Special Issue

Gas Sensors and Semiconductor Nanotechnology

Message from the Guest Editor

Solid-state semiconductor gas sensors have attracted a great deal of attention over the past two decades or more due to their importance in gas analysis and safety applications. The chemical sensitivity of a semiconductor surface serves as a way to transduce the chemical information around the surfaces into an electrical signal for gas-sensing applications.

Sensor technology development has a long history. It includes thick film and thin film technology, and, recently, semiconductor nanotechnology. Size-dependent physical properties are very important in the theory and construction of semiconductor devices, metal and semiconductor nanoparticles are basic components of recently used gas-sensitive materials.

This Special Issue of *Nanomaterials* will attempt to cover the recent advancements in semiconductor gas sensor technology, its theory of operations, and the role of nanoparticles and nano-sized structures for sensor applications.

Guest Editor

Prof. Dr. János Mizsei
Department of Electron Devices, Budapest University of Technology and Economics, Budapest, Hungary

Deadline for manuscript submissions

closed (30 June 2020)

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/22626

Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

mdpi.com/journal/nanomaterials

MDPI

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/nanomaterials

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

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones
School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)

MDPI