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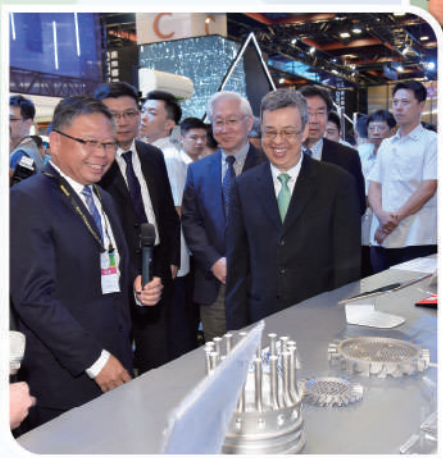


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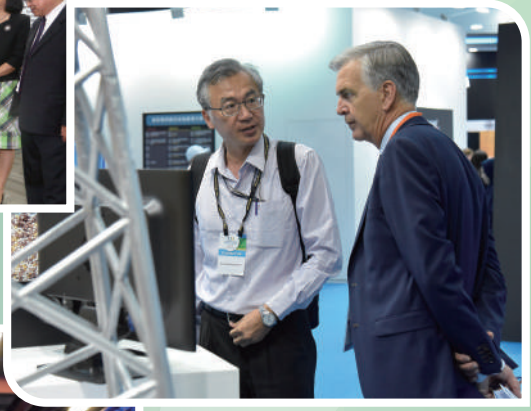

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2019
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專利技術名稱

Module system Cat Tower

Patent No：1859125(Republic of Korea)
Patent Owner：MONDOMIO CO.,LTD
Inventor：JIN KYUNG-HEUI / YIM EUN-JIN

Patented technology introduction:

The modular system cat tower, which is easy to expand and vary, is an eco-friendly furniture developed based on analysis of cat behavior characteristics and research into modular system structures utilizing traditional wood making technology.

MONDOMIO CO.,LTD

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專利技術名稱

以臼齒為抗力點之手動口腔擴張裝置

An innovated handy open jaw device acting on molars

Patent No：(R.O.C. 優先) I532470

專利權人：明志科技大學、國立台灣大學醫學院附設醫院 /
Ming Chi Unversity of Technology, National Taiwan University Hospital

發明人：胡志中、王慧茜 / Chih-Chung Hu, Yi-Chian Wang

專利技術介紹：

罹患頭頸癌病變患者常常發生牙關緊閉症狀，往往無法進行開口閉合、刷牙或吞嚥食物。患者無法自行完成上述運動，一般皆尋求復健科醫師協助。治療時，臨床以壓舌板堆疊固定的方式來做被動式開口訓練，相當克難。不論居家照護或醫院復健，壓舌板堆疊固定的方式需要第三者協助，其程序人為誤差難以避免，不易插入正確位置及高度。不僅對罹患頭頸癌病變患者產生不便，患者居家時往往不進行口腔開合動作，更對患者間接產生損傷。

本發明針對罹患頭頸癌發生牙關緊閉症狀患者所設計，以臼齒為抗力點之手動口腔擴張裝置，協助患者自行執行開口動作、刷牙或吞嚥食物，可從事保健與復健治療，同時防止二次傷害，具醫療功能與實用性。期能嘉惠國內數萬名罹患頭頸癌患者自主復健。

Patented technology introduction:

Oral cancer and nasopharyngeal cancer are top 4th and 11th cancer in men in Taiwan. These patients would have difficulties in biting, extracting, and even brushing their own teeth. For patients with trismus, speech therapists have difficulties in treating their oropharyngeal dysphagia, and dentists sometimes could not extract or mend their caries. Clinical treatment for trismus include therapeutic exercise and open jaw device. However, for patients with trismus there is no appropriate open jaw device operated by themselves without injury on their front teeth. The developed innovated handy open jaw device could be easily used by the patients, and the device could protect the front teeth of the patients from injury, which are acting on molars with a larger and steadier contact area.

明志科技大學、國立台灣大學醫學院附設醫院 /

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專利技術名稱

用來評估一勞工之過勞風險的電子裝置

Method And Electronic Device For Evaluating Overfatigued Risk Of A Laborer

Patent No：(R.O.C. 優先) M574266
專利權人：勞動部勞動及職業安全衛生研究所 /
Institute of Labor, Occupational Safety and Health, Ministry of Labor
發明人：鐘琳惠、陳瑞發、洪煥程、周瑞淑、鄭乃云、廖唯亨
Chung, Lin-Hui / Chen, Jui-Fa / Horng, Huann-Cheng / Chou, Jui-Shu / Cheng, Nai-Yun / Liao, Wei-Heng

專利技術介紹：

一種用來評估一勞工之過勞風險的方法，其中該方法可應用於一電子裝置，且該方法可包含：透過一感測裝置取得該勞工之心率資料以及睡眠資料；透過執行於該電子裝置中之一問卷模組收集該勞工之心理資訊，以產生一過勞量表；透過該問卷模組收集該勞工之加班資訊，以產生一加班時數；依據預先建置的一疾病風險資料庫以及該勞工之相關資訊，產生該勞工之疾病風險指標；透過執行於該電子裝置中之一睡眠分析模組分析該睡眠資料，以產生一睡眠分數；以及依據該過勞量表、該加班時數、該疾病風險指標以及該睡眠分數產生一綜合分數。

Patented technology introduction:

A method for evaluating overfatigued risk of a laborer, wherein the method may be applied to an electronic device, and the method may include: obtaining heart rate data and sleeping data of the laborer through a sensing device; collecting mental information of the laborer through a questionnaire module executing in the electronic device, to generate an overfatigued scale; collecting overtime work information through the questionnaire module, to generate hours of overtime work; according to a disease risk database that is built in advance and related information of the laborer, generating a disease risk index of the laborer; analyzing the sleeping data through a sleeping analyzing module executing in the electronic device, generating a sleeping score; and according to one or more of the overfatigued scale, the hours of overtime work, the disease risk index and the sleeping score, generating a comprehensive score.

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Institute Of Labor, Occupational Safety And Health, Ministry Of Labor
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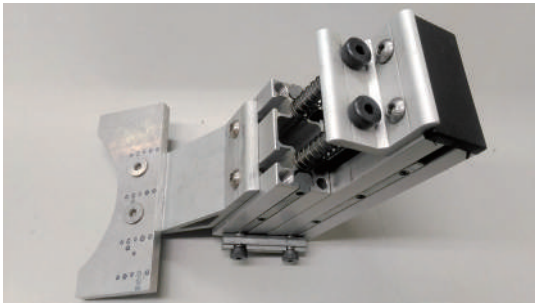
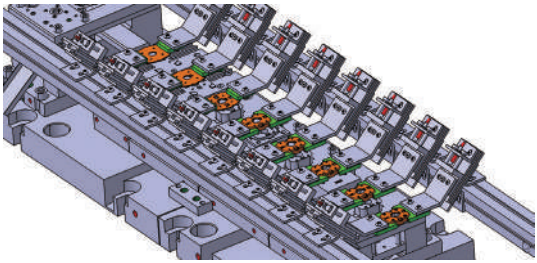
專利技術名稱

用於連續沖壓模具移料的夾爪傳送機構

Plate Holder Transport Mechanism for Transfer Die

Patent No：(R.O.C. 優先) I604916
專利權人：國立高雄科技大學 / National Kaohsiung University of Science and Technology
發明人：林栢村、郭峻志、楊正鈺 / Lin, Bor Tsuen / Kuo, Chun Chih / Yang, Cheng Yu





專利技術介紹：

本發明的特點在於相對精簡且易適整的結構及作動方式，提供穩定的不同道次的模具間的料件傳送作業。利用與水平方向呈一適當角度配置的滑動結構和限位裝置，配合前後臂前進夾料的動作，在一個純平面的移動行程中，產生了垂直的上、下行程動作，可巧妙地將局部垂直陷入模塊狀態的料件，利用其夾持後段行程中所產生的垂直向上的功能，順利將料件自模塊上取出，而不需要因為該垂直行程的需求，而購置昂貴的三軸向伺服送料機。

Patented technology introduction:

The features of the present invention provide a simple structure for material transfer between the transfer die stations. The structure utilizes a sliding structure and a limit device arranged at an appropriate angle to the horizontal direction, and with the action of the front and rear arms advancing the material, the vertical upper and lower strokes are generated in the original pure plane moving stroke. The invention design can vertically and horizontally move the material between transfer die stations.

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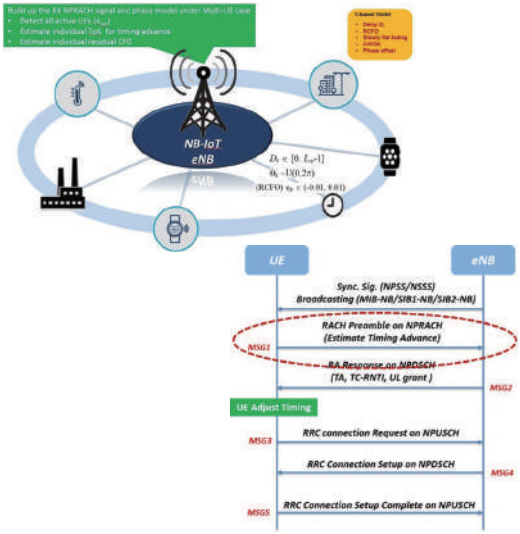
專利技術名稱

多用戶隨機存取訊號之分析方法

An Analysis Method for Multi-Users Random Access Signals

Patent No：(R.O.C. 優先) 107116680
專利權人：元智大學 / Yuan Ze University
發明人：黃正光 / Hwang, Jeng-Kuang



專利技術介紹：

本發明專利可有效解決窄頻物聯網傳送上鏈隨機接取訊號時，基地台與用戶間的最初連線問題，讓基地台能準確偵收多個用戶裝置所各自上傳的第一道前導訊號，以利後續之通訊。其訊號分析方法首先求得一最佳偵測門檻值來有效判定欲進行連線之多重用戶端；然後再針對每一偵測到的用戶端，利用跳頻點相位差來估算其所需要的同步參數，即前導訊號的抵達時間（ToA）以及殘餘載波頻率誤差（RCFO）。除了可以讓基地台偵收多個欲連線的用戶及同時獲取其同步資訊，本發明更具有低複雜度及高精確度，已成功應用於資策會小基站平台，經由多種環境之場測結果，證實本專利方法可克服各樣困難傳輸場域，在低 SNR 下達到優越的偵測及同步參數估測性能。

Patented technology introduction:

This patent discloses an efficient method to solve the initial attachment problem between the narrowband IoT base station and user equipment (UE), making the base station able to acquire the multiple UEs which are transmitting their first uplink random access signals. Hence it is essential for subsequent communications. First, the signal analysis method derives an optimal detection threshold to catch those UE identities attempting for attachment. Then for each detected UE, the method estimates the UE's time-of-arrival (ToA) and residual frequency offset error (RCFO) by using the phase differences at frequency hopping point. Besides the capability of letting base station to acquire identities and synchronization parameters of multiple UEs, this patent also possesses low complexity and high accuracy. It has been successfully implemented onto the III small-cell base station. From a lot of field trial results, it is confirmed that the patent could indeed overcome many difficult transmission scenarios, and achieve excellent detection and synchronization parameters estimation performances under low SNR.

元智大學 / Yuan Ze University

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專利技術名稱

多氣囊調節裝置

AIQ Pillow

Patent No：(R.O.C. 優先) M571180
專利權人：鄭美麗 / Cheng,Mei- Li
發明人：鄭美麗 / Cheng,Mei- Li

專利技術介紹：

藉由定位件及多個閥體來控制多層氣囊之內部與外部之氣體是否流通，除了可使氣囊依據所受壓力(如頭、頸、臀部)大小自動調整高、低、軟、硬、形狀，降低氣囊反作用力，使抵靠部 (如頭、頸、臀部) 受到自然舒適地支撐之外，具有調適性更佳之高度支撐 (更多之軟硬度) 及塑形 (更服貼) 效果，更能有效地因應不同使用者。且氣囊所受壓力消失後，可自動再充氣恢復原狀，可避免彈性體彈性疲乏變形。

本創作由過去的「輕、薄、短、小」進化到「優、柔、效、省」趨向，在研發時已擬定「環保、節能」概念，機能上符合綠能要求，「簡易、快速、調整」免電力的便利性、友善性，已商品化並行銷於國內外市場，為指標性創新生活保健商品。

Patented technology introduction:

- AIQ Pillow is a unique innovative product with the curved design in line with neck, shoulder and head ergonomic, so you can fill the pillow with air and release it within seconds to quickly adjust pillow height.
- A patented valve, applying the principle of natural "negative pressure" to set three sections in height of a pillow to adjust the memory position according to individual needs, and when the user is away, the pillow will be back to the set height, thereby making it more comfortable than any other memory pillows.
- A more advanced pillow: When the user lies on the back again, the pillow will automatically adjusted to more suitable height and hardness according to personal head weight.
- Ultimate-Re-Evolution: uPillow to meet your need as to its height which is adjustable within a golden ratio of 0.5~1.5cm.
- No electricity needed with environmental performance.

閎腦有限公司 / Kuonao Co.,Ltd.

