Special Issue

Microstructure Semiconductor Materials and Optoelectronic Applications

Message from the Guest Editors

This Special Issue aims to focus on the science and engineering aspects of microstructure semiconductor materials, which have fundamental properties, micro/nano process design, and energy band variations that enable the observation of unprecedented physical phenomena and enable state-of-the-art electronic devices. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Microstructure semiconductor materials and devices;
- Microstructure design and manufacture;
- Performance optimization and improvement of materials and devices;
- Optoelectronic devices mainly including micro/nano-LED, organic LED(OLED), QLED (quantum dot LED), lasers, superluminance diode, vertical-cavity surface-emitting lasers (VCSELs), detectors, solar cell, optoelectronic memristors, optoelectronic synapse devices, and so on;
- Optoelectronic technology and applications.

We look forward to receiving your contributions.

Guest Editors

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Deadline for manuscript submissions

closed (16 January 2026)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/219280

Nanomaterials
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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.

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