Special Issue

Nanomaterials in Gas Sensors

Message from the Guest Editors

Low-dimensional nanomaterials have aroused much interest over the past decade. These materials, notable for interesting properties dependent on their shapes and extremely small feature sizes, have the potential for wide-ranging industrial, biomedical, and electronic applications. The sensible parts of low-dimensional nanomaterials with high surface areas and unique structures endow them excellent responses to different gases. Hence, low-dimensional nanomaterials for gas sensors have become a hot topic these years. This Special Issue is focused on, but not confined to, three main research topics involving low-dimensional nanomaterial-based gas sensors. (1) Preparation and characterization of low-dimensional nanomaterials with excellent gas sensing properties; (2) Unique structures based on low-dimensional nanomaterials (including micro/nano structures, heterostructures, doping, van der Waals structures, etc.) with excellent gas sensing properties; (3) New sensing mechanism and function for low-dimensional nanomaterial-based gas sensing devices.

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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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