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<td>पेटेंट कार्यालय शासकीय जर्नल</td>
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| हिन्दी             | निर्णय सं. 07/2020                                                            |
|                  | शुक्रवार                                                                   |
|                  | दिनांक: 14/02/2020                                                         |
| English          | ISSUE NO. 07/2020                                                           |
|                  | FRIDAY                                                                     |
|                  | DATE: 14/02/2020                                                           |

| हिन्दी             | पेटेंट कार्यालय का एक प्रकाशन                                               |
|                  | PUBLICATION OF THE PATENT OFFICE                                           |
INTRODUCTION

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

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

14th FEBRUARY, 2020
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### Address of the Patent Offices/Jurisdictions

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

<table>
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<tr>
<th>Office/Address</th>
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<tr>
<td><strong>Office of the Controller General of Patents, Designs &amp; Trade Marks, Boudhik Sampada Bhavan, Near Antop Hill Post Office, S.M. Road, Antop Hill, Mumbai – 400 037</strong></td>
<td>(91)(22) 24123311,</td>
<td>(91)(22) 24123322</td>
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<td>(91)(11) 25300200 &amp; 28032253</td>
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**Website:** [www.ipindia.nic.in](http://www.ipindia.nic.in)  
[www.patentoffice.nic.in](http://www.patentoffice.nic.in)

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

**Fees:** The Fees may either be paid in cash or may be sent by Bank Draft or Cheques payable to the Controller of Patents drawn on a scheduled Bank at the place where the appropriate office is situated.
पेटेंट कार्यालय
कोलकाता, दिनांक 14/02/2020
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वेबसाइट: http://www.ipindia.nic.in और www.patentoffice.nic.in
पेटेंट अभिकल्प, 1970 तथा पेटेंट (संशोधन) अभिकल्प, 2005 अथवा पेटेंट (संशोधन) नियम, 2006 द्वारा बाँटित सभी आवेदन, सूचनाएं, विवरण या अन्य दस्तावेज़ या कोई शुल्क पेटेंट कार्यालय के केवल उपमुक्त कार्यालय में स्वीकृत होंगे।
शुल्क: शुल्क या तो लाल रूप में या Controller of Patents के नाम में देने का व्राफ्ट या चेक के द्वारा भेजने जा सकती है जो उसी स्थान के किसी अनुसूचित बैंक में प्रदान हो जहाँ उपमुक्त कार्यालय स्थित है।

The Patent Office Journal No. 07/2020 Dated 14/02/2020 8513
SPECIAL NOTICE

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

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

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

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

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

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

SPECIAL NOTICE

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

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 29/01/2019

(21) Application No.201911003570 A
(43) Publication Date : 14/02/2020

(54) Title of the invention : A DEVICE AND METHODS FOR USING POLLUTANTS AND SOURCE OF POLLUTION AS POLLUTION ABATEMENT AGENTS

(51) International : H01M0010440000,G11B0017049000,G03G0015080000,A24D0000306000,B65D0006220000
Classification
(31) Priority Document : NA
No
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
Filing Date : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

(71) Name of Applicant :
1) Persapien Innovations Private Limited
Address of Applicant: Plot No. 171, Ground Floor, Block- SU, Pitampura, Landmark Near Petrol Pump, Delhi North West - 110034, Delhi, India. Delhi India

(72) Name of Inventor : 1) RANJAN, Shashi
2) SAHA, Debayan
3) AGARWAL, Yogesh

(57) Abstract :
The present invention relates to a device and methods for abatement of pollution by transforming or modifying pollutant in such a way that these pollutants are used itself as agents for pollution abatement. The modified pollutants interact with each other in such a way that facilitate removal of pollutants in a desired way from the given resource, such as air or water, to reduce pollution in that resource. The pollutants include particulate matters in air, dissolved solids in water, other types of pollutants mixed with mist, unwanted gases in air and unwanted materials in water etc. Figure-2

No. of Pages : 14  No. of Claims : 11
The present invention relates to a system and method for measuring the flow rate of water and adding desired amount of silver into the water by a micro controller. More particularly, the present invention relates to monitoring of flow rate of output water thereby controlling the dosage of silver ions. Refer to Figures 1-2.

No. of Pages : 10 No. of Claims : 5
The present subject matter refers to a system (200, 400) for communicating a radio-signal for generating a horn. The system comprises an oscillator (204) for generating a low-power signal at a pre-determined frequency based on triggering by a user-operable switch (SI). A semiconductor switching element based gate-driver circuit (206) is provided for driving a power semiconductor-switch (208) based on the low-power signal and thereby switching ON the power semiconductor-switch (208). A transmitter (212) is provided for transmitting a modulated radio-signal based on the switched ON state of the semiconductor-switch and in accordance with said predetermined frequency to enable generation of a sound of a predetermined decibel (dB) level of an acoustic horn at a receiver end.

No. of Pages : 25 No. of Claims : 10
An improved seat for railway coaches is disclosed. The disclosed seat is based on a pad assembly 202 having bolts 302 and locking hooks 304 fitted on underside of the pad assembly 202; and a base frame 204 to support the pad assembly 202. The base frame 204 includes holes 306 and lock plates 308 fitted on upper side of the base frame 204. The bolts 302 and the locking hooks 304 of the pad assembly 202 and the openings 306 and lock plates 308 of the base frame 204 are adapted to enable detachable fitment of the pad assembly 202 over the base frame 204 such that the locking hooks 304 are engaged with the corresponding lock plates 308 and the bolts 302 get inserted into the corresponding openings 306 of the base frame 204.
There is a need in the art for a pesticidal composition which exhibit excellent fungicidal activity towards a wide range of agricultural pests even at a low concentration, better selectivity, lower undesirable impact, lower production and market cost etc. The present invention satisfies the existing needs, as well as others, and generally overcome the deficiencies found in the prior art.
Title of the invention: METHOD OF ELECTRICITY GENERATION VIA HYDROELECTRIC POWER PLANT

Abstract:
A Hydroelectric Power Generation plant is provided that utilizes a inner tank as compressor in a first tank in order to pressurize the water in the inner tank and use the pressurized water on a turbine to drive an electric generator for producing electricity. Flowing water is collected from the turbine and pumped back to a first tank to be used again for driving the turbine.

No. of Pages: 27 No. of Claims: 5
The present invention relates to a solar powered aircraft for collection of more solar power without any additional solar cells to improve the performance of a solar powered aircraft. The solar powered aircraft has an additional control surface ‘auxiron’ to introduce a counter Y-force in the aircraft during banking and with the help of auxiron, the aircraft is capable of banking itself without any sideslip or significantly reduced sideslip.

No. of Pages : 17 No. of Claims : 7
The present invention relates to the field of snubber circuits in flyback converter. More specifically, the invention provides a regenerative snubber circuit in flyback converter and other converters. A regenerative snubber as accordance to the present invention uses one low side switch that is driven from the same PWM signal as that of the main switch to minimize the requirements of additional components and an additional coupled winding provides the compact and cost-effective solution for snubbing the circuit. A delay-based approach helps in achieving the Zero Voltage Switching operation of the main switch of flyback converter and other converter, further reducing the turn-on losses, thereby improving the conversion efficiency.
The subject matter disclosed herein relates to a smart dustbin. Particularly the invention discloses a smart bin which is capable of setting alert to admin and perform necessary actions. The smart dustbin (01) comprising Arduino board (21) having one or more sensors (02) for sensing an amount of waste and a LED screen (22) with automated lid (23) and an environment within the waste container (03), a data processing unit (17) for processing sensor signals indicative of the amount of waste (10) and the environment within the waste container (03), a communication interface (05) for enabling the sensor device (07) to communicate information corresponding to the sensor signals to a remote location (11). Also, the platform is capable to provide android phone local user to login on portal and register a dustbin in their locality. To be published with Fig. 1.
The present invention is related to a stable agrochemical soluble liquid composition comprising an effective amount of active Gibberellic acid in an amount ranging from 0.2 to 0.6 weight percent ratio with respect to said composition. The present invention is also related to a process for the preparation of said stable agrochemical soluble liquid composition, having significant efficacy as a broad agrochemical utility in many crops, with low residual and persistence level along with no phytotoxicity to plants.

No. of Pages : 28  No. of Claims : 20
(54) Title of the invention: SMART ENERGY EFFECTIVE NEXT GENERATION 6G COMMUNICATION SYSTEM

(57) Abstract:
The purpose of this invention is to design and develop a system for energy efficient smart communication technologies for next generation wireless communication technology. In this system millimeter waves and sub millimeter waves technologies are used for indoor communication system. Solar lights are effectively utilized and artificial intelligence techniques are used to manage the effective utilization of the technology in an energy efficient way.

No. of Pages: 15 No. of Claims: 23
The Extra High Voltage safety/protection cum Attacker wearing suit/suits is/are invented accordance with Faraday Cage Law. A conductive metallic chain is used to create the mentioned suit/suits to protect us from extra high voltage and work as an attack mode to defend us from our enemy or harmful incidents. Therefore, it has been named as Extra High Voltage safety/protection cum Attacker wearing suit/suits. It may be designed at different voltage, current and power ratings. Several types of safety/protection/attacker wearing suit/suits can be created and manufactured using different methods under the invented technology. For example:- Instant women safety/protection wearing suit/suits Extra High Voltage protection wearing suit/suits Extra High Voltage Attacker wearing All the mentioned wearing suit/suits has/have one loop or more loops to make it more and more safe in use and maintenance. When we put off the mentioned suit/suits, the loop/loops is/are incomplete, therefore, it cannot attack. After wearing it, it has an attacking power. Thus loops are must be completed to be in function for protection/attack.

No. of Pages : 9 No. of Claims : 4
A static and moving object detection system comprise of at least one video capturing unit associated with the system for recording video of nearby surrounding(s) in both normal and abnormal conditions, a pre-processing module connected with the capturing unit that diminishes the size of the video by eradicating unnecessary data from the video, a video enhancer unit linked with the pre-processing module for ameliorating visibility factors in the video, a feature extraction module linked with the enhancer unit for extracting aggregate channel feature(s) from frames of the video by a Gaussian filter, an object detection module associated with the extraction module for detecting object(s) from the frames by processing the feature(s), and a classification unit associated with the detection module for classifying the object(s) into static or moving object(s). Refer. To Figure 1

No. of Pages : 11 No. of Claims : 8
A moving object detection system comprise of at least one video capturing unit associated with the system for capturing video of nearby surrounding(s) in both normal and abnormal weather conditions, a pre-processing module connected with the capturing unit for removing unwanted data from frames of the video, at least two feature extraction modules linked with the pre-processing module for extracting invariant and robust feature(s) from the frames by a gabor filter, a processing unit associated with the extraction modules for analysing the feature(s) in order to detect one or more moving objects from the frames by a region based neural network protocol and a storage module connected with the processing unit for storing the feature(s), object(s) to generate a dataset in a benchmark format. Refer. To Figure 1
Present invention relates to a device for contamination detection in fuel supply into a vehicle. More particularly, the invention relates to a device which shuts supply of contaminated fuel into a fuel tank of a vehicle. According to an aspect of the invention, there is provided a device for controlling supply of contaminated fuel into a fuel tank of a vehicle, said device comprises of: a detection unit comprising of a filter paper placed over a glass dish, over a light intensity sensor; an estimation unit comprising of a microcontroller, powered by a power source; a light source; a display unit; a shutting device controlled by the microcontroller comprising of a valve placed between detection unit and the fuel tank, for blocking supply of contaminated fuel; wherein the detection unit, the estimation unit, light source is encapsulated in a capsule, characterized in that when gasoline is passed onto the detection unit, the estimation unit detects the purity and which is displayed on the display unit. Please see figure 1.
Title of the invention: A SYSTEM OF ENERGY AWARE SECURE AODV PROTOCOL FOR RELIABLE ROUTING IN MANET

Abstract:
This invention relates to a system of Energy Aware Secure AODV Protocol for Reliable Routing in MANET. In the present era of mobile communication, Mobile ad-hoc network (MANET) is an extremely vigorous network. Nodes in the network are self-configuring, sovereign and operate without any base infrastructure. Nodes can connect and depart the network at anytime. Nodes in MANET are often susceptible to failure thus making MANET open to threats and attacks. Nodes sometimes fall short to communicate data and start dropping packets during the communication. These nodes are responsible for unreliable routing in MANET. So there is a need to design a robust mechanism that would provide a secure and energy aware framework for data communication in MANET. In this paper a Energy Aware Secure AODV (ES-AODV) protocol is presented. This scheme increases PDR, Increases Throughput and decreases delay thereby enhancing the reliability in AODV based MANET routing. The work is implemented and simulated on NS-2.
According to the World Health Organization reports, heart disease is the leading cause of death worldwide. One of the main reasons behind this is the delay in the diagnosis of the disease. In this research work, a heart disease diagnosis system has proposed that will aid in the diagnosis of heart disease using clinical parameters in the early stages. Experiments have carried out using Cleveland and Statlog dataset, which is available on UCI (University of California, Irvine) machine learning repository. Three well-known classifiers Support Vector Machine, Logistic Regression and Random Forest has utilized along with nine algorithms of feature selection for disease prediction. The performance of three classifiers has evaluated in terms of accuracy, sensitivity, specificity, precision, recall and F-measure performance measures. The impact of various feature selection algorithms on the performance of classifiers has analyzed and the best feature selection algorithm has identified.
SYSTEM AND METHOD FOR CRYPTOGRAPHY USING CHAOTIC TENT MAP AND IMPROVED SALP

Abstract:
The present disclosure relates to a system and method for image security. The system comprises: a first data generation module to generate first data based on processing of chaotic tent map; a second data generation module to generate second data based on processing of Improved Salp Swarm Algorithm (ISSA); and a key generation module to generate a key based on processing the first data and the second data. Fig. 1

No. of Pages : 17 No. of Claims : 10
The present invention generally relates to combustion system. Particularly, the Invention provides an efficient Peripheral Vortex Reverse Flow Combustor with Coaxial Fuel Injection (PVRF-COAX) with low NOx and CO emission. The present invention provides a Peripheral Vortex Reverse Flow Combustor with Coaxial Fuel Injection (PVRF-COAX) and its method of operation thereof. Reference: Figs. 1, 2

No. of Pages : 31 No. of Claims : 8
**Title of the invention:** SYSTEM AND METHOD FOR SMART/INTELLIGENT IOT BASED IRRIGATION MANAGEMENT

| International classification |
The| classification |
| A01G0025160000, H04W0004700000, A01C0023040000, A01G0025060000, A01G0025090000 |

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**Abstract:**
The present disclosure relates to a system and method for automatic irrigation control. The automatic/smart/intelligent irrigation control is performed by acquiring, one or more soil parameters, from the sensors; matching, the acquired one or more soil parameters with the stored parameters, to identify a required level of irrigation; and activating, the pump to transfer the stored water, to irrigate the field. FIG. 2

No. of Pages: 24 No. of Claims: 10
The need for high resolution GIS data for various applications is to be met by progressively improving the Earth observation system capabilities. Satellites images used for regular remote sensing services are captured using Panchromatic (PAN) and Multi-spectral (MS) cameras. The PAN images have high spatial and low spectral resolution whereas MS images have high spectral but low spatial resolution. However, accurate geospatial information is required for applications related to change monitoring in the assessment of mudslides, damages due to flood, encroachments and resource surveying over agriculture, forest, urban land etc. In this context, fusion of MS/PAN image is essential to combine the spatial information in the PAN image and the spectral information in the MS image. It is proposed to formulate a fusion algorithm and optimization problem to preserve the spectral resolution and increase the spatial resolution.

No. of Pages : 10 No. of Claims : 7
(54) Title of the invention : ROAD CRACK DETECTION SYSTEM

(51)
International :G06K0009620000,G06K00099000000,G06T00070000000,G06K0009460000,G06N0003040000
classification
(31) Priority
Document : NA
No
(32) Priority
Date : NA
(33) Name of priority country : NA
(86)
International Application : NA
No
Filing Date : NA
(87)
International Publication : NA
No
(61) Patent of Addition to Application : NA
Number : NA
Filing Date : NA
(62)
Divisional to Application : NA
Number : NA
Filing Date : NA

(57) Abstract :
The invention disclose a road crack detection system of identifying crack in a convolutional neural network (CNN), the method comprising a road crack detection device installed in an automobile car for: training said CNN based on a dataset of each of a plurality of input image and a fine tune trained model, wherein said plurality of input images is collected from an open source; generating a feature map of a target image using softmax layer of CNN, wherein crack needs to identify in said target image; classifying said target image in at least one of image with crack or image without crack based on comparison of target image with respect to trained CNN; and segmenting said target image which is classified as image with crack into a plurality of regions based on a plurality of segmentation techniques.

No. of Pages : 18 No. of Claims : 6
**Title of the invention:** MULTIFUNCTIONAL CART FOR HEALTH MONITORING AND MOVEMENT OF PATIENT

**Abstract:**

The present invention is related to a system of multifunctional cart for health monitoring and movement of patient. The objective of present invention is to solve the anomalies presented in the prior art techniques related to wheel chair with health monitoring modules. The system provides a cart configured to convert into wheeler chair and bed according to needs or requirement of the patient health condition.

No. of Pages: 20
No. of Claims: 9
The invention is related to a synthesis of herbal formulation from Melia azaderach for the treatment of T2DM and the method producing such composition. The said composition comprising a mixture ethanol extracts of fruits, leaves and twig parts of this plant. The composition includes triterpenoids and flavonoids compounds and is capable to have potential antidiabetic activity. Triterpenoids and flavonoids from fruits and leaves respectively showed inhibitory effects on PTP-IB enzyme as well as glucose uptake stimulation in C2C12 myoblasts cells whereas ethanol extract of twigs part decreased blood glucose level in STZ induced Sprague-Dawley rats. The present invention provides a natural and herbal formulation that is safe without risk to health and environment.
**Title of the invention:** EXCAVATION ARM WITH PARALLELOGRAM

**Abstract:**

An excavator consists of basic banana boom 12 with a parallelogram assembly 1, 2, 3, intermediate boom 14 is connected to a support part 8 to form parallelogram, intermediate arm 15, shovel stem 16 with digging implement is connected to a support part 86 which can be driven directly or indirectly into rotation about a vertical axis 84. Bucket is connected to shovel stem. The intermediate boom 14 and intermediate arm 15 having a common rotary joint 7, up/down motion of 14, 15 & 16 is controlled by parallelogram assembly 1, 2, & 3 respected to vertical axis 84. The most advantageous in order to clean or dig a deep narrow drain or trenches along with vertical walls outside even after angular rotation about vertical axis 7. The whole invention is capable of connected to a backhoe of backhoe loader or excavator. This model is capable of performing independently many operating processes, such as parallel to wall digging, excavation of silt without drain walls breakage, excavation parallel to axis 84, parallel silt pushing or pulling, critical excavation such as along road side transformers, corners also grabbing, drilling and chipping. Our complete machine having essentially three main sections, namely- a chassis carrying traveling motor pivotally connected with an earth-moving means, a complete swivel upper carriage provided with a power generator and a driver’s seat, and an excavating backhoe with most unique invention. During excavation, paralleling of arm 16 respect to axis 84 can be achieved by using parallelogram assembly 1, 2, & 3 or by hydraulic cylinder using hydraulic valves, parallelogram assembly 1, 2, & 3 is bit cheaper.

No. of Pages: 12  No. of Claims: 10
Title of the invention: SMART GARBAGE MONITORING SYSTEM USING IOT USING RASPBERRY PI WITH PI CAMERA

Abstract:
The subject matter disclosed herein relates to a smart garbage monitoring system. Particularly the invention discloses a smart bin which is capable of setting alert to admin and perform necessary actions. The present invention provides a sensor-equipped smart garbage monitoring system that reports its fullness and its physical condition. In one embodiment, the smart garbage monitoring system sends an alert indicating that an immediate service (e.g., cleaning) is required. The smart garbage monitoring system (01) may be equipped with a number of types of sensors, such as those for detecting garbage level, to sense the presence of dry and wet and capable to detect the object. The MQTT makes the work easier and faster when compared to the Wi-Fi. To be published with Fig. 8

No. of Pages: 34 No. of Claims: 7
Title of the invention: SYSTEM AND METHOD FOR HIGH EFFICIENCY CODING FOR SURVEILLANCE VIDEOS BASED ON SELECTIVE BASED FAST INTRA CODING

Abstract:
The present disclosure relates to selective based fast intra-coding. Embodiments of the present disclosure relates to: termination of at least one early CU; execution of block based intra prediction (BP); execution of boundary region based SAP (BRSAP) for one or more multimedia information; and calculation of a prediction for each block by using the BP and BRSAP. Fig. 2

No. of Pages: 27 No. of Claims: 10
Abstract:
A broken endodontic file retrieval apparatus comprises of an elongated body 1 with a first and second portion wherein the body is hollow in nature, a plunger 2 associated with the second portion wherein the plunger 2 reciprocates between the first and second portion, a curved needle 3 centrally aligned over the first portion via a needle hub 4, wherein the needle 3 is hollow in nature and is inserted inside a patient's mouth for performing endodontic practice, a wire 5 with a proximal and distal end wherein the proximal end is welded at tip of the needle 3 and distal end is knotted with the plunger 2 for creating a loop 6 at tip portion of the needle 3, wherein size of the loop is increased/decreased by the plunger in order to grip foreign particles from a root canal.
The present invention discloses a mechanically operated fluid level management system to control the inflow of fluid in a fluid storage tank. More particularly, the invention relates to a valve control system wherein a difference in pressure regulates the opening or closing of valve that allows fluid inflow in a fluid storage unit. Further, the present invention discloses a mechanically activated diaphragm wherein the diaphragm is seated on a valve and is kept in a closed position under normal circumstances. The upward movement of the diaphragm allows the entry of water in the water outlet passage that results in the filling of water storage unit.
Title of the invention: MACHINE LEARNING BASED SYSTEM FOR PREDICTION OF SETUP SECURITY - FAILURE OF ARTIFICIAL LIFT

Abstract:
The present disclosure of invention is present a system for prediction of setup security - failure of artificial lift using machine learning. The objective of the present invention to provide overcomes the inadequacies of the prior art design of artificial lift failure in oil well. The disclosed system comprises a well parameters extraction module, at least one artificial oil lift and a controlling unit.
Title of the invention : GROUP CHAT APPLICATION

Abstract :
By using a mark button in every group we may share our information to particular members belongs to this group.

No. of Pages : 5 No. of Claims : 2
An interactive conference system (100) for a conference room, the conference system (100) comprises a presenter device (112) associated with a presenter (302), one or more viewer devices (114) associated with one or more viewers, connected with the presenter device (112), a communication module (108) configured to enable communication between the presenter device (112) and the one or more viewer devices (114), a control module (102), a translation module (104) connected with the control module (102) and a speech recognition module (106) connected with the control module (102). [FIGURE 1A]
(54) Title of the invention : A SELF-ADJUSTING STAND

(51)
International :A61G0007100000,F16M0011380000,A42B0003040000,E06B0009322000,H01L0021687000
classification
(31) Priority
Document :NA
No
(32) Priority
Date :NA
(33) Name
of priority
country :NA

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

(57) Abstract :
A self-adjusting stand (100) comprises one or more legs (102) having a respective first end (1022) and a respective second end (1024), each leg capable of extending and retracting independently and the respective second ends (1024) being adapted to be placed on a surface (202), a head (104) connected with the one or more legs (102) proximal to the respective first ends (1022), and adapted to mount an equipment (204), a motion control module (108) connected with the one or more legs (102), one or more sensors disposed at one or more positions on the one or more legs (102) and the head (104), a microcontroller connected with the motion control module (108) and the one or more sensors and a power source to provide electrical power to the motion control module (108), the one or more sensors and the microcontroller. [FIGURE 1]

No. of Pages : 22 No. of Claims : 10
A system and method for trapping insects comprises two stages, the first stage of which is a hollow chamber forming a trapping cage comprising plurality of fans each on a different plane whose exhausts are directed towards a central chamber. The central chamber can be of any 3 dimensional hollow shape such as sphere, cube or multi planed polyhedron on whose surface the fans will be mounted while the attractants are released within the chamber. Olfactory and other attractants are also used for more effectiveness of luring the mosquitoes. The main apparatus is then placed into a vessel/container which is essentially larger than the main apparatus itself and open at the top. This constitutes the second stage of the mosquito trapping system which is configured to be dark, warm and moist.
Title of the invention: METAL TIN (ATHAVA) - FARMERS PILLOW TO REDUCE NECK PAIN

Abstract:
METAL TIN (ATHAVA) - FARMERS PILLOW TO REDUCE NECK PAIN Mrs. Swati Sandeep Kadu ABSTRACT: Background: Neck Pain prevalent and the impact is pervasive across a wide spectrum of occupations, as is evident from numerous studies conducted across the globe. However, there are very few studies that document the prevalence of Neck Pain in India. In rural villages, Physiotherapists are not available. Metal tin (Athava) is available in farmers' houses, it can be used to reduce neck pain. Nowadays, cervical pillows in the market cost more than 3,000 to 4,000 INR, which is not affordable by farmers. Metal tin (Athava) costs around 200 INR. It has been used by farmers, they have given feedback that their pain had been reduced by 70 to 75%. People suffering from neck pain sometimes require Physiotherapy treatment. Cervical pillows can help relieve intense pain by providing natural and correct posturing in supine (back) and side-sleeping positions. On the basis of recent researches on the effect of different pillows with chronic neck pain found that soft pillows can support cervical lordosis. Similarly, the placing of the patient's neck in a neutral position during treatment is desirable. This Metal tin (Athava) will fulfill all above criteria and can be used to reduce neck pain and also to reduce tightness of neck muscles. AIM & OBJECTIVE: The main objective of the invention is to use metal tin to reduce neck pain by maintaining normal curvature of spine. MATERIAL & METHOD: Metal Tin (Athava) - Patient lying in supine position. Athava is placed below the cervical spine at the level of C5-C6, C6-C7 for at least 15-20 mins for 3 sets for 3 repetitions. CONCLUSION: It is used to reduce neck pain by maintaining in normal posture, by use of metal tin which has curve on both sides, to maintain cervical lordosis. It can be covered with soft cushion to reduce pressure. This can compromise pain-sensitive structures and produce waking symptoms, such as cervical pain and stiffness, headache, scapular or arm pain, this pillow will be cost.

No. of Pages: 5 No. of Claims: 4
SYSTEM AND METHOD FOR ASSOCIATING IDENTIFIERS TO REAL-WORLD OBJECTS

The present disclosure provides system and method for associating identifiers to real-world objects. The system includes: a transceiver device to receive information associated with an image representing real-world object; and a hardware processor to: extract, by characteristic extraction unit, characteristic features from the received information; generate, by signalling unit, first set of signals, wherein the first set of signals associated with the extracted characteristic features; transmit, using a transceiver device, upon generation of the first set of signals, a normalization parameter for information associated with the extracted characteristic features to computing device; recommend for selection, by the computing device, of an identifier to the image; generate, by the signalling unit, second set of signals representative of selection of recommended identifier; and associate, upon generation of second set of signals, the selected identifier to image to register the selected identifier to image.
Title: INTEGRATED HIGH RESOLUTION TIMING SPECTROSCOPY SYSTEM WITH WIDE DYNAMIC RANGE BASED ON NEW METHOD OF TRACKING RAMP AND ADCS

Abstract:
My invention is a new method for time interval measurement for high resolution timing spectroscopy system. Unlike the conventional methods, this new method makes use of tracking ramp generation circuit and high resolution ADCs with low conversion time of nearly 1 µs. The ramp output is sampled at the instant of START and STOP pulses and digitized with these ADCs to measure the time interval with resolution of ps. The system has been constructed using micro-controller based PC interface circuit.
A retractable core for casting of hollow sections and method thereof: A retractable core for casting of hollow sections having variable thickness, variable cross sectional dimensions and protruded sections or restricted dimensions at the end openings and method thereof is disclosed in this invention. A retractable core assembly 4 for casting of long thin hollow sections comprises a refractory plate 3, a bottom core subassembly 5, a middle core subassembly 9, a top core subassembly 13, a center pipe 16, a bottom collapsible ring 17, a bottom end ring 18 and, a refractory pipe 21. Use of disclosed segmental retractable core and method for casting of said hollow sections improves surface finish of castings, increases dimensional accuracy of castings, minimizes casting defects, improves mechanical properties of casting, increases productivity and reduces cost of production.

No. of Pages : 36
No. of Claims : 23
Title of the invention: SIZE ADJUSTABLE FOOTWEAR

Abstract:

The present invention generally relates to footwear which can be increased or decreased in size (length and width), specifically designed for use by children from infant age to teen-age. It is also well known and within common knowledge that, any child up and until his/her teens have feet that are still growing. Thus this invention aims to provide footwear have larger longevity while at the same laying down strong importance for comfort. Considering the above, it is imperative that one provides for footwear, that has the ability for for an increase and decrease in width while at the same time, equally giving importance to increase in the length of the size of the foot as also comfort. Keeping the above in mind, it is the primary object of the present invention is to provide footwear that can be increased or decreased in size(length/width), based upon the desire of the user while at the same time not compromising on the quality of the footwear and keeping the foot within the footwear, orthopedically sound. It is also the aim of the present invention is to provide an expandable footwear which may be incorporated into conventional oxford type shoes, boots or any special orthopedic footwear such as a corrective footwear or the like with the lengthening widening being quite simple to accomplish. Thus keeping the above in mind, it is the object of the present invention to provide a size adjustable footwear, enabling a novel means for the increase or the decrease in the width of the footwear of the user. Adjustability as well as increase and decrease in size, can be provided by various means as further detailed in the present invention. Thus present invention provides for expandable yet robust footwear, which can be adjusted based upon and to suit the need of the desirous user.
The present disclosure relates to organic and natural nutritional supplement composition that are substantially free from toxins, harmful chemicals, hormones, antibiotics, and any undesired artificial products which having increased bioabsorbability into the bodies of the athletes; and that helps to build and maintain lean muscle, aids weight loss, rich in protein, very low on lactose and fats, improves health of skin, hair, bones, etc., boosts immunity, increases energy and optimizes metabolic rate in athletes. The composition is harmless yet an effective nutritional supplement for athletes.

No. of Pages : 27 No. of Claims : 8
The present disclosure relates to organic and natural nutritional supplement composition that are substantially free from toxins, harmful chemicals, hormones, antibiotics, and any undesired artificial products which having increased bioabsorbability into the bodies of the athletes; and that aid muscle growth and recovery, boosts muscle strength, optimizes testosterone levels, increases endurance levels, fights stress and boosts energy in athletes. The composition is harmless yet effective nutritional supplements for athletes.

No. of Pages: 29
No. of Claims: 9
The coating of cobalt phosphate on solid substrate is carried out by using a new chemical method by optimizing parameters such as concentrations of cobalt and phosphate precursors, various adsorption, reaction, rinsing time periods, and deposition temperature. The XRD pattern shows amorphous coating of cobalt phosphate over both conducting and non-conducting solid substrates. Well covered elongated nanoparticles of cobalt phosphate are observed from FE-SEM analysis. Further, application of cobalt phosphate coating in electrochemical supercapacitive energy storage is demonstrated.
Abstract:
The present invention is a system which linked with medical devices for the complete solution of individual and public health, peripheral level data generated by equipments like weighing machine (8, 8(a)) (baby and adult) hemoglobin meter (10), blood pressure (9) etc. entered directly in system analysis will be done for individual for health status also facility level reports generated. The family registration (4) is first step after login and entering the basic detail of centre and employee and system generates individual specific ID. The present invention also provide solutions for monitoring of various health indicators which translate into identifying nutrition status, birth defect (19) screening, immunization anthropometric growth, communicable & non communicable disease status, high risk ante natal care and post natal care, morbidity and mortality audit. This system will digitalize the whole health & nutrition record of individual.
ABSTRACT AN ASSEMBLY OF A GYRATORY MOTION GENERATOR The present disclosure discloses an assembly of a self-sustained gyratory motion generator, more particularly relates to the assembly of the self-sustained gyratory motion generator that is based on the principle of hand mill grain grinder (flour mill), wherein the said assembly uses predetermined arrangement and combination of shoulder plates, helical springs, connecting levers and magnetic field embedded together along with other supporting parts in an enclosed metallic casing. The assembly for gyratory motion generator is disclosed. An external force may be used initially to trigger the gyratory motion of the crank wheel of the assembly. After predetermined rotations of the crank wheel, the assembly shows tendency of gaining self-sustained gyratory motion without aid of external force or fuel. To be published with figure 1
Abstract: Toothbrush bristle check enclosure an apparatus for checking the state of bristle of the toothbrush, toothbrush bristle check enclosure is a visual comparator which helps the user understands the state of the toothbrush bristle and the perfect time to replace the toothbrush when the bristle bulge and overlap the said contour. The toothbrush bristle check enclosure (1), (2), (3) have steps which are either differently coloured or coloured by different shades of the same colour. The toothbrush bristle check enclosure (10) has flat surface with colour, raised or grooved profile. Toothbrush bristle check enclosure (23) has a transparent surface with colour contour or raised, grooved profile or perforation in a contour form.
(54) Title of the invention : USE OF IMAGE PROCESSING TECHNIQUE FOR COUNTING BALLOT PAPER VOTES IN GOVERNMENT ELECTIONS

(57) Abstract :
In democratic countries elections are integral part of government formation process. This invention is related with field of conducting government elections in a democratic country like India. The invention proposes new system and methodology for conducting government elections. The proposed method is an extension of existing ballot paper method. The government election process is conducted in two major steps viz. Voting and Counting. This invention is related with designing systems and methods to be used in Voting and Counting Process of the government elections. The invention introduces novel use of image processing technique to make ballot paper Counting Process more efficient and reliable. The proposed invention is helpful for reducing cost of conducting government elections as it doesn’t require costly equipment such as EVM™s and VVPATs at every Polling Booth.

No. of Pages : 13 No. of Claims : 3
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :06/02/2020

(43) Publication Date : 14/02/2020

(54) Title of the invention : BLOOD GROUP IDENTIFICATION DEVELOPMENT SYSTEM (BIDS)

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<th>(61)</th>
<th>Patent of Addition to Application : NA</th>
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<td>(62)</td>
<td>Divisional to Application : NA</td>
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| (57) Abstract : | Our invention titled: - Blood Group Identification Development System (BIDS). Our invention relates to identification of blood groups by the ABO blood grouping system. Antibody entrapped beads are used for identification of blood groups which is a dry method. It contains the various polymers and specific antisera (4). The antibody solution and various polymers are used in the preparation of antibody precoated beads. Antibody entrapped beads are prepared by mixing Sodium Alginate Solution (1) and PVP K-30(2) in the proportion of 4:1 ratio respectively. The antisera solution (3) was added in the ratio of 2:1 to the solution mixture of sodium alginate (1) and PVP (2). The resulting mixture was dropped into a CaCl2 solution (6) (3%) via an 18-gauge needle at a temperature of 25°C. After 15 minutes, beads were collected by decantation and stored in the airtight container at 2-8°C of temperature. |

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No. of Pages : 23  No. of Claims : 4
The present invention relates to a concealed waste segregation system. The object of the proposed system is to provide a robotic segregation of the trash generated on public places like railway stations, bus-stops, malls, etc. with different sensors. In this system the types of garbage are senses on the picker itself so with the help of this setup the garbage can be segregate on the spot. This helps in further process like recycling and reusing of recyclables. This reduces the labor cost for manual segregation and maintains the health of the surroundings, as this system is concealed. Following invention is described in detail with the help of Figure 1 of sheet 1 showing the block diagram of concealed waste segregation system.
Abstract:
This invention relates to Automatic cubitainer filling and capping machine. The invention mostly uses it in any industry which requires cubitainer for liquids like hematology reagents & lab chemicals. It can fill from 05 ltr to 20 ltr of cubitainer which contains circular type opening or for liquid filling.
# Abstract

During recent years, due to the technological advancements, many sophisticated techniques have been evolved for assuring fast recovery of the patients in hospitals. Need for good patient care in hospitals, assessment and management of fluid and electrolyte is the most fundamental thing required. All most in all hospital, an assist/nurse is responsible for monitoring the electrolyte's bottle level. But unfortunately, most of the time, the observer may forget to change the bottle at correct time due to their busy schedule. To overcome this critical situation, an IoT based automatic alerting and indicating device is proposed where LASER - LDR pair as a sensor is used as a level sensor. The concept is based on the principle that the sensor output changes when fluid level is reducing below certain limit. When fluid level is lower down from threshold value, the system will alert the observer through the display or/and mobile phone at the control room indicates the room number of the patient for quick recovery. The sensing mechanism is universal and optimized in terms of space and cost with respect to weighing sensor or sensor strip. Such a device will create assurance of non-harm condition to patients and also helpful to monitoring of data and such data can be stored and will be useful in future.

