CONTINUED FROM PART- 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application: 22/07/2016

(43) Publication Date: 06/03/2020

(54) Title of the invention: REMOTELY CONTROLLED PAINTING DEVICE FOR PAINTING A BASE SURFACE

(57) Abstract:
Disclosed is a remotely controlled painting device for painting a base surface with a desired pattern. The painting device includes a first frame and a second frame. The second frame includes a first guide member extending along the first frame, and an assembly module includes at least one linear guide and a print head assembly. The painting device also includes a drive system to enable the print head assembly to move over the base surface.

No. of Pages: 32
No. of Claims: 15

The Patent Office Journal No. 10/2020 Dated 06/03/2020

12896
Title of the invention: PHARMACEUTICAL COMPOSITION OF APIXABAN

Abstract:
The present invention relates to a stable, reproducible and bioequivalent pharmaceutical composition comprising Apixaban having D90 more than 100 µ, more preferably more than 300µ to 1000µ and most preferably more than 350µ to 800µ and one or more pharmaceutically acceptable excipients, such as but not limited to binder(s), surfactant(s) and the like. A wet granulation process for preparation of the pharmaceutical composition comprising Apixaban is also provided.

No. of Pages : 27 No. of Claims : 10
The present invention is directed to inter alia methods and kits for the treatment of depression (preferably treatment resistant depression) or for the treatment of depression in a suicidal patient and/or for the treatment and/or prevention of suicidality (e.g. suicidal ideations) comprising administering esketamine according to certain dosing regimens.
Title of the invention: MODIFICATION TO BLOCK SIZE FOR TRANSFORM MODE IN DISPLAY STREAM COMPRESSION

(51) International classification: H04N 19/122, H04N 19/14, H04N 19/147, H04N 19/60, H04N 19/176, H04N 19/60

(31) Priority Document No: 62/196742
(32) Priority Date: 24/07/2015
(33) Name of priority country: U.S.A.

(86) International Application No: PCT/US2016/043145
Filing Date: 20/07/2016

(87) International Publication No: WO 2017/019407

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

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

Abstract:
Methods and apparatuses for modification to block size for transform mode in display stream compression are disclosed. In one aspect, the method involves selecting a current block and a next block of video data calculating a first rate distortion (RD) cost for coding the current and next blocks with a larger block size transform (LBT) mode and calculating a second RD cost for coding each of the current and next blocks with another coding mode different from the LBT mode. The method may further involve determining whether the first RD cost is less than a sum of the second RD costs for the current and next blocks and coding the current and next blocks with the LBT mode in response to the first RD cost being less than the sum of the second RD costs for the current and next blocks.

No. of Pages: 31  No. of Claims: 30
Methods, systems, computer readable media and apparatuses for mapping multiple antenna systems using crowdsourcing data are presented. One disclosed example method includes the steps of detecting a condition associated with transmission of a plurality of wireless signals that are indistinguishable in content using multiple antennas dispersed at different locations and indicative of a base station as a common transmitter; and in response to detecting the condition identifying the base station as ineligible for providing signals for use with a range based positioning technique.
**Title of the Invention:** CONFIGURABLE BI-DIRECTIONAL TIME DIVISION DUPLEX (TDD) SUBFRAME STRUCTURE

<table>
<thead>
<tr>
<th>International Classification</th>
<th>Name of Applicant: QUALCOMM INCORPORATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>H04L 5/00, H04L 5/14</td>
<td>1) QUALCOMM INCORPORATED</td>
</tr>
<tr>
<td></td>
<td>Address of Applicant: ATTN: International IP Administration</td>
</tr>
<tr>
<td></td>
<td>5775 Morehouse Drive San Diego, California 92121-1714 U.S.A.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority Document No</td>
<td>Name of Inventor:</td>
</tr>
<tr>
<td>:62/202342</td>
<td>1) ANG, Peter Pui Lok</td>
</tr>
<tr>
<td></td>
<td>2) JIANG, Jing</td>
</tr>
<tr>
<td>Priority Date</td>
<td>3) JI, Tingfang</td>
</tr>
<tr>
<td>:07/08/2015</td>
<td>4) LIN, Jeremy</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>5) SORIAGA, Joseph Binamira</td>
</tr>
<tr>
<td>:U.S.A.</td>
<td>6) MUKKAVILLI, Krishna Kiran</td>
</tr>
<tr>
<td></td>
<td>7) SMEE, John Edward</td>
</tr>
<tr>
<td>International Application No</td>
<td></td>
</tr>
<tr>
<td>PCT/US2016/045429</td>
<td></td>
</tr>
<tr>
<td>Filing Date</td>
<td></td>
</tr>
<tr>
<td>:03/08/2016</td>
<td></td>
</tr>
<tr>
<td>International Publication No</td>
<td></td>
</tr>
<tr>
<td>WO 2017/027300</td>
<td></td>
</tr>
</tbody>
</table>
| Number of Pages: 36 No. of Claims: 30

**Abstract:**
Aspects of the present disclosure provide a configurable bi-directional time division duplex (TDD) subframe structure. The configurable subframe structure includes a downlink control portion, an uplink control portion, an uplink data portion, and a downlink data portion. A current subframe for communication between a scheduling entity and a set of one or more subordinate entities is produced by determining a desired ratio of uplink information to downlink information for the current subframe and configuring the configurable subframe structure with the desired ratio.

**FIG. 5**

No. of Pages: 36 No. of Claims: 30
The invention relates to a method for aiding maintenance and optimization of a supercomputer which comprises the dispatching to a system for aiding maintenance by at least one sensor of a signal representative of statistical data of at least one calculation node of the supercomputer prediction at regular intervals of the future variations of the statistical data on the basis of signals representative of the statistical data dispatched by the sensor or sensors the detection of anomalies of variations of the signals representative of the statistical data dispatched by the sensor or sensors with respect to the future variations predicted in the prediction step. The invention also relates to a system for aiding maintenance and optimization.
DOMESTIC OVERHEAD WATER TANK PROBE BASED WATER MONITORING SYSTEM

The present invention discloses a simple and user-friendly water level monitoring device for domestic overhead tank consists of; specifically designed three level dip-stick (2) with multiple probe that is connected to the circuit through an electric connecting cable (3). Said ground unit contains dedicated circuit (4) which acquires signals from a dip-stick cable and displays it on the indicator. The device works on 5V DC source or an equivalent power source (5).
Title of the invention : SLEEP APNEA DETECTION AND HEART STROKE PREVENTION DEVICE

Abstract:
Present invention provides a device for sleep apnea detection and heart stroke detection and prevention using network IoT. It detects and prevents person stroke and heart failure in the Sleep apnea disease patient. Initially, It prevents restful sleep and severe cases, it associate with high blood pressure, arrhythmia, stroke and ultimately heart failure. In this regards, this device measure threshold values which is customizable pre-set as per patient disease level status. If the patient’s vitals fall below this an alarm is raised as vibrator device, shock provider unit or drug injector mechanism. The alert messages are sent [Via GSM, GPRS and Bluetooth] to the concerned authority to provide necessary care to the patient.
Following invention is described in detail with the help of Figure 1 of sheet 1 showing the overall system, Figure 2 of sheet 2 showing the flow chart and Figure 3 of sheet 3 showing the block diagram of the invention.
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :28/08/2018
(21) Application No.201821032128 A
(43) Publication Date : 06/03/2020

(54) Title of the invention : ENERGY EFFICIENT COOKING VESSELS

Classification

(31) Priority Document : NA

(32) Priority Date : NA

(33) Name of priority country : NA

(86) International Application : NA

(36) Name of Applicant : 1) NISHA N VADALIA
Address of Applicant : 801, PRABHAT COMPLEX 1, GOVERNMENT PRESS ROAD, RAJKOT-360001, GUJARAT, INDIA Gujarat India

(72) Name of Inventor : 1) NISHA N VADALIA
2) NAVINCHANDRA VADALIA

(57) Abstract :
1. An energy efficient cooking system comprising: a cooking pot (104) having an outer wall (105) to cook a food item (117), an outer skirt or sleeve (107) essentially larger than the cooking pot outer wall (105) and having one or more slits or an opening (109) towards the bottom side configured to allow a fire flame in between the outer wall (105) of the cooking pot (104) and an inner wall (108) of the outer skirt or sleeve (107), and a guide element or structure (113, 114, 115, 116) contained in between the inner wall (108) of the outer skirt (107) and the outer wall (105) of the cooking pot (104) around the circumference to guide the fire flame (101, 102, 103) from a burner (100) of a stove (99) in a turbulent path (121, 122, 123) between the inner wall (108) of the outer skirt (107) and the outer wall (105) of the cooking pot (104). Fig 1(A)

No. of Pages : 20 No. of Claims : 10
Title of the invention: MULTI LOOSE TUBE RIBBON CABLE

No. of Pages : 28 No. of Claims : 17
The present disclosure relates to a process for reducing Total Acid Number (TAN) of highly acidic crude oil by using deep eutectic solvent (DES). The process comprises mixing the deep eutectic solvent with the acidic crude oil for removing the TAN contributing compounds from the acidic crude oil. Using the process of the present disclosure, up to 90% of the TAN contributing compounds can be removed. The process of the present disclosure avoids use of water, minimizes use of corrosion inhibitors, avoids the formation of stable emulsions and surfactants, reduces corrosion of the refinery equipment and reduces the usage of de-emulsifiers and CRA agents in desalting. The present process can be operated at mild operating conditions. The hydrogen bond donor component of the deep eutectic solvent can be recovered and recycled.
The patent application provides a method for catalytic conversion of waste plastic into liquid fuel. The method involves thermally decomposing the waste plastic at a temperature in the range of 350 to 650 °C and under a pressure in the range of 0.0010 psi to 0.030 psi, to obtain a gaseous stream. This gaseous stream is then subjected to sequential cooling at temperatures ranging from -5 to -15 °C to create a gas-liquid mixture containing a gaseous fraction and a liquid fraction. The gas-liquid mixture is subsequently fed to a gas-liquid separator to separate the gaseous fraction, comprising C1 to C4 hydrocarbons, and the liquid fraction containing high-value liquid fuel. The present disclosure is simple, economical, and energy-efficient, providing an enhanced yield of liquid fuel.
ABSTRACT WAKERI FOR WOUND HEALING

This invention comprises Wakeri-fortified Kampillakadi Tailam/oil. The Wakeri fortification comprises oil extract of root bark powder of Wakeri being a component in the Kampillakadi oil. Kampillakadi oil being a medicinal oil comprising oil extract of Vavding, Kutaj, Kapilla, Trifala, Patolpatra, Bala, Nimsal, Lodhra, Nagarmotha, Charolya, Khadirsal, Dhayatiphul, Agaru, and Chandan added with Sarjaras. The invention comprises composition comprising Wakeri-fortified Kampillakadi oil for topical application; the compositions comprise (a) a tulle, (b) an ointment, (c) a liniment, (d) a capsule, (e) a wound healing spray, (f) a cream, and (g) a gel. A process of making Wakeri-fortified Kampillakadi oil is also provided. Figure No. 2 to be published
The present invention discloses a medicine for treating dermatophytosis and its preparation method. The medicine for treating dermatophytosis comprises, by weight parts, the following raw materials: Corn Stigma 5-13, Cordyceps 11-17, Great Burdock Achene 6-12, Sichuan Pepper 2-7, Semen descurainiae 3-7, water 300-700, alum 3-7, Loofah sponge 5-12 and Radix Saposhnikoviae 6-9.
Title of the invention: SELF-FLUSHING SYSTEM FOR SMALL BANDHARA OR CEMENT PLUG

Abstract:
Present invention provides self-flushing system for small bandhara or cement plug. Using self-flushing technology the removal of silt by flushing is possible up to 50%. This will reduce cost of removal of silt and also increases life of bandhara or cement plug. For baffle walls setup at same angles the minimum silt removal is recorded for 30°-30° and 45°-45° angles of the baffle wall. For baffle walls setup at two different angles the minimum silt removal is recorded for 30°-60° and 45°-60° angles of the baffle wall. Thus the percentage of silt remove will be more if angles of both baffle walls are set to different degree. Following invention is described in detail with the help of Figure 1 of sheet 1 showing the proposed plan of self-flushing system.
(54) Title of the invention : METHOTREXATE PHARMACEUTICAL COMPOSITION

(57) Abstract :
Though oral liquid formulations of Methotrexate are advantageous as they can suitably be administered to the patients having swallowing difficulties such as pediatric patients, geriatric patients, stroke patients or patients who are unable to take solid oral therapy, they are not much explored in the prior art. Further, liquid formulations of Methotrexate known in the prior art have not been explored at higher pH and in the absence of additional solubilizing agents. An aim of the present invention is therefore to provide chemically and physically stable liquid pharmaceutical compositions of Methotrexate at higher pH and in the absence of solubilizing agents.
Abstract:
This invention relates to an internal combustion engine (105) and more particularly to a lubrication system and associated components for an internal combustion engine (105). It present invention discloses an Apparatus (1000) to increase the efficiency of an internal combustion engine (105) by controlling supply of engine lubricant oil in a combustion chamber of the internal combustion engine (105). It comprises lubricant oil container (101), a sensor (104), a timer (103), a display device (108) and an electronic control module (102). The present disclosure present an advance Apparatus (1000) which remove drawbacks of available apparatus/techniques in the prior art in the same field. Refer to Figure 1.
METHOD AND SYSTEM FOR CREATING AESTHETIC DESIGN AT SCALE

The use of gestures are increasing frequently. Normally these gestures are disconnected with each other. Therefore, various methods have been used for creating the gestural language. The existing methods for creating gestural language is difficult to learn and lacks design aesthetics. A method and system for creating aesthetic design language using a plurality of gestures is provided. The system takes in to account of aesthetics of the generated form of gestures and the user’s constraints of movement degrees of freedom. The system is using a socio-techno system which aids the machine assisted creation of aesthetic language for gestural interactions. A grammar has also been defined for creating the gestural language based on the domain. In the final stage of the system, the grammar and the form symbols are chosen / selected / published to present the interaction language to the user.
The present disclosure relates to a process for recovery of monomers and oligomers from polyester waste. The process comprises acid hydrolysis of the polyester waste at a predetermined temperature at a predetermined pressure for a predetermined time using a catalyst selected from the group consisting of an organic acid, an anionic surfactant, and a combination thereof, to obtain a reaction mass comprising the monomers and the oligomers. The process of the present disclosure is single step, cost effective and environment friendly.
**Title of the Invention:** PROCESS FOR CO2 CAPTURE FROM GASEOUS STREAMS

**Abstract:**

A process for selective capture of CO2 from gaseous mixture comprising of: (a) spraying a bio-amine cluster; (b) capturing CO2 through bio-amine cluster; and (c) desorption of CO2 through solar assisted electro de-amination, wherein the bio-amine cluster is comprises of: an amine cluster comprising of a quaternary Isobutylamine (IB) with amine terminated Poly(L-lactide) as the chelating agent; a cluster stabilizing agent; a cluster micelle stabilizing agent; and carbonic anhydrase (CA) functionalized matrix in 0.05 - 0.2 wt% of total wt% of bio-amine cluster and wherein the CA is obtained from a source selected from the group consisting of Bacillus thermoleovorans, Pseudomonas fragi, Bacillus stearothermophilus and Arthrobacter sp. and a process for production of bio-amine cluster.
Abstract:
Skeletal recording devices (e.g., Microsoft Kinect®) has been gaining popularity in home-based rehabilitation solution due to its affordability and ease of use. It is used as a marker less human skeleton tracking device. However, apart from the fact that the skeleton data are contaminated with high frequency noise, the major drawback lies in the inability to retain the anthropometric properties, for example, the body segments’ length, which varies with time during the tracking. Embodiments of the present disclosure provide systems that implement a particle filter based approach to track the human skeleton data in presence of high frequency noise and multi-objective genetic technique is further implemented to reduce the bone length variations. Further multiple segments in skeleton are filtered simultaneously and segments’ lengths are preserved by considering their interconnection for obtained corrected set of body joint positions which ensures that the body segment length is maintained close to ground truth.
Abstract:
A binder with hydroxyl non-isocyanate polyurethane (HNIPU) backbone is provided comprising at least one urea terminated poly(omega-carbamoyloxy urethane) moiety/ block adapted for curing with at least one or more cross-linker including regular poly(isocyanate), polyaldehydes, amino resin, urea formaldehyde resin, or mixtures thereof to provide for thermoset curing/coating formulations/films thereof. The binder of the present invention provides for crosslinked polyurethanes with high concentrations of very closely disposed urethane linkages obtained from isocyanate-free (HNIPU) backbone and substantially isocyanate-free multicomponent compositions, processes and other related inventions.
(54) Title of the invention : NON-INVASIVE DETECTION OF CORONARY HEART DISEASE FROM SHORT SINGLE-LEAD ECG

(51) International :A61B0005000000,G06K0009460000,A61B0005045200,A61B0005040200,A61B0005040000
classification
(31) Priority Document :NA
No
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date
(87) International Publication : NA
No
(61) Patent of Addition to Application Number :NA
Filing Date
(62) Divisional to Application Number :NA
Filing Date

(57) Abstract : Electrocardiography (ECG) signals contain important markers for Coronary Heart Disease (CHD). State of the art systems and methods rely on clinically available multi-lead ECG for CHD classification which is not cost effective. Moreover the state of the art methods are applied on digital ECG time series data only. Also, discriminative HRV markers are not often present in short ECG recordings necessitating long hours of ECG data to analyze. In accordance with the present disclosure, systems and methods described hereinafter extract ECG time series from ECG images obtained from commercially available low-cost single lead ECG devices through a combination of image and signal processing steps including Histogram analysis, Morphological operation-thinning, Extraction of lines, Extraction of Reference Pulse, Extraction of ECG and interpolating missing data. Further, domain independent statistical features such as self-similarity of raw ECG time series and average Maharaj™s distance along with domain specific features are used for classifying CHD.

No. of Pages : 36 No. of Claims : 8
The Patent Office Journal No. 10/2020 Dated 06/03/2020

(12) PATENT APPLICATION PUBLICATION
(21) Application No.201821032535 A
(19) INDIA
(22) Date of filing of Application :30/08/2018
(43) Publication Date : 06/03/2020

(54) Title of the invention : AN INTERIOR ARRANGEMENT AND A SEATING ARRANGEMENT FOR A VEHICLE

(51) International : A47C0004480000, A47C0007660000, A47D0001100000, A47C0007620000, A47D0001000000
(31) Priority Document : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
(62) Divisional to Application Number : NA

(71) Name of Applicant :
1) FAURECIA INTERIOR SYSTEMS INDIA PRIVATE LIMITED
Address of Applicant : Plot No.T-187, Pimpri Industrial Area (B.G. Block), Behind Bhosari Police Station, Bhosari, Pune, 411026 MH. India Maharashtra India

(72) Name of Inventor :
1) SIDDIQUI, Firoz

(57) Abstract :
Abstract The present invention is to provide an interior arrangement 500 and a seating arrangement 100 for a vehicle comprising a seat base 210 and a seat back 220. The seating arrangement 100 is provided with a frame 110 and at least one articulated member 112. The frame 110 is movably arranged on a guide 200. The frame 110 moves between a first position and a second position. In the first position, the frame is flushed in the floor 300 and in the second position the frame 110 is raised above the floor 300. The articulated member 112 is configured the frame 110 and can configure a collapsed configuration in the first position and an expanded configuration in the second position of the frame 110. In the expanded configuration the articulated member 112 covers the front portion of the seating arrangement 100. Figure 4

No. of Pages : 25 No. of Claims : 10
The present specification relates to use of inert product transfer tubing in the manufacturing of pharmaceutical injectable products. Silicon content in finished drug product was drastically reduced when silicon based product transfer tubing was replaced with fluoropolymer based inert product transfer tubing.
Title of the invention: AIR FLOW GUIDED SHOE FOR WORKING IN MUDDY FIELD

Abstract:
The present invention relates to a safety shoe for working in muddy field that allows improved air ventilation and vapor exchange while walking and performing physically active job in muddy fields. More preferably, the invention provides a knee length, breathable and air flow guided shoe for working in muddy field consisting of shoe body (01), air pipe (02), side flap (03), eye rivet(04), air sac(05), air conduits (14), bottom sole(06), and inner sole(07) having air flow guiders and shaped elevations on opposite sides. The air flow guided breathable shoe is comprising mainly of air pipe and rubber air sac for air pumping inside the shoe body. The shoe mainly helps in walking in mud and thorny places for keeping the feet dry and air conditioned and to give protection from reptiles. FIGURE NO. 1.
Title of the invention: REGENERATIVE CASCADED MULTICELL CONVERTER (CMC)

Abstract:
Embodiments herein provide a regenerative Cascaded Multicell Converter comprising at least two power cells configured for each phase of one or more phases of the regenerative CMC, one coupled inductor for the at least two power cells in each phase connecting a rectifier to an isolated power source for delivering power to each power cell of the at least two power cells. The regenerative CMC further comprises a controller regulating an input power to each power cell of the at least two power cells based on Phase-shifted technique. FIG. 1(b)
Title of the invention: METHOD AND SYSTEM FOR IMPROVING RECOGNITION OF DISORDERED SPEECH

Abstract:
Speech recognition is a technique that enables recognition and translation of spoken languages (speech data) into text, using a computer. This allows the users of a system having speech recognition to provide voice commands for various purposes. However, existing systems for (automatic) speech recognition fail or finds it difficult to interpret impaired speech. Disclosed herein is a method and a system for identifying extent of deviation in speech utterances of a user from a normal level, caused due to such impairments, and for making appropriate modifications to generate utterances pertaining to healthy speech. This data may be fed as input to the speech recognition systems, as those systems can interpret the corrected data.

No. of Pages: 23  No. of Claims: 8
The invention provides a synergistic oral liquid herbal composition falling under the category of Asavas & Arishtas, useful for management of diabetes, metabolic syndrome, NAFLD said composition comprising a therapeutically effective amount of plant extracts, self-generated alcohol to the extent of 7 to 12% v/v and having not more than 1 to 2% w/w of sugar content. Asava & Arishta are best formulations in Ayurveda because they possess better keeping quality which is likely due to the contribution of fermentation and preservation.

No. of Pages : 29 No. of Claims : 10
Title of the invention: AN EPICYCLIC TRANSMISSION GEAR AND DISK BRAKE BASED REGENERATIVE BRAKING DEVICE

Abstract:
Disclosed is an epicyclic transmission gear and disk brake based regenerative braking device (100) that includes an epicyclic transmission unit to transfer braking energy through arrangement of sun gear (10) and the planetary gears (12) to a clock spring (17) of a clock spring torque storage module. The device (100) includes a disk brake unit that arrests the rotation of a sun-planetary gear assembly in the epicyclic transmission unit such that momentum available at the extended hub (4) is transferred to a ring gear (13). The ring gear (13) is connected to an inner casing (16) of the clock spring torque storage module that charges the spring (17). The device (100) includes a chassis unit that dissipates excess energy through spinning of an outer casing (18) of the clock spring torque storage module by a spring calibration wheel (22) that rides over a sinusoidal contoured surface of the outer casing (18). FIG. 1 (for Publication)
Title of the invention : A SEAT FOR A VEHICLE

Abstract:
The present invention provides a seat 100 of a vehicle. The seat 100 includes a backrest 210 and a seat-pan with a cushioning therearound. The backrest 210 is having a back panel 220 and side panels 230a and 230b for reinforcements. Further, the backrest 210 is having an operating member 10. Furthermore, the back panel 220 is having an engaging member 20a. When accidental impact acts, the operating member 10 moves the engaging member 20a to engage with a side panel 230a. The engagement of the engaging member 20a with the side panels 230a and 230b is preventing further movement of the back panel 220 therefrom. [Figure 3]
A holistic hair pack composition consisting of powdered extracts from different parts of the herbs such as kachori (Nardostachys jatamansi), Amla (Phyllanthus emblica), Hirda (Terminalia chebula), Beheda (Terminalia belliria), Methi (Trigonella foenum graecum), Tulsi (Ocimum tenuiflorum), Neem (Azadiracta indica), Brahmi (Bacopa monnieri), Jaswanda (Hibiscus rosasinensis), rose (Hulthemia dumort), Shikekai (Acacia concinna), reetha (Sapindus mukorossi), Maka (Eclipta prostrata), Nagarmotha (Cyprus scariosus), Bauchi (Psoralea corylifolia), Aloe vera, Orange peel, Mehandi (Lawsonia inermis), Multani mitti (Fuller™s earth), Bhirumi Kapoor (Cinnamomum camphora), mixed homogeneously such that it is made into a paste with vehicle such as curd / buttermilk / milk and on regular use on to the hair covering scalp will improve overall health of hair adding softness, bounce and luster to it.
A hair root pack composition consisting of powdered extracts from different parts of the herbs such as kachora (Nardostachys jatamansi), Amla (Phyllanthus emblica), Hirda (Terminalia chebula), Beheda (Terminalia belliria), Methi (Trigonella foenum-graecum), Tulsi (Ocimum tenuiflorum), Neem (Azadiracta indica), Brahmi (Bacopa monnieri), Jaswanda (Hibiscus rosasinensis), rose (Hulthemia dumorti), Shikekai (Acacia concinna), reetha (Sapindus mukorossi), Maka (Eclipta prostrata), Nagarmotha (Cyprus scariosus), Bauchi (Psoralea corylifolia), Aloe vera, Orange peel, Mehendi (Lawsonia inermis), Multani mitti (Fuller™s earth), Bhimseni Kapoor (Cinnamonum camphora), mixed homogeneously such that it is made into a paste with vehicle such as curd/buttermilk/milk and applied onto the scalp leads to a significant increase in the overall health of one’s hair providing essential nourishment to the scalp and thus results in hair regrowth, on regular use.
Title of the invention: A HAIR ROOT OIL COMPOSITION AND METHOD OF PREPARATION OF THE SAME

Abstract:
A novel hair root oil composition and method of preparation of the same consisting of a blend of two mixtures namely; Mixture-1, and Mixture-2, wherein Mixture-1 is a blend of 4 oils namely; Sesame oil, Coconut oil, Castor oil, and, Mustard oil; and Mixture-2 is combination of 25 ingredients namely; Curcuma zedoaria (Kachur/Kachora), Nardostachys jatamansi (Jatamanasi), Phyllanthus emblica (Amla), Terminalia chebula (Hrida/Harad/Haritaki), Terminalia bellirica (Baheda/Bibhitaki), Trigonella foenum-graecum (Methi), Ocimum tenuiflorum (Tulsi), Azadirachta indica (Neem), Bacopa monnieri (Brahmi), Hibiscus rosa-sinesis (Jaswanda), Rosa (Rose), Sapindus mukorossi (Reetha), Eclipta alba (Maka/Bhringaraj), Cyperus scariosus (Nagarmotha), Psoralea corylifolia (Bavchi/Babchi), Aloe barbadensis (Aloe vera), Cinnamomum camphora (Kapoor), Acacia concinna (Shikekai), Nigella sativa (Kalonji), Rubia cordifolia (Manjishtha), Murraya koenigii (Curry leaves), Withania Somnifera (Ashwagandha) Chrysopogon zizanioides (Vaala), Ficus benghalensis (Vada), Glycyrrhiza glabra (Jeshthamadh); wherein the ingredients of mixture-1 and 2 are deployed in a particular proportion and in a particular process whereby a unique hair root oil composition is obtained.
(51) Title of the invention : A HERBAL HAIR CARE COMPOSITION AND METHOD OF PREPARATION THEREOF

No. of Pages : 13 No. of Claims : 9
A process for preparing a compound of formula 5: 5 wherein P is a hydroxy protecting group, or pharmaceutically acceptable salt thereof; the process comprising the step of: (i) reacting intermediate 3: 3 wherein R1, R2 and R3 are independently selected from the group consisting of C1-4alkyl or phenyl; with a protected ribofuranose 4: 4; wherein P is a hydroxy protecting group; in the presence of a silyl glycosylation agent.
The present invention relates to the field of clutch slave cylinders. The present disclosure envisages a tool (100) for manipulating a clutch slave cylinder (CSC) bleeder clip. The tool (100) comprises a pair of lever arms (102) and a spring mechanism. The pair of lever arms (102) are joined to each other by a pivot pin (103). Each lever arm (102) is defined by a leverage end (105) and a top end having a groove (120) configured thereon. The clip is clamped in the grooves (120) and manipulated by applying force at the leverage ends (105) of the tool (100). The spring mechanism connects the lever arms (102), to provide a counter force to the force applied at the leverage ends (105) when manipulating the CSC bleeder clip and to allow the lever arms (102) to retain their initial positions.
The present invention discloses a low cost and high-performance rechargeable sodium-ion full-cell comprising of a novel layered MoTe2 anode and sodium containing NASICON structured NVP (Na3V2(PO4)3) cathode electrode materials. The said battery disclosed herein provides a high potential of around 2.0V with an average energy density of 414 W h kg-1 due to layered electrode material with high interlayer spacing.
SYNERGISTIC HERBICIDAL COMPOSITION OF METAMIFOP

ABSTRACT: A synergistic herbicidal composition comprising A) Metamifop B) at least one herbicide selected from Bispyribac sodium, Fenoxaprop-P-Ethyl and Cyhalofop butyl C) at least one more herbicide selected from Pyrazosulfuron Ethyl, Ethoxysulfuron, Metsulfuron methyl, Imazosulfuron, Propyrisulfuron, Azimsulfuron, Tefuryltrione, Penoxsulam, Pyribenzoxim, Bentazon, Saflufenacil, 2,4-D and salts thereof with one or more inactive excipients. The present invention also relates to process for preparing the said composition and its use as herbicide.
(54) Title of the invention : REAL-TIME PITCH TRACKING BY DETECTION OF GLOTTAL EXCITATION EPOCHS IN SPEECH SIGNAL USING HILBERT ENVELOPE

(51)
International:G10L0021013000,G10L0013040000,G10L0025900000,G10L0017020000,G10L0013033000
classification
(31) Priority
Document :NA
No
(32) Priority
Date :NA
(33) Name
of priority
country
(86) International
Application :NA
No
Filing
Date
(87) International
Publication : NA
No
(61) Patent
of Addition
to
Application :NA
No
Filing
Date
(62) Divisional to
Application :NA
Number
Filing
Date

(57) Abstract:
A technique, suitable for real-time processing, is disclosed for pitch tracking by detection of glottal excitation epochs in speech signal. It uses Hilbert envelope to enhance saliency of the glottal excitation epochs and to reduce the ripples due to the vocal tract filter. The processing comprises the steps of dynamic range compression, calculation of the Hilbert envelope, and epoch marking. The Hilbert envelope is calculated using the output of a FIR filter based Hilbert transformer and the delay-compensated signal. The epoch marking uses a dynamic peak detector with fast rise and slow fall and nonlinear smoothing to further enhance the saliency of the epochs, followed by a differentiator or a Teager energy operator, and amplitude-duration thresholding. The technique is meant for use in speech codecs, voice conversion, speech and speaker recognition, diagnosis of voice disorders, speech training aids, and other applications involving pitch estimation.
(54) Title of the invention : A CLUTCH ASSEMBLY OF A VEHICLE

(57) Abstract : ABSTRACT A CLUTCH ASSEMBLY OF A VEHICLE The present disclosure relates to the field of clutch assemblies. The present disclosure envisages a clutch assembly of a vehicle. The assembly (100) comprises a clutch box (40), a bush (30), a clutch pedal (10), and a pivot pin (14). The bush (30) is fitted within the clutch box (40). The clutch pedal (10) is secured to the clutch box (40) by means of shanks terminating within the clutch box (40). The pivot pin (14) is configured to be engaged within the bush (30) to prevent slipping of the clutch when the clutch pedal (10) is pressed.

No. of Pages : 12 No. of Claims : 6
ABSTRACT

A TROLLEY FOR TRANSPORTING VEHICLE ENGINES AND TRANSAXLES TO AN OFF-PRODUCTION LOCATION

The present disclosure relates to the field of transportation of engines and transaxles. The present disclosure envisages a trolley (100) for transporting vehicle engines and transaxles to an off-production location. The trolley (100) comprises a frame (102), a movable transaxle stand (106) and a plurality of relatively vertical members. The frame (102) is supported on wheels (104). The transaxle stand (106) is mounted on an operative first half (102A) of the frame (102). The transaxle stand (106) is configured to mount the transaxle thereon. The vertical members are mounted on an operative second half (102B) of the frame (102). The vertical members are configured to support and balance the engine on the trolley (100). The trolley (100) is an effortless way to transport the vehicle transaxle and engine.
AN ARRANGEMENT FOR SECURING A TOOL KIT IN A VEHICLE

The present disclosure relates to the field of vehicle tool and accessories. The present disclosure envisages an arrangement (100) for securing a tool kit (102) in a vehicle. The arrangement comprises a base block (115) and securing means. The base block (115) is attached to an operative lower portion of the luggage compartment of the vehicle, and has a slot configured thereon to receive the tool kit (102). The securing means is attached to the wall (101) in a spaced apart configuration with the base block (115) to secure the tool kit (102) against the wall (101).
The present disclosure provides a risk management system that undertakes proactive risk assessment and suggests appropriate controls to mitigate risks. Moreover, the risk management system 100 undertakes risk assessment based in three or more parameters. Further, the risk management system 100 assesses strength or weakness of management components or departments.

FIG. 1 Risk management system

No. of Pages : 26 No. of Claims : 17
**Title of the invention:** SYSTEMS AND METHODS FOR DENSE SURFACE RECONSTRUCTION OF AN OBJECT USING GRAPH SIGNAL PROCESSING

<table>
<thead>
<tr>
<th>International classification:</th>
<th>G01B0011250000, H04L0027260000, G06T0015400000, G03H0001160000, H04N0013279000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document:</td>
<td>NA</td>
</tr>
<tr>
<td>Priority Date:</td>
<td>NA</td>
</tr>
<tr>
<td>Name of priority country:</td>
<td>NA</td>
</tr>
<tr>
<td>International Application No:</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date:</td>
<td>NA</td>
</tr>
<tr>
<td>International Publication No:</td>
<td>NA</td>
</tr>
<tr>
<td>Patent of Addition to Application No:</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date:</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application No:</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date:</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Abstract:**

Systems and methods for a dense surface reconstruction of an object using graph signal processing is provided. None of the traditional systems and methods provide for a dense or three-dimensional surface reconstruction of objects by resolving ambiguity. The embodiments of the proposed disclosure provide for resolving ambiguity by identifying, from one or more sparse three-dimensional shapes extracted, a first set of azimuth values corresponding to a first region of the object; constructing, using a phase angle, a graph capturing a relational structure between the first set of azimuth values and a second set of azimuth values to be estimated; obtaining, a Graph Fourier Transform (GFT) matrix corresponding to the constructed graph; and estimating, from the GFT matrix and the first set of azimuth values, the second set of azimuth values corresponding to a second region of the object by the graph signal processing technique.

