

Sustainability
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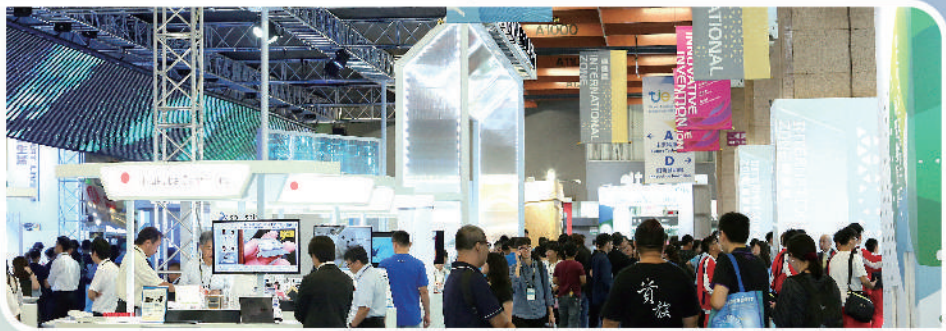
Taiwan Innotech Expo

台灣創新技術博覽會

2016-2018

Platinum Awards 鉑金獎

2018 Highlights | 2018精選照片



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國防部
教育部
科技部
行政院農業委員會
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策劃單位：

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經濟部工業局
經濟部能源局
行政院原子能委員會
核能研究所

經濟部技術處
經濟部中小企業處
經濟部國營事業委員會

執行單位：

中華民國對外貿易發展協會
工業技術研究院

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台灣區電機電子工業同業公會
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中華民國傑出發明家交流協會



經濟部智慧財產局廣告



2016
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專利技術名稱

瓦斯預警遮斷裝置

Intelligent gas safety system

Patent No : (R.O.C. 優先) 新型第 M 513973 號

專利權人：林揮明 / Hui Ming Lin

發明人：林揮明 / Hui Ming Lin



專利技術介紹：

智慧瓦斯預警遮斷裝置，系針對瓦斯烹煮之使用者開發設計，忘記關瓦斯是所有人的經驗，尤其是上年紀人更是頻繁，因為忘記關瓦斯造成生命財產損失，時有所聞。本系統共有四大安全功能：一、智慧遮斷 二、定時遮斷 三、瓦斯外洩遮斷 四、地震遮斷，堪稱全球最智慧瓦斯安全裝置。

1. 智慧功能－透過智慧感應，人離開廚房超過 15 分鐘，自動關閉瓦斯。（不怕忘記關瓦斯）
2. 定時功能－可設定爐火關閉時間 1~99 分鐘，關閉瓦斯前 3 分鐘提醒通知。
3. 斷漏功能－瓦斯外洩警報自動關閉瓦斯。（主機內鍵日本製瓦斯感測器）
4. 防震功能－複合式瓦斯安全閥，震度達到 5 級 (200gal) 自動關閉瓦斯。（無需電力提供）

Patented technology introduction:

Intelligent gas safety system

The world's most intelligent gas safety technology

1. <Intelligent> With its intelligent sensors, the system will turn off the gas automatically, if no human beings are detected in the kitchen for 15 minutes or more. (Never afraid of forgetting turning off the gas)
2. <timer> Gas stove can be set to be turned off with a 1 to 99 minutes timer. A reminder will sound three minutes before the pre-set time is up.
3. <leakage detection> Alarm will sound and gas will be automatically shut off if leaking gas is detected. (Build in Japanese made gas detector)
4. <Earthquake fire proof> Composite gas safety valves can stand magnitude 5(200gal) earthquakes and can still safely shut off gas. (No power required)

城安瓦斯器材有限公司 / ChenAn Gas Appliance Co., Ltd.

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專利技術名稱

挖掘暨回收系統

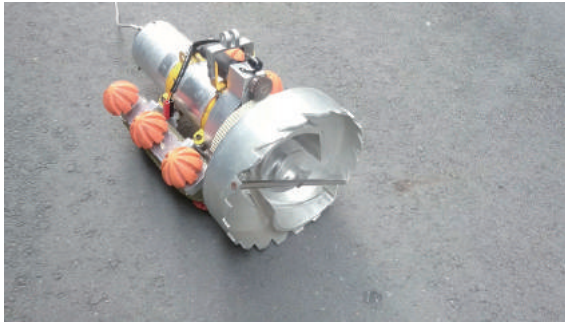
Digging and recovery system

Patent No : (R.O.C. 優先) I539065

專利權人：正修科技大學 / Cheng Shiu University

發明人：張法憲、吳忠義、吳三連、許仕

Fa-Shian Chang / Chung Yi Wu / San Lian Wu / Shih Hsu



專利技術介紹：

本發明為一種應用於城市建設管路挖掘創新裝置，具有運用監控系統操作自動化設備以達到地下管線開挖，或下水道淤塞挖掘工作，降低路面開挖與減少人員進入危險區域工作發生意外之機率。同時可使用自動化裝置取代人工作業之方式，進行下水道或是溝渠清潔工作，大幅降低工作危險與避免人員受到各種工安意外與傷害，其中履帶行走機構設計，可依排水溝圓弧形底部設計，可使用於各種管道，縮短施工時間，提高工作效率。可以結合各種口徑清淤車，抽取淤泥進行自動化清理，提高工作效率，確保排水溝之通暢。

Patented technology introduction:

The invention is an innovative device applied to the excavation of urban construction pipeline, and has the possibility of using the monitoring system to operate the automation equipment to achieve the underground pipeline excavation, the sewer excavation work, the road excavation and the personnel entering the dangerous area. The use of automated devices to replace the manual mode of operation, the sewer or ditch cleaning work, significantly reduce the risk of work and to avoid personnel by a variety of accidents and injuries, including track walking body design, Can be combined with a variety of calibers to clean up the car, take the sludge for automated cleaning, improve work efficiency, to ensure the smooth drains.

正修科技大學載具及電子科技中心 / Cheng Shiu University Vehicle and Electronic Science Technology Research Center

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專利技術名稱

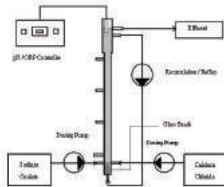
以流體化床結晶技術從含草酸溶液中合成均質草酸鹽結晶物之方法

A METHOD OF SYNTHESIZING HOMOGENEOUS GRANULAR OXALATE CRYSTALS BY USING FLUIDIZED-BED CRYSTALLIZATION TECHNOLOGY

Patent No : (R.O.C. 優先)

專利權人：嘉南藥理大學 / Chia Nan University of Pharmacy and Science

發明人：盧明俊 / Ming-Chun Lu



專利技術介紹：

本技術不需要在流體化床反應槽內使用擔體，乃利用操作條件與反應槽設計的改變使晶體在流體化床反應槽內形成，可應用於廢水處理或化工產品合成。本發明利用造粒的方式將草酸廢水中的草酸根離子與含鈣離子反應生成草酸鈣，從而避免使用氧化劑之高成本以及沉澱法所產生之高污泥量問題。本發明之創新點在於將習知傳統技術所需要之多個單元之功能，垂直整合在單一裝置，使用均質結晶的方式去除水中之草酸鹽，藉以提供一種能夠減少佔地空間，可減少土地費用，設備建造費只有傳統程序之三分之一，並減少大量產生污泥量，進而減少處理成本並達到環保與淨水功效之目的。本發明採用全球獨步之均相成核結晶技術，有別於一般傳統非均相結晶，因此，所獲得結晶物純度高，可做為原料出售。本技術也可以應用在中含重金屬廢水之處理。

Patented technology introduction:

This invention applied a fluidized-bed homogeneous crystallization reactor to synthesize oxalate crystals. This method overcomes the limit of adding carriers at the initial operation stage. By changing the operation conditions and reactor design, crystals are formed in the reactor directly. The process can produce calcium oxalate with high purity and therefore has potential to be applied in product synthesis and wastewater treatment. The process especially can be applied to treat the wastewaters from the rinsing or etching processes with oxalic acid in the semiconductor industries. The fluidized-bed homogeneous crystallization process, which is a unique technology in the world, can generate calcium oxalate granules with high purity instead of high-moisture sludge or consuming too much oxidant. Therefore, this process integrates several traditional units in a single reactor to remove oxalate from wastewaters. There are several advantages: (1) saving space, (2) reducing sludge, (3) cost down, (4) higher efficiency. Compared with conventional heterogeneous process, this new one can generate high-purity product. This technology can be also applied for treatment of heavy metal-containing wastewater.