No. of Pages : 10  No. of Claims : 7
We present a technique to distinguish enantiomers of chiral (optical active) materials by using interference rings. Traditionally, difference in absorption of left and right circularly polarized light is employed in circular dichroism spectroscopy to differentiate between optically active materials. These materials exhibit circular birefringence by rotating linearly polarized light in different directions. With little modification in Newton's rings set up and by using polarizer and quarter wave plate, we are able to differentiate between optical enantiomers. The method is simple and is based on finding refractive index of the materials with less than 40 µL volume.

No. of Pages : 12
No. of Claims : 2
Title of the invention : ROTATIONAL THROMBECTOMY DEVICE

A medical device (100) for macerating thrombus. The said medical device (100) includes a driving means (113). The driving means (113) includes a brushless DC motor with a lotless stator. Additionally, a rotating unit (109) having a proximal end (109a) for breaking and macerating blood clots is provided in the medical device (100). A pre-defined coupling means (117) being coupled to the driving means (113). The said pre-defined coupling means (117) includes a holding means (117a) and a securing means (117b). The holding means (117a) being tapered and possesses plurality of protrusions (10) and (12) at their end for holding the respective ends of the shaft (113b) and the rotating unit (109). FIG.1

No. of Pages : 23 No. of Claims : 9
Novel crescent shape hybrid boosters are designed as the sub-assembly of the launch vehicle, which provides an additional thrust to the launch vehicle during lift-off. The crescent shaped hybrid boosters are exactly fitted over the surface of launch vehicle, in turn there is no airflow in-between crescent shape booster and its contact surface area with launch vehicle. Hence, the crescent shape of the booster will provide lesser total drag compared to the conventional circular shaped booster, which will result in low propellant consumption in-turn long range of the launch vehicle during first stage or only during booster operation. The cost of the mission will be reduced to some extent, because of lower propellant consumption for the same range when compared with conventional boosters. Further, combustion can be controlled at any time during the flight and the launch can be aborted even after ignition and before liftoff during emergency.
System and Method for Identification of Futuristic Faults in the Digital Systems

The present invention relates to a system and method for fault diagnosis for fault identification in industrial applications wherein the proposed system is bifurcated in two parts; in the first part the industrial process control system is continuously observed for the performance, which is compared with the default parameters and the data set to which the process control system is calibrated and trained. The comparison output is considered as input to the system, the FPGA-based system monitors the degree of variations with respect to the expected outcome if there is any variations in the performance, it is noted in the list of the new data set and is used as input to the process control system for calibrations and in the second part the newly created data base is used for fault diagnosis, fault correction and estimating life span of the machine. Following invention described in detail with the help of figure 1 of sheet 1 shows block diagram of proposed invention.

No. of Pages : 11 No. of Claims : 8
A METHOD AND AN AUTOMATIC CONVEYOR SYSTEM FOR TRANSPORTATION OF PACKAGED ITEMS

**Abstract:**
An automatic conveyor system (100) for transportation of packaged items is provided. The system includes a first conveyor assembly comprising a fixed side frame (102) and a plurality of fixed conveyors (104a, 104b, 104c, 104d) to transport items from a first end to a second end. The system includes a retrofittable conveyor trolley assembly (200) movably connected onto the fixed side frame (102). The system includes an inclined conveyor (202) configured to transport the packaged items from at least one fixed conveyor (104a) from the fixed conveyor onto a rotatable conveyor frame (204) with the help of a roller conveyor (302). The system includes the rotatable conveyor frame (204) configured to transport the packaged items to a third conveyor (206). The system includes a crane (300) configured to control the position of third conveyor (206). FIG. 6

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No. of Pages: 46
No. of Claims: 11
(54) Title of the invention : TRASH COLLECTING RIVER RO-BOAT

| (51) | International :F03B0017060000,B65F0001140000,B65F0001160000,B60C0011040000,E03B0003360000 |
| (31) | Priority Document :NA |
| (32) | Priority Date :NA |
| (33) | Name of priority country :NA |
| (86) | International Application :NA |
| (87) | International Filing Date :NA |

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(57) Abstract :
ABSTRACT TITLE OF THE INVENTION Trash Collecting Ro-Boat India Ranks among the top 10 water rich countries for the fresh water content. India accounts for 18% of the world population and about 4% of the world's water resources and hence India is facing fresh water crisis. 14% of the world's surface area is being covered by the Indian ocean. 80% of the Indian area experiences rain of 750 millimeters or more per year. India currently stores 6% of its annual rainfall or 253 billion cubic meters, while developed nations strategically stores 250% of the annual rain fall in arid basins. Out of India's 3,119 towns and cities, just 209 have partial treatment facilities and only 8 have full wastewater treatment facilities. The traditional method of collecting trash form stable water bodies is not so efficient and time consuming and labor intensive. The invention is designed to address the challenges of clearing the surface of stable water bodies and to reduce the cost of clearing. The trash collecting Ro-boat is autonomous system of aquatic vehicles used to clear surface of stable water bodies. The trash floating on the surface of the water gets collected in the collection bin of Ro-Boat making it more efficient. The camera attached to it works as an Eye of the Ro-Boat making it more efficient for transmitting videos up to 2Km inside the stable water body. The eco-friendly device will not only help to clear the surface of stable water bodies but also helps to check PH, alkalinity, conductivity, temperature, and dissolved oxygen content.

No. of Pages : 16 No. of Claims : 9
(54) Title of the invention : SAFETY WARNING SYSTEM FOR TWO WHEELERS

(57) Abstract :
ABSTRACT A system that promulgate mindfulness in people driving motorbikes about their removal of hand and distracted behavior while driving. It causes an accident many times because of carelessness. In this system has an Inductive proximity capacitive type sensor attached on left handlebar on gripper which has internal connection to ignition system. The sensor works only when vehicle is running mode and can't work in off mode. The sensor has connection to a LED and a buzzer which blinks and buzzes respectively as soon as the sensor senses absence of hand on handlebar. It alerts the driver by the blink of LED and buzzing sound, hence the system is given an alert and the ignition is turned off, after some specified distance so that it can put hands on handle otherwise behind vehicles can strike from back side. It alerts the driver to place back his/her hand on handlebar, once the hand is back on position the sensor senses it and the buzzer is stopped and also the LED is off It is a preprogrammed sensor given with connection directly to ignition system of motorbike, which is in work when vehicle is switched on. This modification in motorbikes would cost moderate in amount in its actual on road price.

No. of Pages : 7 No. of Claims : 1
The present invention relates generally to a process for drying fruits and vegetables. The process includes removing the free water from fruits and vegetables, then putting the fruits and vegetables into a reaction vessel, ozonized water so that all germs and pesticides were removed and The dehumidifier used in this dehydration process is specially made by membrane technology.
Title of the invention: SMART WIFI ROUTER SYSTEM FOR INCREASED SIGNAL STRENGTH

Abstract: The direction of radiation emitted will be perpendicular to the direction you point antenna. This creates less signal strength in direction along length of antenna and more signal strength along direction perpendicular to antenna. So receiver experiences more signal strength when it is placed in that position. But in real time receivers are changing their position constantly hence difficult to implement. In proposed system we are rotating antenna in synchronization with receiver so that it experiences more signal strength. Here to locate receiver, we are using RADAR like small system. More the number of antennas greater the accuracy of position estimation. We can deal with multiple receivers easily with proposed system. A micro controller is used to do mathematical stuff, angle formulation, memory storage etc.

No. of Pages: 8 No. of Claims: 6
Abstract:
Present invention discloses a process for permanently reducing the inherent water content of biomass or any high moisture carbonaceous waste by means of proprietary hydrothermal treatment. In this process a biomass converted to biomass water slurry is heated to feedstock specific temperatures and the corresponding saturated steam pressure to permanently reduce the inherent moisture. During the process, the extracted water from the reactors has the wood vinegar properties and then these extracted water (wood vinegar) are reformulated by proprietary Bio-Fermentation process into stable organic soil augmentation products (SAP) that can be used in organic farming and organic agriculture and organic forestry management.
Abstract:
ABSTRACT PRINTER DEVICE The printer device (100) facilitates printing of uploaded documents at any location by a pre or post payments without compromising on the confidentiality of the document. Documents to be printed are uploaded through a user device (34) and the document(s) in the encrypted form is/are stored in cloud storage (35) through a user interface system (33) which also receives print preferences and thereupon calculates cost and provides a unique code. The unique code is to be inserted in any of the printer device (100) positioned at any location through the user input device (30). The payment can be done by selecting online payment option or offline payment option. Based on the unique code, the control unit (50) signals to initiate payment if the payment is pending. The control unit (50) commands to decrypt the uploaded encrypted documents and commands the printer unit (20) to print.

(To be published with Figure 1)
Disclosed is a system (102) and a method for facilitating an operation by a user a is disclosed. A user orders one or more items from a platform. The system (102) determines one or more retailers with the order in a proximity of the user. Further, a retailer in the close proximity to the user is selected. The system (102) shares a notification on a receiver machine (104) of the retailer. The retailer may accept or reject the order by pressing a switch present on the receiver machine (104). The system (102) receives an acknowledgement from the receiver machine (104). Finally, the system (102) shares information about the order and the retailer with the user when the acknowledgement is a positive acknowledgement.
Exemplary embodiments of the present disclosure are directed towards an universal drop pit table, comprising a first rail set configured to mount a trolley, the trolley configured to move inwards and outwards within a shell by moving on the first rail set using one or more wheels by a hydraulic motor and a hydraulic pump; one or more hydraulic jacks and one or more telescopic booms configured to lift and lower a top platform using the hydraulic motor and hydraulic pump, the top platform comprises a second rail set configured to align with a track rail using the one or more hydraulic jacks and the one or more telescopic booms to perform one or more electrical and mechanical operations; and a first set of safety pins and a second set of safety pins configured to place in their location to prevent the falling of the top platform in case of any hydraulic, electric or mechanical failure. Fig. 1.

No. of Pages : 19 No. of Claims : 6
Title of the invention : IBP-METHOD: INTELLIGENT BIODIESEL PRODUCTION METHOD

Abstract:

IBP-Method: INTELLIGENT BIODIESEL PRODUCTION METHOD ABSTRACT My Invention IBP-Method is based on the biodiesel production technology. There are various methods available for biodiesel production out of which Cavitation Reactor Method is most commonly used in present. But, due to more time consumption and less output quality, the cavitation reactors available are less efficient. In order to solve these problems associated with traditional methods, new device called "Super Jet and Micro Roughness Cavitation™ is invented. New device not only work on the principle of cavitation by means of Jet and Pelton Wheel arrangement but also there is arrangement called "Surface Roughness™ by means of nanomaterials which boosts the cavitation rate. In addition to this, the impulsive force of the biodiesel is utilized for production of electric energy with the help of Pelton Turbine principle. Unlike other devices, new device is consisting of inbuilt separation arrangement. Hence, the requirement of other separating equipments is eliminated. Overall, new biodiesel production device is cost effective, quality effective and timesaving.

No. of Pages : 18 No. of Claims : 8
ABSTRACT WATER PERCOLATION SYSTEM AND METHOD FOR REPLENISHING AQUIFER

The water percolation system (100) and method replenishes aquifer for reducing water shortage with minimum cost for operation and maintenance as compared with conventional and no use of external power. The water percolation system (100) includes a support base (10) to support a filter arrangement (20), a percolation line (30) and an air relief pipe (40). The filter arrangement (20) is surrounded with collected water which passes therethrough. The percolation line extends to predetermined depth under the ground and is defined with a percolation pipe (30) and a bore-well channel (31) being in fluid connections. The percolation pipe (30) is introduced in the filter arrangement (20) and support base (10) and extends to penetrate a portion under the ground (11) and is defined with at least one water inlet through which filtered water flow up to the predetermined depth and replenishes the aquifer. (To be published with Figure 1)
Title of the invention: MICROBICIDAL SURFACES

Abstract:
Hospital acquired infections are a huge burden on the patients and the healthcare industry. Infections from medical devices like catheters or that are spread by the contaminated surfaces or handling gloves that are acting as Fomites are a leading cause of death among patients. In general, medical devices are packed very clean and sterilised before use. However as soon as the packet is open and put to use, the device itself starts accumulating infection due to its very nature of use like the Foley™s catheter or Central IV cannula or the urine bags or the examination and operation gloves or even the sutures. There is a very strong need to keep the device sterile for a long period of time during its usage so that the microbial load is not built on or during its use or even after discarding it. Some of the solutions that exist at present have depleting active ingredient that keeps on losing efficacy over time or stops performing completely after the effective concentration is reduced beyond minimum inhibitory concentration due to its consumption in usage. Current invention teaches methods to make the surfaces sterile by non eluting method such that the surface of medical device retains microbicidal activity for a long period of time, and also studies the efficacy of the method in different cases. In certain cases, there is a need of tackling infections around the area of skin contact like the catheter especially when the bacterial flora is seeping through the skin. Certain biofilm inhibiting combinations are needed in such crucial areas. In such cases judicious combination of eluting and non eluting microbicidal is needed. The eluting component here is not performing the function of preservative of device and hence the effective concentration of the eluting component can be kept far lower to have less cell toxicity. This would mean some of the highly active eluting components which are not finding use at present due to the cell toxicity can find its use on account of its lower effective usage quantity. Certain biofilm inhibiting combinations are needed in such crucial areas. Current invention teaches method and studies products that are made as per the stated principal and measures the efficacy of them in different cases.

No. of Pages : 28 No. of Claims : 8
(54) Title of the invention: A HERBAL COFFEE BEVERAGE FOR BRAIN COGNITIVE ENHANCER

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(57) Abstract:
ABSTRACT OF THE INVENTION TITLE: A HERBAL COFFEE BEVERAGE FOR BRAIN COGNITIVE ENHANCER
The present invention relates to a herbal coffee beverage for brain cognitive enhancer composition containing coffee powder, Brahmi (bacopa monniera) extract, the cocoa extract, the cardamom extract and Natural sugarcane extract Spray Dried Powder. The herbal coffee beverage composition promotes sustained cognitive performance and facilitates for improving cognitive performance of the brain. FIG.1

No. of Pages: 15  No. of Claims: 8
A surgical instrument having a scissors-needle combination 100 is disclosed, having a pair of blades 102 pivotally coupled to each other to form a scissors 104, and a needle 106 spaced away from the scissors 104 and configured to inject a fluid. Only a portion of an inner edge located at a distal end 150 of the blades 102 has a sharp cutting edge made of a conducting material, with remaining of the inner edge of the blades being blunt and non-conducting. At least a portion of the blades towards the distal end of the instrument is curved to adapt the scissors 104 to inner wall of cavity of an organ. The needle 106 is configured for translatory movement along a longitudinal axis to facilitate insertion in tissues for hydro dissection before scissors 104 is used for excision of tissues. Limited length of cutting edge avoids accidental perforation of bladder.
An aspect of the present disclosure provides a suturing instrument comprising: a plurality of hollow tubes; at least two stitching arms coupled to first end of the plurality of hollow tubes, the at least two stitching arms capable of moving between an open position and a closed position, wherein in the open position the at least two stitching arms are away from each other, and in the closed position the at least two arms are closer to each other; a needle coupled to at least one of the at least two stitching arms, wherein a suture is looped through the needle to enable suturing when the both arms are moved to the closed position; and a handle comprising at least two members coupled to a second end of the plurality of hollow tubes such that first member of the at least two members is fixed and a second member is movably coupled to the first member, wherein when the at least two members are closer the at least two stitching arms are in closed position, and when the at least two handles are moved away the at least two arms move from the closed position to the open position.

No. of Pages : 20 No. of Claims : 9
**Title of the invention:** MP-FINDER: MEDICAL PROBLEMS FINDER AND NOTIFICATION USING DEEP LEARNING TECHNIQUE

**Abstract:**

The invention MP-Finder Systems and methods for processing electronic imaging data obtained from medical imaging procedures are disclosed herein. Some embodiments relate to data processing mechanisms for medical imaging and diagnostic workflows involving the use of machine learning techniques such as deep learning, artificial neural networks, and related algorithms that perform machine recognition of specific features and conditions in imaging data. In an example, a deep learning model is selected for automated image recognition of a particular medical condition on image data, and applied to the image data to recognize characteristics of the particular medical condition. Based on the characteristics recognized by the automated image recognition on the image data, an electronic workflow for performing a diagnostic evaluation of the medical imaging study may be modified, updated, or prioritized.

No. of Pages: 28  No. of Claims: 9
Foot prosthetic device assembled from lattice structural elements for enhanced mechanical properties

Foot prosthetic device (100) assembled by employing one or more lattice structural elements (101). The foot prosthetic device (100) comprises one or more lattice structural elements (101) packed closely together and arranged such that a unitary cellular lattice structure is formed. The foot prosthetic device (100) also comprises of lattice structural elements (101) that are vertically oriented and are made from a resilient plastic to provide enhanced mechanical properties. The foot prosthetic device (100) has an inverted profile to provide proper gait pattern for the user with the heel region of the foot prosthetic device (100) being thicker as compared to the rest of the foot prosthetic device (100) to further enhance balance and support of the user. (Figure 1)
Title of the invention : A CREMATION ASH BASED PLANTING SYSTEM AND METHOD THEREOF

(57) Abstract :
The present invention discloses a cremation ash based planting system. The invention further discloses an ash neutralization disc [103] composition to aid plant growth in a cremation ash based planting system. The planting system is three - tier structures with an ash fill container [105] as the base, the ash neutralization disc [102] placed on top of the ash [104] in the ash filled container [105] and the soil fill container [108] placed on top of the ash neutralization disc [102]. The containers and disc are biodegradable. The ash neutralizer disc is made in doughnut shape and neutralizes the pH of the ash, on contact with water which is converted to nutrient material on blending with the soil fill. FIGURE 3.

No. of Pages : 29 No. of Claims : 5
Hygiene is the mantra for maintaining a healthy society. The problem of the invention devised an intelligent dust bin using IoT based sensors. The existing smart bins are already available in the literature, detects only the filled dustbins. Whereas, in our device, the basic idea is that it not only detects the filled dust bins and send the messages to the housekeeping supervisor to clean them but also alerts the authorities about any liquid item that causes the dust bin to become wet. In the proposed work, the CC3200 launchpad will be programmed in such a way that the sensor alerts the supervisor when the garbage reaches the threshold level in the dust bin. The humidity sensors will be activated to detect any liquid surrounding the dust bin. The proposed smart dust bin not only ensures periodical disposal of the waste but also helps us to keep our surroundings hygienic.

No. of Pages : 10  No. of Claims : 3
The invention comprises hardware which is designed in such a way that the device is resistant to heavy rain and dust. A camera (2) and a raspberry pi (1) are covered using a specially designed outer cover and the dust formed often on the camera glass is cleaned by using a small wiper automatically. An alarm (3) unit is also incorporated to alert the vicinity. In this autonomous wildlife monitoring system, the camera (2) connected with the Raspberry Pi (1) is used for the detection of an animal with the help of a pre-trained model.
Title of the invention: LPG GAS LEVEL INDICATOR CUM HOLDER

Abstract: The present invention generally related to LPG gas level indicator which can detect and indicate when the gas inside cylinder level range around 15 to 20% as well it also hold & carries the cylinder.

No. of Pages: 22 No. of Claims: 14
(54) Title of the invention: THERMAL MANAGEMENT SYSTEM USING THE POLYSULFONE NANO POROUS MEMBRANE FOR BATTERIES

(51) International: H01M0010625000, H05K0007200000, H02K0009060000, H01M0010615000, H01M0010658000
classification 000

(57) Abstract:
The thermal management system comprises of, the external aluminium casing frame (1), the battery cell (2), the nano-meso porous membrane (3) in plurality, a battery (4) and a tube pathway. for heated coolant (5), wherein, the external aluminium casing frame (1) which is thermally attached to the battery cell (2), inside the casing the cubical space is divided into three chambers. The top and bottom chambers comprise of the nano-meso porous membrane (3) inside with a space between the membrane and the external aluminium casing frame (1), wherein, the valves support coolant flow on the right direction and time a tube pathway for heated coolant (5) and the vapor to pass through the tube. The overall operation of cooling and heating of a battery (4) takes place throughout the operations as on where it is required.

No. of Pages: 9  No. of Claims: 5
Explicit highlights of Wireless Sensor Networks (WSNs) like the open availability to hubs, or the simple discernibleness of radio interchanges, lead to serious security challenges. The utilization of customary security plots on sensor hubs is constrained because of the confined calculation ability, low-control accessibility, and the inalienable low information rate. So as to keep away from conditions on a bargained dimension of security, a WSN hub with a micro-controller and a Field Programmable Gate Array (FPGA) is utilized along this invention to actualize a best in class arrangement dependent on ECC (Elliptic Curve Cryptography). The proposed framework is intended to learn at each dimension, parameters that impact execution. Along these lines, the assessment stage is portrayed so as to give information on anticipated execution lastly the planning investigation demonstrates the confinement as far as organized calculation.
**Title of the invention:** A DEVICE FOR ASSISTING AND GUIDING A VISUALLY IMPAIRED PERSON

### Details

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<td><strong>Abstract</strong></td>
<td>ABSTRACT A DEVICE FOR ASSISTING AND GUIDING A VISUALLY IMPAIRED PERSON The present disclosure relates to the field of devices for assisting a visually disabled person. The device (100) is capable of navigating the blind person to a desired location and in climbing stairs. The device (100) comprises a frame (120), a cane (140), a handle (160), a control unit (155), a switch (167), a plurality of wheels, a plurality of electric motors (not shown in figures), and a battery (175). The switch (167) helps the blind person to control the speed, direction, and other operations of the device (100). The device (100) also includes an audio feedback as an add-on feature that facilitates a two-way interaction between the device (100) and the user. The use of the device (100) of the present disclosure avoids collision of the visually disabled person with any obstacle and empowers the person to overcome his visually disability. No. of Pages : 25 No. of Claims : 7</td>
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3. **KRISHNAN, Yagnesh**
4. **KACHWALLA, Mohammed Ashfaq Hussain**
PREFABRICATED FENCING POST EMBEDDED WITH COCONUT SHELL PARTICLES

The present disclosure relates to construction of fences and more particularly discloses a prefabricated coconut shell concrete fencing (100) Reinforcements (40) are disposed substantially centrally in the mould (10) to provide support for a post. The coconut shell concrete (30) comprises crushed coconut shell particles having particle size ranging from 3 mm to 12.5 mm, filler materials binding materials. The coconut shell concrete (30) is stuffed in the inside of mould (20) of the mould (10). The prefabricated fencing post embedded with coconut shell particles (100) of the present disclosure facilitates reuse of natural waste materials thereby decreasing cost of production of fencing solutions, while providing a smart alternative to conventional materials.

No. of Pages : 19 No. of Claims : 7
The kite power is an efficient method to produce electricity compared to the other methods at present. The kite power converts the wind energy to electricity. The kite power uses two paragliding kites to produce the electricity. Tethers are wound on the turbine shaft of the generator, the two free ends of the tethers on the turbine are connected to the kites which will be airborne. The kites will pull the tethers which in turn rotates the turbine of the generator. Each kite works flies in opposite direction (both horizontally and vertically). The kites trajectory will be controlled by an onboard robotic part which'll pull the control lines of the kites. The kite will be controlled by the ground station which is fully autonomous.
This invention is related to the design of a Venturi model as an air inlet system for use in formula racing cars. The Venturi's throat acts as a restrictor and the role of the restrictor is to regulate the output power and air mass flow to enhance engine performance and its efficiency. The permissible mass flow rate in the manifold would be achievable by increasing the pressure drop through the Venturi pipe. Based on the converging and diverging nozzle angles of the Venturi pipe, a detailed theoretical calculation for the total air mass flow profile and pressure performance is obtained. Using the Computational Fluid Analysis (CFD) in ANSYS software, the minimum pressure drop for the Venturi is obtained. The optimal design that provides a better mass flow rate (0.07 Kg/s) to the engine with minimum pressure drops (1.62 Bar) is achieved at 12 and 6 degrees of the converging and diverging nozzle angles respectively.
Abstract:
Gas transport through underground buried pipes is a very effective and low cost solution for sending the gas from one to another point. Seamless MS pipes are the essential medium to convey the gas from origin to destination. Though MS pipes are having good mechanical properties to withstand gas pressure but are prone to corrosion when buried under the ground. Hence a protective coating by using Polypropylene (PP) or polyethylene (PE) multi-layer on the outer side of the MS pipe is recommended. DIN 36070 provides the standard of the coating and Method II provided by DIN 36070 specifies the procedure to test the bond strength of the PP/PE coat applied on the pipe. The MS gas carrying pipes are coated with 3 layers of PP/PE coat. Layer 1 is formed by Fusion Bonded Epoxy which will provide protection against corrosion and is fusion bonded with blasted steel surface. Layer 2 is a copolymer adhesive having excellent chemical bonding to inner layer and top layer of the polyethylene. Layer 3 is the Polyethylene (PE) which is not biodegradable and provides protection against any physical damage of the pipe. Each pipe after the application of the PP/PE coat is subjected to the bond strength test at three points viz., lead end, middle, and tail end of the pipe. The bond test is carried out by pulling the PP/PE layer by an electric motor with constant speed/rate. The peel of the layer is connected to a force transducer at one end and the other end of the transducer is attached to the electric motor. The early method of sensing the signal and recording the tension (bond strength) is done by a single pen strip chart recorder which will record the value of the tension on the graph chart. The disadvantage of this method is that the chart provides a single hard copy for each pipe and requires human interaction to properly arrange the chart and interpolate the output. Storage of the hard copy is another problem. Hence an electronic instrumentation has been developed with computer interface and dedicated software package to record the force signal from the transducer and provide a holistic soft and hard copy of the graphs. The soft copies can be digitally stored and sent to the end user through email or any other digital methods as a soft copy. This arrangement is far superior to the earlier strip chart instrumentation. But in this both methods the cable (a six core multistrand Teflon cable) from the force sensor is physically connected to the recorder device. As the pipe length is around 9 to 14 metres almost 22 metres of the cable length is required for this arrangement and the force transducer is supposed to travel from one end to other proper arrangement has to be done to protect the cable from cuts and damages.
Abstract:
The concrete panels sandwiched together with reactive powder are connected by the mechanical technique is proposed in this invention. Investigation of three variables is performed with the panel of concrete slab of reactive powder which includes three panels that are sandwiched and one solid panel. The variables that are investigated are the slab type, steel connector layout and the number of slabs. Testing of the slabs is done by the two point load which is supported simply. Analysis of the experimental results is done by the non linear type finite element analysis for verifying the results. The decrease in deflection is due to the increase in the load capacity of the sandwich panels comparable to the solid panels. The increase in deflection is due to the decrease in the load capacity of the sandwich panels comparable to the solid panels. Improvement in the structural behavior is by the usage of sandwich panels replacing the solid panels.

No. of Pages: 13 No. of Claims: 6
Title of the invention: THE TRAFFIC MANAGEMENT SYSTEM BASED ON DENSITY AND FLOW CONTROL MECHANISM

Abstract:
The modern world faces the traffic congestion as the major sustenance problem. The traffic congestion consumes the fuel and time without any reason. The major cities now emerging with innovative solutions and infrastructural projects to improve the vehicular flow. The economic growth of the city depends upon the transport accommodation available. The vehicles have to be best enrooted to reach the destination with optimal travel time and without traffic delay. The system proposed here with sensor usage in the vehicles and the wireless sensor network to transmit the vehicle moving information to the traffic control centre to best sort the traffic flow. The wirelessly transmitted vehicle approaching information helps the traffic control centres to find the road usage frequency and divert the vehicle with the optimal path to avoid congestion.

No. of Pages: 11 No. of Claims: 0
(54) Title of the invention: CRYPTOGRAPHIC SECURITY OF DATA TRANSFERS IN COMPUTER SYSTEMS

(57) Abstract:
Systems security provides a variety of Systems, both open and private, which utilizes in regular employments directing connections and exchanges amongst organizations, government sectors and people. PC™s can be private, for ex. in an organization, and others which might be accessible to free. PC™s security is involved with associations, endeavors, and dissimilar types of foundations. In this invention we likewise contemplated cryptography alongside its standards. We depict useful and exceptionally proficient assaults that enable aggressors to take cryptographic mystery keys and fashion confirmation tokens to get to touchy data. The assaults consolidate unscrambling prophets, unauthenticated encryptions, and the recycle of keys for various encryption purposes.

No. of Pages: 10 No. of Claims: 8
The Patent Office Journal No. 07/2020 Dated 14/02/2020

(12) PATENT APPLICATION PUBLICATION

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(22) Date of filing of Application : 06/02/2020

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(54) Title of the invention : A NOVEL MEANS OF ANCHORAGE FOR REINFORCING BARS IN REINFORCED CONCRETE MEMBERS

(51) International : E04C0005030000, G01N0019040000, E04C0005120000, E04C0005070000, E04C0005010000

(31) Priority Document : NA

(32) Priority Date : NA

(33) Name of priority country : NA

(86) International Application : NA

(87) International Publication : NA

(61) Patent of Addition to Application : NA

(62) Divisional to Application : NA

(57) Abstract :
In reinforced concrete members, the externally applied load is carried/transferred safely to the support by the composite action of steel and concrete. The composite action results in development of stress at the interface between bar and concrete. The stress at the interface is shear stress and it is conventionally called as bond stress. Force transfer at the interface is initially by adhesive bond between steel and concrete. After failure of adhesion, force transfer takes place by friction and bearing between steel and concrete. To improve bond, plain bars are provided with ribs. All these resistance/actions at the interface between steel and concrete through adhesion, friction, bearing, and anchoring is conventionally called as bond. Reinforcing bar must extend to a distance Ld beyond any section at which it is required to develop required force. This development length is otherwise viewed as anchorage length. Anchorage is provided also by hooks or bends or anchor heads. New method of anchorage is invented in which the end of reinforcement bar is bent into a spiral and is used as anchor. This type of spiral anchorage simultaneously provides both bearing and bond resistance required for effective transfer of loads to the supports.

No. of Pages : 7 No. of Claims : 10
**Title of the invention:** REAL-TIME MONITORING SYSTEM FOR COMPRESSED GAS ARTIFICIAL LIFT & METHOD THEREOF

**Abstract:**
Present invention is related to a system for real-time monitoring of compressed gas artificial lift. The objective of the present invention to solve problems and inadequacies in the prior art related to real-time monitoring of compressed gas artificial lift. The system for real-time monitoring of natural gas artificial lift comprises an artificial lift module, a under-ground monitoring module and a central unit.

No. of Pages : 18 No. of Claims : 7
Virtualization technologies deliver the resources for computation for public infrastructure in the form of service clouds namely Rackspace, Amazon and GoGrid. Multiple virtual machines that can operate independently are allowed by these technologies for residing in the isolation apparently on the same host physically. Applications that are scaled dynamically runs on clouds leading to unpredictable variable results due to the interference in the performance affecting the associated virtual machine in co-location. Appropriate policies of scaling are determined in the environment of non-stationary & dynamic property being non-trivial. The ability of scaling the resources on demand is the important advantage possessed by the clouds of the proposed invention compared to the conventional counterparts of hosting. But this creates a problem about the allocation of resource that should be included or deducted with the performance underlying the resource is constant flux. Temporal difference is applied for learning of the reinforcement algorithm termed as Q learning with the policies of optimal scale to be determined.

No. of Pages : 12 No. of Claims : 6
The present invention relates to a temperature indicator for monitoring the actual temperature of a substance or environment visually, utilizing the Curie temperature of a magnetic material. Further the present invention relates to a method of working of the thermomagnetic temperature indicator. The thermomagnetic temperature indicator comprises of a cylindrical tube housing with a sensing element of predetermined Curie temperature, a heat exchange metal plate or slab with a base, one or more permanent magnets and a spring. Advantageously the present invention relates to a cost effective visual temperature indicator such that it does not require any power source or expensive materials for its fabrication. FIGURE 1.

No. of Pages : 27 No. of Claims : 16
**Title of the Invention:** VEHICLE ROUTING METHOD USING NETWORKED ROADSIDE UNITS WITH INTERNET OF THINGS (IOTS)

- **International Classification:** H04W0084180000, G01C0021340000, G06Q0030060000, H04B0005000000, H04W0048080000
- **Application No.:** 202041005450 A
- **Priority Date:** 07/02/2020
- **Priority No.:** NA
- **Name of Priority Country:** NA
- **Filing Date:** NA
- **International Publication No.:** NA
- **International Application No.:** NA
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  3) Amin Salih Mohammed
  4) Dr. Ramesh Sekaran
- **Name of Inventor:** 1) Dr. Rizwan Patan
  2) Dr. Nithya Rekha Sivakumar
  3) Amin Salih Mohammed
  4) Dr. Ramesh Sekaran

**Abstract:** Present invention is related to a vehicle routing method using networked roadside units with internet of things (IoTs). The objective of the present invention is to solve problems and inadequacies in the prior art related to vehicle routing method in vehicle ad Hoc network.

No. of Pages: 21
No. of Claims: 6
Copper coated steel fibers reinforced LM13 aluminium alloy composites have been prepared using stir casting process. Experiments have been designed using response surface methodology (RSM) by varying wt% of reinforcement (0 - 10), stirrer speed (350 - 800 rpm) and pouring temperature (700 - 800 °C). Microstructure, tensile strength and fracture surface of composites have been investigated. Analysis of variance, significance test and confirmation tests have been performed and regressions models have been developed to predict the tensile strength of composites. Response surface plots reveal that tensile strength of composites increases with increasing wt% of copper coated steel fibers reinforcement up to 6 wt%. Further increase in wt% of steel fibers decreases the tensile strength of composites. However tensile strength of composites increases with increasing stirrer speed due to the uniform and homogeneous dispersion of steel fibers in matrix. Optimum stir cast process parameters for obtaining higher tensile strength are found to be 5.9 wt% of reinforcement, 753 °C pouring temperature and stirrer speed of 633 rpm. Fracture mechanism is dominated by steel fibers pull out in composites with higher wt% of reinforcement and dimples are observed in the surface of composites contains lower levels of wt% of reinforcement.
The textile industry is the second largest industry to generate the employment of the skilled and unskilled employees. The development of this industry creates more employability around 4.5cr peoples who working in the industry. Henceforth, the need of automation in the textile industry is highly required. This invention is intended to provide solution to make low cost and simple mechanism enabled T-shirt folding and packing machine. This machine is designed in a way such that each folding part is connected to the individual motor. The micro controller is used to control entire machine. Covering and shielding is done during packing operation. This machine ultimately provides solution to complete folding and packing process.
(54) Title of the invention : IOT INTEGRATED SOLAR BASED SMART IRRIGATION SYSTEM

(57) Abstract :
Farming a land becomes very tough process due to water scarcity, power unavailability and deficiency in man power. In many places, most of the farmers use large land for farming purpose with variety of crops. It has been very tough to know the condition of each corner of a large agriculture land. However, crop production rate from the corner portion of large land always been less compared to other portion of the land due to inadequate water supply during irrigation and less availability of soil minerals. The IoT integrated solar based irrigation system ensures high crop yield even from corner portion of land by providing good water supply and monitoring crop health around clock. This novel system continuously monitors the crop health, soil condition and generates information which could be stored in a cloud and retrieved any time from the cloud. This smart irrigation system constructed through the support of different sensors including soil moisture sensor, humidity sensor, and temperature sensor along with nitrogen, phosphorus and potassium measuring units. The solar grid acts best section in this system which provides power supply to entire circuits in this irrigation system.

