INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

( Om Prakash Gupta )
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS

24TH JANUARY, 2020
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The following are addresses of all the Patent Offices located at different places having their Territorial Jurisdiction on a Zonal basis as shown below:

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<td>1</td>
<td>Office of the Controller General of Patents, Designs &amp; Trade Marks,</td>
<td>(91)(22) 24123311,</td>
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<td>The States of Gujarat, Maharashatra, Madhya Pradesh, Goa and Chhattisgarh and the Union Territories of Daman and Diu &amp; Dadra and Nagar Haveli</td>
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[www.patentoffice.nic.in](http://www.patentoffice.nic.in)

All applications, notices, statements or other documents or any fees required by the Patents Act, 1970 and The Patents (Amendment) Act, 2005 or by the Patents (Amendment) Rules, 2006 will be received only at the appropriate offices of the Patent Office.

Fees: The Fees may either be paid in cash or may be sent by Bank Draft or Cheques payable to the Controller of Patents drawn on a scheduled Bank at the place where the appropriate office is situated.
<table>
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<th>पेटेंट कार्यालय</th>
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<td>कोलकाता, दिनांक 24/01/2020</td>
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* कार्यालयों के श्रेयाधिकार के पोस्टे स्थित पेटेंट कार्यालय के पोस्टे अधिलिक आधार पर दर्शित उनके प्रदेशिक अधिकार क्षेत्र के साथ नीचे दिए गए हैं:—

| 1 | कार्यालय : महानियतक, एक्सचेंज, अभिकल्प तथा ब्यापार चिह्न, ऐंटोप हिंद डावर के समीप, एस. एम. रोड, एंटोप हिंद, मुम्बई- 400 037, भारत, फोन: (91) (22) 24123311 फैक्स: (91) (22) 24123322 ई. मेल: cgptdm@nic.in |
| 2 | पेटेंट कार्यालय, भारत सरकार बाबुदिप संयोजन सभन, ऐंटोप हिंद डावर के समीप, एस. एम. रोड, ऐंटोप हिंद, मुम्बई- 400 037, फोन: (91) (22) 24137701 फैक्स: (91) (22) 24130387 ई. मेल: Mumbai-patent@nic.in । शाहरूख, महाराष्ट्र, मुंबई स्थित महाराष्ट्र राज्य क्षेत्र एवं संघ सालियु संस्था मंडल, देवन तथा दीप, प्रदेश और नगर में। |
| 3 | पेटेंट कार्यालय, भारत सरकार बाबुदिप संयोजन सभन, प्लेट सं. 32, सेकेंडर- 14, द्वारका, नई दिल्ली- 110 075. फोन: (91) (11) 25300200, 28032253 फैक्स: (91) (11) 28034301, 28034302 ई. मेल: delhi-patent@nic.in हरियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर, पंजाब, राजस्थान, उत्तर प्रदेश, दिल्ली तथा उत्तराखंड राज्य क्षेत्रों, एवं संघ सालियु संस्था मंडल द्वारा भंडारित, शंसित कर्मानि। |
| 4 | पेटेंट कार्यालय, भारत सरकार इंटेलेक्चुरल प्रॉपर्टी राइट्स बिलिंग्जिंग, इंडिस्ट्रियल इंस्टीट्यूट एसबीआईसीसी भारतीय गोवाल एरिया इंडिस्ट्रियल टु ईंगल फ्लास्क, जी. एस. टी. रोड, गावस्थी चेंबर- 600 032. फोन: (91) (44) 2250 2081-84 फैक्स: (91) (44) 2250-2066 ई. मेल: chennai-patent@nic.in । आन्ना प्रदेश, तेलंगाना, कर्नाटक, केरल, तमिलनाडु तथा पुतलेरी राज्य क्षेत्र एवं संघ सालियु क्षेत्र, लखीमरी। |
| 5 | पेटेंट कार्यालय, भारत सरकार कोलकाता, (प्रदेश कार्यालय) बाबुदिप संयोजन सभन, सीमी-2, लेक्टर- ५, साल्ट लेक सिटी, कोलकाता-700 091, भारत. फोन: (91) (33) 2367 1943/44/45/46/87 फैक्स:/Fax: (91) (33) 2367 1988 ई. मेल: kolkata-patent@nic.in । भारत का अभ्यंश क्षेत्र |

बेसाइट: http://www.ipindia.nic.in
www.patentoffice.nic.in

पेटेंट अधिनियम, 1970 तथा पेटेंट (संशोधन) अधिनियम, 2005 अनुसार: पेटेंट (संशोधन) नियम, 2006 द्वारा बाँटित सभी आवेदन, दूरबाहु, विवरण या अन्य दस्तावेज़ या कोई शुल्क पेटेंट कार्यालय के केवल उपयुक्त कार्यालय में स्वीकृत होंगे।

शुल्क: शुल्क या तीन नवर कृप्त में या Controller of Patents के नाम में देने बैंक ब्रांच या बैंक के द्वारा भेजी जा सकती है जो उसी स्थान के किसी अनुशंसित बैंक में प्रदत्त हो जा सकते हैं।
SPECIAL NOTICE

18 Months publication as required under Section 11A of the Patents Act, 1970 as amended by the Patents (Amendment) Act, 2005.

Notice is hereby given that any person at any time before the grant of Patent may give representation by way of opposition to the Controller of Patents at appropriate office on the ground and in a manner specified under section 25(1) of the Patents (Amendment) Act, 2005 read with Rule 55 of the Patents (Amendment) Rules, 2006.

Notice is also given that if any interested person requests for copies of the complete specification, drawing and abstract of any application already published, the photocopy of the same can be supplied by the Patent Office as per the jurisdiction on payment of prescribed fees of Rs.8/- per page. If any further details are required to be obtained, the same can be provided by the respective Patent Offices on request.

(Om Prakash Gupta)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS
SPECIAL NOTICE

Under the new provision of the Patents Act, 1970 as amended by the Patents (Amendment) Act, 2005 and Rules there under, Publication of the matter relating to Patents in the Official Gazette of India Part III, Section 2 has been discontinued and instead The Official Journal of the Patent Office is being published containing all the activities of The Patent Office such as publication of all the patent applications after 18th months, grant of patents & all other information in respect of the proceedings as required under the provisions of the Patents (Amendment) Act, 2005 and Rules thereunder on weekly basis on every Friday.

The Journal is uploaded in the website every Friday. So Paper form and CD-ROM form of the Journal are discontinued from 01/01/2009.

SPECIAL NOTICE

Every effort is being taken to publish all the patent applications under section 11(A) of the Patents Act. However, if duplication of publication of any application is found, then earlier date of publication will be taken for the purpose of provisional protection for applicant and Patent Office will grant Patent not before six months from the date of second publication, provided that there is no third party representation.
**LIST OF RESTRICTED HOLIDAYS FOR THE YEAR - 2020**

In addition to the declared Holidays each members of the staffs of this office may also be permitted to avail of any two holidays to be chosen by him/her out of the Restricted Holidays given below, after giving prior intimation.

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<tr>
<th>No.</th>
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<td>Maha Shivaratri</td>
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<td>April 13</td>
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<td>May 08</td>
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(Sanjay Bhattacharya)

Dy. Controller of Patents & Designs
& Head of Office

The Patent Office Journal No. 04/2020 Dated 24/01/2020 4614
वर्ष 2020 में छुट्रियाँ की सूची

वर्ष 2020 के दौरान पेटेंट कार्यालय, कोलकाता के लिए निम्नलिखित दिनों का छुट्टी घोषित किया गया है।

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(संजय भट्टचार्य)
उप नियंत्रक प्रथम एवं अभिकल्प
तथा कार्यालय प्रधान
# Early Publication:

The following patent applications have been published under section 11A (2) of The Patents (Amendment) Act 2005 and rule 24A of The Patents (Amendment) Rules, 2006. Any person may file representation by way of opposition to the Controller of Patents at the appropriate office against the grant of the patent in the prescribed manner under section 25(1) of the Patents (Amendment) Act 2005 read with the rule 55 of The Patents (Amendment) Rules, 2006:

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<th>(12) PATENT APPLICATION PUBLICATION</th>
<th>(21) Application No.201911014013 A</th>
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<td>(19) INDIA</td>
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<td>(22) Date of filing of Application :08/04/2019</td>
<td>(43) Publication Date : 24/01/2020</td>
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<tr>
<th>(54) Title of the invention : NOVEL PROCESS FOR PREPARATION OF AMIDE COMPOUNDS</th>
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| (51) International classification : C07D0401040000, C07C0271220000, C07C0233470000, C07C0235340000, C07C0237200000 |
| (31) Priority Document : NA |
| (32) Priority Date : NA |
| (33) Name of priority country : NA |
| (86) International Application No : NA |
| (87) International Publication No : NA |

| (57) Abstract : The invention relates to process for preparing amide compound of amino acid in the presence of ethylenediamine and dicarboxlic acid. More particularly, the present invention relates to an efficient and eco-friendly process for producing amide compounds comprising reaction of amino acid with ethylenediamine in presence of dicarboxlic acid. The prepared compound as per the present invention used as anti-microbial agent. |

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| Address of Applicant : 74, New MIG Hemant Vihar Barra-2 Kanpur U.P. 208027 Uttar Pradesh India |

| (72) Name of Inventor : 1) SAXENA; CHANDRA MOHAN |

No. of Pages : 18 No. of Claims : 9
The present Invention relates to a honeycomb structured ionic polymer-metal nanocomposite (IPMNC) sensor using the direct attachment of an acidic ionic liquid (1-butyl-3-methylimidazoliumhydrogen sulfate) in a poly(vinylidene fluoride-trifluoroethylene-chlorotrifluoroethylene) P(VDF-TrFE-CTFE) and polyvinylpyrrolidone (PVP) blend. Additionally, for the fabrication of IPMNC sensors, electroless plating process is used for making the Platinum (Pt) electrode by embedding the Platinum (Pt) nanoparticles (NPs) on the ionic liquid. Sodium borohydride (NaBFL) and Polyvinylpyrrolidone (PVP) are used as reducing agent for the composite process and Lithium chloride (LiCl) is used as a reducing agent for the surface electrode process. The IPMNC sensors of the present invention generate highsensing voltages up to 380 mV and 300 mV with a bending strain of 0.009 and a stress of 80 MPa, respectively. The honeycomb structure of the present invention, provides uniform porosity in a P(VDF-TrFE-CTFE)/PVP/ionic liquid blend membrane, improving the proton conductivitity (3.4 times) and Young's modulus (52 times) of the blend membrane. Reference: Fig. 1
**Title of the invention:** ASYMMETRICAL ARRANGEMENT OF STRUCTURAL PARTS TO FORM SELF-SUPPORTING STRUCTURE FOR BRIDGES AND LONG SPAN BUILDING STRUCTURES.

**Abstract:**
The invention relates to a method of forming a centrally pivoted, rope or cable stayed, and self-balancing superstructure which dynamically supports itself according to the pattern of loading and the amount of load on its platform or deck.

**No. of Pages:** 29  **No. of Claims:** 2
(54) Title of the invention : RECOVERY OF POTASSIUM SULPHATE AND OTHER VALUABLE PRODUCTS FROM SPENT WASH LEADING TO ZLD SYSTEM

(57) Abstract :
The present invention relates to a process (100) for recovering potassium sulphate and other value added product from distillery spent wash, said process comprising: removing (102) high molecular weight organic compounds from the spent wash to obtain a first liquid fraction; concentrating (104) the first liquid fraction to obtain a first solid fraction; subjecting the first solid fraction to thermal decomposition (106) to obtain a second solid fraction; dissolving (108) the second solid fraction in a solvent to obtain a second liquid fraction; and recovering (110) potassium sulphate from the second liquid fraction. The value added products include magnesium sulphate, activated carbon, and high molecular weight organic compounds. Additionally, water as contained in the spent wash can be recovered for re-use.

No. of Pages : 15 No. of Claims : 12
**Abstract:**

An automatic bus ticketing and verification machine is disclosed. The machine comprises a multi-lingual registration interface generator (1), adapted to be connected to a database server (2), provided to facilitate registration of a traveler in a known language. A finger prints scanner (3) is provided to scan finger prints needed to authenticate and verify the traveler. A payment gateway (4) is provided to facilitate payment needed to purchase tickets as and when required. A multi-lingual ticket issuance interface generator (5) is provided to issue tickets in the language selected by the traveler. According to an option a multi-lingual ticket verification interface generator (6), adapted to be connected with the database server, is provided to verify the ticket as and when required by an inspector. According another option a staff and bus allocation module (7), adapted to be connected with the database server, is provided to allocate the bus and staff (driver and conductor) on a particular route.

No. of Pages : 17  No. of Claims : 6
Title of the invention: ROLLED H-SHAPED STEEL AND MANUFACTURING METHOD THEREOF

International classification: C22C 38/00, B21B 1/088, C21D 8/00, C22C 38/58

Priority Document No: NA
Priority Date: NA
Name of priority country: NA

Name of Applicant: 1) NIPPON STEEL CORPORATION
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Name of Inventor: 1) ICHIKAWA Kazutoshi
2) ITO Hidetoshi
3) MITSUYASU Kazuaki

Abstract:
In a rolled H-shape steel, at a \((1/6)F\) position from an outer edge surface in a flange width-direction a microstructure at a depth of 100 \(\mu\)m from an outer surface in the flange thickness-direction and a microstructure at a depth of \((l/2)tf\) from the outer surface in the flange thickness-direction contain 95% or more of ferrite and pearlite and 5% or less of a residual structure by area ratio, the difference in Vickers hardness therebetween is 50 Hv or less, the yield strength is 385 to 505 N/mm\(^2\), the tensile strength is 550 to 670 N/mm\(^2\), the yield ratio is 0.80 or less, an elongation is 16.0% or more, the V-notch Charpy absorbed energy at 0°C is 70 J or more, the height is 700 to 1000 mm, the flange width is 200 to 400 mm, the flange thickness is 22 to 40 mm, and the web thickness is 16 mm or more.
We made five inventions of dust cleaners car/jeep truck automobiles etc. 1st dust cleaner invention clean human foot shoes sole with the help of D.C (Direct current) motor, with plastic circular brush. 2nd invention of dust remover will circulate, when we push using human foot shoes sole, 3rd invention is made by providing plastic mat brush sheet in curve condition, because rectangular iron hollow pipe is made in curve shape. Invention 4th is same as the invention 1st, we provide extra iron big spring so that the dust remover is easily forward condition. 5th invention is same as the invention 2nd, we provide extra iron big spring so that the dust remover is easily forward condition. Invention 1st. We attach dust cleaner below the car bottom portion with the help of movable hanger near the side of car window hinge, our dust cleaner mouth portion is attached with the help of rectangular curve iron box attach with car below window portion. When we open 100% car window, than the dust cleaner is come in forward condition with D.C current motor. D.C current motor in safe zone in iron hollow pipe, because when window 100% open, than negative positive D.C current motor two separate wire stand meet, with one stand opposite side negative positive wire to attach car battery, after this the dust cleaner start circulate with the help of D.C current. We can easily clean human foot shoes sole, when #e sit in the car and also when we stand out side the car with the help of long plastic brush provided in between the two spring. Invention 5th is totally according to invention 2nd, in invention 5th we provide big iron spring in between iron stand and hollow pipe end portion, so the dust remover easily come out from the invention chamber hollow pipe. Invention 2nd, spring dust remover, In this way we can clean our shoes when the car window is open 100%, in this invention we should push dust remover in down side with the help of rectangular curve iron hollow pipe mouth portion is attached below car bottom window frame with the help of fix hanger, rectangular hollow pipe mouth portion is attached below car bottom window frame with the help of iron rod. When we open car window 100%, than the dust remover go in forward condition, than the dust remover curve plastic brush sheet turn in 40 to 60 degree in front of human foot shoes sole. In this way we can easily clean our foot shoes sole with the help of dust cleaner.
Title of the invention : IOT BASED HEALTHCARE MANAGEMENT INFORMATION SYSTEM AND METHOD THEREOF

Abstract:
In this invention, the issue of outsourcing of data in cloud is addressed by the method of key generation for cloud user. Cloud computing, besides providing a maximized effectiveness of shared resources, also provides an easy way of storing and retrieving data. Personal Health Records (PHRs) are designed to maintain lifelong details of patients. Automated Patient Identifier and Patient Care System is designed to count hospitalized patients based on the concept of Current Procedure Terminology (CPT) manager. Cloud storage service is accessed through the cloud computer service, web service application programming interface or by a cloud storage gateway. The cloud based workspace is centralized providing easy functionality to share. The cloud environment can provide improvements in system efficiency & density.
Provided herein are systems and methods for containing a viscous material, such as coolant, applied to cool a roll or a roll processed engineering material such as a metal strip. In particular, a viscous material containment system can include a housing, a viscous material delivery system, a plurality of movable seals and a plurality of gas delivery devices. A method for cooling a roll can include applying a viscous material, such as coolant, to the roll and containing the viscous material on the roll using the viscous material containment system. In some cases, the viscous material containment system can be used to facilitate removal of the viscous material from the roll.
At this moment, vehicle mass and gravity are not utilized to develop energy. Today's problem of electricity power scarcity, due to depleting natural resources like water and coal, it is necessary to use alternate resources to develop energy. At this moment, there are innovations happening to improve solar energy cells, wind power, tidal power etc. This equipment described in this document will help in reduced usage of diesel generators, power from natural resources etc. By using vehicle mass and gravity and converting the same into hydraulic energy. Store this energy and use the same as needed to convert hydraulic energy into electrical energy.
The present invention relates to prepare the binder free thin film deposition of metal oxides nanoparticles (NPs) and metal oxides based nanocomposites (NCs) for various potential applications. It also provides electrostatic interconnectivity between the NCs thin film with sensitizers through organic linkers so as to form hybrid photoanodes for sandwich photovoltaic devices.

No. of Pages : 26 No. of Claims : 8
(54) Title of the invention : A DEVICE FOR ROLLING A FLAT BAR

(57) Abstract :
Disclosed is a device (200) for rolling a flat bar (222). The device (200) comprises a base plate (204). A stud (206) and a nut (208) assembly is configured to be centrally secured to said base plate (204). A handle (212) is configured with a sleeve (214). The said handle (212) is pivotably mounted on said stud (206) through said sleeve (214). A longitudinal slot (216) is provided on said handle (212). A bearing assembly (218) is configured to be adjustably mounted in said longitudinal slot (216) of said handle (212). A cylindrical section (202) is configured to be concentrically mounted and rigidly secured on said base plate (204). The said base plate (204) is mounted on a stand (234). A stopper assembly (210) is configured to be adjustably secured on said base plate (204) for securing a flat bar (222).

No. of Pages : 30 No. of Claims : 9
The present disclosure relates to the field of identity generation and verification systems and discloses a system (100) and a method for generation and verification of identity of a subject associated with an organization (106). The system (100) comprises an identity generation tool (104), an identity verification tool (110), and a validating server (112). The identity generation tool (104) is installed in a first electronic device (102) associated with the subject and is configured to generate an ephemeral identity instance for the subject based on its association record, a digital signature of the association record, and a one-time token. The identity verification tool (110) is installed in a second electronic device (108) associated with the verifier and is configured to receive the identity instance and verify the association record of the subject using the digital signature. The validating server (106) is configured to verify the validity status of the association record.
(54) Title of the invention: ELECTRONIC SENSOR FOR WEAR TIME MEASUREMENT OF REMOVABLE APPLIANCES IN DENTISTRY

(51) International: A43B0003000000,G01D0021000000,A01G0025160000,B64C0029000000,H04Q0009000000

(31) Priority Document: NA

(32) Priority Date: NA

(33) Name of priority country: NA

(86) International Application: NA

(61) Patent of Addition to Application: NA

(62) Divisional to Application: NA

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3) Dr. Nikita Ravindra Baheti
4) Dr. R.B. Deshmukh

(72) Name of Inventor:
1) Ketan Sisodia
2) Dr. Wasundhara Bhad
3) Dr. Nikita Ravindra Baheti
4) Dr. R.B. Deshmukh

(57) Abstract:
Present invention relates to an electronic sensor for wear time measurement of removable appliances in dentistry. The object of the invention is to develop a sensor that can sense the wear time by using the principle of electromagnetic radiation source proximity detection. This sensor doesn’t rely on the temperature, or it is temperature independent and can be used in many places. It has a footprint of around 11mm x 16mm. This is also equipped with a coin battery with diameter 16mm. Because of small footprint of these components, they fit inside a removable orthodontic appliance well. A receiver compactable to the sensor device is also developed that is used to get wear time data from the sensor. The sensor is also tested in-vivo for its successful functionality. Following invention is described in detail with the help of Figure 6 of sheet 3 showing sensor assembly inside a removable appliance.

No. of Pages: 19  No. of Claims: 10
**Title of the invention:** WEARABLE SYSTEM FOR REAL-TIME MONITORING AND MEASUREMENT OF KNEE BIOMECHANICS.

**Abstract:**
This innovation is an improved wearable knee biomechanics measurement system with using the flex sensor for sensing knee angle during everyday activities, the flex sensor interfaced in voltage divider configuration with microcontroller for signal processing of the signal capture and transmitting unit attached on knee support, the said system having uses Bluetooth module to transmit output of microcontroller to the Smartphone as receiver and signal acquisition unit, the Smartphone has inbuilt Bluetooth feature for wireless communication used for data acquisition and then output as knee angles will be shown on display.

No. of Pages: 9
No. of Claims: 2
(54) Title of the invention : A METHOD TO ANALYZE BLOOD GROUP IN FRESH WATER FISHES

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<td>(31) Priority Document : NA</td>
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<td>(32) Priority Date : NA</td>
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<td>(86) International Application : NA</td>
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<tr>
<td>(87) International Filing Date : NA</td>
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<td>(61) Patent No</td>
<td></td>
</tr>
<tr>
<td>(62) Divisional to Application : NA</td>
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<tr>
<td>(57) Abstract : A method to analyze blood group in fresh water fishes comprising the steps of collecting blood group from the fish body; taking 4-5 drops from the collected blood of fish; adding antiserum A/B/D in the blood; analyzing the results to identify that the fishes have RBC / WBC/ H.B./Platelet. In another embodiment, a method to analyze blood group in fresh water fishes comprising the steps of: collecting blood group from the fish body; taking 4-5 drops from the collected blood of fish in the test tube; attaching said test tube with the cell counter machine for analysis; analyzing the results to identify the RBC / WBC/ H.B./Platelets in the fish blood.</td>
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No. of Pages : 12 No. of Claims : 4
A System of after-clearing of Polyester fabric and process thereof is provided in the present invention and it aims at overcoming the problems, inefficiencies and harmful effects of traditional reduction-clearing of polyester fabrics or fibers like huge COD demand, high temperature operations, long processing time, and release of harmful pollutants (Sulphur, increased TDS), etc in the spent bath. According to the after-clearing process and system of the present invention, instead of reducing agents, advanced oxidation process is used to remove the residual dye molecules deposited on the fabric surface by breaking them into smaller, colorless and more readily water soluble fragments, thereby making them more amiable for being washed off. Benefits of the present disclosure are in terms of substantial reduction in polluting effluents, energy requirements and processing time. Environmental benefits of the invention are also immense.

No. of Pages : 31
No. of Claims : 8
The present invention relates to an indoor air purifier using activated coconut shell carbon. The object of the proposed invention is to act as indoor air purifier and detoxifier by applying the coconut shell activated carbon to the furniture and utilizing it in other interiors. Herein the coconut shell activated carbon is utilizes in manufacturing of mild and high density fiber board with activated carbon, curtains having activated carbon, mattress and pillow having activated carbon.
(54) Title of the invention : A BIPHASIC PROCESS FOR PREPARING COMPOST FROM SQUILLA WASTE.

(51) International classification
- A23G 1/00
- A23L 33/00

(31) Priority Document No : NA
(33) Name of priority country : NA

(61) Patent of Addition to Application Number : NA
(86) International Application No : NA
(87) International Publication No : NA

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8) CHANDI BERDE
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(57) Abstract :
Abstract In one of the aspect of the invention a biphasic process for composting kitchen waste with Squilla is provided, a process is optimized to obtain maximum composting, further comparative details with the compost having squilla is provided, it is found the this compost is having better results on the growth of plant which is evident form the mung plant, further it is found that the nanoparticles derived from the shells of Squilla is having antibacterial activity;

No. of Pages : 27 No. of Claims : 8
**Title of the invention:** LIGHTWEIGHT THERMAL INSULATING TILES AND BRICKS FROM INDUSTRIAL WASTES

**International Classification:**
C04B0018020000, C04B0033132000, C04B0028180000, C04B0018080000, B09B0003000000

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**Name of Inventor:**
1) MRS. SHYAMASHREE RATH

**Abstract:**

ABSTRACT Title: Lightweight Thermal Insulating Tiles and Bricks from Industrial Wastes

The invention describes a composite product and the method of its manufacture from two industrial wastes like Thermocol/EPS and Fly ash. The Thermocol/EPS is first made into dough with acetone that is mixed with Fly ash at a specified composition. The tiles and bricks or other products made out of it could be safely used in houses for roof top and as wall or floor covers. The thermal conductivities of these tiles/bricks/products being very much lower than that of conventional clay bricks and ceramic tiles and concretes makes, the invention is superior in terms of thermal insulation and is useful in construction of dwellings in cold and hot seasons. The compression strength of the invention being higher than that of the normal tiles/bricks and with a lower density, high hydrophobic nature and fire retarding properties makes it suitable for use in construction of dwellings in area facing frequent earthquakes and heavy rains. The invention would also be a favourable choice in manufacture of fishing boats, high rise buildings and simple houses in rural India.

No. of Pages : 21 No. of Claims : 2
| (12) | PATENT APPLICATION PUBLICATION |
| (19) | INDIA |
| (22) | Date of filing of Application :17/01/2020 |
| (43) | Publication Date : 24/01/2020 |

| (54) | Title of the invention : CAPTURE VIDEOS OF VIEWER'S REACTIONS, EXPRESSIONS, EMOTIONS IN LIVE SPORT SESSIONS IN STADIUM AND INCLUDE IT IN THE MATCH HIGHLIGHTS SUITABLY AND SELL IT TO VIEWERS. |

| (61) | Patent of Addition to Application Number Filing Date :NA |
| (62) | Divisional to Application Number Filing Date :NA |

| (71) | Name of Applicant : 1) SUBAASSH GANPAT JAGTAP |
|    | Address of Applicant : FLAT NO. 304, BLOCK B, SIDDHI PARK, SECTOR-20, PLOT 27, PCNTDA, KRISHNANAGAR, CHINCHWAD, PUNE - 411019, MAHARASHTRA, INDIA. Maharashtra India |

| (72) | Name of Inventor : 1) SUBAASSH GANPAT JAGTAP |

| (57) | Abstract : CAPTURE VIDEOS OF VIEWER'S REACTIONS, EXPRESSIONS, EMOTIONS IN LIVE SPORT SESSIONS IN STADIUM AND INCLUDE IT IN THE MATCH HIGHLIGHTS SUITABLY AND SELL IT TO VIEWERS ABSTRACT [24] This innovation is provided individual to make a video clip having stadium ground happening and reaction of the viewer who pay for the said clip, in this viewer capturing camera (1) recorded viewer reaction of enjoyment and for the same time period the stadium ground happening recorded by stadium camera (2) and edited and combine as a single video clip by using programmed processing unit (5) and this live stadium match watching and enjoying video clip will send to viewer who pay and register for the said video clip on own demand, the said system will track all individual in turn one by one who pay for said clip and having tracker transmitter provided at the time of payment to capture particular viewer in stadium crowd. |

No. of Pages : 10 No. of Claims : 4
Title of the invention: ADVANCED ELECTROMAGNETIC FIELD DETECTOR

Abstract:

Title of patent: ADVANCED ELECTROMAGNETIC FIELD DETECTOR

ABSTRACT OF INVENTION:

EMF detector is a test and measurement apparatus that is used in different industrial applications for detecting problems in electrical wiring and power lines. The EMF meter gives information about the workflow in the electromagnetic field by measuring electromagnetic radiation flux density (DC). Moreover, this instrument can track the changes in the electromagnetic field that occur over a confident period of the time (AC fields). The EMF meters detect issues in the electromagnetic field by the measurable changes in the quantity of electric or magnetic energy that flows in the field that is being precise. We have designed our own EMF detector, which is highly precise, inexpensive and easy to use. It consists of a decade counter namely CD4033 which is used to analyses broad spectrum of electromagnetic waves. It is a tri-axis type of detector which can detect radiation in any plane. We have three different type of prototype models. One of which measures the EMF and indicates it through blinking LEDs, other is an EMF plotter it uses Arduino IDE to plot the graphs of available EMF serially for various industrial and studios purpose. The last prototype is highly advanced consisting of LCD, GSM and MCB control which is specially designed for safety and protection of houses and industries during the surge load conditions. Keywords: EMF detection, Arduino IDE, Decade Counters, Atmega328P, Arduino Uno, Serial Plotting, Operational Amplifiers, Frequency Spectrum.
ABSTRACT OF INVENTION: Today's high impacting research for development of nanomaterial based sensors and biosensors for monitoring of viruses, harmful pathogens, food contaminants and environmental pollutant in trace amount is becoming a concern throughout society. There is pressing need of miniaturized devices in diagnostic laboratories as well as on-site uses in health care. Novel, simple, inexpensive, sensitive, and fast methods of identifying biological molecules and pathogens are seems to be imperative. Analytical techniques like high performance liquid chromatography, gas chromatography-mass spectrometry, thin layer chromatography, radioimmunoassay etc. possess some disadvantages which involve complex procedures, expensive instrumentation and high running costs. Unlike the above-mentioned techniques, electrochemical methods offer hassle-free procedure and are relatively inexpensive which have been incorporated for the sensitive detection of a wide range of biologically relevant compounds. For detection of various chemicals used food production we have developed a prototype electrochemical sensor and a cheap but precise Potentiostat. Fabricated prototype determines accurate concentration of those chemicals such as harmful chemicals and steroids which are used in excess or released from biological samples. Keywords: Potentiostat- Galvanostat, Electrochemical Cell, Electrochemical Sensor, Atmega328P , Arduino Uno, Serial Plotting , Op-amps , Ag/AgCl reference electrodes, Working and Counter Electrode.
ABSTRACT TITLE: A PORTABLE SOLAR DOME DEHYDRATOR

This invention relates to a portable solar dome dehydrator for drying agriculture and horticulture products to increase shelf life and give value addition. A solar dome dehydrator comprising of dome shaped enclosure (201) which varies as per site specific annual sun path of the location where the dome is to be installed and designed in parabolic shape to create incidence by focal point where the product to be dried. Plurality of fan/blower (103) mounted on horizontal members (102) and plurality of ventilators (204) on top of said dome shape enclosure (201) (powered or wind driven). Orientation of the dome dehydrator is east-west with one door at the west side. The dome disclosed has transmitting properties in the spectrum wavelength of 400 nm-1050 nm (extend in the infrared spectrum till 1350 nm or more in IR region). Ref. FIG 1

No. of Pages: 13 No. of Claims: 9
Title of the invention: ENERGY GENERATING SHOCK ABSORBER SHOES

Abstract:
ENERGY GENERATING SHOCK ABSORBER SHOES ABSTRACT There are two main applications of shoes running and walking which is done by many people in their day to day life. This project will make these applications more helpful as I have made energy generating shock absorber shoes. This can generate electricity while walking and running. I have used shock absorber which will increase comfort of walking and running. Shock Absorber is mechanical device used to reduce shock impulses. Energy is generated by using gear and generator motor mechanism. It is stored in battery for further uses. This project is done for increasing future scope for energy generation. It will also increase availability of energy to rapidly growing population. It is a new idea and people will get attracted as it is generating energy while walking and also giving them more comfort. It will also be beneficial for old people having problems of knee and back. It will bring a hope to recycle wasted energy due running and walking.
SMART NETWORKED STREET LIGHTING SYSTEM USING NON-CONVENTIONAL ENERGY SOURCES

Abstract: SMART IOT ENABLED STREET LIGHTING SYSTEM USING NON-CONVENTIONAL ENERGY SOURCES The present invention would use sensors on each road to collect traffic, vehicle speed, AQI and sunlight data. This is shared with vehicles directly. It uses solar energy and piezoelectricity to make it energy positive. The present invention uses this data to control street lighting, automated speed breakers, barricades, warning screens and emergency buzzers and lights. The same set of sensors is also utilized for advanced analytics like traffic mapping for live vehicular routing and flow control.

No. of Pages: 9 No. of Claims: 10
ABSTRACT DEVICE FOR AIM TRAINING

Disclosed is a device for aim training allowing users of the device to practice their aim by shooting the moving targets. The device is rotated by a geared motor and plurality of bevel gears mounted over the shaft. The bevel gears are configured to rotate the targets in predefined direction. The device is supported with rotating wheel that travel around the specified path. The device is configured with an external casing to protect the device from external damage. FIG.2 (for Publication)

No. of Pages : 16 No. of Claims : 5
(54) Title of the invention : PHARMACEUTICAL FORMULATION OF RUFINAMIDE

(57) Abstract:
The present invention relates to a pharmaceutical nanosuspension composition comprising Rufinamide and process for its preparation. The two techniques high-pressure homogenization and antisolvent precipitation were used, in which nanosuspension prepared by high-pressure homogenization show high dissolution efficiency and saturation solubility and lower particle size. In antisolvent precipitation technique, preliminary screening was carried out for screening of various factors like drug concentration, volume of antisolvent, stabilizer concentration, sonicat ion power and sonication time. In particular by high-pressure homogenization technique which was optimized by applying Box Behnken design and antisolvent precipitation technique which optimized by applying 32 full factorial design. Characterization studies revealed that the nanosize crystals produced by antisolvent precipitation technique shows 16 fold increase in saturation solubility as compared to pure drug and dissolution efficiency at 45 min was found to be 64%. Characterization studies for nanosize crystals produced by high-pressure homogenization technique indicates around 22 fold increase in saturation solubility as compared to pure drug and 68% dissolution efficiency at 45 min.

No. of Pages : 34 No. of Claims : 12
Title of the invention: MULTIPURPOSE COMBINED SOLAR HOME APPLIANCE

Abstract:

ABSTRACT OF THE INVENTION: As per survey different machines are available for different applications such as (Cleaning, Scrubbing & Grass Cutting). Using two machines on the similar work environment is space consuming & time consuming. We made single machine which can accompany two tools which can rotate independently whenever needed in the same body. This provision of two tool in single machine will save space and time. Also the working of both tool is by battery powered on solar rays. This solar powered machine is pollution free and has no running cost. Changing of tool as per application will give a flexibly. Speed control also possible as per application.

No. of Pages : 5  No. of Claims : 9
AN IMPROVED VEHICLE HEADLIGHT DEVICE

ABSTRACT OF THE INVENTION

The present invention relates to an improved vehicle headlight device comprising a bulb assembly (10, 11) system comprising of a plurality of bulbs (12), a shutter (13) and a method to control the light beams of headlights with the help of the shutter (13) and concerns more particularly an electro-mechanical system for blocking a portion of the light rays emanating from the headlights so that a shadow is cast on the eyes of the driver of an oncoming vehicle to protect him from glare and to avoid depriving of sight, pain in the eyes and mental fatigue due to excessive lights and accidents during night time.
An apparatus for 360° revolving a fan includes a housing (104); a plurality of bearings (102) fixed in the housing (104); an elongate shaft (9101) passing through the bearings (102) whose one end is received in a revolution control assembly (50) and other end secured with a coupling means (115); the coupling means (115) also fixedly holds downrod (134) of a fan at an angle to the elongate shaft such that the axes of downrod (134) and shaft (101) don’t cross each other, creating gyroscopic structure. Power to the fan is provided through sliprings (110). When fan blades spin around fan axis, due to precession the whole fan revolves 360°. Additionally a fan blade outer-ring (126) is provided with hollow-structure to store liquid that can be released through a slow release valve (128). Benefits include air delivery in the entire room requiring fewer fans and cleaner corners of the room. FIG 1
**Title of the invention**: PHYSIOTHERAPY TRACTION TABLE WITH ADJUSTABLE TRACTION ANGLE IN COMBINATION WITH TILT AND CHAIR FORM FOR OPTIMAL PERFORMANCE

**Abstract**:
The utility model discloses a multi-use physiotherapy table. The present invention has a combination of traction, tilt and chair form with additional features of adjustable traction angle, height and 360° rotation so that table can be used for cervical and lumbar traction without changing the patient position due to rotational platform. The present invention also has a tilt top and chair form which can be useful for disable patient’s treatment that requires tilt or seating posture of patient available on same table. The present invention has an additional feature of traction angle which provides therapist to change or adjust the angle in coordination with table top for providing resultant load to optimize the treatment process.

No. of Pages : 28
No. of Claims : 5
The present apparatus is a Breath Alcohol Content/Concentration Monitor Evidence Recording System, which makes use of an Ethanol sensor, video recording module, GPS, a touch sensitive display, a communication module and a native storage device to enable a standard breath alcohol content/concentration process to be recorded and stored for evidence purposes in legal and/or prosecution situations. The aforementioned system enables a user to make a record of the Vehicle No. and License No. of an individual using the touch sensitive display and further proceed to record their Breath alcohol Content/Concentration using the ethanol sensor, all the while the video recording module records the whole process and stores the recording along with the GPS location, Time and date of the process in real time. The communication device enables the user to upload the recorded data to the central storage unit where it will be protected from tampering by means of a blockchain security. In the event of communication failure, the user can save the recorded data onto the apparatus’s native storage which can be uploaded to the central storage unit post communication network restoration.

No. of Pages : 15 No. of Claims : 9
Title of the invention: PRODUCTION OF 2-OXOBUTANOATE USING ALTERNATIVE ISOLEUCINE BIOSYNTHETIC PATHWAY

Abstract:

6. ABSTRACT OF THE INVENTION: Title: Method for the production of 2-oxobutanoate using alternative isoleucine biosynthetic pathway. The present invention relates to the manufacture of a key drug intermediate, 2-oxobutanoate (2-OB), by a method of biotransformation and cell-free system using genetically engineered strains from easily available economic substrates like citramalate or citraconate and enzymes like LeuCD, LeuB and NoxE.
The invention discloses a computer vision-based system and method for air brake inspection of railway coaches in the maintenance pit line. The system includes three sub systems data acquisition, data processing and results visualization for image capturing, transmission, processing, and displaying at the server. The image processing algorithm is realized through machine learning approach to Artificial Intelligence (AI) and the design of Graphical User Interface (GUI) for rendering the results of brake tests. The system and method dynamically inspect the air brake of railway coaches in real time with an aim to save time taken and man power for manual inspection.
The present invention provides a method for preparing formulations of skin health promoting compounds namely piperine, salicylic and camphor oil that are found to be poorly soluble and compatible in generally used medically relevant solvents. The stability of these compounds are also improved using the specific methods and compositions claimed in this invention which is relatively simple and safer compared to those used in preparation of formulations used to treat acne and other skin related disorders. The cost of preparing the formulation presented in this invention is very low compared to industrial methods used to achieve such formulations. This formulation also has application as an animal repellent.

No. of Pages: 6 No. of Claims: 9
Title of the invention: AN IMPROVED PROCESS FOR THE PREPARATION OF BILASTINE INTERMEDIATE

Abstract:
The present invention relates to an improved process for the preparation of Bilastine intermediate compound of Formula (I) using cost-effective methylating agents.

No. of Pages: 15 No. of Claims: 3
ABSTRACT OF THE INVENTION: Electronic Voting Machine, EVS, has reduced the economic burden and time expenditure involved in large scale elections. Voter authentication, secure voting and simplification of voting protocol are the key to determine the system complexity and cost. As the layers of security and authentication increases the circuit complexity, cost and power consumption increases. The manuscript presents, the design and working methodology of a microcontroller based EVM. The proposed EVM enables the voting after an election supervisor, ES, has successfully completed the voter authentication. The vote casted is stored in memory without storing the identity of the voter thereby providing secure voting mechanism. After the stipulated voting period has expired, the ES permanently disables the voting by any unauthorized person. This step provides security against vote count tampering after the voting is complete. ES, authentication and simplified voting procedure helps to reduce complexity, cost and power consumption of the proposed EVM.
Title of the invention: COVERING MEANS FOR OUTDOOR ARENAS

Abstract:
The covering means (100) for outdoor arenas is made of combining plurality of 2-3 mm thickness particle foam Thermoplastic Polyurethane (TPU) mats. The Thermoplastic polyurethane is integrated with many features including of rubber and plastic. It also has Excellent tensile strength, High elongation at break and gives more lifetime. It is useful to poor people like tribal, Nomadic and roadside businesspeople. The particle foam TPU mats (100) can be manufactured in different dimensions and thickness based on the size of the floor and user need.

No. of Pages: 13 No. of Claims: 5
Title of the invention: CAD CAM CAE FELD SPATHIC CERAMIC CROWNS

Abstract:
ABSTRACT CAD CAM CAE Feld spathic ceramic crowns The invention is CAD/CAM dental restorations that are milled from solid blocks of ceramic or composite resin that closely match the basic shade of the restored tooth. Metal alloys, including zirconia, can also be milled. Several of these materials require processing such as baking or sintering following their milling. For a single unit prosthesis, after decayed or broken areas of the tooth are corrected by the dentist, an optical impression is made of the prepared tooth and the surrounding teeth. These images are then turned into a digital model by proprietary software within which the prosthesis is created virtually. The software sends this data to a milling machine where the prosthesis is milled. Stains and glazes can be added to the surfaces of the milled ceramic crown or bridge to correct the otherwise monochromatic appearance of the restoration. The restoration is then adjusted in the patient™s mouth and luted or bonded in place. Integrating optical scan data with cone beam computed tomography datasets within software also enables surgical teams to digitally plan implant placement and fabricate a surgical guide for precise implementation of that plan.