11011 台北市信義區信義路五段 5 號 4 樓 4D18
4D18, 4F, No.5, Sec.5,Xinyi Rd., Xinyi Dist., Taipei City 11011,Taiwan
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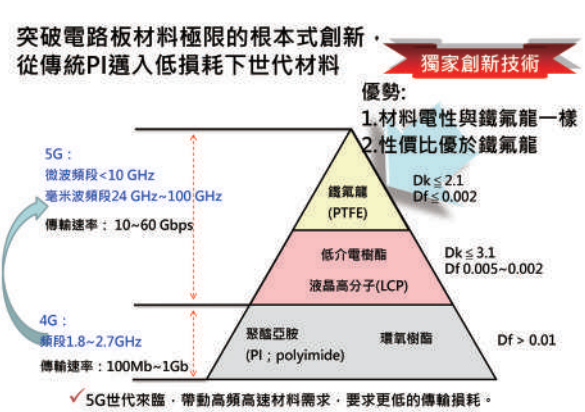
專利技術名稱

低介電樹脂組合物及應用其的膠片及電路板

Low dielectric resin composition, film and circuit board using the same

Patent No：(R.O.C. 優先) I637405
專利權人：臻鼎科技股份有限公司 / Zhen Ding Technology Limited
發明人：蘇賜祥、向首睿、徐茂峰、何明展
Su, Szu-Hsiang / Hsiang, Shou-Jui / Hsu, Mao-Feng / Ho, Ming-Jaan



專利技術介紹：

本發明技術創新點是使用具將兩種不同反應機制之樹脂串接在一起，並且可均相，傳統環氧樹脂、酸酐軟段樹脂與雙鍵硬段樹脂是無法均相 (相溶)，藉特殊分子設計其化學結構有軟鏈段與硬鏈段，崁段聚合 (AAA-BBB)，非隨機聚合 (ABAABB)，讓硬鏈段有序排列，降低絕緣性，不僅電性符合下世代需求 (低介電)，在高頻高速傳輸時兼具訊號完整性，並且符合軟性電路板 (FPC) 製程所需之耐熱性及耐化性。因應 5G 世代，高頻基板材料需求向上攀升，本發明可運用手機天線、射頻模組、小基站、汽車電子、無人機、生醫感測、智慧工廠等。

Patented technology introduction:

The key concept of the patent is the combination of two different reaction resin; while general epoxy resin cannot compatible with the resin with double bonds, the special designed resin is capable to be miscible. The molecular design features its regular arrangement of soft chains and hard chains like (AAA-BBB); instead of random layout (ABAABB). To meet the 5G trend of high frequency and high speed, the resin can perform low dielectric and keep its signal integrity; moreover. Thanks to its thermal resistance and chemical affordability, the resin agrees with FPC manufacturing process. Smart phone antennas, radio frequency modules, small cells, automotive, drones, bio sensors, smart factories and etc.

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專利技術名稱

抗菌水凝膠
Antimicrobial Hydrogel

Patent No：(R.O.C. 優先) I644676
專利權人：婁敬 / Lou Ching
發明人：婁敬、林幸鈺 / Lou Ching, Lin Hsing Yu

專利技術介紹：

品寶生物科技有限公司致力於新型水凝膠敷料的研究與發展，透過「發明專利」技術下所生產之品寶水凝膠傷口敷料 (Green Guard® Hydrogel Wound Dressing) 經動物實驗與臨床使用證實，產品具備抗菌、高保濕性、高吸收性、高滲透能力、高生物相容性、使用簡易等優點特色。2018 年在本公司專家團隊何美鄉教授帶領下，與國內醫學院之產學合作動物傷口試驗證明，產品具有增強組織再生、加快傷口閉合、減弱發炎反應、促進角質細胞增殖和皮膚屏障的形成，最後能達到傷口癒合，這些結果都是與目前進階功能性敷料有顯著之差異所在，也使品寶水凝膠敷料在臨床上具有作為理想傷口敷料的巨大潛力與商機。

目前產品已被多家醫學中心與教學醫院應用在術後傷口以及高齡化所引發之褥瘡、糖尿病足、燒燙傷及靜脈潰瘍等傷口治療上效果卓越。

產品已取得新加坡註冊 (CLASS C) 與菲律賓註冊中，並計畫向美國與歐盟申請註冊。

Patented technology introduction:

Here we report a newly developed hydrogel wound dressing – Green Guard®. Clinical experience of Green Guard® hydrogel dressing in treating human cutaneous acute and chronic wounds has demonstrated remarkable effects in facilitating wound closure. This study was to evaluate the in vivo performance of Green Guard® hydrogel dressing in treating full-thickness wound in a mouse model as an attempt to explore possible wound healing mechanism this hydrogel may involve. We demonstrated that Green Guard® hydrogel dressing facilitated wound healing process by reducing inflammation of wounded skin, promoting keratinocyte proliferation and skin barrier formation and ultimately to accelerate tissue regeneration. These results demonstrated that Green Guard® hydrogel dressing has great potential as an ideal wound dressing clinically

Green Guard® Hydrogel Wound Dressing is proved to be able to facilitate wound healing from the following aspects:
(1)Enhance tissue regeneration (2)Speed up wound closure (3)Attenuate the pro-inflammatory response level
(4)Reduce the keratinocyte activation level (5)Maintain tissue integrity

The product is best for the following wounds:
Acute wounds: Skin tears, cuts or abrasions · 1st and 2nd degree burns · Surgical incisions · Graft donor sites
Chronic wounds: Pressure ulcers · Diabetic limb ulcers · Burn
Other causes

品寶生物科技有限公司 / Ping Bao Biotechnology Co.,Ltd.

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專利技術名稱

沈箱式岸置風機與離岸風機減振抗液化基礎

Vibration and liquefaction resistance foundation for shore and offshore wind turbine by using Caissons

Patent No：(R.O.C. 優先) I639749
專利權人：國立高雄科技大學 / National Kaohsiung University of Science and Technology
發明人：沈茂松 教授 / Professor Shen Mao-song

專利技術介紹：

台灣預計在 2025 年達成非核家園的目標，而千支海上風機是達成非核家園的途徑。但海上風機施工有四大課題：風機直徑 5m~10m 的鋼管樁基礎在海上需打入海底岩盤的超高技術與風險、日後海面上 100m 高的風機柱，需面對歐亞版塊和菲律賓版塊擠壓的大地震、親潮與黑潮摩擦的共振、以及每年高達 8 個月的颱風吹襲，因此工期與施工風險及日後運轉都是挑戰。

若以混凝土沈箱當作風機的基礎，則風機鋼管樁的打設如同在陸地上，許多施工工期與風險，及地震、颱風與洋流對日後海上風機的運轉影響，便能被克服。沈箱式岸置風機與離岸風機減振抗液化基礎與一般海上單支風機的比較：

沈箱式岸置風機與離岸風機減振抗液化基礎與一般海上單支風機的比較：

1. 在沈箱上施作全套管基樁比在海上打設鋼管樁之效率高、工期短、精度好。
2. 沈箱上風機可避免海上單基柱風機受洋流共振影響風機運轉效率與壽命。
3. 沈箱上風機比海上風機單支鋼管基樁受地震液化的影響少。
4. 沈箱式風機比海上風機 (單支鋼管基樁) 減振、並減少水下噪音對鯨豚生態影響小。
5. 沈箱式風機比海上風機 (單支鋼管基樁) 抗風浪、抗颱風與抗海嘯能力強。
6. 沈箱式風機使用全套管鋼筋混凝土樁比海上風機之單支鋼管樁耐久性、抗腐蝕性強。
7. 沈箱式風機可做成多風機陣列，共同使用一條海底電纜槽線，可省多條海底電纜。
8. 風機在沈箱上，有餘裕空間放置發電設備；在海上維修人員有落腳地方，甚至放置永久工作站。

Patented technology introduction:

Taiwan aims to reach the goal of nuclear-free homeland in 2025. In response, thousands of offshore wind turbines were constructed. However, challenges still exist regarding offshore wind turbine construction. Some main concerns include: (1) the intense technology demand and the danger of inserting the steel pipe pile foundation (5m~10m in diameter) into the subsea bedrock, (2) the threat posed by earthquakes (caused by the Eurasian plate and the Philippine sea plate) to the wind turbine columns which stand 100m above sea level (3) the resonance of ocean currents, and (4) the local typhoon season which lasts up to eight months per year. Namely, the risk during construction and future operation are both major issues.

國立高雄科技大學 / National Kaohsiung University of Science and Technology

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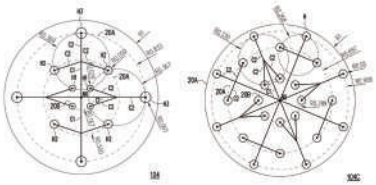
專利技術名稱

流體分散盤及其設計方法

Fluid distributor and its design

Patent No：(R.O.C. 優先) I635894
專利權人：義守大學 / I-Shou University
發明人：陳建霖、梁明在、梁茹茜、劉丞哲 /
Chen, Jiann-Lin / Liang, Ming-Tsai / Liang, Ru-Chien / Liu, Cheng-Che

依電腦輔助設計與製作完成之分散盤
Prototype of compound distributors by CAD and CAM



依流體力學原理設計的分散盤
Distributor designs based on fluid dynamics

專利技術介紹：

本發明設計是以流體力學之原理為基礎，提出一套應用在層析管柱內的分散盤設計方式，藉此方法使層析管柱之流場速度形成一致的均勻流，讓溶劑內的溶質獲得良好的分離效果，本設計方法是應用電腦輔助設計 (CAD) 與工程分析 (CAE) 來完成最佳化分散盤元件，且此元件對於化工量產設備的長 / 徑比較小之層析管特別有分離效果。

Patented technology introduction:

This invention is based on the principles of fluid mechanics. We propose a set of distributor design procedure applied to the conventional Dynamic Axial Compression (DAC) column. By this design method, the solvent flow velocity field inside the DAC column is formed into a plug flow, and a good solute separation will be achieved effectively. The distributors by present design method via CAD and CAE techniques are particularly effective for the chromatography column with a small length/diameter configuration for the mass production in applications of chemical industry.

義守大學 / I-Shou University

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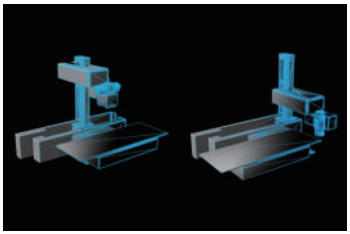
專利技術名稱

造影掃描系統
SCANNING SYSTEM

Patent No：(R.O.C. 優先) I640300
專利權人：行政院原子能委員會核能研究所 /
Institute of Nuclear Energy Research, Atomic Energy Council, Executive Yuan, R.O.C.
發明人：謝和諱、曾聖彬、黃宣雅 / Hsieh, Ho Hui ; Tseng, Sheng Pin; Huang, Syuan Ya



專利技術介紹：

本專利「造影掃描系統」是一種創新落地式放射造影床台機構設計，可簡便切換仰躺、站姿造影模式。在切換至站姿造影模式時，X 光造影儀的光源可迴避放射造影床，不受其影響達成大範圍垂直方向運動，並可朝向造影儀側面進行 X 光攝影。站躺兩用之設計使一機即可應付各式 X 光二維及三維造影需求，適用臨床應用廣泛，包含一般 X 光檢查與三維數位斷層合成掃描，提升整體醫療友善度。

本專利已應用於核研所開發之低劑量三維 X 光機－ Taiwan TomoDR，作為系統機構設計之重要關鍵技術，預期適用病灶範圍涵蓋胸腔、頭頸部、骨科、急診等多項應用，目前於台大醫院新竹分院進行臨床試驗，影像品質與臨床應用性獲醫師肯定。

Patented technology introduction:

The patent "scanning system" is about an innovative radiography table mechanism design, which can easily switch between reclining and standing posture imaging modes. When switching to the standing imaging mode, the X-ray source is not blocked by the radiography table to achieve a wide range of vertical movement, and can perform X-ray imaging toward the lateral direction. This design makes it possible to meet all kinds of X-ray 2D and 3D imaging requirements, and is suitable for a wide range of clinical applications, including conventional 2D X-ray and 3D digital tomosynthesis.

This patent has been applied to the low-dose 3D X-ray imaging system "Taiwan TomoDR", developed by Institute of Nuclear Energy Research. It is expected to cover a wide range of diagnostic applications including chest, head and neck, orthopedics, emergency department. The academic clinical trial of Taiwan TomoDR is currently being conducted at National Taiwan University Hospital Hsinchu Branch. The imaging quality and clinical applicability are recognized by clinicians.

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專利技術名稱

無感測器至電子剎車控制系統

Sensorless Electronic Brake Control System

Patent No：(R.O.C. 優先) I664804
專利權人： 國立中興大學 / National Chung Hsing University
發明人：林俊良、陳恩平、陳譽展 / Lin, Chun-Liang; Chen, En-Ping; Chen, Yu-Chan

專利技術介紹：

本發明提供一種無感測器之電子剎車控制系統，其主要係藉由將習知無轉子位置感測器的磁場導向控制電路透過以剎車開關控制剎 (車) 驅 (動) 一體控制裝置使等效轉子角度為循序變化的負值，並控制切換部使電子控制部與可調式負載部電性連接，進而能夠透過消耗可調式負載部之反電動勢以使永磁無刷同步電機停止，以達到剎車之功效，而且，剎車之轉矩與永磁無刷同步電機之轉矩成比例，因此透過控制電子控制部特定電子開關的占空比，以達到進一步調整剎車轉矩之效。本專利並已成功實務應用至電動機車防鎖死剎車控制和循跡控制系統。

Patented technology introduction:

This invention proposes an adjustable electromagnetic braking technique which can be applied to the permanent-magnet synchronous motors without the need of position sensors. When there is no driving current entering the motor stator and the motor is remaining inertial rotation, it becomes a power generator with current generated opposite to the driving current, according to the Fleming's left-hand rule. When the preset braking condition is satisfied, the proposed braking control system activates. The field oriented control is applied to drive the motor reversely until the stored back EMF is exhausted. This will cause a significant braking effect. The braking force is adjustable by changing duty cycle of the switching components with pulse-width modulation (PWM) technique. The invention has been successfully applied to the anti-lock braking system (ABS) and tracing control system (TCS) of electric scooters.

國立中興大學 / National Chung Hsing University

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專利技術名稱

結構體解析方法、電腦程式產品與裝置

Analysis Method, Computer Product and Device for Discontinuous Structure

Patent No：(R.O.C. 優先) 108121267
專利權人：國立中央大學 / National Central University
發明人：李姿瑩、洪文孝、鍾昆潤、張顥
Lee, Tzu-Ying ; Hung, Wen-Hsiao ; Chung, Kun-Jun ; Chang, Hao

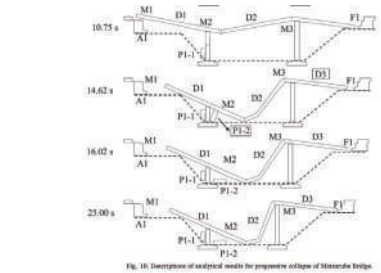

Fig. 10. Descriptions of analytical models for progressive collapse of Matsurube Bridge.

Fig. 3. (a) Sketch of collapsed Matsurube Bridge [22] and (b) in-situ photograph [23].

