



Sustainability

Innovation Pilot

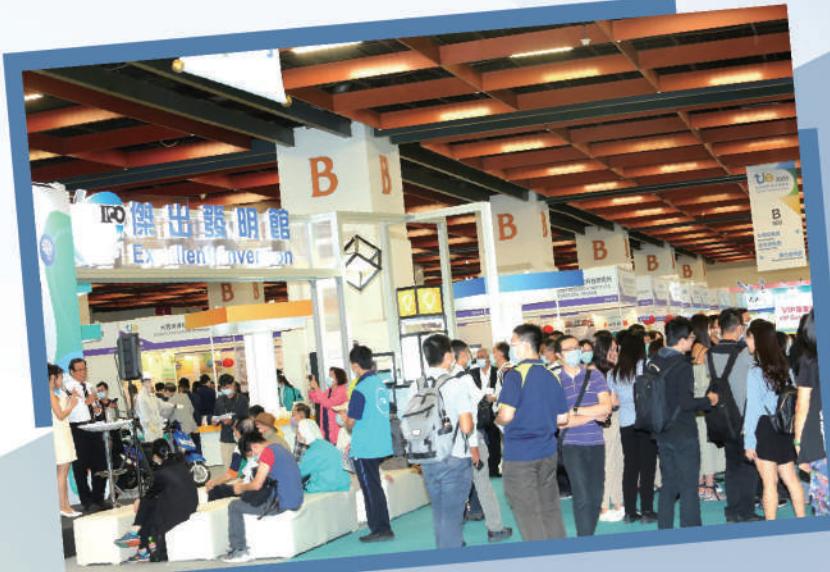
Future Tech



Taiwan Innotech Expo 台灣創新技術博覽會

| 2018-2020
| Platinum Awards 鉑金獎

2020 Highlights | 2020精選照片



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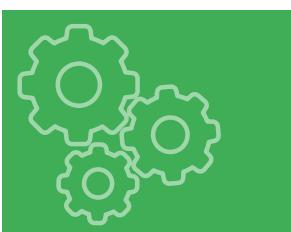
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專利技術名稱

移動平均低通濾波裝置與方法

MOVING AVERAGE LOW-PASS FILTERING DEVICE AND METHOD

Patent No : (R.O.C. 優先) I625935

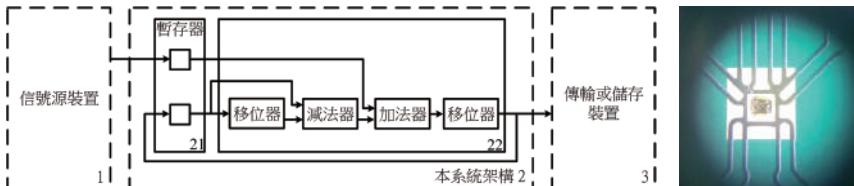
專利權人：中原大學 / Chung Yuan Christian University

發明人：陳世綸、林鼎然、趙文瑄 / Chen, Shih-Lun / Lin, Ting-Lan / Zhao, Wen-Xuan



專利技術介紹：

本發明提出一個創新的低通濾波器架構，此架構結合移動平均濾波的概念，利用前一次濾波的結果乘以一個倍率，再與新的輸入相加來近似輸入訊號的總合，如此可有效減少計算輸入訊號總合的數量，相較於傳統低通濾波器架構，本發明具有固定單一硬體架構可支援多樣輸入訊號之新穎性，與低成本、低硬體複雜度、高彈性與高效能之進步性；本發明有效節省平均約 46% 硬體成本，運算時間平均下降 9.6%，可廣泛應用於各式電子產品如穿戴式裝置、物聯網、手機、平板電腦等產品中。



Patented technology introduction:

The present invention proposes a novel architecture of low-power filter which combines the concept of a moving average filter. Compared with traditional low-pass filter, the present invention has novelty of a signal hardware architecture can support multiple input signals. In addition, the present invention has benefits of low-cost, low-hardware-complexity, high flexibility and high performance. The present invention saves 46% average hardware cost and reduces 9.6% average computing time. The present invention can be widely applied in consumer electronics such as wearable devices, Internet of Things (IoT), smart phone, tablet computer, etc..

