

What is solar energy research?

It examines the current state of solar power and related academic solar energy research in different countries, aiming to provide valuable guidance for researchers, designers, and policymakers interested in incorporating solar energy into their nation's electricity generation.

Does global solar power research increase citations?

This study conducted a bibliometric analysis based on publication metrics from the Web of Science database to gain insights into global solar power research. The results indicate a stable global increase in publications on solar power generation and a rise in citations, reflecting growing academic interest.

Is solar energy a future energy resource?

The utilization of renewable energy as a future energy resource is drawing significant attention worldwide. The contribution of solar energy (including concentrating solar power (CSP) and solar photovoltaic (PV) power) to global electricity production, as one form of renewable energy sources, is generally still low, at 3.6%.

What is the contribution of solar energy to global electricity production?

While the contribution of solar energy to global electricity production remains generally low at 3.6%, it has firmly established itself among other renewable energy technologies, comprising nearly 31% of the total installed renewable energy capacity in 2022 (IRENA, 2023).

Abstract and Figures A worldwide evaluation of the present status of renewable-energy generation, with a focus on photo-voltaic (PV) solar energy ...

This article presents recent global research on renewable-energy using photo-voltaic (PV) solar energy to produce electricity. Ignorance of the advancements in renewable-energy can sway decisions ...

It examines the current state of solar power and related academic solar energy research in different countries, aiming to provide valuable guidance for researchers, designers, and policymakers ...

This study conducted a bibliometric analysis based on publication metrics from the Web of Science database to gain insights into global solar power research. The results indicate a stable ...

Explore global open-access research on solar energy, advancing conversion technologies and materials to accelerate the global clean energy transition.

Read the latest Research articles in Solar energy from Scientific Reports

Solar power generation has gained recognition as a promising and environmentally sustainable renewable energy source to meet growing global energy demands while minimizing ...

Since solar PV and onshore wind are the cheapest technology options to add new power generation in China, facilities were receiving 15- to 20-year contracts at provincial coal benchmark ...

Abstract and Figures A worldwide evaluation of the present status of renewable-energy generation, with a focus on photo-voltaic (PV) solar energy for the production of electricity.

The novelty lies in it being the first comparative study among the leading producers of solar energy to provide a systematic policy evaluation, country-wise comparison, and comprehensive ...

While machine learning has dominated previous research, recent studies highlight challenges in achieving optimal efficiency and accuracy. A significant obstacle lies in the deficiency of ...

Web: <https://thehibiscuscoast.co.za>