INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01\textsuperscript{st} 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

26\textsuperscript{th} APRIL, 2019
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Address of the Patent Offices/Jurisdictions

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>
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<td>Phone: (91)(44) 2250 2081-84 Fax: (91)(44) 2250 2066 E-mail: <a href="mailto:chennai-patent@nic.in">chennai-patent@nic.in</a></td>
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<td>The Patent Office, Government of India, Boudhik Sampada Bhavan, Near Antop Hill Post Office, S.M. Road, Antop Hill, Mumbai - 400 037 Phone: (91)(22) 24137701 Fax: (91)(22) 24130387 E-mail: <a href="mailto:mumbai-patent@nic.in">mumbai-patent@nic.in</a></td>
<td>The Patent Office (Head Office), Government of India, Boudhik Sampada Bhavan, CP-2, Sector -V, Salt Lake City, Kolkata - 700 091</td>
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<td>Phone: (91)(33) 2367 1943/45/46/87 Fax: (91)(33) 2367 1988 E-Mail: <a href="mailto:kolkata-patent@nic.in">kolkata-patent@nic.in</a></td>
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<td>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.</td>
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बेब्राउज़: [http://www.ipindia.nic.in](http://www.ipindia.nic.in) www.patentoffice.nic.in

पेटेंट अधिनियम, 1970 तथा पेटेंट (संशोधन) अधिनियम, 2005 अथवा पेटेंट (संशोधन) नियम, 2006 द्वारा वाचित सभी आवेदन, सूचनाएं, विवरण या अन्य वस्तुकिण्य या कोई भी शुल्क पेटेंट कार्यालय के केवल उपयुक्त कार्यालय में स्वीकृत होने।

शुल्क: शुल्क या तो नए रूप में या Controller of Patents के नाम में डेज बैंक ड्राफ्ट या चेक के द्वारा भेजी जा सकती है जो उसी स्थान के किसी अनुसूचित बैंक में प्रवर्त हो जहाँ उपयुक्त कार्यालय स्थित है।

**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 there under 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.
**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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<td>(22) Date of filing of Application :24/03/2019</td>
<td>(43) Publication Date : 26/04/2019</td>
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(54) Title of the invention: **AUTOMATED FIRE OR SMOKE CURTAIN SYSTEM**

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<td>A47H 5/00 A62C 2/00</td>
<td>Address of Applicant :20/A, TARUNSHAKTI SOCIETY, GHATLODIYA, AHMEDABAD 380061, GUJARAT, INDIA</td>
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<th>(72)Name of Inventor : 1)ASHIT PADHYA</th>
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(57) Abstract:

An automated fire or smoke curtain/blinds system 2 is provided in the embodiments herein. The system 2 includes a pelmet or a hood 4 adapted to be mounted on a wall or top of a windowpane, at least one motor 6 connected to at least one curtain/blinds holding device 10 such that the curtain/blinds holding device 10 rolls when the motor 6 is operated, at least two curtain/blinds holding device wherein each curtain/blinds holding device are connected by a shaft or ball bearing, a movable curtain or blind with width of at least 8 meters attached to at least two curtain/blinds holding device, a movable curtain or blind 14A of a predefined width and at the end of which is a bottom rail 14B, wherein the movable curtain 14A includes an self-closing escape door 14C embedded within coverage area of the movable curtain 14A, and a control panel 16 to control up/down movement of the movable curtains. Fig. 2

No. of Pages : 20 No. of Claims : 12
(12) PATENT APPLICATION PUBLICATION  (21) Application No.201941007749 A
(19) INDIA  
(22) Date of filing of Application :27/02/2019  (43) Publication Date : 26/04/2019

(54) Title of the invention : ORAL DEVICE FOR PREVENTION OF SLEEP DISORDERS

(51) International classification : A61F5/566
(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
  Filing Date : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
  Filing Date : NA
(62) Divisional to Application Number : NA
  Filing Date : NA

(71) Name of Applicant :
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(72) Name of Inventor :
1) Rajasekar K.V
2) Dr. R. Manikandhan

(57) Abstract :
The oral device for prevention of sleep disorder by creating an auxiliary air way and facilitating breathing process, comprising a U-shaped body 1 for retaining upper or lower jaw of a patient; a palate anchoring assembly 3 connected to an end of the body for securing soft palate of the patient; a tongue anchoring assembly 2 consisting of an expandable component 5 connected to an end of the body for securing tongue of the patient. Ref to: Fig 1

No. of Pages : 11 No. of Claims : 3
The present invention relates to a tongue locking apparatus 1 made up of elastomeric material, wherein the apparatus 1 comprises of a vacuumed tongue locking apparatus 1 comprising multiple protruded sections 2 inbuilt on the apparatus 1 for locking the apparatus 1 on the teeth of a person, wherein the teeth of the person are inserted in the space present between the protruded sections 2, at least two internal sealing ridges 3 associated with said apparatus 1 for maintaining vacuum inside the apparatus 1 and a tongue holding component 4 for providing resistance to the closing of a person's jaws, wherein two openings 5 are provided on said component 4 for allowing air passage from the environment to the mouth of a person. Ref Figure 1

No. of Pages : 10 No. of Claims : 6
The present invention relates to a device for introducing optical radiation into an ear, wherein the device comprises a light source component 1, and an optical waveguide component 4 connected to the light source component 1 such that the light beam from the light source component acts on a predetermined region of the ear. Refer to Figure 1.
Title of the invention: ANTISNORING DEVICE

Abstract:
The anti-snoring device 9 comprising of a headgear assembly 1 for grasping head of a user; a mandibular cradling component(s) 2 associated with the headgear assembly 1 for exerting force on mandible of the user; and a connecting component(s) 3 interlinked with the headgear assembly 1 and mandibular cradling component 2 to keep the mandible in a protruded position without exerting any pressure on the teeth or jaws the user. Ref to: Fig 1

No. of Pages: 9  No. of Claims: 3
Title of the invention : TEETH CLEANING DEVICE

Abstract:
The present invention relates to a teeth cleaning device. The device is capable of brushing two or more distinctly different surfaces of teeth at one time with one orientation. The device comprises a body 1 with a top end 2 and bottom end 3, a mounting plate 9 attached to the top end 2 of the body and curved bristles 11, 12, 13, 14 mounted on the mounting plate 9. The proximal ends of the bristles are mounted on the mounting plate 9 such that the distal extremities of the curved bristles are nearly touching each other.

No. of Pages : 13 No. of Claims : 7
The present invention relates to a dental flossing device, comprising an elongated hollow body 1 which is having at least two legs 8, 9 (i.e. a first leg 9 and second leg 8) from top end 6 and straight from the bottom end 11, a dental floss 2 disposed inside the body 1 and associated with the top end 6, wherein the dental floss 2 comes out from the first leg 9 and enters into the second leg 8, a gear arrangement 3 having multiple gears, wherein the gears rotate to move the floss 2 from the first leg 9 to the other leg 8, a button 4 for tensioning the floss 2 and also for operating the gear arrangement 3, a disinfectant component 5 positioned inside the body 1 for cleaning the impurities present on the floss 2 after cleaning a person’s teeth.

No. of Pages : 12 No. of Claims : 8
A system for interacting with digital screen using voice input is provided. The voice based digital screen interaction device (104) identifies a type of program that runs on its digital screen and parses the digital screen as an image in real-time. The voice based digital screen interaction device (104) identifies a layout of the digital screen to determine attributes and to associate labels with corresponding input fields. The voice based digital screen interaction device (104) receives voice input from the user (102) in a human spoken language and communicates the attributes and the voice input to a voice interaction enabling server (108). The voice interaction enabling server (108) translates the attributes and the voice input and verifies the voice input to generate commands based on the voice input. The voice based digital screen interaction device (104) receives and executes the commands to perform functions as defined in the commands. FIG. 1

No. of Pages : 34 No. of Claims : 10
The present invention shall disclose a device for digital tooth shade selection for oral rehabilitation and process of shade selection thereof. The device comprises of a computer vision system configured with a cloud server with prerecorded data base and incorporated with characterized clip lens housed with modified light setting device. The process for digital tooth shade selection comprises of (a) obtaining an image of patients tooth without flash under automated settings through a computer vision system configured with a cloud server with prerecorded data base; (b) marking atleast five points from the centre of the image to selectively localize tooth shade on the patients tooth in which RGB average of the points are calculated and converted into L a b colors specification- Caverage to form localized tooth shade; (c) submitting the localized tooth shade to the cloud server to compare color of the tooth shade with the 16-shade reference to generate three probable shades; and (d) receiving the probable shades from the cloud server for closest tooth shade selection.

No. of Pages : 18 No. of Claims : 8
**Title of the invention:** AN INTEGRATED SYSTEM FOR AN EVENT MANAGEMENT AND A METHOD TO OPERATE THE SAME

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**Name of Applicant:**
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Address of Applicant: Flat 109, Kwality Raaga Aptmnt, Anantapura Gate, Yelahanka New Town, 5 CRS, Mahalakshmi Layout, Bangalore, Karnataka, India, Pin Code-560 064.
Karnataka India

**Name of Inventor:**
1) Gurusiddesh Hublikar
2) Sandeep Bagare

**Abstract:**
An integrated system for an event management is disclosed. The system includes a storage subsystem, wherein the storage subsystem includes a venue database configured to store an information about a plurality of event venues, a priest database configured to store an information about one or more priests for performing at least one ritual and a caterer database configured to store a plurality of details of one or more caterers to provide at least one of foods and services; a service finder subsystem configured to search for at least one service provider based on one or more user requirements and availability of the at least one service provider; an event service booking subsystem configured to book at least one of a selected service providers for the predetermined date and a value-added service booking subsystem configured to book at least one of a value-added services corresponding to an organised event. FIG. 1

No. of Pages: 20
No. of Claims: 11
Title of the invention: A SMART SUIT WITH INBUILT PESTICIDE SPRAYER FOR AGRICULTURAL APPLICATIONS

Abstract:
Increase in pests destroy successive crops and in turn makes estate owners suffer huge losses due to the destruction caused by pests hence modernization and effective ways of spraying the pesticides are sought after. Efficient spraying leads to less wastage of pesticides and high rates of elimination of pests. Mechanization leads to higher productivity with minimum input. Farmers use traditional methods which increase their workload and decrease the effectiveness of spraying by increasing the working time and leading to fewer benefits. The design aims at providing maximum safety to the operator, reducing the workload, decreasing the threats caused by pests and improvising the already present spraying techniques by making it unique and user friendly. Performance enhancement by replacing the fuel pump with electrically operated mechanism leads to maximum output and productivity with minimum power. The design does not oppose the already available spraying techniques but adds another unique way in which pesticide spraying can be done using the same principles. The current lot of pesticide sprayers do not provide much safety to the operator and with the wand it is very difficult to maneuver all around the plant. The proposed design is simple which provides protection to the user through the suit or the automatic stopping of the electric motor due to blockages in the nozzle. It can be maneuvered easily and can reach places in the plant where the wand of a conventional sprayer cannot due to hand movements. The present work helps the farmers of the country who toil hard everyday to provide the nation with daily meals ensuring that the country does not starve.

No. of Pages: 21 No. of Claims: 10
The present invention discloses vertical axis wind generator apparatus which creates high torque. The wind generator comprises of a plurality of wing setup attached to a vertical central shaft. Each wing further comprises of plurality of leaves fixed vertically from top to bottom of the wing. The apparatus rotates at a wind speed less than 3 MPH. During high wind speed, one side of wing holding the leaves closes, thereby pushing it, at the same time opposite wing leaf opens at 90 degree angle providing less or no opposition force. Furthermore, the side wing moves perpendicular to wind flow to enable rotation.

No. of Pages : 17 No. of Claims : 4
Title: WEARABLE DEVICE TO MONITOR DEHYDRATION

The present disclosure discloses a wearable device to monitor dehydration. The wearable device analysis the dehydration of an individual by considering various parameters such as person’s weight, height, age, previous health issues and lifestyle. The wearable device further automatically alert the individual when dehydrated and recommend the amount of water to be taken to replace the loss. The wearable dehydration monitoring device can be a wrist watch or the like.

No. of Pages: 16
No. of Claims: 10
Exemplary embodiments of the present disclosure are directed towards a method for detecting anti patterns in web services and business processes comprising of: a metric suit detection phase which takes place by static analysis and reflection of web service (WS) and business process (BP) anti-patterns source codes which are collected from anti-pattern based detection methods; creation of training sets and testing sets for web service (WS) and business process (BP), and a Support vector machine (SVM) classifier is built with a training data, and then testing data is used to predict unlabeled classes; extraction of process with a business process model files; and business process configuration files where post extraction Business process anti-pattern metrics map BPM and anti-pattern metrics map WSM is initialized as an input; and detection of anti-patterns having a training phase and the training is given to support vector machine (SVM) leading to classification of web services and business processes into anti-patterns and non-anti-patterns.
Fractal antennas are more suitable for multiband and wideband applications due to their compact nature, slotted structures and multimode propagation. This work is the combination of design and analysis wideband antenna with srichakra shaped fractal structure. In the present work, sri chakra shaped antenna with several combinations of iterations are embedded to operate the antenna model at wideband. The proposed antenna offers a broad bandwidth of 18.055 GHz, operating from 1.945 GHz to 20 GHz which covers many applications like 3G, LTE, ISM, Bluetooth, Wi-Fi, WLAN, WiMAX, Satellites (Ku-Band), etc. Peak realized gain of 7.1 dB and peak efficiency more than 78% are the attractive features of the proposed antenna.

No. of Pages : 9 No. of Claims : 6
**Title of the invention:** A SYSTEM AND METHOD FOR RECYCLING OF DEAD BATTERIES

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**Name of Inventor:**

1) Vignesh Kumar.P

**Abstract:**

A system and method for recycling of dead batteries. The present invention relates to a method used for extracting the electrical energy stored in dead batteries. This extracted electrical energy can be stored in rechargeable batteries. The DC power from these rechargeable batteries can be used to generate AC power by using an inverter. This AC power can be stepped up and used. After extracting the charge stored in dead batteries, the battery e-waste can be processed, reused or recycled to make new batteries or it can be used in other different ways.

No. of Pages: 31
No. of Claims: 4
A system (100) for the assessment of employee attrition behavior is disclosed. Said system comprises a data store (101); an employee attrition behavior assessment module (102); and an interface module (103). The data store (101) facilitates the storing and maintenance of historical data of employees, job openings, and job applicants. The employee attrition behavior assessment module (102) comprises: predictive models (201) built on the historical data in the data store (101); a rules repository (202) for data processing; and a processing engine (203). The interface module (103) displays the attributes of employees, job applicants, and organization for customization, facilitates the interaction of users with the system (100) to perform the attrition assessment with required simulation, and presents the assessment results to the user. Processes for identification of attrition probability, segmentation of employees for identifying risky segments, obtaining prescriptions for a set target retention, and forecasting employee retention trends are also disclosed.

No. of Pages : 35 No. of Claims : 11
**Title of the invention:** A FABRICATED DETACHABLE EMISSION FILTER FOR EXHAUST OUTLETs

**Abstract:**
A FABRICATED DETACHABLE EMISSION FILTER FOR EXHAUST OUTLETs The present invention relates to a fabricated detachable emission filter for vehicle or machine exhaust systems which is a tin shaped container (100) filled with ordinary or modified LECA (Lightweight Expanded Clay Aggregate) balls. The filter container is having open bottom covered with Mild Steel mesh (102) with the help of a sealant (101) which allows the exhaust systems to function properly without getting clogged. The LECA balls and corncob acts as a novel suspended adsorbent within the container (100), when the vehicle is running, black carbon filtration will be effectively done. Most Illustrative Fig:3

**No. of Pages:** 15  **No. of Claims:** 6
A system for performance evaluation of statistical classifiers for shape recognition comprising of: a morphological shape decomposition technique with a training node and a testing node and training node is learns about a plurality of features and classify them and a pre-processing action is to segment the pattern of interest from the background; a feature extraction module finds and subsequently extracts appropriate plurality of features for representing the input patterns and the extracted features are classified by a classifier trained to partition the feature space; and a feature reduction module reduces the dimensions of the multivariate data to two- or three-dimensional projection to permit a visual examination of the data. Fig. 1

No. of Pages : 21 No. of Claims : 10
The present investigation provides a method of making barium titanate powder. The method includes adding barium chloride produced from ore of Kadapa Region of Andhra Pradesh produced to a solution of oxalic acid and titanium tetra chloride to form barium titanyl oxalate and then thermally decomposing to the barium titanate powder.
The present disclosure discloses a composite coat material and a deposition technique on the interconnects for a solid oxide fuel cell including a Ferritic based metallic interconnect substrate and a two layered metal oxide coating on the air side of the interconnect substrate. The first metal oxide coating is formed from solution precursor plasma spray coat or suspension precursor plasma spray method and, a top coat of ceramics by dip coating technique.

No. of Pages: 12  No. of Claims: 8
The device named as Plurality of sets of sunlight reflectors mounted on rotatable frames to concentrate sunlight on absorber is a solar thermal energy concentration device capable of collecting solar thermal energy at temperatures up to and above 300 degree centigrade. This device relates to Physical Sciences. This device consists of following components. 1) Plurality of sets of sunlight reflectors placed in parallel rows in mutually adjacent, and non-overlapping manner such that said all reflectors are capable of collectively concentrating sunlight on an elevated solar energy absorber. Among said plurality of sets of sunlight reflectors said each one set consists of plurality of sunlight reflectors held and supported in a row (in closely packed manner) either on a long rigid structural member, or a long frame such that longitudinal axes of said all sunlight reflectors lie in similar direction such that said all reflectors in a row are capable of collectively concentrating sunlight on a solar energy absorber placed suitable elevation. 2) Plurality of tilttable and rotatable means provided for holding and supporting said plurality of sets of sunlight reflectors in parallel rows. Said tilttable and rotatable means are either long rigid structural members, or long frames or any other suitable type of holding and supporting means. Said plurality of long rigid structural members, or long frames are supported in parallel rows on a big framed structure duly maintaining sufficient space in between them, such that said plurality of sets of sunlight reflectors can be oriented in suitable manner, and said all reflectors are capable of collectively concentrating sunlight on an elevated solar energy absorber. 3) A big framed structure provided for holding and supporting said plurality of long rigid structural members, or long frames provided to hold and support said plurality of sets of sunlight reflectors such that said each one "long rigid structural member, or long frame" is capable of turning or rotating around an axis parallel to its longitudinal axis on its top side in mutually adjacent closely packed position. Said big framed structure also supports an elevated solar energy absorber along with all other necessary components. It is fitted with wheels to allow said device orientation towards the Sun. 4) Means for orientation of said plurality of sets of sunlight reflectors towards the Sun at regular time intervals throughout day are provided for ensuring collective concentration of sunlight on said elevated solar thermal energy absorber throughout period of sunshine by said plurality of sets of sunlight reflectors held and supported over said plurality of long rigid structural members, or long frames. 5) Detachable means for solar energy absorption either supported over or hanged from a "column, or column like vertical frame, or from any other suitable frame" provided along an outer corner of said big framed structure. Said "means for solar energy absorption" is provided for absorption of energy of entire sunlight incident on it. 6) Detachable column provided either at center, or at an outer end of said big framed structure to serve the purpose as a load bearing support, and also as an anchoring device to restrict rotation of said big framed structure with-in predefined boundary. 7) Detachable transparent top covering made of highly transparent plane sheet can be provided to cover top surface of said plurality of sets of sunlight reflectors mounted on said big framed structure. It is supported on top surface of said big framed structure supporting said plurality of "sets of reflectors. Said detachable transparent top covering serves the purpose of preventing accumulation of dust on top surface of said all reflectors.

No. of Pages: 76 No. of Claims: 14
**Title of the invention**: RAPID AMBULANCE TRANSPORTATION SYSTEM

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**Abstract**:
A rapid ambulance transportation system comprises a fixed Truss tower, hybrid ambulance vehicle, Stay-cables, Base protector™s, main electrical energy, solar panels, elevated tracks first rail track and second rail track, pick-up platforms, hospital platforms, wheels, and bearing. The fixed tower is installed on a mid-divider of the road. The hybrid ambulance vehicle is configured with the fixed tower. The fixed tower is installed at a predefined height above the road level to provide support and guidance for the hybrid ambulance vehicle to operate at predefined speed and follows existing road routes. The plurality of stay-cable fitted or runs directly from the fixed tower and anchored into one or more top ends of beams and top of horizontal elevated rail tracks with a predefined distances to give a greater stiffness to fixed tower and to rail tracks and also to prevent tilt or slide of the fixed tower. The stay-cables are both strong and flexible, this makes long span fixed truss tower transportation susceptible to wind forces. The rail tracks which carry tremendous weight (load) of the vehicle are supported from above using tension in the cables and compression in the fixed tower. The base protectors (reinforced concrete base protectors or Steel base protectors) are used for protecting both fixed tower and vehicles from damages and also base protectors holds stiffness and strengthening of the fixed tower installed in a small height or predefined height from the road level. The main electrical energy supply to a plurality of rail tracks and to a plurality of street lights. The solar panels is used for stored energy to supply electrical energy to a plurality of street lights. The elevated tracks, first rail track and the second rail track are connected in parallel and fitted at an end of the left beam and the right beam and strengthened and supported by stay-cables.

No. of Pages : 23 No. of Claims : 5
The device named as Combined orientation means, for orientation of group of Linear Fresnel Reflectors mounted on rigid supports is a solar thermal energy concentration device capable of collecting solar thermal energy at temperatures up to and above 300 degree centigrade. This device consists of following components. 1) Plurality of Compact Linear Fresnel Sunlight Reflectors placed in parallel rows in mutually adjacent, and non-shading manner such that longitudinal axes of said all sunlight reflectors lie in similar direction, and said all reflectors are capable of collectively concentrating sunlight on a long linear solar energy absorber placed suitable elevation. 2) Plurality of tiltable and rotatable means provided in parallel rows for holding and supporting said plurality of sunlight reflectors in parallel rows. Said tiltable and rotatable means are either long rigid structural members, or long frames or any other suitable type of holding and supporting means. Said tiltable and rotatable means are supported in parallel rows on plurality of rigid supports duly maintaining sufficient space in between them, such that said each one long rigid structural member, or long frame can be oriented in suitable manner to enable said plurality of sets of sunlight reflectors to collectively reflect sunlight on an elevated solar energy absorber. 3) Plurality of rigid supports mounted on supporting surface for rigidly holding and supporting said plurality of long rigid structural members, or long frames by means of pedestal bearings, or bushes such that said each one "long rigid structural member, or long frame" is capable of turning or rotating around an axis parallel to its longitudinal axis. 4) Means for orientation of said plurality of Compact Linear Fresnel Sunlight reflectors towards the Sun at regular time intervals throughout day are provided for ensuring collective concentration of sunlight on said elevated solar thermal energy absorber throughout period of sunshine. 5) An elevated solar energy absorber along with all other necessary components is supported on vertical frames or columns along mid-width longitudinal vertical plane of said cumulative aperture of said all Compact Linear Fresnel Sunlight Reflectors. 6) A long and linear means for solar energy absorption "either supported along bottom side or hanged from a suitably elevated long beam (supported on top end of suitable tall columns) provided along mid-width vertical plane of said all Fresnel reflectors. Said "means for solar energy absorption" is provided for absorption of energy of entire sunlight incident on it. Said "long beam type frame" holds and supports a long and linear solar energy absorber. Said absorber is supported on plurality of tall vertical columns provided in a row on same support (natural ground or roof slab, or any other suitable supporting means).

No. of Pages : 76 No. of Claims : 7
(12) PATENT APPLICATION PUBLICATION  (21) Application No. 201841014803 A
(19) INDIA
(22) Date of filing of Application: 19/04/2018
(23) Date of publication: 26/04/2019

(54) Title of the invention: A SYSTEM AND METHOD FOR PERSONAL AND PORTABLE ON-DEMAND VIDEO CONSULTATION

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<td>1) Dr. Maruthi Viswanathan</td>
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(57) Abstract: NA
No. of Pages: 30 No. of Claims: 26
The apparatus (100) includes a bottom holder (102), a cushion rod slot (104), a first permanent magnet (106), a cushion rod (108), a ball and socket (110), and a second permanent magnet (112). The one or more cushion rod slots include a first magnetic slot (106). The first magnetic slot adapted to hold a first permanent magnet (106). The cushion rod (108) with locking dog (114) attached to one or more cushion rod slots (104). The ball and socket (110) attached to cushion rod (108) that reduces the shear and friction from buttocks tissue. When the pressure is applied on the cushion apparatus (100) the ball and socket (110) rotates to adapt with each individual body texture, and redistributes the pressure, improves the blood circulation by repelling second 15 permanent magnet (112) from first permanent magnet (106).

No. of Pages : 13 No. of Claims : 6
Title of the invention: PORTABLE BEVERAGE PREPARATION APPARATUS

Abstract:
A portable beverage preparation apparatus is disclosed. The disclosed apparatus comprises a beverage container having a base and a cylindrical side wall extending from the base defining a reservoir with open upper end to accommodate liquid, the beverage container having a heating element configured within the base of the beverage container; a holder having at least one cup-like prion to receive the beverage container; and one or more recipes capsules to dispose within reservoir of the beverage container, wherein a power source is configured with least one cup-like prion of the holder to power the heating element of the beverage container for heating the liquid within the beverage container. A cover such as a spill proof cap is adapted for covering the beverage container from the upper end. The recipes capsules included any or a combination of a sugar, coffee power, milk powder, tea powder, and the like.

No. of Pages: 15  No. of Claims: 9
The present invention relates to a green tea product. More particularly, the present invention relates to a green tea product prepared from stem and tender stalks of green tea plants. Further, the present invention relates to a method (100) of preparing green tea product from stems and stalks of green tea plants with higher density such that they sink in warm and hot water. Advantageously, the present invention to provide a green tea product with naturally higher theanine levels and lower caffeine levels and the stalk can be used for brewing tea either as loose material or in a tea bag. Figure 1:

No. of Pages : 17 No. of Claims : 6
The invention IOT-AIS-DESK smart student desk system is a system that provides required technology for students for effective teaching-learning process in the current scenario. Students are using desks that do not contain any technology and are made for only sitting purposes. SSDS provide facilities such as: 1) Digital Writing device which is used for writing with the help of digital pen. 2) Fingerprint sensor module which is used for authenticating students (i.e., Users). 3) Digital display device capable of displaying content. 4) Speaker module which will enhance the speech of the teacher. 5) Cloud storage which can be accessible remotely with IOT Technology. 6) Keyboard and Mouse Module (In required cases). 7) Every desk will be connected (4G or 5G) with internet connection. 8) Auto maintains the attendance system at every lecture. The main motto of this invention is to reduce the weight of bags of students and provide intelligent advanced facilities.
A system for visualization of system generated logs is provided. The system for visualization of system generated logs comprises a processing subsystem. The processing subsystem includes a framework configured to receive a processing log having log entries. The log entries are mapped into a conventional structure. The processing subsystem also includes a conversion module operatively coupled to the framework. The framework is configured to generate a summary report in a predefined format from the conventional structure. Whereby, the predefined form is converted to a tree structure representation by a conversion technique. Present disclosure uses visual user-friendly format which can be analysed for identifying the failure points during the program execution or in the process flow. FIG. 1

No. of Pages: 18 No. of Claims: 7
Exemplary embodiments of the present disclosure are directed towards a method for preparation and analysis of organic salt enriched with iron described in FIG. 1 comprising of: dipping a combination Murraya koenigii (Curry Leaves); Moringa olifera (Drumstick Leaves); Trigonella foenum-graecum (Fenugreek leaves); Broccoli leaves of the species Brassica oleracea; and Spinacia oleracea (Spinach leaves) of a predetermined weight in water, and the combination of leaves dipped in water is subjected to boiling which is repeated to obtain a desired consistency of extract and addition of salt is done to the extract to form a thick cake of iron induced salt which is spread uniformly into thin layers of salt which are subjected to checking for iron content through the process of redox titration using permanganometry, and the iron induced salt post checking is subjected to elimination of excess Chlorophyll and fat by using Diethyl Ether to the extracted sample and shaking it thoroughly and separating the purified sample extract into a separating funnel and draining the separated ether layer to obtain a purified water extract. The method of claim 1, wherein the extract process as mentioned in FIG.1 is taken to obtain an extract which is added in seawater to make sea salt directly to enrich the salt with iron in a huge quantity. The method of claim 1, wherein extract preparation process as mentioned in FIG.1; along with the extract preparation process mentioned in Fig. 5 can be adopted in industrial or commercial application during less sunlight days. A combination of the methods described in Fig. 1, Fig. 5 or preparing the extract process as mentioned as in FIG.1 and added this extract in seawater to make sea salt directly can be used together for making organic salt enriched with iron for commercial applications as per market demand.

No. of Pages : 16 No. of Claims : 9
Title of the invention: ZONE CONTROL SYSTEM FOR MOTION DETECTION BASED LIGHT INTENSITY CONTROL AND METHODS EMPLOYED THEREOF

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Name of Inventor:
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2) Dr. KOMALLA ASHOKA REDDY
3) ANIL MUDULAKAR

Abstract:
A zone control system for motion detection based light intensity control comprising of: a zone control system to support various intensity control modes of the luminaries under a zone; a solar panel integrated with a selected LED luminary which integrates the light luminary with motion detection ultrasonic sensor HCSR04 or any suitable motion detection sensor which is placed on the pole near the ground; and on the luminary to monitor the motion of a person or a vehicle; and detects the area of illumination through a central control board, or designed prototype programmable module to support high speed motion detection based outdoor lighting system; and an Ultra sonic sensor HCSR04 with an Arduino board or suitable motion detection sensor with a central control board or designed prototype programmable module to set up the motion detection center which is placed away from plurality of obstacles for accurate motion detection.

No. of Pages: 54
No. of Claims: 3
Title of the invention: REALITY OF SIXTH SENSE RECOGNITION

Abstract:
Concept of reality of sixth sense came in to existence with the superstitious beliefs that during the night late hours as the dogs bark in street, is a blind belief that something unusual thing is seen to the eyes of dogs hence it continues its barking as a symbol of unusual effect. The other way of belief is that when there is sudden disturbance about to happen in environmental conditions, at that instant also the some of the strange living beings can easily identify the natures imbalance and gives the signal of alarm in advance. The ultimate intension of sixth recognition is to identify the superstitious beliefs and capture the senses of using the IR sensors and effective capturing devices, process by using the image processing tools. Visualize the same processed data by nullifying the noise by using advanced matched filters. The noise nullified processed data is then interfaced to the real human eye as a verification process of superstitious beliefs. Compare the results captured from the live sense to the visual interface to human eye. Once the belief is identified, is captured, visualized processed and compared with an interface to the naked eye. As a part of conclusion, it is very effective to identify the senses of living beings™ responses of unusual things. Hence the same is directly seen with the naked eyes with the sophisticated interfacing device instead of just staring at the unusual and unexpected things created in nature™s imbalance.

No. of Pages: 12 No. of Claims: 10
Title of the invention: AN EFFECTIVE AND EFFICIENT AUDIT METHOD FOR SHELF-LIFE MATERIAL MANAGEMENT SYSTEM

Abstract:
The need for having an Effective and Efficient Shelf-life Material management audit system, plays a vital role as one of the many preventive measures which can be undertaken for reducing the Cost of Poor Quality in an organization, which deals with and/or uses products, whose usability and life is subject to changes in physical, mechanical, chemical and biological properties, which are directly and/or indirectly influenced by external and internal factors, caused by varying Time, Temperature, Humidity and/or any other influencing parameters. Presently, Many organizations suffer internal failure costs (like scrap and repair/re-test) and external failure cost (like customer returns, Customer escapes and functional issues) which have both direct and indirect impact on Business and Quality costs through increased Material and Overhead costs of the organization. These additional costs are caused due to poor inefficient and/or ineffective material management of Shelf-Life materials at various processes and stages of the Material life cycle, both before and after delivery at the organization. Thus, the need for a Shelf-Life management audit system is very much required in order to ensure, that various process and product requirements of an organization are fulfilled with the highest focus on technical and commercial management considerations like material, personnel, product, safety, material and product quality, product engineering and quality requirements in compliance with the objective of lowering material, overhead costs and operating expenses. This Shelf-Life Material Management Audit system, can solve the technical challenge of identifying, reporting and suggesting improvements for inherent wastes in the material management process through a series of interlinked compliance checks of processes and steps, which are required to be determined, understood, executed, complied, verified and validated by the Organization™s functions for effective and efficient management of the Shelf-life material and products such that maximization in cost savings and productivity and delivery is achieved with zero effect on quality and safety characteristics. The Shelf Life Material Management System audit scope and objectives are as a. To evaluate all applicable Shelf Life, Non-Metal and Hazardous Material Management process, its determination, implementation and effectiveness. b. to determine the continued compliance and conformance with respect to requirements of the Customers, Regulatory, Manufacturer and applicable organizational procedures by Follow-up check on Open Issues and Issues closed after previous audit Follow-up check on Observations of previous audit Check on Process sustenance Check for Availability of relevant evidences for audit criteria Check for Appropriate changes approved and suggested Check for Appropriate awareness after process changes Check for sustenance of process changes The detailed audit would focus on the process determination, compliance and conformance and its effectiveness through identifying gaps and improvements

No. of Pages : 35 No. of Claims : 10
A dental recliner chair includes a folding frame. The folding frame comprises a U-shaped rear leg frame pivotally coupled to a U-shaped front leg frame. The dental recliner chair also includes two side arms, configured to slide up and slide down over a pivot point of the U-shaped rear leg frame and the U-shaped front leg frame respectively. The dental recliner chair also includes a chair frame, comprising a seat supporting frame, a back-supporting frame, and a leg supporting frame and a head resting frame. The dental recliner chair also includes a plurality of serrated edge. The dental recliner chair also includes a slider locking mechanism. Present disclosure of a dental recliner chair provides a portable, rigid and foldable chair for dental surgery usage. FIG. 1

No. of Pages : 15 No. of Claims : 3
An integrated dental care system is provided. The integrated dental care system comprises a dental recliner chair. The dental recliner chair includes a folding frame. The folding frame includes a U-shaped rear leg frame pivotally coupled to a U-shaped front leg frame. The dental recliner chair also includes two side arms. The dental recliner chair also includes a chair frame. The integrated dental care system also includes a dental treatment unit. The dental treatment unit includes a central body. The dental treatment unit also includes an integrated compressor and suction unit. The dental treatment unit also includes a plurality of tubes. The dental treatment unit also includes a detachable tool box. The detachable tool box is configured to store a plurality of equipment. The dental treatment unit also includes an adjustable handle and a plurality of wheels. Present disclosure provides a low cost, dependable and portable dental clinic. FIG. 1, FIG. 2 & FIG. 5

No. of Pages : 25 No. of Claims : 7
Title of the invention : A DENTAL TREATMENT UNIT

The dental treatment unit includes a central body. The dental treatment unit also includes of an integrated compressor and suction unit, configured to provide dry air for dental treatment. The dental treatment unit also includes a plurality of tubes, configured to provide pathway for flow of fluid. The dental treatment unit also includes a detachable tool box, configured to store a plurality of equipment. The dental treatment unit also includes an adjustable handle and a plurality of wheels. The dental treatment unit also includes a ventilator unit, configured to ventilate the heated air out from the integrated compressor and suction unit. Present disclosure of a dental treatment unit provides a compact and a portable medical tool box. FIG. 1

No. of Pages : 18 No. of Claims : 5
Title of the invention: DIGITAL PLATFORM FOR DENTISTRY MANAGEMENT

Abstract:
A digital platform for dentistry management is provided. The digital platform includes a dentistry processing subsystem. The dentistry processing subsystem includes a dentist appointment module, configured to fix an appointment between a user and a dentist upon receiving user parameters and dentist parameters. The dentistry processing subsystem also includes a dental analysis module, configured to analyse the user dental problems by an analysing technique based on the user dental history. The dentistry processing subsystem also includes a dental prediction module, configured to predict the user future problems by a prediction technique based on dental analysed data. Present disclosure provides a digital platform for easy interaction of a dentist with a patient. FIG. 1

No. of Pages: 17 No. of Claims: 7
**Title of the invention:** SYSTEM AND METHOD OF HIGH PERFORMANCE VALVELESS PULSEJET ENGINE

**Abstract:**
A pulsejet is a drive gadget which perfectly suite™s for MAV applications in light because of its minimal effort, effortlessness and versatility properties. Flimsy stream and complex blending of fuel, air and remaining hot gasses in a pulsejet make scaling, demonstrating and investigation, to a great degree testing. The outline of valveless pulsejet depends on the throbbing burning provided with way of outside air blended with fuel and dynamic outlet of hot gas for push creation. The inventor concentrates on the examination of valve-less pulsejet engine. So as to examine the stream marvels and its working attributes in a valveless pulsejet motor, the planning is completed utilizing CREO PARAMETRIC 2.0 and the examination is done utilizing ANSYS-Fluent programming bundle. A near report between valve-less pulsejet engines of various burning chamber distance across has been finished. The ideal range for burning chamber breadth is 70 to 90 for 1341.6 lengthen circular sanction engine. Pulsejet with 80 ignition chamber distance across produces higher push than 70 and 90 pulsejet motors. The same method and geometry can be used for other scale dimensioned pulse jet engines.

