
It is crucial to develop green and clean energy storage devices to address increasing serious environmental issues and promote low-carbon, environmentally friendly, and sustainable ...

As a typical transition-metal dichalcogenides, vanadium diselenide (VSe2) is a promising electrode material for aqueous zinc-ion batteries due to its metallic characteristics ...

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The realizing of high-performance rechargeable aqueous zinc-ion batteries (ZIBs) with high energy density and long cycling life is promising but still challenging due to the lack ...

This one-stone-for-two-birds strategy would be expected to be applied to large-scale synthesis of a high-performance zinc-ion battery cathode in the future.

In this work, we studied 2D layered VSe2 with high pseudocapacitive-mediated Zn-ion storage as a cathode for aqueous zinc-ion batteries.

This study provides an effective strategy for the rational design of electrode materials for electrochemical energy-storage devices. Keywords: VSe2; aqueous zinc-ion ...

Herein, the excellent zinc-ion storage performance in few-layered ultrathin VSe2 nanosheets is studied in this work.

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Aqueous zinc-ion batteries (ZIBs) are an attractive storage solution for renewable energy storage system (ESS) applications. Despite the intrinsic safety, eco-friendliness, and low cost of ...

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1. Introduction The growing concerns about the energy crisis and environmental pollution has prompted the development of environment friendly energy storage devices [1], ...

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Since their successful commercialization, lithium-ion batteries (LIBs) have dominated the global energy storage market due to their excellent cycle performance and high energy density [3].

Herein, we demonstrate that layered VSe2 with a large interlayer spacing could exhibit excellent Zn storage behavior. Even with a micro-sized morphology, it exhibits a high specific reversible ...

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