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Three-dimensional Nanomaterials for Energy Storage and Conversions

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Deadline for manuscript submissions:
closed (1 June 2018)

Message from the Guest Editors

Dear Colleagues,

In recent years, three-dimensional nanomaterials have attracted extensive attention as electrode materials for energy storage and conversion applications, including rechargeable batteries, supercapacitors, and electrocatalysts. Their characteristic structures and properties can be achieved by a unique growth process of materials and/or the use of substrates with 3D structures. The designed nanomaterials can allow the penetration of electrolytes, shorten the ion diffusion distance, and improve electron transfer. Moreover, a porous 3D electrode increases the mass loading of electroactive materials. In this Special Issue, we would like to invite you to submit an original research paper or review paper, which deals with the synthesis, characterization, and applications of energy storage and conversion of three-dimensional nanomaterials consisting of, for example, carbon (particularly, carbon nanotubes, graphene, and mesoporous carbon), metals and metal oxides, conducting polymers, metal organic frameworks, and hybrids.

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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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