No. of Pages: 43  No. of Claims: 12
The Patent Office Journal No. 10/2020 Dated 06/03/2020

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :01/09/2018

(43) Publication Date : 06/03/2020

(54) Title of the invention : THE NOVEL TEA STRAINER

(71) Name of Applicant :
1) PRASHANT PARASHURAM SATHE

Address of Applicant : ROOM NO-301 BUILDING ADITI GARDEN PLOT NO 32 SECTOR 5 KAMOTHE NAVI MUMBAI PIN : 410209 STATE: MAHARASHTRA COUNTRY: INDIA Maharashtra India

(72) Name of Inventor :
1) PRASHANT PARASHURAM SATHE

(57) Abstract :
ABSTRACT
THE NOVEL TEA STRAINER The present disclosure provides for a novel apparatus for a straining/filtering of tea. The invention provides for integrated strainer/filter and serving spoon which allows for easy collection and pouring of tea as compared to conventional strainer. The strainer 100 and serving spoon 102 is held together by ring 104 through their respective handles 108 & 106 when they are used separately. The handles of strainer 100 or serving spoon is also provided with spoon on opposite side for collection and dispensing of tea powder and sugar. The disclosure provides for a tea straining and tea dispensing apparatus which enhances user convenience, flexibility, ease of use and cost efficiency as compared to conventional tea strainers.
Title of the invention: A SYSTEM FOR AUTOMATED CENTERING OF A VEHICLE CHASSIS ON A SLAT CONVEYOR

Abstract:
ABSTRACT AN SYSTEM FOR AUTOMATED CENTERING OF A VEHICLE CHASSIS ON A SLAT CONVEYOR The present disclosure relates to the field of vehicle assembly lines. The envisaged system comprises a plurality of movable wheel alignment fixtures and an encoding unit. The fixtures are disposed on either sides of a slat conveyor in a spaced apart configuration. The encoding unit is coupled to the fixtures. The encoding unit configured to scan an identifier attached to the chassis frame, to identify the vehicle model type and determine the centering distance to which the wheels should be displaced to align the chassis. The encoding unit generates a processed signal based on the determined centering distance. The processed signal is transmitted to the fixture to facilitate displacement of the wheels on the slat conveyor for aligning the central axis of the chassis frame along the central axis of the slat conveyor.
(54) Title of the invention : DC MICRO GRID WITHOUT ENERGY STORAGE

(57) Abstract :
Energy Storage System such as Battery is an integral part of a conventional DC Micro Grid. The present invention demonstrates an improved DC Micro Grid that does not depend on an Energy Storage System.
(54) Title of the invention: SYSTEM AND METHOD OPTIMIZING SURFACE PARAMETERS FOR A SUBSTRATE WITH THIN FILM COATINGS

(57) Abstract:
Embodiments herein provide a method and a system for optimizing surface parameters for a substrate with a thin film coating. The method comprises performing, outside the deposition chamber, a shape analysis of the liquid drop by recording a change in a shape of the liquid drop. The change comprises a change with respect to a distance of the liquid drop from a surface of the substrate. The method further determines a variation of the surface parameters with respect to the predefined thickness of the thin film so deposited over the surface based on the change in the shape of the liquid drop and identifying an optimal range of the thickness of the thin film to be deposited over the substrate based on the surface parameters so determined, wherein the optimal range of the thin film thickness optimizes hydrophobicity of the substrate. FIG. 2

No. of Pages: 37  No. of Claims: 11
The present invention is a device for detecting pressure in a tire with a wet environment therein. The device includes a pressure sensor, a bush and an interface. The pressure sensor is configured inside a housing and filled with a filling material. The filling material is for encasing the pressure sensor. The housing is having a passage on a portion of the housing for enabling the pressure sensor to detect the pressure in the tire. Further, the bush is arranged between the passage and the pressure sensor. The bush protects the interface from the filling material and also prevents blocking of the passage by the filling material so that the pressure sensor can sense pressure in the tire. The interface is arranged at a proximal end of the passage. The interface is adapted to restrict the ingress of aqueous matter therethrough into the passage and the housing. Figure 2

No. of Pages : 18 No. of Claims : 5
A method for providing product recommendations is provided. The method receives a first set of data signals from multiple electronic devices, where the first set of data signals has one or more data packets that include an identity (ID) of an electronic device and at least a recommendation for a plurality of the products. Based on the recommendations, one or more data packets are retrieved from the first set of data signals and associated with at least one product from the plurality of products. Additional attributes for the product are automatically generated based on a number of at least one data packet associated with the product.
The present invention provides an immunochromatographic test strip, immunoassay device, kit and a rapid lateral flow assay method for detection and differential identification of Plasmodium species in a sample. The immunochromatographic test strip comprises a plurality of test lines, each of said test lines carrying capture antibodies that exhibits specificity towards one of the antigenic sequences selected from a group comprising SEQ ID NO: 1 to SEQ ID NO: 8 present within subtilisin-like protease-2 (SUB2) protein of Plasmodium species. The test strip is highly sensitive, precludes false positives, enables detection of mixed infections in a liquid sample and differential identification of one or more Plasmodium species present in a sample.
(54) Title of the invention: SINGLE PHASE ELECTRICAL SWITCHING DEVICE BETWEEN SOLAR POWER SUPPLY AND GRID POWER SUPPLY

(57) Abstract:
A single phase electrical switching device between solar power supply and grid power supply comprising a power supply switch, a solar power relay, a grid power relay, a power relay, a load and a main power relay together capable of switching the source of power supply from power grid to solar grid and vice versa. The indoor Unit of an Air Conditioner Switches ON the power supply for its Outdoor Unit, the contact of Grid Power Relay (KM2) and contact of the Main Power Relay (KM3) simultaneously are closed initially, thus a Grid Power (G) supply is connected to a Load (an Outdoor Unit of an Air Conditioner) to complete its high power requirement during its initial run or startup, then after a period of time, the contact of Main Power Relay (KM3) change its position from NO to NC, simultaneously the contact of Solar Power Relay (KM1) is closed, thus during this state a Solar Power (S) supply is connected to a Load (an Outdoor Unit of an Air Conditioner).
Abstract:
Currently for electrophoresis, available gels casting units have their own set of problems. These units are confined for only one orientation electrophoretic run. If more numbers of samples are to be analysed, either multiple analyses need to be carried out resulting in multiple gel to be compared for deriving conclusions or another gel casting device with extended width need to be bought. Again when the samples need to be run for a very a short distance for resolution, still the regular device has to be used resulting in wasting of gel or another gel casting device with short length need to be bought. The invention provides a gel casting assembly where the comb can be aligned parallel to the width or the length of the gel casting unit enabling to carry out gel electrophoresis either in length-wise or width-wise orientation. Also enabling sequential electrophoresis in different orientations with same assembly. Reference figure: FIG 4
No of Pages : 13 No of Claims : 6

Disclosed is a hydraulic drive system (50) to propel a construction vehicle, preferably a vibration roller (100) that facilitates optimum sizing of a hydraulic pump (11) used therein and provides additional speeds. This is achieved by adapting a dual displacement motor at front drum drive apart from the dual displacement motor at rear axle drive. Additional vehicle speed modes are generated by setting different combinations of displacement modes of two motors (12, 13) using two electrical actuator valves (14, 15). Apart from regular Travel and Work modes of the vehicle, a new feature of lowest speed is introduced as a Gradient mode. By selecting the lowest speed mode through a switch by the operator, the vehicle (100) can climb a higher gradient of >40% for the given engine power. Figure 1
Title of the invention: LEAK-PROOF PACKAGING BOX AND PROCESS OF MAKING THEROF

Abstract:
Disclosed is a packaging box (100) having a central base (10), four side walls (12a, 12b, 12c, and 12d) extending upwardly from the central base (10), four pasting flaps (14a, 14b, 14c, and 14d) configured in-between the four side walls (12a, 12b, 12c, and 12d), a cover flap (16) connected to the side wall (12a), a first set of sealing flaps (18b, 18c, 18d), configured on upper end of three side walls (12b, 12c, and 12d), a second set of sealing flaps (18e, 18f, 18g, and 18h) configured on upper end of the pasting flaps (14a, 14b, 14c, and 14d). The packaging box (100) is made out of thick chart paper which is leak-proof and sturdy. Specifically, arrangement of the sealing flaps and unique curved shape of the ends of the sealing flap (18c) provides leak-proof packaging box (100). Figure 1

Fig.1
Title of the invention: ARRESTED PRECIPITATION PROCESS FOR DEPOSITION OF Bi2Se3 THIN FILMS

Abstract:
The present invention provides an arrested precipitation process for deposition of Bi2Se3 thin films. The process includes: arresting metal ions using triethanolamine (TEA) as a complexing agent; releasing arrested metal ions at optimized preparative parameters; using aqueous ammonia to maintain the pH of reaction bath by increasing the concentration of the OH− ions; releasing slowly of Bi3+ ions from Bi−TEA complex solution at alkaline pH, and wherein Na2SeSO3 hydrolyses into Na2SO4 and releases Se2− ions into the solution; forming initial seed nuclei by Bi3+ and Se2− ions; and combining small nuclei to form larger crystallite; and following ion by ion condensation for deposition of Bi2Se3 occurs on the substrate surface.

Figure 1

No. of Pages: 17 No. of Claims: 7
Title of the invention: ETERNAL ELECTRICITY GENERATOR.

Abstract:

1. ABSTRACT OF THE INVENTION

An eternal electric generator apparatus (1000) has spherical ball (200) of non-metal on which disc-shaped permanent neodymium magnets(n52) (201) are fitted. These spherical balls (200) are moving inside the ring-shaped pipe (100) on which square permanent neodymium magnets(n52) (101) are fitted internally on the surface of the ring pipe (100). As the polarity of both the permanent magnets i.e. disc-shaped magnets on balls (201) and square shaped or circular shaped permanent neodymium magnets(n52) in the ring pipe (100) is same. These permanent neodymium magnets(n52) create repulsive force, due to which the spherical balls (200) move rapidly inside the ring pipe (100). As there is moving magnetic field present influence of the coil, EMF induced in the coils which in turn will produce electric current. As these current carrying coils (501 & 502) can charge up the battery (901) or any excess electricity generated can be used to power other device.
Systems and methods for optimization of radio nodes based upon a Sequential Reinforcement Neural Network (SRNN) technique are provided. The traditional systems and methods implementing traditional neural network models simply provide for generating an output when there is a derived relationship between input values and output labels. Embodiments of the proposed disclosure provide for correlating unrelated data entities and/or time series data generating from one or more Multi-Radio Access Technologies (Multi-RATs) nodes by implementing the SRNN technique, wherein the SRNN technique comprises obtaining a plurality of datasets; creating a neuron for each of the plurality of datasets; identifying an optimal dataset from the plurality of datasets; creating a base layer using the optimal dataset; creating a SRNN model using the base layer; identifying a plurality of optimal neurons by implementing the SRNN model; and optimizing the radio nodes using the plurality of optimal neurons identified.
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/09/2018
(43) Publication Date : 06/03/2020

(15) Title of the invention : SYSTEM AND METHOD OF INTERNET OF THINGS (IOT)

(51) International :H04W0036220000,G06F0017220000,G06F0017210000,C07D0403120000,C07D0413040000

(31) Priority Document :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application :NA
(87) International Filing Date :NA
(61) Patent of Addition to Application :NA
(62) Divisional to Application :NA

(71) Name of Applicant :
1) RELIANCE JIO INFOCOMM LIMITED
   Address of Applicant :3rd Floor, Maker Chamber-IV, 222, Nariman Point, Mumbai 400 021, Maharashtra, India Maharashtra India
2) HARIPRASAD ANUMALA
   BASHA MAHABOOB

(57) Abstract :
As Attached in PDF

No. of Pages : 50 No. of Claims : 13
**Title of the invention:** AUTOMATED RAILWAY TRACK FAULT MONITORING SYSTEM

**Abstract:**

Faults in railway tracks cause majority of the train accidents. An automated railway track fault detection system is proposed in this invention. The Camera installed nearby railway tracks will capture images of railway tracks regularly which will be provided as an input to the system consisting of automated mechanism to identify the faults in the captured railway track images. The proposed system will be initially trained on the basis of Dataset consisting of railway track fault conditions. This trained system will then provide absolute output whether the track is faulty or not. If fault is detected by the system, the system will send the notification along with fault location and type of fault to the authorities at nearest location. Hence proper measures can be taken by the authorities to avoid living and financial loss.
The present invention relates to a ready-to-use solution of carmustine that does not require dissolution or dilution of the carmustine prior to addition to saline and dextrose parenteral solutions. In particular, the invention relates to a stable liquid pharmaceutical composition containing carmustine in the form of ready-to-use solution and method for preparing the same.
The present disclosure pertains to mixed metal ferrite nanoparticles having formula \(((M_1)^y(M_2)^{(1-y)})xFe^{(3-x)}O_4\), wherein \(M_1\) and \(M_2\) are metals other than iron (Fe) and are selected from but not limiting to copper, manganese, iron, cobalt, nickel, chromium, molybdenum, and zinc. The present invention further relates to method of synthesis of mixed metal ferrite nanoparticles comprising: (a) adding metal salt precursors, and an acid to a solvent to form a clear solution; (b) adding peptizing agent and adjusting pH to about 8 to about 14; (c) decomposing the metal salt precursors by subjecting the reaction mixture to a temperature of about 80 °C to about 250 °C, pressure of about 760 to about 1520 mmHg, and for about 15 hours to 25 hours, to form mixed metal oxide nanoparticles; and (d) separating the mixed metal ferrite nanoparticles having formula \(((M_1)^y(M_2)^{(1-y)})xFe^{(3-x)}O_4\).

**Figure 1**

No. of Pages : 33 No. of Claims : 13
ABSTRACTS

Generally in steel rolling plant raw steel sheets of higher thickness is rolled in different stages so as to reduce the thickness. To maintain the continuity of process supplied rolls of raw steel sheet are temporarily join by welding. The side trimming operation is done on sheet at initial stage to get the required width.

Handling and collection of scrap strip coming out of side trimming operation is common problem in steel rolling plant. Frequent breakage of scrap strip forces to stop the process and also it is very unsafe for operator working in this area. This reduces the production capacity and chances of accidents, due to unpredicted movement of scrap strip increases. The main objective of this invention it to modernise the process of scrap strip handling and collection which will not require involvement of human effort and also will minimize frequent stoppage of production line due to strip breakage.
Title of the invention: HIGH VOLTAGE PULSE POWER SUPPLY WITH VARIABLE MAGNITUDE AND PULSE WIDTH

Abstract:
The present invention is related to a circuit of high voltage pulse power supply, capable of delivering a high voltage pulse of a fast rise time for a short duration. This circuit comprises semiconductor switching device TRIAC, a storage capacitor, an ignition coil for voltage step-up and a switching circuit.

Figure 1

No. of Pages: 9 No. of Claims: 4
**Title of the Invention:** ASSEMBLY FOR ENERGY TRANSFER APPARATUS

**Abstract:**

Abstract Disclosed is an assembly (100) for an energy transfer apparatus. The assembly (100) comprises a first plunger (10), a second plunger (20), an actuation mechanism (30) and a plunger support device (40). The assembly (100) is adaptable for installation in all types of heat exchangers such as a plate type heat exchanger (110), a gasket heat exchanger, a cross flow heat exchanger, a welded plate heat exchanger, a plate coil heat exchanger and the like. The assembly (100) mitigates problems of conventional technology for energy transfer such as bulky size of equipment, large number of additional hardware components mandatory for working and the associated high cost. Further, the assembly (100) reduces the maintenance and manufacturing time drastically.

**Figure 1**

No. of Pages: 14
No. of Claims: 7
A PROCESS FOR PREPARING CRYSTALLINE SULFENTRAZONE

Abstract:
ABSTRACT A PROCESS FOR PREPARING CRYSTALLINE SULFENTRAZONE The present disclosure relates to a process for preparing crystalline sulfentrazone. The process comprises treating sulfentrazone with an aqueous solution of an alkali salt, to obtain a mixture comprising sulfentrazone. The mixture is dissolved in an aqueous medium and then filtered to obtain a clear aqueous solution comprising sulfentrazone. Sulfentrazone dissolved in the aqueous solution is crystallized by acidifying the aqueous solution with an aqueous acid to obtain a slurry comprising crystalline sulfentrazone form G. The crystalline sulfentrazone form G, is isolated from the slurry. The crystalline sulfentrazone form G, has a purity in the range of 98% to 99.8%.
(54) Title of the invention : A COMPUTER IMPLEMENTED SYSTEM FOR CONTENT UPGRADATION OF A LEARNING RESOURCE AND A METHOD THEREOF

(57) Abstract : ABSTRACT A COMPUTER IMPLEMENTED SYSTEM FOR CONTENT UPGRADATION OF A LEARNING RESOURCE AND A METHOD THEREOF The present disclosure envisages a field of automatic content generation, upgradation and management. The computer implemented system (100) for content upgradation of a learning resource comprises a receiver (102), a first parser (104), a repository (106), a first crawler and extractor (108), a second parser (112), a second crawler and extractor (114), and a scheduler (116). A user requests for content upgradation of the relevant content. The system (100) parses the request to identify the request and extracts content from pre-selected sites and mirror the content to the temporary repository (110). On the basis of the mirrored content, the skill set is identified to comprehend the content. Topics matching the skill set are extracted from the pre-selected sites. A schedule is prepared with the extracted topics and the pre-selected sites to comprehend the topics. The system (100) helps recommend online and/or offline resources for detailing and/or supplementing the content.
The invention relates to a system for removing floating debris in an open water channel. The system includes a perforated screen having a front side and a rear side placed between the channel walls, the perforated screen extends from surface of water towards bottom of the channel to impede the flow of water thereby accumulating floating debris adjacent to front side of the perforated screen; a float connected on the rear side of the perforated screen for allowing the perforated screen to gradually rise from the bottom of the channel corresponding to water flow rate while otherwise being maintained in proximity to the bottom of the channel; a conveyor belt having an upper end and a lower end, the conveyor belt inclined between the upper end and the lower end and the lower end positioned adjacent to the front side of the perforated screen; a plurality of vessels mounted on the conveyor belt at predetermined location; and means for driving the conveyor belt for moving the conveyor belt from the lower end to the upper end whereby the vessel towards the lower end collects the accumulated floating debris and moves towards the upper end, the vessel while transiting from the upper end towards the lower end dumps the floating debris in a debris collector. Reference Figure 1

No. of Pages : 33 No. of Claims : 14
Title of the invention: AN APPARATUS FOR CRYSTALLIZING SUCROSE PRESENT IN JAGGERY SYRUP

Abstract:
The present invention provides an apparatus 100 for crystallizing sucrose present in jaggery syrup. Apparatus includes a conduit and a screw conveyor mounted between ends of the conduit. The screw conveyor having a shaft and a screw blade wherein pitch, lead angle and length of the screw blade for a given flow rate of the jaggery syrup are adjusted such that when the jaggery syrup is poured in the inlet port and the screw is rotated at a predetermined speed, screw blade picks up the syrup and spreads on flight of the screw forming a layer of syrup therein, such layer when advances towards the outlet port flaps over the layer formed on adjacent flight thereby cooling and mixing the syrup in a controlled way to achieve desired crystallization of the sucrose. Reference Figure 1
Title of the invention: TECHNOLOGY FOR ENHANCING BIOAVAILABILITY OF SELECTIVE ESTROGEN RECEPTOR MODULATOR (SERM)

Abstract:
The present invention relates to a technology to enhance the bioavailability of Selective Estrogen Receptor Modulator (SERM) class of drugs. The present invention provides enhanced bioavailability by increasing its dissolution using liquisolid compacts and/or reducing first pass metabolism (glucuronidation) by incorporating bioenhancers like Naringin and Piperine or combination of both.

No. of Pages: 28  No. of Claims: 11
Title of the invention: ALTERNATIVE PROCESS FOR EXTRACTION OF ALUMINIUM METAL FROM RESOURCES CONTAINING ALUMINA &/OR HYDRATED ALUMINA OR ALUMINO-SILICATES BY THERMO-CHEMICAL REDUCTION PROCESS

Abstract:
Aluminium Metal can be extracted from virtually any resource of aluminium by the process of Thermo-Chemical Reduction of Aluminium Chloride by NH4+ ions.

No. of Pages: 19 No. of Claims: 9
Universal Pump Implement for tractors is disclosed having a Step up gearbox (1) mounted on a fabricated chassis (2) and coupled to the tractor PTO shaft by means of a carden shaft (3) wherein the Step up gearbox is provided with a hydraulic pump (4) to operate a reciprocating piston pump (7) provided with its complete operative circuit & hydraulic tank (9) and the pump (7) is operated through a universal settable cyclic timer (8) by using 12 VDC supply from the tractor battery. The said fabricated chassis is provided with an upper mounting bracket (5) and two adjustable lower mounting brackets (6) so as to accommodate the three point hitch of the tractor irrespective of the brand, make or capacity of the tractor making it a universal pump implement for tractors.
Use of a CXCR4 antagonistic peptide and an immune check point regulator in the treatment of cancer is provided. Accordingly there is provided a method of treating cancer in a subject in need thereof the method comprising administering to the subject a therapeutically effective amount of a peptide having an amino acid sequence as set forth in SEQ ID NO: 1 or an analog or derivative thereof; and a therapeutically effective amount of a PD1 antagonist a PDL 1 antagonist a CTLA 4 antagonist a LAG 3 antagonist a TIM 3 antagonist a KIR antagonist an IDO antagonist an OX40 agonist a CD137 agonist a CD27 agonist a CD40 agonist a GITR agonist a CD28 agonist or an ICOS agonist thereby treating the cancer in the subject. Also provided are pharmaceutical compositions and articles of manufacture.

No. of Pages : 102 No. of Claims : 44
A display apparatus having a substrate (20) and an anti reflective coating on the substrate (20). The anti reflective coating includes a nano flakes layer (10) having a plurality of nano flakes (1 2 3 4) for reducing reflection of light on a surface of the substrate (20); the nano flakes layer (10) has a first surface distal to the substrate (20) the first surface having a plurality of nano pores (5) formed by planes of adjacent nano flakes (1 2 3 4); and each of the plurality of nano pores (5) is configured to reflect at least a portion of incident light multiple times inside the each of the plurality of nano pores (5) thereby reducing reflection of light on the surface of the substrate (20).
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application : 06/02/2018

(43) Publication Date : 06/03/2020

(54) Title of the invention : METHOD FOR CONTROLLING HERBICIDE RESISTANT OR TOLERANT WEEDS

(51) International classification : A01N 43/90, A01P 13/00, A01N 37/22, A01N 39/02, A01N 41/10

(31) Priority Document No : 62/190788
(32) Priority Date : 10/07/2015
(33) Name of priority country : U.S.A.

(86) International Application No : PCT/EP2016/066012
Filing Date : 06/07/2016

(87) International Publication No : WO 2017/009148

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

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

(71) Name of Applicant :
1) BASF AGRO B.V.
Address of Applicant : Groningensingel 1 6835 EA Arnhem Netherlands

(72) Name of Inventor :
1) KRAUS Helmut
2) SIEVERNICH Bernd
3) ETCHEVERRY Mariano
4) EVANS Richard R
5) NIELSON Ryan Louis
6) LANDES Andreas
7) ZAGAR Cyril
8) LIEBL Rex A

(57) Abstract :
The present invention relates to methods and uses for controlling herbicide resistant or tolerant weed species by applying the herbicidal compound \( \cdot 2 \text{exo} \cdot (2\text{Methylbenzyloxy}) \cdot 1\text{methyl} \cdot 4\text{isopropyl} \cdot 7\text{oxabicyclo[2.2.1]heptane} \) any of its individual enantiomers or any non racemic mixture thereof. The methods and uses are particularly suitable for the protection of crops. The invention also relates to specific herbicidal compositions comprising said herbicidal compound.

No. of Pages : 83 No. of Claims : 16
A shift register and a driving method thereof. The shift register includes a first control circuit (110) a second control circuit (130) a third control circuit (120) and an output control circuit (140). The first control circuit (110) is connected to a signal input end (IN) a first clock signal input end (CK1) a first level signal end (VG1) a first node (N1) and a third node (N3). The second control circuit (130) is connected to the first clock signal end (CK1) a second level signal end (VG2) the first node (N1) and a second node (N2). The third control circuit (120) is connected to a second clock signal end (CK2) the first level signal end (VG1) the first node (N1) the second node (N2) and the third node (N3). The output control circuit (140) is connected to the second clock signal end (CK2) the first level signal end (VG1) the first node (N1) the second node (N2) and a signal output end (OUT).
(54) Title of the invention : TRANSFER DEVICE

(51) International classification : B01L 1/02.B01L 3/00.B65B 17/02
(31) Priority Document No : 1515865.2
(32) Priority Date : 08/09/2015
(33) Name of priority country : GB
(86) International Application No : PCT/GB2016/052659
    Filing Date : 26/08/2016
(87) International Publication No : WO 2017/042536
(61) Patent of Addition to Application Number : NA
    Filing Date : NA
(62) Divisional to Application Number : NA
    Filing Date : NA

(57) Abstract:
An assembly (10) (Fig. 1) having a passive beta port (12) and an active alpha port (14) the passive and the active are complementarily shaped such that they can engage with one another. The passive beta port (12) has an annular flange (16) defining an annular opening to which is releasably securable a passive port door (18). Disposed at the distal end of the passive (12) at the opposite end to the annular flange 16 is an annular clamp (22) having two handles (24). Disposed between the annular ring (16) and the annular clamp (22) is the gaiter (26) of the protective member (28). The protective member has a cylindrical body (30) forming a funnel through which material may pass. The free end (32) is sized so as to be capable of passing through the port formed between the alpha and beta ports (12 14).

No. of Pages : 13 No. of Claims : 40
Disclosed are a composite filter element (1) and a gravity water purifier. The composite filter element (1) comprises: a primary filter element (11) and a secondary filter element (12) connected to the lower end of the primary filter element (11) wherein a ventilation passage (111) is provided in the primary filter element (11) the ventilation passage (111) extends upwards from a joint of the primary filter element (11) and the secondary filter element (12) to the upper end of the primary filter element (11) and a ventilation port (111a) is provided at the upper end of the ventilation passage (111). A ventilation component (112) is further provided at the upper end of the ventilation passage (111) the ventilation component (112) opening the ventilation port (111a) when subjected to an upward ventilation pressure from the ventilation passage (111) and sealing the ventilation port (111a) when the ventilation pressure disappears. The technical solution can prevent the phenomenon of air blockage at the joint of the primary filter element (11) and the secondary filter element (12).
Title of the invention: FILTER ELEMENT AND GRAVITY WATER PURIFIER

Abstract:
Disclosed are a filter element (1) and a gravity water purifier with the filter element (1) wherein the filter element (1) comprises: a filter element body (11) the lower end thereof being provided with a water outlet (111); and a flow restriction cover (12) mounted at the lower end of the filter element body (11) and covering the water outlet (111) wherein the flow restriction cover (12) is provided with a flow restriction port (120) in communication with the water outlet (111) and the flow restriction port (120) is smaller than the water outlet (111).
A firmware update method for a computer system is provided. The computer system includes a current BIOS. The firmware update method includes receiving a firmware update command, writing a new BIOS into a second storage circuit according to the firmware update command and setting a flag indicating a storage location of the new BIOS, performing a reboot process and determining whether the flag has been set during the reboot process, and determining that the flag has been set and utilizing the new BIOS to perform the reboot process according to the flag.

FIG. 1
Title of the invention: A MOTORIZED SPRAYER

Abstract:
The present disclosure relates to the field of sprayers. The present disclosure envisages a motorized sprayer that comprises a metal chassis (14), handles (2), a fixed flat base (3) and a nozzle. The handles (2) extend from the chassis (1). The base (3) is configured to support a cylindrical tank (4) to transport a chemical solution. The nozzle is configured to eject a chemical solution in form of cold drops, which allows for the high efficiency of the application through the formation of a droplet spectrum within the range of sizes recommended by the World Health Organization (WHO) for the control of insects in flight.
ABSTRACT CURRENT SENSOR  A current sensor (100) includes: a magnetic core (104) which focuses a magnetic field generated by continuity of a current to be sensed IP; a Hall element (108) which outputs a sensing signal according to an intensity of the magnetic field focused by the magnetic core (104); and a feedback circuit (116) which applies a feedback current to a secondary winding (118) based on the sensing signal from the Hall element (108) and balances magnetism. The current sensor (100) further includes a coupling circuit (124) which couples supply paths (123, 124) of a direct-current power supply (122) to the feedback circuit (116) and an application path (117) of a feedback current to the secondary winding (118) via capacitors (C1, C2). (FIG. 1)
An electronic device is disclosed, which includes: a display module having a display side and including a plurality of display units; and an optical sensing module disposed opposite to the display side and including a plurality of optical sensing units, wherein a density of the plurality of optical sensing units is greater than a density of the plurality of display units.
Title of the invention: AUTOMATIC BOBBIN REPLACING DEVICE, ROTOR SPINNING MACHINE USING THE SAME, AND BOBBIN REPLACING METHOD THEREOF

Abstract:
The present invention provides a bobbin replacing device, a rotor spinning machine using the same, and a bobbin replacing method thereof. The bobbin replacing device includes a bobbin holder for storing an empty bobbin and a driving mechanism capable of driving the bobbin holder to move to a predetermined position. In the spinning machining using the bobbin replacing device, when the bobbin does not need to be changed, the bobbin holder locates at a first position; when the bobbin needs to be changed, the bobbin holder is driven by the driving mechanism to move to a predetermined second position, and the bobbin on the bobbin holder arrives at a predetermined position; the driving mechanism drives the bobbin holder to return to an original position, thereby achieving an automatic bobbin replacement and reducing the worker’s labor intensity.
A composition or matrix comprising a bacteriophage and nanofibrillar cellulose or a derivative thereof in a wet or dry state is disclosed.
A dynamically impacting method comprises: A. Preparation of metallic glass particles or liquid metal alloy particles; and B. Bombardment of the metallic glass particles or liquid metal alloy particles against a substrate to harden a surface of the substrate and to form a thin-film of metallic glass or liquid metal alloy on the surface of the substrate for increasing corrosion resistance of the surface of the substrate. (Fig. 1)
PROBLEM TO BE SOLVED: To provide a window regulator high in assembling property while maintaining rigidity, and a method for assembling the same.

SOLUTION: A window regulator includes a slider on which a window glass is mounted, a wire for driving the slider, a wire end disposed on the wire, and a wire end housing portion disposed in the slider. The wire end housing portion includes a first groove into which the wire is inserted when the wire end is housed in the wire end housing portion, and a second groove into which the wire is not inserted when the wire end is housed in the wire end housing portion.

FIG. 15

No. of Pages : 41 No. of Claims : 8
The present invention refers to a module holder tool (6). The module holder tool (6) is adapted for use when installing modules (2), with or without cables, wires or pipes inside the modules (2), and stay plates (3) inside a frame (19). The module holder tool (6) comprises a handle (13) by means of which end parts (15) placed opposite each other are moveable between active and inactive positions for the module holder tool (6). Wherein in an active position of the module holder tool (6) it is to be hold against an inside of the frame (1). The handle (13) and the end parts (15) are parts of a linkage system. Said linkage system is placed between a first plate (7) and a second plate (8) of the module holder tool (6). Figure 2 is the representative figure.

No. of Pages : 17 No. of Claims : 12
The invention relates to a nozzle mount for an open-end rotor spinning device (1) for exchangeably fastening a thread draw-off nozzle (13) to a retainer (12) arranged in a cover element (8). The nozzle fastening system comprises a clip fastener (31) for axially securing the thread draw-off nozzle (13), at least one clip element (32) and one counter element (33) are distributed among the thread draw-off nozzle (13) and the retainer (12), and the clip element (32) is resiliently elastic in the radial direction. A recess (37) is provided on the nozzle shaft (36) of the thread draw-off nozzle (13) as the counter element (33), the clip element (32) consists of a spring wire (39), which has a straight part (39.1), and, in the secured state, the straight part (39.1) of the spring wire (39) locks into the recess (37) on the nozzle shaft (36) and lies tangential to the nozzle shaft (36).
A method for generating at least one data set for learning to be used for detecting at least one obstruction in autonomous driving circumstances is provided. The method includes steps of: (a) obtaining a first original image indicating a driving situation, and a first segmentation ground truth (GT) image corresponding to the first original image; (b) obtaining a second original image including a specific object, and a second segmentation GT image which includes segmentation information for the specific object and corresponds to the second original image; (c) obtaining a third original image by cutting a portion corresponding to the specific object, and a third segmentation GT image by cutting pixels corresponding to an area where the specific object is located; and (d) creating the data set for learning which includes a fourth original image and a fourth segmentation GT image corresponding to the fourth original image.
ABSTRACT LEARNING METHOD, LEARNING DEVICE FOR DETECTING LANE THROUGH CLASSIFICATION OF LANE CANDIDATE PIXELS AND TESTING METHOD, TESTING DEVICE USING THE SAME

A learning method for detecting at least one lane based on a convolutional neural network (CNN) is provided. The learning method includes steps of: (a) a learning device obtaining encoded feature maps, and information on lane candidate pixels in an input image; (b) the learning device, classifying a first parts of the lane candidate pixels, whose probability scores are not smaller than a predetermined threshold, as strong line pixels, and classifying the second parts of the lane candidate pixels, whose probability scores are less than the threshold but not less than another predetermined threshold, as weak lines pixels; and (c) the learning device, if distances between the weak line pixels and the strong line pixels are less than a predetermined distance, classifying the weak line pixels as pixels of additional strong lines, and determining that the pixels of the strong line and the additional correspond to pixels of the lane.
(54) Title of the invention : METHOD AND DEVICE FOR PROVIDING INTEGRATED FEATURE MAP USING ENSEMBLE OF MULTIPLE OUTPUTS FROM CONVOLUTIONAL NEURAL NETWORK

(51) International: G06N0003040000, G06K0009460000, G06K0009620000, G06N0003080000, G06K0009000000
classification
(31) Priority
Document : 16/121,031
No
(32) Priority
Date : 04/09/2018
No
(33) Name
of priority
country : U.S.A.
(86)
International
Application : NA
No
Filing
Date : NA
(87)
International
Publication : NA
No
(61) Patent
of Addition
to Application : NA
No
Filing
Date : NA
(62) Divisional
to Application : NA
No
Filing
Date : NA

(57) Abstract : ABSTRACT METHOD AND DEVICE FOR PROVIDING INTEGRATED FEATURE MAP USING ENSEMBLE OF MULTIPLE OUTPUTS FROM CONVOLUTIONAL NEURAL NETWORK A method for providing an integrated feature map by using an ensemble of a plurality of outputs from a convolutional neural network (CNN) is provided. The method includes steps of: (a) receiving an input image and applying a plurality of modification functions to the input image to thereby generate a plurality of modified input images; (b) applying convolution operations to each of the modified input images to thereby obtain each of modified feature maps corresponding to each of the modified input images; (c) applying each of reverse transform functions, corresponding to each of the modification functions, to each of the corresponding modified feature maps, to thereby generate each of reverse transform feature maps corresponding to each of the modified feature maps; and (d) integrating at least part of the reverse transform feature maps to thereby obtain an integrated feature map.

No. of Pages : 42 No. of Claims : 24
ABSTRACT LEARNING METHOD, LEARNING DEVICE FOR DETECTING LANE THROUGH LANE MODEL AND TESTING METHOD, TESTING DEVICE USING THE SAME

A learning method of a CNN capable of detecting one or more lanes using a lane model is provided. The method includes steps of: (a) acquiring information on the lanes from at least one image data set, wherein the information on the lanes are represented by respective sets of coordinates of pixels on the lanes; (b) calculating one or more function parameters of a lane modeling function of each of the lanes by using the coordinates of the pixels on the lanes; and (c) performing processes of classifying the function parameters into K cluster groups by using a clustering algorithm, assigning each of one or more cluster IDs to each of the cluster groups, and generating a cluster ID GT vector representing GT information on probabilities of being the cluster IDs corresponding to types of the lanes.
The Patent Office Journal No. 10/2020 Dated 06/03/2020

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 30/08/2019
(43) Publication Date : 06/03/2020

(54) Title of the invention : LEARNING METHOD, LEARNING DEVICE FOR DETECTING LANE BY USING CNN AND TESTING METHOD, TESTING DEVICE USING THE SAME

(51) International : G06N 0003/0400, G06K 0009/0000, G06K 0009/6200, G06K 0009/4600, G06N 0003/0800
Classification
(31) Priority Document : 16/121, 670
(32) Priority Date : 05/09/2018
(33) Name of priority country : U.S.A.
(36) International Application : NA
No Filing Date : NA
(38) International Publication : NA
No Filing Date : NA
(61) Patent of Addition to Application Number : NA
No Filing Date : NA
(62) Divisional to Application Number : NA
No Filing Date : NA

(57) Abstract : ABSTRACT LEARNING METHOD, LEARNING DEVICE FOR DETECTING LANE BY USING CNN AND TESTING METHOD, TESTING DEVICE USING THE SAME A learning method of a CNN for detecting lanes is provided. The method includes steps of: (a) instructing convolutional layers to generate feature maps by applying convolution operations to an input image from an image data set; (b) instructing an FC layer to generate an estimated result vector of cluster ID classifications of the lanes by feeding a specific feature map among the feature maps into the FC layer; and (c) instructing a loss layer to generate a classification loss by referring to the estimated result vector and a cluster ID GT vector, and backpropagate the classification loss, to optimize device parameters of the CNN; wherein the cluster ID GT vector is GT information on probabilities of being cluster IDs per each of cluster groups assigned to function parameters of a lane modeling function by clustering the function parameters based on information on the lanes.


No. of Pages : 62 No. of Claims : 20
The invention relates to a balancing ring (1) for compensating imbalances of a spinning machine rotor (2) with balance weight elements (4) guided by a circular guidance body (3) and a supporting element (5) for arranging the circular guidance body (3) coaxially to an axis of rotation of a spinning machine rotor (2).

Additionally, the invention relates to a spinning machine rotor unit comprising at least one balancing ring as well as a method for compensation imbalances of a spinning machine rotor unit utilizing at least one balancing ring. To propose a balancing ring for compensating imbalances of a spinning machine rotor which can be easily and cost-efficiently produced and which is self-balancing without any external control, the balance weight elements (4) are movable along the full circumference of the circular guidance body (3).
The material presser assembly for large embroidery machines comprises a plurality of tongue-shaped material pressers arranged at uniform distances next to one another. The head ends thereof or the head regions (9) are connected to one another with crosspieces (5). The outer edge of the crosspieces (5) is configured in a straight line. Fig. 3
The invention relates to binders which are stabilized in an aqueous phase and are able to co-precipitate along with ionogenic gelatinizing agents said binders being modified with a hydrophilic functional molecule by means of reactive groups on the binder.
Title of the invention: PALLADIUM DIESEL OXIDATION CATALYST

An oxidation catalyst composite for abatement of exhaust gas emissions from a lean burn engine is provided the catalyst composite including a carrier substrate having a length an inlet end and an outlet end and an oxidation catalyst material coated on the carrier substrate. The oxidation catalyst material can include a first layer and a second layer. The first layer can include a first oxygen storage component that includes ceria and is impregnated with a palladium (Pd) component and a second component including one or more of magnesium (Mg) rhodium (Rh) and platinum (Pt). The second layer can include a refractory metal oxide component impregnated with platinum (Pt) and palladium (Pd) wherein the ratio of Pt to Pd is in the range of about 0:10 to about 10:0.
Title of the invention: FCC CATALYST HAVING ALUMINA DERIVED FROM CRystALLINE BOEHMITE

Abstract:
A zeolite fluid catalytic cracking catalyst is provided that passivates nickel and vanadium during catalytic cracking. The zeolite fluid catalytic cracking catalyst includes Y-faujasite crystallized in-situ from a metakaolin-containing calcined microsphere. The zeolite fluid catalytic cracking catalyst further includes an alumina-containing matrix obtained by calcination of a dispersible crystalline boehmite and a kaolin contained in the metakaolin-containing calcined microsphere where the dispersible crystalline boehmite has a crystallite size of less than 500 Å. Also provided are a method of reducing contaminant coke and hydrogen yields and a method of catalytic cracking of heavy hydrocarbon feed stocks.
The present invention relates to hybrid true potato seeds or TPS. The present invention further relates to potato plants grown from the present hybrid true potato seeds and the potato tubers produced by these plants. The present invention also relates to the use of the present potato tubers for vegetative propagation thereof and to the use of the present potato tubers as seed potato for producing potato tubers for consumption and the food processing industry. Specifically the present invention relates to hybrid True Potato Seed (TPS) wherein the seed is tetraploid and is produced as an F1 of a cross between a tetraploid male potato line and a tetraploid female potato line and preferably to hybrid True Potato Seed (TPS) wherein said tetraploid male potato line and said tetraploid female potato line have a sufficient degree of genetic and phenotypic uniformity to yield as F1 hybrid True Potato Seed (TPS).
Title of the invention: AUTONOMOUS VEHICLE SECURITY

Various implementations include unmanned autonomous vehicles (UAVs) and methods for providing security for a UAV. In various implementations a processor of the UAV may receive sensor data from a plurality of UAV sensors about an object in contact with the UAV. The processor may determine an authorization threshold based on the received sensor data. The processor may determine whether the object is authorized based on the received sensor data and the determined authorization threshold.

