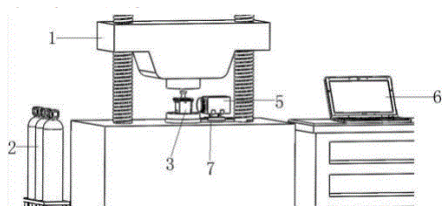
21: 2021/10525. 22: 2021/12/17. 43: 2022/03/25  
51: G01N

71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY  
72: ZHANG, Qinghe, ZHENG, Tianle, WANG, Xiaorui, LI, Ling, CHEN, Chen

#### 54: DEVICE AND METHOD FOR REAL-TIME MONITORING TEMPERATURE DYNAMIC CHANGE IN DESTRUCTION PROCESS OF COAL CONTAINING GAS

00: -

The present disclosure disclose a radiation temperature field observation system and method for destruction process of coal containing gas, including a universal testing machine, a coal body containing gas loading tank, a coal body test specimen, an infrared thermal imager and an information acquisition device, wherein the coal body containing gas loading tank and the infrared thermal imager are both disposed on the universal testing machine, the coal body test specimen is placed in the coal body containing gas loading tank for adsorption and loading, the infrared thermal imager is configured to collect temperature field information of the coal body test specimen under a loading condition and transmit collected temperature field information to the information acquisition device, and the information acquisition device is configured to record and store the temperature field information of the coal body test specimen under a loading condition.



21: 2021/10526. 22: 2021/12/17. 43: 2022/03/30  
51: G01K

71: Tangshan University

72: JIANG, Linghong, WANG, Chao, WANG, Lixia

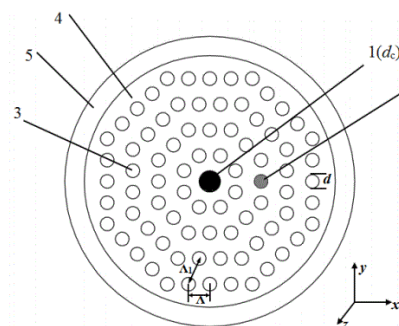
33: CN 31: 202111240321.5 32: 2021-10-25

#### 54: SPR-BASED SPIRAL PHOTONIC CRYSTAL FIBER TEMPERATURE SENSOR

00: -

An SPR-based spiral photonic crystal fiber temperature sensor includes a main body structure composed of a photonic crystal fiber. The photonic crystal fiber includes a fiber core area and a cladding area arranged in turn from inside to outside, the fiber core area is composed of a central fiber core hole and a surrounding quartz substrate, and the central fiber core hole is filled with a toluene liquid to form a liquid core; the cladding area is composed of four layers of air holes which are arranged in a regularly

octagonal shape and present C8v symmetric distribution, three of adjacent air holes on two adjacent layers are distributed in a shape of isosceles triangle, any one of air holes, staggered with the air holes on the first layer, in the second layer from the inside to the outside is selected to be filled with a metallic gold wire.



21: 2021/10527. 22: 2021/12/17. 43: 2022/03/28  
51: E02D

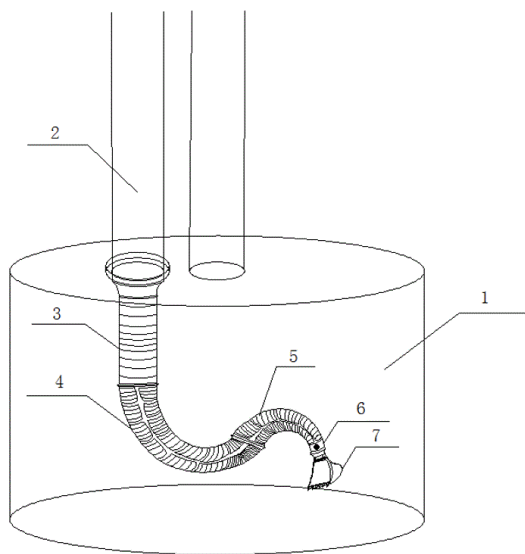
71: Qingdao University of Technology

72: YUAN, Changfeng, YUAN, Minghui, WANG, Bin, LIU, Fushun, LI, Liang, TIAN, Zhe, SHEN, Kanmin

#### 54: A SUCTION BUCKET FOR OFFSHORE WIND TURBINE AND CONSTRUCTION METHOD THEREOF

00: -

The invention relates to a suction bucket for offshore wind turbine and construction method thereof, comprising a bucket body, the bucket body is provided with a telescopic part, the bottom end of the telescopic part is connected with the head end of the mechanical arm, the end of the mechanical arm is provided with a soil sensor and a digging bucket, the digging bucket has a plurality of digging teeth, and the digging state detection part is installed inside the digging teeth, the top of the telescopic part is connected with the cylindrical support, the cylindrical support extends to the outside of the bucket body through the reserved hole of the bucket body, a seal is arranged between the cylindrical support and the bucket, the suction bucket of the invention can avoid the phenomenon that the bucket body cannot penetrate to a set depth or the bucket body is inclined during construction, and improves the overall stability and anti-overturning ability of the foundation.



21: 2021/10531. 22: 2021/12/17. 43: 2022/03/28

51: A01B

71: Hunnan Cotton Science Institute, Nantong  
University, Economic Crops Research  
Institute, Xinjiang Academy of Agricultural Sciences,  
Jiangsu Coastal Area Institute of Agricultural  
Sciences

72: Chen Haodong, Kuang Zhengcheng, Wang Baohua, Guo Lishuang, Li Yujun, Zheng Juyun, Wang Wei, Li Yuqiang

#### 54: METHODS OF IMPROVING SALINE-ALKALI RESISTANCE OF GOSSYPIUM SPP

00: -

The invention discloses a method for improving the saline-alkali resistance of *Gossypium* spp, belonging to the technical field of crop planting. The method comprises the following steps: dissolving silica gel, imidacloprid, difenoconazole and potassium dihydrogen phosphate in an ethanol solution, heating and stirring to obtain a coating agent, drying high-quality *Gossypium* spp seeds, soaking in salt solution and water, washing, irradiating and culturing, soaking the irradiated *Gossypium* spp seeds in the coating agent, and taking out the dried seeds to directly sow. The method of the invention can improve the germination rate of *Gossypium* spp seeds and enhance the saline-alkali resistance of *Gossypium* spp by simply treating the seeds without changing the sowing conditions, the germplasm improvement of *Gossypium* spp crops in saline-alkali areas can be realized, and the purpose of increasing the income of cash crops can be achieved. This method is feasible and has good application value.

21: 2021/10532. 22: 2021/12/17. 43: 2022/03/28

51: C02F

71: Tongji University

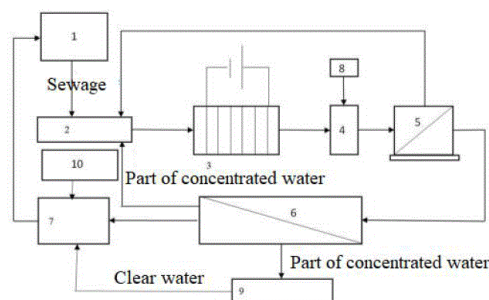
72: WU, Deli, MAO, Yunfeng, LIU, Zhigang, DAI, Xiaphu

33: CN 31: 202110319449.4 32: 2021-03-25

## 54: SYSTEM AND PROCESS FOR PURIFYING AND RECYCLING FECAL SEWAGE BASED ON PHYSICO-CHEMICAL METHOD

00: -

The present disclosure relates to a system and process for purifying and recycling fecal sewage based on a physicochemical method. The system comprises a sewage treatment main circulation loop, an electrochemical treatment circulation loop, a nanofiltration treatment circulation loop, an electrolytic tank (3), an ultrafiltration device (5), and a nanofiltration device (6); the electrolytic tank (3) and the ultrafiltration device (5) are located at an overlapping region of the electrochemical treatment circulation loop and the nanofiltration treatment circulation loop, and are also located at an overlapping region of the water treatment main circulation loop and the electrochemical treatment circulation loop; the electrolytic tank (3), the ultrafiltration device (5) and the nanofiltration device (6) are located at an overlapping region of the water treatment main circulation loop and the nanofiltration treatment circulation loop.



21: 2021/10533. 22: 2021/12/17. 43: 2022/03/28

51: G01N

71: Anhui Polytechnic University, Hefei Kdlian Safety Technology Co.,Ltd.

72: Xu Manman, Zhang Zhen, Zhang Wenqing, Liu Yongming, Chen Yu

## 54: PORTABLE TESTING DEVICE OF BUILDING MATERIAL COMBUSTION PERFORMANCE AND TESTING METHOD THEREOF

00: -

The invention discloses a portable building material combustion performance testing device and a testing method thereof. The device comprises a combustion performance testing cabinet, a blower, an igniter, a combustion collecting tray and a weighing meter for weighing the combustion collecting tray before and after combustion. The blower is arranged outside the combustion performance test cabinet and communicated with the combustion performance test cabinet through a pipeline; The igniter, the combustion collecting tray and the weighing meter are all arranged in the combustion performance test cabinet, the igniter is arranged corresponding to the combustion collecting tray, and the combustion collecting tray is located above the weighing meter. The method has the advantages of simple test operation, wide test material range, good universality and reduced test cost. And there are many test performance indexes. The computer will collect various data and compare them with the standard material experimental index database to judge whether the test sample is qualified or not, and the test is accurate.

21: 2021/10534. 22: 2021/12/17. 43: 2022/03/28  
51: G06T

71: Jiaying University

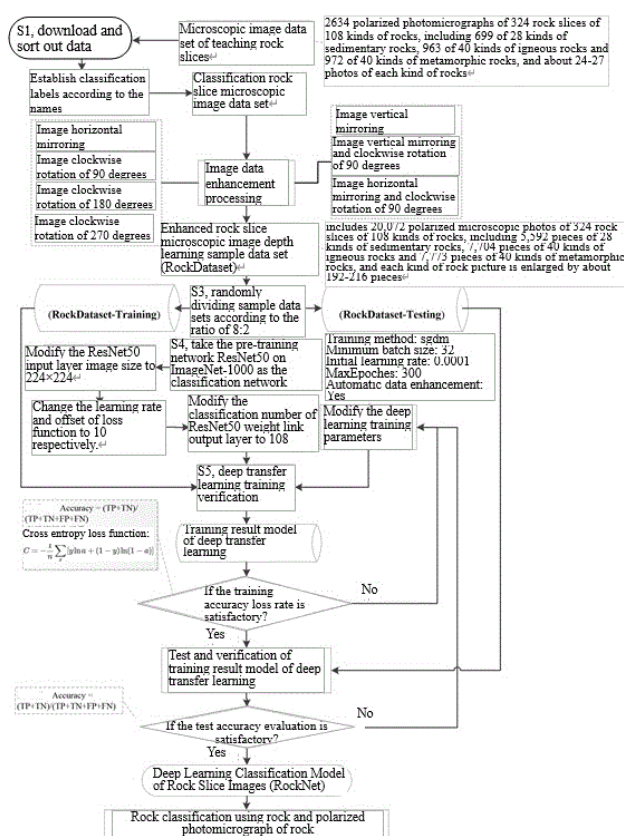
72: Xiong Yongzhu, Zhang Li

#### 54: ROCK CLASSIFICATION METHOD BASED ON DEEP LEARNING OF MICROSCOPIC IMAGES OF ROCK SLICES

00: -

The invention discloses a rock classification method based on deep learning of microscopic images of rock slices. This method collects microscopic images of rock slices under polarizing microscope as raw data, uses data enhancement technology to expand the data volume and make RockDataset, then inputs RockDataset into the improved ResNet50 model for deep migration learning training and parameter optimization, and finally obtains a high-precision rock classification and recognition deep learning model RockNet, which can be used to accurately predict the name and confidence level of rock types. The invention does not require professional rock microscopic identification knowledge, and can greatly improve the efficiency and accuracy of rock classification (up to more than 98%), avoid errors made by human, promote the intellectualization and

automation of rock slice classification, finally better serve the geological teaching, scientific research and production.



21: 2021/10535. 22: 2021/12/17. 43: 2022/03/28  
51: C12N

71: Xuzhou University of Technology

72: Hou Jinhui

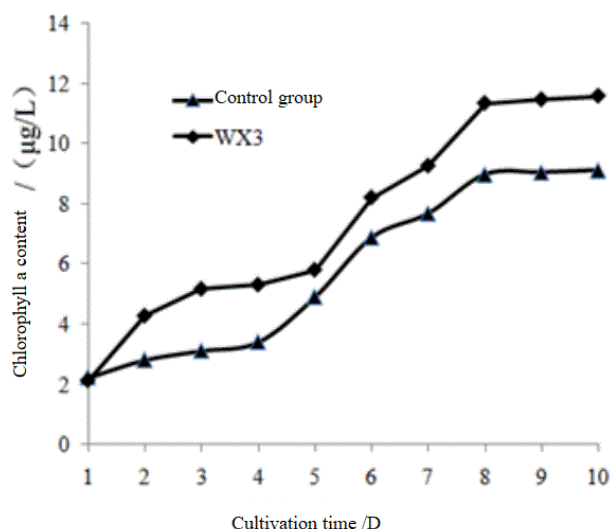
#### 54: PROBIOTIC AGENT SUITABLE FOR CHLORELLA VULGARIS, PREPARATION METHOD AND APPLICATION THEREOF

00: -

The invention discloses a probiotic agent suitable for Chlorella vulgaris, a preparation method and application thereof. The strain of the probiotic agent is classified and named as Bacillus sp. WX3, it is preserved in the China General Microbiological Culture Collection Center, CGMCC, with the preservation date of January 12th, 2015 and the preservation number of CGMCC NO.10340. The 16S rDNA sequence of this strain is shown in SEQID0.1; the probiotic agent comprises the above-mentioned Bacillus sp. WX3, and its viable bacteria number is (1.0-5.0)×10<sup>9</sup> cfu/g; after being cultured in LB solid medium, it can be used to promote the



growth of *Chlorella vulgaris* and its biomass production and culture, which provides an effective way for efficient and rapid cultivation of *Chlorella vulgaris*.



21: 2021/10536. 22: 2021/12/17. 43: 2022/03/25

51: G06K; G06N

71: Xiamen University of Technology

72: WANG, Dahan, HUANG, Zhicai, CHEN, Kunze, HUANG, Zhanqiu, ZHU, Shunzhi, WU, Yuefeng, ZHOU, Wei, WU, Yun

#### 54: DOCUMENT IMAGE KEY INFORMATION EXTRACTION AND MATCHING METHOD BASED ON GRAPH NEURAL NETWORK

00: -

The present invention relates to a document image key information extraction and matching method based on a graph neural network, which comprises the following steps: step 1: constructing a key text information detection model for acquiring a border position of an area where the key text is located; step 2: constructing a character key text recognition model for recognizing a character frame; step 3: using the key text frame as a node to construct a graph, and the graph neural network as a base network to aggregate the nodes of each text frame and predict the key text node type of the node. step 4: modifying the recognition results of key texts by means of regular expressions and domain rules, and obtaining the final results and matching the key information.



21: 2021/10537. 22: 2021/12/17. 43: 2022/03/28

51: G01C

71: SINOPEC Shengli Oilfield Company, School of Geosciences, China University of Petroleum (East China), Research Institute of Exploration Development of SINOPEC Shengli Oilfield Company, CNOOC Research Institute

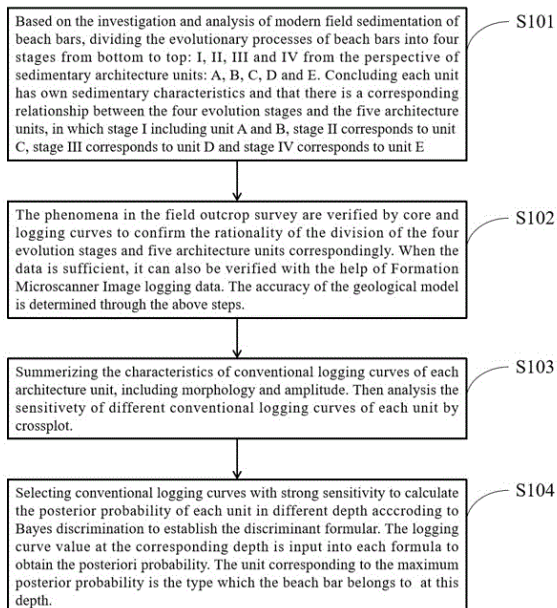
72: Wang Yongshi, Qiu Longwei, Gong Jianqiang, Qin Feng, An Tianxia, Li Xin, Xie Chao

#### 54: METHOD FOR DISCRIMINATING THE BEACH-BAR ARCHITECTURE UNITS UNDER CONSTRAINTS OF A GEOLOGICAL MODEL

00: -

The invention relates to a method for discriminating beach bar architecture units under the constraint of a geological model, which divides the development process of beach bar into four stages and subdivides them into five sedimentary architecture units, and determines the corresponding relationship between the four stages and the five units. Twelve electrical imaging modes corresponding to five architecture units were established. The characteristics of conventional logging curves of each architecture unit is summarized; through crossplot analysis, the sensitive conventional logging curves are selected, and then according to Bayes discrimination method in discriminant analysis, the sedimentary types and evolution stages of beach bars are determined according to the overlapping relationship of sedimentary units in vertical section. According to the Bayes discrimination principle, the conventional logging curves with strong sensitivity is selected to establish a discrimination formula through reasonable and effective geological model constraints, the electrical imaging modes of each architecture unit of the beach bar and the characteristics of the conventional logging curve, and the discrimination formula is calculated on the basis of the formula, so that the architecture unit is accurately and quickly identified, and the discrimination accuracy is improved.





21: 2021/10538. 22: 2021/12/17. 43: 2022/03/30  
51: C09D

71: Henan sunshine anticorrosive coating Co., Ltd  
72: YAO, Dong, YAO, Xuewen, LIU, Chuanyong, QIU, Huiling, XU, Ruifang

#### **54: INORGANIC ANTI-CORROSIVE FIREPROOF COATING AND PREPARATION METHOD THEREOF**

00: -

An inorganic anti-corrosive fireproof coating comprises the following components in parts by weight: a composite silica sol, a silane compound, an aluminum oxide sol, a zirconium oxide sol, an inorganic filler, an antifoaming agent, an emulsifying agent, bentonite, zinc sulfate, deionized water, a pigment and feldspar powder. A compact high-hardness coating film firmly adhered on an object surface has corrosion and abrasion resistance and durability. Above 200 degree Celsius, the coating film can be sintered to be more compact and solid to have good protection performance at high temperature. Zinc sulfate has good bactericidal ability to achieve anti-corrosive effect. After hydrolysis of active -SiX in potassium silicate and silane compound, chemical bonds and/or -Si-OH bonds have a cross-linking reaction with magnesium powder to generate a spatial network structure of inorganic magnesium silicate, so as to increase strength and toughness of the coating film and avoid coating film cracking.

21: 2021/10539. 22: 2021/12/17. 43: 2022/03/30  
51: C07K; A61P

71: Zhejiang Shuren College (Zhejiang Shuren University)

72: WANG, Nan, WANG, Wei, JIANG, Youshui

#### **54: SOFT-SHELLED TURTLE-DERIVED PEPTIDE HDTYYVVAH HAVING ACE INHIBITORY ACTIVITY AND USE THEREOF**

00: -

The present disclosure belongs to the field of biotechnology, and particularly relates to a protein derived from Chinese soft-shell turtle (GenBank: AHE37801.1, cytochrome oxidase subunit 1, partial (mitochondrion) [Pelodiscus sinensis]), capable of binding to angiotensin converting enzyme and inhibiting activity thereof. In particular, the present disclosure provides a soft-shelled turtle-derived peptide HDTYYVVAH having angiotensin converting enzyme (ACE) inhibitory activity, and use of the peptide in the preparation of an ACE inhibitor.

21: 2021/10540. 22: 2021/12/17. 43: 2022/03/30  
51: A61K; C07K; A61P

71: Zhejiang Shuren College (Zhejiang Shuren University)

72: WANG, Nan, WANG, Wei, JIANG, Youshui

#### **54: SOFT-SHELLED TURTLE-DERIVED PEPTIDE AIMAG HAVING ACE INHIBITORY ACTIVITY AND USE THEREOF**

00: -

The present disclosure belongs to the field of biotechnology, and particularly relates to a protein derived from Chinese soft-shell turtle (Pelodiscus sinensis). The present disclosure provides a soft-shelled turtle-derived peptide AIMAG having angiotensin converting enzyme (ACE) inhibitory activity. An amino acid sequence of the peptide AIMAG is Ala-Ile-Met-Ala-Gly. The present disclosure further provides use of the above peptide AIMAG in the preparation of an ACE inhibitor.

21: 2021/10541. 22: 2021/12/17. 43: 2022/03/25  
51: C12Q

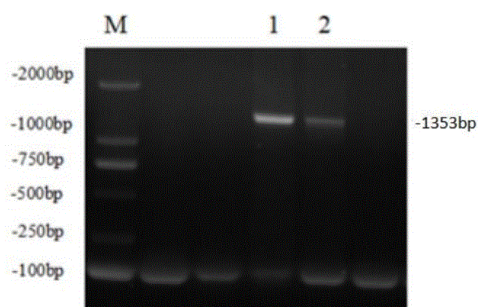
71: The Second Hospital of Nanjing (The Affiliated Hospital of Nanjing University of Chinese Medicine)

72: Li Junwei, Yi Yongxiang, Li Xiaoyue, Xu Wanqian

#### **54: METHOD FOR CONSTRUCTING CELL LINE STABLY EXPRESSING CALCIUM ION INDICATOR PROTEIN**

00: -

The invention discloses a method for constructing a cell line stably expressing a calcium ion indicator protein, which belongs to the technical field of biotechnology engineering. The indicator protein is constructed by inserting the coding gene of GCaMP5G into the polyclonal sites of pd2-EGFP vectors EcoR 1 and Not 1, wherein the encoding gene of GCaMP5G is shown in SEQ ID NO: 1. The cell line is obtained by introducing the indicator protein into eukaryotic cells, and making the vector containing GCaMP5G stably expressed in the eukaryotic cells, and then screening in the presence of G418. The cell line can stably express the calcium indicator protein pd2-GCaMP5G, and reflect the intracellular calcium level in the form of green fluorescence, thus avoiding repeated transient transfection of the protein, saving test consumables such as transfection reagents, saving time, providing convenience for related experiments and being of great significance to biological research.



21: 2021/10542. 22: 2021/12/17. 43: 2022/03/25  
51: G01H

71: Zhengzhou University of Aeronautics

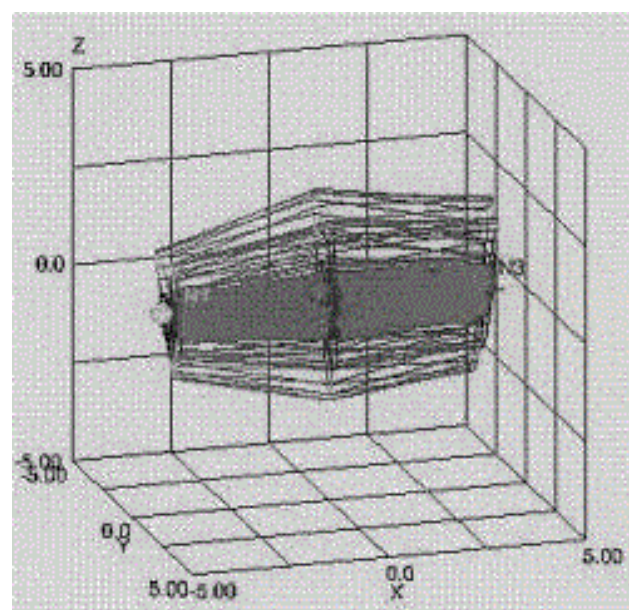
72: Li Liang, Wang Jibing, Zhang Daying, Hao Xiaoyan, Zhao Zihao, Lyu Jinghui, Gao Jianjun, Chen Meilin, Zeng Qinyu, Dai Jiawen

#### **54: SAFETY EVALUATION METHOD OF EXISTING ARCHITECTURAL CURTAIN WALLS**

00: -

A safety evaluation method of existing architectural curtain walls includes the following steps: installing acceleration sensors and wireless transmission units at both ends and midpoint positions of the building curtain wall to be detected in the length direction; three acceleration sensors transmit the measured data to the signal processor through the wireless transmission unit for data storage and real-time analysis and processing, so as to obtain the

acceleration waveform of the curtain wall under environmental vibration; then, the vibration characteristics of the building curtain wall are evaluated by taking the deformation of the building curtain wall when the whole building is in a first-order formation as the evaluation index: when the three-point vibration shape is approximately linear, the curtain wall is in a sound state; when the shape of three-point vibration suddenly changes, there are cracks inside the curtain wall; when the three-point vibration shape is not distributed in a straight line, the connection point of the curtain wall will deteriorate. The purpose of the invention is to overcome the defects of on-site manual detection technology, reflect the internal deterioration through the vibration characteristics of the building curtain wall itself, and avoid the inaccuracy of artificial subjective judgment.



21: 2021/10543. 22: 2021/12/17. 43: 2022/03/28  
51: C01B

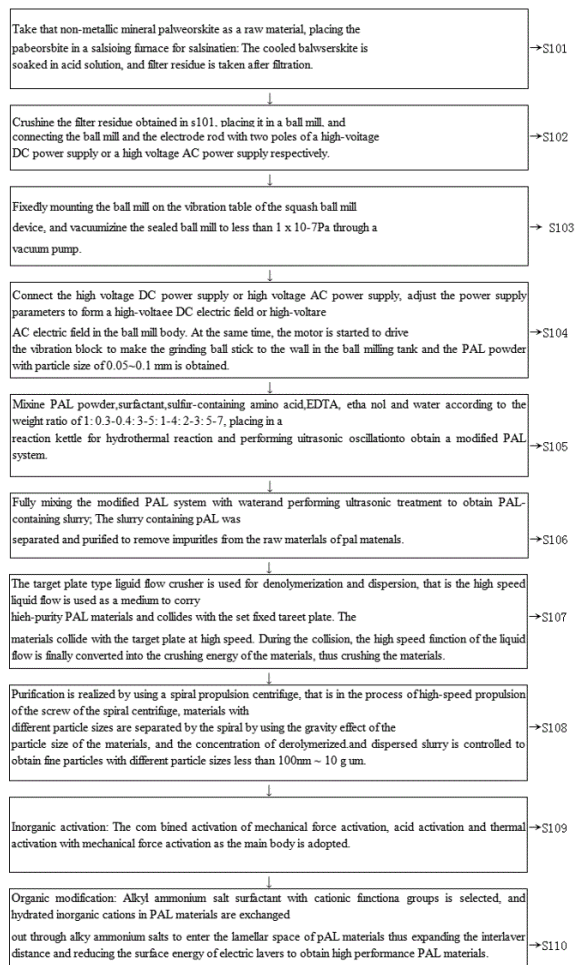
71: Shandong University of Science and Technology  
72: Wang Li, Gao Dengzheng, Liu Lihua, Guo Qingbin, Xue Zhen

#### **54: METHOD FOR PREPARING HIGH-PERFORMANCE PAL MATERIAL BY USING NON-METALLIC MINERAL Palygorskite**

00: -

The invention belongs to the technical field of material preparation and discloses a method for preparing high-performance PAL materials by utilizing non-metallic mineral palygorskite, which

comprises the following steps of calcining palygorskite at high temperature; Soaking the calcined palygorskite in acid solution, filtering, taking filter residue and ball milling to obtain PAL powder; PAL powder, surfactant, sulfur-containing amino acid, EDTA, ethanol and water are mixed, and hydrothermal reaction is carried out to obtain modified PAL; The modified PAL is fully mixed with water, and ultrasonic treatment is carried out to obtain a PAL-containing slurry; The slurry containing PAL was separated and purified, depolymerized and dispersed, inorganic activated and organic modified to prepare high-performance PAL materials. The palygorskite selected by the invention has few impurities and high density, and through calcination, modification and separation, the surface properties of the PAL material are changed, and the selectivity for molecular adsorption is greatly changed, so that the performance of the PAL material is improved, and the PAL material can be better applied to the preparation of fireproof materials.



21: 2021/10544. 22: 2021/12/17. 43: 2022/03/30

51: F01M; F01P; F02B; F02D

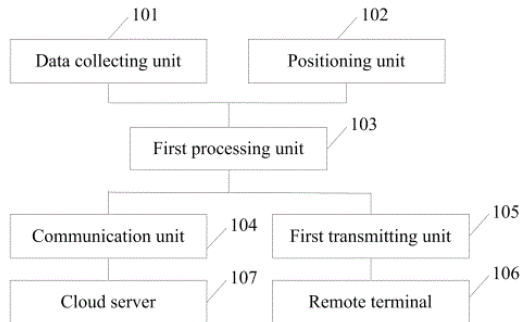
71: BEIJING INSTITUTE OF TECHNOLOGY, Anhui Baolong Environmental Protection Technology Co., Ltd.

72: HAO, Lijun, GE, Zihao, ZHAO, Zhouhui, WANG, Zengfu, WU, Junjie, WANG, Xiaohu, LIU, Jin, TAN, Jianwei, WANG, Xin

**54: REMOTE MONITORING DEVICE AND VERIFICATION METHOD FOR DIESEL ENGINE**  
00: -

The present disclosure relates to a remote monitoring device and verification method for diesel engine. The device includes: a data collecting unit, set on an emission channel of a to-be-monitored diesel engine and configured to detect discharge data of the to-be-monitored diesel engine; a positioning unit, set on the to-be-monitored diesel engine and configured to locate position data of the to-be-monitored diesel engine in real time; a first processing unit, respectively connected with the data

collecting unit and the positioning unit and configured to determine an discharge situation of the to-be-monitored diesel engine according to the discharge data and the position data; a communication unit, connected to the first processing unit and configured to transmit the discharge situation and the position data of the to-be-monitored diesel engine in real time to a cloud server for remote monitoring.



21: 2021/10545. 22: 2021/12/17. 43: 2022/03/28  
51: G01B

71: Duan Hurong, Lei Junzhen

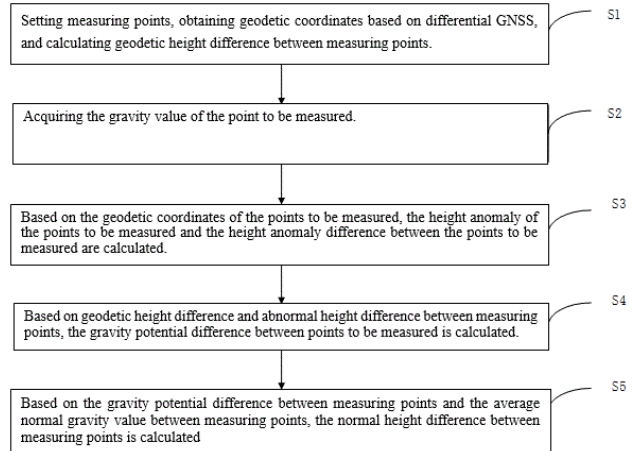
72: Duan Hurong, Lei Junzhen

#### 54: MEASUREMENT METHOD OF NORMAL HEIGHT DIFFERENCE BETWEEN TWO GROUND POINTS

00: -

The invention discloses a method for measuring the normal height difference between two ground points, which comprises the following steps: setting points to be measured, acquiring geodetic coordinates of the points to be measured based on differential GNSS, and calculating the geodetic height difference between the points to be measured; acquiring the gravity value of the point to be measured; base on that geodetic coordinates of the point to be measured, calculating the height anomaly of the points to be measure and the height anomaly difference between the points to be measured; calculating the gravity potential difference between the points to be measured based on the geodetic height difference between the points to be measured and the abnormal height difference between the points to be measured; based on the gravity potential difference between the points to be measured and the average normal gravity value between the points to be measured, calculating the

normal height difference between the points to be measured. The method is convenient for normal high data processing, and compared with the geometric leveling method, the method has high measurement accuracy and saves time and labor.



21: 2021/10546. 22: 2021/12/17. 43: 2022/03/28  
51: G06T

71: Chinese Academy of Surveying and Mapping  
72: ZHAO, Zhanjie, ZHAO, Lixin, WANG, Jizhou, GAO, Wujun, MAO, Xi, MA, Weijun, YIN, Hongmei, SHEN, Tao, WANG, Zhangpeng, JIANG, Bin  
33: CN 31: 202111028118.1 32: 2021-09-02

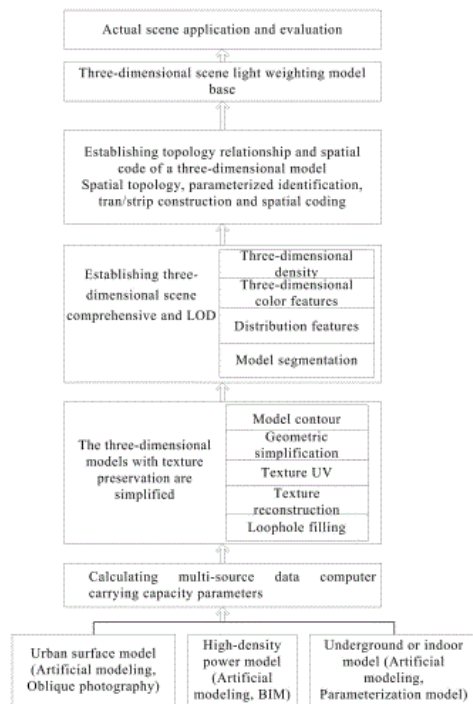
#### 54: LIGHT WEIGHTING METHOD FOR A THREE-DIMENSIONAL MODEL

00: -

The present disclosure relates to a light weighting method for a three-dimensional model. Through performing filtering, compressing, encoding and display acceleration on original model data, file size of the model is reduced, a drawing speed is improved and the three-dimensional models with texture preservation are simplified while the product's geometry, structural relationship and attribute information can be completely described. Based on a research of comprehensive methods of three-dimensional models and scenes of computer vision, a scene pyramid maintaining model topology structure relationship and spatial coding is established, so as to achieve a purpose of making full use of the limited computing power, rendering capacity and storage space of mobile devices for rapid display and interaction of three-dimensional models, which is convenient for users to obtain product information anytime and anywhere while retaining better appearance attributes and model



details, clear texture, obvious features and other good model display capabilities.



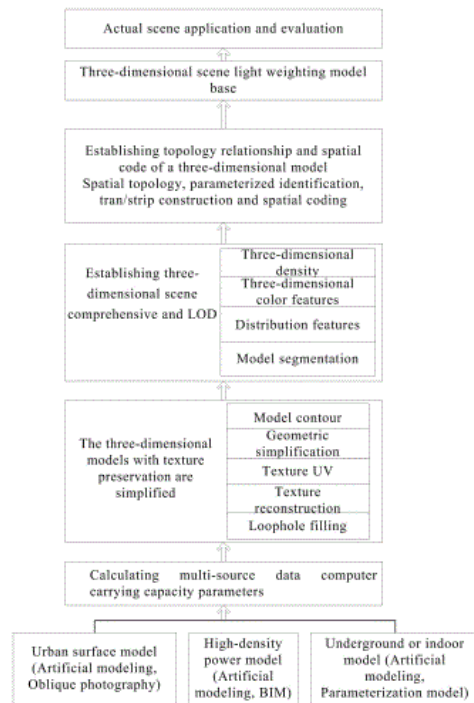
21: 2021/10546. 22: 2021/12/17. 43: 2022/03/28  
51: G06T

71: Chinese Academy of Surveying and Mapping  
72: ZHAO, Zhanjie, ZHAO, Lixin, WANG, Jizhou, GAO, Wujun, MAO, Xi, MA, Weijun, YIN, Hongmei, SHEN, Tao, WANG, Zhangpeng, JIANG, Bin  
33: CN 31: 202111028118.1 32: 2021-09-02  
**54: LIGHT WEIGHTING METHOD FOR A THREE-DIMENSIONAL MODEL**

00: -

The present disclosure relates to a light weighting method for a three-dimensional model. Through performing filtering, compressing, encoding and display acceleration on original model data, file size of the model is reduced, a drawing speed is improved and the three-dimensional models with texture preservation are simplified while the product's geometry, structural relationship and attribute information can be completely described. Based on a research of comprehensive methods of three-dimensional models and scenes of computer vision, a scene pyramid maintaining model topology structure relationship and spatial coding is established, so as to achieve a purpose of making full use of the limited computing power, rendering

capacity and storage space of mobile devices for rapid display and interaction of three-dimensional models, which is convenient for users to obtain product information anytime and anywhere while retaining better appearance attributes and model details, clear texture, obvious features and other good model display capabilities.



21: 2021/10547. 22: 2021/12/17. 43: 2022/03/25  
51: G01S

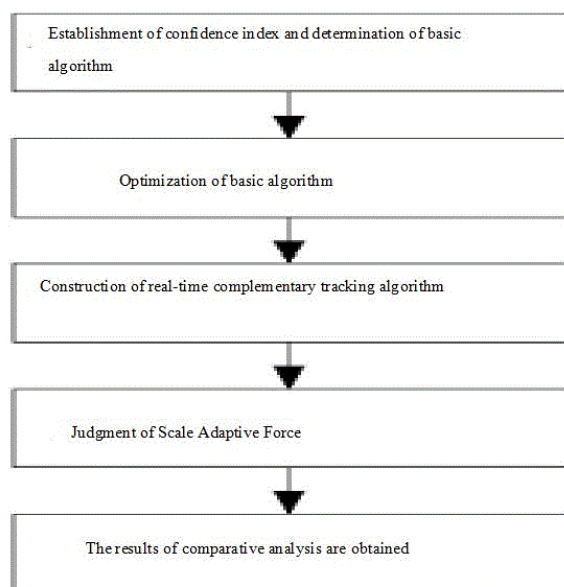
71: Southwest Petroleum University  
72: Gu Yaxiong, Zheng Changjiang  
**54: RESEARCH METHOD OF REAL-TIME COMPLEMENTARY TRACKING ALGORITHM UNDER HIGH CONFIDENCE UPDATING STRATEGY**

00: -

The invention disclose a research method of real-time complementary tracking algorithm under a high confidence updating strategy, which comprises that following step: step 1, establishing confidence index and determining basic algorithm; step 2, optimizing basic algorithm; step 3, constructing real-time complementary tracking algorithm; step 4, judging scale self-adaptability; and step 5, conducting comparative test and analyzing to obtain results. According to the invention, the correlation filter algorithm of the linear kernel function and the



interference perception tracking algorithm are selected as basic algorithms, and the optimized basic algorithm is dynamically combined with the high confidence index updating strategy, so that the algorithm of the invention can accurately track the target, and it is verified that the optimized basic algorithm has good complementarity; at the same time, the algorithm of the invention has good scale adaptability in various scenes, and meets the real-time requirement.



21: 2021/10548. 22: 2021/12/17. 43: 2022/03/28

51: A01G

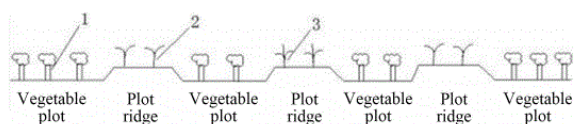
71: LINYI UNIVERSITY

72: FENG, Guifang

#### 54: METHOD FOR PREVENTING AND CONTROLLING MELOIDOGYNE SPP. OF VEGETABLE IN PROTECTED FIELD

00: -

The present disclosure discloses a method for preventing and controlling Meloidogyne spp of vegetables in protected fields, which comprises the following steps: according to the different damage degree of Meloidogyne spp, soil testing and planting are carried out to effectively realize the pollution-free prevention and control of Meloidogyne spp of vegetables.



21: 2021/10549. 22: 2021/12/17. 43: 2022/03/28

51: A01N; C07D; A01P

71: Shandong Academy of Pesticide Sciences

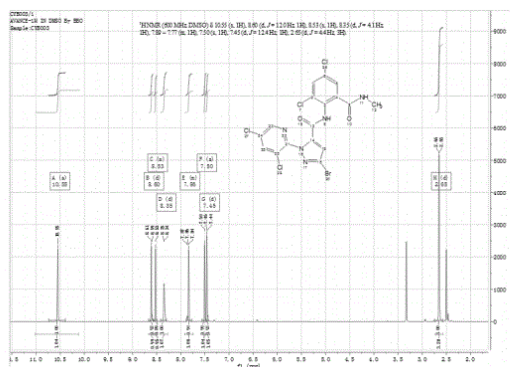
72: CONG, Yunbo, HAN, Jintao, JIANG, Aizhong, LIU, Jun, XIE, Yiping, WANG, Yingxiu, HAO, Zesheng, JIANG, Zhongping

33: CN 31: 202110832042.1 32: 2021-07-22

#### 54: SYNTHESIS METHOD OF ANTHRANILIC DIAMIDE INSECTICIDE

00: -

The present disclosure provides a synthesis method of an anthranilic diamide insecticide, and relates to the technical field of organic synthesis. In the synthesis method, the anthranilic diamide insecticide represented by general formula (I) is synthesized in one step using a pyrazolinecarboxylic acid compound represented by general formula (III) and an anthranilamide compound represented by general formula (II) as raw materials, and methylsulfonyl chloride as an oxidant and a condensing agent. According to the synthesis method of the present disclosure, the pyrazolinecarboxylic acid compound and the anthranilamide compound, as raw materials, are simultaneously subjected to coupling reaction and oxidation reaction with the methylsulfonyl chloride as the oxidant and the condensing agent in the presence of a tertiary amine; during the coupling reaction, a pyrazoline ring can be simultaneously oxidized to a pyrazole ring, and an anthranilic diamide insecticide with high purity and yield is prepared.



21: 2021/10550. 22: 2021/12/17. 43: 2022/03/25

51: A01C

71: Gansu Agricultural University

72: Xie Junhong, Li Lingling, Zhou Yongjie, Luo Zhuzhu, Wang Linlin, Wang Jinbin

#### 54: ALLEY SUSTAINABLE PLANTING METHOD OF MAIZE AND PEA BY FURROW RIDGE CULTURE IN DRY LAND FILM

00: -

The invention discloses an alley sustainable planting method of maize and peas by furrow ridge culture in dry land film, which relates to the field of agricultural planting technologies. The method of the invention comprises the following steps: step 1, field structure layout is carried out before sowing, and natural sowing alleys of maize and peas are formed at intervals of 110 cm:110 cm; step 2, rotary tillage and burying fertilizer, then ridging and mulching with a whole film double ridge furrow sowing maize ridging and mulching machine, drilling seep holes in planting furrows every 50 cm after mulching to accumulate rainwater, and detecting the mulching quality of mulch film; the invention is beneficial to fertility improvement, enhances the sustainable production capacity of farmland, alleviates the problems that the traditional double ridge furrow sowing maize depends on chemical fertilizer and mulching film, and only increases production without increasing efficiency, and creates a new sustainable agricultural production mode.

21: 2021/10551. 22: 2021/12/17. 43: 2022/03/29  
51: E03C

71: ZHOU, Ruoyu

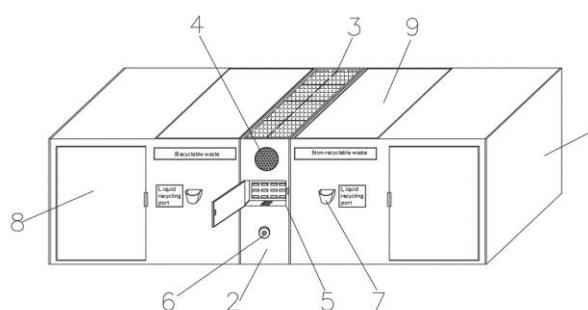
72: ZHOU, Ruoyu

#### 54: INTELLIGENT DEVICE FOR AUTOMATICALLY CLASSIFYING DOMESTIC WASTE BASED ON NETWORK INFORMATION TECHNOLOGY

00: -

The present disclosure discloses an intelligent device for automatically classifying domestic waste based on network information technology. The intelligent device for automatically classifying the domestic waste based on the network information technology includes waste putting boxes and an equipment box; the waste putting boxes are integrated with the equipment box and located on two sides of the equipment box; a photovoltaic panel is disposed at a top of the equipment box; a glass cover is fixed to the photovoltaic panel; a loudspeaker, a control area and a three-dimensional scanner are disposed at a side end of the equipment box; a storage battery, a host and second motor

boxes are disposed inside the equipment box; the second motor boxes are fixed to inner walls of two sides inside the equipment box; a second motor is disposed in each of the second motor boxes; and a box cover is disposed at a top of the waste putting box, and the box cover is connected with a transmission end of the second motor. The intelligent device for classifying the waste can realize double classification of the waste in a manner of scanning and classifying in cooperation with solid-liquid separation, and in conjunction with a remote monitoring manner, a functional and intelligent waste recycling device is effectively achieved.



21: 2021/10552. 22: 2021/12/17. 43: 2022/03/30  
51: H04L; G06Q

71: ZHOU, Ruoyu

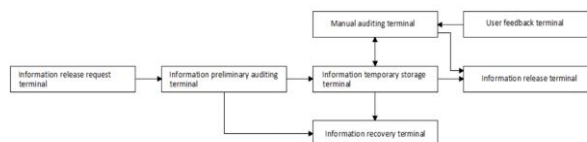
72: ZHOU, Ruoyu

#### 54: ANTI-FALSE NETWORK INFORMATION TECHNOLOGY FOR SUPPLY AND DEMAND INFORMATION BACKGROUND AUDITING AND RELEASE

00: -

The disclosure belongs to the technical field of supply and demand information auditing, and particularly provides an anti-false network information technology for supply and demand information background auditing and release. The anti-false network information technology includes an information release request terminal, an information preliminary auditing terminal, an information temporary storage terminal, an information recovery terminal and a manual auditing terminal, where a user uploads supply and demand information to be released through the information release request terminal; the output end of the information release request terminal is connected to the input end of the information preliminary auditing terminal; the output end of the

information release request terminal is connected to the input ends of the information temporary storage terminal and the information recovery terminal, the output end of the information temporary storage terminal is connected to the input end of the information recovery terminal, and the manual auditing terminal is connected to the information temporary storage terminal. Large amounts of inappropriate information are filtered out through computer auditing, and thus subsequent manual auditing pressure is reduced; and the information computer-audited is re-audited manually, such that the situation that the information is misjudged due to excessive mechanized auditing is avoided.



21: 2021/10553. 22: 2021/12/17. 43: 2022/03/28  
51: H02M

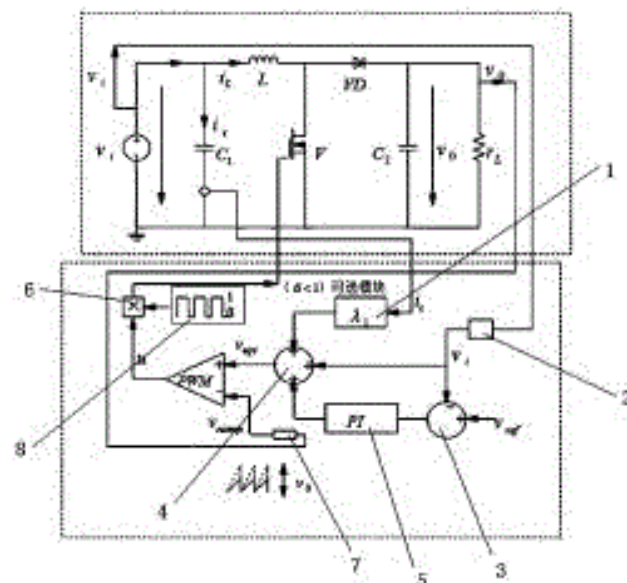
71: HCIG New-energy Co.,Ltd, Hebei University of Science and Technology

72: Guo Yingjun, Sun Hexu, Tan Jianxin, Gao Xingchen, Qin Xiaoliang, Jing Yanwei, Duan Shuchun, Wei Xiaoyang

#### **54: POWER ELECTRONIC CONVERTER AND CONTROL METHOD BASED ON PWM DOUBLE INTEGRAL SLIDING SURFACE**

00: -

The invention discloses a power electronic converter based on PWM double integral sliding surface and a control method thereof, and relates to the technical field of power converters. Said converter includes pulse width modulator PWM, boost converter Boost and double integral sliding mode controller DISMC. The converter corrects the indirect integral calculation error in the PWM integral sliding mode controller by using the additional voltage state variable integral term. It can eliminate the stability error of voltage state variables, enhance the robustness of the converter to load and input voltage, well solve the problem of large steady-state error caused by frequency reduction, and ensure the dynamic performance and anti-interference ability of the system.



21: 2021/10568. 22: 2021/12/17. 43: 2022/04/07  
51: C12N; C12Q

71: FU ZHOU UNIVERSITY

72: HE, Xiaozhen, ZHONG, Lili

33: CN 31: 201910994671.7 32: 2019-10-18

#### **54: TECHNIQUE FOR PRECISE SITE-SPECIFIC RNA SHEARING IN FISH EMBRYO**

00: -

Provided is a technique for precise site-specific RNA shearing in a fish embryo, employing a CasRx-mediated RNA editing technique so that only CasRx mRNA and a specific targeting guide RNA need to be provided in order to achieve precise site-specific RNA knockdown in a fish embryo, bringing various advantages such as high efficiency, high specificity, convenience, and low costs. The present invention overcomes the low efficiency of existing siRNA technology and the problems of high costs and off-target effects of Morpholino-mediated gene knockdown technology.

21: 2021/10572. 22: 2021/12/17. 43: 2022/03/24  
51: B01J; G21F

71: Hebei Milson Titanium Dioxide Co., Ltd.

72: ZHANG, Qian, ZHANG, Chuan, ZHANG, Jianping

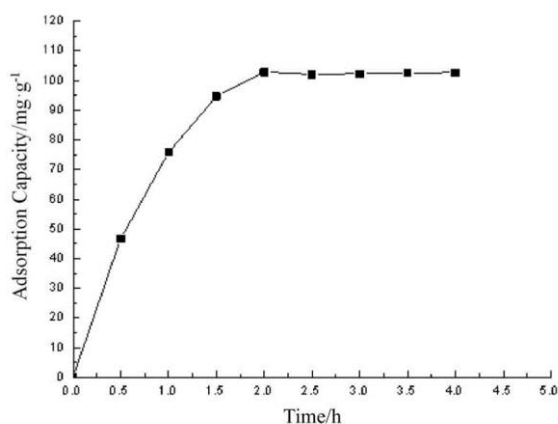
33: CN 31: 201911040730.3 32: 2019-10-30

#### **54: METHOD FOR PREPARING ADSORPTION MATERIAL FOR ADSORBING RADIOACTIVE ELEMENTS AND APPLICATION**

00: -

A method for preparing an adsorption material for adsorbing radioactive elements and an application,

the method comprising the following steps: (1) preparing metatitanic acid into a metatitanic acid slurry that has a mass concentration of 900-1000 g/L, adjusting the pH value to 8-9, adding a dispersant, stirring and dispersing uniformly to obtain slurry A; (2) wet-sanding the slurry A to an average particle size of less than or equal to 0.5 micro-meters to obtain slurry B; (3) adding a water-soluble silane coupling agent, and activating the surface of metatitanic acid to obtain slurry C; (4) adding a pore-forming agent, stirring and mixing uniformly to obtain slurry D; (5) drying by microwave to obtain substance E; and (6) carrying out air flow pulverization, and during the air flow pulverization process, simultaneously carrying out an organic surface treatment to obtain a floating metatitanic acid adsorption material. The adsorption material may not only adsorb radioactive elements in nuclear waste water, but may also repair nuclear radioactive contaminated soil. The material has the advantages of high adsorption efficiency, fast adsorption speed and low costs, may float on the water after adsorption, and is easy to recycle and reuse.



21: 2021/10573. 22: 2021/12/17. 43: 2022/03/24  
51: C12Q

71: Qilu University of Technology

72: Lan WenJun

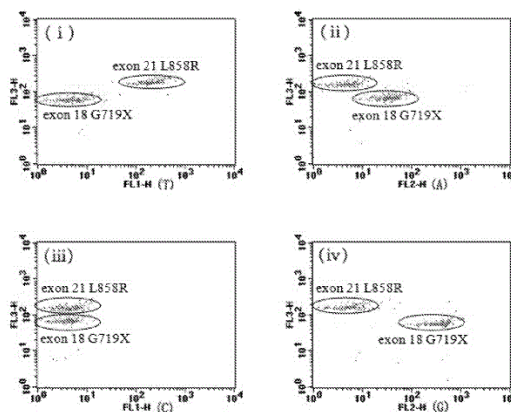
33: CN 31: 201910700888.2 32: 2019-07-31

#### **54: PREPARATION AND APPLICATION OF TERMINUS BASE CYTOMETRIC FLUORESCENCE SEQUENCING MICROSPHERES**

00: -

Preparation and application of terminus base cytometric fluorescence sequencing microspheres is

published in this invention. Utilizing complementary sequence of the nucleic acid fragments to be tested, primer, microspheres, nucleic acid polymerase, fluorescence-labeled ddNTP and ribose's 3'-OH-protected fluorescence dNTP, the terminus base cytometric fluorescence sequencing microspheres are obtained by primer single-base extension, which is suitable for flow cytometer. The obtained sequencing microsphere can be detected by flow cytometer to sequence the nucleic acid fragments to be tested. Compared to the present sequencing methods, this invention appears advantages of simplicity, accuracy and easy interpretation. The sequencing microspheres obtained from this invention can be widely used in the fields of gene detection, microbiological examination, genetics, exon genotyping, single nucleotide polymorphism (SNP), genomics, proteomics and companion diagnostics.



21: 2021/10574. 22: 2021/12/17. 43: 2022/03/24  
51: E21F

71: JIAXING JINXILAI TECHNOLOGY CO. LTD

72: LV, Yan

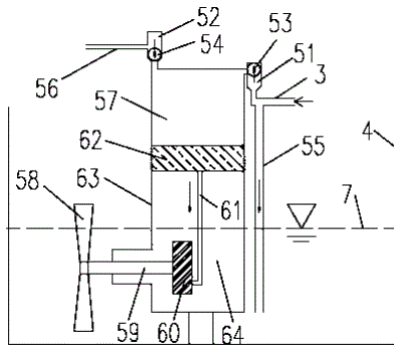
33: CN 31: 201911160040.1 32: 2019-11-23

#### **54: LONG TUNNEL WATER DRAINAGE SYSTEM** 00: -

A long tunnel water drainage system, a downward sloping bore hole (2) being formed by drilling the surrounding rock of a tunnel (1), a water drainage pipe (3) being placed in the bore hole (2), a water inlet of the water drainage pipe (3) being located at the bottom of the bore hole (2) and a water outlet of the water drainage pipe (3) being connected to a starting apparatus (5), the starting apparatus (5) being placed in a side trench (4), the starting



apparatus (5) being fixed to the bottom of the side trench (4), a ball valve chamber A (51) and a ball valve chamber B (52) being connected to an upper cavity (57), the water drainage pipe (3) being connected to the ball valve chamber A (51), one end of a water outlet pipe A (55) being connected to the water drainage pipe (3) and the other end of the water outlet pipe A (55) being placed in the side trench (4), a rotating shaft (59) being mounted in a lower cavity (64), and a connecting rod (61) being connected between a rotating wheel (60) and a plug body (62).



21: 2021/10575. 22: 2021/12/17. 43: 2022/03/24  
51: B07B; E02D; E03F

71: JIAXING JINXILAI TECHNOLOGY CO. LTD  
72: LV, Yan

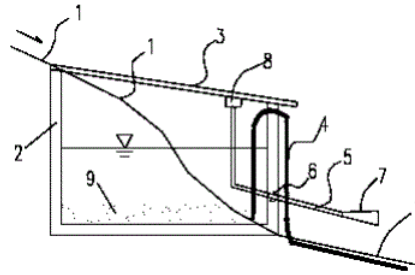
33: CN 31: 201911157147.0 32: 2019-11-22

#### **54: DEBRIS FLOW PREVENTION SYSTEM**

00: -

The present invention provides a debris flow prevention system and method, which can solve the problem that rocks block a perforated cover plate after water and rocks of debris flows are separated, and ensure that a debris flow water and rock separation system can work permanently and effectively. The debris flow prevention system comprises a drainage system and a vibration system, the drainage system comprises a water collection tank, a perforated cover plate and a drainage pipe, and the vibration system comprises a rotating rod, a fixed shaft, a pedal, a support block and a spring. The present invention can realize the effective control of the formation and flow process of debris flows, solving the problem of the management of debris flow channels of different scales, and can realize the separation of soil and water by using the water collection tank and the drainage pipe,

weakening the hydrodynamic conditions of debris flows, and reducing the destructive force of debris flows. By using the kinetic energy of large rocks in debris flows as power, the vibration system of the present invention can continuously and effectively ensure the generation of vibration, thereby avoiding the blocking of the cover plate, enabling the drainage system to function stably, and effectively preventing debris flows.



21: 2021/10576. 22: 2021/12/17. 43: 2022/03/24

51: E02D

71: TONGXIANG BEITE TECHNOLOGY CO. LTD

72: YAO, Fangying, ZHOU, Juanru

33: CN 31: 201911159950.8 32: 2019-11-23

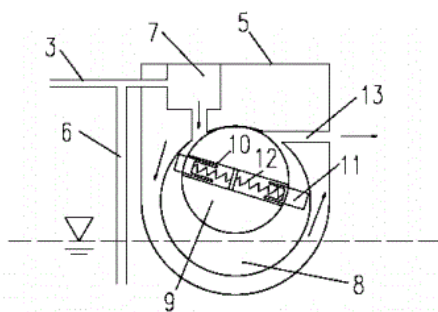
#### **54: COASTAL SLOPE DRAINAGE SYSTEM**

00: -

A coastal slope drainage system. A hydrodynamic apparatus (5) is placed in seawater, the hydrodynamic apparatus (5) being fixed to a bottom of a seabed, the hydrodynamic apparatus (5) comprising a water inlet chamber (7), a rotary vane cavity (8), a circular wheel (9), a rotary vane slot (10), rotary vanes (11), a spring (12), a drain pipe (13), a shaft (14), a waterwheel cavity (15), waterwheel vanes (16) and a basin (17); a water diversion pipe is connected to the water inlet chamber (7) of the hydrodynamic apparatus (5), the water inlet chamber (7) and the drain pipe (13) are connected to the rotary vane cavity (8), the circular wheel (9) is disposed in the rotary vane cavity (8), the rotary vane slot (10) is disposed on the circular wheel (9), the rotary vanes (11) are disposed at two ends of the rotary vane slot (10), the rotary vanes (11) are fixedly connected to the rotary vane slot (10) by means of the spring (12), there is a separation of 1-2 mm between an upper edge of the circular wheel (9) and an upper edge of the rotary vane cavity (8), rotation of the circular wheel is not affected by resistance from the rotary vane cavity



(8); the shaft (14) connects the circular wheel (9) to the waterwheel vanes (16), the waterwheel vanes (16) are disposed in the waterwheel cavity (15), the basin (17) is disposed at an upper part of the waterwheel cavity (15), and an edge of the basin (17) is provided with an opening enabling a water flow to impact the waterwheel vanes (16).



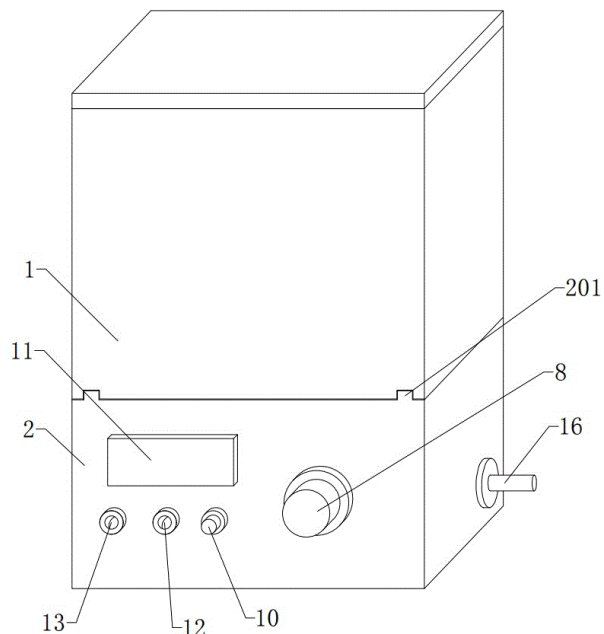
21: 2021/10624. 22: 2021/12/20. 43: 2022/03/28  
51: A61D

71: Qingdao Agricultural University  
72: Yang Chunhong, Zhang Qingfeng, Zhao Chuande, Liu Tongxian

#### **54: DEVICE FOR ATOMIZING RNAI TO INSECTS AND METHOD THEREOF**

00: -

The invention discloses a device and method for atomizing RNAi to insects, which comprises an insect placing box and a liquid medicine atomizer. The insect placing box is a rectangular box, which is installed on a liquid medicine atomizer, one side of the liquid medicine atomizer is provided with a power plug, an atomization release mechanism is arranged in the liquid medicine atomizer to communicate with the insect placing box, and a clamping component is arranged between the insect placing box and the liquid medicine atomizer; the device for atomizing RNAi to insects has the advantages of simple structure and convenient control; with the way of releasing dsRNA by atomization, atomized RNAi has less influence on insects, is more convenient to operate, and can be applied to many insects in a wide range with uniform application, and can detect and regulate the drug concentration. According to the device, the method for atomizing pesticide application is simple in steps, convenient to operate, less harmful to insects and higher in experimental efficiency.



21: 2021/10625. 22: 2021/12/20. 43: 2022/03/28  
51: C12N

71: Shandong Tianze Taitian Seed Co., Ltd.,  
Shandong Huatian Seed Co., Ltd.

72: Tian Jichun, Liu Bin, Peng Li, Deng Zhiying, Xu Qian

#### **54: METHOD FOR CREATING WHEAT MOLECULAR BREEDING ELEMENTS CONTAINING QTL FAVORABLE ALLELES**

00: -

The invention discloses a method for creating wheat molecular breeding elements containing QTL favorable alleles. The method comprises the following steps: according to the mapping result of QTL mapping of main wheat traits, determining the source of favorable alleles on each QTL; determining the genotypes of molecular breeding elements for aggregating QTL favorable alleles; obtaining molecular breeding elements for aggregating QTL favorable alleles; obtaining molecular markers for breeding element tracking. The breeding element of the present invention contains favorable allelic variation genes of multiple QTLs of a certain trait; the favorable allelic variation genes of each QTL have stable and effective molecular markers to detect and track its transmission and aggregation; the wheat molecular breeding element created by the above steps accords with the concept and standard of molecular breeding element, which can be used for molecular

marker breeding and molecular design breeding, and it plays an important role in cultivating new breakthrough wheat varieties with favorable allelic variation genes at major trait loci.

21: 2021/10626. 22: 2021/12/20. 43: 2022/03/30  
51: C10L

71: Hunan Normal University

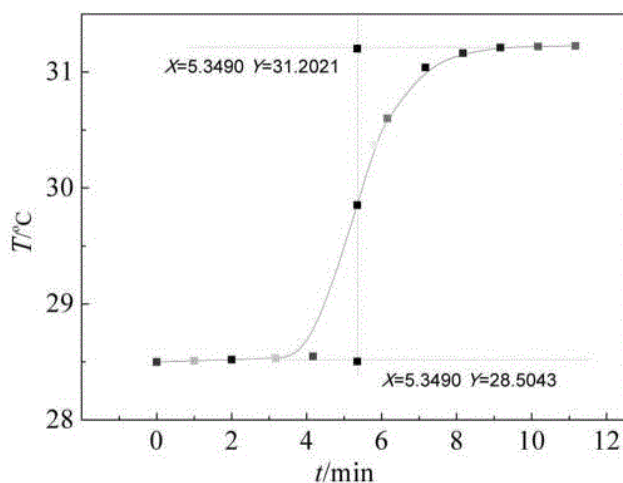
72: Yang Chunming, Yuan Xiaoqin, Ren Jun

#### **54: COMPOSITE EMULSIFIER FOR DIESEL OIL AND MICROEMULSIFIED DIESEL OIL**

00: -

A composite emulsifier for diesel oil mainly consists of nonionic mixed active agent, cationic active agent and co-surfactant. The nonionic mixed active agent is compounded by a lipophilic active agent and a hydrophilic active agent, and the lipophilic active agent and the hydrophilic active agent are the same kind of substances. A micro-emulsified diesel oil comprises the following raw materials in parts by weight: 60-80 parts of diesel oil, 10-20 parts of water and 10-20 parts of the composite emulsifier.

According to the invention, lipophilic fatty alcohol polyoxyethylene ether with a polymerization degree of 3-5 and hydrophilic fatty alcohol polyoxyethylene ether with a polymerization degree of 8-9 are selected as nonionic mixed active agents, which can generate a synergistic effect, obtain chemical stability and finer and more uniform particle size of emulsion particles, and have obvious advantages for preparing emulsified diesel oil.



21: 2021/10627. 22: 2021/12/20. 43: 2022/03/30  
51: B65G

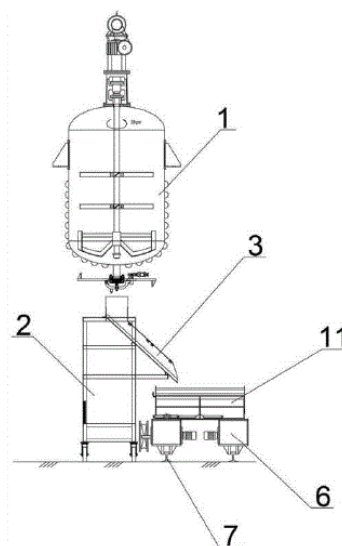
71: Puyang Enying Polymer Materials Co.,Ltd.

72: WANG, Hongshui, LI, Yuhui, ZHANG, Dongfeng, TANG, Hongshi, ZHANG, Yuansheng, YANG, Bo  
33: CN 31: 202110693381.6 32: 2021-06-22

#### **54: A MOVABLE TYPE UNLOADING AND CURING DEVICE FOR BENZOXAZINE RESIN PRODUCTION**

00: -

The present invention belongs to the technical field of benzoxazine resin production, and relates to a movable type unloading and curing device for benzoxazine resin production, including an unloading bracket arranged below an unloading mouth of a reactor, a mobile vehicle located on one side of the unloading bracket, and a curing assembly arranged on the mobile vehicle; an inclined unloading hopper is arranged on the unloading bracket; the mobile vehicle is arranged on two columns of guide rails; the curing assembly is fixed on a flat plate above the mobile vehicle; the curing assembly includes a cover plate, an unloading door plate, a side plate, a bottom plate, and a plurality of continuously disposed curing troughs; and a gap is reserved between bottoms of the curing troughs and the bottom plate and forms a cooling space.



21: 2021/10628. 22: 2021/12/20. 43: 2022/03/28  
51: A61K

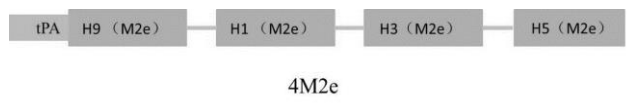
71: The Second Hospital of Nanjing (The Affiliated Hospital of Nanjing University of Chinese Medicine)

72: Yi Yongxiang, Li Junwei, Ye Wei, Wu Tongxin

#### **54: UNIVERSAL DNA VACCINE OF INFLUENZA A VIRUS AND CONSTRUCTION METHOD THEREOF**

00: -

The disclosure provides a universal DNA vaccine of influenza A virus and a construction method thereof, belonging to the technical field of genetic engineering. The DNA vaccine comprises a gene construct, a vector and a delivery system, wherein the gene construct is inserted into the vector to construct an expression plasmid, and the delivery system covers the expression plasmid to form a universal DNA vaccine for influenza A virus, wherein the gene construct is formed by tandem combining M2e genes of four different subtypes of influenza A virus, and the delivery system is composed of cell penetrating peptides. Combining the advantages of M2 protein extracellular domain of influenza A virus, universal vaccine and DNA vaccine, the vaccine has important scientific significance for effectively preventing and controlling different subtypes of influenza A virus and brings enormous social value.



21: 2021/10629. 22: 2021/12/20. 43: 2022/03/30  
51: A23K

71: Institute of Animal Husbandry and Veterinary Science, Shandong Academy of Agricultural Sciences

72: Sun Haitao, Liu Gongyan, Bai Liya, Liu Ce, Han Hong, Gao Shuxia, Li Mingyong, Liu Man, Yang Liping, Zhang Yin

#### 54: FEED ADDITIVE FOR IMPROVING RABBIT IMMUNITY AND PREPARATION METHOD THEREOF

00: -

The invention belongs to the field of animal feed, and particularly relates a feed additive for improving rabbit immunity and a preparation method thereof. The feed additive are prepared with *Cynanchum atratum*, *Mentha canadensis*, *Poria cocos*, *Fagopyrum dibotrys*, *Vigna umbellata*, *Pittosporum glabratu*, *Lxeris chinensis*, *Aralia elata*, *Dioscorea subcalva* Prain, *Lentinus edodes*, *Luffa cylindrica*, *Eupatorium fortunei*, *Atractylodes Lancea*, Leaves of Lemon Eucalyptu, *Morus alba*, *Millettia speciosa*, garlic powder, *Ficus simplicissima* as active ingredients according to a certain parts by weight. According to the invention, the feed additive is simple in preparation method and rich in actual effect; in effect, raw materials are complementary, so through the interaction of raw materials, the feed

additive may fundamentally increase rabbit appetite, strengthen rabbit health, improve rabbit disease resistance, reduce the use of antibiotics and improve rabbit meat quality; moreover, the feed additive also provides special bioactive substances, which may stimulate the establishment of rabbit's active immune system, enhance the rabbits ability of diseases prevention, enhance rabbits appetite, improve quality of rabbit hair and rabbit skin and further increase economic value of rabbits.

21: 2021/10630. 22: 2021/12/20. 43: 2022/03/30  
51: C25F; G01N

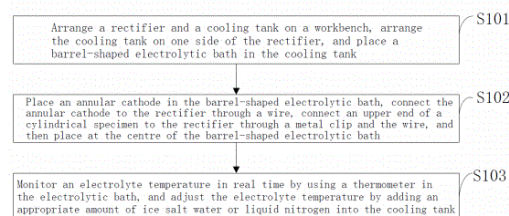
71: Guizhou University

72: HUANG, Chaowen, WAN, Mingpan, YANG, Jiang, XU, Pingwei, LI, Wei, SHI, Wei, YANG, Ming, REN, Xianli

#### 54: METHOD AND SYSTEM FOR ELECTROLYTICALLY POLISHING SURFACE OF METAL CYLINDRICAL SPECIMEN

00: -

The present invention belongs to the technical field of metal electrolytic polishing devices, and discloses a method and system for electrolytically polishing a surface of a metal cylindrical specimen. A rectifier and a cooling tank are arranged on a workbench. The cooling tank is arranged on one side of the rectifier, and a barrel-shaped electrolytic bath is placed in the cooling tank. An annular cathode is placed in the barrel-shaped electrolytic bath and connected to the rectifier through a wire. An upper end of a cylindrical specimen is connected to the rectifier through a metal clip and the wire and then placed at the centre of the barrel-shaped electrolytic bath. An electrolyte temperature is monitored in real time by using a thermometer in the electrolytic bath. The electrolyte temperature is adjusted by adding an appropriate amount of ice salt water or liquid nitrogen into the cooling tank.



21: 2021/10631. 22: 2021/12/20. 43: 2022/03/30

51: B25J

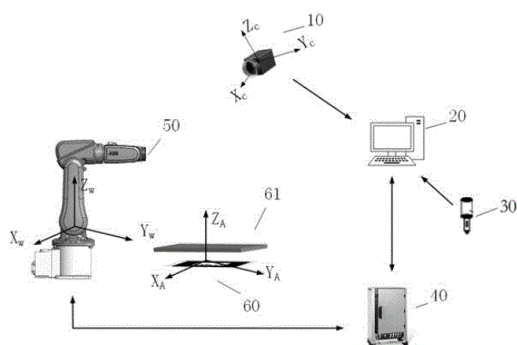
71: Qingdao University of Technology

72: CHEN, Chengjun, DING, Xutong, PAN, Yong, LI, Dongnian, HONG, Jun

**54: INDUSTRIAL ROBOT DEMONSTRATION SYSTEM AND METHOD BASED ON AUGMENTED REALITY TECHNOLOGY**

00: -

The invention relates to an industrial robot demonstration system based on an augmented reality technology, including a camera, a computer, an attitude demonstrator, a physical robot unit, an augmented reality (AR) demonstration unit, and a virtual robot model; the physical robot unit includes a physical robot controller and a physical robot; the physical robot controller is used to control the physical robot to move; the camera is arranged under a physical working environment, is in communication connection with the computer, and is used to acquire images of the physical robot and the physical working environment to the computer; the attitude demonstrator is held and operated by demonstration personnel to generate attitude data and send the attitude data to the computer; and the AR demonstration unit includes an AR registration card located in the physical working environment, and some components which run in the computer.



21: 2021/10632. 22: 2021/12/20. 43: 2022/03/30

51: G06T; G06Q

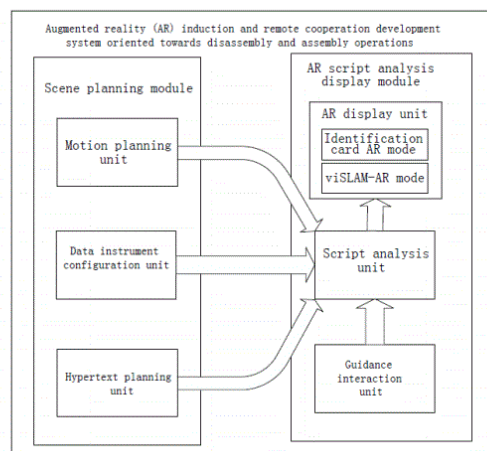
71: Qingdao University of Technology

72: CHEN, Chengjun, SUN, Zhenwu, LI, Dongnian, HONG, Jun

**54: AUGMENTED REALITY INDUCTION AND REMOTE COOPERATION DEVELOPMENT SYSTEM ORIENTED TOWARDS DISASSEMBLY AND ASSEMBLY OPERATIONS**

00: -

The present invention relates to an augmented reality (AR) induction and remote cooperation development system oriented towards disassembly and assembly operations, including a scene planning module and an AR script analysis display module. The scene planning module includes a motion planning unit, a data instrument configuration unit and a hypertext planning unit. The motion planning unit is configured to set motion attributes of nodes in a product virtual assembly model and generate corresponding motion planning script files and three-dimensional scene model files. The data instrument configuration unit is configured to set an instrument interface displayed in a virtual space. The hypertext planning unit is configured to set a hypertext interface displayed in the virtual space for guiding disassembly and assembly processes. The AR script analysis display module includes an AR display unit and a script analysis unit.



21: 2021/10633. 22: 2021/12/20. 43: 2022/03/30

51: G01B; G01D; G01M

71: Qingdao University of Technology

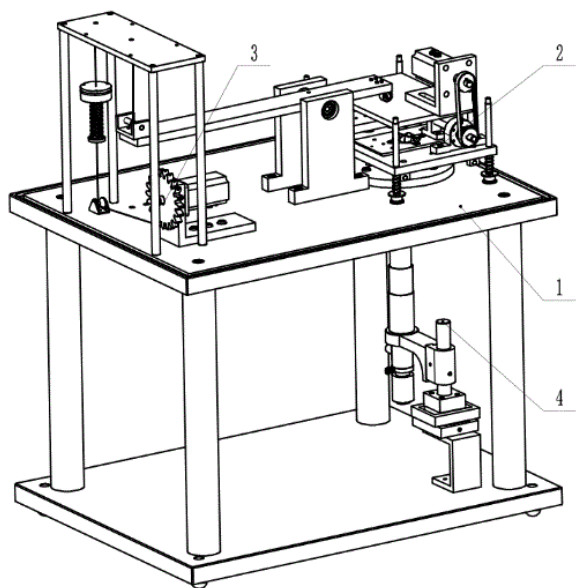
72: YANG, Shuyan, SONG, Luping, LI, Xinming, GUO, Feng

**54: DEVELOPMENT OF FILM THICKNESS MEASURING DEVICE WITH CONFIGURATION OF BALL-ON-CUP FOR SIMULATING ARTIFICIAL JOINT LUBRICATION**

00: -

The present invention discloses a film thickness measuring device with configuration of ball-on-cup for simulating artificial joint lubrication. The device includes a rack, a swing system, a variable loading system, and a microscope system. By means of the

film thickness measuring device with configuration of ball-on-cup for simulating artificial joint lubrication, a steel ball can swing within a required angle, so that the thickness measurement of a lubrication film can be carried out under a variable load condition.



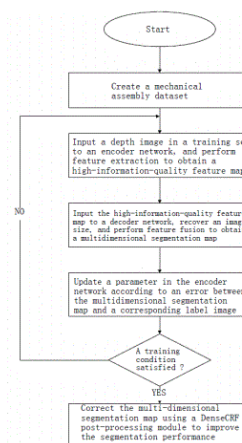
21: 2021/10634. 22: 2021/12/20. 43: 2022/03/30  
51: G06T; G06N  
71: Qingdao University of Technology  
72: CHEN, Chengjun, ZHANG, Chunlin, LI, Dongnian, PAN, Yong, GAO, Wei, ZHAO, Zhengxu, HONG, Jun

#### 54: DEEP LEARNING NETWORK-BASED MECHANICAL ASSEMBLY IMAGE SEGMENTATION METHOD AND DEVICE

00: -

A deep learning network-based mechanical assembly image segmentation method includes: constructing a mechanical assembly lightweight semantic segmentation model including an encoder network and a decoder network; creating a mechanical assembly dataset; inputting a depth image in the mechanical assembly dataset to the encoder network, and performing feature extraction to obtain a high-information-quality feature map; inputting the high-information-quality feature map to the decoder network, recovering an image size, and performing feature fusion to obtain a multidimensional segmentation map; updating a parameter in the encoder network according to an error between the multidimensional segmentation map and a corresponding label image; iteratively

executing the above steps using depth images in a training set till a preset training count; outputting the mechanical assembly lightweight semantic segmentation model after testing; and performing image segmentation using the mechanical assembly lightweight semantic segmentation model to segment each component of a mechanical assembly.



21: 2021/10635. 22: 2021/12/20. 43: 2022/03/28  
51: C12N; C12P; C12R

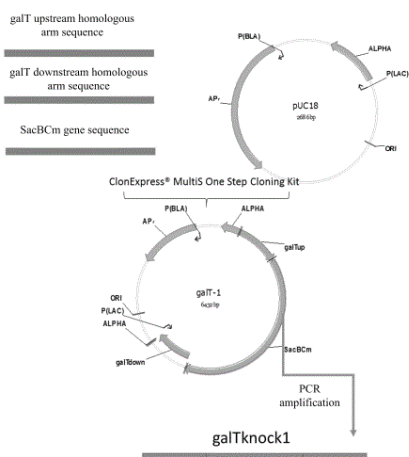
71: Xuzhou University of Technology  
72: SUN, Huigang, SHEN, Yifan, ZHOU, Zhongchi, LI, Tongxiang, XU, Zhilong, XIAO, Kaifeng

#### 54: METHOD FOR PRODUCING L-AMINO ACID THROUGH FERMENTATION BY USING GALT GENE-DEFICIENT STRAIN

00: -

The present disclosure discloses a method for producing an L-amino acid by using a galT gene-deficient strain through fermentation. Bacteria, belonging to enterobacteriaceae and capable of producing an L-amino acid, are cultured in a medium. The bacteria are modified before the culture, such that a galT gene is deficient. The L-amino acid is produced by collection from the medium or cells of the bacteria for production. Based on a series of test verification, the deficiency of the galT gene or deficiency of functions or related sequences of the galT gene is beneficial for fermenting the L-amino acid and improving the yield and the conversion rate of the amino acid.





21: 2021/10636. 22: 2021/12/20. 43: 2022/03/30  
 51: A01G; A01N; C05G; C12N; C12R; A01P  
 71: Xuzhou University of Technology  
 72: SUN, Huigang, CHEN, Zhixuan, LI, Tongxiang,  
 TAO, Xiaojun, ZHOU, Zhongchi, ZHANG, Xue  
**54: BIOLOGICAL CONTROL METHOD FOR COTTON DISEASES**

00: -

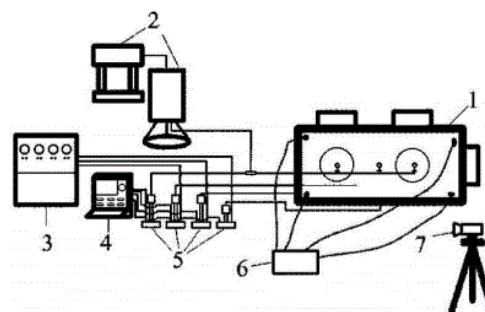
A biological control method for cotton diseases. The method comprises the steps of: (1) soaking cotton seeds and high in purity into water; (2) picking up the soaked cotton seeds, drying in the air, sowing into a flower pot; (3) transferring *Bacillus methylotrophicus* into a liquid LB medium, and carrying out submerged cultivation on the LB medium, to obtain a bacterial suspension; (4) placing the preserved glycerol bacteria suspension in a constant temperature incubator for 12-20 h to obtain single colonies; (5) picking the single colonies, adding to a conical flask filled with 100-200 mL of a shake flask fermentation medium, and carrying out shake fermentation on the conical flask for 24-36 h, to obtain a fermentation broth; (6) centrifuging the fermentation broth and removing the precipitate to obtain the supernatant; filtering the supernatant to obtain the *Bacillus methylotrophicus* fermentation broth; (7) spraying the *Bacillus methylotrophicus* fermentation broth to cotton seedlings.

21: 2021/10637. 22: 2021/12/20. 43: 2022/03/30  
 51: E21B  
 71: Qingdao University of Technology  
 72: SUN, Keming, ZHANG, Shucui, LI, Kai, ZHANG,  
 Xingang, WANG, Wei, ZHENG, Qingsheng

#### 54: TRIAXIAL MULTI-CRACK HYDRAULIC FRACTURING EXPERIMENTAL DEVICE

00: -

The present application discloses a triaxial multi-crack hydraulic fracturing experimental device, so that a law of stress and water injection pressure changes and a crack propagation law in a hydraulic fracturing process can be obtained through a comprehensive analysis of pressure of a fracturing fluid, pressure recording information of hydraulic loading devices, acoustic emission monitoring information and a fracturing process video.



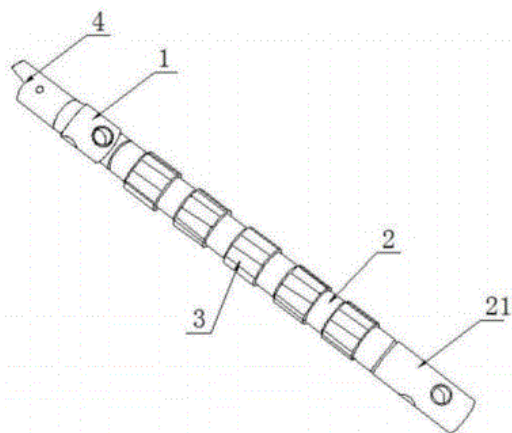
21: 2021/10638. 22: 2021/12/20. 43: 2022/03/30  
 51: E21C

71: Qingdao University of Technology  
 72: SUN, Keming, XIN, Liwei, ZHANG, Shucui, LI,  
 Kai, WANG, Wei, ZHENG, Qingsheng

#### 54: MULTI-PULSE GAS EXPLOSION PRE-SPLITTING DEVICE FOR COAL MINING

00: -

The present disclosure relates to a multi-pulse gas explosion pre-splitting device for coal mining. In the present disclosure, a low trigger point detonation section A, a medium trigger point detonation section B and a high trigger point detonation section C are arranged at intervals; after a detonator triggers detonation, the upper low trigger point detonation section A detonates first, and detonation of the medium trigger point detonation section B is triggered after the low trigger point detonation section A detonates, and then detonation of the high trigger point detonation section C adjacent to the medium trigger point detonation section B can be triggered after the medium trigger point detonation section B detonates. This can well implement multi-pulse detonation and pre-splitting of a coal seam, improve a crack performance of a pre-split part, and facilitate subsequent gas extraction.



21: 2021/10639. 22: 2021/12/20. 43: 2022/04/07

51: E21C; G01F

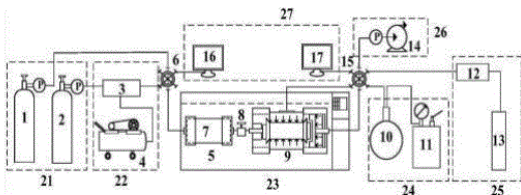
71: Qingdao University of Technology

72: SUN, Keming, WU, Di, LI, Kai, ZHANG, Shucui, WANG, Wei, ZHENG, Qingsheng

#### **54: DEVICE FOR IMPROVING COAL BED PERMEABILITY BY USING SUPERCRITICAL CO<sub>2</sub>**

00: -

A device for improving coal bed permeability by using supercritical CO<sub>2</sub>, which is a device for increasing a coal bed methane recovery rate. In the device, a gas injection system and a pressure kettle provide a gas source to a triaxial seepage device, a loading system provides an axial pressure and a confining pressure to the triaxial seepage device, and a waterbath provides a temperature required for a test. The device includes: the gas injection system, a pressurization device, the pressure kettle, a temperature control system, the triaxial seepage device, the loading system, a gas gathering system, a vacuum pumping system, and a data acquisition system. The gas injection system according to the present disclosure can ensure that a gas source pressure is stable. Liquid CO<sub>2</sub> is pressurized by the pressurization device, then introduced into the pressure kettle and heated by the water bath to reach a supercritical state.



21: 2021/10640. 22: 2021/12/20. 43: 2022/03/28

51: A61K

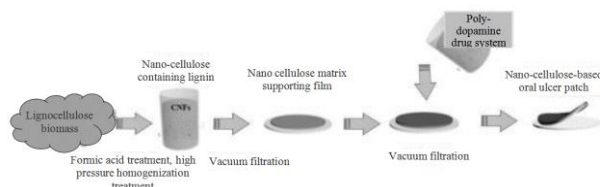
71: Qingdao University of Science and Technology

72: Xu Huanfei

#### **54: PREPARATION METHOD OF NANO-CELLULOSE-BASED ORAL ULCER PATCH**

00: -

The invention provides a preparation method of nano-cellulose-based oral ulcer patch, which is characterized in that lignocellulose biomass of food waste or agricultural and forestry waste is used as raw material. Nano-cellulose system containing lignin is obtained by one-step acid treatment with formic acid followed by high-pressure homogenization treatment. Then, vacuum filtration is adopted to filter the nano-cellulose system to prepare the nano-cellulose film containing lignin; vacuum suction filtration is continuously carried out on the polydopamine system containing drugs on the nano-cellulose film; finally, the multilayer film is dried to obtain the oral ulcer patch material based on nano-cellulose. The patch has high mechanical strength, good wet strength, good flexibility and large drug loading, and can be arbitrarily cut into target sizes for use. The invention has a good application prospect in the field of medicine.



21: 2021/10642. 22: 2021/12/20. 43: 2022/03/28

51: E04C

71: Gansu Province Transportation Planning, Survey and Design Institute Co.Ltd.

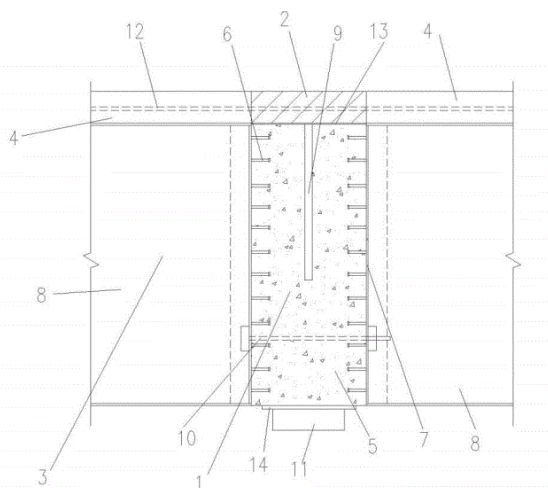
72: LIU, Jianxun, WANG, Longfei, QIAN, Hui, WU, Weihong, FAN, Jiang, LI, Guangming, LI, Zite

#### **54: SIMPLY SUPPORTED-CONTINUOUS STEEL-CONCRETE COMPOSITE BOX BEAM CONNECTING PIECE STRUCTURE**

00: -

The present disclosure relates specifically to a simply supported-continuous steel-concrete composite box beam connecting piece structure. The structure comprises the following components, wherein a cast-in-place reinforced concrete bridge deck slab and a cast-in-place concrete section are arranged for connecting two adjacent span prefabricated composite box beams, a gap is formed in the middle of the cast-in-place concrete section

through setting a foam plate, prestressed steel bars are arranged on the lower half portion of the cast-in-place concrete section, and the prestressed tendons are set in the negative bending moment areas, so a simply supported-continuous steel-concrete composite box beam are achieved. The structure solves the key problem that a concrete structure is connected with the steel-concrete composite box beam, the advantages of the continuous composite beam are fully exploited, and large-scale application is gained, therefore, the simply supported-continuous steel-concrete composite box beam connecting piece structure has very wide practicability.



21: 2021/10643. 22: 2021/12/20. 43: 2022/03/28  
51: A01N

71: Li Qingjun

72: Li Qingjun, Du Xiuqin, Peng Ling

#### **54: FORMULA OF CONTROL AGENT FOR MIRID BUGS IN WINTER JUJUBE GREENHOUSE AND APPLICATION METHOD THEREOF**

00: -

The invention relates to a formula for controlling mirid bugs in jujube orchard and application method thereof, which can effectively control the quantity of mirid bugs in jujube orchards. The invention includes the following steps: taking jujube flowers, alfalfa flowers, rosin resin, and 5 percent sodium hydroxide solution, and mixing 10-20 g jujube flowers, 15-22 g alfalfa flowers, and 30-45 g rosin resin into every 100 g 5 percent sodium hydroxide solution; winding the scotch tapes or self-adhesive straps, are first wound on the trunk from the early to middle of May

to mid-September, coating the above mixture on the scotch tapes, and replacing the tapes every 8-15 days; and winding 20-30 scotch tapes coated with the mixture around each jujube tree, in full bearing period. The invention is a new technology of physical pest control, which will not cause any negative influence on jujube fruit such as pesticide residue, and have a simple preparation at low costs.

21: 2021/10644. 22: 2021/12/20. 43: 2022/03/28  
51: A23K

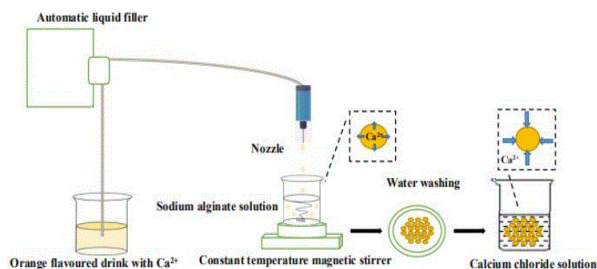
71: Zhejiang University

72: Wu Dan, Chen Jianchu, Liu Ying, Ye Xingqian

#### **54: PREPARATION PROCESS OF HIPPOPHAE RHAMNOIDES BALL**

00: -

The invention discloses a manufacturing process of Hippophae rhamnoides ball, belonging to that technical field of food processing. The preparation method of Hippophae rhamnoides ball comprises the following steps: adding sweetener, calcium preparation, edible gum and water into Hippophae rhamnoides juice, uniformly stir to obtain Hippophae rhamnoides juice core material, dripping the Hippophae rhamnoides juice core material into sodium alginate solution, stirring for reaction, filtering, washing, adding calcium lactate solution for reaction, and washing to obtain Hippophae rhamnoides ball. The edible gum and the calcium alginate shell are used to protect the highly active substances of Hippophae rhamnoides Linn. magma. The Hippophae rhamnoides balls prepared by the invention are bright and shiny in appearance, round and full in shape, and when eaten, jam will flow out of the fruit shells, which is sweet, sour and delicious. The content of highly active substances such as total flavonoids and total polyphenols in Hippophae rhamnoides is stable during storage, and the preparation method is simple, which is a processing technology of Hippophae rhamnoides juice with high quality and high activity.



21: 2021/10646. 22: 2021/12/20. 43: 2022/04/07  
51: G09B

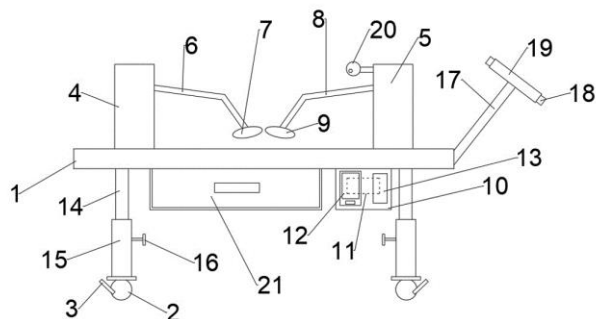
71: Jinzhou Medical University

72: CUI, Huixia, ZHANG, Wenlu, WANG, Weiwei, XU, Xiaoxiao, DONG, Hong, YU, Hongliu

**54: A TRAINING DEVICE FOR RECTUS ABDOMINIS DIASTASIS AFTER CESAREAN SECTION**

00: -

The invention discloses a training device for rectus abdominis diastasis after cesarean section, comprising a bed board provided with a plurality of telescopic supporting legs at the bottom, and the bottom of the telescopic supporting legs are provided with universal wheels, with the pedal locking devices provided on the universal wheels; the bed board is provided with a first vertical frame and a second vertical frame symmetrically, and the first vertical frame is provided with a first manipulator, with a first massage head provided at the end away from the first vertical frame; a control box is provided below the bed board. The invention has the following advantages: realizing the convenient training for rectus abdominis diastasis after the cesarean section with practical structural design, and realizing the convenient operations of position movements and the height adjustments; achieving the storage and monitoring functions, with convenient control and effective training.



21: 2021/10647. 22: 2021/12/20. 43: 2022/04/07  
51: C09D

71: ZHEJIANG NAMEI MATERIAL TECHNOLOGY CO., LTD.

72: LI, Mingfeng, HE, Guiping, ZHAO, Lei

**54: COLOR PASTE FOR INK OF WATER-BASED PEN**

00: -

Color paste for ink of a water-based pen is disclosed. The color paste includes 50 parts of water, 45-60 parts of a toner, 15-25 parts of water-soluble hyperbranched dispersion resin, 10-15 parts of a humectant, 5-10 parts of a first rheological modifier, 1-5 parts of a second rheological modifier, 1-5 parts of a pH regulator and 0-5 parts of a functional additive. The end of the water-soluble hyperbranched dispersion resin has a sulfonic acid group structure. The first rheological modifier and the second rheological modifier form an unstable cross-linked interpenetrating network through hydrogen bonds. The color paste for the ink of the water-based pen has the characteristic of high stability, the storage stability is greatly improved, and meanwhile, the phenomena of delaminating, caking and sedimentation in the storage process are avoided. The color paste prepared according to the formula in the disclosure is more brilliant in color.

21: 2021/10648. 22: 2021/12/20. 43: 2022/04/07  
51: G01N

71: Dalian University of Technology

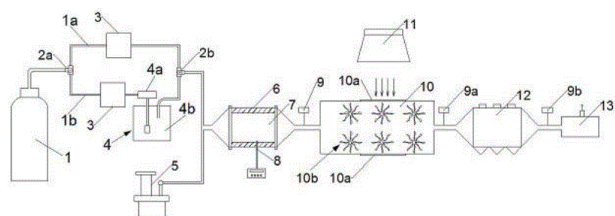
72: DONG, Ming, WANG, Shuang, ZHANG, Han, PU, Hang, LI, Sufen, SHANG, Yan

**54: TEMPERATURE AND HUMIDITY CONTROLLABLE EXPERIMENTAL DEVICE FOR TURBULENCE AGGLOMERATION OF MICRON-SIZED PARTICLES**

00: -

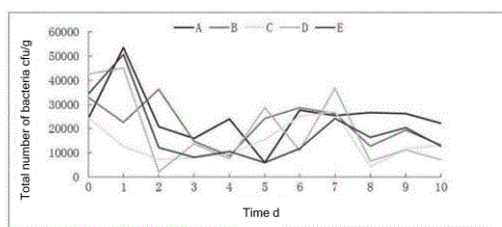


A temperature and humidity controllable experimental device for turbulence agglomeration of micron-sized particles is provided, and belongs to the field of temperature and humidity controllable experimental devices for collision agglomeration of turbulence fields. The temperature and humidity controllable experiment device for turbulence agglomeration of the micron-sized particles can realize collision agglomeration experiment research work among the micro-sized particles with the gas flow velocity controlled to be 0.5-20 m/s and the gas flow temperature controlled to be 220-230 degree Celsius, thus providing effective support for theoretical research of the collision agglomeration process among the particles. Compared with a traditional fixed pin fin structure, the device is provided with a rotatable flow disturbing impeller, thus the device is fast in start, stronger in flow disturbance effect, capable of improving the collision efficiency of the particles, and has a large application prospect in the particle dust removal field.



21: 2021/10649. 22: 2021/12/20. 43: 2022/04/07  
51: A01K; A23K; C02F  
71: Guangdong Ocean University  
72: HUANG, Xianghu, LI, Changling, ZHANG, Yulei  
**54: BREEDING METHOD FOR REDUCING NUMBER OF BACTERIA AND CONTENT OF HEAVY METALS IN BIVALVE MOLLUSKS**  
00: -

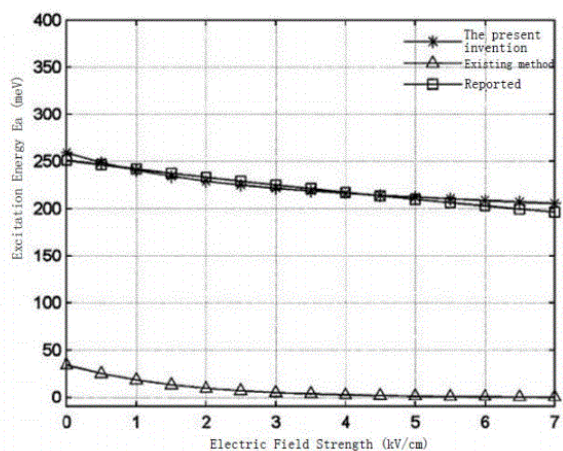
The present disclosure provides a breeding method for reducing a number of bacteria and a content of heavy metals in bivalve mollusks.



21: 2021/10650. 22: 2021/12/20. 43: 2022/03/28  
51: A01K; C02F  
71: Guangdong Ocean University  
72: LI, Changling, HUANG, Xianghu, ZHANG, Ning  
**54: METHOD FOR REGULATING WATER QUALITY IN AQUACULTURE BY USING OOCYSTIS SP**  
00: -  
The present disclosure provides a method for regulating water quality in aquaculture by using Oocystis sp.

21: 2021/10652. 22: 2021/12/20. 43: 2022/04/07  
51: H01L  
71: SHANXI DATONG UNIVERSITY  
72: LIU, Hongmei, MENG, Tianhua, KANG, Yongqiang, YANG, Chunhua, LIU, Guizhi, CHEN, Aijun, WANG, Ping, SHI, Yunlong  
**54: METHOD FOR CHARACTERIZING RESPONSIVITY OF QUANTUM DOT INFRARED PHOTODETECTOR**  
00: -  
The present invention relates to a method for evaluating the performance of a photoelectric photodetector, and in view of the deficiencies of the prior art methods for characterizing the responsivity of a longitudinal structure quantum dot infrared photodetector, a method for characterizing the responsivity of a quantum dot infrared photodetector is provided. Based on the relationship between photocurrent and quantum efficiency and photoconductive gain in the photoconductive detection mechanism of quantum dot infrared photodetector, the photocurrent model is derived and the magnitude of photocurrent is determined; through the relationship between the responsivity and photocurrent in the quantum dot infrared photodetector, the responsivity model is established to realize the characterization of the responsivity.





21: 2021/10653. 22: 2021/12/20. 43: 2022/03/28  
51: A01H

71: Guizhou Institute of Biology

72: WEN, Guangqin, NIE, Fei, WEN, Guangzhong, WANG, Pinghong, DUAN, Ruyan, ZHAO, Liangqing, LIAO, Youjiang

**54: METHOD FOR PREPARING CULTURE MEDIUM FOR PROMOTING VACCINIUM CORYMBOSUM TISSUE CULTURE ROOTING**

00: -

The present disclosure discloses a method for preparing a culture medium for promoting Vaccinium corymbosum tissue culture rooting. The method comprises the following specific steps: preparing a rooting agent: dissolving indoleacetic acid, 1-naphthylacetic acid, monopotassium phosphate and boric acid into 1 L of distilled water, and adjusting the pH to be 5.9-6.3, and filtering and sterilizing by using a filter membrane to prepare the rooting agent; preparing a rooting matrix: uniformly mixing perlite, vermiculite and activated carbon, sterilizing at 121 degree Celsius for 15-20 min, and cooling to room temperature to prepare the rooting matrix; and uniformly mixing 1 L of the rooting agent with 380-420 g of the rooting matrix under an aseptic condition to finish preparation of the Vaccinium corymbosum tissue culture rooting culture medium.

21: 2021/10654. 22: 2021/12/20. 43: 2022/04/07  
51: B01J; C07D; C23F

71: Shenyang University of Technology

72: LIU, Gongzhao

**54: HYDROXYALKYL IMIDAZOLINE AMIDE, AND PREPARATION METHOD AND USE THEREOF**

00: -

The present disclosure provides a hydroxyalkyl imidazoline amide, a preparation method and use thereof, and belongs to the technical field of organic synthesis. The method for preparing a hydroxyalkyl imidazoline amide provided by the present disclosure includes the following steps of: mixing fatty acid with tetraethylenepentamine and petroleum ether to carry out an amidation reaction, then subjecting to a polyacetamidation reaction with glacial acetic acid and petroleum ether, and subsequently mixing with activated Cu-BTC-MOFs to carry out a cyclization reaction, so as to obtain the hydroxyalkyl imidazoline amide. In the present disclosure, the activated Cu-BTC-MOFs are used as a catalyst and have a large number of unsaturated metal active sites, so that the cyclization degree of an initial product of polyacetamidation can be improved, the yield of hydroxyalkyl imidazoline amide is improved without adding the fatty acid for many times, and the preparation process is simplified.

21: 2021/10655. 22: 2021/12/20. 43: 2022/04/07  
51: A61K

71: Beijing Huanya Zhongke Engineering Equipment Co., Ltd

72: ZHOU, Yukun, ZHAO, Chunlin, WANG, Junmei, SONG, Jianjun

**54: CELLULOSE RED ALGAE POLYSACCHARIDE PLANT HOLLOW CAPSULE AND RAW MATERIAL COMPOSITION AND PREPARATION METHOD THEREOF**

00: -

The present disclosure discloses a raw material composition of a cellulose red algae polysaccharide plant hollow capsule. The raw material composition comprises the following raw materials in parts by weight: 77.5-98.5 parts of a component A, 1.5-22.5 parts of red algae polysaccharide and 0.5-12.5 parts of alcohols, wherein the component A is a cellulose derivative and/or resin. The present disclosure further discloses a cellulose red algae polysaccharide plant hollow capsule prepared from the raw material composition and a preparation method of the cellulose red algae polysaccharide plant hollow capsule. The obtained plant hollow capsule does not deform or become brittle in a high-temperature, high-humidity or cold environment, is low in moisture content, good in stability, convenient

to store for a long time and low in requirements on storage conditions.

21: 2021/10656. 22: 2021/12/20. 43: 2022/04/07

51: A61K

71: Beijing Huanya Zhongke Engineering Equipment Co., Ltd

72: ZHOU, Yukun, ZHAO, Chunlin, WANG, Junmei, SONG, Jianjun

**54: CELLULOSE RHODOPHYTA POLYSACCHARIDE FILM COATING PREMIX AND SOLUTION PREPARATION METHOD THEREOF**

00: -

The present disclosure discloses a cellulose rhodophyta polysaccharide film coating premix, comprising the following raw materials in parts by weight: 0.3-26 parts of a rhodophyta polysaccharide, 70-99 parts of a cellulose derivative and 0-10 parts of an auxiliary component. The present disclosure further discloses a solution preparation method of the cellulose rhodophyta polysaccharide film coating premix, comprising the steps of: mixing various raw materials to obtain a film coating premix; adding a solvent of 14-28 times the weight of the film coating premix into a container, heating to 85-95 degree Celsius, adding the film coating premix while stirring for 10-60 min until being uniform, subsequently cooling to 40-58 degree Celsius, and leaving to stand for 10-60 min at a constant temperature, to obtain a cellulose rhodophyta polysaccharide film coating solution.

21: 2021/10657. 22: 2021/12/20. 43: 2022/04/07

51: C04B

71: Beijing Wenshui Jiangyuan Coating Technology Co., Ltd

72: TENG, Junwei, QIN, Dandan

**54: LOST FOAM STEEL-CASTING COATING AND PREPARATION METHOD THEREOF**

00: -

The present disclosure provides a lost foam steel-casting coating, comprising the following components: refractory aggregate, sintering aid, thickening agent, dispersing agent, suspending agent, binding agent, defoaming agent, PTFE fiber, foam microbead, phenolic resin and water.

According to the present disclosure, by adding phenolic resin to the coating, the heat resistance, flame resistance and adhesion of the coating are improved; by adding PTFE fiber, the extensibility of

coating is improved, which is beneficial to the uniform shrinkage of each part of the coating during the drying process, improving the coating strength and thereby effectively avoiding the cracking of coating; moreover, because PTFE fiber has good air permeability, it is not easy to generate bubbles, and combining with the foam microbeads, the metal will vaporize when encountering high temperature liquid during pouring, forming small holes in the coating, which greatly reduces the possibility of coating cracking during high-temperature baking.

21: 2021/10658. 22: 2021/12/20. 43: 2022/03/28

51: B25B

71: Shandong Daozhisheng Information Technology Co., Ltd.

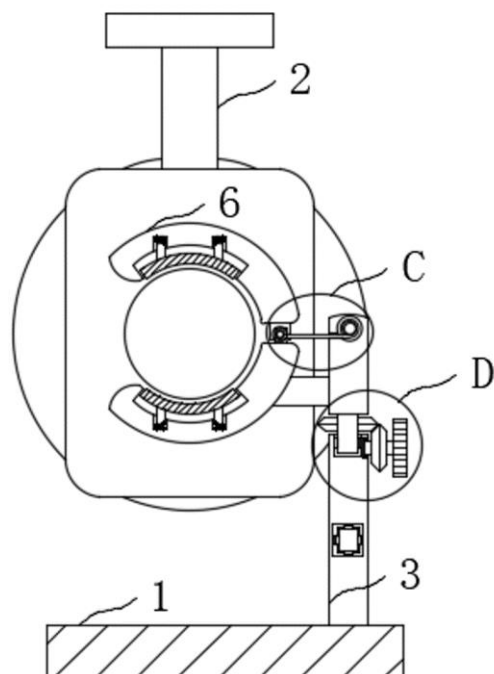
72: Qianqian MOU

33: CN 31: 202110073816.7 32: 2021-01-20

**54: HIGH-PRECISION AND ANTI-DEFORMATION APPARATUS FOR MACHINING FLANGE FACE OF SAFETY VALVE**

00: -

Disclosed is a high-precision and anti-deformation apparatus for machining a flange face of a safety valve. The apparatus includes a base and a safety valve, where two support rods are mounted on the base, mounting rods are mounted on the two support rods, first cambered plates are fixedly mounted on the two mounting rods, the two first cambered plates are hinged to second cambered plates through rotary rods, two limit sleeves are fixedly mounted on each of the two rotary rods, and a steel wire rope is wound between every two limit sleeves. The apparatus has the following advantages: safety valves with different diameters and lengths can be fixed, such that an application range is relatively wide; when the safety valves are fixed, external force applied to the safety valves is relatively uniform, such that the possibility of deformation and damage to the safety valves due to relatively large external force can be lowered; and moreover, after the safety valves are fixed, angles of the safety valve relative to bases can be adjusted, such that the safety valves are convenient to machine at different angles and can be machined more conveniently to a certain extent.



21: 2021/10660. 22: 2021/12/20. 43: 2022/02/16  
51: G06T; G06N

71: NANJING NORMAL UNIVERSITY

72: YAN, ZHENJUN, YU, ZHAOYUAN, WANG, JIAN, LUO, WEN, PAN, BINGHUANG, HU, XU, TENG, YUHAO, YUAN, LINWANG

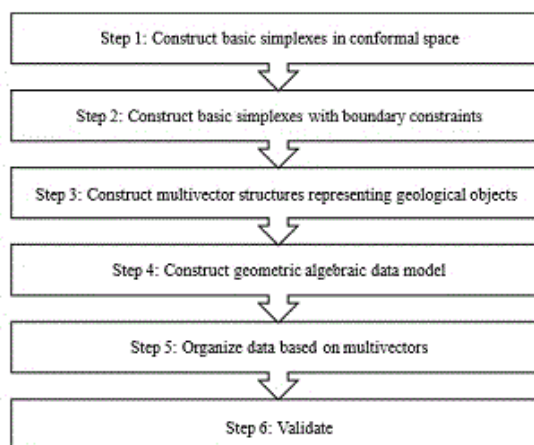
33: CN 31: 202111462611.4 32: 2021-12-02

**54: METHOD FOR CONSTRUCTING THREE-DIMENSIONAL GEOLOGICAL DATA MODEL BASED ON CONFORMAL GEOMETRIC ALGEBRA**

00: -

The present invention discloses a method for constructing a three-dimensional geological data model based on conformal geometric algebra (CGA), comprising: converting coordinate points in Euclidean space to conformal points in conformal space, and acquiring conformal lines, conformal planes and conformal voxels in the conformal space using outer product operation in conformal geometric algebra based on the obtained conformal points; adding boundary constraints to the conformal lines using the conformal points, adding boundary constraints to the conformal planes using the conformal points and the conformal lines, and adding boundary constraints to conformal voxels using the conformal points, the conformal lines and the conformal planes, so as to construct conformal lines, conformal planes and conformal voxels with

the boundary constraints; constructing multivectors representing geological line objects, multivectors representing geological planes objects and multivectors representing geological body objects; and constructing the three-dimensional geological data model based on the multivectors to implement modeling and expression of geological body.



21: 2021/10679. 22: 2021/12/20. 43: 2022/04/07  
51: B32B

71: QILU UNIVERSITY OF TECHNOLOGY

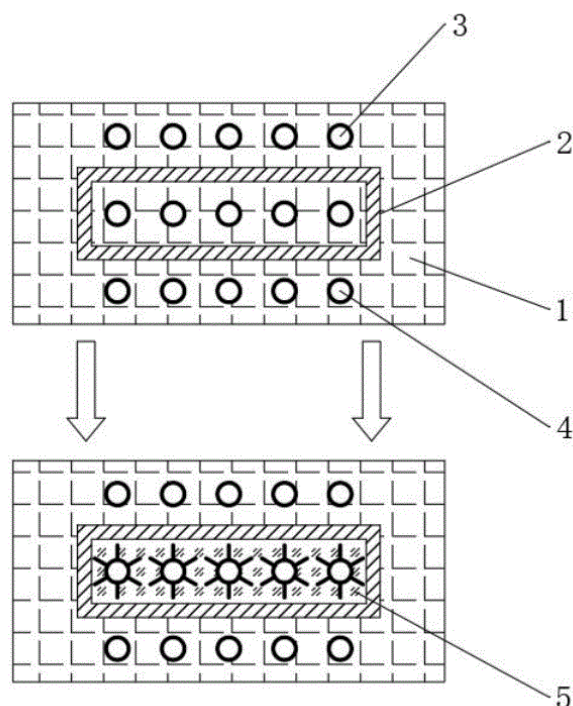
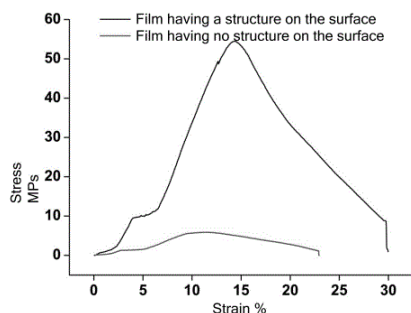
72: HE, Ming, YANG, Guihua, CHEN, Jiachuan, XUE, Yu, JI, Xingxiang, LIU, Zhaoxiang

33: CN 31: 202010181501.X 32: 2020-03-16

**54: OPTICAL NANOCELLULOSE FILM, AND PREPARATION METHOD THEREFOR AND APPLICATION THEREOF**

00: -

An optical nanocellulose film, and a preparation method therefor and an application thereof. The method comprises the following steps: coating the surface of an activated PDMS film with a polyethylene oxide layer, and then coating the polyethylene oxide layer with a CNC layer; coating the surface of a CNF/CNC thin film with the polyethylene oxide layer, and then laminating the polyethylene oxide surface and the CNC layer to each other; and drying to obtain a nanocellulose film. A suspension is prepared by mixing a CNF with a CNC and made into the CNF/CNC film, thereby facilitating dispersion and improving the transparency and tensile strength of a formed film.



21: 2021/10704. 22: 2021/12/21. 43: 2022/03/29  
51: F28D

71: China University of Mining and Technology  
72: Sun Meng, Yue Fengtian, Li Xiaozhao, Zhang Donghai, Wei Jingsheng, Gao Tao, Wu Xuehui  
33: CN 31: 202110158859.5 32: 2021-02-05

#### **54: A PARTITIONED UNDERGROUND DIAPHRAGM WALL CAPABLE OF BEING USED FOR PHASE CHANGE HEAT STORAGE**

00: -

The invention discloses a partitioned underground diaphragm wall capable of being used for phase change heat storage. It belongs to the field of underground diaphragm wall construction technology. The invention can realize the partition of the existing underground diaphragm wall. Before pouring, it is convenient to lay steel plates inside the underground diaphragm wall. At the same time, the down-conversion heat exchange pipe is embedded, and the concrete is poured in the steel plate during the construction of the underground diaphragm wall. After the construction of the underground structure is completed, the concrete in the steel plate is forced to shrink by the cooling of the variable heat exchange pipe, and the concrete in the steel plate is taken out. Then the phase change material is filled in the steel plate, and the expansion action of the variable heat exchange pipe is triggered to extend in the phase change material. Effectively increasing the heat exchange area, effectively extracting the heat of the soil around the underground diaphragm wall, and strengthening the heat exchange capacity of the energy underground structure can not only assist the underground structure in energy recovery and utilization, but also effectively control the construction cost of the underground diaphragm wall, which is conducive to the popularization and application of the underground diaphragm wall.

21: 2021/10705. 22: 2021/12/21. 43: 2022/03/28  
51: A23L; F26B

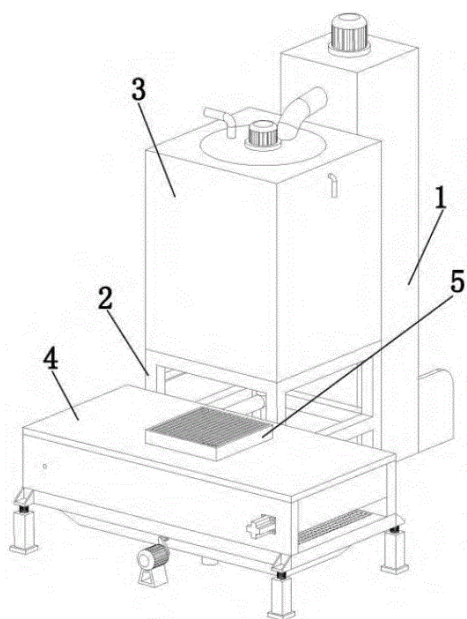
71: Anhui Science and Technology University  
72: DING, Zhigang, GAO, Hongmei, LI, Xue, YANG, Jianting, PENG, Gang, ZHANG, Qi

#### **54: COOKING AND DRYING DEVICE FOR PREBOILED RICE**

00: -

Disclosed is a cooking and drying device for preboiled rice, belonging to the technical field of preboiled rice processing and comprising a loading assembly, a mounting rack, a cooking assembly and a drying assembly. The cooking assembly includes a cooking box disposed at the top of the mounting rack, a cooking member disposed inside the cooking box and an unloading member disposed at the bottom of the cooking member. The drying assembly disposed aside the mounting rack comprises a filter member, a moving member disposed at the top of the filter member and a rotating member disposed on the moving member. The loading assembly is disposed aside the mounting rack. A stirring motor drives a stirring shaft to rotate the preboiled rice to avoid undercooking and influence on cooking effect, caused by incomplete contact between some preboiled rice and steam due to unmovable position of preboiled rice during cooking.





21: 2021/10706. 22: 2021/12/21. 43: 2022/03/29  
51: A61K; A61P

71: Xinxiang Medical University

72: NIU, Bingxuan, HUANG, Feng, NIU, Huifang, MENG, Xiangfei, HOU, Hanyu

**54: ACETYLATED MORINDA OFFICINALIS WATER EXTRACT AND PREPARATION METHOD AND APPLICATION THEREOF**

00: -

The present disclosure relates to an acetylated Morinda officinalis water extract, a preparation method and an application thereof, belonging to the technical field of preparation of antidepressant drugs. The present disclosure provides an acetylated Morinda officinalis water extract, and a method for preparing the acetylated Morinda officinalis water extract comprises the following steps: mixing 30 g of dried Morinda officinalis water extract with 200 mL of acetic anhydride and 2 g of sulfamic acid, reacting at 10 to 30°C for 30 min, raising the temperature to 60 to 90°C, and reacting for 20 min. The acetylated Morinda officinalis water extract provided by the present disclosure has high activity against depression, and is capable of realizing the application of the acetylated Morinda officinalis water extract in preparing antidepressant drugs.

21: 2021/10707. 22: 2021/12/21. 43: 2022/03/29  
51: A61K

71: Guangxi Normal University for Nationalities

72: Chang Yuwei, Yang Jingjun, Liu Shaopeng, Kang Xiaohua, Ma Lingfa, He Shuling, Yu Jianfang, Sun Yebin, Yang Xianglan, Duan Wenbin, Yan Yinghui

**54: BREWING TECHNOLOGY OF HIGHLAND BARLEY HEALTH WINE BASED ON BLACK URTICA, GANODERMA AND ZIZIPHUS ZIZIPHUS AND ITS PRODUCTS**

00: -

The invention discloses a brewing process of highland barley health wine based on Urtica, Ganoderma and Ziziphus ziziphus and its products, which relates to the field of brewing. The wine-making raw materials of highland barley health wine include, by weight, 50-70 parts of highland barley, 5-15 parts of black Urtica, 10-30 parts of Ganoderma and 5-15 parts of Ziziphus ziziphus. The health wine brewed by taking highland barley as the main material and compounding black Urtica, Ganoderma and Ziziphus ziziphus has rich nutritional value, and can improve the immunity of human body and the health care effect of disease prevention and resistance.

21: 2021/10708. 22: 2021/12/21. 43: 2022/03/28  
51: C12P

71: Inner Mongolia University

72: WU, Xiaotong, XU, Yunfeng, ZHANG, Dejian, WANG, Pu, LIU, Jing

33: CN 31: 202110646548.3 32: 2021-06-10

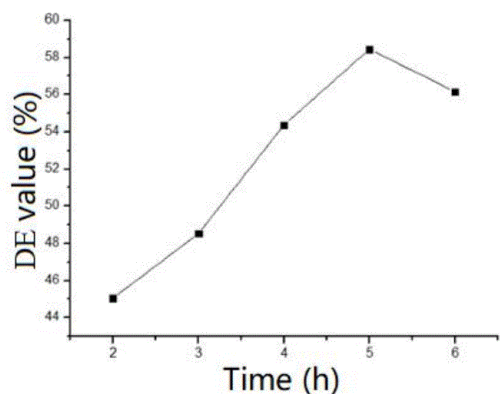
**54: METHOD FOR SACCHARIFICATION OF CYPERUS ESCULENTUS SOYBEAN MEAL**

00: -

The present disclosure provides a method for saccharification of Cyperus Esculentus soybean meal, which belongs to the technical field of food processing. The present disclosure gelatinizes the soybean meal of Cyperus Esculentus sesame seeds, and uses medium-temperature alpha-amylase to enzymatically hydrolyze the gelatinized liquid obtained by the gelatinization, so that the alpha-1,4 glycosidic bonds in the starch are hydrolyzed to generate small molecular dextrans and other oligosaccharides. Add anhydrous calcium chloride to the enzymatic hydrolysis system to make the medium-temperature alpha-amylase resistant to high temperature and maintain the activity of the amylase during the liquefaction process, so that the



enzymatic hydrolysis is more thorough; The glycosylase obtained by enzymatic hydrolysis is saccharified to make small molecular dextrin and oligosaccharide alpha- 1,6 glycosidic bonds and alpha- 1,4 glycosidic bond cleavage, and finally glucose is formed, which completes the saccharification.



21: 2021/10709. 22: 2021/12/21. 43: 2022/03/28  
51: G01N

71: First Institute of Oceanography, Ministry of Natural Resources  
72: ZHU, Aimei, SHI, Xuefa, LIU, Jihua, BAI, Yazhi, WANG, Hongmin

**54: REFERENCE MATERIAL OF REE-RICH DEEP SEA SEDIMENTS AND PREPARATION METHOD THEREOF**

00: -

Reference materials of REE-rich deep sea sediments and preparation method thereof, comprising: (1) preparation of reference material candidates of the REE-rich deep sea sediments; (2) giving homogeneity check to the reference material candidates; (3) giving stability check to the reference material candidates; (4) characterizing the reference materials; and (5) evaluating uncertainties.

Compared with the prior art, rare earth contents in the reference materials of the REE-rich deep sea sediments according to the present invention are gradient, and the reference materials can be used flexibly during actual applications. The REE-rich deep sea sediments are of good homogeneity and stability. And the reference materials can provide supports for measurement instrument calibration, analysis method evaluation, technical examination of analysis staff, quality evaluation of analysis results,

and daily analysis and quality control etc., and render data supports for geological marine prospection and be of use for marine monitoring and marine environment quality evaluation.

21: 2021/10710. 22: 2021/12/21. 43: 2022/03/29  
51: A01K

71: Jiangxi Fisheries Science Research Institute, FRESHWATER FISHERIES RESEARCH CENTER.CAFS

72: Wang Haihua, Jin Wu, Fu Huiyun, Ma Benhe, Li Yanhua, Huang Bin, Wen Haibo, Ma Xueyan, Xu Pao, Gu Ruobo

**54: A DEVICE FOR PURIFYING WATER BY USING FRESHWATER SNAIL AQUACULTURE, A NET CAGE PREPARATION METHOD AND A WATER PURIFICATION METHOD**

00: -

The present invention relates to a device for purifying water by using freshwater snail aquaculture, a net cage preparation method and a water purification method. The device includes net cages, floating balls and horizontal trotlines; the net cages are flexible net cages, made of PVC meshes; the floating balls are installed on the top of the net cages, and the quantities of multiple sets of the net cages and the floating balls can be adjusted according to the specific conditions of the water body; the net cages are placed in the water area at intervals, the floating balls are fixed by the horizontal trotline, and the two ends of the horizontal trotline are fixed onto the anchor piles; the horizontal trotline is a flexible cord. The device of the present invention is characterized by simple structure, simple preparation and operation methods, low cost, and significant benefits, which can greatly reduce labor intensity of snail harvesting. The use of the device is not limited by the size of the water body, with a wider application range. The device can significantly reduce the ecological aquaculture cost of freshwater snails, and can significantly improve water quality of aquaculture area.

21: 2021/10711. 22: 2021/12/21. 43: 2022/03/28  
51: A01G

71: Institute of Vegetables and Flowers, Jiangxi Academy of Agricultural Sciences

72: JI, Hongli, TAO, Xiuhua, DUAN, Yifan, LUO, Yongsong, ZHANG, Cheng, JIANG, Jun, JIANG, Minghua

#### 54: NON-TEST TUBE RAPID PROPAGATION METHOD FOR OSMANTHUS FRAGRANS (THUNB.) LOUREIRO

00: -

A non-test tube rapid propagation method for *Osmanthus fragrans* (Thunb.) Loureiro is characterized in that a young scion cutting orchard is constructed, 2-generation cutting seedlings are planted, and rapid propagation scions are cultivated by adopting a specific rejuvenation technology; the cutting scions are treated by using a special rooting agent; rapid propagation and seedling culture are performed by using a soilless substrate formula and a non-woven fabric seedling culture container; a matched carbonated water production process is integrated into an intelligent spraying system, a carbon source required by the rapid propagation seedlings is supplemented by using carbonated water, and proper temperature and humidity conditions are maintained; a special nutrient solution formula is used, and trace auxin is supplemented, thereby promoting rapid rooting and seedling formation of the cutting scions; and the rejuvenation period of rapid propagation seedling transplanting is reduced by using a specific seedling hardening technology.

21: 2021/10712. 22: 2021/12/21. 43: 2022/03/28  
51: C23C; F16J

71: Shandong University of Technology

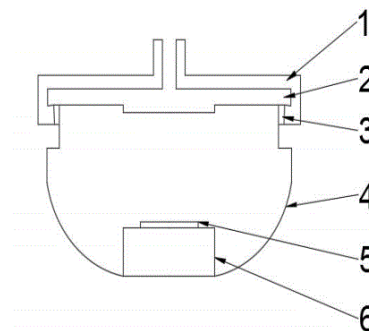
72: YU, Wenqiang, LIN, Yuyi, Prelas, Mark A.

#### 54: ARC-ADJUSTED HIGH-POWER MICROWAVE PLASMA CVD DEVICE

00: -

An arc-adjusted microwave plasma chemical vapor deposition (MPCVD) device, which is divided into three parts: an upper cavity, a lower cavity and a deposition platform. The upper cavity is composed of a microwave inlet and a loop coupling antenna and is installed on an upper portion. The loop coupling antenna and the wall of the upper cavity form a microwave channel, and the annular quartz window is placed in the microwave channel. The lower cavity body is composed of an annular quartz window and an arc-adjusted body, which can move up and down along the wall of a resonant cavity. The deposition platform is installed in a center of the arc-adjusted body. The deposition platform has an adjustable design and can be moved up and down under the

action of an electric elevator. There is an outlet for reaction gas near the bottom of the lower cavity.



21: 2021/10713. 22: 2021/12/21. 43: 2022/03/29  
51: C08B

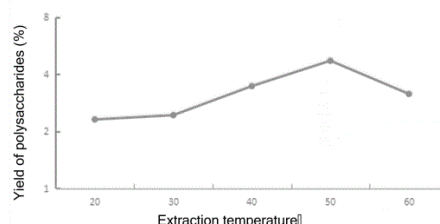
71: Qingdao Agricultural University

72: HOU, Ranran, GAO, Fei, SHAO, Xiangling, LI, Yuting, LI, Qiu, FAN, Xiao, LIU, Zhihai

#### 54: PROCESS FOR OPTIMIZING ENZYMOLYSIS EXTRACTION PROCESS OF LAMIOPHLOMIS ROTATA POLYSACCHARIDES BY RESPONSE SURFACE METHOD

00: -

According to the present disclosure, *Lamiophlomis rotata* polysaccharides are extracted by enzymolysis, and can be optimally extracted at 60°C for 60 min with a pH of 6 and a dosage of complex enzyme of 2.0%.



21: 2021/10714. 22: 2021/12/21. 43: 2022/03/28  
51: A23B

71: Zhejiang University

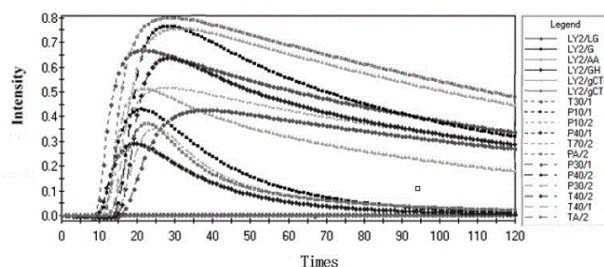
72: SUN, Chongde, CAO, Jinping, WU, Yu, WANG, Yue, KANG, Chen

#### 54: METHOD OF MONITORING ACID ROT DURING CITRUS STORAGE AND TRANSPORTATION

00: -

The present disclosure relates to a method of monitoring acid rot during citrus storage and transportation, and provides a technical solution for early detection and timely treatment of acid rot fruits in citrus mass storage and transportation. The

present solution uses the acid rot fruits to emit a special sour smell that is easy to distinguish, and has a characteristic response signal in the electronic nose, so that it can specifically identify and monitor the occurrence of diseases during storage and transportation. Utilizing that the acid rot fruits will emit a special sour smell that is easy to distinguish, and has a characteristic response signal in an electronic nose, the present solution can specifically identify and monitor the occurrence of diseases during storage and transportation. This present solution collects citrus acid rot fruits of different disease courses, collects signals of the electronic nose, and establishes a prediction model.



21: 2021/10715. 22: 2021/12/21. 43: 2022/03/29  
51: A63K

71: HEBEI AGRICULTURAL UNIVERSITY  
72: Jiang Guojun, Kang Jungang, Wang Ping  
**54: TRADITIONAL CHINESE MEDICINE FOR RELIEVING THE TOXIC DAMAGE OF ZEARALENONE TO PREGNANT COWS**

00: -

The invention discloses a traditional Chinese medicine for relieving the toxic damage of zearalenone to pregnant cattle, including the following steps: Step 1: Preparation of experimental materials: preparing ZEA, lycopene, dodder flavone and Taishan Panshi Powder; Step 2: Preparation of experimental animals: including experimental animal feeding and grouping, selecting 60 18-month-old cows with the same growth environment and the same feeding method, ensuring free drinking and feeding, normal temperature, good ventilation, and regular feeding; Step 3: Artificial insemination: Those who have a vaginal plug in the early morning of the next day are set to be 0 days pregnant, and the non-pregnant cows will continue to accept artificial insemination until the vaginal plug is detected. The present invention has the advantages of accurate

detection method and convenient operation, through administering traditional Chinese medicine ingredients and traditional Chinese medicine prescriptions, to explore its mitigation effect on ZEA-induced reproductive toxicity, provide reference for livestock breeding, provide guiding opinions for breeding, avoid economic loss, and ensure the healthy development of animal husbandry.

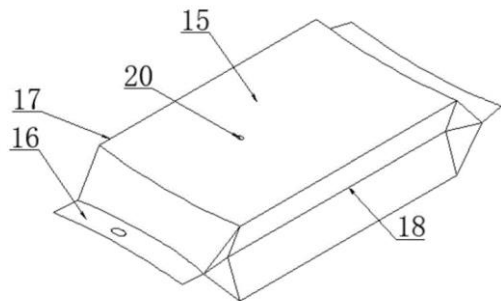
21: 2021/10716. 22: 2021/12/21. 43: 2022/03/29  
51: B65B

71: Dezhou Henghui Machinery Limited Company  
72: JIANG, Guozhi, SHI, Rongsheng  
33: CN 31: 202110387809.4 32: 2021-04-10

**54: FOUR-SIDE-SEALED THREE-DIMENSIONAL BAG PACKAGING MACHINE**

00: -

Disclosed is a four-side-sealed three-dimensional bag packaging machine. The four-side-sealed three-dimensional bag packaging machine is structured such that a lower portion of a quantitative conveyor line is provided with an automatic membrane supply module and a perforating apparatus that are matched with a three sealing module in conveyance to realize shaping and sealing of three three-dimensional sides of a three-dimensional bag. Through the above-mentioned actions, a membrane is guided to a rear end bagging conveyor line through a membrane material guiding rack, and meanwhile the rear end bagging conveyor line is in butt joint to the quantitative conveyor line to guide quantitative bagged food into the membrane material, and the last side of the membrane material is sealed. Through the above-mentioned actions, the four-side-sealed three-dimensional bag moves towards an end opening sealing module on the rear end bagging conveyor line in a cylindrical unsealed state, and then two ends of the four-side-sealed three-dimensional bag are sealed in a hot melting manner via the end opening sealing module. The four-side-sealed three-dimensional bag packaging machine is compact in structural design and conducts forming and food packaging of the four-side-sealed three-dimensional bag synchronously. Compared with the prior art, the work efficiency and the packaging quality are improved, so that it is an ideal four-side-sealed three-dimensional bag packaging machine.



21: 2021/10717. 22: 2021/12/21. 43: 2022/03/29  
51: B01J

71: Qingdao University of Science and Technology  
72: WANG, Debao, LV, Shuhua, SONG, Caixia,  
CHEN, Yi, WU, Xiaoqun

33: CN 31: 202110154774.X 32: 2021-02-04

**54: OXYGEN VACANCY STIMULATED DIRECT Z-SCHEME MESOPOROUS Cu<sub>2</sub>O/TiO<sub>2</sub> PHOTOCATALYST AND PREPARATION METHOD THEREOF**

00: -

The present disclosure discloses an oxygen vacancy stimulated direct Z-scheme mesoporous Cu<sub>2</sub>O/TiO<sub>2</sub> photocatalyst and a preparation method thereof, wherein, the oxygen vacancy stimulated Z-scheme mesoporous Cu<sub>2</sub>O/TiO<sub>2</sub> heterostructure composite photocatalyst is a heterojunction structure composite photocatalyst formed by compounding Cu<sub>2</sub>O in TiO<sub>2</sub> of a mesoporous structure; for the preparation method, TiCl<sub>4</sub>, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, urea are employed as the raw materials, and ethylene glycol is employed as the pore-forming agent, they are roasted by employing a solvothermal method to get TiO<sub>2</sub> of a mesoporous structure, then Cu<sub>2</sub>O is loaded in the interior and on the surface of the mesoporous TiO<sub>2</sub>, to get the oxygen vacancy stimulated Z-scheme mesoporous Cu<sub>2</sub>O/TiO<sub>2</sub> heterostructure composite photocatalyst.

21: 2021/10719. 22: 2021/12/21. 43: 2022/03/29  
51: B01J; C02F

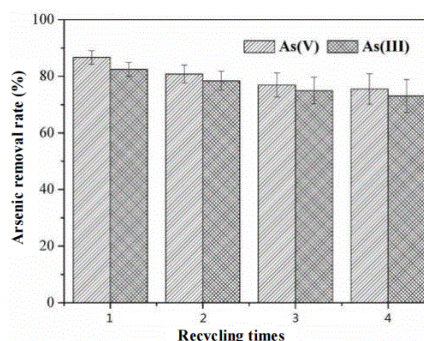
71: Henan University

72: WANG, Yulong, GU, Lei, LIU, Yanhong, ZHANG, Lin, GUO, Chen

**54: MANGANESE DIOXIDE MODIFIED ACTIVATED CARBON COMPOSITE ADSORBENT, PREPARATION METHOD THEREOF AND APPLICATION IN ARSENIC REMOVAL**

00: -

The invention provides a manganese dioxide modified activated carbon composite adsorbent, a preparation method thereof and an application in arsenic removal, relating to the technical field of composite materials. The manganese dioxide modified activated carbon composite adsorbent comprises activated carbon and delta-manganese dioxide attached on activated carbon surface and in pores. The manganese dioxide modified activated carbon composite adsorbent has a high removal rate of arsenics in arsenic waters. Moreover, delta manganese dioxide is loaded on activated carbon surface and in pores, so that manganese dioxide cannot easily agglomerate. The adsorbent can be easily recycled after arsenic water treatment, and has high cyclic utilization rate, good application prospect and promotion value.



21: 2021/10721. 22: 2021/12/21. 43: 2022/03/29  
51: G06Q

71: Shanghai Ocean University

72: Zhou FANG, Lihong WEN, Siyuan LIU, Jun YU, Nan LI

33: CN 31: 202111426843.4 32: 2021-11-28

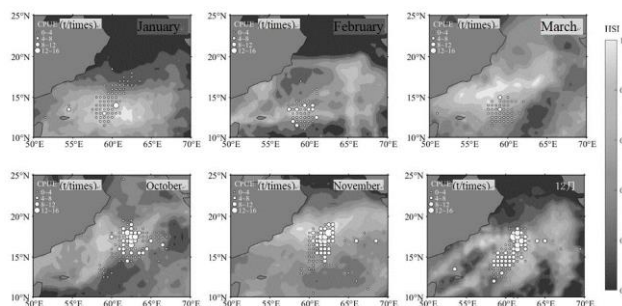
**54: INDIAN OCEAN STHENOTEUTHIS OUALANIENSIS FISHING CONDITION FORECASTING METHOD BASED ON HABITAT INDEX MODEL**

00: -

The present disclosure discloses an Indian Ocean Sthenoteuthis oualaniensis fishing condition forecasting method based on a habitat index model. The method includes the following steps: (1) taking catch per unit effort (CPUE) as an index that characterizes Sthenoteuthis oualaniensis resource density; (2) constructing a single-factor suitability index (SI) model; (3) establishing an integrated habitat suitability index (HSI); and (4) screening and



verifying an HSI model. Since different environment factors have different effect degrees on the habitat, by endowing the SI values of the environment factors with different weight ratios in the present disclosure, an optimal weight scenario is comparatively analyzed; and an optimal HSI model is constructed.



21: 2021/10761. 22: 2021/12/22. 43: 2022/04/12

51: A01G

71: SHANDONG ACADEMY OF AGRICULTURAL SCIENCES

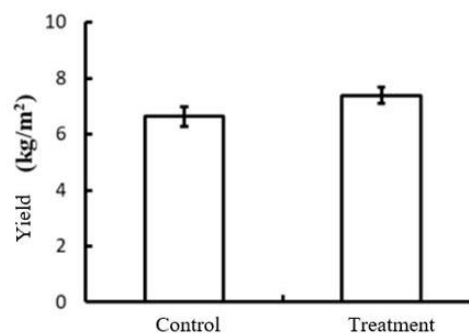
72: YANG, Ning, WEN, Dan, WANG, Xiao, WANG, Kean, SUN, Kaining, SUN, Shengnan

33: CN 31: 202111121297.3 32: 2021-09-24

#### 54: TOMATO CULTIVATION METHOD

00: -

The present invention discloses a tomato cultivation method, which specifically comprises the following steps: (1) preparation of an organic fertilizer: uniformly mixing pretreated soybeans and plant ash according to a mass ratio of 1:1 to obtain the organic fertilizer for later use; (2) land arrangement; (3) selection of a tomato variety and germination acceleration and seedling raising; (4) application of the organic fertilizer and field planting; and (5) field management and harvesting. The cultivation method of the present invention can obviously improve the yield and quality of tomato. The organic fertilizer of the present invention reduces application of chemical fertilizers, and greatly reduces influences of the excessive chemical fertilizers on the environment. The organic fertilizer of the present invention has simple preparation, convenient application and low application cost, and is beneficial for promotion and application.



21: 2021/10795. 22: 2021/12/22. 43: 2022/03/17

51: C02F; H02K

71: Jiangsu YiHuan Group Co., Ltd

72: ZHU, Lei, QIANG, Chengliang, HANG, Junliang, HU, Qing, ZOU, Fei

33: CN 31: 202011282846.0 32: 2020-11-17

#### 54: ROTARY TRASH CLEANING MACHINE WITH MOTOR LESS PRONE TO BREAKAGE

00: -

The utility model discloses a rotary trash cleaning machine with a motor less prone to breakage, both sides of the frame are provided with annular rails, and the annular rail is provided with an endless chain therein, the annular rail has a top opening, at which a drive shaft is provided, the drive shaft is provided two gears thereon, the endless chain is provided with salvage shafts thereon, one end of the drive shaft is provided with a drive assembly that drives the drive shaft to turn and includes a driven sprocket located on the drive shaft and a motor located on the frame, an output shaft of the motor is provided with a drive sprocket, and the driven sprocket and the drive sprocket are connected through a conveyor chain, the output shaft of the motor and the drive sprocket are connected through a connecting sleeve, the connecting sleeve includes a circular sleeve and a flange at an end of the circular sleeve, the drive sprocket and the flange are connected through a shear pin. In the utility model, a shear connection is added between the output shaft of the motor and the drive sprocket, so that when the motor is overloaded, the shear pin cannot withstand an output torque of the motor and thus breaks, the drive sprocket is no longer turning, and the rotary trash cleaning machine stops operating.

21: 2021/10843. 22: 2021/12/23. 43: 2022/03/29



51: G01N

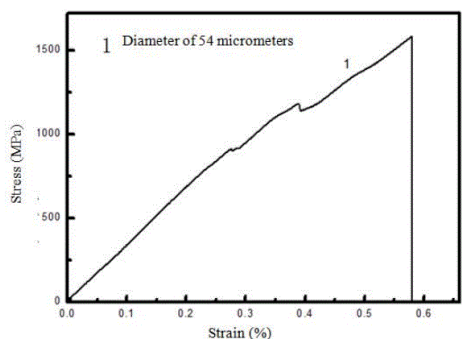
71: Qingdao University of Technology

72: ZHANG, Shuling, GAN, Zhiying, GAO, Lulu, MA, Xinghua, CUI, Ning, GUO, Dong

**54: METHOD FOR IMPROVING MAGNETIC FIELD SENSITIVITY OF METAL FIBER**

00: -

The present disclosure provides a method for improving magnetic field sensitivity of a metal fiber, and belongs to the technical field of magnetic metal fibers. The method for improving magnetic field sensitivity of a metal fiber includes the following steps: (1) testing a tensile stress-strain curve of the metal fiber; (2) determining the yield strength and fracture strength of the metal fiber according to the strain curve; and (3) selecting a constant stress which is greater than the yield strength and less than the fracture strength to stretch the metal fiber. This method can effectively improve the magnetic field sensitivity of the metal fiber.



21: 2021/10917. 22: 2021/12/24. 43: 2022/02/16

51: A47G

71: M D Manufacturers (Pty) Ltd

72: DU PLOOY, Johannes Hendrikus

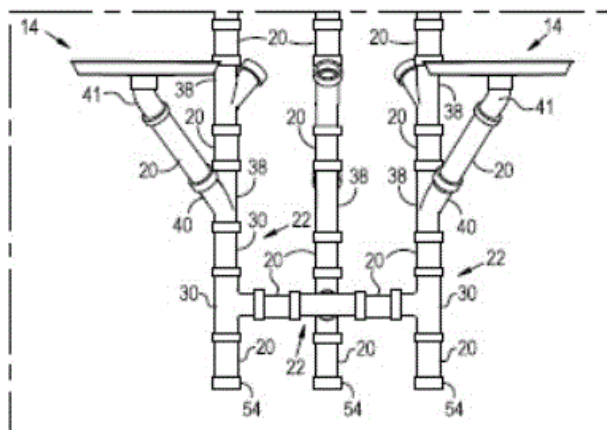
33: ZA 31: 2020/07770 32: 2020-12-14

**54: Support**

00: -

The invention relates to a pot plant support 10 which includes a support structure 12 and a plurality of support members 14 which are connected to the support structure 12. Each support member 14 includes a dish comprising a base 44 and peripheral shoulder 46. A centrally disposed drainage opening 48 extends through the base 44. A tubular protrusion 50 protrudes downwardly from the discharge opening 48 and is snugly receivable in the support structure 12. The support structure 12 is tubular and serves to drain excess water from a pot plant

supported on one of the support members 14. In addition, the relative positions of the support members 14 are adjustable.



21: 2021/10926. 22: 2021/12/24. 43: 2022/03/02

51: G01F; G01V

71: Qinghai Provincial Qaidam Comprehensive Geological and Mineral Exploration Institute

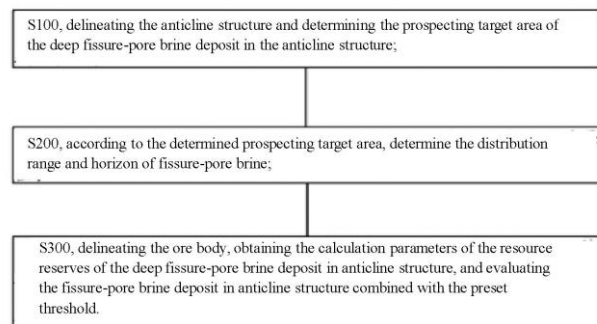
72: Han Guang, Pan Tong, Li Dongsheng, Hu Yan, Zhang Xiaodong, Liu Jiubo, Chen Jinniu, Yuan Wenhui, Wang Qingchuan, Qiu Xindi, Jing Zhicheng, Zhang Mingzhu, Yang Yuzhen, Dong Qiwei, Ma Hongying, Bu Haiyi

**54: COMPREHENSIVE EVALUATION METHOD OF ANTICLINE FRACTURE-PORE BRINE DEPOSIT**

00: -

The application discloses a comprehensive evaluation method of anticline fracture-pore brine deposit. The prospecting target area of fracture-pore brine deposit in deep layer of anticline structure is determined by delineating anticline structure. According to the determined prospecting target area, determine the distribution range and horizon of fissure-pore brine; The ore body is delineated, the calculation parameters of resource reserves of deep fracture-pore brine deposit in anticline structure are obtained, and the fracture-pore brine deposit in anticline structure is evaluated with the preset threshold. In the delineated prospecting target area, the distribution range and horizon of fissure-pore brine can be effectively judged by seismic survey. Further, the deep fissure-pore brine deposit in anticline structure can be accurately delineated, and the resource reserves can be calculated according to the distribution area of brine deposit, the thickness of brine layer, the content of useful components,

porosity, specific yield and other parameters, so as to realize the purpose of evaluating the deposit.

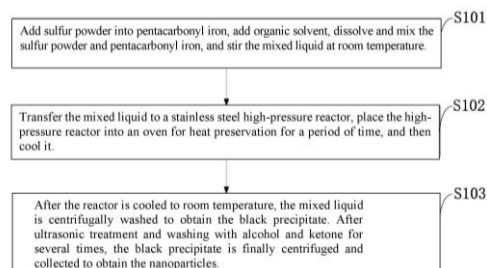


21: 2021/10952. 22: 2021/12/15. 43: 2022/04/06  
 51: B01J; C01G; C25B  
 71: Qingdao University of Science and Technology  
 72: Jianjian LIN, Mengyou GAO, Dehua ZHENG, Huizhong XU, Lei SUN

#### 54: A PREPARATION METHOD DND APPLICATION OF FES NANOPARTICLES SYNTHESIZED BASED ON SOLVOTHERMAL METHOD

00: -

The invention belongs to the technical field of electrocatalytic decomposition of water, which discloses a preparation method and application of FeS nanoparticle synthesized based on solvothermal method. Sulfur powder is added to pentacarbonyl iron, organic solvent is added to dissolve and mix the sulfur powder and pentacarbonyl iron, and the mixed liquid is stirred at room temperature. Transfer the mixed liquid to the stainless steel high-pressure reactor, and put the reactor into the oven for heat preservation for a period of time before cooling. After the reactor is cooled to room temperature, the mixed liquid is centrifugally washed to obtain a black precipitate. After ultrasonic treatment and washing with alcohol and ketone for several times, the black precipitate is finally centrifuged and collected to obtain the nanoparticles. In the invention takes organic solvent is taken as solvent, the FeS nanocrystals with adjustable morphology, size, good electrical conductivity and high electrocatalytic performance are prepared on the nanometer scale by adjusting the proportion of raw materials with chemical method, which plays a wider role in emerging fields, such as energy, health, ecological civilization, etc.