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專利技術名稱

醫療氣液體供應系統

Medical Gas-Liquid Supply System

Patent No : (R.O.C. 優先) I63494

專利權人：元智大學 / Yuan Ze University

發明人：鍾國濱、葉佳鎮、余浚璋、馬嘉慶、謝崇偉 / Guo-Bin Jung / Chia-Chen Yeh / Jyun-Wei Yu / Chia-Chin Ma / Chung-Wi Hsieh



專利技術介紹：

在已知的醫療技術中，氫氣、高壓氧氣及超氧已被證實可應用於輔助治療糖尿病、心血管疾病、聽力損傷、心血管疾病及脊髓神經等而上述氣體各有不同生產裝置。有鑑於此，本發明提供一種（綠色）醫療系統，其藉由質子交換膜電解技術 (Proton Exchange Membrane Water Electrolysis, PEMWE) 將水電解來產生超氧，來處理提供病患所需的醫療氣體、減少化學藥劑的使用、提升病患免疫力，希望由目前化學藥物使用的醫療現況邁向綠色醫療未來。

Patented technology introduction:

Our invention is to explore the possibility to replaced chemicals used as medicine. The generation of high pressure oxygen, high purity hydrogen, and medical grade ozone from water with innovative proton exchange membrane water electrolysis (PEMWE) and their application is addressed. The effectiveness of oxygen, hydrogen, ozone on specific disease cure and prevention, ex. diabetes, cardiovascular unique disease, spinal nerve, hearing has been proven in literature separately. Our team hope that high quality gases from our unique device will be better utilized in these disease cure and will be the best green invention in this century.

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專利技術名稱

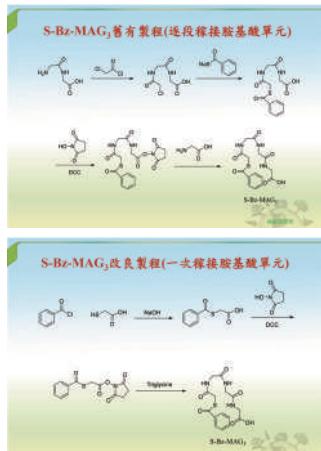
造影劑前驅物 S-Bz-MAG3 之製備方法

Method for preparing S-Bz-MAG3 as a precursor of contrast media

Patent No : (R.O.C. 優先) I663174

專利權人 : 行政院原子能委員會核能研究所 / Institute of Nuclear Energy Research, Atomic Energy Council, Executive Yuan, R.O.C

發明人 : 李青雲、張瑜、徐成芳 / Li, Ching-Yun / Chang, Yu / Hsu, Cheng-Fang



專利技術介紹 :

Tc-99m-MAG3 為專一性診斷有效腎血流量及腎小管功能造影劑，能精確掌握及分析腎臟分泌排泄的藥理特質，已成為全世界進行腎功能診斷時重要的核醫藥物。

本專利將 Tc-99m-MAG3 造影劑之前驅物 S-Bz-MAG3 合成途徑進行調整，由四步驟反應簡化為三步驟，其關鍵在於將結構中的三個胺基酸單元一次嫁接完成，而非舊製程的逐段嫁接。改良後之製程總產率為 64%，較舊製程總產率提升了 10-20%；產品純度均達 99% 以上，在產率及純度品質上均有長足的精進，促成 Tc-99m-MAG3 造影劑的順利生產與獲得核准上市。

本專利製程不需繁複的管柱層析純化，易於進行 10 公克級以上擴量製程，並已進行多批次的驗證生產。期能將此專利技術轉移給民間製藥產業，使國內腎臟泌尿系統病患，獲得更精準有效的醫療診斷服務。

Patented technology introduction:

Tc-99m-MAG3 is a specific diagnostic and effective contrast agent for renal blood flow and renal tubular function. It can accurately control and analyze the pharmacological characteristics of renal secretion and excretion. It has become an important pharmaceutical for renal function diagnosis worldwide.