No. of Pages: 26 No. of Claims: 30
**Title of the invention :** TRANSMISSION METHOD DEVICE MOBILE COMMUNICATION TERMINAL AND NETWORK-SIDE EQUIPMENT

<table>
<thead>
<tr>
<th>International classification</th>
<th>:H04W 72/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>:201610659305.2</td>
</tr>
<tr>
<td>Priority Date</td>
<td>:11/08/2016</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>:China</td>
</tr>
<tr>
<td>International Application No</td>
<td>:PCT/CN2017/096796</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:10/08/2017</td>
</tr>
<tr>
<td>International Publication No</td>
<td>:WO 2018/028632</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

**Name of Applicant :**
1) CHINA MOBILE COMMUNICATION LTD., RESEARCH INSTITUTE  
Address of Applicant : 32 Xuanwumen West Street, Xicheng District Beijing 100053 China  
2) CHINA MOBILE COMMUNICATIONS CORPORATION

**Name of Inventor :**
1) HOU, Xueying  
2) DONG, Jing  
3) HU, Lijie  
4) WANG, Rui

**Abstract :**
Provided in the present invention are a transmission method device mobile communication terminal and network-side equipment realizing bundled transmission of an uplink shared channel. The transmission method comprises: subframe determination step--a terminal determining a first start subframe of a physical uplink shared channel (PUSCH) which currently needs to be transmitted; first send step--when bundled transmission conditions are met bundling multiple subframes starting with the first start subframe and using an uplink resource in the bundled subframes to transmit the PUSCH the bundled subframes at least comprising an uplink pilot time slot special subframe configured to be usable for PUSCH transmission.

No. of Pages : 34  No. of Claims : 30
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/02/2019

(43) Publication Date : 06/03/2020

(54) Title of the invention : HYDRAULIC TAPPET

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>:F01L 1/18,F01L 1/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>:102016000083173</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>:05/08/2016</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>:Italy</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>:PCT/IB2017/054642</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:31/07/2017</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>:WO 2018/025149</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(61) Patent of Addition to Application Number</th>
<th>:NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

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

(71) Name of Applicant :
1) GNUTTI CARLO S.P.A.
   Address of Applicant : Via Artigiani, 2 25030 Maclodio (Brescia) Italy

(72) Name of Inventor :
1) EDELMAYER, Thomas Carl
2) FARISE', Stefano
3) FASANOTTO, Umberto

(57) Abstract :
Described is a hydraulic tappet of an internal combustion engine comprising a rocker (2) oscillating about a respective axis (A1) of oscillation to control the movement of at least one valve the rocker (2) having at a relative arm (B2) a through cavity (5) extending with axial symmetry having a central axis (A2) skew relative to the above-mentioned axis (A1) of oscillation the cavity (5) having an inner wall (5a) a lower outlet (6) and a upper outlet (7) longitudinally opposite each other; a plunger (8) engaged slidably inside the cavity (5) and emerging from it partially at the relative lower outlet (6) the plunger (8) being configured to engage with a respective element (9) for pushing at least one valve; a check valve unit (10) designed to adjust a flow of oil circulating inside the cavity (5) the valve unit (10) comprising a main body (11) located inside the cavity (5) for closing the relative upper outlet (7).

No. of Pages : 12 No. of Claims : 13
**Title of the invention:** STABILIZATION OF ENZYMES IN COMPOSITIONS

<table>
<thead>
<tr>
<th>International classification</th>
<th>Name of Applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>C11D 3/386, C12N 9/96</td>
<td>BASF SE</td>
</tr>
<tr>
<td>16201739.6</td>
<td>Address of Applicant: Carl-Bosch-Strasse 38 Ludwigshafen am Rhein Germany</td>
</tr>
<tr>
<td>01/12/2016</td>
<td></td>
</tr>
<tr>
<td>EPO</td>
<td></td>
</tr>
<tr>
<td>PCT/EP2017/079878</td>
<td>JENEWEIN, Stefan</td>
</tr>
<tr>
<td>21/11/2017</td>
<td>FISCHER, Max-Philipp</td>
</tr>
<tr>
<td>WO 2018/099762</td>
<td>Hoeffken, Hans Wolfgang</td>
</tr>
<tr>
<td>NA</td>
<td>ACHENBACH, Janosch Harald</td>
</tr>
<tr>
<td>NA</td>
<td>SPANGENBERG, Oliver</td>
</tr>
<tr>
<td>NA</td>
<td>CUNNINGHAM, Allan Francis</td>
</tr>
<tr>
<td>NA</td>
<td>NIELSEN, Jesper</td>
</tr>
</tbody>
</table>

**Abstract:**
A composition comprising component (a) at least one phenyl boronic acid and component (b) pentane-12-diol and optionally one or more further diols wherein the composition is liquid at 20°C and 101.3 kPa. Said composition stabilizes serine protease.

**No. of Pages:** 89  **No. of Claims:** 13
A method of treating Atrial Fibrillation or a pre-Atrial Fibrillation condition in a mammal preferably a human comprising administering a therapeutically effective amount of one of organic or inorganic sulfide organic or inorganic nitrite both organic or inorganic sulfide and organic or inorganic nitrite or pharmacologically acceptable salts solvates esters amides clathrates stereoisomers enantiomers prodrugs or analogs thereof or a combination thereof.
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :27/08/2019
(21) Application No.201927034509 A
(43) Publication Date : 06/03/2020

(54) Title of the invention : OLED DISPLAY MOTHER BOARD AND MANUFACTURING METHOD THEREOF
MANUFACTURING METHOD OF OLED DISPLAY PANEL AND OLED DISPLAY DEVICE THEREOF

(51) International classification : H01L 51/56,H01L 51/52,H01L 27/32
(31) Priority Document No :201710783592.2
(32) Priority Date :31/08/2017
(33) Name of priority country :China
(86) International Application No :PCT/CN2018/102822
Filing Date :29/08/2018
(87) International Publication No :WO 2019/042299

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

(57) Abstract :
An OLED display mother board and a manufacturing method thereof a manufacturing method of OLED display panel and an OLED display device thereof are disclosed. The OLED display mother board comprises: a base substrate (5) having a display region (51) and a non-display region (52) surrounding the display region (51); a TFT (15) and an OLED device (16) located in the display region (51) of the base substrate (5); at least two crack-arrest slits (3) located in the non-display region (52) of the base substrate (5) wherein the direction in which the crack-arrest slits (3) extend is the same as the direction in which edges of the display region (51) of the base substrate (5) extend and adjacent crack-arrest slits (3) are separated by a arrest slit step (8); and a package layer (1) wherein the package layer (1) covers the crack-arrest slit (3) and the OLED device (16). A portion of the package layer (1) located on a side of the crack-arrest slit (3) farthest from the display region (51) and facing away from the display region (51) has a non-uniform thickness.

(71)Name of Applicant :
1)BOE TECHNOLOGY GROUP CO., LTD.
Address of Applicant :No.10 Juxianqiao Rd., Chaoyang District Beijing China
(72)Name of Inventor :
1)WANG, Dawei
2)ZHANG, Song

No. of Pages : 16  No. of Claims : 20
The invention relates to a runner (1) for a hydraulic turbine pump or pump turbine in particular for a Francis turbine which runner (1) can be mounted such that it can be rotated about a rotational axis (10) and has runner blades (4) which are arranged around the rotational axis (10) along a circumferential direction wherein the runner (1) has at least two runner parts which are connected to one another via contact surfaces (9). In order to achieve a simple manufacturing capability it is provided according to the invention that the contact surfaces (9) are positioned and oriented in such a way that a moment can be transmitted about the rotational axis (10) between the runner parts substantially via forces tangentially with respect to the contact surfaces (9).
The invention relates to vectors based on a virus from the order Mononegavirales and in particular a rabies virus. More specifically it relates to a rabies virus vector which having transfected a target cell is switchable between replication-competent and replication-incompetent forms. Amongst other applications the invention avoids the cytotoxicity associated with current vectors based on rabies virus.
(54) Title of the invention : INPUT FACILITATION FOR FORMS IN WEB RESOURCES

(51) International classification : G06F 17/24
(31) Priority Document No : 15/858586
(32) Priority Date : 29/12/2017
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/US2018/048793
     Filing Date : 30/08/2018
(87) International Publication No : WO 2019/133078

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

(57) Abstract :
Methods systems and apparatus including computer programs encoded on a computer storage medium for facilitating input by a user into a form. The methods systems and apparatus may enable a system to reduce the amount of power usage and computational processing that the system uses to receive the input. In one aspect a method include actions of obtaining a web resource that includes a form determining a particular field of the form has been selected determining an intent that corresponds to the form from a first semantic tag in the web resource determining a parameter of the intent that corresponds to the particular field of the form from a second semantic tag in the web resource determining a value to suggest for the particular field based at least on the intent and the parameter of the intent and providing the value for output as a suggestion of input for the particular field.

No. of Pages : 25 No. of Claims : 21
A washing machine (1), comprising: a box body (100); and a rotating tub (200) which is rotatably disposed inside the box body (100) and comprises: a tub body (210) and a drainage channel (221). The drainage channel (221) is disposed inside the peripheral wall of the tub body (210), and liquid coming from the tub body (210) during spinning is drained out of the tub body (210) through the drainage channel (221). The washing machine further comprises an impeller (300); the impeller (300) is rotatably disposed inside the tub body (210).
## Patent Application Publication

**Application Number:** 202027001069 A  
**Date of Filing:** 09/01/2020  
**Publication Date:** 06/03/2020

### Title of the Invention

DEVICE AND SYSTEM FOR DECOMPOSITION OXIDATION OF GASEOUS POLLUTANTS

### International Classification

- F01N 3/26, F23G 7/08, B01D 53/74

### Priority Document

- Number: 62/529795  
- Date of Filing: 07/07/2017  
- Name of Priority Country: U.S.A.

### International Application

- Number: PCT/SG2018/050332  
- Date of Filing: 05/07/2018

### International Publication

- Number: WO 2019/009811

### Name of Applicant

1) SIW ENGINEERING PTE. LTD.  
Address: 30 Kallang Place #01-23/24 Singapore

### Name of Inventor

1) CHAN, Chee-Wei

### Abstract

Provided are a device and system for controlling the decomposition oxidation of gaseous pollutants. A novel reaction portion design reduces particle formation in fluids during treatment, thereby improving the defect of particle accumulation in a reaction portion. Also provided is the system comprising the device, wherein a modular design enables the system to have the advantage of easy repair and maintenance.

![Diagram](image)

No. of Pages: 33  No. of Claims: 27
Methods, systems, and devices for wireless communications are described for providing acknowledgements of grant-free uplink transmissions, which may in some cases be used for low latency communications. Approaches described herein include the use of per-user equipment (UE) acknowledgement resources assigned to UEs configured for grant-free uplink transmissions as well as the use of per-group acknowledgement resources assigned to groups of UEs configured for grant-free uplink transmissions. Dynamic puncturing of data in a shared downlink data channel may be used in the context of per-UE acknowledgement resource assignment. Corresponding grants of uplink transmission resources may be used in the context of per-group acknowledgement resource assignments.
Methods, systems, and devices for wireless communications are described. A base station may select, for a user equipment (UE), one or more reuse exception rules to be applied by the UE when reusing one or more resource sets for data communication. The base station may signal the one or more reuse exception rules to the UE. The base station may communicate with the UE in accordance with the one or more reuse exception rules.
Described is a machine for forming filter bags (1) for infusion products comprising a first movement carousel (2) rotating continuously about a first axis (2X) of rotation and having at least a plurality of first operating stations (3) configured for retaining and operating on corresponding piece (1a) of filtering material fed to obtain at least a lifting of a chamber (1b) to an upright position, that is, positioned radially with respect to the first axis (2X) of rotation; means (4) which are designed to transfer the pieces (1a) of filtering material from the first movement carousel (2) to a second movement carousel (5) rotatable continuously about a second axis (5X) parallel to the first axis (2X) of rotation; the transfer means (4) have a first wheel (6), rotatable continuously about a third axis (6X) of rotation parallel to the first (2X) and to the second (5X) axis of rotation; the first wheel (6) is equipped with a plurality of units (7) for receiving from the corresponding first operating stations (3) of the first movement carousel (2), and releasing on the second movement carousel (5), a corresponding piece (1a) of filtering material; each receiving unit (7) is equipped with corresponding first gripping and stabilising means (8, 13) for retaining the piece (1a) of filtering material upright and positioned with the free head end (1d) directed towards the third axis (6X) of rotation and the second gripping means (9) for positioning and retaining a tag (1t) on the piece (1a) of filtering material, fed from a corresponding feeding station (10), in such a way as to release to the second carousel (5) the piece (1a) of filtering material with a corresponding tag (1t) alongside the free head end (1d) of the piece (1a) of filtering material.
A beam selection method and apparatus suitable for millimeter wave (mmW) communication systems is disclosed. In one aspect, a user equipment (UE) may perform a beam sweep procedure to identify suitable downlink beams candidates from one or more gNBs. The UE may generate a beam list by selecting some of the downlink beams for active tracking. When beams on the beam list become unavailable, the UE may compare the number of available beams on the beam list with a threshold value. If the number of available beams falls below the threshold, the UE may perform another beam sweep procedure.
(54) Title of the invention : PBCH SCRAMBLING DESIGN

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>:62/556905</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>:11/09/2017</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>(86) International Application No Filing Date</td>
<td>:PCT/US2018/049610 05/09/2018</td>
</tr>
<tr>
<td>(87) International Publication No Filing Date</td>
<td>:WO 2019/050991</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number Filing Date</td>
<td>:NA NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number Filing Date</td>
<td>:NA NA</td>
</tr>
</tbody>
</table>

(57) Abstract :
Methods, systems, and devices for wireless communication are described. A base station may generate a sequence for use in scrambling a PBCH. The base station may then partition the sequence into sub-sequences based on a number of SS blocks in a SS block group. The base station may then apply each sub-sequence of the sequence as a scrambling code for the bits associated with the PBCH of a different SS block within a SS block group and transmit at least one SS block scrambled with one of the subsequences. A user equipment may decode the PBCH based on the sequence.
A beam selection method and apparatus suitable for millimeter wave (mmW) communication systems is disclosed. In one aspect, a user equipment (UE) may perform a beam sweep procedure to identify suitable downlink beams candidates from one or more gNBs. The UE may generate a beam list by selecting some of the downlink beams for active tracking. When beams on the beam list become unavailable, the UE may compare the number of available beams on the beam list with a threshold value. If the number of available beams falls below the threshold, the UE may perform another beam sweep procedure.
The Patent Office Journal No. 10/2020 Dated 06/03/2020

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 18/02/2020
(43) Publication Date : 06/03/2020

(54) Title of the invention : METHOD AND SYSTEM FOR CONTROLLING INTEGRATION OF DC POWER SOURCE IN HYBRID POWER GENERATION SYSTEM

(51) International classification : H02M 3/156, H02M 5/458, H02M 1/10
(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : PCT/US2017/047713
Filing Date : 21/08/2017
(87) International Publication No : WO 2019/040037
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

(57) Abstract :
A hybrid power generation system is presented. The hybrid power generation system includes a generator operable via a prime mover and configured to generate an alternating current (AC) power. The hybrid power generation system further includes a first power converter electrically coupled to the generator, where the first power converter includes a direct current (DC) link. Furthermore, the hybrid power generation system includes a DC power source configured to be coupled to the DC-link. Moreover, the hybrid power generation system also includes a second power converter. Additionally, the hybrid power generation system includes an integration control sub-system operatively coupled to the first power converter and the DC power source. The integration control sub-system includes at least one bypass switch disposed between the DC power source and the DC-link and configured to connect the DC power source to the DC-link via the second power converter or bypass the second power converter.

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

(71) Name of Applicant :
1) GENERAL ELECTRIC COMPANY
Address of Applicant : 1 River Road Schenectady, Y U.S.A.
(72) Name of Inventor :
1) GANIREDDY, Govardhan
2) TIWARI, Arvind, Kumar
3) KOLHATKAR, Yashomani, Y.

No. of Pages : 20
No. of Claims : 19
### Title of the invention: QUASI-COLOCATED ANTENNAS FOR LBT

### International classification:
- H04W 74/08, H04W 88/08

### Priority Document No:
- 62/559171

### Priority Date:
- 15/09/2017

### Name of priority country:
- U.S.A.

### International Application No:
- PCT/US2018/044132

### Filing Date:
- 27/07/2018

### International Publication No:
- WO 2019/055137

### Name of Applicant:
1. QUALCOMM INCORPORATED
   - Address: ATTN: International IP Administration
   - 5775 Morehouse Drive San Diego, California U.S.A.

### Name of Inventor:
1. YOO, Taesang
2. ZHANG, Xiaoxia
3. SUN, Jing
4. DAMNJANOVIC, Aleksandar
5. KADOUS, Tamer

### Abstract:
Quasi-colocation (QCL) for listen before talk (LBT) procedures is disclosed. A base station having a plurality of antennas may identify one or more groups of QCL antennas. Various aspects provide for different rules defining the QCL relationship, such as based on interference experienced by the antennas, a physical or logical connection of the antennas and LBT coupling, or synchronization. QCL may further be determined across multiple shared channels, such as based on frequency separation or frequency band of the channels. Once grouped as QCL, the base station performs the LBT procedure to reserve access to the one or more shared communication channels. If the LBT is successful, the base station may then transmit a channel reservation preamble on the shared communication channels in response.

No. of Pages: 29  No. of Claims: 29
**Title of the invention:** PERSISTENT WRITES FOR NON-VOLATILE MEMORY

<table>
<thead>
<tr>
<th>International classification</th>
<th>:G06F 12/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>:15/706530</td>
</tr>
<tr>
<td>Priority Date</td>
<td>:15/09/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>International Application No</td>
<td>:PCT/US2018/046590</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:14/08/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>:WO 2019/055164</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

**Abstract:**
Systems and methods for persistent operations include a host and a memory system. The memory system, upon receiving a Persistent Write command and associated write data from the host, performs a Persistent Write of the write data to a non-volatile memory in the memory system based on the Persistent Write command. The memory system may also receive a write identification (WID) associated with the Persistent Write command from the host and provide, upon successful completion of the Persistent Write, a Persistent Write completion indication along with the associated WID to the host.

**Name of Applicant:**
1) QUALCOMM INCORPORATED
2) RAMANUJAN, Raj
3) BAINS, Kuljit Singh
4) WANG, Liyong
5) QUEEN, Wesley

**Address of Applicant:**
5775 Morehouse Drive San Diego, California U.S.A.

---

No. of Pages : 19 No. of Claims : 52
The present invention provides an apparatus for conducting an assay in a microfluidic system comprising magnetic beads, said apparatus comprising: a platform upon which a microfluidic system can be mounted, one or more actuators having a magnet, configured to directly influence movement of magnetic beads housed within a microfluidic system when a microfluidic system is mounted on said platform, and a control means configured to control relative movement of the one or more magnets, and a microfluidic system when mounted, to enable the magnet to trace a desired path across a mounted microfluidic system, said magnet being positionable at any x- and y-coordinates of a mounted microfluidic system, wherein said apparatus further comprises: a) at least one rotary actuator configured to enable magnet movement in an x-axis, and/or b) a means for moving a mounted microfluidic system in a stepwise fashion.

No. of Pages: 27 No. of Claims: 44
**Title of the invention**: ADDITIVE MANUFACTURING BY SELECTIVE LIQUID COOLING

<table>
<thead>
<tr>
<th>International classification</th>
<th>:G06K 15/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>:62/549167</td>
</tr>
<tr>
<td>Priority Date</td>
<td>:23/08/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>International Application No</td>
<td>:PCT/US2018/047725</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:23/08/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>:WO 2019/040732</td>
</tr>
</tbody>
</table>

| Patent of Addition to Application Number | :NA |
| Filing Date                              | :NA |
| Divisional to Application Number         | :NA |
| Filing Date                              | :NA |

**Abstract**: A method of additively manufacturing parts by selectively cooling a liquefied thermoplastic material.

---

No. of Pages : 0 No. of Claims : 8
A method for dynamic calibration for audio-based data transfer comprises a computing device receiving an audio-based data transmission using initial data reception hardware configurations. The computing device analyzes the initial reception to determine a confidence score for the initial data reception hardware configurations. If the confidence score is below a defined threshold confidence score, the computing device modifies the data reception hardware configuration. The computing device notifies a second computing device to modify data broadcasting hardware configurations, wherein the second computing device modifies the data broadcasting hardware configurations prior to retransmitting the audio-based data transmission. The computing device receives a retransmitted audio-based data transmission using the modified data reception hardware configuration, analyzes the retransmitted audio-based data transmission, and determines a second confidence score for the modified hardware configurations. If the second confidence score is at or above the defined threshold confidence score the initial data hardware configurations are updated.
Methods, systems, and apparatus, including computer programs encoded on a computer storage medium, for receiving a packetized message that is generated by signaling of a tag that is included in code of a given online resource and includes an identifier corresponding to a user that is accessing the given online resource, logging a timestamp as a start of a user session at a website that includes the given online resource, determining that the user session remains active while additional packetized messages continue to be received, determining that the user session at the website has ended, calculating a duration of the user session based on a difference between the timestamp and a time when the user session at the website was determined to have ended, and modifying distribution of content to the user based on the duration of the user session at the website.
(54) Title of the invention : LOW PARASITIC CAPACITANCE LOW NOISE AMPLIFIER

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>H01L 27/12.H01L 21/84</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>62/564155</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>27/09/2017</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>U.S.A.</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>PCT/US2018/048128</td>
</tr>
<tr>
<td>Filing Date</td>
<td>27/08/2018</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>WO 2019/067130</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

(71) Name of Applicant : 1) QUALCOMM INCORPORATED
Address of Applicant : ATTN: International IP Administration 5775 Morehouse Drive San Diego, California U.S.A.

(72) Name of Inventor : 1) GOKTEPELI, Sinan

(57) Abstract :
A low noise amplifier (LNA) device includes a first transistor on a semiconductor on insulator (SOI) layer. The first transistor includes a source region, a drain region, and a gate. The LNA device also includes a first-side gate contact coupled to the gate. The LNA device further includes a second-side source contact coupled to the source region. The LNA device also includes a second-side drain contact coupled to the drain region.

No. of Pages : 24 No. of Claims : 20
A clock distribution architecture is provided in which the output clock signals from a plurality of fractional-N PLLs have a known phase relationship because each fractional-N PLL is configured to commence a phase accumulation responsive to a corresponding edge of a reference clock signal.
**Title of the invention:** BODY CURRENT BYPASS RESISTOR

<table>
<thead>
<tr>
<th>International classification</th>
<th>Patent of Addition to Application Number</th>
<th>Divisional to Application Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>H01L 29/786, H01L 17/687, H01L 27/06, H01L 27/12</td>
<td>:NA</td>
<td>:NA</td>
</tr>
</tbody>
</table>

**Priority Document No:** 62/569435  
**Priority Date:** 06/10/2017  
**Name of priority country:** U.S.A.

**International Application No:** PCT/US2018/048617  
**Filing Date:** 29/08/2018

**International Publication No:** WO 2019/070352

**Name of Applicant:**  
1) QUALCOMM INCORPORATED  
Address of Applicant: attn: International IP Administration  
5775 Morehouse Drive San Diego, California U.S.A.

**Name of Inventor:**  
1) VEDULA, Ravi Pramod Kumar  
2) GOKTEPELI, Sinan  
3) MOORE, Jarred

**Abstract:**  
A radio frequency integrated circuit (RFIC) is described. The RFIC includes a switch field effect transistor (FET), including a source region, a drain region, a body region, and a gate. The RFIC also includes a body bypass resistor (Rb) coupled between the gate and the body region. The RFIC further includes a gate isolation resistor (Rg) coupled between the gate and the body region. The RFIC also includes a diode coupled between the body bypass resistor and the gate isolation resistor.

![Diagram](attachment:image)

No. of Pages: 17  
No. of Claims: 19
Title of the invention: DYNAMIC DISASSOCIATED CHANNEL ENCRYPTION KEY DISTRIBUTION

Abstract:
A method may include determining, by a first network device, a type of control channel to open across a transport in a software-defined network (SDN). The method may also include establishing the control channel with a control device via a control plane that is separate from a data plane. The method may further include advertising first security association parameters to the control device via the control channel. The method may include receiving, from the control device via the control channel, second security association parameters associated with a second network device. The method may also include establishing a data plane connection with the second network device using the second security association parameters.
Volume leveler controller and controlling method are disclosed. In one embodiment, a volume leveler controller includes an audio content classifier for identifying the content type of an audio signal in real time; and an adjusting unit for adjusting a volume leveler in a continuous manner based on the content type as identified. The adjusting unit may be configured to positively correlate the dynamic gain of the volume leveler with informative content types of the audio signal, and negatively correlate the dynamic gain of the volume leveler with interfering content types of the audio signal.
Title of the invention: METHOD OF SCRAMBLING SIGNALS TRANSMISSION POINT DEVICE AND USER EQUIPMENT USING THE METHOD

Abstract:
Method of scrambling signals, transmission point device and user equipment using the method are provided. The method is for scrambling signals assigned on predetermined radio resources of at least one layer of resource blocks with the same time and frequency resources, and comprises the steps of: sending an ID table to a user equipment through higher layer signaling, the ID table being a subset of the whole ID space and containing available IDs for the user equipment; notifying the user equipment an ID in the ID table to be used through physical layer signaling or UE specific higher layer signaling; generating a random seed based on the notified ID; initializing a scrambling sequence by the random seed; and scrambling the signals with the initialized scrambling sequence. The method of the disclosure, by combining physical layer signaling and higher layer signaling, may notify the used group ID and the blind detection space to a UE, the blind detection for the UE is enabled and the signaling overhead is reduced. Fig. 24

No. of Pages : 75 No. of Claims : 22
The subject technology provides for performing clear channel assessment (CCA) in LTE-U. Transmissions may be monitored in a resource reserved for CCA. An energy of the transmissions is detected over a shorter duration than an assigned slot in the resource reserved for CCA. A beacon may be transmitted in a slot assigned to a wireless entity for CCA in response to detecting a clear channel based on the monitoring. In another aspect, a beacon transmission for CCA and a timing for the monitoring are adapted in response to detecting the transmissions for a consecutive number of CCA periods. Further, the subject technology provides for adjusting to a maximum power for transmission of a beacon in a slot assigned to a mobile station for CCA in response to detecting a clear channel based on the monitoring.
(54) Title of the invention: A NOVEL PROCESS FOR SYNTHESIZING HIGH TEMPERATURE LEAD-FREE PIEZOCERAMICS.

(51) International: C04B0035626000, H01L0041430000, C04B0035486000, H01C0017065000, C04B0035547000

(57) Abstract:
A process for synthesizing high temperature lead-free piezoceramics comprising mixing and milling the powders of the high purity raw material; subjecting the powders to the step of combination at 800 to 1150K, mixing the calcined powder with organic powder; pressing the said mixture to form a desired shape; subjecting the shaped mixture to the step of sintering; polishing and applying conductive paste.

(71) Name of Applicant:
1) Vardhaman College of Engineering
   Address of Applicant: Kacharam Village Shamshabad Hyderabad-501218, India. Telangana India

(72) Name of Inventor:
1) P. Sarah
Abstract:
The present disclosure relates to a composite material comprising cast Aluminium 2014 with tungsten carbide (WC) and fly ash. The Aluminium 2014 is the base metal, Tungsten carbide (WC) is the first reinforcement material and the fly-ash is the second reinforcement material. The composition according to the present invention that comprises 91% to 94% by weight Aluminium 2014, 3% to 6 % by weight Tungsten carbide and 2% to 4% by weight fly ash found to have improved mechanical and tribological properties such as tensile strength, wear, corrosion resistance and hardness for application in automotive and structural applications. In a exemplary embodiment the composite material is manufactured using stir casting process. Figure 1
The present invention relates to a method and tool for simulating role play based supply chain operation for conducting experiments under different supply chain management scenarios. Accordingly, a tool for simulating role play based supply chain operation, comprising of at least a user role playing as a retail manager, or a wholesale manager, or a distribution manager, or a factory manager. At least one interface for each user configured to receive demand quantity from the downstream user and replenishment quantity from the upstream user, display shipping quantity and enter the order quantity as user decision and exhibits output. At least one processor coupled with the interface, communicates with a remote processor and the remote processor configured to: analyse, ship, transmit order or demand of users and evaluate the performance of supply chain on multiple performance measures and ranking supply chain using Grey Relational Analysis (GRA). The process of setting number of supply chains and role assignment, and input parameters of supply chain are optimised for quick setting. Thus, allows role play of users of many supply chains with each supply chain having four roles under different scenarios. Figure 1 (for publication)
A conductive ink for flexible electronics and printed electronics is disclosed. The conductive ink comprises thermoplastic urethane as a binder; Graphene Nanoplatelets or Graphene Sheets; N-Methyl-2-pyrrolidone, m-Cresol, Dimethylformamide, or a non-organic solvent as a solvent, said solvent facilitating the tuning of the viscosity of the ink; and a surfactant. The concentration of the binder ranges between 10% w/v and 30% w/v; the concentration of the Graphene Nanoplatelets or Graphene Sheets ranges between 70% w/v and 90% w/v; the concentration of the solvent is 0.01% w/v; and the concentration of the surfactant ranges between 5% w/v and 10% w/v. The process of preparing the conductive ink is also disclosed.
Title of the invention : AN APPARATUS FOR PERFORMING AERIAL AND UNDERWATER OPERATIONS

Abstract: An apparatus (100) for performing aerial and underwater operations is disclosed. The apparatus comprises an image-capturing unit (74) for capturing images in a field of view, sensors (82, 84, 86, 88) for determining conditions surrounding the apparatus (10) on the surface, and at least two thrusters (40, 44) for controlling the apparatus (10) underwater. The processor (70) communicates with the image-capturing unit (74) and sensors (82, 84, 86, 88) via a communication link to control the apparatus (10) in both aerial and underwater modes.

No. of Pages : 26 No. of Claims : 10
The invention proposes a new transportation model named as slopeways connecting different places with Vertical Warehouse on which the proposed Transbot always transits between two exchange pillars. The slopeway between two consecutive exchange pillars are supported by additional support pillars. The Transbot design is compatible with standard and existed container to carry it on slopeways with a special automated lashing mechanism. The vertical warehouse provided by the mechanism for raising transbot up to the exit point and release it from exit point. In the same manner the vertical warehouses also having specialized mechanism to unlash from the slopeway track to either lift it or to send it to the local automated warehouse. The vertical warehouses are also designed to accommodate multiple containers by having automated parking system based on capacity & demand considering the goods priority. The major energy supply for the lifting is generated from renewable energy sources like wind and solar which will be mounted on slopeways exchange pillars and supporting pillars.
A system for interior designing is disclosed. The system includes an input module configured to receive one or more inputs from a user; a recommendation module configured to recommend one or more furniture layouts based on the one or more inputs, to enable the user to select at least one furniture layout; a customization module configured to enable the user to select at least one first furniture from the at least one furniture layout selected by the user, to recommend a plurality of variations of the at least one first furniture, to enable the user to select at least one variation from the plurality of variations and to enable the user to customize the at least one variation of the at least one first furniture; an evaluation module configured to evaluate and recommend at least one second furniture based on the customization of the at least one first furniture. FIG. 1
UNMANNED AERIAL DEVICE FOR SMOKE AND FIRE DETECTION AND METHOD TO MONITOR OCCUPANTS

An unmanned aerial device for smoke and fire detection and method to monitor occupants are provided. The unmanned aerial device which is operatively coupled with at least one electromagnetic device includes a plurality of sensors configured to sense at least one of smoke and fire and to sense a temperature of at least one of one or more users and one or more objects within the pre-defined area. The unmanned aerial device also includes an image capturing device configured to capture one or more images and to capture one or more attributes associated with the corresponding at least one of the one or more users and the one or more objects, a thermal image capturing device configured to detect occupancy of the smoke and fire by an infrared sensor within the pre-defined area and to generate one or more thermal images. FIG. 1
SOLAR POWERED AIR CONDITIONING AND WATER HEATING APPARATUS AND A METHOD THEREOF

Solar powered air conditioning and water heating apparatus and a method to operate the same. The apparatus includes a plurality of pairs of Peltier elements, each element of the plurality of pairs of the Peltier elements are connected in series and each pair of the plurality of pairs of the Peltier elements is connected in parallel. The plurality of pairs of Peltier elements is configured to convert thermal energy into electrical energy. The apparatus also includes one or more solar panels configured to convert solar energy into electrical energy, an air cooling subsystem configured to cool the air, the air is generated by the plurality of pairs of Peltier elements within a pre-defined area, a water heating subsystem configured to heat the water within a specific container based on Peltier effect of heating, a control unit configured to control flow of the electrical energy by pulse width modulation (PWM) technique. FIG. 1

No. of Pages: 25  No. of Claims: 7
A METHOD AND SYSTEM FOR CREATION OF THREE DIMENSIONAL MODELS OF AN INDUSTRIAL PLANT

In an embodiment a method for creating three dimensional models of a one or more industrial equipment in an industrial plant is disclosed. The one or more industrial equipment is monitored and operated by a control system. A server of the control system generates a 3-dimensional model of the one or more industrial equipment based on one or more images of the industrial equipment and the data of the industrial equipment. The 3-dimensional model is displayed on a Human Machine Interface (HMI) associated with the control system. [Figure 1]
### Title of the Invention:
ENVIROMENTALLY FRIENDLY CATALYTIC DEPOLYMERIZATION FOCUSING ON MANAGING PLASTIC WASTE AT SOURCE

### Abstract:
An environmentally friendly catalytic depolymerization focusing on managing plastic waste at source, is disclosed herein. The present invention proposes use of waste materials from various industries as catalyst material to maintain temperature uniformity and enhance fuel oil yield in plastic pyrolysis. The proposed invention employs the depolymerization technique at desired temperature to break down the long chain polymers into short chain branched alkanes and aromatics as fuel oil.

No. of Pages : 13
No. of Claims : 7
The present invention relates to a method of extraction of metals from printed circuit boards of electronic devices in an environmentally friendly and economical process. This is achieved by the use of a single acid. The main principle used in the extraction of metals from PCBs is based on varying solubilities in different concentrations of the acid. A single acid of different concentrations is sufficient to sequentially separate the three primary metals tin, lead and copper present in the PCBs.
Title of the invention: A VOLUME COMPENSATION ELEMENT FOR A DIESEL EXHAUST FLUID (DEF) IN AN EXHAUST AFTER-TREATMENT SYSTEM

Abstract: The various embodiment of the present invention provides a volume compensation element 110 for a Diesel Exhaust Fluid (DEF) in an exhaust after-treatment system 100. The exhaust after-treatment system 100 comprises a tank 102 which stores the DEF. The tank 102 is connected to a supply module 104, also known as pump, through flow path. The supply module 104 is connected to a dosing injector 106, through another flow path. The volume compensation element 110 is characterized by a material which is a shape memory alloy. The volume compensation element 110 is made up of the shape memory alloy. The volume compensation element 110 comprises functions of expansion and contraction with respect to temperature which provides damping effect against ice pressure.
**Title of the invention:** A DEFLATION FLOW PATH IN A FUEL INJECTION SYSTEM

**Abstract:**
A deflation flow path 12 of a fuel injection system 10 is described. An upstream end of the deflation flow path 12 is in flow communication with the lubrication flow path of a high pressure fuel pump 14. A downstream end of the deflation flow path 12 is in flow communication with a fuel discharge supply path 16 that is in flow communication with a fuel tank 18. The deflation flow path 12 comprises a throttle 18 defined in the deflation flow path 12, the throttle 18 adapted to constrict a flow of fuel through the deflation flow path 12. A deflation flow valve 20 is in flow communication with the deflation flow path 12 and positioned downstream from the throttle 18, the deflation flow valve 20 adapted to control a flow of pressurized fuel and air bubbles from the throttle 18 to the fuel discharge supply path 16.
## Title of the invention

A METHOD OF PROVIDING A VIRTUAL REALITY EXPERIENCE FOR CROP MANAGEMENT IN AGRICULTURE SECTOR

### International classification

- G06F0003010000
- G06T0019000000
- G06F0003048100
- G06T0015500000
- G01S0003040000

### Abstract

A method of providing a virtual reality experience for crop management in agriculture sector. The method includes receiving, by a processor, a set of input parameters provided using a virtual reality device, the set of input parameters comprising at least one of a geographical location, a crop-nomenclature and climatic condition, retrieving, by the processor, crop-data associated with the set of input parameters from a memory unit in communication with the processor and rendering, by the processor, virtual-reality-environment by displaying at least one of 3-dimensional animations, 3-dimensional visual effects, high definition images, voice output and text annotations associated to the crop-data on a display unit of the virtual reality device for providing the virtual reality experience for the crop management.
A contamination level analyzer 12 in a DNOx system 10 of a vehicle is disclosed. The DNOx system 10 comprises a pump unit 17 connected between an adblue tank 14 and a supply module 16. The pump unit 17 adapted to pump adblue from the adblue tank 14 to the supply module 16. The contamination level analyzer 12 comprises an inlet 28 and a capacitor bridge 22 comprising at least two capacitors 23. The capacitor bridge 22 connected to the inlet 28 at one end. The contamination level analyzer 12 further comprises a processor 26 connected to another end of the capacitor bridge 22. The processor 26 adapted to detect the contamination level in the adblue, when the adblue is made to pass through the capacitor bridge 22. (Figure 1)
Title of the invention: A PRESSURE REGULATOR FOR CONTROLLING A FLOW OF PRESSURIZED GASEOUS FUEL TO A FUEL INJECTOR

Abstract:
A pressure regulator 10 for controlling a flow of pressurized gaseous fuel to a fuel injector is described. The pressure regulator 10 comprises an inlet supply path 12 and an outlet supply path 14. A casing 16 is defined between the fuel inlet supply path 12 and the fuel outlet supply path 14. A first orifice plate 18 and a second orifice plate 20 is positioned between the fuel inlet supply path 12 and the fuel outlet supply path 14, the first orifice plate 18 and the second orifice plate 20 each positioned within the casing 16 and adapted to abut against each other. A first solenoid coil 22 and a second solenoid coil 24 are inserted within the casing 16 and proximate to the first orifice plate 18 and the second orifice plate 20.

