
Metal halide perovskites are promising semiconductor photoelectric materials for solar cells, light-emitting diodes, and photodetectors; they are also applied in energy storage ...

Here, we design a benzyltriethylammonium tellurium iodide perovskite, (BzTEA) 2 TeI 6, as the cathode material, enabling X- and B-site elements with highly reversible ...

In this review, the recent progress in the application of an important category of materials, i.e. ABO3 perovskite-type compounds in the fields of energy storage and conversion, is reviewed.

To address these limitations, we demonstrate a highly integrated photorechargeable system that combines perovskite solar cells with a solid-state zinc-ion ...

In this study, we present photoactive electrodes consisting of lead-free bismuth-based hybrid perovskite that combine the dual functions of photovoltaic conversion and energy ...

This review summarizes recent and ongoing research in the realm of perovskite and halide perovskite materials for potential use in energy storage, including batteries and ...

In this review, the research progress and application potential of a series of novel all-inorganic perovskite electrode materials in the fields of batteries and supercapacitors are reviewed.

Because of its variable bandgap, non-rigid structure, high light absorption capacity, long charge carrier diffusion length, and high charge mobility, this material has shown promise ...

Perovskite oxides have piqued the interest of researchers as potential catalysts in Li-O2 batteries due to their remarkable electrochemical stability, high electronic and ionic ...

Metal halide perovskites (MHPs) have gained significant attention as a revolutionary class of materials in photovoltaic technology, offering high power conversion efficiency, cost ...

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