This patent adjusts the synthetic pathway of the precursor, S-Bz-MAG3 for Tc-99m-MAG3 contrast agent from a four-step reaction to three steps. The key is to complete grafting of the three amino acid units in the structure at one time, rather than step by step of the conventional process. The total yield of the improved process is 64%, which is 10-20% higher than that of old one. The purity of the product achieves more than 99% and shows considerable improvements in terms of yield and purity quality, which has contributed to Tc-99m MAG3 contrast agent was successfully produced and approved for marketing.

The process of patent does not require complicated column chromatography purification, and is easy to carry out an expansion process above 10 grams, then has undergone multiple batches of verified production. It is anticipated to transfer this patented technology to the private pharmaceutical industry, then domestic patients with renal and urinary system can obtain more accurate and effective medical diagnosis services.

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專利技術名稱

含綠能之配電饋線轉供方法

Method of transfer supply containing green energy for distribution feeder

Patent No : (R.O.C. 優先) I691144

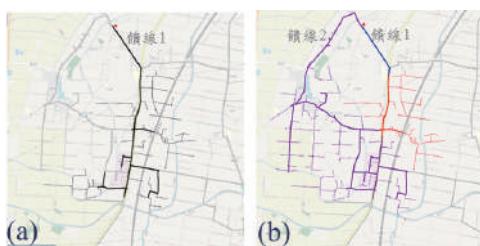
專利權人：行政院原子能委員會核能研究所 / Institute of Nuclear Energy Research, Atomic Energy Council, Executive Yuan, R.O.C.

發明人：蔡佳豪、姜政綸、李奕德、劉力源、何元祥 / Cai, Jia-Hao / Jiang, Jheng-Lun / Lee, Yih-Der / Liu, Li-Yuan / Ho, Yuan-Hsiang



專利技術介紹：

本系統係整合配電監控 (SCADA)、地理圖資系統 (GIS)、及配電潮流程式之本土配電網絡圖資管理系統，提供饋線地理空間資訊及定位服務，透過資料視覺化技術，呈現饋線上電力設備與再生能源相關電力資訊，可輔助調度員迅速掌握饋線故障位置。SCADA 除了可進行饋線故障偵測與區間判斷、隔離、上游復電與下游轉供 (FDIR) 等快速復電功能外，透過配電潮流計算方法提出饋線裕度、最高/最低電壓、及線路損失等重要資訊，可供調度員作為轉供調度決策參考依據，以加速排除故障並恢復用戶供電。使用本系統，期可有效提高饋線調度運轉與管理再生能源能力。



Patented technology introduction:

This system is a domestic distribution network management system with graphic visualized information that integrates SCADA(Supervisory Control and Data Acquisition), GIS(Geographic Information System), and distribution power flow programs. It provides feeder geospatial information and positioning services, and displays power generation information of electric devices and renewable energy on feeders through data visualization technique, which can assist dispatchers to quickly track the fault locations on feeders. Besides ability to conduct fast FDIR, with distribution flow calculations, SCADA can also provide important information such as feeder margin, maximum/minimum voltage, and line loss for dispatchers as a reference for decision-making to speed up troubleshooting and restoration of user power supply. It is expected that the proposed system can enhance the ability of feeder dispatch operation and renewable energy management.

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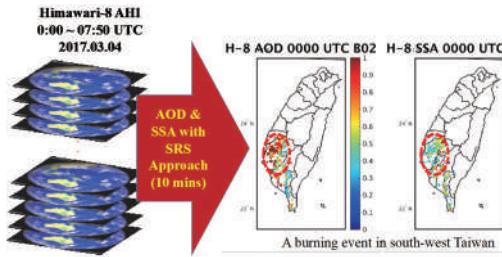
專利技術名稱

大氣層頂反射率之時間空間影像融合方法於氣膠光學厚度反演 A TOA-reflectance-based Spatial-temporal Image Fusion Method for Aerosol Optical Depth Retrieval