21: 2021/10953. 22: 2021/12/15. 43: 2022/04/16

51: E21C; G01B

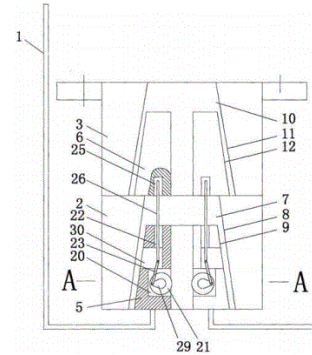
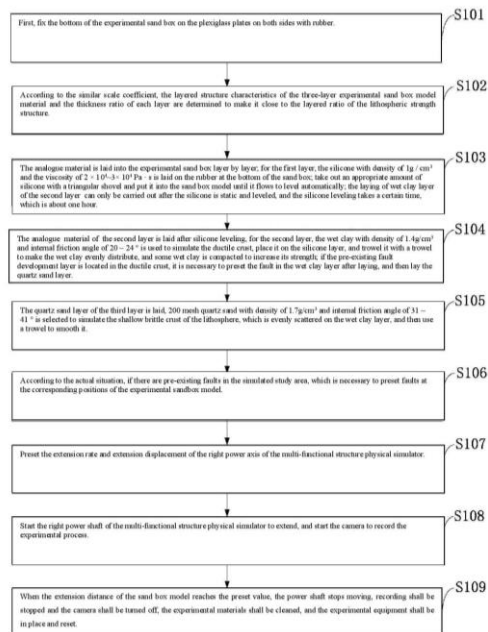
71: China Univeristy of Petroleum

72: Li LI, Wucai FU, Cong XU

#### 54: A SAND BOX MODEL, PHYSICAL SIMULATION METHOD, SYSTEM AND APPLICATION OF EXTENSION DEFORMATION

00: -

The invention belongs to the technical field of lithospheric extensional deformation simulation, and discloses a sandbox model, physical simulation method, system and application of extensional deformation. The first layer (the lowest layer) of the sandbox model is the analogue material layer of the upper mantle of the lithosphere, the second layer is the analogue material of the ductile crust, and the third layer is the analogue material of the brittle crust. Therefore, the first layer is made of silicone, the material of second layer is made of wet clay, and the material of third layer is quartz sand. Besides, the analogue material of the upper mantle of the lithosphere can also be honey, paraffin or plasticized rosin, etc; the analogue material of the ductile crust can also be plasticine, kaolin, etc; the analogue material of the brittle crust can also be clay, gypsum or talc powder, etc.. The invention makes up for the limitation that the existing structural physical simulation experiment method can only simulate the shallow extensional brittle deformation of the crust, consequently it can simulate the extensional structural deformation characteristics of the whole lithosphere.



21: 2022/00051. 22: 2022/01/03. 43: 2022/04/04  
51: B32B; E04F

71: Shandong Guochuang Energy-Saving Technology Co., Ltd.

72: WU, Likun

#### 54: LIGHT COMPOSITE FIREPROOF AND THERMALLY-INSULATED DECORATIVE BOARD AND METHOD FOR PRODUCING THE SAME

00: -

The present invention relates to a light composite fireproof and thermally-insulated decorative board, composed of a thermally-insulated decorative board body with a protective board and a thermally-insulated layer, and a backing polystyrene board arranged at a back of the body, wherein the thermally-insulated decorative board body and the backing polystyrene board are bonded together by means of an adhesive layer. The polystyrene board serves as a backing of the thermally-insulated decorative board, replacing a heavy calcium silicate board or cement pressure board backing, so that an overall weight of an identical working face is reduced by about 1/3, and an overall thickness of the working face is decreased by 10-20 mm. The decorative board is a multifunctional wallboard integrating light weight, safety, fireproofing, thermal insulation and decoration, satisfying the increasing fireproofing and energy-saving demands and obviously expanding an application range, thereby highlighting extremely high economic and social benefits.

21: 2022/00052. 22: 2022/01/03. 43: 2022/04/03  
51: C08K; C08L; E04B

71: Shandong Guochuang Energy-Saving Technology Co., Ltd.

72: WU, Likun

#### 54: FIREPROOF POLYSTYRENE BOARD AND METHOD FOR PRODUCING THE SAME

00: -

21: 2022/00027. 22: 2022/01/03. 43: 2022/02/22  
51: B66B

71: Taizhou University

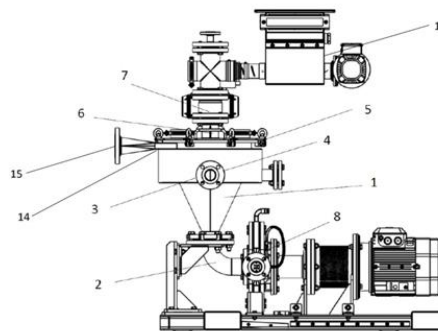
72: BI, Cheng, BI, Erda, WANG, Hongyun

#### 54: BENT LEVER TYPE ANTI-FAILURE ELEVATOR SAFETY GEAR AND ELEVATOR

00: -

The present disclosure discloses a bent lever type anti-failure elevator safety gear, comprising lift rods, a main gear and a secondary gear, main accommodation grooves are formed in the main wedge blocks, the main accommodation grooves are opened facing to the guide rail, the main accommodation grooves are internally provided with roller wheels; first guide holes enabling the main accommodation grooves to be communicated with corresponding secondary wedge blocks in the vertical direction are formed in the main wedge blocks; the main accommodation grooves are also internally provided with cranks driven to rotate by the roller wheels, the cranks are rotatably connected with rocker bars, second guide holes are formed in bottoms of the secondary wedge blocks corresponding to the main wedge blocks, tops of ejector rods are arranged in the second guide holes; bottoms of the ejector rods are rotatably connected with tops of the rocker bars.

Disclosed is a fireproof polystyrene board. The board is composed of a molded polystyrene foam board and a fireproof paste, wherein a cavity filled with the fireproof paste provided between polystyrene particles of the molded polystyrene foam board; the fireproof paste is poured into the cavity to form a fireproof layer, thereby realizing A-level fireproofing. The polystyrene particles are prevented from being bonded together due to addition of adhesives, etc., and cost of the polystyrene board is significantly decreased with an effect improved by several-dozen times. Without use of magnesium chloride, chloride ions (CL-) ionized by the magnesium chloride seriously corroding steel during construction and before solidification, and damaging building quality, are prevented, and further safety hazards like further corrosion, halogenation, falling off and warping deformation caused by incomplete reaction or excessive chloride ions (CL-) after solidification are prevented. The board features excellent cost performance and great social benefits.



21: 2022/00138. 22: 2022/01/03. 43: 2022/03/22  
51: G09B

71: CHENGDU AGRICULTURAL COLLEGE

72: XIANG, Mo-jun

#### **54: SMART EDUCATION PLATFORM FOR FEEDING BACK LEARNING STATE BASED ON TIME NODE MARKS**

00: -

Disclosed is a smart education platform for feeding back a learning state based on time node marks belonging to the technical field of online education comprising a user terminal, a teaching terminal, a network unit for realizing information interaction between the teaching terminal and the user terminal; the user terminal is used to obtain videos on the teaching terminal for learning and receive instructions of the teaching terminal; the teaching terminal marks time nodes of the videos, sends an image acquisition instruction and an audio acquisition instruction to the user terminal respectively based on each time node mark, performs similarity matching and audio recognition of an audio with an existing audio through multiple images obtained by the user terminal, feeds back results, and judges whether the video of corresponding teaching knowledge points needs to be fed back to the user terminal through image similarity recognition results and audio recognition results.

21: 2022/00119. 22: 2022/01/03. 43: 2022/03/09

51: B01F

71: SPCM SA

72: RIVAS, Christophe, BONNIER, Julien

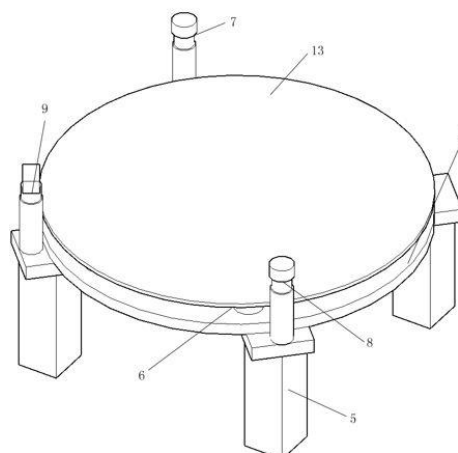
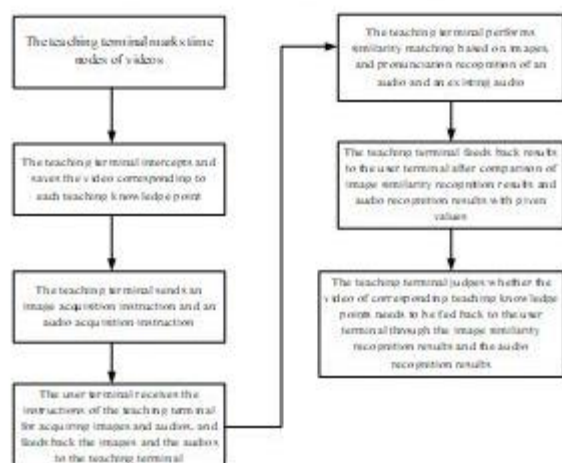
33: FR 31: 2112673 32: 2021-11-29

#### **54: DEVICE FOR DISPERSING WATER-SOLUBLE POLYMERS**

00: -

A device for dispersing a water-soluble polymer in powder form having a standard particle size of less than 1 mm, comprising: - a wetting chamber (1), - a chamber (8) for grinding and discharging the dispersed polymer with a horizontal axis of revolution, - a means (2) for connecting the wetting chamber (1) to the grinding chamber (8) in the form of an L-shaped tube, characterized in that the upper and lower parts of the wetting chamber (1) and the L-shaped tube (2) have an internal surface with an identical surface tension (TS1), and in that the cover (5) of the wetting chamber (1) has an internal surface with a surface tension (TS2) higher than (TS1).





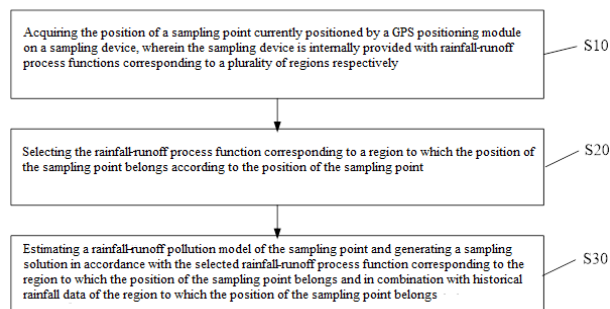
21: 2022/00139. 22: 2022/01/03. 43: 2022/03/22  
 51: G06G; G06N; G06Q  
 71: CHENGDU AGRICULTURAL COLLEGE  
 72: XIANG, Mo-jun, LIU, Ting-min  
**54: BLOCKCHAIN-BASED AGRICULTURAL  
 PRODUCT QUALITY AND SAFETY MONITORING  
 SYSTEM**

00: -  
 Disclosed is a blockchain-based agricultural product quality and safety monitoring system, and belongs to the technical field of agricultural product quality and safety monitoring systems, to solve the problems that monitoring of agricultural product quality is easily inaccurate in the existing agricultural product quality monitoring process or detection speed is low and time consuming, effort consuming and high labor cost are easily caused by manual multi-directional detection. The utility model comprises an information collection end for information collection of repackaged agricultural products, a blockchain server for storing the information collected by the information collection end, a client for quality and safety monitoring of the agricultural products, and a network unit for realizing information interaction of the information collection end, the blockchain server and the client. The utility model is used for quality and safety monitoring of the agricultural products.

21: 2022/00140. 22: 2022/01/03. 43: 2022/03/22  
 51: G01W  
 71: BEIJING NORMAL UNIVERSITY  
 72: CHEN, LEI, ZHAO, JINBO, YU, YU, ZHANG, XIAOYUE, ZHOU, XUEHUI  
**54: RAINFALL PREDICTION GUIDANCE  
 SAMPLING METHOD AND SAMPLING DEVICE**

00: -  
 The present invention discloses a rainfall prediction guidance sampling method and sampling device. The method comprises: acquiring the position of a sampling point currently positioned by a GPS positioning module on a sampling device, wherein the sampling device is internally provided with rainfall-runoff process functions corresponding to a plurality of regions respectively; selecting the rainfall-runoff process function corresponding to a region to which the position of the sampling point belongs according to the position of the sampling point; and estimating a rainfall-runoff pollution model of the sampling point and generating a sampling solution in accordance with the selected rainfall-runoff process function corresponding to the region to which the position of the sampling point belongs and in combination with historical rainfall data of the region to which the position of the sampling point belongs. The method is convenient for workers to select the collection quantity and collection time interval.





21: 2022/00143. 22: 2022/01/03. 43: 2022/03/22

51: B01D; C10G

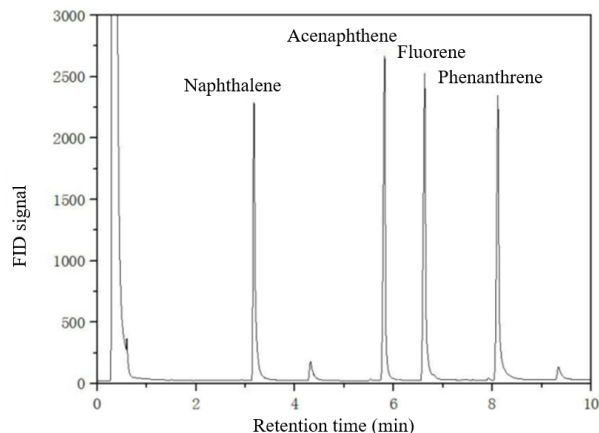
71: JILIN INSTITUTE OF CHEMICAL TECHNOLOGY

72: LOU, DAWEI, ZHANG, XIAOYU, LIAN, LILI, WANG, XIYUE, ZHU, BO, GUO, XIAOYANG, LI, YUYING

**54: PREPARATION METHOD OF EXTRACTION DEVICE FOR ENRICHING POLYCYCLIC AROMATIC HYDROCARBONS**

00: -

The present invention discloses a preparation method of an extraction device for enriching polycyclic aromatic hydrocarbons. The preparation method includes the following steps: (1) pretreating fibers; removing impurities and protective layers on fiber surfaces; and producing silicon hydroxyl on the fiber surfaces; (2) preparing a sol-gel polymer; (3) immersing the pretreated fibers into the supernatant obtained in step (2); and forming polymer coatings on the fiber surfaces; and (4) longitudinally penetrating the fibers with the polymer coatings into hollow stainless steel needles; and heating and aging the stainless steel needles, thereby obtaining the extraction device.



21: 2022/00149. 22: 2022/01/03. 43: 2022/03/22

51: A01D; B65G

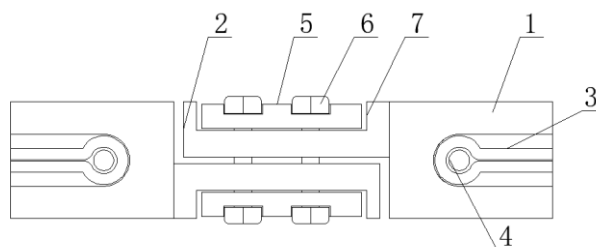
71: HULUNBUIR UNIVERSITY

72: XIAO, YANZI

**54: CONVEYOR BELT FOR FORAGE CRUSHERS**

00: -

The present invention discloses a conveyor belt for forage crushers, which comprises a conveying belt, wherein a widening side edge is arranged at one side of the conveying belt; the conveying belt is integrated with the widening side edge; an embedding groove is formed in an upper surface of the widening side edge; embedding strips are embedded inside the embedding groove; and screws are fixedly arranged on the embedding strips. When used, the widening side edge is arranged at one side of the conveying belt. When forage to be crushed is conveyed by the conveying belt, the conveying belt should be mounted on a conveyor. A structure reinforcing layer is arranged on the inner side of the conveying belt, and is composed of reinforcing belts and structural ribs; the reinforcing belts are tiled and embedded in the conveying belt; and the structural ribs are sleeved with the reinforcing belts.



21: 2022/00166. 22: 2022/01/03. 43: 2022/03/03

51: C02F; C04B

71: HAINAN ZHENGWEI INDUSTRIAL DEVELOPMENT CO., LTD.

72: LU, Jiang, XIAO, Yue

33: CN 31: 201910931513.7 32: 2019-09-29

#### **54: ECOLOGICAL SOIL SOLIDIFIER AND PREPARATION METHOD THEREFOR**

00: -

Disclosed are an ecological soil solidifier and a preparation method thereof. The soil solidifier comprises the following raw materials in parts by weight: 0.01-0.06 part of a dioctyl sulfosuccinate sodium salt, 0.7-3 parts of a lignin fiber, 30-60 parts of a salt, 20-50 parts of hydroxypropyl methyl cellulose, 3-18 parts of a hydroxide, 1-13 parts of polyvinyl alcohol, 0.075-0.3 part of 2-ethyl hexanol, 0.5-1.2 parts of isopropanol, and 500-900 parts of water. With the soil solidifier, the solidified soil is readily compacted and stabilized so as to form an integral structure, and the prepared brick has a high compaction density. The prepared soil solidifier only requires simple mixing and stirring, and the procedure steps thereof are simple and easy to operate; furthermore, a soil solidifier with a high solid-waste ratio can be obtained by controlling the stirring rate and time.

21: 2022/00198. 22: 2022/01/04. 43: 2022/03/22  
51: B65D

71: ZHANGYE ACADEMY OF AGRICULTURAL SCIENCES

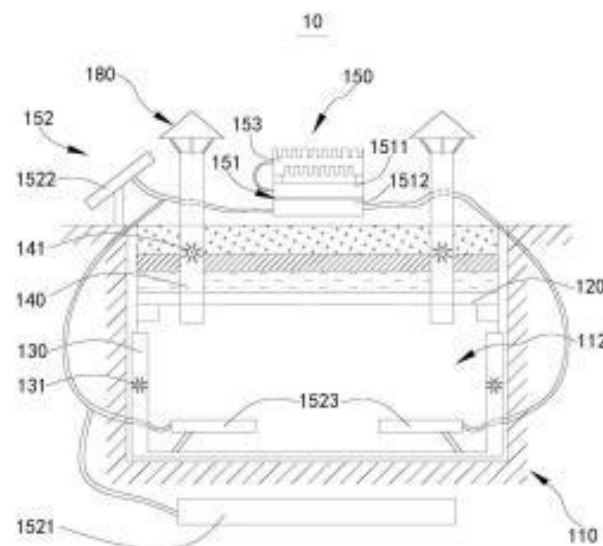
72: ZHAO, LIMEI, ZHONG, HONGQING, LI, KUN

#### **54: STORAGE PIT**

00: -

The present invention relates to the field of storage equipment, and particularly to a storage pit. The storage pit comprises a pit body, sealing unit, first channel, second channel, temperature difference power generation equipment, first ventilation device and second ventilation device; an unique opening communicated with outside is formed in the pit body, the sealing unit is arranged in the opening of the pit body, and a sealed accommodating space is defined jointly by the sealing unit and the inner walls of the pit body; one end of the first channel is arranged at the bottom of the pit body, and the other end of the first channel extends to the top of the accommodating space; one end of the second channel is located at the top of the accommodating space, and the other end of the second channel

extends out of the accommodating space and is communicated with outside.



21: 2022/00199. 22: 2022/01/04. 43: 2022/03/22  
51: A01G

71: ZHANGYE ACADEMY OF AGRICULTURAL SCIENCES

72: LI, KUN, ZHAO, LIMEI, LI, ZHIRONG

#### **54: MECHANIZED DOUBLE-FILM MULCHING CULTIVATION METHOD OF PELLETTED MONOGERM BEET SEEDS AND BEET PLANTING MODE**

00: -

The present invention relates to a mechanized double-film mulching cultivation method of pelleted monogerm beet seeds and a beet planting mode, which mainly relate to the field of planting. The mechanized double-film mulching cultivation method of pelleted monogerm beet seeds greatly increases an emergence rate and a seedling keeping rate of the pelleted monogerm seeds by adopting a method of double-film mulching, especially a method of mulching an upper layer with a white film and a lower layer with a black film in combination with advantages of scientific land selection and field management, so as to further improve the yield of beet and further improve economic benefits. Therefore, the mechanized double-film mulching cultivation method of the pelleted monogerm beet seeds and the beet planting mode containing the mechanized double-film mulching cultivation method of the pelleted monogerm beet seeds have important

popularization and application values and broad development prospects.

21: 2022/00236. 22: 2022/01/04. 43: 2022/03/09

51: A01C; A01G; A23L; C05G

71: FOSHAN UNIVERSITY

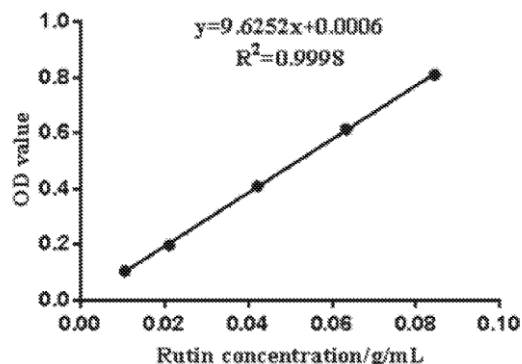
72: BAI, Yongliang, XIA, Yu, WEN, Haixiang, ZENG, Rong

33: CN 31: 201911224793.4 32: 2019-12-04

#### 54: PREPARATION METHOD FOR GERMINATED TARTARY BUCKWHEAT POWDER

00: -

A preparation method for germinated Tartary buckwheat powder, comprising the steps of: soaking and disinfecting Tartary buckwheat seeds in a sodium hypochlorite solution; irradiating with 550-650 W microwave for 8-12 s, then placing under 50-100 MPa for 2-3 min; then soaking at intervals for 5 times in a nutrient solution at a constant temperature of 15-35 °C, the soaking at intervals being: soaking for 1.5-2.5 h, and retrieving and airing for 5.5-6.5 h; the nutrient solution being a mixture of a L-phenylalanine solution, a NaCl solution, a zinc sulfate solution, and a gibberellin solution; then treating by culturing at intervals for 2 times at a constant temperature of 15-35 °C and a constant humidity of 65-85% relative humidity, and spraying 10-20 mL of the nutrient solution every two hours; the culturing at intervals being: exposing the Tartary buckwheat seeds to light for 15-17 h and treating in the dark for 7-9 h, the light intensity being 2500-12500 lx; and, freezing, drying, and grinding into powder under the protection of liquid nitrogen. The method increases the content of flavonoids.



21: 2022/00239. 22: 2022/01/04. 43: 2022/03/22

51: C12Q

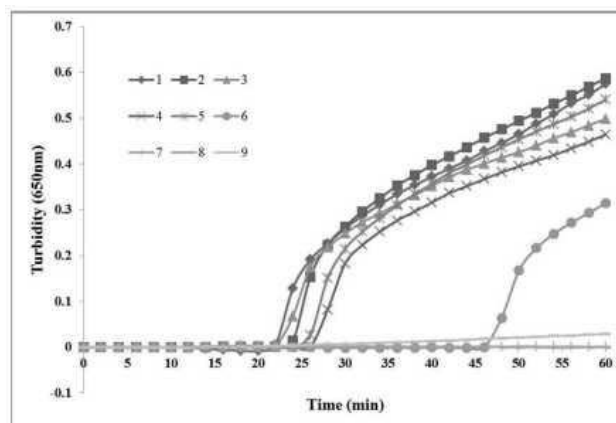
71: CHINESE ACADEMY OF INSPECTION AND QUARANTINE

72: WANG, JING, LI, LI, YANG, YU, ZHANG, QIAO, LIU, WEI, SHI, QI, CI, YING, ZOU, DAYANG, NIE, CONG, LIN, NAN

#### 54: KIT FOR RAPIDLY DETECTING VIBRIO CHOLERAEE

00: -

The present invention discloses a kit for rapidly detecting *Vibrio cholerae*. The kit includes a reagent I, a reagent II and a sealing agent. The reagent I includes primers Ft, Bt, LF and LB, dNTP, Bst DNA polymerase and an indicator; and the reagent II includes Tris-HCl, ammonium sulfate, potassium chloride, magnesium sulfate, Tween-20 and glycine betaine and has a pH value of 8.8. The kit provided by the present invention adopts a unique buffer system, has the advantage of high amplification compatibility, can perform efficient specific amplification without completely removing proteins and other impurities, and is sensitive, rapid and accurate in detection.



21: 2022/00240. 22: 2022/01/04. 43: 2022/03/22

51: A01H

71: GANSU PROVINCE ACADEMY OF QILIAN MOUNTAIN WATER CONSERVATION FORESTS

72: YAN, CHUNMING, YANG, XIAOHU, XU, ERWEN, ZHOU, YULI, XIAO, MINGMIN, LI, WEI

#### 54: METHOD FOR SEA BUCKTHORN SEEDLING CULTURE

00: -

The present invention discloses a method for sea buckthorn seedling culture, which belongs to the technical field of plant cultivation and comprises the following steps: selecting an excellent stock plant, and collecting fruits after seed maturation in a

current year; removing pulp from the fruits and drying seeds in air for later use; disinfecting with a 0.5% potassium permanganate solution and making accelerating germination treatment before sowing; and conducting bunch planting of the seeds after accelerating germination.

21: 2022/00252. 22: 2022/01/05. 43: 2022/04/04

51: C12N; C12R

71: Hefei University of Technology

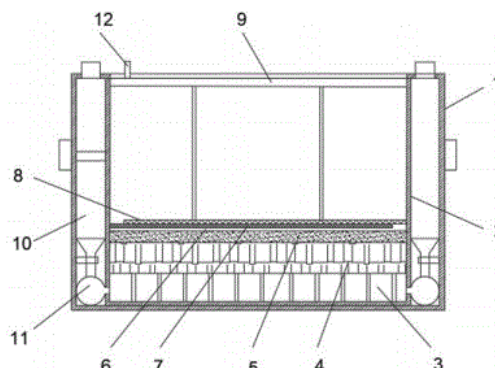
72: ZHAO, Fangxi, WANG, Zhihua, HAN, Dongjing, LIU, Guoqing

33: CN 31: 202122990902.2 32: 2021-12-01

#### 54: ARTIFICIAL CULTURE DEVICE FOR XYLARIA HYPOXYLON

00: -

The present disclosure relates to an artificial culture device for xylaria hypoxylon, and belongs to the technical field of culture devices. The artificial culture device for the xylaria hypoxylon includes an outer housing and an inner housing. A nutrient pool, a wood layer, a humus layer, growth gaps, a first seedling mesh tray, and a second seedling mesh tray are arranged inside the inner housing in sequence from bottom to top. Culture medium components are arranged on two sides between the outer housing and the inner housing. Discharging ends of the culture medium components are communicated with the nutrient pool. Lifting mechanisms are arranged on the other two sides between the outer housing and the inner housing. The lifting mechanisms drive the second seedling mesh tray to move upwards, and pulling plates are arranged at two ends of the first seedling mesh tray. The pulling plates penetrate through the inner housing and extend out of the outer housing. The first seedling mesh tray and the second seedling mesh tray are fixed to each other in a staggered manner. The culture medium components and the discharging pipes are arranged, so that a variety of culture media can be mixed uniformly and enter the nutrient pool without pollution for the growth of strains. Two groups of seedling mesh trays are arranged, so after the strains grow, the strains can be picked in a non-contact manner, and a large number of mycelia can be retained on the growth site of the strains.



21: 2022/00253. 22: 2022/01/05. 43: 2022/04/04

51: C05G; C12N; C12R

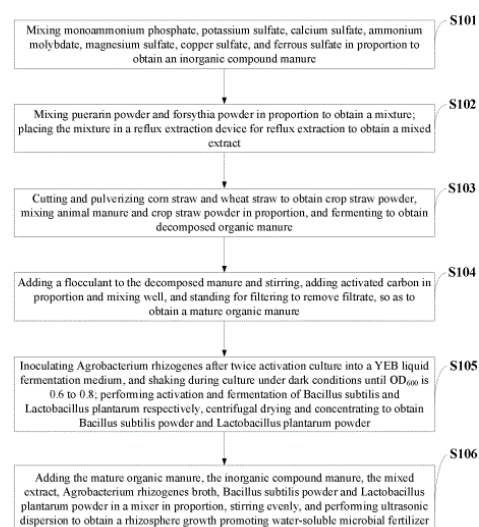
71: Guizhou Institute of Pratacultural

72: ZENG, Qingfei, WEI, Xingdi, OU, Erling, JI, Yuyu, WEI, Xin, LI, Yajiao

#### 54: RHIZOSPHERE GROWTH-PROMOTING WATER-SOLUBLE MICROBIAL FERTILIZER AND PREPARATION METHOD THEREOF

00: -

The present disclosure relates to a rhizosphere growth-promoting water-soluble microbial fertilizer and preparation method thereof.



21: 2022/00254. 22: 2022/01/05. 43: 2022/04/04

51: B01J; C07C

71: Zhejiang University of Technology

72: ZHAO, Jia, LI, Xiaonian, ZHU, Wenrui, FENG, Feng, WANG, Tao, FENG, Tao, TANG, Qi, JIANG, Zhao, CHEN, Zhi

33: CN 31: 202110352861.6 32: 2021-03-31

#### 54: SUPPORTED HIGH-ENTROPY ALLOY ACTIVATED CARBON CATALYST FOR



**ACETYLENE HYDROCHLORINATION AND PREPARATION METHOD AND USE THEREOF**

00: -

The present disclosure discloses a supported high-entropy alloy activated carbon catalyst and a preparation method and application thereof. The catalyst comprises an activated carbon support and a metal component loaded on the support, wherein the metal component is composed of Cu element and X, Y, Z and W elements, and the X, Y, Z and W elements are selected from four elements of Fe, Mn, Zn, K, Ca, Sn, Ni, Co, Cr, Al, and wherein a loading of the copper element is 10 to 30wt%, and a loading of each of the four metal elements of X, Y, Z and W is 10 to 30wt%, respectively. In the present disclosure, the catalyst is applied to the acetylene hydrochlorination, showing extra-long stability and superior activity.

21: 2022/00320. 22: 2022/01/06. 43: 2022/03/22  
51: A01C; A01G  
71: SHUANGYASHAN DONGHAO  
AGRICULTURAL SCIENCE & TECHNOLOGY CO., LTD.

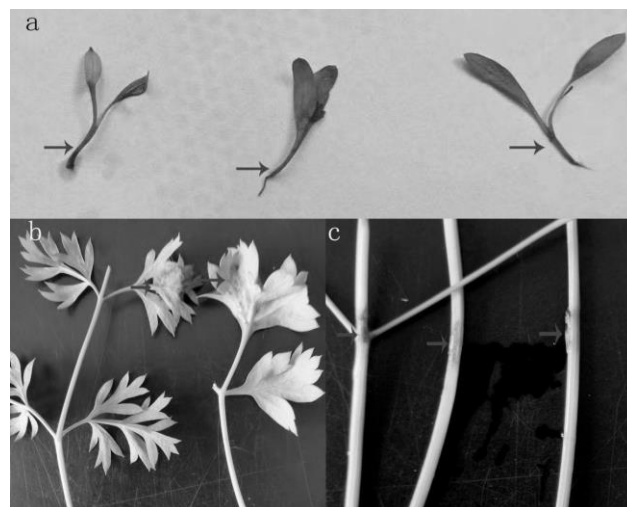
72: LI, YONGGANG, CUI, ZHENGANG, LIU, JINXIN, NING, HAILONG, JIANG, WANYI, ZHANG, XUE, ZHU, JUNCHAO

33: CN 31: 202110275750.X 32: 2021-03-15

**54: METHOD FOR CONTROLLING RADIX SAPOSHNIKOVIAE ROOT ROT OR LEAF SPOT CAUSED BY ALTERNARIA**

00: -

The present invention discloses a method for controlling radix saposhnikoviae root rot or leaf spot caused by Alternaria and belongs to the technical field of plant disease control. In the present invention, seeds are soaked with prochloraz, propic-azoxystrobin or flusilazole for 3-6 h. Compared with the prior art, the present invention achieves beneficial effects as follows: on the basis of isolating and identifying a pathogenic bacterium, i.e., Alternaria, that causes radix saposhnikoviae root rot or leaf spot, the seeds with the bacterium are found as a major infection source; and the disease may be effectively controlled through seed soaking.



21: 2022/00422. 22: 2022/01/10. 43: 2022/04/07  
51: A23K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

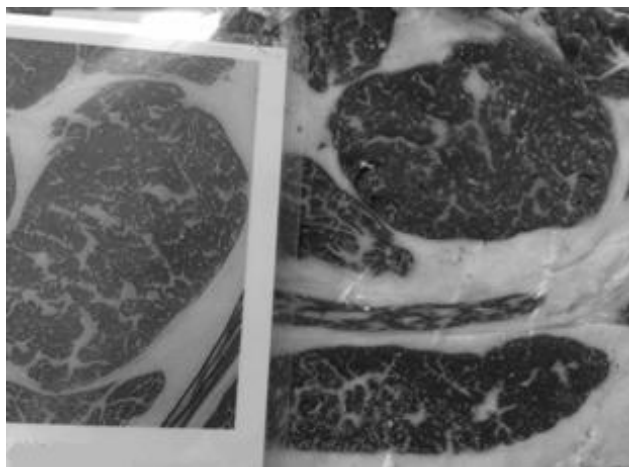
72: SUN, FANG, BU, YE, LIU, LI, ZHAO,  
XIAOCHUAN, XU, SHANSHAN, MENG,  
XIANGREN, ZHANG, YU

**54: FOUR-STAGE TYPE LINEAR FATTENING FEEDING TECHNIQUE FOR PRODUCING SNOW BEEF**

00: -

Disclosed is a four-stage type linear fattening feeding technique for producing snow beef. The composition of the present invention is as follows: the method comprises the following steps: selecting 2-3 month weaned Holstein gelded calves with good emasculated growth and development and the weights being greater than or equal to 80 kg; dividing a whole fattening process of the Holstein gelded calves into four stages and formulating staged weight-gaining indexes according to a weight increasing law, a protein and fat deposition law and an effect law of dietary nutrient level to body tissues. The present invention is the four-stage type linear fattening feeding technique for producing snow beef.





21: 2022/00442. 22: 2022/01/10. 43: 2022/03/22

51: A61B

71: BAGEN

72: BAGEN

#### 54: MONGOLIAN MEDICINE COMPOSITION FOR TREATING RENAL INSUFFICIENCY

00: -

The present invention discloses a Mongolian medicine composition for treating renal insufficiency and belongs to the technical field of Mongolian medicines. When prepared into a drug, the Mongolian medicine composition can be used for effectively treating chronic nephritis, nephrotic syndrome, hypertensive kidney lesion, diabetic nephropathy or uric acid-related nephropathy, particularly has a significant effect of lowering serum creatinine, and lays a foundation for treating renal diseases with the Mongolian medicine.

Name: Shuli Bao		Patient type:	
Gender: female		Medical record No.:	
Age: 61		Department: inpatient area of department of nephropathy (nephrology department)	
No.	Code	Item name	Result
1	ALT	Glutamic-pyruvic transaminase	9.50
2	AST	Glutamic oxaloacetic transaminase	14.90
3	AST/ALT	Glutamic oxaloacetic transaminase/glutamic-pyruvic transaminase	1.571
4	TBIL	Total bilirubin	5.80
5	DBIL	Direct bilirubin	2.80
6	IBIL	Indirect bilirubin	3.00
7	GGT	Glutamyl transpeptidase	10.00
8	ALP	Alkaline phosphatase	140.001
9	TBA	Total bile acid	1.00
10	TP	Total protein	77.70
11	ALB	Albumin	50.50
12	GLOB	Globulin	27.20
13	AG	Ratio of albumin to globulin	1.86
14	UREA	Urea	20.201
15	CREA	Creatinine	418.001
16	UA	Uric acid	318.00
17	PIYP	IV type collagen	104.00
Applied doctor: Bagen		Application date: 2021	
Instrument: Cobas 701		Signing time:	
The inspection report is responsible for the specimen only. If you have any doubts, please contact personnel concerned			

21: 2022/00480. 22: 2022/01/11. 43: 2022/02/18

51: C22B

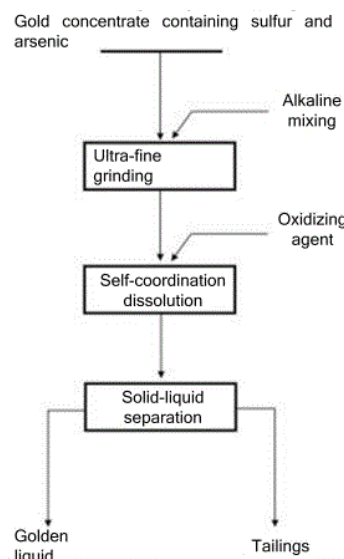
71: Zhengzhou University

72: SONG, Xiangyu, XU, Laifu, WANG, Wen, ZHANG, Hongtao, LI, Ronggai, WANG, Junyu, ZHANG, Zhen, ZHAI, Xiaochen

#### 54: PROCESS FOR LEACHING GOLD FROM GOLD CONCENTRATE CONTAINING SULFUR AND ARSENIC BY SELF-COORDINATION DISSOLUTION OF GOLD AND SULFUR

00: -

The present disclosure provides a process for leaching gold from gold concentrate containing sulfur and arsenic by self-coordination dissolution of gold and sulfur. The present disclosure uses sulfur in gold-containing sulfide minerals to directly produce polysulfides (SX<sub>2</sub>-) with oxidation and coordination capabilities in situ in an alkaline system to leach the gold. The present disclosure uses an oxidizing agent in an alkaline medium under normal temperature and pressure conditions to promote a reaction of the sulfur in the gold-loaded sulfide minerals such as arsenopyrite and pyrite to form the polysulfides. These polysulfides not only have oxidizing property but also have coordination capability, and can be dissolved by reacting with the gold in situ immediately to form a complex. In the whole process, no other toxic gold dissolving agents are introduced, which is green and environmentally friendly.



21: 2022/00573. 22: 2022/01/12. 43: 2022/03/25

51: A23K

71: Hefei Technology College, Shanghai

Xinshangrun Biotechnology Co., Ltd.

72: ZHENG, Xuebin, WANG, Anmin, MA, Xiliang

**54: 10% PROBIOTIC NUTRITIVE PREMIX FEED FOR SUCKLING PIGS**

00: -

10% probiotic nutritive premix feed for suckling pigs is prepared from the following components in parts by weight: 10-40 parts of a microcomponent mixture, 20-60 parts of an amino acid combination, 1-10 parts of a combination enzyme, 1-8 parts of compound microecologics for pigs, 100-200 parts of a limestone powder combination, 100-200 parts of a swelling agent, 20-80 parts of sodium chloride, 200-600 parts of a feed carrier, 10-100 parts of glucose, 100-300 parts of whey powder, 1-10 parts of tea polyphenols and 1-20 parts of rice chaff powder. A preparation method comprises the following steps: carrier treatment: mixing of nutrient components; mixture packaging. The 10% probiotic nutritive premix feed for suckling pigs has high nutrient absorption rate, high nutrient conversion rate, better taste and lower cost.

21: 2022/00580. 22: 2022/01/12. 43: 2022/03/25  
51: H03K

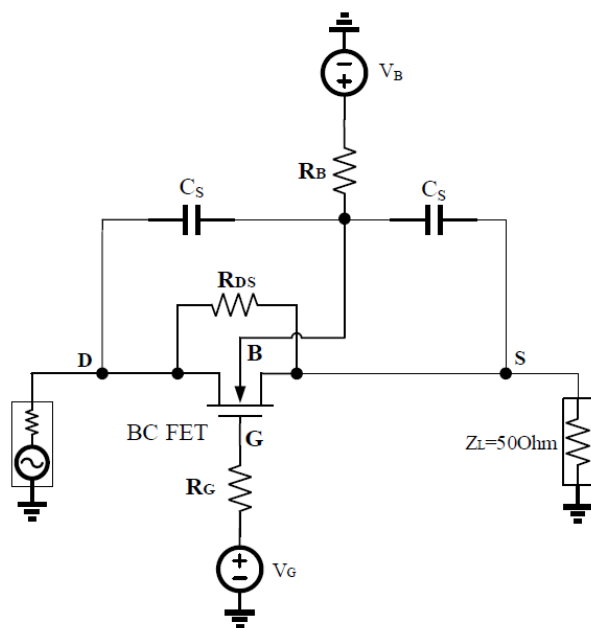
71: SYNERGY INNOVATION INSTITUTE OF  
GDUT, HEYUAN

72: ZHANG, Zhihao, ZHANG, Guohao, ZHONG,  
Liping, HUANG, Guohong, TANG, Hao

**54: HIGH-LINEARITY AND LOW-HARMONIC RADIO FREQUENCY SWITCHING CIRCUIT STRUCTURE**

00: -

A high-linearity and low-harmonic radio frequency switching circuit structure, wherein N field effect transistors are stacked in series, a linear capacitor CS is connected between the body region (B) and the drain region (D) of each field effect transistor, and an identical linear capacitor CS is connected between the body region (B) and the source region (S). The high-linearity and low-harmonic radio frequency switching circuit structure proposed by the present invention can effectively improve the power processing capability and linearity and reduce harmonic distortion without increasing the layout area as much as possible and ensuring good insertion loss and isolation.



21: 2022/00582. 22: 2022/01/12. 43: 2022/03/04  
51: G01N

71: Dr. Oza Ankit Dilipkumar, Dr. Jishnu Rajeshbhai  
Gohel, Dr. Parwathi G Pillai, Dr. Praveen Bhai Patel,  
Dr. Richa, Dharmesh Vandra, Dr. Hitesh H Vandra,  
Dipika Shah, Dr. Vijayendra Desai, Mr. Anand  
Gujarati

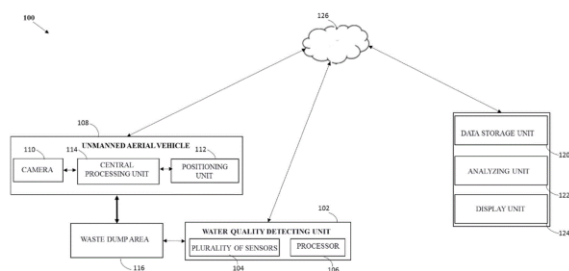
72: Dr. Oza Ankit Dilipkumar, Dr. Jishnu Rajeshbhai  
Gohel, Dr. Parwathi G Pillai, Dr. Praveen Bhai Patel,  
Dr. Richa, Dharmesh Vandra, Dr. Hitesh H Vandra,  
Dipika Shah, Dr. Vijayendra Desai, Mr. Anand  
Gujarati

**54: AN AI BASED MODEL TO DETERMINE THE WATER QUALITY INDEX AND AUTOMATIC DETECTION OF GARBAGE FLOATING IN RIVER**

00: -

The present invention relates to a system (100) for an AI-based model to determine the water quality index and automatic detection of garbage floating in the river. The system (100) comprises a water quality detecting unit (102), one or more unmanned aerial vehicles (108) (UAV), one or more display units (124), analyzing unit, and one or more display units (124). The water quality detecting unit (102) is configured to determine the water quality index. The one or more unmanned aerial vehicles (108) are configured to detect the information about garbage floating in the river and the area (116) of solid waste in the river. The present invention provides an automated waste monitoring system (100) for efficiently managing the wastes to reduce the

improper utilization of valuable resources like human effort, time, and cost.



21: 2022/00600. 22: 2022/01/12. 43: 2022/03/14  
51: D02G; D03D; D06B  
71: INNER MONGOLIA KING DEER CASHMERE CO.,LTD

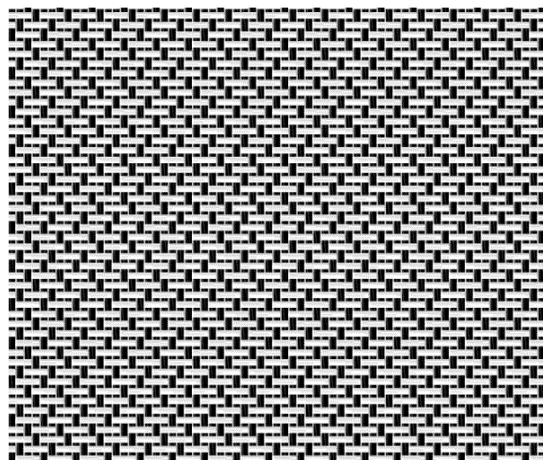
72: Jiancheng QIAO, Wenshan NIE, Xiurong FAN, Hui DING, Xinquan WANG, Ruilan DONG, Jianli GUO

33: CN 31: 202010565018.1 32: 2020-06-19

#### 54: CASHMERE KNOTTED YARN FABRIC AND PRODUCTION METHOD THEREFOR

00: -

A cashmere knot yarn fabric is provided by the present invention, comprising a warp yarn and a weft yarn woven together, wherein: one of the warp yarn and the weft yarn is a woolen cashmere yarn and the other is a knotted yarn, and a production method of the cashmere knot yarn fabric is further provided by the present invention, and the cashmere knot yarn fabric has both soft and smooth body feeling of cashmere products and colorful fancy yarn effect.



71: INNER MONGOLIA KING DEER CASHMERE CO.,LTD

72: Ruilan DONG, Xinquan WANG, Wenshan NIE, Hui DING, Jiancheng QIAO

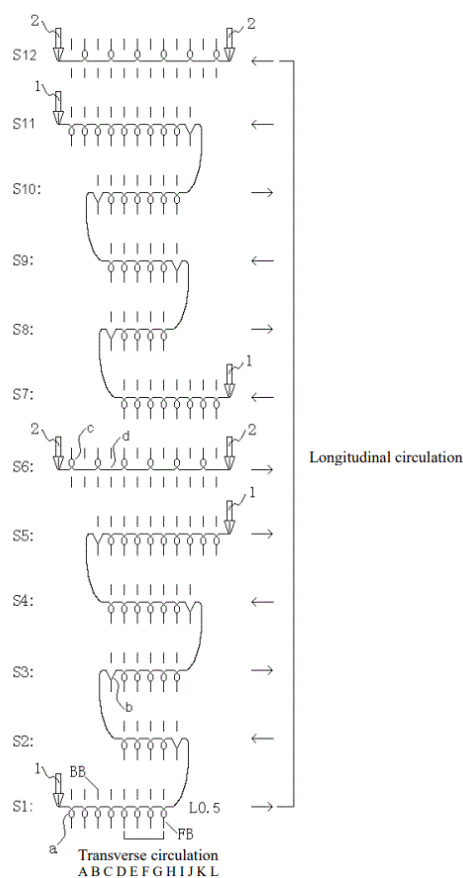
33: CN 31: 202010559168.1 32: 2020-06-18

#### 54: METHOD FOR USING COMPUTERIZED TWO-NEEDLE FLAT-BED KNITTING MACHINE TO KNIT TWO-SIDED RIDGED JACQUARD KNITTED FABRIC

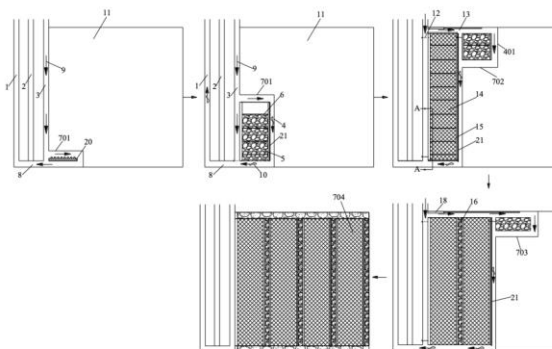
00: -

A method of knitting double-sided bubble wrinkle jacquard knitted structure by a double-needle bed computerized flat knitting machine is provided by the present invention, and when using a double-needle bed compute flat knitting machine to knit a double-sided bubble wrinkle jacquard pattern of a color A and a double-sided bubble wrinkle jacquard pattern of a color B, a yarn A and a yarn B are different in thickness, the yarn A of the color A uses a thicker yarn, and the yarn B of the color B uses a finer yarn; a knitting density is set, and a two-segment size adopts a way of one loose and one tight, and a bending depth of the yarn A and a bending depth of the yarn B are controlled respectively through a pressing triangle, and knitting rows corresponding to the yarn A and knitting rows corresponding to the yarn B are adjusted to a range of different size values respectively; the knitting rows of the yarn A and the knitting rows of the yarn B are set different. The invention provides a double-sided bubble wrinkle jacquard knitted structure, wherein the bubble wrinkles on the front and back sides are knitted and formed in one time.

21: 2022/00602. 22: 2022/01/12. 43: 2022/03/14  
51: D04B



is injected into a collapsed roof rock stratum to form a supporting pseudo-layer that is segment-wise arranged and stabilized, and the supporting pseudo-layer cooperates with airtight thin walls for ventilation, wherein b-shaped mining is applied to a first working face and p-shaped mining is applied to subsequent working faces; and after a reserved staged roadway primarily collapses, a mid-air space in the roadway is grouted by using a reserved feed tube to form a complete pseudo-goaf layer, thereby controlling the earth face subsidence and stope water accumulation. The extraction method reduces the tunnelling workload on the working faces and can effectively control the earth face subsidence to complete the mining of mineral resources under the conditions of low cost, high extraction rate and environment protection.



21: 2022/00604. 22: 2022/01/12. 43: 2022/03/14

51: E21C; E21F

71: SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: HU, Shanchao, WANG, Jun, NING, Jianguo, RU, Wenkai, GUO, Yong, ZUO, Jing

33: CN 31: 202010458239.9 32: 2020-05-26

**54: METHOD FOR SUBSIDENCE-LIMITED EXTRACTION BASED ON SUPPORT OF PSEUDO-GAOF LAYER FORMED BY CEMENTING ROCK STRATA AND GANGUES**

00: -

The present invention discloses a method for subsidence-limited extraction based on the support of a pseudo-goaf layer formed by cementing rock strata and gangues, and relates to the technical field of extraction and earth face subsidence control for mining works. In this method, the rock strata and the gangues are cooperated with each other by a reinforcing grout, and output pipes are disposed on partitions in a gangue layer based on a time difference between advancing and caving during extraction, the gravitational downflow of the grout and the spatial fissure law of the gangues, the grout

21: 2022/00620. 22: 2022/01/12. 43: 2022/03/22

51: A61P

71: TIBET VOCATIONAL TECHNICAL COLLEGE

72: YANG, Manjun

**54: FORMULA FOR DUCK EGG COATING PRESERVATION SOLUTION AND PRESERVATION METHOD**

00: -

Disclosed is a formula for a duck egg coating preservation solution and preservation method. The formula comprises the following components in parts by volume: 68-70 parts of oleic acid (CAS: 112-80-1), 28-30 parts of linoleic acid (CAS: 60-33-3), 0.5-1.6 parts of cinnamaldehyde (CAS: 104-55-2), 0.1-0.2 part of copaene (CAS: 3856-25-5), and 0.1-0.2 part of a-murolene (CAS: 10208-80-7). The duck egg coating preservation solution is coated onto eggshell to form an oily film which can restrain duck eggs' endogenous metabolism and reduce



evaporation of water. Moreover, cinnamaldehyde can effectively inhibit bacteria on eggshell and prevent invasion of bacteria. Thereby, the coating material is achieving the purpose of keeping the quality of duck eggs, and prolonging the shelf life of duck eggs. In addition, the coating solution is colorless and bright on eggshell, and has the advantages of safety, harmlessness and low costs.



21: 2022/00622. 22: 2022/01/12. 43: 2022/03/22  
51: F02B; F02F

71: SHANDONG JIAOTONG UNIVERSITY

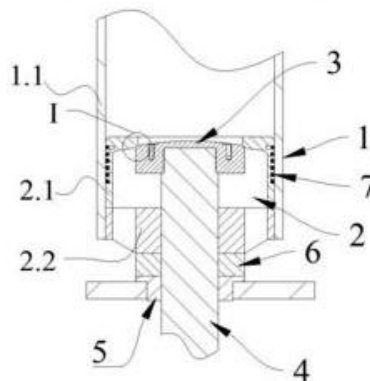
72: JIAO, Bo, BU, Zhicheng, CUI, Wenchao

#### **54: NOVEL CROSSHEAD TYPE TWO-STROKE STRAIGHT SCAVENGING PISTON DEVICE**

00: -

The present invention provides a novel crosshead type two-stroke straight scavenging piston device, which comprises a cylinder, a scavenging piston, an air inlet valve and a piston rod. The cylinder comprises a cylinder liner and a cylinder head detachably connected with the cylinder liner; the scavenging piston is composed of a detachable piston head and a piston seat ring; the air inlet valve is located inside the scavenging piston and detachably connected with one end of the piston rod; the piston rod sequentially penetrates through the piston seat ring and an air seal, and is connected with a crosshead in a crankcase at the other end; the air seal is mounted in a partition plate of an upper wall of the crankcase; a scavenging port is formed in the center of the top of the piston head; and the air inlet valve is matched with the scavenging port and can be opened and closed by

moving the piston rod. The scavenging piston device according to the present invention can improve the combustion efficiency, improve the air-exchange quality, and is convenient and reliable to maintain.



21: 2022/00623. 22: 2022/01/13. 43: 2022/03/22  
51: E21B

71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

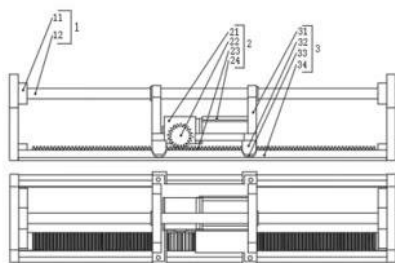
72: HUANG, Shaofu, FU, Zhendong, LIU, Chao, LI, Jun

#### **54: AUTOMATIC BALANCING DEVICE FOR BEAM PUMPING UNITS**

00: -

At present, due to the structural characteristics of a conventional beam pumping unit, the conventional beam pumping unit has the defects of poor balance effect, low operating efficiency and high energy consumption. The design proposes that the balance of the beam pumping unit is adjusted in real time by adding a guide rail moving device on a walking beam of the pumping unit. In the device, the power is directly provided by a worm gear reducer; the device has good self-locking ability, and can ensure that a balancing device moves safely and smoothly on the inclined walking beam; a position signal of the device is measured by a sensor, and is transmitted into a circuit element to automatically control the reducer, thereby realizing periodic reciprocating movement on guide rails.





21: 2022/00625. 22: 2022/01/13. 43: 2022/03/22

51: G01V

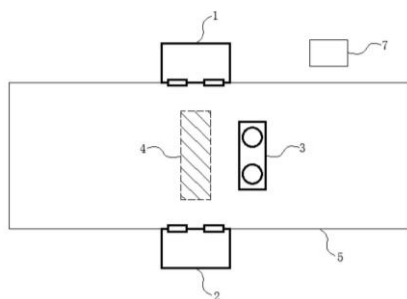
71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: LV, WENBAO, PAN, HUIKUAN, CHEN, JIACHENG, LIU, HAIZENG, ZHU, DAN, WANG, LEI, WANG, CHAO

#### 54: NOVEL ON-LINE REAL-TIME IDENTIFICATION AND DETECTION DEVICE FOR COAL AND GANGUE

00: -

The present invention relates to the field of novel on-line real-time identification for coal and gangue and discloses a novel on-line real-time identification and detection device for coal and gangue. The device comprises a left-side ultrasonic range finder, a right-side ultrasonic range finder, an upper ultrasonic range finder, a belt dynamic weighing instrument and a PLC (Programmable Logic Controller). The belt dynamic weighing instrument is used for weighing the weight  $m$  of a current material block in real time; the left-side ultrasonic range finder is used for measuring the distance  $L1$  between the current material block and the left-side ultrasonic range finder in real time and counting the time  $T1$  that the current material block passes through the left-side ultrasonic range finder in real time at the same time.



21: 2022/00626. 22: 2022/01/13. 43: 2022/03/22

51: F04F

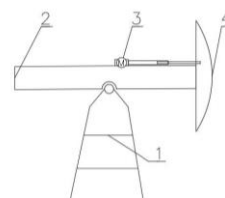
71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: LIU, CHAO, YANG, ZIDONG, HUANG, SHAOFU, LI, JUN

#### 54: HORSEHEAD OVERTURNING DEVICE OF BEAM PUMPING UNIT

00: -

The present invention discloses a horsehead overturning device of a beam pumping unit, comprising a rack, a walking beam of a pumping unit, a horsehead of the pumping unit, a motor, a horsehead pin, an electric push rod, a telescopic arc rod and a base. The walking beam is fixed on the rack; the horsehead is hinged with the walking beam through a pin shaft; the motor is mounted on the upper surface of the walking beam; a connecting rod is composed of a connecting rod body and an arc rod; the connecting rod body is connected with the electric push rod; the electric push rod is mounted on the base; the connecting rod body can be designed to have a telescopic structure; and a clamping device is mounted at the tail end of the arc rod for clamping the horsehead.



21: 2022/00631. 22: 2022/01/13. 43: 2022/03/25

51: B65G

71: Shandong Jiaotong University

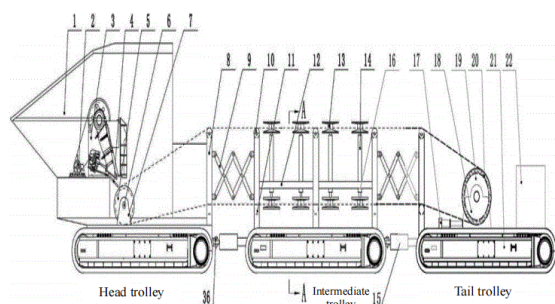
72: ZHANG, Dongsheng, WANG, Baoping, SUN, Qin, ZHANG, Zhifeng, YU, Haiyang, DONG, Hui, WANG, Lei

#### 54: AUTONOMOUS OBSTACLE AVOIDING SNAKELIKE CRAWLER TRAVELING TYPE CRUSHING CONVEYOR

00: -

The present disclosure relates to an autonomous obstacle-avoiding snakelike crawler traveling crushing conveyor. An obstacle-avoiding collection device on front end includes an infrared detection system and a GPS positioning device; when a head trolley travels, an infrared detection device collects information ahead; a smart obstacle-avoiding system controls crawler travel units and an auxiliary cylinder steering device to achieve obstacle avoidance by

analyzing a signal; a GPS position-recording module records a traveling track of the head rack trolley; rack trolleys are independent mutually; each trolley is equipped with the crawler travel unit, achieving movement, and horizontal and vertical bends; during obstacle avoidance of the head trolley, intermediate trolleys and a tail trolley trace the traveling track of it by a control device; and a pressure plate limiting device reduces horizontal off-tracking and belt floatation during operation of a conveyor belt, thereby improving conveying efficiency and economic benefit of the conveyor.



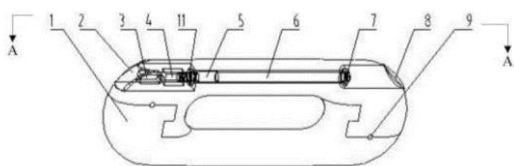
21: 2022/00632. 22: 2022/01/13. 43: 2022/03/25  
51: B65G

71: Shandong Jiaotong University  
72: ZHANG, Dongsheng, ZHANG, Zhifeng, YU, Haiyang, DONG, Hui, WANG, Baoping, GUAN, Zhiguang

#### **54: CHAIN TENSION ONLINE-DETECTION ON DEVICE AND METHOD**

00: -

The disclosure provides a V-lock connecting chain link tension online-detection device and a method for a scraper conveyor, thus improving reliability of a link inner-side sensor of the connecting chain link tension online-detection device and online detecting a tension of a connecting chain link in real time.



21: 2022/00633. 22: 2022/01/13. 43: 2022/03/25  
51: G01V

71: Qinghai Qaidam Comprehensive Geological and Mineral Exploration Institute

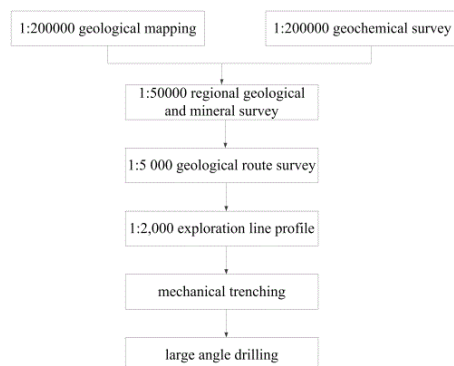
72: JIAO, He, CUI, Qiangqiang, HUANG, Guobiao, PENG, Jian, LV, Zhibin, LU, Haifeng

33: CN 31: 202111359390.8 32: 2021-11-17

#### **54: PROSPECTING METHOD FOR FLUORITE IN RESIDUAL SLOPE OVERBURDEN AREA**

00: -

The present disclosure discloses a prospecting method for fluorite in residual slope overburden area, including the following steps: performing 1:5,000 geological route survey in a geochemical anomaly area delineated by predecessors, searching for fluorite particles in residual slope deposits, measuring geological points after discovery, making detailed records and marking; drawing mineralization information found in all areas on a geological map according to an actual location, circling a distribution direction of mineralized zone; measuring 1:2,000 exploration line profile in a vertical direction of the mineralized zone; using an excavator to expose and verify the mineralized body found on a surface along the exploration line profile, exposing Quaternary residual slope deposit, performing detailed geological cataloging and sample collection of the exposed mineralized bodies, and determining thickness, occurrence, and grade characteristics of ore body, and finally drawing a trenching profile.



21: 2022/00634. 22: 2022/01/13. 43: 2022/03/25  
51: B65G

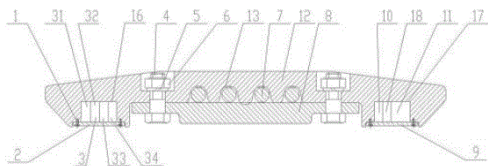
71: Shandong Jiaotong University  
72: ZHANG, Dongsheng, ZHANG, Zhifeng, YU, Haiyang, DONG, Hui, WANG, Baoping, GUAN, Zhiguang

#### **54: CHAIN TENSION DETECTION DEVICE**

00: -

The disclosure relates to a scraper conveyor tension detection device, belonging to the technical field of tension detection and transmission. When a scraper

conveyor is working underground, a detection device accurately monitors chain link tension in real time and stores testing data, as well as accurately monitors chain link acceleration in real time and stores data.



21: 2022/00635. 22: 2022/01/13. 43: 2022/03/25  
51: E21F

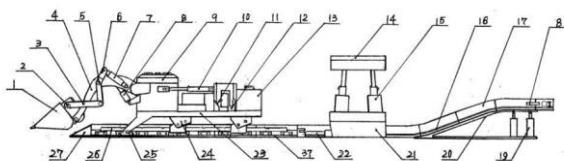
71: Shandong Jiaotong University

72: ZHANG, Dongsheng, WANG, Baoping, SUN, Qin, ZHANG, Zhifeng, YU, Haiyang, DONG, Hui, WANG, Lei

#### **54: STEPPING TYPE FULL-HYDRAULIC ROADWAY LOADING AND TRANSPORT DEVICE**

00: -

The disclosure belongs to the field of mining machinery, and discloses a stepping type full-hydraulic roadway loading and transport combined unit. It comprises a machine frame, a hydraulic station, an oil tank, an electric control box, a conveyor, a tail frame and a tail supporting oil cylinder, the machine frame provided with a loader, the conveyor arranged in the middle of the machine frame and under the loader, it comprises a bucket and hinged to left end of a large arm and connected with left end of a bucket rod through a shaft I, right end of the bucket rod hinged to lower end of a swing rod, the middle of the swing rod connected with the middle of the large arm through a shaft II, upper end of the swing rod hinged to a piston rod of a overturning oil cylinder, and a bucket cover arranged on the bucket.



21: 2022/00636. 22: 2022/01/13. 43: 2022/03/25  
51: B01J

71: Qingdao University of Science and Technology, Shanlong Antai Environmental Protection Technology Co., Ltd.

72: Wang Lei, Dai Chunlong, Han Yi, Lai Jianping, Li Bin, Volodymyr Turkevychi

#### **54: METHOD FOR ELECTROCATALYTIC NITROGEN REDUCTION CATALYST**

00: -

The invention belongs to the technical field of electrocatalytic ammonia production, and discloses a method for electrocatalytic nitrogen reduction catalyst. Telluride is introduced into electrocatalytic nitrogen reduction by utilizing its hydrogen storage capacity for the first time, in which, elements with good adsorption to nitrogen are selected, and with the hydrogen storage property of telluride, higher ammonia production is achieved at 0V, Tellurides include  $\text{Sb}_2\text{Te}_3$ ,  $\text{Bi}_3\text{Te}_4$ ,  $\text{CoTe}$  and  $\text{CdTe}_2$ , taking  $\text{Sb}_2\text{Te}_3$  as an example, the synthesis method of  $\text{Sb}_2\text{Te}_3$  includes: dissolving  $\text{SbCl}_3$  in water, then adding 25 mg of sodium tartrate, 25 mL of ammonia water, 22 mg of potassium tellurite, and 10 mL of hydrazine in turn, stirring for 5 min, then putting into a reaction kettle and reacting at 180 degrees Celsius for 5 h. The present invention compares the nitrogen reduction properties of  $\text{Sb}_2\text{Te}_3$ ,  $\text{Bi}_3\text{Te}_4$ ,  $\text{CoTe}$  and  $\text{CdTe}$ , and concludes that telluride has great prospect in nitrogen reduction at low voltage.

21: 2022/00637. 22: 2022/01/13. 43: 2022/03/25  
51: F02M; H02K; H02N

71: Shandong Jiaotong University

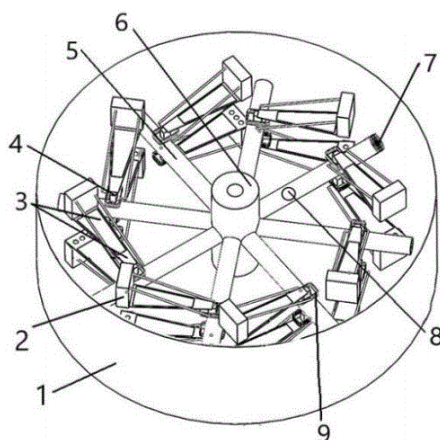
72: ZHANG, Dongsheng, ZHANG, Zhifeng, YU, Haiyang, DONG, Hui, WANG, Lei

#### **54: AWAPE PIEZOELECTRIC-ELECTROMAGNETIC COMPOSITE ENERGY HARVESTER**

00: -

The disclosure discloses a piezoelectric-electromagnetic composite energy harvester based on sea wave motion. The energy harvester comprises a shell, and a guide rail assembly, a piezoelectric power generation module and an electromagnetic power generation module arranged in the shell. By arranging the piezoelectric power generation module, triggered by low-frequency sea wave motion, piezoelectric sheets are caused to vibrate to generate electric energy; and by arranging the electromagnetic power generation module, triggered by low-frequency sea wave motion,

piezoelectric cantilever beams vibrate to drive magnets to vibrate, and the magnets generate displacement relative to closed coils, so as to cut magnetic lines to generate electric energy. According to the energy harvester, electric energy is generated by utilizing sea wave motion, and power generation efficiency is improved; and the inner annular arrangement is provided, the stability is improved, and the defects of an existing sea wave energy collection technology are overcome.

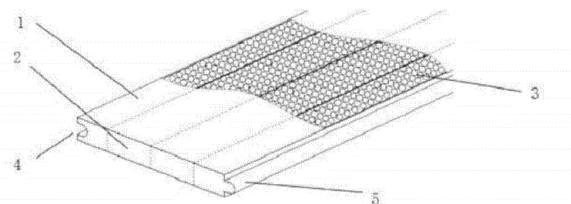


21: 2022/00638. 22: 2022/01/13. 43: 2022/03/29  
51: E04F  
71: Shandong Jiaotong University  
72: ZHANG, Dongsheng, ZHANG, Zhifeng, YU, Haiyang, DONG, Hui, WANG, Lihu, WANG, Lei

#### **54: HOLLOW BEAD-FILLED ALUMINUM ALLOY FLOOR**

00: -

A hollow bead-filled aluminum alloy floor includes an aluminum alloy floor frame, a sealing blocking plate, light material hollow beads for filling, a floor mounting groove and a floor mounting protrusion. By filling the hollow beads, a pressure resistance of the hollow aluminum alloy floor is enhanced, and a user feels more comfortable. The hollow aluminum plate features simple structure, and in a filling mode, solves the problem that a compressive strength of the hollow aluminum plate is small, and the comfort level of the floor is improved with the addition of the hollow beads.



21: 2022/00639. 22: 2022/01/13. 43: 2022/03/25  
51: G01M

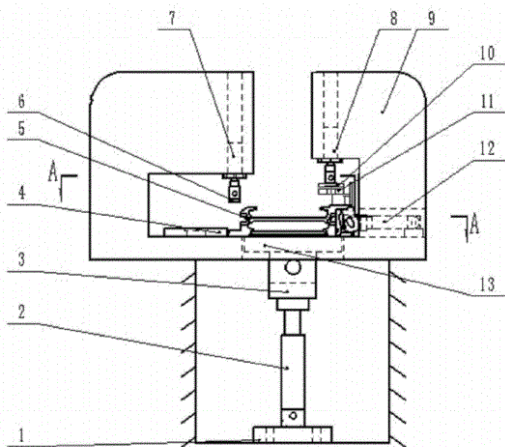
71: Shandong Jiaotong University  
72: ZHANG, Dongsheng, ZHANG, Zhifeng, YU, Haiyang, DONG, Hui, WANG, Lei

#### **54: LOADING AND TESTING DEVICE FOR SCRAPER CONVEYOR**

00: -

Disclosed is a loading and testing device for middle chutes and dumbbells of a scraper conveyor. In the device, a No.1 middle chute and a No.5 middle chute are fixed through a fixed bracket and a compressing cylinder, and No.2, No.3 and No.4 horizontally pushing cylinders extend and retract to stimulate a push-pull process and a horizontal bending; No.1-No.4 vertically moving platforms are controlled by vertically loading cylinders to stimulate undulations of a bottom plate; 32 upper loading cylinders are combined according to a certain law to stimulate the working condition that the vertical pressure of a coal mining machine acts on different parts of the middle chutes, by extending and loading; load and displacement data of all cylinders are acquired as external loads of the middle chutes, and the stress and deformation of the middle chutes and dumbbells are tested through the strain output of their key points.





21: 2022/00640. 22: 2022/01/13. 43: 2022/03/25  
 51: B01J  
 71: China University of Mining and Technology, Baoqing Coal Power & Chemical Corporation, CHN Energy  
 72: Gong Guanqun, Zhang Yingjie, Li Zhiling, Wang Ziyang, Liang Shaojie, Li Ruonan, Lu Shan, Zhang Shuangquan, Zhang Fushui, Liu Peng, Chen Xiaoqing, Li Ya

**54: METHOD FOR EXTRACTING REGENERATED FULVIC ACID FROM LOW-METAMORPHIC LIGNITE**

00: -

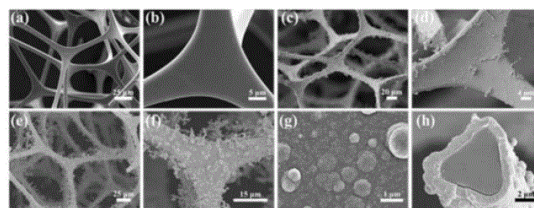
The invention relates to an method for extracting regenerated fulvic acid from low-metamorphic lignite, which belongs to the technical field of fulvic acid extraction methods and solves the technical problems of low conversion effect and extraction rate of extracted fulvic acid, environmental pollution and limited purity in the prior art.. The invention provides an extraction method of regenerated fulvic acid in low-metamorphic lignite, which comprises the following steps: S1, selecting low-metamorphic lignite as coal type and preparing low-metamorphic lignite coal samples; S2, selecting a surface modified nano copper catalyst with a particle size of 100-1,000 nanometers as a catalyst and adding the catalyst into the coal sample prepared in step S1; S3, mixing hydrogen peroxide, glacial acetic acid and the low-metamorphic lignite coal sample prepared in step S2 according to a specific mass ratio, and introducing protective gas; S4, adding distilled water enriched in carbon dioxide gas into the coal sample mixture of low-metamorphic lignite after oxidative decomposition, stirring, separating and drying to obtain fulvic acid solid. The special

effect of fulvic acid makes it widely used in many industries and has a good market prospect.

21: 2022/00641. 22: 2022/01/13. 43: 2022/03/25  
 51: B32B; C08J; C08K; C08L; H05K  
 71: Guizhou University  
 72: XUE, Bai, LI, Yi, XIE, Lan  
 33: CN 31: 202110638506.5 32: 2021-06-08  
**54: DOUBLE-SHIELDING-STRUCTURE MATERIAL WITH DIRECTIONAL ELECTROMAGNETIC SHIELDING PERFORMANCE AND PREPARATION METHOD THEREOF**

00: -

The invention discloses a double-shielding-structure material with directional electromagnetic shielding performance and a preparation method. The following steps are included: performing conductive treatment on a cheap and readily available MF porous skeleton as a 3D conductive network structure skeleton of a directional electromagnetic shielding composite by a chemical deposition process; performing vacuum-assisted filtration on CNT dispersion to form a film of a two-dimensional layered structure; and assembling the 3D conductive network skeleton and the two-dimensional layered structure using a degradable flexible polymer (PBAT). The 3D conductive network skeleton and the two-dimensional layered structure synergistically improve the electromagnetic shielding performance of the composite. The anisotropy of the composite makes loss paths of electromagnetic waves different to achieve obviously different total shielding efficiencies for the electromagnetic waves when the electromagnetic waves enter from different sides of the double-shielding composite, so that directional electromagnetic shielding performance is achieved.



21: 2022/00642. 22: 2022/01/13. 43: 2022/03/25  
 51: A01N  
 71: QINGDAO AGRICULTURAL UNIVERSITY

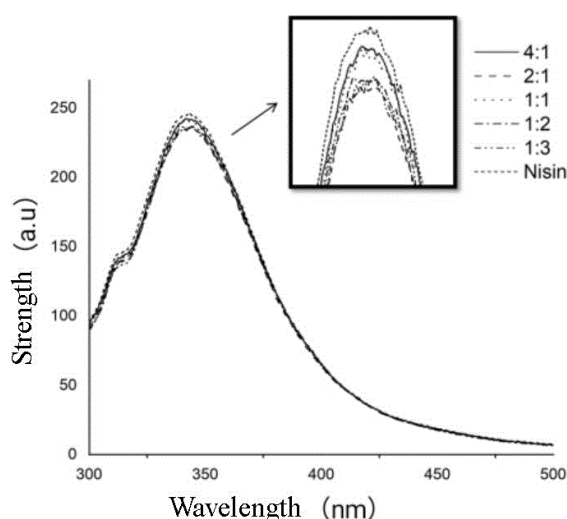


72: Zhu Yinglian, Xu Zhiqiang, Zheng Wenbin, Zhao Shang, Li Yugao, Li Xugao, Pan Yulin, Yu Dongxing, Zhao Zhiqiang, Yang Qingli

#### **54: A KIND OF PREPARATION METHOD AND APPLICATION OF NISIN MODIFIED PRODUCT**

00: -

The invention discloses a preparation method and application of a modified nisin, and belongs to the technical field of food preservation. The preparation method of above-mentioned nisin modification, comprises the following steps: First, nisin and sodium tripolyphosphate were dissolved in the acid solution to obtain nisin acid solution and sodium tripolyphosphate solution, respectively, and then the sodium tripolyphosphate solution was slowly added dropwise to the nisin acid solution., stirred and placed for 12 hours, and finally vacuum freeze-dried to obtain a nisin modified product. The modified nisin prepared by the invention has high bacteriostatic activity, and compared with the unmodified nisin, the bacteriostatic time is prolonged by 50 percent, and meanwhile the stability of the enzyme under acidic conditions is enhanced.



21: 2022/00644. 22: 2022/01/13. 43: 2022/03/24  
51: G06F

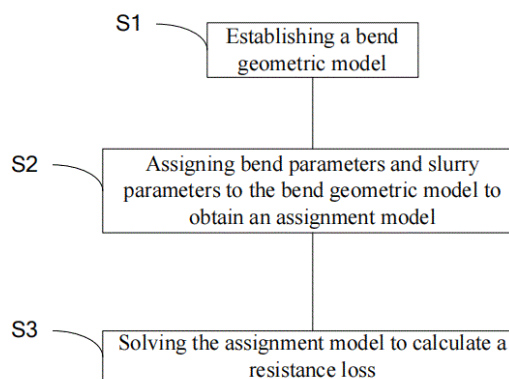
71: North China University of Science and Technology

72: WANG, Chonghao, GAN, Deqing, GONG, Yuhan

#### **54: METHOD AND SYSTEM FOR CALCULATING AS WELL AS METHOD FOR OPTIMIZING RESISTANCE LOSS OF SLURRY IN HORIZONTAL BENDS**

00: -

The present invention relates to a method and system for calculating as well as a method for optimizing a resistance loss of slurry in horizontal bends. The method for calculating a resistance loss of slurry in horizontal bends includes the following steps: first, establishing a bend geometric model serving as a bend transportation resistance model; then Assigning bend parameters and slurry parameters to the bend geometric model to obtain an assignment model; finally, solving the assignment model to calculate a resistance loss. With the present invention, an accurate resistance loss can be calculated for various bends and different types of slurry transported.



21: 2022/00646. 22: 2022/01/13. 43: 2022/03/24  
51: G01N

71: Institute of Environmental Medicine and Occupational Medicine, Academy of Military Medicine, Academy of Military Sciences

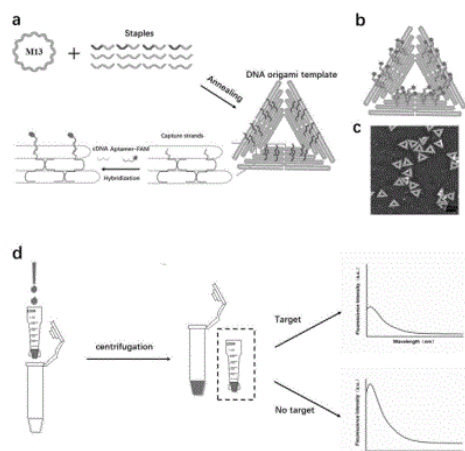
72: REN, Shuyue, GAO, Zhixian, WANG, Xiaojuan, ZHOU, Huanying, PENG, Yuan, LI, Shuang, LI, Sen, HAN, Dianpeng, QIN, Kang, WANG, Yu

#### **54: NANO-ARRAY SENSOR BASED ON DNA ORIGAMI-APTAMER AND PREPARATION METHOD AND USE THEREOF**

00: -

The present disclosure provides a nano-array sensor based on a DNA origami-aptamer and a preparation method and use thereof, and relates to the technical field of biosensors. The present disclosure proposes a DNA origami-aptamer nano array that can realize high-sensitivity and high-specificity detection of fluorescence spectra. An adenosine triphosphate (ATP) double-stranded aptamer binds to a triangular DNA origami through simple complementary base pairing; a concentration of the ATP is quantified by

centrifugation in a 100 KD ultrafiltration tube according to specific binding between the aptamer and a target, and to a molecular weight difference between the origami and a target-aptamer mixture. The sensor has a detection range for ATP of 0.1-1,000 ng/mL and a limit of detection of 0.29 ng/mL; and the sensor has a desirable specificity and reusability.



21: 2022/00647. 22: 2022/01/13. 43: 2022/03/24  
51: E21D

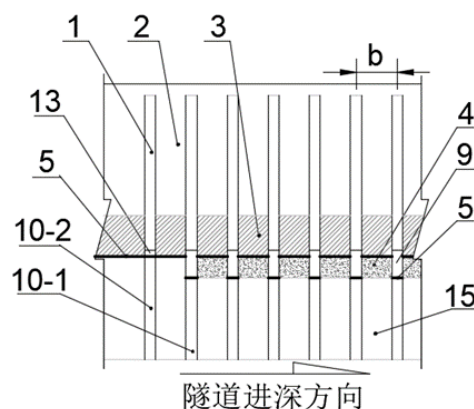
71: SHANDONG HI-SPEED GROUP CO., LTD.  
72: WANG, Kai, XUE, Zhichao, WANG, Deming  
33: CN 31: 202111091099.7 32: 2021-09-17

**54: ACTIVE SUPPORT STRUCTURE AND METHOD FOR LIMIT INVASION AND DEFORMATION OF TUNNEL SURROUNDING ROCK AFTER EXCAVATION AND SUPPORT**

00: -

The present disclosure relates to an active support structure and a method for limit invasion and deformation of tunnel surrounding rock after excavation and support. Permanent steel arches and permanent protective screenings on which shotcrete is sprayed are arranged in a tunnel; radial uniformly-distributed drill holes are formed in direction perpendicular to tunnel depth; and tensile sleeve is inserted on one end of each of drill holes, while a weldable sleeve joint is connected on the other end. By establishing an active support system, easily-collapsed area is strengthened. During tunneling, the passive governance of geological disasters of limit invasion and collapse due to artificial disturbance is converted into the active support system formed by tensile sleeve and steel arch connected therewith, which has simple structure, convenience for

construction, and high efficiency, and achieves the overall strengthening stability of the easily-collapsed surrounding rock section of tunnel.



21: 2022/00675. 22: 2022/01/14. 43: 2022/03/22  
51: C02F

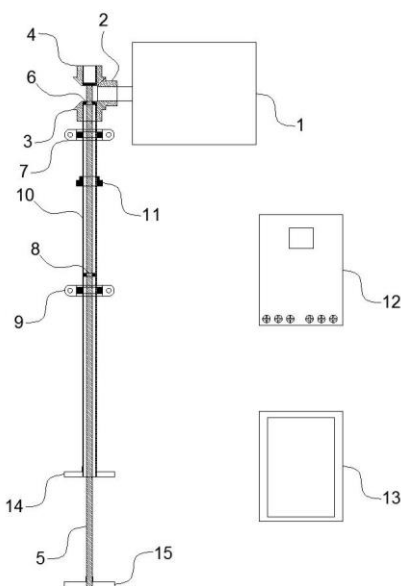
71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: LV, WENBAO, ZHU, DAN, LIU, HAIZENG, PAN, HUIKUAN, CHEN, JIACHENG, WANG, LEI

**54: CONCENTRIC DOUBLE-SHAFT REVERSING STIRRING COAL SLIME WATER PULPING DEVICE FOR LABORATORIES**

00: -

The present invention provides a concentric double-shaft reversing stirring coal slime water pulping device for laboratories, relates to the technical field of pretreatment stirring pulping before coal slurry flotation in coal preparation plants. The concentric double-shaft reversing stirring coal slime water pulping device for laboratories comprises an inner shaft; an inner shaft is sleeved with an upper embedded bearing at the upper end, and a lower embedded bearing at a lower part near the upper embedded bearing; an outer shaft is sleeved outside the upper embedded bearing and the lower embedded bearing; the outer shaft is sleeved with an upper bevel gear; the inner shaft is welded with a hollow shaft; a lower bevel gear is sleeved outside the hollow shaft; the outer shaft is sleeved with an upper fixing bearing; and a hollow shaft encoder is sleeved outside the outer shaft.



21: 2022/00676. 22: 2022/01/14. 43: 2022/03/22  
51: F02F

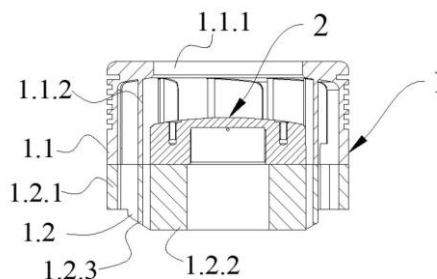
71: SHANDONG JIAOTONG UNIVERSITY

72: JIAO, BO, BU, ZHICHENG, CUI, WENCHAO

#### 54: NOVEL CROSSHEAD TYPE TWO-STROKE STRAIGHT SCAVENGING PISTON ASSEMBLY

00: -

The present invention provides a novel crosshead type two-stroke straight scavenging piston assembly, which comprises a scavenging piston and an air inlet valve. The scavenging piston is composed of a detachable piston head and a piston seat ring; the air inlet valve is located inside the scavenging piston and detachably connected with one end of a piston rod; a scavenging port is formed in the center of the top of the piston head; and the air inlet valve is matched with the scavenging port and can be opened and closed by moving the piston rod. The scavenging piston assembly according to the present invention can improve the combustion efficiency, improve the air-exchange quality, and is convenient and reliable to maintain.



21: 2022/00677. 22: 2022/01/14. 43: 2022/03/22  
51: B82Y

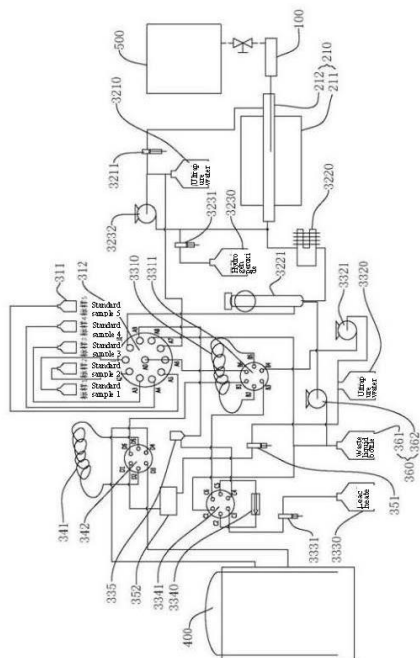
71: BGRIMM MTC TECHNOLOGY CO., LTD.

72: SHI, YEHONG, ZHAO, ZHEN, HAN, PENGCHENG, YANG, FEI, FANG, SHENGAN, SUN, JIALIANG, FENG, XIANJIN, LI, HUACHANG

#### 54: ABSORPTION AND CONSTANT VOLUME MODULE AND ION CHROMATOGRAPHY ANALYSIS SYSTEM

00: -

The present invention discloses an absorption and constant volume module and an ion chromatography analysis system, and relates to the technical field of ion chromatography analysis. The absorption and constant volume module is used in the ion chromatography analysis system and comprises a standard sample unit, a collection unit, a primary constant volume unit, a secondary constant volume unit and a conveying unit. The standard sample unit is used for storing standard samples of ions with different concentrations; the collection unit is used for collecting samples to be tested; the primary constant volume unit is connected with the collection unit; the secondary constant volume unit is respectively connected with the collection unit, the primary constant volume unit and the standard sample unit; and the conveying unit is respectively connected with the standard sample unit, the primary constant volume unit and the secondary constant volume unit.



21: 2022/00693. 22: 2022/01/14. 43: 2022/04/07  
 51: B09C  
 71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY, Huainan Normal University, Collaborative Innovation Center of Recovery and Reconstruction of Degraded Ecosystem in Wanjiang Basin Co-founded by Anhui Province and Ministry of Education (Anhui Normal University)  
 72: WANG, Xingming, CHU, Zhaoxia, FAN, Tingyu, LU, Fuqing

#### **54: METHOD FOR STABILIZING AND RESTORING COPPER TAILINGS BY COAL GANGUE AND PLANTS**

00: -

Disclosed is a method for stabilizing and restoring copper tailings by coal gangue and plants, including the following steps: 1) air-drying naturally and grinding coal gangue to three particle sizes of 100 micrometers, 500 micrometers and 1,000 micrometers; 2) passing copper tailings through a 2 mm sieve; 3) putting 2 kg of copper tailings mixed according to proportions (0% (CK), 1%, 2.5%, 5%, 10%, 15% and 20%) into 18 cm×11 cm plastic pots, setting three repetitions for each treatment group, and balancing the copper tailings for one week; 4) planting 15 ryegrass seeds in each pot, and keeping five robust plants after the seeds germinate; and 5) keeping the plants in a greenhouse for 45 d, sampling and analyzing the copper tailings. The method features high repairing efficiency, stabilizes

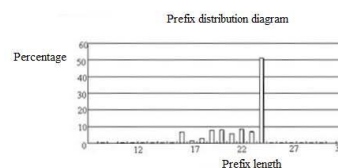
heavy metals in copper tailings, and provides an effective way for improving copper tailings by coal gangue.

21: 2022/00713. 22: 2022/01/14. 43: 2022/04/06  
 51: H04L  
 71: ANQING NORMAL UNIVERSITY  
 72: DONG, XIAOMING, CHEN, ZHUO, QIAN, MENG

#### **54: EFFICIENT NETWORK MESSAGE CLASSIFICATION METHOD**

00: -

The present invention discloses an efficient network message classification method. The classification method based on a decision tree is simple in structure, easy in rule formation, high in efficiency, free from needing additional knowledge, suitable for situations of large data volume and diversified data formats, and particularly suitable for real-time message classification systems with high requirement on speed. The decision tree method is a reasonable choice. A decision-tree algorithm based on information entropy provided by the present invention is also based on heuristic strategies, which is an improvement on the basis of a multi-way hierarchical tree. In the hierarchical tree, a rule subset to which header bit information belongs is determined sequentially, thereby easily forming a phenomenon that the rule subsets are uniformly divided.



21: 2022/00714. 22: 2022/01/14. 43: 2022/03/22  
 51: A01G  
 71: JILIN PROVINCIAL ACADEMY OF FORESTRY SCIENCES  
 72: WANG, Jun, YANG, Yuchun, LU, Zhimin, WANG, Fang, JI, Li, ZHANG, Zhonghui, LIU, Yue, YU, Haiyang, LUO, Ye, HE, Huaijiang, ZHANG, Yanming, SUN, Wei, HAN, Jiao, LI, Yanlong, SUI, Lilong, ZHANG, Yu  
**54: CHIP BUDDING METHOD FOR QUECUS MONGOLICA**  
 00: -



Disclosed is a chip budding method for *Quecus mongolica*, the method including: selecting stock plants that grow strongly and have no pests; collecting scions when used; preparing grafting blades; binding branches with polyvinyl chloride films; selecting 5-year young trees as rootstock; grafting the rootstock by two persons for decreasing exposure time of buds in air; inwards cutting a lower cut of the rootstock by 45°; outwards cutting the graft buds by 45°, so that the graft buds are inserted into the rootstock and the joints are inserted with one another; scribing a straight line of about 2 cm long at the cut of the rootstock, wherein the straight line is deep to the cut of phloem and is a drain line. The method greatly increases a vegetative propagation survival rate, decreases use of scion woods, and can provide more excellent clones.

21: 2022/00716. 22: 2022/01/14. 43: 2022/03/22

51: A01N

71: SHANDONG PEANUT RESEARCH INSTITUTE, QINGDAO HARVEST AGRICULTURAL SCIENCE AND TECHNOLOGY CO., LTD.

72: GUO, ZHIQING, DENG, JING, SUN, PENGTAO, CHI, YUCHENG, ZHANG, XIA, HE, KANG, LI, YING, XU, MANLIN, SONG, XINYING

**54: METHOD AND DEVICE FOR RESEARCHING INFECTION EFFECTS OF NEMATODES ON ASPERGILLUS FLAVUS UNDER DROUGHT STRESS CONDITIONS**

00: -

The present invention provides a method and device for researching infection effects of nematodes on *Aspergillus flavus* under drought stress conditions. In the present invention, through separated cultivation of the root system and pod bearing layers, an effect of maintaining normal growth of plants and creating drought stress of pod surroundings is achieved; and meanwhile, by a method for growing a susceptible host to maintain nematode reproduction among the pod bearing layers, a continuous nematode pressure is created for pods. Through testing verification, with the adoption of the present invention, the research on effects of peanuts infected with *Meloidogyne hapla* on aflatoxin contamination is successful. The present invention is ingenious in device design and simple in preparation method, does not need expensive complex equipment, lays the foundation for related researches of nematode infection, and has excellent practical application values.



21: 2022/00751. 22: 2022/01/17. 43: 2022/02/28

51: G06N; G06Q

71: Beihua University

72: Jian Zhenpeng, Yang Xujiao, Wang Jian, Li Ziming, Wang Xianli, Qu Guanglei, Zhao Huan

**54: A NUMERICAL SIMULATION METHOD OF CONCRETE STRUCTURE FAILURE PROCESS BASED ON DISCRETE ELEMENT**

00: -

The invention discloses a numerical simulation method of concrete structure failure process based on discrete element, which comprises the following steps: based on target concrete structural parts, collecting the size of the boundary wall of the target concrete structural parts, constructing a three-dimensional rigid boundary wall, generating random particles, compressing the particles to a highly compact state, obtaining the second particles in contact state according to the sum of the center distance of the particles and the radii of the two particles, and generating contact keys inside the second particles; based on the normal unit vector and tangential unit vector of the contact key, the resultant force vector and bending moment of the second particle, and the acceleration and angular acceleration of the second particle in the first unit time are obtained, and the position, velocity and angular velocity of the second particle in the second



unit time are iteratively updated according to the display center difference method; according to the result of iterative update, the contact force of the second particle is obtained; the method provided by the invention can accurately and quickly predict the failure process of concrete components or structures from meso to macro.

Based on the target concrete structure, collecting the size of the boundary wall of the target concrete structure, and constructing a three-dimensional rigid boundary wall, wherein the wall unit of the three-dimensional rigid boundary wall adopts a plane unit;

Generating random particles in the inner space of the three-dimensional rigid boundary wall, compressing the particles to a highly compact state, obtaining the second particles in contact state according to the sum of the center distance of the particles and the radii of the two particles, and generating contact bonds in the second particles;

Based on the normal unit vector and tangential unit vector of the contact key, the resultant force vector and bending moment of the second particle, and the acceleration and angular acceleration of the second particle in the first unit time are obtained, and the position, velocity and angular velocity of the second particle in the second unit time are iteratively updated according to the display center difference method;

According to the result of iterative update, the contact force of the second particle is obtained, wherein the damage of the target concrete structure is obtained by comparing the normal force and shear force of the contact force with the tensile strength, compressive strength and shear strength of the target concrete structure.

21: 2022/00757. 22: 2022/01/17. 43: 2022/03/22  
51: A01C  
71: CHONGQING UNIVERSITY OF ARTS AND SCIENCES

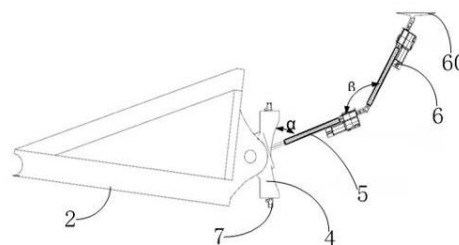
72: ZHAO, Lijun, HU, Xin, LIAO, Qi, BAI, Yao, LI, Qiang, LV, Cheng, LI, Bin, GONG, Lian

33: CN 31: 202111670681.9 32: 2021-12-31

**54: AUTOMATIC LIFTING CONTROL SYSTEM FOR TRANSPLANTING MECHANISM OF RIDE-ON RICE TRANSPLANTER**

00: -

Disclosed is an automatic lifting control system for a transplanting mechanism of a ride-on rice transplanter. An automatically controlled rice transplanting mechanism is connected with a frame; a fixed sleeve connected to a first linear motor is fixed at one end of the frame away from the rice transplanting mechanism; the first linear motor is inclined from a telescopic end to the fixed end; the telescopic end of a second linear motor is connected with the fixed end of the first linear motor; the fixed end of the second linear motor is connected with a main body of the rice transplanter; the second linear motor is inclined from the telescopic end to the fixed end; photoelectric sensors are fixed on the sleeve; a positioning system on the body is connected with the photoelectric sensors; a controller is connected with the first and second linear motors and the positioning system.



21: 2022/00758. 22: 2022/01/17. 43: 2022/03/07  
51: G01N

71: Taizhou Polytechnic College

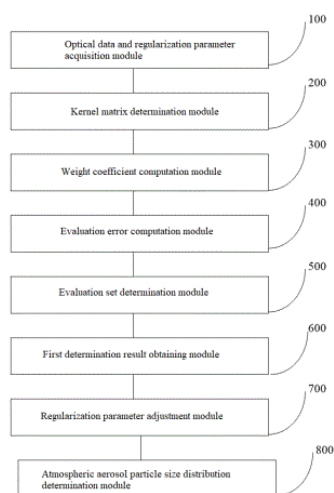
72: LIU, Zhenxing, LU, Jianfeng, DUAN, Yanyan, CHEN, Zhen, LI, Ping

**54: AEROSOL PARTICLE SIZE DISTRIBUTION INVERSION SYSTEM WITH MULTI-WAVELENGTH LASER RADAR**

00: -

Disclosed is an aerosol particle size distribution inversion system with multi-wavelength laser radar. The system includes an optical data and regularization parameter acquisition module, where optical data includes an aerosol extinction coefficient and an aerosol backscattering coefficient; a kernel matrix determination module; a weight coefficient computation module; an evaluation error computation module; an evaluation set determining module configured to determine an evaluation set; a first determination result obtaining module

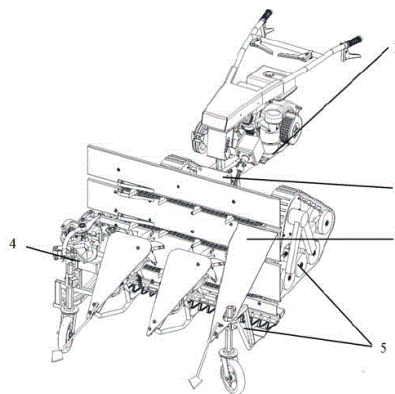
configured to determine whether the evaluation error is in the evaluation set to obtain a first determination result; a regularization parameter adjustment module configured to adjust the regularization parameter and return to the weight coefficient computation module; and an atmospheric aerosol particle size distribution determination module configured to determine atmospheric aerosol particle size distribution in an inverted manner. Compared with the prior art, the present invention is simple in computation and wide in application range.



21: 2022/00759. 22: 2022/01/17. 43: 2022/03/14  
51: A01D  
71: Shandong Agricultural University  
72: SONG, Zhanhua, ZHAO, Yongcai, LI, Fade, LI, Shasha, YAN, Yinfa, TIAN, Fuyang, ZHANG, Jin  
**54: CATERPILLAR BINDER OF HERBACEOUS MULBERRY**  
00: -

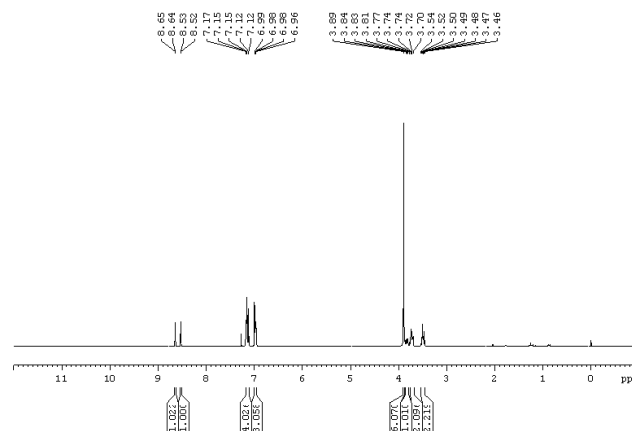
The present invention relates to a caterpillar binder of herbaceous mulberry, including a stand, and a walking mechanism, an engine and a header which are mounted on the stand; a knoter and a reciprocating cutter are mounted on the header; a main input shaft connected with a power output shaft of the engine and a conveying chain driven by the main input shaft to rotate are further mounted on the header; several push teeth extending outwards are circumferentially fixedly arranged on the conveying chain; and the main input shaft is connected with an input shaft of the knoter through chain transmission. According to the present invention, branch and small-size shrub crops such

as mulberry branches, wickers, and caragana microphylla can be mechanically harvested, and the harvested branches can be bound.



21: 2022/00761. 22: 2022/01/17. 43: 2022/03/16  
51: C07D  
71: Shihezi University  
72: LI, Shiwu, CHEN, Xiangjie, ZHAO, Yujie, REN, Yingzheng  
**54: METHOD FOR PREPARING AROMATIC NITRO CHIRAL COMPOUND CONTAINING IMIDAZOLE STRUCTURE**  
00: -

The disclosure provides a method for preparing an aromatic nitro chiral compound containing an imidazole structure, and relates to the technical field of chemistry and medicines. The aromatic nitro chiral compound containing the imidazole structure is an important medical intermediate analog and a drug molecule analog, has important application value for drug screening and pharmaceutical industry, and is very economical and simple in synthesis method, high in yield and good in enantioselectivity.



21: 2022/00763. 22: 2022/01/17. 43: 2022/03/16

51: C03B; C03C

71: Institute of Energy Research, Jiangxi Academy of Sciences

72: XI, Xiping, AI, Xianbin, LI, Xiaohui, YAN, Heng, XIE, Yunsheng, XI, Shuyue, HAN, Fei

**54: METHOD FOR PREPARING HIGH-STRENGTH FOAM GLASS MATERIALS BY USING COPPER TAILINGS**

00: -

The disclosure discloses a method for preparing high-strength foam glass materials by using copper tailings, and belongs to the field of comprehensive utilization of industrial solid waste resources and environmental protection. After mixing copper tailings, steel slags, quartz sand and fluxing agents, the high-strength foam glass materials are obtained through hightemperature melting, water quenching, glass frit grinding, sintering and the like. The amount of industrial solid wastes accounts for 80-95% of total weight of the raw materials, and the method is a way of large-scale utilization of industrial solid wastes and realizes "green" utilization of copper tailings resources; a pore-forming agent foaming mode is not adopted in the preparation process; and all used raw materials are inorganic materials and meet the National A-grade noncombustion standard, and the foam glass materials have excellent performance and have compressive strength of 60 MPa and bending strength of 20 MPa.

21: 2022/00764. 22: 2022/01/17. 43: 2022/03/16

51: A01G

71: Guizhou Institute of Biology

72: YANG, Yihua, WANG, Jing, REN, Ang, BAI, Hongfen, SHI, Tingyou, LI, Xiangmei, KANG, Chao, WANG, Wankun, ZENG, Weijun, LIU, Zhongxuan, ZHENG, Xuan, YANG, Ling, KONG, Ke, LIU, Qiongbo, LIU, Zengjun

**54: METHOD FOR CULTIVATING CASTANEA MOLLISSIMA-TUBER AESTIVUM MYCORRHIZAL SEEDLINGS BY USING TREE-FUNGUS MUTUAL SELECTION MECHANISM AND APPLICATION**

00: -

The present disclosure discloses a method for cultivating *Castanea mollissima*-*Tuber aestivum* mycorrhizal seedlings by using a tree-fungus mutual selection mechanism and an application, specifically comprising the following steps: cultivating semi-aseptic seedlings, namely cultivating semi-aseptic seedlings of *Castanea mollissima*; preparing a liquid spawn, and preparing a formula seedling cultivation

substrate; inoculating *Tuber aestivum* in a semi-aseptic seedling root system germination stage; and carrying out post-inoculation management, and detecting mycorrhizas. According to the cultivation method of the present disclosure, signal products of bacteria and tree rhizosphere are secreted when bacteria and semi-aseptic seedling root systems germinate, and the bacteria and tree rhizosphere interact and are combined to develop and form mycorrhizas which enhance the stress resistance of *Castanea mollissima* seedlings and increase the survival rate of afforestation.

21: 2022/00767. 22: 2022/01/17. 43: 2022/03/14

51: C10L

71: Institute of Energy Research, Jiangxi Academy of Sciences

72: XI, Xiping, AI, Xianbin, LI, Xiaohui, XI, Shuyue, SUN, Liyuan, YANG, Lei, TU, Mengzi

**54: PREPARATION METHOD OF ENERGY- SAVING LOW-SULFUR LOW-ASH ENVIRONMENT-FRIENDLY COAL WATER SLURRY**

00: -

The disclosure discloses a preparation method of energy-saving low-sulfur low-ash environment-friendly coal water slurry, and belongs to the field of coal resource clean utilization and energy conservation and environmental protection. The method comprises the steps that, a coal material with total sulfur content less than or equal to 2% and ash content less than or equal to 30% is subjected to wet pre-mixed grinding with a certain amount of water, dispersing agents and flotation agents, wherein the usage proportion of the coal material is 60%-100%; and desulfurization and ash reduction treatment are performed on the pre-mixed primary coal slurry through a coal slurry cleaning system, desulfurizing agents, stabilizing agents and the like are added into the qualified primary coal slurry, and online monitoring adjustment is made on the concentration of coal water slurry, and homogenization and curing are performed obtain an environment-friendly coal water slurry product.

21: 2022/00867. 22: 2022/01/19. 43: 2022/04/04

51: C12Q

71: Northwest Minzu University

72: ZHANG, Guohua, SONG, Sudi, LU, Jianxiong, JIANG, Susu, WEI, Fang, LI, Shuaibing, WU, Dianhu, MIAO, Jian

**54: METHOD FOR QUANTITATIVE DETECTION OF MEAT PRODUCT PORCINE-DERIVED MATERIALS BASED ON REAL-TIME FLUORESCENT PCR**

00: -

The disclosure relates to the technical field of biological product detection, and in particular, to a method for quantitative detection of meat product porcine-derived materials based on a real-time fluorescent PCR. The method comprises the following steps: selection of PCR specific primers of a porcine DNA, establishment of a quantitative detection standard curve model, extraction of a genome DNA of a product to be detected, PCR amplification of the product to be detected, and detection of PCR amplification sensitivity and amplification efficiency. A relative quantitative detection method based on real-time fluorescent PCR is adopted to establish a method for quantitative detection of porcine-derived material content through preparing a standard curve. A DNA of a mixed meat sample with known porcine-derived material content is taken as a template to detect Cyt b gene, so as to establish a quantitative detection standard curve; and the recovery rate reaches 99.85-102.60%.

21: 2022/00869. 22: 2022/01/19. 43: 2022/02/28  
51: H04M

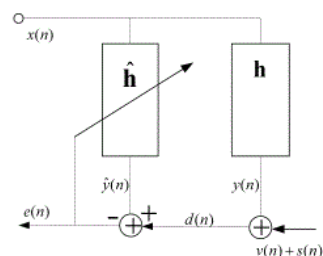
71: Shenyang University of Technology

72: GUO, Ying, BAI, Yanmei

**54: ROBUST ECHO CANCELLATION METHOD IN A HANDS-FREE CALL SYSTEM**

00: -

A robust echo cancellation method in a hands-free call system includes following steps: step 1, obtaining a sampling sequence  $x(n)$ ; step 2, obtaining an error signal; step 3, updating a weight coefficient; and step 4, repeating the above steps 1 to 3 for 50 to 100 times, and then calculating an average value of all output signals of a filter, and using the average value as a pure signal after eliminating an echo finally, which can accurately estimate an echo path, obtain a pure voice signal, and has low computational complexity.



21: 2022/00908. 22: 2022/01/19. 43: 2022/02/15  
51: A01N; A01P

71: QINGDAO KINGAGROOT CHEMICAL COMPOUND CO., LTD.

72: PENG, XUEGANG, ZHAO, DE, CUI, QI, JIN, TAO, ZHANG, JINGYUAN, LIU, NA

33: CN 31: 202010228317.6 32: 2020-03-27

33: CN 31: 202010406451.0 32: 2020-05-14

33: CN 31: 201910685431.9 32: 2019-07-27

33: CN 31: 202010228765.6 32: 2020-03-27

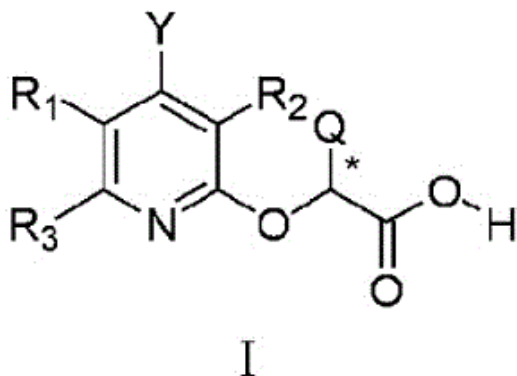
33: CN 31: 201910796285.7 32: 2019-08-27

**54: HERBICIDAL COMPOSITION CONTAINING R-TYPE PYRIDYLOXY CARBOXYLIC ACID DERIVATIVE AND USE THEREOF**

00: -

The present invention belongs to the field of pesticides, and specifically relates to a herbicidal composition containing an R-type pyridyloxy carboxylic acid derivative and the use thereof. The composition comprises a herbicidally effective amount of active ingredient A and active ingredient B, wherein the active ingredient A is selected from one or more of the R-type pyridyloxy carboxylic acid as shown by formula I, and salt and ester derivatives thereof: (I), wherein,  $R_1$  and  $R_2$  each independently represent a halogen, a C1-C6 alkyl, a halo C1-C6 alkyl, or a C3-C6 cycloalkyl;  $R_3$  represents hydrogen, a halogen, a C1-C6 alkyl, or a halo C1-C6 alkyl; Q represents a C1-C6 alkyl, etc.; and Y represents amino, etc.; and the active ingredient B is selected from one or more of the following compounds and acids/salts/esters thereof: an ALS inhibitor, an ACCase inhibitor, a PSII inhibitor, a HPPD inhibitor, a PDS inhibitor, a DOXP inhibitor, a PPO inhibitor, a synthetic hormone inhibitor, an EPSPS inhibitor, a GS inhibitor, and a PSI inhibitor. The composition can effectively prevent and eliminate various weed problems, and have the characteristics of expanding the weed control spectrum, reducing the application amount, being able to produce synergistic effects, solving weed resistance, etc.





21: 2022/00917. 22: 2022/01/20. 43: 2022/03/24

51: F01N

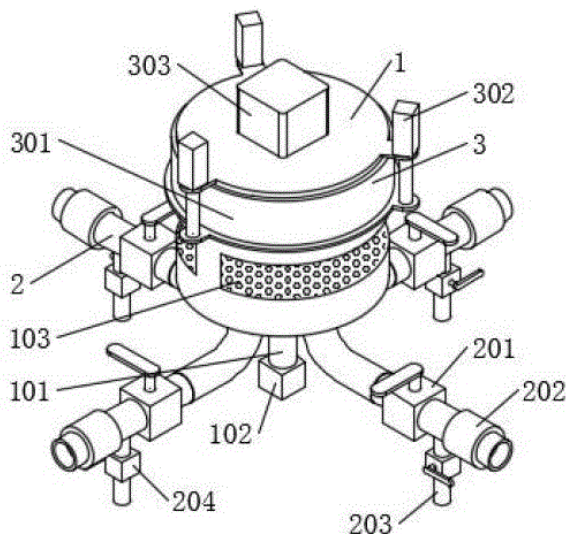
71: Henan University

72: MA, Qingxia, GU, Lei

#### **54: TAIL GAS UNIT ACTIVE EMPTYING MECHANISM**

00: -

The disclosure discloses a tail gas unit active emptying mechanism, comprising an emptying tank and gas inlet pipes, wherein the bottom of the emptying tank is provided with the plurality of groups of gas inlet pipes in a communicating manner, the interior of each gas inlet pipe is connected with a one-way valve in series, the emptying tank is provided with two groups of gas exhaust holes in a vertical direction, a filter screen is disposed at the gas exhaust holes, a partition plate capable of being overturned to open is disposed at the position, between the two groups of gas exhaust holes, of the inner wall of the emptying tank, an active emptying mechanism is disposed at the position. According to the tail gas unit active emptying mechanism, the active emptying mechanism is disposed in the emptying tank, so that negative pressure is actively formed in the emptying tank.



21: 2022/00919. 22: 2022/01/20. 43: 2022/03/24

51: E01F; G08G

71: Shandong Jiaotong University

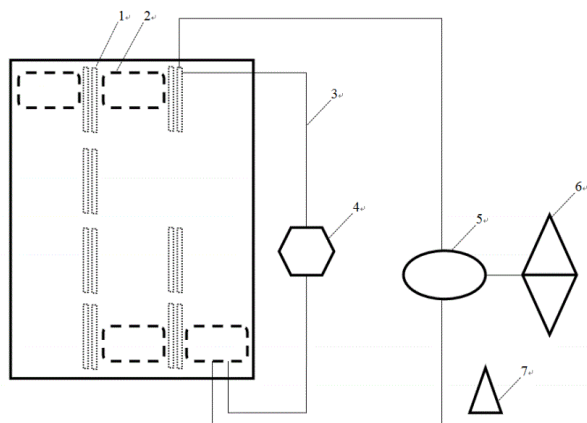
72: GAO, Shang

#### **54: DEVICE FOR MARKING REVERSIBLE LANE LINES AND WORKING METHOD THEREOF**

00: -

The present invention relates to a device for marking reversible lane lines and an operating method thereof, the device comprising a variable-color device, a vehicle flow sensor, a power supply unit, a central control unit and a signal receiver, wherein the variable-color device is respectively connected to the power supply unit and the central control unit, the vehicle flow sensor is respectively connected to the power supply unit and the central control unit, and the central control unit is connected to the signal receiver; the present invention is of a simple structure, is quick and convenient to use, is intuitive for marking reversible lane lines, and is easy for a driver to recognize.





21: 2022/00920. 22: 2022/01/20. 43: 2022/03/24

51: C08C; C08F; C08L

71: Qingdao University of Science and Technology

72: ZONG, Yingxia, LANG, Xiurui, WANG, Xiaolei, ZONG, Chengzhong

#### **54: HYDROGENATED POLYMER BLEND MATERIAL AND PREPARATION METHOD THEREOF**

00: -

The invention provides a hydrogenated polymer blend material and a preparation method thereof, relating to the technical field of blend materials. The preparation method of the hydrogenated polymer blend material of the invention comprises the following steps: mixing a mixed emulsion of more than two conjugated diene polymer latices, a surfactant, a metal salt and a hydrazine hydrate aqueous solution to obtain a raw material premixture; dropwise adding a hydrogen peroxide aqueous solution into the raw material premixture, and after dropwise adding, carrying out a maturation reaction to obtain a reaction emulsion; mixing the reaction emulsion and a calcium chloride aqueous solution, and flocculating to obtain a hydrogenated polymer blend material. The preparation method of the hydrogenated polymer blend material of the invention is simple and easy to control, and the obtained material has good aging resistance and can meet the requirements of different fields.

21: 2022/00921. 22: 2022/01/20. 43: 2022/03/24

51: A01G

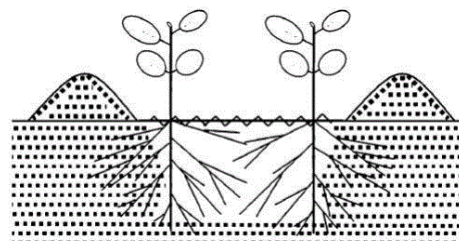
71: Shandong Academy of Agricultural Sciences

72: DAI, Jianlong, DONG, Hezhong, LI, Weijiang, XU, Shizhen, ZHANG, Dongmei, LI, Zhenhuai

#### **54: OPEN-FIELD DIRECT-SEEDING SIMPLIFIED CULTIVATION METHOD FOR SHORT-SEASON COTTON IN COASTAL SALINE-ALKALI SOIL**

00: -

The present disclosure discloses an open-field direct-seeding simplified cultivation method for short-season cotton in coastal saline-alkali soil. According to the method, quality short-season cotton varieties are adopted, a new cultivation mode is established by taking the measures of irrigating and moisturizing in the soil, mechanical soil scraping for building a seedbed, open-field precision seeding, combination of quick-acting fertilizer and slow-release fertilizer for one-time fertilization, chemical capping, centralized cotton harvesting, etc., and on the basis of reducing salt damage and ensuring normal emergence of cotton seedlings and yield formation, the materials and labor input can be effectively reduced, the pesticide and residual film pollution is reduced, and the comprehensive benefit of cotton planting is improved.



21: 2022/00922. 22: 2022/01/20. 43: 2022/03/22

51: E06B; H02S

71: Shihezi University

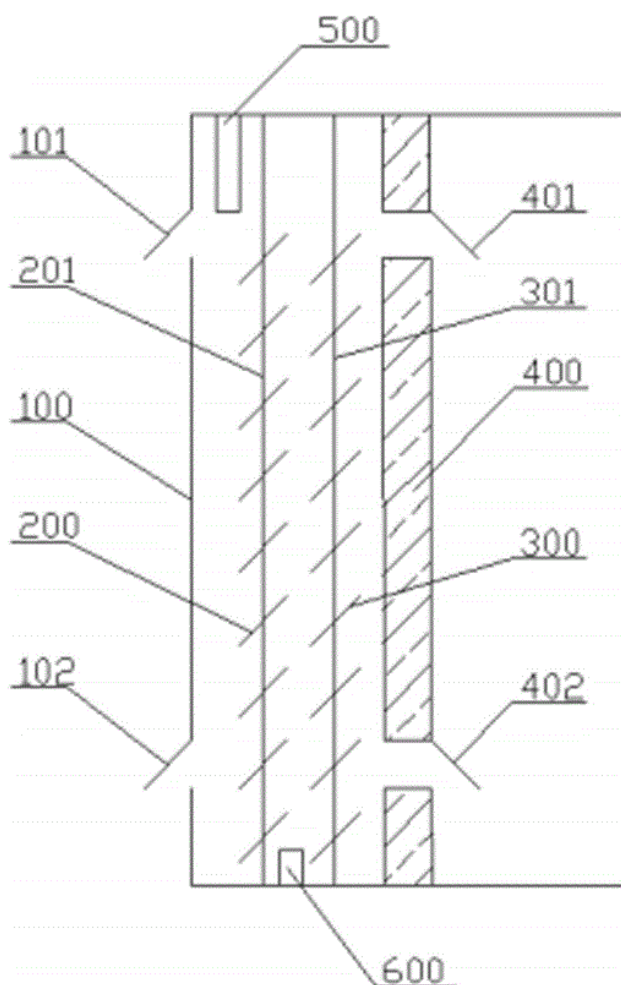
72: Li Jie, Lu Hongmei, Liu Zhenji, Li Xiaoxu

#### **54: DOUBLE-ROW VENETIAN BLINDS SHEET TROMBE WALL DEVICE AND USING METHOD THEREOF**

00: -

The invention discloses a double-row venetian blinds sheet Trombe wall device and a using method thereof, which comprises a transparent glass and a heat-storage wall, and inner and outer rows of venetian blinds sheets arranged between air interlayers composed of the transparent glass and the heat-storage wall; the top of the air interlayer is provided with one or more electric heating plates; a phase change material is placed in the air interlayer; the inner and outer rows of venetian blinds sheets are respectively fixed on a first shaft and a second shaft through a rotating shaft, and both ends of the

first shaft and the second shaft are respectively fixed on the roof and the floor; the front side of each outer row venetian blinds sheet is paved with a solar panel, and the back side is paved with a heat reflecting plate; the front side of each inner row venetian blinds sheet is paved with a light reflecting plate, and the back side is paved with a solar panel; a first solar panel and a second solar panel are both connected with the electric heating plate through wires. The invention can effectively avoid excessive indoor temperature in summer and low indoor temperature in winter, improve photoelectric conversion efficiency, reduce energy conversion loss and provide a comfortable living environment for people.



21: 2022/00923. 22: 2022/01/20. 43: 2022/03/22  
51: D05C  
71: Hunan Xiangfeng Culture Industry Development Co., Ltd., Hunan Normal University  
72: Sun Shunyao, Li Xian, Xiao Ying, Liu Yuzhen

#### **54: DECORATION WITH BUILT-IN EMBROIDERY AND PREPARATION METHOD THEREOF**

00: -

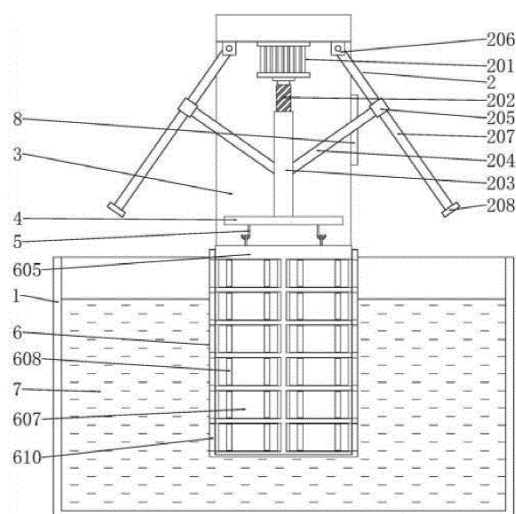
The invention discloses a decoration with built-in embroidery, which comprises two glass sheets and embroidery clamped and fixed between the two glass sheets. The edges of the two glass sheets are sealed and fixed by sealant and sealing ring in turn from inside to outside, and the sealing ring is provided with a groove which can insert the two glass sheets towards the center of the circle. The decoration of the invention adopts sealant and sealing ring to seal and fix the glass sheet, which can prevent water and air oxidation, thus achieving the effects of protecting embroidery works and prolonging the storage life of embroidery, and the sealing ring also has certain anti-falling, dustproof and anti-friction effects. The invention also discloses a preparation method with simple operation, low cost and short preparation period, which comprises the following steps: firstly, laying the finished embroidery product flat between two glass sheets, clamping and fixing, then coating sealant on the edges of the two glass sheets, standing for a period of time to completely evaporate the sealant solvent, and then sleeving the glass sheets into the grooves of the sealing ring for sealing and fixing, thus obtaining the ornaments with built-in embroidery.



21: 2022/00924. 22: 2022/01/20. 43: 2022/03/22  
51: F25D  
71: Tarim University  
72: Zehua Fan, Nannan Zhang, Desheng Wang  
**54: QUICK FREEZING DEVICE FOR BLADE**  
00: -

The Populus euphratica leaf liquid nitrogen quick-freezing auxiliary mechanism is characterized in that it comprises a liquid nitrogen tank (1), an adjustment

assembly (2), an L-shaped fixed table (3), a Populus euphratica leaf storage assembly (6), a liquid nitrogen body (7) and a micro A computer (8), the first end of the L-shaped fixing table (3) is fixed on the outer side wall of the liquid nitrogen tank (1), and the second end of the L-shaped fixing table (3) is located on the liquid nitrogen Above the tank (1), the adjustment assembly (2) is installed at the second end of the L-shaped fixing table (3), the adjustment assembly (2) is located above the liquid nitrogen tank (1). In this invention, the liquid nitrogen tank is used to store the liquid nitrogen body, the adjustment assembly is used to adjust the Populus euphratica leaf storage assembly, so that the Populus euphratica leaf storage assembly can move up and down, and the liquid nitrogen body performs an operation on the Populus euphratica leaf Quick freezing treatment; the Populus euphratica leaf storage assembly is used to store Populus euphratica leaves to prevent the Populus euphratica leaves from floating on the liquid nitrogen body, and at the same time, it is convenient for the operator to control two or more Populus euphratica leaves; the microcomputer is used for Control the operation of the entire auxiliary mechanism.



The invention provides a miniaturized fertilizer injection unit who is suitable for woodland operation, includes: draw the aircraft nose, draw the aircraft nose including the aircraft nose main part, be provided with the traction frame in the tail end of aircraft nose main part, fertilizer injection unit, fertilizer injection unit is including can fertilizer, power wheel, transmission shaft under, flitch and unloading pipe, the feed opening has been offered to the bottom of can fertilizer, and the unloading pipe sets up on the feed opening, lower flitch along the equidistant setting of circumference of transmission shaft, and lower flitch is arranged in and is used for stirring fertilizer on the feed opening and exports from the can fertilizer, the hookup subassembly, the hookup subassembly is including first rolling disc and second rolling disc. The invention provides a miniaturized fertilizer injection unit who is suitable for woodland operation has following advantage: it is simple to pull head structure, and it provides power to be suitable for the woodland to walk, automatic blanking can be realized to the can fertilizer, has reduced the intensity of labour who fertilizes, utilize the hookup subassembly to realize the connection between each parts, can so that about between each parts, the luffing motion carries out position adjustment, more is suitable for the woodland to walk.

21: 2022/00925. 22: 2022/01/20. 43: 2022/03/22

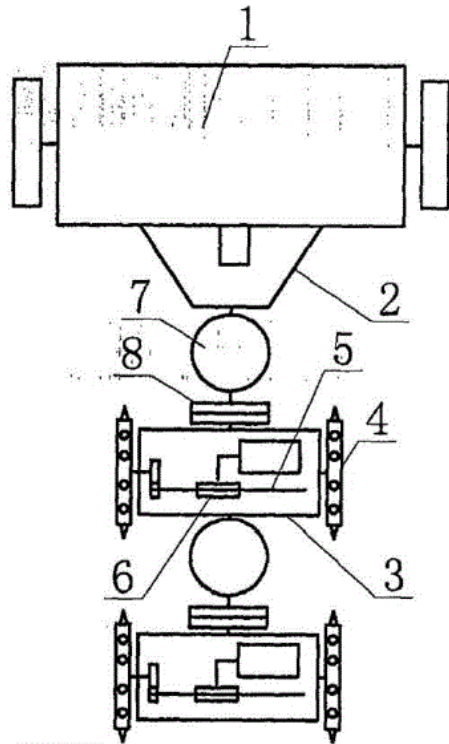
51: A01C

71: Tarim University

72: Zehua Fan, Nannan Zhang, Desheng Wang

**54: FERTILIZATION DEVICE FOR FOREST OPERATION**

00: -



21: 2022/00926. 22: 2022/01/20. 43: 2022/03/22

51: H04L

71: Xiamen University of Technology

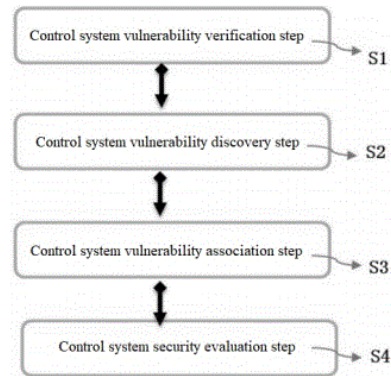
72: LIN, Ruijin, YE, Ruizhe, SUI, Tao, HONG, Weilin, LIN, Haozhen

#### **54: SECURITY TESTING FOR SDN BASED CONTROL SYSTEM**

00: -

The present invention provides technical solutions of security testing for a software defined network (SDN) based control system, including: a security testing method, including a control system vulnerability verification step, a control system vulnerability discovery step, a control system vulnerability association step and a control system security evaluation step; a security testing system, including a first testing interface, a second testing interface and a third testing interface, for testing security of an SDN which includes an application layer communicating with the first testing interface, a control layer communicating with the second testing interface and an infrastructure layer communicating with the third testing interface; and a security testing apparatus, including a vulnerability verification sub-system, a vulnerability discovery sub-system, a vulnerability association sub-system and a security evaluation sub-system, for implementing the

method. According to the present invention, security testing for the SDN control system may be implemented.



21: 2022/00929. 22: 2022/01/20. 43: 2022/03/24

51: G01V

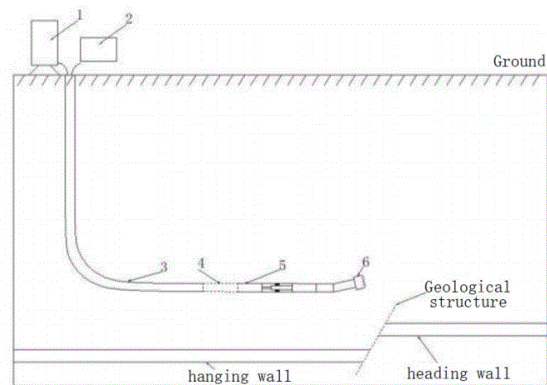
71: China University of Mining and Technology

72: WANG, Bo, LI, Xiaozhao, LI, Juanjuan, HUANG, Lanying, ZHANG, Jun, FANG, Jinwei, WANG, Gang, CHEN, Hongyun

#### **54: METHOD FOR PRECISELY DETECTING GEOLOGICAL STRUCTURES BASED ON DIRECTIONAL PHASE-CHANGE VECTOR SEISMOMETRY-WHILE-DRILLING**

00: -

The present invention discloses a method for precisely detecting geological structures based on directional phase-change vector seismometry-while-drilling, which can complete 360° omnidirectional precise detection of all geological structure target regions, can perform large-scale omnidirectional geological structure detection, and can also effectively ensure detection precision.



21: 2022/00931. 22: 2022/01/20. 43: 2022/03/24

51: A01N; C12N; C12R; A01P



71: Tobacco Research Institute of Chinese Academy of Agricultural Sciences (Qingzhou Tobacco Research Institute of China National Tobacco Company), Zunyi City Branch of Guizhou Tobacco Company

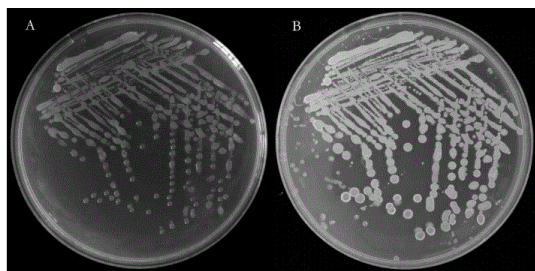
72: ZHANG, Chengsheng, SUI, Xiaona, MENG, Chen, HAN, Xiaobin, GOU, Jianyu, WANG, Xianbo, CHI, Xingjiang, LIU, Jing, ZHENG, Yanfen, ZHAO, Donglin

33: CN 31: 202110799337.3 32: 2021-07-15

#### **54: BACILLUS VELEZENSIS EM-1 STRAIN AND USE THEREOF**

00: -

Disclosed is a *Bacillus velezensis* strain isolated from rhizosphere soil of tobacco. The strain named EM-1 has been deposited at the China General Microbiological Culture Collection Center (CGMCC), Institute of Microbiology, Chinese Academy of Sciences, NO. 1, West Beichen Road, Chaoyang District, Beijing on November 9, 2020 with an accession number of CGMCC No. 21131. The strain EM-1 of the present disclosure has broad-spectrum antibacterial activity; the EM-1 and a metabolite produced therefrom can inhibit the growth of *Ralstonia solanacearum*, a pathogenic bacterium of bacterial wilt, effectively control the occurrence of bacterial wilt, and inhibit the growth of a plurality of pathogenic fungi, laying the foundation for the enrichment of natural resources of biological pesticides and the development and research of microbial pesticides.



21: 2022/00933. 22: 2022/01/20. 43: 2022/03/24  
51: C12P

71: Zhejiang Wanli University

72: YANG, Hua, CAO, Shaoqian, QI, Xiangyang, ZHANG, Huien, LIAO, Huiqi

#### **54: METHOD FOR PREPARING MACKEREL IMMUNITY POLYPEPTIDE**

00: -

The present invention relates to a method for preparing a mackerel immunity polypeptide, wherein mackerel flesh is selected as a raw material, a

relative proliferation rate of mouse spleen lymphocytes is taken as an indicator, and an enzymolysis time, an enzymolysis temperature and an enzyme dosage are taken as investigation factors based on a single-factor experiment, and a three-factor and three-level test is designed with a Box-Behnken method to optimize the conditions for preparing a mackerel immunity polypeptide. Then the obtained mackerel immunity polypeptide are effectively separated by interception by ultrafiltration to obtain components with a high immunological activity. The raw materials used in the present invention are marine low-value fishes, which effectively improve the resource utilization rate and provides a reference for further study on the preparation process of mackerel immune peptides.

21: 2022/00935. 22: 2022/01/20. 43: 2022/03/24  
51: A01C; C05G

71: QINGDAO KEGUANG BIOLOGICAL TECHNOLOGY CO., LTD.

72: YU, Jingqing, LIU, Chang, CHENG, Sha, LIU, Yuanqing

33: CN 31: 202111026642.5 32: 2021-09-02

#### **54: A FERTILIZER CONTAINING CHITOSAN OLIGOSACCHARIDE AND ITS PREPARATION METHOD AND APPLICATION**

00: -

The present invention relates to the field of fertilizer technology, in particular to a fertilizer containing chitosan oligosaccharide and its preparation method and application. The fertilizer of the present invention comprises components of the following mass fractions: 8-12 fractions of chitosan oligosaccharide, 6-10 fractions of ammonium chloride, 8-12 fractions of potassium alginate, 6-10 fractions of borax, 6-10 fractions of potassium fulvic acid, 4-8 fractions of glycine, 4-8 fractions of glutamic acid, 0.8-1.2 fractions of chelated iron, 0.1-0.3 fractions of chelated zinc and 0.1-0.3 fractions of chelated calcium. The fertilizer of the present invention, when made water-soluble and sprayed on cherry, can significantly improve the yield, flavor and nutritional content of cherry fruits

21: 2022/00937. 22: 2022/01/20. 43: 2022/03/24  
51: E02B

71: WEIFANG UNIVERSITY, ANQIU CHANG SHENG YUAN ECOLOGICAL FAMILY FARM



33: CN 31: 202111532140.X 32: 2021-12-15

## 00: -

21: 2022/00960, 22: 2022/01/20, 43: 2022/02/04

51: F25D

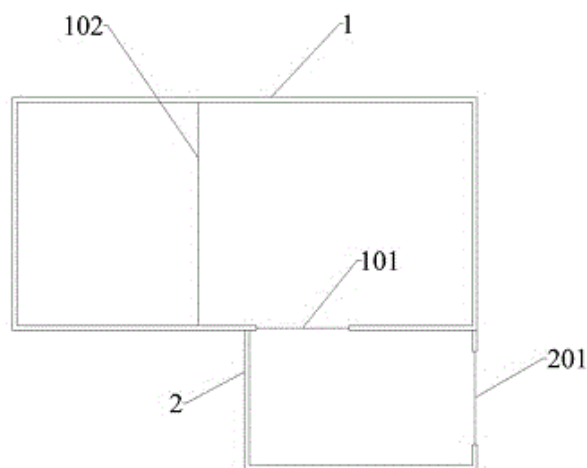
71: CHINA HARBOUR ENGINEERING COMPANY LTD.

72: TANG, QIAOLIANG

33: CN 31: 202011157372.7 32: 2020-10-26

## 00: -

and quick-freezing chamber, wherein a side wall of storehouse body is provided with first opening with first electric door; a buffer chamber having a shared side wall where first opening is located, wherein a side wall adjacent to shared side wall is provided with second opening with second electric door, and top surface of buffer chamber is provided with third opening; multiple air-discharge pipes arranged at top of buffer chamber are communicated with air-intake pipe outside of buffer chamber, a first fan and dehumidification structure are arranged inside of air-intake pipe; an air-induced cover comprising a large opening end covering third opening and small opening end with second fan. The present invention reduces heat exchange between cold storage and outside and reduce wet air into cold storage.



21: 2022/00968. 22: 2022/01/21. 43: 2022/03/22

51: A61K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES, NORTHEAST AGRICULTURAL  
UNIVERSITY

72: LIU, YUFENG, YU, YANBO, YAO, YUCHANG,  
LU, MINGHAI, JIAO, HONGTAO, WANG, ZIMING,  
QIU, YUEWEI, JIN, ZHENHUA

## 00: -

A high-efficiency slow release superovulation method for sheep belongs to the technical field of superovulation for sheep. The method comprises the following steps: (1) preparing a 40wt.% solution by taking polyalpha-hydroxy acetic acid as a solute; (2) diluting FSH with the polyalpha-hydroxy acetic acid

solution obtained in the step (1) to obtain a slow release FSH solution; and (3) in 11-13 days of an oestrous cycle of an ewe, injecting the slow release FSH solution at one time, injecting 0.1 mg of cloprostenol at an interval of 48h, and carrying out artificial insemination or laparoscopic intrauterine semen deposition at an interval of 96h.

21: 2022/00987. 22: 2022/01/21. 43: 2022/03/31

51: G01N

71: CHINA TOBACCO GUANGXI INDUSTRIAL CO., LTD., GUANGXI UNIVERSITY, TOBACCO COMPANY HECHI CITY COMPANY OF GUANGXI ZHUANG AUTONOMOUS REGION

72: WEI, Jianyu, JIA, Haijiang, SHEN, Fangke, XU, Xueqin, HE, Mingxiong, JIN, Yabo, ZHANG, Jili, HUANG, Chongjun, WANG, Zheng, HU, Jianbin, WEI, Zhengyu, OU, Qinghua, GU, Minghua

#### **54: METHOD FOR QUICKLY TESTING NICOTINE CONTENT IN FLUE-CURED TOBACCO LEAVES**

00: -

The present invention relates to the technical field of chemical analysis and testing, in particular to a method for quickly testing a nicotine content in flue-cured tobacco leaves. In the present invention, copper/nitrogen doped fluorescent carbon dots (Cu,N-CDs) are synthesized from copper acetate and o-phenylenediamine as precursors as well as ethyl alcohol as a solvent by a microwave method. Based on the inner-filter effect of fluorescence of the nicotine and Cu,N-CDs, fluorescence quenching occurs for both emission peaks through the nicotine, and a novel strong nicotine testing method is established, with a testing limit of 0.060 µg/g. The results of the method are consistent with those of a chromatography when the method is applied to testing and analysis of the nicotine in cigarettes and tobacco leaves. The method has the characteristics of high sensitivity and specificity, simple and fast operation.

21: 2022/00988. 22: 2022/01/21. 43: 2022/03/31

51: B60K

71: LIU, Yan

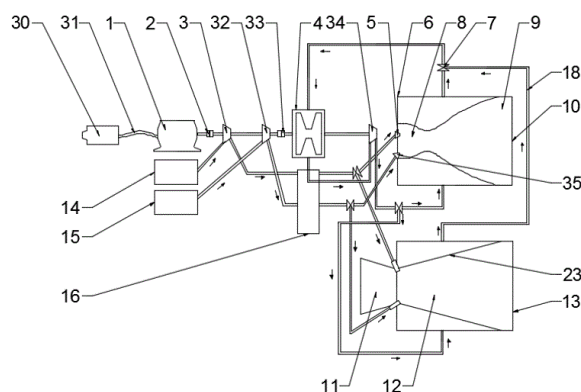
72: LIU, Yan

#### **54: A HYBRID COMBINED POWER SYSTEM**

00: -

The invention discloses a hybrid combined power system, comprising a motor, one end of the motor is connected to the battery through a transmission line,

the other end is connected with a first compressor through a first clutch, the other end of the first compressor is coaxially installed with a second compressor, one end of the second compressor is connected to one end of a steam turbine through the second clutch, the other end of the steam turbine is provided with a third compressor. Compared with the prior art, the invention has the following advantages: referring to the related technologies of "a high-efficiency combined hybrid power system" and "an energy conversion system", a steam generator is installed outside the combustion chambers of the rocket power mechanism and the ramjet engine mechanism, collecting the radiant heat of the combustion chambers of the rocket engine and the ramjet engine, driving the steam turbine to do work, and driving the fuel pump, the oxidant pump and the compressors to work, which can improve the specific impulse of the rocket engine, increase the payload, collect and convert a variety of energy, and jointly supply energy for the rocket, improving the efficiency of energy conversion.



21: 2022/00989. 22: 2022/01/21. 43: 2022/03/31

51: A47B; F24C; F24F

71: LIU, Yan

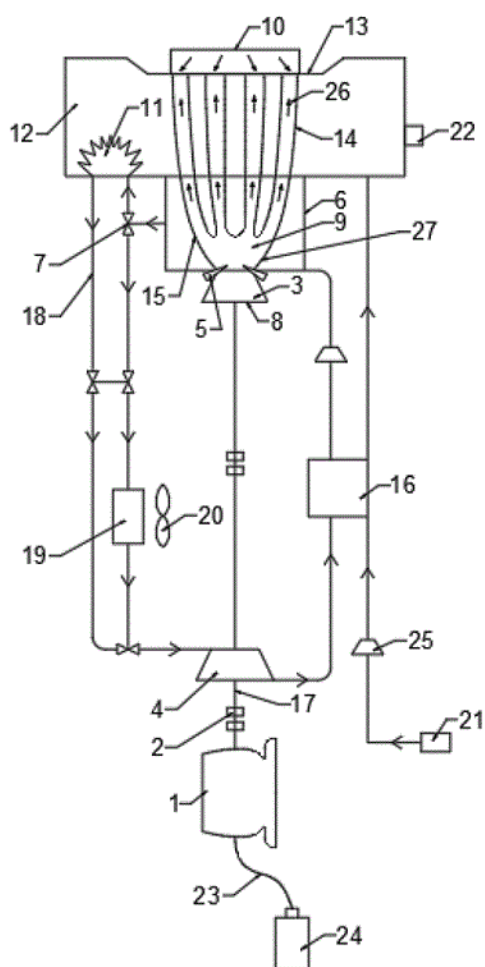
72: LIU, Yan

#### **54: A DEVICE INTEGRATING THE FUNCTIONS OF A GAS STOVE, AN AIR CONDITIONER AND A WATER HEATER**

00: -

The invention discloses a device integrating the functions of a gas stove, an air conditioner and a water heater, comprising an electric motor, a clutch, an air compressor, an expander, a fuel injector, a steam generator, three-way valves, an air inlet, a combustion chamber, a flame outlet, a heat

exchanging, a water heater, a cooking bench, heat exchange tubes in the water heater, heat exchange tubes in the steam generator, a condenser, a rotating shaft, a working medium delivery pipe, an indoor radiator, fans, a water inlet, a water outlet, transmission lines, batteries, a working medium pump, flame passages and combustion chamber walls. The advantages of the invention compared with the existing technology are as follows: the overall structure is simple, the pressure of the air compressor is increased by supercharging an expander or a steam turbine, the temperature of the combustion chamber is increased, the gas stove, air conditioner and water heater are integrated into one, the heat generated by natural gas combustion is comprehensively utilized and thus the energy utilization efficiency is improved, the applicability is wide, and it is easy to popularize.



51: G01D

71: Huainan Normal University

72: WANG, Shouya, YU, Haijun, ZHANG, Ke

## 54: AN ORGANIC-INORGANIC HYBRID PHOTOELECTRIC DETECTOR

00: -

The invention discloses an organic-inorganic hybrid photoelectric detector and belongs to the technical field of photoelectric detection. The invention provides a perovskite photoelectric detector based on a TiO<sub>2</sub> electron transport layer and an inorganic metal oxide interface modification layer and a preparation method thereof. The detector comprises the following: a TiO<sub>2</sub> compact layer formed on a conductive substrate through an atomic layer deposition as an electron transport layer, then providing a layer of organic-inorganic hybrid perovskite thin film as a photosensitive layer; depositing a spiro-OMeTAD hole-transport layer and following with an inorganic oxide interface modification layer (including one of MoO<sub>3</sub>, WO<sub>3</sub> or V<sub>2</sub>O<sub>5</sub>); finally depositing a layer of Au or Ag as a metal electrode. The TiO<sub>2</sub> is provided as an electron transport layer and the inorganic oxide is provided as an interface modification layer, improving the service life and the detectivity of the photoelectric detector, reducing the dark current and the preparation cost of the detector, which is beneficial to realize the industrialization of the perovskite photoelectric detector.

6
5
4
3
2
1

21: 2022/00991. 22: 2022/01/21. 43: 2022/03/31

21: 2022/00994. 22: 2022/01/21. 43: 2022/03/31  
51: G01V

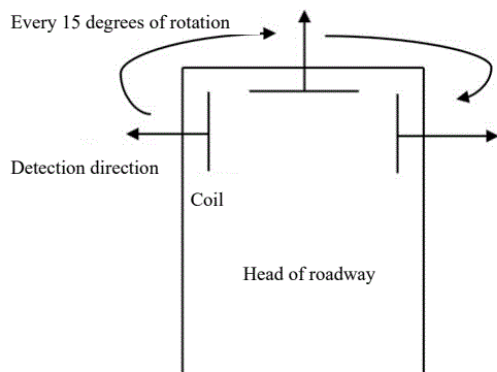
71: Hebi Coal and Electric Co., Ltd. No.9 Coal Mine, Xuzhou University of Technology, China University of Mining and Technology

72: PEI, Jingyao, GONG, Qili, WANG, Bo, ZHU, Bin, HU, Shuai, WANG, Yong, HUANG, Lanying, WANG, Gang

#### **54: ROADWAY INTELLIGENT TRANSIENT ELECTROMAGNETIC DETECTION AND REAL-TIME EARLY WARNING METHOD**

00: -

The disclosure discloses a roadway intelligent transient electromagnetic detection and real-time early warning method. The method comprises the steps of, using a portable transient electromagnetic detection device to detect a current roadway head position and two side walls in an intermittent period, and transmitting detection data to a ground computer; repeating the above process when a heading machine enters the intermittent period again, and finally obtaining a synthesized apparent resistivity sectional view; repeating for multiple times, and finally importing the apparent resistivity sectional view obtained in each intermittent period and the danger level of each region thereof into a corresponding position of the model for real-time display and updating; and performing real-time early warning on an abnormal geological structure ahead in the roadway tunneling process.



21: 2022/00995. 22: 2022/01/21. 43: 2022/03/31  
51: G01N

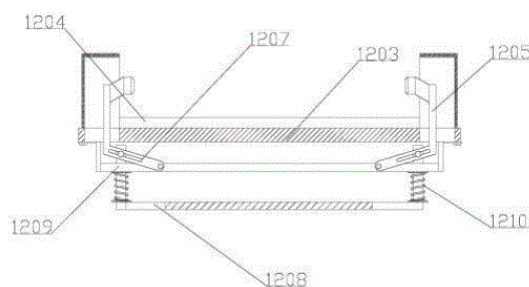
71: Shanghai Ocean University

72: WANG, Wenjuan, XU, Heyang

#### **54: ARTIFICIAL INTELLIGENCE PATHOLOGY SAMPLING AND MAPPING DEVICE**

00: -

The present invention discloses an artificial intelligent pathological sampling and mapping device, which comprises a convenient storage mechanism including a rack, wherein the rack is arranged at two sides of an extraction plate, the rack is fixedly connected to a table body, a sliding rail is provided at the bottom end of the inner side of the rack, the left and right sides of the extraction plate slide along the sliding rail, a baffle for limiting is connected to the rear end of the extraction plate, and a fixing frame distributed symmetrically is provided above the left and right sides of the extraction plate.



21: 2022/00996. 22: 2022/01/21. 43: 2022/04/06  
51: C07C

71: Shandong Holly Pharmaceutical Co., Ltd.

72: WU, Huaqiang, LI, Lanhua, QIU, Yuenan, LIU, Zhiyuan, ZHANG, Hongyuan, JIANG, Lijun, LIN, Zhen, GAI, Shuqiang, SUN, Kuankuan

#### **54: VERATONE PREPARATION PROCESS**

00: -

The invention discloses a veratone preparation process. Vertraldethyde is used as a main raw material to have a carboxylation reaction with methyl 2-chloropropionate under the catalysis of sodium methylate; then, hydrolyzation is performed under an alkaline condition, and decarboxylation is performed with hydrochloric acid; finally, a product is obtained after distillation. The product has stable quality and high yield. The product has molar yield of 98%, and main content of above 98.5% through high performance gas chromatography detection, and it does not discolor after long-term storage at room temperature. In addition, the toluene greatly used during the reaction is easily recovered, which is environment-friendly and does not pollute the environment.

21: 2022/01055. 22: 2022/01/24. 43: 2022/02/28

51: A01K; F24F; G05D

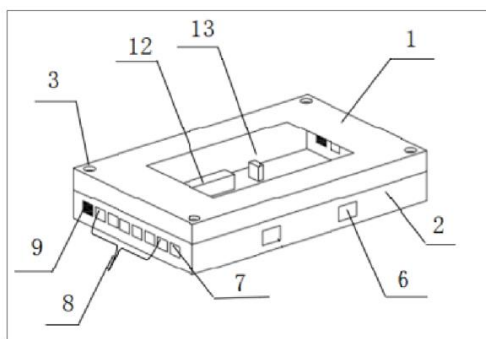
71: NORTHEAST AGRICULTURAL UNIVERSITY

72: XIE, Qiuju, WANG, Shengchao, PAN, Yanjia, SONG, Lianjie, ZONG, Yubing, LI, Jialong, MA, Chaofan, BAO, Jun, LIU, Honggui, ZHENG, Ping, YU, Haiming, ZHANG, Jicheng, LIU, Wenyang, WANG, Xiaochen, ZHENG, Shupeng

#### **54: INTELLIGENT ENVIRONMENT PRECISE CONTROLLER FOR LIVESTOCK AND POULTRY HOUSES**

00: -

The present invention discloses an intelligent environment precise controller for livestock and poultry houses, and relates to the technical field of livestock and poultry breeding controllers. The present invention aims to provide an environmental controller for livestock and poultry houses that is easy to install, small in size, easy to expand, high in integration, and capable of effective and stable control. A controller housing comprises a top housing and a bottom housing; the top housing and the bottom housing are fixedly connected via screws; an upper surface of the top housing is provided with an opening; a touch screen is embedded inside the opening; and an STM32 single-chip microcomputer is mounted in the bottom housing. Users can monitor and regulate and control the environment of the livestock and poultry houses by using a PC terminal, mobile phone App or on-site touch screen.