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專利技術名稱

太陽能照明系統

A SOLAR LIGHTING SYSTEM

Patent No. : (R.O.C. 優先) I522584

專利權人：李昆益、簡達益、許海音、陳冠宇、胡芬綾、李偉裕、林晏瑞、陳建君、高千勳、林昶翰、郭佳瑜、曾詩涵、張勤煜
 LEE, KUN YI / CHIEN, TA YI / HSU, HAI YIN / CHEN, KUAN YU / HU, FEN LING / LEE, WEI YU / LIN, YEN JUEI / CHEN, CHIEN CHUN / KAO, CHIEN HSUN / LIN, MIN HAN / GUO, CHIA YU / TSENG, SHIH HAN / CHANG, CHIN YU

發明人：李昆益、簡達益、許海音、陳冠宇、胡芬綾、李偉裕、林晏瑞、陳建君、高千勳、林昶翰、郭佳瑜、曾詩涵、張勤煜
 LEE, KUN YI / CHIEN, TA YI / HSU, HAI YIN / CHEN, KUAN YU / HU, FEN LING / LEE, WEI YU / LIN, YEN JUEI / CHEN, CHIEN CHUN / KAO, CHIEN HSUN / LIN, MIN HAN / GUO, CHIA YU / TSENG, SHIH HAN / CHANG, CHIN YU



專利技術介紹：

本發明創新提出一種太陽能照明系統，收集並導引太陽的自然光，至所需要的場所。本發明具有如下所述之特點及功能：

1. 可以將太陽光導引至需要照明的場所。在一般情況下，不需要耗費電能，符合節能環保的趨勢。
2. 本發明在太陽光不足的情況下，可以利用太陽能自動補充照明的亮度，因此更能節能減碳的目的，提升本太陽能照明系統之使用效率。

本發明實施例包括：自行設計開發之集光器、導光模組及放光單元，能增加使用太陽光之效率。配合太陽能薄膜電池、控制暨儲放電設備及發光裝置(LED) 作為自然光不足情況下之補充照明。

Patented technology introduction:

A solar lighting system, for providing light to a specific place, includes at least one light-gathering device, a light-guiding module, at least one light-emitting unit, at least one thin film solar cell and at least one illuminating device. The light-gathering device is disposed outside the specific place for receiving the outer light. The light-guiding module is connected to the light-gathering device for guiding the light from the light-gathering device to guiding and transmitting the received light. The light-emitting unit is connected to the light-guiding module and disposed in the specific place for emitting the light from the light-guiding module. The thin film solar cell is disposed under the light-gathering device to receive the light passed through the light-gathering device and convert the light into electricity to be saved in electricity saving device. The light-emitting unit is disposed above the light-gathering device, which can provide light to the light-gathering device with the saved electricity, when the outer light is not enough.

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專利技術名稱

火工品負載模擬校正裝置及變容測試裝置及測試方法

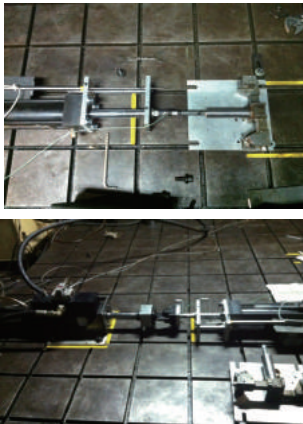
LOAD SIMULATION AND CALIBRATION DEVICE FOR PYROTECHNICS AND
VARACTOR TEST APPARATUS FOR THE SAME AND TEST METHOD FOR THE SAME

Patent No : (R.O.C. 優先) 105120329

專利權人：中華學校財團法人中華科技大學 / China University of Science and Technology

發明人：石大明、戴進福、王弘逸

Shih, Ta-ming / Dai, Chin-fu / Wang, Hung-Yi



專利技術介紹：

開發變容輸出壓力之量測裝置，模擬真實系統機構之阻力特性，且可重複使用，驗證裝置可即時量測火工件輸出壓力、裝置阻力、容積變化等。以一磁流阻阻尼器伺服系統（反應快，動作確實）來模擬輸出的負荷曲線，藉由動態調整阻尼係數，模擬背壓的出力狀況。可藉由電流控制負載驗證與負載關係，並參考相關曲線提供作為控制器的控制輸入。

Patented technology introduction:

The system is used to simulate the resistance characteristic of the real force system and can be reused. The developed device can be used to measure the output pressure of the workpiece, the resistance of the device, the volume change simultaneously. The load curve of the output is simulated with a magnetoresistance damper servo system (faster and accurate response), and the output condition of the back pressure is simulated by dynamically adjusting the damping coefficient. The load relationship can be verified by the current control load and the control input as a controller is provided with reference to the relevant curve.

中華學校財團法人中華科技大學 / China University of Science and Technology

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專利技術名稱

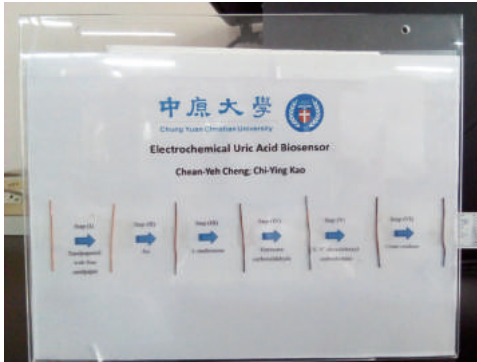
尿酸偵測電極與其製法

ELECTRODE FOR URIC ACID AND METHOD OF PRODUCING THE SAME

Patent No. : (R.O.C. 優先) 發明第 1504891 號 (R.O.C.); 特許第 5789034 號 (Japan)

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

發明人：鄭建業 / CHENG, CHEAN YEH



專利技術介紹：

一種新世代便宜的電流式電化學銅線尿酸偵測工作電極，其製作過程簡單容易方便並簡短 (30 小時)。藉由電鍍金於銅線上，再以化學鍵結方法將尿酸酵素 (酶) 及氧化還原媒介物二茂鐵甲醛共同鍵結在電極上，避免傳統之氧氣氧化尿酸之偵測方式以降低外加電壓使干擾信號減少，提高偵測準確性。此尿酸偵測工作電極偵測速度快，感應時間僅 5 秒，靈敏度佳具有 0.403 ppm 偵測極限值，具廣大的線性偵測範圍 (0.403-800 ppm) 遠超過正常人血清及尿液中尿酸，並可長期重複使用 (> 209 天)，減少廢棄物處理降低環境汙染，屬綠色環保產品。此工作電極已應用於人體尿液中之尿酸檢測，其檢測準確度佳 (85.6-95.5%)、精確度極高 (97.6-99.7%)。此尿酸偵測工作電極可商品化製作成尿酸偵測試片及實驗室尿酸檢測計。

Patented technology introduction:

A new second generation uricase electrode for urinary uric acid determination has been developed by chemically binding both uricase and redox mediator ferrocene carboxaldehyde to inexpensive copper wire through simple electrodeposition of gold on copper surface and subsequent functionalization of the gold with L-methionine. During a 209-day testing period, the overall electrode performance exhibits in average a low oxidation potential of 0.33 V, a response time of 5s, a widest linear calibration concentration range (0–2.38 mM, $r^2 > 0.9952$), a sensitivity of 50 mA mM⁻¹, and a detection limit of 2.4 mM. Because it is long-term reusable as to reduce the waste disposal, it is an environmentally friendly product. The measurement accuracy and precision for the determination of uric acid in human urine specimens were 85.6–95.5% and 0.3–2.4%, respectively. The developed uricase electrode is potential for clinical applications. This uric acid detection working electrode can be commercialized to make uric acid test stripe or laboratory uric acid meter.

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專利技術名稱

異質網路整合方法及裝置

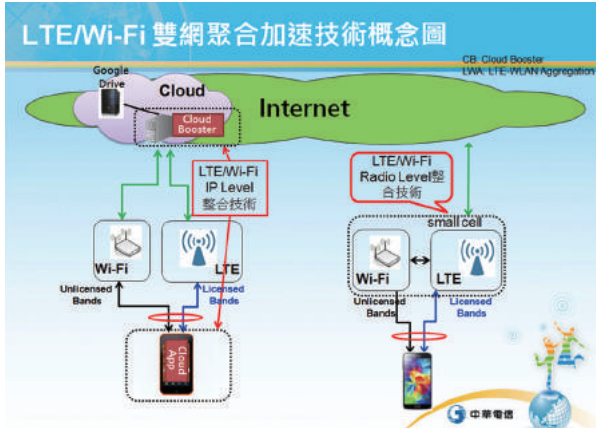
Method and Apparatus of Heterogeneous Network Aggregation

Patent No. : (R.O.C. 優先) 第 104130884 號

專利權人：中華電信股份有限公司 / CHUNGHWA TELECOM CO., LTD.

