Special Issue

Low-Dimensional Materials for Smart and Sustainable Sensing: Focus on Gas, Pressure, and Light Detection

Message from the Guest Editor

This Special Issue aims to provide a comprehensive platform for recent advances in the design, fabrication, and application of low-dimensional materials for smart and sustainable sensing, with a particular focus on gas, pressure, and light detection. The collection seeks to highlight the interplay between materials' structure, electronic properties, and sensing performance, as well as strategies to improve stability, scalability, and integration into practical devices. We invite the submission of original research articles, reviews, and short communications addressing all aspects of low-dimensional materials for sensing. Topics of interest include, but are not limited to, gas, pressure, and optical sensors; heterostructures and nanocomposites; flexible and wearable platforms; theoretical modeling and simulations; and novel approaches toward smart, sustainable, and multifunctional detection technologies.

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

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