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Functional Nanomaterials and Thin Films for Gas Sensing Applications

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Deadline for manuscript submissions:

closed (28 July 2024)

Message from the Guest Editors

Dear Colleagues,

In order to monitor trace concentration of gases, the gas sensors with high sensitivity, precise selectivity, rapidness and reliability are needed. The substrates to recognize the gas molecular is the most important factor to determine the gas sensing performance. Among them, the functional nanomaterials and thin films have attracted intense attentions recently due to the advantages of easy functionalization, large specific surface areas, and abundant active adsorption sites, which are considered as promising gas sensing substrates for boosting the performance of gas sensors.

The format of welcomed articles includes original research articles and reviews. Research areas may include the following:

- Design and preparation of functional nanomaterials and thin films
- Development of novel gas-sensitive nanomaterials
- Elaboration of sensing mechanism at molecular level
- Characterization of gas-nanomaterial reaction interface
- Highly sensitive and selective nanomaterials-based gas sensors



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Guest Editors

Special Issue



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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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