No. of Pages : 9 No. of Claims : 2
Title of the invention: AN APPARATUS FOR STRIKING A BIOLOGICAL PLANT

Abstract: The present disclosure discloses an apparatus (10) for striking a biological plant. The apparatus (10) comprises a rope member (16), a first hold and release assembly (14) for engaging a first end of the rope member (16), a second hold and release assembly (12) for engaging a second end of the rope member (16), a first communication interface (20) and a second communication interface (18) for enabling transmission of electric signals between the first hold and release assembly (14) and the second hold and release assembly (12) and a control unit (22) for generating the electric signals to activate the first hold and release assembly (14) and the second hold and release assembly (12) for enabling the rope member (16) to be held and released alternatively causing the rope member (16) to strike the biological plant for enabling pollination.
Title of the invention: A SPRING RETAINER ASSEMBLY FOR A SPEED GOVERNOR FOR AN INTERNAL COMBUSTION ENGINE

Abstract:
The invention discloses a spring retainer assembly 127B for a mechanical speed governor 100 for an internal combustion engine. The spring retainer assembly comprises a tension lever 114 a having a groove; a pressure spindle 500 inserted in said groove on said tension lever 114; compression spring 128 surrounding said pressure spindle 500, to enable movement of said pressure spindle 500 in said groove; a shim 502 at one end of pressure spindle 500 to adjust the pretension of said compression spring 128; a closing plug 506 to close said groove.
Title of the invention: A METHOD FOR MONITORING THE STATUS OF A MECHANICAL FUEL INJECTOR

Abstract:
Disclosed herein is a method of monitoring a status of a mechanical fuel injector 200. The mechanical fuel injector 200 comprises at least a body 202, the body 202 houses a spring 204 and a strain gauge 206 attached to the spring 204. A nozzle holder 208 is attached to the body 202 and houses a needle 210, the needle 210 is mechanically engaged to the spring 204. The method comprises the following steps. The stiffness of the spring 204 is sensed (102) by the strain gauge 206. The sensed stiffness is converted (104) into a signal by the control unit. The signal is then compared (106) by the control unit with a calibrated threshold value of at least one property of the mechanical fuel injector 200. Based on the comparison, the status of the mechanical injector is indicated (108) on a display device for corrective action of mechanical fuel injector.
(54) Title of the invention: A CONTROLLER AND A METHOD FOR CONTROLLING DRIVABILITY OF A HYBRID VEHICLE

(55)
| International classification: B60W0010060000, B60W0010260000, B60W0010080000, F02D0041140000, B60K0006480000 |
| (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 No: NA |
| (62) Divisional to Application No: NA |

(71) Name of Applicant:
1) Robert Bosch Engineering and Business Solutions Private Limited
   Address of Applicant: 123, Industrial Layout, Hosur Road, Koramangala, Bangalore 560095, Karnataka, India.
   Karnataka India
2) Robert Bosch GmbH

(72) Name of Inventor:
1) Juergen Biester
2) Manojkumar Somabhai Parmar

(57) Abstract:
Abstract: The various embodiment herein provide a controller 110 and a method to control drivability of a hybrid vehicle. The vehicle is driven dependent on an output torque (o) corresponding to a resultant output of at least two engines comprising an Internal Combustion (IC) engine 106 and a secondary engine 102. The controller 110 is configured to calculate a control variable (y) as a function of a reference torque (r), a driver demand (d), a proportional gain 126 and a time constant 124. The controller 110 calculates the output torque (o) based on the control variable (y) and the reference torque (r), and controls an actuator 130 based on the control variable (y) to attain the output torque (o) and thereby control the drivability of the vehicle. The controller 110 enables smooth drivability by providing filtering only on driver requested demand.
Disclosed herein is a fuel injection pump 100, comprising at least a housing 102, the housing 102 accommodates a plunger 104, a control rod 106 mechanically engaged to the plunger 104 via a control sleeve 108. An actuator 110 is located in the housing 102, the actuator 110 is adapted to provide a force to a drive element 112 in order to continuously engage the control sleeve 108 and the control rod 106. The actuator 110 thus prevents dis-engagement between control rod 106 and the control sleeve 108.
Title of the invention: A DEVICE AND METHOD OF IDENTIFYING AN ANOMALY CONDITION IN A BLOOD CELL

Abstract:
A method of identifying an anomaly condition in a blood cell is disclosed. The method comprises receiving (105), by a processor, an image of the blood cell in a blood sample, extracting (110) a set of features of the blood cell in response to performing image processing on the image, retrieving (115) at least one statistical model of a plurality of statistical models based on the extracted set of features using training data comprising a plurality of subset-features that correspond to the plurality of anomaly conditions respectively, classifying (120) the blood cell into any one anomaly condition of a plurality of anomaly conditions using the at least one statistical model retrieved and providing (125) feedback for the at least one statistical model based on correctness of the classified anomaly condition for improving accuracy of the classification.
A system 10, a method 20 and a control unit 130 adapted to improve safety of passengers is disclosed. The system 10 comprises a force sensing strip 110 disposed in a seat 115 of a two-wheeler 105, a presence sensor 125 disposed inside each of a set of helmets 120 and a control unit 130 adapted to receive a first set of input signals from the force sensing strip 110 and a second set of input signals from the presence sensor 125 inside each of the set of helmets 120. The control unit 130 is adapted to compare the first and second set of input signals to check if there is any discrepancy to stop the engine 135 or block the ignition of the engine 135. This mitigates the problem of passengers not wearing helmets by checking the number of people sitting and the number of people wearing helmets.
Title of the invention: HIGH Q AND LOW THRESHOLD WGM LASING IN THE VISIBLE SPECTRAL RANGE FROM SM:ZNO MICRO-SPhERICAL CAvITIES

Abstract:
A process for high Q and low threshold WGM lasing in the visible spectral range from Sm:ZnO micro-spherical cavities where the spheres were synthesized by simple laser ablation of sintered target in air. The objective of the present invention is to couple major Sm3+ f-f emissions as a result of the transitions from 4G5/2 to its low-lying multiplets of 6HJ (J=5/2, 7/2, 9/2 and 11/2) which cover a broad visible range from 550-750 nm to the WGMs of the Sm:ZnO microcavity to achieve high Q and low threshold WGM lasing in the visible spectral range.
**Title of the invention:** A METHOD TO OPERATE A COMMON RAIL FUEL INJECTION SYSTEM

**Abstract:**

The invention discloses a method to operate the common rail fuel injection system. The method comprises the steps: energizing at least one injector; de-energizing the injector before fuel starts exiting from the nozzle holes of the injector; repeating energizing and de-energizing at least one injector before fuel starts exiting from the nozzle holes of said injector till rail pressure reduces to below said threshold.
The invention relates to a drive control device 10 for an electrically driven vehicle. The drive control device 10 determines a high-traffic condition based on output from at least one of a brake pedal sensor 20, a clutch sensor 30, a wheel speed sensor 40, a camera 50 and radar of said electrically driven vehicle. The high-traffic condition can be a city traffic condition, bumper-to-bumper traffic condition, etc. The drive control device 10 judges a demand for excess acceleration by a driver during said high-traffic condition based on output of an acceleration pedal sensor 70. The drive control device 10 overrides or rejects said demand for said excess acceleration selectively during said high-traffic condition.

No. of Pages : 12 No. of Claims : 9
The invention relates to easy engineering and monitoring of relays in a substation. The relay is provided with a unique identifier while manufacturing the relay. A communication module provided in the relay broadcasts a message during energization or on activation of a push button after acquiring the IP address. The message comprises the unique identifier, information model and IP address which is received by a substation client. The client has mapping of the unique identifier to an application area e.g. bay and functional area. The substation client uses this broadcast message and compares it with information provided in a database associated with the client, for registering the relay to the client. Once registered, the relay stops broadcasting its presence and gets associated with the client. The unique identifier for the communication is used for associating the data received from the relay to a process object once the relay is commissioned. [Figure 1]
Title of the invention: OCEAN WATER GENERATED HYDROGEN AS A FUEL IN COMBUSTION ENGINES WITH CYCICAL FUELING STRATEGIES

Abstract:
The present invention relates to an alternative fuelling arrangement (100) and a method (1000) thereof for operating a combustion engine of vehicle or machine through in-situ generated green fuel. More particularly, the invention relates to in-situ generation of Hydrogen gas as green fuel through electrolyzer (102) which can be selectively triggered by a hybrid power generation system (200) adapted to judiciously switch between a first power source and a second power source to obtain enhanced efficiency. The present fuelling arrangement (100) is also provided by a feedback system (112) to recycle the working fluid from the exhaust of combusted green fuel for further utilization in electrolyzer (102).
The present disclosure discloses method and server for detecting faults associated with a gas chromatograph device in process plant. The gas chromatograph device is further associated with database configured to store at least one of real-time gas chromatogram, and historic gas chromatogram. Initially, the server is configured to receive the real-time gas chromatogram from the database. Upon receiving the real-time gas chromatogram, the server is configured to detect one real-time symptom. The real-time symptom may be detected by comparing the graph with predetermined configuration data relating to the real-time gas chromatography. Upon detecting the real-time symptoms, the server is configured to determine faults associated with the gas chromatograph device. The faults are determined using the real-time symptoms and fault signature data received from the database. The fault signature data is generated using machine learning model trained by providing the faults and the historic gas chromatogram.
A hybrid air conditioner [0046] The invention provides a hybrid air conditioner comprising an indoor unit and an outdoor unit. The indoor unit comprises a filter or purifier (108b), a stage 1 heat exchanger (105a) and a stage 2 heat exchanger (105b), a fan (106b). The outdoor unit comprises a stage 1 water tank (101a), a pump P1 (103a), a hot side management water tank (101b), a pump P2 (103b), a stage 2 water tank (101c), a pump P3 (103c), a stage 1 evaporator pad (104a), a filter (108a), a fan (106a), a stage 2 evaporator pad (104b), a radiator (110) or condenser (110a), and a thermoelectric engine (107) or a compressor (111). The hybrid AC functions on both thermoelectric engine and compressor and is designed as a split and stand-alone system. The air cooling is achieved by using both direct evaporative cooling and indirect cooling. (FIG 1)
The present invention is to provide a system 100 for amassing drinkable water and ice from the air. The system 100 is having a first compressor and a second compressor filled with a gaseous refrigerant. The refrigerant in the compressor is compressed and circulate towards the condenser. The temperature of the refrigerant is reduced by the condenser and passes through a capillary tube towards the evaporator. A blower 142 is arranged adjacent to the first evaporator 140 which directs atmospheric air containing moisture towards the first evaporator 140 forming water droplets on the surface of the first evaporator 140. The water droplets are collected in a first water tank 145. Further, a sprinkler 190 is arranged adjacent the second evaporator 180 which sprinkles the collected water from the water tank towards the second evaporator 180. The second evaporator 180 forms ice and collects in an ice storage tank 185. Figure 1
The invention relates to a convenient procedure for the preparation of 5H- Dibenzo[a,d] cyclohepten-5-one in high yield and purity from 10,11-Dihydro-5H-dibenzo[a,d]cyclohepten-5-one. The procedure is not only convenient to be adopted on an industrial scale but also safe and environment friendly.

No. of Pages : 13 No. of Claims : 8
Disclosed herein are the processes of preparation of herbal dye compositions comprising the combinations of herbal constituents/ingredients extracted from rhizomes of Curcuma pseudomontana, leaves of Indigofera tinctoria, seeds of Bixa orellana and fruits of Terminalia chebula, for the purpose of providing the herbal dyes that are used to colour the wooden crafts, toys, fabric, cosmetics or as food colorants.
(51) Title of the invention: A BACK FLOW CONNECTOR FOR A COMMON RAIL

ABSTRACT Disclosed herein is a backflow connector 100 for a common rail 103. The backflow connector 100 comprises at least a rotatable adaptor 102 comprising an opening 104, the rotatable adaptor 102 is designed to be fitted on a body 105 of the common rail 103 and is co-axial to an axis of the common rail 103, the opening 104 of the rotatable adaptor 102 is adapted to be aligned with respect to the backflow path 106. A ring element 108 is located co-axial to the axis of the common rail 103, a first end 105 of ring element 108 adapted to be fitted onto the rotatable adaptor 102 and a second end 107 of the ring element 108 adapted to be fitted onto a groove provided on the common rail 103 for ensuring positional orientation of the rotatable adaptor 102 with respect to the backflow path 106.
The various embodiment herein provides a steering assist device 110 for a steering system 100 of a vehicle. A planetary gear arrangement 210 couples an electric motor 202 to a worm gear arrangement 116 having a worm shaft 108 and a worm wheel 106. A drive pinion gear 104 is mounted to the worm wheel 106 and held in engagement with the steering rack 102. The steering assist device 110 is characterized by, a ring gear 212 of the planetary gear arrangement 210 coupled to a rotor shaft 204 of the electric motor 202 as input, a carrier 218 of the planetary gear arrangement 210 is coupled to the worm shaft 108 to transmit output, and a sun gear 216 is held stationary. A required output torque is obtained with low rated electric motor 202 and is applicable for single and dual pinion based steering system 100. (Figure 1)
The various embodiment herein provides a controller 102 and method to diagnose fault in a crankshaft position sensor 104 of a vehicle. The controller 102 is adapted to detect any one of a first signal 110 and a second signal 120. The first signal 110 corresponds to a voltage generated by an electric machine 106 coupled to an engine. The second signal 120 corresponds to a status of a drivetrain of the vehicle. The controller 102 further detects a position signal 130 from the crankshaft position sensor 104, upon detection of any one of the first signal 110 and the second signal 120, and diagnoses fault in the crankshaft position sensor 104 based on a status of the position signal 130. The status of the position signal 130 is selected from absent and abnormal. The controller 102 enables diagnosis of a fault using the output of an electric machine 106. (Figure 1)
Disclosed herein is a common rail 100 in a fuel injection system, the common rail 100 is adapted to receive fuel from a high pressure fuel injection pump via an inlet port 102. The inlet port 102 is adapted to house a filter 104, the filter 104 is designed to conform to inner diameter of said inlet port 102 and adapted to filter 104 and throttle fuel received from said high pressure fuel injection pump. Figure. 1

No. of Pages : 6 No. of Claims : 2
Disclosed herein is a fuel injection pump 100, comprising a housing 102 accommodating a plunger 104. The plunger 104 receives drive from a cam shaft via a cylindrical roller tappet 106. At least a first end face 108 of the roller tappet 106 comprises a circular groove 112 for receiving lubricating oil from an engine in order to lubricate the end face of the roller tappet 106. (Figure. 1)
(54) Title of the invention : COOLER FOR BEVERAGE AND FOOD PRODUCTS

(57) Abstract :
Coolers for dispensing products, such as beverages, having multiple doors for accessing a single product compartment. A cooler may include a housing defining a product compartment; a top door coupled to a top surface of the housing at a hinge, the top door comprising a curved transparent panel; a vertical door coupled to a vertical front surface of the housing; a collapsible shelf disposed in the product compartment that is configured to move between an extended position and a retracted position; and a lower shelf disposed below the collapsible shelf in the product compartment. A product disposed on the collapsible shelf may be accessible through the top door when the collapsible shelf is in the extended position and a product disposed on the lower shelf may be accessible through the top door when the collapsible shelf is in the retracted position.

No. of Pages : 32 No. of Claims : 22
A method includes inducing a first quantity of a feed fluid (28) to flow along a first direction (72) from a bioreactor (12) to a tangential flow filter (16) to separate the first quantity of the feed fluid (28) into a permeate fluid (42) and a retentate fluid (48). Further, the control unit (66) is operated to control at least one feed flow control device (24, 26) to inhibit the flow of first quantity of the feed fluid (28). Furthermore, the control unit (66) is operated to control the at least one feed flow control device (24, 26) to direct at least one of further flow of a second quantity of the feed fluid (28) from the bioreactor (12), a portion of the permeate fluid (42), and a portion of a nutrient fluid, along a second direction (74) opposite to the first direction (72) via the tangential flow filter (16). FIG. 1
Title of the invention: FRUIT RIPENING FORMULATION AND METHOD OF PREPARATION AND PACKAGING THEREOF

Abstract:
FRUIT RIPENING FORMULATION AND METHOD OF PREPARATION AND PACKAGING THEREOF. Abstract Disclosed is a fruit ripening formulation (100) and a method (200) of preparation and packaging thereof. The fruit ripening formulation (100) is made up of edible starches that do not have any adverse health effects. A starch composite (30) is prepared using different types of starches and mixed with a cellulose composition (40) to provide a modified gel (60). The modified gel (60) is mixed with natural moisture absorbers and treated further to give a gel-absorber composite (80). The gel-absorber composite (80) is pressurized under high pressure of ethylene gas to give the fruit ripening formulation (100). The fruit ripening formulation (100) is packed in a specially designed pouch to avoid loss of ethylene gas therefrom. The pouches are kept in a fruit container for natural ripening of fruits. Being cost effective, the method (200) is affordable for small farmers and sellers. Figure 1

No. of Pages: 15 No. of Claims: 11
The various embodiment of the present invention provides a canister purge system 100. The system comprises a reed valve 110 positioned between the canister 106 and the intake manifold 112 of an engine of a vehicle or a power tool to control purging. The reed valve 110 is designed to operate based on air pressure difference between the intake manifold 112 and an atmosphere. The canister purge system 100 is characterized by, the reed valve 110 openable in a direction towards the canister 106 on movement of the throttle valve 116 from a first position through a second position. The present invention eliminates the electronically controlled solenoid valves and uses a passive reed valve 110 for active control of the canister 106 purging. A low cost solution using mechanical valve is provided.
(54) Title of the invention : A control unit in an organic waste composter

(57) Abstract :
A control unit 12 in an organic waste composter 10 is disclosed. The organic waste composter 10 comprises a micro-climate monitoring unit 14 adapted to detect at least one parameter of a compost. The control unit 12 adapted to receive at least one detected parameter of the compost in the organic waste composter 10. The control unit 12 adjusts at least one operation of the micro-climate monitoring unit 14 based on the detected at least one parameter of the compost. The control unit 12 transmits an information regarding the compost to an external source 20, upon detecting a request from a mobile device 22 of a customer.
Title of the invention : GATE-SOURCE VOLTAGE GENERATION FOR PULL-UP AND PULL-DOWN DEVICES IN I/O DESIGNS

Abstract:
Driver and pre-driver circuitry operate in an integrated circuit with two supply voltages. In one form, a reference voltage generation circuit is operable to respond to varying voltage supply conditions in which a driver may be subject to over voltage effects by generating a reference voltage based the first supply voltage when the second supply voltage is not available, and based on the second supply voltage when the first supply voltage is not available. A first drive signal generation circuit drives a pull-up transistor gate based on a data signal, varying the gate voltage between the second supply voltage and the reference voltage. A second drive signal generation circuit drives a pull-down transistor gate with a signal varying between the second supply voltage minus the reference voltage, and zero volts. In one form, certain gate-source voltages in the driver are maintained to be equal.

No. of Pages : 30  No. of Claims : 35
**Title of the invention**: A SYSTEM FOR WIRELESSLY CONTROLLING FIELD MACHINES

| Abstract: | ABSTRACT Title: A SYSTEM FOR WIRELESSLY CONTROLLING FIELD MACHINES The present disclosure relates to the field of wireless communication systems and discloses a system (100) for wirelessly controlling field machines (46). The system (100) comprises a control unit (10) and a field device unit (40). The control unit (10) is configured to receive input commands from a user, and is further configured to generate encrypted programmed logic control instructions based on the received input commands. The control unit (10) transmits the encrypted programmed logic control instructions over a wireless network (30). The field device unit (40) is configured to receive the encrypted programmed logic control instructions from the control unit (10), and is further configured to control the operation of at least one field machine (46) based on the received encrypted programmed logic control instructions. The system (100) requires less maintenance as hardware connection between the control unit (10) and the field machines (46) is not required. |
| No. of Pages : 15 No. of Claims : 8 |
A testbed (100) for wireless sensor network configured for facilitating interoperability between heterogeneous sensor devices (102, 103 and 104) is disclosed. The testbed (100) comprises a sensor network unit (101) comprising a plurality of sensor devices (102, 103 and 104) including at least a pair of heterogeneous sensor devices (102, 103 and 104) and wherein each sensor device (102, 103 or 104) is configured for generating sensor data, a coordination unit (106) coupled to the sensor network unit (101), the coordination unit (106) comprising a sensor interface for communicating with a plurality of sensor devices (102, 103 and 104) and a server interface, and a supervision unit (108) coupled to the coordination unit (106) via the server interface, wherein the supervision unit (108) comprises a user interface configured for interfacing one or more users (112) with the sensor network unit (101) via the coordination unit (106) so as to manage the sensor data.
**Title of the invention:** SYSTEM AND METHODS FOR DYNAMIC POWER MANAGEMENT FOR MR-DC DEVICES NOT SUPPORTING DYNAMIC POWER SHARING CAPABILITY

**Abstract:**
ABSTRACT System and Methods for Dynamic Power Management for MR-DC Devices not supporting Dynamic Power Sharing The present invention provides a method for sending a power headroom report (PHR) to a base station in a Multi-Rat dual connectivity (MR-DC) deployment in a UE (100). The method comprises determining, by the UE (100), that a transmit power required is greater than a maximum transmit power of the UE (100) and determining, by the UE (100), a PHR reporting criteria is met. The method also includes performing, by the UE (100) at least one of: modifying the power headroom such that the transmit power is less than or equal to the maximum transmit power of the UE (100); modifying the maximum transmit power such that the power headroom report indicates that the transmit power required is less than or equal to the maximum transmit power and triggering the power headroom report to the base station; and delaying the triggering and reporting of PHR to the base station.

Fig. 2

No. of Pages : 37 No. of Claims : 28
A system and method for controlling quality of performance of a digital application is disclosed. Performance data representing test results of a requested performance test on the application is obtained. A performance metric is optimized by analyzing the performance data and classifying analysis results of the analyzing into multiple categories, including an immediate remediation category. An automated modification is initiated based on a first analysis result classified into the immediate remediation category. An automated verification performance test determines a measure of improvement in performance of the application based on the modification by comparing a first verification result of a first performance test without the automated modification with a second verification result of a second performance test of the digital application with the automated front end modification. The digital application with the automated modification may be deployed based on a result of the automated verification performance test.
A Fin-Field Effect Transistor based system on chip (SoC) memory is provided and includes a control block, first logic gates, and row decoder blocks. The control block includes a clock generator circuit that generates an internal clock signal, and a global driver circuit coupled to the clock generator circuit that drives a global clock signal. Each row decoder block includes a second logic gate that receives higher order non-clocked address signals via input terminals, a transmission gate that combines the global clock signal and the higher order non-clocked address signals, third logic gates that receive lower order non-clocked address signals and higher order clocked address signals, and output a combined lower order address and higher order address along with the global clock signal, level shifter circuits that receive the outputs, and word-line driver circuits that generate word-lines based on the output of the level shifter circuits. FIG. 3A
The present disclosure provides a clip assembly 300 for holding an article. The assembly 300 includes a base 100 and a clip 200. The clip 200 consists of two flat sections (202, 206) joined by a flexible section 208. A flat surface can be gripped by the two flat sections. The base 100 is attached to the clip 200 by locking a plurality of pins 204 disposed on the clip 200. An article to be held is locked between the clip 200 and base 100 thus, securing it. The clip 200 is then made to grip the flat surface, thereby providing a clip assembly 300 to conveniently hold the article. Alternatively, the flat surface is gripped by the clip 200 between the flat section 202 and angular section 206, while the clip assembly is secured onto a surface of the article between the clip 200 and base 100.
Title of the invention : COMBINATION PROBIOTIC COMPOSITIONS

Abstract :
Combinations of probiotic compositions are described which are beneficial for human hosts in reducing gas and bloating, stomach acidity, and constipation also capable of boosting the immune capacity. The compositions comprise blends including B. coagulans, B. subtilis, and B. clausii in combination with magnesium stearate, magnesium hydroxide, and simethicone. The combination probiotic compositions of the present invention behave in a synergistic manner in their nature of action both in-vitro and in-vivo. The combination probiotic compositions of the present invention are also very stable for comparatively greater amounts of time period.

No. of Pages : 44 No. of Claims : 21
(54) Title of the invention : AN ANTITUMOUR AND ANTIBACTERIAL FORMULATION AND A METHOD THERE OF

(51)
International :A61K0036810000,A01N0063040000,C07K0014435000,C07F0001100000,C12R0001645000
classification
(31) Priority
Document :NA
No
(32) Priority
Date :NA
(33) Name
of priority
country :NA
(86)
International
Application :NA
No
Filing
Date :NA
(87)
International
Publication No
Filing
Date :NA
(61) Patent
of Addition
to Application :NA
Number :NA
Filing
Date :NA
(62)
Divisional to
Application :NA
Number :NA
Filing
Date :NA
(57) Abstract :
The present invention mainly relates to an antitumour and antibacterial formulation of Bio-AgNP synthesized using Withania endophyte Colletotrichum gloeosporioides conjugated with chitosan derived from Penaeus monodon. In one embodiment, the method of preparing an antitumor and antibacterial formulation comprising the steps of isolating a biomass free extract of Colletotrichum gloeosporioides from the medicinal plant Withania somnifera (L.), adding a silver nitrate (AgNO3) solution as a substrate to the biomass free extract, mixing the biomass free extract and the substrate in a particular ratio as a mixture and placing the mixture in a shaker at 37 °C at 150 rpm for 3 days in dark condition and obtaining the antitumor and antibacterial formulation.

No. of Pages : 37
No. of Claims : 16
The present disclosure discloses a brake booster apparatus (10) in a vehicle. The brake booster comprising an enclosure (12) and a diaphragm (14) dividing the enclosure (12) into an atmospheric air chamber (22) and a vacuum chamber (20). The brake booster apparatus (10) characterized by a first actuator (16) assembled on a vacuum port of the vacuum chamber (20) and a second actuator (18) assembled on an atmospheric port of the atmospheric air chamber (22), the first actuator (16) being operated in a closed position and the second actuator (18) being operated in an open position for filling the atmospheric air chamber (22) with atmospheric air for enabling movement of the diaphragm (14) causing a piston (24) located in a master cylinder (28) to discharge brake fluid stored in the master cylinder (28).
The various embodiment herein provides a controller 110 for a SAI system 100 and method of controlling thereof. A solenoid valve 120 is positioned in the conduit 118 to control the flow of air therein. The reed valve 116 opens into an exhaust path 102 of the engine. A controller 110 controls the solenoid valve 120 to control injection of secondary air. The controller 110 is adapted to detect fuel enrichment conditions based on any one of a signal from the lambda sensor 104 and a status of a variable stored in a memory 122 of the controller 110. The controller 110 then computes a duty cycle and/or an amplitude and accordingly operates the solenoid valve 120 to maintain a desired air-fuel ratio and reduce emissions in the exhaust gas for the detected fuel enrichment conditions. The controller 110 enables reduction of exhaust emissions for an enriched lambda using modulation.
The present invention is related to a pharmaceutical composition comprising Ticagrelor and its preparation thereof. The present invention further relates to a pharmaceutical composition of Ticagrelor or a pharmaceutically acceptable salt thereof wherein Hypromellose 5 CPS is used as binder in an amount of 1 to 2.9 % by weight of the composition. Further, the said pharmaceutical composition is useful for the treatment of reduction of the rate of cardiovascular death, myocardial infarction (MI), and stroke in people with acute coronary syndrome or history of myocardial infarction.
Sustainable production of camptothecin in the suspension culture of the endophyte from Notaphodytes nimmoniana, is disclosed. A novel high yielding and sustainable, camptothecin producing endophytes (A. alstroemeriae(NCIM 1408) and A. burnii(NCIM 1409)) and process for producing camptothecin from the said endophytes from Notaphodytes nimmoniana. The endophyte A. burnii(NCIM 1409) is a high yield and sustainable, camptothecin producing endophyte (fungal strain) forming while colony mycelium which turns black during sporulation and forms aerial hyphae. The strain was able to produce 150-200 µg/g DW biomass or 1.5-3 mg/L of CPT titer. The highest yielding endophyte (A. alstroemeriae (NCIM 1408)) demonstrates a high yield of camptothecin up to 300-400 µg/g DW biomass.

No. of Pages : 17 No. of Claims : 9
A battery pack system for temperature regulation of battery cells is provided. The proposed system facilitates optimal and uniform battery cell temperatures, before and during charging and discharging the battery pack system. The cooling and heating is achieved by passing coolant through tubes having different cross sections and a thermally conductive electrically insulative material in contact with the battery cells.
A SYNCHRONIZED GEARBOX

The present invention relates to a synchronized gearbox. The synchronized gear box comprising an input shaft; an output shaft; a synchronizer hub having splines and is mounted on the shaft; an engaging sleeve having group of internal teeth, the engaging sleeve is axial displaceably mounted on the synchronizer hub splines through the internal teeth, an inner and an outer synchronizer ring placed on both side of the synchronizer hub; a first gear and a second gear which are rotatably mounted on the shaft at both sides of the synchronizer hub; and a gear shift fork connected with the engaging sleeves; wherein the width of splines of the synchronizer hub is increased in such a manner that the overlapping area between the engaging sleeve and the synchronizer hub also increases without altering or changing the size of the gearbox, where the increased engaging sleeve to hub overlapping area changes the pivot point of the engaging sleeve in gear shifted condition to reduce wobbling of the engaging sleeve and vibration of the gear shift knob. Reference Figure: Figure 3
METHOD AND SYSTEM FOR INTELLIGENT MEMORIZATION & INFORMATION UPDATION AND DELIVERY BASED ON USER PRESENCE, IDENTITY AND CONTEXT

ABSTRACT
Method and electronic device for managing delivery of voice messages Accordingly the embodiments herein provide a method for managing delivery of voice messages by an electronic device. The method includes storing a voice message received from a first user, where the voice message includes information about a subject and information about an object indicating an event. Further, the method includes identifying a second user for which the voice message is intended based on the subject. Further, the method includes detecting whether a presence of the second user in proximity to the electronic device. Further, the method includes performing one of delivering the voice message to the second user when the presence of the second user is detected, modifying the voice message when the presence of the second user is not detected, and deleting the voice message when the presence of the second user is not detected. FIG. 1
Title of the invention: AN INTEGRATED SYSTEM TO TRACK AND REMOVE MARINE OIL SPILLS

Abstract:

ABSTRACT An integrated System and Method to track and remove Oil Spill from water mass. An integrated system to track and remove oil spills from water mass, comprising of microprocessor driven remote monitor (2), and a rotating, navigatable floating device (4). The floating device is comprised of a float means (6) made of buoyable material and is supported from below by a hollow frame (8). The float means has one or more inflatable air ducts (10) and is configured to rest on water surface. The float means has motor driven wheels (14) which can navigate the device. The float means also houses (i) a sensor system (16) with infrared proximity sensor (22) and a hydrocarbon sensor (24), (ii) a microprocessor controlled pumping system (18) with an inlet (26) and outlet (28), a switch (34) and a receiving tank (30) with level sensor (32) (iii) a Controller means with a microprocessor (12) and communication module. The controller means is in simultaneous communication with the sensor system, pumping system and the motorized wheels of the floating device. The device is trackable by the remote monitor through the communication module.
METHOD AND SYSTEM FOR 5G COVERAGE ENHANCEMENT

Abstract: Method and system for handling cell selection and re-selection in MR-DC system. Accordingly, embodiments herein disclose a method for handling cell selection in a MR-DC system (100). The method includes scanning, by a UE (100), a list of frequencies for initial camping. Further, the method includes identifying, by the UE (100), a first cell supporting a MR-DC based on the list of frequencies. Further, the method includes camping, by the UE (100), to the identified first cell supporting the MR-DC support. FIG. 7
The invention relates to monitoring a condition of an electric drive in an industrial network. The method comprises obtaining values of input parameters, state parameters and one or more temperatures associated with one or more components, at a first time instant. The method further comprises estimating values of the state parameters at a second time instant with a first layer of a state space model of the electric drive and the values of input parameters at the first time instant. In addition, the method comprises estimating values of the one or more temperatures at a third time instant with a second layer of the model, the values estimated for the state variables and the values of the temperatures at the first time instant. A condition of the electric drive is determined from the values of the temperatures estimated for the third time instant and one or more predetermined thresholds. [Figure: 1]
**Abstract:**

Methods and systems for generating alerts based on incapability of a subject. A method includes receiving, by a voice assistant device, an audio input from a first user/subject from a plurality of users to determine an incapability of the first user. The method includes determining, by the voice assistant device, a second user from the plurality of users on detecting the incapability of the first user. The method includes generating, by the voice assistant device, an alert message by mimicking the incapability of the first user. The method includes playing, by the voice assistant device, the alert message to the second user if the second user is in close proximity to the voice assistant device. The method includes routing, by the voice assistant device, the alert message to other voice assistant devices present in close proximity to the second user for playing the alert message to the second user. FIG. 4
The present invention relates to an improved tasar silk reeling machine or particularly the Atal Tasar Silk Reeling Machine. The invention relates to an improved tasar silk reeling machine with least strain to the reeler and wherein all the accessories are fixed to the single pillar and accessible from the sitting position for the reeler which yields comparatively higher productivity and better quality of reeled Tasar Silk Yarn. It particularly comprises of a base frame, a reeling tray, a main shaft, a jettebout panel with jettebout systems, one or more croissure systems, one or more reel break systems, a traverse drive system, a traverse distribution system, a reel gear box, and plastic reels to easily unwind yarn in re-reeling process, and identify the yarn end in case of yarn breakage.

