

## Special Issue

# Study on Nanomaterials for Supercapacitors, Fuel Cells and Batteries

### Message from the Guest Editor

Advanced electrochemical energy storage devices have attracted increasing research interests due to their wide applications in portable electronics, electric vehicles, and large-scale energy storage. Developing high-performance materials is one of the leading topics of today's electrochemical energy storage research. Nanomaterials show some unique advantages for various supercapacitors and batteries. Their reduced sizes and dimensions usually increase the rate performance of electrochemical energy storage devices due to the short distances for ion and electron transport within the particles. Nanomaterials typically show large surface area, which permits a high contact area with the electrolyte, thus ensuring a fast reaction kinetics at the electrode/electrolyte interface. This Special Issue is aimed at presenting the current state-of-the-art theoretical developments and practical applications of nanomaterials to improve the performance of electrochemical energy storage devices. It aims to attract both academic and industrial researchers in order to foster the current knowledge of nanomaterials and to present new ideas for future applications and new technologies.

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### Guest Editor

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### Deadline for manuscript submissions

closed (20 March 2024)



## Nanomaterials

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CiteScore 9.2  
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## About the Journal

### 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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### Editor-in-Chief

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