No. of Pages : 7 No. of Claims : 4
Title of the invention: AUTOMATIC VEHICLE LICENSE PLATE RECOGNIZER FOR KANNADA SCRIPT USING TENSORFLOW BASED CONVOLUTIONAL NEURAL NETWORK MODEL

Abstract:

Abstract of the Invention: Automatic Vehicle License Plate Recognizer (AVLPR) is used to read license number of a vehicle by itself without direct human control. It is used to track citizens, movements and misidentification of vehicles. Traditional AVLPR is mounted on police cars or on object like road signs and bridges. The challenging tasks in recognizing the license plate numbers in Kannada script are high contrast foreground or background colour, shape of the license plate, location of the plate in the bottom and middle of the vehicle. The interesting task to design a smart device which automatically recognizes the license plates written in Kannada script. The existing Kannada script has 15 Vowels, 34 base consonants and a total of 49 phonemic letters. It is assumed that the general license plate in Kannada script has ten characters. First two characters represents the state code, followed by a two digit regional transport office code. In the remaining six characters, first two denotes the registration and rest of them are generated as a unique code for each vehicle. The proposed model comprises of a camera-attached smart mobile device to recognize vehicles license plate number in Kannada script. This smart device captures images in the form of Burst image. The captured Burst image also receives additional details like date, time and location of the vehicle. To improve the accuracy of prediction, the captured images are converted into Grayscale image. Grayscale image is chosen because it requires less energy to process the information in a range of shades of Gray without apparent colours. Grayscale image is processed based on the character segmentation process. Segmentation process is used to segregate each individual character from license plate in Kannada Script. The segmented characters are processed and then sent as an input to the TensorFlow based Convolutional Neural Network (CNN) model. TensorFlow is used as an end-to-end open artificial intelligence platform to build models and CNN model is chosen to classify, understand, discover and analyze the visual imagery. Here, CNN model is trained and tested on Kannada script dataset with the help of TensorFlow Lite converter. The TensorFlow Lite converter uses a TensorFlow model and produces output in the form of TensorFlow Lite FlatBuffer file (.tflite). This generated .tflite has the results with high frequency. The entire processes acts as an intelligent system to recognize the license plate numbers in Kannada script and displays the result in the screen of the android mobile device. Finally, the data displayed is stored in a permanent storage for years.

No. of Pages : 13 No. of Claims : 7
Title of the invention : MICROWAVE ASSISTED SHELL AND CURVED TUBE RAPID HEAT EXCHANGER

Abstract :
The Microwave assisted shell and curved tube rapid heat exchanger may be used for heating of i 4 fluids in different chemical, pharmaceutical and process industries. The shell side fluid will interact with the microwaves and gets heated. The shell side fluid is filled initially with any below specified fluid mediums and then the microwave assemble will be switched on. The microwaves are guided with wave guide to interact shell side fluid. The shell side fluid will heated rapidly due to interaction of microwaves and simultaneously the cold fluid will extracts the heat from shell side fluid. The various types of fluids such as Toluene, Ethyl benzene, 0-Xylene, Styrene, Cumene, Decane, Phenol, Aniline, Ethylene glycol, Naphthalene, Glycerol, Propylene glycol, Turpentine, Acetone and Polyethylene glycol-PEG 400 may be used as shell side fluids. The cooking oils such as Olive Oil, Coconut oil, Sunflower oil, Peanut oil and Palm oil may also use as a shell side fluid. The fresh fluid or fluid in any state can be used for heating purpose at shell side. The shell side and curved tube side fluid temperatures are controlled and monitored with temperature controller and indicator. The present equipment may be use full for domestic and industrial water heater. It can be also used for steam generation.

No. of Pages : 10 No. of Claims : 10
Coconut husks, coconut shells, dried flowers, areca nut sheaths, areca nut husk, rice hulls/paddy hulls, and banana fiber are produced over a vast area and are not disposed of in an effective way. Not everything is turned into compost. Waste management of these wastes is inefficient using traditional ways. These ways are burning it or throwing without a proper disposal method. Burning of these wastes will produce a large amount of carbon dioxide and increases earth's temperature and cause many disturbances in the nature. Summer is the peak time for dry waste to get caught by fire and cause severe damage to the surrounding. Any village that produces the above-mentioned waste products and is in search of a new innovative way of getting rid of can be benefitted. Areas whose primary crop is either coconut, areca, banana, or flowers can implement this technique to generate an extra source of income, which is not seasonal but also made from waste products. This way farmers can be entrepreneurs and also make effective use of the waste products that is available. Waste management can be achieved too.
Title of the invention: A DESIGN AND DEVELOPMENT OF SMART AQUACULTURE SYSTEM IN A CLOUD ENVIRONMENT USING IOT

Name of Applicant:
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6) Ms. MENAGA D

Abstract:
Aquaculture is one of the crucial elements to help the nourishment needs of the world network, particularly in creating nations. Internet of Things (IoT) is a hot research subject, as showed by the expanding consideration and the extensive overall speculations dedicated to it. The observing of cultivating procedures can upgrade the utilization of assets and improve its supportability and productivity. It very well may be executed under various conditions. A few offices are sent in the ocean, while different offices are set inland. In inland offices, fish are kept in tanks that can change in size and materials. In offices that perform serious aquaculture, numerous endeavors are taken to augment the execution of the fish. In this work, we propose a framework for developing an exceptionally beneficial aquaculture framework, equipped for preparing the employments of observing, wise control of the Internet of thing (IoT), irregularity mindfulness, and carbon outflow decrease just as vitality protection. And also includes water quality check, environmental monitoring, power monitoring, and web surveillance platform.

No. of Pages: 6
No. of Claims: 4
Abstract:
Data Acquisition is the process of measuring and analyzing various electrical and physical entities like voltage, current, temperature, pressure etc. A DAQ system consists of sensors, signal conditioning circuitry, analog to digital converter, and application software. DAQ system has a wide range of applications including Research and Analysis, Control and automation, Design validation and Verification. DAQs applications are not only limited to medical instruments, industrial equipment and other home appliances but are used for variety of products. Generally DAQ system consists of Sensors, acquired data measurement hardware and computer software. In contrast our System will be equipped with Raspberry Pi 2 which is Linux based powerful machine with a 900MHz quad-core ARM Cortex-A7 CPU and 1GB RAM and thus eliminates the need of any external computer software. Our compact Linux based machine will be having inbuilt Data Acquisition capability and an ADC converter which also supports an HDMI display, we will provide a Linux based application which can run on HDMI display. Our system covers all possible means of communication wireless and wired for ease and variety of operations. It will be equipped with WiFi and Bluetooth for medium range data transmission while GSM and Ethernet for long range transmission. The system will be using thus various Internet of Things protocol options. We will also provide support for Android based application so that acquired data can be analyzed by our application using various means of communication. In this work we will be explaining working and acquisition of data using wheel response and temperature of the metal frame. With the number of connectivity options and various connectivity ranges, the system is generalized for being used for several applications and also it is portable to use.
The present invention relates to the field of classifying normal and abnormal voices using neural network based classification modules. The process for voice abnormality identification system (1) comprises the method of silence removing process (12), windowing block process (13), extraction process (14) and classification process (15).

No. of Pages : 17
No. of Claims : 8
(54) Title of the invention: SMART SCHEDULING METHOD FOR LOW ENERGY CONSUMPTION IN WIRELESS SENSOR NETWORK

(57) Abstract:
The present invention relates to the field of enhancing energy efficiency in wireless sensor networks by smart scheduling method. Smart scheduling with parallel Data Aggregation protocol (SPDA) method is designed by scheduling mechanism to transmit the data in parallel path. As data transmission carried out by a parallel path, it avoids the unnecessary receiving of data and computational processing of data packets from the sensor node (11) therefore increasing the lifetime of the network.

No. of Pages: 19 No. of Claims: 6
ABSTRACT BIO-BASED NANOFLUID HEAT TRANSFER MEDIUM This invention covers technical viabilities associated with plant based extracts derived from agriculture waste material of Senna auriculata combined with carbon nanotubes (CNT) based coolants in different applications. Also it is having eco labeling, environmental regulations, source, composition and availability of plant extracts are rich as compared to commercial coolant oils. Plants are the equivalent of natural industrial chemical factories which produce a wide range of common and unique phytochemicals such as steroids terpenoids, alkaloids, phenolics. Plant based coolant is one of the most common low cost products and can be a suitable alternative agent for commercialized chemical coolants. Thus the present investigation was aimed to determine the effectiveness of CNT in combination with different chemical derivatives (Al2O3, NaC12H25S04 CH3 SO CH3 Ti02 ZnS04, and FeS04) and bio-active extracts of S. auriculata in combination with deionized water as an alternative coolant for the ethylene glycol. Moreover, the present research aimed to improve the efficiency of existing coolant ethylene glycol with our CNT based nano-formulations and the selection of the CNT have been made because of the wide availability and economically feasible as compared to commercially available coolants and more importantly CNT in combination with plant extracts has significant heat transfer rate with higher thermal conductivity and thermal co-efficient. The active CNT based nano-formulation dosage were 1 %, 2% and 3% respectively in each combinations. Moreover, the thermal and hydraulic drop are consider as the objective function, in which the heat transfer is enhanced and the pressure drop is minimized by using multi objective wale optimization (MOWO). Further, the proposed system is implemented in Ansys and MATLAB software and its performance were analyzed to determine the thermal conductivity for obtaining the effectiveness of the proposed system.

No. of Pages : 28 No. of Claims : 3
The present invention relates generally to the field of orthodontics. It particularly relates to the development of a braided stainless steel torquing auxiliary as a substitute to four spur torquing auxiliary in the ref’ ned Begg technique. More particularly, the invention relates to the development of method for fabrication torquing auxiliary as a substitute to four spur torquing auxiliary in Begg treatment. Rectangular sectional wire was cut from anterior part of preformed lower arch wire and with the curvature maintained in the original preformed are. The wire was engaged before the base wire in the ribbon mode and is comparable to the four spur torquing auxiliary. This auxiliary is equivalent to the four spur torquing auxiliary which is used in modern ref’ ned Begg technique for torquing of the anterior teeth in the third stage of fixed orthodontic treatment. Ideal labio-lingual inclinations of the teeth at the finish of appliance therapy are very important for obtaining stable results. The Begg torquing auxiliary (usually having four spurs, sometimes two spurs) used in the III stage provides optimum force to improve the axial inclination of anterior teeth. The desired maxillary and mandibular incisor inclinations, through their inter incisal angle, not only increases the post treatment stability, but also enhances facial and dental esthetics.
Title of the invention: A ROBUST VIDEO WATERMARKING SCHEME

The present invention provides a watermarking scheme which comprises DTCWT, holo entropy, QIM and SPCA. The watermark scheme according to the present invention involves a novel embedding and extraction processes.

No. of Pages: 11  No. of Claims: 3
Title of the invention : A SYSTEM AND METHOD FOR CAPTURING RADIOGRAPHIC IMAGE OF A LIVING BEING

Abstract:
The present invention relates to system and method for radiographic imaging of a living being, more preferably human beings without intervention of para medical technical staff. The system comprising of document scanner, first sensor, second sensor, control unit, collimator unit, database, bed unit and power supply.

No. of Pages: 14 No. of Claims: 12
Title of the invention: PORTABLE SPINE CURVATURE MEASURING APPARATUS

Abstract:
The present disclosure relates to an apparatus which relates to a portable electronic device for determining the position coordinates of the human spine and generate profile curvature in various postures. This apparatus provides accurate coordinates of the spine by rolling the apparatus on the spine. The apparatus (1000) comprises a motion tracker unit (700), linear adjustment mechanism (800), front roller assembly (400), orientation sensor (600) and an electronic unit (300) securely enclosed in housing (500) and top plate (200). Orientation sensor (600) measures the orientation of the apparatus (1000) on the curvature and the motion tracker unit (700) calculates the distance travelled on the curvature profile and find deviations from spine midline while performing the measurement. The data from orientation sensor (600) along with the reading of motion tracker unit (700) is processed in electronic unit (300) to generate the curvature. Front roller assembly (400) determines the location of intervertebral disc on spine curvature. The apparatus (1000) of present disclosure is portable, easy to operate, simple in configuration, accurate and cost effective.
A Supply chain network is developed for a situation of retention and migration customers and their uncertain demand. Using C, a program is generated to select the required optimal warehouse location from the given locations. The program run time is less in Turbo C, when compared to Excel. This model generates a well-defined procedure to locate the required number of warehouses at the optimal level. The cost involved in transporting the goods in the 3 cases is compared. The best case with the reduced transportation cost is selected. This model is used to increase on time delivery and customer satisfaction.
Title of the invention: INTELLIGENT BREAKING ASSISTANCE

Abstract:
Brakes are the second most important mechanism which is in need to stop a vehicle or to slow down according to the driver's will with the help of this thing, the riding environment can be safe. But generally, brakes are applied manually to slow down or stop the vehicle in accordance with the driver's will and primarily the driver's attention towards the road and the driving skill of the driver. Whatever be the brakes provided considering these two factors, the vehicle can be brought to a safe stop. This invention is about the scenario when the driver becomes inattentive to the road or there is some sudden interruption where the driver is unable to react to such situations, the vehicle itself takes over the full control and brings the vehicle to a safe stop by calculating the minimum safe braking distance with the help of ultrasonic sensor and hall effect sensor to measure the distance of the obstacle and speed of the vehicle.

No. of Pages: 18  No. of Claims: 6
Title of the invention: THE CACHE MEMORY PERFORMANCE ENHANCE USING NEURAL NETWORKS AND ARTIFICIAL INTELLIGENCE PROGRAMING

Abstract:
THE CACHE MEMORY PERFORMANCE ENHANCE USING NEURAL NETWORKS AND ARTIFICIAL INTELLIGENCE PROGRAMING
ABSTRACT The Invention is a Systems and methods for selecting an appropriate caching algorithm to be used when temporarily storing data accessed by an executing application using a neural network may dynamically and/or iteratively replace an initial caching algorithm being used for the application. An input layer of the neural network may gather values of performance related parameters, such as cache hit rates, data throughput rates, or memory access request response times. The neural network may detect a pattern or change in a pattern of accesses, or a change in a workload, a hardware component, or an operating system parameter. Dependent on these and/or other inputs, the neural network may select and apply a caching algorithm likely to improve performance of the application. Other inputs to the neural network may include values of hardware configuration parameters and/or operating system parameters. The neural network may perform a training exercise or may be self-training, e.g., using reinforcement learning.

No. of Pages: 30 No. of Claims: 8
The proposed design model aiming to address the problem making composites pipes with particulate reinforcements. The existing process are suitable for making composites pipes with long and short fiber and also mostly suitable for thermoset polymers. In this design, thermoplastics materials are used as matrix material and particulate are used reinforcement materials. The proposed design is capable of making different thickness pipes and varying reinforcement level content. The function of spray gun is designed such that to control the pressure and flow rate of the particulate to be deposited in the thermoplastics. Temperature of the stainless steel and thermoplastic matrix material is controlled by electrical heater attached with temperature controller. The feed rate of the thermoplastics matrix is controlled based on the amount of particulate to be deposited. Provision for handling different thickness of the matrix material is given in the stainless shaft.

No. of Pages : 8 No. of Claims : 6
Group of elevators in a building have long been recognized an important issue to improve the transportation efficiency, since this issue ranks second priority after HVAC (Heating, Ventilation and Air Conditioning)as the main complaint of building tenants. Anything to enhance elevator performance, e.g., shorter wait times during rush hours, will improve passenger satisfaction. However, the problem is difficult because of complicated elevator dynamics, various traffic patterns with uncertain arrivals and destinations, and the combinatorial nature of discrete optimization. To overcome the difficulties caused by traffic uncertainties, one important trend is to explore advance information with respect to detect number of person waiting near to the elevator. An RFID tag on a person may allow the system to sense when the person is approaching an elevator and which floor is likely to be the destination. By using sensor output, here we can control the various aspects of elevator functions.
The present disclosure relates to an apparatus (100) for inspecting gear profiles comprising a frame (10) having rails (12) extending from the frame. A first bracket (20b) is slidably mounted on the frame and is mounted with the gear (30b) to be inspected. A second bracket (20a) is slidably mounted on said frame and is mounted with a driving reference gear (30a). A third bracket (20c) is provided on the frame. A sensor (50) is mounted on said third bracket for tracing the gear profile of said gear (30b). A counter (56) is slidably fitted within said slot (52) to count the number of teeth on said gear; and a controller unit (70) configured to receive sensor signals and produce a digital profile of the profile of the gear. The apparatus is simple in construction, produces an accurate profile and offers portability.
Exemplary embodiments of the present disclosure are directed towards a hygiene paper roll, comprising one or more sheets comprising one or more vertical lines and one or more horizontal lines, the one or more horizontal lines configured to enable a user to torn the one or more sheets, the one or more vertical lines configured to unfold the one or more sheets to spread on a toilet seat. FIG. 1

No. of Pages : 12  No. of Claims : 4
The present disclosure relates to a process for magnesium foam. The process of the present disclosure obviates the use of the stabilizing agents as well as the expensive blowing agents. In-situ formed MgAl2O4 particles acts as the stabilizing agent for foaming process. The process of the present disclosure also involves the use of economical and naturally occurring blowing agents. The Mg foams produced by the process of the present disclosure have good expansion, lower density, uniform pore size distribution and polyhedral pore structure.

No. of Pages : 18 No. of Claims : 10
The present invention relates to a method for facial recognition. Specifically, the present invention relates to a method for adjusting/correcting lighting or pose prior to recognition and authentication. The method comprises FNN, lighting normalization and FNN for fast and accurate face recognition.

No. of Pages : 11  No. of Claims : 3
Title of the invention: BLOOD GLUCOSE LEVEL DETECTION : NOTIFICATION BLOOD GLUCOSE LEVEL USING INFRARED SIGNAL

Abstract:
In this invention BLOOD GLUCOSE LEVEL DETECTION, an individualized modeling equation for predicting a patient's blood glucose values is generated as a function of non-invasive spectral scans of a body part and an analysis of blood samples from the patient, and is stored on a central computer. The central computer predicts a blood glucose value for the patient as a function of the individualized modeling equation and a non-invasive spectral scan generated by a remote spectral device. If the spectral scan falls within the range of the modeling equation, the predicted blood glucose level is output to the patient. If the spectral scan falls outside the range of the modeling equation, regeneration of the model is required, and the patient takes a number of noninvasive scans and an invasive blood glucose level determination. The computer regenerates the individualized modeling equation as a function of the set of spectral scans and corresponding blood glucose values.
An eco-friendly incinerator for sanitary napkins / pad incinerator for domestic use comprising of a main body (2), a metallic cylindrical container with an open bottom and having a charging passage (16) for dropping the soiled sanitary napkins for incinerating provided with an insulated charging door (8); a dome shaped roof (5) having a chimney (7), an ash tray (14) removably positioned at the lower end; a roof less combustion chamber (3), a cylindrical vessel provided with high watt density heater (9) fitted rigidly at the bottom portion above the widely spaced grill (10) supports (11) attached to the main body (2); an inner dome (4) concentric to the outer dome (5) opened to the Combustion chamber(3) rests on the supports (11) and a definite gap is maintained between them and inner surface of the main body (2) and the outer dome (5) are insulated.
An Automated and digitalized Internet of Things based Insulin injecting pen is more user friendly and efficient than the existing pens. The proposed invention is an insulin pen with space for dual cartridges and thus can be used efficiently for longer time without the need to change the cartridges frequently. The amount of insulin to be taken per prick will be accurate in this digitalized pen rather than approximate in the existing pens. Also the invention is digitalized with a display unit and the dosage of insulin for every prick can be set easily without the change in the amount of dosage from prick to prick. The proposed device includes a time sensor along with an alert system. This will help record the dosages and to give an alert message to the care taker of the patient. Thus, this alert will act as a reminder and will help the patient to take all the dosages prescribed per day by the doctor. The information regarding the cartridges and the dosages will be saved on the cloud server for future references and report analysis.
The present invention is aimed at solving the problem of loosening of fittings on channel sleepers on railway bridges and preventing loosening of bolt nut arrangements and providing an anti-sabotage arrangement for the rail sleeper fitting to the channel sleeper on the railway bridges. The rail holding cleats are fixed to the channel sleepers on railway bridges with bolt nut arrangement. When trains pass over the tracks on channel sleepers vibrations are generated and transferred to the fastenings. In the present arrangement the bottom part of the holding eye is placed in slot provided in the top bearing plate slot. The upper part of the holding eye is provided outside the channel sleeper and it possesses a cylindrical hole to hold the elastic clip. The reaction and rail holding cleat reaction and rail holding cleat are placed adjoining to the rail in the slot, it is held in position with the help of the elastic anti-rotation and anti-sabotage stud. The elastic clip is inserted in the cylindrical hole provided in the top part of the holding eye. The outer part of the elastic clip will be taking reaction from the outside part of the reaction inside the rail holding cleat and balancing reaction is transferred to inside. The holding cleat is taken from the top cylindrical hole of the holding eye. With this arrangement the RR.C will be holding the rails with reaction from elastic fastenings and provide a less maintenance elastic fastening for steel channel sleepers.
The present invention discloses a system and method for variable speed hoist (100). The system comprises an elevation unit (300) for varying the speed of the hoist during lifting of a load, a descension unit (400) for varying the speed of the hoist during lowering of the load, and a control unit (200) for operating the elevation unit (300) as well as the descension unit (400). The elevation unit (300) is a variable delivery vane pump while the descension unit (400) is a flow controlling descent valve. The system also comprises a piston unit (500) that facilitates the operation of the elevation unit (200) during lifting and lowering of the load. Additionally, the system comprises a compaction unit that facilitates the coupling of multiple motors on a single shaft thereby saving considerable space within the system.

No. of Pages : 23 No. of Claims : 10
(54) Title of the invention: AN AUTOMATED METHOD AND SYSTEM FOR GRAVITATIONAL TRANSPORTATION OF MINERALS ALONG WITH SEGREGATION

| (51) International classification: | (71) Name of Applicant: |
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| (33) Name of priority country: NA | 4) Dr. T. G. SAKTHIVEL |
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| (37) International Publication No: NA | 6) Dr. V. MOHANAVEL |

| (86) Internatio n Application No: NA | (87) Internatio n Publication No: NA |
| (61) Patent of Addition to Application No: NA | |
| (62) Divisional to Application No: NA | |
| (63) Filing Date: NA | |
| (64) Filing Date: NA | |
| (65) Filing Date: NA | |
| (66) Filing Date: NA | |

(57) Abstract:

An automated method and system for gravitational transportation of minerals along with segregation is an invention which will help mine the underground resources may be solid or liquid in a well defined manner along with a system to segregate the mined minerals according to their size or properties. Once the minerals are mined, they are first segregated into two or three varieties depending on the various properties of the mined mineral. Before pushing the mined minerals into the blower, the information regarding the quantity and quality of the mined minerals will be sent to the user. The segregated minerals will be pushed up to reach the distribution pipeline using plurality of blowers. The entire mining and transportation system is automated and thus the efficiency of the mining system is high since there will be no delay of work due to technical error. The condition of each and every blower and pipeline is monitored continuously. Also it allows the user to visualize the things that are happening underneath the ground around the mining region.

No. of Pages: 31  No. of Claims: 10
Title of the invention: SUTURE-NEEDLE APPARATUS AND METHOD EMPLOYED THEREOF

Abstract:
SUTURE-NEEDLE APPARATUS AND METHOD EMPLOYED THEREOF The present disclosure is directed towards a suture-needle apparatus, comprising a suture material, a suture needle, heat shrink tube, polymer tube, underlying layer disposed adjacent to polymer tube, and custom soldering block, wherein said suture material and said suture needle configured to swage to a ratio of an outer diameter of said suture needle and said suture material by said heat shrink tube and said underlying layer disposed adjacent to said polymer tube to provide a swaged suture needle, wherein said ratio is the ratio of said outer diameter of said suture needle is equal to said outer diameter of said suture material, wherein said heat shrink tube comprising an inner diameter and an outer diameter, wherein said outer diameter of said heat shrink tube similar to an outer diameter of said underlying layer disposed adjacent to said polymer tube and said inner diameter of said heat shrink tube similar to an inner diameter of said underlying layer disposed adjacent to said polymer tube to enable said custom soldering block to provide a uniform attachment of said suture material with said suture needle, wherein said custom soldering block is in a horseshoe shape and further configured to provide a uniform searing of said heat shrink tube with said suture needle, said suture material positioned at one end of said suture needle and said suture material rotated in one of a clockwise direction and a counterclockwise direction from said outer diameter of said suture needle to enable said uniform attachment of said suture material with said suture needle. FIG. 1

No. of Pages: 22 No. of Claims: 12
The present invention relates to a process for recovering metals from PCBs using Thiobacillus Novellus bacteria, comprising the steps of: initiating the recovery process of at least five metals using Thiobacillus Novellus bacteria; adding broken pieces of a predefined amount of PCBs dosage to the culture medium; allowing the bacteria to react with the five metals in the PCB; initiating acidolysis reaction to release H+ in the cultured medium containing energy / no energy source; generating H2SO4- acid by the bioleaching process; reacting the acid with the metal / (s) and followed by bioleaching mechanism; and computing bleaching efficiency of metals for C3 and C4 and at S/L ratios using several parameters including pH, temperature, relative humidity, oxidation reduction potential (ORP) and others.
Title of the invention: EFFECT OF FIN GEOMETRY ON ENGINE CYLINDER FINS

Abstract:
The main aim is to find out the effect of thickness and geometry on engine cylinder fins for temperature distribution, for this purpose, we have used fins with rectangular geometry, triangular geometry and thickness 2.5mm, 3mm. Finite Element Analysis (FEA) done using ANSYS software, and Experimental method. The results obtained from both methods are nearly same except some variation in experimental method. Finally, to find out conclusions comparative study carried out between results of both method mention.

No. of Pages: 9
No. of Claims: 2
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classification
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(86) International Application: NA
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Filing
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(87) International Publication: NA
No
(61) Patent of Addition to Application: NA
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Date
(62) Divisional to Application: NA
No
Filing
Date
(57) Abstract:
A method for safekeeping and anti-theft of jewels and the jewellery box, comprising: embedding an IoT and/or GPS location tracking module inside a jewellery item, the module having dimensions less than those of the jewelry item; configuring the jewellery box with multiple sensors including touch sensor, weight sensor and vibration sensor; and if the jewelry item is moved outside the defined space, sending automatically at least one of a message and an alarm to at least one of an owner and a law enforcement agency through the GSM system; periodically sensing the weight of the jewel box and upon sensing the weight less than the preset weight, sending automatically at least one of a message and an alarm to at least one of an owner and a law enforcement agency indicating the possibility of a theft and coordinating with the micro controller and the central server for the sensing of the signals from the plurality of sensors, GPS module and GSM and IoT for preventing and detecting the theft of jewels.

No. of Pages: 14 No. of Claims: 11
The aim of the present innovation is to provide hot water for bathing purpose after gym exercise. Stationary cycle is gym equipment which is used for body fitness purpose all around the globe. Stationary gym cycle also helps to burn calories, to moderate blood sugar level, fight cholesterol, gentle toning, and improves blood circulations. Generally, most people used to bath hot water after every exercise in order to get rejuvenated. In fact, medically hot water bath after workout will improve muscle and joint recovery to wash out all the build up of inflammatory cells, dead cells, scar tissue build up, etc. in order to improve bone health. Most people uses electrical energy and fossil fuel energy to prepare hot water, both energies are non-renewable energy. In order to preserve non-renewable energy, a novel smart gym stationary cycle is proposed in this innovation. This innovation uses first law of thermodynamics to convert work energy to heat energy. A special friction fan wheel, typical mechanical conversion unit, well insulated water tank, sensors along with thermocouple and new algorithm is used in this innovation. The hot water production is solely based on the amount of work transfer by the exerciser.
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4) Dr. MUNISH SABHARWAL
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(57) Abstract:
ABSTRACT Intelligence quotient of a person is estimated by the psychometric test as it is indispensable in assessing the psychological application in various fields. Commonly used test is the Wechsler scales accepted universally that recognizes the diagnosis parameters with the retardation degrees which is not applicable as it does not require any tool of psycho diagnosis that suits more for the particular condition of the patient. But for ensuring homogenous diagnosis it is needed to have a common metric that aims for building models that is able to accurately estimate with reliable values of intelligent quotient that starts from various tools of psycho-diagnosis. The psychometric test are of four types namely the international performance scale of leiter, matrices test for coloured progressive, mental development scale and psycho educational profile combined with the Wechsler scale for administering the group of subjects that are mentally retarded found with different types of pathologies and controlling persons. Evaluation of the Wechsler intelligence quotient is estimated which starts from scores obtained from test from other possibilities. Intelligence quotient is estimated for classifying the retardation level analysed by univariate method and multivariate method.

No. of Pages: 0 No. of Claims: 0
Publication After 18 Months:

The following Patent Applications have been published under Section 11A (3) of The Patents (Amendment) Act, 2005. Any Person may file representation by way of opposition to the Controller of Patents at the appropriate office against the grant of the patent in the prescribed manner under section 25(1) of the Patents (Amendment) Act, 2005 read with the rule 55 of The Patents (Amendment) Rules, 2006:

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201811026553 A

(19) INDIA

(22) Date of filing of Application :17/07/2018

(43) Publication Date : 24/01/2020

(54) Title of the invention : A DECENTRALIZED SYSTEM AND METHOD FOR MANAGEMENT OF REAL-ESTATE INVESTMENT PORTFOLIO

(51) International classification : G06Q0040060000, G06Q0050160000, G06N0020000000, G06Q0040000000, H04W0004200000

(31) Priority Document : No

(32) Priority Date : NA

(33) Name of priority country : NA

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(57) Abstract :
The present invention discloses a system and method for managing real-estate investment portfolio; specifically, a decentralized system and method for managing real-estate investment portfolio is disclosed.
(12) PATENT APPLICATION PUBLICATION

(21) Application No.201811026558 A

(19) INDIA

(22) Date of filing of Application :17/07/2018

(43) Publication Date : 24/01/2020

(54) Title of the invention : BACTERICIDAL METAL NANOPARTICLES AND ITS METHOD OF PREPARATION

(57) Abstract :
The Invention is in the field of metal nanoparticles. Particularly, the Invention provides an efficient method for the production of a stable metal nanoparticle and a packaging material based on same useful for the purification of water.
Title of the invention: A SYSTEM AND METHOD FOR SIMULTANEOUS REMOVAL OF ARSENIC AND FLUORIDE FROM CONTAMINATED WATER USING NOVEL HYBIRD ADSORBENT

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Abstract:
The present invention provides a system and method for simultaneous removal of arsenic (As) and fluoride (F) from contaminated water in a customized adsorption column (filter unit) using novel hybrid adsorbent. The system uses a low cost adsorbent from laterite soil and aluminum oxide/hydroxide nanoparticle adsorbent with high As and F adsorption capacity, which were mixed in different ratio to get optimum recipe for addressing different situation with arsenic (As) and fluoride (F) in a wider range.

No. of Pages: 26 No. of Claims: 4
Title of the invention: **INORGANIC-ORGANIC HYBRID HALIDE PEROVSKITE THIN FILM BASED AMMONIA SENSOR**

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<th>:H01L31/0264</th>
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<td>(31) Priority Document No</td>
<td>:NA</td>
<td>1) AMITY UNIVERSITY</td>
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<tr>
<td>(32) Priority Date</td>
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<td>(33) Name of priority country</td>
<td>:NA</td>
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<td>:NA</td>
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<td>Filing Date</td>
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<td>1) GUPTA NIDHI</td>
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<td>(87) International Publication No</td>
<td>:NA</td>
<td>2) NANDA OMITA</td>
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<td>Filing Date</td>
<td>:NA</td>
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Abstract:
The present invention synthesis of a new perovskite material based on ethylene-diamine-dichloride and lead iodide as organic and inorganic precursors respectively. Thin films of perovskite material are characterized using SEM, UV-Visible spectroscopy, XRD, and FT-IR. The inorganic organic perovskite thin films are selective for ammonia detection. Electrical measurements show decrease in resistance in the presence of ammonia vapors. The present method for detecting ammonia is unique, simple, selective, low cost and can be easily implemented for the field studies.

![Figure 1](image-url)
| (51) International classification | : H02S30/20 |
| (31) Priority Document No | : NA |
| (32) Priority Date | : NA |
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| Filing Date | : NA |

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4) ABHISHEK RAI

**Abstract:**
The present invention provides a solar powered automatic hydraulic jack system for vehicles. The solar powered jack system consists of a Bi-Convex lens to concentrate light rays on a conducting plate. Concentrated light beam falls on conducting plate and the generated energy is stored in the batteries. This power is used to actuate the electric fuel pump to produce a pressure in fluid which is transferred to the required hydraulic jack and that side of the car is lifted for easy change of tyre. The solar powered automatic hydraulic jack system in cars is fabricated with the press of a button.

No. of Pages: 10 No. of Claims: 5
The present disclosure relates to a process and a process plant for hydrotreatment and hydroisomerization of a feedstock, said process comprising the following steps: directing the feedstock to a hydrotreatment section operating under hydrotreatment conditions, providing a hydrotreated stream, directing the hydrotreated stream to a stripping process, providing a hydrotreated light boiling fraction and a stripped hydrotreated stream, cooling said hydrotreated light boiling fraction and directing it to a separator, providing an intermediate gas stream, an intermediate hydrocarbon stream and optionally a sour water stream, directing said intermediate hydrocarbon stream and an amount of said stripped hydro-treated stream as a hydroisomerization feed to a hydroisomerization section, providing a hydroisomerized stream, with the associated benefit of providing a method for combined hydroisomerization of a light and a heavy product of hydrotreatment, e.g. with the objective of combining the conversion of linear paraffins to branched paraffins and the conversion of aromatics to non-aromatics by hydroisomerization and hydrodearomatization respectively.
A device for accurate measurement based on wire diameter includes a clamp and twospace compensators. The clamp includes depressible grip handles to control opening and closing of two measurement sections. Two space compensators are respectively combinable with the two measurement sections. The space compensators each have a side that is recessed to form a first clamping section, such that the first clamping section is combinable with at least two fixing elements, which are each in an arc curved shape having one side recessed to form a second clamping section. The fixing elements are structured such that inside diameters defined by the second clamping sections thereof are reduced one by one in a direction away from the first clamping section. The fixing elements are selectable to have the inside diameter of the second clamping section matching a size of an electric wire to be measured.
The invention relates to the method of preparation of biodiesel from crude Jatropha oil where the oil contains up to 15% FFA. The invention related to the improved pretreatment of the crude Jatropha oil to reduce the FFA to 0.05%. The method of biodiesel preparation involves the single step alkali catalyzed transesterification with methanol. The produced biodiesel has acid value in the range of 0.04-0.12 mg KOH/g and not above 0.25 mg KOH/g which is well within the maximum specified limit so that the biodiesel may be stored for a longer period.

No. of Pages : 14 No. of Claims : 12
The present subject matter disclosed herein relates to an air duct (400) for air conditioning unit of vehicle to guide air into vehicle compartment. The air duct (400) comprising upper duct portion (401), lower duct portion (402), and a bending section (404). The bending section (404) has a protrusion portion (405) which is inclined from left side wall inner surface (400c) to right side wall inner surface (400d). The protrusion portion (405) guides air flow from the upper duct portion (401) to upper and middle outlet port (403c, 403b) for delivering air to the vehicle compartment.
A method for assessing alertness of individuals is disclosed. The method comprises causing display of test data to an individual. The method further comprises processing: (a) visual image data received from a camera, the visual image data comprising plurality of images associated with the individual; (b) an audio sample associated with the individual received from a microphone, wherein the audio sample comprises recitation of the test data by the individual; (c) a thermal image of the individual received from a thermal camera; and (d) user input of the individual responsive to the displaying of the test data, wherein the user input is received from an input device. The method further comprises determining an alertness state of the individual based on the processed visual image data, the processed audio sample, the processed thermal image, and the processed user input.
The present disclosure envisages a system (100) for supplying clean breathable air to an enclosed space (102). The system (100) has simple configuration, and efficiently prevents contaminated air from entering an enclosed space. The system (100) comprises a first chamber (104), a second chamber (112), and a third chamber (116). The first chamber (104) receives air directly from either a first blower (106a) or a second blower (106b). The second chamber (112) receives air from either the first blower (106a) or the second blower (106b) via a first biological chemical filter (110a) or a second biological chemical filter (110b). The third chamber (116) includes a lid opening mechanism (140) that selectively allows passage of air either from the first chamber (104) or the second chamber (112) to the enclosed space (102) via the third chamber (116).
The present invention discloses a system for biodegrading organic waste including human waste in temperatures even upto sub zero comprising a digester tank including atleast an anaerobic treatment compartment and having an inlet and outlet. The treatment compartment of the digester tank is adapted for spiral movement of the organic waste / water within the tank while travelling between the inlet and outlet though said treatment compartment. The present system further comprises an inlet pipe for entry of the organic waste into said digester tank for digestion and degradation, an outlet for releasing of sludge generated by the digestion and degradation of the organic waste from the digester tank, immobilization matrix with microbial consortium for being in contact with the flowing organic waste under spiral motion and enabling effective degradation of the organic waste and means for temperature control for desired operative temperature for biodegradation involving said immobilization matrix with microbial consortium.
The present subject matter relates to a device (100) for post-curing inflation of a tire (202). The device (100) comprises a bottom plate (102) to cover the tire from bottom, a clamping rim (106) disposed over the bottom plate (102). The clamping rim (106) comprises a continuous peripheral groove on an outer circumference thereof. The device (100) further comprises a top plate (110) disposable over the clamping rim (106) to cover the tire from top. The top plate (110) comprises a retractable mechanism (114) and an annular part circumscribing the retractable mechanism (114). The retractable mechanism (114) is actutable to a locked state and an unlocked state.
The present invention discloses a system and method for managing ordnance supply-chain; specifically, a decentralized system and method for managing ordnance supply-chain especially for weapons is disclosed.
The present invention relates to a device for drawing out the information (i.e. insights) from human cerebrums, comprising at least one vein detector 1 for detecting the basil vein and vagus nerve, at least one ultrasonic wave inducer 2 with quartz crystal for transmitting ultrasonic waves to the vagus nerve and basil nerves, conductive paints through which the ultrasonic waves are sent to the human body, at least one brain wave detector 3 and brain wave separator for detecting 4 and separating the brain wave patterns that are reflected through the vagus nerve and basil nerve in the form of sound waves, at least one brain wave converter 11 for analyzing and converting the brain wave patterns into digital signals, at least one language translating module 6 for converting the digital signals into a user friendly language.
Title of the invention: VEHICLE DETECTION SYSTEM AND A METHOD FOR THE SAME

Abstract:
The present invention relates to a method and system to detect a vehicle during foggy weather and reduce the speed of vehicle accordingly. The system comprises the RGB (red, blue and green) color sensor 1 which detect the color of laser by arduino programming, a microprocessor 5 connected with electronic throttle control (ETC) which reduce the speed of the vehicle and a distance measurement sensor or M30 sensor 6 which maintain the distance between two vehicle.
The present invention discloses a decentralized system for creating verifiable documents and notary. A decentralized method for creating verifiable documents and notary also disclosed.
A method is described for receiving a first request for authentication from a user, the first request including a current location, a current location keyword, a current timestamp, and a photo representing the current location. The method further includes generating a pHash of the photo representing the current location, transmitting a second request for an encrypted true index from a server, and receiving the encrypted true index from the server. The method further includes interrogating a plurality of pHashes to identify a true pHash that corresponds to the encrypted true index, where the plurality of pHashes includes the true pHash and a plurality of dummy pHashes, each of the plurality of dummy pHashes being associated with a respective dummy index. The method further includes comparing the pHash of the photo representing the current location with the true pHash to determine whether to authenticate the user.
A cowl side garnish (100) for a vehicle. The cowl side garnish (100) includes a first segment (102) defining a fender side connecting edge (106); and a second segment (108) extending from the first segment (102), the second segment (108) configured to be secured to a cowl center garnish (110), wherein, the first segment (102) transitions towards the second segment (108) through an intermediate inclined portion (112), the intermediate inclined portion (112) having a breaking zone (114) extending along the intermediate inclined portion (112) across the cowl side garnish (100).
The present invention relates a multilayer film and a packaging system for fermented food products. The multilayer film comprising a core layer having a thickness between about 0.1 mils and about 0.3 mils, the core layer comprising a blend of at least 60% to at least 95% of at least one material, chosen from a group formed by nylon and/or modified co-polyester and at least 3% to at least 15% polylactic acid; at least one tie layer comprising polyethylene; at least one sealant layer comprising polyethylene; and at least one abuse layer comprising polyethylene. The packaging system for fermented products comprises a fermented product and a multilayer film thereof.
Abstract:
Methods and devices for providing filtered access to data in a computing device. The method comprises detecting selection of a first application from a plurality of applications and identifying one or more related applications from the plurality of applications, the one or more related applications having access to data of the first application. Further, the one or more related applications are overlaid on a display of the computing device. The method further comprises detecting a direction of a user gesture performed in respect of the first application and a related application from the one or more related applications and filtering the data of the first application for providing through an interface of one of the first application and the related application. The interface is selected based on the direction of the user gesture and the filtering is performed based on a data type supported by the related application.
Methods and devices for providing filtered access to data in a computing device. The method comprises detecting selection of a first application from a plurality of applications and identifying one or more related applications from the plurality of applications, the one or more related applications having access to data of the first application. Further, the one or more related applications are overlaid on a display of the computing device. The method further comprises detecting a direction of a user gesture performed in respect of the first application and a related application from the one or more related applications and filtering the data of the first application for providing through an interface of one of the first application and the related application. The interface is selected based on the direction of the user gesture and the filtering is performed based on a data type supported by the related application.
Title of the invention: AN INTEGRATED CRASH GUARD STRUCTURE FOR A FUEL PUMP

Abstract:
An integrated crash guard structure (100) for a fuel pump (102) is disclosed. The integrated crash guard structure (100) includes a vertical member (104) extending vertically upwards from a fuel pump flange (106) towards a vehicle floor (108), the vertical member (104) includes a height (H); an angular member (110) extending angularly from the vertical member (104) towards the vehicle floor (108); and a slit / notched region (112) intermediately provided between the vertical member (104) and the angular member (110), the slit / notched region (112) being provided proximal to the height (H) of the vertical member (104).
This invention relates to a negative pressure wound treatment manual system for wounds comprising a wound cover (1) applied on wound connected to a vacuum pump (3) through exudate collection pouch (2), wherein said wound cover constitutes adhesive wound cover with a hole at the center thereof secured with a nipple, under which a foam patch with multiple holes is placed to allow sucking of fluid & to prevent passage of wound debris. It is associated with the following advantageous features:

- Simple construction
- Does not require electricity for function thereof
- Quite cost effective
- Well affordable by common people
- Easy maintenance
- No need of skilled professionals for maintenance
- User friendly
- Manual vacuum pump generates pressure within 20% of specified value throughout full stroke.
The present invention discloses an adapter system for mounting an image and video capturing device to an optical viewing device which includes a video adapter tube, adapter tube, a support plate and a cover. An image and video capturing device is connected to the adapter tube through a support plate affixed on the cover where adapter tube is then connected to the video adapter tube which is further connected to an optical viewing device through an image divider beam splitter. Also, there is image rotation features in the present invention which makes present adapter invention which makes present adapter assembly unique and more convenient. The invention is also related to a method of observing the images and videos with an optical viewing device, by using an adapter system.
The Patent Office Journal No. 04/2020 Dated 24/01/2020

(54) Title of the invention: METHOD AND SYSTEM FOR DEHAZING VIDEOS AND IMAGES IN REAL-TIME

(57) Abstract:
The present invention discloses a method for dehazing images and/or videos in real time based on Color Uniformity Principle (CUP). The method receives by an image acquisition system (100), an image or video having one or more hazy regions. Subsequently, the method computes a Color Uniformity Metric (105) and estimates transmission map (T) (120) for the received image or video based on the Color Uniformity Principle, wherein the computation and estimation is done by a hardware. Thereafter, the method estimates by the hardware, atmospheric scattering parameter (A) (130) using the transmission map (T) (120) and recovers radiance (J) (135) by the hardware, for the image or video by utilizing the transmission map (T) (120) and the atmospheric scattering parameter (A) (130). Further, the method rectifies by the hardware the one or more hazy regions of the image or video by utilizing the recovered radiance (J) (130) by utilizing adaptive histogram equalization (145).

