# Special Issue

# Two-Dimensional Materials for (Opto)-Electronic Applications

### Message from the Guest Editors

Nano-electronic devices based on 2D materials offer many benefits for the more-than-Moore technology and Internet-of-Things applications. For the scientific community, 2D materials offer a new dreamland for creation and innovation, based on their unique properties, which allow for the improvement in existing (opto)-electronic, flexible, and wearable technology and functionalized multi-responsive devices. Researchers are still confronted with common challenges in material fabrication and device-performance optimization: gaining control over the materials' fabrication to gain high crystallinity and uniformity, scaling up the material growth and controlling the production costs; optimizing the device structures and on-chip integration. To address this demand, researchers have been developing an ever-growing interest in 2D semiconductors. This Special Issue of *Nanomaterials* is interested in the preparation, functionalization, and characterization of 2D materials to showcase the most recent advances in the application of 2D semiconductors for (Opto)-Electronic Applications. Original research articles communications, and reviews are welcome.

### Guest Editors

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### Deadline for manuscript submissions

closed (31 October 2023)

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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

Prof. Dr. Eugenia Valsami-Jones
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