Special Issue

Nanomaterials for Energy Conversion and Storage

Message from the Guest Editors

Currently, renewable energy is emerging and penetrating further into the energy market. In these new energy systems, nanomaterials play a decisive role in the development of new energy such as solar cells, alkaline-ion batteries, and fuel cells. Designing and developing new nanomaterials and giving full play to the advantages of nanomaterials by regulating their structure and optimizing their properties has become the priority direction of development. The present Special Issue aims to present the current development tendencies and research status of nanomaterials in new energy conversion systems, electrode materials for secondary ion batteries, fuel cell catalysts, etc. However, the theme of this issue is not limited to these above aspects. Importantly, nanomaterials play an important role in the field of energy storage due to their unique properties at the nanometer scale. In the present Special Issue, we are inviting contributions from leading groups in the field to show the latest progress of nanomaterials in the field of energy conversion and storage and point out the way for future research direction.

Guest Editors

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Deadline for manuscript submissions

closed (29 February 2024)



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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 nanometerscale 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.

Editor-in-Chief

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