No. of Pages: 20 No. of Claims: 6
A device for measuring weight of sample of material is disclosed. The device can include a scoop that can receive and hold a sample. Sensors can be operatively coupled to the scoop to measure attributes such as weight of the sample and generate signals related to the attributes of the sample. A control unit configured to receive the signals from the sensors. The control unit configured to determine values for the attributes of the samples. The control unit enables addition of the values to calculate total value of the attributes of the sample. The printing device enables printing of measured value(s) of attributes as well as price of the sample(s) measured. The device is portable as well as cost effective.
Title of the invention: A HYDRAULICALLY DRIVEN INTEGRATED DISTRIBUTOR AND LIFTING MECHANISM FOR IMPROVED CONTROL OF MOVEMENT AND EFFORT FOR POSITIONING A PLURALITY OF MOUNTED APPARATUS FOR AGRICULTURAL APPLICATIONS UNDER A PLURALITY OF SOIL CONDITIONS

Abstract:
A hydraulically driven integrated distributor and lifting mechanism for improved control of position and effort for positioning of a plurality of mounted apparatus for agricultural applications, with optimized capability over the art resulting in improved hitch regulation, lower time constant, less frequent motion from discharge and neutral positions, improved draft load and quick release of load. Incremental design of control valve/sensor spring, roller design, external cam redesign and modified cam curvature improves draft range, coupled with modified design lifter span, reduction in negative stroke, wider force range covered over lower and improved range of hitch regulation percentage, improved closed loop feedback sensor and actuator based automated descent speed. Lower hitch regulation percentage measured against an extended force range result in higher and continued range of application of the actuator and driven apparatus over a plurality of soil conditions.
The present invention relates to the design of an adjustable sleeve-cum-soil clamping arrangement, which minimizes the development of friction between the clamps (7) and at least two sleeves (14, 15) during pullout. Metal sleeves (14, 15) with tapered ends are bolted at the inside of the pullout box (9) above and below the slot (11) at the wall (10) of the box through which the geosynthetic is pulled out. In-soil clamps are used to grip the geosynthetic for pullout through the slot (11). The sleeves (14, 15) have been designed such that minimum soil gets entrapped between the sleeves (14, 15) and clamps (7). The entrapped soil lays loosely over the clamp and leads to no frictional force development at the sleeve-soil-clamp interface due to overstressing of the entrapped soil.
Title of the invention: IN-VITRO PLANT ACCLIMATIZATION

Abstract:
AS ATTACHED
The present invention describes a system for monitoring health of a subject. More particularly, it comprises of a wearable device which monitors heart condition of a subject. It also monitors physiological data, movement and fall of the subject. If patient is distressed or faces heart attack, the system notifies and sends message to the caretaker. It also sends location of the subject in the case of emergency.
Title of the invention: A METHOD TO REDUCE SUSPENDED PARTICULATE MATTER IN AIR

Abstract:
The present invention relates to a method for reducing suspended particulate matter from air using an environmentally friendly approach by releasing bubbles of salt of long chain fatty acids. More specifically, the invention relates to producing bubbles of salt of long chain fatty acids and releasing in air for reducing suspended particulate matter from air, wherein, the salt of long chain fatty acids is sodium palmitate.
Title of the invention: SMART TRAFFIC MANAGEMENT PROCESS

Abstract:
The present invention relates to a process for managing traffic effectively by employing proximity sensor technology, comprising the steps of installing a SVEVI chip in plurality of vehicles; installing at least one proximity sensor at plurality of checkpoints wherein nominal range of said proximity sensor is 150 meters; storing the location of vehicle with timestamps in a centralized database; sorting the data according to timestamps; analyzing and processing the data using trend analysis; determining the rush out timings and employing effective traffic management strategies; and mining the data to ascertain the origin and destination of a particular vehicle and sending personalized suggestions at a user platform about the preferable route of a predefined destination to the user.

No. of Pages: 12  No. of Claims: 8
The present invention is directed to a system and method for fuel production from plastic. In particular, it relates to a system and method for producing fuels from plastic by using solar energy. Waste plastic is fed to the thermal chamber 2 after drying the cleaned plastic using double side facing solar dryer, wherein plastic is heated using solar thermal collectors 1. Heating the plastic in controlled conditions and in absence of oxygen converts plastic into fuel. Plastic steam is carried through copper tubes 4, 5 to the fuel tank 8.

No. of Pages : 11 No. of Claims : 8
The novel Sliding Scale Penometer for Stretched Penile Length by Prabudh Goel (SSP-SPL-PG) is a simple yet highly useful instrument to measure the stretched (or erect) penile length [3] of patients, is applicable to all the age-groups including adults, provides readings with desired precision, is suitable/customized to fit the local anatomy, is technically simple and cost-effective. It is so simple to use that it can even be used by parents at home for monitoring the growth in stretched penile length [3] with age or with treatment (special case) just like a weighing machine for weight or a stadiometer for standing height. The reading may be recorded on a patient-specific graph and compared against a background of standard nomogram.
Low cost plastic bioreactor for bio fertilizer and bio pesticide production is a very cheap alternative to costly fermenters currently used in biopesticide and biofertilizer industry. It consists of a bioreactor vessel (22 lit) capacity made up of autoclavable plastic carboy. The fermenter is provided with several ports and filters for air inlet, air outlet, inoculation, temperature sensor and a port for photometer. Photometer is a device used to measure optical density of the fermentation broth. The vessel has a heating element and a thermostat for incubation. The inoculation is carried by a unique technique of inoculation through inoculation tube aided by laminar air flow cabinet, using simple principles of pressure difference and gravity. A separate control panel controls various systems of the bioreactor. It has a LCD monitor reading temperature and Transmittance of the fermentation broth. Main circuit board contains an 8 Bit microcontroller, programmed by using assembly language programming.
The present invention relates to the semi-synthesis of menthone and iso-menthone from dementholized oil (DMO) or essential oil contains pulegone. In the reported fumigation bioassays, pulegone is a most toxic monoterpene. Therefore, the eco-friendly conversion of pulegone to high value compounds viz. menthone and iso-menthone is commercially important. Now, the present claim is related to an eco-friendly process for the selective conversion of pulegone of this essential oil to menthone and iso-menthone without affecting the other major compounds. Presently, we claim new catalysts such as p-zeolite-Pd/AC or y-zeolite-Pd/AC or y-Na-zeolite-Pd/AC or Ag-zeolite-Pd/AC or Si02-Pd/AC for semi-synthesis of menthone and iso-menthone from pulegone. All these catalysts are prepared easily through impregnation method and very effective in the above conversion under 2 to 4 psi H2 pressure. Besides, aluminum impregnated AI-Pd/AC is also slightly better catalyst for pulegone present in DMO to menthone and iso-menthone under similar reaction conditions discussed above. 

![Diagram](image)
The present invention relates to a process for the synthesis of dialkoxymethane ethers. More particularly, the present invention provides a facile nickel-catalyzed process for the synthesis of dialkoxymethane ethers from alcohols and formaldehyde source under mild, neutral and solvent-free conditions.
Title of the invention: AUGMENTED REALITY (AR) BASED FAULT DETECTION AND MAINTENANCE

Abstract:
An AR based fault detection and maintenance system analyzes real-time video streams from a remote user device to identify a specific context level at which a user is to handle an equipment and provides instructions corresponding to the specific context level. The instructions enable generating AR simulations that guide the user in executing specific operations including repairs on faulty components of the equipment. The received video stream is initially analyzed to identify a particular equipment which is to be handled by the user. Fault prediction procedures are executed to identify faults associated with the equipment. The instructions to handle the faults are transmitted to the user device as AR simulations that provide step-by-step simulations that enable the user to execute operations as directed by the instructions.
Title of the invention: METHOD FOR IDENTIFYING THE USAGE PATTERNS IN DSDS DEVICES

Abstract:
The user equipment (100) being configured to communicate through a first operators telecommunication network (1), the method comprises: - receiving a status information related to a network connection status of the user equipment with respect to the first operators telecommunication network (1); - determining a coverage information related to a cell coverage of the first operators telecommunication network (1); - identifying at least one call of the user equipment (100) through a second operators telecommunication network by detecting an event wherein the user equipment (100) is under cell coverage of the first operators telecommunication network (1) and in an out of service state with respect to said first operators telecommunication network (1), from the status information and the coverage information.
The present invention relates to a user verification method which uses an OTP generator and comparator to generate an OTP on the user platform as soon as the user enters a security code in the automated teller machine (ATM), an iris scanner to scan the iris of the user in case the user is not having an ATM card, a camera for capturing the image of the user during the transaction of money, a Global System for Mobile communications (GSM) modem for sending the OTP on the user platform.
The present invention relates a system provides an exact location of vehicle via user platform, comprises a geo positioning system (GPS) to provide the exact position and time of the vehicle via a user platform, wireless internet connectivity used to communicate between users platform and driver of said vehicle and a display screen which is fitted into vehicle and provide the exact location of user. In the invention, the vehicle contains a unique ID to provide the exact location of the vehicle to the user. The system also provides E-ticket facility by which user can buy virtual ticket through E-wallet.
The present invention relates to a method for retrieval of components which further explains about extraction of features from the components having same features as required by the user, selecting the most relevant features from the extracted features, searching the required components on the user interface according to their selected features, ranking the resultant components according to the download count of components, optimizing the resultant components using ant colony optimization (ACO) algorithm.
The present invention relates to a method for detecting malware using genetic algorithm that comprises the steps of preparing a design with the help of a Java swing and uploading the android project or android malware project; implementing neural network algorithm to separate the xml and java files from the project folder; passing each Java and xml file through the genetic algorithm, wherein each file and code is read line by line and later separated with the help of string tokenization; and comparing the file with the signature malware pattern and if matched, the particular line and class number in the array list is saved and stored.
The present invention is directed to method for security of cloud computing climates. Present invention is used for detecting, analyzing and preventing Distributed Denial of Service (DDOS) attacks in cloud computing climates. It provides a more secure environment from DDOS attacks. Fuzzy logic is used for the optimization purpose. With the help of fuzzy logic, exact location of attackers is detected and this can prevent from future attacks. AODV routing protocol is discovering route within the cloud system.
The present invention relates to a method of wireless communication using a mobile ad hoc network which is a self configuring network for data transmission, a reactive type of routing protocol (AODV) for establishing the path between the source and destination nodes, a cognitive radio network (CRN) to detect the malicious nodes for enabling the secure data transmission between users, forward and backward tracking by sending/receiving the route request packets/route reply packets, a network simulator (NS2) to evaluate the performance of nodes on basis of at least packet loss, throughput, routing overhead, bandwidth and energy.
METHOD FOR MULTI LEVEL DIGITAL WATERMARKING

The present invention relates to a method for multi level watermarking for initiating the digital signal or watermark. More particularly, the present invention relates to digital watermarking of images by using discrete wavelet transformation (DWT), wherein information is divided into plurality of blocks using DWT, advanced encryption standard (AES) algorithm for securing the information, back propagation neural network for the classification of watermarked image by creating two sections i.e. training and testing section.
INTELLIGENT SYSTEM AND A METHOD FOR ONLINE VEHICLE RENTAL RESERVATION

Abstract:
The present invention relates to an intelligent system which provides vehicles on rent, comprises an administrator module, responsible to maintain and a user module to use the services provided by the system, user interface which connects said administrator to said user, internet connectivity to transfer and receive data to said administrator to said user, a memory stored instruction adapted to be executed by said communication device, and a server which provide all the information stored in said memory to said user. The present system enables hiring of the cab through an online system in which users can search for the availability of the cab, hire it, and pay for it online.
Title of the invention: SYSTEM AND METHOD FOR GENERATING VEHICLE INVOICE

Abstract:
The present invention relates to a system for generating vehicle invoice, comprises a host module which is responsible to maintain the system and a user module to use the services of system, internet connectivity module transfers and receives data to said host module to said user module, a memory which stores services like transportation data, package data, invoice data etc and a server maintains persistent data and processing invoice data as well as allowing user to view data by user interface. The system provides also an invoice ID to said user module by which said user module can track details of said invoice and the location. The present system also reduces the paper work as it generates bills online.
A separator device that sorts cables housed in a housing duct by a predetermined unit, the separator device comprising: batten plate-shaped separator unit plates; and a mounting joint that holds the separator unit plates butted together upright and couples the separator unit plates together, wherein the mounting joint is formed of an elastic member, the mounting joint including a flat plate-shaped upper piece having an approximately rectangular shape, a pair of cover pieces, and fixed portions, the pair of cover pieces hanging from both end portions in a width direction of the upper piece, the fixed portions each horizontally projecting out from lower ends of the pair of cover pieces to an outside, and the pair of cover pieces are configured such that an interval between the pair of cover pieces gradually narrows down as the pair of cover pieces hang downward from upper end portions of the pair of cover pieces, the upper end portions being coupling portions with both end portions in the width direction of the upper piece.
Abstract:
The present disclosure is related to systems and methods for determining an optimal strategy. The method includes classifying one or more users into a first user group and a second user group using an optimization model, wherein the first user group and the second user group correspond to two strategies, respectively. The method also includes obtaining behavior data from terminals of one or more users in the first user group and the second user group. The method further includes determining a first value of a parameter regarding the first user group and a second value of the parameter regarding the second user group using the optimization model. The method further includes determining a strategy based on the first value and the second value.

No. of Pages : 68 No. of Claims : 15
A speed deceleration system (130) of a vehicle (100) is provided. The speed deceleration system (130) comprises a front brake unit (132), a rear brake unit (134), a first force transmitting member (148) having an inner wire (154) and outer sheath (152), and a brake linkage mechanism (145). The brake linkage mechanism (145) is configured to distribute brake operating force to the front brake unit (132) and the rear brake unit (134). The brake linkage mechanism (145) comprises a first brake link (160), a biasing member (165), a revolute pin member (164) and a second brake link (162). The revolute pin member (164) along with the outer sheath (152) is configured to rotate with respect to the second brake link (162) so as to reduce friction between the outer sheath (152) and inner wire (154).
Abstract:

An augmented reality system (100) and a color compensation method thereof are proposed. The method is applicable to an augmented reality system (100) and includes the following steps. A preset object position of a virtual object (250, 650) with respect to an actual scene is set. An image of the actual scene is captured by using the image sensor (110), and the image of the actual scene is mapped to a field of view of the display (120) to generate a background image (50, 61) with respect to the field of view of the display (120). Color compensation is performed on the virtual object (250, 650) according to a background overlapping region (651) corresponding to the preset object position in the background image (50, 61) to generate an adjusted virtual object (250™), and the adjusted virtual object (250™) is displayed on the display (120) according to the preset object position. FIG. 3
Title of the invention: IMPROVED LOOPING MACHINE AND RELATED METHOD

Abstract:
A looping machine (4) comprising a feed device (16) of the fabric (12) along a longitudinal direction (Y-Y), a positioning device (20) of a needle (10) along a transverse direction (X-X), an operating device (24) of said needle (10) along a vertical direction (Z-Z), perpendicular to said longitudinal (Y-Y) and transverse (X-X) directions, to perform the looping, characterized in that it comprises a camera (103) suitable for identifying a guide thread (40) arranged at least one fabric (12) to be stitched, said guide thread (40) being inserted inside the fabric (12) so as to identify a plurality of segments (blob) (44). The machine (4) comprises a processing and control unit (56), operatively connected to the camera (103) and to actuators of the feed device (16) of the fabric (12), of the positioning device (20) of the needle (10) and of the actuation device (24) of the needle (10), so as to determine in real time the target stitching position of the needle (10) as a function of the guide thread (40) and to control in real time said devices (16, 20, 24) for reaching said target stitching position of the needle (10).
Title of the invention: METHODS OF PURIFICATION OF 2-ARYL-3,3-BIS(4-HYDROXYARYL)PHTHALIMIDINES, AND POLYMERS DERIVED THEREFROM

Abstract:
A method for the purification of a 2-aryl-3,3-bis(hydroxyaryl)phthalimidine of formula (I), the method comprising heating a reaction mixture comprising a phenolphthalein compound of formula (II) and a primary arylamine of formula (III) in the presence of an acid catalyst to form a reaction mixture; removing water from the reaction mixture; quenching the reaction mixture with an aqueous alkali solution to form a quenched reaction mixture; extracting the quenched reaction mixture with an aminoaryl compound of formula (IV) to form an organic layer and an extracted aqueous layer comprising a crude 2-aryl-3,3-bis(hydroxyaryl)phthalimidine compound; contacting the extracted aqueous layer with carbon to form a semi-purified 2-aryl-3,3-bis(hydroxyaryl)phthalimidine compound; and mixing the semi-purified 2-aryl-3,3-bis(hydroxyaryl)phthalimidine compound with a solution comprising an alcohol and an acid to form a purified 2-aryl-3,3-bis(hydroxyaryl)phthalimidine of formula (I); wherein formulas (I), (II), (III), and (IV) are as provided herein.
Title of the invention: METHOD OF CONTROLLING ARTIFICIAL INTELLIGENT WATER DISPENSING APPARATUS

Abstract:
A method of controlling a ceiling type air conditioner including a panel located on a ceiling surface, outlets formed to correspond to four sides of the panel, and first to fourth discharge vanes for opening and closing the outlets, and each of the first to fourth discharge vanes including an upper discharge vane and a lower discharge vane located below the upper discharge vane and rotating along with the upper discharge vane includes performing first operation, performing second operation, performing third operation, and performing fourth operation in which the first discharge vane rotates in the second angle group, the second discharge vane rotates in the third angle group, the third discharge vane rotates in the fourth angle group and the fourth discharge vane rotates in the first angle group. The first to the fourth angle groups are set such that rotation angles of the discharge vanes have different ranges.
A display device includes: a base layer including a first region, a second region, and a bending region, the bending region including a first bending region adjacent to the first region and a second bending region adjacent to the second region; pixels disposed on the first region; pads disposed on the second region; signal lines electrically connected to the pixels and disposed on the first region, the bending region, and the second region; a first sensor line disposed on the first bending region; first sensor connection lines electrically connected to the first sensor line, extending through the first bending region, the second bending region, and the second region; a second sensor line disposed on the second bending region and between the first sensor line and the second region; and second sensor connection lines electrically connected to the second sensor line, extending through the second bending region and the second region.
The present invention concerns an elevator comprising: an elevator shaft (1) defined by surrounding walls and top (3A) and bottom (3B) end terminals; an elevator car (4) vertically movable in the elevator shaft (1); an elevator hoisting machinery (6) adapted to drive an elevator car (4); an electromechanical braking apparatus (12A, 12B) configured to brake movement of the elevator car (4); a first measuring device (14A, 14B, 14C) adapted to provide first position data and first speed data of the elevator car; a second measuring device (15A, 15B) adapted to provide at least a second position data of the elevator car (4); and a safety monitoring unit (17) communicatively connected to the first measuring (14A, 14B, 14C) device and the second measuring device (15A, 15B) and configured to determine a synchronized position (19) of the elevator car (4) from the first and the second position data, and to determine an elevator car slowdown failure in the proximity of the top (3A) or the bottom (3B) end terminal from the first speed data (20) and from the synchronized position (19) of the elevator car (4). The safety monitoring unit (17) is adapted to cause braking of the elevator car (4) with the electromechanical braking apparatus (12A, 12B) upon determination of the slowdown failure.

No. of Pages : 26 No. of Claims : 16
Title of the invention : VEHICLE REAR PART STRUCTURE

Abstract :
[Problem to be Solved] To inhibit intrusion of rainwater, etc., through holes in a tail end member. [Solution] The front portion of a first closed cross-section structure part formed by a tail end member 10 and a back panel 20 of a vehicle rear part structure, is formed by a front erected wall portion 13 of the tail end member 10, and the rear part of the first closed cross-section structure part is formed by a rear erected wall portion 23 of the back panel 20. A reinforcement 31 coupling the front erected wall portion 13 and the rear erected wall portion 23 is disposed inside the first closed cross-section structure part. A plurality of front-side through holes 15 are provided in the front erected wall portion 13, and a plurality of rear-side through holes 25 are provided in the rear erected wall portion 23. Part of the vehicle width direction positions of the front-side through holes 15 and part of the vehicle width direction positions of the rear-side through holes are disposed so as to overlap the reinforcement 31 in a rearward view.
[Problem to be Solved] To provide a vehicle spare tire mounting structure capable of protecting a spare tire from vandalism and theft.

[Solution] There is provided a spare tire mounting structure, wherein one end side of a spare tire carrier 6 holding a spare tire 3 is rotatably mounted on a lower surface side of a vehicle body 1, and the other end side of the spare tire carrier 6 is mounted through a bolt member 13 suspended on the lower surface side of the vehicle body 1, wherein a notch portion 12b is provided on a support plate 12 provided on the other side of the spare tire carrier 6, the bolt member 13 assembled through this notch portion 12b is tightened with nuts 15 and 17 from both upper and lower sides of the support plate 12, and the stepped plate 16 mounted on the upper nut 17 is tightened to the support plate 12 by a fixture.

No. of Pages : 20 No. of Claims : 3
**Title of the invention**: INTERNAL COMBUSTION ENGINE

**Abstract**: An internal combustion engine that enables optimally adjusting a lift amount of an exhaust valve at the time of decompression is provided. The internal combustion engine includes a decompression cam 112 and a decompression slipper surface 135. The decompression cam 112 has a curved protruding surface 121a with a generating line parallel to a rotation axis Xc of a camshaft 95. The curved protruding surface 121a protrudes from an imaginary cylindrical surface 124 that is coaxial with the camshaft 95 when a number of rotation is less than a predetermined value. The decompression slipper surface 135 is provided to an exhaust side rocker arm 97b outside the imaginary cylindrical surface 124 and is configured to cross the imaginary cylindrical surface 124 and to slidingly contact with the curved protruding surface 121a at the time of rotation of the camshaft 95. The decompression slipper surface 135 is formed of a combination of a flat surface 135a and a curved surface 135b. The flat surface 135a is parallel to the rotation axis Xc of the camshaft 95. The curved surface 135b has a generating line parallel to the rotation axis Xc of the camshaft 95 and has a specific curvature.
The exhaust system 50 of the motorcycle includes: an upstream exhaust pipe 53, 54 connected to an exhaust port of the cylinder head 32 of the engine 23; an inflow head chamber 57 connected to an end of the upstream exhaust pipe 53, 54; the inflow head chamber 57 including a purification chamber 56 having an inlet opened therein and containing a catalyst therein; and a downstream exhaust pipe 55 connected to the outflow side of the purification chamber 56, wherein a catalyst case 52 having the inflow head chamber 57 and the purification chamber 56 is disposed in front of and below the cylinder head 32 and above a lower end of the crankcase 34.
Rotation of a main shaft (10) is stopped by a first braking step that is started at a time point at which a stop command has been generated or later, the first braking step dropping a rotation rate of the main shaft (10) toward a predetermined stop rotation rate that is lower than a steady rotation rate by changing a command rotation rate two times or more; and a second braking step of actuating an electromagnetic brake (-60) at a time point at which the rotation rate has reached the stop rotation rate or later and braking the main shaft (10). In addition, the command rotation rate is changed in the first braking step every period of one rotation or more of the main shaft (10).
A vehicle door structure includes a main bead formation portion (11), a regulator fastening portion (18a), a sash fastening portion (18b), a first regulator-side bead formation portion (12) extending from the lower portion of the regulator fastening portion (18a), across the regulator fastening portion (18a), toward a regulator-side connection section (11a), and a first sash-side bead formation portion (14) extending from a position below the rear sash fastening portion (18b) toward the sash-side connection section (11b). At least one of the upper end of the first regulator-side bead formation portion (12) and the upper end of the first sash-side bead formation portion (14) is connected to the main bead formation portion (11), and the first regulator-side bead formation portion (12) and the first sash-side bead formation portion (14) are connected.
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(54) Title of the invention: ROTARY ELECTRIC MACHINE AND TURBINE SYSTEM

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(47) Abstract:
A rotary electric machine (10) and a turbine system (1) according to an embodiment is provided with a housing (11), and a hydrogen generator (14 or 24) arranged into or on the housing (11). The hydrogen generator (14 or 24) electrolytically generates hydrogen from water. The hydrogen generator (14 or 24) supplies the hydrogen into the housing (11).

No. of Pages: 20
No. of Claims: 3
A flexible display device may include a flexible display screen, a rotating shaft, a resetting mechanism, and a positioning mechanism. The flexible display screen is wound on the rotating shaft. The resetting mechanism may be operable to drive the rotating shaft to rotate to unfold the flexible display screen. The positioning mechanism may be configured to position the unfolded flexible display screen; and the resetting mechanism may be further operable to drive the rotating shaft to rotate in an opposite direction such that the flexible display in the unfolded state may be wound on the rotating shaft.
Title of the invention : LONG-STATOR LINEAR MOTOR

Abstract:
Long-stator linear motor (1) having a transport path (2), along which at least one transport vehicle (Tn) is movably arranged in the movement direction (x). The transport path (2) comprises at least one holding structure (3) having drive coils (Sm), on which a passive part (13) of the transport vehicle (Tn) is arranged. The long-stator linear motor (1) comprises a guide surface (11) running along the transport path (2), and a guide track (12) running along the transport path (2). The passive part (13) has at least one first drive magnet (4) which is arranged parallel to the guide surface (11) while leaving an air gap (s), and the passive part (13) has at least one first profile member (9), which is arranged on the guide track (12) and positioned by a pressing force acting in transverse direction (y) onto the guide track (12) with respect to an ascending direction (z) running normally to the movement direction (x) and the transverse direction (y). At least one first running member (8) supports the passive part (13) on the holding structure (3) against the attractive force acting between the drive magnets (4) and the drive coils (Sm) in order to ensure the air gap (s). The transport vehicle (Tn) has at least one first auxiliary guide member (14) which, by interacting with an auxiliary guide (15) provided on the holding structure (3) at least in divergence and/or convergence areas of the transport path (2), delimits at least on one side a movement of the transport vehicle (Tn) in a positive and/or negative ascending direction (z).

No. of Pages : 19 No. of Claims : 12
The invention relates to a gate of a tablet discharge of a tablet press, wherein a drive apparatus is provided for positioning the gate between a first position in which tablets are supplied to a first outlet channel of the gate, and a second position in which tablets are supplied to a second outlet channel of the gate. The gate comprises a trough-shaped or tube-shaped tablet channel that is adjustable by means of the drive apparatus between the first position and the second position and has an inlet and an outlet, wherein tablets guided through the trough-shaped or tube-shaped tablet channel are supplied to the first outlet channel in the first position of the trough-shaped or tube-shaped tablet channel, and supplied to the second outlet channel in the second position of the trough-shaped or tube-shaped tablet channel, and between the outlet of the trough-shaped or tube-shaped tablet channel and the first and second outlet channel, a gate chamber forming a gap between the outlet and the first and second outlet channel is arranged through which tablets from the outlet are fed to the first or second outlet channel.
An electronic device may include a glass housing member that includes an upper portion defining a display area, a lower portion defining an input area, and a transition portion joining the upper portion and the lower portion and defining a continuous, curved surface between the upper portion and the lower portion. The electronic device may include a display coupled to the glass housing member and configured to provide a visual output at the display area. The electronic device may include an input device coupled to the glass housing member and configured to detect inputs at the input area. The electronic device may include a support structure coupled to the glass housing member and configured to support the computing device.
Title of the invention: BIOPSATE RECOVERY DEVICE

A biopsate recovery device (16) for recovering a biopsate (20) through an opening (46) with a recovery element (17) for fastening to or adjacent to a working tip (13) of a biopsy instrument (10) is disclosed, wherein the recovery element (17) is set up to - while the working tip (13) is being retracted through the opening (46) - be folded over the biopsate (20) in order to enclose the biopsate during the retraction of the working tip (13) through the opening (46) in order to separate the biopsate (20) from the environment during retraction through the opening (46). As a result of this, the biopsate (20) and/or the environment can be protected against contamination and/or cell transfer and/or germ transfer, and/or the biopsate (20) can be protected against being inadvertently stripped off at the opening (46).
A request to establish a communication session with a second communication device is received. The request to establish the communication session comprises one or more routing attributes for routing the communication session. The one or more routing attributes for routing the communication session are looked up in a dynamic routing framework. The communication session is routed to a third communication device or destination instead of the second communication device based on the one or more routing attributes and one or more rules defined in the dynamic routing framework. For example, the communication session is routed to a specific contact center queue based on the routing attribute instead of initially being routed to an Interactive Voice Response (IVR) system.
A vehicle side body structure is provided that can reduce breakage and deformation of a side door end near the center pillar, and suppress the side door from entering the interior of the vehicle when a side-on collision happens. A vehicle side body 100 according to the present invention includes a center pillar 102 that has a columnar shape and extends in an up-down direction in the center of a vehicle side body, and a rear side door 104 that is arranged in the vehicle side body. The center pillar has a rear vertical wall 118 that extends in a vehicle width direction as seen in a plan view. The rear side door includes: a door outer panel 108 arranged on a vehicle outer side; a door inner panel 110 arranged on a vehicle inner side of the door outer panel and joined to the door outer panel on the vehicle outer side of the center pillar; and an impact beam 112 that is a columnar body, the impact beam 112 being arranged between the door outer panel and the door inner panel and extends in a vehicle front-rear direction. The impact beam overlaps the rear vertical wall of the center pillar from the vehicle outer side as seen from the side.
Provided is a vehicle power supply fixing structure capable of efficiently protecting a power supply device and a cable from damage at the time of a collision. A fixing structure 100 fixes a converter 106 to the left side on a floor panel 104 of a vehicle. The converter 106 has cables 122 extending from the inner side in the vehicle width direction. The fixing structure 100 includes a front bracket 133a for attaching the converter 106 to the floor panel 104, and a rear bracket 133b that is installed on the vehicle rear side of the front bracket 133a to attach the converter 106 to the floor panel 104. The front bracket 133a and the rear bracket 133b respectively include: leg portions 134a and 134b extending from the lower side of the converter 106 toward the inner side in the vehicle width direction relative to the converter 106; and connection portions 136a and 136b that are respectively bent from the leg portions 134a and 134b toward the floor panel 104 and that are to be connected to the floor panel 104.
Title of the invention: VEHICLE POWER SUPPLY FIXING STRUCTURE

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Abstract:
Provided is a vehicle power supply fixing structure capable of efficiently protecting a power supply device and a cable from damage at the time of a collision. A vehicle power supply fixing structure (a fixing structure 100) according to the present invention includes: a floor panel 104 of a vehicle; and a power supply device (a battery 106) that is arranged on the right or left side on the floor panel 104 and that has predetermined cables 124 extending from an inner side, with respect to the vehicle width, of the power supply device. The floor panel 104 has a bead 130 that is recessed along a side member 134 that spans the lower side of the floor panel 104 in a vehicle longitudinal direction, and the battery 106 is arranged on the floor panel 104, straddling the bead 130.

FIG. 2

No. of Pages: 23 No. of Claims: 3
(54) Title of the invention : VEHICLE POWER SUPPLY FIXING STRUCTURE

(51) International classification : B60K 1/00
(31) Priority Document No : 2018-135042
(32) Priority Date : 18/07/2018
(33) Name of priority country : Japan
(86) International Application No : NA
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(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

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2) YAMAMOTO, Fumihiko
3) MORI, Masahiko

(57) Abstract :
Provided is a vehicle power supply fixing structure capable of efficiently protecting a power supply device and a cable from damage at the time of a collision. A vehicle power supply fixing structure (a fixing structure 100) according to the present invention includes: a power supply device (a battery 106) that is arranged on the right or left side on a floor panel 104 of a vehicle and that has an inner side, with respect to the vehicle width, from which predetermined cables 124 extend; and an inner attachment bracket 126 for attaching an inner side portion, with respect to the vehicle width, of the battery 106 to the floor panel 104. The inner attachment bracket 126 includes: a power supply device connection portion 134 that is connected to the battery 106; a bent portion (a mountain fold portion 136) that is bent downward on the inner side in the vehicle width direction from the power supply device connection portion 134; and a floor connection portion 132 that is formed at an end of a portion extending from the mountain fold portion 136 and that is connected to the floor panel 104.
A manufacturing method of a particle aggregate aggregated with wet particles in which active material particles and conductive particles are evenly dispersed and a manufacturing method of an electrode body including the particle aggregate are provided. The manufacturing method of a particle aggregate (22) includes a first step (S1 1) of obtaining a first mixture (16) by mixing conductive particles (12) with a binder dispersion (15) in which binder (13) is dispersed in a dispersion medium (14), a second step (S1 2) of obtaining a clay-like mixture (17) by kneading the first mixture (16) with active material particles (11), and a third step (S1 3) of obtaining the particle aggregate (22) aggregated with wet particles (21) formed of the clay-like mixture (17).
Title of the invention: ELECTROMAGNETIC VALVE

Abstract:
To provide an electromagnetic valve with less parts count of components for opening-closing operation. [Solution] An electromagnetic valve 2 includes a solenoid unit 4 including a cylinder-shaped coil 10 with a flow path formed at an inner circumferential side of the coil 10, a valve body portion 20, a plate spring portion 22 urging the valve body portion 20 toward a valve seat 16 formed on an end face 14 on a downstream side in a flow direction of the flow path 12 out of end faces of the solenoid unit 4, and a casing 8 accommodating the solenoid unit 4, the valve body portion 20 and the plate spring portion 22.

No. of Pages: 36
No. of Claims: 11
An anodization method for corrosion protection of an aluminium or aluminium alloy element used in an aircraft structure, comprising the following steps: a) subjecting the element to a degreasing step by means of an alkaline bath (block 100) for removing contaminating elements; b) subjecting the element to a subsequent first washing in water (block 110); c) subjecting the element to an acid pickling step (120) by dipping the element in an acid solution and then extracting the element from the acid solution and subjecting the element to a subsequent washing in water; d) subjecting the washed element to a subsequent electrochemical treatment step in a tank (140) by dipping the element in a solution of tartaric acid (C4H6Og) and sulphuric acid (H2SO4); e) subjecting the element to a subsequent washing in water (150); f) dipping (block 170) the element in a bath in which a solution of chromium, with an oxidation number of +3, and zirconium ions and fluorides is present, in order to carry out a first post-anodization sealing step; g) extracting the element from the bath of step f) and subjecting it to a subsequent final washing and a subsequent dipping in a tank of boiling water (second sealing step), and then drying the element (block 180).
Title of the invention: INTERCHANGEABLE LENS

Abstract:
An interchangeable lens that is removably attachable to a camera body includes: a lens-side mount; a cylindrical portion; a lens-side terminal group; a first lens-side projecting portion disposed at an outer periphery side of the lens-side terminal group, the first lens-side projecting portion projecting outwardly from the cylindrical portion and extending in a circumferential direction of the cylindrical portion; a third lens-side projecting portion at least partly disposed at a position facing the first lens-side projecting portion across the optical axis, the third lens-side projecting portion projecting outwardly from the cylindrical portion and extending in the circumferential direction; and a cutout provided on the third lens-side projecting portion in the circumferential direction.
Title of the invention: INTERCHANGEABLE LENS AND METHOD OF TRANSMITTING DATA

Abstract:
An interchangeable lens that is removably attachable to a camera body includes: a moving member that is movable within the interchangeable lens; a first communication unit that performs first communication with the camera body; and a second communication unit that performs second communication in which data is periodically transmitted to the camera body; wherein: the data transmitted in the second communication includes first information indicating a position of the moving member and second information that can be used for calculation of a movement amount of the moving member.
A camera body at which one or more camera accessories, at which light from a subject enters, are detachably mountable, includes: a body-side terminal; and a communication unit that communicates with at least one of the camera accessories, wherein: the communication unit requests, via the body-side terminal, the camera accessory for a discriminating signal indicating whether or not another camera accessory capable of communicating with the camera body is mountable on a subject side of the camera accessory.
A camera accessory, at which light from a subject enters, detachably mountable at a camera body, includes: a communication unit that communicates with the camera body; and a first storage unit that stores a discriminating signal indicating whether or not another device capable of communicating with the camera body is mountable on a subject side of the camera accessory, wherein: the communication unit transmits the discriminating signal to the camera body.
Title of the invention: SMART RESOURCE MANAGER IN UNIFIED AUTOMATION PLATFORMS FOR ROBOTIC PROCESS AUTOMATION

Implementations directed to managing resources executing in one or more RPA platforms, and include actions of receiving process data representative of two or more processes executed by resources in a RPA platform, and resource data representative of the resources in the RPA platform, determining a process rank for each of the two or more processes, respectively, for at least one process, calculating a number of resources required to complete the process in conformance with a SLA governing the process, and transmitting instructions through a platform adapter to provision at least one additional resource to execute the process within the RPA platform, the platform adapter being specific to the RPA platform, and being one of a plurality of platform adapters.