No. of Pages : 8 No. of Claims : 5
Title of the invention: HEALTH MONITORING DEVICE FOR PREGNANT WOMEN AND FETAL

Abstract: This idea presents a complete health monitoring device for a pregnant woman. The device can able to capture blood pressure; pulse rate, fetal movement and heart rate based on WIFI in-built microcontroller CC3200. Also the device has been designed to measure and monitor the haemoglobin content, blood sugar rate, thyroid level, calcium content, vitamin D3 for a pregnant woman and fetal. With the help of IoT, the proposed system can able to collect and transfer the information to the doctor at the earliest. The device is compact and wearable. So, doctor can easily analyze the health condition of mother and fetal continuously. Whenever we required previous data, it is easy to retrieve it because of the usage of IoT.

No. of Pages : 7  No. of Claims : 9
### Abstract
An surgical instrument is disclosed. The instrument includes a handle configured to move between an open position and a closed position; at least one clamping structure coupled to the handle. The at least one clamping structure includes a first set of pushing members operatively coupled to the handle. The movement of the handle from open position to the closed position facilitates the movement of pushing members into longitudinal direction. The at least one clamping structure includes a set of constrictors coupled to the set of the pushing members such that movement of the set of the pushing members enables movement of the set of constrictors from a designed position in which the set of constrictors are positioned away from each other and to a contracted position in which the set of constrictors are positioned closed to each other.

No. of Pages : 25
No. of Claims : 9
Title of the invention: HANDWRITTEN SIGNATURE RECONSTRUCTION

Abstract:
Reconstruction is based on derivatives of the kinematic value. The present work gives a simple and robust approach towards the authentication of on-line signature using single derived feature. The velocity is the simplest and robust feature used to start up the reconstruction process. The number of stages of reconstruction process depends on the structural complexity of the signature sample. Shape characteristics are unique for every signature. The two approaches for reconstruction are physiological and psychological models of human movement production. These models differ from each other depending on characteristics such as representation schemes, neurophysiologic point of view to estimate the angular parameters, visuality, constraint on shape, extractor, optimization extraction consistency evaluation method and parameter variability restriction. In this current work, psychological model is considered, in which the angular parameters are dened using velocity profiles generated from on-line signature data. Kinematic properties necessary to perform a joint angle trajectory obeys an elliptic form. Signature codes are produced for robust authentication system with no learning or movement memory. Stroke timing is considered as the crucial factor in determining the trajectory shape. Stroke timing introduces the constraint on the shape because it is an unbounded function. General structure of the contour curvature is elliptical. The velocity decreases for the parts with small curvature and increases for the parts of large curvature thus forming elliptical shape. If the trajectory of the hand is a circle or a combination of circles, then the horizontal and vertical components of the movement are functions of equal frequency and amplitude. Two genuine signature sequences are comparable with reference to alignment of time. The dynamic structural statistical model described by multi-variable probability distribution functions are used to compare the variations of each characteristic point of test signature and reference signature sequences. The computation of best order by polynomial tting, for a reference template of a subject is considered. The deviation of response data and t to the response data at each predictor value denote the residuals from a tted model. Taking the clue from there, the higher order derivatives of velocity feature are considered to reconstruct different parts of the reference template sample. The major portion of signature with lower order polynomial tting and simple pole structure is reconstructed using velocity feature. Signatures with higher order polynomial tting and complex pole structure require higher order derivatives of velocity. Each derivative better represents a portion of reconstruction.
The invention relates to a sanitary napkin dispenser. More particularly, the invention relates to a sanitary napkin dispenser, which is capable of informing concerned authorities if the dispenser is vacant. The sanitary napkin dispenser functions when a coin is dropped into the dispenser, said dispenser comprises of an IR sensor for detecting dropping of coin into the dispenser. A power source could be a battery or solar power source. The power source can also be an AC electric power source. A motor moves a spring coil which allows the sanitary napkin for passing the sanitary napkin out from the dispenser. The spring coil is rotated by the motor when a relay switches on the motor. A microcontroller directs the movement of the motor to dispense the sanitary napkin. The microcontroller keeps track of the available napkins in the machine and if the count gets lowered the IR sensor activates the GSM module and sends signal via SMS to the authority for refilling the napkins.

No. of Pages : 12 No. of Claims : 4
**Title of the invention:** FML-PREDICTION: FITNESS PREDICTION USING MACHINE LEARNING

**Abstract:**
FML- Prediction: fitness prediction using machine learning

ABSTRACT The invention FML- Prediction is a method for using machine learning to solve problems having either a positive result (the event occurred) or a negative result (the event did not occur), in which the probability of a positive result is very low and the consequences of the positive result are significant. Training data is obtained and a subset of that data is distilled for application to a machine learning system. The training data includes some records corresponding to the positive result, some nearest neighbors from the records corresponding to the negative result, and some other records corresponding to the negative result. The machine learning system uses a co-evolutionary approach to obtain a rule set for predicting results after a number of cycles. The FML- Prediction uses a fitness function derived for use with the type of problem, such as a fitness function based on the sensitivity and positive predictive value of the rules. The rules are validated using the entire set of training data.

No. of Pages: 28
No. of Claims: 9
IN INDIAN WOMAN INTELLIGENT SAFETY DEVICE USING MACHINE LEARNING

Abstract:

IN INDIAN WOMAN INTELLIGENT SAFETY DEVICE USING MACHINE LEARNING My invention IN INDIAN WOMAN INTELLIGENT SAFETY DEVICE USING MACHINE LEARNING is full relates to a wearable accessory circuitry housing, advanced vibration generation means for producing a slow vibration, the vibration generation means housed within the car, office, class room, meeting room, film room, housing, at least one switch for allowing a user of the wearable accessory to cause activation of the vibration generation means, the switch housed within the housing, a module for communicating with at least one handheld device using a communication protocol, an advanced image capturing device including a microphone for receiving audio and video signals at the wearable accessory, a USB port for charging the wearable accessory, a multiple-bit microprocessor is configured and coupled for controlling functions of the wearable accessory, the pree define microprocessor housed within the housing and a global storage means for storing data representative of the signals, the storage means coupled with the microprocessor or any other in built hidden device.

No. of Pages : 22 No. of Claims : 7
The present invention relates to DC micro grids for photovoltaic sources. The present invention relates to a maximum power point tracking (MPPT) droop integrated photovoltaic controller. The maximum power point tracking (MPPT) droop integrated photovoltaic controller in a DC grid, comprises of a photovoltaic (PV) module, a boost convertor and an output filter capacitor. Further the present invention relates to a method of working of the maximum power point tracking (MPPT) droop integrated controller. Advantageously the present invention relates to a controller which eliminates the need to switch between MPPT and droop mode, as in conventional methods, greatly reducing the complexity. Further, during unequal shading condition between the multiple PV sources, the proposed integrated controller effectively shares the power and operates the PV sources to deliver the available power to the DC bus. Thereby, total efficiency of the system is increased which enhance the cost benefits. Figure 1.
(54) Title of the invention: WORK FLOW MANAGER FOR SMART PHONES/TABLETS/SMART DEVICES(ALEXA/GOOGLE HOME/ETC..)

(57) Abstract:
The Work Flow Manager is an application which provides a platform for the end-user of mobile/any computing device to connect, configure and automate different services provided by multiple App/service providers for achieving a task/work flow. The end user after setting up the workflow can run(also triggered automatically based on an event) the workflow multiple times and get the notification of the status of the workflow run with details with least user intervention.

No. of Pages: 9 No. of Claims: 7
A primer system targeting the gdh gene of Streptococcus suis based on loop mediated isothermal amplification (LAMP) technique comprising three sets of primer pairs combination comprising a forward outer primer (F3), a backward outer primer (B3); a forward inner primer (FIP), a backward inner primer (BIP); and a forward loop primer (LF) and a backward loop primer (LB). The said primer combination/composition provides visual detection of the pathogen from porcine biological samples by naked eye with minimum instrumentation.
The present invention of two ethno-medicinal plant species, Allium cepa L. and Allium sativum L. belonging to family Amaryllidaceae used for the treatment of poison by cat fish sting. The composition of the anti-venom against catfish sting consists of following ingredients combined in the stated proportions: Allium sativum L. (bulb) - 30-80%, Allium cepa L. (bulb) - 40-70%, Aloe vera (L.) Burm. f. (leaves) - 15-60% and Polyethylene glycol (as general base media) - 40%. The herbal anti-venom composition is used for treatment of cat fish sting.
Publication After 18 Months:

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

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<th>(21) Application No.201811004821 A</th>
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<td>(19) INDIA</td>
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<td>(22) Date of filing of Application :08/08/2018</td>
<td>(43) Publication Date : 14/02/2020</td>
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<th>(54) Title of the invention : AN INSOLE BOARD FOR HEEL BEARING FOOTWEAR</th>
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(51) International :A43B0007140000,A43B0001000000,A43B0013180000,B29C0065180000,A43B0017000000
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(31) Priority Document :NA
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Filing Date

(87) International Publication No : NA

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

(62) Divisional to Application Number :NA
Filing Date

(57) Abstract : The present invention relates an insole for use in heel bearing footwear. The insole comprises a body comprising a first operative portion substantially consisting of a flexible material, and having a front end and a rear end, and a second operative portion, substantially consisting of a composite material comprising at least one polymer in the range of 50 wt.% to 90 wt.% and at least one type of fiber in range of 10 wt.% to 50 wt.%, wherein a thickness of the second operative portion being less than or equal to 3.5mm and greater than or equal to 1.5mm. The insoleboard is sleek, light in weight, is stable, and sturdy as compared to conventional insoles. Since, the insole board is sleek, it is possible to incorporate more cushioning material which provides enhanced comfort to the wearer. Further, the footwear comprising the sleek insole board has an aesthetic appearance.

No. of Pages : 25 No. of Claims : 23
The present invention relates to an integrated process for the simultaneous extraction of biostimulant, cellulose and biochar from brown seaweed. In order to utilise the brown seaweed Sargassum species to the maximum extent, the developed process first converts the powdered seaweed into concentrated bio-stimulant in step-wise extraction of cold, hot and alkaline extracts followed by mixing and concentrating them to desired volume. The liquid bio-stimulant thus obtained is useful as a fertilizer after suitable dilution; while the seaweed residue left after biostimulant extraction is a superior raw material for the production of cellulose, thereby enhancing the value of seaweed biomass. Other advantages of the invention include the production of carbon (biochar) using leftover seaweed residue after bio-stimulant production. Furthermore, the process of the present invention is highly efficient and utilizes the total seaweed without any leftover biomass as solid waste thereby being environmental friendly.
Abstract:
Disclosed is a system for assisting a user in selecting an item from a plurality of items of a specific item-type. The system comprises an item identification device, a wearable sensing device worn by the user, a computing device, a database arrangement and a server arrangement. The server arrangement is operable to receive data associated with interest level of the user for the item from the computing device; receive threshold interest level of the user for specific item-type of the item from the database arrangement; compare the interest level of the user for the item and the threshold interest level of the user for the specific item-type of the item; and provide a suggestion to the user to select the item, if the interest level of the user for the item is more than the threshold interest level of the user for the specific item-type of the item.
**Title of the invention:** TRIDISPERSE NANO-MICRO-NANO MAGNETO RHEOLOGICAL FLUID AND METHOD OF PREPARATION THEREOF

**Abstract:**

The present invention relates to a tridisperse magnetorheological fluid, comprising: a) a spherical magnetic material in the range of 5-40 wt. %; b) a cubical magnetic alloy nanoparticles in the range of 10 wt. %; c) an abrasive nanoparticles in the range of 5-10 wt. %; d) a surfactant in an amount of 1 wt. % and e) a carrier liquid.

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**Name of Inventor:**

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4) JOSHI, Yogesh Moreshwar
5) PRASAD, Namburi Eswara
SYSTEMS AND METHODS FOR PROVIDING PATHWAY TO USER FOR PROCURING ITEM

Abstract:
Disclosed is a system for providing a pathway to user for procuring item. The system comprises a wearable sensing device to acquire one or more physiological data of the user, a location determination device to acquire location data associated with location of the user, an item identification device to identify the item, a communication device used by the user communicatively coupled to the wearable sensing device, location determination device, and item identification device, for receiving the one or more physiological data, the location data, and the data associated with the identified item, and a data processing arrangement communicatively coupled to the communication device to acquire the one or more physiological data, the location data, and the data associated with the identified item, to generate a pathway for the user to procure the identified item at a storage location based on the location of the user being proximate to the storage location.
The present disclosure provides a process for preparing a protein-rich Moringa soup mix powder. Also provided is a Moringa soup mix powder obtained by the process as disclosed in the present disclosure. The Moringa soup mix powder 5 provides a ready-to-serve soup after reconstituting in boiling water.
The present invention relates to catalyst system for synthesizing ketone from secondary alcohol and a solvent-free catalytic process for production of ketone from secondary alcohol by the use of said catalyst. The catalyst is synthesized by stoichiometric amounts of commercially available metal oxides by applying solvent-free solid-state reaction method. The material works as an efficient and selective catalyst at low temperature, without using any solvent, base and additional oxidizing agent, providing excellent yield and high atom economy with no formation of any byproduct.
The invention relates to stable oral pharmaceutical composition comprising 3-8% w/v of magnesium hydroxide, 15-40% v/v of liquid paraffin and 0.01-1.0% w/v of sodium picosulfate, 0.01-0.5% w/v of colloidal anhydrous silica as stabilizing agent and 1-4% w/v of non-ionic surfactant, wherein the composition is prepared using surfactant as sorbitan monooleate (span 80) and polysorbate 80 (tween 80) alone or in combination. Said stable oral pharmaceutical composition comprising magnesium hydroxide, heavy liquid paraffin and sodium picosulfate provides improved physical stability to the formulation and easy in processing. The composition and their derived stable pharmaceutical composition may be useful in the treatment of bowel movement disorder.
Abstract:
Dump Valve is designed and developed for use on Hydro-Mechanical Fuel Control System (HMFCS) of Indigenous Engine. The valve characteristic is sized to pass specified flow with pressure drop of specific value. On start up, Dump Valve crack opens as inlet pressure rise above specific value to allow metered fuel to burners throughout the flight envelop. During engine shut down as inlet pressure falls below specific value the Valve closes allowing left out fuel in fuel manifolds and burners to dump out.

No. of Pages : 6
No. of Claims : 10
The present invention provides a modified ceramic shell for investment casting process with an improved porosity/permeability. The conventional ceramic shells are prepared by dipping wax patterns in the ceramic slurries that are developed by mixing aluminum silicate (as refractory powder) and colloidal silica (as binder). A molochite stucco is applied using rainfall stucco machine between successive slurry coatings. A modified ceramic shell/body and its method thereof includes following steps. An extremely small amount of iodine is added to the inner coat slurry, which upon heating, got sublimed and left micro pores inside the inner coating of the shell. In a similar way, a small amount of needle coke is added to the outer coat slurry. During the firing of the shell, the coarse needle coke got burnt and, consequently, macro pores are created inside outer coating of the shell, which would enable escape of the undesirable gases that may generate inside the shell during pouring. This ultimately would enhance the porosity/permeability of the ceramic shell and reduce the porosity defects in the final cast parts. The modified ceramic shell also possesses adequate mechanical properties like flexural strength, tensile strength and fair inner surface roughness.
Scar formation in wound healing is a major medical abnormality that can lead to restricted movement and sometimes loss of function, which causes severe distress to the patients. There are currently no reliable treatments to prevent scarring during the wound healing process. Disclosed herein is a composition for the preparation of a metal based collagenous substrate for scar-less wound healing. The prepared biomaterial exhibits antibacterial and antioxidant activity in addition to the scar reducing capacity. The metallic complex based collagenous biomaterial of the present invention is economically feasible as it is prepared using low-cost raw materials. The product finds potential application in pharmaceutical and healthcare industry to achieve scar-less wound healing without need for any other secondary treatment.
Title of the invention : A WEIGHT MEASURING SYSTEM

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 09/08/2018
(43) Publication Date : 14/02/2020

(54) Title of the invention : A WEIGHT MEASURING SYSTEM

(51) International : A61B00050000000, A61B0005021500, G08G00050200000, H04M00017250000, H04B00173090000
classification
(31) Priority Document : NA
No
(32) Priority
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(33) Name of priority country : NA
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Filing Date : NA
(86) International Application No Filing Date : NA
(87) International Publication No Filing Date : NA
(61) Patent of Addition to Application Number Filing Date : NA
(62) Divisional to Application Number Filing Date : NA

(57) Abstract:
A system for measuring weight of sample of material is disclosed. The system can include a measuring device. The measuring device can include a scoop configured to receive and hold a sample; one or more sensors, operatively coupled to said scoop, configured to sense one or more attributes of said sample and generate one or more signals based on said one or more attributes of said sample; and characterized in that, a transmitter configured to transmit said one or more generated signals; and a first display unit operatively coupled with said measuring device such that said first display unit is dissociated from said measuring device, wherein said first display unit is configured to display one or more values corresponding to said one or more transmitted signals received by a receiver operatively coupled with said first display unit.

No. of Pages : 18 No. of Claims : 8
Title of the invention: D-VECTOR (IOP)

Abstract:
D-VECTOR is a kind of saucer craft which has an ability to hover and to fly in the air or through the air due to AEROFOIL in shape. Here D-VECTOR stands for - Dual vector indicates the law of dual vector addition implies parallelogram law of vector addition, stands for - Indian origin which indicates make in India and P stands for - Parallel which indicates the rotation motion of ducted fans in their own sides. The whole saucer craft consists of mainly DISC and FLAP. The whole body has an ability to produce direct more lift. There are 4 ducted fans mount to give stability and for controlling upward, downward, hovering, rolling and pitching moments. There is an air breathing jet engine mount for controlling forward and yawing moment.
**Title of the invention:** TRANSMISSION OF SUCI IN THE NAS PROCEDURE

**Abstract:**
The present invention is related to sending of a one time identifier of a UE during the NAS procedure. Specifically, the present invention relates to determining whether to use same one time identifier or different one time identifier during registration retry procedure.
Title of the invention: BIAXIALLY ORIENTED FORMABLE POLYESTER FILM

Abstract:
PLEASE SEE THE ATTACHED SPECIFICATION

No. of Pages: 23 No. of Claims: 10
A method comprising configuring a narrowband internet of things carrier relative to one or more physical resource blocks of a radio carrier, the one or more physical resource blocks having a bandwidth that is greater than a bandwidth of the narrowband internet of things carrier; and configuring the narrowband internet of things carrier relative to the one or more physical resource blocks such that there is a first guard band between the narrowband internet of things carrier and a first adjacent physical resource block, and a second guard band between the narrowband internet of things carrier and a second adjacent physical resource block.
(54) Title of the invention: RFID BASED TAMPERPROOF SEALING DEVICE FOR A STORAGE CONTAINER

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<td>NA</td>
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<td>Filing Date:</td>
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(57) Abstract:
A sealing device includes an elongated inserting element and a hollow socket structure. The elongated inserting element comprises a head segment, a shaft and a tip segment. The shaft includes a proximal end and a distal end, the proximal end of the shaft is coupled to the head segment and the distal end is coupled to the tip segment, wherein an outer surface of the tip segment comprises one or more grooves. Further, the body element having a restraining element and a hollow socket structure. The hollow socket structure is having two ends: a first end and a second end, the first end of the socket structure is operable to fixed with the restraining element. The restraining element includes an internal passage, which is having one or more bulges on an inner peripheral surface in which one or more incisions are received to form a detachable connection between the elongated inserting element and the body element.

No. of Pages: 20  No. of Claims: 10
The following specification describes the invention of an Portable Security and Safety Alerting Device which detects and alerts remote devices (with wireless communication system capable of receive and transmit functions) due to security breach and safety hazards. The specification defines apparatus and method for remotely and wirelessly configuring, controlling and operating the Portable Security and Safety Alerting Device with remote assistance from a remote device. The prior art on this subject are missing certain key functions for applications which don’t have ready access to AC power supply and can’t be recharged for a long duration of time. Certain applications require devices to last over long periods of time without needing to be charged, report their charge levels when it runs low, and report when their charging started and ended. The specification also aims at improving the way regular operations like opening or closing a door can be differentiated from application of external force with intent of harm, damage or move on Portable Security and Safety Alerting Device itself or the article containing it.
**Title of the invention:** N INDICATOR AND THE INDICATOR IMPREGNATED STRIP FOR DETECTION OF NEUTRALIZERS IN MILK

| (51) International classification | :G01N33/00 |
| (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 |

**Abstract:**
The invention relates to easy detection of neutralizers in milk. Neutralizers can be detected by momentarily dipping active portion of prepared strip in milk and observing colour. Yellow colour of strip indicates absence of neutralizers while green to blue colour is noticed with milk samples having neutralizers. The results are available instantaneously. Strips can be used at milk collection centers and reception deck of dairy industries and even at house-hold level. Strip provides clear colour distinction between negative and neutralizer positive milk samples. All common neutralizers including sodium hydroxide, sodium carbonate and sodium bicarbonate can be detected. Sensitivity of strip is better than liquid phase rosalic acid test.

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No. of Pages : 12 No. of Claims : 6
The present invention relates to a process for preparation of sitagliptin phosphate. More particularly, the present invention relates to a process for the preparation of stable crystalline anhydrous form of sitagliptin phosphate.
(54) Title of the invention: A WINDOW REGULATOR ASSEMBLY

(51) International: E05F0011480000, E05F0011380000, E05F0011440000, E05F0015689000, B60J0001170000
Classification

(31) Priority Document: NA

(32) Priority Date: NA

(33) Name of priority country: NA

(86) International Application No: NA

(87) International Publication No: NA

(61) Patent of Addition to Application Number: NA

(62) Divisional to Application Number: NA

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(57) Abstract:
The present subject matter disclosed herein relates to a window regulator channel (404) for connecting window glass channel (402) and window regulator arm (403) of window regulator assembly (400). The window regulator channel (404) comprises at least two C shaped brackets (405, 406) which are abutted on the window regulator channel (404) at a distance spaced apart along length. The two C shaped brackets (405, 406) are abutted flat on outer surface of the window regulator channel (404) where flanges of the C shaped brackets protruded forwardly away from the outer surface (404c). Also window regulator channel is made symmetric for the ease of operator during window glass assembly. To be published with Fig. 5

No. of Pages: 20 No. of Claims: 12
**Title of the Invention:** SYSTEM AND METHOD FOR INTERACTIVE VISUAL MEDIA GENERATION USING GENERATIVE AI MODELS

**Abstract:**
The invention relates to a method and system of facilitating a user to create a multimedia content using artificially intelligent techniques like generative models. In one embodiment, this is accomplished by receiving at least one user input request to create a multimedia content, generating an intermediate multimedia content using a generative AI model corresponding to the received user input request in a main display area, identifying a set of key features from at least one of the generated intermediate multimedia content and the user input request using suggestive AI model, determining a set of associated objects of at least one key feature from the identified set of key features and displaying the same in a suggestive display area, receiving at least one user interest on one or more associated objects in the suggestive display area, and updating the intermediate multimedia content based on the selection of associated objects to generate a multimedia content on the main display area.
The present disclosure provides a fluorinating formulation comprising: (a) at least one fluorinating agent; and (b) perfluoropolyether. The present disclosure also provides a process of preparing the fluorinating formulation along with a process for preparing a compound of Formula I, said process comprising the steps of: (a) contacting ethyl isopropyl ketone of Formula Ia, and the fluorinating formulation to obtain a reaction mixture; (b) heating the reaction mixture to obtain the crude compound; and (c) processing the crude compound to obtain the compound of Formula I.
A modular baffle is disclosed. The baffle has a top portion, a bottom portion, and at least one panel held immovable between the top portion and the bottom portion. It can hold at least one of a first finishing panel at a first predetermined angle to the immovable panel, wherein the holding is by means of sliding the at least one of a first finishing panel into a first groove configured in one or both of the top portion and the bottom portion. It can be conjoined to at least one another baffle, wherein the conjoining is by means of a protrusion configured on top portion of the at least one other baffle, the protrusion configured to slide into a corresponding second groove configured in the bottom portion of the baffle. The holding and the conjoining can as well be by means of snap fitting and magnetic holding.
Present invention relates to automatic smart lock. Wherein proposed Smart locks give users the capability to control multiple numbers of doors at once and the user doesn’t even have to touch the door (8). All the user has to do is send a command and the door will automatically open or close according to the user’s command through a servo motor (7) action. These locks are unhackable as these locks are not connected to the internet.

Following invention is described in detail with the help of Figure 1 of sheet 1 showing the block diagram of smart lock, Figure 2 of sheet 1 showing the head unit and Figure 3 of sheet 2 showing the daughter unit.

No. of Pages : 12 No. of Claims : 4
Title of the invention: Blackboard Duster with rotatable cotton plate and internal cleaning system

Abstract:
Present invention provides a blackboard chalk duster with rotatable cotton plate and internal cleaning system. The proposed duster is to be designed in two variants, one with manually operated cotton plate brushing system and other duster with motorized cotton plate brushing system. It has long lifespan as it uses cotton plate which can erase from front as well as back side. It has internal brushing and dust collecting system, so that dusts do not spread in air or on ground. Brush plate is attached inside the Duster body to rub dust out of cotton plate and a dust collecting slot for collecting chalk dust and can be slipped out of body to empty the dust.

No. of Pages: 10 No. of Claims: 6
(57) Abstract:
IMPROVED CALCIUM ORTHOPHOSPHATE FOR BIOMEDICAL APPLICATIONS AND METHOD THEREOF The present invention discloses a potassium and silicon co-substituted mesoporous multiphasic calcium orthophosphate ((Ca10-xKx(PO4)6-y(SiO4)y(OH)2-x-y), where, x=y=0.2) for biomedical applications. The said calcium orthophosphate is synthesized by substituting potassium and silicon ions in optimal concentrations in calcium orthophosphate. The combination of potassium and silicon facilitates bone repair and regeneration. The said calcium orthophosphate has marked antibacterial activity against Escherichia coli (g-), Bacillus subtilis (g+) and Staphylococcus aureus (g+) strains. The calcium orthophosphate of the present invention can be used as a bone scaffold, bone void filler, bone cement, coating or constituent of biocomposites and for drug and gene delivery, etc.
Title of the invention: A METHOD FOR DIELECTRIC RELAXATION IN BACATIO3 MATERIAL FOR MULTILAYER CERAMIC CAPACITOR

Abstract:
Ba1-xCa xTiO3 relaxor material for x = 0.10, 0.15, 0.20, 0.25, have been fabricated by a hydrothermal method. Pure-phase X-ray diffraction patterns were observed and the samples have a phase with a tetrahedral structure at room temperature for all the compositions. FESEM image of Ba1-xCa xTiO3 powder shows uniform morphology with the increment of Ca element. Small grains with average grain sizes of 30±5nm uniformly distributed over the mesocrystals. Dielectric measurements indicated diffused phase transition behavior for x = 0.10, 0.15, 0.20, 0.25. Increasing the Ca content improved the diffusivity of relative permittivity at high temperatures. Values of Tm increased with increasing x, For x = 0.10 0.25, the Tm values increased from 120°C to 140°C. The peak ɛr values decreased from >5700 at x = 0.10 to 4307 at x = 0.15. The relative permittivity increased to 4548 for x = 0.20 and after that again decreased for x=0.25 have ɛr=3894. The transition temperature (Tc) of Ba0.80Ca0.20TiO3 is high (1380°C) with the comparison the composition Ba0.90Ca0.10TiO3 reveals strong results. It has dielectric permittivity (ɛ) 5741±200 at the low value of loss tanδ = 0.009±.091 along with the transition temperature (Tc) at 131±2 shows diffusivity 1.27±2<2 and activation energy 0.521±.015.

No. of Pages : 17  No. of Claims : 5
(54) Title of the invention: MULTI-HELICAL REACTOR FOR LIQUID-LIQUID EXTRACTION/STRIPPING AND PHASE SEPARATION AND METHODS THEREOF

(51) International classification: B01J19/00
(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 multi-helical reactor is demonstrated as an integrated process unit both for liquid-liquid extraction and phase separation. Multi-helical reactor, and compact module consisting multiple multi-helical reactors are fabricated by a novel method. The method fetches for fabrication of reactors with zero helix angle, which is unique in PDMS materials. Alternatively, all these reactors can be fabricated by 3D printing in hard polymers with necessary structures on helical flow paths as needed for the process application. The developed reactor, and module can be alternatives for mixer-settler at laboratory and industrial scale liquid-liquid solvent extraction and/or stripping applications in both chemical and bio-chemical engineering. Particularly, the invented manual method is supportive for fabrication of channels of shape Y, X, H etc. in PDMS materials. The same method can be extended for fabrication of other channels/ vessels/ reactors of 2D, 3D and any arbitrary shape in PDMS or any other similar polymer, that can be cross-linked from liquid state to soft/hard solids.

No. of Pages: 27 No. of Claims: 22
Title of the invention: DEVELOPMENT OF TRICHODERMA FORMULATION UTILIZING AGRI-WASTE RICE HUSK BIOCHAR FOR MASS MULTIPLICATION AND LONG-TERM STORAGE

Abstract:
This invention relates to a process for mass multiplication and long-term storage media for Trichoderma species on jaggery amended rice husk biochar that can be directly used for seed and soil application and avoid the tedious steps of drying, grinding, sieving and mixing of mass multiplied bioagent. Improved bio-efficacy of biochar-based Trichoderma formulation under field condition may be attained as higher and increased Trichoderma growth (10 cfu/g biochar) was observed under storage. The present technology would greatly facilitate utilization of easily available agri-wastes for inexpensive and efficient production of bioagent formulation.

No. of Pages : 15  No. of Claims : 3
A medium composition for low cost culture of fresh water microalgae (Scenedesmus spp.) for commercial biomass production, said medium comprising urea as source for nitrogen in a molar concentration of 0.8-3.5mM, Di-potassium hydrogen Phosphate anhydrous, as a source of phosphorous in a molar concentration of 0.1-0.5mM, Calcium chloride dihydrate, as a source of calcium in a molar concentration of 0.1-0.6mM, Magnesium sulphate heptahydrate, as a source of magnesium in a molar concentration of 0.1-0.4 mM, citric acid anhydrous in a molar concentration of 0.2-1.0mM and ammonium iron (III) citrate in a molar concentration of 0.02-0.08mM.
Title of the invention: A SINGLE SOURCE PRECURSOR FOR CADMIUM TELLURIDE, AND IMPLEMENTATIONS THEREOF

Abstract:
Formula I, wherein X is selected from acetate, chloride, or bromide. Further the present disclosure provides a tellurium precursor of Formula II. Additionally, convenient methods for obtaining the single source precursor of Formula I and the tellurium precursor of Formula II are provided.
The present invention relates to unmanned aerial vehicle that comprises an aluminium frame 4; plurality of propellers 5 mechanically coupled to the frame on a first side; plurality of guard rings 6 mechanically coupled to the frame at the extremities; a base mechanically coupled to the frame on a second side, wherein said base comprises of plurality of legs 7 and a shock absorber 8 coupled to each leg; plurality of brushless Dc Motors coupled to said propellers; plurality of electronic speed controllers coupled to said motors; and a flight controller with an inbuilt sensor configured to stabilize the vehicle during flight.
Title of the invention: HYDRAULICALLY ACTUATED ACTIVE SUSPENSION SYSTEM

Abstract:
The present invention relates to a hydraulically actuated active suspension system comprising at least one primary spring and damper for bearing the initial load, a secondary spring which is repositioned according to the applied load to neutralize the effect of load variance, trailing arm for joining the unsprung mass (wheel unit) to the sprung mass (car body), an adjustable arm for defining the position at which the secondary spring is attached to the suspension and a hydraulic actuator associated with the system for providing the force required by the suspension.

No. of Pages: 23  No. of Claims: 10
The present invention relates to a switch-mode hydraulic actuation system 10 comprising a fixed pump 1 used to charge the accumulator 2 with the fluid, a three way solenoid high speed valve 5 for sending pressure pulses through the system, check valves 4, 6 to control the pressure spikes caused by the pulses, actuators 8, 9 to execute the function of lift and swing, a compressor for increasing the pressure of the fluid, a pressure relief valve to release the excessive pressure 3, a pneumatic cylinder 15 for producing the linear motion, a gate valve 17 for transferring the pressurized fluid, a directional control valve 7 for controlling the direction of fluid flow. More particularly, position sensors 11, 14 are coupled to the system 10 for detecting the position of arms 12 in order to have accurate movement of the arms 12 of a lifting mechanism.
Title of the invention: EXHAUST HEAT RECOVERY DEVICE

Abstract:
The present invention relates to a heat exhaust recovery device to recover heat through vehicle, comprising a container with base and walls made of steel plate 1, an inlet pipe 2 and outlet pipe 3 is connected to said container steel plate and an exhaust chamber 4 is fixed diagonally to the base of said container by two steel struts. The whole container is insulated with plaster of paris (POP) 5 to prevent heat loss from outside surface. Said container is then integrated with an IC engine setup of said vehicles.
Title of the invention: SLOTTING MACHINE

Abstract:
The present invention relates to a slotting machine fabricated from mild steel material, comprising a ram 4 for reciprocating a tool 2 in vertical directions, a motor 7 to provide power to the machine, a cutting tool 2 for machining the work pieces 1, a tool holder 9 for clamping of cutting tool 2, a worm gear 5 for speed reduction, a spur gear 6 for transmission of power, a table 8 for holding the work pieces 1, a work piece holder 10 for clamping the work piece 1 in position, a cross slide 3 on which the work piece 1 moves in longitudinal and transverse direction, a frame for supporting all the aforementioned elements.
Abstract:
The present invention describes an electrochemical drilling device that comprises of at least one tool as cathode and a workpiece as anode is associated to the device and the tool is brought close to the workpiece by using a feed mechanism. An electrolyte is provided with the help of a motor in the space left between tool and workpiece and it completes the circuit and material starts to be removed from the workpiece. The removed material is mixed with the electrolyte and come back to the sump (electrolyte tank) and after filtering it again circulate between the tool and the workpiece with the help of a pump.
The present invention relates to an automatic vehicle locking system and process that locks the vehicle on sensing alcohol above a predefined limit.

The system comprises a power supply module 9, microcontroller module 1, a crystal oscillator module 2, a sensor module 3, an Analog-to-Digital Converter module 4, a LCD 7, a GPS module 6, a GSM module 5 and a buzzer module 8. The sensor 3 detects the alcohol level in a subject driving the vehicle. The Analog-to-Digital Converter module 4 amplifies the sensor’s signal and the LCD module displays the alcohol level. If the alcohol level is above a predefined limit, a buzzer module 8 gives a voice signal and the vehicle is locked by automatic shut down of an engine. The GPS module 6 determines the location of the vehicle and the GSM module 5 transmits the vehicle’s position to one or more predetermined mobile numbers. If the alcohol level is below a predefined limit, it is displayed on the LCD module 7 and the vehicle remains unlocked.
The present invention relates to a device 1 for evaluating the diameter of wheels 4 comprising, at least two adjustable pointers 2 which are placed on the chord section of a wheel to lock the device on the wheel 4, at least one ultrasonic sensor 6 for detecting the distance between the chord section and the sensor 6, at least one microcontroller 8 (arduino) for estimating the diameter of wheel 4 by analyzing the detected chord section, at least one LCD (Liquid crystal display) 3 component for displaying the calculated diameter of the wheel 4, at least one variable resistor for providing the resistance path of circuit accordingly, at least one printed circuit board for mechanically supporting and connecting the electronic components.
The invention provides with intelligent wearable glasses which uses facial recognition to display information about the user on a small screen using hologram. The device uses a database of Facebook and Instagram friends (the current user has to login) to build a database of faces using profile pictures and cover photos. After being trained on the photos, the glasses can identify the person using facial recognition. The objective of building such a device is to display information, posts, photos and likes (according to Privacy settings) scraped from Facebook and Instagram and display it in real time.
An aspect of the present disclosure relates to a method for: receiving, at a first computing device, a query to retrieve the one or more QAs and/or other related information from a second computing device; extracting, at the first computing device, one or more textual keywords from the query; forming, at the first computing device, one or more key strings based on the one or more extracted textual keywords, the one or more key strings are formed by arranging or merging or combining the one or more textual keywords; acquiring, at the first computing device, the one or more QAs and/or other related information, based on the one or more formed key strings, from a pre-determined database or an internet; and displaying, on a user interface of the first computing device and/or the second computing device, the one or more acquired QAs and/or other related information.
### Title of the invention: VARIABLE SPEED DRIVE FOR AN ENGINE ACCESSORY

#### Abstract:
A continuously variable speed drive for running accessories associated with an engine is disclosed, comprising a three-element torque-balancing power splitting planetary gear set with its ring gear 106, planetary carrier 110 and sun gear 108 forming the three torque-balancing elements. One of these is coupled to an input drive 102, and a second is coupled to the accessory which may be a coolant pump 112. A motor-generator 104 is coupled to the third of the three torque-balancing elements so that the motor-generator may work as a torque biasing means by applying a required torque, in a required direction, on the third element. A selectable electromechanically-actuated one-way clutch 114 is configured with the rotor of the motor-generator 104 to prevent free-spinning rotation of the motor-generator 104, and may be activated to prevent free-spinning rotation of the motor-generator 104 in an event of malfunctioning of the motor-generator, to thereby enable running of the accessory.