專利技術介紹：

本發明主要關於一種結構體解析方法，其特徵為經由電腦執行如下處理：為不連續非線性結構體建立基於有限元素分析之時空離散控制模型，該時空離散控制模型包含在現在時步上之等效節點割線阻尼係數以及等效節點割線勁度係數；經由電腦迭代演算，從前一時步上之已知參數、該等效節點割線阻尼係數以及該等效節點割線勁度係數，反複計算割線阻尼係數斜率以及割線勁度係數斜率直到收斂；以及以收斂後之該割線阻尼係數斜率以及該割線勁度係數斜率，分別取代該等效節點割線阻尼係數以及該等效節點割線勁度係數為下一時步之初始係數。

"Ishikawa M, Okuyama Y and Niizeki H. Simulation of collapsed bridge under an intense earthquake.
Tohoku Society for the Promotion of Concrete Technology, Sendai, Japan, 2010. (in Japanese)"

Patented technology introduction:

The present invention primarily relates to a civil engineering structure analysis method, characterized in that a computer is employed to implement processes as follows: establishing a spatial-temporal discrete governing model for a discontinuous nonlinear structure based on a finite element analysis, in which the model includes an equivalent nodal secant damping coefficient and an equivalent nodal secant stiffness coefficient at current time step; repeatedly calculating until convergence a secant damping coefficient slope and a secant stiffness coefficient slope based on known parameters, the known equivalent nodal secant damping coefficient and the known equivalent nodal secant stiffness coefficient at previous time step through a computer iterative algorithm; and replacing the equivalent nodal secant damping coefficient and an equivalent nodal secant stiffness coefficient by the converged secant damping coefficient slope and the converged secant stiffness coefficient slope to be the initial values for the next time step.

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專利技術名稱

電化學量測方法與系統

System and method for electric chemical sensor

Patent No：(R.O.C. 優先) 108105149
專利權人：國立中央大學 / National Central University
發明人：黃貞翰、林幸瑩 / Chen-Han Huang ; Hsing-Ying Lin

專利技術介紹：

本專利為跨領域整合技術，係包含奈米材料、電化學感測、物聯網技術之垂直整合系統。本技術中特殊的奈米材料可對檢測物進行快速萃取並具有相當高的專一性，能解決傳統在生化檢測上所需花費的時間與資源成本。相較於現行生化檢測技術領域，本整合型裝置實現了單一步驟與快速檢測功能之技術，透過本團隊多年研發之特殊自組裝分子層修飾之磁性奈米粒子對目標檬本進行特異性與高度預濃縮，進而提升成為高靈敏專一性系統。此外，本搭載物聯網功能之系統，可經由 WiFi 或是藍芽聯結智慧型手機後，將數據上傳至雲端進行追蹤與記錄。目前也已實際應用於食品安全、醫療檢測、環境監控等項目。

Patented technology introduction:

The patent is a cross-domain integration technique including the vertical integration system of nanomaterials, electrochemical sensor, and IoT. The special nanomaterials applied by the technique can extract the target quickly with high specificity which can solve the problem of the cost of time and resource by traditional biochemical detection. Compare with the field of the other current biochemical detection, the integration system realizes the technique of single-step and rapid detection function. Through the magnetic nanoparticle of special self-assembled monolayers developed by our team, it can target the sample to conduct specificity and highly pre-concentration and upgrade to a high-sensitive and specific system. Moreover, the system equipped with the function of IoT can connect the smartphone by WiFi or Bluetooth to upload the data to the cloud platform for tracking and recording. At present, it has already been applied to the item such as food safety, medical test, environmental monitoring and so on.

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專利技術名稱

爐具用之安全防護器

Driving device of stove safety protective equipment

Patent No：(R.O.C. 優先) M554154
專利權人：杜澤儒、陳文德 / Tse-Ju Du、Wun-De Chen
發明人：杜澤儒、陳文德 / Tse-Ju Du、Wun-De Chen

專利技術介紹：

現代人忘記關閉爐火愈趨頻繁，而爐火烹調亦是廚房火警主因；全台平均每天有 10 起以上廚房火警，造成家庭單位損失、消防單位勤務繁重，亦增加社會資源的投入。加上老年化社會的到來，相信這個問題相信只會越來越嚴重。對年長者而言，是否能夠自主打理生活非常在意，而其中又以會忘記關火最是擔憂。

現有廚房警報方式只能在災害發生後警報，而本創作「e+自動關」為適用於事前預防以及便利使用之外掛式瓦斯爐裝置，能有效降低忘記關閉爐火發生機率，其特色如下：

1. 安裝簡單：不須更換爐具
2. 自動啓動：不忘記設定
3. 不改習慣：不改使用習慣
4. 時間調整：可自由調整時間
5. 愛心提醒：可做到最大程度的提醒
6. 主動協助關閉爐火：自動關閉旋鈕
7. 省電耐用：耐用且替換方便

Patented technology introduction:

Statistics shows more than 10 kitchen fires reported daily in Taiwan, and number of unreported cases is even higher, however existing kitchen safety solution only gives alarm passively.

E+Autoff is a plug-in device that can solve the problem effectively. Major features as follows:

1.Easy installation
2.Automatic start
3.No habit change
4.Time-adjustable
5.sincere reminder
6.Actively shut down fire
7.Power saving and durable

耀主科技股份有限公司 /Yztek Co., Ltd

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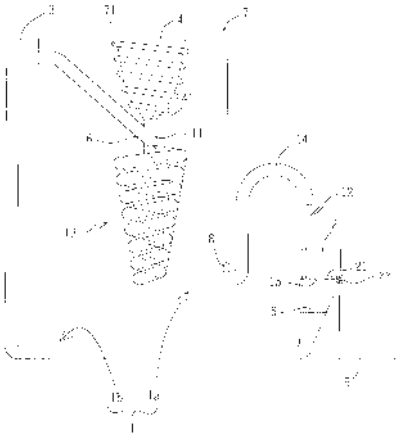
專利技術名稱

熱處理收料裝置

Heat Treatment Material Collection Device

Patent No：(R.O.C. 優先) I504551
專利權人：財團法人金屬工業研究發展中心 / Metal Industries Research & Development Centre
發明人：黃家宏、楊濟華、羅萬中、卓廷彬、黃懷諄
Huang, Chia Hung、Yang, Ji Hua、Lo, Wan Chung、Cho, Ting Pin、Huang, Huai Tzun



專利技術介紹：

一種熱處理收料裝置，用以解決以往熱處理物件無法被順暢導送以致降低熱處理效率的問題，該熱處理收料裝置包含：一循環管路，具有一處理區及一回流區，冷卻液與物件於該處理區中進行熱交換，該處理區之二端分別為一接料部及一開口，該回流區之一端與該開口相對，另一端連接該接料部；一濾料盒，設於該開口處，該濾料盒設有一第一濾網；及一加壓件，連通該循環管路並設於該回流區，用以加壓該冷卻液，使該冷卻液在該循環管路中循環流動。

Patented technology introduction:

A heat treatment material collection device is presented to solve the problem of low heat treatment efficiency caused by poor collection of heat treatment material. The heat treatment material collection device comprises a circulation piping, a material filtering box and a pressurized member. The circulation piping includes a treatment zone and a recirculating zone, with cooling liquid and materials exchange heat in the treatment zone. The two ends of the treatment zone is a receiving portion and an opening, with one end of the recirculating zone faces to the opening, and the other end of the recirculating zone couples with the receiving portion. The material filtering box is set at the opening; with the material filtering box has a first filter. The pressurized member is set at the recirculating zone and communicates with the circulation piping, to pressurize the cooling liquid and make the cooling liquid keep circulating around the circulation piping.

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專利技術名稱

虛擬磁碟之防護系統與方法

Protection System for Virtual Disc and The Method Thereof

Patent No：(R.O.C. 優先) 106112046
專利權人：精品科技股份有限公司 / FineArt Technology Co., Ltd
發明人：劉雨芊、劉振漢
Liu Yu Chien、Liou Jenn-Hann

專利技術介紹：

專利已應用在精品科技資安產品「X-FORT」的 SVS 模組，為新一代電子文件防護功能。使用虛擬碟的技術，在電腦中建立隔離的沙箱機制，保護沙箱中檔案，避免資料洩密及勒索軟體威脅。

SVS 特色：

- 對不同檔案類型的安全防護，包括 Office、PDF、美工圖檔、程式碼 ... 等。
- 將網路資料夾設定為加密並分類完成，配合權限設定，將檔案拖曳至資料夾中，即可按照資料夾的設定立即進行加密。
- 使用者電腦進行認證通過後，才能使用加密文件。
- 支援 Windows AD 帳號管理，完善的文件群組管理機制。
- 保有明文、密文整合軌跡記錄。
- 重要檔案可設定只能存入 SVS 檔案。
- 完整防護 SVS 碟內文件，禁止複製、列印、截取、以及存到明文的空間。
- 文件作者可透過自訂授權，指定加密後的 SVS 授權使用者、權限、期限。

Patented technology introduction:

The patent has been applied to the SVS module of FineArt Data Leak Prevention (DLP) product "X-FORT", which is a new generation of file protection. Using the technology of virtual drive, an isolated sandbox mechanism established in the computer to protect the files to avoid data leakage.

SVS Features:

- Enforce saving files to SVS drive while using the specified applications (e.g., Office, PDF, AutoCAD).
- Auto encrypted save to file server.
- Source code protection compatible with SVN & Git.
- Support source code protection with IDE (integrated development environment).
- Protect files created by specified application.
- Applicable to most of applications.
- Encrypt SVS based on the policy assigned by document administrator.
- Document Encryption Center can automatically encrypt the document by different policy.
- Different share folder has different policy.

精品科技股份有限公司 / FineArt Technology Co., Ltd.

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專利技術名稱

自動平衡分配式煞車裝置及其自動平衡分配施力模組

Automatic Dispensing Break Device and Force Automatic Dispensing Module Thereof

Patent No：(R.O.C. 優先) M652259
專利權人： 安速達實業有限公司 / Safe Trip Home Industrial Corporation Limited
發明人：張震華、楊中信、黃文毅、游福裕
Chang, Chen-Hua、Yang, Chung-Hsin、Huang, Wen-Yi、Yu, Fu-Yu

專利技術介紹：

穩妥煞車分配器是以鋼索驅動制動系統煞車，適合運用在摩托車及單車等車輛，可有效提升煞車安全。本專利自動平衡式分配煞車裝置及自動平衡式分配施力模組，緊急狀況時，先按壓左或右把手，一律先對後輪進行煞車動作，大幅降低人為造成所導致的危險，前後比例式煞車驅動可增加煞車的平穩性。獨特的專利設計，純機械式作動，不易故障，亦無需能源，其功能有：

1. 有效控制前後輪時差，平穩的制動性。
2. 任一側煞車動作，都會自動導正為正確的煞車作動，增加行車安全；緊急煞車時依然保持平穩度，縮短煞停時間及距離。
3. 增加煞車總制動力，在突發狀況緊急煞車時防止前輪鎖死，又兼具能動態多次調整自動平衡分配施力之功效，使前、後輪煞車得到最佳動態平衡分配。

交通部訂於 2019 年規定 125cc 以下的機車需要加裝 ABS 或 CBS 連動煞車，穩妥煞車分配器簡化為單把手單線驅動制動設計，具有 CBS 連動煞車功能。本產品生產製程簡單、成本低，無需變更原車的制動系統，專利獨特功能性除了可提升一般人的騎乘安全外，對女性、老人或身障者也相當實用 。

Patented technology introduction:

1. The present invention provides an automatic balancing brake distribution structure comprising a first steel wire rope, a second steel wire rope, and a tube.
2. The automatic balancing brake distribution structure ensures that the rear wheel is always braked first, prevents brake lockup, reduces hazards otherwise arising from manmade false action, and maximizes rider safety.
3. The automatic balancing of the brake force can be dynamically adjusted to achieve the best dynamic balancing distribution for the front and rear wheels.
4. The total braking force of the device can be increased.

安速達實業有限公司 / Safe Trip Home Industrial Corporation Limited
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專利技術名稱

具有推進力的飄浮結構

Float Device Having Propelling Device

Patent No：(R.O.C. 優先) M550654
專利權人：零式設計有限公司 / linsnil Design
發明人：林聞賢 / Wen-Hsien, Lin

專利技術介紹：

一種具有推進力的飄浮結構，一漂浮殼體以及一助推裝置所構成；該漂浮殼體具有一外殼體及一容室，在該容室中設有一固定部及一排氣部，該漂浮殼體下端具有至少一剖槽；該助推裝置係由一發泡錠以及一可夾住該發泡錠的活動夾制體所構成，該助推裝置安裝於該容室的固定部上；將該助推裝置組裝於該容室之固定部上，將該漂浮殼體放入水面上，水中的液體由該剖槽流入該容室中與該助推裝置上的發泡錠接觸，產生的氣泡由該排氣部排出進而帶動該漂浮殼體產生游動，據此，該漂浮殼體具有強大的推進力，能在水面上游動。

Patented technology introduction:

A float device includes a housing having a chamber formed in the housing, a propelling device includes a foaming ingot disposed in the chamber of the housing for engaging with water and for generating bubbles. The housing includes a lock, and the propelling device includes a holder engaged with the foaming ingot and the lock.

零零設計 (零式設計有限公司) / linsnil Design

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專利技術名稱

具有抑制噪音功能之輸配電變壓器

Ultra-Low-Noised Transformer

Patent No：(R.O.C. 優先) I563522
專利權人：華城電機股份有限公司 / Fortune Electric Co.,Ltd
發明人：林佳慶、陳璟旻
Lin, Chia Ching、Chen, Ching Min

專利技術介紹：

本發明是用於輸配電網之電力變壓器。一般的變壓器具有擾人的高分貝低頻噪音，其穿透力強、對人造成的精神壓力很大，故許多先進國家對於超低噪音變壓器的需求日益趨重，以降低噪音的影響。目前國內對於周遭有住宅、學校的變壓器，是以蓋設水泥牆來阻隔噪音，或直接將變壓器建置在室內，然而此種方式很容易造成變壓器溫度過高，而變壓器最大的壽命減損因素就是溫度，此舉對產品壽命有不利影響。

本發明從內而外的改善了變壓器噪音的根本問題，藉由改善心體結構、設計較小的磁通密度、選用適用的矽鋼片、改善線圈結構、阻隔震動傳遞、提高結構剛性、避開共振頻率、避開聲學的其他效應，成功開發出遠遠低於國際 NEMA 標準噪音值的超低噪音變壓器。本發明有多項專利改善技術，共獲得 14 項中華民國、美國、澳洲的專利，此技術成果也備受國內外顧客的肯定，並成功外銷歐美數十台的超低噪音變壓器，成為重電業的另一項台灣之光。

Patented technology introduction:

The development is used on transmission and distribution power transformers. Power transformers generate high, penetrating, low frequency noise which causing people tension so the need for developing Extremely-Low-Noised Transformer has increased. In Taiwan for those transformers located in school or resident area, methods to reduce noise are to build a concrete wall or put the transformers inside a building. These methods will rise transformer operating temperature, which is the main cause for decreasing transformer life time.