發明人：王中和、吳思賢、劉家宏

Wang, Chung-Ho / Wu, Sz-Hsien / Liu, Chia-Horng



專利技術介紹：

一種異質網路整合方法及裝置，係在行動網路與無線網路涵蓋範圍重疊的環境中，異質網路整合終端同時利用行動網路與無線網路傳送下行訊務的技術，當異質網路整合終端傳送下行訊務時，同時開啓行動網路與無線網路空中介面，並向行動網路要求同時利用行動網路與無線網路傳輸，行動網路分配異質網路整合終端下行訊務至行動網路與無線網路，藉由同時利用行動網路與無線網路頻寬的特點，可達到加快下行訊務傳輸速率及縮短使用者等待時間的進步性。

Patented technology introduction:

Method and Apparatus are provided for aggregation of heterogenous networks, for the scenario of the mutual coverage of both mobile and WLAN networks. The device enables the radio interfaces of mobile and WLAN, and requesting the mobile network to transmit the data traffic through mobile and WLAN networks simultaneously. By means of using the bandwidth of mobile and WLAN networks simultaneously, the data transmission rate can be enormously enhanced, and the latency of user application can be greatly minimized.

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專利技術名稱

口罩結構

Multi-function Mask

Patent No. : (R.O.C. 優先) 中華民國專利 M505944 號

專利權人：胡衍榮、陳貴民、胡衍富 / Yen-Jung Hu / Gui-Min Chen / Yen-Fu Hu

發明人：胡衍榮、陳貴民、胡衍富 / Yen-Jung Hu / Gui-Min Chen / Yen-Fu Hu



專利技術介紹：

過敏原、塵蟎及 PM2.5 以下之微粒子等空污問題，愈趨嚴重並困擾著大眾之家居生活，病從口入長久以來一直是醫療體系頗為關注之話題。為改善人們之生活品質與維護身體健康，做到積極照護呼吸系統，是本發明創作之目的，其解決方法在於將高效率空氣過濾功能 (0.075 微米粒子過濾效率達 99.97%) 及加熱空氣的功能 (石墨烯技術與隨身充電器) 等兩項高新科技整合在一起。即搭配 3D 立體高效可洗式防護口罩，於其鼻樑位置前加裝熱超導石墨烯電熱片。此項產學合作創新之鼻樑加熱式溫暖清淨裝置具備有舒適透氣、輕薄柔軟、遠紅外線放射、高效過濾、保濕及熱敷等功能，且具備有可重複使用、收納容易、產品耐用及環保等優點。

Patented technology introduction:

Allergens, dust mites and PM2.5 micro particle following the air pollution problems getting worth and plaguing the public's home life. Disease from the mouth has long been a topic of considerable concern to the health care system. It is the purpose of this invention to improve people's living quality and maintaining in a healthy state, we try to develop a device which could be used for taking care the respiratory system of people positively. Our solution was proposed that a combination of the high efficiency filtration function (99.97% particulate will be rejected) with the air heating function. That means a super heat transfer element of graphene was attached on the nose position of the 3D high filtration efficiency mask. This is a joined innovation between the industry and academy. With this mask, a cleaning and warming air was heated with a tiny heating element and keeping in a warm and moistening state for the mask wearer. There are several functions which included comfortable and breathable, light and soft, far infrared radiation, high efficiency filtration, moisturizing and hot compress etc. for this multi-functional masks. Furthermore, with the reusable, easy to store, durable and environmentally friendly products etc. advantages.

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專利技術名稱

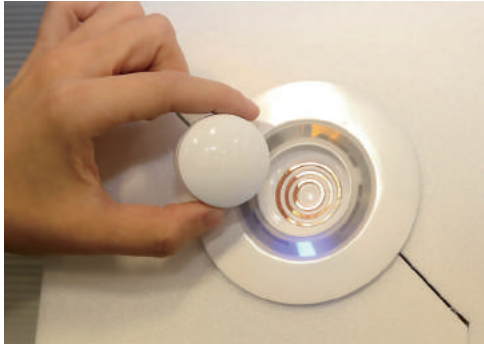
電聯結裝置

Electric Coupler Device

Patent No : (R.O.C. 優先) I463753

專利權人：陳宏宇 / Hung Yu Chen

發明人：陳宏宇 / Hung Yu Chen



專利技術介紹：

一種無方向性、易插拔，且具高安全性與廣泛延伸應用特性之磁吸式電聯結裝置。裝置本體不僅為新式的插頭與插座模組，更可應用於任何電聯結介面。以無方向性插接頭，與無方向性全封閉面插接座，配合同心圓電極的方式設計，藉由弧線封閉面插座槽與磁吸，導引使用者快速地找到插接的位置並完成連接。即使處在視線死角，也能夠以任何方向或角度輕鬆地將插頭吸附插接於插座上，時尚便利。全封閉式弧形插接面設計，加上插座內安裝磁力栓鎖安全開關的應用，讓相對應的插座與插頭在未聯結時自動形成斷路保護，能有效防水、防塵、防漏電、防觸電、防誤插，使安全性再升級。

Patented technology introduction:

A non-polarized, easy to plug and unplug, safe, and universal magnetic Electric Coupler Device guides users to quickly locate the socket and complete connection using a non-polarized plug and a non-polarized socket in a concentric design with magnet on the sealed concave socket. Even in a blind spot, users can easily plug in a socket from any directions or at any angles, convenient and modern. Its sealed concave socket design together with the magnetic latch safety switch forms an open circuit as protection when the plug is not connected to the socket. This design delivers effective resistance to water, dust, electrical leakage, electric shock, and misconnection to enhance safety.

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專利技術名稱

無動力榨汁兼具茶水分離結構改良

Improved structure with unpowered juicing function and tea leaves and water separating function

Patent No : (R.O.C. 優先)

專利權人：陳漢綜、陳維福 / CHEN, HAN-TSUNG / CHEN, WEI-FU

發明人：陳漢綜、陳維福 / CHEN, HAN-TSUNG / CHEN, WEI-FU



專利技術介紹：

一、泡茶時為避免茶葉長時間浸泡，影響口感，一般使用茶壺（罐）沖茶，並在適宜的時間將茶水倒至各人茶杯，再由茶杯分裝至各人茶杯來飲用。因而習慣用多種泡茶罐，是為方便茶水泡茶而設計的，都是長久浸泡無法茶水分離。茶葉浸泡過久會影響口感。

突破傳統，集合：茶壺、茶杯、茶盅、過濾、水壺、排氣、榨汁等七種功能的「茶水分離蝴蝶杯」合為一體。能茶水分離，免浸泡苦澀的困擾，茶水濃淡自己控制，茶香處處飄，一般茶葉也能泡出上等好茶喝。杯身上創新設計有一榨汁器，方便榨檸檬、柳橙、橘子、奇異果…等，寬口徑設計容易清洗，特具獨創特性、創新性。

二、人體追求健康、方便，茶水分離蝴蝶杯造型時尚，符合人體工學，男性顏色 - 經典藍，女性顏色 - 櫻花粉，整體材質採用德國拜耳 (Bayer Makrolon) 最先進食品級材料及高級耐高溫矽膠、304 不鏽鋼濾網。經 SGS 檢驗報告測出無含塑化劑、雙酚 A、重金屬…等無毒檢測，可耐酸，耐高溫 126°C，耐低溫 -20°C，同時可抗壓 622 公斤，耐摔耐用安全實用。

Patented technology introduction:

Unpowered Juicer Exhaust Type Tea Pot

- ◎ Material used Germany Bayer Makrolon.
- ◎ Combining juicer, filter, exhaust, teacup .
- ◎ Pass SGS tests. Not contain plasticizers, bisphenol A , heavy metals.
- ◎ High temperature+ 126 °C , Low temperature -20 °C .
- ◎ Have International patents.
- ◎ Won International awards.

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專利技術名稱

測試裝置及其測試方法

TESTING DEVICE AND TESTING METHOD THEREOF

Patent No : (R.O.C. 優先) Taiwan [I510913], USA [US9,317,413B2]

專利權人：財團法人資訊工業策進會 / Institute for Information Industry

發明人：林敬文 / Ching-Wen Lin



專利技術介紹：

本發明專利提供一種獨特的自動化測試機制，使用者進行測試腳本製作時，無需學習程式語言或是撰寫任何的描述語法 (Script)，可直接於裝置上透過操作錄製，自動完成測試案例腳本建立，單一測試腳本即可提供多裝置進行測試，大幅縮短測試腳本撰寫時間，並支援多種測試結果比對方法，如：系統事件 (ANR, Exception)、系統記錄檔以及影像比對功能。

本作品特色：

- 容易學習，無需撰寫程式
- 測試腳本一次建立，多裝置使用
- 支援多種測試驗證功能
- 無需應用程式原始碼，裝置也無需擁有特殊權限

本專利衍生之自動化測試解決方案，已實際協助多家國內業者進行產品測試，經客戶使用回饋可有效縮減 20% 測試時間與 15% 測試成本。

Patented technology introduction:

The present invention relates to a testing device and a testing method. More particularly, the present invention provides a novel testing mechanism for testing GUI objects. The testing mechanism of the present invention is a technique in combination of the coordinate-based technique and the object-based technique. The testing mechanism includes recording steps and testing steps. Recording steps includes receiving operational commands and the object properties of the terminal device, converting the object properties into the coordinate commands, and generating a testing script file. Testing steps includes finding abnormalities of the tested terminal devices according to the testing script and verification testing GUI. In addition, the physical button testing and cross-platform testing are supported by the testing method in the present invention, i.e. the created script file of the present testing method is capable of using in multiple platforms. Comparing to the conventional GUI testing method, the present testing method provides an easier and faster way to testing GUI objects. The conventional manually operation steps, such as settings and composing the description files, compiling objects and transforming program codes, may be obviated with using the present invention. In this way, GUI objects of terminal devices can be tested efficiently and effortlessly.