![Diagram of the variable speed drive](image-url)
A platform assembly for supporting at least one person in an elevated position, the platform assembly includes a mounting arrangement for attaching the assembly onto a working arm of a working machine; a platform mounted onto the mounting arrangement and a manual positioning mechanism configured to allow the position of the platform to be manually adjusted with respect to the mounting arrangement by a person when supported by the platform assembly.
Provided are an electric toothbrush including a toothbrush main body accommodating a motor and a battery; and bristles mounted at one end of the toothbrush main body and protruding from a longitudinal virtual line of the toothbrush main body, and an electric toothbrush case storing an electric toothbrush.
One aspect of the present invention provides a hook strap type seat covering fixing structure (100) for a seat cushion of a car. The hook strap type seat covering fixing structure includes an elongated hook strap (110) which has a plurality of hooks (112) formed on a first surface thereof, a peripheral wall (111) formed on the first surface and surrounding the plurality hooks, and reinforcing configurations (114) formed along lateral longitudinal sides of the hook strap outside the peripheral wall; two barrier sponges (120) each attached on top of reinforcing configurations formed along lateral longitudinal sides of the hook strap; a backing layer (130) affixed to a second surface, opposing the first surface, of the hook strap; and a magnetic material layer (140) disposed between the second surface of the hook strap and the backing layer.
Disclosed in the present application are a signal processing method and apparatus, for use in designing reference signals. The method comprises: generating reference signal sequences according to first m sequences and second m sequences, the reference signal sequences being gold sequences, cyclic shift values of the first m sequences being determined by physical cell identifiers and first timing information, and for a same physical cell identifier, a difference between cyclic shift values of two first m sequences determined by the physical cell identifier and any adjacent two pieces of first timing information being L, L being a positive integer, and the first timing information comprising time sequence indexes of synchronization signal blocks or a first part of the time sequence indexes of the synchronization signal blocks; and mapping the generated reference signal sequences on which modulation conversion has been performed, to N subcarriers, so as to obtain references signals, N being a positive integer greater than or equal to 1.
SYSTEMS AND METHODS FOR ALLOCATING ORDERS

Abstract:
Systems and methods for allocating orders are provided. A method includes extracting target order features of an order associated with a service requester; extracting target requester features of the service requester; extracting target provider features of a service provider; obtaining a prediction model for determining a probability that the target incident occurs; and determining the occurrence probability of the target incident using the prediction model based on the target order features, the target requester features, and the target provider features.
In one aspect of the present invention, a vehicle (100) is provided. The vehicle (100) includes a frame (200); an engine mounting system (400); an internal combustion engine 5 (300) swingably mounted on the frame through the engine mounting system (400); an engine cooling fan unit (316); and an exhaust system (500) in fluid communication with the internal combustion engine (300). The exhaust system (500) comprising, an exhaust pipe (301), a second exhaust gas purification device (320a), a muffler device (307), and a first exhaust gas purification device (320). The first exhaust gas purification device 10 (320) is connected between a first bent portion (302) and a second bent portion (303). A second end of the first exhaust gas purification device (320) is positioned behind a first end of the first exhaust gas purification device (320).

No. of Pages : 37 No. of Claims : 9
The present invention relates to a multifunctional heat-therapy mattress with a complex therapeutic function, and more particularly to a multifunctional heat-therapy mattress with a complex therapeutic function, capable of maximizing effects a heat-therapy treatment and a massage treatment by coupling a massage module to the heat-therapy mattress, maximizing use convenience and maintenance and repairing convenience by simplifying a configuration of the massage module providing a massage, ensuring ease of storage and mobility by configuring the mattress and the massage module to be split and folded, and simulating and a driving unit and facilitating control by allowing the massage module to oscillate in a seesaw form with respect to a central axis. An aspect of the present invention features a multifunctional heat-therapy mattress with a complex therapeutic function, including a heat-therapy pad disposed at an upper portion of the heat-therapy mattress to include a heating wire for supplying heat; a mattress main body disposed at a lower portion of the heat-therapy mattress to include a buffer member that supports the heat-therapy pad and has elasticity; a massage module installed in the massage module to generate a vibration for massage; and a controller configured to control general operations of the multifunctional heat-therapy mattress, including the temperature of the heat-therapy pad and the degree of vibration of the massage module, wherein the mattress main body is divided into two or more parts and is foldable. According to a multifunctional heat-therapy mattress with a complex therapeutic function of the present invention, the heat-therapy treatment and the massage may be simultaneously performed by combining and installing a heat-therapy treatment pad and a massage module, thereby maximizing effects of the heat-therapy treatment and the massage. The configuration of the massage module may be simplified by constituting the massage module using one driving unit and the vibration plate, and the mattress may be easily controlled as the massage is performed through one driving unit. The massage module and the mattress main body may be divided into foldable parts for easy movement and storage. The heat-therapy pad for performing the heat-therapy function may be configured to be separated from the mattress main body, thereby facilitating separate maintenance and repairing and minimizing the space during storage and movement.
An imaging control method and an electronic device are provided. The imaging control method includes: determining a target combination from a plurality of preset exposure level combinations according to a brightness of a shooting scene (101); performing shooting according to each exposure level comprised in the target combination to obtain a corresponding image of each exposure level (102); and performing synthesis processing on images of the plurality of exposure levels of the target combination (103).
Title of the invention: BLOCKCHAIN NETWORK AND TASK SCHEDULING METHOD THEREFOR

A blockchain network and a task scheduling method therefor are provided. The blockchain network includes: a management node and multiple storage nodes communicably connected with the management node. The management node selects a storage node in response to a task requirement of a client node, and the selected storage node sends data to the client node according to the task requirement. As such, a reasonable scheduling scheme is provided by way of the management node, it can schedule the storage nodes for providing services according to the task of the client node, and therefore a stable and efficient task processing service can be provided within a normal capacity of the storage node.
A file storage method and a file storage apparatus are provided. The file storage method includes: S1, partitioning an input file into multiple file blocks; S2, establishing a corresponding relationship between index values of multiple storage nodes and identifications of the multiple storage nodes; S3, performing a Hash operation on one of the multiple file blocks and obtaining a first identification according to a result of the Hash operation and the corresponding relationship; and S4, storing the one of the multiple file blocks on a first storage node corresponding to the first identification. Therefore, a method for assigning the storage node based on a Hash value is provided, and because the Hash value of each file block is fixed and unchangeable, so that for a submitted file, a corresponding storage relationship can be easily queried, thereby avoiding cheating on scheduling.
A consensus incentive method for a blockchain is provided. The consensus incentive method includes: rewarding nodes correspondingly according to amounts of network data transmitted by the respective nodes in a blockchain network. Therefore, problems of waste of resources, centralized calculation power and huge cost of dedicated mining machines caused by the existing Pow mechanism can be avoided consequently.
According to one embodiment, an analysis system includes an acquirer and a processor. The acquirer acquires time-series data. The time-series data are of an action of a worker in a first process. The first process includes a plurality of work. The processor detects a plurality of change points of states in the time-series data, and associates the time-series data and each of the plurality of work by using the plurality of change points.

