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## Applications of 2D Materials in Nanoelectronics

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Deadline for manuscript submissions:

**20 January 2025**

### Message from the Guest Editors

Dear Colleagues,

This Special Issue will explore potential cutting-edge applications for two-dimensional materials, such as graphene, transition metal dichalcogenides (TMDs), and hexagonal boron nitride (h-BN), in revolutionizing the field of nanoelectronics. These materials, characterized by their exceptional electrical, thermal, and mechanical properties, offer significant advantages over traditional bulk materials, enabling the development of ultra-thin, flexible, and high-performance electronic devices.

This project aims to investigate and demonstrate the practical applications of 2D materials in various nanoelectronics, including transistors, sensors, and flexible circuits. For this Special Issue, we invite submissions of papers reporting various applications of two-dimensional materials in nanoelectronics. We welcome original research and review articles on the fundamentals and fabrication of 2D materials applied to nanoscale electronics.

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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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