21: 2022/01098. 22: 2022/01/25. 43: 2022/03/17

51: A23L; A61K; A61P

71: Northwest Plateau Institute of biology, Chinese Academy of Sciences

72: YUE, Huilan, JIANG, Sirong, ZHAO, Xiaohui, SHAO, Yun, MEI, Lijuan, TAO, Yanduo

#### **54: APPLICATION OF RHODIOLA CRENULATA EXTRACT IN PREPARING FOODS, MEDICINES OR HEALTH CARE PRODUCTS INHIBITING ACTIVITY OF AMYLASE AND GLUCOSIDASE**

00: -

The present disclosure provides an application of a Rhodiola crenulata extract in preparing foods, medicines or health care products that inhibit the activity of amylase and glucosidase, and relates to the field of biotechnology. The present disclosure provides an application of a Rhodiola crenulata extract in preparing foods, medicines or health care products that inhibit the activity of amylase and glucosidase, wherein the Rhodiola crenulata extract is a water extract or an alcohol extract of Rhodiola crenulata. The experiments of the present disclosure show that the Rhodiola crenulata extract can effectively lower the postprandial blood glucose levels in normal mice and diabetic mice.

21: 2022/01099. 22: 2022/01/25. 43: 2022/03/29

51: B07B; B08B

71: China University of Petroleum(East China)

72: ZHANG, Lisong, LI, Wenjie, JIANG, Menggang, SUN, Zhixue, FENG, Jianwei

33: CN 31: 202110106939.6 32: 2021-01-27

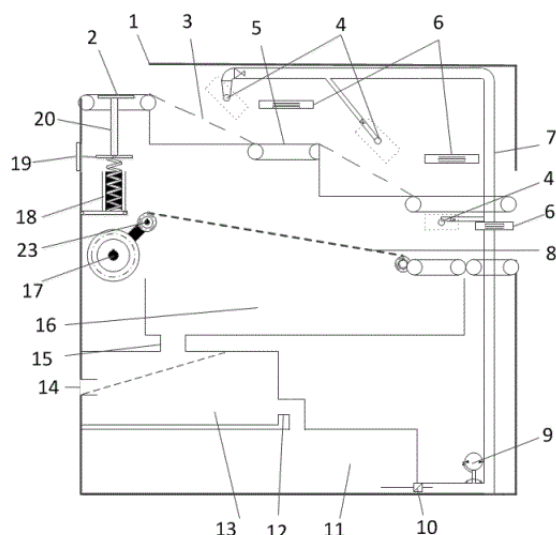
#### **54: AUTOMATIC CUTTINGS CLEANING DEVICE WITH REEL-TYPE MULTI-APERTURE SCREEN**

00: -

The present disclosure relates to an automatic cuttings cleaning device with a reel-type multi-aperture screen. The device includes a cleaning and drying module, a conveying module, a reel-type multi-aperture screen module and a wastewater purification and reuse module which are sequentially arranged from top to bottom in a casing. The present disclosure designs a reel-type multi-aperture screen with an adjustable structure. The present disclosure calculates an average particle size of cuttings according to the mass of the cuttings, displays the particle size on a particle size indicator plate, and adjusts the reel-type multi-aperture screen to a suitable aperture through a gear rocker, thereby preventing fine cuttings from being lost during cleaning. The present disclosure designs spray cleaners with high-velocity nozzles to clean additives and crude oil attached to the surface of the cuttings due to interfacial tension. The present disclosure designs a wastewater purification and reuse system including a sedimentation tank, an oil-water particle



filter tank and a water storage tank to reduce the pollution to the ecological environment.



21: 2022/01103. 22: 2022/01/25. 43: 2022/03/22  
51: E21D; E21F

71: Inner Mongolia Fucheng Mining Co., Ltd  
72: CHENG, Qi, FANG, Wanwei, LIU, Yehuai, NIU, Qun, TIAN, Bin, GAO, Deyou, LI, Weili, WANG, Xudong

#### **54: HYDRAULIC SUPPORT FOR FILLING BEHIND SUPPORT AND OPERATION AND USE METHOD THEREOF**

00: -

The invention discloses a hydraulic support for filling behind a support and an operation and use method thereof, comprising a two-column or four-column shield-type hydraulic support body, a rear telescopic beam is installed at the rear end of a top beam of the hydraulic support, and is connected to the top beam via a sliding groove, and is telescopic forwards and backwards via a translation jack; four front and rear baffles are arranged below the rear telescopic beam, the four baffles are divided into left and right parts, each part is composed of upper and lower baffles, and the lower baffle is telescopic upwards and downwards via a vertical moving jack; and the left and right parts of the blocking surface and the shield beam side guard plate of the hydraulic support are synchronously telescopic by a pushing jack so as to realize a sealing between adjacent supports.

21: 2022/01104. 22: 2022/01/25. 43: 2022/03/22  
51: A01H

71: Luohe Academy of Agricultural Sciences  
72: ZHANG, Yongyue, LIU, Zhijian, MENG, Fanqi, JIA, Tingwei, ZHANG, Yunjie, WANG, Qing, MA, Chunye, QIN, Suyan, SUN, Jian, JIA, Zhaodong, NIU, Fuxiang, XIE, Yizhi, HUANG, Dahua

#### **54: RAPID AND EFFICIENT BREEDING METHOD OF STARCH-TYPE SWEET POTATO CULTIVAR**

00: -

The present disclosure provides a rapid and efficient breeding method of a starch-type sweet potato cultivar: selecting elite parents to constitute a parental group, conducting directional group crossing, and pollinating without interference, to obtain F1 seedling seeds; accelerating germination of the F1 seedling seeds, sowing, planting single plants, selecting a single sweet potato mass from each single plant of selected line to store under the same conditions to check storability of the line, breeding cultivars with excellent storability, reserving lines with excellent germination potential, conducting high-yield, high-starch, and disease-resistant directional selection, identifying multi-year and multi-site productivity, yield stability, and disease resistance of selected elite lines, and selecting lines with excellent performance therefrom to participate in national and provincial regional trials and production identification trials, to breed a cultivar rapidly and accurately.

21: 2022/01105. 22: 2022/01/25. 43: 2022/03/22  
51: B29C; F16D

71: Lanzhou City University

72: CHAI, Changsheng, CHEN, Xiang

#### **54: CARBON/CARBON FIBER FRICTION MATERIAL AND PREPARATION METHOD AND USE THEREOF**

00: -

Disclosed are a carbon/carbon fiber friction material and a preparation method and use thereof. The carbon/carbon fiber friction material includes the following preparation raw materials in parts by mass: 40-45 parts of recycled carbon fiber composite particle, 5-15 parts of phenolic resin carbon powder, 5-10 parts of wollastonite fiber, 10-15 parts of microsilica, 25-30 parts of bonding resin and 60-80 parts of diluent. According to the carbon/carbon fiber friction material, the recycled carbon fiber composite particle is used as a raw material, so as to reduce a production cost; and the phenolic resin carbon powder and the microsilica are used as fillers,

carbon fiber and the wollastonite fiber are wound around the fillers in a flocculent manner, and further strength and modulus of the carbon/carbon fiber friction material are improved, so as to guarantee that the carbon/carbon fiber friction material has desirable friction performance.

21: 2022/01106. 22: 2022/01/25. 43: 2022/03/31  
51: B29C; B33Y

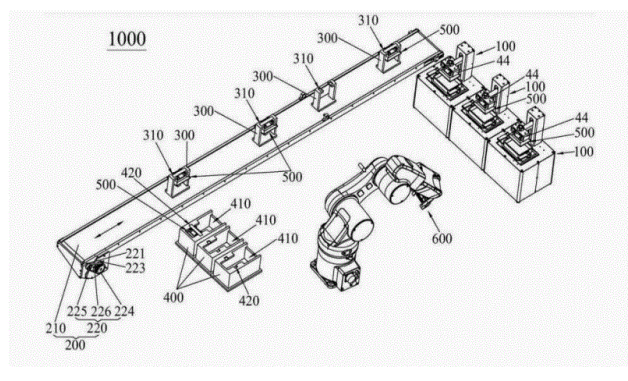
71: Dongguan University Of Technology,  
DONGGUAN POLYTECHNIC

72: CHEN, Shenggui, MENG, Xinpei, ZHOU, Danni,  
LI, Longgen

#### **54: PHOTOCURING 3D PRINTING INTELLIGENT PRODUCTION LINE BASED ON SIX-AXIS MANIPULATOR**

00: -

The present disclosure discloses a photocuring 3D printing intelligent production line based on a six-axis manipulator, comprising a tape transport mechanism, at least two clamps, at least two ultrasonic cleaners, at least two photocuring 3D printers, a printing platform, a sensing assembly and a six-axis manipulator. The tape transport mechanism comprises a conveyor belt and a driving assembly for driving the conveyor belt to move; the clamps are provided with clamping grooves and are conveyed by the conveyor belt step by step; the ultrasonic cleaners are positioned beside one side of the length direction of the conveyor belt; cleaning tanks thereof are provided with clamping grooves; the photocuring 3D printers are positioned beside the other side of the length direction of the conveyor belt, and platform components in the photocuring 3D printers are provided with clamping grooves and suckers connected with air pumps and mounted on the platform components.



21: 2022/01107. 22: 2022/01/25. 43: 2022/03/31

51: E21D; E21F

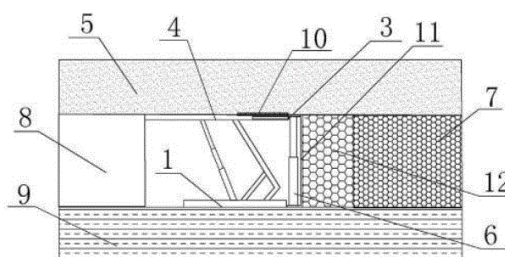
71: Inner Mongolia Fucheng Mining Co., Ltd

72: CHENG, Qi, LIU, Qiang, ZHANG, Wenfei, FAN,  
Meiling, TIAN, Bin, LI, Tao, LI, Weili, WANG, Xudong

#### **54: METHOD FOR FILLING PASTE BEHIND FILLING HYDRAULIC SUPPORTS**

00: -

The invention discloses a method for filling paste behind filling hydraulic supports. The method comprises the steps of (1), separating two adjacent hydraulic supports and taking back a rear telescopic girder; (2), adding flame-retardant sponges to sides of back baffles and controlling a side-pushing jack to seal the two hydraulic supports; (3), placing waste non-flammable adhesive tapes in gaps between the top plate and the back baffles, and placing lower ends of the waste non-flammable adhesive tapes in gaps between a bottom plate and the back baffles; (4), forming a separation wall between the back of the hydraulic supports and a space to be filled; and (5), filling paste from top to bottom, removing the hydraulic supports after a filling body solidifies and meets requirements for the support force, and performing the next filling.



21: 2022/01109. 22: 2022/01/25. 43: 2022/03/31  
51: C02F

71: Anhui Medical College

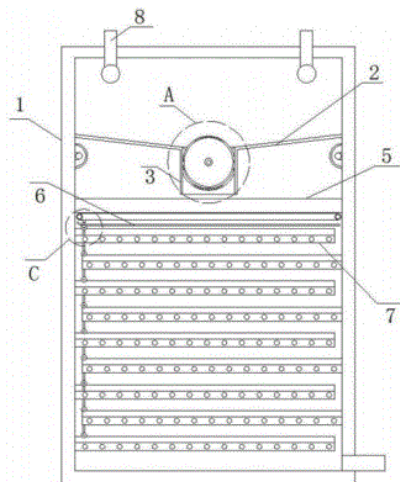
72: CHEN, Jin, YANG, Kai, FANG, Peifei, GONG,  
Xiaoxiao, CHEN, Peiwen, WANG, Xiaoqing

#### **54: WASTEWATER PURIFICATION DEVICE FOR BIOCHEMICAL EXPERIMENTS**

00: -

The present invention belongs to the technical field of wastewater treatment for biochemical experiments, and particularly relates to a wastewater purification device for biochemical experiments. According to the following solution, the device includes a treatment box, where an interior of the treatment box is fixedly connected to a filtering and discharging mechanism, and two sides of a top of the filtering and discharging mechanism are both

provided with filtering plates fixedly connected to the treatment box. The present invention filters wastewater of biochemical experiments and can separate and collect filtered residues so as to prevent the residues in the wastewater from blocking and adhering to disinfection equipment, and cleans a disinfection plate for the wastewater, so as to facilitate treatment of wastewater generated during biochemical experiments.



21: 2022/01110. 22: 2022/01/25. 43: 2022/03/31

51: A61L; B08B

71: Anhui Medical College

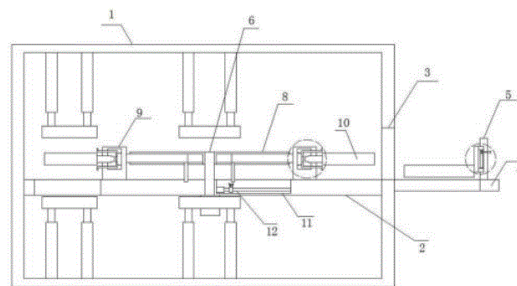
72: CHEN, Jin, LIU, Ping, YU, Furong, FANG, Peifei, ZHAO, Li, LIU, Xiaoyan

#### **54: CONVENIENT-TO-USE AND EFFICIENT DISINFECTION DEVICE FOR BIOCHEMICAL EXPERIMENTS**

00: -

The present invention belongs to the technical field of biochemical experiments, and particularly relates to a convenient-to-use and efficient disinfection device for biochemical experiments. The device includes a box body, where an outer side of the box body is provided with two groups of channels adjacent to each other, a supporting plate fixedly connected to the box body is mounted below openings of the channels, and a top of the supporting plate is provided with an overturning mechanism. The present invention conveniently cleans, disinfects, cools and dries instruments for biochemical experiments, so as to achieve continuous operations of cleaning, disinfecting, cooling and drying on the instruments for biochemical experiments, thus improving disinfection

efficiency, reducing operation difficulty for an experimenter, and making it convenient for the experimenter to take and use the instruments timely for biochemical experiments.



21: 2022/01112. 22: 2022/01/25. 43: 2022/03/31

51: C07C; C10M; C10N

71: Shandong North Zite Special Oil Co., Ltd.

72: LUO, Gang, YANG, Naitang, YANG, Wenhuan, SUN, Yuedong

#### **54: VULCANIZING MACHINE GREASE AND PREPARATION METHOD THEREFOR**

00: -

The present invention belongs to the technical field of greases, and specifically relates to a vulcanizing machine grease and a preparation method therefor.

The vulcanizing machine grease includes the following raw materials in percentage by mass: 5-10% of superfine polytetrafluoroethylene powder; 0.5-10% of stearic acid modified graphene oxide; 5-15% of polyurea powder; a balance of phenylmethyl silicone oil; 0.1-5% of antioxidant; 0.5-3% of rust inhibitor; and 0.1-1% of metal deactivator. The vulcanizing machine grease has high stability, good anti-friction and anti-wear effects, and good high-temperature oxidation resistance and high-temperature coking performance. By using ternary compound thickener ingredients, the prepared vulcanizing machine grease has a long-term anti-wear effect, no risks of anti-wear additive consumption and failure, and high anti-wear performance.

21: 2022/01113. 22: 2022/01/25. 43: 2022/03/31

51: A61K; C12N; A61P

71: Qingdao University

72: XU, Wenhua, LIU, Yongmei, DONG, Yanhan, GAO, Jinning, HAO, Xiaodan, WANG, Zibo, LI, Meng

#### **54: USE OF PIWI-INTERACTING RNA PIR-HSA-211106**

00: -

This disclosure belongs to the field of biomedical technology and specifically relates to use of a PIWI-interacting RNA piR-hsa-211106. The PIWI-interacting RNA piR-hsa-211106 is used to prepare a targeted therapeutic drug for inhibiting proliferation of lung adenocarcinoma cells. A mechanism is as follows: after the PIWI-interacting RNA piR-hsa-211106 is constructed into an agonist or a transformant, the agonist or the transformant inhibits a tricarboxylic acid cycle process by down-regulating an expression of a pyruvate carboxylase, inhibits an energy metabolism, promotes apoptosis of the lung adenocarcinoma cells, thus inhibits growth of the lung adenocarcinoma. The PIWI-interacting RNA piR-hsa-211106 directly acts on a target site and does not produce toxic and side effects and an off-target phenomenon. Large amounts of analysis and in-vivo and in-vitro experiments show that the PIWI-interacting RNA piR-hsa-211106 has high credibility and a remarkable treatment effect, and provides a new research direction for anti-tumor therapy of lung adenocarcinoma.

21: 2022/01114. 22: 2022/01/25. 43: 2022/03/31  
51: A23K

71: Jiangxi Institute for Fisheries Sciences  
72: ZHANG, Yanping, ZHANG, Haixin, ZHANG, Guifang, FU, Yilong, FU, Peifeng, WANG, Changlai, Li, Yanfang

#### **54: PRODUCTION PROCESS AND APPLICATION OF FEED FOR PROMOTING GONADAL DEVELOPMENT OF XENOCYPRIS DAVIDI BLEEKER PARENT FISH**

00: -

The disclosure discloses a production process and application of a feed for promoting gonadal development of *Xenocypris davidi* Bleeker parent fish, and belongs to the field of fish culture. The production process includes the following steps: (1) Preparation of a mixed material 1; (2) Preparation of a mixed material 2; (3) Preparation of a mixed material 3; and (4) the mixture 1, the mixture 2 and the mixture 3 are stirred to be uniform at 25-28 degrees centigrade according to a mass ratio of 50:5:2. After the feed produced by the process is used for feeding the *Xenocypris davidi* Bleeker parent fish, the substance accumulation of the bred female and male *Xenocypris davidi* Bleeker can be enhanced, and the gonadal development is

promoted. The production process has the advantages of simple operation, small loss of nutritional ingredients in the feed and the like, and is suitable for large-scale production and application.

21: 2022/01115. 22: 2022/01/25. 43: 2022/03/31  
51: A01G

71: Zhejiang Wanli University  
72: LI, Xu, DU, Ruiyin, ZHENG, Qingbo, LIU, Qingli, WANG, Kang, BAO, Zeyang

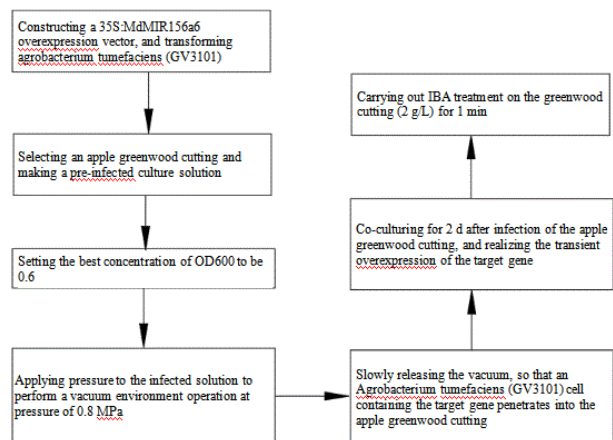
33: CN 31: 202111044475.7 32: 2021-09-07  
33: CN 31: 202111410766.3 32: 2021-11-25

#### **54: METHOD FOR IMPROVING APPLE ROOTSTOCK GREENWOOD CUTTING ROOTING BASED ON TRANSIENT TRANSFORMATION**

00: -

The invention discloses a method for improving apple rootstock greenwood cutting rooting based on transient transformation, and relates to the field of apple rootstock greenwood cutting rooting. The method comprises the steps: (1) constructing a 35S:MdMIR156a6 overexpression vector and transforming *agrobacterium tumefaciens* (GV3101); (2) selecting an apple greenwood cutting and making a pre-infected culture solution; and (3) setting the concentration of a bacterial solution OD600 to 0.6, and vacuumizing at pressure of 0.8 Mpa for 5 min. By *agrobacterium tumefaciens* (GV3101 strain) carrying the 35S:MdMIR156a6 expression vector and by vacuuming, transient transformation of current-year new shoot bark of *Malus xiaojinensis* of apple rootstock in the mature phase is realized, and the greenwood cutting rooting rate is improved. By soaking in an aspirin solution, greenwood cutting germination rate of is improved, seedling recovery period is greatly shortened, dry rot of seedlings is prevented, and survival rate of the seedlings is increased.





21: 2022/01117. 22: 2022/01/25. 43: 2022/03/31  
51: E02B

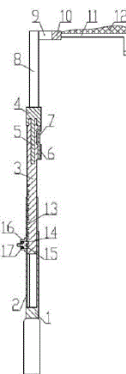
71: Heilongjiang River Fisheries Research Institute, Chinese Academy Of Fishery Sciences

72: QIN, Dongli, GAO, Lei, WANG, Peng, CHEN, Zhongxiang, HAO, Qirui

#### 54: WATER CLEARING DEVICE FOR FRESHWATER FISH CULTURE

00: -

Disclosed is a water clearing device for freshwater fish culture. The device includes a grip, an adjustment rod, a fixing column, a support rod, a second fixing rod, a fishing frame, a fishing net, a positioning block and a limit sleeve, where the grip is internally provided with an adjustment rod hole, the adjustment rod slides in the adjustment rod hole, an outer side of the fixing column is provided with a reinforcement rod, an outer side of the adjustment rod is provided with a reinforcement protrusion, the reinforcement rod is clamped in the reinforcement protrusion, two sides of the support rod are connected to connection rods, outer ends of the connection rods are connected to the second fixing rod, an outer side of the second fixing rod is connected to the fishing frame, and an outer side of the fishing frame is connected to the fishing net.



21: 2022/01118. 22: 2022/01/25. 43: 2022/03/31  
51: C09K; F16D

71: Lanzhou City University

72: CHAI, Changsheng, GAO, Guoliang, CHEN, Xiang

#### 54: NONMETAL AUTOMOBILE BRAKE PAD AND PREPARATION METHOD THEREFOR

00: -

Provided is a nonmetal automobile brake pad. The nonmetal automobile brake pad includes the following components in percentage by weight: 15-20 WT% of recycled epoxy-based carbon fiber composite waste particle, 20-45 WT% of recycled phenolic aldehyde-based carbon fiber composite waste particle, 5-15 WT% of glassy carbon powder, 5-15 WT% of glass fiber, 5-10 WT% of siliceous lime fiber, 10-20 WT% of molybdenum disulfide powder, 5-15 WT% of alumina fiber, and 5-10 WT% of vermiculite powder. Further provided is a preparation method for the nonmetal automobile brake pad. According to the nonmetal automobile brake pad, the recycled carbon fiber composite waste particles are used, so as to solve a waste disposal problem, and further to reduce a production cost; and inorganic non-metallic filler is selected to increase a friction coefficient and reduce a braking noise, so as to meet a requirement for braking comfort.

21: 2022/01119. 22: 2022/01/25. 43: 2022/03/31  
51: C10M; C10N

71: Shandong North Zite Special Oil Co., Ltd.

72: LUO, Gang, YANG, Naitang, YANG, Wenhuan, SUN, Yuedong

#### 54: ANTIFRICTION AND HEAT CONDUCTION LUBRICATING GREASE FOR MOTOR BEARING OF PURE ELECTRIC VEHICLE

00: -



The present invention relates to an antifriction and heat conduction lubricating grease for a motor bearing of a pure electric vehicle, characterized in that the raw material compositions of the lubricating grease are as follows, by weight percent: base oil: 65-85%; thicker: 5-20%; antioxidant: 0.1-5%; anti-rust corrosion inhibitor: 0.1-5%; and modified graphene: 5-20%. The lubricating grease of the present invention has the features of antifriction, energy saving and excellent heat conduction performance. A product of the present invention satisfies the lubricating requirements for a motor bearing, of a pure electric vehicle, under the condition of high speed, high temperature, heavy load and extremely low temperature, significantly reduces the friction coefficient of the motor bearing, and saves the electric energy. Meanwhile, the product has extremely high heat conduction performance, so as to greatly reduce the operation temperature of the bearing, thereby prolonging the service life of the bearing.

21: 2022/01121. 22: 2022/01/25. 43: 2022/03/31  
51: C04B

71: Qingdao Agricultural University  
72: XIA, Xiaoliang, FENG, Xiumei, QUAN, Hongzhu  
**54: METHOD AND DEVICE FOR REACTING IN PROTON CONDUCTING MEMBRANE REACTOR TO SYNCHRONOUSLY OBTAIN HIGH PURITY HYDROGEN AND CHEMICALS**

00: -

The disclosure relates to a method for preparing high purity hydrogen, in particular to a method and a device for reacting (light alkane high temperature reforming or catalytic dehydrogenation reaction) in a proton conducting membrane reactor to obtain high purity hydrogen and chemicals. A high-temperature reforming reaction or a catalytic dehydrogenation reaction is performed in a membrane reactor, hydrogen protons are transferred in a dense proton conducting membrane of the membrane reactor through a hydrogen partial pressure gradient effect, hydrogen generated is removed in situ, and then naturally separated chemicals and high-purity hydrogen are obtained in the membrane reactor. The hydrogen protons in an oxide lattice of the proton conducting membrane are transferred through a hydrogen partial pressure gradient effect, hydrogen generated by methane steam reforming or

ethane dehydrogenation is removed in situ, and two naturally separated chemicals and hydrogen are simultaneously prepared in one membrane reactor.

21: 2022/01122. 22: 2022/01/25. 43: 2022/03/30  
51: C01B; C07C

71: Qingdao Agricultural University  
72: XIA, Xiaoliang, FENG, Xiumei, QUAN, Hongzhu  
**54: SELF-SPLITTING MIXED CONDUCTING THREE-PHASE MEMBRANE MATERIAL AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF**

00: -

The disclosure belongs to the field of mixed conducting membrane materials, and particularly relates to a self-splitting mixed conducting three-phase membrane material as well as a preparation method and application thereof. The membrane material is composed of a perovskite phase mainly based on proton conduction, a fluorite phase mainly based on oxygen ion conduction, and a perovskite phase three-phase based on electron conduction. The mixed conducting three-phase membrane material formed by the spontaneous phase splitting has the characteristics of proton, electron and oxygen ion mixed conduction and good chemical compatibility and stability, and can be used for membrane reactors of oxygen or hydrogen separation.

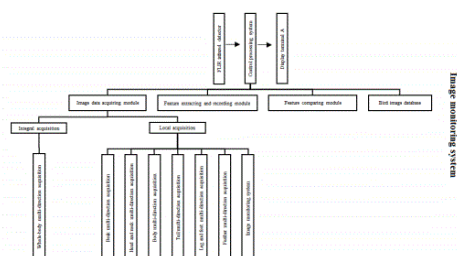
21: 2022/01123. 22: 2022/01/25. 43: 2022/03/31  
51: G06K; G10L; H04N

71: Institute of Microbiology, Jiangxi Academy of Sciences  
72: YOU, Hailin, XU, Ligang, WU, Yongming, LIU, Lizhen, YAO, Zhong, DENG, Mi, XIN, Zaijun  
33: CN 31: 202110939141.X 32: 2021-08-16  
**54: PANORAMIC ARRAY IMAGE MONITORING, TRACKING AND IDENTIFYING SYSTEM FOR WETLAND BIRDS**

00: -

Disclosed is a panoramic array image monitoring, tracking and identifying system for wetland birds. The system includes an image monitoring system and a sound monitoring system, the image monitoring system includes several FLIR infrared detectors mounted in a wetland and jointly connected to a control processing system by means of a local area network, and the control processing system is connected to a display terminal A by

means of a local area network. By arranging the FLIR infrared detectors and a Song meter SM3 series all-weather animal call recorder, images and sounds of the birds are monitored without consuming huge human, financial and material resources, only the FLIR infrared detectors and the Song meter SM3 series all-weather animal call recorder is required to be mounted, and monitoring can be normally carried out in remote places and continuously carried out in a long term without being affected by external environment.



21: 2022/01125. 22: 2022/01/25. 43: 2022/03/29

51: H04B

71: Xuzhou Huitian Information Technology Co., Ltd.

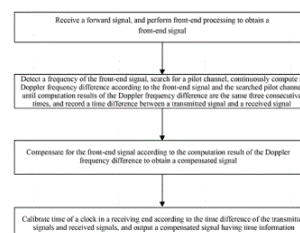
72: XU, Jinsong

#### 54: METHOD AND SYSTEM FOR CALIBRATING FREQUENCY OFFSET IN SATELLITE COMMUNICATION

00: -

Disclosed are a method and system for calibrating frequency offset in satellite communication. The method includes: receiving a forward signal, and carrying out front-end processing to obtain a front-end signal; detecting a frequency of the front-end signal, searching for a pilot channel, continuously computing a Doppler frequency difference until computation results of the Doppler frequency difference are the same three consecutive times, and recording a time difference between a transmitted signal and a received signal; compensating for the front-end signal according to the computation result of the Doppler frequency difference to obtain a compensated signal; and calibrating time of a clock in a receiving end according to the time difference, and outputting a compensated signal having time information. The present invention compensates for the Doppler frequency offset and the clock drift by means of a pilot channel demodulator, thereby rapidly

synchronizing frequencies of the satellite and the receiving end.



21: 2022/01127. 22: 2022/01/25. 43: 2022/03/25

51: A61L

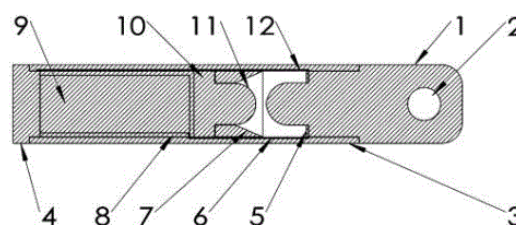
71: Sanmen People's Hospital

72: HU, Yanyan, FANG, Zejun, YANG, Jun, GONG, Chaoju

#### 54: ULTRAVIOLET DISINFECTION CONTACT DEVICE

00: -

Disclosed is an ultraviolet disinfection contact device. The contact device includes a contact rod, a sleeve, an end cover, a battery, a connecting seat, an ultraviolet lamp and a switch, where a left end and a right end of the sleeve are provided with the end cover and the contact rod respectively, the battery, the connecting seat, the ultraviolet lamp and the switch are sequentially arranged in the sleeve, the ultraviolet lamp is opposite the contact rod and arranged on the connecting seat, a portion, away from the ultraviolet lamp, of the connecting seat is provided with the battery, and by turning on the switch, the ultraviolet lamp can be powered with the battery and disinfect the contact rod opposite same. According to the present invention, contact infection can be blocked; and ignition is not needed, such that the present invention is suitable for smokers or non-smokers.



21: 2022/01131. 22: 2022/01/25. 43: 2022/03/25

51: H04L

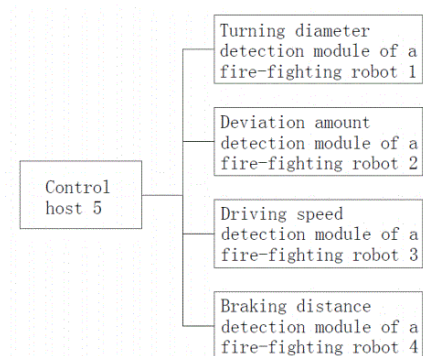
71: SHANGHAI FIRE RESEARCH INSTITUTE OF MEN, SHANGHAI FUSHITE FIRE CONTROL EQUIPMENT CO.LTD

72: ZHONG, Lin, SHI, Liang, JIANG, Xudong, YANG, Zhijun, SHI, Wei, JIA, Wenlong

#### **54: DEVICE AND METHOD FOR DETECTING DRIVING DATA OF FIRE-FIGHTING ROBOT**

00: -

The present utility model discloses a device for detecting the driving data of a fire-fighting robot. The device comprises a turning diameter detection module of a fire-fighting robot, a deviation amount detection module of a fire-fighting robot, a driving speed detection module of a fire-fighting robot, a braking distance detection module of a fire-fighting robot, and a control host. The intelligent detection means used in the present invention can effectively improve the detection efficiency and shield human interference, thereby promoting the optimization of product quality and technical innovation of the fire-fighting robot.



21: 2022/01132. 22: 2022/01/25. 43: 2022/03/25  
51: A01G; A47G

71: Zhejiang Institute of Landscape Plants and Flowers, Northwest A and F University, Hangzhou Landscaping Incorporated, Changshan County Forestry and Water Conservancy Bureau, Taizhou Forestry Technology Extension Station  
72: SHI, Xiaohua, DU, Lingjuan, ZHANG, Junlin, MA, Guangying, FAN, Jing, WANG, Sheping, QIU, Zhimin

#### **54: HELLBORUS.XHYBRIDUS FOREST CULTIVATION METHOD**

00: -

The disclosure relates to a hellborus.xhybridus forest cultivation method, and belongs to the technical field of plant cultivation. Firstly, a section where water drainage is good, water accumulation is not likely to happen, and soil is not prone to hardening is selected, then, sundry removal and soil preparation are conducted, then, hellborus.xhybridus

seedlings are planted, attention is paid to pesticide spraying, fertilizer applying, weed removal and the like in later maintenance management. The method is simple in operation and can be implemented under the condition of low cost, and the later maintenance cost is low; good shade conditions of broad leaved forests in summer and sufficient sunlight in winter are sufficiently utilized, growth of upper-layer forests is not influenced completely, and the overall landscape effect can be improved. The forest cultivation method is wide in application area and particularly suitable for the south regions in China.

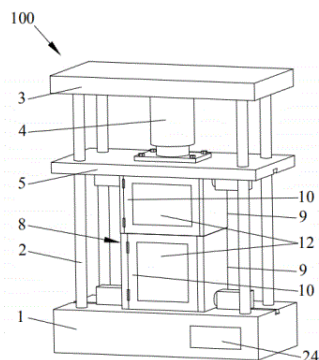
21: 2022/01133. 22: 2022/01/25. 43: 2022/03/25  
51: G01M

71: SHANGHAI FIRE RESEARCH INSTITUTE OF MEN, SHANGHAI BEI'AN INDUSTRIAL CO., LTD.  
72: JIANG, Xudong, SHI, Wei, BIAN, Fuli, ZHONG, Lin, DAI, Yu

#### **54: TENSILE STRENGTH DETECTION DEVICE FOR BUCKET ROD OF EXCAVATOR**

00: -

The present invention discloses a tensile strength detection device for a bucket rod of an excavator. A bottom end of a guide pillar is connected to a base; a fixed plate is connected to a top end of the guide pillar; a movable plate is slidably arranged on the guide pillar and is located between the base and the fixed plate; a lifting drive device can drive the movable plate to slide along the guide pillar; an upper clamp assembly is arranged at a bottom end of the movable plate; a lower clamp assembly is arranged at the top end of the base and corresponds to the upper clamp assembly; a top end of a telescopic heating box is connected to the bottom end of the movable plate; and a bottom end of the telescopic heating box is connected to the top end of the base.



21: 2022/01135. 22: 2022/01/25. 43: 2022/03/17  
51: C12G

71: Guizhou Botanical Garden

72: LI, Yongxia, ZHANG, Xiaoyong, LIU, Guohua, WEN, Guangqin, WANG, Yao, NIE, Fei

#### **54: PREPARATION METHOD OF STRONG-FLAVOR BLUEBERRY RED WINE**

00: -

A preparation method of strong-flavor blueberry red wine includes the following steps: (1) raw materials: completely ripe blueberry fruits are selected as raw materials; (2) sorting; (3) crushing; (4) sugar adjustment; (5) main fermentation; (6) skin residue separation; (7) post-fermentation; (8) filtering; and (9) sterilizing, bottling, storing, labellings and boxing. Compared with the prior art, the disclosure has the advantages that: the blueberry red wine has unique blueberry aroma and flavor, distinct product characteristics and high commodity.

21: 2022/01136. 22: 2022/01/25. 43: 2022/03/17  
51: G01N

71: Qingdao University of Technology

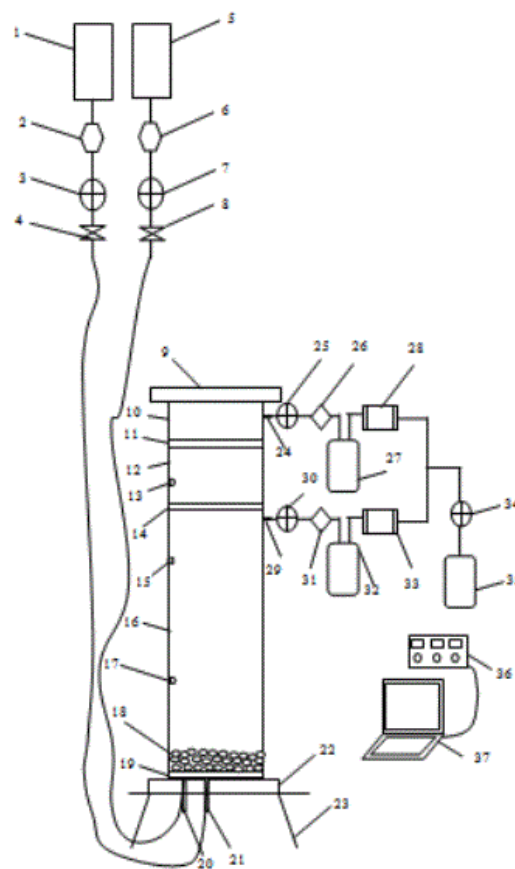
72: LI, Yuanyuan, LIU, Jiang, JIA, Shibo, CHEN, Peng, QUAN, Xianhao

#### **54: DEVICE FOR SIMULATING DEGRADATION OF HOUSEHOLD GARBAGE**

00: -

Provided is a device for simulating degradation of household garbage. The device includes a gas supply system, a gas collection and degradation system, a detection system, a tail gas recovery system and an automatic control system, where a change of oxygen content in the gas collection and degradation system is controlled by the gas supply system, the detection system is utilized to monitor parameters of gas components, pressure,

temperature, etc. in the household garbage in real time, the tail gas recovery system is utilized to collect detected waste gas and prevent pollution, and the automatic control system is utilized to collect, store and control the parameters of the gas components, the pressure, the temperature, etc. in the household garbage. The present invention has a simple structure and convenient operation, and can rapidly and efficiently simulate degradation of the household garbage.



21: 2022/01138. 22: 2022/01/25. 43: 2022/03/17  
51: B60L; G06N; G06Q

71: Hubei Surpass Sun Electric Co., Ltd.

72: PAN, Fei, SUN, Yuhong, DAI, Ke, KANG, Yong

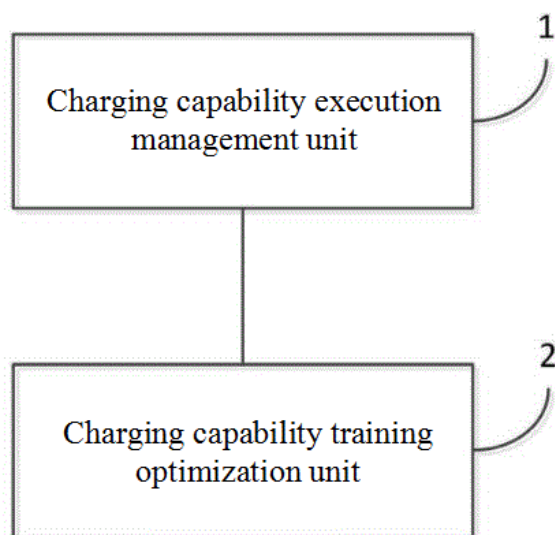
#### **54: CHARGING MANAGEMENT SYSTEM AND METHOD BASED ON DEEP LEARNING**

00: -

The invention, relating to the technical field of charging management, discloses a charging management system based on deep learning and a method thereof. The charging management system comprises a charging capability execution management unit and a charging capability training



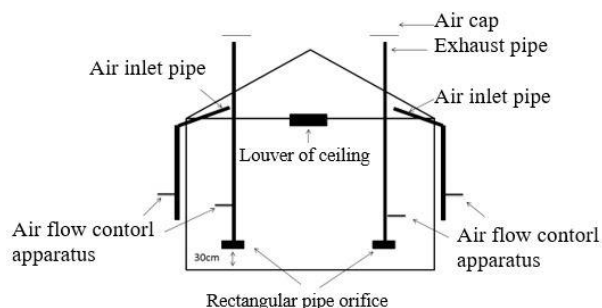
optimization unit, wherein the charging capability execution management unit is connected with the charging capability training optimization unit; the charging capability training optimization unit generates a charging power distribution instruction according to a pre-trained deep learning time series prediction algorithm model and in combination with an actual charging capacity of a charging facility system of a charging station and a charging demand quantity of a to-be-charged electric vehicle; the charging capability execution management unit controls the electric energy to be distributed to each charging facility according to the charging power distribution instruction, so that the charging facility charges the to-be-charged electric vehicle through a charging terminal.



21: 2022/01141. 22: 2022/01/25. 43: 2022/03/22  
51: A01K  
71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

72: WANG, Wentao, HE, Xinmiao, LIU, Di, YU,  
Xiaolong, WU, Saihui, CHEN, Heshu, QI, Meiyu  
**54: SIMPLE VENTILATION INSTALLATION FOR  
PIG FARM**

00: -  
The present invention belongs to a ventilation design method adopted in pig house construction in pig cultivation and production, thereby not only generating a good using effect to guarantee effective circulation of air in a pig house, but also being lower in cost and convenient to operate.



21: 2022/01142. 22: 2022/01/25. 43: 2022/03/17  
51: A61K; A61P

71: WEIFANG MEDICAL UNIVERSITY  
72: LIU, Jiangyue, WANG, Yunhan, ZHANG,  
Daijuan, LI, Wentao, CAO, Daihong  
**54: COMPOUND PREPARATION FOR TREATING  
TYPE 2 DIABETES AND PREVENTING AND  
TREATING MACROVASCULAR  
COMPLICATIONS, PREPARATION METHOD AND  
APPLICATION METHOD**

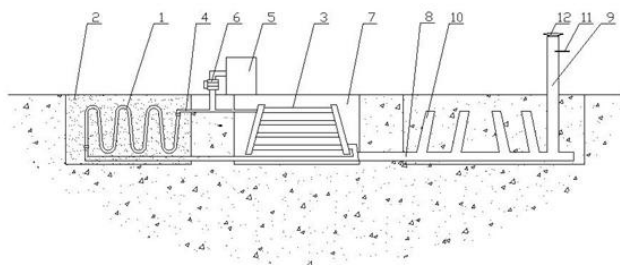
00: -  
The present disclosure provides a compound preparation for treating type 2 diabetes and preventing and treating macrovascular complications, a preparation method and an application method. The compound preparation is prepared from the following components by weight: 3 to 4 g of *Panax quiquefolium* L., 10 to 15 g of *Fructus Lycii*, 8 to 12 g of *Fallopia multiflora* (Thunb.) Haral., 4 to 6 g of *Crataegus pinnatifida* slice, 2 to 4 g of *Trichosanthis Radix*, 2 to 4 g of *Anemarrhena asphodeloides* Bunge, 2 to 4 g of *Rehmannia glutinosa* (Gaetn.) Libosch. ex Fisch. et Mey., 2 to 3 g of *Radix Puerariae Lobatae*, 2 to 4 g of *Alisma plantago-aquatica* Linn., 2 to 4 g of *Ophiopogon japonicus* (Linn. f.) Ker-Gawl., 2 to 4 g of *Dendrobium nobile* Lindl, 2 to 4 g of *Polygonatum odoratum* (Mill.) Druce, and 2 to 3 g of *Acanthopanax senticosus* (Rupr. Maxim.) Harms.

21: 2022/01143. 22: 2022/01/25. 43: 2022/03/22  
51: C02F  
71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES  
72: WANG, WENTAO, HE, XINMIAO, LIU, DI, YU,  
XIAOLONG, WU, SAIHUI, CHEN, HESHU, QI,  
MEIYU

**54: FECES FERMENTING HEAT-TAKING  
HEATING APPARATUS AND USE METHOD**  
00: -



Disclosed are a feces fermenting heat-taking heating apparatus and a use method. The invention comprises a serpentine heat collecting tube (1), wherein the serpentine heat collecting tube is placed in a fermentation zone (2) and is connected with a heat dissipator (3) via a pipeline (4), the pipeline is connected with a water tank (5), the pipeline is provided with a circulating pump (6), the heat dissipator is placed in a seal box (7), the seal box is connected with a heat dissipating main pipeline (8), the heat dissipating main pipeline is connected with an exhaust pipe (9) and a group of heat dissipating tubes (10) in a planting zone, the exhaust pipe is provided with a control plugboard (11), and the top end of the exhaust pipe is provided with a micro induced draft fan (12).



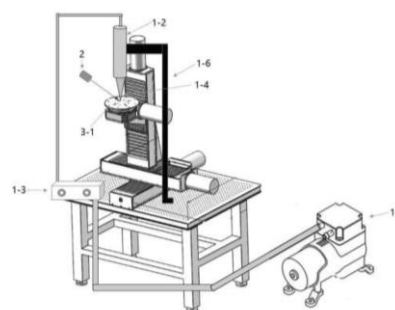
21: 2022/01145. 22: 2022/01/25. 43: 2022/03/17  
51: B29C; C08K; C08L  
71: HARBIN INSTITUTE OF TECHNOLOGY, SHANGHAI XINLI POWER EQUIPMENT RESEARCH INSTITUTE, NORTHEAST FORESTRY UNIVERSITY, QINGDAO UNIVERSITY  
72: JIANG, Zaixing, MAO, Chengli, LE, Hao, HE, Kuai, ZHANG, Dawei, DONG, Jidong, GAO, Guolin, JING, Jing, MA, Lina, LI, Bing, WU, Yadong, LI, Yangyang, XU, Lijuan, JI, Yuan, WANG, Xufeng, REN, Liping, ZHANG, Jichi, LIU, Yijie

#### **54: 3D PRINTING MATERIAL AND EQUIPMENT FOR THREE-DIMENSIONAL LASER DEPOSITION MOLDING**

00: -

A 3D printing material and equipment for three-dimensional laser deposition molding are provided. The present disclosure relates to the field of 3D printing. The problem that existing equipment is incapable of meeting fast printing speed, high printing accuracy, large product printing and simple printing equipment, and is difficult in modeling of a printing model is solved. An inorganic filler and a

polymer are mixed to prepare a printing viscous liquid with proper viscosity, then the inorganic filler printing viscous liquid is extruded out of a print head through extrusion equipment, and the viscous liquid is subjected to stereolithography through high-intensity laser in the printing process. The 3D printing technology provided by the present disclosure, which integrates the advantages of stereo lithography appearance and fused deposition modeling, is innovated based on the stereo lithography and the fused deposition modeling, and is an innovative 3D printing technology.



21: 2022/01152. 22: 2022/01/25. 43: 2022/03/17  
51: A61B; C12M; C12Q

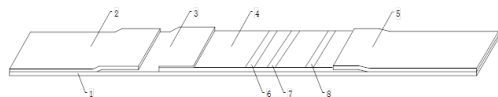
71: Anhui Shenlan Medical Technology Co., Ltd  
72: Chao ZHANG, Fengling CHEN, Yicheng ZHANG, Chuanxiang GUO, Bin WANG, Jing XU

#### **54: A LATERAL CHROMATOGRAPHY TEST STRIP OF COLLOIDAL GOLD FOR TESTING THE CONCENTRATION OF LAMOTRIGINE PLASMA**

00: -

The present invention discloses a lateral chromatography test strip of colloidal gold for testing concentration of lamotrigine plasma, comprising a plastic baseboard, a nitrocellulose membrane, a sample pad, a colloidal gold pad and an absorbent pad, wherein the sample pad, the colloidal gold pad, the nitrocellulose membrane and the absorbent pad are sequentially affixed to the plastic baseboard and connected in an overlapping manner; the nitrocellulose membrane is provided with a Test Area T and a Quality Control Area C, wherein the Test Area T consists of a T1 line and a T2 line and the Quality Control Area C consists of a C line, wherein the T2 line, the T1 line and the C line are sequentially arranged onto the nitrocellulose membrane along the direction from the colloidal gold pad to the absorbent pad. The present invention

adopts a lateral chromatography test strip of colloidal gold for testing concentration of lamotrigine plasma with the above structure, which can directly test the concentration of lamotrigine in the plasma, and is characterized by easy use, short test time and visible test results.



21: 2022/01180. 22: 2022/01/26. 43: 2022/04/07

51: A61B

71: Anhui Shenlan Medical Technology Co., Ltd

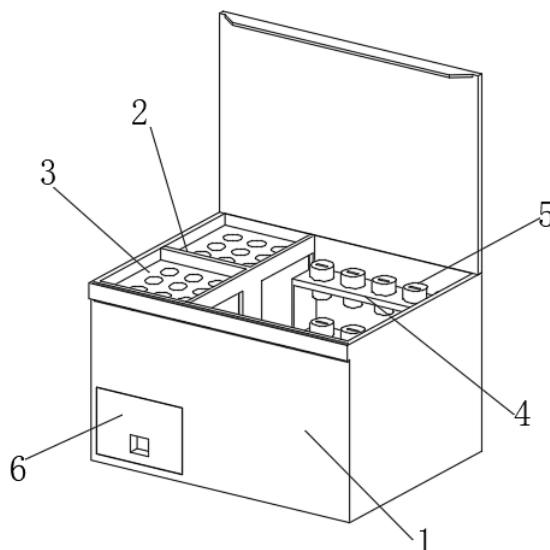
72: Chao ZHANG, Fengling CHEN, Yicheng

ZHANG, Chuanxiang GUO, Bin WANG, Jing XU

#### 54: A GYNECOLOGICAL SIALIDATE DETECTION KIT

00: -

The invention relates to a detection kit, in particular to a gynecological sialidase detection kit, including a detection box, which is characterized in that one side inside the detection box is provided with a heating device and a refrigeration device, the heating device is arranged on the upper side of the refrigeration device, and one side of the heating device and the refrigeration device is provided with a plurality of sample processing tubes and a plurality of test papers. The invention provides an insertion port on the tube cover for the test paper to be inserted into the sample placement tube, and clamps the test paper through the rubber adhesive strip, so that the of the insertion port is broken to prevent external sundries and body fluids from falling into the sample placement tube. A heating device for heating the sample processing tube is arranged inside the detection box. When the user carries out the test. The heat generating heating device heats the body fluid diluent in the sample processing tube to make the body fluid diluent reach the temperature of the human body, so as to simulate the temperature environment of the human body for the body fluid.



21: 2022/01181. 22: 2022/01/26. 43: 2022/03/22

51: G06F

71: ZHIJIANG COLLEGE OF ZHEJIANG

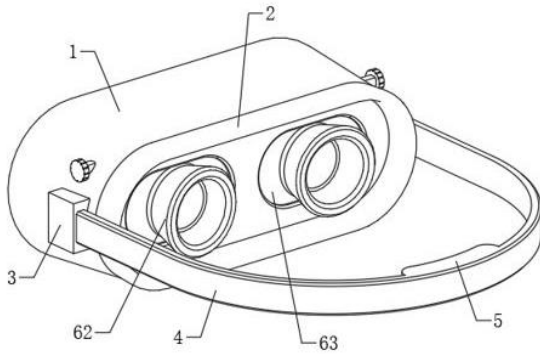
UNIVERSITY OF TECHNOLOGY

72: YE, Lele, SONG, Hanwei, XIA, Yingchong

#### 54: VR/AR PRODUCT REMOTE DIGITAL-INTELLIGENT ART DISPLAY GLASSES

00: -

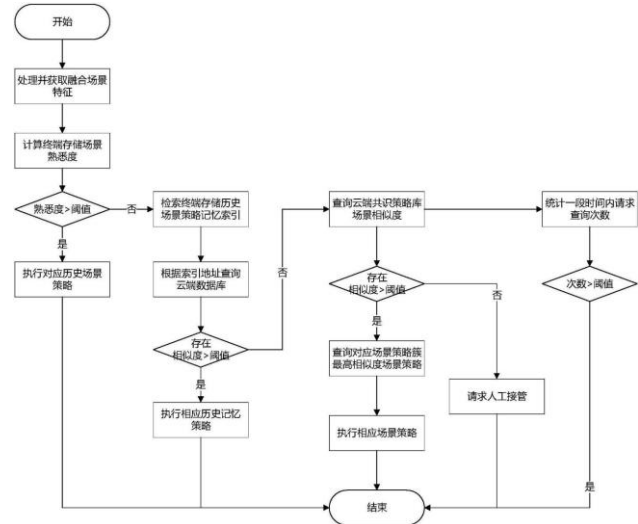
Disclosed is a pair of VR/AR product remote digital-intelligent art display glasses, including a main body of glasses. Adjusting mechanisms are arranged inside the main body and comprise two groups of mounting grooves having eyeshades formed inside the main body; movable holes are formed in positions at the front side of the main body near the eyeshades; soft cloth is connected between each eyeshade and each movable hole; a connecting block is connected in a position at the upper end of each eyeshade near the rear side; and a threaded rod is movably connected inside each connecting block. In the product, two groups of adjusting mechanisms are arranged independently, so that two groups of lens barrels can be adjusted to different positions respectively, and the lens barrels at both sides can be adjusted to comfortable positions, thereby facilitating experiencers to use and improving the practicability of the glasses.



21: 2022/01228. 22: 2022/01/26. 43: 2022/04/07  
 51: B60K; B60L; B60S; G01P; G05D  
 71: Qingdao Academy of Intelligent Industries  
 72: Xiao WANG, Feiyue WANG, Linyao YANG  
**54: AN UNMANNED VEHICLE REMOTE TAKEOVER METHOD BASED ON SCENE FAMILIARITY**

00: -

The invention discloses an unmanned vehicle remote takeover method based on scene familiarity, when facing a new scene, the unmanned vehicle processes the sensor data to generate the corresponding mixing scene feature information. Then compare with the information in the local memory to calculate the familiarity. If the familiarity exceeds the threshold, the scene strategy with the highest similarity is directly issued. Otherwise, communicate with the cloud to obtain the historical scene strategy. If there are historical scenes whose similarity exceeds the threshold, the historical scene strategy with the highest similarity will be distributed; If it does not exist, query the consensus policy Library in the cloud and distribute the consensus policies exceeding the threshold. Otherwise, submit a remote takeover application to the remote control center. The method disclosed by the invention can make full use of the historical experience strategy of driverless terminals and the verified consensus strategy of a large number of driverless terminals, so as to effectively reduce the frequency of manual request for takeover, improve the level of driverless autonomy and ensure safety.



21: 2022/01294. 22: 2022/01/27. 43: 2022/03/22  
 51: A47L

71: STATE GRID XINJIANG ELECTRIC POWER CO., LTD., TULUFAN ELECTRIC POWER SUPPLY COMPANY

72: LIU, Huhu, GANG, Ligang, WEI, Gang, TANG, Huaizhi, XUE, Gang, LU, Zhengmin

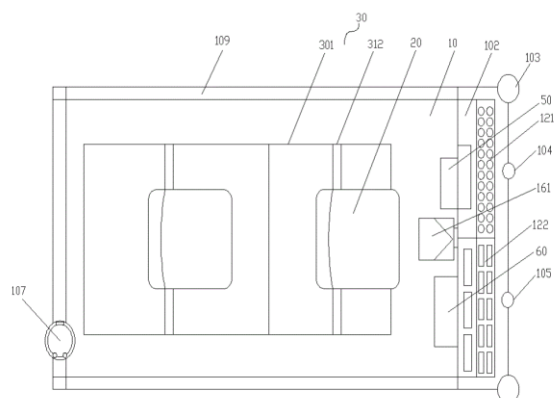
33: CN 31: 202111627571.4 32: 2021-12-28

**54: RAIL MOTOR CAR FOR USE IN NARROW CHANNELS OF CABLE PIPES**

00: -

The present invention discloses a rail motor car for use in narrow channels of cable pipes, which relates to the technical field of power devices, comprising: a support base, wheels engaging with a rail are provided underneath the support base, a stopper is provided on a front side of the support base, at least one light, at least one gas analyzer and at least one temperature and humidity sensor are provided at the front side of the support base; at least one seat is provided on the support base; a drive device is provided underneath the support base and at least one cable fixing piece for hanging cables is provided at a rear side of the support base; a horizontal movement device, provided on the support base for driving the at least one seat to conduct reciprocal horizontal movements on the support base; a stretching device, provided above the horizontal movement device to adjust heights of the at least one seat; a control device and a power supply module. The rail motor car according to the present invention is suitable for use in conducting maintenance and treatment in narrow channels of cable pipes and operations of working staff in the

narrow channels can be facilitated, by which working efficiencies can be improved.



21: 2022/01300. 22: 2022/01/27. 43: 2022/03/14  
51: B62H; E04H

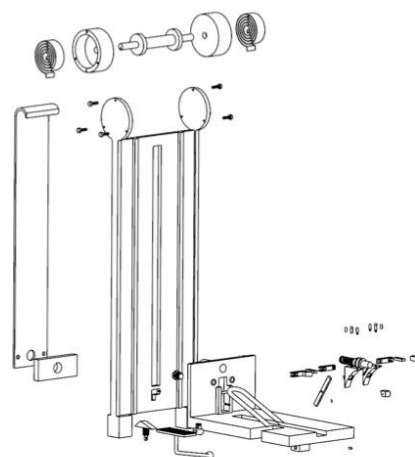
71: QINGDAO UNIVERSITY OF TECHNOLOGY,  
LIAONING UNIVERSITY OF TECHNOLOGY,  
NINGBO SANHAN ALLOY MATERIAL CO., LTD.  
72: CHEN, Minkai, LI, Changhe, JIA, Dongzhou,  
HONG, Huaping, HOU, YALI

**54: AUTOMATIC POSITIONING CLAMPING  
CONSTANT FORCE LIFTING VERTICAL BICYCLE  
PARKING DEVICE**

00: -

The invention discloses a automatic positioning clamping force constant uplift vertical bicycle device, it solves the problems of low utilization rate and poor safety of bicycle parking device in the existing technology, has high space utilization and high safety of beneficial effect, its solution is as follows: automatic positioning clamping force constant uplift vertical bicycle devices, including accumulator lifting device; L type lifting plate, the bottom end of the connecting belt is fixedly connected to the vertical section of the lifting plate through the connecting plate, the pulling force is provided to the lifting plate, the vertical section of the lifting plate and the connecting belt are respectively arranged on both sides of the fixing frame; an clamping fastening device, including a first elastic parts, one end of the first elastic parts is set against the lifting plate, and the other end connected to a central axis column, a first holding forceps or contact with the central axis column connection, and the central axis column set in the middle of the first holding forceps, the central axis column by wheel after pressing, lead the first holding forceps, resulting from relative movement

between the front end of the first two forceps to either side of the wheel clamping wheels



21: 2022/01362. 22: 2022/01/28. 43: 2022/02/15  
51: A61K; A61P

71: SHENZHEN UNIVERSITY  
72: ZHANG JIAN, CHEN SI, ZHANG, QIAN, WANG  
HANLIN, DENG FURONG, XIE, PEIPEI  
33: CN 31: 202111301077.9 32: 2021-11-04

**54: USE OF DIHYDROARTEMISININ AND  
GYPENOSIDE-L IN MANUFACTURE OF  
MEDICAMENT FOR RESISTING TUMOR**

00: -

The present disclosure relates to the technical field of pharmaceutical compositions, and particularly provides use of dihydroartemisinin and gypenoside-L in the manufacture of a medicament for resisting tumor. The co-administration of dihydroartemisinin and gypenoside-L, especially with a mass ratio of 3.78-19.16:1.25-10, has a good synergistic effect of resisting tumor, and a composition of dihydroartemisinin and gypenoside-L can be used as an antitumor drug, especially as a drug for resisting gastric cancer.

21: 2022/01379. 22: 2022/01/28. 43: 2022/02/10  
51: H04M; H05K

71: SAMSUNG ELECTRONICS CO., LTD.  
72: LEE DONGYUP, JOON HEO, AN JUNGCHUL  
33: KR 31: 10-2020-0096695 32: 2020-08-03

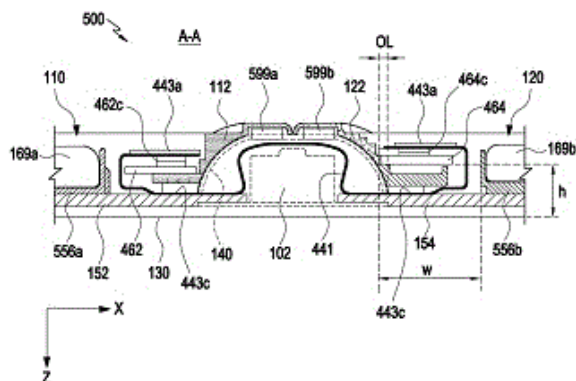
**54: ELECTRONIC DEVICE INCLUDING FLEXIBLE  
PRINTED CIRCUIT BOARD**

00: -

An electronic device is provided. The electronic device includes at least one hinge module providing at least one folding axis, a first housing coupled with



the hinge module to rotate around the folding axis, a second housing coupled with the hinge module to rotate around the folding axis, and rotating with respect to the first housing, between a first position at which the second housing is folded, facing the first housing and a second position at which the second housing is unfolded at a specified angle from the first position, a first battery provided in the first housing, a first circuit board including a first arrangement area disposed in parallel to the first battery at least partially along a direction parallel to the folding axis, and a second arrangement area extending from the first arrangement area and disposed between the folding axis and the battery, and at least one flexible printed circuit board (FPCB) extending from the interior of the first housing to the interior of the second housing across the folding axis. Inside the first housing, one end portion of the FPCB is connected to the second arrangement area, between the folding axis and the first battery, and a part of the FPCB is disposed between the first battery and the second arrangement area.



21: 2022/01587. 22: 2022/02/07. 43: 2022/04/05

51: G01N

71: Tai'an Institute of Food and Drug Inspection and Testing (Tai'an Institute of Fiber Inspection)

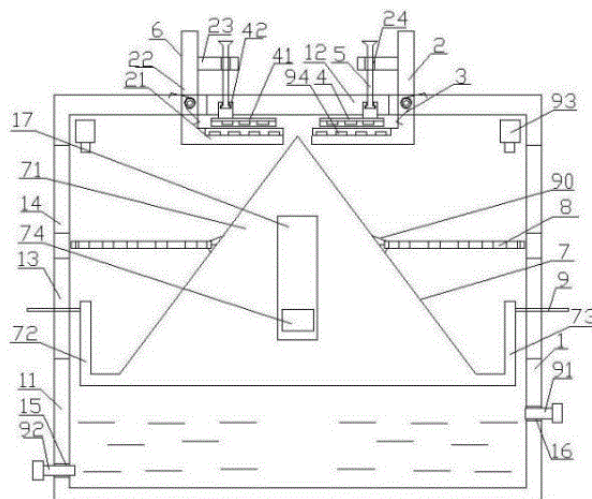
72: LI, Haiyan

#### **54: SAMPLING DEVICE AND METHOD FOR TRADITIONAL CHINESE MEDICINE CAPSULES AND APPLICATION THEREOF**

00: -

The disclosure discloses a sampling device and a sampling method for traditional Chinese medicine capsules and an application thereof. An installation base of a collecting base and a rotating claw device is achieved by a case shell; bevel collection of

traditional Chinese medicines leaked from capsules is achieved by the collecting base; two parts of a capsule are separated by the rotating claw device, so that the traditional Chinese medicines are leaked from an opening of the two parts of the capsule, which improves the sampling effect of the traditional Chinese medicines.



21: 2022/01588. 22: 2022/02/07. 43: 2022/04/05

51: C07F

71: Shandong Guike New Material Co., Ltd.

72: KONG, Fanzhen, QU, Yuan, YANG, Tiantian, KONG, Linggang, LI, Hanghang, LU, Haifeng, QI, Shilin, LI, Pengtao

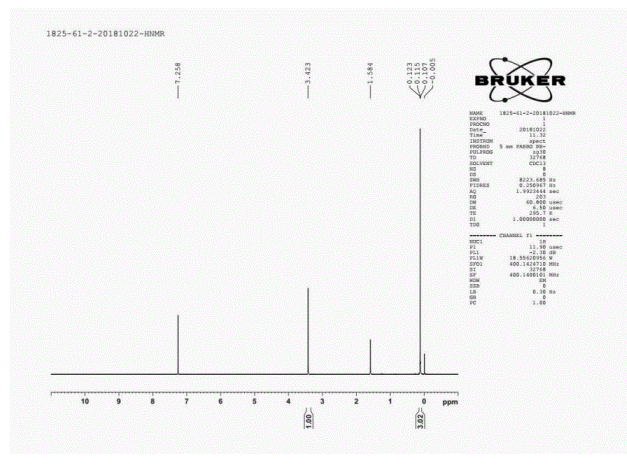
#### **54: PROCESS FOR PREPARING HIGH-PURITY TRIMETHYLMETHOXYSILANE**

00: -

The invention provides a preparation process of high-purity trimethylmethoxysilane and belongs to the technical field of silane new materials. The preparation process comprises the following steps: mixing sodium methylate with a solvent, reducing the temperature by using an ice bath, dropwise adding trimethylchlorosilane and controlling the temperature at 0-50°C, after the completion of dropwise addition of trimethylchlorosilane, increasing the temperature to 60-100°C, continuing the reaction for 0.5-4h, after the completion of reaction, centrifuging, taking a supernatant and performing rectification to obtain the high-purity trimethylmethoxysilane. In the preparation process of the high-purity trimethylmethoxysilane, by replacing traditional methanol with the sodium methylate, salt is



generated and, no hydrochloric acid or hydrogen chloride gas is generated in the reaction process.



21: 2022/01590. 22: 2022/02/07. 43: 2022/04/05  
51: A01M

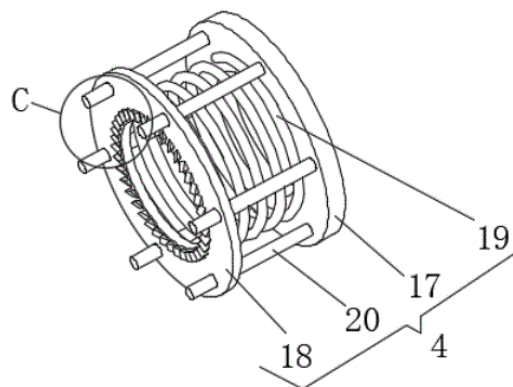
71: Zhangye Academy of Forestry

72: Feng Junren, Tian Xiaoping, Chen Peng

#### 54: A PESTICIDE SPRAYING EQUIPMENT FOR APRICOT ORCHARD

00: -

The present invention relates to the field of apricot plantation, in specific, a pesticide spraying equipment for apricot orchard. The pesticide spraying equipment for apricot orchard including drone body, liquid tank and liquid spraying components. The liquid spray assembly includes mounting plates, rotating shaft, nozzle components, connecting piece, anti-loosening component, transmission components, the rotating shaft is driven by a transmission assembly. By setting the apricot orchard with the liquid spray components of the pesticide spraying equipment, which is composed of the mounting plate, rotating shaft, the nozzle assembly, the connector, and the transmission components, thereby, the rotating shaft is driven by the transmission component, so that the nozzle components can rotate while spraying the liquid, so as to effectively improve the effective spraying range of the nozzle component through the rotating effect, so as to improve the spraying efficiency of pesticide spraying equipment.



21: 2022/01591. 22: 2022/02/07. 43: 2022/04/06

51: A23L

71: Jinzhou Medical University

72: Zhang Zhen, Li Dandan, Ni Rong, Han Yanxia, Zhang Yan

#### 54: A TYPE OF SOYBEAN PROTEIN CARROT VEGETARIAN SAUSAGE AND ITS PREPARATION METHOD

00: -

The present invention discloses a type of soybean protein carrot vegetarian sausage and its preparation method, and the soy protein carrot vegetarian sausage is prepared with the following raw materials: Soybean tissue protein whose water content is 65% is used as the weight benchmark, the proportion of other ingredients and auxiliary ingredients in the weight of soaked soybean protein is as follows: Carrot 45%, broken-wall spirulina 10%, fruit and vegetable cellulose powder 5%, starch 10%, isolate protein 10%, vegetable oil 12%, salt 2.5%, sugar 8%, fructooligosaccharide 3%, lyophilized *Nostoc Sphaeroides* powder 7%, water 140%. In the present invention, the taste of soybean tissue protein similar to meat is utilized, and carrot, lyophilized *Nostoc Sphaeroides* powder, broken-wall spirulina, soybean oil, starch and other auxiliary ingredients are added into the soybean to make a type of sausage characterized by the healthcare function, tender taste, rich and unique smell, high yield and low cost. This type of sausage enriches the sausage varieties and provides a good choice for consumers, especially for patients who suffer from hyperlipidemia, hypertension, etc.

21: 2022/01592, 22: 2022/02/07, 43: 2022/04/06

51: B01J; C02F

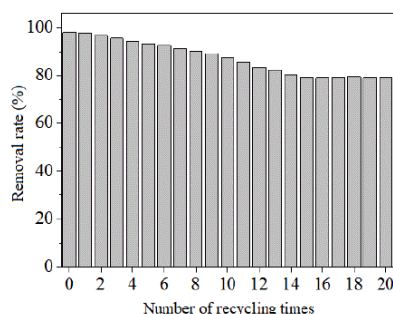
71: Yulin University

72: DANG, Rui, REN, Mengjiao, MA, Xiangrong, GUO, Wei, LI, Xiao, GAO, Yong, LI, Yanjun, MA, Yajun, ZHANG, Zhifang, ZHANG, Ya, LI, Chunyan, ZHANG, Yuanyuan, PAN, Yilin, XUE, Lei

**54: ZN<sup>2+</sup>-AL<sup>3+</sup>-CO<sub>3</sub>2-LDHS@AL ADSORBING MATERIAL AND APPLICATION THEREOF IN FLUORIDE ION ADSORPTION THROUGH RECYCLING**

00: -

The present invention discloses a Zn<sup>2+</sup>-Al<sup>3+</sup>-CO<sub>3</sub>2-LDHS@Al adsorbing material.



21: 2022/01593. 22: 2022/02/07. 43: 2022/04/06

51: E02D; E21D

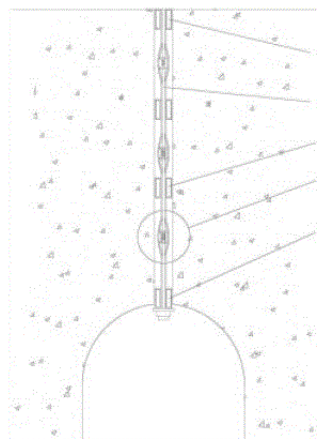
71: Shandong Dong'anyun Mining Technology Co., Ltd.

72: CHENG, Yunhai, WANG, Guandong, LIU, Zhaowei, XIA, Junmin, XIN, Baoyan, CHENG, Qi, PAN, Zexiang, WANG, Yunzhu, MA, Mengxiang, LI, Weili

**54: SEGMENTAL-TYPE HOLLOW GROUTING ANCHOR CABLE DEVICE FOR GEOTECHNICAL ENGINEERING**

00: -

The present invention discloses a segmental-type hollow grouting anchor cable device for geotechnical engineering, including a hollow grouting anchor cable or a hollow grouting pipe, wherein the hollow grouting anchor cable includes a grouting inner pipe and a steel strand, and a plurality of grout outlets and constant-pressure sealing sleeves used for sealing the grout outlets are arranged at the grouting inner pipe or the hollow grouting pipe. The segmental-type hollow grouting anchor cable device for geotechnical engineering further includes segment isolators arranged on the hollow grouting anchor cable or hollow grouting pipe, wherein the segment isolators are arranged between the grout outlets in the hollow grouting anchor cable or hollow grouting pipe.



21: 2022/01594. 22: 2022/02/07. 43: 2022/04/06

51: E21C

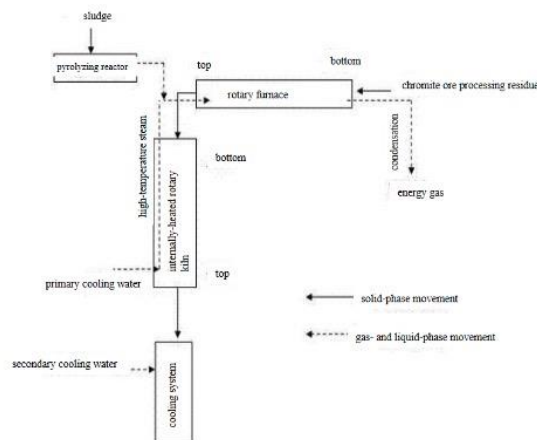
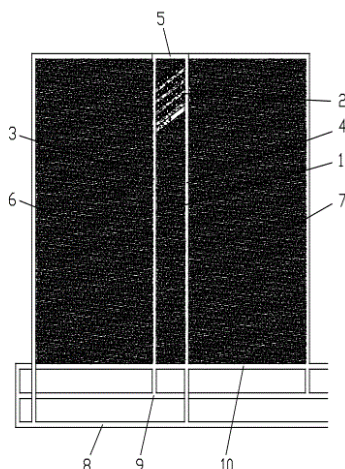
71: Shandong Dong'anyun Mining Technology Co., Ltd.

72: CHENG, Yunhai, PANG, Chuming, WANG, Guandong, JIAO, Shixue, WANG, Xudong, FANG, Shaozong, XIN, Baoyan, SHEN, Hao, WANG, Yifan

**54: MINING FILLING METHOD FOR ADVANCED REPLACEMENT SECTION COAL PILLAR**

00: -

The invention discloses a mining filling method for an advanced replacement section coal pillar, which comprises 1) dividing a plurality of parallel branch roadways in a section coal pillar region; 2) mining coal bodies of each branch roadway in a spaced manner, and filling the worked-out branch roadway while mining the coal bodies of the branch roadways. Before the working faces of two sides of the section coal pillar are mined, the section coal pillar is mined and filled with the branch roadway in a spaced manner, a filling body replaces the coal body, the coal pillar is replaced in advance, and full recovery of the coal pillar is achieved. After the section coal pillar is mined, the coal pillar is filled, so that strength and stability of the coal pillar are guaranteed, and the later working face mining is not affected.



21: 2022/01611. 22: 2022/02/07. 43: 2022/04/06  
 51: B09B; C02F; C10B  
 71: QINGDAO UNIVERSITY OF TECHNOLOGY,  
 SHANDONG ENVIRONMENTAL PROTECTION  
 INDUSTRY GROUP CO., LTD.  
 72: ZHANG, Dalei, YANG, Xinfei, XIAN, Yingzhuo,  
 SUN, Yingjie, WANG, Shuai, CHI, Panpan, YU, Jian,  
 HAN, Jianjiang  
**54: METHOD FOR SIMULTANEOUSLY  
 PREPARING ENERGY GAS AND DETOXIFYING  
 CHROMITE ORE PROCESSING RESIDUE BY  
 USING SLUDGE**

00: -

The present disclosure relates to a method for simultaneously preparing an energy gas and detoxifying a chromite ore processing residue by using sludge, which utilizes the hazardous waste chromite ore processing residue for high-temperature catalytic cracking of a pyrolysis gas of the sludge. Under the condition of steam gasification, the sludge is completely converted into the energy gas which is small molecule. Thus, the coking on the surface of the chromite ore processing residue is avoided, and the energy product is more efficient. The energy gas generated reduces hexavalent Cr<sup>6+</sup> in the chromite ore processing residue into Cr<sup>3+</sup> for harmless treatment.

21: 2022/01613. 22: 2022/02/07. 43: 2022/04/06  
 51: A23K  
 71: YULIN UNIVERSITY  
 72: DONG, Shuwei, ZHANG, Huini, ZHU, Haijing,  
 ZHAI, Junjun, LI, Helin, LI, Longping, SHI, Lei, QU,  
 Lei, SONG, Xiaoyue  
**54: MILK ACIDIFICATION METHOD AND  
 APPLICATION THEREOF IN FEEDING CALVES  
 AND LAMBS**

00: -

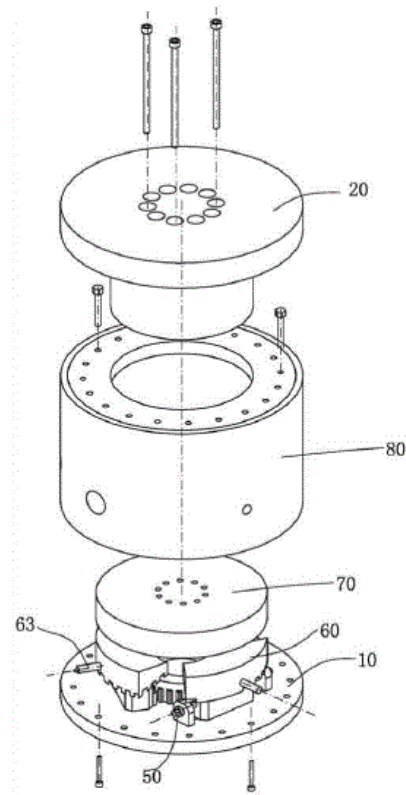
The present disclosure provides a milk acidification method and an application thereof in feeding calves and lambs. The milk acidification method comprises the following steps: mixing a citric acid solution with the mass concentration of 15-20% and milk according to a ratio of 3: 100, acidifying for 12 h, and then feeding the calves and lambs, wherein the optimal palatability can be kept within 72 h. According to the method, the total bacterial count in the milk is reduced, the daily gain of animals can be significantly improved, the incidence rate of diarrhea and respiratory diseases is reduced, growth and development of young animals are promoted, and the method can be used for preparing acidified milk instead of formic acid in clinical practice

21: 2022/01614. 22: 2022/02/07. 43: 2022/04/06  
 51: F25D  
 71: Pingyin Highway Development Center  
 72: Shaobin Yin  
**54: FIXING SUPPORT FOR BRIDGE  
 ENGINEERING**

00: -

The invention provides a fixing support for bridge engineering. The fixing support is used for solving

the problem that an existing fixing support is inconvenient to adjust in the height direction. The fixing support comprises a top plate and a bottom plate, wherein a positioning boss and at least three sliding grooves are formed in the bottom plate, a rotating disc is installed on the positioning boss, sliding blocks are installed in the sliding grooves, fan-shaped wedge blocks are installed on the sliding blocks in a matched manner through spline grooves, core blocks are installed on the upper portions of the fan-shaped wedge blocks, and the core blocks and the fan-shaped wedge blocks are in wedge-shaped fit; and the inner side of each sliding block is matched with the rotating disc through gear transmission, a threaded hole is formed in at least one sliding block, a lead screw is arranged in the threaded hole, and the height of the core blocks is adjusted by rotating the lead screw through a tool. The fixing support has a height adjusting function, the height can be adjusted through the tool, a jack is used in an auxiliary manner, and manual operation can be conducted by a single person. A height adjusting mechanism in the fixing support adopts a fine adjustment structure, so that the height fine adjustment effect of the discharge amount can be realized.



21: 2022/01617. 22: 2022/02/07. 43: 2022/04/06  
51: F42D

71: China University of Mining and Technology  
72: Dayong CHEN, Bingxiang HUANG, Jianchun OU, Xinglong ZHAO, Yuekun XING, Luying SHAO, Qingwang CAI, Haoze LI, Mingxiao HOU, Zhanwei WU, Xuejie JIAO

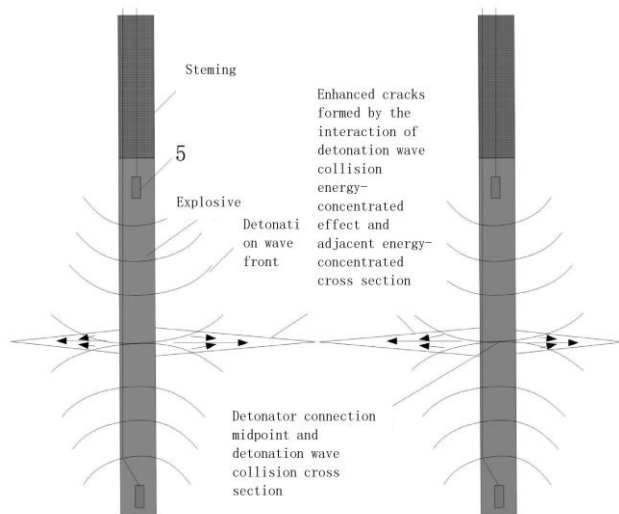
**54: A DELAMINATION CRACKING METHOD OF THICK AND HARD ROOF OF COAL MINE BASED ON ENERGY-CONCENTRATED EFFECT OF DETONATION WAVE COLLISION**

00: -

The invention discloses a delamination cracking method of thick and hard roof of coal mine based on energy-concentrated effect of detonation wave collision, which belongs to the technical field of reducing disaster caused by the breaking of thick and hard roof of coal mine. The method mainly includes the following steps: drill several groups of fan-shaped blast holes ahead of the working face in the gateway, process roadway and roof extraction roadway of the coal mine working face. Two or more high-precision detonators or electronic detonators shall be arranged at different positions in each blast hole as required, the explosive shall be detonated by simultaneous blasting after charging, stemming and



firing circuit connection. Due to the energy-concentrated effect of detonation wave collision, a long crack is formed in the middle of the two initiation points to achieve the purpose of delamination cracking. The invention is based on the energy-concentrated effect of detonation wave collision, only by increasing the initiation point can reduce the disaster risk when the thick and hard roof is broken, which can finally realize the safety production of coal mine. The method has the advantages of simple process, strong operability and good effect.



21: 2022/01637. 22: 2022/02/08. 43: 2022/04/06  
 51: B66C  
 71: Villead (Xuzhou) Intelligent Equipment Technology Co., Ltd, Hunan Villead Science and Technology Co., Ltd.  
 72: Huijie YANG, Hua XIAO, Huijun DONG, Zhen XUE

#### 54: MULTI-DIRECTIONAL PULLING-STRAP CRANE TOWER BODY STABILIZING SYSTEM

00: -

The invention discloses a multi-directional pulling-strap crane tower body stabilizing system, which comprises a base, a tower column, a plurality of supporting legs, a plurality of supporting feet, a plurality of connecting rods and a plurality of pulling strap assemblies; the tower column is arranged on the base in the mode of extending in the vertical direction; the multiple supporting legs are distributed along the circumferential direction of the tower column at intervals, and one ends of the supporting legs are connected with the lower end of the tower

column respectively; the multiple supporting feet are arranged on the corresponding supporting legs respectively, and the middle parts of the supporting feet are connected with the corresponding supporting legs; the multiple connecting rods are arranged at the upper end of the tower column in the mode of corresponding to the multiple supporting legs, and one ends of the connecting rods are connected with the upper end of the tower column respectively; each pulling strap assembly comprises two pulling straps respectively and corresponds to a supporting leg and a connecting rod respectively, the lower ends of the two pulling straps of each pulling strap assembly are connected with two ends of the supporting feet respectively, and the upper ends of the two pulling straps of each pulling strap assembly are connected with the other ends of the connecting rods respectively; and the multi-directional pulling-strap crane tower body stabilizing system can eliminate the effect of bending moment that the tower column is subjected to during operation.

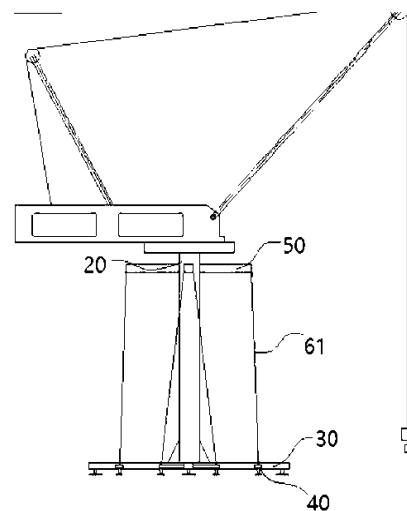
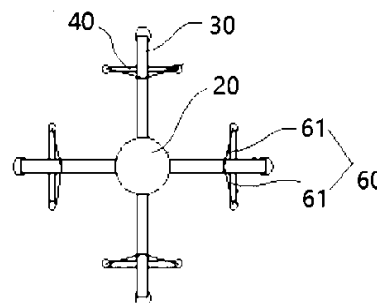


图1





21: 2022/01646. 22: 2022/02/08. 43: 2022/04/05  
51: A01G; A23L

71: Shanxi Institute for Functional Food, Shanxi Agricultural University

72: YANG, Chun, ZHANG, Jiangning, HAN, Jiming, DING, Weiying, YE, Zheng, MAO, Kai, ZHANG, Ling

**54: PREPARATION METHOD FOR LOW-MOLECULAR-WEIGHT FERMENTED COMPOSITE WHOLE FRUIT AND VEGETABLE FUNGAL CEREAL POWDER**

00: -

A preparation method for low-molecular-weight fermented composite whole fruit and vegetable fungal cereal powder is provided. Cereals, beans, yams, fruits and vegetables, and food processing by-products are first compounded at a specific ratio, and then subjected to moisture adjustment, sterilization, inoculation, culture, drying, pulverization and other processes. Metabolic activities of the fungus growth and development result in the existence of a large number of edible fungus mycelia, various enzymes and physiologically active substances produced by the mycelia, and nutrients that are not utilized after the raw materials are degraded by the edible fungi, as well as raw materials that have not been degraded, all of which are high-quality raw materials for the production of functional foods. The fungal powder of the present invention has unique appearance characteristics, is rich in dietary fiber, polysaccharide, trace element and other components, and has distinct taste, balanced nutrition and synergistic effect.

21: 2022/01649. 22: 2022/02/08. 43: 2022/04/05  
51: C08J; C08L

71: Shanghai Polytechnic University

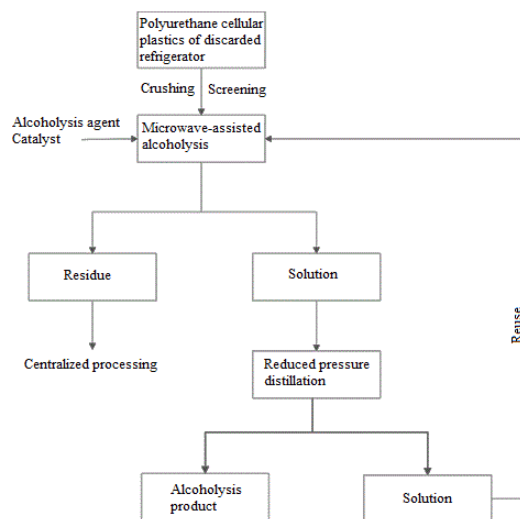
72: YUAN, Wenyi, HUANG, Qing, WANG, Xiaoyan, WANG, Lincui, YANG, Yuhua

**54: METHOD FOR MICROWAVE-ASSISTED ALCOHOLYSIS OF POLYURETHANE FROM DISCARDED REFRIGERATORS**

00: -

The present invention relates to the technical field of electronic waste recycling, in particular to a method for microwave-assisted alcoholysis of polyurethane from discarded refrigerators. In the present invention, polyurethane particles obtained after mechanical crushing and screening, an alcoholysis agent and a catalyst are placed in a microwave reactor for alcoholysis reaction; the resulting product is subjected to reduced pressure distillation after

solid-liquid separation to obtain a target alcoholysis product, so that polyurethane recycling is achieved, wherein a microwave power of the microwave reactor is 200-600 W, an alcoholysis temperature is 185 degrees Celsius, and an alcoholysis time is 1-3 h. The method of the present invention mainly covers the chemical degradation method of polyurethane, with mild experiment conditions and good degradation effect.



21: 2022/01650. 22: 2022/02/08. 43: 2022/04/05  
51: E21D; E21F

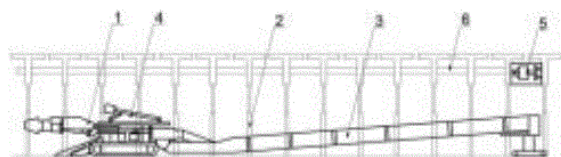
71: Shandong Dong'anyun Mining Technology Co., Ltd.

72: CHENG, Yunhai, ZUO, Leian, PANG, Chuming, HAN, Chengjian, SHI, Mingwei, WANG, Xudong

**54: CONTINUOUS MINING AND CONTINUOUS FILLING SYSTEM WITHOUT PERMANENT SUPPORTING AND FILLING AND IMPLEMENTATION METHOD THEREOF**

00: -

The present invention discloses a continuous mining and continuous filling system without permanent supporting and filling and an implementation method thereof, and belongs to the technical field of coal mine filling and mining. The system includes a tunneling machine, a transportation device, an auto-support temporary supporting device, a temporary supporting transfer device, a temporary support installation mechanical arm, a gangue throwing machine, a gangue transportation device and a mobile trolley.



(FIG.1)

21: 2022/01651. 22: 2022/02/08. 43: 2022/04/05

51: G01N

71: Central South University

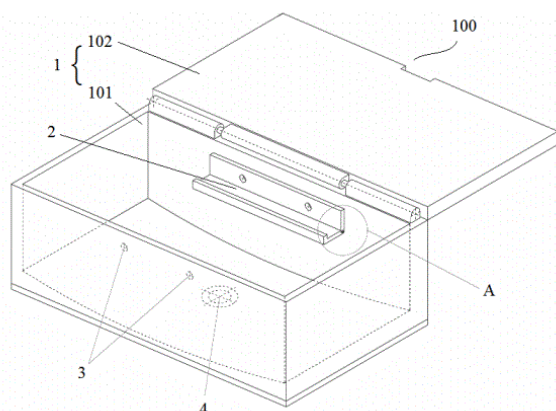
72: LI, Haipu, PENG, Fangyuan, PENG, Jingjin, YANG, Zhaoguang, LUO, Wenbao

33: CN 31: 202110255536.8 32: 2021-03-09

#### **54: OPERATION METHOD FOR SINGLE CELL ELECTROPHORESIS ASSAY AND OPERATION METHOD**

00: -

The disclosure discloses an operation device for a single cell electrophoresis assay and an operation method, and relates to the technical field of bio-experiments. The operation device comprises an operation box, slide glass, a sealing cover and a supporting assembly. The operation device for the single cell electrophoresis assay and the operation method can be used for all experiment links except electrophoresis and have the advantages of being simple in usage, simple and convenient to operate, capable of facilitating batched experiments, improving experiment accuracy and being repeatedly utilized, economical and the like, the biohazards caused by the experiments are reduced, popularization and usage are facilitated, and cell DNA damage can be simply and conveniently detected in a standard manner.



21: 2022/01656. 22: 2022/02/08. 43: 2022/03/22

51: A23K

71: INSTITUTE OF ANIMAL HUSBANDRY, HEILONGJIANG ACADEMY OF AGRICULTURAL SCIENCES, HUNAN NORMAL UNIVERSITY

72: HE, Xinmiao, HE, Liugui, FENG, Yanzhong, LIU, Di, CHEN, Heshu, WANG, Wentao, ZHANG, Haifeng, TIAN, Ming, LIU, Ziguang, HE, Haijuan, QI, Meiyu, WU, Saihui, YU, Xiaolong

#### **54: FEED ADDITIVE FOR REMOVING VOMITOXIN AND PREPARATION METHOD AND APPLICATION THEREOF**

00: -

Disclosed is a feed additive for removing vomitoxin and a preparation method and an application thereof. The additive comprising: a burnt through shell powder, coffee tree leaves, coffee bean skin and a bacillus amyloliquefaciens and lactobacillus rhamnosus bacteria solution. The method comprises: mixing the components; adding a proper amount of water; uniformly mixing the components; preparing a cake; and drying the cake to obtain the feed additive. The invention further discloses an application of the feed additive in removing vomitoxin in a feed. By adding the crushed feed additive of the present invention into the feed, zearalenone in the feed can be removed effectively, and the feed further has the functions of adjusting intestinal flora of animals and improving the immunity of body, such that harm to animals by zearalenone can be reduced effectively. The method of the additive is simple and free of toxic and side effects.

21: 2022/01657. 22: 2022/02/08. 43: 2022/04/05

51: B63J

71: CHINA RAILWAY 18 BUREAU GROUP CO. LTD.

72: ZHANG, Xin, LI, Genqiao, DONG, Xiaohui, ZHANG, Xiangping

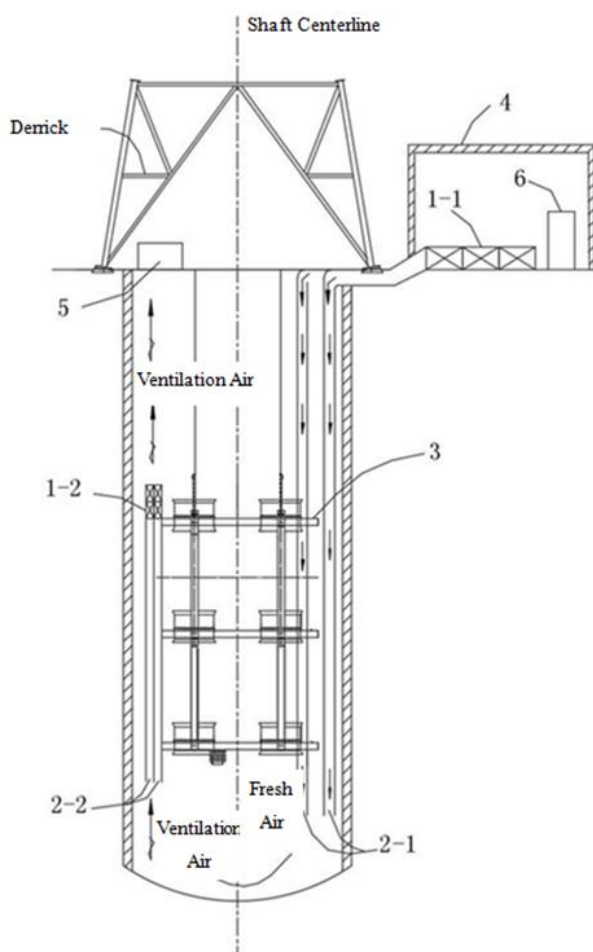
33: CN 31: 202220072916.8 32: 2022-01-12

#### **54: ENVIRONMENTALLY FRIENDLY VENTILATION SYSTEM FOR DEEP SHAFT EXCAVATION**

00: -

The invention relates to an environmentally friendly ventilation system for deep shaft excavation, comprising a ventilator and an air duct; The ventilator comprises an air intake ventilator and an air exhaust ventilator; the air intake ventilator is arranged on the ground of the wellhead; the air exhaust ventilator is arranged on the hanging

scaffold in the shaft; the air duct comprises an air intake duct and an air exhaust duct; one end of the air intake duct is fixed with the air intake ventilator, and the other end extends into the shaft; one end of the air exhaust duct is fixed with the air exhaust ventilator, and the other end extends into the shaft bottom; the height of the air intake duct from the shaft bottom is less than the height of the air exhaust duct from the shaft bottom; and a return air inlet is also arranged at the wellhead above the air exhaust ventilator. The invention adopts the mixed ventilation of air intake ventilator and air exhaust ventilator to improve the ventilation efficiency; the construction of a soundproof room reduces the noise and improves the working environment around the ground; the refrigeration equipment reduces the temperature of the working surface in the shaft, has strong applicability and improves the underground working environment.



21: 2022/01687. 22: 2022/02/08. 43: 2022/03/22

51: A23K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

72: CHEN, Heshu, FENG, Yanzhong, HE, Liuqin,  
HE, Xinmiao, LIU, Di, WANG, Wentao, ZHANG,  
Haifeng, TIAN, Ming, LIU, Ziguang, HE, Haijuan, QI,  
Meiyu, WU, Saihui, YU, Xiaolong

**54: FEED ADDITIVE FOR REMOVING MAIZE  
AFLATOXIN AND PREPARATION METHOD AND  
APPLICATION THEREOF**

00: -

The present invention discloses a feed additive for removing maize aflatoxin and a preparation method and an application thereof. The present invention first discloses a feed additive for removing maize aflatoxin with hyssopus officinalis as a major component. The present invention further discloses a method for preparing the feed additive. The method comprises: crushing wrinkled gianthyssop herb, hemp stalk carbon and the like to obtain the feed additive. The invention further discloses an application of the feed additive in removing maize aflatoxin in a feed. By adding the feed additive of the present invention into the feed, zearalenone in the feed can be removed effectively, so that harm to animals by zearalenone is reduced effectively. The feed additive of the present invention is prepared from a Chinese herbal medicine hyssopus officinalis, is free of toxic and side effects and is simple in preparation method.

21: 2022/01702. 22: 2022/02/09. 43: 2022/04/12

51: C12Q

71: YELLOW SEA FISHERIES RESEARCH  
INSTITUTE, CHINESE ACADEMY OF FISHERY  
SCIENCES, CHINESE ACADEMY OF INSPECTION  
AND QUARANTINE

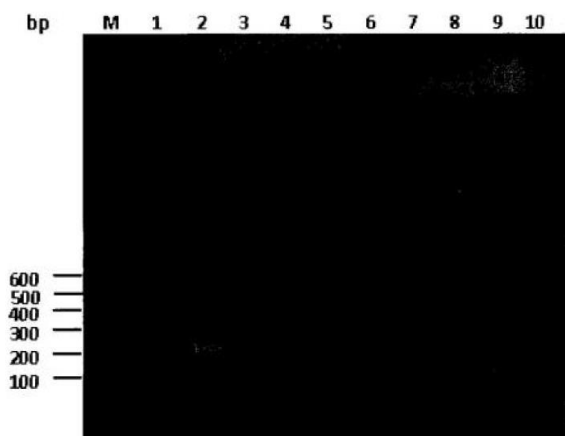
72: JIANG, Yanhua, QU, Meng, LU, Xingan, ZHAO,  
Hongyang, YAO, Lin, LI, Na, LIU, Shufang, TAN,  
Zhijun, WANG, Lianzhu

**54: A METHOD FOR IDENTIFYING SASHIMI OF  
THUNNUS OBESUS, THUNNUS ALALUNGA AND  
THUNNUS MACCOYII**

00: -

The present invention relates to a method for identifying sashimi of *Thunnus obesus*, *Thunnus maccoyii* and *Thunnus alalunga* and belongs to the technical field of food detection. The method comprises the following steps: extract tuna sashimi DNA, amplify the *cyt b* gene fragment by PCR with

the extracted DNA as template and F1/F2 as primer, detect the amplified fragment by electrophoresis, purify the PCR product and digest the purified PCR product with restriction enzymes Fok I and Stu I, and analyze the restriction map through agarose gel electrophoresis, to identify the source of the 3 kinds of tuna sashimi. The present invention identifies the source species of tuna sashimi at the molecular level. It can accurately distinguish the source of tuna sashimi, and is of great significance to standardizing the tuna sashimi market.



21: 2022/01745. 22: 2022/02/10. 43: 2022/04/07  
51: H01Q

71: Foshan Eahison Communication Co., Ltd.

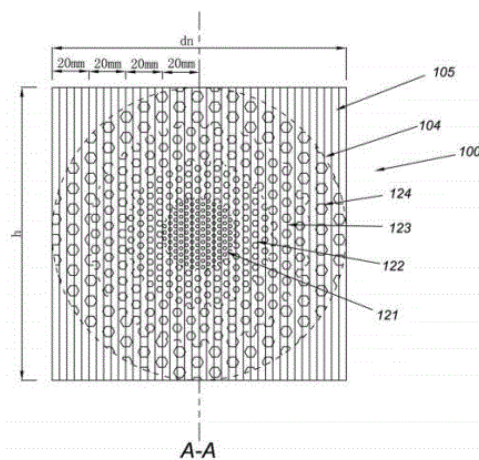
72: ZHENG, Hongzhen, LU, Yongchao, SUN, Yaozhi, LI, Jiaduo, LI, Tao

#### **54: ELECTROMAGNETIC WAVE LENS, PRODUCTION METHOD OF ELECTROMAGNETIC WAVE LENS AND LENS ANTENNA**

00: -

The present disclosure provides a better electromagnetic wave lens, a production method of the electromagnetic wave lens and a lens antenna. The electromagnetic wave lens is a rolled body formed by rolling a strip-shaped material; the dielectric constants of dielectric materials are gradually changed in the transverse direction and the longitudinal direction of the strip-shaped material; after the strip-shaped material is rolled into the rolled body, the dielectric materials are distributed in at least one artificial predetermined three-dimensional space range in the rolled body and are called as a lens body; the part, except the lens body, of the rolled body is called as a non-lens part; the dielectric constant in the lens body is not

lower than that of the non-lens part; and in the lens body, all dielectric constants in the direction from inside to outside are lower and lower.



21: 2022/01746. 22: 2022/02/10. 43: 2022/04/07  
51: A61B; G01R

71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

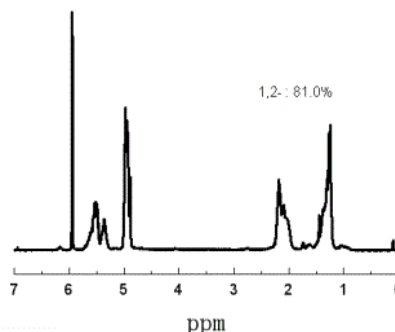
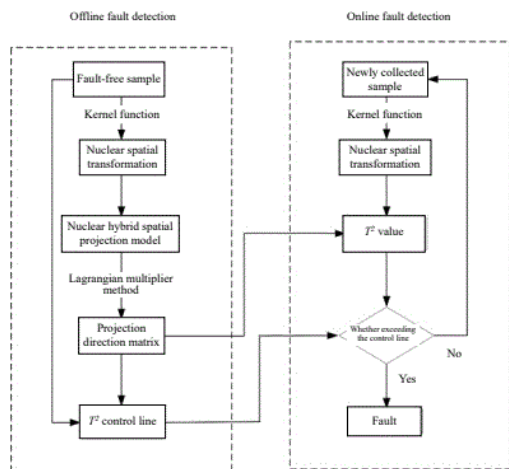
72: SU, Shuzhi, ZHANG, Maoyan, ZHU, Yanmin, LU, Shuqun, FANG, Xianjin, LIU, Huilin, WANG, Ziyang, ZHANG, Zhipeng

#### **54: A FAULT DETECTION METHOD BASED ON KERNEL HYBRID SPATIAL PROJECTION**

00: -

The present disclosure discloses a fault detection method based on kernel hybrid spatial projection, the implementation process of the method is divided into two processes of offline fault detection and online fault detection. The offline fault detection is specifically implemented by the steps of performing kernel spatial transformation on a fault-free sample by means of a kernel function to enhance the high-dimensional separability of the fault-free sample, and constructing the kernel hybrid spatial projection model by means of a local relationship and a global relationship between samples. The online fault detection is specifically implemented by the steps of performing kernel spatial transformation on a newly collected sample by means of a kernel function in the offline fault detection; calculating a T2 value of the newly collected sample by utilizing the spatial projection direction obtained by the offline fault detection.





21: 2022/01748. 22: 2022/02/10. 43: 2022/04/07  
51: C08F

71: Qingdao University of Science and Technology  
72: ZHANG, Chunyu, NA, Lihua, YANG, Qi, LIU, Heng, ZHANG, Xuequan

33: CN 31: 202111573496.8 32: 2021-12-21

#### **54: CATALYST SYSTEM AND APPLICATION THEREOF, AND METHOD FOR PREPARING SYNDIOTACTIC 1,2-POLYBUTADIENE**

00: -

The present invention relates to the technical field of the preparation of syndiotactic 1,2-polybutadiene, and in particular to a catalyst system and an application thereof, and a method for preparing syndiotactic 1,2-polybutadiene. The catalyst system provided by the present invention includes an iron-containing organic compound, an azodicyano compound, an organoaluminum compound and a radical scavenger; wherein a molar ratio of the iron element in the iron-containing organic compound, the azodicyano compound, the organoaluminum compound and the radical scavenger is 1:(0.5-10):(5-100):(1-1,000); and the radical scavenger is a hindered phenol, hindered amine or phosphorus-containing antioxidant. The catalyst enables the preparation of syndiotactic 1,2-polybutadiene containing a very small amount of gel or even no gel with a melting point range of 60-130 degrees Celsius at a high temperature and a high activity.

21: 2022/01749. 22: 2022/02/10. 43: 2022/04/07  
51: B01J

71: Qingdao University of Science and Technology  
72: WANG, Feng, ZHANG, Xuequan, LIU, Heng, ZHANG, Chunyu

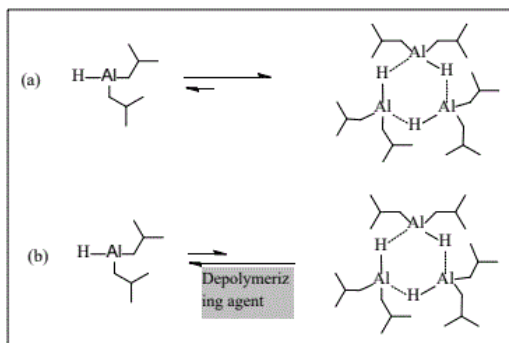
33: CN 31: 202111527882.3 32: 2021-12-14

#### **54: HOMOGENEOUS RARE EARTH CATALYST AND PREPARATION METHOD AND APPLICATION THEREOF**

00: -

The disclosure provides a preparation method of homogeneous rare earth catalysts. A depolymerizing agent is introduced into the homogeneous rare earth catalyst, and alkyl aluminum trimer is promoted to be depolymerized into monomolecular alkyl aluminum, thus increasing number of alkyl aluminum of effective chain transfer agent - alkyl aluminum and accelerating chain transfer; and a chain transfer reaction is completed in the initial reaction period, molecular chain concentration of aluminum terminal is increased, exchange with a growth chain of active site is accelerated, influence from increasing system viscosity is reduced, and the system maintains active polymerization. A cis-rich high molecular weight diene polymer with narrow molecular weight distribution is prepared, number average molecular weight reaches 320,000, cis-1,4 content is greater than 96.0%, Mw/Mn is smaller than 2.0, reversible chain transfer is maintained in the polymerization process, and no less than 9 polymer chains are generated in each active site.





21: 2022/01750. 22: 2022/02/10. 43: 2022/04/07  
51: C12Q

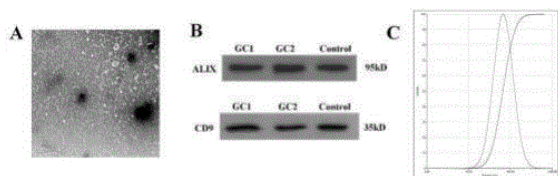
71: Qingdao University

72: XU, Wenhua, WANG, Shuai, DONG, Yanhan, GAO, Jinning, HAO, Xiaodan, LIU, Yongmei, FAN, Yuqiao, WANG, Zibo

#### 54: USE OF EXOSOME CIRC RNA PVT1

00: -

The present disclosure belongs to the field of biomedicine, and specifically relates to novel use of an exosome circRNA PVT1.



21: 2022/01752. 22: 2022/02/10. 43: 2022/04/07  
51: C12N

71: Inner Mongolia Medical University, Inner Mongolia Algal Blue Biotechnology Co., Ltd.

72: HU, Ruiping, YU, Jiancheng, XUE, Huiting, YUAN, Hong, MA, Chunli, ZHANG, Jingnan, YAN, Sirui, SHI, Haibo, BAO, Lili, MA, Teng

33: CN 31: 202111201949.4 32: 2021-10-15

#### 54: MICROALGAE SEPARATION METHOD BASED ON CELL SLIDE

00: -

The present invention provides a microalgae separation method based on a cell slide, and belongs to the technical field of microalgae separation. The method include the following steps: dripping a drop of diluted microalgae solution on a cell slide, and transferring the cell slide into a medium for culture when observing under a microscope that only one target microalgae cell is on the cell slide. In the present invention, as the diluted microalgae solution is dripped on the cell slide in the

present invention, it can be ensured that the target microalgae species is transferred to the medium through a carrier support action of the cell slide, posing a relatively low operation requirement for experimenters; the whole process is easy to operate and control, and facilitates transfer of the target microalgae species, with a high accuracy, an improved separation efficiency and an excellent separation effect; the pure microalgae species is easy to obtain, and repeated tests are avoided; and the method is more rapid and more sensitive than the existing microalgae separation methods

21: 2022/01753. 22: 2022/02/10. 43: 2022/04/07  
51: G01N

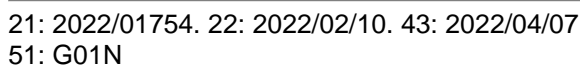
71: Shandong Nuomingkang Pharmaceutical Research Institute Co., Ltd., Jining University

72: LI, Mingli, ZHANG, Shangyao, ZHOU, Dongdong, XIAO, Chuan, DENG, Changjiang, XING, Jinhua, WANG, Longfei

#### 54: METHOD FOR DETECTING RELATED SUBSTANCES IN ANTIBACTERIAL EYE DROPS

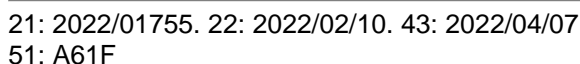
00: -

The present invention provides a method for detecting related substances in antibacterial eye drops, and belongs to the technical field of pharmaceuticals. With the method provided by the present invention, an excellent separation can be achieved for the related substances in the antibacterial eye drops and between the related substances, with all the degrees of separation being greater than 1.5; the method provided by the present invention has a high sensitivity, and moxifloxacin, known impurities and main degradation impurities are within a certain concentration range, showing an excellent linear relationship; the method provided by the present invention, with an excellent repeatability and high accuracy, can be used for the quality control of related substances in moxifloxacin hydrochloride eye drops, and is significantly superior to the detection methods in the U.S. Pharmacopoeia and the European Pharmacopoeia.

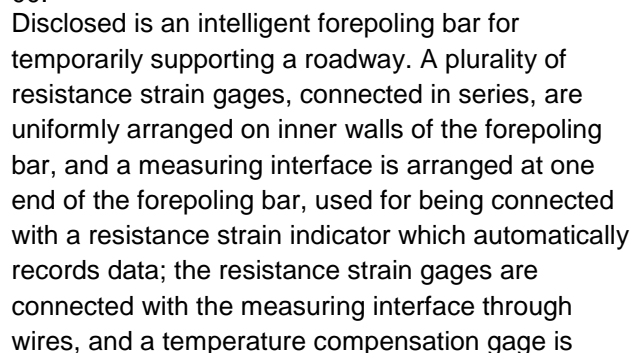


#### 54: METHOD FOR DETERMINING MOLECULAR WEIGHT AND MOLECULAR WEIGHT DISTRIBUTION OF SODIUM HYALURONATE WITH SIZE EXCLUSION CHROMATOGRAPHY

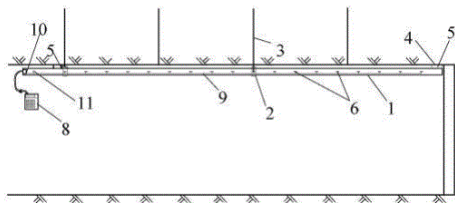
The present invention provides a method for determining a molecular weight and a molecular weight distribution of sodium hyaluronate by a size exclusion chromatography (SEC), and relates to the technical field of sodium hyaluronate testing. An SEC method is used, universal calibration is performed by a high-performance liquid chromatography to calculate a cubic function regression equation, and a molecular weight and a molecular weight distribution of sodium hyaluronate are determined; sodium polystyrene sulfonate control series with six different molecular weights are available, and a polynomial fitting regression equation (unary cubic universal correction equation) is adopted, thereby effectively solving the problem that the fluctuation of individual points results in a failure in reproducing overall data; moreover, the cubic equation can prevent an over-fitting problem, thereby effectively improving the accuracy, reproducibility and stability of measured data.



The invention discloses a semi-releasable aortic stent delivery system, comprising an aortic delivery sheath, an aortic covered stent, a stent placement guidewire, and a restraint guidewire. After the aortic delivery sheath is removed, the restraint guidewire and the fixing ropes make the aortic covered stent in a semi-released state, and when the restraint guidewire is removed again, the aortic covered stent is in a full-released state. The stent restraint guidewire in the delivery system can help the covered stent to achieve semi-release, and can be adjusted repeatedly during the operation, so that the fenestration hole of the covered stent can be accurately positioned at the opening of the visceral artery, which is especially suitable for patients with aortic disease who need stent fenestration, and enables endoluminal therapy for patients with aortic disease with insufficient anchoring zone.

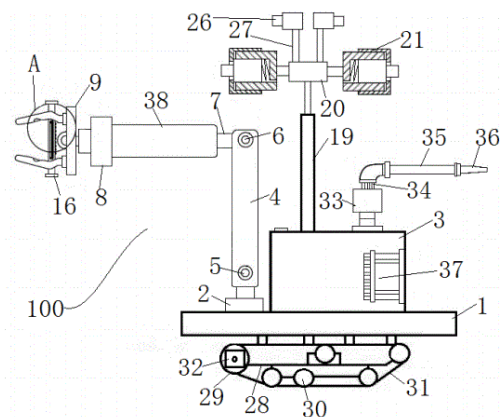


connected onto a wire located at the measuring interface. By monitoring the deformation and stress conditions of the forepoling bar, and setting a critical alarm value, a sound-light alarm is given when the critical value is approached, thereby preventing safety accidents such as roof caving of a driving face under over-small supporting force and new damage to a roof under repeated loading and unloading due to over-large supporting force.



21: 2022/01760. 22: 2022/02/10. 43: 2022/04/07  
51: A62C; B25J  
71: SHANGHAI FIRE RESEARCH INSTITUTE OF MEN, SHANGHAI BEI'AN INDUSTRIAL CO., LTD.  
72: JIANG, Xudong, ZHONG, Lin, SHI, Wei, BIAN, Fuli, YANG, Zhijun  
**54: RESCUE ROBOT**  
00: -

The present disclosure discloses a rescue robot. The rescue robot comprises a moving mechanism and a base plate; a rotator and a water tank are mounted on the top of the base plate; a connecting rod is movably mounted on the top of the rotator; a second connecting rod, a connecting block and a clamping hand are mounted on the left side of the top of the connecting rod in sequence; the water tank is connected with a fire extinguishing device; one side of the top of the water tank is fixedly connected with an electric push rod; the electric push rod is provided with a fixed disc; camera mounting structures are fixedly connected to the periphery of the fixed disc; the camera mounting structures comprise fixed shells and thread sleeves; cameras are embedded in the fixed shells.



21: 2022/01761. 22: 2022/02/10. 43: 2022/04/07  
51: B01D; C08C; C08J; B82Y

71: Liaoning Petrochemical University  
72: XIAO, Wei, MENG, Zhaohan, XU, Jingkai, YANG, Zhanxu, QIAO, Qingdong

**54: INORGANIC POLYMER MODIFIED PROTON EXCHANGE MEMBRANE AND PREPARATION METHOD THEREOF**

00: -

The disclosure relates to the field of proton exchange membrane preparation, in particular to an inorganic polymer modified proton exchange membrane and a preparation method thereof, and the problems that an existing proton exchange membrane is poor in physicochemical stability, low in ion selectivity and the like. According to the method, a casting membrane method is adopted for preparing a base membrane, then, a surface layer of a matrix is compounded with an inorganic polymer functional material, compounding technological parameters are controlled to adjust the load capacity of an inorganic polymer and the interface characteristic of the inorganic polymer and the base membrane, and the inorganic polymer modified proton exchange membrane is obtained. The proton exchange membrane is low in swelling property, good in ion selectivity and stable in physicochemical stability and shows a good battery property in a vanadium flow battery.

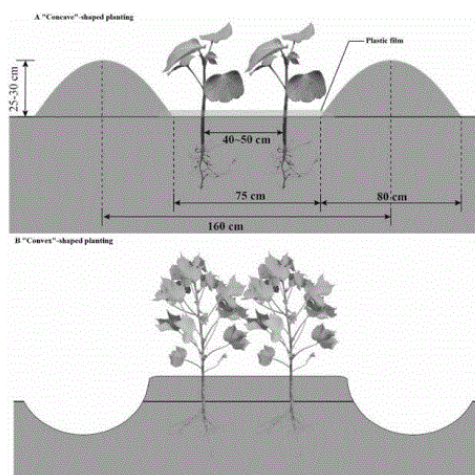
21: 2022/01763. 22: 2022/02/10. 43: 2022/04/06  
51: A01G

71: Shandong Academy of Agricultural Sciences  
72: ZHANG, Yanjun, DONG, Hezhong, ZHANG, Dongmei, DAI, Jianlong, CUI, Zhengpeng

#### 54: METHOD FOR SALT-RESISTANT AND WATERLOGGING-PREVENTING CONCAVE-CONVEX CULTIVATION OF COTTON CROPS IN COASTAL SALINE-ALKALI LAND

00: -

Disclosed is a method for salt-resistant and waterlogging-preventing concave-convex cultivation of cotton crops in a coastal saline-alkali land. The method includes the following steps: before winter, ridging, and irrigating a ditch with water to reduce salinity; in spring, firstly mulching a ditch border with a plastic film to preserve a soil moisture and control salinity, then making holes in the film after a certain ground temperature is reached, and seeding to form a "concave"-shaped planting; in early June, removing the film, flattening ridges and earthing up bases of cotton seedlings to change ditches and ridges, so as to form a "convex"-shaped planting. The method is simple, practical, and capable of reducing salt damage, facilitating the germination and growth in a saline-alkali land, preventing waterlogging, draining stagnant water and resisting lodging for crops in a saline-alkali land, with obvious effects of resisting adversity and increasing yields.



21: 2022/01764. 22: 2022/02/10. 43: 2022/04/06  
51: C12N

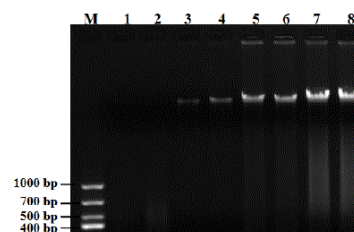
71: Hainan University, Tropical Crops Genetic Resources Institute, Chinese Academy of Tropical Agricultural Sciences

72: ZHU, Jie, LIU, Ziji, CAO, Zhenmu, QIN, Yuling

#### 54: IMPROVED CAPSICUM CHINENSE JACQUIN LEAF GENOME DNA EXTRACTION METHOD

00: -

The invention discloses an improved Capsicum chinense Jacquin leaf genome DNA extraction method, as for the features that Capsicum chinense Jacquin leaves are rich in phenol, saccharide and protein, concentrations of several important components in Capsicum chinense Jacquin genome DNA extraction are optimized through orthogonal design, an extraction method capable of obtaining high-quality DNA molecules is screened out, and the problems that DNA molecules extracted through a conventional method contain many impurities, and are low in yield and likely to be degraded and brown, and used reagents have high toxicity, so that next-step molecular biology study is affected are solved. The purity of DNA obtained through the method is high. The DNA is good in integrity and free of breakage and degradation.



21: 2022/01765. 22: 2022/02/10. 43: 2022/04/06  
51: A01N

71: Guizhou Institute of Subtropical Crops, Hainan University

72: LUO, Lina, HAN, Shuquan, LI, Maofu, LIU, Fanzhi, WU, Fan, LU, Jiaju

#### 54: BUD-REMOVING AND GROWTH-PROMOTING MEDICAL AGENT FOR BANANAS AND PREPARATION METHOD THEREOF

00: -

The present disclosure provides a bud-removing and grow-promoting medical agent for bananas and a preparation method thereof, and belongs to the field of plant protection; a raw material for preparing the medical agent is to mix monopotassium phosphate and paclobutrazol at the mass ratio of 2:1, the present disclosure can not only remove an excess of banana sucker effectively, but also can promote the growth and development of banana, improve the banana yield as well as the fruit quality. Compared with the existing banana bud-removing medical agent, it has such advantages as high efficacy of the bud-removing, the commonly selected raw material,



the simple preparation method, low cost, safe and non-pollution and etc., simply and efficiently solving such practical problems as incomplete bud-removing, propagating over and over again, high cost of bud-removing, easily contaminating the environment and etc., and thereby realizing the qualitative improvement of bud-removing technology for banana.

21: 2022/01766. 22: 2022/02/10. 43: 2022/04/06  
51: A01G

71: Guizhou Institute of Subtropical Crops  
72: LUO, Lina, HAN, Shuquan, LIU, Fanzhi, LU, Jiaju, HE, Erqi, WANG, Xiaomin

#### **54: RAPID CULTIVATION METHOD FOR AVOCADO GRAFTED SEEDLINGS**

00: -

The disclosure provides a rapid cultivation method for avocado grafted seedlings, which includes: (1) rootstock seedling breeding, (2) scion selection, (3) grafting method and (4) grafted seedling management. The aspects of rootstock breeding of avocado seeds, scion selection, grafting method and the like are defined in detail, and key parameters of grafting and seedling cultivation of avocado are controlled comprehensively, specifically and in detail, so that the seedling cultivation technology of avocado is more standardized. The avocado seeds are subjected to medicament treatment, so that the germination rate can be remarkably increased, and the seedling cultivation cycle can be shortened. The avocado seedlings are neat in growth vigor and consistent in outplanting time, thus the management is convenient, and the seedling cultivation cost is effectively reduced. After the scions are subjected to medicament treatment, the avocado seedlings grow robustly, the grafting survival rate is high.

21: 2022/01767. 22: 2022/02/10. 43: 2022/04/06  
51: B01D; C02F

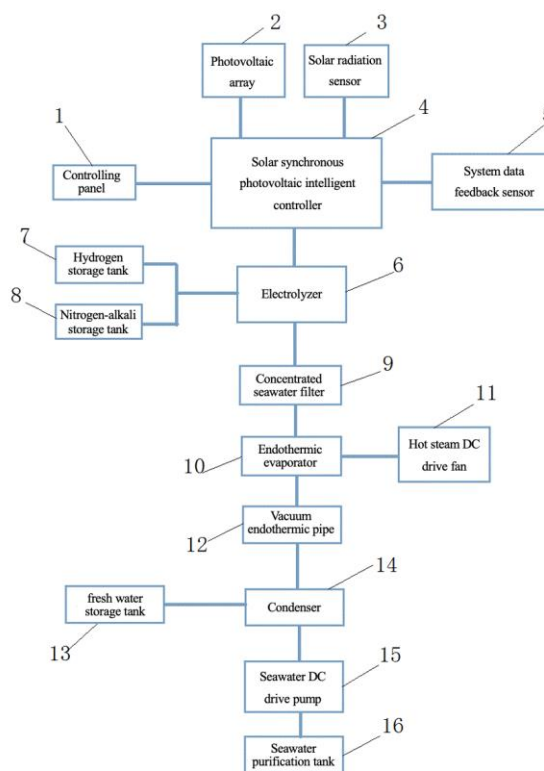
71: Qingdao University of Technology  
72: MENG, Xi, GAO, Yanna, GAO, Weijun

#### **54: AN INTELLIGENT SYSTEM USING PHOTOVOLTAIC HEAT FOR DESALINATION OF SEAWATER AND PRODUCTION OF HYDROGEN**

00: -

The invention discloses an intelligent system using photovoltaic heat for desalination of seawater and production of hydrogen, comprising a controlling

panel, a photovoltaic array, a solar radiation sensor and a solar synchronous photovoltaic intelligent controller, etc.; the solar synchronous photovoltaic intelligent controller connects the photovoltaic array, the solar irradiation sensor, the control panel and the electrolyzer respectively through the signal line; the control panel controls the operation of each part of the system. The advantages of the invention compared with the prior art are: the photovoltaic array is independently powered, and DC loads such as DC peristaltic pumps, electrolyzers, and hot steam DC-driven fans are adopted, which costs low system loss; meanwhile, through the heat exchange condenser, vacuum endothermic tube, and endothermic evaporator, the solar light and heat are used multiple times to improve the comprehensive utilization rate of solar energy; the system can desalinate seawater, produce hydrogen, produce chlor-alkali, etc., which makes the best use of seawater; the requirements of a country for sustainable development in environmental protection and energy are satisfied.



21: 2022/01768. 22: 2022/02/10. 43: 2022/04/06  
51: H04L



71: Sichuan Normal University

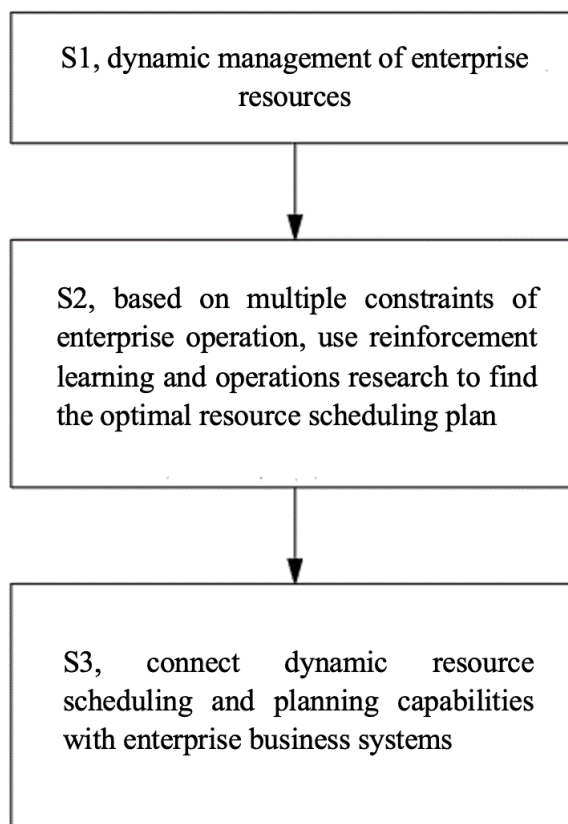
72: LUO, Feng

#### **54: A RESOURCE SCHEDULING AND PLANNING METHOD BASED ON OPERATIONS RESEARCH**

00: -

The invention discloses a resource scheduling and planning method based on operations research, comprising the following steps: in S1, dynamic management of enterprise resources; in S2, based on multiple constraints of enterprise operation, use reinforcement learning and operations research to find the optimal resource scheduling plan; in S3, connect dynamic resource scheduling and planning capabilities with enterprise business systems.

Compared with the prior art, the advantages of the invention are: the structure of the invention is scientific and reasonable, which is safe and convenient in use; the invention integrates data management, deep learning, core algorithms of operations research and application systems into one, and realizes the optimal arrangement of enterprise resource scheduling; through the map-based visual UI interface output, it is convenient for personnel to use and manage; encapsulate the background rules and algorithms, and only need to operate the front-end UI interface to realize the intelligent scheduling and planning of resources.



21: 2022/01769. 22: 2022/02/10. 43: 2022/04/07

51: B41K; G06Q

71: NORTH CHINA UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: Fenglan JU, Xiaobo YAN, Lei LIU

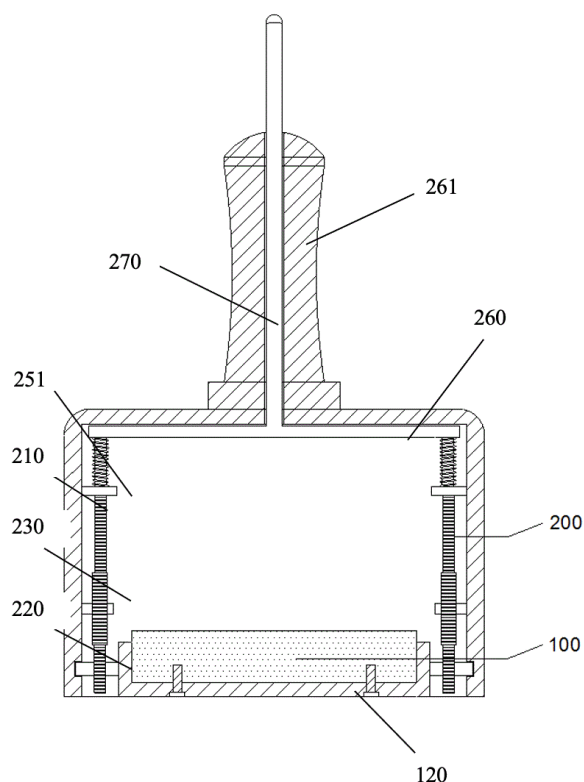
33: CN 31: 202210049978.1 32: 2022-01-07

#### **54: OFFICIAL SEAL WITH PRESSING TURNOVER STRUCTURE**

00: -

An official seal with a pressing turnover structure is disclosed. The official seal comprises a turnover protective component and a seal component; the seal component comprises a seal block and a mounting shell; a top face of the seal block is a seal face, and the bottom of the seal block is fixedly arranged in the mounting shell; the turnover protective component comprises a protective shell, a transmission rod, a pair of driven gears, a pair of driving gears, a pair of rack plates, and a pair of elastic elements; the mounting shell is arranged at a position, close to the bottom, in the protective shell; the pair of driven gears are symmetrically arranged at two sides of the mounting shell, and two ends of a rotating shaft of each driven gear are rotatably

connected to the protective shell and the mounting shell respectively; and the pair of driving gears are symmetrically arranged on an inner wall of the protective shell above the pair of driven gears and are meshed with the corresponding driven gears. When the seal is required, the transmission rod is pressed down to make the seal face of the seal block overturn downwards under the action of the rack plates, the driving gears, and the driven gears, thus completing the seal; afterwards, the transmission rod is released to make the seal face overturn inwards under the action of springs, thus preventing the seal face from being contaminated and worn.



21: 2022/01770. 22: 2022/02/10. 43: 2022/04/07  
51: B01D

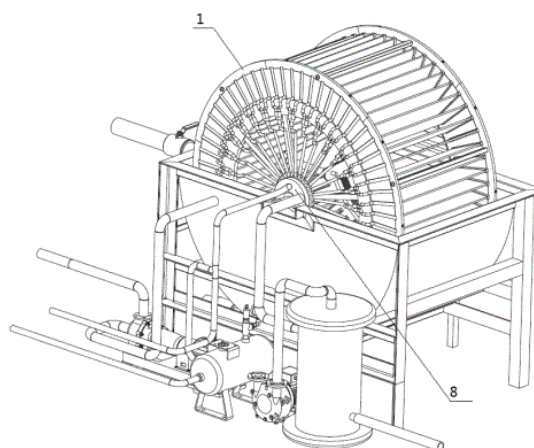
71: Filtang Technologies Corporation  
72: FENG, Yong, LI, Xingshu, QIN, Song, SUN, Siqiong, FANG, Ji, PU, Enxu, ZHANG, Zhenhua, SUN, Xiaoxiao, WANG, Kai

#### **54: NANO CERAMIC DISK FILTER**

00: -

The present invention relates to a nano ceramic disk filter, including a roller, a conveying channel, a liquid storage tank, a negative pressure device, a reverse

blowing device and a filtrate barrel. One end of the conveying channel extends into the roller and the other end extends out of the roller, the roller is rotatably connected with the liquid storage tank, and ceramic filter plates are circumferentially connected on an inner wall of the roller at intervals; the negative pressure device is communicated with the filtrate barrel; a distribution plate is connected at one end of the roller, and an air inlet hole (communicated with the reverse blowing device) and a liquid inlet hole (communicated with the filtrate barrel) are arranged in the distribution disk; and the roller drives the ceramic filter plates to rotate. The present invention has a desirable filtration effect and a high filtration efficiency.



21: 2022/01771. 22: 2022/02/10. 43: 2022/04/07  
51: H01Q

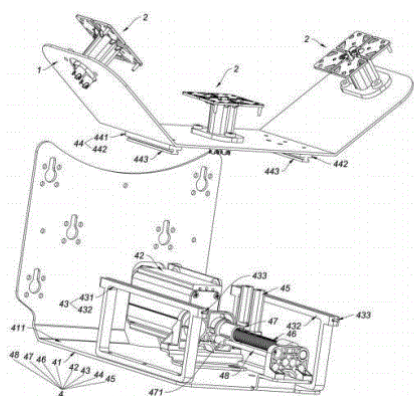
71: Foshan Eahison Communication Co., Ltd  
72: DENG, Chongxuan, ZHU, Qiang, SHANG, Chunhui, GAO, Liming, KANG, Youjun, YANG, Haibo, LIANG, Zhibin

#### **54: LUNEBERG LENS ANTENNA CAPABLE OF ELECTRICALLY ADJUSTING POSITIONS OF FEED SOURCES AND LUNEBERG LENS ANTENNA GROUP**

00: -

A Luneberg lens antenna capable of electrically adjusting positions of feed sources. The Luneberg lens antenna comprises a reflecting plate, feed sources, a Luneberg lens and a position adjusting mechanism, wherein the position adjusting mechanism comprises a mounting plate, a motor, guide rails, sliding blocks, a connecting seat, a screw rod and a moving seat; the position of the

mounting plate and the position of the Luneberg lens are relatively fixed; the guide rails are mounted on the mounting plate; two ends of the screw rod are rotatably mounted on the mounting plate; the motor is fixed on the mounting plate and used for driving the screw rod to rotate; a screw hole is formed in the moving seat, and the screw hole of the moving seat is in threaded connection with the screw rod; the reflecting plate is arranged between the luneberg lens and the guide rails.



21: 2022/01772. 22: 2022/02/10. 43: 2022/04/07

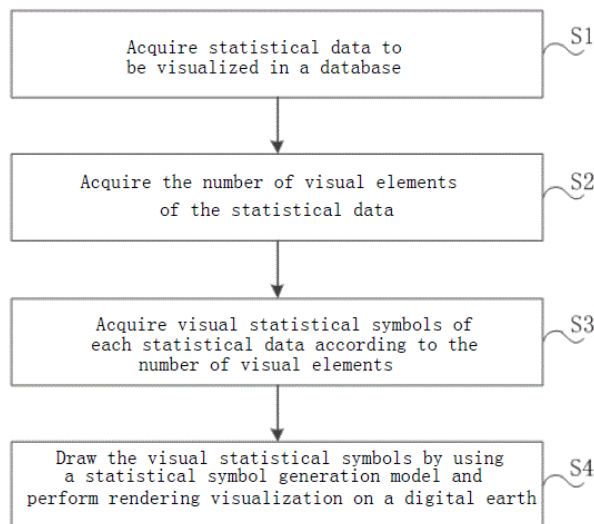
51: G06F; G06T

71: Army Academy of Armored forces of PLA  
72: ZHENG, Xianzhu, ZHAO, Zhanbiao, SUN, Yan, LEI, Zhen, ZHU, Lianjun, ZHOU, Zeyun, ZHAI, Xiaoning, FANG, Lulu, KOU, Yingzhan

#### **54: DIGITAL EARTH-BASED VISUALIZATION METHOD AND SYSTEM**

00: -

The present invention relates to a digital earth-based visualization method and system. The method includes: acquiring statistical data to be visualized in a database; acquiring the number of visual elements of the statistical data; acquiring visual statistical symbols of each statistical data according to the number of visual elements; and drawing the visual statistical symbols by using a statistical symbol generation model and performing rendering visualization on a digital earth. The device is implemented on the basis of the digital earth-based visualization method provided by the present invention. Through the method and system, the acquired statistical data can be clearly displayed on the digital earth by using a three-dimensional model so as to meet actual security requirements.



21: 2022/01773. 22: 2022/02/10. 43: 2022/04/07

51: B01D

71: School of Food Science and Engineering, Shanxi Agricultural University

72: FENG, Zhihong, WANG, Chunsheng, CHEN, Jia, GAO, Zhenfeng

#### **54: HARMFUL GAS REMOVAL AGENT FOR PRESERVING HORTICULTURAL PRODUCT AND PREPARATION METHOD THEREFOR**

00: -

Provided are a harmful gas removal agent for preserving a horticultural product and a preparation method therefor, the preparation method mainly including: selecting and purifying a proper fine porous carrier; placing the carrier into a jacketed kettle for normal-pressure variable-temperature activation treatment; pumping the jacketed kettle to a weak low pressure, and adsorbing an effective component; emptying water, and cooling rapidly to 5 degrees centigrade; performing vacuum drying to a water content of 8%-10%; and selecting a proper packaging material for quantitative product packaging. The present invention has the beneficial effects that an internal carrier structure is changed by means of "gradual heating — weak low pressure — sudden cooling", so as to facilitate physical adsorption and potassium permanganate loading and repeatedly utilize the carrier, thereby saving energy and reducing pollution with low cost and simple operation.

21: 2022/01807. 22: 2022/02/11. 43: 2022/03/14

51: A01K; A61K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES, HUNAN NORMAL UNIVERSITY72: HE, Xinmiao, HE, Liuqin, FENG, Yanzhong, LIU,  
Di, CHEN, Heshu, WANG, Wentao, ZHANG,  
Haifeng, TIAN, Ming, LIU, Ziguang, HE, Haijuan, QI,  
Meiyu, WU, Saihui, YU, Xiaolong**54: FEED ADDITIVE FOR IMPROVING MATING  
ABILITY OF BREEDING PIGS OF NORTHEAST  
MIN PIGS AS WELL AS PREPARATION METHOD  
AND APPLICATION THEREOF**

00: -

The present invention discloses a feed additive for improving the mating ability of breeding pigs of northeast Min pigs and a preparation method thereof, and belongs to the field of feed preparation.

The present invention discloses a feed additive for improving the mating ability of the breeding pigs of the Min pigs, comprising the following components: Radix morindae officinalis, Polygoni multiflori, Herb of russian boschniakia, Cortex cinnamomi, Flos caryophylli, barley malt and an EM bacterial solution. The present invention further discloses a method for preparing the feed additive, comprising: (1) weighing the Radix morindae officinalis, the Polygoni multiflori, the Cortex cinnamomi, Flos caryophylli, the Herb of russian boschniakia and the barley malt according to a proportion, sun-drying the materials, and crushing the materials; and (2) adding water and the EM bacterial solution for uniform mixing, and conducting fermentation, sun-drying and crushing to obtain the feed additive.

21: 2022/01814. 22: 2022/02/11. 43: 2022/03/09

51: A24B

71: CHINA TOBACCO HEBEI INDUSTRIAL CO.,  
LTD72: DAI, Ya, ZHANG, Yanfang, SU, Guosui, BU,  
Yifan, HE, Aimin, SU, Hongjun, MA, Rong, HAO,  
Hongling

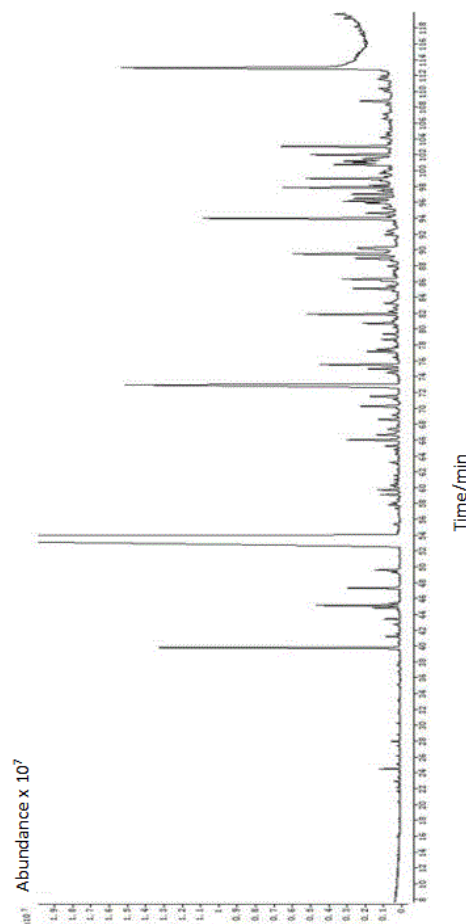
33: CN 31: 202011313173.0 32: 2020-11-20

**54: METHOD FOR SIMULTANEOUSLY  
PREPARING TOBACCO ESSENTIAL OIL AND  
TOBACCO ESSENCE**

00: -

The disclosure discloses a method for simultaneously preparing tobacco essential oil and tobacco essence, comprising the following steps: drying tobacco leaves, pulverizing the dried tobacco leaves into tobacco powders for later use, dissolving

hemicellulase with a citrate buffer solution, successively adding the tobacco powders and deionized water, and adding citrate buffer solution again to perform a enzymolysis reaction in a water bath, supplementing the water and sodium chloride after the enzymolysis reaction, then being subjected to a heating reflux, respectively collecting a pre-collected essence and a post-collected essence after beginning of the heating reflux, collecting a tobacco essential oil after the heating reflux, and performing further extraction and solvent replacement on the pre-collected and the post-collected essence to obtain a high-quality pre-collected and a high-quality post-collected essence having a high concentration and containing many aroma components. They are applied together with the tobacco essential oil to coordinate aroma, eliminate discomfort caused by using the essential oil alone, and provide technical supports and theoretical basis for application in cigarettes.



21: 2022/01857. 22: 2022/02/14. 43: 2022/03/16  
51: C02F

71: Hunan Economic Geography Technology Development Co., Ltd

72: Pengbo ZHANG, Xiao WEI, Qiang ZHAN, Yuqiao LIU, Vladimir Matichenkov, Dmitry Demin, Elena Bocharnikova

#### **54: METHOD FOR HARMLESS TREATMENT OF WATER BODY SEDIMENT**

00: -

The present disclosure provides a method for harmless treatment of water body sediment, including the following steps: naturally air-drying the water body sediment, then mashing the naturally air-dried water body sediment into particles, then mixing the particles with a silicon-rich substance, adding water for a reaction, drying, grinding, and sieving. The method of the present disclosure reduces the activities of various heavy metals and other pollutants by harmless treatment of the water body sediment with solid or liquid silicon-rich substances. The method of the present disclosure takes the water body sediment as a raw material, and the water body sediment after harmless treatment can be used as an efficient, environment-friendly, and safe soil conditioner, which can effectively improve soil fertility, strengthen root formation, increase crop yields, enhance crop resistance to biotic and abiotic stresses, and enhance a utilization rate of the water body sediment.

21: 2022/01858. 22: 2022/02/14. 43: 2022/03/16  
51: F24D

71: Zhejiang International Maritime College

72: ZHOU, Jianmin

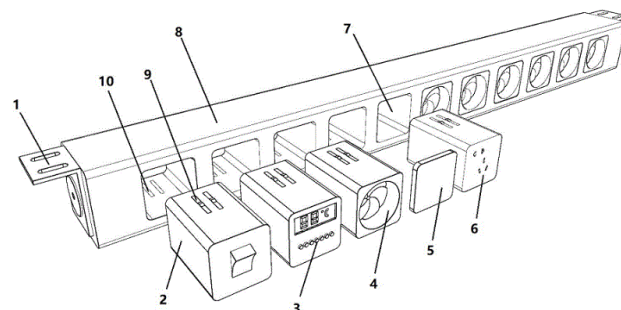
33: CN 31: 202111361346.0 32: 2021-11-17

#### **54: MODULAR INTELLIGENT RADIATOR**

00: -

The disclosure discloses a modular intelligent radiator, and relates to the technical field of heat dissipation apparatuses. According to the technical solution, the modular intelligent radiator comprises a main support, the main support is in a long strip shape, a plurality of embedding openings penetrating through the main support are formed in the side wall of the main support, and second electrifying contact sets are disposed at the tops and the bottoms of the plurality of embedding openings; a plurality of fan modules, a filling module and an

electric control module are disposed in the plurality of embedding openings respectively; the electric control module comprises an electrifying module, an intelligent temperature control module and a socket module; the electrifying module. The intelligent radiator can perform heat dissipation adjustment according to temperature, and meanwhile can change the number of the fan modules according to heat loads, and widen the application range.



21: 2022/01860. 22: 2022/02/14. 43: 2022/03/16  
51: C12P

71: Southwest Forestry University

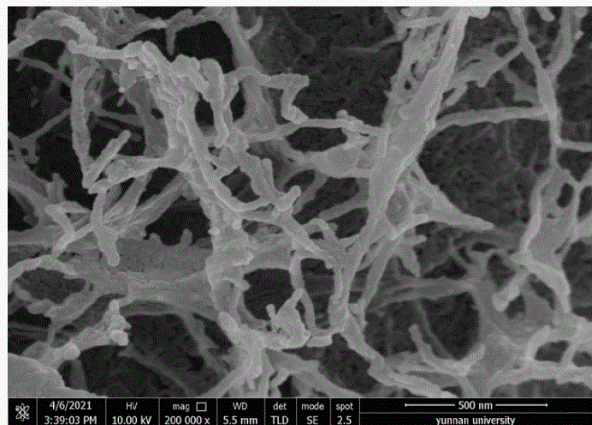
72: LI, Xiaoping, TANG, Zhengjie, YAO, Yao, WU, Zhangkang

#### **54: GREEN AND EFFICIENT NANO-CELLULOSE PREPARATION METHOD**

00: -

The present invention belongs to the technical field of biomass materials, and particularly relates to a green and efficient nano-cellulose preparation method. The green and efficient nano-cellulose preparation method includes the following steps: mixing a biomass cellulose, a cellulase aqueous solution and a pectinase aqueous solution for enzymolysis treatment; wherein when a mass ratio of the cellulase aqueous solution and the pectinase aqueous solution to the biomass cellulose is (15-30):1, an activity of cellulase in the cellulase aqueous solution is 30-150 U/mL, an activity of pectinase in the pectinase aqueous solution is 300-1,500 U/mL, and a duration of the enzymolysis treatment is 15-60 min. According to the preparation method provided in the present invention, the cellulase aqueous solution and pectinase aqueous solution are used together to treat the biomass cellulose, significantly improving the production efficiency and yield of nano-cellulose and ensuring an environment-friendly process.

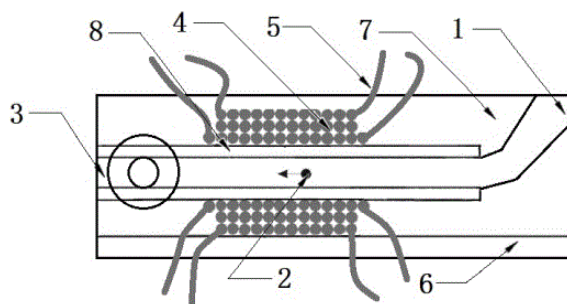




21: 2022/01861. 22: 2022/02/14. 43: 2022/03/16  
 51: G01V; H02P  
 71: Shanghai Ocean University, Shanghai Maritime University  
 72: WU, Yu, WANG, Fang, YANG, Chao, LUO, Ruilong, CAO, Yu, CHU, Zhenhua, ZHANG, Jinfei  
**54: HIGH-PRECISION MICRO INDUCTANCE COIL DETECTION DEVICE**

00: -

The disclosure discloses a high-precision micro inductance coil detection device, comprising a base body, a solenoid coil, a solenoid coil lead and a glass slide. A funnel-shaped runner is arranged in the base body, the solenoid coil is wound around the middle part of the signal detection area. One end of the solenoid coil lead is connected with the coils, and the other end of the solenoid coil lead is led out of the base body. The high-precision micro inductance coil detection device solves the problems that a traditional single-coil sensor is unstable in electrical property and is likely to be disturbed by the environment; and after mutual inductance on the double coils, the inductance of the double coils is greatly reduced, good detection capability and detection precision are achieved for small particles, and ferromagnetism particles of 10 micrometers or below can be detected.



21: 2022/01862. 22: 2022/02/14. 43: 2022/03/16  
 51: A61K; C07J; A61P  
 71: Shandong University  
 72: HUAI, Qiyong, LI, Yi  
**54: SULFONAMIDE 18 BETA-GLYCYRRHETINIC ACID DERIVATIVE AND PREPARATION METHOD AND USE THEREOF**

00: -

The present disclosure provides a sulfonamide 18 beta-glycyrrhetic acid derivative and a preparation method and use thereof, belonging to the field of medicine. Serial derivatives of 18 beta-glycyrrhetic acid modified by sulfonamide groups are designed and synthesized by the present disclosure. The water solubility and bioavailability of compounds can be significantly improved by introducing active sulfonamide groups, so as to increase the anti-tumor biological activity of related derivative. Experiments have shown that compound 6a has excellent cytotoxic activity against three human cancer cells (MCF-7, A549, HEPG2), and the cytotoxic activity is much higher than that of the parent drug GA, and meanwhile, the activity of compound 6a is also significantly improved compared to the positive control anti-cancer drug, Gefitinib. It shows that the compound is expected to be an alternative prodrug to Gefitinib, which can cope with resistance of cancer patients to Gefitinib.

