SYSTEM AND METHOD FOR PREDICTING REPEAT BEHAVIOR OF CUSTOMERS

Abstract:
System and method for predicting repeat behaviour of customers are disclosed. In an embodiment, the method includes abstracting a customer interaction data associated with interactions of the customer with respect a target entity into a common data format (CDF) to obtain an abstracted customer interaction data. Based on at least a portion of the abstracted customer interaction data, a set of features corresponding to the target entity are extracted. The set of features characterizes customer interaction with respect to the target entity. Based on the set of features, a prediction model is predicted to predict repeat behaviour probability of the customer with respect to the target entity.
Title of the invention: SYSTEM AND METHOD FOR DIGITIZED DIGIT SYMBOL SUBSTITUTION TEST

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Address of Applicant: Nirmal Building, 9th Floor, Nariman Point, Mumbai – 400021, Maharashtra, India

Name of Inventor:
1) SINHA, Aniruddha
2) CHATTERJEE, Debatri
3) CHAKRAVARTY, Kingshuk
4) GAVAS, Rahul Dasharath
5) DAS, Pratyusha
6) LAHIRI, Uttama

Abstract:
System and method for digitized digit symbol substitution test (DSST) are disclosed. In an example, a display area of a digitized DSST device is partitioned into multiple bins. Further, a series of number symbol pairs is displayed as a lookup table on top of the display, termed as a lookup area. Furthermore, a question and answer (QA) pair corresponding to the series of number symbol pairs to an examinee in multiple trials. In addition, feature values for the QA pair are computed in each of the multiple bins in the trials, wherein the feature values comprise a response time and an accuracy of response by the examinee. Moreover, probabilities of the feature values are determined in each of the multiple bins. Also, an entropy value based on the probabilities of the feature values is computed in each of the multiple bins providing information on distribution.

No. of Pages: 30  No. of Claims: 16
SYSTEMS AND METHODS FOR DETECTING AND MITIGATING RANSOMWARE THREATS

System and method for detection and mitigation of ransomware threats are disclosed. If any file system change is detected in a UE being monitored for ransomware threat, the system performs a behavior analysis to determine whether a anomalous behavior that would amount to a ransomware threat is associated with files associated with the file system change. Upon identifying any anomalous behavior, the system virtualizes the file system on the fly. If information pertaining to the identified anomalous behavior is present in any of the reference databases in the system, then all the I/O calls are terminated or the file system is virtualized for rest of the session. If data pertaining to the identified anomalous behavior is not found in any of the associated databases, then new behavioral features and structural patterns of the identified anomalous behavior and the associated processes are extracted, and the reference databases are updated accordingly.
Title of the invention: METHOD AND SYSTEM FOR CREATING AN INSTANCE MODEL

Abstract:
A system and method for creating an instance model is provided. The system provides an information extraction and modeling framework from wide spectrum of document types such as PDF, Text, HTML, LOG, CSV, images, audio/video files and DOCX. In this framework information is extracted and mapped on a domain conceptual model like ER model and the instance model is created. Initially a template model is created using the existing ER model and the plurality of data sources. The template model, the existing ER model and the information extracted from the plurality of data sources are then provided as input to generate the instance model. The system or method is not limited to extract information from log files. This can be useful for different types of files type if the structures and formats of data are different. The system can also be used with unstructured type of data sources.

No. of Pages: 34  No. of Claims: 14
A method and system for managing lighting schedule of a plurality of lamps set up in an Area of Interest (AOI). The method provides generating an optimized lighting schedule for every lamp of the plurality of lamps set up in the AOI. The optimization is based a set of constraints that are applied to an optimization function. The set of constraints are generated from spatio-temporal predictions, which are derived by analyzing area data of the AOI. The area data may be obtained from a plurality of data sources. The set of constraints also include a plurality of regional factors associated with the AOI. The predictive component can be overridden to generate revised optimized lighting schedule when real time area data such as traffic density data or subject density data or the like are obtained from sensors at every lamp.
(54) Title of the invention: SYSTEM AND METHOD FOR CONSENT CENTRIC DATA COMPLIANCE CHECKING

(57) Abstract:
Techniques for consent centric data compliance checking are disclosed. In an example embodiment, multiple applications associated with an organization are received. Further, a purpose for each of the multiple applications associated with the organization is derived. Furthermore, consents of data subjects are captured for the derived purpose of each of the multiple application in a data subject preference master. Also, reconciliation of the data subject preference master and data subjects’ data available in the organization is performed to determine consent lacking information.

No. of Pages: 23 No. of Claims: 10
Systems and methods for to optimize healthcare services based on context and constraints are disclosed. The system enables registration and appointments of users with medical professional(s) across networked healthcare facilities for healthcare support services. Based on appointment type, the system segregates and intelligently guide the routing of patients using navigation map(s), wherein the segregation logic apply out-patient department/clinical process protocol to identify appropriate department for a patient based on symptom(s). The system further provides real time information on appointments including waiting time, resource availabilities and current status of appointments. The system further learns the pattern of appointments, scheduling(s), and consultations, and further enables appointments based on historical data and generates a recommendation on health and safety measures (or epidemic alerts), thereby providing enhanced patient experience or reduced anxiety level with reduced wait time where there is a huge footfall of patients, particularly people with diverse needs, and who are illiterate.
The disclosure herein generally relate to data processing, and, more particularly, to a system and method for mapping heterogeneous data sources. For a product being sold globally, there might be one global database listing characteristics of the product, and from various System and method for mapping attributes of entities are disclosed. In an embodiment, the system uses a combination of Supervised Bayesian Model (SBM) and an Unsupervised Textual Similarity (UTS) model for data analysis. A weighted ensemble of the SBM and the UTS is used, wherein the ensemble is weighted based on a confidence measure. The system, by performing data processing, identifies data match between different data sources (a local databases and a corresponding global database) being compared, and based on matching data found, performs mapping between the local databases and the global database.

No. of Pages : 24 No. of Claims : 9
The systems and methods of the present disclosure provide a path planning algorithm for fixed-wing aerial vehicles that may be employed, particularly for monitoring of long linear infrastructures. The applicants’ earlier patent applications address turn angle constraints for fixed wing aerial and maintaining transmission continuity in presence of coverage holes by imposing a plurality of constraints along with storage constraints.

The present disclosure addresses a technical challenge of simultaneously meeting multiple objectives; particularly distance cost and communication cost while satisfying the plurality of constraints that enable pruning of feasible paths in a 3D Euclidean navigation space to obtain a set of optimal paths for surveillance of a target under consideration.

No. of Pages : 28 No. of Claims : 10
Title of the invention: SYSTEMS AND METHODS FOR GENERATING MULTI-FUNCTIONAL ARCHITECTURAL DESIGN FOR FACILITATING INTER-ENVIRONMENTAL ARCHITECTURE IMPLEMENTATION

Abstract:
Systems and methods for generating multi-functional architectural design to facilitate an inter-environmental architecture implementation in a computing device. The traditional systems and methods consider a single architecture technique as a collection of activities and do not semantically support the process of architecting. Embodiment of the present disclosure provide for generating the multi-functional architectural design to facilitate the inter-environmental architecture implementation by defining a plurality of architectural components, gathering a set of unstructured architectural problems, transforming the set of unstructured architectural problems into a set of structured architectural information, performing an analysis of a set of architectural solutions, formulating, by an architecture technique 204, a set of potential architectural designs, identifying a final architectural design and generating a final set of integrated architectural descriptions, wherein the final set of integrated architectural descriptions correspond to the one or more potential architectural solutions amongst the set of potential architectural solutions.

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Name of Inventor:
1) KUMAR, Anand
2) NORI, Kesav Vithal
Considering the number of OSS components and the number of OSS license types available today, the number of license attributes to be considered for analyzing a product at a granular level is a challenge to perform manually, prudently considering legal implications of non-compliance and contamination and also within the limited time available today before go to market in the software industry. Systems and methods of the present disclosure intelligently facilitates a matrix which is able to identify OSS components in a deliverable and also facilitates the product owner to identify proprietary IP that can be suitably protected and licensed without contamination by the accompanying OSS components in the product under consideration. License attributes of the OSS components are mapped suitably and a final attribute is derived for each OSS component embedded in the product under consideration.
**Title of the invention:** PROPELLER SHAFT DAMPERS

**International classification:** B62K 25/00, B62B 5/00

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**Name of Inventor:**
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2. Bandwalkar Rohidas Shankar
3. Channapattan Raghavendra Suresh
4. Khule Anil Laxman

**Abstract:**

Disclosed is a propeller shaft damper. The propeller shaft damper includes at least one hub (102) having outer margin in the shape of a quadrilateral. The hub (102) includes a plurality of the holes adapted thereon for fitting the damper (100). The propeller shaft damper (100) further comprises at least one pre-molded elastomer (104) configured around the hub (102) forming a quadrilateral shape. In preferred embodiment, the pre-molded elastomer (104) is non-segmented. The propeller shaft damper (100) furthermore comprises at least one ring (106) having inner periphery in quadrilateral shape and outer periphery in circular shape. The ring (106) is configured around the elastomer (104). The hub (102), the elastomer (104) and the ring (106) of the propeller shaft damper (100) are assembled in rubber in compression type. Figure 2

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No. of Pages: 12  No. of Claims: 5

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**Figure 2**
Title of the invention: SYSTEM AND APPARATUS FOR AUTOMATING THE MASS CUSTOMIZATION PROCESS FOR PRINTING

Abstract:
The invention relates to a system comprising of one or more Print Server connected via a network, networked Printing terminals belonging to one or more printer type/family, and Job ticket with meta data tags to define the printing on the article/product.
ABSTRACT EMITTER AND DRIP IRRIGATION TUBE

This emitter (120) has double ridges provided around a hole (173) which forms a portion of a flow path between a reduced-pressure flow path and a discharge part. A first ridge (174), which is the outermost ridge, is provided with four first grooves (177) which intersect said ridge. A second ridge (175) is provided with one second groove (178) which intersects said ridge. As the external liquid pressure increases, a film (140) sequentially adheres to the first ridge (174) and the second ridge (175). The flow rate of an irrigation liquid is adjusted to an amount capable of passing through the groove or grooves in the ridge to which the film (140) is adhered.
The various embodiments of the present invention provide a multipurpose modular portable device holder. The portable device holder is universal in nature and can be used for a wide range of products. The portable device holder is light, modular, collapsible and portable in nature, thus leading to easy carriage of the portable device holder. Also, the portable device holder unlike the conventional holders, is adjustable in radial, horizontal and vertical direction to allow one or more users to use the held portable device in various positions.

FIG. 1a

No. of Pages : 18 No. of Claims : 10
We all know batteries are expensive and prices keep going up. The average family is spending more and more of their hard earned money each month on all kinds of batteries. But we can save this money by the regeneration of exhausted lead acid batteries and regenerate them to brand new again with easy method. Types of batteries 1. Car batteries 2. Invertors batteries 3. Golf cart batteries 4. Batteries used in alternate energy system (like solar panel system) 5. Deep cycle marine batteries 6. Bike batteries 7. Heavy transport vehicle batteries 8. Residential wind turbine system batteries 9. Many other batteries

No. of Pages : 6 No. of Claims : 4
Title of the invention: COILING APPARATUS

Abstract:
An apparatus for coiling a paper strip is disclosed. The apparatus includes a housing, a pin and a plunger. The pin having an end positioned external to the housing and an axis of rotation, the end having a slot elongated along the axis of rotation, the slot being sized to receive the paper strip. Further, the plunger is disposed on the housing and configured to translate away from the pin, the plunger having a plunger head positioned proximate to the slot of the pin, the plunger head having a surface aligned to press the paper strip against the pin.

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Address of Applicant: 401, JASU BLDG, DADABHAI ROAD, VILE PARLE (WEST), MUMBAI. Maharashtra India

Name of Inventor:
1) KUMAR, Ravi
2) KATHARANI, Disha
Title of the invention: COOKING APPARATUS WITH FILTERING ASSEMBLY

Abstract:
COOKING APPARATUS WITH FILTERING ASSEMBLY A cooking apparatus (4) with filtering assembly (3) includes a base (41) having a cooking area (42) disposed thereon, an intake cover (43) facing the cooking area (42), a filtering assembly (3) and an exhaust fan (44) disposed within the base (41) respectively. The filtering assembly (3) includes a collecting case (31) having a room (31A) with a large space and a filter (32) disposed in the room (31A) for dividing the collecting case (31) into a discharge area (311) and a filtering area (312), thereby allowing the extensively-disposed filter (32) to increase an area available of filtering dirt and oil in fumes and decrease the wind resistance. A collecting trough (313) is formed on a bottom of the collecting case (31) for gathering the dirt and oil to prevent the filter (32) from getting obstructed. The discharge area (311) accommodates the filtered fumes temporarily and releases the filtered fumes gradually to reduce air extrusion. Therefore, the filtering efficiency is increased.
Title of the invention: POLYMORPHS OF 4-[3-CHLORO-4-(CYCLOPROPYLAMINOCARBONYL) AMINOPHENOXY)-7-METHOXY-6-QUINOLINECARBOXAMIDE MESYLATE, METHODS OF PRODUCTION AND PHARMACEUTICAL USES THEREOF

Abstract:
The present invention relates to novel crystalline polymorphic forms of 4-[3-chloro-4-(cyclopropylaminocarbonyl) aminophenoxy)-7-methoxy-6-quinolinecarboxamide mesylate, methods of preparation, pharmaceutical compositions and methods of therapeutic treatment involving polymorphic forms thereof.

No. of Pages: 52 No. of Claims: 27
Title of the invention : TEXTURED GLASS AS HYBRID TRANSPARENT CONDUCTING ELECTRODE

Abstract:
The present invention relates to hybrid transparent conducting electrode comprising reduced graphene oxide film, metal mesh and textured glass, wherein the reduced graphene oxide film is coated on the textured glass embedded with the metal mesh or the reduced graphene oxide film is sandwiched between the textured glass and the metal mesh. The present invention also relates to a process of preparing the hybrid conducting transparent conducting electrode. The said transparent conducting electrode exhibits transparency ranging from about 70% to 85% with sheet resistance ranging from about 5/sq to 100/sq.
### Title of the invention: DIGITAL PAYMENT PLATFORM

**Abstract:**

A system and the process to track transaction till its closure comprising, merchant payment, interchange, dispute etc. transactions is authorized by the card holder's bank based on parameter set bank end and as per balance/card limit available customers account, wherein, enroll the merchant in its system followed by authorization validate the merchant details receive in the authorization request, as well as validation by Bank customer details in the master maintained at its end., the said transaction can be performed either by customer or by other bank customer using debit card or credit card.

<table>
<thead>
<tr>
<th>Name of Applicant</th>
<th>Address of Applicant</th>
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</thead>
<tbody>
<tr>
<td>1) In-Solutions Global Ltd.</td>
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</tr>
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</table>

| Name of Inventor | |
|------------------||
| 1) Adelia Castelino | |
**Title of the invention**: HEAT TREATMENT PROCESS FOR FORGED FRONT AXLE BEAM

### Abstract

An Apparatus And A Heat Treatment Process For Forged Front Axle Beam Abstract The present invention relates to an apparatus and heat treatment process for a front axle beam to provide distortion free heat treatment of a front axle beam. The apparatus for carrying out distortion free heat treatment of a front axle beam comprises a receptacle for placing the front axle beam to be quenched; actuators for centering said beam axially and transversely inside said receptacle; clamping mechanisms for vertical and horizontal clamping of said beam inside said receptacle; and actuators for constraining the distortion of KPB in vertical or transverse direction. The apparatus envisaged in the invention is designed such that it supports and/or holds the FAB at its most critical locations during the heat treatment process. Due to this, the FAB remains distortion-free and hence, does not require any bend/distortion correction and stress relieving after the heat treatment process. The heat treatment process of the invention incorporates the step of using the apparatus of the invention to carry out the quenching process. Reference Figure: Figure 4
The Patent Office Journal No. 01/2020 Dated 03/01/2020

| (12) PATENT APPLICATION PUBLICATION | (21) Application No.201721043947 A |
| (19) INDIA | |
| (22) Date of filing of Application :07/12/2017 | (43) Publication Date : 03/01/2020 |

| (54) Title of the invention : COLD ROLLED ULTRA HIGH STRENGTH STEEL SHEET HAVING EXCELLENT STRETCH FORMABILITY AND METHOD OF MANUFACTURING THE SAME. |

| (51) International classification | :C22C38/00 |
| (31) Priority Document No | :NA |
| (32) Priority Date | :NA |
| (33) Name of priority country | :NA |
| (36) International Application No | :NA |
| Filing Date | :NA |
| (87) International Publication No | : NA |
| Filing Date | :NA |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

| (71) Name of Applicant : |
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| Address of Applicant :JSW CENTRE, BANDRA KURLA COMPLEX, BANDRA (EAST), MUMBAI, MAHARASHTRA, INDIA, Maharashtra India |

| (72) Name of Inventor : |
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| 3) MR. MISHRA, Devasish |
| 4) MR. CHANDRA, Ashish |
| 5) MR. GHORUI, Prabhat Kumar |

| (57) Abstract : |
| ABSTRACT TITLE: COLD ROLLED ULTRA HIGH STRENGTH STEEL SHEET WITH EXCELLENT STRETCH FORMABILITY AND METHOD OF MANUFACTURING THE SAME. The Present invention relates to cold rolled high strength steel sheet having excellent strain hardening property and method of manufacturing the same. The steel sheets having Tensile strength of 1000 MPa or more involving selective chemical composition and processing to achieve the desired microstructure and the stretch formability property. The advancement favors generation of cold rolled high strength steel sheet having Yield strength of 500MPa or more, Tensile strength of 1000 MPa or more, total elongation of 18% or more, strain hardening coefficient of 0.16 or more and bake hardening index of 40 MPa or more and preferred ODF random intensity of -fiber texture of (111)[1-23] and (111)[1-32] more than 3 for excellent stretch formability and crash resistance which makes such steel sheets suitable for automobile applications. The present advancement also concerns achieving better stretch formability utilizing Transformation Induced Plasticity (TRIP) phenomenon whereby retained austenite in ferrite-bainite matrix can be transformed to martensite post forming resulting better formability. |

No. of Pages : 25 No. of Claims : 10
A water filtration media which prevents or resists the accumulation of microbes while simultaneously addressing the added problem of leaching caused by the treatment of activated carbon. In one preferred embodiment, the combination of Cu and Ag on activated carbon is prepared. Steps are taken to bind the silver and copper using anionic surfactant so that there is less leaching of silver and copper from the media. In a separate embodiment, the combination of Cu and Zn is prepared, which is subjected to high temperature for better binding of the metal oxides with the carbon.
ABSTRACT A SYSTEM FOR MAPPING EMPLOYEES™ SENTIMENTS AND A METHOD THEREOF

The present disclosure relates to the field of a system that maps employees™ sentiments, and envisages a system for mapping employees™ sentiments comprising a database (15), an input unit (20), a parser (25), a filter unit (30), a lexical analyser (35), an identifier (40), a mapping unit (45), an aggregator (50), a sentiments analyser (55), and a computation unit (60). The employee inputs are received through the input unit (20). The parser (25) parses the inputs and generates tokens that are filtered based on the filter unit (30). Keywords are extracted from pre-determined list of keywords based on filtered words which are mapped with pre-determined group of themes and quantitative score based on the weightage score is computed by pre-determined weightage scores. The sentiments analyser (55) analyses employee sentiments, based on quantitative score and computation unit (60) computes a relationship between employee sentiments, employee feedback and employee performance.
Title of the invention: A SPINNERET PLATE WITH REDUCED THICKNESS FOR EXTRUDING FIBRES THEREFROM

Abstract:
ABSTRACT A SPINNERET PLATE WITH REDUCED THICKNESS FOR EXTRUDING FIBRES THEREFROM The present disclosure relates to the field of spinneret plate for extruding fibers therefrom. A spinneret plate (100) of the present disclosure comprises a perforated portion (10) defining perforations (20); an annular collar (C) integral with the perforated portion (10), where the annular collar (C) is configured downstream side of the spinneret plate (100) and is having a slot (S) on outer periphery to fit the spinneret plate (100) on pack filter body. The perforated portion (10) of the spinneret plate (100) has a predetermined thickness (T) configured to decrease the temperature difference between a top face (30) and a bottom face (40) of said spinneret plate (100).

No. of Pages: 18 No. of Claims: 6
<table>
<thead>
<tr>
<th>(57) Abstract</th>
<th>(71) Name of Applicant</th>
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<tbody>
<tr>
<td>ABSTRACT HERBAL COMPOSITION FOR MANAGEMENT OF DIABETES AND PROCESS OF PREPARATION THEREOF™ The present disclosure relates to a pharmaceutically acceptable herbal composition effective for treating metabolic disorders comprising of herbs Neolamarckia cadamba in precise combination along with at least one pharmaceutically acceptable carrier for management of diabetes, blood glucose imbalance and associated disorders. The present disclosure further provides process of preparing such herbal composition for treatment and management of diabetes and demonstrates the efficacy of herbal composition in controlling blood glucose level and acting as a prophylaxis against associated conditions.</td>
<td>1) Nageena Sharma</td>
</tr>
</tbody>
</table>

No. of Pages : 18
No. of Claims : 9
An apparatus for passive amplification of sound is disclosed. The apparatus has two compartments that are folded and converted into sound amplifying wedge-shaped compartments for mobile devices. The two compartments are formed such that an angle of at least 25 degrees is subtended by the creased lines of the two compartments with the bottom tip of the apparatus to maximize sound amplification via a hollow passage that interconnects the two compartments.
Title of the invention: METHOD AND SYSTEM FOR IDENTIFICATION AND EXTRACTION OF RELATED AND RELEVANT SECTIONS FROM DOCUMENTS

Abstract:
Embodiments of the present disclosure, implements method of extracting relevant sections from a plurality of documents by (a) receiving an input document from a user; (b) converting, the input document to a standard text file; (c) classifying, the standard text file to obtain a labelled text file associated with at least one cluster from a plurality of clusters; (d) extracting, from the labelled text file to obtain a plurality of relevant entities associated with at least one cluster in the plurality of clusters; (e) annotating, the standard text file by the extracted plurality of relevant entities to obtain an annotated enriched text file; (f) identifying, a plurality of section boundaries to obtain a sectioned data; and (g) extracting, relevant sections of the plurality of documents based on the plurality of relationship associated with the set of relevant entities.
ABSTRACT

METHOD AND SYSTEM FOR AUTOMATICALLY DETERMINING LEVEL OF LIQUID IN A CONTAINER

As described therein a system for automatically determining level of liquid in a container. The system comprises a liquid dispenser capable of dispensing liquid from an outlet; a solenoid valve installed in proximity of the outlet, the solenoid valve is adapted to open and close in order to control flow of the liquid; a proximity sensor configured to detect presence of the container when the container is placed under the outlet of the liquid dispenser. Moreover, a microphone adapted to detect sound of the liquid making contact with a surface of the container and the surface of the liquid in the container; and a controller to determine level of the liquid in the container based on sound detected by said microphone. REFER TO FIG. 1

No. of Pages : 10 No. of Claims : 17
**Title of the invention:** HERBAL COMPOSITIONS FOR MANAGEMENT OF LIVER DISORDERS AND METHODS THEREOF

<table>
<thead>
<tr>
<th>International classification</th>
<th>Name of Applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>A61K 31/00</td>
<td>1) Sukhramabhai, Nayka</td>
</tr>
<tr>
<td>A61K 47/00</td>
<td>Address of Applicant: Nishal Faliyu, Nakhapura, Jakshi, Vadodara, Nasvadi, Gujarat 391150, India. Gujarat India</td>
</tr>
</tbody>
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<tr>
<th>Priority Document No</th>
<th>Name of Inventor</th>
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<tr>
<td>:NA</td>
<td>1) Sukhramabhai, Nayka</td>
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<td>Patent of Addition to Application Number</td>
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<td>Filing Date</td>
<td>:NA</td>
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<td>Divisional to Application Number</td>
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<td>Filing Date</td>
<td>:NA</td>
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**Abstract:**

The present invention is of a herbal composition comprising combination of therapeutically effective amount of herbal constituents extracted from bark of Azadirachta indica and bark of Manilkara hexandra in combination with pharmaceutically acceptable excipients, useful for the management of hepatotoxicity and the other associated liver disorders and method of preparation thereof.

No. of Pages: 25  No. of Claims: 7
Title: An Exhaust System with Oxygen Sensor Mounting Arrangement
Application Number: 201721044940
Applicant: Bajaj Auto Limited

Abstract:
An exhaust system connected to an exhaust port of an engine comprising a coupling assembly; a connecting piece having at least one oxygen sensor; at least one catalytic converter (CAT); an exhaust pipe; a muffler all are connected to each other such that; a coupling assembly is mounted on the exhaust port of the engine; a connecting piece mounted on the coupling assembly; at least one catalytic converter (CAT) connected to an outlet end of connecting piece; an exhaust pipe is connected to an outlet end of the CAT; a muffler is connected to the exhaust pipe; wherein; the connecting piece is having varying dimension at its inlet side and outlet side and is arranged near exhaust port such that the resultant force (F) of exhaust gas is resolved in a horizontal (FH) and a vertical force component (FV) and the horizontal force component (FH) is larger than the vertical force component (FV) and wherein at least an oxygen sensor is mounted on to said connecting piece. Figure 7

No. of Pages: 22
No. of Claims: 11
**Title of the Invention:** FOAM EXTINGUISHING SYSTEM FOR CONE ROOF TANK

**Abstract:**

The present disclosure relates to a fire suppressant system for a fixed cone roof tank. In one embodiment, the fire suppressant system comprises a foam chamber and a discharge conduit. The foam chamber comprises: an inlet conduit having a flanged inlet end attached to foam supply conduit of an inline foam inductor to receive, expand, and aerate a fire suppressant foam, and an open outlet end; an expansion conduit having an open inlet end attached to the open outlet end of the inlet conduit for expanding the fire suppressant foam and an open outlet end; an expansion enclosure having a flanged outlet end and surrounding the expansion conduit such that the open outlet end of the expansion conduit is in fluid communication with the expansion enclosure. The discharge conduit has a flanged inlet end attached to the flanged outlet end of the expansion enclosure for discharging the fire suppressant foam into the fixed cone roof tank, wherein a wafer type swing check valve is installed between the flanged outlet end of the expansion enclosure and the flanged inlet end of the discharge conduit. <<To be published with Figure 3>>
(54) Title of the invention: SINGLY STEERABLE, SERPENTINE STEEL TRACK CRAWLER TRANSFORMABLE INTO DUAL TRACK CRAWLER AND WHEELED VEHICLE

(51) International classification : F16M 11/00

(31) Priority Document No : NA

(32) Priority Date : NA

(33) Name of priority country : NA

(36) Priority Document No : NA

(37) Priority Date : NA

(38) 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

(57) Abstract:
ABSTRACT SINGLY STEERABLE, SERPENTINE STEEL TRACK CRAWLER TRANSFORMABLE INTO MULTI-TRACK CRAWLER AND WHEELED VEHICLE There is provided a singly steerable, serpentine steel track crawler. The single-track crawler can steer independently in a serpentine fashion. Two or more single crawler tracks side-by-side can be transformed into a multi-track crawler vehicle. The single-track crawler or multi-track crawler vehicle can be fitted with rubber tires for plying on paved roads. This makes it a versatile, multi-terrain vehicle for agriculture and earth-moving applications.

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94040 U.S.A.

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1) DHONDE ANIL TUKARAM

No. of Pages: 70
No. of Claims: 28

FIG. 1

The Patent Office Journal No. 01/2020 Dated 03/01/2020
SYSTEM AND METHOD FOR INVOICING, INVENTORY TRACKING AND SALES TRACKING IN HYPERLOCAL RETAILING

Abstract:
Disclosed is a communication tool for tracking sales in hyperlocal retailing. The communication tool includes a receipt module adapted to receive inputs related to first identification details of products/articles sold, quantity and price thereof from a retailer, and generate a receipt based on first identification details, quantity and price the receipt being identifiable by a second identification details. The tool also includes an image module adapted to capture images of the products sold and create a container containing the captured images; and a link module adapted to link the container to generated receipt based on the second identification details, and also to link each of the captured images to relevant first identification details of product/articles. Fig. 1

No. of Pages : 15
No. of Claims : 12
A cable intended for use in a nuclear environment includes one or more conductors a longitudinally applied corrugated shield surrounding the one or more conductors and a cross linked polyolefin jacket layer surrounding the longitudinally applied corrugated shield. The cable conducts about 5,000 volts to about 68,000 volts in use and is radiation resistant and heat resistant. The cable comprises a life span of about 40 years or more when measured in accordance with IEEE 323. Methods for making a cable and a nuclear reactor utilizing such a cable are also provided.
Title of the invention: METHOD FOR PRODUCTION OF MOTH PHEROMONES IN YEAST

Abstract:
The present disclosure relates to methods for production of (Z) 11 hexadecen 1 ol in a yeast cell using desaturases and fatty acyl CoA reductase. Also disclosed are methods for production of (Z) 11 hexadecenal in a yeast cell. Also disclosed are methods for production of (Z) 11 hexadecen 1 yl acetate in a yeast cell. The disclosure also provides for nucleic acid constructs and yeast cells useful for performing the present methods as well as to pheromone compositions.
Title of the invention: AN IMPROVED PROCESS FOR THE PREPARATION OF DROXIDOPA AND ITS INTERMEDIATE

Abstract:
ABSTRACT AN IMPROVED PROCESS FOR THE PREPARATION OF DROXIDOPA AND ITS INTERMEDIATE The present invention provides an improved process for preparation of the L-threo-(2S,3R)-3-(3,4-dihydroxyphenyl)serine (I) or a salt thereof, which is known as Droxidopa; comprising (a) recovery of the by-product compound (V) (as described herein) from the crude compound (I), and (b) recycling and re-use it for the preparation of droxidopa. Accordingly, the present invention relates to an improved economical process for the preparation of L-threo-(2S,3R)-3-(3,4-dihydroxyphenyl)serine (I) or its pharmaceutically acceptable salts; wherein the process relates to recovery and recycling of the by-product compound (V) and also to re-use it for the preparation of droxidopa. To, The Controller of Patents The Patent Office At Mumbai

No. of Pages : 19 No. of Claims : 9
Aspects of the current patent document include systems and methods to adaptive bandwidth throttling, for example, for use in data backup systems and data recovery systems. In embodiments, bandwidth estimation can be performed while sending data. In embodiments, the bandwidth estimation is used in data backups to send data to be backed up. In embodiments, a server performs network bandwidth estimation by receiving relatively small data packets and estimating bandwidth until bandwidth reliability conditions are satisfied.
Title of the invention : AN IMPROVED PROCESS FOR THE PREPARATION OF SUCCINYLCHOLINE CHLORIDE

Abstract The present invention relates to a process for the preparation of bis[2-(dimethylamino)ethyl] succinate an intermediate of succinyl choline chloride. It further relates to process for the preparation of succinyl choline chloride or pharmaceutically acceptable dehydrates thereof from the above intermediate.