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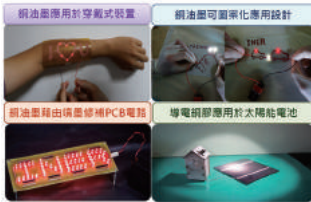
專利技術名稱

抗氧化導電銅膠及其製備方法

Antioxidant conductive copper paste and method for preparing the same

Patent No : (R.O.C. 優先) 104134447 (中華民國)、14/953,159 (美國)

專利權人：張璋辰、馬維揚、翁芳維、梁竣翔、鍾承桓、莊棋凱、楊村農 / Wei-Chen Chang / Wei-Yang Ma / Li-Wei Weng / Jun-Xiang Liang / Cheng-Huan Chung / Chi-Kai Chuang / Tsun-Neng Yang
 發明人：張璋辰、馬維揚、翁芳維、梁竣翔、鍾承桓、莊棋凱、楊村農 / Wei-Chen Chang / Wei-Yang Ma / Li-Wei Weng / Jun-Xiang Liang / Cheng-Huan Chung / Chi-Kai Chuang / Tsun-Neng Yang



專利技術介紹：

根據 IDTechEx 市調機構的最新報告 “Printed, Organic & Flexible Electronics Forecasts, Players & Opportunities 2016-2026” 顯示，軟性電子市場將於 2016 年達到 260 億美元，並於 2026 年大幅成長至 690 億美元，其中具有廣泛應用端的金屬導電油墨將扮演著關鍵的角色。

目前市場上的金屬導電油墨係以銀油墨為主，未來如能以低成本的抗氧化銅油墨來取代昂貴的銀油墨，將可大幅降低軟性電子產品之成本。

本發明提供一種具有優良抗氧化特性之銅油墨商品，製程簡單、快速、環保且容易量產，其成本僅為奈米銀的 1/20。不但可應用於可印式電子市場，亦可應用於電子標籤、印刷電路板、3D 列印及太陽能電池等產品。

Patented technology introduction:

According to the latest IDTechEx Research report "Printed, Organic & Flexible Electronics Forecasts, Players & Opportunities 2016-2026", the total market for printed, flexible and organic electronics will grow from \$26 billion in 2016 to \$69 billion in 2026. The conductive pastes used for a wide range of applications will play a critical role in this market.

Silver pastes have dominated the market of conductive ink for years. If the expensive silver pastes can be substituted by low-cost antioxidative copper pastes, the cost of the flexible electronics will be reduced largely.

The patent can provide a kind of conductive copper paste, featuring excellent antioxidant capability, simple processes, eco-friendly ingredients, easy mass production, and low cost. It can be applied not only to the printed electronics, but also to electronic labels, printed circuit boards, 3D printing, solar cells, etc.

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專利技術名稱

一種提升檸檬多酚含量的檸檬發酵方法

A new lemon fermentation method for increasing the content of lemon polyphenols

Patent No : (R.O.C. 優先) 201510086881.8

專利權人：健茂生物科技股份有限公司 / JIAN MAO BIOTECH CO., LTD.

發明人：陳啟楨、許長祿

CHEN CHEE-JEN / HSU CHANG-LU

專利技術介紹：

本發明為關於一種提昇檸檬多酚含量之發酵方法，是將整顆檸檬含皮含籽榨成汁，並添加益生菌進行發酵，不僅發酵後口感風味更佳，益生菌在檸檬皮汁籽的發酵過程中可有效分解釋出檸檬皮汁中的多酚含量，多酚含量比發酵前明顯提高。



Patented technology introduction:

The Invention relates to a new fermentation method: "do not add any sugar, but only add probiotic into lemon juice, which was squeezed from whole lemon, includes lemon skin (peel), lemon seeds . The result of the new fermentation method: taste of lemon juice, not only taste better, but also shows that probiotic can effectively ferment lemon peel and release more polyphenol. Polyphenol content was significantly higher than other fermentation method.

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專利技術名稱

C 型鋼組合套件結構

THE ASSEMBLY SET STRUCTURE FOR THE C-CHANNEL STEEL

Patent No : (R.O.C. 優先) M 517221

專利權人：劉泰佑 / Taiyo Liu

發明人：劉泰佑 / Taiyo Liu

專利技術介紹：

輕鋼構建屋的關鍵技術乃在於建立一個經濟快速有效的連接系統。金緯綠建材有限公司劉泰佑總經理所研發『C 型鋼組合套件結構』專利，係一盒狀連接器，在建屋時從頭到尾只須用這種連接器與 C 型鋼連接，一般人使用普通工具，就可以快速、簡單、輕鬆地鎖上螺絲完成輕鋼構屋的骨架；鎖固之鋼構堅固耐腐蝕，正常使用壽命百年以上。日後如有需要拆、增或改建，只需拆或裝鋼構連接處之盒狀連接器，再連接或拆除 C 型鋼，容易快速，不會破壞牆體，材料可再使用。

本技術是目前全球輕鋼構同業中唯一具有可計算結構力之輕鋼構工法，可建造耐 8 級以上強震、抗 17 級以上強颱風之建物，具有安全健康、環保節能、舒適美觀、耐久、自然和諧等特性，具極優異之競爭力。



Patented technology introduction:

A breakthrough construction-efficient and cost-effective connection system for C-Channel steel used in building is developed by Taiyo Liu of JINWEI GREEN MATERIAL CO., LTD.

Using a prefabricated box-type connector and general tools, the non-technical people can rapidly build a LGS structural house simply by connecting the connector with the C-Channel steel and fasten the screws. The connecting point once fastened, is reinforced and becomes much stronger as a whole system of the building. To extend or modify the building structure is also easy and simple, just install or remove the connectors and C-Channel steels with no risk of damaging the connector. All the materials can thus be reused.

This connector technology is the only one that can be used to calculate the strength for the column-beam system in LGS industry. Using this connector technology, a building can be designed to withstand above VIII seismic intensity scale and above 184 KM/hr wind speed. A dream house that is safe and healthy, environmentally friendly and energy saving, cozy and beautiful, long life span, and natural and harmony is easy to achieve using this extremely powerful and competitive technology.

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專利技術名稱

快速心電圖檢測裝置

Ultra-rapid electrocardiogram device

Patent No : (R.O.C. 優先) 第 M513674 號

專利權人：高雄榮民總醫院、黃偉春、洪正中、楊金修、黃欽儒、黃謙儒、林子雯、陳堯生、萬樹人、馬光遠、劉俊鵬
Kaohsiung Veterans General Hospital / Wei-Chun Huang / Cheng-Chung Hung / Jin-Shiou Yang / Hsin-Ju Huang / Chien-Ju Huang / Tzu-Wen Lin / Yao-Shen Chen / Shue-Ren Wann / Guang-Yuan Mar/Chun-Peng Liu
發明人：高雄榮民總醫院、黃偉春、洪正中、楊金修、黃欽儒、黃謙儒、林子雯、陳堯生、萬樹人、馬光遠、劉俊鵬
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專利技術介紹：

第二代快速心電圖檢查裝置使用透明矽膠材質，舒適感受性佳，透明材質易看清楚定位點，傳導線包埋於產品中，因此不需再接其他傳導線，外側會有接孔，可連接心電圖機器，另外再進行離形紙整合，採用一次移除離形紙設計，更將易於操作，讓即使不熟悉心電圖電極片黏貼位置人員可以快速且準確的貼附電極片。此突破性的創新設計，解決救護車上執行效率核心問題，因而成功推動高雄市正式建置全台灣第一個救護車「即時無線傳輸 12 導程心電圖」系統，且為全亞洲第一個救護車「行動傳輸 12 導程心電圖」系統，得以提升心肌梗塞病人照護品質，提供國人優質的心臟照護。

特點：

- 1) 本專利設計使用透明矽膠材質，舒適度較柔軟，感受性較佳，透明材質易看清楚較容易做定位之準備。
- 2) 將傳導線包埋於本專利產品中，因此準備上不需再接其他傳導線，外側會有接孔，可連接心電圖機器，此產品將更易於操作，增加多樣性，更具市場價格。
- 3) 進行離形紙整合設計，採用一次移除離形紙設計，與目前需移除十個離形紙設計比較，使用本專利產品將更為方便。
- 4) 本新型讓操作者可以快速且準確的貼附電極片，時間可由 252 秒減少至 30 秒內即可完成十二導程心電圖檢查，尤其是應用於救護車上或急診室內分秒必爭的急救狀況上，更突顯出其效率及價值，故確實能達成本新型之目的。

Patented technology introduction:

- Ultra-rapid electrocardiogram device has transparent silicone material to put the device on patients' chest easily according to anatomy.
- Breakthrough innovative cross mark design by mid-sternum line and inter-nipple line
- Embedded conductive wire design hidden the 10 electrocardiogram cables inside the product and connect the device with single adapter.
- Smart design requires removing the tape once and makes electrocardiogram exam quickly.
- Because the ease of operation, anyone can quickly and accurately complete electrocardiogram within 30 seconds.
- First design in the world.