No. of Pages: 37 No. of Claims: 20
Title of the invention: METHOD FOR MANUFACTURING FUEL CELL AND FUEL CELL

Abstract:
An object of the present disclosure is to provide a method for manufacturing a fuel cell that ensures developing a high adhesive strength to a separator. One aspect of an embodiment is a method for manufacturing a fuel cell where a pair of separators are mutually bonded with a sealing member. The sealing member includes a thermoplastic resin containing a crystalline polymer as an adhesive layer. The method for manufacturing the fuel cell includes: preparing a stack structure in which the sealing member is disposed between the pair of separators; heating the stack structure at a melting point or higher of the thermoplastic resin; after the heating, holding the stack structure in a temperature range of ±10°C of a crystallization temperature of the thermoplastic resin to promote a crystallization of the thermoplastic resin; and after the holding, further cooling the stack structure.
**Title of the invention:** MACHINE-KNITTING TOOL, PARTICULARLY MACHINE-KNITTING NEEDLE

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<td>The invention refers to a machine-knitting tool (10) and particularly to a machine-knitting needle (11) with a shank part extending in a length direction (L) that comprises a contact surface (20) at the lower side. Outside an end section (18) configured for loop formation the contact surface (20) extends continuously in a plane (E) to the transition to the back end (14) of the shank part (12) opposite the front end section (18) Between a front guide section (45) and a back guide section (46) a butt section (26) with a butt (27) is present. In each guide section a guide cantilever (47) is present that extends away from the shank part (12) in height direction (H) and limits a gap (50) between a cantilever leg (49) of the guide cantilever (47) and a section of the shank part (12) that is arranged below.</td>
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No. of Pages : 34  No. of Claims : 17
An accessory includes: a clock transmission unit that transmits a first clock signal; a first transmission unit that transmits to the camera body information pertaining to a drive target member in synchronization with the first clock signal; a clock reception unit that receives a second clock signal from the camera body; a second transmission unit that transmits to the camera body a first value indicating a communication specification according to which the first transmission unit transmits the information to the camera body in synchronization with the second clock signal; a reception unit that receives from the camera body a second value in synchronization with the second clock signal, indicating a communication specification; and a control unit that engages the first transmission unit to start transmitting the information according to the communication specification indicated by the second value, upon receiving the second value after the first value has been transmitted.
An accessory that is mountable at a camera body and is capable of communicating with the camera body, includes: a first transmission unit capable of transmitting information pertaining to a drive target member that is driven by a drive unit to the camera body according to at least one communication specification; and a second transmission unit that transmits to the camera body a first value specifying a communication specification according to which the information is transmitted to the camera body, wherein: the first transmission unit transmits the information pertaining to the drive target member to the camera body according to the communication specification specified by the first value.
The invention refers to a method and a road finisher (1) for creating a temperature field (TF) of a newly laid paving layer (E) corrected for interfering-related temperature measurement errors. In accordance with the invention, it is recognised that when the paving layer (E) is paved, a measuring point (x) is covered by an interfering object (9) at a first time (t₁), contrary to an expected material-specific cooling (11) at a later second time (t₂) during paving at the same measuring point (x), a larger temperature value (Tₓ) particularly lying within a nominal temperature range (Tnom) than a temperature value (Tₓ) measured to the preceding first time (t₁) is measured, wherein instead of the temperature value (Tₓ) detected at the first time (t₁) a new temperature value (Tnew) is assigned to the measuring point (x) in the temperature field (TF).
A display apparatus includes a substrate (110; 302a; 302b; SUB; 811; 911; 921; 931; 1100) having active (AA) and non-active areas (NAA); data lines and gate lines on the substrate (110; 302a; 302b; SUB; 811; 911; 921; 931; 1100); a driving line (814b; 914b; 924b; 932b) in the non-active area (NAA); a plurality of pixels (P) connected to the data lines and the gate lines, each pixel including: a light emitting diode, and a driving transistor (Tl) with the driving line (814b; 914b; 924b; 932b) under a cathode electrode (818; 918; 928; 938; 1150) of the light emitting diode in the non-active area (NAA); a shield layer (916b; 926b; 936b) between the cathode electrode and the driving line (814b; 914b; 924b; 932b); an encapsulation layer (ENCAP) on the cathode electrode; a touch electrode (TE; 306a; 306b; 820a; 920a; 1210; 1230) on the encapsulation layer (ENCAP) in the active area (AA), and a touch line (306a; 306b; 820a; 920b; 930b; 940b) on the encapsulation layer (ENCAP) to supply a touch signal to the touch electrode (TE; 306a; 306b; 820a; 920a; 1210; 1230). The driving line (814b; 914b; 924b; 932b) is below the touch line (306a; 306b; 820a; 920b; 930b; 940b) in the non-active area (NAA). The encapsulation layer (ENCAP) has a sloped surface, and the touch line (306a; 306b; 820a; 920b; 930b; 940b) is on the sloped surface such that the touch line has a corresponding slope.
**Title of the invention**: ACCESSORY

### (51) International classification
- H04N 5/00

### (31) Priority Document No
- 2018-135122

### (32) Priority Date
- 18/07/2018

### (33) Name of priority country
- Japan

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- NA
  
  **Filing Date**: NA

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### (61) Patent of Addition to Application Number
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  **Filing Date**: NA

### (62) Divisional to Application Number
- NA
  
  **Filing Date**: NA

### (57) Abstract:

An accessory that is mountable at a camera body and is capable of communicating with the camera body, includes: a transmission unit capable of transmitting information pertaining to a drive target member that is driven by a drive unit to the camera body according to at least one communication specification; and a reception unit that receives from the camera body a first value specifying a communication specification according to which the information is transmitted to the camera body, wherein: the transmission unit transmits the information pertaining to the drive target member to the camera body according to the communication specification specified by the first value.

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**No. of Pages**: 89  **No. of Claims**: 19
An accessory includes: a detection terminal; a first power supply terminal through which a first power supply voltage is supplied; a second power supply terminal through which a second power supply voltage is supplied; a ground terminal; a ready terminal; a first clock terminal; a first data terminal; a second data terminal; a second clock terminal; a third data terminal; a first circuit to which the first power supply voltage is supplied through the first power supply terminal; and a second circuit to which the second power supply voltage is supplied through the second power supply terminal, wherein: the ground terminal is used as a ground potential for the first circuit and the second circuit; and a distance between the second clock terminal and the first power supply terminal is longer than a distance between the first clock terminal and the first power supply terminal.
A delivery device of a water jet comprises a delivery chamber and a safety valve suitable for reducing the water pressure in the delivery chamber when the water pressure exceeds a preset pressure threshold. The safety valve comprises a hollow housing body, a valve cartridge inserted tightly into the hollow housing body, the cartridge defining a valve seat for the passage of water and an obturator movable between a closed position, wherein the obturator closes said valve seat, and an open position, wherein the obturator opens said valve seat when a pressure greater than the preset pressure threshold value acts on said obturator. A support body is connected in a removable way to the hollow housing body and has a bottom wall on which the valve cartridge rests and which is penetrated by through-openings for the evacuation to the exterior of the water present in the hollow housing body.

No. of Pages : 27 No. of Claims : 14
(54) Title of the invention : METHOD FOR PROCESSING INFORMATION AND ELECTRONIC DEVICE

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(57) Abstract :
Provided are a method for processing information and related products. The method includes the following. A target voice corresponding to a target language type is obtained. A first language type corresponding to the first headphone is determined. The target voice is converted into a first input voice corresponding to the first language type. The first input voice is sent to the first headphone. In this way, the electronic device can control a wireless headphone to achieve multi-language-type input and output, which diversifies the functions of the wireless headphone.

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No. of Pages : 30 No. of Claims : 10
A method and apparatus are disclosed from the perspective of a network. In one embodiment, the method includes the network configuring a DL (Downlink) BWP (Bandwidth Part) and an UL (Uplink) BWP in a first serving cell to a UE (User Equipment). The method also includes the network configuring a paired spectrum operation in the first serving cell to the UE. The method further includes the network transmitting a first DCI (Downlink Control Information) to the UE, wherein the first DCI comprises a slot format combination indicating one or more slot format values for the DL BWP and one or more slot format values for the UL BWP. In addition, the method includes the network prevents from setting an amount of slot format values in the slot format combination in the first DCI to be not divided by a first number, wherein the first number is associated with an absolute value of a difference of a first SCS (Subcarrier Spacing) configuration and a second SCS configuration.
**Title of the invention**: TOUCH DISPLAY PANEL AND TOUCH DISPLAY DEVICE

| (51) International classification | :G06F 3/00 |
| (31) Priority Document No | :10-2018-0084695 |
| (32) Priority Date | :20/07/2018 |
| (33) Name of priority country | :Republic of Korea |
| (86) International Application No | :NA |
| (87) International Publication No Filing Date | :NA |
| (61) Patent of Addition to Application Number Filing Date | :NA |
| (62) Divisional to Application Number Filing Date | :NA |

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**Name of Inventor**:
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2) LEE Yangsik

**Abstract**:
A touch display device includes a substrate (SUB) defining an active area (AA) and a non-active area (NA) around the active area (AA); a touch pad (X-TP, Y-TP) in the non-active area (NA); a plurality of signal lines; a signal line insulation layer; first electrodes (EI); at least one noise reduction electrode (NRE) on the signal line insulation layer and in a portion other than the area corresponding to the first electrodes (EI); a second electrode (E2) over the plurality of first electrodes (EI) and the at least one noise reduction electrode (NRE); an encapsulation layer (PAS1, PCL, PAS2) on the second electrode (E2); touch lines on the encapsulation layer (PAS1, PCL, PAS2) and connected to the touch pad (X-TP, Y-TP); and touch electrodes (TE) on the encapsulation layer (PAS1, PCL, PAS2) and electrically connected to at least one touch line. The encapsulation layer (PAS1, PCL, PAS2) has a sloped surface between the touch pad (X-TP, Y-TP) and the touch electrodes (TE), and the touch lines are arranged on the sloped surface of the encapsulation layer (PAS1, PCL, PAS2) to have a corresponding slope.

No. of Pages: 72 No. of Claims: 20
**Title of the invention:** LOW-ENERGY CONSUMPTION PROCESS WITH REDUCED AMMONIA CONSUMPTION, FOR THE PRODUCTION OF HIGH-PURITY MELAMINE THROUGH THE PYROLYSIS OF UREA, AND RELATIVE PLANT

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<tr>
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**Abstract:**
A process is described, having a low-energy consumption and reduced ammonia consumption for the production of high-purity melamine, through the pyrolysis of urea, and the relative plant.

No. of Pages: 47 No. of Claims: 14
Provided is a vehicle internal combustion engine capable of preventing a chain cover from being deformed or vibrated due to a vibration of the vehicle internal combustion engine and hence preventing degradation in detection accuracy of a sensor. In an engine 5, a chain cover 21 includes an oil pump unit 23 provided in a lower portion of the chain cover 21, a sensor boss portion 31 provided in an upper portion of the chain cover 21, and cylindrical oil passage portions 24 and 25. The oil passage portion 24 includes an oil passage 24a communicating with the oil pump unit 23 and extends upward from the oil pump unit 23 and the oil passage portion 25 includes an oil passage 25a communicating with the oil passage 24a and extends from the oil passage portion 24 in the horizontal direction. The sensor boss portion 31 is provided in a connection portion 26 connecting the oil passage portion 24 and the oil passage portion 25 and a sensor 32 detects a state of oil flowing through the oil passages 24a and 25a. [Selected figure] Fig. 7
Title of the invention: COVER STRUCTURE OF INTERNAL COMBUSTION ENGINE

Abstract:
Provided is a cover structure of an internal combustion engine capable of reducing a vibration of a hydraulic control valve attached to a cover member and hence improving reliability of the hydraulic control valve. An engine includes a chain cover attached to an end portion of an engine body and the chain cover includes an oil passage portion swollen from a connection wall toward the engine body, extending in the up and down direction of the chain cover and including an oil passage and an oil passage portion swollen from the connection wall toward the engine body, connected to upper ends of the side walls and the oil passage portion, and including an oil passage. A cylinder portion includes a wall portion connected to a wall portion A of the oil passage portion and the cylinder portion extends along the oil passage portion.

No. of Pages: 32 No. of Claims: 4
The present invention relates to a take-off device (2) for a plurality of fiber bundles (7) from storage containers (8) having a frame (4) and a support profile (5) extending in a transport direction (6) of the fiber bundles (7) and having a first (9) and a second side (10), a plurality of cylindrical carrier elements (11) rotatably supported about the longitudinal axis thereof being disposed on both sides (9, 10) on the support profile (5) and implemented for transporting at least one fiber bundle (7) each in the transport direction (6) when rotating. The take-off device (2) according to the invention is characterized in that two opposite carrier elements (11) are each segments of an outer surface (12) of a single, contiguous component (13). The present invention further relates to a spinnery preparation machine, such as a draw frame (1), having a take-off device (2) according to the invention.
Title of the invention: COVER STRUCTURE OF INTERNAL COMBUSTION ENGINE

International classification: F02F 7/00, F02B 67/00, F01P 11/00

Priority Document No: 2018-136869
Priority Date: 20/07/2018
Name of priority country: Japan

International Application No: NA
Filing Date: NA
International Publication No: NA
Divisional to Application Number: NA
Filing Date: NA

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Name of Inventor: 1) Yutaro KOSUGI 2) Sotaro WADA

Abstract:
Provided is a cover structure of an internal combustion engine capable of preventing a cover member from being vibrated due to a vibration of an internal combustion engine, and hence improving support rigidity of a driving device and preventing the driving device from being vibrated. A chain cover 18 attached to a right end portion of an engine body 7 includes a boss portion 30 extending from a cover portion 19 toward the engine body 7 and connected to the engine body 7, a rib 41 provided in the cover portion 19 to extend from the boss portion 30 in the longitudinal direction and connected to an upper wall portion 19u of the cover portion 19, and a rib 42 provided in the cover portion 19 to extend from the boss portion 30 in a lateral direction and connected to a side wall portion 19A, and an opening portion 19a is surrounded by the boss portion 30, the rib 41, the upper wall portion 19u, the side wall portion 19A, and the rib 42.
(54) Title of the invention : VEHICLE INTERNAL COMBUSTION ENGINE

(51) International classification
:B62J 13/00
:F01M 1/00
:F01M 11/00

(31) Priority Document No
:136866

(32) Priority Date
:20/07/2018

(33) Name of priority country
:Japan

(31) Priority Document No
:2018-136866

(86) International Application No
:NA

(32) Priority Date
:NA

(33) Name of priority country
:Japan

(61) Patent of Addition to Application Number
:NA

(62) Divisional to Application Number
:NA

(57) Abstract :
Provided is a vehicle internal combustion engine capable of preventing a chain cover from being vibrated due to a load of the vehicle internal combustion engine and hence preventing a vehicle from being vibrated. In a vehicle engine 5, a lower portion of a chain cover 21 is provided with an oil pump unit 23 and an upper portion of the chain cover 21 is provided with a mount attachment portion 22. The chain cover 21 is provided with an oil passage portion 24 and the oil passage portion 24 includes an oil passage 24a communicating with the oil pump unit 23 and extends from the oil pump unit 23 to the mount attachment portion 22.
(54) Title of the invention : COVER STRUCTURE OF INTERNAL COMBUSTION ENGINE

(57) Abstract :
Provided is a cover structure of an internal combustion engine capable of preventing a cover member from being vibrated due to a vibration of an engine body, and hence improving support rigidity of a driving device and preventing the driving device from being vibrated. A chain cover 18 attached to a right end portion of an engine body 7 includes a mount attachment portion 22 provided in a cover portion 19 so as to be located at the side opposite to an opening portion 19a with respect to a boss portion 30 in the width direction of the cover portion 19 and provided so that a right anti-vibration mount member 3R provided in a right side member 2R is attached. An upper end portion 22u of a mount attachment portion 22 is provided above the cover portion 19 in relation to a lower end portion 19g of the opening portion 19a and the boss portion 30 is provided so as to overlap the opening portion 19a in the width direction of the cover portion 19 and is connected to the mount attachment portion 22.
An object is to provide an attachment structure of a tensioner unit for a vehicle internal combustion engine, which is capable of increasing the attachment strength of the tensioner unit and reducing the vibration inputted from the tensioner unit to the cover member. [Solution] An engine 7 includes a motor generator 16 which is disposed on a front side portion 11a side of a cylinder block 11 and to which power is transmitted from an engine body 9 via a drive belt 41 A, a water pump 17 which is attached to an upper protruded portion 11A and a lower protruded portion 11B and to which power is transmitted from the engine body 9 via a drive belt 41B, and a tensioner unit 43 which adjusts a tension of the drive belt 41A. The tensioner unit 43 includes attachment portions 44B and 44C attached to a chain cover 21, and the attachment portion 44B is disposed between the upper protruded portion 11A and the lower protruded portion 11B in a height direction of the engine 7.
The present disclosure relates to a female connecting member (10) and a male connecting member (20), a connector, a mobile terminal (100) and an electronic equipment, wherein the female connecting member (10) includes a first end face (10a), the first end face (10a) has a first groove (11), the first groove (11) is defined by a first side face (11a) and a first bottom face (11b) encompassed by the first side face (11a), the first side face (11a) is provided with NM contacts (101), the contacts (101) are arranged in N rows along a depth direction (D) of the first groove (11), N is an integer greater than or equal to 2, each row includes M contacts (101) distributed along a circumferential direction of the first side face (11a), and M is an integer greater than or equal to 2.
The various embodiments of the present invention provide a method for managing security service in real time through a computer readable program. The user registers on the computer readable program by providing a plurality of user details (201). The user is presented with an option of security type on the computer readable program (202). The security type comprises event security, residential security, corporate security, property security, personal security and armed security. The search criterion is distance based and security type based. On the basis of requirement, the user places a request for at-least one security personnel from at-least one security agency for a required duration (203). The user further tracks a position of the at-least one security personnel through a user interface on the computer readable program (204). The user further pays for the security services provided by the at-least one security personnel through the computer readable program (205).
A system and method for cleaning, conditioning, and/or rejuvenating carbon-based sorbents is disclosed where a chemical cleaning process is used to separate contaminants from the sorbent. The contaminants can be disposed of or recycled for industrial uses. The cleaned and/or rejuvenated carbon-based sorbent is recycled back into a reverse venturi shaped fluidized bed apparatus for later use. Spent carbon-based sorbent can be routed for appropriate disposal. The carbon-based sorbents include, but are not limited to, activated carbon sorbent and biochar sorbent. Optionally, the sorbents can be processed through the system prior to exposure to contaminated emissions to enhance and increase the porosity of the outer surface of the sorbents.
An emissions control system including a fluidized bed apparatus containing a reactive sorbent material is disclosed for gaseous and non-gaseous contaminated emissions. The reactive sorbent material may be CZTS, CZTS-Alloy, or a carbon-based sorbent material. The fluidized bed apparatus is configured with one or more closed loop sorbent recycling subsystems. The sorbent recycling subsystems include the capability to separate sorbents from each other, separate contaminants from sorbents for disposal and/or recycling, clean and/or rejuvenate sorbents for return to the fluidized bed apparatus, dispose of spent and exhausted sorbents, and replace the spent and exhausted sorbents with new sorbent to maintain consistent sorbent function in the fluidized bed apparatus. Monitoring sensors provide information useful in a method for establishing and maintaining consistent process parameter controls.
Title of the invention : EMISSIONS CONTROL SYSTEM INCLUDING CAPABILITY TO CLEAN AND/OR REJUVENATE CZTS SORBENTS, CZTS-ALLOY SORBENTS, AND/OR CZTS-MIXTURE SORBENTS, AND METHOD OF USE

(51) International classification : B01J 20/00
(31) Priority Document No : 16/042,840
(32) Priority Date : 23/07/2018
(33) Name of priority country : U.S.A.
(86) International Application No : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
(62) Divisional to Application Number : NA

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Name of Inventor :
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2) STUHLER, Lori
3) WALWORTH, Van T.
4) DRUMMOND, Scott

Abstract :
An emissions control system including a fluidized bed apparatus containing a reactive sorbent material is disclosed for gaseous and non-gaseous contaminated emissions. The reactive sorbent material may be CZTS, CZTS-Alloy, or a CZTS-Mixture sorbent material. The fluidized bed apparatus is configured with one or more closed loop sorbent recycling subsystems. The sorbent recycling subsystems include the capability to separate sorbents from each other, separate contaminates from sorbents for disposal and/or recycling, clean and/or rejuvenate sorbents for return to the fluidized bed apparatus, dispose of spent and exhausted sorbents, and replace the spent and exhausted sorbents with new sorbent to maintain consistent sorbent function in the fluidized bed apparatus. Monitoring sensors provide information useful in a method for establishing and maintaining consistent process parameter controls.

No. of Pages : 132 No. of Claims : 25
The invention discloses a beverage vessel for storing beverage, having an inner flask (104) made of metal forming a base material, wherein in the inner flask is adapted to store the beverage, an outer flask (102), a thermally insulating layer (103) arranged between the inner flask (104) and the outer flask (102) and an opening (108) for pouring the beverage into the beverage vessel or pouring the beverage out of the beverage vessel, wherein the base material of the inner flask (104) is coated in its interior surface with an inert metal coating (106). The invention also discloses a beverage vessel lid, comprising locking means adapted to engage with complimentary locking means of a beverage vessel (114) for releasably locking the lid to the beverage vessel (100), a sealing adapted to engage with a sealing surface (109) of the beverage vessel, wherein at least the portion of the lid surrounded by the sealing is covered by an inert metal coating.

No. of Pages : 14 No. of Claims : 23
**Title of the invention:** FEMALE CONNECTING MEMBER, MALE CONNECTING MEMBER, AND MOBILE TERMINAL

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<td>1) GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD.</td>
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**Priority Document No:** 201821167407.3

**Priority Date:** 23/07/2018

**Name of priority country:** China

**International Application No:** NA

**Filing Date:** NA

**International Publication No:** NA

**Filing Date:** NA

**Patent of Addition to Application Number:** NA

**Filing Date:** NA

**Divisional to Application Number:** NA

**Filing Date:** NA

**Abstract:**
The present disclosure relates to a female connecting member (10), a male connecting member (20), an adapter, a mobile terminal (100), and an electronic equipment. The female connecting member (10) has a first end face (10a). The first end face (10a) has a first groove (11). The first groove (11) is defined by a first side face (11a) and a first bottom face (11b) encompassed by the first side face (11a). The first side face (11a) is provided with N conductive rings (102) along a depth direction (D) of the first groove (11), and N is an integer greater than or equal to 2.

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**Diagram:**

No. of Pages: 43
No. of Claims: 15
RADIO FREQUENCY SYSTEM, METHOD FOR CONTROLLING ANTENNA SWITCHING, AND RELATED PRODUCTS

A radio frequency system, a method for controlling antenna switching, and related products are provided. The radio frequency system supports a simultaneous downlink reception with four antennas and includes m antennas, a radio frequency processing circuit, and a radio frequency transceiver coupled with the radio frequency processing circuit. The m antennas are divided into at least two antenna groups, where m is greater than or equal to 4 and less than or equal to 8. The radio frequency processing circuit is coupled with the at least two antenna groups and includes modules which are the same in number as the at least two antenna groups. Each module is coupled with one antenna group and is disposed adjacent to the antenna group with which the module is coupled. The modules include at least one transmitting module, or at least one transmitting module and at least one receiving module.
Title of the invention: RECEIVING MODULE, TRANSMITTING MODULE, AND RADIO FREQUENCY SYSTEM

A receiving module and related products are provided. The receiving module is disposed adjacent to an antenna group corresponding to the receiving module and includes one or more signal receiving channels, a first transfer switch, and a second transfer switch. Each of the one or more signal receiving channels includes a filter and a low noise amplifier coupled with the filter. The first transfer switch is coupled with the one or more signal receiving channels and is configured to be coupled with an antenna in the antenna group. The second transfer switch is coupled with the one or more signal receiving channels and is configured to be coupled with a transmitting module and/or a radio frequency transceiver. The first transfer switch or the second transfer switch includes an n1Pn2T switch, and n1 is a positive integer and n2 is an integer greater than or equal to 2.
**Title of the invention:** FLEXIBLE COVER FOR A MISSILE CONTAINER

| (51) International classification | :F41F 3/077 |
| (31) Priority Document No | :1601043 |
| (32) Priority Date | :01/07/2016 |
| (33) Name of priority country | :France |
| (86) International Application No | :PCT/FR2017/000124 |
| Filing Date | :20/06/2017 |
| (87) International Publication No | :WO 2018/002454 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

**Abstract:**
The flexible cover (1) comprises at least one layer (2) referred to as the main layer made of a composite material (9) consisting of at least one woven and at least one elastomer and at least one layer (3 4) referred to as an auxiliary layer made of a composite material (10) also consisting of at least one woven and at least one elastomer the auxiliary layer (3 4) being secured to the composite layer (2) on one of the faces (2A 2B) of the latter said auxiliary layer (4 5) comprising petal-shaped regions (6) that are separated from one another by lines (5) referred to as weakening lines said main layer (2) and said at least one auxiliary layer (3 4) forming a composite part (8).

**No. of Pages:** 9 **No. of Claims:** 12
The present application provides a data transmission method, a terminal, and a base station. The method comprises: a terminal receives common information according to a first physical resource block (PRB) index, the first PRB index being determined according to a first bandwidth and/or a first location on a frequency domain; the terminal transmits terminal-specific information according to a second PRB index, the second PRB index being determined according to a second bandwidth and/or a second location on the frequency domain. By determining a PRB index, the present application ensures correct communication between a base station and a terminal.
(54) Title of the invention : CELL CARTRIDGE AND BATTERY MODULE COMPRISING SAME

(51) International classification : H01M 2/10, H01M 2/26, H01M 2/02
(31) Priority Document No : 10-2017-0096809
(32) Priority Date : 31/07/2017
(33) Name of priority country : Republic of Korea
(86) International Application No : PCT/KR2018/008188
   Filing Date : 19/07/2018
(87) International Publication No : WO 2019/027162
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

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(72) Name of Inventor :
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   2) KIM, Seong-Tae
   3) LEE, Gyo-Eun

(57) Abstract :
A cell cartridge according to an embodiment of the present invention comprises: a first pouch cell having a first fixing part extending outside a sealing part; a second pouch cell having a second fixing part extending outside the sealing part; and a cartridge for receiving a cell stack formed by stacking the first pouch cell and the second pouch cell wherein the first fixing part is bent in a direction toward the second pouch cell so as to restrict the movement of the second pouch cell and the second fixing part is bent in a direction toward the first pouch cell so as to restrict the movement of the first pouch cell.
The present invention relates to a method for manufacturing an electrode lead, the method comprising the steps of: arranging a plurality of lead pieces between a first lead film and a second lead film in a longitudinal direction of lead films including the first lead film and the second lead film; performing a first sealing on the first lead film and the second lead film; bending the lead films and stacking the plurality of lead pieces in a vertical direction with respect to planes of the lead films so as to form a lead piece laminate; and performing a second sealing on the bent lead films overlapping with the plurality of lead pieces.

No. of Pages : 17  No. of Claims : 19

The Patent Office Journal No. 04/2020 Dated 24/01/2020
The present invention relates to derivatives of formula (I) which bind to the liver X receptor (LXRα and/or LXRβ) and act preferably as inverse agonists of LXR.
Provided is a non-oriented electromagnetic steel plate that contains in the chemical composition thereof in terms of % by mass:

- 0.0015% - 0.0040% C
- 3.5% - 4.5% Si
- 0.65% or less Al
- 0.2% - 2.0% Mn
- 0% - 0.20% Sn
- 0% - 0.20% Sb
- 0.005% - 0.150% P
- 0.0001% - 0.0030% S
- 0.0030% or less Ti
- 0.0050% or less Nb
- 0.030% or less Zr
- 0.0010% - 0.0050% O

Within the remnant consists of Fe and impurities, the product plate thickness is 0.10 mm - 0.30 mm, the average crystal grain size is 10 µm - 40 µm, the iron loss W10/800 is 50 W/kg or less, the tensile strength is 580 MPa - 700 MPa, and the yield ratio is 0.82 or greater.
A method and device for polar code encoding which are used for improving the accuracy of the reliability ranking of polarized channels. The method involves: determining a ranking sequence for encoding a bit to be encoded the ranking sequence being used for characterizing the reliability ranking of N polarized channels N being the length of a mother code of a polar code and N being a positive integer power of 2; and using the ranking sequence to perform polar code encoding on the bit to be encoded so as to obtain an encoded bit.
The present disclosure provides a femtosecond laser docking apparatus that includes a suction cone, with an upper frusto-conical portion and lower spherical portion, and a suction ring, with a mechanical stop and at least one contact and sealing surface. The mechanical stop engages the spherical portion of the suction cone to prevent it from being lowered further toward an eye, in a z-direction, beyond the mechanical stop. This disclosure provides a system for femtosecond laser ophthalmic surgery that includes a suction cone, with an upper frusto-conical portion and lower spherical portion, and a suction ring. This disclosure further provides a method for docking a femtosecond laser that includes positioning a suction ring on an eye, lowering a suction cone toward the eye until it engages the mechanical stop of the suction ring, and applying suction to seal the suction cone to the suction ring by a contact and sealing surface.
A multirotor wind turbine (1) comprising a tower structure (2) and at least one load carrying structure (3), each load carrying structure (3) being arranged to carry two or more energy generating units (5), is disclosed. The wind turbine (1) further comprises a yawing arrangement (6) comprising a first part (9) being fixedly connected to the tower structure (2) and a second part (10) being fixedly connected to at least one of the load carrying structure(s) (3). The first part (9) and the second part (10) are configured to perform rotating movements relative to each other, thereby allowing the load carrying structure (3) to perform yawing movements relative to the tower structure (2). At least one guy wire (7) is connected between an anchoring point (8) at the ground and the first part (9) of the yawing arrangement (6). The invention further provides a yawing arrangement (6) for such a multirotor wind turbine (1).
A system (10) and method (30) for cryogenic separation of plant material are provided. A vessel (15) is filled with cryogenic fluid having a temperature at or less than -150 degrees Celsius. Plant material is placed into the vessel (15) via a basket (17) and agitation is provided to the plant material in the vessel (15) for a predetermined time period. Upon completion of the time period, the basket (17) having at least a portion of the plant material is removed from the vessel (15). Plant particulates separated from the plant material during the agitation settle to the bottom of the vessel (15). The vessel (15) is drained of the cryogenic fluid, including plant particulates separated from the plant material.
Title of the invention: EQUIPMENT FOR THE PRODUCTION OF SLABS IN MINERAL GRITS BOUND WITH RESINS

Abstract:
The equipment (1) for the production of slabs in mineral grits bound with resins, comprises: a support frame (2), at least one lower plate (3), locked together with the frame (2), comprising at least one positioning zone (4) for at least one mold (5) having at least one forming cavity (6), open at the top, to contain a mix (7) comprising the materials necessary to obtain the slabs, at least one pressing assembly (8) comprising an upper plate (9) movable, with respect to the frame (2), from an upper position of loading/unloading the mold (5) in/from the positioning zone (4), to a lower position of pressing the mix (7) inside said forming cavity (6), vibrating means (22, 25) associated at least with the lower plate (3), and an airtight chamber (12), communicating with suction means (13), adapted to reduce the pressure to a value lower than the atmospheric pressure, containing the mold (5), where the chamber (12) is interposed between the lower plate (3) and an upper closing element (14) opposite the lower plate (3).
**Title of the invention:** OCULAR DRUG DELIVERY FORMULATION

**Abstract:**
There is provided an ocular drug delivery formulation comprising a delivery carrier comprising a cellulosic polymer and an anionic polysaccharide and nanoparticles comprising an amphiphilic non-ionizable block copolymer and a cannabinoid. The formulation has a gel point of about 30°C to about 37°C.

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**Name of Inventor:**
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2) KABIRI, Maryam
3) YADAV, Vikramaditya, Ganapati

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No. of Pages: 29
No. of Claims: 20
An acoustic traction/braking control system (1) is described, including a modulator device (303) associated with a master vehicle (ML), which receives a traction or braking request signal (302) and generates an electrical signal (308) which is transformed into an acoustic signal (309) to be transmitted in the brake pipe (301); the frequency of the acoustic signal (309) is adjusted according to the amplitude of the traction or braking request signal (302), according to a trans-characteristic function; - a transducer device (305), associated with a slave vehicle (SL), which detects the acoustic signal (309) and converts the instantaneous amplitude value thereof into an electrical signal (310) the frequency value of which is adjusted according to the frequency of the acoustic signal (309); - a frequency demodulator (306) associated with a slave vehicle (SL), which generates a traction or braking management signal (307) the amplitude of which is regulated according to the frequency of the electrical signal (310) and transmitted to a traction and braking management system (311) associated with the at least one slave vehicle (SL).
Title of the invention: PRODUCTION METHOD OF FILAMENTOUS FUNGUS PELLET

Abstract:
Provided is a method for producing a high-density filamentous fungus pellet. The method for producing a filamentous fungus pellet comprises a step for germinating spores of filamentous funguses in a culture solution containing a cationic polymer.

No. of Pages: 51 No. of Claims: 12
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application : 26/11/2019

(21) Application No.201917048303 A

(43) Publication Date : 24/01/2020

(54) Title of the invention : 4-AMINO-6-(HETEROCYCLIC)PICOLINATES AND 6-AMINO-2-(HETEROCYCLIC)PYRIMIDINE-4-CARBOXYLATES AND THEIR USE AS HERBICIDES

(51) International classification : A01N43/40, A01N43/54

(31) Priority Document No : 62/504148

(32) Priority Date : 10/05/2017

(33) Name of priority country : U.S.A.

(36) International Application No : PCT/US2018/031004

Filing Date : 04/05/2018

(61) Patent of Addition to Application Number : NA

Filing Date : NA

(62) Divisional to Application Number : NA

Filing Date : NA

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2) SATCHIVI, Norbert, M.

3) EPP, Jeffrey, B.

4) ROTH, Joshua

(57) Abstract :

4-Amino-6-(heterocyclic)picolinic acids and their derivatives; 6-amino-2-(heterocyclic)pyrimidine-4-carboxylates and their derivatives; and methods of using the same as herbicides.

No. of Pages : 39 No. of Claims : 28
The present invention provides methods of treatment for recurrent cancer(s) through combination therapy with an agent that inhibits programmed death-1 protein (PD-1) signaling and an agent that inhibits poly [ADP-ribose] polymerase (PARP) signaling.
**Title of the invention**: FLAME RETARDANT CLEAR COATINGS FOR BUILDING PANELS

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**Name of Inventor**:  
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3) WANG, Michelle X.

**Abstract**:  
Described herein is a flame-retardant building panel comprising a body having a first major surface opposite a second major surface, an inorganic coating atop the first major surface, the inorganic coating being optically transparent and flame retardant and comprising a silicate compound; and wherein the inorganic flame retardant coating is substantially transparent such that the first major surface of the body is visible through the inorganic coating.

**FIG. 1**

No. of Pages: 32  No. of Claims: 22
A system for providing multiple infusions to a patient (P), the system comprises a multiplicity of infusion devices (10) for administering a multiplicity of medical fluids through an infusion line (102) of an infusion set (103) to the patient (P), and a control device (2) for controlling the multiplicity of infusion devices (10). Herein, the control device (2) comprises a multiplex module (22) configured to multiplex the multiplicity of medical fluids for a multiplexed administration of the medical fluids through said infusion line (102) of the infusion set (103), the multiplex module (22) comprising a scheduling module (222) configured to define at least two packets, each packet comprising at least one medical fluid out of the multiplicity of medical fluids, and to arrange the at least two packets in a sequence for administration of the medical fluids of the at least two packets. In this way a system for providing multiple infusions to a patient is provided which allows for an efficient, yet reliable administration of multiple infusions while at the same time reducing the risks for errors. An advantage of multiplexing is reduction of the number of lumens with associated reduction of infection risks and discomfort.
Provided is a high-strength steel member which has a predetermined chemical composition, and a tensile strength of at least 1000 Mpa, and which contains: at least 0.10% by area of at least one Ti precipitate which has an average circle equivalent diameter of 30-200 nm at a position of 1 mm deep from the surface of the steel member, and is selected from the group consisting of Ti carbides, Ti nitrides and composite compounds thereof; and at least 0.5 mass ppm of non-diffusible hydrogen, in hydrogen temperature-programmed desorption analysis, released in a temperature range of 400-800°C.
Title of the invention: WIRE HARNESS

Abstract:
The purpose of the present invention is to provide a technique capable of suppressing an excessive tensile load from being applied to a wire even when the strength of a sheet material is low, in a wire harness in which the wire is fixed to the sheet material. This wire harness is provided with a sheet material-attached wire and a tension bearing part. The sheet material-attached wire includes a sheet material and a wire fixed to the sheet material. The tension bearing part is provided on the sheet material and, when tension is applied to the sheet material-attached wire, bears a portion of the tension applied to the wire.
The disclosure provides antibody agents that bind to a Lymphocyte Activation Gene-3 (LAG-3) protein. Particular immunoglobulin heavy chain polypeptide and immunoglobulin light chain polypeptide sequences are explicitly provided. Also provided are related nucleic acids, vectors, compositions, and methods of using anti-LAG-3 antibody agents to treat a disorder or disease that is responsive to LAG-3 inhibition, such as, for example, cancer or an infectious disease.
Embodiments disclosed herein are directed to systems and methods for determining if a fluid is present in a body region. The systems and methods include using ultrasound systems having operational parameters that provide ultrasound echo maps having high resolution B-line artefacts.
Spent aromatization catalysts containing a transition metal and a catalyst support are selectively poisoned in the disclosed reforming methods, resulting in improvements in overall aromatics yield and selectivity.
Title of the invention: MULTILAYER HYDROREPELLENT SYSTEMS WITH CONTROLLED RELEASE OF ACTIVE AGENTS IN WATER AND SOIL

Abstract:
The invention relates to formulations for controlled release both in water and in soils, and to the components and processes that enable effective coating of cores in various forms. The technology used for implementing the invention, i.e., multilayer coating of cores with the addition of various additives and active ingredients, enables modulation of release of the active ingredients in the desired times and modes. Release is regulated according to the desired targets. The technology does not use any organic solvent, but is based upon a thermodynamic technology that uses the phase transitions through control of the heat introduced into or removed from the system. The invention uses low-cost compounds, mostly of natural derivation and in any case biodegradable. Hence, the materials and technology necessary for implementing the present invention have a low environmental impact.

No. of Pages : 44 No. of Claims : 25
**Title of the invention:** DTERT VACCINES AND METHODS OF TREATMENT USING THE SAME

**Abstract:**
Disclosed herein are compositions and methods for treating and/or preventing cancer in dogs, and in particular, vaccines that treat and provide protection against tumor growth.

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Name of Inventor:
1. MUTHUMANI, Kar
2. WEINER, David, B.

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**Figure 1A-1B:**

No. of Pages: 100 No. of Claims: 17
A fungicidal composition is provided, the composition comprising: Component (A) : prothioconazole; and Component (B) : chlorothalonil. There is also provided a method for the control and/or prevention of fungal infestations in a plant, the method comprising applying to the plant, plant parts or the locus thereof: Component (A) : prothioconazole; and Component (B) : chlorothalonil. The combination of prothioconazole and chlorothalonil exhibits synergy and also exhibits a reduction in phytotoxicity.
The present disclosure relates to a water purification apparatus that comprises a reverse osmosis device, RO-device, producing a purified water flow and to a corresponding method. The proposed method comprises detecting at least one fluid property of purified water in the purified water path and regulating a flow rate of water in the recirculation path to fulfil one or more predetermined criteria of the purified water in the purified water path, based on the at least one detected fluid property. The present disclosure also relates to a computer program and a computer program product implementing the method.
Title of the invention: CYCLONE TEMPERATURE CONTROL FOR DECOATING SYSTEMS

Abstract:
A cyclone temperature control system for a cyclone of a decoating system includes a controller, a gas mover, and a control valve that is movable between a fully open position and a closed position. A method of controlling the temperature of the cyclone includes determining a cyclone temperature of the cyclone and comparing the cyclone temperature to a cyclone threshold temperature. The method also includes opening the temperature control valve and directing at least some heated gas from an afterburner of the decoating system to mix with exhaust gas from a kiln of the decoating system to increase the temperature of the exhaust gas if the cyclone temperature is less than the cyclone threshold temperature.

No. of Pages: 14 No. of Claims: 20
**Title of the invention:** DECOATING SYSTEM COMPRISING A COOLED CONVEYOR

**Abstract:**
A decoating system includes a dust cyclone and cooled conveyor. The dust cyclone is configured to receive an exhaust gas from a decoating kiln, filter organic particulate matter from the exhaust gas as dust, and discharge the dust at a discharge temperature. The cooled conveyor is configured to receive the dust from the dust cyclone and cool the dust to a dust processing temperature that is less than the spontaneous reaction temperature.

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**Diagram:**
A diagram illustrating the decoating system is shown, with components labeled accordingly.

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**No. of Pages:** 14  **No. of Claims:** 20
**Title of the invention:** PHOTOVOLTAIC POWER PLANT AND SECONDARY FREQUENCY MODULATION CONTROL METHOD THEREFOR

| (51) International classification          | :H02J3/48,H02J3/38          |
| (31) Priority Document No                 | :201711497115.6            |
| (32) Priority Date                        | :31/12/2017                |
| (33) Name of priority country             | :China                     |
| (86) International Application No Filing Date | :PCT/CN2018/086351          |
| (87) International Publication No Filing Date | :WO/2019/128037            |
| (61) Patent of Addition to Application Number Filing Date | :NA                       |
| (62) Divisional to Application Number Filing Date | :NA                       |

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**Name of Inventor:**

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2) QIAO, Yuan
3) ZHANG, Yi

**Abstract:**

A photovoltaic power plant and a secondary frequency modulation control method therefor. The photovoltaic power plant comprises a photovoltaic power station and an active power control system, wherein the photovoltaic power station comprises a photovoltaic array and a photovoltaic inverter, the photovoltaic inverter being used for converting direct-current electric energy generated by the photovoltaic array into alternating-current electric energy; and the active power control system is used for performing power allocation on the photovoltaic inverter based on a power control AGC instruction value when running data of the photovoltaic power plant meets a pre-set secondary frequency modulation condition, and adjusting an active power output from the photovoltaic inverter based on an AGC instruction value of the photovoltaic inverter subjected to power allocation. The photovoltaic power station can improve the accuracy of power control and the stability of a power system.

![Diagram](image)

No. of Pages: 19  No. of Claims: 20
A sectional radiator seal arrangement including a sectional radiator having a core and a bonnet, a nozzle defined by a cylindrical sidewall extending from and in fluid communication with the bonnet and the core, the nozzle configured for creating a seal with a radiator tank and a sleeve formed from a corrosion resistant material fitted about a portion of the cylindrical sidewall of the nozzle. A retaining compound can be provided between the sleeve and the radiator tank for preventing an ingress of coolant at the seal and into contact with either the nozzle or the bonnet. A method of reducing corrosion of the radiator seal is also provided.
**Title of the invention:** MULTIPLEX END-TAGGING AMPLIFICATION OF NUCLEIC ACIDS

- **Abstract:**
  The present disclosure provides a method for assembly of genomic DNA using multiplex end-tagging amplification of genomic fragments.