No. of Pages: 30
No. of Claims: 8
Title of the invention: A BIOSORBENT FOR THE REMOVAL OF ORGANIC CONTAMINANTS FROM WASTEWATER AND A METHOD THEREOF

Abstract:
A BIOSORBENT FOR THE REMOVAL OF ORGANIC CONTAMINANTS FROM WASTEWATER AND A METHOD THEREOF. The present invention relates to an organic contaminant removing biosorbent from waste water and the process for removing organic contaminant may be Methylene Blue (MB) dye from industrial waste water. The characterization studies, such as FTIR and SEM, infer that RAJ(Raw Aspergillus Japonicus) and SMAJ(Surface Modified Aspergillus Japonicus) have an exceptional capacity for MB dye evacuation. Batch adsorption studies were carried out using various factors influencing parameters. The optimum conditions for the maximum removal of MB dye has been carried out. Most Illustrative Fig:1

No. of Pages: 41 No. of Claims: 6
A system and a method for providing automated interactive recommendation using custom technical components for a product and a service is disclosed. The system includes a user input extraction subsystem to extract a first set of input, corresponding to one of a product and a service requirement received through an interactive series of questions; a profile generation subsystem to generate at least one profile, within a predefined range corresponding to at least one product and a service; an optimal profile generation subsystem to generate an optimal profile dynamically, corresponding to at least one required product and the service; a product extraction subsystem configured to match an optimal generated profile corresponding to at least one required product and the service with a list of one or more products and services available in a marketplace and to recommend at least one of a closely matched product and a service to the user. FIG. 1

No. of Pages: 26 No. of Claims: 21
An embodiment of the present disclosure is related, in general, to image processing, exclusively to a method and system of restoring at least one image. The method comprises of receiving, by an image restoration device, at least one distorted image from a source. Also, the method involves comparing intensity of each of the plurality of pixels with intensity associated with all neighborhood pixels in the at least one distorted image, to obtain a degraded set of pixels and obtain parent-child relation between all the plurality of pixels. Further, the method comprises of restoring the degraded set of pixels of the image using intensity value of each of the plurality of pixels and reordering the plurality of pixels based on at least one of the intensity values of each of the plurality of pixels and the parent-child relationship between the plurality of pixels, to generate a restore image.
The stationary solar thermal energy collection device named as "Steam generation, or fluid heating™ in thermal insulated tubes using compound concave cylindrical sunlight reflectors" is useful for generation of steam from water being circulated through "small diameter pipe conduits™ held in plurality of thermal insulated tubes, using most of the thermal energy of sunlight incident on said thermal insulated tubes. This device is also useful for heating of "thermic fluid, or any other suitable fluid™ up to and above 200 degrees centigrade by circulating 'thermic fluid or any other suitable fluid™ through 'small diameter pipe conduits™ held in said plurality of thermal insulated tubes. The present invention relates to Physical Sciences. This device consists of following components. 1) Plurality of sets of compound concave sunlight reflectors and means for solar thermal energy absorption™ mounted on a suitable supporting means such that said all reflectors are placed in closely packed manner in parallel rows. Among said plurality of sets of compound concave sunlight reflectors, and means for solar thermal energy absorption™ said each one set consists of a compound concave reflector™ provided for specular reflection of most of incident sunlight, and a "means for solar thermal energy absorption™ placed along vertical axis of said compound concave reflector. a) Said each one compound concave reflector is made of "two or more concave reflectors™ symmetrically arranged on either side of mid-width vertical axis of said compound concave reflector such that said compound concave reflector is capable reflecting sunlight towards "means for solar thermal energy absorption™™ placed along vertical axis of said compound concave reflector. b) "Means for solar thermal energy absorption™ consisting of "a thermal insulated tube (capable of absorbing most of the energy of the sunlight reflected towards it by the compound concave reflector adjacent to it) is provided to absorb most of the energy of the sunlight reflected towards it by compound concave reflector placed symmetrically on either side of its longitudinal axis. Thermal energy absorbing and circulation means consisting of a long thermal conductive metallic sheet, and small cross sectioned pipe conduit made of Copper or any other suitable thermal conductive material either rigidly connected to said thermal conductive metallic sheet or placed in close fitting grooves in said thermal conductive metallic sheet. Thermic fluid, or "water and steam™ or any other suitable fluid circulated through said small diameter pipe conduits to absorb most of thermal energy of sunlight absorbed by said thermal insulated tubes and to transmit the absorbed energy to thermal energy storage or utilisation means. 2) Manifold holding and housing "inlet header pipe, and outlet header pipe™ in thermal insulated manner, and said "inlet header pipe, and outlet header pipe™ are connected through their outlets and inlets to inlets and outlets of said small cross sectioned pipe conduits provided in said "thermal insulated tubes™ to absorb most of energy of incident sunlight™. Inlets and outlets of said "inlet header pipe, and outlet header pipe™ are connected to outlet of "tank for storage of water or thermic fluid™, and to inlet of the hot thermic fluid or steam energy utilisation means or to inlet of thermal energy storage means™. 3) Means for reducing thermal energy losses from 'thermal insulated tubes™ transverse side outer openings to surroundings. 4) Means for holding and supporting said "plurality of sets of compound concave sunlight reflectors and absorbers along with all necessary fixtures™ placed in closely packed position in mutually adjacent parallel rows on its top side such that said plurality of sets of compound concave cylindrical sunlight reflectors™ have either common plane of aperture or parallel planes of aperture, and oriented such that said plurality of sets of compound concave cylindrical sunlight reflectors, and absorbers™ are capable of receiving sunlight throughout day. Said means for holding and supporting said plurality of sets of compound concave sunlight reflectors and absorbers along with all necessary fixtures™ is either a framed structure made of mild steel or any other suitable material, or a surface made of plastic or any other suitable material, or made of any other suitable means™. It is hereafter referred as framed structure for want of easy understanding, and its reference as framed structure should not be treated as its limitation to framed structure type supporting means. 5) Detachable tank for storage of water or thermic fluid™ for continuous supply of "water, or thermic fluid, or any other suitable fluid™ to said set of thermal insulated tubes™ so as to ensure continuous circulation of fluid through said thermal insulated tubes to absorb thermal energy from said thermal insulated tubes, and to prevent development of abnormal temperatures in said thermal insulated tubes. 6) Detachable "pipe conduits™ provided for connecting outlet and inlet of said Tank for storage of water, or thermic fluid, or any other suitable fluid™ to outlet of said inlet header pipe and to "outlet of said outlet header pipe™ to the hot thermic fluid, or steam™ utilisation equipment™ inlet. It should be noted that outlet of said hot thermic fluid, or steam™ utilisation equipment can be connected to inlet of said "tank for storage of thermic fluid, or water or any other suitable fluid™ depending on necessity and suitability.
It can be seen that almost 70% of the population depends on agriculture and 80% of the farmers are small-scale or marginal farmers. One of the reasons that disease detection in plants is crucial is because there is almost a 50% of crop loss due to diseases in the plants and lack of proper monitoring. In order to detect a plant disease at very initial stage, use of automatic disease detection technique is advantageous. A modern technique is introduced to find out diseases related to leaves. To overcome disadvantages of traditional eye observation, we use image processing techniques for fast and accurate disease detection of plant. Other subsystems include periodic monitoring of the temperature, humidity and soil moisture content. Based on the input of the soil moisture sensor, watering the plants is carried out or stopped. The actions taken are recorded and messages are sent to the farmer using Wi-Fi Module.

No. of Pages : 15
No. of Claims : 5
Title of the invention: PLURALITY OF GROUPS OF CONCAVE REFLECTORS MOUNTED ON ROTATABLE FRAMES TO CONCENTRATE SUNLIGHT ON ABSORBER

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Abstract:
The device named as Plurality of sets of sunlight reflectors mounted on rotatable frames to concentrate sunlight on absorber is a solar thermal energy concentration device capable of collecting solar thermal energy at temperatures up to and above 300 degree centigrade. The present invention relates to Physical Sciences. This device consists of following components. 1) Plurality of groups of sunlight reflectors mounted on top of a rotatable big framed structure (with suitable supporting means), such that each one group of sunlight reflectors can be oriented independently for collective concentration of sunlight on an elevated solar energy absorber. Said each one group of reflectors consists of plurality of sets of sunlight reflectors placed in parallel rows. Among said plurality of sets of sunlight reflectors, each one set consists of plurality of sunlight reflectors held and supported in a row either on a long rigid structural member, or a long frame such that longitudinal axes of said all sunlight reflectors lie in similar direction duly ensuring that said all reflectors in a row are capable of collectively concentrating sunlight on a solar energy absorber placed at suitable elevation with reference to said reflectors top surface. 2) Plurality of sets of tilttable and rotatable frames provided in plurality of sets of parallel rows for holding and supporting said sunlight reflectors so as to form plurality of groups of sunlight reflectors. Said tilttable and rotatable means are either long rigid structural members, or long frames or any other suitable type of holding and supporting means. Said plurality of long rigid structural members, or long frames are supported in parallel rows on a big framed structure duly maintaining sufficient space in between them, such that said plurality of sets of sunlight reflectors can be oriented in suitable manner. Said all reflectors are capable of collectively concentrating sunlight on an elevated solar energy absorber. 3) A big framed structure provided for holding and supporting said plurality of sets of long rigid structural members, or long frames provided to hold and support said plurality of groups of sunlight reflectors such that said each one "long rigid structural member, or long frame" is capable of turning or rotating around a longer axis passing through its centroid. Said big framed structure also supports an elevated solar energy absorber along with all other necessary components. It is fitted with wheels to allow orientation of sunlight reflectors mounted on said device towards the Sun. 4) Means for orientation of said plurality of groups of sunlight reflectors towards the Sun at regular time intervals throughout day are provided for ensuring collective concentration of sunlight on said elevated solar thermal energy absorber throughout period of sunshine by said plurality of groups of sunlight reflectors held and supported over said plurality of sets of long rigid structural members, or long frames. 5) Detachable means for solar energy absorption either supported over, or hanged from a column, or column like vertical frame, or from any other suitable elevated frame provided along mid-width or mid-length line of said big framed structure. Said "means for solar energy absorption" is provided for absorption of most of energy of entire sunlight incident on it. 6) A column provided along vertical axis of said big framed structure to serve the purpose as a load bearing support, and also as an anchoring device, and also to restrict rotation of said big framed structure with in predefined boundary. 7) A detachable transparent top covering made of highly transparent plane sheet can be provided to cover top surface of said plurality of sets of sunlight reflectors mounted on said big framed structure. It is supported on top surface of said big framed structure supporting said plurality of "sets of reflectors". Said detachable transparent top covering serves the purpose of preventing accumulation of dust on top surface of said all reflectors.

No. of Pages: 83  No. of Claims: 14
ABSTRACT OF THE INVENTION

This device named as Plane reflectors provided radially around long absorber to intercept sunlight and reflect towards said absorber is a solar thermal energy collection device useful to intercept sunlight passing away from absorber through location adjacent to said absorber, and to concentrate the sunlight towards said absorber. Before beginning of explanation about construction details of the device, we assume that the device consists of a long solar energy absorber which is either made of metal and coated with material having resistance to loss of thermal energy by conduction, reflection and radiation or an evacuated glass tube, or any other suitable type of long solar energy absorber. It is also assumed that, said solar thermal energy absorber is provided with inlet and outlets and connected through properly insulated pipe conduits to thermal energy storage or utilisation means so as to form a closed loop for circulation of thermal energy by means water or thermic fluid used as thermal energy collection and circulation means. This device consists of following components, provided as additional accessories to hold and surround a long solar energy absorber to serve the purpose of intercepting sunlight passing away from absorber through location adjacent to said absorber, and to reflect and concentrate the sunlight towards said absorber. 1) Plurality of long sunlight reflective mirrors having specular sunlight reflective surfaces on either side provided along radial planes at equal angular intervals all around a long solar energy absorber. Said sunlight reflective mirrors are provided to intercept sunlight passing away from the location adjacent to said absorber's outer periphery and to reflect the sunlight towards said long solar energy absorber. 2) A framed structure provided to hold and support said absorber, and said plurality of sunlight reflective mirrors in predefined relative positions. 3) Detachable plane mirror provided at top end of said framed structure to hold and support said absorber, and said plurality of sunlight reflective mirrors to reflect the outward moving sunlight (that is sunlight tending to move away from said solar energy absorber) towards said solar energy absorber.

No. of Pages : 23
No. of Claims : 5
The present invention is related to a micro processing unit and IoT sensors based controller system that enables selective management of energy supply into a household. The invention is illustrated and comprises of a plurality of sub-components, including a Grid Power Supply System, a Power Demand System, a Power Distribution Box, a Smart Energy Controller, and a Solar Energy Secondary Power Supply and Timing System Unit. Energy is supplied through the city network grid to a specially designed power distribution box which redistributes power to separate lines through a series of power relay switches, each serving a different load category, e.g., heavy, medium, and low. A second switch bank is optional and is individually supplied by separate lines or, either directly from green energy supplies such as solar or thermal systems, or indirectly after storage in a battery or thermal energy storage system.
Title of the invention: PLURALITY OF INTERCONNECTED SETS OF "TWO CONCAVE REFLECTORS, AND ABSORBER™ FORMING BIG SOLAR ENERGY ABSORBER•"

Abstract:
ABSTRACT OF THE INVENTION
This device named as Plurality of interconnected sets of "two concave reflectors, and absorber™ forming big solar energy absorber•" is a solar thermal energy collection device useful to intercept sunlight passing away from absorber through location adjacent to said absorber, and to concentrate the sunlight towards said absorber. Detailed description of "construction details, and functional features™ of major components of the device (which is useful to intercept sunlight passing away from absorber through location adjacent to said absorber, and to reflect the sunlight towards said absorber) are as follows. 1) Plurality of sets of "compound concave cross sectioned reflectors, and absorbers™ arranged in closely packed manner to surround longitudinal axis of the solar thermal energy absorbing device so as to form a tall and wide solar energy absorbing device. Said each one set consists of a compound concave cross sectioned sunlight reflector formed by a pair of concave cross sectioned sunlight reflectors symmetrically interconnected along flat outer edges• and provided with a means for solar energy absorption along its mid-width vertical plane. Said each one compound concave cross sectioned reflector serves the purpose of specular reflection of "most of incident sunlight™ towards said solar energy absorber through-out day. Absorbers of all sets are interconnected at their lower outer ends with inlet manifold and at their elevated outer ends with outlet manifold. 2) A framed structure or any other suitable means• capable of holding and supporting said plurality of sets of compound concave reflectors and absorbers arranged in closely packed manner to surround longitudinal axis of the solar thermal energy absorbing device• such that longitudinal axis of all solar energy absorbers are symmetrically arranged with reference longitudinal axis of said device•. 3) Detachable plane mirror• provided at top end of said device to reflect the outward moving sunlight (that is sunlight tending to move away from said solar energy absorber) towards said solar energy absorber. 4) Detachable transparent sheets• provided to cover "bottom side face, top side face and entire outer vertical planes™ of said device to prevent accumulation of dust on surface of said "plurality of sets of compound concave cross sectioned sunlight reflectors, and absorbers™. Said transparent sheets can be provided along top side face only if said detachable plane mirror• is not provided at top end of said device.

No. of Pages: 52 No. of Claims: 9
An off ground system in mid-air to provide Wi-Fi connectivity, consisting of two sections, first section is above the ground level (1) comprising of the gondola (5) attached with the balloon like structure (2) using rope (3) contains the broadband wireless terminal IEEE 802.11 based Wi-Fi access point (4), the directional antenna (6) attached to the gondola (5), and second section is on the ground level (11) comprising of on ground IEEE 802.11 based Wi-Fi terminals with plurality of radios (13) installed on different locations on ground level (11) linked with the plurality of antennas for hotspot and point to point link (14), the backhaul equipment (10) connected with the backhaul cable (7) which is attached to the broadband wireless terminal IEEE 802.11 based Wi-Fi access point (4) at one end and backhaul equipment (10) which is connected to the internet cloud (12), and the plurality of power sources (9) to provide power to broadband wireless terminal IEEE 802.11 based Wi-Fi access point (4).

No. of Pages : 12 No. of Claims : 10
**Title of the invention:** AN ECO-FRIENDLY SYSTEM TO PROVIDE WI-FI

### Abstract

An eco-friendly Wi-Fi system (01) comprising of a natural bamboo or any natural hollow wooden poll (02), an omni antenna (03), an LMR cable (04), clamps (05, 06), Wi-Fi access point (07), an Ethernet copper cable (08), a backhaul network (09), and power adapter using Power over Ethernet (11) in which the Wi-Fi access point (07) and the antenna (03) is housed within the hollow wooden poll (02) to provide Wi-Fi connectivity using natural bamboo.

No. of Pages : 12 No. of Claims : 10
The present invention consists of a motorized vehicle, a water tank, a pump, cam disc, grass cutting arrangement and solar panel. Here we implement a new idea for spraying insecticides and pesticides for plants and also cutting the grass. The mechanism for the seed sower using the cam shaft powered by the wheel of the vehicle. Solar energy is used as a source to perform various agricultural operations.

No. of Pages : 11 No. of Claims : 10
A robotic three-dimensional (3D) printer is provided. The robotic 3D printer includes a holder. The holder includes a plurality of print nozzles. The plurality of print nozzles is positioned in at least one of a parallel form and an adjacent form to each other. The plurality of print nozzles allows deposition of a mixture. The robotic 3D printer also includes a cantilever beam configured to allow a horizontal movement of the holder. The robotic 3D printer also includes a vertical pole. The vertical pole is configured to operate the holder, and the cantilever beam. The robotic 3D printer also includes the base. The base is configured to connect with at least one of one or more image capturing devices, and one or more sensors. The robotic 3D printer also includes a plurality of wheels configured to operate the robotic 3D printer at a predetermined direction on a platform. FIG. 1

No. of Pages : 24 No. of Claims : 10
Title of the invention: A METHOD AND SYSTEM FOR WASTE MANAGEMENT USING INTERNET OF THINGS (IOT)

Abstract:
Waste accumulation and disposing become main problem facing populated cities, due to the way of managing the waste containers. Also, the increasing quantities of waste produced every day in our cities, demands improved and efficient systems for managing of the massive quantities of wastes both solid as well as other type of wastes. The recent technologies provide radical solution and effective way to handle these problems. In this work wireless sensor network (WSN) and internet of things (IOT) technologies are used to manage the usage of the waste containers. This invention presents real time monitoring of the container contents using sensors, displaying the result in the website and the sensed contents are analyzed to determine the optimized distribution of the containers. Thus, an efficient and effective method for managing of humongous quantities of wastes accumulated in civic bodies can be managed and disposed off quite effectively ensuring public health. (Fig 1)

No. of Pages : 10
No. of Claims : 2
Title of the invention : SMART DRINKING WATER DISPENSER

Abstract:
It might not appear big at the first time, but if your tap dripped a drop of water once every second it would take only about five hours for you to waste one gallon of water, that is enough water for an average human to survive for two days. Also the hardness in changing the water can for usage is also a heck of a job for any physically challenged person, even for a normal person it is hard and may cause any physical pain or injury. So what can be done to stop this As always the answer, for this, lies with improvement in technology. If we replace all the manual water dispensing method with a smart one that starts and stops on its own automatically not only we can save water but also have a healthier and easier lifestyle since we dont have to operate with any manual contact or neither with our dirty hands. So in this project we build an Smart Drinking Water dispenser using IR sensor that can automatically give you water when a glass is placed near it and stops water flow, when removed. This sounds much innovative and for any small appliances which is being used at houses regularly this becomes a new concept of operation.

No. of Pages : 9 No. of Claims : 3
A SMART DEVICE FOR OPTIMIZING STORAGE SPACE AND RETRIEVAL TIME

The present invention discloses a smart device (100) for optimizing storage space. The smart device (100) comprising a processor (104); a plurality of slots (102), wherein each slot holds at least one hanger (106) wherein the processor (104) is enabled to communicate with all the slots (102) to determine their status like occupancy, description of the garment or similar item on the particular hanger, and weight of garment or similar information. Most Illustrative FIG. 1

No. of Pages : 16 No. of Claims : 9
Title of the invention: METHOD AND APPARATUS FOR METAL MOULD CASTING

Abstract:
Attached separately.

No. of Pages: 12 No. of Claims: 3
Exemplary embodiments of the present disclosure are directed towards a smoothing technique for GPS receivers with predetermined frequency depicted in FIG. 1 comprising of: a Receiver Independent Exchange Format (RINEX) observation data file inclusive of pseudo range, carrier phase, Doppler and carrier to noise ratio of the visible satellites for the receiver and segmenting pseudo range (P1) and GPS L1 data for each satellite, and the satellite pseudorange measurements are fed into modified GSO algorithm individually for pseudorange smoothing, and using an initial receiver position a current receiver position of the plurality of satellites is calculated, of the East; North; and Up errors are noted and calculated, and the accuracy of the technique is validated based upon this error estimation of: East; North; and Up errors.
AABSTRACT

AN AUTOMATED INDOOR PARKING SYSTEM AND A METHOD THEREOF

The present disclosure relates to the field of indoor parking system and envisages an automated indoor parking system (100) comprising at least one wireless communication unit (102), a plurality of access devices (A1, A2,..., An) and a server (104). The wireless communication unit (102) transmits a parking request and a unique communication signal. The access devices (A1, A2,..., An) generate and transmit a unique signal frequency and calculate location co-ordinates of the wireless communication unit (102) based on the unique communication signal and the unique signal frequency. The calculated location co-ordinates are received by the server (104) that aids the user to navigate from the calculated location co-ordinates to a nearest available parking slot. The system (100) updates availability of parking slots by images captured by image capturing units (118). The system (100) works on low energy architecture, so the power consumption is less and incurs a low maintenance cost.
Title of the invention: AI EMBED INFORMATION GATHERING SMART SPECTACLES

Abstract:
Nowadays, knowledge is the most powerful thing at all. But most of the peoples are not interested to put effects for gain knowledge. They like the knowledge want to come in fingertips without taking effects. The inventor found exact solution for the above-mentioned problems in the form of computerized spectacles. This spectacle scans/tracks the wearing human eyeball, based on that eyeball vision, the spectacle will scan the object which we can see. While wearing this gadget can know the details like the structure and function of the viewed product. This information would be received by a person who wears those spectacles through Bluetooth earphone/smartphone devices. And also that details may be received by another person or mailbox.

No. of Pages: 26 No. of Claims: 10
The present invention is related to developing a multiphase material that contains a major fraction of zinc and a minor fraction of hydroxyapatite in the form of powder and is compressed and heated in a heating chamber with controlled heating rate and cooling rate. The disclosed multiphase material is used to manufacture orthopedic implants to fix the fractured bone or diseased bone or to fill a fractured or diseased hard tissue of a human or animal and which further undergoes a continuous degradation process within the implanted site and safely degraded due to biocorrosion with enhanced bioactivity and healing rate.

No. of Pages : 19 No. of Claims : 7
Title of the invention: AN EFFECTIVE FREQUENCY PROVISIONING METHOD FOR SCALABLE DEVICES IN NB-IOT PLATFORM

Abstract:

An effective frequency provisioning technique for scalable devices in NB-IoT platform employs a new frequency provisioning technique that couples Time Division Duplex and Frequency Division Duplex for improved spectral efficiency at the base station without compromising the energy saving attribute of IoT devices. The present invention makes use of fundamental cyclic scheduling technique defined for real time systems since the physical nature and data cruciality of IoT devices match with the physical nature and deadline constraints of hard real time systems.

No. of Pages: 13 No. of Claims: 10
The present disclosure proposes a motorcycle ambulance which easily serves people in rural areas where accessibility for four wheeler ambulance is minimal. The motorcycle ambulance provides a patient resting means in an enclosure means of the motorcycle ambulance with angular adjustment at various cross sections of the patient resting means to accommodate the patient at various heights and to provide proper seating posture for the patient in the resting means with minimal or no slide of the patient during the travel of ambulance. The ambulance provides an enclosure means with plurality of slidable means to provide access to the patient for a medical attendant or any other person. The other objective is the unique construction of the enclosure means where outer cover of the enclosure means is designed in such a way that it provides clear visibility to the rider of the motorcycle ambulance and further also provides easy maneuvering. The motorcycle ambulance provides an illuminating means outside of the enclosure means to provide better visibility to the rider during nights and also indicate presence of enclosure means to other travellers or vehicles passing by or coming in opposite direction.

No. of Pages : 29 No. of Claims : 10
Exemplary embodiments of the present disclosure are directed towards a cognitive robotic test data management system and method for test data management activities, comprising: a processing device, a computer-readable medium comprising computer-executable instructions, that when executed by the processing device, and a cognitive robotic test data management module configured to interact with a user via a user interface accessible to the user via an end-user device, cognitive robotic test data management module configured to give a response in return to the user after providing an input data by the user, the cognitive robotic test data management module comprises a cognitive or artificial intelligence engine configured to process the user input, analyzes and assists respond to the user with answers to queries, the cognitive or artificial intelligence engine also configured to understand the requirement scope and estimate the effort to complete the end to end activities within a task. FIG. 1
The present disclosure envisages a system (100) and method for finding spectrum occupancy in a cognitive radio (CR) network. The system (100) comprises a plurality of licensed primary user devices (101A), a plurality of unlicensed secondary user devices (101B), and a base station (102). The base station (102) is configured to cooperate with the licensed primary user devices (101A) and the unlicensed secondary user devices (101B). The base station (102) comprises a scanning unit (104), a receiving unit (106) and an allocation unit (108). The scanning unit (104) is configured to scan entire available frequency spectrum. The scanning unit (104) is further configured to determine the number of vacant frequency bands for a location in a single scan. The allocation unit (108) is configured to cooperate with the receiving unit (106) and allocates the vacant frequency bands to the plurality of unlicensed secondary user devices (101B).
**Title of the invention:** INTELLIGENT ACCIDENT DETECTION SYSTEM

**Abstract:**
A large number of precious lives are lost due to road accidents every day. The common reasons are over speed and untimely communication with emergency services. There is a need to have an effective road accident detection and information communication system in place to save persons. A system that sends information messages to the emergency service for timely response is absolutely need. This invention relates to that of a device, system and method on avoiding the accidents and to assist the injured persons after the accident. The device and method, system uses Internet of Things for performing various tasks such as monitoring, sensing of vibrations of the vehicles involved in accidents and providing alert prompts to people related to those involved in accidents and also alerting emergency services such as ambulance etc to provide relief and succour for the people involved in the accident / mishap to get timely attention, treatment.

No. of Pages : 12 No. of Claims : 4
Exemplary embodiments of the present disclosure are directed towards a system for monitoring and managing distribution transformers, comprising: a processing device configured to monitor and detect fault conditions and various parameters of a distribution transformer. The processing device configured to transmit the fault conditions and various distribution parameters to a centralized monitoring system via a network. A cloud server configured to receive fault conditions and the various parameters from the end user device via network. The centralized monitoring system comprising a distribution transformer monitoring module configured to track and update fault conditions and various parameters of the distribution transformer to know the health status of the distribution transformer and to avoid power losses in the power transmissions. An end user device configured to receive dashboard, reports, and alerts to track distribution transformer health. FIG. 1

No. of Pages: 42 No. of Claims: 10
Title of the invention: A PERSONAL AIR-CONDITIONING SYSTEM

Abstract:
This invention provides a sleeping space with portable air-conditioning system based on a quiet ultra-low powered heat exchanger (a), a sleeping space (m) defined as a flexible cover in an insulated covering for one or more person(s), it has a mechanism to transfer heat from the user space to the chamber and finally to the atmosphere through functional unit (a2). A blower pumps conditioned air from the air-conditioner to the sleeping space and air from the sleeping space is circulated back to the air-conditioner. (Figure 4)

No. of Pages: 16 No. of Claims: 15
Title of the invention: SMART FOOD STORAGE SYSTEM

Abstract:
A smart food storage system and method for tracking states of stored food is disclosed. The disclosed system and method are based on a container to store one or more food items; one or more sensors configured with the container to detect or scan the stored food items to extract one or more attributes data associated with food information of the food items; processors coupled with a memory, the memory comprising a set of instructions embodied in the memory that is executable by the processors to compare the extracted one or more attributes data with a predefined stored data in a database to determine states comprising any or a combination of fresh, semi-spoiled, spoiled, and expired status of the food items; and a display unit operatively coupled with the processors to display the determined states of the stored food items.

No. of Pages : 24 No. of Claims : 10
SYSTEM AND METHOD FOR MONITORING BALANCE PRODUCTION TOOL LIFE IN REAL TIME FOR MECHANICAL MACHINES

The present invention relates to a system for monitoring production tool life of a tool / a set of tools in a network of mechanical metal forming machines which work on crank based mechanism. Further, the present invention relates to a method of reconciling production tool life for a tool / set of tools that is used by multiple metal forming machines across the lifetime of the tool in real time. The system comprising of at least one hardware module positioned on a machine panel, said hardware module further comprising of one or more actuators connected within respective machine panels; at least one data acquisition module; at least one data processing module; at least one wired / wireless module; and at least one portable device. The system uses electrical interlock of signals to capture data in real time. Figure 1.

No. of Pages : 28 No. of Claims : 16
The Invention is related to the field of scanning technology, particularly to a scanner executing various functions, named as MULTIFUNCTIONING BOOKLET SCANNER. Specifically, this is a booklet scanner which has 3 in 1 feature. It can number the booklet at a maximum of 6 locations, capture the image of the front sheet of the booklet and read OMR / OCR / ICR details from the top sheet of the booklet.

No. of Pages : 18 No. of Claims : 7
The present invention relates to an apparatus and method for restoration of tooth in minimal time, wherein the apparatus comprising a dowel 1 inserted in the root canal 7 of a person, a sleeve 4 having a socket 5, an impression material 10 for developing a natural tooth 12, wherein the impression material 10 takes the impression of the tooth. The method for tooth restoration, comprising the steps of fixing a dowel 1 having a tapered shank 3 and an extended head 2 to the tooth of a person, securing a sleeve 4 on the head 2 of the dowel 1 for developing a natural tooth 12, making an impression of the prepared tooth with the dowel 1 and sleeve 4, removing the sleeve 4 after obtaining the impression, forming an artificial crown 11 using sleeve 4 and fixing it with the dowel 1 and tooth.

No. of Pages : 16 No. of Claims : 9
(54) Title of the invention: DENTAL FLOSSING APPARATUS

(51) International classification: A61C15/046
(31) Priority Document No: NA
(32) Priority Date: NA
(33) Name of priority country: NA
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(57) Abstract:
The present invention discloses a dental flossing apparatus comprising a floss supply spool 29 and a take-up spool 26 mounted to a housing containing a gear train 16 assembly adapted to rotate the take-up spool 26 in a winding direction. The floss feeds from the supply spool along with a pair of prongs 34 forming a forked extension of the handle and is stretched across the forked prongs 34 and appropriately tensioned to be inserted into a users mouth for flossing.

No. of Pages: 11 No. of Claims: 5
A method 100 of preparing an alloy of a silver and a copper for articles is disclosed, comprising at step 102 checking purity of a silver raw material and a copper raw material, at step 104, heating the silver of a specified purity of 99.9% pure and the copper of a specified purity of 98.98% to a temperature of a red hot condition, at step 106, quenching the heated silver and the heated copper in a sesame oil, a buttermilk, a sour gruel, a cow urine, and a decoction of dolichos biflorus, at step 108, melting a mixture of the quenched silver and the quenched copper, and at step 110, cooling the molten mixture of the silver, and the copper to form the alloy, wherein at the step 106. At the step 106, the silver gets purified about 99.52% to 99.99% and the copper gets purified about 99.85% to 99.9%.

No. of Pages : 18 No. of Claims : 10
Title of the invention : AN ENDODONTIC INSERT APPARATUS FOR CURVED ROOT CANAL

Abstract:
The present invention relates to an endodontic insert apparatus for curved root canal which mainly concentrates on endodontically-treated teeth. The system comprises of a base body that acts as an outer cover of an apparatus, a plastic matrix helps to restore teeth and create an outside contour, fibres behave as white filling material that are used to restore teeth, zones of different bending and stiffness, particles embedded in plastic matrix to reflect and absorb laser beam, displacement elements connected to extend axially or arcuate longitudinal axis for displacing the filled fibers and particles, a distal tip portion which is conically shaped region that helps the back surface of the tooth.

No. of Pages : 11 No. of Claims : 10
The present invention relates to a dental prosthesis apparatus. The device comprises a bundle formed from plurality of fibers. The fibers are non-woven, unstretched and unstressed fibers. These fibers are fabricated with a cured resin. The apparatus disclosed herein is adapted to extend from an apex to crown 7 of a tooth canal.
**Title of the invention:** CONTROLLED LIQUID DOSE DISPENSER

| (51) International classification | :A61M11/02 |
| (31) Priority Document No | :NA |
| (32) Priority Date | :NA |
| (33) Name of priority country | :NA |
| (86) International Application No | :NA |
| Filing Date | :NA |
| (87) International Publication No | :NA |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

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**Abstract:**
TITLE: CONTROLLED LIQUID DOSE DISPENSER
ABSTRACT OF THE INVENTION
According to an aspect of the present invention, a liquid dose dispenser 100 is disclosed. The dispenser 100 comprises a main body having a front assembly 138, a mid assembly 148 and a rear assembly 140. The dispenser 100 comprises a reservoir (liquid container) 134, a liquid dispensing tip 136, a lead screw 130 for guiding the screw in the mid assembly 148. It also comprises a cam 126, a nut 128, and a spring element 132 wherein the spring element retracts the lead screw for controlled dispensing of the liquid. The said dispenser is used for dispensing required doses of liquids, solutions, viscous fluids for pharmaceutical, nutraceutical and food applications.

No. of Pages: 32  No. of Claims: 12
A cooking system using volatile hexane vapors as cooking fuel comprises a fuel storage tank, burning systems having burner, a converter for converting hexane liquid to vapors, interconnecting pipes that connect from fuel storage tank to the said converter through an air inlet and between storage container to burner system through an outlet. According to the present invention, as illustrated in Figure 1, includes converter consisting of the blower’s motors & its switches, battery, gas cut off valve, electronic disconnector, adapter, pneumatic connector and a T joint fitted in one box with indicator light. A cooking system is safe to use and economical which provides high calorific value blue flame having applications both domestic and commercial use.
SYSTEM AND METHOD FOR A PERSONALISED LOOK-BOOK CREATION IN REAL-TIME

System and method for a personalised look-book creation in real-time are provided. The system includes a storage module configured to receive and store stylist data of corresponding plurality of stylists, a selection module configured to enable at least one customer to select at least one stylist from the stylist data of the plurality of stylists stored in the storage module, a chat module configured to enable the at least one customer and at least one selected stylist to exchange one or more recommendations in real-time to select one or more products, a look-book module configured to enable the at least one customer to create a personalised look-book upon selection of the one or more products and a display interface configured to display the personalised look-book created by the at least one customer in real-time. FIG. 1

No. of Pages : 23 No. of Claims : 9
### Title of the invention:
AN APPARATUS AND A METHOD FOR COOLING AND HEATING SURROUNDING

### Abstract:
An apparatus and a method for cooling and heating surrounding is provided. The apparatus is fabricated of fibreglass, including a fibreglass housing. The fibreglass housing includes a temperature regulation module. The temperature regulation module includes a suction motor configured to draw air from surrounding, an evaporator configured to decrease temperature of the air drawn from surrounding corresponding to a pre-set threshold of ambient room temperature and provide decreased temperature of air to the surrounding, by a blower. The temperature regulation module also includes a heater configured to increase the temperature of air drawn from exhaust air produced from a condenser, wherein the temperature of the exhaust air is increased corresponding to the pre-set threshold of ambient room temperature and provide increased temperature of air to the surrounding, by the blower. The use of fibreglass provides reduction in heat loss. FIG. 1

No. of Pages: 23  No. of Claims: 9
Title of the invention: HUMAN INTERFACE SYSTEM FOR PLAYING VIRTUAL PERCUSSION INSTRUMENTS

Abstract:
The present invention relates to a human interface system for playing virtual percussion instruments. More particularly, the present invention relates to a human interface system which enables the user to learn to play virtual percussion instruments without actually needing a real one. A human interface system [1] for playing virtual percussion instrument comprises of a wall mount/stationary hardware/sensor panel [7], a microcontroller [2], one or more physical sensors [3], an array of hand-worn sensors [4], at least one computing device [5], a virtual reality (VR) box [6] with a digital virtual reality eyewear, one or more user’s striking unit [8] and a mechanical platform. Advantageously, the present invention relates to a portable, simple human interface system which enables the user to easily learn to play virtual percussion instruments. Figure 1.

No. of Pages: 30 No. of Claims: 10
**Title of the invention:** A PRE-STRESSED CONCRETE RAILWAY SLEEPER HAVING AN EMBEDDED SOLAR-PHOTOVOLTAIC MODULE AND A METHOD THEREOF

| (51) International classification | :E01B1/00 |
| (31) Priority Document No | :NA |
| (32) Priority Date | :NA |
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| (86) International Application No | :NA |
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| (87) International Publication No | :NA |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

**Abstract:**
A pre-stressed concrete railway sleeper having a solar-photovoltaic module is illustrated. The solar-photovoltaic module is securely embedded at the stage of manufacturing of the pre-stressed concrete sleeper. The concrete sleeper essentially consists of at least one pair of embedded module having a plurality of solar photo-voltaic cells with identical characteristics and facilitating the conversion of solar light into electricity. Each module is positioned between the mid-point and the end-point on the surface along the upper horizontal length of the concrete sleeper. A pair of such modules is designed to be positioned in between a pair of parallel metallic rails having a fixed distance of separation in between them and their length running perpendicular to the length of the concrete sleeper. The parallel rails make a railway which is functionally and structurally coupled to the concrete sleeper using a metallic fastener thereby making an integration of the module with the railway.

No. of Pages: 28 No. of Claims: 12
An electrothermal knife is disclosed. The electrothermal knife includes an enclosure. The enclosure includes a first layer and a second layer. The heating element is configured to heat the enclosure. The electrothermal knife further includes a power module placed inside a handle and operatively coupled to the heating element. The power module is configured to supply power to the heating element. The electrothermal knife further includes one or more switches placed on the handle and operatively coupled to the power module. The one or more switches are configured to regulate the power module between at least three levels of heating. FIG. 1
The present invention relates to a multiple electrode array arrangement for catching fish. The present invention increases the area of effective zone of a homogeneous/heterogeneous DC field with low input voltage and thus saving power requirement with a better safety measure to the operator. The invention has also quantified field pattern of multiple electrode arrays, together with the reactions of mixed fish population with emphasis on desirable attraction effect of fish to positive electrode.

No. of Pages : 21 No. of Claims : 10
Title of the invention: PROCESS FOR PREPARATION OF BACTERIA-RESISTING GRAPHENE OXIDE-STEEL, ZINC, NICKEL AND TIN COMPOSITES

Abstract:
A process for preparation of graphene oxide coated metal composite for enhancing the bacterial resistance properties comprises preparation of bio-polymer solution; sonication of different substrates of varying sizes and then dried; dipping of the cleaned substrates in the bio-polymer solution; after keeping in air, heating of the coated substrate under nitrogen atmosphere for a suitable duration to produce graphene-oxide directly on the metallic substrates; incubation of E-Coli cells over the metallic substrate (150 µl/cm²) inside the sterile Petri plates at 37°C under constant humidity for nullification of desiccation stress; taking out of cells periodically at different time intervals and it diluted in normal saline; plating on the plates and incubated for overnight and subjected to counting of colonies and calculating the reduction in cell viability.

No. of Pages : 19 No. of Claims : 10
The present invention provides a measuring device (10) for measuring a dimension of a work piece. The measuring device comprises a main frame (F), a micro-adjustment slide (M), a vernier slide (V) mounted after the micro-adjustment slide (M) from the left end of the main frame, a micro-adjusting mechanism (12) to facilitate precision movement of the micro-adjustment slide (M) on the main frame, a fine adjustment slide (A) mounted on the main frame (F) adjacent to the vernier slide (V) for locking the vernier slide (V) on the main frame, a main scale (F1), a Vernier scale (V1) and a micrometer scale engraved on the main frame (F), the vernier slide (V) and the micro-adjusting mechanism respectively for precise measurement of the dimension of the workpiece.
The present invention proposes composition of a thermal conductive composite comprising a thermal powder filler. In specific, the thermal powder comprises Silver flakes, Boron nitride powder and expanded graphite encapsulated Ferric oxide complex. The thermal powder is distributed as filler in an epoxy matrix to form a composite. The composite has improved thermal conduction in comparison to the commercially available thermal pastes. The composite has improved thermal conduction in a wide range of temperature and can be tailored as a thermally conductive adhesive and a thermal interface material.

No. of Pages : 21 No. of Claims : 11
Title of the invention: A SIMPLE AND ECONOMICAL PROCESSING ROUTE FOR PREPARING MNBI MAGNETIC POWDER

Abstract:
A method for synthesizing high-purity LTP-MnBi magnetic powder comprises pre-milling of manganese powder with the ball to powder weight ratio maintained in the proportion of 50:1-70:1; ball milling or more particularly wet milling of pre-milled manganese powder with bismuth powder in the presence of a wetting medium with a rotation, where ball to powder weight ratio during milling operation maintained in the proportion of 10:1-20:1; formation of high-purity LTP-MnBi alloy product by two-step heat treatment which comprises drying the as-milled powder and annealing the as-dried powder under an inert atmosphere to avoid oxidation of the milled powder sample; and estimation of purity of the final product by different tests.

No. of Pages: 26 No. of Claims: 10
The present invention discloses a conductive polymer composition that can be easily moulded and allows faster thermal dissipation. The polymer composition comprises a polymer matrix, conductive fillers, graphite flakes and stainless steel fibers. The conductive fillers offer better thermal conductivity and electromagnetic interference shielding while stainless steel fibres offer high strength to the composition. Thus, the optimized composition allows attaining optimized Density, Impact Strength and Heat Distortion Temperature (HDT).