The development decreasing the noise level by changing core/coil structure, decreasing core flux density, choosing suitable Si-core, improving material structural rigidity, blocking vibration, advoiding resonance frequencies and also put acoustics and all other factors into consideration. The development has a great success which is much lower to NEMA std. It takes many technologies and owns 14 patents from Taiwan, America and Australia. The development has exported over twenty transformers and gets great praise by customer.

華城電機股份有限公司 / Fortune Electric Co., Ltd.

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專利技術名稱

加強影像辨識清晰的影像感測器及其應用

Image Senor Capable of Enhancing Image Recognition and Application of The Same

Patent No：(R.O.C. 優先) 107100789

專利權人：呂官諭、黃偉欣、張維泓、朱俊興 / Kuan Yu,Lu、Wei Hsin, Huang、Wei Hung, Chang、Chun Shing, Chu

發明人：呂官諭、黃偉欣、張維泓、朱俊興 / Kuan Yu,Lu、Wei Hsin, Huang、Wei Hung, Chang、Chun Shing, Chu

專利技術介紹：

本發明一種加強影像辨識清晰的影像感測器及其應用，主要包括：一感光像素陣列及其相連的封裝電路，以驅動控制捕捉外在光線轉換成組合圖像輸出信號，其中該感光像素陣列可以捕捉全彩可見光及紅外線非可見光以進行光電轉換，以及；一影像加強處理單元，內建在該封裝電路中，以調控該感光像素陣列捕捉的影像，包括：一可見光的廣域影像信號，及至少二非可見光的窄域影像信號，並對該一廣域影像信號及該二窄域影像信號重新整合堆疊，使組成影像具有前後層次的立體感，利用單個影像感測器即可清晰地捕捉白天和夜晚的影像，組成之影像感測器模組可廣泛應用在安防監控、工業監控、人臉識別設備、汽車倒車輔助影像拍攝等各類產品。

Patented technology introduction:

An image sensor capable of enhancing image recognition and application of the same, wherein the image sensor includes: a photosensitive pixel array, connected to a packaging circuit, that is used to drive the photosensitive pixel array to capture outside light, and convert outside light into combined image signal, the photosensitive pixel array captures full color RGB visible light and infrared (IR) invisible light, to perform photoelectric conversion; the packaging circuit is connected electrically to the photosensitive pixel array; and an image enhanced process unit, embedded in the packaging circuit, to control and regulate the image captured by the photosensitive pixel array. The captured image includes: a full color RGB visible light wide range image signal, and at least two Infrared (IR) invisible lights narrow range image signals. The two kinds of image signals are superimposed and combined into clear output image having stereoscopic sense of layers.

全球感測科技股份有限公司 / Zoom Global Incorporated

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專利技術名稱

Modular Tandem/ Recumbent

Patent No：(R.O.C. 優先) Germany – 10 2014 008 792
專利權人： Karl-Heinz Eichhorn
發明人：Karl-Heinz Eichhorn

Patented technology introduction:

The invention is based on identical bicycle frame parts that can be used separately or connected with each other and give new types of bicycles. The unique frame geometry offers efficient possibilities for a serial production of recumbent bicycles (also with electric drive).

The result of the invention is a modular, multifunctional bicycle frame design that allows the production of 6 different variants of bicycles and tricycles. Each bike frame is extendable or can be used separately.

Examples of application for the different bicycle variants: travel (world or short trips); daily use (business or private); shopping; courier services; transports of all kinds with individual adaption also for the transportation of children in the transport box .

The trike variants are also suitable for older people and people with disabilities.

The bike itself is easy and quick to convert and there is no tool for conversion required.

The tandem or cargo bike can be used in a few minutes and can then be easily transported by car, bus and train.

TWOgether Bikes

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專利技術名稱

模塑杯蓋外覆緣製造方法及成品

Manufacturing Method for Outer Covering Edge of Molded Cup Lid and Product

Patent No：(R.O.C. 優先) I542755

專利權人：大陸商丹東銘程環保製品有限公司

Dandongmingcheng Environmental Protection Products Co., Ltd.

發明人：賴宗伸、陳建鋒 / Jason Lai、Gen-Feng Chen

專利技術介紹：

參展作品由植物纖維為材料 (尤其是使用秸稈等一年生長植物纖維)，採「吸漿塑形」及「熱壓整形」二道製造技術後產生之模塑杯蓋中間成品，即為參展作品可緊密扣住紙杯之環保紙杯蓋。

可緊密扣住紙杯之環保紙杯蓋在使用上，具有可對紙杯杯口緊密閉合之優異功效，完全可以滿足內裝熱液不滲漏之需求性。

可緊密扣住紙杯之環保紙杯蓋，專利上所揭示之製造方法，完全具備新穎性及進步性；而且所製造之參展作品可緊密扣住紙杯之環保紙杯蓋，因外覆緣部位可以對紙杯杯體之受覆環達致確實緊密包覆住之程度，所以防止滲漏及防止鬆脫之功效，明顯較習知同類產品尤佳。在採用自然材料製造，而且在使用後可回收、可分解的基礎上，取之大地，還之大地，完全可對地球環保善盡一份心力。

Patented technology introduction:

Utilize agricultural waste with pulp molding technology to produce degradable and disposablecup lid.Function with water and oil-resistance, completely protect leakage from liquid.

宜家貿易股份有限公司 / E.K. Int'l Co., Ltd.

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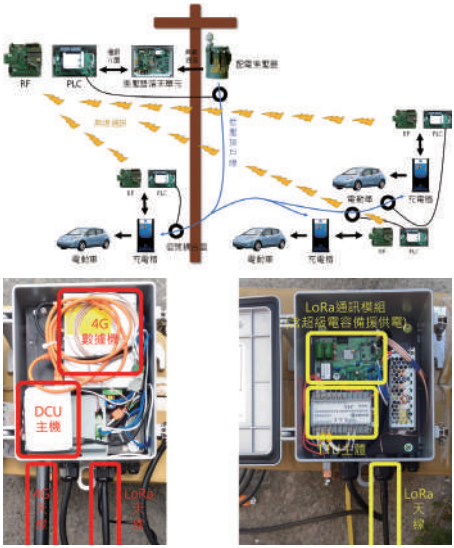
專利技術名稱

智慧家電管理系統及變壓器端末單元

Smart Home Energy Management System and Transformer Terminal Unit

Patent No：(R.O.C. 優先) I533549
專利權人：義守大學 / I-Shou University
發明人：陳朝順、辜德典、林嘉宏、尤柏元、黃彥閔
C.S Chen、T.T. Ku、C.H. Lin、B.Y. Yu、Y.M. Huang



專利技術介紹：

本專利應用變壓器端末單元 (TTU) 應用感測元件量測變壓器之供電量，並應用最後一哩通訊技術，NPLC 及 LoRa，提供 TTU 與用戶能源管理系統 (HEMS) 雙向通訊功能。當變壓器發生過載時，TTU 發送控制指令給 HEMS，執行用戶端較不重要用電設備之暫停或降載，當用戶電動車 (EV) 充電時，先由充電栓將 EV 電池儲存電量 (SOC) 及預計用車時程傳送給 TTU，由 TTU 根據其供電量，執行 EV 之智慧充放電以避免變壓器之過載。TTU 亦可收集自動讀表系統 (AMI) 回報之用戶售電量，以偵測用戶竊電情事並即時回報給電腦主站。

Patented technology introduction:

This patent "Smart home energy management system (HEMS) and transformer terminal unit (TTU)" can monitor the operation loading of transformer using the last mile communication scheme of NPLC and LoRa. When overloading problem of transformer has been detected, TTU will send control command to HEMS to disconnect or reduce the power loading of nonessential loads of customers served. When the customer performs the charging of electric vehicle (EV), the charging pole will transmit the battery status of charge (SOC) and the EV driving scheduling for TTU to perform the smart charging to prevent the overloading problem. TTU can also retrieve the power consumption of all customers served by AMI meters to compare with the total power delivered by transformer to identify the meter tampering.

義守大學 / I-Shou University

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專利技術名稱

碳化多胺粒子及其用途

Polyamine Carbon Dot and Use Thereof

Patent No：(R.O.C. 優先) 106123718
專利權人：國立臺灣海洋大學 / National Taiwan Ocean University
發明人：林翰佳、賴瑞陽、黃志清、李郁佳、賴佩欣、簡宏娟 / Lin, Han-Jia、Lai, Jui-Yang、Huang, Chih-Ching、Li, Yu-Jia、Lai, Pei-Xin、Jain, Hong-Jyuan

專利技術介紹：

由於抗生素的濫用，許多抗藥細菌造成現代人類健康的威脅，也同時造成農漁業巨大的損失。本團隊從傳統中藥獲得啓發，以獨家專利技術開發天然的有機成分，成為新世代抑菌劑「草本炭方」。

本發明使用純淨的有機無毒原料製成「草本炭方」產品，經研究證實可有效抑制抗藥性細菌與水產業常見細菌、黴菌等，經檢驗不含多環芳香烴等毒化物，且檢驗證實對於動物沒有毒性與刺激性，是可取代的抗生素的新興產品。同時本技術發表時，知名國際期刊 Science translation medicine 特別撰文介紹，並被認為是未來對抗感染性疾病的重要發明。透過專利開發平台本團隊發明三種新型原料，分別應用於飼料添加、清潔消毒以及水族水質穩定等方面。未來我們預計利用此專利技術發明更多如抑制黴菌、病毒、甚至抗發炎與抗氧化原料，拓展商業應用。

Patented technology introduction:

Due to overuse of antibiotics, drug-resistant bacteria had emerged not just as a significant threat to public health, but also contribute to huge financial losses in agriculture and fisheries nowadays.

Our invention, Herbmedotcin, is a new generation bactericide to control infectious diseases. This patented technology was inspired by the traditional Chinese herbal medicine, but the whole process was reinvented. Solid scientific data indicated that Herbmedotcin is effectively against many pathogens, including drug resistant bacteria. Herbmedotcin is made from food grade raw material. Tests from third part examination agents proofed that Hermedotcin is safe and not irritating to animals. Now, Herbmedotcin has be applied as water stabilizer in aquaculture, animal feed additive and used in other healthcare products.

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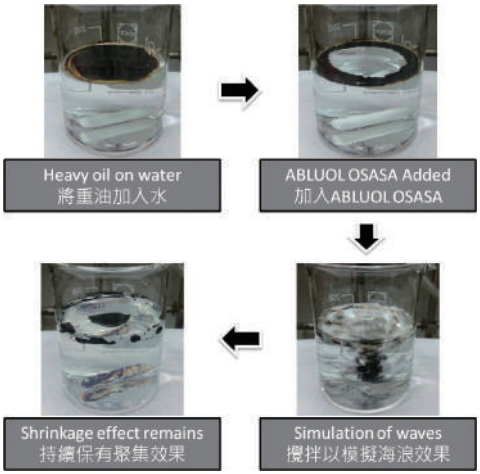
專利技術名稱

水陸及生物用強化溢油處理方法

Method of Enhanced Treatment of Oil Spill For Water, Land, and Biological Organism

Patent No：(R.O.C. 優先) 106121025
專利權人：江豐明，台界化學工業股份有限公司 / Chiang, Fung-Ming, Taiwan Surfactant Corp.
發明人：江豐明 / Chiang, Fung-Ming



專利技術介紹：

傳統處理海洋油汙的溢油分散劑是將油汙分散乳化沉降至海中，反而對海洋及生物造成更大的傷害。台界化學研發之 ABLUOL OSASA 能夠快速縮小溢油污染的水域面積和深度，利於進行即時溢油的回收與資源再利用，同時減少傳統溢油分散劑所造成之長期環境危害。

本發明產品可也以使用於預防海岸沙灘、岩石及生物受到溢油的汙染，減少受染候之清理時間、資源、金錢及地域經濟的損失。此外，本發明產品可以快速清除海洋生物體上的溢油，增高其存活率。本產品無毒，不含任何溶劑、重金屬，可以在短期內生物降解。

Patented technology introduction:

Traditional oil dispersant disperses and emulsifies oil into small droplets and submerge into water. This would however increases exposure for animals dwelling underwater, who may be harmed by toxicity of both dispersed oil and dispersant. ABLUOL OSASA by Taiwan Surfactant, on the other hand, can immediately shrink the area and volume of an oil spill, increase oil recovering feasibility and minimize short-term and long-term impacts. It is also free of any solvent, heavy metal, and is rapidly bio-degradable.

台界化學工業股份有限公司 / Taiwan Surfactant Corp.

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專利技術名稱

克氏鋼釘固定結構

Kirschner Wire Fixation Structure

Patent No：(R.O.C. 優先) I572318
專利權人：明志科技大學、長庚醫療財團法人林口長庚紀念醫院
Ming Chi University of Technology、Chang Gung Memorial Hospital, Linkou
發明人：胡志中、高軒楷 / Chih-Chung Hu, Hsuan-Kai Kao

專利技術介紹：

病患四肢肢段骨折時，醫師經常會使用 2-3 支克氏鋼釘將四肢骨折部位固定起來。以兒童為例，活動性強，骨折時更需穩定固定。在開刀房進行骨折開刀手術時，打入克氏鋼釘後，現今技術皆沒有做其他的加強措施。頂多再加上石膏，防止克氏鋼釘太快鬆脫。然而克氏鋼釘並無螺紋，容易產生滑動或偏移。臨床上常常發現，滑動偏移的克氏鋼釘往往造成傷口感染。

本發明「醫學影像技術與 3D 列印技術應用 - 四肢骨折手術用克氏鋼釘固定結構」，設計了一種輕巧的克氏鋼釘連結裝置，可以安裝於皮膚外面，成功固定四肢骨折手術之克氏鋼釘，防止因為鋼釘滑動而造成病患的二次傷害。四肢肢段骨折的案例很多，本發明可以協助固定四肢肢段骨折患者的骨折部位，盡速復原，極具醫療創新價值。本發明已取得中華民國發明專利、中華民國新型專利、美國專利與中國專利證書。

Patented technology introduction:

Supracondylar humeral fractures are common elbow fractures. Closed reduction and internal fixation using percutaneous Kirschner wires (K-wires) is widely recommended for Gartland type II and III fractures. After percutaneous pinning, the K-wires are bent at the skin edge and cut. Because the surface of the K-wire is smooth, the K-wires are easy to rotate or migrate, which will injure the bone/skin, and result in loss of reduction and fixation. An innovative K-wire external fixation device has been developed to stabilize the K-wires successfully in this study, and the patents in Taiwan, US and China have been approved. The device can help clinical physicians to improve the stability of K-wire fixation and avoid K-wire related complications.

