

Special Issue

Nanostructured Materials for Energy Storage Applications

Message from the Guest Editors

This Special Issue aims to explore cutting-edge developments in nanostructured materials for energy storage applications, focusing primarily on sustainable synthesis, lifecycle assessments, and scalable fabrication methods. We welcome original research articles, comprehensive reviews, and perspectives that address (but are not limited to) the following topics: Nanostructured materials (graphene, MXenes, metal oxides, and nanocomposites) for electrochemical energy storage. Next-generation battery technologies (lithium-ion, sodium-ion, solid-state, lithium-sulfur, and beyond). Supercapacitors and hybrid energy storage systems leveraging nanotechnology. Sustainable fabrication processes and eco-friendly material development. Mechanistic insights into charge storage and ion transport in nanostructures. Environmental impact and recyclability of nanomaterials for energy applications. This Special Issue aims to bridge fundamental materials science with applied energy technologies by fostering interdisciplinary collaboration and contributing to developing greener and more efficient energy storage solutions.

Guest Editors

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I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

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