No. of Pages : 15 No. of Claims : 9
Title of the invention : GRAVITY TRANSFORMING POWER DEVICE

Abstract :
This invention relates to a Gravity Transforming Power Device and in particular, this invention relates to a Gravity Transforming Power Device using a source of energy both internally and externally. More particularly, this present invention relates to a Gravity Transforming Power Device which is a power storage device where some force applied by human were stored as a gravitational force in the device. Furthermore, this invention also relates to a Gravity Transforming Power Device which has the beneficial effects of having compact structure, to reduce the power consumption and support carrying, and having safety and reliability.

No. of Pages : 20 No. of Claims : 7
Title of the invention: A SYSTEM FOR FINE PREVENTION AND AUTOMATIC REFUND IN SUBWAY

Abstract:
This invention relates to a fine prevention and automatic refund system in subway and in particular, this invention relates to a fine prevention and automatic refund system which provides the passenger to get immediate refund as and when required and to avoid penalty by paying the extra fare at the final station if they need to travel beyond it. Furthermore, this invention also relates to a fine prevention and automatic refund system in subway which has the beneficial effects of having safety and reliability, convenient to use and is smooth to operate.

No. of Pages: 33  No. of Claims: 8
In the present invention AgNPs were synthesized via green route using the aqueous leaf extract of Morus indica L. V1. The synthesized AgNPs having average diameter (54 nm) and negative zeta potential (-14 mV) were stable in dispersion. The four bright circular rings assigned to (111), (200), (220) and (311) observed in the selected area electron diffraction (SAED) pattern indicated face centered cubic crystalline silver nanoparticles. LC-MS/MS study revealed the presence of active biomolecules which were responsible for the reduction of Ag+. The AgNPs at 10 µg/mL dosages showed beneficial effects on the survivability, body weights of the Bombyx mori larvae, pupae, cocoon and shell via enhancing the feed efficacy than the control. Moreover, AgNPs at the above dosages (10µg/mL) dosages exhibited 13.8% increase in the cocoon length compared to the untreated.
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:

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(19) INDIA
(22) Date of filing of Application: 18/10/2017  (43) Publication Date: 26/04/2019

(54) Title of the invention: DEVELOPMENT OF SUPERHYDROPHOBIC COATINGS FOR ENERGY SAVING MECHANICAL MOTION AND RELATED APPLICATIONS

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(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
Filing Date : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
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(62) Divisional to Application Number : NA
Filing Date : NA

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(57) Abstract:
The present invention relates to the design and development of a superhydrophobic paint formulation for energy efficient coatings on under water surfaces of boats, ships and vessels. In precise, the invention relates to a preparation of nanohybrid material composed of a polymer of Formula 1 \[4,4'-(1E,1E)-(2,5-bis(hexadecyloxy)-1,4-phenylene)bis(ethene-2,1-diyl)]bis(vinyl-benzene)] and multi-walled carbon nanotubes (MWNTs) via polymerization and self-assembly processes. The corresponding self-assembled polymer 1/MWNT hybrid was prepared via n- stacking and polymerization of molecules of Formula 1 around the MWNTs. The better dispersion of polymer 1/MWNT hybrid material in organic solvents offers easy solution processing and hence the effective preparation of their coatings. The formulation obtained from polymer 1/MWNT hybrid materials exhibited superhydrophobic property when coated on different substrates. These superhydrophobic coating exhibited water contact angle of 160 ± 2° and have excellent stability even under acidic and basic conditions. When the hull of a water moving vehicle (a model boat with a mass of 36 g) was coated with the formulation of polymer 1/MWNT, the drag coefficient (Co= 0.19) was reduced by >60%, when compared to that of the uncoated one (Co = 0.50). Remarkably, the boat with a coated hull experienced a 1.6 fold increase in buoyant force and this enhancement in buoyancy allowed to carry an additional 25% of cargo on board.

No. of Pages: 23 No. of Claims: 8
Title of the invention: CORROSION INHIBITING SOL-GEL COATING COMPOSITION FOR COATING METALLIC SURFACES

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Abstract:
Present invention discloses corrosion inhibiting coating composition for metallic surfaces, particularly for aluminium alloy used for aircraft structures. The composition comprises of cerium mixed oxide fibers acting as corrosion inhibitor homogeneously dispersed in hybrid sol-gel network. The inhibitor provides active corrosion protection in suitable alkaline conditions without affecting the integrity of the coating. The fiber-like morphology of the synthesized cerium mixed oxides and presence of high concentration of active Ce+ on the nanofiber surface may be responsible for the enhanced protection against corrosion.

No. of Pages : 24
No. of Claims : 10
An Inner string cementing system characterized in having a Cementing head with an inherently placed tubular wherein the cementing head sits on the casing by means of a C-plate; and wherein the tubular passes through the center of the cementing head through the Pipe body (06) of the cementing head; and wherein the Pipe top end connection (05) of the cementing head is the top end connection of the drill pipe; and wherein the top of cementing head is welded with the tubular, by means of a Pipe Joint (07).
This invention relates to herbal compositions including natural ingredients which can be used either for the health benefits, surface cleaning, or for mental/psychological improvement. The herbal composition comprising 52 herbal ingredients; wherein said 52 herbal ingredients comprising a first set of 27 herbs which are related to 27 nakshatras; a second set of 9 herbs which are related to navgraha; and a third set of 5 panchgavya and a fourth set of 11 rakshaghan dravyas. Another herbal composition comprising nine herbal ingredients having bactericidal effects is disclosed. The oily herbal composition comprising 7 different oils for providing mental/psychological improvement is also disclosed. In nutshell, this product has been made with pious intention for helping everyone to stay healthy. It is based on the main aim of Ayurveda i.e. Swasthasya Swasthya Rakshanam. It helps us by providing healthy environment to breathe healthy air. It helps us in staying in a healthy and harmonious house. The oil formulation gives you mental and physical stability by increasing your positivity.
Title of the invention : IMPLEMENTATION OF FLIGHT DATE AND MONTH RECORDING USING DISCRETE

Abstract:
SSFDR records the critical Aircraft parameters during flight. After completion of flight, all critical parameters are analyzed with Ground replay Equipment for maintenance and flight de-briefing purpose. In transport aircraft like AN-32, the analysis of flight data is being carried out on 50 hours flying duration only. Due to this reason identification of desired sortie, it is required to record flight date and month along with aircraft data. The implementation of recording flight date and month with aircraft data has been done in SSFDR-An-32 using discrete. The month and date information are fed through discrete switches in BCD format and recorded as discrete in SSFDR. The ground replay equipment extracts this information stored in discrete format and displayed to user for identification of desired sortie. The information of date and month is being fed using a dedicated unit called indigenous 6TI.
Conducting Polymer Composite for Electromagnetic Interference Shielding and a process of preparation thereof

The present invention relates to a conducting polymer composite for electromagnetic interference shielding in X-band 8.2-12.4 GHz, said conducting polymer composite composed of essentially of polypyrrole matrix embedded with dielectric material or magnetic material. Reduced graphene oxide is added to enhance the shielding effectiveness of the matrix. The synthesis of conducting polymer composite is carried out through chemical oxidative polymerization. The high shielding effectiveness (Δ48 dB) at critical thickness of 2.5mm is achieved due to the synergistic effect of RGO/Fe3O4/BST in the polymer matrix. To be published with figure 1.
Title of the invention: DEVELOPMENT OF CONDUCTING POLYMER-CARBON ALLOTROPES COMPOSITES AS EMI SHIELDING MATERIAL

Abstract:
The present invention relates to a process of fabricating conducting polymer, i.e., Polypyrrole deposited amine functionalized multiwalled carbon nanotubes, graphene and hybrid carbon assemblage (AMWCNTs+graphene) composites and their application in EMI shielding. The method of prepare of Polypyrrole deposited amine functionalized multiwalled carbon nanotubes, graphene and hybrid carbon assemblage (AMWCNTs+graphene) composites comprising steps of: Preparation of Sodium Lauryl Sulphate (SLS) doped Polypyrrole via simple chemical polymerization method by using ferric chloride (FeCl3) as oxidant in the reaction. Then, Preparation of Amine functionalized multi-walled carbon nano-tubes solution in organic solvent by Ultrasonicator. Addition of SLS doped conducting polymer to the amine functionalized multiwalled carbon nanotube suspension and continuous stirring of the mixer for six hours to prepare ACNTs@SLS-PPy composite. Similarly, composites with graphene and hybrid carbon assemblage are prepared. To be published with figure 1.
The present invention relates to an alarm management method. The method comprises associating a first participant and at least one further participant with an alarm at a device pertaining to the first participant. The method further comprises controlling, at least one condition pertaining to output of the alarm, based on status update information received from the at least one further participant at the device pertaining to the first participant. The status update information indicates response of the at least one further participant to the alarm.
Title of the invention: UREA SOLUTION FILLER NECK DEVICE

Abstract:
Disclosed is a urea solution filler neck device. The urea solution filler neck device includes: a cover mounted on a floor of a vehicle body to correspond to a urea solution tank and having a through-hole; a filler neck body disposed on the bottom of the cover and mounted on the urea solution tank; an opening/closing cap mounted on the top of the filler neck body on the top of the through-hole and selectively opening/closing the through-hole and the filler neck body; and a seal member mounted on the filler neck body in a space formed in the cover and the filler neck body and preventing a urea solution which leaks from the urea solution tank from flowing into an interior of a vehicle.

FIG. 1

No. of Pages: 28 No. of Claims: 16
(54) Title of the invention: FLUID-FILLED ENGINE MOUNTING APPARATUS

(51) International classification : F01K15/00
(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(36) Name of Applicant : 1) HYUNDAI MOTOR COMPANY
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2) KIA MOTORS CORPORATION
(86) International Application No : NA
Filing Date : NA
(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:
A fluid-filled engine mounting apparatus may include a core provided with a center into which a center bolt is inserted; an insulator with an internal lower portion in which a first fluid chamber is formed and with an upper internal circumferential surface adhered to an external circumferential surface of the core; an upper housing mounted on an upper portion of the insulator; upper and lower orifice plates mounted on an internal circumferential surface of the insulator and are provided with a center hole; a membrane mounted on the center holes between the upper and lower orifice plates; a first case mounted on a lower external circumferential surface of the insulator; a first diaphragm mounted on a lower portion of the insulator that closes the first fluid chamber; and a longitudinal vibration absorbing device provided at an upper portion of the insulator.
The present disclosure relates to an absorptive material comprising a) at least one antimicrobial layer; b) at least one spacer fabric; c) at least one non-woven fabric; and d) at least one impermeable fabric. The absorptive material may be employed as a multi-layered decontaminant composition against a range of toxic substances. A process for producing the absorptive material is also provided.
(54) Title of the invention : SYSTEM AND METHOD FOR INTERACTIVE LEARNING

(51) International classification : G09B3/00
(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
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(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(57) Abstract :
A system and method for interactive learning is disclosed, wherein the learner may learn concept at a pre determined pace, using a communication device, which may be provided by the school of the learner or by any other teacher. Further, a new lesson will be unlocked for learning everyday with in-class practice questions and assignment for the same through class practice module. However, the learner has liberty to study the concept at any time of the day at his own pace. Moreover, when a learner join the system late, he has liberty to study previous concepts in multimedia content format at his own pace, as the learner will get access to the current date concept along with previous concepts, to take whole class at par.

FIG. 1

No. of Pages : 22 No. of Claims : 10
The present invention concerns innovative usage and application of liquid air spray as cooling medium for the environment. It takes away the heat from environment and does not change the natural composition of the environment because it uses the same natural composition of the air in liquid form. It is therefore safe for humans and inhabitants. This invention is useful for the locations where cooling air-conditioners are not available for any reason or situations where air-conditioners would take time to cool down the environment and there is a need for instant cooling like cars parked under the Sun, camping in remote areas, places without modern facilities.
The present invention relates to a process for preparation of flame retardant cotton fabric comprising coating the cotton fabric substrate with phosphorus containing monomer by admicellar polymerization. It further relates to the flame retardant cotton fabric prepared by admicellar polymerization process. The present invention further relates to a flame retardant composition comprising phosphorus containing monomer, surfactant and a binding agent.
(54) Title of the invention : CALL CONNECTION CONTROL DEVICE AND METHOD FOR CONTROLLING CALL CONNECTION

(57) Abstract :
A call connection control method may be provided for a call connection control device to control a call connection with respect to an incoming call received by a mobile device, and the call connection control method may include detecting a vehicle speed while driving of the vehicle; comparing the detected vehicle speed with a predetermined limit speed when an incoming call is received by the mobile device; and controlling a call connection of the mobile device according to a comparison result.
A variable stiffness stabilizer assembly (400) includes a plurality of side stabilizer bars (204) having a proximal end (206) and a distal end (208) having different cross-sectional profiles, and a central stabilizer arm (218), the central stabilizer arm (218) having a first end (220), a second end (222), and an intermediate portion (224) having different cross-sectional profiles. The assembly (400) further includes a plurality of connecting devices (402) for coupling the plurality of side stabilizer bars (204) with the central stabilizer arm (218). The connecting devices (402) includes a first receptacle (404) configured to receive the proximal end (206), a first hinge (410) pivotally connected to the first receptacle (404), a second hinge (412) pivotally connected to the first hinge (410), a second receptacle (414) pivotally connected to the second hinge (412), the second receptacle (414) configured to receive the first end (220) or the second end (222). Using the side stabilizer bars (204), intermediate portion (224) and connecting devices (402), variable stiffness of stabilizer bar can be achieved at vehicle by changing the axis of side stabilizer bars and intermediate portion, through rotating it. To be published with Fig. 4
In one example, a method is disclosed in which a convolutional neural network is trained on a plurality of categorized medical images to detect one or more identifying features in a medical image. The medical image may be received by scanning a region of a human body by a medical imaging device. Further, the medical image may be categorized into at least one predefined category based upon the one or more identifying features detected in the medical image by the trained convolutional neural network. The medical image may be selectively displayed on a visual display when the at least one predefined category is identified as an obstructive category of images.
The present invention relates to the waste management system designed to operate in vehicle, which collects the waste, segregate the biodegradable waste from other waste and dispose of the waste from the vehicle. The waste management system comprising an elongated structure of the waste receiving chamber having at least one opening on its top surface to receive waste from a user and at least one opening on each of side surface of the waste receiving chamber to receive compressed air within the waste receiving chamber to push the received waste from the at least one opening to another elongated structure of waste collection chamber, coupled to a bottom surface of the waste receiving chamber from where the collected waste is disposed off from the vehicle.
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application: 24/10/2017

(43) Publication Date: 26/04/2019

(54) Title of the invention: VIRTUAL TRAINING VIDEO SCREEN APPARATUS FOR SHOOTING LIVE AMMUNITIONS

(51) International classification: A63B

(31) Priority Document No: NA

(32) Priority Date: NA

(33) Name of priority country: NA

(86) International Application No: NA

(61) Patent of Addition to Application Number: NA

(87) International Publication No: NA

(62) Divisional to Application Number: NA

(57) Abstract:
Disclosed is a video screen apparatus for hitting, including a first rotation rod on which a screen fabric is wound, and a second rotation rod having rotation rings are provided at both left and right sides, in which the first rotation rod is provided below a support in a horizontal direction, the second rotation rod is provided above the support in the horizontal direction, the screen is formed between a first support rod and a second support rod, a screen mounting board for mounting and separating the first rotation rod is provided below the support in the horizontal direction, a rotation support for mounting and separating the second rotation rod is provided above the support in the horizontal direction, and the second rotation rod provided above the support is configured by a separation and joining means configured to separate and join the second rotation rod from and to a motor.

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(72) Name of Inventor:
1) Hae-Yong Choi

No. of Pages: 42
No. of Claims: 7
Title of the invention: COMPACT AND PORTABLE HERBAL WATER PURIFIER FOR DRINKING WATER

Abstract:
The present invention discloses an economical, compact purifier for drinking water consisting of powdered de-hulled seeds of Moringa oleifera packed in a semi-permeable container e.g. dip bag of semi-permeable non-woven material or woven fine cloth e.g. cellulose of the type used in tea-bags or even fine muslin cloth. For use, the purifier has to be simply placed in water for 5-10 minutes resulting in adsorption of heavy metals viz. Cd2+, Mn2+ and Zn2+ and killing of harmful microbes viz Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Methicillin-resistant S. aureus (MRSA) and Salmonella typhi. The action is very quick - barely 5-10 minutes, making it a very low-cost intervention for ensuring safety of drinking water. One bag containing about 5 grams powder can be used to treat about 5 liters of water in about 5-10 minutes, making it safe from microbes and heavy metals.

Fig.1

No. of Pages : 19 No. of Claims : 4
The present invention discloses a new process for the production of high value therapeutic fruit vinegar from wild apricots (Prunus armeniaca Linn.) in a faster and eco-friendly manner. The process involves innovative use of wood chips from branches of Quercus tree instead of whole wooden barrels, due to which cutting of trees is eliminated. Also, the time of production is reduced by 50% to about 6 months only from about 12 months or more in the traditional process. Overall, the cost of production is less since no special labor to produce wooden barrels is needed. Further, the product possesses excellent health promoting properties as it contains salt, pepper, cumin, ginger, clove and honey. It also has unique composition in terms of phytomolecules mainly carbohydrates, organic acid, vitamin C, potassium, -carotene, niacin, phenols, volatile compounds, esters, terpenoids and antioxidants etc. which are not present in synthetic vinegar.
(54) Title of the invention : A PROCESS FOR SYNTHESIS OF COPPER CHROMITE NANOPARTICLES

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(71) Name of Applicant:
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Address of Applicant: Ministry of Defence, Gov. of India, Room No. 348, B Wing, DRDO Bhawan, Rajaji Marg, State-New Delhi, Delhi India

(72) Name of Inventor:
1) Shaibal Banerjee
2) Hema Singh

(57) Abstract:
A process for synthesis of copper chromite nanoparticles is disclosed. The process comprises of reacting trivalent chromium compounds with divalent copper compounds to form copper chromite nanoparticles by sonochemically assisted solvothermal method.

![Graph](image)

FIG. 1

No. of Pages : 23 No. of Claims : 9
Title of the invention: EXOSKELETON DEVICE FOR UPPER LIMB REHABILITATION

Abstract:
An exoskeleton device (100) for rehabilitation of distal joints of an upper limb of a patient is described. The exoskeleton device (100) includes a multi-bar linkage (102). Further, the exoskeleton device (100) includes a first platform (104) to support fingers of the patient. The first platform (104) is coupled to the multi-bar linkage (102). The exoskeleton device (100) also includes a second platform (106) to support a palm of the patient. The second platform (106) is coupled to the multi-bar linkage (102). In addition, the exoskeleton device (100) includes a transmission unit (108) to drive the multi-bar linkage (102) to move the first platform (104) and the second platform (106) to provide flexion and extension of the distal joints of the upper limb of the patient.

FIG. 1

No. of Pages: 34 No. of Claims: 17
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING BASED PROJECT MANAGEMENT ASSISTANCE

In some examples, artificial intelligence and machine learning based project management assistance may include ascertaining an inquiry by a user. The inquiry may be related to a project. An attribute associated with the user and an attribute associated with the project may be ascertained. The inquiry may be analyzed based on the ascertained attributes associated with the user and the project. A predictor category may be identified, based on the analyzed inquiry, from a plurality of predictor categories that include a performance predictor category, a quality predictor category, a retrospect predictor category, and a planning predictor category. A predictor from a plurality of predictors may be identified based on the identified predictor category. A response to the inquiry may be generated based on execution of the identified predictor. Further, a display responsive to the inquiry may be generated based on the generated response.
**Title of the invention:** AIR TIGHT GRAIN STORAGE TANK WITH VACUUM VALVE

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<th>1) HARI NARAYAN S/O VISHAMBHAR NATH</th>
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<tr>
<td>Address of Applicant</td>
<td>SHIVPURI PURVI GHATAMPUR, KANPUR NAGAR, U.P-209206, INDIA Uttar Pradesh India</td>
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<th>1) HARI NARAYAN S/O VISHAMBHAR NATH</th>
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**Abstract:**
Air tight grain storage tank with vacuum value is important for agriculture. Air tight grain storage tank is very important for the population lives in villages and depends on farming. Because village people are stored grains in iron tank and other places but after some times stored grains destroy by insects. This air tight grain storage tank will save grains for a long time. I stored grains free from any insect and fungus for several years. Air tight grain storage tank with vacuum value work according to principle of nature and one can live without oxygen based on this natural law. Air tight grain storage tank being nay size tank and some money spend. So this tank is very important for every person of village and city. That why this tank available in market is not successful and not saved grains and dry fruits. By this tank big grains storage and saved for long time.

![Diagram of Air Tight Grain Storage Tank with Vacuum Valve](image)

No. of Pages: 5 No. of Claims: 4
(54) Title of the invention: FULLY AUTOMATIC MOVABLE BRICKS FORMING MACHINE

(51) International classification: F01K27/00
(31) Priority Document No: NA
(32) Priority Date: NA
(33) Name of priority country: NA
(86) International Application No: NA
   Filing Date: NA
(87) International Publication No: NA
(61) Patent of Addition to Application Number: NA
   Filing Date: NA
(62) Divisional to Application Number: NA
   Filing Date: NA

(57) Abstract:
Abstract - Air tight grain storage tank with vacuum value is important for agriculture air tight grain storage tank is very important for the population lives in villages and depends on farming. Because village people are stored grains in an iron tank and other places but after some times stored grains destroy by insects. This air tight grain storage tank will saved grains for a long time. I stored grains free from any insect and fungus for several years. Air tight grain storage tank with vacuum value work according to principle of nature an one can live without oxygen based on this natural law. Air tight grain storage tank being nay size tank and some money spend. So this tank is very important for every person of village and city That why this tank available in market is not successful and not saved grains and dry fruits. By this tank big grains storage and saved for long time

No. of Pages: 14 No. of Claims: 10
The Patent Office Journal No. 17/2019 Dated 26/04/2019

(12) PATENT APPLICATION PUBLICATION
(21) Application No.20171029452 A
(19) INDIA
(22) Date of filing of Application :19/08/2017
(43) Publication Date : 26/04/2019

(54) Title of the invention : INTERNET OF THINGS (IOT) CLOUD BASED NEAR REAL TIME CCTV MALFUNCTION REPORTING SYSTEM WITH DATA ANALYSIS AND ARTIFICIAL INTELLIGENCE

(51) International classification H04L9/32
(31) Priority Document No NA
(32) Priority Date NA
(33) Name of priority country NA
(36) International Application No NA
Filing Date NA
(86) International Application No NA
Filing Date NA
(87) International Publication No NA
(61) Patent of Addition to Application Number NA
Filing Date NA
(62) Divisional to Application Number NA
Filing Date NA

(57) Abstract :
The proliferation of the CCTV network across the cities which includes private users i.e. individuals, private bodies like market associations, factories, buildings etc and law enforcing agency installations. It has been observed, especially post incidence that either the cameras are not working or there was no recording or the recording was tampered later on the pretext that the system was not functional at the time of incidence. This results in loss of precious information both for private parties and the law enforcing agencies. The present invention relates to an IoT based system that would constantly monitor the city CCTV network, map the CCTVs, maintain the serviceability log and generate the malfunctioning alerts to the user/Authorities to bring in a big change in smart city incidence/crime governance. Figure 1

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(72) Name of Inventor :
1)RAJNISH BHATIA

No. of Pages : 22 No. of Claims : 10
An ECU 50 stores a regeneration process map defining a correlation between an engine output of an engine 20 and a GPF temperature in advance. In the regeneration process map, an upper-limit temperature line connecting a maximum increase temperature of GPF 29B for each engine output and a lower-limit temperature line connecting a minimum increase temperature of GPF for each engine output are set. The ECU 50 operates the engine 20 in a region in which a GPF temperature becomes a lower-limit regeneration temperature or more in a condition that a predetermined regeneration start condition for starting regeneration of GPF is established (YES in Step S1) and the engine 20 can be operated in a conditional continuous regenerable region in which an engine output range is set to exceed the lower-limit regeneration temperature in a region interposed between the upper-limit temperature line and the lower-limit temperature line in the regeneration process map (YES in Step S3).

No. of Pages : 36 No. of Claims : 5
A drive module for driving a pair of vehicle wheels. The drive module can be driven by an electric motor and includes two reductions between the electric motor and the vehicle wheels. At least one of the reductions is provided by a chain and a pair of sprockets.
Title of the invention: VEHICLE FRONT STRUCTURE

Abstract:
Provided is a vehicle front structure capable of ensuring the rigidity of a longitudinal member to which a headlamp is to be attached, while improving the pedestrian head protection performance. A vehicle front structure 100 according to the invention is a vehicle front structure including a headlamp 102, the vehicle front structure further including: a side member 110 extending from a front end of a vehicle to a rear side of the vehicle; a longitudinal member 112 configured to be joined to the front end of the side member 110 and extending to an upper side of the vehicle; a fender apron 116 extending in a front-rear direction of the vehicle, outward of the side member 110 in a width direction of the vehicle; and a reinforcement member 130 that is curved so as to connect the longitudinal member 112 and the fender apron 116 with each other, the reinforcement member 130 including one end 136 that extends in the width direction of the vehicle and is to be attached to the longitudinal member 112, and another end 144 that extends in the front-rear direction of the vehicle and is to be attached to the fender apron 116, wherein the longitudinal member 112 includes an attachment portion 154 to which the headlamp 102 is to be attached, and the reinforcement member 130 is disposed below the headlamp 102.
An electric machine with integrated belt drive comprises a pulley for receiving a belt and a belt tensioner. On a housing part of the machine, an annular contact surface is formed with an axially projecting support collar, on which a retaining ring of the belt tensioner is pushed.
**Title of the invention:** ROTATING ELECTRIC MACHINE

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### Abstract:

**[Task]** Providing a rotating electric machine which can produce a sufficiently high torque even for operation at low speeds: **[Solution]** Disclosed is a rotating electric machine including a stator 10 and a rotor 20. The rotor 20 includes a rotor core 21 with a circumferentially arrayed row of salient poles 22; a rotor winding 23, which allows currents to be induced depending on a high-frequency harmonic superimposed on magnetic flux produced by the stator 10, and diodes D1, D2 to rectify the induced currents. The circumferentially arrayed row of salient poles includes first salient poles 31, each having a permanent magnet 30, and second salient poles 32 around which the rotor winding 23 is wound.

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No. of Pages : 60  No. of Claims : 9
The present invention discloses a continuous casting machine for forming grids for plates of electric batteries, which is employed in the production processes of electric batteries for producing a lead strip of grids. The machine comprises a rotary drum (4) having an external peripheral surface (7) with a plurality of grooves, and a sliding block (11) coupled in sliding relation with the external surface (7) of the rotary drum (4) and having a distribution duct that inserts molten lead in grooves. The grooves comprise circumferential notches (8) and transverse notches (9) that meet in respective vertices (18). At the vertices (18) and within the circumferential notches (8), a plurality of studs are placed that are intended to shape corresponding corners of smoothed form of the grids. The machine allows to produce a continuous strip of grids maintaining a high production speed while producing molded grids which have smoothed corners.
The invention relates to a traversing unit (1) for traversing a yarn (3) with respect to a pair of delivery rollers (9) of a workstation (2) of a textile machine, comprising a yarn-guiding unit (12), comprising a single traversing drive (13) for driving the yarn-guiding unit (12), and comprising a conversion element (14), with the aid of which a rotational movement (w) of the single traversing drive (13) can be converted into a linear, reciprocating movement of the yarn-guiding unit (12). According to the invention, the single traversing drive (13) is designed as a rotating motor and at least a middle position (M) of the yarn-guiding unit (12) can be detected with the aid of a sensor (18). Moreover, the invention relates to a method for operating a traversing unit (1) of this type. The invention also relates to a workstation (2) comprising a traversing unit (1) of this type.
The invention relates to a yarn return unit (4) for returning a yarn (3) into a delivery unit (2) of a textile machine during a piecing process, in particular for returning a yarn (3) into a spinning unit of an open-end spinning machine, comprising a yarn-guiding section (12) for guiding and positioning the yarn (3) with respect to the delivery unit (2), and comprising a blowing unit (13) for generating an airflow (19) for returning the yarn (3) into the delivery unit (2), wherein a flow direction (SR) of the air flow (19) is defined, can be formed with the aid of the blowing unit (13). According to the invention, the yarn-guiding section (12) has an open contour including an insertion area (14), through which the yarn (3) can be inserted into the yarn-guiding section (12) transversely to the flow direction (SR) of the air flow (19). The invention also comprises a workstation (1) of a textile machine comprising a yarn return unit (4) for returning a yarn (3) into a delivery unit (2), in particular into a spinning position of an open-end spinning machine, during a piecing process.
**Title of the invention:** VALVE CAGE ASSEMBLY

| (51) International classification | :F16K39/00 |
| (31) Priority Document No | :15/793,151 |
| (32) Priority Date | :25/10/2017 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No Filing Date | :NA |
| (87) International Publication No | :NA |
| (61) Patent of Addition to Application Number Filing Date | :NA |
| (62) Divisional to Application Number Filing Date | :NA |

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Address of Applicant: 30 Corporate Drive, Suite 200, Burlington, Massachusetts 01803-4232, United States of America U.K.

**Name of Inventor:**
1) KLOSS, James

**Abstract:**
A cage assembly for a valve includes a hollow first member having a first end for operably connecting to a valve body and an opposed second end for receiving a hollow second member. The assembly includes the second member having a third end for receiving a hollow third member, the second member including first openings formed through a sidewall, and the third member having a fourth end for operably connecting to the valve body. The assembly includes when assembled inside the valve body, the first member, the second member and the third member forming an aligned second opening therethrough, the second opening having a uniform cross section, for slidably receiving a valve closure element for controlling a flow of fluid through the first openings during operation of the valve.

No. of Pages : 19 No. of Claims : 13
There is provided an interior trim arranged to be adjacent to a seat back of a rear seat of an automobile. The interior trim includes a bulging portion that bulges from a reference surface parallel to a lateral surface of the seat back toward an interior side. The bulging portion includes a shelf surface that protrudes from the reference surface toward the interior side. An accessory socket is provided on a position facing a vehicle front side in the shelf surface such that an opening of the accessory socket faces the vehicle front side, or on a position facing a vehicle rear side in the shelf surface such that the opening of the accessory socket faces the vehicle rear side.
As at a luminous body (100, 100a, 100b) includes: a first moiety (110, 110a, 110b) including a plurality of first ligands (116) combined to a surface of an inorganic emitting particle (111); and a second moiety (120) including silsesquioxanes (124) connected to a second ligand (122) connected to the first ligand (116), wherein one of the first and second ligands (116 and 122) is a polar ligand, and the other of the first and second ligands (116 and 122) is a non-polar ligand.
Name of Applicant : 1) TOSHIBA MITSUBISHI-ELECTRIC INDUSTRIAL SYSTEMS CORPORATION
Address of Applicant : 3-1-1, Kyobashi, Chuo-ku, Tokyo 104-0031, Japan

Name of Inventor : 1) WAKASUGI, Sunao

Abstract:
A totally-enclosed rotating electrical machine (100) comprises: a rotor (10) including a rotor shaft (11) and a rotor core (12); a stator (20) including a stator core (21) and stator windings (22); a frame (40a) to house the rotor core (12) and the stator (20); two bearings (31, 32); an inner fan (55); and legs (45) to support the frame (40a) frombelow. The frame (40a) includes at least one ventilation channel (41a) extending axial ly and having a ventilation channel inlet opening (41b) and a ventilation channel outlet opening (41c) that communicate with side of the rotor core (12) and the stator (20) and are formed at opposite to each other. The at least one ventilation channel (41a) is formed in a part of the frame (40a) except for parts where the legs (45) are attached, and formed at only a part above the legs (45), and frame outer fins (43) are disposed in an area of the frame (40a) where the ventilation channel (41a) is formed.
No. of Pages : 25 No. of Claims : 15
The present invention relates to a light emitting diode (LED) lighting device, and more particularly, to an LED lighting device, in which light efficiency of high illumination and high brightness of an LED light source is maximized. The LED lighting device according to the present invention includes: an extrusion-molded frame; a controller board, which is positioned inside the frame, is electrically connected with a printed circuit board (PCB) board assembly (PBA) to control an LED, and is connected with an external power supply; a PBA board that is an electric circuit board, on which a plurality of LEDs is arranged; a light efficient member, which includes reflectors as many as the number of plurality of LEDs at positions corresponding to positions of the plurality of LEDs, the reflector having a shape protruding in a direction of the LED and being connected by a curvature surface, in which an external opened circle and an internal opened circle smaller than the external opened circle have different curvature radiuses; and a transparent or opaque front cover coupled to an outermost side.
An acid dye composition for dyeing nylon textiles is disclosed, which comprises: an acid dye; and a water soluble Ca compound, wherein, on the basis of a total weight of the acid dye as 100 parts by weight, a content of the water soluble Ca compound is ranged from 0.1 parts by weight to 50 parts by weight. In addition, a use of the aforesaid acid dye composition and a method using the same for dyeing nylon textiles are also disclosed.

No. of Pages : 20 No. of Claims : 20
**Title of the invention**: SPACER ASSEMBLY

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**Abstract**

A spacer assembly includes a housing that is configured to couple to a component. The housing includes a central bore. A bumper is coupled to the housing. The bumper includes a bumper support including a shaft that extends within the central bore, and a bumper head coupled to the bumper support.

**No. of Pages**: 29  **No. of Claims**: 20
A fuel cell system includes a motor (320) driving a compressor (310) that supplies air to a fuel cell, a turbine (330) assisting the compressor, a bypass valve (240) that opens and closes the bypass flow path (230), and a controller (500). When a required air flow rate is equal to or higher than a threshold value, the controller (500) closes the bypass valve (240) and controls the motor (320) to cause the air to flow through the fuel cell at a flow rate corresponding to the required air flow rate. When the required air flow rate is lower than the threshold value, the controller (500) opens the bypass valve (240) to cause the air to flow through the bypass flow path and controls the motor (320) to cause the air to flow through the fuel cell at the flow rate corresponding to the required air flow rate.
A drive device for a hybrid vehicle includes an engine (2), a first motor (4), a power split device (6), a second motor (5), a first speed reduction unit (9), a second speed reduction unit (14), and a differential gear (10). The first motor generates electric power. The power split device splits drive power output from the engine to the first motor side and a drive wheel (8) side. The second motor increases or decreases torque output from the power split device and to be transmitted to the differential gear. The second motor is coupled to a sun gear. The first speed reduction unit is coupled to the sun gear. The second speed reduction unit is provided between the first speed reduction unit and the differential gear. The differential gear transmits torque to the drive wheel.
The invention relates to a textile machine assembly (1) comprising a delivery unit (3), in particular a card, with the aid of which a sliver (2) is delivered during the operation of the delivery unit (3), a receiving unit (4), in particular a drafting frame, with the aid of which the sliver (2) delivered by the delivery unit (3) is received during the operation of the receiving unit (4), and at least one sliver storage unit (13) which stores, at least intermittently, the excess sliver (2) between the delivery unit (3) and the receiving unit (4) for the interim when a delivery speed of the sliver (2) at the delivery unit (3) is higher than a receiving speed of the sliver (2) at the receiving unit (4), and which releases the sliver (2) which has been stored for the interim when a receiving speed of the sliver (2) at the receiving unit (4) is higher than the delivery speed of the sliver (2) at the delivery unit (3). According to the invention, the sliver storage unit (13) comprises at least one diverting unit (14) which can be moved with respect to the delivery unit (3) and/or the receiving unit (4) and with the aid of which the sliver (2) can be diverted and with the aid of which a sliver path (7, 8, 16) for the sliver (2) from the delivery unit (3) to the receiving unit (4) can be changed. Moreover, the invention relates to textile machines and to a method for the interim storage of a sliver.
Title of the invention: CATALYST COMPONENT, CATALYST, AND PREPOLYMERIZATION CATALYST FOR OLEFIN POLYMERIZATION, AND METHOD FOR OLEFIN POLYMERIZATION.

Abstract:
Provided are a catalyst component for olefin polymerization, a catalyst for olefin polymerization, a prepolymerization catalyst obtained by prepolymerization of the catalyst, and a method for olefin polymerization. The catalyst component for olefin polymerization includes magnesium, titanium, halogen, Lewis base compound A as shown in formula (I), and another Lewis base compound B, wherein a molar ratio of a total amount of compound A and compound B to magnesium is in a range of (0.03-0.20): 1. When the catalyst is used in olefin polymerization, in particular propylene polymerization, the catalyst has a high activity.
**Title of the invention:** EMERGENCY EXIT WINDOW SYSTEM

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**Abstract:**
An emergency exit window system, having a sash pivotally carried by a frame, in which, when the sash is moved to the closed position, a locking arm is placed in the lock position and a safety guard is placed in the engaged position so as to secure the locking arm in the lock position, regardless of whether the safety guard started out in the engaged position or the disengaged position when the sash was closed.
A vehicle lamp unit comprising a first optical system which forms a low beam light distribution pattern, and a second optical system which forms a high beam light distribution pattern, wherein:

1. The first optical system includes:
   - A first tubular reflecting surface in which a front end opening is larger than a rear end opening, which narrows in a conical shape from the front end opening toward the rear end opening, and which is constituted by first reflecting surfaces provided on upper, lower, left, and right sides.
   - A first light source provided so as to oppose the rear end opening.
   - A first projector lens which is provided so as to oppose the front end opening, which has a focal point positioned in a vicinity of a front end edge of a reflecting surface provided on the lower side among the first reflecting surfaces, and which illuminates, to the front, direct light from the first light source and reflected light from the first light source having been reflected by the first tubular reflecting surface, the front end edge of the reflecting surface provided on the lower side among the first reflecting surfaces being configured in a shape corresponding to a cutoff line of the low beam light distribution pattern.

2. The second optical system includes:
   - A second tubular reflecting surface in which a front end opening is larger than a rear end opening, which narrows in a conical shape from the front end opening toward the rear end opening, and which is constituted by second reflecting surfaces provided on upper, lower, left, and right sides.
   - A second light source provided so as to oppose the rear end opening.
   - A second projector lens which is provided so as to oppose the front end opening, which has a focal point provided in a vicinity of the second light source, and which illuminates, to the front, direct light from the second light source and reflected light from the second light source having been reflected by the second tubular reflecting surface, the second optical system and the second optical system are arranged in parallel, the first light source and the second light source are arranged on a first plane, and the first projector lens and the second projector lens are arranged on a second plane which is provided forward of the first plane.
A vehicle 10 comprising an internal combustion engine 1, a preceding vehicle information acquiring device 2 for acquiring preceding vehicle information relating to a preceding vehicle, including a parameter relating to a distance between vehicles which becomes greater the wider the distance between a host vehicle and the preceding vehicle, and an electronic control unit 3 for controlling the internal combustion engine 1, in which, the electronic control unit 3 is configured to initiate an idle reduction mode where the internal combustion engine is made to automatically stop when a preset engine stop condition stands and to continue the idle reduction mode if the preceding vehicle is decelerating or has stopped and to make the internal combustion engine 1 automatically restart if the preceding vehicle is accelerating or is running at an equal speed when the parameter becomes a first predetermined value or more during the idle reduction mode.
A vehicle comprising an internal combustion engine, a preceding vehicle information acquiring device for acquiring preceding vehicle information relating to a preceding vehicle, including a parameter relating to a distance between vehicles which becomes greater the wider the distance between a host vehicle and the preceding vehicle, and an electronic control unit for controlling the internal combustion engine, in which, the electronic control unit is configured so that when the parameter becomes a first predetermined value or more during the idle reduction mode where the internal combustion engine is automatically made to stop, it makes the internal combustion engine automatically restart and so that if the host vehicle continues stopped even after making the internal combustion engine automatically restart, it again makes the internal combustion engine automatically stop when the preceding vehicle has stopped before the parameter becomes a second predetermined value larger than the first predetermined value.
A hydraulic pressure amplifier arrangement (1) is described comprising a supply port (A1), a pressure outlet (A2) connected to the supply port via check valve means (3), an intensifier section (5) having a high pressure piston (6) in a high pressure cylinder (7), a low pressure piston (8) in a low pressure cylinder (9) and connected to the high pressure piston (6), and a control valve (12) controlling a pressure in the low pressure cylinder (9), wherein the control valve (12) comprises a hydraulically actuated valve element (13). Such a pressure amplifier arrangement should have a good operational behavior in a cost effective manner. To this end the control valve (12) comprises spring means 16 acting on the valve element (1) in a direction towards a starting position of the control valve.
Title of the invention: HIGH TEMPERATURE FOOD HEATING DEVICE

Abstract:
A high temperature food heating device includes a high temperature heating tank composed of three tanks, which are a main tank, a front reserve tank and a reserve tank, each of the front and rear reserve tanks has a first storage part having an opening at the upper part and a second storage part communicating with the first storage part at the lower part of the first storage part and having an opening at the upper part. In the high temperature food heating device, a communication chamber for communicating between a water surface of each of the second storage parts of the front reserve tank and the rear reserve tank and a water surface of the main tank and storing a liquid or a gas inside is provided, and a high pressure gas or a pressurized liquid is supplied from a high pressure fluid supply section into the communication chamber. Fig. 1
A muffler valve device for a vehicle may include a chamber fixed at a surface of the wall, a guide rod provided in the chamber and attached at the surface of the wall, a fixing member attached at one end portion of the guide rod and fixing the chamber, a valve disposed slidably on the guide rod between the surface of the wall and the fixing member, and an elastic member located between the valve and the fixing member to provide an elastic force to the valve.

