# Special Issue

# Characterization, Synthesis and Applications of 2D Nanomaterials

### Message from the Guest Editor

The synthesis of graphene in 2004 ushered in an exciting new area of scientific research focussed on materials broadly known as 2D materials. Since 2004, a host of 2D materials have been produced, including, for example, Silicene, Phosphorene and Molybdenum disulphide. Some of the unique properties of 2D materials, such as high surface area to volume ratio, surface charge, structure, anisotropic nature and tuneable functionalities, means they have found a wide range of applications in diverse areas of research, such as material science, optoelectronics, microscopy, engineering and biomedical science. While 2D materials have demonstrated remarkable potential, there are still many challenges remaining, including how to determine their thickness or layer number accurately, methods of production that are fast and scalable, and finding new areas of research and industry that can use them effectively. This Special Issue of *Nanomaterials* is therefore aimed at presenting the very latest developments in the characterization, synthesis and applications of 2D materials by leading research groups in the field.

### Guest Editor

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### Deadline for manuscript submissions

closed (28 February 2021)

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

## Editor-in-Chief

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