No. of Pages : 22 No. of Claims : 9
The present invention relates to a novel process for the preparation of an eslicarbazepine intermediate (S)-acetyl mandelate of formula VII and further conversion of the above intermediate to eslicarbazepine of formula I.
Title of the invention: MANIFOLD FOR DOMESTIC WATER PURIFIER SYSTEM WITH SPECIFIC CARTRIDGE REPLACEMENT

Abstract:
A manifold for domestic water purification systems having flow paths that can be redirected without having to change the physical structure of the manifold or water purification system a structure to assist with proper installation of specific filter cartridges, a memory reader for processing data relating to the state of the filter cartridges, a hinge system to allow for easier installation/removal of new and replacement filter cartridges, and a flow path structure to assist in adding accessories to the water filtration system without requiring a modification to the manifold structure.
(54) Title of the invention: RIDE ADJUSTABLE FRONT FORK FOR VEHICLE

(51) International classification
- F41H 13/00
- F41B 15/00

(31) Priority Document No
- NA

(32) Priority Date
- NA

(33) Name of priority country
- NA

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

(43) Publication Date: 03/01/2020

(57) Abstract:
RIDE ADJUSTABLE FRONT FORK FOR VEHICLE Disclosed is a ride adjustable front fork (100) for a vehicle, specifically an electronically assisted front fork for motor cycles with a handle height adjustment feature. The front fork (100) consists of two limbs (1, 2), each having a spring assembly (20) including a floating piston (3), functional oil, a spring (4) a connector (5) and an orifice (11) and a piston actuating assembly (30) having a reservoir (6), a motor mounting bracket (7), a motor (8), a fluid (9) and a reservoir piston (10). The motor (8) is operated a drive mechanism to actuate the reservoir piston (10), so that a top end of the front fork (100) attached to handle of the vehicle moves up or down. This helps the rider to adjust the handle height for three different modes including cruiser ride mode for long drives, city ride mode for normal ride and racing mode for sporting. Figure 1

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No. of Pages: 14
No. of Claims: 8
HYDROSTATIC CENTERING ASSEMBLY FOR FRONT FORK

Disclosed is a hydrostatic centering assembly (100) for a front fork. The front fork of a motor cycle comprises an inner tube (3) and an outer tube (4). The hydrostatic centering assembly (100) comprises of a hydraulic chamber (1), a reservoir (2), a hydraulic hose (5), a piston rod (7) and an under bracket (6). During every compression of the front fork, oil in the reservoir (2) is pumped into the hydraulic chamber (1) forming a thin film of oil with pressure. This thin film of the oil in-turn centralizes inner tube (3) with respect to outer tube (4) guiding clearance. The hydrostatic centering assembly (100) avoids or minimizes physical rubbing of front fork parts and increases life of the front fork parts which is getting worn out leading to oil leakage. Figure 1

No. of Pages : 11 No. of Claims : 4
The Patent Office Journal No. 01/2020 Dated 03/01/2020

(54) Title of the invention : A SYSTEM TO MANAGE THE MILK PLANT USING AUTOMATIC SAMPLING AND TESTING MECHANISM

(57) Abstract :
This invention is about a system and mechanism utilized to obtain sample of milk without any manual effort so as to maintain the hygiene of the milk which is brought into the system for testing. The sample extracted is brought into the testing chamber and the purity is validated and the value is displayed on the screen attached to the system. The validated milk is again brought back to the storage chamber in which the milk is stored once the confirmation regarding the purity is approved as per the standards already fed into the system using the computing device. The milk from the storage device is filled into the bottles and sealed at the other end of the system. The bottles can be boxed safely for distribution. The purity of the milk is already tested before it is filled into the bottles or packages to ensure healthy drinking.

FIGURE 1 : External architecture of the sampling, testing system

No. of Pages : 15 No. of Claims : 6
DOMESTIC AIR MANAGEMENT SYSTEM

Abstract Disclosed is a domestic air management system (100). The domestic air management system (100) comprises a top coaxial fan module (11), a bottom coaxial fan module (12) and an air filter module (13). The system (100) provides a cross ventilation in rooms of any size. The top coaxial fan module (11) caters to conventional sitting arrangement while the bottom coaxial fan module (12) caters for conventional sleeping arrangement. The operation of the system (100) is controlled electronically with control panel and additional remote control for convenience. The system (100) provides water less cooling of air using cooling gel pads. Figures 1A, 1B
STRETCHING MECHANISM FOR VEHICLE AXLE - BANJO HOUSING FOR DIFFERENTIAL ASSEMBLY.

Abstract:
Stretching mechanism for vehicle axle Banjo housing for assembly of the differential sub-assembly therein, the mechanism comprises: a base for supporting the mechanism on the floor; fixture for mounting/locating Banjo housing; left-hand and right-hand side levers with linkages and disposed on cantilever portions on the Banjo housing displacement device for moving and applying stretching force to the levers; and switches for operating the displacement device; wherein the Banjo housing is stretched outwards by a predetermined amount to facilitate insertion of the differential sub-assembly within the Banjo housing. Here, the bearing face to bearing face dimension of the differential sub-assembly bearing face is slightly greater than the bearing face to bearing face dimension of the Banjo housing to ensure a secured assembly with proper preload on bearings. In particular, the displacement device comprises a hydraulic power pack with hydraulic cylinder to operate the levers to apply stretching force on the Banjo housing. FIGURE 3a.

FIGURE 3a.

No. of Pages: 19
No. of Claims: 11
The present invention relates to a biosensor comprising a mutated protein regulator MopR for detecting organic pollutants. The mutated protein regulator MopR is at least one selected from the group consisting of MopRB1(SEQ ID NO. 7), MopRB2(SEQ ID NO. 8), MopRB3(SEQ ID NO. 9), and MopRD1(SEQ ID NO. The present invention also provide a method for producing a biosensor and a method for selective detection of aromatic compounds.

**FIGURE 1**

No. of Pages : 44 No. of Claims : 11
(54) Title of the invention : A NOVEL BLUE COLOR EMITTING PHOSPHOR COMPOSITION AND A PROCESS FOR THE PREPARATION THEREOF

(51) International classification : C02F 3/00

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

(71) Name of Applicant :
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(72) Name of Inventor :
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2) Prachi Tadge

(57) Abstract :
ABSTRACT A NOVEL BLUE COLOR EMITTING PHOSPHOR COMPOSITION AND A PROCESS FOR THE PREPARATION THEREOF A novel blue colour emitting phosphor composition of the chemical formula of Ba1-xEuxKYSi2O7 is disclosed. The novel blue colour emitting phosphor composition is prepared by mixing solid Potassium Carbonate (K2CO3) and Barium Carbonate (BaCO3) with aqueous solution of citric acid in the ratio of 1:4 in a container. Yttrium and europium Nitrates are the added in the container according to the required stoichiometry. The mixture is heated at a temperature of 80 to 90 oC to obtain metal complexes and then the temperature is raised to 120-140 oC followed by the addition of stoichiometric amount of propylene glycol modified silane (PGMS) to obtain a gel. The gel is heated to obtain a precursor which is successive annealed to get the blue color emitting phosphor.

Fig. 1

No. of Pages : 28 No. of Claims : 8
METHOD OF RENDERING 360-DEGREE VIDEO CONTENT ON A CLIENT DEVICE AND SYSTEM THEREOF

Abstract:
The present disclosure relates to a method of rendering 360-degree video content on a client device and a system thereof. The method includes obtaining the 360-degree video content in a cube-map projection format. The method includes converting the cube-map projection format into a plurality of weighted density map (WDM) video streams based on a first set of parameters and a second set of parameters. Each of the WDM video streams represents a viewing angle range at a maximum resolution. A resolution of each of the WDM video streams is lesser than a resolution of the 360-degree video content. The method includes generating a manifest file comprising access links corresponding to the plurality of WDM video streams at multiple resolutions. The method includes transmitting at least one WDM video stream from the plurality of WDM video streams to the client device based on the manifest file, the second set of parameters, and a viewpoint of a user of the client device for rendering the 360-degree video content on the client device.

FIGURE 12

No. of Pages : 58 No. of Claims : 30
A pharmaceutical long acting depot composition is provided for the treatment of Parkinson’s disease. The formulation comprises a therapeutically effective amount of pimavenserin or its pharmaceutically acceptable derivative and pharmaceutically acceptable excipients. The process of preparation of the formulation is also provided.
Title of the invention: MEDRADIO BAND OOK TRANSMITTER

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   Address of Applicant: Powai, Mumbai 400076, Maharashtra, India

Name of Inventor:
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2) Maryam Shojaei Baghini

Abstract:
MedRadio band OOK transmitter. Embodiments herein provide a transmitter having a Metal-Oxide semiconductor (MOS) based Oscillator. The MOS based oscillator comprises an off-chip load tank with a radiating element. The radiating element comprises a Surface Mount Device Inductor (SMDL).

No. of Pages: 20  No. of Claims: 11
Title of the invention: PROCESS FOR THE PREPARATION OF COBIMETINIB

Abstract:
The present invention relates to novel process for the preparation of Cobimetinib. More particularly the present invention relates to the process for the preparation of Cobimetinib intermediate of Formula (IX) and Formula (VIII).

Dated this 1st February 2019 Dr. S.Ganesan

No. of Pages: 28 No. of Claims: 10
The present invention relates to manufacture of dissectible soft whole anatomical models for exploring morphology through sectioning or dissection by a scalpel or such cutting instruments including hacksaw or laser source for purpose of learning/teaching/research/surgical planning. The anatomical model of the present invention with sintered thermoplastic polyurethane (TPU) is made by selective laser sintering of nylon composite.

Figure 8: Development of a dissectible anatomical whole model of the present invention
The present invention relates to a Panchagavya based composition comprising Panchagavya with the combination of herbs used in traditional herbal medicine (from both Ayurveda and siddha medicine) for preventing or reducing tobacco-associated damage in a subject. The present invention more particularly relates to nicotine free or nicotine containing compositions useful to be made in the form of a Cigarette, Cigar, Bidi and Gutka tablet based on Panchagavya and combination of herbs used in traditional herbal medicine to prevent or reduce the health hazards caused due to smoking/chewing nicotine containing products.
Abstract:
Embodyments of the present invention provide a method that resolves the complexity in implementing dynamic programming in the multiple sequence alignment. The method uses a referral algorithm which involves the step of selecting a reference sequence with which all the query sequences get into pairwise alignment individually. Each of this pair is considered as an individual plane, over which padding operation is performed. Resultantly, a stack is generated with at least one uniform side in between each plane. FIG. 1A
The present invention relates to an optical sheath for endoscopic visualization which can be made of varying lengths and diameters such that it can be used for different kinds of endoscopic procedures and patients. It uses miniature camera CCD/CMOS chip(s) for digital quality vision of the procedure. A single camera chip provides a two dimensional view while usage of two miniature camera chips provides a three dimensional (stereoscopic) view. By eliminating the use of conventional endoscopes and using miniature camera chips the space in the optical and operative sheath increases such that more than one instrument as well as rigid instruments can be inserted through the sheath without increasing the diameter depending on the requirement due to which a single miniature puncture may be sufficient to facilitate digital visualization as well as treatment whenever required. This proves to be beneficial both to the surgeon and the patient. Fig. 1
A system for tracking a communication device and method thereof. The invention relates to a system and a method for tracking communication devices. A portal server is configured to send a request for tracking the location of a communication device. Upon receiving the request, a server of a service provider is configured to track the communication device if the request for tracking is received. It generates a unique authentication code for the communication device, provides this code to the communication device, and sends the location data of the communication device to the portal server once the unique authentication code is received back. The tracking is terminated once the communication device satisfies event data. Fig. 1
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<th>(51) International classification</th>
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<td>(62) Divisional to Application Number</td>
<td>:NA</td>
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</table>

(57) Abstract:
The present invention relates to a stable synergistic ayurvedic composition of green tea, amla, ashwagandha, kaucha and musli and its method of preparation. Composition provides energy and alertness in humans.

No. of Pages : 16 No. of Claims : 10
Title of the invention: DUAL PAY MODE SANITARY NAPKIN SELF-DISPENSING MACHINE

Abstract:
Present invention relates to a dual pay mode sanitary napkin self-dispensing machine. Sanitary napkin dispensing machine is fully operated via coins and digital wallet based payment modes in single machine. The present invention is updated version of the existing technology of Sanitary Napkin Dispensing Machine which is coin operated or e-card operated into a system such that, the machine operates smartly in dual pay mode and dispatch the Sanitary Napkins when paid via Digital Wallets or coins. It ensures dispensing of sanitary napkins with coins if network is not available and with digital wallet if coins are not available and network is available. Following invention is described in detail with the help of Figure 1 of sheet 1 showing front panel design of dispensing machine and Figure 2 of sheet 2 showing the internal design of dispensing machine.

Figure 1

No. of Pages : 12 No. of Claims : 4
**Title of the invention:** PHARMACEUTICAL COMPOSITION OF PIRFENIDONE

<table>
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<tr>
<th>International classification</th>
<th>(71) Name of Applicant :</th>
</tr>
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<tr>
<td>A61K 31/00 A61K 47/00</td>
<td>1) Intas Pharmaceuticals Ltd.</td>
</tr>
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| (31) Priority Document No | : NA |
| (32) Priority Date        | : NA |
| (33) Name of priority country | : NA |

| (86) International Application No Filing Date | : NA |
| (87) International Publication No | : NA |
| (61) Patent of Addition to Application Number Filing Date | : NA |
| (62) Divisional to Application Number Filing Date | : NA |

| (57) Abstract : |
| Pharmaceutical Composition of Pirfenidone. |

**ABSTRACT**

The present invention relates to a pharmaceutical composition comprising pirfenidone, copovidone and one or more pharmaceutically acceptable excipients. It further provides a process for the preparation of said pharmaceutical composition, and their use to treat certain fibrosis diseases.

No. of Pages : 17  No. of Claims : 7
ABSTRACT A ZIEGLER-NATTA CATALYST SYSTEM WITH SELF-EXTINGUISHING PROPERTIES SUITABLE FOR OLEFIN POLYMERIZATION

The present disclosure relates to a Ziegler-Natta catalyst system with self-extinguishing properties suitable for olefin polymerization. The catalyst system of the present disclosure comprises a pro-catalyst, a co-catalyst, and an external donor having a mixture of a selectivity control agent and an activity control agent. The catalyst system of the present disclosure is adapted to prevent the temperature of the polymerization reaction to go beyond the softening temperature of the polymer, thereby exhibiting the self-extinguishing properties.

No. of Pages : 32 No. of Claims : 19
The present invention relates to an automobile and more particularly to a LED lighting system for headlamp of an automobile. The LED module is assembled in a headlamp with a reflector and other essential parts, the light rays emitted from the LED LB 201 gets reflected from the reflector and forms the low beam light array. Similarly, the light rays emitted from the LED HB 202 gets reflected from the reflector and forms the high beam light array. At a given instance the headlamp is operated at either the high beam or a low beam and hence, the respective LED is operational and the required light from the headlamp is obtained. According to the present invention, though LED LB 201 is described to provide a low beam and LED HB 202 is described to provide a high beam, with the described configuration of the reflector and other essential parts such as lenses and other optical instruments, either of the LED LB201 or LED HB 202 can be used to achieve either a low beam or a high beam. <To be published with figure 2>
Title of the invention: A DEVICE FOR SCREENING OF A DIABETIC FOOT

Abstract:
ABSTRACT A DEVICE FOR SCREENING OF A DIABETIC FOOT A device for screening of a diabetic foot, said device comprising: a displaceable plate (DP) moving towards and away from a parallely spaced apart operative top plate (TP), said movement actuated by an indenting mechanism (IM), said displaceable plate (DP), in a first configuration, configured to host an array of dummy units (DU) to exert and record pressure against a user's skin surface (10a) in order to determine high pressure points of said skin (10a) in order to replace said determined dummy units (DU) with load-vibration-temperature units (LVT), in a second configuration, said displaceable plate (DP) configured to exert change in pressure, vibration, and temperature, through said load-vibration-temperature units (LVT), in order to record action potential signals as a consequence of change of each of pressure, vibration, and temperature, said action potential signals recorded by a nerve conduction belt (NCB).
The present invention provides a wearable device for gait analysis. The wearable device is portable, affordable and accessible for screening gait and analysis of lower limb joint kinematics and kinetics including ankle, calf, knee, thigh, hip, pelvic, foot plantar pressure, clearance parameters and all spatial temporal parameters. The wearable device or set of devices either in the form of a shoe and/or a sock and/or braces and/or markers is used to measure a plurality of spatio-temporal, clearance parameters, standing angles, step-height, plantar pressure distribution, ankle, calf, knee, thigh and hip range of motions (ROM), distribution of the stance and swing phase across the gait cycle, kinematic and kinetic parameters, tibial rotation, Electromyography (EMG), tremors including but not limited to a live gait visualization for Bio-Feedback thereby assessing gait mobility for almost all lower limb joint disorders.
Title of the invention: MAGNETIC SYSTEM FOR LEVITATION AND BREAKING OF METAL PIECES

Abstract:
Magnetic system for levitation and braking of metal pieces. Embodiments herein disclose a magnetic system for levitation and braking of metal pieces. The magnetic system comprises one or more magnets of desired magnetic strengths arranged around an axis of motion of a metal piece. The one or more magnets are arranged at a predefined angle from a vertical plane and at a predefined distance from the metal piece. FIG. 1(b)

No. of Pages: 20  No. of Claims: 11
The present invention relates to an apparatus for drying wet staple fibre, comprising an opener to open the wet fibre mat that is connected to a fluidized bed dryer wherein hot air is blown at high pressure to dry the opened fibre, a separation unit connected to the fluidized bed dryer through a duct, said separation unit separating warm moist air from partially dried fibre, further connected to a suction device to suck the warm moist air out, a conduit to recycle the hot air back into the apparatus and an ultimate channel comprising a booster fan through which the dried fibre is blown into a venturi duct to a bailing section through an outlet. Preferably, there are at least two fluidised bed dryers used in the apparatus. The present invention also comprises of a method for drying of wet fibre at least comprising the steps of opening, drying and separating the wet staple fibre.
(54) Title of the invention: WASTE HEAT RECOVERY IN DOMESTIC GAS STOVE USING THERMOSYPHON

ABSTRACT: Heat is a form of energy and energy conservation is one of the prime requirements in the present scenario, therefore consuming energy in any form is important so as to protect the global environment. This project will actually propose a design for recovery of waste heat from a common gas stove used in homes and large scale cooking purposes, by actually entrapping large amount of heat emitted while cooking in forms of (Radiation and Convection) i.e. (Remained Emitted Gases) and using it to heat up water and create electricity that will actually save consumption of electrical units and fuel used for the various domestic purposes. Therefore the proposed design will actually use the heat around the gas burner using the principle of thermosyphon where the waste heat is collected at one end called as evaporator and utilized to generate considerable amount of electrical energy using the thermoelectric transducers. Next to it the coolant inside the thermosyphon is cooled by using a continuous stream of water at condenser section. Here due to cooling we get a considerable amount of hot water due to transfer of heat from thermosyphon to the cooling liquid. Our model helps to utilize the waste heat and transfer it into other energy format as electrical energy and hot water which can be used for domestic purpose.
This invention is about a system which is capable of creating an enlarged projection of a hologram image or moving image with the utilization of a curved transparent reflective curved sheet which is elastic in nature and has been arranged in a particular angle with a reflective surface to build a virtual hologram-based display. The system has a surface capable of arranging a source which is responsible for projecting the light of the source image to the reflective surface on the opposite end to create the reflection on to the inclined transparent curved sheet. The transparent curved sheet builds the virtual magnified image of the source which can viewed from the front end of the display. The source set up can be placed either on the top plane or the bottom plane depending upon the placement and angle of curvature of the curved reflective transparent curved sheet attached to the system. The system is also made remotely controllable by the user.
(54) Title of the invention: NEUROEVOLUTION OF DEEP LEARNING ARTIFICIAL INTELLIGENCE USING MULTI-LAYERED SIGMOIDAL NEURAL NETWORKS

(57) Abstract:
The present disclosure relates to a field of an artificial intelligence, and more particularly to, a method of evolution for a specifically configured multi-layered sigmoidal neural network that learns in a semi-supervised or supervised manner. In an aspect, the proposed method can include sigmoidal type of neuron units, wherein lateral connection is proposed between output neurons or the hidden layer neurons such that the said arrangement of lateral connection can provide better connectivity between the neurons.

FIG. 3
No. of Pages : 44 No. of Claims : 13
(54) Title of the invention : TUBE NOTCHING PUNCH ASSEMBLY

(51) International classification : F03B 13/00 F03G 3/00

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

(86) International Application No : NA
Filing Date : NA

(87) International Publication No : NA

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

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

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(72) Name of Inventor :
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(57) Abstract :
The Product Tube Notching Machine is useful in Automotive Industry, Furnishing Industry, Home Appliances Industry, Gymnasium, HVAC Pipes, etc. for tube end preparation and Tube Notching Punch assembly is used in tube notching machine. Previously 4 nos of punch assembly are used for notching & Pre-notching the tube.

Figure No.1

No. of Pages : 15 No. of Claims : 8
Title of the invention: A DRAFTING DEVICE TO DRAW HATCHING LINES.

Abstract:

A measurement device including a generally flat member having hatching slots engraved on the surface of the device. This invention relates to improvements in drafting instruments, having a use to draw equidistance parallel lines to represent sectional area of the engineering drawings. It is also a multipurpose device which has a protractor, Ruler, Numeric and hatching scale all engraved on single surface. It has a rectangular shape and it is portable compass box device. When the chamfered edge is adjusted with reference line, then the user should be able to draw the equidistant parallel hatching lines at desired angle. A lead pencil may be used to draw the lines using this device.
The Patent Office Journal No. 01/2020 Dated 03/01/2020

(12) PATENT APPLICATION PUBLICATION (21) Application No.201821007311 A
(19) INDIA (43) Publication Date : 03/01/2020
(22) Date of filing of Application :27/02/2018

(54) Title of the invention : FLEXIBLE NUT HOLDER.

(51) International classification :B65H :B65H
69/00 69/00
54/00 54/00

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

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2) SRIDHAR REDDY CHERLA
3) SATEESH JAMPANA

(57) Abstract :
ABSTRACT Flexible nut holder (100) attachable to torque controlled nut runners for assembly of automotive component, the nut holder comprises: bar extension (102) with octagonal support; nut holding bar (104) with slider for transmitting reaction torque produced to a slender bar (116) for connecting the nut holding bar (104) and bolt holding bar (112) to transmit reaction force from the vehicle structure to tool; nut holding socket (106); extensible spring (108) for compensating the vehicle bracket tolerances; bolt holding socket (110); bolt holding bar (112) for transmitting the reaction force from slender bar (116) to tool to nullify the torque produced on operator's hand during tightening of bolt in nut; U-clamp (114) for clamping or assembly of nut holder (100) to the tool and for easy dismantling therefrom; and socket holder (118) to firmly hold the bolt head socket to provide additional support thereto. A method is also provided for tightening of bolts in nuts by using the flexible nut holder. FIGURE 4.

No. of Pages : 24 No. of Claims : 10
The present invention relates to preparation of catalyst for production of olefinic hydrocarbons by dehydrogenation of their corresponding paraffins, particularly propylene from propane, comprising a metal oxide or combination of metal oxides utilizing spent catalyst from Fluid Catalytic Cracking (FCC)/Resid Fluid Catalytic Cracking (RFCC) processes. The metal oxides are possibly from transition metal group, particularly from groups VB, VIB, VIII, and Lanthanide series, and at least one metal from alkali group. The catalyst support used is spent catalyst or modified spent catalyst or combination thereof. The said catalyst can be used for both non-oxidative Propane Dehydrogenation (PDH) and Oxidative Propane Dehydrogenation (OPDH) process in the presence of CO2.
METHOD TO DELIVER PEPTIDE FOR SYSTEMIC USE

The present invention provides compositions of GHK-Cu / copper tripeptide to avoid first pass metabolism including transdermal patch compositions. The GHK-Cu / copper tripeptide is preferably in the form of a gel reservoir having polymer and one or more penetration enhancers. The transdermal compositions release GHK-Cu / copper tripeptide in various release patterns to allow 1-7 times delivery of GHK-Cu / copper tripeptide in a week. The transdermal compositions instantly achieve steady state in rats and the concentration is sustained over at least 12 hrs, preferably over 24 hrs.

Fig. 1

No. of Pages : 44 No. of Claims : 20
(51) International classification : A61B 17/00

(31) Priority Document No : NA

(32) Priority Date : NA

(33) Name of priority country : NA

(61) Patent of Addition to Application Number : NA

(62) Divisional to Application Number : NA

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4) Amogh Vidwans
5) Vandana Nair
6) Deepak Berwal
7) Maryam Shojaei Baghini

(57) Abstract:
ABSTRACT
Method and system for optimizing noise in Electrocardiography (ECG) signal. Embodiments herein provide a method and system for optimizing noise in Electrocardiography (ECG) signal. Classifier classifies biological signal according to one or more artifacts associated with the biological signal for obtaining classified signals. Classified signals are mapped to one or more prestored mapping methods. Each mapping method of the one or more prestored mapping methods stores reference signals. A correlation between the classified signal and the reference signal may then be identified for generating an output signal. Each of the classified signal and the reference signal are then filtered for removing each of a noise and the artifacts from the classified signals by using a predefined filtering method. FIG. 2

No. of Pages : 34 No. of Claims : 12
DAMPER ARRANGEMENT FOR DAMPING VIBRATIONS OF WIND TURBINE

The present invention relates, among other aspects, to a damper arrangement (20) for damping vibrations of a wind turbine (10), said damper arrangement (20) comprising at least one, preferably two active damper device(s) (21), each damper device (21) comprising a mass (22) and a guiding device (23), to which the mass (22) is movably connected by means of a drive (24), said guiding device (23) having an extension direction, said drive being adapted for moving the mass (22) along the guiding device (23) in the extension direction thereof, said drive (24) being a portion of said mass (22). The drive (24) may comprise a drive motor (25) and a gear device (26). (with Figure 2)

Dated this 26th day of February, 2019

For Applicant, AZB & Partners To, The Controller of Patents

The Patent Office Journal No. 01/2020 Dated 03/01/2020
ABSTRACT

NOVEL POLYMORPH OF SOLRIAMFETOL AND SALT THEREOF

The present invention relates to novel polymorph of solriamfetol and its hydrochloride. More particularly the present invention relates to process for the preparation of solriamfetol hydrochloride.

No. of Pages : 29 No. of Claims : 10
Title of the invention: STABLE SILICON BASED HIGH TRANSPARENCY THIN FILM/COATING FORMULATION FOR GLASS AND GLASS-LIKE SUBSTRATES.

Abstract:
Abstract Title: Stable silicone based high transparency thin film /coating formulation for glass and glass-like substrates. The present advancement enables one pack, very thin silicon based entirely inorganic coating formulation comprising ITO, ATO, TiO2, and cesium tungsten bronze NPs is directed to provide very thin film (1-2) micron on glass or glass-like substrates exhibiting efficient blocking of UV and IR radiation with very good transparency.

No. of Pages : 29 No. of Claims : 22
DIE STEEL AND A METHOD OF PREPARATION THEREOF

Die steel and a method (100) of preparation of the die steel are disclosed. The die steel is prepared by a formulation of the minerals and a heat treatment process. The main steps of the method (100) involve air quenching process, air hardening cycle and spherodise annealing cycle. Addition of the air hardening cycle before the spherodise annealing cycle resulted in fine grain structure leading to better toughness of the die steel. As fine grain structure absorbs more energy before rupturing, thereby reducing cycle time from 72 hours to 38 hours. The die steel obtained by the method (100) has high fatigue life, high strength and improved wear resistance in comparison with other die steel grades.

Figure 3

No. of Pages : 12 No. of Claims : 2
ABSTRACT A device (20) for arresting the reverse motion of a trolley (T) carrying automotive engine (02) securely mounted on top plate (08) thereof, said trolley (T) guided between the side rails (04) of conveyor guide (10) of conveyor (12) having vertical stopper (14) fixed between side rails (04); said device (20) comprising: guide block (22) supported on base plate (24) and having wedge assembly with guide plate (26) attached with tapered wedge (28); said wedge assembly pivotable on said guide block by trunnion pin (30); and said base plate fixed on said side rail by fasteners (06); wherein said device (20) is located and fixed on said side rail to guide said top plate between said rails, and to allow said wedge to slide on said top plate during forward movement of said trolley, and to securely arrest said trolley between said vertical stopper and wedge, by dropping down of said wedge on said top plate’s front-end hitting said vertical stopper. FIGURE 5.
The present disclosure relates to fluid valves. The placement of a seal in the valve eliminates the formation of two leakage paths and reduces the overall weight of the valve. The valve comprises a housing (202), a valve body (204), and a stem (206). The stem (206) is arranged in an interior space in the housing (202) and the valve body (204). The stem (206) has at least one collar interfacing with an opening configured on the valve body (204). The seal comprises a sealing element (208) disposed operatively below the collar of the stem (206) for preventing leakage of the fluid flowing through the housing (202) and the valve body (204).

![Figure 2](image-url)
The present invention relates to a Zinc free High Performance bearing oil composition for Lubrication of Bearings, Gears & Allied Equipments in Wire Rod Mill (WRM) for Steel Plants.
Title of the invention: SYNERGISTIC HERBICIDAL COMPOSITION OF BISPYRIBAC SODIUM

Abstract:
The present invention relates to synergistic herbicidal composition comprising A) Bispyribac Sodium B) at least one herbicide selected from Fenoxaprop-P-Ethyl and Cyhalofop butyl and salts thereof C) at least one more herbicide selected from Pyrazosulfuron Ethyl, Ethoxysulfuron, Imazosulfuron, Propyrisulfuron, Azimsulfuron, Tefuryltrione, Penoxsulam, Pyribenzoxim, Bentazon, 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.

No. of Pages: 39 No. of Claims: 9
Title of the invention: SYNERGISTIC HERBICIDAL COMPOSITION OF S-METOLACHLOR

(57) Abstract:
The present invention relates to synergistic herbicidal composition comprising A) SMetolachlor B) at least one herbicide selected from Pendimethalin and Pyroxsulfone C) at least one more herbicide selected from Mesotrione, Tembotrione, Sulcotrione, Flumioxazin, Atrazine, Metribuzin, Pyroxsulfone, Sulfosulfuron, Halosulfuron Methyl, Pyrazosulfuron Ethyl, Ametryn, Diuron, Oxyfluorfen 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.