![Diagram](image-url)
Title of the invention: PROCESS FOR PRODUCING D-DECALACTONE (DDL)

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<td>1) HAIDER, Mohammad Ali</td>
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<td>4) KHAN, Tuhin Suvra</td>
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<td>6) KUMARI, Varsha</td>
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Abstract:
The present disclosure relates to a process for preparing d-decalactone (DDL) comprising: culturing a microbial organism in a medium comprising a carbon source to obtain 6-amyl-a-pyrole (6PP); reacting 6-amyl-a-pyrole (6PP) in the presence of a solid catalyst to obtain d-decalactone (DDL).

No. of Pages: 13 No. of Claims: 12
Title of the invention: FIFTH-ORDER GENERALIZED INTEGRATOR BASED REDUCED SENSOR TOPOLOGY FOR THREE-PHASE TWO-STAGE GRID INTEGRATED SOLAR PHOTOVOLTAIC SYSTEM

Abstract:
A filtering method for robust estimation of fundamental parameters from grid voltage for enhanced control in power transfer in a solar photovoltaic (PV) energy conversion system with reduced sensor topology comprising a solar PV panel (1), a boost converter (2), a voltage source converter (VSC) (5) connected at power control centre (PCC) (8), and operably connected to the boost converter (2) via a DC link capacitor (4), and filter means (7) to absorb ripples generated by the VSC (5), wherein the boost converter (2) is adapted to extract maximum power from the solar PV panel (1) and operably feed to VSC (5) and wherein the VSC (5) is adapted to transfer the PV power into the grid (9), characterised in that the control of power transfer is performed by a Fifth Order Generalized Integrator (FOGI) (6).

Figure 1

No. of Pages : 29 No. of Claims : 10
The disclosure provides a stress release method and device for packaging film of flexible photovoltaic module. The method comprises: placing (S100) a film (500) to be cut on a loading platform (100); cutting (S200) the film (500) with an insert (300) such that an incision (510) inclined relative to an edge of the film (500) is formed on the film (500); and activating (S300) the feeding mechanism and driving the film (500) to move along an axial direction thereof such that the insert (300) moves out of the incision (510) to a next position to be cut on the film (500). The stress release method and device according to the embodiments of the present disclosure can realize the release of the stress and shrinkage of the packaging film without changing the amount of the material of the packaging film, such that the risk of wrinkling during subsequent processing can be reduced.

[Figure 1]

Place a film to be cut on a loading platform

Cut the film with an insert such that an incision inclined relative to an edge of the film is formed on the film

$100

$200

No. of Pages : 27 No. of Claims : 19
The present invention relates to catalyst preparation method and a method for preparing an unsaturated carboxylic acid by using the catalyst prepared according to the preparation method. A catalyst that can provide an unsaturated carboxylic acid from an unsaturated aldehyde at a high conversion rate and selectivity can be easily prepared by the catalyst preparation method.

No. of Pages : 21 No. of Claims : 9
An apparatus comprising a housing (316), seal (318), and energy storing device (320). The housing (316) is coupled to a structure (308) in an exhaust system (300) of an aircraft (304). The structure (308) is positioned relative to a surface (306) within the exhaust system (300) such that a gap (310) is present between the surface (306) and structure (308). The seal (318) has an end (322) positioned in contact with the surface (306) to reduce a flow of exhaust through the gap (310) and is coupled to the housing (316) such that the seal (318) extends within the housing (316). The energy storing device (320) is coupled to the housing (316) and engaged with the seal (318) to allow the seal (318) to translate in a first direction relative to the housing (316) when the gap (310) increases and in a second direction opposite the first direction relative to the housing (316) when the gap (310) decreases such that the seal (318) continues to reduce the flow of exhaust through the gap (310) as the gap (310) changes in size.
Provided is a vehicle deck connection structure that can increase the connection rigidity between a cabin and a deck. A vehicle deck connection structure (connection structure 100) according to the present invention is a connection structure that connects a cabin 108 and a deck 104 of a cargo carrying automobile to each other, including: a deck front pillar 110 that extends along a front edge of a side wall (side gate panel 106) of the deck, to a position below a floor (deck floor panel 112) of the deck 104, and to which the side gate panel 106 is connectable; an upper connection portion (bracket 116 and bolts 118) that connects a portion of the deck front pillar 110 that is above the deck floor panel 112 to the cabin 108; and a lower connection portion (bolts 122) that connects a portion of the deck front pillar (110) that is below the deck floor panel 112 to the cabin 108.
Title of the invention: ADAPTIVE TERMINAL SLIDING MODE CONTROL METHOD

Abstract:
An adaptive terminal sliding mode control method comprising: establishing a dynamics equation of a multi-input multi-output non-linear system determining a sliding mode surface \( s \) introducing an \( n \)-dimensional adaptive update rate \( \Gamma_{\text{adaptive}} \) and calculating values of a primary force/torque required to drive the non-linear system thus ensuring convergence of the system within a limited period of time and stability. The method of the present invention enables a tracking error of the system to converge to zero within a limited amount of time and enables online estimation of an upper uncertainty boundary value of the system thus significantly eliminating the fluttering phenomenon to a great extent. The method of the present invention is applicable to all kinds of robot systems aircraft systems and other application systems which can be described as a multi-input multi-output non-linear/linear system.

No. of Pages : 26 No. of Claims : 8
This invention relates to novel synergy where the antimicrobial effects of microbicidal lipids are augmented with minor amounts of ethanol in particular to augment the microbicidal effects for preventing infection in the nasal ocular otal pharynx larynx sinuses oral cavity vaginal or dermal surface of a mammal by virus pathogenic bacteria or fungi.
A manufacturing method of a core (20) of a rotating electrical machine includes: a preparation step of preparing a press device; a fixing step of fixing a steel sheet (10; 70) to a shaft member (22) held by the press device by passing the shaft member (22) through a hole provided in the steel sheet (10; 70) and extending in a stacking direction; and a processing step of performing press-working on the steel sheet (10; 70) by the press device in a state where the steel sheet (10; 70) is fixed to the shaft member (22).
The present disclosure relates to the field of antimicrobial compositions. More particularly it concerns the use of a composition as an antimicrobial agent the composition comprising ingredients selected from the group consisting of: (i) nona-26-dien-l-ol in combination with at least one ingredient selected from the group consisting of 3-neopentylpyridine 2-methylhexan-3-one oxime terpineol and 2-isopropyl-5-methylphenol; (ii) gamma-dodecalactone in combination with at least one ingredient selected from the group consisting of 1-Methyl-4-(1-methylene)-cyclohexene 4-Methoxybenzaldehyde and 13-Benzodioxole-5-carbaldehyde; (iii) (Z)-37-Dimethyl-26-octadien-l-ol and gamma-dodecalactone; (iv) cis-4(Isopropyl)cyclohexanemethanol and 4-Methoxybenzaldehyde; and (v) 13-Benzodioxole-5-carbaldehyde and 4-Methoxybenzaldehyde wherein the ingredients are present in an amount sufficient to provide an antimicrobial effect. The composition and its use for the preparation of antimicrobially active perfuming compositions and consumer products are also objects of the disclosure.

No. of Pages : 52 No. of Claims : 15
Title of the invention: MICE COMPRISING MUTATIONS RESULTING IN EXPRESSION OF C-TRUNCATED FIBRILLIN-1

Abstract:
Provided are non-human animals comprising a mutation in the Fbnl gene to model neonatal progeroid syndrome with congenital lipodystrophy (NPSCL). Also provided are methods of making such non-human animal models. The non-human animal models can be used for screening compounds for activity in inhibiting or reducing NPSCL or ameliorating NPSCL-like symptoms or screening compounds for activity potentially harmful in promoting or exacerbating NPSCL as well as to provide insights into the mechanism of NPSCL and potentially new therapeutic and diagnostic targets.
**Title of the invention:** TRANSMISSION DEVICE RECEPTION DEVICE COMMUNICATION METHOD AND INTEGRATED CIRCUIT

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**Abstract:**

The present invention is provided with: an encoding unit which segments a transport block into one or more code blocks and encodes the one or more code blocks to generate encoded bits; and a transmission unit which uses a channel to transmit the encoded bits. Multi-bits are given on the basis of at least the concatenation of the encoded bits generated by encoding the one or more code blocks. The encoding unit prioritizes a first axis to map the multi-bits in a matrix and prioritizes the first axis or a second axis to acquire (read) the multi-bits from the matrix. Whether the first axis or the second axis is to be prioritized when the multi-bits are acquired (read) from the matrix is given on the basis of at least whether the signal waveform applied to a prescribed channel is OFDM.

**Diagram:**

![Diagram showing a flowchart of the encoding process.](image)

No. of Pages : 58 No. of Claims : 12
The invention relates to the field of resolution of chiral compounds existing in the form of two optical antipodes (enantiomers) such as Baclofen. More particularly the invention relates to the production of the pure enantiomer (R)(-) Baclofen of chemical nomenclature (R)-4-amino-3-(4-chlorophenyl)-butanoic acid and the hydrogen maleate salt thereof. More specifically the invention relates to the resolution of hydrogen maleate salts of racemic Baclofen by preferential crystallisation and particularly by the AS3PC method (auto-seeded and programmed polythermal preferential crystallisation).
There are provided systems and methods for automated cell processing of biological samples such as cells for use in cell therapy and regenerative medicine. Systems for automated processing of batches derived from biological samples comprise: a closed and sterile enclosure; a plurality of reagent containers; at least one reagent dispenser; a quality control module for analyzing at least one characteristic of a batch; a harvesting module; a robotic module; and a control unit (CU) communicatively coupled to the at least one reagent dispenser the quality control module the harvesting module and the robotic module for controlling the automatic processing of batches. The automatic processing may be executable without handling by a human operator. The system may be configured to automatically process the plurality of batches without cross-contamination between batches e.g. under GMP conditions.
A liquid crystal composition and an application thereof; the liquid crystal composition contains 15-30% by weight of three or more compounds according to the general formula I the general formula I must contain at least two compounds of the general formula I-1; in terms of the total weight of the liquid crystal composition a total amount of the compounds of general formula I-1 is no less than 10% and the content of each of the compounds of the general formula I-1 is no more than 8%. The liquid crystal composition has suitably high optical anisotropy relatively high dielectric anisotropy relatively low threshold voltage a suitable elastic constant a suitable temperature range of a nematic phase good reliability and thermal stability as well as good low temperature miscibility.
An electromagnetic actuator for use in locking mechanisms comprises a housing (8 32 36) a plurality of coils (60 62) and an armature (14) which is linearly moveable relative to the housing between two end-of-travel positions by selectively energising the coils of the actuator. The actuator includes a fail-safe mechanism (6) which is operable to urge the armature towards one of the two end-of-travel positions.
Present invention relates to a novel process for purification of feedstock for further use as a source of fuel or chemicals comprising a step of addition to the feedstock of a substance capable of forming a separate phase with impurities present in the feedstock and a step of heating the mixture.
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application : 18/01/2019

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(54) Title of the invention : AUTOMATIC INJECTION DEVICE WITH REDUCED RESIDUAL VOLUME

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(72) Name of Inventor :
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2) STAMP, Kevin

(57) Abstract :
Automatic injection device (22) comprising: - an injection syringe (24) equipped with a syringe body (26) and with a piston rod mounted movably in this syringe body (26) so as to cover an injection stroke - a piston control member capable of changing between a configuration in which it is in engagement with the piston rod and a configuration in which it is disengaged from this piston rod - means for moving the piston control member between its two configurations with respect to the piston rod. The means for moving the control member between its two configurations comprise a camway (110) carried by a disengagement member (92) and a cam carried by the control member. The disengagement member (92) is movable with respect to the piston rod and the syringe body (26) after the end of the injection stroke in such a way as to cause the camway (110) to interact with the cam.

No. of Pages : 21 No. of Claims : 15
The present invention relates to anti-PD-L1 antibodies bispecific antibodies containing one domain with specificity to PD-L1 and to immunocytokines comprising an anti-PD-L1 antibody fused to a cytokine such as IL-2. The present invention also provides methods of treatment uses and pharmaceutical compositions comprising the antibodies bispecific antibodies and immunocytokines.
The invention relates to a novel reconstitution composition a pharmaceutical composition and kit of parts comprising said reconstitution composition. The invention further relates to a method of treatment using said pharmaceutical composition and/or the pharmaceutical composition for use as a medicament. Also provided is a method for reconstituting dried peptides and a method for preparing a pharmaceutical composition using the reconstitution composition of the invention.
The invention relates to a transparent burglary-resistant fire protection glazing (1) comprising at least one centrally arranged burglary-resistant composite (2) which comprises at least one transparent plastic pane (2.1) at least two fire protection units (5 7) which are arranged on both sides of the centrally arranged burglary-resistant composite (2) and two outer surfaces (AF1 AF2) which lie opposite each other.
The present invention relates to DEV and the uses thereof. The invention is particularly suited to vaccinate poultry against avian pathogens.

No. of Pages: 46
No. of Claims: 26
The present invention relates to new compositions for the oral administration of apolipoproteins in the dimeric or multimeric form with specific dosage regimens for use in the treatment of atherosclerosis.
Title of the invention: DEVICE AND METHOD FOR MANUFACTURING MULTILAYER MOLDED ARTICLE

Abstract:
A die 31 having a cavity 32 and a lower punch 41 fitted into the cavity 32 are divided and slid along a division plane 34 passing through the cavity 32 parallel to the fitting direction of the die 31 and the lower punch 41 whereby divided cavities 32A, 32B are placed in a state of alignment along the division plane 34 the divided cavities 32A, 32B are each filled with a raw material powder and the die 31 and the lower punch 41 are then slid along the division plane 34 whereby the divided cavities 32A, 32B are combined as the original cavity 32 and the raw material powder in the cavity 32 in the combined state is compressed by an upper punch and the lower punch 41.
The present invention provides a communication system and a communication device which make it possible to create a state where a slave machine has entered a communication network in a shorter time even if a master machine and/or the slave machine is restarted. In a communication system (1) a slave machine (20) enters a communication network after search processing and authentication processing and communicates with a master machine (10). The master machine (10) is provided with a processing unit (12) and a nonvolatile storage unit (13) and the slave machine (20) is provided with a processing unit (22) and a nonvolatile storage unit (23). The storage unit (13) and the storage unit (23) store entry information. A case where at least one of the slave machine (20) and the master machine (10) is restarted after the entry of the slave machine (20) into the communication network is assumed. In this case the processing unit of this machine uses the entry information stored in the storage unit of the machine immediately before restarting to bring the slave machine (20) into the state of having entered the communication network without performing communication related to the search processing and the authentication processing with the other machine.
A method (300) for indoor positioning or navigation comprises obtaining (310) a set of features which describe characteristics of a place in an indoor space. This obtained set of features may describe characteristics of a place at which a wireless device is located a place targeted by a wireless device as a destination or a place targeted by a wireless device to avoid. Regardless the method (300) further comprises comparing (320) the obtained set of features to addresses of respective indoor blocks into which the indoor space is spatially divided. Each indoor block in this regard is identified as being located at an address formed from a set of features which describe characteristics of the indoor block. The method (300) also comprises determining (330) based on the comparing which of the indoor blocks corresponds to the place in the indoor space.
A communication device (110) controls directional communication equipment (730). In particular, the communication device (110) determines (310) a distance (140) for directionally sensing spectral conditions and jointly selects (320) an antenna beamwidth (150) and sensing sensitivity with which to directionally sense the spectral conditions based on the distance (140).
Disclosed in an embodiment of the invention are a small data transmission method a related device and a system. The method comprises: a base station broadcasting a paging message the paging message carrying UE identifiers of user equipment (UE) units to be paged and small data to be sent to at least one of the UE units to be paged wherein the small data is data having a data amount less than a preset data amount threshold. The invention enables a base station to page a UE unit while transmitting small data to the UE unit to be paged thereby reducing signaling overheads and an amount of time required for transmitting small data and improving communication efficiency.
A mounting structure for a photovoltaic power generation module that comprises multiple power-generating components and a housing having a metallic bottom plate on which the multiple power-generating components are arranged and a resin-made sidewall frame erected along the outer edge of the bottom plate wherein the mounting structure comprises: a support plate having a support surface to be disposed in contact with an outer surface of the bottom plate and thereby support the photovoltaic power generation module; a washer to be disposed on an inner surface of the bottom plate and/or on the opposite surface of the support plate from the support surface; and a rivet having a shank part to be inserted into the washer and passing through the support plate and the bottom plate and a head part formed on one end of the shank part wherein when the other end of the shank part is deformed so that the diameter thereof increases the support plate and the bottom plate are fastened together between the washer and the head part.
**Title of the invention:** ABSORBENT ARTICLE

**Abstract:**
Provided is an absorbent article comprising an adhesive part on a non-skin-facing side the article being capable of being kept in a rolled-up state after use and of reducing uncomfortable or unpleasant sensations during use. An absorbent article (10) comprises a front-back direction (L) a widthwise direction (W) orthogonal to the front-back direction (L) a rear surface sheet (22) facing a side opposite a wearers skin and an adhesive part (70) provided on a non-skin-facing side of the rear surface sheet (22). The absorbent article (10) further comprises a tape member (60) disposed on the non-skin-facing side of the rear surface sheet (22) and to the inside of the outer edge of the absorbent article (10). The tape member (60) is configured so as to be capable of extending beyond the outer edge of the absorbent article (10).

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**No. of Pages:** 21 **No. of Claims:** 17
A thermoplastic composition includes a poly(phthalamide) a poly(etherimide-siloxane) and optionally an additive composition. The respective amounts of each component are further described herein. A method for the manufacture of the composition includes melt-mixing the components of the composition and optionally extruding the composition. Articles including the thermoplastic composition are also described.
Title of the invention: WINDOW PANE HAVING A CAPACITIVE SWITCHING AREA FOR CONTACTLESSLY CONTROLLING A FUNCTION

Abstract:
The present invention relates to a window pane (100) having a plurality of capacitive switching areas (10) for separating an interior from an external environment wherein the window pane (100) comprises a pane (1) having an inner surface (IV) and a coating (6) which is at least partially arranged on the inner surface (IV) of the pane (1) and a capacitive switching area (10) is electrically separated from the coating (6) in each case by at least one coating-free dividing line (7) and can be electrically connected to sensor electronics (14) and has a detection area (11) for contactlessly detecting an object moved by a person in an activation area and the direction of movement thereof.
**Title of the invention:** PROCESS FOR PREPARING COMPOUNDS USEFUL AS INTERMEDIATES FOR THE PREPARATION OF RALTEGRAVIR

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| (32) Priority Date | :21/06/2016 |
| (33) Name of priority country | :EPO |
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| Filing Date | :16/06/2017 |
| (87) International Publication No | :WO 2017/220208 |

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**Abstract:**
The invention discloses a novel and selective methylation process used in the preparation of Raltegravir and intermediates. Further disclosed is an improved method for the reaction of intermediate amine compound of formula IIb with oxadiazole intermediate compound of formula V.

No. of Pages : 32 No. of Claims : 16
A handle for a razor cartridge is provided.

No. of Pages : 14
No. of Claims : 14
A surgical robot comprising a base and an arm extending from a proximal end attached to the base to a distal end attachable to a surgical instrument via a series of links interspersed by articulations. The arm comprises a receiver a proximity sensor and a controller. The receiver is configured to receive data from the surgical instrument over a short-range wireless communications link with the surgical instrument. The proximity sensor is configured to detect the proximal presence of the surgical instrument. The controller is configured to respond to the proximity sensor detecting the proximal presence of the surgical instrument by enabling the short-range wireless communications link between the receiver and a transmitter of the surgical instrument to be established.

![Diagram of a surgical robot](image)

FIG. 4

No. of Pages : 27
No. of Claims : 17
The present invention relates to methods for preparing cereal-based beverages. Particularly the present invention provides for example methods for steeping and germination of cereal grain under continuous aeration. The present invention also provides for wet milling of germinated cereal grains and direct transfer of the germinated grain without drying to the brewery for further processing. Compared to current methods the methods of the present invention significantly reduces water consumption, energy consumption and transport need.
The present invention relates to improved methods of isolating nucleic acids. In particular the method comprises the use of a wash buffer comprising bivalent cations prior to elution of the nucleic acid.
Title of the invention: NOVEL ESTERASES AND USES THEREOF

Abstract:
The present invention relates to novel esterases more particularly to esterase variants having improved activity compared to the esterase of SEQ ID No. 1 and the uses thereof for degrading polyester containing material such as plastic products. The esterases of the invention are particularly suited to degrade polyethylene terephthalate and material containing polyethylene terephthalate.

No. of Pages: 32 No. of Claims: 13
A biomedical device including an energy source an electro-active device operatively connected to the energy source circuitry configured to control operation of the electro-active device at least one barrier layer including at least one inorganic material surrounding the energy source electro-active device and circuitry and at least one molded layer surrounding the at least one barrier layer. A method for encapsulating electronic components of an electro-active biomedical device in a protective envelope containing a barrier layer including at least one inorganic compound and a molded polymer overcoat.
The present invention relates to a head-up display system (11) for representing image information for an observer comprising an image encoder (4) for emitting a first image a projection area comprising a portion of a composite pane (10) for deflecting a projection of an image wherein calibration means (7 8 9) are provided for setting a deviation between a first image and the projection of the first image and have capturing means (7) for capturing a reflection property of the composite pane and the image encoder (4) is provided for generating a correction image depending on the deviation.

Fig. 2

No. of Pages : 13 No. of Claims : 14
An embodiment of the present invention discloses a charging indication method the method being applied to a terminal comprising a flexible display screen and a storage battery. The method comprises: upon detecting the terminal is in a charging state acquiring a remaining electricity ratio of the storage battery wherein the remaining electricity ratio being a ratio between remaining electricity and a total electricity capacity; determining a target curvature angle to be presented by the flexible display screen according to the remaining electricity ratio; and controlling the flexible display screen to present the target curvature angle so as to indicate a charging progress via the target curvature angle presented by the flexible display screen. Correspondingly the embodiment of the present invention further discloses a charging indication method and a terminal. The present invention enables a user to be more conveniently and visually informed about the charging progress.
A movable wall element (10) for a building with a floor and a ceiling is disclosed where the movable wall element (10) comprises at least one lower roller device (17) comprising a wheel element (18) which is capable of engaging the floor of the building when the wall element is to be moved across the floor. The movable wall element (10) further comprises at least one upper roller device (21) comprising a wheel element (22) which is capable of engaging the ceiling of the building when the wall element is to be moved across the floor.
**Title of the invention:** SPIRO-LACTAM NMDA RECEPTOR MODULATORS AND USES THEREOF

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**Abstract:**
Disclosed are compounds having potency in the modulation of NMDA receptor activity. Such compounds can be used in the treatment of conditions such as depression and related disorders. Orally delivered formulations and other pharmaceutically acceptable delivery forms of the compounds including intravenous formulations are also disclosed.

No. of Pages : 68 No. of Claims : 29

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Disclosed are compounds having potency in the modulation of NMDA receptor activity. Such compounds can be used in the treatment of conditions such as depression and related disorders. Orally delivered formulations and other pharmaceutically acceptable delivery forms of the compounds including intravenous formulations are also disclosed.
The invention relates to the use of at least one mixed mineral organoclay rheology additive which comprises or consists of a quaternary alkyl-ammonium salt treated mineral clay mixture prepared by forming an aqueous hormite clay slurry (a) forming an aqueous smectite clay slurry (b) combining the aqueous hormite clay slurry (a) with the aqueous smectite clay slurry (b) to form a combined clay slurry (c) treating the combined clay slurry (c) with one or more quaternary alkyl-ammonium salts in which the aqueous hormite clay slurry (a) being formed by dispersing a fraction of one or more hormite clays selected from the group of sepiolites and palygorskites in an aqueous medium to form a dispersion and whereby the hormite clay fraction employed contains less than 3.0% by weight of Al₂O₃ less than 1.0% by weight of Fe₂O₃ and less than 3.5% by weight of the combination of Al₂O₃ and Fe₂O₃; and the aqueous smectite clay slurry (b) being formed by dispersing a fraction of one or more smectite clays in an aqueous medium to form a dispersion and in that the weight of the hormite clay content exceeds the weight of the smectite clay content in the combined clay slurry (c); and subjecting the hormite clay slurry (a) and the smectite clay slurry (b) to high speed fluid shear before combining both slurries and/or after having both slurries combined and wherein the one or more hormite clays employed in the formation of the aqueous hormite clay slurry (a) exhibit a methylene blue exchange capacity below 20 mmol methylene blue per 100 g of the one or more hormite clays in dry state and whereby the hormite clay fraction employed in the formation of the aqueous hormite clay slurry (a) shows an integral breadth B = (net area of reflection)/(net height of reflection) of the (110) reflection in an X-ray powder pattern recorded on an oriented glycolated sample of the hormite clay fraction using CuKa-radiation of less than 0.800 scan units in a liquid composition. The invention also relates to a process for producing a mixed mineral organoclay rheology additive and the use of the thus produced additive as a thickening agent in liquid compositions.
Title of the invention: METHOD FOR PRODUCING MODIFIED RUBBER BY ANIONIC SOLUTION POLYMERIZATION
RUBBER COMPOSITION COMPRISING SAID RUBBER AND USE THEREOF

Abstract:
Present invention relates to a method for producing a rubber by an anionic solution (co)polymerization of a conjugated diene and/or a vinyl aromatic compound in an organic solvent in the presence of an organolithium NN-disubstituted aminomethylstyrene oligomeric initiator a special NN-disubstituted aminomethylstyrene monomer and an end-functionalizing agent of the general formula (CH3)2Hal2Si wherein Hal is a halogen atom. The invention also relates to a rubber based on (co)polymers of a conjugated diene and/or a vinyl aromatic compound produced by said method and to a rubber composition comprising such rubber. Rubber compositions of the present invention are useful in manufacturing of auto tire treads.

No. of Pages: 31 No. of Claims: 18
A razor blade having a substrate with a cutting edge being defined by a sharpened tip. The substrate has a thickness of greater than about 2.30 micrometers measured at a distance of four micrometers from the blade tip and a thickness of greater than about 4.26 micrometers measured at a distance of eight micrometers from the blade tip and greater than about 7.93 micrometers measured at a distance of sixteen micrometers from the blade tip. A hard coating joined to the substrate has a thickness of 700 Angstroms to about 3500 Angstroms. An outer layer joined to a coated substrate is discontinuous. The outer layer may be produced from a dispersion comprising about 0.03 g/L or less of telomer or from about 0.5% solids or less of telomer by weight of composition. The novel razor blade cuts at less than 100% cutting efficiency using a single fiber cutting efficiency measure.
The present invention pertains to a light absorption layer for forming a solar cell and a photoelectric conversion element having excellent durability and photoelectric conversion efficiency in the near infrared region and a solar cell and a photoelectric conversion element having the light absorption layer. This light absorption layer contains a perovskite compound having a band gap energy of 1.7-4.0 eV and a quantum dot having a band gap energy equal to or higher than 0.2 eV and equal to or lower than the band gap energy of the perovskite compound.
**Title of the invention:** HETERO DIMERIC ANTIBODIES THAT BIND SOMATOSTATIN RECEPTOR 2

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**Abstract:**
The present invention is directed to antibodies including novel antigen binding domains and heterodimeric antibodies that bind somatostatin receptor 2 (SSTR2).

![Diagram of Heterodimeric Antibodies](image)

No. of Pages: 91 No. of Claims: 17
Title of the invention : FUSION COMPRISING A CELL PENETRATING PEPTIDE A MULTI EPITOPE AND A TLR PEPTIDE AGONIST FOR TREATMENT OF CANCER

The present invention provides a complex for use in the prevention and/or treatment of cancer the complex comprising a) a cell penetrating peptide b) at least one antigen or antigenic epitope and c) at least one TLR peptide agonist wherein the components a) - c) are covalently linked. In particular compositions for use in the prevention and/or treatment of cancer such as a pharmaceutical compositions and vaccines are provided.
(54) Title of the invention: AN INEXPENSIVE AND ROBUST OXYGEN EVOLUTION ELECTRODE

(12) PATENT APPLICATION PUBLICATION
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(33) Name of priority country: U.S.A.
(86) International Application No.: PCT/US2017/041346
Filing Date: 10/07/2017
(87) International Publication No.: WO 2018/009930
(61) Patent of Addition to Application Number: NA
Filing Date: NA
(62) Divisional to Application Number: NA
Filing Date: NA

(57) Abstract:
An electrochemical device includes an electrolyte a cathode contacting the electrolyte and an oxygen evolution reaction (OER) electrode operating as an anode contacting the electrolyte. The OER electrode includes an iron-containing substrate and a layer that includes a metal-containing layer disposed over the iron-containing substrate. The metal-containing layer includes a metal and iron the metal being selected from the group consisting of nickel cobalt manganese and combinations thereof.

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No. of Pages: 24 No. of Claims: 32
Disclosed are compounds having potency in the modulation of NMDA receptor activity. Such compounds can be used in the treatment of conditions such as depression and related disorders. Orally delivered formulations and other pharmaceutically acceptable delivery forms of the compounds including intravenous formulations are also disclosed.
The invention is directed to substituted isoquinoline derivatives and uses thereof. Specifically, the invention is directed to compounds according to Formula I and the use of compounds of Formula (I) in treating disease states: (I) wherein R1 R2 R3 R4 R5 R6 R7 and X are as defined herein. The compounds of the invention are inhibitors of PERK and can be useful in the treatment of cancer pre-cancerous syndromes and diseases associated with activated unfolded protein response pathways such as Alzheimer's disease, spinal cord injury, traumatic brain injury, ischemic stroke, stroke, Parkinson disease, diabetes, metabolic syndrome, metabolic disorders, Huntington's disease, Creutzfeldt-Jakob Disease, fatal familial insomnia, Gerstmann-Strussler-Scheinker syndrome, and related prion diseases. Amyotrophic lateral sclerosis, progressive supranuclear palsy, myocardial infarction, cardiovascular disease, inflammation, organ fibrosis, chronic and acute diseases of the liver, fatty liver disease, liver steatosis, liver fibrosis, chronic and acute diseases of the lung, lung fibrosis, chronic and acute diseases of the kidney, kidney fibrosis, chronic traumatic encephalopathy (CTE), neurodegeneration, dementia, frontotemporal dementia, tauopathies, Pick's disease, Neimann-Pick disease, amyloidosis, cognitive impairment, atherosclerosis, ocular diseases, arrhythmias, organ transplantation, and in the transportation of organs for transplantation. Accordingly, the invention is further directed to pharmaceutical compositions comprising a compound of the invention. The invention is still further directed to methods of inhibiting PERK activity and treatment of disorders associated therewith using a compound of the invention or a pharmaceutical composition comprising a compound of the invention.

No. of Pages: 144
No. of Claims: 30
Using various embodiment methods and systems to implement an objective based advertisement placement platform are described. In one embodiment a method and system to display advertisements in three dimensional (3D) online environment based on an objective of an advertiser is disclosed. A computing device receives the objective of the advertiser. In one embodiment the advertiser objective includes determining when to stop displaying a branded smart object (BSO) to a user in the 3D online environment the objective including an engagement rule. The computing device can further determine whether the advertisers objective has been achieved by a user the determining including evaluating a user engagement score (UES) and comparing the UES with an advertisers engagement rule. If the advertisers objective is achieved (or met) by the user the BSO is not displayed to the user for a predetermined period of time.
The invention resides in a sensor unit (100) for measuring and monitoring a plurality of parameters associated with an asset or equipment (126 128) having a fixing connected thereto. The asset can typically be an object such as a rail or motor casing that is fixed using a fixing (122) such as a bolt. The sensor unit has a housing (112) having a portion (120) for receiving a fixing therethrough; sensors (114) arranged to measure and/or monitor (i) parameters associated with a fixing that is secured to the asset via housing and/or (ii) parameters influencing the performance of the asset; a processor (142) configured to process data from the sensors; and a communicator (116) adapted to transmit said data to a remote device. At least one of the sensors can be an inductive sensor which can measures the displacement or force applied to a fixing against the asset to which it is fixed said fixing is biased against a resilient member located in the housing. The sensor unit can operate in at least one of a plurality of modes including: a first mode in which the sensor unit samples one or more parameters periodically at a first sample rate a second mode in which the sensor unit detects the occurrence of an event and a third mode in which the sensor unit monitors one or more parameters periodically at a second sample rate which second sample rate is greater than the first sample rate and wherein the data obtained in said modes is communicable with the system and/or the reader.

No. of Pages: 28 No. of Claims: 18
Title of the invention: SHAPED-BOX CRIMPER WITH ELECTRONIC CAM

Abstract:
Crimping unit (1) comprising:
- a first plate (10);
- a first lever (50) provided with a winding wheel (54);
- a second lever (60) provided with a crushing wheel (65);
- a winding actuator connected to the first lever (50);
- a crushing actuator connected to the second lever (60);
- the winding actuator and the crushing actuator being controlled by an electronic control unit (7) so as to vary the distance separating the winding wheel (54) and/or crushing wheel (65) from the first axis according to the angular position of the first plate (10) about the first axis.
The present invention relates to novel esterases more particularly to esterase variants having improved thermostability compared to the esterase of SEQ ID No.1 and the uses thereof for degrading polyester containing material such as plastic products. The esterases of the invention are particularly suited to degrade polyethylene terephthalate and material containing polyethylene terephthalate.

No. of Pages : 37 No. of Claims : 15
The Patent Office Journal No. 17/2019 Dated 26/04/2019

**Title of the invention:** SPIRO-LACTAM AND BIS-SPIRO-LACTAM NMDA RECEPTOR MODULATORS AND USES THEREOF

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**Abstract:**
Disclosed are compounds having potency in the modulation of NMDA receptor activity. Such compounds can be used in the treatment of conditions such as depression and related disorders. Orally delivered formulations and other pharmaceutically acceptable delivery forms of the compounds including intravenous formulations are also disclosed.

No. of Pages: 182 No. of Claims: 47
Disclosed herein are systems for monitoring and protecting an electric power system using a plurality of conductor-mounted detectors (CMDs). In one embodiment a plurality of CMDs are coupled to an electrical conductor. Each CMD may harvest power from the electrical conductor and may monitor electrical current in the conductor. When the electrical current in the conductor exceeds a fault current threshold a fault signal may be transmitted. A receiver in communication with each of the plurality of CMDs may receive the fault signal from at least one of the plurality of CMDs. A protective action may be generated and implemented to clear the fault. A portion of the electric power system affected by the fault may be determined based on identification of each of the plurality of CMDs to transmit the fault signal.

Figure 3

No. of Pages : 45 No. of Claims : 25
A process for preparing the crystalline modification II of the anhydrate of boscalid is provided the process comprising heating a solid boscalid starting material to an elevated temperature the elevated temperature being below the melting point of the solid boscalid starting material and sufficient to preferentially form the crystalline modification II of the anhydrate of boscalid.
Present invention relates to a method for producing a branched modified rubber comprising an anionic (co)polymerization of a conjugated diene and/or a vinyl aromatic compound in the presence of an initiator and a polyfunctional modifying agent wherein the initiator represents a compound which is a reaction product of an organolithium compound and a secondary amine and the modifying agent is an oligo- or polysiloxane containing in its structure both epoxy and alkoxy functional groups. The invention also relates to branched modified rubber based on a conjugated diene and/or a vinyl aromatic compound produced by said method and to a rubber composition comprising such branched-modified rubber. Rubber compositions according to the present invention are suitable in manufacture of a tire treads.
A process for the preparing of the crystalline modification II of the anhydrate of boscalid is provided the process comprising (i) reacting 2-chloro-nicotinoyl chloride with 4-chloro-biphenyl-2-ylamine in a solvent system while removing from the reaction mixture hydrogen chloride formed during the reaction; and (ii) recovering the crystalline modification II of the anhydrate of boscalid from the reaction mixture produced in step (i).
A glazing (1) including at least:
- one glazing substrate (10) including an electrically conductive element (2) and a through-orifice (13) located in proximity to the electrically conductive element; and
- one first electrically connecting part (30) that is associated with the conductive element (2) and intended to be associated in particular via a male-female interaction with a second electrically connecting part (31) the first electrically connecting part (30) on the one hand making electrical contact with the electrically conductive element (2) and on the other hand being engaged in the orifice (13) of the glazing and the first electrically connecting part (30) comprising a flat head (30A) that is in intimate contact against the electrically conductive element (2) and a cylindrical body (30B) that is engaged in the orifice (13) the cylindrical body (30B) being threaded or tapped. The invention makes it possible to provide not only a glazing equipped with a durable and reliable electrical connection but also a simple and inexpensive manufacturing and implementing process.
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<td>(61) Patent of Addition to Application Number</td>
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**Title of the invention:** SYSTEM AND METHOD FOR END-TO-END KEY MANAGEMENT

**Abstract:**
Provided are a system and method for managing encryption keys used by a payment application on a mobile device. The method includes executing a mobile payment application in a user domain of the mobile device where the user domain is an operating environment in which applications are executed and accessed by a user importing a plurality of encryption keys for use by the mobile payment application into a system domain of the mobile device where the system domain is a more secure operating environment controlled by an operating system encrypting payment information of the mobile payment application in the system domain using one or more of the imported keys while executing the mobile payment application in the user domain and transmitting the encrypted payment information to a merchant.

**Name of Applicant:**
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   Address of Applicant: 2000 Purchase Street Purchase, NY 10577 U.S.A.

