



Micro and Nano Technology in Gas Sensing

Guest Editors:

Dr. Artem Chizhov

Chemistry Department, Moscow
State University, Moscow 119991,
Russia

Prof. Dr. Alexey Shaposhnik

Department of Chemistry,
Voronezh State Agrarian
University, Voronezh 394000,
Russia

Deadline for manuscript
submissions:

closed (25 December 2023)

Message from the Guest Editors

The Special Issue "Micro and Nano Technology in Gas Sensing" aims to present the latest topical research in the field of the development of promising gas-sensitive nanomaterials, selection of a method for measuring and processing of a sensor signal, as well as improving the design of sensors, miniaturization of their components, and optimization of energy consumption. All types of submissions are welcome.

- The synthesis and characterization of gas sensing materials based on nanocrystalline metal oxides, composites, perovskites, sulfides, graphene-based materials, quantum dots, surface modification, and functionalization.
- Evaluation of surface reactivity of gas sensing materials, adsorption and desorption of gases, investigations of gas-sensing mechanisms.
- Semiconductor gas sensing materials for gas detection under UV or visible photoactivation, the use of photoactivation to reduce the energy consumption of sensors.
- Approaches to the miniaturization and integration of gas sensors, reducing the size of sensitive, heating, or light-emitting elements.
- Manufacturing of sensors on flexible or transparent substrates, printed and patterned gas sensors.





Editor-in-Chief

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

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, Ei Compendex, dblp, and other databases.

Journal Rank: JCR - Q2 (*Chemistry, Analytical*) / CiteScore - Q2 (*Mechanical Engineering*)

Contact Us

Micromachines
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/micromachines
micromachines@mdpi.com
[@micromach_mdpi](https://twitter.com/micromach_mdpi)