Special Issue

Nanomaterials for Green Energy Applications

Message from the Guest Editor

Graphene and other 2D materials have attracted increasing attention since 2004 due to its excellent mechanical, optical and electrical properties. Its high specific surface area and in some cases high electrical conductivity make them an attractive materials for many industrial applications. In special in the energy area, the use of nanomaterials in energy storage devices is one of the most promising applications as a consequence of the increasing demand for more efficient, longer-lasting and more compact portable electronic devices. These nanomaterials have increased the performance in batteries and supercapacitors. Also, the optical properties of these nanomaterials can be used for electrodes in solar cells or other different devices in order to generate electrical energy. And using its mechanical properties, nanomaterials can be used as a part of mechanical transducers. Finally, the combination of graphene with other 2D materials or nanomaterials allows the creation of new devices that could generate and storage energy in a more efficient way.

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 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.

Editor-in-Chief

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