No. of Pages: 49 No. of Claims: 13
The present invention relates to an assorted co-staging and counter stage hydro-treating process configuration scheme is disclosed for deep desulfurization and deep hydro-treating of diesel range hydrocarbons for obtaining diesel product having product sulfur less than 10 ppm and cetane number more than 51.
## Title of the invention: BIO-ASSISTED PROCESS FOR CONVERSION OF CARBON-DIOXIDE TO FUEL PRECURSORS

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<td>ABSTRACT BIO-ASSISTED PROCESS FOR CONVERSION OF CARBON-DIOXIDE TO FUEL PRECURSORS The present invention provides a semi-conducting biogenic hybrid catalyst capable of reducing CO2 into fuel precursors. Specifically, the present application involves a method for bio-assisted conversion of CO2 to fuel precursors using said semiconducting biogenic hybrid catalyst in batch and continuous mode.</td>
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![Diagram](attachment:image.png) Fig. 1

No. of Pages: 43 No. of Claims: 6
This invention is regarding a liquid cooling system without the utilization of additional power at the time of cooling with a mere utilization of pre-cooled coolant. Presently for cool down liquids, either one has to add ice cubes else put it in refrigerator. Due to addition of ice cubes, quality of liquid gets reduced and in refrigerator one has to wait for longer time but this system is the perfect solution for these issues. This inventive system works as a heat exchanger which would have portable feature. Due to portability, one can utilize at remote location as well. Recharge of the coolant is also simple so that no extra equipment require. There is no need of pre storage for all those things which need only instant cooling so this system can also eliminate the pre storage system for all those things which dont need pre cooling.
This disclosure relates generally to method and system for co-training a pair of base classifiers for detection of damaged objects. Detecting objects that are damaged from an infrastructure is difficult due to limited availability of labeled data. To collate the labeled data requires human effort and which is time consuming. The proposed disclosure processes unlabeled data which gets co-trained with the learning pair of base classifiers. Further, the learned pair of base classifiers determines true label for the unlabeled data. The determined true label for the unlabeled data are recorded into the labeled data which further expands the supplementary unlabeled data as labeled data iteratively. The proposed disclosure is capable of detecting damaged objects with higher accuracy rate utilizing the pair of base classifiers thereby reducing time and expanding the labeled data which can be further utilized for detection of new objects in real time.
The present disclosure relates to a process for preparing pyraclostrobin (I). The process involves partial reduction of PNBE (II) to obtain PHABE (III), followed by methoxycarbonylation to obtain PHABEC (IV). The PHABEC (IV) is methylated to obtain the pyraclostrobin (I). The process is simple and gives comparatively high yields of pyraclostrobin (I), without need to isolate the intermediate PHABE (III).
The present invention relates to digital communication and computational technologies driven processes in the realm of education and training of human capital. More specifically, the present invention relates to mass customization of learning content/instructional content based upon cognitive load theories underpinning cultural and historical conditioning of learners of different national states/marketplace/geographical entities in which learners brought up. The pervasive ubiquitous Information Communication Technologies are getting leverage to create massively customized learning content based upon the varying learning styles and learning abilities (rate of learning/internalization). Machine learning/augmented/virtual reality techniques are used as a productive and resource & force multiplying tools to have an effective learning experience. These learning/instructional contents are offering cost and quality arbitrage in comparison with existing ICT enabled learning content and procedures in the educational/training marketplace.

No. of Pages : 9 No. of Claims : 9
This invention is in the field of prediction and forecasting of natural life cycles of products and processes and more particularly to forecasting life cycle of technologies. More specifically the invention related to framework and methodology for forecasting life cycle of digital computational and communication technologies. More specifically the present invention is from technologist point of view where direct application of principles and theories from multiple fields of science and engineering are integrated for forecasting life cycle of technologies. It provides framework and methodology for simple, easy to use, objective and more accurate forecasting of technology life cycle.
The present invention relates to a process for production of ethanol from lignocellulosic biomass via modified simultaneous saccharification and co-fermentation (SSCF). In the present invention, enzymatic hydrolysis is preceded by mainly C5 sugar fermentation and low enzymatic hydrolysis and succeeds by mainly C6 sugar fermentation at different temperature and duration. This resulted into reduction in enzyme dosage and process time with increase in ethanol yield from acid pretreated biomass.

Fig 1

No. of Pages : 19 No. of Claims : 12
(54) Title of the invention: SELF-ADJUSTING VEHICLE BRAKE WITH A HYDRAULIC MECHANISM.

(51) International classification: B65G 47/00

(19) INDIA

(22) Date of filing of Application: 12/03/2018

(31) Priority Document No:

(32) Priority Date:

(33) Name of priority country:

(86) International Application No:

(87) International Publication No:

(61) Patent of Addition to Application Number:

(62) Divisional to Application Number:

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2) SWAPNIL DHANALE

3) PRADEEP JANARDAN PHALAK

4) SAVANT KEDARNATH

(57) Abstract:
ABSTRACT TITLE: A SELF-ADJUSTING VEHICLE BRAKE SYSTEM WITH A BRAKE LINKAGE ACTUATING ARRANGEMENT HAVING A HYDRAULIC MECHANISM. An improved self-adjusting vehicle brake system (200) with a brake linkage actuating arrangement (100) having a hydraulic mechanism (120), wherein said hydraulic mechanism automatically adjusts the gap created between the brake disc and brake drum due to worn-out friction plates for compensating the free play of brake pedal (102) caused due to said gap to facilitate in stopping vehicle at almost the same distance after applying brakes thereof. FIGURE 1.

FIGURE 1

No. of Pages: 25 No. of Claims: 10
**Title of the invention:** INTEGRATIVE ELECTRIC POWER SUPPLY TO GENERATE ELECTRICAL ENERGY FROM SOUND AND SOLAR ENERGY

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<td>1) Prof. Ashish Suresh Khachane</td>
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<tr>
<td>Address of Applicant: 14, Forest Colony, Yashoda Nagar, Amravati- 444606, Maharashtra, India</td>
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<tr>
<td>2) Prof. Mrs. Rashmi Nimbalkar</td>
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**Abstract:**

Present invention discloses an integrative electric power supply system which generates electrical energy from sound and solar energy. This product is beneficial to provide 12v power supply. It is also useful to reduce sound pollution at four-way crossings during busy traffic hours. Due to this, users can also control diseases which occur because of sound pollution. Following invention described in details with the help of figure 1 of sheet 1 which shows integrative electric supply system.

![Integrative Electric Power Supply](image)

No. of Pages: 8 No. of Claims: 3
Title of the invention: DESIGN OF COMPACT HOUSEHOLD SYSTEM TO REUSE DOMASTIC WASTE WATER (NON-SEWAGE) TO FLUSH TOILET (SEWAGE) WASTE TO SAVE PRECIOUS POTABLE WATER WHICH IS DRAINED OUT FOR FLUSHING PURPOSES.

Abstract:
This invention is for Conservation of water, by Re-Using the Domestic Waste Water generated with our daily household activities like; Bathing, Hand Wash, Washing Clothes etc. at Bathroom Area, and Washing Utensils, Vegetables / Food Grains etc. at Kitchen Area. Basically this water is SAFE to handle for Reuse after proper filtration, as it is NOT contaminated with Sewage Water. Also use of this Filtered Reusable Domestic Waste Water is restricted where Hygiene of the user is at stake. So, the Reusable Water collected from Kitchen Area is more Safe for Reuse as the contaminants in this water are normally residues of food waste, dust & dirt on vegetables / fruits, small amount of utensils cleaning powder or soap etc.; which are NOT harmful and by simple filtration they can be separated out. This filtered water can be used for Gardening, Floor Mopping and Vehicle Washing etc. Whereas the Bathroom Area waste water may have human disposals like; urine, spittoons, vomiting, soap / washing powder residues, hair fall, cotton tissues, dirt and may be baby potties etc. Some of them which are more obvious like; urine, vomiting, baby potties etc. can be disposed of directly in the commode or in the bathroom drainage, so that, the other residues remaining can be filtered out safely in hygienic way. With this primary filtration the collected reusable waste water can be used for toilet flushing purposes, as this cannot be used anywhere due to hygiene reasons. The following table shows the approximate quantity of water used for daily activities for a family of 4 persons; where we can see the Bathroom Area Reusable Water quantity is sufficient for the purpose of Toilet Flushing; whereas Kitchen Area Reusable Water for Gardening, Car Wash etc. Typical Daily Household Water Usage (For Family of 4 Persons, i.e., Water Usage = Liters/person)


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<tr>
<th>Activity</th>
<th>Usage (L)</th>
<th>Reusable Usage (L)</th>
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<tr>
<td>a) Drink./Cook.</td>
<td>50</td>
<td></td>
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<tr>
<td>b) Bath./W. Basin</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>c) Toilet Flush</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>d) Kitchen Use</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>e) Car Wash</td>
<td>20</td>
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<tr>
<td>f) Clothes Wash</td>
<td>60 40</td>
<td>200 220</td>
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TOTAL 330 200 220 (Reusable Waste Water generation at Bathroom Area Reusable Water will be Bathroom Area is 120+40 = 160 lit.) Be used for Toilet Flushing = 160 lit. 5 With the above discussion we can conclude that, about 30-35 % of water can be SAVED daily by Reuse of Reusable Waste Water generated at our homes. The major area of generation & use of this water is the Bathroom Area; hence we concentrated our efforts on the same and accordingly the Jal Bachat Sayantra was designed. There were many obstacles initially, but they were solved by critical observations & study. We have experimented various collection & filtration methods with appropriate equipments for Safe & Hygienic reuse of the Domestic Waste Water. Conceptual Rural/Urban Jai Bachat Setup was the expansion of this idea for the use of Masses, where it is most needed to face the water shortages and cleanliness problems. With this innovation we can Reuse the Waste Water, to make more potable water available for use.
Title of the invention: A STABLE LIGNOCELLULOLYTIC ENZYME COMPOSITION

Abstract:
The present invention relates to a formulation to stabilize lignocellulolytic enzyme mixture. This invention in particular relates to a formulation composed of lignocellulolytic enzyme with critical dosages of molasses either with petrochemical waste or glycerol as an additive to improve enzyme stability in a synergistic manner.

Fig 1(a)

No. of Pages: 14
No. of Claims: 5
Title of the invention: ANTI-THEFT SYSTEM FOR SPARE WHEEL ASSEMBLY IN VEHICLE

Abstract:

ANTI-THEFT SYSTEM FOR SPARE WHEEL ASSEMBLY IN VEHICLE Present invention generally relates to an anti-theft system and more particularly relates to an anti-theft system (100) for a spare wheel (15) fixed to a back door (51) of a vehicle. The anti-theft system (100) comprises a latch assembly (40) mounted on a latch mounted bracket (20), a locking plate assembly (30), at least one operating level or lock barrier and a cover (70) provided for covering the spare wheel (15). The anti-theft system (100) is a locking mechanism which facilitates locking and unlocking of the spare wheel from a mounting position and protect wheel from theft. The anti-theft system (100) provides a single and cost effective locking system for the spare wheel assembly hoisting device and the back door of the vehicle. Figure 3

| Patent Office Journal No. 01/2020 Dated 03/01/2020 | 880 |
**Title of the invention**: EFFICIENT BIO-INORGANIC SYSTEM FOR TREATMENT OF SULPHIDIC WASTEWATER STREAMS CONTAINING OTHER CONTAMINANTS

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<td>1)Indian Oil Corporation Limited</td>
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**Abstract**

The present invention relates to a bio-assisted treatment of wastewater containing sulphide, phenols and hydrocarbons. Further, the present invention relates to a process for eliminating sulphide and other sulphur compounds including, but not limited to, mercaptans, disulfides, PAHs, phenols and hydrocarbons.

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No. of Pages : 28 No. of Claims : 14
The invention provides a simple and effective method of water supply and how to convert the non irrigated land into irrigated land by using all existing conventional resources by various advance methods of irrigations. The main aspect of invention which also provides the use of water scarce bore wells/ tube wells. The un-interrupted water supply can be maintained by using one speed regulator to the pump motors after designing the proper capacity of pump motor, pipe diameter, etc. The speed regulators may be single phase or three phases. By using speed regulators to the pump motors the continuity of flow can be maintained and thereby gets maximum quantity of water even from water scare bore wells. The another aspect of the invention is that to convert the non irrigated land into irrigated land by using existing resources especially bore wells, by using the existing water scarce bore wells or new bore wells. In case of new bore wells the instead of going for lesser number of deeper depths of bore wells take the more numbers of smaller depths of bore wells, which is also cost effective, covers larger specific area and the chances of getting water in the bore wells will also increase. The above invention can be used for water supply for various purposes and works across the country and globe.
**Title of the invention:** HYDROCARBON SOLUBLE FORMULATION FOR THERMAL CRACKING PROCESS

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**Abstract:**

HYDROCARBON SOLUBLE FORMULATION FOR THERMAL CRACKING PROCESS The present disclosure relates to a catalyst formulation comprising: (a) at least one metal carboxylate; and (b) at least one additive is selected from radical initiator or radical quencher, wherein the at least one metal carboxylate to the at least one additive weight ratio is in the range of 1:0.02-1:0.0001. It also relates to the process of preparation of said catalyst formulation. The instant disclosure further relates to the process of thermal cracking in the presence of said catalyst formulation.

No. of Pages: 27 No. of Claims: 15
**Title of the invention:** SYSTEM AND METHOD FOR EFFICIENT STORAGE OF NUCLEIC ACID.

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Abstract:

Disclosed is a system (100) and a method (200) for efficient storage of nucleic acid. The system (100) includes a storage medium, wherein the storage medium is an alkaline aqueous medium further including a buffering agent, a microbial growth inhibitor, a stabilizing agent, and glycerol. As per yet another aspect of the disclosure, the storage medium further includes a pH indicator and the system further includes a bodily fluid which is mixed with the storage medium. As per yet another aspect of the disclosure, a method of efficient storage of nucleic acid includes preparing a storage medium in an alkaline medium, and further includes the steps of: mixing a buffering agent with the storage medium, and also adding a microbial growth inhibitor to the storage medium. Yet another aspect of the disclosure describes adding a stabilizing agent to the storage medium, and also adding glycerol to the storage medium. The system described can be a physical vial, made preferentially with polypropylene, or any other appropriate substance not reacting with the contents of the vial. The storage medium described in the disclosure can also be used for plant study.

No. of Pages: 20  No. of Claims: 10
**Abstract:**

Herpes Simplex Virus (HSV) keratitis is inflammation of the cornea and conjunctiva caused by herpes virus type 1. The present work describes the formulation and evaluation of an ophthalmic delivery system of an antiviral agent, TFD, based on the concept of ion-activated in situ gelation. Ophthalmic in situ gels can increase the drug residence time thus increasing the bioavailability. Sodium alginate was used as the gelling agent in combination with HPMC K4M (Hydroxy Propyl methyl Cellulose) that acted as a viscosity-enhancing agent. Formulations were evaluated for physical parameters like clarity, pH, drug content, viscosity, sterility test, bioadhesion study, entrapment efficiency, histopathology, in vitro drug release and ex-vivo drug release studies. The optimized batch was F5 because the gel capacity and all the required parameters were within the standards. The formulations were therapeutically efficacious, stable and provide sustained release of drug over a period of 8 h. These results demonstrate that developed system is a best alternative to conventional ophthalmic drops.

**Fig. 1 :** FTIR Spectra of Trifluridine with excipients

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The Patent Office Journal No. 01/2020 Dated 03/01/2020

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**Title of the invention:** FORMULATION AND EVALUATION OF SODIUM ALGINATE AND HPMC K4M BASED IN SITU GEL CONTAINING TRIFLURIDINE

| (51) International classification | : A61K 31/00 |
| (31) Priority Document No | : NA |
| (32) Priority Date | : NA |
| (33) Name of priority country | : NA |
| (86) International Application No | : NA |
| Filing Date | : NA |
| (87) International Publication No | : NA |
| (61) Patent of Addition to Application Number | : NA |
| Filing Date | : NA |
| (62) Divisional to Application Number | : NA |
| Filing Date | : NA |

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**Abstract of the Invention:**

Herpes Simplex Virus (HSV) keratitis is inflammation of the cornea and conjunctiva caused by herpes virus type 1. The present work describes the formulation and evaluation of an ophthalmic delivery system of an antiviral agent, TFD, based on the concept of ion-activated in situ gelation. Ophthalmic in situ gels can increase the drug residence time thus increasing the bioavailability. Sodium alginate was used as the gelling agent in combination with HPMC K4M (Hydroxy Propyl methyl Cellulose) that acted as a viscosity-enhancing agent. Formulations were evaluated for physical parameters like clarity, pH, drug content, viscosity, sterility test, bioadhesion study, entrapment efficiency, histopathology, in vitro drug release and ex-vivo drug release studies. The optimized batch was F5 because the gel capacity and all the required parameters were within the standards. The formulations were therapeutically efficacious, stable and provide sustained release of drug over a period of 8 h. These results demonstrate that developed system is a best alternative to conventional ophthalmic drops.
The present invention belongs to the field of medicinal chemistry and relates to a new compounds of general formula (I), to a process for the preparation of these compounds, useful for the treatment of tuberculosis. wherein formula I: R is selected from the group consisting of: Substituted heterocyclics, substituted benzene, acetyl, alkyl

![Formula I](attachment:image)

No. of Pages : 22 No. of Claims : 4
The present invention belongs to the field of medicinal chemistry and relates to a new compounds of general formula (I), to a process for the preparation of these compounds, useful for the treatment of tuberculosis. wherein formula I: R is selected from the group consisting of: Substituted heterocyclics, substituted benzene, acetyl, alkyl.

![Formula I]

No. of Pages : 23 No. of Claims : 4
NEW 7-CHLORO-2-FURANYL QUINAZOLIN-4(3H)-ONE DERIVATIVES AND PREPARATION THEREOF

The present invention belongs to the field of medicinal chemistry and relates to a new compounds of general formula (I), to a process for the preparation of these compounds, useful for the treatment of tuberculosis. wherein formula I: R is selected from the group consisting of: Substituted heterocyclics, substituted benzene, acetyl, alkyl

![Formula I]

No. of Pages : 22 No. of Claims : 4
International classification: F16M 11/00

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Abstract:

यह कार (small passenger vehicle) three power concept पर आधारित है इसके पूरे भाग पर Solar Panel लगा है एक CNG जनरेटर है जो A.C.Current जनरेट करता है। जो कि इन्हें माध्यम से बेंटरी को चार्ज करता है। तथा एक सोलर फ्लैश कार की छत पर लगा है। जो इन्हें माध्यम से कार के बेंटरी को अधिक रुप से चार्ज करता है। बेंटरी 80 प्रतिशत डिस्चार्ज होने पर कार में लगा जनरेटर स्वतंत्र ही स्टार्ट हो जाता है और कार की बेंटरी को 40 प्रतिशत चार्ज करता है और बंद हो जाता है बाकी का बचा हुआ 60 प्रतिशत चार्जिंग स्टेशन पर चार्ज किया जाता है।

Fuel Efficiency की संख्या को बढ़ाता है।

No. of Pages: 10
No. of Claims: 3
The Patent Office Journal No. 01/2020 Dated 03/01/2020

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(54) Title of the invention: A PROCESS FOR THE PREPARATION OF ELETRIPTAN

(51) International classification: A61K 31/00
(31) Priority Document No: 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

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     2) DR. RAJESH BABAN CHAUDHARI
     3) MR. VENKAT SUBBARAO ATKURU

(57) Abstract:
Present invention provides a process for the preparation of Eletriptan having compound of structural formula I and pharmaceutically acceptable salt thereof.

Formula I

No. of Pages: 15 No. of Claims: 8
The present invention provides a simple, economic, safe and industrially viable process for the preparation of Tolvaptan compound represented by structural formula (I) and preparation of novel intermediate thereof; compound represented by structural formula (II).

No. of Pages : 23 No. of Claims : 10
The invention relates to a process for making an epoxy nano clay composite. In the process a mixture of epoxy resin and nano clay is placed in a sonication machine to form a sonified mixture. An epoxy hardener is added to the sonified mixture to form an epoxy nano clay composite. This epoxy nano clay is used for the making of lightweight loading bearing pressure pads (1). The pressure pads (1) comprise three integrated layers, namely two outer layers (3 and 5) and a middle layer (4), and a handle (2). Outer two layers (3 and 5) are made using stainless steel whereas the middle layer (4) is made of epoxy clay nano composite blocks (4A). Side gaps formed between the sandwiched plates (3 and 5) are closed with steel side plates (6) using welding. A process of making the epoxy nano clay composite is also disclosed.

Figure 2A
The Patent Office Journal No. 01/2020 Dated 03/01/2020

Title of the invention: A STABLE SPILL RESISTANT SYRUP

Abstract: A stable spill resistant syrup. The present invention relates to a stable spill resistant syrup comprising of combination of acetaminophen, chlorpheniramine maleate, phenylephrine and other pharmaceutical excipients. The present invention also relates to taste masked spill resistant syrup which is stable at pH between range 4.5 to 5.5. The invention also relates to a process for preparation and packaging of the stable the spill resistant syrup.

No. of Pages: 28 No. of Claims: 9
Title of the invention: AN ELECTROMAGNETIC BRAKING APPARATUS

Abstract:
Disclosed is an electromagnetic braking apparatus (100). The electromagnetic apparatus comprises (100) an end plate (15), a pressure plate (5), a friction liner (7), a primary electromagnetic coil (6), and a secondary electromagnetic coil (23). Further, the end plate (15) is coupled a housing (1). Furthermore, the pressure plate (5) is mounted within the housing (1), and a plurality of permanent magnets (24) are mounted along a circumference of the pressure plate (5). In addition, the friction liner (7) is sandwiched between the end plate (15) and the pressure plate (5). The primary magnetic coil (6) is within the housing (1), and opposite of the friction liner (7), further, the secondary electromagnetic coil (23) is mounted on a surface of the end plate (15). The secondary electromagnetic coil (23) is located opposite to the primary electromagnetic coil (6), and the plurality of permanent magnets (24) are located between the primary electromagnetic coil (6) and the secondary electromagnetic coil (23). The electromagnetic apparatus (100) further relates to electromagnetic braking to engage a brake gradually along with a built in compact and smooth manual release system.
Title of the invention: A FASTENING ASSEMBLY WITH AN EXPANDABLE SELF-ADJUSTING DOGHOUSE

Abstract:
Present invention discloses a fastening assembly with an expandable self-adjusting doghouse. The assembly comprises of a receiving component (110), which includes the doghouse (120) structured on an inner surface (112) of said receiving component (110). The doghouse (120) includes a plurality of ribs (122) and a cavity (124) formed therein. The assembly also includes a protrusion structured on a vehicle to receive the receiving component (110), wherein said cavity (124) of said doghouse (120) receives said protrusion of the vehicle for fastening said receiving component (110) with said vehicle.

Fig. 2

No. of Pages : 15 No. of Claims : 6
The present invention relates to an improved process for the preparation of Linagliptin. More particularly, the present invention relates to an efficient process for the preparation of Linagliptin of formula (I) in higher yields wherein the said Linagliptin of formula (I) is obtained with purity greater than 98%, preferably greater than 99.40% and wherein regioisomer impurity (Formula-IV) is controlled below 0.25%, preferably 0.15% which is as per ICH limit.
ABSTRACT AN INTERFACE SYSTEM FOR VEHICLES

An interface system for vehicles, said system being a bridge between a vehicle control system and a third party user control space to capable of all driving control functionalities using integrated sensors to describe a current operational anomaly of a logical control vehicle that is traveling, said system comprising: a camera based mechanism configured to identify and locate pre-defined items on a road on which said vehicle is travelling; a black box hardware configured to record pre-defined parameters of operation of said vehicle; a suite of sensors deployed and configured at pre-defined locations or in communicable coupling with pre-defined parts/items of a vehicle to sense data and send to said black box hardware; an actuator to provide actuation signals to various parts/items/mechanisms of said vehicle; said system being a foundational stack consisting of an embedded Real Time OS (RTOS).
Title of the invention : A DRIVER ASSISTANCE SYSTEM

Abstract:
A driver assistance system comprising: a camera based mechanism to identify and locate pre-defined items on a road; a suite of sensors (S) to sense an environment (E), each sensor mounted at a pre-defined location; an actuator (A) to provide actuation signals; a perception module (PM) to provide perception signals based on sensed data (SD) to convert to actuation signals (AS) per sensed data; a pose fixing module to estimate pose of said vehicle; a dead reckoning module to estimate pose of said vehicle; a driver assistance module (DAM) to provide control modules to assist in navigation and control upon receipt of actuation signals (AS) and pose; a control module (CM) to receive navigation inputs (NI), trajectory inputs (TI), said control module to provide actuation signals (AS) to said actuator (A); and a pose estimator for determination of position, velocity, and altitude of said vehicle.
Title of the invention: AN AUTONOMOUS VEHICLE DRIVE SYSTEM

Abstract:
ABSTRACT AN AUTONOMOUS VEHICLE DRIVE SYSTEM An autonomous vehicle drive system comprising: a camera based mechanism to identify and locate pre-defined items on a road; a suite of sensors (SS) to capture data; a data acquisition module (DAM) to receive data from said sensors (SS); a tactical planning module (TPL) to receive data from the suite of sensors (SS), said tactical planning module configure to perform SLAM of the environment with the data acquired from said Data Acquisition Module using various environment structure estimation techniques; an operational module (OM) to convert trajectory into steering, brake, and throttle commands which is further sent to an actuation controller (AC); an obstacle identification and tracking module to detect obstacles around a vehicle; a Position, Velocity, and Attitude Determination module for determining corresponding parameters; and an actuation controller to provide vehicle automation signals towards braking, steering, and throttle control of the vehicle.
A road inspection system for road surface monitoring using texture measurement, said system comprising: a camera (C) mounted in front of a vehicle to capture oncoming road’s sequentially continuous images within its field-of-view; a segmentation module configured to segment out images of road in terms of pre-defined parameters; a texture extraction module is configured to extract textures and classify the textures of each of the segmented regions; and a quality metric measurement module configured to determine a first output correlative to road quality as being one of a ‘slippery road™’, a ‘rough road™’, or a ‘very smooth road™’.
ABSTRACT The invention is about a complete safety and communication system made for the soldiers who are on Field to securely send data of all form and to defend oneself from enemies and also from changing weather condition. This system has an advanced communication methodology for individual soldiers to communicate with the base centre. Multiple devices are designed to connect to the system inclusive of uniforms for the soldiers that are specially designed to communicate with the system including the helmet, bulletproof jacket, shoes, hand-wearable devices and others. Each of the accessories is programmed to send signals and to keep the soldiers informed of the location and the movement of the other colleagues and subordinates to work coordinately. Multiple communication and authentication techniques are used to keep the commander informed of the field scenario along with ensuring safety and encrypted communication between all the soldiers involved in the battle.
The present invention provides a dispenser for dispensing perfume liquid in a vehicle interior. The dispenser includes a housing and an actuator. The housing holds at least two perfume containers. The actuator operates a desired perfume container by a user from the at least two perfume containers for dispensing the perfume liquid therefrom into an air duct of the vehicle. Further, the housing is configured with a passage for passing the air with dispensed perfume from the operated perfume container from the air duct to the vehicle interior. The perfume containers are arranged radially on the housing. The actuator is slidably mounted centrally in the housing. The actuator and/or the perfume containers is (are) rotated to align the actuator with the desired perfume container for operating and dispensing perfume fluid therefrom into the air duct of the vehicle and thereby introducing the perfumed air into the vehicle interior. Figure 1

Figure 1

No. of Pages : 20 No. of Claims : 8
Systems and methods for generating control system solutions for robotics environments is provided. The traditional systems and methods provide robotics solutions but specialized to only a particular robotic application, domain, and selected structure. The embodiments of the proposed disclosure provide for generating one or more control system solutions for a plurality of robotics environments by acquiring a robotics domain knowledge corresponding to the plurality of robotics environments; extracting one or more solution specifications based upon the robotics domain knowledge; translating the one or more solution specifications into one or more design solutions; generating, the one or more control system solutions for the plurality of robotics environments; and optimizing the one or more control system solutions generated by performing, based upon a set of task execution logs executed, a close loop verification to validate a plurality of commands and a plurality of state transitions executing in the plurality of robotics environments.
Legacy codes of software applications are required to be modernized and migrated to the latest technology. Migration of legacy codes requires extraction of hidden rules comprised in the application code and translating them to meaningful output which is cumbersome. Thus an intelligence in the entire rule extraction and translation process is required for reducing the complexity and risk. The present disclosure provides automated extraction of rules embedded in software application code using machine learning technique(s) (MLT).

In the present disclosure, rules embedded in the software application source codes are extracted based on a control flow and data flow analysis. Further, the extracted rules are translated into a target defined format based on mapping of parameters associated with extracted rules with a pre-stored meta data wherein the mapped parameters are classified into one or more categories using the MLT. The translated rules are analyzed to obtain a validated set of rules.
The present invention relates to a system and method for integration of EL wire in woven fabric. The EL wire (200) is woven in the fabric by using T-connector (205). The EL wire (200) is woven either as a weft or warp during weaving of the fabric and connected to an EL wire driver (201) through the T-connector (100). The working of the EL wire (200) is controlled by communication between the EL wire driver (201) and a wireless communication device having application for EL wire control. FIG. 1 for publication.
Title of the invention: METHOD AND SYSTEM FOR REPOSITIONING OF A PLURALITY OF STATIC ANALYSIS ALARMS

Abstract:
The reposition each of the static analysis alarms from the set of static analysis alarms up or down the application code from the program points of their original reporting, for reducing the number of static analysis alarms reported or for reporting them closer to their causes or for both the objectives. Further, the repositioning techniques also ensure that the repositioning of the static analysis alarms is without affecting the errors uncovered by them. Further it also maintain traceability links between a repositioned static analysis alarm and its corresponding static analysis alarm(s). Further the disclosure proposes to display the repositioned static analysis alarms to the user instead of the set of static analysis alarms, for reducing redundancy from reporting and manual inspections of the set of static analysis alarms. Furthermore the disclosure proposes to display the traceability links only if a user requests for the same.
A system and a method for monitoring and managing waste in real time is provided. The system includes plurality of garbage bins communicatively connected to a back-end server via a communication network, where the back-end server is further communicatively connected via a communication network to computing devices associated with users of the one or more garbage bins and person responsible for collection of the waste from the garbage bins. Each of the garbage bins include a plurality of compartments to store dry and wet waste separately and at least two sensors to monitor one or more parameters associated with the dustbin in real time. The system assigns priority to garbage bins and provides for an optimal collection path and time for collection of such garbage bins. The system makes garbage collection process efficient and cost effective. FIG. 2

Figure 2

No. of Pages : 26 No. of Claims : 10
ABSTRACT AN ARTICLE FEEDING SYSTEM

A feeding system (300) for feeding articles (101) into pockets of a blister strip (50) comprises an article/tablet supply-zone, a first set of tracks (360) extending from the supply-zone to a blister strip feeding location (380), a second set of tracks (370) extending from the supply-zone up to a predetermined location before reaching the feeding location (380), a set of auxiliary base plates (321) extending from operative bottom ends of the tracks of the second set of tracks (370) to the feeding location (380), and a third set of tracks (390) formed in the auxiliary base plates (321). The tracks (390) follow a curved path to ensure that the orientation of the articles/tablets (101) just before landing into the blister strips (50) is orthogonal to the orientation of the articles (101) landing from the tracks (360) into the blister pack (50). Therefore, there is no need of separate feeding systems.
**Title of the invention:** A BLISTER PACK

**Abstract:**
ABSTRACT Title: A Blister pack The present disclosure relates to the field of pharmaceutical packaging and more particularly to a blister (200) for a blister pack (2000) defining a cavity (208) and projections (204) defined within the cavity for restraining the articles filled in the cavity within the blister. The blister pack having blisters with the cavity that is deformable for the article to be snap fitted. Additionally, the cavity (202) may have projections (204) on its opposite sides with a polygonal cross section. The projections are manufactured by a forming process made of plastic. The blister pack includes a lidding foil sealing the blisters. The lidding foil is heat sealed to the cavity which is made of a thin metal sheet or plastic. The technical advancement of the present invention prevents breakage of articles, offers durability, is user-friendly and eliminates possibility of contamination.