Patent No : (R.O.C. 優先) I684755

專利權人：國立中央大學 / National Central University

發明人：黃智遠、何炫麟、林唐煌 / Chih-Yuan Huang / Hsuan-Chi Ho / Tang-Huang Lin



專利技術介紹：

本技術克服傳統影像融合方法 (STARFM) 在大氣參數反演之限制，提出 TOA-STFM 方法進行大氣層頂反射率高時、空影像融合，應用於氣膠光學厚度 (大氣懸浮微粒) 之反演，並整合高空間 (Landsat-8 與 SPOT-6) 與高時間 (Himawari-8) 解析影像，產製高時、空之衛星影像 (每 10 分鐘 6~30 米亞洲地區)，並應用至空氣品質監測，彌補現行傳統與衛星觀測之不足，掌握空氣污染時、空之變化。

Patented technology introduction:

The proposed TOA-STFM is a spatiotemporal remote sensing image fusion technology that can preserve top-of-atmosphere (TOA) reflectance. By fusing high spatial resolution images (Landsat-8 and SPOT-6) and high temporal resolution images (Himawari-8), the fused 10-minute- and 6~30-meter-resolution TOA images can solve the problem of existing air quality monitoring techniques and effectively capture the dynamic changes of air quality in a large region.

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專利技術名稱

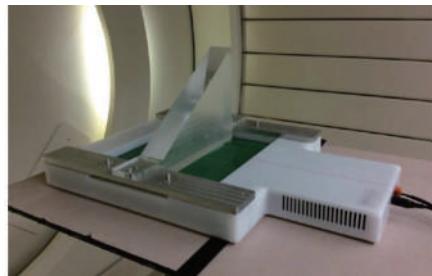
用於放射治療中掃描式離子束量測的偵測器

DETECTOR FOR MEASURING SCANNING ION BEAMS IN RADIATION THERAPY

Patent No : (R.O.C. 優先) I610698 / US9,884,207

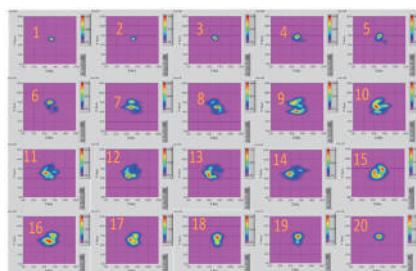
專利權人：國立中央大學、中央研究院 / National Central University, Academia Sinica

發明人：陳鎰鋒、林志勳、鄧炳坤 / Augustine Ei-fong Chen / Chih-Hsun Lin / Ping-Kun Teng



專利技術介紹：

以掃描式離子束進行放射治療為進行中趨勢。此發明為游離腔式探測器，以陣列條型電極方式讀出取得掃描式離子束一維空間分布訊息，分別以 XY 方向讀出粒子束訊息，而後再行重建其二維分布，因此達到快速及高空間解析度目的；可依此準確量測掃描式離子束的不同參數及輻射劑量。並依此架構搭配不同配件及軟體可進行每日品保及病患劑量品保，同樣達到快速精準效果。



Patented technology introduction:

Particle therapy with pencil beam scan (PBS) has becoming major trend in radiotherapy. This invention is an ionization chamber detector with array of strip electrodes to readout one dimensional information of PBS beam profile. Information readout from XY directions are used to reconstruct two dimensional beam profile. Therefore detector can be operated at high speed and with high spatial resolution. Beam profile parameters and dose of a pencil beam can be accurately measured. Daily QA and patient dose QA can be executed with high accuracy and speed, if proper auxiliary and software are applied.

