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2D Materials for Nanoelectronics

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Nanoelectronics is the main beneficiary of the discoveries in 2D materials, driving electronics at the atomic scale. Moore's law will not end, but will be saturated at certain dimensions of actual CMOS transistors since quantum and thermal effects will downgrade the performances of Si transistors. Therefore, alternatives are being sought after for new materials, new electronic devices, and new functionalities, placing 2D materials in the main stream of research today. Of course, there are many challenges for 2D materials to be applied in nanoelectronics: (i) the growth of 2D materials including graphene at wafer scale with a very reduced number of defects; (ii) low contact resistances; (iii) the interfaces between 2D materials and the ambient conditions; and many others. This Special Issue will attempt to address these challenges.

Prof. Dr. Mircea Dragoman
Guest Editor

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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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