明志科技大學 / 長庚醫療財團法人林口長庚紀念醫院

Ming Chi University of Technology / Chang Gung Memorial Hospital, Linkou

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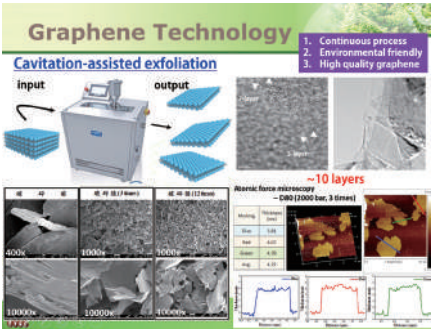
專利技術名稱

石墨烯結構、製備石墨烯的方法及包括石墨烯的鋰離子電池電極

Graphene Structure, Method of Producing Graphene And Electrode of Lithium-Ion Made of The Same

Patent No：(R.O.C. 優先) 107101616
專利權人：中原大學 / Chung Yuan Christian University
發明人：劉偉仁、吳兆益、林品均、葉彥妤、林丞逸
Wei-Jen Liu, Jhao-Yi Wu, Pin-Chun Lin, Yen-Yu Yeh, Cheng-Yi Lin



專利技術介紹：

本發明主要是以綠色環保且可量產之技術連續製備高品質石墨烯，利用低溫破碎機瞬間壓力差所形成的空化現象對石墨進行破碎與脫層，進而獲得石墨烯分散液，而將此分散液以導電添加劑的方式添加於鋰離子電池中。雖然已有許多文獻指出石墨烯可以有效提升鋰電池表現，但目前石墨烯的製備方法仍有許多問題存在，常見的方法有化學氣相沉積法、化學氧化 - 高溫熱脫層法、化學氧化 - 超音波震盪法、超音波法、電化學脫層法等，而這些方法所伴隨的問題如化學氣相沉積法的成本太高、化學氧化法有嚴重的環保問題且所製備出來之石墨烯有大量結構缺陷、超音波法與電化學脫層法的產率低且成本高、也正因此導致目前石墨烯的價格太高，無法進行商品化應用。本創新的石墨烯製備技術可連續大量生產石墨烯分散液，無須二次加工即可作為鋰電池導電漿料使用，可省去不必要的廢棄物處理與生產成本，此方法產量最高可達 30 L/hr，所獲得的石墨烯 <10 層、厚度 <5 nm，估計成本可降低到 1000 NTD/Kg，未來在光電、能源以及複材之相關產品具有極大的應用潛力。

Patented technology introduction:

This invention is to synthesize few layer graphene (FLG) with high quality and low defects by using low temperature cavitation process. This is a green and scalable process to synthesize high quality and few layer graphene. We only use water as the solvent. Owing the properties of almost defects-free, the as-synthesized graphene demonstrate high electronic conductivity, high thermal conductivity and good mechanical properties, our graphene could be applied in optoelectronics, energy materials and composites. Electrochemical measurements demonstrate that graphite anode delivered only 240 mAh/g while FLG anode achieved more than 322 mAh/g at 5C rate test. These results indicate that our method not only paves the way for cheaper and safer production of graphene but also holds great potential applications in energy-related technology.

中原大學 / Chung Yuan Christian University

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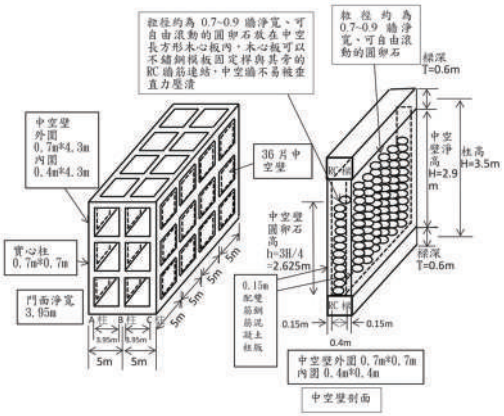
專利技術名稱

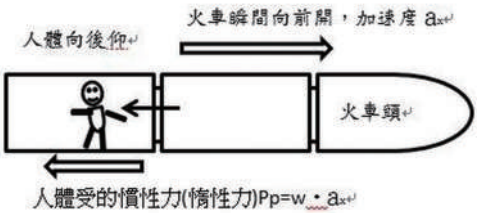
惰性減震結構

Inertial Shock Absorption Structure

Patent No：(R.O.C. 優先) 106129718
專利權人：國立高雄科技大學 / National Kaohsiung University of Applied Sciences
發明人：沈茂松 / Mau-Song Sheen



透天三樓樑深與中空壁內預鑄中空長方形鋼箱回填 自由滾動的圓卵石 (粒徑約為 0.7~0.9 倍牆淨寬) 示意圖



汽車、火車開動之人體慣性力

專利技術介紹：

「惰性減震壁」是經濟、簡單、可外加式的減震工法，可有效的降低樑、柱受力。三跨三層模型建築物經過六軸振動台，模仿九二一地震 0.5g、0.75g、1g 動態測試，得到樑、柱應變減少 12~13% 的成效。

台北 101 大樓設置重達 660 公噸巨大鋼球之風阻尼器，就是利用惰性原理，如同汽車、火車向前瞬間加速，人會往後仰。故在鋼筋混凝土建築物之中空牆（壁）內分層填充無凝聚力自由滾動的圓卵石，地震來襲時藉由自由滾動的圓卵石發揮惰性，產生與建築物振動位移方向不同的惰性力，來抵消部份地震力對建築物產生的側向力。

此種內充無凝聚力可自由滾動的圓卵石之中空惰性牆，亦可充當建築物的剪力牆，新、舊建築物皆可使用，尤其是舊建築物結構補強設計中配合擴柱工法或增設剪力牆工法皆可使用，比起一些減震、制震工法，省錢、簡單、可行性又高，是經濟、簡單、可外加式的減震工法，可有效的降低樑、柱受力。本專利技術目前已授權 42 家工程顧問公司、營造公司，亦歡迎各界洽詢相關技術授權或產學合作。

國立高雄科技大學 / National Kaohsiung University of Applied Sciences

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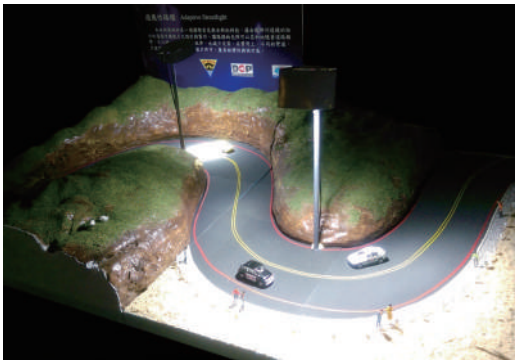
專利技術名稱

適應性路燈之燈具結構

Lamp Structure of Adaptive Streetlight

Patent No：(R.O.C. 優先) I585334、US 9,625,124 B2
專利權人：國立中央大學 / National Central University
發明人：孫慶成、楊宗勳、李宣皓、黎晨皓
Sun, Ching-Cherng、Yang, Tsung-Hsun、Lee, Xuan-Hao、Lee, Chen-Hao



專利技術介紹：

這是第一次有一種設計，從光害、節能與人因考量的角度切入探討，同時結合精準光源模型技術 - 中場擬合模型、表面結構擴散片技術、二次光學元件設計技術以及光子循環技術等獨創技術，讓路燈照射出的光線可以沿著道路轉彎，即其可有效地控制光線傳遞路徑、方向與照明特性，照射出符合道路形狀之光形，避免過多不必要的光線恣意地照射到不需要的地方，有效地減少能量的浪費與眩光的生成，同時也有助於改善車輛架駛與行人的眼睛舒適度與視覺上的辨別力，而且燈具在適應不同的彎道時，不需更換整組燈具，只需抽換燈具中的表面結構擴散片即可，是一個兼具節能減碳與實際應用又可有效提升用路人之用路安全性的創新發明技術。

Patented technology introduction:

In our knowledge, this is first time that a design of the streetlight can effectively keep light to concentrate, limit, and uniform illuminate at a target region, curved roadway especially. Based on the considerations of light pollution, energy saving, and human factor, this invention combines several technologies, such as precise light source model technology, surface-structured diffuser technology, secondary optical element design, and photon-recycling technology, to reduce the waste of energy and the influence of glare and to improve the comfort and the recognition of driver and pedestrian. Besides, according to various curved roadways, the user doesn't replace whole luminaire of streetlight. They just replace a component of whole luminaire, surface-structured diffuser, to easily obtain the corresponding light patterns of various practical roadways. Therefore, the novel invention have the energy-saving effect, the potential of practical application, and the enhancement of roadway's safety, simultaneously.

國立中央大學 / National Central University

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專利技術名稱

碗結構

The Structure of Bowls

Patent No：(R.O.C. 優先) M563220
專利權人：李昀澔、高筱婷、謝佳國 / Lee, Yun-Hao、Kao, Hsiao-Ting、Xie, Jia-Guo
發明人：李昀澔、高筱婷、謝佳國 / Lee, Yun-Hao、Kao, Hsiao-Ting、Xie, Jia-Guo

專利技術介紹：

筷子穿過設計的孔洞和封膜，移動時手壓著筷子，不用讓手直接碰到蓋口，可以有效的避免被熱水和水蒸氣燙到，也可以讓泡麵更完全得燜煮。

Patented technology introduction:

The chopsticks go through the hole and sealing flim not only decrease the chances of being bured by the steam, but help to secure the lid so that the instant noodles can be well-cooked. Besides, while moving the cup, you can press the chopsticks.

明道中學 / Mingdao High School

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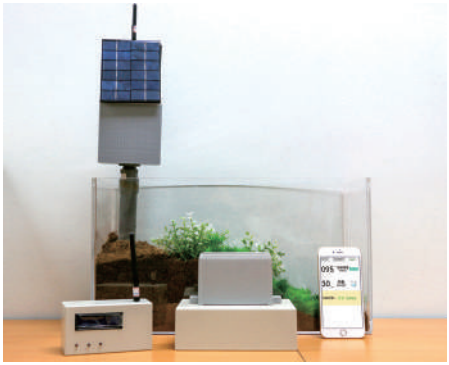
專利技術名稱

土石流防災物聯網

IoT Landslide Casualty Prevention System

Patent No：(R.O.C. 優先) 106138428
專利權人：亞東技術學院 / Oriental Institute of Technology
發明人：林照峰、張詠儒、張鈺幃、石玉銓、李旻峰
Lin,Chao-Feng、CHANG,YUNG-LU、Chang,Hung-Wei、Shih,Yu-Chuan、Lee,Min-Feng



專利技術介紹：

本發明為了改善現有土石流災害預警系統僅針對大區域進行觀測，強調小區域觀測並加入物聯網的概念與災害預警系統做結合，並以低建置成本、更容易安裝及維護、準確性高等方向為開發主軸，小至個人居家亦或是村里乃至城市皆可運用的「具有物聯網功能的災害預警系統」。

本系統透過收集與土石流發生有密切關係的數據，針對土壤濕度、雨量、集水溝流量及感測器位移角度等參數進行觀測，並將所觀測到的數據透過 ZigBee 通訊方式傳送至主機端，再交由 MCU 進行運算，如結果達到危險值時透過主機端並經由藍芽在手機 APP 中發出警示。

本發明在改善土石流觀測死角的同時，讓訊息接收不易地區的居民可透過本系統掌握邊坡土石的狀況，當危險發生時能爭取更多黃金撤離時間。

Patented technology introduction:

This system can be installed in the landslide warning area or near by the house, when the sensor detected any abnormal value like the rain is too heavily or the system have some bank angle it will send immediately and issued an alarm for escape, the user can easily understand the system by the app or the monitor in the house.

亞東技術學院 / Oriental Institute of Technology

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專利技術名稱

自行車之座椅結構

Flying wing-shaped saddle structure

Patent No：(R.O.C. 優先) M442310、M451293、M522890、I 429553、I 486277、D176818
美國：US 8,944,501 B2　日本：意匠登錄証 登錄第 1560611 号中國：3232282 /ZL 2013 2 0047201.8、1821393 /ZL 2013 1 0146864.X、1850655 /ZL 2013 1 0184826.3、1918711 /ZL 2013 1 0146967.6
歐盟 <on patent >：13161852.2-1760
專利權人：曾詩元 / Shih-Yuan Tseng
發明人：曾詩元 / Shih-Yuan Tseng

專利技術介紹：

鷗翼健康座墊 專為公路車長途競賽而設計，以獵鷹展翅造型為設計藍本，陰部零壓力，大幅降低雙腿負擔，讓您騎得更久更遠。

功能：

1. 座墊前緣抵住大腿後方，股四頭肌及二頭肌同時作用出力使得踩踏施力變得更輕鬆。
2. 自 12 點鐘位置開始施力踩至 5 點鐘位置，因為翼片已抵住大腿後方，因而防止了身體往後滑移。
3. 穿卡鞋時雙腿可以最大力道將踏板後拉上提，反作用力完全由坐骨及兩側翼片吸收，無論是 24 小時或 500 公里挑戰…或長時間握下把，會陰部的壓力永遠是零。
4. 下坡時…坐骨後移 1-2 公分即可防止身體往前滑移。
5. 上坡時…雙手只需輕握把手，上半身壓力完全釋放，踩踏動能絕不減損…健康只是基本訴求，強大的雙翼更可助你找回不該被減損的動能。

Patented technology introduction:

All-wings saddle type-Falcon is designed for high-performance road bicycles.
Genital areas designed to be vacant completely avoiding numbness, leg muscles could output strength completely without sharing loadings of body weights.
Type-Falcon…shaped as Falcon wings, designed especially for long-distance riding of bike.
Functions:

1. The leading edge of saddle rests against the rear of the thigh When riding…
   Quadriceps and biceps contribute to make pedaling much easier.
2. From the 12 o'clock position began pedaling to 5 o'clock position
   Because the saddle is against the rear of the thigh, this prevent the body from sliding backward.
3. Both legs are able to maximise the power to pull the pedals upwards when wearing cycling shoes
   The pressure on the ischial, buttocks is lessened by saddle's wings. There's a gap where the centre of the saddle is so whether you're on 24 hours or 500 km riding ...Even holding the low position of the handle bar for a long time. You will feel no pressure on your genitals and perineum.
4. When cycling downhill.
   Ischial region shifting backward 1~2 cm to prevent body sliding forwards.
5. When cycling uphill.
   You just need to hold the handle bar gently.The body won't slip backwards.
   The pressure of upper body is released completely. Kinetic energy won't be lost any more.
   The mighty wings will help you recover the kinetic energy that shouldn't be lost.

