Sulfide electrodes for flow batteries

Sulfide solid electrolytes are promising materials for next-generation all-solid-state lithium batteries due to their high ionic conductivity, mechanical properties, and compatibility with advanced ...

This review focuses on various approaches to enhancing electrode performance, particularly the methods of surface etching and catalyst ...

In this study, we report a novel copper sulfide (CuS) nanoflower-modified carbon felt (CuS-CF) electrode for polysulfide-ferrocyanide redox flow batteries (PFRFBs).

Polysulfide-based redox flow batteries (PSRFBs) have emerged as an innovative solution for large-scale energy storage technology owing to their high energy density and low cost. These ...

The outcomes of this work aim to facilitate the design of sulfide solid-state batteries and provide methodological inputs for battery aging assessment.

In recent years, noticeable efforts have been made to develop high-performance sulfide solid-state electrolytes.

The present invention includes iron-sulfide redox flow battery systems for energy storage. The systems demonstrate excellent energy conversion efficiency and stability and utilize low-cost...

To address this issue, we developed a NiMoS catalyst-modified carbon felt (NiMoS-CF) electrode, which significantly accelerates the electrochemical reaction rates ...

Both surface coating of electrode particles and preparation of nanocomposite are effective for increasing the reversible capacity of the ...

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