**Name of Inventor:**
1. COLLINGE, Mehdi
2. ABOU EL ENIN, Mohamed
3. BACIOCCOLA, Andrea
4. WARD, Michael
Disclosed are a data transmission method, a terminal device, and a network device. The method comprises: the terminal device determining a basic parameter set for transmitting data; the terminal device detecting according to the basic parameter set downlink control information (DCI) sent by the network device for scheduling data; the terminal device detecting according to the basic parameter set and the detected DCI data sent by the network device or sending data to the network device. The data transmission method, the terminal device, and the network device of the embodiments of the present invention can realize the scheduling using different DCI formats for the data transmission on the basis of different basic parameter sets and increase the flexibility of the control signaling design.
The present disclosure relates to antibodies that bind human T-cell immunoglobulin- and mucin-domain-containing protein-3 (Tim-3) and may be useful for treating solid and hematological tumors alone and in combination with chemotherapy and ionizing radiation.

No. of Pages : 80  No. of Claims : 21
**Title of the invention:** METHOD FOR APPLYING FOR MEDIA TRANSMISSION RIGHTS AND METHOD AND APPARATUS FOR REVOKING MEDIA TRANSMISSION RIGHTS

| (51) International classification | : H04W4/10 |
| (31) Priority Document No | : NA |
| (32) Priority Date | : NA |
| (33) Name of priority country | : NA |
| (61) Patent of Addition to Application Number | : NA |
| (62) Divisional to Application Number | : NA |
| (36) Name of Applicant | : 1) HUAWEI TECHNOLOGIES CO., LTD. | 2) AMOGH, Niranth |
| Address of Applicant | : Huawei Administration Building, Bantian, Longgang District Shenzhen, Guangdong 518129 China |
| (86) International Application No | : PCT/CN2016/090205 |
| Filing Date | : 15/07/2016 |
| (87) International Publication No | : WO 2018/010175 |
| (57) Abstract | : A method for applying for media transmission rights and a method and apparatus for revoking media transmission rights comprising: a first terminal determining that a second terminal needs to transmit media data; and the first terminal transmitting media transmission rights request instruction information to a mission critical service (MCS) server the media transmission rights request instruction information being used for instructing the MCS server to grant the media transmission rights to the second terminal. |

No. of Pages : 58  No. of Claims : 40
(54) Title of the invention : SPIRO-LACTAM NMDA RECEPTOR MODULATORS AND USES THEREOF

(12) PATENT APPLICATION PUBLICATION
(21) Application No.201917002271 A
(19) INDIA
(22) Date of filing of Application : 18/01/2019
(43) Publication Date : 26/04/2019

(51) International classification : C07D487/10A61K31/4747A61P25/00
(31) Priority Document No : 62/369453
(32) Priority Date : 01/08/2016
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/US2017/044838
   Filing Date : 01/08/2017
(87) International Publication No : WO 2018/026779
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(57) Abstract :
Disclosed are compounds having potency in the modulation of NMDA receptor activity. Such compounds can be used in the treatment of conditions such as depression and related disorders. Orally delivered formulations and other pharmaceutically acceptable delivery forms of the compounds including intravenous formulations are also disclosed.

No. of Pages : 63 No. of Claims : 26

(71) Name of Applicant : 1) APTINYX INC.
   Address of Applicant : 1801 Maple Avenue Suite 4300 Evanston, Illinois 60201 U.S.A.
(72) Name of Inventor : 1) KHAN, M. Amin
The invention relates to a composition and in particular a multiple emulsion comprising two mutually immiscible phases PGPR and citric esters of mono- and diglycerides. The invention also relates to a method for producing the composition according to the invention and to the uses of same particularly in the fields of cosmetics and hygiene.

No. of Pages : 22 No. of Claims : 12
**Title of the invention:** IMAGE PROCESSING METHOD AND SYSTEM FOR IRIS RECOGNITION

**Abstract:**
An image processing method for iris recognition of a predetermined subject comprises acquiring through an image sensor a probe image illuminated by an infra-red (IR) illumination source wherein the probe image comprises one or more eye regions and is overexposed until skin portions of the image are saturated. One or more iris regions are identified within the one or more eye regions of said probe image; and the identified iris regions are analysed to detect whether they belong to the predetermined subject.

![Diagram](image.png)

No. of Pages : 14  No. of Claims : 19
The present invention provides compounds of Formula (I) or stereoisomers tautomers pharmaceutically acceptable salts solvates or prodrugs thereof wherein all the variables are as defined herein. These compounds are selective LPA receptor inhibitors.

No. of Pages : 316 No. of Claims : 28
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<th>(54) Title of the invention : APOPTOSIS INHIBITORS</th>
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<td>The invention provides compounds that are inhibitors or covalent modifiers of succinate dehydrogenase subunit B (SDHB) and/or inhibitors of apoptosis and pharmaceutically acceptable salts hydrides and stereoisomers thereof. The compounds are employed in pharmaceutical compositions and methods of making and use including treating a person in need thereof with an effective amount of the compound or composition.</td>
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No. of Pages : 178 No. of Claims : 20
A node (110 115) receives (804) transmissions associated with a given set of information bits wherein each of the transmissions use a different polar code and share one or more information bits of the given set of information bits. The node determines (808) at each of a plurality of polar decoders (505 605) of the node soft information for each information bit included in an associated one of the transmissions wherein each of the plurality of polar decoders is associated with a different transmission of the transmissions. The node provides (812) from each polar decoder of the plurality to one or more other polar decoders of the plurality the determined soft information for any information bits shared by their respective associated transmissions and uses (816) the provided soft information in an iterative decoding process to decode one or more of the received transmissions.
A method for automatic presentation of a terminal application screen is described. The method includes receiving terminal application screen data from a server. The method also includes selecting a transformation template based on a comparison of text in the terminal application screen data to identification text in the transformation template. The transformation template includes instructions for transforming the terminal application screen data into an HTML page. The method further includes transforming the terminal application screen data into the HTML page using the selected transformation template. The HTML page is displayed in a web interface on a client device.
(54) Title of the invention: METHOD AND DEVICE FOR TRANSMITTING UPLINK REFERENCE SIGNAL

| (51) International classification | :H04W72/12 |
| (31) Priority Document No | :201610585098.0 |
| (32) Priority Date | :22/07/2016 |
| (33) Name of priority country | :China |
| (86) International Application No | :PCT/CN2017/087209 |
| Filing Date | :05/06/2017 |
| (87) International Publication No | :WO 2018/014666 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

(57) Abstract:
A method and a device for transmitting an uplink reference signal are provided to achieve complete transmission of uplink reference signals and improve data transmission accuracy. The method comprises: a terminal determining a time domain resource transmission position of an uplink reference signal on a high-frequency link of the terminal and at least one end of the uplink reference signal has a guard interval; after arriving at the time domain resource transmission position switching a transmit beam and transmitting the uplink reference signal on different timeslices within M timeslices in which the uplink reference signal comprises the uplink reference signal transmitted on the M different timeslices; a high-frequency base station determining N timeslices for receiving the uplink reference signal transmitted by the terminal on a single timeslice of the terminal; and switching a receive beam and receiving the uplink reference signal of the terminal on different timeslices of the N timeslices. In this way complete transmission of the uplink reference signal can be achieved.

No. of Pages : 31 No. of Claims : 18
A management device is provided with: a first acquisition unit for acquiring a measurement result by means of a sensor which performs a measurement relating to equipment and a time corresponding to the measurement result; a second acquisition unit for acquiring from a storage unit a plurality of use periods of the equipment and contents of management items corresponding to the use periods; and a data processing unit for performing processing of organizing measurement information based on the measurement result according to content on the basis of the measurement result and the corresponding time acquired by the first acquisition unit and the contents and the corresponding use periods acquired by the second acquisition unit.
Title of the invention: APPARATUS AND METHOD FOR SETTING CLOCK SPEED/VOLTAGE OF CACHE MEMORY BASED ON MEMORY REQUEST INFORMATION

Abstract:
An apparatus and method are provided for setting a clock speed/voltage of cache memory based on memory request information. In response to receiving a memory request information is identified in connection with the memory request utilizing hardware that is in electrical communication with cache memory. Based on the information a clock speed and/or a voltage of at least a portion of the cache memory is set utilizing the hardware that is in electrical communication with the cache memory.

No. of Pages : 22 No. of Claims : 20
**Title of the invention:** ENERGY PROPAGATION AND TRANSVERSE ANDERSON LOCALIZATION WITH TWO-DIMENSIONAL LIGHT FIELD AND HOLOGRAPHIC RELAYS

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<td>PCT/US2017/042275</td>
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<td>WO 2018/014009</td>
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<td>Application Number</td>
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**Abstract:**

Disclosed are image relay elements exhibiting transverse Anderson localization for light field and holographic energy sources. The relay elements may include a relay element body having one or more structures where the structures can be coupled in series in parallel and/or in stacked configurations. The structures may have multiple surfaces such that energy waves propagating therethrough the relay elements may experience spatial magnification or de-magnification.

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   Address of Applicant: 699 E. Brokaw Road San Jose, CA 95112 U.S.A.

**Name of Inventor:**
1) KARAFIN, Jonathan Sean
2) BEVENSEE, Brendan Elwood
A vehicle (10) for performing operations on a subsea pipeline such as a riser (2) carries one or more interchangeable modules (18) and is configured to translate along the riser (2). The vehicle (10) comprises an elongate support structure (12) for carrying the modules (18). Gripper arms (14 16) hold the support structure (12) a predetermined distance away from the elongate body and cause translation of the vehicle (10) along the riser (2) using a hand-over-hand action so as to allow the vehicle (10) to pass protuberances or obstacles such as a clamp (8) on the riser (2).
Title of the invention: SYSTEMS AND METHODS FOR TARGETED DEEP HYPERThERMIA BY TIME-SHARED RF INDUCTIVE APPLICATORS

Abstract:
The present disclosure provides inter alia a system and methods for targeted hyperthermia effective to differentially heat target organs. In certain embodiments the system and/or method utilizes one or more pairs of inductive applicators coupled to the one or more RF generators and configured to deposit radio frequency radiation on a region of interest based on a set of configurable parameters.
The invention relates to a disk brake wear monitoring device comprising a brake disk a first brake lining arranged on a first side of the brake disk and a second brake lining arranged on a second side of the brake disk in particular for utility vehicles also comprising a first detection device (22) which quantitatively detects the cumulated wear of the first and the second brake lining and emits a first electric output signal associated with the cumulated wear on the output connection an evaluation device (28) and a signal line (26) which is connected to the output connection of the first sensor device and to the evaluation device. The signal line is arranged in such a manner that it hits a stop when it reaches a predetermined first wear threshold value of the first or the second brake lining.
The present invention performs communications appropriately even when performing communications in which a plurality of numerologies are multiplexed within the same carrier. A user terminal that performs communications within a wireless communication system in which the frame structures of a plurality of numerologies are frequency division multiplexed. The user terminal has: a reception unit that receives first information that relates to the frame structure of a prescribed numerology and second information that is for specifying a region in which DL transmission and/or UL transmission is prohibited for the prescribed numerology or a region for which a specific transmission direction has been established; and a control unit that controls DL reception and/or UL transmission on the basis of the first information and the second information.
Title of the invention: CRYSTALLINE FORMS OF 4-CYANO-N-(2-(44-DIMETHYLCYCLOHEX-1-EN-1-YL)-6-(2266-TETRAMETHYLTETRAHYDRO-2H-PYRAN-4-YL)PYRIDIN-3-YL)-1H-IMIDAZOLE-2-CARBOXAMIDE

Abstract:
The present disclosure discusses crystalline forms of 4-cyano-N-[2-(44-dimethylcyclohex-1-en-1-yl)-6-(2266-tetramethyltetrahydro-2H-pyran-4-yl)pyridine-3-yl]-1H-imidazole-2-carboxamide.
Provided herein are antibodies that specifically bind to GPRC5D. Also described are related polynucleotides capable of encoding the provided GPRC5D-specific antibodies or antigen-binding fragments cells expressing the provided antibodies or antigen-binding fragments as well as associated vectors and detectably labeled antibodies or antigen-binding fragments. In addition methods of using the provided antibodies are described. For example the provided antibodies may be used to diagnose, treat or monitor GPRC5D-expressing cancer progression, regression or stability; to determine whether or not a patient should be treated for cancer; or to determine whether or not a subject is afflicted with GPRC5D-expressing cancer and thus may be amenable to treatment with a GPRC5D-specific anti-cancer therapeutic such as the multispecific antibodies against GPRC5D and CD3 described herein.
The present invention relates to an exhaust gas purification system and an exhaust gas purification method. The exhaust gas purification system (200) is provided with: an injector (210) for injecting urea water said injector being installed between a combustion device (202) and a selective catalytic reduction (SCR) catalyst (206); a first gas sensor (10A) which is installed downstream of the SCR catalyst (206) and which detects the NO concentration and the NH3 concentration in exhaust gas outputted from the SCR catalyst (206); and an opening amount control means (216) for controlling the opening amount of the injector (210) for injecting urea water.
The flexible optical-fiber ribbon can be reversibly adapted to both planar and non-planar shapes (e.g. packed via folding or rolling) without damaging the optical-fiber ribbon or its constituent optical fibers. This is achieved by bonding the plurality of optical fibres with a cured ribbon matrix (14) having elongation to break of at least 200% and a low Young's modulus of 1-20 MPa at 20 C.
Title of the invention : GAS SENSOR AND METHOD FOR MEASURING CONCENTRATIONS OF PLURALITY OF TARGET COMPONENTS IN GAS TO BE MEASURED

Abstract :
The present invention relates to a gas sensor and a method for measuring the concentrations of a plurality of target components in a gas to be measured. The gas sensor is provided with: a specific component measurement means (104) which measures the concentration of a specific component in a measurement chamber (20); a preliminary oxygen concentration control means (106) which controls the oxygen concentration in a preliminary adjustment chamber (21); a drive control means (108) which controls the driving and stopping of the preliminary oxygen concentration control means (106); and a target component acquisition means (110) which on the basis of the difference between sensor outputs from the specific component measurement means (104) when the preliminary oxygen concentration control means (106) is being driven and when the preliminary oxygen concentration control means (106) is stopped and one of the respective sensor outputs acquires the concentrations of a first target component and a second target component.

No. of Pages : 69  No. of Claims : 22
Title of the invention: METHOD AND KIT FOR DETERMINING PERACETIC ACID CONCENTRATION IN DISINFECTANT SOLUTIONS

A kit and method for accurately determining the concentration levels of peracetic acid in a solution containing a peroxide or other oxidant is disclosed. In order to determine the concentration of peracetic acid in the solution a pH buffer system is used to deactivate high levels of a peroxide in a disinfectant solution without interfering with active peracetic acid levels in the solution. At least one test strip is used to measure the peracetic acid concentration in the solution. A test vial for combining the solution with the pH buffer prior to contact with the test strip is provided.
Title of the invention: DUAL-FREQUENCY ANTENNA

International classification: H01Q5/00 H01Q13/00

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

International Application No: PCT/CN2017/072085
Filing Date: 22/01/2017
International Publication No: WO 2018/133071

Name of Applicant:
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Name of Inventor:
1) LUO, Xin
2) LIN, Hongyong
3) GUO, Zhili

Abstract:
The present application discloses a coaxial dual-frequency antenna comprising a waveguide an annular groove a high-frequency feed and a media ring. The waveguide is a cylindrical structure for transmitting a first electromagnetic wave. A wall of the waveguide is provided with an annular groove having an opening direction the same as an output direction of the first electromagnetic wave. A frequency of the first electromagnetic wave is lower than a frequency of an electromagnetic wave emitted by the high-frequency feed. The high-frequency feed is located in the waveguide and is coaxial with the waveguide wherein the first electromagnetic wave excites a transverse mode TE11 in the waveguide. The media ring is filled between the waveguide and the high-frequency feed and the media ring is a multi-layer structure coaxial with the waveguide. Areas of planes of each layer of the media ring perpendicular to the axis change in an alternating manner. A height of the media ring is less than a height of the waveguide. Compared with the prior art the present application can avoid loss of high-order mode in the waveguide eliminate a media ring and increase the radiation efficiency of the coaxial dual-frequency antenna.
Title of the invention: SYSTEMS AND METHODS FOR IMPLEMENTING A PROXIMITY LOCK USING BLUETOOTH LOW ENERGY

Abstract:
Systems and methods for implementing a proximity lock using Bluetooth Low Energy are disclosed. According to one embodiment a Bluetooth low energy proximity lock system may include a host electronic device comprising a computer processor; a peripheral electronic device interfacing with the host electronic device that may include a controller and a first Bluetooth low energy component; and a user device comprising a second Bluetooth low energy component. The controller may using the first Bluetooth low energy component identify the second Bluetooth low energy component determine a radio signal strength between the first Bluetooth radio component and the second Bluetooth low energy component; and generate a command that renders the host electronic device temporarily inoperable in response to the radio signal strength being below a predetermined threshold.
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :21/01/2019
(43) Publication Date : 26/04/2019

(54) Title of the invention : METHOD FOR PRODUCING AND SEPARATING LIPIDS

| (51) International classification | :C12P19/44C12P19/62C12P19/12 |
| (31) Priority Document No | :1610932.4 |
| (32) Priority Date | :22/06/2016 |
| (33) Name of priority country | :U.K. |
| (86) International Application No | :PCT/GB2017/051205 |
| Filing Date | :28/04/2017 |
| (87) International Publication No | :WO 2017/220957 |

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

(57) Abstract :
There are provided methods for the production of lipids such as sophorolipids. Also provided are apparatus for use in said production.

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Address of Applicant : The Old Orchard, Wood Lane Parkgate, Neston CH64 6QU U.K.

(72) Name of Inventor :
1) WINTERBURN, James Benjamin
2) DOLMAN, Ben Michael

No. of Pages : 39 No. of Claims : 30
Title of the invention : LINEAR PELTON TURBINE

Systems and methods related to linear turbine systems are presented. Each embodiment described herein may be designed as a single-stage linear impulse turbine system. In an embodiment a linear turbine includes a first shaft extending along a first axis; a second shaft extending along a second axis the second axis being separated from and substantially parallel to the first axis; a first plurality of buckets to travel a first continuous path around the first shaft and the second shaft along a first plane the first path including a first substantially linear path segment between the first axis and the second axis; and a nozzle configured to direct a first fluid jet to contact the first plurality of buckets in the first linear path segment.
Provided is a method for producing high-purity terephthalic acid, said method including the following steps (a) through (e): (a) a step for liquid-phase oxidizing a p-phenylene compound to obtain crude terephthalic acid crystals; (b) a step for dissolving the crude terephthalic acid crystals in water, followed by performing a catalytic hydrogenation treatment; (c) a step for using at least two stages of crystallization tanks to gradually decrease the pressure and temperature of the catalytically hydrogenated reaction liquid, crystallize the terephthalic acid, and obtain a terephthalic acid slurry; (d) a step for introducing the terephthalic acid slurry into the top of a mother liquor substitution column, bringing the slurry into contact with a rising stream of substitution water introduced from the bottom of the mother liquor replacement column as terephthalic acid crystals are precipitated within the column, and removing the terephthalic acid crystals from the bottom of the column in the form of a slurry with the substitution water; and (e) a step for solid-liquid separating the slurry removed from the bottom of the column into water and terephthalic acid crystals, and drying the separated terephthalic acid crystals; wherein when the quantity of crystals subjected to the catalytic hydrogenation treatment is designated as Q (ton/hr), the residence time within the first of the at least two stages of crystallization tanks is designated as T1 (hr), and the cross-sectional area of the mother liquor substitution column is designated as A [m^2], the following conditions (1) through (3) are met: (1) 0.07 \leq T1 \leq 0.5; (2) 0.3 \leq A/Q \leq 0.8; (3) 0.035 \leq T1 — A/Q \leq 0.25. Such a method for producing high-purity terephthalic acid allows for efficient mother liquor substitution, has a low heating load when drying the purified terephthalic acid cake following solid-liquid separation, and is capable of producing terephthalic acid that exhibits good behavior as a feedstock material for polyester.
The invention relates to the use of polyolesters as additives in aqueous polymer dispersions for producing porous polymer coatings, preferably for producing porous polyurethane coatings.

No. of Pages : 23 No. of Claims : 15
Provided in the embodiments of the present application are a small cell acquisition method and terminal, used for reducing the power consumption of the terminal. The technical solution provided in the embodiments of the present application comprises: when the terminal and a current source service small cell are in a connected state, the terminal acquires a first quality parameter of the current source service small cell; if the first quality parameter is less than a first preset threshold, then the terminal determines a measurement small cell set; the terminal measures each measurement small cell in the measurement small cell set to obtain a corresponding second quality parameter; and, on the basis of the second quality parameter, the terminal determines a target service small cell.

No. of Pages : 74
No. of Claims : 17
The present invention provides a compound of formula (I) in free form or in pharmaceutically acceptable salt form, a method for manufacturing the compounds of the invention, and its therapeutic uses. The present invention further provides a combination of pharmacologically active agents and a pharmaceutical composition.
The Patent Office Journal No. 17/2019 Dated 26/04/2019

Title of the invention: METHOD OF TRANSMITTING FEEDBACK INFORMATION, TERMINAL EQUIPMENT, AND BASE STATION

Abstract:
The invention provides a method of transmitting feedback information, terminal equipment, and a base station. The method comprises: terminal equipment receives a plurality of data packets sent from a base station; and if the terminal equipment determines that an unsuccessfully received data packet is present in the plurality of data packets, the terminal equipment transmits, to the base station, first feedback information used to feedback receiving statuses of the plurality of data packets, and containing only negative acknowledgement NACK information providing a negative acknowledgement with respect to the unsuccessfully received data packet. The terminal equipment is not required to send, to the base station, specific acknowledge information of successfully received data packets, thereby preventing resource wastage, and increasing a throughput of a communication system.

No. of Pages: 61 No. of Claims: 15
### Title of the invention: ELECTROMAGNETIC RELAY

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<td>:29/08/2016</td>
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<td>(86) International Application No</td>
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(57) Abstract:
An electromagnetic relay, comprising a movable spring (1), a yoke (2), and a coil (3). An iron core (7) is provided in the coil (3); the yoke (2) is L-shaped and has horizontal edges and vertical edges; the yoke (2) is provided outside the coil (3); the horizontal edges of the yoke (2) are fixedly connected to the bottom of the iron core (7), and the vertical edges of the yoke (2) are parallel to the axis of the iron core (7); one side of the vertical edges of the yoke (2) facing towards the coil (3) is provided with a plastic layer (61) formed by means of injection molding, such that the plastic layer (61) is provided between the yoke (2) and the coil (3) in an insulating manner. The solution can improve the insulation degree between the yoke (2) and the coil (3), ensure position precision of an insulating component, and effectively reduce assembly processes, without influencing winding space. On the other hand, when the yoke (2) and the movable spring (1) are fixed, no stress will be applied on the movable spring (1) to deform the movable spring (1), such that the dimensional uniformity of the movable spring (1) is improved.

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(72) Name of Inventor:
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2) GUO, Qiyue
3) WANG, Zhikun

No. of Pages : 17 No. of Claims : 12
Disclosed in embodiments of the present invention are a random access method, apparatus and system, a terminal and a base station, which relate to the technical field of communications. The method comprises: a base station allocates at least two types of random access resources, the at least two types of random access resources comprising a first type of random access resources and a second type of random access resources, and different types of random access resources being in a one-to-one correspondence with manners of sending beams by a terminal; or the first type of random access resources being associated with resources of different downlink signals, and the second type of random access resources being not associated with the resources of different downlink signals; or the first type of random access resources and the second type of random access resources being associated with the resources of different downlink signals in different association manners; and the base station receives a random access preamble sent by the terminal by using the first type of random access resources or the second type of random access resources.
**Title of the invention:** ANTIBODIES AGAINST TIM3 AND USES THEREOF

**Abstract:**
Provided herein are antibodies, or antigen-binding portions thereof, that bind to T-cell immunoglobulin and mucin-domain containing-3 (TIM3) protein. Also provided are uses of these antibodies, or antigen-binding portions thereof, in therapeutic applications, such as treatment of cancer. Further provided are cells that produce the antibodies, or antigen-binding portions thereof, polynucleotides encoding the heavy and/or light chain regions of the antibodies, or antigen-binding portions thereof, and vectors comprising the polynucleotides encoding the heavy and/or light chain regions of the antibodies, or antigen-binding portions thereof.
Embodiments of the present invention relate to a method, device, and equipment for selecting a resource. The method comprises: a first user equipment (UE) determines parameter information of a monitoring window, the parameter information comprising at least one of a start time, the length of time, or a quantity; the first UE monitors the resources in the monitoring window on the basis of the parameter information of the monitoring window and selecting a resource on the basis of the monitoring result. Provided in the embodiments of the present invention, the method, device, and equipment for selecting a resource can reduce the power consumption of the UE.
The present invention relates to immunoglobulin (Ig) binding proteins comprising one or more Ig binding domains with amino acids selected from the group consisting at least of 11, 11A, 11E, 11I, 35R, 35I, and 42L. The invention further relates to affinity matrices comprising the Ig binding proteins of the invention. The invention also relates to a use of these Ig binding proteins or affinity matrices for affinity purification of immunoglobulins and to methods of affinity purification using the Ig binding proteins of the invention.
A method and system provide determining whether to pursue grant free transmission in accordance with a size of at least one packet in a first buffer of at least one buffer and determining a size of a grant free transport block (GFTB) in accordance with a configuration of radio resources available for grant free transmission in instances where grant free transmission is to be utilized. The method also includes populating the GFTB with first data from at least one of the buffers to produce a populated GFTB and transferring the GFTB from a media access control (MAC) layer to a physical layer (PHY).
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(19) INDIA
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(54) Title of the invention : SOMATOSTATIN MODULATORS AND USES THEREOF

(51) International classification :C07D401/04A61K31/502A61K31/4725
(31) Priority Document No :62/362493
(32) Priority Date :14/07/2016
(33) Name of priority country :U.S.A.
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(61) Patent of Addition to Application Number :NA
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(57) Abstract :
Described herein are compounds that are somatostatin modulators, methods of making such compounds, pharmaceutical compositions and medicaments comprising such compounds, and methods of using such compounds in the treatment of conditions, diseases, or disorders that would benefit from modulation of somatostatin activity.

No. of Pages : 269 No. of Claims : 47
Title of the invention: PHARMACEUTICAL COMPOSITION CONTAINING POLYMIXIN B/TRIMETHOPRIM BASED THERAPEUTICS

Abstract:
The present invention features an antibacterial composition comprising 1) a composition A comprising polymyxin B and trimethoprim; and 2) an antibiotic agent selected from the group consisting of rifampicin, rifabutin, rifapentine, rifaximin, pefloxacin mesylate, sparfloxacin, sarafloxacin HCl, tobramycin, lomefloxacin, besifloxacin, danofoxacin mesylate, enrofloxacin, nadifloxacin and clinafloxac, a topical pharmaceutical thereof, and a method of treating bacterial infections using mixtures of 1 and 2.
The improved mobile robot utilizes a cooperative wheeled support arrangement having a unique axle design that preferably cooperates with a base support module. A tri-axle is preferably used to support at least one omni-wheel on each axle section. Multiple omni-wheels on each section can be used for higher load applications. The tri-axle is of a fixed design and each wheel pivots on the individual axle section. Preferably, the axle sections are welded to each other.
The invention is directed to a method to manufacture a fermented set-style milk-based product, such as a set-style yogurt, comprising an interruption step during fermentation. In a particular embodiment, the interruption of the fermentation is carried out by cooling the partially fermented milk-based substrate to a temperature comprised between 2 and 10°C. The invention is also directed to a partially fermented milk-based substrate as such or in a container.

No. of Pages : 30
No. of Claims : 16
A polymerizable composition includes at least one first monomer and at least one second monomer, wherein the at least one first monomer includes an isohexide bis(allyl carbonate) monomer, and wherein the at least one second monomer includes one or more ethylenic unsaturations. Another polymerizable composition includes the reaction product of an isohexide bischloroformate; at least one polyol; allyl alcohol; and, optionally, at least one polychloroformate. An exemplary polymerizable composition includes the transesterification reaction product of an isohexide; diallyl carbonate; and at least one polyol. A polymerize including the polymerizable composition and an optical article including the polymerizable composition are also provided.
A hydraulic water wheel assembly and system where optimum results are obtained based upon factors such as the height of the channel, the distance between water wheels, the diameter of the discs, and the number, size, dimensions, and arrangement of the wing blades.
The present invention relates to a glass substrate comprising, on at least one portion of one of the surfaces thereof, at least: a polymer temporary protection layer that is not water-soluble, intended for being removed by thermal treatment during a transformation of the substrate such as annealing, bending and/or tempering; and an enamel layer made up of a mixture of glass frit, inorganic pigments and organic components deposited on at least one portion of the protection layer, said enamel being characterised in that: the glass transition temperature $T_g$ thereof is higher than the temperature $T_{c60\%}$, defined as being the temperature at which 60% of the initial weight of the protective layer has been consumed, said temperature $T_{c60\%}$ being determined by thermogravimetric analysis under air; the maximum shrinkage of the enamel measured by thermomechanical analysis between 450°C and 650°C is greater than 20%; the difference between the inflection temperature $T_{inflexion}$ and the glass transition temperature $T_g$ is less than 60°C, the inflection temperature being defined as the temperature at which the speed of movement measured by thermomechanical analysis of the enamel is the highest; and the content of inorganic pigments involved in the total composition of the enamel is less than 35 wt%.
Title of the invention: AXLE ASSEMBLY HAVING A GEAR REDUCTION UNIT AND AN INTERAXLE DIFFERENTIAL UNIT

Abstract:
An axle assembly having a gear reduction unit and an interaxle differential unit. The gear reduction unit may be operatively connected to an input shaft and may selectively provide gear reduction to a differential assembly and the interaxle differential unit. The interaxle differential unit may operatively connect the gear reduction unit to the output shaft.

No. of Pages: 65 No. of Claims: 20
An axle assembly having a gear reduction unit and an interaxle differential unit. The gear reduction unit may be operatively connected to an input shaft and may selectively provide gear reduction to a differential assembly and the interaxle differential unit. The interaxle differential unit may operatively connect the gear reduction unit to the output shaft.

Fig 1

No. of Pages : 67 No. of Claims : 20
(54) Title of the invention: STABLE HYDROLYSIS-RESISTANT SYNTHETIC POLYRIBOSYLRIBITOLPHOSPHATE DERIVATIVES AS VACCINES AGAINST HAEMOPHILUS INFLUENZA TYPE B

(57) Abstract:
The present invention provides a stable synthetic saccharide of Hib polyribosylribitol-phosphate (PRP) derivative and conjugate thereof. Said saccharide, said conjugate and pharmaceutical compositions thereof are hydrolysis-resistant, long-term stable and useful for the prevention and/or treatment of diseases associated with Haemophilus influenzae, and more specifically of diseases associated with Haemophilus influenzae type b, preferably diseases selected from meningitis, pneumonia, and epiglotitis. They have general formula (I): wherein A is formula (II) or formula (III); B is formula (IV); C is formula (V); D is formula (VI); E is formula (VII); F is formula (VIII) or formula (IX).
The invention relates to a container (1, 10) for holding a liquid, in particular an infusion liquid or irrigation liquid, said container having a liquid phase (6), which contains the liquid, and having a gas phase (4), wherein a liquid opening is formed in the lower region of the container (1, 10) in the operating position and wherein the container has a gas opening. The gas opening is formed by a gas tube (3), which is permanently connected to the container (1, 10) and has a first gas tube end (12) and a second gas tube end (13). The first gas tube end (12) extends into the gas phase (4) of the container (1, 10) and is provided with a closure. The second gas tube end (13) opens outside of the container (1, 10).
The invention relates to a system (1, 16, 19, 28) for measuring a quantity of liquid in an elastic bag (3), a liquid opening (10) for the removal of liquid from the elastic bag (3) being formed in the lower region of the elastic bag (3). The system (1, 16, 19, 28) comprises pressure elements, which bear on opposite walls of the elastic bag (3) and are spaced apart from one another, a drive unit (4), which is designed to drive at least one pressure element, sensors (7), and a control unit (5). The sensors (7) are designed to measure a liquid level (13) of the liquid in the elastic bag (3). The control unit (5) is designed to calculate a quantity of liquid in the elastic bag (3) on the basis of the liquid level (13) and of the distance (21) between the pressure elements. The liquid level (13) of the liquid in the plastic bag (3) can be changed by reducing the distance (21) between the pressure elements by means of the drive unit (4).
Disclosed are a measurement method and apparatus, for saving on feedback overheads, and also being capable of making a measurement result satisfy CoMP requirements. The measurement method comprises: a first network device sending a restricted channel state information (CSI) measurement instruction to a second network device, wherein the restricted CSI measurement instruction is used for instructing the second network device to perform restricted CSI measurement; and the first network device receiving CSI sent by the second network device, wherein the CSI is generated after completing CSI measurement according to the CSI measurement instruction.
An insurance system for home sharing may comprise a mobile device of a homeowner, one or more databases storing insurance factor data, a plurality of sensors configured to monitor one or more home features, and a server comprising one or more processors and memory. The server may be configured to receive, from the mobile device, data indicating that the homeowner is renting out a home, determine a value for frequency of rentals for the home based on the data indicating that the homeowner is renting out the home, receive, from the plurality of sensors, monitored data for the one or more home features. The server may compute an insurance premium for the homeowner based on the value for frequency of rentals for the home, the monitored data for the one or more home features, and the insurance factor data and transmit the insurance premium to the mobile device.
The present disclosure provides an adduct comprising the reaction product of a residual epoxy oligomer product and a reactive compound having at least two reactive hydrogens where the residual epoxy oligomer product was obtained from a process for producing an aromatic epoxy resin. The adduct may be used in a variety of ways, such as a curing agent in a curable system containing a curable resin.

No. of Pages : 28 No. of Claims : 17
A thread rolling and self locking fastener is provided. A thread rolling external thread is disposed along the shaft of the fastener. A non-continuous core thread is also disposed thereon.
## Title of the invention
ACTIVE PART HOUSING AND VOLTAGE CONVERTER UNIT WITH AN ACTIVE PART HOUSING

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### Abstract
The invention relates to an active part housing (5) for an active part (3) of a voltage converter unit (1), wherein the active part (3) has a voltage converter core (301) which has a straight first core section (303) and a U-shaped second core section (304) which connects the ends of the first core section (303) to one another. The active part housing (5) comprises a housing inner side (501) with a U-shaped bearing region (503) for the second core section (304), which U-shaped bearing region corresponds to the second core section (304) of the voltage converter core (301). The voltage converter core (301) is fastened in a force-fitting manner to the active part housing (5) by fastening plates (9 to 11) which are connected to the active part housing (5) and push the second core section (304) of the voltage converter core (301) against the bearing region (503) of the housing inner side (501) of the active part housing (5).

No. of Pages : 15  No. of Claims : 15
Solar cells, absorber structures, back contact structures, and methods of making the same are described. The solar cells and absorber structures include a pseudomorphically strained electron reflector layer.

No. of Pages : 23 No. of Claims : 80
A computer-based method for authenticating a user using biometric data is provided. The method is implemented using a biometric validation server in communication with a memory. The method includes storing, at the biometric validation server, a plurality of biometric identifiers, and receiving, from a requestor, an authentication request message for a payment transaction originating from an originating merchant for a cardholder. The authentication request includes a biometric identifier provided by the cardholder. The authentication request includes a biometric identifier provided by the cardholder. The method also includes searching, at the biometric validation server, the plurality of biometric identifiers for a match to the received biometric identifier, determining whether to approve or deny the payment card transaction based, at least in part on, on whether or not a match is found, and transmitting the determination.
The time-frequency resources of a particular numerology may be used to transmit OFDM symbols that have a cyclic prefix that is longer than the cyclic prefix of other OFDM symbols. This may complicate alignment across different numerologies. Time-frequency resource partitions are disclosed herein that may assist in symbol alignment and/or subframe alignment across the different numerologies.
Title of the invention: STRADDLE-TYPE VEHICLE

Abstract:
The present invention provides a straddle-type vehicle equipped with a baggage-hanging hook capable of more firmly retaining baggage. A head pipe (21) is covered from rearward thereof with a front inner cover (53). A baggage-hanging hook (61) is disposed on the front inner cover (53). The baggage-hanging hook (61) is provided with: a baggage-hanging part (61g) on which baggage (80) is to be hung; an opening (61j) which is positioned so as to face the baggage-hanging part (61g); and a supported part (61d) which is swingably supported on a hook case (66). Further, the baggage-hanging hook (61) is configured so as to be capable of being housed within the front inner cover (53). The opening (61j) is provided so as to open toward the inner side of the front inner cover (53) when the baggage-hanging hook (61) is housed within the front inner cover (53).
Disclosed is a micro pressure sensor that includes a body having a compartmentalized chamber provided by membranes anchored between opposing walls of the body and carrying electrodes disposed on surfaces of the membranes.

No. of Pages : 23 No. of Claims : 24
The Patent Office Journal No. 17/2019 Dated 26/04/2019

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(43) Publication Date: 26/04/2019

(54) Title of the invention: HOT-ROLLED STEEL SHEET

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

(56) Abstract:
This hot-rolled steel sheet comprises, in mass%, C: 0.030% to less than 0.075%, Si + Al: 0.08% - 0.40%, Mn: 0.5% - 2.0%, and Ti: 0.020% - 0.150%, and has a metal structure comprising ferrite and martensite. In said metal structure, in area%, 90% - 98% is ferrite, 2% - 10% is martensite, 0% - 3% is bainite, and 0% - 3% is pearlite. In the martensite, the number fraction of martensite grains with a hardness of at least 10.0 GPa is 10% or less. The ratio N1/N2 of the number N1 of martensite grains with a hardness of 8.0 GPa or less to the number N2 of martensite grains with a hardness of less than 8.0 GPa is 0.8 - 1.2.

No. of Pages: 57 No. of Claims: 4
A pressure regulating system (1, 16, 19) for discharging a liquid with a predetermined liquid pressure from a liquid opening (10), comprising an elastic bag (3) with a liquid phase (9) and a gas phase (8), the liquid opening being formed in the lower region of the elastic bag (3) when the elastic bag (3) is in the operating position, at least two push elements, at least one drive unit (4) and a control unit (5). The elastic bag (3) has a gas opening that extends into the gas phase (9). The pressure regulating system (1, 16, 19) has a ventilation unit (6) which is connected to the control unit (5) for communication and which connects to the gas opening of the elastic bag (3). By introducing and/or removing gas into/out of the elastic bag (3), the ventilation unit (6) regulates a liquid pressure of the liquid discharged through the liquid opening (10).
Title of the invention: A HARDWARE/SOFTWARE RECONFIGURABLE, INTELLIGENT AND VERSATILE ELECTRICAL ENERGY PROVISIONING SYSTEM FOR ON-GRID AND OFF-GRID APPLICATIONS

Abstract:
An electrical energy storage system that can store both grid-based electrical power when electricity prices are low or renewable power generated on-site. It can release the stored electricity for consumer applications when necessary based on a software program and configuration. The system may be networked. The system comprises a port for receiving a central processing unit (CPU), and facilitates the use of different CPU products for different users and uses.

