

Here we review the evaluation criteria for the performance of flow batteries and the development status of different types of flow batteries.

In this hybrid flow battery architecture, the Li anode is housed in the electrochemical cell, while the solid sulfur is safely kept in a separate catholyte reservoir and electrolyte is pumped over the sulfur and ...

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

Aqueous redox flow batteries (RFBs) incorporating polysulfide/iodide chemistries have received considerable attention due to their safety, high scalability, and cost-effectiveness. However,...

Battery technologies range from lead-acid systems to emerging sodium-sulfur, sodium-nickel chloride, and lithium-ion systems. The lithium-ion system is attracting interest for ...

Here, we demonstrate an ambient-temperature aqueous rechargeable flow battery that uses low-cost polysulfide anolytes in conjunction with lithium or sodium counter-ions, and an air- or ...

Form Energy will develop a long-duration energy storage system that takes advantage of the low cost and high abundance of sulfur in a water-based solution. Previous MIT research ...

In this work, we demonstrate an ambient-temperature, air-breathing, aqueous polysulfide flow battery that exploits sulfur's intrinsic advantages, and show using techno-economic analyses that such an ...

Aqueous sulfur-based redox flow batteries (SRFBs) are promising candidates for large-scale energy storage, yet the gap between the required and currently achievable performance has ...

We are working to translate this lithium-sulfur technology to a mediated redox flow battery (RFB), where soluble redox-active molecules are circulated, reducing sulfur particles stored in a reservoir.

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