

In this review, we have summarized recent advances in metallic Bi-based materials for these electrochemical energy storage systems from the perspectives of structural design, ...

Here, we demonstrate that the bismuth metalates, BiVO_4 and $\text{Bi}_2(\text{MoO}_4)_3$, as representatives of ternary metalates, can cope with these requirements.

A remarkable electrochemical performance of $\text{Bi}_2\text{Mo}_3\text{O}_{12}$ with an exceptional power density of 750 W kg^{-1} was observed for the prepared asymmetric device. Bismuth molybdate's ...

Although numerous research settings have dedicated their attention to energy storage devices, significant obstacles persist in these investigations. These issues arise from either ...

Understanding the detailed storage principle of bismuth-based materials and designing reasonable and long-life electrode materials are expected to promote the practical application of ...

Herein, we systematically review the application and development of metallic Bi-based anode in lithium ion batteries and beyond-lithium ion batteries. The reaction mechanism, modification ...

Herein, we outline bismuth materials and their composites, as investigated by our research, highlight their applications in energy, and, more importantly, focus on the study of their performance in ...

Ultimately, the challenges and opportunities for future development of Bi-based nano/micromaterials toward high-performance electrochemical energy storage devices are proposed.

In this work, a novel bismuth molybdate nanocatalyst with sufficient oxygen vacancies and high Biconcentration (41.9 at%), BiMoO-OVs , is synthesized and demonstrated as an excellent NRR ...

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