Special Issue

Novel Nanoporous Materials for Energy Storage and Conversion

Message from the Guest Editors

We are pleased to invite you to publish your new research achievements in a special issue of Nanomaterials about Novel Nanoporous Materials for Energy Storage and Conversion. With the increasing intensification of energy and environmental issues as well as the boom in consumer electronics, electric vehicles, and energy storage stations, electrochemical energy storage and conversion technology has attracted wide attention worldwide. During the energy storage process, electrode materials are the core components and the main substances in an electrochemical redox reaction. The nanoporous structure can not only provide abundant void space for electrolyte infiltration, but also well accommodate material volume change caused by the energy storage. Therefore, in recent years, developing multifunctional electrode materials with novel nanostructure designs has become a key issue in achieving efficient energy storage devices. This Special Issue aims to promote the global exchange of ideas and knowledge among chemists, physicists, material scientists and other researchers in the field of nanostructure design of energy storage materials.

Guest Editors

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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.

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