Special Issue

Advanced Gas Sensors Developed by Nanocomposites

Message from the Guest Editors

With the continuous development of artificial intelligence and the internet of things, the gas sensor market, as an important part, has also developed rapidly. However, the performance of gas sensors needs to be improved to meet the actual needs. Advanced nanocomposites provide a solution to achieve this goal. It is well known that the structure and composition of materials are the main factors that affect the gas sensing performance. Therefore, composite materials can be used to effectively improve the sensitive properties not only by designing the size and morphology of materials, but also by controlling the composition and proportion of materials. However, the mechanism of composite materials that improves gas sensing performance is not particularly clear and requires the joint efforts of researchers. DFT simulation and advanced characterization methods may be used to study the gas sensing mechanism, which can guide the design of sensitive materials. This Special Issue aims to cover the recent progress in advanced gas sensors developed by nanocomposites. In this Special Issue, original research articles, communications and reviews are welcome.

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2023)

MDPI

Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/
nanomaterials

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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.

Editor-in-Chief

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