Figure 1:

No. of Pages : 45 No. of Claims : 17
Title of the invention: A METHOD AND SYSTEM FOR IDENTIFYING A MISSED ACTION NOTIFICATION TIME

Abstract:
ABSTRACT Embodiments herein provide methods and systems for managing delivery of notifications for at least one missed or unexecuted event within an identified schedule. The embodiments include determining at least one critical event, which can split the identified schedule into parts. The embodiments include monitoring execution of the different events. If a scheduled event is not executed, the embodiments include providing a notification prior to/after the execution of the critical event. The embodiments include monitoring frequency of execution of different events in the identified schedule, and execution of events in a particular order as in the identified schedule. The embodiments include modifying the identified schedule based on the monitoring. The embodiments include re-identifying critical events based on changes or modifications in the schedule. FIG. 3
The present invention relates to safety barriers which are mounted along the sides of the roadways to intercept errant vehicles and stop them or redirect them in a desired direction. The crash barrier (100) comprises of a profiled member (1), roller support rods (2), floating rollers (3), tension springs (4), front plates (5), mounting rods (6) and compression springs (9). In order to provide cushioning effect to the crash barrier (100) while the vehicles slide over them, plurality of compression springs (9) are arranged between the front plate (5) and the post (7). The floating rollers (3) are projecting outside profiled member (1) such that when a vehicle approaches the crash barrier (100), the initial contact is made on the floating rollers (3) and the floating rollers (3) are allowed to rotate. The crash barrier (100) absorbs shock energy and converts the absorbed shock energy into rotational energy. Figure 4.
A non-destructive system and method for identifying the color defects in various types of grain, particularly paddy is disclosed. The system comprises a tray with plurality of grooves for retaining individual sample grains, two laser light sources placed above and below the tray containing grains passes a beam of light perpendicular to the surface of the grains, a sensor with RGB channels to capture the light absorbed and reflected when the light sources are stationary, a analyzing unit to identify the color defects in the grains using computer vision and artificial intelligence, a display to show the detection results and an input unit to receive user input as illustrated in FIG. 1 & 2. The present invention provides completely transparent, fast, accurate and traceable method for identifying the color defects in various types of paddy.
A device may obtain process data relating to a set of processes. The device may process the process data to generate a process analysis model. The device may classify, using the process analysis model, a particular process into a particular class of a set of classes of the process analysis model. The device may automatically assess the particular process based on the particular class, wherein a set of assessment parameters for assessing the particular process is selected based on the particular class, and wherein an assessment score is assigned to the particular process based on values for the set of assessment parameters. The device may determine, based on the assessment score and the particular class, an automation recommendation for the particular process. The device may automatically complete the particular process using a particular tool based on determining the automation recommendation.
Title of the invention: METHOD AND SYSTEM FOR DETERMINING AN OPTIMAL PATH FOR NAVIGATION OF A VEHICLE

Abstract:
Disclosed subject matter relates to field of vehicle navigation that performs a method of determining an optimal path for navigation of a vehicle. An optimal path selection system may receive a source point and a destination point from a user and may generate one or more planned paths between the source point and the destination point. Path profiling of the one or more planned paths based on one or more path parameters is performed. Quality of the one or more planned paths based on the path profiling and one or more vehicle parameters is determined. Finally, the optimal path is selected from the one or more planned paths based on the quality to navigate the vehicle. FIG.1

No. of Pages : 37 No. of Claims : 20
(54) Title of the invention : TOPOCHEMICAL BOTTOM-UP PROCESSES AND IMPLEMENTATIONS THEREOF

(57) Abstract :
AS ATTACHED

<table>
<thead>
<tr>
<th>No. of Pages : 36 No. of Claims : 14</th>
</tr>
</thead>
</table>

The Patent Office Journal No. 10/2020 Dated 06/03/2020 13099
This disclosure provides systems, devices, apparatus and methods, including computer programs encoded on storage media, for wireless power transmission. In accordance with this disclosure, a wireless power transmission apparatus (such as a charging pad) may support positional freedom such that a wireless power receiving apparatus may be charged regardless of positioning or orientation of the wireless power receiving apparatus. Various implementations include the use of multiple primary coils in a wireless power transmission apparatus. In some implementations, a wireless power transmission apparatus having multiple local controllers to activate different primary coils. In some implementations, the wireless power transmission apparatus may support concurrent charging of multiple wireless power receiving apparatuses. Furthermore, in some implementations, the wireless power transmission apparatus may support charging of a wireless power receiving apparatus that moves in relation to the wireless power transmission apparatus.
| (54) Title of the invention : MOMENT RESISTING CONNECTION FOR A LONG CANTILEVER BUILDING WITH CONCRETE CORE WALL/CONCRETE TRANSFER |
|---|---|
| (51) International classification : A23K0020147000, C12P0019040000, B82Y0030000000, C22B0003000000, C08L0097020000 |
| (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 No : NA |
| (62) Divisional to Application No : NA |
| (71) Name of Applicant : 1) Saravanan K. 2) Dr. Joanna P.S |
| Address of Applicant : Saravanan K. Research Scholar Hindustan Institute of Technology and Science P.O.Box No.1, Rajiv Gandhi Salai (OMR), Padur, (Via) Kelambakkam, Chennai-603 103. Tamil Nadu India 2) Dr. Joanna P.S |
| (72) Name of Inventor : 1) Saravanan K. 2) Dr. Joanna P.S |
| (57) Abstract : NOT SUBMITTED |

No. of Pages : 9  No. of Claims : 2
The invention describes an economical beam-column design which consists of a concrete filled square tubular beam and a concrete filled double skin square tubular column with inner circular tube and the space between them infilled with M30 grade fly-ash concrete. The beam and the column are connected by through bolts. The fly ash concrete infilled columns of the cold-formed beam-column specimen are provided with outer steel tube and inner GFRP for achieving high lateral load carrying capacity, greater ductility and higher initial stiffness which is an important property in earthquake resistant structures. The CFDST column with GFRP inner tube and infilled with fly ash concrete exhibits lesser CO₂ emissions along with increased lateral load carrying capacity and energy dissipation capacity which is required for earthquake resistant structures.
Title of the invention: METHOD AND SYSTEM FOR REMOTE CONFIGURATION OF FIELD DEVICES IN A PROCESS AUTOMATION PLANT

Abstract:
Disclosed is a method for remote configuration and firmware upgradation of field devices with a network device communicatively coupled to the field devices via a gateway device. The network device retrieves configuration data or upgraded firmware from a database depending on whether the field device is connected to a protocol interface module (PIM) or a firmware upgrade module (FUM) of the gateway device respectively. The configuration data or the upgraded firmware is communicated by the network device to the field device via the gateway device to automatically configure the field device or to upgrade the firmware. Fig. 1

Name of Applicant:
1) ABB Schweiz AG
   Address of Applicant: Brown Boveri Strasse 6, CH-5400 Baden Switzerland

Name of Inventor:
1) Ravish Kumar
2) Akilur Rahman
3) Srijit Kumar
Title of the invention: A SYSTEM AND METHOD FOR AUTOMATIC TUNING FOR PID CONTROLLERS

Name of Applicant: 1) L&T TECHNOLOGY SERVICES LIMITED
Address of Applicant: DLF IT SEZ Park 2nd Floor -Block 3, 1/124, Mount Poonamallee Road, Ramapuram, Chennai, Tamil Nadu, India Pin code-600089 Tamil Nadu India

Name of Inventor: 1) ANAND G

Abstract:

No. of Pages: 10 No. of Claims: 3
The present invention provides a system and method for providing a novel leader election mechanism in distributed systems that is randomized in twin dimensions of space and time using the concept of a colliding random walk. Leader election is randomized in space in terms of the node that is identified as the leader. Leader election is randomized in time in terms of the time taken to identify the leader. A source node is enabled to generate left and right coupons in a quantum resistant manner for random walks. The present invention also uses a novel fault tolerance mechanism to identify more number of leaders for same set of coupons. In this, the source vertex generates multiple CRWs for each piece of work that needs to be done. The fault tolerance mechanism reduces the time to collision, increases the number of leaders and also offers increased resilience and tolerance to faults. [FIG.1]
The present invention provides for liposomal nanoformulations for treatment of cancer. The invention represents an advancement in cancer therapeutics and discloses synergistic liposomal nanoformulations comprising nanoparticles of biomolecular fraction of Anthocephalus cadamba along with Near Infrared light absorbing dye, IR780 for the enhanced treatment of cancer. The invention also discloses methods for preparation of liposomal nanoformulations.
A device may receive a query from a user device, and may process the query using a machine learning model to determine categories related to the query. The device may send a message, instructing a user to select a category, to the user device to cause the user device to display the message. The device may receive, from the user device, a selection related to the categories, and may call, based on the selection, a module to cause the module to process the query. The device may receive from the module a response to the query, and may send the response to the user device, to cause the user device to display the response. The device may send the query, the selection, and the response to one or more servers for storage, and may retrain the machine learning model based on information stored by the one or more servers.
Title of the invention: A METHOD OF ACCESSING A PROTECTION RELAY AND A PROTECTION RELAY THEREOF

Abstract:
The present invention relates to a field of protection relays connected in an industrial automation system. The present invention discloses a method of accessing an application function in a protection relay with a Human Machine Interface (HMI) over a communication network. HMI have device certificates, the method comprising the protection relay: receiving a request from an HMI for secure connection, receiving an identity data derived from the device certificate. Comparing the received identity data with a preconfigured identity data for identifying a paired HMI. The protection relay is preconfigured with identity data derived from device certificate of the HMI during commissioning of the protection relay. Determining security access level for accessing the application function based on the comparison. The security access level is: specialized security access privilege and basic security access privilege. Finally, accessing the application function based on the determined security access level with the at least one HMI. [Figure 2]
The present invention provides a fair, high speed and lightweight consensus mechanism for leader election in distributed systems using coupons. The consensus mechanism uses a leader election mechanism that is randomized in twin dimensions of space and time using the concept of a colliding random walk. A source node is enabled to generate left and right coupons in a quantum resistant manner for random walks. Two novel coupon processing mechanisms called Process Execution Time Synchronization (PETS) mechanism and Single Queue (SQ) mechanism are used to process the coupons and find matches. The use of PETS optimizes memory and time requirements while SQ is extremely fast and efficient to handle large volumes of coupons. Also, the coupon forwarding to neighbouring nodes is performed based on three algorithms namely Uniform, Delay and Adaptive Delay forward. These forwarding algorithms effect high fairness even in case of open networks. [FIG.1]
Title of the invention: USER EQUIPMENT (UE) AND METHOD THEREOF FOR EFFICIENT COMMUNICATION WITH WIRELESS NETWORK

Abstract:
ABSTRACT User Equipment (UE) and Method thereof for Efficient Communication with Wireless Network. Embodiments herein provide a method for handling communication with a wireless network by a user equipment (UE). The proposed method includes determining that a data inactivity timer is expired during a PS/CS call recovery procedure with a network. Further, the proposed method includes identifying whether data inactivity is due to a radio link failure with the network, in response to determining that the data inactivity timer is expired. Furthermore, the proposed method includes recovering radio link through the recovery procedure for resuming the PS/CS call with the network, in response to identifying that data inactivity is due to the radio link failure. FIG. 5

No. of Pages: 41 No. of Claims: 20
A SYSTEM TO INTERCONNECT A PLURALITY OF BATTERY CELLS WITHIN A BATTERY PACK

ABSTRACT

A system to interconnect a plurality of battery cells within a battery pack is disclosed. The system includes an MCPCB (Metal Core Printed Circuit Board). The MCPCB includes a base layer, a thermally conductive dielectric layer, a circuit layer comprising a plurality of sections which is bonded to the thermally conductive dielectric layer; each of the plurality of sections is electrically isolated from each other; and a mask layer. The system also includes a plurality of interconnect tabs configured to connect a battery terminal of the corresponding plurality of battery cells to MCPCB. The system also includes one or more through-holes configured to facilitate welding of the plurality of interconnect tabs to the battery terminal of the corresponding plurality of battery cells. FIG. 1
(54) Title of the invention : METHOD AND SYSTEM FOR MANAGING STORAGE SPACE COMPLEXITY IN A STORAGE UNIT

(57) Abstract : Disclosed herein is method and system for managing storage space complexity in a storage unit. In an embodiment, operational parameters related to memory operations and storage parameters related to memory blocks of the storage unit are analyzed to estimate storage capacity of each of the memory blocks. Subsequently, the memory blocks are clustered into plurality of clusters based on the storage capacity. Further, one or more of the plurality of clusters are selected for performing future memory operations based on ranking of the plurality of clusters. In some embodiments, the present disclosure helps in dynamically managing storage space complexity in the storage unit and optimizes the storage space utilization. Also, the present disclosure automatically handles storage volumes, thereby reducing latency in memory backup operations and reducing amount of buffer/cache memory required. FIG. 1
<table>
<thead>
<tr>
<th>(54) Title of the invention</th>
<th>A SMART FUEL CAP FOR FUEL THEFT DETECTION IN AUTOMOBILES</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>(57) Abstract: The present invention relates to a smart fuel cap 100 to measure the amount of fuel present inside the fuel tank and a method of detecting fuel theft occurred in the vehicle or fleet of vehicles. The present invention comprises a smart fuel cap 100, a pressure sensor 309, a microcontroller 324, a vehicle recorder box 212, a global positioning system and a Dashboard or Mobile app 426 for detecting the fuel theft in the vehicle. The temperature calibrated pressure sensor 309 detects the fuel level. The detected fuel level data is read by the microcontroller 324. Further, the present invention has a mobile data connectivity enabled SIM.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document</td>
<td>NA</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>NA</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>NA</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>NA</td>
</tr>
<tr>
<td>(87) International Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>(88) Name of Inventor</td>
<td>1)GAURAV KUMAR 2)MADHAV TENNETI</td>
</tr>
</tbody>
</table>

No. of Pages : 17 No. of Claims : 8
Title of the invention: METHOD AND SYSTEM FOR EXTRACTING TEXT FROM AN ENGINEERING DRAWING

Abstract:
Embodiments of present disclosure relate to method and system to extract text from engineering drawing for performing accurate OCR. Initially, for the extraction, image of engineering drawing is received with a plurality of components. Each of the plurality of components in the image is classified to be one of a textual component and a non-textual component. At least one word element for textual components from the plurality of components is identified based on segmentation of the plurality of components. The segmentation is performed by drawing a plurality of horizontal edge projections of a predefined length for each of the textual components. Further, the textual components is identified to be associated with the at least one word element when horizontal edge projection of each of the textual components overlaps with adjacent textual component. The at least one word element is provided as extracted text for performing OCR on the engineering drawing. Figure 4
The present invention provides an inner tube. The inner tube comprises of an inner wall 102 and an outer wall 103. The outer wall 103 and the inner wall 102 are fused at plurality of radial positions 105 using heat and pressure, and thereby forming said inner tube with multiple sub inner tubes 106. Each of the sub inner tubes 106 provided with an air valve 104 for inflating air or gas and thereby providing multiple air valves 104 for inflating air or gas in the sub inner tubes 106. (Fig- 5)

No. of Pages : 26 No. of Claims : 13
Title of the invention: METHOD, SYSTEM AND APPARATUS FOR FAST MULTI SCALAR ELLIPTIC CURVE POINT MULTIPLICATION OVER PRIME FIELD

Abstract:
A double-scalar point multiplication module (301) comprising a first data logic unit (306) to perform bitwise operations using three different scalar values, at least three point multipliers (302A through 302C) to obtain product of the three different scalar values and at least two point adders (304A and 304B) for adding product values from the point multipliers, wherein a first set of output from the first and second point multipliers (302A and 302B) are added in a first point adder (304A) to generate a first output while a second set of output from the first and third point multiplier (302A and 302C) are added in the second point adder (304B) generating a second output such that total number of point additions are reduced which in turn increases computation speed of encrypting and decrypting data.

No. of Pages: 15 No. of Claims: 6
METHOD, SYSTEM AND APPARATUS FOR EFFICIENT HIGH SPEED ELLIPTIC CURVE POINT MULTIPLICATION OVER PRIME FIELD

Abstract:
A system for enhancing speed of encryption and decryption of data comprising a multiple point multiplication module provided with a first set of point doublers, a first set of controlled buffer blocks and a first set of point adders, a ternary point multiplication module provided with a point tripler, a product block and a second set of point adders, a fast point multiplication module provided with plurality of a third set of point doublers and a third set of point adders along with a storage unit for storing precomputed values of the third set of point doublers and the third set of point adders, wherein the computation time required for encryption and decryption is reduced by skipping a point addition whenever the corresponding output of the first, second and third set of point doublers or point triplers or the product block is zero.
The present invention is in the technical field of a system for harvesting the rainwater collected from the roof of a building or a rain water collection chamber built on electric pole, comprising: a number of rainwater collectors connected to a guttering attached to the roof; a storage tank; and a feed system connecting the rainwater collectors to the storage tank; and a sensor system. The sensor system detects when a predetermined level of rainwater has been collected; and the feed system comprises means for operating the common pumping system so as to transfer water from the collectors to the storage tank only while the amount of water in each of the collectors is greater than or equal to the predetermined level. Furthermore, when the storage tank reaches maximum level, water is directed to ground water recharge tank. Invention also describes methods, processes, and uses thereof.
Title of the invention : THERMOELECTRIC LED LIGHTING SYSTEM

Abstract:
The present invention shall disclose a novel, efficient, cost effective and improved thermoelectric device for effective conversion of waste heat energy into electrical energy with maximum output power without any issue of impedance mismatching and thereby energising an LED or any other devices. The thermoelectric device comprises of a characterized metal based thermoelectric generator (m-TEG) module coupled with operational amplifier based power conditioning unit.

No. of Pages : 19 No. of Claims : 6
The present disclosure discloses a device having a housing. The housing is provided with a photoresistor sensor coupled to the housing facing the writing tip nib. The housing further comprises a first illuminating unit (LED or LASER) and a second illuminating unit (multiple LEDs or LCD or 7 segment display or any other display unit). Further, the housing comprises a microcontroller electrically coupled to the sensor and the first illuminating unit and the second illuminating units. The first illuminating unit is illuminated intermittently and when the writing tip nib of writing instrument is used to write on a surface, then the photoresistor or phototransistor sensor detects the increase in light intensity and transmits signals to the microcontroller. The microcontroller instructs the second illuminating units to indicate how much writing is done by user on paper based on the light intensity detected and thus number of readings taken. [To be published with FIG. 1]
**Title of the invention:** ECO-FRIENDLY TRANSPARENT WOOD COMPOSITE

<table>
<thead>
<tr>
<th>Priority Document</th>
<th>Priority Date</th>
<th>Name of priority country</th>
<th>International Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>C08L0097020000,B27N0003000000,C08H0008000000,C08J0003200000,C08L0097000000</td>
</tr>
</tbody>
</table>

**Abstract:**

ABSTRACT A TRANSPARENT LIGNOCELLULOSIC COMPOSITE

The invention provides a process for obtaining a transparent lignocellulosic composite. The process includes selecting a lignocellulosic structure, treating the lignocellulosic structure with a lignin modifying solution for modification of lignin and then permeating the modified structure with a dispersion of polymer and plasticizer to obtain a transparent lignocellulosic composite.

**Name of Applicant:**
1) Institute of Wood Science and Technology
   - Address: Institute of Wood Science and Technology, 18th Cross Malleshwaram, Bengaluru - 560003, Karnataka, Karnataka India
2) Pandey Krishna Kumar
3) Subba Rao Anantha Nanjanagudu
4) Nagarajappa Giridhar Boodihal
5) Nair Sreeja

**Name of Inventor:**
1) Pandey Krishna Kumar
2) Subba Rao Anantha Nanjanagudu
3) Nagarajappa Giridhar Boodihal
4) Nair Sreeja

No. of Pages: 15  No. of Claims: 10
**Title of the invention**: CLUTCH AND BRAKE SAFETY MECHANISM FOR CONTINUOUS VARIABLE TRANSMISSION MOTORCYCLES

| (51) International classification          | :B62M11/14 |
| (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 Filing Date | :NA        |
| (62) Divisional to Application Number Filing Date | :NA        |

| (71) Name of Applicant:                  |
|                                          |
| 1) SUBRAMANYA NANJANGUD GURUMURTHY       |
| Address of Applicant: #116/256, AGRAHARA STREET, KOTE, KANAKAPURA TOWN, RAMANAGAR DISTRICT-562117, KARNATAKA, INDIA. Karnataka India |

| (72) Name of Inventor:                   |
|                                          |
| 1) SUBRAMANYA NANJANGUD GURUMURTHY       |
| 2) KARTHIK NAGENDRA                      |

**Abstract**: A hydraulic clutch with braking apparatus includes two unidirectional check valves, cable actuated direction control valve associated with a spring return, one or more reservoirs and one or more connection lines connecting a circuit between an accelerator cable and a braking cable associated with a motorcycle. The circuit connects one or more of the two unidirectional check valves, the cable actuated direction control valve with spring return, and the one or more reservoirs.

No. of Pages: 21  No. of Claims: 10
A System and a method for Computing infrastructural damages is disclosed. The present invention provides for identifying one or more potential areas to be impacted during a predicted calamity and classifying the one or more potential areas based on severity of impact in said areas. Further, a first group of datasets associated with one or more potential areas are generated. A pre-calamity data is generated based on the first group of datasets using one or more processing techniques. Further, the present invention provides for generating a post-calamity data based on a second group of datasets associated with respective one or more geographical areas actually affected by the predicted calamity. The damage associated with each of the said properties is computed based on at least one of a comparison between the pre-calamity data and the post-calamity data, or based on the post-calamity data.
**Title of the invention:** HYPER SPECTRAL IMAGING MICROSCOPE FOR SPECTRAL RECONSTRUCTION

**International classification:** H04N0005262000, H04N0021430000, G06F0008710000, G02B0025000000, H04N0005225000

**Application Number:** 201841033006 A

**Date of filing of Application:** 03/09/2018

**Publication Date:** 06/03/2020

**Name of Applicant:**
1) Spectral Insights Pvt. Ltd.
   - Address: Unit 1, 5th Floor, Discoverer Building, ITPL, Whitefield, Bangalore, Karnataka, India, Pin Code-560 066.
   - Karnataka India

**Name of Inventor:**
1) DIPANKAR DAS

**Abstract:**
An imaging system includes a magnifier, a filter and one or more image capture devices. The magnifier is operable to generate a magnified version of a source scene representing a sample. The filter, in combination with the magnifier, is operable to provide a distorted version of the magnified version. The one or more image capture devices is operable to generate six or more responses from the distorted version and the magnified version. The six or more responses are capable of being analyzed to construct a hypercube of the source scene. In an embodiment the magnifier is an optical microscope.

No. of Pages: 31 No. of Claims: 10
The present invention relates to a process for preparing a pharmaceutical formulation comprising a low dose drug and one or more pharmaceutically acceptable excipients.

No. of Pages : 7 No. of Claims : 4
Abstract:
Combination of internal combustion engine or fuel cell with high temperature electrolysis. Pure Hydrogen and oxygen is used as a fuel for internal combustion engine or fuel cell. The produced steam is used for the production of hydrogen and oxygen by High temperature electrolysis. This produced hydrogen and oxygen is stored in a small amount in a small pressure. Dynamo is used for production of electricity, from the crankshaft which power the vehicle, needed for electrolysis. This is a continuous process no need additional fuel and don't produce waste.
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application: 04/09/2018
(21) Application No. 201841033095 A
(43) Publication Date: 06/03/2020

(54) Title of the invention: HYDRAULIC MECHANISM IN ENGINES PISTON TO INCREASE FORCE

(51)
International: F02D0041000000, F02B0041040000, F15B0015140000, F02D0041380000, B60W0020000000
Classification
(31) Priority Document: NA
No
(32) Priority Date: NA
(33) Name of priority country: NA
(86) International Application: NA
No
Filing Date
(87) International Publication: NA
No
(61) Patent of Addition to Application: NA
Number: NA
Filing Date
(62) Divisional to Application: NA
Number: NA
Filing Date

(71) Name of Applicant: 1) DINESH KUMAR .S
Address of Applicant: 311/B-5 KAMADHENU NAGAR, KOLANDANUR, PASUVI POST, KARUR- 639004, TAMIL NADU, INDIA.

(72) Name of Inventor: 1) DINESH KUMAR .S

(57) Abstract:
This invention is by using Pascals law from fluid mechanism of hydraulic lift application. A hydraulic is placed between engines piston and a crankshaft. Were smaller area piston is powered by the engines piston. The force received at larger area piston near crankshaft is in larger amount. Larger or greater force is then applied on crankshaft, make engine more efficient, reduce fuel intake and can control pollution and reduce global warming, when fuel hydrogen is used.

No. of Pages: 7 No. of Claims: 5
LIGHTING-DEVICE CONTROLLER

The invention relates to a lighting-device controller (200) for wirelessly controlling an operational state of an external lighting device (202) that is powered by mains power via a mains supply line (204). The lighting-device controller comprises a control unit comprising (212) a chargeable local DC power source (210) configured to supply the control unit with operating power, and a communication unit (218) configured to generate and provide to the lighting device wireless signals (220) indicative of a desired operational state of the lighting device. The lighting device controller further comprises an electrical interface for forming a series connection of the lighting-device controller with the external lighting device and a rectifying unit (208) connected to the electrical interface unit and to the local DC power source and configured to receive an AC current via the mains supply line and to deliver a unipolar charging current to the local DC power source.

No. of Pages : 35 No. of Claims : 15
(54) Title of the invention : CARDIAC RESUSCITATION DEVICE

(57) Abstract :
Sudden cardiac arrest leading to stoppage of blood circulation is a medical emergency needing immediate intervention. If circulation of blood is not restored in 2-3 minutes brain damage may set in. Manual chest compression is the first aid needed at that time immediately to keep blood flowing. But when the process has to be prolonged fatigue sets in and compression may not be optimal. In such situations a mechanical device will be handy. This device is proposed for mechanically providing chest compressions till proper medical care comes and heart gets restored to its normal activity. This device consists of an electric motor which transmits the needed torque through a gear box to CAM which pushes the piston - the follower of CAM, to administer the chest compression. This machine is capable of delivering the compressions as per American Heart association recommendation for cardiac resuscitation.
<table>
<thead>
<tr>
<th>(19) INDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>(22) Date of filing of Application :04/09/2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(12) PATENT APPLICATION PUBLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>(21) Application No.201841033117 A</td>
</tr>
</tbody>
</table>

| (43) Publication Date : 06/03/2020 |

| (54) Title of the invention : PROCESS FOR THE PREPARATION OF ITRACONAZOLE INTERMEDIATE |

<table>
<thead>
<tr>
<th>International classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>A61K0031496000, C07D0237020000, C07C0017093000, C07F0009658400, C07C0209100000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(31) Priority Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(32) Priority Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(33) Name of priority country</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(86) International Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Filing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(87) International Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(61) Patent of Addition to Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Filing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(62) Divisional to Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Filing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(57) Abstract :</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT The present invention provides a process for the preparation of Itraconazole intermediate compound of formula I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(71) Name of Applicant :</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Neuland Laboratories Limited</td>
</tr>
<tr>
<td>Address of Applicant : Sanali Info Park, 'A' Block, Ground Floor, 8-2-120/113, Road No. 2, Banjara Hills, Hyderabad Telangana India</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(72) Name of Inventor :</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Dr. Siripragada Mahender Rao</td>
</tr>
<tr>
<td>2) Dr. Satishbhai More</td>
</tr>
<tr>
<td>3) Dr. Krishnaiah Pendem</td>
</tr>
<tr>
<td>4) Mr. Lakkadasu Satya Nagendra Kumar</td>
</tr>
<tr>
<td>5) Mr. Mattewada Rajesh</td>
</tr>
<tr>
<td>6) Mr. Avula Sudarshan Reddy</td>
</tr>
<tr>
<td>7) Mr. Bupathi Sathish</td>
</tr>
</tbody>
</table>

No. of Pages : 12 No. of Claims : 4
Automatic Shuttering Sheet Cleaning and Oil Coating Machine is a system of maintains the shuttering sheets conditions at proper manner, the cleaning of shuttering sheets is required during the construction, especially while the concrete pouring process, during the concrete casting process, the mold cavity is created by using the shuttering sheets made up of metal, after the use of the shuttering sheets, the concrete is deposited on the sheets, this deposition is causes poor and rough surface finish during the reuse, so the cleaning process is required before reuse. Then an another process is performed in the shuttering sheets. That is oil coating process is required during the use of shuttering sheets, because the oil coat prevent the corrosion due to the contact of metal sheets and concrete moisture. The both processes are mentioned above is performed manually until now, these processes require more time consumption and human effort and cost. In our working prototype we have automated shuttering sheet cleaning and oil coating process.
Title of the invention: CONVERTIBLE HANDKERCHIEF FOR USE AS A HANKY AND ALSO AS A CARRY BAG

A Convertible Handkerchief for dual use purpose to use as a hanky and also to use as a carry bag. [Figure 1]

No. of Pages: 6 No. of Claims: 2
A dual-purpose article with plant seeds and more specifically to pre-loaded plant seeds specifically arranged to facilitate germination, upon watering.

No. of Pages : 8  No. of Claims : 4
Title of the invention: A SADDLE-RIDE TYPE VEHICLE AND A HEADLAMP ASSEMBLY THEREOF

Abstract:
The present subject matter relates generally to a headlamp assembly. The headlamp assembly comprises at least one lamp unit (207, 305) supported by said headlamp housing sub-assembly (203b, 303b) and a lens member (201, 301) enclosing a frontal portion of said headlamp housing sub-assembly (203b, 303b). The headlamp housing sub-assembly (203b, 303b) includes a compartment (209, 303) capable of housing a secondary lamp unit (203a, 303a) there within, said compartment (209, 303) is disposed beneath a partition member (205, 308) configured to be disposed at a predetermined distance (pd) from said lens member (201, 301). The predetermined distance (pd) ensures effective heat dissipation inside the headlamp assembly.
The present invention relates to a vehicle, more particularly to a frame assembly for the vehicle. The vehicle (100) includes a frame assembly (402) for a saddle-ride type vehicle (100), the frame assembly (402) comprising a pair of rear frames (402a) extending obliquely rearwardly, a cross-member (403) disposed across said pair of rear frames (402a), and a locking mechanism (200), the locking mechanism (200) includes an extending portion (201b) configured to be detachably attached to a movable abutment (204) capable of receiving at least one outer cable (205a) of said at least one cable assembly (205), said movable abutment (204) is pivotably attached to said extending portion (201b) along a mounting axis (MM).
Title of the invention: AN OVER RIDE SYSTEM

Abstract: AN OVER RIDE SYSTEM

The present subject matter relates to a system to override the powertrain cut-off condition for a vehicle (100) when the any powertrain controlling means such as side stand switch (410) suffers malfunction or completely breaks down. The present subject provides an override system applicable for both engine as well as electric motor run vehicles (100) where the user may enter one or more override sequence using at least one input unit. The present subject matter also allows multiple attempts to overcome the powertrain cut-off situation.

No. of Pages: 24  No. of Claims: 12
(54) Title of the invention: CRYSTALLINE FORMS, CO-CRYSTALS OF DEUTETRABENAZINE AND PROCESS FOR THE PREPARATION THEREOF

(51) International: C07D0473040000, C07C0309040000, A61L0027180000, C07D0471060000, C07C0309300000

(57) Abstract:
Aspects of the present application relates to crystalline forms of salts of Deutetrabenazine, process for the preparation thereof and pharmaceutical composition of crystalline salt forms.

(71) Name of Applicant:
1) Dr. Reddy’s Laboratories Limited
   Address of Applicant: 8-2-337, Road No. 3, Banjara Hills, Hyderabad, Telangana, India - 500034
   Telangana India

(72) Name of Inventor:
1) Shanmukha Prasad Gopi
2) Divya Jyothi Kallem
3) Satyanarayana Tirunahari
ABSTRACT OF THE INVENTION IOT BASED FORECASTING DESIDERATUM FOR AGRICULTURAL CROPS USING SENSORS

The present innovation is a combinatorial biosensor device comprising sensor elements for detecting enumerative results viz., temperature, humidity, pH, moisture, water level and nutrient presence (N, P & K) based on quantitative analysis technique and intimate using IoT network instantly. A Microcontroller is chip that executes programs for controlling other devices. This device will reduce the encumbrance of farmers and helps to protect crops by alarming on the concerns viz., pollution monitoring, water level, light intensity, oxidation potential and nutrient depletion. Problems faced by agricultural crops are addressed by abatement of pollution, mass production of crops to meet population expansion and monitoring the water level periodically and intimate to farmers/ concerned person immediately by IoT based agricultural sensor device to provide optimum level of the entire desideratum for yield improvement in the agricultural field.
Title of the invention : DOWNCOMER FOR AN INDURATING FURNACE WITH A BRICK LINING

Abstract :
The present application provides a downcomer with brick lining, for an indurating furnace, in a straight travelling grate of a pellet plant. The application also provides bricks for brick lining and a process for pelletizing iron ore pellets, utilizing the straight grate travel process, which comprises a downcomer with brick lining, in an indurating furnace.
Methods, non-transitory computer readable media, and resource management apparatuses that assist with sharing an input/output device for process automation on a computing machine includes receiving a plurality of surface automation requests to use an input device or an output device for surface automation. A priority is assigned to each of the received plurality of surface automation requests based on one or more characteristics associated with each of the plurality of surface automation requests. A surface automation request with a highest priority from the received plurality of surface automation requests is identified. An access to use the input device or the output device is provided to the identified surface automation request from the received plurality of surface automation requests.
SYSTEM AND METHOD FOR EFFICIENTLY MONITORING HAND HYGIENE

A system and computer-implemented method for efficiently monitoring hand hygiene is provided. The system comprises one or more sensors configured to determine presence of one or more individuals in vicinity. The system further comprises one or more controllers configured to ascertain identity of the one or more individuals. The one or more controllers are further configured to send one or more alerts to the one or more identified individuals to wash their hands. Furthermore, the one or more controllers are configured to monitor one or more handwashing instances by the one or more identified individuals and generate one or more compliance results for each of the one or more monitored handwashing instances. The one or more controllers are also configured to initiate one or more actions corresponding to each of the one or more monitored handwashing instances based on the generated one or more compliance results.
ABSTRACT: An alternative traffic control system (106) is presented. The system (106) includes a fixed base (202) rotatably coupled to a housing (204) that includes a main side face (206d) having multiple openings (208d, 208e, 208f, 208g, 208h) provided with LED (210c) configured to emit green light, and other side faces (206a, 206b, 206c), each having a single opening (208a, 208b, 208c) provided with LED (210a) configured to emit red light. The system (106) also includes a driver (302) operatively coupled to a controller (304) configured to regulate the driver (302) to rotate the housing (204) about the fixed base (202) by an initial angle to a first position, with the main side face (206d) directed towards a first path for a first time period, and by another selected angle to a subsequent position, with the main side face (206d) directed towards a subsequent path for a subsequent time period. FIG. 2
An energy-efficient traffic control system (100) is presented. The system (100) includes a fixed base (108) rotatably coupled to a housing (110) that includes a main side face (112d) having multiple openings (114d, 114e, 114f, 114g, 114h) provided with LED (116c) configured to emit green light, and other side faces (112a, 112b, 112c), each having a single opening (114a, 114b, 114c) provided with LED (116a) configured to emit red light. The system (100) also includes a driver (120) operatively coupled to a controller (122) configured to regulate the driver (120) to rotate the housing (110) about the fixed base (108) by an initial angle to a first position, with the main side face (112d) directed towards a first path for a first time period, and by another selected angle to a subsequent position, with the main side face (112d) directed towards a subsequent path for a subsequent time period. FIG. 1
The invention relates to a voltage source converter and energization thereof. The converter comprises a plurality of converter modules connected in series between DC terminals of DC power system. Each converter module is further connected with AC terminals of a phase of an AC power system, for conversion between DC and AC power. Each converter module has director valve arms and wave shaper arms. The director valve arms comprise antiparallel thyristor pairs and the wave shaper arms comprise cell capacitors. The converter can be energized in a first mode from the AC power system and in a second mode from the DC power system. In the first mode, a duration of turning on of the thyristors is controlled. In the second mode, the connection and bypassing of the wave shaper arms is controlled with the thyristors. This limits inrush current, overvoltage in capacitors and ensures that capacitors are charged adequately. Fig. 1
Title of the invention: METHOD FOR IDENTIFYING A HAND POSE IN A VEHICLE

Abstract:

ABSTRACT

Embodiments of present disclosure relates to method for identifying a hand pose in a vehicle, and a system for performing an event in a vehicle. Initially, for the identification, a hand image for a hand in the vehicle, is extracted from a vehicle image of the vehicle. Plurality of contextual images of the hand image is obtained based on the single point. Further, each of the plurality of contextual images are processed using one or more layers of a neural network to obtain a plurality of contextual features associated with the hand image. A hand pose associated with the hand is identified based on the plurality of contextual features using a classifier model. Figure 4

No. of Pages : 28 No. of Claims : 7
SPIRAL BAFFLED CYCLONE SEPARATOR FOR PARTICULATE EMISSION CONTROL

Abstract:
A spiral baffled cyclone separator with a spiral baffle in the body so as to increase the removal efficiency of micron-sized particulates (< 10 micrometer) is disclosed, for vehicle exhaust systems. Small particles owing to their small mass tend to move towards the center of the cyclone due to the dominant drag force. A spiral baffle traps these smaller particles moving in to the center of the cyclone and thus resulting in efficient particle removal from the exhaust.
According to Oersteid magnetic field is produced around current carrying conductor. The magnetic field around the conductor exert force on electrons in the conductor thus certain amount of electrons could not able to flow along current direction but opposite to current direction thus self induction current come to effect. When this magnetic field curl according to Maxwell right hand rule. change of magnetic force on electrons in the conductor produce induced e.m.f and induced current. Heretofore written facts are abstract of invention.

No. of Pages : 5 No. of Claims : 2
The invention relates to a method for preparing bioactive compositions from coconut tomentum. The method comprises drying coconut tomentum, extracting the dried tomentum with at least one polar protic solvent, filtering and concentrating the drying the extracts. The method optionally includes a separation step to modify the relative concentrations of the individual components in the bioactive compositions. The invention further provides pharmaceutical compositions based on the bioactive composition. The methanol extract of coconut tomentum exhibits antibacterial, antioxidant and cytotoxic activities. (Figure 1)
A method comprising: transmitting, by a network controller, a request to at least one of plurality of network elements, wherein the request comprises enabling of latency monitoring; receiving, by said network controller, at least one latency monitoring response; receiving, by said network controller, at least one entry and exit timestamp reading of at least one of plurality of network packets; storing, by said network controller, at least one reading as received; and determining, by said network controller, latency on the basis of received at least one reading.
The Patent Office Journal No. 10/2020 Dated 06/03/2020

Abstract:
Declared herein is a new QKD configuration for sharing secure keys over extended distances and irrespective of media engineering. This system includes a QKE intermediate node equipment called Bharat (6) and an end terminal called Chanda (8) in place of Bob as shown in FIG. 1 and 2. An authentication is first established between sending end terminal, Alice and Bharat using a standard authentication protocol. Sifting of quantum key takes place between Alice and Bharat followed by error correction and Privacy Amplification process as in conventional QKD. An authentication is again established between Bharat and Chanda by a standard authentication process. The secure quantum key derived by Bharat is then transmitted to Chanda using a proprietary algorithm which is provably secure, on a standard classical channel. In this manner, Alice and Chanda have access to the same secure key which is then used for establishing encrypted secure communications.

No. of Pages : 17
No. of Claims : 5
(54) Title of the invention: PROCESS FOR THE PREPARATION OF ARIPIPRAZOLE MONOHYDRATE

(57) Abstract:
The present invention relates to commercial scale manufacturing process for the preparation of 7-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butoxy]-3,4-dihydro carbostyril monohydrate having formula (I).

No. of Pages: 14 No. of Claims: 4
SMART CONTAINER AND SYSTEM THEREOF

A smart container refilling system (101) comprising a first set of smart containers (110A-110N) equipped with a plurality of sensors (310A-310N), a mobile device (130) equipped with a smart container level indicator (510) and an e-wallet (520), a refilling subsystem (160) comprising a first set of refill resources (410A-410N) and a billing subsystem (440) in that each refill resource is associated with at least one smart container in the first set of smart containers, and a payment sub-system (170) to deduct money from the e-wallet and credit to a refill resource account based on an input from the billing subsystem, wherein the mobile device sends a refill alert message to the refill resource when the smart container level indicator is less than a pre-threshold value such that the refill resource refills the associated smart container with a resource while the billing subsystem generates a bill for the refilling performed.
(54) Title of the invention : DISPLAY DEVICE

(57) Abstract :
Most of the stores want display the price of the product, this will help the customers to select the product. Generally we write on the board or we will take the printout and we will display the same. Even we can use electronic gadgets like digital display units, but they are costly. This invention is provided with display unit where it have rolling sheet, on which the numbers or characters are already printed, by rotating the rolling sheet we can set the price and we can use the same for display purpose. We can customize the display size, based on the requirement. We can also integrate with electronics to make it as digital display unit.
The invention on same concept witnesses as follows:

1. Yarn twisting operation is done on same concept followed in APV SPIN-BOX SYSTEM replacing conventional ring and spindle using with frictionless or non-contact bearings;
2. Drive for Spin-Box System is same mentioned in main application,
3. In modified design twisted yarn is taken down coiling around Crown assembly through guided groove passage horizontally to maintain twist,
4. Twisted yarn leaving the Crown assembly outside the peripheral area under disc assembly reaches the yarn guide passes vertically down reaching traverse mechanism to form final package;
5. Drive for Cheese winding mechanism same as shown in main application;
6. In case of any yarn breakage, broken end pulled up taken through yarn entry passage in reverse direction to reach traveler and piecing is done in normal way.

