Solar power generation and sunshade

Overview

The bi-facial photovoltaic sunshade (BiPVS) is an innovative solution that utilizes vertically mounted bi-facial photovoltaic modules to provide shading. The BiPVS is capable of converting incident solar radiation into ele. The building sector in China accounts for approximately 20% of the country's total energy. The main purpose of the BiPVS is to reduce building energy consumption. While existing investigations have brought forward innovative designs and optimization methods to enha. 3.1. MethodologyThe energy flow between the BiPVS and the surrounding environment is complicated, which combines the optical, thermal and elect. 4.1. The optical-thermal-electrical performance of the BiPVSThe optical-thermal-electrical performance of the BiPVS was analyzed under the summer and wint. 5.1. DiscussionsIn the present study, the high-efficient bi-facial PV technology was incorporate into the building fenestration in a manner that both the front an.

Article Content

CN114592472A

The invention discloses a sunshade ball capable of shading sun and generating power by solar energy, which comprises a ball body capable of floating on the water surface, wherein the ...

CN102945871B

The invention discloses a solar power generation device for a sunshade umbrella and belongs to a solar power generation device capable of being conveniently arranged and fixed at the top of ...

CN109347427B

A solar photovoltaic power generation and building sunshade integrated system and an adjusting method are provided, wherein the system comprises a primary solar power generation unit and ...

SunShade: Enabling Software-defined Solar-Powered Systems

solar generation to maintain grid balance and power quality, e.g., by generating less power during solar surpluses and more power during solar de•cits. Unfortunately, installing and maintaining ...

solar power generation | PPT

This document summarizes solar power generation from solar energy. It discusses that solar energy comes from the nuclear fusion reaction in the sun. About 51% of ...

SunShade: enabling software-defined solar-powered systems

To enable SDS systems, this paper introduces fundamental mechanisms for programmatically controlling the size of solar flows, including mechanisms to both enforce an ...

Move over Mary Poppins: this solar umbrella will charge your ...

The sunshade''s fabric is equipped with ''Perovskite'' solar cells, which Anker says enhances the solar power generation by 30 per cent in bright sunshine, and makes it twice as ...

Experimental study of a vertically mounted bifacial photovoltaic ...

In this study, we conducted an experiment to evaluate the thermal, light, and electrical performance of a vertically mounted bifacial photovoltaic sunshade (BiPVS). Over three ...

Solar power generation device for sunshade umbrella

A power generation device and solar cell technology, applied in the field of solar energy applications, can solve the problems of increased wiring complexity and failure rate, low ...

Experimental study of a vertically mounted bifacial photovoltaic sunshade

The choice of PV cell type largely influences the power generation of a PV sunshade. It is essential to use high-efficiency PV technologies in PV sunshades for better ...

CN218715606U

The utility model discloses a multi-functional post based on foldable solar energy power generation sunshade belongs to machinery, including cylinder, electronic folding umbrella and ...

CN104687667A

The invention discloses a sunshade umbrella structure with photovoltaic power generation and a fan. The sunshade umbrella structure consists of a sunshade umbrella handle (1), an umbrella ...

Energy performance of an innovative bifacial photovoltaic sunshade ...

sunshade (BiPVS) under hot summer and warm winter climate Chunying ... annual photovoltaic power generation was 133.19 kWh, while the comprehensive building en- ergy savings were ...

Overall energy performance of building-integrated bifacial ...

Bifacial photovoltaics (bPV) is a promising technology that can generate electricity from both the front and rear sides of bPV modules. By integrating bPV shading systems into ...

Atmospheric ''Sunshade'' Could Reduce Solar Power Generation

The concept of delaying global warming by adding particles into the upper atmosphere to cool the climate could unintentionally reduce peak electricity generated by large ...

Atmospheric ''Sunshade'' Could Reduce Solar Power Generation

News item: Atmospheric ''Sunshade'' Could Reduce Solar Power Generation Email a Friend See Related: 0 comments Add a comment Contributor: TheTeam (Mar-20-2009) Optimism: 3 ...

CN218549812U

The utility model relates to a parking structure technical field of foldable solar energy power generation sunshade, and disclose parking structure of foldable solar energy power generation ...

CN218493241U

The utility model relates to a solar energy power generation sunshade bicycle shed technical field just discloses a telescopic solar energy power generation sunshade bicycle shed, the on-line ...

SunShade: software-defined solar systems

SunShade: Enabling So ware-defined Solar-Powered Systems ICCPS 2017, April 2017, Pi sburgh, ... High penetrations of wind and solar generation on power systems are ...

CN110578459A

This intelligent solar energy sunshade power generation (window) curtain promotes the second connecting rod through electric putter, and the cooperation first connecting rod makes the ...

CN202774578U

The folding telescopic solar power generation sun shade disclosed by the utility model is applied to the saloon car, and the film solar cell panel is electrically connected with a storage battery of ...

CN210767980U

The utility model discloses a solar power generation sunshade rain-proof traffic police kiosk, which comprises a police kiosk body, wherein the top end of the police kiosk body is provided with ...

Intelligent solar power generation sunshade device

A technology of sunshade device and solar panel, applied in circuit devices, battery circuit devices, sunshade and other directions, can solve the problems of small power generation, ...

CN111247737A

The invention relates to a sunshade type solar battery component power generation device, which comprises: a plurality of solar cell modules are attached to and arranged on the light-gathering ...

NOAA: Atmospheric ''sunshade'' could reduce solar power generation

NOAA: Atmospheric ''sunshade'' could reduce solar power generation March 11, 2009 ScienceBlog The concept of delaying global warming by adding particles into the ...

Atmospheric ''sunshade'' could reduce solar power generation

Atmospheric ''sunshade'' could reduce solar power generation March 11 2009 The world''s largest solar power facility, located near Kramer Junction, Calif.,

KR102396889B1

The present invention relates to a solar power generation system having a smart sunshade function for a building, in which a smart panel structure, which performs complex functions of ...

Atmospheric ''Sunshade'' Could Reduce Solar Power Generation

Atmospheric ''Sunshade'' Could Reduce Solar Power Generation. ScienceDaily. Retrieved January 11, 2025 from / releases / 2009 / 03 / ...

CN111550934A

The invention name is as follows: the sunshade type solar power generation direct current power supply electric water heater. Belongs to the field of: solar power generation technology and ...

Multi-Objective Optimization of Bifacial Photovoltaic ...

Bifacial photovoltaic sunshade (BiPVS) is an innovative building-integrated photovoltaic (BIPV) technology. Vertically mounted BiPVS is capable of converting part of the incident solar radiation into electricity, regulating the ...

Energy performance of an innovative bifacial photovoltaic ...

The bi-facial photovoltaic sunshade (BiPVS) is an innovative solution that utilizes vertically mounted bi-facial photovoltaic modules to provide shading. The BiPVS is ...

Contact Us

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