

# Zinc-sulfur flow battery



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### **An aqueous alkaline zinc-sulfur flow battery**

We demonstrate a rechargeable aqueous alkaline zinc-sulfur flow battery that comprises environmental materials zinc and sulfur as negative and positive active species.

### [Optimization strategies for high-performance aqueous zinc-sulfur](#)

Aqueous zinc-sulfur batteries (AZSBs) have emerged as promising candidates for high-energy density, cost-effective, and environmentally sustainable energy storage systems.



### [Enabling low-temperature aqueous zinc/copper-sulfur hybrid batteries](#)

Here, authors design an electrolyte enabling a high-energy zinc-sulfur battery that operates at  $-50\text{ }^{\circ}\text{C}$ , offering a promising solution for low-temperature energy storage.

### [Redox slurry electrodes: advancing zinc-based flow batteries for](#)

By analyzing current research challenges and predicting future development directions, this paper aims to provide a comprehensive perspective for researchers and engineers to promote



### **Liquid metal anode enables zinc-based flow**



### [Enabling High-Loading Aqueous Zinc-Sulfur Batteries Via a Ni Single](#)

This work underscores the critical role of integrating Ni atomic catalysis with well-developed porosity within the carbon hollow structure for developing high-performance aqueous



### **[PDF] An aqueous alkaline zinc-sulfur flow battery , CiteDrive**

This study constructs an aqueous alkaline zinc-sulfur flow battery by adjusting the pH of the negolyte and using a nickel-based material to catalyze the posolyte reaction.

### **batteries with**

Here, we developed a liquid metal (LM) electrode that evolves the deposition/dissolution reaction of Zn into an alloying/dealloying process within the LM, thereby achieving extraordinary



### **Progress and prospects of zinc-sulfur batteries**

By combining zinc and sulfur, zinc-sulfur (Zn-S) batteries emerge as an environmentally friendly and cost-effective energy storage technology with high energy density (over 500 Wh/kg)



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