No. of Pages: 8 No. of Claims: 10

Name of Applicant:
1) Venkatesalu VASUDEVAN
Address of Applicant: 54-B, Gr Floor, 11th Street, A-Block, Annanagar East, Chennai-600102, Tamilnadu, INDIA.

Name of Inventor:
1) Venkatesalu VASUDEVAN

No. of Pages: 8 No. of Claims: 10
A device may receive data that is related to historical reports associated with an organization, historical audits of the historical reports, and individuals associated with the historical reports. The device may determine a multi-entity profile for the data. The multi-entity profile may include a set of groupings of the data by a set of attributes included in the data. The device may determine, using the multi-entity profile, a set of supervised model features for the historical reports. The device may determine, using the multi-entity profile, a set of unsupervised model features for the historical reports independent of the historical audits. The device may determine, utilizing a model, a score for a report. The device may perform one or more actions.
ABSTRACT A data intelligence platform may include a role-based workbench component configured to control access to or use of the data intelligence platform to identify an issue associated with data associated with an organization. The data intelligence platform may include a data intelligence component configured to: process the data to identify the issue related to the data, or perform a set of actions related to fixing the issue related to the data based on a result of processing the data. The data intelligence platform may include a data management component configured to facilitate access to a corpus component or to a source of the data. The data intelligence platform may include the corpus component configured to facilitate processing of the data to identify the issue or to perform the set of actions.
Title of the invention: DEVICE CONTROL SYSTEM AND DEVICE CONTROL METHOD

Abstract:

[Task] Provided is a device control system, etc. that activates an electrical device for a desired time period. [Means for Solution] Device control system 100 includes: instruction device 300 that controls operation of electrical device 500 which requires key information 461 to operate; and terminal device 200 that communicates with instruction device 300. Terminal device 200 includes terminal communicator 210 that: receives, from instruction device 300, identification information 331 for identifying electrical device 500; and transmits, to server 400, the identification information and use request information indicating a request for using electrical device 500. Instruction device 300 includes: instruction communicator 310 that receives, from server 400, key information 461 and use period information indicating an available time period of electrical device 500; and instruction controller 320 that, when key information 461 and the use period information are received via instruction communicator 310, activates electrical device 500 for the available time period indicated in the use period information. [Selected Drawing] FIG. 2
In the case of a textile machine (1), in particular a spinning machine or winder, comprising a plurality of adjacently arranged workstations (3), which are combined to form multiple sections (2) and each include multiple communication-capable units, wherein the sections (2) each comprise a section control system (13), and wherein the communication-capable units of the workstations (3) of a section (2) are connected to a section bus (15, 16) for communication with the section control system (13), the sections (2) each comprise at least two section busses (15, 16) connected to the section control system (13). A first portion of the communication-capable units of the workstations (3) is connected to a first one (15) of the at least two section busses (15, 16) and a second portion of the communication-capable units of the workstations (3) is connected to a second one (16) of the at least two section busses (15, 16). In the case of a corresponding method for controlling such a textile machine (1), a first portion of the communication-capable units of the workstations (3) communicates via a first one (15) of the at least two section busses (15, 16) with the section control system (13) and/or further communication-capable units of the workstations (3), and a second portion of the communication-capable units communicates via a second one (16) of the at least two section busses (15, 16) with the section control system (13) and/or further communication-capable units of the workstations (3). Fig 3.
A filter device (1, 101) according to one embodiment includes an annular core (2), a rod-shaped conductor (3, 103) inserted through the core (2), and a circuit board (4, 104) electrically connected to the conductor (3, 103). The circuit board (4, 104) and the core (2) are arranged in a longitudinal direction (X) of the conductor (3, 103) such that a main surface (31, 131) of the circuit board (4, 104) faces the core (2) in the longitudinal direction (X) of the conductor (3, 103).
A control device arrangement structure (39) includes a throttle body (40) which is provided at the vicinity of the engine (30) and in an intake path (41) for introducing air into a combustion chamber of an engine (30) and adjusts the amount of air, an air cleaner (50) which purifies outside air, a connecting member (60) which connects the throttle body (40) with the air cleaner (50), and an ECU (70) which controls the internal combustion engine (30), wherein the ECU (70) is supported by the connecting member (60). [Figure 4]
Spinel Lithium Titanium Oxide (LTO) Nanowire Anode Material for Lithium Ion Batteries. The present development is a process for the preparation of nanowire synthesis, coatings and uses thereof. Lithium titanate (LTO) nanowires are synthesized using a continuous hydrocarbon/plasma flame process technology combined with the dry impregnation method. The resulting LTO nanowires can be used as electro active anode materials for lithium ion batteries. The coating parameters, such as thickness, porosity of the film, packing density, and viscosity are controlled using the length of the nanowires, calendaring pressure, and slurry composition. Fig. 1(B)
The invention relates to an electrical contact (1) for mating with a mating contact (16), comprising an aluminium body (2), extending along a longitudinal axis (L), made of aluminium or an aluminium alloy, said aluminium body (2) being provided with a connecting portion (4) for connection to an aluminium conductor (6), a contact zone (10), arranged on a surface (8) of the aluminium body (2), for electrical connection to the mating contact (16), and at least one contact spring (12) connected to the aluminium body (2) with a contact region (14) for contacting the mating contact (16), wherein the at least one contact spring (12) at least partially rests on the contact zone (10) and is formed from a material which is harder than the aluminium or aluminium alloy and wherein the contact zone (10) is formed from a material which is more creep-resistant than the aluminium or aluminium alloy. Furthermore, the invention relates to a contact arrangement (3) comprising an electrical contact (1) according to the invention and an aluminium conductor (6) connected in an integrally bonded and/or form-fitting manner to the connecting portion (4). (Figure 2)
A dual-type wave gear device (1) wherein an external gear (4) is equipped with first and second external teeth (7 8) which are different in tooth number and gaps (9) formed therebetween and serving as a cutter clearance portion for a teeth-cutting cutter. When the maximum width of the gaps (9) is L1 the depth from the tooth crest surface of the first external tooth (7) to the deepest part (9a) of the gap (9) is t1 the tooth height of the first external tooth (7) is h1 the depth from the tooth crest surface of the second external tooth (8) to the deepest part (9a) is t2 and the tooth height of the second external tooth (8) is h2 any of the conditions 1-3 are satisfied.

Condition 1: L1 = 0.1L - 0.35L t1 = 0.9h1 - 1.3h1 t2 = 0.3h2 - 0.9h2
Condition 2: L1 = 0.1L - 0.35L t1 = 0.3h1 - 0.9h1 t2 = 0.9h2 - 1.3h2
Condition 3: L1 = 0.1L - 0.35L t1 = 0.3h1 - 0.9h1 t2 = 0.3h2 - 0.9h2

Thus it is possible to implement a dual-type wave gear device for which the tooth bottom fatigue strength and the wear resistance of the external gear can be increased.
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application: 21/08/2019

(43) Publication Date: 06/03/2020

(54) Title of the invention: DISPLAY PANEL, PACKAGING METHOD THEREFOR, AND DISPLAY DEVICE

<table>
<thead>
<tr>
<th>International classification</th>
<th>H01L 51/52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>20171240035.2</td>
</tr>
<tr>
<td>Priority Date</td>
<td>30/11/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>China</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/CN2018/104121</td>
</tr>
<tr>
<td>Filing Date</td>
<td>05/09/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/105091</td>
</tr>
</tbody>
</table>

(51) International classification: H01L 51/52

(31) Priority Document No: 20171240035.2

(32) Priority Date: 30/11/2017

(33) Name of priority country: China

(86) International Application No: PCT/CN2018/104121

Filing Date: 05/09/2018

(87) International Publication No: WO 2019/105091

(61) Patent of Addition to Application Number: NA

Divisional to Application Number: NA

(71) Name of Applicant:

1) BOE TECHNOLOGY GROUP CO., LTD.
   Address of Applicant: No. 10 Jiuxianqiao Rd., Chaoyang District Beijing 100015 China

2) CHENGDU BOE OPTOELECTRONICS TECHNOLOGY CO., LTD.

(72) Name of Inventor:

1) YANG, Xiaodong
2) LI, Duanming
3) SUN, Quanqin
4) ZHANG, Qin
5) ZHANG, Shuai

(57) Abstract:

A display panel a packaging method therefor and a display device. The display panel comprises a display substrate and at least one packaging thin film layer covering the display substrate. The packaging thin film layer comprises a first inorganic thin film (3), a second inorganic thin film (4), an organic thin film (5), and a third inorganic thin film (6) stacked sequentially on the display substrate. The adhesion force between the material of the first inorganic thin film (3) and the material of the organic thin film (5) is less than the adhesion force between the material of the second inorganic thin film (4) and the material of the organic thin film (5).

No. of Pages: 16 No. of Claims: 13
The present disclosure provides an organic electroluminescent display substrate comprising: a substrate, a display region, a transition region, a package thin film, and a through hole extending from the display region to the transition region. The display region includes an insulation layer disposed on the substrate and an organic electroluminescent device disposed on the insulation layer. The transition region includes: a recess running through the insulation layer and a redundant layer disposed on the substrate and located within the recess. The size of an opening of at least a portion of the recess that is away from a side of the substrate is not greater than the size of an opening that is adjacent to a side of the substrate. The redundant layer is made of the same material as at least one layer of the organic electroluminescent device and the redundant layer is disconnected from the organic electroluminescent device. The package thin film covers the organic electroluminescent device and the recess. In a region corresponding to the recess the through hole runs through the package thin film the redundant layer and the substrate.
The present disclosure describes use of two security processors for a mobile device. In some aspects a first security processor device embodied in a security component of an apparatus receives a user input via an input device and transmits a security condition signal to a second security processor device embodied in a System on Chip (SoC) component of the apparatus causing the SoC component to perform a security operation. In other aspects the first security processor receives a signal via a sensor device sensing environmental conditions surrounding the apparatus and in response transmits a security condition signal to the second security processor causing the SoC component to perform a security operation. The security operation is directly controlled maintained and implemented by the second security processor embodied in the SoC component.
An original key of a shared object in a blockchain is obtained. The number of parties sharing the original key is determined. The original key are processed by using a predetermined algorithm to generate the same number of child keys as that of the number of parties sharing the original key where the child keys are used to restore the original key when the same number of child keys are obtained.

FIG. 1
**Title of the invention:** METHOD AND DEVICE FOR COMMUNICATION

<table>
<thead>
<tr>
<th>Material</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>International classification</td>
<td>H04W 72/04, H04W 72/12</td>
</tr>
<tr>
<td>Priority Document No</td>
<td>201710853767.2</td>
</tr>
<tr>
<td>Priority Date</td>
<td>15/09/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>China</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/CN2018/102783</td>
</tr>
<tr>
<td>Filing Date</td>
<td>28/08/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/052334</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Abstract:**
A method and a device for communication are provided for improving flexibility in transmitting physical uplink shared channel resources. The method comprises: a network device generating first instruction information wherein the first instruction information is for instructing a terminal device to send one or more frequency hopping bandwidths used by physical uplink shared channel resources for the network device; and the network device sending the first instruction information to the terminal device.

**No. of Pages:** 38  **No. of Claims:** 20
A resource transfer method a fund payment method and apparatus and an electronic device. The resource transfer method comprises: acquiring a human facial image of a resource transfer-out party wherein the human facial image is used for authenticating the identity of the resource transfer-out party; acquiring resource transfer identification information about the resource transfer-out party wherein the resource transfer identification information has a correlation with a transfer-out party account of the resource transfer-out party; determining information about the transfer-out party account and a reference image corresponding to the transfer-out party account when the human face image matches the reference image; and transferring a resource of the resource transfer-out party according to the information about the transfer-out party account.
Disclosed are a method and device for sending and receiving a physical uplink control channel which are used for enhancing the channel estimation performance of a terminal device. The method for sending a physical uplink control channel comprises: generating a physical uplink control channel wherein the physical uplink control channel bears a demodulation reference signal and uplink control information and the physical uplink control channel is sent on a resource element set the resource element set occupying in a time domain at least two time-domain symbols the demodulation reference signal being located on at least one time-domain symbol of the resource element set the at least one time-domain symbol comprising a first time-domain symbol the demodulation reference signal occupying in the first time-domain symbol some of frequency domain sub-carriers of the resource element set and the part of frequency domain sub-carriers being the same as frequency domain sub-carriers occupied by the uplink control information in the resource element set; and sending the physical uplink control channel.
**Title of the invention:** INTRA-FRAME PREDICTION METHOD AND APPARATUS VIDEO ENCODING DEVICE AND STORAGE MEDIUM

<table>
<thead>
<tr>
<th>International classification</th>
<th>H04N 19/105,H04N 19/159</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>201710901193.1</td>
</tr>
<tr>
<td>Priority Date</td>
<td>28/09/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>China</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/CN2018/103636</td>
</tr>
<tr>
<td>Filing Date</td>
<td>31/08/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/062475</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Abstract:**
The embodiments of the present disclosure provide an intra-frame prediction method and apparatus and a storage medium. The method comprises: determining main pixel directions of respective reference encoded blocks among reference encoded blocks that are spatially adjacent to a target encoded block; respectively searching for intra-frame prediction directions within a set numerical value from respective main pixel directions and obtaining the searched intra-frame prediction directions corresponding to the respective main pixel directions; forming candidate intra-frame prediction directions with respective main pixel directions at least according to the searched intra-frame prediction directions corresponding to the respective main pixel directions; performing prediction encoding on the target encoded block according to the respective candidate intra-frame prediction directions and determining the target intra-frame prediction direction from the respective candidate intra-frame prediction directions according to prediction encoding results corresponding to the respective candidate intra-frame prediction directions. The embodiments of the present disclosure can reduce the complexity in selecting the target intra-frame prediction direction in an intra-frame prediction process so that the complexity of video encoding is reduced and the real-time requirement of video encoding is satisfied. Fig 2

No. of Pages : 37 No. of Claims : 15
The description discloses an offline information pushing method and apparatus. The method comprises: an offline broadcast device detects the identification data of a terminal within a predetermined distance; the offline broadcast device uploads the detected terminal identification data to a server; on the basis of the terminal identification data the server implements information pushing condition matching; the server pushes to the offline broadcast device the information corresponding to the information pushing condition matching the terminal identification data; and the offline broadcast device broadcasts the received corresponding information.
Disclosed in the embodiments of the present description are a method apparatus and device for processing a web application package. In the described method various resources which an application needs to use are determined and part of the resources are uploaded to a storage device. A generated application package does not comprise the part of the resources which is stored and the resource address for the part of the resources in the storage device is saved in the web application package. Fig 1.

FIG 1

No. of Pages : 16 No. of Claims : 7
Disclosed in the embodiments of the present description are a method and apparatus for detecting model security and an electronic device. The method comprises: using a generative adversarial nets (GAN) frame a model to be detected and sample training to obtain a discriminator; by means of the discriminator making a determination for data of an intermediate result and/or output result calculated by the model to be detected for current input data so as to detect whether the model to be detected is currently secure.
The Patent Office Journal No. 10/2020 Dated 06/03/2020

(12) PATENT APPLICATION PUBLICATION
(21) Application No.201947046247 A
(19) INDIA
(22) Date of filing of Application :14/11/2019
(43) Publication Date : 06/03/2020

(54) Title of the invention : SERVICE EXECUTION METHOD, APPARATUS, AND DEVICE FOR USE IN CLIENT TERMINAL AND SERVER

(51) International classification : G06K 17/00
(31) Priority Document No : 201710805490.6
(32) Priority Date : 08/09/2017
(33) Name of priority country : China
(86) International Application No : PCT/CN2018/103732
   Filing Date : 03/09/2018
(87) International Publication No : WO 2019/047797
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(71) Name of Applicant :
1) ALIBABA GROUP HOLDING LIMITED
   Address of Applicant : Fourth Floor, One Capital Place, P.O. Box 847, George Town, Grand Cayman Cayman Island

(72) Name of Inventor :
1) YANG, Fan
2) VIN, Huanmi
3) ZENG, Xiaodong
4) LIN, Feng
5) YAO, Sihai
6) ZHANG, Hong

(57) Abstract :
Disclosed in the embodiments of the present description are a service execution method apparatus and device for use in a client terminal and a server. The service execution method comprises: a client terminal scans an offline entity and an identification code corresponding thereto; the identification code comprising positioning assistance information of the offline entity; triggering an identification process for the scanned offline entity and identification code; on the basis of the identification process executing a related service of the offline entity; the server can also cooperate with the client terminal to execute the related service.

No. of Pages : 25 No. of Claims : 24
A ceramic foam plane processing device and method, comprising a horizontal groove cutting device, a vertical cutting device, a milling device, a ceramic panel conveying device, and a work platform (5). The horizontal groove cutting device is provided on a front end above the work platform (5). There are two vertical cutting devices. The two vertical cutting devices are respectively provided in parallel on a left and right end of the work platform (5). The milling device is provided on a front end or a back end below the work platform (5). There are two milling devices.

No. of Pages : 24 No. of Claims : 10
There is described a process for preparing a biodegradable polyester from an aromatic dicarboxylic acid, an aliphatic dicarboxylic acid and a diol where in a first reaction step the aromatic acid is esterified with the diol, and in a second reaction step the aliphatic acid is added to the reaction mixture. Furthermore, there is described an apparatus for carrying out this process. [FIGURE 1]
A three-dimensional (3D) ultra-low power neuromorphic accelerator is described. The 3D ultra-low power neuromorphic accelerator includes a power manager as well as multiple tiers. The 3D ultra-low power neuromorphic accelerator also includes multiple cores defined on each tier and coupled to the power manager. Each core includes at least a processing element, a non-volatile memory, and a communications module.
Providing efficient floating-point operations using matrix processors in processor-based systems is disclosed. In this regard, a matrix-processor-based device provides a matrix processor comprising a positive partial sum accumulator and a negative partial sum accumulator. As the matrix processor processes pairs of floating-point operands, the matrix processor calculates an intermediate product based on a first floating-point operand and a second floating-point operand and determines a sign of the intermediate product. Based on the sign, the matrix processor normalizes the intermediate product with a partial sum fraction of the positive partial sum accumulator or the negative partial sum accumulator, then adds the intermediate product to the positive sum accumulator or the negative sum accumulator. After processing all pairs of floating-point operands, the matrix processor subtracts the negative partial sum accumulator from the positive partial sum accumulator to generate a final sum, then renormalizes the final sum a single time.
An apparatus may be configured to receive a segment manifest and an indication of available content accessible through a MBMS service. In an aspect, the available content may include a first set of representations available in a broadcast coverage area, and a second set of representations and a third set of representations available in a unicast coverage area. The apparatus may be located within the broadcast coverage area and the unicast coverage area and elect to receive at least a component of the available content through the third set. Moreover, the apparatus may be further configured to receive at least the component of the available content through the third set of representations, via a unicast channel, based on which of the first set, the second set and the third set of representations are elected to be received.

No. of Pages : 29 No. of Claims : 30
Various example embodiments relate to a filtration system and methods for the installation and use of such a filtration system. According to a set of embodiments, the filtration system comprises a housing that defines a central compartment therein. The filtration system further comprises a filter cartridge positioned within the central compartment of the housing. The filter cartridge comprises a filter media and an identification element. The filtration system further comprises a sensor. The sensor is structured to sense the identification element of the filter cartridge. The filtration system further comprises a filter blocking mechanism communicably coupled to the sensor. The filter blocking mechanism is structured to prevent installation of the filter cartridge into the housing unless filter cartridge information of the identification element sensed by the sensor is identified as corresponding to an authorized filter cartridge.
A cleaving mechanism (20) and related method is adapted to cleave an optical fiber (10) and thereby produce a cleaved end on the optical fiber. The cleaving mechanism (20) includes a fixture (40), a cleave tool (60) for cleaving the optical fiber, and a clamp assembly (80). The clamp assembly (80) may hold the optical fiber without substantial twisting of the optical fiber (10). The fixture and/or the clamp assembly (80) may include a pair of leaf springs (92) that contact and bend around the optical fiber (10) to secure the optical fiber (10) in a clamped position.
Title of the invention: SUPPORTING LOW-LATENCY TRAFFIC OVER A WIRELESS MESH NETWORK

Abstract:
Methods, systems, and devices for wireless communications are described. A central access node (CAN) may manage and schedule resources for a wireless mesh network. The CAN may transmit a first message to a relay access node (AN) to expedite transmission of a priority communication in the wireless mesh network. The first message may provide configuration information for modifying a preconfigured schedule to expedite the transmission of the priority communication. For example, the first message may provide configuration information to modify a preconfigured schedule to allow a first network node to transmit the priority communication to a second network node during a reserved time period. The relay AN may generate a second message regarding the modified schedule and transmit the second message to the second network node.
(54) Title of the invention: SURFACE HARDENING TREATMENT DEVICE AND SURFACE HARDENING TREATMENT METHOD

(51) International classification: C23C 8/26, C21D 1/06
(31) Priority Document No: 2017-133910
(32) Priority Date: 07/07/2017
(33) Name of priority country: Japan
(86) International Application No: PCT/JP2018/025683
Filing Date: 06/07/2018
(87) International Publication No: WO/2019/009408

(57) Abstract:
Based on the nitriding potential in the processing furnace calculated by the in-furnace nitriding potential calculator and a target nitriding potential, an introduction amount of each of the plurality of furnace introduction gases is controlled by changing a flow rate ratio between the plurality of furnace introduction gases while keeping a total introduction amount of the plurality of furnace introduction gases constant, such that the nitriding potential in the processing furnace is brought close to the target nitriding potential.

(71) Name of Applicant:
1) PARKER NETSUSHORI KOGYO CO., LTD.
Address of Applicant: 2-16-8, Nihonbashi, Chuo-ku, Tokyo 103-0027 Japan
(72) Name of Inventor:
1) HIRAOKA, Yasushi
2) WATANABE, Youichi

No. of Pages: 48 No. of Claims: 6
This disclosure provides systems, devices, apparatus and methods, including computer programs encoded on storage media, for determining one or more frequency channels for use in wireless communication. Some implementations more specifically relate to determining one or more frequency channels for unlicensed wireless communication in a frequency band also used for licensed wireless communication, such as a 6 GHz frequency band. In one aspect, a database system is configured to store information associated with existing wireless systems or links including the locations of such systems as well as characteristics of the wireless signals they transmit. In another aspect, a wireless communication device is configured to determine its location, transmit its location to a database system, and receive information from the database system usable to determine a frequency channel on which to communicate. In another aspect, a wireless communication device is configured to transmit a request including a unique identifier (ID) to a database system and to receive information from the database system usable to determine a non-blacklisted frequency channel on which to communicate.

No. of Pages : 54 No. of Claims : 36
This disclosure provides systems, methods and apparatuses for indicating a data rate of a packet. The transmitting device may select the data rate of a data field of the packet to be transmitted to the receiving device, and may select a pattern to embed within a preamble of the packet based on the selected data rate. In some implementations, the transmitting device may select a first structure including a first number of instances of a sequence or its logical complement if the selected data rate is a low data rate, and may select a second structure including a second number of instances of the sequence or its logical complement if the selected data rate is a high data rate.
Title of the invention: METHODS AND APPARATUS FOR DYNAMIC TIME-DIVISION DUPLEXING (TDD)

Abstract:
Wireless communication apparatus and methods related to dynamic TDD are described. In aspects, a method of wireless communication over a shared medium may include, receiving, from a base station, control information in a first portion of a transmission opportunity (TXOP), wherein the control information indicates a configuration for triggering a communication of at least one shared medium reservation signal associated with one or more remaining portions of the TXOP; and in response to receiving the control information in the first portion of the TXOP, monitoring for or transmitting the at least one shared medium reservation signal, based on the configuration.

No. of Pages: 45 No. of Claims: 30
The purpose of the present invention is to provide ligand-immobilized sea-island composite fiber wherein both generation of microparticles caused by detachment of sea components from island components and generation of microparticles because of the destruction of fragile sea components are suppressed. The present invention is a sea-island composite fiber formed from sea components and island components, wherein: the value (L/S) of the average total length (L) of the perimeter of all island components in a cross-sectional surface perpendicular to the axis of the fiber divided by the average cross-sectional surface area (S) for the cross-sectional surface is 1.0 - 50.0 µm⁻¹; the distance to the outermost island component from the surface is 1.9 µm or less; and compounds containing amino groups form covalent bonds with the polymer constituting the island components at an electron charge density of 0.1 to less than 500 µmol per 1 g dry weight.

No. of Pages : 43 No. of Claims : 6
**Title of the invention:** A COMMUNICATION SERVER AND METHOD OF SECURED TRANSMISSION OF MESSAGES

<table>
<thead>
<tr>
<th>International classification</th>
<th>:H04L 29/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>:16/780,102</td>
</tr>
<tr>
<td>Priority Date</td>
<td>-</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>International Application No</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>International Publication No</td>
<td>:NA</td>
</tr>
<tr>
<td>Patent of Addition to Application Number Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>Divisional to Application Number Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

**Name of Applicant:**
1) Tanla Digital Labs Private Limited
Address of Applicant: Tanla Technology Centre, Hitech City Road, Madhapur, Telangana, Hyderabad, India-500081 Telangana India

**Name of Inventor:**
1) Konda Venkata Papi Reddy

**Abstract:**
na

No. of Pages: 53 No. of Claims: 32
The Patent Office Journal No. 10/2020 Dated 06/03/2020

<table>
<thead>
<tr>
<th>(12) PATENT APPLICATION PUBLICATION</th>
<th>(21) Application No.202047005838 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>(19) INDIA</td>
<td></td>
</tr>
<tr>
<td>(22) Date of filing of Application : 11/02/2020</td>
<td>(43) Publication Date : 06/03/2020</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(54) Title of the invention : PENTACYCLIC COMPOUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>(51) International classification : C07D 495/22, A61K 31/551, A61P 25/28</td>
</tr>
<tr>
<td>(31) Priority Document No : 2017-172169</td>
</tr>
<tr>
<td>(32) Priority Date : 07/09/2017</td>
</tr>
<tr>
<td>(33) Name of priority country : Japan</td>
</tr>
<tr>
<td>(86) International Application No : PCT/JP2018/032797</td>
</tr>
<tr>
<td>Filing Date : 05/09/2018</td>
</tr>
<tr>
<td>(87) International Publication No : WO 2019/049869</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number : NA</td>
</tr>
<tr>
<td>Filing Date : NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number : NA</td>
</tr>
<tr>
<td>Filing Date : NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(71) Name of Applicant :</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) EISAI R&amp;D MANAGEMENT CO., LTD.</td>
</tr>
<tr>
<td>Address of Applicant : 4-6-10, Koishikawa, Bunkyo-ku, Tokyo 112-8088 Japan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(72) Name of Inventor :</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) OHASHI, Yoshiaki</td>
</tr>
<tr>
<td>2) NORIMINE, Yoshihiko</td>
</tr>
<tr>
<td>3) HOSHIKAWA, Tamaki</td>
</tr>
<tr>
<td>4) YOSHIDA, Yu</td>
</tr>
<tr>
<td>5) KOBAYASHI, Yoshihisa</td>
</tr>
<tr>
<td>6) SATO, Nobuhiro</td>
</tr>
<tr>
<td>7) HAGIWARA, Koji</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(57) Abstract :</th>
</tr>
</thead>
<tbody>
<tr>
<td>The present invention provides the compound represented by formulas (I) - (VI), or a pharmacologically acceptable salt thereof.</td>
</tr>
</tbody>
</table>

No. of Pages : 39 No. of Claims : 17
The purpose of the present invention is to extract and provide a glucosidase gene having the effect of efficiently promoting saccharification in hydrolysis of cellulose-containing biomass from a hardly culturable symbiotic protozoan community in Coptotermes formosanus, and the present invention specifically relates to a glucosidase derived from protozoans of genus Pseudotrichonympha, comprising the amino acid sequence represented by SEQ ID NO: 1.
Title of the invention: RANDOM WALKING AND CLUSTER-BASED RANDOM WALKING METHOD, APPARATUS AND DEVICE

Abstract:
Disclosed in the embodiments of the present description are a random walking and cluster-based random walking method, apparatus and device, the solution comprising: acquiring information of each node included in graph data, generating, according to the information of each node, a hash table reflecting a correlation between a node and an adjacent node thereof, and generating a random sequence according to the hash table to implement random walking in the graph data. This solution is applicable to both cluster and stand-alone.

No. of Pages: 19  No. of Claims: 22
### Title of the invention: MULTI-BAND FILTER ARCHITECTURES

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>:H03H 11/04,H03H 11/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>:15/712,406</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>:22/09/2017</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>:PCT/US2018/048324</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:28/08/2018</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>:WO 2019/060101</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

**Name of Applicant:**
1) QUALCOMM INCORPORATED  
   Address of Applicant: 5775 Morehouse Drive ATTN: International IP Administration, San Diego, California 92121-1714 U.S.A.

**Name of Inventor:**
1) GATHMAN, Timothy Donald  
2) LEUNG, Lai Kan  
3) PATEL, Chirag Dipak  
4) RANGARAJAN, Rajagopalan

### Abstract:
Certain aspects of the present disclosure relate to multi-band filter architectures and methods for filtering signals using the multi-band filter architectures. One example multi-band filter generally includes a transconductance-capacitance (gm-C) filter and a reconfigurable load impedance coupled to an output of the gm-C filter, the reconfigurable load impedance comprising a first gyrator circuit coupled to a second gyrator circuit.
There may be provided a computer-implemented method. It may be implemented at least in part using a blockchain network such as, for example, the Bitcoin network. The computer-implemented method includes: i) encrypting a plaintext message to a cryptographic public key in accordance with an identity-based encryption scheme using at least a congress public key to generate an encrypted message, wherein the congress public key is associated with members of a congress, respective members of the congress having access to private key shares usable in a threshold decryption scheme in which at least a threshold of private key shares are sufficient to derive a decryption key through the combination of partial contributions to the decryption key on behalf of the congress; ii) generating, using at least a cryptographic private key corresponding to the cryptographic public key, a digital signature over a first set of instructions to perform cryptographic operations upon an occurrence of an event; and iii) broadcasting one or more transactions to a proof-of-work blockchain network, the one or more transactions comprising the encrypted message, the cryptographic public key, at least the first set of instructions, and a second set of instructions to the members of the congress to cooperate: in response to reaching a consensus on the event occurring and contingent upon the digital signature being authentic, deploy a ghost chain to perform the first set of instructions, wherein performing the first set of instructions includes at least deriving the decryption key from the cryptographic key and a plurality of private key shares that satisfies the threshold, the decryption key being sufficient cryptographic material to obtain the plaintext message from the encrypted message.
The invention relates to a device for securing panes of glass for sliding doors, consisting of: a rear plate (3) supporting a rolling element (2) that is configured to allow the securing device (1) to move along a profile (F) of a sliding door (P); and a first front plate (4) and a second front plate (5), both of which face the rear plate (3) and can be coupled to same, defining an intermediate mortise (7) for securing a pane of glass (H). The securing device (1) also comprises a third front plate (6) which faces the rear plate (3) and can be coupled to same, said third front plate being arranged between the first front plate (4) and the second front plate (5).
Title of the invention: ANALYZING IMAGES AND VIDEOS OF DAMAGED VEHICLES TO DETERMINE DAMAGED VEHICLE PARTS AND VEHICLE ASYMMETRIES

Abstract:
A system may receive video of a damaged vehicle, perform image analysis of the video to determine one or more frames of the video that include a damaged portion of the vehicle, further analyze the one or more frames of the video that include a damaged portion of the vehicle to determine a damaged cluster of parts of the vehicle, determine whether the damaged cluster of parts should be repaired or replaced, map the damaged cluster of parts to one or more parts in a vehicle-specific database of parts, and generate, based on the mapping, a list of parts for repair or replacement.
An inline reductant filter assembly includes a filter housing, a filter media, and one or more valves. The filter housing is fluidly coupled to an upstream portion of a reductant line and a downstream portion of the reductant line. The filter media is positioned in the filter housing. The one or more valves are selectively movable from a first position to a second position. In the first position, the one or more valves permit fluid to flow along a first fluid flow path from the upstream portion of the reductant line, through the filter media, to the downstream portion of the reductant line. In the second position, the one or more valves prevent fluid from flowing along the first fluid flow path through the filter media.
**Title of the invention:** LOW NOX CALCINER

**Abstract:**
A system for reducing NOx emission levels during the manufacture of cement clinker having a calciner unit with the following features: an upper portion; a lower portion; a NOx reduction zone in the lower portion; a tertiary air inlet in the upper portion for introducing tertiary air into the upper portion; a main calciner meal inlet located above the NOx reduction zone for introducing a main calciner meal portion into the upper portion; a first cooling calciner meal inlet located in the NOx reduction zone for introducing a first cooling calciner meal portion into a periphery of the NOx reduction zone; and a fuel inlet located in or below the NOx reduction zone for introducing fuel into the reduction zone.

---

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

**Divisional to Application Number**
Filing Date: NA
The invention relates to a mixer having a mixer housing (13a) which encloses a mixing chamber, an input part (1) which can be connected to the mixer housing (13a) and has at least two input openings (2) for the components (A, B) to be mixed, and a mixing element (13), at least some sections of which extend into the mixing chamber, wherein each of the input openings (2) is flow-connected to the mixing chamber via at least one input duct, wherein there is also in the input part (1) at least one compensation duct (4) which connects the input openings (2) to each other, and/or at least one holding chamber (14) is provided in the mixing element (13).
Title of the invention: A LIFTING ASSEMBLY FOR ELEVATING COMPONENTS TO A WIND TURBINE AND A METHOD FOR USING THE LIFTING ASSEMBLY

Abstract:
The present invention relates to a lifting assembly (1) for elevating components (3) to a wind turbine (5). The lifting assembly comprises a plurality of tower segments (13) adapted to be arranged on top of each other to form an elongated tower (9), and a lifting device (2) including a support frame (11) for supporting the tower, a securing assembly (32) for securing the tower to the wind turbine, and a crane (21) having a base part (23) and a jib (24) rotatably connected to the base part. The lifting device (2) comprises a platform (7) arranged vertically moveable between a lower and an upper position. The platform has a first storage area (19) for supporting components with a weight of more than 10 ton. The crane (21) is mounted on the platform (7) and is configured to move the components between the platform and the wind turbine when the platform is in the upper position. The platform is provided with an opening adapted to receive the tower segments. The crane and the first storage area are arranged on opposite sides of the opening, and one of the tower segments is a top segment (26) having an upper part (27) provided with a second storage area for supporting components with a weight of more than 10 ton. The invention also relates to a method for using the lifting assembly for replacing an old component of a wind turbine with a new component.

No. of Pages: 20 No. of Claims: 15
(54) Title of the invention : VALUE SYSTEMS

(51) International classification : G06Q 30/06
(31) Priority Document No : 62/537,796
(32) Priority Date : 27/07/2017
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/US2018/044189
Filing Date : 27/07/2018
(87) International Publication No : WO 2019/023639
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

(71) Name of Applicant : 1) HUTCHINSON, Shawn
Address of Applicant : 701 Washington Street Harpers Ferry, West Virginia 25425 U.S.A.

(72) Name of Inventor : 1) HUTCHINSON, Shawn

(57) Abstract :
Affect and value relations according to pricing and attributes.

No. of Pages : 34 No. of Claims : 10
(54) Title of the invention : SYSTEM AND METHOD FOR REGISTERING A POSITION OF LOSS OF AN OBJECT

(51) International classification : G08B 21/24
(31) Priority Document No : 17182809.8
(32) Priority Date : 24/07/2017
(33) Name of priority country : EPO
(86) International Application No : PCT/EP2018/069926
  Filing Date : 23/07/2018
(87) International Publication No : WO 2019/020568
(61) Patent of Addition to Application Number : NA
  Filing Date : NA
(62) Divisional to Application Number : NA
  Filing Date : NA

(57) Abstract :
Thus there is provided an object retrieval apparatus for retrieving an object which has been lost which comprises a location module arranged to determine a location indication indicative of the location of the apparatus, a first body-coupled communication (BCC) device configured to establish a communication link with a second body-coupled communication device in a tag (3) attachable to the object, wherein the first BCC device is further configured to check the communication link at check times, the check times occurring at repeated intervals, and to generate a link status signal indicating whether the communication link is intact or not, a control module arranged to receive the link status signal, and, if the link status signal indicates a broken link, to set a flag, record the location as a loss recorded location and generate an alert.