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專利技術名稱

光纖廣告裝置

Advertising Equipment with Plastic Optical Fiber

Patent No : (R.O.C. 優先) 98117799

專利權人：游朱義 / YU, CHU YIH

發明人：游朱義 / YU, CHU YIH



專利技術介紹：

1. 全球第一個能做出背投面板的透光水泥。
2. 全球唯一能做透光立體產品的公司。

此創新研發的技術已將透光度提昇到 10%~50%，並結合背光投影技術創造出全球唯一無尺寸限制之透光水泥影像螢幕。若與市面一般大型 LED 看板相較，透光影像螢幕具有以下優勢：① 影像柔和無熱源無炫光；② 超級節能可省下 90%~94% 用電量；③ 耐 5,000 磅壓力；④ 施工容易；⑤ 接收全光譜陽光讓身體健康；⑥ 抗 UV 降低室內溫度；⑦ 耐用壽命長；⑧ 免維修費用及超高解析度等。

關鍵性 – 透光水泥製作出可撓性 3D 立體造型。與一般的大型 LED 看板相比，透光影像螢幕的營運成本比大型 LED 看板減少 89%。

Patented technology introduction:

1. Due to energy shortages and climate extremes factors, if the human let sunlight through the building body directly into the home interior, it can save a lot of lighting energy and also promote good health, reduce artificial light irradiation. But so far, without any of the material at the same time have building strength and would allow light transmission.
2. Business Conduct and LED development, combined with the development of outdoor advertising signs, actually the large LED billboard is very power consumption, fragile and short life. But the human is no better large screen replaced by technology, so large LED billboard is commercials on a single show. In fact, the largest outdoor plane of human society is building facade. If the entire building exterior wall is a screen, not only building body can be lively, commercials can also find a better platform.

Two requirements above all be solved by the present invention [Image Wall] translucent cement bricks (Light Brick) with 6,200 pounds of strength, light transmission rate of 20%, the light spot can be neat array, a good resolution, as the building exterior wall use, not only during the day can lighting, can also be used as a commercial movie play panel at night, do not afraid of the wind and sun, the same area of the player need only 6.2 percent of the power consumption of the LED billboards. Without any maintenance costs, no installation technology, combined the traditional architecture and the image panel perfectly.

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專利技術名稱

穿戴式溫控裝置

PORTABLE THERMORAGULATOR

Patent No : (R.O.C. 優先) M530977 (Taiwan R.O.C.) ; 201620501938.6(China)

專利權人：奇岩電子股份有限公司 / Moai Electronics Corporation

發明人：蕭景中、林宜養、周育德、何政衛、洪明順、黃佑任 / CHING-CHUNG HSIAO / YI-YANG LIN /
YU-TE CHOU / CHEN-GWEI HO / MING-SHUN HUNG / YU-JEN HUANG



專利技術介紹：

奇岩電子全球首創具有與手機無線通訊功能之穿戴式溫控裝置 (G2T-N2)，包括本體、溫控、多媒體、無線通訊、監測以及線控模組。

G2T-N2 可將適宜的溫度作用於人體頸動脈，藉由血液溫度的緩和改變，可調節人體的核心溫度。使用者可藉由無線通訊模組進行裝置溫度設定，以增加溫控操作的便利性，更適合在居家及工作環境中使用。亦能搭配多媒體模組可進行訊息傳遞如免接聽電話服務、音樂，且可整合人體健康資訊與物聯網系統連結，藉以達到健康照護的效果。再者，當使用者無法使用無線通訊或無線控制情境下，無需取下本創作之穿戴式溫控裝置本體，可透過線控模組操控，特別適合運動間、行進間的即時操作。

Patented technology introduction:

G2T N2 - portable air conditioning with a personal sound space

Wearable Electric Scarf G2T-N2 provides full time cooling and heating system for individuals to have temperature control anytime and both indoor and outdoor. It works as an personal air-conditioner. Differ from traditional air-conditioner, G2T does not need coolants, ice or water. G2T has the capability to offer cool and warm without great energy consumption; therefore, it helps to care for the earth and save money for users.

Besides, not only does G2T-N2 regulate your body temperature so that you stay healthy, but it also encourage safer listening habit. G2T-N2 is Bluetooth 4.0+ compatible which means is easily paired with any iOS or Android device. Once connected, the user can enjoy the following:

- hands free phone calls
- stream live music, radio, podcast and online music services
- speaker source for watching your favorite YouTube videos
- GPS access directions while riding your bike

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專利技術名稱

太陽能桌

The solar power table

Patent No : (R.O.C. 優先) 104124108

專利權人：國立勤益科技大學 / National Chin-Yi University of Technology

發明人：鄭文達 / JHENG,WERN DARE



專利技術介紹：

若能讓世人方便取得潔淨的電力，減少對電廠的依賴，將有機會改變地球生態的浩劫。本產品導入獨步全球的彩圖太陽能技術與無線充電裝置，把輕巧方便的桌子變成取得太陽能的美麗載體。未來在居家或戶外活動都可以利用它取得免費的太陽能電力，提供給照明、風扇、手機、音樂等 3C 產品使用。本產品結合多項專利與技術，開發出具商品化價值的產品，已具有布局全球市場的潛力。

Patented technology introduction:

If we can let the world have convenient access to clean electricity, reduce dependence on power plants, will have the opportunity to change the Earth's ecological catastrophe. This product is the introduction of the world's leading colorful solar cell and a wireless charging system, and then the table becomes easy to obtain green solar energy products. Future in the home or outdoors can use it to obtain free solar electricity, to provide lighting, fans, mobile phones, music and other 3C products.

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專利技術名稱

心電圖輔助之身分辨識系統

ELECTROCARDIOGRAPH (ECG)-BASED IDENTITY IDENTIFYING SYSTEM

Patent No. : (R.O.C. 優先) I555507

專利權人：國立中興大學 / National Chung Hsing University

發明人：林俊良、陳決億

Chun-Liang Lin / Yang-Yi Chen



圖一：一導測量測儀圖及辨識系統



圖二：心電圖身分辨識之應用

專利技術介紹：

本創作開發之身分辨識系統是以受測者的心電圖 (ECG) 資訊為基底，透過一導程心電圖量測介面取得資訊，經訊號處理並擷取 30 個個別特徵及重組複合數個特徵後，導入特殊演算法，經電腦、平板、手機或手持裝置等計算顯示身分辨識結果。本發明的關鍵技術是，可針對受測者疾病或姿態變化也能提供穩定的辨識結果。本辨識系統與現今任何一種身分辨識或加密系統並無衝突，因此可與其作雙重搭配，如指紋、密碼、磁卡辨識等。而本創作之辨識系統配合性高，對硬體設備要求也低，只需簡單的量測模組外加二個導電片即可，因此可運性高。實用上，可利用心電圖量測模組配合行動裝置，將即時量測之心電圖信號，經處理及辨識後，應用於 ATM 提款、行動付款、海關通關、遠端監控等。

Patented technology introduction:

This invention presents an electrocardiograph (ECG) based identity identifier to be used in mobile devices, ATM or computer. Accompanied with a simple ECG measurement interface, computer, notebook or intelligent cell phone, and a key computational algorithm, it is able to identify the tested object' s identity in real time with an acceptable identification rate. Because ECG changes dramatically with the object' s physical or psychological status, there exists significant variations while adopting it as the information source for personal identity identification. This invention conquers the hard-to-overcome difficulty proving that using ECG for personal identity identification in practical applications, such as access control, is possible.