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專利技術名稱

預測癌症放射線治療之預後的分析器及方法

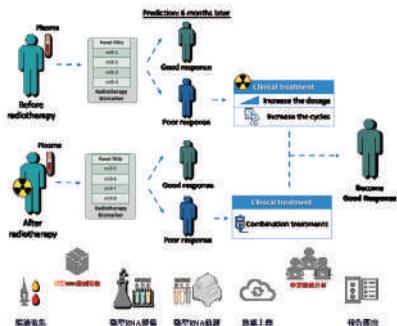
Analyzer and method for predicting the prognosis of cancer after radiation therapy

Patent No : (R.O.C. 優先) I614629 / US 10,738,363

專利權人：國立中央大學、張煥禎 / National Central University, Huan-Cheng Chang

發明人：馬念涵、鍾道生、李安倫、詹曜寧、陳建隆 / Nian-Han Ma / Tao-Sheng Chung / An-Lun Li /

Yao-Ning Chan / Chien-Lung Chen



專利技術介紹：

目前有半數以上的癌症病患需要接受放射線治療，伴隨而來的為治療後的復發，臨床上，醫師會利用影像學或臨床數據判斷治療的預後，但都亟需經驗豐富的醫師評斷；另外，臨床上也沒有用來監測病人復發可能性的預測標的。所以，在此技術中，透過抽取病人的血液，使用臨床上最快速之精準檢測法即時定量 PCR 偵測血液所純化之微型 RNA，達到預測病人接受放射線治療 6 個月後的效果，提供臨床醫師資訊進行治療處方。並且對於通用性而言，此技術不需要一個新穎的儀器，配合相佐的檢測試劑，即可以完成定量。本發明具有簡易性、穩定性等特色，檢測者、受試者於不同性別皆可實施，提供癌症病患即時提供臨床預後評估，增加癌症病患治療之醫療品質，更進一步提高癌症治療之存活率。

Patented technology introduction:

With more than 50% of the cancer patients will receive radiation therapy as part of treatment in cancer, recurrence is still a major cause of treatment failure. Computed tomography imaging (CT) and tumor markers are the methods to evaluate the prognosis status of patients, but the diagnosis need to rely on the clinical experience of doctors. In this technology, the detection device is configured to detect expression levels of a plurality of miRNAs in a plasma for predicting the prognosis of cancer radiotherapy. The plan of radiation therapy could be adjusted through the prediction results of miRNAs expression. The advantage is that the reagents are suitable for different platform of Q-PCR. The hospital or institute don't need to purchase the new equipment for the detection of miRNAs. We could apply the result for clinical diagnosis and prognosis, and give the benefits to cancer patients in the future.

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專利技術名稱

桌球發球機系統

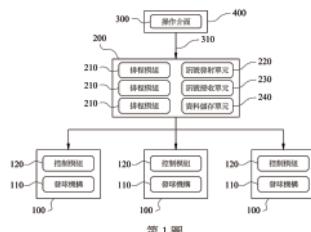
TABLE TENNIS SERVING SYSTEM

Patent No : (R.O.C. 優先)

專利權人 :

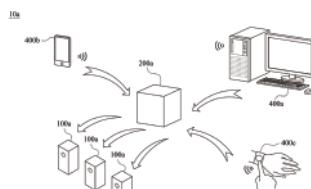
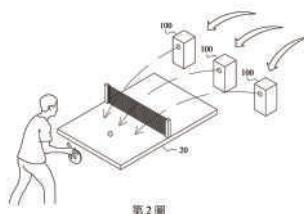
發明人 : 許永和、陳裕芬、吳昇光、吳承彬、吳承育、陳哲甫 / Yung Hoh Sheu / Yu Fen Chen / Sheng

Kuang Wu / Chen Bin Wu / Cheng Yu Wu / Zhe Fu Chen



專利技術介紹 :

本發明提供一種桌球發球機系統，其包含複數發球機、一排程裝置以及一使用者裝置。各發球機包含一發球機構及一控制模組，控制模組訊號連接發球機構。排程裝置訊號連接各控制模組且包含複數排程模組，各排程模組分別與前述控制模組對應且包含複數參數。使用者裝置訊號連接排程裝置，並供操作以產生複數指令，各指令對應設定各排程模組的各參數。藉此，透過排程裝置改變複數發球機之球路速度，可增加發球的變化性，因而提升使用者的訓練效果；且透過使用者裝置對排程裝置進行參數設定可提升調整的便利性，使用者不須每次更換訓練模式時都要實際到發球機旁進行設定而可提升訓練效率。



Patented technology introduction:

The present provides a table tennis serve machine, which comprises a multi-serving machines, a scheduling device and a user device. Each serving machine includes a serving mechanism and a control module, and the control module signals are connected to the serving mechanism. The communication number of the user device is connected to the scheduling device, and is used for operation to generate multi-commands, and each command corresponds to setting each parameter of each scheduling module.