No. of Pages : 14 No. of Claims : 13
Certain aspects of the present disclosure provide techniques and apparatus for signaling precoder(s) for non-PMI based CSI feedback.
**Abstract:**
The invention relates to a mixer for mixing pasty components, comprising a mixing case (1) extending along a longitudinal axis (L) and having at least one inlet, preferably two inlets (7), and an outlet (8), and comprising at least one mixing element (2) received in the mixing case (1), which defines a plurality of chambers (20, 21) together with the mixing case (1), said chambers being arranged successively and/or adjacent along a flow path from the inlets (7) to the outlet (8). The chambers (20, 21) are defined by transverse walls (17), each extending perpendicularly to the longitudinal axis (L), and four side walls (13, 14, 18) that each extend parallel to the longitudinal axis (L), and adjacent chambers (20, 21) are interconnected by a flow by means of through-openings (15, 16, 19) provided in the side walls (14, 18), the mixing element (2) comprising two strips (13) forming side walls, which are connected by a web that forms other side walls and is perpendicularly arranged in relation to the strips (13), a first group of chambers (20) having first through-openings (15) arranged in the web (14), which extend up to a strip (13), and a second group of chambers (21) comprising second through-openings (16) positioned at a distance to at least one strip (13) in the web (14).

No. of Pages: 21  No. of Claims: 14
Title of the invention: PROCESS FOR FORMING IMPROVED PROTECTIVE ECO-FRIENDLY POUCH AND PACKAGING AND PRODUCTS MADE THEREFROM

Abstract:
The present invention relates generally to a protective wrap and a protective envelope or pouch: made therefrom, as well as the apparatus and: process for forming such wraps and envelopes. Water-based heat-expandable adhesives (WBHEA) which include a plurality of heat-expandable microspheres are disposed in a pattern between, web substrates on a continuous, high speed manufacturing line to produce padded, insulated products: useful as envelopes, mailers and other protective packaging.

No. of Pages: 49 No. of Claims: 7
### Title of the invention: DETECTION OF OBJECTS

<table>
<thead>
<tr>
<th>International classification</th>
<th>H04N 13/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>NA</td>
</tr>
<tr>
<td>Priority Date</td>
<td>NA</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>NA</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/US2017/053062</td>
</tr>
<tr>
<td>Filing Date</td>
<td>22/09/2017</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/059931</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

### Abstract:
An example device includes a monitoring engine. The monitoring engine is to measure a characteristic of a wireless signal related to a path of the wireless signal. The wireless signal includes data from a remote source. The device includes an analysis engine to determine that an object is within a proximity threshold of a user based on the characteristic of the wireless signal. The device includes an indication engine to indicate to the user that the object is within the proximity threshold of the user. Fig 1.
A method, apparatus and system for adjusting a frequency domain resource and sending indication information, relating to the technical field of communications. The method comprises: a network device determines to adjust a terminal device from a first frequency domain resource to a second frequency domain resource and send information about guard time; after receiving the information about the guard time sent by a base station, the terminal device determines the guard time according to the information about the guard time and is adjusted from the first frequency domain resource to the second frequency domain resource within the guard time. In embodiments of the present application, by introducing information about guard time, a network device is able to flexibly indicate the guard time to a terminal device under different circumstances, thereby reducing the complexity of system implementation.
A method and device for receiving control information and sending control information, which are used to flexibly adjust the reliability of uplink transmission, wherein a method for configuring a control channel comprises: a network device sending indication information of an uplink control channel to a terminal device, the indication information of the uplink control channel being used to indicate at least one of the following transmission parameters: a time domain length parameter, a frequency domain length parameter, a time domain frequency parameter, a frequency domain frequency parameter, and an emission diversity mode parameter; the network device receiving uplink control information from the terminal device by means of the uplink control channel according to the indication information.
Provided is a surrounding conditions display device that detects the surrounding conditions of a host vehicle (V1) having an automatic driving function and displays the detected surrounding conditions. The display device comprises a display instrument (2) that displays, on a variable display bar, the timing at which the behavior of the host vehicle (V1) switches as a result of the automatic driving function, said variable display bar having a prescribed display frame and varying and displaying indicated positions inside said display frame. Lane-change timing and the timing of vehicle departure from intersections are displayed in the variable display bar and, as a result, an occupant can have sensory awareness of the timing at which the behavior changes and occupant discomfort can be suppressed.
Title of the invention: ELECTRONIC DEVICE INCLUDING FLEXIBLE DISPLAY PANEL

Abstract:
An electronic device includes a first lead, a second lead, a touch sensitive display panel including a screen area and an extended area that extends from the screen area, and a control circuit. The touch sensitive display panel includes a flexible substrate, a thin film transistor (TFT) layer including a plurality of light-emitting elements, an insulation layer in which a via-hole is formed, and a touch sensor. The first lead is formed on the TFT layer in the screen area and the extended area and connects the control circuit and the plurality of light-emitting elements. The second lead is formed on the insulation layer in the screen area and on the TFT layer in the extended area, and extends from the screen area to the extended area through the via-hole formed in the insulation layer and connects the control circuit and the touch sensor.
The invention relates to a finger arrangement (1) for holding metal parts during a preheating process, preferably for use in a shaft above a melting-furnace vessel for melting the metal parts, wherein the finger arrangement (1) has: a finger (10), which is movable between a retracted state and an extended state and is set up to hold the metal parts in the extended state, wherein the finger (10) has a coolant feed (31) and a coolant drain (32) and one or more ducts, connected thereto, in the interior of the finger (10), with the result that a coolant is able to flow through the finger (10); and a finger cooler (30), which has one or more feed rotary joints (33, 34, 35), which are swivel joints, and at least two pipe sections connected thereto, wherein one of the pipe sections is connected to the coolant feed (31), and one or more drain rotary joints (37, 38, 39), which are swivel joints, and at least two pipe sections connected thereto, wherein one of the pipe sections is connected to the coolant drain (32).
The present invention relates to an annular barrier for being mounted as part of a well tubular metal structure for providing zonal isolation in a small diameter borehole downhole for isolating a first zone from a second zone, comprising an expandable metal sleeve having a first end and a second end and an outer face facing the borehole, a first end part having a first end connected to the first end of the expandable metal sleeve and a second end for being mounted as part of the well tubular structure, a second end part having a first end connected to the second end of the expandable metal sleeve and a second end for being mounted as part of the well tubular structure, wherein the first end of the first end part is connected end to end to the first end of the expandable metal sleeve, and the first end of the second end part is connected end to end to the second end of the expandable metal sleeve, and wherein the second ends of the end parts are provided with male or female thread connections for being mounted to corresponding male or female thread connections of the well tubular metal structure. The present invention also relates to a well tubular metal structure having a plurality of tubular sections and at least one annular barrier according to the present invention, and to a completion method of preparing an annular barrier according to the present invention.

No. of Pages : 16 No. of Claims : 15
### Title of the invention: DEVICE AND METHOD FOR IMPROVED SPRAY MONITORING

| (51) International classification | :G01F 1/698 |
| (31) Priority Document No | :62/538,848 |
| (32) Priority Date | :31/07/2017 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No | :PCT/US2018/044667 |
| Filing Date | :31/07/2018 |
| (87) International Publication No | :WO 2019/028061 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

### Abstract:

A spraying apparatus having an improved system for monitoring the flow of a spray nozzle or spray device and sensing malfunctions to the spray device is provided. The spraying apparatus includes sensors to monitor an input or instruction signal and a spray signal. The timing of the signals are analyzed to verify whether the spraying apparatus is opening and closing properly for each spray instruction signal.

No. of Pages : 22  No. of Claims : 20
(54) Title of the invention : AIR CLEANER FOR VEHICLES

(51) International classification : B60S 1/60
(31) Priority Document No : 2017-165446
(32) Priority Date : 30/08/2017
(33) Name of priority country : Japan
(86) International Application No : PCT/JP2018/029433
   Filing Date : 06/08/2018
(87) International Publication No : WO 2019/044399
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(57) Abstract :
Provided is an air cleaner for vehicles, configured so that objects to be cleaned can be easily maintained in a clean state. This air cleaner (1) for vehicles is provided with: ejection openings (20, 30) for ejecting air toward the surfaces (21, 31) to be cleaned of objects (2, 3) to be cleaned; and a non-positive displacement blower means (10) for continuously delivering air to the ejection openings (20, 30). Fig 2.

No. of Pages : 23 No. of Claims : 13
According to an aspect, there is provided a light apparatus, the light apparatus comprising an outer housing comprising a translucent portion; a main light source positioned inside the outer housing for generating light, wherein light generated by the main light source is incident on the translucent portion; and a display light source positioned inside the outer housing for projecting information onto a part of the translucent portion on which light is incident from the main light source.

No. of Pages : 12 No. of Claims : 15
An apparatus for generating a three-dimensional image representation of a scene comprises a receiver (301) receiving a tiled three-dimensional image representation of a scene from a first viewpoint, the representation comprising a plurality of interconnected tiles, each tile comprising a depth map and a texture map representing a viewport of the scene from the first viewpoint and the tiles forming a tiling pattern. A first processor (311) determines neighboring border regions in at least a first tile and in a second tile in response to the tiling pattern. A second processor (309) modifies at least a first depth value of a first border region of the first tile in response to at least a second depth value in a second border region of the second tile, the border regions being neighboring regions. The modified depth maps may be used to generate a mesh based on which images may be generated.
Ultrafine bubbles (41) with a diameter of less than 1.0 µm are generated in liquid by causing film boiling in liquid by means of a heater (2).
A bathing room and a lavatory are separated in a water-tight manner and the bathing room and the lavatory are ventilated. This prefabricated bathing room unit is a prefabricated bathing room unit (10) with a lavatory and includes: a bathing room (20) in a ceiling of which a ventilation fan (22) is attached; a lavatory (30) that is adjacent to the bathing room and comprises a toilet (31); and a door (40) that divides the bathing room (20) and the lavatory (30) and that has airways (41) which communicate between the bathing room and the lavatory, with water-deflecting pieces (47a, 47b, 51, 52, 53) being provided in the airways (41). The airways (41) are disposed along the height direction of the bathing room and the lavatory.
A method for providing interactive recording networks is disclosed. Multiple child networks can be established, each child network being coordinated by a respective coordinating entity. Each coordinating entity can also participate in a central parent network. A data package can be sent from one network to another. When a data package is sent to another network, additional data can be added to indicate that the data package is being escalated.
Title of the invention: A CONTROLLER AND METHOD FOR GENERATING A DYNAMIC LIGHT EFFECT ON A LIGHT SOURCE ARRAY

<table>
<thead>
<tr>
<th>International classification</th>
<th>H05B 37/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>PCT/EP2018/069611</td>
</tr>
<tr>
<td>Priority Date</td>
<td>26/07/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>EPO</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/EP2018/069611</td>
</tr>
<tr>
<td>Filing Date</td>
<td>19/07/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/020482</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

Abstract:
A method (700) of generating a dynamic light effect on a light source array (110) is disclosed. The light source array (110) comprises a plurality of individually controllable light sources (112). The method (700) comprises: obtaining (702) or generating (702) a vector, wherein the vector has a plurality of behavior parameters comprising at least a speed and a direction, and the vector has one or more appearance parameters comprising at least a color and/or a brightness, mapping (704) the vector onto the light source array (110) over time according to the behavior parameters of the vector, and controlling (706) the light output of the plurality of light sources (112) over time according to the mapping of the vector onto the light source array (110) and according to the appearance parameters of the vector.
Methods and devices for load balancing of connections may include receiving, at a management component on a container host on a computer device, at least one data packet based on a destination IP address of the data packet, that corresponds to a plurality of container hosts. The methods and devices may include selecting a destination container from at least one container host on the computer device and other computer devices in communication with the computer device over a virtual network to balance a data load and translating the source IP address of the at least one data packet to a local IP address of the container host. The methods and devices may include changing the destination IP address of the at least one data packet to a virtual IP address of the selected destination container so that the at least one data packet is transformed to a proxy data packet.

No. of Pages : 18  No. of Claims : 15
**Title of the invention : PLANT FOR AUTOMATED PACKAGING OF ITEMS IN CARDBOARD BOXES**

<table>
<thead>
<tr>
<th>International classification</th>
<th>Name of Applicant : 1) PANOTEC S.R.L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B65B 43/12, B65B 43/30, B65B 5/02, B65B 35/24, B65B 35/44</td>
<td>Address of Applicant : Via G. Polese, 2 31010 Cimadolmo (TV), IT Italy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Priority Document No</th>
<th>Name of Inventor : 1) BENIN, Marco</th>
</tr>
</thead>
<tbody>
<tr>
<td>102017000090029</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Priority Date</th>
<th>Date of Filing of Application : 26/02/2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/08/2017</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of priority country</th>
<th>Country of Filing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>31/07/2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>International Application No</th>
<th>Name of Applicant : 1) PANOTEC S.R.L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCT/IB2018/055706</td>
<td>Address of Applicant : Via G. Polese, 2 31010 Cimadolmo (TV), IT Italy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>International Publication No</th>
<th>Name of Inventor : 1) BENIN, Marco</th>
</tr>
</thead>
<tbody>
<tr>
<td>WO 2019/025955</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patent of Addition to Application Number</th>
<th>Filing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Divisional to Application Number</th>
<th>Filing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abstract :</th>
</tr>
</thead>
<tbody>
<tr>
<td>A plant (1) for automated packaging of items (O) in cardboard boxes (B) comprising a bottom wall (PF), two pairs of side walls (PL1, PL2) and a top closing wall (Ps). The plant (1) comprises a forming station (2) for forming open sheet boxes (B) from a continuous-feed web (M), introduction means (3) for introducing items (O) into the open boxes (B), a closing station (4) for closing the open boxes (B) with the items (O) therein and feeding means (5) for feeding the open boxes (B). The forming station (2) comprises cutting and creasing means (15) for cutting and creasing the continuous-feed web (M), which are adapted to provide a longitudinal elongate element (E1) defining the bottom wall (PF), the top closing wall (Ps) and the first pair of side walls (PL1) of the box (B), and a pair of transverse panels (E2, E3) adapted to form the second pair of side walls (PL2) of the box (B), as well as first gluing means (21) for gluing the transverse panels (E2, E3) to the elongate element (E1), such that a substantially cross-shaped one-piece deployed blank (H) is provided. The first gluing means (21) comprise a first applicator (22) for applying hotmelt glue strips on the side edges of the elongate element (E1) and the forming station (2) comprises a pair of suction-cup manipulators (23) for picking up the transverse panels (E2, E3) and applying them on the elongate element (E1) at the glue strips to obtain the cross-shaped blank (H). The closing station (4) comprises folding and automatic gluing means (24) for folding and gluing the side walls (PL1, PL2) of the box (B) and the top wall (Ps), such that finished packages are formed, that are ready for storage or shipment.</td>
</tr>
</tbody>
</table>
Title of the invention: PROSTACYCLIN RECEPTOR AGONISTS FOR REDUCTION OF BODY FAT

Abstract:
Prostacyclin (PGI2) analogues which are agonists of the prostacyclin receptor (PI) are demonstrated to activate lipolytic activity in adipocytes. Also described are pharmaceutical compositions and methods for using the PGI2 receptor agonists to reduce subcutaneous adipose tissue and to treat or reduce symptoms of obesity-related diseases or disorders such as diabetes mellitus, fatty liver disease and cardiovascular disease.

No. of Pages: 37
No. of Claims: 94
(54) Title of the invention: COMPUTER-IMPLEMENTED METHOD OF GENERATING A THRESHOLD VAULT

<table>
<thead>
<tr>
<th><strong>(51) International classification</strong></th>
<th>:H04L 9/08,H04L 9/30,H04L 9/32</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(31) Priority Document No</strong></td>
<td>:1713064.2</td>
</tr>
<tr>
<td><strong>(32) Priority Date</strong></td>
<td>:15/08/2017</td>
</tr>
<tr>
<td><strong>(33) Name of priority country</strong></td>
<td>:U.K.</td>
</tr>
<tr>
<td><strong>(86) International Application No</strong></td>
<td>:PCT/IB2018/056094</td>
</tr>
<tr>
<td><strong>Filing Date</strong></td>
<td>:13/08/2018</td>
</tr>
<tr>
<td><strong>(87) International Publication No</strong></td>
<td>:WO 2019/034986</td>
</tr>
<tr>
<td><strong>(61) Patent of Addition to Application Number</strong></td>
<td>:NA</td>
</tr>
<tr>
<td><strong>Filing Date</strong></td>
<td>:NA</td>
</tr>
<tr>
<td><strong>(62) Divisional to Application Number</strong></td>
<td>:NA</td>
</tr>
<tr>
<td><strong>Filing Date</strong></td>
<td>:NA</td>
</tr>
</tbody>
</table>

(71) Name of Applicant: 
1) NCHAIN HOLDINGS LIMITED
Address of Applicant: Fitzgerald House 44 Church Street St. John's Antigua And Barbuda

(72) Name of Inventor: 
1) WRIGHT, Craig Steven

(57) Abstract:
A method and devices for securely and privately generating a threshold vault address and distributed individual key shares reliant upon individually selected polynomial functions, without revealing the key shares and without ever reconstructing the private key. A digital asset stored at the threshold vault address may be used as an input to a transaction through generating a digital signature corresponding to the threshold vault address. Methods and devices are described for collaboratively generating the digital signature without reconstructing the private key or revealing individual key shares. Methods and devices are described for refreshing the distributed private key shares.

No. of Pages: 56 No. of Claims: 40
A method of sharing a secret value is disclosed. The method comprises distributing respective first shares of a first secret value, known to a first participant (P₁), to a plurality of second participants (Pₐⱼ), wherein said first shares are encrypted by means of at least one private-public key pair comprising a private key and a public key being an elliptic curve generator point multiplied by the private key and wherein a first threshold number of first shares is required in order to enable a second participant to determine the first secret value. At least one second share of a respective second secret value is received from each of a plurality of second participants, wherein the second shares are encrypted by means of at least one private-public key pair comprising a private key and a public key being an elliptic curve generator point multiplied by the private key, and a second threshold number of second shares is required in order to enable a participant other than that second participant to determine the second secret value. A third share of a third secret value is formed from a plurality of second shares, wherein a third threshold number of third shares is required in order to enable the third secret value to be determined.
A method for producing an overlap composite material from sheet metal is described, wherein a first metal sheet (1) composed of a first metal and a second metal sheet (2) composed of a second metal which has a lower strength than the first metal are placed one on top of the other in overlapping fashion in an edge region and are then connected by rolling. Provision is made according to the invention for the first metal sheet (1) to have an edge which is wedge-shaped in cross section, and for the second metal sheet (2) to be placed with its edge against a side surface (3), formed by the wedge-shaped edge, of the first metal sheet (1), wherein the side surface (3) formed by the wedge-shaped edge of the first metal sheet (1) has a greater width than that side surface (4) of the edge of the second metal sheet (2) which is placed against said side surface (3) of the first metal sheet (1), and the metal sheets (1, 2) are connected by the rolling after the placing process.
**Title of the invention**: DEVICE AND METHOD FOR COATING A METAL STRIP SUBSTRATE ON ONE SIDE AND/OR ON BOTH SIDES

**Abstract**: The invention relates to a device (1) for coating a metal strip substrate (2) on one side and/or on both sides, comprising: a guiding apparatus (3) for guiding the strip substrate (2) along a specified movement path; a first coating apparatus (5) for coating a first main side (6) of the strip substrate (2) with an electrostatically charged coating powder (8) stored in a fluidized state, the first coating apparatus (5) being arranged at least partly geodetically under a first path section of the movement path; a second coating apparatus (9) for coating a second main side (10) of the strip substrate (2) with an electrostatically charged coating powder (8) stored in a fluidized state, the second coating apparatus (9) being arranged after the first coating apparatus (5) with respect to a direction of travel of the strip substrate (2) along the movement path; and a redirecting unit (12) for redirecting the strip substrate (2), the first path section transitioning into a second path section of the movement path by means of the redirecting unit (12), the redirecting unit (12) redirecting the strip substrate (2) in such a way that the strip substrate (2) in the second path section travels oppositely to the strip substrate (2) in the first path section, and the second coating apparatus (9) being arranged at least partly geodetically under the second path section.

No. of Pages : 18  No. of Claims : 10
The present invention relates to novel binding agents and their use in medicine. In particular, the invention relates to binding agents such as bispecific antibodies binding human PD-L1 and binding human CD137. The invention furthermore relates to uses of the antibodies of the invention and to methods, nucleic acid constructs and host cells for producing antibodies of the invention.
**Title of the invention:** SCALABLE TECHNIQUES FOR EXECUTING CUSTOM ALGORITHMS ON MEDIA ITEMS

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>:G06F 9/448, G06F 9/455</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>:62/553024</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>:31/08/2017</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>:PCT/US2018/049220</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:31/08/2018</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>:WO 2019/046793</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

**Abstract:**

In various embodiments, a workflow engine executes a custom algorithm on a media item. In operation, the workflow engine generates split specifications based on a split function included in a container image. Each split specification is associated with a different portion of the media item. Subsequently, the workflow engine generates map output files based on the split specifications and a map function included in the container image. The workflow engine then generates one or more final output file(s) based on the map output files and a collect function included in the container image. The final output file(s) are subsequently used to perform at least one of an evaluation operation on, a modification operation on, and a representation operation with respect to the media item.

No. of Pages: 29 No. of Claims: 20
The invention relates to an application system comprising a cartridge (1) having at least one container (2) with a respective outlet (9), and a closure element (3) that can sealingly close the outlet (9) of the at least one container (2) when the cartridge (1) is in the delivery state. When in the storage state, the cartridge (1) sealingly closes the closure element (3). When the cartridge (1) is in the state of use, the closure element (3) can be removed therefrom and an accessory (11) can be connected to the outlet (9) of the at least one container (2). According to the invention, the cartridge (1) or the closure element (3) comprises, in the delivery state, a connecting element (4) which can not be removed without being damaged, and the cartridge (1) or the closure element (3), in the storage state, is connected via a connecting element (4) that can not be removed without being damaged, to a closure element (3) or the cartridge (1).
The present disclosure provides adhesive articles that can be removed from surfaces without damage by having reduced or eliminated contribution of a core backing to peel force generated by the adhesive during removal. In some instances, this can be accomplished by a core that loses structural integrity in a direction normal to a plane defined by a major surface. In other instances, the contribution is reduced by compromising the interface between the core and a peelable adhesive layer.

No. of Pages : 56 No. of Claims : 10
(12) PATENT APPLICATION PUBLICATION
(21) Application No:202047008271 A
(19) INDIA
(22) Date of filing of Application:27/02/2020
(43) Publication Date: 06/03/2020

(54) Title of the invention: CATALYST SYSTEM FOR POLYOL PREMIXES CONTAINING HYDROHALOOLEFIN BLOWING AGENTS

| (51) International classification: | :C09K 3/00 |
| (31) Priority Document No: | :62/554153 |
| (32) Priority Date: | :05/09/2017 |
| (33) Name of priority country: | :U.S.A. |
| (86) International Application No: | :PCT/US2018/049582 |
| Filing Date: | :05/09/2018 |
| (61) Patent of Addition to Application Number: | :NA |
| Filing Date: | :NA |
| (62) Divisional to Application Number: | :NA |
| Filing Date: | :NA |

(57) Abstract:
A catalyst system useful in the production of polyurethane and/or polyisocyanurate foams using hydrohaloolefin blowing agents.

No. of Pages: 31 No. of Claims: 21

(71) Name of Applicant:
1) HUNTSMAN PETROCHEMICAL LLC
Address of Applicant: 10003 Woodloch Forest Drive, The Woodlands, Texas 77380 U.S.A.

(72) Name of Inventor:
1) LI, Cheng-Kuang
2) SERRANO, Charles E.
3) PHAM, Dianne Trang
4) GRIGSBY, Robert A.
A method for allocating radio resources to a geographical region is described comprising determining first radio resource requirements which exist in a first geographic region in a first time period, estimating second radio resource requirements which exist in a second geographic region neighboring the first geographic region in a second time period following the first time period based on the first radio resource requirements and based on movement information about communication terminals causing the first radio resource requirements in the first geographic region and allocating radio resources to the second geographic region based on the estimation of the second radio resource requirements.
Title of the invention: RADIO COMMUNICATION

Abstract:
A radio communication apparatus (1) receives or generates a base address seed, and generates data-channel access addresses from the seed. Each access address corresponds to a respective data-channel identifier, and is generated by setting a bit at a common first bit position to the value of a bit at a first common predetermined bit position in the base address seed or in the respective data-channel identifier; by setting a bit at a common second bit position to the bitwise complement of this value; and by setting one or more remaining bit positions in dependence on values at one or more bit positions in the base address seed and one or more bit positions in the respective data-channel identifier that are not the first common predetermined bit position. The apparatus (1) can send or receive a radio data packet comprising an access address from the generated set.
Abstract:
The present disclosure relates to a method and system for securely transferring master keying material between a master dongle (10) and a slave dongle (12). Each dongle (10,12) is connected to a data transfer system. The slave dongle (12) contains a public key and a private key and the master dongle (10) contains master keying material that is to be transferred securely to the slave dongle (12). The data transfer system reads the slave dongle's public key and sends it to the master dongle (10). The master dongle (10) encrypts the master keying material with the slave dongle's public key to produce an encrypted master keying material. The encrypted master keying material is sent via the data transfer system to the slave dongle (12) and the slave dongle (12) decrypts the encrypted master keying material with the slave dongle's private key. This allows multiple users, each having a slave dongle (12a-n) that has been configured in this manner, to use the same master keying material to securely communicate with one another.
A network connector assembly with an upper board member includes one or more upper coupling pins and a lower board member includes one or more lower coupling pins. The upper board member and lower board member each a plurality of sets of contact pins disposed on a respective top surface. A housing can be disposable over the upper board member and the lower board member forming one or more network couplers. Each of the one or more network couplers configured to receive one set of contact pins. Fig 1.
A counter integrity tree for memory security includes at least one split-counter node specifying at least two counters each defined as a combination of a major count value shared between the at least two counters and a respective minor count value specified separately for each of the at least two counters. This increases the number of child nodes which can be provided per parent node of the tree, and hence reduces the number of tree levels that have to be traversed in a tree covering a given size of memory region. The minor counter size can be varied dynamically by allocating nodes in a mirror counter integrity tree for accommodating larger minor counters which do not fit in the corresponding node of the main counter integrity tree.

**Abstract:**

A counter integrity tree for memory security includes at least one split-counter node specifying at least two counters each defined as a combination of a major count value shared between the at least two counters and a respective minor count value specified separately for each of the at least two counters. This increases the number of child nodes which can be provided per parent node of the tree, and hence reduces the number of tree levels that have to be traversed in a tree covering a given size of memory region. The minor counter size can be varied dynamically by allocating nodes in a mirror counter integrity tree for accommodating larger minor counters which do not fit in the corresponding node of the main counter integrity tree.
Title of the invention: MATCHING CONSECUTIVE VALUES IN A DATA PROCESSING APPARATUS

Abstract:
An apparatus and a method of operating the apparatus are provided for performing a comparison operation to match a given sequence of values within an input vector. Instruction decoder circuitry is responsive to a string match instruction specifying a segment of an input vector to generate control signals to control the data processing circuitry to perform a comparison operation. The comparison operation determines a comparison value indicative of whether each input element of a required set of consecutive input elements of the segment has a value which matches a respective value in consecutive reference elements of the reference data item. A plurality of comparison operations may be performed to determine a match vector corresponding to the segment of the input vector to indicate the start position of the substring in the input vector. A string match instruction, as well as simulator virtual machine implementations, are also provided.
(54) Title of the invention : CARBOHYDRATE SENSORS

(51) International classification :
G01N 33/52, C12N 15/62, G01N 21/64, G01N 21/76, G01N 21/78

(31) Priority Document No :
:2017903148

(32) Priority Date :
:08/08/2017

(33) Name of priority country :
:Australia

(86) International Application No :
PCT/AU2018/050824
Filing Date :
:07/08/2018

(87) International Publication No :
:WO 2019/028504

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

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

(71) Name of Applicant :
1) COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION
Address of Applicant : Clunies Ross St, Acton, Australian Capital Territory, 2601 Australia

(72) Name of Inventor :
1) CARON, Karine
2) TROWELL, Stephen Charles

(57) Abstract :
The present invention relates to sensors and methods for detecting carbohydrates, such as lactose, in a sample. The sensors and methods may also be used to determine the amount of carbohydrate in the sample.

No. of Pages : 89
No. of Claims : 47
The present application provides a synchronization method and apparatus. The method comprises: a first UE maps data to be transmitted and a first sequence to symbols in a first time unit so as to obtain a first signal, the first sequence being mapped to at least one symbol on a non-start position in the first time unit; the first UE sends the first signal to a second UE; and the second UE receives the first signal, obtains the first sequence and synchronizes the first signal according to the first sequence. By sending a first sequence used for synchronization on symbols of a non-start part in each data transmission, when the CP length of symbols of data to be sent does not satisfy a time synchronization requirement, a receiving side device can still implement time synchronization on the data received this time by using the first sequence, and performs frequency offset estimation by using a CP structure, so as to implement frequency synchronization.

No. of Pages : 29 No. of Claims : 32
The present invention relates to a lid for containers, which comprises a cylindrical body that comprises a cylindrical skirt (5) and a rib (7), on the inner face thereof, wherein the cylindrical skirt and the rib are sized so as to be in contact with the inside face of the neck (2) of the container and to create at least two sealing areas. Fig 4.

FIG. 4

No. of Pages : 9 No. of Claims : 9
A display control device (100) comprising: a turn signal (8) arranged in a vehicle; indicators (6a, 6b) displaying the lit state of the turn signal (8) to an occupant of the vehicle; and a controller (23) that controls the lit state of the turn signal (8) and the indicators (6a, 6b). The controller (23) makes the timing at which the turn signal (8) starts to be lit and the timing at which the indicators (6a, 6b) start to be lit different.
Title of the invention: SURGE PROTECTED LUMINAIRE

Abstract:
A luminaire (10) is disclosed comprising a housing (20) having a metal section (21) and incorporating an electrical component arrangement including a printed circuit board (40) having a first major surface carrying at least one light engine and a second major surface opposite the first major surface; a heatsink (30) exposed within said metal section, the heatsink having a further major surface facing the second major surface; an electrically insulating layer (50) in between the further major surface and the second major surface and having a margin (51) extending beyond each of the second major surface and the further major surface by a minimum width (W), said margin being separated from the metal section by an air gap having a minimum height (H); and at least one electrically insulating fixing arrangement (90, 100, 110) extending through the printed circuit board and the electrically insulating layer securing the printed circuit board to the metal section.

FIG. 1

No. of Pages : 24 No. of Claims : 15
The Patent Office Journal No. 10/2020 Dated 06/03/2020

---

**Title of the invention:** A LIGHTING DEVICE, AND A METHOD OF PRODUCING A LIGHTING DEVICE

<table>
<thead>
<tr>
<th>International classification</th>
<th>F21V 29/87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>17184177.8</td>
</tr>
<tr>
<td>Priority Date</td>
<td>01/08/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>EPO</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/EP2018/069646</td>
</tr>
<tr>
<td>Filing Date</td>
<td>19/07/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/025201</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Abstract:**

The invention provides a lighting device (10,40) comprising a 3D-printed heat sink (11,41). The 3D-printed heat sink (11,41) comprises a stack (13,43) of a core layer (15,45) and at least one further layer stacked along a stack axis normal to the core layer (15,45). The core layer (15,45) and the at least one further layer comprise a same polymer material (14,44) each with a thermally conductive filler, wherein a concentration of the thermally conductive filler in the polymer material (14,44) decreases, starting from the core layer (15,45), consecutively with each of the at least one further layer for improving resistance to mechanical failure and thermal conduction of said 3D-printed heat sink (11,41).

---

No. of Pages : 28 No. of Claims : 15
**Title of the invention:** EJECTOR EQUIPPED FERMENTER

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>International classification</td>
<td>C12M 1/00</td>
</tr>
<tr>
<td>Priority Document No</td>
<td>17185045.6</td>
</tr>
<tr>
<td>Priority Date</td>
<td>07/08/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>EPO</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/EP2018/071310</td>
</tr>
<tr>
<td>Filing Date</td>
<td>07/08/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/030185</td>
</tr>
<tr>
<td>Patent of Addition to Application No</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application Number No</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Name of Applicant:**
1. NOVOZYMES A/S
    Address: Krogshoejvej 36, 2880 Bagsvaerd, Denmark

**Name of Inventor:**
1. JENSEN, Anders, Peter
2. BACH, John

**Abstract:**
Disclosed is a fermenter comprising one or more two phase injectors for providing oxygen for the fermentation and a circulation loop, circulating the fermentation broth and providing liquid for the two-phase injectors. Further disclosed is a fermentation plant comprising one or more fermenters of the invention and utility for the fermenters. Also disclosed is the use of the fermenters for the production of a fermentation product such as an enzyme.

No. of Pages: 20 No. of Claims: 16
The invention relates to a synergistic composition comprising a dry extract of plant of genus Galeopsis and a compound promoting autophagy selected from biotin and R-N1-spermidine or a salt thereof, wherein R is hydrogen or methyl and mixtures thereof. The synergistic compositions according to the invention may be in the form of a topical formulation or oral formulation and is useful as a promoter of autophagy especially in cells of human scalp hair follicles and in promoting hair growth and/or in the treatment of hair thinning or hair loss.
Provided are a lithographic printing original plate having an image recording layer provided on a support, and a method for producing a lithographic printing plate using the lithographic printing original plate, wherein the lithographic printing original plate has convex portions formed discontinuously on the outermost layer surface on a side of the original plate in which the image recording layer is provided, and the convex portions have a melting point of 70°C to 150°C. The method for producing the lithographic printing plate preferably includes: a step for forming an exposed portion and an unexposed portion by imagewise exposing the lithographic printing original plate; and a step for removing a non-image portion and the unexposed portion by supplying at least one from among printing ink and dampening water.
The invention relates to a supply device for supplying pasty masses, in particular silicone, to an injection molding machine, comprising a pressing cylinder, which holds the pasty mass, and a pressing piston, which is axially arranged in said pressing cylinder and presses the pasty mass out of a press-out nozzle of the pressing cylinder. The problem addressed by the invention is that of avoiding operation interruptions for cleaning work and avoiding material losses within the supply device when different pasty masses are used in succession, in the case of such a supply device. In order to solve this problem, according to the invention, the pressing cylinder is designed as a cartridge (3) containing the pasty mass, which cartridge consists of a polymer and can be exchangeably inserted into a support housing (2), which supports the cartridge on all sides and is connected to an axial actuating drive (5) for the pressing piston (3d) located in the cartridge.

No. of Pages : 12 No. of Claims : 9
The invention relates to an applicator system containing a microneedle array and the use thereof for intradermal application of active ingredients, in particular drugs, said microneedle array being suitable for the penetration of human or animal skin and comprising at least one active ingredient for wound healing.
Title of the invention: GAS BARRIER FILM PRODUCTION METHOD

Abstract:

[Problem] To provide a production method enabling high-speed production of a gas barrier film with excellent transparency and gas barrier properties. [Solution] This method, for producing a gas barrier film comprising an inorganic thin-film layer laminated on at least one surface of a polymer substrate, is characterized in that said inorganic thin-film layer is formed with vacuum deposition, and is formed while an oxygen gas is introduced using Al and SiO2 as a deposition material.

No. of Pages: 27 No. of Claims: 7
The present invention pertains to polyurethane-urea based optical adhesives for formation of optical film laminates, optically functional film laminates, and ophthalmic or eyeglass lenses employing the same and methods for producing the same.

No. of Pages: 40 No. of Claims: 27
There is provided a sensor including a housing, where the housing has an opening configured to receive a sensing element; an electric circuit operably connected to the housing, where the electric circuit is configured to detect at least one electrical characteristic across at least one pair of electrodes positioned on the sensing element; at least one gas-moving element in electrical communication with the electric circuit; and a reader in communication with the electric circuit, where the reader is configured to compare information about a gas volume external to the housing with information about a gas volume within the housing.
**Title of the invention:** GAS BARRIER LAMINATED BODY

**Abstract:**
The problem addressed by the present invention is to provide a gas barrier film with excellent acid resistance, transparency, and gas barrier properties. This gas barrier laminate is formed by laminating an inorganic thin-film layer on at least one surface of a polymer substrate. Said inorganic thin-film layer primarily contains Al and Si, and after treatment involving immersion in a 1 mol/L hydrochloric acid aqueous solution for one hour, the ratio of Al content before and after said treatment satisfies the expression (Al content after treatment)/(Al content before treatment) — 100 = 75.
**Title of the invention:** METHOD FOR PRODUCING GLASS FINE PARTICLE DEPOSIT, METHOD FOR PRODUCING GLASS BASE MATERIAL, AND GLASS FINE PARTICLE DEPOSIT

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>:C03B 37/018,C03B 8/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>:2017-164241</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>:29/08/2017</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>:Japan</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>:PCT/JP2018/031699</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:28/08/2018</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>:WO 2019/044807</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

**Abstract:**
A method for producing a glass fine particle deposit in which a glass synthesis burner and a starting rod are disposed in a reaction vessel, the starting rod is relatively moved in a reciprocating manner in the axial direction relative to the glass synthesis burner, and glass fine particles synthesized by the glass synthesis burner are deposited on the starting rod, wherein the distance between the glass fine particle deposit and the glass synthesis burner is reduced at the end of deposition to a greater extent than at the beginning of deposition while the glass synthesis burner is relatively retracted from the glass fine particle deposit as the diameter of the glass fine particle deposit increases.

No. of Pages : 13 No. of Claims : 6
This invention relates to a wind turbine blade component, a method of manufacturing such a wind turbine blade component and a wind turbine blade comprising the wind turbine blade component. The wind turbine blade component comprising a stack of layers arranged in a first group (30) and in a second group (31), wherein the layers of each group has the same width (W1, W2). The layers of each group is continuously offset in an edgewise direction to form a tapered edge profile. The first group (30) of layers may be arranged relative to the second group (31), or in an alternating order. The layers of the first group (30) may further have a first length (L1) which is greater than a second length (L2) of the layers of the second group (31).

