

Special Issue

Synthesis of Nanomaterials and Their Applications in Sustainable Energy Storage System

Message from the Guest Editor

As the global energy landscape shifts toward sustainable and efficient energy storage solutions, the role of nanomaterials in revolutionizing energy storage technologies has become increasingly critical. Advanced nanostructured materials offer significant improvements in energy density, charge/discharge rates, cycling stability, and environmental sustainability, making them key components in next-generation batteries, supercapacitors, and hybrid storage systems. This Special Issue, "Synthesis of Nanomaterials and Their Applications in Sustainable Energy Storage System", will bring together cutting-edge research on the design, scalable synthesis, and application of nanomaterials in energy storage. We invite contributions that emphasize green and sustainable synthesis, green and sustainable fabrication processes, electrode materials, high-performance electrolytes, and recyclability strategies. Special attention will be given to harsh environmental applications, life cycle assessment, environmental impact, and circular economy principles applied to nanomaterials in energy storage.

Guest Editor

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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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