Diagram:

```
  ACQUIRER      PROCESSOR
    |          |
    |          |
    |          | 30
    |          |
    |          | 30
  MEMORY      40
    |          |
    |          |
    |          |
  DISPLAYER
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No. of Pages : 48 No. of Claims : 14
Title of the invention: ELEVATOR CONTROL SYSTEM AND ELEVATOR CONTROL METHOD

Abstract:
To include an opposite-direction call detector detecting an opposite-direction-call allocated car being a car which is located ahead in a traveling direction and to which a destination call in an opposite direction to the traveling direction is allocated, and detecting an opposite-direction-call generation floor on which the destination call in the opposite direction is generated, an allocation candidate eliminator eliminating cars located behind in the traveling direction with respect to the opposite-direction-call allocated car from candidates for a new-call allocated car to be allocated to a new destination call when the new destination call is generated on a floor between the opposite-direction-call allocated car and the opposite-direction-call generation floor when a destination floor of the new destination call is same as the opposite-direction-call generation floor, and an allocation controller selecting the new-call allocated car from cars not having been eliminated from the candidates.

No. of Pages: 21 No. of Claims: 7
A vehicle front structure includes a first bumper reinforcement (12), a pair of right and left front side members (16) respectively disposed on a vehicle rear side of outer portions of the first bumper reinforcement (12) in a vehicle width direction, an apron upper member (18), a first crash box (14) interposed between the first bumper reinforcement (12) and the front side member (16), a cross member (20) coupling together front ends of the pair of right and left front side members (16) in the vehicle width direction, and a high-voltage component (50) disposed on the vehicle rear side of and at a distance from the cross member (20). The first crash box (14) is configured to undergo compressive deformation when a load equal to or larger than a predetermined value is input from the first bumper reinforcement (12).
A driving assist device includes: a driving operation element (11a, 12a, SW); an information acquisition unit (15, 17) configured to acquire traveling state relevant information indicating a traveling state; a driving assist control unit (10, 20, 30, 40) configured to control the own vehicle such that the own vehicle travels in a state where a target traveling condition is met; a determination unit configured to determine whether the traveling state changed by the operation of the driving operation element is a specific state; a request generation device (60, 61) configured to generate a condition change request when a predetermined operation or input is performed while the own vehicle is in the driving assist control; and a condition change unit configured to change the target traveling condition based on the traveling state relevant information when the condition change request is generated in a case where it is determined that the changed traveling state is the specific state.
A pressure vessel (10) includes: a vessel main body (12) having a cylindrical straight body part (14), and domed parts (16, 18) respectively including hemispherical portions (16A, 18A) that have hemispherical shapes and are integrally formed at each end of the straight body part (14); a first reinforced section (26) formed by winding reinforcing fibers (20) around an outer circumferential surface of one domed part (16) such that the reinforcing fibers (20) are interlaced with each other; a second reinforced section (24) formed by winding the reinforcing fibers (20) helically around an outer circumferential surface of the straight body part (14), continuously from the first reinforced section (26); and a third reinforced section (28) formed by winding the reinforcing fibers (20) around an outer circumferential surface of the other domed part (18) such that the reinforcing fibers (20) are interlaced with each other, continuously from the second reinforced section (24).
MODULAR SYSTEM FOR WATCH

Abstract:
Wearable electronic devices, such as watches, can be part of a modular system that provides a variety of different components and functions to achieve the results that are desired by a user. The modular configurations allow a user to easily customize a watch with one or more functional modules to provide features that integrate with other operations of the body of the watch. The functional modules can be easily exchanged with each other to provide different components and functions at different times. Accordingly, a watch body need not include permanent components that provide every function that will later be desired by the user. Instead, the watch can have expanded and customizable capabilities by the use of one or more functional modules.
The invention relates to a yarn storage (1) for a spinning or winding machine, the yarn storage (1) comprising an axle segment (4) for rigidly connecting to a support (2) of the spinning or winding machine and extending in the direction of a longitudinal axis (3) of the yarn storage (1), the yarn storage (1) comprising a storage drum (5) rotatable relative to the axle segment (4) for temporarily receiving a yarn (6), the yarn storage (1) comprising a yarn guide (7) rotatable relative to the axle segment (4), the yarn storage (1) comprising a first electric motor for driving the storage drum (5) and having a first stator (8) and a first rotor (9) interacting therewith and connected to the storage drum (5), and the yarn storage (1) comprising a second electric motor operatively connected to the yarn guide (7) and having a second stator (10) and a second rotor (11) interacting therewith and connected to the yarn guide (7). According to the invention, the second stator (10) and/or the second rotor (11) are enclosed at least partially by the axle segment (4) in a radial direction (R) extending perpendicular to the longitudinal axis (3). The invention further relates to a spinning or winding machine having a corresponding yarn storage (1).
CONTROL APPARATUS FOR INTERNAL COMBUSTION ENGINE

A control apparatus for an internal combustion engine includes an electronic control unit (110) configured to i) perform a fuel introduction process, ii) calculate a total injection amount in the fuel introduction process, and control each of fuel injection valves (17) based on a required injection amount per cylinder (11) when the fuel introduction process is performed, and iii) perform a cylinder deactivation process for stopping fuel from being injected for one or some of cylinders (11), and controlling each of the fuel injection valves (17) such that an amount of the fuel obtained by dividing the total injection amount is injected for a cylinder (11) or cylinders (11) other than the one or some of the cylinders (11) for which the fuel is stopped from being injected, when the fuel introduction process is performed.
Title of the invention: VEHICLE BODY PART, VEHICLE BODY PARTS ASSEMBLY, AND VEHICLE BODY STRUCTURE

Abstract:

[Problem to be Solved] To provide a vehicle body part advantageous in design and production costs while securing resistance against the axial compression load, a vehicle body parts assembly and a vehicle body structure including the vehicle body parts and being advantageous also for securing resistance against simultaneous input of the axial compression load and the bending load. [Solution] A vehicle body part (4) for a cross member includes: an upper surface portion (40) extending in a longitudinal axis direction; a pair of side surface portions (41) extending downward continuously from both sides of the upper surface portion and extending in the axial direction; and a pair of flange portions (45) extending sideward continuously from lower ends of the pair of side surface portions and extending in the axial direction, in which a distance (4w) between the flange portions is constant entirely along the axial direction, each of the side surface portions includes a shouldered portion (42) extending in the axial direction in an intermediate portion in a height direction, and includes an upper side surface portion (44) and a lower side surface portion (43) partitioned by the shouldered portion, the shouldered portion (42) includes a narrowing segment having a width gradually narrowing toward one end side in the axial direction, and a width of the upper surface portion and a distance between the upper side surface portions of the pair of side surface portions gradually increase in a segment corresponding to the narrowing segment in the axial direction.

No. of Pages: 26
No. of Claims: 6
A steer-by-wire steering system, including: a two-system reaction force applying device (62) including two reaction force controllers (110A, HOB) and configured to obtain operation information and apply an operation reaction force; a two-system steering device (64) including two steering controllers (108A, 108B) and configured to steer a wheel (12); an operation information obtaining device (106, 112); an auxiliary steering device (52) capable of changing a direction of a vehicle; two dedicated communication lines (124A, 124B) one of which information-transmittably and information-receivably connects one of the two reaction force controllers (110A, HOB) and one of the two steering controllers (108A, 108B) to each other, and the other of which information-transmittably and information-receivably connects the other of the two reaction force controllers (110A, HOB) and the other of the two steering controllers (108A, 108B) to each other; and a first communication bus (120a) to which the operation information obtaining device (106, 112) is at least information-transmittably connected and to which the two steering controllers (108A, 108B) and the auxiliary steering device (52) are at least information-receivably connected.
The present disclosure provides an electronic device, including a thin film camera. The thin film camera includes an image processor arranged in the electronic device, and a film structure disposed to an outer surface of the electronic device. The film structure is configured to capture an image, and the image processor is in communication with the film structure.

No. of Pages : 13 No. of Claims : 11
A camera module includes a lens barrel; an actuator driving the lens barrel in a direction perpendicular to an optical axis; and an aperture module adjusting an amount of light incident in the lens barrel. The aperture module includes an aperture coupled to the lens barrel, a magnet provided on one side of the aperture, a coil disposed opposite to the magnet, a position detector detecting a position of the magnet to generate a feedback signal, and a driver comparing an input signal indicating a target position of the magnet with the feedback signal to calculate an error value and generating a driving signal according to the calculated error value. The driver compares a current position of the lens barrel with a neutral position of the lens barrel to generate a compensation signal and compensates for one of the input signal and the feedback signal based on the compensation signal.
The invention refers to a low-cost fuse switch module that comprises a pair of fixed contacts and a rotary contact rotatable about a rotation axis located in-between the fixed contacts. The rotary contact is rotatable between a closed position in which it is connected with the fixed contacts to enable current circulation, and an open position in which the rotary contact is electrically isolated from the pair of fixed contacts. An overcurrent protection fuse is provided for limiting maximum current circulation through the contacts in the closed position, and the fuse is rotatable about the axis and it is arranged to operate as the rotary contact of the switch, such as by rotating the fuse about the rotation axis, the switch reciprocally transit from the closed to the open position.
Title of the invention: MEASURING JIG

Abstract:
To provide a measuring jig that can measure an inner diameter of a hole portion even when a space around a measuring jig is limited. [Solution] In a measuring jig for measuring an inner diameter of a valve hole portion 20 formed coaxially with a guide hole 23, the measuring jig includes: an insertion shaft 32 inserted into the guide hole 23; and a measuring instrument 31 having a probe 41 that is disposed around an axis 32d of the insertion shaft 32 and that is brought into contact with an inner wall of the valve hole portion 20. The inner diameter of the valve hole portion 20 is measured by way of the probe 41 by turning the measuring instrument 31 about the axis 32d, and the measuring instrument 31 is disposed on the axis 32d. [Selected Drawing] FIG. 3
The invention relates to a cutting tool with a holder (2), a cutting insert (3) and a screw (4), wherein the holder (2) has at least one seat (20) with a base (21), a first side wall (22) and a second side wall (23), wherein in a plane parallel to the base (21) the first side wall (22) extends in a first direction and the second side wall (23) includes an acute angle (C) with the first side wall (22), wherein the base (21) has a threaded hole (24) for receiving the screw (4), wherein the cutting insert (3) has a cut-out (32) for the screw (4), wherein the cutting insert (3) has a base contact surface (34), a first positioning surface (35) and a second positioning surface (36), and wherein in a locked position the base contact surface (34) and the second positioning surface (36) contact the base (21) and the first side wall (22) and the second side wall (23) of the at least one seat (20), respectively, wherein the second side wall (23) is offset from the threaded hole (24) in the first direction towards a front end (26) of the seat (20), and in that a screw head (40) of the screw (4) and the cut-out (32) of the cutting insert (3) are provided with complementary conical surfaces (400, 320), such that when tightening the screw (4) the cutting insert (3) is forced with the first positioning surface (35) and the second positioning surface (36) against the first side wall (22) and the second side wall (22), respectively.
Method to treat a body (21) with a treatment fluid, comprising the steps: Si arranging a first container element (1) adjacent to an outer surface of the body, 52 arranging a second container element (la) adjacent to the outer surface and adjacent to the first container element, 53 sealing the first container element with the second container element, preferably with a sealing element, thereby forming a treatment container (3) accepting at least a segment of the body and arranged to accept the treatment fluid, 54 filling the treatment fluid into the treatment container, whereupon a layer of the treatment fluid is held between a container wall (4) of the treatment container and the body, 55 forming a layer of gelled treatment fluid (gelled layer) inside the treatment container and on the outer surface (22). (Fig. 1)
MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE

A semiconductor layer containing a metal oxide is formed, a gate insulating layer containing an oxide is formed over the semiconductor layer, and a metal oxide layer is formed over the gate insulating layer. Heat treatment is performed after the metal oxide layer is formed, and the metal oxide layer is removed after the heat treatment is performed. After the metal oxide layer is removed, a gate electrode overlapping with part of the semiconductor layer is formed over the gate insulating layer. Then, a first element is supplied through the gate insulating layer to a region of the semiconductor layer that does not overlap with the gate electrode. Examples of the first element include phosphorus, boron, magnesium, aluminum, and silicon. The steps performed after the metal oxide layer is removed are each preferably performed at a temperature lower than or equal to the temperature of the heat treatment.
A method and apparatus for performing automated supervision and inspection of an assembly process. The method is implemented using a computer system. Sensor data is generated at an assembly site using a sensor system positioned relative to the assembly site. A current stage of an assembly process for building an assembly at the assembly site is identified using the sensor data. A context for the current stage is identified. A quality report for the assembly is generated based on the sensor data and the context for the current stage.
AUTOMATED SUPERVISION AND INSPECTION OF ASSEMBLY PROCESS

A method and apparatus for performing automated supervision and inspection of an assembly process. The method is implemented using a computer system. Sensor data is generated at an assembly site using a sensor system positioned relative to the assembly site. A three-dimensional global map for the assembly site and an assembly being built at the assembly site is generated using the sensor data. A current stage of an assembly process for building an assembly at the assembly site is identified using the three-dimensional global map. A context for the current stage is identified. A quality report for the assembly is generated based on the three-dimensional global map and the context for the current stage.
Methods and apparatuses estimating pathloss of PUSCH in a wireless communication system are disclosed herein. In one method, the UE receives a first configuration of a first serving cell and a second serving cell, wherein the second serving cell is a pathloss reference for the first serving cell. The UE receives a second configuration of multiple downlink bandwidth parts of the second serving cell, wherein a downlink bandwidth part among the multiple downlink bandwidth parts is an active downlink bandwidth part. The UE estimates (or derives) a pathloss for an uplink transmission in an uplink bandwidth part of the first serving cell based on a reference signal in the downlink bandwidth part.
Title of the invention: CORE MOVING DEVICE OF WIRE ELECTRIC DISCHARGE MACHINE

Abstract:
A core moving device includes a core adsorption holding part which adsorbs a core cut out of a workpiece with a magnet and moves the core, in which the core adsorption holding part includes a rod member in which a distal end portion thereof is constituted of the magnet, a cylindrical member into which the rod member is inserted and which, on one hand, moves backward to expose a distal end surface of the rod member so that the core is adsorbed to the distal end surface of the rod member and, on the other hand, moves forward to protrude from the distal end surface of the rod member so that the core is removed from the distal end surface of the rod member, and a cylindrical member drive unit which at least moves the cylindrical member forward.
Title of the invention: FOOD COOKING SHEET

Abstract:
An object is to provide a food cooking sheet capable of improving releasability and cooking uniformity in a well-balanced manner.

Solution: A food cooking sheet includes aluminum foil and a resin layer stacked on one side of the aluminum foil and having releasability, wherein the resin layer is stacked on a food placement side of the aluminum foil, the resin layer has a sea-island structure having a concave part as a sea and a convex part as an island in a plan view, and the sea is formed continuously.
Nacelle arranged for a wind turbine installation and arranged to house an electrical generator of the wind turbine installation, the nacelle comprising a nacelle base arranged to be rotatably supported by a tower of the wind turbine installation, a nacelle lid (l) mechanically connected with the nacelle base, wherein the nacelle lid comprises several lid segments (la, lb, ic), wherein a second (lb) of the lid segments is arranged between and mechanically connected with a first (la) and a third (ic) of the lid segments.
Title of the invention: MOTORCYCLE

Abstract:
The motorcycle of the invention includes a vehicle frame (2), an engine (9) supported on the vehicle frame (2), an exhaust pipe (86) through which an exhaust gas emitted through an exhaust port (60) of the engine (9) flows, a catalyst (81) disposed in the exhaust pipe (86) and arranged forward of the engine (9), and a heat exchanger (14) arranged forward of the engine (9), wherein the vehicle frame (2) includes a downtube (23) extending downward from a head tube (21), wherein, in the vehicle front view, the catalyst (81) is located on one of the sides in the right-left direction of the downtube (23), while the heat exchanger (14) is located on the other of the sides in the right-left direction of the downtube (23), wherein, in the vehicle side view, at least part of the catalyst (81) and at least part of the heat exchanger (14) are aligned with the downtube (23).
Title of the invention: MOTORCYCLE

Abstract:
The motorcycle of the invention includes a vehicle frame (2), an engine (9) supported on the vehicle frame (2), an exhaust pipe (86) through which an exhaust gas emitted through an exhaust port (60) of the engine (9) flows, and a catalyst (81) disposed in the exhaust pipe (86) and arranged forward of the engine (9), wherein the vehicle frame (2) includes a downtube (23) extending downward from the head tube (21), wherein the engine (9) includes a cover (45) covering each outer side in a right-left direction of a crankcase (41), wherein the exhaust pipe (86) includes a connecting pipe (83) connecting the exhaust port (60) of the engine (9) and the catalyst (81), wherein the connecting pipe (83) includes a first pipe (105) having a bent shape and a single-piece structure, and a second pipe (106) having a bent shape and a halved structure, and arranged on a downstream side of the first pipe (105) in an emitting direction, wherein at least part of a central axis (C) of the catalyst (81) is aligned with the cover (45) in a vehicle front view.
(54) Title of the invention: MOTORCYCLE

(51) International Classification: F01N 0013 180000, B62J 0017 020000, B62K 0011 040000, E02F 0009 080000, B62M 0007 020000

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(57) Abstract: The motorcycle of the invention includes a vehicle frame (2), an engine (9) supported on the vehicle frame (2), an exhaust pipe (86) through which an exhaust gas emitted through an exhaust port of the engine (9) flows, a catalyst (81) disposed in the exhaust pipe (86) and arranged forward of the engine (9), a vehicle fairing (14) covering at least part of the vehicle frame (2), and covering, in the vehicle side view, at least part of the catalyst (81), and a louver (15) connecting, forward of the catalyst (81), the two side sections (14R, 14L) in the right-left direction of the vehicle fairing (14), wherein the louver (15) includes a plurality of transverse ribs (152) extending in the right-left direction, the transverse ribs (152) being arranged at intervals in the top-bottom direction, and wherein at least part of one or more of the plurality of transverse ribs (152) is aligned with the catalyst (81) in the vehicle front view.

No. of Pages: 38  No. of Claims: 8
The motorcycle of the invention includes an engine (9), an exhaust pipe (86) through which an exhaust gas emitted through an exhaust port (60) of the engine (9) flows, and a catalyst (81) disposed in the exhaust pipe (86) and arranged forward of the engine (9), wherein the engine (9) includes a crankcase (41) housing the crankshaft, a cylinder (42) connected to the crankcase (41), and a cylinder head (43) connected to the cylinder (42), wherein the exhaust pipe (86) includes a connecting pipe (83) connecting the exhaust port (60) of the engine (9) and an upper end portion of the catalyst (81), wherein the connecting pipe (83) includes a first pipe (105) having a bent shape and a single-piece structure, and a second pipe (106) having a bent shape and a halved structure, and arranged on the downstream side of the first pipe (105) in the emitting direction, wherein the upper end portion of the catalyst (81) is arranged upward of an extension (E) of the mating surface (Y) between the crankcase (41) and the cylinder (42).
Title of the invention: MOTORCYCLE

Abstract:
The motorcycle of the invention includes a vehicle frame (2), an engine (9) supported on the vehicle frame (2), an exhaust pipe (86) through which an exhaust gas emitted through an exhaust port (60) of the engine (9) flows, a catalyst (81) disposed in the exhaust pipe (86) and arranged forward of the engine (9), and a starter motor (13) for starting up the engine (9), arranged forward of the engine (9), wherein the vehicle frame (2) includes a downtube (23) extending downward from a head tube (21), wherein, in a vehicle front view, the starter motor (13) is arranged on one of the sides in the right-left direction of the downtube (23), while the catalyst (81) is arranged on the other of the sides in the right-left direction of the downtube (23).
An information processing apparatus according to one embodiment includes a traveling state manager, a predictor, a prediction evaluator and a model update manager. The traveling state manager acquires traveling data including a plurality of features of a mobile apparatus. The predictor calculates a predicted value of consumed energy of the mobile apparatus based on a first classification rule and the traveling data, the first classification rule associating a plurality of first conditions with a plurality of first prediction models for the consumed energy used on satisfaction of the first conditions being associated with at least one of the plurality of features. The prediction evaluator determines whether update of the first classification rule is required based on a difference between the predicted value and an actual value. The model update manager generates a second classification rule based on the traveling data if the update is required.
A frame structure of a scooter-type motorcycle in which a foot placement space is formed in front of a seat, includes: a pair of lower frame members extending in a front-back direction of a vehicle on a lower side of the foot placement space; a pair of rear frame members rising up from the lower frame members on a backward of the foot placement space; a pair of support frame members rising up from the lower frame members on a backward of the rear frame members; and a pair of pivot brackets to which swing arms are vertically swingably coupled via support shafts. The pivot brackets are bridged over the rear frame members and the support frame members.
(54) Title of the invention: MUFFLER FOR SADDLED VEHICLE

(57) Abstract:
Provided is a muffler configured to fix a second protector securely. A muffler 24 of a motorcycle 11 includes: a silencer 26 that connects to the rear end of an exhaust pipe to cancel the exhaust sound; a first protector 27 covering the outer face of the silencer 26; a second protector 28 at least partially overlying first protector 27; and a supporting stay 52 that extends from the silencer 26 while penetrating through the first protector 27 and connects to the second protector 28.
The invention relates to a method for regulating a flow of people entering and exiting an enclosure through an opening, including the following steps:
- commanding a first signaling mode on a set of signaling device(s) (11) positioned at the opening;
- triggering the switching to a second signaling mode on the set of signaling devices;
- measuring the flow of people exiting the enclosure through the opening; the switch from the first signaling mode to the second mode being triggered based at least on measurements taken of the flows of exiting people.
The invention generally relates to a mirror and a mirror substrate, in particular a mirror and a mirror substrate having a high aspect ratio, and to a method and means for producing same.
(51) Title of the invention: DISPLAY DEVICE AND METHOD FOR FABRICATING THE SAME

(57) Abstract:
A display device includes a window and a display panel coupled to a bottom surface of the window. The display panel has a substantially regular tetragonal shape or a substantially rectangular shape in a plan view, and the window includes a base member and a bezel layer on a bottom surface of the base member. Between one and three light-transmissive main alignment marks and a transmission area having a different shape than that of the display panel are defined in the bezel layer, and each of the main alignment marks is arranged at a position corresponding to a vertex of the display panel or at a position corresponding to a vertex of an imaginary regular tetragon or of an imaginary rectangle that has the same center point as the display panel and that is larger than the display panel.

No. of Pages: 55
No. of Claims: 21
The embodiments of the present application provide a method for updating a speech recognition model and an electronic device. The method includes: detecting whether the speech recognition algorithm is updated; and updating the speech recognition model when the speech recognition algorithm has been updated. Wherein, the voice information is recognized by the electronic device based on the speech recognition algorithm and the speech recognition model. In the method for updating a speech recognition model, when the electronic device detects that the speech recognition algorithm has been updated, the electronic device can update the speech recognition model.

No. of Pages : 40
No. of Claims : 14
(54) Title of the invention: DISPLAY SCREEN, ELECTRONIC DEVICE AND METHOD FOR THREE-DIMENSIONAL FEATURE RECOGNITION

(57) Abstract:
A display screen, an electronic device and a method for 3D feature recognition are provided. The display screen includes a plurality of display units distributed in an array across a display area of the display screen; a plurality of infrared emitting elements embedded in a first area of the display area of the display screen; and a plurality of photosensitive elements embedded in a second area of the display area of the display screen. The plurality of photosensitive elements can be combined into an image sensor. The plurality of infrared emitting elements is configured to emit infrared light for illuminating a target object in front of the display screen so as to form a plurality of light spots on the target object. The plurality of photosensitive elements is configured to receive target light spots reflected from the target object and convert the target light spots into photo-electrical signals for generating a target image of the target object.
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(51) Title of the invention : SHOWER SYSTEM

(57) Abstract :
A shower system includes a shower waterway and a fluid control valve. The shower waterway is configured to be coupled to a shower device. The fluid control valve is coupled to the shower waterway and comprises a valve body and a piston. The valve body includes a chamber and a reservoir. The piston is slidably coupled to the valve body and fluidly separates the chamber from the reservoir. The chamber includes a compressible gas. The piston is configured to slidably translate within the valve body to compress the compressible gas in response to a water pressure change in the shower waterway.
A method and apparatus are disclosed from the perspective of a communication device. In one embodiment, the method includes the device being configured with a plurality of resource pools by a base station for a cell. The method further includes the device receiving a grant from the base station, wherein the grant indicates a resource associated with a resource pool of the plurality of resource pools through a resource pool index in the grant. The method also includes the device using the resource to perform a transmission on a device-to-device interface.
Abstract:
Provided are a dual-mode low-power wide-area network (LPWAN) chip, a method for data transmission, and a terminal. The method is applicable to a terminal and includes the following. A LPWAN chip is enabled to establish a communication connection with an LPWAN input/output device and to establish a communication connection with an external device. The terminal includes the dual-mode LPWAN chip, and the dual-mode LPWAN chip includes a first LPWAN radio frequency (RF) module, a second LPWAN RF module, and an LPWAN baseband chip coupled with the first LPWAN RF module and the second LPWAN RF module. First data is received, with the first LPWAN RF module, from the LPWAN input/output device over a first channel. The first data is processed into second data with the LPWAN baseband chip. The second data is transmitted, with the second LPWAN RF module, to the external device over a second channel.
A cooling apparatus 2 has a clearance gap 16L created between a left dividing wall 15L and a radiator core 8. The clearance gap 16L communicates between a left bypass path 14L and a space 17 located downstream of the radiator core 8. A clearance gap 16R is created between a right dividing wall 15R and the radiator core 8. The clearance gap 16R communicates between a right bypass path 14R and the space 17 located downstream of the radiator core 8. Sizes of the clearance gaps 16L and 16R are selected to create an airflow resistance when a cooling fan 6 is being driven which is identical with an increase in airflow resistance which is expected if the size of the radiator 4 is increased to have a width equal to that of a condenser 3. This provides a simple structure of the cooling apparatus which is equipped with two heat dissipators which have widths different from each other and are arranged adjacent each other in a longitudinal direction and the cooling fan 6 which is secured to a fan shroud covering the heat dissipators to cool the heat dissipators and has an improved ability to cool the heat dissipators.
An electronic device, a method for transmitting a message and related products are provided. The method for transmitting a message is applicable to an electronic device and the method includes the following. Predetermined information is obtained, where the predetermined information includes system time, flow of people in a predetermined area, and location information of the predetermined area. A transmission power of a LPWAN wireless-communication module of the electronic device is adjusted according to the predetermined information. A message to be transmitted is determined. The determined message is transmitted according to the adjusted transmission power by the LPWAN wireless-communication module.
A vehicle structure (100) includes: a storage space (S) which is positioned on a rear side of a seat; a spare tire (120) which is disposed in a vertical state in the storage space (S); and a holding member (130) which holds the spare tire (120). The holding member (130) includes: an upper member (131) which includes an upper abutting part (135) disposed toward an upper direction of the spare tire (120) and abutting on an upper surface, and a lower member (137) which includes a lower abutting part (138) disposed toward a lower direction of the spare tire (120) and abutting on a lower surface.
The present disclosure provides an imaging control method and apparatus, an electronic device, and a readable storage medium. The imaging device includes a pixel unit array composed of a plurality of photosensitive pixel units, and the method includes: determining whether a shooting scene of the image device is a dim environment; determining an exposure ratio of a long exposure pixel to a short exposure pixel of the imaging device when the shooting scene is the dim environment; determining that the shooting scene is with a high dynamic range, when the exposure ratio is greater than a first exposure ratio threshold; controlling a pixel unit array of the imaging device to expose for a plurality of times with at least two exposure durations, to generate a plurality of first images; and composting the plurality of first images to generate a composited image.
A terminal, a method for voice control, and related products are provided. The method for voice control is applicable to a terminal including a LPWAN communication module, and the method includes the following. A first enhanced LPWAN with at least one smart device is established. Voice data of a user is obtained and a control intention of the user for the at least one smart device is determined according to the voice data. A dedicated control instruction for a first smart device of the at least one smart device is determined according to the control intention, where the dedicated control instruction is used to instruct the first smart device to perform a corresponding operation. The dedicated control instruction is sent to the first smart device.
A spinning sensor (52) detects a tension of a spun yarn (10) travelling between a spinning device and a winding device. The spinning sensor (52) includes a yarn guide (60)-making contact with the travelling spun yarn 10, and a strain sensor to output a signal according to a force applied to the yarn guide 60. The yarn guide 60 has a substantially arcuate cross-sectional contour at a cross section perpendicular to an axial line (64) at least at a portion making contact with the spun yarn (10). A direction parallel to a yarn path of the spun yarn (10) located upstream of the yarn guide (60) is a Y-axial direction. A direction parallel to an axial direction of a draft roller is an X-axial direction. A direction perpendicular to the Y-axial and the X-axial directions is a Z-axial direction. When viewed in the Z-axial direction, an axial line (64) of the yarn guide (60) is inclined with respect to the Y-axial direction.
A saddle-ride type vehicle (1) comprising: a body frame (5) that has a head pipe (6) and a main frame (15), the main frame (15) extending rearwardly from the head pipe (6); a fuel tank (41) that is provided so as to staddle and cover the main frame (15) from above; a hydraulic brake (56, 57) that applies braking force to each wheel (2, 9); and an ABS module (61, 161) that can reduce hydraulic pressure acting on the hydraulic brake (56, 57) so as to avoid a slip of the wheel (2, 9), wherein the ABS module (61, 161) is disposed below the fuel tank (41) so as to be covered with the fuel tank (41) from above and left and right sides, and the ABS module (61, 161) is disposed in a position forward of rear fastening portion (77) of the fuel tank (41).
Rolling method in a rolling line (10), to produce strip with a thickness varying from 0.7 mm to 20 mm, for all qualities of steel which can be cast in the form of thin slabs with a thickness comprised from 30 mm to 140 mm, the line (10) comprising at least: a continuous casting device (11); a tunnel furnace (15) for maintenance/equalization and possible heating; a rolling train consisting of a roughing train comprising from 1 to 4 rolling stands (18a, 18b, 18c) and a finishing train comprising from 3 to 7 stands (21a-21e); a rapid heating unit (20), with elements able to be selectively activated, interposed between the roughing train and the finishing train. For each lay-out of the rolling line (10), the position of the rapid heating unit (20) which defines the number of stands (18a, 18b, 18c) which form the roughing train, disposed upstream of the unit (20), and the number of stands (21a-21e) which form the finishing train, disposed downstream of the unit (20), is calculated as a function of the thickness and speed of the thin slab. The product is in turn a function of the hourly productivity in tons/hour desired to be obtained, and is made to work either in coil-to-coil mode, or in semi-endless mode or in endless mode. One of the three modes of the rolling process is selected according to the quality of the steel produced, to the maximum casting speed possible for the quality of steel, to the final thickness of the strip and to the production cost.
(54) **Title of the invention**: POUCH-TYPE SECONDARY BATTERY AND POUCH FILM FORMING DEVICE

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<td>(86) International Application No</td>
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(57) **Abstract**:  
A pouch-type secondary battery according to an aspect of the present invention comprises: an electrode assembly in which a positive electrode plate and a negative electrode plate are disposed to face each other; and a pouch case comprising a first pouch film and a second pouch film thermally bonded to the first pouch film wherein a recess is formed in the first pouch film and/or the second pouch film and the recess may be formed such that the area of a bottom surface thereof on which the electrode assembly can be placed face to face is greater than or equal to the area of a reference surface covering the open part of the recess.
Embodiments of the present application provide a sounding reference signal transmission method, apparatus and system, so that a sounding reference signal can be switched on a BP level. The method comprises: determining that a transmission conflict occurs between a sounding reference signal (SRS) on a first bandwidth part (BP) and an SRS on a second BP; and discarding the SRS on the first BP, a priority of the SRS on the first BP being lower than that of the SRS on the second BP.

No. of Pages: 30  No. of Claims: 20
The present invention relates to a lithium electrode comprising: a lithium metal layer; an aluminum oxide (Al2O3) layer formed on the lithium metal layer; and a carbon layer formed on the aluminum oxide (Al2O3) layer, and a lithium secondary battery comprising the same. According to the present invention, the aluminum oxide layer can prevent a direct reaction between a nonaqueous electrolyte and the lithium metal layer. Particularly, the aluminum oxide layer has no electric conductivity and thus causes lithium precipitation between the lithium metal layer and the aluminum oxide layer to prevent a lithium metal from being precipitated on a protection layer. Further, the carbon layer functions to allow a stable SEI film to be formed thereon.
The present invention relates to a customized BMS module and a design method therefor, the module and the method dividing a BMS into parts per function and pre-designing the same such that the BMS parts can be selected and mounted on a substrate so as to correspond to a separate BMS design request without differently designing the BMS each time according to different part specifications, thereby enabling the standardization of parts, cost reduction and a reduction in verification costs and development period for new circuit development to be achieved.
The present invention provides a suturing device to minimize interference and obstructions during intricate surgeries. The curled suture device is significantly shorter than traditional suturing kits by featuring a needle attached to a specially manufactured thread incorporating a stopping mechanism preceding an angular semi-rigid portion of thread followed by a curled portion of thread arranged in a corkscrew configuration. The stopping mechanism halts the movement of the thread as the needle and thread intermediate the needle and stopping mechanism is pulled through the suture point securing the remainder of the thread for access. The semi-rigid portion of thread is thereby utilized in conjunction with its curled portion of thread allowing for the users unabated access to the corkscrew configuration to form a ready-made knot minimizing interference and obstruction during surgery. The thread may be manufactured to form an additional semi-rigid and curled portions of thread upon creation of a knot.
This vanadium silicon carbonitride film comprises vanadium silicon carbon and nitrogen. When vanadium element concentration (vanadium element concentration + silicon element concentration + carbon element concentration + nitrogen element concentration) in the film is defined as \( a \) and silicon element concentration (vanadium element concentration + silicon element concentration + carbon element concentration + nitrogen element concentration) in the film is defined as \( b \), the relationships \( 0.30 = \frac{a}{b} = 1.3 \) and \( 0.30 = a + b = 0.70 \) are satisfied and the sum of the vanadium element concentration, silicon element concentration, carbon element concentration, and nitrogen element concentration in the film is 90 [at%] or greater.
**Title of the invention:** MULTI-CARRIER-FREQUENCY TRANSMISSION METHOD DEVICE AND SYSTEM

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**Abstract:**
Embodiments of the present invention relate to the technical field of communications. Disclosed are a multi-carrier-frequency transmission method device and system which resolve the problem of affected transmission performance due to packet loss in multi-carrier-frequency transmission in the prior art. The specific solution comprises: a first terminal device obtains first direct-link data; and on a first transmission carrier frequency sending to a second terminal device the first direct-link data and first indication information that is used for indicating that the first terminal device sends second direct-link data by using at least one second transmission carrier frequency so that the second terminal device adjusts a receiving link according to the indication information and receives the second direct-link data on the second transmission carrier frequency. The embodiments of the present invention are used for a multi-carrier-frequency transmission process.

**Diagram:**

No. of Pages: 51
No. of Claims: 22
The present invention relates to a method for the synthesis of compounds useful in the preparation of antibody drug conjugates (ADC), namely, monoprotected dimeric bifunctional prodrugs based on duocarmycin analogs. In a further aspect, compounds obtained by the method according to the present invention are provided. The monoprotected bifunctional prodrug is used for preparing antibody drug conjugates composed of an antibody moiety and the monoprotected bifunctional prodrug. The antibody compound conjugates thus obtained are provided. Further, a method of preparing an antibody drug conjugate composed of two identical or two different antibody moieties is provided as well as the antibody compound conjugate containing two different antibody moieties accordingly. These conjugates can be used in pharmaceutical compositions, in particular, for use in treatment of tumors, e.g. for use in ADC therapy.
A feedforward control method for a wind turbine set in a wind farm, comprising: obtaining real-time operation data of a predetermined wind turbine set in a wind farm; inputting the acquired real-time operation data into a predetermined prediction model corresponding to the predetermined wind turbine set so as to acquire prediction data by means of the predetermined prediction model; according to the acquired prediction data, determining whether to start a feedforward control function for the predetermined wind turbine set so as to control the operation state of the predetermined wind turbine set on the basis of a predetermined manner of feedforward control. The method may control a wind turbine set in advance and is beneficial in the safe operation of wind turbine sets. The present invention also relates to a feedforward control device for a wind turbine set in a wind farm, a control system, a computer readable storage medium and a field group controller.
Apparatus and methods related to a processing system communicatively coupled to a network. The processing system includes a processor and a memory including computer program code. The processing system is operable to receive a presence announcement message transmitted through the network from an equipment controller or subsystem that is operable to control equipment of a well construction system. The processing system is also operable to, in response to receiving the presence announcement message, instantiate an object based on an identity related to the equipment controller or subsystem when the equipment controller or subsystem is authorized to communicate through the network. The processing system is also operable to translate communications, using the object, between the equipment controller or subsystem and a common data bus of the network.
Apparatus and methods regarding a first processing system operable to receive a job plan developed by a second processing system, and implement the job plan, including generating commands for an equipment controller based on the job plan. The first processing system is operable to transmit, through a network, the commands to the controller for execution by the controller. The first processing system is operable to iteratively (i) monitor, through the network, current conditions of the well construction system during execution of commands by the controller; (ii) update the implementation of the job plan, including generating updated commands for the controller based on the job plan and the current well construction system conditions when the current well construction system conditions indicate a deviation from the implementation; and (iii) transmit, through the network, the updated commands to the controller for execution by the controller.
This invention relates to an integrated process for recovering value metals from sulphide ore which includes the steps of bulk sorting 16 and screening 24/28 crushed ore. The sorted/screened coarse ore stream is ground and classified 20 to provide a coarse fraction 34 suitable for coarse flotation and a first fine fraction 38 suitable for flotation. The coarse fraction suitable for coarse flotation is subjected to coarse flotation 36 thereby to obtain a gangue 42 and an intermediate concentrate 46. The intermediate concentrate is subjected to grinding 48 to provide a second fine fraction suitable for conventional flotation. The first fine fraction and the second fine fraction are subjected to conventional flotation 40 to provide a concentrate and tailings. This process that capitalises on the natural heterogeneity of sulphide orebodies, and utilises bulk sorting, screening and coarse flotation beneficiation technologies in a novel multistage configuration to reject the maximum quantity of waste gangue prior to fine comminution.
Title of the invention: IRON BASED ALLOY SUITABLE FOR PROVIDING A HARD AND WEAR RESISTANT COATING ON A SUBSTRATE, ARTICLE HAVING A HARD AND WEAR RESISTANT COATING, AND METHOD FOR ITS MANUFACTURE

Abstract:
An iron-based alloy consists of 3.0-7.0% by weight Cr; 1.3-3.0% by weight C; 0.2-2.0% by weight B; 2.0-10.0% by weight V; optionally 1.5% by weight or less Si; optionally 1.0% by weight or less Mn; optionally 2.0% by weight or less Mo; optionally 1.5% by weight or less Ni; the balance being Fe and unavoidable impurities. The iron-based alloy is able to provide a coating on a substrate. The coating has simultaneously high hardness and wear resistance. An article comprises a substrate and coating which being formed from the alloy. A method for forming a coated article preferably employs HVOF, laser cladding or plasma cladding.
An iron-based alloy that is able to provide a coating on a substrate, the coating having high hardness, corrosion resistance and bonding strength to the substrate. The iron-based alloy consists of (by weight) 16.00 -20.00 % Cr; 0.20 -2.00 % B; 0.20 -4.00 % Ni; 0.10 -0.35 % C; 0.10 -4.00 % Mo; optionally 1.50 % or less Si, 1.00 % or less Mn, 3.90 % or less Nb, 3.90 % or less V, 3.90 % or less W and 3.90 % or less Ti; the balance Fe and unavoidable impurities; with the proviso that the total amount of Mo, Nb, V, W and Ti is in the range of 0.1 -4.0 % by weight of the alloy. It further relates to an article comprising a substrate and coating formed thereon, the coating being formed from the alloy, and to a method for forming a coated article. The method preferably employs HVOF, HVAF, cold spraying, plasma spraying, laser cladding or plasma transferred arc cladding.
The present disclosure provides a method for recommending media content through intelligent automated chatting. A message is received from a user in a conversation with the user. A new topic is identified based on the message and context of the conversation. A media content is identified from a set of media contents based on the new topic. A recommendation of the media content is provided in the conversation.
The steel wire has an equivalent diameter between 0.2 and 0.7 mm. The steel wire has a composition comprising between 0.7% and 1.1% by weight carbon; between 0.5% and 1.2% by weight manganese; between 0.05% and 0.5% by weight silicon. The steel wire further comprises less than 0.4% by weight chromium; less than 0.05% by weight phosphorus; less than 0.05% by weight sulphur; less than 0.2% by weight copper; and less than 0.2% by weight nickel. The steel wire comprises at least one alloying element, selected from the group of vanadium, titanium, niobium, molybdenum, tungsten and boron. When the at least one alloying element is selected from the group of vanadium, titanium, niobium, molybdenum and tungsten, the content of the at least one alloying element is between 0.02% and 0.2% by weight. When the at least one alloying element is boron, the content of boron is at least 0.001% by weight. The steel wire composition further comprises unavoidable impurities and the remainder being iron. The steel wire has a tempered martensitic microstructure. The microstructure of the steel wire comprises between 1 and 10% by volume of undissolved carbides.
The invention relates to a method for obtaining a liquid fertiliser from vegetable biomass, where vegetable biomass is understood to be the vegetable residues, for example of agricultural crops, obtained once the production or growth cycle has finished, with the method permitting the transformation of this solid biomass into a liquid fertiliser solution that can be easily metered, for example via fertigation, thereby revaluing, for example, crop waste that would otherwise be eliminated in incinerators or similar.

No. of Pages : 8 No. of Claims : 7
Disclosed in the present invention are a channel resource set indication method and device, and a computer storage medium. The method comprises: a terminal determining at least two resource sets, different resource sets corresponding to different configuration information, the configuration information comprising at least one of the following: a DCI format type, an uplink and downlink resource ratio, and a search space type of a downlink control channel; the terminal determining first configuration information; the terminal determining, from the at least two resource sets, a first resource set corresponding to the first configuration information; the terminal determining a target resource from the first resource set; and the terminal transmitting, on the target resource, signaling or data corresponding to the first configuration information.

No. of Pages : 25 No. of Claims : 22
A method for processing a vestibulo-acoustic signal, including receiving a vestibulo-acoustic signal obtained from a person; decomposing said signal using wavelets; differentiating said signal and phase data of said wavelets to determine loci of components of a composite field potential waveform produced by the vestibular system of the person.
A helmet (1) comprising an energy absorbing layer (3), a relatively hard layer (2) that is harder than the energy absorbing layer (3) and is formed outward of the energy absorbing layer (3) and a plurality of outer plates (20) mounted on the outer surface of the relatively hard layer (2); wherein the outer plates (20) are mounted on the relatively hard layer (2) such that, under an impact to an outer plate (20), the outer plate (20) can slide across the relatively hard layer (2) and move relative to other outer plates (20); and a low friction interface is provided between the outer surface of the relatively hard layer (2) and at least a part of the surface of the outer plates (20) that is in contact with the outer surface of the relatively hard layer (2) under an impact to an outer plate (20).
Title of the invention: X-RAY INSPECTION DEVICE FOR DRONE, X-RAY INSPECTION DEVICE EMPLOYING DRONE, AND X-RAY GENERATING DEVICE FOR DRONE

Abstract:
[Problem] To provide: an X-ray inspection device for a drone, an X-ray inspection device employing a drone, an X-ray generating device for a drone, and so forth with which it is possible to perform, by utilizing a drone, X-ray inspection of a subject installed at a high place, for example, a power cable suspended between steel towers, a cable end thereof, elevated piping, or the like.

[Solution] The present invention provides an X-ray inspection device for a drone, the X-ray inspection device being characterized by including: a suspension device provided in a drone; an X-ray generating device for the drone, the X-ray generating device being capable of being moved up and down by means of the suspension device and including an X-ray source that irradiates a subject with X-rays; and a detector that is capable of being moved up and down by means of the suspension device and that detects the X-rays that have passed through the subject.
The present application relates to recombinant microorganisms useful in the biosynthesis of unsaturated C6-C24 fatty alcohols, aldehydes, and acetates which may be useful as insect pheromones, fragrances, flavors, and polymer intermediates. The recombinant microorganisms may express enzymes or enzyme variants useful for production of and/or may be modified to down regulate pathways to shunt production toward unsaturated C6-C24 fatty alcohols, aldehydes, and acetates. The C6-C24 fatty alcohols, aldehydes, and acetates described herein may be used as substrates for metathesis reactions to expand the repertoire of target compounds and pheromones. Also provided are methods of producing unsaturated C6-C24 fatty alcohols, aldehydes, and acetates using the recombinant microorganisms, as well as compositions comprising the recombinant microorganisms and/or optionally one or more of the product alcohols, aldehydes, or acetates.

FIGURE 1

No. of Pages : 346 No. of Claims : 132
(57) Abstract:
Disclosed by the present invention are a time slot indication method, terminal device, network device and computer storage medium, wherein the method comprises: obtaining \( N \) pieces of structure indication information in first control information sent from a network side, wherein \( N \) is an integer greater than or equal to 1; determining \( N \) time slots corresponding to the \( N \) pieces of structure indication information in the first control information, wherein at least some of the time slots among the \( N \) time slots are not continuous, and the \( N \) time slots are time slots which may change uplink and downlink proportion; and determining a structure corresponding to the \( N \) time slots on the basis of the \( N \) pieces of structure indication information.
A METHOD FOR INTER-BED COOLING IN WET GAS SULFURIC ACID PLANTS

In a method for cooling of process gas between catalytic layers or beds in a sulfuric acid plant, in which sulfuric acid is produced from feed gases containing sulfurous components like SO2, H2S, CS2 and COS or liquid feeds like molten sulfur or spent sulfuric acid, one or more boilers, especially water tube boilers, are used instead of conventional steam superheaters to cool the process gas between the catalytic beds in the SO2 converter of the plant. Thereby a less complicated and more cost efficient heat exchanger layout is obtained.

No. of Pages : 26 No. of Claims : 10
The present invention relates to an apparatus for weed control. It is described to provide (210) a processing unit with at least one image of an environment. The processing unit analyses (220) the at least one image to determine at least one location within the environment for activation of at least one mulch application unit. The at least one mulch application unit is configured to apply at least one mulch to the at least one location for weed control. An output unit outputs (230) information that is useable to activate the at least one mulch application unit.

![Diagram of the apparatus](image)

No. of Pages : 29 No. of Claims : 15
The present invention is related to a formulation of the prolactin receptor antibody mat3 and its use in the treatment of male and female pattern hair loss.
Title of the invention: AN APPARATUS AND A METHOD FOR FORMING PRE-SHAPED INSULATING SHEETS

Abstract:
An apparatus for forming pre-shaped insulating sheets comprises a first bending station and a second bending station. The first bending station is used for bending a flat sheet of insulating material into a Z-shaped sheet. The second bending station is used for bending the Z-shaped sheet into an S-shape. The first and second bending stations comprise pairs of bending operators for creating bending movements.
It is provided a method, comprising, for each subset of a predefined group of subsets of pixels of an image sensor: retrieving a respective predefined correlation between positions of pixels in the respective subset and positions in a subframe corresponding to the respective subset based on an identification of the respective subset; extracting pixel values of pixels of the respective subset and storing the extracted pixel values in positions of the corresponding subframe according to the predefined respective correlation; transmitting the subframe corresponding to the respective subset and the identification of the respective subset when the extracted pixel values are stored in the corresponding subframe, irrespective of a transmission timing of any of subframes corresponding to other subsets of the group; wherein the number of the different subsets in the group is equal to or larger than 2.

No. of Pages : 26 No. of Claims : 94
The present invention provides a medicine and a method for preventing or treating ophthalmic symptoms, disorders, or diseases. The present invention provides an mTOR-inhibitor-containing composition for preventing or treating ophthalmic symptoms, disorders, or diseases. In some of the embodiments of the present invention, this composition is capable of treating or preventing corneal endothelial symptoms, disorders, or diseases; in particular, corneal endothelial symptoms, disorders, or diseases that are attributed to overexpression of the transforming growth factor-β (TGF-β) signal and/or extracellular matrix (ECM).

![Fig. 1](image)

**No. of Pages : 86**  **No. of Claims : 20**
**Title of the invention:** SUBSTITUTED INDOLINE DERIVATIVES AS DENGUE VIRAL REPLICATION INHIBITORS

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| (31) Priority Document No | :17172237.4 |
| (32) Priority Date | :22/05/2017 |
| (33) Name of priority country | :EPO |
| (86) International Application No | :PCT/EP2018/063028 |
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| Filing Date | :NA |

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**Abstract:**
The present invention concerns substituted indoline derivatives, methods to prevent or treat dengue viral infections by using said compounds and also relates to said compounds for use as a medicine, more preferably for use as a medicine to treat or prevent dengue viral infections. The present invention furthermore relates to pharmaceutical compositions or combination preparations of the compounds, to the compositions or preparations for use as a medicine, more preferably for the prevention or treatment of dengue viral infections. The invention also relates to processes for preparation of the compounds.

No. of Pages : 143  
No. of Claims : 15
The invention relates to an assembly (1) and a method for damping switching movements, having a housing (3), which physically surrounds at least one piston (8), and which at least partly physically surrounds at least one rod (7). The rod (7) is mounted so as to be movable relative to the housing (3). The at least one piston (8) delimits a first fluid volume (A), which is fluidically connected directly or indirectly to at least one second fluid volume (B) by means of at least one throughflow opening (10). The at least one rod (7) is formed at one end (13) in a hollow-tubular manner and physically surrounds the first fluid volume (A). The at least one piston (8) is guided in the hollow-tubular end (13) of the at least one rod (7). The method for damping switching movements in a high-voltage circuit breaker comprises decreasing the damping rate of the assembly (1) for damping in a period in the time profile of the switching movement, in particular after a previous increase in the damping rate during the switching movement.
A system (and associated method) for treating a human or animal body. The system has a photoactivatable drug for treating a first diseased site, a first pharmaceutically acceptable carrier including one or more phosphorescent or fluorescent agents which are capable of emitting an activation energy into the body which activates the photoactivatable drug, a first device which infuses the first diseased site with a photoactivatable drug and the first pharmaceutically acceptable carrier, a first energy source which irradiates the diseased site with an initiation energy to thereby initiate emission of the activation energy into the body, and a supplemental treatment device which administers one or both of a therapeutic drug or radiation to the body at a second diseased site or the first diseased site, to provide an immune system stimulation in the body.
This disclosure concerns compositions and methods for promoting transcription of a nucleotide sequence in a plant or plant cell, employing a promoter from a Panicum virgatum (Pavir.Cb02009) egg cell gene. Some embodiments relate to a promoter from a Panicum virgatum (Pavir.Cb02009) egg cell gene that functions in plants to promote transcription of operably linked nucleotide sequences. Other embodiments relate to a 3 UTR from a Panicum virgatum (Pavir.Cb02009) egg cell gene that functions in plants to promote transcription of operably linked nucleotide sequences.
A battery module is disclosed. A battery module according to one embodiment of the present invention comprises: a battery cell stack having a plurality of battery cells including electrode leads, wherein the plurality of battery cells are stacked; and an ICB cover including coupled and bent electrode lead connecting bodies in which an electrode lead of one of the plurality of battery cells and an electrode lead of another battery cell neighboring the one battery cell are connected to each other, wherein the ICB cover is provided in plurality, and the plurality of ICB covers is arranged to have layers different from each other.
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| (31) Priority Document No :17172247.3 |
| (32) Priority Date :22/05/2017 |
| (33) Name of priority country :EPO |
| (86) International Application No  :PCT/EP2018/063029 Filing Date :18/05/2018 |
| (61) Patent of Addition to Application Number :NA Filing Date :NA |
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| 7)RABOISSON, Pierre, Jean-Marie, Bernard |

(57) Abstract :
The present invention concerns substituted indoline derivatives, methods to prevent or treat dengue viral infections by using said compounds and also relates to said compounds for use as a medicine, more preferably for use as a medicine to treat or prevent dengue viral infections. The present invention furthermore relates to pharmaceutical compositions or combination preparations of the compounds, to the compositions or preparations for use as a medicine, more preferably for the prevention or treatment of dengue viral infections. The invention also relates to processes for preparation of the compounds.

No. of Pages : 72 No. of Claims : 11
Methods are provided for treating or preventing human immunodeficiency virus-1 (HIV-1) or human immunodeficiency virus-2 (HIV-2) in a virologically suppressed patient in need thereof comprising switching the patient from an antiretroviral treatment regimen comprising at least three antiretroviral agents to a treatment regimen comprising only two antiretroviral agents. In one aspect the two treatment regimen consists of dolutegravir, rilpivirine and at least one pharmaceutically acceptable excipient, diluent or carrier. In another aspect of the invention, there is provided a multilayer tablet comprising dolutegravir or a pharmaceutically acceptable salt thereof and rilpivirine or a pharmaceutically acceptable salt thereof.

No. of Pages : 96 No. of Claims : 7
The invention provides an aqueous pharmaceutical solution for use in the treatment of diseases of the central nervous system (CNS), the solution comprising at least 5 mg/ml dissolved levodopa, and having a pH in the range of 3.0 to 8.5. Said solution is provided by mixing a) an aqueous stock solution comprising levodopa, said stock solution having a pH of less than 2.8 at 25 °C and b) an aqueous buffering solution, for increasing the pH of said stock solution, said buffering solution having a pH of at least 4.0 at 25 °C. The aqueous pharmaceutical solution is administered to a subject suffering from a disease of the central nervous system (CNS) shortly after mixing of the aqueous stock solution and the aqueous buffering solution. Furthermore, the invention provides a kit for administration of aqueous pharmaceutical solutions to subjects suffering from diseases of the central nervous system (CNS).
The invention relates to a water treatment plant comprising: means (1) for supplying water for treatment, wherein said water has been coagulated previously, a flocculation-decantation device (11) having means (5) for dispensing at least one flocculant reagent, means (6) for dispensing at least one ballast, means (20d) for extracting decantation sludge, means (9) for discharging the treated water, means (14) for separating said ballast contained in the ballasted sludge, and means (8) for recycling the ballast that has been cleaned in this manner back into the flocculation-decantation device (11), characterised in that: said flocculation-decantation device (11) has a single tank (12) in the lower portion of which a stirring mechanism (13) is arranged; wherein said single tank (2) comprises slats (10) in its upper portion; and said slats are separated from the stirring mechanism (13) by a distance d which is between approximately 0.5 metres and approximately 3 metres. The invention also relates to a method using said plant.
Provided is data structure for highly-safe virtual currency data. Virtual currency data, which is used in conjunction with a settlement device that accepts payment when data sent from a prescribed device via a network has been received and when certain conditions have been met, includes virtual currency encryption data obtained by encrypting, according to a prescribed encryption method, issuing entity information including at least information pertaining to the issuing entity of the virtual currency data, amount information for specifying a monetary value, and trust information based on the trustworthiness of the virtual currency data.
The present invention relates to a Rho-associated protein kinase inhibitor of formula (I), a pharmaceutical composition comprising the same, a preparation method thereof, and a use of the same in preventing or treating a disease mediated by Rho-associated protein kinase (ROCK). (I)
A method of manufacturing composite laminate panel sub-elements (34) for subsequent assembling into a modular assembly structure (37), comprises the preprocessing steps of casting an elongate composite laminate sheet panel (18) having opposite first and second fiber-reinforced plastic face skins (19, 21) sandwiching a core (35), a free first elongate edge (22) and an opposite second elongate free edge (24), demolding the elongate composite laminate sheet panel (18), cutting the demolded elongate composite laminate sheet panel (18) into (n) shorter sections (Sn), thereby providing sections (Sn) with at least one free cut edge (26; 32), a free first edge (22) having the same profile as the free first elongate edge, and a free second edge (22) parallel to the free first edge and having the same profile as the free second elongate edge, and machining at least a first coupling profile (27) along the at least one free cut edge (26; 32).
Title of the invention: LANDING DOOR UNLOCKING TOOL AND METHOD FOR OPENING LOCK OF LANDING DOOR

Abstract:
The purpose of the invention is to provide a landing door unlocking tool that can easily perform an unlocking operation even if a locking device is installed in a high position on the landing door. To achieve this, a landing door unlocking tool that is inserted into a keyhole provided in an elevator landing door and unlocks the landing door is provided with: a handle that is formed into a cylindrical shape; a rotary mechanism that is provided on one end of the handle; a key anchor unit that is provided on the other end of the handle so as to be able to rotate; a rotational force transmission means for transmitting the rotational force of the rotary mechanism to the key anchor unit, said rotational force transmission means being provided in the handle; and an operating unit that is provided in the rotary mechanism and that applies a rotational force around the axial line of the rotary mechanism.
Provided herein are heavy chain constant regions (referred to as modified heavy chain constant regions), or functionally equivalent fragments thereof, that enhance biological properties of antibodies relative to the same antibodies in unmodified form. An exemplary modified heavy chain constant region includes an IgG2 hinge and three constant domains (i.e., CH1, CH2, and CH3 domains), wherein one or more of the constant region domains are of a non-IgG2 isotype (e.g., IgG1, IgG3 or IgG4). The heavy chain constant region may comprise wildtype human IgG domain sequences, or variants of these sequences. Also provided herein are methods for enhancing certain biological properties of antibodies that comprise a non-IgG2 hinge, such as internalization, agonism and antagonism, wherein the method comprises replacing the non-IgG2 hinge of the antibody with an IgG2 hinge.
provided is an oxidizing composition, in which a liquid medium is substantially inert in the presence of an oxidizing electrophile contained in the liquid medium. the composition comprises (a) an oxidizing electrophile comprising a main group element in oxidized form and at least one conjugate anion of an oxygen acid; (b) a non-oxidizable liquid selected from a fluorinated hydrocarbon, a sulfone, a deactivated arene, a deactivated aliphatic, a deactivated heteroarene, a deactivated heteroaliphatic, and a combination thereof; and (c) optionally one or more salt additives. further provided are a method of using the oxidizing composition to oxidize a substrate and a method of generating and/or regenerating an oxidizing electrophile comprising a main group element.
Provided is a process for converting an alkane to an alkene. The process comprises (a) contacting the alkane and either (i) an oxidizing electrophile comprising a main group element in oxidized form, or (ii) an oxidant and a reduced form of the oxidizing electrophile, in a liquid medium comprising an oxygen acid and optionally one or more additives selected from a non-oxidizable liquid, a salt additive, a Lewis acid, and water, to provide an oxidized intermediate and a reduced form of the oxidizing electrophile; (b) optionally separating the oxidized intermediate and the reduced form of the oxidizing electrophile; and (c) performing an elimination reaction on the oxidized intermediate to provide the alkene and the oxygen acid.
# Abstract

Provided is a process for oxidizing an alkene. The process comprises contacting an alkene, and either an oxidizing electrophile comprising a main group element in oxidized form or an oxidant and a reduced form of the oxidizing electrophile, in a liquid medium comprising an oxygen acid and optionally one or more additives selected from a non-oxidizable liquid, a salt additive, a Lewis acid, and water, to provide an oxygenate and a reduced form of the oxidizing electrophile. The process optionally further comprises separating the oxygenate and the reduced form of the oxidizing electrophile. The oxygenate can be further hydrolyzed to form an alcohol, diol, or polyol.

## Diagram

![Diagram](image)

No. of Pages : 49 No. of Claims : 36
The invention relates to a process for manufacturing a microfluidic chip comprising a solid material obtained from a sol-gel solution, the process comprising successively: a) casting a sol-gel solution made with tetraethyl orthosilicate onto a mold presenting a relief pattern and having a different thickness over the whole of the mold; b) gelling the sol-gel solution; c) unmolding and drying the gel obtained in b), so as to obtain a solid glass; and d) bonding said solid glass to a support, so as to obtain the microfluidic chip.
The present disclosure provides for a directional surface marking (100) that provides directional messaging to users based on their direction of travel on a base surface, such as a roadway, walkway, or interior flooring, as non-limiting examples. In some aspects, the directional messaging may comprise different colors, text, or symbols, wherein a user may view different directional messaging on a directional surface marking dependent on direction of travel. In some embodiments, directional surface markings may comprise a profile layer (110), wherein the profile layer may comprise a plurality of profiles (115, 120), which may allow for an application of directional messaging.
The invention resides in a laparoscope, or camera, for a medical procedure, having a body having a distal end for locating in a patient and a proximal end for handling the laparoscope outside the patient. A camera is provided together with a light source at the distal end. An operable interface is provided adjacent the proximal end, for operating the camera and/or light source. A processor and data storage are located in the body and operable to provide an interface for managing the camera, light source and recording images. The laparoscopic camera can be self-contained such that it is operable without cables or external support devices. It can manage image recording, calibration and storage all within the camera. The invention also resides in a case for use with the laparoscope.
Title of the invention: TARGETED NON-VIRAL DNA INSERTIONS

International classification: A61K 48/00, C12N 9/22, C12N 15/00, C12N 15/11, C12N 15/113

Priority Document No: 62/520117
Priority Date: 15/06/2017
Name of priority country: U.S.A.

International Application No: PCT/US2018/037919
Filing Date: 15/06/2018

International Publication No: WO/2018/232356

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2) MARSON, Alexander

Abstract:
Provided herein are methods and compositions for editing the genome of a cell. In some embodiments, a nucleotide sequence of at least 200 nucleotides in length is inserted into a target region in the genome of a cell.

No. of Pages: 58
No. of Claims: 28
Title of the invention: HAIR TREATMENT SYSTEM

System (1) for treating a head of hair, comprising:
- a pipe (28) for circulating a liquid,
- a device (24) for feeding the pipe (28) with water,
- at least one source (21) of product, the product (P1) comprising one or more surfactants,
- a device (29) for injecting product into the pipe (28) to form a treatment solution comprising one or more surfactants in a content ranging from 0.35% to 1.5% by weight of surfactant(s) relative to the total weight of the treatment solution,
- a dispensing device (11) for delivering the treatment solution onto the head of hair (B) with a flow rate of between 0.5 and 5 L/min, better still between 0.8 and 3 L/min.

No. of Pages : 32 No. of Claims : 18
The present invention concerns a mast section (1) for a wind turbine having a central longitudinal axis (L) extending in a longitudinal direction, the mast section (1) comprising at least two tubular mast elements (14) stacked in the longitudinal direction and arranged edge-to-edge at a junction plane (P), each mast element (14) comprising at least two wall segments (16), connected together by segment connectors (26) extending along the longitudinal edges of the wall segments (16), the mast section (1) further comprising element connectors (37) each extending astride said two mast elements (14), in the extension of the segment connectors (26) in the longitudinal direction. The mast section (1) further comprises a plurality of element overconnectors (45), each element overconnector (45) extending astride a segment connector (26) and an adjacent element connector (37) in the longitudinal direction.

No. of Pages : 19 No. of Claims : 21
The present disclosure is directed to a device for medical examination in a subject. The device is configured for easy self-examination of a variety of physiological parameters indicative of disease or physiological irregularities. Examples of such physiological parameters include body temperature indicative of fever, ear pathologies indicative of ear infection, heartbeat, blood oxygen level.

While the device of this disclosure may be a stand-alone device, it may be configured, according to embodiments of this disclosure, for association and operation with a mobile communication device, in particular a smartphone.
Title of the invention: RELAYS AND METHODS FOR OPERATING THE SAME FOR SPONTANEOUSLY TRANSMISSION FOR RELIABLE COMMUNICATIONS

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Abstract:
A relay is configured to operate in a wireless communications network. The relay is configured to receive a message to be spontaneously forwarded to a receiving node. The relay is configured to evaluate a channel quality to the receiving node and to discard the message from forwarding when the channel quality is below a threshold value and/or is configured to evaluate a reception quality of the received message and to discard the message from forwarding when the reception quality is below a threshold value.

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2) BREILING, Marco

No. of Pages: 31 No. of Claims: 36
Abstract:
Described herein are nanoprobes comprising ultrasmall aminated and cRGDY-conjugated nanoparticles labeled with Zirconium-89 (89Zr) and methods of their use. The provided compositions are renally clearable and possess suitable blood circulation half-time, high tumor active targeting capability, dominant renal clearance, low liver accumulation, and a high tumor-to-background ratio. The described nanoprobes exhibit great potential as target-or-clear tracers to human subjects for systemic targeted imaging (or treatment) of cancer.
Title of the invention: IMMUNE CELLS DEFECTIVE FOR SUV39H1

Abstract:
The present invention relates to an engineered immune cell defective for Suv39h1. Preferably, said engineered immune cell further comprises a genetically engineered antigen receptor that specifically binds a target antigen. The present invention also relates to a method for obtaining a genetically engineered immune cell comprising a step consisting in inhibiting the expression and/or activity of Suv39h1 in the immune cell; and further optionally comprising a step consisting in introducing in the said immune cell a genetically engineered antigen receptor that specifically binds to a target antigen. The invention also encompasses said engineered immune cell for their use in adoptive therapy, notably for the treatment of cancer.
(54) Title of the invention : NEW ORAL FORMULATIONS OF BELINOSTAT

(51) International classification :A61K 9/16,A61K 31/18,A61P 35/00
(31) Priority Document No :62/527684
(32) Priority Date :30/06/2017
(33) Name of priority country :U.S.A.
(86) International Application No :PCT/EP2018/067717
  Filing Date :29/06/2018
(87) International Publication No :WO/2019/002614
(61) Patent of Addition to Application Number :NA
  Filing Date :NA
(62) Divisional to Application Number :NA
  Filing Date :NA

(57) Abstract :
The present application concerns new formulations of belinostat suitable for oral administration, their process of preparation, the pharmaceutical compositions comprising said formulations and their uses thereof.

No. of Pages : 31 No. of Claims : 13
Title of the invention : COMPENSATING VOLTAGES

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Name of Inventor :
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2) FINKELMAN, Ido
3) LI, Guang Jin

Abstract :
A method of balancing current in a developer roller is described. The method comprises pulsing voltage to a squeegee roller and a cleaner roller. The pulsed voltage yields a differential voltage at the developer roller after impression. The method also comprises pulsing compensating voltage to at least one of the squeegee roller or the cleaner roller to reduce or cancel an accumulated developer current imbalance of the developer roller. The compensating voltage pulses comprise pulses before or after the impression.
Title of the invention: METHODS AND APPARATUSES FOR QUADRATURE AMPLITUDE MODULATION OPTIMIZED FOR PHASE NOISE

Abstract:
Methods and apparatus for facilitating wireless communication using digital Quadrature Amplitude Modulation are disclosed. A wireless communication device utilizes a signal constellation for quadrature modulating a signal for transmission or quadrature demodulating a received signal. The signal constellation includes multiple constellation symbols and associated bit sequences, which can be translated there between. Specific signal constellations are disclosed.
Title of the invention: COMMUNICATION PROCESSING METHOD AND COMMUNICATION APPARATUS

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Abstract:
Embodiments of the present application provide a communication processing method. A data volume report reported by a terminal device comprises the data volume of one of at least two channels of a wireless bearer under a repetition mode, thereby reducing the signaling overhead in the data volume reporting process of the terminal device.

No. of Pages : 65 No. of Claims : 50
**Title of the invention:** STREAMLINED SYNTHESSES OF FLUOROQUINOLONES

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**Abstract:**
Methods of synthesizing fluoroquinolones such as ciprofloxacin are provided. The methods utilize affordable materials, reduce the number of synthesis steps and provide high yields.

No. of Pages : 43  No. of Claims : 20
The invention relates to construction, in particular to a special tile which provides thermal and heat insulation which does not damage the environment, stores solar energy and produces electrical energy, and which can be used in the construction of roof coverings of roofs of industrial and public buildings and structures. A roof tile comprises an upper protective layer, under which a photovoltaic cell is mounted, wherein the upper protective layer is formed from polyethylene terephthalate, and the following are arranged consecutively under the photovoltaic cell: a heat-insulating and sound-insulating layer made from polyurethane foam, a cardboard layer, a technical layer formed from high-pressure polyethylene and a lower protective layer formed from polyethylene terephthalate with a metallized base. The metallized base is formed from aluminium. The upper protective layer is transparent, for the transmission of solar energy to the photovoltaic cell.
The invention relates to a polymer having a) a polymer backbone and b) one or more polymeric side chains covalently linked to the polymer backbone, wherein the polymeric side chains comprise a polyether segment and a polysiloxane segment, said polysiloxane segment having a number average molecular weight in the range of 1050 to 6000, and said polyether segment being positioned between the polymer backbone and the polysiloxane segment.
The invention pertains to a process for manufacturing a cyclic urea adduct of an ethyleneamine compound, the ethyleneamine compound being selected from the group of ethyleneamines and hydroxyethylenamines and comprising at least one NH-CH2-CH2-NH-moiety and at least two ethylene moieties, wherein the ethyleneamine compound is reacted with CO2 in the presence of an auxiliary compound selected from ethylenediamine (EDA), monoethanolamine (MEA) and mixtures thereof, the molar ratio of auxiliary compound to amine compound being at least 0.02:1. It has been found that the presence of an auxiliary compound selected from ethylenediamine (EDA), monoethanolamine (MEA) and mixtures thereof leads to a substantial increase of the reaction rate as compared to a process wherein the auxiliary compound is not present.
The present invention relates to a process for removing polymer material from a gas-solids olefin polymerization reactor wherein the gas-solids olefin polymerization reactor is connected to the top part of an outlet vessel via a feed pipe wherein the powder surface of discharged polymer material and the barrier gas injection point are situated in the outlet vessel as such to fulfill the following criteria:

\[ R = \frac{X}{Y} \leq 2.0; \quad \text{and} \quad R = \frac{X}{D} \geq 1.0; \]

wherein \( X \) = Distance between the powder surface and the barrier gas injection point; \( Y \) = Distance between the barrier gas injection point and the vessel outlet; and \( D \) = Equivalent outlet vessel diameter, an apparatus for continuously removing polymer material comprising a gas-solids olefin polymerization reactor, an outlet vessel and a feed pipe connecting the gas-solids olefin polymerization reactor with the top part of the outlet vessel and the use of said apparatus for polymerizing alpha-olefin homo- or copolymers having alpha-olefin monomer units of from 2 to 12 carbon atoms and for increasing the barrier gas efficiency of the gas-solids olefin reactor to at least 75%.
## Title of the invention: USER IDENTIFICATION METHOD, TERMINAL AND STORAGE MEDIUM

| (51) International classification | :H04M 1/725 |
| (31) Priority Document No | :201710644537.5 |
| (32) Priority Date | :31/07/2017 |
| (33) Name of priority country | :China |
| (86) International Application No | :PCT/CN2018/097022 |
| Filing Date | :25/07/2018 |
| (87) International Publication No | :WO/2019/024736 |
| (61) Patent of Addition to Application Number | :NA |
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| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

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2) ZHOU, Yibao

### Abstract:
The present application relates to the field of terminals. Disclosed are a user identification method, a terminal and a storage medium. The method comprises: when it is detected that a fingerprint of a user is in contact with a pre-set fingerprint identification region, determining a surface humidity of the pre-set fingerprint identification region; when the surface humidity is greater than a pre-set humidity value, collecting the fingerprint of the user by means of an optical fingerprint sensor; matching the fingerprint collected by means of the optical fingerprint sensor with pre-stored fingerprint information; and if matching is successful, unlocking a screen. By means of the technical solution, a sensor used for fingerprint unlocking can be determined according to the humidity of a screen, and the stability of fingerprint unlocking is thus ensured, thereby improving the user experience.

No. of Pages: 34 No. of Claims: 14
The present invention refers to a process for the preparation of a mono(acyl)phosphine of the general formula (I) and/or a bis(acyl)phosphine of the general formula (II), wherein R1, R2, R3, R4 and R5 are the same or different and are independently selected from H, halogen, linear or branched C1-C20-alkyl, linear or branched C2-C8-alkenyl, C1-C8-alkoxy, C2-C8-alkenyloxy, C3-C8-cycloalkyl, C6-C12-aryl, C3-C8-cycloalkoxy, C7-C12-arylcycloalkoxy, C9-C15-alkenylarylalkoxy, nitro-, C6-C12-arylsulfonyl, 4-alkylarylsulfonyl, C1-C20-alkylcarboxy, C1-C8-alkoxy carbonyl, SR14, NHR14 or NR14R15 with R14 and R15 being independently selected from H, linear or branched C1-C20-alkyl, linear or branched C2-C8-alkenyl and C3-C8-cycloalkyl, and an O-, S- or N-containing 5- or 6-membered heterocyclic ring; R6 is H or R6 is replaced by an alkaline earth metal cation or a mixed alkali metal/alkaline earth metal cation; Formula (II) wherein R1, R2, R3, R4, R5, R7, R8, R9, R10 and R11 are the same or different and are independently selected from H, halogen, linear or branched C1-C20-alkyl, linear or branched C2-C8-alkenyl, C1-C8-alkoxy, C2-C8-alkenyloxy, C3-C8-cycloalkyl, C6-C12-aryl, C3-C8-cycloalkoxy, C7-C12-arylcycloalkoxy, C9-C15-alkenylnaphthyl, nitro-, C6-C12-arylsulfonyl, 4-alkylarylsulfonyl, C1-C20-alkylcarboxy, C1-C8-alkoxy carbonyl, SR14, NHR14 or NR14R15 with R14 and R15 being independently selected from H, linear or branched C1-C20-alkyl, linear or branched C2-C8-alkenyl and C3-C8-cycloalkyl, and an O-, S- or N-containing 5- or 6-membered heterocyclic ring; as well as the mono(acyl)phosphine and/or bis(acyl)phosphine obtained by the process.
An unlocking control method and a related product, the method comprising: acquiring, by means of a proximity sensor of a mobile terminal, the distance between a face and the mobile terminal (301); determining a target biometrics module (302), the target biometrics module being any one biometrics module to be adjusted to a matching threshold value within a current biometrics apparatus; determining, according to the distance, a target matching threshold value corresponding to the target biometrics module, and adjusting a matching threshold value of the target biometrics module to the target matching threshold value (303); and performing unlocking control according to the target matching threshold value (304). The method may increase the recognition rate and flexibility of unlocking.
A device (10) for mounting and/or dismantling staves on/from an inner wall 16 of a shaft furnace (12), the device (10) comprising a circular monorail (18) for supporting at least one stave positioning hoist (20). The monorail (18) is divided into at least four separate arc portions (22), wherein each arc portion (22) is connected to a neighboring arc portion (22) by means of a rotatable connection (24). The arc portions (22) are moveable between an unfolded position, in which the arc portions (22) form a circular monorail (18), and a folded position, in which the overall size of the monorail (18) is, in one direction, reduced.
A catheter assembly may include a catheter adapter, which may include a proximal end, a distal end, and a lumen extending between the proximal end and the distal end. The distal end may include a catheter configured to be inserted into vasculature of a patient. The catheter assembly may also include a septum, which may be disposed within the lumen of the catheter adapter. The septum may be secured within the lumen in response to increased pressure by one or more of the following: one or more septum stoppers, a retention disc of a needle assembly, a U-shaped washer, and a conical washer.
The present invention relates to a method of reducing the entrainment of polymer in the polymer-lean liquid phase in a separator, comprising the steps of: (i) Selecting the diameter of the polymer droplets in the polymer solution entering the separator; (ii) Determining the traveling time of the polymer droplets in the separator; and (iii) Adjusting the residence time of the polymer-dense phase in the separator to be at least the traveling time of the polymer droplets, a solution polymerization process using said method for reducing the entrainment of polymer in the polymer-lean liquid phase in the separator and the use of said method for determining the minimum residence time of the polymer solution in the separator required to ensure efficient separation of a polymer solution into a polymer-lean phase and a polymer-rich phase.

No. of Pages : 22 No. of Claims : 15
A programmable device (D) arranged in a production environment, to assist an operator (O) in performing manual assembly operations carried out by the operator (O), particularly during assembly operations performed on pieces (P) transported by pallets (5) in a production line (1). The device (D) comprises an assembly means usable by the operator (O), a lighting device (4) for lighting a work area in which the operator (O) works, a sensor (6) configured to detect the position of the assembly means, an input device (10) usable by the operator, and an electronic control system (8) configured to memorize a learning sequence including a sequence of manual assembly operations.
A control apparatus according to an embodiment of the present invention has a control unit. The control unit performs, depending on the traveling state of a railway vehicle, switching between a first control mode for executing lighting control on a marker lamp of the railway vehicle and a second control mode for executing lighting control on the marker lamp and on a display unit disposed in the vicinity of the marker lamp.
Title of the invention: COMBINATION OF A MCL-1 INHIBITOR AND A STANDARD OF CARE TREATMENT FOR HEMATOLOGIC CANCERS, USES AND PHARMACEUTICAL COMPOSITIONS THEREOF

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<th>Date of filing of Application: 18/12/2019</th>
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Priority Document No: 62/523389
Priority Date: 22/06/2017
Name of priority country: U.S.A.

International Application No: PCT/EP2018/066551
Filing Date: 21/06/2018
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Patent of Addition to Application Number: NA
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Divisional to Application Number: NA
Filing Date: NA

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5) MARAGNO, Ana-Leticia

Abstract:
A combination comprising a Mcl-1 inhibitor and a second anticancer agent, wherein the second anticancer agent is selected from anthracyclines, cytarabine and hypomethylating agents, and compositions and uses thereof.

No. of Pages: 49  No. of Claims: 28
Method for improving efficiency of an existing ammonia synthesis gas plant or a new ammonia synthesis gas plant by establishing a combination of secondary steam reforming using oxygen from electrolysis of water for the production of ammonia synthesis gas.

No. of Pages : 8 No. of Claims : 5
The invention relates to a positive displacement pump (10) comprising a pump body (11, 101, 201) comprising an inlet end (16, 116, 216) and an outlet end (18, 118, 218), a pumping chamber (30, 130, 230) arranged between said inlet end (16, 116, 216) and said outlet end (18, 118, 218), at least one membrane (20, 120, 220) active in the pumping chamber (30, 130, 230) and mobile between an expanded configuration in which the volume of the pumping chamber (30, 130, 230) is maximum and a retracted configuration in which the volume of the pumping chamber (30, 130, 230) is minimum, a delivery valve (46, 146, 246) arranged close to the outlet end (18, 118, 218) of the pump body (11, 101, 201), an intake valve (26, 126, 226) comprising an intake mouth (27, 127, 227), an outlet mouth (28, 128, 228) and a valve wall (29, 129, 229) that joins the intake mouth (27, 127, 227) to the outlet mouth (28, 128, 228), the intake mouth (27, 127, 227) being coupled to the inlet end (16, 116, 216) of the pump body (11, 101, 201) and the outlet mouth (28, 128, 228) being inserted in the pumping chamber (30, 130, 230). Said at least one membrane (20, 120, 220), when in the retracted configuration, adheres to the valve wall (29, 129, 229) of the intake valve (26, 126, 226) and the intake valve has the outlet mouth closed.
Title of the invention: A WEED CONTROL APPARATUS

Abstract:
The present invention relates to a weed control apparatus (10) for a vehicle. It is described to provide (210) a processing unit with at least one image of an environment. The processing unit analyses (220) the at least one image to activate at least one chemical spray unit. A liquid weed control chemical is atomized and charged (230) by the at least one chemical spray unit. The at least one chemical spray unit has at least one part configured to be held at high voltage with respect to zero volts potential. The at least one high voltage power supply and the at least one chemical spray unit are configured to hold the at least one part of the at least one chemical spray unit at one or a number of high voltages with respect to zero volts potential, such that the atomized liquid weed control chemical is electrically charged.
Title of the invention: METHOD FOR THE PREPARATION OF AMMONIA SYNTHESIS GAS

Abstract:
Method for the preparation of ammonia synthesis gas by a combination of ATR or secondary reforming process using oxygen from an air separation unit and electrolysis of water for the production of ammonia synthesis gas.

No. of Pages: 8 No. of Claims: 6
A synchronous belt drive system comprising a first obround sprocket (10) having a toothed surface and at least one linear portion (16) disposed between two arcuate portions (14, 15), the arcuate portions having a constant radius (R1, R2), the linear portion having a predetermined length, a sprocket (300) having a toothed surface, the sprocket engaged to the first obround sprocket by an endless toothed member (200), and the first obround sprocket (10) having a magnitude and a phase such that an angular displacement timing error between the sprocket and the first obround sprocket is less than 1.5 degree peak to peak.
Generally discussed herein are systems, devices, and methods for locking an optical frequency comb. A device may include comb error measurement and control circuitry to receive a beat tone and carrier envelope offset of an optical frequency comb and provide a fast and slow repetition rate control and a fast and slow carrier envelope offset control. The repetition rate controls and carrier envelope offset controls to control actuators of an optical frequency comb generator.
A pulse charging for a battery includes multi-stage voltage conversion. At first stage, an input voltage from a power supply is divided into a plurality of intermediate voltages. At second stage, one or more of the plurality of intermediate voltage are further down converted to generate one or more portions of a charging pulse to be applied to the battery. The down conversion of the input voltage to the output voltage is accompanied by increase in charging current that is applied to the battery. The higher charging current applied to the battery results in fast charging of the battery. Also, the described multi-stage voltage conversion circuitry has high efficiency which alleviates problem of heat dissipation associated with the voltage conversion for charging of the battery.
The present invention relates to an apparatus for weed control. It is described to provide (210) a processing unit with at least one image of an environment. The processing unit analyses (220) the at least one image to determine at least one vegetation control technology from a plurality of vegetation control technologies to be used for weed control for at least a first part of the environment. An output unit outputs (230) information that is useable to activate the at least one vegetation control technology.
A hot rolled steel sheet according to an embodiment of the present invention is configured such that: the hot rolled steel sheet has prescribed chemical components; the metal structure in a center position in the sheet width at \( \frac{1}{4} \) the depth of sheet thickness is formed of 90% by volume or greater martensite with the remaining structure being 0 - 10% by volume; the remaining structure is either one or both of bainite or ferrite; the average length of crystal grains in direction L is 0.2 - 5.0 \( \mu \text{m} \), the average length of crystal grains in direction C is 0.1 - 5.0 \( \mu \text{m} \), and the ratio of C direction grain lengths, which are the average lengths for the crystal grains in the direction C, to the L direction grain lengths, which are the average length for crystal grains in the direction L, is 0.2 \( \leq \frac{\text{C direction grain lengths}}{\text{L direction grain lengths}} \leq 5.0 \); and tensile strength is 1180 MPa or greater.
In a process for the production of ammonia synthesis gas from a hydrocarbon-containing feedstock, comprising steam reforming of the feedstock and treatment of the synthesis gas obtained, the shift of the synthesis gas comprises two shift steps, both including stable catalysts, whereby the formation of hazardous by-products is avoided or at least reduced to an acceptable low level. The two shift steps can both be HTS, or they can be one HTS and one LTS or one HTS and one MTS. The catalyst used in the HTS and the LTS steps is based on zinc oxide and zinc alumina spinel, and the catalyst used in the MTS and the LTS steps can be based on copper.

No. of Pages : 9 No. of Claims : 9
A filter element for use in a filter disc, wherein a plurality of filter elements are arranged on a rotor shaft in a manner allowing liquid communication between the inside of the filter elements and the inside of the rotor shaft. The filter element has at least one passage in an edge structure for liquid communication between the inside of adjacent filter elements when the filter elements are assembled forming a filter disc. The passage has different passage area along the edge structure.
Title of the invention: A TWO-COMPONENT VECTOR LIBRARY SYSTEM FOR RAPID ASSEMBLY AND DIVERSIFICATION OF FULL-LENGTH T-CELL RECEPTOR OPEN READING FRAMES

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<th>International classification</th>
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Abstract:
A combined system comprising two separate components, wherein a first component is a vector carrying variable and constant (V-C) T-cell receptor (TCR) gene segments, and a second component is a vector carrying joining (J) TCR gene segments. The combined system may be modified so that said first component is a modified V-C entry vector encoding a first TCR chain, the system further comprises a fourth and a fifth component, wherein the fourth component comprises a Bidirectional Terminator (BiT) donor vector, and the fifth component comprises a modified V-C entry vector encoding a second TCR chain complimentary to said first TCR chain.
A hydraulic lubricating oil composition is provided which contains a synergistic mixture of three phosphorous antiwear components in order to provide good thermal stability and good demulsibility to the lubricating oil composition.

No. of Pages : 20 No. of Claims : 28
A device and a method is provided. The method includes identifying a sight direction of the device based on the movement information. The method also includes identifying an angle formed between a first straight line that starts from a predetermined position on the display and corresponds to the identified sight direction, and a second straight line that starts from the predetermined position and corresponds to a direction according to a movement trajectory obtained from multiple frames. The method further includes determining whether to start an adjusting mode for providing a frame corresponding to the identified sight direction based on the identified angle and a threshold value determined with respect to a field of view of the device. The method additionally includes identifying a first frame and a second frame among the multiple frames. The method also includes displaying the first frame and then display the second frame.
The present invention relates to a method for predicting outcome of a process used for manufacturing a sample in a bioreactor, the process belonging to a category. The method comprises selecting (51) a process model based on the category; accessing (53) historic data related to past process runs for manufacturing the sample; accessing (53) current data obtained (54) from a current process run of the process. The obtained current data, which is based on the selected process model, comprises: process strategy data, bioreactor instrument data, data from online sensors and/or data from offline sensors. The method further comprises predicting (62) an outcome of at least one selected parameter of the current process run for manufacturing the sample based on the accessed historic data and current data. The present invention also relates to a method for modelling a process and a control system (10) for controlling a process.
A hydrocyclone separator (1) and a system comprises a plurality of such hydrocyclone separators (1) are presented. The hydrocyclone separator comprises a head portion (2) having an inlet conduit (3) and an overflow discharge tube (4) arranged in the head portion (2). The hydrocyclone separator (1) further has an apex discharge port (8) and a tapered separation portion (5) arranged between the head portion and the apex discharge port. The tapered separation portion is tapering distally away from the head portion. Moreover, the head portion further comprises an emptying port arranged in the head portion separately from the overflow discharge tube. Hereby, a hydrocyclone separator capable of achieving improved operational efficiency with reduced risk of coarse fraction being misplaced and left in the head portion is presented. This effectively reduces maintenance needs and prolongs the lifespan of the hydrocyclone.
The present invention relates to a vertical rotary type parking system having a turntable (600) embedded therein and, specifically, to a parking system having a pallet (500) horizontally rotating by means of the turntable (600), the pallet (500) having a fixing hanger (505), a movable hanger (502), and a pallet body (510), wherein the fixing hanger (505) has a pair of rotary shafts (515), each of which one end is fixed to a supporting plate (302) and which has a semicircular cam (514) fixed to the outer surface thereof, and has V-shaped supporting parts (517) provided at both sides thereof and rotatably supported by the other end portion of each rotary shaft (515), positioning rollers (516) placed on the V-shaped supporting parts (517) are provided at both end portions of the movable hanger (502), the semicircular cam restricts the positioning rollers (516) in a straight section and an upper curved section, and the semicircular cam releases a restricted state of the positioning rollers (516) in a parking system entrance portion, which is the lowermost end of a lower curved section, and the positioning rollers (516) are accurately and automatically placed in the center of the V-shaped supporting part (517) by gravity when the pallet (500) is lifted and rotated by means of the turntable (600), and then moved down. In addition, a movable frame (620) of the turntable (600) has a rotary driving motor (611), a driving sheave (613) and a snap sheave (614) and a fixing part of the turntable (600) has a rope (612) such that the turntable (600) rotates by friction force between the rope (612) and the driving sheave (613) when the rotary driving motor (611) is driven, and thus the vertical rotary type parking system reduces noise during rotation, and a rotating device is simple so as to facilitate repair. Furthermore, with respect to lifting using the turntable (600), the movable frame (620) has a lifting motor (601), a timing gear (602), a lifting motor shaft (606), and a lifting arm (608) such that the pallet (600) is lifted by the rotation of the lifting arm (608) when the lifting motor (601) is driven. Specifically, the vertical rotary type parking system safely supplies electricity to the lifting motor (601) and the rotary driving motor (611) without damaging a feed cable during rotation since a lifting means is provided at one side of the turntable (600), and a feed sleeve (607) provided on a hollow rotary shaft and the feed cable are arranged at the center portion of the turntable.
(51) International classification : B04C 5/18, B04C 5/24
(31) Priority Document No : 17177480.5
(32) Priority Date : 22/06/2017
(33) Name of priority country : EPO
(86) International Application No : PCT/US2018/038938
   Filing Date : 22/06/2018
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(57) Abstract :
A hydrocyclone separator and a method for classifying solid material in liquid suspension are presented. The hydrocyclone separator comprises a head portion having an inlet conduit and an overflow discharge tube arranged in the head portion. The hydrocyclone separator further has an apex discharge port and a tapered separation portion arranged between the head portion and the apex discharge port. The tapered separation portion is tapering distally away from the head portion. Moreover, the hydrocyclone separator has a flow support portion with at least one flow support inlet configured to inject a fluid along at least a portion of an inner surface of the flow support portion towards the apex discharge port, when the hydrocyclone separator is oriented such that the apex discharge port is at a vertically elevated position relative to the overflow discharge tube. Hereby, a hydrocyclone separator capable of achieving improved operational efficiency with reduced risk of clogging the apex discharge port is presented.

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### Abstract
The present invention relates to topical compositions comprising erythrulose and a caprylate, characterized in that the amount of the caprylate in the composition is 5 higher than the amount of erythrulose.

