Special Issue

Energy Applications of Carbon Nanotubes and Modified Fullerene Structures

Message from the Guest Editor

Carbon nanostructures, such as single- and multiwalled carbon nanotubes, carbon fibers, and fullerenes have attracted a tremendous amount of attention over the last two decades. In recent years, much of this attention has been focused on various energy applications, in particular, in the field of renewable energy, such as water splitting and fuel cells, and also organic solar cells. The applications of carbon nanostructures take advantage of the intrinsic catalytic properties of modified carbon nanostructures, their excellent applicability as anchoring support for various metallic nanoparticles or the use of functional groups on fullerenes to increase their solubility for solution processing. This Special Issue of Nanomaterials will attempt to cover the recent advancements in the research of carbon nanostructures for energy applications, such as water splitting, fuel cells, and solar cells with a focus on the modification of carbon nanostructures by various functional groups, defects and/or dopants.

Guest Editor

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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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