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專利技術名稱

滾珠螺旋連續曲線變速傳動裝置

Variable speed transmission device of ball screws with continuous curve

Patent No : (R.O.C. 優先) 104122192

專利權人：虎尾科技大學 / National Formosa University

發明人：黃社振、蔡翼鴻

Hwang Shen Jenn / Tsai Yi Hung



專利技術介紹：

具有徑向與軸向面之特殊連續曲線滾珠螺旋變速傳動裝置，不但具有滾動接觸之圓滑傳動，並具有體積小，高減（增）速比、高扭轉剛性與低傳動誤差等特點。可任意層之彈性設計，其輸入至輸出之傳動速比為 $i = (\frac{T_2}{T_1})^n$ 。多層設計更能有效提升剛性與減少傳動誤差，並可依實際設計需求隨變速模組之增加而提高速比。

Patented technology introduction:

A ball screw transmission device on radial and axial plane with special continuous curve, not only have the smooth transmission of rolling contact, and has small volume, high decrease (increase) ratio, high torsional rigidity and low transmission error, etc. Can be arbitrary combination of n layer flexible design, the transmission ratio of input to output as $i = (\frac{T_2}{T_1})^n$

Multilayer design can more effectively improve rigidity and reduce the transmission error, and can be in accordance with the actual design requirements increase with the increase of transmission module of the speed ratio.

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專利技術名稱

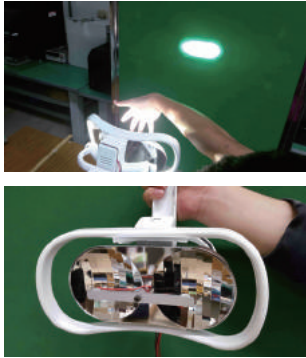
牙科燈之反光罩 REFLECTOR OF DENTAL LAMP

Patent No : (R.O.C. 優先) I503506

專利權人：國立高雄第一科技大學 / National Kaohsiung First University of Science and Technology

發明人：謝其昌、李彥輝、唐誠燦

Hsieh, Chi-Chang / Li, Yan-Huei / Tang, Cheng-Tsan



專利技術介紹：

本專利提出多平面反射結構設計之方法適用於應用 LED 光源之牙科醫療燈，利用多平面結構技術控制光線分佈焦點，令使 LED 反射式牙科燈表現可達到 ISO-9680 法規對牙科燈光特性的測試標準。照明表現的檢測結果可同時達到國際法規與現今醫療機構採購標準；均勻度佳並消除鬼影現象，突破 LED 反射式牙科燈無影度不足的現況。LED 燈使用量減少 33%，用電量亦節省 30% 以上，反射式設計提供足夠的工作距離，此要求是為降低醫療過程中因燈具上下位移而造成的光斑變化，避免造成醫療失誤。使用效率更高、材料更少，可提高燈具產品的使用壽命與效率，且能減少資源的消耗，進而降低成本，提高競爭力；因此 LED 反射式牙科燈將擁有廣大的 LED 醫療燈具核心關鍵元件市場。

Patented technology introduction:

The surface of reflective modules in LED reflective dental lamps is equipped with numerous reflectors oriented at various angles. Such reflectors are interconnected, presenting a checkerboard configuration. Structural technology (i.e, continuous multiplanar reflectors) can be employed to reflect a light source onto a target plane. The reflection angles of the various surfaces are calculated according to the size of the target light spots and their corresponding coordinate positions on the independent surfaces in the various sectors of the reflector. After the angle of each independent reflective plane is adjusted, the LED reflection forms an illuminated rectangle, satisfying the requirement of International Organization for Standardization 9680. The results are then illustrated using a 3D component, which is incorporated into optical simulation software for verification. The LED reflection is superior to the illuminance of traditional dental lamps and supplements the inadequate performance of LED dental lamps.

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專利技術名稱

活動感知地墊及其總成

ACTIVITY-SENSING GROUND PAD AND ASSEMBLY THEREOF

Patent No : (R.O.C. 優先)

專利權人：世大福智科技股份有限公司、世大化成股份有限公司 / SEDA G-Tech, SEDA

發明人：徐業良、王為寬、張凱維、劉育璋、張維益

Hsu, Yeh-Liang / Chang, Kai-We / Liu, Yu-Wei / Chang, Wei-Yi



專利技術介紹：

本產品技術創新重點為「巧拼」形式活動感知地墊，將整片地墊材料製作成為壓阻式壓力感測單元（而非另行嵌入機電式感測器），使用者在居家環境中依其需求形狀與面積自由拼接，拼接完畢後軟體程式即能自動建立單元間相對地圖（auto mapping）。每組地墊使用 I2C 串列通訊建構單元間通訊傳輸，以內建 wi-fi 和低功率藍牙 (BLE) 將感壓訊息傳送至雲端伺服器與行動裝置，搭配雲端程式和行動裝置 App 撰寫，提供室內定位、活動力監測、跌倒偵測等基本功能，更能獨立發展多元互動應用產品。

Patented technology introduction:

The motion sensing mat is developed in the form of “puzzle floor mat”, which allows the users to DIY assemble the units according to their desired shape and area. The auto mapping firmware identifies relative positions of all units after assembly. I2C bus is used for data transmission between units, and built-in Wi-Fi and low-power blue-tooth transmit sensing data to the cloud server and mobile devices. Programs built in the cloud server and mobile device App provide functions of localization, mobility monitoring and fall detection. Many interactive devices are also to be developed based on this platform.

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專利技術名稱

探棒前端感測式探頭

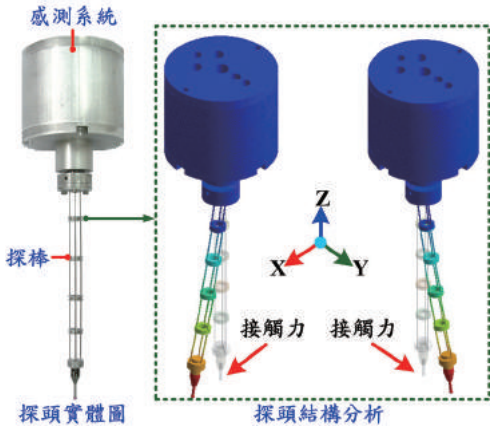
Probe tip sensing probe

Patent No : (R.O.C. 優先) 105115250

專利權人：南臺科技大學 / Southern Taiwan University of Science and Technology

發明人：朱志良、陳泓錡、陳柏霖

Chih-Liang Chu / Hung-Chi Chen / Bo-Lin Chen



專利技術介紹：

本產品僅用三根微細鋼管即突破現有三次元掃描探頭結構設計上的瓶頸，並使用探棒前端的光路設計感測工件表面的形狀變化，如此感測方式將排除探棒變形誤差，更能確保量測的精度，且整合自行研發的超精密光學 1D 位移與 2D 角度感測系統，成功地設計出一低成本、高精度之「探棒前端感測式探頭」。整體探頭系統從結構設計、感測系統、電路製作…等皆自行研製，搭配三軸定位平台，即可量測微小模具與元件之三維表面形貌。

Patented technology introduction:

This product uses only three pieces of fine steel that break through the bottleneck of the existing three dimensional scanning probe structural design. At the time of actual measurement, measuring probe is to use optical design of probe tip to sense the change in shape of the workpiece surface measured, so sensing mode will be able to better ensure the accuracy of measurement. By integrating the structure with a self-developed ultra-precision optical 1D displacement and 2D angle sensing system, a low-cost and high precision of probe tip sensing probe was also successfully developed. The overall probe system was independently developed from the structural design, the sensing system, the circuit design, etc. Accompanying a three-axis position stage, the probe can be measure the three-dimensional surface topography of micro molds and components.

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專利技術名稱

促進第五型磷酸二脂 抑制劑經皮吸收的醫藥組成物

Improved Pharmaceutical Composition for Enhancing Transdermal Delivery of PDE-5 Inhibitor

Patent No : (R.O.C. 優先) 台灣專利 I-422399

專利權人：群泰生物科技股份有限公司 / Tritech Biopharmaceuticals Co Ltd

發明人：劉一劍、吳沛玲 / Yee-Chien Liu / Pei-ling Wu



專利技術介紹：

全球性功能障礙人口超過 4 億人，治療藥物（威而剛、犀利士、樂威壯）的總銷售額也超過 40 億美金。雖然他們的臨床效果良好，不過副作用廣為人所詬病，尤其在 40 歲以上的中老年使用者。因此如何避免藥物的心血管及猝死風險，將是這類醫藥開發的終極目標。本發明的目標為改良第五型磷酸二酯酶抑制劑的劑型及吸收方式，讓藥物從陰莖吸收產生臨床效用，又因為組織可以當做貯存器官，藥物可以在陰莖吸收後達到飽和，因此塗藥後可達到緩慢釋放的效果，隨時可以促進勃起。

Patented technology introduction:

Over 400 million males suffer from erectile dysfunction (ED). Currently, phosphodiesterase type 5 (PDE5) inhibitors such as sildenafil (Viagra), tadalafil (Cialis) and vardenafil (Levitra) are used to treat ED orally and their annual sales are up to 4 billion USD. Although PDE5 inhibitors show a satisfied efficacy in treatment of ED syndrome, the undesired side effects somehow happen after consumption. Therefore, to find the useful methods or dosages for elimination of cardiovascular side effects and sudden death, especially in aged users over 40 years old, becomes a straightforward improvement of PDE5 inhibitors. In this study/invention, Tritech focused on the development of new dosage and transdermal delivery to increase the clinical values of PDE5 inhibitors. We selected unique transdermal enhancers to formulate vardenafil as a topical gel for local application on penile groove. The results demonstrated that vardenafil can be absorbed transdermally and restored in tissue to reach plateau concentration. Functional assay also showed topical vardenafil can enhance penile rigidity and sexual activity in rat. Hence, the improved dosage might locally deliver vardenafil into penile. The penetrated vardenafil could saturate in tissue and in turn long-lastingly release to facilitate erectile once acceptance of sexual stimuli.