```plaintext
5 Abstract The present invention relates to topical compositions comprising erythrulose and a caprylate, characterized in that the amount of the caprylate in the composition is 5 higher than the amount of erythrulose.
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The present invention relates to topical compositions comprising erythulose and hydroxyacetophenone as well as the use thereof for the prevention and/or treatment of ailments associated with Malassezia yeast, Propionibacterium acnes as well as the protection against molds such as in particular Aspergillus brasiliensis.

No. of Pages : 23 No. of Claims : 15
An improved liquid run-off disposal system is described having an infiltration chamber (72) with first and second sidewalls (74). In cross-sectional view the first and second sidewalls (74) each include an inner surface 76 and outer surface (78), and each sidewall (74) includes a plurality of integrated louvre- shaped apertures (80). In cross-sectional view each louvre-shaped aperture (80) includes an upper surface (82) and a lower surface (84) which are angled upwards from the outer surface (78) and protrude inwards from the inner surface (76) into the interior of the infiltration chamber (72). The upper and lower surfaces (82, 84) comprise a plurality of angled sections, the angled sections being arranged so as to form a substantially vertical flow path through a portion of the aperture (80). The angled sections of the upper and lower surfaces (82, 84) are arranged at an angle and of a length so as to substantially overlap when viewed in a horizontal direction. The overlapping region Y1 ensures that the apertures (80) will admit the exit of water but substantially inhibit the entry of soil wherein, in use, when liquid run-off is piped into the infiltration chamber (72) it can drain away through the apertures (80) and into the surrounding soil.

No. of Pages : 21 No. of Claims : 24
Title of the invention: HETEROCYCLYL METHYLIDENE DERIVATIVES AND THEIR USE AS MODULATORS OF MGLUR5 RECEPTORS

(51) International classification: C07D 401/14, C07D 401/06, C07D 401/10, C07D 401/12, C07D 403/06

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

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Abstract:
This invention relates to compounds of formula (I) and their use as allosteric modulators of mGluR5 receptor activity, pharmaceutical compositions containing the same, and methods of using the same as agents for the treatment and/or prevention of neurological and psychiatric disorders associated with glutamate dysfunction, such as schizophrenia or cognitive decline, dementia or cognitive impairment, or other pathologies that can be related directly or indirectly to glutamate dysfunction.

No. of Pages: 272 No. of Claims: 14
A sound output apparatus, a display apparatus and a method for controlling the same are provided. The sound output apparatus includes a housing; and at least one speaker provided on a side of the housing, wherein the housing includes an accommodation portion provided with an insertion groove to which the at least one speaker is inserted and mounted, wherein the at least one speaker includes a sound generator configured to generate a sound; and a guide tube that has a cross sectional area that changes from a first end of the guide tube to a second end of the guide tube, and wherein the guide tube receives the generated sound via the first end, and the guide tube includes an outer surface having a plurality of radiation apertures arranged in at least one row.
An elevator control device provided with an operation control unit that controls operation of an elevator in accordance with an operation mode selected by a switching switch provided to an upper part of an elevator car, wherein the elevator control device is also provided with: a maintenance worker embarkation/disembarkation determination unit that, on the basis of a signal from a governor encoder for detecting the amount of movement of the elevator car within a hoistway, determines the embarkation/disembarkation of a maintenance worker to/from the elevator car; and a switch operation permission unit that permits the operation control unit to operate in an operation mode selected by the switching switch on the basis of the embarkation/disembarkation state of the maintenance worker to/from the elevator car as determined by the maintenance worker embarkation/disembarkation determination unit.
Title of the invention: NOVEL USE OF A FORMYL PEPTIDE RECEPTOR 2/ LIPOXIN A4 RECEPTOR (FPR2/ALX) AGONIST FOR TREATMENT OF HEART FAILURE

Abstract:
The disclosure generally relates to methods of treating heart failure with Compound 1, 1-((3S,4R)-4-(2,6-difluoro-4-methoxyphenyl)-2-oxopyrrolidin-3-yl)-3-phenylurea.
Title of the invention: IL-1BETA BINDING ANTIBODIES FOR USE IN TREATING CANCER

Use of an IL-1β binding antibody or a functional fragment thereof, especially canakinumab or a functional fragment thereof, or gevokizumab or a functional fragment thereof, and biomarkers for the treatment and/or prevention of cancer with at least partial inflammatory basis.
The Patent Office Journal No. 07/2020 Dated 14/02/2020

Provided is an imaging device capable of performing image processing. The present invention comprises: a photoelectric conversion element; a first transistor; a second transistor; and an inverter circuit. One electrode of the photoelectric conversion element is electrically connected to one among the source and the drain of the first transistor, and the other among the source and the drain of the first transistor is electrically connected to one among the source and the drain of the second transistor. The one among the source and the drain of the second transistor is electrically connected to the input terminal of the inverter circuit. The present invention converts data obtained by photoelectric conversion into a binary value and outputs the binary value.
This disclosure relates to engineered cells, such as T-cells, comprising targeted chimeric antigen receptors. In certain embodiments, T-cell targeted chimeric antigen receptors (CAR) are expressed at higher levels when endogenous expression of a T-cell antigen is knocked-down or reduced in the T-cells. In certain embodiments, the engineered cells are immunoregulatory cells genetically modified to prevent or reduce T-cell antigen expression, or the immunoregulatory cells contain a nucleic acid that reduces or knocks-down T-cell mRNA expression, under conditions such that reduced expression of the T-cell antigen results in an increased expression of a chimeric antigen receptor compared to similarly situated immunoregulatory cells wherein the expression of the T-cell antigen is not altered or reduced. In certain embodiments, T-cell antigens include, but are not limited to, CD5, CD7 and CD3.
Design solutions to mitigate the following four fatal flaws in the conventional pump system design; namely, (1) surprised pump-failure in single pump design that can result in costly water damage; (2) the threat of fatal high voltage electrocution accident in flooding situation; (3) grid power outage and no energy supply to support the needed pumping power that result in water damage; (4) stinky smell from the sitting foil water in the well after a period of low seeping rate with or without activated pumping. The principles described in the content disclosure, the proposed designs can completely mitigate the above four fatal design issues.
Title of the invention: METHOD AND DEVICE FOR REDUCING POWER CONSUMPTION OF MOBILE TERMINAL, STORAGE MEDIUM AND MOBILE TERMINAL

Abstract:
Disclosed in the embodiments of the present disclosure are a method and a device for reducing the power consumption of a mobile terminal, a storage medium and a mobile terminal. The method comprises: acquiring, in a screen-off state, a fingerprint detected by a fingerprint recognition module; controlling, if the fingerprint is a non-unlocking fingerprint, a touch chip to output a touch sensing control signal to a touch display screen; finding, according to the fingerprint, a matching application program on which the user has rights to operate, and acquiring a set of blank screen gestures corresponding to the application program; and reporting, upon detection of a blank screen gesture belonging to the set of blank screen gestures, a blank screen gesture event to an application layer to execute an operation corresponding to the blank screen gesture.
This application discloses an encoding method, an apparatus, a communications device, and a communications system. The method includes: encoding an input bit sequence by using a low-density parity-check LDPC matrix, where the LDPC matrix is obtained based on a lifting factor Z and a base matrix, the base matrix includes row 0 to row 4 and column 0 to column 26 in one of matrices shown in FIG. 3b-1 to FIG. 3b-10, or the base matrix includes row 0 to row 4 and some of column 0 to column 26 in one of the matrices shown in FIG. 3b-1 to FIG. 3b-10. The encoding method, the apparatus, the communications device, and the communications system in this application can meet a channel encoding requirement.

No. of Pages : 63 No. of Claims : 28
(54) Title of the invention: METHOD AND DEVICE FOR SENDING AND RECEIVING CHANNEL STATE INFORMATION

(51) International classification: H04B 7/0456
(31) Priority Document No: 201710459616.9
(22) Date of filing of Application: 18/12/2019
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(32) Priority Date: 16/06/2017
(33) Name of priority country: China
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(61) Divisional to Application Number: NA
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(62) Divisional to Application Number: NA
(62) Divisional to Application Number: NA
(62) Divisional to Application Number: NA

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(57) Abstract:
A channel state information sending method, a channel state information receiving method, and a device are disclosed, to reduce resource overheads required when a terminal device feeds back CSI to a network device in a scenario of a high precision codebook-based precoding matrix. The method includes: determining, by a terminal device, a precoding matrix W; sending, by the terminal device, a signal including CSI to a network device; obtaining, by the network device, an RI and indication information based on the signal including the CSI; obtaining, by the network device, a PMI2 based on the RI and the indication information; and determining, by the network device, the precoding matrix W based on the rank indicator RI and the second precoding matrix indicator PMI2.

No. of Pages: 61  No. of Claims: 67
Disclosed are an anti-counterfeiting processing method and a related product. The method comprises: acquiring a face image and an iris image, wherein both the face image and the iris image are from a target object; determining a positional relationship between the iris image and the face image, and performing living body detection according to the iris image; and when the positional relationship satisfies a pre-set condition and the iris image is from a living body, determining that the target object is a true and effective face. By means of the embodiments of the present application, anti-counterfeiting can be carried out according to the positions of an iris image and a face image, and anti-counterfeiting can also be carried out by means of iris living body detection, and the security of multi-biometric recognition can be improved.
There is disclosed a method of operating a user equipment (10) in a radio access network. The method comprises transmitting feedback signaling utilising a feedback resource range, the feedback resource range being determined based on a received feedback size indication and a received scheduling assignment indication, wherein the feedback resource range is a part of a signaling resource range configured to the user equipment (10) for transmission. The disclosure also pertains to related devices and methods.
Title of the invention: SYSTEM AND METHODS FOR CONFIGURING USER EQUIPMENTS WITH OVERLAPPING PUCCH RESOURCES FOR TRANSMITTING SCHEDULING REQUESTS

Abstract:
Systems and methods for configuring UEs with overlapping PUCCH resources for transmitting scheduling requests are provided. A network node can transmit a scheduling request configuration message indicating PUCCH resources, including a periodicity parameter being less than the PUCCH length. A wireless device can configure PUCCH resources in accordance with the configuration message and transmit a scheduling request.