宇珈企業社 / All-wings saddle Taiwan

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專利技術名稱

滅火器進氣結構

GAS INLET STRUCTURE FOR A FIRE EXTINGUISHER

Patent No：(R.O.C. 優先) I535472
專利權人：王志成 / Chih-Chen, Wang
發明人：王志成 / Chih-Chen, Wang

專利技術介紹：

本發明之目的在提供一種可具較佳安全性及操作省力確實之滅火器進氣結構。

使用者取下插梢時可掀起開關提把並帶動抵壓桿旋轉，並使抵壓桿之抵壓部可抵壓撞針之頂持部使撞針位移，且使撞針之針部可刺穿高壓鋼瓶之預留開口，而前述動作因可由對應撞針遠端之握持部位置些微施力即可令抵壓桿頂持撞針動作，可具槓桿原理省力功效，而放開該開關提把時可藉由彈簧之彈性力頂持復位，又該針部氣槽設計可令針部刺穿高壓鋼瓶時氣體即可沿氣槽導出至進氣通道，因而不論撞針是否復位高壓鋼瓶內之氣體皆可導出，可確保實施可靠性。而握把設於上蓋上方對應滅火器重心位置，可便於手部握持滅火，並使本發明可具較佳作動確實安全性及操作省力功效。

Patented technology introduction:

The present invention relates to a gas inlet structure for a fire extinguisher and, more particularly, to a gas inlet structure for a fire extinguisher providing improved safety and reliable force-saving operation.

成綸企業股份有限公司 / Aplus Molds & Plastics Co., LTD.

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專利技術名稱

"VIP-Safe Plus" LAMP-electrochemical sensor for detection of foodborne pathogens

Patent No：(R.O.C. 優先) 1703001682 Thailand
專利權人：National Science and Technology Development Agency, Agricultural Research Development Agency
發明人：Ms. Wansika Kiatpathomchai (Leader)

Patented technology introduction:

VIP-Safe Plus is a novel integrated Point-of-Care system for rapid, reliable and cost effective for detection of foodborne pathogens (i.e., Vibrio parahaemolyticus, V. cholerae and E. coli 0157:H7) in food. The alternative detection system combines the specificity and rapidity of loop-mediated isothermal amplification (LAMP), the sensitivity of disposable screen-printed graphene electrode-based electrochemical detection and the portability of the portable mini-potentiostat. A rapid and easy protocol was developed to detect foodborne pathogens. Briefly, the food requires 4 h for enrichment, 15 min for rapid DNA extraction and 45-60 min for DNA amplification (LAMP) in heating block at 60-65o, 30 sec for electrochemical measurement using a redox mediator, Hoechst33258 on the screen-printed graphene electrode and result report. The results are reported on the LFD display on the portable mini-potentiostat. The detection limit was approximately 2 CFU/25 g of food materials. The procedure requires only 5 h for detection which faster than the conventional method (>18 h). The high sensitivity and specificity, the relatively short analysis time are key advantages of the VIP-Safe Plus. This platform is useful not only for detecting contamination of pathogens in food industry but also for monitoring of outbreak for the pathogens.

National Center for Genetic Engineering and Biotechnology

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專利技術名稱

檢測脫水之方法及設備

Method and apparatus for detecting dehydration

Patent No：(R.O.C. 優先) 106111140
專利權人：長庚醫療財團法人嘉義長庚紀念醫院、財團法人國家實驗研究院、國立臺灣大學 / Chang Gung Memorial Hospital, Chiayi / National Applied Research Laboratories / National Taiwan University
發明人：楊仁宗、林稜傑、李一能、林致廷、高佳鴻、林明瑜、黃若雯、盧彥蓓、葉哲良 / YANG, Jen-Tsung / LIN, Leng-Chieh / LEE, I-Neng / LIN, Chih-Ting / GAO, Chia-Hong / LIN, Ming-Yu / HUANG, Jo-Wen / LU, Yen-Pei / YEH, Jer-Liang-Andrew

專利技術介紹：

本作品為可攜式醫療器材，搭配拋棄式檢測晶片，能夠快速、及時評估人體是否為脫水狀態；利用唾液檢體為檢測樣本，並根據臨床檢體分析唾液與人體脫水之相關性，不同於傳統臨床使用血液、尿液樣本，本作品測量時間僅需 10 分鐘，檢測晶片為可拋式設計，提高儀器衛生性及減少清洗等繁瑣步驟，且唾液為非侵入性檢體，可降低人體感染風險。本作品操作簡易、便於攜帶，能提供一般醫療診所、居家照護、救護車等使用，藉以發展為可攜式床邊檢測系統 (POCT)。未來可搭載無線訊號傳輸模組，與智慧型行動裝置連線，透過後端健康照護軟體，進行資料傳輸與自動記錄，達到雲端遠距照護。

Patented technology introduction:

We developed a portable device to evaluate the dehydration status of patients in real-time. Different from serum and urine as traditional clinical testing, we establish the correlation between the saliva and dehydration status according to the clinical sample. It’ s so fast that only takes 10 minutes to measure one sample. Furthermore, the chip is disposable, so it is sanitary and convenient. Also, saliva is a non-invasive specimen, free of the risk of affection. The device is easy-to-use and portable so it can be placed in the hospital, ambulances, and even bedside to develop a point-of-care-testing (POCT). In future, the device carry the wireless transmission module, connecting the smart phone to send testing result and automatically record to telemonitoring through the health-care app.

長庚醫療財團法人 / Chang Gung Memorial Foundation

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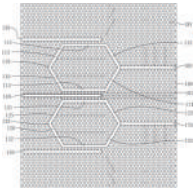
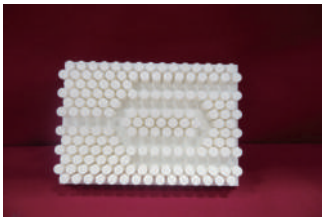
專利技術名稱

全光學式編碼元件

All-optical encoding device

Patent No：(R.O.C. 優先) TW 106120037
專利權人：中華學校財團法人中華科技大學 / China University of Technology and Science
發明人：林坤成、李昆益、李偉裕
Kuen-Cherng Lin / Kun-Yi Lee / Wei-Yu Lee





專利技術介紹：

本發明係關於全光學式編碼元件，特別是一種可多波長操作且以光子晶體技術來實現的全光學式編碼元件，例如 1.31、1.49、1.55 μm。本元件包括：表面形成有光子晶體結構的基板，其包含複數個依該基板材質的晶格排列之第一柱狀物；第一環狀共振器及鄰近該第一環狀共振器的第二環狀共振器；第一輸入埠，並光學地連接該第一環狀共振器的第一邊；第二輸入埠波導，並光學地連接該第一環狀共振器的第二邊與該第二環狀共振器的第三邊；第三輸入埠，並光學地連接該環狀共振器的第四邊；第一輸出埠，並光學地連接該第一環狀共振器；及一第二輸出埠，並光學地連接該第二環狀共振器；其中，該等波導係為將部分的該等第一柱狀物自該光子晶體結構中移除所形成之缺陷線段。

Patented technology introduction:

This disclosure is related to an all-optical encoder, especially to the all-optical encoder based on the photonic-crystal structure. The device is composed of two ring resonator waveguides with three input-port waveguides and two output-port waveguides in triangular-lattice photonic crystals. Transmission behaviors of the proposed device are verified by two-dimensional finite difference time domain method. The encoder is capable of operating at multiple wavelengths such as 1.31, 1.49 and 1.55 μm, considering definitions of logic 0 and 1 being the normalized transmission as less than 5% and greater than 80%, respectively.

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專利技術名稱

用以製備石墨烯的方法

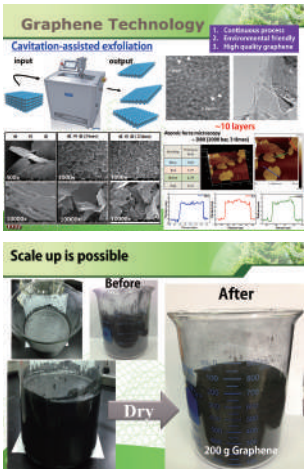
METHOD OF PRODUCING GRAPHENE/METHOD OF PRODUCING GRAPHENE

Patent No：(R.O.C. 優先) 106102192 (TW)

專利權人：中原大學 / Chung Yuan Christian University

發明人：劉偉仁、林品均

Liu, Wei-Jen / Lin, Pin-Chun



專利技術介紹：

本發明主要是以綠色環保且可量產之技術連續式地製備高品質石墨烯，利用低溫破碎機所產生的瞬間高壓將石墨進行破碎與脫層，進而獲得石墨烯。目前石墨烯的製備方式有許多種，習知已成熟量產的方式包括化學氣相沉積法、化學氧化 - 高溫熱脫層法、化學氧化 - 超音波震盪法、超音波法、電化學脫層法等，然而上述技術存在許多問題，例如化學氣相沉積法的成本太高、化學氧化法有嚴重的環保問題且所製備出來之石墨烯有大量結構缺陷、超音波法與電化學脫層法的產率低且成本高、也正因此導致目前石墨烯的價格太高，無法進行商品化應用。本創新技術所製備之奈米石墨烯由於不使用氧化劑或強酸，缺陷少，因此具有高度的導電、導熱以及優異的機械特性，僅需使用水當溶劑，產量高達 30 L/min，所獲得的石墨烯 <10 層、厚度 <5 nm，估計成本可壓低到 1000 NTD/Kg，未來在光電、能源以及複材之相關產品具有極大的應用潛力。

圖為實際進行進行量產化測試的樣品材料特性分析與量產測試示意圖，如圖 1 所示，本技術選用合適的石墨原材料，透過不同的溶劑、分散劑以及固含量等配方輔以不同脫層壓力與脫層次數等操作條件的優化，可以成功製備出 <10 層的高品質石墨烯，僅僅 3 個小時即可製備 200g 的石墨烯粉末！傳統強酸氧化法如果要製備 8g 石墨烯，必須使用到 560 ml 的硫酸，一個批次的製程時間高達兩到三週，且最後必須使用高達 15 公升的去離子水清洗到中性，曠日廢時！因此本發明具操作簡便、高安全、環境友善、可大量節省能源等優勢。

Patented technology introduction:

This invention is to synthesize graphene nanosheets with high quality and low defects by using low temperature cavitation process. This is a green and scalable process to synthesize high quality and few layer graphene. Owing the properties of almost defects-free, the as-synthesized graphene demonstrates high electronic conductivity, high thermal conductivity and good mechanical properties, our graphene could be applied in optoelectronics, energy materials and composites.

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專利技術名稱

運用水電池之尿布
SOLVE DECUBITUS TIMELY

Patent No：(R.O.C. 優先) M523440
專利權人：大葉大學 / DAYEH UNIVERSITY
發明人：李弘彬、劉桂萍、鍾秉睿、陳琨霖
Lee Hung Bin / Liu Kuei Ping / Chung Ping Jui / Chen Kun Lin

專利技術介紹：

本創作係提供一種能即時了解尿布使用狀況之技術，透過「水生電起」概念，提供電力輸送給微處理控制器，進而提醒更換尿布的時機，達到可預防因為尿布太濕未更換，防止濕疹或褥瘡等疾病產生。當尿液達到一定水量狀態，即發起電力驅動尿布薄型微處理器裝置，透過無線傳輸訊號即傳送訊息到護理站或照顧者的手機。

Patented technology introduction:

A quacell battery powers the wetness monitor and signals timely the need for a diaper change. Thus, the diaper design prevents the consequence of eczema or decubitus induced by the long contact period of wet diaper upon patient.

大葉大學 / DAYEH UNIVERSITY

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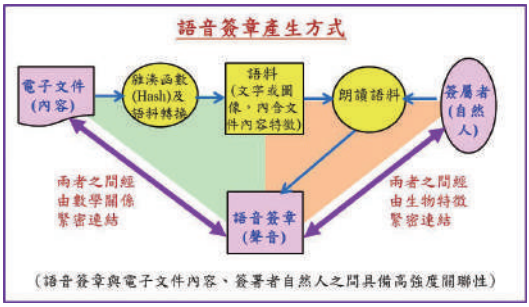
專利技術名稱

產生及驗證一訊息之一語音簽章之裝置、方法及其電腦程式產品

Apparatus and Method for Generating and Verifying a Voice Signature of a Message and Computer Readable Medium Thereof

Patent No：(R.O.C. 優先) I412941(台灣)、GB2465436(英國)、第 937494 號 (大陸)
專利權人：財團法人資訊工業策進會 / INSTITUTE FOR INFORMATION INDUSTRY
發明人：吳瑞明 / JUI-MING WU



專利技術介紹：

一種使用語音對電子文件進行電子簽章 (Electronic Singing) 的技術。語音簽章產生方式，先將文件內容經由雜湊函數 (Hash) 及轉換處理，產生可發音的語料符號，再由簽署人朗讀這些語料，並以所產生的語音資料作為語音簽章。語音簽章驗證方式，則使用語者識別 (Speaker Identification) 以及語料辨識 (Speech Recognition) 方法，辨識簽署人的身分、並比對語料內容與文件內容的關聯性，以判定語音簽章的正確性。本發明應用語音生物特徵 (Biometrics) 建立簽署者自然人與電子文件簽章之間的高強度關聯性，突破生物特徵無法與文件內容連結的瓶頸，將生物特徵在資訊安全的應用層次，從現行只能提供身分識別，提升到可用於電子文件簽章的境界。

Patented technology introduction:

This invention provides method for generating and verifying a voice signature for an electronic document. By using voice biometrics to establish strong linkage among signee, signature voice data and content of electronic document being signed, the invented voice signature mechanism meets high standard security requirements by Electronic Signature Acts and can be used to provide authentication, integrity and non-repudiation services for applications in various sectors.

