

Special Issue

State-of-the-Art Optical Nanostructures, Metasurfaces, and Photonic Devices

Message from the Guest Editor

The present Special Issue of *Nanomaterials* aims to present the current state of the art in the use of advanced fabrication techniques, novel material platforms, and innovative design principles to enhance the functionality of optical metasurfaces and plasmonic devices, with a focus on their integration into next-generation technologies. Novel materials offer the possibility of creating photonic devices that integrate seamlessly with existing technologies, such as complementary metal–oxide–semiconductor (CMOS) circuits, and support applications requiring extreme precision, tunability, and high performance. The integration of these materials into the design of optical nanostructures and metasurfaces is set to revolutionize fields such as integrated photonics, quantum information systems, and advanced sensing technologies. By overcoming current limitations, these developments are expected to enable more efficient, multifunctional, and scalable photonic devices that will play a pivotal role in advancing science and technology across multiple domains.

Guest Editor

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Deadline for manuscript submissions

15 August 2025



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/228000

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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.

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