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專利技術名稱

太陽能熱轉換冷氣機

Solar heat conversion air conditioner

Patent No : (R.O.C. 優先)

專利權人：國立雲林科技大學 / National Yunlin University of Science and Technology

發明人：曾博仁、曾博彥、沈立晴、郭昭吟 / Tseng Po Jen / Tseng Po Yen / Shen Li Qing / Chao-Yin

Kuo



專利技術介紹：

太陽能熱轉換製冷機主要由吸附劑和冷媒兩者配對使用，當吸附劑吸附系統中冷媒蒸氣時，會加速液態冷媒揮發，同時帶走周遭環境之熱量，產生製冷效果，當吸附劑吸滿冷媒後，可利用玻璃真空集熱管轉換太陽能的輻射熱能，將吸附的冷媒脫附再生，是一個非電力驅動的製冷技術。而本專利技術可設立於同時兼顧供應熱和冷氣空調的建築大樓，潛在的技轉廠商如建築業、綠能製造業等皆在範圍內，因此本專利之技術轉移可行性相當良好，對於預期之效益著眼注重於減少能量消耗、降低能源成本且提升空間製冷的效率。

本專利採取一種非電力驅動並且無污染的空調系統，以來解決酷夏造成的嚴重尖峰負載問題，對於環境保護和節省能源上亦是一個重要的解決方法。

Patented technology introduction:

Solar heat conversion air conditioner of the invention is a product that does not need to use electric energy to complete the cycle cooling effect, and its working principle includes adsorption cooling and heating desorption. The basic cycle is that the liquid refrigerant absorbs heat when it evaporates, producing a cooling effect, and the evaporated refrigerant gas enters the adsorbent, thereby completing an adsorption refrigeration cycle. The heating and desorption is to use the heat source of solar energy to thermally desorb the refrigerant in the adsorbent. At this time, after the refrigerant vapor enters the condenser, the heat energy is transferred to the condensed water, and the condensed refrigerant liquid flows back to the evaporator through the valve. When the condensed water is heated, it can be used as domestic hot water. The solar heat conversion air conditioner has the advantages of low cost, simple structure, no moving parts and long working life. It can provide refrigeration air conditioning in the summer, and can obtain water source for solar heating, contributing to slowing the peak power consumption.

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專利技術名稱

可自動分離髒水之清洗桶結構

Cleaning bucket structure capable for automatically separating dirty water and clean water

Patent No : (R.O.C. 優先) M579957

專利權人 : 富商國際股份有限公司 / Full Sun International Co., Ltd.

發明人 : 吳長馨 / Wu Chang Hsin



專利技術介紹 :

本專利『髒水分離拖把』是拖把界革命創新，每一次都能真正用乾淨水來洗淨拖把的髒污，創新技術可瞬間分離髒水與乾淨水，百分之百淨髒分離！

創意的發想來自三年前，觀察一般人在拖地時總是用同一桶髒水來回洗拖把，地板真的能拖乾淨嗎？想拖乾淨，就必須提著超重的水桶不斷換水，拖個地板真的好辛苦！

專利的設計，除了洗拖把時可瞬間分離髒水與淨水，都用乾淨水洗清拖把外，並且打造僅需 4 公升的淨水桶來取代傳統 16 公升的拖把桶，每桶可用乾淨水清洗拖把 20 次，讓使用者不須要來回提水換水，省時又省力！

Patented technology introduction:

Are you still use dirty water to rinse mop? Are you tried to keep changing water?

