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Multifunctional Nanomaterials for Energy Storage Electrodes

Guest Editors:

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Deadline for manuscript submissions:
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Message from the Guest Editors

Energy storage devices, especially supercapacitors (SCs) and batteries are the main chemical-based modern sources widely used in our daily life. Developing efficient materials for energy storage applications, especially for supercapacitors and batteries which are the most promising and important power sources used in daily life, has attracted much attention. However, the SCs performance depends on the electrode, i.e., active material, the current collector behavior including electrical conductivity, surface area, porosity, electrochemical activity, and morphological geometries which directly affect the performance of the SCs. Therefore, the selection of the perfectly effective electrode development is highly important as its acts as a bridge between the active materials and the outer terminal during the energy storage process. Various types of current collectors have been used such as two-dimensional carbon paper, metal-based meshes, metal-based wires, steel mesh, graphite rods, three-dimensional nickel foam, etc. Potential topics include, but are not limited to:

- nanomaterials
- energy storage
- three dimensional
- supercapacitor
- battery
- fuel cell
- electrochemical cell

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Editor-in-Chief

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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.

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