Ligands that protect perovskite layers from degradation can also increase solar cell resistance. Chen et al. minimized this problem by forcing the ligands to lie flat on the ...

With the continuous development and utilization of renewable energy, such as solar energy, wind energy, and so forth, energy storage devices gradually become a more dominant player in balancing energy fluctuation and ...

The rational design and scalable assembly of nanoarchitectures are important to deliver highly uniform, functional films with high performance. However, fabrication of large-area and high-performance films is quite difficult ...

Schematics of c-Si cell test structures; a) full area contact, b) localized contact, c) localized contact with mesa structure for device simulation (substrate size 23 × 23 mm, active area 10 × ...

Regardless of their architectures, all high-efficiency PSCs thus far have had small areas, with device sizes often <0.1 cm 2 (table S1) () cause such a small device size is likely to cause measurement errors, an obligatory ...

Here presented a brief description of the principles of operation and features of various types of both solar cells and energy storage devices. It was noted that as much as ...

The integrated energy storage device must be instantly recharged with an external power source in order for wearable electronics and continuous health tracking devices to operate ...

Wei Wu"s 69 research works with 7,185 citations and 23,665 reads, including: Synthesis, analysis and characterization of nitrogen/sulfur co-doped activated carbon for high-performance all ...

In this paper, a new integrated multifunctional flexible device called the Energy Storage Smart Window (ESS window) was designed and fabricated.The proposed ESS window comprises an integrated supercapacitor and ...

Here, a c-Si cell with a tunneling oxide passivating contact (TOPCon) structure produced on a production line as the bottom cell of a tandem device, and a top cell featuring solution-processed perovskite films to form the ...

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