The patent is a built-in pump and innovative two-bucket system which separates dirty water from clean water, so you never mix dirty with clean water again, and the mop head remains effortlessly clean.

富商國際股份有限公司 / Full Sun International Co., Ltd.

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專利技術名稱

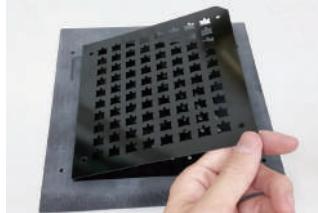
印刷載具

Printing Carrier

Patent No : (R.O.C. 優先) M579591

專利權人：程陽有限公司 / Sunny Process Co., Ltd.

發明人：江文宏 / Chiang, Wen-Hung



專利技術介紹：

本專利由三大結構——載具、真空貼片和防震板所構成，以解決電子業生產問題、改革生產程序為出發點，印刷載具進行加工製作時，業界普遍以膠帶黏貼於印刷電路板四周，此固定方式不僅無法準確定位在印刷載具上，以致發生錯位狀況，也因膠帶覆蓋部分有厚度會形成不平整的印刷層，作業環境若溫度過高導致膠帶熔化為液體，進而影響印刷品質。

本專利特點在於

- (1) 使用壽命長：經加工後的膠帶無法二次使用，本專利真空貼片可更換並重複使用高達 1,500 次以上。
- (2) 生產良率提高：印刷品質提升，防止 PCB 卡線問題，利於構裝。
- (3) 減少人力與時間成本並實現自動化生產：省去手動黏貼與撕除膠帶的步驟，搭配機器手臂，實現 SMT 自動化。
- (4) 環保：避免產生膠帶廢料帶來的汙染。

Patented technology introduction:

This patent is composed of three major structures: carrier, vacuum patch and shockproof board. It takes solving production problems and reforming the production process in the electronics industry as the starting point. When the printing carrier is processed and manufactured, the industry uses tapes to stick around the printed circuit board generally. This kind of fixing method is not only unable to position accurately on the printing carrier, but also affects the printing quality because of the covered parts of tapes with thickness have an uneven printed layer and the working environment temperature is too high to melt the tape into liquid.

The features of this patent are

- (1) Long service life: After machining, the tape cannot be used twice, but the vacuum patch can be replaced and reused up to 1,500 times.
- (2) Improving the yield rate of the production: the printing quality is improved and avoid the production line getting stuck to be beneficial to packaging.
- (3) Reduce labor and time costs and realize automated production: It saves the steps of sticking and tearing off the tape manually, and works with robotic arms to realize SMT automation.
- (4) Environmental protection: To prevent pollution of the environment by tape waste.

程陽有限公司 / Sunny Process Co., Ltd.

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專利技術名稱

電鍍組合機構

PLATING COMBINED MECHANISM

Patent No : (R.O.C. 優先)

專利權人 : 黃博道、劉耀崇 / Huang, Po Tao / Liu, Yao Chung

發明人 : 黃博道、劉耀崇 / Huang, Po Tao / Liu, Yao Chung



專利技術介紹 :

傳統電鍍的缺點 :

1. 精密小尺寸產品：容易卡料或漂浮無法電鍍。
2. 因為滾筒的密封結構，鍍液於被鍍物週圍補充困難。
3. 缺少金屬離子，容易造成表面粗糙及焊性不良。
4. 難鍍物須混合大量鋼珠，損失大量成本。

離心電鍍的優點 :

1. 利用離心力使被鍍物於滾筒
 - (1) 高速旋轉時，貼於陰極離心環表面進行電鍍。
 - (2) 低速時被鍍物落於筒底，進行週期性混合。
2. 正反轉旋轉切換，增加混和率。
3. 鍍液由上及下方進行滾筒交換，極高的金屬離子交混效率。
4. 鍍槽底部驅動滾筒，軸心磁封技術，徹底防漏。

Patented technology introduction:

Disadvantages of traditional barrel plating

1. Precision small size products; easy to jam or float and cannot be plated.
2. Mixing cycle: about 15 times per minute , the overall uniformity is difficult to control.
3. Due to the sealing structure of the barrel , it is difficult to the plating solution around the object to be plated.
4. The lower metal ions concentration, easy to cause rough surface and poor solderability.
5. The plating solution is difficult to exchange when the mesh hole size smaller than 250x250um.
6. Some product should add a lot of steel balls mixing, and it will lose a lot of material and cost.

