Special Issue

Two-Dimensional Materials Heterostructure for Advanced Sensors and Optoelectronic Devices

Message from the Guest Editors

Nanostructures provide large specific surface areas, unique size effects, and exceptional mechanical and optoelectronic properties, making them valuable in electronics, medicine, environment, energy, and manufacturing. However, they face challenges like complex fabrication, high costs, poor stability, and safety concerns. We invite submissions for the special issue "Nanomanufacturing for Applications in Micro/Nano Sensors and Optoelectronic Detectors." We welcome original research articles and reviews focused on large-scale production of nanostructures and their sensing applications. Contributions highlighting novel, cost-effective nanomanufacturing techniques and innovative characterization methods are particularly encouraged. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Nano-optoelectronic Devices and Applications
- Nano-sensors and Appications
- New Nanofabrication Technologies
- Surfaces and Interfaces of Nanostructures
- Nanostructure simulation
- Nanoscopic Characterization Techniques

We look forward to receiving your contributions.

Guest Editors

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Prof. Dr. Linbao Luo
Dr. Baoshi Qiao

Deadline for manuscript submissions

closed (10 March 2026)

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About the Journal

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

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