**FIGURE 2A**

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<th>No. of Pages</th>
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<tr>
<td>No. of Claims</td>
<td>9</td>
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Title of the invention: A FEEDING SYSTEM

Abstract:
ABSTRACT A FEEDING SYSTEM A feeding system (100) for feeding articles (101) such as capsules and tablets into pockets of a blister strip (130). A feeding system (100) comprises a collection zone (105) that receives the articles (101) from an article (101) forming machine and at least one relatively deep channel (135) for transporting the articles (101) from the collection zone (105) to a blister strip feeding station located operatively below the collection zone (105). A rotary unit (115) is also provided for supplying articles (101) from the collection zone (105) into the channel/s (135). The rotary unit (115) is configured to operate to supply two articles (101) placed one on top of the other for delivering the articles (101) onto the blister strips (130) through the channel/s (135). The system (100) nearly doubles the feeding rate of the articles (101).

No. of Pages: 19  No. of Claims: 7
The present invention pertains to a wound-healing formulation which is highly potent, and has antiseptic, anti-inflammatory, analgesic and wound-healing properties. The composition consists of aqueous extracts of Glycyrrhiza glabra roots, Acacia leaves, and Trichosanthes dioica leaves in sesame oil in well-defined ratio along with alum powder. The wound-healing composition has healing properties for internal, external and difficult to heal wounds.
(54) Title of the invention : PROCESS FOR PREPARING POLYCYCLIC CARBAMOYL PYRIDONE DERIVATIVES

(51) International classification : C07H 1/00

(31) Priority Document No : 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

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(57) Abstract :
The present invention discloses a novel process for the synthesis of polycyclic carbamoyl pyridone derivatives of Formula (I): wherein \( n \) is as defined in the specification; and to novel chemical intermediates for use in such a process.

No. of Pages : 45 No. of Claims : 35
This disclosure relates to a model driven framework for realizing domain specific search system for unstructured text. The framework has two parts: information extraction system for defining various models such as a meta model, an instance model, an extraction model and mention model and a generic domain agnostic search system that works by interpreting the models specified via the information extraction system. The components of the search system are completely domain agnostic with no hard coded knowledge of the domain. The search system interprets the domain models specified in terms of the meta model to impart domain specificity to the search engine. In this sense, the framework is domain agnostic and it can be tailored for a new domain by just specifying domain related information in terms of the meta model. The model driven approach obviates need for re-coding the search system for any new domain of interest.
Title of the invention: STABLE LYOPHILIZED DOSAGE FORM OF PROTEIN

Abstract:
A stable lyophilized dosage form of protein is provided that comprises a lyophilate and a reconstitution liquid such that upon reconstitution the formulation will be qualitatively and quantitatively same as that of an already established or developed ready-to-use liquid dosage form of the same protein. FIG. 1

No. of Pages: 56 No. of Claims: 14
Disclosed is a method (100) for an identification of seed sequences for enzyme engineering. The method (100) provides seed sequences that are most suitable for structure-based enzyme engineering thereby helping in classification of a new sequence to the respective subfamily. The method (100) provides target sequence which is suitable starting point for modification using information from a crystal structure and enzyme assays. The method (100) is widely applicable for the synthesis of active pharmaceutical ingredients thereby providing a library of -transaminases enzymes for industrial applications. Figure 1

No. of Pages : 34
No. of Claims : 6
ABSTRACT AN IMPROVED PROCESS FOR THE PREPARATION OF ERTUGLIFLOZIN AND INTERMEDIATE THEREOF

The present invention relates to an improved process for the preparation of ertugliflozin of formula (I) and intermediate thereof, in an environment friendly and commercially viable manner with safer conditions in high yield and high chemical purity. (I)
Title of the invention: IMPACT RESISTANT AERIAL CARGO DELIVERY SYSTEM

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Abstract:
A cargo delivery system for damage-free and impact resistant delivery of cargo from one place to another is disclosed. The cargo delivery system comprises an inflatable enclosure 104 adapted to accommodate a cargo 102 that is operatively coupled with a parachute 106 to assist gradual descent of the cargo 120 when it is released from an aerial vehicle, and at least one pressure relief valve 108 to relieve pressure from the enclosure 104 when the cargo 102 hits a ground surface to absorb impact of the cargo 102 with the ground surface. The enclosure 104 is automatically inflated by a gas filling device upon release of the cargo 102 from the aerial vehicle.

![Diagram](image)

FIG. 1A

No. of Pages: 18
No. of Claims: 12
According to the present disclosure, a part electric gas turbine system and a method of operating the same are disclosed. The part electric gas turbine system has a compressor-turbine split configuration, comprising a compressor connected to a first shaft, a variable speed electric motor connected to the first shaft and configured to drive the compressor, a combustion chamber in communication with the compressor, a turbine in communication with the combustion chamber, connected to a second shaft, a gearbox coupled with an output shaft and the second shaft and in rotation with the turbine and an electric generator connected to the second shaft and driven by the gearbox and the turbine. The electric generator generates an electric output power from a mechanical power delivered by the turbine and gearbox. The first shaft connected with variable speed electric motor and compressor, and the second shaft connected with turbine and gearbox rotate independently.
The present disclosure discloses a maintenance kit and method for removing a broken glow plug from engine™s cylinder head. The maintenance kit includes at least one of an extractor bit having a conical shaped cutting portion with central hole, at least one drill bit, at least one tap, at least one puller bolt and a measuring device. Based on different areas from where the glow plug is broken, the broken glow plug is removed by any one of the steps by fitting with extractor bit, drilling broken portion, tapping drilled portion and fitting puller bolt or extractor bit at broken or tapped portion, rotating extractor bit or broken tapped portion for removal of broken glow plug from the cylinder head. Thus, the need for machining a cylinder head is eliminated which saves time and cost.

FIGURE 1

No. of Pages : 29 No. of Claims : 10
The present invention relates to the measurement, data and plots of refractive indices of ionic liquid crystals derived from amino acid and pyridine-4-carboxylic acid precursors at different wavelengths with variation in temperature from 20°C-80°C at intervals of 5°C. The refractive index measurements of the ionic liquid crystals are useful in the device design and display performances of photonic and optoelectronic display devices.

No. of Pages: 23  No. of Claims: 10
The present invention relates to the preparation of esters of 2-(tert-butyl)-9, 10-bis(4-(alkyloxy)phenyl)anthracene and their characterization as fluorescent liquid crystals.
Title of the invention: PORTABLE IMAGING DEVICE USED FOR EXAMINING THE FUNDUS OF THE EYE

Abstract:
In eye examinations, eye-imaging apparatus has become increasingly important. Fundus examination of the eye is important for retinal disease screening, diagnosis, and treatment evaluation. The present invention is of significant interest in the field of ophthalmology due to its portability, ease of use, compactness and connectivity for collecting and transmitting data for wide range of diagnosis and mainly its affordability. The present invention would allow its use by minimally trained personnel and deployment of eye examination centers to areas that are considered inaccessible. Further the present invention is used to examine the fundus of premature baby for ROP screening as well. The present invention helps in diagnosis of variety of diseases like Glaucoma, optic pit, optic atrophy, Diabetic Retinopathy, macula degeneration, macular scars, retinal vessel obstruction and many more in adults and even in premature babies.
A Nut based Crunchy Confectionary Product comprising of a nut based center having a modified starch coating; followed by a layer of chocolate and a optional hard sugar shell coating.

Fig. 1

No. of Pages : 17 No. of Claims : 14
Title: PROCESS OF JEWELLERY SETTING

A method of setting gems preferably pear shaped gem in a mounting comprising:

- making a central cavity over a base metal approximately 2/3 the diameter of the gem;
- making a plurality of small cavities near the boundary of the central cavity such that the gem boundaries get overlapped and the depth of the smaller cavity is more than that of the central cavity;
- placing a center gem as a first layer of gem, said center gem having a boundary, a girdle and a crown, such that the boundary is placed inside said cavity; said girdle is inserted in incisions in the side walls of said base metal from the side;
- placing a second layer of gems adjacent and marginally below the level of central gem, each gem having a boundary, a girdle and a crown such that the boundary of each of the respective gems is placed in its respective cavity; girdle of each gem is inserted in the incisions in the side walls, such that side walls of each of the layer form the base of the cavity of the next layer; and the said gems in adjacent layers touch each other;
- faceting on holding metal cut on CNC machine so all facet cut symmetrical and angle of the groove maintain properly.

No. of Pages: 14 No. of Claims: 10
Title of the invention: A SYSTEM FOR ADVERTISEMENT BASED ON VEHICLES

Abstract:
Once our idea incorporate in the daily life™s than if there is any loan taken by the auto driver they can easily re pay the loan. Our planning to start our business In Bhopal we started in 100 auto which is succeeding and we will move to around 5000 auto in different part of India so our country will become most skill development and also genesis of more business idea around the world, If auto driver finance his Rickshaw it may cost him around 5000/-month with these plan he can earn 7-8K per month so Even he can settled the loan amount on time and even he can save 1-2K as his savings.

No. of Pages : 6 No. of Claims : 0
Examples of fasteners (100) are disclosed. The fastener (100) includes a body (108) formed by ribs (110) forming a u-bend (120). The ribs (110) are substantially parallel to each. The fastener (100) includes a bridge (136) connecting the ribs (110) to each other at the u-bend (120), and also a shank portion (112) extending from the body (108). The shank portion has arms (114), and each arm (114) is cantilevered at a free end of a rib (110). The arm (114) extends from the rib (110) in a direction away from the body 108 to be hingeable about the arm (114). Design of the bridge (136) and the plurality of ribs (110) regulate at least an insertion force of the fastener, and design of a point of connection between each arm (114) and the rib (110) regulate at least a separation force of the fastener. [FIGURE 1A]
Title: A CLEANING LINKAGE MECHANISM

The present disclosure discloses a cleaning linkage mechanism (34) on the reel (14) of a harvester (10). The reel (14) is rotatably supported on a bearing support shaft (33). The cleaning linkage mechanism (34) includes a scrapper link (36) supported by a support link (37) and a scrapper (58). The scrapper (58) is coupled to one end of the scrapper link (36) while the other end of scrapper link (36) is pivotally mounted proximate to the circumference of the reel (14). The scrapper (58) is mounted on the scrapper link (36), proximate to the bearing support shaft (33). With the rotation of the reel (14) during operation of the harvester (10), the cleaning linkage mechanism (34) also rotates with the reel (14). This causes the scrapper (58) to facilitate removal of crop material which may build up around the bearing support shaft (33). FIGURE 3

No. of Pages : 15 No. of Claims : 10
The Patent Office Journal No. 01/2020 Dated 03/01/2020

Title of the invention: RESOURCES MANAGEMENT IN INTERNET OF ROBOTIC THINGS (IORT) ENVIRONMENTS

Abstract:
Cloud robotics infrastructures generally support heterogeneous services that are offered by heterogeneous resources whose reliability or availability also varies widely with varying lifetime. For such systems, defining a static redundancy configuration for all services is difficult and often biased. Also, it is not feasible to define a redundancy configuration separately for each unique service. Therefore, in the present disclosure a trade-off between the two is ensured by providing At-most M-Modular Flexible Redundancy Model wherein an exact degree of redundancy is defined and is given to each service in a heterogeneous service environment and monitoring each task and subtask status to ensure that each subtask gets accomplished thereby enabling the tuning of the tradeoff between redundancy and cost and determining efficiency of the system by estimating number of resources utilized to complete specific subtask and comparing the resources utilization with the exact degree of redundancy defined.

No. of Pages: 43
No. of Claims: 6
ABSTRACT An advantageous process for pre-treating lignocellulosic biomass to hydrolysable polysaccharide enriched biomass with reduced amount of inhibitors of catalysis comprising steps of: providing a feedstock comprising cellulosic biomass; chopping of cellulosic biomass to have a cellulosic biomass feed material of uniform size; feeding of uniform sized feed material to a horizontal counter current extraction unit; removing excess of water from the feed material obtained from the extraction unit; soaking the extruded feed material obtained from the extraction unit; optionally removing excess of water from the feed material obtained after acid soaking; steam pre-treating the feed material obtained after removing excess of water from the acid soaked feed material; neutralizing the slurry obtained from the steam pre-treating; and optionally saccharifying the neutralized slurry.
There is disclosed a method for providing information regarding traffic conditions within a road network in an area covered by an electronic map, the electronic map comprising a plurality of segments representing roads of the road network. The method involves obtaining traffic data from a traffic data source (200) having a known position relative to the road network. The position of the traffic data source (200) is then used to identify within the electronic map a set of roads falling within a predefined distance of the traffic data source (200). From this set, a determination is then made as to which of the road names in the electronic map best matches a road name included in the traffic data for defining the location of the traffic conditions. The traffic point location (204) representing the location of the traffic conditions within the electronic map can then be determined so that information indicative of the traffic conditions may be provided for inclusion into the map. Also disclosed are systems, particularly servers, for performing such methods.

FIGURE 1

No. of Pages: 23 No. of Claims: 16
The present invention relates to Suprabioavailable oral composition of Pirfenidone or salt thereof when compared with reference product of Pirfenidone capsule [267mg] and tablet [267mg and 801mg] for the treatment of idiopathic pulmonary fibrosis (IPF). The Suprabioavailable oral composition of Pirfenidone or salt thereof provides at least 5% dose reduction which minimizes adverse effects and provides more efficacy with better patient compliance in the treatment of idiopathic pulmonary fibrosis.

No. of Pages : 21 No. of Claims : 14
A method and system for generating Customer Decision Tree (CDT) for an entity in accordance with an attribute value (AV) based demand transfer estimation for a product category using machine learning, is disclosed. The method includes aggregating very high volume of data associated with a plurality of AVs of a product category at a plurality of aggregation levels. Further, generating a data matrix, which represents data in a structured format for machine learning, at a predefined aggregation level for the product category and generating a prediction model with the data matrix to determine predicted AV sales for each AV at the predefined aggregation level. Further, optimizing the trained prediction model. Thereafter, generate the CDT utilizing the optimized prediction model, a Demand Transfer (DT) estimator, a scenario generator and a hierarchy generator. Machine learning based DT is more accurate, effectively generating more accurate CDT tree.
Title of the invention: AN ARMREST ASSEMBLY FOR A VEHICLE INTERIOR

Abstract:
The present invention is to provide an armrest in a vehicle interior. The armrest is pivotably arrangable on a carrier of a vehicle interior. The armrest assembly is provided with a mounting member and a second pivoting member. The mounting member is for pivotally mounting the armrest thereover. The second pivoting member is rotatably arranged on the carrier of the vehicle. The mounting member is pivotally and detachably arranged on the pivoting member. The second pivoting member is rotatable in a first pivoting position and a second pivoting position. The mounting member can be detached from the second pivoting member in the second pivoting position and thereafter the armrest is detached from the mounting member for changing with another armrest. Figure 1

Figure 1

No. of Pages: 20 No. of Claims: 7
Title of the invention: AN ARMREST ASSEMBLY FOR A VEHICLE

Abstract: The present invention provides an armrest assembly 100 for a vehicle interior. The armrest assembly 100 includes a supporting member 10 and an armrest member 20. The supporting member 10 is slidably arranged on a seat 200 of a vehicle interior. The supporting member 10 is slidable between a first support position 10a and a second support position 10b. The armrest member 20 extends laterally from the seat 200 and connects with the supporting member 10. The armrest member 20 is extendable laterally into the vehicle interior from a stow configuration to at least one use configuration. Figure 1.
Title of the invention: PROCESS FOR PREPARATION OF REGADENOSON AND POLYMORPHS THEREOF

Abstract:
The present invention relates to a process for preparation of Regadenoson and polymorphs thereof. In particular, the present invention relates to a process for preparation of Regadenoson Form C.

No. of Pages: 26 No. of Claims: 9
A device to generate electricity using reciprocating movement of a suspension consists of a rack (2A and 2B) and pinion (8) arrangement attached to the suspension (1) of a vehicle, a dynamo (5) attached to the pinion by means of its shaft and a component to receive and utilise said generated electricity. The reciprocating movement of the suspension leads to a linear motion of the rack which thereby leads to circular motion of the pinion. This in turn rotates the shaft of the dynamo and electricity is generated. The component to receive and utilise the electricity is a light source (12) of the head lamp or the tail lamp of the vehicle such as bikes or bicycles. The device is light weight and can be specifically used in race bikes or in vehicles in conditions of low visibility.
Title of the invention: HEART RATE DRIVEN UNSUPERVISED TECHNIQUES FOR CONTINUOUS MONITORING OF AROUSAL TREND OF USERS

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6) GHOSH, Prasanta Kumar

Abstract:
Traditionally arousal classification has been broadly done in multiple classes but have been insufficient to provide information about how arousal level of user changes over time. Present disclosure propose a continuous and unsupervised approach of monitoring the arousal trend of individual from his/her heart rate by obtaining instantaneous HR for time windows from a resampled time series of RR intervals obtained from ECG signal. A measured average heart rate (a measured (HR) \( \bar{\text{HR}} \)) is computed from instantaneous HR specific to user for each time window thereby estimating apriori state based on a last instance of an aposteriori state initialized and observation of a state space model of Kalman Filter is determined for computing error and normalizing thereof which gets compared with a threshold for continuous monitoring of arousal trend of the user. The aposterior state is further updated using Kalman gain computed based on measurement noise determined for state space model.
Title of the invention: SYSTEMS AND METHODS FOR SCHEDULING A SET OF NON-PREEMPTIVE TASKS IN A MULTI-ROBOT ENVIRONMENT

Abstract:

Systems and methods for scheduling non-preemptive tasks in a multi-robot environment is provided. Traditional systems and methods facilitating preemptive task(s) allocation in a multi-processor environment are not applicable in the multi-robot environment since tasks are preemptive. Additionally, critical parameters like deadline and performance loss are not considered. Embodiments of the present disclosure provide for scheduling of a set of non-preemptive tasks by partitioning, the set of non-preemptive tasks either as a set of schedulable tasks or as a set of non-schedulable tasks; sorting, by a scheduling technique, the set of non-preemptive tasks partitioned; determining, by the scheduling technique, a possibility of execution of each of the set of schedulable tasks; and scheduling the set of schedulable tasks and the set of non-schedulable tasks upon determining the possibility of execution of each of the set of schedulable tasks. The present disclosure focuses on performance loss minimization when deadline miss is unavoidable.

No. of Pages : 51 No. of Claims : 12
Title of the invention : PORTABLE CULTURE DEVICE

Abstract:
ABSTRACT PORTABLE CULTURE DEVICE The present invention in one aspect provides a portable culture device for determining the presence of contaminants. The sample comprises an outer layer of at least one fluid impermeable material for diffusion of gases and an inner layer of at least one porous hydrophilic paper. The media holding region comprises a stack comprising plurality of absorbent material as a base, a middle layer of at least one whatman filter paper and a top layer of at least one fluid impermeable material having pores of predetermined size. The device is configured to fold between an open position and a closed position such that in the closed position the sample region and the media holding region are aligned in fluidic communication with each other.

FIGURE 1

No. of Pages : 15 No. of Claims : 6
Title of the invention: A PORTABLE SYSTEM FOR HANDLING ARTICLES IN A CONTAINER

Abstract:
The present disclosure provides vehicle with system for handling articles in container. The system includes: support structure placed on container; hose attached to support structure with first end suspended vertically downwards, the hose has hole on its wall; valve fitted with hose to move between open and close positions to open and close the hole; a vacuum pump attached to support structure and coupled to second end of hose for creating vacuum in hose when valve is at close position; and vacuum cup coupled to first end of hose such that vacuum created in the hose results in creation of vacuum in vacuum cup. The vacuum cup configured to hold the article when vacuum is created in vacuum cup, and hose is compressed when vacuum is created in hose to enable lifting of article held by vacuum cup.
Title of the invention: A PROCESS FOR RAPID ANALYSIS OF REACTIVE SILICA IN BAUXITE AND LATERITE BASED ON SELECTIVE AUTOGENOUS DISSOLUTION AT AMBIENT TEMPERATURE

Abstract: The present invention provides a process for selective dissolution of reactive silica present in a bauxite sample or a laterite sample. The process comprises treating a crushed and powdered bauxite sample or a laterite sample with water and 3 to 7% hydrofluoric acid for 5 to 30 minutes at a room temperature in order to dissolve reactive silica. The present invention also provides a process for rapid quantitative determination of reactive silica using a spectrophotometer which involves selective autogenous dissolution of reactive silica in bauxite and laterite of all geological origin. The single stage dissolution reaction acknowledged 99.99 percent extraction of reactive silica (SiO2) at optimized experimental conditions.
A container with two compartments for storing solid and liquid separately which comprises of a neck portion with a cover, an upper compartment(1) for a solid component and a lower compartment(4) for a liquid component. The upper compartment can be expandable (2) to obtain a higher volume of the upper compartment. A ring valve (3) separates the upper and lower compartments and it consists of two perforated discs. The ring valve functions in an open and closed position. When the valve is in the open position, the solid from the upper compartment mixes with the liquid in the lower compartment and the resulting solution is dispensed through the ring valve to the upper compartment. The invention provides a solution for an instant drink/formulation which requires mixing of one or two different components together prior to use and has a small shelf life.

![Diagram of the container](image-url)
The present invention provides a system (100) and a method (200) for treatment of brewery liquid waste that provides a solution to the chronic water pollution problem of the brewing industry. It is a zero discharge system in which the brewery effluent liquid is first oxidized and mixed with flocculating agents. The sludge is removed, overflow liquid is passed through sand and carbon filters. The filtered liquid is then neutralized after removing sludge. The sludge obtained in the process can be composted. After passing through second set of filters, a cleaned liquid is obtained which is suitable for industrial use and also for reuse in the brewing process. Figure 1
A shock absorber (1000) for a motor vehicle comprising a spring seat (110) formed on the integral tube (115) body is disclosed. An outer spring (30) and an inner spring (70) of the shock absorber (1000) rest at their one end over the spring seat (110). The spring seat (110) formed over the integral tube (115) body has an inner diameter equal to the inner diameter of the integral tube (115) and an outer diameter greater than the outer diameter of the outer spring (30) to provide a stable platform for resting one end of the outer spring (30). The spring seat (110) formed over said integral tube (115) body has edges with curved profile. Forming the spring seat (110) over the integral tube (115) body eliminates the welds and also leads to a reduction in assembly cycle time of the shock absorber (1000). (Refer Figure 3 for the diagram of the invention)
### Title of the invention: PORTABLE SOFT STEM CUTTING MACHINE

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(57) **Abstract:**  
PORTABLE SOFT STEM CUTTING MACHINE Present invention generally relates to a stem cutter and more particularly to a portable soft stem cutting machine (100) for cutting and pruning of floriculture and other plants from small fields with maximum yield as compared with manual cutting and manual pruning process by using conventional tools. The machine (100) comprises a casing (10), a hatch (60), cutting blades including a lower blade (30) and an upper blade (40), an electric motor (50), a gear box (20), an electrical circuit (80) and an electrical switch (70). The lower blade (30) is fixed and the upper blade (40) is movable on the lower blade (30) for cutting operation. The soft stem cutting and pruning is effectively done by suitably holding the machine (100) with the hand grip (10A). The machine (100) is light weight and battery operated that makes it easy for labor to work preciously and in comfortable way. Figure 2

![Diagram](image_url)

No. of Pages: 14  No. of Claims: 6
Title of the invention: HORIZONTAL WATER HEATER WITH UNIVERSAL MOUNTING AND PIPE CONNECTIONS

Abstract:
A horizontal storage water heater with universal mounting and pipe connections, comprising of: a horizontal water tank with anti-corrosion coating; a plurality of mounting pads attached to the said tank; an electric heating element disposed inside the said tank assembled over a base plate, controlled by a thermostatic device responsive to the temperature of water in the said tank; a pressure and high temperature safety device attached to the base plate; wherein at least two sets of inlet and outlet water pipe connection sockets provided with removably attached caps from the said water tank; and wherein all assembly is enclosed in an outer cover and thermal insulating material sandwiched between the tank and outer enclosure.

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Fig. 2a  Mount: Wall  Connection: Right
The present invention pertains to the wheel capable of movement along any type of surface due to its unique structure and construction. This invention enables the wheel to overcome obstacles by cutting its rim into sections and then changing its profile shape by using mechanical systems. The wheel of the present invention possess the capability of changing the profile shape to overcome obstacles by using deformable rim material connected to a central hub and an engagement-disengagement system to control the stiffness of the spokes. The wheel of the present invention is made for moving on plain surface and for traversing on stairs. For ensuring the wheel center moves as close as possible in a straight line parallel to a staircase inclination, the wheel is cut at marked angles and in 8 sections.

No. of Pages : 16 No. of Claims : 9
METHOD AND SYSTEM FOR HIERARCHICAL DECOMPOSITION OF TASKS AND ACTION PLANNING IN A ROBOTIC NETWORK

While a centralized system is used for action planning in a robotic network, any communication network issues can adversely affect working of the robotic network. Further, hardcoding one or more specific tasks to a robot restricts use of the robots irrespective of capabilities of the robots. This disclosure relates generally to action planning, and specifically to a method and a robotic agent used for action planning by performing hierarchical decomposition of goals. The robotic agent decomposes a goal assigned to the robot to multiple sub-goals, and for each sub-goal, identifies one or more tasks to be executed/performed by the robot. An action plan is generated based on all such tasks identified, and the robot executes the action plan, in response to the goal assigned to the robot.

Fig. 2

No. of Pages : 28 No. of Claims : 12
ABSTRACT A MOBILE POWER GENERATING DEVICE

The present disclosure envisages a mobile energy generating device (100) mounted on a sub frame of a trailer chassis. The device (100) comprises an array of foldable solar panels (102), a power storage unit (104), a charge controller (108) and an evaluator (110). The array of foldable solar panels (102) is configured to generate DC power. The power storage unit (104) is configured to cooperate with the array of foldable solar panels (102) to store the generated DC power. The charge controller (108) is coupled to the power storage unit (104). The charge controller (108) is configured to analyse a plurality of parameters associated with the power storage unit (104). The evaluator (110) is configured to generate at least one requirement signal. The power storage unit (104) is configured to supply power to at least one appliance based on the requirement signal generated by the evaluator (110).
The present invention discloses a magnetic rotary disc, which mainly comprises a metal rotary body and a plurality of magnetic elements. The metal rotary body is formed of metal iron, the magnetic elements are arranged on peripheral edge of the metal rotary body in a uniform distribution. Each magnetic element comprises a first magnetic pole portion and a second magnetic pole portion. All of the first magnetic pole portions and the second magnetic pole portions respectively belong to upper portion and lower portion of the magnetic elements. Most particularly, in all magnetic elements, the lower side of the second magnetic pole portion of any magnetic elements and the upper side of the first magnetic pole portion of the other magnetic elements partially attract each other, so that only the magnetic force lines of the first magnetic pole portions are retained outside the peripheral edge of the metal rotary body.

Figure 1

No. of Pages : 29 No. of Claims : 10
(54) Title of the invention : LIVING BODY DETECTION METHOD, APPARATUS AND SYSTEM

(51) International classification : G06F 21570
(31) Priority Document No : CN 201810706117.X
(32) Priority Date : 28/06/2018
(33) Name of priority country : China
(86) International Application No : NA
   Filing Date : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(57) Abstract :
There are provided in embodiments of the present disclosure a living body detection method, apparatus and system. The living body detection method includes: acquiring device information of a terminal used to acquire an image of an object to be detected; determining a device risk level of the terminal; determining a living body detection strategy based on the device risk level of the terminal. The above technical solution adjusts the living body detection strategy by utilizing the device information of the terminal, which guarantee a true living body to go through a pass of the detection at a smaller cost, and at the same time makes it difficult for a false and malicious living body to go through a pass of the detection, thereby greatly reducing security risk of the living body detection, enhancing the user experience, and preventing the malicious request from occupying the system resources. Abstract Drawing: FIG. 2

```
S210
acquiring device information of a terminal

S220
determining a device risk level of the terminal by utilizing the device information of the terminal

S230
determining a living body detection strategy based on the device risk level of the terminal
```

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No. of Pages : 33 No. of Claims : 10
The present disclosure provides methods for producing carboxylated nanocelluloses. Compared with conventional methods the methods of the present disclosure are simple and cost effective in the production of carboxylated (or carboxy) nanocelluloses in embodiments nanofibers and/or nanowhiskers directly from raw biomass including lignocellulose wood non wood sources non lignocellulose wood lignocellulose or pure cellulose. The carboxy groups on the surface of nanocellulose thus produced can then be easily modified into functional derivatives such as amide acetate ether ester etc.
The present invention describes a way of configuring an existing conventional network-enabled device (e.g. smartphone, tablet, laptop, mobile WiFi hotspot, etc.) by modifying and augmenting its designs, schematics, hardware, and/or software, and by integrating it into a system resulting in a corresponding augmented device capable of demand-driven flexible topology and intelligently-enabled communication between said resulting augmented device and at least one conventional network-enabled application server over multiple segments of the Internet concurrently. The augmented device is configured so as to possess a processing unit, a memory unit, a storage unit, and two or more mobile broadband access devices. Additionally, the augmented device is configured to coexist and cooperate with the other components of the system comprising other augmented devices, a dynamic pool of relay machines that act as proxies between one or more augmented devices and one or more arbitrary network-enabled application servers as well as a coordination machine that aggregates status and routing information relevant to the augmented devices and relay machines and dynamically adjusts the number, location, and/or performance specifications of running relay machines. Finally, the augmented device is configured to proxy data it exchanges with said at least one application server through one of the relay machines using a connection-merging protocol which is also known to said relay machines.
Title of the invention: ELECTROSTATIC PRECIPITATOR AND METHOD

Abstract:
An electrostatic precipitator assembly (100) the assembly including an electrostatic charging mechanism (106) for inducing a first charge to particulate material being carried in a gas flowing past the electrostatic charging mechanism (106). A chamber being provided downstream of the electrostatic charging material which includes an electrode or electrodes (103) which are grounded or can have an opposite charge to the first charge applied thereto such that the charged particulate material is attracted to and collects on the electrode or electrodes (103). A further separator is provided downstream of the electrode or electrodes (103) the further separator including an electronically chargeable permeable member (114) through which the gas flows in use with the permeable member (114) in use having the same charge as the particulate material so as to repel the particulate material and substantially prevent the particulate material from passing therethrough.
The system for the recovery and use of vapours from fuels comprises a condensing module (10) that can be connected to a fuel tank (2) at a petrol station using a venting pipe (1) through which the fuel vapours are conducted to the cryogenic condensing module (10) where they condense the cryogenic condensing module (10) also having a return pipe (18) to conduct the condensed vapours back to the fuel tank (2) wherein said cryogenic condensing module (10) comprises a cryogenic vaporiser (11) that lowers the temperature of the vapours condensing them and a processing element (22) that processes the vapours that have not been condensed in said cryogenic vaporiser (11). FIG. 2
A cyclic metals deactivation system unit for the production of equilibrium catalyst materials including a cracker vessel configured for cracking and stripping a catalyst material; and a regenerator vessel in fluid communication with the cracker vessel the regenerator vessel configured for regeneration and steam deactivation of the catalyst material.
## Title of the invention: CROSSLINKED POLYORGANOSILOXANE AND PERSONAL CARE COMPOSITION CONTAINING SAME

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### Abstract:
A crosslinked polyorganosiloxane is obtained from the free radical-initiated addition polymerization of polymerizable polyorganosiloxane containing at least two free radical polymerizable groups.

