

A novel integrated solar-hybrid lignite upgrade and utilization system incorporating solar energy collection, lignite drying, pyrolysis, gasification, and a power generation unit is proposed in ...

A solar-aided coal-fired flexible power generation system and an operating method thereof are provided.

The present invention can realize solar and coal-fired generation coupling, reduce coal consumption, and greatly improve the flexibility and economy.

Recently, the Thermal Chemical Energy Storage Technology Joint Research Center jointly established by Shouhang and Xi'an Jiaotong University held a 2025 annual project summary conference and ...

Its current activities involve solar thermal utilization, solar cooling, solar desalination, and photovoltaic cells and others that aim at technology transfer, as well as fundamental research.

Under the strong impetus of China's "dual carbon" (carbon peak and carbon neutrality) strategy, renewable and clean energy sources such as wind and solar power are developing rapidly ...

Abstract This study proposes an integrated system that combines solar-driven proton exchange membrane water electrolysis (PEMEC) with a hybrid proton exchange membrane fuel ...

Xi'an Jiaotong University - Cited by 3,603 - Solar photothermocatalysis - Hydrogen energy - Thermochemical energy storage

In this paper, we optimize a range of RES configurations considering different combinations of solar, wind, battery and pumped hydro storage for a specific location under diverse flexibility ...

In the present work, a concentrating and collecting subsystem optical model for the solar tower power plant is fully developed and the corresponding solar radiation transmission process from...



Solar power generation at Jiaotong University

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