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**Name of Inventor:**
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2) XING, Dong
3) CHANG, Chi-Han
4) TAN, Longzhi
The present disclosure provides a method for amplifying RNA using a combination of reverse transcription and multiple annealing and looping based amplification cycles. Primers are used such that the resulting amplicons include a first cell specific barcode sequence, a second cell specific barcode sequence and a unique molecular identifier barcode sequence.
A fluid coupling assembly includes a sliding seal interface between rotating and non-rotating components, through which a fluid conduit extends. A flow of fluid is provided through the fluid conduit during operation. A hydrocyclone device has a body forming a cyclone chamber, the cyclone chamber having a feed opening, a base opening and an apex opening. A flow constrictor is disposed along the fluid conduit between an upstream portion and a downstream portion of the fluid conduit. The feed opening is fluidly connected to the upstream portion of the fluid conduit and the apex opening is fluidly connected to the downstream portion of the fluid conduit. The base opening is fluidly connected to a passage having an outlet adjacent the sliding seal interface.
A process and an apparatus for measuring an amount of dissolved air which may be dispersed or entrained in liquids. It is a further aspect of at least one embodiment of this invention to provide for an apparatus and a process for measuring the amount of air present in a liquid and which further provides an apparatus and a process for measuring air within a liquid by entraining additional air within the liquid over a range of temperatures.
**Title of the invention:** NAVIGATION METHOD AND RELATED PRODUCT

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<td>(86) International Application No</td>
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<td>Disclosed in an embodiment of the present application are a navigation method and a related product, the method comprising: acquiring a message record; parsing the message record to obtain a starting location and a destination location; using N pre-installed map applications to perform path planning for the starting location and the destination location so as to obtain M routes, wherein N is a positive integer and M is a positive integer not less than N; and selecting a target route from among the M routes. By using the embodiment of the present application, a starting location and destination location may be extracted from a message record, and navigation may be carried out according thereto, which may provide a user with an intelligent navigation route, thus facilitating user travel.</td>
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<th>(71) Name of Applicant:</th>
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<tr>
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<tr>
<td>Address of Applicant : No.18, Haibin Road, Wusha, Chang'an Dongguan, Guangdong 523860 China</td>
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<th>(72) Name of Inventor:</th>
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<td>1) BAI, Jian</td>
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No. of Pages : 23 No. of Claims : 15
A flexible assembly of a motor driven surgical system may include a flexible shaft circuit strip and a knife bar having a first laminated plate disposed along a first side of the circuit strip and a second laminated plate disposed along a second side of the circuit strip. The knife bar may reciprocate along a longitudinal axis of the circuit strip. Each laminated plate may be composed of a pair of laminated plates. The flexible assembly may include a first leaf spring disposed between the first side of the circuit strip and the first laminated plate, and a second leaf spring disposed between the second side of the circuit strip and the second laminated plate. The flexible assembly may be disposed within at least a portion of a distal portion of an articulating shaft and at least a portion of an articulation connector of the surgical device.
A control system for a robotic surgical system is disclosed. The control system includes a control circuit configured to determine a closure force applied to a closure member, determine a position of a firing member, and set a new closure force based on the closure force applied to the closure member and the position of the firing member.
A method of adjusting velocity in a motorized surgical instrument is provided. The surgical instrument comprises a displacement member configured to translate within the surgical instrument over a plurality of predefined zones, a motor coupled to the displacement member to translate the displacement member, a control circuit coupled to the motor, a position sensor coupled to the control circuit, the position sensor configured to measure the position of the displacement member and a timer circuit coupled to the control circuit, the timer circuit configured to measure elapsed time. The method includes setting a directed velocity of the displacement member; determining an actual velocity of the displacement member; determining an error between the directed velocity of the displacement member and the actual velocity of the displacement member; and controlling the actual velocity of the displacement member based on the magnitude of the error.

No. of Pages : 135 No. of Claims : 6
A variety of methods for managing a re-usable ultrasonic medical device may include a medical device control module capable of receiving functional data from a user assembled or reassembled ultrasonic medical device, and notifying the user if a value of the functional data lies within an acceptance range. If the value of the functional data does not lie within the acceptance range, the control module may prompt a user to reassemble the device or to clean or replace one or more components thereof. The functional data may relate to a clamp force of a jaw assembly, an impedance or resonant frequency value of an ultrasonic blade, or a mechanical displacement value of one or more moving components of the device.
Title of the invention: SURGICAL END EFFECTOR FOR APPLYING ELECTROSURGICAL ENERGY TO DIFFERENT ELECTRODES ON DIFFERENT TIME PERIODS

An end effector is disclosed. The end effector includes a first jaw and a second jaw configured to move from a first position to a second position. The second jaw includes a channel and a cartridge removably coupled to the channel. A first electrode is configured to apply electrosurgical energy to a tissue and a second electrode is configured to apply electrosurgical energy to the tissue. In the second position a distance between the first electrode and the first jaw is greater than a distance between the second electrode and the first jaw. The first electrode is configured to apply electrosurgical energy to the tissue when the first and second jaws are moving from the first position to the second position, and the second electrode is configured to apply electrosurgical energy to the tissue in the second position.
**Title of the invention:** SURGICAL SHAFT ASSEMBLIES WITH SLIP RING ASSEMBLIES FORMING CAPACITIVE CHANNELS

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**Name of Inventor:**
1) YATES, David C.
2) SHELTON, Frederick E., IV.

**Abstract:**
A surgical shaft assembly includes a slip ring assembly. The slip ring assembly has a first connector, a first conductor mounted on the first connector, and a first water-proof insulative layer on the first conductor. The slip ring assembly has a second connector rotatable relative to the first connector, a second conductor mounted on the second connector, and a second water-proof insulative layer on the second conductor. The slip ring assembly also has a dielectric layer located between the first water-proof insulative layer and the second water-proof insulative layer. The first conductor and the second conductor are configured to form a capacitive channel therebetween.
**Title of the invention:** DUAL-CORE FOCUSING IMAGE SENSOR, FOCUSING CONTROL METHOD THEREOF, AND IMAGING DEVICE

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**Abstract:**

Disclosed in the present application are a dual-core focusing image sensor, a focusing control method thereof, and an imaging device. The dual-core focusing image sensor comprises a photosensitive unit array, a filter unit array provided on the photosensitive unit array, and a microlens array positioned on the filter unit array; the microlens array comprises first microlenses and second microlenses; the first microlenses are oval; one of the first microlenses covers one white filter unit; one white filter unit covers one focusing photosensitive unit; the area of the white filter unit is a half of that of the focusing photosensitive unit; the other half of the focusing photosensitive unit is covered with multiple second microlenses; one second microlens covers one dual-core focusing photosensitive pixel. The present application can increase the amount of light passing through focusing pixels, and provide a hardware basis for improving the focusing speed in a low light environment and ensuring the accuracy of image color reproduction.

No. of Pages: 19  No. of Claims: 15
The present invention relates a new process for the preparation of ozanimod of the formula and acid addition salts, via new intermediates and a new polymorph form of ozanimod base.

No. of Pages : 34 No. of Claims : 37
Disclosed is a method for preparing an N-acyl ortho-aminobenzamide (I). The method comprises: reacting a substituted ortho-aminobenzoic acid compound (II) with a pyrazolecarboxylic acid compound (III) under the action of a phosphorus reagent and an alkali to obtain a benzoxazinone intermediate (IV), the benzoxazinone intermediate being reacted with a proton acid salt of methylamine for ring opening so as to obtain the N-acyl ortho-aminobenzamide (I), which is expressed by the reaction formula: X is hydrogen, chlorine or cyano, and HY is a hydrohalic acid, sulfuric acid, phosphoric acid or a carboxylic acid. The method has a simple operation, a mild reaction, less three wastes and a high total yield, and is suitable for industrial production.
METHOD FOR PREPARING ISOXAZINONE COMPOUND AND APPLICATION THEREOF

The present invention discloses a method for preparing an isoxazinone compound (I) and an application thereof. The method and the application thereof comprise: reacting a compound (II) and carboxylic acid (III) under the action of a dehydrating agent and a base, to obtain an isoxazinone compound (I), and then subjecting the isoxazinone compound (I) to a ring opening reaction with a salt (IV) of a protonic acid of an amino compound or R3OH (VII) under the action of a base, to give a bisamide compound (V) or an N-acyl benzoate compound (VI). The method has the advantages of low-cost and easily-available raw materials, low production cost, simple operations, and mild reactions, avoiding the problem of sulfur-containing organic acid wastewater caused by use of organic reagents such as methanesulfonyl chloride, and producing less industrial waste, the produced waste being easy to handle, and is suitable for industrial production.
The present invention relates to antibodies and antigen binding fragments thereof, which bind to a complex of GARP and TGF-1, particularly a complex of human GARP and human TGF-1. These antibodies and antigen binding fragments exhibit a combination of advantageous properties including high affinity antigen binding and the ability to inhibit the release of active TGF- from regulatory T cells. The antibodies and antigen binding fragments of the present invention are relatively resistant to deamidation, isomerization and oxidation, such that they display improved stability.
Two-positioning blocking device of a washing drum, comprising one position sensor (1) of a washing drum, one blocking disc (2) with at least two cut-out sections (2a, 2b) provided on its circumference and with more than one positioning strip (16), wherein the strip (16) is firmly connected to a rotary part of a component of the washing drum, one blocking element (4) intended to be inserted into one of the cut-out sections (2a, 2b) of the blocking disc (2), controlled by at least one actuating member, which is connected to a control system of a washing machine, whereas the blocking element (4) is controlled directly by the actuating member or via a scroll bar (6), and at least two controlling micro-switches (13, 15), which are intended to signalize a position of the blocking element (4) and are able to communicate with the control system of the washing machine.
The present disclosure provides for IL2 engrafted into the CDR sequences of an antibody having preferred therapeutic profiles over molecules known and used in the clinic. In particular, the provided antibody cytokine engrafted protein compositions increase or maintain CD8+ T effector cells while reducing the activity of Treg cells. Additionally, provided compositions convey improved half-life, stability and produceability over recombinant human IL2 formulations such as Proleukin®.

CT26 syngeneic tumor model

![CT26 syngeneic tumor model graph]

No. of Pages : 72 No. of Claims : 50
(54) Title of the invention : NOVEL MONOCLONAL ANTIBODIES TO CYTOTOXIC T-LYMPHOCYTE-ASSOCIATED PROTEIN 4 (CTLA-4)

(51) International classification : C07K16/28, C12N15/13, A61K39/395

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(32) Priority Date : NA
(33) Name of priority country : NA

(86) International Application No : PCT/CN2017/085134
Filing Date : 19/05/2017


(61) Patent of Addition to Application Number : NA
Filing Date : NA

(62) Divisional to Application Number : NA
Filing Date : NA

(57) Abstract :
The present invention provides CTLA-4 monoclonal antibodies, particularly humanized monoclonal antibodies specifically binding to CTLA-4 with high affinity. The present invention also provides functional monoclonal antibodies cross-reactive to CTLA-4 of human, cynomolgus monkey and mouse. The present invention further provides amino acid sequences of the antibodies of the invention, cloning or expression vectors, host cells and methods for expressing or isolating the antibodies. The epitopes of the antibodies are identified. Therapeutic compositions comprising the antibodies of the invention are also provided. The invention also provides methods for treating cancers and other diseases with anti-CTLA-4 antibodies.

No. of Pages : 47 No. of Claims : 35
Title of the invention: CHANNEL LOCATION INDICATION METHOD, AND RELATED PRODUCT

| (51) International classification | :H04W72/04 |
| (31) Priority Document No | :NA |
| (32) Priority Date | :NA |
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| Filing Date | :NA |

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Name of Inventor:
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2) XU, Hua

Abstract:
Disclosed in embodiments of the present invention are a channel location indication method, and related product. The method comprises: a network apparatus sending at least one indication information item, the at least one indication information item being configured to indicate a location offset between a data channel and a first control channel or between a second control channel and the first control channel, the location offset comprising a time-domain location offset and/or frequency-domain location offset, and the time-domain location offset being an offset at a symbol level. The embodiments of the present invention improve flexibility and efficiency of channel resource allocation in a wireless communication system.
**Title of the invention:** POWERED CIRCULAR STAPLER WITH RECIPROCATING DRIVE MEMBER TO PROVIDE INDEPENDENT STAPLING AND CUTTING OF TISSUE

**International classification:** A61B17/115, A61B17/072, A61B17/00

**Priority Document No:** 15/634556
**Priority Date:** 27/06/2017
**Name of priority country:** U.S.A.

**International Application No:** PCT/US2018/039698
**Filing Date:** 27/06/2018

**International Publication No:** WO/2019/005925

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5) SHELTON, IV, Frederick E.

**Abstract:**
An apparatus includes a shaft assembly and an end effector. The shaft assembly includes an outer sheath and a staple driving mechanism. The end effector includes a staple deck, an anvil, a first staple driver, and a second staple driver. The staple deck defines a plurality of staple openings in at least one annular array. Each staple opening in the plurality of staple openings houses a staple. The anvil is configured to actuate relative to the staple deck to compress tissue between the staple deck and the anvil. The staple driving mechanism is configured to actuate the first staple driver to fire a first staple of the plurality of staples against the anvil. The staple driving mechanism is further configured to actuate the second staple driver independently of the first staple driver to fire a second staple of the plurality of staples against the anvil.
**Title of the invention:** METHOD FOR DETERMINING TRANSMISSION PARAMETERS OF UPLINK SIGNAL, TERMINAL AND NETWORK DEVICE

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**Abstract:**

Disclosed in the present application are a method for determining transmission parameters of an uplink signal, a terminal, and a network device. The method comprises: a terminal determining a first sounding reference signal (SRS) resource set; the terminal receiving first instruction information sent by a network device, the first instruction information being used for instructing the terminal to transmit an aperiodic SRS; the terminal determining a target SRS resource set according to the first instruction information and the first SRS resource set; the terminal sending to the network device the aperiodic SRS on an SRS resource of the target SRS resource set; the terminal receiving second indication information sent by the network device, the second indication information being used for indicating a target SRS resource of the target SRS resource set; and the terminal determining, according to the target SRS resource, transmission parameters for transmitting an uplink signal to be transmitted. In the embodiments of the present application, the terminal can determine, according to the target SRS resource, the transmission parameters for transmitting the uplink signal to be transmitted, avoiding the situation where in the prior art, the SRS resource can only be used for transmitting an SRS so as to evaluate a channel state, such that the SRS resource can be appropriately used.
Title of the invention: LATERAL FLOW CHROMATOGRAPHIC ASSAY FOR TUBERCULOSIS (TB)

Abstract:
TB-KIT is a lateral flow chromatography assay for evaluation of TB condition in mammals whatever the affected organ or part of the body, using erythrocytes hemolysate as the sample. The primary antibodies used are prepared in animals using a purified protein extract from laboratory cultures of Mycobacterium tuberculosis complex. Conjugated primary antibodies comprise an indicator dye which is currently available in many varieties. After adding the sample to test strip, Mycobacteriums analyte are attached to conjugated antibodies forming a complex which migrate along a lateral-flow assay membrane. Eventually, the complex contacts membrane bound antibodies forming antibody-conjugated-analyte-antibody sandwich, and produce a detectable signal (Fig. No. 3). Based on concentration of analyte in the sample, one can differentiate between disease, latent infection, immune, and susceptible. Consequently, in semi-quantitative approach, one use different dilutions to diagnose the occurrence/state of disease.
(12) PATENT APPLICATION PUBLICATION  
(21) Application No.201917048429 A  
(19) INDIA  
(22) Date of filing of Application : 26/11/2019  
(43) Publication Date : 24/01/2020  

(54) Title of the invention : SEAL PACKAGING MACHINE FOR FOOD CONTAINER

| (51) International classification | B65B65/02,B65B7/16 |
| (31) Priority Document No | :10-2017-0061924 |
| (32) Priority Date | :19/05/2017 |
| (33) Name of priority country | :Republic of Korea |
| (86) International Application No | :PCT/KR2018/005798 |
| Filing Date | :21/05/2018 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

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(72) Name of Inventor :  
1) LEE, Bo-Young

(57) Abstract :  
The present invention relates to a seal packaging machine for a food container wherein a heater unit for sealing a film is configured to evenly operate upward/downward following an operation of an eccentric cam of a heater unit driving portion while the heater unit remains horizontal along four heater unit driving support shafts installed on four sides, thereby preventing occurrence of defects due to imbalance of the heater unit; a tray for introducing a food-carrying container into the packaging machine is configured to move stably forward/backward without vibrating leftward/rightward while engaging with a ?-shaped guide by means of a ?-shaped guide rail such that the food container is more accurately seated in the designated position in which sealing occurs, thereby guaranteeing an accurate sealing operation; the heater unit driving support shafts of the heater unit driving portion that operates the heater unit upward/downward and a heater unit driving portion support plate connected thereto are configured to operate upward/downward while being stably supported by two roller bearings mounted on the left and right end portions and by two eccentric cams contacting the same such that a more smooth operation can occur with no concern of erroneous operations, in spite of wear or allowable tolerances of the heater unit driving support shafts and the bearings; and a motor is fixedly installed on a bottom frame so as to drive upward/downward the heater unit driving support shafts and the heater unit driving portion support plate of the heater unit driving portion such that, by preventing direct transfer of load resulting initial rotational power of the motor to the heater unit driving support shafts and to the bearings, the heater unit driving portion can operate more smoothly.

No. of Pages : 13 No. of Claims : 5
The method for searching and identifying a genetic condition prodromal of the onset of solid tumors in a healthy subject includes an evaluation cycle of a genetic stability or instability condition and at least one repetition cycle of said evaluation. The repetition cycles are carried out periodically on the subject, with the frequency depending on the result of the previous cycle. Each cycle includes the steps of: - taking a sample of biological material, isolating the DNA from the biological material, amplifying and sequencing the isolated DNA; - verifying the presence of mutations selected in a predetermined set of genes of the sample under consideration, said set of genes and said mutations being associated with the onset of solid tumors; - the predetermined set of genes including either a subset of the panel of genes or hotspots connected to one or more solid tumors, or the entire panel of genes connected to solid tumors; - verifying the frequency of mutations detected for each gene and for each evaluation cycle, the mutations being selected from the aforementioned selected mutations; - recording the mutations detected for each gene or group of genes and their frequency; - defining or updating a genetic instability index of the subject, either overall (IT) or for a single gene (IG), for each repetition cycle, based on the frequency of mutations detected and on the basis of the increase in the frequency of mutations; - evaluating, in each repetition cycle, the subject's entry into a prodromal genetic condition upon the onset of one or more solid tumors or groups of solid tumors on the basis of a threshold value (ITS,JGS) of the genetic instability index (IT,JG), defined for each single gene or group of genes, being exceeded.
Title of the invention: INDUCTION-HEATING WELDING METHOD FOR VACUUM GLASS

Abstract:
An induction-heating welding method for vacuum glass. The vacuum glass comprises an upper glass substrate and a lower glass substrate. Metal layers are prepared in regions to be sealed of the upper glass substrate and the lower glass substrate. A continuous solder is distributed on the metal layer in the region to be sealed of the lower glass substrate. The upper glass substrate and the lower glass substrate are superposed. During welding, the center of a high-frequency induction welding head moves forward along the center line of the width direction of the metal layers; during induction heating of corner regions of the metal layers, the position of a moving trajectory of the center of the high-frequency induction welding head relative to the center line of the width direction of each metal layer is changed, so that the moving trajectory of the center of the high-frequency induction welding head deviates from the center line of the width direction of the metal layers, and thus, induction power of the metal layers in the corner regions are reduced, and overheating of the metal layers in the corner regions is avoided.
A vacuum glass product, comprising: a first glass substrate (6); a second glass substrate (10) disposed opposite to the first glass substrate (6); a sealing structure (12) provided between the first glass substrate (6) and the second glass substrate (10) and used for airtight binding of the first glass substrate (6) and the second glass substrate (10) to form a vacuum cavity (11); and a support (2) provided inside the vacuum cavity for bearing pressure from the first glass substrate (6) and the second glass substrate (10). The sealing structure (12) comprises: metal layers (7, 9) which are fixedly bound to opposite surfaces of the first glass substrate (6) and the second glass substrate (10), respectively, and an intermediate solder layer (10) which connects the two metal layers. The sealing structure has arc-shaped transition structures at the corner areas of the glass substrates. By changing the shape of the sealing structure at the corner areas of the glass substrates, i.e., replacing break corners with arc-shaped transition, the time for repeatedly heating internal corner parts of a welding strip is reduced during induction welding and heating of the welding strip at the corner areas is more uniform.
(57) Abstract:
A spectroscope includes a light source, at least one static optical element for manipulating or structuring light, at least two adaptive optical elements and at least one detector. The at least two adaptive optical elements are configured to partition an optical function of spectral sorting from at least one of the following optical function: routing, attenuation, and/or encoding. The light source, the at least one static optical element, and the at least two adaptive optical elements are configured to direct light from the light source into first and second distinct light channels, the first light channel containing a sample to be analyzed.
The present invention relates to immunoglobulins that specifically bind MMP13 and more in particular to polypeptides, nucleic acids encoding such polypeptides; to methods for preparing such polypeptides; to compositions and in particular to pharmaceutical compositions that comprise such polypeptides, for prophylactic, therapeutic or diagnostic purposes. In particular, the immunoglobulins of the present invention inhibit an activity of MMP13 and preferably are also stable.
The present invention provides a method for evaluating a processing deterioration level of a medical glass container, including (a) a step of imaging a surface of a medical glass container molded from a borosilicate glass tube to obtain an image, and (b) a step of analyzing a contrast of the image. The method is particularly useful to evaluate the amount of alkali substances which are deposited on the inner side surface of a medical glass container.
Butadiene-isoprene diblock copolymer formed by a block of crystalline polybutadiene (hard block) and by a block of amorphous polyisoprene (soft block). Said butadiene-isoprene diblock copolymer can be advantageously used both in the footwear industry (for example, in the production of shoe soles), and in the production of tires for motor vehicles and/or trucks.
A composition that includes at least one target supplement and at least one rehydration formulation is described. When the at least one target supplement is ingested as part of the composition, the bioavailability of at least one target supplement is enhanced as compared to when it is ingested separate from the composition. The at least one target supplement is absorbed more quickly and in a greater amount when it is ingested as part of the composition than when it is ingested separate from the composition. The composition also hydrates a subject.
A coiling temperature control system is provided with: a lower controller (6); a control network (4); and a CTC computer (10). The lower controller (6) acquires material information pertaining to material to be rolled (1), finishing setting information, and coiler setting information from a sheet rolling computer (5) via an information network (3). When target material to be rolled is upstream of a finishing mill (23), a tracking unit (11) for the CTC computer (10) inputs material information pertaining to the target material to be rolled, finishing setting information, and coiler setting information that is output to a control network (4) from the lower controller (6) in that order and outputs a setting calculation request. A CTC setting calculation unit (12) of the CTC computer (10) inputs the setting calculation request and performs setting calculations for calculating CTC setting information for cooling the target material to be rolled on the basis of the material information pertaining to the target material to be rolled, the finishing setting information, and the coiler setting information.
Title of the invention: COMBINATION THERAPIES FOR TREATING CANCERS

Abstract:
Provided are combination therapies and related compositions and methods for treating cancers, including epithelial tumors, which include a combination of at least two agents such as an epidermal growth factor receptor (EGFR) inhibitor, a mitogen-activated protein kinase (MEK) 1/2 inhibitor; and a cyclin dependent kinase (CDK) 4/6 inhibitor.
A thermal trigger assembly for remote mechanical actuation of another fire protection system component includes an activation component with a distal base, a distal movable member, a proximal base, a proximal movable member, and a bias member biasing the proximal movable member from a preactivation position to an activated position located proximally of the preactivation position. A thermally responsive element is retained by the distal base, loses structural integrity under occurrence of a predetermined thermodynamic condition, and thereby allows the distal movable member to move from a preactivation position to an activated position with respect to the distal base. A flexible connector connects the proximal movable member to the distal movable member. Upon the loss of structural integrity by the thermally responsive element, a biasing force from the bias member causes a movement of the proximal movable member from the preactivation position to the activated position.
The purpose of the present invention is to provide a resin composition that can be cured at a temperature of as low as 80 degrees or less, preferably at room temperature, that has fewer components that volatilize during use (application) or during curing, and that is preferably used as a one-part adhesive in production of an image sensor module or an electronic part. The resin composition according to the present invention contains one or more 2-methylene 1,3-dicarbonyl compounds. At least one of the one or more 2-methylene 1,3-dicarbonyl compounds has a molecular weight of 220-10,000. The weight proportion of 2-methylene 1,3-dicarbonyl compounds having a molecular weight of less than 220 is 0.00-0.05, when the weight of the entire resin composition is defined as 1. In addition, the 2-methylene 1,3-dicarbonyl compounds contain a structural unit represented by formula (I).
A technique includes receiving a plurality of speed control requests from a plurality of components of a processing pipeline for a printing press system. The technique includes controlling the speed of the printing press system based on the plurality of speed control requests.
Title of the invention: PEER TRANSACTION SYSTEM

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Abstract:
A device implementing a peer transaction system may include at least one processor configured to receive, within a messaging application, a request to send a transaction amount from a first user to a second user. The at least one processor may be further configured to transmit, to a mobile transaction system, a request to transfer the transaction amount from a first debit account of the first user to a second debit account of the second user. The at least one processor may be further configured to receive, from the mobile transaction system, a confirmation that the transaction amount has been transferred from the first user to the second user. The at least one processor may be further configured to transmit, via the messaging application, a message to the second user that indicates that the transaction amount has been sent from the first user to the second user.

No. of Pages: 33 No. of Claims: 20
A method and a system for managing marketers (4) and influencers (3) run on a processing system and its supporting apparatuses, comprising a recording process, the first sequence, identifying the marketer (4)’s job details by credits, wherein the recording process shows screening alternatives for screening influencers (3). The second sequence is to match the jobs and the influencers (3) according to the screening at the early stage. The matching procedure consists of sending and representing the alternatives for preferring jobs on the influencer (3)’s client apparatuses (2), wherein the formerly processing system is responsible for gathering social media data from the representation of the job description on the influencer (3)’s client apparatuses (2). The last sequence is to create the reports and transferring credits into the influencers (3) received jobs from the job database, wherein the processing unit (1) operates a series of databases comprising social network data, the influencer (3)’s personal data, jobs databases, and the credit management unit.
The Patent Office Journal No. 04/2020 Dated 24/01/2020

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :26/11/2019
(21) Application No.201917048482 A
(43) Publication Date : 24/01/2020

(54) Title of the invention : VEHICLE WITH CONTEXT SENSITIVE INFORMATION PRESENTATION

| (51) International classification | :B60P3/025,G09F21/04,B60R16/023 |
| (31) Priority Document No | :62/522583 |
| (32) Priority Date | :20/06/2017 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No | :PCT/US2018/037537 |
| Filing Date | :14/06/2018 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

(57) Abstract :
Vehicles, components, and methods present information based on context, for example presenting a first list or menu of items (e.g., food) or first set of signage or color scheme when in a first location or during a first period, and presenting a second list or menu of items (e.g., food) or second set of signage or color scheme when in a second location or during a second period. For instance, a first menu of items (e.g., relatively more expensive entrees, beverages) may be displayed via one or more displays or screens at a first location during a first period, and a second menu of items (e.g., relatively less expensive entrees, beverages) may be displayed at a second location during a second period. Context (e.g., present location, destination, date, day, period of time, event, size of crowd, movement of crowd, weather) may be manually provided, or autonomously discerned, and presentation automatically.

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FIG. 1A

No. of Pages : 78 No. of Claims : 25
A device (400) of detecting a current (405) from a sensor (490) is disclosed. The device comprising: an integrating circuit (435) including a network of capacitors (430) for providing a gain setting and configured to convert the current to a voltage ramp over a length of integration time, the integrating circuit further including a reset switch (420) configured to connect an input and an output of the network of capacitors; an ADC (440) configured to digitize the voltage ramp into a plurality of voltage samples; and a set of modules (480) including an analyzing module (482) configured to analyze the plurality of voltage samples to determine a slope of the voltage ramp; an outputting module (488) configured to determine a magnitude of the current based on the slope of the voltage ramp and the gain setting; and a reconfiguring module (484) that is configured to reconfigure the network of capacitors and reset the voltage ramp via the reset switch.

No. of Pages : 32 No. of Claims : 21
Provided are a catalyst precursor for producing a catalyst having a high yield of methacrylic acid, a catalyst, and a method for producing methacrylic acid and a methacrylic acid ester. A catalyst precursor including a heteropoly acid salt is used, the catalyst precursor having, in an X-ray diffraction pattern in which an anti-cathode Cu-Kα line is used, a peak P1 in which $2\theta = 26.16^\circ \pm 0.06^\circ$ and a peak P2 that is further toward the high-angle side than the peak P1 and is equal to or less than $26.44^\circ$. Moreover, a catalyst precursor is prepared in which the ratio $(I_1/I_2)$ of the height $I_1$ of peak P1 relative to the height $I_2$ of peak P2 is 0.05-0.92. In addition, a catalyst is produced from the catalyst precursor, and methacrylic acid is produced from methacrolein using the catalyst.
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<td>(43) Publication Date : 24/01/2020</td>
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<th>(54) Title of the invention : ACTIVE FILTER SYSTEM AND AIR CONDITIONING DEVICE</th>
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| (51) International classification :H02M1/12,H02J3/01,H02M1/42 |
| (31) Priority Document No :2017-139331 |
| (32) Priority Date :18/07/2017 |
| (33) Name of priority country :Japan |
| (86) International Application No :PCT/JP2018/026865 |
| Filing Date :18/07/2018 |
| (87) International Publication No:WO 2019/017373 |

| (61) Patent of Addition to Application Number :NA |
| Filing Date :NA |

| (62) Divisional to Application Number :NA |
| Filing Date :NA |

| (57) Abstract : |
| Provided are a plurality of active filter devices (41, 42, 43), outputs of which are connected to a harmonic wave generation loader (2) and which can generate compensation current for performing at least one among a reduction in harmonic wave current of the harmonic wave generation loader (2) and an improvement in the power factor of a fundamental wave. The plurality of active filter devices (41, 42, 43) include two or more kinds of capacities, and the activation number and combination of the active filter devices (41, 42, 43) are changed according to the magnitude of the compensation current. |

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| (72) Name of Inventor : |
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| 2) KAWASHIMA Reiji |
| 3) FUJITA Takayuki |

No. of Pages : 34 No. of Claims : 7
Dry-type transformers with insulating modules are disclosed. Example insulating modules comprise dielectric screens and supporting blocks. The supporting blocks support the dielectric screens over windings of the transformer. The dielectric screens have first substantially even portions configured to adapt in spaces defined by corresponding cylindrical barriers arranged between first and second windings of the transformers and second substantially even portions, transversal to the first portions and to the first windings of the transformers and extending outwards from the first portions and beyond the supporting blocks. The dielectric screens partly extend around a winding.

Fig. 1

No. of Pages : 11 No. of Claims : 16
Title of the invention: USE OF TYPE V ADSORBENT AND GAS CONCENTRATION FOR CO2 ADSORPTION AND CAPTURE

Abstract:
Systems and methods for cooling a feedstream, for concentration of a sorbate in the feedstream and subsequent adsorption utilizing a Type V adsorbent are provided. Preferentially, CO2 is adsorbed on 2,2-dimethyl-1,3-diaminopropane (dmpn) appended to Mg2(dobpdc) (dobpdc = 4,4-dioxido-3,3-biphenyldicarboxylate) or on N,N-dimethylethylenediamine (mmen) appended to Mg2(dobpdc).
This plated steel material is provided with: a steel material; a zinc-based electroplated layer formed on a surface of the steel material; and an organic resin coating layer formed on a surface of the zinc-based electroplated layer. The surface of the zinc-based electroplated layer has hairlines extending in a prescribed direction. The surface of the zinc-based electroplated layer has an Ra (ML) of 0.10 to 0.70 μm. In the surface of the zinc-based electroplated layer, a peak count PPI at a reference level of 10 μinch measured in a direction orthogonal to the hairlines with respect to Ra (MC) satisfies PPI ≥ 350 — Ra (MC). In a surface of the organic resin coating layer, Ra (CC) with respect to Ra (CL) satisfies Ra (CC)/Ra (CL) ≥ 1.10, and the Ra (CC) with respect to the Ra (MC) satisfies Ra (CC) < Ra (MC).
Title of the invention : PROTECTIVE GARMENTS

Abstract:
Garments made from a composite, protective fabric (230) are disclosed. The composite fabric (230) has textile layers (121, 122, 240) placed in proximity to metallic mesh layers of woven stainless steel mesh. The metal mesh layers (125, 245) formed from any metal which forms suitable fibers. The textile layers (121, 122, 240) are fabric (230) formed with well-known fabric (230) fibers selected from those including para-aramid fibers, meta-aramid fibers, ultra-high molecular weight polyethylene fibers, polyethylene terephthalate fibers, cellulose fibers, polyamide fibers, a mixture of para-aramid fibers and meta-aramid fibers, and a mixture of para-aramid fibers and carbon fibers. Forming the non-metal textile layers (121, 122, 240) is by any suitable method for interlacing yarns including weaving, knitting, crocheting, knotting, or felting, or combinations thereof. The garments made using the fabric (230) include gloves (405), bullet proof vests and chain-saw resistant trousers.

No. of Pages : 20  No. of Claims : 12
**Title of the invention:** DEVICE AND METHOD FOR SECURING END OF BRAIDED HOISTING ROPE TO LIFTING DEVICE

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**(57) Abstract:**

A device for securing an end of a braided hoisting rope (1) to a lifting device, the device comprising a tubular fastening frame (2) to be fixed to the lifting device; and a coil spring (3) which is arranged to be installed and fastened over the tubular fastening frame (2); whereby when the end of a hoisting rope (1) is fastened in place, the hollow, or workable into hollow, end of the hoisting rope (1) is threaded over the windings of the coil spring (3) as the outer surface of the windings and into contact with, or to be brought into contact with the outer periphery of the tubular fastening frame (2). The invention additionally relates to method for securing an end of a braided hoisting rope (1) to a lifting device.
Title: HOT-PRESSED MEMBER AND METHOD FOR MANUFACTURING SAME, AND COLD-ROLLED STEEL SHEET FOR HOT PRESSING AND METHOD FOR MANUFACTURING SAME

Abstract:
In the hot-pressed member according to the present invention, after the component composition thereof is properly adjusted, the microstructure thereof is configured so that the average grain size of prior austenite crystal grains is 7.5 µm or less, the volume fraction of martensite is 95% or greater, there are an average of 10 or more Nb- and Ti-based deposits having a grain size of less than 0.10 µm per 100 µm² of a cross section parallel to the thickness direction of the member in a range from the member surface to a depth of 100 µm or less in a sheet thickness direction, and the B concentration of prior austenite grain boundaries is also at least 3.0 times the B concentration in a position separated 5 nm from the grain boundaries, whereby the hot-pressed member can be provided with an extremely high tensile strength TS of 1780 MPa or greater after hot pressing as well as excellent resistance to cracking in resistance welding.

No. of Pages : 40 No. of Claims : 10
The present invention generally relates to a process for the preparation of certain anticancer compounds as specific phosphate diastereoisomers.

No. of Pages : 60 No. of Claims : 52
**Title of the invention:** MECHANICALLY EXPANDABLE HEART VALVE

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**Abstract:**

In one embodiment, a prosthetic valve can comprise a radially expandable and compressible frame, which can include a plurality of struts which are pivotally joined together without requiring individual rivets. In some embodiments, the struts are interwoven, and can be joined using integral hinges formed in the struts, such as by performing alternate cuts on the struts, bending the struts to form stopper tabs adjacent to joints and/or drilling holes in the struts to facilitate interconnecting struts at joints, or otherwise forming integral hinges and corresponding holes at junction points between the struts. In another embodiment, the frame comprises a plurality of inner struts and outer struts which are connected by a plurality of chains of interconnected rivets, avoiding the need to provide individual rivets at each junction between struts. In still another embodiment, separate hinges are provided to interconnect the struts. In still another embodiment, separate flanged rivets are provided to connect the struts.

**Fig. 2**

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No. of Pages : 58 No. of Claims : 19
Abstract:
Described herein is a barrier coating composition comprising an organic blend comprising a first component and a second component, the first component comprising latex polymer and the second component being selected from polyurethane emulsion, wax emulsion, and alkyd emulsion, wherein the first component and the second component are present in a weight ratio ranging from about 2:1 to about 20:1, and the latex polymer has a glass transition temperature of less than about 18 C.
Provided is a negative electrode material which is for a lithium ion secondary battery and comprises a carbon material which satisfies (1) and (2). (1) Adsorption amount of CO2 is 0.10 cm3/g-0.40 cm3/g. (2) Oil absorption amount of linseed oil is at most 50 ml/100g.
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(57) Abstract:
Embodiments of the present application provide an information determination method, a terminal apparatus, and a network apparatus, for enhancing timing and/or frequency tracking/synchronization performance, and improving overall system performance. The method comprises: a terminal apparatus receiving first configuration information sent by a network apparatus, the first configuration information being used to configure at least one CSI-RS resource group and to indicate a first offset for the at least one CSI-RS resource group, wherein each CSI-RS resource group comprises P CSI-RS resources, the at least one CSI-RS resource group is for determining a first signal, the first signal occupies Q time slots, and P and Q are integers greater than or equal to 2; the terminal apparatus receiving first instruction information sent by the network apparatus, the first instruction information triggering the terminal apparatus to receive the first signal; and the terminal apparatus receiving, in response to the first instruction information, the first signal according to the first configuration information.

No. of Pages : 60 No. of Claims : 15
The invention relates to a method (100) for separating a starting mixture which largely contains hydrogen, methane, and hydrocarbons with two or two and more carbon atoms, wherein at least one part of the starting mixture is cooled, thereby forming one or more condensates, using one or more heat exchangers (101, 103, 105, 107), and at least one part of the condensate(s) undergoes a rectification process, thereby forming a gaseous methane-enriched fraction. The gaseous methane-enriched fraction is at least partly used to form a first fluid flow which is condensed to a liquefaction pressure level of 35 to 45 bar in the composition which is unchanged relative to the gaseous methane-enriched fraction and is at least partly liquefied by means of a cooling process, and the first fluid flow or a second fluid flow which is formed using the first fluid flow is expanded to a discharge pressure level and is heated in the heat exchanger or at least one of the heat exchangers (101, 103, 105, 107). The invention likewise relates to a corresponding system.
Title of the invention: DOWNHOLE APPARATUS AND ASSOCIATED METHODS

A centraliser (112) includes a number of members (118) extending between two collars (120) for mounting the centraliser (112) on a casing (110). The members (118) are configured to contact a wall (115) of the bore (114) and centraliser the casing (110) in the bore (114). The members (118) are radially moveable between the casing (110) and the bore wall (115). The members (118) further include an intermediate portion (119) and end portions (221), the end portions (221) being relatively more flexible than the intermediate portion (119).
The invention relates to a method for optimising the operation of a system for catalytic reforming. The system has a plurality of reactors containing a catalyst, through which working gas flows successively, wherein the composition of the working gas in the reactors changes and wherein a product results on the output side of the last reactor. According to the method, firstly specific constant properties and initial operating parameters of the system that are present during the operation are captured. A computational simulation of chemical processes in the reactors then takes place, wherein, in addition to the constant properties and the captured system operating parameters, results of a measurement of the chemical composition of the product resulting on the output side of the last reactor are incorporated. Then, a computational simulation of the chemical processes in the reactors is performed with different, varied operating parameters, wherein as varied operating parameters, in addition to a flow rate of molecular hydrogen, various temperatures of the working gas at the input of each reactor are also adjusted individually. A set of optimised operating parameters is determined from the calculated chemical composition.
The invention provides a method for stabilising biogenic polyamines, said biogenic polyamines being attached to galactomannans to increase the stability thereof in soil, organic soil conditioners or fertiliser compositions, thereby facilitating a concentration of these biogenic polyamines that is more stable against degradation over time.
A cellular communication system is disclosed in which user equipment (UE) initiates a random access channel (RACH) procedure by sending one or more messages, comprising a random access preamble, to a 5G base station, using one or more uplink carriers of a plurality of such carriers available for use by the UE. The base station selects an uplink carrier for initial access by the UE and informs the UE, as part of the RACH procedure, of the UL carrier selected by the base station.
(54) Title of the invention: DATA STRUCTURE, TRANSMISSION DEVICE, RECEIVING DEVICE, SETTLEMENT DEVICE, METHOD, AND COMPUTER PROGRAM

(51) International classification: G06Q20/06
(31) Priority Document No: 2017-098099
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(57) Abstract:
Provided is a very safe data structure for virtual currency data. Virtual currency data, which is used in conjunction with a settlement device that accepts payment when data sent from a prescribed device via a network has been received and when certain conditions have been met, includes virtual currency encryption data obtained by encrypting, according to a prescribed encryption method, issuer information including at least information pertaining to the issuer of the virtual currency data, amount information for specifying a monetary value, and settlement condition information specifying conditions for accepting payment by virtual currency.

No. of Pages: 98 No. of Claims: 23
A processor device has a CPU cooperating with an input device and an output device, under control of stored instructions, and is arranged to receive service requests at the input device, assign service requests received in successive time periods to respective batches of requests; access stored service provider data to identify available service providers from among a pool of service providers; after completing the assignment of service requests to a batch, perform a matching process to endeavour to match each service request of the batch of requests to a service provider; and for each service provider to whom a match is made, output a notification of the respective potential match from the output device.
The purpose of the present invention is to provide a composition which has an anti-inflammatory effect. An anti-inflammatory composition according to the present invention contains a compound represented by formula 1 as an active ingredient. In formula 1, R1 represents a hydrogen atom or a hydroxy group; and A represents a phenyl group which is optionally substituted by a hydroxyl group or a methyl group, or a cyclohexenyl group which is substituted by a hydroxyl group and a methylene group.
This invention relates to plant extracts containing nutritionally beneficial or medicinally active compounds. Some of these extracts, or the purified compounds contained therein, may be used for the nutritional support, prevention, treatment, or possible cure of various metabolic and other diseases and disorders in human beings and animals, including type 1 and type 2 diabetes, by regulating insulin signaling. This regulatory effect may include modulations of the levels and/or activity of the Insulin Receptor (IR), the Insulin-like Growth Factor (IGF) Receptor, and/or the Insulin Receptor Substrate (IRS) proteins in cells and tissues in the body.
Title of the invention: ORAL CARE PRODUCTS AND WHITENING COMPOSITIONS THEREOF

Abstract:
An oral care product, a whitening composition thereof, and methods for the same are disclosed therein. The oral care product includes an orally acceptable vehicle and the whitening composition. The whitening composition includes a whitening booster and a source of hydrogen peroxide. The whitening booster includes a salt of a monopersulfate.