21: 2022/01864. 22: 2022/02/14. 43: 2022/03/16  
 51: B01D; B01J  
 71: Kunming University of Science and Technology  
 72: TIAN, Senlin, HE, Zhenquan, NING, Ping, GU, Junjie, GUAN, Qingqing, YUAN, Xin, YAN, Linxia, ZHAO, Qian  
**54: PREPARATION METHOD FOR CATALYST FOR CATALYZING HYDROLYSIS OF HYDROGEN CYANIDE**

00: -

The present invention discloses a method for preparing a catalyst for catalyzing hydrolysis of hydrogen cyanide, and belongs to the field of industrial waste gas purification. The method comprises the following steps: enabling a catalytic active component precursor containing transition metal nitrate to contact solids such as activated aluminum oxide and activated carbon serving as a carrier in supercritical and subcritical water, uniformly precipitating the nitrate on the surface of the carrier, and highly dispersing the catalytic active component precursor on the carrier such as the activated aluminum oxide and activated carbon by hydrolysis and dehydration reaction. Compared with a conventional impregnation method, the method has the advantages that drying and roasting processes are not required after impregnation, so that the preparation time is greatly shortened, active components of the catalyst are distributed more uniformly, a higher hydrogen cyanide purification efficiency is achieved, and the cost performance is improved remarkably.

21: 2022/01865. 22: 2022/02/14. 43: 2022/03/14  
51: B66D

71: DALIAN MARITIME UNIVERSITY

72: LI, Wenhua, NIU, Guobo, ZHOU, Xingkun, LIN, Shanying, HAN, Fenghui, GE, Yangyuan, LOU, Xingjian, SUN, Yuqing, YE, Haoran, LI, Gen

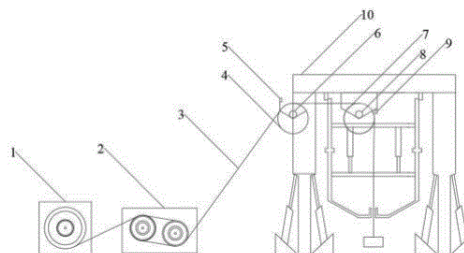
33: CN 31: 202120966544.9 32: 2021-05-07

#### **54: DEEP-WATER HEAVY-DUTY WINCH SYSTEM**

00: -

A deep-water heavy-duty winch system is provided. The system comprises a storage winch, a traction winch, a sheave system, and a multi-stage hydraulic frame A, wherein the sheave system is hoisted below a cross beam of the multi-stage hydraulic frame A; after extending out of the storage winch, a rope winds around the traction winch and the sheave system and droops from the middle of the multi-stage hydraulic frame A, and a heavy object containing part is connected to the tail end of the rope; with the rotation of a drum of the traction winch, on one hand, lifting and sinking of a heavy object are achieved through winding and unwinding of the rope, and on the other hand, the storage winch tightens or releases the rope by cooperating with the rotation of the traction winch. The rope is a synthetic fiber rope. The solution that the traditional

heavy-duty winch system employs a steel wire cable is broken through, a high-performance synthetic fiber is adopted, which always has the capacity to lift close to full load from water entry to the maximum depth, and the problem of limitations of the traditional steel wire cable in handling heavy in deep-water operations is solved.



21: 2022/01866. 22: 2022/02/14. 43: 2022/03/14  
51: C08K; C08L

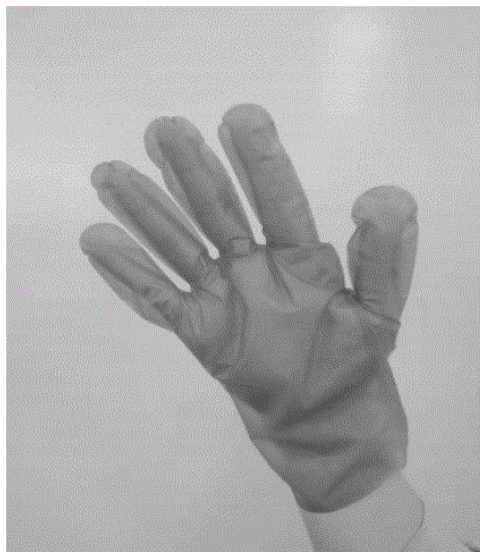
71: Zibo Zhongnan Pharmaceutical Packaging Materials Co., Ltd.

72: WANG, Huanyu, LIU, Cheng, TIAN, Feng, WANG, Yusen, MU, Xize, GONG, Xiaohan, DING, Sheng

#### **54: BIODEGRADABLE MEDICAL GLOVE AND PREPARATION METHOD THEREOF**

00: -

The present disclosure provides a biodegradable medical glove and a preparation method thereof, and belongs to the technical field of medical gloves. The present disclosure provides a biodegradable medical glove which is prepared from the following raw materials in percentage by mass: 65-73% of PBAT, 21-30% of PLA and 1-10% of a toughening agent. The medical glove provided by the present disclosure take PBTA as a matrix, the PLA and the toughening agent are added, and the degradation performance of the medical gloves can be improved while the mechanical properties of the medical gloves are ensured by controlling the proportional relation of the PBTA, the PLA and the toughening agent. Experimental results show that the medical glove provided by the present disclosure can be completely degraded within about 360 days.



21: 2022/01867. 22: 2022/02/14. 43: 2022/03/14

51: B22C; C21C; C21D; C22C

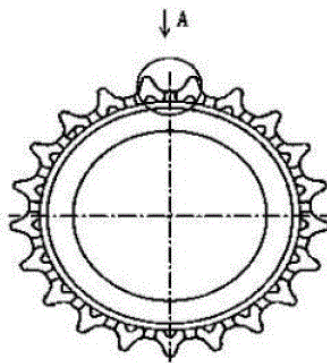
71: LINQING JINGUANG MACHINERY  
MANUFACTURING CO., LTD

72: JIAO, Jinguo, HU, Guangzhi, JIAO, Honglei,  
JIAO, Hongkai, CHEN, Guoliang, SHAN, Chengmin,  
WANG, Yang

#### **54: SAND COATED IRON MOULD PROCESS FOR PRODUCING STEEL CASTINGS OF DRIVING WHEELS**

00: -

Disclosed is a sand coated iron mould process for producing steel castings of driving wheels, including the following steps: step (I), moulding; step (II), spraying; step (III), mould assembling; step (IV), preparing for pouring; step (V), smelting and pouring; step (VI), heat treatment. The sand coated iron mould process for producing steel castings of the present invention produces steel castings of driving wheels by utilizing the excellent characteristics of the sand coated iron mould process, such as high dimensional accuracy, high production efficiency, low sand-iron ratio, low pollution, and low solid discharge. The low-alloy steel driving wheels manufactured by the sand coated iron mould process of the present invention use  $\text{SCSiMn}_2\text{H}$  as raw materials, and have the technical requirements of tensile strength  $> 686$  Mpa, yield strength  $> 420$  Mpa and impact toughness  $> 27$  J/cm<sup>2</sup>.



21: 2022/01868. 22: 2022/02/14. 43: 2022/03/14

51: A23C; B30B; G05B

71: Linyi University

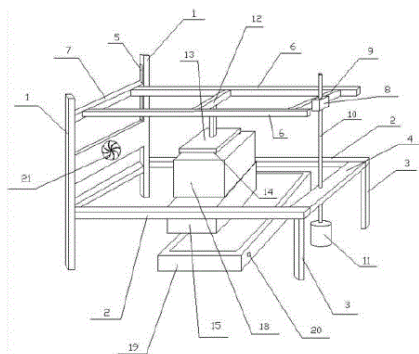
72: KANG, Yuyun, FENG, Guifang

#### **54: INTELLIGENT COMPRESSION-DRYING DEVICE FOR TOFU SKIN AND WORKING METHOD THEREFOR**

00: -

Disclosed are an intelligent compression-drying device for a tofu skin and a working method therefor. The device includes a support, which is of a frame type structure and includes a bottom fixing frame and a movable pressing-down frame, the movable pressing-down frame is connected to the bottom fixing frame by means of a lead screw transmission mechanism, the lead screw transmission mechanism is connected to a control system, a pressing block is mounted on the movable pressing-down frame, a hemispherical lifting device is fixed to the bottom fixing frame, a tofu skin container is mounted on the hemispherical lifting device and located under the pressing block, and a drainage tank is provided under the hemispherical lifting device. According to the device, three water filtering modes can be used for working independently or simultaneously to produce products with different tastes, thereby reducing labor intensity of workers.





21: 2022/01870. 22: 2022/02/14. 43: 2022/03/14

51: A23L; C12N; C12R

71: Ocean University of China

72: XU, Ying, ZHU, Cuicui, SUN, Xun, WANG, Dongfeng, MA, Shuang, LUO, Ke

#### **54: APPLICATION OF PICHIA KUDRIAEVZEVII IN DEGRADATION OF BIOGENIC AMINES**

00: -

Disclosed is application of *Pichia kudriavzevii* in a degradation of biogenic amines, and belongs to the technical field of food fermentation. A *Pichia kudriavzevii* strain can degrade 9 biogenic amines after being fermented for 72 h in an MRS culture medium (histamine, tyramine, cadaverine, putrescine, tryptamine, phenylethylamine, octopamine, spermidine, and spermine), and degradation rate of total amine is 88.24%, in which the degradation rates of histamine, tyramine, cadaverine, and putrescine are 91.97%, 93.24%, 78.58%, and 96.03% respectively. The strain can degrade a plurality of biogenic amines, which shows excellent amine degradation ability in MRS culture medium, and is significant in controlling biogenic amines in foods.

21: 2022/01871. 22: 2022/02/14. 43: 2022/03/14

51: E21F

71: Shandong University of Science and Technology

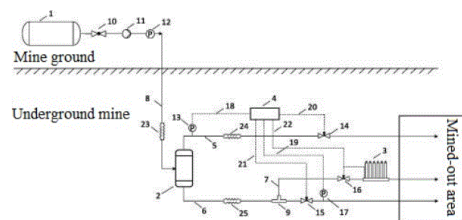
72: QI, Guansheng, SU, Hao, LU, Wei, HU, Xiangming, SUN, Lulu, WANG, Mingjun, ZHANG, Maoyuan, XU, Chongbo

#### **54: GROUND DIRECT INJECTION SYSTEM AND METHOD FOR MINING LIQUID CO<sub>2</sub>**

00: -

Disclosed are a ground direct injection system and method of mining liquid CO<sub>2</sub>, including a liquid CO<sub>2</sub> storage tank, a gas-liquid separator, an air thermostat and an intelligent regulation unit and the like, wherein the liquid CO<sub>2</sub> storage tank is arranged

at a position near vertical shaft mouth of a coal mine aboveground, the gas-liquid separator is arranged at a position near a bottom of the vertical shaft underground; the air thermostat is arranged near the mined-out area underground, realizing continuing to transport CO<sub>2</sub> to the mined-out area when the distal end of the transportation pipeline is blocked by ice, thereby avoiding affecting the fire extinguishing efficiency due to the interruption of the fire extinguishing medium; the intelligent regulation unit is used to collect pressure signals and intelligently regulate the throttle valves. The present invention has simple procedure, high safety, high fire-extinguishing efficiency, fire-proof, explosion-proof and dust-proof properties.



21: 2022/01872. 22: 2022/02/14. 43: 2022/03/17

51: A61B; A63B; G07C; H04N

71: GRAPHIC ERA (DEEMED TO BE)

UNIVERSITY, GRAPHIC ERA HILL UNIVERSITY, DEHRADUN CAMPUS

72: Dr. Vikas Tripathi, Dr. Mahesh Manchanda, Umang Garg, Dr. Kumud Pant

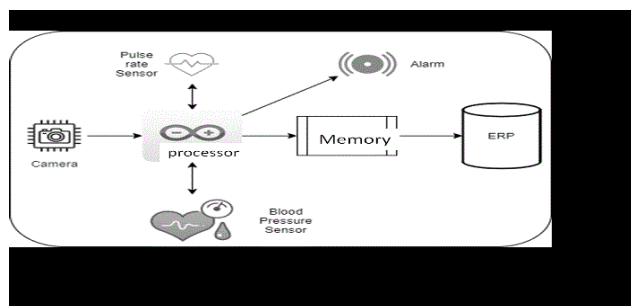
33: IN 31: 202111026825 32: 2021-06-16

#### **54: E-HEALTH MONITORING AND ATTENDANCE TRACKING SYSTEM**

00: -

The invention discloses an E-Health Monitoring and Attendance Tracking System (EHMATS) 100 for providing a touch-less e-health monitoring as well as attendance tracking in an organization, said system 100 comprising: a pre-processor 102; a computer readable medium 104; a display 106; a user interface 108; an external device 110; a communication network 112; and an e-health monitoring and tracking device 200. The e-health monitoring and tracking device 200 further comprising: a plurality of sensors 201, a communication module 202, a face scanning module 203, an alerting module 204, a Arduino Uno 208, a 3-D Printing Module 205, a plurality of cameras 209, a processor 206, and a memory 207 communicatively coupled to the processor. The

memory 207 stores processor instructions, which, on execution, causes the processor to provide a touchless e-health monitoring as well as attendance tracking of each person.



21: 2022/01877. 22: 2022/02/14. 43: 2022/03/16  
51: A23K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

72: CHEN, Heshu, HE, Liuqin, HE, Xinmiao, FENG,  
Yanzhong, LIU, Di, WANG, Wentao, ZHANG,  
Haifeng, TIAN, Ming, LIU, Ziguang, HE, Haijuan, QI,  
Meiyu, WU, Saihui, YU, Xiaolong

#### **54: ANTI-MYCOTOXIN FEED ADDITIVE FOR PIGS AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF**

00: -

Disclosed is an anti-mycotoxin feed additive for pigs as well as a preparation method and an application thereof which comprises *Lactobacillus rhamnosus*, calcinated shells and corn stalk charcoal. *Gardenia jasminoides* Ellis and *Paeonia suffruticosa* Andr. root bark are further added on the basis of the feed additive for pigs, so that a removal rate of mycotoxins can be significantly improved, and adsorption rates of zearalenone, aflatoxin B1, vomitoxin and the like all reach over 94%. A toxin desorption rate is significantly reduced, and detoxification is more thorough. As proved, the raw materials of *Lactobacillus rhamnosus*, calcinated shells and corn stalk charcoal have an obvious synergistic effect with *Gardenia jasminoides* Ellis and *Paeonia suffruticosa* Andr. root bark. The feed additive for pigs can be used for detoxification of grains or compound feed contaminated by mycotoxins, prevent a toxic effect of the mycotoxins on pigs, and improve a feed return rate.

21: 2022/01878. 22: 2022/02/14. 43: 2022/03/16

51: A23K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

72: CHEN, Heshu, HE, Liuqin, HE, Xinmiao, FENG,  
Yanzhong, LIU, Di, WANG, Wentao, ZHANG,  
Haifeng, TIAN, Ming, LIU, Ziguang, HE, Haijuan, QI,  
Meiyu, WU, Saihui, YU, Xiaolong

#### **54: FEED ADDITIVE FOR PREVENTING AND TREATING PORCINE RESPIRATORY DISEASE COMPLEX AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF**

00: -

Disclosed is a feed additive for preventing and treating a porcine respiratory disease complex (PRDC) as well as a preparation method and an application, comprising the following components: *Radix polygalae*, *Radix asparagi*, *Radix asteris*, *Radix cynanchi atrati*, *Radix angelicae dahuricae*, *Rhizoma belamcandae*, *Rhizoma polygonati odorati*, *Rhizoma acori graminei*, *Radix peucedani*, Japanese yam, *Bulbus lili*, *Bulbus fritillariae ussuriensis*, *Herba dendrobii*, *Cortex mori*, *Folium eriobotryae*, *Folium ilicis chinensis*, *Semen armeniacae amarae*, *Fiveleaf gynostemma herb*, *Herba andrographis*, *Portulaca oleracea* L, *Greater celandine herb*, *Semen Plantaginis*, *Folium perillae*, barley malt and an EM bacterial solution. On the basis of the above components, by adding *Flos farfarae*, *Fructus trichosanthis* and *Perennial sowthistle*, the feed additive can reduce the incidence rate of the PRDC, enables a protection rate to be 100% and can promote growth of pigs. The feed additive of the present invention is rich in sources of raw materials and low in preparation cost.

21: 2022/02008. 22: 2022/02/17. 43: 2022/03/22

51: A61K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

72: TIAN, Ming, LIU, Di, FENG, Yanzhong, HE,  
Xinmiao, WANG, Wentao, ZHANG, Haifeng, CHEN,  
Heshu, WU, Saihui, QI, Meiyu, HE, Haijuan, LIU,  
Ziguang, LI, Zhongqiu, YU, Xiaolong

#### **54: TRADITIONAL CHINESE MEDICINE COMPOSITION FOR PREVENTING AND TREATING ACARIASIS OF MIN PIGS AND PREPARATION METHOD AND APPLICATION THEREOF**

00: -



The present invention discloses a traditional Chinese medicine composition for preventing and treating porcine acariasis and a preparation method and an application thereof, and belongs to the field of preparation of traditional Chinese medicine compositions. The present invention discloses a traditional Chinese medicine composition for preventing and treating porcine acariasis first. The traditional Chinese medicine composition comprises the following components: extract of leaves of camphor trees, abrotani herba extract, radix isatidis extract and lophantherum gracile extract. The present invention further discloses a preparation method of the traditional Chinese medicine composition. The method comprises: adding an accessory or a carrier for preparing an external preparation for veterinary use; and preparing the same into a patch, an ointment, a liniment or a spray. Azedarach extract and creeping dichondra herb extract are added based on the traditional Chinese medicine composition of the present invention.

21: 2022/02009. 22: 2022/02/17. 43: 2022/03/22  
51: A23K

71: INSTITUTE OF ANIMAL HUSBANDRY,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

72: TIAN, Ming, HE, Xinmiao, LIU, Di, FENG,  
Yanzhong, WANG, Wentao, ZHANG, Haifeng, HE,  
Haijuan, QI, Meiyu, WU, Saihui

**54: FEED ADDITIVE FOR PREVENTING AND  
TREATING RHEUMATISM OF MIN PIGS AND  
PREPARATION METHOD AND APPLICATION  
THEREOF**

00: -

The present invention discloses a feed additive for preventing and treating porcine rheumatism and a preparation method and an application thereof, and belongs to the field of preparation of feed additives. The present invention discloses a feed additive for preventing and treating porcine rheumatism first. The feed additive comprises the following components: mangnolia officinalis, parasitic loranthus, purslane, morinda officinalis, lindera aggregate, platycodon grandiflorum and radix ophiopogonis. The present invention further discloses a preparation method of the feed additive. The method comprises the following steps: airing mangnolia officinalis, parasitic loranthus, purslane,

morinda officinalis, lindera aggregate, platycodon grandiflorum and radix ophiopogonis; crushing the components; and uniformly mixing the components to obtain the feed additive. Leonurus and caulis bambusae in taeniis are added based on the feed additive of the present invention.

21: 2022/02011. 22: 2022/02/17. 43: 2022/03/29  
51: G06Q

71: Dr. Ashok Kumar Nanda, Dr. Sailesh Iyer,  
P.T.Kalaivani, Dr. Kavita Arora, Dr. Rajarajeswari.P,  
Dr Bhagabat Panda, Prof. Abdul Wahid, Prof.  
Pradeep Kumar, Dr. Fareeha Rasheed, Mr. Ashwin  
Perti, Prof.Ramesh Chandra Panda

72: Dr. Ashok Kumar Nanda, Dr. Sailesh Iyer,  
P.T.Kalaivani, Dr. Kavita Arora, Dr. Rajarajeswari.P,  
Dr Bhagabat Panda, Prof. Abdul Wahid, Prof.  
Pradeep Kumar, Dr. Fareeha Rasheed, Mr. Ashwin  
Perti, Prof.Ramesh Chandra Panda

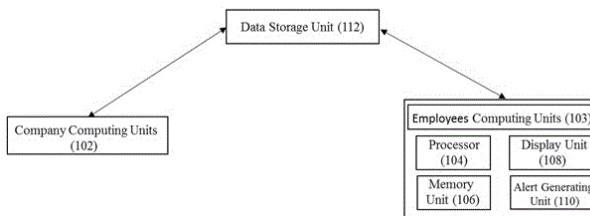
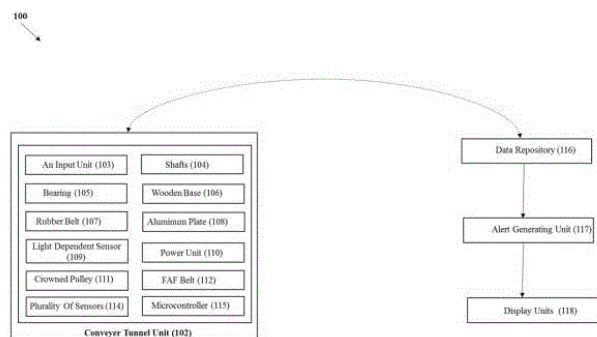
**54: AN INTELLIGENT AUTOMATED NOVEL  
SECURITY CONVEYER TUNNEL TO CHECK  
MEDICINAL DUPLICATION IN SUPPLY CHAIN  
MANAGEMENT**

00: -

The present invention relates to an intelligent automated novel security conveyer tunnel (100) to check medicinal duplication in supply chain management. The intelligent automated novel security conveyer tunnel (100) to check medicinal duplication in supply chain management comprises a conveyer tunnel unit (102), data repository (116), an alert generating unit (117), and one or more display units (118). The conveyer tunnel unit (102) is configured to check medicinal duplication in supply chain management, comprises an input unit (103), shafts (104), a bearing (105), a wooden base (106), a rubber Belt (107), an aluminum plate (108), a breadboard, a transistor, a 20 MHz Crystal Oscillator, a connecting wires, a Light Dependent Sensor (109) (LDR), a Liquid Crystal Display (LCD), a power unit (110), a Capacitor, a Crowned Pulley (111), a FAF Belt (112), a Rectangular Hollow Plastic Tunnel; a plurality of sensors (114) and a microcontroller (115). The intelligent automated novel security conveyer tunnel (100) to check medicinal duplication in supply chain management can detect counterfeit pharmaceutical products in

the pharmaceutical supply chain in real-time.

[Figure 1]



21: 2022/02012. 22: 2022/02/17. 43: 2022/03/09  
51: G09B

71: Dr. Sushil Kalyani, Mr. Anuj Kumar, Dr. Nimit Gupta, Dr. Archana Bhatia, Dr. Rachana Saxena, Dr. Shilpee Aggarwal, Dr. Kapil Pandla, Ms. Nidhi Gupta, Kuldeep Kewlani, Amit Ranjan Gupta, Prof. Ramesh Chandra Panda

72: Dr. Sushil Kalyani, Mr. Anuj Kumar, Dr. Nimit Gupta, Dr. Archana Bhatia, Dr. Rachana Saxena, Dr. Shilpee Aggarwal, Dr. Kapil Pandla, Ms. Nidhi Gupta, Kuldeep Kewlani, Amit Ranjan Gupta, Prof. Ramesh Chandra Panda

#### **54: A NOVEL MODEL ON EMPLOYEES' WELLNESS FOR ENHANCED BUSINESS TURNOVER**

00: -

The present invention relates to a method (100) for employees' wellness for business turnover. The method (100) comprises one or more Company Computing Units (102), one or more employees computing units (103), and a data storage unit (112). The one or more Company Computing Units (102) is configured to generate employees' wellness services required by the one or more employees. The one or more employees computing units (103) is configured to contain details of services for the employees' wellness. The one or more employees computing units (103) comprises a processor (104), an alert generating unit (110) and a display unit (108). The present invention provides a method (100) for employees' wellness for business turnover has capabilities to encourage and maximize employee participation based on scheduling activities that are specifically interesting to the employee.

21: 2022/02025. 22: 2022/02/17. 43: 2022/04/04  
51: C22C; C25B

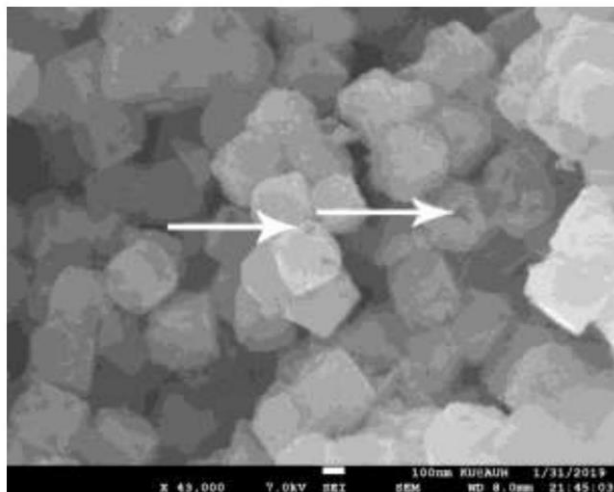
71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: LI, Ziyao, ZHANG, Lei

#### **54: FERROUS METAL PHOSPHIDE OF HOLLOW OPENING STRUCTURE AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF**

00: -

The present invention discloses a preparation method of a ferrous metal phosphide of a hollow opening structure. The preparation method includes the following steps: (1) synthesizing a  $\text{Ni}_3[\text{Co}(\text{CN})_6]_2 \cdot 12\text{H}_2\text{O}$  nano cube precursor; (2) synthesizing a hollow opening  $\text{Ni}_3[\text{Co}(\text{CN})_6]_2 \cdot 12\text{H}_2\text{O}$  nano cube; (3) synthesizing a polydopamine-coated hollow opening  $\text{Ni}_3[\text{Co}(\text{CN})_6]_2 \cdot 12\text{H}_2\text{O}$  nano cube; (4) synthesizing a metal ion coordination polydopamine-coated hollow opening  $\text{Ni}_3[\text{Co}(\text{CN})_6]_2 \cdot 12\text{H}_2\text{O}$  nano cube; and (5) synthesizing the ferrous metal phosphide of the hollow opening structure. In the present invention, by ingeniously taking the hollow opening  $\text{Ni}_3[\text{Co}(\text{CN})_6]_2 \cdot 12\text{H}_2\text{O}$  nano cube as a precursor and a template, through polydopamine coating and introduction of metal ions, a ferrous metal phosphide-based electrocatalyst of the hollow opening structure is prepared through a high-temperature phosphating strategy. The prepared electrocatalyst shows excellent oxygen evolution and hydrogen evolution activity and also has excellent overall water splitting electrocatalytic activity in a two-electrode system.



21: 2022/02026. 22: 2022/02/17. 43: 2022/03/09  
51: B24B

71: Dr. Ankit Dilipkumar Oza, Dr. Amarish Badgujar, Dr. Rohit Sharma, Ameer K. Daiya, Arpit Srivastava, Mehul Prajapati, Kapil Sevantilal Banker, Gaurav Kumar Pandey, Rajnikant Chandrakant Bidajwala, Shashi Kalyanji Chorada, Prof. Ramesh Chandra Panda

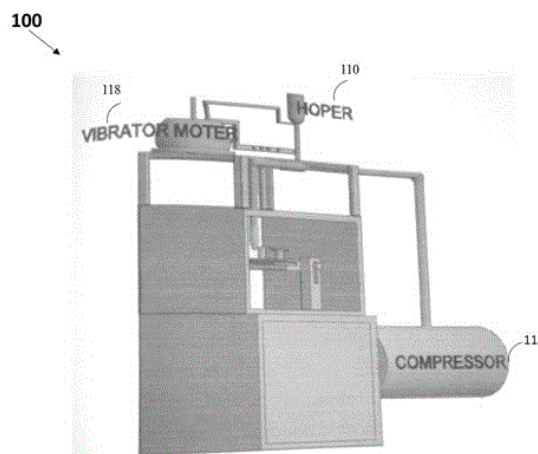
72: Dr. Ankit Dilipkumar Oza, Dr. Amarish Badgujar, Dr. Rohit Sharma, Ameer K. Daiya, Arpit Srivastava, Mehul Prajapati, Kapil Sevantilal Banker, Gaurav Kumar Pandey, Rajnikant Chandrakant Bidajwala, Shashi Kalyanji Chorada, Prof. Ramesh Chandra Panda

#### **54: AN ASSEMBLY OF ABRASIVE JET MACHINING**

00: -

The present invention relates to an assembly of abrasive jet machining (100). The assembly of abrasive jet machining (100) comprises a workpiece holding table (102), a nozzle unit (104), a linear motion guideway (106), a vertical motion module (108), a hopper (110), a mixing chamber, an air compressor (112), a piping unit (116), an airtight chamber and a vibration motor (118). The workpiece holding table (102) is configured to hold a workpiece. The workpiece holding table (102) comprises an upper table and a lower table. The assembly of abrasive jet machining (100) has high efficiency in conveying workpieces and high automation. The present invention provides a highly flexible assembly of abrasive jet machining (100). The present invention also provides an automated assembly of abrasive jet machining (100) that can decrease the chance of error. The present invention provides an assembly of abrasive jet machining (100) that can be

used for drilling and cost-effectively cutting brittle materials.



21: 2022/02059. 22: 2022/02/18. 43: 2022/03/22  
51: G06K; H04B; H04L

71: Ocean University of China

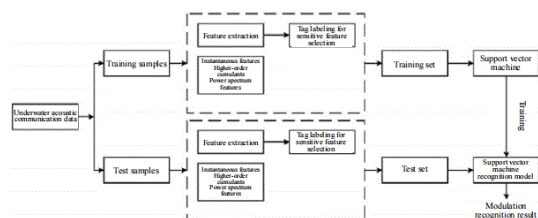
72: LV, Yaohui, LIU, Weiqi, LI, Xingshun, YIN, Hao

33: CN 31: 202111017690.8 32: 2021-09-01

#### **54: UNDERWATER ACOUSTIC COMMUNICATION SIGNAL MODULATION RECOGNITION METHOD BASED ON FEATURE SELECTION AND SUPPORT VECTOR MACHINES**

00: -

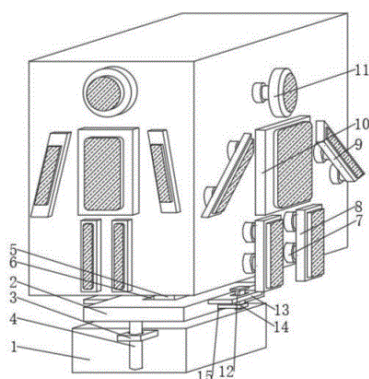
The invention discloses an underwater acoustic communication signal modulation recognition method based on feature selection and support vector machines. The method comprises the following steps: for simulated or actually acquired underwater acoustic communication data samples, extracting instantaneous features, higher-order cumulants and power spectrum features of each sample to form serial features; calculating weight coefficients of the serial features through an entropy weight method; using the sensitive features of each sample as sample data, different tags for the underwater acoustic data samples of different modulation modes to form a training set; taking the training set as an input of the support vector machine, taking a multi-classification cross entropy function as an objective function for training, so as to obtain a recognition model based on the support vector machine; using the trained recognition model for the modulation recognition of the underwater acoustic communication data which are subjected to feature extraction.



21: 2022/02060. 22: 2022/02/18. 43: 2022/03/22  
 51: A63B; G09B  
 71: Shandong University  
 72: SUN, Chuanning, ZHU, Xidong, SUN, Qian, LI, Yuan, PAN, Yang  
 33: CN 31: 202110497483.0 32: 2021-05-08  
**54: SELF-DEFENSE INTEGRATED FIGHTING ART AUXILIARY DEVICE WITH FUNCTION OF FACILITATING MOVEMENT**

00: -

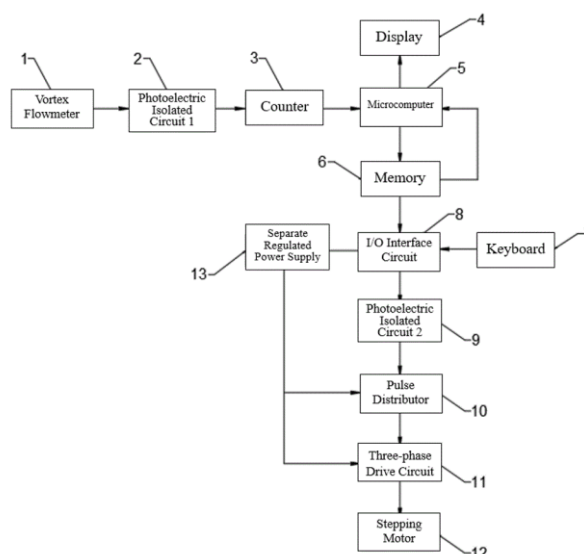
The present invention discloses a self-defense and fighting art integrated teaching auxiliary device with a function of facilitating movement, and relates to the technical field of a self-defense and fighting art integrated teaching auxiliary device, which comprises a device box, an electric motor fixedly connected to an inner bottom surface of the device box, and a sprocket fixedly connected to an output shaft of the electric motor.



21: 2022/02061. 22: 2022/02/18. 43: 2022/03/22  
 51: A61K  
 71: Inner Mongolia University of Technology  
 72: Ma Yingying, Li Xuehua, Luo Yuhang  
**54: COMPUTER-CONTROLLED CHEMICALLY-DEWATERING DRUG-FEEDING EQUIPMENT**  
 00: -

The invention discloses a computer-controlled chemically-dewatering drug-feeding equipment, comprising a vortex flowmeter, a photoelectric

isolated circuit 1, a counter, a display, a microcomputer, a memory, a keyboard, a I/O interface circuit, a photoelectric isolated circuit 2, a pulse distributor, a three-phase drive circuit, a stepping motor, a separate regulated power supply, a demulsifier tank, et cetera, wherein the vortex flowmeter is connected to the counter through the photoelectric isolated circuit 1; the counter is connected to the microcomputer through a wire; the microcomputer is connected to the I/O interface circuit through a memory; the I/O interface circuit is connected to the pulse distributor through the photoelectric isolated circuit; the pulse distributor is connected to the stepping motor through the three-phase drive circuit. Compared with the prior art, the invention has the following advantages: 1) the drug-feeding equipment is convenient and accurate through the LED display of readings; 2) the computer is easy to operate and realize automation; 3) there are two groups of the precision metering pump and the high-pressure small flow pump in the mixing device to prevent failures from affecting normal production and operation.

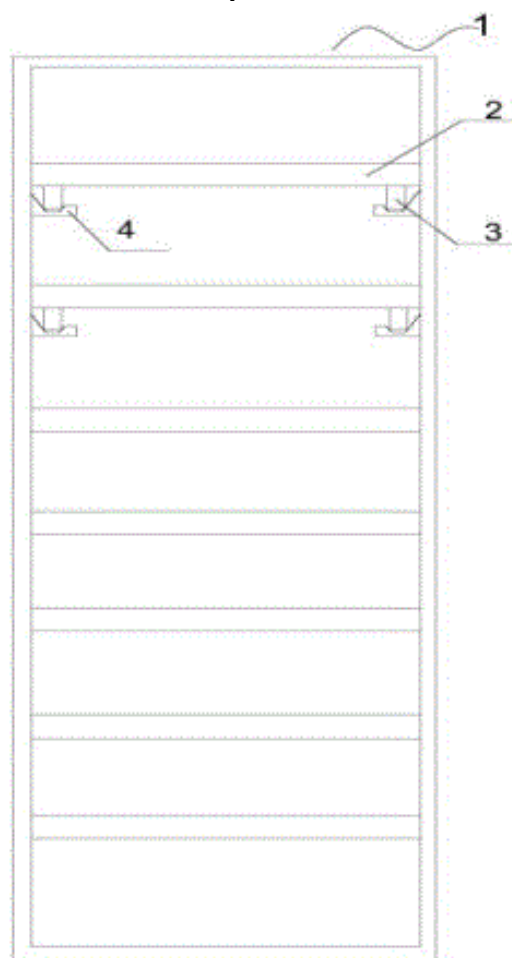


21: 2022/02062. 22: 2022/02/18. 43: 2022/03/29  
 51: A47B  
 71: North China University of Science and Technology  
 72: LIU, Yang, HE, Shengtao  
**54: BOOKSHELF BOOK TAKING DEVICE**  
 00: -

Disclosed is a bookshelf book taking device including a bookshelf and a mobile book taking



device; high-rise bookshelf boards are arranged in the bookshelf at intervals vertically, first linear guides are fixed below high-rise bookshelf boards, and wheel hub motors slidable on first linear guides are arranged on lower surfaces of the high-rise bookshelf boards; the mobile book taking device includes a rectangular shelf body and universal wheels installed on the rectangular shelf body; linear guide slide tables are fixed on left and right inner walls of the rectangular shelf body, a flat plate is fixed on a slide table of each of the linear guide slide tables, second linear guides are fixed on two flat plates, respectively. The device can slide to the rear of the bookshelf, and the high-rise bookshelf board is moved to the device and moved downward, which is convenient and efficiency.



21: 2022/02063. 22: 2022/02/18. 43: 2022/03/22  
51: A01K

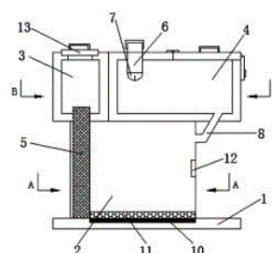
71: Henan University

72: ZHANG, Chenlu, LI, Xiaowei, ZHANG, Beibei, WU, Di, WANG, Yubang

**54: BIOLOGICAL BREEDING OBSERVATION APPARATUS**

00: -

The present invention relates to the field of ant breeding, and discloses a biological breeding observation apparatus comprising a base, and further comprising a transparent container and a transparent box, wherein the base is provided with a transparent container, the upper end of the transparent container is provided with a transparent box, the transparent box is divided into a water tank on one side and a feeding box on the other side by a vertical partition, the transparent container is an ant nest, the transparent container is filled with a transparent solid seaweed gel, one side of the transparent container is provided with a water absorbing member, and the top end of the water absorbing member penetrates through the bottom of the water tank and penetrates into the interior of the water tank.



21: 2022/02064. 22: 2022/02/18. 43: 2022/03/22  
51: G06Q

71: Nanchang Institute of Technology

72: BAI, Hua, LIU, Zhijie, GUI, Faliang, LI, Erhui, KANG, Chuanxiong, WU, Shaofei

33: CN 31: 202111432703.8 32: 2021-11-29

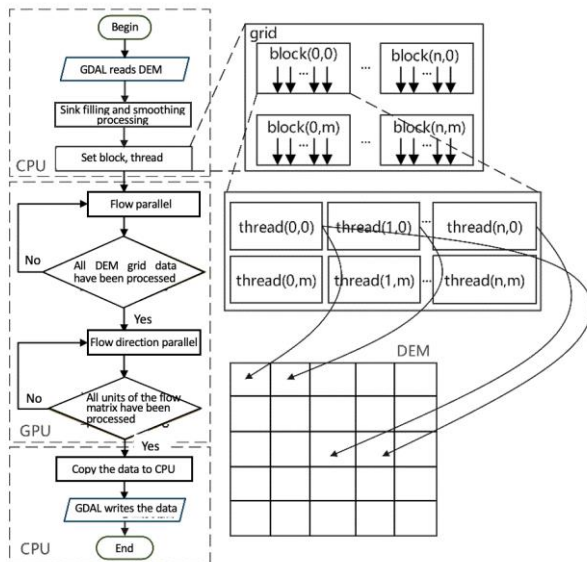
**54: A PARALLEL ANALYSIS METHOD OF WATER BASIN FLOW DIRECTION AND ACCUMULATED CONFLUENCE BASED ON CUDA ARCHITECTURE D8 ALGORITHM**

00: -

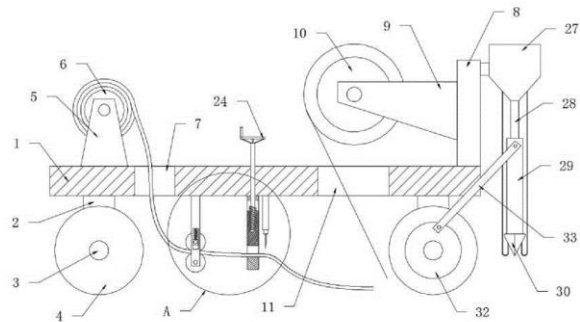
The invention provides a parallel analysis method of water basin flow direction and accumulated confluence based on CUDA architecture D8 algorithm, comprising: construct a reading and storage model of basin DEM grid data based on GPU texture memory; set up parallel grids and thread blocks based on the GPU global memory, map the thread to the DEM grid unit to obtain the current thread identification number; each thread continuously picks up the elevation value of the center grid and adjacent grids of the DEM grid data



according to the read and storage model; calculate the maximum distance weight drop according to the elevation value of the central grid and adjacent grids, and determine the flow direction of the central grid according to the maximum distance weight drop; construct the flow direction grid unit according to the center grid flow direction, map the thread to the flow direction grid unit, read the thread identification number and flow direction; each thread carries out serial confluence calculations according to the flow direction to obtain the cumulative confluence matrix. The invention proposes a parallel method for fast calculation of D8 algorithm under CUDA environment, which solves the problem of grid pixel access and calculation conflicts in parallel calculation of D8 parallel algorithm.



seat; the lower end of each of the supporting seats is rotatably connected with an axle, and both ends of each of the axles are coaxially and fixedly connected with a wheel; one end of the seeder body is fixedly connected with a reelpipe frame; the reelpipe frame is rotatably connected with a reelpipe roller through a pin shaft. When the drip irrigation pipe passes through the first traction wheel and the second traction wheel, it will be adjusted by traction by the pressure groove with a semicircular cross section, so that the collapsed drip irrigation pipe becomes cylindrical to avoid bending and ensure the smooth flow of water in the drip irrigation pipe and the drip irrigation effect after laying; on the one hand, it ensures that the incision on the drip irrigation pipe is flat during cutting, which is convenient for subsequent takeovers, and on the other hand, it avoids the drip irrigation pipe being pulled back by the reelpipe roller that takes labor to thread the pipe again; the whole operation is simple and quick, which improves the use efficiency of the seeder.



21: 2022/02065. 22: 2022/02/18. 43: 2022/03/22  
51: A01G; B26D  
71: Inner Mongolia Academy of Agricultural & Animal Husbandry Sciences  
72: XIAN, Feng, LU, Zhanyuan, CHEN, Liyu, YANG, Jianqiang, CHENG, Yuchen, WANG, Jianguo, SU, He, JIANG, Xiaoping, MENG, Wenhui, CAO, Fenghai, XU, Jianfang, LI, Wencai, LIU, Zhi  
33: CN 31: 202111544249.5 32: 2021-12-16  
**54: SEEDER TERMINAL DRIP IRRIGATION TAPE TRACTION FIXING DEVICE**  
00: -

The invention discloses a seeder terminal drip irrigation tape traction fixing device, comprising a seeder body, wherein both sides of the bottom of the seeder body are fixedly connected with a supporting

21: 2022/02066. 22: 2022/02/18. 43: 2022/03/17  
51: G01S

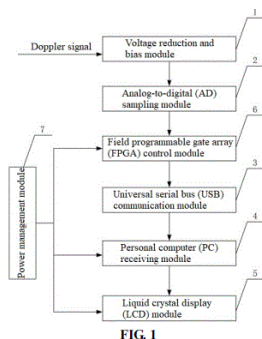
71: TIANSHUI NORMAL UNIVERSITY  
72: LIU, Qing, ZHAO, Limin, ZHANG, Lijun, LING, Weijun, LI, Xiangbing, ZHAO, Yuxiang, DANG, Wenqiang

**54: SIGNAL PROCESSING SYSTEM AND METHOD BASED ON FIELD PROGRAMMABLE GATE ARRAY (FPGA) FOR LASER VELOCIMETER**

00: -

Provided is a signal processing system and method based on a field programmable gate array (FPGA) for a laser velocimeter. The system includes a voltage reduction and bias module, an analog-to-digital (AD) sampling module, a universal serial bus (USB) communication module, a personal computer

(PC) receiving module, a liquid crystal display (LCD) module, a FPGA control module and a power management module; and after powered on, the FPGA transmits a sampling clock to the AD sampling module, the FPGA receives data from the AD sampling module and then processes the data in real time, and a processing result is transmitted by means of the USB communication module to the PC receiving module for storage, and meanwhile is displayed on the LCD module.



21: 2022/02067. 22: 2022/02/18. 43: 2022/03/17  
51: B01D; C08G

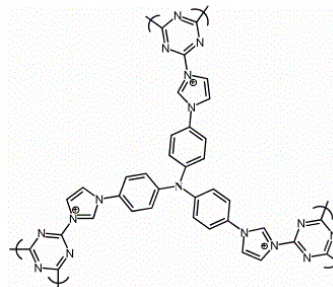
71: Qingdao University of Science and Technology  
72: DU, Yunmei, JIAO, Shaoshao, LIU, Kang, LI, Shaoxiang, MA, Dingxuan, WANG, Lei

**54: POROUS ORGANIC FRAMEWORK MATERIAL AND PREPARATION METHOD THEREOF, AND APPLICATION IN SELECTIVE SEPARATION OF PERRHENATE RADICALS**

00: -

The present invention provides a method for preparing a porous organic framework material, including the following steps: mixing tris(4-imidazolyphenyl)amine, cyanuric chloride and a solvent for quaternization to obtain a porous organic framework material. According to the present invention, tris(4-imidazolyphenyl)amine (TIPA) and cyanuric chloride are used as raw materials for quaternization, so that the prepared porous material has a special structure with a cationic framework, and there are free anions such as chloridions in pore channels; after the porous material is mixed with the solution containing perrhenate radicals, the selective separation of perrhenate radicals is performed by exchanging with the anions in the pore channels. The experimental results show that the porous organic framework material provided by the present application has a specific surface area of 274 m<sup>2</sup>, an

adsorption rate as high as 100%, and a maximum adsorption capacity of 442 mg/g.



21: 2022/02068. 22: 2022/02/18. 43: 2022/03/17  
51: C12Q

71: Tropical Crops Genetic Resources Institute  
Chinese Academy of Tropical Agricultural Sciences  
72: Guanyu Hou

**54: MOLECULAR MARKER ASSISTED BREEDING METHOD OF DANZHOU CHICKENS**  
00: -

The invention discloses a molecular marker assisted breeding method of Danzhou chickens, comprising the following steps: 1) target capture sequencing; 2) sequence alignment; 3) primer design; 4) PCR reaction amplification and detection; 5) results: through target capture sequencing, amplifying the DNA samples of the samples to be tested by PCR with the obtained labeled primers; separating and analyzing the amplified products by polyacrylamide gel electrophoresis to obtain polymorphic fragments of the samples to be tested; according to the relative positions of the bands on the gel, selecting excellent Danzhou chicken samples. The advantages of the invention are: the invention has the characteristics of high efficiency and low cost, and is suitable for the analysis and identification of a large number of sample materials, which greatly improves the selection efficiency. Compared with conventional breeding and identification methods, the invention has the advantages of short cycle, low cost, and simple operation.

21: 2022/02070. 22: 2022/02/18. 43: 2022/03/17  
51: C08G; C09K; G01N

71: Qingdao University of Science and Technology  
72: WANG, Lei, LIU, Kang, JIAO, Shaoshao, LI, Shaoxiang, DU, Yunmei, MA, Dingxuan

**54: EUROPIUM METAL ORGANIC FRAMEWORK MATERIAL AND PREPARATION METHOD AND APPLICATION THEREOF**

00: -

The present invention relates to the technical field of the fluorescent probe and provides a metal organic framework material.

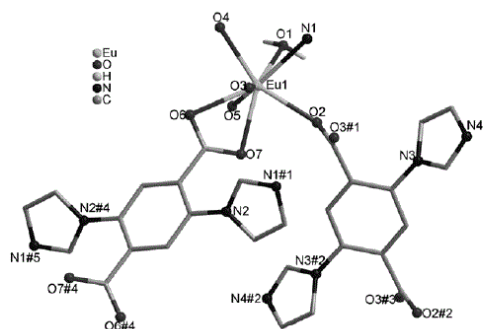


FIG.1

21: 2022/02071. 22: 2022/02/18. 43: 2022/03/17  
51: H01G; B82Y

71: Qingdao University of Science and Technology, Weifang Guanghua Fine Chemical Co., Ltd.

72: WANG, Lei, XIAO, Zhenyu, BU, Ranran, LI, Bin, LIU, Kang, LIU, Jia

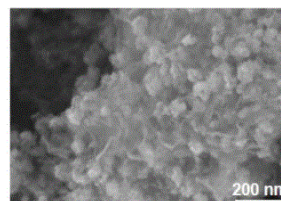
33: CN 31: 202110652520.0 32: 2021-06-11

#### 54: MULTI-PHASE NANOCOMPOSITE MATERIAL OF SANDWICH STRUCTURE, PREPARATION METHOD THEREFOR AND USE THEREOF

00: -

Provided are a multi-phase nanocomposite material of a sandwich structure, a preparation method therefor and a use thereof. The present invention compounds  $\text{Fe}_2\text{O}_3$  and  $\text{FeS}_2$  to form a  $\text{FeS}_2/\text{Fe}_2\text{O}_3$  heterostructure on the basis of a wide negative potential window, high abundance and large theoretical capacitance of  $\text{Fe}_2\text{O}_3$  and high electronic conductivity of  $\text{FeS}_2$ , and the  $\text{FeS}_2/\text{Fe}_2\text{O}_3$  heterostructure has morphology of nanoparticles, thereby favorably improving electrochemical performance of the composite material; a three-dimensional reduced graphene oxide nanosheet has a high specific surface area, an abundant pore structure and excellent conductivity, thereby effectively promoting rapid transmission of electrons in an electrolyte; and the nanoparticles are coupled and embedded into the three-dimensional reduced graphene oxide nanosheet, thereby favorably guaranteeing the nanoparticles having excellent dispersion uniformity, avoiding aggregation of the nanoparticles, providing more electrochemical active

sites, and further favorably improving the electrochemical performance of the composite material.



21: 2022/02072. 22: 2022/02/18. 43: 2022/03/17  
51: C08J

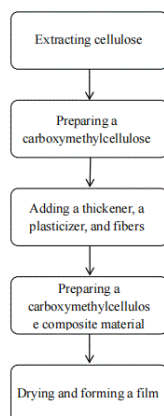
71: Southwest Forestry University

72: LI, Xiaoping, LI, Xiaobao, YAO, Yao, SUN, Zhenbing, TANG, Zhengjie, WU, Zhangkang, LUO, Zhinan

#### 54: PREPARATION METHOD FOR CARBOXYMETHYLCELLULOSE COMPOSITE MATERIAL WITH HIGH STRENGTH

00: -

The present disclosure belongs to the technical field of biomass materials, and particularly relates to a carboxymethylcellulose composite material with a high strength and a preparation method thereof. The present disclosure provides a preparation method for the carboxymethylcellulose composite material with the high strength. A plant cellulose with a purity > 95%, as a raw material, is prepared into a carboxymethylcellulose, and a thickener, a plasticizer, and fibers are added, so that the carboxymethylcellulose composite material with the high strength is prepared under the specific high strength and an interweaving action of the fibers, which is environment-friendly and biodegradable. Tensile strength > 30 MPa, and elongation at break > 3.0%.



21: 2022/02073. 22: 2022/02/18. 43: 2022/03/17  
51: B01D; C08J

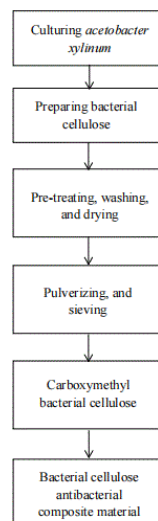
71: Southwest Forestry University

72: LI, Xiaoping, SUN, Zhenbing, YAO, Yao, LI, Xiaobao, WU, Zhangkang, TANG, Zhengjie, ZHENG, Qingzhuang

#### 54: PREPARATION METHOD FOR BACTERIAL CELLULOSE-BASED ANTIBACTERIAL COMPOSITE MATERIAL

00: -

The present disclosure belongs to the technical field of biomass materials, and particularly relates to a bacterial cellulose-based antibacterial composite material and a preparation method thereof. The preparation method for a bacterial cellulose-based antibacterial composite material provided by the present disclosure includes steps of making bacterial cellulose, as raw material, prepared into carboxymethyl bacterial cellulose, adding thickener, plasticizer, nano-silver, nano-bacterial cellulose, and obtaining environment-friendly and degradable composite material with high strength and excellent antibacterial property with special three-dimensional structure of bacterial cellulose and nano-bacterial cellulose; and tensile strength is larger than 28 MPa, elongation at break is larger than 2%, and diameter of bacterial inhibition ring is larger than 14 mm.



21: 2022/02074. 22: 2022/02/18. 43: 2022/03/17  
51: C04B

71: Hunan City University, Hunan Tengda

Geotechnical Engineering Technology Co., Ltd.

72: ZHOU, Shuming, YUAN, Hang

#### 54: CONCRETE MICRO-CRACK SEALING MATERIAL, PREPARATION METHOD AND APPLICATION THEREOF

00: -

The disclosure relates to the technical field of pavement patching materials, and in particular, to a concrete micro-crack sealing material, a preparation method and an application thereof. The concrete micro-crack sealing material of the disclosure has the advantages of high penetrability, high strength, good concrete compatibility, excellent corrosion resistance and water resistance, and can significantly improve concrete surface strength. The concrete micro-crack sealing material is free of toxicity and pollution during production and application, so it belongs to a green environment-friendly product. After concrete micro-cracks are patched by the concrete micro-crack sealing material, the service life of concrete structures can be effectively prolonged (1-5 years).

21: 2022/02076. 22: 2022/02/18. 43: 2022/03/17  
51: A61L; H01H

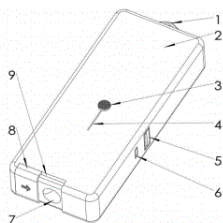
71: Sanmen People's Hospital

72: YANG, Jun, FANG, Zejun, HONG, Zhenghua, CHU, Haida, YANG, Jiang, LU, Xiao, ZHOU, Tingjie, YAO, Xin, DENG, Qinglin, JIN, Peng, WANG, Jiawen

**54: PORTABLE ULTRAVIOLET DISINFECTION CONTACT DEVICE**

00: -

Disclosed is a portable ultraviolet disinfection contact device. The contact device includes a housing, the housing is internally provided with a battery and a telescopic rod, the housing is provided with an accommodating hole, and the telescopic rod can be in contact with an elevator button; the telescopic rod is provided with a pushing block, and the housing is provided with a slideway; and the accommodating hole is in communication with a sleeve, the sleeve is internally provided with an ultraviolet disinfection lamp, and the housing is provided a push-pull sealing cover. According to the present invention, the telescopic rod is arranged to press the elevator button and also can retract into the accommodating hole, the push-pull sealing cover is pushed to block the accommodating hole, and the ultraviolet disinfection lamp emits ultraviolet rays to disinfect the telescopic rod such that contact infection can be conveniently blocked.



21: 2022/02077. 22: 2022/02/18. 43: 2022/03/17  
51: A61B

71: Sanmen People's Hospital

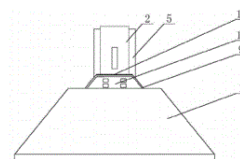
72: YANG, Jun, FANG, Zejun, HONG, Zhenghua,  
CHU, Haida, YANG, Jiang, LU, Xiao, ZHOU, Tingjie,  
YAO, Xin, DENG, Qinglin, WANG, Jiawen

**54: SELF-SERVICE URINE MEASURER PREVENTING CROSS INFECTION**

00: -

Disclosed is a self-service urine measurer preventing cross infection. The self-service urine measurer includes a housing, where a measuring table, a measuring cylinder, a bar code, a scanner, a pressure sensor, a display screen, and an electric motor are further provided, a driving roller is arranged on the electric motor, a driven roller is arranged on the other side in the housing, the driven roller is rotatably connected to the driving roller by means of an isolation strip, and a first through hole and a second through hole are provided on the

housing. The present invention has the beneficial effects that the isolation strip automatically moves once every time a urine volume is measured, so as to make different water-absorbing paper on the isolation strip make contact with different measuring cylinders one to one, thereby avoiding urine pollution to the measuring table, and preventing cross infection between the measuring cylinders.



21: 2022/02079. 22: 2022/02/18. 43: 2022/03/17  
51: A61K; C07C; A61P

71: Inner Mongolia University of Science And  
Technology, Shandong University of Science and  
Technology

72: DONG, Shen, WANG, Bo

**54: STABLE SODIUM NEW HOUTTUYFONATE ESTER COMPOUNDS**

00: -

The present disclosure belongs to the field of medicines, aiming to provide sodium new houttuyfonate ester compounds keeping stable in aqueous solution for a long time. A compound structure is shown as a structural formula (I): the compounds are put into phosphate buffer at room temperature under near-neutral pH condition for 45 days, and it is detected that more than 97.0% of sodium new houttuyfonate derivative releases sodium new houttuyfonate as drug quickly in simulated blood environment within short time. Due to high stability, capability of keeping stable in aqueous solution, and long-time storage, it is estimated to be safer for clinical application.

21: 2022/02080. 22: 2022/02/18. 43: 2022/03/17  
51: D04H; D06M

71: Anhui Polytechnic University

72: ZHAO, Baobao, WANG, Zhen, FENG, Quan,  
HAN, Xu, WEI, Anfang, XIE, Yanxia, WANG, Yong

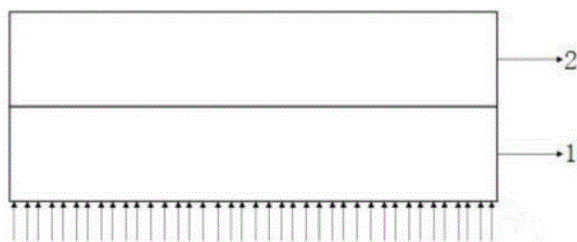
**54: MAKING PROCESS OF A PAPER DIAPER SURFACE LAYER MATERIAL WITH URINE TEST FUNCTION**

00: -

The disclosure discloses a making process of a paper diaper surface layer material with a urine test function. The process comprise the steps of,



performing opening and scutching and impurity removal on colored cotton fibers and white cotton fibers through a bale opener and a blending box; feeding the colored cotton fibers and the white cotton fibers into a carding machine to prepare a first fiber net and a second fiber net, and laying the first fiber net on the second fiber net to obtain a composite third fiber net; conveying the third fiber net into a spunlace machine, and performing a plurality of spunlace processes to obtain spun-laced non-wave fabric; and spraying ethanol and a sodium hydroxide solution on the surface of the second fiber net, and spraying a mixed aqueous solution of isopropanol and chloroacetic acid on the surface of the second fiber net.



21: 2022/02082. 22: 2022/02/18. 43: 2022/03/17

51: G01D; G01R; H02J

71: SHAANXI INSTITUTE OF METROLOGY SCIENCE

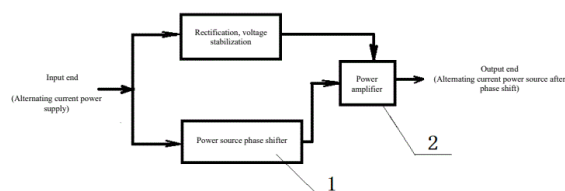
72: TANG, Yuanhui, ZHANG, Lihui, ZHANG, Lu, CHEN, Yiling, FU, Lei

#### **54: PHASE ADJUSTABLE ALTERNATING CURRENT POWER SOURCE BASED ON ROTATING MAGNETIC FIELD**

00: -

A phase adjustable alternating current power source based on a rotating magnetic field comprises a power source phase shifter and a power amplifier. On one hand, the input end of an alternating current power supply is connected with the power amplifier through a rectification and voltage stabilizing circuit, and on the other hand, the input end of the alternating current power supply is connected with the power amplifier through the power source phase shifter. Output of the power amplifier is phase-shifted alternating current. The power source phase shifter comprises two magnet exciting coil series branches arranged in a crossed manner, magnet exciting coils are evenly distributed around an induction coil, induced voltage output by the induction coil is conveyed to the power amplifier, and needed phase

shift voltage is output. The alternating current phase adjustable power source achieves continuous phase adjusting of the power source.



21: 2022/02083. 22: 2022/02/18. 43: 2022/03/17

51: A01K; A23K

71: Xiamen Kehuan Marine Biotechnology Co., Ltd.

72: CHANG, Youmin, JIANG, Qiucen, CHEN, Jiajia, LIN, Weibin

#### **54: A PREMIX OF TRACE ELEMENTS FOR PENAEUS VANNAMEI AND PREPARATION METHOD AND APPLICATION THEREOF**

00: -

The present invention discloses a premix of trace elements for *Penaeus vannamei* as well as a preparation method and application thereof, comprising zinc fumarate, manganese methionine, ferrous glycinate, copper sulfate, cobalt chloride monohydrate, yeast selenium, potassium iodate, fumed silica, magnesium sulfate, calcium gluconate, calcium dihydrogen phosphate and zeolite powder. The preparation method uses a ball mill to pulverize the material and sieving through a vibrating sieve, and mix uniformly to obtain a premix. The trace element premix for *Penaeus vannamei* can improve the desalination survival rate of *Penaeus vannamei* larvae. The present invention can effectively promote the growth of *Penaeus vannamei*, increase the survival time out of water and increase the survival rate in living body transportation.

21: 2022/02085. 22: 2022/02/18. 43: 2022/03/17

51: A61K; A61Q

71: Shenzhen Health and Young Bio-tech Co., Ltd.

72: LIU, Haiping

#### **54: SHAMPOO WITH OIL BALANCING, ANTI-BACTERIA, ANTI-INFLAMMATION AND SCALP REPAIRING EFFECTS**

00: -

The present disclosure discloses a shampoo with oil balancing, anti-bacteria, antiinflammation and scalp repairing effects. The shampoo with oil balancing,

anti-bacteria, antiinflammation and scalp repairing effects comprises the following components in parts by mass: 100-200 parts of water, 25-46 parts of a surfactant, 3.5-10 parts of a grease enriching agent, 1.05-2.5 parts of a hair repairing agent and a gloss agent, 2-4 parts of a softener, 0.02-0.05 part of a PH adjusting agent, 0.05-0.1 part of a chelating agent, 0.1-0.5 part of a freshener, 0.5-1.5 part of a preservative, 1-2 parts of a flavouring agent, 10-35 parts of traditional Chinese medicine factors, 0.5-1.5 part of an anti-dandruff and antipruritic agent and 6-16 parts of a skin conditioning, anti-aging and repairing agent. Through adoption of the above components, the shampoo has the oil balancing, anti-bacteria, anti-inflammation and scalp repairing effects to achieve a mild, safe, efficient and lasting anti-dandruff effect.

21: 2022/02087. 22: 2022/02/18. 43: 2022/04/13

51: A61K

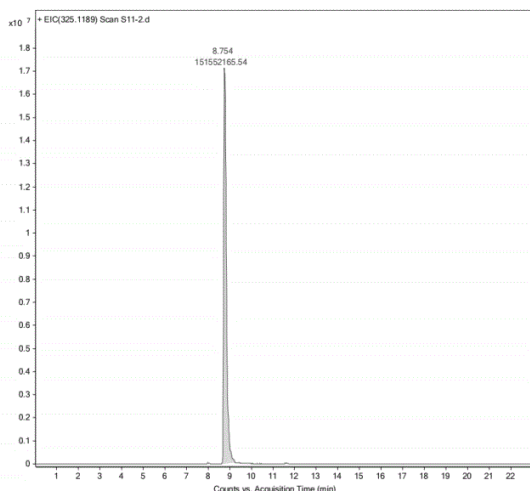
71: WU, Yuchen

72: WU, Yuchen, LIU, Yibing

**54: AROMATIC FURFURYL ALCOHOL COMPOUND AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF, AND METHOD FOR IDENTIFYING HONEY ADULTERATED WITH CORN SYRUP**

00: -

The disclosure provides an aromatic furfuryl alcohol compound as well as a preparation method and application thereof, and a method for identifying honey adulterated with corn syrup.



21: 2022/02088. 22: 2022/02/18. 43: 2022/03/16

51: A23L

71: CHENGDU UNIVERSITY OF TRADITIONAL CHINESE MEDICINE

72: LI, Meifeng, ZHANG, Yifeng, CHEN, Yan, KANG, Jinmei, GUO, Li, CHEN, Dayi, YE, Qiang, RAO, Chaolong, ZUO, Leilei, JIANG, Lishi, WANG, Juan, MENG, Xiao, LI, Hao, LI, Runhao

**54: ROSE JELLY AND PREPARATION METHOD THEREOF**

00: -

The present disclosure provides a rose jelly. The rose jelly of the present disclosure has a bright color and a complete form.

21: 2022/02089. 22: 2022/02/18. 43: 2022/03/16

51: G01M

71: China Academy of Railway Sciences Corporation Limited, Standards and Metrology Research Institute, China Academy of Railway Sciences Corporation Limited, China Railway Test and Certification Center Limited

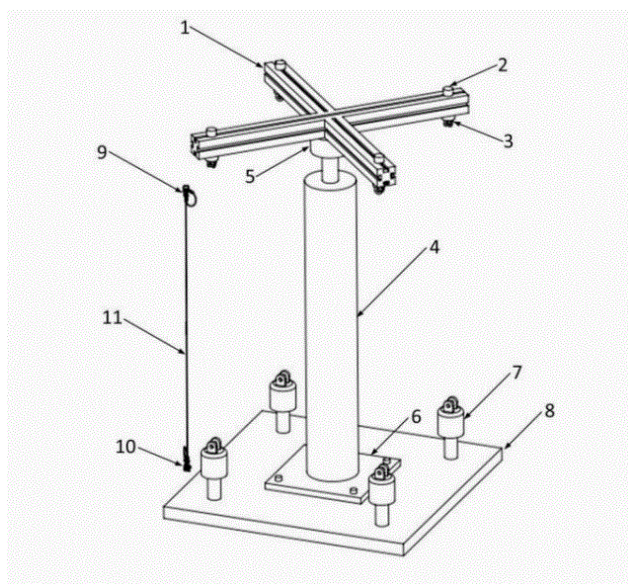
72: PAN, Like, CHEN, Liming, ZHANG, Haibo, XING, Tong, YANG, Caizhi, YUAN, Yuan, ZHANG, Zhiguo, WANG, Wei, Wang Xiaoya, ZHAO, Yingxin, ZHUANG, Nan

33: CN 31: 202110700527.5 32: 2021-06-24

**54: HYDRAULIC MULTI-CHANNEL DROPPER VIBRATION FATIGUE TEST DEVICE**

00: -

A hydraulic multi-channel dropper vibration fatigue test device belongs to the field of rail traffic, which is composed of a multi-channel connection system, a driving system and a buffer system. The multi-channel connection system comprises connecting frames (1), pins (2) and double-lug connectors (3). The driving system is composed of a hydraulic oil cylinder (4), a displacement sensor (5) and a lower base (6). The buffer system is composed of hydraulic buffers (7) and a fixing base (8). Four channels of the test device can install four droppers at the same time, each dropper is connected with the double-lug connector (3) and the hydraulic buffer (7) of the corresponding channel, the droppers are driven to move through the up-down movement of the hydraulic oil cylinder (4), accordingly, the stress and bending process of the droppers is simulated, and the purpose of the vibration fatigue test is achieved.

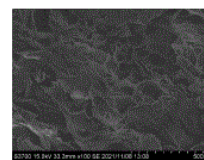


21: 2022/02090. 22: 2022/02/18. 43: 2022/03/16  
 51: C04B; C08L  
 71: South China University of Technology,  
 Guangdong Maydos Energy Saving and  
 Environmental Protection Technology Co., Ltd  
 72: WANG, Shuangfeng, XU, Zheng, FANG, Yutang,  
 CHENG, Min

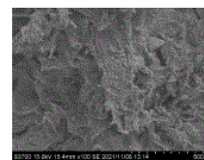
#### 54: ORGANIC/INORGANIC COMPOSITE HEAT INSULATING MATERIAL AND PREPARATION METHOD THEREOF

00: -

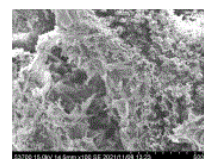
The disclosure discloses an organic/inorganic composite heat insulating material and a preparation method thereof. The method comprises: sequentially weighing expandable organic polymer foam granules (beads), inorganic heat insulating material powder and a flame retardant under mechanical stirring to enable the materials to be uniformly mixed; then slowly adding an adhesive under intense stirring to be uniformly dispersed in a solid mixture; transferring the mixture into a mold, heating the mixture in an air dry oven at 100 degrees Celsius, and performing bead expanding mold self-pressurization shaping and 24 h curing to prepare the organic/inorganic composite heat insulating material. The organic/inorganic composite heat insulating material prepared through the disclosure has the advantages of low heat conductivity, low density, high structural strength, excellent flame retardance, etc., and can be used for building external wall heat insulation.



(a)



(b)



(c)

9

21: 2022/02103. 22: 2022/02/18. 43: 2022/03/17  
 51: G01M

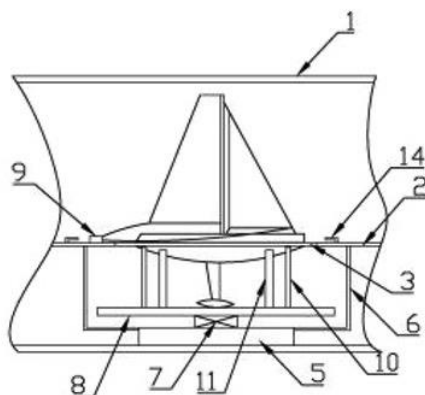
71: SHANDONG JIAOTONG UNIVERSITY

72: ZHOU, Jia

#### 54: WIND TUNNEL EXPERIMENTAL DEVICE FOR SAILBOAT

00: -

A wind tunnel experimental device for a sailboat comprises a floor horizontally arranged in a wind tunnel, a through hole being arranged in a middle of the floor, a cover plate being arranged on the through hole via a connecting mechanism, a rotary plate being mounted on the wind tunnel below the floor, the floor being mounted on the rotary plate via a connecting rod, a strain type balance being arranged on the rotary plate, the strain type balance being connected to a computer, a support platform being horizontally arranged on the strain type balance, clamping assemblies being arranged on both sides of the support platform, a support assembly being arranged in a middle of the support platform, the clamping assemblies and the support assembly being both located below the floor, and an electric winch being further arranged on the floor.



21: 2022/02106. 22: 2022/02/18. 43: 2022/03/17  
51: C08L

71: Taiyuan University of Technology

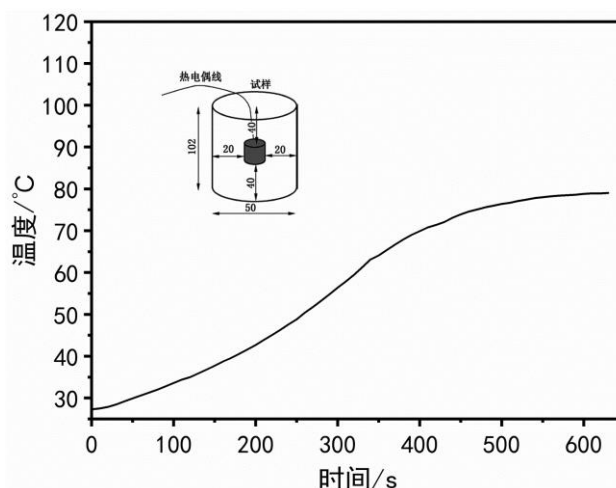
72: Lan Jia, Yanlong Ma, Jiahao Shen, Nan Yuan, Hongwei He, Heng Zhang

33: CN 31: 202111559171.4 32: 2021-12-20

**54: LOW TEMPERATURE GROUTING MATERIAL FOR REINFORCING COAL AND ROCK MASS FOR MINING, PREPARATION METHOD AND ITS APPLICATION**

00: -

The invention relates to the field of grouting reinforcement material, in particular to a low-temperature polyurethane grouting material for reinforcing coal and rock mass for mining, which consists of Components A and B, with Component A consisting of 100 parts of polyether polyol A and 0.05~0.1 parts of catalyst and Component B consisting of 18~24 parts of polyether polyol B, 21~26 parts of flame retardant, 50~61 parts of polyisocyanate and 0.05 parts of catalyst; the specific preparation method of the grouting material is as follows: I. mix polyether polyol A with catalyst to obtain mixed Component A; mix and react polyether polyol B with polyisocyanate and catalyst after drying to obtain isocyanate prepolymer, in which the flame retardant is added and the viscosity is adjusted to obtain mixed Component B; in the invention, part of the reaction heat is released through prepolymerization, so that the maximum reaction temperature drops below 100°C, which reduces the hidden danger of safety accidents such as smoke and fire that may be caused by high reaction temperature in the construction, and ensures safe construction.



21: 2022/02120. 22: 2022/02/18. 43: 2022/03/17  
51: C12Q

71: Nanjing Yike Population Health Research Institute Co., Ltd.

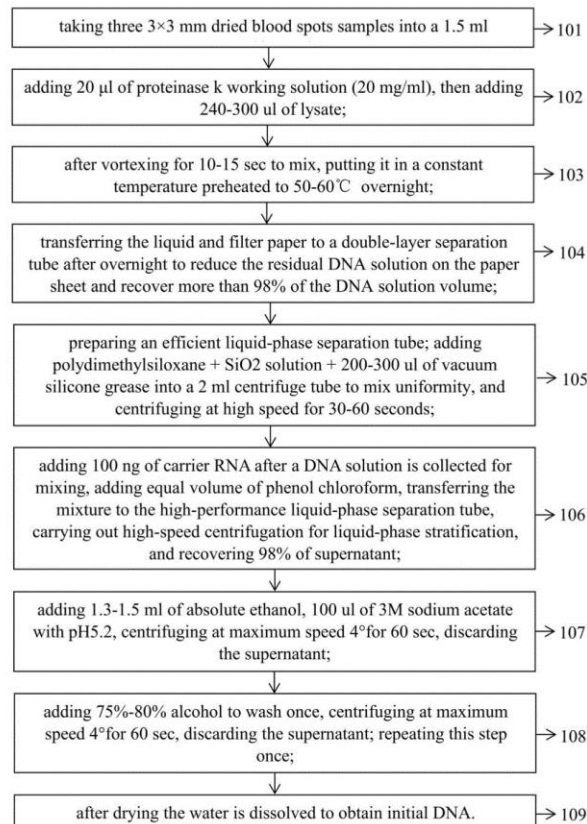
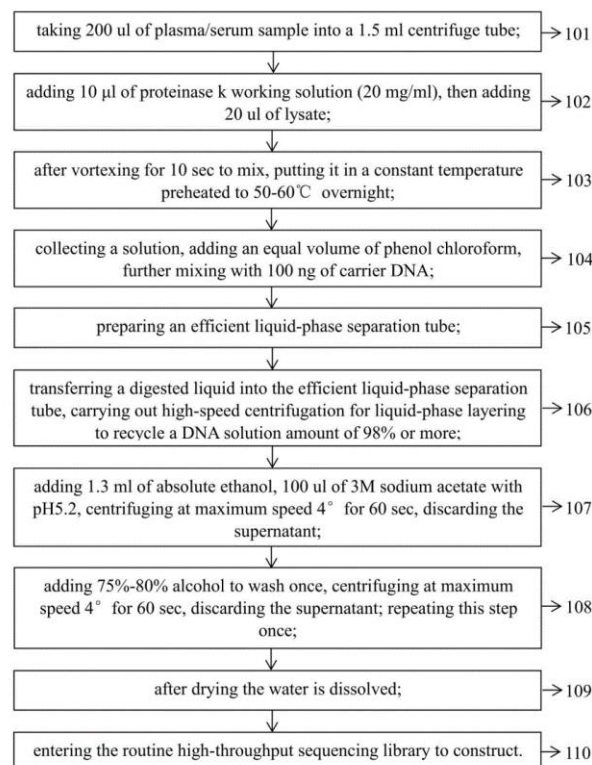
72: JIANG, Yue

**54: OPTIMIZATION METHOD FOR TRACE CFDNA EXTRACTION AND DOCKING HIGH-THROUGHPUT SEQUENCING LIBRARY**

00: -

The invention relates to a method for optimizing a trace of DNA (Circulating Free Deoxyribonucleic Acid) extraction butt joint high-throughput sequencing library. The method is mainly characterized by comprising the following steps: collecting a solution, adding an equal volume of phenol chloroform, further mixing with 100 ng of carrier DNA, preparing an efficient liquid-phase separation tube, transferring a digested liquid into the efficient liquid-phase separation tube, carrying out high-speed centrifugation for liquid-phase layering to recycle a DNA solution amount of 98% or more. The method has the characteristics that a larger library amount can be achieved, the operation is simple, and the like.





21: 2022/02121. 22: 2022/02/18. 43: 2022/03/17  
51: C12N

71: Nanjing Yike Population Health Research Institute Co., Ltd.

72: JIANG, Yue

#### 54: METHOD FOR EXTRACTING TRACE DNA BASED ON DRIED BLOOD TABLETS

00: -

The invention relates to a method for extracting trace DNA based on dried blood spots. The method for extracting trace DNA based on dried blood spots is mainly characterized in that a high-performance liquid-phase separation tube is prepared in a trace DNA extraction process, 100 ng of carrier RNA is added after a DNA solution is collected for mixing, equal volume of phenol chloroform is added, the mixture is transferred to the high-performance liquid-phase separation tube, high-speed centrifugation is carried out for liquid-phase stratification, and 98% of supernatant is recovered. The method for extracting the trace DNA based on the dried blood spots has the characteristics that all the supernatant can be totally transferred and the method is simple to operate.

21: 2022/02162. 22: 2022/02/21. 43: 2022/04/12  
51: E21D

71: CHINA RAILWAY 18 BUREAU GROUP CO. LTD.

72: ZHANG, Xin, Li, Genqiao, XI, Jufa

33: CN 31: 202220257987.5 32: 2022-02-09

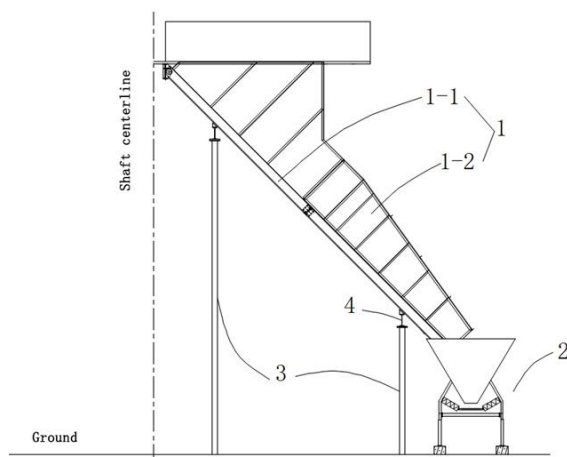
#### 54: GANGUE DISCHARGING DEVICE AND GANGUE LOADING AND DISCHARGING SYSTEM FOR SHAFT CONSTRUCTION

00: -

The present invention relates to a gangue discharging device and a gangue loading and discharging system for shaft construction. The device includes a gangue turning chute and a gangue bin, where the gangue turning chute is inclined, the gangue bin is arranged below an outlet end of the gangue turning chute, the gangue turning chute includes a chute bottom plate and chute side plates, several supporting rods are vertically arranged below the gangue turning chute, two ends of each supporting rod are fixed to the chute bottom plate and the ground respectively, and shock absorbers are arranged at joints between the supporting rods and the chute bottom plate. The system includes a derrick, a gangue loading device,



a hoisting device, a gangue discharging device and a conveying device. According to the present invention, by reducing vibration and noise of the gangue turning chute and the gangue bin, a working environment on the ground is improved, and moreover an impact of gangue on apparatus is reduced, such that service life of the apparatus is prolonged. By improving every component of the system, the gangue may be conveyed centralized, closely and continuously, dust pollution in a loading and conveying process is avoided, and gangue discharging efficiency is improved.



21: 2022/02226. 22: 2022/02/22. 43: 2022/04/12  
51: A23F

71: INSTITUTE OF CROP RESOURCES,  
HEILONGJIANG ACADEMY OF AGRICULTURAL  
SCIENCES

72: SUN, Dan, SHANG, Jiawei, DIAO, Henan, DIAO,  
Yanling, LIU, Guangyang, WANG, Xiujun, YU, Yang,  
WANG, Xiangyu, LI, Dongmei, HAO, Yubo, LIU,  
Huiying, ZHANG, Lili, LV, Guoyi, ZHAO, Yang, SUN,  
Yan, LIU, Wenlin, GONG, Xiujie, TANG, Jingquan,  
JIANG, Yubo

#### **54: PREPARATION METHOD OF BARLEY GREEN LEAF TEA**

00: -

The disclosure discloses a preparation method of barley green leaf tea. The method comprises the steps of, taking barley leaves from later tillering stage to jointing stage as raw materials, cleaning the barley leaves to remove impurities, spreading out for airing in a classification mode, and then performing spin-drying; and cutting into loose leaf segments; starting fixation; placing the loose leaf segments subjected to secondary fixation in a tea rolling machine for rolling and wall breaking to obtain a tea

strip; performing the fixation on the tea strip again and then taking same out, and finally, putting the tea strip into a fixation stir-frying cauldron for stir-frying to retain fragrance, removing from the cauldron after the water content of the tea strip reaches 0-5%, and obtaining green tea.

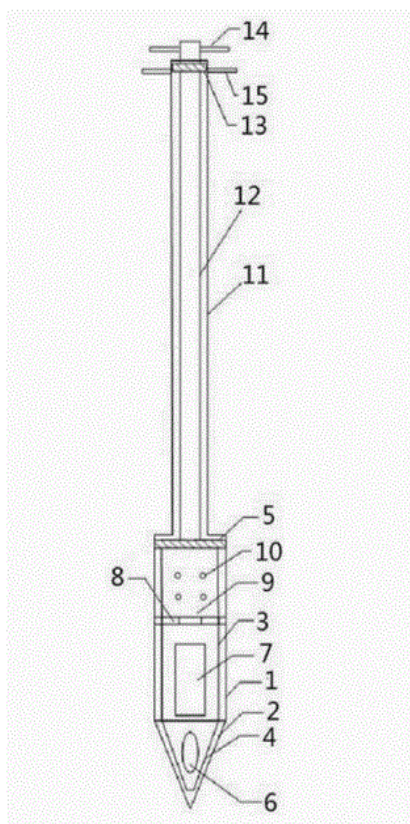
21: 2022/02261. 22: 2022/02/23. 43: 2022/04/05  
51: G01N

71: SDIC XINJIANG LUOBUPO POTASH CO., LTD  
72: YAO, Mobai, LI, Shoujiang, DONG, Guangfeng,  
XIE, Xiangliang, MA, Songliang, WANG, Qingchang,  
WANG, Zhen, XIANG, Xiaocheng, HUANG, Lili, LI,  
Jingfang, HAN, Shaohua

#### **54: MANUAL FIDELITY SAMPLING DEVICE CAPABLE OF LOCKING SALT AND WATER AND USE METHOD THEREFOR**

00: -

Disclosed are a manual fidelity sampling device capable of locking salt and water and a use method therefor. The device includes a hollow cylindrical sampling outer bin, a hollow external conical body, a sampling inner bin, an internal conical body, a rotary bearing, sample feeding ports, sample taking ports, a horizontal partition plate, and a gas and water passing hole being further provided; and an external hollow pipe being arranged on a top of the sampling outer bin, an internal hollow pipe being arranged on a top of the sampling inner bin, a rotary bearing being arranged between the internal hollow pipe and the external hollow pipe, a rotary handle being arranged on the internal hollow pipe, and a fixing and taking handle being arranged on the external hollow pipe. The present device features little disturbance and high sample fidelity during sampling.



21: 2022/02262. 22: 2022/02/23. 43: 2022/04/05  
51: G01V

71: Kunming University of Science and Technology  
72: LI, Wenyao, WANG, Jiyu, HAN, Runsheng, HU, Taotao, CHENG, Ruihong

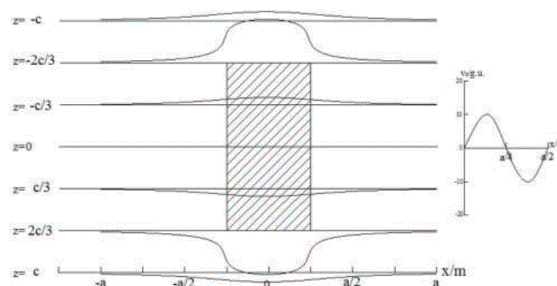
33: CN 31: 202110209265.2 32: 2021-02-25

**54: TUNNEL GRAVITY METHOD FOR DETERMINING DEEP EXTENSION OF HIGH-DENSITY VERTICAL OREBODY**

00: -

Disclosed is a tunnel gravity method for determining deep extension of a high-density vertical tabular orebody. Firstly, a Bouguer gravity anomaly is obtained through field tunnel gravity observation and corrections of observation data; then, a residual gravity anomaly is obtained through field separation of the Bouguer gravity anomaly; and the verticality of an orebody is determined by symmetry of the residual gravity anomaly of a tunnel, then a deep extension feature of a high-density vertical orebody is determined according to a positive and negative characteristic of the residual gravity anomaly of the tunnel. The method solves a problem of quickly determining the deep extension of a high-density orebody when the orebody is found in a single tunnel or multi-tunnels, provides an important basis for a

deep mineral exploration engineering layout, and proposes a new method for determining a deep orebody resource prospect.



21: 2022/02265. 22: 2022/02/23. 43: 2022/04/05  
51: G06T

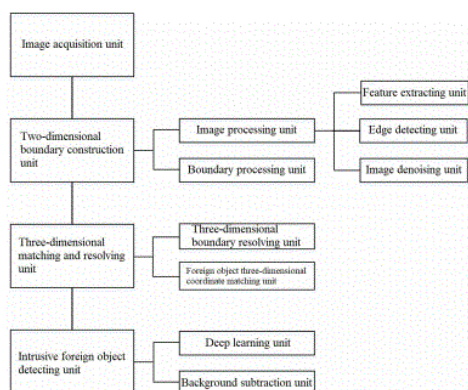
71: ANHUI UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: LIU, Huilin, LIANG, Xingzhu, LIU, Nan, WEI, Huazhang, JIANG, Feng

**54: FOREIGN OBJECT INTRUSION DETECTING SYSTEM FOR ROAD TRAFFIC BASED ON DEEP LEARNING AND BACKGROUND SUBTRACTION**

00: -

The present invention discloses a foreign object intrusion detecting system for road traffic based on deep learning and background subtraction, and relates to the technical field of object detection. The working principle of the present invention is as follows: collecting the images captured by video surveillance devices along a road, extracting a two-dimensional coordinate boundary line based on image edge features, then constructing a three-dimensional space boundary range based on deep image information matching, and recognizing the intrusive object within the boundary space range by using the background subtraction preprocessed by a convolutional neural network.



21: 2022/02266. 22: 2022/02/23. 43: 2022/04/05  
51: C02F

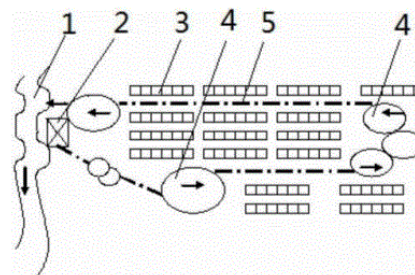
71: CHANGJIANG WATER RESOURCES PROTECTION INSTITUTE

72: YIN, Wei, WANG, Chao, LI, Quanhong, JIA, Haiyan, XIN, Xiaokang, LI, Haiyan, XU, Jianfeng

**54: METHOD FOR REALIZING AERATION AND OXYGENATION BY UTILIZING NATURAL WIND ENERGY TO LIFT WATER TO DRIVE EXTERNAL CIRCULATION OF WATER BODY**

00: -

Disclosed is a method for realizing aeration and oxygenation by utilizing natural wind energy to lift water to drive external circulation of a water body. The method includes: making the water body pass through an artificial ditch and/or a water pipeline and a water lifting windmill arranged thereon, converting the natural wind energy into mechanical energy, and making lifted water flow back to the water body, thereby realizing aeration and oxygenation for an artificial lake in the water body, promoting flow of the water body and increase dissolved oxygen in the water body. The present invention organically couples the hydraulic circulation technology and the drop aeration and oxygenation technology, introduces the wind-powered water lifting technology from the traditional field into the field of water environmental protection, and has the advantages of wide application range, low operation cost, and considerable comprehensive benefits, thereby being suitable for mountainous and rural areas.



21: 2022/02267. 22: 2022/02/23. 43: 2022/04/05  
51: H01B

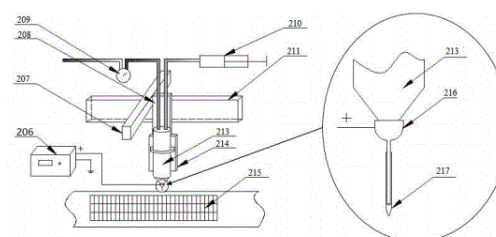
71: QINGDAO UNIVERSITY OF TECHNOLOGY, QINGDAO 5D INTELLIGENT ADDITIVE MANUFACTURING TECHNOLOGY CO., LTD.

72: ZHU, Xiaoyang, QI, Ximeng, LAN, Hongbo, LI, Hongke, LI, Zhenghao, XU, Quan, ZHAO, Jiawei

**54: METHOD AND SYSTEM FOR MANUFACTURING FLEXIBLE TRANSPARENT CONDUCTIVE FILM WITH EMBEDDED METAL MATERIAL**

00: -

The present disclosure provides a method and a system for manufacturing a flexible transparent conductive film with an embedded metal material. The method comprises the steps of sequentially printing metal nanowire grids and metal grids with a large aspect ratio on a printing substrate through an electric field driven micro-nano 3D printing method, and forming a composite conductive electrode of the metal grids and the metal nanowire grids; performing conductive treatment on the composite conductive electrode to obtain an electrode material; and embedding the electrode material into a photoresist, separating the photoresist embedded with the electrode material from the printing substrate, and removing the printing substrate to obtain a conductive film, wherein the metal nanowire grids are formed by printing the metal nanowires, and the metal grids with a large aspect ratio are formed by printing nano metal paste.





21: 2022/02268. 22: 2022/02/23. 43: 2022/04/05

51: G01N

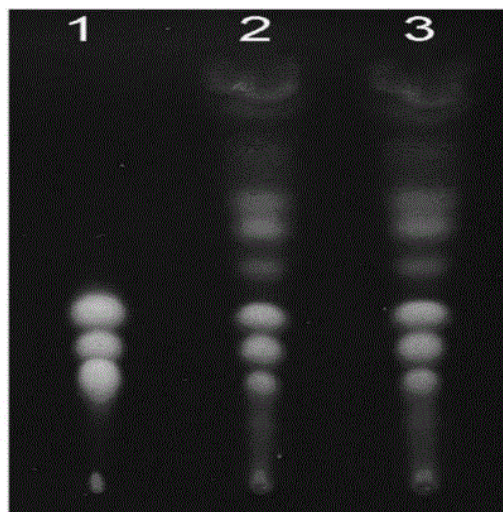
71: TONGDE HOSPITAL OF ZHEJIANG PROVINCE

72: LI, Hongyu, ZHANG, Hongxin, YU, Zhongming, WANG, Nani, XU, Pingcui, SHOU, Dan, WU, Renjie

**54: METHOD FOR IDENTIFYING MEDICINAL MATERIAL TETRASTIGMA HEMSLEYANUM DIELS ET GILG BASED ON POLYAMIDE THIN-LAYER CHROMATOGRAPHY**

00: -

A method for identifying a medicinal material Tetrastigma hemsleyanum Diels et Gilg based on polyamide thin-layer chromatography, which comprising: S1, taking the medicinal material Tetrastigma hemsleyanum Diels et Gilg to be identified, crushing and sieving to obtain medicinal material Tetrastigma hemsleyanum Diels et Gilg powder; S2, taking the medicinal material Tetrastigma hemsleyanum Diels et Gilg powder obtained in the step S1, and adding 5-10 mL of 70% methanol into 1 g of the medicinal material Tetrastigma hemsleyanum Diels et Gilg powder; S3, carrying out ultrasonic extraction for 30 min to 2 h, and cooling to room temperature; S4, taking 0.5-1 mL of extracting solution, filtering through a microporous membrane, injecting 2-6 micro L of sample and carrying out chromatographic development on a polyamide thin film, then detecting by utilizing ultraviolet wavelength, and judging the quality of the medicinal material Tetrastigma hemsleyanum Diels et Gilg according to the ultraviolet detection result.



21: 2022/02269. 22: 2022/02/23. 43: 2022/04/05

51: A61B

71: West China Hospital of Sichuan University

72: WEI, Ran

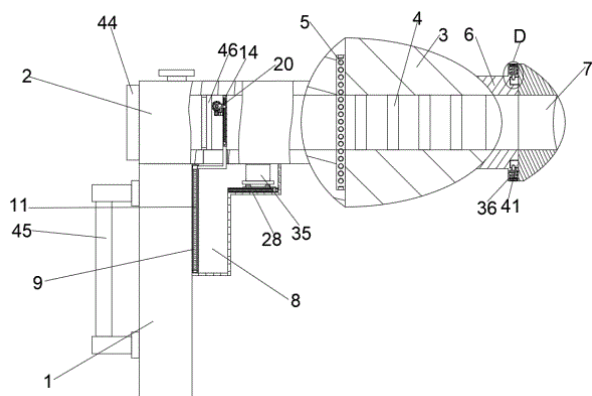
33: CN 31: 202111021137.1 32: 2021-09-01

**54: HANDHELD IMAGING DEVICE AND DRY EYE EXAMINATION APPARATUS**

00: -

Disclosed is a handheld imaging device and dry eye examination apparatus, including a column, wherein a housing is arranged at a top of the column, an imaging cone is arranged at one end of the housing, a connecting tube is arranged at one end of the imaging cone, a contact tube is arranged at one end of the connecting tube, and an imaging unit is arranged inside the housing. A second guide rail, an air pump and a cleaning roller are arranged, an output end of a third servo motor drives the cleaning roller to rotate, so that a brush on the cleaning roller cleans a lens surface; dust is sucked by the air pump through a sucker, and discharged into a collection box from the other end of the air pump. With the dust removed from a lens surface, the imaging unit has an improved image acquisition effect.





21: 2022/02270. 22: 2022/02/23. 43: 2022/04/05

51: C04B

71: City College of Dongguan University of Technology

72: FANG, Weicheng, CHENG, Xingxing, SUN, Changrong

#### **54: METHOD FOR PREPARING HIGH-CONTENT SLUDGE CERAMSITE**

00: -

The present disclosure discloses high-content sludge ceramsite and a preparation method thereof. On the premise that the ceramsite is taken as a water treatment filter material, the municipal sludge, fly ash and the waste glass are taken as raw materials, and joint treatment and utilization of the sludge of the urban sewage plant, the building spoil and the waste glass are realized. The method is low in cost and stable in treatment effect, and secondary pollution to the environment cannot be caused in the use process of a product.

21: 2022/02271. 22: 2022/02/23. 43: 2022/04/05

51: B32B

71: Weifang Hengcai Digital Photo Materials Co., Ltd

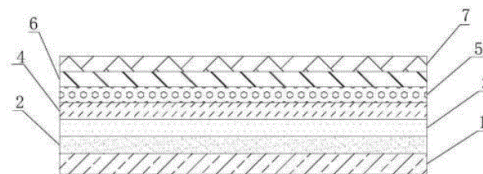
72: GONG, Xinjian, GENG, Pengfei, WANG, Xin, WANG, Yongzhao, PANG, Xinchang, LI, Zhigang

#### **54: LAMP BOX FABRIC**

00: -

Disclosed is a lamp box fabric. The lamp box fabric includes a fabric layer and a polyvinyl chloride (PVC) layer, the fabric layer being provided with a first micro groove and a second micro groove, a first stretchable layer being arranged in the first micro groove, a second stretchable layer being arranged in the second micro groove and connected to the second micro groove, the fabric layer being provided with a flame-retardant layer, and the flame-retardant

layer being fixedly connected to the fabric layer and provided with a plurality of micro holes. According to the lamp box fabric, the first stretchable layer, the second stretchable layer, a third stretchable layer, a high-temperature-resistant layer, an anti-static layer, a wear-resistant layer, and a high-weather-resistant layer are arranged for protecting the lamp box fabric, thereby significantly improving a service quality of the lamp box fabric and prolonging a service life of same.



21: 2022/02272. 22: 2022/02/23. 43: 2022/04/05

51: C02F

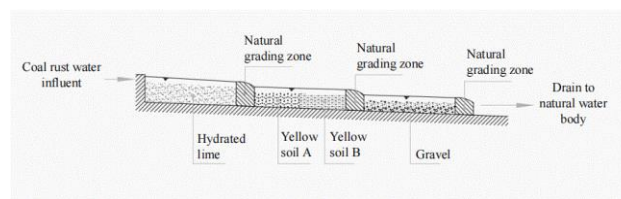
71: Zunyi Normal University, CHONGQING ARCHITECTURAL DESIGN INSTITUTE CO., LTD.

72: HE, Li, ZENG, Boping, TAN, Tao

#### **54: TREATMENT METHOD OF COAL RUST WATER**

00: -

The disclosure provides a treatment method of coal rust water. The treatment method of the coal rust water comprises the following steps: the pH-value adjusted coal rust water flows into channels with bottoms paved with yellow soil, is adsorbed and coagulated, and then enters channels with bottoms fully paved with gravel in a waterfall manner; and the coal rust water flows by natural grading zones among different channels in the waterfall manner. The yellow soil has adsorbability for metal ions and pollutants in the coal rust water, and can perform ion exchange with metal ions in sewage to remove Mn, Fe and other heavy metal ions and remove the pollutants in the coal rust water; and flocs in the coal rust water are filtered and intercepted by the gravel, so that the turbidity and metal ions in the coal rust water are further reduced.



21: 2022/02273. 22: 2022/02/23. 43: 2022/04/05

51: A47G; C02F

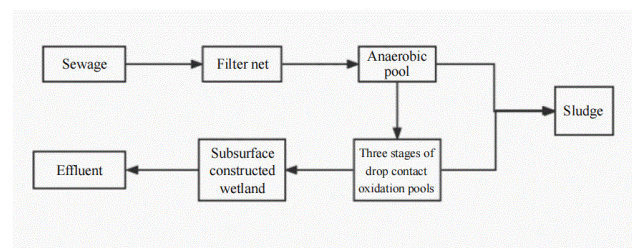
71: Zunyi Normal University, CHONGQING ARCHITECTURAL DESIGN INSTITUTE CO., LTD.

72: HE, Li, ZENG, Boping, TAN, Tao, GAO, Zhixi

#### 54: RURAL SEWAGE TREATMENT METHOD

00: -

The disclosure provides a rural sewage treatment method, and belongs to the technical field of waste water treatment. The rural sewage treatment method, comprises: rural sewage enters an anaerobic pool after being filtered, enters drop contact oxidation pools after being decomposed by anaerobic microorganisms to be treated and finally flows through a subsurface constructed wetland, and its effluent quality index reaches the second-class standard of Standard for emission of pollutants for rural domestic sewage treatment of Guizhou Province (DB 52/1424-2019). By means of the method, the treatment cost is reduced, and microdynamic treatment of the rural domestic sewage is achieved.



21: 2022/02274. 22: 2022/02/23. 43: 2022/04/05

51: C09K; C12N; C12P; C12R

71: Yangtze University

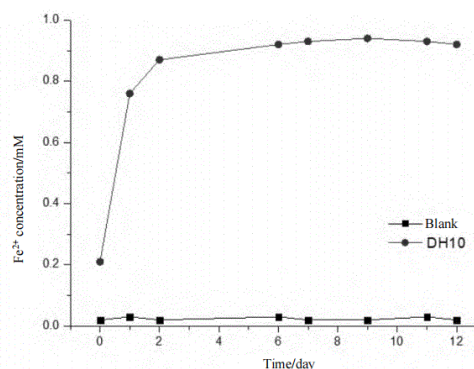
72: SHE, Yuehui, DONG, Hao, SUN, Shanshan, ZHANG, Fan, SU, Sanbao, ZHANG, Han, WENG, Xue, YU, Gaoming, ZHENG, Anying, LI, Yang

#### 54: IRON-REDUCING BACTERIUM TESSARACOCCLUS OLEIAGRI DH10 STRAIN AND APPLICATION THEREOF

00: -

The present invention discloses an iron-reducing bacterium *Tessaracoccus oleiagri* DH10 strain and application thereof. The iron-reducing bacterium *Tessaracoccus oleiagri* DH10 strain has been preserved in China Center for Type Culture Collection on Apr. 19, 2021, and is assigned with the accession number of CCTCC NO: M 2021404. In the present invention, an iron-reducing bacterium *Tessaracoccus oleiagri* DH10 that is capable of efficiently reducing Fe (III) is isolated and screened from an oil reservoir environment, and analysis by a

scanning electron microscope, and other means indicates that the iron-reducing bacterium can effectively decompose an iron-poor montmorillonite mineral and inhibit clay swelling. Meanwhile, a core experiment indicates that a *Tessaracoccus oleiagri* DH10 biological preparation can improve the water sensitivity of a reservoir core and reduce a water injection pressure, and thus, the biological preparation can be applied in crude oil recovery for effectively enhancing a crude oil recovery rate.



21: 2022/02275. 22: 2022/02/23. 43: 2022/04/05

51: C01C; C01D; C01F

71: SDIC XINJIANG LUOBUPO POTASH CO., LTD

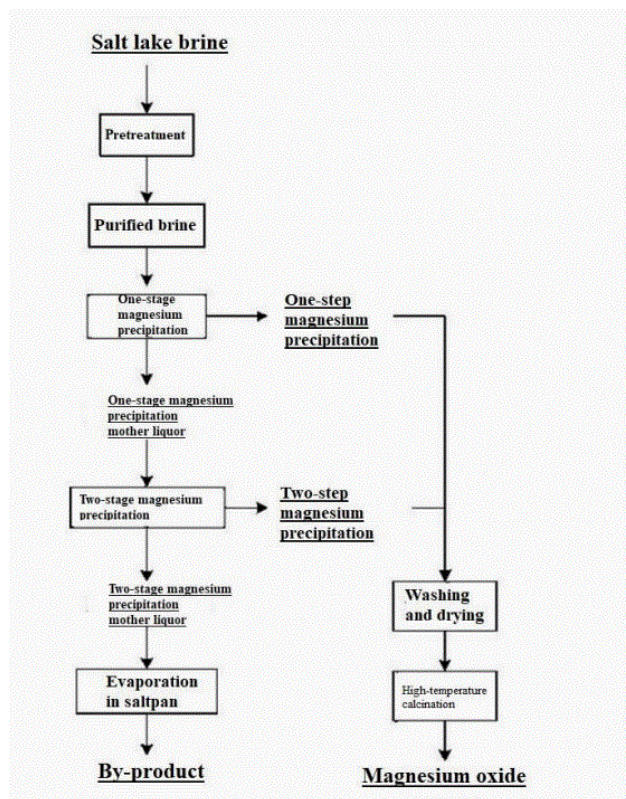
72: LEI, Guangyuan, LI, Shoujiang, DONG, Guangfeng, MA, Songliang, YANG, Yuming, TANG, Meijing, LI, Jingfang, LI, Junliang, LU, Liling, YOUNUSI Zulikai'er

#### 54: METHOD FOR PREPARING HIGH-PURITY MAGNESIUM OXIDE FROM MAGNESIUM SULFATE SUBTYPE SALT LAKE BRINE AS RAW MATERIAL

00: -

The present invention discloses a method for preparing high-purity magnesium oxide with magnesium sulfate subtype salt lake brine as raw material, comprising the following steps: (1) pretreating the raw salt lake brine, wherein the concentration of  $Mg^{2+}$  in the pretreated brine is up to 100-120 g/L; (2) the pretreated brine enters a one-step reaction kettle, a certain amount of precipitant A is added for one-step precipitation, and the precipitated mother liquor enters a two-step precipitation reaction kettle; (3) adding a certain amount of precipitant B into the second-step reaction kettle for second-step precipitation, and evaporating the precipitated mother liquor in salt field; (4) preparing to obtain high-purity magnesium oxide

products; And (5) evaporating the precipitated mother liquor after magnesium precipitation in the second step in the salt pan, and recovering by-products.



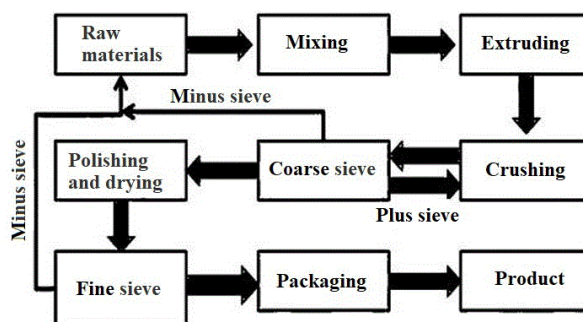
21: 2022/02276. 22: 2022/02/23. 43: 2022/04/05  
 51: B01J  
 71: SDIC XINJIANG LUOBUPO POTASH CO., LTD  
 72: LI, Shoujiang, LEI, Guangyuan, DONG, Guangfeng, YU, Pingnian, TANG, Erfeng, YAO, Xuan, HUANG, Lixue, WANG, Zhen, GUO, Xiang, CHEN, Liang

#### **54: METHOD FOR IMPROVING GRANULATION STRENGTH OF POTASSIUM SULFATE**

00: -

The present invention discloses a method for improving the granulation strength of potassium sulfate, which comprises the following steps: 1) detecting a water content of potassium sulfate powder, controlling the water content in the potassium sulfate powder to a range of 2%-3% of the weight of potassium sulfate by adjusting a water spray amount, fully mixing materials and then feeding the materials into a double-roll granulator for granulation; 2) spraying a potassium sulfate saturated mother liquor with a concentration of 10% on the surface of screened particles with a strength

equal or greater than 30N. The method has the advantages of simple operation, easy industrialization, a high molding rate, a high strength of granular products and excellent wear resistance, thereby effectively reducing dust pollution and improving labor operation conditions. The physical properties of raw materials are improved, and the opposite roller pressure is relatively low.



21: 2022/02277. 22: 2022/02/23. 43: 2022/04/05  
 51: A23L

71: Anhui Science And Technology University  
 72: YANG, Liping, YU, Haibing, WANG, Sunyan, WU, Degong, HUANG, Weidong

#### **54: PREPARATION METHOD OF FUNCTIONAL SWEET-WAXY CORN COMPOUND RECONSTITUTED MEAL**

00: -

The invention relates to the technical field of drinks preparation methods, in particular to a preparation method of functional sweet-waxy corn compound reconstituted meal. The preparation method comprises the following steps of, freezing wheat germ, performing freeze drying by using a freeze dryer, pulverizing the dried wheat germ by using a superfine pulverizer and sieving; soaking soybeans, grinding and filtering to prepare soybean milk, then adjusting temperature and pH value of the soybean milk, adding protease for enzymolysis treatment, and concentrating through rotary evaporation; threshing sweet-waxy corn, grinding and filtering to prepare corn steep liquor, adjusting temperature and pH value of the corn steep liquor, concentrating through rotary evaporation, performing spray drying on the concentrated corn steep liquor to prepare sweet waxy corn meal; and mixing wheat germ meal,



soybean meal and sweet-waxy corn meal, and adding beta-cyclodextrin for uniform mixing.

21: 2022/02278. 22: 2022/02/23. 43: 2022/04/05

51: A61B

71: THE FIRST HOSPITAL OF JILIN UNIVERSITY

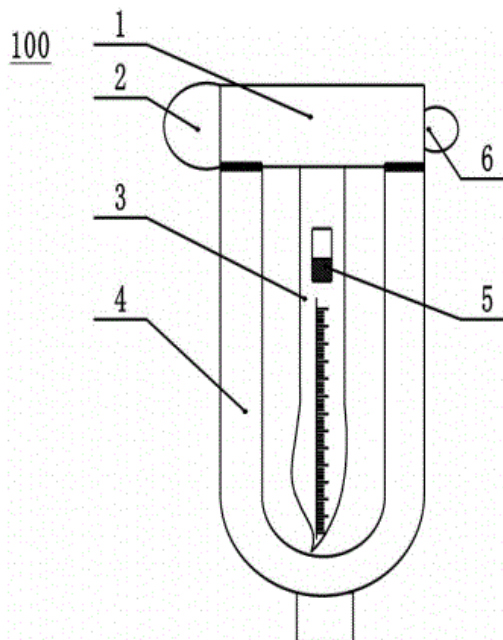
72: LI, Jia'ai, CUI, Zhitao, YU, Zhi, JIANG, Wei, TAN, Xuanyu, XU, Mengmeng

33: CN 31: 202123043533.2 32: 2021-12-06

#### **54: PHYSICAL EXAMINATION DEVICE AND PHYSICAL EXAMINATION SET FOR NEUROLOGY**

00: -

The present disclosure discloses a physical examination device and a physical examination set for the neurology. The physical examination device comprises a tuning fork, a percussion hammer and a storage bag. The percussion hammer comprises a head part and a rod part, the upper end of the rod part is fixedly connected with the middle of the head part, the two ends of the head part are provided with a large hammer head and a small hammer head respectively, the large hammer head and the small hammer head are used for percussion and deep reflection detection, and the small hammer head can be detached into a puncture needle used for examining the pain sense of a patient; the rod part can be magnetically connected with the tuning fork so that storage is convenient; the lower end of the rod part is a blunt tip used for detecting pathological reflection.



21: 2022/02279. 22: 2022/02/23. 43: 2022/04/05

51: G01N

71: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences

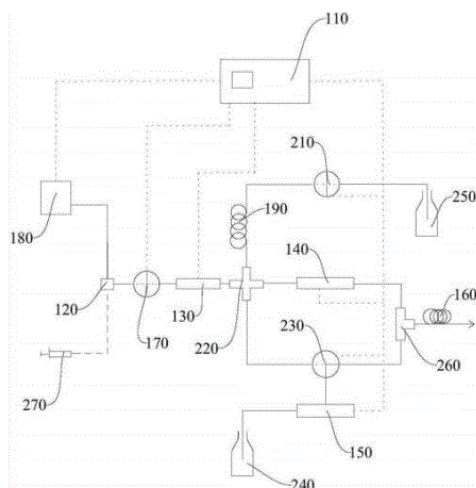
72: CUI, Xiaoqing, ZHANG, Yaonan

#### **54: AUTOMATIC SAMPLE DILUTING METHOD**

00: -

Provided is an automatic sample diluting method, belonging to the technical field of trace test methods. An automatic sample diluting device includes control system, sample injection tube, conductivity detector, sample pump, dilution pump, and quantitative loop. The method includes: the sample injection tube absorbing a sample stock solution into conductivity detector, and the conductivity detector detecting a conductivity value of solution and transmitting same to control system; the control system comparing obtained conductivity value with original data to determine a dilution multiple of solution, and controlling sample pump to absorb the solution from conductivity detector into quantitative loop; the control system controlling dilution pump to absorb diluent into quantitative loop according to the multiple. the conductivity detector detects conductivity value of the solution to determine a multiple for the solution, making the operation more accurate. The concentration of diluted sample is within a detection range of an ion chromatograph.





21: 2022/02280. 22: 2022/02/23. 43: 2022/04/05

51: C05D

71: SDIC XINJIANG LUOBUPO POTASH CO., LTD

72: LI, Shoujiang, LEI, Guangyuan, DONG, Guangfeng, YU, Pingnian, YAO, Xuan, HUANG, Lixue, WANG, Zhen, WEI, Hongzhen, CHEN, Liang, TANG, Meijing

#### **54: METHOD FOR SPHERICAL GRANULATION OF POTASSIUM SULFATE**

00: -

The present invention discloses a method for spherical granulation of potassium sulfate, which is produced by means of the following technological processes: feeding, mixing, extruding, sieving, drying and granulating, characterized in that potassium sulfate powders with different particle sizes are required be proportioned according to the following gradation table in the feeding and mixing stages, potassium sulfate powder of +100 mesh accounts for 51% by mass of a total mixture, potassium sulfate powder of 100-160 mesh accounts for 24% by mass of the total mixture, potassium sulfate powder of 160-200 mesh accounts for 15% by mass of the total mixture, and potassium sulfate powder of -200 mesh accounts for 10% by mass of the total mixture, and 1.2% by mass of water is added to the potassium sulfate powder of various meshes while mixing, which is then fed into an extruder after uniform mixing.

21: 2022/02281. 22: 2022/02/23. 43: 2022/04/05

51: C05D

71: SDIC XINJIANG LUOBUPO POTASH CO., LTD

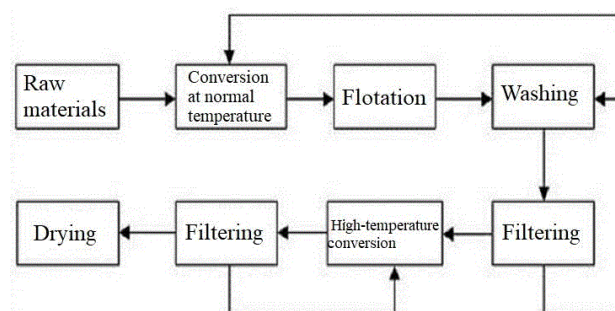
72: LEI, Guangyuan, LI, Shoujiang, DONG, Guangfeng, MA, Songliang, TANG, Erfeng, GUO,

Xiang, QIN, He, HUANG, Lixue, WANG, Zhen, CHEN, Liang

#### **54: METHOD FOR IMPROVING PARTICLE SIZE OF POWDER POTASSIUM MAGNESIUM SULFATE FERTILIZER**

00: -

Disclosed is a method for improving the particle size of a powder magnesium potassium sulfate fertilizer, comprising: 1) preparing soft potassium concentrate foam; 2) mixing the soft potassium concentrate foam, fresh water and washing mother liquor; 3) filtering and separating the pulp prepared in step 2), returning one part of a filtrate to a normal temperature for conversion, returning the other part to a washing tank for concentration adjustment; 4) placing a filter cake into a high-temperature stirring tank, adding 80 degrees centigrade hot water; 5) filtering and separating the pulp obtained in step 4) to obtain a filter cake with a free water content of about 8% and a total water content of about 31%, and returning the high-temperature mother liquor to a high-temperature stirring tank for circulating pulp mixing; 6) drying the filter cake.



21: 2022/02282. 22: 2022/02/23. 43: 2022/04/05

51: C05D

71: SDIC XINJIANG LUOBUPO POTASH CO., LTD

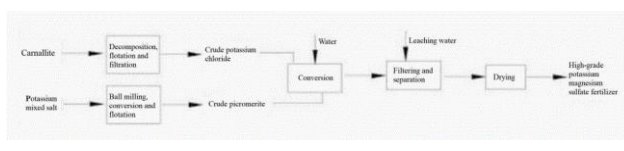
72: LI, Shoujiang, DONG, Guangfeng, MA, Songliang, GUO, Xiang, YAO, Xuan, TANG, Erfeng, HUANG, Lixue, LI, Jingfang, LI, Bo, XU, Wei

#### **54: METHOD FOR PREPARING HIGH-GRADE POTASSIUM MAGNESIUM SULFATE FERTILIZER BY USING CRUDE POTASSIUM CHLORIDE AND CRUDE PICROMERITE**

00: -

The present invention belongs to the improvement of the preparation process of high-grade magnesium potassium sulfate, in particular to a method for preparing a high-grade magnesium potassium sulfate fertilizer by using crude potassium chloride

and crude picromerite, comprising: (1) a decomposition flotation section; (2) a ball-milling conversion flotation section; (3) a conversion section; (4) a separation and leaching section; (5) a drying section. The present invention has the beneficial effects that high-grade potassium magnesium fertilizer can be prepared, and zero breakthrough of high-grade potassium magnesium fertilizer can be realized. According to the present invention, potassium chloride and part of picromerite are converted into apththialite by controlling the addition amount of crude potassium chloride and the amount of converted water, thereby improving the product grade. The method has a simple principle, a short process route and easy operation, and the recovery rate of K<sup>+</sup> can reach over 60%.



21: 2022/02283. 22: 2022/02/23. 43: 2022/04/05

51: C05D

71: SDIC XINJIANG LUOBUPO POTASH CO., LTD

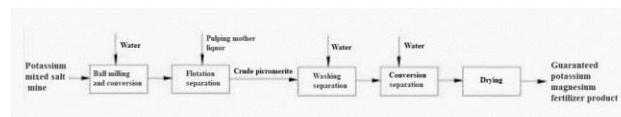
72: LI, Shoujiang, DONG, Guangfeng, MA, Songliang, XIE, Xiangliang, QIN, He, WANG, Zhen, SIMAYI Reshalaiti, CHEN, Liang, GUO, Xiang, FANG, Jingrong, WEI, Hongzhen

#### **54: METHOD FOR PREPARING GUARANTEED HIGH-GRADE POTASSIUM MAGNESIUM FERTILIZER BY HIGH-TEMPERATURE CONVERSION METHOD**

00: -

The present invention belongs to the improvement of the preparation process of a potassium magnesium fertilizer, in particular to a method for preparing a guaranteed high-grade potassium magnesium fertilizer by a high-temperature conversion method: comprising: Step 1- ball milling and conversion; Step 2- flotation; Step 3-reslurrying and washing; Step 4-high temperature conversion; Step 5-solid-liquid separation; Step6-drying. The present invention provides a method for preparing a high-grade potassium-magnesium fertilizer. The picromerite crude product obtained by conversion flotation of a potassium mixed salt is used as a raw material, washed by adding water and then separated, and the separated product is converted by adding water at high temperature (45-60 degrees centigrade) to prepare the high-grade potassium-magnesium

fertilizer. The guaranteed potassium magnesium fertilizer prepared by the present invention has the characteristics of high K<sup>+</sup> grade, coarse product particles, easy separation and drying, and the like.



21: 2022/02285. 22: 2022/02/23. 43: 2022/04/05

51: G01N

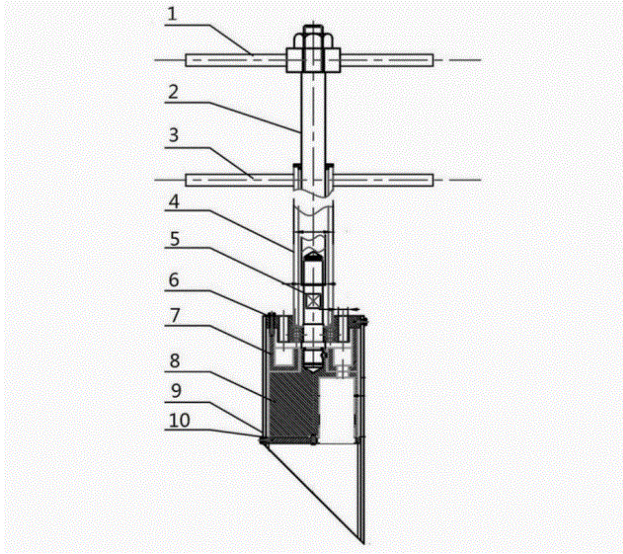
71: SDIC XINJIANG LUOBUPO POTASH CO., LTD

72: LI, Shoujiang, YAO, Mobai, DONG, Guangfeng, QIN, He, WANG, Qingchang, WANG, Zhen, LIU, Zhongjian, LU, Liling, LI, Jingfang, SHI, Rong

#### **54: FIDELITY SAMPLING DEVICE FOR SOLID PHASE AND LIQUID PHASE BELOW BRINE AND METHOD**

00: -

Provided is a fidelity sampling device for a solid phase and a liquid phase below brine. The device includes a rotary rod, an upper end of the rotary rod being provided with a rotary handle, a connection outer pipe being arranged on a periphery of a lower portion of the rotary rod, the rotary rod being connected to a rotary connection shaft, the connection outer pipe being provided with a handle, the connection outer pipe being provided with an outer barrel, the outer barrel being provided with an end cover, a liquid sampler being arranged below the end cover, a solid sampler being arranged below the liquid sampler, and a bottom plate being arranged below the solid sampler. The present invention can more accurately collect both a solid sample and a liquid sample at a solid-liquid interface in a salt pond with fidelity and no disturbance.



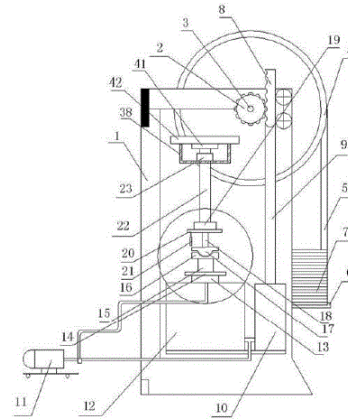
21: 2022/02286. 22: 2022/02/23. 43: 2022/04/05  
51: G01N

71: Henan University of Urban Construction  
72: ZHENG, Chao, LI, Shuai, GUO, Lulu, ZHANG, Shuo, BAI, Zhe, ZHAI, Juyun, GE, Bingwei

#### 54: TRIAXIAL TEST APPARATUS FOR RHEOLOGICAL DISTURBANCE EFFECT OF ROCK

00: -

The present invention relates to a triaxial test apparatus for a rheological disturbance effect of a rock. A rack is arranged on a test bench, and provided with a gear I and a gear II, the gear I and the gear II are connected to each other by means of a transmission shaft, and the transmission shaft is further connected to a transmission rotary plate I and a transmission rotary plate II; a transmission chain I is wound around the transmission rotary plate I, and is connected to a tray I, and a gravity weight is placed on the tray I; and a transmission chain II is wound around the transmission rotary plate II, and is connected to a tray II, and a gravity weight is further placed on the tray II. The present invention is used for a test for the rheological disturbance effect of the rock.



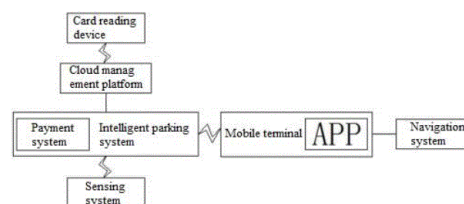
21: 2022/02287. 22: 2022/02/23. 43: 2022/04/05  
51: E04H

71: Henan University of Urban Construction  
72: SONG, Xinsheng, ZHU, Yingfan, JIN, Hang, MA, Jilei, TIAN, Jiao

#### 54: INTELLIGENT URBAN PARKING SYSTEM

00: -

Provided is an intelligent urban parking system. The system includes a cloud management platform, an intelligent parking system, a mobile terminal and a sensing system, where the intelligent parking system is electrically connected to the cloud management platform, the mobile terminal is provided with an application (APP), the sensing system includes a vehicle license plate recognition device, and the intelligent parking system includes a programmable logic controller (PLC) and includes a payment system. The intelligent urban parking system is a whole city parking garage management platform based on wireless information communication and is capable of helping a driver to easily and quickly find free parking lots and parking spaces, and a garage can be temporarily rented to a nearby driver who needs parking when being free, thus increasing a use ratio of urban parking spaces, and relieving problems of difficult and expensive parking and traffic jam in cities.





21: 2022/02288. 22: 2022/02/23. 43: 2022/04/05

51: G08G

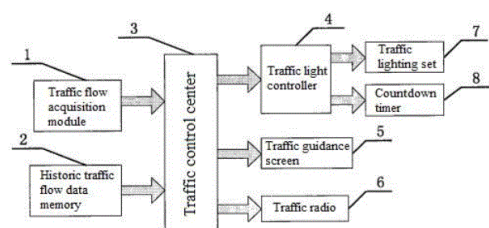
71: Henan University of Urban Construction

72: SONG, Xinsheng, ZHU, Yingfan, JIN, Hang, MA, Jilei, TIAN, Jiao

#### **54: INTELLIGENT URBAN TRAFFIC CONTROL SYSTEM**

00: -

The present invention discloses an intelligent urban traffic control system. The system includes a traffic flow acquisition module, a historic traffic flow data memory, a traffic control center, a traffic light controller, a traffic guidance screen, a traffic radio, a traffic lighting set and a countdown timer. In the present invention, the traffic control center uses a high-performance cloud computer and an accurate neural network prediction model to predict a traffic flow within short time in the future, so as to adjust a traffic light timing plan of each junction in a next period and improve passing efficiency of junctions; and moreover, a traffic flow of each junction within short time in the future is released by the traffic guidance screen and the traffic radio, so as to achieve accurate traffic guidance, improve a use ratio of existing roads and solve a traffic jam problem.



21: 2022/02290. 22: 2022/02/23. 43: 2022/04/05

51: G01D

71: Zhangye Academy of Forestry

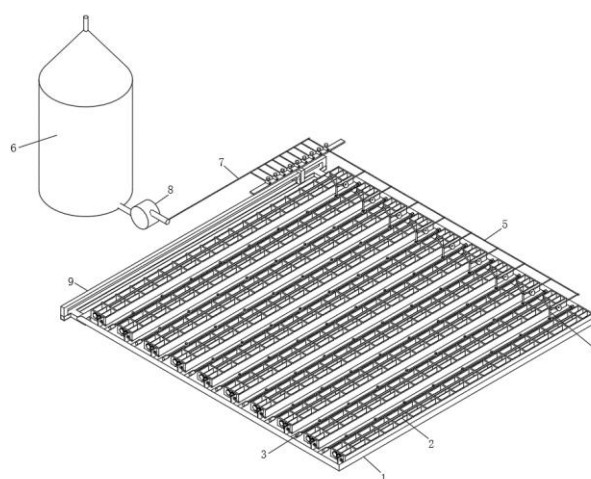
72: Ying Lu, Yin Miao, Junren Feng

#### **54: PEST ERADICATION DEVICE FOR HAWTHORN TREE PLANTING**

00: -

The invention discloses a pest eradication device for hawthorn tree planting, including a fixed frame laid on the ground and a liquid reservoir mounted on the ground and located on one side of the fixed frame: ten planting moulds mounted on the ground and equally spaced as well as nine transfer mechanisms distributed between two adjacent planting moulds are arranged at the inside of the said fixed frame, a spraying device is provided on one side of the top of

the said transfer mechanism, and a shunt pipe is connected to one side of the said spraying device. In the invention, the planting pits can be dug quickly and precisely, with the planting spacing precisely controlled, and the pits do not need to be dug one by one, thus improving the planting efficiency and reducing the workload. What's more, process of fertilization and pest eradication at a later stage does not need to be carried out manually, instead, it is carried out with automatic mechanical structure one area by one area, which improves the work efficiency and ensures the normal growth of hawthorn trees.



21: 2022/02291. 22: 2022/02/23. 43: 2022/04/07

51: A23L

71: ANQING NORMAL UNIVERSITY

72: LI, Wenjuan, ZHU, Yu, TAO, Jun, ZHANG, Wenhui, XIE, Rujin, WANG, Liping

#### **54: ROSE-PINE POLLEN-HONEY BUCCAL TABLET AND PREPARATION METHOD THEREOF**

00: -

The present invention discloses a rose-pine pollen-honey buccal tablet and a preparation method thereof, which are raised based on the problems of inconvenient carrying and poor taste of the products made of rose, pine pollen and honey. The buccal tablet is made of the following raw materials based on parts by weight: 1-10 parts of rose pollen, 20-40 parts of honey and 1-10 parts of pine pollen, 10-50 parts of excipient, 1-5 parts of magnesium stearate, 0.2-4 parts of sweetener, 1-5 parts of acidity regulator, and 0.1-1 part of peppermint oil; and the preparation steps include crushing, sieving, soft



material making, tableting, sterilization and packaging. The present invention is suitable for all kinds of people, especially women, with the advantages of small size, light weight, convenient carrying, simple preparation step and high nutrient density as well as the effects of internal secretion improvement, tiredness allaying, anti-aging and beauty.

21: 2022/02292. 22: 2022/02/23. 43: 2022/04/07  
51: C12N

71: QINGDAO UNIVERSITY OF SCIENCE AND TECHNOLOGY

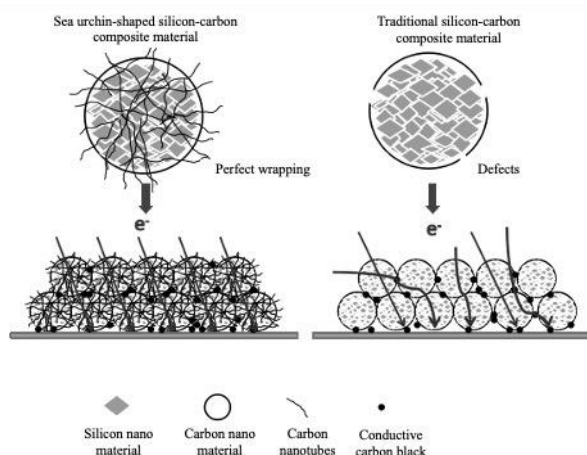
72: WANG, Lei, MA, Yiru, ZHANG, Xinghao, XU, Guangrui, LIN, Haifeng, LI, Bin

33: CN 31: 202111386379.0 32: 2021-11-22

**54: SEA URCHIN-SHAPED SILICON-CARBON COMPOSITE MATERIAL AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF**

00: -

A sea urchin-shaped silicon-carbon composite material as well as a preparation method and application of the sea urchin-shaped silicon-carbon composite material are provided. In the sea urchin-shaped silicon-carbon composite material, one end of a conductive nano material is bonded to an organic carbon cage, and the other end freely exists on the outer side of the organic carbon cage, so that the sea urchin-shaped silicon-carbon composite material is formed. In a hybrid carbon cage, due to the existence of the conductive nano material, the transmission of electrons is promoted. When the sea urchin-shaped silicon-carbon composite material is applied to a lithium ion battery, the rapid charge and discharge property of the lithium ion battery is improved. The specific capacity of the sea urchin-shaped silicon-carbon composite material obtained in Embodiment 3 is 915 mAh/g under the current density of 8 A/g. After 500 cycles, the capacity retention rate may reach 90%.



21: 2022/02341. 22: 2022/02/24. 43: 2022/04/06  
51: H04L; H04W

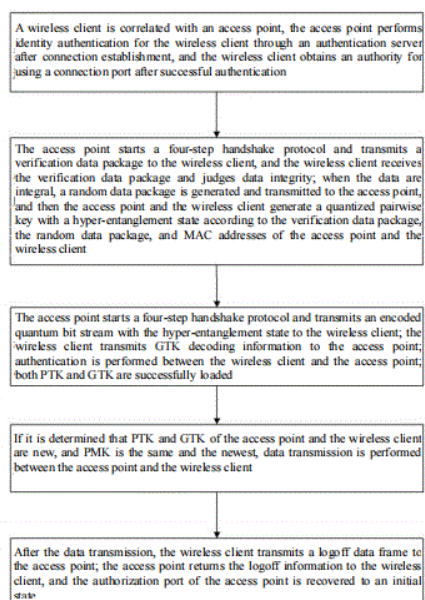
71: Qingdao University of Technology

72: MA, Hongyang, WANG, Haowen, SONG, Zhaoyang, KE, Zhiheng, LIU, Hanyang

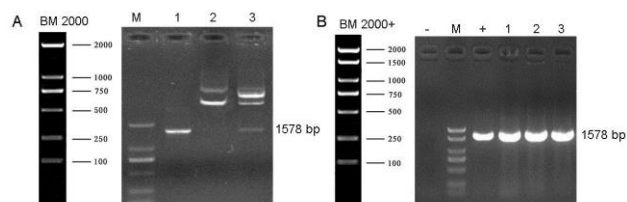
**54: HETEROGENEOUS WIRELESS COMMUNICATION METHOD AND SYSTEM BASED ON PHOTON HYPER-ENTANGLEMENT STATE**

00: -

The invention discloses a heterogeneous wireless communication method and a heterogeneous wireless communication system based on a photon hyper-entanglement state. According to the method, a wireless network key is quantized to generate a quantum hyper-entanglement state for wireless network key allocation; only hyper-entanglement equipment is required for hyper-entanglement quantum key authentication; more keys can be encoded for transmission through the hyper-entanglement state. The invention can significantly improve security and conquer insufficient information security brought by easy information interception and excessively low encryption level of a wireless network.



molecular mechanism of SpCPK33 during the drought tolerance.



21: 2022/02343. 22: 2022/02/24. 43: 2022/04/04

51: H04L

71: Qingdao University of Technology

72: MA, Hongyang, LI, Wei, LIU, Guangzhe, HUA, Nan, LIU, Hanyang

#### 54: SESSION KEY UPDATING METHOD APPLIED TO DYNAMIC QUANTUM NETWORK

00: -

The invention discloses a session key updating method and a session key updating system applied to a dynamic quantum network. The method comprises: the dynamic quantum network system is initialized, and when nodes in the network trend to be stable, the system generates a system public key, and generates private keys of various nodes; each node discloses a quantum state, a quantum state matrix is constructed on the basis of the received quantum states of other nodes, and a session key is generated according to the quantum state matrix, the system public key and the private key of this node; the node change of the quantum dynamic network is monitored, and when there is one or more nodes exiting from or joining the network, the private key of this node is updated on the basis of the present session key, and then the session key is updated.

21: 2022/02342. 22: 2022/02/24. 43: 2022/04/04

51: A01H; C12N

71: Institute of Horticultural Crops, Xinjiang Academy of Agricultural Sciences

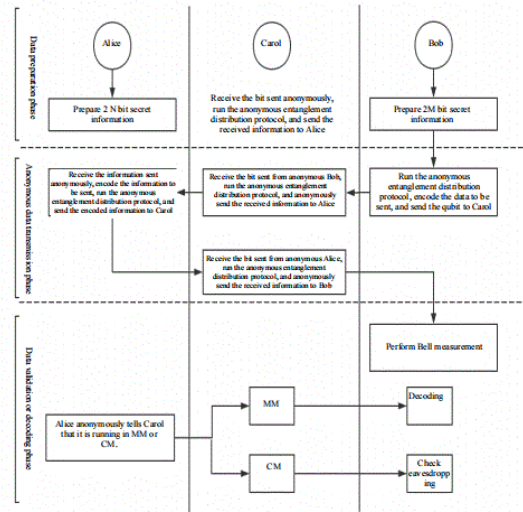
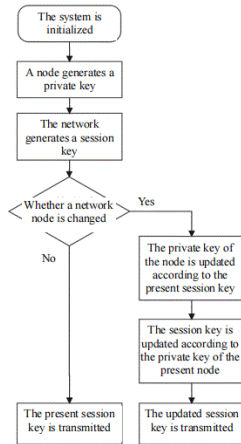
72: WANG, Juan, WANG, Baike, GUO, Bin, LI, Ning, HU, Jiahui, YANG, Tao, WANG, Qiang, YU, Qinghui

33: CN 31: 202110546583.8 32: 2021-05-19

#### 54: USE OF SOLANUM PENNELLII CALCIUM-DEPENDENT PROTEIN KINASE 33 (SPCPK33) GENE AND ENCODED PROTEIN THEREOF IN REGULATION OF TOMATO DROUGHT TOLERANCE

00: -

The present disclosure discloses use of a Solanum pennellii calcium-dependent protein kinase 33 gene (SpCPK33 gene) and an encoded protein thereof in regulation of tomato drought tolerance and in preparation of a drought-tolerant tomato material. An open reading frame sequence of the SpCPK33 gene was amplified using a leaf cDNA of the Solanum pennellii as a template, to obtain a cDNA sequence as shown in SEQ ID NO: 1, including 1578 base pairs; and the SpCPK33 gene has a nucleotide sequence as shown in SEQ ID NO: 2, which encodes 525 amino acids as shown in SEQ ID NO: 3 in a sequence listing. In addition, a drought tolerance phenotype and physiological indicators under drought conditions of the SpCPK33 gene are observed and analyzed, to further confirm the drought tolerance of the gene and reveal a



21: 2022/02344. 22: 2022/02/24. 43: 2022/04/04  
51: H04L

71: Qingdao University of Technology  
72: MA, Hongyang, SONG, Zhaoyang, WANG, Haowen, WANG, Yinuo

#### 54: QUANTUM DIALOGUE METHOD AND SYSTEM BASED ON ANONYMOUS ENTANGLEMENT DISTRIBUTION

00: -

The present invention discloses quantum dialogue method and system based on anonymous entanglement distribution, comprising the following steps of, protocol preparation: an EPR pair is created between the sender and the recipient by using epsilon - anonymity; data preparation: Bob end prepares a 2M bit secret message, Alice end prepares 2N bit secret information, and Bob end first generates an entangled pair matched with the secret information, and the entangled pair is stored in the state; anonymous data transmission: Bob end performs encoding in a state, runs an epsilon - anonymous entanglement distribution protocol, and completes data transmission with Alice end by using third-party Carol end; and data validation or decoding: Bob end performs the Bell measurement on two qubits, Alice anonymously tells Carol end that it is running in MM or CM, and Carol end re-anonymously tells Bob end that it is running in MM or CM.

21: 2022/02346. 22: 2022/02/24. 43: 2022/04/04  
51: G01M

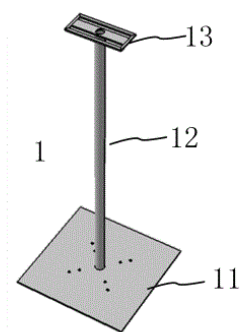
71: Yangzhou University

72: YANG, Hua, YANG, Junwei, WANG, Xiangjun, LI, Nailu

#### 54: WIND TURBINE TOWER SURFACE PRESSURE MEASURING METHOD SUITABLE FOR WIND TUNNEL EXPERIMENT

00: -

The present disclosure discloses a wind turbine tower surface pressure measuring method suitable for wind tunnel experiment. The method includes the following steps: installing a wind turbine and a supporting frame in a wind tunnel and installing a sleeve around the support frame; arranging pressure taps at different sections of the sleeve and connecting to the pressure scanning valve; installing Hall sensor, rectifier bridge and DC load; starting the wind tunnel; collecting the current wind speed and the surface pressure of the wind turbine tower under different rotate speeds and static states; changing the wind speed of the wind tunnel and the wind speed of the wind tunnel is stable, repeating the measurement until the measurement is completed under working conditions that need to be measured.



21: 2022/02347. 22: 2022/02/24. 43: 2022/04/04  
51: C05F; C05G  
71: Heilongjiang Nongken Qianyuan Fertilizer Co., Ltd.

72: WANG, Mingzhe

**54: ORGANIC ACTIVE DROUGHT-RESISTANT FERTILIZER AND PREPARATION METHOD THEREOF**

00: -

Disclosed are an organic active drought-resistant fertilizer and a preparation method thereof. The fertilizer is prepared from the following raw materials (based on parts by weight): 15-25 parts of plant straw, 5-10 parts of manure, 1-8 parts of microbial agent, 5-8 parts of plant ash, 5-10 parts of humic acid, 5-8 parts of seaweed extract, 5-10 parts of soil mixture, 10-15 parts of microelement fertilizer, 3-10 parts of initiator and a remaining amount of deionized water. According to the present invention, the fertilizer is prepared from low-cost raw materials by a simple preparation process. The fertilizer is pollution-free and liable to be decomposed and absorbed rapidly; moreover, the fertilizer can raise the soil moisture content effectively, enhance the water holding and retaining capacity as well as soil water availability of soil, improve the soil porosity structure, reduce the soil bulk, and boost the soil fertility, air permeability and drought resistance.

21: 2022/02353. 22: 2022/02/24. 43: 2022/04/04  
51: G06F

71: Northeastern University

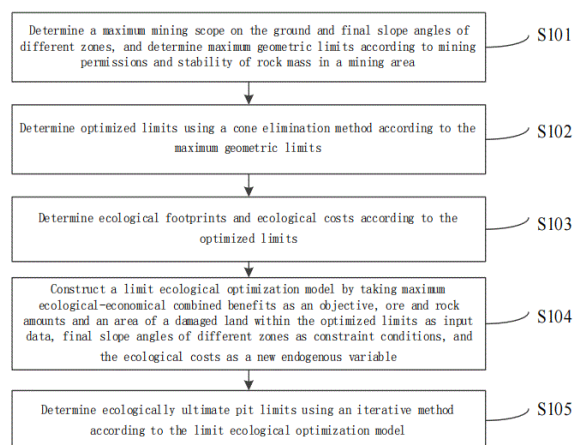
72: GU, Xiaowei, XU, Xiaochuan, WANG, Qing, WANG, Hao

33: CN 31: 202111513471.9 32: 2021-12-13

**54: METHOD AND SYSTEM FOR OPTIMIZING OPEN-PIT MINE LIMITS BASED ON CONSIDERATION OF ECOLOGICAL ENVIRONMENT**

00: -

The invention relates to a method and system for optimizing open-pit mine limits based on consideration of ecological environment. The method includes: determining a maximum mining scope on the ground and final slope angles of different zones based on the mining permissions and stability of rock mass in the mining area; determining the optimized limits using the cone elimination method according to the maximum geometric limits; determining ecological footprints and ecological costs according to the optimized limits; constructing a limit ecological optimization model by taking maximum ecological-economic combined benefits as an objective, ore and rock amounts and an area of the damaged land within the optimized limits as input data and final slope angles of different zones as constraint conditions; determining ecologically optimal limits using an iterative method according to the limit ecological optimization model. The invention enhances the accuracy and comprehensiveness of determining open-pit mine limits.



21: 2022/02354. 22: 2022/02/24. 43: 2022/04/04  
51: G01D; G01N

71: Institute of Oceanology, Chinese Academy of Sciences, China University of Petroleum East China)

72: CHEN, Lei, ZHANG, Jie, FAN, Conghui, DIAO, Xinyuan, WEI, Chuanjie

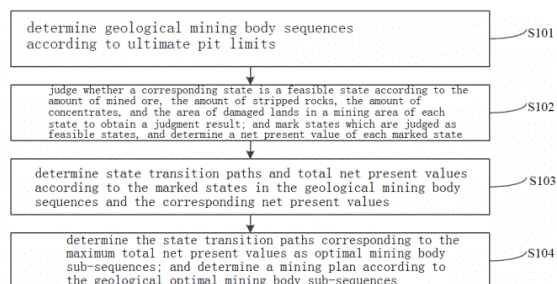
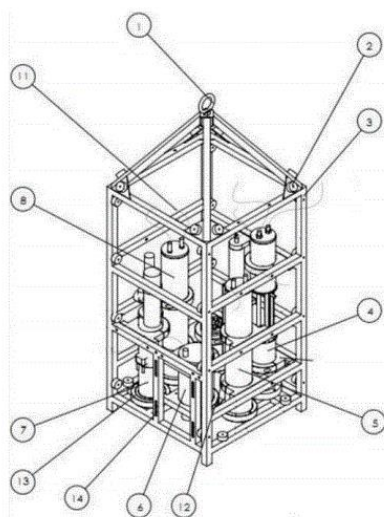
**54: MULTI-PARAMETER OBSERVATION SYSTEM FOR UNDERWATER LIGHT FIELD AND MARINE ENVIRONMENT**

00: -

The present invention belongs to the technical field of marine equipment, and relates to a multi-



parameter observation system for an underwater light field and a marine environment.



21: 2022/02355. 22: 2022/02/24. 43: 2022/04/04  
51: G06F

71: Northeastern University

72: XU, Xiaochuan, GU, Xiaowei, WANG, Qing, WANG, Hao

33: CN 31: 202111526170.X 32: 2021-12-14

#### 54: METHOD AND SYSTEM FOR OPTIMIZING MINING PLAN BASED ON CONSIDERATION OF ECOLOGICAL ENVIRONMENT

00: -

The invention relates to a method and system for optimizing a mining plan based on consideration of ecological environment. The method includes: determining geological mining body sequences according to ultimate pit limit; judging whether a corresponding state is a feasible state according to the amount of mined ore, the amount of stripped rocks, the amount of concentrates, and the area of damaged land in a mining area of each state to obtain a judgment result; and marking states which are judged as feasible states, and determining a net present value of each marked state; determining state transition paths and total net present values according to the marked states in the geological mining body sequences and the corresponding net present values; determining state transition paths corresponding to the maximum total net present values as optimal mining body sub-sequences; and determining a mining plan according to the geological optimal mining body sub-sequences.

21: 2022/02356. 22: 2022/02/24. 43: 2022/04/04  
51: G06F

71: Northeastern University

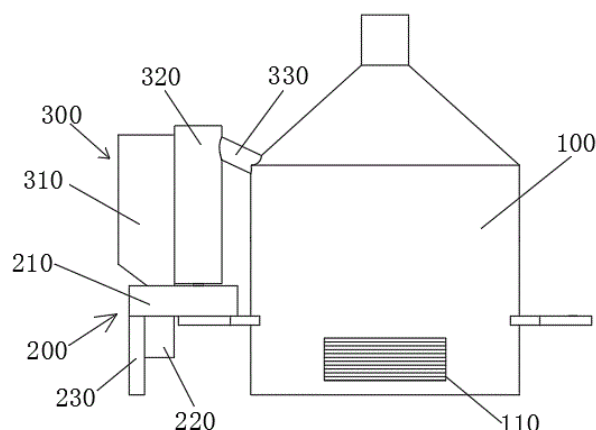
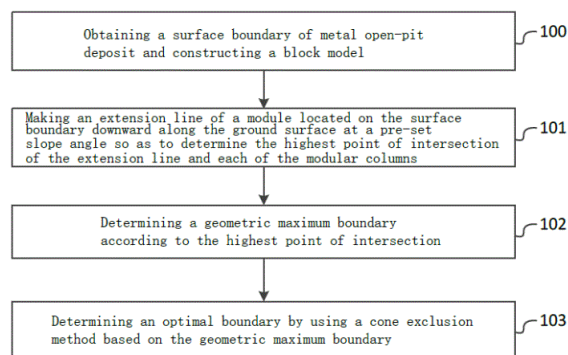
72: GU, Xiaowei, XU, Xiaochuan, WANG, Qing, WANG, Hao

33: CN 31: 202111513843.8 32: 2021-12-13

#### 54: METHOD AND SYSTEM FOR OPTIMIZING FINAL BOUNDARY OF METAL OPEN-PIT MINE

00: -

The present invention relates to a method and system for optimizing a final boundary of metal open-pit mine. After the geometric maximum boundary is determined based on the surface boundary of the metal open-pit deposit and pre-set slope angle, the optimal boundary is obtained by further screening the modules in the geometric maximum boundary by using a cone exclusion method, so that the optimization accuracy can be improved while reducing the computational cost and improving the optimization efficiency. In addition, when the slope angle changes in different regions and different directions under complex geological conditions, the maximum geometric delineation method is introduced to delineate the boundary and greatly reduce the optimization scale of the final boundary, so as to provide the theoretical basis for the mine producers to quickly provide the final boundary design scheme under different market conditions and mining technology conditions.



21: 2022/02357. 22: 2022/02/24. 43: 2022/04/04  
51: G01N

71: Jinzhou Medical University

72: Wang Hui, Liu Zheng, Yu Xiaolei

#### 54: FOOD DETECTION SAMPLE HARMLESS TREATMENT DEVICE AND METHOD OF USE

00: -

The invention relates to the technical field of waste sample processing, in particular to a food detection sample harmless treatment device and method of use, it includes the furnace, a transmission module is fixedly connected to both sides of an annular outer side wall of the furnace body and the inside of the furnace body is provided with an annular piece, the inner wall of the annular piece is fixed with a grid, a number of pebbles are scattered on the grid, the inner wall of the furnace body is located under the grid, and a flame nozzle is fixedly installed, and both outer sides of the annular wall of the piece are fixedly connected with connecting rods. In the present invention, through the arrangement of the annular piece and the grid, the driving mechanism drives the annular piece to do circumferential motion through the transmission module, the turnover of the annular piece makes the pebbles move and collide on the grid, and the black carbon layer generated in the process of material agglomeration and combustion is The pebbles are peeled off and broken under the collision, exposing their interiors to achieve the destruction of the material agglomeration, thereby accelerating the combustion of the material.