群泰生物科技股份有限公司 / Tritech Biopharmaceuticals Co Ltd

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專利技術名稱

於上鏈傳輸系統中解決射頻不完美之聯合估測補償方法

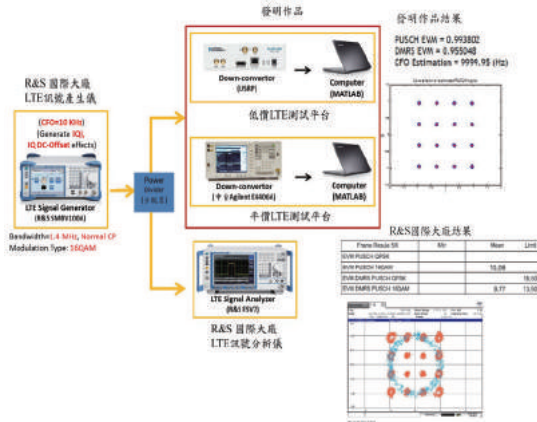
Joint estimation and compensation methods to solve the RF imperfections for the uplink communication systems

Patent No : (R.O.C. 優先) 104110066

專利權人：元智大學 / Yuan Ze University

發明人：鄧俊宏、謝宏陽、黃正光、林怡欣、黃勝陽、林光敏

Juinn-Horng Deng / Hung-Yang Hsieh / Jeng-Kuang Hwang / Yi-Hsin Lin / Sheng-Yang Huang / Kuang-Min Lin



專利技術介紹：

LTE/LTE-A 是 4G 行動通訊系統之重要技術，目前 LTE 測試儀器價格均昂貴，本作品即開發平價的測試 LTE 之軟體無線電平台，此平台核心技術即為專利申請之發明技術：「於上鏈傳輸系統中解決射頻不完美之聯合估測補償方法」。本發明具有高精度度與低複雜度之獨特優點。該技術可與國際大廠 R&S LTE 分析儀比較，在射頻不完美嚴重影響下，R&S LTE 分析儀星雲圖性能嚴重衰落至 10%，相較之下，本發明作品之聯合估測補償方法之性能依然有 1% 優異性能，如下圖作品照片所示。由本作品完整照片得知，此平台包含平價的降頻儀器與筆記型電腦，並可搭配各種不同更低價位模組，皆可完成 LTE 測試功能。

Patented technology introduction:

LTE/LTE-A is the important technology of the 4G mobile communication system. The international LTE measurement instruments are more expensive. The product is to use the software defined radio (SDR) scheme to develop the low cost LTE measurement platforms. The core technology of the platform is the patent technology: Joint estimation and compensation methods to solve the RF imperfections for the uplink communication systems. The high accuracy and low complexity designs are the advantages of the proposed technology. The proposed scheme can be compared with the international R&S LTE analyzer. In the serious RF impairments, the constellation performance of R&S LTE analyzer is degraded to 10% error. For our technology, it still involves better performance with 1% error. As shown in the following Figures, the platform contains the cheap used instrument, low cost modules, and laptop, which can complete the LTE measurement functions.

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專利技術名稱

具有固定結構的排水口濾罩

FILTER GRID HAVING A FIXING STRUCTURE FOR A DRAIN INLET

Patent No : (R.O.C. 優先) 104137772

專利權人：簡佑家 / Yu-chia Chien

發明人：簡佑家 / Yu-chia Chien



專利技術介紹：

- (1) 活動柵欄 - 可將落葉及泥沙阻隔於排水罩外，不會產生排水吸力而導致異物阻塞排水口造成積水或淹水，活動柵欄可隨地勢改變完全貼合地面，密合度高無死角。
- (2) 圓弧柵欄 - 具擾流效果，可降低排水管内產生漩渦，增加排水速度。
- (3) 鏤空邊條 - 為菱形設計可降低風阻，底部固定器設計經風洞測試可耐 17 級強風（風速 58.2 公尺 / 秒）。
- (4) 整體為全 PC 塑料材質（汽車燈罩材質相同），經檢驗單位測試耐日照、耐寒（-40℃）及耐熱（70℃），皆無任何損壞。
- (5) 反光上蓋 - 於夜間可快速辨別位置，也可加裝標桿，於大雪後可快速地找到 排水口位置。
- (6) 無須施工，調整固定器（1~5 英吋大小都適用）直接覆蓋於排水口上。

Patented technology introduction:

Invention Patent:

- (1) Movable filter grid – blocks leaves, mud and debris outside drain inlet without affecting draining capacity as well as not causing water stagnation or flood arising from drain inlet clogged by foreign matter, and seamlessly close fit the ground regardless of ground surface conditions.
- (2) Dome-shaped grid structure – separates water flow to suppress generation of whirlpool and increases drainage speed.
- (3) Hollow-out grating – has multiple ribs being diamond-shaped and reducing the effect of wind drag, and a bottom seat capable of withstanding wind at Beaufort wind force scale 17 (equivalent to wind speed 58.2 m/s) generated in a wind tunnel test.
- (4) Fully made with polycarbonate plastic material (same material used by vehicle headlight cover) and tested by certification authority with damage-free assurance and weathering endurance to sunlight, low temperature (-40 °C), and high temperature (70°C).
- (5) Reflective top cover – can be quickly identified where is the filter grid at night. Aside from this, stick the marker on top cover of the filter grid for easy found the location of the drain inlet in bad sight weather.
- (6) No construction required, and the bottom seat (applicable to the diameter for 1” to 5”) can be adjusted to help direct placed on top of drain inlet.

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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 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，以鸞翼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.

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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，可使於手部握持滅火，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.

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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* O157: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.

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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.

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專利技術名稱

全光學式編碼元件

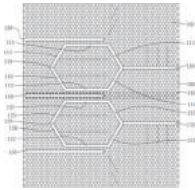
All-optical encoding device

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

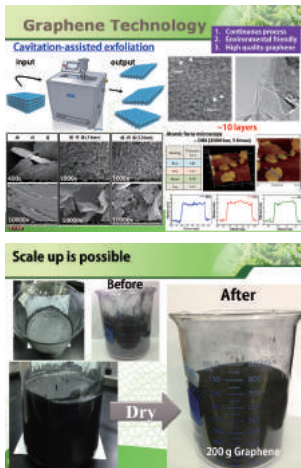
METHOD OF PRODUCING GRAPHENE/METHOD OF PRODUCING GRAPHENE

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

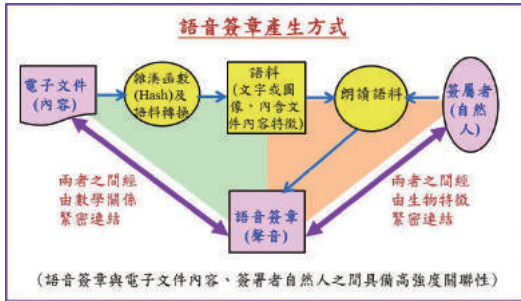
產生及驗證一訊息之一語音簽章之裝置、方法及其電腦程式產品

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

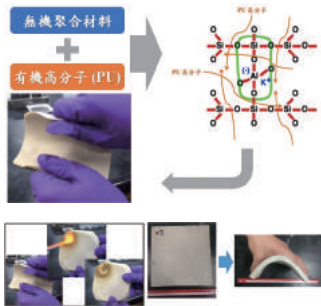
INORGANIC SLURRY, COMPLEX FOAM, AND METHOD FOR PREPARING THEREOF

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.

國立臺北科技大學資源工程所 Institute of Mineral Resources Engineering, National Taipei University of Technology / 逢甲大學紡織與材料工業研究中心 Textile and Material Industrial Research Center, Feng Chia University

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專利技術名稱

一種三維造影掃描系統

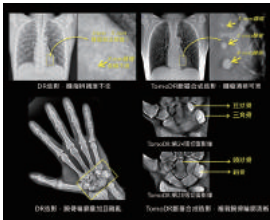
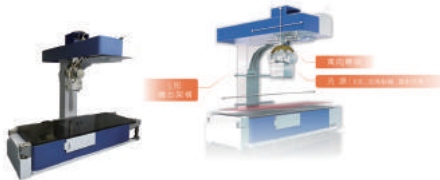
A SCANNING SYSTEM FOR THREE-DIMENSIONAL IMAGING

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.

