

Special Issue

Electrical, Magnetic and Optical Properties of Two-Dimensional Nanomaterials

Message from the Guest Editors

With the miniaturization of semiconductor devices reaching the physical limit, Moore's law is facing a development bottleneck. With their unique advantages, two-dimensional materials are expected to solve the performance bottleneck of chips. Two-dimensional materials also exhibit novel quantum properties related to the topology, strong correlation, charge density wave, and superconductivity. Two-dimensional materials have become an excellent tool for the research of condensed matter physics and material science. Within the scope mentioned above, this Special Issue intends to publish a series of scientific advances that reveal the up-to-date theoretical and experimental achievements in the electrical, magnetic, and optical properties of two-dimensional nanomaterials and heterostructures and the related optoelectronic, magneto-electronic devices. Original research articles, as well as reviews, in the growing field of two-dimensional nanomaterials are welcomed. See more information in: <https://www.mdpi.com/si/194273>

Guest Editors

Dr. Yi Wan

Dr. Hui Zhang

Dr. Xiaolong Xu

Deadline for manuscript submissions

closed (11 April 2025)



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Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

[mdpi.com/journal/
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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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