

Special Issue

Novel Two-Dimensional Materials and Applications for Electronic Devices

Message from the Guest Editors

Two-dimensional (2D) materials are generally regarded as a promising future novel electronic devices. Though academic research has made fruitful achievements in recent decades, a complete replacement of practical applications by 2D materials still requires improvement in industrial applications. Recently, the emerging use of electronic devices by newly developed 2D materials provides opportunities to significantly enhance mobility via heterostructure interface cleanness enhancements, surface cleanness enhancement, and buffer layer cleanness enhancement, among other attributes. The combination of device fabrication processes, leads to the much improved electronic and optoelectronic performance of devices. One reason for this is that novel 2D materials enable significantly enhanced carrier transport and electron-hole combinations in the heterostructure interface region, where there are the most stable environment and low-dimensional conditions.

This Special Issue will present comprehensive research outlining progress in the application of novel 2D material electronic devices to improve the performance of physical and material properties.

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Deadline for manuscript submissions

closed (20 February 2025)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 10.3
Indexed in PubMed



mdpi.com/si/211989

Nanomaterials
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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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