No. of Pages: 26 No. of Claims: 10
A mobile device automatically determines which location of a plurality of locations of a vehicle a user of the mobile device is located at without knowing assistance of the user. The mobile device determines that the mobile device is likely in a moving vehicle and that the user is actively interacting with the mobile device. The mobile device captures an image via an optical sensor of the mobile device without assistance from the user for the capture. The mobile device determines a location of the user within the vehicle based upon an analysis of the image. The analysis includes an execution of a model that utilizes at least the captured image as an input to determine the location. The mobile device, after determining the location, performs one or more actions.
(51) International classification: G06Q30/02, G06Q30/06, G06Q20/34

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Filing Date: NA

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Filing Date: NA

(57) Abstract:
The present invention provides an adaptive payment card system and process for providing a customer (referred to herein as a cardholder) with a payment card (referred to herein as an adaptive payment card) that is issued by an issuing financial institution (an issuer), and linked to a card entity (such as MasterCard), where the product associated with the adaptive payment card can be changed without modification to the corresponding payment card and without requiring issuance of a new payment card.
**Title of the invention**: FOLDABLE MOBILE TERMINAL

**Abstract**:
A foldable mobile terminal, comprising: a housing assembly (30) comprising a first housing (31) and a second housing (32); a first rotating assembly (50) that is at least partially received in the first housing and can extend or retract with respect to the first housing in a sliding manner; a second rotating assembly (60) that is at least partially received in the second housing and can extend or retract with respect to the second housing in a sliding manner; a connecting strip (70) and two press pieces (71), the connecting strip spanning across the first rotating assembly and the second rotating assembly, and both ends of the connecting strip being respectively connecting to the first housing and the second housing in a relatively slidable manner by means of the press pieces; and a flexible display screen (10) provided on the first housing, the second housing, and the connecting strip.
Title of the invention: NOVEL BIPHENYL COMPOUND OR SALT THEREOF

Abstract:
The present invention provides: a compound represented by general formula (I) or a salt thereof; an LSD1 inhibitor which contains the compound or a salt thereof as an active ingredient; a pharmaceutical composition which contains the compound or a salt thereof; and an antitumor agent which contains the compound or a salt thereof as an active ingredient.

No. of Pages: 272  No. of Claims: 12
The present invention relates to a reconfigurable device (10) for dispensing/distributing tablets in the blister pockets of a packaging strip subjected to longitudinal movement in a substantially horizontal plane of a packaging machine comprising a blister-Packer (1), said reconfigurable device comprising a frame (11) designed to be mounted on the blister pack (1), said frame (11) comprising an attachment front wall preferably arranged vertically, at least one accessory (80) for dispensing/distributing said tablets in the blister pockets of the strip, said accessory being designed to be mounted removably on said frame, characterized in that it further comprises an intermediate interface (60) intended to be attached removably to the frame (11), against the attachment front wall thereof, in order to support said at least one accessory (80), said interface (60) including at least one drive member for driving a mobile element of the accessory/accessories that it supports.
Title of the invention : HINGE FOR FURNITURE WITH DEVICE FOR REGULATING THE CLOSING FORCE

Abstract:
Hinge (10, 10) for furniture comprising a fixed part (11) apt to be housed in a seat of a horizontal plane of the furniture structure, such as a base (1) or a top (2), and a moving part (12) apt to be housed in a seat of a door (4) of the furniture, in order to operate the door in opening and closing by means of a movement mechanism comprising at least one lever (18) connecting a pin (14) placed on said fixed part (11) of the hinge and a pin (15) placed on said moving part (12), wherein the closing force of the door is determined by spring means (20) acting on a pusher (21) that exerts a thrust force on a rocker arm (22), against which said lever (18) of the door movement mechanism acts, wherein means are provided apt to vary the distance of said spring means (20) from a pivot pin (23) of the rocker arm (22), in order to vary the lever arm and consequently the reaction force of the movement lever (18) and therefore the closing force of the door.
Self-righting articles, such as self-righting capsules for administration to a subject, are generally provided. In some embodiments, the self-righting articles may be configured such that the article may orient itself relative to a surface (e.g., a surface of a tissue of a subject). The self-righting articles described herein may comprise one or more tissue engaging surfaces configured to engage (e.g., interface with, inject into, anchor) a surface (e.g., a surface of a tissue of a subject). In some embodiments, the self-righting article may have a particular shape and/or distribution of density (or mass) which, for example, enables the self-righting behavior of the article. In some embodiments, the self-righting article may comprise a tissue interfacing component and/or a pharmaceutical agent (e.g., for delivery of the active pharmaceutical agent to a location internal of the subject). In some cases, upon contact of the tissue with the tissue engaging surface of the article, the self-righting article may be configured to release one or more tissue interfacing components. In some cases, the tissue interfacing component is associated with a self-actuating component. For example, the self-righting article may comprise a self-actuating component configured, upon exposure to a fluid, to release the tissue interfacing component from the self-righting article. In some cases, the tissue interfacing component may comprise and/or be associated with the pharmaceutical agent (e.g., for delivery to a location internal to a subject).
The invention present provides a method (and suitable apparatus) to convert biomass to ethanol, comprising gasifying the biomass to produce raw syngas; feeding the raw syngas to an acid-gas removal unit to remove at least some CO2 and produce a conditioned syngas stream; feeding the conditioned syngas stream to a fermentor to biologically convert the syngas to ethanol; capturing a tail gas from an exit of the fermentor, wherein the tail gas comprises at least CO2 and unconverted CO or H2; and recycling a first portion of the tail gas to the fermentor and/or a second portion of the tail gas to the acid-gas removal unit. This invention allows for increased syngas conversion to ethanol, improved process efficiency, and better overall biorefinery economics for conversion of biomass to ethanol.
A method and apparatus for testing rings cut from pipes for use in making subsea pipelines are described. The method for determining the whether a test ring is correctly assembled in a test chamber for testing pipes for use in making subsea pipelines comprises:

mounting a test ring in a pressure chamber such that the ends of the test ring forms seals with opposing surfaces of the chamber to isolate the inside of the test ring from the outside; providing means for measuring the displacement of the test ring; providing means for measuring a force applied to the inner surface of the test ring; applying a force to the inner surface of the test ring; and using the displacement measurement and force measurements to determine whether the test ring is correctly mounted in the pressure chamber.
A method of determining a minimum wall thickness for a pipe joint for use in a subsea pipeline comprises the steps of: i) determining an internal diameter of the pipe joint; ii) determining a minimum allowable hydrostatic pressure at the depth at which the pipe joint is to be used; iii) determining a target wall thickness for the pipe joint, the target wall thickness corresponding to the internal diameter and the minimum allowable hydrostatic pressure; iv) manufacturing a plurality of preliminary pipe joints having the internal diameter and the target wall thickness; v) carrying out external pressure collapse tests resulting in data representative of the hydrostatic collapse pressures at which the plurality of preliminary pipe joints collapse; vi) determining a probability distribution corresponding to the data based on a statistical tail model derived from Extreme Value Theory; vii) determining from the probability distribution a hydrostatic collapse pressure occurring with a probability of 10^{-5} or lower; and, viii) determining a wall thickness of the pipe joint corresponding to the internal diameter and the hydrostatic collapse pressure.
Title of the invention: FREQUENCY LOCATION INDEXING FOR A WIDEBAND COMPONENT CARRIER

Abstract:
A method for frequency location indexing in a user equipment (UE) for wideband CC is provided. The method includes receiving, at the UE, a UE independent frequency reference point. The method also includes determining, by the UE, the UE independent frequency location index of a frequency location according to the UE independent frequency reference point. A UE for performing this method is also provided. A non-transitory computer readable method that, when executed by one or more processors, performs the method is also provided.
Title of the invention: PLATES AND LAYERS FORMING A SOILLESS CULTURE CONTAINER

Abstract:
The invention relates to a soilless culture container which is formed by plates/layers.

No. of Pages: 25 No. of Claims: 30
Title of the invention: USER CUSTOMIZABLE PERSONAL REMOTE CONTROL WITH MULTI BEAM INFRARED SYSTEM

Abstract:
The apparatus is a multi directional beam infrared remote control handheld device with a fully customizable printable visible slide-in face. A software (hosted on a computer) enables the user to create its own customized graphic design of the slide-in face of the remote and to print it. This software is also used to load the infrared codes emitting sequences (learned from manufacturer remotes or copied from a database). Pressing on any customized part of the slide-in surface of the remote triggers the emission of the corresponding infrared codes in order to control several electrical appliances. An application hosted on a Smartphone can also be used (with a multi directional infrared emitter add-on if necessary) to emulate the physical remote control. Infrared communication can be enhanced by transmitting/receiving pads (powered by USB) connected via minijack stereo cables and splitters (relaying Infrared signal to all electrical devices in the room).
The invention concerns a glass item with a solar protection function comprising at least one glass substrate and a stack of layers deposited on at least one face of said substrate, said stack of layers comprising a layer of titanium oxynitride of general formula TiNₓOᵧ, in which 1.00 < x < 1.20 and in which 0.01 < y < 0.10, said stack of layers further consisting of layers of dielectric materials and optionally of metal or nitrided layers made from chromium, nickel, titanium, niobium or a mixture of at least two of these elements.

No. of Pages : 31 No. of Claims : 19
A machine for producing multi-segment rods for use in the tobacco industry, the machine comprising:

- At least one feeding module (2, 3, 4) for placing segments (5a, 5b, 5c) in a train, one after the other, on a collecting transporter (6) for transporting the segments along a predefined transporting path (P) in a direction towards a garniture transporter (9);
- A transferring module (8) for transferring the segments from the collecting transporter (6) onto the garniture transporter (9);
- A garniture transporter (9) for transporting segments on a wrapper (10);
- A garniture device (11) for wrapping the wrapper (10) around the train of the segments to form a continuous rod;
- A cutting head (13) for cutting the continuous rod into multi-segment rods; and
- A shifting mechanism (19) for dislocating the collecting transporter (6) with respect to the predefined transporting path (P) to a cleaning position, wherein the segments while being transported on the collecting transporter (6) are not in contact with any of the feeding modules (2, 3, 4).
A cooling system for a decoating system may include a kiln sprayer configured to selectively inject a coolant into the kiln to control a temperature of a gas within the kiln. The cooling system may also include a return sprayer configured to selectively cool a gas flowing from the afterburner to the kiln with a coolant. Alternatively or additionally, a heat exchange system for a decoating system may be used that includes a heat exchanger and a steam generator. The heat exchanger is configured to cool a gas flowing from the afterburner to the kiln, and the steam generator is configured to cool gas discharged from the afterburner and not directed to the heat exchanger.
Title of the invention: PROCESS FOR THE PREPARATION OF (S,S)-SECOISOLARICIRESINOL DIGLUCOSIDE AND (R,R)-SECOISOLARICIRESINOL DIGLUCOSIDE

Abstract:
Provided is a synthesis process for (S,S)-secoisolariciresinol diglucoside and (R,R)-secoisolariciresinol diglucoside.

Fig. 1
Disclosed are a signal transmission method and a terminal device. The method comprises: the terminal device determines effective transmission power of a plurality of uplink signals; the terminal device simultaneously transmits the plurality of uplink signals in the same frequency domain resource set according to the effective transmission power of the plurality of uplink signals. In this way, the terminal device determines the respective effective transmission power for the plurality of uplink signals to be transmitted simultaneously in the same frequency domain resource set, so as to simultaneously transmit the plurality of uplink signals in the same frequency domain resource set according to the effective transmission power of the plurality of uplink signals.

![Diagram](image)

Fig. 2

No. of Pages : 34 No. of Claims : 16
The example of the present application provides a SRS transmission method and related device, wherein the method comprises: the user device determines the currently activated uplink BWP; the user device determines an SRS parameter configuration corresponding to the currently activated uplink BWP; the user device transmits the SRS on the uplink BWP according to the SRS parameter configuration. The flexibility of transmitting SRS can be improved by adopting the example of the present application.

**FIG. 4**

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| No. of Pages : 31 No. of Claims : 15 |  |
Provided are an uplink data transmission method, and related devices. The method comprises: a user equipment determining an uplink bandwidth part (BWP) used for transmitting a physical uplink shared channel (PUSCH); the user equipment determining a PUSCH transmission parameter corresponding to the uplink BWP; and the user equipment transmitting the PUSCH on the uplink BWP according to the PUSCH transmission parameter. By means of the embodiments of the present application, the flexibility of PUSCH transmission can be improved.

FIG. 4

No. of Pages : 36 No. of Claims : 15
A coated turbomachine part (20) comprises a substrate (21) and a layer for protection against the calcium and magnesium aluminosilicates CMAS (22) present on the substrate (21). The protective layer (22) comprises a first phase (220) of a material for protection against the calcium and magnesium aluminosilicates CMAS, capable of forming an apatite-type phase in the presence of calcium and magnesium aluminosilicates CMAS, and a second phase (221) comprising particles of at least one rare earth silicate REa dispersed in the first phase.
An agrochemical concentrate comprises lecithin and at least one agrochemical active. The agrochemical concentrate may also comprise a dispersant selected from sucrose ester, alkylpolycoside, alkylnaphthalene sulphonate, phosphate ester, sorbitol ester, polyglycerol ester, alkyl sulphates, sodium lauryl sulphate, alkylglucamides, and dialkyl sulphosuccinates. An aqueous formulation comprises a dilution of the agrochemical concentrate in an electrolyte. A pre-blend comprises lecithin and a dispersant. A method of preparing the agrochemical concentrate and a method for treating vegetation are also disclosed.
Fertilizer granules containing elemental sulfur and a hydrogel which expands or swells in the soil to more readily disperse the elemental sulfur surface throughout the soil, which increases the elemental sulfur surface area available for oxidation, and ultimately uptake of sulfur by the plant. The elemental sulfur and hydrogel can be added to a fertilizer composition as either an exterior coating or co-granulated with the base fertilizer composition.
Disclosed in embodiments of the present invention are a radio link control (RLC) transmission method and related products, the method comprising: receiving a first RLC protocol data unit (PDU) set from a transmit end RLC entity, the first RLC PDU set being generated by the transmit end RLC entity according to an original data segment; when it is detected that a plurality of RLC PDUs in the first RLC PDU set is not successfully received, transmitting a state report of an indication domain carrying the sequence number (SN) of the plurality of RLC PDUs; receiving a second RLC PDU set from the transmit end RLC entity; and obtaining the original data segment according to the first RLC PDU set and the second RLC PDU set. The embodiments resolve the problem of large overhead of the state report fed back to the transmit end RLC entity when a receive end RLC entity needs the transmit end RLC entity to retransmit the RLC PDUs in a 5G NR system.
Disclosed in the embodiments of the present invention are an information transmission method, device, and system; the method comprises: generating indication information for a target terminal; the indication information is used for indicating the present state of a physical downlink control channel PDDCH of a non target terminal in a physical downlink shared channel PDSCH sent to the target terminal and/or the occupation state of resources of the non target terminal; and sending the indication information to the target terminal. Thus, by means of the indication information, the terminal can learn whether a PDCCH of another terminal is present in the PDSCH sent to the terminal and/or whether there is resource occupation by other terminals. On the basis of the content learned from the indication information, PDSCH rate matching can be implemented in order to avoid the situation of being unable to correctly analyse PDSCH data packets in a short time period due to matching errors.
Disclosed is a method for transmitting uplink control information. The method comprises: a terminal device determining an uplink control channel resource set according to a first number of bits, wherein the first number of bits is determined according to high-level parameters; the terminal device receiving configuration information, wherein the configuration information indicates one uplink control channel resource in the uplink control channel resource set; the terminal device determining, according to a channel format corresponding to the uplink control channel resource, first uplink control information to be transmitted, wherein the number of bits occupied by the first uplink control information is less than or equal to the first number of bits; and the terminal device using the channel format to transmit the first uplink control information in the one uplink control channel resource. Therefore, a terminal device determines, based on a channel format corresponding to an uplink control channel resource, uplink control information to be transmitted, so that the number of bits of actually transmitted uplink control information is less than or equal to the number of bits, determined according to high-level parameters, of uplink control information, thereby improving the transmission efficiency of uplink control information.
The present application provides a mobile terminal shell, a preparation method, and a mobile terminal. The mobile terminal shell comprises: a substrate made of metal; an enhanced part provided on at least a part of the surface of one side of the substrate and made of a first material; an antenna slot provided on the substrate and filled with a second material, wherein the strength of the first material is higher than the strength of the second material.
(54) Title of the invention : UPLINK PRECODING METHOD, DEVICE AND SYSTEM

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1) CHEN, Wenhong

(57) Abstract :
Disclosed are an uplink precoding method, device and system. A terminal device transmits an SRS on at least one SRS resource, and receives DCI used by a network side to schedule uplink data transmission, the DCI comprising RI and/or SRI, then determines a precoding approach for the uplink data according to the RI and/or SRI and at least one SRS resource, precodes the uplink data according to the precoding approach, and transmits the precoded uplink data. By applying the solution of the present invention, signaling overhead can be reduced.

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**Diagram**

A terminal device transmits an SRS on at least one SRS resource

The terminal device receives DCI for scheduling uplink data transmission from a network side, the DCI includes an RI and/or an SRI

The terminal device determines a pre-coding scheme for uplink data according to the RI and/or the SRI, as well as the at least one SRS resource

The terminal device pre-codes the uplink data according to the determined pre-coding scheme and sends the pre-coded uplink data

**FIG. 1**

No. of Pages : 21 No. of Claims : 23
A coating composition containing a crosslinkable coating composition. The coating system comprises: ingredient A that has at least two protons that can be activated to form a Michael carbanion donor; ingredient B that functions as a Michael acceptor having at least two ethylenically unsaturated functionalities each activated by an electron-withdrawing group; and a catalyst system. In one embodiment, the catalyst system comprises diethyl carbonate, quaternary ammonium hydroxide or quaternary ammonium alkoxide, ethanol and 4-6 wt.% water. In another embodiment, the catalyst system comprises carbon dioxide, quaternary ammonium hydroxide or quaternary ammonium alkoxide, ethanol and 2-4 wt.% water. In certain embodiments, the coating composition optionally further comprising ammonium carbamate (H2NR8R9+–OC=ONR8R9), wherein R8 R9 are each independently selected from hydrogen, a linear or branched substituted or unsubstituted alkyl group having 1 to 22 carbon atoms; 1 to 8 carbon atoms; 1 to 3 carbon atoms.
The invention relates to a device (1) and to a method for stacking card-shaped data carriers (5). The device has (i) a conveying apparatus (4) for transporting isolated card-shaped data carriers downstream along a conveying path and (ii) a stacking unit (2) for selectively transferring and stacking card-shaped data carriers conveyed along the conveying path. The conveying apparatus is designed to convey the card-shaped data carriers in such a way that the card-shaped data carriers are fastened to the conveying apparatus for suspended transport. The stacking unit is designed to detach selectively determined card-shaped data carriers of the card-shaped data carriers conveyed along the conveying apparatus in order to transfer said card-shaped data carriers directly into a card magazine (8; 8a, 8b), i.e. in particular without intermediate processing, intermediate transport or intermediate storage, and to stack said card-shaped data carriers therein when said card magazine is arranged in a stacking position (24) in a stacking region (C), said stacking position being located below the conveying path with respect to the direction of gravity.
Provided are an insulated wire comprising an insulating sheath that is formed from a resin composition with high wear resistance, and a wire harness comprising this sort of insulated wire. Provided is an insulated wire 10 having a wire conductor 12 and an insulating sheath 14 that covers the periphery of the wire conductor 12, wherein the insulating sheath 14 is formed from a resin composition that has a thermoplastic polyurethane elastomer as a primary component. Also provided is a wire harness including this sort of insulated wire 10. The thickness of the insulating sheath 14 is preferably less than 0.7mm.
A planar composite structure (PCS) for use in an axial flux motor or generator may include a conductive layer disposed on a dielectric layer, with the conductive layer comprising conductive traces that form portions of at least two windings that, when energized, generate magnetic flux for at least two corresponding phases of the motor or generator. A PCS may additionally or alternatively include a first conductive layer comprising first conductive traces that form a first portion of a winding that, when energized, generates magnetic flux for a first phase of the motor or generator, and a second conductive layer, which is different than the at least one first conductive layer, comprising second conductive traces that form a second portion of the winding. The first portion of the winding may be connected in series with the second portion of the winding, and the first and second portions of the winding may be configured and arranged such that a same amount of current flows through each of the first and second portions of the winding.
Title of the invention: COMBINATION THERAPIES FOR TREATING CANCER

Abstract:
The present invention provides methods of treatment for cancer(s) through combination therapy with an agent that inhibits poly [ADP-ribose] polymerase (PARP) signaling and an agent that regulates activity within the tumor microenvironment.

No. of Pages: 86
No. of Claims: 116
A coated turbomachine part comprises a substrate (21) and a layer for protection against the calcium and magnesium aluminosilicates CMAS (24) present on the substrate (21). The layer (24) comprises a first phase (240) of a material for protection against the calcium and magnesium aluminosilicates CMAS and a second phase (241) comprising particles of a non-wetting material dispersed in the first phase.

No. of Pages : 16 No. of Claims : 9
Title of the invention: METHOD FOR CREATING AN AIRCRAFT TURBOMACHINE VANE USING ADDITIVE MANUFACTURING

Abstract:
Method for creating at least one aircraft turbomachine vane using additive manufacturing, the method comprising a step of additive manufacturing of said vane on beds of powder using selective laser melting, the manufacturing being performed on a support plate (180) so that first or second circumferential edges are manufactured first directly on said support plate, at least one temporary-support member (26) being produced simultaneously with said first or second edges, at the level of said or of each blade, and extending between a support plate and the leading or trailing edges of the blade, and a step of removing the said support member by severing its connection with the associated leading or trailing edge, characterized in that removal is performed by means of a tool (30) at least one end of which is engaged in at least one recess (28) of said support member, and which is moved in pivoting in a plane substantially perpendicular to the associated leading or trailing edge.
The Patent Office Journal No. 04/2020 Dated 24/01/2020

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 11/12/2019
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(54) Title of the invention : A METHOD OF PROVIDING TO USER AN INTERACTIVE MUSIC COMPOSITION

(51) International classification : H04S7/00
(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : PCT/IB2017/053803
   Filing Date : 26/06/2017
(87) International Publication No : WO/2019/002909
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
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   Filing Date : NA

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(72) Name of Inventor :
1) LATYPOV, Ray

(57) Abstract :
The invention provides the following items: A method of providing to user an interactive music composition. A method of providing a computer game to play blindfold. The inventions are based on ability of human binaural hearing and possibility to provide a 3D sound to headphones of user from objects in virtual space. User is immersing into virtual space represented by sound objects. Using the user position and orientation in virtual space and position of every sound objects in virtual space, it is possible calculate and provide to a left and a right users ears that user will percept 3D sound. With such 3D sound user is able to localize the sound source position inside the virtual space and interact with the sound object even blindfold. Providing in virtual space multiple not premixed music tracks as a sound sources creates possibilities for user interactive listening of the music composition.

No. of Pages : 20 No. of Claims : 10
**Title of the invention:** AIR CONDITIONER

### International classification
- F24F11/79

### Priority Document No
- 2017-107286

### Priority Date
- 31/05/2017

### Name of priority country
- Japan

### International Application No
- PCT/TH2018/000026

### Filing Date
- 30/05/2018

### International Publication No
- WO/2018/222148

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### Abstract:
The comfort of a user onto whom air is directly blown is enhanced when swing control for a flap is performed. A first flap in special swing control performs within a first range r1 a first action of approaching a position P4 which is a lower limit of a first rotation range RR1 until reaching a position P2 which is a lower end of the first range r1 and a second action of approaching a position P0 which is an upper limit of the first rotation range RR1 from a lower end of the first range r1 and rotates through the entire first range r1 due to at least one of the first action and the second action, and/or performs within a second range r2 a third action of approaching the upper limit of the first rotation range RR1 until reaching the position P2 which is an upper end of the second range r2 and a fourth action of approaching the lower limit of the first rotation range RR1 from the upper end of the second range r2 and rotates through the entire second range r2 due to at least one of the third action and the fourth action.

### FIG. 7

![Diagram](image-url)

No. of Pages: 29 No. of Claims: 8
In the hot-pressed member according to the present invention, after the component composition thereof is properly adjusted, the microstructure thereof is configured so that the average grain size of prior austenite crystal grains is 7 µm or less at a depth 50 µm or less in a sheet thickness direction from the member surface, the volume fraction of martensite is 90% or greater, and the average inter-particle distance between carbonitrides of Nb and Ti having a grain size of less than 0.10 µm in a depth range of 20-100 µm from the member surface in the sheet thickness direction is 5 µm or less, whereby the hot-pressed member can have not only an extremely high tensile strength TS of 1780 MPa or greater after hot pressing, but can be provided with excellent indentation peel strength of a projection-welded part at the same time.
Title of the invention: HIGH-PURITY STEVIOL GLYCOSIDES

Abstract:
Methods of preparing highly purified steviol glycosides, particularly rebaudiosides M, D, E and / are described. The methods include utilizing enzyme preparations and recombinant microorganisms for converting various starting compositions to target steviol glycosides. The highly purified rebaudiosides are useful as non-caloric sweetener in edible and chewable compositions such as any beverages, confectioneries, bakery products, cookies, and chewing gums.

No. of Pages : 46 No. of Claims : 22
A zip fastener (20) includes a first slider (10) disposed to slide lengthwise along a pair of stringers (12,13). The first slider (10) includes one of a male part (21) and a complementary female part (22). The other of the male part (21) and the female part (22) is formed on a member. The member may be a second slider (11) or a fixture (58) fixed to the stringers (12,13). The male part (21) comprises a neck (51) adjacent an enlarged head (50). The female part (22) comprises a transverse slot (35) with broad and narrow sections (37,38). In a two-handed operation, the male and female parts (21,22) are mutually engaged to connect the first slider (10) and the member by relative transverse movement, to pass the male part through a mouth (43) of the transverse slot (35). When latched closed in this way, axial separation of the first slider (10) from the member is precluded.
Title of the invention: MULTILAYER FILM, LAMINATE, AIRBAG, AND METHOD OF MANUFACTURING LAMINATE

Abstract:
Provided is a multilayer film used by being bonded to a cloth substrate, the film comprising: an adhesive layer constituting the side that will be bonded to the cloth substrate; and an airtight layer bonded to the adhesive layer. The adhesive layer and the airtight layer contain a thermoplastic polyester elastomer. The airtight layer has a higher melting point than the adhesive layer.

No. of Pages: 39 No. of Claims: 8
A surgical clamp comprising two halves, each half having an upper portion (2) and a lower portion (3), the lower portions forming two jaws (3) adapted to be in contact with a surgical site, one of the upper portions (2) being provided with a kinematic coupling mechanism (4, 5) and a passive circuit with a predetermined impedance value, such that different clamps can be identified by their different impedances.

![FIG. 1a](image-url)
The invention relates to a jet regulator (104) comprising a jet regulator housing (1) having an outer thread (2) on the outer circumference of the housing for screwing into an internal thread (3) in the water outlet (4) of a sanitary outlet fitting. The jet regulator according to the invention is characterised in that the jet regulator housing (1) has a thread profile as an outer thread (2) on the housing outer circumference, deviating at least in sections from a thread groove that is continuously spiralling around a cylindrical wall, which outer thread cooperates in this region in a self-adapting manner with the internal thread (3) provided in the water outlet (4) and/or has at least one cross-sectional widening (6, 7) which is made of the same material as the housing section of the jet regulator housing (1) supporting the outer thread (2) and which is integrally formed thereon, and which can be sealingly placed on the water outlet (4) on the end side and/or on the inner circumference side (cf. fig. 6).
Title of the invention: NANOPARTICLE AGGREGATES

Abstract:
The present disclosure relates to a method of inducing the controlled aggregation of nanoparticles comprising an amphiphilic coating, the method comprising contacting a plurality of said nanoparticles with an ionic solution comprising an organic solvent. Variation of one or more of the following experimental conditions can provide for further control of the aggregation process: molarity of the ionic solution, amount of organic solvent, temperature of the reaction, and surface charge of the nanoparticles. The nanoparticle aggregates are useful in a variety of applications including detection and quantitation assays. In one illustrative example, the nanoparticle aggregates are particularly useful in medical diagnostic applications.
The invention relates to an artificial eye lens (1) with an optical part (2), which has a first optical side (4) as considered in the direction of a primary optical axis (A) of the eye lens (1) and an opposite, second optical side (5), wherein the optical part (2) is formed with a structure (3a) having a birefringence, wherein the birefringent structure (2a) is formed in the one-piece optical part (2) as a laser structure. The invention also relates to a method for producing an artificial eye lens (1) of this kind.

No. of Pages : 20 No. of Claims : 9
The present invention relates to pharmaceutical compositions and combinations comprising regorafenib or its hydrate, solvate, metabolite or pharmaceutically acceptable salt or a polymorph thereof and a PD-1/PD-L1(2) inhibitor for treating, preventing or managing diseases and conditions including hyperproliferative disorders such as cancer in humans and other mammals.

![Tumor Growth Graph](image-url)
The invention relates to an artificial eye lens (1) with an optical part (2), which has a first optical side (4) as considered in the direction of a primary optical axis (A) of the artificial eye lens (1) and an opposite, second optical side (5), wherein the optical part (2) has a diffractive grating structure, which contributes to the optical imaging property of the optical part (2), wherein the diffractive grating structure is an amplitude grating (6), which is formed in the optical part (2) as a laser structure. The invention also relates to a method for producing an artificial eye lens (1) of this kind using a laser device (17).
The present disclosure provides, among other aspects, codon-altered polynucleotides encoding Factor IX variants for expression in mammalian cells. In some embodiments, the disclosure also provides mammalian gene therapy vectors and methods for treating hemophilia B.
Title of the invention: COMPOSITION FOR DISINTEGRATING TABLETS CONTAINING MICROFIBROUS CELLULOSE AND ACTIVE INGREDIENT

Abstract:

[Problem] Using the exceptional characteristics of microfibrous cellulose, to provide, inter alia: a variety of disintegrating tablets having a variety of purposes and applications such as drugs, herbal medicines, foods, etc., containing high concentrations of various active ingredients such as medicinal ingredients, nutritional ingredients, and supplements and food ingredients; and compositions for the disintegrating tablets. [Solution] A composition for disintegrating tablets containing an active ingredient and a disintegrant ingredient comprising only microfibrous cellulose, and disintegrating tablets for foods or drugs containing the composition for disintegrating tablets.

No. of Pages : 58 No. of Claims : 9
An airbag device for a saddle-type vehicle. The airbag device can be arranged compactly and makes it possible for an airbag to deploy perpendicularly upward. The airbag device comprises: a retainer 41 that is arranged in front of a seat for a rider; an inflator; and an airbag that is housed in the retainer 41 and that inflates by means of gas discharged by the inflator and thereby deploys in front of the rider. The retainer 41 comprises an upper surface opening 49 through which the upwardly deploying airbag passes. The upper surface opening 49 is arranged to the rear of a steering shaft. The retainer 41 also comprises a rider-side opening 62 that communicates with the upper surface opening 49 and opens to the seat side at the rear.
Surgical robot for tracking and compensating bone movement, said robot comprising: a robot arm (3) and a tool guide (5) at the arm's end-effector, as well as a tracker (1) attached to the robot arm in the same plane as the tool guide, said tracker comprising an assembly of articulated segments (1a-1d) and encoders (2) associated with the segments such that the movement of the tracker is allowed and monitored in at least six degrees of freedom. The tracker base and the tool guide share the same frame, i.e. the tracker base and tool guide are in the same plane, so that the system can directly determine the exact position of the tool guide with respect to the tracked bone without any intermediate device. In this way, an optical tracker and the associated cameras are not necessary.
Title of the invention : LOAD MEASURING METHOD, LOAD MEASURING DEVICE AND LOAD MEASURING ARRANGEMENT

Abstract :
With the aim of improving the output signal quality of a load measurement by means of active magnetization, the invention relates to a load measuring method for measuring a mechanical load on a test object (14), comprising the following steps: a) generating a magnetic field and applying same to the test object (14); b) detecting a magnetic field changed by the test object (14) as a result of a mechanical load on the test object (14) by means of a first magnetic field detection device (20) to generate a first measurement signal (U1, UAB); c) detecting a magnetic field changed by the test object (14) as a result of a mechanical load on the test object (14) by means of a second magnetic field detection device (22) to generate a second measurement signal (U2, UAT); d) determining a third measurement signal (UBT) from the first measurement signal (U1, UAB) and the second measurement signal (U2, UAT) by calculation; and preferably the following steps: e) forming the difference between one (U2, UAT) of the first and second measurement signals and the determined third measurement signal (UBT) by calculation to generate an output signal; and f) determining the mechanical load imposed on the test object (14) on the basis of the output signal. The invention further relates to a corresponding load measuring device for performing the load measurement method.

FIG 11

No. of Pages : 21 No. of Claims : 15
In order to improve the feel of an end part of a waist opening (WO), this pants-type disposable diaper has a waist part (W) having a first part (P1) and a second part (P2), each of which has a waist elastic member (17). The first part (P1) has an oversheet layer (127) which extends from the outside of a waist outer sheet layer (122) to the inside of the waist inner layer (121) and is folded over at the edge of the waist opening (WO). The oversheet layer (127) comprises a sheet material (12S) having a portion which extends from a position outside the waist elastic member (17) in the second part (P2) to a position inside the waist elastic member (17) in the second position (P2) and is folded over at the edge of the waist opening (WO). In the first part (P1), the waist elastic member (17) is not affixed to the sheet material (12S). In the second part (P2), the waist elastic member (17) is affixed to the sheet material (12S) and the sheet material (12S) is contracted along with the waist elastic member (17) in the width direction (WD).
Title of the invention: METHOD AND DEVICE FOR TRANSMITTING DATA

Abstract:
Embodiments of the present application provide a method and device for transmitting data, which is capable of achieving timely data submission. The method comprises: a receiving end enables a timer of a first submission mode when determining that data submitted and data to be submitted are not continuous, the first submission mode being used for instructing the receiving end to directly submit data to a higher level upon the receipt of the data; and the receiving end submits the data to be submitted to the higher level using the first submission mode when the timer of the first submission mode does not expire.
A wireless transmit receive unit (WTRU) may receive a Physical Downlink Control Channel (PDCCH) transmission and perform early termination on the PDCCH transmission. Transmissions that are not intended for the WTRU may be terminated. The WTRU may perform a first decoding of the PDCCH transmission based on a first scrambling sequence. The first scrambling sequence may be generated using a Gold sequence, which may be initialized based on a WTRU identifier. If the first decoding is not successful, the WTRU may determine that the PDCCH transmission is not intended for the WTRU. The WTRU may perform an assistance bit aided (ABA) polar decoding of the PDCCH transmission based on a second scrambling sequence (e.g., a cell radio network temporary ID (C-RNTI)). The WTRU may perform a CRC on the output of the ABA polar decoding to obtain downlink control information (DCI).
The present invention concerns a method of orchestrating services across at least two different service domains in a communication network. The method comprises: (a) setting up a service orchestration rule set between a home operator, managing a first service domain and a sponsor service provider, managing a second service domain for obtaining a data structure for a service definition object, the home operator being identified by a home operator identifier; (b) receiving a list of available services from the sponsor service provider, each service on the list being identified by a service identifier; (c) receiving (91) a subscriber selection of at least one service from the list, the subscriber being identified by a subscription identifier; (d) adding (95) a first set of data to the service definition object, the first set of data comprising at least subscriber specific data; (e) sending (96) a service creation request to the sponsor service provider for subscribing to the selected service, the request comprising the home operator identifier, the subscription identifier, the service identifier of the selected service, the service definition object and a service instance identifier; and (f) receiving (99) a response from the sponsor service provider, the response comprising the service definition object complemented with a second set of data to allow the selected service to be executed.
(54) Title of the invention : DIVALENT IRON SUPPLY AGENT

(51) International classification : A01N25/02, A01N59/16, A01N63/02
(31) Priority Document No : 2017-101173
(32) Priority Date : 22/05/2017
(33) Name of priority country : Japan
(86) International Application No Filing Date : PCT/JP2018/008374 : 05/03/2018

(61) Patent of Addition to Application Number Filing Date : NA
(62) Divisional to Application Number Filing Date : NA

(57) Abstract :
[Problem] To provide a new technology with which it is possible to further increase a supply amount of divalent iron. [Solution] Provided is a divalent iron supply agent that contains: a hydrothermal reaction treatment product of a mixture containing at least one of yeast, a yeast extract, and a yeast cell wall, at least one of phosphoric acid and a phosphoric acid compound, and at least one of potassium and a potassium compound; and an iron supply raw material.

No. of Pages : 19 No. of Claims : 5
A compensation method and compensation apparatus for a display panel, and a display device. The display panel comprises a plurality of pixel units, and each of the pixel units comprises a pixel circuit and a light-emitting element (EL). The compensation method comprises: detecting a threshold voltage (Vth) in a driving transistor (T3) of a pixel circuit (S101); detecting the maximum data voltage (Vgs1) corresponding to a light-emitting element (EL) when same has the maximum light emission luminance (S102); and performing calculation based on the threshold voltage (Vth), the maximum data voltage (Vgs1) and an expected display luminance (L) so as to obtain a compensation display data voltage (Vgs) after carrying out compensation for a display panel at normal display (S103). The present invention can effectively improve a compensation effect of a display panel at a low gray scale, reduce or relieve the phenomenon of low gray scale loss, and improve the compensation effect.
A device for inhaling an active agent is provided that can be moved from a first configuration to a second configuration. The device comprises two flexible substrates and a membrane located between the two flexible substrates, and the two flexible substrates being connected at two opposing edges and unconnected at two further opposing edges. An active agent provided on the membrane may be inhaled by a user when the device is in the second configuration. A method of using the device is also provided.

No. of Pages: 17  No. of Claims: 25
The invention provides: a processing unit and a processing method capable of suppressing a delay in recognizing an object in a state where a motorcycle is turning; a front recognition system provided with said processing unit; and a motorcycle provided with said front recognition system. This processing unit (50) comprises: an acquisition unit (51) that acquires front environment information corresponding to an output of a front environment detection device (20); a recognition unit (52) that recognizes an object on the basis of the front environment information; and a control unit (53) that controls the front environment detection device (20). During the traveling of a motorcycle, the acquisition unit (51) acquires posture information related to a tilting angle of the motorcycle, and the control unit (53) changes, in accordance with the posture information, a detection angle range in detecting an area ahead of the motorcycle by the front environment detection device (20).
The present invention provides a processing unit and a processing method with which it is possible to improve the safety of a rider. Also provided is a collision warning system comprising the processing unit. Also provided is a motorcycle comprising the collision warning system. A processing unit (20) comprises an acquisition section (21) which acquires environmental information corresponding to the output from an environment detection device (11), a determination section (22) which determines whether or not there is the possibility of a collision on the basis of the environmental information, and a control section (23) which causes a warning device (30) to output a warning when the determination section (22) has determined that there is the possibility of a collision, wherein, while the motorcycle is travelling, the acquisition section (21) acquires attitude information relating to the lean angle of the motorcycle and the control section (23) changes the warning which is output by the warning device (30) in accordance with the attitude information.
**Title of the invention:** METHOD FOR PRODUCING OPTICALLY ACTIVE COMPOUND

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**Abstract:**
Provided is a method for producing an optically active pyrimidine amide derivative that can be produced on an industrial scale. Compound (I), (V) or a salt thereof is subjected to an asymmetric reduction reaction, the obtained compound (II) or a salt thereof is subjected to a deprotection reaction, the obtained compound (III) or a salt thereof is reacted with compound (IV) or a salt thereof, and compound (V) or a salt thereof is obtained. (In the formulas, the symbols are as defined in the description.)

