

Special Issue

Nanoscale Carbon Materials for Advanced Energy-Related Applications

Message from the Guest Editors

Dear Colleagues✉

This Special Issue aims to provide more cutting-edge insights in design and synthesis, energy storage and conversion applications and energy storage mechanisms of nanocarbon materials. We also encourage researchers to publish studies on the preparation and practical technology routes of nanocarbon materials with industrial value. Ultimately, this will provide a richer perspective for both fundamental research and commercial applications of nanocarbon materials in energy-related fields. We welcome researchers to submit new methods for synthesis and structural designs of nanocarbon materials, studies on energy storage mechanisms, and research papers and reviews on their applications in various energy storage devices and systems. Specific systems may include, but are not limited to, electrochemical systems (such as batteries, capacitors, electrocatalysis, etc.), photothermal conversion systems, phase change energy storage systems, and carbon dioxide capture and storage. We hope to see more inspiring and forward-looking viewpoints published in this Special Issue.

Guest Editors

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Deadline for manuscript submissions

closed (10 October 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.

Editor-in-Chief

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