

## Special Issue

# Nanostructured Materials for Gas Sensor Applications

### Message from the Guest Editor

The growing public awareness of our interconnections with and dependence on the environment is promoting the demand for a more participatory, timely and diffused air quality monitoring action. Accordingly, scientific and industrial interest in gas sensing devices is growing. Moreover, as a consequence of the diffusion of wireless infrastructures, gas sensors are being increasingly integrated into IoT systems for monitoring environmental air quality. The increased demand for gas sensing technology poses novel challenges for the research and development of gas sensor devices, setting new requirements in terms of operating conditions, sensitivity, selectivity, promptness of response, robustness, and many other aspects.

This Special Issue of *Nanomaterials* will attempt to cover the most recent advances in nanostructured gas sensors. The preparation of novel functional materials, the different types of gas-sensing principles, and fabrication technologies will be considered herein with the aim of addressing shortcomings of existing solid-state gas sensors and meeting the new requirements of the IoT systems.

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### Guest Editor

Dr. Maria Lucia Miglietta

ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Rome, Italy

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### Deadline for manuscript submissions

closed (30 November 2021)



## Nanomaterials

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## About the Journal

### 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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### Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

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