FIG 3

No. of Pages: 29  No. of Claims: 18
Provided is steel sheet and a method for advantageously producing a steel sheet, the steel sheet having a thickness of 0.5-2.6 mm and a high tensile strength (TS) of 1320 MPa or more, and exhibiting excellent delayed fracture resistance characteristics, and especially delayed fracture resistance characteristics of a sheared end face. This steel sheet has a specific constituent composition and has a steel structure whereby the total areal ratio of martensite and bainite is more than 90% and not more than 100% of the overall structure, an inclusion group A that satisfies specific conditions is present at a quantity of 2 groups/mm² or less, an inclusion group B that satisfies specific conditions is present at a quantity of 5 groups/mm² or less, carbides which have an aspect ratio of 2.0 or less, have a long axis length of 0.30–2 μm and comprise mainly Fe are present at a quantity of 4000 carbides/mm² or less, and the average prior γ grain diameter is 6-15 μm.
Title of the invention: SHORT CIRCUIT WELDING METHOD AND DEVICE FOR CARRYING OUT SUCH A SHORT CIRCUIT WELDING METHOD

Abstract:
The invention relates to a short circuit welding method with successive welding cycles (SZ) with a respective arc phase (LB) and a respective short circuit phase (KS). At least the welding current (I) and feed speed (v) welding parameters (P) of a melting electrode (9) are regulated, and the electrode (9) is fed in the direction of a workpiece (14) at a specified forward final speed (vVe) at least during a part of the arc phase (LB) and away from the workpiece (14) at a specified rearward final speed (vRe) at least during a part of the short circuit phase (KS). The invention also relates to a device (1) for carrying out such a short circuit welding method. According to the invention, a change in the feed speed (dv/dt) and a rearward final speed (vRe) are specified and a welding current (I) is regulated such that the short circuit phase (KS) ends after the rearward final speed (vRe) is reached and after 3 ms at the latest and is repeated every 8 ms at the latest. The welding parameter (P) is regulated such that the duration of the welding cycle (SZ) ≤ 8 ms, resulting in a welding frequency (f) ≥ 125 Hz.
Systems and methods are provided for determining cause of atypical traffic events and/or encouraging good driving behavior. The systems and methods may involve a camera sensor and/or inertial sensors to detect traffic events, as well analytical methods that may attribute a cause to the traffic event. The systems and methods include a processor that is configured to determine an occurrence of an atypical traffic event at or near a monitored vehicle; and determine a cause of the atypical traffic event based on data collected at the monitored vehicle, wherein the cause of the atypical traffic event is at least one of: a driver or control system of the monitored vehicle; a second driver or second control system of a second vehicle; and a road condition.
Provided is a welding monitoring apparatus that monitors the welding state of a V-shaped gathered region of a metal plate gathered in a V-shape when manufacturing an electric-resistance-welded steel pipe by conveying a strip-shaped metal plate while molding the plate into a cylindrical shape, gathering the two side edges of the metal plate into a V-shape so that the two edges abut one another, and heating and welding the edges. This welding monitoring apparatus comprises: an image-capturing means for capturing, in time-series, images of a region including the V-shaped gathered region; and an image processing means for extracting a welding point on the basis of the images captured in time-series, and detecting the presence or absence, and position if present, of erratic arcing at or upstream of the welding point.

No. of Pages : 21 No. of Claims : 9
The invention relates to a fluid meter which comprises the following: a housing which has a chamber with an inwardly domed part in a configuration which allows a fluid flow to form, a throughflow sensor which is situated within the housing of the meter and which serves for measuring the flow speed of the fluid flow, a transition device for adapting different diameters of the throughflow sensor and of the outlet opening of the meter, a flow preparation device which serves for separating and stabilizing the fluid flow, an inlet channel of the fluid, an outlet channel of the fluid, an electronics unit, a coarse filter, a shut-off valve and a fluid leakage detection sensor.
Title of the invention: AUTOMOBILE-BODY PRESS-FORMED COMPONENT AND MANUFACTURING METHOD THEREFOR

Abstract:
[Problem] To provide a member that exhibits high load resistance and rigidity when connected to another member. [Solution] A member 1 has a transverse cross-section that includes a top plate 2, top ridgelines 4, vertical walls 3, bottom ridgelines 5, and floor flanges 9. The member 1 has, at least one end thereof in an extension direction of the top ridgelines 4, a top plate flange 11 connected via a top plate ridgeline 6 and a vertical wall flange 10 connected via a vertical wall ridgeline 7. The vertical wall flange 10 and the floor flanges 9 are continuous with each other. The relation $\Sigma R/\Sigma L \leq 0.13$ holds true for the member 1, where $\Sigma R$ is the sum of radii of curvature of corner portions of the vertical walls at ends of the top ridgelines 4 and the bottom ridgelines 5, and $\Sigma L$ is the sum of widths of the top plate 2 and the vertical walls 3 at an end of the member. The member 1 is manufactured through a first step of manufacturing an intermediate formed article 27 that is provided with at least flange ridgelines 8 by subjecting a blank 26 to press forming and then shrinkage flange forming the flange ridgelines 8, and a second step of subjecting the intermediate formed article 27 to press forming to thereby manufacture the member 1.
The invention relates to use of 4-[2-(2,4,6-trifluorophenoxymethyl)-phenyl]piperidine or a pharmaceutically-acceptable salt thereof for the treatment of neurogenic orthostatic hypotension and the symptoms thereof.
The present invention is directed to a holder which has to be combined with an external object whereby the external object moves around a remote centre of motion. The external object preferably is a medical instrument such as a cannula or trocar whereby the remote centre of motion is the patients abdomen. The holder consists of two members, generating motion in both a longitudinal and rotational manner. The holder can be used to support another object, in a particular embodiment a camera, convenient for performing endoscopic (laparoscopic) surgery and is equipped with means for generating motion, both in a longitudinal and rotational manner following XYZ coordinates. The holder of the present invention is particularly useful for working in small areas as it occupies only a small bedside space, without scarifying on functional work area of the instrument mounted in the holder.
A wireless device receives at least one message. The at least one message comprises an uplink semi persistent scheduling (SPS) radio network temporary identifier (RNTI), and a sequence of at least one uplink SPS information element (IE). An uplink SPS IE of the sequence comprises: at least one uplink SPS configuration parameter comprising an uplink SPS interval, and an SPS configuration index for the at least one uplink SPS configuration parameter. A downlink control information (DCI) corresponding to the uplink SPS RNTI may be received. The DCI comprises a first SPS configuration index of one of the at least one uplink SPS IE. At least one transport block may be transmitted employing at least one first uplink SPS configuration parameter corresponding to the first SPS configuration index.
The present invention relates to radiolabeled IDO1 inhibitors or pharmaceutically acceptable salts thereof which are useful for the quantitative imaging of IDO enzymes in mammals.
The invention relates to the preparation of a water-soluble anionic polymer, with a molecular weight Mw of 1,000 to 10,000 g/mol and with a polydispersity index IP of less than 3.5. The polymer according to the invention is obtained by polymerisation reaction in water of an unsaturated anionic monomer, in the presence of CuI or CuII and an aromatic compound comprising one function selected among hydroxyl, primary amine, secondary amine and tertiary amine directly connected to the aromatic ring. The invention likewise relates to an aqueous composition comprising the polymer according to the invention.
The present invention relates to a reactor system for a multimodal polyethylene polymerization process, comprising: (a) a first reactor; (b) a hydrogen removal unit arranged between the first reactor and a second reactor comprising at least one vessel connected with a depressurization equipment, preferably selected from vacuum pump, compressor, blower, ejector or a combination thereof, the depressurization equipment allowing to adjust an operating pressure to a pressure in a range of 100 - 200 kPa (abs); (c) the second reactor; and (d) a third reactor and the use thereof as a container.
A water heater system and a control method therefor. The water heater system comprises: a heating unit (1), being able to heat water; a tank (2), being able to communicate with the heating unit (1), at least one inlet (21) and one outlet (22) being provided on the tank (2), the inlet (21) being able to supply the tank (2) with at least one of gas and water; a pressurization source, being able to pressurize the tank (2), the pressurization source being able to provide the pressure for the gas and water in the tank (2) to mix with each other. The water heater system can be applied to any of the existing water heaters, including electric water heaters, gas water heaters, solar water heaters and air energy water heaters, and so on. The water heater system can generate micro-bubble water for the user to use, which can save water and provide environmental protection. Moreover, micro-bubble water has comparatively better cleaning performance, thereby greatly improving the usage experience of the user.
(57) Abstract:
A water heater system, comprising: a heating unit (1) capable of heating water; a water pump (2) in communication with the heating unit (1); an air intake structure (3) arranged on the water pump (2) or in communication with the water pump (2), the water pump (2) being capable of mixing the gas and water entering the pump; and a pressure regulating apparatus (4) arranged downstream from the water pump (2). The present water heater system can produce micro-bubble water for a user, saves water and is environmentally friendly; micro-bubble water has strong cleaning properties, and thus greatly improves the user experience.

No. of Pages: 23 No. of Claims: 23
The invention relates to methods for pasteurizing and/or sterilizing particulate goods (1), containing the following steps: a) producing an electron beam (5), b) pasteurizing and/or sterilizing the goods (1) by means of the electron beam (5) in a treatment zone (3), wherein the electrons of the electron beam (5) have an energy that lies in the range of 80 keV to 300 keV, preferably from 140 keV to 280 keV, particularly preferably from 180 keV to 260 keV, the goods (1) being exposed to the electron beam (5) for a treatment time which lies in the range from 5 ms to 25 ms and the electron beam (5) has a mean electron current density in the treatment zone (3) which lies in the range of 10^{-15} s^{-1} cm^{-2} to 2.77 \times 10^{-15} s^{-1} cm^{-2}.
The invention relates to a wood material panel hot press for producing a wood material panel (32), wherein the wood material panel hot press (12) has an inlet side (30) and an outlet side (34) and is designed to press a blank (18) supplied on the inlet side (30) in order to form a wood material panel (32). According to the invention, a temperature measurement device (36) is provided, which is designed to automatically measure the temperature (T) of the wood material panel (32) on the outlet side (34) in a spatially resolved manner.
Title of the invention: FLAME RETARDANT GREASE COMPOSITION

Abstract:
This flame retardant grease composition does not ignite at 900°C in a grease flammability test and includes: as a thickener, at least one selected from the group consisting of a metal soap based or urea-based thickener; as a base oil, a mineral oil having a kinematic viscosity at 40°C of 300 to 1000 mm²/s; as an anti-load additive, at least one selected from a sulfurized fat, a sulfurized olefin, and a polysulfide; as a rust inhibitor, at least one selected from a zinc naphthenate and a sorbitan trioleate; and as a surfactant, a basic calcium phenate and a polyethylene glycol monooleate.
Disclosed in the embodiments of the present invention are a communication method, device and system. The communication method comprises: a terminal device receiving a context identifier sent by a second residential access network device and sending to a first residential access network device a first message containing the context identifier, a core network device receiving a second message sent by the first residential access network device and sending to the second residential access network device a message containing the context identifier, and the core network device receiving the context information of the terminal device sent by the second residential access network device and sending the context information to the first residential access network device. Therefore, the present invention ensures the communication between the first residential access network device and the second residential access network device, improving efficiency.

No. of Pages : 50 No. of Claims : 30
A method and apparatus for sending a reference signal, and a method and apparatus for receiving a reference signal. The method comprises: a first sending device determining an antenna port of a first reference signal, wherein the first reference signal belongs to at least one of at least two types of reference signals, and the at least two types of reference signals correspond to the same configuration pattern, and the configuration pattern is used to indicate a time-frequency resource corresponding to each antenna port among multiple antenna ports; and the first sending device sending, on the antenna port of the first reference signal, the first reference signal, wherein the first reference signal is borne in a first time-frequency resource, and the first time-frequency resource is a time-frequency resource, indicated by the configuration pattern, corresponding to the antenna port of the first reference signal. The method can reduce the difficulty of configuration pattern design, and reduce the processing burden during the sending of a reference signal by a sending device and a receiving device.
The application discloses a network slice configuration method and device. The network slice configuration method comprises: a first network apparatus determines network slice configuration information; and the first network apparatus transmits, to a second network apparatus, the network slice configuration information to instruct the second network apparatus to configure, according to the network slice configuration information, a network slice.
Embodiments of the present application provide a method, a terminal device, and a network device for transmitting information. The method comprises: a terminal device receiving indication information transmitted by a network device, the indication information comprising information indicating content of M pieces of system information; the terminal device receiving the M pieces of system information transmitted by the network device; the terminal device determining, according to the indication information, at least two pieces of the system information having the same content from among the M pieces of system information; and the terminal device processing the at least two pieces of the system information, M being a positive integer greater or equal to two. Thus, in the embodiments of the present application, the terminal device can ascertain, according to the indication information, whether the content of system information is the same so as to process the system information with the same content, thereby avoiding or alleviating the issue of repeated demodulation or unsatisfactory demodulation performance existing in the prior art.
The invention relates to a device (1) for inhaling powdery substances contained in capsules (2), with a housing (9), a capsule receiver (3), a closing cover (8) and a mouth piece (6), wherein a closure cap (7) is provided, which is designed to cover simultaneously the mouthpiece (6), closing cover (8) and capsule receiver (3), wherein the closure cap (7), mouthpiece (6) and closing cover (8) are further hinged in a pivoting manner, wherein two pivot axes, which are different but run in the same direction, are formed, namely a first pivot axis (10) and a second pivot axis (11), which, in respect of a side view in which geometric axes of the pivot axes (10, 11) are represented in the form of points, are arranged next to each other and on a same side of the capsule receiver (3), wherein in a usage state of the device the first pivot axis (10) is further arranged closer to the capsule receiver (3). In order to ensure, during advantageous use by the user, that the parts can be accessed easily when in the open state, according to the invention the closing cover (8) and the mouthpiece (6) can be pivoted about the first pivot axis (10) and only the closure cap (7) can be pivoted about the second pivot axis (11).
An electric resistance welded steel pipe for a torsion beam, wherein: a base metal section comprises, in mass %, C: 0.040-0.12, Si: 0.031-0.20, Mn: 0.302-2.50, Ti: 0.080-0.24, Al: 0.0050-0.500, Nb: 0.010.06, and N: 0.0085-0.0100% and the balance comprises Fe and impurities; Vc90 defined by equation (i) and equation (ii) is at least 200; the content mass ratio of Ti to C is 0.85-5.00; and in the center of the wall thickness of an L cross-section of the base metal section, the ferrite area ratio is at least 80%, the average crystal grain size of the ferrite crystal grains is 10 µm or less, and the average aspect ratio of the ferrite crystal grains is 2.0 or less. Equation (i): log Vc90=2.94−0.75(βa−1) Equation (ii): βa=2.7C+0.4Si+Mn+0.45Ni+0.8Cr+Mo
A method for operating a user equipment (UE) adapted to perform beaconing includes beamforming a beacon signal in accordance with at least one transmit beam of a set of transmit beams, thereby producing at least one beamformed beacon signal, transmitting the at least one beamformed beacon signal on a first uplink channel, repeating the beamforming and the transmitting for remaining transmit beams of the set of transmit beams, and receiving downlink reference signals from a transmit-receive point using receive beamforming and beam adjustment.
A system and method for load queue (LDQ) and store queue (STQ) entry allocations at address generation time that maintains age-order of instructions is described. In particular, writing LDQ and STQ entries are delayed until address generation time. This allows the load and store operations to dispatch, and younger operations (which may not be store and load operations) to also dispatch and execute their instructions. The address generation of the load or store operation is held at an address generation scheduler queue (AGSQ) until a load or store queue entry is available for the operation. The tracking of load queue entries or store queue entries is effectively being done in the AGSQ instead of at the decode engine. The LDQ and STQ depth is not visible from a decode engines perspective, and increases the effective processing and queue depth.
Provided are an information transmission method and device, able to improve the reliability of communication and reduce the processing complexity of a receiver. The method comprises: a terminal device determining a data processing mode, the data processing mode comprising a modulation coding mode; processing data according to the data processing mode; determining a pilot frequency signal according to the data processing mode; and transmitting the pilot frequency signal and the processed data.
Title of the invention: METHOD AND DEVICE FOR TRANSMITTING AND RECEIVING PHYSICAL BROADCAST CHANNEL

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Abstract:
Provided in the present application are a method and device for transmitting and receiving a physical broadcast channel, for use in solving the problem in the prior art in which a terminal device cannot acquire accurate broadcast channel information and, as a result, cannot access a network. In the method, when two broadcast channel signals in corresponding two physical broadcast channels are received on two time-frequency resource positions by a terminal device, same determines that information in two pieces of broadcast information carried in the two broadcast channel signals other than offsets of the corresponding time-frequency resource positions are identical, acquires the time offset difference of the two time-frequency resource positions, and generates a scrambling sequence on the basis of the time offset difference; and the terminal device descrambles respectively the two broadcast channel signals on the basis of the scrambling sequence and a preset scrambling sequence, thus implementing joint decoding of the two broadcast channel signals to acquire either piece of broadcast information. As such, the terminal device is allowed to access a network on the basis of various information in the broadcast information.
Disclosed in an embodiment of the present invention are a data transmission method and device, relating to the field of communications and solving the problem of low success rate of receiving data through a MTC terminal after SC-PTM technology is introduced. The specific solution is: a base station device sends first control information to a terminal device, wherein the first control information is used to control repeated transmission of multicast service data; and the base station device sends the multicast service data to the terminal device according to the first control information. The present invention is used in the data transmission process.
The present application relates to the field of communications. Disclosed are a channel quality information calculation method, apparatus and system. The method comprises: a terminal receives a downlink configuration instruction sent by an access network device; the terminal measures a reference signal resource indicated by the downlink configuration instruction, so as to obtain first channel quality information, and sends the first channel quality information to the access network device; the terminal sends an SRS to the access network device; and the access network device calculates second channel quality information according to the first channel quality information and the SRS. Because the first channel quality information can accurately represent interference condition of a downlink channel, the problem in the prior art of inaccuracy of channel quality information of the downlink link calculated by an eNB can be resolved, so that the effect that second channel quality information calculated by the access network device can accurately represent channel quality of the downlink channel can be achieved.
Title of the invention : HEADLIGHT DEVICE

Abstract :
A headlight device (25) includes a first light source (58) for high beams, a second light source (59) for low beams, and a third light source (63) for low beams. In the headlight device (25), the second light source (59) and the third light source (63) are disposed on both sides of the first light source (58) so as to sandwich the first light source (58). Accordingly, a headlight device capable of making the entire view bright can be provided.
Title of the invention: PREMIX FOR PREPARING EMULSION COMPOSITION, AND COMPOSITION USING SAME

Abstract:
The present invention addresses the problem of providing a premix for preparing an emulsion composition, which makes it possible to easily prepare a food containing a highly unsaturated fatty acid such as DHA or EPA, and an emulsion composition using the same. A premix for preparing an emulsion composition, which makes it possible to easily prepare a food containing a highly unsaturated fatty acid such as DHA or EPA, can be obtained by mixing a highly unsaturated fatty acid-containing fat or oil with a specific fat or oil and then mixing the resultant mixture with a preset amount of an aqueous solvent to thereby give an oil-in-water type emulsion. By using this premix, foods or drinks, for example, a drink in which an offensive taste derived from a highly unsaturated fatty acid is reduced can be easily prepared.

No. of Pages: 25 No. of Claims: 14
Title of the invention: COMMUNICATION METHOD AND APPARATUS

Abstract:
Disclosed are a communication method and apparatus, belonging to the technical field of communications. The method comprises: a first communication device determining a first sub-carrier interval corresponding to a first sub-band; the first communication device performing, on the first sub-band, signal transmission with a second communication device according to the first sub-carrier interval; or the first communication device determining a second sub-carrier interval corresponding to a second sub-band; the first communication device performing, on the second sub-band, signal transmission with the second communication device according to the second sub-carrier interval. The first sub-carrier interval is different from the second sub-carrier interval, and both the first sub-carrier interval and the second sub-carrier interval are integer multiples of a basis frequency interval; and the band widths of the first sub-band and the second sub-band are both integer multiples of the basis frequency interval.
A device for the electrodeionization of a sample liquid is provided. The device comprises an anode chamber, which comprises two openings and an anode, a cathode chamber, which comprises two openings and a cathode, and, located between the cathode chamber and the anode chamber, a treatment chamber, which comprises two openings and an ion exchanger. The anode chamber and the cathode chamber are respectively separated from the treatment chamber by a permselective membrane and an energy source is operatively connected to the anode and the cathode. A method for the electrodeionization of a sample liquid is also provided.
Title of the invention: HEAT EXCHANGER, HEAT EXCHANGER MODULE, AND AIR CONDITIONING SYSTEM

International classification: F25B39/00F24F13/30

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Name of priority country: China

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Name of Inventor:
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2) LU, Xiangxun
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4) WEI, Wenjian
5) WU, Yuye

Abstract:
A heat exchanger (100), a heat exchanger module (100) comprising the heat exchanger (100), and an air conditioning system comprising the heat exchanger (100) or the heat exchanger module (100). The heat exchanger (100) comprises: a first collecting pipe (11) and a second collecting pipe (12), wherein an axial line of the first collecting pipe is provided at an angle to an axial line of the second collecting pipe (12); and a heat exchanging pipe (2) communicating with the first collecting pipe (11) and with the second collecting pipe (12). The heat exchanging pipe (2) is curved. Using the heat exchanger (100) can improve the efficiency of heat exchange. 

No. of Pages: 11
No. of Claims: 18
Title of the invention: MECHANISMS TO IMPROVE DATA LOCALITY FOR DISTRIBUTED GPUs

Abstract:
Systems, apparatuses, and methods for implementing mechanisms to improve data locality for distributed processing units are disclosed. A system includes a plurality of distributed processing units (e.g., GPUs) and memory devices. Each processing unit is coupled to one or more local memory devices. The system determines how to partition a workload into a plurality of workgroups based on maximizing data locality and data sharing. The system determines which subset of the plurality of workgroups to dispatch to each processing unit of the plurality of processing units based on maximizing local memory accesses and minimizing remote memory accesses. The system also determines how to partition data buffer(s) based on data sharing patterns of the workgroups. The system maps to each processing unit a separate portion of the data buffer(s) so as to maximize local memory accesses and minimize remote memory accesses.

No. of Pages: 13 No. of Claims: 20
A contact chamber in which a bed of fluid treatment media is fully fluidized by using a fluidizer. The fluidizer may be, for example, an internal or external eductor that acts as a pump for a media and fluid mixture to boost fluid flow and generate recirculation that keeps the media suspended in the fluid or an arrangement of nozzles, mixing blades, pumps, baffles, or irregular cross-sectional shapes (or combinations of any of these) to promote fully fluidizing the media in the chamber and causing the media to recirculate within the chamber.
Title of the invention: HYBRID RENDER WITH PREFERRED PRIMITIVE BATCH BINNING AND SORTING

Abstract:
A system, method and a computer program product are provided for hybrid rendering with deferred primitive batch binning. A primitive batch is generated from a sequence of primitives. Initial bin intercepts are identified for primitives in the primitive batch. A bin for processing is identified. The bin corresponds to a region of a screen space. Pixels of the primitives intercepting the identified bin are processed. Next bin intercepts are identified while the primitives intercepting the identified bin are processed.
The present invention provides compounds of the Formula (I), or a pharmaceutically acceptable salt thereof, where n and R1 are defined herein, methods of treating patients for liver disease, and processes for preparing the compounds.
The present invention relates to active compound combinations comprising particular 5-substituted imidazolylmethyl derivatives as well as at least one further fungicide, to compositions comprising such compound combination, and to the use thereof as biologically active agents, especially for control of harmful microorganisms in crop protection and in the protection of materials and as plant growth regulators.
A hydraulic brake assembly (12) includes a housing (24) having first and second side-by-side bores (30), each defining a respective master cylinder assembly. Each master cylinder assembly includes a master cylinder piston (32) slidably movable by actuation of a respective brake pedal (18a, 18b) to and between an active position and an inactive position. A spool (74) slidably disposed within a piston bore (70) of the master cylinder piston (32) is operable in a first mode to direct hydraulic fluid from a quick-fill chamber (62) to a master cylinder chamber (50) at a first pressure upon initial movement of the master cylinder piston (32) toward the active position. The spool (74) is operable in a second mode to direct hydraulic fluid from the quick-fill chamber (62) to a tank (20) when pressure in the master cylinder chamber (50) reaches a predefined threshold.
The present invention relates to coffee bean particles with a D90 particle size of 50 microns or less and an oil content of 8\% (weight/weight) or less, methods of producing coffee bean particles by de-oiling and milling of coffee beans, and use of coffee bean particles.
### Title of the invention: LIQUID DISPENSING MACHINE WITH SPEED REGULATOR

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### Abstract:
A machine (1) for dispensing a beverage (7) includes: a module (10) having a cavity (10a) and a cavity outlet (10a) for guiding the beverage out of the cavity (10a); and a guide (100) that has a guide outlet (102) and that is arranged for receiving the beverage (7) from the cavity outlet (10a) and guiding the beverage (7) along a guide direction (100) to the guide outlet (102) and out thereof so as to be dispensed to a beverage dispensing area. The guide (100) has a guide channel (101,101,101,101b) extending along the guide direction (100) for receiving the beverage (7) from the cavity outlet (10a) and guiding the beverage (7) to the guide outlet (102). The guide channel (101,101,101) has a cross-section orthogonal to the guide direction (100) and a bottom (101,101b) generally extending along the guide direction (100). The cross-section has a width that increases with distance from the bottom (101,101b), e.g. with height above the bottom.

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![Diagram](image)

No. of Pages: 17 No. of Claims: 15
A machine (1) for dispensing a beverage (7) includes a module (10) having a cavity (10a) and a cavity outlet (10a) for guiding said beverage out of the cavity (10a). The cavity (10a) is delimited by a first module part (11) and a second module part (12). At least one (11) of the parts (11,12) is movable along a module direction (10) into a position distant from the other part (12) for transferring an ingredient capsule (2) to and/or from the cavity (10a) and into a position close to the other part (12) for processing the capsule (2) in the cavity (10a) to form said beverage (7). The machine (1) includes a guide (100) that has a guide outlet (102) and that is movable between: a dispensing position for receiving the beverage (7) from the cavity outlet (10a) and guiding the beverage (7) along a guide direction (100) to the guide outlet (102) to a beverage dispensing area; and a non-dispensing position for preventing liquid from being guided to the dispensing area. The guide direction (100) is horizontally angled away from the module direction (10) such as horizontally angled away by an angle in the range of 45 to 135 deg.

**Fig. 1**

No. of Pages : 17 No. of Claims : 15
The present disclosure is in the field of genome engineering, particularly targeted modification of the genome of a hematopoietic cell.

No. of Pages : 83 No. of Claims : 25
A capsule for making beverages, containing a powdered food substance (2) and comprising a cup-shaped containment body (3) that has a bottom portion (5) equipped with a dispensing hole (9), a lower filtering element (14) mounted in the containment chamber (6) and positioned between the powdered food substance (2) and the bottom portion (5), and a sheet of flexible material (19), impermeable to oxygen, mounted in the containment body (3) between the powdered food substance (2) and the dispensing hole (9), and comprising a first layer (20) made of plastic material and a second layer (21) made of aluminium, which are coupled to each other, wherein the first layer (20) comprises one or more through cuts (25), each surrounded by a dispensing zone (26), the first layer (20) being locally detached from the second layer (21) at each dispensing zone (26).
A non-woven fabric web having a printed pattern. The web has an air permeability of 0-3500 L/m²/s, and comprises an upper surface fiber layer, at least one middle ink-receiving layer, and a lower surface fiber layer sequentially connected. Fibers in the upper surface fiber layer and lower surface fiber layer have a fiber fineness larger than 1.0D. Fibers in the middle ink-receiving layer have a fiber fineness smaller than 0.3D. The middle ink-receiving layer is printed with a single-color or multi-color ink printing pattern. The fibers respectively in the upper surface fiber layer, the at least one middle ink-receiving layer, and the lower surface fiber layer are laid, sprayed, and formed into shape via heat pressing points by means of a single thermal bonding process. The area of recessed regions formed by the heat pressing points is 5-70% of the total area. The non-woven fabric web of the present invention can effectively prevent an ink transfer during use from causing potential problems, such as skin allergies.
Title of the invention: SCORING TRUSTWORTHINESS, COMPETENCE, AND/OR COMPATIBILITY OF ANY ENTITY FOR ACTIVITIES INCLUDING RECRUITING OR HIRING DECISIONS, SKIP TRACING, INSURANCE UNDERWRITING, CREDIT DECISIONS, OR SHORTENING OR IMPROVING SALES CYCLES

Abstract:
Systems and methods for recruiting, counter-terrorism/security, insurance underwriting, sales and marketing improvement, decisioning financial transactions and collections, and social scoring are provided. Machine learning can assign connectivity values to other community members, including individuals, companies, products, brands, cities or neighborhoods, etc. Connectivity values may be automatically harvested from or assigned by third parties or based on the frequency and/or type of interactions between community members. Connectivity values may represent such factors as alignment, reputation within the community, degree of trust, competence at one or more skills, or compatibility with others. The degree and type of connectivity between two entities may be assessed by computing a connectivity value based upon connections between entities and relative or absolute trust, competence and/or compatibility features of the connections. Connectivity values identify best prospects (customers, hires, dates), find off-grid people, underwrite insurance, decision loans & collections, shorten sales cycles, etc.
Title of the invention: GABA(A) RECEPTOR MODULATORS AND METHODS TO CONTROL AIRWAY HYPERRESPONSIVENESS AND INFLAMMATION IN ASTHMA

Abstract:
Pyrrolobenzodiazepines target alpha-4 and alpha-5 GABAA receptors for use in the treatment of airway hyperresponsiveness and inflammation in asthma. Compounds selectively partition to the peripheral compartment and have reduced CNS effects.

No. of Pages: 61  No. of Claims: 35
The present invention concerns antibody-like binding protein specifically binding to CD3 and CD123. The invention also relates to pharmaceutical compositions comprising said antibody-like binding protein and the use of said pharmaceutical compositions and antibody-like binding protein to treat cancer. The invention further relates to isolated nucleic acids, vectors and host cells comprising a sequence encoding said antibody-like binding protein.
**Title of the invention:** CURRENCY OPERATED TIRE INFLATION AND REPAIR APPARATUS AND METHODS

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**Abstract:**
The present disclosure provides tire pressurization/sealant systems that can include a coned plunger valve. The present disclosure also provides tire pressurization/sealant systems that can include, for example, a first fluid source, a plunger valve assembly, a first conduit extending from the first fluid source to the plunger valve assembly, and a tire pressurizing hose extending from the plunger valve assembly. The present disclosure also provides methods for providing sealant to a tire via a tire pressurizing hose and cleaning out the tire pressurizing hose. The methods can include providing tire sealant to a tire via a tire pressuring hose through a plunger valve assembly and reconfiguring the plunger valve assembly to provide an aqueous solution through the hose to clean out the valve assembly and the hose.

No. of Pages : 11  No. of Claims : 20
Eyeglasses are disclosed that include eyeglass frames and a pair of ophthalmic lenses mounted in the frames. The lenses include a dot pattern distributed across each lens, the dot pattern including an array of dots spaced apart by a distance of 1 mm or less, each dot having a maximum dimension of 0.3 mm or less, the dot pattern including a clear aperture free of dots having a maximum dimension of more than 1 mm, the clear aperture being aligned with a viewing axis of a wearer of the pair of eyeglasses.
A method of generating an antibody and cellular immune response against a Plasmodium in a primate, comprising administering at least 10^3 genetically modified live Plasmodium to the primate, wherein the genetically modified live Plasmodium is a species selected from Plasmodium falciparum, Plasmodium vivax, Plasmodium ovale, Plasmodium malariae, Plasmodium knowlesi, Plasmodium coatneyi, Plasmodium cynomolgi, and Plasmodium simium, and wherein the genetically modified live Plasmodium does not produce functional histamine releasing factor (HRF) protein, to thereby induce an antibody and cellular immune response against the Plasmodium in the primate. In some embodiments at least 10^4 genetically modified live Plasmodium is administered to the primate.

An immunogenic composition for administration to a primate, comprising at least 10^3 genetically modified live Plasmodium wherein the genetically modified live Plasmodium is a species selected from Plasmodium falciparum, Plasmodium vivax, Plasmodium ovale, Plasmodium malariae, Plasmodium knowlesi, Plasmodium coatneyi, Plasmodium cynomolgi, and Plasmodium simium, and wherein the genetically modified live Plasmodium does not produce functional histamine releasing factor (HRF) protein; and at least one pharmaceutically acceptable excipient and/or support. In some embodiments the immunogenic composition comprises at least 10^3 genetically modified live Plasmodium.
Title of the invention: FASTENING DEVICE FOR A WEARING OR PROTECTION ELEMENT IN THE BUCKET OF AN EARTH MOVING MACHINE AND CORRESPONDING FASTENING SYSTEM AND PROCEDURE

Abstract:
Fastening device for a wearing or protection element in the bucket of an earth moving machine and corresponding fastening system and procedure. Fastening device for a wearing or protection element (1) in the bucket (3) of an earth moving machine comprising a stop, formed by a lower half-stop (7) and an upper half-stop (9) that are coupled together by a screw (11) with a lower part (31) suitable for being housed in a housing (17) arranged on a base (5) fastened to the bucket (3). Both half-stops can be separately introduced into the housing (17) through an opening (19) provided on the top face (21) of the wearing element (1). The assembly formed by both half-stops has a plan view that exceeds the perimeter of the plan view of the opening (19). The top half-stop (9) is not in contact with the front wall (29).

Title of the invention: METHODS AND APPARATUS FOR MANUFACTURING FIBER-BASED FOOD CONTAINERS

Abstract:
Methods and apparatus for manufacturing vacuum forming a produce container using a fiber-based slurry. The slurry includes a moisture barrier comprising alkylketene dimer in the range of about 4% by weight, and a cationic liquid starch component in the range of 1% - 7% by weight.
**Title of the invention:** STABLE AQUEOUS DISPERSIONS OF BIOCIDES

| (51) International classification | C09D5/16A01N25/30A01N43/52 |
| (31) Priority Document No         | 15/234621                   |
| (32) Priority Date               | 11/08/2016                  |
| (33) Name of priority country    | U.S.A.                      |
| (86) International Application No| PCT/US2017/045650           |
| Filing Date                      | 05/08/2017                  |
| (87) International Publication No| WO 2018/031429              |
| (61) Patent of Addition to Application Number | NA |
| Filing Date                      | NA                          |
| (62) Divisional to Application Number | NA |
| Filing Date                      | NA                          |

**Abstract:**
An aqueous dispersion containing BIT and IPBC prepared using nonionic and anionic surfactants exhibits both chemical and physical stability and is suitable for use as a single product which is capable of imparting to a coating composition a high level of resistance against attack by a broad spectrum of organisms, including bacteria, fungi and algae, in both the wet-state and dry film-state.

No. of Pages: 20  No. of Claims: 24
Title of the invention: CORONA IGNITION WITH SELF-TUNING POWER AMPLIFIER

International Classification: F02P23/04F23Q3/00H01T13/50
Priority Document No: 15/230927
Priority Date: 08/08/2016
Name of priority country: U.S.A.
International Application No: PCT/US2017/045820
Filing Date: 08/08/2017
International Publication No: WO 2018/031504

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Name of Inventor:
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3) BURROWS, John, Antony

Abstract:
A power amplifier circuit for a corona ignition system is provided. The circuit includes an inductor and capacitor connected to one end of a secondary winding of an RF transformer. The other end of the secondary winding is connected to a current sensor which is connected to ground. The transformer also has a primary winding with one end connected to a voltage supply and the other end attached to a pair of switches. The windings are wound around a core. Current flowing from the DC voltage supply to the switches causes a magnetic flux in the core. A voltage is generated on the secondary winding by the current that flows through the igniter. This voltage is fed back to the switches, controlling on and off timing. Voltage is provided to the corona igniter or pulled from the igniter when the current traveling into or from the igniter is at zero.

No. of Pages: 25 No. of Claims: 17
A wet piping system modular valve assembly includes a single piece valve body with a check valve within the valve body. The check valve is movable between a closed position and an open position according to a pressure differential across the check valve. A drain valve is removably mounted to the valve body and fluidly connected with the valve body downstream of the check valve. A mechanically independent flow detection switch is removably mounted to the valve body and fluidly connected with the valve body upstream of the drain valve.
Provided is a device for carrying out an energization evaluation test of an input filter for a high-capacitance PWM converter at a rated voltage and current by reducing a power supply capacitance in relation to a device under test. This device is for carrying out an energization evaluation test of an input filter of a device under test that is provided with the input filter, which is connected to an output terminal of an AC power supply, and a PWM converter that is connected to the output terminal of the input filter and converts an AC power supply into a DC power supply. This energization evaluation test device is provided with an input filter and PWM converter configured similarly to the input filter and PWM converter of the device under test, a DC reactor that is connected in parallel with the device under test and is connected between the output terminal of the PWM converter of the device under test and the output terminal of the energization evaluation test device, and a PWM control unit that controls the voltage of the PWM converter of the device under test and controls the current of the PWM converter of the energization evaluation test device.

No. of Pages: 10
No. of Claims: 3
A screen basket for centrifuges having a wedge wire with a broad end and an opposite narrow end. The wedge wire narrows in width from the broad end to the narrow end and the wedge wire increases in depth from the broad end to the narrow end.
The present application provides inter alia a fusion protein comprising a polypeptide wherein the polypeptide consists of a fragment of invariant chain which is operably linked to an antigenic sequence and wherein the fragment of invariant chain consists of a portion of residues 17-97 of SEQ ID NO: 1, wherein the portion comprises at least 5 contiguous residues from residues 77-92 of SEQ ID NO: 1.
Disclosure is an application of (3-((1H-pyrazol[3,4-b]pyridine-5-substituted)ethyl)-4-methyl-N-(4-((4-methylpiperazine-1-substituted)methyl)-3-(trifluoromethyl)phenyl)benzamide) and pharmaceutically acceptable salts thereof in preparing drugs for treating acute lymphoblastic leukemia, and in particular, precursor B-cell lymphoblastic leukemia.
(12) PATENT APPLICATION PUBLICATION

(21) Application No.201917006080 A

(19) INDIA

(22) Date of filing of Application :15/02/2019

(43) Publication Date : 26/04/2019

(54) Title of the invention : RICE TRANSPLANTER

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(57) Abstract :
A rice transplanter 1 comprising: a seedling planting device 23 that uses a planting fork 30 to scrape a seedling from a seedling mat and plant the seedling in a field, said seedling mat being mounted on a seedling mount 29; and a seedling withdrawal plate 131 that is positioned below the seedling mount 29, wherein the structure is such that a seedling vertical withdrawal amount of the planting fork 30 can be adjusted by adjusting the position of the seedling withdrawal plate 131, and the adjustability range for the seedling vertical withdrawal amount can be changed.

No. of Pages : 50 No. of Claims : 2
The invention relates to a method for transmitting controlling control variables (78) from a wind farm controller (10) of a wind farm (112) to units (100) of the wind farm (112), in particular having at least one wind turbine (100) and/or at least one energy accumulator, comprising the following steps: determining (58) a first controlling control variable amount (26); determining (66) a second controlling control variable amount (44) using the wind farm controller (10); outputting (60) the first controlling control variable amount (26) in a first data packet (64); outputting (68) the second controlling control variable amount (44) in a second data packet (70); receiving (62) the first data packet (64) with the first controlling control variable amount (26) using a first unit (100); receiving (72) the second data packet (70) with the second controlling control variable amount (44) using a first unit (100); and forming (76) a controlling control variable (78) from the first controlling control variable amount (26) and the second controlling control variable amount (44) in the first unit (100), wherein the first data packet (64) has a receiver address that is assigned to the first unit and to at least one further unit, and the second data packet (70) has a receiver address that is assigned to at least the first unit (100). The invention also relates to a wind farm controller (10), a wind turbine (100), and a wind farm (112) for carrying out the method.
Title of the invention: RICE TRANSPLANTER

Abstract:
This rice transplanter 1 is equipped with a seedling planting device 23 for scraping off seedlings from a seedling mat placed on a seedling platform 29 with a planting claw 30 detachably attached to a claw case 236 and planting the seedlings in cultivated land. An extraction port cover 226 having an opening groove 231 through which the planting claw 30 passes is detachably attached to a seedling extraction port 220 of a seedling extraction plate 131 positioned beneath the seedling platform 29, and a set comprising the planting claw 30 and the extraction port cover 226 can be substituted with a set comprising a planting claw 30a having a planting claw width WA and an extraction port cover 226a having an opening groove width ΔWa, or a set comprising a planting claw 30b having a planting claw width WB wider than the planting claw width WA, and an extraction port cover 226b having an opening groove width ΔWb wider than the planting claw width WB. The gap ΔWa-WA which is the difference between the planting claw width WA and the opening groove width ΔWa is greater than the product of the reduction ratio WA/WB and the gap ΔWb-WB which is the difference between the planting claw width WB and the opening groove width ΔWb.
Title of the invention: PROCESS FOR THE DECARBOXYLATIVE KETONIZATION OF FATTY ACIDS OR FATTY ACID DERIVATIVES

Abstract:
The present invention is directed to a process for synthesizing an internal ketone K1 by decarboxylative ketonization reaction of a fatty acid, a fatty acid derivative or a mixture thereof in a liquid phase with a metal compound as catalyst in a reaction medium, said process being characterized in that a ketone K2 at liquid state, which is identical or similar to the ketone K1, is introduced into the reaction medium. The so-synthesized internal ketone K1 can be used for the preparation of a variety of end compounds, including surfactants having a twin-tail structure or a Gemini structure.