No. of Pages : 273  No. of Claims : 11
The present invention relates to a process for dyeing and/or lightening keratin fibres, in particular human keratin fibres such as the hair, using b) one or more disulfide, thiol or protected-thiol fluorescent direct dyes and a) one or more direct dyes different from b). The present invention also relates to a cosmetic composition comprising the dyes defined above, and also to a multi-compartment device containing said dyes. The present invention also relates to the use of the dyes a) and b) for dyeing light or dark keratin fibres, without using an additional dye different from those defined above, for giving the fibres very chromatic, particularly visible colours.
The present invention is a system for determining and reporting results from a test including a stick having a collection area configured to collect an analyte; a reagent for application on the analyte to provide a post reaction analyte color; a visual scale having a plurality of hues and operatively associated with the post reaction analyte color; and, computer instructions having an image capture system for capturing a digital image of the visual scale and the post reaction analyte color, determining the contrast between hues of the visual color scale, assigning a range of color to each hue, assigning a blood glucose value to each range of color, determining the range of color containing the post reaction analyte color, retrieving the blood glucose value associated with the hues of the range containing the color of the post reaction analyte, displaying the blood glucose level on the remote computer device.
A process for optimising the removal of calcium from a hydrocarbon feedstock in a refinery desalting process, the refinery desalting process comprising the following steps: (a) mixing one or more wash water streams with one or more hydrocarbon feedstock streams; (b) at least partially separating the wash water from the hydrocarbons in a refinery desalter; and (c) removing the separated water and hydrocarbons from the refinery desalter as one or more desalted hydrocarbon streams and one or more effluent water streams; the process optimisation comprising: (i) providing at least one x-ray fluorescence analyser at at least one point in the refinery desalting process; (ii) measuring the concentration of calcium at the at least one point in the process using the at least one x-ray fluorescence analyser; and (iii) optionally adjusting at least one process condition of the refinery desalting process in response to the calcium concentration measurement in step (ii). An apparatus comprises a desalter; a line through which one or more hydrocarbon feedstock streams are passed to the desalter; optionally a line through which one or more wash water streams are passed to the desalter; and one or more x-ray fluorescence analysers configured so as to measure the concentration of calcium in water or hydrocarbons at one or more positions within the apparatus.
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(57) Abstract:
Powder cosmetic composition based on an oil-in-water dispersion coated with hydrophobic silica aerogel particles. This invention relates to a cosmetic composition in powder form, in which each powder grain is composed of: - a dispersion of oily phase droplets in an aqueous phase, the oily phase being present in a content of at least 12% by weight of the total weight of the composition and comprising at least one mineral oil, and - a coating, comprising at least some hydrophobic silica aerogel particles. It also relates to a method for preparation of such a composition.

No. of Pages: 26  No. of Claims: 15
A method is provided to conveniently separate racemic (3R,4S)-3-acetamido-4-allyl-N-(tert-butyl)pyrrolidine-3-carboxamide and (3S,4R)-3-acetamido-4-allyl-N-(tert-butyl)pyrrolidine-3-carboxamide using selective crystallization with chiral carboxylic acids.
The Patent Office Journal No. 04/2020 Dated 24/01/2020

| (12) PATENT APPLICATION PUBLICATION | (21) Application No.201917051393 A |
| (19) INDIA | |
| (22) Date of filing of Application: 11/12/2019 | (43) Publication Date: 24/01/2020 |

(54) Title of the invention: MULTILAYER FILM, LAMINATE, AIR BAG, AND METHOD FOR PRODUCING LAMINATE

| (51) International classification | B32B27/36, B32B27/12, B32B37/06 |
| (31) Priority Document No | 2017-119100 |
| (32) Priority Date | 16/06/2017 |
| (33) Name of priority country | Japan |
| (86) International Application No | PCT/JP2018/022994 |
| Filing Date | 15/06/2018 |
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| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

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| 2) TAGAMI, Toru |
| 3) LUDWIG, Michael |

| (57) Abstract: |
| A multilayer film that is adhered to a base cloth for use, said multilayer film having an adhesive layer that will be the side adhered to the base cloth, and an airtight layer that is bonded to the adhesive layer. The adhesive layer includes a thermoplastic polyester-based elastomer and a polymer having a Shore D hardness of less than 80. |

No. of Pages: 45 No. of Claims: 10
**Title of the invention:** METHOD FOR PRODUCING LAMINATE, LAMINATE, AND AIR BAG

**Abstract:**
A method for producing a laminate including a base cloth and a thermoplastic film, wherein: the thermoplastic film is a multilayer film having an adhesive layer that includes a thermoplastic polyester-based elastomer, and an airtight layer that is bonded to the adhesive layer, said airtight layer including a polymer and having a melting point that is higher than that of the adhesive layer; and the base cloth includes a polyester. Said method comprises a step for adhering the multilayer film to the base cloth on the adhesive layer side while heating at a temperature below the melting point of the airtight layer.
Provided are a stator vane, a compressor structure, and a compressor. The stator vane comprises a vane main body (1). A cavity (2) is formed inside the vane main body (1). A supplementary air hole (3) is formed at the vane main body (1). Supplement of air causes formation of a jet flow at a suction surface of the stator vane to eliminate a low-speed and low-energy region formed at the suction surface, thereby reducing air loss in an air flow resulting from mixing of supplemented air, and accordingly enhancing aerodynamic efficiency of a centrifugal compressor.
Title of the invention: POLAR CAP-REINFORCED PRESSURE CONTAINER

Abstract:
The invention relates to a method (100) for producing a fiber-reinforced pressure container (1) with fiber-reinforced polar caps (12) and a corresponding pressure container (1) comprising said polar caps (12). The method has the steps of applying (220) fiber composite material (FCM) onto a provided winding body (100) in the shape of the polar caps by means of a winding process at least one of the ends (110); temporarily curing (230) the fiber composite material (FCM) in order to stabilize the shape, said material then remaining chemically active for a crosslinking process later; and separating (240) the fiber composite material in order to produce a polar cap reinforcement layer (32) which is released (250) from the winding body and positioned (260) on a liner support of the pressure container (1). The polar cap reinforcement layer (32) is then crosslinked with the fiber composite material of the pressure container in order to produce the pressure container reinforcement layer (3).
Passive robot for transporting sensors and instruments such as leak sensors into water pipes. The robot includes a leak sensor having a diameter to fit closely within a water pipe. A leak sensor is flanked by, and bonded to, substantially symmetrical first and second soft bodies. End caps are provided on each of the first and second soft bodies. Each of the soft bodies has a tapering configuration with a neck portion wherein a soft body length to neck width ratio is selected to allow the soft bodies to bend permitting the passive robot to pass through sharp bends and T junctions.

FIG. 2A
The invention relates to a multi-layer sealing web (10) for a region of a structure, said sealing web comprising: outer layers (14, 22, 24), which contain a base polymer and a plasticizer; and a combination carrier insert (16), which contains a glass nonwoven (20) and a glass reinforcement (18), the plasticizer being a low-molecular-weight plasticizer, the proportion of which in the outer layers (14, 22, 24) containing the base polymer being between 25 wt% and 40 wt%.
The present invention relates to solid oral fixed dose compositions of metformin, atorvastatin, and valsartan, or their pharmaceutically acceptable salts, processes for the preparation thereof, and the use of the composition to treat certain diseases.

No. of Pages : 24 No. of Claims : 17
Title of the invention: METHOD FOR MANUFACTURING STEEL STRIP FOR BLADE, AND STEEL STRIP FOR BLADE

Abstract:
The purpose of the present invention is to provide a method for manufacturing a steel strip for a blade having good productivity that can control carbide density in a suitable range without adding costly Mo, and a steel strip for a blade. Provided is a method for manufacturing a steel strip for a blade that includes in percent by mass, 0.55 - 0.80% C, 1.0% or less Si, 1.0% or less Mn, and 12.0 - 14.0% Cr with the remainder being Fe and inevitable impurities, said method including a batch annealing step for annealing material for cold rolling having the aforementioned metal composition in a batch annealing furnace and a cold rolling step for forming a steel strip by performing cold rolling one or more times on the material for cold rolling that has been batch annealed. The batch annealing step includes a first uniform temperature step for maintaining heating for 1 - 12 hours at an internal furnace temperature exceeding 450°C and less than 770°C and a second uniform temperature step, carried out after the first uniform temperature step, for maintaining heating for 16 hours at an internal furnace temperature exceeding 770°C and less than 900°C. Also provided is a steel strip for a plate.

No. of Pages: 16 No. of Claims: 5
A laminate including a base cloth and a thermoplastic film, wherein: the thermoplastic film is a multilayer film having an adhesive layer that includes a thermoplastic polyester-based elastomer, and an airtight layer that is bonded to the adhesive layer, said airtight layer including a polymer and having a melting point that is higher than that of the adhesive layer; the base cloth includes a polyester; and the basis weight of the base cloth is 190 g/m² or less.
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<th>(54) Title of the invention : WATER SYSTEM HAVING UV FUNCTION AND METHOD FOR CONTROLLING SAME</th>
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<td>Filing Date : 24/05/2018</td>
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<td>(61) Patent of Addition to Application Number : NA</td>
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<td>Filing Date : NA</td>
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<tr>
<td>(62) Divisional to Application Number : NA</td>
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<td>Filing Date : NA</td>
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(57) Abstract :
Disclosed is a water system having a UV function, comprising a water route (1), a water flow sensor (2), a filter core assembly (3), a UV sterilising device (4), a solenoid valve (5) and an electric control device (6), wherein the electric control device (6) is respectively electrically connected to the water flow sensor (2), the UV sterilising device (4) and the solenoid valve (5), the electric control device (6) receives a water flow signal transmitted from the water flow sensor (2), and, according to the water flow signal, controls the operation of the UV sterilising device (4) and the solenoid valve (5). When sensing a signal that water flow is passing through the water route, the water system having a UV function automatically starts the UV sterilising device (4) and the solenoid valve (5), conversely, when the signal indicate that no water flow is passing through the water route, the UV sterilising device (4) and the solenoid valve (5) are shut down, preventing the UV sterilising device (4) from conducting electricity and operating long term, both consuming electricity and affecting the service life, and by means of shutting off the water route, the solenoid valve (5) can prevent secondary contamination to the water route, so the whole water system has a simple and rational structure. Further disclosed is a method for controlling the water system having a UV function.
The present disclosure provides a surgical cartridge assembly including a proximal end, a distal end, and an elongate channel. The elongate channel includes a base and at least one opening within the base. The surgical cartridge assembly further includes a cartridge body configured to be removably received within the elongate channel and a slot configured to receive a cutting member. In addition, the surgical cartridge assembly includes at least one lockout tab extending from the proximal end of the cartridge body, wherein the at least one lockout tab is configured to cover the at least one opening when the cartridge body is received within the elongate channel, and wherein the at least one lockout tab disables a lockout mechanism to allow the cutting member to advance distally through the slot.
Embodyments of the present application provide an antenna assembly, comprising a radiating unit, a feed point, and a grounding unit. The radiating unit is disposed on the metal front cover of a mobile terminal; the feed point and the grounding unit are disposed on the PCB of the mobile terminal; the radiating unit is electrically connected to the feed point and the grounding unit; the rear cover of the mobile terminal is made of a non-metal material and used for providing a clearance area of the antenna assembly. The radiating unit is disposed on the metal front cover, the feed point and the grounding unit are disposed on the PCB, and the rear cover is made of a non-metal material, so that the antenna assembly of the embodiments of the present application satisfies the requirements of the clearance area, and the metal front cover enables the structural strength of the mobile terminal to satisfy requirements; in addition, there is no need to separately provide an assembly and mount an FPC, thereby reducing costs. The embodiments of the present application also provide a mobile terminal.
(54) Title of the invention: WIRELESS COMMUNICATION METHOD AND DEVICE

(51) International classification: H04L1/18
(31) Priority Document No: NA
(32) Priority Date: NA
(33) Name of priority country: NA
(86) International Application No: PCT/CN2017/087817
    Filing Date: 09/06/2017
(61) Patent of Addition to Application Number: NA
    Filing Date: NA
(62) Divisional to Application Number: NA
    Filing Date: NA

(57) Abstract:
Provided are a wireless communication method and device capable of feeding back and acquiring a receiving situation of a PUSCH in different scenarios and according to requirements. The method comprises: a network device sending first indication information, wherein the first indication information is used for indicating the format of a first downlink control channel, and the first downlink control channel is used for carrying hybrid automatic repeat request (HARQ) feedback information about a physical uplink shared channel (PUSCH) of at least one terminal device; and the network device sending the first downlink control channel having the format.

No. of Pages: 36 No. of Claims: 16
The present invention provides a time-domain resource information indication method and apparatus. The method comprises: in a mobile communication system using multiple subcarrier intervals, transmitting, based on preset subcarrier interval information, time-domain resource indication information of a data channel. The preset subcarrier interval information may comprise one of the multiple subcarrier intervals or is based on rules of the multiple subcarrier intervals. For a system, such as a 5G NR, which uses multiple subcarrier intervals, the present invention provides a mechanism for indicating, based on preset subcarrier interval information, time-domain resource information of a data channel.

No. of Pages : 21 No. of Claims : 15
**Title of the invention:** METHOD FOR DETECTING LINK QUALITY AND TERMINAL DEVICE

**Abstract:**

Disclosed in embodiments of the present application are a method for detecting link quality and a terminal device. The method comprises: a terminal device receives, on a second protocol layer, a first event reported by a first protocol layer, wherein the first event is used for indicating that the quality of a signal in a first signal set is poor to meet a first condition; the terminal device determines, on the second protocol layer on the basis of the first event, that a second event occurs, wherein the second event is used for indicating that the link quality corresponding to the signal in the first signal set is poor to meet a second condition. The method and terminal device provided by the embodiments of the present application are beneficial to improving the signal transmission performance.

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**No. of Pages:** 28 **No. of Claims:** 18
The embodiments of the present invention provide a measurement gap configuration method, an apparatus, a device, a terminal and a system, relating to the field of communications. The method is used in a first access network device among at least two access network devices which establish a connection with a terminal simultaneously. The method comprises: when the first access network device is a configuration device among the at least two access network devices, generating measurement gap configuration information; the configuration device being the device, among the at least two access network devices, which configures a measurement gap for the terminal; the first access network device sending the measurement gap configuration information to the terminal. When the terminal establishes a connection with the at least two access network devices simultaneously, the terminal only needs to perform measurements according to the measurement gap configured by a device among the at least two access network devices connected simultaneously, preventing the terminal from frequently interrupting data transmission and switching to other frequency points to perform signal measurements, thus improving the data transmission and reception efficiency of the terminal.
Disclosed in embodiments of the present application are a paging failure processing method, an access network device, and a core network device. The method comprises: in a case in which downlink data of a terminal device needs to be sent, an access network device determines that a paging initiated by the access network device to the terminal device fails; and the access network device sends first indication information to a core network device, the first indication information being used for indicating that the paging initiated by the access network device to the terminal device fails. By means of the method, the access network device and the core network device in the embodiments of the present application, the data transmission reliability can be improved.
(57) Abstract:
Disclosed are a data transmission method, a device, a terminal, and a computer-readable storage medium. The method comprises: acquiring performance information of terminals in a direct communication cluster, the terminals in the direct communication cluster having established direct communication connections to the first terminal; determining a second terminal on the basis of the performance information; transmitting to the second terminal via a second direct communication connection established with the second terminal target data in data to be transmitted; transmitting instruction information to the second terminal or a target terminal, the instruction information being used for instructing the second terminal to establish a direct communication connection with the target terminal in the direct communication cluster and instructing the second terminal to transmit the target data with the target terminal. The employment of the present application implements collaborative data transmission by multiple terminals, thus increasing data transmission efficiency, and facilitating the transmission of data.
Disclosed in the embodiments of the present application are a data transmission method and device, a terminal and a computer-readable storage medium, the method comprising: after a direct connection communication connection is established with a terminal in a direct connection communication cluster, if a relay mode is configured, acquiring device information of terminals in a receiving mode in the direct connection communication cluster in which the first terminal is located; sending the device information of the terminals in a receiving mode to a second terminal in a sending mode in the direct connection communication cluster; upon receipt of a forwarding request of the second terminal in the sending mode, acquiring target data of the second terminal, and forwarding the target data according to a transmission path indicated in the forwarding request. The present application facilitates data transmission and increases the flexibility of data transmission.
The Patent Office Journal No. 04/2020 Dated 24/01/2020

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application : 12/12/2019

(43) Publication Date : 24/01/2020

(54) Title of the invention : WIRELESS COMMUNICATION METHOD, TERMINAL DEVICE, NETWORK DEVICE, AND NETWORK NODE

(51) International classification : H04W72/04
(31) Priority Document No : PCT/CN2017/097028
(32) Priority Date : 11/08/2017
(33) Name of priority country : China
(86) International Application No : PCT/CN2017/101139
   Filing Date : 08/09/2017
(87) International Publication No : WO/2019/028962
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

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(57) Abstract :
Provided are a wireless communication method, a terminal device, a network device, and a network node, capable of achieving reasonable configuration or scheduling on the terminal device by the network node or device. The method comprises: the terminal device calculates at least one Power Headroom Report (PHR) needing to be reported to a first network node according to a transmission channel of a first uplink between the terminal device and the first network node, the first network node and a second network node serving for the terminal device; and the terminal device reports the calculated at least one PHR to the first network node via the first uplink.

No. of Pages : 38 No. of Claims : 15
Title of the invention: SYSTEMS AND METHODS FOR PROVIDING REAL-TIME AUDIO AND DATA

(51) International classification : H04L29/06
(31) Priority Document No : 62/506481
(32) Priority Date : 15/05/2017
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/US2018/032535
   Filing Date : 14/05/2018
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(57) Abstract:
A computerized method of delivering data to one or more client computing devices includes receiving, by a server computing device, a data stream starting at a first time; processing, by the server computing device, the data stream, thereby creating a processed data stream; transmitting, by the server computing device, via a wireless network in electronic communication with the server computing device, the processed data stream to the one or more client computing devices; and interpreting, by an application installed on the one or more client computing devices, the processed data stream, thereby recovering the data stream for use by the one or more client computing devices. A latency between the first time and the second time is less than 100 milliseconds.
The invention relates to a vehicle test stand and a method for ascertaining a vehicle longitudinal acceleration (as) during a test of a vehicle (2) in such a vehicle test stand (1), comprising at least one actuator (6) for moving the vehicle (2) in a longitudinal direction. During the test, a rotational movement which is carried out by a wheel or a powertrain of the vehicle (2) is measured in real-time, a longitudinal acceleration (a) corresponding to the measured rotational movement is ascertained, and the at least one actuator (6) is actuated depending on the ascertained longitudinal acceleration. The vehicle (2) is connected to an acceleration sensor (7), and an acceleration signal (as,HF) of the acceleration sensor (7) is detected during the test. A low-frequency longitudinal acceleration component (aNF; aNF) is calculated based on the ascertained longitudinal acceleration (a) and a position control loop (18) for controlling the actuator (6), and the vehicle longitudinal acceleration (as) is ascertained based on the detected acceleration signal (as, HF) and the calculated low-frequency longitudinal acceleration component (aNF; aNF).

| No. of Pages : 14 | No. of Claims : 8 |

![Diagram of vehicle test stand and method for ascertaining vehicle longitudinal acceleration](image_url)
Title of the invention: METHOD FOR PRODUCING DIAMINOBENZENE COMPOUND

Abstract:
The purpose of the present invention is to provide a method for easily producing a diaminobenzene compound and a benzimidazole compound at low cost. The present invention provides a method for producing a diaminobenzene compound or N-protected amino benzene compound represented by formula (2), the method comprising bringing an aminonitrobenzene compound or N-protected nitrobenzene compound represented by formula (1) into contact with an alkali metal salt of dithionous acid. Also provided is said method in which a deprotection reaction is conducted according to need. (In formulae (1) and (2), n is an integer of 1-4; R1 is a C1-6 alkyl, C1-6 alkoxy, C2-6 acyloxy, C2-6 alkoxy carbonyl, or nitro group or a halogen atom, and when n≥2, then the R1 moieties may be the same or different; and RA is a hydrogen atom or a protective group.)

No. of Pages: 52 No. of Claims: 8
The invention relates to a surface-modified filter membrane for filtering blood, in particular for separating blood plasma and blood serum, and to a method for the production thereof, to a filter provided therewith and to the use thereof.
Title of the invention: COMPOUND, SYNTHETIC INTERMEDIATE, USE, PHARMACEUTICAL COMPOSITION, AND NEUROMODULATORY THERAPEUTIC METHOD

Abstract:

The present invention falls within the fields of pharmacy, medicine, chemistry and biotechnology. The compound of the present invention is a peptide and has shown surprising stability and ease of handling in comparison to the most similar peptide compounds. The pharmaceutical composition of the invention comprises said peptide compound and has shown surprising therapeutic results even when administered orally. In some embodiments, administration of the composition of the invention has delivered superior therapeutic results in comparison to the effects of hemopressin and cannabidiol. In some embodiments, oral administration of the composition of the invention provides significant and surprising results with respect to neuromodulation, in both curative and prophylactic treatment of convulsions, pain threshold modulation and important neuroprotection, also substantially reducing the clinical symptoms of multiple sclerosis.
The invention relates to a bearing housing (115) for a turbomachine (100), wherein the bearing housing (115) comprises a bearing axis (LA), a bearing chamber (200) for accommodating a bearing (116, 120, 121), and a lubricant chamber (202) for accommodating a lubricant, and the lubricant chamber (202) and the bearing chamber (200) are fluidically connected via an opening (203), wherein the lubricant chamber (202) comprises a wall portion (204) for releasing heat to the surroundings, which wall portion (204) has an inner surface (205) facing the lubricant chamber (202) and an outer surface (206) facing the surroundings. In order that adequate cooling of the bearing (116, 120, 121) and of the lubricant can be achieved even at high ambient temperatures, internal cooling fins (207) are arranged on a part of the inner surface (205).
Title of the invention: USE OF COMPOSITE MEDIA FOR TREATMENT OF PRODUCED WATER FROM CHEMICAL ENHANCED OIL RECOVERY

Abstract:

Systems and methods for treating a stream (12) from a chemical enhanced oil recovery (CEOR) process are disclosed. The method includes contacting the feed stream (12) with a plurality of media composite particles (20) to remove hydrocarbons from the feed stream (12); and generating a treated stream (40) comprising a reduced amount of the hydrocarbons and at least a majority of the viscosity-enhancing polymer remaining therein relative to the feed stream (12). The feed stream (12) includes the hydrocarbons, a concentration of a viscosity-enhancing polymer of at least about 10 mg/L, and an aqueous fluid. The media composite particles (20) each comprise a mixture of a cellulose-based material and a polymer.
Provided is a battery unit that is capable of protecting a connection terminal and facilitating an attaching/detaching operation to/from a housing part. This battery unit (1) has a battery (B) housed in a body (1a) formed into a vertically-long roughly rectangular shape, has a connection terminal (17) disposed in the bottom surface (12) of the body (1a), and is provided with a gripping part (2) near one side of the upper surface (7) of the body (1a). The connection terminal (17) is disposed near the one side to which the gripping part (2) is provided. The gripping part (2) is provided with a rod-shaped second gripping part (3) which includes a rod-shaped section roughly parallel to the upper surface (7) and extends from the center of the gripping part (2) roughly perpendicularly to the second gripping part (2). A recess (6) is provided to a position below the second gripping part (2) on the upper surface (7) of the body (1a).
A method of delivering audio to one or more client computing devices includes receiving, by an audio server computing device, a live audio signal starting at a first time; processing, by the audio server computing device, the live audio signal, thereby creating a data representation of the live audio signal; transmitting, by the audio server computing device, via a wireless network in electronic communication with the audio server computing device, the data representation of the live audio signal to the one or more client computing devices; interpreting, by the one or more client computing devices, the data representation of the live audio signal, thereby producing an interpreted audio signal; and providing, by the one or more client computing devices, the interpreted audio signal to a user listening device starting at a second time. A latency between the first time and the second time is less than 100 milliseconds.
(54) Title of the invention: CENTRIFUGAL BLOWER

(51) International classification: F04D29/66, F04D29/42
(31) Priority Document No: 2017-124350
(32) Priority Date: 26/06/2017
(33) Name of priority country: Japan
(85) International Application No Filing Date: PCT/JP2018/020862 30/05/2018
(87) International Publication No: WO/2019/003786
(61) Patent of Addition to Application Number: NA
(62) Divisional to Application Number: NA

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(57) Abstract:
This centrifugal blower is provided with an electric motor (60), a centrifugal fan (50), a fan containing section (22), and a motor holder (70). The fan containing section has an intake-side wall (221) located on the fan intake opening side of the centrifugal fan in the direction of the fan axis. The motor holder is provided with an introduction opening forming section (76) which has formed on the inner side thereof an air introduction opening (760) for introducing air to the centrifugal fan, and which has a holder-side fitting section (762) fitting in the intake-side fitting section (23) of the intake-side wall. The motor holder is provided with a holder connection section (74) connected to the intake-side wall. A communication passage (700) for providing communication between the fan discharge opening side and the fan intake opening side is formed between the centrifugal fan and the peripheral edge portion of the air introduction opening. The holder connection section is connected to the intake-side wall by a fastening member (90) while the holder-side fitting section and the intake-side fitting section are fitted to each other with a gap therebetween.
The voltage converter (104) comprises:
- a first heat dissipator (302);
- at least one controllable switch (112, 114) having a heat dissipation face in thermal contact with the first heat dissipator (302); and
- at least one capacitor (124).

The voltage converter (104) further comprises a second heat dissipator (316) and a heat dissipation face (204) of each capacitor (124) is in thermal contact with the second heat dissipator (316).
**Title of the invention:** CONCURRENT USAGE AND SCANNING OF WIRELESS CHANNELS

**Abstract:**
Systems and methods are described for concurrent usage and scanning of wireless channels, particularly with respect to dynamic frequency selection (DFS) and non-DFS channels.

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No. of Pages: 17  No. of Claims: 20
(21) Application No.20191804836 A

(22) Date of filing of Application: 26/11/2019

(43) Publication Date: 24/01/2020

(54) Title of the invention: SEPARATING MINED MATERIAL

| (51) International classification: B07C 5/00 G06F 21/00 H04L 1/00 |
| (31) Priority Document No: 2010902419 |
| (32) Priority Date: 02/06/2010 |
| (33) Name of priority country: Australia |
| (86) International Application No: PCT/AU2011/000691 |
| Filing Date: 02/06/2011 |
| (61) Patent of Addition to Application Number: NA |
| Filing Date: NA |
| (62) Divisional to Application Number: 10412/DELNP/2012 |
| Filed on: 29/11/2012 |

(57) Abstract:
A method of separating a mined material that comprises assessing the grade of successive segments of the mined material, and separating each segment on the basis of grade into a category that is at or above a grade threshold or a category that is below the grade threshold. An apparatus is also disclosed.

No. of Pages: 31  No. of Claims: 18
### Title of the invention: METHOD FOR PRODUCING 5-HYDROXYPIPERIDINE-2-CARBOXYLIC ACID

### International classification
- C07C 233/00
- C07C 309/00
- C07D 211/00
- C07C 309/00
- C07D 211/00

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### Patent of Addition to Application Number
- 201617025320

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### Divisional to Application Number

### Abstract:
A method for producing (2S,5S)/(2R,5R)-5-hydroxytetrahydropyrano[2,3-b]pyridine-2-carboxylic acid indicated by formula (10), the method being characterized in including a step for removing protection from hydroxyl groups in a compound represented by formula (7) and synthesizing a compound represented by formula (8). (In the formula, P indicates a protecting group; R3 indicates an alkyl group having 1-4 carbon atoms; and A indicates an alkyl group having 1-10 carbon atoms, an aryl group having 6-12 carbon atoms, an alkyloxy group having 1-4 carbon atoms, or an aralkyloxy group having 7-20 carbon atoms.) (In the formula, R3 indicates an alkyl group having 1-4 carbon atoms; and A indicates an alkyl group having 1-10 carbon atoms, an aryl group having 6-12 carbon atoms, an alkyloxy group having 1-4 carbon atoms, or an aralkyloxy group having 7-20 carbon atoms.)

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No. of Pages: 103  No. of Claims: 8
The present invention provides compounds of formula (I) which inhibit the activity of PI 3-kinase gamma isoform, which are useful for the treatment of diseases mediated by the activation of PI 3-kinase gamma isoform.

No. of Pages : 379 No. of Claims : 10
Disclosed herein are methods and devices for the acquisition of positron emission (or PET) data in the presence of ionizing radiation that causes afterglow of PET detectors. In one variation, the method comprises adjusting a coincidence trigger threshold of the PET detectors during a therapy session. In one variation, the method comprises adjusting a gain factor used in positron emission data acquisition (e.g., a gain factor used to multiply and/or shift the output(s) of a PET detector(s)) during a therapy session. In some variations, a method for acquiring positron emission data during a radiation therapy session comprises suspending communication between the PET detectors and a signal processor of a controller for a predetermined period of time after a radiation pulse has been emitted by the linac.
The Patent Office Journal No. 04/2020 Dated 24/01/2020

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(54) Title of the invention : COMPOSITE PIPE COMPRISING STAINLESS STEEL PIPE, STEEL PIPE, AND ANTI-CORROSION LAYER, AND MANUFACTURING METHOD THEREFOR

(51) International classification :F16L9/02,F16L58/10,C09J5/00
(31) Priority Document No :10-2017-0076402
(32) Priority Date :16/06/2017
(33) Name of priority country :Republic of Korea
(86) International Application No :PCT/KR2018/006725
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(33) Name of priority country :Republic of Korea

(61) Patent of Addition to Application Number :NA
    Filing Date :NA
(62) Divisional to Application Number :NA
    Filing Date :NA

(57) Abstract :
A composite pipe according to the present invention has a stainless steel pipe with excellent corrosion resistance provided inside an inexpensive steel pipe with excellent strength having the exterior surface thereof treated to be anti-corrosive with resin or coating, the composite pipe thereby having excellent strength, a low price, and an excellent anti-corrosive quality and being appropriate as a pipe for drinking water.

No. of Pages : 37 No. of Claims : 18
The invention relates to a cabinet furniture item having at least one cabinet front (1, 2). A spring-mounted recessed handgrip (4) in the form of a profile element (3) arranged on the rear side of the cabinet front (1, 2) facing away from the front side of the cabinet front (1, 2) is mounted behind the cabinet front (1, 2), the principal direction of longitudinal extent of which profile runs parallel to or perpendicular to the base plane. The profile element (3) is substantially C-shaped or U-shaped in the cross-section transverse to the principal direction of longitudinal extent. Side sections (31, 32), which do not lie in the plane of the base (30), adjoin the base (30) of the profile element (3) on either side, forming the lateral legs of the C-shaped or U-shaped cross-section. An inset profile (5), in which a light fitting is accommodated or may be accommodated, is arranged adjoining at least one of the side sections (31, 32) on the inside of the profile element (3).
A heat exchanger for severe temperature and fluid flow conditions in one configuration includes a first longitudinal shell, a second longitudinal shell, and a transverse shell extending transversely between the longitudinal shells. The longitudinal shells may be parallel to each other. The shells are fluidly coupled directly together to form a common shell-side space between an inlet and outlet tubesheet. A generally U-shaped assembly of shells is thus formed. The tube bundle has a complementary U-shaped configuration comprising a plurality of tubes which extend through the longitudinal and transverse shells between the tubesheets. An expansion joint fluidly couples each longitudinal shell to one of the tubesheets. The shell-side inlet and outlet nozzle may be fluidly coupled to the expansion joints for introducing and extracting the shell-side fluid from the heat exchanger. In another configuration, the heat exchanger may be L-shaped with tube bundle of the same configuration.
The present invention concerns an optoelectronic electrode element which is implantable in a human or animal body for placement on a biological tissue for electrically stimulating and/or sensing physiological parameters of said biological tissue and powered by a source of light energy, said optoelectronic electrode element comprising: (a) an electrode module (40) comprising at least a first and second electrodes (41, 42) each comprising an electrode surface (41s, 42s), (b) an optoelectronic module (20) comprising a photovoltaic cell (21a) suitable for transforming optical energy into electrical energy, (c) a feeding fibre optic (31a), (d) a coupling module (10) comprising: a circuit receiving portion (12) for inserting, positioning, and rigidly fixing the optoelectronic module (20) to the coupling module (10); a feeding fibre cavity (11a) for inserting and coupling the feeding fibre optic to bring it in optimal optical communication with the photovoltaic cell; (e) wherein, the coupling module (10) is coupled directly to a fixing area of the electrode module (40), such that the photovoltaic cell be in electrical contact with the first and second electrodes (41, 42).
The present disclosure relates to a first Web server (102, 204, 60, 70) and a second Web server (108, 214, 80, 90), and methods therein for controlling of a robot device over a cloud interface. A hyper-text transfer protocol, HTTP, request for a trajectory between a start position and a goal position is sent (S120, S230, 302, 402) towards the second Web server. One or more calculated trajectories are obtained (S122, 304) based on information as received encoded in the request. A HTTP response is sent (306) towards the first WEB server, comprising one or more calculated trajectories. Executing (S126, S266; 308, 406) of a trajectory at least based said one or more of the received trajectories is performed by the first Web server (102, 204, 60, 70). A scalable robot device control method is thus proposed, which is advantageously uses stored calculated trajectories between start and goal positions, for the robot device.

![Diagram of robot device control method]

No. of Pages : 22 No. of Claims : 20
The present disclosure relates generally to reactor cells comprising an enclosure and one or more plasmonic photocatalysts on a catalyst support disposed within the enclosure. In some embodiments of the disclosure, the enclosure is at least partially optically transparent.
An apparatus and a method for remote crane control, the apparatus comprising: a memory for storing instructions; and a processing unit configured to execute the instructions stored in the memory to control the apparatus to: receive one or more images comprising a view of a location on which a crane spreader is to land; display the one or more images on a display; receive user input to mark one or more markers on the one or more received images to facilitate landing of the crane spreader; and transmit position data of the one or more markers in the one or more received images to a processor for determining values defining positioning of the crane spreader relative to the position data of the one or more markers to offset so that the crane spreader proceeds to land based on the determined values.
The present invention provides a slurry composition comprising an electrochemically active material and/or an electrically conductive agent, and a binder comprising a polymer comprising a fluoropolymer dispersed in an organic medium; wherein the organic medium has an evaporation rate less than 10 g/min m², at the dissolution temperature of the fluoropolymer dispersed in the organic medium. The present invention also provides electrodes and electrical storage devices.
Title of the invention: ELECTRODE SLURRY COMPOSITION FOR LITHIUM ION ELECTRICAL STORAGE DEVICES

Abstract:
The present invention provides a slurry composition comprising (a) a binder comprising a polymer comprising a fluoropolymer dispersed in a liquid medium; and (b) at least one conductive carbon material having a BET surface area of greater than 100 m²/g. Also provided are electrodes and electrical storage devices.

Figure 3

No. of Pages: 45 No. of Claims: 43
Combination of an extraction device for a worktop and a pan (5), having one or more extraction openings (3) in a main surface of the worktop. An extraction motor (10) is present in communication with the extraction opening (3) via an associated extraction duct and arranged to provide an area of low pressure in the extraction opening (3) for extracting cooking fumes. An extraction area displacement element (8; 14; 15; 16; 22) is present as part of the pan (5) or as a separate part. When the pan (5) is placed on the pan support (2) during operation, the extraction area displacement element (8; 14; 15; 16; 22) is configured to move the area of low pressure to an area near a rim (7) of the pan (5) or configured to direct cooking fumes from the rim (7) of the pan (5) towards the area of low pressure.

Fig. 1
This oriented electromagnetic steel sheet has: a base metal steel sheet; a middle layer disposed over and in contact with the base metal steel sheet; and an insulation film disposed over and in contact with the middle layer and serving as the top surface layer. The insulation film has an average Cr concentration of 0.1 at% or higher. In a cross section of the steel sheet, where the cutting direction is parallel to the direction of thickness, a compound layer having crystalline phosphide is observed in the region where the insulation film is in contact with the top of the middle layer.
Title of the invention: GRAIN-ORIENTED ELECTRICAL STEEL SHEET

Abstract:
This oriented electromagnetic steel sheet is provided with a base material steel sheet, an oxide film formed on the base material steel sheet and formed from amorphous SiO2, and a tension insulating film formed on the oxide film. As chemical components, the base material steel sheet contains, by mass percent, less than or equal to 0.085% C, 0.80-7.00% Si, less than or equal to 1.00% Mn, less than or equal to 0.065% acid soluble Al, and less than or equal to 0.050% of the Seq represented by S+0.406Se, the remainder consisting of Fe and unavoidable impurities. Regarding the FWHMs, i.e., the half-value widths of the peaks of cristobalite-type aluminum phosphate obtained by X-ray diffraction, (i) the half-value width (FWHM-Co) of the peak appearing at 2θ = 24.8° when using a Co-α excitation source is less than or equal to 2.5 degrees, or, (ii) the half-value width (FWHM-Cu) of the peak appearing at 2θ = 21.3° when using a Cu-α excitation source is less than or equal to 2.1 degrees.
(54) Title of the invention : ANTIMICROBIAL POLYMER COMPOSITION

(51) International classification : A01N65/06, A01N25/10, A01P1/00
(31) Priority Document No : 17175923.6
(32) Priority Date : 14/06/2017
(33) Name of priority country : EPO
Filing Date : 14/06/2018
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

(57) Abstract :
A polymer composition comprising an antimicrobial material for inhibiting the growth of microorganisms in close proximity to said polymer composition. The polymer composition comprises: (a) a polymeric substrate comprising a first polymer and a second polymer, and (b) an antimicrobial material comprising coniferous resin acid(s) dispersed in the polymeric substrate. The water contact angle of the first polymer is not more than 80°.

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No. of Pages : 11 No. of Claims : 14
**Title of the invention:** GRAIN-ORIENTED ELECTRICAL STEEL SHEET

**Abstract:**
This oriented electromagnetic steel plate comprises a steel plate and an amorphous oxide film formed on the steel plate. As the chemical composition, the steel plate contains, in mass %, less than or equal to 0.085% C, 0.80-7.00% Si, less than or equal to 1.50% Mn, less than or equal to 0.065% acid soluble Al, less than or equal to 0.013% S, 0-0.80% Cu, 0-0.012% N, 0-0.50% P, 0-1.00% Ni, 0-0.30% Sn and 0-0.30% Sb, the remainder consisting of Fe and impurities, and the NSIC value of the surface, which is the value obtained by measuring the image clarity of the surface with an image clarity measurement device, is greater than or equal to 4.0%.

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No. of Pages: 30
No. of Claims: 3
The invention relates to a method for exchanging heat contained in a fluid. A gas which is heated indirectly and emits infrared radiation is used as the fluid, said fluid being guided to the heat exchanger via an inlet and through an absorber chamber in the heat exchanger, and at least one surface, which absorbs the infrared radiation of the gas in order to use the heat of the gas, is provided in the absorber chamber. The mass flow and the temperature of the gas are additionally adjusted and the at least one surface which is absorbent for the heat exchange is designed such that the ratio \( \psi \) of the heat flowing through the surface as a result of absorption to the total heat flowing through the surface is \( \geq 0.6 \) during operation. Thus, a simpler and less expensive heat exchanger can be implemented.
This oriented electromagnetic steel sheet comprises a steel sheet 1, an intermediate layer 4 arranged on the steel sheet and containing Si and O, and an insulation film 3 arranged on the intermediate layer, wherein the intermediate layer 4 contains metal phosphide 5, the thickness of the intermediate layer 4 is greater than or equal to 4 nm, and, in a cross-section of the intermediate layer 4, the amount of the metal phosphide 5 is 1-30% in cross-sectional area percentage.

No. of Pages : 62 No. of Claims : 10
Title of the invention: HETERO-DIMERIC MULTI-SPECIFIC ANTIBODY FORMAT TARGETING AT LEAST CD3 AND HSA

Abstract:
This invention relates to novel hetero-dimeric multi-specific format of multiple antibody variable domains comprising a core of two split variable domain pairs wherein both variable light domains and the two cognate variable heavy domains are positioned in tandem on two separate protein chains, respectively.

Figure 4:

Effect size over time in Jurkat T cells

No. of Pages: 57 No. of Claims: 26
INTERNAL COMBUSTION PISTON RECIPROCATING ENGINE WITH MODIFICATION OF EXHAUST MANAGEMENT

Title of the invention: INTERNAL COMBUSTION PISTON RECIPROCATING ENGINE WITH MODIFICATION OF EXHAUST MANAGEMENT

Abstract:
Internal Combustion Engine operating on fundamental four stroke cycle of either Otto or Diesel, with two inlet and two exhaust valves per cylinder modifying the exhaust implementation by increasing the exhaust ports to two per cylinder (Fig 1.22 - 23) each dedicated per valve (Fig 1.4 - 3), where the valves are activating sequentially to perform the exhaust task (Fig 3.4 - 3) in the exhaust stroke. The exhaust stroke starts with the first activating valve (Fig 1.4), (Fig 3.4) guiding its gasses to an energy recovery unit and at about the middle of the exhaust stroke the first valve closes and opens the second valve (Fig 1.3) (Fig 3.3) guiding the remaining gases to unobstacled exit to perform the scavenging task, obtaining concurrently an intense exploitation of the first valves gases along with an efficient scavenging process with volumetric efficiency support of the second valves gases, by separating the between them negative interferences. Two topologies utilizing two first exhaust activated valves per cylinder, first in (Fig 8) and second in (Fig 12), are implementing. Two stroke engine is utilized with valves only in cylinder head, with four valves per cylinder as in (Fig 1) with timing in (Fig 16) and with five valves as in (Fig12) with timing in (Fig18).

No. of Pages : 34 No. of Claims : 7
The general field of the invention is that of sighting or spotting scopes including, in a single mechanical structure (80), a camera (10) and a video microdisplay (50) in association with an eyepiece (60). The eyepiece of the scope according to the invention includes an optical combiner (70) that is arranged so as to superpose the image of the video microdisplay over the outside landscape. In one variant, the scope includes a luminous symbol or dot (95) and an optical device (90) that is arranged to superpose the image of said luminous symbol or dot over said image of the video microdisplay and over the outside landscape. The optical chain consisting of the camera, the microdisplay and the eyepiece has a magnification of one, the image of the microdisplay conforming to that of the outside landscape.

