# Special Issue

# The 15th Anniversary of *Nanomaterials*–Surface Chemistry of Graphene and Graphene Oxide

**Message from the Guest Editor**

The surface chemistry of graphene and graphene oxide (GO) is a fascinating field of research, and one whose development is required to realise the great potential of graphene. Indeed, much effort has been and continues to be devoted to the functionalization of graphene and its derivatives. One of the reasons for this endeavor is that graphene in its pristine form is both inert to reaction and a zero-band gap conductor, which lowers its competitiveness for applications such as sensors and semiconductors. The strategies developed include, amongst others, covalent and non-covalent functionalization with organic and inorganic molecules, as well as band gap opening of graphene by doping, intercalation, and striping. Although, at present, the full potential of graphene derivatives has not yet been exploited, multidisciplinary collaboration of researchers is expected to drive technology forward. Therefore, in addition to the development of successful methodologies for the functionalization of graphene and GO, new analytical tools for a satisfactory characterization of structure have to be elaborated and applied to these materials.


**Guest Editor**

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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

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