No. of Pages: 71 No. of Claims: 25
The instant invention relates to a textile article comprising a flame-retardant treated fabric including an oxidized polymer obtained from an ammonia curing of a condensate of (i) a tetrakis (hydroxyorganophosphonium salt; and (ii) urea or thiourea; followed by an oxidation into phosphine oxide groups of at least one part of the phosphonium groups present on the cured condensate, wherein said flame-retardant treated fabric:

- is intended to be used as a stable substrate in which the formation of formaldehyde over the time is inhibited; and
- contains less than 1% by weight of phosphorus present in phosphonium groups, based on the total weight of the flame-retardant treated fabric.

No. of Pages: 11  No. of Claims: 12
The application relates to a compound of Formula (I): or a pharmaceutically acceptable salt, hydrate, solvate, prodrug, stereoisomer, or tautomer thereof, which modulates the activity of BTK, a pharmaceutical composition comprising a compound of Formula (I), and a method of treating or preventing a disease in which BTK plays a role.

No. of Pages: 354 No. of Claims: 34
The invention relates to a fuel injection nozzle for use in an internal combustion engine, having a nozzle body (1), in which is formed a pressure chamber (2) fillable with fuel under high pressure and in which a longitudinally displaceable nozzle needle (4) is arranged, wherein the nozzle needle (4) has a sealing face (5) with which it interacts with a conical body seat (7) formed in the nozzle body (1) and thereby opens and closes the connection from the pressure chamber (2) to a blind hole (10). The blind hole (10) forms a cylindrical section (12) directly adjoining the body seat (7) so that an inlet edge (11) is formed at the transition between the body seat (7) and the blind hole (10). In the nozzle body (1) is formed at least one injection opening (14) which opens into the blind hole (10).

The cylindrical section of the blind hole (10) has a reduced diameter so that a shoulder (16) is formed in the blind hole (10), wherein the at least one injection opening (14) opens into the blind hole (10) between the shoulder (16) and the inlet edge (11).
| (12) PATENT APPLICATION PUBLICATION | (21) Application No.201917005950 A |
| (19) INDIA | |
| (22) Date of filing of Application: 15/02/2019 | (43) Publication Date: 26/04/2019 |

### Title of the invention: BIOFUSION PROTEINS AS ANTI-MALARIA VACCINES

| (31) Priority Document No: | 16180544.5 |
| (32) Priority Date: | 21/07/2016 |
| (33) Name of priority country: | EPO |
| (86) International Application No: | PCT/SG2017/050369 |
| Filing Date: | 21/07/2017 |
| (87) International Publication No: | WO 2018/017020 |
| (61) Patent of Addition to Application Number: | NA |
| Filing Date: | NA |
| (62) Divisional to Application Number: | NA |
| Filing Date: | NA |

### Abstract:
The invention relates to fusion proteins which comprise at least one antigenic amino acid sequence fused to a carrier heterologous protein sequence, wherein the antigenic sequence comprises an epitopic sequence of a Plasmodium protein and the carrier heterologous protein sequence is a sequence that is immunogenic in humans. The proteins are useful as anti-malaria vaccines.

No. of Pages: 35 No. of Claims: 17
**Title of the invention:** METHOD AND DEVICE FOR DISPLAYING NAVIGATION INFORMATION

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**Abstract:**

A method and device for displaying navigation information. The method for displaying navigation information comprises: acquiring a current location and the location of a turn intersection (S11); analyzing the features of the intersections between the current location and the location of the turn intersection, determining natural ground object features of the turn intersection (S12); and displaying the natural ground object features of the turn intersection (S13). The method facilitates a user to quickly and accurately find an intersection being indicated by navigation, thus enhancing user experience.
The invention relates to a system for the recovery of heat in thermal processes by means of the sequential and alternating operation of a set of packed beds with non-absorbent materials (or materials in which absorption is not a dominant effect). The system can be used in a number of applications (drying, desalination, absorption cooling, generating mechanical energy...), which are different to one another but share the same principle: the heat that is applied or generated in a device (1) (which can also be a packed bed) is captured and recovered by packed beds which sequentially swap roles; while a bed (2) captures the residual heat of the first device (1), the second (3) preheats the fluid entering the first device (or another process) using the previously captured residual heat, and, when the capturing bed (2) reaches the determined maximum level, it swaps roles with the preheating bed (3) using connected valves, and vice versa.
The invention relates to a cylindrical concentrator with a frustoconical cross section, which uses flat movable mirrors (1) rotating on a shaft parallel to the axis of the cylinder and which has low concentration levels (typically ≤ 2). The concentrator is specially designed to couple to flat solar collectors and to photovoltaic modules (2), including those available on the market, so as to allow the productivity of same to be increased while remaining static, and the cost of energy generation to be reduced. The invention is essentially characterised in that the tracking criterion of the mirror is that of redirecting the limiting ray (r1, r2,...,r1, r2,...) that falls on the part of the mirror furthest from the absorber or photovoltaic module (FV) towards the vicinity of the opposite limit of the surface of the absorber or module. The fact that the mirrors are movable also allows the structures and systems for protecting against wind, snow or high temperatures to be simplified.
Title of the invention: METHOD FOR IDENTIFYING CRITICAL PARTS IN SOFTWARE CODE

Abstract:
The inventive concept relates to a method for identifying critical parts in software code comprised in a number of software code files. The method comprises fetching at least two revisions of the software code, wherein the at least two revisions comprises a first revision and a second revision, the second revision being a latter revision. The method further comprises comparing the second revision to the first revision in order to identify at least a first and a second segment of software code in the second revision that have been changed; fetching at least a first and second timestamp correlated with the change of the at least first and second segment of software code respectively; determining a time difference between the change of the at least first and second segment of software code based on the at least first and second timestamp; if said time difference is within a predetermined range, assigning a temporal coupling between the at least first and second segment of software code; and if said temporal coupling has been assigned, identifying the first and/or second segment of software code as critical parts.
A multi-layered film laminate for use in making hot filled blister packages and a method of making such a material. The laminate generally includes a central core layer of barrier polymer film disposed between a slip film and a thermostable film, in particularly advantageous embodiments, the barrier film is a polychlorotrifluoroethylene film, the slip film is a polyvinyl chloride film, and the heat resistant film is a temperature resistant copolyester. The disclosed material provides a high moisture barrier, a stable inter-laminar structure that can withstand hot filling of liquids, such as liquids used to form soft and/or gummy dosages, on form-fill-and-seal blister packaging machines.
A parallel adaptable graphics rasterization system (100) includes a primitive assembler (135, 315, 515) with a router (520) to selectively route a primitive (700, 800) to a first rasterizer (155, 350, 410, 525) or one of a plurality of second rasterizers (355, 405, 540, 605). The second rasterizers concurrently operate on different primitives and the primitive is selectively routed based on an area of the primitive. In some variations, a bounding box (215, 705, 805) of the primitive is reduced to a predetermined number of pixels prior to providing the primitive to the one of the plurality of second rasterizers. Reducing the bounding box includes, for example, subtracting an origin of the bounding box from coordinates of points that represent the primitive.
(51) International classification: H02M3/155 H02M3/158
(31) Priority Document No: 102016000090751
(32) Priority Date: 08/09/2016
(33) Name of priority country: Italy
(86) International Application No: PCT/IB2017/054527
  Filing Date: 26/07/2017
(87) International Publication No: WO 2018/047025
(61) Patent of Addition to Application Number: NA
  Filing Date: NA
(62) Divisional to Application Number: NA
  Filing Date: NA
(57) Abstract:
An electronic converter (1) comprises a pair of input terminals (IN+, IN-) particularly suitable to be connected to a power supply unit (10) with a constant electric current output, and a pair of output terminals (OUT+, OUT-) particularly suitable to be connected to an electrical load (5). The electronic converter (1) further comprises an electric current conversion stage (2) connected to said input terminals (IN+, IN-) and to said output terminals (OUT+, OUT-), and a controller (3) connected to the electric current conversion stage (2) and particularly suitable to control the electrical energy output from the electronic converter (1).
Title of the invention: METHOD AND SYSTEM FOR FACILITATING SOCIAL NETWORKING BASED ON EVENTS

Abstract:
Disclosed is a computer implemented method of facilitating social networking. The method may include presenting a plurality of events and dates to a user based on at least one personal characteristic of the user. Further, the method may include receiving a plurality of date-interest indicators and event-interest indicators representing one of approval, disapproval and possibility. Furthermore, the method may include determining a plurality of compatibility levels between the user and the plurality of dates. Additionally, the method may include generating a prioritized plurality of dates and events based on the plurality of date-interest indicators and event-interest indicators. Further, the method may include receiving a selection of one or more of an event and a date. Additionally, the method may include presenting one or more of the prioritized plurality of dates and the prioritized plurality of events based on the selection of one or more of the event and the date.
**Title of the invention**: SILENCER DEVICE FOR FIREARM

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**Abstract**:
The invention relates to a silencer device for a firearm, in particular for a rifle or another long or short firearm and a silencing method, which comprises: at least two closing flaps (10) mounted across the axis on the barrel of the firearm in order to provisionally seal the barrel after the ammunition has passed and to prevent the passage of the combustion gases and the sound wave towards the mouth of the barrel when a shot is fired, an actuation unit (2, 4, 5) including at least one opening (1, 3) made in the barrel of the firearm upstream from the closing flaps (10) to form a gas intake (1, 3) moving a control mechanism (6-9); the control mechanism (6-9) including at least two arms of an amplitude lever (8, 12) pivotably mounted on pivots (7) attached to the barrel, each arm of the amplitude lever (8, 12) being coupled to either one of the closing flaps (10), the actuating unit (2, 4, 5) engaging with the control mechanism (6-9) to allow a transverse movement of the closing flaps (10) between an open position in which the flaps (10) allow ammunition to pass towards the mouth of the barrel and a closed position preventing the passage of the combustion gases and the sound wave after the ammunition has passed, and an exhaust unit (11, 21-27) including at least one exhaust pipe (11, 21) arranged on the barrel upstream from the closing flaps (10) in order to redirect the combustion gases and the sound wave and allow them to be discharged from the barrel.

![Diagram](image)
Title of the invention: COLD FUSION CONCRETE

Abstract:
A cold fusion concrete formulation including a mixture of water, silicon based mineral aggregates acting as a filler material; sodium or potassium metasilicate/pentahydrate acting as an activator; waste from steel production including Granulated Ground Blast Slag acting as a cementitious ingredient; high calcium or low calcium waste from coal combustion (fly ash or bottom ash) acting as a cementitious ingredient; sodium tetraborate, sodium citrate dihydrate, citric acid, or boric acid acting as set-time retarders; strengthening agents including calcium, potassium, magnesium, sodium, or aluminum hydroxides; attapulgite, kaolin, red, or other fine grained, high aluminosilicate containing clay, for increasing the silicon and alumino-silicate concentration and associated strength; a protein or synthetic protein material to form a weak covalent bond with the hydroxides and silicates, for the purpose of maintaining a consistent volume during the curing process; and a pollinated fern oil to reduce water content of the mixture and decrease viscosity.

No. of Pages: 24 No. of Claims: 9
A process for on-line density measurement for a hydrocarbon fluid. The hydrocarbon fluid is caused to flow through first and second density sensors arranged in series. The first density sensor has a first temperature and the second density sensor has a second temperature, defining a temperature difference between the first temperature and the second temperature. A first density measurement and second density measurement are received from the first and second density sensors, respectively. A temperature conversion factor is determined. The first density measurement or the second density measurement is corrected using the determined temperature correction factor to provide a temperature-corrected density measurement.
The present invention provides enthalpy exchanger elements (E, E, PR, PF) and enthalpy exchangers comprising such elements. Furthermore, the invention discloses a method for producing such enthalpy exchanger elements and enthalpy exchangers, comprising the steps of a) providing an air-permeable sheet element (1); b) laminating at least one side (1a, 1b) of the sheet element (1) with a thin polymer film (3, 4) with water vapor transmission characteristics; and c) forming the laminated sheet element (1) into a desired shape exhibiting a three-dimensional corrugation pattern (5, 5,...).

![Fig. 1](image-url)
The present invention relates to a dispersion comprising (A) a carrier fluid in an amount from 35 to 95 wt.%, the carrier fluid comprising: (A1) water, and (A2) at least one compound selected from the group consisting of ethanol, 1-propanol, 2-propanol, ethyl acetate, n-propyl acetate, isopropyl acetate, acetone, methyl ethyl ketone and any mixture of at least two of these compounds, whereby the amount of water (A1) relative to the carrier fluid (A) is less than 85 wt.% and the amount of water relative to the dispersion is from 1 to 30 wt.%; and (B) polymer(s) in an amount from 5 to 65 wt.%, the polymer(s) comprising: (B1) polymeric particles having a volume average particle size from 1μm to 20μm, whereby the polymer of the polymeric particles (B1) has a weight average molecular weight of at least 100 kDaltons and whereby the polymer of the polymeric particles (B1) is selected from the group consisting of polyurethane, polyurethane-polyacrylate hybrid and any mixture thereof; and whereby the amounts of (A) and (B) are given relative to the total amount of (A) and (B).
Title of the invention: B-CELL-MIMETIC CELLS

Abstract:
The present invention relates to β-cell-mimetic cells. Methods for producing β-cell-mimetic cells as well as methods of use of β-cell-mimetic cells as a medicament and methods of use of β-cell-mimetic cells for the prevention, delay of progression or treatment of a metabolic disease in a subject are also provided.

Figure 4

A)
An edge node computing system and corresponding methods for performing secondary processing of data at edge nodes of a computer network. The edge node computing system receives messages, such as authorization messages, representing a payment transaction initiated by a cardholder with a merchant. A primary processor of the edge node computing system performs a primary processing and determines whether to forward the message to a second processor for secondary processing. After secondary processing is completed, the second processor generates an enhanced message based on the original message and the results of the secondary processing and transmits the enhanced message accordingly. The systems and methods disclosed are particularly suited for provided value-added services in payment processing networks.
The Totem Pole Solar Capture Housing is an improved design for a photo voltaic module enclosure. It is cylindrical in shape to capture the maximum amount of solar radiation on the housing's surface transferred to the module for conversion to electricity, and eliminates positional orientation. The cylindrical glass outer shell exposes one half of its circumference to solar radiation on contact. Used singly or in multiples interconnected together, one atop the other and erected vertically on a footprint. The inner photo voltaic module support core diameter and height can be sized to fit modules of different electrical outputs. The hollow center of the support core acts as the wiring channel to the base. Assembly couplings form the top and bottom of the enclosure and are critical in joining multiple enclosures into one vertical electrical output-enhanced assembly.
**Title of the invention:** PROCESS FOR THE SYNTHESIS OF 9,9-BIS(HYDROXYMETHYL)FLUORENE

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**Abstract:**
The present invention relates to a novel process for the synthesis of 9,9-bis(hydroxymethyl)fluorene. The syntheses from fluorene to 9,9-bis(hydroxy- methyl)fluorene via a hydroxymethylation and further to 9,9-bis(methoxymethyl)- fluorene via a etherification are known. 9,9-bis(methoxymethyl)fluorene is a compound that is used as an electron donor for Ziegler-Natta catalysts. The present invention is related to an improvement in the synthesis of 9,9-bis(hydroxymethyl)fluorene leading to a decrease in the amount of solvent used and an easier work up while achieving high yield and purity.

No. of Pages: 21 No. of Claims: 15
**Title of the invention:** ANODIZED ALUMINUM WITH DARK GRAY COLOR

**Abstract:**

Provided herein are aluminum alloys and aluminum sheets including alloys that have a natural dark gray color when anodized. The alloys do not require any absorptive or electrolytic coloration process separate from the anodization process to achieve the dark gray coloration. Also provided herein are methods for making such aluminum alloys.

---

**Fig. 1A**

No. of Pages : 17 No. of Claims : 18
Title of the invention: METHOD FOR PRODUCING CATALYST AND METHOD FOR PRODUCING ACRYLONITRILE

Abstract:
This method for producing a catalyst comprises: a preparation step for preparing a precursor slurry containing molybdenum, bismuth, iron, silica, and a carboxylic acid; a drying step for spray-drying the precursor slurry to obtain dried particles; and a firing step for firing the dried particles, wherein the preparation step includes: a step (I) for mixing a silica raw material and a carboxylic acid to prepare a silica-carboxylic acid mixed solution; and a step (II) for mixing the silica-carboxylic acid mixed solution, molybdenum, bismuth, and iron.

Figure 1

No. of Pages: 129 No. of Claims: 12
Disclosed are chimeric antigen receptors (CARs) comprising Centyris (i.e. CARTyrins), transposons encoding CARs and CARTyrins of the disclosure, cells modified to express CARs and CARTyrins of the disclosure, as well as methods of making and methods of using same for adoptive cell therapy.
Disclosed are MUC1-CAR compositions and methods for use of these compositions to target a MUC1 protein, including CARTyrin compositions, wherein the cell expressing the targeted MUC1 protein may be targeted and killed by, for instance, a cytotoxic T cell.
The present invention is a polypropylene resin composition containing a propylene polymer (A) that satisfies (a) below, a soft propylene copolymer (B) that satisfies (b) below, and a polyolefin (C) containing structural units derived from an unsaturated carboxylic acid and/or a derivative thereof. (a) The melting point observed in differential scanning calorimetry is 100°C or higher. (b) The MFR measured at 230°C with a 2.16 kg load according to ASTM D-1238 is in the 0.01-100 g/10 min range, and at least one of the following requirements (b-1) and (b-2) is also satisfied. (b-1) The syndiotactic triad fraction (rr fraction) measured by $^{13}$C-NMR is 60% or higher. (b-2) Structural units derived from propylene are contained in a quantity of 55-90 mol%, structural units derived from at least one olefin selected from C2-20 α-olefins (excluding propylene) are contained in a quantity of 10-45 mol% (however, the total of structural units derived from propylene and structural units derived from C2-20 α-olefins (excluding propylene) is 100 mol%), and the intrinsic viscosity [$\eta$] measured in 135°C decalin (dL/g) and the MFR (g/10 min, 230°C, 2.16 kg load) satisfy the relational expression: $1.50 - \text{MFR} - 0.20 \leq \eta \leq 2.65 - \text{MFR} - 0.20$. A single layer or multilayer film including layer(s) molded from this polypropylene resin composition has excellent whitening resistance during deformation processing and can be used suitably as a packaging material for forming food packaging materials, building materials, exterior bodies of lithium ion cells, and the like.
Techniques for creating a three dimensional model of an object and eliminate artifacts due to object motion. Such techniques are applied to line scans and slice scans of an object.
In one aspect, a reinforcing assembly (200, 400, 500, 600, 700) includes multiple longitudinally-extending support bars (202a-202b, 402a-402b, 502a-502b, 602, 702) that are connected together and multiple working members (204, 404, 504, 604, 704) each independently connected to one or more of the support bars. The working members are oriented diagonally with respect to a longitudinal axis (210, 410, 610, 710) extending along the support bars. Each working member includes a downwardly-extending side (206, 406, 506, 606, 706) and a hooked or bent portion (208, 408, 508, 608, 708) at an end of the downwardly-extending side. In another aspect, a reinforcing assembly (200, 400, 500, 600, 700) includes one or more longitudinally-extending bars (202a-202b, 402a-402b, 502a-502b, 602, 702) each configured to provide structural reinforcement within a structure. The reinforcing assembly also includes multiple working members (204, 404, 504, 604, 704) each independently connected to at least one of the one or more bars. The working members are oriented diagonally with respect to a longitudinal axis (210, 410, 610, 710) extending along the one or more bars. Each working member includes a downwardly-extending side (206, 406, 506, 606, 706) and a hooked or bent portion (208, 408, 508, 608, 708) at an end of the downwardly-extending side.
Title of the Invention: SYNCHRONIZATION IN BEAMFORMED NEW RADIO SYSTEMS

Abstract:
Systems, procedures, and instrumentalities are disclosed for synchronization in beamformed systems such as new Radio (NR). A common SYNC channel may be provided for single and multi-beam systems. A SYNC burst structure may be provided for beam-based systems. Procedures enabling or supporting single and multi-beam deployment may provide, for example, a common SYNC for TDD and FDD, a common SYNC for mixed numerologies, SYNC for larger bandwidth and SYNC transmission and reception for single and multiple TRPs.
**Title of the invention:** ULTRASONIC TRANSDUCER TO WAVEGUIDE ACOUSTIC COUPLING, CONNECTIONS, AND CONFIGURATIONS

| (51) International classification   | A61B17/32H01L41/09 |
| (31) Priority Document No           | 62/379550          |
| (32) Priority Date                  | 25/08/2016         |
| (33) Name of priority country       | U.S.A.             |
| (86) International Application No   | PCT/US2017/048536  |
| Filing Date                         | 25/08/2017         |
| (87) International Publication No   | WO 2018/039515     |
| (61) Patent of Addition to Application Number | NA               |
| Filing Date                         | NA                 |
| (62) Divisional to Application Number | NA               |
| Filing Date                         | NA                 |

**Abstract:**
Various ultrasonic instruments are disclosed. The ultrasonic instruments include an ultrasonic waveguide acoustically coupled to an ultrasonic transducer. Several techniques for acoustically coupling the ultrasonic transducer to the ultrasonic waveguide are disclosed.

No. of Pages : 51 No. of Claims : 29
The invention relates to a vehicle with at least one sanitary cabin (1) comprising a squat toilet (2) on a platform (3). The squat toilet (2) is a vacuum toilet which uses vacuum technology and is arranged at least partially in the platform (3). A door (8) of the sanitary cabin (1) opening into the sanitary cabin (8) is adapted to the platform (3) such that a lower sealing (9) of the door (8) extends at a height higher than the platform (3) and the door (8) is guided along a rail such that when the door (8) opens, it is guided at least partially above the platform (3), or that a lower sealing (9) of the door (8) extends at a height lower than the platform (3) and the door (8) is guided along a rail which is designed such that when the door (8) opens, it is guided past the platform (3) so not as to collide therewith.
A fastening mechanism (12) for coupling track rail (10) to a substrate (100) includes a fastener body (14) formed by a metallic base (52) and an overmolded non-metallic coating (54). Metallic pillars (30) are coupled with the fastener body (14), and define bores (32) for receiving anchors (34) held fast within a substrate (100). The coating (54) encases the metallic base (52) and extends peripherally around the metallic pillars (30) to position vibration-attenuating non-metallic material (63) between the metallic base (52) and the metallic pillars (30).
Title of the invention: **SUBSTITUTED PYRROLIZINE COMPOUNDS AND USES THEREOF**

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**Abstract:**
This application relates to substituted fused pyrrole compounds of formula I, and pharmaceutical compositions comprising them which inhibit HBV replication, and methods of making and using them. Formula (I)

No. of Pages: 258  No. of Claims: 62
A surgical instrument can be provided as described herein. The surgical instrument can include a handle with first and second handle portions. One of the first and second housing portions can include a proximal latch and a proximal latch pin. The proximal latch and proximal latch pin can be configured to lock the first and second housing portions together at proximal ends thereof. One of the first and second housing portions can further include a latch projection, a clamp arm, an over center linkage where the latch projection and over center linkage can be configured to lock the surgical instrument in a closed position when the clamp arm is engaged or in an engaged position.
A method of monitoring a volume index valve of a compressor is provided. The method includes recording a first reading of an operating condition of the compressor when the volume index valve is in a first position. The method also includes switching the volume index valve to a second position. The method further includes recording a second reading of the operating condition of the compressor when the volume index valve is in the second position. The method yet further includes calculating a difference between the first reading and the second reading. The method also includes comparing the difference to a predetermined threshold difference to determine if the volume index valve is moving between the first position and the second position in a desired manner.
A rotary electromagnetic actuator (2) includes a biasing assembly (30) for applying a torque to its rotor (4). Such an actuator may be used to operate a poppet valve of an internal combustion engine. The rotor defines a cam surface (14) and the biasing assembly includes a cam follower (16) in engagement with the cam surface, and the magnitude of the torque exerted on the rotor by the biasing assembly is dependent on the magnitude of the displacement of the cam follower by the cam surface. The cam surface defines at least one detent (50) for receiving the cam follower.
Title of the invention: BEARING ASSEMBLY AND BEARING CAGE

Abstract:
A bearing assembly (10) includes an outer ring (14) having an outer raceway (18) and an inner ring (22) having an inner raceway (26) and a flange (54) defining an outer diameter of the inner ring. A plurality of rolling elements (30) is retained between the outer and inner rings on the outer and inner raceways. A cage (34) has first and second side rings (38) interconnected by a plurality of bridges (42) to form a plurality of windows (46), each window receiving a respective rolling element (30) to maintain relative spacing between adjacent rolling elements. At least some of the bridges (42) include a projection (50) on a radially inner side such that the plurality of projections (50) together define an inner diameter of the cage (34), the inner diameter of the cage (34) being smaller than the outer diameter of the inner ring (22) to create interference and deformation of the cage (34) as the cage is installed over the flange (54) of the inner ring.
A method for controlling the drive of a machine with at least one first rolling element (1), a surface of which rolls onto a counter-surface at least in partial intervals of a rotational cycle under the effect of a contact force under elastic deformation. A rotational speed correction method, which automatically compensates for deviations, caused by deformation, in the peripheral speed of the first rolling element (1) by adjusting the set point value for the peripheral speed of the first rolling element (1), and a retrospective method, which automatically compensates for deviations in the rotational speed constancy of the first rolling element (1) within a rotational cycle by applying a correction signal that is determined from the plot of a controlled variable in one or more preceding rotational cycles, are used in combination.
Platform or system of drop-dispenser devices and method for use thereof, where one device in a platform is active in that it is equipped with a data-recording/transmitting/processing/feedback unit configured to provide feedback on whether a drop is delivered to the ROI as intended, while another device is passive in that (being otherwise substantially structurally similar in configuration and operation to the active device), it does not have such a unit and is structured to simply hold, stabilize, and/or position a liquid-drop container to aid in successful delivery of the liquid drop(s). While using the system, the user may start using the passive device and switch to the use of an active device if the results of delivery of drops to the ROI with the passive device is unsatisfactory with respect to a schedule, or success rate, or for any other reason. The use may start using the active device first and, once the period of training (with the feedback provided by the active device) is over and the habit or routine of the use of the active device without supervision is satisfactory - switch to the use of the passive device. The geometry of devices in the system is judiciously chosen to facilitate increase in success rate of as-intended drop delivery.
The present disclosure relates to an Artificial Intelligence (AI) enabled smart facial hair grooming device designed to groom, design, or shave facial hair automatically. Aspects of the present disclosure relate to a grooming device 100 capable of grooming, designing or shaving facial hair of a user, the grooming device 100 including a face shield 102 configured with a plurality of razors 108 installed on at least one inner surface of the face shield 102, at least one micro-controller configured to control movement of the plurality of razors 108, and an Artificial Intelligence (AI) based pixel identifier (PI) module configured to visualize a desired facial hair style on face of the user and program the micro-controller with or without additional motors to move each of the plurality of razors 108 in a desired direction to allow cutting of facial hair of the user as per the desired facial hair style.
(54) Title of the invention : LATCHING PNEUMATIC CONTROL VALVE

(51) International classification : F15B13/044
(31) Priority Document No : 62/576,257
(32) Priority Date : 24/10/2017
(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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(72) Name of Inventor :
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(57) Abstract :
A control valve having a valve body, seat member, valve member, and solenoid including a housing, bobbin, and coil. The valve member has a head portion disposed within the bobbin and a valve portion, disposed within the valve body, that has a seat engagement member operating to open and close ports in the valve body when the valve member slides between first and second positions. A permanent magnet, disposed within the bobbin, applies an attractive force of variable magnitude to the valve member in a direction opposing a biasing force created by a biasing component. Pulses of electric current applied to the coil change the variable magnitude. The permanent magnet pulls the valve member to the second position when the attractive force is greater than the biasing force and the valve member returns to the first position when the attractive force is less than the biasing force.
Title of the invention: TOUCH DISPLAY PANEL AND TOUCH DISPLAY DEVICE

Abstract:
A touch display panel (110) and a touch display device (100) are provided. A touch display device (100) includes: an active area (A/A), a non-active area (N/A) outside the active area (A/A), the non-active area (N/A) including a bent area, a plurality of touch electrodes (TE) in the active area (A/A), a first insulating layer (610) in the bent area, the first insulating layer (610) including: a first region having a first height, and a second region having a second height lower than the first height, and a first touch line (TL1) in the second region of the first insulating layer (610) in the bent area in the non-active area (N/A).

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Name of Inventor: LEE, Yangsik
A shift register circuit, a gate driver on array circuit, and a display apparatus. The shift register circuit comprises a shift register unit (10). The shift register unit (10) comprises a pull-up node (PU), a pull-down node (PD), and a touch control potential control circuit (11). The touch control potential control circuit (11) is respectively connected to a touch control potential control end (EN), an output end (OUT_N), the pull-up node (PU) and the pull-down node (PD) of the shift register unit (10) and a low-level output end. The touch control potential control circuit (11) is used to control, under the control of the touch control potential control end (EN) during a touch control phase, the output end (OUT_N), the pull-up node (PU) and the pull-down node (PD) of the shift register unit (10) so that same are all connected to the low-level output end.
The present invention relates to a highly absorbent resin which has excellent basic absorption capabilities and exhibits a further improved absorption speed and liquid permeability and a method for producing the same. The highly absorbent resin comprises: a base resin powder including a first cross-linking polymer of a water-soluble ethylene-based unsaturated monomer having an acidic group of which at least a portion is neutralized; and a surface cross-linking layer formed on the base resin powder and including a second cross-linking polymer obtained by further cross-linking the first cross-linking polymer by means of a surface cross-linking agent. The 20 cm fixed height absorption magnification (FHA) for a physiological saline (0.9 wt% sodium chloride aqueous solution) is 22.5 g/g to 29 g/g and the flow conductivity of a physiological saline (SFC) (0.685 wt% sodium chloride aqueous solution) is equal to or greater than 35 (·10^-7 cm³· s/g). T-20 which indicates the time required for 1 g of a highly absorbent resin to absorb 20 g of a 0.9 wt% sodium chloride and 0.01 wt% carbon 12-14 alcohol ethoxylate aqueous solution is 180 seconds or less under a pressure of 0.3 psi.

(31) Priority Document No: 10-2016-0092098
(32) Priority Date: 20/07/2016
(33) Name of priority country: Republic of Korea

(86) International Application No: PCT/KR2017/001128
Filing Date: 02/02/2017
(87) International Publication No: WO 2018/016704

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

The Patent Office Journal No. 17/2019 Dated 26/04/2019

**Title of the invention:** METHOD AND APPARATUS FOR OPERATION OF AN ELECTRONIC DEVICE

**Abstract:**
Disclosed is a method and apparatus for controlling an electronic device by using a force input of the electronic device. The method includes displaying a screen comprising at least one object on a touch screen display, receiving data indicating that an external object is pressed on the touch screen display by a force greater than or equal to a selected force, receiving a manual input through the touch screen display after the data is received, displaying at least one of an image and a character on the touch screen display in a manner overlapping with the screen based on the manual input, and deleting the at least one of the image and the character while directly maintaining the screen when a selected time has elapsed.
The Patent Office Journal No. 17/2019 Dated 26/04/2019

(12) PATENT APPLICATION PUBLICATION
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(22) Date of filing of Application : 27/11/2018
(21) Application No.201817044762 A
(43) Publication Date : 26/04/2019

(54) Title of the invention : IMAGING LENS

(51) International classification : G02B13/00
(31) Priority Document No : 201710383984.X
(32) Priority Date : 26/05/2017
(33) Name of priority country : China
(86) International Application No : PCT/CN2017/107331
Filing Date : 23/10/2017
(87) International Publication No : WO 2018/214396
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

(57) Abstract :
An imaging lens comprising sequentially from an object side to an image side along an 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 a positive optical power and an object-side surface (S1) being a convex surface. The second lens (E2) has a negative optical power and an object-side surface (S3) and an image-side surface (S4) both being concave surfaces. The third lens (E3) has a negative optical power. The fourth lens (E4) has a positive or negative optical power. The fifth lens (E5) has a positive or negative optical power an object-side surface (S9) being a concave surface and an image-side surface (S10) being a convex or planar surface. An air spacing T23 between the second lens (E2) and the third lens (E3) on the optical axis and an air spacing T34 between the third lens (E3) and the fourth lens (E4) on the optical axis meet the following condition: 1.0 = T23/T34 < 2.0.

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No. of Pages : 40 No. of Claims : 36
A power system and method for performing a blackstart on a microgrid. The power system includes at least a first power converter (130) and a second power converter (140). The first power converter comprises a first controller (230) having a plurality of startup sequences for performing the blackstart. The second power converter is electrically coupled to the first power converter at a point of common coupling (180). During the blackstart, the first controller is configured to select and perform one of the plurality of startup sequences according to a point at which the second power converter is within the second power converters startup sequence during the blackstart. The first controller selects the one of the plurality of startup sequences according to a microgrid voltage at the point of common coupling.

No. of Pages : 31
No. of Claims : 19
A key unit (100) that locks and unlocks a target by transmitting a signal to a locking and unlocking device (300), includes: a substrate on which a power supply circuit and a reception circuit that receives a request signal transmitted in a first frequency band from the locking and unlocking device (300) via a reception antenna are mounted; and a housing configured to accommodate the substrate. Among parts associated with the power supply circuit, a part having the highest height from a substrate surface is mounted on a first surface of the substrate. The reception antenna is mounted on a second surface. When the substrate is accommodated in the housing, a distance from a substrate surface of the second surface to an inner surface of the housing is shorter than a distance from the substrate surface of the first surface to the inner surface of the housing.
Title of the invention: ATTITUDE DETERMINATION SYSTEM

Abstract:
An instrument (20) determines the attitude of a spacecraft (3) on which it is mounted, by interacting incident light (11) from the Sun with one or more light conditioning elements (12) and thereby forming a diffraction pattern at a photosensitive detector (13). The intensity distribution of light on the detector (13) is dependent on the angle of incidence of the light (11). An on-board computer (16) determines a direction vector to the Sun based on the light diffraction pattern detected by the detector (13).
The invention provides compounds for use in a method of treating and/or preventing a bacterial infection in a human or non-human mammal, said method comprising administration of said compound in combination with (either simultaneously, separately, or sequentially) a β-lactam antibiotic, wherein said compound has the general formula I: (I) (wherein: Q is a lipophilic, zinc chelating moiety which is selective for Zn2+ ions and which comprises at least one, preferably two or more (e.g 2, 3 or 4), optionally substituted, unsaturated heterocyclic rings, e.g. 5 or 6-membered heterocyclic rings (such rings preferably include at least one heteroatom selected from N, S and O, preferably N); wherein any optional substituents may be selected from C1-6 alkyl, C1-6 alkoxy, halogen, nitro, cyano, amine, and substituted amine; each L, which may be the same or different, is a covalent bond or a linker; each W, which may be the same or different, is a non-peptidic hydrophilic group which comprises one or more hydroxy groups; and x is an integer from 1 to 3) or a stereoisomer, pharmaceutically acceptable salt or prodrug thereof.
Title of the invention: LAMINATION SYSTEM, FACILITY INCLUDING SUCH A LAMINATION SYSTEM AND LAMINATION METHOD IMPLEMENTED USING SUCH A LAMINATION SYSTEM

Abstract:
This system (39) for laminating photovoltaic stacks (5) comprises at least two sealed independent housings (47) each sealed housing delimiting an inner volume configured to contain one of the photovoltaic stacks (5) and at least one evacuation port (47C); a docking station (43) which comprises at least two independent compartments (45) for receiving one of the sealed housings; heating means (46) configured for heating each photovoltaic stack independently; an evacuation device (51; 57) for evacuating the inner volume of the sealed housings via the evacuation port; and a transfer device (29) for transferring each sealed housing into one of the receiving compartments (45).

No. of Pages: 20 No. of Claims: 11
A positive electrode (101) for an alkaline secondary battery (100) includes a positive electrode substrate and a positive electrode composite material that is provided on at least one surface of the positive electrode substrate. The positive electrode substrate contains a Ni foil or a Ni-plated steel foil. The positive electrode composite material contains a positive electrode active material. The positive electrode active material contains nickel hydroxide coated with cobalt oxyhydroxide. A weight per unit area of the positive electrode composite material with respect to the one surface of the positive electrode substrate is 0.02 g/cm² to 0.035 g/cm².
A veterinary subject intranasal administration device, and associated systems and methods, are disclosed. The veterinary subject intranasal administration device can include a first support member portion including a septum interface portion sized for insertion into a nasal passage of the veterinary subject; an actuation mechanism connected to the first support member portion; and a fluid conduit having a distal end opposite a supported end, the distal end sized for insertion into the nasal passage of the veterinary subject, the fluid conduit being flexible and configured to receive fluid from a fluid source and discharge the fluid through the distal end into the nasal passage, the distal end of the fluid conduit being unsupported and movable relative to the septum interface portion.
A service support device (30) includes an information processing device. The information processing device is configured to deliver key information to a mobile terminal (20; 20Ac; 20Ad; 20B). The mobile terminal corresponds to each of a plurality of business operators that provide a user of a vehicle (10; 10A; 10B) with a predetermined service using the vehicle. The key information is information for unlocking the vehicle, starting the vehicle, or unlocking and starting the vehicle when a predetermined transmission signal is transmitted toward the vehicle. The information processing device is configured to, when the mobile terminal corresponding to a first business operator among the plurality of business operators uses the key information, make coordination such that the mobile terminal corresponding to a second business operator among the plurality of business operators does not use the key information.