財團法人資訊工業策進會 / INSTITUTE FOR INFORMATION INDUSTRY

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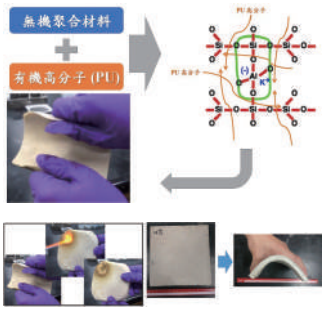
專利技術名稱

機能性複合無機漿料組成物、其發泡複合體及其製法

INORGANIC SLURRY, COMPLEX FOAM, AND METHOD FOR PREPARING THEREOF

Patent No：(R.O.C. 優先) 第 I403414 號
專利權人：鄭國彬 / KOUBIN CHENG
發明人：鄭國彬、鄭大偉
KOUBIN CHENG / TA-WUI CHENG



專利技術介紹：

本發明透過有機材料與無機聚合材料進行複合，並搭配添加涼感複合礦石粉體，成品製備過程簡單，無須經高溫處理，僅於一般室溫下即可製備而成，且原料取得容易且均來自於台灣本土。

本發明使用之無機聚合技術，係透過鹼性配方液體溶出礦物或廢棄物表面之矽、鋁離子，此類溶出之膠體，待聚合、脫水、硬化後形成 Si-O-Al 短程有序、長程無序之三維結構，屬非晶質或半晶質之物質。脫水過程不需經高溫處理，且無機聚合過程中不會排放出二氧化碳，並且再回收利用資源，所產生之產品具高電阻性、隔熱性、低熱傳導、涼感及高強度等優異特性。

本發明將無機聚合材料於製備漿體後，與 PU 高分子及涼感礦石粉體進行混合攪拌，待其乾燥後，即可使產品同時兼具無機聚合材料之防火隔熱特性、PU 高分子之可撓性，以及涼感粉體之高熱傳導性。本發明之應用領域例如航太航海用耐燃座椅、交通用耐燃座椅等。

製備概念如左圖所示：

Patented technology introduction:

This invention is a complex composite product. The inorganic slurry were mixed with the PU, foaming a new matrix precursor. Then adding cold feeling powders to fabricate a complex foam. The complex foam could easily be produced in ambient temperature instead of high temperature fabrication process. All the raw materials were obtained from Taiwan.

The inorganic slurry were compound with ore powder and alkaline solution by using geopolymer technology. After the alkaline solution dissolving the silicon or aluminum ions on the surface of ore powder to form Si-O-Al structures. In the dehydration and hardening process, PU was mixed in the three-dimensional structure, and the product can be formed. The product could enhance various excellent properties, such as fireproof and heat insulation.

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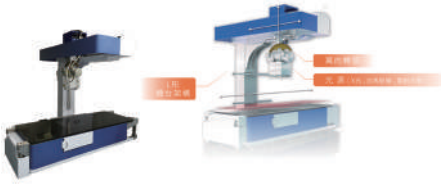
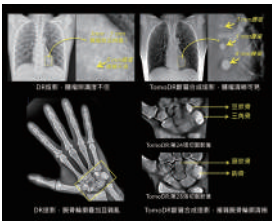
專利技術名稱

一種三維造影掃描系統

A SCANNING SYSTEM FOR THREE-DIMENSIONAL IMAGING

Patent No：(R.O.C. 優先) 發明第 I531356 號
專利權人：行政院原子能委員會核能研究所 / Institute of Nuclear Energy Research, Atomic Energy Council, Executive Yuan
發明人：曾聖彬、詹美齡
TSENG, SHENG PIN / JAN, MEEI LING





專利技術介紹：

本專利「一種三維造影掃描系統」提出創新之多向掃描穿透式造影系統設計，提供新式造影方式－三維斷層合成造影 (Tomosynthesis, Tomo) 之機構設計解決方案，使輻射造影儀器實現高自由度掃描，不僅有效提升診斷影像之品質，更可視受測者生理狀況調整造影軸向，提升輻射造影之友善度，為一大創舉。本專利已應用於核研所開發之低劑量三維 X 光機－ Taiwan TomoDR(TomoDR)，作為系統機構設計之重要關鍵技術，預期適用病灶範圍涵蓋胸腔、頭頸部、骨科、急診等多項應用，並與醫院合作，即將邁入臨床試驗階段。

Patented technology introduction:

Patented technology of INER “ A SCANNING SYSTEM FOR THREE-DIMENSIONAL IMAGING ” is a mechanical solution that was invented for the needs of high quality digital tomosynthesis scans. The special multi-directional mechanism provides the best scanning strategy to patient in tomosynthesis scanner that the scan orientation can be optimized to specific organs. The design has been implemented as a key technology of Taiwan TomoDR scanner for low dose and high quality 3D imaging. It is expected to improve the diagnosis of thoracic, head & neck, orthopedics and emergency. A clinical trial with local hospital is on-going.

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專利技術名稱

促進傷口癒合的組合物
COMPOSITION FOR PROMOTION OF WOUND HEALING

Patent No：(R.O.C. 優先) I580429 號
專利權人：生命之星國際股份有限公司 / Life Star International Limited
發明人：白孟宜、陳孟專、余文鈞
Meng-Yi Bai / Meng-Chuan Chen / Wen-Chun Yu

專利技術介紹：

本專利第 I580429 號，為生命之星與台灣科技大學醫學工程研究所產學合作開發之 Major® 美婕泡膜敷料技術發明專利。技術領域為關於一種組合物，且特別攸關一種促進傷口癒合的組合物。實質內容為此種組合物，包括：蠶絲蛋白主體層、以及親水性苷類化合物，親水性苷類化合物為附著於蠶絲蛋白主體層。此外，本發明尚提供此組合物用於製備傷口敷料的用途與製造方法，不論是在現今敷料的原料材質及技術製備上，達到新穎性及進步性外，此專利更具有將 Major® 美婕泡膜敷料的製備及用途達到完整可實施性。

Patented technology introduction:

This patent No. I580429, is the Life Star and the Taiwan University of Science and Technology Institute of Medical Engineering to development of the Major ®·foam dressing technology patent. A composition includes a silk protein layer and a hydrophilic glycoside compound, and the hydrophilic glycoside compound is coated on the silk protein layer. Furthermore, the invention also provides the use of the composition for manufacturing a wound dressing and the manufacturing method of the composition.

Whether it is in the current dressing of raw materials and technical preparation, to achieve novelty and progress, this patent has more Major® foam dressing preparation and use to achieve full implementation.

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專利技術名稱

智慧化近淨形鍛造成形技術

Intelligent of the near net shape forging technology

Patent No：(R.O.C. 優先) I558482、US9403207 B2
專利權人：金屬工業研究發展中心 / Metal Industries Research & Development Centre
發明人：張燦勳、張婉琪、蔡盛祺
Can-Xun Chang / Wan-Chi Chang / Sheng-Chi Tsai

專利技術介紹：

習知負拔模角之螺旋傘齒輪之製造方法，一般是利用機械切削加工方式製成，然而，此加工方式之材料利用率低、切削刀具損耗嚴重，且製造工時冗長，而使得工件製造成本提高；因此，國內外業者係利用鍛造技術進行製作生產。

針對負拔模角之螺旋傘齒輪，一般習用之傳統的鍛造方法大都僅能鍛成一粗胚，而負拔模角螺旋齒形特徵需由機械切削加工來達成，若以傳統鍛造成形之方式鍛製，多道次之鍛造製程是必須的，若加上鍛製前所需之加熱及鍛製後所需之剪緣、鑽孔等機械加工程序，則整個工件所需之製程可能多達十個道次，而且耗費大量的加工時間及造成材料的浪費。此時，若應用複動化鍛造成形模具進行複動化鍛造，即可達減少道次、減少材料、減少時間之目的。複動化鍛造製程是近二十年來發展起來的一種金屬塑性成形技術，它可實現鍛件少無切削加工、改善產品質量和提高生產效率等方面其有許多獨特的優點。

Patented technology introduction:

Conventional spiral bevel gears are formed by using a mechanical cutting process. However, such a processing method will waste a lot of material, and requires complicated processing and lengthy processing time, so that the efficiency thereof is low. Moreover, because metal fibers are cut off and are, thus, discontinuous during the cutting process, the structural strength of the finished product is rather weak. Manufacturers mostly use a forging method for pressing and molding. However, because a spiral bevel gear has spiral teeth with a negative draft angle, it cannot be directly stripped from the mold. A cutting tool must be additionally used, thereby resulting in the aforesaid drawbacks of the cutting process.

金屬工業研究發展中心 / Metal Industries Research & Development Centre

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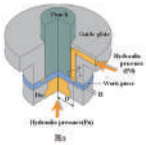
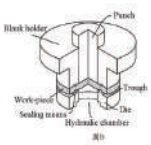
專利技術名稱

液壓精密下料裝置
FINE HYDRO-BLANKING DEVICE

Patent No：(R.O.C. 優先) I462824
專利權人：國立臺灣海洋大學 / National Taiwan Ocean University
發明人：王正平 / Jang-Ping Wang





專利技術介紹：

液壓精密下料裝置是一種最新的剪切下料技術，其溝道可開於胚料上 (圖 a) 亦可開於母模上 (圖 b)。液壓的作用在於增加胚料內部的靜水壓力，以達到提升或改善下料成品光亮面品質、並防止撕裂面產生、切斷面產生毛邊、塌角及模輥之創新方法。本發明專利在實際應用的範圍是非常廣泛的，舉凡：電子產品之面板，手機外殼，端子等、機械五金的齒輪，泵，精微元件和精微針製造等產業均有它的存在，可說是不計其數。本液壓精密下料裝置可達成以下之成效：

(1) 成品表面粗糙度 (Ra):0.03 μm ~ 0.21 μm。
(2) 成品精度為：IT1~IT3。
(3) 成品成本近材料費。
(4) 成品加工以秒為單位。
(5) 可擠切 5 公分以上之工件。

Patented technology introduction:

Fine hydro-blanking device is a new shear – cutting technology, this trough can engrave in the work-piece or in the die. The hydro pressure is to increase the hydrostatic stress on the cutting edge. It can improve the burnish surface, prevent the torn face, burr, sunk angle and roll-over. The applications of this invention are popularly used as the electronic panel, outer core, connector, mechanical hardware, gear, pump, fine components and fine needles. The fine hydro-blanking device can achieve the following effects as:

(1) Product surface roughness(Ra): 0.03 μm ~ 0.21 μm。
(2) Product tolerance band for the diameter is IT1~IT3。
(3) Product cost almost material fee.
(4) Product is manufactured by second.
(5) Product length is over 5cm.

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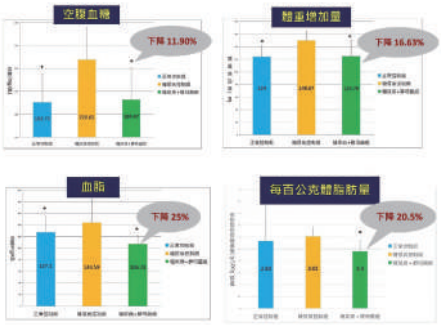
專利技術名稱

新穎之酵母菌及其應用

NOVEL YEAST STRAIN AND THE APPLICATION THEREOF

Patent No：(R.O.C. 優先) I481710
專利權人：國立臺灣海洋大學 / National Taiwan Ocean University
發明人：蔡國珍 / Guo-Jane Tsai



專利技術介紹：

本發明之目的在於提供一種酵母菌菌株或其衍生之活性物質，其具有調降血糖之功效，可取代胰島素作為調降血糖之治療物質。

次一目的在於提供一種酵母菌菌株或其衍生之活性物質，其對於具有胰島素抗性之細胞仍具有引發下游反應之能力，而適用於具有胰島素抗性之個體作為調降血糖之物質。

另一目的在於提供一種酵母菌菌株或其衍生之活性物質，其使得具有胰島素抗性的個體的血糖值下降，避免個體長期處於高血糖的狀況而發生永遠無法分泌胰島素的不利後果。

再一目的則在於提供一種酵母菌菌株，具有調節血脂或其相關症狀之功效，利於第二型糖尿病患者改善其胰島素抗性情形。

本技術發明有助於同時預防第二型糖尿病之高血糖及高血脂等兩項高危險因子。

Patented technology introduction:

The present invention provides an isolated Saccharomyces pastorianus No.54, which is effective in regulating the levels of blood glucose and triglycerides or its related disease. Therefore, it would help to prevent the risks of the high levels of blood glucose and triglycerides in type 2 diabetes patients.

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專利技術名稱

道路行車溝通方法與其裝置

The intelligent method and its device for vehicle to vehicle communications

Patent No：(R.O.C. 優先) 發明第 I571838 號
專利權人：國立臺灣海洋大學 / National Taiwan Ocean University
發明人：高聖龍、李明安、王柏崴
Sheng-Long Kao / Ming-An Lee / Po-Wei Wang

專利技術介紹：

為載具識別與溝通的概念延伸之國產品，一種道路行車的溝通方法與裝置的創新技術。由車輛發送自車的行車數據給附近的車輛，達成車聯網的溝通，乃海大已技轉之 AIS 量產品，應用於電動船管理、海上風力發電機避碰機制、船舶避碰管理、漁船應急遇險警報、遊艇靠泊安全管理及智慧型載具識別等。將海上船舶自動識別系統 AIS(Automatic identification System) 加以改良並應用於陸地車輛間溝通，使得駕駛與其他駕駛構成車聯網，明確地向附近車輛表達自我意圖或回應對方需求，避免發生事故，防止車輛堵塞影響環境品質。本產品具有客製化與各種通訊系統之強大擴充性，可供女性與初次上路駕駛在開車時較為安全且便利之智慧型駕駛決策支援機制，並提升禮讓女性駕駛優先通行 (Lady first) 的國際交通禮儀。

Patented technology introduction:

It's a concept extension of the vehicle identification and communication in Taiwan's newest product, by the road traffic communication methods and devices of innovative technology. Base on the vehicle to send the traffic information from own car to the nearby vehicles as the car mobile intercommunication network by the marine skilled AIS (Automatic Identification System), it can be used for electric boat management, offshore wind turbine collision avoidance mechanism, ship collision avoidance management, fishing emergency distress alert, yacht berthing safety management and intelligent vehicle identification and communication systems.

This system has improved and applied to the communication between vehicles, making driver and other drivers to format a car mobile communication network, expressing their intention movements to the nearby drivers or responding to the other's for avoiding accidents, prevents the vehicle blocking and affecting environmental quality. This product has customization and easy connection with a variety of communication systems. Especially, "women" and "first on load drivers" will be more security and convenience by this intelligent driving decision support mechanism, and to enhance the courtesy of "Lady first" for the international Traffic etiquette.