FIG. 3

No. of Pages : 13  No. of Claims : 12
The invention relates to a method for operating an island network (1) comprising a group of voltage-adjusting converters (9a, 9b) for converting power of regenerative energy sources (3a, 3b) into AC power in a manner corresponding to a frequency/power characteristic curve (20a, 20b). The island network (1) further comprises a load (6), which depends on a voltage amplitude ›0 of an alternating voltage of the island network (1), and a control unit (11) which transmits a specification value of the voltage amplitude ›0 to the group. The power Pload to be consumed by the load (6) is adapted by changing the frequency/power characteristic curve (20a, 20b) of one of the converters (9a, 9b) depending on the available power of the regenerative energy source (3a, 3b) to a higher frequency for a given power in order to check whether the available power of the regenerative energy source (3a, 3b) lies above the current power or to a lower frequency for a given power if the regenerative energy source (3a, 3b) cannot generate the power assigned to the current frequency according to the frequency/power characteristic curve (20a, 20b); determining a frequency f2 of the alternating voltage in the island network (1) as a result of the change of the frequency/power characteristic curve (20a, 20b) by the control unit (11); and increasing a specification value of the voltage amplitude ›0 to the group by means of the control unit (11) if the determined frequency f2 lies above a nominal frequency fnom of the island network (1) or lowering the specification value if the determined frequency f2 lies below the nominal frequency fnom. The invention also relates to an island network (1) for carrying out the method.
Title of the invention: FUCOSYLTRANSFERASES AND THEIR USE IN PRODUCING FUCOSYLATED OLIGOSACCHARIDES

Abstract:
Disclosed are novel fucosyltransferases being capable of transferring a fucose residue from a donor substrate to a lactotetraose, methods for producing fucosylated oligosaccharides utilizing said fucosyltransferases, and the use of the thus produced fucosylated oligosaccharides for manufacturing nutritional compositions.

No. of Pages: 54
No. of Claims: 15
A stuffed food processing device, comprising a housing (1), a skin material auger (5), a vertical auger (8), a left pressing frame (9), and a right pressing frame (10). The described five parts form three mechanisms: a skin material extruding and molding mechanism composed of the housing and the skin material auger which cooperate with each other; a stuffing material accommodating and injecting mechanism composed of an inner cavity of the skin material auger and the vertical auger which cooperate with each other; and a pressing and cutting mechanism composed of the left pressing frame and the right pressing frame which cooperate with each other. The skin material extruding and molding mechanism produces continuous tubular skin materials by means of a molding slot (19). The stuffing material accommodating and injecting mechanism is responsible for injecting stuffing into the tubular skin materials. The pressing and cutting mechanism is responsible for sealing the opening and cutting. The key for integrating the skin material extruding and molding mechanism with the stuffing material accommodating and injecting mechanism is a conical structure. The housing, the outer contour of the skin material auger and the inner cavity of the skin material auger are all conical.
The invention relates to an aftertreatment arrangement (10) for the aftertreatment of at least gases downstream of a fluid bed gasification system, in particular downstream of an HTW gasifier (1) of a pressure-loaded fluid bed gasification system, having a particle separation unit (2; 11) which can be arranged downstream of the fluid bed gasification system and upstream of a gas cooler (3) that can be used for the further aftertreatment of the gases, wherein the aftertreatment arrangement comprises an intermediate cooling unit (12) which can be arranged downstream of the fluid bed gasification system and upstream of the particle separation unit (11), having a return (B1) for gasification vapor (B) that can be coupled to the fluid bed gasification system. The invention further relates to a method for the aftertreatment of at least gases downstream of a fluid bed gasification system and to the use of an intermediate cooling unit.
### Patent Application

**Title of the Invention:** METHOD OF MAINTAINING A MELT FLOW INDEX OF A POLYETHYLENE POLYMER PRODUCT

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4. FARLEY, Jim

**Abstract:**

The present disclosure provides a method of maintaining a target value of a melt flow index of a polyethylene polymer product being synthesized with a metallocene catalyst in a fluidized bed gas phase reactor. The method includes producing the polyethylene polymer product at the target value of the melt flow index with a metallocene catalyst in a fluidized bed gas phase reactor at a steady state in which the fluidized bed gas phase reactor is at a first reactor temperature and receives feeds of hydrogen and ethylene at a hydrogen to ethylene feed ratio at a first ratio value. When a change in reactor temperature is detected, the hydrogen to ethylene feed ratio is changed from the first ratio value to a second ratio value so as to maintain the melt flow index value of the polyethylene polymer product at the target value.
Abstract:
Provided are an application of a plasminogen to regulate and control the GLP-1/GLP-1R and the treatment of GLP-1/GLP-1R related diseases.
An imaging lens, comprising in sequence from the object side to the image side along the optical axis: a first lens (E1), a second lens (E2), a third lens (E3), a fourth lens (E4) and a fifth lens (E5). The first lens (E1) has positive focal power, and the object side surface (S1) and the image side surface (S2) thereof are both convex; the second lens (E2) has negative focal power, and the object side surface (S3) and the image side surface (S4) thereof are both concave; the third lens (E3) has positive focal power, and the image side surface (S6) thereof is convex; the fourth lens (E4) has negative focal power, and the image side surface (S8) thereof is concave; the fifth lens (E5) has positive or negative focal power, wherein the maximum half field of view angle HFOV of the imaging lens satisfies HFOV≤25°.
Title of the invention: ANTI-CD8 ANTIBODIES AND USES THEREOF

Abstract:
Anti-CD8 antibodies, radiolabeled anti-CD8 antibodies, fluorescently labeled anti-CD8 antibodies and their use in imaging are provided herein. Included are methods of detecting the presence of CD8 proteins in a subject or sample.
Title of the invention: ASSAYS FOR ASSESSING NEUTRALIZING ANTIBODIES LEVELS IN SUBJECTS TREATED WITH A BIOLOGICAL DRUG AND USES THEREOF IN PERSONALIZED MEDICINE

Abstract:
The invention relates to assays, devices and kits for accurate determination of neutralizing antibodies levels in samples of a subject suffering from an immune-mediated disorder, treated with biological drugs, and for predicting responsiveness to the drug in these patients.
The present disclosure provides certain angular tricyclic compounds that are histone methyltransferases G9a and/or GLP inhibitors and are therefore useful for the treatment of diseases treatable by inhibition of G9a and/or GLP such as cancers and hemoglobinopathies (e.g., beta-thalassemia and sickle cell disease). Also provided are pharmaceutical compositions containing such compounds and processes for preparing such compounds.

No. of Pages : 181  No. of Claims : 97
Title of the invention: METHOD FOR MANUFACTURING ABSORPTION PRODUCT

Abstract:
A method for manufacturing an absorption product, according to the present invention, may comprise: a preprocessing step of corona-treating a plate-shaped first sheet limiting permeation of defecation to reduce the contact angle of one surface of the first sheet with water; and a sensing pattern forming step of forming a sensing pattern by printing or coating a conductive ink containing water on the one surface of the sheet, which has increased hydrophilic properties due to the corona treatment, to enable communication of a detection signal for the defecation.
A fill-finish cartridge includes a carrier, a fluid pathway connection, a needle insertion mechanism, and a drug container. The cartridges enable drug containers to be filled with pharmaceutical treatments using standard filling equipment and process systems, while maintaining the sterility and container integrity of the fluid pathway. The fill-finish cartridges of the present invention can be nested or removably housed in fill-finish trays for batch filling in standard operating processes. As such, the adaptable fill-finish cartridges of the present invention may be flexibly inserted, attached, mounted, or otherwise removably positioned in fill-finish trays. These embodiments, accordingly, may provide novel and cost-efficient assemblies and cartridges which are readily integrated into drug filling processes. Methods of assembly, manufacture, and use are also provided.
Disclosed is an object blending method and apparatus in a panoramic video. A specific embodiment of the method comprises:

1. Playing a panoramic video in a panoramic video player.
2. Obtaining a target object.
3. Parsing the target object to obtain a coordinates parameter and a texture parameter of the target object.
4. Configuring the color of each pixel when the target object is blended into the panoramic video according to the coordinates parameter and the texture parameter, so as to obtain a colored target object.
5. Blending the colored target object into the panoramic video.

This embodiment can not only play content of a panoramic video, but well blend a target object into the played panoramic video, thereby enhancing the effect performance of the panoramic video.
### Title of the invention: ABSORPTION PRODUCT PROVIDED WITH TERMINAL UNIT

| (51) International classification | A61F13/44, A61F13/42, A61B5/00 |
| (31) Priority Document No. | 10-2017-0069600 |
| (32) Priority Date | 05/06/2017 |
| (33) Name of priority country | Republic of Korea |
| (86) International Application No. | PCT/KR2018/005600 |
| Filing Date | 16/05/2018 |
| (61) Patent of Addition to Application Number | NA |
| Filing Date | NA |
| (62) Divisional to Application Number | NA |
| Filing Date | NA |

### Abstract:
An absorption product, according to the present invention, comprises: sheet portions, provided in two or more and separate from each other, at a defecating area where defecation of a user is received, and each provided with a pattern through which electricity is communicated; and a terminal unit provided with three or more terminals physically in contact with the pattern and detachably formed on the sheet portions, wherein the terminals and the patterns are formed so that at least one terminal is brought into physical contact with each of the at least two patterns that are separate from each other, when the terminal is installed on the sheet portions, and wherein a detection module for generating a detection signal which detects the defecation and providing the detection signal to the terminals can be provided on the terminal unit.
ENHANCED THROUGH-THICKNESS RESIN INFUSION FOR A WIND TURBINE COMPOSITE LAMINATE

A wind turbine composite laminate component and method for producing it is disclosed as initially assembling a laminated structure having at least two reinforced layers and a plurality of interleaf layers positioned adjacent to one of the at least two reinforced layers. Then placing the laminated structure into a mold where resin is sequentially and independently transferred into each of the plurality of interleaf layers. Then curing the transferred resin in the laminated structure to form a composite laminate component having the at least two reinforced layers, the plurality of interleaf layers, and cured resin.
A reinforced separator for alkaline hydrolysis (1) comprising a porous support (10), a first porous polymer layer (20) contiguous with one side of the support and a second porous polymer layer (30) contiguous with the other side of the support, characterized in that the maximum pore diameter at the outer surface of the first porous polymer layer (PDmax(1)) and of the second porous polymer layer (PDmax(2)) are different from each other and wherein a ratio between PDmax(2) and PDmax(1) is between 1.25 and 10.
The present invention is directed to the use of cangrelor for the treatment and/or prevention of shunt thrombosis in patients suffering congenital heart diseases undergoing shunt surgery. The invention is also directed to the use of cangrelor for the treatment and/or prevention of stent thrombosis in pediatric patients undergoing stent implantation.

**Figure 1**

```
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<tr>
<th>Patients with shunt thrombosis</th>
<th>Time (hours)</th>
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<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
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</tr>
<tr>
<td>9</td>
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No. of Pages: 36 No. of Claims: 27
Title of the invention: APPARATUS, METHOD, AND SYSTEM OF INSIGHT-BASED COGNITIVE ASSISTANT FOR ENHANCING USER'S EXPERTISE IN LEARNING, REVIEW, REHEARSAL, AND MEMORIZATION

Abstract:
A personal intuition-based cognitive assistant system includes one or more components which may be worn by a user as a camera-headset, one or more sensors that capture an intuitive state of the user, a camera that capture videos, a processor that provides a cognitive navigating map for the captured videos based on the captured intuitive states of the user, and an inputter that input notes, comments to the videos linked by cognitive navigating map, and a memory to store all components of the information with links and identified cognitive map.
Title of the invention: VEHICULAR TRANSMISSION SYSTEM

Abstract:
This vehicular transmission system comprises: a transmission (21) in which a gear is shifted by an operation of the driver of a vehicle (1); a clutch device (26) that is disposed in a motion transfer path between the transmission (21) and an engine (13) of the vehicle (1), and is engaged and disengaged by the action of a clutch actuator (50); and a clutch control part (61) that controls the engaging and disengaging of the clutch device (26) by the clutch actuator (50). When the vehicle (1) begins moving at or above a gear for which the gear position of the transmission (21) is set in advance, and the velocity (V) is either below or no more than a set value (v2) that is set in advance, the clutch control part (61) transitions to clutch capacity-limiting control in which the clutch capacity is reduced below that of normal clutch control.
METHOD FOR PRODUCING H-SHAPED STEEL

This method for manufacturing a steel H-beam comprises a rough rolling step, an intermediate rolling step, and a finishing rolling step. A rolling machine that performs the rough rolling step is provided with a plurality of grooves that shape a to-be-rolled material. The plurality of grooves include: one or a plurality of dividing grooves in which protrusions are formed that cause a divided part to be formed in an end portion of the to-be-rolled material by forming a cut in a direction perpendicular to the width direction of the to-be-rolled material; and a plurality of bending grooves in which protrusions are formed that contact the cut and sequentially bend the divided part formed at the dividing groove. The protrusion formed in a final dividing groove among the dividing grooves is constituted by a tapered tip part having a prescribed tip angle and a base part located at the base of the tip part and having a tapered shape with a gentler slope than the tip part.
The present disclosure relates to an information processing device and method which make it possible to suppress a reduction in coding efficiency. Information relating to quantization of a three-dimensional position to be encoded is generated. The information relating to the quantization includes, for example, information relating to a coordinate system in which the quantization is to be performed, information relating to a bounding box for normalizing the position information to be encoded, or information relating to a voxel for quantizing the position information to be encoded. Further, the three-dimensional information to be encoded is restored from a signal sequence on the basis of the information relating to the quantization of the three-dimensional position to be encoded. The present disclosure is applicable, for example, to information processing devices, image processing devices, electronic instruments, information processing methods and programs.
The present invention discloses a method for creating spin-affected electric currents passively and feeding them into electric devices (9). The invention can be realized as either a rectangular black box incorporating coatings (2a, 2b) on top of and on the bottom of a conducting volume of material (1), or by coating (11) a round-shaped wire or thread(s) (10) of a cable. This is obtained by using a specific coating material on the conducting piece of material. The material may be piezoelectric, such as silicon dioxide (i.e. quartz) but also silicon carbide (SiC) may be used. Also mixtures and composite arrangements are possible in order to create a coating (2a, 2b, 11). The manufactured add-on unit (8), when supplied with the input power or input signal, will act as an electron spin feeding device to the electric device (9) because the electrons will be moving strongly within the interface area of the coating (2a, 2b, 11) and the conducting material (1, 1A, 1B, 10) with aligned spins. The resulting effect also lasts longer within the electric device (9) than just the time when the add-on unit (8) is connected to the electric device (9).
Title of the invention: HIGH FIBER DENSITY RIBBON CABLE

Abstract:
An optical fiber cable includes a jacket and a plurality of stranded core subunits, each core subunit comprising a flexible sheath and a plurality of ribbons arranged in a ribbon group, wherein each ribbon of the plurality of ribbons comprises a plurality of connected fibers such that 50-70% of the cross-sectional area inside the sheath is occupied by the connected fibers. The flexible sheath may be an extruded PVC material that conforms to the shape of the ribbon stack and keeps all of the ribbons acting as a unitary body during bending.

No. of Pages: 39 No. of Claims: 36
METHOD FOR PRODUCING A TEXTURED GLASS SUBSTRATE COATED WITH AN ANTI-REFLECTIVE SOL-GEL-TYPE COATING

The invention relates to a method for producing a material comprising a textured glass substrate coated on at least one of the textured surfaces thereof with an anti-reflective sol-gel-type coating comprising porous silica, said method comprising the following steps: a step of applying a solution containing at least one silica precursor and at least one pore forming agent to the at least one textured surface of the substrate; and subsequently subjecting same to a heat treatment in order to strengthen the anti-reflective coating, said method being such that, prior to the application step, the glass substrate is subjected to a pre-heating step such that the at least one textured surface intended to be coated with the anti-reflective coating has a temperature within a range from 30 to 100°C, in particular 50 to 80°C, immediately prior to the application step.

No. of Pages : 14 No. of Claims : 14
Provided herein are methods for preparing sequencing libraries for determining the methylation status of nucleic acids from a plurality of single cells. The present methods combine split-and-pool combinatorial indexing and bisulfite treatment techniques to characterize the methylation profiles of large numbers of single cells quickly, accurately and inexpensively.
**Title of the invention:** PROCESSING PAYMENTS

| Abstract: | A personal communication device for processing financial information via a payment terminal, the payment terminal being configured to output a wireless signal is configured to receive the wireless signal of a payment terminal; determine whether the received wireless signal has a strength above a first signal threshold. If the received signal strength is above the first signal strength threshold, it emits a wireless request signal to cause the payment terminal to establish a communication channel with the personal communication device, wherein the request signal causes the payment terminal to establish only one communication channel, wherein the communication channel is only between the said personal communication device and the payment terminal. When a financial transaction at said personal communication device is concluded, it emits a wireless release signal to close down the communication channel so that the payment terminal can establish another communication channel with another personal communication device. |

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| No. of Pages: | 30 | No. of Claims: | 14 |
The application relates to the human endogenous retroviral protein. This human endogenous retroviral protein is herein generally referred to as HEMO. The application relates more particularly to shed forms of the HEMO protein, more particularly to those shed forms, which are released in the circulating blood. The application also relates to products deriving from the shed forms of HEMO, such as antibodies, nucleic acid vectors and engineered cells, as well as to the medical or biotechnological applications of these shed forms or derived products, notably in the fields of placental development, fetus protection, cancer treatment and stem cell production.
A method of operating a payment terminal comprises receiving an activation input, and in response thereto outputting a first wireless signal for communicating with an external payment device of a first type and a second wireless signal for communicating with an external payment device of a second type. The first and second wireless signals are formatted in respective mutually different first and second protocols. The method further comprises receiving a reply to one of the first and second wireless signals and in response to the reply, terminating outputting of the other of the first and second wireless signals.
(54) Title of the invention : SIDE-LOAD AIR FILTER ASSEMBLIES AND METHODS OF USE

(51) International classification : B01D46/00, B01D46/52
(31) Priority Document No : 62/515284
(32) Priority Date : 05/06/2017
(33) Name of priority country : U.S.A.
(36) Title of the invention : SIDE-LOAD AIR FILTER ASSEMBLIES AND METHODS OF USE
(37) International classification : B01D46/00, B01D46/52
(38) Priority Document No : 62/515284
(39) Priority Date : 05/06/2017
(40) Name of priority country : U.S.A.
(41) Abstract : An air cleaner assembly is disclosed. In one aspect, the air cleaner assembly includes a housing defining an inlet and an outlet, and including an access opening between the inlet and outlet. The air cleaner also includes a filter cartridge received within the housing and covering the access opening. The air cleaner also includes a lock mechanism. The lock mechanism is movable between an unlocked position in which the filter cartridge can be installed and removed from the housing and a locked position in which the filter cartridge is secured within the housing. The filter cartridge and lock mechanism include interacting features allowing the lock mechanism to be moved from the unlocked position to the locked position only when the filter cartridge is installed within the housing.

<table>
<thead>
<tr>
<th>(71) Name of Applicant :</th>
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<tbody>
<tr>
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<tr>
<td>Address of Applicant : 1400 West 94th Street P.O. Box 1299 Minneapolis, MN 55440-1299 U.S.A.</td>
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<table>
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<tr>
<th>(72) Name of Inventor :</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) CAMPBELL, Steven, K.</td>
</tr>
<tr>
<td>2) BURTON, David J.</td>
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<td>3) NELSON, Benny</td>
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<tr>
<td>4) WESSELS, Timothy J.</td>
</tr>
<tr>
<td>5) ADAMEK, Daniel, E.</td>
</tr>
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<td>6) JOHNSTON, Robert P.</td>
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</table>

No. of Pages : 59 No. of Claims : 182
The invention relates to a reed (15) and to a method for producing the same. The reed (15) has a multiplicity of dents (16), which are arranged in a width direction (B), forming interspaces (25) each having a dent spacing (x). Each dent (16) has two opposite end sections (19), at which the dents are respectively connected to a carrier (27) and to the immediately adjacent dent or dents (16) by an adhesive connection. In at least one or both end sections (19), the dent (16) has a plurality of a spacer studs (30), which are preferably produced by embossing. The spacer studs (30) form a depression on the one, first side (S1) and, on the opposite, second side (S2), form a projection having a stud outer surface (F). The sum of all the stud outer surfaces (F) of the spacer studs (30) of a single end section (19) of a dent (16) has a proportion of at most 15% or at most 10% or at most 8% on the total end section surface on this second side (S2).
(57) Abstract:
It is disclosed a theft-detection assembly for detecting the theft of an item, the theft-detection assembly comprising: a wireless power transmitter configured to broadcast electromagnetic waves within a given area; a locator device configured to be associated with the item and comprising a wireless power receiver configured to receive the electromagnetic waves. The locator device further comprises an actuating unit and an alarm unit, wherein: the actuating unit is connected to the wireless power receiver and is configured to, in the absence of the electromagnetic waves, actuate the alarm unit; and the alarm unit comprises a radio module configured to, upon actuation, transmit an alarm message over a wireless communication network.

Fig. 1

No. of Pages : 26 No. of Claims : 17
Abstract:
It is disclosed an anti-tampering assembly for the transportation and storage of a package, the anti-tampering assembly being configured to be associated with the package. The anti-tampering assembly comprises: a tampering detection unit comprising a RFID passive tag and a tampering track of a conductive material configured to be connected to said RFID tag upon dispatching the package so as to inhibit the operation of the RFID tag, wherein the tampering track is configured to be interrupted in case of tampering of the package; an actuating unit configured to detect the interruption of the tampering track in case of tampering of the package and, upon detection, actuate an alarm unit; and the alarm unit comprising a radio module configured to, upon actuation, transmit an alarm message over a long range wireless communication network.
Provided are a chained multi-port grid-connected interface apparatus and a control method therefor. The chained multi-port grid-connected interface apparatus comprises: a commutation chain, at least one direct-current converter, and at least one direct-alternating converter, wherein the commutation chain is formed by at least two sub-module units connected in series in the same direction, one end of the direct-current converter is connected to a direct-current end of the sub-module unit, and the other end is a direct-current interaction port of the chained multi-port grid-connected interface apparatus, a direct-current connection end of the direct-alternating converter is connected to the direct-current end of the sub-module unit, and an alternating-current connection end is an alternating-current interaction port of the chained multi-port grid-connected interface apparatus. The chained multi-port grid-connected interface apparatus provides multiple ports independent from each other for the access of a low-voltage power supply, loads and an energy storage unit, realizing plug and play, thereby greatly reducing the implementation difficulty and cost.
The present invention relates to a fluid dispenser (101) comprising: a pouch (2), the internal volume of which is delimited by a deformable wall (22); a bearing surface (25); a dispensing part (23) comprising a dispensing housing (8); an outlet (24); a dispensing orifice (108) connecting the pouch to the dispensing housing; a dispensing valve (5) situated in the dispensing housing (8).
An embodiment of the application relates to a method, terminal device and network device for scheduling resources. The method comprises a terminal device determining a first resource, wherein the first resource is an available resource or an unavailable resource, the unavailable resource is a resource that the second resource interferes with, and/or that is capable of interfering with the second resource, the available resource is a resource other than the unavailable resource, and the second resource is used by the terminal device in a second communications mode to communicate with a second network; and the terminal device transmitting first resource information to the first network device, wherein the first resource information includes the first resource, the first resource information is used by the first network device to allocate resources to the terminal device, and the terminal device is used to communicate with the first network device in a first communications mode. The resource allocation method, terminal device and network device of the embodiment of the application enables the reduction or avoidance of interference.
The invention relates to novel laser markable compositions comprising developing agent precursors according to formula (I).
Disclosed in embodiments of the present application are an information processing method and apparatus. An specific implementation of the method comprises: generating packing codes according to information of a target SKU, wherein the information of the target SKU comprises a code of the target SKU, and the packing codes being used for identifying size information of the target SKU to be put in a box; associatively saving the information of the target SKU and the packing codes; searching for the packing codes saved in association with the code of the target SKU, and determining the number of the found packing codes; if the number is greater than or equal to 2, executing one of the following steps: keeping a target packing code and deleting packing codes in the found packing codes other than the target packing code; tagging the target packing code by means of a first tag, and tagging the packing codes in the found packing codes other than the target packing code by means of a second tag. The implementation improves the degree of automation of information processing and reduces the redundancy of information.
**Title of the invention:** RADIO NETWORK NODE, WIRELESS DEVICE AND METHODS PERFORMED THEREIN BEAM MEASURING FOR CELL QUALITY DERIVATION

| International classification | :H04W24/10,H04W16/28 |
| (31) Priority Document No | :62/520630 |
| (32) Priority Date | :16/06/2017 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No | :PCT/SE2018/050549 |
| Filing Date | :31/05/2018 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

**Abstract:**
A radio network node, a wireless device and methods performed therein for handling communication in a wireless communication network are provided. The method performed by the wireless device comprises obtaining an indication indicating which beams to be included in a cell quality derivation of a cell; and performing one or more measurements on one or more beams, which one or more beams are selected based on the obtained indication. Furthermore, a computer program product and a computer readable storage medium are also provided herein.

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2. MTTANEN, Helka-Liina
3. DA SILVA, Icaro L. J.

No. of Pages: 21
No. of Claims: 26
Embodiments of the present application relate to a resource scheduling method, a terminal device, and a network device. The method comprises: a first terminal device receiving indication information and resource licensing information sent by a network device, the resource licensing information being used to indicate a licensed resource allocated by the network device to the first terminal device, and the indication information being used to indicate that the licensed resource is to be used to send data carried by a target logical channel; and the first terminal device using the licensed resource, according to the indication information and the resource licensing information, to send the data carried by the target logical channel to the second terminal device. The resource scheduling method, the terminal device, and the network device in the embodiments of the present application can flexibly configure transmission resources in special application scenarios for terminal devices.
Provided in embodiments of the present application are a method and device for controlling a copy data transmission function in a dual connection, capable of controlling a copy data transmission function between a cell group and a terminal device. The method comprises: a terminal device receives indication information sent by a network device, wherein the indication information is used for indicating a message to which at least one piece of first information belongs and/or a bit position of the first information in the message to which the first information belongs, and the at least one piece of first information is respectively used for activating or deactivating the copy data transmission function of at least one bearer of the terminal device; the terminal device determines, according to the indication information and according to the received message for activating or deactivating the copy data transmission function of the bearer, a bearer the copy data transmission function of which needs to be activated or deactivated.
A transaction authorization request message is received. The message includes a payment token and a merchant identifier. The payment token is detokenized to detect account mapping for the payment token. From the account mapping, it is determined that a debit transaction option and an ACH (automated clearing house) transaction option exist for the payment token. A selection is made between the debit transaction option and the ACH transaction option based at least in part on the merchant identifier.
**Title of the invention:** PROCESS FOR PRODUCING OLEFINS FROM ALCOHOLS

**Abstract:**
The invention relates to a process for producing olefins from alcohols by means of catalytic dehydration. More in particular, the present invention relates to a process for producing at least one olefin by dehydrating at least one alcohol having a number of carbon atoms comprised between 2 and 6, preferably comprised between 2 and 4, more preferably at least one alcohol having a number of carbon atoms of 3, even more preferably 2-propanol, in the presence of a catalytic material comprising at least one large pore zeolite in acid form, or predominantly acid form, preferably selected from the group consisting of zeolites having BEA structure, MTW structure and mixtures thereof, and preferably at least one inorganic binder, more preferably alumina. Preferably, the olefin has the same number of carbon atoms as the starting alcohol. Furthermore, preferably the olefin does not contain conjugated double bonds and more preferably the olefin is a mono-olefin. Subject matter of the present invention is also the use of the aforementioned olefin in an alkylation process of aromatic hydrocarbons, in particular the use of propylene for alkylation benzene to provide cumene. The aforementioned cumene can be used in an integrated process for preparing phenol and acetone, in accordance with the Hock method, wherein acetone can be reduced to 2-propanol, to be recycled to the process of the invention to obtain propylene again.

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| Patent Office Journal No. 04/2020 Dated 24/01/2020 | 5059 |
Disclosed is a nesting element for use in a hollow pile. The nesting element is configured to be retained at an opening defined in a wall of the pile. The nesting element comprises a surface that is configured such that, in use, the surface substantially conforms to an internal profile at a transverse cross-section of the pile. Also disclosed are a pile system that employs one or more nesting elements in one or more respective piles, and an installation system for installing the pile system into the ground. Additionally, a method of constructing a retaining wall using the pile system and installation system is disclosed.
The invention relates to a system (2) for controlling a disengageable hydraulic transmission (1) for a vehicle, involving the circulation and the pressurisation of a transmission fluid, said system (2) comprising: - means (21) for collecting information relative to the operation of the hydraulic transmission (1) since the last time the transmission was serviced, - means (22) for estimating an ageing state of the transmission fluid based on the information collected, and - means (23) for controlling the disengageable hydraulic transmission (1) as a function of the estimated ageing state.
An access management system includes a database configured to store access data including account identifiers and accessor identifiers, wherein the access data indicates particular accounts that have been accessed by particular accessors. The access management system also includes a computer system that receives a reservation request comprising an account identifier and an accessor identifier and determines whether the account identifier is included in the database. The computer system also determines, in response to the account identifier being present in the database, whether the access data correlates the account identifier to the accessor and authorizes the reservation of the one or more resources in the account by the accessor in response to the access data correlating the account identifier to the accessor. In some instances, different account identifiers may be mapped to different interfaces of a single card while still being mapped to a common account.
An encoding device, an encoding device and a method for point cloud encoding is disclosed. The method includes generating, from a three-dimensional point cloud, multiple two-dimensional frames, the two-dimensional frames including at least a first frame representing a geometry of points in the three-dimensional point cloud and a second frame representing texture of points in the three-dimensional point cloud. The method also includes generating an occupancy map indicating locations of pixels in the two-dimensional frames that represent points in the three-dimensional point cloud. The method further includes encoding the two-dimensional frames and the occupancy map to generate a compressed bitstream. The method also includes transmitting the compressed bitstream.
Title of the invention: METHOD FOR PRODUCING A PARTICULATE CARRIER MATERIAL, WHICH IS SHEATHED IN A GRAPHENE-CONTAINING MATERIAL, AND A SLIDE ELEMENT, AND SLIDE ELEMENT, SLIP RING SEAL AND BEARING ARRANGEMENT

Abstract:
The invention relates to a slide element having a first slide surface, wherein the first slide surface (29) comprises a particulate carrier material (6) and a graphene-containing material (7), the particulate carrier material (6) being at least partially sheathed in the graphene-containing material (7) and a cohesive connection (14) being established between the particulate carrier material (6) and the graphene-containing material (7).

No. of Pages: 19  No. of Claims: 14
The invention relates to a slide element having a first slide surface, wherein the first slide surface (29) comprises a particulate carrier material (6) and a graphene-containing material (7), the particulate carrier material (6) being at least partially sheathed in the graphene-containing material (7) and a cohesive connection (14) being established between the particulate carrier material (6) and the graphene-containing material (7).
An expansion card may include a printed circuit board and a hardware accelerator that is disposed on the printed circuit board. The hardware accelerator may include application-specific hardware circuitry designed to perform a computing task. The hardware accelerator may also offload a portion of the computing task from a central processing unit of a computing device by executing, via the application-specific hardware circuitry, the portion of the computing task. The expansion card may further include an edge connector, disposed on the printed circuit board, that is dimensioned to be inserted into an expansion socket of the computing device. The edge connector may couple the hardware accelerator to the central processing unit via a computing bus connected to the expansion socket. The edge socket may also include a pinout that is more compact than a pinout specification defined for the computing bus. Various other apparatuses, systems, and methods are also disclosed.
Title of the invention: NETWORK OF IOT SENSORS FOR MONITORING HARMFUL GAS IN ANIMAL STABLES

Abstract:
The objective of the present invention is to provide a continuous, autonomous monitoring system of environmental parameters, harmful gases and greenhouse gases in animal stables (1). The proposed solution consists in a network of so-called IOT (Internet of Things) sensors installed in the stable that produce alarm signals in case of danger or if predetermined threshold values are exceeded. The mentioned sensors work continuously and communicate through different wireless protocols with a dedicated cloud platform (3). The cloud platform stores the values received by the various sensor units and transmitted via dedicated gateways (2) and elaborates them applying data analysis processes (such as, including, but not limited to, machine learning algorithms). The outputs thus obtained are made available to the end user in real time through a dashboard (4) usable via smart applications on electronic devices such as tablets, smartphones, PCs and functionally equivalent devices. Computer security is guaranteed by a dedicated encryption system. The use of this integrated system of sensors, cloud platform and applications for smart devices improves considerably the environmental monitoring process used in pig, cattle, ovo-caprine and poultry farms which is currently carried out manually and not continuously by operators, who are also exposed to potentially harmful gases.

No. of Pages : 12 No. of Claims : 10
Title of the invention: EDGE SHROUD AND METHOD FOR REMOVING EDGE SHROUD FROM AN IMPLEMENT

Abstract:
An implement assembly (10) includes an implement (12) having a forward edge (24) and an edge protection system (20). The edge protection system (20) includes at least one edge shroud (100) having a lower leg (134) that includes a lower end (136) and a lower end inner surface (138), an upper leg (110), and a wedge portion (126), the upper leg (110) including an upper end portion (112) and a connecting portion (118). The upper end portion (112) has an upper end inner portion (116) that may be angled to the lower end inner surface (138) and/or a horizontal plane (32) extending between the upper leg (110) and the lower leg (134). The system (20) also includes a boss assembly (34) structured to couple the edge shroud (100) to the implement (12), and including a pry boss (36). The angle (152) of the upper end inner surface (116) may be such that a clearance (212) is formed between the upper end inner surface (116) and the pry boss (36) when moving the edge shroud (100) forward in a disengaging direction (202) relative to the implement (12). The clearance (212) reduces frictional force opposing movement of the edge shroud (100) in the disengaging direction (202). The pry boss (36) may also include at least one pry notch (58) having a pry surface (60), the pry notch (58) being structured to receive a free end of a pry tool (308) for prying the pry boss (36) out of the assembly (10) in a pry-off direction (304).
A control system for a subsea blowout preventer (BOP) positioned in a lower stack, the lower stack releasably engaged with a lower marine riser package (LMRP). The control system includes a surface logic solver positioned at or adjacent the surface of the sea that generates commands for operating the subsea BOP, a first subsea logic solver attached to the LMRP and in communication with the surface logic solver so that the first subsea logic solver receives the commands from the surface logic solver, and a second subsea logic solver attached to a hydraulic control unit in the lower stack. The second subsea logic solver is in hydraulic communication with the subsea BOP, and the first subsea logic solver so that the second subsea logic solver receives the commands from the first subsea logic solver and implements the commands by activating the hydraulic control unit to operate the BOP.
An electrode padset and a method of using the electrode padset are disclosed herein. The electrode padset is a single unit, consisting of multiple patient-contacting conductive pads arranged on a single piece of material. The padset is comprised of a plurality of conductive pads, at least one conductive pad adapted to emit an electrical signal and at least one other conductive pad adapted to receive an electrical signal, and an electrically conductive material coupling the conductive pads.
An implement assembly (10) includes an implement (12) having a forward edge (24) and an edge protection system (20). The edge protection system (20) includes at least one edge shroud (100) having a lower leg (134) that includes a lower end (136) and a lower end inner surface (138), an upper leg (110), and a wedge portion (126), the upper leg (110) including an upper end portion (112) and a connecting portion (118). The upper end portion (112) has an upper end inner portion (116) that may be angled to the lower end inner surface (138) and/or a horizontal plane (32) extending between the upper leg (110) and the lower leg (134). The system (20) also includes a boss assembly (34) structured to couple the edge shroud (100) to the implement (12), and including a pry boss (36). The angle (152) of the upper end inner surface (116) may be such that a clearance (212) is formed between the upper end inner surface (116) and the pry boss (36) when moving the edge shroud (100) forward in a disengaging direction (202) relative to the implement (12). The clearance (212) reduces factional force (206) opposing movement of the edge shroud (100) in the disengaging direction (202). The pry boss (36) may also include at least one pry notch (58) having a pry surface (60), the pry notch (58) being stuctured to receive a free end of a pry tool (308) for prying the pry boss (36) out of the assembly (10) in a pry off direction (304).
The present invention relates to a composition comprising mannose oligosaccharide and a process for making such. The present invention further relates to a composition comprising mannose oligosaccharide for use in the treatment of a human or animal.
Title of the invention: DEVICE AND METHOD FOR PREVENTION OF FORMATION OF SEDIMENTS OF PARAFFIN AND ASPHALTENES DEPOSITS IN THE PIPELINE

Abstract:
The device for preventing the formation of paraffin and asphaltene sediments and for the reduction of the viscosity of crude oil for use at an eruptive oil well, an oil well with pumpjack or for use at a pipeline, the stated device comprising 6 identical modules (M1), (M2), (M3), (M4), (M5), (M6) which are all serially connected, whereby each module (M1), (M2), (M3), (M4), (M5), (M6) has an inlet spout (la) and outlet spout (lb) for the entry and exit of crude oil, and crude oil under pressure passes through the device between the first alloy element (10) and second alloy element (13), and simultaneously is in contact with both of the stated alloys, upon which crude oil enters into the passage formed by the second alloy element (13) and third alloy element (14), and is in contact with the outer spiral of the second alloy element (13) and the inside of the third alloy element (14), then continues passing through the device through a passage formed by the third alloy element (14) and the fourth alloy element (15a) situated inside the pipe (15), and when passing, the crude oil is in contact with the outside of the third alloy element (14) and the inside of the fourth alloy element (15a). The devices elements (10), (13), (14), (15a) consist of four different alloys that affect the crude oil while it passes through under pressure in the manner that the application of nanotechnology prevents the formation of paraffin and asphaltene deposits inside the pipeline or eruptive oil wells or oil wells with pumpjacks.

No. of Pages: 16 No. of Claims: 7
The invention relates to a medical device (100) for use in the production of a data model of a limb stump (KS), wherein the device (100) comprises at least one pressure vessel (1) having a fluid chamber or pressure chamber (DK) for receiving or storing a fluid (F), wherein the pressure vessel (1) has a wall (3) made of a first material, wherein the wall (3) delimits an interior (I) of the pressure vessel (1) with respect to an exterior (,), wherein the pressure vessel (1) has an inlet opening (9) for introducing the limb stump (KS) into the interior (I) of the pressure vessel (1). The device (100) also comprises a fluid-tight membrane (5) made of a second material, which is arranged to form or delimit the fluid chamber or pressure chamber (DK). The device (100) further comprises a retaining stocking (215) for pulling over the limb stump (KS), wherein the retaining stocking (215) has sensors (225) for producing the data model. The invention also relates to a set (500) having a medical device (100) according to the invention and a transmitter device (501) and/or a receiver device (501) for transmitting and/or receiving signals (227) of the sensors (225) in the retaining stocking (215). The invention further relates to a method and a retaining stocking.
Disclosed in the present invention is a method for setting an approval procedure based on base fields, the steps for creating the approval procedure comprising: S1: selecting a form corresponding to the approval procedure; S2: selecting a base field for the approval procedure, one base field being able to be selected by one or more approval procedures; and S3: setting a field value set for the selected base fields of the approval procedure, each field value only being present in the field value set of one approval procedure under the base field. When associating the approval procedure, determining to which base fields field values of the base fields in the approval form belong, and to which approval procedure said field value set corresponds. In the present invention, when a form is submitted for approval procedure approval, the approval procedure can be automatically associated on the basis of the field values of the base field in the form, and the procedure can be determined on the basis of the content of the base fields in the form; the invention is simple and clear and easy to operate; the base fields of the form can be changed to meet the different approval requirements in actual management.
Disclosed in the present invention is a form authority granting method based on time property fields of a form. The method comprises: selecting one or more objects to be authorized; selecting a form, and displaying time property fields for which authority time periods need to be configured in the selected form; separately configuring an authority time period for each time property field, wherein the authority time period comprises one of more of the following six time periods: a time period from a time point obtained by subtracting a fixed time length from the current time to the current time, a time period from a start time to the current time, a time period from an end time to a system initial time, a time period from the start time to the end time, a time period having a time field value being null, and a time period from the system initial time to the current time; and saving the configurations above after completing configuring the authority time periods. According to the present invention, the operation authority of a form in a certain time period can be granted to an object to be authorized according to actual needs; thus, various requirements for form authority granting related to time limits can be satisfied.
**Title of the invention:** METHOD FOR AUTHORIZING OPERATION PERMISSIONS OF FORM FIELD VALUES.

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**Abstract:**

Disclosed in the present invention is a method for authorizing operation permissions of form field values, comprising a step of authorizing operation permissions of form field values and a step of selecting an authorized person. The step of authorizing operation permissions of form field values comprises: S1: selecting a form to be authorized, and displaying fields in the form that need operation permission control; and S2, authorizing operation permissions of field values of all the fields separately. The authorized person is one or more characters, which are independent individuals rather than groups/types; the characters within the same period of time can only be associated with a single user, while one user can be associated with one or more characters. The present invention can authorize the operation permissions of form field values separately, and thus improves the fineness of system management. By means the method, multiple authorized characters can be selected simultaneously for batch authorization, and thus the authorization efficiency is improved; in addition, the method supports template authorization; the two approaches are combined, so that the authorization efficiency of the operation permissions of the form field values is greatly improved.
The present invention discloses a method for authorizing a field value of a form field by means of a third party field, comprising:

1. Selecting one or more authorized objects;
2. Selecting a form to be authorized, and displaying an authorized field authorized by a view right in the form, whose field value is required to be controlled by means of a third party field;
3. Selecting one or more third party fields for each authorized field, and authorizing the view right of the field value of the authorized field of the form data corresponding to each option of each third party field.

By providing the third party fields to define the authorized fields of the view right/modification right of field values in the form, the present invention can set the view right/modification right of an authorized object to be consistent with the work responsibility thereof, thereby being able to prevent the authorized object from viewing/modifying form information unrelated to their work, and reducing the likelihood of leakage of company information.

CONTINUED TO PART- 2