

Special Issue

Application of Nanomaterials in Solid-State Energy Storage Materials and Batteries (Second Edition)

Message from the Guest Editors

It is widely anticipated that the demand for electrical energy storage will escalate in the next few years. In order to unlock the huge potential of current lithium-ion batteries, in the nascent decarbonized revolution for the electric vehicle market and renewable electricity grids in the coming decade, innovations in safer, more affordable and energy-dense battery assembly are required. Therefore, research on developing all solid-state lithium batteries has been accelerating. This Special Issue of *Nanomaterials* is planned to cover all aspects of solid-state batteries, from the principle to their design and manufacturing, and further, their applications. We also ask that you spread the information about this Special Issue to researchers whose interests concern solid-state batteries. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Nanoscale materials and nanotechnology in solid-state batteries;
- Composite solid-state electrolytes and electrodes;
- Nanostructures and nanomaterials in solid-state battery integration.

We look forward to receiving your contributions.

Guest Editors

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Deadline for manuscript submissions

closed (30 November 2025)



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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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