No. of Pages: 36  No. of Claims: 24
**Title of the invention:** ANTI-TNFRSF25 ANTIBODIES

| (51) International classification | :C07K16/28 |
| (31) Priority Document No | :62/348009 |
| (32) Priority Date | :09/06/2016 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No | :PCT/US2017/036817 |
| Filing Date | :09/06/2017 |
| (87) International Publication No | :WO 2017/214547 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

**Abstract:**
Anti-TNFRSF25 antibodies and variants thereof including those that bind to an epitope in the region of amino acids 48-71 are disclosed. Also contemplated are uses of the antibodies in research diagnostic and therapeutic applications.
Title of the invention: COMBINATION TEST FOR COLORECTAL CANCER

Abstract:
The present invention relates to methods of detecting and/or screening for colorectal cancer (CRC) a colorectal adenoma or a polyp in a patient comprising identifying patients found to be positive for fecal occult blood and further testing for one or more additional factors. Said methods can be used to assess the suitability of a patient for colonoscopy.

![Figure 1](image-url)
The present invention relates to a method for preparing polyurethanes in which method (a) polyisocyanate (b) polymeric compounds comprising groups that are reactive to isocyanates (c) catalysts (d) compounds of general formula R(-S)n where R represents any group n represents any number between 1 and 8 and S represents a group according to formula 1: and optionally (e) blowing agents (f) chain lengthening- and/or crosslinking agents and (g) auxiliaries and/or additives are mixed to form a reaction mixture and the reaction mixture is allowed to fully react to form the polyurethane.

![Chemical Structure](image)

No. of Pages : 18 No. of Claims : 14
The present invention refers to a recombinant chimeric nucleic acid molecule comprising a nucleic acid sequence encoding a dual transit peptide operably linked to a heterologous nucleic acid sequence encoding a polypeptide of interest which when overexpressed in a plant confers herbicide tolerance to said plant.

Figure 1

No. of Pages : 90 No. of Claims : 22
(54) Title of the invention: A CHROMIUM CATALYST ITS PREPARATION AND USE

(51) International classification: B01J21/08 B01J23/04 B01J23/26
(31) Priority Document No: 62/340134
(32) Priority Date: 23/05/2016
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2017/033803
   Filing Date: 22/05/2017
(87) International Publication No: WO 2017/205273
(61) Patent of Addition to Application Number: NA
   Filing Date: NA
(62) Divisional to Application Number: NA
   Filing Date: NA

(57) Abstract:
Disclosed herein is a chromium oxide catalyst composition having reduced levels of chromium (VI) methods of making a chromium oxide catalyst composition and system and illustrative uses of the chromium oxide catalyst composition and system. The catalyst disclosed may be a gel and may comprise chromium (III) oxide and chromium (VI) oxide at an amount of about 10000 ppm or less based on total chromium oxide contents in the chromium oxide catalyst composition.

No. of Pages: 39 No. of Claims: 85
**Title of the Invention:** COMBINATION THERAPY COMPRISING A POLYUNSATURATED KETONE AND A SECOSTEROID

**Abstract:**
A synergistic pharmaceutical composition for simultaneous parallel sequential or separate use comprising a polyunsaturated ketone a secosteroid and optionally the corticosteroid partner betamethasone. The composition has utility in the treatment and prevention of skin disorders.

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**FIG. 1**

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No. of Pages: 28  No. of Claims: 17
Title of the invention: COMBINATION THERAPY COMPRISING A POLYUNSATURATED KETONE AND A CALCINEURIN INHIBITOR

(51) International classification: A61K45/06 A61P17/06 A61K31/436
(31) Priority Document No: 1609722.2
(32) Priority Date: 03/06/2016
(33) Name of priority country: U.K.
(54) Title of the invention: COMBINATION THERAPY COMPRISING A POLYUNSATURATED KETONE AND A CALCINEURIN INHIBITOR
(86) International Application No: PCT/EP2017/063627
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(87) International Publication No: WO 2017/207819
(61) Patent of Addition to Application Number: NA
Filing Date: NA
(62) Divisional to Application Number: NA
Filing Date: NA
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(57) Abstract:
A synergistic pharmaceutical composition for simultaneous parallel sequential or separate use comprising a polyunsaturated ketone and a calcineurin inhibitor. The composition has utility in the treatment and prevention of skin disorders.

No. of Pages: 20 No. of Claims: 13
The present invention relates to uracilpyridines of formula (I) or their agriculturally acceptable salts or derivatives where in the variables are defined according to the description processes and intermediates for preparing the uracilpyridines of the formula (I) compositions comprising them and their use as herbicides i.e. for controlling harmful plants and also a method for controlling unwanted vegetation which comprises allowing a herbicidal effective amount of at least one uracilpyridine of the formula (I) to act on plants their seed and/or their habitat.

\[ \text{(I)} \]
Abstract:
It has been found that the combination of enzymes in particular the combination of a thermophilic serine protease and a lipase are able to improve the short bite in bakery products. Provided herein are compositions comprising these enzymes the use of this combination of enzymes and methods for preparing bakery products using the combination of a thermophilic serine protease and a lipase.
Title of the invention: IMPROVED BAKERY COMPOSITION

Abstract:
It has been found that the particular combination of a thermophilic serine protease and monoglycerides are able to improve the short bite in bakery products. Provided herein are compositions comprising this particular combination of ingredients the use of this particular combination of ingredients and methods for preparing bakery products using the combination of a thermophilic serine protease and monoglycerides.

Figure 1A

No. of Pages: 24  No. of Claims: 15
An insulating and heat-radiating coating composition is provided. An insulating and heat-radiating coating composition according to an embodiment of the present invention comprises: a coating layer forming ingredient including a base resin; and an insulating and heat-radiating filler in an amount of 25-70 weight parts on the basis of 100 weight parts of the base resin. According to the present invention the insulating and heat-radiating coating composition can be materialized to an insulating and heat-radiating coating layer which exhibits excellent heat radiating performance thanks to outstanding heat conductivity and heat radiation in addition to having insulating properties. Showing far superior adhesiveness to a surface to be coated the insulating and heat-radiating coating layer implemented therewith is also highly prevented from being released during the use thereof. After being formed the insulating and heat-radiating coating layer can maintain its durability against physical and chemical stimuli such as external heat organic solvents moisture impacts etc. Furthermore the heat-radiating fillers dispersed in the formed insulating and heat-radiating coating layer have the effect of exhibiting uniform insulating and heat-radiating performance thanks to the high dispersibility thereof. Moreover the formed insulating and heat-radiating coating layer has a very smooth surface and shows outstanding smoothness and thus excellent surface quality finding wide applications across the industries requiring insulation and heat radiation.
**Title of the invention:** FLAME RETARDANT RESIN COMPOSITION

**Abstract:**
A flame-retarded resin includes at least one resin for which flame retardant capability is desired and at least one triaryl silicon-containing compound (I) as flame retardant in admixture therewith and/or chemically bonded e.g., grafted to the resin.

No. of Pages : 55 No. of Claims : 34
(54) Title of the invention : BROADCAST SIGNAL FRAME GENERATION DEVICE AND BROADCAST SIGNAL FRAME GENERATION METHOD WHICH USE ENHANCED LAYER PHYSICAL LAYER PIPE

| (51) International classification | :H04L 01000 |
| (31) Priority Document No | :10-2016-0085566 |
| (32) Priority Date | :06/07/2016 |
| (33) Name of priority country | :Republic of Korea |
| (36) International Application No | :PCT/KR2017/007161 |
| Filing Date | :05/07/2017 |
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| (87) International Publication No | :WO 2018/008968 |
| (61) Patent of Addition to Application | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

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(57) Abstract :
According to one embodiment of the present invention a broadcast signal frame generation device comprises: a combiner combining a core layer signal and an enhanced layer signal so as to generate a multiplexed signal; a power normalizer for lowering power of the multiplexed signal to a power corresponding to the core layer signal; a time interleaver for generating a time-interleaved signal by performing time interleaving applied to both the core layer signal and the enhanced layer signal; and a frame builder for generating a broadcast signal frame including a preamble for signaling start position information and size information of each of physical layer pipes (PLPs) wherein the physical layer pipes comprise a core layer physical layer pipe corresponding to the core layer signal and an enhanced layer physical layer pipe corresponding to the enhanced layer signal.
Sericin coated membrane and uses thereof are disclosed herein. The disclosed Sericin-coated membrane are instrumental in filtration and conditioning of Liquid and Air. The Sericin coated membrane disclosed herein is produced by coating a thin layer of Sericin on the surface of commercially available filtration membranes. It is effective in removing micro pollutants including PM, VOCs, drugbased pollutants, etc. The sericin coating provides the membrane with improved performance and antifouling properties. Method and System for producing Sericin coated membrane are also disclosed herein. Fig. 3

FIG. 3

No. of Pages : 67 No. of Claims : 28
The present invention relates to a submersible water lifting assembly and automatic fire fighting system for unmanned platforms having said system (1) that is efficient yet simple to install, energy saving, noise free and economical. Present submersible water lifting assembly; for the purpose of present invention; is a High flow Ratio Ejector Pump (30/30A) that utilizes underwater arrangements of unmanned platform and enables the fire-fighting system to efficiently lift water from the sea water, using the force of existing water injection system; eliminating the requirement of diesel engine driven pump, for the lifting the water; and provide automatic cleaning of the system. It eliminate fire risk on safety system itself even in conditions of large fire; unlike that of the prior art. Fig. 1
The invention relates to an artificial intelligence traffic detection system, which captures a plurality of consecutive intersection images by a fisheye camera located at an intersection, and analyzes the images by a processor with an artificial intelligence algorithm to generate traffic information. After the traffic information is transmitted to a server, the server generates a timing plan for controlling the traffic lights of the intersection based on the traffic information. The invention can provide traffic information instantly and continuously without interruption, and helps to instantly generate a timing plan which is most suitable for traffic lights of various intersections, thereby solving the traffic congestion problem.
A storage device includes a reconfigurable logic circuit, a control logic circuit, and non-volatile memory. The reconfigurable logic circuit is changeable from a first accelerator to a second accelerator during an operation of the storage device. The control logic circuit is configured to receive, from the host, a host command including information about a function required by the host and dynamically reconfigure the reconfigurable logic circuit such that the reconfigurable logic circuit performs the function according to the received host command. The non-volatile memory is connected to the control logic circuit.

FIG. 1
(54) Title of the invention: METHOD AND SYSTEM FOR MANAGING AN UNDERWATER BOTTOM IN AN AREA

(57) Abstract:
Described is a method for managing an underwater bottom in an area by means of dredging and/or arranging material. The method comprises determining the current state of underwater bottom at positions in the area; determining the value of input variables, which input variables can have an effect on the state value of underwater bottom at the positions; providing a trained artificial neural network, an input layer of which comprises the value of input variables and an output layer the state value at the positions, and using the neural network to determine at the positions future state values of the underwater bottom resulting from the current value of input variables; comparing the future state values at the positions to a threshold value for the state at these positions; and dredging and/or arranging material on the underwater bottom at those positions where the state value exceeds or falls below the threshold value.

No. of Pages: 30 No. of Claims: 20
(54) Title of the invention : OVEN FOR PREFORMS

(51) International classification : B29B13/00
(31) Priority Document No : 102018000004215
(32) Priority Date : 05/04/2018
(33) Name of priority country : Italy
(86) International Application No : NA
Filing Date : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

(57) Abstract :
Disclosed is an oven for preforms, and a system for handling preforms when transferring them to and from the oven. Oven for preforms(P) comprising a path, a plurality of spindles(11) configured to engage with preforms(P), upstream transfer means(3) for transferring preforms(P) from an upstream processing unit to the path, downstream transfer means for transferring preforms(P) heated by oven to downstream processing units, and means for heating preforms(P) arranged along path. Upstream transfer means(3) comprise a rotating disk(8), with a plurality of cavities(9) adapted to engage with preforms(P). Downstream transfer means comprise one or more grippers(7). The path comprises rectilinear stretches and curvilinear stretches; curvilinear stretch placed at transfer means(3,4) comprises a driving wheel(12) for spindles(11), characterized in that driving wheel(12) comprises a plurality of extensible grippers(17) for transferring preforms(P), configured to assist transfer of preforms(P) from upstream transfer means(3) to the path and from the path to downstream transfer means.

FIG. 3
The present invention relates to a control system for spinning machines, suitable for the control of a variable number of spinning machines (1). The control system comprises at least one portable mobile terminal (4) that can be carried by an operator, and in each spinning machine (1) there is comprised a fixed terminal (23). The mobile terminal (4) and the fixed terminal have means for two-way wireless communication. The mobile terminal (4) receives in real time information about the operating status of the spinning machines (1) and allows the individualized transmission of operating orders to any of the spinning machines (1). The fixed terminal (23) of each spinning machine: transmits information from the corresponding spinning machine (1) to the mobile terminal (4); receives the operating orders from the mobile terminal (4), and transfers them to the general control (2) of the spinning machine.
**Abstract:**

A massager controlling apparatus (100, 200) and a method thereof are provided. The massager controlling apparatus (100, 200) according to an embodiment of the present disclosure includes a setting part (110, 210) configured to set a massage mode and a control part (120, 220) configured to control a moving speed of a driving module (13) performing massage to adjust at least one of an operation time of a corresponding massage pattern and massage strength according to the massage mode set by the setting part and a body shape of a user. (To be published along with figure 3)

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**Diagram:**

![Diagram of Massager Controlling Apparatus](image)
The invention relates to a process for producing expandable polylactic acid-containing pellets comprising the steps of: a) melting and mixing in the following components: i) 65% to 95% by weight based on the total weight of components i to iii of polylactic acid where the polylactic acid is composed of proportions of: ia) 65% to 95% by weight of polylactic acid having a D-lactic acid content of 0.3% to 5% by weight and ib) 5% to 3% by weight of polylactic acid having a D-lactic acid content of 10% to 18% by weight; ii) 15% to 35% by weight based on the total weight of components i to iii of an aliphatic polyester selected from the group consisting of polybutylene succinate polybutylene succinate-co-adipate and polybutylene succinate-co-sebacate; iii) 0% to 2% by weight based on the total weight of components i to iii of a compatibilizer; iv) 0.1% to 5% by weight based on the total weight of components i to iii of an additive b) mixing v) 1% to 7% by weight based on the total weight of components i to iv of an organic blowing agent and vi) 0.01% to 5% by weight of a co-blowing agent - selected from the group of nitrogen carbon dioxide argon helium and mixtures thereof - into the polymer melt by means of a static or dynamic mixer at a temperature of at least 140°C c) discharging through a die plate having bores having a diameter at the die exit of not more than 1.5 mm and d) pelletizing the blowing agent-containing melt directly beyond the die plate underwater at a pressure in the range from 1 to 21 bar.
The present invention relates to topical pharmaceutical compositions comprising Apremilast in an amount of about 0.1 to 5 % w/w of the total composition and one or more pharmaceutically acceptable excipients and process for their preparation. The present invention further relates to method for treatment of skin diseases using topical pharmaceutical compositions comprising Apremilast.

![Figure 1](image-url)
A telescoping extendable boom and a foldable telescoping extendable boom for transporting an item are disclosed. The foldable telescoping extendable boom having tubular elements (12) and (14) and (15 17 18 19) and (20) each arranged with a longitudinally extending track (25 29) inside the tubular element. Each longitudinally extending track (25 29) supports a single shuttle (26) and (30) respectively internally inside its tubular element (17) and (15) respectively for movement therealong. Each shuttle (26) and (30) is equipped with a clamp (27) and (30) to selectively clamp the item (298). The longitudinally extending tracks (25 29) of immediately connecting telescoping tubular elements (17) and (15) are located opposite each other. The inner tubular elements inside said telescoping extendable boom are arranged at their near ends to allow their shuttles to access shuttles of outer tubular elements to enable the clamps (27) and (31) thereof to transfer a said item (298) therebetween.
The present application discloses an optical imaging system sequentially comprising from an object side to an image side: a first lens having a negative focal power; a second lens having a focal power; a third lens having a negative focal power; a fourth lens having a focal power; a fifth lens having a focal power; a sixth lens having a focal power; and a seventh lens having a focal power. Any two adjacent lenses from the first lens to the seventh lens have an air gap therebetween on an optical axis. The effective focal length $f$ of the optical imaging system and an entrance pupil diameter (EPD) of an optical imaging lens satisfy $f / \text{EPD} = 2.10$ and the effective focal length $f$ of the optical imaging system and the effective focal length $f_1$ of the first lens satisfy $f_1 / f > -3$. The optical imaging system of the present application is applicable to portable electronic products and has a large aperture excellent imaging quality and a wide angle feature.
Title of the invention: METHOD AND DEVICE FOR TRANSMITTING OR RECEIVING UPLINK SIGNAL IN WIRELESS COMMUNICATION SYSTEM

Abstract:
Disclosed is a method for transmitting or receiving an uplink signal by a user equipment (UE) and a base station in a wireless communication system. Specifically, a user equipment receives a random access response message including a first timing advance (TA) command, determines a first TA value for transmission of a first uplink signal on the basis of the first TA command and a subcarrier spacing of an uplink channel transmitted first after reception of the random access response message, and transmits the first uplink signal according to the first TA value.

No. of Pages: 36
No. of Claims: 10
A received signal strength indicator (RSSI) measurement time resource is provided to a user equipment. RSSI measurement symbol information indicating OFDM symbols from which an RSSI is measured by a user equipment in a time resource unit for RSSI measurement (hereinafter an RSSI measurement time resource unit) is provided to the user equipment. The user equipment measures an RSSI from the OFDM symbols indicated by the RSSI measurement symbol information in RSSI measurement time resource unit(s).
The instant invention is generally directed to a patient-friendly drug delivery system for targeted populations such as pediatric and geriatric patients. Specifically, the present invention relates to a pharmaceutical composition in the form of mini-tablets. Even more specifically, the present invention relates to a pharmaceutical composition comprising a therapeutically-effective amount of melatonin in the form of mini-tablets.
Disclosed is a composition for preventing or treating psoriasis containing a monoacetyl diacylglycerol compound which not only can effectively prevent and treat psoriasis but also is safe without any side effects when used. The composition contains a monoacetyl diacylglycerol compound represented by chemical formula 1 in the specification as an active ingredient. Figure 1.
Title of the invention: HEAD PROTECTION HOOD WITH INTEGRATED FRAME

The present invention concerns a head protection hood (1) having:
- an outer surface (2) intended to be in contact with a surrounding environment
- an inner surface (3) intended to be in contact with the head of a user
- a head passage section (4)
- a face opening (5) delimited by an edge at the eyes of the user and
- a breathing area (8) said hood comprising a frame (C) that is connected along the edge of said face opening (5) that receives a visor (6) and that has a first lip (L1) resting against the head of the user at an area situated between the root and the tip of the nose at the front region at the temples and at the infra-orbital regions of the face of the user thus forming a visual compartment (7) separated from said breathing area (8) said hood being characterised in that said frame (C) further comprises a second peripheral lip (L2) situated between said first lip (L1) and said visor (6) said second peripheral lip (L2) extending towards said surrounding environment from said frame (C). Fig. 3A
The present invention provides a method for the detection of Apolipoprotein E isotype 4 (ApoE4) or fragments thereof in a blood sample of a subject whereby said method comprises the steps of contacting said sample with a solid phase contacting said sample with at least one binder binding specifically to ApoE4 or a fragment thereof thereby forming an ApoE4-binder-complex and detecting the ApoE4-binder-complex.
A linear electrical machine (LEM) comprising a stator mounted in a housing the housing and stator defining a working cylinder a central core within the working cylinder and defining a cylindrical stator bore cavity therebetween a hollow translator axially movable within the working cylinder extending into the stator bore cavity and forming an exterior magnetic circuit airgap between the translator and the stator at least one fluid bearing between the central core and the translator providing a bearing gap wherein the central core is axially fixed in relation to the stator wherein the at least one fluid bearing provides coaxial location of the translator and central core.
Disclosed is an information acquisition method. Also disclosed are a communication apparatus and system. According to the solution provided in the present invention a user equipment receives quantity information transmitted by a transmitting and receiving point (TRP) about control information to be transmitted to the user equipment wherein the quantity of the control information to be transmitted to the user equipment is N with N being an integer greater than or equal to 1; the user equipment determines according to the quantity information that the quantity of control information needing to be detected is N; and the user equipment detects the N pieces of control information. According to the technical solution provided in the present application the processing complexity of a TRP and a user equipment during a control information acquisition process can be reduced.
The present application provides a segment retransmission method and device the method comprising: if a receiver RLC functional entity does not receive within a preset period of time all segments of a data packet identified by a particular serial number sending a retransmission request comprising a first serial number to a sender to request the sender to retransmit an unreceived segment of the data packet identified by the serial number thereby triggering the retransmission of the segment by the receiver RLC functional entity and reducing the average transmission delay of data packets.
**Title of the invention:** NETWORK CONFIGURATION INFORMATION GENERATION METHOD AND COMMUNICATION DEVICE

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<td>(31) Priority Document No</td>
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(57) **Abstract:**
This network configuration information generation method is for generating information representing a network configuration for a network system including a plurality of communication devices (11) to (18) and a plurality of networks (21) to (24) the method comprising: a step (S12) in which at least one of the plurality of communication devices (11) to (18) generates and stores network configuration information which includes as a pair the name of a network the communication device belongs to and the name of a network adjacent to the network the communication device belongs to; and steps (S13), (S15), (S17) in which each of the communication devices (11) to (18) upon reception of the network configuration information stored in another communication device from the other communication device stores the received network configuration information.
A compliance monitoring system is provided for an injection device having an unused state and a used state. The system includes one or more radio frequency tags attached to a surface of the injection device and a portable monitoring accessory that includes a housing a radio frequency antenna disposed within the housing a wireless transmitter module disposed within the housing and a processing circuit disposed within the housing. The processing circuit is configured to receive via the radio frequency antenna a first signal from the one or more radio frequency tags via a radio frequency communication protocol. The processing circuit is also configured to transmit via the wireless transmitter a second signal to a mobile device via a wireless communication protocol different from the radio frequency communication protocol. Both of the first signal and the second signal include state information of the injection device.
Abstract:
The present invention relates to the compounds of formula (I) and the N-oxides stereoisomers tautomers and agriculturally or veterinarily acceptable salts thereof wherein the variables are defined according to the description. The compounds of formula (I) as well as the N-oxides stereoisomers tautomers and agriculturally or veterinarily acceptable salts thereof are useful for combating or controlling invertebrate pests in particular arthropod pests and nematodes. The invention also relates to a method for controlling invertebrate pests by using these compounds and to plant propagation material and to an agricultural and a veterinary composition comprising said compounds.

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\text{Ar} \\
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\text{G} \\
R^1
\end{array}\]
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Formula (I)
The present invention relates to a method for producing water-soluble films wherein the water-soluble film comprises at least one layer S1) containing or consisting of a polymer composition P1) obtainable by free-radical polymerization of a monomer composition M1) which contains at least one monomer A) selected from a ethylenically unsaturated mono-and dicarboxylic acids salts of a ethylenically unsaturated mono-and dicarboxylic acids anhydrides a ethylenically unsaturated mono-and dicarboxylic acids and mixtures thereof in the presence of at least one polyether component PE) which is selected from polyetherols having a number average molecular weight of at least 200 g/mol mono-and di-(C1-C6-alkyl) ethers of such polyetherols polyether groups-containing surfactants and mixtures thereof wherein the film can have further layers and wherein the layers are cast on a support material.
The present invention relates to a washing and cleaning multi-layer film comprising at least one layer containing a polymer composition or consisting of a polymer composition obtainable by radical polymerization of a monomer composition which contains at least one α-ethylenically unsaturated carboxylic acid or a salt or an anhydride thereof wherein the radical polymerization takes place in the presence of at least one polyether component. The invention further relates to a method for producing such a multi-layered film to the use of such a multi-layered film and to a covering or coating for a washing or cleaning composition portion which comprises such a multi-layered film or consists thereof.

No. of Pages : 115 No. of Claims : 20
The present invention relates to a multi-layered film comprising at least one layer having a polymer composition or consisting of a polymer composition obtainable by radical polymerization of a monomer composition which contains at least one monomer A) which is selected using a ethylenically unsaturated mono and dicarboxylic acids salts of an a ethylenically unsaturated mono and dicarboxylic acid anhydrides of a ethylenically unsaturated mono and dicarboxylic acids and mixtures thereof wherein the radical polymerization takes place in the presence of at least one polyether component. The invention further relates to a method for producing such a multi-layered film different uses of said type of multi-layered film and specifically to a covering or coating for a washing cleaning or dishwasher agent portion which comprises such a multi-layered film or consists thereof. The invention also relates to washing cleaning or dishwasher agents which have such a multi-layered film.
Co-existence mechanisms for shared spectrum and unlicensed spectrum are disclosed. Several base stations from one or more network operators share a communication spectrum in a base non-contention procedure state. When a given base station determines that communications with its served user equipments (UEs) suffers a diminished quality the base station transmits a diminished quality indicator in response. Subsequent communications with the served UEs over the shared spectrum would then occur using a contention-based procedure state triggered by the diminished quality indicator. The triggering of the contention-based procedure may be made by the base station on either sending the diminished quality indicator or receiving a similar indicator from a neighbor base station or by an indication from a central controller making a determination to initiate contention-based procedures based on flags received from the neighboring base stations.
Title of the invention: MONITORING PLANTS

Abstract:
A system for monitoring plants comprises an input unit an output unit and a processor that provides (201) image data (107) for a plurality of plants each image data being associated with an individual plant. It associates (204) the image data (107) of each plant with corresponding plant characteristic data (109). It selects (206) a subset of the plants based on the plant characteristic data (109). It generates (207) a plurality of computer graphics objects corresponding to the selected plants. It applies (208) the image data (107) of each selected plant in form of a computer graphics texture to the corresponding computer graphics object. It determines (209) a position of each computer graphics object in a three-dimensional space of a computer graphics scene. It creates (210) a computer graphics rendering of the scene. It displays (211) the computer graphics rendering.
(54) Title of the invention: STATEMENT PARSING METHOD FOR DATABASE STATEMENT

(51) International classification: G06F17/30
(31) Priority Document No: 201710029732.7
(32) Priority Date: 16/01/2017
(33) Name of priority country: China
(86) International Application No: PCT/CN2018/071916
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(57) Abstract:
A statement parsing method for a database statement comprising the following steps: conducting lexical analysis on a database statement inputted into a database so as to obtain an input word sequence; searching a statement similarity table according to the inputted word sequence so as to determine whether there is an existing word sequence similar to the inputted word sequence in the statement similarity table; if yes obtaining the similar analysis data corresponding to the existing word sequence from the statement similarity table; otherwise analyzing the inputted word sequence to obtain analysis data corresponding to the inputted word sequence and storing the inputted word sequence and the corresponding analysis data in the statement similarity table; and executing the database statement input to the database on the basis of the analysis data corresponding to the similar existing word sequence or corresponding to the inputted word sequence. The method can quickly analyze a database statement and is favorable for improving the response speed and the working efficiency of a database.

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No. of Pages: 11  No. of Claims: 8
Title of the invention: ELECTRONIC DEVICE INVOLVING DISPLAY

Abstract:
An electronic device is provided. The electronic device includes a housing a display that includes a first display part a second display part and a third display part and a display driver integrated circuit (IC) (DDI). The first display part includes a first active area the second display part includes a second active area and the third display part includes at least one optically transparent layer.

No. of Pages: 33 No. of Claims: 15
Sorbent material sheets provide for enhanced performance in vapor adsorbing applications over conventional canisters and other emissions control equipment. The sorbent material sheets can be formed as part of a small lightweight canister or can be integrated into a fuel tank. The sorbent material sheets can also be used as part of an onboard refueling vapor recovery system to control volatile organic compound emissions from fuel tanks of gasoline vehicles such as automobiles.
Title of the invention: VIDEO DECODING METHOD AND APPARATUS AND VIDEO ENCODING METHOD AND APPARATUS

Abstract:
Disclosed is a video decoding method comprising: determining a displacement vector per unit time in a horizontal direction or a vertical direction of pixels of a current block including pixels adjacent to the inside of the boundary of the current block by using values for reference pixels included in a first reference block and a second reference block without using stored values related to pixels located on the outside of the boundary of the first reference block and the second reference block; and acquiring a prediction block of the current block by performing block unit motion compensation and pixel group unit motion compensation of the current block on the basis of a gradient value in a horizontal direction or a vertical direction of a first corresponding reference pixel in the first reference block corresponding to a current pixel included in a current pixel group in the current block a gradient value in a horizontal direction or a vertical direction of a second corresponding reference pixel in the second reference block corresponding to the current pixel a pixel value of the first corresponding reference pixel a pixel value of the second corresponding reference pixel and a displacement vector per unit time in a horizontal direction or a vertical direction of the current pixel wherein the pixel group can comprise at least one pixel.
A method a device and a system for activating a running/setting tool are provided. The method includes: 1) detecting a wellbore condition at the running tool 2) based on a signal from surface equipment received at the running tool initiating an isolation of pressure below the running tool from pressure above the running tool and 3) if the signal is not received at the running tool initiating the isolation of pressure below the running tool from the above at a predefined time based on the wellbore condition.
Title of the invention: PORT AND SNORKEL FOR SENSOR ARRAY

Abstract:
An array of sensors provided on the outside of a tubular string for measuring a property within the tubular string. The array of sensors may include a plurality of connected sensors wherein at least one of the plurality of connected sensors is at least partially encompassed in a shroud. A snorkel line may extend from the shroud the snorkel line capable of coupling with a sensor port in a tubular of the tubular string. The snorkel line may establish fluid communication between one of the sensors at least partially encompassed in the shroud and a corresponding sensor port of a tubular in the tubular string.
The present invention concerns a therapeutic splint (1) for treating one or more joint areas of a patient. The splint (1) comprises longitudinal housings (2) extending along a longitudinal axis (L) and arranged parallel to this longitudinal axis (L); one or more modular cartridges (3) having a therapeutic effect suitable for being arranged in said housings (2) according to said joint area or areas to be treated. Characterised in that the splint (1) further comprises at least one transverse and/or oblique housing (4) extending along one or more axes (O) respectively that are transverse and/or oblique relative to said longitudinal axis (L) of the splint (1). The transverse and/or oblique housing (4) is arranged in such a way as to cover an area that extends around a joint to be treated and the modular cartridge or cartridges (3) are arranged in said transverse and/or oblique housings (4) according to said joint area or areas to be treated.

Figure 1b
### Title of the invention: A SCISSOR JACK

**Abstract:**
The invention provides a scissor jack which includes a threaded ball screw drive shaft with a working end secured to an output connector (27) of a planetary gearbox (5) at the first elbow and extending through a corresponding ball screw nut assembly at a second elbow. An operating shaft (46) is slidably engaged with and locked for rotation of an input connector (43) of the planetary gearbox (5). A lock mechanism is provided to include a first mating component supported on and for rotation with the operating shaft (46) and a second mating component fixed in relation to a housing (38) of the planetary gearbox (5). The first and second mating components are provided with cooperating formations (pins 34 apertures 35) that are movable into overlapping engagement to lock the operating shaft (46) in relation to the planetary gearbox housing (38) to hold the jack in an extended condition.

