Special Issue

Advances in Graphene and Other Novel Two-Dimensional Materials for Electronic Applications

Message from the Guest Editor

In 2004, A. Geim and K. Novoselov, from the University of Manchester, opened a new path in physics and electronic applications when they discovered an easy way to produce graphene, a two-dimensional (2D) allotrope of carbon. Since then, the interest in graphene and, more recently, other two-dimensional materials (such as MoS2, silicene, hexagonal boron nitride, and black phosphorous) has risen exponentially. While graphene shows excellent monopolar carrier transport properties, alternative 2D materials have the potential to provide digital applications with ultra-scaled devices featuring nanometer gate lengths. Techniques for producing such 2D materials in a viable way for industrial manufacturing, material and device modeling, characterization, and prototype development are all necessary in order to make 2D materials viable in the future.

For this Special Issue, we welcome the submission of original research articles, communications, and reviews on recent advances in graphene and/or novel 2D materials and the electronic devices, sensors, and applications that use them.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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