No. of Pages : 100 No. of Claims : 14
A key information management device (30) includes an information processing device. The information processing device is configured to deliver key information to a mobile terminal (20; 20Aa; 20Ab; 20Ac; 20Ad; 20B) as the mobile terminal transmits a predetermined transmission signal toward a vehicle (10; 10A; 10B). The key information is information for unlocking the vehicle, starting the vehicle, or unlocking and starting the vehicle. The information processing device is configured to register permission for a user of the vehicle to use a predetermined service using the vehicle. The permission is permission to cause the information processing device to deliver the key information to a mobile terminal (20Ac; 20Ad; 20B) of a third party concerned with the predetermined service, other than the user of the vehicle, as an external device (40) concerned with the predetermined service transmits a predetermined request signal.
The present invention relates to a method for producing an unsaturated aldehyde and unsaturated carboxylic acid. According to the present invention, a method is provided for producing an unsaturated aldehyde and unsaturated carboxylic acid, wherein activity can be imparted and temperature can be controlled independently in fixed catalyst bed zones in a shell-and-tube reactor, and thus improved yield and operation stability are exhibited.
Title of the invention: METHOD AND APPARATUS FOR PRODUCING COMPOUND DERIVED FROM LIGNOCELLULOSE-TYPE BIOMASS

Abstract:
A method for producing a compound derived from a lignocellulose-type biomass comprises: a saccharification step of carrying out a saccharification reaction using a pretreated lignocellulose-type biomass and a saccharification enzyme; a fermentation step of adding a saccharification liquor obtained in the saccharification step a saccharification residue having the saccharification enzyme adsorbed thereon and microorganisms and then carrying out the fermentation of the resultant solution while stirring; a solid-liquid separation step of subsequent to the fermentation step subjecting a fermentation product to solid-liquid separation into a fermentation liquor and a fermentation residue having the saccharification enzyme adsorbed thereon; a stirring step of adding water to the fermentation residue having the saccharification enzyme adsorbed thereon which is the residue obtained in the solid-liquid separation step and then stirring the resultant solution while keeping the temperature of the solution at a temperature at which the saccharification enzyme can cause a saccharification reaction; and a recycling step of recycling a fermentation residue solution produced in the stirring step to the saccharification step.
**Title of the invention:** OPERATION ASSISTANCE SYSTEM FOR GRAIN PROCESSING FACILITY AND AUTOMATIC OPERATION CONTROL METHOD FOR SATELLITE FACILITY

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**Abstract:**

The present invention operates a satellite facility in a fully automated manner even for a grain processing facility (for example a cooperative grain drying/preparing facility a rice-polishing factory a foodstuff factory or the like) at which the characteristics of starting materials change from day to day and hour to hour. An operation assistance system for a grain processing facility the operation assistance system comprising: a database in which first characteristics for a first grain that was brought into a model facility first operation parameters for the model facility that were used when the first grain was processed at the model facility and an index value measured for the taste of the first grain after processing at the model facility are associated and stored; a reception unit that receives second characteristics for a second grain that is brought into a satellite facility; a calculation unit that on the basis of the received second characteristics and the information accumulated in the database calculates second operation parameters that are to be used when the second grain is processed at the satellite facility; and a provision unit that provides the calculated second operation parameters to the satellite facility over a network.

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No. of Pages: 20 No. of Claims: 9
The invention relates to an autonomous bed intended for patients with reduced mobility and particularly for tetraplegic and paraplegic persons which is height adjustable and can switch between a horizontal position as a bed for accommodating the patient when he or she is lying down and a stepped position as a chair. The bed incorporates transporting mats (12) for supporting the patient which move in a direction transverse to supports (4, 5, 8) each in its own direction of movement: towards the outside of the bed to move the patient from the bed to a bed or a wheelchair for example; and towards the inside of the bed to accommodate the patient thereon. The longitudinal or transverse orientation of the bed can be changed with respect to the frame permitting the patient to be able to perform his or her physiological necessities of evacuation by means of the stretcher in a seated position.
A card issuing and payment system and method using a user terminal. Such a system and method include a user terminal and a card service providing server. The user terminal generates an encryption key and a decryption key, stores the decryption key, and transmits the encryption key together with a card issuing request signal to the card service providing server. The card service providing server, upon receipt of the request signal, verifies whether the card issuance is permissible. If the card issuance condition is satisfied, the server generates the card and encrypts the card information with the received encryption key. Then, the server transmits the encrypted card information to the terminal. The user terminal decrypts the encrypted card information with the decryption key after receiving and installs an electronic card in the terminal with the decrypted information.
Title of the invention: AUTHENTICATION FOR NEXT GENERATION SYSTEMS

Abstract:
Methods and apparatus for secondary authentication in a network. A method performed by a user equipment (UE) comprises establishing a user plane (UP) session or connection with a UP function (UPF), receiving an extensible authentication protocol (EAP) based authentication request from the UPF and sending an EAP based authentication response to the UPF. A method performed by a user plane UP function (UPF) comprises establishing a UP session or connection to a user equipment (UE), sending an extensible authentication protocol (EAP) based authentication request to the UE, and receiving an EAP based authentication response from the UE.
The invention relates to a hard bouillon tablet and to a process for the production of a hard bouillon tablet wherein a chicken fat having a total saturated fat content of 48 to 72 wt% (based on weight of total fat); and wherein the chicken fat comprises the fatty acids C16:0 in the range of 36 to 55 wt% (based on weight of total fat) and C18:0 in the range of 11 to 19 wt% (based on weight of total fat) is used.
The invention relates to a high melting point chicken fat produced by dry fractionation of semi-liquid chicken fat. In particularly the invention relates to a chicken fat wherein the chicken fat having a total saturated fat content of 48 to 72 wt% (based on weight of total fat) comprising the fatty acids C16:0 in the range of 36 to 55 wt% (based on weight of total fat) and C18:0 in the range of 11 to 19 wt% (based on weight of total fat).

No. of Pages : 11 No. of Claims : 13
Title of the invention: A PORTABLE SYSTEM FOR CHROMIUM DETECTION IN AQUEOUS MEDIA FOR ON-FIELD APPLICATIONS

Abstract:
A Portable System for Chromium Detection in Aqueous Media for On-Field. The present invention provides a portable system and method for chromium detection in aqueous media for on-field applications. The method is based on the colorimetric determination in water with the use of surfactant-capped nanomaterial interaction with Chromium VI and Chromium III. The device detects and quantifies the color complex for chromium detection.
Title of the invention: JOINING PART STRUCTURE FOR CABIN PART AND DECKPART OF CAB OVER TYPE VEHICLE

Abstract:
[Problem to be Solved] To effectively disperse stress from a deck part during traveling toward a cabin part, and reinforce a wheel arch part and a door opening bent part.
[Solution] A cab over type vehicle 1 having a cabin part 2 and a deck part 3, in which a rear pillar 24 having a closed cross sectional shape is provided in a side part on a vehicle rear side of the cabin part 2 along a vehicle vertical direction, and a deck side pillar 4 is provided in a side part on a vehicle front side of the deck part 3 along the vehicle vertical direction, wherein a first reinforcement 5 extending from a rear end 24a of the rear pillar 24 to a wheel arch part 26 of the cabin part 2 in a vehicle longitudinal direction, and connecting the rear end 24a of the rear pillar 24 and the wheel arch part 26 is provided in the rear pillar 24, and a rear part 5b of the first reinforcement 5 is joined to the rear end 24a of the rear pillar 24 and the deck side pillar 4, and a joining part of the first reinforcement 5, the rear pillar 24, and the deck side pillar 4 is configured as a first joining part D1.
[Selected Drawing] Figure 2

No. of Pages: 31
No. of Claims: 7
Abstract:
The present disclosure provides a laying device. The laying device includes: a fixing bracket, a weight pulley, and a working platform. With the laying device provided in the present disclosure, the weight pulley provides a fixed pressing force for the sealing tape, and the position of the weight pulley is set in advance, so that the sealing tape is subjected to a suitable pressing force, and the pressing uniformity of the sealing tape is good. Moreover, the weight pulley is movable relative to the edge of the photovoltaic module to be processed. Thus, for the photovoltaic module to be processed whose edge is linear, the sealing tape may be laid on the photovoltaic module along a straight line, that is, it can be ensured that the sealing tape is laid without bending, which ensures the appearance and performance of the photovoltaic module to be processed.
An electric vehicle (1) includes: a vehicle main body (2); and a cooling box (30) provided in the vehicle main body (2). A passenger compartment (20) in which a passenger gets, and a front accommodation compartment (21) provided more frontward than the passenger compartment (20) are formed in the vehicle main body (2). The cooling box (30) is disposed in the front accommodation compartment (21). Thus, the cooling box (30) mounted on the electric vehicle (1) can be easily accessed even when the electric vehicle (1) is parked reversely.
Title of the invention: NOVEL CRYSTALLINE FORM OF CHLORFENAPYR PROCESS FOR ITS PREPARATION AND USE

Abstract:
Provided herein are the crystalline form of chlorfenapyr of formula (I) the crystal preparation process the analyses of the crystal through various analytical methods using the crystal to prepare stable agrochemical formulation and the use of various solvents towards the crystalline form preparation conditions.

No. of Pages: 20 No. of Claims: 20
The present invention provides a hybrid appliance capable of fighting fire using high quality standard thick foam system and simultaneously providing radiation protection and heat attenuation. So this is a combination of water mist cannon system and foam system. These systems are installed in such a way that, foam system and water mist cannon system (both having rotational movement of 270θ horizontal and 180θ vertical, which are electrically operated throw remote controller) are mounted over a hydraulically operated boom (having flood light for better visibility) capable of reaching considerable height (of 7 meter or can vary as per requirement) with ease in movement and quick working. In addition to that, a foam tank of suitable tank capacity (as per demand) along with 2 nos fire hydrant connection and typical arrangements of piping system (or network) with foam inductor enabling its functionality for different applications, is provided. This combination of systems is then mounted over the 4-wheel vehicle capable of bearing the load and reaching the site quickly.

Figure 1

No. of Pages : 18 No. of Claims : 2
The present invention provides a small craft tender for firefighting. This Firefighting vehicle for Airfields is a small truck having water tank of 1000-1200 liters, foam tank of 100-150 liters (Electronic foam injection system), external engine to drive a high pressure reciprocating pump, a hydraulic boom with a remote operated water/foam monitor mounted at the end of the boom, a self-retractable hose reel drum on the base of the boom. This boom is operated by a PTO (Power Take-off) unit that will be operated when vehicle is in stationary position. After boom adjustment, the vehicle can perform firefighting even while running. This happens due to the presence of external engine driven high pressure pump.
The present invention provides a firefighting drone system capable of fighting fire through aerial route and assist in rescue operations wherein, the drone is operated either manually or automatically to reach the fire location and the thermal imaging camera scans the fire location to locate intensity of fire and also the victims and accordingly send the data to the main system. Upon evaluation of the location, the dry chemical powder fireball is launched through the shooting barrel with the help of the fireball launcher.
**Title of the invention:** A PROCESS FOR PREPARING LAYERED SPHEROIDAL ALUMINA

**International classification:** B01J 21/12, B01J 20/284

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

**International Application No Filing Date:** NA

**International Publication No Filing Date:** NA

**Divisional to Application Number Filing Date:** NA

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

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**Abstract:**
ABSTRACT A PROCESS FOR PREPARING LAYERED SPHEROIDAL ALUMINA The present disclosure relates to a process for preparing layered spheroidal alumina. The layered spheroidal alumina can be used as a support material in a catalyst composition for depositing or impregnating active metals thereon. The process of the present disclosure is cost effective.
A CHAMBER FOR SOAK PIT TOILET is connected between the Toilet and Soak Pit so as to provide the facility of stopping the flow of human waste from flowing in both the directions of the two pits and allowing to flow smoothly only in one desired direction, inspection for choke up clearance, facilitate to connect a vent pipe and to be easy to be installed and to provide a smell free, leak free, smooth inside and light weight option. It can be made in any desired shape (currently it is in round shape) and can be produced in any available material like Plastic / Wood / Concrete / Ceramic / FRP or any available technology or material which is light in weight and cheaper currently available or will come in the future.

No. of Pages : 12 No. of Claims : 3
ABSTRACT AN ELECTRICAL HOUSING

The present disclosure envisages an electrical housing. The electrical housing comprises a housing portion defined by a base and sidewalls extending from the base. The housing portion is adapted to be covered by a lid to configure an enclosure for housing electric components therewithin. A flange portion extends from the at least one sidewall for facilitation mounting of the electrical power housing. The flange portion comprises a pair of apertures configured at operative ends of the flange portion, and a corner portion surrounding the pair of apertures. The corner portion is defined by an arcuate projection circumscribing the pair of apertures.
Title of the invention: INNOVATIVE APPROACH AGAINST CROP DAMAGE DUE TO THE GIANT AFRICAN SNAIL FOUND IN KERALA, MAHARASHTRA AND OTHER STATES IN INDIA

Abstract:
ABSTRACT The Giant African eats the leaves, stems, fruits and flowers of host plants causing severe damage to the young saplings especially in nurseries. It also contaminates leafy vegetables with its excrement. No effective permanent solution was to control this loss. To overcome this problem, here, we are presenting innovative approach against crop damage due to the Giant African Snail found in kerala, Maharashtra and other states in India. The basic idea of this work is to collect all snails at one place in a pit of the size 5<2 ft(length x depth) at the Centre of the farm. Covering it deep with water resistant material like plastic & fill it with Salt-water, then cover it by Cabbage leaves or papaya leaves followed by spraying of Glycerin-L. This will cause the automatic collection of all snails in this pit. As the snails approaches in contact with salt water, the will be rid off. With the help of present invention basically the huge number of died the Giant African Snail are collected.
Title of the invention: EMULSIFICATION PROCESS OF OMEGA-3 FATTY ACIDS WITH GLUCOSAMINE HYDROCHLORIDE AND CHONDROITIN SULPHATE.

Abstract:
The present invention relates to a process for the emulsification of omega-3 fatty acids with the chemicals glucosamine hydrochloride and chondroitin sulphate (having known anti-arthritic properties), along with fruit pulp; for the formulation of a final emulsion that can be used to treat and alleviate joint pain and allow for healthy working and maintenance of joints.

No. of Pages: 9 No. of Claims: 2
Present invention provides specially design and development of a bag called Backresto which is adjustable to the position of a backbone of human being for preventing major back problems in kids and youngsters. A unique design called BACKRESTO® a bag which could adjust the way your backbone is in, it allows you to walk straight and erect without any difficulty. A Backpack comes into contact with the back and shoulders and maintains rest for the body. This bag pack or trek bag or a laptop bag could be used very conveniently and efficiently. After once the idea is achieved to enact upon it and to maintain its convenience of usage and also thinking about various consequences could also make this idea a great deed of remarkable work and a unique way of perception. Following invention is described in detail with the help of Figure 1 of sheet 1 showing the design of the invention and Figure 4 of sheet 3 showing the sectional view invented bag.

No. of Pages : 18  No. of Claims : 4
**Title of the invention:** CATALYTIC CONVERTER BASED ON PCB (E-WASTE)

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**Abstract:**

Present invention provides specially design and development of a catalytic converter based on PCB available on electronic waste. The catalytic converter is like an after-burner. It oxidizes (burns) any residual fuel vapors (hydrocarbons or HC) in the exhaust. Our approach is to develop a device, by using scrap motherboard. It consists of coating of Gold, Silver, Platinum, Tin, Silica, Aluminum, Titanium, etc. on channel prepared on F.R.P. boards. It is prominent to understand the similarities between them. During the coating and fabrication process, both devices use same substances like Platinum, Gold, Titanium, Aluminum, and Silica. Using such a technique, we can not only reutilize E-waste materials but can also gain success in reducing the C,N,S mono-oxide gases to curb air pollution. Following invention is described in detail with the help of Figure 1 of sheet 1 showing isometric view of concept model and Figure 2 of sheet 1 showing exploded view of model.

No. of Pages : 12  No. of Claims : 3
**Title of the invention:** A METHOD AND A SYSTEM FOR SECURE DELIVERY OF AN ARTICLE THROUGH REMOTE AND VIRTUAL PRESENCE

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**Abstract:**

ABSTRACT A METHOD AND A SYSTEM FOR SECURE DELIVERY OF AN ARTICLE THROUGH REMOTE AND VIRTUAL PRESENCE A method (200) for secure delivery of an article through remote and virtual presence, comprising steps of receiving (202) a video call on a first device (102), receiving (204) an authentication on a second device (106), receiving (206) the article at the second device (106), on receiving the authentication and verifying (208) the delivery of the article, after ending the video call, from the second device (108). Further, a system for secure delivery of an article through remote and virtual presence is also disclosed. [Figure2]

No. of Pages : 31 No. of Claims : 26
Title of the invention: STABLE PHARMACEUTICAL COMPOSITION OF SAXAGLIPTIN AND DAPAGLIFLOZIN

Abstract:
Present invention relates to a stable pharmaceutical composition comprising Dapagliflozin and Saxagliptin, wherein Dapagliflozin and Saxagliptin are present in close contact with each other. The pharmaceutical composition of the present invention contains very low impurity and remains stable for a longer period of time. Present invention also relates to process for preparation of the said pharmaceutical composition comprising Dapagliflozin and Saxagliptin.

No. of Pages: 23 No. of Claims: 10
Title of the invention: EMULSIFICATION PROCESS OF OMEGA-3 FATTY ACIDS WITH FRUIT PULP TO DEVELOP A PRODUCT FOR THE TREATMENT OF RISK FACTORS ASSOCIATED WITH CARDIOVASCULAR DISEASES.

Abstract:
The present invention relates to a process for the emulsification of omega-3 fatty acids with fruit pulp; for the formulation of a final emulsion that can be used to treat the risk factors associated with cardiovascular diseases.

No. of Pages: 9 No. of Claims: 2
There has to be made public transportation vehicles that work with cleared fuel with more power to overcome the problems arising from combustible fuel and private transportation on the roads. Electric cars produce no tailpipe emissions, reduce our dependency on oil, and are cheaper to operate. Of course, the process of producing the electricity moves the emissions further upstream to the utility companys smokestack but even dirty electricity used in electric cars usually reduces our collective carbon footprint. The main characteristic of ECB is that it wont be working on bus charging battery but with the help of DC and electricity conducting suspension through special technology manufactured cables. Vehicles, runs on battery system, have various limitations. Hence ECB manufacturing must be encouraged.
A system and method for predicting travel time of a vehicle on routes of unbounded length within arterial roads. It collects historical information from probe vehicles positions using GPS technology in a periodic fashion and the sequence of links traversed between successive position measurements. Further, it collects information of neighbourhood structure for each link within the arterial roads network. Any of the existing conditional probability distribution functions could be used to capture the spatio-temporal dependencies between each link of the arterial network and its neighbours. It learns the parameters of this data driven probabilistic model from historical information of probe vehicle trajectories traversed within the arterial roads network using an associated expectation maximization method. Finally it predicts travel time of vehicles on routes of unbounded length in a novel fashion within the network of arterial roads using the learnt parameters and current real time information of trajectories of vehicle.
A system for highly secure and easy user verification is disclosed. The system uses a plurality of biometric markers (such as, but not limited to fingerprints) in a sequence to generate an authentication PIN from a scanning device that is associated with user credentials for an asset of the user (for instance, login name and password for a website). Upon providing the same authentication PIN from the same scanning device, the user is provided access to the asset, without knowing/providing the user credentials. The system can be deployed in multiple scenarios such as point of sale (POS) systems, e-commerce websites, website login, access control and monitoring systems, security systems and the like.
The present subject matter discloses an underrun protection device for heavy commercial vehicles comprising a bar having unique geometrical shape or profile, wherein bar is configured to engage with the frame of the chassis of the heavy commercial vehicle to control and prevent the entering of passenger vehicle under/beneath the heavy commercial vehicle from front and rear portion of the heavy commercial vehicle. Thereby the underrun protection device not only protects and controls the underride accidents beneath the heavy commercial vehicle, where a small passenger vehicle enter beneath the heavy goods commercial vehicle either from the front or rear portion but also may reduce the weight of the heavy commercial vehicle, thereby increase the payload capacity of the heavy commercial vehicle without compromising on the strength of the underrun protection device.
A NOVEL NATURAL POLYOL (CASTOR OIL) BASED POLYURETHANE ADHESIVE FOR WOOD SUBSTRATES.

Abstract:
In the present invention polyurethane adhesive based on vegetable oil polyol, petroleum polyol, diisocyanate and catalyst are used. The vegetable oil based polyol composition is varied from 50 to 100 % and the petroleum polyol composition is taken up to 50%. The catalyst is loaded 1 % by weight. Thus the PU adhesive composition consists of polyol (natural and petroleum), diisocyanate and catalysts.

No. of Pages : 15 No. of Claims : 14
Title of the invention : SYSTEM AND METHOD FOR QUALITY EVALUATION OF COLLABORATIVE TEXT INPUTS

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Abstract:
System and method for quality evaluation of collaborative text input are disclosed. The method includes receiving an input data associated with a task to be accomplished collaboratively and sequentially by a plurality of contributors. The input data includes task-wise data sequence of contributor's post-edit submissions. A plurality of features are extracted from the input data. Based on the plurality of features, a plurality of input sequences are constructed. The input sequences include a plurality of concatenated feature vectors, where each of the concatenated feature vectors includes a post-edit feature vector and a contributor representation feature vector. The input sequences are modelled as a LSTM network, where the LSTM network is utilized to train a binary classifier for quality evaluation of the post-edit submission.
METHOD AND SYSTEM FOR TAKING PICTURES ON REAL TIME DYNAMIC BASIS

The present disclosure provides a system for taking a real-time single image of at least two users located at different geographical locations. The system executes instructions to cause one or more processors (206) to perform a method. The method includes creation of channel to facilitate a connection and generates a unique code on the first portable communication device (104). The method includes reception of a first set of data associated with the first portable communication device (104), triggers a camera and collects a second set of data associated with a preview image of a first user (102). The method includes reception of a first set of data associated with a second portable communication device (112), triggers a camera and collects a second set of data associated with the image of a second user (110). The method includes a step to take the single image based on the user input. TO BE PUBLISHED WITH FIGURE 1

No. of Pages : 30 No. of Claims : 9
METHOD AND SYSTEM FOR CUSTOMIZATION OF PICTURES ON REAL TIME DYNAMIC BASIS

The present disclosure provides an image customization system (120) for a real-time customization of a single image of the at least two users (102, 110) located at different geographical locations. The system (120) receives a data associated with an individual preview image of the at least two users (102, 110) and at least two portable communication devices (104, 112) to click a single image of the two users (102, 110) located at the different geographical locations. The system (120) displays options to the user (102, 110) on the corresponding portable communication devices (104, 112) to set the background of the single image. The system (120) receives an input from the at least one user (102, 110) involved in clicking the real-time single image. The system (120) performs one or more operations on the real-time single image of the at least two users (102, 110) to set the background. TO BE PUBLISHED WITH FIGURE 1

No. of Pages : 34 No. of Claims : 10
ABSTRACT METHOD AND SYSTEM FOR DISPLAYING RELEVANT ADVERTISEMENTS IN PICTURES ON REAL TIME DYNAMIC BASIS

The present disclosure provides a system for displaying advertisements on a single image of at least two users. The system executes instructions to cause one or more processors (206) to perform a method. The method includes creating a channel. Further, the method includes receiving a first set of data associated with the first portable communication device (104), triggering a camera and collecting a second set of data associated with a preview image of the first user (102). Furthermore, the method includes receiving a first set of data associated with the second portable communication device (112), triggering a camera and collecting a second set of data associated with a preview image of the second user (110). Moreover, the method includes gathering a third set of data associated with the first user (102) and the second user (110) to display one or more advertisements on the single image in real time. TO BE PUBLISHED WITH FIGURE 1
Feature based visual simultaneous localization and mapping (SLAM) do not produce reliable camera and structure estimates due to insufficient features in a low-textured environment. Moreover, existing visual SLAMs produce partial reconstruction when the number of 3D-2D correspondences is insufficient for incremental camera estimation using bundle adjustment. Systems and methods of the present disclosure provide edge points based monocular visual SLAM that mitigates these problems. The SLAM is initialized through a validation process. A local optimization process is provided for stable pose estimation in situations where camera tracking becomes unreliable in a very low-textured challenging environment. An efficient and reliable loop closing process that uses structural properties of edges in the frames is also provided.
Manipulating objects in real-world dynamic scenarios is one of the most challenging problems in Robotics, wherein performance has not been achieved anywhere near human-level performance. Embodiments of the present disclosure provide systems and methods that implement a deterministic policy-based actor-critic learning framework to encode path-planning strategy irrespective of a robot pose and target object position. This reinforcement learning (RL) agent solely uses two different views of the environment to learn about path planning in order to reach a given target from a random pose, instead of relying on a depth sensor, wherein action values are torques applied to RL agent’s joints which are defined on the relative distance between an end-effector and target object. In an episodic learning framework, an actor-critic network learns optimal actions in the continuous space of real numbers for a given state configuration by trying to increase the expected action utility value.
Systems and Methods for Optimizing a Joint Cost Function and Detecting Neuro Muscular Profiles Thereof

Abstract:
Unimaginable are the difficulties faced by patients affected by sensory-motor disabilities while executing day to day activities. The flamboyant progress that has made in other areas of medical science does not translate itself in diagnosing them. Early detection and personalized therapy of these disorders is still out of reach. Present disclosure provides systems and methods for optimizing a joint cost function and detecting neuro muscular profiles (e.g., state of user under observation) thereof by implementing a model that quantifies these disorders in terms of a cost functional, which captures the trade-off between the torques applied and the velocities experienced at the joints. Estimation of this cost functional, otherwise known as Inverse optimal control was then carried out using an optimization procedure. To validate ability of estimated cost functional to distinguish weakly distinct neuro-motor conditions, Microsoft Kinect® motion capture data from normal subjects and a patient population with mild sensory-motor disabilities.

No. of Pages : 35 No. of Claims : 10
**Title of the invention**: INTERLOCK UNIT FOR PLY-WINDING UNIT

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**Name of Applicant**: 1) CEAT LIMITED

Address of Applicant: RPG HOUSE, 463, Dr. Annie Besant Road, Worli, Mumbai Maharashtra 400030, India, Maharashtra

**Name of Inventor**: 1) PRADHAN, Avinash 2) SUBEDARPAGE, Pradeep 3) KHEDKAR, Prasad 4) BHOSALE, Rajendra 5) POTE, Vinayak

**Abstract**: ABSTRACT INTERLOCK UNIT FOR PLY-WINDING UNIT The present subject matter provides an interlock unit (102) for a ply-winding unit (104). The interlock unit (102) comprises a sensor (106) provided in proximity to a roller (108a) of the ply-winding unit (104). The interlock unit (102) also comprises a control circuit (202) coupled to the ply-winding unit (104). The control circuit (202) is to receive a signal from the sensor (106) and stop operation of the rollers (108) of the ply-winding unit (104) based on the signal received from the sensor (106). <<To be published with Fig. 2>>

No. of Pages: 14  No. of Claims: 10
Title of the invention: CATALYST FOR HEAVY OIL UPGRADATION

Abstract:
ABSTRACT CATALYST FOR HEAVY OIL UPGRADATION The present disclosure relates to a catalyst comprising: (a) at least one multimetallic salt; and (b) at least one organic acid, wherein the at least one multimetallic salt to the at least one organic acid weight ratio is in the range of 1: 0.01 - 1: 0.5. It also relates to the process of preparation of the said catalyst. The instant disclosure further relates to the process of preparation of the multimetallic salt.
Title of the invention: SYSTEMS AND METHODS FOR PROVIDING DATA FROM PLURALITY OF SOURCES

Abstract:
ABSTRACT SYSTEMS AND METHODS FOR PROVIDING DATA FROM PLURALITY OF SOURCES
The present invention provides concepts related to a computing platform for integrating a plurality of data collected from a plurality of sources. The present invention comprises of authentication of one or more users to provide an access to a computing platform. Further, one or more jobs are scheduled on a web server to fetch the plurality of data from the plurality of sources. The web server is further polled for fetching the plurality of data and this fetched plurality of data is aggregated based on one or more user defined rules. Furthermore, the aggregated data is stored in a content repository and further analysed based on the user defined rules. The analysed data is then stored in a database. Further, the data is streamed based on one or more request received from the web server and rendering the same to the users.
A MOLTEN SALT COMPOSITION FOR HIGH TEMPERATURE THERMAL ENERGY STORAGE.

The present invention relates to a novel thermal storage material for use in thermal energy storage systems and process of preparation thereof. More particularly, the present invention provides a ternary salt composition for storage/transfer of thermal energy particularly as sensible heat having a melting point in the range of 138°-147 °C and thermal stability upto 700 °C. The present invention provides a salt composition for thermal energy storage which works on wider temperature range. The present invention provides a novel molten inorganic salt composite directed at improving the melting temperature range, cost and higher thermal stability upto 700 °C, in order to compete more effectively with available molten salts for use in concentrated solar power plants. Dated this 28th day of April 2018

No. of Pages : 33 No. of Claims : 10
The present invention relates to a system and process for simultaneous removal of sulfur oxides and carbon dioxide emission from a flue gas stream generated in industries such as roasting metal catalyst, fuel combustion etc. The present invention provides an effective and economic system for flue gas desulphurization, regeneration of sodium sulfite, recovery of carbon dioxide and utilizing thermal energy of the flue gas for said system. Where the system allows a separation and regeneration of pure SO2 and SO3 along with CO2 from waste flue gas stream and hence it is advantageous to isolate products in pure form with minimum consumption of energy. Figure No 1 with abstract: Dated this 28th day of April 2018.

No. of Pages : 20 No. of Claims : 10
Title of the invention: INSPIRING STORIES - MENTORING OF USERS BY MEANS OF MENTORING PROGRAMME AND COURSES PROVIDED BY MENTORS.

Abstract:

ABSTRACT INSPIRING STORIES - MENTORING OF USERS BY MEANS OF MENTORING PROGRAMME AND COURSES PROVIDED BY MENTORS. ON ALL OTHER SOCIAL SITE THERE IS CONCEPT OF FOLLOWING BUT ON INSPIRING STORIES THE MENTORING OF USERS CAN BE DONE BY MENTORS. THE TECHNICAL FIELD TO WHICH THIS INVENTION IS RELATED IS SOCIAL NETWORK SITE. THE STORIES POSTED BY ALL TYPES OF USERS WHERE POSTED ON A SINGLE SECTION OF DISPLAYING STORIES. SO THERE WAS A PROBLEM TO PRIORITISE WHICH POST TO SEE FIRST WHEN NEEDED. SO ON INSPIRING STORIES THE SECTION WHERE STORIES ARE DISPLAYED FOR USERS IS DISTRIBUTED IN THREE DIFFERENT SECTION FOR GIVING PROPER REACH TO EVERY POSTED BY THE USER AND INITIATIVES. THE STORIES POSTED BY BUDDIES, MENTORS AND INITIATIVE IS POSTED ON BOARD OF STORIES UNDER STORIES, INSPIRING STORIES - MENTOR AND INSPIRING STORIES INITIATIVE TAB RESPECTIVELY.
The invention provides an improved multiphase continuous flow stirred reactor. More preferably, the present invention provides a multiphase continuous flow stirred reactor having an inlet ports (15, 16, 17) disposed on the reactor wall into which an immiscible phase are supplied into the reactor, an outlet ports (15™, 16™ and 16™) disposed opposite the inlet ports, a concentric stirrers (11™, 12™ and 13™) placed at the centre of reactor and independent agitation controlling means (11, 12, 13) for said stirrer to control agitation rate of each phase. The controlled and independent agitation speed for each phase resulting in maximum mass transfer rate and provide higher conversion of substrate. There is a precise control on the locale of the reaction phase. The present invention also provides a means for circulation or means for continuous flow of all phases liquid so that catalyst phase is reused continuously without any treatment or loss.
**Title of the invention:** FOOD PRODUCTS WITH REDUCED NATURAL SUGAR CONTENT AND PROCESS OF PREPARATION THEREOF

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**Abstract:**

ABSTRACT FOOD PRODUCTS WITH REDUCED NATURAL SUGAR CONTENT AND PROCESS OF PREPARATION THEREOF

The present invention relates to food products with reduced natural sugar content. More preferably, the present invention provides low sugar fruit or vegetable food products for diabetes patient without loss of natural fibers, nutrients and oraganoceptive properties. The present invention also provides a process for preparation of low sugar food products including fruit pulp, beverages, juices or powder, frozen pulp or fresh cuts. Dated this 13th day of March 2018.
An imaging lens assembly includes six lens elements, which are, in order from an object side to an image side, a first lens element, a second lens element, a third lens element, a fourth lens element, a fifth lens element and a sixth lens element. The sixth lens element has negative refractive power. At least one surface of an object-side surface and an image-side surface of at least one lens element of the six lens elements is aspheric.

No. of Pages : 130 No. of Claims : 35
Title of the invention: AN EFFICIET SYSTEM FOR THE EARLY DETECTION OF AUTOIMMUNE DISEASES USING A NON-INVASIVE METHODOLOGY.

Abstract:
This invention has a system which has the capability to early analyze the possibility of Henoch-Schonlein Purpura which is an autoimmune disease containing purpura as one of its major symptoms. This methodology is made using a computer-based system and database containing all the details regarding the symptoms, possibility, and images to compare with the data inserted by the patient from the user end. Although the system hardware does all the processing, segmentation, extraction, comparison and other procedure, the user interface is made so simple that the user can inform the system regarding the visible symptoms and others which is being felt without any assistance of a physician at an early stage. The user can even insert image of the rash at the lower part to compare in the database regarding the type and possibility of Henoch-Schonlein Purpura making this system a cost-effective and user-friendly method for analysis without a direct and expensive biomedical procedure at the initial stage of comparison.

No. of Pages : 15  No. of Claims : 5
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A product and method for assembling multiple components using an interference fit. An assembled product includes a first component, with a second component configured to mate with the first component so that the second component is removable from the first component for a positional adjustment. A third component is configured to mate with the first component and to be engaged therewith by a first interference fit. The first interference fit is configured to impart a resultant reaction in the first component that creates a second interference fit between the first and second components.

No. of Pages: 18 No. of Claims: 20
Title of the invention: COMPOSITE BATTERY CELL

Abstract:
A composite battery cell includes a plurality of electricity supply elements connected to each other in series/parallel to form the electricity supply element groups. The electricity supply element groups are connected to each other in parallel/series and packed to form the battery cell with high capacity and high voltage. Each electricity supply element is an independent module and the electrolyte system does not circulate therebetween. There only have charges transferred rather than electrochemical reactions between the adjacent electricity supply elements. Therefore, the electrolyte decomposition would not occur result from the high voltage caused by connecting in series. Both series and parallel connection are made within the package of the battery cell to achieve high capacity and high voltage.

No. of Pages: 28  No. of Claims: 24
**Title of the invention:** DIALYSIS ASSEMBLY FOR DISSOLUTION TESTING

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**Abstract:**
ABSTRACT DIALYSIS ASSEMBLY FOR DISSOLUTION TESTING The present invention relates to a dialysis assembly for drug release testing of pharmaceutical liquid products such as liposomes and nanoparticle formulations. The dialysis assembly (100) comprising of housing (101) supporting the dialysis membrane sac (6) in horizontal position, central cavity (10) disposed on said housing for exposing the testing sample to dissolution medium, pair of pegs (4) movably positioned side-by-side for hanging to dissolution apparatus; Characterized in that the dialysis membrane sac (6) filled with a pharmaceutical product sample is leak-tightly enclosed in the said housing creating a thin flat sheet formed in a cavity (10) and thereby completely exposing the sample in it to the dissolution medium thereby providing a reproducible results. Figure No. 2 Dated this 28th day of September 2018

No. of Pages : 31 No. of Claims : 11
Title of the invention: A COMPOSITION FOR BLEACHING TEXTILE USING NATURAL STABILIZING AGENT AND PROCESS THEREOF

Abstract:
ABSTRACT A COMPOSITION FOR BLEACHING TEXTILE USING NATURAL STABILIZING AGENT AND PROCESS THEREOF The present invention relates to natural stabilizer for hydrogen peroxide bleaching composition for cellulosic fabric. More particularly, the present invention relates to hydrogen peroxide bleaching composition comprising hydrogen peroxide, caustic soda and natural proteins as a stabilizer for the said bleaching composition. The present invention provides a simple, low cost and environmental efficient process for hydrogen peroxide bleaching on cellulosic textiles. Dated this 27th day of February 2018.

No. of Pages : 16 No. of Claims : 6
Title of the invention: LENS DRIVING APPARATUS, PHOTOGRAPHING MODULE AND ELECTRONIC DEVICE

(51) International classification : G02B 7/00
(31) Priority Document No : 106135763
(32) Priority Date : 18/10/2017
(33) Name of priority country/region : Argentina
(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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(72) Name of Inventor :
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2) Wen-Hung HSU
3) Ming-Ta CHOU

(57) Abstract:
A lens driving apparatus includes a holder, a metal cover, a carrier, a sensing magnet, a printed circuit board, a position sensor, a coil and at least one driving magnet. The metal cover is coupled with the holder and has an opening corresponding to a central opening of the holder. The carrier is assembled to a lens assembly having an optical axis, wherein the carrier is disposed in the metal cover and is movable along a direction parallel to the optical axis. The sensing magnet is coupled with the carrier. The printed circuit board is disposed near to one of the four lateral sides of the holder. The position sensor is disposed on the printed circuit board and corresponds to the sensing magnet. The coil is disposed on an outer surface of the carrier. One of the driving magnet is disposed in the metal cover and corresponds to the coil.

No. of Pages : 40 No. of Claims : 21
Abstract:
ABSTRACT NATURAL OIL BASED NAIL POLISH REMOVER COMPOSITION AND PROCESS OF PREPARATION THEREOF The present invention relates to a nail polish remover composition having antimicrobial activity, non-hazardous, non-toxic and non-evaporative. The present invention also relates to process of preparation thereof. The present invention provides a safe and effective nail polish /paint remover composition comprising of combination of natural oil selected from cinnamon oil and eugenol in a ratio of 15: 1 and the composition is without any harmful or toxic ingredients such organic solvents, but it is additionally having a moistening and anti-brittleness agents.

No. of Pages : 22 No. of Claims : 9
(21) Application No. 201721029876 A
(22) Date of filing of Application: 23/08/2017
(43) Publication Date: 26/04/2019

(54) Title of the invention: HERBAL NUTRITIONAL FILLED CHOCOLATE AND COMPOSITION THEREOF

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<td>7) SANJAY JAYPRAKASH KSHIRSAGAR</td>
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(57) Abstract:
ABSTRACT HERBAL NUTRITIONAL FILLED CHOCOLATE AND COMPOSITION THEREOF The present invention relates to herbal nutritional filled chocolate and composition thereof. More particularly the present invention provides the herbal nutritional filled chocolate composition comprising of dark chocolate shell, Zingiber Officinalae, Turmeric Rhizomes, Glycyrrhiza Glabra, Emblica Officinalis, Carica Papaya, Adhatoda Vasica, Ocimum Sanctum, Piper Nigrum, Piper Longum, Mentha Piperita and Honey. The invention also provides a simple and cost effective method for preparation of herbal nutritive filled chocolate. The present invention provide herbal nutritional chocolate which is useful as anti-oxidant, immunomodulatory, Digestive Aid, expectorant, Multivitamin Supplement.

No. of Pages: 19 No. of Claims: 7
**Title of the invention:** SYSTEM FOR CIRCULATION OF LIQUID AND SLURRY IN REACTOR

**Abstract:**
ABSTRACT SYSTEM FOR CIRCULATION OF LIQUID AND SLURRY IN REACTOR The present invention relates to a system for circulation of liquid and/or slurry in a reactor for effectively utilization of heat transfer area of reactor and effectively mixing of multi-phase reaction mass such as solid-liquid, liquid-liquid, liquid-liquid-solid in batch/continuous reactor. liquid circulating system (100) for utilization of maximum heat transfer area of the chemical reactor comprises of a convergent section (2), flow section (3), cone part (22), agitator (1), fluid guider (7), rotating shaft (8), plurality of supports (18, 20) and a motor (9); Characterized in that the agitator (1) pushes and lift the process liquid in flow section (3) through convergent section (2) thereby liquid velocity increases and liquid reaches to the flow guider (7) in minimum energy. The system helps to minimise the processing cycle time. Fig No. 1 Dated this 19th day of Jun 2018.

**Continued to Part- 2**