Solar cell equipment patent technology

The technology claims to increase the overall energy output of a solar cell by up to 60% and can be applied to any solar cell during the manufacturing process, creating a high-efficiency, low-cost solar cell. Chinese patent application CN116093191A, filed by Zhejiang Jinko Solar Co Ltd, provides a solar cell and a photovoltaic module that ...

mPower"s tested and proven ultralight solar-cell technology, DragonSCALES(TM), delivers pioneering solar energy performance in space with an unprecedented combination of scalability, customizability, affordability, and resilience.

It explores trends exclusively from the technology perspective used in solar cells, without addressing additional findings about applicability [17, 18] o Most recent innovations are focused on technologies based on inorganic, organic and silicon materials. o Leading organizations on PV development: Sharp, Mitsubishi, Kyocera, Fujifilm, LG, Samsung, Konica ...

The company has also opened a suite of lawsuits over tunnel oxide passivated contact (TOPCon) cell technology in the US. where it is attempting to open a TOPCon manufacturing facility.. Speaking ...

Solar technology is one of the key drivers of the renewable energy market, with a band of leading innovators helping to shape the sector. ... Global IP Awards 2024 recognises leading patent firms; Delhi High Court clarifies Section 3(d) ...

Patent; LANG. KOR; ENG; ; ??-YUNTECH ... Solar Cell Equipment FA (Factory Automation) Company : Yun Tech CEO : Yang su Yun Address : 112-12, Geumam 2-gil, Seotan-Myeon, PyeongtaeK-si, Gyeonggi-do, KOREA Corporate Registration Number : 124-87-05791 Tel : 031-372-4115 Fax : 031-372-4116 E-mail : yuntech@yuntech .kr. COPYRIGHT(c) ...

For Immediate Release November 17, 2021 Contact: Peter Kelley, peter@renewcomm , +1-202-270-8831 Patent for breakthrough solar PV cell architecture issued to Solar Inventions Technology proven to reduce silver costs and increase power generation with no capital investment by manufactu

The HJT Solar Cell and Vacuum Equipment R& D teams of Maxwell Technologies are made up of over 200 professional technicians. They focus on the R& D, design and manufacturing of high-capacity and low-cost PECVD, PVD, screen printing and LED light soaking equipment dedicated to HJT solar cell production, as well as the development of ...

4 · Aiko Solar"s IBC solar cell technology has come under scrutiny throughout 2024, with Maxeon opening an appeal and a patent infringement suit against the Chinese cell and module manufacturer.

In this study, the academic literature and patents are reviewed to construct the knowledge domain ontology for

solar energy and the derived subcategories for PV solar cells and concentrating solar thermal power generation technology (CSP). The ontology defines the relationships between the existing technologies of solar energy. By analyzing the statistical ...

The authors present their work on laser-enhanced contact optimization (LECO) on iTOPCon solar cells.LECO improves the metal-semi-conductor contact resistivity r c on the boron emitter and the n-TOPCon side from an underfired (thermal budget too low) state of 2.9 and 14.1 mOcm 2 to an enhanced state of 1.8 and 2.9 mOcm 2.Therefore, it enables the reduction ...

The objective of this article is to identify the technological development of photovoltaic cells by the analysis of patents. The Derwent Innovations Index (DII) database of Thomson Derwent was ...

The infringements are for JA Solar"s patents EP 2 787 541 B1--which covers the characteristic structure of TOPCon cells--and EP 4 092 759 B1.

Nearly all types of solar photovoltaic cells and technologies have developed dramatically, especially in the past 5 years. Here, we critically compare the different types of photovoltaic ...

Scanning electron microscope image of a laser-assisted fired contact. Credit: UNSW student Xinyuan Wu. Laser-assisted firing is a major breakthrough in solar cell technology because it can solve ...

Organic materials have promised affordable and highly tailorable solar cells which can be manufactured to absorb at specific wavelengths, including in the infrared, and be ...

A few months ago, JA Solar bought the patent portfolio from Jinko." "As a reminder, TOPCon is a technology invented and developed in the European labs," added the Carbon spokesperson. "We ...

Based on the understanding of solar cell technology, IPRdaily confined the relevant keywords and classification numbers, sorted out the data on solar cell patents that were applied for and publicly disclosed globally from ...

Trina Solar is urging the commission to investigate the patents related to the solar cells and manufacturing processes used in these products. Notably, Runergy"s 2GW solar module factory in the U.S. has just announced its production start and is set to deliver its first batch of customer orders by the end of October.

Since the publication of the Henry Snaith paper [1] on perovskite solar cell technologies in 2012 there has been an explosion in the number of organisations focusing on developing and commercialising the technology. This has given rise to an explosion of patent filings. Year on year growth has been rapid with more than 1,400 patents published within the past two years.

The present article has put forward a comprehensive patent analysis of solar PV technologies over the past six

decades. To do so, it first defined the PV technological ...

Commercial silicon solar cells are now only about 20 percent efficient (though up to 28 percent in lab environments. Their practical limit being 30 percent, meaning they can only ever convert about a third of the Sun"s ...

In July 2024, American Cadmium Telluride (CdTe) solar technology company First Solar said it has TOPCon cell technology patent ownership through its 2013 acquisition of TetraSun. It launched patent infringement investigations against several manufacturers who were not identified (see First Solar Initiates Infringement Investigation).

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 ...

Latest CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED Patents: POWER SUPPLY DEVICE AND POWER CONSUMPTION DEVICE. COMPOUND, PREPARATION METHOD AND USE THEREOF AND PEROVSKITE SOLAR CELL ...

This paper, therefor e, proposes a framework that integrates patent map with experts" intelligence, attempts to identify emerging technologies, map the development of the ...

But perovskites have stumbled when it comes to actual deployment. Silicon solar cells can last for decades. Few perovskite tandem panels have even been tested outside. The electrochemical makeup ...

The beginning of the dispensing technology for solar cell metallization goes back to 1992, when a patent by Hanoka and Danielson was published. Later, this approach was expanded by Schott Solar AG, Germany. They deposited a secondary fluid around the printed finger in order to prevent excessive spreading.

Perovskite solar cells use perovskite structural materials as light-absorbing materials and are hailed as the "third-generation photovoltaic cell technology." Perovskite solar cells are theoretically more efficient and less costly than crystalline silicon PV cells. The conversion efficiency of unijunction perovskite solar cells can be up to ...

Fig.2 Patent map for solar cells technology from 1976 to 2000 3562 2014 Proceedings of PICMET "14: Infrastructure and Service Integration. 4. Case study Fig.3 Patent map for solar cells technology from 1976 to 2005 (2)Results and analysis a. Identify emerging technology 4. Case study Fig.4 Patent map for solar cells technology from 1976 to 2010 ...