行政院原子能委員會核能研究所 / Institute of Nuclear Energy Research, Atomic Energy

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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，不論是現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.

生命之星國際股份有限公司 / Life Star International Limited

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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.

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專利技術名稱

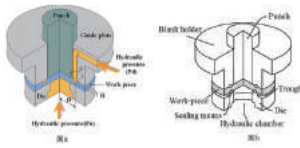
液壓精密下料裝置

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、塌角及模輓之創新方法。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): $0.03 \mu m \sim 0.21 \mu m$ 。
- (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): $0.03 \mu m \sim 0.21 \mu m$ 。
- (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

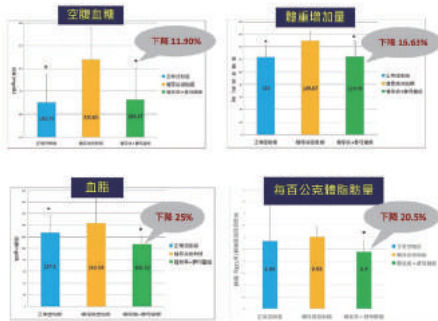
新穎之酵母菌及其應用

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

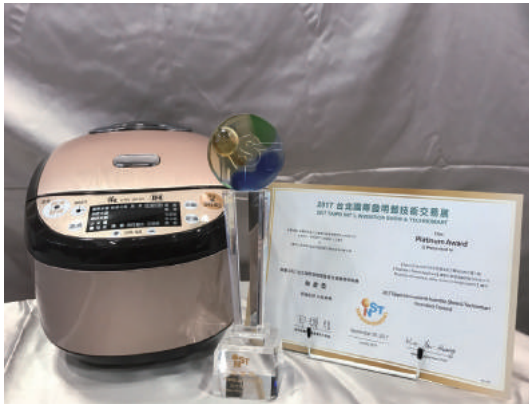
使用者可設定烹調溫度之電磁加熱式電子鍋

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.

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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，隨即發出警響與警示燈，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.

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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.

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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礙子、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.

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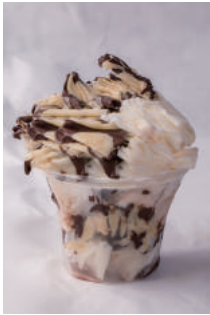
專利技術名稱

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

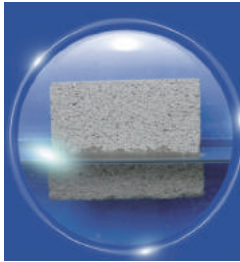
水泥造粒系統及其造粒方法

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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2018
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專利技術名稱

熱處理收料裝置

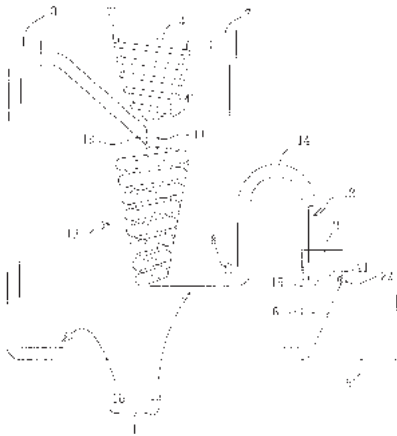
Heat Treatment Material Collection Device

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.

財團法人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

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：

穩安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，縮短煞車時間及距離。
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 運動煞車，穩安煞車分配器簡化為單把手單線驅動制動設計，具有 CBS 運動煞車功能。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.

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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刮槽；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，水中的液體由該刮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, avoiding 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.

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專利技術名稱

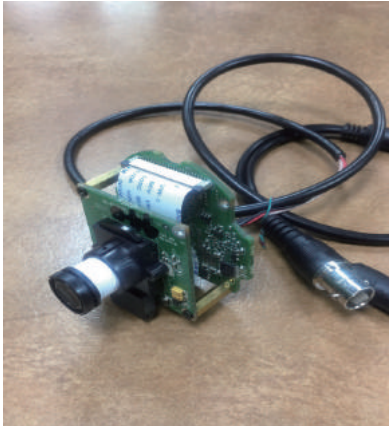
加強影像辨識清晰的影像感測器及其應用

Image Sensor 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

Multifunctional Bicycle - ALL IN ONE



www.twogetherbikes.com

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

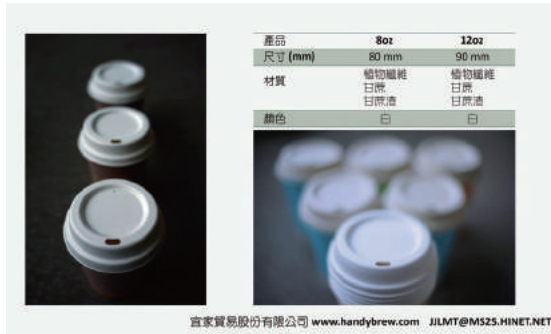
Manufacturing Method for Outer Covering Edge of Molded Cup Lid and Product

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 disposable cup 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末端單元

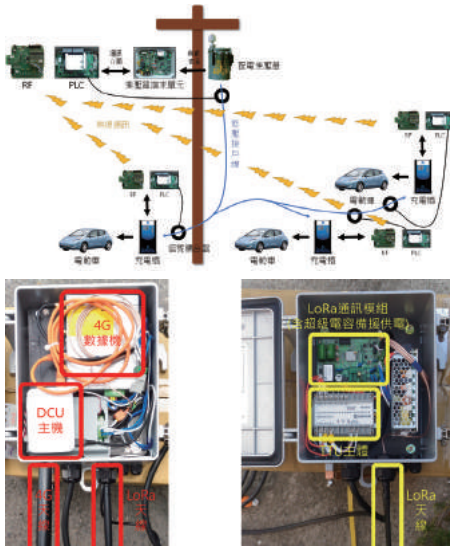
Smart Home Energy Management System and Transformer Terminal Unit

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：

本專利應用變壓器末端單元 (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，先由充電柱將 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 之智慧充電電量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.

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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

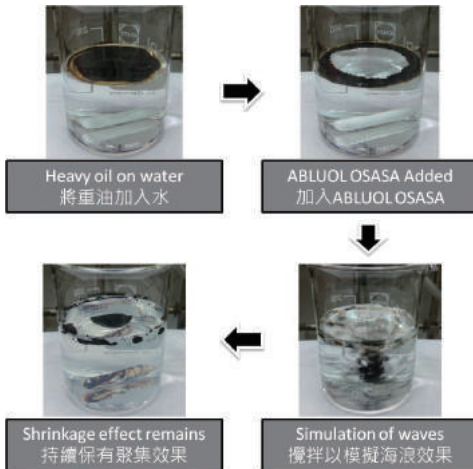
水陸及生物用強化溢油處理方法

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：

傳統處理海洋油污的溢油分散劑是將油污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

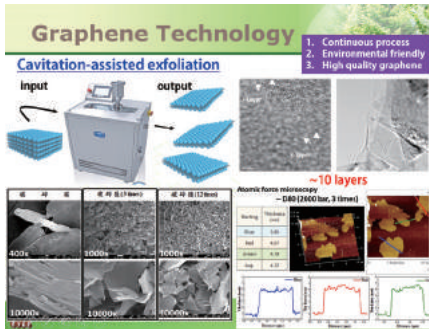
Graphene Structure, Method of Producing Graphene And Electrode of Lithium-Ion Made of The Same

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

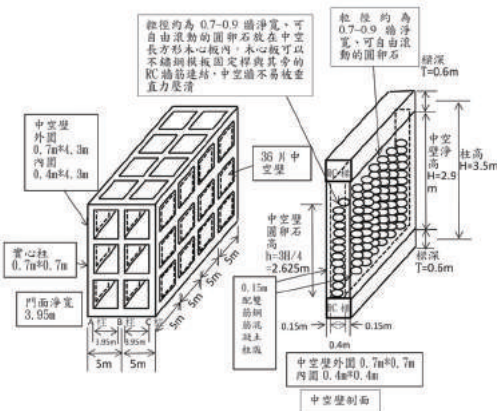
慣性減震結構

Inertial Shock Absorption Structure

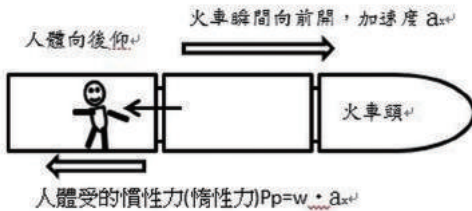
Patent No : (R.O.C. 優先) 106129718

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：

「慣性減震壁」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阻尼器，就是利用慣性原理，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慣性，產生與建築物振動位移方向不同的慣性力，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慣性牆，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。

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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駕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

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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爛煮。

Patented technology introduction:

The chopsticks go through the hole and sealing film not only decrease the chances of being burned 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.

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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

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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时，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.

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