21: 2022/02358. 22: 2022/02/24. 43: 2022/04/04  
51: F24D

71: Gansu Natural Energy Research Institute (United Nations Industrial Development Organization International Solar Technology Promotion and Transfer Center)

72: Lv Weizhong

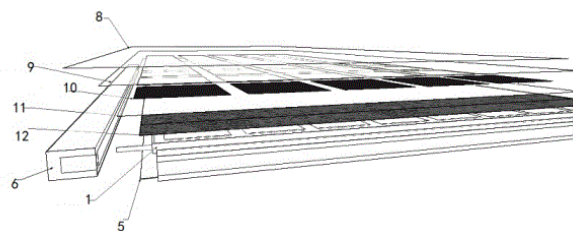
33: CN 31: 202111074514.8 32: 2021-09-14

#### 54: A NEW TYPE OF STAINLESS STEEL CORE DOUBLE-SIDED PVT HYBRID ELECTRIC HEATING COMPONENT

00: -

The invention relates to a new type of stainless steel core double-sided PVT hybrid electric heating component. A new type of stainless steel core double-sided PVT hybrid electric heating component comprises a heat transfer inner core surrounded by a thermal insulation frame. An insulating layer, a PV cell sheet and a transparent film are sequentially arranged on one side of the battery sheet from the inside to the outside of the heat transfer inner core. The first EVA adhesive film and the second EVA adhesive film are respectively provided on both sides of the battery sheet group, and the other side of the heat transfer inner core is provided with light-transmitting glass, which is detachably connected to the thermal insulation frame, an air layer is reserved between the light-transmitting glass and the heat transfer inner core, and the PV cell is a black silicon PERC cell. It has full-spectrum working characteristics, and after the secondary annealing process, it has a low temperature attenuation coefficient and can work at high temperatures for a long time. The electric heating component has a reasonable structure and has the effect of high temperature resistance. The conversion rate of

electrothermal radiation of electrothermal products is suitable for popularization and use.



21: 2022/02389. 22: 2022/02/25. 43: 2022/03/17

51: A61K; A61P

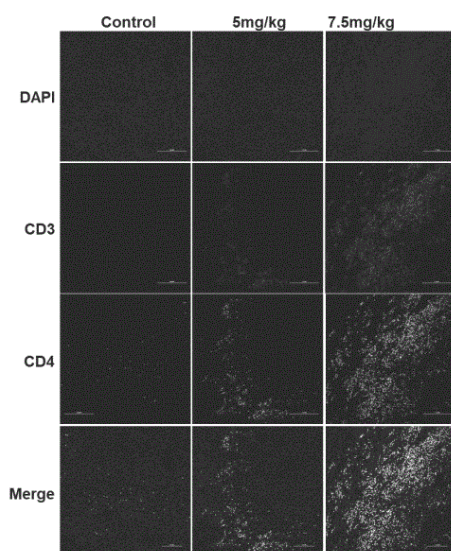
71: Xinxiang Medical University

72: REN, Feng, LI, Jian, ZHANG, Yu, ZHAO, Tiesuo, YANG, Yingying, QIN, Yuanhua, SHANG, Jingli

**54: APPLICATION OF TARAXASTEROL IN PREPARING DRUGS FOR ENHANCING THE ANTI-TUMOR IMMUNITY OF T CELLS**

00: -

The present invention relates to the technical field of pharmaceuticals, in particular to an application of taraxasterol in preparing drugs for enhancing the anti-tumor immunity of T cells. In-vivo and in-vitro experiments of the present invention proved that taraxasterol could significantly increase a ratio of T cells in spleens of tumor-bearing mice as well as the infiltration of T cells in tumor tissues; and drugs prepared from taraxasterol could enhance the anti-tumor immunity of T cells.



21: 2022/02390. 22: 2022/02/25. 43: 2022/03/17

51: A01B; A01C; A01G; A01N; C05G; A01P

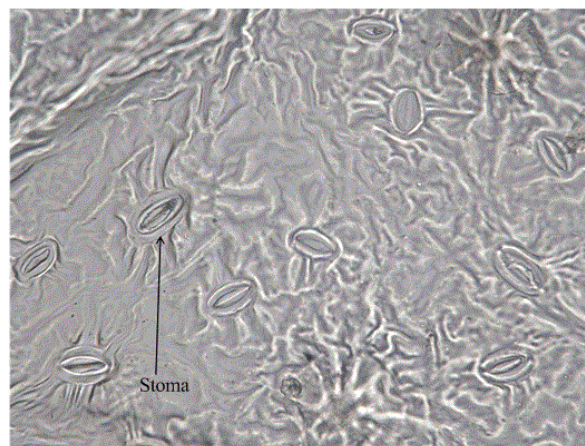
71: Research Institute of Forestry Chinese Academy of Forestry, Liaoning Institute of Economic Forestry  
72: ZHANG, Junpei, ZHAO, Baojun, LIU, Feng, GONG, Yonghong, MA, Qingguo, LI, Dongsheng, HE, Youchao, QU, Hui, PEI, Dong

33: CN 31: 202111664286.X 32: 2021-12-31

**54: METHOD FOR IDENTIFYING DISEASE RESISTANCE OF WALNUT BY STOMATAL DENSITY OF WALNUT LEAVES**

00: -

The present disclosure provides a method for identifying disease resistance of walnut by a stomatal density of walnut leaves and belongs to the technical field of plant growing. According to the present disclosure, the number of stomata of full-grown walnut leaves is microscopically observed, and a stomatal density is calculated. The disease resistance of walnut is identified depending on the positive correlation of the stomatal density with the incidence of diseases. While the disease resistance of walnut is identified by using the technique of the present disclosure, early selection in the process of cross breeding is achieved, thereby weeding out plants having poor disease resistance while retaining plants having high disease resistance. Thus, the efficiency of breeding is improved, and the cost of breeding is saved.



21: 2022/02391. 22: 2022/02/25. 43: 2022/03/17

51: B65B

71: Henan University

72: GU, Lei, CUI, Hongwei

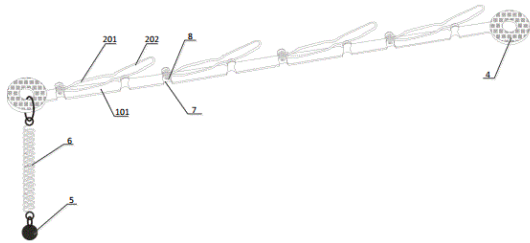
33: CN 31: 202220022685.X 32: 2022-01-06

**54: EXTRUSION DEVICE SUITABLE FOR PASTE PACKED IN COLLAPSIBLE TUBE**

00: -



Disclosed is an extrusion device suitable for a paste packed in a collapsible tube. The device includes a rod body and a fixing clip, the rod body being capable of abutting against a packing collapsible tube, the rod body including a clamping block, a rotation axis, relative to the rod body, of the fixing clip being perpendicular to a length direction of the rod body, and the rod body matching the fixing clip to clamp the packing collapsible tube. When in use, the fixing clip matches the rod body to clamp the packing collapsible tube, and the rod body is rotated, to extrude the paste, thereby improving operation convenience. In addition, the packing collapsible tube is gradually wound around the rod body, so that the paste is prevented from remaining, and the paste is completely extruded out for use as much as possible, thereby avoiding resource waste.



21: 2022/02393. 22: 2022/02/25. 43: 2022/03/16  
51: G01R

71: Standards and Metrology Research Institute, China Academy of Railway Sciences Corporation Limited, China Railway Test and Certification Center Limited, China Academy of Railway Sciences Corporation Limited

72: PAN, Like, CHEN, Liming, YANG, Caizhi, QIAO, Kaiqing, YUAN, Yuan, ZHANG, Haibo, XING, Tong, WEI, Zhongtang

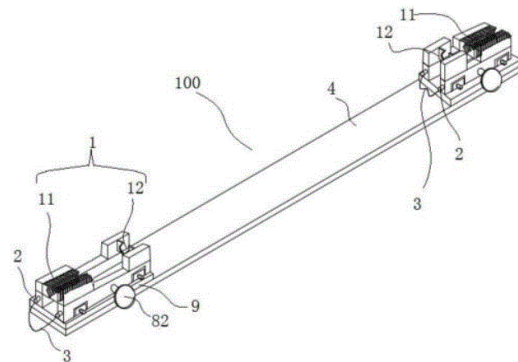
33: CN 31: 202111232469.4 32: 2021-10-22

#### **54: CONTACT LINE RESISTANCE MEASUREMENT DEVICE**

00: -

The invention discloses a contact line resistance measurement device, which comprises opening and closing type clamping devices, opening and closing driving assemblies, power connecting columns and a base. Each opening and closing type clamping device comprises a multi-groove clamping assembly and a second clamping assembly, wherein the multi-groove clamping assembly comprises a first multi-groove clamping sheet and a second multi-groove clamping sheet, the first multi-groove clamping sheet comprises a plurality of first clamping sheet single

bodies, the second multi-groove clamping sheet comprises a plurality of second clamping sheet single bodies, and the first multi-groove clamping sheet is opposite to the second multi-groove clamping sheet. The base is provided with the two opening and closing type clamping devices so as to clamp the two ends of a to-be-tested contact line respectively.



21: 2022/02395. 22: 2022/02/25. 43: 2022/03/16  
51: G01J; G01M

71: Standards and Metrology Research Institute, China Academy of Railway Sciences Corporation Limited, China Railway Test and Certification Center Limited, China Academy of Railway Sciences Corporation Limited

72: PAN, Like, CHEN, Liming, ZHANG, Haibo, XING, Tong, QIAO, Kaiqing, YANG, Caizhi, YUAN, Yuan, ZHANG, Zhiguo, LEI, Dong, ZHAO, Yingxin, WANG, Wei, WANG, Xiaoya, ZHUANG, Nan

33: CN 31: 202111233470.9 32: 2021-10-22

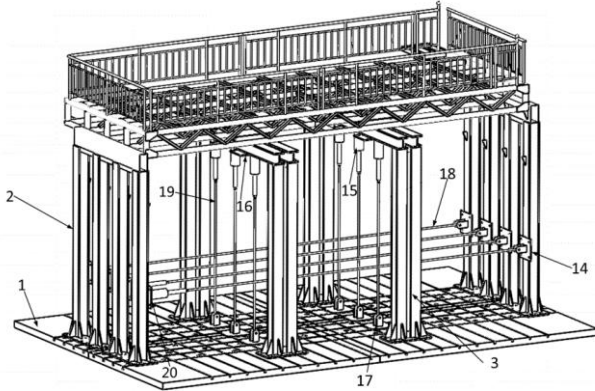
#### **54: MULTI-CHANNEL OVERHEAD CONTACT LINE PART FATIGUE TEST DEVICE**

00: -

The invention discloses a multi-channel overhead contact line part fatigue test device. The multi-channel overhead contact line part fatigue test device comprises a bottom plate, a supporting structure, a top structure, a first test device and a second test device. Wherein, the supporting structure comprises a first supporting structure, a second supporting structure and a third supporting structure; the third supporting structure comprises beams and a plurality of main stand columns, and the tops of the at least two main stand columns are fixedly connected through the beams; the third supporting structure is located between the first supporting structure and the second supporting



structure; and the top structure is located above the supporting structure and fixedly connected with the first supporting structure, the second supporting structure and the beams at the same time.

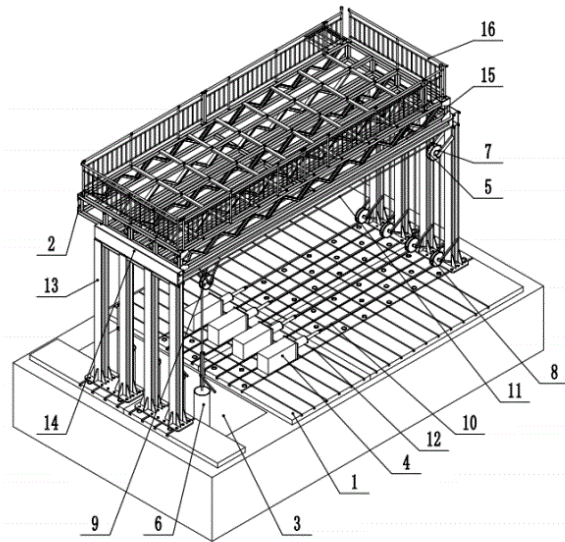


21: 2022/02396. 22: 2022/02/25. 43: 2022/03/16  
51: B60M; G01N  
71: Standards and Metrology Research Institute, China Academy of Railway Sciences Corporation Limited, China Railway Test and Certification Center Limited, China Academy of Railway Sciences Corporation Limited  
72: PAN, Like, CHEN, Liming, XING, Tong, ZHANG, Haibo, QIAO, Kaiqing, YANG, Caizhi, YUAN, Yuan, ZHANG, Zhiguo, LEI, Dong, ZHAO, Yingxin, WANG, Wei, WANG, Xiaoya, HUANG, Yuequn, SUN, Jianxiang, WANG, Xinwei, WANG, Jiawei, WEI, Zhongtang, DAI, Wenrui  
33: CN 31: 202111233466.2 32: 2021-10-22  
**54: MULTI-CHANNEL OVERHEAD CONTACT LINE COMPENSATION DEVICE FATIGUE TEST SYSTEM**

00: -

The invention discloses a multi-channel overhead contact line compensation device fatigue test system. The multi-channel overhead contact line compensation device fatigue test system comprises a mounting bottom plate, a supporting frame and a foundation pit. A plurality of drivers can be fixed to the mounting bottom plate and are connected with to-be-tested compensation devices, the compensation devices are connected with weights, and the drivers can apply acting force to the to-be-tested compensation devices and drive the weights to reciprocate in the vertical direction; and the supporting frame is arranged on the top of the mounting bottom plate and comprises a plurality of mounting positions, the to-be-tested compensation

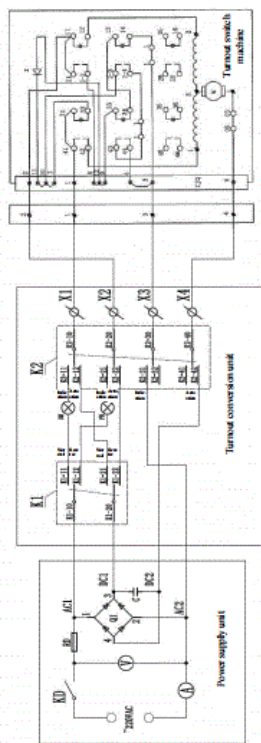
devices can be connected with the mounting positions, the foundation pit is arranged at the bottom of the supporting frame and located on one side of the mounting bottom plate, and the foundation pit can contain the multiple weights.



21: 2022/02397. 22: 2022/02/25. 43: 2022/03/16  
51: B61L  
71: CHINA RAILWAY 14TH BUREAU GROUP THE ELECTRIFICATION ENGINEERING CO., LTD  
72: YU, Changshui, YANG, Hongjian, CAO, Ruqing, SUN, Shisheng, GUAN, Xiaoyu, FENG, Liquan  
**54: PORTABLE TURNOUT OPERATION DEVICE AND TURNOUT OPERATION METHOD**  
00: -

The present disclosure provides portable turnout operation device, including power-supply circuit and turnout conversion circuit; power-supply circuit includes alternating-current power supply interface and bridge rectifier Q1; two input ends of Q1 are AC1 and AC2, two output ends are DC1 and DC2; turnout conversion circuit includes double-pole-double-throw switch K1, normal indication lamp DB, reverse indication lamp FB, four-pole-double-throw switch K2, and external terminals X1-X4; combination of K1 and K2 corresponds to communication relations between the external terminals X1-X4 and AC1, between the external terminals X1-X4 and AC2, between the external terminals X1-X4 and DC1, and between the external terminals X1-X4 and DC2; the external terminals X1-X4 correspond to terminals on turnout switch

machine; and switch combination includes normal actuation, reverse actuation, normal indication, and reverse indication.



21: 2022/02398. 22: 2022/02/25. 43: 2022/03/16  
51: C08F

71: Qingdao University of Science and Technology,  
Qingdao SOCO New Material Co., Ltd

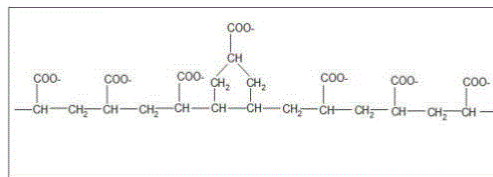
72: HU, Haiqing, XU, Yaqin, ZENG, Xiankui

#### **54: HIGH-STRENGTH RAPID WATER-ABSORBENT RESIN AND PREPARATION METHOD THEREOF**

00: -

The present invention relates to a high-gel-strength rapid water-absorbent resin and a preparation method thereof. Monomers in a reaction system include two types, namely acrylic monomers and monomers having a five- or six-membered ring structure and containing unsaturated double bonds; the monomers are copolymerized to form a three-dimensional network structure with rigid groups on a main chain, so that the main chain has a high strength, and the crystallization property of the molecular main chain is damaged. The crosslinking degree of the water-absorbent resin is not improved, so that the high water absorption property of the resin is maintained while the water-absorbent resin

is endowed with a high strength and rapid crystallization capacity.



21: 2022/02403. 22: 2022/02/25. 43: 2022/03/16  
51: E04B

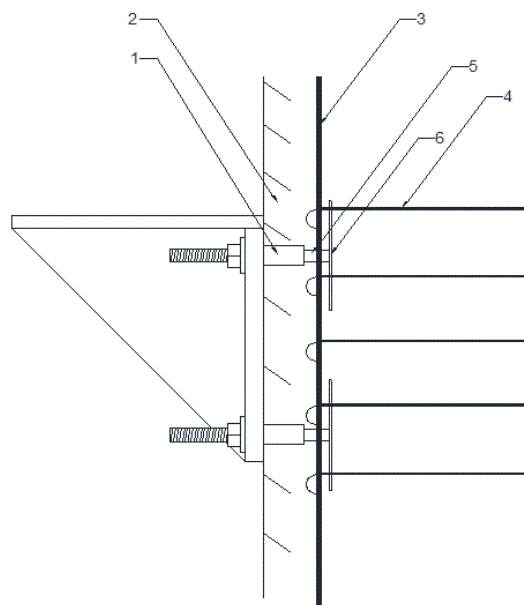
71: SHANDONG HI-SPEED JINAN WEST RING  
ROAD CO., LTD., Shandong University

72: ZHANG, Baoshuo, WANG, Dongming, WANG, Yang, WANG, Yilin, ZHAO, Lin, ZHANG, Feng, ZHAO, Guohao, ZHANG, Luke

#### **54: ANCHORING DEVICE AND METHOD FOR REINFORCED CONCRETE PIER COLUMN ATTACHMENT APPARATUS**

00: -

Disclosed are an anchoring device and anchoring method for a reinforced concrete pier column attachment apparatus. The anchoring device includes an embedded part pre-arranged in a reinforced concrete pier column, one side of the embedded part being provided with a stainless-steel bar sleeve, the other side thereof being provided with a limiting steel sheet and a middle thereof being connected through steel bars. The stainless-steel bar sleeve is located on an outer side, with a plane flush with a finished concrete surface of the pier column. When in use, a high-strength bolt is screwed into a reserved steel bar sleeve hole. A nut and a gasket are utilized to mount the attachment apparatus on the high-strength bolt. The present invention has the beneficial effect of enhanced bearing capacity of an anchoring structure, and features a small size, a low cost and flexible arrangement in a building structure.



21: 2022/02407. 22: 2022/02/25. 43: 2022/03/14  
51: A01K; B28B; C04B

71: Ocean University of China

72: TANG, Yanli, TANG, Lulu, WANG, Xinmeng, LONG, Xiangyu, FANG, Guangjie, WANG, Jiaqi

**54: COMPOSITE MATERIAL FOR  
CONSTRUCTING ECOLOGICAL ARTIFICIAL  
REEF AND MANUFACTURING METHOD  
THEREOF**

00: -

Disclosed are a composite material for constructing an ecological artificial reef and a manufacturing method thereof, comprising BFRP bars instead of steel bars, and a mixed material of cement, water, river sand, crushed oyster shells, crushed stones and an additive; an amount of the BFRP bars accounts for 0.1% of the volume of the mixed material of the artificial reef, and a reinforcement ratio of longitudinal BFRP bars is 0.2%. A particle size of the river sand is 1-2 mm. A particle size of the crushed oyster shell is 1-2 mm. A particle size of the crushed stone is 0.5 cm to 3.0 cm. The additive is a polycarboxylic superplasticizer. The content of the superplasticizer is 2.0% of the content of the cement. The composite material has high-cost performance, remarkable ecological effect, simple and convenient manufacturing method, easy implementation, effectiveness and convenient popularization.

21: 2022/02421. 22: 2022/02/25. 43: 2022/03/17

51: C25B; H01G; H01M

71: QINGDAO UNIVERSITY

72: DU, Hui, DUAN, Yajing, CHEN, Zhaojun, FU, Hui, FU, Jinzhe

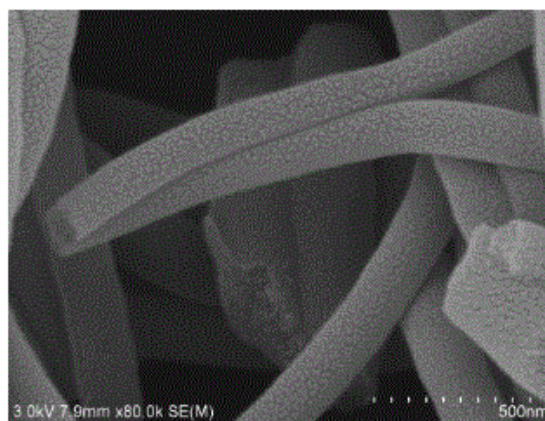
33: CN 31: 201910804766.8 32: 2019-08-28

**54: MOLYBDENUM**

**DISULFIDE/GRAPHENE/CARBON COMPOSITE  
MATERIAL AND USE THEREOF**

00: -

A molybdenum disulfide/graphene/carbon composite material having a hierarchical pore structure, consisting of a composite nanofiber (1) having a diameter of 60 to 500nm. The composite nanofiber (1) comprises, in mass percentage, 3% to 35% of molybdenum disulfide, 0.2% to 10% of graphene, and 60% to 95% of carbon. The composite nanofiber (1) has a hierarchical pore structure distributed along the axial direction, and has a pore diameter continuously distributed between 0.1 nm and 5 micro-m and an average pore diameter between 1.5 nm and 25 nm. On the basis of the pore volume, in the hierarchical pore structure, a micropore structure (3) accounts for 25% to 60%, and a mesoporous structure (2) accounts for 40% to 75%. The microporous structure (3) is distributed on the surface of the nanofiber and the pore wall of the mesoporous structure (2). The composite material has advantages such as high specific surface area, well developed pore structure, controllable pore size and structure, and wide range of application.



21: 2022/02450. 22: 2022/02/28. 43: 2022/03/30

51: C02F

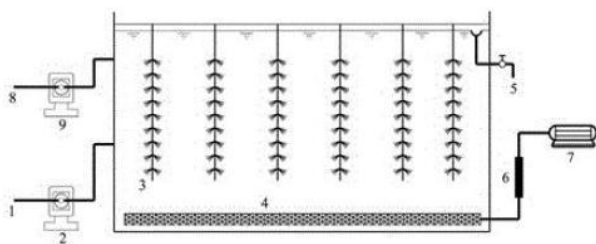
71: Jilin Jianzhu University

72: Xiaoling WANG, Jing LUO, Yin YIN, Tianni CHI, Yucheng JIN, Yuting ZHOU

**54: AEROBIC CO-METABOLIC TREATMENT OF LIGNITE UPGRADING WASTEWATER**

00: -

Aerobic co-metabolic treatment of lignite upgrading wastewater relates to a method for treating coal chemical wastewater, the present invention solves the problem of poor removal of polluting components that cannot be directly used as microbial nutrients in aerobic reactors or the low number of microbial flora that can degrade such substances and the poor function of the flora, the main steps are: lignite upgrading wastewater is selected; trehalose is selected as the first substrate for co-metabolism, and its dosage is regulated by an automatic dosing system, the return sludge from the secondary sedimentation tank of the municipal wastewater plant is used as the inoculated sludge, and the aerobic reactor is maintained with a hydraulic retention time of 18~24h to control a stable working condition, the invention uses trehalose as the first substrate, and organic substances that cannot be used as direct substrates for aerobic microorganisms can be degraded, or the growth and reproduction of aerobic microorganisms using the substance as a substrate can be enhanced, the COD removal rate of aerobic treatment of lignite upgrading wastewater can reach more than 85% and the total phenol removal rate can reach more than 80% after stable operation.



21: 2022/02451. 22: 2022/02/28. 43: 2022/03/30  
51: C02F

71: Jilin Jianzhu University

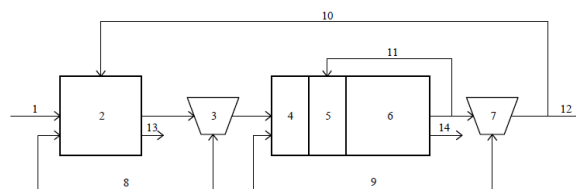
72: Ke ZHAO, Ang DONG, Qian WANG, Guosong PENG, Yinze ZHU

**54: A METHOD FOR TREATING DOUBLE-SLUDGE SEWAGE BASED ON HPA/HYDROGEN AUTOTROPHIC DENITRIFICATION COUPLING MECHANISM**

00: -

A method for removing carbon, nitrogen and phosphorus in double-sludge sewage based on

HPA/hydrogen autotrophic denitrification coupling mechanism relates to a method for removing nitrogen, phosphorus and other pollutants in the sewage with shortage of carbon source. The present invention solves the problems of difficult gas collection and poor digestion efficiency when the anaerobic digestion is used in the pretreatment process, and provides the high-quality carbon source acetic acid for the follow-up nitrogen and phosphorus removal process. The main steps are as follows: the sewage treated by the grit tank enters HPA/denitrification coupling reaction tank, while the process effluent flows back into the tank; after the reaction, the process effluent enters the primary sedimentation tank for solid-liquid separation, and the concentrated sludge flows back into coupling reaction tank; the supernatant in the primary sedimentation tank enters the follow-up anaerobic/anoxic/aerobic activated sludge reaction tank, while nitrogen and phosphorus are removed simultaneously; the mixed liquid after the reaction enters the secondary sedimentation tank for solid-liquid separation, the supernatant is the treated water, and the concentrated sludge flows back into anaerobic/anoxic/aerobic activated sludge reaction tank.



21: 2022/02452. 22: 2022/02/28. 43: 2022/03/30

51: C02F; E03B; F16L; G01N

71: Jilin Jianzhu University

72: Jianhui WANG, Jiahui REN, Ruqi SUN, Mingdong LI, Jiajie LIU, Xingyu ZHU, Guolong XIE, Xin QI

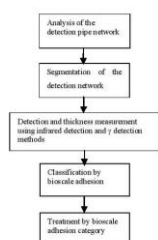
**54: METHOD FOR BIOSCALE DETECTION IN OLD CITY PIPE NETWORK**

00: -

The present invention relates to a method for bioscale detection in old city pipe network, including step (1) obtaining the required detection pipe network according to the analysis of the characteristics of bioscale adhesion, step (2)



segmenting and sorting the detection pipe network, step (3) detecting and measuring the thickness by using the method of infrared detection and  $\gamma$ -ray detection, step (4) classifying and marking according to the adhesion degree and step (5) classifying and processing; the present invention achieves advance prediction of pipe network lines where bioscale may exist and segmenting by using the characteristics of bioscale adhesion, by using the pipe network layout line of the old city, the distribution of residential areas, the distribution of urban shopping malls and traffic routes for analysis to achieve advance prediction of the pipe network lines that may exist bioscale and segmentation, the detection efficiency is greatly improved, while the pipe network lines are detected and bioscale thickness measured by infrared detection and  $\gamma$ -ray detection methods, and the results are classified and processed according to the measured results, without the need to separate and cut off for detection and processing, time & effort saving and high detection accuracy.



21: 2022/02453. 22: 2022/02/28. 43: 2022/03/30  
51: C09C

71: Hangzhou Huawang New Material Technology Co., Ltd., Zhejiang University of Science and Technology

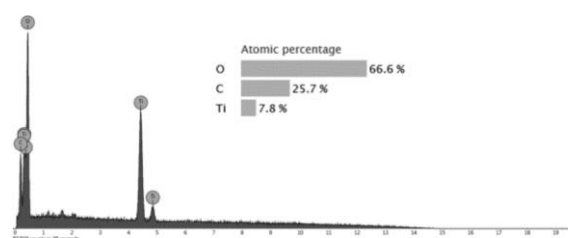
72: ZHANG, Yan, WANG, Huile, WU, Haibiao, LIU, Zhong, ZHAO, Huifang, SHA, Lizheng, YE, Bin

#### **54: REVERSED-PHASE MICROEMULSION METHOD FOR PREPARING KAOLIN/TITANIUM DIOXIDE COMPOSITE FILLERS**

00: -

The present invention provides a method for preparing kaolin/titanium dioxide composite fillers, including the following steps: (1) dispersion; (2) grinding; (3) configuration of water phase system; (4) configuration of oil phase system; (5) preparation of composite filler by a reversed-phase microemulsion method; (6) emulsification; (7) separation and drying. The titanium dioxide of the present invention is featured by high coating strength on the surface of kaolin, and less proneness to coming off; uniform distribution and low agglomeration; easy control on the coating thickness, and a simple and

environmentally-friendly process, achieving the objective of orderly and stable coating distribution of  $\text{TiO}_2$  on the surface of a core.



21: 2022/02454. 22: 2022/02/28. 43: 2022/03/30  
51: A23L

71: Guizhou Subtropical Crops Research Institute  
72: HAN, Shuquan, LUO, Lina

#### **54: METHOD FOR PROCESSING ROASTED-FLAVOR MACADAMIA NUTS**

00: -

The present invention provides a method for processing roasted-flavor macadamia nuts.

21: 2022/02455. 22: 2022/02/28. 43: 2022/03/30  
51: B23K

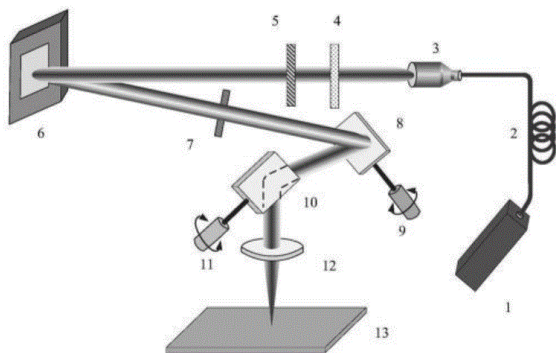
71: Qingdao University of Technology

72: SHAO, Jing, HAN, Suli, DONG, Hao, WANG, Yingming, LI, Zhuo, LIN, Haibo, SUN, Shufeng

#### **54: LASER PROCESSING DEVICE AND METHOD WITH BEAM SHAPING**

00: -

Provided are a laser processing device and method with beam shaping. The laser processing device with beam shaping includes a polarization angle regulator, a spatial light modulator, a galvanometer and a focusing lens. The polarization angle regulator is used to regulate collimated beams into a set polarization angle and transmit the collimated beams into the spatial light modulator. A phase modulation mask is loaded on the spatial light modulator, and is used to modulate amplitude distribution and phase distribution of diffracted beams to generate information of an exit pupil complex function required for beam shaping, so as to obtain modulated collimated beams; and the galvanometer reflects the collimated beams into different angles, generates a required shaping focused spot at an image plane position of the focusing lens, and projects the shaping focused spot onto different positions on a workpiece surface through the focusing lens.



21: 2022/02456. 22: 2022/02/28. 43: 2022/03/30

51: C22C; C22F

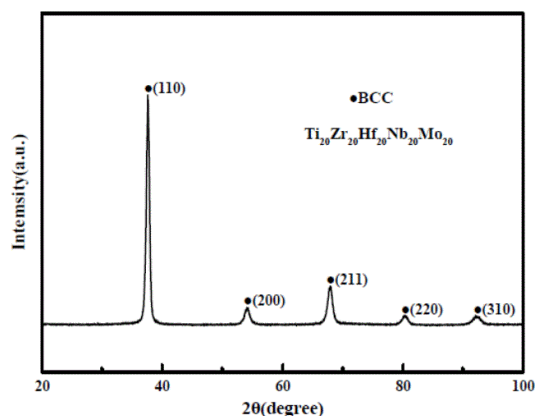
71: Shenyang University of Technology

72: DONG, Fuyu, ZHANG, Yue, YUAN, Ye, ZHOU, Guishen, YUAN, Xiaoguang

**54: HIGH-ENTROPY ALLOY WITH DESIRABLE HOT WORKING PERFORMANCE AND PREPARATION METHOD THEREFOR**

00: -

The present invention relates to the technical field of alloy material preparation, in particular to a high-entropy alloy with desirable hot working performance.



21: 2022/02457. 22: 2022/02/28. 43: 2022/03/30

51: A01N; C12N; C12R; A01P

71: Jiangxi Dronephon Technologies Co. Ltd

72: LIANG, Beida, WANG, Bin, LI, Xiang

**54: AGRICULTURAL INSECTICIDAL COMPOSITION AND APPLICATION THEREOF**

00: -

The present disclosure provides agricultural insecticidal composition. The composition is prepared from components in parts by weight as follows: 30-90 parts of an active pharmaceutical ingredient, 10-70 parts of a pharmaceutical carrier

and 0.1-20 parts of an adjuvant, wherein the active pharmaceutical ingredient is prepared from *C. fumosaroseus* and *B. bassiana* in the weight ratio being (0.13-4.4):(0.25-7.5). *C. fumosaroseus* and *B. bassiana* of the agricultural insecticidal composition are compounded, the obtained agricultural insecticidal composition is efficient, low in toxicity, stable in insecticidal effect, safe to humans, animals and crops, capable of protecting the crops without hurting natural enemies, high in safety and good in environmental protection performance, the maximum control effect can be 85% or above, and the insecticidal effect of the composition is significantly higher than that of *B. bassiana* or *C. fumosaroseus* which is sprayed separately.

21: 2022/02458. 22: 2022/02/28. 43: 2022/03/30

51: C05G

71: Qingdao Agricultural University

72: HUANG, Xiaoli, ZHANG, Yuna

**54: FE/GRAPHENE/BIOCHAR AND A CARBON-BASED SLOW-RELEASE COMPOUND FERTILIZER SPECIAL FOR CORN AND APPLICATION THEREOF**

00: -

The disclosure provides a Fe/graphene/biochar and a carbon-based slow-release compound fertilizer special for corn and application thereof, and belongs to the field of fertilizers. The carbon-based slow-release compound fertilizer special for corn comprising Fe/graphene/biochar, ammonium sulfate, potassium dihydrogen phosphate, bentonite, calcium sulfate, culture of *Trichoderma virens* F7 and mixture of borax and zinc sulfate. The absorption of nutrient elements in corn crops was enhanced, the growth conditions of corn was improved, and the role in reducing fertilizer and increasing efficiency was played through the slow-release effect of biochar and the decomposition effect of biological strains, etc.

21: 2022/02465. 22: 2022/02/28. 43: 2022/03/30

51: G09B

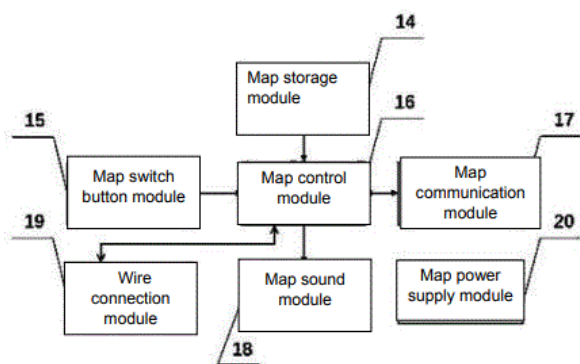
71: Jiangxi fufang technology co., ltd

72: Zhao Shuying, Tian Xiangzhang, Hu Bin, Sun Hao

**54: SCREEN-FREE PROGRAMMING LEARNING SYSTEM AND PROGRAMMING METHOD THEREOF**

00: -

This invention provides screen-free programming learning system and programming method thereof, which the programming task is set in the form of "lighting on" at different positions on the map, and then the programming robot is programmed with the programming card. Finally, the programming robot moves on the map according to the programmed program to complete the "lighting off" task. The learning programming without touching the computer or mobile phone can not only protect the user's eyesight, but also exercise the user's programming ability and logical thinking. A screen-free programming learning system comprises a programming robot (1), map props (2) and a programming card (3), wherein the programming robot (1) comprises a point reading module (4), a power module (5), a robot communication module (6), a sensor module (7), a robot sound module (8), a robot key module (9), a robot main control module (10) and a robot power supply module (11), the map prop (2) includes a map main module (12) and a map sub-module (13), and the programming card includes a start card (26), a design card (27) and an end card (28).



21: 2022/02472. 22: 2022/02/28. 43: 2022/03/30  
51: A23C

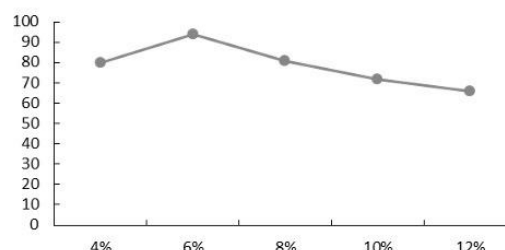
71: QINGDAO AGRICULTURAL UNIVERSITY  
72: FAN, Rongbo, DU, Qijing, QIN, Yang, JIANG, Hongning, WANG, Jun, HAN, Rongwei, YANG, Yongxin

#### 54: METHOD FOR PREPARING PEA PROTEIN FERMENTED MILK

00: -

The present invention belongs to the field of dairy product processing, and provides a formula of pea protein fermented milk, including the following raw

materials in percentage: pea protein powder 6%, pea starch 1%, soft sugar 10%, inoculant 10%. The pea protein fermented milk obtained by the present invention has smooth texture and delicate taste, is rich in protein with unique bean flavor, and has zero fat content.



21: 2022/02475. 22: 2022/02/28. 43: 2022/03/30  
51: G01S

71: Hunan Normal University

72: Yu Huimin, Du Baoqiang, Wang Yuming

#### 54: GROUND PENETRATING RADAR FEATURE EXTRACTION METHOD AND SYSTEM BASED ON COMPRESSED SENSING

00: -

The invention discloses a ground penetrating radar feature extraction method and system based on compressed sensing. The method includes: construct a sparse matrix for transforming dimensions between a target space and a parameter space, and the sparse matrix is used to convert the dimension column vector of the target space into the coefficient vector of the target space expanded on the sparse matrix, and the coefficient vector is the multidimensional column vector of the parameter space; obtain discrete received signal in column vector form by sampling signals at aperture. Then extract discrete received signal in column vector based on compressed sensible feature. The invention directly extracts the features of the target of interest on the surface under the condition of less random measurement of space-time response data by the ground penetrating radar.

Construct a sparse matrix for transforming dimensions between a target space and a parameter space



Obtain discrete received signal  $R$  in column vector form by sampling signals at aperture  $i$



Extract discrete received signal  $R$  in column vector based on compressed sensible feature

21: 2022/02478. 22: 2022/02/28. 43: 2022/03/30

51: C12N; C12R

71: HEZE UNIVERSITY

72: XU, Qian, DU, Ruiqi

#### **54: CULTURE MEDIUM APPLICABLE TO LIQUID FERMENTATION PRODUCTION OF PHELLINUS IGNIARIUS**

00: -

The present disclosure particularly relates to a culture medium applicable to liquid fermentation production of *Phellinus igniarius*. Its special feature is that it is made of the following raw materials by weight: wheat bran 6-8%, corn flour 2-4%, peptone 1-3%,  $MgSO_4 \cdot 7H_2O$  0.05-0.15%,  $KH_2PO_4$  0.10-0.15%,  $K_2HPO_4 \cdot 3H_2O$  0.02-0.04%, the rest is water. The present disclosure has the advantages of convenient selection of raw materials and low cost, and high yields of *Phellinus igniarius* and extracellular active substances can be obtained by using the formula obtained by research. The yield of mycelium reached 4.6217g/100mL (46.217mg/mL). The output of extracellular flavonoids reached 16.198mg/mL. The output of extracellular triterpenoids reached 5.736 mg/mL.

21: 2022/02479. 22: 2022/02/28. 43: 2022/03/30

51: G05B

71: QINGDAO VOCATIONAL AND TECHNICAL COLLEGE

72: LI, Wen, GAO, Jian

#### **54: FLEXIBLE MANUFACTURING UNIT BASED ON CNC MACHINE**

00: -

The present disclosure provides a technical solution of a flexible manufacturing unit based on a CNC machine. The flexible manufacturing unit includes: an electrical control unit, a pneumatic drive unit, and a mechanical execution unit; wherein the electrical control unit includes a CNC device, an external PLC device, a voice module, a man-machine interaction

device, an automatic tool presetting device, and an electrical wiring; the pneumatic drive unit includes a switchover valve, a check valve, and a single-acting cylinder; and the mechanical execution unit includes a frame-type beam support, a workpiece pickup device, and a bin device.

21: 2022/02480. 22: 2022/02/28. 43: 2022/03/30

51: C02F

71: Jilin Jianzhu University

72: Guang LI, Bing HAN, Chunyan SHI, Xingyu LI, Yunyong YU

#### **54: METHOD FOR IN-SITU CADMIUM REMOVAL FROM GROUNDWATER**

00: -

The invention relates to a method of in-situ cadmium removal from groundwater, characterized by the following specific steps: cadmium-contaminated groundwater first flows into the injection well, where it is mixed with the surfactant cast, and then enters the ion flotation grid, with an aeration tube set at the bottom of the grid, and under the action of air perturbation, the isolates in the groundwater adhere to the bubble surface and rise to the bubble chamber of the ion flotation grid, and most of the bubbles are separated out, and the effluent water is further removed from the bubbles by the bubble enhanced separation well to improve the effluent water quality, which has high cadmium removal efficiency and long stable operation cycle of the system, and can economically and effectively remediate the cadmium-contaminated groundwater in-situ.

21: 2022/02483. 22: 2022/02/28. 43: 2022/03/30

51: E02B

71: JIAXING JINXILAI TECHNOLOGY CO. LTD

72: LV, Yan

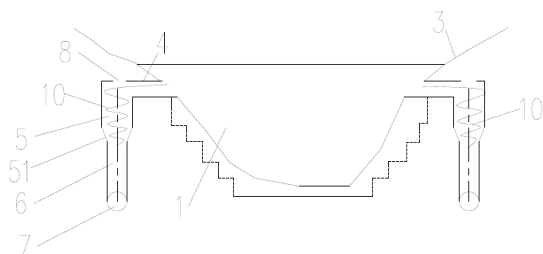
#### **54: DISSIPATION STRUCTURE FOR DEBRIS FLOW PREVENTION OF BRIDGE ENGINEERING AND DESIGN METHOD**

00: -

The present invention relates to civil engineering and a dissipation structure for debris flow prevention of bridge engineering and a design method. The dissipation structure comprises a dissipation system and a blocking dam. The dissipation system is provided in a slope body and comprises a discharge hole, a dissipation cavity, and a drainage hole. One end of the discharge hole is communicated with a



channel, other end is communicated with one end of the dissipation cavity, and the outlet axis direction of the end of the discharge hole communicated with the dissipation cavity and axial direction of the dissipation cavity are on different planes. The other end of the dissipation cavity is communicated with the drainage hole, and the drainage hole is communicated with a channel. A vent hole is formed above the dissipation cavity. A plurality of protruding structures is arranged on the inner wall of the dissipation cavity.



21: 2022/02484. 22: 2022/02/28. 43: 2022/03/30

51: E02B

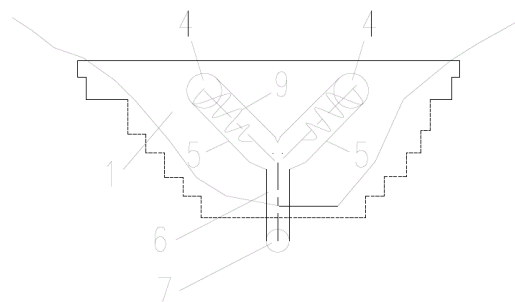
71: JIAXING JINXILAI TECHNOLOGY CO. LTD

72: LV, Yan

**54: ANTI-IMPACT DUAL-CAVITY IMPACT-MITIGATION-TYPE DISSIPATION STRUCTURE FOR BRIDGE PROJECT AND DESIGN METHOD**

00: -

The present invention relates to civil engineering, and specifically relates to an anti-impact dual-cavity impact-mitigation-type dissipation structure for a bridge project and a design method. The dissipation structure comprises a blocking dam and a dissipation system; the dissipation system comprises discharge tunnels, dissipation cavities, and a discharge guide tunnel; the number of the discharge tunnels and the dissipation cavities are two; each discharge tunnel has one end communicated with a channel upstream of the blocking dam, and the other end communicated with one dissipation cavity; the outlet axis direction of each discharge tunnel communicated with the dissipation cavity and the axis direction of the dissipation cavity are located on different planes; the other ends of two dissipation cavities are communicated with the discharge guide tunnel, and it is communicated with a channel downstream of the blocking dam; and the top of each dissipation cavity is provided with a vent hole.



21: 2022/02485. 22: 2022/02/28. 43: 2022/03/30

51: C01B

71: SOUTH CHINA UNIVERSITY OF TECHNOLOGY

72: WANG, Yanhong, YIN, Kaidong, FAN, Shuanshi, LANG, Xuemei, LI, Gang, WANG, Shenglong, YU, Chi

33: CN 31: 202010041161.0 32: 2020-01-15

**54: METHOD FOR STORING HYDROGEN USING STRUCTURE-H HYDRATE**

00: -

Provided is a method for storing hydrogen using a structure-H clathrate hydrate. According to the method, by means of a hydrogenation reaction of an aromatic compound, hydrogen is stored in an alkane product obtained after the hydrogenation in the form of hydrogen protons, and then the alkane product forms a structure-H clathrate hydrate with water to form a cavity, so that hydrogen is encaged in the cavity of the clathrate hydrate. Compared with other hydrogen storage methods, the present method has the advantages of environmental protection, economy, and safety. Compared with conventional hydrate-based hydrogen storage methods, the present method has higher hydrogen storage density and milder conditions.

21: 2022/02489. 22: 2022/02/28. 43: 2022/04/07

51: B03D; C22B

71: REY BUSTAMANTE, Felipe José

72: REY BUSTAMANTE, Felipe José

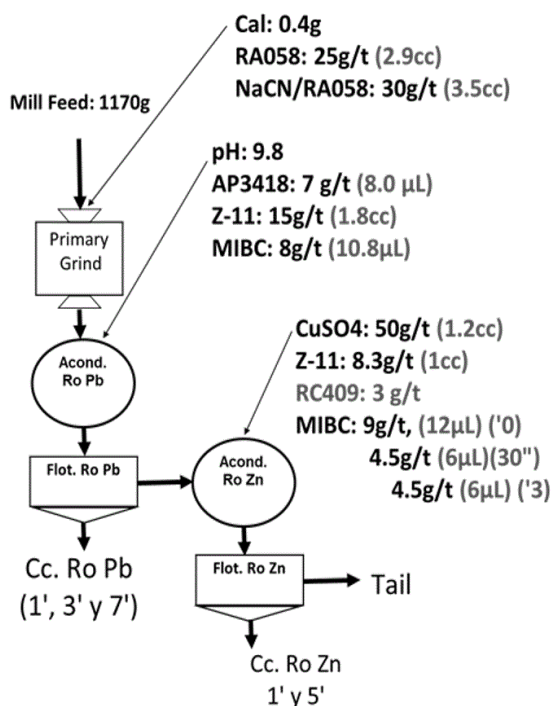
33: PE 31: 001520-2019/DIN 32: 2019-08-01

**54: COMPLEX DEPRESSANT FOR CONTROLLING ZINC AND IRON IN POLYMETALLIC-ORE FLOTATION, PRODUCTION PROCESS AND APPLICATION AS A SUBSTITUTE FOR ZINC SULFATES AND COPPER SULFATES**

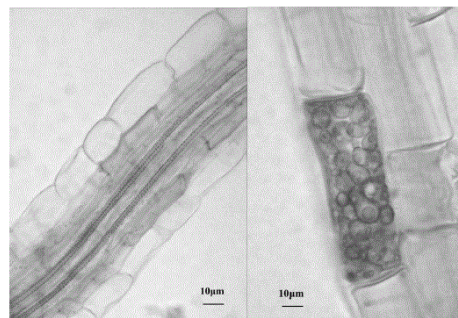
00: -

This proposed invention consists of a process for elaborating a depressant agent, which includes, by

weight percentage, dissolving 1-40% humic acid, or humic acid derivatives, in 50-99% water at a temperature between 15-30C and solubilizing it by adding 0-10% potassium hydroxide; the temperature will rise due to the solvation of potassium hydroxide (30-45C); leaving to react and homogenize for 20-60 minutes; causing the latter product to react with 0.1-15% of fulvic acid to generate a product that controls zinc and iron during flotation. The purpose of this invention is to fully replace zinc sulfate, reducing the dosage of the replacement depressant agent by up to 20 times less, furthermore reducing the amount of CuSO<sub>4</sub> used in the flotation process, among other improvements.



application value in promoting blueberry growth and enhancing plant disease resistance in blueberry cultivation, and promotes the preservation of blueberry fruits. In addition, the strain can antagonize *Sclerotinia sclerotiorum* and has an excellent effect on the promotion of germination of tomato seeds and root growth.



21: 2022/02692. 22: 2022/03/07. 43: 2022/03/30  
51: G01N; G06N; G06Q

71: Jilin Jianzhu University

72: LIN, Yingzi, LIU, Gen, WANG, Gaoqi, ZHANG, Daihua, YANG, Hao, WEI, Yuhang, LIU, Wanqing

#### **54: METHOD AND SYSTEM FOR PREDICTING DISINFECTION BY-PRODUCTS IN DRINKING WATER**

00: -

The disclosure provides a method and a system for predicting disinfection by-products in drinking water. The method includes: acquiring water age prediction data of the drinking water to be predicted and water quality data of the drinking water to be predicted; inputting the water age prediction data and the water quality data into an adaptive genetic BP neural network model for predicting the disinfection by-products in the drinking water to obtain prediction values of the disinfection by-products in the drinking water. The disinfection by-products in a water supply pipe network can be predicted efficiently and economically by using the method and the system for predicting the disinfection by-products in the drinking water provided by the disclosure.

21: 2022/02691. 22: 2022/03/07. 43: 2022/03/30  
51: C12N

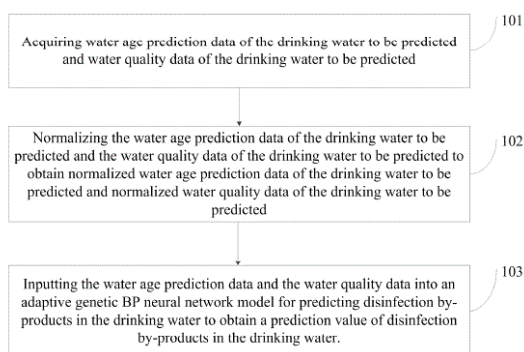
71: Anqing Normal University

72: SONG, Xiaohe, LI, Yankai, LI, Ping, LIU, Dong, YU, Daoping, ZHOU, Duoqi, YIN, Liwei, SONG, Yaling

#### **54: DARK SEPTATE ENDOPHYTE STRAIN IN BLUEBERRY ROOT AND USE THEREOF**

00: -

The present disclosure provides a dark septate endophyte (DSE) strain in blueberry roots and use thereof, and belongs to the field of application of microbial technology. The strain has potential



21: 2022/02693. 22: 2022/03/07. 43: 2022/03/30

51: B01J; C07C; C08K; D06P

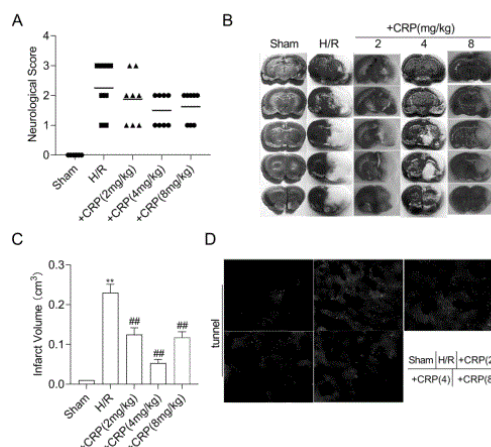
71: Xinxiang Medical University, Zhengzhou University of Light Industry

72: ZHU, Tiantian, YANG, Pengfei, REN, Kaidi, LI, Peng, ZHAO, Fanrong, LU, Junxiu, ZHANG, Weifang, LIU, Hua

#### 54: LYONIREBINOL COMPOUND AND PREPARATION METHOD THEREOF AND APPLICATION THEREOF

00: -

The present disclosure provides a lyoniresinol compound and a preparation method thereof and application thereof, and belongs to the technical field of medicines. The lyoniresinol not only improves cell viability, inhibits cell apoptosis, and reduces content of reactive oxygen species of cells, but also improves the quantity of mitochondrial fusions in cells and the expression quantity of MFN-2 mRNA, indicating the lyoniresinol has potential medicinal value in preventing cerebral apoplexy caused by cerebral ischemia-reperfusion injury.



21: 2022/02694. 22: 2022/03/07. 43: 2022/03/30

51: C07D; C09K

71: Dezhou University

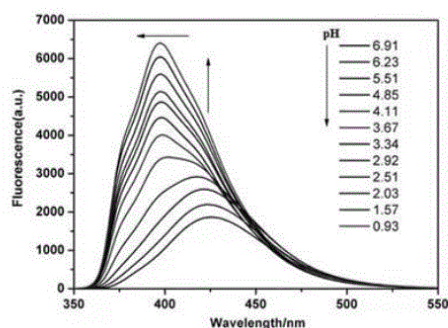
72: ZHANG, Xiuling, ZHANG, Yongzheng, ZHANG, Dashuai, GENG, Longlong, CHEN, Yuting, YAN, Jingjie, WANG, Qian

33: CN 31: 202111537166.3 32: 2021-12-16

#### 54: FLUORESCENT MATERIAL WITH ON-OFF RESPONSE TO ACID-BASE PH CHANGE AND APPLICATION THEREOF

00: -

The present invention provides a fluorescent material with on-off response to an acid-base pH change, and an application thereof, and relates to the technical field of organic dye function detection. The fluorescent dye provided by the present invention is prepared through one-step polymerization by using 2,4-dihydroxy benzaldehyde and 9,10-phenanthrenequinone as reaction materials and ammonium acetate as a catalyst, with a high yield; the dye contains both imine proton action sites sensitive to an acid environment and secondary amine as well as two hydroxyl sites sensitive to an alkaline environment, and exhibits fluorescent "on-off" double-switching detection responses to a wide-range pH change from acid to alkaline environment, showing a significant application value. The method for preparing the fluorescent dye has the advantages of high yield, simple preparation process, easy implementation, etc., which creates favorable conditions for popularization and application of the fluorescent dye.



21: 2022/02695. 22: 2022/03/07. 43: 2022/03/30

51: C07K; G01N

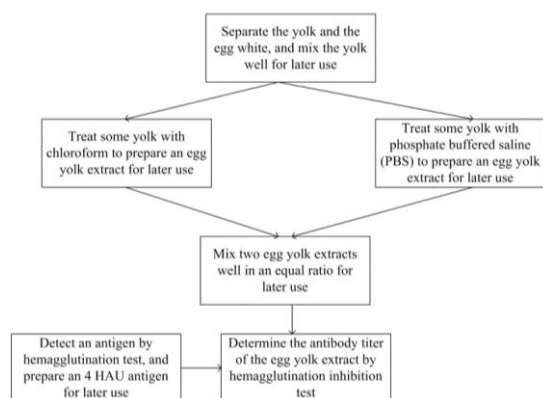
71: LINYI UNIVERSITY

72: SUN, Peiming, WANG, Yan, WANG, Fang

#### 54: NEW METHOD FOR REPLACING SERUM ANTIBODY MONITORING WITH EGG YOLK ANTIBODY AGAINST H5 SUBTYPE AVIAN INFLUENZA

00: -

The present disclosure belongs to the technical field of egg yolk antibody monitoring, and particularly relates to a new method for replacing serum antibody monitoring with egg yolk antibody against H5 subtype avian influenza. The present disclosure provides a method for replacing serum antibody monitoring with antibody monitoring by means of egg yolk extracts extracted by phosphate buffered saline (PBS) and chloroform. Herein, blood collection is not required during antibody monitoring, but only poultry egg collection is needed, without inducing stress to poultry and influencing the health and productivity of the poultry; during the antibody monitoring, a serum antibody titer is replaced with a titer of antibody against H5 subtype avian influenza in a mixture of two egg yolk extracts.



21: 2022/02696. 22: 2022/03/07. 43: 2022/03/30  
51: E21C

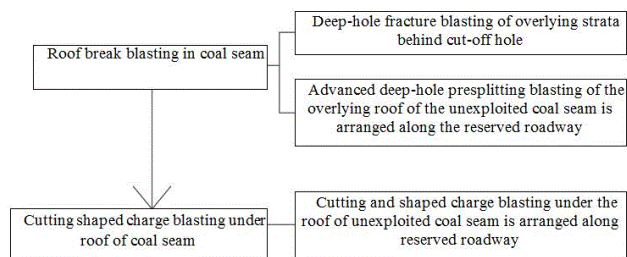
71: Anhui University of Science and Technology  
72: Fu Jugen, Wang Mengxiang, Wang Haibo, Xu Ying, Zong Qi, Liu Jian, Huang Wenyao, Wang Hao, Liu Mohan, Liu Zhichao, Li Chongqing, Mao Longfei, Ye Shuangshuang, Luo Lingfeng

#### **54: BLASTING METHOD FOR GOB-SIDE ENTRY RETAINING WITH EXTREMELY THICK ROOF BROKEN AND CUT**

00: -

The invention discloses a blasting method for gob-side entry retaining with extremely thick roof, which comprises the blasting of coal seam roof breaking and the blasting of coal seam roof cutting and shaped charge. The invention has the beneficial effects that forced roof caving by deep-hole blasting of the open-cut roof and deep-hole presplitting blasting of the overlying roof of the uncapped coal seam cause blasting damage to the overlying rock mass in the middle of the overlying rock mass

behind the open-cut coal seam and the overlying rock mass of the uncapped coal seam. With the mining of coal seam, the overlying strata in front of the cut-off will break, and at the same time, the strata in front of the cut-off will fall along the blasting damage area with the mining of coal seam, so as to ensure the roof falling and reduce the crushing degree of other areas of the roof; Through the energy-gathering blasting construction of the cut rock stratum, the overlying roof of the goaf is separated from the overlying roof of the retaining roadway along the energy-gathering direction, and the rock damage on both sides is reduced, which ensures that the roof rock coming down along the goaf along the retaining roadway has good integrity and the side rock mass of the retaining roadway goaf has strong compactness and integrity.



21: 2022/02698. 22: 2022/03/07. 43: 2022/03/30  
51: E21B

71: China University of Mining and Technology  
72: Zhang Lei, Tu Shihao, Li Jinghua, Tang Jun, Wu Gang, Tu Hongsheng

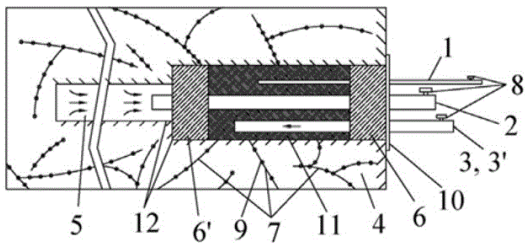
#### **54: ROCK STRENGTHENING AND GAS DRAINAGE BOREHOLE SEALING DEVICE AND METHOD**

00: -

The invention provides a rock strengthening and gas drainage borehole sealing device and method for sealing fractures with powder particles and high grouting pressure, which is suitable for underground use in coal mines. The device comprises an outer bag and an inn bag, wherein a fixing piece is arranged on a gas drainage pipe behind the outer bag; a flower pipe, a bag grouting pipe and a grouting pipe are arranged on the inner bag and pass through the fixing piece; the tail parts of the flower pipe, the bag grouting pipe and the grouting pipe are arranged at the rear of the outer bag; and the tail parts of the flower pipe, the bag grouting pipe and grouting pipe are respectively provided with a valve; carbon dioxide is used to wrap quicklime



powder, which is introduced into the space between sealing materials by the flower pipe. The fractures around the borehole are sealed by reaction products, and cement mortar is injected through grouting pipe to achieve the purpose of sealing fractures and actively supporting the borehole. The damage caused by mining is effectively reduced, thus prolonging the effective drainage period of gas drainage in boreholes, increasing the concentration of gas drainage and maintaining the stability of boreholes, which can significantly improve the effect of gas drainage in coal seams and ensure the safety of underground workers.



21: 2022/02699. 22: 2022/03/07. 43: 2022/03/30

51: G06F

71: Taiyuan University of Technology

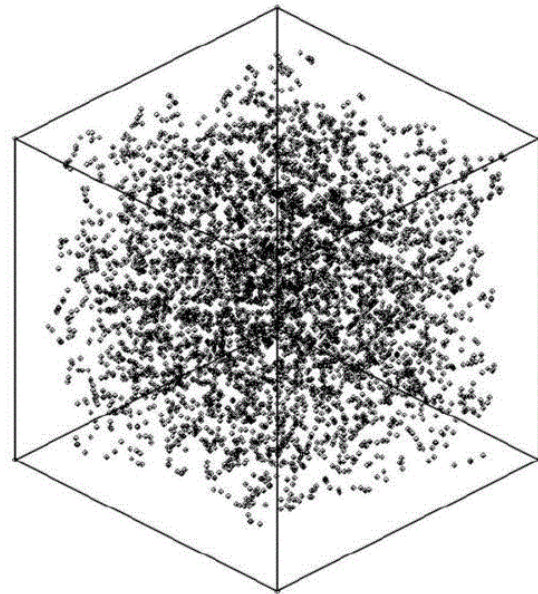
72: Zhang Jie, Wang Zhihua, Shu Xuefeng, Wang Zhiyong, Chen Qingqing

**54: THREE-DIMENSIONAL MESO-SCALE MODELING METHOD OF FULLY-GRADED CONCRETE WITH RANDOMLY DISTRIBUTED PORE DEFECTS**

00: -

The invention relates to a three-dimensional meso-scale modeling method of fully-graded concrete with randomly distributed pore defects, which mainly solves several important problems in the current meso-scale concrete modeling process: (1) most of the modeling methods are difficult to avoid complicated aggregate convexity judgment and intersection or overlap detection among aggregates; (2) the modeling method based on the traditional Voronoi method is difficult to meet the requirements of aggregate gradation; (3) it is difficult to introduce randomly distributed pore defects into meso-scale concrete model; (4) the modeling efficiency needs to be further improved. According to the method, each convex polyhedral cell in the three-dimensional Voronoi graph is subjected to random shrinkage process with the corresponding nucleation point as

the center, which meets the aggregate gradation requirements and a meso-scale model of fully-graded concrete is generated; quickly introducing the random pore defects with the required volume content outside the aggregate distribution area, and the meso-scale model of fully-graded concrete with randomly distributed pore defects is established. This modeling method has obvious efficiency advantages and is useful for further study the influence of internal defects of concrete on its mechanical properties.



21: 2022/02700. 22: 2022/03/07. 43: 2022/03/30

51: C08L

71: Yantai Research Institute of Harbin Engineering University

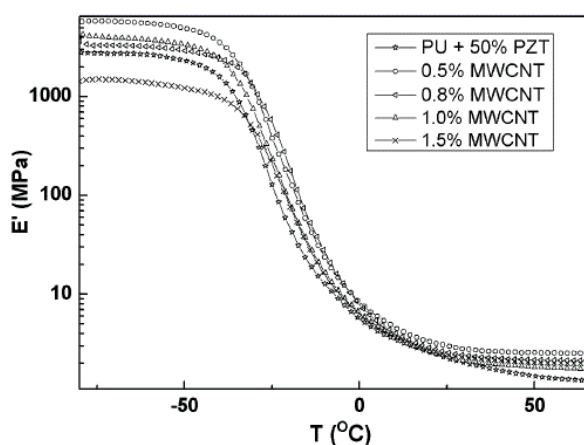
72: Guo Yanhong, Chen Rongrong, Song Chuan

**54: PIEZOELECTRIC AND CONDUCTIVE GRAFTED POLYURETHANE-BASED COMPOSITE DAMPING MATERIAL AND PREPARATION METHOD THEREOF**

00: -

This invention provides piezoelectric and conductive grafted polyurethane-based composite damping material and preparation method thereof that uniformly mixing the mixture of the main chain matrix and the branched chain matrix that are in a mass ratio of 2:1 with piezoelectric ceramic particles that accounts for 20-70wt% of the mixture, conductive particles that accounts for 0.5-1.5wt% of the mixture and trimethylolpropane as a crosslinking agent; and

the molar ratio of -NCO in the main chain matrix to -OH of the crosslinking agent is 1:1.2, and the piezoelectric and conductive grafted polyurethane-based composite damping material is obtained by curing at 100 degrees Celsius. The peak value of the loss factor (tan delta) of the damping material of the present invention is about 1.0 and above 0.3 in a wide temperature range. The preparation process is simple with low cost, and good damping performance, and the product prepared by this invention can be used as damping and noise reduction material in the fields of ship, ocean, transportation, large machinery and others.



21: 2022/02701. 22: 2022/03/07. 43: 2022/03/30  
51: A61K; A61P

71: Xiamen Kehuan Marine Biotechnology Co., Ltd.  
72: CHANG, Youmin, JIANG, Qiucen, LIN, Weinbin  
**54: A COMPOUND BACTERIA FERMENTATION SUPERFINE PULVERIZED TRADITION CHINESE MEDICINE MACHINE FOR AQUATIC PRODUCTS AND PREPARATION METHOD THEREOF**

00: -

Disclosed is a compound bacteria fermentation superfine pulverized traditional Chinese medicine for aquatic products, characterized in that: the traditional Chinese medicine includes 50-70 parts of cooked Rhubarb, 20-40 parts of Baikal Skullcap Root, and 5-10 parts of Amur Corktree Bark, 5-10 parts of Light yellow Sophora Root and 1-3 parts of Fumed Silica, and is fermented by compound bacteria. The preparation method of the above-mentioned traditional Chinese medicine comprises traditional Chinese medicine pulverization treatment, traditional Chinese medicine culture medium preparation, compound bacteria fermentation and

drying treatment. The lactic acid, ethanol and acetic acid produced by the metabolism of some bacteria are extracted from traditional Chinese medicine. The effective anthracene, phenol and quinone substances are retained. The components difficult to be absorbed by large molecules are degraded into small molecular active substances by microorganisms. The fermentation broth is rich in beneficial enzymes, bacterial proteins and metabolites with excellent palatability.

21: 2022/02702. 22: 2022/03/07. 43: 2022/03/30  
51: B64C; B64D; G01C

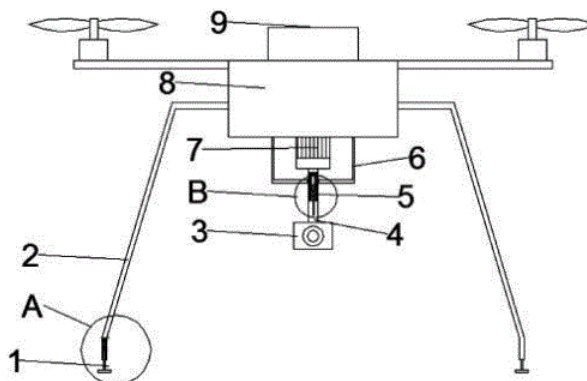
71: Shandong Jianzhu University

72: MA, Dongling, MAO, Libo, ZHANG, Guoyu

**54: UNMANNED AERIAL VEHICLE SURVEYING DATA ACQUISITION DEVICE**

00: -

Disclosed is an unmanned aerial vehicle surveying data acquisition device in the technical field of surveying devices, including an unmanned aerial vehicle provided with a processor on a host and second legs on two side walls, wherein the legs are connected through a groove, the host is connected with a motor and fixing rods, a sleeve is provided between the fixing rods and fixedly connected with bumps thereon, and the sleeves are connected through the motor. The unmanned aerial vehicle surveying data acquisition device according to the present invention has a reasonable design, convenient angle adjustment and excellent buffering performance.



21: 2022/02703. 22: 2022/03/07. 43: 2022/03/30  
51: E21B

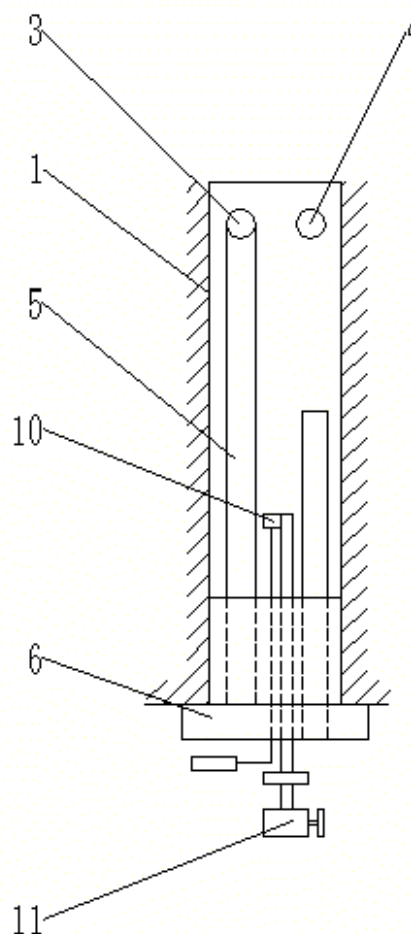
71: China University of Mining and Technology, Chongqing University

72: Zhang Lei, Lu Shuo, Zhang Zhenyu, Zhang Cun, Fang Xinqiu, Tang Jun

**54: COAL SEAM PERMEABILITY  
ENHANCEMENT METHOD AND DEVICE WITH  
LIQUID NITROGEN FRACTURING**

00: -

The invention discloses a coal seam permeability enhancement method and a device with liquid nitrogen fracturing used by the method; the method comprises the following steps: step 1, alternately arranging liquid nitrogen injection boreholes and enhanced extraction boreholes on coal seams; step 2, inserting and fixing a device with liquid nitrogen fracturing into the liquid nitrogen injection borehole; step 3, continuously injecting liquid nitrogen into the liquid nitrogen injection borehole through the liquid nitrogen inlet, and simultaneously receiving the liquid nitrogen flowing back from the liquid nitrogen outlet to form a liquid nitrogen flow loop; step 4, heating the cable to raise the temperature inside the liquid nitrogen injection borehole, so that the liquid nitrogen can be rapidly vaporized; step 5, extracting the mixed gas of coalbed methane and nitrogen through the enhanced extraction boreholes! The structure and method of the invention have low extraction cost and high extraction rate for coalbed methane.



21: 2022/02753. 22: 2022/03/08. 43: 2022/03/30

51: B32B

71: Yancheng polytechnic college

72: ZHOU, Hongtao, WANG, Yuanyang, WEI, Xinyu, XIE, Haoyang, ZHOU, Bin

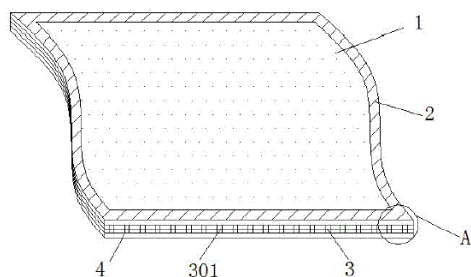
33: CN 31: 202122401638.4 32: 2021-10-06

**54: TEXTILE FABRIC WITH HEALTH CARE  
FUNCTION**

00: -

The present disclosure discloses a textile fabric with a health care function, including a first main body, where a sweat-absorbing structure is arranged at a bottom of the first main body, and a bottom of the sweat-absorbing structure is provided with a second main body; outer side walls of the first main body and the second main body each are provided with a sealing edge; and first bumps and second bumps are evenly arranged at a bottom of the second main body. In the present disclosure, the first bumps and the second bumps are evenly arranged at the bottom of the second main body; when the fabric is made into a finished product, the evenly-arranged

first bumps and second bumps fit the skin of human body to have a certain degree of massage effects on the skin along with people's activities, thereby relieving and relaxing to a certain extent.

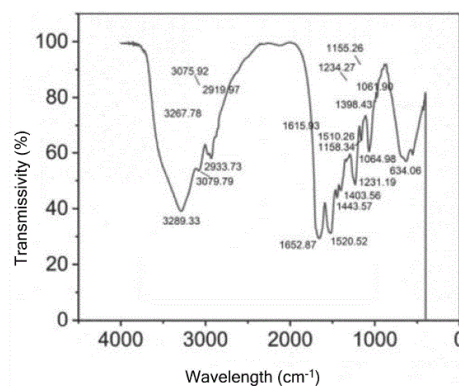


21: 2022/02754. 22: 2022/03/08. 43: 2022/03/29  
51: A01K; D01D; D04H  
71: Yancheng polytechnic college  
72: ZHOU, Bin, WANG, Huiling, FAN, Lishan, ZHOU, Hongtao, ZHAO, Jumei, CHEN, Jiali, GAO, Yuan, ZHAO, Shiyuan, GU, Zhengkai, JIANG, Ziao

#### 33: CN 31: 202111143029.1 32: 2021-09-28 54: METHOD FOR PREPARING FUNCTIONAL MASK MATERIAL BY EXTRACTING SERICIN FROM SILK GLANDS OF CASTOR SILKWORMS

00: -

The present disclosure discloses a method for preparing a functional mask material by extracting sericin from silk glands of castor silkworms. The method includes: conducting culture on the castor silkworms, where the castor silkworms are fed with ordinary castor leaves from first to fourth instars, and then fed with castor leaves sprayed with a mixed solution of TiO<sub>2</sub> and ecdysone from a first day of a fifth instar; dissecting fifth-instar matured castor silkworms to obtain middle silk glands, washing with deionized water, removing silk gland cell membranes, stirring and conducting ultrasonic dispersion uniformly, followed by centrifugation and filtration, and putting an obtained filtrate into a dialysis bag to conduct dialysis with the deionized water at 10°C to 20°C to obtain a sericin solution; and conducting electrospinning using a sericin solution and a 6% to 10% chitosan solution as spinning solutions to prepare the mask material.



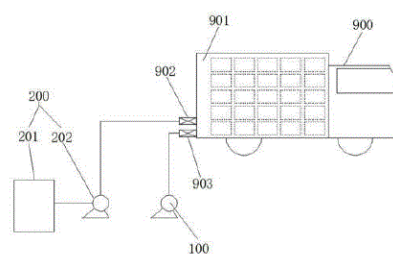
21: 2022/02755. 22: 2022/03/08. 43: 2022/03/29  
51: A23L; A61L; B60P; B65D  
71: Guangdong University of Petrochemical Technology

72: WANG, Qun, CAO, Gengyu

#### 54: COLD CHAIN LOGISTICS TRANSPORTATION SYSTEM DEVICE CAPABLE OF KILLING NOVEL CORONAVIRUSES AND METHOD

00: -

The present invention discloses a cold chain logistics transportation system device capable of killing novel coronaviruses and a method. The cold chain logistics transportation system device of the present invention has a simple structure, is easy to implement, and is capable of effectively cutting off transmission routes of novel coronaviruses of means of cold chain food transport, cold chain foods themselves in the means of transport and cold chain food package surfaces.



21: 2022/02756. 22: 2022/03/08. 43: 2022/03/29  
51: B63G  
71: Guangdong University of Petrochemical Technology

72: CAO, Gengyu, WANG, Qun

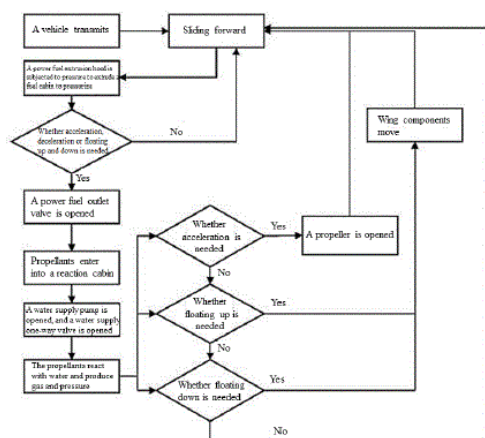
#### 54: HYDRAULICALLY EXTRUDED AND PROPELLED WINGED INTELLIGENT UNMANNED UNDERWATER VEHICLE

00: -

The present invention discloses a hydraulically extruded and propelled winged intelligent unmanned



underwater vehicle, including a cabin body and a wing and further including a control module, wherein the cabin body includes a power cabin and a fuel cabin; the cabin body is fixedly provided with a power cabin water supply device; the power cabin is separated from the fuel cabin by a partition plate, and power fuels within the fuel cabin may enter into the power cabin; the control module is fixed to the cabin body; and the wings are distributed on both sides of the cabin body. The unmanned underwater vehicle may be enabled to provide power autonomously for travelling, thereby saving energy greatly, so that tasks such as waters patrol and reconnaissance and maritime relay communication can be performed.



21: 2022/02757. 22: 2022/03/08. 43: 2022/03/29  
51: B63G

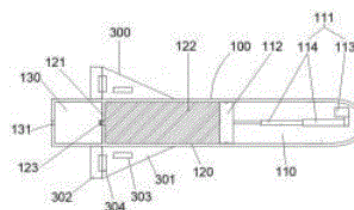
71: Guangdong University of Petrochemical Technology

72: WANG, Qun, CAO, Gengyu

#### **54: ELECTRICALLY EXTRUDED AND PROPELLED WINGED INTELLIGENT UNMANNED UNDERWATER VEHICLE**

00: -

The present invention discloses an electrically extruded and propelled winged intelligent unmanned underwater vehicle. The unmanned underwater vehicle according to the present invention can perform tasks well, such as waters patrol and reconnaissance, maritime relay communication, marine environment investigation and polluted waters monitoring. The underwater vehicle has strong environmental adaptive capability, good mobility and high security.



21: 2022/02758. 22: 2022/03/08. 43: 2022/03/29  
51: A23L; A61L

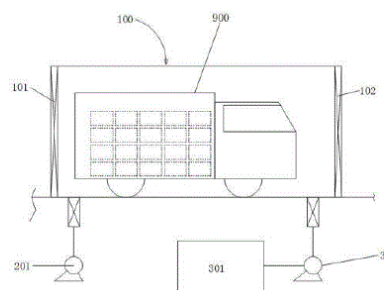
71: Guangdong University of Petrochemical Technology

72: WANG, Qun, CAO, Gengyu

#### **54: SHUTTLE TYPE DISINFECTION DEVICE FOR MEANS OF COLD CHAIN LOGISTICS TRANSPORT AND METHOD**

00: -

Disclosed are a shuttle type disinfection device for means of cold chain logistics transport and a method. The shuttle type disinfection device includes a closed system, a vacuum pumping system and an ozone system; the closed system is a confinable space capable of allowing the means of cold chain logistics transport to enter and exit, and includes an entry/exit port; the vacuum pumping system is capable of pumping an interior of the closed system to a vacuum; the ozone system is capable of filling the closed system with ozone; and a central control system is connected to the closed system, the vacuum pumping system and the ozone system by means of data transmission lines, and controls operation and shutdown of the closed system, the vacuum pumping system and the ozone system. The present invention is capable of effectively cutting off transmission routes of novel coronaviruses.



21: 2022/02759. 22: 2022/03/08. 43: 2022/03/29  
51: A61L

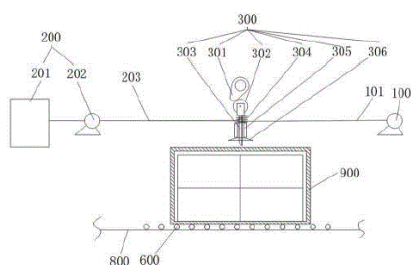
71: Guangdong University of Petrochemical Technology

72: WANG, Qun, CAO, Gengyu

#### 54: PUNCTURE TYPE DISINFECTION DEVICE FOR NOVEL CORONAVIRUSES OF COLD CHAIN SUPPLIES AND METHOD

00: -

The present invention relates to a puncture type disinfection device for novel coronaviruses of cold chain supplies and a method. The device of the present invention has a simple structure, is easy to implement, is especially suitable for filling a packaging box of cold chain supplies on an operating line with ozone, and is capable of effectively cutting off transmission routes of novel coronaviruses of cold chain foods themselves and cold chain food packages.



21: 2022/02760. 22: 2022/03/08. 43: 2022/03/29

51: F21S; F21V; G08B

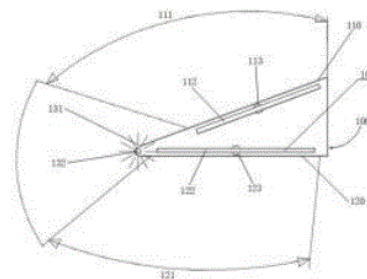
71: Guangdong University of Petrochemical Technology

72: WANG, Qun, CAO, Gengyu

#### 54: INTEGRATED WARD ILLUMINATION DEVICE AND WARD INCLUDING SAME

00: -

The present invention discloses an integrated ward illumination device, including a frame having a triangular cross section and provided with at least one first luminous body on a bevel edge for illuminating toward a region above the bevel edge and at least one second luminous body on a bottom edge for illuminating toward a region below the bottom edge; an emergency warning lamp and/or an ultraviolet disinfection lamp is provided at the connection between the bevel edge and the bottom edge; the first luminous body is provided with a first rotation shaft in the middle; and the second luminous body is provided with a second rotation shaft in the middle. The device can meet various requirements for illumination in life as well as diagnosis and treatment simultaneously.



21: 2022/02761. 22: 2022/03/08. 43: 2022/03/29

51: B29C; B63C; B33Y

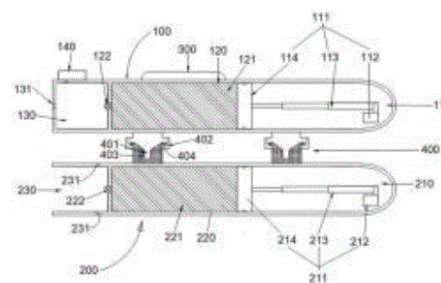
71: Guangdong University of Petrochemical Technology

72: CAO, Gengyu, WANG, Qun

#### 54: TOP-AND-BOTTOM PARALLEL CONNECTION TYPE UNDERWATER 3D PRINTER

00: -

The present invention discloses a top-and-bottom parallel connection type underwater 3D printer. A power device and a printing device of the present invention may be split, and are connected in a top-and-bottom connection manner and separated in a loosening separation manner.



21: 2022/02762. 22: 2022/03/08. 43: 2022/03/29

51: A01G

71: Guizhou Institutes of Biology, Agricultural Research Institute of Mountain Characteristic of Weining Autonomous County

72: Liu Yan, Yang Xiuzhong, Luo Wenmin, Zeng WeiJun, Qin Wei

#### 54: METHOD FOR CUTTING PROPAGATION OF TEA SEEDLINGS IN HIGH ALTITUDE ARID AREAS

00: -

This invention provides method for cutting propagation of tea seedlings in high altitude arid areas, the method does not need rooting powder to cut and breed tea seedlings, it adopts excellent drought-resistant and cold-resistant varieties of tea trees as mother plants, and establishes a female parent garden, and in summer, stews the subsoil soil

in the sun or in a greenhouse; and excavates the compartment surface in a simple greenhouse, puts the nutrition cup filled with soil into the compartment surface, and fills the gap with fine soil after placing it, compacts it and sprays water. Cutting slips does not need to be treated with rooting agent during ear cutting, cutting propagation is done and inserted directly into the nutrition cup after the cuttings are done; after the cuttings in each compartment are completed, putting it on a rack, covering with a shade net, and watering every 3-5 days. Then, removing the shade net, watering every 7-10 days, maintaining ventilation, and spraying foliar fertilizer every 2 months. Cultivating for 6-8 months. Seedlings grow out of the nursery after 1-2 weeks of growth in the natural state. When transplanting, plant together with the nutrient cup to avoid loosening and damage to the root system. In the method, the survival rate of tea seedling cuttings can reach 93%, and the qualified rate of seedling emergence can reach more than 85%.

21: 2022/02763. 22: 2022/03/08. 43: 2022/03/29  
51: B29C; B63C; B33Y

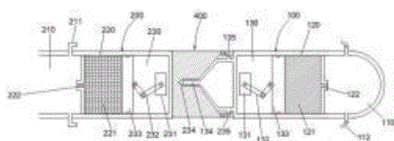
71: Guangdong University of Petrochemical Technology

72: CAO, Gengyu, WANG, Qun

#### **54: DUAL-PISTON CLAMPABLE AND SEPARABLE CONNECTION TYPE UNDERWATER 3D PRINTER**

00: -

The present invention discloses a dual-piston clampable and separable connection type underwater 3D printer. A power device and a printing device of the present invention can be separated, and are connected in a clamping connection manner and separated in a loosening separation manner; and replacement for uninterrupted work can be realized.



21: 2022/02764. 22: 2022/03/08. 43: 2022/03/29  
51: G06K; G06N

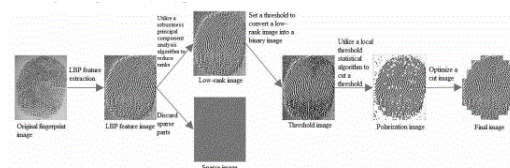
71: Nanjing University of Information Science and Technology

72: CHEN, Mingyu, YUAN, Chengsheng

#### **54: LOCAL DIFFERENCE POLARIZATION BASED METHOD FOR DETECTING FINGERPRINT ACTIVITY**

00: -

Disclosed is a local difference polarization based method for detecting fingerprint activity. The method includes: utilizing a local binary pattern (LBP) to extract features of a fingerprint image; then utilizing a robustness principal component analysis algorithm to reduce ranks of an LBP feature image, utilizing a local threshold polarization algorithm to carry out polarization segmentation on a low-rank part, and counting features of the low-rank part to convert same into a feature vector and carry out feature selection; and finally, taking constructed features as input of a classifier for training and testing a subsequent model, so as to identify whether the fingerprint image to be detected is a forged fingerprint. The present invention can effectively reduce misleading of noise about feature recognition, such that original texture features are clearer, and accuracy is improved, thereby enhancing protection of information and property security of a user.



21: 2022/02765. 22: 2022/03/08. 43: 2022/03/29  
51: G06K

71: Henan University of Technology

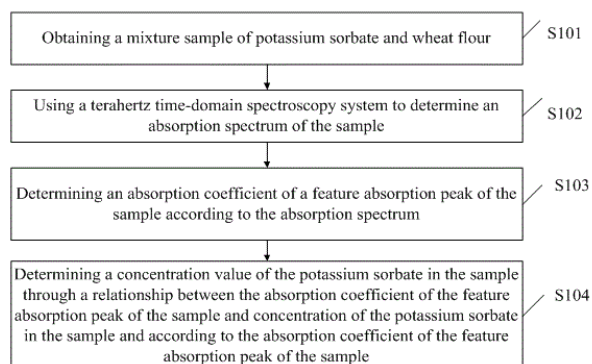
72: JIANG, Yuying, GE, Hongyi, ZHANG, Yuan, LIAN, Feiyu, LI, Zhi, MA, Haihua, LI, Pengpeng, LI, Li, WANG, Fei, JI, Xiaodi, JIA, Zhiyuan, HAN, Zhongze, YANG, Xingxing

#### **54: WHEAT QUALITY THZ SPECTRUM CLASSIFICATION METHOD BASED ON DS EVIDENCE THEORY**

00: -

The disclosure discloses a wheat quality THz spectrum classification method based on a DS evidence theory, comprising: establishing wheat classification probability output for absorption spectra of wheat with different qualities; establishing wheat classification probability output for refractive index spectra of the wheat with different qualities; and establishing a DS evidence fusion rule. A multielement information fusion technology is

adopted, absorption spectrum information and refractive index spectrum information of wheat samples with different qualities are fused, a wheat quality nondestructive detection model based on the multielement information fusion technology is established, and output results of sub-classifiers are fused through the DS evidence theory and verified for quality discriminant analysis, thereby laying a foundation for applying a THz technology to stored grain quality detection. The recognition rates for the wheat samples with different qualities are increased.



21: 2022/02766. 22: 2022/03/08. 43: 2022/03/29  
51: G01N

71: Henan University of Technology

72: GE, Hongyi, JIANG, Yuying, ZHANG, Yuan, LIAN, Feiyu, LI, Zhi, GUAN, Aihong, LI, Pengpeng, LI, Li, WANG, Fei, Ji, Xiaodi, JIA, Zhiyuan, ZENG, Yuting, WU, Yake

#### **54: METHOD AND APPLICATION OF OBTAINING A DETECTION CURVE OF POTASSIUM SORBATE IN WHEAT FLOUR**

00: -

The present disclosure relates to a technical field of agricultural product/food quality control and quality safety, and more particularly to a method of obtaining a detection curve of potassium sorbate in wheat flour, including: obtaining a mixture sample of potassium sorbate and wheat flour; using a terahertz time-domain spectroscopy system to determine an absorption spectrum of the sample; determining an absorption coefficient of a feature absorption peak of the sample according to the absorption spectrum; using a partial least squares regression method to obtain a relationship between the absorption coefficient of the feature absorption peak of the sample and concentration of the potassium sorbate in the sample. The method of obtaining a detection curve of potassium sorbate in wheat flour according to the present disclosure has the characteristics of simple detection and short detection time and is a safe, effective and high-precision nondestructive detection method.

21: 2022/02767. 22: 2022/03/08. 43: 2022/03/29  
51: A01N; A01P

71: Taishan University

72: LI, Cuixia, ZHAO, Xianhua

#### **54: PLANT-DERIVED FINING CLARIFYING AGENT AND PREPARATION METHOD THEREOF**

00: -

The present disclosure provides a plant-derived fining clarifying agent and a preparation method thereof, and relates to the technical field of food processing. The fining clarifying agent of the present disclosure comprises the following raw materials in parts by weight: 20-50 parts of plant gel, 30-60 parts of bentonite, 10-30 parts of chitosan, 1-10 parts of plant protease, 1-5 parts of calcium citrate. The method for preparing the plant-derived fining clarifying agent comprises the following steps: mixing the plant gel, calcium citrate with water, stirring and heating to fully swell, adding the soaked bentonite, chitosan, and plant protease to thoroughly mix and adjust the pH, to obtain the plant-derived fining clarifying agent. The plant-derived fining clarifying agent prepared by the present disclosure contains a variety of plant-derived raw materials, has a better clarifying effect on wine, and improves the flavor of the wine, and has high safety.

21: 2022/02768. 22: 2022/03/08. 43: 2022/03/29  
51: A23F

71: Guizhou University

72: Liu Jianjun, Zhang Jinyu, Li Meifeng, Liu Xiaobo, Wen Beibei, Zhang Xuehan, Zhang Jing

#### **54: PINE NEEDLE-SHAPED STEAMED POMEGRANATE GREEN TEA AND PREPARATION METHOD THEREOF**

00: -



The invention provides a preparation method of pine needle-shaped steamed green pomegranate green tea, which mainly comprises the steps of withering pomegranate leaves, deactivating enzymes by steam, fanning, shaking, rolling and baking. The invention adopts a withering mode of temperature and humidity control, a steam deactivation mode and three times of heating and rolling in the primary, middle and shaping stages; Compared with the traditional processing technology, it not only overcomes the disadvantages of bitter taste of pomegranate leaf tea caused by unreasonable spreading, heavy grass smell, weak penetration of dry-hot air in dry-hot enzyme deactivation, incomplete inactivation of enzyme activity, uneven deactivation effect, easy occurrence of scorched edges or red stems and red leaves, etc., but also makes up for the disadvantages of the traditional rolling method that the tea leaves are thick in appearance or high in short breaking rate, which greatly improves the product quality characteristics. The green tea prepared by stupid method mainly has the following characteristics: the dried tea is dark green and shiny in color, compact, round and straight in shape, like pine needles, clear and bright in soup color, bright and even in leaf bottom; The fragrance is sweet or fragrant or fruity; The taste is mellow and not astringent.

21: 2022/02769. 22: 2022/03/08. 43: 2022/03/29  
51: A01C

71: Bijie Jiaxiangmei Agricultural Comprehensive Development Co., Ltd.

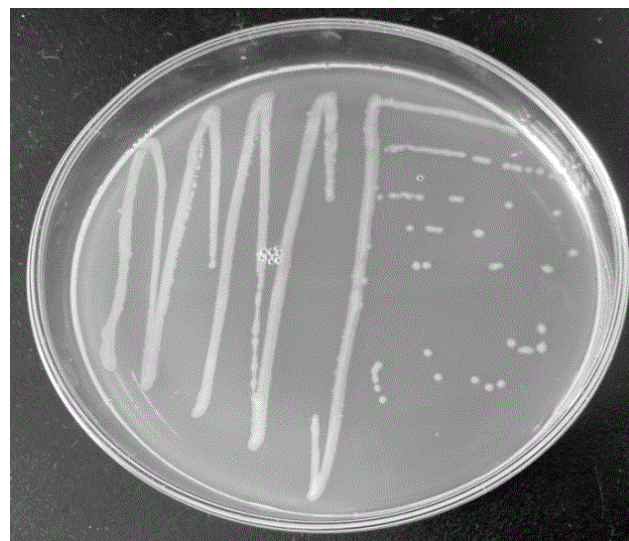
72: Li Zhu, Xiao Yang, Li Yuhuan, Peng Qiuju, Liu Jianrui, Zhou Yi, Nie Yuying, Hu Xiang

#### **54: ENDOPHYTIC BACILLUS ALTITUDINIS AND APPLICATION THEREOF**

00: -

The invention discloses an endophytic *Bacillus altitudinis* and its application in preventing and controlling tea anthracnose. The strain is preserved in China General Microbiological Culture Collection Center with the preservation number of CGMCC24353, and the preservation address is Institute of Microbiology, Chinese Academy of Sciences, No.3, No.1, Beichen West Road, Chaoyang District, Beijing, and the preservation time is January 20th, 2022. The endophytic *Bacillus altitudinis* provided by the invention has high

antagonistic ability to *Colletotrichum gloeosporioides*, an anthracnose pathogen of tea leaves, is expected to be used for preventing and controlling tea anthracnose and reducing the occurrence of tea anthracnose, and has inhibitory effects on *Colletotrichum gloeosporioides*, *Colletotrichum camelliae*, *Fusarium oxysporum*, *Fusarium graminearum*, *Alternaria alternata*, *Fusarium dimerum*, *Plectosphaerella cucumerina*, *Irpex lacteus* and *Alternaria alternate* at the same time, has no pollution to the environment, and has an important biocontrol application prospect.



21: 2022/02770. 22: 2022/03/08. 43: 2022/03/29  
51: A23L

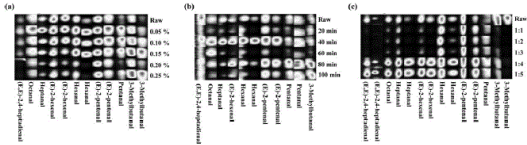
71: Hebei Agricultural University

72: SANG, Yaxin, DENG, Wenyi, TIAN, Guifang, HOU, Yakun, SUN, Jilu, WANG, Xianghong

#### **54: PREPARATION METHOD OF CHICKEN MEATBALL ADDED WITH DEODORIZED CLAM MEAT**

00: -

Clam meat, rich in various amino acids and nucleotides, is delicious; and a chicken meatball added with clam meat, prepared with chicken and the clam meat as main raw materials, have a desirable sensory quality. Tests show that the chicken meatball added with clam meat has a higher water holding capacity and sensory scores than pure chicken meatballs.



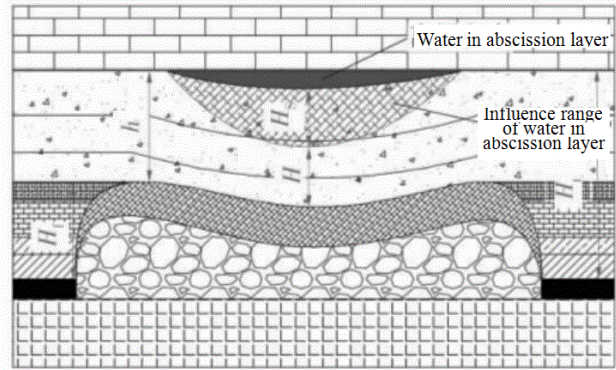
21: 2022/02772. 22: 2022/03/08. 43: 2022/03/29  
51: E21D

71: Anhui University of Science and Technology  
72: Wang Mengxiang, Wang Haibo, Fu Jugen, Xu Ying, Zong Qi, Wang Hao, Liu Mohan, Liu Zhichao, Li Chongqing, Mao Longfei, Ye Shuangshuang, Luo Lingfeng, Fang Ligang, Yu Yang, Li Sizhao

#### 54: PREVENTION AND CONTROL METHOD OF WATER DISASTER CAUSED BY SEPARATION OF COAL SEAM ROOF IN MINE

00: -

The invention relates to the technical field of coal seam mining in mines, in particular to a method for preventing and controlling water disaster of coal seam roof in mine. Now the following scheme is proposed: the forced roof caving of coal seam roof is carried out by deep hole blasting, the hanging roof area is reduced, the height of caving zone is increased, and the mined-out area is fully filled; the bidirectional multi-step "V"-shaped drilling method is adopted in the roadway, and holes are drilled, charged, plugged and detonated into the roof rock body at the same time in the working face air roadway and machine roadway. According to the invention, through the implementation of advanced pre-splitting blasting, the water-rich thick hard roof can be damaged and broken at the blasting position, and further broken under the action of high ground stress, thus effectively solving the problems of water inrush and irregular periodic weighting on the roof of the fully mechanized top-coal caving mining working face of the water-rich roof of coal mine. When roof water is effectively prevented, roof water and fault-breaking load are jointly applied to the hydraulic support, so as to avoid the support pressing accident.

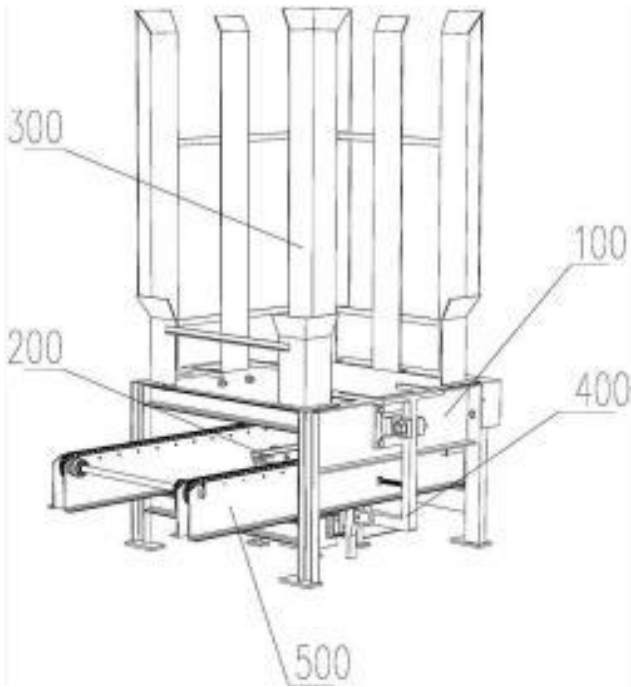


21: 2022/02773. 22: 2022/03/08. 43: 2022/03/29  
51: B65G

71: JIANGSU BEIER MACHINERY CO., LTD.  
72: FANG, Haifeng, CAO, Jin, LI, Zhiyuan, ZHANG, Lihua, CAI, Lihua, CHEN, Guiliang, SUN, Zhongrui, MIAO, Zhenyu, ZHOU, Ta, ZHANG, Deyi, LIU, Rui  
54: A MOBILE CAM-TYPE AUTOMATIC PALLET MAGAZINE

00: -

The present invention discloses a mobile cam-type automatic pallet magazine, which comprises a main rack unit, a cylinder driving unit, a protective frame unit, a cam connecting rod unit and a conveying unit; the said protective frame unit is fixed and connected to the main rack unit, the cavity between the said protective frame unit and main rack unit serves as a pallet magazine, and the said conveying unit is fixed and connected to the main rack unit; the said cylinder driving unit is arranged at the central bottom of the pallet magazine. In the mobile cam-type automatic pallet magazine of the present invention, the ingenious combination of the cylinder driving unit and the cam connecting rod unit makes the cylinder the only driving member, so that the whole process of pallet lifting and conveying can be completed by one back-and-forth stretch of the cylinder telescopic rod. It can work stably and accurately, owing to a cylinder executing quickly, a connecting rod transmitting efficiently, a cam driving accurately, a simple and easy-to-maintain actuator, and a simple overall design structure.



21: 2022/02774. 22: 2022/03/08. 43: 2022/03/29  
51: B29K

71: SUZHOU BESTAR BLOW MOLDING  
MACHINERY CO., LTD.

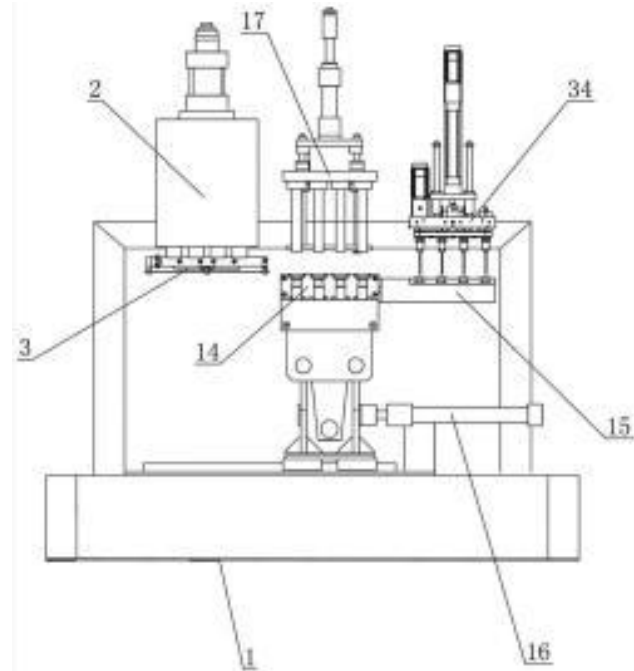
72: HE, Defang, FEI, Shiming

**54: HOLLOW BLOW MOLDING MACHINE**

00: -

The present invention discloses a hollow blow molding machine, which is characterized in that it comprises a rack with a machine head and a parison cutting mechanism, the mechanism comprises a telescopic cylinder equipped with a tool apron plate, which is provided with a fixed hot knife support plate at one end and hinged with a movable hot knife support plate at the other end, a hot blade is set between the two support plates, a baffle is set on the movable hot knife support plate, a bolt cylinder is set on the tool apron plate, the bolt cylinder ensures that the hot blade is always in tension through the baffle, there is a proximity switch on the tool apron plate, when the hot blade is in tension, the baffle remains in the detection station of the proximity switch, and when the hot blade is disconnected, the baffle will be pushed away from the detection station, and the proximity switch will give an alarm; a mold assembly mechanism composed of a multi-cavity master mold and a multi-cavity auxiliary mold is set on the rack, a blow pin mechanism is set on the rack above the multi-cavity

master mold at the bottle blowing station, and an on-line rotary scraping mechanism is set on the rack above the multi-cavity auxiliary mold at the bottle dropping station. The present invention features high efficiency.



21: 2022/02775. 22: 2022/03/08. 43: 2022/03/29  
51: B29C

71: SUZHOU BESTAR BLOW MOLDING  
MACHINERY CO., LTD.

72: HE, Defang, FEI, Shiming

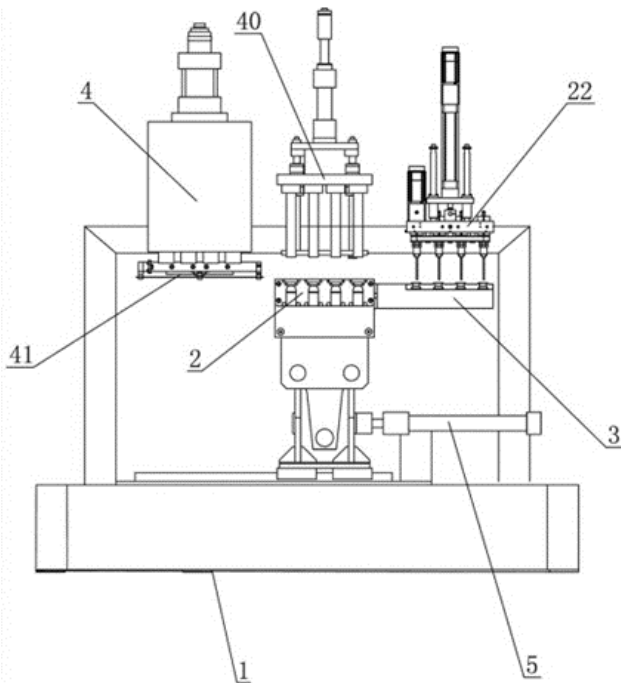
**54: A BLOW PIN SCRAPING DEVICE IN A  
HOLLOW BLOW MOLDING MACHINE**

00: -

The present invention discloses a blow pin scraping device in a hollow blow molding machine, which is characterized in that it comprises a mold assembly mechanism arranged in a rack, a blow pin mechanism is arranged on the rack above the multi-cavity master mold at the bottle blowing station, and an on-line rotary scraping mechanism is arranged on the rack above the multi-cavity auxiliary mold at the bottle dropping station. The on-line rotary scraping mechanism has a structure as follows: a mounting base is provided, a lifting cylinder is vertically installed on the mounting seat, the piston rod of the lifting cylinder is downward and installed with a lifting pedestal, a plurality of rotating shafts are vertically supported in the lifting pedestal, each mold cavity of the multi-cavity auxiliary mold corresponds to a



rotating shaft, a scraper is respectively installed on the lower part of each rotating shaft, all rotating shafts rotate at the same time driven by the driving mechanism, when the piston rod of the lifting cylinder extends downward, it can synchronously drive all rotating shafts to move downward through the lifting pedestal, so that the scraper on each rotating shaft can sweep the mouth of the bottle in the corresponding mold cavity of the multi-cavity auxiliary mold. The present invention features high efficiency.



21: 2022/02776. 22: 2022/03/08. 43: 2022/03/29  
51: C03B

71: SUZHOU BESTAR BLOW MOLDING  
MACHINERY CO., LTD.

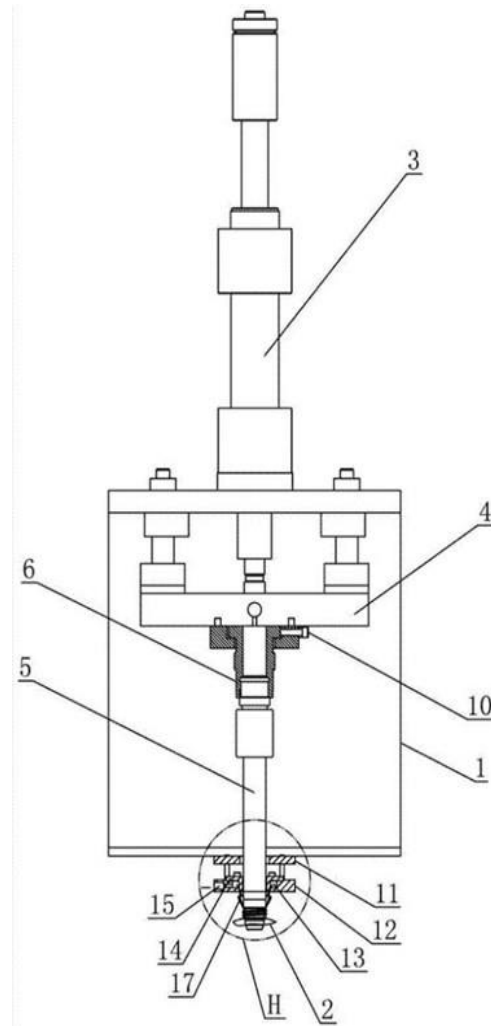
72: HE, Defang, FEI, Shiming

**54: BLOW PIN DEVICE IN A HOLLOW BLOW  
MOLDING MACHINE**

00: -

The present invention discloses a blow pin device in a hollow blow molding machine, comprising: a blow pin pedestal installed on the piston rod of the lifting cylinder. The blow pin is arranged in the blow pin pedestal through the blow pin connector, and a pair of guide grooves are opened on the upper surface of the blow pin pedestal. Each guide groove is provided with adjusting blocks, each of which is respectively connected with a tension adjusting rod, and the tension adjusting rod can pull the blow pin connector

to the right through the adjusting blocks; the jacking adjusting rod which can push the blow pin connector to the left is threaded on the blow pin pedestal, so that the two adjusting blocks and the jacking adjusting rod clamp the blow pin connector. The rack is also provided with an upper horizontal mounting plate and a lower horizontal mounting plate, the latter of which is installed with an annular groove. An annular baffle provided at the top of the lower horizontal mounting plate can form an annular air cavity with the lower horizontal mounting plate, which is provided with an air inlet channel and an annular air outlet channel. And the annular air outlet channel is downward aligned with the mouth flash of the bottle. The present invention features that the position of the blow pin in the blow pin pedestal can be adjusted.



21: 2022/02777. 22: 2022/03/08. 43: 2022/03/29



51: B29C

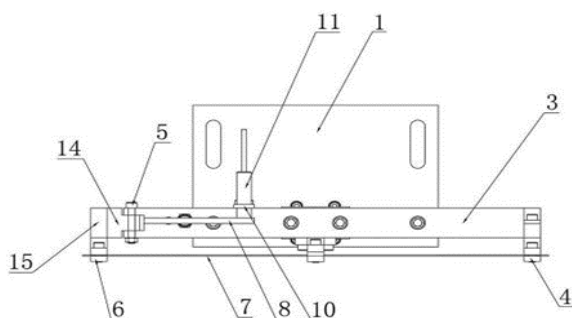
71: SUZHOU BESTAR BLOW MOLDING MACHINERY CO., LTD.

72: HE, Defang, FEI, Shiming

**54: A HOT BLADE PARISON CUTTING DEVICE IN A HOLLOW BLOW MOLDING MACHINE**

00: -

The present invention discloses a hot blade parison cutting device in a hollow blow molding machine, which is characterized in that it comprises a rack equipped with a telescopic cylinder, the piston rod of the telescopic cylinder is equipped with a tool apron plate, which is equipped with a fixed hot knife support plate at one end and hinged with a movable hot knife support plate at the other end, the hot blade is fixed with the fixed hot knife support plate and the movable hot knife support plate at the ends respectively, the movable hot knife support plate is equipped with a baffle, the tool apron plate is equipped with a bolt cylinder, the piston rod of the bolt cylinder always pushes the outer end of the baffle outward, driving the movable hot knife support plate to keep opening outward, so that the hot blade is always in a tensioned state; the tool apron plate is provided with a proximity switch mounting plate, on which a proximity switch is installed, when the hot blade is in a tensioned state, the baffle is kept at the detection station of the proximity switch, and when the hot blade is disconnected, the baffle will be pushed away from the detection station of the proximity switch. The present invention has the advantages of automatically tensioning the hot blade and automatically detecting the disconnection of the hot blade.



21: 2022/02779. 22: 2022/03/08. 43: 2022/03/29

51: A61B; G06K

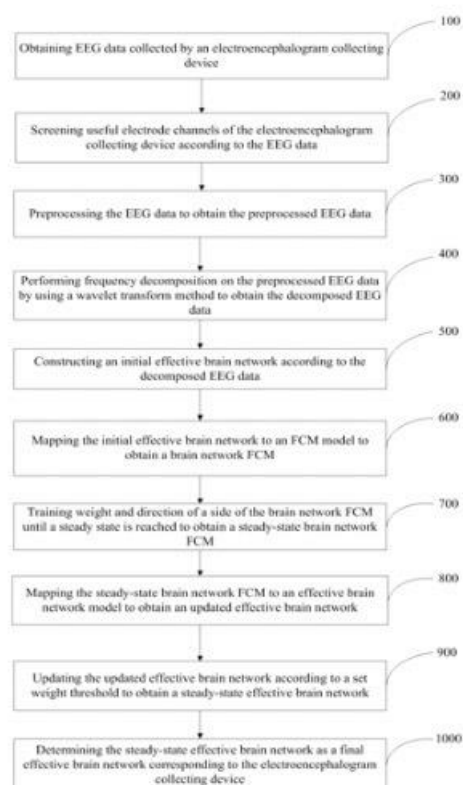
71: TAIYUAN UNIVERSITY OF TECHNOLOGY

72: ZHANG, Xueying, ZHANG, Jing, ZHANG, Wei, SUN, Ying, HUANG, Lixia, LI, Fenglian, CHEN, Guijun, WANG, Suzhe

**54: METHOD AND SYSTEM OF DETERMINING AN EFFECTIVE BRAIN NETWORK**

00: -

The present disclosure discloses a method of determining an effective brain network. The determining method includes: obtaining EEG data collected by electroencephalogram collecting device; screening useful electrode channels; preprocessing the EEG data; performing frequency decomposition on the preprocessed EEG data by using a wavelet transform method; constructing an initial effective brain network; mapping the initial effective brain network to an FCM model to obtain a brain network FCM; training weight and direction of a side of the brain network FCM to obtain a steady-state brain network FCM; mapping the steady-state brain network FCM to an effective brain network model to obtain an updated effective brain network; updating the updated effective brain network according to a set weight threshold to obtain a steady-state effective brain network; determining the steady-state effective brain network as a final effective brain network.



21: 2022/02780. 22: 2022/03/08. 43: 2022/03/29

51: A23L; C08B; C12P

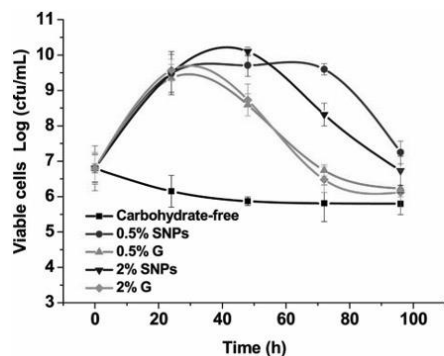
71: QINGDAO AGRICULTURAL UNIVERSITY

72: SUN, Qingjie, ZHOU, Liyang, JI, Na, QIN, Yang, DAI, Lei, LI, Yang, XIONG, Liu

#### 54: PREPARATION OF RESISTANT STARCH NANOPARTICLES, PRODUCT AND APPLICATION THEREOF

00: -

The present disclosure provides a method for preparing resistant SNPs, comprising the following steps: dispersing starch in a phosphate buffer, heating to gelatinize, adding a gelatinized starch solution after enzymatic hydrolysis by pullulanase; recrystallizing after enzyme deactivation, to obtain resistant SNPs. The preparation method of the present disclosure is easy to operate, low in cost, and does not need to use toxic chemical reagents. The resistant starch nanoparticle prepared by the method has the effect of promoting the proliferation of intestinal probiotics.



21: 2022/02782. 22: 2022/03/08. 43: 2022/03/29

51: A23L

71: QINGDAO AGRICULTURAL UNIVERSITY

72: SUN, Qingjie, JI, Na, DAI, Lei, QIN, Yang, XIONG, Liu, WANG, Yanfei, NAN, Chong

#### 54: METHOD FOR INHIBITING RETROGRADATION OF STARCHY FOODS

00: -

The present disclosure discloses a method for inhibiting retrogradation of starch foods, and G4 amylase belongs to the technical field of agricultural product processing and food preservation. The method comprises the following steps: dissolving the G4 amylase serving as a retrogradation-resistant agent in water at the temperature of 40-60°C, adding the dissolved G4 amylase into pre-gelatinized starch food raw materials which are cooled to the temperature of 40°C-80°C according to the dry weight of 10 mg/kg-2,000 mg/kg of the starch food raw materials, stirring or kneading uniformly, maintaining

temperature of 40°C-80°C for 5 to 120 min, producing different types of starch foods by different processing methods according to requirements, and performing enzyme activity inhibition or enzyme deactivation after enzyme retrogradation-resistant treatment is finished.

21: 2022/02786. 22: 2022/03/08. 43: 2022/03/29

51: C08B; C08G

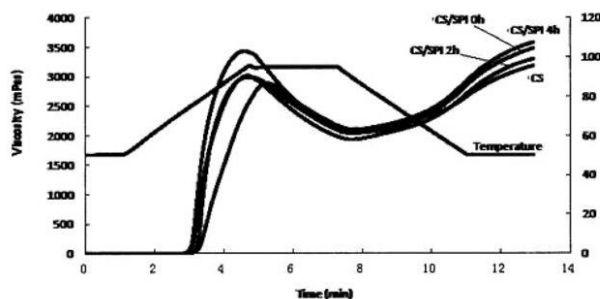
71: QINGDAO AGRICULTURAL UNIVERSITY

72: SUN, Qingjie, QIN, Yang, JI, Na, DAI, Lei, LI, Yang, XIONG, Liu, QIU, Chao

#### 54: METHOD FOR PREPARING STARCH WITH CONTROLLABLE VISCOSITY BY MIXING STARCH AND PROTEIN

00: -

A method for preparing starch with controllable viscosity by mixing starch and protein, comprising the following steps: (1) Preparation of modified starch by protein-assisted dry heat treatment: Dissolution of protein: slowly adding protein into distilled water, stirring at a high speed until it is completely dissolved; Mixing of starch and protein: dispersing starch into a 3-10% protein solution and stirring for 2 h at 35°C; transferring the dispersion to a glass dish and drying in a drying oven, keeping the temperature of the drying oven at 45°C until the water content less than 10%, and grinding the dried mixture into powder, sieving through a 100-mesh sieve; (2) Modification by dry heating: heating the mixture obtained by sieving in the step 1 at 110-130°C for 2-4 h or performing microwave dry heating for 1 min to 6 min, to obtain a dry-heat modified sample.



21: 2022/02788. 22: 2022/03/08. 43: 2022/03/29

51: A23J; A23L

71: QINGDAO AGRICULTURAL UNIVERSITY

72: SUN, Qingjie, DAI, Lei, DONG, Xuyan, JI, Na, QIN, Yang, XIONG, Liu, XIA, Mingtao

**54: ENZYMATIC METHOD FOR IMPROVING FUNCTIONAL PROPERTIES OF PEANUT PROTEIN**

00: -

The present disclosure discloses a method for preparing modified peanut protein isolate by using TG enzymes. A peanut protein isolate powder suspension with a concentration of 5% to 50% is prepared, and the pH value of the suspension is adjusted to 4 to 9, then enzyme in an amount of 1 to 4 U/g is added for constant temperature water bath at a temperature of 20 to 60°C, wherein the temperature of enzyme deactivation is 70 to 100°C, the duration of enzyme deactivation is 5 to 60 min, the vacuum freeze-drying temperature is -10°C to -40°C, the pressure is -0.15 MPa to -0.05 MPa, and the duration of drying is 12 h to 36 h; the inlet and outlet temperature of spray drying is 140 to 170°C, after crushing and sieving, modified peanut protein isolate is obtained.

21: 2022/02789. 22: 2022/03/08. 43: 2022/03/29  
51: A23L

71: QINGDAO AGRICULTURAL UNIVERSITY  
72: SUN, Qingjie, DAI, Lei, LI, Man, JI, Na, XIONG, Liu, QIN, Yang, XU, Xingfeng, ZHAO, Yunxia

**54: METHOD FOR IMPROVING QUALITY OF GRAIN PRODUCTS**

00: -

The invention discloses a method for improving the quality of grain products, and bio-fermentation belongs to the field of bio-technologies. Glutinous rice is put in water at 0-40 degrees Celsius for fermentation for 24-120 h. The glutinous rice is washed after the fermentation time is reached till the pH value of the glutinous rice is 7. Then glutinous rice products of different types are produced through different processing methods according to requirements. By means of the method, the viscosity of the glutinous rice can be remarkably improved, the taste of the glutinous rice products can be remarkably improved, the flavor is enhanced, the texture of the glutinous rice products is improved, and the microbial safety and nutritional value of the glutinous rice products can be improved.

21: 2022/02791. 22: 2022/03/08. 43: 2022/03/29  
51: B63B

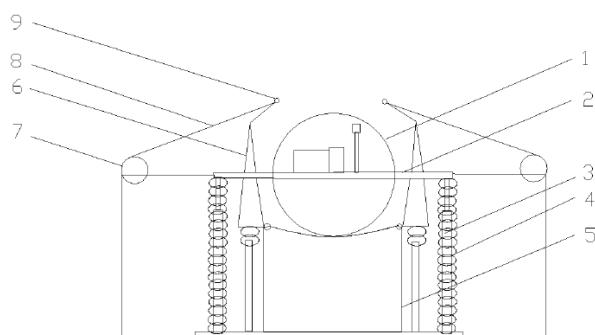
71: HARBIN ENGINEERING UNIVERSITY  
72: LIAO, Yulei, HE, Jiayu, LI, Ye, CAO, Jian, LI, Yueming, WANG, Bo, ZHANG, Qiang, JIANG, Yanqing, MA, Teng

**54: WATER DRIVEN PASSIVE AUTONOMOUS RETRACTABLE SIGNAL DEVICE FOR DEEP-SEA AUV**

00: -

Provided is a water driven passive autonomous retractable signal device for a deep-sea autonomous underwater vehicle (AUV). The autonomous retractable signal device includes a spherical communication cavity, a lateral position control sheet, retractable sleeve rods, springs, an air bag, rotary connecting rods, spring reels, rectifying membranes, and buffer columns. The spherical communication cavity includes a storage battery, a communication module, a strobe light, a control single-chip microcomputer, and other components. The water driven passive autonomous retractable signal device for the deep-sea AUV is arranged on the top of an unmanned underwater vehicle. When the unmanned underwater vehicle gradually floats on a water surface, a rubber membrane of the air bag may overcome a certain elastic force of the spring and support the spherical communication cavity, so that an upper part of the spherical communication cavity is exposed outside a housing of the unmanned underwater vehicle so as to complete a communication task, and the strobe light therein is used to display a position thereof during a retraction process of a mother vessel so as to facilitate retraction. An underwater pressure is continuously increased as a submerged depth of the unmanned underwater vehicle is continuously increased. Under the action of the increased water pressure and the elastic force of the springs, the spherical communication cavity presses the rubber membrane of the air bag, the rubber membrane is elastically deformed, and the spherical communication cavity is retracted within the housing of the unmanned underwater vehicle under the action of the elastic force and the gravity. Meanwhile, the rectifying membranes are pulled out from the spring reels, so that the surface of the unmanned underwater vehicle is flat without affecting the underwater navigation resistance of the vehicle. By skillfully utilizing a significant difference between shallow-water and deep-sea underwater pressures, the spherical communication cavity is autonomously released and retracted without additional energy consumption. The device is applicable to unmanned underwater vehicles with

high energy consumption requirements such as a full-depth AUV, an underwater glider and a vertical profile submerged buoy.



21: 2022/02807. 22: 2022/03/08. 43: 2022/03/29  
51: E21D; F15B

71: SHANDONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

72: WAN, Lirong, YU, Xuehui, MA, Dejian, WANG, Jiantao, XIN, Fengwen, LI, Zhaoji, QI, Guoqing, CHEN, Baolong

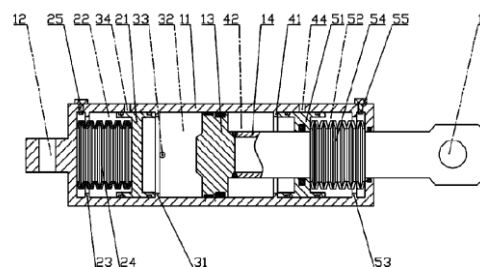
33: CN 31: 202011425245.0 32: 2020-12-09

**54: IMPACT-RESISTANT BALANCE OIL CYLINDER HAVING FUNCTIONS OF PRESSURE RELIEF AND BUFFER PROTECTION**

00: -

An impact-resistant balance oil cylinder having the functions of pressure relief and buffer protection.

The impact-resistant balance oil cylinder comprises a cylinder body (11), a piston (13), a piston rod (14), and a first valve core (21) and a second valve core (51) that slide relative to the cylinder body (11). A closed first air cavity (22) and a closed second air cavity (52) are respectively formed between the two valve cores and inner walls of two opposite ends of the cylinder body (11). A closed first oil cavity (32) and a closed second oil cavity (42) are respectively formed between the two valve cores and two end faces of the piston (13). A first oil cavity oil through hole (33) and a second oil cavity oil through hole (43) are respectively provided in the positions of the cylinder body (11) that correspond to the first oil cavity (32) and the second oil cavity (42).



21: 2022/03083. 22: 2022/03/15. 43: 2022/04/12  
51: E04B

71: THE FIRST CONSTRUCTION ENGINEERING COMPANY LTD. OF CHINA CONSTRUCTION SECOND ENGINEERING BUREAU

72: Xu Zhongqiang, Li Weiyong, Zhao Peng, Li Hongquan, Kang Ning, Bai Binrui, Liang Ying, Jin Haiming

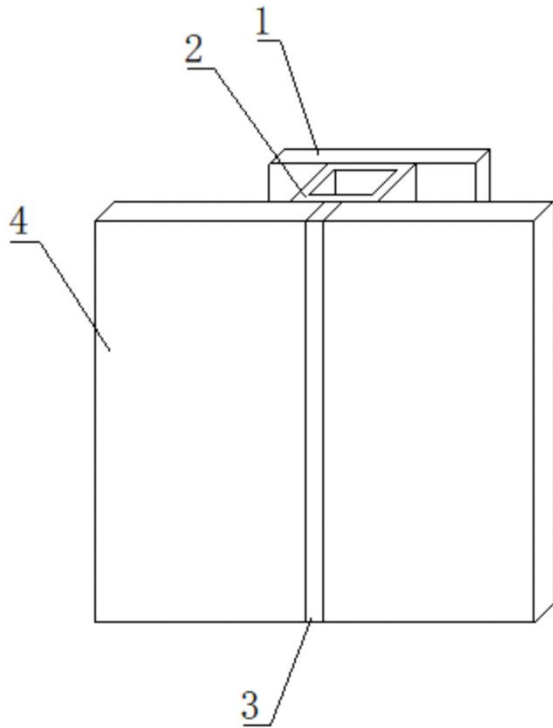
33: CN 31: 202122178584.X 32: 2021-09-19

**54: A LARGE HYPERBOLOID HIDDEN FRAME GLASS CURTAIN WALL SYSTEM**

00: -

The present invention relates to the technical field of building curtain walls and provides a large hyperboloid hidden frame glass curtain wall system that comprises a mounting base plate, the front of said mounting base plate is welded with a fixed aluminum frame in a fixed way, the front of said fixed aluminum frame is connected with an adhesive aluminum plate in a fixed way, the outer wall of said adhesive aluminum plate is provided with a light ray weakening mechanism, the inner cavity of said fixed aluminum frame is provided with an auxiliary cleaning mechanism, and the back of said mounting base plate is provided with a convenient installation mechanism. With the design of collaboration of the embossing layer, PVB layer I, silkscreen colored glaze layer, hollow double-layer laminated ultra-white glass, surface plating Low-E film, PVB layer II and ultra-white tempered glass, the present invention can weaken the permeability of external light rays, meet natural lighting requirements, realize the effect of overall dim light, avoid the problem that indoor normal life is affected when the external light rays are relatively strong, improve the comfort level of indoor people, make the facade of the curtain wall smooth and neat and achieve the semitransparent effect.





difference after the differential measurement. The invention achieves the intelligent detection of bridge deflection by means of the opposite-edge measurement function of a measurement robot.



21: 2022/03551. 22: 2022/03/28. 43: 2022/03/31

51: G01B

71: Shandong University

72: WANG, Dengjie, ZHANG, Shuzheng, WANG, Yan, ZHANG, Hongwei, LIU, Junjie, QI, Quanpeng, XIONG, Changxin

#### **54: INTELLIGENT DETECTION METHOD FOR BRIDGE DEFLECTION BASED ON DIFFERENTIAL TECHNOLOGY**

00: -

An intelligent detection method for bridge deflection based on a differential technology is provided, falling within the technical field of bridge engineering. The method includes the following steps: step S1, obtaining an altitude difference between detection points on a bridge floor through the function of opposite edge measurement; step S2, calculating influence coefficients of an earth curvature and atmospheric vertical refraction on the altitude difference measurement; step S3, calculating an elevation of a bridge deflection observation point by the measured altitude difference; step S4, achieving differential measurement technology for altitude difference of bridge deflection according to a principle of equal influences; and step S5, precisely calculating an elevation of the bridge deflection observation point by the measured altitude

**HYPOTHECATIONS**

No records available

**JUDGMENTS**

No records available

**OFFICE PRACTISE NOTICES**

No records available

## 3. DESIGNS

**DESIGNS****APPLICATIONS FOR REGISTRATION OF DESIGNS IN TERMS OF ACT No. 195 OF 1993**

The particulars appear in the following sequence: Copies of the application and representations cannot be supplied until application is registered and advertised. In all correspondence reference should be made to the number of the application. Application number, full name of applicant, class, articles to which design is to be applied and priority date (if any)

. - APPLIED ON 2022/03/28 -

A2022/00322 - Colgate-Palmolive Company Class 4. ORAL CARE IMPLEMENTS

A2022/00320 - HANS GROHE SE Class 23. SANITARY SHOWER

A2022/00319 - HANS GROHE SE Class 23. SANITARY SHOWER

A2022/00325 - Colgate-Palmolive Company Class 4. ORAL CARE IMPLEMENTS

A2022/00324 - Chery Automobile Co., Ltd. Class 12. CARS

A2022/00323 - Dr. Ing. h.c. F. Porsche Aktiengesellschaft Class 12. AUTOMOBILES

A2022/00321 - HANS GROHE SE Class 23. HAND SHOWER

. - APPLIED ON 2022/03/29 -

F2022/00326 - Pieter Jacobus Delport Class 25. PODIUM STEPS

F2022/00328 - Binco Recycle (Pty) Ltd Class 09. DUSTBIN CONTAINER\_2

A2022/00327 - Binco Recycle (Pty) Ltd Class 09. DUSTBIN CONTAINER\_1

. - APPLIED ON 2022/03/30 -

A2022/00330 - NIXED JEWELLERY (PTY) LTD Class 22. PENDANT

F2022/00336 - NIXED JEWELLERY (PTY) LTD Class 22. PENDANT

F2022/00331 - NIXED JEWELLERY (PTY) LTD Class 11. PENDANT

A2022/00329 - NIXED JEWELLERY (PTY) LTD Class 11. PENDANT

A2022/00334 - NIXED JEWELLERY (PTY) LTD Class 22. PENDANT

F2022/00335 - NIXED JEWELLERY (PTY) LTD Class 11. PENDANT

A2022/00333 - NIXED JEWELLERY (PTY) LTD Class 11. PENDANT

. - APPLIED ON 2022/03/31 -

A2022/00337 - DART INDUSTRIES INC. Class 7. STORAGE CONTAINER

A2022/00342 - VICTAULIC COMPANY Class 23. ELBOW FITTING



A2022/00340 - VICTAULIC COMPANY Class 23. TEE FITTING

F2022/00341 - VICTAULIC COMPANY Class 23. TEE FITTING

F2022/00343 - VICTAULIC COMPANY Class 23. ELBOW FITTING

A2022/00338 - DART INDUSTRIES INC. Class 7. STORAGE CONTAINER

A2022/00339 - CMDK PROJECTS (PTY) LTD Class 23. A PORTABLE FIRE PIT

- APPLIED ON 2022/04/01 -

A2022/00344 - Gladwin, Ricky Lee, Gladwin, Sacha Dean, Gladwin, Thea Class 28. HAIR CLIP

A2022/00346 - Verb Surgical Inc. Class 24. DEVICES

A2022/00345 - Verb Surgical Inc. Class 24. DEVICES

A2022/00348 - Verb Surgical Inc. Class 24. DEVICES

A2022/00347 - Verb Surgical Inc. Class 24. DEVICES

- APPLIED ON 2022/04/04 -

A2022/00351 - BWAY CORPORATION Class 9. CONTAINER

A2022/00349 - Personnel Hygiene Services Limited Class 28. AIR FRESHENERS

A2022/00350 - Personnel Hygiene Services Limited Class 28. AIR FRESHENERS

- APPLIED ON 2022/04/05 -

A2022/00353 - PHILIP MORRIS PRODUCTS S.A. Class 27. AEROSOL GENERATING DEVICE, IN PARTICULAR TOBACCO HEATING DEVICE

A2022/00352 - PHILIP MORRIS PRODUCTS S.A. Class 27. AEROSOL GENERATING DEVICE, IN PARTICULAR TOBACCO HEATING DEVICE

A2022/00355 - PHILIP MORRIS PRODUCTS S.A. Class 27. AEROSOL GENERATING DEVICE, IN PARTICULAR TOBACCO HEATING DEVICE

A2022/00359 - Ezra Misonne Du Preez Class 11. BRACELET DESIGN 2

A2022/00357 - KIRKLAND, John Sebastian Turner Class 12. MOTOR VEHICLE STICKER SET

A2022/00354 - PHILIP MORRIS PRODUCTS S.A. Class 27. AEROSOL GENERATING DEVICE, IN PARTICULAR TOBACCO HEATING DEVICE

A2022/00358 - Ezra Misonne Du Preez Class 11. BRACELET DESIGN 3

A2022/00356 - NXT Building System Pty Ltd Class 25. BUILDING TOWER

- APPLIED ON 2022/04/06 -

A2022/00360 - Johnson & Johnson Consumer Inc. Class 9. BOTTLES

A2022/00361 - Johnson & Johnson Consumer Inc. Class 32. GRAPHIC DESIGNS

A2022/00362 - Johnson & Johnson Consumer Inc. Class 09. CAPS

A2022/00363 - Johnson & Johnson Consumer Inc. Class 9. BOTTLES

A2022/00364 - Johnson & Johnson Consumer Inc. Class 9. BOTTLES

A2022/00365 - OLWETHU DLANGA Class 32. IZWE LETHU

- APPLIED ON 2022/04/07 -

A2022/00378 - FUCHS PETROLUB SE Class 09. STORAGE CAN FOR OIL

A2022/00375 - FUCHS PETROLUB SE Class 09. STORAGE CAN FOR OIL

A2022/00376 - FUCHS PETROLUB SE Class 09. STORAGE CAN FOR OIL

A2022/00366 - STRYDOM, LOUIS Class 11. FLAG

A2022/00367 - WINSTON PRODUCTS, LLC Class 08. RATCHET HANDLE

A2022/00368 - WINSTON PRODUCTS, LLC Class 08. RATCHET HANDLE

A2022/00369 - WINSTON PRODUCTS, LLC Class 08. RATCHET HANDLE

A2022/00370 - WINSTON PRODUCTS, LLC Class 08. RATCHET HANDLE

A2022/00371 - WINSTON PRODUCTS, LLC Class 08. RATCHET HANDLE

A2022/00372 - WINSTON PRODUCTS, LLC Class 08. RATCHET HANDLE

A2022/00373 - Skell Inc. Class 22. BUG KILLING PISTOLS

F2022/00374 - Skell Inc. Class 22. BUG KILLING PISTOLS

A2022/00377 - FUCHS PETROLUB SE Class 09. STORAGE CAN FOR OIL

- APPLIED ON 2022/04/08 -

A2022/00384 - SCREEN GRAPHICS CC Class 20. PARASOL BANNER

A2022/00381 - Carl Zeiss AG Class 16. CAMERAS

A2022/00383 - SCREEN GRAPHICS CC Class 03. PARASOL BANNER

A2022/00382 - Carl Zeiss AG Class 16. CAMERAS

A2022/00379 - Carl Zeiss AG Class 16. CAMERAS

A2022/00380 - Carl Zeiss AG Class 16. CAMERAS

- APPLIED ON 2022/04/11 -

A2022/00386 - Ezra Misonne Du Preez Class 11. BRACELET

A2022/00385 - Ezra Misonne Du Preez Class 11. BRACELET

A2022/00388 - Bayerische Motoren Werke Aktiengesellschaft Class 12. MOTOR VEHICLES

F2022/00387 - THE TREVOR CHARLES FROST FAMILY TRUST (IT 3642/95) Class 25. A MINE PROP

A2022/00389 - Bayerische Motoren Werke Aktiengesellschaft Class 12. MOTOR VEHICLES

- APPLIED ON 2022/04/12 -

A2022/00392 - SALUS Haus Dr. med. Otto Greither Nachf. GmbH & Co. KG Class 09. PACKAGING

F2022/00391 - SALUS Haus Dr. med. Otto Greither Nachf. GmbH & Co. KG Class 09. PACKAGING

A2022/00390 - SALUS Haus Dr. med. Otto Greither Nachf. GmbH & Co. KG Class 09. PACKAGING

F2022/00393 - SALUS Haus Dr. med. Otto Greither Nachf. GmbH & Co. KG Class 09. PACKAGING

A2022/00394 - ICU MEDICAL, INC. Class 14. SET OF SCREEN DISPLAYS HAVING A GRAPHICAL USER INTERFACE AND ICONS

- APPLIED ON 2022/04/13 -

F2022/00396 - iKAMPER CO., LTD. Class 3. ROOFTOP AWNING FRAME FOR VEHICLES

F2022/00395 - NIENHUIS, Jan, Balster Class 13. BRACKET FOR MOUNTING SOLAR PANEL RAILS ON TILED ROOFS

A2022/00398 - APPLE INC. Class 13. CONNECTOR

A2022/00397 - DE VILLIERS, Marius de Wet Class 10. ALARM ACTIVATION INDICATOR

- APPLIED ON 2022/04/14 -

F2022/00403 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. EXTRUSION DIES FOR NOZZLES

F2022/00402 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. NOZZLES

A2022/00400 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. EXTRUSION DIES FOR NOZZLES

A2022/00401 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. HOUSINGS FOR NOZZLES

F2022/00404 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. HOUSINGS FOR NOZZLES

A2022/00399 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. NOZZLES

- APPLIED ON 2022/04/19 -

A2022/00411 - Carl Zeiss AG Class 14. GRAPHICAL USER INTERFACES

A2022/00405 - BUBS IN ARMS PTY LTD Class 02. NURSING SCREEN

A2022/00408 - Carl Zeiss AG Class 14. USER INTERFACES

F2022/00406 - BUBS IN ARMS PTY LTD Class 02. NURSING SCREEN

F2022/00413 - ROUTE HOLDINGS (PTY) LTD Class 12. TRAILER

A2022/00409 - Carl Zeiss AG Class 14. USER INTERFACES

A2022/00407 - Carl Zeiss AG Class 14. USER INTERFACES

A2022/00412 - Carl Zeiss AG Class 14. GRAPHICAL USER INTERFACES

A2022/00410 - Carl Zeiss AG Class 14. GRAPHICAL USER INTERFACES

. - APPLIED ON 2022/04/20 -

F2022/00414 - iKAMPER CO., LTD. Class 21. TENT FOR CAMPING

A2022/00419 - FORD GLOBAL TECHNOLOGIES, LLC Class 12. MOTOR VEHICLE

A2022/00421 - FORD GLOBAL TECHNOLOGIES, LLC Class 21. TOY VEHICLE

A2022/00420 - FORD GLOBAL TECHNOLOGIES, LLC Class 12. FRONT CENTRE GRILLE FOR A VEHICLE

F2022/00416 - Ronald Terence Warwick Class 25. BLOCK FOR BREAKWATER

A2022/00415 - WAHL CLIPPER CORPORATION Class 28. HAIR TRIMMER

F2022/00417 - Ronald Terence Warwick Class 25. BLOCK FOR BREAKWATER

F2022/00418 - PAUL STUART TURNER Class 29. HIGH VISIBILITY TWIN TAG

. - APPLIED ON 2022/04/21 -

F2022/00423 - NORTHSWAN ENGINEERING (PTY) LTD. Class 23. AUTOCLAVES

A2022/00424 - THULE SWEDEN AB Class 21. TENT

A2022/00426 - LVMH Swiss Manufactures SA Class 10. CASES, DIALS AND ALL OTHER ACCESSORIES AND PARTS, FOR WATCHES

F2022/00429 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. SCREW CONVEYORS

F2022/00422 - NORTHSWAN ENGINEERING (PTY) LTD. Class 23. RADIATORS

A2022/00427 - LVMH Swiss Manufactures SA Class 10. CASES, DIALS AND ALL OTHER ACCESSORIES AND PARTS, FOR WATCHES

F2022/00428 - FREDDY HIRSCH GROUP PROPRIETARY LIMITED Class 31. SCREW CONVEYORS

A2022/00425 - THULE SWEDEN AB Class 21. PART OF A TENT

. - APPLIED ON 2022/04/22 -

A2022/00432 - CJ CHEILJEDANG CORPORATION Class 9. PACKAGING BAG

F2022/00430 - WAHL CLIPPER CORPORATION Class 28. STATIONARY BLADE FOR A HAIR TRIMMER



A2022/00431 - DART INDUSTRIES INC. Class 23. WATER FILTER HOUSING

**CHANGE OF NAME IN TERMS OF REGULATION 24**

No records available

**APPLICATION FOR THE RESTORATION OF A LAPSED DESIGN UNDER SECTION 23 OF THE ACT**

Notice is hereby given that: **HENTIQ 1627 (PTY) LTD T/A TOOLTECH PLASTICS UNIT 01-02-CNR. LINTON ROAD & BIRCH CLOSE, BEACONVALE PAROW, 7500 South Africa.** has made application for the restoration of the design registered to the said: **HENTIQ 1627 (PTY) LTD T/A TOOLTECH PLASTICS** for the Design: **CARCASS OF A SEAT, BACKREST OR THE LIKE OF AN ARTICLE OF FURNITURE** application number: **F2013/01520** date: **22/08/2013** which become void on **22/08/2020** due to non-payment of the prescribed renewal fee.

Any person may give notice on Design Form No 11 of opposition to restoration of the design within two months of the advertisement hereof.

**Registrar of Designs**

Notice is hereby given that: **DREAM FOR AFRICA TRADING AND PROJECTS (PTY) LIMITED 34 LAUREL CRESCENT, MEYERSDAL 1448 ALBERTON South Africa.** has made application for the restoration of the design registered to the said: **DREAM FOR AFRICA TRADING AND PROJECTS (PTY) LIMITED** for the Design: **WALL SUPPORT STRAP** application number: **F2014/01512** date: **07/10/2014** which become void on **07/10/2018** due to non-payment of the prescribed renewal fee.

Any person may give notice on Design Form No 11 of opposition to restoration of the design within two months of the advertisement hereof.

**Registrar of Designs****APPLICATION TO CORRECT AND/OR AMEND DESIGNS APPLICATION OR REGISTRATION**

THE DESIGN APPLICATION TO BE CORRECTED OR AMENDED IS OPEN FOR PUBLIC INSPECTION. THE PARTICULARS TO BE PUBLISHED SHALL BE THOSE SET OUT IN PART 11 AN APPLICATION FOR CORRECTION OR AMENDMENT SO PUBLISHED MAY NOT BE INSPECTED AND MAY NOT BE OPPOSED.

## PART 11

Design No. A2019/00505  
Applicant: WILLIAMS, Clifford  
Class: 25  
Article to which the Design is to be applied: CONSTRUCTION ELEMENT  
Date of lodgment: 16/04/2019

**Registrar of Designs**

THE DESIGN APPLICATION TO BE CORRECTED OR AMENDED IS OPEN FOR PUBLIC INSPECTION. THE PARTICULARS TO BE PUBLISHED SHALL BE THOSE SET OUT IN PART 11 AN APPLICATION FOR CORRECTION OR AMENDMENT SO PUBLISHED MAY NOT BE INSPECTED AND MAY NOT BE OPPOSED.

## PART 11

Design No. F2020/00633  
Applicant: ILLUMINA, INC.  
Class: 24  
Article to which the Design is to be applied: FLOW CELL  
Date of lodgment: 21/05/2020

Registrar of Designs

**NOTICE OF REGISTRATION OF DESIGNS**

Notice of registration of the designs mentioned below has been issued by the Registrar of Designs in terms of the Designs Act, 1993 (Act No. 195 of 1993)

**INSPECTION OF DESIGNS**

A design application, may after a notice of registration has been published, be inspected during office hours at the Designs Office, Pretoria, at a charge of R3, 00

**COPIES OF DOCUMENTS**

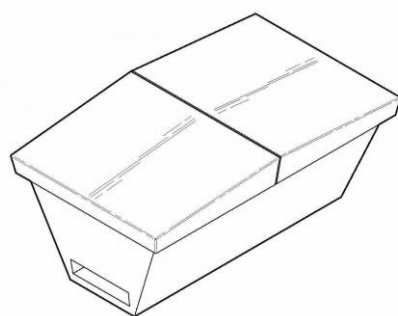
The Designs Office, Private Bag X400, Pretoria, supplies photocopies of all design documents at R1, 00 per page. (Payment to be affected by revenue stamps only.)

The numerical references denote the following: **(21)** Number of application. **(22)** Date of lodgement. **(23)** release date (if applicable). **(DR)** Date of registration. **(52)** Class. **(24)** Type of design. **(71)** Name(s) of applicant(s). **(33)** Country. **(31)** Number and. **(32)** Date of convention application. **(54)** Articles to which design is to be applied. **(57)** Brief statement of features.

**N.B.:** Date of registration (DR) is either Date of lodgement (22) or Date of convention of application (32) whichever is the earlier.

Registrar of Designs

21: A2017/01890 22: 2017-11-29 23:  
43: 2017-11-29  
52: Class 30 24: Part A  
71: UNIVERSITY OF JOHANNESBURG  
**54: Beehives**  
57: The design is for a beehive substantially as shown in the representations, wherein beehive is typically constructed from concrete.

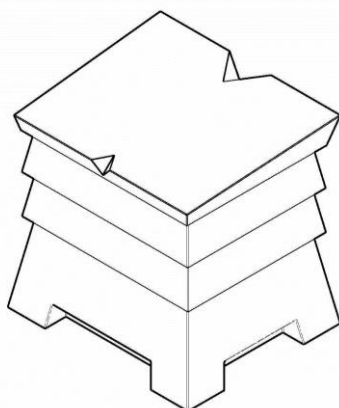


Perspective view

21: A2017/01891 22: 2017-11-29 23:  
43: 2017-11-29  
52: Class 30 24: Part A  
71: UNIVERSITY OF JOHANNESBURG

**54: Beehives**

57: The design is for a beehive substantially as shown in the representations, wherein beehive is typically constructed from concrete.

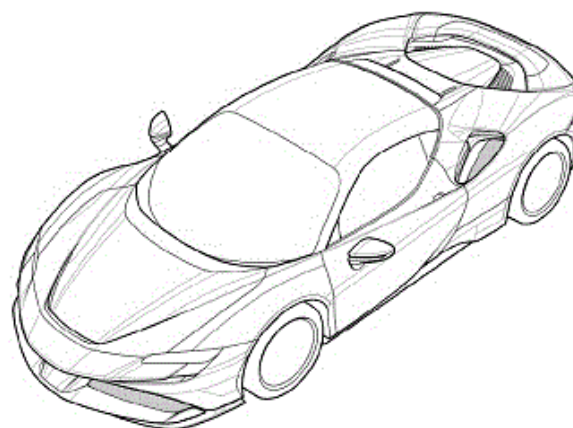


Perspective view

21: A2019/01334 22: 2019-09-13 23:  
43: 2022-02-03  
52: Class 12. 24: Part A  
71: FERRARI S.P.A.  
33: EM 31: 006307054-0001 32: 2019-03-15

**54: Car**

57: The design relates to a car. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.

