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Nanomaterials and 2D Materials Based on Semiconductors and Metals

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Deadline for manuscript
submissions:

closed (30 August 2023)

Message from the Guest Editors

Dear Colleagues,

This Special Issue of *Nanomaterials* will attempt to cover the most recent advances in the fabrication of nanomaterials and 2D materials as building blocks of novel devices for photonics, electronics, and sensing and how their morphological and structural properties are related to device performance.

Potential topics include but are not limited to:

- The fabrication and characterization of several nanostructures, 2D materials, nanodevices, and nanosensors;
- Nanowires, nanorods, nanotubes, 2D materials, and nanocluster synthesis and characterization;
- Carrier transport in nanodevices;
- Optoelectronic materials and nanodevices using Si-based heterostructures and other different types of nanostructures;
- Defect characterization and engineering;
- Integration of photonics with Si CMOS technology;
- Strain band-gap engineering and carrier transport in CMOS;
- Si-based waveguide technology and nanodevices;

See more information in <https://www.mdpi.com/si/117207>

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Guest Editors



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Special Issue



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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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