

Special Issue

Functional Graphene-Based Nanodevices

Message from the Guest Editors

Graphene is composed of single-layer sp^2 -bonded carbon atoms that are densely packed in a honeycomb crystal lattice. It has the characteristics of high carrier mobility, ultra-high specific surface area, high optical transparency, and good conductivity and thermal conductivity. Its unique physical and chemical properties make it possible to prepare various functional nanodevices. Therefore, graphene is widely studied and applied, such as in electronics, photonics and optoelectronic circuits, energy storage and conversion, biomedicine, sensors, and other fields. We invite researchers to contribute original and review articles on functional graphene-based nanodevices. Potential topics include but are not limited to the synthesis, modification, and functionalization of ultra-thin two-dimensional graphene and characterization, characterization methods, and applications of graphene-based nanodevices (including transistors, energy storage devices, sensors, photovoltaics, transparent electrodes, etc.).

Guest Editors

Dr. Qijin Cheng

School of Electronic Science and Engineering, Xiamen University,
Xiamen 361005, China

Prof. Dr. Jian Zhou

College of Mechanical and Vehicle Engineering, Hunan University,
Changsha 410082, China

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

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