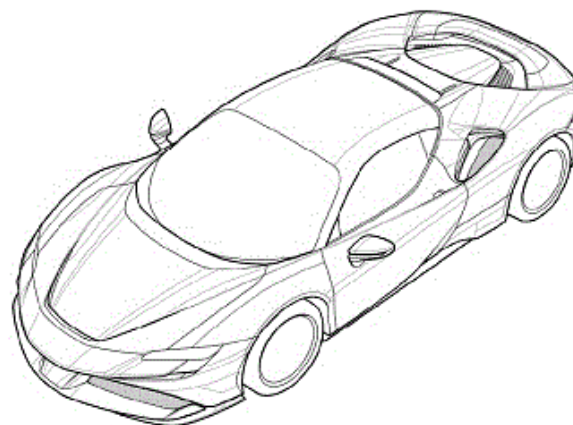
**FRONT PERSPECTIVE VIEW**

21: A2019/01335 22: 2019-09-13 23:  
43: 2022-02-03  
52: Class 21. 24: Part A  
71: FERRARI S.P.A.

33: EM 31: 006308821-0001 32: 2019-03-15

**54: Toy Car**

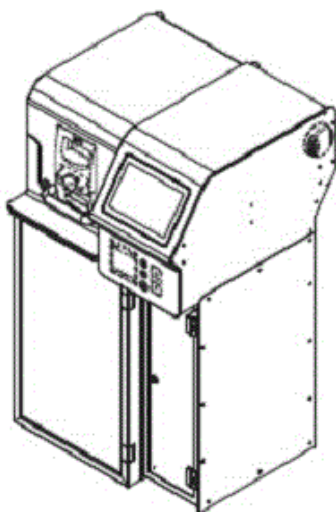
57: The design relates to a toy car. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.

**FRONT PERSPECTIVE VIEW**

21: A2019/01336 22: 2019-09-13 23:  
43: 2022-02-03  
52: Class 19. 24: Part A  
71: G4S DEPOSITA (RF) (PTY) LTD.

**54: A Cash Deposit Machine**

57: The design relates to a cash deposit machine. The features of the design are those of shape and/or configuration.



**FIRST FRONT PERSPECTIVE VIEW**

21: A2019/01337 22: 2019-09-13 23:

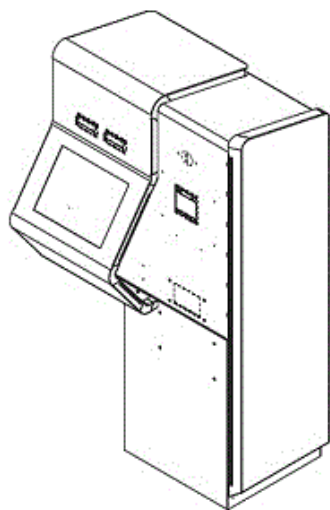
43: 2022-02-03

52: Class 20. 24: Part A

71: G4S DEPOSITA (RF) (PTY) LTD.

**54: Self-Service Terminal**

57: The design relates to a self-service terminal. The features of the design are those of shape and/or configuration.



**FRONT PERSPECTIVE VIEW**

21: A2019/01338 22: 2019-09-13 23:

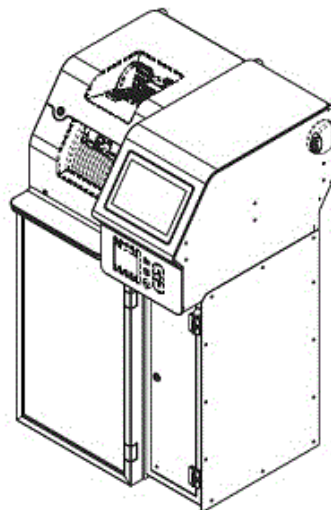
43: 2022-02-03

52: Class 19. 24: Part A

71: G4S DEPOSITA (RF) (PTY) LTD.

**54: A Cash Deposit Machine**

57: The design relates to a cash deposit machine. The features of the design are those of shape and/or configuration.



**FIRST FRONT PERSPECTIVE VIEW**

21: A2019/01802 22: 2019-12-12 23:

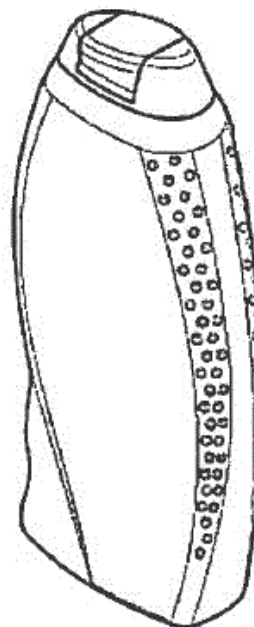
43: 2019-12-12

52: Class 9. 24: Part A

71: TIGER FOOD BRANDS INTELLECTUAL PROPERTY HOLDING COMPANY (PROPRIETARY) LIMITED

**54: BOTTLE AND CAP**

57: The design relates to a bottle and cap. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.





21: A2020/00928 22: 2020-07-02 23:

43: 2022-02-10

52: Class 29. 24: Part A

71: BBF SAFETY GROUP (PTY) LTD

#### **54: SPREADER FOR A SAFETY HARNESS**

57: The features of the design for which protection is sought reside in the shape and/or pattern and/or configuration and/or ornamentation of a spreader for a safety harness, substantially as illustrated in the accompanying representations, wherein the specific wording and numbers provided on surfaces (A) and (B) of the spreader are included mainly for illustrative purposes and do not form an essential part of the design.

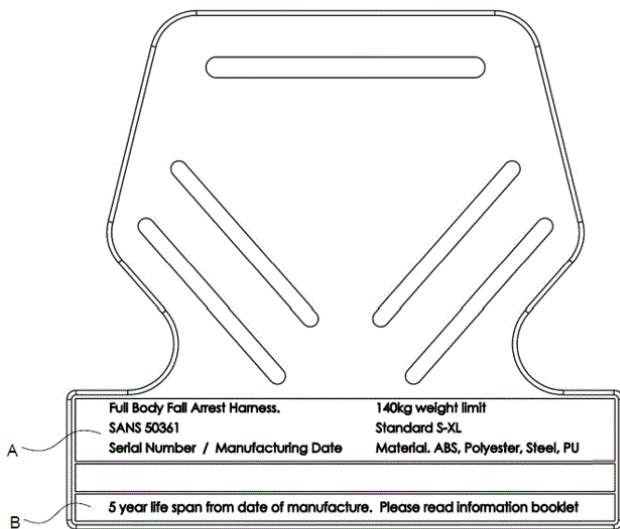


Figure 1

Front view

21: A2020/00961 22: 2020-07-10 23:

43: 2021-03-29

52: Class 12. 24: Part A

71: Great Wall Motor Company Limited

33: CN 31: 202030023942.8 32: 2020-01-14

#### **54: VEHICLE**

57: The design is for a vehicle in the form of a five door SUV.



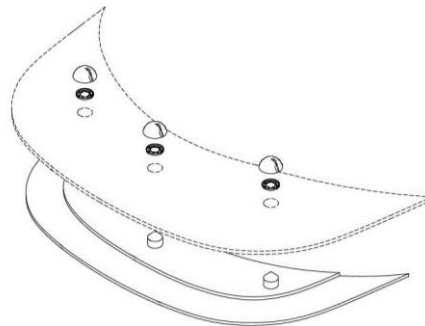
43: 2020-07-31

52: Class 2. 24: Part A

71: WILL, Edward Henry

#### **54: Headwear and Headwear Accessories**

57: The design is in respect of an accessory for an article of headwear and an article of headwear incorporating the accessory. More particularly, the accessory is in the form of a peak clip which includes a generally crescent-shaped body which is connectable to an under surface of a peak or visor of an article of headwear. The peak clip includes a generally crescent-shaped body having an operatively upper surface and an operatively lower surface. A plurality of spaced apart protuberances protrude upwardly from the upwardly upper surface of the body. Each protuberance has a tapered free end to facilitate insertion of the protuberances through the peak of an article of headwear. The design extends to retaining clips which are insertable over the protruding end portions of the protuberances to retain the peak clip in position on a peak of an article of headwear. The design extends further to a domed cover which is mountable over the protruding end portion of the protuberance as well as the retaining element.



21: A2020/01111 22: 2020-08-14 23:

43: 2022-04-05

52: Class 12. 24: Part A

71: ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD

33: US 31: 29/724,879 32: 2020-02-20

#### **54: CANOPY FOR A VEHICLE**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or pattern and/or ornamentation of a canopy for a vehicle, substantially as illustrated in the accompanying representations.

21: A2020/01053 22: 2020-07-31 23:

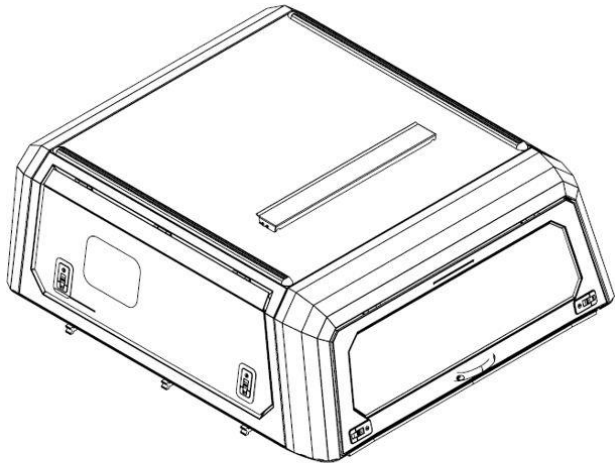
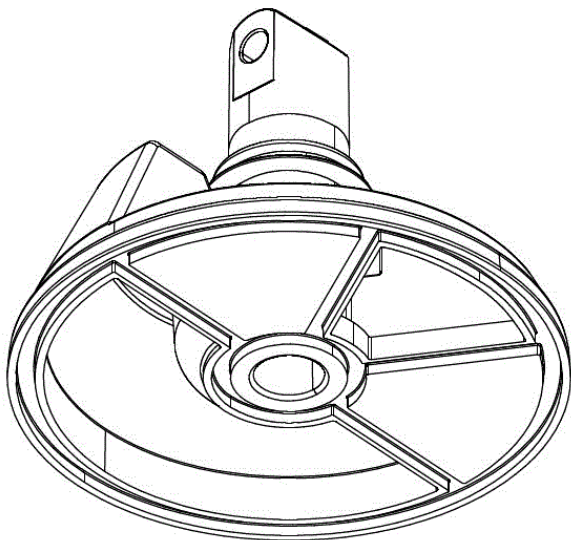


Figure 7  
Perspective rear view

21: A2020/01116 22: 2020-08-17 23:  
43: 2020-08-17  
52: Class 23 24: Part A  
71: Fluidra Waterlinx (Pty) Ltd

#### 54: Multiport Valves

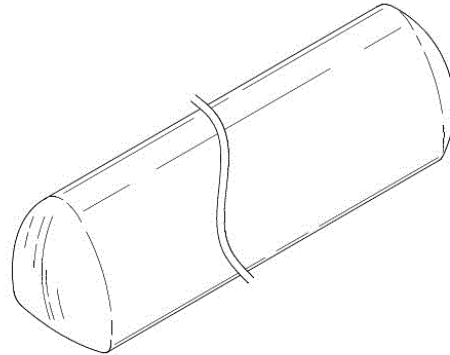
57: The design is in respect of a multiport valve diffuser which includes a body which is generally circular in shape when viewed from above and a centrally disposed stem which protrudes upwardly from an upper surface of the body. A lower surface of the body defines a downwardly open recess which is generally channel-shaped in cross-section. The recess includes a circular inner portion, a concentric circular outer portion and four angularly spaced radially extending portions which extend between the inner and outer portions. The recess serves to receive a "wagon-wheel" seal or gasket.



21: A2020/01165 22: 2020-08-28 23:  
43: 2020-08-28  
52: Class 9 24: Part A  
71: Nimalux (Pty) Ltd.

#### 54: FUEL TANK

57: The design is applied to a fuel tank for a transport container. The features of the design for which protection is claimed include the shape and/or configuration of a fuel tank, substantially as illustrated in the accompanying representations.

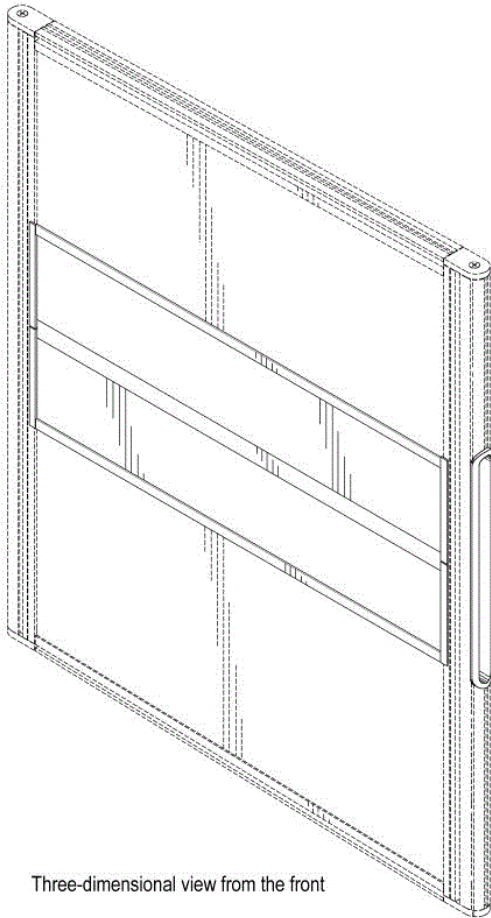


Three-dimensional view

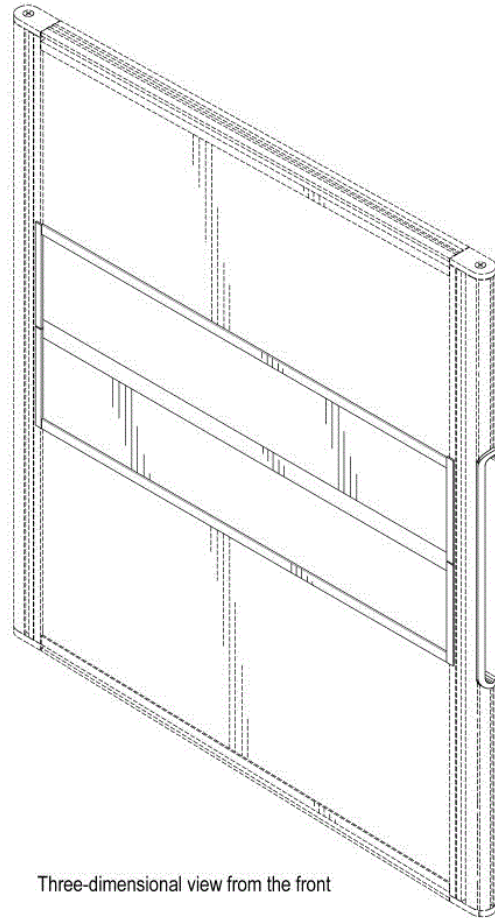
21: A2020/01293 22: 2020-09-28 23:  
43: 2020-09-28  
52: Class 6 24: Part A  
71: Gailtrade Group CC

#### 54: SCREENS

57: The design relates to a screen or panel used in particular for office furniture as a partition between workspaces. The screen includes a pair of parallel, adjacent, transversely extending ducts or cable trays which define internal passageways for conveying power and/or data cables through the screen from one side to the other. In opposing sides of the screen there is provided a longitudinally extending grommet which lines an opening in an upright. Each grommet has rounded corners and defines an oblong opening which is in register with the passageways of the respective ducts. Ends of the ducts are closed off by end pieces or caps which straddle the uprights of the screen and define a smaller oblong opening which is aligned with that of the grommet.



Three-dimensional view from the front



Three-dimensional view from the front

21: A2020/01295 22: 2020-09-28 23:

43: 2020-09-28

52: Class 25 24: Part A

71: Gailtrade Group CC

#### **54: SCREENS**

57: The design relates to a screen or panel used in particular for office furniture as a partition between workspaces. The screen includes a pair of parallel, adjacent, transversely extending ducts or cable trays which define internal passageways for conveying power and/or data cables through the screen from one side to the other. In opposing sides of the screen there is provided a longitudinally extending grommet which lines an opening in an upright. Each grommet has rounded corners and defines an oblong opening which is in register with the passageways of the respective ducts. Ends of the ducts are closed off by end pieces or caps which straddle the uprights of the screen and define a smaller oblong opening which is aligned with that of the grommet.

21: A2020/01317 22: 2020-10-01 23:

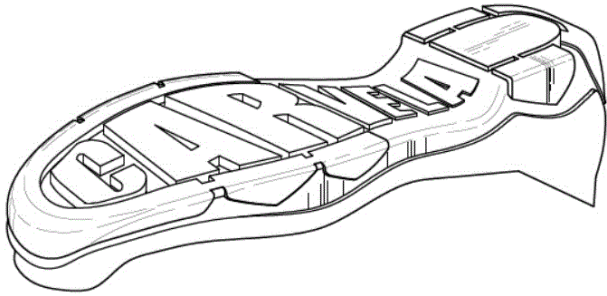
43: 2020-10-01

52: Class 2 24: Part A

71: A & D SPITZ (PROPRIETARY) LIMITED

#### **54: Soles for footwear and footwear**

57: The design is for a sole for an article of footwear which has a plurality of formations on an undersurface thereof. In particular there is a peripheral shoulder portion which extends around a front peripheral edge and rearwardly therefrom terminating generally in an arch region of the sole. A plurality of longitudinally spaced apart letters which form the word "CARVELA" extend inside the peripheral shoulder and rearwardly beyond the shoulder terminating at a front of a heel portion of the sole. The heights of the letter vary with the width of the sole. A peripheral shoulder is provided in the heel portion and is separated from a central raised portion by a plurality of recesses.



21: A2020/01357 22: 2020-10-13 23:  
43: 2022-02-10

52: Class 22 24: Part A

71: JACOBUS NICOLAAS KRITZINGER

**54: TACKLE HOLDERS FOR FISHING RODS**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or ornamentation of a tackle holder substantially as illustrated in the accompanying representations.

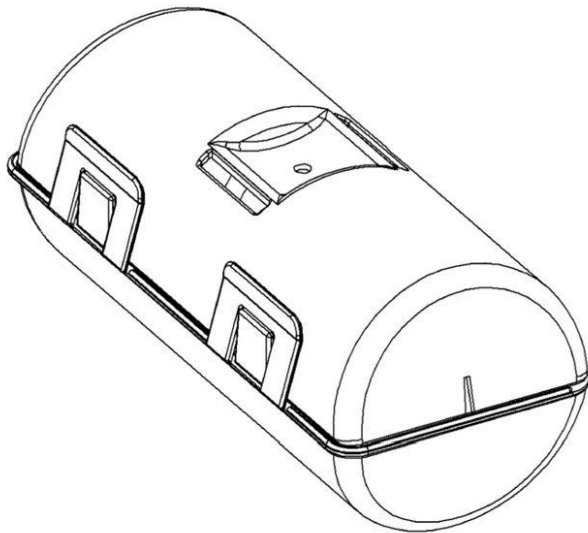


Figure 1

First perspective view of the tackle holder

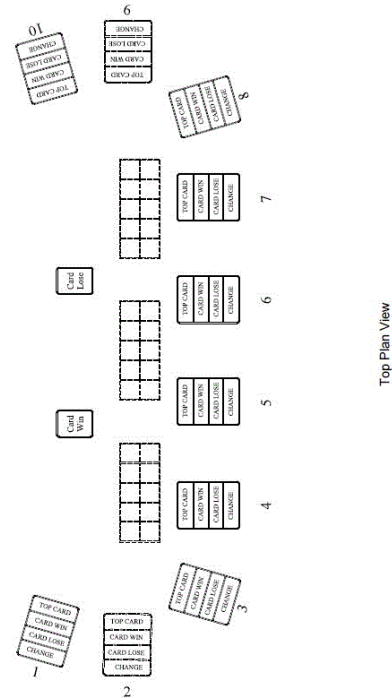
21: A2020/01363 22: 2020-10-15 23:  
43: 2020-10-15

52: Class 21 24: Part A

71: SUN INTERNATIONAL (IP) LIMITED

**54: DEMARCATED PLAYING SURFACES FOR PLAYING CARD GAMES**

57: The design is for a demarcated playing surface for playing a card game. The playing surface includes a central dealer area having a Card Win zone and a Card Lose zone. The playing surface includes a plurality of player areas, each player area having a Top Card bet zone, a Card Win bet zone, a Card Lose bet zone, and a Change zone arranged in a vertical column.



Top Plan View

21: A2020/01469 22: 2020-11-12 23:  
43: 2020-11-12

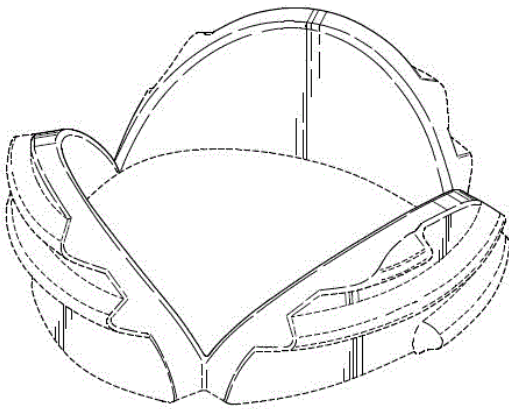
52: Class 9 24: Part A

71: FARAGO, Laci Zoltan

**54: CAP HOLDERS FOR CONTAINERS**

57: The design is for a cap holder for a container with a cap. The cap holder is shaped and dimensioned to accommodate the cap that closes the container in the same way that a mouth of the container receives the cap. The cap holder has three lobes or arcuate ridges arranged in an annulus. The cap holder may be positioned on the container (e.g., a bottle) so as not to interfere with the packing or stacking of the container. The cap holder may be integrally moulded with the container or attached afterwards. The cap holder may have a screw thread, depending on whether or not the cap is threaded.





Three-dimensional view

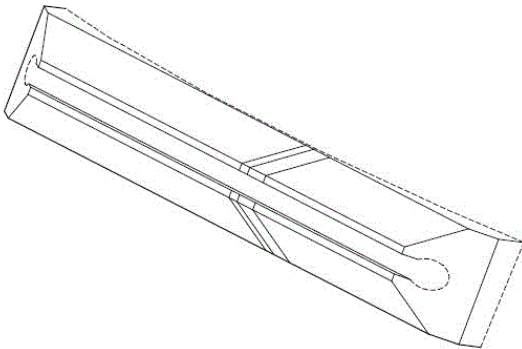
21: A2020/01470 22: 2020-11-12 23:  
43: 2020-11-12

52: Class 9 24: Part A

71: FARAGO, Laci Zoltan

#### **54: CAP HOLDERS FOR CONTAINERS**

57: The design is for a cap holder for a container with a cap. The cap holder is shaped and dimensioned to accommodate the cap that closes the container. The cap holder comprises a raised, elongate strip or ridge which defines a slot along its length which is open at each end. The slot is configured to receive a matching raised rib or tongue provided on part of the cap, wherein the rib is insertable into and removable from one of the open ends of the slot coaxially therewith, but is not removeable outwardly transversely from the slot.



Three-dimensional view

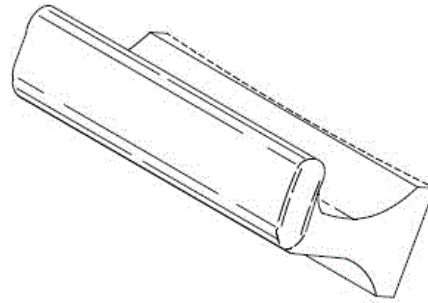
21: A2020/01471 22: 2020-11-12 23:  
43: 2020-11-12

52: Class 9 24: Part A

71: FARAGO, Laci Zoltan

#### **54: CAP HOLDERS FOR CONTAINERS**

57: The design is for a cap holder for a container with a cap. The cap holder is shaped and dimensioned to accommodate the cap that closes the container. The cap holder comprises a raised, elongate strip or ridge with an upper surface thereof having a concave profile and defining an upwardly open channel. The channel is configured to accommodate a matched hanger formation provided on the cap so that the cap can hang beneath the cap holder.



Three-dimensional view

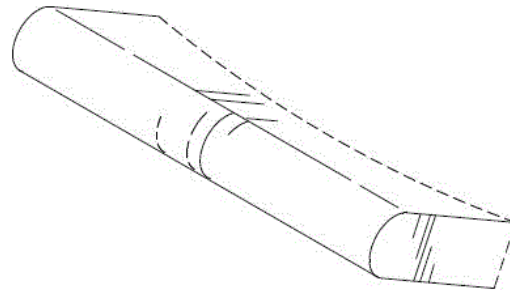
21: A2020/01472 22: 2020-11-12 23:  
43: 2020-11-12

52: Class 9 24: Part A

71: FARAGO, Laci Zoltan

#### **54: CAP HOLDERS FOR CONTAINERS**

57: The design is for a cap holder for a container with a cap. The cap holder is shaped and dimensioned to accommodate the cap that closes the container. The cap holder comprises a raised, elongate strip or ridge. The cap has a matching engagement formation defining a channel complementary to the strip. The cap can be placed on the cap holder so that the engagement formation frictionally engages the strip and holds the cap.



Three-dimensional view

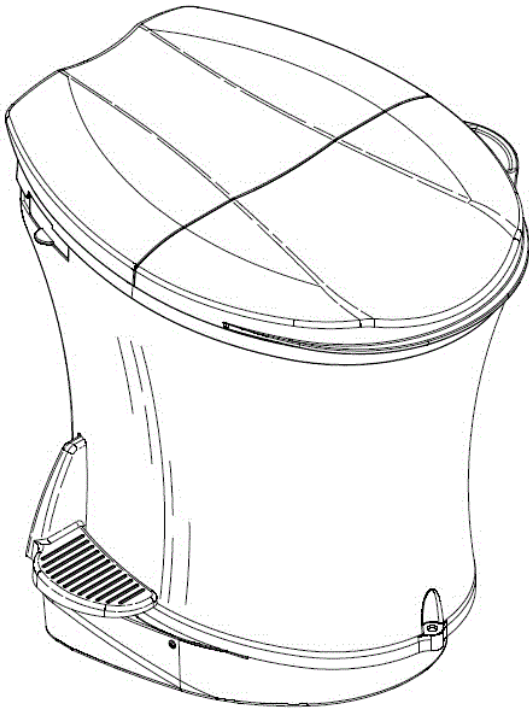
21: A2020/01482 22: 2020-11-18 23:  
43: 2020-11-18

52: Class 23 24: Part A

71: BETRAM (PROPRIETARY) LIMITED

**54: Toilet Units**

57: The toilet unit includes a body or pedestal on which a seat is mounted. A two-part lid is hingedly mounted to the seat for displacement between an open and closed position. A foot operated pedal protrudes laterally from a side of the pedestal. A closure member is displaceable between a closed position and an open position by a user sitting on the seat or depressing the foot operated pedal.



21: A2020/01483 22: 2020-11-18 23:

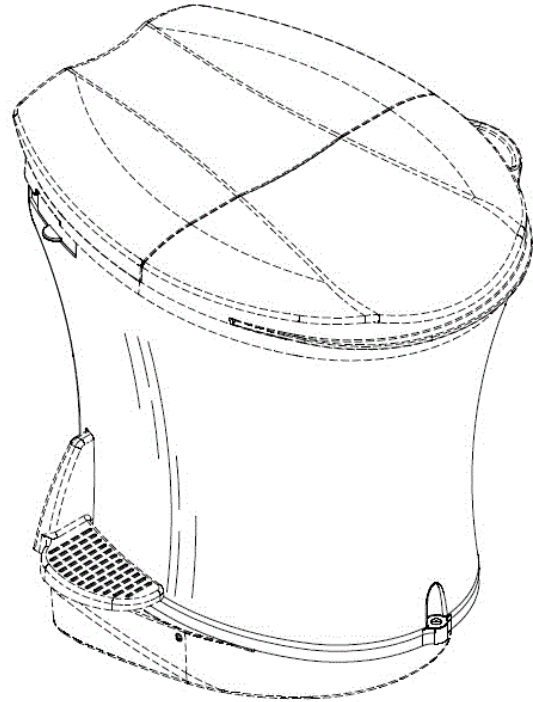
43: 2020-11-18

52: Class 23 24: Part A

71: BETRAM (PROPRIETARY) LIMITED

**54: Toilet Units**

57: The design is in respect of a toilet unit which includes a pedestal which has a top, a bottom and a side which is concave extending therebetween.



21: A2020/01484 22: 2020-11-18 23:

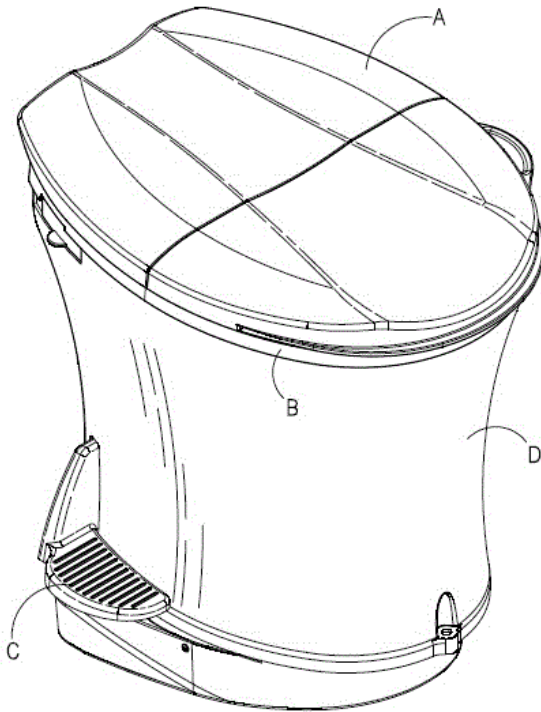
43: 2020-11-18

52: Class 23 24: Part A

71: BETRAM (PROPRIETARY) LIMITED

**54: Toilet Units**

57: The design is in respect of a toilet unit which includes a pedestal having a top and bottom. A seat is mounted on top of the pedestal and a lid is hingedly mounted for displacement between an open and closed position. A foot operated pedal protrudes laterally from the pedestal. At least one of the lid and/or seat and/or foot operated pedal are a different colour to the colour of the pedestal. Typically, the lid and/or seat and/or foot operated pedal will be the same colour which may be a shade of pink or a shade of blue.



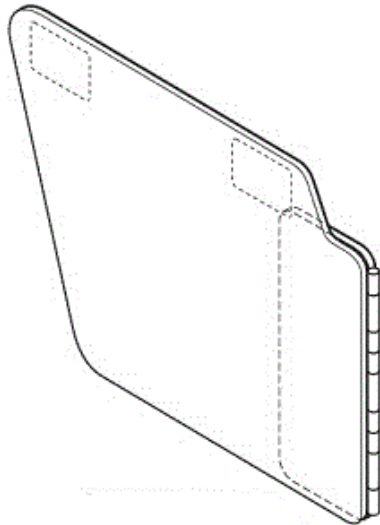
21: A2020/01620 22: 2020-12-14 23:  
43: 2022-02-22

52: Class 12. 24: Part A

71: WAWN, KEITH CHRISTOPHER

**54: Vehicle Sun Visor Extension**

57: The design relates to a vehicle sun visor extension. The features of the design are those of shape and/or configuration.



**PERSPECTIVE VIEW IN OPEN POSITION**

21: A2021/00021 22: 2021-01-14 23:

43: 2020-07-30

52: Class 4 24: Part A

71: Colgate-Palmolive Company

33: US 31: 29/744,650 32: 2020-07-30

**54: ORAL CARE IMPLEMENTS**

57: The design is for an oral care implement in the form of a toothbrush having an elongate body. The body includes a bulbous handle with a rounded bottom end, an elongate tapering neck extending from the handle to a widening head. A front side of the handle includes five vertically aligned circular protrusions, decreasing in diameter from the largest central protrusion towards each end of the handle, with the three central protrusions further defined by impressions of three different smiling-face "emojis". A rear side of the handle is defined by a central, oblong connection line which extends into the opposing sides of the handle. Indentations which spell the word "hello" are defined within the connection line. The head includes a plurality of bristles projecting perpendicularly from a front face of the head.

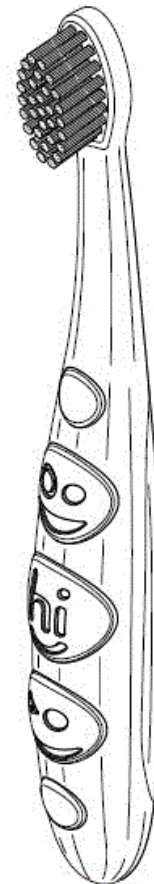


Figure 1

Three-dimensional view

21: A2021/00023 22: 2021-01-14 23:  
43: 2020-07-30  
52: Class 4 24: Part A  
71: Colgate-Palmolive Company  
33: US 31: 29/744,650 32: 2020-07-30

#### 54: ORAL CARE IMPLEMENTS

57: The design is for an oral care implement in the form of a toothbrush having an elongate body which includes a bulbous handle with a rounded bottom end. A front side of the handle includes three vertically aligned circular protrusions, decreasing in diameter from the largest central protrusion towards each end of the handle.

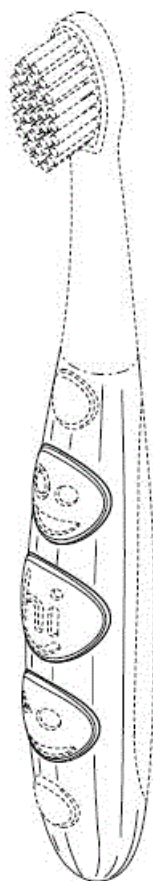


Figure 1

Three-dimensional view

21: A2021/00024 22: 2021-01-14 23:  
43: 2020-07-30  
52: Class 4 24: Part A  
71: Colgate-Palmolive Company  
33: US 31: 29/744,650 32: 2020-07-30

#### 54: ORAL CARE IMPLEMENTS

57: The design is for an oral care implement in the form of a toothbrush having an elongate body which

includes a bulbous handle with a rounded bottom end. A front side of the handle includes five vertically aligned circular protrusions, decreasing in diameter from the largest central protrusion towards each end of the handle, with the three central protrusions further defined by impressions of three different smiling-face "emojis". A rear side of the handle is defined by a central, oblong connection line which extends into the opposing sides of the handle.

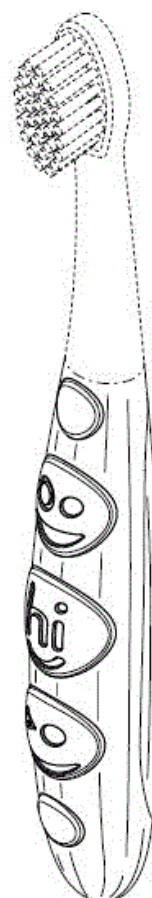


Figure 1

Three-dimensional view

21: A2021/00027 22: 2021-01-19 23:  
43: 2020-07-31  
52: Class 4 24: Part A  
71: Colgate-Palmolive Company  
33: US 31: 29/744,845 32: 2020-07-31

#### 54: ORAL CARE IMPLEMENTS

57: The design is for an oral care implement in the form of a toothbrush having an elongate body. The body includes an elongate handle with a rounded bottom end, an elongate tapering neck extending from the handle to a widening oval head projecting from the neck. A connection line extends



circumferentially adjacent the rounded end portion of the handle. Two oval protrusions are provided at a rear side of the handle, adjacent the connection line. At a front side of the handle, below the neck, is a longitudinal oval grip formation comprising a plurality of nodules. Two circular, vertically aligned protrusions are provided at the neck, adjacent the handle. The head includes a plurality of clusters of bristles projecting perpendicularly from a front face of the head, specifically having radial clusters spaced circumferentially in a whirl-like arrangement around a centrally disposed oval cluster.

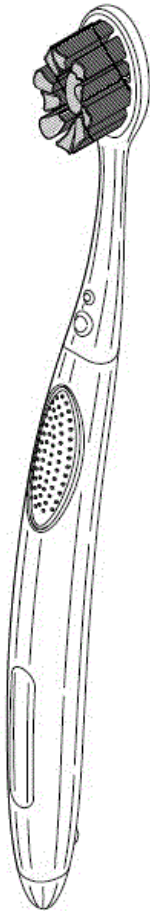


Figure 1

Three-dimensional view

21: A2021/00028 22: 2021-01-19 23:  
43: 2020-07-31  
52: Class 4 24: Part A  
71: Colgate-Palmolive Company  
33: US 31: 29/744,845 32: 2020-07-31

#### 54: ORAL CARE IMPLEMENTS

57: The design is for an oral care implement in the form of part of a toothbrush having a plurality of

clusters of bristles, specifically having radial clusters spaced circumferentially in a whirl-like arrangement around a centrally disposed oval void.

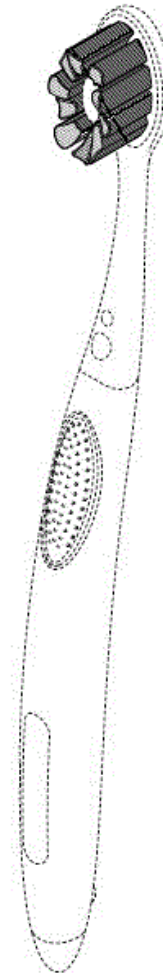


Figure 1

Three-dimensional view

21: A2021/00051 22: 2021-01-27 23:  
43: 2020-08-03  
52: Class 4 24: Part A  
71: Colgate-Palmolive Company  
33: US 31: 29/744,982 32: 2020-08-03

#### 54: ORAL CARE IMPLEMENTS

57: The design is for an oral care implement in the form of a toothbrush head, comprising a rearwardly inclined elongate stem extending from a circular hollow base, tapering inwardly slightly at a neck portion, to an elongate oval head. A rear surface of the head includes a tongue cleaning surface comprising an arrangement of nodules. A side surface of the head includes an arrangement of oval elements projecting therefrom.

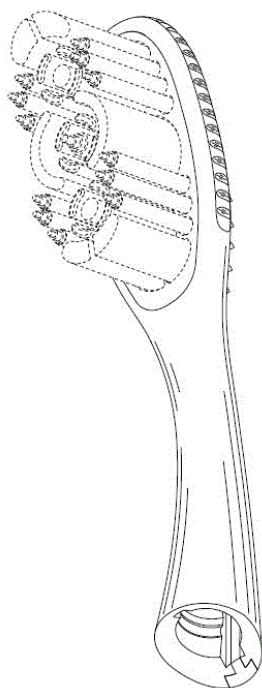


Figure 1

Three-dimensional view

21: A2021/00052 22: 2021-01-27 23:  
43: 2020-08-03  
52: Class 4 24: Part A  
71: Colgate-Palmolive Company  
33: US 31: 29/744,982 32: 2020-08-03

**54: ORAL CARE IMPLEMENTS**

57: The design is for an oral care implement in the form of a toothbrush head. It comprises a rearwardly inclined elongate stem that extends from a circular hollow base, tapering inwardly slightly at a neck portion, to an oblong head. A top portion of the head is sharply convexly curved.

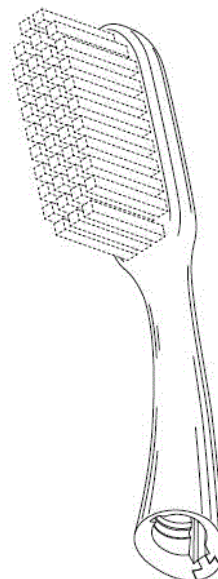


Figure 1

Three-dimensional view

21: A2021/00053 22: 2021-01-27 23:  
43: 2020-08-03  
52: Class 4 24: Part A  
71: Colgate-Palmolive Company  
33: US 31: 29/744,982 32: 2020-08-03

**54: ORAL CARE IMPLEMENTS**

57: The design is for an oral care implement in the form of a toothbrush head. It comprises a rearwardly inclined elongate stem that extends from a circular hollow base, tapering inwardly slightly at a neck portion, to an oval head.

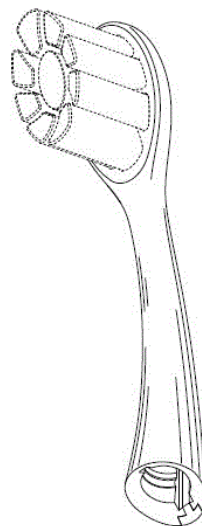


Figure 1

Three-dimensional view

21: A2021/00160 22: 2021-02-18 23:

43: 2021-09-13

52: Class 10 24: Part A

71: AJAX SYSTEMS CYPRUS HOLDINGS LTD

33: WO 31: 101181 32: 2021-01-21

#### **54: MOVEMENT SENSOR WITH IMAGE FIXATION**

57: Protection is claimed for the aesthetic features and/or the configuration of a wireless motion detecting sensor device with image fixation. The device provides for visual alarm verification upon detecting movement.

Figure 1.1 – Front view  
15.99 x 11.82 cm



21: A2021/00171 22: 2021-02-23 23:

43: 2022-02-10

52: Class 09 24: Part A

71: CORRUSEAL GROUP (PTY) LTD

#### **54: CONTAINERS**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or pattern and/or ornamentation of a container substantially as illustrated in the accompanying representations, irrespective of the exact length and width of the container as indicated by the break lines in the representations, wherein the number, shape and dimensions of holes in the container's walls may be varied, and wherein the handle formations shown in broken lines in Figures 14, 15, 16, 20, 21, 22 and 26 are optional features of the design.

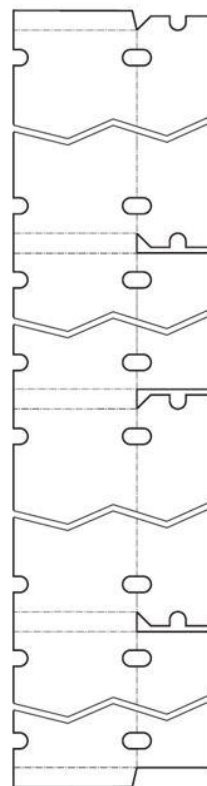


Figure 1

Plan view of a blank for a first container

21: A2021/00222 22: 2021-03-03 23:

43: 2022-02-03

52: Class 12. 24: Part A

71: TOYOTA JIDOSHA KABUSHIKI KAISHA

33: JP 31: 2020-018975 32: 2020-09-04

#### **54: Front Bumper for an Automobile**

57: The design relates to a front bumper for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.

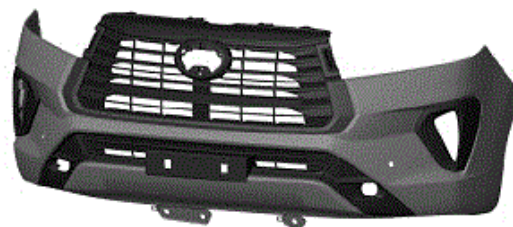


Figure 1

**PERSPECTIVE VIEW**

21: A2021/00229 22: 2021-03-05 23:

43: 2020-09-07

52: Class 21 24: Part A  
 71: Peloton Interactive, Inc.  
 33: US 31: 29/749,525 32: 2020-09-07

#### **54: EXERCISE BICYCLES**

57: The design is for an exercise bike comprising a bullhorn handlebar having a transverse front bar with a handgrip bar extending forwardly from each end. An opposite end of each handgrip bar inclines upwardly. An inclined bar extends inwardly from each end portion of the handlebar to a central transverse handgrip. The handlebar attaches to a frame of the exercise bike by a short neck. An elongate arm extends forwardly from the neck, curving upwardly to a stem with a forwardly projecting triangular head. The exercise bike further comprises a frame which includes an inclined down tube extending into a u-shaped junction from which a seat tube would extend. The frame further includes first and second front support tubes that would terminate into a stabilising floor member. From each of the first and second front support tubes extend first and second mid frame support tubes, the first and second mid support frame tubes being affixed to the inclined down tube at or near the u-shaped junction.

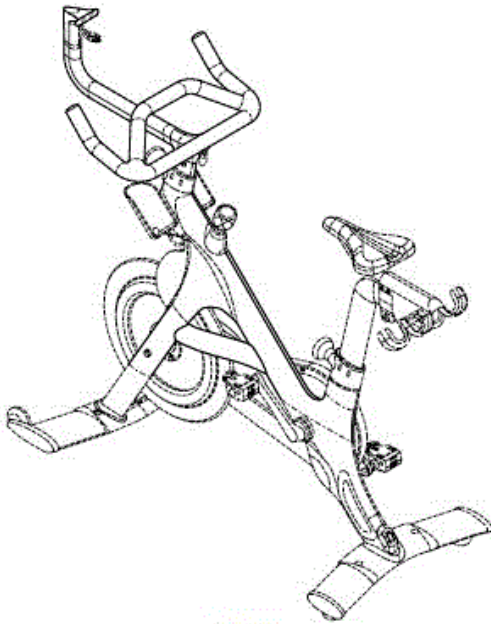


Figure 1

Three-dimensional view

57: The features of this design for which protection are claimed include the shape and/or configuration of a basin mixer substantially as illustrated in the accompanying representations.



21: A2021/00335 22: 2021-03-31 23:  
 43: 2021-03-31

52: Class 25 24: Part A  
 71: NATALMAHOGANY (PTY) LTD.

#### **54: SUPPORT STRUCTURES FOR A RETAIL ENVIRONMENT**

57: The design is for a support structure for a retail environment. The support structure may be assembled via various parts including structural components and different electrical, lighting and audio products. The support structure is a free-standing tree structure which includes integrated lighting with modular magnetic light fixtures, integrated electrical modules, integrated speakers, and/or interchangeable product panels (e.g., fabric and planters).

21: A2021/00284 22: 2021-03-23 23:  
 43: 2022-03-02  
 52: Class 23 24: Part A  
 71: GROHE AG  
 33: EU 31: 008314124-0024 32: 2020-12-10  
**54: BASIN MIXER**





Three-dimensional View from Bottom (With Services)

21: A2021/00336 22: 2021-03-31 23:

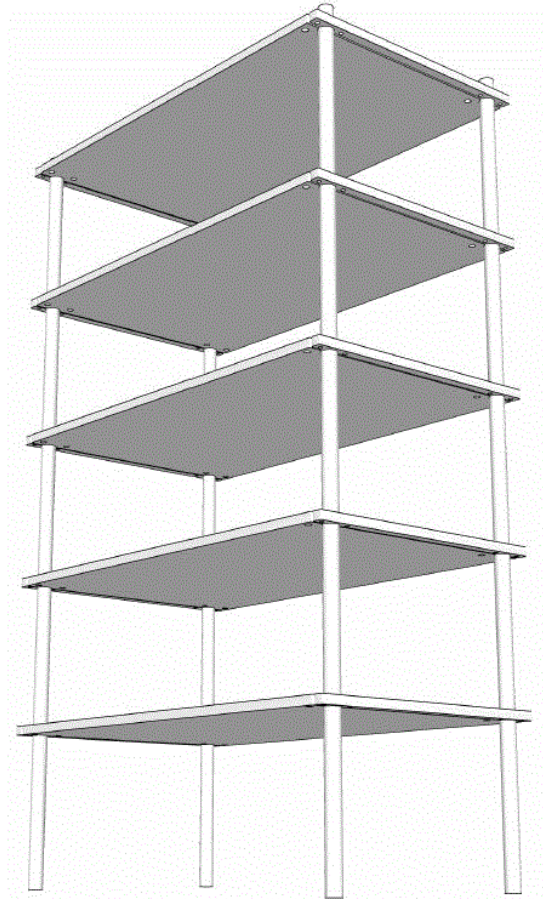
43: 2021-03-31

52: Class 6 24: Part A

71: NATALMAHOGANY (PTY) LTD.

#### **54: SHELVING STRUCTURES FOR A RETAIL ENVIRONMENT**

57: The design is for a shelving structure for a retail environment. The shelving structure includes a plurality of flat, rectangular shelves and four upright posts. The posts are cylindrical and rectangularly spaced apart. The shelving structure is modular. Each shelf comprises three detachable parts: a major central part and a pair of minor side parts. Respective side parts are attachable to sides of the central part via a clamping arrangement. The respective side parts and the central part, when attached, define four rectangularly spaced apart circular apertures, two at each side, to accommodate, and clamp onto the posts, thereby selectively to mount the shelf to the posts.



Three-dimensional View from Bottom

21: A2021/00338 22: 2021-03-31 23:

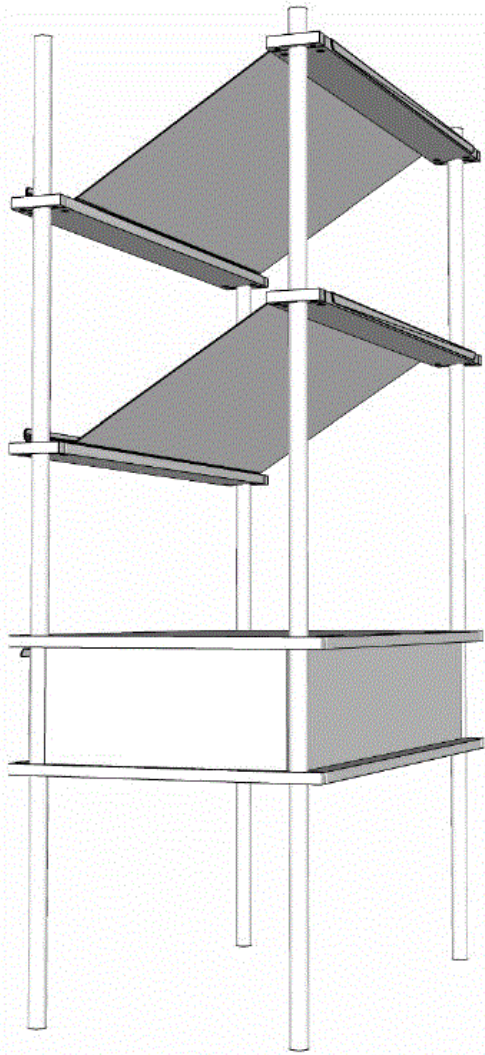
43: 2021-03-31

52: Class 20 24: Part A

71: NATALMAHOGANY (PTY) LTD.

#### **54: DISPLAY STRUCTURES FOR A RETAIL ENVIRONMENT**

57: The design is for a display structure for a retail environment. The display structure includes various display and storage units supported by four upright posts. The display structure is modular. The posts are cylindrical and rectangularly spaced apart. A rectangular storage unit is provided at a bottom of the display structure; sides of the storage unit clamp onto the four posts. Two oblique display shelves are provided, one above the other, at mid and top levels above the storage unit. Each display shelf includes an angled surface, inclined upwardly from front to back, extending between two transverse crosspieces (with a front crosspiece being lower than a rear crosspiece, to accommodate the angled surface). The crosspieces are clamped onto the four posts.



Three-dimensional View from Bottom

21: A2021/00359 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly for fire protection systems. The cover includes a body having a front face and top, bottom and side faces which extend rearwardly from the front face. Each side face has a convexly curved central region and concavely curved upper and lower regions. Each top and bottom face is inclined outwardly away from the middle towards the side faces. A centrally disposed circular member protrudes from the front face. Diametrically opposed lobes protrude laterally from the central member flush therewith. A hole is provided in each of the

lobes. Rectangular formations project from the face of the body at a top and bottom section thereof, respectively. A front surface of each formation is inclined downwardly outwardly away from the central member. A centrally disposed block arrow stands in relief to and extends diametrically across the circular member and points towards the top face. A hole is provided adjacent each corner of the body.

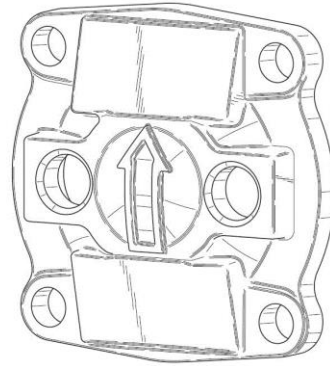


Figure 1

Three-dimensional view

21: A2021/00360 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly. The cover includes a body having a front face and top, bottom and side faces which extend rearwardly from the front face. Each side face has a convexly curved central region and concavely curved upper and lower regions. Each top and bottom face is inclined outwardly away from the middle towards the side faces. A centrally disposed circular member protrudes from a dome shaped portion of the front face. Diametrically opposed lobes, each defining holes, protrude laterally from the central member flush therewith. Rectangular formations project from the face of the body at a top and bottom section thereof, respectively. A front surface of each formation is inclined downwardly outwardly away from the central member. A centrally disposed block arrow stands in relief to and extends diametrically across the circular member and points towards the top face. A hole is provided adjacent each corner of the body.

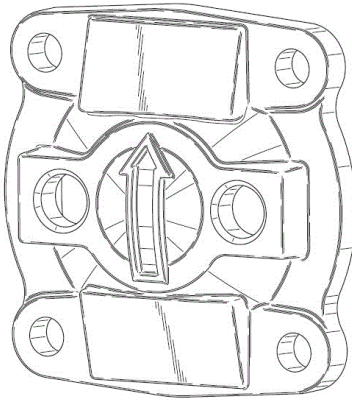


Figure 1

Three-dimensional view

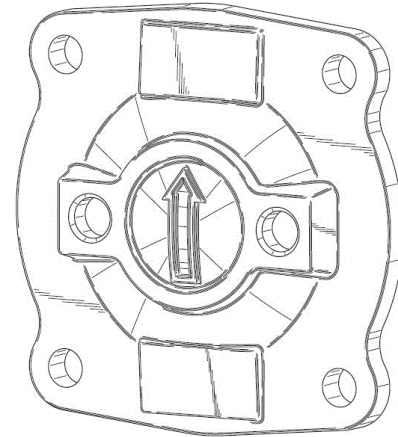


Figure 1

Three-dimensional view

21: A2021/00361 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly. The cover includes a body having a front face and top, bottom and side faces which extend rearwardly from the front face. Each side face has a convexly curved central region and concavely curved upper and lower regions. Each top and bottom face is inclined outwardly away from the middle towards the side faces. A centrally disposed circular member protrudes from a raised circular surface of the front face. Diametrically opposed lobes, each defining holes, protrude laterally from the central member flush therewith. Rectangular formations project from the face of the body at a top and bottom section thereof, respectively. A front surface of each formation is slightly inclined downwardly outwardly away from the central member. A centrally disposed block arrow stands in relief to and extends diametrically across the circular member and points towards the top face. A hole is provided adjacent each corner of the body.

21: A2021/00362 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly. The cover includes a body having a front face and top, bottom and side faces which extend rearwardly from the front face. Each side face has a convexly curved central region and concavely curved upper and lower regions. Each top and bottom face has a convexly curved middle portion and horizontal side portions. A centrally disposed circular member protrudes from a domed surface occupying a major portion of the front face. Diametrically opposed lobes, each defining holes, protrude laterally from the central member flush therewith. Rectangular formations project from the face of the body at a top and bottom section thereof, respectively. A front surface of each formation is slightly inclined downwardly outwardly away from the domed surface. A centrally disposed block arrow stands in relief to and extends diametrically across the circular member and points towards the top face. A hole is provided adjacent each corner of the body.

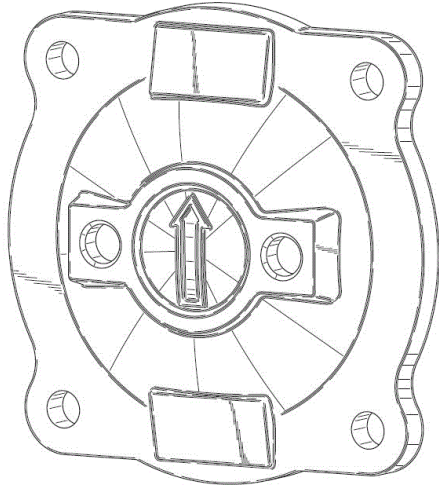


Figure 1

Three-dimensional view

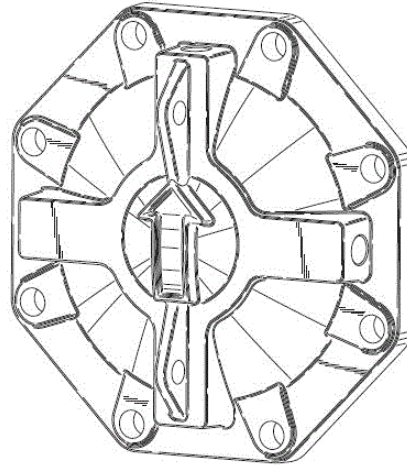


Figure 1

Three-dimensional view

21: A2021/00363 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly. The cover includes an octagon shaped body having a front face and top, bottom and side faces which extend rearwardly from the front face. A centrally disposed circular member protrudes from a domed surface that occupies a major portion of the front face. Diametrically opposed lobes, on the left and right and top and bottom, each of which having end faces defining holes, protrude radially from the central member flush therewith. Triangular formations, each defining a hole, project from the top and bottom lobes. Arch shaped formations extend downwardly from each of the corners of the body. A block arrow, which is aligned with the triangular formations, extends diametrically across the circular member. A hole is provided through each of the arch shaped formations.

21: A2021/00364 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly. The cover includes an octagon shaped body having a front face and top, bottom and side faces which extend rearwardly from the front face. A centrally disposed circular member protrudes from a domed surface that occupies a major portion of the front face. Diametrically opposed lobes on the left and right and top and bottom, each of which defining holes at their end faces, protrude radially from the central member flush therewith. Triangular formations, each having a hole, project from the top and bottom lobes and extend partly onto the circular member. Radially spaced arch shaped formations, each of which defining a hole, are provided on the corners of the body. A block arrow, which is aligned with the triangular formations, extends across the circular member.



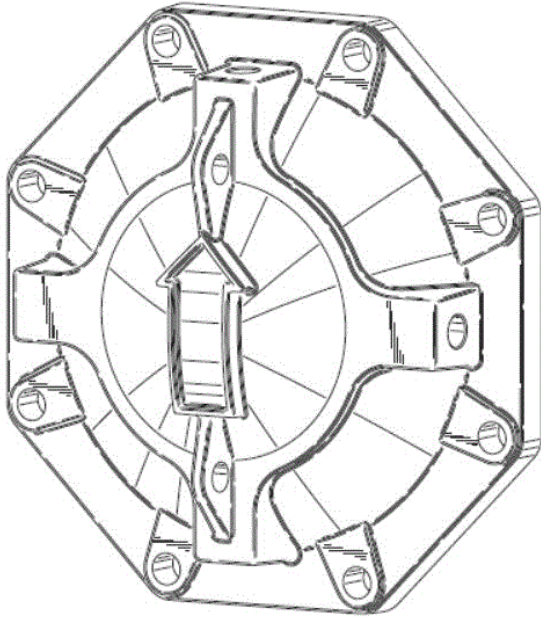


Figure 1

Three-dimensional view

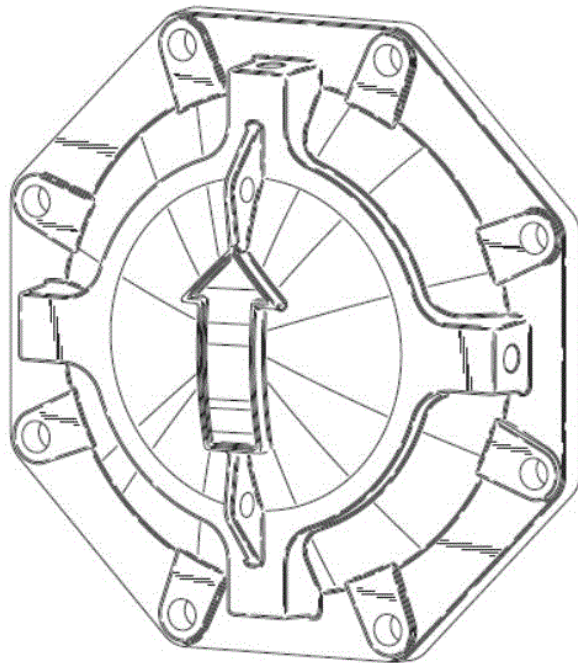


Figure 1

Three-dimensional view

21: A2021/00365 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly. The cover includes an octagon shaped body having a front face and top, bottom and side faces which extend rearwardly from the front face. A centrally disposed circular member, that occupies a major portion of the front face, protrudes from a domed surface of the front face. Diametrically opposed lobes on the left, right, top and bottom, each defining holes at their end faces, protrude radially from the central member flush therewith. Triangular formations, each defining a hole, project from the top and bottom lobes and extend partly onto the circular member. Arch shaped formations extend downwardly from each of the corners of the body. A block arrow, which is aligned with the triangular formations, extends across the circular member.

21: A2021/00366 22: 2021-04-08 23:  
43: 2020-10-09  
52: Class 23 24: Part A  
71: Viking Group, Inc.  
33: US 31: 29/754,351 32: 2020-10-09

**54: COVERS**

57: The design is for a cover of a fluid control valve assembly. The cover includes a polygon shaped body having a front face and a multi-faceted side face which extends rearwardly from the front face. A centrally disposed circular member, that occupies a major portion of the front face, protrudes from a domed surface of the front face. Diametrically opposed lobes on the left and right, and top and bottom, each defining holes on their end faces, protrude radially from the central member flush therewith. Triangular formations, each defining holes on their sides, project from the top and bottom lobes and extend partly onto the circular member. Radially spaced arch shaped formations, each defining holes, are provided on the corners of the body. A block arrow, aligned with the triangular formations, extends across the circular member.

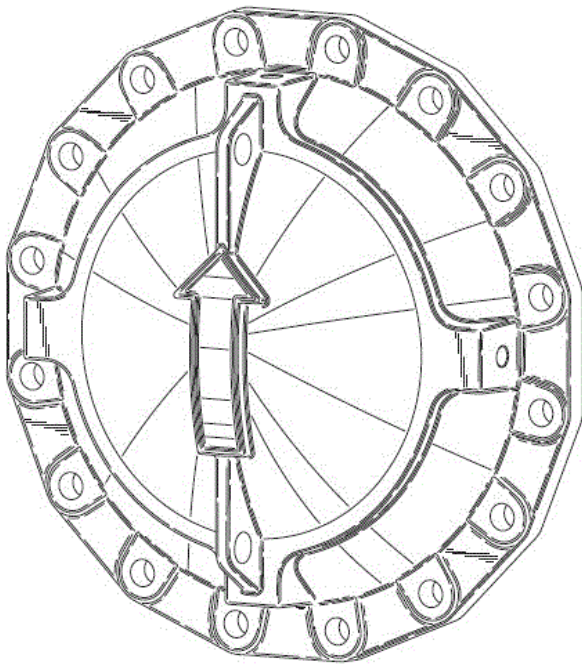


Figure 1

Three-dimensional view

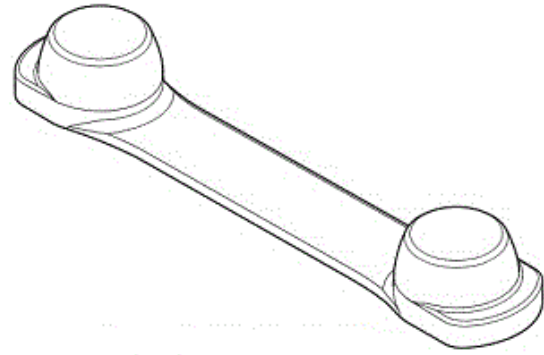
21: A2021/00386 22: 2021-04-14 23:  
43: 2022-02-03

52: Class 2. 24: Part A

71: EUREKA INNOVATIONS (PTY) LTD.

#### 54: Clip-on Shoe Lace

57: The design relates to a clip-on shoe lace. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.



TOP PERSPECTIVE VIEW

21: A2021/00421 22: 2021-04-21 23:

43: 2022-02-03

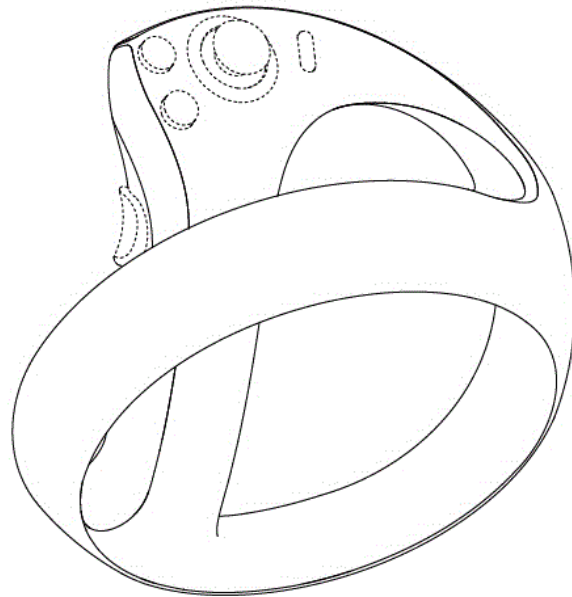
52: Class 14 24: Part A

71: SONY INTERACTIVE ENTERTAINMENT INC

33: JP 31: 2020-023510 32: 2020-10-30

#### 54: CONTROLLER FOR ELECTRONIC DEVICE

57: The design is applied to a controller for an electronic device and is shown in perspective front, top and left side view in the drawing showing the overall appearance thereof.



21: A2021/00449 22: 2021-04-28 23:

43: 2022-02-03

52: Class 7 24: Part A

71: JANSE VAN RENSBURG, Andre, VAN DEN HEEVER VENTER, Barend, Gerhardus

**54: GRILL CLEANER**

57: The design is applied to a grill cleaner. The features of the design for which protection is claimed include the shape, pattern, configuration and / or ornamentation of a grill cleaner as shown in the drawings, showing the general appearance thereof.

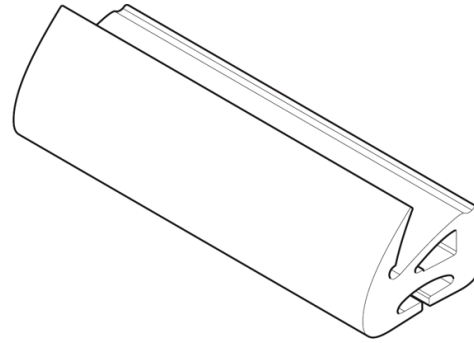
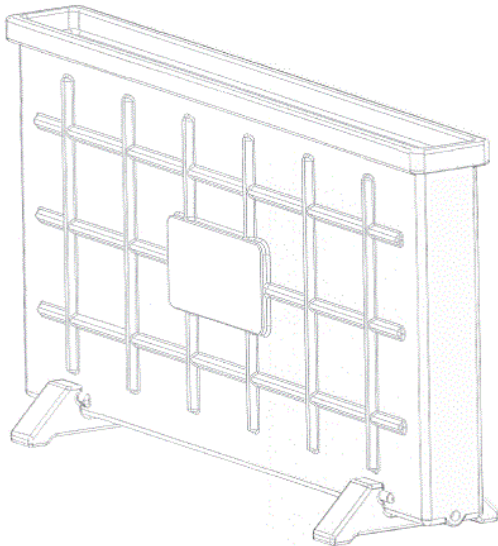


Figure 1

Front perspective view

21: A2021/00477 22: 2021-05-04 23: 43: 2020-11-11

52: Class 9 24: Part A

71: Precision Valve Corporation

33: US 31: 29/758,015 32: 2020-11-11

**54: ACTUATOR ORIFICES**

57: The design is for an actuator orifice and comprises a circular side wall defining a main recess, within which a body is positioned, that includes a thick stem at a bottom, extending upwardly to a rearwardly curved member that defines a rounded recess from which a tube protrudes forwardly through the main recess. The tube has a circular cross section.

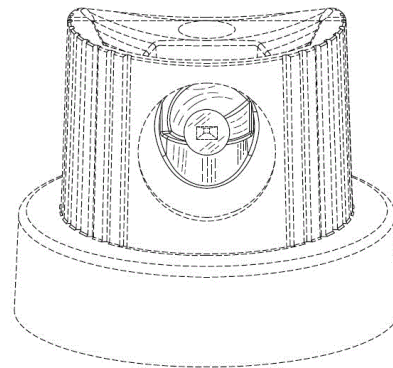


Figure 1

Three-dimensional view

21: A2021/00458 22: 2021-04-29 23: 43: 2022-02-10

52: Class 12 24: Part A

71: ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD

**54: SEALING ELEMENT FOR A VEHICLE CANOPY**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or pattern and/or ornamentation of a sealing element for a vehicle canopy substantially as illustrated in the accompanying representations, wherein the length of the sealing element can be varied as indicated by the break lines in Figures 5 to 8.

21: A2021/00493 22: 2021-05-12 23: 43: 2022-02-17

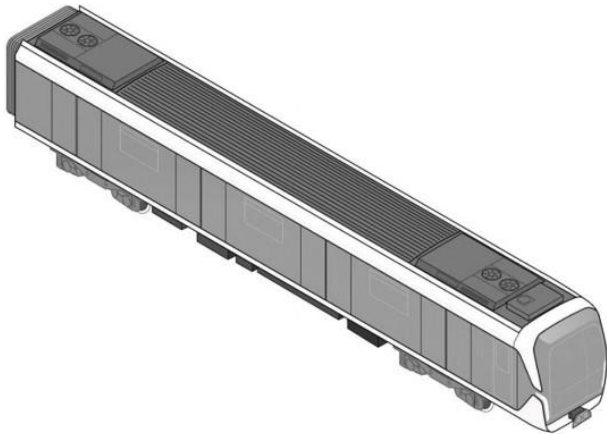
52: Class 12 24: Part A

71: JOINT STOCK COMPANY «TRANSMASHHOLDING»

33: RU 31: 2020505596 32: 2020-11-18

**54: SUBWAY CONTROL CAR**

57: The design is applied to a subway control car. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the subway control car, substantially as illustrated in the accompanying representation. Shading and colour do not form part of the design and are disclaimed.



21: A2021/00521 22: 2021-05-17 23:  
43: 2020-11-16  
52: Class 2 24: Part A  
71: Peloton Interactive, Inc.  
33: US 31: 29/758,523 32: 2020-11-16

#### **54: SHOES**

57: The design is for a shoe, in particular a cycling shoe. The shoe includes an upper which is continuous around an entire periphery of the shoe. The shoe has a prominent strap arrangement which includes a strap having a front end which is fixed to an outer side of the upper at a vamp. The strap extends over a waist and is slightly rearwardly inclined. The strap arrangement has an inner anchor which extends upwardly along an inner side of the vamp and provides a slot-like eyelet through which the strap is guided and folded back over. The strap then extends outwardly back over the waist where an end thereof meets a fixation point at an outer side of a quarter of the shoe. The upper includes a pattern which extends from a top of the toe, around sides, and a top of a heel portion.

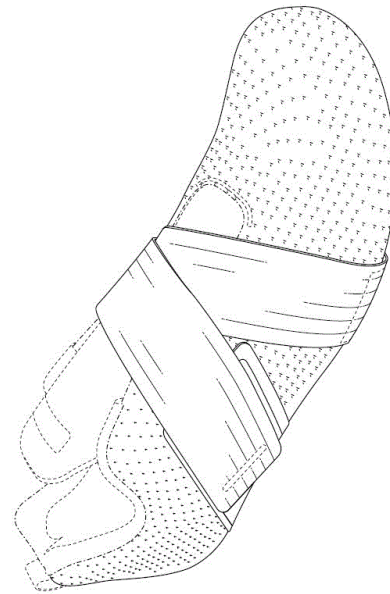


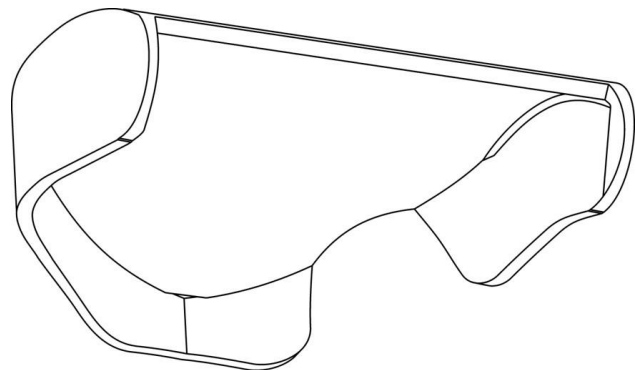
Figure 1  
Three-dimensional view of a right shoe

21: A2021/00531 22: 2021-05-19 23:  
43: 2022-03-10

52: Class 02 24: Part A  
71: GLOVE IP (PTY) LTD

#### **54: GLOVE ACCESSORY**

57: The design is applied to a glove accessory. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the glove accessory substantially as illustrated in the accompanying representations. Contour lines are provided to indicate the contours but do not form part of the design and are disclaimed.

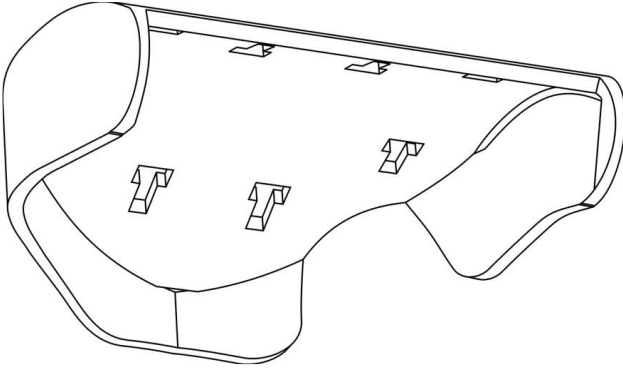


21: A2021/00532 22: 2021-05-19 23:  
43: 2022-03-10

52: Class 02 24: Part A  
71: GLOVE IP (PTY) LTD  
**54: GLOVE ACCESSORY**



57: The design is applied to a glove accessory. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the glove accessory substantially as illustrated in the accompanying representations. Contour lines are provided to indicate the contours but do not form part of the design and are disclaimed.

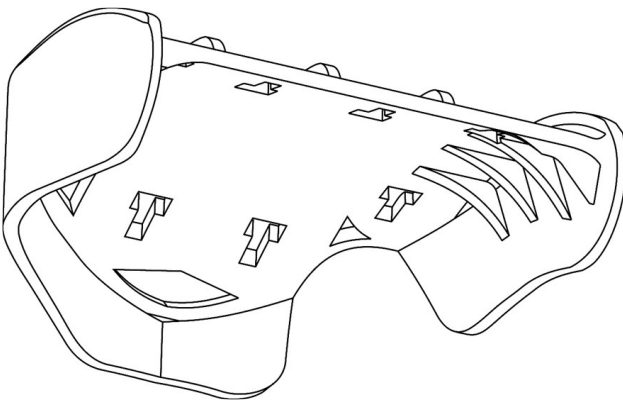


21: A2021/00533 22: 2021-05-19 23:  
43: 2022-03-10

52: Class 02 24: Part A  
71: GLOVE IP (PTY) LTD

#### **54: GLOVE ACCESSORY**

57: The design is applied to a glove accessory. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the glove accessory substantially as illustrated in the accompanying representations. Contour lines are provided to indicate the contours but do not form part of the design and are disclaimed.

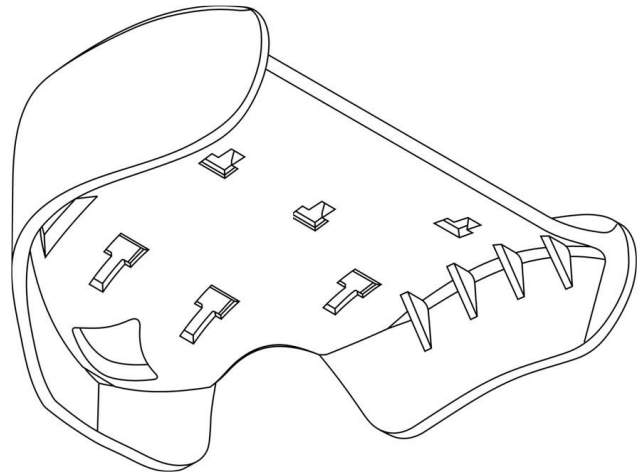


21: A2021/00534 22: 2021-05-19 23:  
43: 2022-02-03

52: Class 02 24: Part A  
71: GLOVE IP (PTY) LTD

#### **54: GLOVE ACCESSORY**

57: The design is applied to a glove accessory. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the glove accessory substantially as illustrated in the accompanying representations. Contour lines are provided to indicate the contours but do not form part of the design and are disclaimed.

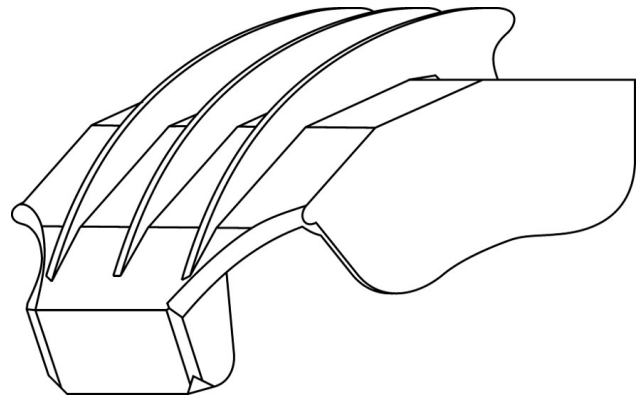


21: A2021/00535 22: 2021-05-19 23:  
43: 2022-02-03

52: Class 02 24: Part A  
71: GLOVE IP (PTY) LTD

#### **54: GLOVE ACCESSORY**

57: The design is applied to a glove accessory. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the glove accessory substantially as illustrated in the accompanying representations. Contour lines are provided to indicate the contours but do not form part of the design and are disclaimed.



21: A2021/00546 22: 2021-05-21 23:

43: 2022-02-03

52: Class 24. 24: Part A

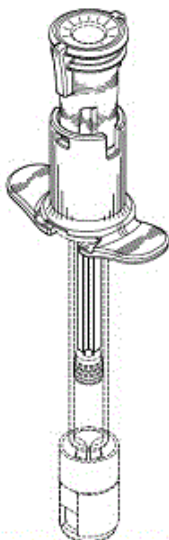
71: REGENERON PHARMACEUTICALS, INC.

33: US 31: 29/760,796 32: 2020-12-03

**54: Dose Delivery Device**

57: The design relates to a dose delivery device.

The features of the design are those of shape and/or configuration and/or ornamentation.



**FRONT RIGHT PERSPECTIVE  
VIEW IN FIRST POSITION**

21: A2021/00549 22: 2021-05-21 23:

43: 2022-02-03

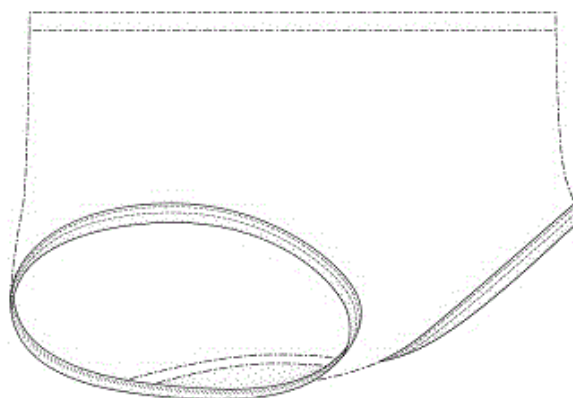
52: Class 2. 24: Part A

71: JOCKEY INTERNATIONAL, INC.

33: US 31: 29/759,634 32: 2020-11-24

**54: Undergarment**

57: The design relates to an undergarment. The features of the design are those of shape and/or configuration and/or ornamentation.



**FRONT RIGHT PERSPECTIVE  
VIEW SHOWN IN USE**

21: A2021/00558 22: 2021-05-24 23:

43: 2022-02-03

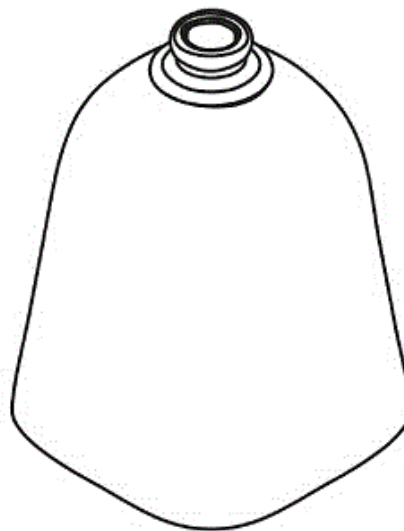
52: Class 9. 24: Part A

71: DR. VRANJES FIRENZE S.P.A.

33: EM 31: 008400329-0001 32: 2021-01-11

**54: Perfume Bottle**

57: The design relates to a perfume bottle. The features of the design are those of shape and/or configuration and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00586 22: 2021-05-25 23:

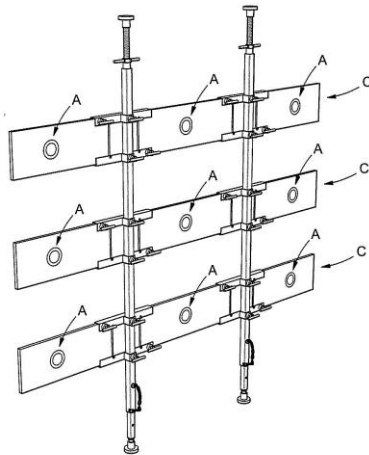
43: 2022-02-03

52: Class 8 24: Part A

71: RAUTENBACH, James Jackson, VAN  
ANTWERP, Cornelius Marthinus

**54: SHOT HOLE DRILLING GUIDE**

57: The design relates to a shot hole drilling guide. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.



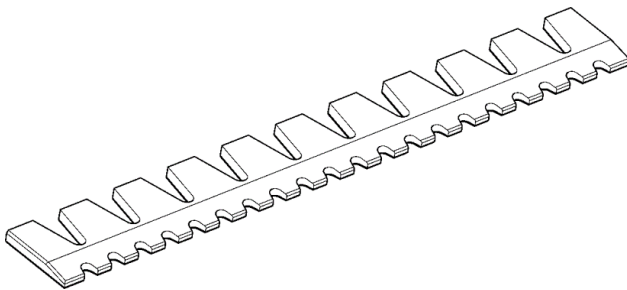
FRONT PERSPECTIVE VIEW

21: A2021/00587 22: 2021-05-25 23:  
43: 2022-02-17

52: Class 12 24: Part A  
71: PADDY's PAD 1201 CC

#### 54: VEHICLE ACCESSORY

57: The design is applied to a vehicle accessory. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the vehicle accessory, substantially as illustrated in the accompanying representation. Contour lines are provided to indicate the contours but do not form part of the design and are disclaimed. The overall length of the vehicle accessory is variable.



21: A2021/00595 22: 2021-05-27 23:  
43: 2020-12-03

52: Class 14 24: Part A  
71: BROWN, Jason

33: AU 31: 202016556 32: 2020-12-03

#### 54: STANDS FOR ELECTRONIC EQUIPMENT

57: The design is for a stand for electronic equipment and comprises a circular cylindrical body having a base extending upwardly at a front surface to a third of the height of the body to a convexly curved front wall and extending upwardly at a rear surface to a quarter of the height of the body to a level rear wall. A rear bottom surface of the base defines a centrally positioned dome-shaped recess. An elongate arm of a parabolic-shaped member extends upwardly from each side wall of the body. A front of the parabolic-shaped member is rearwardly slanted towards a level apex, the body thus having a large, rearwardly inclined W-shaped cut-out toward the front. The body further has an opposing, rearwardly inclined L-shaped cut-out, when seen in side view, toward the rear defining a dome-shaped cavity.

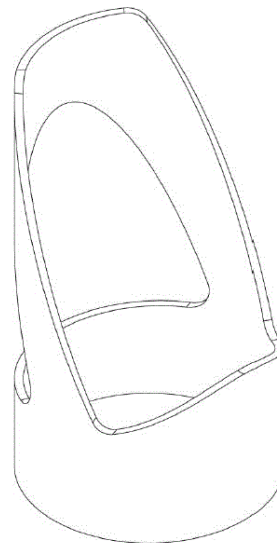


Figure 1

Three-dimensional view

21: A2021/00601 22: 2021-05-28 23:  
43: 2020-11-30

52: Class 10 24: Part A  
71: Turlen Holding SA

33: HSIRID(CH) 31: WIPO99852 32: 2020-11-30

#### 54: WATCHES

57: The design is for a watch and comprises a tonneau shaped body which includes a bezel, a middle case portion and a transparent case back. Top and bottom ends of an upper flange are rearwardly curved. Ten screws are located in the top flange around the bezel. Internal mechanisms are visible from front and rear faces of the watch. A skeletonised plate within the body comprises a

lattice work. A fluted crown is located in the middle case portion at a three o'clock position. A tourbillon complication is included at or near the 6 o'clock position.

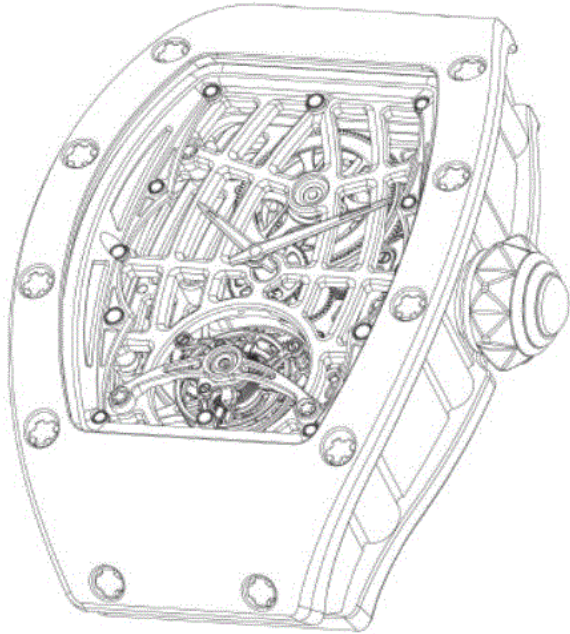


Figure 1  
Three-dimensional view

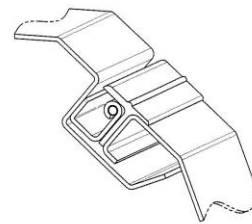
21: A2021/00602 22: 2021-05-28 23:  
43: 2020-11-30  
52: Class 10 24: Part A  
71: Turlen Holding SA  
33: HSIRID(CH) 31: WIPO99848 32: 2020-11-30  
**54: WATCHES**

57: The design is for a watch, and in particular for a chronograph watch. The watch has a tonneau shaped body which includes a bezel, a middle case portion and a transparent case back. Top and bottom ends of a top flange are rearwardly inclined. Ten screws are located in the top flange around the bezel. Internal mechanisms are visible from front and rear faces of the watch. A skeletonised plate is located within the body and defines numerals around a periphery thereof. A fluted crown is located in the middle case portion at a three o'clock position. A function indicator for indicating winding (W), date setting (D) and hand setting positions (H) is located at a five o'clock position of the plate. A window indicating the date is defined at a eleven o'clock position of the plate. Four large push pieces and smaller fifth push piece are located in the middle case portion.



Figure 1  
Three-dimensional view

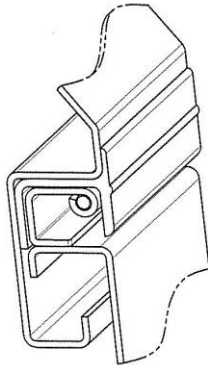
21: A2021/00603 22: 2021-05-28 23:  
43: 2022-02-03  
52: Class 12 24: Part A  
71: RHINO OUTDOOR AND OFFROAD (PTY) LTD  
**54: A CANOPY FRAME AND PANEL ASSEMBLY**  
57: The features of the design for which protection is claimed include the shape and/or pattern and/or configuration of a profile of a canopy frame and panel assembly, substantially as illustrated in the accompanying representations. The components in broken lines are for illustrative purposes only and do not form part of the design.



FIRST PERSPECTIVE VIEW

21: A2021/00604 22: 2021-05-28 23:  
43: 2022-02-03  
52: Class 12 24: Part A  
71: RHINO OUTDOOR AND OFFROAD (PTY) LTD  
**54: A CANOPY FRAME AND PANEL ASSEMBLY**  
57: The features of the design for which protection is claimed include the shape and/or pattern and/or configuration of a profile of a canopy frame and panel assembly, substantially as illustrated in the accompanying representations. The components in broken lines are for illustrative purposes only and do not form part of the design

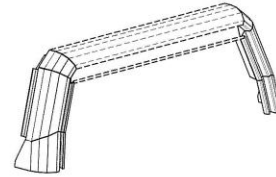




71: RHINO OUTDOOR AND OFFROAD (PTY) LTD

**54: A VEHICLE CANOPY FRAME**

57: The features of the design for which protection is claimed include the shape and/or pattern and/or configuration of a vehicle canopy frame, substantially as illustrated in the accompanying representations. The components shown in broken lines do not form part of the design.



FIRST PERSPECTIVE VIEW

21: A2021/00606 22: 2021-05-28 23:

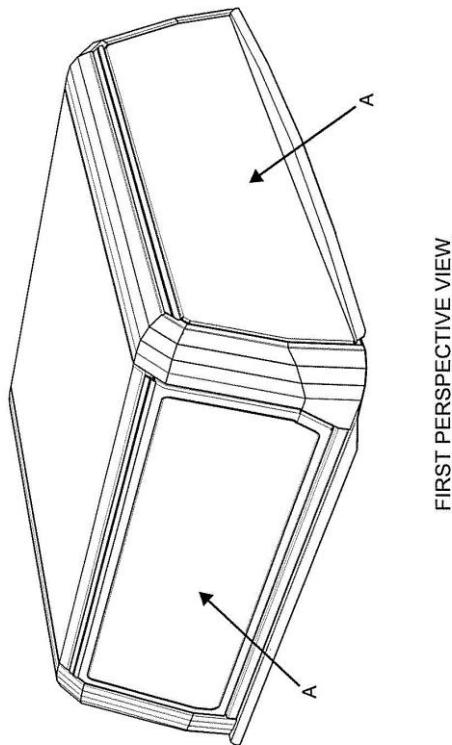
43: 2022-02-03

52: Class 12 24: Part A

71: RHINO OUTDOOR AND OFFROAD (PTY) LTD

**54: A VEHICLE CANOPY**

57: The features of the design for which protection is claimed include the shape and/or pattern and/or configuration of a vehicle canopy, substantially as illustrated in the accompanying representations. The components marked A do not form part of the design.



FIRST PERSPECTIVE VIEW

21: A2021/00612 22: 2021-05-28 23:

43: 2021-04-01

52: Class 7 24: Part A

71: Darsim Tool & Die CC

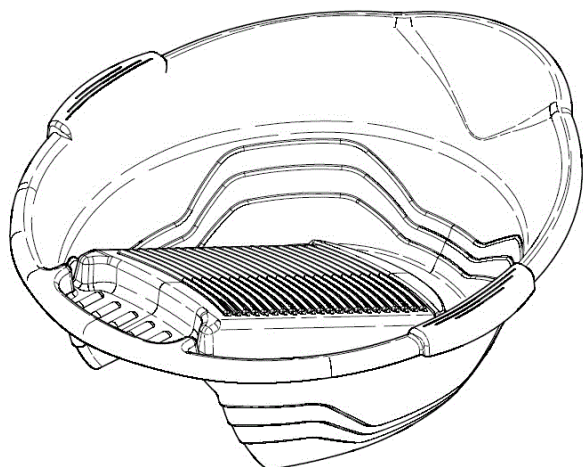
**54: BASINS**

57: The design relates to a washbasin in the form of a portable household receptacle. The washbasin has a roughly oval outline when seen in top/bottom view. The basin has a roughly C-shaped base and a sidewall which diverges from the base upward. A downwardly depending peripheral lip is joined to an uppermost, outer periphery of the sidewall. The sidewall rises in height toward one end forming a pouring spout, whilst the opposite end is lower and defines an oblong recess for receiving soap. A washboard is defined by a raised, slanted surface which extends from the lower end to the base and includes a plurality of laterally extending curved ridges. The sidewall further includes a series of three vertically spaced apart, undulating ridges which gives rise to a three-staged stepped profile of the sidewall. The undulations of the ridges coincide, and each resembles a step or ramp waveform.

21: A2021/00608 22: 2021-05-28 23:

43: 2022-02-03

52: Class 12 24: Part A



21: A2021/00614 22: 2021-05-31 23:

43: 2022-02-03

52: Class 12 24: Part A

71: HYUNDAI MOTOR COMPANY, KIA CORPORATION

33: KR 31: 30-2021-0006138 32: 2021-02-05

**54: AUTOMOBILE**

57: The representation shows a perspective view of the automobile showing the overall appearance thereof.



21: A2021/00618 22: 2021-05-31 23:

43: 2022-02-03

52: Class 9. 24: Part A

71: UNILEVER GLOBAL IP LIMITED

33: US 31: 29/761,170 32: 2020-12-07

**54: Container with Pump**

57: The design relates to a container with pump. The features of the design are those of shape and/or configuration.



**PERSPECTIVE VIEW**

21: A2021/00619 22: 2021-05-31 23:

43: 2022-02-03

52: Class 9. 24: Part A

71: UNILEVER GLOBAL IP LIMITED

33: US 31: 29/761,169 32: 2020-12-07

**54: Container**

57: The design relates to a container The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.



**FRONT PERSPECTIVE VIEW**

21: A2021/00620 22: 2021-05-31 23:

43: 2022-02-03

52: Class 9. 24: Part A

71: UNILEVER GLOBAL IP LIMITED

33: US 31: 29/761,168 32: 2020-12-07

**54: Container**

57: The design relates to a container. The features of the design are those of shape and/or configuration.



**PERSPECTIVE VIEW**

21: A2021/00621 22: 2021-05-31 23:

43: 2022-02-03

52: Class 9. 24: Part A

71: UNILEVER GLOBAL IP LIMITED

33: US 31: 29/761,171 32: 2020-12-07

**54: Container**

57: The design relates to a container. The features of the design are those of shape and/or configuration.



**PERSPECTIVE VIEW**

21: A2021/00625 22: 2021-06-01 23:

43: 2020-12-02

52: Class 10 24: Part A

71: Assa Abloy AB

33: US 31: 29/760,590 32: 2020-12-02

**54: READER HOUSINGS**

57: The design is for a reader housing, housing an access control device or reader device, the housing including a rectangular body which includes a bezel, a rear surface separated by a pair of side walls, and a bottom wall. The access control device or reader device is complementarily designed to be mountable within the housing and includes a front surface comprising a large rectangular display screen below an oval-shaped window for including various types of lenses (the size, shape and number of lenses being disclaimed). The front surface of the device curves into a top wall which is received within a top end of the housing.

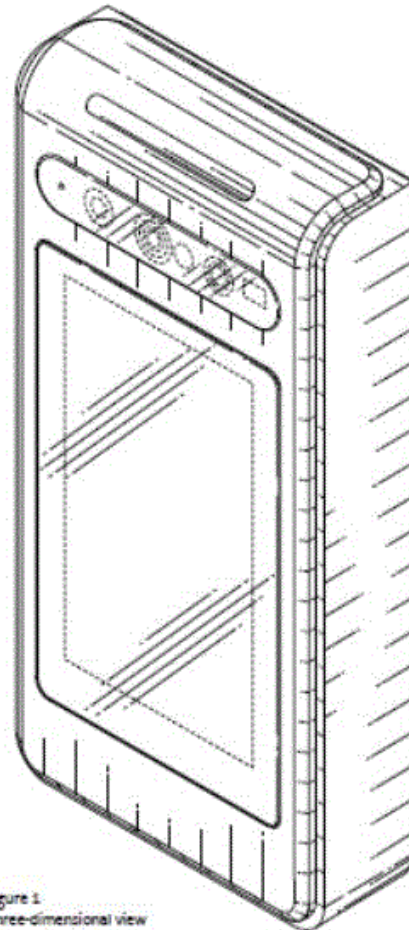


Figure 1  
Three-dimensional view

21: A2021/00626 22: 2021-06-01 23:

43: 2020-12-02

52: Class 10 24: Part A

71: Assa Abloy AB

33: US 31: 29/760,590 32: 2020-12-02

**54: READER HOUSINGS**

57: The design is for a reader housing, housing an access control device or reader device, the housing including a rectangular body which includes a bezel, a rear surface separated by a pair of side walls, and a bottom wall. The access control device or reader device is complementarily designed to be mountable within the housing and includes a front surface comprising a large rectangular display screen above an oval-shaped window for including various types of lenses (the size, shape and number of lenses being disclaimed). The front surface of the device curves into a top wall which is received within a top end of the housing.

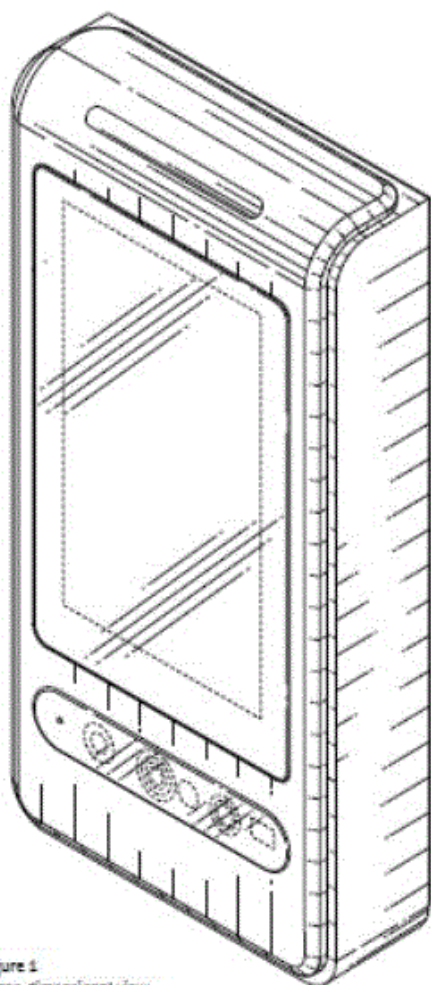


Figure 1  
Three-dimensional view

21: A2021/00627 22: 2021-06-01 23:

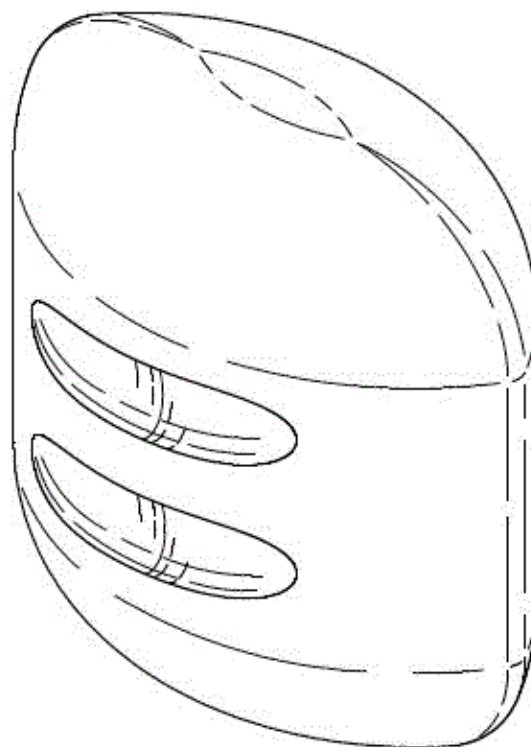
43: 2021-06-01

52: Class 23 24: Part A

71: CUE THE BBQ LIMITED

**54: Briquettes**

57: The design relates to a briquette as shown in the accompanying representations. The briquette is generally square-shaped in plan view and generally oval-shaped in end view. The briquette has a pair of spaced parallel grooves when seen in plan view and opposite plan view, the grooves being angled relative to sides of the briquette.



Three-dimensional view

21: A2021/00641 22: 2021-06-03 23:

43: 2021-06-03

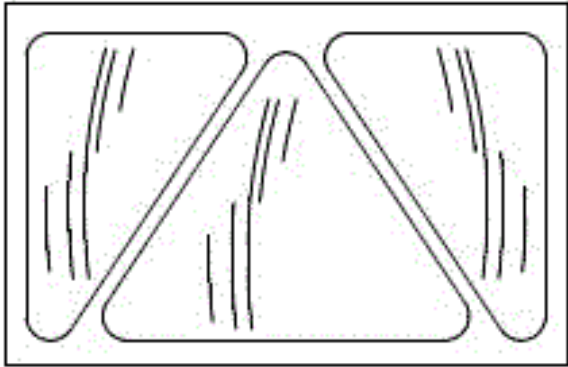
52: Class 28 24: Part A

71: WOOLWORTHS PROPRIETARY LIMITED

**54: Detergent Capsules**

57: The design relates to a detergent capsule. The design for which protection is claimed includes the shape and/or configuration and/or ornamentation and/or pattern of a detergent capsule as shown in the accompanying representations.



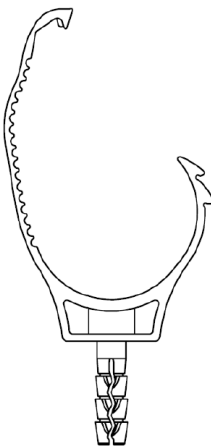


Plan view

21: A2021/00647 22: 2021-06-04 23:  
43: 2022-02-03  
52: Class 08 24: Part A  
71: MOULDMAN DESIGN & DISTRIBUTION (PTY) LTD

**54: BRACKET FOR A PIPE**

57: The novelty in the design as applied to a bracket for fastening a pipe to a support structure (commonly known as a holderbat) resides in the shape and/or configuration, and/or pattern and/or ornamentation of the bracket substantially as shown in the accompanying drawings.

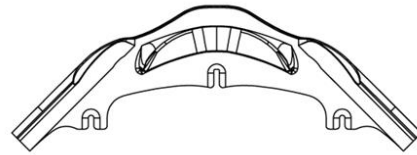


21: A2021/00653 22: 2021-06-04 23:  
43: 2022-02-03  
52: Class 08 24: Part A  
71: MOULDMAN DESIGN & DISTRIBUTION (PTY) LTD

**54: A PIPE BEND**

57: The novelty in the design as applied to a pipe bend for supporting a pipe in a bent configuration, (commonly referred to as a cold forming bend) resides in the shape and/or configuration and/or

pattern and/or ornamentation of the bracket substantially as shown in the accompanying drawings.



21: A2021/00667 22: 2021-06-08 23:  
43: 2022-02-03

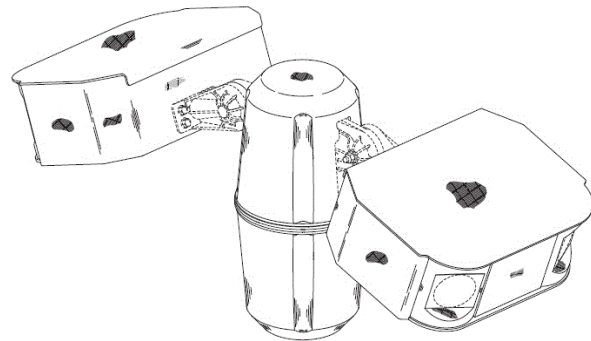
52: Class 14 24: Part A

71: MUSCO CORPORATION

33: US 31: 29/761,300 32: 2020-12-08

**54: ENCLOSURE FOR CAPTURE DEVICES**

57: The representation shows a perspective view of an enclosure for capture devices showing the overall appearance thereof.



21: A2021/00668 22: 2021-06-08 23:  
43: 2022-02-03

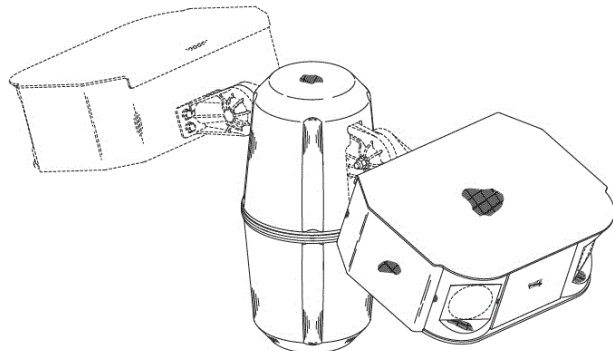
52: Class 14 24: Part A

71: MUSCO CORPORATION

33: US 31: 29/761,300 32: 2020-12-08

**54: ENCLOSURE FOR CAPTURE DEVICES**

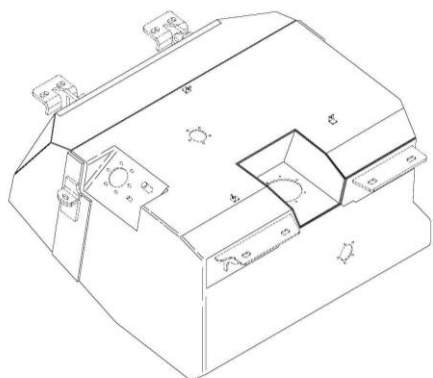
57: The representation shows a perspective view of an enclosure for capture devices showing the overall appearance thereof.



21: A2021/00670 22: 2021-06-08 23:  
43: 2021-06-08  
52: Class 12 24: Part A  
71: WR OFF ROAD INDUSTRIES PROPRIETARY  
LIMITED

#### 54: Fuel tanks for vehicles

57: The design is for a fuel tank for a vehicle, and in particular for Series 70, more particularly Series 79 Toyota Land Cruiser vehicles. In this brief statement all features are described relative to a mounted, operative position of the tank in a vehicle parked level. The tank has vertical side and front walls, whereas a rear wall of the tank is forwardly upwardly slanted. A bottom of the tank is rearwardly upwardly slanted, comprising two sections arranged at different angles to the horizontal. A bottom front edge of the tank is chamfered. A roof of the tank comprises three sections arranged at different angles to the horizontal. Upper rear corners of the tank are chamfered, whereas a front right edge of the tank is chamfered in two different planes. A chamfered roughly central portion of an upper left edge of the tank defines various ports, a recess defining a port is provided roughly centrally in an upper front edge of the tank, and various mounting brackets are provided.

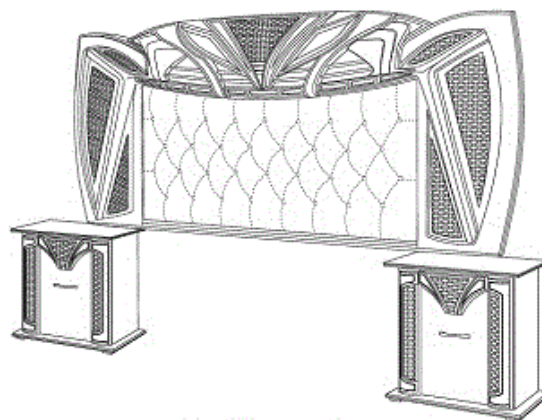


Three-dimensional view

21: A2021/00688 22: 2021-06-11 23:  
43: 2022-02-03  
52: Class 6. 24: Part A  
71: JACK MASEROW FURNITURE  
MANUFACTURERS CC

#### 54: Set of Furniture

57: The design relates to a set of furniture. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.

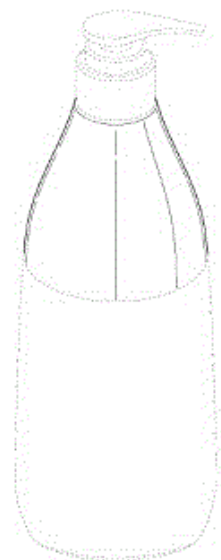


PERSPECTIVE VIEW OF HEADBOARD

21: A2021/00689 22: 2021-06-11 23:  
43: 2022-02-03  
52: Class 9. 24: Part A  
71: UNILEVER GLOBAL IP LIMITED  
33: US 31: 29/762,915 32: 2020-12-18

#### 54: Bottle Shoulder

57: The design relates to a bottle shoulder. The features of the design are those of shape and/or configuration.



FRONT PERSPECTIVE

21: A2021/00690 22: 2021-06-11 23:  
43: 2022-02-03  
52: Class 7. 24: Part A  
71: DART INDUSTRIES INC.  
33: US 31: 29/767,043 32: 2021-01-20

**54: Herb Chopper and Cover for an Herb Chopper**

57: The design relates to an herb chopper and cover for an herb chopper. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.

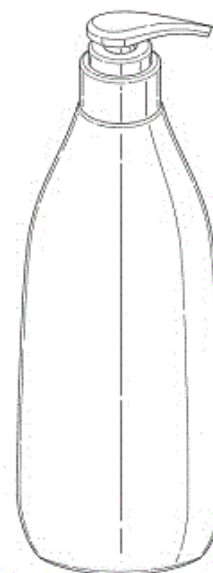


**TOP, FRONT AND RIGHT SIDE  
PERSPECTIVE VIEW**

21: A2021/00691 22: 2021-06-11 23:  
43: 2022-02-03  
52: Class 9. 24: Part A  
71: UNILEVER GLOBAL IP LIMITED  
33: US 31: 29/762,919 32: 2020-12-18

**54: Bottle With Pump**

57: The features for which protection is claimed reside in the shape and/or configuration of a bottle with pump substantially as shown in the accompanying representations.

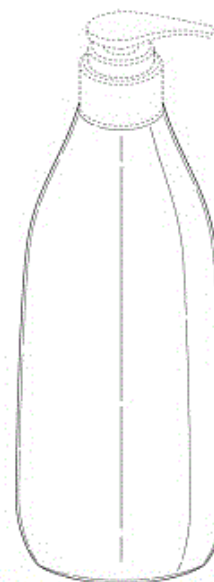


**FRONT PERSPECTIVE**

21: A2021/00692 22: 2021-06-11 23:  
43: 2022-02-03  
52: Class 9. 24: Part A  
71: UNILEVER GLOBAL IP LIMITED  
33: US 31: 29/762,921 32: 2020-12-18

**54: Bottle**

57: The design relates to a bottle. The features of the design are those of shape and/or configuration.



**FRONT PERSPECTIVE**

21: A2021/00698 22: 2021-06-14 23:  
43: 2020-12-15  
52: Class 12 24: Part A  
71: The Goodyear Tire & Rubber Company  
33: US 31: 29/762,164 32: 2020-12-15

**54: TIRES**

57: The design is applied to a sidewall for a tire. The sidewall having an inner circumferential band and an outer circumferential band, the inner band abutting the outer band and having a textured surface. The outer band having four decorative end-to-end abutting band segments arcuately shaped and extending 360° around the peripheral outer surface of the sidewall, a pair of opposite equal band segments and a pair of opposite equal band segments alternately arranged about the peripheral surface of the sidewall, a surface of each band having a pattern of closely spaced ridges extending between the outer and inner boundaries, four narrow linear parallelogram gap elements connecting ends of adjacent bands and each arched parallelogram gap element obliquely extending between the inner band and an outer edge of the sidewall.

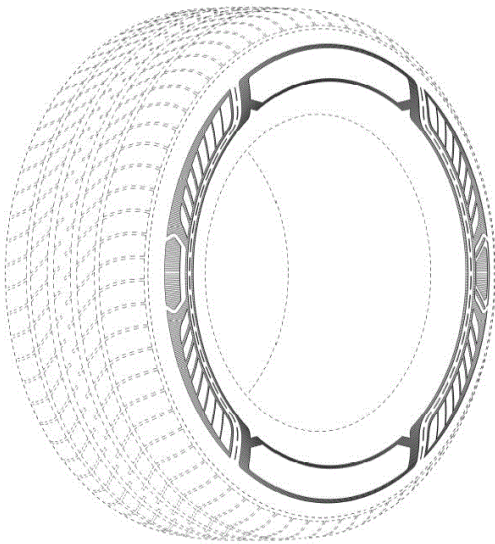


Figure 1

Three-dimensional view

21: A2021/00717 22: 2021-06-18 23:  
43: 2022-02-03

52: Class 12. 24: Part A

71: SUMITOMO RUBBER INDUSTRIES, LTD.

33: JP 31: 2021-007897 32: 2021-04-15

**54: Tire for an Automobile**

57: The design relates to a tire for an automobile. The features of the design are those of shape and/or configuration and/or pattern.

**PERSPECTIVE VIEW**

21: A2021/00718 22: 2021-06-18 23:

43: 2022-02-03

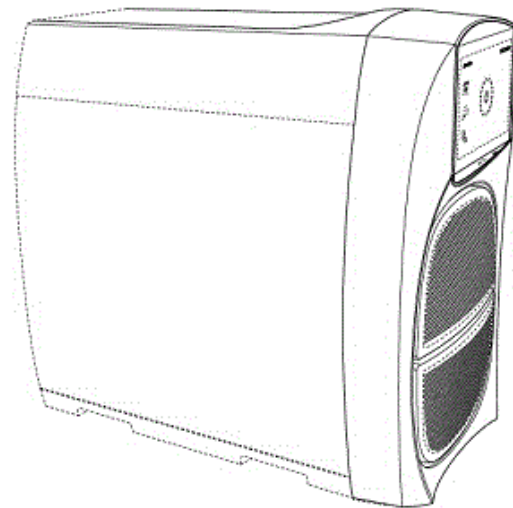
52: Class 24. 24: Part A

71: CERUS CORPORATION

33: US 31: 29/762,987 32: 2020-12-20

**54: Illuminator Device**

57: The design relates to an illuminator device. The features of the design are those of shape and/or configuration and/or ornamentation.

**PERSPECTIVE VIEW**

21: A2021/00738 22: 2021-06-22 23:

43: 2022-02-03

52: Class 7. 24: Part A

71: PIGEON CORPORATION



33: JP 31: 2020-027772 32: 2020-12-23

**54: Nursing Bottle**

57: The design relates to a nursing bottle. The features of the design are those of shape and/or configuration and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00740 22: 2021-06-22 23:

43: 2022-02-03

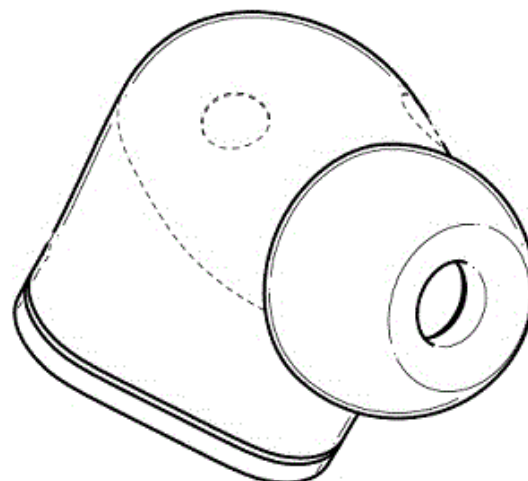
52: Class 14. 24: Part A

71: APPLE INC.

33: US 31: 29/763,656 32: 2020-12-23

**54: Earphone**

57: The design relates to an earphone. The features of the design are those of shape and/or configuration.



**TOP PERSPECTIVE VIEW**

21: A2021/00741 22: 2021-06-22 23:

43: 2022-02-03

52: Class 3. 24: Part A

71: APPLE INC.

33: US 31: 29/763,657 32: 2020-12-23

**54: Case**

57: The design relates to a case. The features of the design are those of shape and/or configuration.



**TOP FRONT PERSPECTIVE VIEW**

21: A2021/00743 22: 2021-06-22 23:

43: 2022-02-03

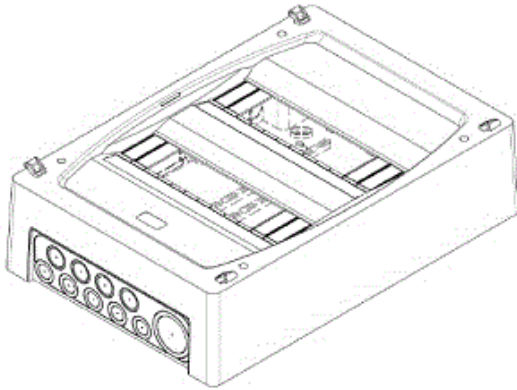
52: Class 13. 24: Part A

71: IDE ELECTRIC S.L.

33: EM 31: 008368948-0004 32: 2020-12-23

**54: Equipment for Distribution or Control of Electric Power**

57: The design relates to equipment for distribution or control of electric power. The features of the design are those of shape and/or configuration and/or pattern.

**PERSPECTIVE VIEW**

21: A2021/00744 22: 2021-06-22 23:

43: 2022-02-03

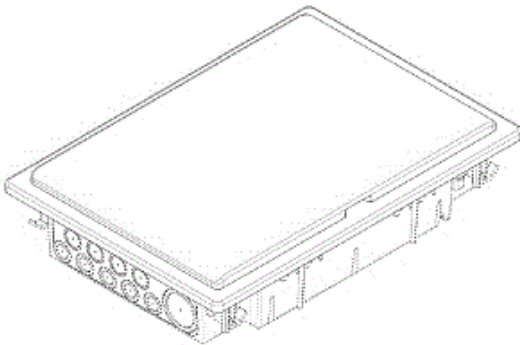
52: Class 13. 24: Part A

71: IDE ELECTRIC S.L.

33: EM 31: 008368948-0009 32: 2020-12-23

**54: Equipment for Distribution or Control of Electric Power**

57: The design relates to equipment for distribution or control of electric power. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.

**PERSPECTIVE VIEW**

21: A2021/00745 22: 2021-06-22 23:

43: 2022-02-03

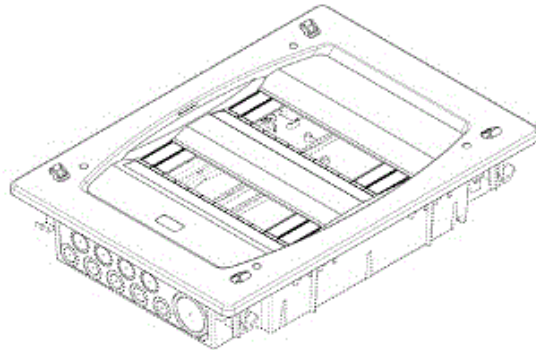
52: Class 13. 24: Part A

71: IDE ELECTRIC S.L.

33: EM 31: 008368948-0010 32: 2020-12-23

**54: Equipment for Distribution or Control of Electric Power**

57: The design relates to equipment for distribution or control of electric power. The features of the design are those of shape and/or configuration and/or pattern.

**PERSPECTIVE VIEW**

21: A2021/00748 22: 2021-06-23 23:

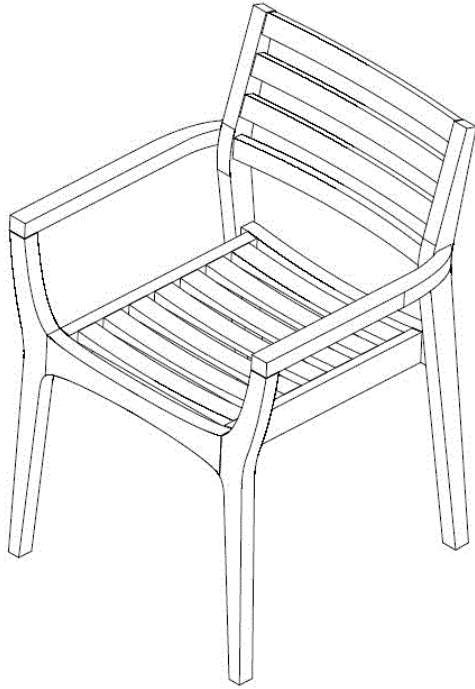
43: 2021-06-23

52: Class 6 24: Part A

71: BLATT IV APFEL (PTY) LTD.

**54: CHAIRS**

57: The design is for a chair, specifically a patio chair. The chair comprises four legs, a seat, a backrest, and arm rests. The legs converge slightly from the ground towards the seat. Front legs extend upwardly above the seat and bend convexly outwardly above the seat to join the arm rests. Rear legs also extend above the seat and are rearwardly inclined above the armrests to support the backrest at an inclination. The seat comprises a series of parallel slats extending from side to side; the backrest also comprises a series of parallel slats extending from side to side.



Three-dimensional view from front

21: A2021/00753 22: 2021-06-25 23:  
43: 2022-03-10

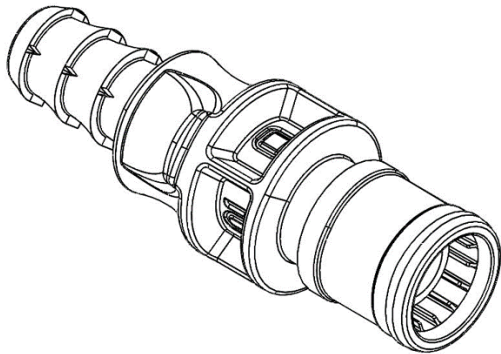
52: Class 24 24: Part A

71: ARJO IP HOLDING AB

33: IB 31: DM/214021 32: 2021-04-19

**54: CONNECTOR FOR A MEDICAL DEVICE**

57: The design is applied to a connector for a medical device. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the connector for a medical device, substantially as illustrated in the accompanying representation.



21: A2021/00759 22: 2021-06-30 23:  
43: 2020-12-30

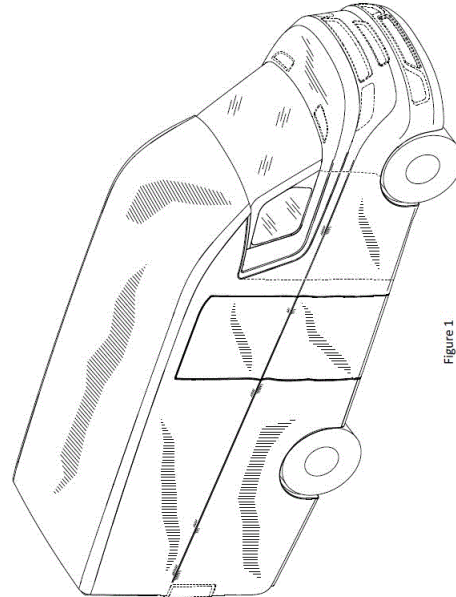
52: Class 12 24: Part A

71: Remarkable Foods, Inc.

33: US 31: 29/764,523 32: 2020-12-30

**54: VEHICLES**

57: A vehicle for delivering food is shown in the drawings. The vehicle has a sleek body and lacks a driver door and a passenger door. A side door is located on one side of the vehicle and a rear door is located at the rear of the vehicle.

Figure 1  
Three-dimensional view

21: A2021/00760 22: 2021-06-30 23:  
43: 2020-12-30

52: Class 12 24: Part A

71: Remarkable Foods, Inc.

33: US 31: 29/764,523 32: 2020-12-30

**54: VEHICLES**

57: A vehicle for delivering food is shown in the drawings. The vehicle has a sleek body and lacks a driver door and a passenger door. The vehicle may have an optional side door located on one side of the vehicle and may have an optional rear door located at the rear of the vehicle.

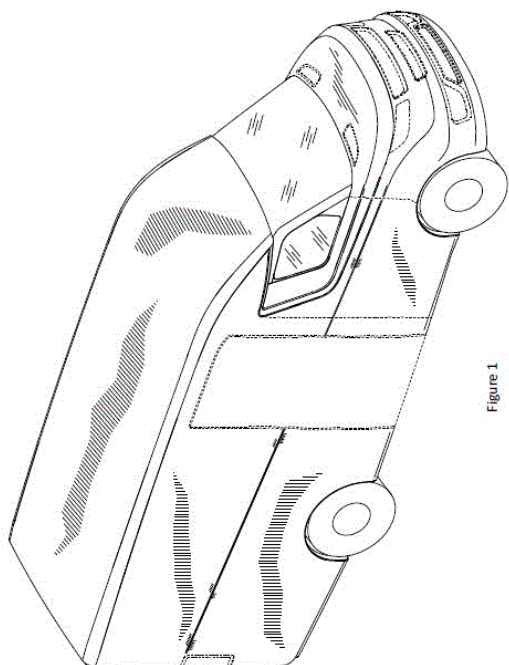
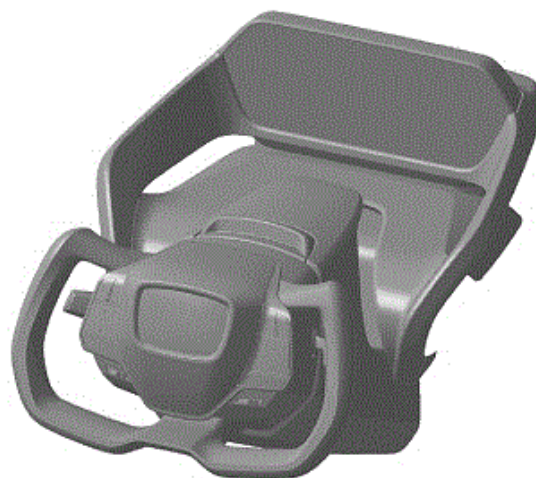


Figure 1  
Three-dimensional view

43: 2022-02-17  
52: Class 12. 24: Part A  
71: TOYOTA JIDOSHA KABUSHIKI KAISHA,  
SUBARU CORPORATION  
33: JP 31: 2021-000343 32: 2021-01-08  
**54: Control Device for an Automobile**  
57: The design relates to a control device for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00761 22: 2021-07-01 23:  
43: 2022-02-17  
52: Class 12. 24: Part A  
71: TOYOTA JIDOSHA KABUSHIKI KAISHA,  
SUBARU CORPORATION  
33: JP 31: 2021-000341 32: 2021-01-08  
**54: Steering Wheel for an Automobile**  
57: The design relates to a steering wheel for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00763 22: 2021-07-01 23:  
43: 2022-02-17  
52: Class 12. 24: Part A  
71: TOYOTA JIDOSHA KABUSHIKI KAISHA  
33: JP 31: 2021-000059 32: 2021-01-05  
**54: Rear Bumper for an Automobile**  
57: The design relates to a rear bumper for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.

21: A2021/00762 22: 2021-07-01 23:



**PERSPECTIVE VIEW**

21: A2021/00764 22: 2021-07-01 23:  
43: 2022-02-17

52: Class 12. 24: Part A

71: TOYOTA JIDOSHA KABUSHIKI KAISHA

33: JP 31: 2021-000060 32: 2021-01-05

**54: Instrument Panel for an Automobile**

57: The design relates to an instrument panel for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.

**PERSPECTIVE VIEW**

21: A2021/00765 22: 2021-07-01 23:  
43: 2022-02-17

52: Class 12. 24: Part A

71: TOYOTA JIDOSHA KABUSHIKI KAISHA

33: JP 31: 2021-000051 32: 2021-01-05

**54: Automobile**

57: The design relates to an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.

**FRONT LEFT PERSPECTIVE VIEW**

21: A2021/00766 22: 2021-07-01 23:  
43: 2022-02-17

52: Class 26. 24: Part A

71: TOYOTA JIDOSHA KABUSHIKI KAISHA

33: JP 31: 2021-000052 32: 2021-01-05

**54: Front Combination Lamp for an Automobile**

57: The design relates to a front combination lamp for an automobile. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.

**PERSPECTIVE VIEW**

21: A2021/00770 22: 2021-07-01 23:  
43: 2022-02-17

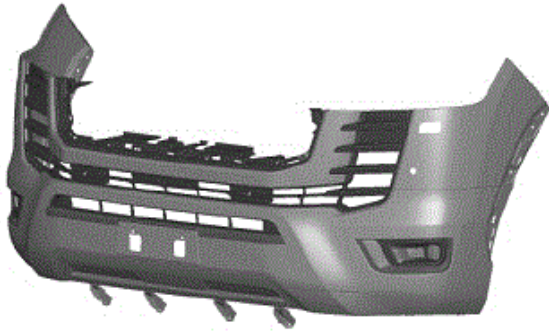
52: Class 12. 24: Part A

71: TOYOTA JIDOSHA KABUSHIKI KAISHA

33: JP 31: 2021-000056 32: 2021-01-05

**54: Front Bumper for an Automobile**

57: The design relates to a front bumper for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00771 22: 2021-07-01 23:  
43: 2022-02-22

52: Class 26. 24: Part A

71: TOYOTA JIDOSHA KABUSHIKI KAISHA

33: JP 31: 2021-000057 32: 2021-01-05

**54: Rear Combination Lamp for an Automobile**

57: The design relates to a rear combination lamp for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00772 22: 2021-07-01 23:  
43: 2022-02-17

52: Class 12. 24: Part A

71: TOYOTA JIDOSHA KABUSHIKI KAISHA

33: JP 31: 2021-000058 32: 2021-01-05

**54: Rear Bumper for an Automobile**

57: The design relates to a rear bumper for an automobile. The features of the design are those of shape and/or configuration and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00774 22: 2021-07-02 23:

43: 2022-02-22

52: Class 12 24: Part A

71: FCA US LLC

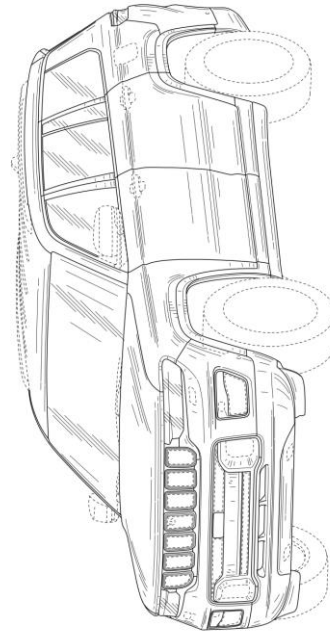
33: US 31: 29/764,836 32: 2021-01-04

**54: MOTOR VEHICLES**

57: The design is for a motor vehicle, specifically for a five-door sports utility vehicle having a long wheelbase. A front of the vehicle has a prominent hood sloping downwardly. The front is characterised by a row of substantially rectangular slots, forming a radiator grille, which is flanked by two slim elongate curved headlights. The front has an integrated bumper, provided below the radiator grill, having a large substantially rectangular air-intake grille, with chamfered bottom corners. The air-intake grille has a thick solid elongate element extending longitudinally there through. The vehicle has a sharp roofline flowing into a sleek rear. Sides of the vehicle includes elongate trimming ridges extended beneath the two doors. The rear of the vehicle is characterised by long slim rear lights, that extend from the trunklid out and around the rear fender. Two irregular pentagon shaped exhaust outlets are provided on edges of a rear bumper.



Front Perspective view



Front Perspective view

21: A2021/00775 22: 2021-07-02 23:  
43: 2022-02-22  
52: Class 12 24: Part A  
71: FCA US LLC  
33: US 31: 29/764,837 32: 2021-01-04

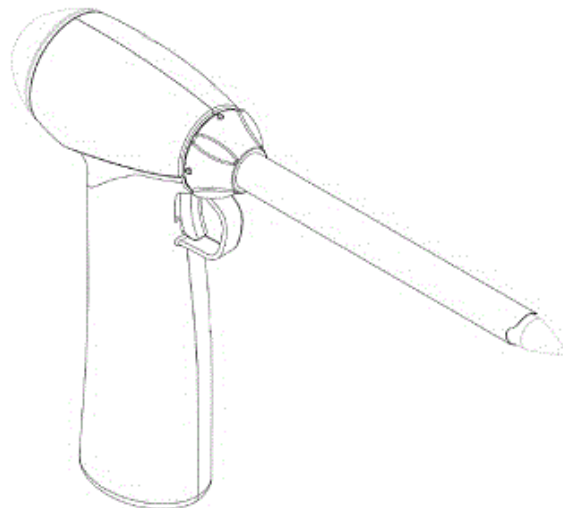
#### **54: MOTOR VEHICLES**

57: The design is for a motor vehicle, specifically for a five-door sports utility vehicle having a long wheelbase. A front of the vehicle has a prominent hood sloping downwardly. The front is characterised by a row of substantially rectangular slots, forming a radiator grille, flanked by two slim elongate curved headlights. The front has an integrated bumper, having a large substantially rectangular main element, with an upward indentation at the base. A row of slim air intake slots is provided below the upward indentation. The main element has a secondary element resembling a central elongate member with two lobes, extending longitudinally therein. The vehicle has a sharp roofline flowing into a sleek rear. The rear of the vehicle is characterised by long slim rear lights, that extend from the trunklid out and around the rear fender. Two irregular pentagon shaped exhaust outlets are provided on edges of a rear bumper.

21: A2021/00776 22: 2021-07-02 23:  
43: 2022-02-17  
52: Class 24. 24: Part A  
71: LAGIS ENTERPRISE CO., LTD.  
33: TW 31: 110300068 32: 2021-01-06

#### **54: Surgical Instrument**

57: The design relates to a surgical instrument. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.



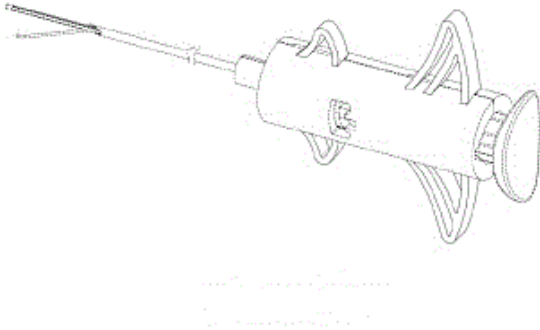
**TOP, FRONT AND RIGHT SIDE  
PERSPECTIVE VIEW**

21: A2021/00777 22: 2021-07-02 23:  
43: 2022-02-17

52: Class 24. 24: Part A  
 71: LAGIS ENTERPRISE CO., LTD.  
 33: TW 31: 110300013 32: 2021-01-04

**54: Surgical Instrument**

57: The design relates to a surgical instrument. The features of the design are those of shape and/or configuration and/or ornamentation.



**TOP, FRONT AND RIGHT  
 SIDE PERSPECTIVE VIEW**

21: A2021/00788 22: 2021-07-06 23:  
 43: 2022-02-10

52: Class 09 24: Part A  
 71: TEQAL (PTY) LTD

**54: CONTAINERS**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or ornamentation of a container substantially as shown in the accompanying representations, wherein the design of the finish of the container, including the screw thread shown in the representations, is not an essential feature.

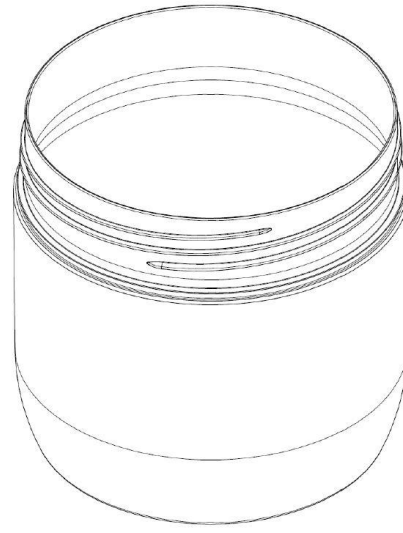


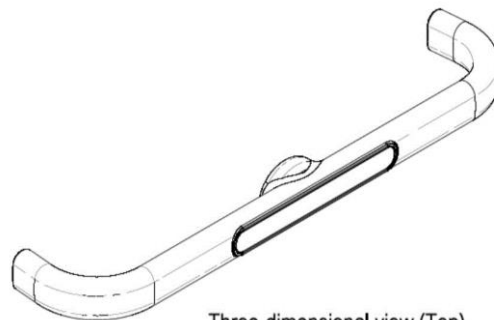
Figure 1  
 Perspective view

21: A2021/00794 22: 2021-07-08 23:  
 43: 2021-07-08

52: Class 12 24: Part A  
 71: SUPERCART SOUTH AFRICA (PTY) LTD

**54: TROLLEY HANDLE TAG HOLDER CLIP**

57: The design is applied to a tag holder clip for a trolley handle. The tag holder clip is a substantially U-shaped clip body in cross section to enable the clip body to be snugly clipped over and onto a trolley handle. The U-shaped body comprises a pair of side walls and an upper cover portion to abut against an upper surface of the handle. In an embodiment, the lower ends of the side walls of the U-shaped clip body curve inwardly, to enable the clip body to cover the side surfaces of the handle and partially around the bottom surface of the handle. With reference to the exploded views, the clip body (CB) includes a central housing that defines a cavity, in the form of a slot, for accommodating a tag (T). In use, a cover (C) is provided to enclose the cavity with the tag (T) located therein. The dotted portions are disclaimed and do not form any part of the claimed design.



Three-dimensional view (Top)



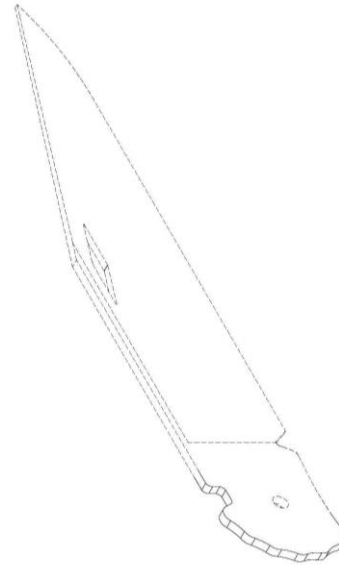
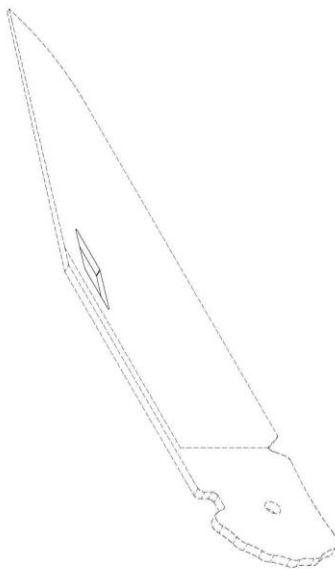
21: A2021/00798 22: 2021-07-09 23:  
43: 2021-07-09

52: Class 8 24: Part A

71: VECTO TRADE 461 PROPRIETARY LIMITED

**54: KNIFE BLADES**

57: The design is for a knife blade, particularly a clip point blade for a folding knife or flip knife. The blade includes an elongate, parallelogram-shaped finger aperture located adjacent a spine of the blade, with an upper rear periphery of the finger aperture being parallel to a rear portion of the spine and an upper front periphery of the finger aperture being parallel to a front or clip portion of the spine.



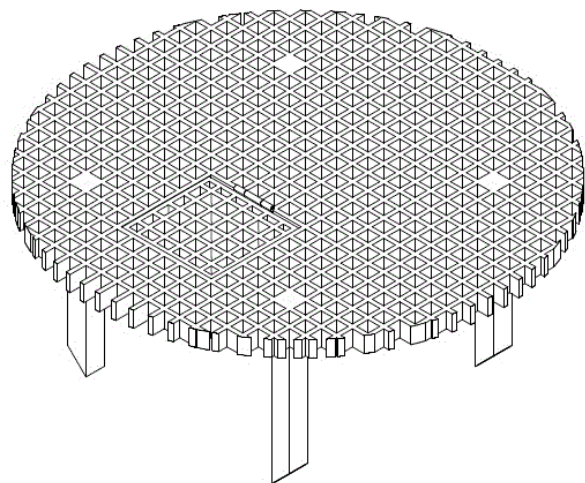
21: A2021/00802 22: 2021-07-09 23:  
43: 2021-01-12

52: Class 23 24: Part A

71: Kgothalo Projects CC T/A Waterfix Services

**54: Manhole Accessory**

57: The design is in respect of a manhole accessory which includes a foraminous barrier member which is locatable in a manhole to inhibit the entry of foreign objects larger than a predetermined size through an access hole in a pipeline. The accessory further includes a support arrangement in the form of four spaced apart legs which depend from the barrier member and are configured to support the barrier member in a desired position relative to the access hole.



21: A2021/00800 22: 2021-07-09 23:  
43: 2021-07-09

52: Class 8 24: Part A

71: VECTO TRADE 461 PROPRIETARY LIMITED

**54: KNIFE BLADES**

57: The design is for a knife blade, particularly a blade for a folding ratchet knife. The blade includes a ratcheted lobe defining six very short, rounded teeth and a locking recess.

21: A2021/00806 22: 2021-07-09 23:

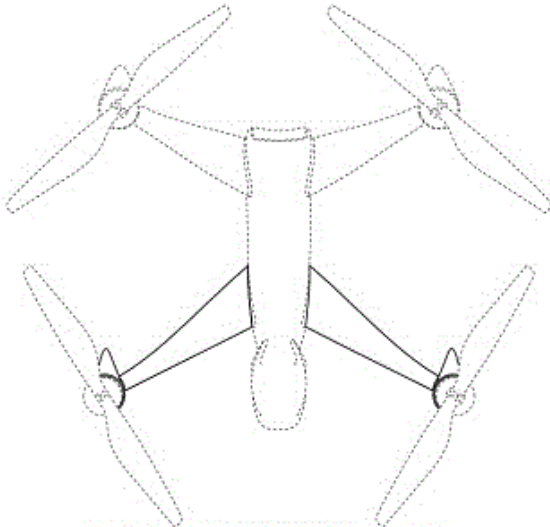
43: 2022-02-17

52: Class 12. 24: Part A

71: IARC CC

**54: Arms for a Drone**

57: The design relates to arms for a drone. The features of the design are those of shape and/or configuration.



**TOP PLAN VIEW OF FRONT  
ARMS OF DRONE**

21: A2021/00807 22: 2021-07-09 23:

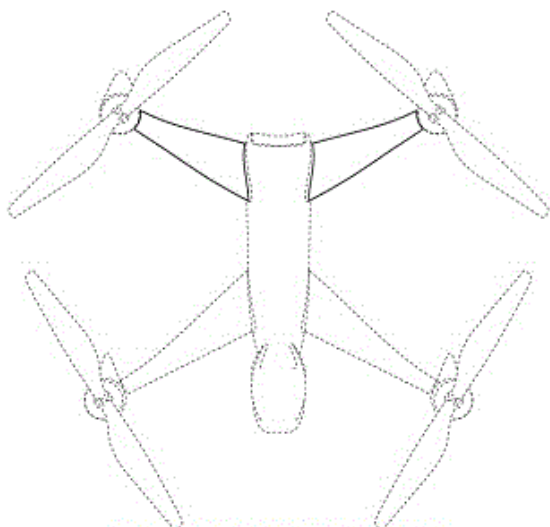
43: 2022-02-17

52: Class 12. 24: Part A

71: IARC CC

**54: Arms for a Drone**

57: The design relates to arms for a drone. The features of the design are those of shape and/or configuration.



**TOP PLAN VIEW OF REAR  
ARMS OF DRONE**

21: A2021/00808 22: 2021-07-09 23:

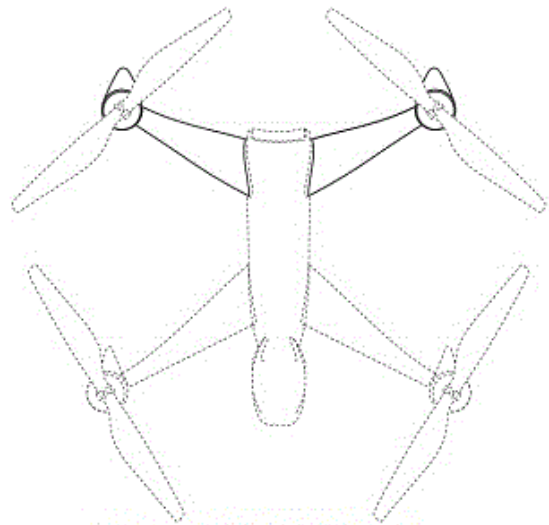
43: 2022-02-17

52: Class 12. 24: Part A

71: IARC CC

**54: Arms for a Drone**

57: The design relates to arms for a drone. The features of the design are those of shape and/or configuration.



**TOP PLAN VIEW OF REAR  
ARMS OF DRONE**

21: A2021/00809 22: 2021-07-09 23:

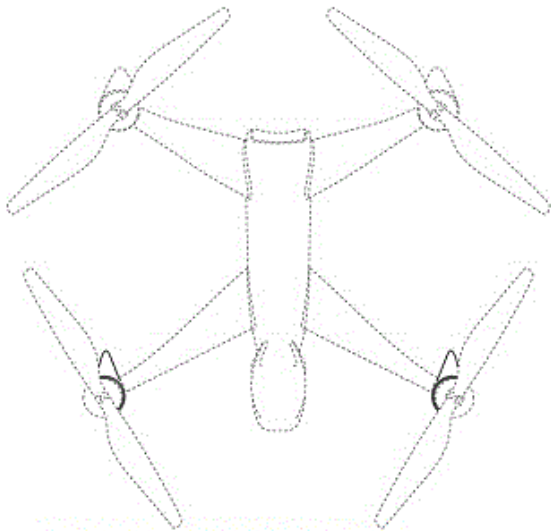
43: 2022-02-17

52: Class 12. 24: Part A

71: IARC CC

**54: Motor Pods for a Drone**

57: The design relates to motor pods for a drone. The features of the design are those of shape and/or configuration.

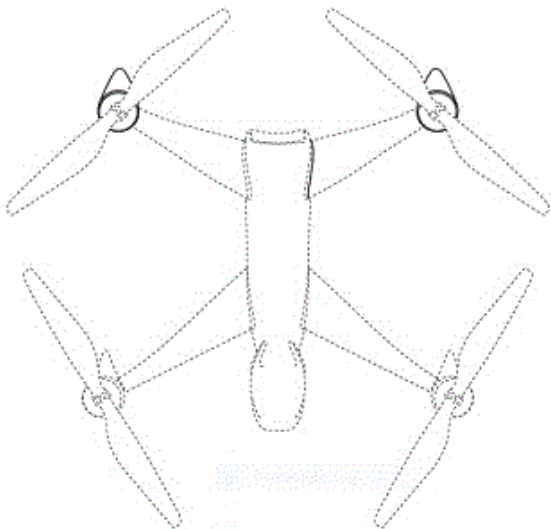


**TOP PLAN VIEW OF FRONT  
PODS OF DRONE**

21: A2021/00810 22: 2021-07-09 23:  
43: 2022-02-17  
52: Class 12. 24: Part A  
71: IARC CC

**54: Motor Pods for a Drone**

57: The design relates to motor pods for a drone.  
The features of the design are those of shape and/or  
configuration.



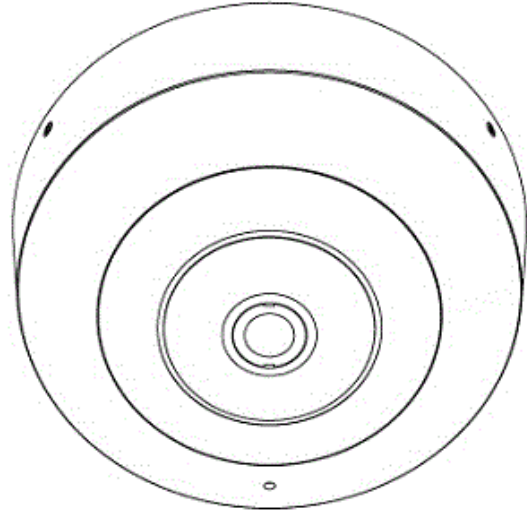
**TOP PLAN VIEW OF REAR  
PODS OF DRONE**

21: A2021/00815 22: 2021-07-14 23:  
43: 2022-02-17  
52: Class 16. 24: Part A  
71: MOBOTIX AG

33: EM 31: 008414064-0003 32: 2021-01-27

**54: Surveillance Camera**

57: The design relates to a surveillance camera. The  
features of the design are those of shape and/or  
configuration and/or pattern and/or ornamentation.



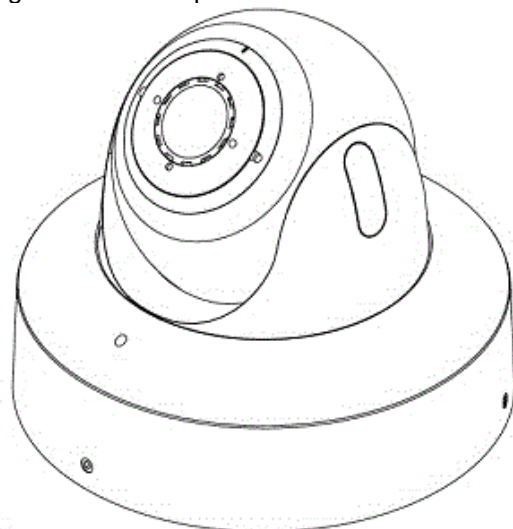
**TOP PERSPECTIVE VIEW**

21: A2021/00819 22: 2021-07-14 23:  
43: 2022-02-22  
52: Class 16. 24: Part A  
71: MOBOTIX AG

33: EM 31: 008414064-0002 32: 2021-01-27

**54: Surveillance Camera**

57: The design relates to a surveillance camera. The  
features of the design are those of shape and/or  
configuration and/or pattern and/or ornamentation.