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**Diagram:**
![Diagram of a scissor jack](image)

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**No. of Pages:** 10  **No. of Claims:** 8
What is proposed is a strand profile (10). The strand profile (10) extends in a direction of longitudinal extent (22) wherein the strand profile (10) has a first laminar structure (24) arranged around the direction of longitudinal extent (22) and a second laminar structure (32) surrounding the first laminar structure (24) wherein the first laminar structure (24) comprises a first plurality of layers (26) wherein each layer (26) of the first laminar structure (24) has multiple fibers (28) wherein the second laminar structure (32) comprises a second plurality of layers (34) wherein each layer (34) of the second laminar structure (32) has multiple fibers (36) wherein the fibers (28) of the first plurality of layers (26) and the fibers (36) of the second plurality of layers (34) respectively extend in directions of longitudinal extent (30 38) wherein the directions of longitudinal extent (30) of the fibers (28) of the first plurality of layers (26) and of the fibers (36) of the second plurality of layers (34) are respectively oriented at an angle with a value in a range from 30° to 60° and preferably in a range from 40° to 50° and if they are loaded in longitudinal compression in their directions of longitudinal extent (30) wherein the fibers (36) of the second plurality of layers (34) are respectively oriented at an angle with a value in a range from 0° to 10° preferably 2° to 10° and more preferably 2° to 6° wherein the directions of longitudinal extent (38) of the fibers (36) of adjacent layers (34) of the second plurality of layers (34) differ from one another by an angle with a value in a range from 0° to 10° preferably 2° to 10° and more preferably 2° to 6°. Also proposed is a method for producing a strand profile (10).
The present invention is able to provide a grain-oriented electromagnetic steel sheet in which the surface of the steel sheet has magnetic domains that are subdivided via multiple linear grooves wherein reduction of magnetic flux density is limited and core loss is further improved by providing the bottom surface of the linear grooves with multiple recesses in a line with a specified gap p therebetween in the direction that the groove extends with said recesses having a specified depth d.

No. of Pages : 20 No. of Claims : 5
A remote piloted aircraft (1) comprising a secondary flight assembly (4) adapted to intervene in case of failure of the aircraft (1) or in an emergency said secondary flight assembly (4) being provided with an additional control unit (5) configured to process flight relevant data and including an additional receiver (27) configured to receive commands from the remote pilot by means of a further remote control unit (70) wherein said additional control unit (5) is configured in case of failure or emergency to generate as a response an activation command (S1) adapted to activate a first device (8) to expel an upper wing (9) placed in a first compartment (12) of the aircraft (1) and to inflate a lower wing (17) housed in a second compartment (25) of the aircraft (2) and also to generate an interdiction command (S2) of the primary propulsion unit (23) said upper wing (9) being maneuverable by means of said further remote control unit (70).
ABSTRACT HIGHLY ACTIVE S-CYANOHYDRIN LYASE AND APPLICATION THEREOF

The invention provides a highly active S-cyanohydrin lyase obtained by mutating an amino acid residue at position 103 of a wild-type cassava S-cyanohydrin lyase. The mutation can significantly increase an expression of a mutant enzyme in E. coli and does not require a decrease in temperature when induced. Further mutations at position 128 and other sites were performed to obtain mutants with increased catalytic activity.

No. of Pages : 31  No. of Claims : 10
Title of the invention: PREFERRED PAIRING OF ANTIBODY DOMAINS

Abstract:
An antigen-binding molecule (ABM) comprising a cognate LC/HC dimer of an antibody light chain (LC) composed of a VL and a CL antibody domain associated to an antibody heavy chain (HC) comprising at least a VH and a CH1 antibody domain which association is through pairing the VL and VH domains and the CL and CH domains wherein the amino acids at the position 18 in the CL domain and at the position 26 in the CH1 domain are of opposite polarity wherein numbering is according to the IMGT.

No. of Pages: 63 No. of Claims: 15
Title of the invention: DECOUPLING ANTENNA AND DECOUPLING METHOD THEREFOR

Abstract:
A decoupling antenna and decoupling method therefor the decoupling antenna comprising an antenna port a decoupling network a feed network a phase shift network and two or more groups of antenna arrays. The phase shift network is connected to the two or more groups of antenna arrays respectively; an input end of the feed network is connected to the decoupling network and an output end of the feed network is connected to the phase shift network; the decoupling network is configured between the antenna port and the feed network; the decoupling network is used for eliminating mutually-coupled signals generated between the two or more groups of antenna arrays.

No. of Pages: 17 No. of Claims: 10
Title of the invention: PHYSICAL PROPERTY IMPROVEMENT OF POLYURETHANES

Abstract:
100% solids polyurethanes having improved physical properties in terms of Shore hardness tear strength elongation at break and/or tensile strength are realized through the introduction of 100% solids hydroxyl-functional acrylics in combination with the hydroxyl-functional polyether and 100% solids isocyanate-functional compounds. When an aromatic isocyanate is used the isocyanate-reactive component includes from 5 to 70% by weight of a hydroxyl-functional polyether having a weight average molecular weight ranging from 180 to 6500 g/mol and 30 to 95% by weight of a hydroxyl-functional acrylic. When an aliphatic isocyanate is used the isocyanate-reactive component includes from 40 to 70% by weight of a hydroxyl-functional polyether having a weight average molecular weight ranging from 180 to 6500 g/mol and 30 to 60% by weight of a hydroxyl-functional acrylic.

No. of Pages: 20  No. of Claims: 20
Title of the invention : HAIR TREATMENT DEVICE

Abstract :
A device for treating at least one lock of hair comprising: - at least one device (20) for applying mechanical stress to the hair having a reception surface intended to receive the lock of hair this surface being greater in width L in a direction perpendicular to said lock - a microwave-proof chamber which is configured so as to receive the mechanical-stress-application device (20) and at least one part of the hair to be treated - a microwave emission antenna (30) placed inside the chamber this antenna extending axially over a distance D at least equal to L/2.
Disclosed are a resource allocation method relevant device and system. The method may comprise: upon uplink resource allocation a group of resources allocated to a terminal comprises M first resource blocks with the proportion of a frequency domain span formed by the M first resource blocks in a system bandwidth being greater than a pre-set threshold; the group of resources also comprise N second resource blocks located at any frequency domain position where M=2 N=1 and M and N are both positive integers; and resource indication information is sent to the terminal the resource indication information comprising information about the group of resources. By means of the embodiments of the present application for the usage of an unlicensed frequency band the flexibility of uplink resource scheduling can be improved on the basis of satisfying an OCB requirement of the ESTI.
The Patent Office Journal No. 01/2020 Dated 03/01/2020

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(54) Title of the invention : METHOD AND APPARATUS FOR TRANSMITTING/RECEIVING WIRELESS SIGNAL IN WIRELESS COMMUNICATION SYSTEM

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(57) Abstract :

The present invention relates to a wireless communication system and more particularly to a method and an apparatus therefor comprising the steps of: identifying a minimum storing area per data in a HARQ buffer on the basis of a TTI length; storing data for transmission of a wireless signal in the HARQ buffer on the basis of the minimum storing area per data; and transmitting the data in the HARQ buffer during a first TTI wherein when the data is retransmitted data the minimum storing area per data is based on the length of a second TTI used for initial transmission of the data and the length of the second TTI is different from the length of the first TTI.

No. of Pages : 55 No. of Claims : 14
Title of the invention: SIGNAL TRANSMISSION/RECEPTION METHOD BETWEEN TERMINAL AND BASE STATION IN WIRELESS COMMUNICATION SYSTEM SUPPORTING NARROWBAND INTERNET OF THINGS AND DEVICE SUPPORTING SAME

Abstract:

Disclosed are a signal transmission/reception method between a terminal and a base station in a wireless communication system supporting narrowband Internet of Things (NB-IoT) and a device supporting same. More specifically disclosed is a description of a signal transmission/reception method between a terminal and a base station when a wireless communication system supporting NB-IoT is a time division duplex (TDD) system.

<table>
<thead>
<tr>
<th>AA</th>
<th>CC</th>
<th>N-Th time interval</th>
<th>N+1th time interval</th>
<th>Anchor carrier</th>
<th>Non-anchor carrier</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NSG</td>
<td>NPSS</td>
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</tbody>
</table>

No. of Pages : 43 No. of Claims : 12
The present invention relates to a composition comprising a sea cucumber and ginseng/red ginseng composite extract as an effective ingredient for preventing or treating a Bruch's membrane hypofunction-related disease and more particularly to a composition for preventing treating or alleviating a Bruch's membrane hypofunction-related disease. The composition comprising a sea cucumber and ginseng/red ginseng composite extract has the effect of regenerating the Bruch's membrane of the eye and improving the transport function of the Bruch's membrane. A composite composition according to the present invention improves the transport function of the Bruch's membrane and eliminates lipids accumulated on the membrane to promote the regeneration of the Bruch's membrane thereby showing the effect of delaying or reversing the senescence process of the eye. Further the composition is highly preventive or therapeutic of various diseases attributed to a decrease in the function of the Bruch's membrane with age including age-related macular degeneration (AMD) and can solve the problem associated with the eye health maintenance of ordinary persons and with the transport reduction resulting from senescence of vitamins metals and anti-oxidative materials.
The invention relates to a new method for preparing a complex of forskolin and cyclodextrin and inclusion complexes of forskolin and -cyclodextrins having a weight ratio of 1:0.2 to 1:4 (w/w). Pharmaceutical compositions comprising said complex and their use are also provided.
(54) Title of the invention: METHOD FOR MANUFACTURING GRAIN-ORIENTED ELECTRICAL STEEL SHEET

(57) Abstract:
Through the present invention excellent magnetic characteristics can be stably obtained for a grain-oriented electrical steel sheet manufactured from a thin slab without using an inhibitor-forming component. A method for manufacturing a grain-oriented electrical steel sheet comprising heating and then hot-rolling a slab to obtain a hot-rolled steel sheet cold-rolling the hot-rolled steel sheet with or without annealing of the hot-rolled sheet to obtain a cold-rolled steel sheet having the final sheet thickness performing a primary recrystallization annealing of the cold-rolled steel sheet and performing a secondary recrystallization annealing of the cold-rolled steel sheet after the primary recrystallization annealing wherein the step for heating the slab is performed at a heating temperature of 1000°C to 1300°C and for a heating time of 60 seconds to 600 seconds when the hot-rolled-sheet annealing is performed the time to reach a temperature of 900°C from a temperature of 400°C over the course of increasing the temperature in the hot-rolled-sheet annealing is 100 seconds or less and the soaking temperature is 950°C or higher and when hot-rolled-sheet annealing is not performed the cold rolling is performed twice or more with an intermediate annealing therebetween the time to reach a temperature of 900°C from a temperature of 400°C over the course of increasing the temperature in the first intermediate annealing is 100 seconds or less and the soaking temperature is 950°C or higher.

No. of Pages: 29  No. of Claims: 5
A method of new radio physical broadcast channel (NR-PBCH) bit mapping is proposed to improve for NR-PBCH decoding performance under Polar codes. NR-PBCH carries 32 information bits and 24 CRC bits. Specifically NR-PBCH uses 512-bit Polar codes to carry total 56 data bits. Different Polar code bit channels have different channel reliability. As a general rule the most reliable Polar code bit channels are used for the 56 data bits. In accordance with a novel aspect within the 32 NR-PBCH information bits some of the information bits that can be known to the decoders under certain conditions and therefore are placed at the least reliable Polar code bit positions. As a result by mapping the NR-PBCH data bits properly at the input bit positions of Polar codes the NR-PBCH decoding performance is improved when the known bits a priori can be exploited.

![Diagram](image_url)
A molecular ink contains a silver carboxylate, an organic amine compound, an organic polymer binder, a surface tension modifier, and a solvent. The ink may be used to produce conductive silver traces on a substrate for use in fabricating electronic devices. The ink is particularly useful for producing conductive silver traces on a shapeable (e.g. stretchable) substrate in a low temperature sintering process. Also a process for producing a conductive silver trace on a shaped substrate involves depositing the molecular ink on a shapeable substrate, drying the ink on the shapeable substrate to form a non-conductive trace containing the silver carboxylate on the shapeable substrate, forming the shapeable substrate into a shape to produce a shaped substrate so that at least a portion of the non-conductive trace is situated on a shaped portion of the shaped substrate and sintering the shaped substrate to decompose the silver carboxylate to metallic silver thereby producing a conductive silver trace on at least the shaped portion of the shaped substrate. The process reduces potential for cracking of conductive silver traces on shaped substrates.
A process for finishing a conductive metallic layer (e.g. a layer of copper metal) involves coating a molecular silver ink on the conductive metallic layer and decomposing the silver ink to form a solderable coating of silver metal on the conductive metallic layer. The molecular silver ink includes a silver carboxylate a carrier and a polymeric binder. The process is additive and enables the cost-effective formation of a silver metal finish on conductive metallic layers which both protects the conductive metallic layer from oxidation and further corrosion and allows soldering with lead and lead-free solders.
A cutting unit in a packaging machine for separating a series of finished packages (16) of a predetermined number of products (11) from a continuous packaging or bundle advancing on a conveyor (14) comprising a frame (20) which supports a pair of side cutting blades (21) and a pair of upper cutting (22s) and lower cutting (22i) blades arranged facing four sides of the continuous bundle wherein the two pairs of blades (21; 22s; 22i) can be alternately moved forwards and backwards between a rest position separated from the continuous bundle and an engagement position on the continuous bundle containing groups of products (11) arranged on two flanked rows and wrapped in a film of extendable plastic material (15) each pair of blades (21; 22s; 22i) being driven in an alternating forward and backward movement for engagement and disengagement from the continuous bundle by means of a double crank (23; 27) actuated by a single motor (24; 28).
A molecular ink contains: a silver carboxylate; and a polymeric binder comprising a polyester polyimide polyether imide or any mixture thereof having functional groups that render the polymeric binder compatible with the organic amine. Such an ink may have higher silver loading lower viscosity and lower processing temperatures than existing silver inks.
A plant for manufacturing ceramic articles (T) comprising two feeding devices (10 11) each of which is designed to contain a powder material (CA CB) of a respective type and to feed said powder material to a conveyor assembly (5); the plant (1) further comprises an operating device (18) which is designed to enable the output of the powder material (CA CB) selectively in the area (16 17) of the feeding devices (10 11) arranged successively and transversely to the feeding direction (A) and a control unit (20) which controls the operating device (18) depending on a desired reference distribution (21) and how far the conveyor assembly (5) feeds the powder material (CP).
The purpose of the present invention is to provide a catalyst for a nuclear hydrogenation reaction having superior catalytic activity that can give a conversion rate for reaction products superior to conventional ruthenium catalysts in a nuclear hydrogenation reaction for an aromatic compound. Provided is a catalyst for a nuclear hydrogenation reaction used in a nuclear hydrogenation reaction for hydrogenation of at least one p bond of an aromatic ring in an aromatic compound wherein the catalyst includes a carrier and catalyst particles supported on that carrier. The catalyst particles include Ru (0 valence) and Ru oxide as constituent components. In analyzed areas in the vicinity of the surface measured by x-ray photoelectron spectroscopy (XPS) the proportion RRu (atom%) of Ru (0 valence) and the proportion RRuOx (atom%) of Ru oxide satisfy the conditions in Equation (1). 0.50 = (RRu/RRuOx) = 4.00 ... Equation (1)

No. of Pages : 12 No. of Claims : 3
Title of the invention : MOLECULAR INK WITH IMPROVED THERMAL STABILITY

Abstract:
A molecular ink contains a silver carboxylate (e.g. silver neodecanoate) a solvent (e.g. terpineol) and a polymeric binder comprising a polyester polyimide polyether imide or any mixture thereof having functional groups that render the polymeric binder compatible with the solvent. Such an ink may have good thermal stability with higher silver carboxylate content.
Title of the invention: METHOD FOR CALIBRATING A ROTATABLE AND PIVOTABLE PIECE OF TECHNICAL STAGE EQUIPMENT

Abstract:
Method for calibrating a spotlight (1) to absolute angular coordinates which spotlight (1) can be rotated about a pan axis (7) by inputting pan values and can be pivoted about a tilting axis (8) by inputting tilting values wherein the spotlight generates an illuminated preferably ellipsoidal region (5) on an underlying surface (3) by means of a directional light cone (4) wherein a light sensor (2) is positioned on the underlying surface (3) the illuminated region (5) is moved over the underlying surface (3) by rotating and pivoting the spotlight (1) the light sensor (2) detects the edges of the illuminated region (5) and a mapping rule of the pan values and/or of the tilting values of the headlight (1) onto the angular coordinates of the spotlight (1) is determined by rotating and/or pivoting the spotlight (1) and detecting the illuminated region (5) again. Fig. 1

Fig. 1
Disclosed are a method and an apparatus for processing a voice-recognition service in an electronic apparatus according to a variety of embodiments of the present invention. The electronic apparatus according to the variety of embodiments of the present invention comprises a microphone memory and a processor functionally connected to the microphone and memory wherein the processor can be configured so as to: wake-up on the basis of sensing a wake-up word; process a first task corresponding to a first voice command of a user on the basis of processing of the first task; configure a wait period during which a follow-up command can be received on the basis of processing of the first task; sense a second voice command of the user during the wait period; analyze the conversational context on the basis of the first voice command and second voice command; and process a second task on the basis of the results of the analysis. A variety of embodiments are possible. FIG.7
The invention relates to measurement technology and is intended for measuring the shape dimensions and flexibility of shoes. The proposed measurement method consists in using probes with indicators which create tension on the measured surface. A camera and a flat marking band are used for tracing the shape of the internal surface of a shoe. On the basis of the sum of the images a three-dimensional model of the internal surface of the tested shoe is made and the flexibility properties are determined by scanning the object with different forces. A device comprises a body a camera mounted therein two or more probes with indicators and a flat marking band. The invention makes it possible to increase accuracy and to reduce the labor intensiveness and time of measurements. Fig1
| (10) Abstract | The present invention relates to compositions in the form of oil-in-water dispersions comprising a silicone oil having an average droplet diameter of about 2000 microns or less and a polymeric thickening agent. These compositions are useful for stimulating collagen production in human patients and other mammals and have applications for soft tissue augmentation for various medical and cosmetic procedures. The present invention also relates to methods for preparing these compositions and to methods for stimulating collagen production in human patients and other mammals in need thereof. In contrast to the prior art the compositions and methods of the present invention are particularly useful for stimulating the production of high quality collagen that is uniform smooth long-lasting and having good structural integrity. |
| No. of Pages | 23 | No. of Claims | 30 |
The invention relates to a droplet separator for a vertical flow duct in particular a flue gas desulphurisation installation. The droplet separator comprises a droplet separator layer which is arranged horizontally or continuously and is inclined on one side and which has a plurality of plate droplet separator profiles which are arranged in parallel to one another. These profiles are provided with end walls and intermediate walls which are mounted on a supporting rod via retaining plates. Said supporting rod extends over the cross-section of the flow duct and is mounted on lateral support devices of the same. The droplet separator is characterized by a simple design and a low overall height. (Fig. 1)

No. of Pages : 20 No. of Claims : 17
The invention relates to a droplet separator for a vertical flow duct in particular a flue gas desulphurisation installation. The droplet separator comprises a droplet separator layer with a plurality of droplet separator profiles which are arranged in parallel to one another and are provided with end walls extending transversely thereto and comprises a support structure for the droplet separator layer. The droplet separator layer is connected to the support structure via plug connections. The support structure comprises a plurality of support elements which are connected by means of plug connections. In this way the droplet separator can be assembled and dismantled in a particularly simple and quick manner.
This differentiation control method for pluripotent stem cells is characterized by: selecting laminin or a fragment thereof using binding affinity to the pluripotent stem cells as an index the binding affinity being determinable by temporally observing the survival rate and mobility of the cells; and inducing the differentiation of the pluripotent stem cells in the presence of the laminin or a fragment thereof. The present invention allows easy production from pluripotent stem cells of a cell population in which the ratio of differentiation-induced cells is arbitrarily changed. A cell population obtained by the production method is highly useful for treatment of diseases by cellular therapy. FIG. 1
**Title of the invention:** PROCESS AND DEVICE FOR REDUCING ENVIRONMENTAL CONTAMINATES IN HEAVY MARINE FUEL OIL

**Abstract:**
A process and device for reducing the environmental contaminants in a ISO 8217 compliant Feedstock Heavy Marine Fuel Oil the process involving: mixing a quantity of the Feedstock Heavy Marine Fuel Oil with a quantity of Activating Gas mixture to give a feedstock mixture; contacting the feedstock mixture with one or more catalysts to form a Process Mixture from the feedstock mixture; separating the Product Heavy Marine Fuel Oil liquid components of the Process Mixture from the gaseous components and by-product hydrocarbon components of the Process Mixture and discharging the Product Heavy Marine Fuel Oil. The Product Heavy Marine Fuel Oil is compliant with ISO 8217 for residual marine fuel oils and has a sulfur level has a maximum sulfur content (ISO 14596 or ISO 8754) between the range of 0.05 % wt. to 0.5 % wt.. The Product Heavy Marine Fuel Oil can be used as or as a blending stock for an ISO 8217 compliant IMO MARPOL Annex VI (revised) compliant low sulfur or ultralow sulfur heavy marine fuel oil.
The invention provides buffers stable to oxidants including chlorine and hypochlorous acid which are usable in the pH range 3-7. The invention also provides stable buffered solutions comprising hypochlorous acid having a pH between 3 and 7 and disposable wiping articles impregnated with these solutions.
**Abstract:**

The present invention includes: a colored underlayer (14) that is directly or indirectly formed on the surface of an object (11) to be coated; and a lustrous-material-containing layer (15) that is superposed on the colored underlayer (14) and contains a flaked lustrous material (22) and a colored material (23). With the lustrous-material-containing layer (15) in a state that does not include the colored material the k value is set in accordance with Y(10°) and the colored material concentration of the lustrous-material-containing layer is set in accordance with the k value where Y(10°) in the XYZ color system is set to 50-850 inclusive Y(20°)=k—Y(10°) and 0.2=k=0.6. The surface reflectance R(%) of the colored underlayer is set in accordance with Y(10°) and the colored material concentration C of the lustrous-material-containing layer.

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**Document Information**

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- Date of Filing: 21/08/2019
- Publication Date: 03/01/2020

**Title of the Invention:** MULTILAYER COATING FILM AND COATED OBJECT

**Abstract:**

The present invention includes: a colored underlayer (14) that is directly or indirectly formed on the surface of an object (11) to be coated; and a lustrous-material-containing layer (15) that is superposed on the colored underlayer (14) and contains a flaked lustrous material (22) and a colored material (23). With the lustrous-material-containing layer (15) in a state that does not include the colored material the k value is set in accordance with Y(10°) and the colored material concentration of the lustrous-material-containing layer is set in accordance with the k value where Y(10°) in the XYZ color system is set to 50-850 inclusive Y(20°)=k—Y(10°) and 0.2=k=0.6. The surface reflectance R(%) of the colored underlayer is set in accordance with Y(10°) and the colored material concentration C of the lustrous-material-containing layer.
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(21) Application No.201927033782 A

(19) INDIA
(22) Date of filing of Application : 22/08/2019
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(54) Title of the invention : METHOD AND DEVICE FOR PROCESSING MULTI-CHANNEL FEATURE MAP IMAGES

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(33) Name of priority country : Republic of Korea
(32) Priority Date : 30/04/2018
(86) International Application No : WO 2018/221863
(61) Patent of Addition to Application Number : NA
(62) Divisional to Application Number : NA

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(57) Abstract :
A convolutional neural network-based image processing method is provided. The method includes: receiving in a second layer multi-channel feature map images generated by applying a convolution operation to an input image of a convolutional neural network having a plurality of layers with a plurality of filter kernels of a first layer; analyzing a dynamic range of the multi-channel feature map images; re-ordering the multi-channel feature map images based on the dynamic range; and processing the re-ordered multi-channel feature map images in the second layer.

No. of Pages : 27 No. of Claims : 15
Various embodiments describe communication systems for implementing high-speed transmission systems using waveguide-mode transmission over wires. In certain examples a communication system uses wire pairs as waveguides that transmit data at high frequencies and speeds. The data is transmitted through wave propagation that takes various forms such as surface waves and Total Internal Reflection (TIR) waves. [Fig. 9A]
Title of the invention: APPARATUS FOR CONVERTING THERMAL ENERGY

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**Abstract:**

In an apparatus for converting thermal energy from a heat source into mechanical energy by means of a thermodynamic cycle using a working medium which is guided in the cycle and in that context experiences a changing pressure wherein a saturated steam temperature value of the working medium is associated with the respective pressure and an expansion device for expanding the working medium from an elevated pressure to a lower pressure wherein after expansion to the lower pressure the working medium has a waste steam temperature there is provided an adjustment device for setting the waste steam temperature to a defined waste steam temperature value above the saturated steam temperature value associated with the lower pressure. (Fig. 1)

![Diagram](image)

No. of Pages : 37 No. of Claims : 10
Title of the invention: METHOD FOR JOINING BRAID USED FOR BRAID-REINFORCED HOLLOW FIBER MEMBRANE AND METHOD FOR PRODUCING BRAID-REINFORCED POROUS HOLLOW FIBER MEMBRANE

Abstract:
Provided is a joining method for a braid used in a braid-reinforced hollow fiber membrane in which braid ends are joined to each other by way of connecting two braids by inserting a core into the hollow portion of the ends of two braids to be joined then covering the joined portion with a heat-shrink tube and heating and shrinking the heat-shrink tube at 120 to 160°C wherein the braids can exhibit sufficient joint strength even when a load is applied during spinning or when the porous hollow fiber membrane is used as a treatment membrane such as for water purification treatment wastewater treatment or the like. Braid-reinforced porous hollow fiber membranes are manufactured by passing braids with the ends thereof joined by this method through the inside of an internal nozzle of a ring-shaped double spinning nozzle coating and impregnating the external surface of the joined braid that has passed through the inside of the internal nozzle of the ring-shaped double spinning nozzle with a membrane-forming solution discharged from the external nozzle of the ring-shaped double spinning nozzle coagulating in a coagulation liquid and winding onto a bobbin. [Fig. 1]
A self-balancing vehicle device having two or more wheels. A gravity gyroscope (4) is fixed at the seat portion of a compartment chassis (2) to provide an effective vertical stability; each wheel (13) can have an optimal contact with road surface so that the vehicle can cope with various variations caused by external forces in travelling such as centrifugal force crosswind travelling having goods carried by a passenger and rugged road surface; a compartment portion (2) may incline outwards due to the centrifugal force; if the vehicle is a vehicle having three or more wheels average loads of a pair of the left and right wheels (13) are approximately the same through reverse up-down swing of an effectively centrally-mounted shaft pin (13) so as to cope with variations of the road surface and other external forces without affecting the stability of the compartment (2). Further provided is an operating method for the self-balancing vehicle. According to the self-balancing vehicle and the operating method therefor a vehicle having a narrow body may be used; when the vehicle is affected by external forces such as centrifugal force and crosswind the compartment of the vehicle can maintain the vertical stability even if the wheels slip aside. FIG.1
(54) Title of the invention : GRAIN-ORIENTED ELECTRICAL STEEL SHEET AND PRODUCTION METHOD THEREFOR

(51) International classification :C21D8/12C22C38/00H01F1/147
(31) Priority Document No. :2017-037495
(32) Priority Date :28/02/2017
(33) Name of priority country :Japan
(36) International Application No. :PCT/JP2018/006040
   Filing Date :20/02/2018
(61) Patent of Addition to Application Number :NA
   Filing Date :NA
(62) Divisional to Application Number :NA
   Filing Date :NA

(57) Abstract :
According to the present invention it is possible to inhibit the deterioration of magnetostrictive characteristics and core loss for discontinuous regions that are inevitably generated when magnetic domain refinement is performed with multiple irradiation devices by: the steel sheet having flux closure domains that extend in orientations within 30° with respect to the direction perpendicular to the rolling direction of the steel sheet while partially having discontinuous regions; making the length a of a flux closure domain overlap section in said discontinuous region on one surface of the steel sheet in the direction perpendicular to the rolling direction be longer than the length of the overlap section on the other surface of the steel sheet in the direction perpendicular to the rolling direction; said length a satisfying 0.5=a=5.0; and said length satisfying 0.2a=0.8a. Figure 7 is the representative figure.

No. of Pages : 29 No. of Claims : 3
Through the present invention a high-strength cold-rolled steel sheet having mechanical characteristics of a tensile strength of 780 MPa or greater and absolute values of in-plane anisotropy of each of yield stress and tensile strength of 30 MPa or less is obtained by hot-rolling cold-rolling and continuously annealing a steel slug containing in terms of mass% 0.07-0.12% C 0.7% or less of Si 2.2-2.8% Mn and a total of 0.02-0.08% Ti and Nb to obtain a steel structure comprising a second phase composed of ferrite tempered martensite fresh martensite and bainite having an area ratio of 40-80% with respect to the entire structure the total area ratio of bainite and tempered martensite in the second phase being 50-80% and the aspect ratio of the fresh martensite being in the range of 1.0-1.5.
Abstract:
Provided in the embodiments of the present application is an information transmission method comprising: when in a trigger status for power headroom reporting (PHR) a terminal device receives a first instruction from a network equipment wherein the first instruction is used to indicate a first uplink transmission resource for the terminal device and the first uplink transmission resource is used for the terminal device to perform uplink transmission to the network equipment; the terminal equipment maintains the trigger status for the PHR within a first time duration and cancels the trigger status of the PHR when the first time duration expires wherein the first time duration is a second time duration that starts from the time when the first instruction is received and ends when the time domain of the first uplink transmission resource indicated by the first instruction ends. Thus the reliability of PHR may be improved thereby improving the reliability of communication.
Title of the invention: STRUCTURE OF INTERLEAVER WITH LDPC CODE

Abstract:
Concepts and schemes pertaining to structure of interleaver with low-density parity-check (LDPC) code are described. A processor of an apparatus encodes data to provide encoded data. A transceiver of the apparatus transmits the encoded data to at least one network node of a wireless network. In encoding the data to provide the encoded data the processor encodes the data to result in each code block in the encoded data comprising a respective bit-level interleaver.

