



Carbon nanostructure for energy storage and conversion

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Deadline for manuscript
submissions:

closed (30 August 2018)

Message from the Guest Editor

The most popular nanomaterials of the carbon family to date are fullerenes, CNTs, and graphenes, with dimensions ranging from 0.5 to 100 nm. These carbon-based nanomaterials possess unique and novel properties, such as remarkable mechanical strength, electrical conductivity, and optical, chemical, and thermal properties due to their unique and intriguing size. The prime advantages of the carbon nanomaterials include high surface-area-to-volume ratio and unique thermal, optical, mechanical, and electrical properties to name a few. The characteristic structures of carbon-based nanomaterials promote them to interact with another material for various advanced applications, such as in energy storage and conversion.

The present Special Issue is aimed at presenting the current state-of-the-art in carbon nanostructures for energy storage and conversion to address the various challenging issues researchers are confronted with in this field.





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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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