

Special Issue

Nanostructured Semiconductors for Advanced Photodiodes, Photodetectors and Thin-Film Photovoltaics

Message from the Guest Editors

We welcome original research and review articles that explore innovations in nanoscale material synthesis, interface and defect engineering, bandgap tuning, nanophotonic enhancements, and device-level optimization. Special attention will be given to works that demonstrate the role of low-dimensional nanomaterials, quantum structures, and nanoscale heterojunctions in improving light absorption, charge separation, and spectral selectivity for light-harvesting and photodetection application. **Topics of interest include, but are not limited to, the following:**

- Design and application of nanostructured semiconductors and low-dimensional materials;
- Development and characterization of Sb-based chalcogenides, kesterites, and related thin-film semiconductors;
- Synthesis and integration of organic/inorganic perovskites for optoelectronic applications;
- Fabrication and performance evaluation of photodetectors and photovoltaic devices;
- Application-driven studies in imaging, environmental monitoring, wearable sensors, and energy conversion.

Guest Editors

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Deadline for manuscript submissions

31 December 2025



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/245295

Nanomaterials
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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.

Editor-in-Chief

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