No. of Pages : 25 No. of Claims : 28
The present disclosure provides a composition comprising: (A) a polypropylene polymer; (B) a polyolefin elastomer; (C) a polyacetoacetate compound having the Formula (I); and (D) an additive component. The present disclosure also provides an article made from the composition.
Provided herein are nanostructured lipid carrier compositions, and methods of making and using thereof. The compositions comprise a nanostructured lipid carrier (NLC), where the NLC comprises an oil core comprising a mixture of a liquid phase lipid and a solid phase lipid, a cationic lipid, a sorbitan ester, and a hydrophilic surfactant, and optionally a bioactive agent. The bioactive agent can be associated with the NLC. The compositions are capable of delivery of a biomolecule to a cell for the generation of an immune response, for example, for vaccine, therapeutic, or diagnostic uses. Compositions and methods related to making the compositions and using the compositions for stimulating an immune response are also provided.
(54) Title of the invention : FUEL PREHEATING APPARATUS FOR INTERNAL COMBUSTION ENGINE

(51) International classification :F02M 31/14,F02M 31/16,F02M 31/00,F02M 27/04,F28D 7/00

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

(86) International Application No :PCT/PH2017/000004
    Filing Date :23/06/2017

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

(57) Abstract :
The present invention provides an apparatus for preheating fuel and cooling liquid in an internal combustion engine system. The fuel preheating apparatus comprising a generally rectangular shape fluid-tight container body with a hollow interior. A top wall of the apparatus being provided with a fuel inlet, a fuel outlet, a coolant inlet, and a coolant outlet. A fuel coiled tubing is provided within the hollow interior and has a first end and a second end where the first end is coupled to the fuel inlet. A coolant coiled tubing is adjacent the fuel coiled tubing and have a first end and a second end where the first end is coupled to the coolant inlet. A degassing tank is coupled to the fuel outlet and the fuel coiled tubing. A buffer tank is coupled to the coolant outlet and the coolant coiled tubing. Steam is built up around the outer edge of the coolant coiled tubing and the buffer tank as a result of a preheated coolant coming from the internal combustion engine that is entering the coolant coiled tubing through the coolant inlet. The steam build up is capable of preheating the fuel flowing inside the fuel coiled tubing of the fluid-tight container body. Having the preheated fuel thermally expanded inside the degassing tank separates the fuel from impurities thereby purifying and enhancing the specific gravity of the fuel to generate complete combustion.
Title of the invention: COMPOSITIONS INCLUDING COPOLYMER FORMULATIONS FOR IMPROVING ADHESION TO LOW SURFACE ENERGY SUBSTRATES

Abstract:
A composition intended for application to a low surface energy substrate has added thereto an amount of a copolymer formulation in order to improve the quality of adhesion between the composition and the low surface energy substrate, substrates being coated with such compositions, and associated methods.
Systems, methods, and instrumentalities are disclosed for an access control and mobility management function (AMF) node, comprising a processor configured to receive a N2 session management (SM) information from a session management function (SMF) node, wherein the N2 SM information indicates an available area for N2 information, receive a service request from a wireless transmit receive unit (WTRU), determine whether to update the N2 SM information based on a location of the WTRU and the available area for N2 information, wherein if the WTRU is outside of the available area for N2 information, the processor is configured to request a second N2 SM information from the SMF node and update the N2 SM information with the second N2 SM information, and send an N2 request with the N2 SM information to an access network associated with the WTRU. The available area for N2 information may be one or more of a user plane function (UPF) node serving area, a WTRU tracking area, or a radio access network (RAN) cell coverage area.
Samples in an array of containers are processed by mounting the containers on a sample stage, moving magnets into proximity with bottoms of the containers of a first column of containers to apply a magnetic field, moving the magnets into proximity with bottoms of the containers of a second column, and moving heater elements into proximity with the container bottoms of the first column. While the magnetic field is applied to the containers of the second column, heat energy may be applied to the containers of the first column. The process may be repeated for additional columns. The containers may also be shaken to agitate the samples. A single apparatus may perform heating, shaking, and magnetic field application, without needing to transport the containers to different stations.
Abstract:
Disclosed in the embodiments of the present application are an unlocking control method and a related product, the method comprising: acquiring scenario parameters of a mobile terminal; acquiring environment parameters of the mobile terminal; selecting a target multi-biometric recognition mode corresponding to the scenario parameters and the environment parameters out of M pre-stored multi-biometric recognition modes; and acquiring S pieces of biometric verification information by means of a target biometric acquisition module corresponding to the target multi-biometric mode, and unlocking the mobile terminal when the S pieces of biometric verification information are successfully verified. By employing the present application, the endurance capability of the entire mobile terminal and the accuracy of biometric acquisition may be improved.
(54) Title of the invention: ANTIMITOSCINS: TARGETED INHIBITORS OF MITOCHONDRIAL BIOGENESIS FOR ERADICATING CANCER STEM CELLS

(51) International classification: A61K 39/00, A61K 39/395, C07K 16/00
(31) Priority Document No: 62/508702
(32) Priority Date: 19/05/2017
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2018/033466
Filing Date: 18/05/2018

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

(57) Abstract:
Antibiotics having intrinsic anti-mitochondrial properties may be chemically modified to target the antibiotics to mitochondria, and the resulting antimitoscins may have enhanced anti-cancer properties, among other advantageous properties. Also described are methods for identifying antimitoscins, methods of using antimitoscins to target cancer stem cells, and pharmaceutical compositions for treating cancer containing one or more antimitoscins as the active ingredient. Specific antimitoscins compounds and groups of antimitoscins are also disclosed.

No. of Pages: 17 No. of Claims: 31
(54) Title of the invention : THREE-DIMENSIONAL PRINTER

(51) International classification : B33Y 30/00, B33Y 40/00, B29C 64/20, B29C 64/321

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

(86) International Application No : PCT/US2017/044320
Filing Date : 28/07/2017

(87) International Publication No : WO/2019/022754

(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 three-dimensional (3D) printer and method including a cartridge receiver to hold a material cartridge to make available build material. The cartridge receiver is disposed below the top of the build enclosure of the 3D printer.
Abstract:
Methods and compositions are provided for assessing CRISPR/Cas-mediated non-homologous end joining (NHEJ) activity and/or CRISPR/Cas-induced recombination of a target genomic locus with an exogenous donor nucleic acid in vivo or ex vivo. The methods and compositions employ non-human animals comprising a CRISPR reporter such as a genomically integrated CRISPR reporter for detecting and measuring targeted excision of a sequence between two CRISPR/Cas nuclease cleavage sites or disruption of a sequence near a CRISPR/Cas nuclease cleavage site and/or measuring CRISPR/Cas-induced recombination of the CRISPR reporter with an exogenous donor nucleic acid to convert the coding sequence for a first reporter protein to the coding sequence for a different second reporter protein. Methods and compositions are also provided for making and using these non-human animals.
SOLID CLEANING COSMETIC COMPOSITION

Abstract:
Solid cleaning cosmetic composition This invention relates to a solid anhydrous cosmetic composition, including: - at least 70% by weight of microcrystalline cellulose as a proportion of the total weight of the composition; - at least one surfactant chosen from among isethionic derivatives and their cosmetically acceptable salts; - at least one surfactant chosen from among acyl glutamic acids and their cosmetically acceptable salts; and - possibly, at least one lubricant. This invention also relates to a method of preparing such a composition, and its use in cosmetics.

No. of Pages : 15 No. of Claims : 16
The present invention concerns an ammonia production method comprising the steps of: providing at least one rare earth nitride material or layer in a chamber; creating a vacuum or an inert atmosphere in the chamber; and providing hydrogen H2 to react with nitrogen N released at an external surface of the at least one rare earth nitride material or layer to produce ammonia.

Figure 1C

Exposure to H₂

Release Nitrogen

Rare earth nitride

NH₃

No. of Pages : 23 No. of Claims : 29
The disclosure provides engineered polypeptides that specifically bind to human complement component C5 and/or serum albumin. The disclosure also provides fusion proteins comprising such engineered polypeptides, wherein such fusion proteins may be multivalent and multi-specific fusion proteins. The disclosure further provides nucleic acid molecules that encode such engineered polypeptides or fusion proteins, and methods of making such engineered polypeptides or fusion proteins. The disclosure further provides pharmaceutical compositions that comprise such engineered polypeptides or fusion proteins, and methods of treatment using such engineered polypeptides or fusion proteins.
Title of the invention: AGENTS, USES AND METHODS FOR TREATMENT

Abstract:
The present invention relates to monoclonal anti-Sortilin antibodies which have been found useful in correcting a deficient level of progranulin (PGRN). In particular, these antibodies can be used in the treatment of frontotemporal dementia (FTD) and amyotrophic lateral sclerosis (ALS) and other neurodegenerative disorders such as Alzheimer's disease (AD).

No. of Pages: 80 No. of Claims: 93
Title of the invention: ANTISENSE THERAPIES FOR TREATING CANCER

The present invention provides methods for cancers associated with a TERT promoter mutation in a subject. In some embodiments, the methods comprise administering to the subject a therapeutically effective amount of an agent that specifically reduces or inhibits GA binding protein transcription factor beta subunit 1 long isoform (GABPB1L) expression or function.

No. of Pages : 32 No. of Claims : 24
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application: 18/12/2019

(21) Application No. 201917052739 A

(43) Publication Date: 14/02/2020

(54) Title of the invention: DEVICE AND METHOD FOR RETURN PRESSURE ADJUSTMENT FOR AN INJECTOR

| (51) International classification | :F02M 63/02,F02M 63/00,F02M 47/02,F02D 41/38,F02M 37/00 |
| (31) Priority Document No | :10 2017 210 147.4 |
| (32) Priority Date | :19/06/2017 |
| (33) Name of priority country | :Germany |
| (86) International Application No | :PCT/EP2018/063886 |
| Filing Date | :28/05/2018 |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

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(57) Abstract:
The invention relates to a device (10) for return pressure adjustment for an injector (12), comprising a return line (14) having a first end (14a) at which a return outlet opening (12a) of the injector (12) can be directly or indirectly attached such that a return amount (16) of the injector (12) flows from the first end (14a) of the return line (14) to a second end (14b) of the return line (14), and comprising at least one valve (20) by means of which a return pressure can be adjusted at least between the first end (14a) of the return line (14) and the valve (20) in the return line (14), wherein the device (10) has an electrically adjustable throttle valve (20) as the valve (20). The invention also relates to a return block for injectors (12), a measuring device for measuring injection amounts and/or return amounts for at least one injector (12), and a test rig for at least one injector (12). The invention further relates to a method for return pressure adjustment in at least one injector (12).

No. of Pages: 11  No. of Claims: 12
A vessel and method for the production, transport, and deployment of additively-manufactured objects is disclosed, where the vessel and method permit the efficient fabrication and deployment of additively manufactured objects on and into a body of water. Additively manufactured objects are manufactured and/or fabricated directly on a vessel which can lower itself into the water, thereby facilitating the deployment of said objects.

Fig 1
Title of the invention: METHOD AND APPARATUS OF RATE-MATCHING FOR COMMUNICATION AND BROADCASTING SYSTEMS

Abstract:
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) are provided. The 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. The method and apparatus for polar encoding and rate-matching are disclosed.
The invention relates to the field of power engineering, and more particularly to wind energy installations which produce electrical energy by utilizing the force of an air flow. A wind energy conversion module comprises a body (9) configured for movement along a guide belt (1), and, mounted on the body (9), at least one wind energy receiver (10), an actuator for orienting the wind energy receiver (10) relative to the wind and to the housing (9), and a control system, and also an electrical energy generating device (6) configured to generate electrical energy when the body (9) moves along the guide belt (1) and when a force interaction occurs with a contact guide (3) connected to the guide belt (1). The control system is capable of adjusting the speed of movement of the module by adjusting the braking force of the electrical energy generating device (6). The invention provides high wind energy efficiency by regulating the speed of movement of the modules.
A device for securing (3) at least one sling (E) for transporting a load under a helicopter, the securing device (3) comprising at least a first strap (31) and at least a second strap (32), a connection mechanism (33) configured, in the closed state, to connect the straps (31, 32) to form a comprehensive security strap capable of supporting a sling (E) and, in the open state, to release the straps (31, 32) for releasing the sling (E), and an actuator (34) configured to open the connection mechanism (33) following a mechanical effort being introduced, the connection mechanism (33) comprising cascading reduction means configured to reduce the resistance force during the opening of the connection mechanism (33) generated by the load connected to the sling (E).
AN ADJUSTABLE AMBIENT AIR-OXYGEN BLENDER

The disclosure is directed to an apparatus having an adjustable ambient air-oxygen blender that adjustably mixes ambient air with an oxygen supply, especially where a size, diameter or flow rate of an orifice is mechanically adjustable so as to control a quantitative mixing function of the blender.

No. of Pages : 86 No. of Claims : 24
Disclosed is a reconfigurable hip joint prosthesis and elements therefor which is adapted to be surgically implantable in a human body, a part (10) in the upper femur, another part (70) in the pelvis. The implantable prosthesis may be configured in a reversible manner, and provide alternative configurations as may be desired or necessary. The present invention also includes a method of implanting into a human body a prosthesis as described herein, and subsequently reconfiguring the prosthesis as may be desired or necessary. A still further aspect of the invention is a kit of component parts used in providing a configured implantable prosthesis.
Provided are an image processing method and apparatus, and a terminal. The method comprises: calculating a first exposure compensation of a global image to be processed; calculating a second exposure compensation of a portrait portion in the image to be processed; calculating a final exposure compensation according to the first exposure compensation and the second exposure compensation; and processing the image to be processed, according to the final exposure compensation. In the embodiment, the final exposure compensation is obtained by means of separately calculating the second exposure compensation of the portrait portion in the image to be processed combined with calculating the first exposure compensation of the overall image to be processed, the image to be processed is processed according to the final exposure compensation, so that the brightness of the portrait and the background in the image are accurately restored, thereby avoiding the problem that the portrait in the image is underexposed and the brightness is obviously dark under conditions of poor light or backlighting, thus improving the visual effect.
Abstract:
Disclosed is a proximity detection method, comprising: obtaining an ambient light intensity value; detecting whether the surrounding is a bright light environment; if yes, reading at least one group of proximity values output by a proximity sensor, each group of proximity values being proximity values when the proximity sensor is sequentially controlled not to transmit a detection signal, controlled to transmit a detection signal, controlled to transmit a detection signal, and controlled not to transmit a detection signal; and calculating a target proximity value according to the at least one group of proximity values, and performing proximity detection.

No. of Pages : 27 No. of Claims : 10
Title of the invention: T CELL RECEPTORS

Abstract:
The present invention relates to T cell receptors (TCRs) that bind the HLA-A02 restricted peptide SLLQHLIGL (SEQ ID NO: 1) derived from the germline cancer antigen PRAME. Said TCRs may comprise non-natural mutations within the alpha and/or beta variable domains relative to a native PRAME TCR. The TCRs of the invention are particularly suitable for use as novel immunotherapeutic reagents for the treatment of malignant disease.
Title of the invention: NON-INVASIVE DEVICE AND METHOD FOR SENSING RESPIRATORY PARAMETERS

Abstract:
A non-invasive device for holding one or more respiratory sensors includes a housing anatomically shaped to be attached to a subject's face in proximity to the respiratory orifices, and including one or more flow directing elements for directing at least a portion of the respiratory flow to one or more locations in the housing configured to hold at least one sensor.

No. of Pages: 12
No. of Claims: 20
An aqueous dispersion includes an aqueous medium and self-crosslinkable core-shell particles dispersed in the aqueous medium. The core-shell particles include (1) a polymeric core at least partially encapsulated by (2) a polymeric shell having urethane linkages, keto and/or aldo functional groups, and hydrazide functional groups. Further, the polymeric core is covalently bonded to at least a portion of the polymeric shell.

No. of Pages : 40 No. of Claims : 28
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 19/12/2019
(21) Application No. 201917052841 A
(43) Publication Date : 14/02/2020
(54) Title of the invention : ADAPTER

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(57) Abstract:
An adaptor 20 is attached to an attachment part 4 which has a through-hole 9 and which is provided to the bottom part 7 of a blood sampling holder 3 which is in the form of a bottomed hollow cylinder. The adaptor 20 is provided with: a hollow body part 21 which is connectable to a butterfly needle 40 for sampling blood from a human body and through which the sampled blood flows; a flange part 22 which is provided at the base end side of the body part 21 and which abuts the leading end surface 8 of the attachment part 4; and a cylindrical protruding part 23 which extends from the flange part 22 in a direction opposite to the body part 21 and which is inserted into the through-hole 9 of the attachment part 4. A male thread part 27 is formed in the outer periphery of the protruding part 23, from the flange part 22 side, and a cut-out part 26 is formed by cutting out a peripheral portion, closer to the base end side than the leading end side, of the male thread part 27.

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No. of Pages : 12  No. of Claims : 2
(54) Title of the invention : METHOD AND APPARATUS FOR MOST PROBABLE MODE (MPM) SORTING AND SIGNALING IN VIDEO ENCODING AND DECODING

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(57) Abstract:

When an MPM list is constructed based on the frequency of the modes, the first MPM often has a frequency that is greater or comparable to the frequencies of the remaining MPMs combined. Thus, we propose to flag the first mode in the MPM list to indicate whether the current mode is the first mode in the sorted MPM list, and if not, a second flag can be used to inform if the current mode belongs to the rest of the MPM list. For some video data, the second entry in the MPM list may still be more probable than the rest of the modes combined. In this case, the encoder or decoder may add another flag to signal the second MPM. The method of signaling the intra prediction mode may be switched on or off based on the type of blocks.

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No. of Pages : 28 No. of Claims : 13
The invention relates to a centrifugal clutch (1) for a drive train of a motor vehicle, having an input component (2) which serves for the introduction of torque, an output component (3) which serves for the discharge of torque, and a switchable friction unit (4) which is arranged between the input component (2) and the output component (3) and connects the input component (2) to the output component (3) in a torque-transmitting manner by way of a frictionally-locking connection, wherein there are an engine-side centrifugal mass (5) and a transmission-side centrifugal mass (6) for actuating the friction unit (4), which centrifugal masses (5; 6) are operatively connected to an engine-side and transmission-side bent sheet metal piece (7, 8) in such a way that a radial displacement of at least one of the centrifugal masses (5; 6) forces an axial displacement of the respective bent sheet metal piece (7; 8), wherein at least one of the centrifugal masses (5; 6) has a cut-out (9) which is such that at least one device (10) which is fixed to the input component has an arm (11) which engages into the cut-out (9) in such a way that guidance of the radial displacement of at least one of the centrifugal masses (5; 6) is ensured.
**Title of the invention:** MEDIUM PROCESSING DEVICE AND AUTOMATIC TRANSACTION DEVICE

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3) HIRATSUKA, Shuuichi

**Abstract:**
In the present invention, the interval between a side guide and an outer impeller is shorter than the length in the height direction between a discharge opening and the top surface of an uppermost banknote placed on a stage. Due to this configuration, one end in the width direction of a banknote positioned between the side guide and the outer impeller can be prevented from reaching the height of the discharge opening even if the one end is deformed so as to be folded toward the discharge opening side. As a result, a situation in which the one end of the banknote collides with a subsequent banknote to be discharged from the discharge opening causing a banknote jam can be avoided.

No. of Pages : 30
No. of Claims : 11
A remote control device of a wireless hierarchical power management system in the present invention is used for remotely controlling multiple controlled devices. The remote control device comprises a control module, an input means, a screen, and a power supply means. The control module comprises a processing circuit, a wireless signal transmission circuit, and a storage unit. The wireless signal transmission circuit is connected to the processing circuit and transmits a control signal to a corresponding controlled device according to selection. The storage unit is connected to the processing circuit and stores settings of the controlled devices. The power supply means is connected to the control module and the screen. The remote control device manages operations of controlled devices in a form of hierarchical framework on the basis of a hierarchical group distribution framework comprising the controlled devices that are customizedly configured by a usage manager and are variable, and settings of the controlled devices, including respective identification codes, customizedly configured by the usage manager, and performs hierarchical group control on the basis of the hierarchical framework.
A hybrid patch antenna assembly is provided including an antenna element board having first and second layers separated by a dielectric and a radio board coupled to the antenna element board by at least two legs of a ladder line and separated from the antenna element board by a predetermined distance such that the antenna element board is suspended above the radio board.

No. of Pages : 13 No. of Claims : 20
A process for the combined preparation of methanol and ammonia based on primary steam reforming a hydrocarbon feed stock and adiabatic secondary reforming with oxygen enriched air from electrolysis of water.
This invention provides polyurethane foams containing a brominated flame retardant. Also provided are formulations and methods for preparing polyurethane foams containing a brominated flame retardant.

No. of Pages : 33
No. of Claims : 19
**Title of the invention :** MAINTENANCE SYSTEM AND MAINTENANCE METHOD

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**Abstract :**
A maintenance system provided with a server device, a terminal device, and a vehicle-mounted device mounted in a vehicle, wherein the server device is provided with an operator authentication information reception unit for receiving operator authentication information from the terminal device, a server authentication processing unit for performing authentication processing of the operator authentication information, and a server key transmission unit for transmitting, to the terminal device which has passed authentication of the operator authentication information by the server authentication processing unit, a first key to be used with the vehicle-mounted device, the terminal device is provided with an operator authentication information transmission unit for transmitting the operator authentication information to the server device, a terminal key reception unit for receiving the first key from the server device, and a terminal authentication processing unit for performing authentication processing with the vehicle-mounted device using the first key, and the vehicle-mounted device is provided with a vehicle authentication processing unit for performing authentication processing with the terminal device using the first key.

No. of Pages : 58 No. of Claims : 10
This invention provides flame retardant compositions comprised of or formed from components comprising a sulfur-containing compound and at least one isocyanate-reactive brominated flame retardant.
Method for the preparation of ammonia synthesis gas based on a combination of autothermal reforming and electrolysis of water.

No. of Pages : 12 No. of Claims : 10
**Title of the invention:** CENTRED BUTTERFLY VALVE

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**Abstract:**
Valve comprising a body (2), a butterfly (1) which is centred, and mounted with the ability to rotate inside the body (2) from an open position uncovering the passage to a closed position covering same and a seal (3) arranged inside a housing delimited by the seat and by a face, facing the seat in the closed position, of the butterfly, the seat and the face converging in the axial direction toward the inside. The seal (3) is free in the housing.

![Figure 2](image)

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**Name of Inventor:**
1) ARNAL, Fabien

No. of Pages: 8
No. of Claims: 10
Title of the invention: METHOD AND SYSTEM FOR CONVERTING WIND ENERGY

Abstract:
The invention relates to a method and system for converting wind energy into electrical energy. The method consists in that wind energy receivers mounted on the body of movable wind energy conversion modules which perform a linear movement along a guide belt connected to a contact guide which interacts with said wind energy conversion modules convert wind energy into motion energy of said wind energy conversion modules and into electrical energy by means of an electrical energy generating device. The system comprises a device for controlling and coordinating the movement of the wind energy conversion modules. At the same time, in accordance with external conditions, constant adjustments are made to the total area of all of the wind energy receivers brought onto the guide belt, and the device for controlling and coordinating the movement of the modules is designed to be capable of adjusting the number of modules in operation by introducing additional modules onto the guide belt or by removing modules from the guide belt depending on the current wind conditions. The invention is directed towards increasing wind power efficiency.

No. of Pages : 20  No. of Claims : 30
The present invention relates to an apparatus for weed control. It is described to provide (210) a processing unit with at least one image of an environment. The processing unit analyses (220) the at least one image to determine at least one mode of operation of a vegetation control technology from a plurality of modes of operation of the vegetation control technology to be used for weed control for at least a first part of the environment. An output unit outputs (230) information that is useable to activate the vegetation control technology in the at least one mode of operation.
The present invention relates to a cocoa extender composition (CEC), said composition comprising 0.1 to 99.9 wt% cocoa residues (CR), 0.1 to 99.9 wt% shea residues (SR), and 0 to 85 wt% added vegetable fat (AVF) -0 to 85 wt% added non-vegetable fat (ANVF). Further, the invention relates to methods of its preparation as well as uses thereof in food products.
Title of the invention: IDENTIFICATION OF INACCURATE ADDRESSES FOR PACKAGE DELIVERIES

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<td>Systems, methods, and computer-readable media are disclosed for identification of inaccurate addresses for package deliveries. In one embodiment, an example method may include determining a shipping address for a package that includes a product. A recurrent neural network may generate an address deliverability score by providing the shipping address as input. A set of corrective actions corresponding to the address deliverability score may be determined. The address deliverability score and the set of corrective actions may be presented. A selection of a corrective action from the set of corrective actions to implement prior to delivery of the package may be received.</td>
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<tr>
<th>Name of Applicant:</th>
<th>AMAZON TECHNOLOGIES, INC.</th>
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<td>Address of Applicant:</td>
<td>PO BOX 81226 Seattle, Washington 98108-1226 U.S.A.</td>
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| Name of Inventor: | NANDURY, Venkata Kishore |

| No. of Pages: | 33 |
| No. of Claims: | 15 |
Title of the invention: METHOD FOR THE PREPARATION OF SYNTHESIS GAS

Abstract:
Method for the preparation of synthesis gas based on a combination of the ATR process or partial oxidation of hydrocarbon feedstock using oxygen from the electrolysis of water and an air separation unit to produce the synthesis gas.

No. of Pages: 12 No. of Claims: 10
A hydraulically damped actuator (100) for closing a hingedly connected closure system. The actuator (100) comprises an energy storing mechanism (130, 131, 132) configured for storing energy when the closure system is being opened and for restoring the energy to effect closure of the closure system and a hydraulic damping mechanism configured for damping a closing movement of the closure system. The actuator (100) further comprises a tubular cylinder barrel (118) having a first and a second end and a rotatable shaft (121) having a first and a second extremity. The shaft (121) extends at least from the first end to the second through the tubular cylinder barrel (118). Therefore, both extremities of the shaft (121) are available to be connected with a mechanical connector (108) configured for transferring a rotation of the closure system to the shaft (121) enabling the actuator (100) to be mounted in two opposing orientations depending on the handedness of the closure system.
The present invention provides a low-resistance nitride compound semiconductor which has been difficult to manufacturing in the past. Furthermore, high electron mobility is shown, and therefore it is possible to configure a high-performance semiconductor device. According to the present invention, using a pulse sputtering method under a processing atmosphere of room temperature to 700°C makes it possible to perform film formation on a large-area substrate, and to provide with excellent productivity an n-type electrically conductive group-13 nitride semiconductor having a mobility of 70-140 cm²/(Vs).

No. of Pages : 62 No. of Claims : 20
According to certain embodiments, a method implemented in a wireless device comprises determining configuration data representing a set of configurations. The method comprises receiving at least one reference signal from a transmission point. The receiving of the at least one reference signal is performed in accordance with a configuration selected from the set, wherein the configuration is related to uplink power control and is specific to an uplink channel or signal or a group thereof. The method comprises measuring a propagation-related quantity on the basis of the at least one reference signal and deriving an uplink power setting on the basis of the measured propagation-related quantity.
Title of the invention: SADDLE-TYPE VEHICLE

(51) International classification: B62J 9/00, B60R 9/10

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

(86) International Application No: PCT/JP2017/021706
Filing Date: 12/06/2017

(87) International Publication No: WO/2018/229844

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

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

(57) Abstract:
[Problem] To prevent, when locking a lock lever of a pannier box via a key cylinder, the key from being withdrawn unless the lock lever is in a proper locked position. [Solution] A lock mechanism 50 of a pannier box 17 is provided with: a lock lever 51 having a key cylinder 52; a lock plate 53 provided with a first lock hole 57 wherewith a cam 75 of the key cylinder 52 engages; an engagement lever 61 for detachably engaging with a pannier stay 30; and a lock catch 77 for engaging with a lock part 65 of the engagement lever 61, the engagement lever 61 being in engagement with the pannier stay 30. An extension part 78 is disposed on a part of the lock plate 53, and when the lock plate 53 is in the unlocked position whereat the lock catch 77 is not engaged with the lock part 65, the cam 75 of the key cylinder 52 abuts the extension part 78, impeding any further rotation of the cam 75 to the locked position of the key cylinder 52, thereby preventing the key 74 from being withdrawn.

No. of Pages: 39 No. of Claims: 6
A stabilization device configured to stabilize an access device when a distal end portion of the access device is inserted through a target location of a patient. The stabilization device includes a coupling surface, a proximal surface, and a base surface. The coupling surface is configured to be placed in contact with an adapter coupled to a proximal end portion of the access device. The proximal surface forms at least one angle and is configured to facilitate securement of the stabilization device to the target location. The base surface forms a contoured portion configured to be placed in contact with the target location and a recessed portion configured to be spaced apart from the target location. The stabilization device is configured to be secured to the target location such that the adapter is retained in a fixed position relative to the coupling surface and the access device is stabilized.
A liquid fabric treatment composition including a hydrocarbon wax, a crosslinking agent, and a polyester warp sizing agent. The liquid fabric treatment composition may include a disperse dye. Methods of using these compositions for dyeing cellulose-containing fabric with a disperse dye include contacting a fabric containing cellulose with a liquid fabric treatment composition to yield a pretreated fabric, and heating the pretreated fabric to yield a treated fabric. The treated fabric contains a urethane compound formed by a reaction of the hydrocarbon wax, the crosslinking agent, and the cellulose of the fabric.
Compounds of formula (I), wherein R2, G1, G2, X, X1, A, R4 and R5 are as defined in claim 1, and the agrochemically acceptable salts, stereoisomers, enantiomers, tautomers and N-oxides of those compounds, can be used as insecticides and can be prepared in a manner known per se.
A cutting insert according to an embodiment of the present invention is provided with: a rake face; a flank that is connected to the rake face; and a cutting blade that is formed of a ridge line between the rake face and the flank. A coolant flow passage is provided inside the cutting insert. One end of the coolant passage is opened in the flank, and forms a coolant ejection port. Coolant guide grooves, which have base ends thereof connected to the coolant ejection port and have leading ends thereof disposed at positions closer to the cutting blade than the base ends, are provided to the flank so as to extend from the coolant ejection port toward the cutting blade.
A novel organic compound is provided. That is, a novel organic compound that is effective in improving the element characteristics and reliability is provided. The organic compound has a benzofuropyrimidine skeleton or a benzothienopyrimidine skeleton and is represented by General Formula (G1). Note that in General Formula (G1), Q represents oxygen or sulfur; alpha represents a substituted or unsubstituted arylene group having 6 to 13 carbon atoms; n represents an integer of 0 to 4; A1 represents a group including an aryl group or a heteroaryl group and having 6 to 100 carbon atoms; R1 to R4 independently represent any one of hydrogen, a substituted or unsubstituted alkyl group having 1 to 6 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 7 carbon atoms, and a substituted or unsubstituted aryl group having 6 to 13 carbon atoms; and A2 represents a condensed ring.
The present invention discloses a target assembly which allows safe, fracture-free and economic operation of target materials with low fracture toughness and/or bending strength during arc evaporation processes as well as in sputtering processes. The present invention discloses a target assembly for PVD processes, comprising a target, and a target holding device (20), characterized in that the target (10) comprises a first bayonet lock and the target holding device (20) comprises a counterbody for the first bayonet lock of the target and a second bayonet lock for engaging the target assembly in the cooling means of the deposition chamber.
Disclosed in embodiments of the present invention are an image selection method and a related product. The image selection method is applied to a mobile terminal containing a camera. The image selection method comprises: obtaining image information corresponding to a first image, the image information corresponding to the first image comprising a first acceleration value of the mobile terminal when the camera captures the first image, and the first image being any one of at least two images captured by the camera continuously; determining whether the first acceleration value is less than a preset acceleration threshold; and if yes, determining that the first image meets a multi-frame noise reduction processing condition. According to the embodiments of the present invention, an image meeting a multi-frame noise reduction processing condition can be quickly and accurately selected.
Provided in embodiments of the present application are a data transmission method, terminal device and network device. The method comprises: a terminal device transmitting first data to a network device at least once; the terminal device receiving first indication information transmitted by the network device, the first indication information indicating one of the at least one transmission of the first data; the terminal device determining a transmission parameter for second data according to the first indication information; and the terminal device transmitting the second data to the network device using the transmission parameter for the second data.
Provided in embodiments of the present application are a method of supporting data replication, transmitting terminal device and receiving terminal device capable of realizing reliable transmission of replicated data in a vehicle-to-everything system. The method comprises: a transmitting terminal device transmitting a plurality of radio link control protocol data units (RLC PDUs) to a receiving terminal device, an RLC header of at least one RLC PDU in the plurality of RLC PDUs comprising an indication field for indicating a radio bearer corresponding to a current RLC PDU.
The present application provides a wireless communication method, a network device, and a terminal device. The network device can configure, in a time slot, a time domain position of a first resource for transmitting a physical downlink control channel (PDCCH), so that the terminal device may accurately receive the PDCCH over the first resource, thereby meeting different PDCCH transmission delay requirements. The method comprises: sending first configuration information to a terminal device, the first configuration information indicating a time domain position of a first resource in each of at least one time slot, wherein the first resource is used for transmitting a PDCCH; and sending the PDCCH to the terminal device over the first resource.
The present application provides a wireless communication method, a network device, and a terminal device. The network device may configure, at a time slot level or a symbol level, a time domain position of a first resource for transmitting a PDCCH, and the terminal device does not need to monitor the PDCCH on the first resource within each time slot, so that the energy consumption of the terminal device is reduced. The method comprises: sending configuration information to a terminal device, wherein the configuration information comprises first configuration information and second configuration information, the first configuration information indicates at least one first time domain unit, each first time domain unit comprises the first resource, the second configuration information indicates at least one second time domain unit within the first time domain unit indicated by the first configuration information, and each second time domain unit comprises part or all of the first resource; transmitting the PDCCH to the terminal device on the first resource.
Disclosed are an anti-counterfeiting processing method and a related product. The method comprises: acquiring an iris image; acquiring a plurality of face images, wherein each face image corresponds to a group of depth information, the face images correspond to different angles, and the iris image and the plurality of face images are from the same target object; carrying out three-dimensional modelling according to the plurality of face images and the depth information corresponding thereto in order to obtain a stereoscopic face image; matching the stereoscopic face image with a pre-set stereoscopic face image, and carrying out living object detection according to the iris image; and when the stereoscopic face image successfully matches the pre-set stereoscopic face image and the iris image is from a living body, determining that the target object is a true and effective face. By means of the embodiments of the present application, anti-counterfeiting can be realized, and the security of multi-biometric recognition is improved.
**Title of the invention:** UNLOCKING CONTROL METHOD AND RELATED PRODUCT

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<td><strong>Abstract:</strong> Provided are an unlocking control method and a related product. The method comprises: acquiring an environmental parameter (101); acquiring first biometric information (102); determining a first biometric recognition control parameter and a second biometric recognition control parameter corresponding to the environmental parameter (103); performing, according to the first biometric recognition control parameter, first biometric recognition on the first biometric information (104); upon successful recognition of the first biometric information, acquiring second biometric information (105); performing, according to the second biometric recognition control parameter, second biometric recognition on the second biometric information (106); and upon successful recognition of the second biometric information, proceeding to a next unlocking procedure (107). The method and the related product can determine appropriate control parameters for an environment, and control a recognition process on the basis of these control parameters, thereby increasing a successful recognition rate, and improving multi-stage biometric recognition efficiency.</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Name of Applicant:</strong> GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD.</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Address of Applicant:</strong> No. 18, Haibin Road, Wusha, Chang'an Dongguan, Guangdong 523860 China</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Name of Inventor:</strong> ZHOU, Yibao, ZHANG, Haiping</td>
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**No. of Pages:** 34  **No. of Claims:** 12
Title of the invention: UNLOCKING CONTROL METHOD AND RELATED PRODUCT