**BOTTOM AND RIGHT SIDE  
PERSPECTIVE VIEW**

21: A2021/00820 22: 2021-07-14 23:

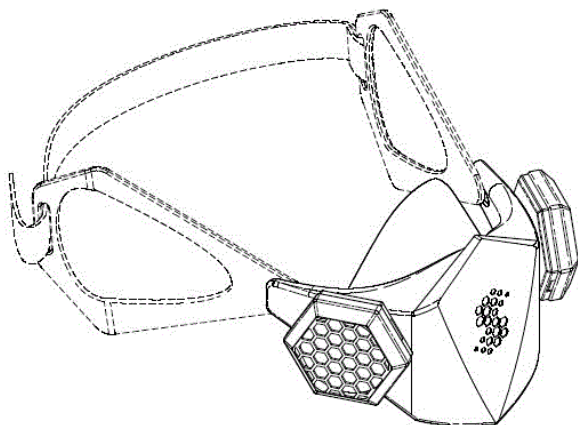
43: 2021-07-14

52: Class 29 24: Part A

71: RED VILLAGE TRADING PROPRIETARY LIMITED

**54: Respiratory Masks**

57: The design relates to the shape and/or configuration and/or ornamentation and/or pattern of a respiratory mask as shown in the accompanying representations, the features shown in dashed broken lines being optional and not forming an essential part of the design.



Three-dimensional view from front

21: A2021/00821 22: 2021-07-15 23:

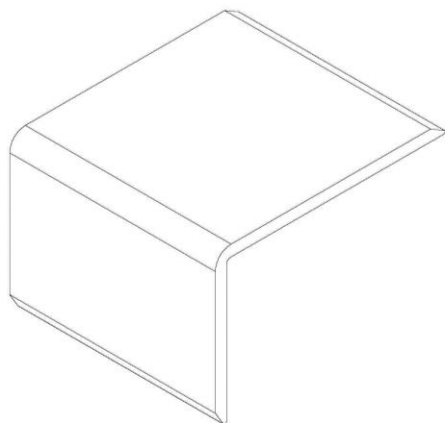
43: 2021-07-15

52: Class 25 24: Part A

71: Alco Exotic Green Building Products CC

**54: TRIMS FOR FLOORING OR CARPETING**

57: The design is for a trim for flooring or carpeting, substantially as illustrated in the accompanying representations.



21: A2021/00822 22: 2021-07-15 23:

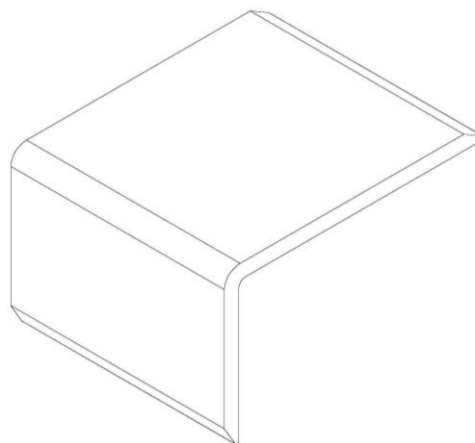
43: 2021-07-15

52: Class 25 24: Part A

71: Alco Exotic Green Building Products CC

**54: TRIMS FOR FLOORING OR CARPETING**

57: The design is for a trim for flooring or carpeting, substantially as illustrated in the accompanying representations.



21: A2021/00834 22: 2021-07-19 23:

43: 2022-03-10

52: Class 12 24: Part A

71: GREAT WALL MOTOR COMPANY LIMITED

33: CN 31: 202130043368.7 32: 2021-01-21

**54: AUTOMOBILE**

57: The design is to be applied to a automobile. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation substantially as shown in the representations



21: A2021/00838 22: 2021-07-19 23:

43: 2022-03-03

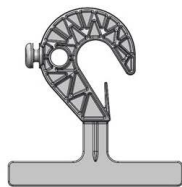
52: Class 08 24: Part A

71: Vortex Innovation Worx (Pty) Ltd

**54: HOOK HANGER COMPONENT**

57: The features of the design for which protection is claimed include the shape and/or configuration and/or pattern of an article substantially as shown in the accompanying representation(s).





21: A2021/00844 22: 2021-07-19 23:  
43: 2022-02-22  
52: Class 9. 24: Part A  
71: DART INDUSTRIES INC.  
33: US 31: 29/772,458 32: 2021-03-02

**54: Bottle with an Elephant Shape**

57: The design relates to a bottle with an elephant shape. The features of the design are those of shape and/or configuration and/or ornamentation.

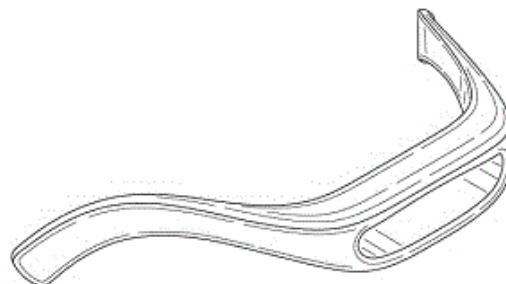


**TOP, FRONT AND RIGHT  
SIDE PERSPECTIVE VIEW**

21: A2021/00845 22: 2021-07-19 23:  
43: 2022-02-22  
52: Class 7. 24: Part A  
71: DART INDUSTRIES INC.  
33: US 31: 29/772,290 32: 2021-03-01

**54: Set of Handles for Cookware**

57: The design relates to a set of handles for cookware. The features of the design are those of shape and/or configuration and/or ornamentation.



**TOP, REAR AND LEFT SIDE  
PERSPECTIVE VIEW**

21: A2021/00846 22: 2021-07-19 23:  
43: 2022-02-18  
52: Class 7. 24: Part A  
71: DART INDUSTRIES INC.  
33: US 31: 29/772,314 32: 2021-03-01

**54: Cooking Pot**

57: The design relates to a cooking pot. The features of the design are those of shape and/or configuration and/or ornamentation.

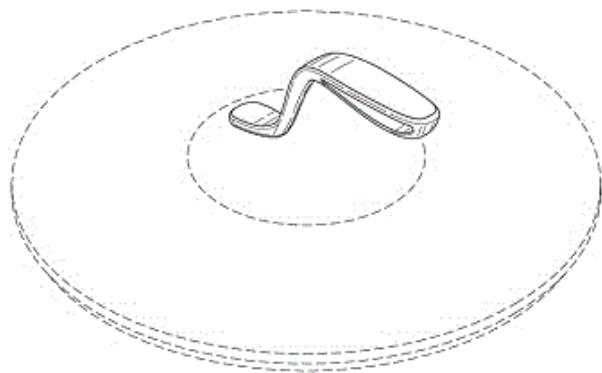


**TOP, REAR AND RIGHT  
SIDE PERSPECTIVE VIEW**

21: A2021/00847 22: 2021-07-19 23:  
43: 2022-02-18  
52: Class 7. 24: Part A  
71: DART INDUSTRIES INC.  
33: US 31: 29/772,294 32: 2021-03-01

**54: Cookware Lid Handle**

57: The design relates to a cookware lid handle. The features of the design are those of shape and/or configuration and/or ornamentation.

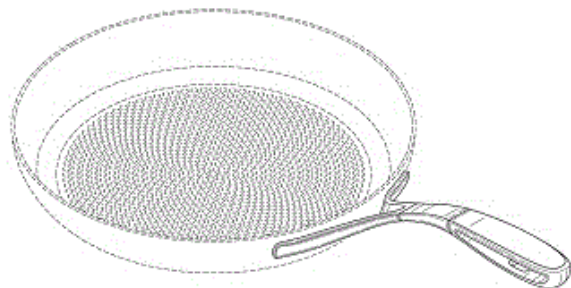


**TOP, REAR AND RIGHT SIDE  
PERSPECTIVE VIEW IN USE**

21: A2021/00848 22: 2021-07-19 23:  
43: 2022-02-22  
52: Class 7. 24: Part A  
71: DART INDUSTRIES INC.  
33: US 31: 29/772,291 32: 2021-03-01

**54: Handle for Cookware**

57: The design relates to a handle for cookware. The features of the design are those of shape and/or configuration and/or ornamentation.



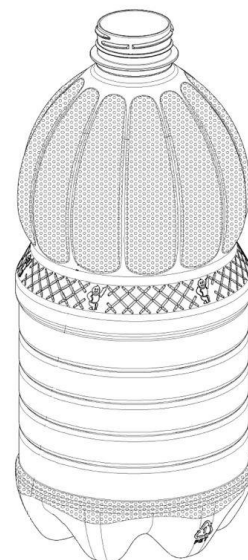
**TOP, REAR AND LEFT SIDE  
PERSPECTIVE VIEW IN USE**

21: A2021/00854 22: 2021-07-22 23:  
43: 2022-02-18  
52: Class 09 24: Part A  
71: TIGER FOOD BRANDS INTELLECTUAL  
PROPERTY HOLDING COMPANY (PTY) LIMITED

**54: BOTTLES**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or pattern and/or ornamentation of a bottle

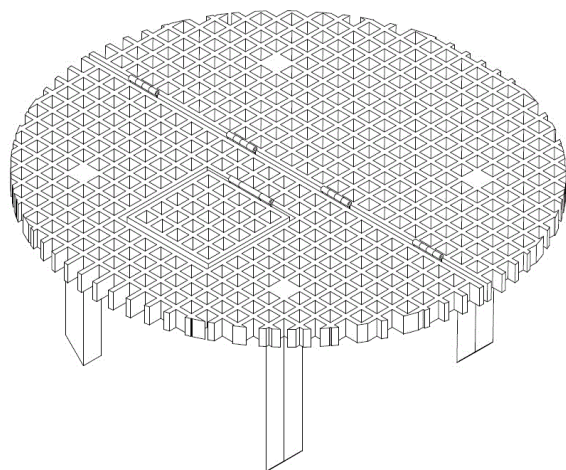
substantially as illustrated in the accompanying representations.



21: A2021/00859 22: 2021-07-23 23:  
43: 2021-07-23  
52: Class 23 24: Part A  
71: Kgothalo Projects CC T/A Waterfix Services

**54: Manhole Accessory**

57: The design is in respect of a manhole accessory which includes a foraminous barrier member which is locatable in a manhole to inhibit the entry of foreign objects larger than a predetermined size through an access hole in a pipeline. The accessory further includes a support arrangement in the form of four spaced apart legs which depend from the barrier member and are configured to support the barrier member in a desired position relative to the access hole. The barrier member is displaceable between an erect condition and a collapsed condition to facilitate introduction of the manhole accessory into a manhole, the barrier member being releasably lockable in its erect condition.



21: A2021/00875 22: 2021-07-26 23:  
43: 2022-02-18

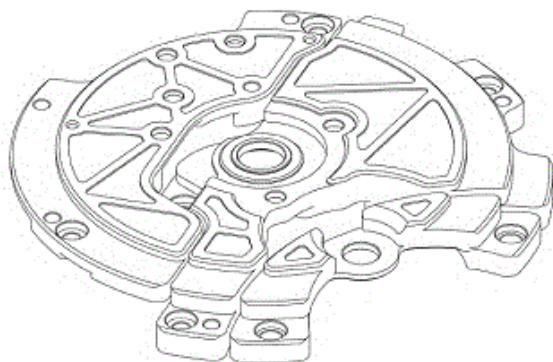
52: Class 10. 24: Part A

71: MONTRES TUDOR SA

33: CH 31: 146023 32: 2021-04-30

**54: Movement for Clocks and Watches**

57: The design relates to a movement for clocks and watches. The features of the design are those of shape and/or configuration and/or ornamentation.



**BOTTOM, LEFT SIDE AND  
FRONT PERSPECTIVE VIEW**

21: A2021/00876 22: 2021-07-26 23:  
43: 2022-02-18

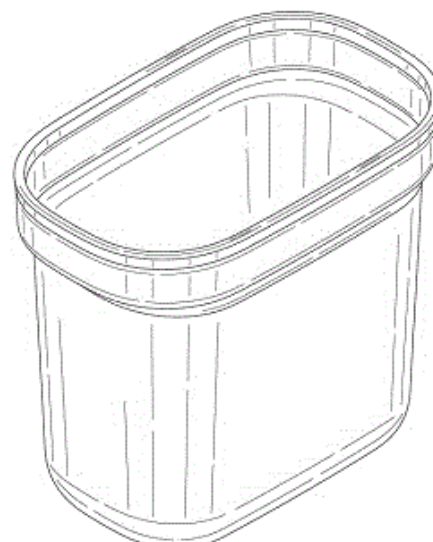
52: Class 7. 24: Part A

71: DART INDUSTRIES INC.

33: US 31: 29/773,504 32: 2021-03-10

**54: Storage Container**

57: The design relates to a storage container. The features of the design are those of shape and/or configuration and/or ornamentation.



**TOP, FRONT AND RIGHT SIDE  
PERSPECTIVE VIEW**

21: A2021/00907 22: 2021-07-29 23:  
43: 2022-02-18

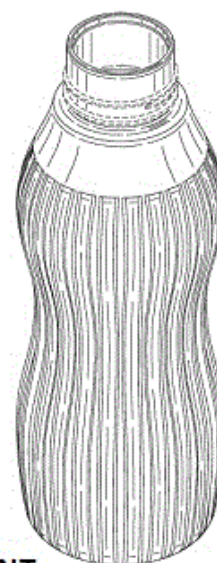
52: Class 9. 24: Part A

71: DART INDUSTRIES INC.

33: US 31: 29/778,179 32: 2021-04-12

**54: Beverage Container**

57: The design relates to a beverage container. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.



**TOP, FRONT  
AND RIGHT SIDE PERSPECTIVE VIEW**

21: A2021/00910 22: 2021-07-30 23:  
43: 2022-02-22

52: Class 09 24: Part A

71: GRAND PLASTICS (PTY) LTD

**54: A CONTAINER**

57: The design is applied to a container. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the container, substantially as illustrated in the accompanying representation. Features of vents (A) shown in broken lines do not form part of the design and are disclaimed.

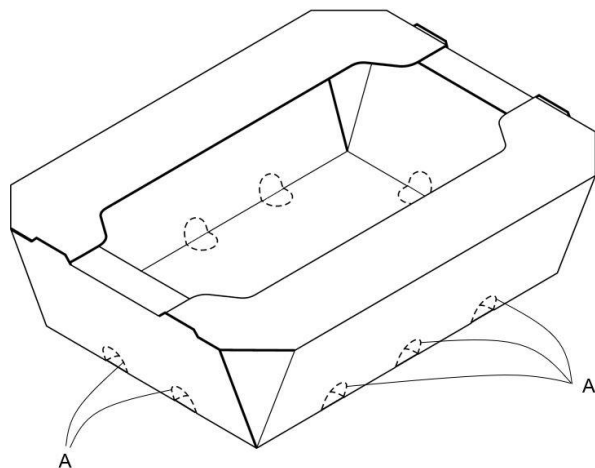


FIG. 1 THREE-DIMENSIONAL VIEW

21: A2021/00912 22: 2021-07-30 23:

43: 2021-02-01

52: Class 23 24: Part A

71: Minimax Viking Research & Development GmbH

33: US 31: 29/768, 812 32: 2021-02-01

**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of slanted tines.

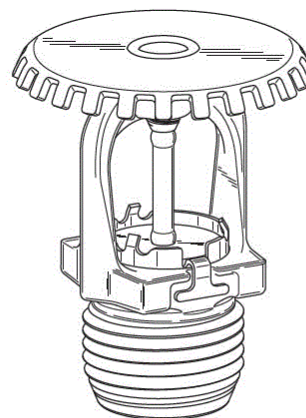


Figure 1

Three-dimensional view

21: A2021/00913 22: 2021-07-30 23:

43: 2021-02-01

52: Class 23 24: Part A

71: Minimax Viking Research & Development GmbH

33: US 31: 29/768,812 32: 2021-02-01

**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of slanted tines.



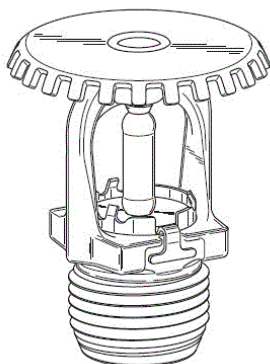


Figure 1

Three-dimensional view

21: A2021/00914 22: 2021-07-30 23:  
43: 2021-02-01  
52: Class 23 24: Part A  
71: Minimax Viking Research & Development GmbH  
33: US 31: 29/768,812 32: 2021-02-01

**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of outwardly projecting tines.

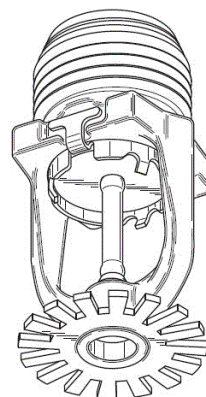


Figure 1

Three-dimensional view

21: A2021/00915 22: 2021-07-30 23:  
43: 2021-02-01  
52: Class 23 24: Part A  
71: Minimax Viking Research & Development GmbH  
33: US 31: 29/768,812 32: 2021-02-01

**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of outwardly projecting tines.

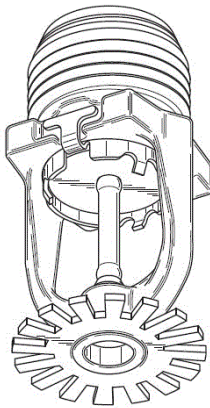


Figure 1

Three-dimensional view

21: A2021/00920 22: 2021-07-30 23:  
43: 2021-07-14  
52: Class 7 24: Part A  
71: Jura Elektroapparate AG  
33: HSIRID(CH) 31: DM/215395 32: 2021-07-14

**54: COFFEE MAKERS**

57: The design of the coffee machine features a transparent water tank with a distinctive groove pattern similar to a water carafe, a rotary lever with a characteristic knob design as a visual eye-catcher, a compact coffee spout, a chrome-plated and therefore reflective cup platform and a conical front shape resulting in overall compact dimensions.

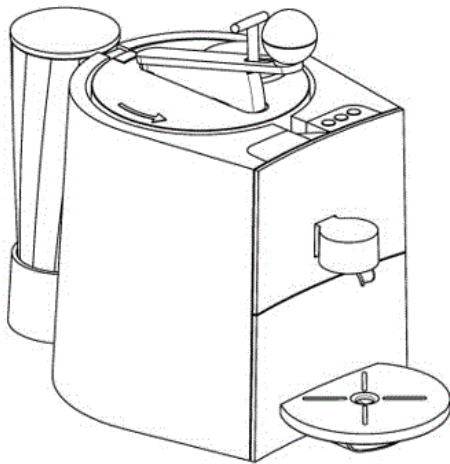


Figure 1

Three-dimensional view

43: 2021-07-14  
52: Class 7 24: Part A  
71: Jura Elektroapparate AG  
33: HSIRID(CH) 31: DM/215395 32: 2021-07-14

**54: COFFEE MAKERS**

57: The design of the coffee machine features, a rotary lever with a characteristic knob design as a visual eye-catcher, a compact coffee spout, a chrome-plated and therefore reflective cup platform and a conical front shape resulting in overall compact dimensions.

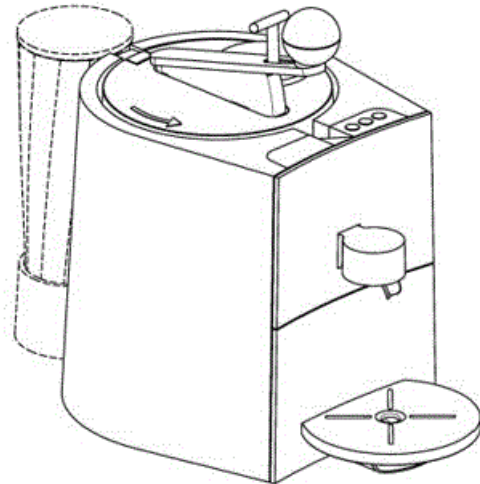


Figure 1

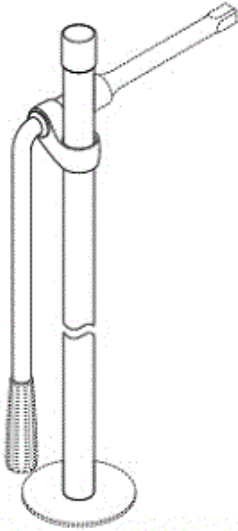
Three-dimensional view

21: A2021/00922 22: 2021-07-30 23:  
43: 2022-02-18  
52: Class 8. 24: Part A  
71: ROSSI, MARIO MICHELE

**54: Nut Removal Tool**

57: The design relates to a nut removal tool. The features of the design are those of shape and/or configuration.

21: A2021/00921 22: 2021-07-30 23:



**PERSPECTIVE VIEW OPERATIVE CONFIGURATION**

21: A2021/00923 22: 2021-07-30 23:

43: 2022-02-18

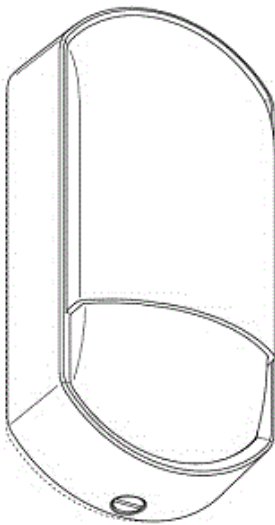
52: Class 10. 24: Part A

71: OPTEx CO., LTD.

**54: Human Body Detector**

57: The design relates to a human body detector.

The features of the design are those of shape and/or configuration.



**FRONT PERSPECTIVE VIEW**

21: A2021/00924 22: 2021-07-30 23:

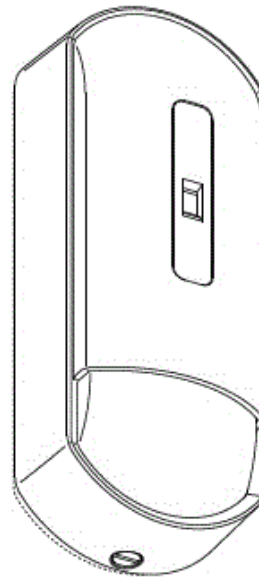
43: 2022-02-18

52: Class 10. 24: Part A

71: OPTEx CO., LTD.

**54: Human Body Detector**

57: The design relates to a human body detector. The features of the design are those of shape and/or configuration.



**FRONT PERSPECTIVE VIEW**

21: A2021/00925 22: 2021-07-30 23:

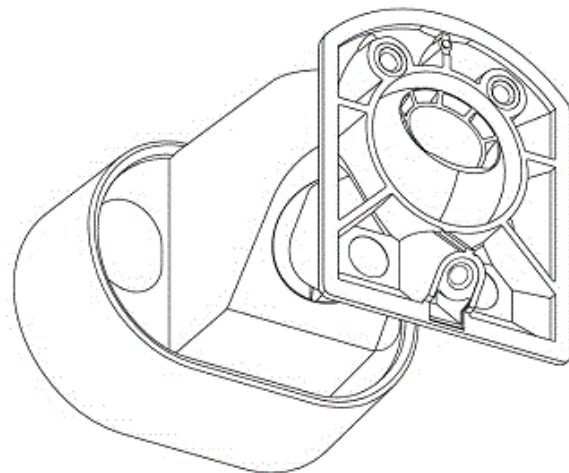
43: 2022-02-18

52: Class 8. 24: Part A

71: OPTEx CO., LTD.

**54: Bracket**

57: The design relates to a bracket. The features of the design are those of shape and/or configuration and/or pattern.



**FRONT PERSPECTIVE VIEW**

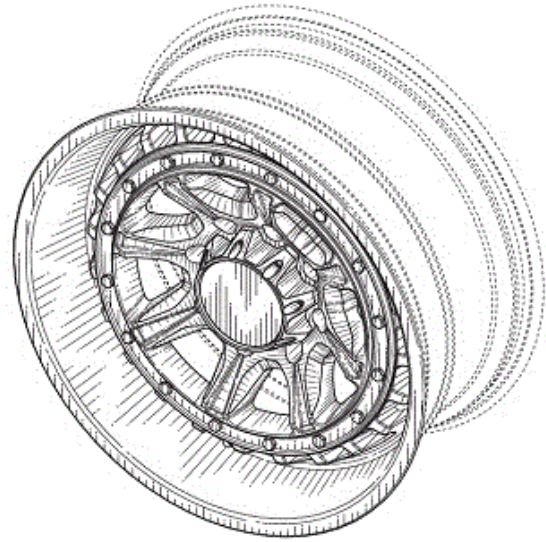
21: A2021/00926 22: 2021-07-30 23:  
43: 2022-02-18  
52: Class 12. 24: Part A  
71: WHEEL PROS, LLC  
33: US 31: 29/794,854 32: 2021-06-15

**54: Wheel**

57: The design relates to a wheel. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.



**PERSPECTIVE VIEW**

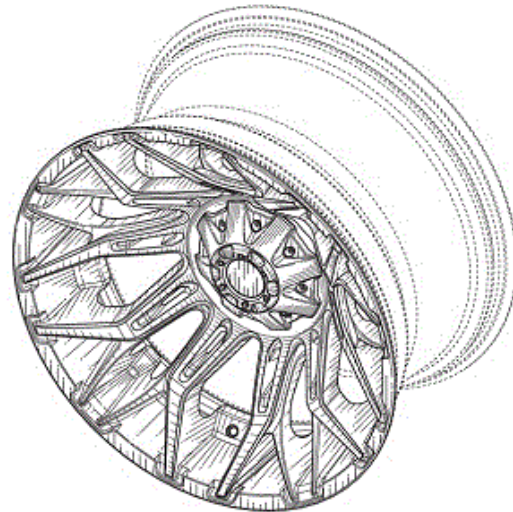


**PERSPECTIVE VIEW**

21: A2021/00929 22: 2021-07-30 23:  
43: 2022-02-18  
52: Class 12. 24: Part A  
71: WHEEL PROS, LLC  
33: US 31: 29/794,850 32: 2021-06-15

**54: Wheel**

57: The design relates to a wheel. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.



**PERSPECTIVE VIEW**

21: A2021/00927 22: 2021-07-30 23:  
43: 2022-02-18  
52: Class 12. 24: Part A  
71: WHEEL PROS, LLC  
33: US 31: 29/797,190 32: 2021-06-29

**54: Wheel**

57: The design relates to a wheel. The features of the design are those of shape and/or configuration and/or pattern and/or ornamentation.

21: A2021/00945 22: 2021-08-10 23:  
43: 2022-03-08  
52: Class 09 24: Part A  
71: F&I BEVERAGES AG

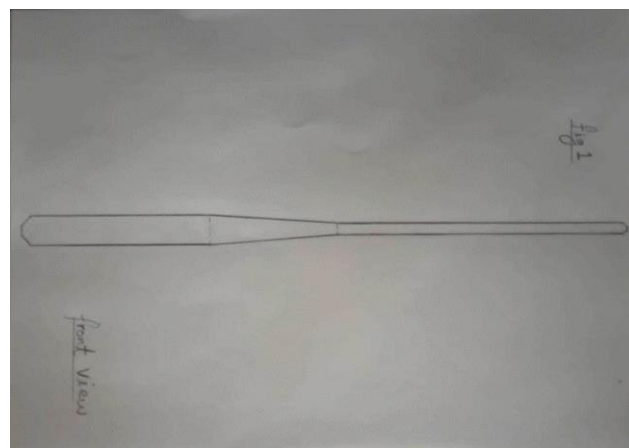


**54: BEVERAGE BOTTLES**

57: The design is for a beverage bottle. The bottle includes a base which is substantially rectangular with rounded sides, a similarly shaped elongate body extends upwardly from the base to a shoulder at an opposed end of the bottle. The bottle further includes an elongate neck extending from the shoulder, the neck bulges slightly outwardly and tapers towards an upper round mouth. A waist portion of the bottle is defined by a front and rear face of the bottle being slightly depressed, forming two opposed flat panels. An emblem-shaped label is disposed on an operative front flat panel.



Front view



21: A2021/00988 22: 2021-08-25 23:

43: 2022-03-10

52: Class 09 24: Part A

71: THE ABSOLUT COMPANY AKTIEBOLAG

33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

21: A2021/00965 22: 2021-08-06 23:

43: 2022-03-08

52: Class 2 24: Part A

71: Komase Benjamin Mashao, Thabang Horn Mathobela

**54: NECKWEAR**

57: The design relates to a NECKWEAR. The features of the design are those of pattern and/or shape and/or configuration and/or ornamentation.



TOP PERSPECTIVE VIEW



TOP PERSPECTIVE VIEW

21: A2021/00989 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

21: A2021/00990 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

TOP PERSPECTIVE VIEW

21: A2021/00991 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

TOP PERSPECTIVE VIEW

21: A2021/00992 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.



TOP PERSPECTIVE VIEW



TOP PERSPECTIVE VIEW

21: A2021/00993 22: 2021-08-25 23:  
43: 2022-03-10

52: Class 09 24: Part A

71: THE ABSOLUT COMPANY AKTIEBOLAG

33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

21: A2021/00994 22: 2021-08-25 23:  
43: 2022-03-10

52: Class 09 24: Part A

71: THE ABSOLUT COMPANY AKTIEBOLAG

33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.





TOP PERSPECTIVE VIEW

21: A2021/00995 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.



TOP PERSPECTIVE VIEW

21: A2021/00996 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

TOP PERSPECTIVE VIEW

---

21: A2021/00997 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

TOP PERSPECTIVE VIEW

---

21: A2021/00998 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.



TOP PERSPECTIVE VIEW



TOP PERSPECTIVE VIEW

21: A2021/00999 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.

21: A2021/01000 22: 2021-08-25 23:  
43: 2022-03-10  
52: Class 09 24: Part A  
71: THE ABSOLUT COMPANY AKTIEBOLAG  
33: IM 31: WIPO106308 32: 2021-07-28

**54: BOTTLE**

57: The design is to be applied to a bottle. The features for which protection is claimed are those of shape and/or configuration and/or ornamentation, substantially as shown in the representations.



TOP PERSPECTIVE VIEW



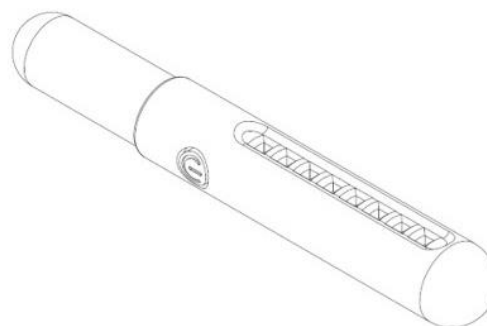
FRONT VIEW

21: A2021/01003 22: 2021-08-27 23:  
43: 2022-03-10  
52: Class 32 24: Part A  
71: PHILIP MORRIS PRODUCTS S.A.  
33: EU 31: 008468821 32: 2021-03-19

**54: GRAPHIC SYMBOL**

57: The design is to be applied to a graphic symbol. The features for which protection is claimed are those of shape and/or configuration and/or pattern and/or ornamentation, substantially as shown in the representations. The broken lines are for illustrative purposes only and form no part of the claimed design.

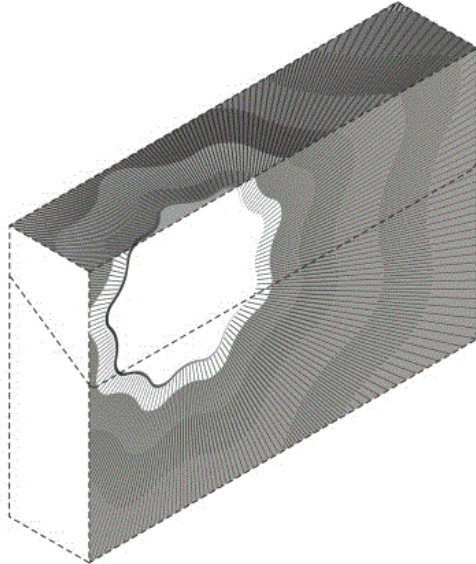
21: A2021/01022 22: 2021-09-03 23:  
43: 2022-03-24  
52: Class 24 24: Part A  
71: GOLDENSUNDA TECHNOLOGY CO., LTD  
**54: HAND-HELD ULTRAVIOLET STERILIZATION  
DEVICE**  
57: The design is for a hand-held ultraviolet  
sterilization device as shown in the representations.



21: A2021/01032 22: 2021-09-06 23:  
43: 2022-03-24  
52: Class 9 24: Part A  
71: PHILIP MORRIS PRODUCTS S.A.  
33: EU 31: 008467013-0002 32: 2021-03-18  
**54: PACKAGING BOX**  
57: The design is to be applied to a packaging box. The features for which protection is claimed are those of shape and/or configuration and/or pattern and/or ornamentation, substantially as shown in the



representations. The broken lines are for illustrative purposes only and form no part of the claimed design and the ornamentation shall not be limited to black and grey, but may encompass any sort of colour or combination of colours.

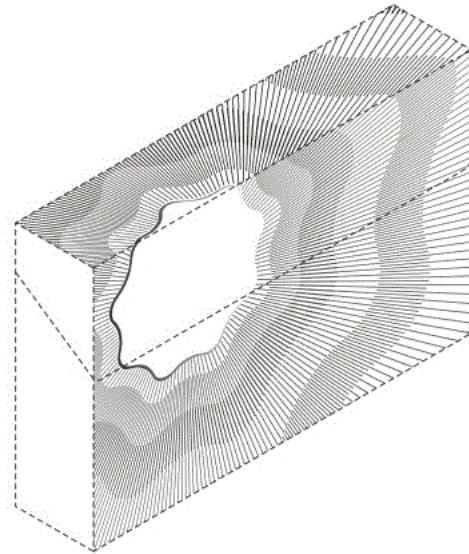


PERSPECTIVE VIEW

21: A2021/01033 22: 2021-09-06 23:  
43: 2022-03-24  
52: Class 9 24: Part A  
71: PHILIP MORRIS PRODUCTS S.A.  
33: EU 31: 008467013-0004 32: 2021-03-18

#### **54: PACKAGING BOX**

57: The design is to be applied to a packaging box. The features for which protection is claimed are those of shape and/or configuration and/or pattern and/or ornamentation, substantially as shown in the representations. The broken lines are for illustrative purposes only and form no part of the claimed design and the ornamentation shall not be limited to black and grey, but may encompass any sort of colour or combination of colours.

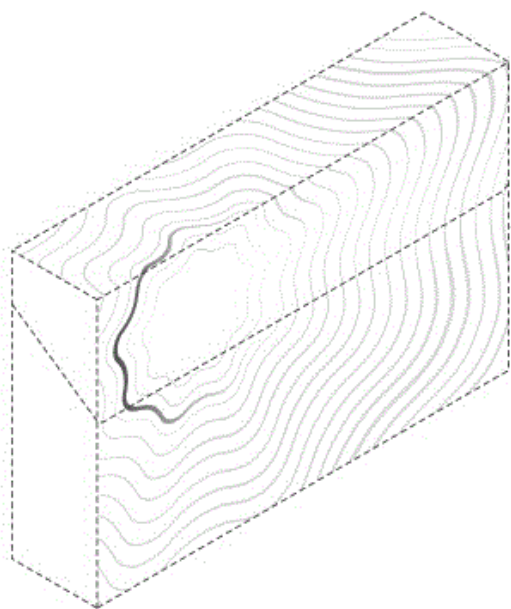


PERSPECTIVE VIEW

21: A2021/01034 22: 2021-09-06 23:  
43: 2022-03-24  
52: Class 9 24: Part A  
71: PHILIP MORRIS PRODUCTS S.A.  
33: EU 31: 008467013-0006 32: 2021-03-18

#### **54: PACKAGING BOX**

57: The design is to be applied to a packaging box. The features for which protection is claimed are those of shape and/or configuration and/or pattern and/or ornamentation, substantially as shown in the representations. The broken lines are for illustrative purposes only and form no part of the claimed design and the ornamentation shall not be limited to black and grey, but may encompass any sort of colour or combination of colours.

PERSPECTIVE VIEW


---

21: A2021/01035 22: 2021-09-06 23:

43: 2022-03-24

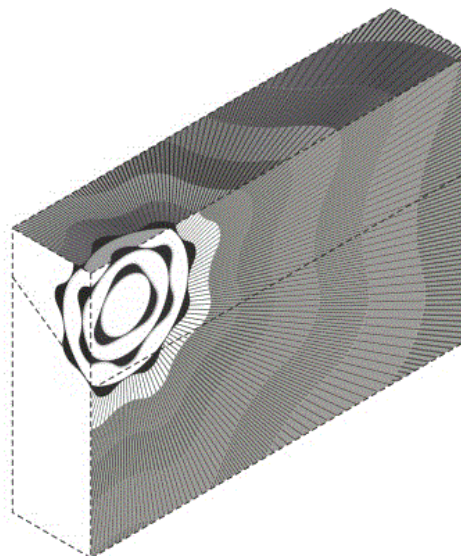
52: Class 9 24: Part A

71: PHILIP MORRIS PRODUCTS S.A.

33: EU 31: 008467013-0008 32: 2021-03-18

**54: PACKAGING BOX**

57: The design is to be applied to a packaging box. The features for which protection is claimed are those of shape and/or configuration and/or pattern and/or ornamentation, substantially as shown in the representations. The broken lines are for illustrative purposes only and form no part of the claimed design and the ornamentation shall not be limited to black and grey, but may encompass any sort of colour or combination of colours.

PERSPECTIVE VIEW


---

21: A2021/01036 22: 2021-09-06 23:

43: 2022-03-24

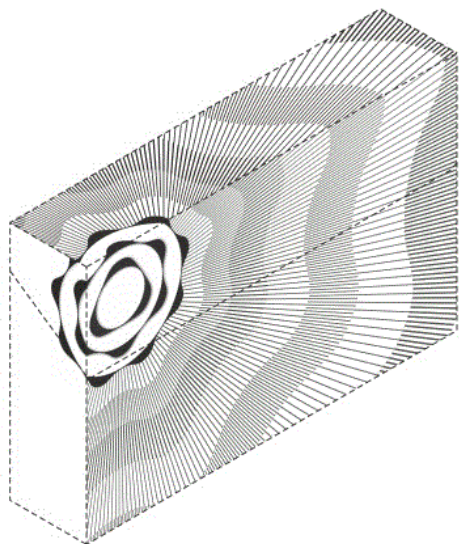
52: Class 9 24: Part A

71: PHILIP MORRIS PRODUCTS S.A.

33: EU 31: 008467013-0010 32: 2021-03-18

**54: PACKAGING BOX**

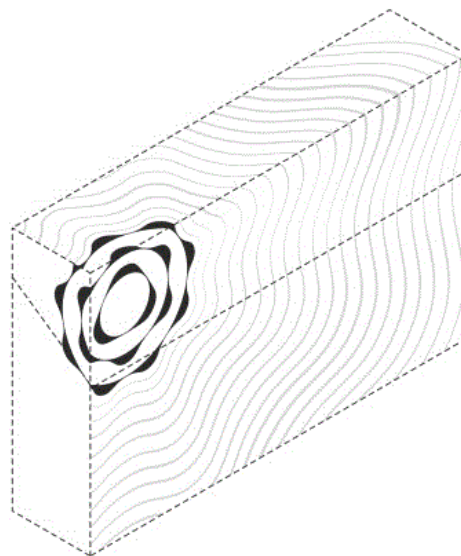
57: The design is to be applied to a packaging box. The features for which protection is claimed are those of shape and/or configuration and/or pattern and/or ornamentation, substantially as shown in the representations. The broken lines are for illustrative purposes only and form no part of the claimed design and the ornamentation shall not be limited to black and grey, but may encompass any sort of colour or combination of colours.

PERSPECTIVE VIEW

21: A2021/01037 22: 2021-09-06 23:  
43: 2022-03-24  
52: Class 9 24: Part A  
71: PHILIP MORRIS PRODUCTS S.A.  
33: EU 31: 008467013-0012 32: 2021-03-18

**54: PACKAGING BOX**

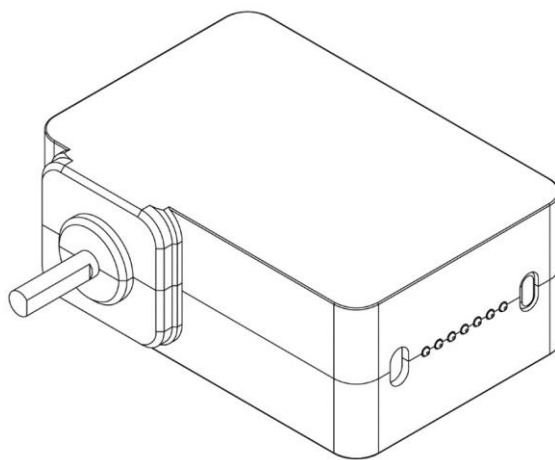
57: The design is to be applied to a packaging box. The features for which protection is claimed are those of shape and/or configuration and/or pattern and/or ornamentation, substantially as shown in the representations. The broken lines are for illustrative purposes only and form no part of the claimed design and the ornamentation shall not be limited to black and grey, but may encompass any sort of colour or combination of colours.

PERSPECTIVE VIEW

21: A2021/01054 22: 2021-09-09 23:  
43: 2022-03-24  
52: Class 13 24: Part A  
71: LUXROBO CORPORATION  
33: KR 31: 30-2021-0011379 32: 2021-03-09

**54: MOTOR MODULE FOR ELECTRONIC DEVICES**

57: The design is applied to a motor module for electronic devices. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the motor module for electronic devices, substantially as illustrated in the accompanying representation.



21: A2021/01091 22: 2021-09-13 23:  
43: 2022-03-24

52: Class 7 24: Part A

71: Green 66 Innovations Pty Ltd

**54: STOVE**

57: The design relates to a Stove. The features of the design are those of shape and/or pattern and/or configuration and/or ornamentation.



21: A2021/01093 22: 2021-09-13 23:

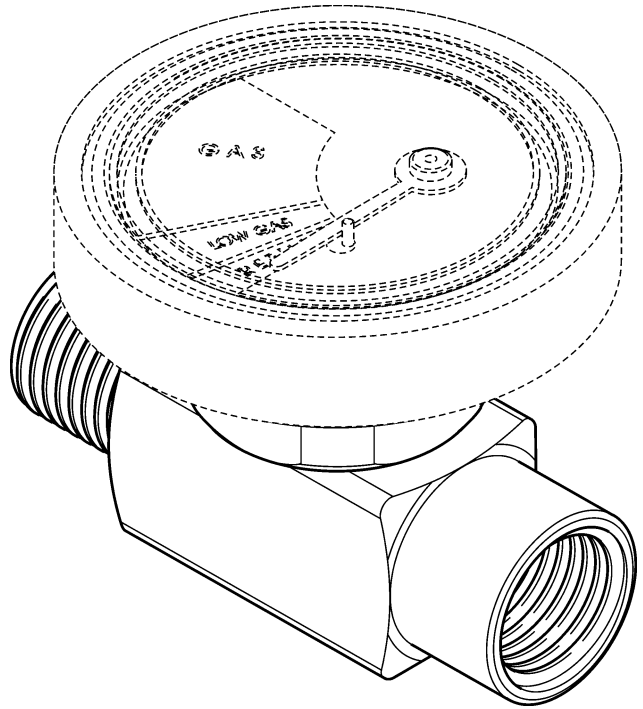
43: 2022-03-24

52: Class 10 24: Part A

71: RAATS, Joshua Mark

**54: A GAUGE**

57: The design is applied to a gauge. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern and/or ornamentation of the gauge, substantially as illustrated in the accompanying representation. Features of the gauge that are shown in broken lines do not form part of the design and are disclaimed.



21: F2016/00408 22: 2016-03-18 23:

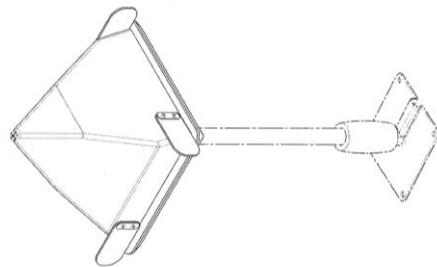
43: 2022-03-15

52: Class 22 24: Part F

71: EAGLE EYE BIRD CONTROL TRUST

**54: BIRD REPELLENT DEVICE**

57: Protection is claimed for the features of shape and/or configuration of a bird repellent device substantially as shown in the accompanying representations, irrespective of the appearance of the features shown in broken lines.



21: F2017/01893 22: 2017-11-29 23:

43: 2017-11-29

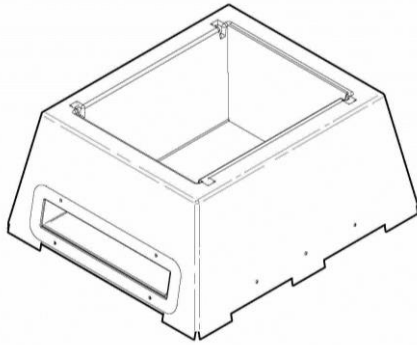
52: Class 15 24: Part F

71: UNIVERSITY OF JOHANNESBURG

**54: Moulds for Concrete Beehives**

57: The design is for a mould for a concrete beehive substantially as shown in the representations.





Perspective view

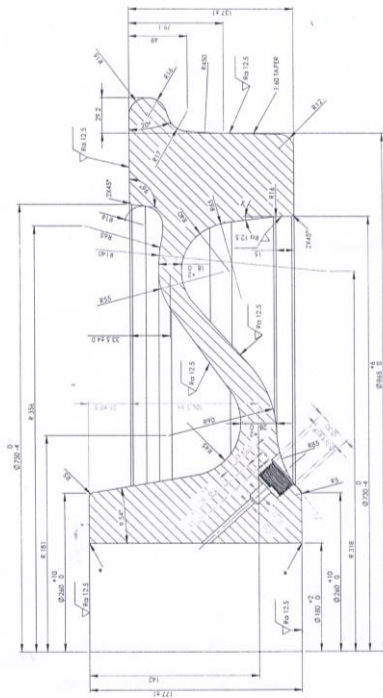
21: F2019/00292 22: 2019-02-26 23:  
43: 2022-03-10

52: Class 12 24: Part F

71: NALEDI RINGROLLERS (PTY) LTD

## 54: RAILWAY WHEEL

57: The novelty of the design resides in the shape or configuration of a railway wheel as shown in the accompanying drawing.



21: F2019/00953 22: 2019-07-16 23:  
43: 2022-02-10

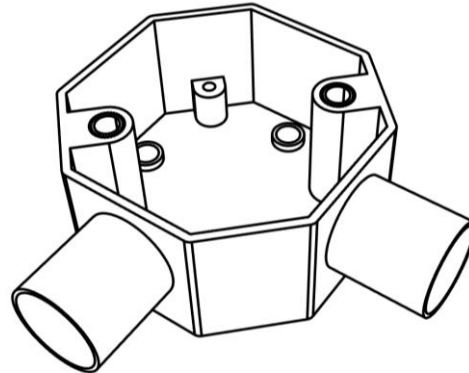
52: Class 13 24: Part F

71: Voltex (Proprietary) Limited

## 54: HEXAGONAL JUNCTION BOX

57: The features of the design for which protection is sought are those features of shape and/or

configuration and/or pattern applied to the hexagonal junction box shown in the representations.



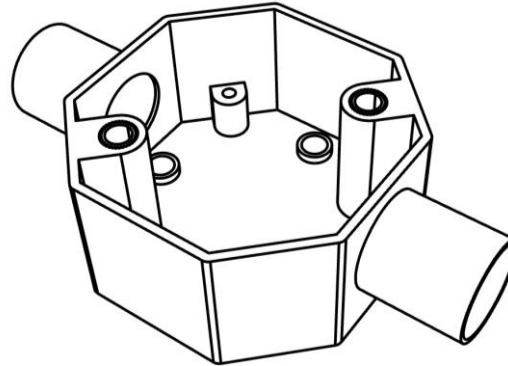
21: F2019/00954 22: 2019-07-16 23:  
43: 2022-02-10

52: Class 13 24: Part F

71: Voltex (Proprietary) Limited

## 54: HEXAGONAL JUNCTION BOX

57: The features of the design for which protection is sought are those features of shape and/or configuration and/or pattern applied to the hexagonal junction box shown in the representations.



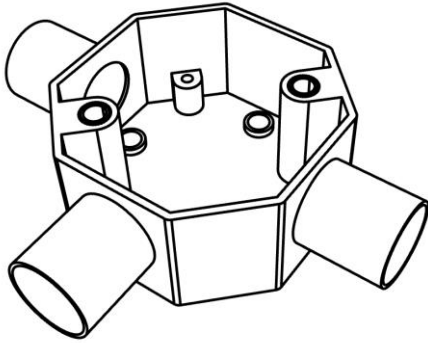
21: F2019/00955 22: 2019-07-16 23:  
43: 2022-02-10

52: Class 13 24: Part F

71: Voltex (Proprietary) Limited

## 54: HEXAGONAL JUNCTION BOX

57: The features of the design for which protection is sought are those features of shape and/or configuration and/or pattern applied to the hexagonal junction box shown in the representations.



21: F2019/00956 22: 2019-07-16 23:

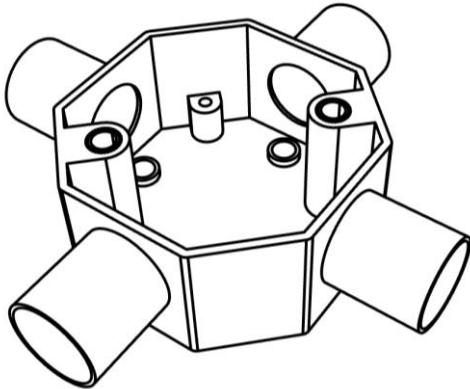
43: 2022-03-03

52: Class 13 24: Part F

71: Voltex (Proprietary) Limited

**54: HEXAGONAL JUNCTION BOX**

57: The features of the design for which protection is sought are those features of shape and/or configuration and/or pattern applied to the hexagonal junction box shown in the representations.



21: F2019/00957 22: 2019-07-16 23:

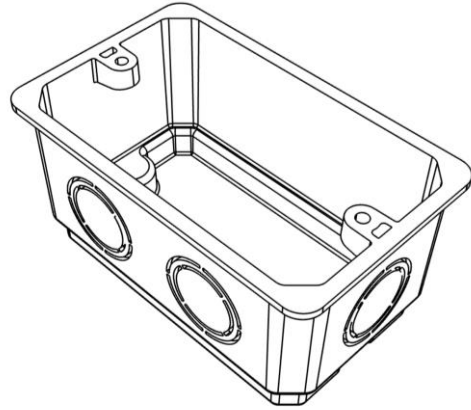
43: 2022-03-03

52: Class 13 24: Part F

71: Voltex (Proprietary) Limited

**54: WALL BOX**

57: The features of the design for which protection is sought are those features of shape and/or configuration and/or pattern applied to the wall box shown in the representations.



21: F2019/01012 22: 2019-07-17 23:

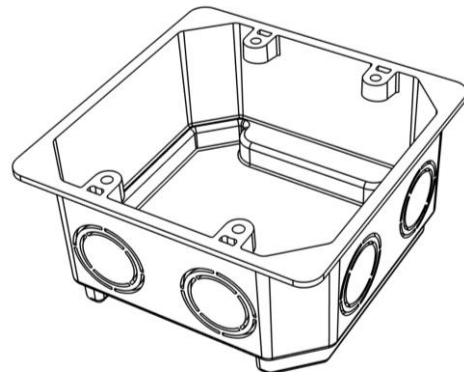
43: 2022-02-10

52: Class 13 24: Part F

71: Voltex (Proprietary) Limited

**54: WALL BOX**

57: The features of the design for which protection is sought are those features of shape and/or configuration and/or pattern applied to the wall box shown in the representations.



21: F2019/01380 22: 2019-09-18 23:

43: 2019-09-18

52: Class 12 24: Part F

71: SUPERCART SOUTH AFRICA (PTY) LTD

**54: TROLLEY**

57: The design is applied to a trolley, and in particular to a merchandising trolley for perishables. The features of the design for which protection is claimed include the shape and/or configuration of a trolley, substantially as illustrated in the accompanying representations. The trolley comprises a metal chassis having a pair of upwardly extending arms for carrying a plastic basket. The bottom of the metal chassis comprises a flat metal wire platform, with the front corners of the platform being fitted with outrider wheels.



21: F2020/00925 22: 2020-07-02 23:  
43: 2022-02-10

52: Class 29 24: Part F

71: BBF SAFETY GROUP (PTY) LTD

#### **54: SHOCK ABSORBER FOR A SAFETY HARNESS**

57: The features of the design for which protection is sought reside in the shape and/or pattern and/or configuration of a shock absorber for a safety harness, substantially as illustrated in the accompanying representations, wherein connecting elements (A) and (B) shown in the representations do not form part of the design and are disclaimed, and wherein the specific wording and numbers provided on surfaces (C) and (D) of a cover of the shock absorber are included for illustrative purposes and do not form an essential part of the design.

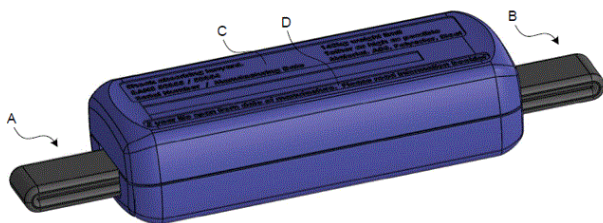


Figure 1

Three-dimensional view from the top

21: F2020/00929 22: 2020-07-02 23:

43: 2022-02-10

52: Class 29 24: Part F

71: BBF SAFETY GROUP (PTY) LTD

#### **54: SPREADER FOR A SAFETY HARNESS**

57: The features of the design for which protection is sought reside in the shape and/or pattern and/or configuration of a spreader for a safety harness, substantially as illustrated in the accompanying representations, wherein the specific wording and numbers provided on surfaces (A) and (B) of the spreader are included mainly for illustrative purposes and do not form an essential part of the design.

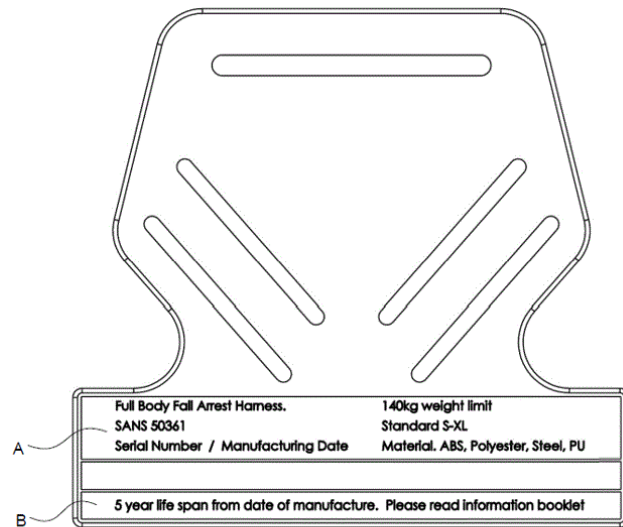


Figure 1

Front view

21: F2020/01054 22: 2020-07-31 23:

43: 2020-07-31

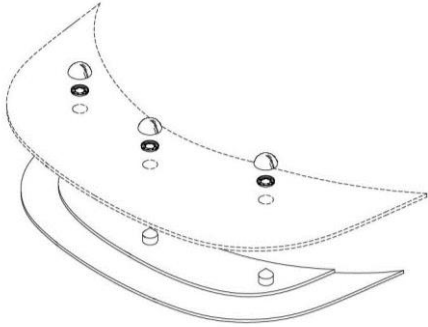
52: Class 2 24: Part F

71: WILL, Edward Henry

#### **54: Headwear and Headwear Accessories**

57: The design is in respect of an accessory for an article of headwear and an article of headwear incorporating the accessory. More particularly, the accessory is in the form of a peak clip which includes a generally crescent-shaped body which is connectable to an under surface of a peak or visor of an article of headwear. The peak clip includes a generally crescent-shaped body having an operatively upper surface and an operatively lower surface. A plurality of spaced apart protuberances protrude upwardly from the upwardly upper surface of the body. Each protuberance has a tapered free end to facilitate insertion of the protuberances through the peak of an article of headwear. The design extends to retaining clips which are insertable over the protruding end portions of the

protuberances to retain the peak clip in position on a peak of an article of headwear. The design extends further to a domed cover which is mountable over the protruding end portion of the protuberance as well as the retaining element.



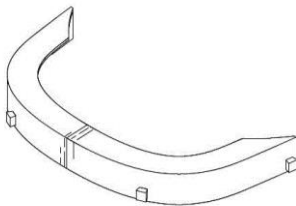
21: F2020/01056 22: 2020-07-31 23:  
43: 2020-07-31

52: Class 2 24: Part F

71: WILL, Edward Henry

**54: Headwear and Headwear Accessories**

57: The design is in respect of an accessory for an article of headwear, in particular for a face shield connector whereby a face shield is connectable to an article of headwear. The accessory includes a generally U-shaped front panel having an operatively front surface and an opposed operatively rear surface. A peripheral lip protrudes rearwardly from an upper edge of the front panel. A plurality of spaced apart connecting formations protrude from the front face of the front panel. A face shield having complementary connecting formations is connectable to the front panel. The lip is receivable in a complementary recess provided on an article of headwear in order to secure the lip to the headwear, thereby connecting a face shield to the article of headwear.



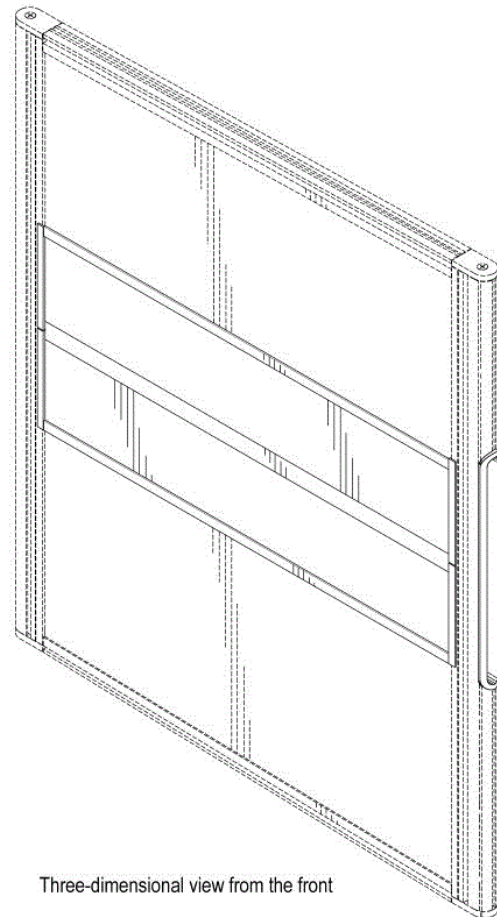
21: F2020/01294 22: 2020-09-28 23:  
43: 2020-09-28

52: Class 6 24: Part F

71: Gailtrade Group CC

**54: SCREENS**

57: The design relates to a screen or panel used in particular for office furniture as a partition between workspaces. The screen includes a pair of parallel, adjacent, transversely extending ducts or cable trays which define internal passageways for conveying power and/or data cables through the screen from one side to the other. In opposing sides of the screen there is provided a longitudinally extending grommet which lines an opening in an upright. Each grommet has rounded corners and defines an oblong opening which is in register with the passageways of the respective ducts. Ends of the ducts are closed off by end pieces or caps which straddle the uprights of the screen and define a smaller oblong opening which is aligned with that of the grommet.



Three-dimensional view from the front

21: F2020/01296 22: 2020-09-28 23:  
43: 2020-09-28

52: Class 25 24: Part F

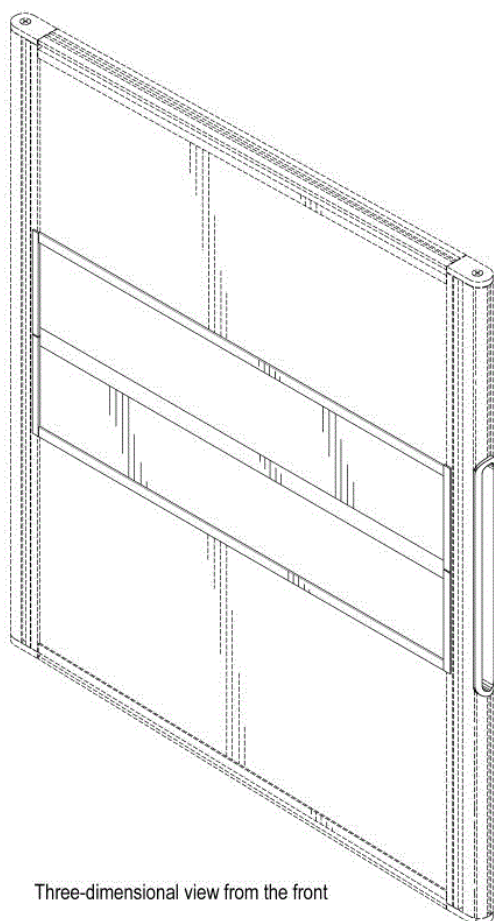
71: Gailtrade Group CC

**54: SCREENS**

57: The design relates to a screen or panel used in particular for office furniture as a partition between



workspaces. The screen includes a pair of parallel, adjacent, transversely extending ducts or cable trays which define internal passageways for conveying power and/or data cables through the screen from one side to the other. In opposing sides of the screen there is provided a longitudinally extending grommet which lines an opening in an upright. Each grommet has rounded corners and defines an oblong opening which is in register with the passageways of the respective ducts. Ends of the ducts are closed off by end pieces or caps which straddle the uprights of the screen and define a smaller oblong opening which is aligned with that of the grommet.



Three-dimensional view from the front

representations, wherein Figures 8 and 9 serve as non-limiting examples and the strap and fishing rod partially shown in Figures 8 and 9 do not form part of the design.

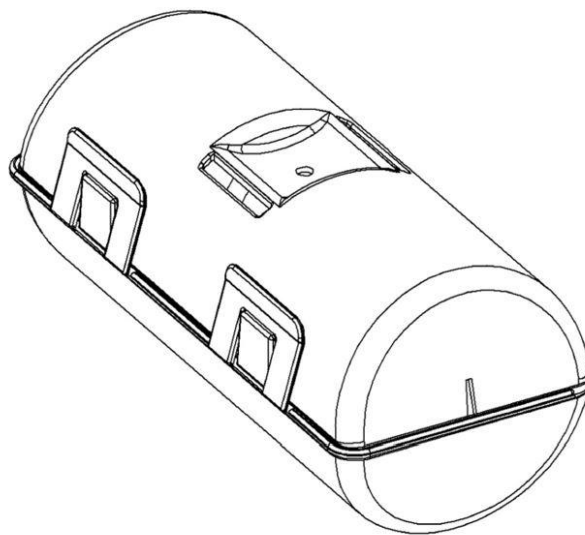


Figure 1

First perspective view of the tackle holder

21: F2020/01436 22: 2020-11-06 23:

43: 2020-11-06

52: Class 9 24: Part F

71: CONTROL CHEMICALS (PTY) LTD

#### **54: FLOATING CHEMICAL DISPENSING CONTAINERS**

57: The design is for a floating chemical dispensing container comprising a float portion, for providing buoyancy in use, and an apertured chemical container portion, for containing soluble chemicals in use, wherein respective sets of circumferentially spaced slots are defined in sidewalls of the container portion at longitudinally spaced locations.

21: F2020/01358 22: 2020-10-13 23:

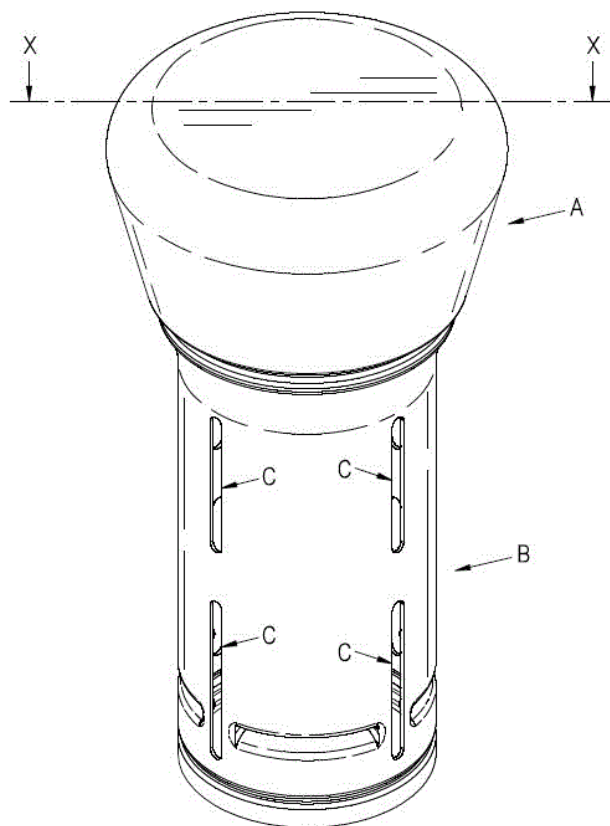
43: 2022-02-10

52: Class 22 24: Part F

71: JACOBUS NICOLAAS KRITZINGER

#### **54: TACKLE HOLDERS FOR FISHING RODS**

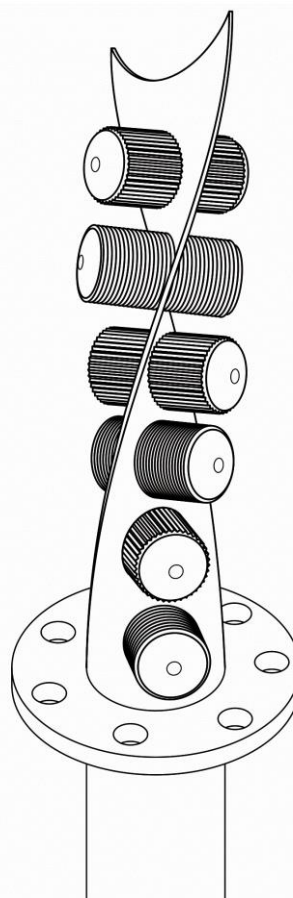
57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or ornamentation of a tackle holder substantially as illustrated in Figures 1 to 7 of the accompanying



21: F2020/01478 22: 2020-11-17 23:  
43: 2022-02-18  
52: Class 23 24: Part F  
71: Parahsakthy Power Technologies Private  
Limited

**54: FLUID DISTRIBUTION EQUIPMENT**

57: The design relates to a FLUID DISTRIBUTION EQUIPMENT. The features of the design are those of shape and/or pattern and/or configuration.



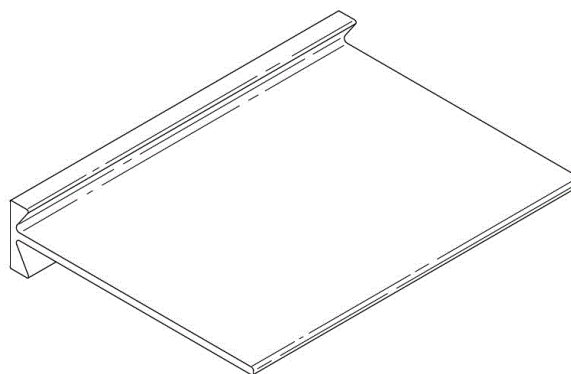
21: F2020/01655 22: 2020-12-21 23:  
43: 2020-12-21

52: Class 25 24: Part F

71: Alco Exotic Green Building Products CC

**54: TRIMS FOR FLOORING OR CARPETING**

57: The design is for a trim for flooring or carpeting, substantially as illustrated in the accompanying representations.



21: F2020/01703 22: 2020-12-23 23:  
43: 2020-12-23

52: Class 7 24: Part F

71: ZHEUNG, Gordon

**54: LID**

57: The design is applied to a lid of a porridge cooker. The features of the design for which protection is claimed include the shape and/or configuration of a lid substantially as shown in the accompanying representations.



Three-dimensional view

21: F2020/01705 22: 2020-12-23 23:

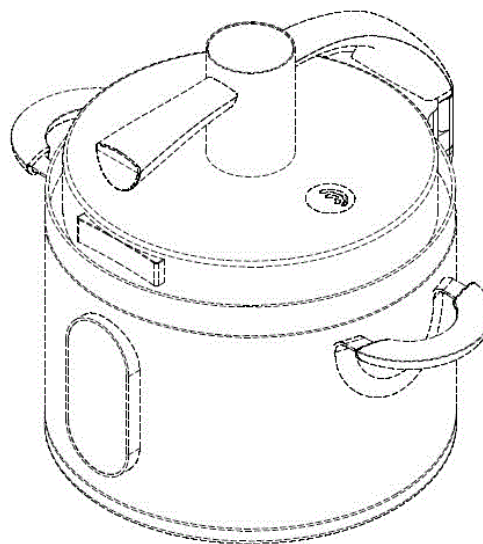
43: 2020-12-23

52: Class 13 24: Part F

71: ZHEUNG, Gordon

**54: ELECTRICAL CONNECTOR**

57: The design is applied to an electrical connector. The features of the design for which protection is claimed include the shape and/or configuration of an electrical connector substantially as shown in the accompanying representations



Three-dimensional view

21: F2021/00025 22: 2021-01-14 23:

43: 2020-07-15

52: Class 23 24: Part F

71: Spraying Systems Co.

33: US 31: 29/741,676 32: 2020-07-15

**54: SPRAY NOZZLES**

57: The design is for a spray nozzle, in particular a spray tip for a spray nozzle, comprising a circular flange including a disc-shaped member defining a centrally positioned circular pre-orifice. A pair of generally trapezium-shaped members project upwardly from an upper surface of the flange, surrounding the orifice and with side walls of the members curving inwardly. A rectangular member with a convexly curved bottom end protrudes downwardly from a bottom surface of the flange. A pair of opposing side walls of the rectangular member protrude outwardly and extend downwardly from a rectangular upper portion to a narrower elongate lower portion with a downwardly projecting curved end. A pair of offset elongate orifices is defined in between the curved ends of the side walls and the convexly curved bottom end.

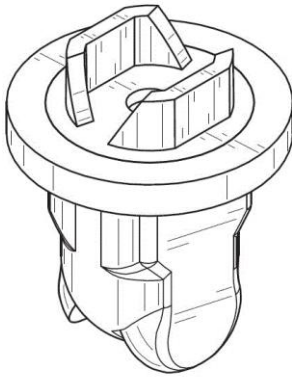


Figure 1

Three-dimensional view

21: F2021/00172 22: 2021-02-23 23:  
43: 2022-02-10  
52: Class 09 24: Part F  
71: CORRUSEAL GROUP (PTY) LTD

**54: CONTAINERS**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or pattern of a container substantially as illustrated in the accompanying representations, irrespective of the exact length and width of the container as indicated by the break lines in the representations, wherein the number, shape and dimensions of holes in the container's walls may be varied, and wherein the handle formations shown in broken lines in Figures 14, 15, 16, 20, 21, 22 and 26 are optional features of the design.

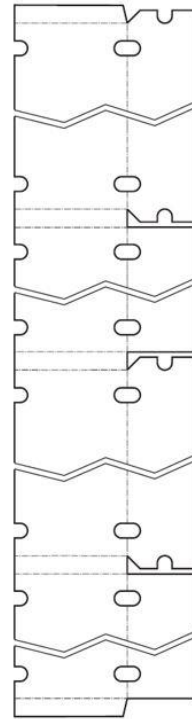


Figure 1

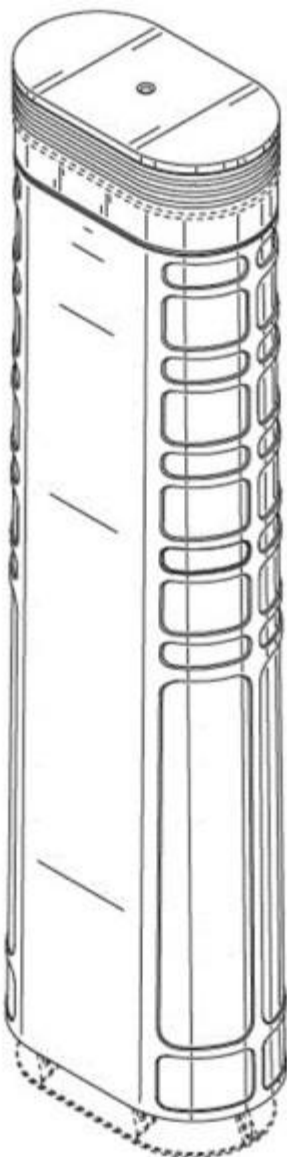
Plan view of a blank for a first container

21: F2021/00226 22: 2021-03-05 23:  
43: 2022-02-03  
52: Class 24 24: Part F  
71: EMERGENT PRODUCT DEVELOPMENT  
GAITHERSBURG INC.  
33: US 31: 29/749,693 32: 2020-09-08

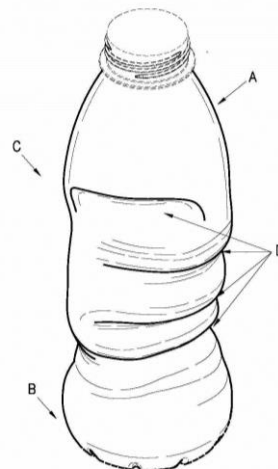
**54: AUTOINJECTOR**

57: The design for which protection is claimed relates to an autoinjector shown in perspective top front view in the drawing showing the overall appearance thereof.





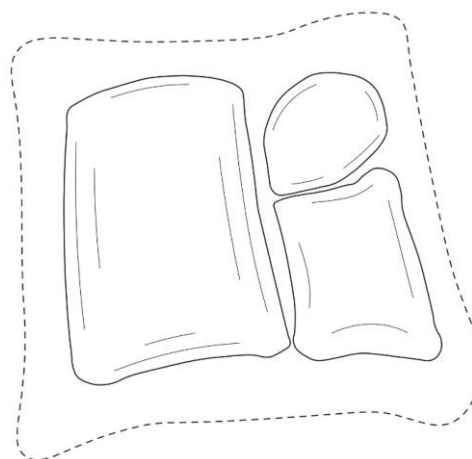
hand of the person in said single groove thereby to facilitate ease of handling of the bottle, in use. The bottle defines a generally V-shaped zone configured to locate between the thumb and index finger of a user, in use.



21: F2021/00316 22: 2021-03-26 23:  
43: 2022-03-10  
52: Class 09 24: Part F  
71: Yuyao Delpack Commodity Co., Ltd  
33: CN 31: 202030583227.X 32: 2020-09-28

#### **54: DETERGENT POD**

57: The features of the design for which novelty is claimed are the shape and / or configuration of a DETERGENT POD as shown in the accompanying representations.



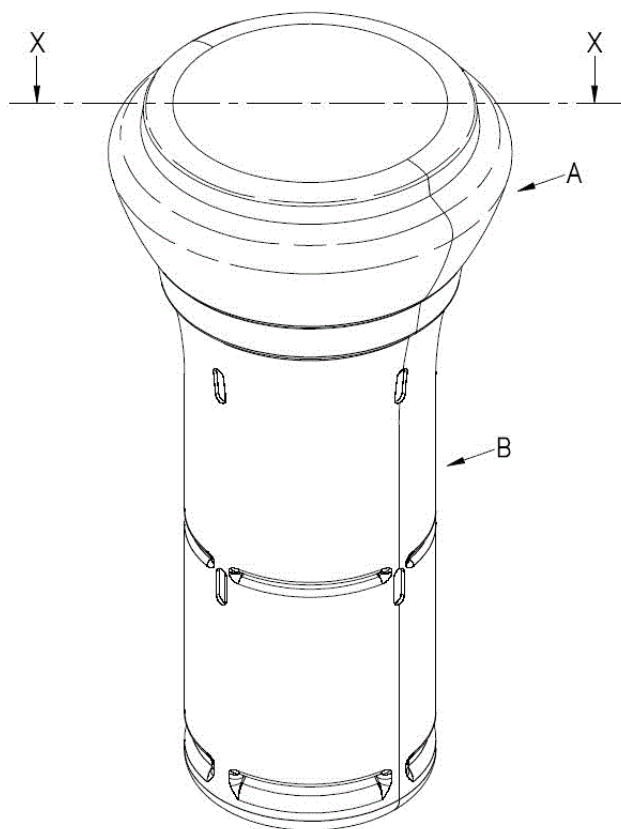
21: F2021/00252 22: 2021-03-11 23:  
43: 2021-03-11  
52: Class 9 24: Part F  
71: CREDSCAN (PROPRIETARY) LIMITED  
**54: Bottles**

57: The design is for a bottle configured to be held by a right hand of a person, a bottle for a left hand being a negative/mirror of the bottle represented. The bottle comprises a hollow body having bottleneck and base portions spaced by an integral waist portion. The waist portion is configured to be held by a right hand of the person and comprises a plurality of angularly disposed parallel grooves on one side of the bottle for receiving fingers of the right hand of a person, in use. The bottle further comprises a single groove, larger than each of the parallel grooves, for receiving a thumb of the right

21: F2021/00373 22: 2021-04-09 23:  
43: 2020-11-06  
52: Class 9 24: Not Applicable  
71: CONTROL CHEMICALS (PTY) LTD  
33: ZA 31: F2020/01437 32: 2020-11-06

**54: FLOATING CHEMICAL DISPENSING CONTAINERS**

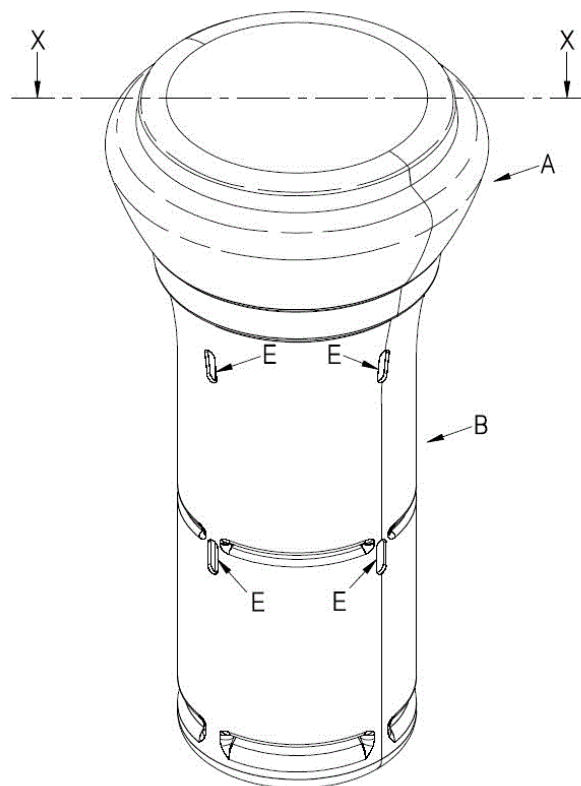
57: The design is for a floating chemical dispensing container comprising a float portion, for providing buoyancy in use, and an apertured chemical container portion, for containing soluble chemicals in use.



21: F2021/00374 22: 2021-04-09 23:  
43: 2020-11-06  
52: Class 9 24: Not Applicable  
71: CONTROL CHEMICALS (PTY) LTD  
33: ZA 31: F2020/01438 32: 2020-11-06

**54: FLOATING CHEMICAL DISPENSING CONTAINERS**

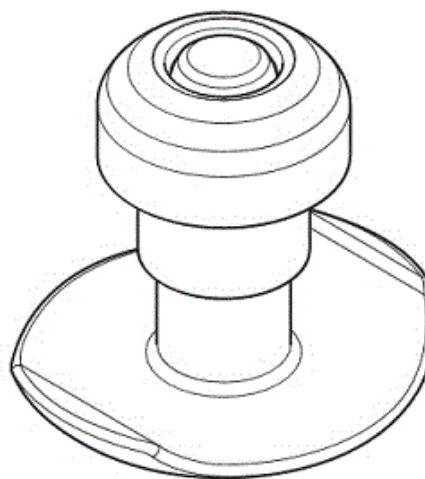
57: The design is for a floating chemical dispensing container comprising a float portion, for providing buoyancy in use, and an apertured chemical container portion, for containing soluble chemicals in use.



21: F2021/00387 22: 2021-04-14 23:  
43: 2022-02-03  
52: Class 2. 24: Part F  
71: EUREKA INNOVATIONS (PTY) LTD.

**54: Connector for a Clip-on Shoe Lace**

57: The design relates to a connector for a clip-on shoe lace. The features of the design are those of shape and/or configuration.



**TOP PERSPECTIVE VIEW OF  
ASSEMBLED CONNECTOR**

21: F2021/00389 22: 2021-04-15 23:

43: 2022-03-03

52: Class 23 24: Part F

71: ERGOFLEX 353 CC

**54: SANITARY ARTICLE DISPENSER**

57: The design is for a sanitary article dispenser with a cylindrical magazine that is driven by a token-activated manual feed mechanism to rotate and dispense individual sanitary articles under gravity.



21: F2021/00406 22: 2021-04-19 23:

43: 2022-02-03

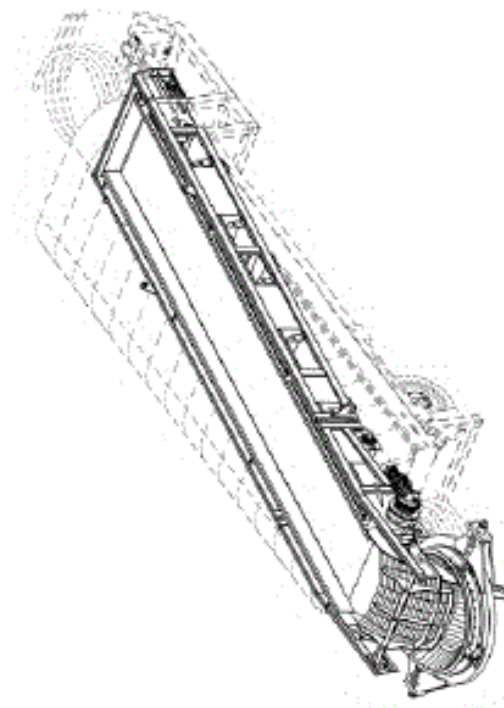
52: Class 12 24: Part F

71: UNDERGROUND EXTRACTION  
TECHNOLOGIES PTY LTD

33: AU 31: 202015799 32: 2020-10-22

**54: MINING CONVEYOR CAR**

57: The mining conveyor car in accordance with the design is shown in top right front perspective view showing the overall appearance thereof.



21: F2021/00436 22: 2021-04-23 23:

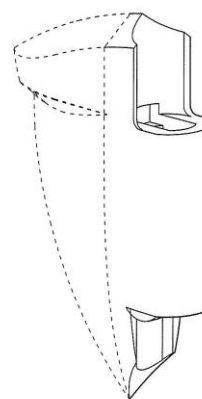
43: 2022-02-03

52: Class 8 24: Part F

71: BRICK MANAGEMENT AND  
MANUFACTURING SUPPLIES (PTY) LTD

**54: BLADE**

57: The design relates to a blade. The features of the design are those of shape and/or configuration and/or pattern.

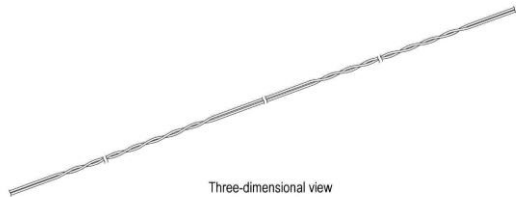


REAR PERSPECTIVE VIEW  
FROM ABOVE

21: F2021/00457 22: 2021-04-29 23:  
43: 2021-04-29  
52: Class 13 24: Part F  
71: QuantumX (Pty) Ltd.

#### **54: UNSHEATHED OR UNJACKETED TWISTED PAIR CABLES**

57: The design is for an unsheathed or unjacketed twisted pair cable having repeated regions of twisted-together insulated wires separated by repeated regions of untwisted insulated wires.



21: F2021/00459 22: 2021-04-29 23:  
43: 2022-02-10  
52: Class 12 24: Part F  
71: ROCK SOLID INDUSTRIES INTERNATIONAL (PTY) LTD

#### **54: SEALING ELEMENT FOR A VEHICLE CANOPY**

57: The features of the design for which protection is claimed reside in the shape and/or configuration and/or pattern of a sealing element for a vehicle canopy substantially as illustrated in the accompanying representations, wherein the length of the sealing element can be varied as indicated by the break lines in Figures 5 to 8.

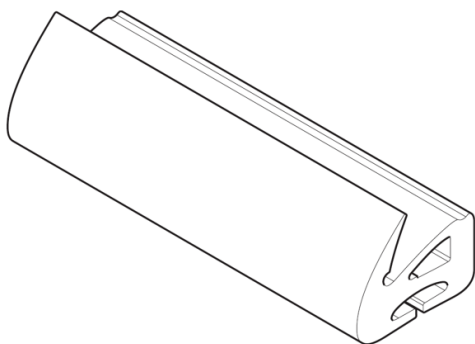
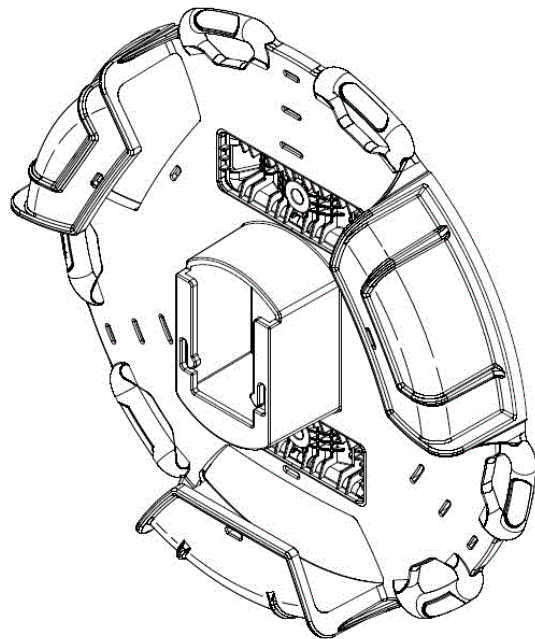


Figure 1  
Front perspective view

21: F2021/00468 22: 2021-05-03 23:  
43: 2021-05-03  
52: Class 25 24: Part F  
71: PIMMS GROUP (PTY) LTD.

#### **54: CABLE SLACK STORAGE BRACKETS FOR CABLE FIXING SYSTEMS**

57: The design is for a cable slack storage bracket which forms part of a cable fixation system. The bracket can be fixed to a utility pole using mechanical fasteners (straps or screws). The bracket defines six circumferentially spaced mounting points which are D-Ring type points to enable the bracket to function as a suspension bracket for dead-end or tangent supports. The bracket defines a raised, central sliding connector to receive a mounting plate (illustrated in the last figure). The bracket has three circumferentially spaced arcuate locating members; excess or slack cable may be coiled around the central connector and is located between the locating members.



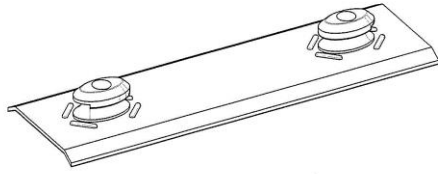
Three-dimensional view from top

21: F2021/00557 22: 2021-05-24 23:  
43: 2022-02-03  
52: Class 8 24: Part F  
71: MULTOTEC MANUFACTURING (PTY) LIMITED

#### **54: SCREEN PANEL FASTENER**

57: The design relates to a screen panel fastener. The features of the design are those of shape and/or configuration and/or pattern.





TOP PERSPECTIVE VIEW

21: F2021/00559 22: 2021-05-24 23:

43: 2021-05-24

52: Class 25 24: Part F

71: Aymam CC

**54: Fascia Boards**

57: The design is for a fascia board having a generally planar body comprising a pair of substantially parallel outer panels attached at ends thereof, and a plurality of spaced apart ribs obliquely extending between the outer panels. The fascia board comprises an elongate main portion extending along a first axis and a smaller end portion extending from one end of the main portion along a second axis which is oblique to the first axis. Adjacent ribs are non-parallel and are provided in an opposing fashion such that adjacent ribs and the outer panels resemble an isosceles trapezoid in a majority of the main portion.

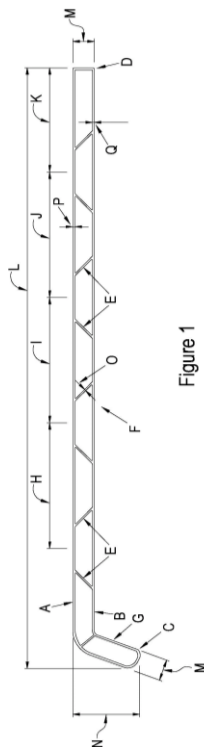


Figure 1

21: F2021/00560 22: 2021-05-24 23:

43: 2021-05-24

52: Class 25 24: Part F

71: Aymam CC

**54: Barge Boards**

57: The design is for a barge board having a generally planar body comprising a pair of substantially parallel outer panels attached at ends thereof, and a plurality of spaced apart ribs obliquely extending between the outer panels. The barge board comprises an elongate main portion extending along a first axis, a small first end portion extending from one end of the main portion along a second axis which is perpendicular to the first axis, and a smaller second end portion extending from an opposite end of the main portion along a third axis which is oblique to the first axis. Adjacent ribs are non-parallel and are provided in an opposing fashion such that adjacent ribs and the outer panels resemble an isosceles trapezoid in a majority of the main portion.

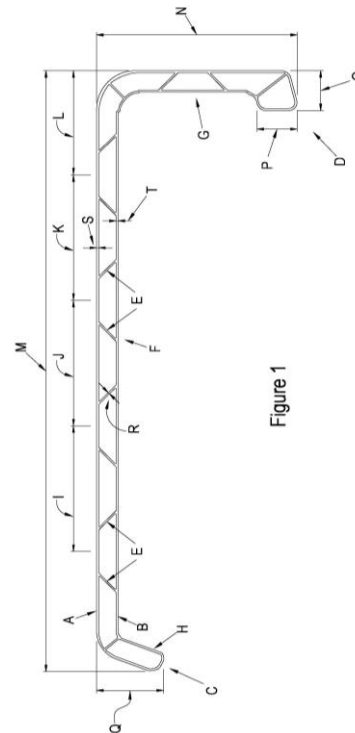


Figure 1

21: F2021/00585 22: 2021-05-25 23:

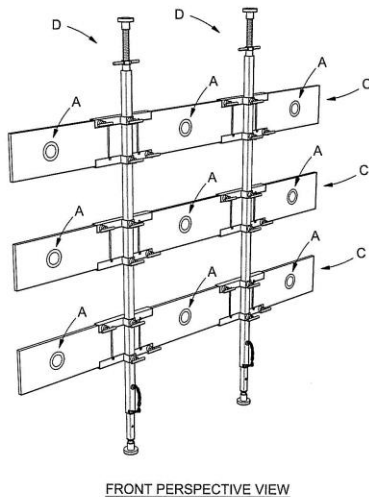
43: 2022-02-03

52: Class 8 24: Part F

71: RAUTENBACH, James Jackson, VAN ANTWERP, Cornelius Marthinus

**54: SHOT HOLE DRILLING GUIDE**

57: The design relates to a shot hole drilling guide. The features of the design are those of shape and/or configuration and/or pattern.



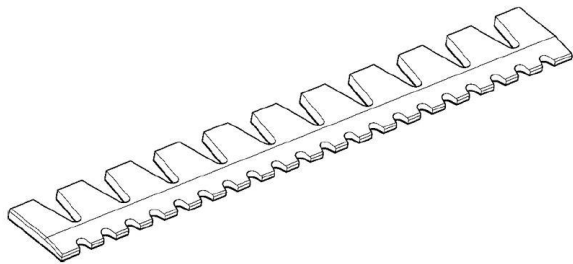
FRONT PERSPECTIVE VIEW

21: F2021/00588 22: 2021-05-25 23:  
43: 2022-02-17

52: Class 12 24: Part F  
71: PADDY's PAD 1201 CC

**54: VEHICLE ACCESSORY**

57: The design is applied to a vehicle accessory. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the vehicle accessory, substantially as illustrated in the accompanying representation. Contour lines are provided to indicate the contours but do not form part of the design and are disclaimed. The overall length of the vehicle accessory is variable.



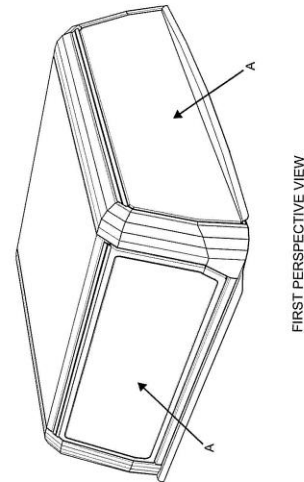
21: F2021/00605 22: 2021-05-28 23:  
43: 2022-02-03

52: Class 12 24: Part F  
71: RHINO OUTDOOR AND OFFROAD (PTY) LTD

**54: A VEHICLE CANOPY**

57: The features of the design for which protection is claimed include the shape and/or pattern and/or configuration of a vehicle canopy, substantially as illustrated in the accompanying representations. The

components marked A do not form part of the design.



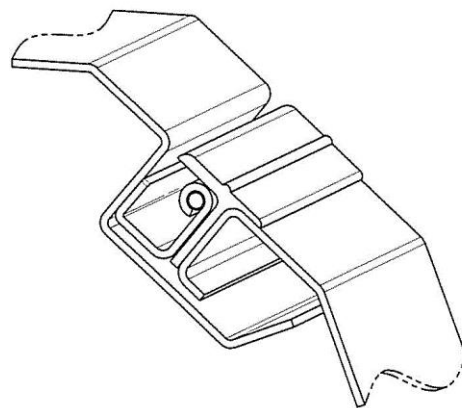
21: F2021/00607 22: 2021-05-28 23:  
43: 2022-02-03

52: Class 12 24: Part F

71: RHINO OUTDOOR AND OFFROAD (PTY) LTD

**54: A CANOPY FRAME AND PANEL ASSEMBLY**

57: The features of the design for which protection is claimed include the shape and/or pattern and/or configuration of a profile of a canopy frame and panel assembly, substantially as illustrated in the accompanying representations. The components in broken lines are for illustrative purposes only and do not form part of the design.



FIRST PERSPECTIVE VIEW

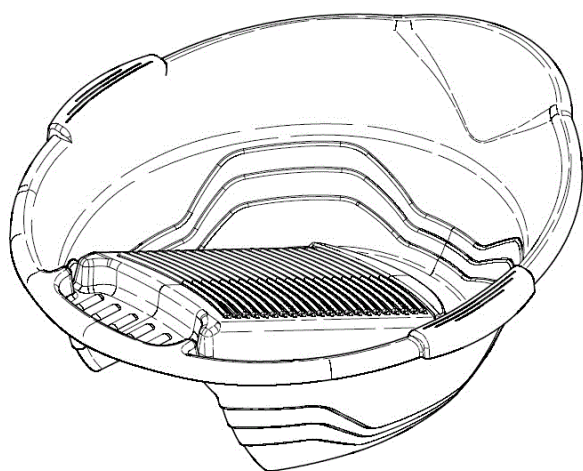
21: F2021/00613 22: 2021-05-28 23:  
43: 2021-04-01

52: Class 7 24: Part F

71: Darsim Tool & Die CC

**54: BASINS**

57: The design relates to a washbasin in the form of a portable household receptacle. The washbasin has a roughly oval outline when seen in top/bottom view. The basin has a roughly C-shaped base and a sidewall which diverges from the base upward. A downwardly depending peripheral lip is joined to an uppermost, outer periphery of the sidewall. The sidewall rises in height toward one end forming a pouring spout, whilst the opposite end is lower and defines an oblong recess for receiving soap. A washboard is defined by a raised, slanted surface which extends from the lower end to the base and includes a plurality of laterally extending curved ridges. The sidewall further includes a series of three vertically spaced apart, undulating ridges which gives rise to a three-staged stepped profile of the sidewall. The undulations of the ridges coincide, and each resembles a step or ramp waveform.



21: F2021/00642 22: 2021-06-03 23:  
43: 2022-02-03

52: Class 9 24: Part F

71: FRONT RUNNER RACKS 2000 (PTY) LTD

**54: RESTRAINTS FOR BOX CONTAINERS TO BE TRANSPORTED ON A ROOF RACK**

57: The design relates to a Restraint for a Box Container to be Transported on a Roof Rack.

Protection is claimed for the features of shape and/or configuration of a restraint for a box container to be transported on a roof rack as shown in the accompanying representations. The design does not include the box and does not include the bolts for slotting into a T-Slot.



21: F2021/00651 22: 2021-06-04 23:

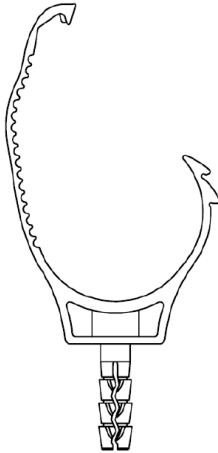
43: 2022-02-03

52: Class 08 24: Part F

71: MOULDMAN DESIGN & DISTRIBUTION (PTY) LTD

**54: BRACKET FOR A PIPE**

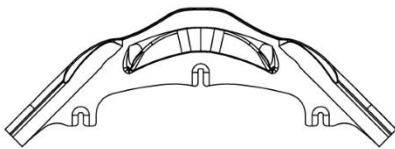
57: The novelty in the design as applied to a bracket for fastening a pipe to a support structure (commonly known as a holderbat), resides in the shape and/or configuration of the bracket substantially as shown in the accompanying drawings, it being a definitive feature of the design that the bracket is of a single piece construction.



21: F2021/00657 22: 2021-06-04 23:  
43: 2022-02-03  
52: Class 08 24: Part F  
71: MOULDMAN DESIGN & DISTRIBUTION (PTY)  
LTD

**54: A PIPE BEND**

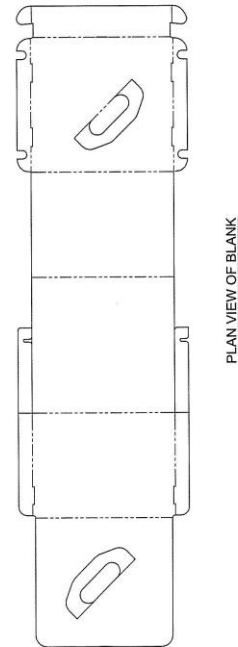
57: The novelty in the design as applied to a pipe bend for supporting a pipe in a bent configuration, (commonly referred to as a cold forming bend) resides in the shape and/or configuration of the bracket substantially as shown in the accompanying drawings.



21: F2021/00665 22: 2021-06-07 23:  
43: 2022-02-03  
52: Class 9 24: Part F  
71: FAMOUS BRANDS MANAGEMENT COMPANY  
(PTY) LTD

**54: A BLANK FOR A BOX**

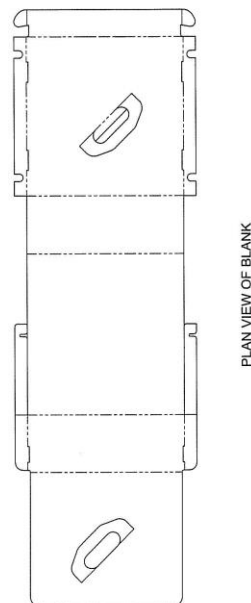
57: The design relates to a blank for a box. The features of the design are those of shape and/or configuration.



21: F2021/00666 22: 2021-06-07 23:  
43: 2022-02-03  
52: Class 9 24: Part F  
71: FAMOUS BRANDS MANAGEMENT COMPANY  
(PTY) LTD

**54: A BLANK FOR A BOX**

57: The design relates to a blank for a box. The features of the design are those of shape and/or configuration.



21: F2021/00669 22: 2021-06-08 23:



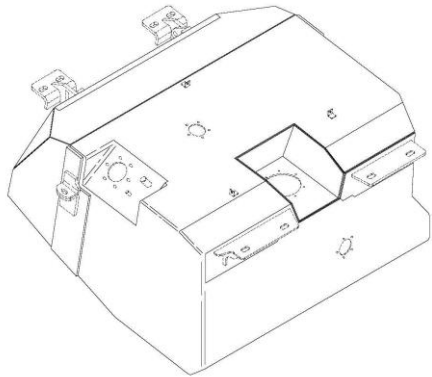
43: 2021-06-08

52: Class 12 24: Part F

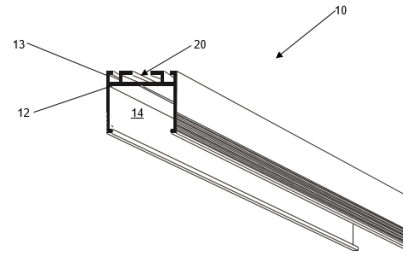
71: WR OFF ROAD INDUSTRIES PROPRIETARY LIMITED

**54: Fuel tanks for vehicles**

57: The design is for a fuel tank for a vehicle, and in particular for Series 70, more particularly Series 79 Toyota Land Cruiser vehicles. In this brief statement all features are described relative to a mounted, operative position of the tank in a vehicle parked level. The tank has vertical side and front walls, whereas a rear wall of the tank is forwardly upwardly slanted. A bottom of the tank is rearwardly upwardly slanted, comprising two sections arranged at different angles to the horizontal. A bottom front edge of the tank is chamfered. A roof of the tank comprises three sections arranged at different angles to the horizontal. Upper rear corners of the tank are chamfered, whereas a front right edge of the tank is chamfered in two different planes. A chamfered roughly central portion of an upper left edge of the tank defines various ports, a recess defining a port is provided roughly centrally in an upper front edge of the tank, and various mounting brackets are provided.



Three-dimensional view



21: F2021/00778 22: 2021-07-05 23:

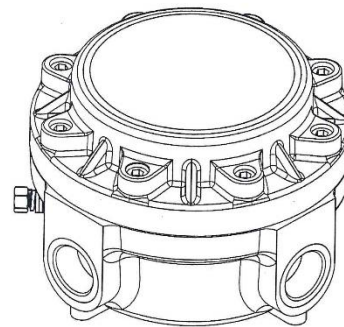
43: 2022-02-17

52: Class 13 24: Part F

71: PRATLEY INVESTMENTS (PTY) LTD

**54: JUNCTION BOX (1)**

57: The novelty of the design resides in the shape or configuration of a junction box substantially as shown in the accompanying drawing



21: F2021/00779 22: 2021-07-05 23:

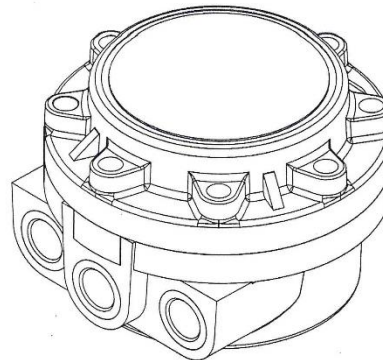
43: 2022-02-17

52: Class 13 24: Part F

71: PRATLEY INVESTMENTS (PTY) LTD

**54: JUNCTION BOX (2)**

57: The novelty of the design resides in the shape or configuration of a junction box substantially as shown in the accompanying drawing.



21: F2021/00756 22: 2021-06-28 23:

43: 2022-02-03

52: Class 08 24: Part F

71: CAPCO (PTY) LTD

**54: A LIGHT TROUGH**

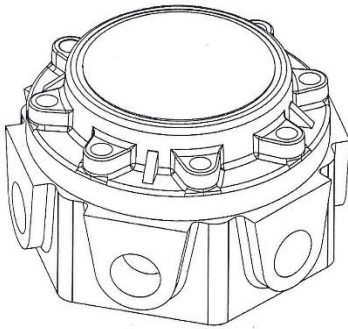
57: The novelty in the design as applied to a light trough resides in the shape and/or configuration of the light trough substantially as shown in the accompanying drawings. It being a defining feature of the design that the light trough comprises a recessed groove for receiving the heads of a plurality of fixing anchors, such that the heads of the fixing anchors are recessed in relation to a light strip.

21: F2021/00780 22: 2021-07-05 23:

43: 2022-02-17

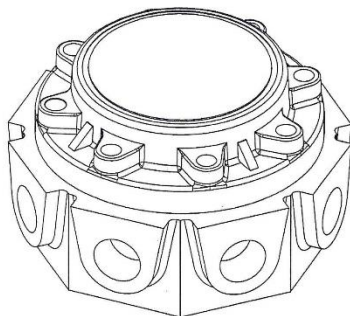
52: Class 13 24: Part F  
 71: PRATLEY INVESTMENTS (PTY) LTD  
**54: JUNCTION BOX (3)**

57: The novelty of the design resides in the shape or configuration of a junction box substantially as shown in the accompanying drawing.



21: F2021/00781 22: 2021-07-05 23:  
 43: 2022-02-17  
 52: Class 13 24: Part F  
 71: PRATLEY INVESTMENTS (PTY) LTD  
**54: JUNCTION BOX (4)**

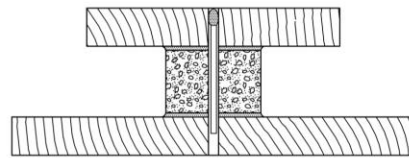
57: The novelty of the design resides in the shape or configuration of a junction box substantially as shown in the accompanying drawing.



21: F2021/00785 22: 2021-07-06 23:  
 43: 2022-03-03  
 52: Class 23 24: Part F  
 71: PIETERSE, Roy Garth  
**54: FIRE STARTERS**

57: The design is for a fire starter for use in making a fire. The fire starter comprises a first wood component and a second wood component disposed on either side of a combustible material such that the combustible material is sandwiched between the wood components. To aid with igniting the combustible material, the fire starter further includes a match for starting the fire, which match is inserted within a channel formed within the wood components and the combustible material. In use, igniting the match forms a flame which flame travels

through the channel of the first wood component to ignite the combustible material such that combustible material in turn, ignites the wood components. The first wood component is smaller in shape and dimension to that of the second wood component with the wood components, combustible material and match glued together to form a single fire starter unit.



Cross-sectional side view of the fire starter

21: F2021/00789 22: 2021-07-06 23:  
 43: 2022-02-10  
 52: Class 09 24: Part F  
 71: TEQAL (PTY) LTD  
**54: CONTAINERS**

57: The features of the design for which protection is claimed reside in the shape and/or configuration of a container substantially as shown in the accompanying representations, wherein the design of the finish of the container, including the screw thread shown in the representations, is not an essential feature.

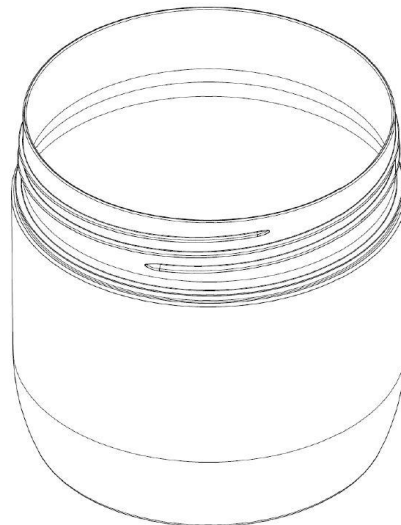
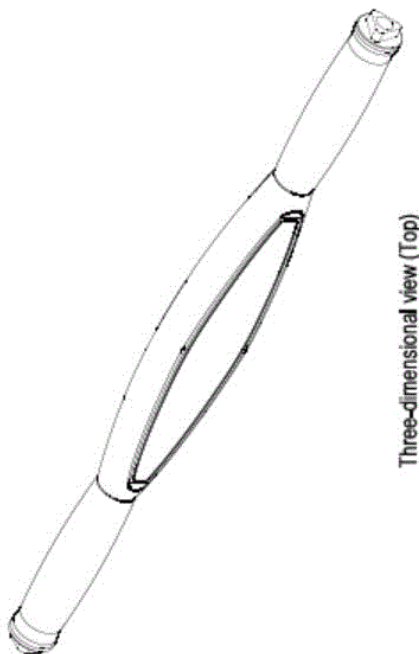


Figure 1  
 Perspective view

21: F2021/00793 22: 2021-07-08 23:  
 43: 2021-07-08  
 52: Class 12 24: Part F  
 71: SUPERCART SOUTH AFRICA (PTY) LTD

**54: TROLLEY HANDLE WITH INTEGRAL TAG HOLDER**

57: The design is applied to a trolley handle with an integral tag holder formed therein, the trolley handle being connectable between and across the top ends of spaced apart connecting posts that extend upwardly from a wheeled chassis of a trolley. With reference to the exploded view, the handle (H) comprises a central bridge between two end handgrips, with a lower/inner portion of the central bridge defining a cavity for accommodating a tag (T). In use, a cover (C) is provided to enclose the cavity with the tag (T) located therein. The dotted portions are disclaimed and do not form any part of the claimed design.



21: F2021/00795 22: 2021-07-08 23:

43: 2021-07-08

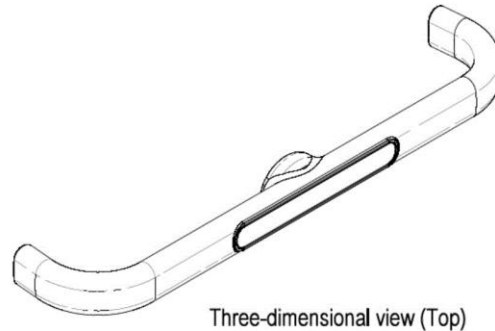
52: Class 12 24: Part F

71: SUPERCART SOUTH AFRICA (PTY) LTD

**54: TROLLEY HANDLE TAG HOLDER CLIP**

57: The design is applied to a tag holder clip for a trolley handle. The tag holder clip is a substantially U-shaped clip body in cross section to enable the clip body to be snugly clipped over and onto a trolley handle. The U-shaped body comprises a pair of side walls and an upper cover portion to abut against an upper surface of the handle. In an embodiment, the lower ends of the side walls of the U-shaped clip body curve inwardly, to enable the clip body to cover the side surfaces of the handle and partially around the bottom surface of the handle. With reference to the exploded views, the clip body (CB) includes a

central housing that defines a cavity, in the form of a slot, for accommodating a tag (T). In use, a cover (C) is provided to enclose the cavity with the tag (T) located therein. The dotted portions are disclaimed and do not form any part of the claimed design.



21: F2021/00799 22: 2021-07-09 23:

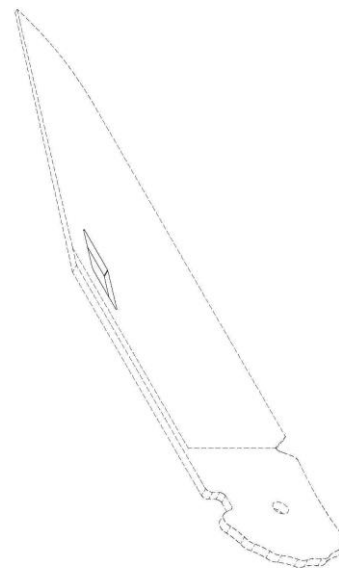
43: 2021-07-09

52: Class 8 24: Part F

71: VECTO TRADE 461 PROPRIETARY LIMITED

**54: KNIFE BLADES**

57: The design is for a knife blade, particularly a clip point blade for a folding knife or flip knife. The blade includes an elongate, parallelogram-shaped finger aperture located adjacent a spine of the blade, with an upper rear periphery of the finger aperture being parallel to a rear portion of the spine and an upper front periphery of the finger aperture being parallel to a front or clip portion of the spine.



21: F2021/00801 22: 2021-07-09 23:

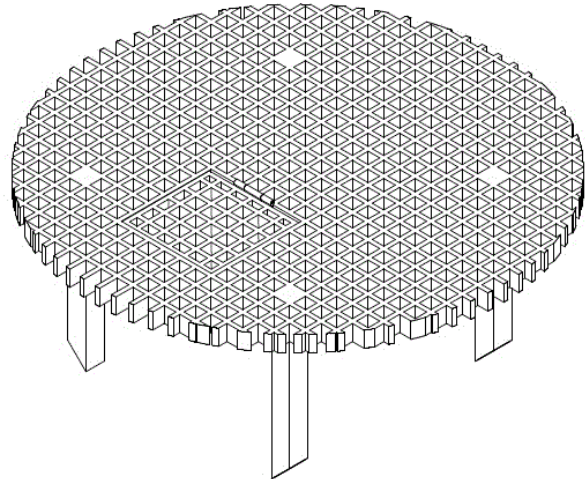
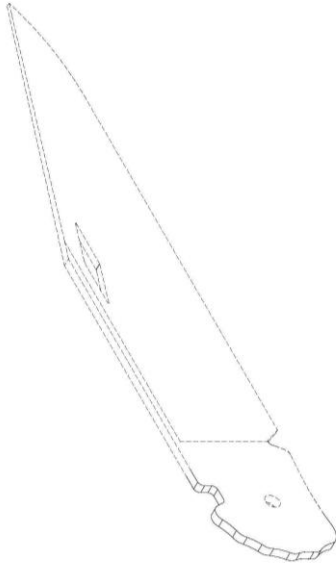
43: 2021-07-09

52: Class 8 24: Part F

71: VECTO TRADE 461 PROPRIETARY LIMITED

**54: KNIFE BLADES**

57: The design is for a knife blade, particularly a blade for a folding ratchet knife. The blade includes a ratcheted lobe defining six very short, rounded teeth and a locking recess.



21: F2021/00812 22: 2021-07-14 23:

43: 2022-02-17

52: Class 18. 24: Part F

71: TOMRA SORTING GMBH

33: EM 31: 008511521-0001 32: 2021-04-21

**54: Part of a Sorting Machine**

57: The design relates to a part of a sorting machine. The features of the design are those of shape and/or configuration.

21: F2021/00803 22: 2021-07-09 23:

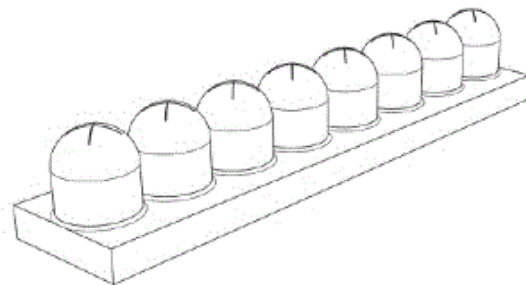
43: 2021-01-12

52: Class 23 24: Part F

71: Kgothalo Projects CC T/A Waterfix Services

**54: Manhole Accessory**

57: The design is in respect of a manhole accessory which includes a foraminous barrier member which is locatable in a manhole to inhibit the entry of foreign objects larger than a predetermined size through an access hole in a pipeline. The accessory further includes a support arrangement in the form of four spaced apart legs which depend from the barrier member and are configured to support the barrier member in a desired position relative to the access hole.



**TOP PERSPECTIVE VIEW**

21: F2021/00813 22: 2021-07-14 23:

43: 2022-02-17

52: Class 18. 24: Part F

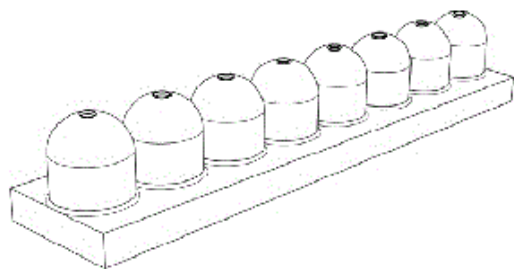
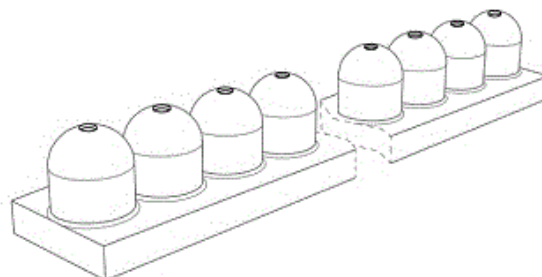
71: TOMRA SORTING GMBH

33: EM 31: 008511521-0002 32: 2021-04-21

**54: Part of a Sorting Machine**

57: The design relates to a part of a sorting machine. The features of the design are those of shape and/or configuration.



**TOP PERSPECTIVE VIEW****TOP PERSPECTIVE VIEW**

21: F2021/00814 22: 2021-07-14 23:  
43: 2022-02-17

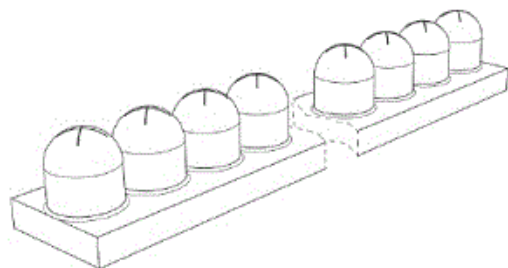
52: Class 18. 24: Part F

71: TOMRA SORTING GMBH

33: EM 31: 008511521-0003 32: 2021-04-21

**54: Part of a Sorting Machine**

57: The design relates to a part of a sorting machine. The features of the design are those of shape and/or configuration.

**TOP PERSPECTIVE VIEW**

21: F2021/00816 22: 2021-07-14 23:  
43: 2022-02-17

52: Class 18. 24: Part F

71: TOMRA SORTING GMBH

33: EM 31: 008511521-0004 32: 2021-04-21

**54: Part of a Sorting Machine**

57: The design relates to a part of a sorting machine. The features of the design are those of shape and/or configuration.

21: F2021/00817 22: 2021-07-14 23:  
43: 2022-02-17

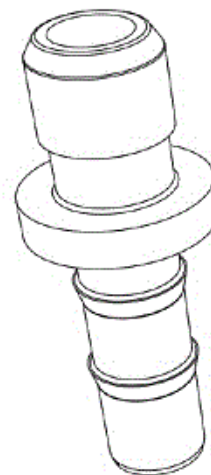
52: Class 18. 24: Part F

71: TOMRA SORTING GMBH

33: EM 31: 008511521-0005 32: 2021-04-21

**54: Part of a Sorting Machine**

57: The design relates to a part of a sorting machine. The features of the design are those of shape and/or configuration.

**TOP PERSPECTIVE VIEW**

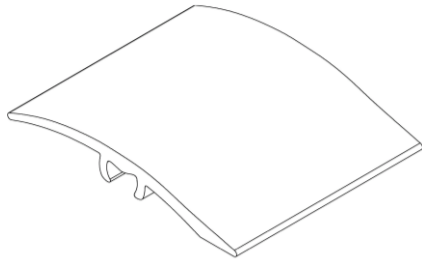
21: F2021/00823 22: 2021-07-15 23:  
43: 2021-07-15

52: Class 25 24: Part F

71: Alco Exotic Green Building Products CC

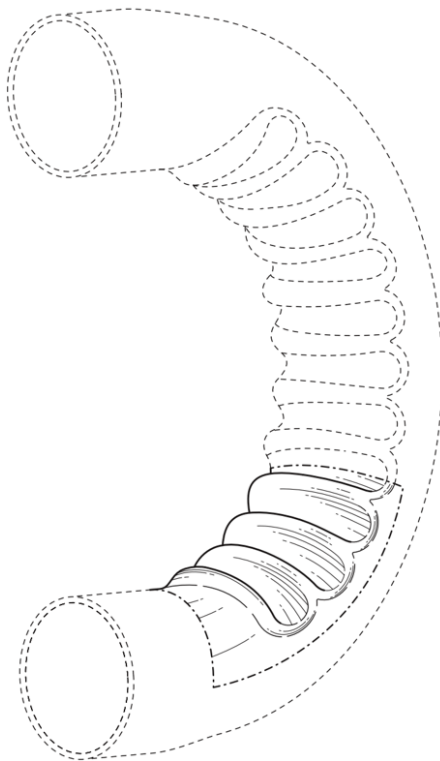
**54: TRIMS FOR FLOORING OR CARPETING**

57: The design is for a trim for flooring or carpeting, substantially as illustrated in the accompanying representations.



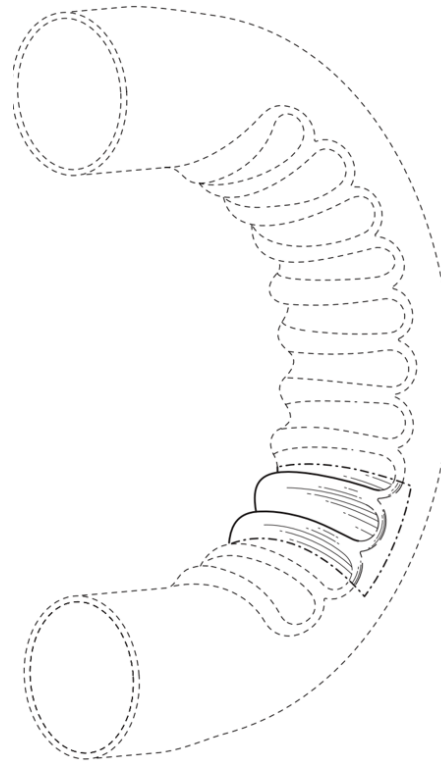
21: F2021/00824 22: 2021-07-16 23:  
43: 2022-02-18  
52: Class 23 24: Part F  
71: BALTIMORE AIRCOIL COMPANY, INC.  
33: US 31: 29/766,720 32: 2021-01-18  
**54: INDIRECT HEAT EXCHANGER TUBE  
CONTROLLED WRINKLE BEND**

57: The design is applied to an indirect heat exchanger tube controlled wrinkle bend. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the indirect heat exchanger tube controlled wrinkle bend, substantially as illustrated in the accompanying representation. Features shown in broken lines do not form part of the design and are disclaimed. Contour lines are provided to indicate the contours but do not form part of the design and are also disclaimed.



21: F2021/00825 22: 2021-07-16 23:  
43: 2022-02-18  
52: Class 23 24: Part F  
71: BALTIMORE AIRCOIL COMPANY, INC.  
33: US 31: 29/766,720 32: 2021-01-18  
**54: INDIRECT HEAT EXCHANGER TUBE  
CONTROLLED WRINKLE BEND**

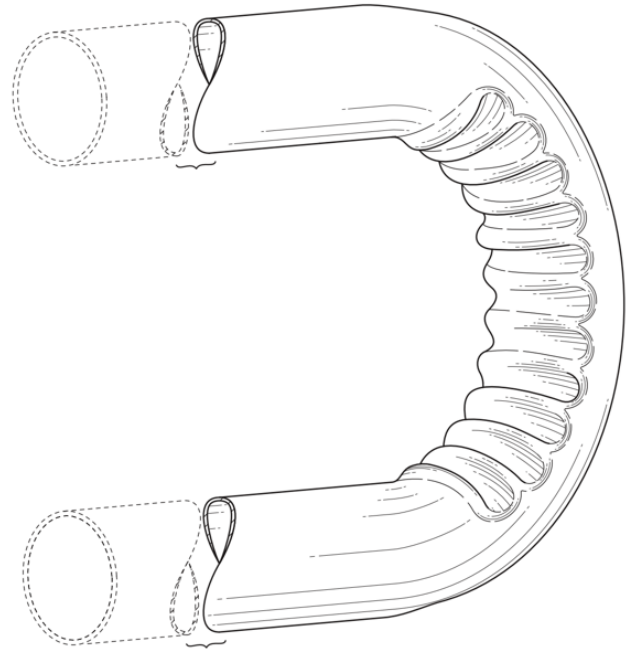
57: The design is applied to an indirect heat exchanger tube controlled wrinkle bend. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the indirect heat exchanger tube controlled wrinkle bend, substantially as illustrated in the accompanying representation. Features shown in broken lines do not form part of the design and are disclaimed. Contour lines are provided to indicate the contours but do not form part of the design and are also disclaimed.



21: F2021/00826 22: 2021-07-16 23:  
43: 2022-02-18  
52: Class 23 24: Part F  
71: BALTIMORE AIRCOIL COMPANY, INC.  
33: US 31: 29/766,720 32: 2021-01-18  
**54: INDIRECT HEAT EXCHANGER TUBE  
CONTROLLED WRINKLE BEND**

57: The design is applied to an indirect heat exchanger tube controlled wrinkle bend. The features of the design for which protection is claimed

are those of the shape and/or configuration and/or pattern of the indirect heat exchanger tube controlled wrinkle bend, substantially as illustrated in the accompanying representation. Features shown in broken lines do not form part of the design and are disclaimed. Contour lines are provided to indicate the contours but do not form part of the design and are also disclaimed. Separations depicted by break lines indicate an indeterminate length and any portions between the break lines do not form part of the design and are also disclaimed.



21: F2021/00827 22: 2021-07-16 23:  
43: 2022-02-18

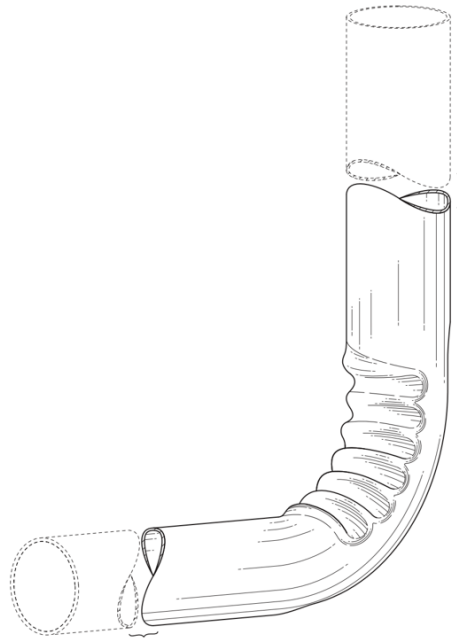
52: Class 23 24: Part F

71: BALTIMORE AIRCOIL COMPANY, INC.

33: US 31: 29/766,720 32: 2021-01-18

**54: INDIRECT HEAT EXCHANGER TUBE  
CONTROLLED WRINKLE BEND**

57: The design is applied to an indirect heat exchanger tube controlled wrinkle bend. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the indirect heat exchanger tube controlled wrinkle bend, substantially as illustrated in the accompanying representation. Features shown in broken lines do not form part of the design and are disclaimed. Contour lines are provided to indicate the contours but do not form part of the design and are also disclaimed. Separations depicted by break lines indicate an indeterminate length and any portions between the break lines do not form part of the design and are also disclaimed.



21: F2021/00828 22: 2021-07-16 23:

43: 2022-02-18

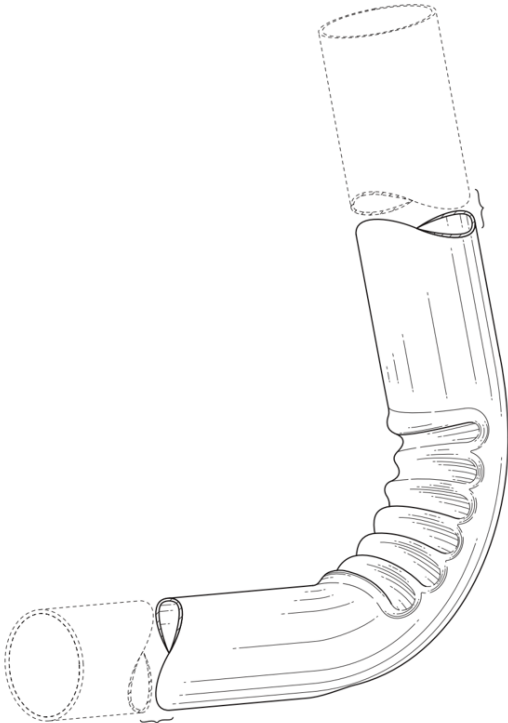
52: Class 23 24: Part F

71: BALTIMORE AIRCOIL COMPANY, INC.

33: US 31: 29/766,720 32: 2021-01-18

**54: INDIRECT HEAT EXCHANGER TUBE  
CONTROLLED WRINKLE BEND**

57: The design is applied to an indirect heat exchanger tube controlled wrinkle bend. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the indirect heat exchanger tube controlled wrinkle bend, substantially as illustrated in the accompanying representation. Features shown in broken lines do not form part of the design and are disclaimed. Contour lines are provided to indicate the contours but do not form part of the design and are also disclaimed. Separations depicted by break lines indicate an indeterminate length and any portions between the break lines do not form part of the design and are also disclaimed.



21: F2021/00829 22: 2021-07-16 23:  
43: 2022-03-03

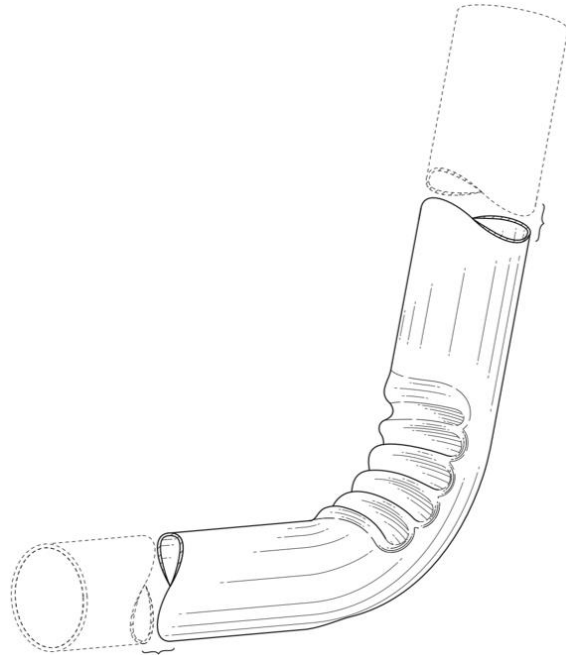
52: Class 23 24: Part F

71: BALTIMORE AIRCOIL COMPANY, INC.

33: US 31: 29/766,720 32: 2021-01-18

**54: INDIRECT HEAT EXCHANGER TUBE  
CONTROLLED WRINKLE BEND**

57: The design is applied to an indirect heat exchanger tube controlled wrinkle bend. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the indirect heat exchanger tube controlled wrinkle bend, substantially as illustrated in the accompanying representation. Features shown in broken lines do not form part of the design and are disclaimed. Contour lines are provided to indicate the contours but do not form part of the design and are also disclaimed. Separations depicted by break lines indicate an indeterminate length and any portions between the break lines do not form part of the design and are also disclaimed.



21: F2021/00860 22: 2021-07-23 23:  
43: 2021-07-23

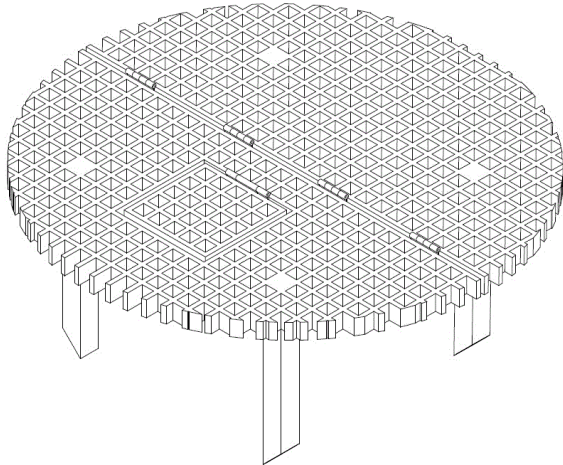
52: Class 23 24: Part F

71: Kgothalo Projects CC T/A Waterfix Services

**54: Manhole Accessory**

57: The design is in respect of a manhole accessory which includes a foraminous barrier member which is locatable in a manhole to inhibit the entry of foreign objects larger than a predetermined size through an access hole in a pipeline. The accessory further includes a support arrangement in the form of four spaced apart legs which depend from the barrier member and are configured to support the barrier member in a desired position relative to the access hole. The barrier member is displaceable between an erect condition and a collapsed condition to facilitate introduction of the manhole accessory into a manhole, the barrier member being releasably lockable in its erect condition.





21: F2021/00863 22: 2021-07-26 23:  
43: 2022-02-22

52: Class 12 24: Part F

71: ALU-CAB HOLDINGS (PTY) LTD

**54: VEHICLE ROOF WITH TENT**

57: The design is for a vehicle roof with tent that can be fitted on a vehicle, to be deployed from a stowed condition by pivoting a top cover upwards about a front edge.



21: F2021/00865 22: 2021-07-26 23:  
43: 2022-02-22

52: Class 12 24: Part F

71: ALU-CAB HOLDINGS (PTY) LTD

**54: STORAGE COMPARTMENT**

57: The design is for a storage compartment that is shaped and dimensioned to be fitted in an aperture provided for a vehicle window and to be opened from outside the vehicle.



21: F2021/00866 22: 2021-07-26 23:  
43: 2022-02-22

52: Class 12 24: Part F

71: ALU-CAB HOLDINGS (PTY) LTD

**54: VEHICLE CANOPY WITH TENT**

57: The design is for a vehicle canopy with tent that is configured to be installed on a load bay of a vehicle.



21: F2021/00911 22: 2021-07-30 23:  
43: 2022-02-18

52: Class 09 24: Part F

71: GRAND PLASTICS (PTY) LTD

**54: A CONTAINER**

57: The design is applied to a container. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the container, substantially as illustrated in the accompanying representation. Features of vents (A) shown in broken lines do not form part of the design and are disclaimed.

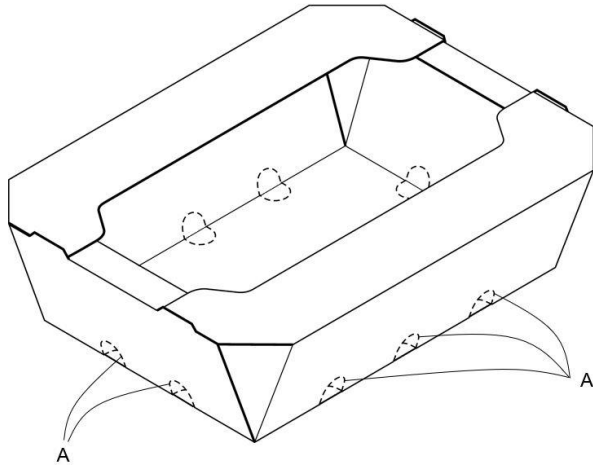


FIG. 1 THREE-DIMENSIONAL VIEW

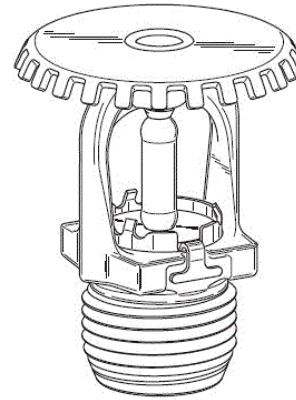


Figure 1

Three-dimensional view

21: F2021/00916 22: 2021-07-30 23:  
43: 2021-02-01  
52: Class 23 24: Part F  
71: Minimax Viking Research & Development GmbH  
33: US 31: 29/768,812 32: 2021-02-01  
**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A slender glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of slanted tines.

21: F2021/00917 22: 2021-07-30 23:  
43: 2021-02-01  
52: Class 23 24: Part F  
71: Minimax Viking Research & Development GmbH  
33: US 31: 29/768,812 32: 2021-02-01  
**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of slanted tines.

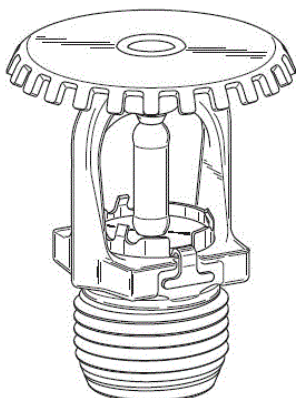


Figure 1

Three-dimensional view

21: F2021/00918 22: 2021-07-30 23:  
43: 2021-02-01  
52: Class 23 24: Part F  
71: Minimax Viking Research & Development GmbH  
33: US 31: 29/768,812 32: 2021-02-01

**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of outwardly projecting tines.

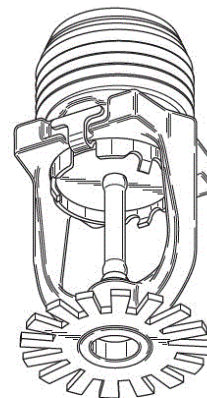


Figure 1

Three-dimensional view

21: F2021/00919 22: 2021-07-30 23:  
43: 2021-02-01  
52: Class 23 24: Part F  
71: Minimax Viking Research & Development GmbH  
33: US 31: 29/768,812 32: 2021-02-01

**54: FIRE PROTECTION SPRINKLERS**

57: The design is for a fire protection sprinkler having an externally threaded cylindrical member, a deflector plate, and a frame extending between the cylindrical member and the deflector plate. A sealing assembly is fitted at one end of the frame adjacent the cylindrical member. The sealing assembly is circular with upstanding sidewalls. The frame has a square base mounted to the cylindrical member and a pair of diametrically opposed arms project from the base towards the deflector where the arms arcuately converge. The arms have acute triangular profiles in side view. Recesses defined on opposite sides of the base accommodate a leg projecting from the sealing assembly. A glass bulb extends between the sealing assembly and a boss disposed between ends of the arms. A peripheral edge of the deflector plate comprises a series of outwardly projecting tines.

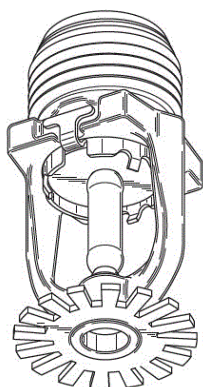


Figure 1

Three-dimensional view

21: F2021/00944 22: 2021-07-01 23:

43: 2022-03-08

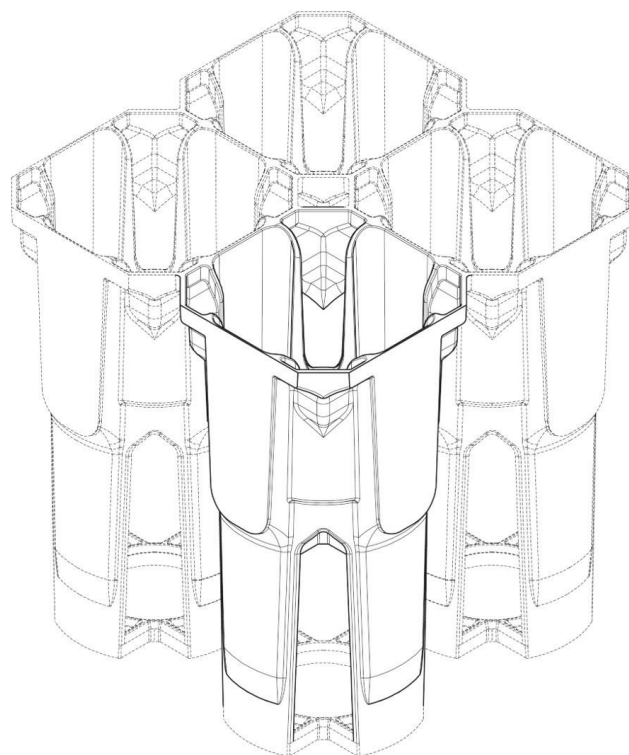
52: Class 09 24: Part F

71: INTERNATIONAL PLANT PROPAGATION  
TECHNOLOGY LIMITED**54: PLANT-GROWING TRAY**

57: The design is applied to a plant-growing tray.

The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the plant-growing tray, substantially as illustrated in the accompanying representation.

Features shown in broken lines do not form part of the design and are disclaimed.



21: F2021/01012 22: 2021-08-27 23:

43: 2022-03-10

52: Class 09 24: Part F

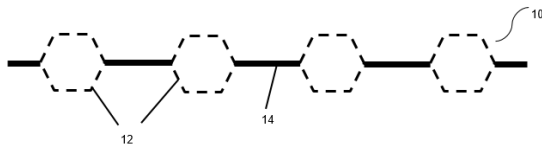
71: MICHAEL WILLIAM WHITBREAD

**54: LINK-PLANTING DEVICE**

57: A link-planting device 10 is provided for vegetative propagation of plant cuttings and planting of the vegetatively-propagated cuttings. The link-planting device comprises a (i) plurality of planting receptacles or cells 12 (from about 96 – 128), each receptacle or cell 12 having an open top end and a base, wherein the diameter at the open top end of the receptacle or cell 12 is from about 6 to about 8 cm, or about 7 cm, and a depth of from about 8 cm to about 10 cm, or about 9 cm, and a volume of about 200 cm<sup>3</sup> to about 640 cm<sup>3</sup>, or about 350 cm<sup>3</sup>; and (ii) a plurality of connecting elements 14 of between about 10 cm to about 45 cm in length, each connecting element 14 connecting two planting receptacles or cells 12 to form a link planting device 10. The planting receptacles or cells 12 may be hexagonal, square, triangular or circular and the side walls may be generally straight or taper from a wider top opening to a narrower base. The connecting elements 14 and optionally also the planting receptacles or cells 12 are comprised of material that is flexible, but load bearing under tension including materials which can rapidly biodegrade such as paper, jute or cotton, or a combination



thereof, or materials which are slowly biodegradable such as polypropylene or polythene, or a combination of the rapidly and slowly biodegradable materials. FIG. 1 is a schematic representation of a plan or top view of the interconnected planting receptacles or cells 12 of the link planting device 10. FIG. 2 is a schematic representation of a base or bottom view of the interconnected planting receptacles or cells 12 of the link planting device 10. FIG. 3 is a schematic representation of a profile view of the interconnected planting receptacles or cells 12 of the link planting device 10.



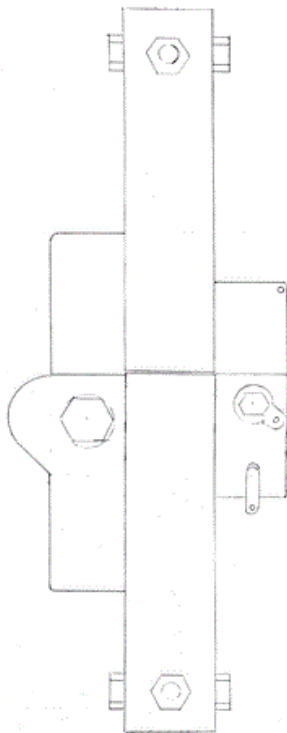
21: F2021/01021 22: 2021-09-03 23:  
43: 2022-03-24

52: Class 26 24: Part F

71: Scott Thomas Elder

**54: PIVOT HINGE BRACKET**

57: The design relates to a PIVOT HINGE BRACKET. The features of the design are those of shape and/or pattern and/or configuration.



21: F2021/01092 22: 2021-09-13 23:  
43: 2022-03-24

52: Class 7 24: Part F

71: Green 66 Innovations Pty Ltd

**54: STOVE**

57: The design relates to a Stove. The features of the design are those of shape and/or pattern and/or configuration.



21: F2021/01094 22: 2021-09-13 23:

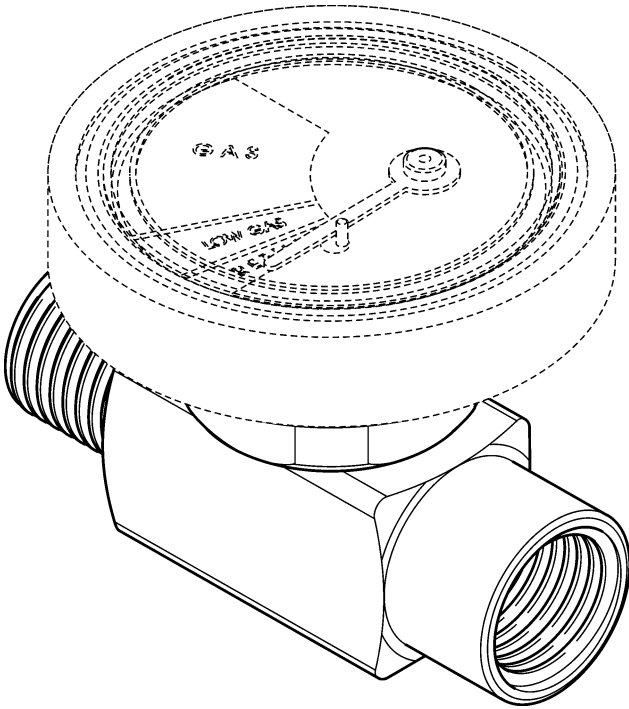
43: 2022-03-24

52: Class 10 24: Part F

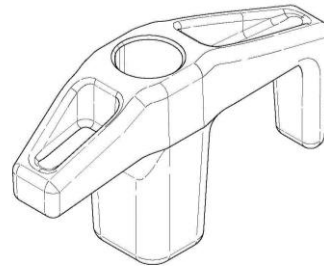
71: RAATS, Joshua Mark

**54: A GAUGE**

57: The design is applied to a gauge. The features of the design for which protection is claimed are those of the shape and/or configuration and/or pattern of the gauge, substantially as illustrated in the accompanying representation. Features of the gauge that are shown in broken lines do not form part of the design and are disclaimed.



in that it is luminous, i.e., glows in the dark and has a longitudinally extending circular bore for receiving the screw peg, in the form of an elongate coach screw, therethrough. When viewed from the side, the anchor body is asymmetrical about a longitudinal midline and has a pair of opposing, dissimilar arms protruding laterally away from a central part of the anchor body. The arms allow a person to grip the anchor body, for example, when removing it from the ground. A longer arm of the pair has a downwardly depending finger which may engage the ground in use thereby trapping a cord secured thereto.



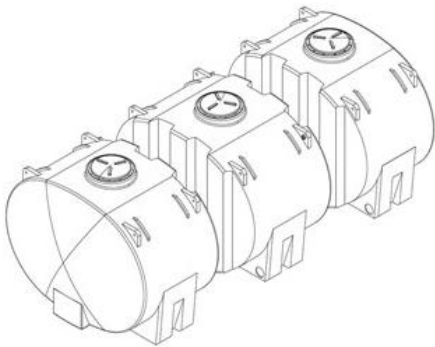
21: F2021/01096 22: 2021-09-17 23:  
43: 2022-03-24

52: Class 23 24: Part F

71: Christo Manus Coetzee

**54: TANK FOR LIQUID SUBSTANCES**

57: The design relates to a Tank for liquid substances. The features of the design are those of shape and/or pattern and/or configuration.



21: F2021/01444 22: 2021-11-19 23:  
43: 2021-11-19

52: Class 21 24: Part F

71: CAWOOD, Alan

**54: ANCHORS**

57: The design relates to a ground anchor or peg for securing or anchoring a tent, shade netting or awning to the ground. More specifically the design is for an anchor body configured to receive a screw peg therethrough. The anchor body is characterized

#### HYPOTHECATIONS

No records available

#### JUDGMENTS

No records available

#### OFFICE PRACTISE NOTICES

No records available

## 4. COPYRIGHT



## COPYRIGHT IN CINEMATOGRAPH FILMS

## NOTICES OF ACCEPTANCE

## (Applications filed in terms of Act No. 62 of 1977)

Any person, who has grounds for objection to the registration of the copyright in any of the following cinematographs films, may within the prescribed time, lodge Notice of Opposition on Form RF 5 contained in the Second Schedule to the Registration of Copyright in Cinematograph Films Regulations, 1980. The prescribed time is one month after the date of advertisement. This period may on application be extended by the Registrar.

The numerical denote the following: **(21)** Official application number. **(22)** Date of application. **(43)** Date of acceptance. **(24)** Date(s) and place(s) at which cinematograph films was made. **(25)** Date and place of first publication. **(71)** Name (s) of all applicant (s). **(75)** Name of author. **(76)** Name of producer **(77)** Name of director **(54)** Title of cinematograph film. **(78)** Name(s) of principal players or narrator. **(26)** Places at which cinematograph film may be viewed and conditions. **(55)** Specimen lodged/Not lodged. **(56)** Preview requested/Not requested. **(57)** Abstract (Storyline). **(58)** Category.

21: 2022/00029. 22: 12/04/2022 43: 12/04/2022

24: 2020/12/04 To 2021/01/31; Western Cape, South Africa

25: 2021/10/08; Netflix

71: Uga Carlini

93 Kommetjie Rd, use side gate on driveway/ Cobern Lane, Fish Hoek, 7975, South Africa

75: Uga Carlini 93 Kommetjie Rd, use side gate on Cobern lane, Fish hoek, ZA, 7974, Phone: +27835040941, Email:

uga@towerkopcreations.co.za

76: Uga Carlini; Dumi Gumbi

77: Uga Carlini

54: **Angeliena**

78: Euodia Samson, June van Merch, Nicole Madell, Kuli Roberts, Marciel Hopkins, Tshamano Sebe, Thapelo Mokona, Collin Moss

26: Western cape, The Peninsula and Surrounds, South Africa

55: Specimen lodged/Not lodged.

56: Preview Requested/Not requested

57: Netflix's Angeliena countdown begins with exciting trailer reveal, music video and special cast commentary.