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專利技術名稱

使用者可設定烹調溫度之電磁加熱式電子鍋

IH electronic pot which users can set the cooking temperature by operation panel

Patent No：(R.O.C. 優先) 新型第 M549586 號
專利權人：寶興行銷管理顧問股份有限公司 / POWER XING CO., LTD.
發明人：蕭侃 / HSIAO KAN

專利技術介紹：

有鑑於現有 IH 電子鍋，不能滿足定溫料理「精準控溫」的需求，本創作提供一種具感溫組件的電子鍋上蓋，透過上蓋之棒型溫度感測器，測得鍋內極為精準的溫度。本創作透過大型顯示器及友善之操作面板，使用者可自行設定食材所需之烹調時間和溫度，以期烹調出媲美米其林之星級定溫料理，可用於牛排等肉類烹調，甚至如烤布蕾、蒸蛋等皆可透過定溫程序得到美味成果。此外，精準控溫的 IH 電子鍋在米飯、粥品、湯品等家戶熟悉的菜餚上，亦有突出表現，消費者可從少量的一碗飯煮到 20 碗飯，每一粒米皆粒粒分明、晶瑩飽滿、Q 彈美味，先進科技滿足智慧便利的居家需求，輕鬆大展米其林星級手藝！

Patented technology introduction:

Constant temperature cooking which also called Sous-vide in French. Now it can be used in IH electronic pot. By setting a temperature sensing stick inside the IH electronic pot, the pot can precisely sense the temperature and show it on the panel. Users can set the cooking temperature whatever they want. Doing Sous-vide by IH electronic pot, the users can easily cook well than ever. Besides, this IH electronic pot also can make rice very delicious, just like Japanese rice. It's an advanced technology, which brings convenience into peoples' lives.

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專利技術名稱

車用控制開關構造

A Control Switch for Scooters or Likes

Patent No：(R.O.C. 優先) I580600
專利權人：南臺科技大學 / Southern Taiwan University of Science and Technology
發明人：瞿嘉駿、程佳隆、王志閔
Chia-Chun Chu / Chia-Lung Chen / Chin-Min Wang

專利技術介紹：

本創作提出全新的機構設計，解決搖桿操作方式的空間與設計限制，並同時可整合鎖定機構、旋鈕鎖定裝置、兩段式龍頭機構、以及備用電源裝置，除了有效的節省裝置空間，還增加了多功能特性，更重要的是簡化了使用者操作方式，以及增加了未來鎖具需求的擴充性，因此本創作具有不同於習用技術的創新性，以及機能與實用性。

本創作其中一個重要的應用是機車免鑰系統，免鑰匙遙控入車系統現在已經成為各種車輛的重要配備。在機車的發展方面，2006 年後多間車廠陸續發表出概念之產品，本創作亦已完成雛型並裝設於實車，並可相容於主流車廠之系統，可供應國內外機車、電動車、沙灘車等免鑰系統更安全方便的使用條件，為機車產業的一大創新突破，具高商品化程度，並極具未來的市場性。

再者，本創作搖桿式的設計，除了具有創新性、機能與實用性、高商品化程度、以及市場性的優勢之外，可配合人體工學與時下流行元素，可將搖桿與外型設計不同之造型，再配合燈光營造的氣氛，其外型設計較習用旋轉式設計更為美觀。

Patented technology introduction:

This innovation provides a new method to control the switch for scooter or likes. It used rocker motion to control the functions of switching power, opening the storage box, opening the tank, and lock the stem. A novel mechanism is created to solve the traditional problems and design difficulties. The new rocker type switch contains not only all traditional functions, but also the advantages of easy use just like joysticks. The creation is innovative, functional, and useful.

One of the useful applications is in the keyless system for scooters. The keyless systems is already used in many cars, but just begging used for motorcycles and scooters. By the development of keyless technology, there are more and more motorcycles and scooters with keyless systems. And there are many features of this innovation that are suitable for keyless systems. In summary, the creation is with advantages for marketability.

In additionally, the novel rocker type lock for scooters or likes is easy to design with ergonomic and aesthetics. By the design shape and atmosphere light, this innovation is beautiful and fashion.

南臺科技大學 / Southern Taiwan University of Science and Technology

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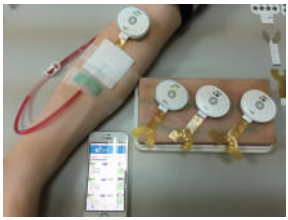
專利技術名稱

脫針與漏血偵測裝置

Needle dislodgment and blood leakage detection device

Patent No：(R.O.C. 優先)
專利權人：南臺科技大學 / Southern Taiwan University of Science and Technology
發明人：杜翌群、林美燕、吳明瑞
Yi-Chun Du / Bee-Yen Lim / Ming-Jui Wu



專利技術介紹：

血液透析為臨床常見的治療方法之一，需要在人體手臂表面穿刺並固定針頭，此時發生脫針漏血的風險相當高，一旦洗腎過程中發生漏血，病人在短短幾分鐘內就會有生命危險。此外，若微量滲血疏於照護，可能引發院內感染，危及病患生命安全外，也造成台灣醫療健保上的負擔。本產品以自行設計的陣列感測貼片搭配映射電路，藉由各個感測點的權重比調配，針對病人漏血量進行不同等級的風險程度判斷。當漏血達危急的情況，隨即發出聲響與警示燈，同時透過藍芽無線傳送訊息至醫護站或 APP，讓護理人員即刻做出適當的處理。本產品已取得國內外共三項專利，且於 2017 年 2 月於國家研究院動物實驗中心以及高雄榮民總醫院台南分院完成臨床動物試驗與 IRB 人體試驗，在 500 名洗腎人次的測試中，並無不良反應且量測準確度達 100%。希望藉由本研究所提出的裝置，改善臨床洗腎機的照護死角，提升臨床洗腎病患的安全，也能作為未來臨床相關應用設備的參考。

Patented technology introduction:

Hemodialysis is commonly used in clinical treatment. Long-term hemodialysis treatment generally involves puncturing of the body surface. However, the puncture pinhead placed on the body surface for an extended period of time, may cause higher risk of needle dislodgement and fatal injury to patients. For clinical use, the array sensing patch in this research can be applied to the weights of each sensing point to evaluate different risk levels. When the patient’s blood has widely spread, the increase in blood leak volume causes the conduction sensors in the array sensing patch to reach a high risk level and immediately activates the alert system composed of sound and light. At the same, Bluetooth wireless transmission sends data to the nursing station or mobile application for evaluation and to provide complete health care to all the patients. This product has made three patents at home and abroad, and also passed the Animal Experiment and IRB Human Test where conducted at the Animal Experimental Center of the National Institute and the Kaohsiung Veterans General Hospital Tainan Branch. The test results showed that no adverse reactions in the experiment and the accuracy rate was 100%. Through this study, the current medical approach for the treatment of hemodialysis was improved and blind spots encountered by dialysis equipment were reduced. It also acts as reference for device design of future clinically relevant applications.

南臺科技大學 / Southern Taiwan University of Science and Technology

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專利技術名稱

輪椅及其動力輔助裝置

Auxiliary Power Device for Wheelchair

Patent No：(R.O.C. 優先) 新型 - 第 M536936 號
專利權人：江承蔚 / CHIANG, CHENG-WEI
發明人：江承蔚 / CHIANG, CHENG-WEI

專利技術介紹：

提供給一般手推輪椅的附加動力輔助裝置，使一般手推輪椅變身成為電動輪椅。安裝簡單、操作方便、行駛安全，可裝配於任何手推輪椅。搭配離合器，可自行調整手動或電動模式，達到手推或電動兩種操作模型。 不影響手動推車折疊功能，使推車能收折，並放置於一般轎車，方便攜帶，這是一般電動輪椅所達不到的功能。

Patented technology introduction:

The “Auxiliary Power Device for Wheelchair” is an add-on power supplying tool to motorize wheelchair. It is easy to install, easy to operate and safe to use, can be applied to any wheelchair. With a clutch, the device can be set to manual mode or electric mode.Unlike ordinary electric wheelchair, this device will not affect the folding of the wheelchair and can be placed in any vehicle.

台灣愛迪生創意科技股份有限公司 Taiwan Edison Creative Invention Academy /
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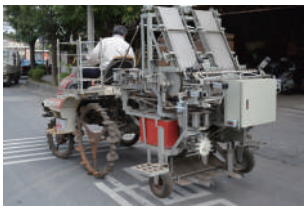
專利技術名稱

一種自動供苗設備之種苗移植機構

An automatic seedling supplying device of the seedling transplanting mechanism

Patent No：(R.O.C. 優先) 發明第 1566683 號
專利權人：行政院農業委員會桃園區農業改良場 / TDARES C.O.A
發明人：邱銀珍、吳有恆、詹德財
Yn-jen Chiou / Yu-heng Wu / Te-tsai chan



專利技術介紹：

本發明之一種自動供苗設備之種苗移植機構，基本上係於一可供控制行走速度及方向的載具上設有：至少一穴盤承接模組、至少一種苗銜接模組、至少一種苗移出模組、至少一種苗植入模組，以及一控制模組；使於載具行走的過程中，由控制模組整合穴盤承接模組、種苗銜接模組、種苗移出模組、種苗植入模組動作，達到自動將穴盤中之種苗植入田畦之目的。

Patented technology introduction:

The automatic seedling supplying device of the seedling transplanting mechanism of this invention is mounted on a carrier with travelling speed and direction control. It Includes: at least a seedling tray reception module, at least a seedling link up module, at least a seedling removing module, at least a seedling planting module and a control module. It makes the control module integrate the seedling tray reception module, the seedling link up module, the seedling removing module and the seedling planting module acting accordingly to achieve the purpose of planting tray seedlings into the field plots.

行政院農業委員會桃園區農業改良場 / TDARES, C.O.A

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專利技術名稱

漸變槽線天線裝置

Tapered Slot Antenna Device

Patent No：(R.O.C. 優先)
專利權人：成浩科電股份有限公司 / WinTech Electric Co., Ltd.
發明人：李偉豪、劉宇舜
Wei-hao Li / Yus-hun Liu

專利技術介紹：

「漸變槽線天線」是運用於中、高壓局部放電 " 定位 " 技術，運用在電力檢測設備上，是具備高指向性、高增益及高頻響應之局部放電感測器，利用局部放電所產生的電磁輻射訊號定位高壓設備之絕緣缺陷，特別應用於變電站高壓閥子、高壓配電盤、模鑄型變壓器 ... 之局部放電定位，可讓使用者於安全距離下，定位高壓設備的放電源，增加檢測人員在監測環境中具有安全性，及降低損害產品設備的風險性。

Patented technology introduction:

Tapered Slot Antenna Device is used for locating the place where partial discharge occurs in middle and high-voltage equipment. It is a sensor with high directivity, High gain and high bandwidth. It can locate the flaw of insulation by electromagnetic signal of partial discharge of hi-voltage equipment, especially for hi-voltage insulator in Transformer Station, switchgear Transformer, Cast-Resin Transformer. Inspectors can locate partial discharge of hi-voltage equipment at safe distance with it, keep inspector safe and reduce the risk of damage of equipment.

成浩科電股份有限公司 / WinTech Electric Co., Ltd.

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專利技術名稱

巧克力香蕉冰磚

Ice brick with chocolate and banana

Patent No：(R.O.C. 優先) 設計第 D172740 號
專利權人：蕭偉任 / WEI-JEN HSIAO

專利技術介紹：

本得獎作品『巧克力香蕉冰磚』以顛覆傳統的創先設計思維出發，回歸食品的本質，採用純正牛乳、高品質巧克力、本土新鮮香蕉，將其整體結合成『巧克力香蕉冰磚』，使消費者在消費前能一望即知所食用之冰品由何物製成，以本得獎作品為例可具體呈現牛奶、巧克力、香蕉之所在；與傳統單一口味之雪花冰磚迥異，卻又保留傳統雪花冰具有之軟滑綿順口感；此乃全新之創意設計，不僅使雪花冰磚的口味名稱名實相符，更保障消費者的健康消費選擇權。

『巧克力香蕉冰磚』之設計理念具有高度應用性，本專利權人已將上述思維具體實現之成品計有草莓冰磚、芒果冰磚、奇異果鳳梨冰磚、抹茶紅豆冰磚、花生腰果冰磚、百香柳橙冰磚、洛神烏梅冰磚等，多達三十餘種風味。

Patented technology introduction:

The creation of the award winning “Chocolate Banana Brick Ice” was based on subverting the traditional design and focused on the essence of food. It is made with the combination of pure milk, high quality chocolate and fresh local bananas. The consumers can see the ingredients from its appearance before consuming, for this case, the milk, chocolate and banana will be presented visibly. The taste is different from the traditional snow brick ice but the smooth soft texture in the traditional snow ice is retained. This is a whole new creation; it does not only make the snow brick ice worthy of its name, but also guarantees the consumer a healthier choice.

The design principle of “Chocolate Banana Brick Ice” has wide application. The patentee has implemented the above concept to create finished products with more than 30 types of flavors. This includes strawberry brick ice, mango brick ice, kiwi pineapple brick ice, matcha red bean brick ice, peanut cashew brick ice, passion fruit orange brick ice, rosella dark plum brick ice, etc.

億大雪花冰 / Yi Da shaved ice

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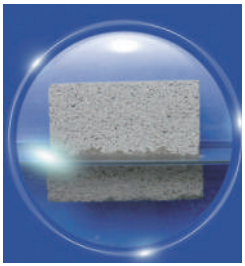
專利技術名稱

水泥造粒系統及其造粒方法

system and method for Cement granulation

Patent No：(R.O.C. 優先) I535487
專利權人：永安礦物科技實業有限公司 / YOUNG-AN Mineral Tech
發明人：鄭進祥



專利技術介紹：

一種水泥造粒系統及其造粒方法，應用於水泥之造粒製程中，本發明尤指一種振動方式，使水泥相互沾附後，逐漸形成為粒狀水泥。

Patented technology introduction:

A system and method for Cement granulation, mixing cement and sand-like granular stone into cement granulated materials, delivering cement granulated materials to each granulation process equipment with several conveyors , dropping liquid foaming agent to cement granulated materials ,vibrating cement granulated materials by cement particles forming device so as to make cement granulated materials adhesion and form cement particles, baking cement particles in a heating device in order to harden cement particles.

永安礦物科技實業有限公司 / YOUNG-AN Mineral Tech

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