Abstract:
Disclosed in an embodiment of the present invention are an unlocking control method and a related product. The method comprises: in a locked state, detecting whether a current power level is lower than a first preset threshold; if so, acquiring a current multi-stage biometric recognition mode, the current multi-stage biometric recognition mode comprising at least two recognition steps; and reducing recognition steps of the current multi-stage biometric recognition mode. In the embodiment of the present invention, when a power level is lower than a first preset threshold, at least one recognition step of a multi-stage biometric recognition mode can be skipped. When implementing a multi-stage biometric recognition mode, a multi-stage biometric recognition mode having one less recognition step can be used, thereby reducing power consumption of an electronic device.
Title of the invention: POLYMERISABLE COMPOSITION COMPRISING TEMPO COMPOUND

Abstract:
A polymerisable composition suitable for impregnating a permeable material, a process for the treatment of a permeable material, especially wood and an impregnated material is described. The composition comprises at least 60% w/w composition of one or more polymerisable monomer(s) and an initiator effective to bulk polymerise the polymerisable monomers above 50°C. The composition comprises up to 0.5% w/w tempo compound effective to stabilise the composition at temperatures less than 50°C or below its thermally activated polymerisation temperature and to not substantially prevent polymerisation above the polymerisation temperature. The process has steps of locating the permeable material in a chamber; evacuating the chamber; adding a thermally initiatable bulk polymerisable composition to the chamber; allowing the material to become impregnated with polymerisable composition; removing excess polymerisable composition; and effecting bulk polymerisation of the composition by increasing the temperature of the impregnated material in the chamber to initiate polymerisation of the composition.
The invention relates to a circular weaving machine (1; 19; 41), comprising warp-band guide elements, which are arranged around a circular reed (2; 20; 42) of the circular weaving machine (1; 19; 41) in order to feed warp bands (4a, 4b), a control cam carrier (3; 21; 43), in which a control cam (6, 7; 22; 44) is formed, and shed-forming devices (5; 23; 45), which divide the warp bands (4a, 4b) into two warp-band groups (10a, 10b) and impart mutually opposed alternating motions to the two warp-band groups (10a, 10b), whereby a shed (11) is opened and closed between the two warp-band groups (10a, 10b). The shed-forming devices (5; 23; 45) have pivoting elements (12, 13; 30; 54, 55) and warp-thread reciprocating elements. The at least one control cam (6, 7; 22; 44) gives each pivoting element (12, 13; 30; 54, 55) a pivoting motion and a reciprocating motion when the control cam carrier (3; 21; 43) rotates. The pivoting elements (12, 13; 30; 54, 55) give the warp-thread reciprocating elements alternating motions by means of the pivoting motion and the reciprocating motion.
Two-component solventless polyurethane adhesive compositions comprising an isocyanate component and an isocyanate-reactive component are disclosed, the compositions comprising an isocyanate component comprising an isocyanate-terminated prepolymer, and an isocyanate-reactive component comprising a polyether polyol, a phosphate ester adhesion promoter, and, a bio-based polyol. Methods for forming laminate structures are also disclosed, the methods comprising forming an adhesive composition by mixing an isocyanate adhesive component comprising an isocyanate-terminated prepolymer and an isocyanate-reactive adhesive component comprising a polyether polyol, a phosphate ester adhesion promoter, and a bio-based polyol, applying the adhesive composition to a surface of a first substrate, and bringing a surface of a second substrate into contact with the adhesive composition on the surface of the first substrate, thereby forming the laminate structure. Laminate structures are also disclosed.
Title of the invention : NON-CONTACT HEART RATE MONITORING

Abstract :
There is set forth herein an apparatus comprising: a non-contacting array of sensors adapted for positioning at a position spaced from and proximate a position of a patient; and a signal processing circuit in communication with the array of sensors, wherein the signal processing circuit is configured for: generating a plurality of time varying signals using the array of sensors; processing the plurality of time varying signals; and outputting one or more indicator based on the processing. The apparatus can be adapted for use in a variety of applications including emergency applications such as live birth applications in which neonate resuscitation protocols are observed.
The present application provides a focus region display method and apparatus, and a terminal device. The method comprises: acquiring a target ROI from a preview image collected by an image sensor, photographing the target object to acquire image data, and displaying, during imaging using the image data, the position of the target ROI on the formed image. In the present application, during the imaging of a target object, a focus region which has been determined during focusing may be marked on the formed image. When the formed image is out of focus or blurred, the user may identify, according to the marked ROI, whether the out-of-focus or blurred image is caused by an inappropriate setting of the ROI. Especially for human face imaging, if the frame of the marked ROI is within a human face region, the reasons for the out-of-focus or blurred image may exclude the inappropriate setting of the ROI.
Apparatuses and systems for ornamental piercing of body parts are disclosed comprising a body piercing cartridge (100) for use with a reusable body piercing instrument (102). The body piercing cartridge (100) includes a feature (704) for engaging a matching feature (802) of the instrument (102) coupled to the finger grip section (112) of the instrument (102). The engaging feature (704) of the jaw (106) is disposed back from an end of the jaw (106) such that the end of the jaw (106) extends beyond a forward extension (126) of the body piercing instrument (102) to achieve an overhanging jaw (106). The overhanging jaw (106) reduces the likelihood of contact by the body piercing instrument (102) with the body which accordingly reduces the likelihood of infection. The overhanging jaw (106) is particularly useful for making piercings without a clutch such as in a nostril.
MULTI-MODE UPS SYSTEM WITH AN IMPROVED ENERGY SAVER MODE

An uninterruptible power supply - UPS - system operable in an energy saver mode is disclosed, which comprises a static bypass switch being connected between an input connector and an output connector of the UPS system and being activatable to operate the UPS system in the energy saver mode, several power modules each being connected between the input connector and the output connector of the UPS system and at least some of the power modules being controllable for a reactive power compensation, and a controller being configured to control one or more of the controllable power modules depending on a data input related to a reactive power compensation.
This method for determining the temperature of a metal strip (1) inside a cooling apparatus (4) of a hot rolling installation is implemented by an electronic device (12). This method includes acquiring a temperature measure of a strip portion at a current time instant; estimating, at the current time instant, a heat flux extracted from the strip portion inside the cooling apparatus according to a thermal model, and computing a strip portion temperature at a next time instant from the acquired temperature measure and the estimated extracted heat flux. The thermal model models an air cooling of the strip portion, a coolant header cooling of the strip portion by a coolant header and a remaining coolant cooling of the strip portion, wherein for the coolant header cooling the model models both an impingement cooling of the strip portion and a parallel flow cooling of the strip portion.
In an example, a method includes rasterizing a seed image using a processor. A plurality of rasterized modified images may be generated from the rasterized seed image. Generating each rasterized modified image may include determining an image attribute modification and applying the determined image attribute modification to at least a portion of the rasterized seed image to generate the rasterized modified image.
A memory access technology and a computer system (100), the computer system (100) comprising a memory controller (106), a media controller (110), and a non-volatile memory (NVM) (112) connected to the media controller (110). After receiving a first Read command sent by the memory controller (106), the media controller (110) may read first data from the NVM (112) according to a first address in the first Read command. Thereafter, the media controller (110) is capable of returning at least two sub-data blocks of a fixed length and metadata of the at least two sub-data blocks to the memory controller (106) according to at least two Send commands sent by the memory controller (106). The metadata comprises a location identifier indicating an offset of a corresponding sub-data block in the first data. The memory controller (106) merges the at least two sub-data blocks into the first data according to the location identifier in metadata of the at least two sub-data blocks.
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<th>(21) Application No.201917053017 A</th>
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<td>(22) Date of filing of Application :19/12/2019</td>
<td>(43) Publication Date : 14/02/2020</td>
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(54) Title of the invention : BASE STATION ANTENNA

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Address of Applicant : Huawei Administration Building Bantian, Longgang District Shenzhen, Guangdong 518129 China

(72) Name of Inventor : 1) PENG, Chenggang  
2) XIAO, Weihong  
3) ZHAO, Zhixiong

(57) Abstract : Disclosed is a base station antenna. The base station antenna comprises at least two antennas, at least two outer cover structures, a fixing assembly, a connection assembly, and an upper end cover, each antenna being independently encapsulated in an antenna cover; the fixing assembly comprises a mounting pole and a base, and the bottom of the mounting pole is mounted on the base; the connection assembly comprises antenna connection assemblies, outer cover connection assemblies, and a mounting pole connection assembly, the mounting pole connection assembly being provided on the mounting pole, the tops of the antennas being connected to the mounting pole by means of the antenna connection assemblies and the mounting pole connection assembly, the bottom ends of the antennas being fixed at the bottom end of the mounting pole; the outer cover structures are connected to the mounting pole by means of the outer cover connection assemblies and the mounting pole connection assembly; the upper end cover is provided at the tops of the antennas; the outer cover structures are spaced apart from the antennas, attachment portions on the side edges of the outer cover structures are attached to the outer walls of the antenna covers, and the outer walls of the antenna covers, the outer cover structures, and the upper end cover together form an outer cover of the antennas.

No. of Pages : 18 No. of Claims : 10
A process for adhesively bonding at least two substrates includes the application to the at least two substrates of an uncured adhesive formulation. The uncured adhesive formulation includes at least two curable resin components of epoxy novolac resin, bisphenol A-epichlorohydrin epoxy, or 4,4’-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane in a total amount of at least 60 total weight percent. An epoxy curing agent is also present in the formulation. The uncured adhesive formulation cures at an elevated onset temperature of at least 140°C to adhesively bonding the at least two substrates. The adhesive formulation is also provided with a cure accelerator. An assembly is provided that includes a first substrate of nylon or carbon fiber filled polymer and a second substrate of nylon or carbon fiber filled polymer. A layer of the cured adhesive formulation is present in simultaneous contact with the first substrate and the second substrate.
Title of the Invention: INJECTOR

Abstract:
A liquid coolant injector for injecting a liquid coolant into a cylinder of a split cycle engine, wherein the liquid coolant has been condensed into a liquid phase via a refrigeration process, the injector comprising, a thermally insulating housing, a liquid coolant inlet, a liquid coolant outlet in fluid communication with the liquid coolant inlet via a liquid coolant flow path wherein the liquid coolant flow path extends through the thermally insulating housing, the thermally insulating housing configured to inhibit vaporisation of the liquid coolant within the liquid coolant flow path, a valve closure member, moveable between a first position in which the valve closure member blocks the liquid coolant flow path and a second position in which the liquid coolant may flow from the liquid coolant inlet to the liquid coolant outlet, and, a driver operable to move the valve closure member between the first and second position in response to a control signal.
The disclosure relates to real-time autonomous path planning for a vehicle, and to the steering of the vehicle in accordance with the path. The path is planned in accordance with a given map of the area, and the path accuracy depends, inter alia, on the resolution and accuracy of the map.
The present disclosure generally relates to user interfaces. In some examples, the electronic device provides for transitioning between simulated lighting effects. In some examples, the electronic device applies a simulated lighting effect to an image. In some examples, the electronic device provides user interfaces for applying a filter to an image. In some examples, the electronic device provides for a reduced filter interface. In some examples, the electronic device provides a visual aid displayed in a viewfinder.
Title of the invention: CALIBRATION OF OPTICAL DEVICES FOR ANALYSIS OF GLAZING QUALITY AND RELATED METHODS

International classification: G01N 21/27, G01N 21/23, G01N 21/958, C03B 35/16

Priority Document No: 1754799
Priority Date: 31/05/2017
Name of priority country: France

International Application No: PCT/FR2018/051250
Filing Date: 31/05/2018


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Abstract:
The present application discloses an optical device (1000, 1001, 1002) comprising a first polariscope, a set of first photodetectors (6, 6') and an optical delay generator (3). The present application also discloses a device (2001, 2002, 2003) for analysing the quality of glazing, a heating and tempering line, and production, calibration and quality analysis methods.

No. of Pages: 28
No. of Claims: 30
Abstract:
Disclosed is an intravenous infusion needle with manual needle retraction, the intravenous infusion needle comprising: a needle seat (1) comprising a cylindrical portion (11) and a tail seat portion (12); a needle tubing (2) with a tail end mounted within the cylindrical portion (11); a built-in sliding sleeve (3), wherein same a long block with an approximately C-shaped cross-section and two open ends thereof, the cylindrical portion (11) being mounted inside the built-in sliding sleeve (3) and being capable of sliding back and forth; and a protective housing (4), wherein same is an elongated hollow housing with two open ends, with the built-in sliding sleeve (3) being mounted inside the protective housing (4) and being capable of sliding back and forth. The needle seat (1) and the protective housing (4) form a locking structure. Upon unlocking the needle seat (1) and the protective housing (4), the needle seat (1) continues to be pulled backwards, and the cylindrical portion (11) slides into a locked position of the built-in sliding sleeve (3) and is locked. The needle seat (1) drives the built-in sliding sleeve (3) to slide into the lock position of the protective housing (4) and is locked, and at this point, the needle tubing (2) is fully covered by the protective housing (4) and the tip of the needle is not exposed. The device can prevent needle stick injuries and cross infection and can reduce the damage to the inner walls of a patient's blood vessels due to the needle tubing (2), and is miniaturized in terms of product design and is easy to use, and the production process thereof is simple.
Title of the invention: BLOOD-TAKING NEEDLE WITH AUTOMATIC NEEDLE RETRACTION

Abstract:
Disclosed is a blood-taking needle with automatic needle retraction, the blood-taking needle comprising: a needle seat (1) having a first cylindrical portion (11), a second cylindrical portion (12) and a tail seat portion (13); a needle tubing (2) mounted within the first cylindrical portion (11); a built-in sliding sleeve (3), wherein same is a long block with an approximately C-shaped cross-section and two open ends thereof, the second cylindrical portion (12) being mounted inside the built-in sliding sleeve (3) and being capable of sliding back and forth; a protective housing (4), wherein same is an elongated hollow housing with two open ends, the built-in sliding sleeve (3) being mounted inside the protective housing (4) and being capable of sliding back and forth; and a spring (not shown) sleeved on the first cylindrical portion (11). The tail seat portion (13) and the tail end of the protective housing (4) form a locking structure. When the tail seat portion (13) and the protective housing (4) are unlocked, the action force of the spring forces the second cylindrical portion (12) to slide backwards. When the second cylindrical portion (12) and the built-in sliding sleeve (3) are locked, the built-in sliding sleeve (3) continues to be driven to slide backwards and is locked with the protective housing (4), and at this point, the needle tubing is fully retracted into the protective housing (4). The invention can prevent needle stick injuries and cross infection, and can reduce the damage to the inner walls of a patient's blood vessels due to the needle tubing, and the product design thereof is miniaturized.
The present invention is directed to a lithium ion battery electrode slurry composition comprising: (a) an electrochemically active material capable of lithium intercalation and deintercalation; (b) a binder dispersed in an aqueous or organic medium and comprising a reaction product of a reaction mixture comprising one or more epoxy functional polymer(s) and one or more acid functional acrylic polymer(s); and (c) an electrically conductive agent. The present invention also provides an electrode comprising: (a) an electrical current collector; and (b) a cured film formed on the electrical current collector. The cured film is deposited from the slurry composition described above. Electrical storage devices prepared from the electrode are also provided.

No. of Pages: 45  No. of Claims: 21
The invention relates to peptidic compounds, which peptidic compounds are compounds of formula (I)', or a pharmaceutically acceptable salt, or solvate, or N-oxide, or stereoisomer thereof: (I)', wherein R1, R2, s, t, u, Aa78 and G1 are as defined herein. The peptidic compounds are useful in activating the Nrf2 pathway.
A fingerprint acquisition method and a related product. The method comprises: controlling a light-emitting unit in a preset region of a touch display screen (120) to emit light (S501), wherein the brightness of light emitted by the light-emitting unit in the preset region of the touch display screen (120) is greater than that of light emitted by light-emitting units in other regions of the touch display screen (120); and acquiring a fingerprint of a user irradiated by the light emitted by the light-emitting unit in the preset region of the touch display screen (120) (S502). The quality of the acquired fingerprint can be improved.
Abstract:
A syringe configured so as to allow administration of liquid medicine while a coil spring is held compressed by a spring holder, and to release the hold on the coil spring by the spring holder by means of further plunging operation of a syringe barrel after the administration, wherein the spring holder is prevented from accidentally releasing the hold on the coil spring during administration. The syringe is configured so that after the administration of liquid medicine, the syringe barrel is plunged toward the distal end of a cover to allow the spring holder to move from a locked position where the engaging piece is engaged with the cover toward the distal end. The cover is provided on the inner surface thereof with a guide surface. When the spring holder moves from the locked position toward the distal end, the guide surface radially deforms the engagement piece to prevent the engagement piece from engaging the cover.
Energy storage devices comprising carbon-based electrodes comprising energy-dense faradaic materials and oxidation-reduction (redox) electrolytes are disclosed. In some embodiments, the carbon-based electrodes comprise energy-dense magnetite nanoparticles. In some embodiments, the redox electrolytes comprise ferricyanide/ferrocyanide redox couple. Also described are processes, methods, protocols, and the like for manufacturing carbon-based electrodes comprising magnetite nanoparticles for use in high energy storage devices such as supercapacitors and for manufacturing high energy storage devices comprising redox electrolytes.
The present invention is provided with: a bottomed, cylindrical filter unit case (80) having a cylindrical peripheral wall (81) and an end wall (83) that closes an opening at one end of the cylindrical peripheral wall (81); a fuel intake pipe (4) which is formed in a cylindrical shape extending in a direction intersecting with the axial direction of the filter unit case (80), and the base end side of which is joined to an outer surface part of the cylindrical peripheral wall (81); and a filter cartridge which is housed inside the filter unit case (80) so as to be coaxial with a cylindrical inner peripheral surface (81a) of the cylindrical peripheral wall (81), wherein the internal passage of the fuel intake pipe (4) is configured to be connected with the internal space of the filter unit case (80) via a communication port surrounded by an interpenetration line at which a cylindrical inner peripheral surface (4a) of the fuel intake pipe (4) and the cylindrical inner peripheral surface (81a) of the cylindrical peripheral wall (81) of the filter unit case (80) intersect with each other, and when viewed from the extension direction of the fuel intake pipe (4), a part of the internal passage protrudes outward beyond the internal space of the filter unit case (80).
A shielding apparatus which is for passively attenuating electromagnetic radiation and which comprises a plurality of cells. Each cell comprises a plurality of resonators (26) which are spaced from one another. The cells are arranged in a plurality of unit cells with each unit cell comprising a common loop (32) which surrounds at least two adjacent cells of the plurality of cells. The plurality of unit cells each have an asymmetric structure. The shielding apparatus thus has a negative refractive index for at least one selected frequency whereby electromagnetic radiation at the at least one selected frequency is passively attenuated.
Vehicles, components, and methods are disclosed for distributing hot or cold food items from a vending kiosk, a locker system, or a self-propelled delivery vehicle. The vending kiosk may have multiple doors, at least one of which is unlocked responsive to confirming a purchase transaction or authenticating the presence of a person or device associated with the purchase transaction. The multiple doors provide access to respective compartments that may be selectively heated and refrigerated. Such temperature changes may be based upon a temperature control schedule. The locker system may include one or more configurable compartments that may be accessible via a set of doors that can be selectively coupled into larger doors. The self-propelled delivery vehicle may have a plurality of thermally insulated compartments that may be used to carry multiple items at different temperatures.
Title of the invention: USE OF LACTIC ACID BACTERIA TO TREAT OR PREVENT AT LEAST ONE OF POSTNATAL DEPRESSION AND POSTNATAL ANXIETY

Abstract:
The present invention provides methods of treating or preventing at least one of postnatal depression (PND) and postnatal anxiety (PNA), and risks and sequelae thereof, by administering Lactobacillus rhamnosus HN001 or derivatives thereof, in addition to uses, compositions, and medicaments comprising Lactobacillus rhamnosus HN001 or derivatives thereof to treat or prevent at least one of PND and PNA, and risks and sequelae thereof.

No. of Pages : 40 No. of Claims : 24
Title of the invention: STABILIZED THERMAL ENERGY OUTPUT SYSTEM

Abstract:
A thermal energy storage system utilizes a high temperature storage segment having flow passages extending through the storage segment whereby a working fluid can extract energy from the storage system for powering conventional downstream equipment. A mixing manifold cooperates with an outlet manifold for reducing the temperature of the working fluid to a temperature safe for the downstream equipment. The mixing manifold, an outlet manifold, an inlet manifold and a support base for the high temperature storage segment, are all of a high temperature tolerant material allowing the high temperature storage segment to operate at temperatures in excess of 1000°C and preferably to temperatures above 1400°C. The temperature of the working fluid provided to the conventional equipment can be managed to be below a maximum temperature which in many cases may be about 700°C.
The present invention relates to a process for the in situ preparation of mixtures of chelating agents by catalyzed reactions of diethanolamine with maleic acid and then with 2-halocarboxylic acid, mixtures obtainable using said process and mixtures of chelating agents. In addition, the invention relates to methods where such mixtures are used.
The present invention relates to a process for in situ the preparation of mixtures of chelating agents by catalyzed reactions of diethanolamine derivatives with maleic acid and then with 2-halocarboxylic acid, to mixtures of chelating agents and methods using such chelating agents.
The invention relates to method for preventing hardener compounds to be formed from hardener precursors in a sealed and pressurized aerosol can comprising a paint forming dispersion which contains after sealing the can liquefied propellant, epoxy or/and polyurethane resins amount W1, hardener precursor of said epoxy or/and polyurethane resins amount W3 wherein said epoxy or urethane hardener precursors are selected from the group comprising of an imine, an enamine, a Mannich base, a Schiff's base, an oxazolidine, an aldimine and mixtures thereof, free water of amount W1, which amount W1 is in the range of 110000 ppm, and brought into said can alongside with said other paint dispersion forming chemicals before sealing the can. In said invention - the dispersion contains also a catalytic compound, preferable a weak acid, to prevent formation of the epoxy or/and polyurethane hardener amines from said epoxy or/and polyurethane hardener precursors, - whereby said catalytic compound shifts the equilibrium of reversible reaction (2a) between the free water present in said dispersion and epoxy or/and polyurethane hardener precursor back to formation of said initial epoxy or polyurethane hardener precursors: (2a) wherein said reversible reaction (2a) takes place during the entire retention time of the dispersion in the sealed can.

No. of Pages : 57 No. of Claims : 38
A computer-implemented method of rendering a user interface, the method comprising the following steps: at a user interface controller, receiving visual content to be displayed on a display of a user device, wherein the user interface controller generates obfuscation data for obscuring the visual content and controls the display to render a user interface on which the visual content is obscured according to the obfuscation data; and transmitting, from the user device to a remote device, a request to stop obscuring the visual content, wherein the request is transmitted in response to a drag gesture detected at the user device; wherein as the drag gesture is performed, the user interface controller responds by modifying the obfuscation data to reduce a level of obfuscation applied to the visual content before the request has been accepted, whereby the visual content remains obscured but with a lower level of obfuscation, wherein if the request is subsequently accepted at the remote device, in response the user interface controller controls the display to stop obscuring the visual content, thereby rendering it fully visible on the display.
Title of the invention: COMMUNICATION EVENT

Abstract:
A method of effecting a communication event via a network between a requesting user, operating a first user device, and a responding user, operating a second user device comprises: initiating the communication event, in which each of the user devices captures a stream of audio data, transmits the captured stream of audio data to the other user device via the network for receiving thereat, and outputs, to its user, the audio stream received from the other user device; wherein a video exchange function is initially suppressed for the communication event for both of the user devices, by first and second video suppression components associated with the first and second user devices respectively, and the first user device transmits to the second user device, in response to a user input from the requesting user, a request to stop suppressing video for the communication event; and wherein if the responding user does not accept the request, both of the video suppression components continue suppressing the video exchange function for both of the user devices, wherein if the responding user accepts the request, both of the video suppression components stop suppressing the video exchange function for both of the user devices in response, wherein each of the user devices implements the video exchange function by capturing a stream of video data, transmitting the captured stream of video data to the other user device via the network for receiving thereat, and displaying, to its user, the stream of video data received from the other user device.
The present invention relates to a process for preparing antibody-drug conjugates and to antibody-drug conjugates wherein therapeutic moieties are conjugated to one or more engineered cysteines as well as to one or more reduced interchain cysteines via a cleavable or non-cleavable linker.

No. of Pages : 28 No. of Claims : 14
A real time file alteration sensing-based automatic backup device includes: a backup target selection unit for selecting at least one backup target which is accessible through a network and for which a backup can be performed; a content alteration sensing unit for sensing in real time whether or not the content of the at least one backup target has been altered, or for scanning and thereby sensing all of the backup targets at specific time intervals; a backup data generation unit which, when alterations in the content of the backup target are sensed, generates backup data including information required to recover the sensed backup target; and a backup data storage unit which stores the generated backup data. Accordingly, the real time file alteration sensing-based automatic backup device can recover the files of a specific point in time even when unexpected damage occurs, and thus can prevent loss.
Title of the invention: LIQUID DISPENSER

Abstract:
Discharge heads (10) for liquids dispensers (100) for discharging pharmaceutical or cosmetic liquids are known. Such discharge heads (10) have a base (20) and an actuation handle (40) which can be pressed down relative to the base (20). A liquid inlet (22) for connecting to a liquid store and a discharge opening (44) for dispensing liquid are provided. Furthermore, such a discharge head has a pump device (60) which comprises a pump chamber (64) and by means of which liquid can be pumped from the liquid store to the discharge opening (44). In order to control the liquid to be discharged and/or the air flowing back, such a discharge head (10) has an outlet valve (70) which opens depending on the pressure, an inlet valve (80) which opens depending on the pressure, and/or a ventilation valve (90) which opens depending on the pressure. Such a valve (70, 80, 90) has a valve flap (72, 82, 92) which closes a valve channel in a closed position and which can be converted into an open position by positive pressure which exceeds a threshold pressure. The discharge head (10) has an actuator (50) which rests against the actuation handle (40) and the base (20) so as to deform when the actuation handle (40) is pressed down. The valve flap (72, 82, 92) is designed and attached to the actuator (50) such that the deformation of the actuator (50) acts on the valve flap such that the threshold pressure, beyond which the valve flap (72, 82, 92) leaves its closed position, is at least 10% lower in the actuated final position than in the non-actuated final position. The invention also relates to a use for a dispenser which can be produced in an inexpensive manner in particular and which has a particular degree of discharge reliability and a particular discharge characteristic.
A refrigerator is disclosed. The refrigerator includes a cabinet including a storage compartment, a cool air supply means configured to operate to supply cool air to the storage compartment, a temperature sensor configured to sense a temperature of the storage compartment, and a controller configured to control an output of the cool air supply means based on a difference between a set temperature and a current temperature sensed by the temperature sensor and increase or decrease in temperature of the storage compartment sensed by the temperature sensor at a predetermined time interval.
# PROCESS FOR PREPARING HETEROPLASIC PROPYLENE COPOLYMERS

**Title of the invention:** PROCESS FOR PREPARING HETEROPLASIC PROPYLENE COPOLYMERS

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|                            | 5)AJELLAL, Noureddine                 |

**Abstract:**

Process for producing a heterophasic propylene copolymer using a specific class of metalloocene complexes in a multistage polymerization process including a gas phase polymerization step. The invention further relates to the use of catalysts which comprise a specific class of metalloocene complexes to produce a heterophasic propylene copolymer in a multistep process including a gas phase polymerization step.

No. of Pages: 76 No. of Claims: 16
A seed sampling system is provided comprising an automated seed loading assembly operable to singulate seeds from a plurality of seeds or enable loading of individually stored seeds and an automated seed sampling assembly comprising at least one sampling module operable to remove tissue samples from one of the singulated seeds. The system also includes an automated seed transport assembly comprising at least one retention member operable to transfer the singulated seeds from at least one elevator unit of the seed loading assembly to the at least one sampling module of the seed sampling assembly. In connection therewith, the at least one sampling module includes multiple sampling locations, each associated with a sampler, where the at least one sampling module is operable to remove tissue samples from seeds at one of sampling locations while another one of the sampling locations is cleaned to remove residual seed tissue therefrom.
Methods, systems, and media for controlling append-only file rewrites are provided. In accordance with some embodiments, the methods comprising: determining a utilization of a shard of a database; determining whether the utilization exceeds a persistent storage utilization threshold; determining a recovery time to recover the shard from an append-only file; determining whether the recovery time exceeds a recovery time threshold; and when the utilization is determined to exceed the utilization threshold or when the recovery time is determined to exceed the recovery time threshold, causing an append-only-file rewrite to be performed.
The invention relates to a method for providing data records (28, 30) for the units (100), in particular wind turbines, of a wind park (112). The wind park (112) is divided into at least two groups (122, 124), wherein at least one, multiple, or all groups have in each case at least two units (100). Firstly, an individual data record (28, 30) is produced (50) for each of the groups (122, 124). Then a data packet (34) which comprises at least the generated individual data records (28, 30) is generated (52) and subsequently the data packet (34) is transmitted (54) to all units of the wind park. The invention also relates to a wind park controller (10, 21), a method for receiving a data record (28, 30), a unit (100), and a wind park (112).
(54) Title of the invention : USE OF GLUTAMINE SYNTHETASE FOR TREATING HYPERAMMONEMIA

(51) International classification : A61K 31/00,A61K 38/43,C12N 5/10,A61P 3/00
(31) Priority Document No : 1708288.4
(32) Priority Date : 24/05/2017
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(86) International Application No : PCT/GB2018/051415
   Filing Date : 24/05/2018
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
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(57) Abstract :
The present invention relates to the use of glutamine synthetase as a protein therapy (such as enzyme replacement protein therapy) for the treatment of hyperammonemia. In particular, the invention relates to the systemic administration of glutamine synthetase. The glutamine synthetase may be provided in conjugated or fusion form, to increase its half-life in the circulation. Also provided is a pharmaceutical composition comprising glutamine synthetase. The invention also relates to the uses, methods and compositions involving a combination of the glutamine synthetase protein and an ammonia lowering agent, such as a nitrogen scavenger.
A method for registering a UE in a visited network. The method includes the UE selecting a home network slice identity (h-NSI), wherein the h-NSI is associated with an index value. The method also includes the UE obtaining the index value with which the selected h-NSI is associated, and after obtaining the index value, the UE transmitting a registration message towards a control node, the registration message comprising a requested NSI (r-NSI) (e.g., an S-NSSAI) and the obtained index value. The method further includes the UE receiving a registration response message comprising an allowed NSI (a-NSI) and an index value associated with the a-NSI.
The present invention relates to a process and apparatus for reducing the desorbent recovery cost in a light desorbent system. More specifically, the present invention relates to an alternate flow scheme that for pre-fractionation of the extract column feed which includes two extract columns which reduces the desorbent recovery costs in a light desorbent system.

No. of Pages : 8  No. of Claims : 10
Solvent-based adhesive compositions are disclosed, the compositions comprising (A) a polyester-urethane resin, (B) a phosphate ester compound, and (C) an aliphatic isocyanate curing agent. Methods for preparing a solvent-based adhesive composition, the methods comprising providing a polyester-urethane resin, providing a phosphate ester compound, mixing the polyester-urethane resin and phosphate ester compound to form a resin mixture, diluting the resin mixture in a solvent to form a diluted resin mixture having an application solid content of from 25 to 55 weight percent, based on the total weight of the diluted resin mixture, and curing the diluted resin mixture with an aliphatic isocyanate curing agent at a mix ratio (parts by weight resin mixture before dilution : parts by weight aliphatic isocyanate curing agent) of from 100:1 to 100:12. Laminates prepared comprising the solvent-based adhesives and according to the disclosed methods are also disclosed.

No. of Pages : 24 No. of Claims : 15
Solvent absorption processes for separating components of an impure feed gas are disclosed. The processes involve two stages of gas purification. The acid gases including hydrogen sulfide, carbon dioxide and other sulfur compounds are simultaneously removed from the feed gas by contact with a physical solvent in two stages. The subject matter disclosed provides improved processes to reduce the operating costs of the system.
The present disclosure relates to various solid state forms of 5-\{[(2S,5R)-2,5-dimethyl-4-(tetrahydro-2H-pyran-4-ylmethyl)piperazin-1-yl]carbonyl\}-N-(5-fluoro-2-methylpyrimidin-4-yl)-6,6-dimethyl-1,4,5,6-tetrahydropyrrrolo[3,4-c]pyrazol-3-amine and methods of making the same. Such forms of 5-\{[(2S,5R)-2,5-dimethyl-4-(tetrahydro-2H-pyran-4-ylmethyl)piperazin-1-yl]carbonyl\}-N-(5-fluoro-2-methylpyrimidin-4-yl)-6,6-dimethyl-1,4,5,6-tetrahydropyrrrolo[3,4-c]pyrazol-3-amine are useful in preparation of pharmaceutical compositions and dosage forms for the treatment of cancer, immune disorders and inflammation.
**Title of the invention:** METHOD FOR HOMOGENIZING BILE ACID DERIVATIVES

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  4) FEKETE, Melinda

**Abstract:**
The present invention relates to a method for preparing bile acid derivatives with a protected hydroxyl group in position 3, the method comprising the contacting of a bile acid derivative, having an unprotected 3-alpha-hydroxyl group, with a specific lipase. The invention also relates to a bile acid derivative, obtained or obtainable according to the method, to the use of said bile acid derivative, obtained or obtainable according to the method, for preparing lithocholic acid, to a method for preparing lithocholic acid, and to lithocholic acid obtained according to the method. The invention further relates to the use of lithocholic acid, obtained or obtainable according to the method, for preparing ursodeoxycholic acid or ursodeoxycholic acid derivatives.

No. of Pages: 33  No. of Claims: 16
(12) PATENT APPLICATION PUBLICATION  (21) Application No.201917053236 A
(19) INDIA
(22) Date of filing of Application: 20/12/2019  (43) Publication Date: 14/02/2020

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(57) Abstract:
Disclosed in the embodiments of the present invention are a power control method for a link, comprising: user equipment receives a message from a network side, the message carrying information instructing the user equipment to adjust uplink transmission power; the user equipment analyzes the message to acquire adjustment information, and extracts a corresponding adjustment policy according to the adjustment information; and the user equipment adjusts the transmission power of an uplink according to the adjustment policy. The embodiments of the present invention have the advantage of increasing power adjustment efficiency.

No. of Pages: 30 No. of Claims: 15
A component calling method, comprising: respectively sending the acquired fourth number of times, first duration, second number of times, and third number of times to a server; acquiring, from the server, a coefficient for a second component to call a first component; and when the coefficient is less than a preset threshold, prohibiting the second component from calling the first component. The invention also relates to a coefficient calculation method, a device, a component calling device, a medium, a server and a terminal.
Provided are a focusing method and apparatus for realizing a clear human face, and a computer device. The focusing method for realizing a clear human face comprises: when a camera completes focusing, performing human face recognition on an image to be photographed, and acquiring first position information about a human face in the current frame of the image to be photographed; before the image to be photographed is photographed, acquiring second position information about the human face in the next frame following the current frame; determining, according to the first position information and the second position information, whether the position of the human face has changed; if the position of the human face has changed, resetting a region of interest of the human face; and focusing the human face according to the region of interest of the human face. By means of the present application, a human face can be tracked in real time, and after the position of the human face deviates from the focusing position, the camera is triggered to perform re-focusing, so that the human face in a photographed photograph can be clearer.
**Title of the invention:** FOCUSING METHOD AND APPARATUS, COMPUTER READABLE STORAGE MEDIUM, AND MOBILE TERMINAL

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**Abstract:**
The present application relates to a focusing method and apparatus, a computer readable storage medium, and a mobile terminal. The method comprises: acquiring a focal length corresponding to the lens position when a first camera is in focus; acquiring the lens position when a second camera corresponding to the focal length is in focus; and driving the lens of the second camera to reach the lens position of the second camera when in focus, and performing focusing. In the present method, after focusing of the primary camera is complete, the focal length of the primary camera is acquired, the lens position of a corresponding secondary camera when in focus is found on the basis of the focal length of the primary camera, and the secondary camera is driven to reach the corresponding lens position and complete focusing, thus improving the accuracy of dual camera focusing, and making dual camera focusing more convenient.

CONTINUED TO PART- 2