FIG. 2

No. of Pages: 10  No. of Claims: 15
The invention relates to a fruit or vegetable optical analysis method and device. Various light sources (7a 7b) are adapted for selectively applying to each object light radiation in various wavelength ranges in a predetermined lighting sequence and images are produced by at least one infrared-sensitive colour camera (4) the exposure of which is controlled synchronously with said lighting sequence so as to produce a plurality of images in various wavelength ranges at least one of which images being in a visible range and at least one of which images being in an infrared range.
A color complementing method for a WOLED display device and the WOLED display device. The color complementing method comprises: determining at least two target output brightness; respectively using the at least two target output brightness for measured adjustment of a WOLED display device to acquire data to be used; the measurement adjustment comprising: making the output brightness of the WOLED display device equal to the target output brightness adjusting the output brightness of R G B and W subpixels so that output color coordinates of the WOLED display device reach preset color coordinates and recording the output brightness of the R G B and W subpixels at this moment as complementary color brightness for the R G B and W subpixels; the data to be used comprising: the at least two target output brightness and the corresponding complementary color brightness for the R G B and W subpixels; generating correlations between the output brightness of the WOLED display device and the complementary color brightness for the R G B and W subpixels on the basis of the data to be used; and complementing colors for the WOLED on the basis of the correlations. The color complementing accuracy of the WOLED display device is increased and display effects are improved.
(57) Abstract:
A wiring structure a display substrate and a display device. The wiring structure comprises a main body having hollow-out patterns (13). The main body has a first side (11) and a second side (12) provided opposite to each other along the extension direction of the wiring structure and the first side (11) and the second side (12) are both wavy. The main body comprises a plurality of conducting units (10) sequentially connected along the extension direction of the wiring structure. In each conducting unit (10) the length of protrusions located on the first side (11) along the extension direction of the wiring structure is different from that of the protrusions located on the second side (12) along the extension direction of the wiring structure.
The invention relates to methods and bacterial strains for making terpene and terpenoid products the bacterial strains having improved carbon pull through the MEP pathway and to a downstream recombinant synthesis pathway.
Provided is a wire rod whereby excellent machinability is demonstrated regardless of tool material type and lubricant type and even when a lubricant is not used. A wire rod for cutting having a specific component composition and having a Vickers hardness satisfying expressions (1) and (2) when the average aspect ratio of ferrite grains at a position 1/4 the diameter from the surface of the wire rod for cutting is more than 2.8 and satisfying expressions (3) and (4) when the average aspect ratio is 2.8 or less. (1): \( H_v = 350 \). (2): \( H_s = 30 \). (3): \( H_v = 250 \). (4): \( H_s = 20 \).
No. of Pages : 18 No. of Claims : 2

This rail is produced by hot rolling a steel material having a component composition containing C in the amount of 0.70-0.85% Si in the amount of 0.1-1.5% Mn in the amount of 0.4-1.5% P in the amount of 0.035% or less S in the amount of 0.010% or less and Cr in the amount of 0.05-1.50% with the remainder constituting Fe and inevitable impurities. The rail is straightened under a load of 50tf or more and thereafter subjected to a heat treatment which involves maintaining a temperature range of 150-400°C inclusive for 0.5-10 hours inclusive. As a result the straightened rail exhibits a high 0.2% proof stress and consequently effectively improves the fatigue resistance and damage resistance of the rail.
(54) Title of the invention: AQUEOUS SYSTEM FOR FORMING A COATING ON A SUBSTRATE

(51) International classification: C09D5/00
(31) Priority Document No: 62/455106
(32) Priority Date: 06/02/2017
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2018/016999
Filing Date: 06/02/2018
(87) International Publication No: WO 2018/145066
(61) Patent of Addition to Application Number: NA
Filing Date: NA
(62) Divisional to Application Number: NA
Filing Date: NA

(57) Abstract:
An aqueous system for forming a coating on a substrate includes a polycarbodiimide having the structure: Each of R1 and R2 is independently chosen from each n is independently a number from 1 to 20 each m is independently a number from 1 to 100 each Y is independently an alkoxy or polyalkoxy group having (w) oxygen atoms wherein each w is independently at least 1 and each z is independently a number from 0 to (w-1). In addition x Y and a total of said CnH2n+1 groups are present in a ratio of from (4 to 5):(0 to 1.5):(0 to 4.5. The aqueous system includes water and a reactive compound having at least two reactive groups independently chosen from -OH -NHR3 -NH2; -COOH and -SH and combinations thereof wherein R3 is an alkyl group or aromatic group having 1 to 20 carbon atoms.

No. of Pages : 26 No. of Claims : 20
Title of the invention: PROCESS FOR PRODUCING ELASTIC FIBER PROCESS FOR PRODUCING ELASTIC FIBER ARTICLE ELASTIC FIBER AND ELASTIC FIBER ARTICLE

Abstract:
A process for producing an elastic fiber comprising: melt-spinning a raw material composition which comprises a thermoplastic polyurethane elastomer at a spinning rate of 2500 m/min to 10000 m/min. The thermoplastic polyurethane elastomer comprises soft-segments obtained by reacting a polyether polyol as a long chain polyol.

No. of Pages: 24  No. of Claims: 16
The present invention relates to a polymer comprising the following monomers in polymerized form (in weight %): A) 49 - 60 % of a first monomer which is selected from the group consisting of methyl acrylate methyl methacrylate ethyl acrylate ethyl methacrylate C3-alkyl acrylate C3-alkyl methacrylate C4-alkyl acrylate C4-alkyl methacrylate and mixtures thereof B) 30 - 40 % methacrylic acid C) 4 - 15 % acrylic acid and D) 0.02-0.30 % of a crosslinking agent which is a compound having at least two allyl moieties wherein the sum of the amounts of monomers A to D is 100 %. Furthermore the present invention relates to a hair styling composition comprising the polymer and to the use of the polymer or of the hair styling composition for styling hair.
Provided are: a zinc-plated steel plate that consistently exhibits excellent press-moldability whether the plate is a high strength zinc-plated steel plate or a zinc-plated steel plate of relatively low strength on which complex molding is performed and which does not generate harmful fumes during welding; and a production method therefor. The plate has an oxide layer on the surface of the zinc-plated steel plate. The oxide layer has an average thickness of at least 20 nm. The oxide layer contains at least 30 mg/m² of Zn at least 1.0 mg/m² of S and 50 mg/m² to 1000 mg/m² of polyethylene particles with an average particle diameter of 5.0 µm or less.
**Abstract:**
Navigation application programming interfaces that can be used to obtain navigation information in third party software applications are provided. In one example implementation an application programming interface (API) can include a first set of instructions associated with a navigator class. The navigator class can specify a plurality of functions to control the implementation of a navigation service by the software application. The navigation service can provide navigation information to a user of the software application. The API can include a second set of instructions associated with a navigator delegate protocol. The navigator delegate protocol can be a delegate of the navigator class. The navigator delegate protocol can implement one or more calls to update the navigation information provided as part of the navigation service.

No. of Pages : 41 No. of Claims : 18
**Title of the invention:** CABIN MODULE AS WELL AS MOTOR VEHICLE EQUIPPED WITH SAME

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**Abstract:**

The invention relates to a cabin module (8) in the form of a self-supporting assembly (9) of multiple walls (15 to 18) which delimit a cabin area (21). The walls (15 to 18) are made of a continuous blank (22). In the corner regions (20) of walls (15 to 18) directly following one another each outer layer (28) is designed to be continuous and deformed and the inner layer (27) is interrupted by a separating section (29). At least one first lateral wall (15) a base wall (16) a second lateral wall (17) and a roof wall (18) are provided. End sections (23 24) of the blank (22) are connected together when the walls (15 to 18) are erected. The invention also relates to a motor vehicle equipped with such a cabin module (8).
(54) Title of the invention: HIGH-STRENGTH STEEL PLATE FOR SOUR RESISTANT LINE PIPE METHOD FOR MANUFACTURING SAME AND HIGH-STRENGTH STEEL PIPE USING HIGH-STRENGTH STEEL PLATE FOR SOUR RESISTANT LINE PIPE

(51) International classification: C22C38/00 C21D8/02 C22C38/06
(32) Priority Date: 30/03/2017
(33) Name of priority country: Japan
(86) International Application No: PCT/JP2017/034800
Filing Date: 26/09/2017
(87) International Publication No: WO 2018/179512
(32) Priority Date: 30/03/2017
(33) Name of priority country: Japan
(86) International Application No: PCT/JP2017/034800
Filing Date: 26/09/2017
(87) International Publication No: WO 2018/179512
(61) Patent of Addition to Application Number: NA
Filing Date: NA
(62) Divisional to Application Number: NA
Filing Date: NA

(57) Abstract:
The present invention provides a high-strength steel plate for sour resistant line pipe having not only anti-HIC properties but also superior anti-SSCC properties in a more severely corrosive environment. This high-strength steel plate for sour resistant line pipe is characterized by including constituent components of in percent by mass 0.02 - 0.08% C 0.01 - 0.50% Si 0.50 - 1.80% Mn 0.001 - 0.015% P 0.0002 - 0.0015% S 0.01 - 0.08% Al and 0.0005 - 0.005% Ca with the remainder being Fe and unavoidable impurities and in that steel structure 0.5 mm below the surface of the steel plate is a bainite structure with a dislocation density of 1.0 — 1014 - 7.0 — 1014 (m-2) the variation in the Vickers hardness at 0.5 mm below the surface of the steel plate is 30 HV or less at 3s with s being the standard deviation and the tensile strength is 520 MPa or greater.

No. of Pages : 25 No. of Claims : 7
The present invention provides a high strength steel sheet for a sour-resistant line pipe the high strength steel sheet having excellent HIC resistance and SSCC resistance under extremely severe corrosive environments and having excellent hardness uniformity in the thickness direction. This high strength steel sheet for a sour-resistant line pipe has a predetermined component composition and is characterized in that the steel structure 0.5 mm below the surface of the steel sheet is a bainite structure having a dislocation density of $0.5 - 10^{14} - 7.0 - 10^{14} \text{ (m}^{-2})$ the difference HV between the average Vickers hardness value 0.5 mm below the surface of the steel sheet and the average Vickers hardness value at the center with respect to the thickness of the steel sheet is 25 HV or less and the tensile strength of the steel sheet is at least 520 MPa.
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :28/08/2019

(21) Application No.201927034718 A

(43) Publication Date : 03/01/2020

(54) Title of the invention : METHOD FOR MEASURING AND REPORTING CHANNEL STATE INFORMATION IN WIRELESS COMMUNICATION SYSTEM AND APPARATUS THEREFOR

(51) International classification :H04W24/10H04W72/04H04B7/06

(31) Priority Document No :62/457202

(32) Priority Date :10/02/2017

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

(86) International Application No :PCT/KR2018/001749

Filing Date :09/02/2018

(87) International Publication No :WO 2018/147676

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :
The present specification provides a method for measuring and reporting channel state information (CSI) in a wireless communication system and an apparatus therefor. Particularly the method by which a terminal reports CSI in a wireless communication system comprises the steps of: receiving CSI reporting setting information related to a CSI report; receiving one or more CSI-reference signals (CSI-RSs); and reporting the CSI by using a measurement value which is estimated by at least one specific CSI-RS among the one or more CSI-RSs wherein the CSI reporting setting information can be determined with respect to at least one specific CSI-RS on the basis of gap information for setting a measurement interval for estimating the measurement value and a point of time at which the CSI is reported.

No. of Pages : 65 No. of Claims : 15
(54) Title of the invention: DRIVE DEVICE-INTEGRATED ROTARY ELECTRIC MACHINE AND ELECTRIC POWER STEERING DEVICE USING SAME

| (51) International classification: | H02K5/22B62D5/04H02K11/33 |
| (31) Priority Document No: | NA |
| (32) Priority Date: | NA |
| (33) Name of priority country: | NA |
| (86) International Application No: | PCT/JP2017/020798 |
| Filing Date: | 05/06/2017 |
| (87) International Publication No: | WO 2018/225123 |
| (61) Patent of Addition to Application Number: | NA |
| Filing Date: | NA |
| (62) Divisional to Application Number: | NA |
| Filing Date: | NA |

(57) Abstract:

The present invention is provided with: a first power supply connector (5a) for connecting to a first vehicle power source (7a) a first inverter (12a) that supplies a drive current to a first three-phase winding (15a) of a rotary electric machine (1); and a second power supply connector (5b) for connecting to a second vehicle power source (7b) a first inverter (12b) that supplies a drive current to a second three-phase winding (15b) of the rotary electric machine (1) wherein the voltage of the first vehicle power source (7a) is set higher than that of the second vehicle power source (7b) and the current capacity of the first power supply connector (5a) is set lower than that of the second power supply connector (5b).

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No. of Pages: 18 No. of Claims: 7
A decorative sheet 2 in which a plurality of rows of protruding parts 21 is formed in a nonwoven 1 in a first direction D and in a second direction F that intersects the first direction D wherein the decorative sheet 2 more readily contracts and elongates in the first direction D than in the second direction F the decorative sheet 2 is formed from a single-layer nonwoven 1 and a fused part 22 is provided in some or all of the periphery of the respective protruding parts 21 in the decorative sheet 2 the the fused part 22 extending discontinuously or continuously in the first direction D and being thinner than the protruding parts 21 due to the fused structure.

No. of Pages : 21 No. of Claims : 8
A flexible vapour permeable cargo cover laminate comprising: an outer layer comprising a substrate bearing a coating the coating having particles of infra-red reflective matter dispersed within a polymeric matrix and providing an exposed low-emissivity surface on an outward face of the outer layer; and a support layer laminated to an inward face of the outer layer. Other cargo laminates cargo covers and methods of insulating cargo are also disclosed.
Title of the invention: REMOTE FIRE EXTINGUISHING SYSTEM AND REMOTE SECURITY SYSTEM

Abstract:
Various embodiments of the present invention relate to remote fire extinguishing equipment and remote crime prevention and extermination equipment and the technical problem to solve is to provide remote fire extinguishing equipment and remote crime prevention and extermination equipment which remotely detect fire or trespassing so as to extinguish the region of the fire or eject a trespasser. To this end disclosed are remote fire extinguishing equipment and remote crime prevention and extermination equipment the remote fire extinguishing equipment comprising: a flame detecting sensor which detects a flame when a fire occurs and transmits a flame detection signal through a communication network; a smart phone which when receiving the flame detection signal through the communication network transmits through the communication network a photographing signal with respect to a fire occurring region; an IP camera unit which when receiving the photographing signal from the smart phone photographs the fire occurring region and transmits through the communication network a photographed image to the smart phone; and a smart plug which when receiving through the communication network a user control signal of the smart phone sprays a fire extinguishing material to the fire occurring region.

No. of Pages : 22 No. of Claims : 10
The purpose of the present invention is to control sintering variations in a sintering machine and manufacture sintered ore with high strength and a high clump yield. Provided is a method for manufacturing sintered ore by placing sintering raw materials that include fine ore and a carbon material on a circulating pallet forming a raw material layer igniting the carbon material on the surface of the raw material layer while at the same time sucking air above the raw material layer to the underside of the pallet so as to introduce the same into the raw material layer and combusting the carbon material in the raw material layer wherein fuel gas is discharged from a nozzle at a flow rate of at least 40 Nm/s burnt gas is generated by combustion of the fuel gas that is discharged and the carbon material is ignited using the burnt gas.
Title of the invention: NOVEL PROTEIN DRUG CONJUGATE FORMULATION

Novel protein drug conjugate formulation. The invention provides a stable pharmaceutical formulation comprising a protein drug conjugate along with one or more suitable excipient(s) such that the formulation is devoid of any buffer components and methods of making the same. The protein drug conjugate according to the present invention is an antibody drug conjugate preferably trastuzumab-maytansinoid conjugate. Suitable excipient(s) according to the present invention is selected from suitable bulking agents, suitable tonicity modifiers, suitable stabilizers and the like.
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 30/08/2019
(43) Publication Date : 03/01/2020

(54) Title of the invention : DEVELOPER EXPERIENCE RELEVANT TO A VARIATION OF AN APPLICATION PROGRAMMING INTERFACE

(51) International classification : G06F8/30
(31) Priority Document No : 15/635946
(32) Priority Date : 28/06/2017
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/US2018/036094
   Filing Date : 05/06/2018
(87) International Publication No : WO 2019/005434
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

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(72) Name of Inventor :
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(57) Abstract :
The present disclosure relates to providing a developer experience relevant to a variation of an application programming interface (API). In some embodiments a request is received from a developer for developer experience information. In certain embodiments an API variation that is relevant to the developer is identified based on the request. In some embodiments a custom developer experience is selected based on the API variation. The custom developer experience may comprise developer experience information specific to the API variation. In some embodiments the developer is provided with the custom developer experience in order to assist the developer in using the API variation.
The invention relates to a method and a device for the optimal use of windable material (1) during winding up onto and/or unwinding from storage drums (2) in conjunction with feeding to winding machines. The windable material can be a textile web a fabric web a wire or the like. Proceeding from the residual unused parts of the windable material (1) that currently arise during further processing the problem of the invention is to create a method and a device for carrying out the method with which the incorporation of all of the windable material (1) from the storage drums (2) into the technological further processing is allowed. This problem is solved in that according to the created method the counterforce necessary for keeping the tensile force acting on the windable material (1) constant is maintained until all of the windable material (1) to be fed has been incorporated into the subsequent procedural further processing. Advantageously the counterforce is maintained by a connecting means (3) that is connected to the windable material (1) and to the storage drum (2) is able to be wound up and is of lower quality than the windable material. In the created device controllable means that generate the counterforce counteracting the tensile force are used said means maintaining the counterforce opposing the tensile force until all of the windable material (1) has been drawn into the subsequent processing device. Preferably the device is designed such that a connecting means that is able to be wound up and corresponds at most to the length of the spacing between the storage drum (2) and the entry point into the winding machine is connected with its first end releasably to the storage drum (2) and with its second end to the start of the windable material (1).
The purpose of the present invention is to provide a device for alerting riders to tip-over reports and a leaning vehicle the device being capable of using non-conventional means to alert a rider separated from a leaning vehicle that a tip-over occurrence will be reported or has been reported. This device for alerting a rider to tip-over report comprises: an acquisition unit which acquires report preparation information indicating that a leaning vehicle tip-over report system is preparing to report tip-over occurrence information to the outside of the leaning vehicle or report completion information indicating that the leaning vehicle tip-over report system has reported the tip-over occurrence information to the outside of the leaning vehicle; and an operation unit which alerts the rider to the tip-over report status by projecting light or generating sound through the operation of the front light and/or the like in an operating state different from the operating state at the time of or immediately before the leaning vehicle transitioned from a traveling state to the tip-over state.
(54) Title of the invention : GUAYULE TIRE TREAD COMPOUND

(51) International classification : B60C1/00B60C11/00C08L7/00
(31) Priority Document No : 62/458293
(32) Priority Date : 13/02/2017
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/US2018/017999
    Filing Date : 13/02/2018
(87) International Publication No : WO 2018/148725

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

(57) Abstract :
A tire tread composition includes a quantity of an elastomer including guayule natural rubber and a quantity of a hydrocarbon resin substantially evenly distributed throughout the elastomer. The elastomer of the tire tread composition may consist entirely of guayule natural rubber. The hydrocarbon resin may be selected to have a predetermined miscibility in the guayule natural rubber. The predetermined miscibility is measured by a deviation of actual Tg from predicted Tg for either the tire tread composition or an elastomer-resin mixture consistent with the elastomer and resin used in the tire tread composition. In particular the predetermined miscibility in the guayule natural rubber is less than about six percent (6%) deviation in the actual Tg from the predicted Tg at a 20 phr loading. [To be published with Figure 1]

No. of Pages : 18 No. of Claims : 20
The invention relates to a connection adapter (14) for connecting a treatment apparatus (16) to a connection head (12) of a treatment device (10) for in particular liquid fluids in particular of an internal combustion engine in particular of a motor vehicle to a connection head (12) and to a treatment device (10). The connection adapter (14) has a connecting section (42) for connecting to the connection head (12) and a threaded connecting-piece section (44) for screwing the treatment apparatus (16) on which threaded connecting-piece section is coaxial to an imaginary connection axis (18). The threaded connecting-piece section (44) comprises at least one fluid passage channel for connecting a fluid-conducting space of the treatment apparatus (16) to a fluid-conducting space (20) of the connection head (12). The at least one connecting section (42) has at least two screw holes (50) for screws (70) or threaded bolts.
A method of making a puffed dehydrated food product comprises mixing a high amylopectin starch and selected food ingredients to form a dough; forming the dough into pieces; and exposing the dough pieces to microwave radiation at a pressure less than atmospheric to puff and dry the dough pieces producing the puffed dehydrated food product. The ingredients may include tomato paste, yogurt, fruit or fruit juice concentrate, fruit puree, vegetable puree, vegetable puree concentrate, coffee, and concentrated soup. The dough may be formed in the absence of starch hydrolysates. The method produces dehydrated food products which incorporate a variety of food ingredients in a matrix that has a puffed crispy structure.
(54) Title of the invention : COMBINATION THERAPY WITH AN ANTI-CD25 ANTIBODY-DRUG CONJUGATE

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<td>(62) Divisional to Application Number:</td>
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(57) Abstract:
The present disclosure relates to combination therapies for the treatment of pathological conditions such as cancer. In particular the present disclosure relates to combination therapies comprising treatment with an Antibody Drug Conjugate (ADC) and a secondary agent.

No. of Pages: 98 No. of Claims: 28
A method by which a V2X (vehicle to everything) communication device of a target vehicle receives a V2X message is disclosed. The method for receiving a V2X message may comprise: a step of receiving a V2V message comprising CACC information from at least one CACC vehicle wherein the CACC information comprises CSID information identifying a CACC string to which the CACC vehicle belongs and string length management information used to manage the string length of the CACC string; a step of obtaining the CSID information and the string length management information from the V2V message; and a step of setting the value of the string length management information of the target vehicle on the basis of the CSID information and the string length management information. Here the string length management information may include at least one of OIS information indicating the current sequence of the CACC vehicle in the CACC string or CSL information indicating the length of the CACC string.
In one aspect of the present invention a method for delivering a non-access stratum (NAS) message by an access and mobility management function (AMF) in a wireless communication system may comprise the steps of: receiving from a terminal an uplink (UL) NAS message including a session management (SM) message for a protocol data unit (PDU) session-related request; transmitting the SM message to a pre-configured second SMF when it is determined that the SM message cannot be routed to a first SMF to which the SM message is to be delivered; receiving from the second SMF an SM rejection message for rejecting the SM message; and transmitting to the terminal a downlink (DL) NAS message including the SM rejection message.
(54) Title of the invention : GUAYULE LATEX EXTRUSION

| (51) International classification | C08C1/15C08C1/00C08C1/065 |
| (31) Priority Document No   | 62/458300 |
| (32) Priority Date       | 13/02/2017 |
| (33) Name of priority country | U.S.A. |
| (86) International Application No | PCT/US2018/018011 |
| Filing Date            | 13/02/2018 |
| (87) International Publication No | WO 2018/148731 |
| (61) Patent of Addition to Application Number | NA |
| Filing Date            | NA |
| (62) Divisional to Application Number | NA |
| Filing Date            | NA |

(57) Abstract :
A latex processing system (100) and method (200) involves mixing a latex and at least one solvent blend (138 140 142) in an extruder (102) in order to remove resin found in the latex (104) and to coagulate the latex (104) to form a coagulum. The at least one solvent blend (138 140 142) has a first solvent configured to coagulate the latex and a second solvent configured to swell the resulting coagulum. In particular a series of the solvent blends (138 140 142) may be used at different locations (106 144 146) along a length of the extruder (102) and may further include distinct blends (138 140 142) of the first solvent and the second solvent introduced at the different locations (106 144 146) and having different ratios of the first solvent and the second solvent. [To be published with Figure 1]
**Title of the invention:** TIRE TREAD COMPOUND

**Abstract:**
A tire tread composition includes a quantity of an elastomer and a quantity of a hydrocarbon resin substantially evenly distributed throughout the elastomer. The elastomer includes natural rubber. The hydrocarbon resin has a predetermined miscibility in the natural rubber. The predetermined miscibility is measured by a deviation of actual Tg for an elastomer-resin mixture consistent with the elastomer and hydrocarbon resin used in the tire tread composition from predicted Tg as calculated. In particular, the predetermined miscibility in the natural rubber is less than about six percent (6%) deviation in the actual Tg from the predicted Tg at a 20 phr loading. [To be published with Figure 1]
The invention relates to an agrochemical composition comprising propylene carbonate up to 10 wt% of water and compounds (I) their salts tautomers or enantiomers; wherein the variables are as defined in the description. The invention also relates to a process for the preparation of the composition comprising mixing the propylene carbonate compounds (I) and optionally an acid and/or cyclohexanone. It also relates to a method for controlling pests which method comprises the application of the composition or a dilution thereof to plants plant propagation material or the locus of growth of the plants; the pests or their food supply habitat or breeding grounds. Other objects are the use of cyclohexanone and/or an acid in particular acetic acid for stabilizing compositions comprising compounds (I); composition for stabilizing water-soluble pesticides as defined in any of claims 1 to 9 comprising 1 to 50 wt% of propylene carbonate 0.1 to 30 wt% cyclohexanone and an acid; and an aqueous tank-mix composition comprising the composition in a concentration of 0.01 wt% to 10 wt% with regard to the total weight of the tank-mix.

The Patent Office Journal No. 01/2020 Dated 03/01/2020 1081
In the past when electric power steering devices having independent steering mechanisms for each of the four vehicle wheels experienced steering motor failure the result was loss of function in the steering mechanism of the wheel corresponding to the failed motor leading to decreased vehicle maneuverability and stability. This problem is addressed by having each of steering motors 13a 13b 18a 18b of steering mechanisms 3a 3b 4a 4b which are independently provided on each of the four vehicle wheels configured as a redundantly-configured three-phase duplex motor having two sets of three-phase windings 19a 19b and two sets of inverters 22a 22b for individually driving the three-phase windings.
Provided are an image compressing method and an image compressing device for performing the image compressing method. A method for compressing an image according to an embodiment comprises the steps of: performing downsampling by means of a DNN with respect to an image and thus determining a compressed image; performing prediction on the basis of the compressed image and thus determining a prediction signal; determining a residual signal on the basis of the compressed image and the prediction signal; and generating a bitstream comprising information relating to the residual signal wherein the DNN has a network structure determined by means of learning of a downsampling process using information generated in an upsampling process. Provided are an image restoration method for restoring a compressed image which is compressed by means of an image compression method by means of a DNN for upsampling and an image restoration device for performing the image restoration method. FIG. 2A
The present invention includes a new formulation of a mono-alcohol having 12 to 19 carbon atoms or 20 to 30 carbon atoms and its new methods of use in plants thereof.
The invention relates to a method for ascertaining a continuous injection of a combustion chamber (16) of an internal combustion engine (1) which has an injection system (3) with a high-pressure store (13) for a fuel having the following steps: detecting a high pressure in the injection system (3) in a time-dependent manner; beginning a continuous injection detection at a starting time during the operation of the internal combustion engine (1); ascertaining a pressure drop starting time which lies chronologically before the starting time and at which the high pressure in the injection system (3) starts to drop if a continuous injection has been detected; and ascertaining at least one combustion chamber (16) to which the continuous injection can be assigned using the pressure drop starting time. (Fig. 1)
Methods systems and devices for wireless communication are described. Wireless communications systems as described herein may be configured to support several service types with different latency reliability or throughput rates or standards. One such service type may be referred to as ultra-reliable low-latency communications (URLLC). Enhancements to improve URLLC performance in coexistence with and as a complement to legacy service types such as LTE are described. These include for example enhanced timing resource allocations enhanced transmission repetition schemes enhanced feedback mechanisms or a combination of these features to achieve certain reliability and latency targets. A method for wireless communication comprises identifying a set of transmission time intervals (TTIs) for a first wireless service wherein an initial TTI of the set of TTIs comprises a portion associated with a second wireless service; transmitting a downlink message for the first wireless service during a TTI of the set of TTIs wherein the downlink message comprises an assignment of resources for at least the downlink message; and retransmitting at least a portion of the downlink message during a subsequent TTI of the set of TTIs within a threshold time from transmitting the downlink message.
Methods systems and devices for wireless communication are described. Wireless communications systems as described herein may be configured to support several service types with different latency reliability or throughput rates or standards. One such service type may be referred to as ultra-reliable low-latency communications (URLLC). Enhancements to improve URLLC performance in coexistence with and as a complement to legacy service types such as LTE are described. These include for example enhanced timing resource allocations enhanced transmission repetition schemes enhanced feedback mechanisms or a combination of these features to achieve certain reliability and latency targets. [Figure 2]
The present invention relates to novel short chain peptides of formula (I) which can be useful as a vaccine when in conjunction with suitable immunogenic carrier and suitable adjuvant. These are useful for the treatment for the PCSK9 mediated diseases.

\[ A-Z_{1}Z_{2}Z_{3}Z_{4}Z_{5}Z_{6}Z_{7}Z_{8}Z_{9}Z_{10}Z_{11}Z_{12}-B \]

The Patent Office Journal No. 01/2020 Dated 03/01/2020 1088
A battery is provided. A battery according to one embodiment of the present invention comprises: an electrode assembly comprising a cathode having a cathode collector coated partially or entirely with a cathode active material and an anode having a nano-web layer on both sides of an anode collector coated partially or entirely with an anode active material and a separation membrane interposed between the cathode and the anode; an electrolytic solution; and an exterior material which encapsulates the electrolyte solution and the electrode assembly together. According to the present invention since the battery is provided with the porous nano-web layer even if the temperature inside the battery increases to cause shrinkage or melting of the separation membrane a contact between the cathode and the anode is prevented such that ignition and/or explosion of the battery does not occur and ion exchange is not disturbed such that the battery performance does not deteriorate. In addition the nano-web layer is not molten or released towards the separation membrane even at high temperatures. Moreover the nano-web layer can prevent generation of cracks even when an external force is applied and can also prevent or minimize deterioration of the physical properties required for the battery even when a repetitive external force such as repetitive vibrations etc. is applied. As such the battery of the present invention may be applied to various electronic devices which require flexibility of the battery such as rollable displays etc. as well as wearable devices such as smart watches watch straps etc. (to be published with figure 1)
**Title of the invention:** NON-PICKLED HOT-ROLLED STEEL SHEET AND METHOD FOR MANUFACTURING SAME

**International classification:** B21B1/26 B21B45/00 B21B45/08

**Priority Document No:** 2017-076527

**Priority Date:** 07/04/2017

**Name of priority country:** Japan

**International Application No:** PCT/JP2018/012917

**Filing Date:** 28/03/2018

**International Publication No:** WO 2018/186265

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

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**Divisional to Application Number:** NA

**Filing Date:** NA

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**Abstract:**
Provided is a non-pickled hot-rolled steel sheet which has sufficient blackness as seen from every direction and which has excellent scale adhesion. The non-pickled hot-rolled steel sheet comprises a base material hot-rolled steel sheet and a scale on a surface of the base material hot-rolled steel sheet the scale comprising Fe3O4 and Fe and having a thickness of 3.0 to 20 µm. In an upper layer of the scale an average grain size is not more than 3.0 µm. In a cross section of the scale an Fe area ratio is less than 1.0% in the region of 0 to 1.0 µm from an upper-most layer of the scale in a thickness direction of the scale and is not less than 1.0% in the region of 0 to 1.0 µm from the interface between the scale and the base material hot-rolled steel sheet in the thickness direction of the scale. Figure 2 is the representative figure.
In order to more efficiently use system resources and to reduce power usage a narrowband apparatus may determine a set of monitored resource blocks (RBs) on a subframe for monitoring for CRS from a base station may monitor for the CRS from the base station on the subframe based on the set of monitored RBs. The base station may determine a bandwidth for transmitting the CRS to a user equipment wherein the bandwidth is less than a system bandwidth and may transmit the CRS to the UE using the determined bandwidth wherein the UE monitors for the CRS on a set of monitored RBs. The set of monitored RBs may include RBs allocated for a PDCCH search space PDCCH and/or PDSCH transmissions and may further include RBs M subframes after and/or N subframes before the monitored RBs. The set of monitored RBs may include X RBs around a PDCCH search space and/or PDSCH. FIG. 5A

No. of Pages : 45 No. of Claims : 109

The Patent Office Journal No. 01/2020 Dated 03/01/2020 1091
A method for routing is disclosed. The method comprises provisioning an endpoint in a network with a reactive path selection policy; monitoring by the endpoint current conditions relating to various paths available to said end point for the transmission of traffic; and selectively applying by the endpoint at least a portion of the reactive path selection policy based on the current conditions of the available paths. [Figure 1]
**Title of the invention:** POLAR CODES FOR UPLINK CONTROL INFORMATION

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**Title of the invention:** POLAR CODES FOR UPLINK CONTROL INFORMATION

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**Name of Inventor:**
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4. SORIAGA, Joseph Binamira
5. HOU, Jilei

**Abstract:**
Methods systems and devices for wireless communication are described. A transmitter may generate a first segmentation based on a first subset of control information and a second segmentation based on jointly encoding the first subset and a second subset of the control information. The transmitter may polar encode the first segmentation to generate a first codeword and the second segmentation to generate a second codeword and transmit the first and second codewords. A receiver may determine a first bit sequence corresponding to the first subset based on decoding a first codeword and determine an error detection code (EDC) and a second bit sequence corresponding to the second subset based on decoding a second codeword. The receiver may perform error detection on the first and second bit sequences based on the determined EDC and output the first bit sequence and the second bit sequence or a decoding error. [Fig. 02]

![Diagram](image-url)
A power conversion device (2) comprises a cooling fan (8), a cooling fan control unit (10) which controls the drive amount of the cooling fan (8), and an electrolytic capacitor (5) of which the service life varies according to the drive amount of the cooling fan (8). The cooling fan control unit (10) controls the drive amount on the basis of the relationship between the drive amount and the service life of the cooling fan (8) and the service life of the electrolytic capacitor (5).

