

What are the patents on photovoltaic cells?

The patents on photovoltaic cells are concentrated in the area of semiconductors for the conversion of solar radiation into electric energy, in the area of generators for the direct conversion of light energy into electric energy and in the area of solar panels adapted for roof structures.

Why are photovoltaic cell patent registrations important?

Photovoltaic cell patent registrations are a valuable data set in the analysis and diffusion of PV technology and R&D activities. The dynamics of PV R&D activity is considered high, documented in a large increase in PV patent documents .

How has photovoltaic technology developed over the last 30 years?

Photovoltaic technology has developed rapidly over the last thirty years. The main activities of photovoltaic patents began in the late 1950s and the main photovoltaic patent assignees at that time were involved in the space business ,. Patent data has been widely used in technology assessment and forecasting ,,,

Are photovoltaic cells a technological development?

There is a prominence of deposited patents for polymer-based photovoltaic cell technologies, carbon nanostructures, III-V compounds, CdTe and amorphous silicon cells. The objective of this article is to identify the technological development of photovoltaic cells by the analysis of patents.

How many patents does first solar have?

In the ninth position, with 151 patents, is First Solar, a US company one of the largest manufacturers of photovoltaic solar modules with production units in the United States, Malaysia, Germany and Pakistan.

Which country has the most patent documents on photovoltaic cells?

The evolution of the total number of patent documents on photovoltaic cells per country in the period from 2004 to 2013 is shown in Fig. 7. It can be seen that the first two positions are occupied by the United States and China respectively, followed by Japan, Germany and South Korea. Fig. 7.

The solar panels group forms the second largest group with a share of 27%, followed by testing techniques (21%) and electronics (6%). Geographically, 95% of photovoltaic patents were filed by inventors in the USA, Japan, Korea, China, Germany, Taiwan, and France.

The first patent protects the technique developed by Pulsiv, that of "pulsing" the solar panel, drawing its power in bursts rather than continuously. Under testing, Pulsiv's prototype is performing strongly when ...

A charging device configured to charge a mobile device through the solar cells integrated on the mobile device. The charging device converts wall power to light energy which can be absorbed by the solar cells and

Led photovoltaic panel patent

then converted to electricity for storage in the rechargeable battery of the mobile device. The charging device includes a light source configured to emit a light beam ...

HARNESS SOLAR POWER EFFICIENTLY PHOTOVOLTAIC PANELS Our solar panels are available in a variety of configurations. Among other things, you can choose from solar panels with power ratings ranging from 405W to 660W and three different colours. ... **PV PANELS N-TYPE MONOFACIAL**

Take solar energy, for example. The development of the solar panel (now a common feature on many Australian rooftops) is a great example of how such cumulative efforts, carefully recorded within our international patents registers, can help to progress technology with considerable global benefit. Patent protection encourages knowledge sharing

Disclosed are a floating photovoltaic panel installation structure and a buoyancy body for the installation of the floating photovoltaic panel ... **SEMI LED CO., LTD.** (Jeonju-si, KR) International Classes: B63B35/44 ; H02S20 ... This application claims priority to Korean Patent Application No. 10-2019-0094437, filed on Aug. 2, 2018, which is ...

mounted on the solar panel and the robot is coupled to the array and decoupled ... **W. Zhang, C. Zhang, H. Pan, K. Yuan, J. Jiang**, Cleaning robot for solar cell panel, CN patent 106000955 (A), to ...

The present invention relates to it is a kind of using sunshine come the cell panel that generates electricity, particularly a kind of solar photovoltaic cell panel with LED illumination...

Oxford PV to bring its state-of-the-art tandem PV panels to Intersolar Europe 2024. Tuesday, 2 April 2024. Oxford PV joins the Ultra Low-Carbon Solar Alliance. Wednesday, 31 January 2024. Oxford PV sets new solar panel efficiency world record. Tuesday, 30 ...

The TR of Systems, methods and devices for solar PV solar cells is composed of 21 patents (Fig. 6) and the most influentials are: US6058930A (Solar collector and tracker arrangement), US20060283497A1 (Planar concentrating photovoltaic solar panel with individually articulating concentrator elements), US20100288332A1 (Solar photovoltaic concentrator ...

A display device comprising a photovoltaic (PV) panel adapted to simultaneously produce electrically needed to operate a display and form either the background or foreground of the said display. The PV panel comprises large continuous sheets of PV material provided with one or more openings. Either light for the display or the display mechanism itself pass through the ...

A photovoltaic panel (PV panel) includes a plurality of rigid solar or photovoltaic modules attached to a flexible membrane. The PV modules are arranged adjacent to each other, e.g., side-by-side or end-to-end, and are spaced apart from each other so as to allow each PV module to be folded over an adjacent PV module. The PV modules have wires that are arranged so as to provide ...

Led photovoltaic panel patent

The portable solar energy system stores electrical energy generated by a solar panel, which is made of an array of photovoltaic cells, in a dc storage battery, and upon demand converts the dc voltage of the battery to an ac output suitable for supplying conventional electrical appliances. The battery is a sealed lead-acid type and may be an Absorbed Glass Mat (AGM) battery.

The utility model provides a highway tunnel LED lighting device based on photovoltaic power supply, which relates to the technical field of LED lighting devices and comprises a pavement, wherein a tunnel body is arranged at the top of the pavement, a distribution box is connected to the top of the inner side of the tunnel body through bolts in a screwed mode, LED lamps are ...

PV PANELS P-TYPE MONOFACIAL PERC monofacial photovoltaic panels PRODUCT FEATURES. Panel size below 2 m²; Durable anodized aluminium frame; 3.2 mm tempered glass; IP68 junction box; Wide operating temperature: -40 - +85°C; Maximum static load up 5400 Pa; MC4 EVO2 connectors ...

China led the world in solar power production in 2017 and installed 50% of the world's new solar power ... solar panel waste recycling is under the control of the Japanese environment ministry and solar panel manufacturers participate with local companies in research on recycling ... U.S. Patent Appl., 12/756 (2010), p. 507. Google Scholar

Web: <https://www.arcingenieroslaspalmas.es>