

This paper proposes a novel photothermal system utilizing the full spectrum of solar energy. The collector cavity and frequency-division film are designed to recover invisible ...

This paper presents a multi-scenario solar potential prediction model aimed at optimizing solar energy use in the early stages of urban design. Using urban morphology ...

The CaO/CaCO<sub>3</sub> energy storage system ( $\text{CaCO}_3 \rightleftharpoons \text{CaO} + \text{CO}_2$   $\Delta H = 178 \text{ kJ/mol}$ ) has a very high application prospect for its low material cost, high energy ...

Converting sunlight into electricity, fuels and chemicals is an important strategy to utilize and store the solar energy. Our group is mainly working on development and study of new organic ...

valence electrons, respectively.<sup>2,3</sup> A cutoff energy was set to 500 eV along with a  $2 \times 3 \times 1$  Monkhorst-Pack mesh to sample the Brillouin zone.<sup>4</sup> The energy and force convergence ...

<sup>2</sup> ???&#183; The as-fabricated WBG perovskite solar cells (PSCs) deliver a certified open-circuit voltage (VOC) of 1.37 V with a 1.77 eV perovskite absorber. The VOC deficit is only 0.40 V, ...

Recent advances in solar water splitting by using BiVO<sub>4</sub> as a photoanode have greatly optimized charge carrier and reaction dynamics, but relatively wide bandgap and poor photostability are still bottlenecks. Here, an ...

A novel solar expanding-vortex particle reactor: influence of vortex structure on particle residence times and trajectories. Solar Energy, 122, 58-75. DOI Scopus 60 WoS 51: 2015: Xu, C., Dowd, ...

Solar Energy 84 (8), 1402-1412, 2010. 892: 2010: A numerical investigation of heat transfer in phase change materials (PCMs) embedded in porous metals. Y Tian, CY Zhao. Energy 36 (9), ...

The poor stability of lead (Pb)-free tin (Sn)-based perovskites under only oxygen (O<sub>2</sub>) exposure has attracted extensive research, while their stability under ...

China's pivotal role in solar energy expansion is underscored by its massive investment and robust government support. Leading the world in solar production, China hosts ...

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