(57) Abstract:

A power conversion device (2) comprises a cooling fan (8), a cooling fan control unit (10) which controls the drive amount of the cooling fan (8) and an electrolytic capacitor (5) of which the service life varies according to the drive amount of the cooling fan (8). The cooling fan control unit (10) controls the drive amount on the basis of the relationship between the drive amount and the service life of the cooling fan (8) and the service life of the electrolytic capacitor (5).
A method of treating an inflammatory disease in a subject in need thereof is provided. The method comprising administering to the subject a therapeutically effective amount of a liquid chromatography fraction of a cannabis extract comprising at least 75% tetrahydrocannabinolic acid (THCA) wherein the fraction comprises cannabis derived active ingredients other than the THCA.

No. of Pages : 64 No. of Claims : 15
The present disclosure may support dedicated scheduling request resources in a NPUSCH format resource structure a NPRACH and/or an ACK / NACK transmission associated with a downlink transmission received at the UE. In addition the present disclosure may provide various techniques to mitigate collisions between scheduling requests transmitted by a UE uplink transmissions sent by different UEs and/or downlink transmissions sent by a base station. In an aspect of the disclosure a method a computer-readable medium and an apparatus are provided. The apparatus may receive one or more downlink transmissions from a base station. The apparatus transmit to the base station a scheduling request for the uplink transmission with an ACK / NACK associated with the one or more downlink transmissions using a narrowband NPUSCH format resource structure. [Fig. 20]
The present invention relates to the utilization of solar energy for generation of electricity and/or production of clean fuels or other chemicals as a means for long term transportable storage of inherently intermittent solar energy. There is provided an energy generation system comprising a solar energy collection arrangement configured and operable for collecting and reflecting concentrated sunlight radiation; a solar energy receiver configured for receiving the concentrated sunlight radiation from the solar energy collection arrangement; a thermal energy storage unit comprising at least one thermal energy storage module being configured and operable for storing thermal energy a charging piping arrangement connecting between the solar receiver to the thermal energy storage unit and being configured and operable for carrying a first working fluid transferring heat from the solar receiver to the at least one thermal energy storage unit to thereby enable charging the at least one thermal energy storage unit with thermal energy and carrying the first working fluid back to the solar receiver after the first working fluid exits the thermal energy storage unit; a power conversion unit configured and operable for accommodating a second working fluid and converting heat delivered by the second working fluid to electricity; and a heat discharging piping arrangement connecting between the thermal energy storage unit to the power conversion unit and being configured and operable for carrying the second working fluid for transferring heat from the at least one thermal energy storage module to the power conversion unit and carrying the second working fluid back to the at least one thermal energy storage module after the second working fluid exits the power conversion unit.
There is disclosed a mobile terminal comprising: a display; a middle frame comprising a supporting and a side portion provided around the supporting portion to define a lateral external appearance; a main board comprising a ground; a first wireless communication unit configured to transceive a first signal; a second wireless communication unit configured to transceive a second signal; and a rear case configured to cover a rear surface of the main board wherein the side portion comprises a plurality of conductive members of which ends are divided into slits and the plurality of the conductive members comprises a common antenna electrically connectable with the first wireless communication unit and the second wireless communication unit and configured to receive the first signal and the second signal; and an independent antenna electrically connectable with the first wireless communication unit and configured to receive the first signal.
The dialysate for hemodialysis has a dissolved hydrogen concentration of 30-550 ppb. This dialysate can eliminate active oxygen and reduce oxidative stress.
The present invention relates to compounds of Formula (I) or pharmaceutically acceptable salts or solvates thereof. The invention further relates to the use of the compounds of Formula (I) as A2A inhibitors. The invention also relates to the use of the compounds of Formula (I) for the treatment and/or prevention of cancer. The invention also relates to a process for manufacturing compounds of Formula (I).
Disclosed are a temperature-sensing package support (10) used for an air-conditioner indoor unit and an air-conditioner indoor unit. The temperature-sensing package support (10) comprises: a support body wherein the support body is suitable for fixing on a housing of an air-conditioner indoor unit a filter mesh positioning groove (1) is formed on the support body the filter mesh positioning groove (1) is used for housing a frame bar (30) of an end part of a filter mesh a temperature-sensing package housing groove (2) used for housing a temperature-sensing package is also formed on the support body the temperature-sensing package housing groove (2) is isolated from the filter mesh positioning groove (1) via a partition wall and the temperature-sensing package housing groove (2) is located outside the filter mesh positioning groove (1) via a partition wall and the temperature-sensing package housing groove (2) is located outside the filter mesh positioning groove (1). The temperature-sensing package is placed outside the filter mesh while protecting the temperature-sensing package such that the temperature-sensing package can more accurately detect ambient temperature aiding in increasing accuracy of control over the air-conditioner indoor unit and the reliability of operation of the air-conditioner indoor unit at the same time as being able to save on electricity.
The present application relates to a video transcoding method comprising: acquiring an initial quantization parameter corresponding to an initial encoding unit when encoding an initial compressed video; determining according to the initial quantization parameter corresponding to the initial encoding unit a current reference quantization parameter corresponding to a current encoding unit in a current video frame; determining a quantization parameter to be encoded that corresponds to the current encoding unit; determining the difference between the quantization parameter to be encoded that corresponds to the current encoding unit and the corresponding current reference quantization parameter and increasing the quantization parameter to be encoded that corresponds to the current encoding unit according to the difference so as obtain a target encoding quantization parameter; and encoding the current encoding unit according to the target encoding quantization parameter.
The invention provides antibodies that specifically bind tau. The antibodies inhibit or delay tau-associated pathologies and associated symptomatic deterioration.
Certain aspects of the present disclosure generally relate to wireless communication. In some aspects a user equipment (UE) may determine whether to perform a beam pair refinement procedure with regard to the UE and a base station; and/or transmit to the base station information regarding whether to perform the beam pair refinement procedure. In some aspects a base station may receive from a UE information regarding a beam pair refinement procedure with regard to the UE; and/or perform the beam pair refinement procedure based at least in part on the information. Numerous other aspects are provided.
(54) Title of the invention : METHOD AND APPARATUS FOR DOWNLINK RETRANSMISSION UNDER UNRELIABLE CODE BLOCK GROUP (CBG) LEVEL FEEDBACK

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(57) Abstract :
Aspects of the present disclosure relate to techniques for retransmission of code block groups when code block group (CBG) level feedback is unreliable. A user equipment (UE), in a first slot, transmits a first CBG feedback corresponding to a first set of CBGs received from a base station. In a second slot after the first slot, the UE receives downlink control information (DCI) and a first cyclic redundancy check (CRC). The first CRC is generated based on the DCI and further scrambled by a first concatenation of CBG feedbacks as decoded by the base station. The UE generates a second CRC based on the DCI and further scrambled by a second concatenation of CBG feedbacks including the first CBG feedback. The UE determines that the base station correctly decoded the first CBG feedback based on a comparison of the first CRC and the second CRC.
Methods, systems, and devices for wireless communication are described. In some cases, a user equipment (UE) may be scheduled to transmit uplink signals on different carriers during transmission time intervals (TTIs) that have different durations. As such, a TTI on a first carrier (e.g., a reference carrier) may overlap with multiple shortened TTIs (sTTIs) on a second carrier (e.g., a non-reference carrier). Using the techniques described herein, the UE may select a calibration point (or a gain index) for uplink transmissions at the beginning of the TTI on the reference carrier based on an amount of power reserved for expected power increases during the TTI. As such, when the UE has to update its transmit power for an uplink transmission during an sTTI on the second carrier, the UE may apply a digital back-off from a power associated with the calibration point.
Methods, systems, and devices for wireless communication are described. Semi-persistent scheduling (SPS) configurations that enable uplink transmissions during different transmission time intervals (TTIs) may be used. For example, a base station may configure SPS for a set of TTIs, where the configuration may include a periodicity between shortened TTIs (sTTIs) (e.g., two-symbol, three-symbol, seven-symbol TTIs, etc.) that may be used by a user equipment (UE) for uplink transmissions. The base station may signal the SPS configuration to the UE, and the UE may then identify locations of TTIs for use in SPS transmissions. For instance, the UE may identify the location of a set of sTTIs that are designated for SPS and that occur at a certain periodicity indicated by the configuration. Upon identifying the TTI locations, the UE may transmit uplink data during one or more of the identified TTIs in accordance with the periodicity.
A method and apparatus for determining rate matching behavior for a plurality of control resource sets (CORESETs) is provided. A base station (BS) bundles a plurality of CORESETs into a global resource set. The BS configures the global resource set for a User Equipment (UE). The BS determines resources assigned to a downlink data channel overlap at least a portion of the global resource set and determines whether data on the downlink data channel is to be rate matched around the global resource set or is to use resources in the global resource set. The BS transmits the data on the downlink data channel based on the determination of the rate matching.
Abstract:
Methods, systems, and devices for wireless communication are described. The described techniques provide for transmission of uplink data from a user equipment (UE) in the absence of scheduled uplink resources for the uplink data transmission that are allocated to the UE prior to the transmission of the uplink data. Various examples provide frame structures that may be used for unscheduled uplink transmissions of a UE. Unscheduled uplink transmissions may be transmitted in a shared or unlicensed radio frequency spectrum, and access to the shared or unlicensed radio frequency spectrum may be determined based on a priority of an operator associated with a UE for accessing the spectrum. Beamforming techniques may be used for uplink and downlink transmissions and beam widths for beamformed transmissions may be selected based on the information transmitted in a transmission, an operator priority for use of shared radio frequency spectrum, or any combination thereof.
Techniques are described herein for automated assistants that search various alternative corpora for information. In various implementations, a method may include receiving, by an automated assistant via an input component of a first client device, a free form input, wherein the free form input includes a request for specific information; searching a general purpose corpus of online documents to obtain a first set of candidate response(s) to the request for specific information; searching a user-specific corpus of active document(s) to obtain a second set of candidate response(s) to the request for specific information; comparing the first and second sets of candidate responses; based on the comparing, selecting a given response to the request for specific information from the first or second set; and providing, by the automated assistant, output indicative of the given response.
Deep machine learning methods and apparatus related to semantic robotic grasping are provided. Some implementations relate to training a training a grasp neural network, a semantic neural network, and a joint neural network of a semantic grasping model. In some of those implementations, the joint network is a deep neural network and can be trained based on both: grasp losses generated based on grasp predictions generated over a grasp neural network, and semantic losses generated based on semantic predictions generated over the semantic neural network. Some implementations are directed to utilization of the trained semantic grasping model to servo, or control, a grasping end effector of a robot to achieve a successful grasp of an object having desired semantic feature(s).
**Title of the Invention:** METHOD FOR TRANSCIEVING SIGNAL IN ASSOCIATION WITH MULTI-HOMING BASED PSA ADDITION IN WIRELESS COMMUNICATION SYSTEM AND APPARATUS THEREFOR

| (51) International Classification | H04W8/26, H04W60/00 |
| (31) Priority Document No | 62/512076 |
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| Filing Date | 29/05/2018 |
| (87) International Publication No | WO 2018/221943 |
| (61) Patent of Addition to Application Number | NA |
| Filing Date | NA |
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| Filing Date | NA |

**Abstract:**

An embodiment of the present invention relates to a method for transceiving a signal, by a user equipment (UE), in association with multi-homing based PSA addition in a wireless communication system, the method comprising the steps of: establishing a protocol data unit (PDU) session with a first protocol data unit session anchor (PSA); and receiving a new IP address from a session management function (SMF), wherein when the received new IP address is associated with multi-homing based PSA addition, the UE skips performing IMS registration using the new IP address.

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No. of Pages: 40  No. of Claims: 14
A method for receiving, by a terminal, a downlink signal in a wireless communication system according to one embodiment of the present invention comprises: a step of receiving a first control resource set (CORESET) setting including information for frequency resources of a first CORESET; and a step of receiving a physical downlink control channel (PDCCH) signal by bundling a multiple of resource element groups (REGs) on the first CORESET, wherein the information for the frequency resources of the first CORESET is a bitmap and hereby the bitmap may allocate the first CORESET of frequency resources in 6-RB units so that in the first CORESET there exist no remainder resources, which does not belong to any REG bundle after bundling into 1 REG bundle per two, three or six REGs.
Title of the invention: HAIR TREATMENT COMPRISING POLYORGANOSILOXANES WITH POLYHYDROXYAROMATIC MOIETIES

Abstract:
This invention relates to aqueous compositions for hair treatment, comprising polyorganosiloxanes A) having di- and trihydroxy-substituted aromatic groups and at least one surfactant B) selected from cationic surfactants B1) and anionic surfactants B2) in a certain weight ratio of the surfactant B) to the polyorganosiloxane A), and said aqueous compositions having a certain pH. The invention further relates to hair treatment compositions, comprising said aqueous compositions and to hair treatment processes using said aqueous compositions or hair treatment compositions.

No. of Pages: 76 No. of Claims: 30
A method for generating electricity is disclosed. The method comprises: subjecting a fuel, comprising a first and a second fuel component, to input electromagnetic radiation for producing: a nucleus mass reducing isotope shift in the first fuel component, a nucleus mass increasing isotope shift in the second fuel component, and output electromagnetic radiation resulting from the nucleus mass increasing isotope shift; and generating electricity from the output electromagnetic radiation by transforming the output electromagnetic radiation into electricity by photoelectrically transforming the output electromagnetic radiation into electrons at a first electrode (52), and collecting the electrons at a second electrode (22) or by photovoltaically transforming the output electromagnetic radiation into electricity at a photovoltaic cell (70). Also an electricity generator for generating electricity according to the above is disclosed.
Title of the invention: ELECTRONIC DEVICE INCLUDING DISPLAY WITH EXPANDED SENSOR OPERABILITY

Abstract:
Disclosed is an electronic device including a housing, a display panel, and an image sensor. The display panel includes a first polarization layer that causes light input from outside the electronic device to oscillate in a first direction as a first linearly-polarized light, a first retardation layer disposed below the first polarization layer and causing at least a portion of the first linearly-polarized light to oscillate as a circularly-polarized light, a substrate layer disposed below the first retardation layer and passing at least a portion of the circularly-polarized light, and a protection layer disposed below the substrate layer and protecting at least a portion of the substrate layer by covering the portion of the substrate layer.
A process for preparing a zeolitic material comprising a metal M, having framework type AEI, and having a framework structure which comprises a tetravalent element Y, a trivalent element X, and oxygen, said process comprising (i) providing a zeolitic material comprising the metal M, having a framework type other than AEI, and having a framework structure comprising the trivalent element X, and oxygen; (ii) preparing a synthesis mixture comprising the zeolitic material provided in (i), water, a source of the tetravalent element Y, and an AEI framework structure directing agent; (iii) subjecting the synthesis mixture prepared in (ii) to hydrothermal synthesis conditions comprising heating the synthesis mixture to a temperature in the range of from 100 to 200 °C and keeping the synthesis mixture at a temperature in this range under autogenous pressure, obtaining the zeolitic material having framework type AEI; wherein Y is one or more of Si, Ge, Sn, Ti, Zr; wherein X is one or more of Al, B, Ga, In; wherein M is a transition metal of groups 7 to 12 of the periodic table of elements.
A method of UE category and capability indication for co-existed 4G LTE and 5G New Ratio (NR) devices is proposed. UE indicates UE category and associated capability for standalone NR, which includes band combination for NR and a list of capability combinations of baseband feature sets. UE also indicates separate UE category and associated capability for 5G NR EN-DC (EUTRA-NR Dual Connectivity), which includes band combination for NR+LTE, and a list of capability combinations of baseband feature sets. Based on such indication, the network can enable the UE to operate over multiple connections via multiple radio access technology (RATs) concurrently. In one novel aspect, the baseband feature set combination is band combination agnostic.
Wireless communications systems and methods related to communicating in a frequency spectrum using interlaced frequency channels and non-interlaced frequency channels are provided. A first wireless communication device selects a waveform structure between an interlaced frequency structure and a non-interlaced frequency structure for communicating in a frequency spectrum. The first wireless communication device communicates, with a second wireless communication device in the frequency spectrum, a communication signal based on the selected waveform structure. The interlaced frequency structure includes at least a first set of frequency bands in the frequency spectrum, the first set of frequency bands interlacing with a second set of frequency bands in the frequency spectrum. The non-interlaced frequency structure includes one or more contiguous frequency bands in the frequency spectrum.
Invention relates to instant virtual try on experience. This can be used for shopping without having to try any item physically or for online shopping. The invention allows user to try various items by combining their images as if they exist in one space. The system comprises at least following components i) user, ii) input 1, iii) input 2 iv) device and / or v) server.
The present disclosure relates to a pre-5th-Generation (5G) or 5G communication system to be provided for supporting higher data rates Beyond 4th-Generation (4G) communication system such as Long Term Evolution (LTE). Disclosed is method of refreshing a security key in a secondary cell group (SCG) controlled by a secondary node (SN) of a wireless communication system, wherein the network is configured to operate in dual connectivity (DC) mode and further comprises a master cell group (MCG) controlled by a master node (MN) the method comprising: the SN indicating in a first message to a user equipment (UE) that security key refresh is to be performed; the UE generating the refreshed security key and transmitting a second message to the SN, wherein the second message indicates that the security key has been refreshed.
Title of the invention: A TUBE STRUCTURE AND A METHOD FOR MANUFACTURING A TUBE STRUCTURE

Abstract:
The present disclosure relates to a tube structure comprising an inner tube of metal and an outer tube of metal, wherein the inner tube extends in the outer tube, and wherein either the inner tube and the outer tube are mechanically tight fitted over the entire length of the inner tube, at least one space in a radial direction of the tube structure in the form of a groove extends at least in an outer surface of the inner tube or in an inner surface of the outer tube, and the at least one space extends in a longitudinal direction of the inner tube and over an entire longitudinal extension of the inner tube, or a spacer tube is located between the inner tube and the outer tube, the inner tube, the outer tube and the spacer tube are mechanically tight fitted over the entire length of the spacer tube, the spacer tube comprises at least one space in the form a slit extending in a radial direction of the tube structure from an outer surface of the inner tube to an inner surface of the outer tube, the at least one space extends in a longitudinal direction of the spacer tube and over an entire longitudinal extension of the spacer tube, and wherein the at least one space is at least partially filled with a thermal interface material providing a thermal contact between the outer tube and the inner tube.
The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. Disclosed is a method of operating a telecommunication system utilising dynamic Time Division Duplex, TDD.
Abstract:
Methods, systems, and apparatus, including computer programs encoded on computer storage media for classification using neural networks. One method includes receiving audio data corresponding to an utterance. Obtaining a transcription of the utterance. Generating a representation of the audio data. Generating a representation of the transcription of the utterance. Providing (i) the representation of the audio data and (ii) the representation of the transcription of the utterance to a classifier that, based on a given representation of the audio data and a given representation of the transcription of the utterance, is trained to output an indication of whether the utterance associated with the given representation is likely directed to an automated assistance or is likely not directed to an automated assistant.
**Title of the invention:** PAIRING A VOICE-ENABLED DEVICE WITH A DISPLAY DEVICE

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<td>International Application No</td>
<td>PCT/US2018/037550</td>
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**Abstract:**
Methods, systems, and apparatus, including computer programs encoded on a computer storage medium, for pairing a speech-enabled device with a display device. A determination may be made to pair a speech-enabled device with a display device of a particular type. A set of display devices that are associated with the speech-enabled device may be identified in response to determining to pair the speech-enabled device with the display device of the particular type. An instruction may be provided to each of the display devices. The instruction may cause the display device to determine (i) whether the display device is of the particular type and (ii) whether the display device and the speech-enabled device both share a local area network and display on the display device an indication regarding pairing with the speech-enabled device.
Title of the invention: PARTIAL REFRESH TECHNIQUE TO SAVE MEMORY REFRESH POWER

Abstract:
In a conventional memory subsystem, a memory controller issues explicit refresh commands to a DRAM memory device to maintain integrity of the data stored in the memory device when the memory device is in an auto refresh mode. A significant amount of power may be consumed to carry out the refresh. To address this and other issues, it is proposed to allow a partial refresh in the auto refresh mode in which the refreshing operation may be skipped for a subset of the memory cells. Through such selective refresh skipping, the power consumed for auto refreshes may be reduced. Operating system kernels and memory drivers may be configured to determine areas of memory for which the refreshing operation can be skipped.
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<th>(54) Title of the invention : POWER CONVERSION DEVICE</th>
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<td>(51) International classification : H01H85/02,H01H85/10,H01H85/18</td>
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<td>Filing Date : NA</td>
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<td>(62) Divisional to Application Number : NA</td>
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<td>Filing Date : NA</td>
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<td>(57) Abstract : Provided is a power conversion device in which even when a fuse part blows due to an overcurrent, smoke generation, burnout, and short-circuiting between a fuse member and surrounding members can be inhibited. A power conversion device (1), provided with: an electric power semiconductor element (14); an electrode wiring member (13); a casing (30); a fuse part (16) formed on the electrode wiring member (13); a fuse resin member (26) disposed between the fuse part (16) and the casing (30); and a sealing resin member (25) for sealing the electric power semiconductor element (14), the electrode wiring member (13), the fuse part (16), and the fuse resin member (26) in the casing (30).</td>
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No. of Pages : 32 No. of Claims : 10
The present invention provides a power converter device capable of suppressing smoking, burning, and short circuiting even when a fuse melts due to overcurrent and preventing heat emanating from a fuse from reaching a power semiconductor element. A power converter device (1) comprises: a fuse (16) formed in an electrode wire member (13); a fuse resin member (26) covering the fuse (16); and a sealing resin member (25) for sealing a power semiconductor element (14) and the fuse (16) in a housing (30). The fuse (16) comprises: a first upstream part (16a1) having a smaller cross-sectional area than an upstream portion along the direction of electrical current; a second part (16b) having a smaller cross-sectional area than the first upstream part (16a1); and a first downstream part (16a2) having a cross-sectional area greater than the second part (16b) and smaller than a downstream portion.
Title of the invention: LATCH AND DRIVING METHOD THEREFOR, SOURCE DRIVE CIRCUIT AND DISPLAY APPARATUS

Abstract:
A latch and a driving method therefor, a source drive circuit and a display apparatus, which fall within the technical field of display. The latch comprises: a first latch circuit (10) and a second latch circuit (20), wherein the first latch circuit (10) is respectively connected to a first control signal end (S1), a second control signal end (S2), a data signal end (DATA) and a transmission node (P1), and is used for latching, in a first latch node (Q1), a data signal from the data signal end (DATA), and transmitting the data signal to the transmission node (P1); the second latch circuit (20) is respectively connected to the transmission node (P1), a first switch signal end (SW1), a second switch signal end (SW2) and an output node (OUT), and is used for latching, in a second latch node (Q2), a data signal from the transmission node (P1), and transmitting the data signal to the output node (OUT); and when the second latch circuit (20) writes the data signal into the second latch node (Q2), a phase-locked loop in the second latch circuit (20) is turned off. The latch has a relatively simple structure and relatively high drive flexibility.
Title of the invention: PRODUCTION SYSTEM FOR PRODUCING FORMULATIONS

Abstract:
The invention relates to a production system for producing formulations, comprising a unit (1) wherein the unit (1) comprises a sub-unit (1.1) which comprises a combination of a process mixer and a buffer tank, means for feeding a defined amount of substances into the process mixer, a measuring device for determining properties of a partial charge of a formulation, an evaluation device for determining a variation of properties of partial charges produced in the process mixer from the properties of a predefined desired state and a device for adapting the feeding of substances taking into account the variations. The present invention relates to a method for producing formulations.
The present invention relates to a modular production system for the production of formulations, comprising a first unit (1) for the production of formulations and a second unit (2) for receiving and removing piece goods and loading units and for providing piece goods. The present invention also relates to a method for producing formulations using the modular production system.
The invention relates to an operating device for an order-picking apparatus for storing piece goods, more particularly packs of pharmaceuticals. Known operating devices are expensive to manufacture and can only apply a limited gripping force. In order to solve this problem, the operating device comprises: a depositing table (10) extending in a first horizontal direction (x); two elongated gripping jaws (20a, 20b) arranged above the depositing table (10) and having mutually opposed gripping surfaces (21a, 21b); and a gripping jaw guide assembly (30) having a frame structure (31, 32, 33a, 33b), a first and a second guide (35, 36), which are spaced apart in the first horizontal direction (x) and extend in a second horizontal direction (y), and at least four gripping jaw carriages (40a, 40b, 41a, 41b) which are coupled to the guides (35, 36) and are driven in the second horizontal direction (y), each pair of respective gripping jaw carriages being allocated to a guide and at least each pair of respective gripping jaw carriages (40a, 41a, 40b, 41b) spaced apart in the first horizontal direction (x) being coupled to a gripping jaw (20a, 20b).
### Title of the invention: GAS DEHYDRATION WITH MIXED ADSORBENT/DESICCANT BEDS

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<td>(43) Publication Date: 03/01/2020</td>
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<td>(54) Title of the invention</td>
<td>GAS DEHYDRATION WITH MIXED ADSORBENT/DESICCANT BEDS</td>
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<td>(57) Abstract</td>
<td>Mixed adsorbent/desiccant beds comprising in some embodiments from about 20 vol% (volume percent) to about 90 vol% of one or more adsorbents and from about 10 vol% to about 80 vol% of one or more desiccants, based on the total volume of the adsorbent/desiccant mixture, prevent water reflux during thermal regeneration of adsorption beds in gas processing plants and methods.</td>
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</tbody>
</table>
| (71) Name of Applicant: | 1) BASF CORPORATION  
Address: 100 Park Avenue Florham Park, NJ 07932 U.S.A. |
| (72) Name of Inventor: | 1) LOCASCIO, Michael  
2) DOLAN, William, B. |
| (86) International Application No | PCT/US2018/033842 |
| Filing Date | 22/05/2018 |
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| (31) Priority Document No | 62/510496 |
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| Priority Date | 24/05/2017 |
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| (61) Patent of Addition to Application Number | NA |
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| (62) Divisional to Application Number | NA |
| Filing Date | NA |

No. of Pages: 21  No. of Claims: 26
Title of the invention : ADDITIVE MANUFACTURED HEADER FOR HEAT EXCHANGERS

Abstract :
A stacked tube heat exchanger consisting of tubes that are affixed to a header or headers that are additively manufactured.

No. of Pages : 8
No. of Claims : 14
Title of the invention: TIME PROXIMITY BASED MAP USER INTERACTIONS

| (51) International classification | :G06F17/30,G06Q10/10 |
| (31) Priority Document No | :15/708552 |
| (32) Priority Date | :19/09/2017 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No | :PCT/US2018/032038 |
| Filing Date | :10/05/2018 |
| (87) International Publication No | :WO 2019/059967 |
| (61) Patent of Addition to Application Number | :NA |
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| Filing Date | :NA |

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Name of Inventor:
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Abstract:
Systems and methods for time proximity based map user interactions with a user interface are provided. In one example implementation, a method includes providing for display a user interface on a display device. The user interface can display imagery of a geographic area. The method can include obtaining data indicative of a relevant time for contextual information. The method can include obtaining contextual information associated with the geographic area. The method can include obtaining a configuration for a user interface element associated with the time based contextual information based at least in part on time proximity of the contextual information to the relevant time. The method can include providing for display the user interface element based at least in part on the configuration.
The invention relates to a control device (40, 240, 440) for an agricultural spreader device (10, 210, 410), comprising a spreader frame (14, 214, 414) swivellably mounted on a carrier (12, 212, 412), and on which frame spreader elements (22, 222, 422) are arranged for spreading liquid and/or solid materials. The control device (40, 240, 440) has a pressure supply connection (62, 268, 468) and a return connection (64, 270, 470), as well as a controllable valve assembly (60, 266, 466) and a hydraulic cylinder assembly (41, 241, 441) connected to the valve assembly (60, 266, 466) and having a first active surface (51, 255, 455) of the cylinder and a second active surface (52, 265, 465) of the cylinder, wherein the two active surfaces of the cylinder can be supplied with pressure and each is connected to a hydraulic accumulator (98, 100, 318, 320, 524, 544), and wherein the swivel position of the spreader frame (14, 214, 414) can be altered by changing the switch state of the valve assembly (60, 266, 466). In order to develop the control device (40, 240, 440) such that the spring rate of the spreader frame (14, 214, 414) can be decoupled from its swivel position, according to the invention, the active surfaces of the cylinder can be supplied with a predefinable pressure, regardless of the swivel position of the spreader frame (14, 214, 414). The invention also relates to an agricultural spreader device (10, 210, 410) having a control device (40, 240, 440) of this type.
Title of the invention: DISCHARGE DEVICE FOR DISCHARGING ELECTRIC CURRENTS

Abstract:
The invention relates to a discharge device (10) for discharging electric currents from a machine rotor part, which is designed in particular with a shaft, into a stator part of the machine, comprising a contact element (12), a holding device (13), and a spring device (14). The holding device can be connected to a stator part in an electrically conductive manner, and the contact element is largely made of carbon. The contact element is received on the holding device in an axially movable manner and is connected to same in an electrically conductive manner. A contact force can be applied to the contact element by means of the spring device in order to form an electrically conductive sliding contact (17) between a contact element sliding contact surface (15) provided in order to form the sliding contact and an axial shaft contact surface (16) of the shaft, wherein the contact element is disc-shaped, and the sliding contact surface has an at least circular ring shape and can be arranged coaxially relative to the shaft contact surface.

Fig. 1

No. of Pages: 17  No. of Claims: 23
The Patent Office Journal No. 01/2020 Dated 03/01/2020

(54) Title of the invention: PYRROLOBENZODIAZEPINES AND CONJUGATES THEREOF

(51) International classification: A61K 36/00 A61K 8/00

(31) Priority Document No: 61/712,928

(32) Priority Date: 12/10/2012

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

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(38) Priority Date: 12/10/2012

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

(86) International Application No: PCT/EP2013/071236

Filing Date: 11/10/2013

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Filing Date: NA

(62) Divisional to Application Number: 519/MUMNP/2015

Filed on: 12/03/2015

(57) Abstract:
A compound (A) and salts and solvates thereof, as well as conjugates thereof with cell binding agent.

No. of Pages: 206 No. of Claims: 15
The present disclosure provides methods, devices and computer program products which provide less complex and more flexible control of the introduced decorrelation in an audio coding system. According to the disclosure, this is achieved by calculating and using two weighting factors, one for an approximated audio object and one for a decorrelated audio object, for introduction of decorrelation of audio objects in the audio coding system. To be published with Fig. 1.
The present invention relates to process for preparation of Dantron from 1,8 dinitroanthraquinone instead of a mixture of nitroanthraquinone of very high yield and high purity of particle size not more than 50 µm.

CONTINUED TO PART- 4