

What is the IPC GI for photovoltaic patents?

As search criteria, photovoltaic (PV) patents applied from 1998 to 2017 were selected and whose classification (IPC) are related to green technologies according to the IPC Green Inventory (IPC-GI) available on the WIPO (World Intellectual Property Organization). Such IPC of PV green technologies are shown in Table 2.

What are the patents for solar panels?

It is noted that the patents US20040163338A1 (Low profile mounting system), US20060086382A1 (Mechanism for mounting solar modules) and US20110209745A1 (Photovoltaic framed module array mount using asymmetric rail) have great influence on this route due to their BC and were developed respectively by Unirac Inc, PVT Solar Inc and GE. Fig. 5.

What is the technological knowledge basis of photovoltaic-thermal system?

The technological knowledge basis of this route is constituted by patents on solar cells with an integrated diode and bypass method, passing through photovoltaic panels with individually articulated concentrating elements and patents on receivers for concentration of photovoltaic-thermal systems. 5.2.4.

What are emerging PV technologies?

Emerging PV technologies tested and developed on a smaller scale (Dye-sensitized TiO₂, Thin-film Si and Organic PV). Points out how technologies are still being studied and developed (Perovskite, CZTS and Quantum dots). Most recent innovations are focused on technologies based on inorganic, organic and silicon materials.

It is a critical balance of system (BOS)-component in a photovoltaic system, allowing the use of ordinary AC-powered equipment. Solar power inverters have special functions adapted for use with ...

A photovoltaic inverter includes a housing, a circuit board, cooling fins, a switch assembly, and photovoltaic ports (PV ports). The circuit board is reversely fastened in the photovoltaic inverter. ...

The theoretical gap lies in the opportunity to improve the prospecting studies, enabling an understanding of the trends in technologies for the development of solar PV energy through an ...

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The heat dissipation performance of a heating component in the photovoltaic inverter has an important impact on stability and reliability of the photovoltaic inverter, and a service life of a ...

In a photovoltaic power supply scenario, to ensure photovoltaic power supply efficiency, the photovoltaic inverter may supply power by using a maximum power point tracking (MPPT) ...

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Dr. Rajiv Varma's pioneering work highlighting technologies relevant to Solar ...

A photovoltaic inverter includes a conversion circuit, a collection circuit, and a controller. The collection circuit is configured to obtain a positive direct current bus voltage and a negative direct current bus ...

This application relates to the field of voltage conversion technologies, and in particular, to an inverter circuit, an inverter, and a photovoltaic power system.

A photovoltaic inverter includes a direct current conversion unit, an alternating current inverter unit, a control unit, and a direct current bus. An output end of the alternating current inverter ...

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