With just one-week to go, the official countdown to Netflix's Angeliena movie begins with exciting trailer reveal, music video and special cast commentary.

A modern day, rainbow nation South African movie, Angeliena, is set to premiere on Netflix, worldwide, on Friday, 8 October 2021. The star-studded

cast follows the journey of formerly homeless parking attendant, the colourful Angeliena, who is

diagnosed with a fatal disease and dares to put her lifelong dream of traveling the world into motion.

With a star-studded cast featuring the likes of Kuli Roberts, Thapelo Mokoena, Nicole Madell, Marciel Hopkins, Schalk Bezuidenhout, Sandra Prinsloo, Tshamano Sebe, Colin Moss and Toya Delazy with Euodia Samson starring as Angeliena. The official TRAILER is now available to watch here: [https://www.youtube.com/watch?v=wX2JVR1wO\\_A](https://www.youtube.com/watch?v=wX2JVR1wO_A) Multi award-winning director of Angeliena, Uga Carlini, is also behind the Select Musiek, Sony Music Africa official Angeliena theme song music video, "Beauty of Africa" by artist, Refentse. Shot on the Angeliena film location of her 'Wonderland' and features some of South Africa's biggest stars. Watch the "Beauty of Africa" MUSIC VIDEO here: [https://www.youtube.com/watch?v=KG5e\\_Tyx5\\_0](https://www.youtube.com/watch?v=KG5e_Tyx5_0) Set your REMINDERS and make sure not to miss the premiere of Angeliena on Netflix on Friday, 8 October 2021 <https://www.netflix.com/title/81343009> In excitement for the upcoming Angeliena premiere, here's what some of the cast members had to share:

THAPELO MAKOENA, Dr. Alasa

"Every corner of the world deserves to see that one film that introduces them to a People they didn't know or well understand. And this film does that while pulling at your heart strings. It was a great adventure seeing it come together and playing Dr. Alasa."

KULI ROBERTS, Tina

"It was a great experience and being from Cape Town it was an honour to be part of this film...I couldn't believe I would be acting alongside such great thespians...I'm very humbled to be part of Angeliena. Also playing a Capetonian was easy as I'm from Langa and lived in Athlone and Kuilsriver. Catch Tina, want sy is sexy met n groot hart (because she is sexy with a gigantic, big heart)."

disappointments and joys they seek to live their best lives.

**58: DR**

**58: DR**

21: 2022/00030. 22: 19/04/2022 43: 19/04/2022

24: 2020/08/10 To 2020/10/30; Gauteng, Republic of South Africa

25: 2021/06/03; Garden Route International Film Festival

71: Mzuvukile Charles Vundla

Apartment 15, Glenhof Gardens, 19 North Avenue, Riviera, 2193, South Africa

75: House Rising Pictures (Pty) Ltd 20 Baker Street, Bryanston, ZA, 2021, Phone :0834450651, Email: charlie@joziwood.com

76: Mzuvukile Charles Vundla; Razaana Arnold

77: Mzuvukile Charles Vundla (credited as: Charlie Vundla)

54: **Hotele Lerallaneng**

78: Moopi Mothibeli; Zethu Dlomo-Mphahlele; Zoe Mthiyane; Celeste Khumalo; Cameron Scott; Buntu Petse

26: N/A

55: Specimen lodged/Not lodged.

56: Preview Requested/Not requested

57: Jabu is a young novelist tormented by his personal demons of alcohol and drug addiction. After a stint in rehab, and maintaining three months sobriety, he returns to Johannesburg, South Africa to serve on the jury of a film festival. However, his main purpose is to rekindle his relationship with his son, Timmy. He has grudgingly taken a job writing for a soap opera to support his child, while progress on his epic third novel has stalled. When his estranged wife announces she will take the boy to Europe for at least six months his plans, and sobriety, are thrown into question.

Roxanne is a young independent filmmaker who has recently broken into the mainstream. She has just signed with an agency in Hollywood and is attached to direct a big budget sci-fi thriller. However, she has just found out that she is pregnant from a one-night stand. With legal abortions now banned, and torn between her career and motherhood, she seeks solace in her new friend Jabu and through their shared experiences,

#### HYPOTHECATIONS

No records available

#### JUDGMENTS

No records available

#### OFFICE PRACTISE NOTICES

No records available

## 5. CORRECTION NOTICES



## TRADE MARK CORRECTION NOTICES

The trade mark under application number **2020/34614** was advertised in the February 2022 journal without an association which read as **2006/28442** and the publication should have appeared as the one below however the publication date will remain the **23/02/2022**.

2020/34614 in Class 41: On-line game services; Providing on-line interactive multiplayer games; Internet games [non-downloadable]; Providing games by means of a computer based system; Providing on-line games for mobile phones, smart phones and mobile communication terminal equipment; Providing on-line games for home video game machines, handheld game apparatus, arcade video game machines and computers; Providing information relating to all the aforesaid services, all included in Class 41. in the name of CAPCOM CO., LTD., a Japanese corporation, 3-1-3 Uchihiranomachi, Chuo-ku, Osaka 540-0037, Japan. Address for service: VON SEIDELS, 4 East Park, Central Park on Park Lane, Century City, 7441, SOUTH AFRICA

## LOST PLANET

Associated with: **2006/28442**  
FILED: 2020-12-09

## PATENT CORRECTION NOTICES

The patent application no: **2021/03035** was advertised in the March 2022 journal without a publication drawing and the advertisement should have appeared as the one below however the publication date will remain **30/03/2022**.

**2021/03035**. 22: 2021-05-05. 43: 2022-01-19

51: A61K; C07K; A61P

71: IMMUNOVANT SCIENCES GMBH

72: FONG, Regan, POLASEK, Melissa, COQUERY, Christine

33: US 31: 62/756,472 32: 2018-11-06

**54: METHODS OF TREATING GRAVES' OPTHALMOPATHY USING ANTI-FCRN ANTIBODIES**

00: -

The present disclosure relates to compositions, methods, and uses for using an isolated anti-FcRn antibody or an antigen-binding fragment thereof that binds to neonatal Fc receptor (FcRn) to prevent, modulate, or treat Graves' ophthalmopathy.

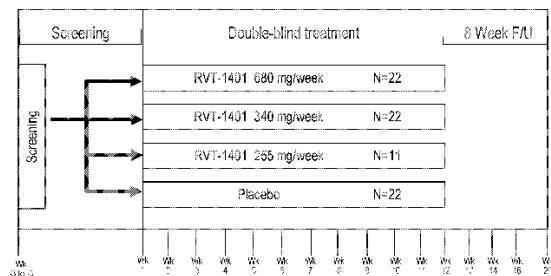


FIG. 10

## DESIGNS CORRECTION NOTICES

The Notice of Registration of South African Design No. **A2020/00195** in the name of **Colgate-Palmolive Company** was erroneously published in the Patent Journal of April 2021, therefore its publication in the Patent Journal of April 2021 is *Null and Void*.

The Notice of Registration of South African Design No. **A2020/00196** in the name of **Colgate-Palmolive Company** was erroneously published in the Patent Journal of April 2021, therefore its publication in the Patent Journal of April 2021 is *Null and Void*.

---

The Notice of Registration of South African Design No. **A2020/01106** in the name of **Colgate-Palmolive Company** was erroneously published in the Patent Journal of June 2021, therefore its publication in the Patent Journal of June 2021 is *Null and Void*.

### COPYRIGHT CORRECTION NOTICES

No records available

## PATENTS

## Advertisement List for April 2022

Number of Advertised Patents: 819

Application Number	Patent Title	Filing Date
2012/08254	METHOD OF BLASTING	2012/11/02
2014/05879	METHODS AND MATERIALS FOR THE FUNCTIONALIZATION OF POLYMERS AND COATINGS INCLUDING FUNCTIONALIZED POLYMER	2014/08/11
2014/08852	METHODS OF TREATING CANCER USING PD-L1 AXIS BINDING ANTAGONISTS AND VEGF ANTAGONISTS	2014/12/03
2016/03453	GENE ELECTROTRANSFER INTO SKIN CELLS	2016/05/20
2016/03623	COMPOSITE METAL PRODUCT	2016/05/27
2016/04295	TRANSDUCTION	2016/06/24
2016/04730	LIGNIN NANOPARTICLE DISPERSIONS AND METHODS FOR PRODUCING AND USING THE SAME	2016/07/11
2016/05770	ANTIBODY THAT BINDS ERBB-2 AND ERBB-3	2016/08/18
2016/06045	VACUUM SWITCHING DEVICES	2016/08/31
2016/07351	ELEMENT FOR SELECTIVELY DISPENSING TWO LIQUIDS, ASSOCIATED DEVICE AND METHOD	2016/10/25
2016/07980	USE OF TELOMERASE INHIBITORS FOR THE TREATMENT OF MYELOPROLIFERATIVE DISORDERS AND MYELOPROLIFERATIVE NEOPLASMS	2016/11/17
2016/08889	RESIDENCE STRUCTURES AND RELATED METHODS	2016/12/22
2017/03313	PESTICIDE FORMULATIONS HAVING PHYSICAL MODE OF ACTION	2017/05/12
2017/03437	PACK OF TOBACCO INDUSTRY PRODUCTS	2017/05/18
2017/07063	MANDIBULAR REPOSITION DEVICE AND COUPLING THEREFOR	2017/10/18
2017/07219	COMPONENTS OF AUTOMATIC POOL CLEANERS	2017/10/24
2017/07310	FORMULATION FOR ANTI-A4B7 ANTIBODY	2017/10/27
2017/07848	METHODS AND COMPOSITIONS FOR INHIBITING THE INTERACTION	2017/11/20

Application Number	Patent Title	Filing Date
	OF MENIN WITH MLL PROTEINS	
2017/08292	PORTION CAPSULE WITH A THREE-PLY NONWOVEN FABRIC	2017/12/06
2018/00037	DIAGNOSIS AND TREATMENT OF INFECTIOUS DISEASE	2018/01/03
2018/00085	EXHAUST GAS TREATMENT SYSTEM	2018/01/05
2018/00086	EXHAUST GAS TREATMENT SYSTEM	2018/01/05
2018/00104	PROMOTERS FOR ENHANCING EXPRESSION IN POXVIRUSES	2018/01/05
2018/00186	DIARYL AND ARYLHETEROARYL UREA DERIVATIVES USEFUL FOR THE PROPHYLAXIS AND TREATMENT OF REM SLEEP BEHAVIOR DISORDER	2018/01/10
2018/00329	SOLID FORMS AND FORMULATIONS OF (S)-4-(8-AMINO-3-(1-(BUT-2-YNOYL)PYRROLIDIN-2-YL)IMIDAZO[1,5-A]PYRAZIN-1-YL)-N-(PYRIDIN-2-YL)BENZAMIDE	2018/01/17
2018/00366	METHODS OF TREATING HEMATOLOGICAL MALIGNANCY USING NANOPARTICLE MTOR INHIBITOR COMBINATION THERAPY	2018/01/18
2018/00419	HIGHLY EFFICACIOUS HEMOSTATIC ADHESIVE POLYMER SCAFFOLD	2018/01/19
2018/00570	CHIMERIC POLYPEPTIDE ASSEMBLY AND METHODS OF MAKING AND USING THE SAME	2018/01/26
2018/00573	NOZZLE DEVICE AND SYSTEM FOR SORTING OBJECTS	2018/01/26
2018/02108	LIQUID PROTEIN FORMULATIONS CONTAINING VISCOSITY-LOWERING AGENTS	2018/04/03
2018/03198	PHARMACOPHORES, COMPOUNDS AND METHODS HAVING APPLICATION IN THE TREATMENT OF CANCER THROUGH INHIBITION OF CYP17A1 AND CYP19A1	2018/05/15
2018/03199	PHARMACOPHORES, COMPOUNDS AND METHODS HAVING APPLICATION IN THE TREATMENT OF CANCER THROUGH INHIBITION OF CYP17A1 AND CYP19A1	2018/05/15
2018/03900	EXHAUST GAS TREATMENT CATALYST	2018/06/12
2018/03984	PHARMACEUTICAL PACKAGE FOR OPHTHALMIC FORMULATIONS	2018/06/14
2018/03985	TRAUMATIC BRAIN INJURY	2018/06/14

Application Number	Patent Title	Filing Date
	PROTECTION DEVICES	
2018/04150	A MEDICAL TUBE STORAGE SYSTEM	2018/06/21
2018/04519	PHARMACEUTICAL COMPOSITION COMPRISING A POTENT INHIBITOR OF URAT1	2018/07/06
2018/05021	METHOD FOR SEPARATING OUT A HYDROCARBON MIXTURE	2018/07/24
2018/05606	WAVE ENERGY CONVERSION/CONVERTORS	2018/08/22
2018/06016	SUBSTITUTED NUCLEOSIDE ANALOGUES FOR USE AS PRMT5 INHIBITORS	2018/09/07
2018/06061	PHARMACEUTICAL COMPOSITIONS COMPRISING AN ANTI-RETROVIRAL DRUG AND A PHARMACOKINETIC ENHANCER	2018/09/10
2018/06632	SOLUBLE C5AR ANTAGONISTS	2018/10/05
2018/06768	RING-FUSED THIAZOLINO 2-PYRIDONES, METHODS FOR PREPARATION THEREOF AND THEIR USE IN THE TREATMENT AND/OR PREVENTION OF TUBERCULOSIS	2018/10/11
2018/06775	THIRD PARTY SPONSORED SHORT MESSAGING SERVICE	2018/10/11
2018/06902	ELITE EVENT EE-GH7 AND METHODS AND KITS FOR IDENTIFYING SUCH EVENT IN BIOLOGICAL SAMPLES	2018/10/16
2018/06958	PROCESS FOR REDUCING THE BENZENE CONTENT OF GASOLINE	2018/10/18
2018/07210	USE OF SUGAR-ALCOHOLS IN TIBOLONE COMPOSITIONS	2018/10/29
2018/07359	ORAL CARE COMPOSITIONS AND METHODS OF USE	2018/11/02
2018/07414	COBALT CARBIDE-BASED CATALYST FOR DIRECT PREPARATION OF OLEFIN FROM SYNTHESIS GAS, PREPARATION METHOD THEREFOR AND APPLICATION THEREOF	2018/11/05
2018/07509	DI-SUBSTITUTED PYRAZOLE COMPOUNDS FOR THE TREATMENT OF DISEASES	2018/11/08
2018/07696	METHOD FOR ESTIMATING AT LEAST ONE OF SHAPE, POSITION AND ORIENTATION OF A DENTAL RESTORATION	2018/11/15
2018/07704	CATALYST COMPOSITION COMPRISING MAGNETIC MATERIAL ADAPTED FOR INDUCTIVE	2018/11/15



Application Number	Patent Title	Filing Date
	HEATING	
2018/07761	AMIDE DERIVATIVES OF POLYCAFFEYOYLQUINIC ACIDS, PROCESS FOR PRODUCING SAME AND USES THEREOF	2018/11/19
2018/07851	PHARMACEUTICAL FORMULATION	2018/11/21
2018/08186	AGONIST AGENTS OF CD47 INDUCING PROGRAMMED CELL DEATH AND THEIR USE IN THE TREATMENTS OF DISEASES ASSOCIATED WITH DEFECTS IN PROGRAMMED CELL DEATH	2018/12/04
2018/08258	METHODS OF TREATING PANCREATIC CANCER	2018/12/06
2018/08270	HUMAN-DERIVED ANTI-DIPEPTIDE REPEATS (DPRS) ANTIBODY	2018/12/07
2018/08327	BORONIC ACID DERIVATIVES AND THERAPEUTIC USES THEREOF	2018/12/10
2018/08330	ARC FURNACE BOTTOM CONSTRUCTION	2018/12/10
2018/08480	METHODS AND COMPOSITIONS FOR TREATING NON-ERK MAPK PATHWAY INHIBITOR-RESISTANT CANCERS	2018/12/14
2018/08524	METHODS OF AFFECTING SEPARATION	2018/12/18
2019/00043	RECOMBINANT CYTOMEGALOVIRUS VECTORS AS VACCINES FOR TUBERCULOSIS	2019/01/03
2019/00118	A GREEN ALGA BICARBONATE TRANSPORTER AND USES THEREOF	2019/01/08
2019/00213	CELL CULTURE CASSETTE AND AUTOMATED APPARATUS	2019/01/11
2019/00241	DETERGENT COMPOSITIONS COMPRISING ULTRA-LOW MOLECULAR WEIGHT POLYSACCHARIDES	2019/01/14
2019/00255	DNA-ENCODED LIBRARIES HAVING ENCODING OLIGONUCLEOTIDE LINKAGES NOT READABLE BY POLYMERASES	2019/01/15
2019/00278	VARIANT ADENO-ASSOCIATED VIRUSES AND METHODS OF USING	2019/01/15
2019/00504	FOUR WAY CONVERSION CATALYSTS FOR GASOLINE ENGINE EMISSIONS TREATMENT SYSTEMS	2019/01/24
2019/00527	AN APPARATUS AND METHOD FOR THE DRY SEPARATION OF PARTICLES	2019/01/25
2019/00707	NEW TREATMENT FOR THE NON	2019/02/04

Application Number	Patent Title	Filing Date
	ALCOHOLIC STEATOHEPATITIS AND FIBROSIS	
2019/00762	MOUNTING ASSEMBLY	2019/02/06
2019/00818	VENT VALVE	2019/02/08
2019/00994	AUTOMATIC SEDIMENTATION AND SEPARATION CURVE GENERATOR	2019/02/15
2019/00996	SECUREMENT DEVICE FOR AN ORTHOPEDIC PROSTHESIS, THERMAL TREATMENT DEVICE FOR AN ORTHOPEDIC PROSTHESIS, AND METHODS OF USE	2019/02/15
2019/01060	FORMULATION FOR SOFT ANTICHOLINERGIC ANALOGS	2019/02/19
2019/01089	S1P1 AGONIST AND APPLICATION THEREOF	2019/02/20
2019/01095	INSULIN ANALOGS	2019/02/20
2019/01276	GLASS FURNACE	2019/02/28
2019/01374	TREATMENT AND SUSTAINED VIROLOGIC REMISSION OF HIV INFECTION BY ANTIBODIES TO CD4 IN HAART STABILIZED PATIENTS	2019/03/05
2019/01450	AQUEOUS EFFLUENT TREATMENT PROCESS	2019/03/08
2019/01458	ANIMAL FEED SUPPLEMENT	2019/03/08
2019/01532	URBAN TRANSPORTATION AND LOGISTICS SYSTEM	2019/03/12
2019/01544	METHOD FOR TRANSMITTING DATA, RECEIVING-END DEVICE, AND TRANSMITTING-END DEVICE	2019/03/12
2019/01555	A MODULAR CONTAINER SYSTEM	2019/03/13
2019/01571	METHOD AND SYSTEM FOR WASHING GRAPES, ESPECIALLY GRAPES FOR WINEMAKING	2019/03/13
2019/01578	COMBINATIONS INCLUDING ABX196 FOR THE TREATMENT OF CANCER	2019/03/13
2019/01588	COMPLAINTS PLATFORM	2019/03/14
2019/01743	METHODS OF TREATING ACUTE KIDNEY INJURY	2019/03/20
2019/02129	PHOTOVOLTAIC SWITCHING	2019/04/04
2019/02144	APPLICATOR FOR CONVEYOR BELT FASTENERS	2019/04/05
2019/02529	PERFORM SIGN OPERATION DECIMAL INSTRUCTION	2019/04/23
2019/02591	SIMULTANEOUS GENE EDITING AND HAPLOID INDUCTION	2019/04/24
2019/02626	A TAP AND AERATOR APPARATUS	2019/04/25
2019/02627	A METHOD, SYSTEM AND APPARATUS FOR DETECTING WHEN AN ANIMAL IS IN HEAT	2019/04/25
2019/02645	DEVICE FOR FACILITATING THE	2019/04/26

Application Number	Patent Title	Filing Date
	TRANSPORT OF AN APPARATUS ALONG AN UPWARD OR A DOWNWARD DIRECTED CONDUIT OR BOREHOLE	
2019/02757	POLYMER COATING FOR SELECTIVE SEPARATION OF HYDROPHOBIC PARTICLES IN AQUEOUS SLURRY	2019/05/02
2019/02759	HYDROPONICS SYSTEM	2019/05/02
2019/02965	FILM-LESS PAPER REAM WRAPPER	2019/05/13
2019/03247	SOLVENT SYSTEM FOR CLEANING FIXED BED REACTOR CATALYST IN SITU	2019/05/23
2019/03336	ENGINEERED CONCRETE BINDER COMPOSITION	2019/05/27
2019/03369	NUTCRACKER	2019/05/28
2019/03383	METHOD AND APPARATUS FOR WASHING AND GRADING SAND	2019/05/28
2019/03463	METHOD FOR PREPARING HEXADECALHYDROPYRENE	2019/05/30
2019/03572	COMPOSITIONS AND METHODS FOR THE TREATMENT OF ORAL INFECTIOUS DISEASES	2019/06/04
2019/03585	HYBRID DRILL BIT	2019/06/04
2019/03752	METHOD FOR TRANSMITTING INFORMATION, NETWORK DEVICE AND TERMINAL DEVICE	2019/06/11
2019/03794	SURGE PROTECTIVE DEVICE	2019/06/12
2019/03823	METHOD OF ENCAPSULATION	2019/06/13
2019/04006	TETRAAZABICYCLO-MACROCYCLE BASED MANGANESE CHELATE COMPOUNDS SUITABLE AS MRI IMAGING AGENTS	2019/06/20
2019/04012	DATA TRANSMISSION METHOD AND APPARATUS	2019/06/20
2019/04027	POSITIVE DRIVE CONVEYOR	2019/06/21
2019/04039	DATA TRANSMISSION METHOD, NETWORK DEVICE AND TERMINAL DEVICE	2019/06/21
2019/04180	APPARATUS FOR AUTOMATICALLY REPLACING A TUNGSTEN ELECTRODE FOR TUNGSTEN INERT GAS WELDING OF A ROBOT WELDING SYSTEM AND CORRESPONDING METHOD	2019/06/26
2019/04261	SYSTEMS AND METHODS FOR AUTOMATED CONTROL OF A BEAM STAGELoader BOOTEND	2019/06/28
2019/04288	COMPOSITION OF MANNURONIC DICARBOXYLIC ACID	2019/06/28
2019/04305	AQUEOUS PHARMACEUTICAL COMPOSITION OF A	2019/06/28

Application Number	Patent Title	Filing Date
	RECOMBINANT MONOCLONAL ANTIBODY TO TNF&#191;	
2019/04311	CYCLIC DINUCLEOTIDES AS STING (STIMULATOR OF INTERFERON GENES) AGONISTS	2019/06/28
2019/04461	GENES AND SNP MARKERS ASSOCIATED WITH LINT PERCENTAGE TRAIT IN COTTON, AND USE THEREOF	2019/07/08
2019/04751	MOBILE AIR CONDITIONER	2019/07/19
2019/04780	SYSTEM FOR TARGETED APPLICATION OF TOPICAL AGENTS TO AN ISOLATED BODY PART	2019/07/19
2019/04787	TEMPORARILY SUPPRESSING PROCESSING OF A RESTRAINED STORAGE OPERAND REQUEST	2019/07/19
2019/04850	THERAPEUTIC REGIMEN FOR THE TREATMENT OF FABRY USING STABILIZED ALPHA-GALACTOSIDASE	2019/07/24
2019/04863	FACILITY FOR EXTENDING EXCLUSIVE HOLD OF A CACHE LINE IN PRIVATE CACHE	2019/07/24
2019/05053	ELECTROSURGICAL APPARATUS FOR TISSUE ABLATION	2019/07/31
2019/05099	LOAD LOGICAL AND SHIFT GUARDED INSTRUCTION	2019/07/31
2019/05567	ROCK DRILL ADAPTED NOZZLE	2019/08/23
2019/06057	FORMULATIONS WITH REDUCED OXIDATION	2019/09/13
2019/06088	TREAD LINE SCANNER	2019/09/13
2019/06316	CUTTING APPARATUS	2019/09/25
2019/06513	ANTI-PD-L1 ANTIBODY AND USE THEREOF	2019/10/03
2019/06629	CATHETER INSERTION TRAY WITH INTEGRATED INSTRUCTIONS	2019/10/08
2019/06952	BLASTING METHOD AND SYSTEM	2019/10/22
2019/06967	COMPUTER SYSTEMS, COMPUTER-IMPLEMENTED METHODS AND SOFTWARE FOR PROCESSING PAYOUTS	2019/10/22
2019/06985	A WARDROBE APPARATUS	2019/10/23
2019/06999	A BEVERAGE CONTAINER HAVING A PRESSURE-RELIEF DEVICE AND A METHOD OF MANUFACTURING A BEVERAGE CONTAINER HAVING A PRESSURE-RELIEF DEVICE	2019/10/23
2019/07012	AEROSOL-GENERATING SYSTEM WITH FOUR CONTACTS	2019/10/24
2019/07018	HUMAN-ENZYME MEDIATED DEPLETION OF HOMOCYSTEINE FOR TREATING PATIENTS WITH	2019/10/24

Application Number	Patent Title	Filing Date
	HYPERHOMOCYSTEINEMIA AND HOMOCYSTINURIA	
2019/07072	FRICTION ROCK BOLT	2019/10/25
2019/07152	BOTTLE CAP FOR DISPENSING LIQUID	2019/10/29
2019/07270	METHODS AND APPARATUSES FOR CONFIGURING A CONTROL RESOURCE SET IN A WIRELESS COMMUNICATION SYSTEM	2019/11/01
2019/07332	A SYSTEM AND A METHOD FOR WASHING ITEMS	2019/11/05
2019/07358	COMPOUNDS AND COMPOSITIONS FOR INDUCING CHONDROGENESIS	2019/11/06
2019/07370	COMBINATION CANCER IMMUNOTHERAPY WITH PENTAAZA MACROCYCLIC RING COMPLEX	2019/11/06
2019/07513	HUMAN ANTIBODIES TO BET V 1 AND METHODS OF USE THEREOF	2019/11/13
2019/07544	A METHOD FOR OPERATING AN INSURANCE SCHEME	2019/11/14
2019/07829	ABSORBENT ARTICLE WITH CHANNELS AND METHOD FOR MANUFACTURING THEREOF	2019/11/26
2019/08000	CARTRIDGE AND ELECTROPHOTOGRAPHIC IMAGE FORMATION DEVICE	2019/12/02
2019/08070	PYRAZOLE MAGL INHIBITORS	2019/12/04
2019/08108	SYSTEM AND METHODS FOR CONFIGURING USER EQUIPMENTS WITH OVERLAPPING PUCCH RESOURCES FOR TRANSMITTING SCHEDULING REQUESTS	2019/12/05
2019/08193	ASSEMBLY FOR A DOSING SYSTEM OF A SPREADER MACHINE FOR DISTRIBUTING A GRANULAR MATERIAL OR THE LIKE, DOSING SYSTEM AND SPREADER MACHINE	2019/12/10
2019/08351	ROR1 ANTIBODY IMMUNOCONJUGATES	2019/12/13
2019/08465	ELECTRONIC VAPING DEVICE AND COMPONENTS THEREOF	2019/12/19
2019/08566	STEAM COAL SEPARATION METHOD	2019/12/23
2019/08596	OPTICAL SPLITTING APPARATUS	2019/12/23
2020/00370	DRILL ASSEMBLY AND VALVE	2020/01/20
2020/00561	PYRAZOLO AND TRIAZOLO BICYCLIC COMPOUNDS AS JAK KINASE INHIBITORS	2020/01/28
2020/00657	DRILLING ARRANGEMENT, DRILLING MACHINE AND METHOD	2020/01/31
2020/01088	HIGH REDUCTION BELT-DRIVEN LINEAR ACTUATOR	2020/02/20



Application Number	Patent Title	Filing Date
2020/01442	MACROCYCLE CONTAINING AMINOPYRAZOLE AND PYRIMIDINE AND PHARMACEUTICAL COMPOSITION AND USE THEREOF	2020/03/06
2020/01473	BIOACTIVE HONEY PRODUCTION ENVIRONMENT AND METHOD	2020/03/09
2020/01984	REFUGE BAY MONITORING SYSTEM, DEVICE AND METHOD	2020/05/04
2020/02126	SESSION CONTEXT CONVERSION	2020/05/04
2020/02295	CONCRETE FORMING SYSTEM	2020/05/04
2020/02442	METHOD AND APPARATUS FOR DISPLAYING INFORMATION	2020/05/05
2020/03203	VALVE CONFIGURATION FOR FRONT END LOADERS	2020/05/29
2020/03473	APPARATUS AND METHOD FOR ENCODING OR DECODING DIRECTIONAL AUDIO CODING PARAMETERS USING QUANTIZATION AND ENTROPY CODING	2020/06/10
2020/03658	MAKE-UP AND CLOTHING PROTECTOR	2020/06/18
2020/03696	METHOD OF CREATING A FRAGMENTATION PATTERN ON A WARHEAD	2020/06/19
2020/03825	SILANE MIXTURES AND PROCESS FOR PREPARING SAME	2020/06/24
2020/04107	ORAL CARE COMPOSITIONS	2020/07/06
2020/04175	PERIODIC RADIAL SYMMETRY FOR FILTER PLEATING	2020/07/08
2020/04204	RECYCLING OF INSOLUBLE PARTICLES FROM A CELLULOSE-CONTAINING STARTING MATERIAL	2020/07/09
2020/04207	FUNCTIONALIZATION OF FOREIGN MATERIAL IN A LYOCCELL METHOD	2020/07/09
2020/04209	METHOD FOR REUSING A MIXED TEXTILE CONTAINING CELLULOSE AND SYNTHETIC PLASTIC	2020/07/09
2020/04292	REFRIGERANT-CONTAINING COMPOSITION, USE THEREOF AND REFRIGERATOR COMPRISING SAME, AND METHOD FOR OPERATING SAID REFRIGERATOR	2020/07/13
2020/04398	ENVIRONMENT-FRIENDLY VACUUM WORKSHOP FOR EXPLOSIVE WELDING	2020/07/17
2020/04500	LIGHT SENSOR AND DECAY-TIME SCANNER	2020/07/21
2020/04545	CALL CONTENT MANAGEMENT FOR MOBILE DEVICES	2020/07/22
2020/04851	METHOD FOR PREPARING TOLIMIDONE ON LARGE SCALE	2020/08/05

Application Number	Patent Title	Filing Date
2020/04852	METHOD FOR HYDROMETALLURGICAL PROCESSING OF A NOBLE METAL-TIN ALLOY	2020/08/05
2020/04894	OPEN-NETWORK FOAM OF HYDROPHOBIC MATERIAL FOR SELECTIVE SEPARATION OF MINERAL PARTICLES	2020/08/07
2020/04973	COOLING TOOL FOR AN EXTRUDER	2020/08/12
2020/04989	CONTROL SYSTEM FOR CONTROLLING THE PILOT FLAME OF A COMBUSTIBLE GAS DEVICE	2020/08/12
2020/05036	METHOD FOR AND APPARATUS FOR DECODING AN AMBISONICS AUDIO SOUNDFIELD REPRESENTATION FOR AUDIO PLAYBACK USING 2D SETUPS	2020/08/14
2020/05140	PROCESS FOR THE RECOVERY OF PRECIOUS METAL FROM PETROCHEMICAL PROCESS RESIDUES	2020/08/19
2020/05338	GLASS FURNACE	2020/08/27
2020/05525	ANTIBODY FORMULATIONS	2020/09/07
2020/05534	METHOD OF PROVIDING TIME ALIGNMENT BETWEEN PHASED ARRAYS FOR COMBINED OPERATION	2020/09/07
2020/05702	YAP1 INHIBITORS THAT TARGET THE INTERACTION OF YAP1 WITH OCT4	2020/09/14
2020/06515	A WEAR MEMBER	2020/10/20
2020/06532	METHOD FOR DECREASING IMMUNOGENICITY	2020/10/21
2020/06539	TERMINAL AND TRANSMISSION METHOD	2020/10/21
2020/07051	SYSTEMS AND METHODS FOR GAME-GENERATED MOTION VECTORS	2020/11/12
2020/07139	METHOD FOR DETECTING PHOSPHATE AND/OR SULPHATE SALTS ON THE SURFACE OF A SUBSTRATE OR WITHIN A SUBSTRATE, USE OF A LWIR DETECTING DEVICE AND A LWIR IMAGING SYSTEM	2020/11/16
2020/07143	PYRIDONE DERIVATIVE, COMPOSITION THEREOF AND APPLICATION THEREOF AS ANTI-INFLUENZA DRUG	2020/11/16
2020/07171	PROCESSING OF INSECT LARVAE	2020/11/17
2020/07194	USER TERMINAL AND RADIO BASE	2020/11/18

Application Number	Patent Title	Filing Date
	STATION	
2020/07196	AZEOTROPE OR AZEOTROPE LIKE COMPOSITIONS COMPRISING 1234YF	2020/11/18
2020/07209	A SHUTTLE VALVE	2020/11/19
2020/07213	SYSTEMS AND METHODS FOR RENDERING & PRE-ENCODED LOAD ESTIMATION BASED ENCODER HINTING	2020/11/19
2020/07214	SYSTEMS AND METHODS FOR ENCODER-GUIDED ADAPTIVE-QUALITY RENDERING	2020/11/19
2020/07216	PLAYER INPUT MOTION COMPENSATION BY ANTICIPATING MOTION VECTORS	2020/11/19
2020/07217	PLAYER INPUT MOTION COMPENSATION BY ANTICIPATING MOTION VECTORS	2020/11/19
2020/07223	ASSEMBLED FIREARM STORAGE MODULE AND FIREARM MANAGING DEVICE COMPRISING SAME	2020/11/19
2020/07232	ROTARY ATOMIZER	2020/11/19
2020/07289	METHOD AND DEVICE FOR DISTRIBUTING BENEFICIAL ARTHROPODS	2020/11/23
2020/07290	APPARATUS FOR DISINFECTING AT LEAST ONE ROOM, IN PARTICULAR A DWELLING SPACE FOR PERSONS, BY MEANS OF AN ATOMISER	2020/11/23
2020/07291	A METHOD AND A SYSTEM FOR GUIDING A PILOT OF AN APPROACHING AIRCRAFT TO A STOP POSITION AT A STAND	2020/11/23
2020/07318	DENTAL FLUORO-ALUMINOSILICATE GLASS POWDER	2020/11/24
2020/07320	COMPOUNDS FOR PAIN TREATMENT, COMPOSITIONS COMPRISING SAME, AND METHODS OF USING SAME	2020/11/24
2020/07360	MANUFACTURING METHOD AND DEVICE OF FLOW BATTERY ELECTROLYTE	2020/11/25
2020/07390	USER TERMINAL	2020/11/26
2020/07391	PORTABLE DEVICE AND SIMPLE METHOD FOR MULTI-PARAMETER COMPREHENSIVE TESTING OF CORE	2020/11/26
2020/07410	SIX-DEGREE-OF-FREEDOM SERIES-PARALLEL ELECTROMAGNETIC VIBRATION	2020/11/27

Application Number	Patent Title	Filing Date
	TEST STAND	
2020/07411	SERIES-PARALLEL TYPE HEAVY-DUTY FRICTION STIR WELDING ROBOT	2020/11/27
2020/07412	SOLAR CONCENTRATING SYSTEM	2020/11/27
2020/07463	LARGE-SCALE, HIGH DENSITY STORAGE OF LARVAE	2020/11/30
2020/07488	CONTAINER CARRIER	2020/12/01
2020/07489	METHOD FOR TESTING STRENGTH OF COAL MASS REINFORCED BY ROTARY-JET GROUTING	2020/12/01
2020/07490	MULTI-MATERIAL TRACK PAD FOR A CONTINUOUS TRACK ASSEMBLY	2020/12/01
2020/07510	BACKWARD-COMPATIBLE INTEGRATION OF HARMONIC TRANSPOSER FOR HIGH FREQUENCY RECONSTRUCTION OF AUDIO SIGNALS	2020/12/02
2020/07548	TOOTHBRUSH HANDLE, TOOTHBRUSH AND METHODS OF MANUFACTURING	2020/12/03
2020/07549	PROCESS FOR PREPARING RANDOM BUTADIENE-ISOPRENE COPOLYMERS HAVING A HIGH CONTENT OF CIS-1,4 UNITS	2020/12/03
2020/07551	REACTION CONFIGURATION AND PROCEDURE FOR POLYMER PRODUCTION	2020/12/03
2020/07565	BENZIMIDAZOLE COMPOUND OR SALT THEREOF, AGRICULTURAL AND HORTICULTURAL INSECTICIDAL AND ACARICIDAL AGENT CONTAINING SAID COMPOUND, AND METHOD FOR USING SAME	2020/12/04
2020/07567	POLYCYCLIC CARBAMOYLPYRIDONE DERIVATIVE	2020/12/04
2020/07568	POLYCYCLIC PYRIDONE DERIVATIVE	2020/12/04
2020/07569	PROCESS FOR MANUFACTURING A SAFETY CLOSURE, AND SAFETY CLOSURE	2020/12/04
2020/07626	ADAPTER BOARD WITH PRY POINTS	2020/12/07
2020/07644	A SYNDET BAR COMPOSITION	2020/12/08
2020/07663	METHOD FOR PREPARING KETO-FUNCTIONALIZED AROMATIC (METH)ACRYLATES	2020/12/09
2020/07684	COUPLING A PEN DEVICE TO A COMPANION DEVICE BASED ON PEN PROXIMITY	2020/12/09

Application Number	Patent Title	Filing Date
2020/07685	TECHNIQUES FOR DISPLAYING A SHADER TABLE ASSOCIATED WITH RAYTRACING IMAGES	2020/12/09
2020/07734	METHODS AND COMPOSITIONS FOR TREATING NON-ERK MAPK PATHWAY INHIBITOR-RESISTANT CANCERS	2020/12/11
2020/07757	LOCALISED TRANSDERMAL IONTOPHORETIC DRUG DELIVERY SYSTEM	2020/12/11
2020/07779	UNLOADING DEVICE	2020/12/14
2020/07815	INCONTINENCE PRODUCT	2020/12/15
2020/07839	POLYMERASES, COMPOSITIONS, AND METHODS OF USE	2020/12/15
2020/07874	PIN AND RETAINER LOCKING SYSTEM	2020/12/14
2020/07875	PROXIMITY DETECTION USING A SHORT RANGE WIRELESS COMMUNICATION DEVICE	2020/12/14
2020/07897	ARRANGEMENT OF BLOCKCHAINS WITH A RESTRICTED TRANSACTION	2020/12/17
2020/07928	GROUND BASED SYNTHETIC APERTURE RADAR (GBSAR) WITH TRANSMITTING AND RECEIVING MULTIPLE ANTENNAS (MIMO) AND USING THE PROCESSING TECHNIQUE CALLED COMPRESSIVE SENSING (CS)	2020/12/18
2020/07929	PUMPABLE EXPLOSIVES DENSITY MEASUREMENT	2020/12/18
2020/07960	PNEUMATIC DEVICE	2020/12/18
2020/07990	UPDATE OF LOOK UP TABLE: FIFO, CONSTRAINED FIFO	2020/12/21
2020/07993	METHODS OF REDUCING THE RISK OF CARDIOVASCULAR EVENTS IN A SUBJECT	2020/12/21
2021/00123	NOVEL CROP NUTRITION AND FORTIFICATION COMPOSITION	2021/01/07
2021/00136	NOVEL CROP NUTRITION AND FORTIFICATION COMPOSITION	2021/01/08
2021/00138	NOVEL CROP NUTRITION AND FORTIFICATION COMPOSITION	2021/01/08
2021/00148	HALOALLYLAMINE SULFONE DERIVATIVE INHIBITORS OF LYSYL OXIDASES AND USES	2021/01/08
2021/00452	NOISE MONITORING METHOD AND SYSTEM BASED ON SOUND SOURCE IDENTIFICATION	2021/01/21
2021/00585	SPHERICAL STANNOUS COMPATIBLE SILICA PARTICLES FOR REDUCED RDA	2021/01/27



Application Number	Patent Title	Filing Date
2021/00697	BOUNDARY BLOCK PARTITIONING IN VIDEO CODING	2021/02/01
2021/00907	BOARD FIN	2021/02/10
2021/01073	METHODS AND APPARATUS FOR OPTICAL ADAPTER FOR FIREARM SLIDE	2021/02/17
2021/01106	SCAFFOLDING	2021/02/18
2021/01423	ADVANCED LARGE SCALE FIELD-ERECTED AIR COOLED INDUSTRIAL STEAM CONDENSER	2021/03/02
2021/01430	MODULAR INSERT SYSTEM FOR SHOE SOLES	2021/03/02
2021/01455	USE OF A COPPER ALLOY	2021/03/03
2021/01500	SYSTEM AND METHOD FOR DELETING OR EDITING SENT MESSAGES FROM YOUR RECIPIENTS CHAT HISTORY	2021/03/04
2021/01550	EPOXY RESIN COMPOSITE FORM-STABLE PHASE CHANGE MATERIAL, PREPARATION METHOD THEREFOR, AND APPLICATION	2021/03/08
2021/01704	RELATION BETWEEN PARTITION CONSTRAINT ELEMENTS	2021/03/12
2021/01716	APPARATUS FOR ORGANISM REARING OR LIQUID REMEDIATION	2021/03/15
2021/01717	APPARATUS FOR ORGANISM REARING OR LIQUID REMEDIATION	2021/03/15
2021/01848	HEATING DEVICE FOR A VEHICLE	2021/03/18
2021/01967	MOLD PLATE	2021/03/24
2021/01972	PROCESS AND APPARATUS FOR PRODUCING GAS PRODUCTS USING A SHIFT CONVERTER	2021/03/24
2021/02113	A VIDEO ENCODER, A VIDEO DECODER AND CORRESPONDING METHODS	2021/03/29
2021/02153	INSULATED CARRIER FOR TEMPERATURE-CONTROLLED ITEMS	2021/03/30
2021/02226	MOBILE DANCE MIRROR FOR DANCE REHEARSAL	2021/04/01
2021/02255	A UNIBODY STRUCTURAL FRAME FOR AN INTERLOCKING STRUCTURAL BLOCK	2021/04/06
2021/02259	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	2021/04/06
2021/02302	METHODS AND COMPOSITIONS FOR INCREASING PROTEIN EXPRESSION AND/OR TREATING A HAPLOINSUFFICIENCY DISORDER	2021/04/07
2021/02377	MODULAR COUNTERFLOW COOLING TOWER	2021/04/12
2021/02447	ANCHOR WITH HEALING	2021/04/14

Application Number	Patent Title	Filing Date
	CHAMBERS	
2021/02516	A ROLLING BEARING FAULT DIAGNOSIS METHOD BASED ON GRMSE AND MANIFOLD LEARNING	2021/04/16
2021/02589	MONOMER AND MULTIMERIC ANTI-HBV AGENTS	2021/04/19
2021/02625	CATALYSED PROCESS OF PRODUCTION OF HYDROGEN FROM SILYLATED DERIVATIVES AS HYDROGEN CARRIER COMPOUNDS	2021/04/20
2021/02651	POWER GRID PROTECTION VIA TRANSFORMER NEUTRAL BLOCKING SYSTEMS AND TRIGGERED PHASE DISCONNECTION	2021/04/21
2021/02769	BILE ACID DERIVATIVES AS FXR/TGR5 AGONISTS AND METHODS OF USE THEREOF	2016/03/30
2021/02875	DEVICE FOR SUPPORTING AN ELECTRIFIED WIRE	2021/04/29
2021/02911	SYSTEM AND METHOD FOR MAPPING FUNCTIONAL NERVES INNERVATING WALL OF ARTERIES, 3-D MAPPING AND CATHETERS FOR SAME	2021/04/30
2021/03025	METHOD OF PROCESSING SULFUR-BEARING WASTES FROM REFINERIES AND UPGRADERS	2021/05/05
2021/03026	COOLING APPARATUS AND A METHOD FOR COOLING A WATERFLOW	2021/05/05
2021/03142	A COMBUSTOR AIR BAR GRID FOR USE WITHIN A FLUIDIZED BED REACTOR, AND A FLUIDIZED BED REACTOR	2021/05/10
2021/03193	SINGLE-DOSE USE OF A COMPOSITION COMPRISING A PARTICULAR MIXTURE OF GRAPE EXTRACT AND BLUEBERRY EXTRACT	2021/05/11
2021/03235	DOUBLE-LOADING PREVENTION RING	2021/05/13
2021/03280	ACCELERATION PROTECTION TROUSERS	2021/05/14
2021/03394	METHOD OF PREPARING PHOSPHORUS-CONTAINING FLAME RETARDANTS AND THEIR USE IN POLYMER COMPOSITIONS	2021/05/19
2021/03417	LEVEL METER	2021/05/20
2021/03507	METHOD AND APPARATUS FOR	2021/05/24

Application Number	Patent Title	Filing Date
	STAGED STARTUP OF AIR-COOLED LOW CHARGED PACKAGED AMMONIA REFRIGERATION SYSTEM	
2021/03531	ANNOUNCED ROAMING LOCATION (AROL) SERVICE	2021/05/24
2021/03596	ANTIBODIES SPECIFICALLY RECOGNIZING GRANULOCYTE-MACROPHAGE COLONY STIMULATING FACTOR RECEPTOR ALPHA AND USES THEREOF	2021/05/26
2021/03681	HOT ROLLED AND STEEL AND A METHOD OF MANUFACTURING THEREOF	2021/05/28
2021/03731	PROCESS FOR MANUFACTURING FULLY RECYCLABLE MINING SCREENS	2021/05/31
2021/03781	CUTTING, GRINDING AND POLISHING DISK, AND METHOD FOR MACHINING WORKPIECES	2021/06/02
2021/03829	EARLY POST-EMERGENCE HERBICIDAL ACTIVE COMPOSITIONS AND HERBICIDES	2021/06/03
2021/03971	CATALYST SYSTEM AND METHOD FOR THE CATALYTIC COMBUSTION OF AMMONIA TO FORM NITROGEN OXIDES IN A MEDIUM-PRESSURE SYSTEM	2021/06/09
2021/04033	CATALYST SYSTEM AND METHOD FOR THE CATALYTIC COMBUSTION OF AMMONIA TO FORM NITROGEN OXIDES IN A MEDIUM-PRESSURE SYSTEM	2021/06/11
2021/04050	ACTIVE ESTER DERIVATIVES OF TESTOSTERONE, COMPOSITIONS AND USES THEREOF	2021/06/11
2021/04103	METHOD FOR PRODUCING A WELDED STEEL BLANK AND ASSOCIATED WELDED STEEL BLANK	2021/06/15
2021/04250	LIGHTNING CURRENT ARRESTER DEVICE	2021/06/21
2021/04386	SEMANTIC EXTRACTION METHOD FOR NATURAL LANGUAGE	2021/06/25
2021/04437	INTELLIGENT INFUSION ALARM DEVICE BASED ON CAPACITIVE INFUSION SET	2021/06/25
2021/04499	HIGH PRODUCTIVITY AND FLEXIBILITY PLANT OF THE SPUN BONDING TYPE FOR THE PRODUCTION OF A NON-WOVEN WEB	2021/06/29
2021/04554	CHARGING STATION AND	2021/06/30

Application Number	Patent Title	Filing Date
	ARRANGEMENT OF ELECTRIC COMPONENTS FOR CONTROLLING THE DELIVERY OF ELECTRICITY FROM AN ELECTRICAL GRID TO AN ELECTRIC VEHICLE	
2021/04625	USE OF OLIGONUCLEOTIDES FOR THE TREATMENT OF TUMOURS	2021/07/02
2021/04914	ECOLOGICAL SYSTEM EXPLOITING KINETIC ENERGY IN VEHICLES	2021/07/13
2021/05016	&#160;APPARATUS AND METHOD FOR REPRODUCING A SPATIALLY EXTENDED SOUND SOURCE OR APPARATUS AND METHOD FOR GENERATING A BITSTREAM FROM A SPATIALLY EXTENDED SOUND SOURCE	2021/07/16
2021/05028	HIGH RESOLUTION AUDIO CODING	2021/07/16
2021/05121	SEALED ELECTRIC PLUG	2021/07/20
2021/05340	MOULD PLATE	2021/07/28
2021/05811	A SYSTEM AND METHOD FOR PROCESSING A TRANSACTION	2021/08/06
2021/05860	TRADITIONAL CHINESE MEDICINE COMPOSITION AND PREPARATION METHOD THEREOF	2021/08/17
2021/06204	PHARMACEUTICAL COMPOSITION COMBINING IMMUNOLOGIC AND CHEMOTHERAPEUTIC METHOD FOR THE TREATMENT OF CANCER	2021/08/26
2021/06423	USE OF WAKE-UP RECEIVER WITH BLUETOOTH LOW ENERGY	2021/09/02
2021/07622	FILM MULCHING PLANTING METHOD FOR CROPS IN DRY LAND	2021/10/11
2021/08472	HIGHLAND BARLEY GRAIN MEAL REPLACEMENT MILKSHAKE POWDER CAPABLE OF ASSISTING IN LOWERING HYPERTENSION, HYPERLIPEMIA AND HYPERGLYCAEMIA AND PREPARATION METHOD THEREOF	2021/11/02
2021/08519	PRIMER PROBE COMBINATION, KIT, DETECTION METHOD AND APPLICATION FOR DETECTING SEPARATE CANDIDA TYPES	2021/11/02
2021/08520	APPARATUS AND METHOD FOR JOINTLY MEASURING SOOT PRECURSOR AND SOOT ON BASIS OF OPTICAL ENGINE	2021/11/02
2021/08529	NEAR-INFRARED QUANTITATIVE ANALYSIS MODEL CONSTRUCTION METHOD BASED ON BIASED ESTIMATION	2021/11/02
2021/08549	KIT FOR RAPID DETECTION OF	2021/11/02

Application Number	Patent Title	Filing Date
	YERSINIA PESTIS	
2021/08550	INTELLIGENT THERMOSTAT	2021/11/02
2021/08562	METHOD FOR BREWING TARTARY BUCKWHEAT SEEDLING BRANDY	2021/11/03
2021/08570	NON-CONTACT HEAT NOT BURN HEATING DEVICE	2021/11/02
2021/08571	NON-CONTACT HEAT NOT BURN HEATING DEVICE	2021/11/02
2021/08572	AN AIR-HEATING TYPE HEAT NOT BURN HEATING DEVICE, A CERAMIC HEATING ELEMENT AND A PREPARATION METHOD THEREOF	2021/11/02
2021/08573	CERAMIC HEATING ELEMENT AND NON-CONTACT HEAT NOT BURN HEATING DEVICE WITH SAME	2021/11/02
2021/08587	NON-CONTACT HEAT NOT BURN HEATING DEVICE	2021/11/03
2021/08799	CELL MEMBRANE-COATED AU- FE <sub>3</sub> O <sub>4</sub> TARGETED NANOMATERIAL, AND PREPARATION METHOD AND USE THEREOF	2021/11/09
2021/08818	METHOD AND SYSTEM FOR UNDERWATER ARCHAEOLOGICAL TARGET IDENTIFICATION BASED ON UAV AEROMAGNETIC MEASUREMENT	2021/11/09
2021/08819	METHOD AND SYSTEM FOR MECHANICAL SYSTEM FAULT DIAGNOSIS BASED ON VISIBILITY GRAPH	2021/11/09
2021/08820	DEVICE FOR CONTACTS SCANNING OF MULTI-CHANNEL NUCLEAR POWER EQUIPMENT AND WORKING METHOD THEREOF	2021/11/09
2021/08821	COMMUNICATION TRANSMISSION DEVICE FOR HEAVY-WATER REACTOR CONTROL SYSTEM	2021/11/09
2021/09031	CROSSROAD PASS SYSTEM AND METHOD WITHOUT SIGNAL LAMP CONTROL	2021/11/15
2021/09119	STEEL WIRE ROPE GRILLE OVERLOAD PROTECTION APPARATUS	2021/11/16
2021/09120	STIRRING MUD-SCRAPING SYSTEM FOR MECHANICALLY ACCELERATED CLARIFICATION TANK AND USING METHOD THEREOF	2021/11/16
2021/09239	SUPPORT	2021/11/18
2021/09247	SMART IRRIGATION CONTROL SYSTEM, AND CONTROL METHOD	2021/11/18



Application Number	Patent Title	Filing Date
	THEREFOR	
2021/09286	HANDHELD DEVICE OF RESISTIVITY AND POLARIZABILITY INTEGRATED DETECTOR AND DETECTOR THEREOF	2021/11/19
2021/09297	CARBON-LOADED NANO ZERO-VALENT IRON MATERIAL, PREPARATION METHOD THEREFOR AND APPLICATION THEREOF	2021/11/19
2021/09318	A NEW TYPE OF CUT-OFF DAM AND COFFERDAM BODY OF HYDROPOWER STATION AND DAM BODY CONSTRUCTION METHOD	2021/11/19
2021/09404	THE PREPARATION OF A HYALURONIC ACID-BASED SEQUENTIAL TARGETING FUNCTIONAL FACTOR DELIVERY SYSTEM AND ITS APPLICATION IN INFLAMMATORY BOWEL DISEASE	2021/11/23
2021/09414	MULTI-ANGLE DYNAMIC IMAGE ACQUISITION EQUIPMENT FOR POULTRY FARMING AND ENVIRONMENTAL MONITORING	2021/11/23
2021/09466	ROS STIMULATED RESPONSIVE ASTAXANTHIN NANOPARTICLE AND ITS PREPARATION METHOD AND APPLICATION	2021/11/24
2021/09529	EMULSION STABILIZED BY LIPOSOME AND PREPARATION METHOD THEREOF	2021/11/25
2021/09539	A HOT-EVENT DETECTION METHOD UTILIZING THE CONVOLUTIONAL NEURAL NETWORK (CNN) AND THE KEYWORD CLUSTERING	2021/11/25
2021/09570	METHOD FOR CONTROLLING OXIDATION OF RAW NUTS	2021/11/25
2021/09614	APPLICATION METHOD OF NEW COMPOUND IN IMPROVING PLANT RESISTANCE TO SOIL ALUMINUM TOXICITY	2021/11/26
2021/09640	METHOD OF ION-PLASMA APPLICATION OF CORROSION-RESISTANT FILM COATINGS ON ARTICLES MADE FROM ZIRCONIUM ALLOYS	2021/11/26
2021/09666	DEVICE FOR DETECTING PROTEIN CONTENT IN DAIRY PRODUCT	2021/11/29
2021/09667	AN EXPERIMENTAL PLATFORM OF BIM BUILDING	2021/11/29
2021/09671	METHOD FOR PREVENTING AND CONTROLLING OUTBURST	2021/11/29

Application Number	Patent Title	Filing Date
	DISASTERS DOMINATED BY GROUND STRESS OF HARD ROOF WORKING FACE	
2021/09685	NEW BACILLUS STRAIN HSY204 AND INSECTICIDAL GENES AND USE THEREOF	2021/11/29
2021/09694	SPECIAL FERTILIZER FOR RICE SEEDLING RAISING AND PREPARATION METHOD THEREOF	2021/11/29
2021/09705	POSITIONING SYSTEM WITH ADJUSTABLE CLAMPING FORCE AND MILLING EQUIPMENT FOR RAIL TRANSIT HONEYCOMB WORKPIECE	2021/11/29
2021/09804	SAFETY AND CONTROL DEVICE	2021/12/01
2021/09898	AN INDUSTRIAL PUMP WITH A SAFETY PROTECTION MECHANISM	2021/12/02
2021/09944	PILE BODY STRESS TESTING METHOD FOR MICRO STEEL PIPE PILE	2021/12/03
2021/10022	A METHOD FOR IMPLEMENTATION OF DONATION BASED CROWD FUNDING TO SUPPORT RIGHT TO EDUCATION	2021/12/06
2021/10027	MOBILE NITROGEN GENERATING DEVICE IN UNDERGROUND COAL MINE AND PROCESS THEREOF	2021/12/06
2021/10068	SPECIAL SCREENING MACHINE FOR HIGHLAND BARLEY	2021/12/07
2021/10077	BIPOLAR CURRENT TRANSFORMER	2021/12/07
2021/10243	METHOD OF RAPID VITRIFIED CRYOPRESERVATION AND RECOVERY OF STRONGYLOCENTROTUS INTERMEDIUS EMBRYO	2021/12/10
2021/10286	METHOD FOR VANADIUM EXTRACTION BY DIRECT LEACHING OF SODIUM-CONTAINING VANADIUM SLAG IN MOLTEN IRON	2021/12/10
2021/10287	METHOD FOR PRODUCING CALCIUM-CONTAINING VANADIUM SLAG BY ADDING LIME TO CONVERTER WITH MOLTEN IRON AND LEACHING METHOD THEREFOR	2021/12/10
2021/10378	COMPOUND HEAT STABILIZER CONTAINING ORGANOTIN, CALCIUM-ZINC AND TITANIUM AND USE THEREOF	2021/12/14
2021/10392	TERMINAL CLUSTER INDOOR POSITIONING METHOD AND	2021/12/14

Application Number	Patent Title	Filing Date
	POSITIONING SYSTEM BASED ON TIME-FREQUENCY ANALYSIS	
2021/10483	LIGNAN GLYCOSIDE COMPOUND FROM BARK OF ALBIZIA JULIBRISSIN FOR PROMOTING ENDOTHELIAL CELL PROLIFERATION AND USE THEREOF	2021/12/15
2021/10508	CHEILINUS UNDULATUS CONSERVATION METHOD	2021/12/17
2021/10509	METHOD FOR DETECTING HEAVY METALS IN POLYETHYLENE PLASTICS	2021/12/17
2021/10510	TRACTION TYPE NO-TILLAGE PRECISION SEEDER	2021/12/17
2021/10511	NEW LINING STRUCTURE AT INGATE OF DEEP WELL	2021/12/17
2021/10512	SOXHLET EXTRACTION METHOD FOR CHAENOMELES PLANT SEED OIL	2021/12/17
2021/10513	GENETIC MARKER FOR DIAGNOSIS OF LIDDLE SYNDROME AND USE THEREOF IN PREPARATION OF DIAGNOSTIC KIT FOR LIDDLE SYNDROME	2021/12/17
2021/10514	ARTILLERY PROJECTILE WITH SEPARABLE PROJECTILE BASE FOR REDUCED MASS AND EXTENDED RANGE	2021/12/17
2021/10515	ROCK MASS DAMAGE MONITORING METHOD IN ROCK FOUNDATION PIT EXCAVATION PROCESS	2021/12/17
2021/10516	BIM STANDARDIZED MODELING METHOD FOR HIGH-SPEED RAILWAY SWIVEL BRIDGE	2021/12/17
2021/10517	DOOR LOCK SYSTEM BASED ON WEAK RADIOACTIVE SOURCE	2021/12/17
2021/10518	CHARACTERIZATION METHOD OF RUBBER WEARING LOSS	2021/12/17
2021/10519	SAFETY MONITORING AND EARLY WARNING METHOD AND SYSTEM, STORAGE MEDIUM AND EARLY WARNING PLATFORM FOR SWIVEL BRIDGE	2021/12/17
2021/10520	TUNNEL WIND PRESSURE VISUAL MONITORING METHOD, SYSTEM, STORAGE MEDIUM AND DEVICE	2021/12/17
2021/10521	INDOOR TEST METHOD OF TIRE WET SKID RESISTANCE	2021/12/17
2021/10522	LIGHTWEIGHT POLYMER NANOCOMPOSITE MATERIAL WITH	2021/12/17

Application Number	Patent Title	Filing Date
	ISOLATION STRUCTURE AND PREPARATION METHOD THEREOF	
2021/10523	GRAPHENE SUPPORTED SILICA HYBRID FILLER AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF	2021/12/17
2021/10524	FLAME-RETARDANT PROTECTIVE COATING OF RUBBER AND PLASTIC PRODUCTS AND PREPARATION METHOD THEREOF	2021/12/17
2021/10525	DEVICE AND METHOD FOR REAL-TIME MONITORING TEMPERATURE DYNAMIC CHANGE IN DESTRUCTION PROCESS OF COAL CONTAINING GAS	2021/12/17
2021/10526	SPR-BASED SPIRAL PHOTONIC CRYSTAL FIBER TEMPERATURE SENSOR	2021/12/17
2021/10527	A SUCTION BUCKET FOR OFFSHORE WIND TURBINE AND CONSTRUCTION METHOD THEREOF	2021/12/17
2021/10531	METHODS OF IMPROVING SALINE-ALKALI RESISTANCE OF GOSSYPIUM SPP	2021/12/17
2021/10532	SYSTEM AND PROCESS FOR PURIFYING AND RECYCLING FECAL SEWAGE BASED ON PHYSICOCHEMICAL METHOD	2021/12/17
2021/10533	PORTABLE TESTING DEVICE OF BUILDING MATERIAL COMBUSTION PERFORMANCE AND TESTING METHOD THEREOF	2021/12/17
2021/10534	ROCK CLASSIFICATION METHOD BASED ON DEEP LEARNING OF MICROSCOPIC IMAGES OF ROCK SLICES	2021/12/17
2021/10535	PROBIOTIC AGENT SUITABLE FOR CHLORELLA VULGARIS, PREPARATION METHOD AND APPLICATION THEREOF	2021/12/17
2021/10536	DOCUMENT IMAGE KEY INFORMATION EXTRACTION AND MATCHING METHOD BASED ON GRAPH NEURAL NETWORK	2021/12/17
2021/10537	METHOD FOR DISCRIMINATING THE BEACH-BAR ARCHITECTURE UNITS UNDER CONSTRAINTS OF A GEOLOGICAL MODEL	2021/12/17
2021/10538	INORGANIC ANTI-CORROSIVE FIREPROOF COATING AND PREPARATION METHOD THEREOF	2021/12/17
2021/10539	SOFT-SHELLED TURTLE-DERIVED	2021/12/17

Application Number	Patent Title	Filing Date
	PEPTIDE HDTYYVVAH HAVING ACE INHIBITORY ACTIVITY AND USE THEREOF	
2021/10540	SOFT-SHELLED TURTLE-DERIVED PEPTIDE AIMAG HAVING ACE INHIBITORY ACTIVITY AND USE THEREOF	2021/12/17
2021/10541	METHOD FOR CONSTRUCTING CELL LINE STABLY EXPRESSING CALCIUM ION INDICATOR PROTEIN	2021/12/17
2021/10542	SAFETY EVALUATION METHOD OF EXISTING ARCHITECTURAL CURTAIN WALLS	2021/12/17
2021/10543	METHOD FOR PREPARING HIGH-PERFORMANCE PAL MATERIAL BY USING NON-METALLIC MINERAL PLYGORSKITE	2021/12/17
2021/10544	REMOTE MONITORING DEVICE AND VERIFICATION METHOD FOR DIESEL ENGINE	2021/12/17
2021/10545	MEASUREMENT METHOD OF NORMAL HEIGHT DIFFERENCE BETWEEN TWO GROUND POINTS	2021/12/17
2021/10546	LIGHT WEIGHTING METHOD FOR A THREE-DIMENSIONAL MODEL	2021/12/17
2021/10546	LIGHT WEIGHTING METHOD FOR A THREE-DIMENSIONAL MODEL	2021/12/17
2021/10547	RESEARCH METHOD OF REAL-TIME COMPLEMENTARY TRACKING ALGORITHM UNDER HIGH CONFIDENCE UPDATING STRATEGY	2021/12/17
2021/10548	METHOD FOR PREVENTING AND CONTROLLING MELOIDOGYNE SPP. OF VEGETABLE IN PROTECTED FIELD	2021/12/17
2021/10549	SYNTHESIS METHOD OF ANTHRANILIC DIAMIDE INSECTICIDE	2021/12/17
2021/10550	ALLEY SUSTAINABLE PLANTING METHOD OF MAIZE AND PEA BY FURROW RIDGE CULTURE IN DRY LAND FILM	2021/12/17
2021/10551	INTELLIGENT DEVICE FOR AUTOMATICALLY CLASSIFYING DOMESTIC WASTE BASED ON NETWORK INFORMATION TECHNOLOGY	2021/12/17
2021/10552	ANTI-FALSE NETWORK INFORMATION TECHNOLOGY FOR SUPPLY AND DEMAND INFORMATION BACKGROUND AUDITING AND RELEASE	2021/12/17



Application Number	Patent Title	Filing Date
2021/10553	POWER ELECTRONIC CONVERTER AND CONTROL METHOD BASED ON PWM DOUBLE INTEGRAL SLIDING SURFACE	2021/12/17
2021/10568	TECHNIQUE FOR PRECISE SITE-SPECIFIC RNA SHEARING IN FISH EMBRYO	2021/12/17
2021/10572	METHOD FOR PREPARING ADSORPTION MATERIAL FOR ADSORBING RADIOACTIVE ELEMENTS AND APPLICATION	2021/12/17
2021/10573	PREPARATION AND APPLICATION OF TERMINUS BASE CYTOMETRIC FLUORESCENCE SEQUENCING MICROSPHERES	2021/12/17
2021/10574	LONG TUNNEL WATER DRAINAGE SYSTEM	2021/12/17
2021/10575	DEBRIS FLOW PREVENTION SYSTEM	2021/12/17
2021/10576	COASTAL SLOPE DRAINAGE SYSTEM	2021/12/17
2021/10624	DEVICE FOR ATOMIZING RNAI TO INSECTS AND METHOD THEREOF	2021/12/20
2021/10625	METHOD FOR CREATING WHEAT MOLECULAR BREEDING ELEMENTS CONTAINING QTL FAVORABLE ALLELES	2021/12/20
2021/10626	COMPOSITE EMULSIFIER FOR DIESEL OIL AND MICROEMULSIFIED DIESEL OIL	2021/12/20
2021/10627	A MOVABLE TYPE UNLOADING AND CURING DEVICE FOR BENZOXAZINE RESIN PRODUCTION	2021/12/20
2021/10628	UNIVERSAL DNA VACCINE OF INFLUENZA A VIRUS AND CONSTRUCTION METHOD THEREOF	2021/12/20
2021/10629	FEED ADDITIVE FOR IMPROVING RABBIT IMMUNITY AND PREPARATION METHOD THEREOF	2021/12/20
2021/10630	METHOD AND SYSTEM FOR ELECTROLYTICALLY POLISHING SURFACE OF METAL CYLINDRICAL SPECIMEN	2021/12/20
2021/10631	INDUSTRIAL ROBOT DEMONSTRATION SYSTEM AND METHOD BASED ON AUGMENTED REALITY TECHNOLOGY	2021/12/20
2021/10632	AUGMENTED REALITY INDUCTION AND REMOTE COOPERATION DEVELOPMENT SYSTEM ORIENTED TOWARDS	2021/12/20

Application Number	Patent Title	Filing Date
	DISASSEMBLY AND ASSEMBLY OPERATIONS	
2021/10633	DEVELOPMENT OF FILM THICKNESS MEASURING DEVICE WITH CONFIGURATION OF BALL-ON-CUP FOR SIMULATING ARTIFICIAL JOINT LUBRICATION	2021/12/20
2021/10634	DEEP LEARNING NETWORK-BASED MECHANICAL ASSEMBLY IMAGE SEGMENTATION METHOD AND DEVICE	2021/12/20
2021/10635	METHOD FOR PRODUCING L-AMINO ACID THROUGH FERMENTATION BY USING GALT GENE-DEFICIENT STRAIN	2021/12/20
2021/10636	BIOLOGICAL CONTROL METHOD FOR COTTON DISEASES	2021/12/20
2021/10637	TRIAXIAL MULTI-CRACK HYDRAULIC FRACTURING EXPERIMENTAL DEVICE	2021/12/20
2021/10638	MULTI-PULSE GAS EXPLOSION PRE-SPLITTING DEVICE FOR COAL MINING	2021/12/20
2021/10639	DEVICE FOR IMPROVING COAL BED PERMEABILITY BY USING SUPERCRITICAL CO <sub>2</sub>	2021/12/20
2021/10640	PREPARATION METHOD OF NANO-CELLULOSE-BASED ORAL ULCER PATCH	2021/12/20
2021/10642	SIMPLY SUPPORTED-CONTINUOUS STEEL-CONCRETE COMPOSITE BOX BEAM CONNECTING PIECE STRUCTURE	2021/12/20
2021/10643	FORMULA OF CONTROL AGENT FOR MIRID BUGS IN WINTER JUJUBE GREENHOUSE AND APPLICATION METHOD THEREOF	2021/12/20
2021/10644	PREPARATION PROCESS OF HIPPOPHAE RHAMNOIDES BALL	2021/12/20
2021/10646	A TRAINING DEVICE FOR RECTUS ABDOMINIS DIASTASIS AFTER CESAREAN SECTION	2021/12/20
2021/10647	COLOR PASTE FOR INK OF WATER-BASED PEN	2021/12/20
2021/10648	TEMPERATURE AND HUMIDITY CONTROLLABLE EXPERIMENTAL DEVICE FOR TURBULENCE AGGLOMERATION OF MICRON-SIZED PARTICLES	2021/12/20
2021/10649	BREEDING METHOD FOR REDUCING NUMBER OF BACTERIA AND CONTENT OF HEAVY METALS IN BIVALVE MOLLUSKS	2021/12/20

Application Number	Patent Title	Filing Date
2021/10650	METHOD FOR REGULATING WATER QUALITY IN AQUACULTURE BY USING OOCYSTIS SP	2021/12/20
2021/10652	METHOD FOR CHARACTERIZING RESPONSIVITY OF QUANTUM DOT INFRARED PHOTODETECTOR	2021/12/20
2021/10653	METHOD FOR PREPARING CULTURE MEDIUM FOR PROMOTING VACCINIUM CORYMBOSUM TISSUE CULTURE ROOTING	2021/12/20
2021/10654	HYDROXYALKYL IMIDAZOLINE AMIDE, AND PREPARATION METHOD AND USE THEREOF	2021/12/20
2021/10655	CELLULOSE RED ALGAE POLYSACCHARIDE PLANT HOLLOW CAPSULE AND RAW MATERIAL COMPOSITION AND PREPARATION METHOD THEREOF	2021/12/20
2021/10656	CELLULOSE RHODOPHYTA POLYSACCHARIDE FILM COATING PREMIX AND SOLUTION PREPARATION METHOD THEREOF	2021/12/20
2021/10657	LOST FOAM STEEL-CASTING COATING AND PREPARATION METHOD THEREOF	2021/12/20
2021/10658	HIGH-PRECISION AND ANTI-DEFORMATION APPARATUS FOR MACHINING FLANGE FACE OF SAFETY VALVE	2021/12/20
2021/10660	METHOD FOR CONSTRUCTING THREE-DIMENSIONAL GEOLOGICAL DATA MODEL BASED ON CONFORMAL GEOMETRIC ALGEBRA	2021/12/20
2021/10679	OPTICAL NANOCELLULOSE FILM, AND PREPARATION METHOD THEREFOR AND APPLICATION THEREOF	2021/12/20
2021/10704	A PARTITIONED UNDERGROUND DIAPHRAGM WALL CAPABLE OF BEING USED FOR PHASE CHANGE HEAT STORAGE	2021/12/21
2021/10705	COOKING AND DRYING DEVICE FOR PREBOILED RICE	2021/12/21
2021/10706	ACETYLATED MORINDA OFFICINALIS WATER EXTRACT AND PREPARATION METHOD AND APPLICATION THEREOF	2021/12/21
2021/10707	BREWING TECHNOLOGY OF HIGHLAND BARLEY HEALTH WINE BASED ON BLACK URTICA, GANODERMA AND ZIZIPHUS	2021/12/21

Application Number	Patent Title	Filing Date
	ZIZIPHUS AND ITS PRODUCTS	
2021/10708	METHOD FOR SACCHARIFICATION OF CYPERUS ESCULENTUS SOYBEAN MEAL	2021/12/21
2021/10709	REFERENCE MATERIAL OF REE-RICH DEEP SEA SEDIMENTS AND PREPARATION METHOD THEREOF	2021/12/21
2021/10710	A DEVICE FOR PURIFYING WATER BY USING FRESHWATER SNAIL AQUACULTURE, A NET CAGE PREPARATION METHOD AND A WATER PURIFICATION METHOD	2021/12/21
2021/10711	NON-TEST TUBE RAPID PROPAGATION METHOD FOR OSMANTHUS FRAGRANS (THUNB.) LOUREIRO	2021/12/21
2021/10712	ARC-ADJUSTED HIGH-POWER MICROWAVE PLASMA CVD DEVICE	2021/12/21
2021/10713	PROCESS FOR OPTIMIZING ENZYMOLYSIS EXTRACTION PROCESS OF LAMIOPHLOMIS ROTATA POLYSACCHARIDES BY RESPONSE SURFACE METHOD	2021/12/21
2021/10714	METHOD OF MONITORING ACID ROT DURING CITRUS STORAGE AND TRANSPORTATION	2021/12/21
2021/10715	TRADITIONAL CHINESE MEDICINE FOR RELIEVING THE TOXIC DAMAGE OF ZEARALENONE TO PREGNANT COWS	2021/12/21
2021/10716	FOUR-SIDE-SEALED THREE-DIMENSIONAL BAG PACKAGING MACHINE	2021/12/21
2021/10717	OXYGEN VACANCY STIMULATED DIRECT Z-SCHEME MESOPOROUS CU <sub>2</sub> O/TIO <sub>2</sub> PHOTOCATALYST AND PREPARATION METHOD THEREOF	2021/12/21
2021/10719	MANGANESE DIOXIDE MODIFIED ACTIVATED CARBON COMPOSITE ADSORBENT, PREPARATION METHOD THEREOF AND APPLICATION IN ARSENIC REMOVAL	2021/12/21
2021/10721	INDIAN OCEAN STHENOTEUTHIS OUALANIENSIS FISHING CONDITION FORECASTING METHOD BASED ON HABITAT INDEX MODEL	2021/12/21
2021/10761	TOMATO CULTIVATION METHOD	2021/12/22
2021/10795	ROTARY TRASH CLEANING MACHINE WITH MOTOR LESS PRONE TO BREAKAGE	2021/12/22
2021/10843	METHOD FOR IMPROVING	2021/12/23

Application Number	Patent Title	Filing Date
	MAGNETIC FIELD SENSITIVITY OF METAL FIBER	
2021/10917	Support	2021/12/24
2021/10926	COMPREHENSIVE EVALUATION METHOD OF ANTICLINE FRACTURE-PORE BRINE DEPOSIT	2021/12/24
2021/10952	A PREPARATION METHOD DND APPLICATION OF FES NANOPARTICLES SYNTHESIZED BASED ON SOLVOTHERMAL METHOD	2021/12/15
2021/10953	A SAND BOX MODEL, PHYSICAL SIMULATION METHOD, SYSTEM AND APPLICATION OF EXTENSION DEFORMATION	2021/12/15
2022/00027	BENT LEVER TYPE ANTI-FAILURE ELEVATOR SAFETY GEAR AND ELEVATOR	2022/01/03
2022/00051	LIGHT COMPOSITE FIREPROOF AND THERMALLY-INSULATED DECORATIVE BOARD AND METHOD FOR PRODUCING THE SAME	2022/01/03
2022/00052	FIREPROOF POLYSTYRENE BOARD AND METHOD FOR PRODUCING THE SAME	2022/01/03
2022/00119	DEVICE FOR DISPERSING WATER-SOLUBLE POLYMERS	2022/01/03
2022/00138	SMART EDUCATION PLATFORM FOR FEEDING BACK LEARNING STATE BASED ON TIME NODE MARKS	2022/01/03
2022/00139	BLOCKCHAIN-BASED AGRICULTURAL PRODUCT QUALITY AND SAFETY MONITORING SYSTEM	2022/01/03
2022/00140	RAINFALL PREDICTION GUIDANCE SAMPLING METHOD AND SAMPLING DEVICE	2022/01/03
2022/00143	PREPARATION METHOD OF EXTRACTION DEVICE FOR ENRICHING POLYCYCLIC AROMATIC HYDROCARBONS	2022/01/03
2022/00149	CONVEYOR BELT FOR FORAGE CRUSHERS	2022/01/03
2022/00166	ECOLOGICAL SOIL SOLIDIFIER AND PREPARATION METHOD THEREFOR	2022/01/03
2022/00198	STORAGE PIT	2022/01/04
2022/00199	MECHANIZED DOUBLE-FILM MULCHING CULTIVATION METHOD OF PELLETTED MONOGERM BEET SEEDS AND BEET PLANTING MODE	2022/01/04



Application Number	Patent Title	Filing Date
2022/00236	PREPARATION METHOD FOR GERMINATED TARTARY BUCKWHEAT POWDER	2022/01/04
2022/00239	KIT FOR RAPIDLY DETECTING VIBRIO CHOLERAE	2022/01/04
2022/00240	METHOD FOR SEA BUCKTHORN SEEDLING CULTURE	2022/01/04
2022/00252	ARTIFICIAL CULTURE DEVICE FOR XYLARIA HYPOXYLON	2022/01/05
2022/00253	RHIZOSPHERE GROWTH-PROMOTING WATER-SOLUBLE MICROBIAL FERTILIZER AND PREPARATION METHOD THEREOF	2022/01/05
2022/00254	SUPPORTED HIGH-ENTROPY ALLOY ACTIVATED CARBON CATALYST FOR ACETYLENE HYDROCHLORINATION AND PREPARATION METHOD AND USE THEREOF	2022/01/05
2022/00320	METHOD FOR CONTROLLING RADIX SAPOSHNIKOVIAE ROOT ROT OR LEAF SPOT CAUSED BY ALTERNARIA	2022/01/06
2022/00422	FOUR-STAGE TYPE LINEAR FATTENING FEEDING TECHNIQUE FOR PRODUCING SNOW BEEF	2022/01/10
2022/00442	MONGOLIAN MEDICINE COMPOSITION FOR TREATING RENAL INSUFFICIENCY	2022/01/10
2022/00480	PROCESS FOR LEACHING GOLD FROM GOLD CONCENTRATE CONTAINING SULFUR AND ARSENIC BY SELF-COORDINATION DISSOLUTION OF GOLD AND SULFUR	2022/01/11
2022/00573	10% PROBIOTIC NUTRITIVE PREMIX FEED FOR SUCKLING PIGS	2022/01/12
2022/00580	HIGH-LINEARITY AND LOW-HARMONIC RADIO FREQUENCY SWITCHING CIRCUIT STRUCTURE	2022/01/12
2022/00582	AN AI BASED MODEL TO DETERMINE THE WATER QUALITY INDEX AND AUTOMATIC DETECTION OF GARBAGE FLOATING IN RIVER	2022/01/12
2022/00600	CASHMERE KNOTTED YARN FABRIC AND PRODUCTION METHOD THEREFOR	2022/01/12
2022/00602	METHOD FOR USING COMPUTERIZED TWO-NEEDLE FLAT-BED KNITTING MACHINE TO KNIT TWO-SIDED RIDGED JACQUARD KNITTED FABRIC	2022/01/12

Application Number	Patent Title	Filing Date
2022/00604	METHOD FOR SUBSIDENCE-LIMITED EXTRACTION BASED ON SUPPORT OF PSEUDO-GAOF LAYER FORMED BY CEMENTING ROCK STRATA AND GANGUES	2022/01/12
2022/00620	FORMULA FOR DUCK EGG COATING PRESERVATION SOLUTION AND PRESERVATION METHOD	2022/01/12
2022/00622	NOVEL CROSSHEAD TYPE TWO-STROKE STRAIGHT SCAVENGING PISTON DEVICE	2022/01/12
2022/00623	AUTOMATIC BALANCING DEVICE FOR BEAM PUMPING UNITS	2022/01/13
2022/00625	NOVEL ON-LINE REAL-TIME IDENTIFICATION AND DETECTION DEVICE FOR COAL AND GANGUE	2022/01/13
2022/00626	HORSEHEAD OVERTURNING DEVICE OF BEAM PUMPING UNIT	2022/01/13
2022/00631	AUTONOMOUS OBSTACLE AVOIDING SNAKELIKE CRAWLER TRAVELING TYPE CRUSHING CONVEYOR	2022/01/13
2022/00632	CHAIN TENSION ONLINE-DETECTION DEVICE AND METHOD	2022/01/13
2022/00633	PROSPECTING METHOD FOR FLUORITE IN RESIDUAL SLOPE OVERBURDEN AREA	2022/01/13
2022/00634	CHAIN TENSION DETECTION DEVICE	2022/01/13
2022/00635	STEPPING TYPE FULL-HYDRAULIC ROADWAY LOADING AND TRANSPORT DEVICE	2022/01/13
2022/00636	METHOD FOR ELECTROCATALYTIC NITROGEN REDUCTION CATALYST	2022/01/13
2022/00637	AWAVE PIEZOELECTRIC-ELECTROMAGNETIC COMPOSITE ENERGY HARVESTER	2022/01/13
2022/00638	HOLLOW BEAD-FILLED ALUMINUM ALLOY FLOOR	2022/01/13
2022/00639	LOADING AND TESTING DEVICE FOR SCRAPER CONVEYOR	2022/01/13
2022/00640	METHOD FOR EXTRACTING REGENERATED FULVIC ACID FROM LOW-METAMORPHIC LIGNITE	2022/01/13
2022/00641	DOUBLE-SHIELDING-STRUCTURE MATERIAL WITH DIRECTIONAL ELECTROMAGNETIC SHIELDING PERFORMANCE AND PREPARATION METHOD THEREOF	2022/01/13
2022/00642	A KIND OF PREPARATION METHOD AND APPLICATION OF NISIN	2022/01/13

Application Number	Patent Title	Filing Date
	MODIFIED PRODUCT	
2022/00644	METHOD AND SYSTEM FOR CALCULATING AS WELL AS METHOD FOR OPTIMIZING RESISTANCE LOSS OF SLURRY IN HORIZONTAL BENDS	2022/01/13
2022/00646	NANO-ARRAY SENSOR BASED ON DNA ORIGAMI-APTAMER AND PREPARATION METHOD AND USE THEREOF	2022/01/13
2022/00647	ACTIVE SUPPORT STRUCTURE AND METHOD FOR LIMIT INVASION AND DEFORMATION OF TUNNEL SURROUNDING ROCK AFTER EXCAVATION AND SUPPORT	2022/01/13
2022/00675	CONCENTRIC DOUBLE-SHAFT REVERSING STIRRING COAL SLIME WATER PULPING DEVICE FOR LABORATORIES	2022/01/14
2022/00676	NOVEL CROSSHEAD TYPE TWO-STROKE STRAIGHT SCAVENGING PISTON ASSEMBLY	2022/01/14
2022/00677	ABSORPTION AND CONSTANT VOLUME MODULE AND ION CHROMATOGRAPHY ANALYSIS SYSTEM	2022/01/14
2022/00693	METHOD FOR STABILIZING AND RESTORING COPPER TAILINGS BY COAL GANGUE AND PLANTS	2022/01/14
2022/00713	EFFICIENT NETWORK MESSAGE CLASSIFICATION METHOD	2022/01/14
2022/00714	CHIP BUDDING METHOD FOR QUECUS MONGOLICA	2022/01/14
2022/00716	METHOD AND DEVICE FOR RESEARCHING INFECTION EFFECTS OF NEMATODES ON ASPERGILLUS FLAVUS UNDER DROUGHT STRESS CONDITIONS	2022/01/14
2022/00751	A NUMERICAL SIMULATION METHOD OF CONCRETE STRUCTURE FAILURE PROCESS BASED ON DISCRETE ELEMENT	2022/01/17
2022/00757	AUTOMATIC LIFTING CONTROL SYSTEM FOR TRANSPLANTING MECHANISM OF RIDE-ON RICE TRANSPLANTER	2022/01/17
2022/00758	AEROSOL PARTICLE SIZE DISTRIBUTION INVERSION SYSTEM WITH MULTI-WAVELENGTH LASER RADAR	2022/01/17
2022/00759	CATERPILLAR BINDER OF 160; HERBACEOUS MULBERRY	2022/01/17
2022/00761	METHOD FOR PREPARING	2022/01/17

Application Number	Patent Title	Filing Date
	AROMATIC NITRO CHIRAL COMPOUND CONTAINING IMIDAZOLE STRUCTURE	
2022/00763	METHOD FOR PREPARING HIGH-STRENGTH FOAM GLASS MATERIALS BY USING COPPER TAILINGS	2022/01/17
2022/00764	METHOD FOR CULTIVATING CASTANEA MOLLISSIMA-TUBER AESTIVUM MYCORRHIZAL SEEDLINGS BY USING TREE-FUNGUS MUTUAL SELECTION MECHANISM AND APPLICATION	2022/01/17
2022/00767	PREPARATION METHOD OF ENERGY-SAVING LOW-SULFUR LOW-ASH ENVIRONMENT-FRIENDLY COAL WATER SLURRY	2022/01/17
2022/00867	METHOD FOR QUANTITATIVE DETECTION OF MEAT PRODUCT PORCINE-DERIVED MATERIALS BASED ON REAL-TIME FLUORESCENT PCR	2022/01/19
2022/00869	ROBUST ECHO CANCELLATION METHOD IN A HANDS-FREE CALL SYSTEM	2022/01/19
2022/00908	HERBICIDAL COMPOSITION CONTAINING R-TYPE PYRIDYLOXY CARBOXYLIC ACID DERIVATIVE AND USE THEREOF	2022/01/19
2022/00917	TAIL GAS UNIT ACTIVE EMPTYING MECHANISM	2022/01/20
2022/00919	DEVICE FOR MARKING REVERSIBLE LANE LINES AND WORKING METHOD THEREOF	2022/01/20
2022/00920	HYDROGENATED POLYMER BLEND MATERIAL AND PREPARATION METHOD THEREOF	2022/01/20
2022/00921	OPEN-FIELD DIRECT-SEEDING SIMPLIFIED CULTIVATION METHOD FOR SHORT-SEASON COTTON IN COASTAL SALINE-ALKALI SOIL	2022/01/20
2022/00922	DOUBLE-ROW VENETIAN BLINDS SHEET TROMBE WALL DEVICE AND USING METHOD THEREOF	2022/01/20
2022/00923	DECORATION WITH BUILT-IN EMBROIDERY AND PREPARATION METHOD THEREOF	2022/01/20
2022/00924	QUICK FREEZING DEVICE FOR BLADE	2022/01/20
2022/00925	FERTILIZATION DEVICE FOR FOREST OPERATION	2022/01/20
2022/00926	SECURITY TESTING FOR SDN BASED CONTROL SYSTEM	2022/01/20

Application Number	Patent Title	Filing Date
2022/00929	METHOD FOR PRECISELY DETECTING GEOLOGICAL STRUCTURES BASED ON DIRECTIONAL PHASE-CHANGE VECTOR SEISMOMETRY-WHILE-DRILLING	2022/01/20
2022/00931	BACILLUS VELEZENSIS EM-1 STRAIN AND USE THEREOF	2022/01/20
2022/00933	METHOD FOR PREPARING MACKEREL IMMUNITY POLYPEPTIDE	2022/01/20
2022/00935	A FERTILIZER CONTAINING CHITOSAN OLIGOSACCHARIDE AND ITS PREPARATION METHOD AND APPLICATION	2022/01/20
2022/00937	INTELLIGENT FARMLAND IRRIGATION FORECASTING SYSTEM	2022/01/20
2022/00960	COLD STORAGE	2022/01/20
2022/00968	HIGH-EFFICIENCY SLOW RELEASE SUPEROVULATION METHOD FOR SHEEP	2022/01/21
2022/00987	METHOD FOR QUICKLY TESTING NICOTINE CONTENT IN FLUE-CURED TOBACCO LEAVES	2022/01/21
2022/00988	A HYBRID COMBINED POWER SYSTEM	2022/01/21
2022/00989	A DEVICE INTEGRATING THE FUNCTIONS OF A GAS STOVE, AN AIR CONDITIONER AND A WATER HEATER	2022/01/21
2022/00991	AN ORGANIC-INORGANIC HYBRID PHOTOELECTRIC DETECTOR	2022/01/21
2022/00994	ROADWAY INTELLIGENT TRANSIENT ELECTROMAGNETIC DETECTION AND REAL-TIME EARLY WARNING METHOD	2022/01/21
2022/00995	ARTIFICIAL INTELLIGENCE PATHOLOGY SAMPLING AND MAPPING DEVICE	2022/01/21
2022/00996	VERATONE PREPARATION PROCESS	2022/01/21
2022/01055	INTELLIGENT ENVIRONMENT PRECISE CONTROLLER FOR LIVESTOCK AND POULTRY HOUSES	2022/01/24
2022/01098	APPLICATION OF RHODIOLA CRENULATA EXTRACT IN PREPARING FOODS, MEDICINES OR HEALTH CARE PRODUCTS INHIBITING ACTIVITY OF AMYLASE AND GLUCOSIDASE	2022/01/25



Application Number	Patent Title	Filing Date
2022/01099	AUTOMATIC CUTTINGS CLEANING DEVICE WITH REEL-TYPE MULTI-APERTURE SCREEN	2022/01/25
2022/01103	HYDRAULIC SUPPORT FOR FILLING BEHIND SUPPORT AND OPERATION AND USE METHOD THEREOF	2022/01/25
2022/01104	RAPID AND EFFICIENT BREEDING METHOD OF STARCH-TYPE SWEET POTATO CULTIVAR	2022/01/25
2022/01105	CARBON/CARBON FIBER FRICTION MATERIAL AND PREPARATION METHOD AND USE THEREOF	2022/01/25
2022/01106	PHOTOCURING 3D PRINTING INTELLIGENT PRODUCTION LINE BASED ON SIX-AXIS MANIPULATOR	2022/01/25
2022/01107	METHOD FOR FILLING PASTE BEHIND FILLING HYDRAULIC SUPPORTS	2022/01/25
2022/01109	WASTEWATER PURIFICATION DEVICE FOR BIOCHEMICAL EXPERIMENTS	2022/01/25
2022/01110	CONVENIENT-TO-USE AND EFFICIENT DISINFECTION DEVICE FOR BIOCHEMICAL EXPERIMENTS	2022/01/25
2022/01112	VULCANIZING MACHINE GREASE AND PREPARATION METHOD THEREFOR	2022/01/25
2022/01113	USE OF PIWI-INTERACTING RNA PIR-HSA-211106	2022/01/25
2022/01114	PRODUCTION PROCESS AND APPLICATION OF FEED FOR PROMOTING GONADAL DEVELOPMENT OF XENOCYPRIS DAVIDI BLEEKER PARENT FISH	2022/01/25
2022/01115	METHOD FOR IMPROVING APPLE ROOTSTOCK GREENWOOD CUTTING ROOTING BASED ON TRANSIENT TRANSFORMATION	2022/01/25
2022/01117	WATER CLEARING DEVICE FOR FRESHWATER FISH CULTURE	2022/01/25
2022/01118	NONMETAL AUTOMOBILE BRAKE PAD AND PREPARATION METHOD THEREFOR	2022/01/25
2022/01119	ANTIFRICTION AND HEAT CONDUCTION LUBRICATING GREASE FOR MOTOR BEARING OF PURE ELECTRIC VEHICLE	2022/01/25
2022/01121	METHOD AND DEVICE FOR REACTING IN PROTON CONDUCTING MEMBRANE REACTOR TO SYNCHRONOUSLY OBTAIN HIGH PURITY HYDROGEN	2022/01/25

Application Number	Patent Title	Filing Date
	AND CHEMICALS	
2022/01122	SELF-SPLITTING MIXED CONDUCTING THREE-PHASE MEMBRANE MATERIAL AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF	2022/01/25
2022/01123	PANORAMIC ARRAY IMAGE MONITORING, TRACKING AND IDENTIFYING SYSTEM FOR WETLAND BIRDS	2022/01/25
2022/01125	METHOD AND SYSTEM FOR CALIBRATING FREQUENCY OFFSET IN SATELLITE COMMUNICATION	2022/01/25
2022/01127	ULTRAVIOLET DISINFECTION CONTACT DEVICE	2022/01/25
2022/01131	DEVICE AND METHOD FOR DETECTING DRIVING DATA OF FIRE-FIGHTING ROBOT	2022/01/25
2022/01132	HELLBORUS.XHYBRIDUS FOREST CULTIVATION METHOD	2022/01/25
2022/01133	TENSILE STRENGTH DETECTION DEVICE FOR BUCKET ROD OF EXCAVATOR	2022/01/25
2022/01135	PREPARATION METHOD OF STRONG-FLAVOR BLUEBERRY RED WINE	2022/01/25
2022/01136	DEVICE FOR SIMULATING DEGRADATION OF HOUSEHOLD GARBAGE	2022/01/25
2022/01138	CHARGING MANAGEMENT SYSTEM AND METHOD BASED ON DEEP LEARNING	2022/01/25
2022/01141	SIMPLE VENTILATION INSTALLATION FOR PIG FARM	2022/01/25
2022/01142	COMPOUND PREPARATION FOR TREATING TYPE 2 DIABETES AND PREVENTING AND TREATING MACROVASCULAR COMPLICATIONS, PREPARATION METHOD AND APPLICATION METHOD	2022/01/25
2022/01143	FECES FERMENTING HEAT-TAKING HEATING APPARATUS AND USE METHOD	2022/01/25
2022/01145	3D PRINTING MATERIAL AND EQUIPMENT FOR THREE-DIMENSIONAL LASER DEPOSITION MOLDING	2022/01/25
2022/01152	A LATERAL CHROMATOGRAPHY TEST STRIP OF COLLOIDAL GOLD FOR TESTING THE CONCENTRATION OF	2022/01/25

Application Number	Patent Title	Filing Date
	LAMOTRIGINE PLASMA	
2022/01180	A GYNECOLOGICAL SIALIDATE DETECTION KIT	2022/01/26
2022/01181	VR/AR PRODUCT REMOTE DIGITAL-INTELLIGENT ART DISPLAY GLASSES	2022/01/26
2022/01228	AN UNMANNED VEHICLE REMOTE TAKEOVER METHOD BASED ON SCENE FAMILIARITY	2022/01/26
2022/01294	RAIL MOTOR CAR FOR USE IN NARROW CHANNELS OF CABLE PIPES	2022/01/27
2022/01300	AUTOMATIC POSITIONING CLAMPING CONSTAT FORCE LIFTING VERTICAL BICYCLE PARKING DEVICE	2022/01/27
2022/01362	USE OF DIHYDROARTEMISININ AND GYPENOSIDE-L IN MANUFACTURE OF MEDICAMENT FOR RESISTING TUMOR	2022/01/28
2022/01379	ELECTRONIC DEVICE INCLUDING FLEXIBLE PRINTED CIRCUIT BOARD	2022/01/28
2022/01587	SAMPLING DEVICE AND METHOD FOR TRADITIONAL CHINESE MEDICINE CAPSULES AND APPLICATION THEREOF	2022/02/07
2022/01588	PROCESS FOR PREPARING HIGH-PURITY TRIMETHYLMETHOXYSILANE	2022/02/07
2022/01590	A PESTICIDE SPRAYING EQUIPMENT FOR APRICOT ORCHARD	2022/02/07
2022/01591	A TYPE OF SOYBEAN PROTEIN CARROT VEGETARIAN SAUSAGE AND ITS PREPARATION METHOD	2022/02/07
2022/01592	ZN <sup>2+</sup> -AL <sup>3+</sup> -CO <sub>3</sub> 2-LDHS@AL ADSORBING MATERIAL AND APPLICATION THEREOF IN FLUORIDE ION ADSORPTION THROUGH RECYCLING	2022/02/07
2022/01593	SEGMENTAL-TYPE HOLLOW GROUTING ANCHOR CABLE DEVICE FOR GEOTECHNICAL ENGINEERING	2022/02/07
2022/01594	MINING FILLING METHOD FOR ADVANCED REPLACEMENT SECTION COAL PILLAR	2022/02/07
2022/01611	METHOD FOR SIMULTANEOUSLY PREPARING ENERGY GAS AND DETOXIFYING CHROMITE ORE PEOCESSING RESIDUE BY USING SLUDGE	2022/02/07

Application Number	Patent Title	Filing Date
2022/01613	MILK ACIDIFICATION METHOD AND APPLICATION THEREOF IN FEEDING CALVES AND LAMBS	2022/02/07
2022/01614	FIXING SUPPORT FOR BRIDGE ENGINEERING	2022/02/07
2022/01617	A DELAMINATION CRACKING METHOD OF THICK AND HARD ROOF OF COAL MINE BASED ON ENERGY-CONCENTRATED EFFECT OF DETONATION WAVE COLLISION	2022/02/07
2022/01637	MULTI-DIRECTIONAL PULLING-STRAP CRANE TOWER BODY STABILIZING SYSTEM	2022/02/08
2022/01646	PREPARATION METHOD FOR LOW-MOLECULAR-WEIGHT FERMENTED COMPOSITE WHOLE FRUIT AND VEGETABLE FUNGAL CEREAL POWDER	2022/02/08
2022/01649	METHOD FOR MICROWAVE-ASSISTED ALCOHOLYSIS OF POLYURETHANE FROM DISCARDED REFRIGERATORS	2022/02/08
2022/01650	CONTINUOUS MINING AND CONTINUOUS FILLING SYSTEM WITHOUT PERMANENT SUPPORTING AND FILLING AND IMPLEMENTATION METHOD THEREOF	2022/02/08
2022/01651	OPERATION METHOD FOR SINGLE CELL ELECTROPHORESIS ASSAY AND OPERATION METHOD	2022/02/08
2022/01656	FEED ADDITIVE FOR REMOVING VOMITOXIN AND PREPARATION METHOD AND APPLICATION THEREOF	2022/02/08
2022/01657	ENVIRONMENTALLY FRIENDLY VENTILATION SYSTEM FOR DEEP SHAFT EXCAVATION	2022/02/08
2022/01687	FEED ADDITIVE FOR REMOVING MAIZE AFLATOXIN AND PREPARATION METHOD AND APPLICATION THEREOF	2022/02/08
2022/01702	A METHOD FOR IDENTIFYING SASHIMI OF THUNNUS OBESUS, THUNNUS ALALUNGA AND THUNNUS MACCOYII	2022/02/09
2022/01745	ELECTROMAGNETIC WAVE LENS, PRODUCTION METHOD OF ELECTROMAGNETIC WAVE LENS AND LENS ANTENNA	2022/02/10
2022/01746	A FAULT DETECTION METHOD BASED ON KERNEL HYBRID SPATIAL PROJECTION	2022/02/10

Application Number	Patent Title	Filing Date
2022/01748	CATALYST SYSTEM AND APPLICATION THEREOF, AND METHOD FOR PREPARING SYNDIOTACTIC 1,2-POLYBUTADIENE	2022/02/10
2022/01749	HOMOGENEOUS RARE EARTH CATALYST AND PREPARATION METHOD AND APPLICATION THEREOF	2022/02/10
2022/01750	USE OF EXOSOME CIRC RNA PVT1	2022/02/10
2022/01752	MICROALGAE SEPARATION METHOD BASED ON CELL SLIDE	2022/02/10
2022/01753	METHOD FOR DETECTING RELATED SUBSTANCES IN ANTIBACTERIAL EYE DROPS	2022/02/10
2022/01754	METHOD FOR DETERMINING MOLECULAR WEIGHT AND MOLECULAR WEIGHT DISTRIBUTION OF SODIUM HYALURONATE WITH SIZE EXCLUSION CHROMATOGRAPHY	2022/02/10
2022/01755	SEMI-RELEASABLE AORTIC STENT DELIVERY SYSTEM	2022/02/10
2022/01758	INTELLIGENT FRONT CANTILEVER BEAM FOR TEMPORARY SUPPORT DURING ROADWAY EXCAVATION	2022/02/10
2022/01760	RESCUE ROBOT	2022/02/10
2022/01761	INORGANIC POLYMER MODIFIED PROTON EXCHANGE MEMBRANE AND PREPARATION METHOD THEREOF	2022/02/10
2022/01763	METHOD FOR SALT-RESISTANT AND WATERLOGGING-PREVENTING CONCAVE-CONVEX CULTIVATION OF COTTON CROPS IN COASTAL SALINE-ALKALI LAND	2022/02/10
2022/01764	IMPROVED CAPSICUM CHINENSE JACQUIN LEAF GENOME DNA EXTRACTION METHOD	2022/02/10
2022/01765	BUD-REMOVING AND GROWTH-PROMOTING MEDICAL AGENT FOR BANANAS AND PREPARATION METHOD THEREOF	2022/02/10
2022/01766	RAPID CULTIVATION METHOD FOR AVOCADO GRAFTED SEEDLINGS	2022/02/10
2022/01767	AN INTELLIGENT SYSTEM USING PHOTOVOLTAIC HEAT FOR DESALINATION OF SEAWATER AND PRODUCTION OF HYDROGEN	2022/02/10
2022/01768	A RESOURCE SCHEDULING AND PLANNING METHOD BASED ON OPERATIONS RESEARCH	2022/02/10



Application Number	Patent Title	Filing Date
2022/01769	OFFICIAL SEAL WITH PRESSING TURNOVER STRUCTURE	2022/02/10
2022/01770	NANO CERAMIC DISK FILTER	2022/02/10
2022/01771	LUNEBERG LENS ANTENNA CAPABLE OF ELECTRICALLY ADJUSTING POSITIONS OF FEED SOURCES AND LUNEBERG LENS ANTENNA GROUP	2022/02/10
2022/01772	DIGITAL EARTH-BASED VISUALIZATION METHOD AND SYSTEM	2022/02/10
2022/01773	HARMFUL GAS REMOVAL AGENT FOR PRESERVING HORTICULTURAL PRODUCT AND PREPARATION METHOD THEREFOR	2022/02/10
2022/01807	FEED ADDITIVE FOR IMPROVING MATING ABILITY OF BREEDING PIGS OF NORTHEAST MIN PIGS AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF	2022/02/11
2022/01814	METHOD FOR SIMULTANEOUSLY PREPARING TOBACCO ESSENTIAL OIL AND TOBACCO ESSENCE	2022/02/11
2022/01857	METHOD FOR HARMLESS TREATMENT OF WATER BODY SEDIMENT	2022/02/14
2022/01858	MODULAR INTELLIGENT RADIATOR	2022/02/14
2022/01860	GREEN AND EFFICIENT NANO-CELLULOSE PREPARATION METHOD	2022/02/14
2022/01861	HIGH-PRECISION MICRO INDUCTANCE COIL DETECTION DEVICE	2022/02/14
2022/01862	SULFONAMIDE 18 BETA-GLYCYRRHETINIC ACID DERIVATIVE AND PREPARATION METHOD AND USE THEREOF	2022/02/14
2022/01864	PREPARATION METHOD FOR CATALYST FOR CATALYZING HYDROLYSIS OF HYDROGEN CYANIDE	2022/02/14
2022/01865	DEEP-WATER HEAVY-DUTY WINCH SYSTEM	2022/02/14
2022/01866	BIODEGRADABLE MEDICAL GLOVE AND PREPARATION METHOD THEREOF	2022/02/14
2022/01867	SAND COATED IRON MOULD PROCESS FOR PRODUCING STEEL CASTINGS OF DRIVING WHEELS	2022/02/14
2022/01868	INTELLIGENT COMPRESSION-DRYING DEVICE FOR TOFU SKIN	2022/02/14

Application Number	Patent Title	Filing Date
	AND WORKING METHOD THEREFOR	
2022/01870	APPLICATION OF PICHIA KUDRIAVZEVII IN DEGRADATION OF BIOGENIC AMINES	2022/02/14
2022/01871	GROUND DIRECT INJECTION SYSTEM AND METHOD FOR MINING LIQUID CO <sub>2</sub>	2022/02/14
2022/01872	E-HEALTH MONITORING AND ATTENDANCE TRACKING SYSTEM	2022/02/14
2022/01877	ANTI-MYCOTOXIN FEED ADDITIVE FOR PIGS AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF	2022/02/14
2022/01878	FEED ADDITIVE FOR PREVENTING AND TREATING PORCINE RESPIRATORY DISEASE COMPLEX AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF	2022/02/14
2022/02008	TRADITIONAL CHINESE MEDICINE COMPOSITION FOR PREVENTING AND TREATING ACARIASIS OF MIN PIGS AND PREPARATION METHOD AND APPLICATION THEREOF	2022/02/17
2022/02009	FEED ADDITIVE FOR PREVENTING AND TREATING RHEUMATISM OF MIN PIGS AND PREPARATION METHOD AND APPLICATION THEREOF	2022/02/17
2022/02011	AN INTELLIGENT AUTOMATED NOVEL SECURITY CONVEYER TUNNEL TO CHECK MEDICINAL DUPLICATION IN SUPPLY CHAIN MANAGEMENT	2022/02/17
2022/02012	A NOVEL MODEL ON EMPLOYEES' WELLNESS FOR ENHANCED BUSINESS TURNOVER	2022/02/17
2022/02025	FERROUS METAL PHOSPHIDE OF HOLLOW OPENING STRUCTURE AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF	2022/02/17
2022/02026	AN ASSEMBLY OF ABRASIVE JET MACHINING	2022/02/17
2022/02059	UNDERWATER ACOUSTIC COMMUNICATION SIGNAL MODULATION RECOGNITION METHOD BASED ON FEATURE SELECTION AND SUPPORT VECTOR MACHINES	2022/02/18
2022/02060	SELF-DEFENSE INTEGRATED FIGHTING ART AUXILIARY DEVICE WITH FUNCTION OF FACILITATING	2022/02/18

Application Number	Patent Title	Filing Date
	MOVEMENT	
2022/02061	COMPUTER-CONTROLLED CHEMICALLY-DEWATERING DRUG- FEEDING EQUIPMENT	2022/02/18
2022/02062	BOOKSHELF BOOK TAKING DEVICE	2022/02/18
2022/02063	BIOLOGICAL BREEDING OBSERVATION APPARATUS	2022/02/18
2022/02064	A PARALLEL ANALYSIS METHOD OF WATER BASIN FLOW DIRECTION AND ACCUMULATED CONFLUENCE BASED ON CUDA ARCHITECTURE D8 ALGORITHM	2022/02/18
2022/02065	SEEDER TERMINAL DRIP IRRIGATION TAPE TRACTION FIXING DEVICE	2022/02/18
2022/02066	SIGNAL PROCESSING SYSTEM AND METHOD BASED ON FIELD PROGRAMMABLE GATE ARRAY (FPGA) FOR LASER VELOCIMETER	2022/02/18
2022/02067	POROUS ORGANIC FRAMEWORK MATERIAL AND PREPARATION METHOD THEREOF, AND APPLICATION IN SELECTIVE SEPARATION OF PERRHENATE RADICALS	2022/02/18
2022/02068	MOLECULAR MARKER ASSISTED BREEDING METHOD OF DANZHOU CHICKENS	2022/02/18
2022/02070	EUROPIUM METAL ORGANIC FRAMEWORK MATERIAL AND PREPARATION METHOD AND APPLICATION THEREOF	2022/02/18
2022/02071	MULTI-PHASE NANOCOMPOSITE MATERIAL OF SANDWICH STRUCTURE, PREPARATION METHOD THEREFOR AND USE THEREOF	2022/02/18
2022/02072	PREPARATION METHOD FOR CARBOXYMETHYLCELLULOSE COMPOSITE MATERIAL WITH HIGH STRENGTH	2022/02/18
2022/02073	PREPARATION METHOD FOR BACTERIAL CELLULOSE-BASED ANTIBACTERIAL COMPOSITE MATERIAL	2022/02/18
2022/02074	CONCRETE MICRO-CRACK SEALING MATERIAL, PREPARATION METHOD AND APPLICATION THEREOF	2022/02/18
2022/02076	PORTABLE ULTRAVIOLET DISINFECTION CONTACT DEVICE	2022/02/18
2022/02077	SELF-SERVICE URINE MEASURER PREVENTING CROSS INFECTION	2022/02/18

Application Number	Patent Title	Filing Date
2022/02079	STABLE SODIUM NEW HOUTTUYFONATE ESTER COMPOUNDS	2022/02/18
2022/02080	MAKING PROCESS OF A PAPER DIAPER SURFACE LAYER MATERIAL WITH URINE TEST FUNCTION	2022/02/18
2022/02082	PHASE ADJUSTABLE ALTERNATING CURRENT POWER SOURCE BASED ON ROTATING MAGNETIC FIELD	2022/02/18
2022/02083	A PREMIX OF TRACE ELEMENTS FOR PENAEUS VANNAMEI AND PREPARATION METHOD AND APPLICATION THEREOF	2022/02/18
2022/02085	SHAMPOO WITH OIL BALANCING, ANTI-BACTERIA, ANTI-INFLAMMATION AND SCALP REPAIRING EFFECTS	2022/02/18
2022/02087	AROMATIC FURFURYL ALCOHOL COMPOUND AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF, AND METHOD FOR IDENTIFYING HONEY ADULTERATED WITH CORN SYRUP	2022/02/18
2022/02088	ROSE JELLY AND PREPARATION METHOD THEREOF	2022/02/18
2022/02089	HYDRAULIC MULTI-CHANNEL DROPPER VIBRATION FATIGUE TEST DEVICE	2022/02/18
2022/02090	ORGANIC/INORGANIC COMPOSITE HEAT INSULATING MATERIAL AND PREPARATION METHOD THEREOF	2022/02/18
2022/02103	WIND TUNNEL EXPERIMENTAL DEVICE FOR SAILBOAT	2022/02/18
2022/02106	LOW TEMPERATURE GROUTING MATERIAL FOR REINFORCING COAL AND ROCK MASS FOR MINING, PREPARATION METHOD AND ITS APPLICATION	2022/02/18
2022/02120	OPTIMIZATION METHOD FOR TRACE CFDNA EXTRACTION AND DOCKING HIGH-THROUGHPUT SEQUENCING LIBRARY	2022/02/18
2022/02121	METHOD FOR EXTRACTING TRACE DNA BASED ON DRIED BLOOD TABLETS	2022/02/18
2022/02162	GANGUE DISCHARGING DEVICE AND GANGUE LOADING AND DISCHARGING SYSTEM FOR SHAFT CONSTRUCTION	2022/02/21
2022/02226	PREPARATION METHOD OF BARLEY GREEN LEAF TEA	2022/02/22

Application Number	Patent Title	Filing Date
2022/02261	MANUAL FIDELITY SAMPLING DEVICE CAPABLE OF LOCKING SALT AND WATER AND USE METHOD THEREFOR	2022/02/23
2022/02262	TUNNEL GRAVITY METHOD FOR DETERMINING DEEP EXTENSION OF HIGH-DENSITY VERTICAL OREBODY	2022/02/23
2022/02265	FOREIGN OBJECT INTRUSION DETECTING SYSTEM FOR ROAD TRAFFIC BASED ON DEEP LEARNING AND BACKGROUND SUBTRACTION	2022/02/23
2022/02266	METHOD FOR REALIZING AERATION AND OXYGENATION BY UTILIZING NATURAL WIND ENERGY TO LIFT WATER TO DRIVE EXTERNAL CIRCULATION OF WATER BODY	2022/02/23
2022/02267	METHOD AND SYSTEM FOR MANUFACTURING FLEXIBLE TRANSPARENT CONDUCTIVE FILM WITH EMBEDDED METAL MATERIAL	2022/02/23
2022/02268	METHOD FOR IDENTIFYING MEDICINAL MATERIAL TETRASTIGMA HEMSLEYANUM DIELS ET GILG BASED ON POLYAMIDE THIN-LAYER CHROMATOGRAPHY	2022/02/23
2022/02269	HANDHELD IMAGING DEVICE AND DRY EYE EXAMINATION APPARATUS	2022/02/23
2022/02270	METHOD FOR PREPARING HIGH-CONTENT SLUDGE CERAMSITE	2022/02/23
2022/02271	LAMP BOX FABRIC	2022/02/23
2022/02272	TREATMENT METHOD OF COAL RUST WATER	2022/02/23
2022/02273	RURAL SEWAGE TREATMENT METHOD	2022/02/23
2022/02274	IRON-REDUCING BACTERIUM TESSARACOCCLUS OLEIAGRI DH10 STRAIN AND APPLICATION THEREOF	2022/02/23
2022/02275	METHOD FOR PREPARING HIGH-PURITY MAGNESIUM OXIDE FROM MAGNESIUM SULFATE SUBTYPE SALT LAKE BRINE AS RAW MATERIAL	2022/02/23
2022/02276	METHOD FOR IMPROVING GRANULATION STRENGTH OF POTASSIUM SULFATE	2022/02/23
2022/02277	PREPARATION METHOD OF	2022/02/23



Application Number	Patent Title	Filing Date
	FUNCTIONAL SWEET-WAXY CORN COMPOUND RECONSTITUTED MEAL	
2022/02278	PHYSICAL EXAMINATION DEVICE AND PHYSICAL EXAMINATION SET FOR NEUROLOGY	2022/02/23
2022/02279	AUTOMATIC SAMPLE DILUTING METHOD	2022/02/23
2022/02280	METHOD FOR SPHERICAL GRANULATION OF POTASSIUM SULFATE	2022/02/23
2022/02281	METHOD FOR IMPROVING PARTICLE SIZE OF POWDER POTASSIUM MAGNESIUM SULFATE FERTILIZER	2022/02/23
2022/02282	METHOD FOR PREPARING HIGH-GRADE POTASSIUM MAGNESIUM SULFATE FERTILIZER BY USING CRUDE POTASSIUM CHLORIDE AND CRUDE PICROMERITE	2022/02/23
2022/02283	METHOD FOR PREPARING GUARANTEED HIGH-GRADE POTASSIUM MAGNESIUM FERTILIZER BY HIGH-TEMPERATURE CONVERSION METHOD	2022/02/23
2022/02285	FIDELITY SAMPLING DEVICE FOR SOLID PHASE AND LIQUID PHASE BELOW BRINE AND METHOD	2022/02/23
2022/02286	TRIAXIAL TEST APPARATUS FOR RHEOLOGICAL DISTURBANCE EFFECT OF ROCK	2022/02/23
2022/02287	INTELLIGENT URBAN PARKING SYSTEM	2022/02/23
2022/02288	INTELLIGENT URBAN TRAFFIC CONTROL SYSTEM	2022/02/23
2022/02290	PEST ERADICATION DEVICE FOR HAWTHORN TREE PLANTING	2022/02/23
2022/02291	ROSE-PINE POLLEN-HONEY BUCCAL TABLET AND PREPARATION METHOD THEREOF	2022/02/23
2022/02292	SEA URCHIN-SHAPED SILICON-CARBON COMPOSITE MATERIAL AS WELL AS PREPARATION METHOD AND APPLICATION THEREOF	2022/02/23
2022/02341	HETEROGENEOUS WIRELESS COMMUNICATION METHOD AND SYSTEM BASED ON PHOTON HYPER-ENTANGLEMENT STATE	2022/02/24
2022/02342	USE OF SOLANUM PENNELLII CALCIUM-DEPENDENT PROTEIN KINASE 33 (SPCPK33) GENE AND	2022/02/24

Application Number	Patent Title	Filing Date
	ENCODED PROTEIN THEREOF IN REGULATION OF TOMATO DROUGHT TOLERANCE	
2022/02343	SESSION KEY UPDATING METHOD APPLIED TO DYNAMIC QUANTUM NETWORK	2022/02/24
2022/02344	QUANTUM DIALOGUE METHOD AND SYSTEM BASED ON ANONYMOUS ENTANGLEMENT DISTRIBUTION	2022/02/24
2022/02346	WIND TURBINE TOWER SURFACE PRESSURE MEASURING METHOD SUITABLE FOR WIND TUNNEL EXPERIMENT	2022/02/24
2022/02347	ORGANIC ACTIVE DROUGHT-RESISTANT FERTILIZER AND PREPARATION METHOD THEREOF	2022/02/24
2022/02353	METHOD AND SYSTEM FOR OPTIMIZING OPEN-PIT MINE LIMITS BASED ON CONSIDERATION OF ECOLOGICAL ENVIRONMENT	2022/02/24
2022/02354	MULTI-PARAMETER OBSERVATION SYSTEM FOR UNDERWATER LIGHT FIELD AND MARINE ENVIRONMENT	2022/02/24
2022/02355	METHOD AND SYSTEM FOR OPTIMIZING MINING PLAN BASED ON CONSIDERATION OF ECOLOGICAL ENVIRONMENT	2022/02/24
2022/02356	METHOD AND SYSTEM FOR OPTIMIZING FINAL BOUNDARY OF METAL OPEN-PIT MINE	2022/02/24
2022/02357	FOOD DETECTION SAMPLE HARMLESS TREATMENT DEVICE AND METHOD OF USE	2022/02/24
2022/02358	A NEW TYPE OF STAINLESS STEEL CORE DOUBLE-SIDED PVT HYBRID ELECTRIC HEATING COMPONENT	2022/02/24
2022/02389	APPLICATION OF TARAXASTEROL IN PREPARING DRUGS FOR ENHANCING THE ANTI-TUMOR IMMUNITY OF T CELLS	2022/02/25
2022/02390	METHOD FOR IDENTIFYING DISEASE RESISTANCE OF WALNUT BY STOMATAL DENSITY OF WALNUT LEAVES	2022/02/25
2022/02391	EXTRUSION DEVICE SUITABLE FOR PASTE PACKED IN COLLAPSIBLE TUBE	2022/02/25
2022/02393	CONTACT LINE RESISTANCE MEASUREMENT DEVICE	2022/02/25
2022/02395	MULTI-CHANNEL OVERHEAD CONTACT LINE PART FATIGUE TEST DEVICE	2022/02/25

Application Number	Patent Title	Filing Date
2022/02396	MULTI-CHANNEL OVERHEAD CONTACT LINE COMPENSATION DEVICE FATIGUE TEST SYSTEM	2022/02/25
2022/02397	PORTABLE TURNOUT OPERATION DEVICE AND TURNOUT OPERATION METHOD	2022/02/25
2022/02398	HIGH-STRENGTH RAPID WATER-ABSORBENT RESIN AND PREPARATION METHOD THEREOF	2022/02/25
2022/02403	ANCHORING DEVICE AND METHOD FOR REINFORCED CONCRETE PIER COLUMN ATTACHMENT APPARATUS	2022/02/25
2022/02407	COMPOSITE MATERIAL FOR CONSTRUCTING ECOLOGICAL ARTIFICIAL REEF AND MANUFACTURING METHOD THEREOF	2022/02/25
2022/02421	MOLYBDENUM DISULFIDE/GRAPHENE/CARBON COMPOSITE MATERIAL AND USE THEREOF	2022/02/25
2022/02450	AEROBIC CO-METABOLIC TREATMENT OF LIGNITE UPGRADING WASTEWATER	2022/02/28
2022/02451	A METHOD FOR TREATING DOUBLE-SLUDGE SEWAGE BASED ON HPA/HYDROGEN AUTOTROPHIC DENITRIFICATION COUPLING MECHANISM	2022/02/28
2022/02452	METHOD FOR BIOSCALE DETECTION IN OLD CITY PIPE NETWORK	2022/02/28
2022/02453	REVERSED-PHASE MICROEMULSION METHOD FOR PREPARING KAOLIN/TITANIUM DIOXIDE COMPOSITE FILLERS	2022/02/28
2022/02454	METHOD FOR PROCESSING ROASTED-FLAVOR MACADAMIA NUTS	2022/02/28
2022/02455	LASER PROCESSING DEVICE AND METHOD WITH BEAM SHAPING	2022/02/28
2022/02456	HIGH-ENTROPY ALLOY WITH DESIRABLE HOT WORKING PERFORMANCE AND PREPARATION METHOD THEREFOR	2022/02/28
2022/02457	AGRICULTURAL INSECTICIDAL COMPOSITION AND APPLICATION THEREOF	2022/02/28
2022/02458	FE/GRAPHENE/BIOCHAR AND A CARBON-BASED SLOW-RELEASE COMPOUND FERTILIZER SPECIAL	2022/02/28

Application Number	Patent Title	Filing Date
	FOR CORN AND APPLICATION THEREOF	
2022/02465	SCREEN-FREE PROGRAMMING LEARNING SYSTEM AND PROGRAMMING METHOD THEREOF	2022/02/28
2022/02472	METHOD FOR PREPARING PEA PROTEIN FERMENTED MILK	2022/02/28
2022/02475	GROUND PENETRATING RADAR FEATURE EXTRACTION METHOD AND SYSTEM BASED ON COMPRESSED SENSING	2022/02/28
2022/02478	CULTURE MEDIUM APPLICABLE TO LIQUID FERMENTATION PRODUCTION OF PHELLINUS IGNIARIUS	2022/02/28
2022/02479	FLEXIBLE MANUFACTURING UNIT BASED ON CNC MACHINE	2022/02/28
2022/02480	METHOD FOR IN-SITU CADMIUM REMOVAL FROM GROUNDWATER	2022/02/28
2022/02483	DISSIPATION STRUCTURE FOR DEBRIS FLOW PREVENTION OF BRIDGE ENGINEERING AND DESIGN METHOD	2022/02/28
2022/02484	ANTI-IMPACT DUAL-CAVITY IMPACT-MITIGATION-TYPE DISSIPATION STRUCTURE FOR BRIDGE PROJECT AND DESIGN METHOD	2022/02/28
2022/02485	METHOD FOR STORING HYDROGEN USING STRUCTURE-H HYDRATE	2022/02/28
2022/02489	COMPLEX DEPRESSANT FOR CONTROLLING ZINC AND IRON IN POLYMETALLIC-ORE FLOTATION, PRODUCTION PROCESS AND APPLICATION AS A SUBSTITUTE FOR ZINC SULFATES AND COPPER SULFATES	2022/02/28
2022/02691	DARK SEPTATE ENDOPHYTE STRAIN IN BLUEBERRY ROOT AND USE THEREOF	2022/03/07
2022/02692	METHOD AND SYSTEM FOR PREDICTING DISINFECTION BY-PRODUCTS IN DRINKING WATER	2022/03/07
2022/02693	LYONIRESINOL COMPOUND AND PREPARATION METHOD THEREOF AND APPLICATION THEREOF	2022/03/07
2022/02694	FLUORESCENT MATERIAL WITH ON-OFF RESPONSE TO ACID-BASE PH CHANGE AND APPLICATION THEREOF	2022/03/07
2022/02695	NEW METHOD FOR REPLACING	2022/03/07

Application Number	Patent Title	Filing Date
	SERUM ANTIBODY MONITORING WITH EGG YOLK ANTIBODY AGAINST H5 SUBTYPE AVIAN INFLUENZA	
2022/02696	BLASTING METHOD FOR GOB-SIDE ENTRY RETAINING WITH EXTREMELY THICK ROOF BROKEN AND CUT	2022/03/07
2022/02698	ROCK STRENGTHENING AND GAS DRAINAGE BOREHOLE SEALING DEVICE AND METHOD	2022/03/07
2022/02699	THREE-DIMENSIONAL MESO-SCALE MODELING METHOD OF FULLY-GRADED CONCRETE WITH RANDOMLY DISTRIBUTED PORE DEFECTS	2022/03/07
2022/02700	PIEZOELECTRIC AND CONDUCTIVE GRAFTED POLYURETHANE-BASED COMPOSITE DAMPING MATERIAL AND PREPARATION METHOD THEREOF	2022/03/07
2022/02701	A COMPOUND BACTERIA FERMENTATION SUPERFINE PULVERIZED TRADITION CHINESE MEDICINE MACHINE FOR AQUATIC PRODUCTS AND PREPARATION METHOD THEREOF	2022/03/07
2022/02702	UNMANNED AERIAL VEHICLE SURVEYING DATA ACQUISITION DEVICE	2022/03/07
2022/02703	COAL SEAM PERMEABILITY ENHANCEMENT METHOD AND DEVICE WITH LIQUID NITROGEN FRACTURING	2022/03/07
2022/02753	TEXTILE FABRIC WITH HEALTH CARE FUNCTION	2022/03/08
2022/02754	METHOD FOR PREPARING FUNCTIONAL MASK MATERIAL BY EXTRACTING SERICIN FROM SILK GLANDS OF CASTOR SILKWORMS	2022/03/08
2022/02755	COLD CHAIN LOGISTICS TRANSPORTATION SYSTEM DEVICE CAPABLE OF KILLING NOVEL CORONAVIRUSES AND METHOD	2022/03/08
2022/02756	HYDRAULICALLY EXTRUDED AND PROPELLED WINGED INTELLIGENT UNMANNED UNDERWATER VEHICLE	2022/03/08
2022/02757	ELECTRICALLY EXTRUDED AND PROPELLED WINGED INTELLIGENT UNMANNED UNDERWATER VEHICLE	2022/03/08



Application Number	Patent Title	Filing Date
2022/02758	SHUTTLE TYPE DISINFECTION DEVICE FOR MEANS OF COLD CHAIN LOGISTICS TRANSPORT AND METHOD	2022/03/08
2022/02759	PUNCTURE TYPE DISINFECTION DEVICE FOR NOVEL CORONAVIRUSES OF COLD CHAIN SUPPLIES AND METHOD	2022/03/08
2022/02760	INTEGRATED WARD ILLUMINATION DEVICE AND WARD INCLUDING SAME	2022/03/08
2022/02761	TOP-AND-BOTTOM PARALLEL CONNECTION TYPE UNDERWATER 3D PRINTER	2022/03/08
2022/02762	METHOD FOR CUTTING PROPAGATION OF TEA SEEDLINGS IN HIGH ALTITUDE ARID AREAS	2022/03/08
2022/02763	DUAL-PISTON CLAMPABLE AND SEPARABLE CONNECTION TYPE UNDERWATER 3D PRINTER	2022/03/08
2022/02764	LOCAL DIFFERENCE POLARIZATION BASED METHOD FOR DETECTING FINGERPRINT ACTIVITY	2022/03/08
2022/02765	WHEAT QUALITY THZ SPECTRUM CLASSIFICATION METHOD BASED ON DS EVIDENCE THEORY	2022/03/08
2022/02766	METHOD AND APPLICATION OF OBTAINING A DETECTION CURVE OF POTASSIUM SORBATE IN WHEAT FLOUR	2022/03/08
2022/02767	PLANT-DERIVED FINING CLARIFYING AGENT AND PREPARATION METHOD THEREOF	2022/03/08
2022/02768	PINE NEEDLE-SHAPED STEAMED POMEGRANATE GREEN TEA AND PREPARATION METHOD THEREOF	2022/03/08
2022/02769	ENDOPHYTIC BACILLUS ALTITUDINIS AND APPLICATION THEREOF	2022/03/08
2022/02770	PREPARATION METHOD OF CHICKEN MEATBALL ADDED WITH DEODORIZED CLAM MEAT	2022/03/08
2022/02772	PREVENTION AND CONTROL METHOD OF WATER DISASTER CAUSED BY SEPARATION OF COAL SEAM ROOF IN MINE	2022/03/08
2022/02773	A MOBILE CAM-TYPE AUTOMATIC PALLET MAGAZINE	2022/03/08
2022/02774	HOLLOW BLOW MOLDING MACHINE	2022/03/08
2022/02775	A BLOW PIN SCRAPING DEVICE IN	2022/03/08

Application Number	Patent Title	Filing Date
	A HOLLOW BLOW MOLDING MACHINE	
2022/02776	BLOW PIN DEVICE IN A HOLLOW BLOW MOLDING MACHINE	2022/03/08
2022/02777	A HOT BLADE PARISON CUTTING DEVICE IN A HOLLOW BLOW MOLDING MACHINE	2022/03/08
2022/02779	METHOD AND SYSTEM OF DETERMINING AN EFFECTIVE BRAIN NETWORK	2022/03/08
2022/02780	PREPARATION OF RESISTANT STARCH NANOPARTICLES, PRODUCT AND APPLICATION THEREOF	2022/03/08
2022/02782	METHOD FOR INHIBITING RETROGRADATION OF STARCHY FOODS	2022/03/08
2022/02786	METHOD FOR PREPARING STARCH WITH CONTROLLABLE VISCOSITY BY MIXING STARCH AND PROTEIN	2022/03/08
2022/02788	ENZYMATIC METHOD FOR IMPROVING FUNCTIONAL PROPERTIES OF PEANUT PROTEIN	2022/03/08
2022/02789	METHOD FOR IMPROVING QUALITY OF GRAIN PRODUCTS	2022/03/08
2022/02791	WATER DRIVEN PASSIVE AUTONOMOUS RETRACTABLE SIGNAL DEVICE FOR DEEP-SEA AUV	2022/03/08
2022/02807	IMPACT-RESISTANT BALANCE OIL CYLINDER HAVING FUNCTIONS OF PRESSURE RELIEF AND BUFFER PROTECTION	2022/03/08
2022/03083	A LARGE HYPERBOLOID HIDDEN FRAME GLASS CURTAIN WALL SYSTEM	2022/03/15
2022/03551	INTELLIGENT DETECTION METHOD FOR BRIDGE DEFLECTION BASED ON DIFFERENTIAL TECHNOLOGY	2022/03/28

## DESIGNS

## Advertisement List for April 2022

Number of Advertised Designs: 278

Application Number	Design Articles	Filing Date
A2017/01890	Beehives	2017/11/29

Application Number	Design Articles	Filing Date
A2017/01891	Beehives	2017/11/29
A2019/01334	Car	2019/09/13
A2019/01335	Toy Car	2019/09/13
A2019/01336	A Cash Deposit Machine	2019/09/13
A2019/01337	Self-Service Terminal	2019/09/13
A2019/01338	A Cash Deposit Machine	2019/09/13
A2019/01802	BOTTLE AND CAP	2019/12/12
A2020/00928	SPREADER FOR A SAFETY HARNESS	2020/07/02
A2020/00961	VEHICLE	2020/07/10
A2020/01053	Headwear and Headwear Accessories	2020/07/31
A2020/01111	CANOPY FOR A VEHICLE	2020/08/14
A2020/01116	Multiport Valves	2020/08/17
A2020/01165	FUEL TANK	2020/08/28
A2020/01293	SCREENS	2020/09/28
A2020/01295	SCREENS	2020/09/28
A2020/01317	Soles for footwear and footwear	2020/10/01
A2020/01357	TACKLE HOLDERS FOR FISHING RODS	2020/10/13
A2020/01363	DEMARCATED PLAYING SURFACES FOR PLAYING CARD GAMES	2020/10/15
A2020/01469	CAP HOLDERS FOR CONTAINERS	2020/11/12
A2020/01470	CAP HOLDERS FOR CONTAINERS	2020/11/12
A2020/01471	CAP HOLDERS FOR CONTAINERS	2020/11/12
A2020/01472	CAP HOLDERS FOR CONTAINERS	2020/11/12
A2020/01482	Toilet Units	2020/11/18
A2020/01483	Toilet Units	2020/11/18
A2020/01484	Toilet Units	2020/11/18
A2020/01620	Vehicle Sun Visor Extension	2020/12/14
A2021/00021	ORAL CARE IMPLEMENTS	2021/01/14
A2021/00023	ORAL CARE IMPLEMENTS	2021/01/14
A2021/00024	ORAL CARE IMPLEMENTS	2021/01/14
A2021/00027	ORAL CARE IMPLEMENTS	2021/01/19
A2021/00028	ORAL CARE IMPLEMENTS	2021/01/19
A2021/00051	ORAL CARE IMPLEMENTS	2021/01/27
A2021/00052	ORAL CARE IMPLEMENTS	2021/01/27
A2021/00053	ORAL CARE IMPLEMENTS	2021/01/27
A2021/00160	MOVEMENT SENSOR WITH IMAGE FIXATION	2021/02/18
A2021/00171	CONTAINERS	2021/02/23
A2021/00222	Front Bumper for an Automobile	2021/03/03
A2021/00229	EXERCISE BICYCLES	2021/03/05
A2021/00284	BASIN MIXER	2021/03/23
A2021/00335	SUPPORT STRUCTURES FOR A RETAIL ENVIRONMENT	2021/03/31
A2021/00336	SHELVING STRUCTURES FOR A RETAIL ENVIRONMENT	2021/03/31
A2021/00338	DISPLAY STRUCTURES FOR A RETAIL ENVIRONMENT	2021/03/31
A2021/00359	COVERS	2021/04/08
A2021/00360	COVERS	2021/04/08

Application Number	Design Articles	Filing Date
A2021/00361	COVERS	2021/04/08
A2021/00362	COVERS	2021/04/08
A2021/00363	COVERS	2021/04/08
A2021/00364	COVERS	2021/04/08
A2021/00365	COVERS	2021/04/08
A2021/00366	COVERS	2021/04/08
A2021/00386	Clip-on Shoe Lace	2021/04/14
A2021/00421	CONTROLLER FOR ELECTRONIC DEVICE	2021/04/21
A2021/00449	GRILL CLEANER	2021/04/28
A2021/00458	SEALING ELEMENT FOR A VEHICLE CANOPY	2021/04/29
A2021/00477	ACTUATOR ORIFICES	2021/05/04
A2021/00493	SUBWAY CONTROL CAR	2021/05/12
A2021/00521	SHOES	2021/05/17
A2021/00531	GLOVE ACCESSORY	2021/05/19
A2021/00532	GLOVE ACCESSORY	2021/05/19
A2021/00533	GLOVE ACCESSORY	2021/05/19
A2021/00534	GLOVE ACCESSORY	2021/05/19
A2021/00535	GLOVE ACCESSORY	2021/05/19
A2021/00546	Dose Delivery Device	2021/05/21
A2021/00549	Undergarment	2021/05/21
A2021/00558	Perfume Bottle	2021/05/24
A2021/00586	SHOT HOLE DRILLING GUIDE	2021/05/25
A2021/00587	VEHICLE ACCESSORY	2021/05/25
A2021/00595	STANDS FOR ELECTRONIC EQUIPMENT	2021/05/27
A2021/00601	WATCHES	2021/05/28
A2021/00602	WATCHES	2021/05/28
A2021/00603	A CANOPY FRAME AND PANEL ASSEMBLY	2021/05/28
A2021/00604	A CANOPY FRAME AND PANEL ASSEMBLY	2021/05/28
A2021/00606	A VEHICLE CANOPY	2021/05/28
A2021/00608	A VEHICLE CANOPY FRAME	2021/05/28
A2021/00612	BASINS	2021/05/28
A2021/00614	AUTOMOBILE	2021/05/31
A2021/00618	Container with Pump	2021/05/31
A2021/00619	Container	2021/05/31
A2021/00620	Container	2021/05/31
A2021/00621	Container	2021/05/31
A2021/00625	READER HOUSINGS	2021/06/01
A2021/00626	READER HOUSINGS	2021/06/01
A2021/00627	Briquettes	2021/06/01
A2021/00641	Detergent Capsules	2021/06/03
A2021/00647	BRACKET FOR A PIPE	2021/06/04
A2021/00653	A PIPE BEND	2021/06/04
A2021/00667	ENCLOSURE FOR CAPTURE DEVICES	2021/06/08
A2021/00668	ENCLOSURE FOR CAPTURE DEVICES	2021/06/08

Application Number	Design Articles	Filing Date
A2021/00670	Fuel tanks for vehicles	2021/06/08
A2021/00688	Set of Furniture	2021/06/11
A2021/00689	Bottle Shoulder	2021/06/11
A2021/00690	Herb Chopper and Cover for an Herb Chopper	2021/06/11
A2021/00691	Bottle With Pump	2021/06/11
A2021/00692	Bottle	2021/06/11
A2021/00698	TIRES	2021/06/14
A2021/00717	Tire for an Automobile	2021/06/18
A2021/00718	Illuminator Device	2021/06/18
A2021/00738	Nursing Bottle	2021/06/22
A2021/00740	Earphone	2021/06/22
A2021/00741	Case	2021/06/22
A2021/00743	Equipment for Distribution or Control of Electric Power	2021/06/22
A2021/00744	Equipment for Distribution or Control of Electric Power	2021/06/22
A2021/00745	Equipment for Distribution or Control of Electric Power	2021/06/22
A2021/00748	CHAIRS	2021/06/23
A2021/00753	CONNECTOR FOR A MEDICAL DEVICE	2021/06/25
A2021/00759	VEHICLES	2021/06/30
A2021/00760	VEHICLES	2021/06/30
A2021/00761	Steering Wheel for an Automobile	2021/07/01
A2021/00762	Control Device for an Automobile	2021/07/01
A2021/00763	Rear Bumper for an Automobile	2021/07/01
A2021/00764	Instrument Panel for an Automobile	2021/07/01
A2021/00765	Automobile	2021/07/01
A2021/00766	Front Combination Lamp for an Automobile	2021/07/01
A2021/00770	Front Bumper for an Automobile	2021/07/01
A2021/00771	Rear Combination Lamp for an Automobile	2021/07/01
A2021/00772	Rear Bumper for an Automobile	2021/07/01
A2021/00774	MOTOR VEHICLES	2021/07/02
A2021/00775	MOTOR VEHICLES	2021/07/02
A2021/00776	Surgical Instrument	2021/07/02
A2021/00777	Surgical Instrument	2021/07/02
A2021/00788	CONTAINERS	2021/07/06
A2021/00794	TROLLEY HANDLE TAG HOLDER CLIP	2021/07/08
A2021/00798	KNIFE BLADES	2021/07/09
A2021/00800	KNIFE BLADES	2021/07/09
A2021/00802	Manhole Accessory	2021/07/09
A2021/00806	Arms for a Drone	2021/07/09
A2021/00807	Arms for a Drone	2021/07/09
A2021/00808	Arms for a Drone	2021/07/09
A2021/00809	Motor Pods for a Drone	2021/07/09
A2021/00810	Motor Pods for a Drone	2021/07/09
A2021/00815	Surveillance Camera	2021/07/14



Application Number	Design Articles	Filing Date
A2021/00819	Surveillance Camera	2021/07/14
A2021/00820	Respiratory Masks	2021/07/14
A2021/00821	TRIMS FOR FLOORING OR CARPETING	2021/07/15
A2021/00822	TRIMS FOR FLOORING OR CARPETING	2021/07/15
A2021/00834	AUTOMOBILE	2021/07/19
A2021/00838	HOOK HANGER COMPONENT	2021/07/19
A2021/00844	Bottle with an Elephant Shape	2021/07/19
A2021/00845	Set of Handles for Cookware	2021/07/19
A2021/00846	Cooking Pot	2021/07/19
A2021/00847	Cookware Lid Handle	2021/07/19
A2021/00848	Handle for Cookware	2021/07/19
A2021/00854	BOTTLES	2021/07/22
A2021/00859	Manhole Accessory	2021/07/23
A2021/00875	Movement for Clocks and Watches	2021/07/26
A2021/00876	Storage Container	2021/07/26
A2021/00907	Beverage Container	2021/07/29
A2021/00910	A CONTAINER	2021/07/30
A2021/00912	FIRE PROTECTION SPRINKLERS	2021/07/30
A2021/00913	FIRE PROTECTION SPRINKLERS	2021/07/30
A2021/00914	FIRE PROTECTION SPRINKLERS	2021/07/30
A2021/00915	FIRE PROTECTION SPRINKLERS	2021/07/30
A2021/00920	COFFEE MAKERS	2021/07/30
A2021/00921	COFFEE MAKERS	2021/07/30
A2021/00922	Nut Removal Tool	2021/07/30
A2021/00923	Human Body Detector	2021/07/30
A2021/00924	Human Body Detector	2021/07/30
A2021/00925	Bracket	2021/07/30
A2021/00926	Wheel	2021/07/30
A2021/00927	Wheel	2021/07/30
A2021/00929	Wheel	2021/07/30
A2021/00945	BEVERAGE BOTTLES	2021/08/10
A2021/00965	NECKWEAR	2021/08/06
A2021/00988	BOTTLE	2021/08/25
A2021/00989	BOTTLE	2021/08/25
A2021/00990	BOTTLE	2021/08/25
A2021/00991	BOTTLE	2021/08/25
A2021/00992	BOTTLE	2021/08/25
A2021/00993	BOTTLE	2021/08/25
A2021/00994	BOTTLE	2021/08/25
A2021/00995	BOTTLE	2021/08/25
A2021/00996	BOTTLE	2021/08/25
A2021/00997	BOTTLE	2021/08/25
A2021/00998	BOTTLE	2021/08/25
A2021/00999	BOTTLE	2021/08/25
A2021/01000	BOTTLE	2021/08/25
A2021/01003	GRAPHIC SYMBOL	2021/08/27
A2021/01022	HAND-HELD ULTRAVIOLET STERILIZATION DEVICE	2021/09/03

Application Number	Design Articles	Filing Date
A2021/01032	PACKAGING BOX	2021/09/06
A2021/01033	PACKAGING BOX	2021/09/06
A2021/01034	PACKAGING BOX	2021/09/06
A2021/01035	PACKAGING BOX	2021/09/06
A2021/01036	PACKAGING BOX	2021/09/06
A2021/01037	PACKAGING BOX	2021/09/06
A2021/01054	MOTOR MODULE FOR ELECTRONIC DEVICES	2021/09/09
A2021/01091	STOVE	2021/09/13
A2021/01093	A GAUGE	2021/09/13
F2016/00408	BIRD REPELLENT DEVICE	2016/03/18
F2017/01893	Moulds for Concrete Beehives	2017/11/29
F2019/00292	RAILWAY WHEEL	2019/02/26
F2019/00953	HEXAGONAL JUNCTION BOX	2019/07/16
F2019/00954	HEXAGONAL JUNCTION BOX	2019/07/16
F2019/00955	HEXAGONAL JUNCTION BOX	2019/07/16
F2019/00956	HEXAGONAL JUNCTION BOX	2019/07/16
F2019/00957	WALL BOX	2019/07/16
F2019/01012	WALL BOX	2019/07/17
F2019/01380	TROLLEY	2019/09/18
F2020/00925	SHOCK ABSORBER FOR A SAFETY HARNESS	2020/07/02
F2020/00929	SPREADER FOR A SAFETY HARNESS	2020/07/02
F2020/01054	Headwear and Headwear Accessories	2020/07/31
F2020/01056	Headwear and Headwear Accessories	2020/07/31
F2020/01294	SCREENS	2020/09/28
F2020/01296	SCREENS	2020/09/28
F2020/01358	TACKLE HOLDERS FOR FISHING RODS	2020/10/13
F2020/01436	FLOATING CHEMICAL DISPENSING CONTAINERS	2020/11/06
F2020/01478	FLUID DISTRIBUTION EQUIPMENT	2020/11/17
F2020/01655	TRIMS FOR FLOORING OR CARPETING	2020/12/21
F2020/01703	LID	2020/12/23
F2020/01705	ELECTRICAL CONNECTOR	2020/12/23
F2021/00025	SPRAY NOZZLES	2021/01/14
F2021/00172	CONTAINERS	2021/02/23
F2021/00226	AUTOINJECTOR	2021/03/05
F2021/00252	Bottles	2021/03/11
F2021/00316	DETERGENT POD	2021/03/26
F2021/00373	FLOATING CHEMICAL DISPENSING CONTAINERS	2021/04/09
F2021/00374	FLOATING CHEMICAL DISPENSING CONTAINERS	2021/04/09
F2021/00387	Connector for a Clip-on Shoe Lace	2021/04/14
F2021/00389	SANITARY ARTICLE DISPENSER	2021/04/15
F2021/00406	MINING CONVEYOR CAR	2021/04/19
F2021/00436	BLADE	2021/04/23
F2021/00457	UNSHEATHED OR UNJACKETED	2021/04/29

Application Number	Design Articles	Filing Date
	TWISTED PAIR CABLES	
F2021/00459	SEALING ELEMENT FOR A VEHICLE CANOPY	2021/04/29
F2021/00468	CABLE SLACK STORAGE BRACKETS FOR CABLE FIXING SYSTEMS	2021/05/03
F2021/00557	SCREEN PANEL FASTENER	2021/05/24
F2021/00559	Fascia Boards	2021/05/24
F2021/00560	Barge Boards	2021/05/24
F2021/00585	SHOT HOLE DRILLING GUIDE	2021/05/25
F2021/00588	VEHICLE ACCESSORY	2021/05/25
F2021/00605	A VEHICLE CANOPY	2021/05/28
F2021/00607	A CANOPY FRAME AND PANEL ASSEMBLY	2021/05/28
F2021/00613	BASINS	2021/05/28
F2021/00642	RESTRAINTS FOR BOX CONTAINERS TO BE TRANSPORTED ON A ROOF RACK	2021/06/03
F2021/00651	BRACKET FOR A PIPE	2021/06/04
F2021/00657	A PIPE BEND	2021/06/04
F2021/00665	A BLANK FOR A BOX	2021/06/07
F2021/00666	A BLANK FOR A BOX	2021/06/07
F2021/00669	Fuel tanks for vehicles	2021/06/08
F2021/00756	A LIGHT TROUGH	2021/06/28
F2021/00778	JUNCTION BOX (1)	2021/07/05
F2021/00779	JUNCTION BOX (2)	2021/07/05
F2021/00780	JUNCTION BOX (3)	2021/07/05
F2021/00781	JUNCTION BOX (4)	2021/07/05
F2021/00785	FIRE STARTERS	2021/07/06
F2021/00789	CONTAINERS	2021/07/06
F2021/00793	TROLLEY HANDLE WITH INTEGRAL TAG HOLDER	2021/07/08
F2021/00795	TROLLEY HANDLE TAG HOLDER CLIP	2021/07/08
F2021/00799	KNIFE BLADES	2021/07/09
F2021/00801	KNIFE BLADES	2021/07/09
F2021/00803	Manhole Accessory	2021/07/09
F2021/00812	Part of a Sorting Machine	2021/07/14
F2021/00813	Part of a Sorting Machine	2021/07/14
F2021/00814	Part of a Sorting Machine	2021/07/14
F2021/00816	Part of a Sorting Machine	2021/07/14
F2021/00817	Part of a Sorting Machine	2021/07/14
F2021/00823	TRIMS FOR FLOORING OR CARPETING	2021/07/15
F2021/00824	INDIRECT HEAT EXCHANGER TUBE CONTROLLED WRINKLE BEND	2021/07/16
F2021/00825	INDIRECT HEAT EXCHANGER TUBE CONTROLLED WRINKLE BEND	2021/07/16
F2021/00826	INDIRECT HEAT EXCHANGER TUBE CONTROLLED WRINKLE BEND	2021/07/16
F2021/00827	INDIRECT HEAT EXCHANGER TUBE	2021/07/16

Application Number	Design Articles	Filing Date
	CONTROLLED WRINKLE BEND	
F2021/00828	INDIRECT HEAT EXCHANGER TUBE CONTROLLED WRINKLE BEND	2021/07/16
F2021/00829	INDIRECT HEAT EXCHANGER TUBE CONTROLLED WRINKLE BEND	2021/07/16
F2021/00860	Manhole Accessory	2021/07/23
F2021/00863	VEHICLE ROOF WITH TENT	2021/07/26
F2021/00865	STORAGE COMPARTMENT	2021/07/26
F2021/00866	VEHICLE CANOPY WITH TENT	2021/07/26
F2021/00911	A CONTAINER	2021/07/30
F2021/00916	FIRE PROTECTION SPRINKLERS	2021/07/30
F2021/00917	FIRE PROTECTION SPRINKLERS	2021/07/30
F2021/00918	FIRE PROTECTION SPRINKLERS	2021/07/30
F2021/00919	FIRE PROTECTION SPRINKLERS	2021/07/30
F2021/00944	PLANT-GROWING TRAY	2021/07/01
F2021/01012	LINK-PLANTING DEVICE	2021/08/27
F2021/01021	PIVOT HINGE BRACKET	2021/09/03
F2021/01092	STOVE	2021/09/13
F2021/01094	A GAUGE	2021/09/13
F2021/01096	TANK FOR LIQUID SUBSTANCES	2021/09/17
F2021/01444	ANCHORS	2021/11/19

## OTHER NOTICES

Request to advertise the change of Physical Address as well as our Docex postal address of **De Beer Intellectual Property Attorneys to read as:**

**Docex 11, Claremont, 7708**  
**Postnet Suite #041, Private Bag X3, Glosderry, South Africa, 7702**