No. of Pages : 29 No. of Claims : 14
An infectious disease transmission tracking system (10) includes a real-time locating system (RTLS) (12) configured to track locations of tags (14, 15) in a monitored area. At least one electronic processor (22) is in operative communication with the RTLS to receive locations of tags in the monitored area. A non-transitory storage medium stores a map (30) of the monitored area; a nodes database (32) storing information on nodes (18) in which each node is a person, a mobile object, or a map zone and the nodes database stores information on the nodes including at least (i) an identification of each node as a person, a mobile object, or a map zone, (ii) an identification of a tag associated with each node that is identified as a person or a mobile object, (iii) locational information on the map for each node that is identified as a map zone, and (iv) an infection likelihood for each node with respect to a tracked pathogen; and a pathogen database (34) storing infectious transmission information for at least the tracked pathogen including one or more transmission modes for the tracked pathogen and at least one node residency time for the tracked pathogen. The non-transitory storage medium includes instructions readable and executable by the at least one electronic processor to perform an infectious disease transmission tracking method (100) including: computing a pathway (35) on the map of at least one infected node using locations of the tag associated with the infected node received from the RTLS wherein an infected node has a non-zero infection likelihood respective to the tracked pathogen which satisfies an infected criterion; computing an infectious zone (36) on the map along the pathway using the infectious transmission information stored in the pathogen database; for each node contacting the infectious zone, adjusting the infection likelihood of the contacting node in the nodes database based on at least the infectious transmission information for the tracked pathogen and designating the contacting node as an infected node if the updated infection likelihood of the contacting node satisfies the infected criterion. Fig 1.
A system is for estimating a remaining lifetime of an aldehyde filter. The system comprises an aldehyde filter (14) through which at least a portion of the gas is to be passed for removing aldehyde (10) from the gas (12) and a detecting medium (16) through which at least a portion of the gas is to be passed comprising photoluminescent carbon-based dots (18), a light source for emitting an excitation light (E) through the detecting medium for exciting the carbon-based dots which thereby emit luminescent light (L), a detector (28) for detecting the luminescent light (L), the luminescent light (L) having a luminescence property; and a controller (30) for determining information relating to intensity of a red, a green or a blue component of the luminescence property and estimating a remaining lifetime of the aldehyde filter from the determined information.

No. of Pages : 20 No. of Claims : 15
The invention provides a mask which incorporates an air chamber, a filter, a fan arrangement, a sensor and a controller. The sensor detects a parameter relating to the temperature and/or relative humidity of air inhaled and exhaled over time by a user of the mask. The controller calculates a first value which depends on a first time derivative of the parameter. Based on this calculation, the controller determines a start of an inhalation and/or a start of an exhalation of the user. Therefore, the controller is able to accurately determine the inhalation and/or exhalation cycle of the user, thereby compensating for a time lag between the detected variation of the parameter over time and the inhalation and exhalation timing of the user. With this information, the controller operates the fan arrangement in synchronism with the inhalation and/or exhalation cycle of the user.
The present invention relates to a device (10) for detecting a misuse of a medical imaging system (20), comprising a data interface (12) for acquiring medical image data (24) and audit log data (26) from the medical imaging system (20); a processing unit (14) which is configured to configure to analyse the medical image data (24) to determine whether or not a part of a fetus is imaged in the medical image data (24), to compare the medical image data (24) and the audit log data (26) with each other, and to determine based on said comparison whether there is a mismatch between the medical image data (24) and the audit log data (26); and a feedback unit (16) which is configured to generate a misuse alert signal if a mismatch is detected by the processing unit (14).
Abstract: Provided are a method and apparatus for transmitting system information. The method comprises: a first network node receiving at least one type of system information (SI) from a second network node, the at least one type of SI comprises first SI; the first network node receiving a request message from a network device, the request message being used for requesting the first SI; and the first network node sending the first SI to the terminal device according to the request message and the at least one type of SI. The method and apparatus for transmitting system information provided in the embodiments of the present application can transmit system information under an architecture with a centralised unit separated from a distributed unit.
The present application provides a session processing method and a device. The method comprises: a terminal initiating an application and determining, according to the application, a session type of a packet data unit (PDU) session; and the terminal sending a first message to an access and mobility management function (AMF) entity, wherein the first message includes the session type and is used for requesting to establish a PDU session of the session type. In the method, when the terminal initiates the first message to the AMF entity requesting to establish a PDU session, the session type of the PDU session is carried in the first message, such that a network side can establish a PDU session of a corresponding type according to the session type of the PDU session transmitted by the terminal, thereby establishing a PDU session of a correct type for the terminal and enhancing the accuracy of communication between the terminal and the network side.
<table>
<thead>
<tr>
<th>(12) Title of the invention : OPHTHALMIC DEVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(51) International classification :A61B 3/12,A61B 3/10,A61B 3/15</td>
</tr>
<tr>
<td>(31) Priority Document No :</td>
</tr>
<tr>
<td>(32) Priority Date : -</td>
</tr>
<tr>
<td>(33) Name of priority country :Argentina</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number :NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number :NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(19) INDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>(22) Date of filing of Application :28/02/2020</td>
</tr>
<tr>
<td>(21) Application No.202047008640 A</td>
</tr>
<tr>
<td>(43) Publication Date : 06/03/2020</td>
</tr>
</tbody>
</table>

| (36) Priority Date : |
| (37) Name of Inventor : |
| 1)ASHOK, Praveen |
| 2)ANDERSON, Alan |
| 3)MUYO, Gonzalo |
| 4)GORMAN, Alistair |
| 5)VAN HEMERT, Jano |

<table>
<thead>
<tr>
<th>(57) Abstract :</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is provided a method of controlling an ophthalmic device having a first retinal image acquisition module operable to image an imaging region of a retina and an illumination module operable to concurrently illuminate an illumination region of the retina, the imaging region and the illumination region having a predetermined positional relationship to one another, the method comprises: controlling ($S10$) the first retinal image acquisition module to acquire a reference retinal image by imaging a reference imaging area of the retina; designating ($S20$) a target in the reference retinal image; controlling ($S30$) the first retinal image acquisition module to acquire a current retinal image of an initial imaging region within the reference imaging area; controlling ($S40$) the first retinal image acquisition module to move its imaging region of the retina from the initial imaging region to a destination imaging region using the target and at least a portion of the reference retinal image, and to acquire a retinal image of the destination imaging region; controlling ($S50'$) the illumination module to illuminate the illumination region of the retina while the imaging region of the first retinal image acquisition module is the destination imaging region; controlling ($S60'$) the first retinal image acquisition module to acquire one or more retinal images while the illumination module is illuminating the illumination region of the retina; and comparing ($S70$) a marker retinal image based on the one or more retinal images with a comparison image based on at least a portion of the reference retinal image to determine a marker that is indicative of the position of the marker retinal image within the comparison image.</td>
</tr>
</tbody>
</table>

No. of Pages : 36 No. of Claims : 22
Abstract:
Methods of using vectors comprising nucleic acid and nucleic acid variants encoding FVIII protein are disclosed. In particular embodiments, a method of treating a human having hemophilia A includes administering a recombinant adeno-associated virus (rAAV) vector comprising a nucleic acid encoding Factor VIII (FVIII) or nucleic acid variant encoding Factor VIII (FVIII) having a B domain deletion (hFVIII-BDD). In some aspects, a nucleic acid variant has 95% or greater identity to SEQ ID NO:7 and/or a nucleic acid variant has no more than 2 cytosine-guanine dinucleotides (CpGs). In other aspects, a rAAV vector is administered to the human at a dose of less than about 6x1012 vector genomes per kilogram (vg/kg).
The present invention relates to an application device comprising an integrated energy storage, an application controller and a method of operating an application system, supporting different operation modes. In a first operation mode, AC power is provided via a distribution line to operate the application device. In a second mode, the AC power transmission at the distribution line is replaced by data communication, wherein the application device is run by energy from the energy storage during the second operation mode. Preferably in a third operation mode, DC power from the energy storage of an application device may be provided via the distribution line to another application device.
The invention provides a method for manufacturing a 3D item (10) comprising an electrically conductive coil (140) of at least part of an electrically conductive wire (51), wherein the method comprising printing with a fused deposition modeling (FDM) 3D printer (500) 3D printable material (201), wherein the 3D printable material (201) comprises the electrically conductive wire (51), to provide the 3D item (10) comprising the electrically conductive coil (140).
Title of the invention: CONTROLLING A LIGHTING SYSTEM

Abstract:
A method of controlling a lighting system comprising a plurality of illumination sources each controllable to emit illumination for illuminating the environment and a plurality of control apparatus for use in controlling the illumination emitted from one or more of the plurality of illumination sources, the method comprising: determining the relative position of a first control apparatus compared to a second control apparatus; assigning a function to the first control apparatus, the function defining how the first control apparatus is to control the illumination of one or more illumination sources, wherein the function of the first control apparatus is assigned based on the determined relative position; whereby a first user input can be received at the first control apparatus and the illumination of the one or more illumination sources can be controlled in response to the first user input based on the assigned function of the first control apparatus.

No. of Pages: 31 No. of Claims: 15
The invention as disclosed herein relates to bispecific antibodies that comprises a first variable domain that can bind an extracellular part of epidermal growth factor receptor (EGFR) and a second variable domain that can bind an extracellular part of MET Proto-Oncogene, Receptor Tyrosine Kinase (cMET). The antibody may comprise a common light chain, it may be a human antibody, The antibody may be a full length antibody. In some embodiments the bispecific antibody is an IgG1 format antibody having an anti-EGFR, anti-cMET stoichiometry of 1:1, In some embodiment the antibody has one variable domain that can bind EGFR and one variable domain that can bind cMET.
A monitoring drone method, apparatus and system. The monitoring drone includes an image capture device for taking one or more images, a charge module for powering the monitoring drone, and a move module for allowing the monitoring drone to move about a shelf wherein the image capturing device captures images as the monitoring drone moves about the shelf to produce a virtual stereoscopic vision.

(57) Abstract:

A monitoring drone method, apparatus and system. The monitoring drone includes an image capture device for taking one or more images, a charge module for powering the monitoring drone, and a move module for allowing the monitoring drone to move about a shelf wherein the image capturing device captures images as the monitoring drone moves about the shelf to produce a virtual stereoscopic vision.

No. of Pages : 9 No. of Claims : 30
An example a method of optimizing a neural network having a plurality of layers includes: obtaining (302) an architecture constraint for circuitry of an inference platform that implements the neural network; training (304) the neural network on a training platform to generate network parameters and feature maps for the plurality of layers; and constraining (306) the network parameters, the feature maps, or both based on the architecture constraint.

FIG. 3

No. of Pages : 19 No. of Claims : 15
This vehicular illumination system 1, which is provided to a vehicle 100 capable of traveling around corners through tilting of a vehicle body toward a turning direction, comprises a headlight 2 mounted on the front part of the vehicle 100, communication lights 3 disposed on the vehicle body 101 in regions adjacent to the headlight 2 so as to be visible from the front of the vehicle 100, and an illumination control unit configured so as to change the illumination state of the communication lights 3 in accordance with the state of the vehicle 100.
The present invention relates generally to a stable liquid formulation of purified hemopexin comprising: (a) a hemopexin content of at least 50 mg/mL; (b) at least 15 mM phosphate buffer; (c) a pH from 5.8 to 8; and (d) at least 50 mM sodium chloride; and uses thereof.
Provided herein are compositions and methods for improved production of steviol glycosides in a host cell. In some embodiments, the host cell is genetically modified to comprise a heterologous nucleotide sequence encoding a Pisum sativum kaurene oxidase or its variant kaurene oxidase. In some embodiments, the host cell further comprises one or more heterologous nucleotide sequence encoding further enzymes of a pathway capable of producing steviol glycosides in the host cell. The compositions and methods described herein provide an efficient route for the heterologous production of steviol glycosides, including but not limited to, rebaudioside D and rebaudioside M. Fig 2.
Title of the invention: APPARATUS AND METHOD FOR RAPIDLY HEATING COLD-ROLLED STRIP STEEL

An apparatus and a method for rapidly heating cold-rolled strip steel (10). The apparatus for rapidly heating cold-rolled strip steel (10) comprises a heating zone, a soaking zone, and a cooling zone, and the heating zone is sequentially divided into a first heating section (1), a second heating section (2), a third heating section (3), and a fourth heating section (4) along a moving direction of the strip steel (10) to be heated, the first heating section (1) and the fourth heating section (4) being radiant heating sections, and the second heating section (2) and the third heating section (3) being inductive heating sections. The method for rapidly heating cold-rolled strip steel (10) uses the apparatus for rapidly heating cold-rolled strip steel (10). Fig 1.
Abstract:
The invention relates to antibodies directed against an epitope located within the C-terminal portion of CLDN6 which are useful, for example, in diagnosing cancer and/or in determining whether cancer cells express CLDN6.

No. of Pages : 81  No. of Claims : 23
VEHICULAR LIGHTING DEVICE

Abstract:
Provided is a vehicular lighting device (1) attached to a motorbike (100) that is capable of traveling around corners due to the vehicle body being tilted toward the direction for turning, wherein the vehicular lighting device (1) comprises at least two lamps and a sensor (7) for detecting the surrounding environment toward the rear of the vehicle. The vehicular lighting device (1) comprises a left lighting unit (2L) and a right lighting unit (2R) as the at least two lamps. The sensor (7) is disposed between the left lighting unit (2L) and the right lighting unit (2R) as viewed from rearward of the vehicle.

No. of Pages : 26 No. of Claims : 10
Title of the invention: CONCURRENT RELOCATION AND REINITIALIZATION OF VSLAM

(51) International classification: G01C 21/20, G01C 11/00

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

(86) International Application No: PCT/CN2017/105270
   Filing Date: 06/10/2017


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

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

(57) Abstract:
Various embodiments include processing devices and methods for relocation and reinitialization for a robotic device. Various embodiments may include concurrently relocating a second pose of the robotic device and reinitializing a third pose of the robotic device in response to failing to determine a first pose of the robotic device in the environment and determining that tracking of the robotic device is lost. Various embodiments may include pre-relocating a second pose of the robotic device in the environment in response to failing to determine the first pose of the robotic device in the environment and determining that tracking of the robotic device is lost, relocating a third pose of the robotic device in response to successfully pre-relocating the second pose of the robotic device, and reinitializing a fourth pose of the robotic device in response to unsuccessfully pre-relocating the second pose of the robotic device.
Title of the invention: AN IMPROVED APPARATUS FOR ENHANCED NOSTRIL BREATHING

Abstract:
An air inhalation device for insertion within the nostrils, comprising: at least one hollow frusto-conical tube member having an air passageway; a fan; a motor; and a power source; wherein the said frusto-conical tube has a forward end which tapers to form a rearward end, and is fitted with a power driven fan for enhancing the inhalation and exhalation of air.

No. of Pages: 10 No. of Claims: 8
Title of the invention: DETECTION OF REGIONS WITH LOW INFORMATION CONTENT IN DIGITAL X-RAY IMAGES

Abstract:

an image processing system and related method. The system comprises an input interface (IN) configured for receiving an input image. A filter (FIL) of the system filters said input image to obtain a structure image from said input image, said structure image including a range of image values. A range identifier (RID) of the system identifies, based on an image histogram for the structure image, an image value sub-range within said range. The sub-range being associated with a region of interest. The system output through an output interface (OUT) a specification for said image value sub-range. In addition or instead, a mask image for the region of interest or for region or low information is output. Fig 1.
Title of the invention: A LIGHT EMITTING DEVICE, COMPRISING LIGHT EMITTING UNITS BEING ARRANGED IN A PLANE FILLING PATTERN

Abstract:

A light emitting device (1) is provided that can be used in various contexts, including the context of realizing an anti-fouling action on surfaces. The light emitting device (1) comprises light emitting units (10) being arranged in a plane filling pattern (20) for covering at least a substantial portion of a surface. Individual light emitting units (10) are electrically interconnected through connection areas (12, 13) as present on the light emitting units (10) for providing electrical access to an internal electrical circuit (11) thereof, wherein the light emitting units (10) overlap at the positions of at least portions of the connection areas (12, 13) thereof. Further, it may be so that at least one of the connection areas (12, 13) of the individual light emitting units (10) is electrically connected simultaneously to respective connection areas (12, 13) of at least two other light emitting units (10).

No. of Pages: 32 No. of Claims: 15
Abstract:
Presented are concepts for displaying medical images. One such concept generates transformation data by mapping image data of a medical image to a location in an anatomical atlas and by determining a transfer function for transforming image data of the medical image for display. The transfer function is then associated with the location in the anatomical atlas. A medical image can then be displayed by identifying a transfer function associated with a selected location in the anatomical atlas. The identified transfer function is applied to image data of a medical image that is mapped to the selected location in the anatomical atlas so as to obtain transformed image data. A transformed version of the medical image is then displayed based on the transformed image data.
A door operator (1) and a method for set-up of a door operator (1), the method comprising receiving a set of set-up parameters for the door operator (1), installing the set of set-up parameters in the control unit (9), controlling the drive unit (7) based on the set of set-up parameters installed in the control unit (9) and sending the set of set-up parameters to a remote server (110a, 110b, 110c) via a communication network (50) for storing a backup of the set of set-up parameters on the remote server (110a, 110b, 110c).

No. of Pages : 27 No. of Claims : 33
Title of the invention: PIGMENTED PVC BASED GRAPHICS FILMS

Abstract:
Multilayer graphics products are described. The graphics products include a polyvinyl chloride film layer, an adhesive layer on one face of the film layer, and a polyurethane layer on another oppositely directed face of the film layer. Also described are methods of producing the multilayer graphics products.

No. of Pages: 17 No. of Claims: 41
Example of secure monitoring of modular applications and associated edge devices are described herein. In an example, an accreditation request is initiated to accredit at least one of a modular application and an edge device hosting the modular application. The edge device may be a device coupling an IoT device to a cloud server. Based on initiating, accreditation information corresponding to at least one of the modular application and the edge device may be received. The accreditation information are generated by a hardware encryption device associated with the edge device. Further, an accreditation status of the modular application may be monitored during execution of the modular application to ascertain whether the modular application and the edge device have been tampered. In case tampering is detected, a remedial action to address the tampering may be performed.
A link mechanism (12) includes a base (19), first and second links (20, 21) pivotally supported by the base (19), and a third link (22) pivotally supported by the first and second links (20, 21). The first to third links (20, 21, 22) are primarily made of resin or the like to be lighter in weight than when made of metal but this results in a larger thickness to ensure the strength. The first to third links (20, 21, 22) are arranged to overlap with one another in a moving direction of the link mechanism (12) so that an increase in the required space is suppressed in the rotation axis direction. The first link (20) is provided with a first groove (42) such that the third link (22) enters into the first groove when the lid (11) is in the open position, whereby the first and third links (20, 22) are prevented from interfering with each other to narrow the movable range of the link mechanism (12), and damage to and looseness of the third link (22) having entered into the first groove (42) are suppressed. Figure 3
Disclosed approaches of controlling quality of service in servicing memory transactions includes periodically reading (206) by a quality of service management (QM) circuit (116), respective first data rate metrics and respective latency metrics from requester circuits (106, 108, 110, 112) while the requester circuits are actively transmitting memory transactions to a memory controller (104). The QM circuit periodically reads (208) a second data rate metric from the memory controller while the memory controller is processing the memory transactions, and determines (210), while the requester circuits are actively transmitting memory transactions to the memory controller, whether or not the respective first data rate metrics, respective latency metrics, and second data rate metric satisfy a quality of service metric. In response to determining that the operating metrics do not satisfy the quality of service metric, the QM circuit dynamically changes (212) value(s) of a control parameter(s) of the requester circuit(s) and of the memory controller.
(54) Title of the invention : SUBSTITUTED IMIDAZOQUINOLINES

(51) International classification : C07D 471/04,A61K 31/4745,A61P 35/00
(32) Priority Date : 06/09/2017
(33) Name of priority country : EPO
(86) International Application No : PCT/EP2018/073470
    Filing Date : 31/08/2018
(87) International Publication No : WO 2019/048350
(61) Patent of Addition to Application Number : NA
    Filing Date : NA
(62) Divisional to Application Number : NA
    Filing Date : NA

(57) Abstract :
The invention relates to imidazoquinoline derivatives and to pharmaceutical compositions containing the imidazoquinoline derivatives. The imidazoquinoline derivatives of the invention are useful as toll-like receptor agonists, in particular agonists of TLR7, and promote induction of certain cytokines.

No. of Pages : 91 No. of Claims : 12
A region interposed between a pair of locking walls becomes a ring member disposing part. The ring member disposing part is formed so as to have a straight-tube shape parallel to the tube axis direction. A ring member is disposed in the ring member disposing part. The ring member has roughly a letter-C shape in which a circumferential part is open at an opening. One end side of the ring member becomes a diameter-reduced part, the outer diameter of which is smaller than those of other parts. Second claws are formed on the diameter-reduced part toward the other end side of the ring member so as to be disposed side by side but being separated from each other by slits in the circumferential direction. First claws project from the diameter-reduced part roughly parallel to the tube diameter direction, and form a slide guide. The second claws are each expanded in diameter so that the outer diameter gradually increases from the diameter-reduced part toward the tip. A male fitting part and a female fitting part are connected to each other by using the ring member.
The present invention provides a 2-OST mutant exhibiting a high activity. Specifically, the present invention provides a 2-O-sulfation enzyme mutant, having a substitution of a leucine residue at position 321 with a basic amino acid residue in any one amino acid sequence of: (a) the amino acid sequence of SEQ ID NO: 2; (b) an amino acid sequence comprising one or several amino acid substitutions, deletions, insertions, or additions in the amino acid sequence of SEQ ID NO: 2; or (c) an amino acid sequence having 90% or more identity to the amino acid sequence of SEQ ID NO: 2; or (d) the amino acid sequence consisting of amino acid residues at positions 69 to 356 in the amino acid sequence of SEQ ID NO: 2; or (e) an amino acid sequence comprising one or several amino acid substitutions, deletions, insertions, or additions in the amino acid sequence consisting of amino acid residues at positions 69 to 356 in the amino acid sequence of SEQ ID NO: 2; or (f) an amino acid sequence having 90% or more identity to the amino acid sequence consisting of amino acid residues at positions 69 to 356 in the amino acid sequence of SEQ ID NO: 2; and having a 2-O-sulfate transfer activity.

No. of Pages : 75 No. of Claims : 14
Title of the invention: DRIVE DEVICE FOR A MOTORCYCLE

<table>
<thead>
<tr>
<th>Classification</th>
<th>F02B 61/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>10 2017 213 722.3</td>
</tr>
<tr>
<td>Priority Date</td>
<td>08/08/2017</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>Germany</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/EP2018/067281</td>
</tr>
<tr>
<td>Filing Date</td>
<td>27/06/2018</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO 2019/029900</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
</tbody>
</table>

Abstract:
The invention relates to a drive device (1) for a motorcycle (2), comprising an internal combustion engine (3) having an adapter assembly (4) arranged on a first end face (5) of the internal combustion engine (3), and which has on a connection face (7) opposite the first end face (5) at least two connection geometries (8) for different electrical drive units (9, 10, 11).

No. of Pages: 11 No. of Claims: 8
The invention relates primarily to the use of one or more stereoisomers of compounds of formula (I) for modifying and/or intensifying the odour sensation of one or more aromas with a lily of the valley scent. The invention also relates to a novel mixture comprising or consisting of one or more stereoisomers of compounds of formula (I) as described and two or more stereoisomers of compounds of formula (II) as described, odoriferous compositions comprising or consisting of a mixture as described, perfumed products containing mixtures or odoriferous compositions as described. The invention also relates to a method for modifying and/or intensifying the lily of the valley scent of a compound of formula (II) as described or for producing a perfumed product as described.
Title of the invention: METHOD FOR PRODUCING THERAPEUTIC EXOSOMES FROM NANOELECTROPORATION AND OTHER NON-ENDOCYTIC CELL TRANSFECTION

Abstract:
Therapeutic extracellular vesicles (EVs) containing high copies of functional nucleic acids and other biomolecules are produced in large quantities by laying donor cells on a surface of a chip, adding various plasmids, other transfection vectors and their combinations to a buffer on the chip, applying a pulsatile electric field across the cells laid on top of the chip surface and plasmids/vectors buffer solution below the chip surface, and collecting the EVs secreted by the transfected cells. The chip surface has a three-dimensional (3D) nanochannel electroporation (NEP) biochip formed on it, capable of handling large quantities of the donor cells. The buffer is adapted for receiving plasmids and other transfection vectors.
### Title of the invention: COMMUNICATION METHOD AND COMMUNICATION DEVICE

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>:H04W 72/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>:201710687477.5</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>:11/08/2017</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>:China</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>:PCT/CN2018/098345</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:02/08/2018</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>:WO 2019/029433</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(71) Name of Applicant:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) HUAWEI TECHNOLOGIES CO., LTD.</td>
</tr>
<tr>
<td>Address of Applicant: Huawei Administration Building, Bantian, Longgang District Shenzhen, Guangdong 518129 China</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(72) Name of Inventor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) GUAN, Peng</td>
</tr>
<tr>
<td>2) TANG, Xiaoyong</td>
</tr>
<tr>
<td>3) ZHOU, Enzhi</td>
</tr>
<tr>
<td>4) LI, You</td>
</tr>
</tbody>
</table>

A communication method and a communication device. The communication method comprises: receiving configuration information that is sent by a base station, the configuration information comprising information of a first signal and quasi-parity relationship information, wherein the quasi-parity relationship information indicates the presence of a quasi-parity relationship between a port that sends the first signal and a port that sends a second signal; according to the quasi-parity relationship information and a measured amount of the second signal, acquiring a measured amount of the first signal. By means of the method, a quasi-parity relationship is obtained and a measured amount is obtained according to the quasi-parity relationship.

No. of Pages : 83 No. of Claims : 35
A service management method and device and a storage medium. The method is used in a service management system, and the service management system comprises a service management unit and at least one first network management unit. The method comprises: the service management unit receives a service management request, the service management request carrying network type indication information or service requirement information; and the service management unit determines a target network type according to the network type indication information or the service requirement information, a target network corresponding to the target network type being used for providing service, and the target network type comprising a slice network or a non-slice network.

By means of the present solution, a corresponding process may be executed in a targeted and accurate manner according to the determined target network type, service management may be optimized and the service deployment efficiency may be increased.

No. of Pages : 66 No. of Claims : 38
The present invention belongs to the field of drug synthesis, and relates to a method for preparing a substituted phenylacetic acid derivative, specifically a method for preparing 2-[4-(2-oxopentylmethyl)phenyl]propionic acid. A precursor compound (I) of loxoprofen is prepared by reacting a dihalobenzyl compound or a disubstituted benzyl compound with a cyclopentanone group or a precursor compound thereof, wherein X is a halogen, L1 is a halogen, OH, OMs, OTs or OTf, L2 is a halogen, a cyano, a hydroxyl, -CH2OH, -CHO, nitromethane, an ester group, -NR4R5, OTf, OTs, OMs, -C=CR6 or -C=CR7, R4, R5, R6 and R7 are a low substituted alkyl, Z is a cyclopentanone group or a precursor form thereof, the precursor form being (II), (III), (IV), (V) or (VI), and R3 is a low substituted alkyl. Further, the method comprises a step of converting the precursor form of the cyclopentanone group to the cyclopentanone group. The precursor compound of loxoprofen is used for preparing loxoprofen compounds.
The disclosed technology is generally directed to cryptographic functions for smart contracts. In one example of the technology, a request for cryptographic resources is received. The request for cryptographic resources includes a binding identity (ID). Cryptographic resources are fetched from at least one cryptographic resource pool of a plurality of cryptographic resource pools responsive to the request for cryptographic resources. Separate cryptographic resource pools of the plurality of cryptographic resource pools are pools of separate types of cryptographic resources. Which type of proof delegate code is suitable for each fetched cryptographic resource is determined. For each fetched cryptographic resource, the determined type of proof delegate code is injected into the fetched cryptographic resource.
Title of the invention: **NANOEMULSION OF IODINATED FATTY ACIDS FOR CT IMAGING**

<table>
<thead>
<tr>
<th>(51) International classification</th>
<th>:A61K 49/00,A61K 49/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>:17185185.0</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>:07/08/2017</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>:EPO</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>:PCT/EP2018/070501</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:27/07/2018</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>:WO 2019/030024</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(71) Name of Applicant :</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) UNIVERSITY OF GENEVA</td>
</tr>
<tr>
<td>Address of Applicant :24, rue de Gnral-Dufour, Geneva,1211 Switzerland</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(72) Name of Inventor :</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) VINET, Laurent</td>
</tr>
<tr>
<td>2) BABIC, Andrej</td>
</tr>
<tr>
<td>3) ALLEMANN, Eric</td>
</tr>
</tbody>
</table>

Abstract:
The invention relates to an iodinated CT contrast agent made of fatty acid derivatives for noninvasive visualisation and quantification of the brown and/or beige adipose tissue (BAT) or for imaging the heart and/or liver of a subject. Advantageously, this contrast agent is to be taken orally which is a breakthrough in CT imaging. Image resolution by CT is significantly enhanced compared to PET.

No. of Pages : 41 No. of Claims : 16
Problem: The objective of the present invention is to provide a technology with which it is possible in an exhaust device provided with an oxygen sensor for oxygen contained in the exhaust gas to be measured more accurately. [Solution] In an exhaust device provided with a silencer 32 coupled downstream of an exhaust tube 31 a catalyst which cleans the exhaust gas is provided in the exhaust tube and an oxygen sensor 80 is attached to a pipe portion 64 which is downstream from the catalyst and is directly coupled to the catalyst. The oxygen sensor 80 is provided substantially perpendicular to the axial direction of the pipe portion 64 through which the exhaust gas flows. The oxygen sensor 80 includes a detecting portion 82 the detecting portion 82 is disposed in a recessed portion 81 formed in the silencer 32 and a wire 83 is disposed outside the recessed portion 81. Fig. 7
Title of the invention : CONTINUOUS FLOW SEPARATION CHAMBER

<table>
<thead>
<tr>
<th>International classification</th>
<th>:B04B 7/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>:61/722,506</td>
</tr>
<tr>
<td>Priority Date</td>
<td>:05/11/2012</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>International Application No</td>
<td>PCT/US2013/068478</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:05/11/2013</td>
</tr>
<tr>
<td>International Publication No</td>
<td>WO/2014/071365</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filed on</td>
<td>:05/11/2013</td>
</tr>
<tr>
<td>Divisional to Application Number</td>
<td>2956/CHENP/2015</td>
</tr>
<tr>
<td>Filed on</td>
<td>:05/11/2013</td>
</tr>
</tbody>
</table>

Abstract:
A centrifuge bowl for continuous separation of whole blood comprises an outer body rotatable about a longitudinal axis of the centrifuge bowl, the outer body having a main body defining an interior cavity, a neck portion extending proximal to the main body, and a shoulder connecting the main body and the neck portion. A top core is located within and rotatable with the outer body, the top core being coaxial with the outer body and including a chimney extending through the top core along the longitudinal axis of the centrifuge bowl. A separation region is located between the top core and the outer body, rotation of the centrifuge bowl separating the whole blood within the separation region into a first blood component and a second blood component. An inlet port is provided for introducing whole blood into the centrifuge bowl. An inlet tube is fluidly connected to and extends distally from the inlet port and through the chimney, the inlet tube configured to introduce the whole blood into an introduction region. A first blood component outlet port draws the first blood component out of the centrifuge bowl. A first blood component extraction tube extends from the first blood component outlet port to a first blood component extraction region. A second blood component outlet port fluidly connects to the separation region and draws a second blood component from the centrifuge bowl. A centrifuge bowl rotary seal is attached to the outer body and fluidly couples the inlet port, first blood component outlet port, and second blood component outlet port to the outer body. An optical sensor is located on the shoulder of the outer body, the optical sensor configured to monitor an interface between the first blood component and the second blood component within the separation region, the optical sensor configured to control the operation of a first blood component pump based upon a location of the interface.
**Title of the invention:** PORTABLE DEVICE COMPRISING A TOUCH-SCREEN DISPLAY, AND METHOD FOR CONTROLLING SAME

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>61/441,491</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>10/02/2011</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>U.S.A.</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>PCT/KR2012/000888</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>WO/2012/108668</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>7242/CHENP/2013</td>
</tr>
<tr>
<td>Filed on</td>
<td>09/09/2013</td>
</tr>
</tbody>
</table>

**Name of Applicant:**
1) SAMSUNG ELECTRONICS CO., LTD.
   Address of Applicant: 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, Republic of Korea

**Name of Inventor:**
1) Joon-Kyu SEO
2) Kyung-A KANG
3) Ji-Yeon KWAK
4) Hyun-Jin KIM
5) HyunJung, SONG
6) Sung-Sik YOO
7) Ju-Youn LEE
8) Dong-Seok RYU
9) Min-Kyu PARK

No. of Pages: 411 No. of Claims: 8
**Title of the invention:** PORTABLE DEVICE COMPRISING A TOUCH-SCREEN DISPLAY, AND METHOD FOR CONTROLLING SAME

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(31) Priority Document No</td>
<td>61/441,491</td>
</tr>
<tr>
<td>(32) Priority Date</td>
<td>10/02/2011</td>
</tr>
<tr>
<td>(33) Name of priority country</td>
<td>U.S.A.</td>
</tr>
<tr>
<td>(86) International Application No</td>
<td>PCT/KR2012/000888</td>
</tr>
<tr>
<td>Filing Date</td>
<td>07/02/2012</td>
</tr>
<tr>
<td>(87) International Publication No</td>
<td>WO/2012/108668</td>
</tr>
<tr>
<td>(61) Patent of Addition to Application Number</td>
<td>NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>NA</td>
</tr>
<tr>
<td>(62) Divisional to Application Number</td>
<td>7242/CHENP/2013</td>
</tr>
<tr>
<td>Filed on</td>
<td>09/09/2013</td>
</tr>
</tbody>
</table>

**Name of Applicant:**
1. SAMSUNG ELECTRONICS CO., LTD.
   Address of Applicant: 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, Republic of Korea

**Name of Inventor:**
1. Joon-Kyu SEO
2. Kyung-A KANG
3. Ji-Yeon KWAK
4. Hyun-Jin KIM
5. HyunJung, SONG
6. Sung-Sik YOO
7. Ju-Youn LEE
8. Dong-Seok RYU
9. Min-Kyu PARK

**Abstract:**
AS ATTACHED

No. of Pages: 411 No. of Claims: 12
**Title of the invention**: PORTABLE DEVICE COMPRISING A TOUCH-SCREEN DISPLAY, AND METHOD FOR CONTROLLING SAME

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Document No</td>
<td>:61/441,491</td>
</tr>
<tr>
<td>Priority Date</td>
<td>:10/02/2011</td>
</tr>
<tr>
<td>Name of priority country</td>
<td>:U.S.A.</td>
</tr>
<tr>
<td>International Application No</td>
<td>:PCT/KR2012/000888</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:07/02/2012</td>
</tr>
<tr>
<td>International Publication No</td>
<td>:WO/2012/108668</td>
</tr>
<tr>
<td>Patent of Addition to Application Number</td>
<td>:NA</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:NA</td>
</tr>
<tr>
<td>Divisional to Application Number Filed on</td>
<td>:7242/CHENP/2013</td>
</tr>
<tr>
<td>Filing Date</td>
<td>:09/09/2013</td>
</tr>
</tbody>
</table>

**Abstract**: AS ATTACHED

**Name of Applicant**:  
1) SAMSUNG ELECTRONICS CO., LTD.  
   Address of Applicant : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, Republic of Korea Republic of Korea

**Name of Inventor**:  
1) Joon-Kyu SEO  
2) Kyung-A KANG  
3) Ji-Yeon KWAK  
4) Hyun-Jin KIM  
5) HyunJung, SONG  
6) Sung-Sik YOO  
7) Ju-Youn LEE  
8) Dong-Seok RYU  
9) Min-Kyu PARK

No. of Pages: 411  No. of Claims: 14
An aftertreatment system includes an exhaust reductant tank configured to store an exhaust reductant. A filter is fluidically coupled to the exhaust reductant tank. The aftertreatment system includes a hydrocarbon detection device configured to indicate the presence of a hydrocarbon in the exhaust reductant. A catalyst is included in the system and configured to treat the exhaust reductant flowing through the system. The hydrocarbon detection device can include a hydrophobic paper, and can be disposed in the filter. Fig 1.
The present invention has an object to provide a communication system capable of appropriately providing services while improving a data rate using carrier aggregation. In Step ST1408, of a cell 1 and a cell 2 of a base station A, RRC connection is established between the cell 1 and a UE, and the cell 1 becomes a primary cell (PCell). Then, in step ST1418, the cell 1 determines to configure the cell 2 as a secondary cell (SCell) to be aggregated with the own cell. Then, the cell 1 notifies the UE of the above in Step ST1419. Upon this notification, the operation of restricting access to the cell 2 from the UE is stopped by an MME, and thereafter, communication between the UE and the cell 2 is started in Step ST1422. Fig 14.
Title of the invention: SENSOR AND METHOD FOR CLASSIFYING A SAMPLE

Abstract:
The present invention relates to methods and systems for detecting one or more analytes in a sample and/or for classifying a sample. In particular, the present invention relates to methods and systems which can be used to detect the analytes in real time and which rely on flowing through a microfluidic device one or more types of sensor molecule each comprising a domain that binds one or more analytes, a chemiluminescent donor domain and an acceptor domain, wherein the separation and relative orientation of the chemiluminescent donor domain and the acceptor domain, in the presence and/or the absence of analyte, is within + 50% of the Forster distance.
The present invention relates to a micropowder, wherein the particles of the micropowder have a Dv10 value of at least 2 micrometer and the micropowder comprises mesopores which have an average pore diameter in the range of from 2 to 50 nm and comprise, based on the weight of the micropowder, at least 95 weight-% of a microporous aluminum-free zeolitic material of structure type MWW containing titanium and zinc.

CONTINUED TO PART- 3