



Two-Dimensional Semiconductor Nanomaterials and Nanodevices

Guest Editor:

Prof. Dr. Mengtao Sun

School of Mathematics and
Physics, University of Science and
Technology Beijing, Beijing
100083, China

Deadline for manuscript
submissions:

closed (20 February 2024)

Message from the Guest Editor

Two-dimensional semiconductor nanomaterials and nanodevices are the subject of great attention in scientific research due to their possession of special physical and chemical properties when compared with the bulk nanomaterial. Two-dimensional semiconductor nanomaterials can be potentially used in the design of optical devices, optical sensors, and photocatalysts. Two-dimensional semiconductor heterostructures are especially interesting in terms of superlattices and interfacial charge transfer and can be manipulated by pressure, electric potential, and current, among other stimuli.

In consideration of their many fascinating properties and applications, we are preparing a devoted Special Issue entitled “Two-Dimensional Semiconductor Nanomaterials and Nanodevices”, for which we are seeking submissions on topics including, but not limited to, those mentioned above





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Shirley Chiang

Department of Physics, University
of California Davis, One Shields
Avenue, Davis, CA 95616-5270,
USA

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.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [PMC](#), [CAPus / SciFinder](#), [Inspecc](#), and [other databases](#).

Journal Rank: JCR - Q1 (*Physics, Applied*) / CiteScore - Q1 (*General Chemical Engineering*)

Contact Us

Nanomaterials Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
[X@nano_mdpi](#)