The key to improve plating quality:

1. Alteration of centrifugal force and release.
2. Use the centrifugal force to make the object to be plated on the surface of the cathode ring when the barrel rotated at high speed, and the object fell on the bottom of the barrel at low speed for periodic mixing.
3. Positive and negative rotation switch, increase mixing rate.
4. The plating solution enters the barrel for exchange from top and bottom, extremely high efficiency of metal ion exchange.
5. Barrel driven below bottom of the plating tank and the shaft magnetic seal technology is completely leak-proof.
6. The machine is a modular design, and the installation is within 3 days.

漢瑪科技股份有限公司 / Hallmark Technology Co., Ltd

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專利技術名稱

光波治療裝置及光波治療模組

Light wave treatment Device and Light wave treatment Module

Patent No : (R.O.C. 優先) M528756

專利權人：何國梁 / Ho Ko Liang

發明人：何國梁 / Ho Ko Liang



專利技術介紹：

一種光波治療裝置，包括機台及光波治療單元，該光波治療單元包含一支架、一燈罩、多個第一光源模組、兩個燈罩翼板及多個第二光源模組，支架連接於燈罩及機台之間，該些第一光源模組設置於燈罩，兩個燈罩翼板分別樞接於燈罩的兩側，該些第二光源模組分別設置於兩個燈罩翼板。藉此，光源能同時照射於人體治療部位的多側，以具有較佳的治療效果。

Patented technology introduction:

A Light wave treatment Device includes a Machine and a Light wave treatment Unit.

The Light wave treatment Unit includes a bracket, a lampshade, a group of first light source modules, two lampshade wings, and a group of second light source modules.

The bracket is connected between the lampshade and the machine; the first light source modules are arranged on the lampshade, the two lampshade wings are pivotally connected to both sides of the lampshade; the second light source modules are respectively arranged on the two lampshade wings.

Thereby, the light source can simultaneously irradiate multiple sides of the human body to be treated, so as to have a better treatment effect.

衡奕精密工業股份有限公司 / TRANSVERSE INDUSTRIES CO., LTD.

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專利技術名稱

電子門票入場驗證防偽系統與方法

Patent No : (R.O.C. 優先) I660308

專利權人：優票股份有限公司 / OQR Ticket Co., Ltd

發明人：曾銀宏、林俊明、劉勝昌、王冉卉、卓瑩鎗 / Tseng Yin-Hung / Lin Chun-Ming / Liu Sheng

Chang / Wang Jan-Hui / Cho Ying-Chiang

優勢 綁定手機的帳號認證(實名制)



註冊、購票、轉售票、入場、互動皆須經過手機號碼與行動裝置驗證



綁定並驗證手機號碼與行動裝置，達到使用者和帳號的唯一性與識別度



轉換裝置均須重新進行手機與帳號驗證，達到絕對的安全



專利技術介紹：

手機 APP 與驗票機台電腦各自植入本技術之程式碼，操作時 APP 顯示合法下載之 QR-Code 即可通過驗證；若為複製或截圖轉傳之 QR-Code 則無法通過驗證。本發明達到兩項效益：

1.100% 杜絕仿冒 QR-Code 被驗證通過。

2. 使用簡單：消費者可與一般手機 QR-Code 使用方式相同，都是手機 App 呈現 QR-Code 讓 Reader 掃讀即可。



Patented technology introduction:

The mobile phone APP and the ticket inspection machine are respectively implanted with the code of this technology. During operations, the APP displays the legally downloaded QR-Code to pass verification; if the QR-Code is copied or transmitted by the screenshot, the verification would fail.

優票股份有限公司 / OQR Ticket Co., Ltd

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