Special Issue

Gas Sensors: Progress, Perspectives and Challenges

Message from the Guest Editors

The research on gas sensors has been of big interest for many decades due to the broad range of applications in many fields, such as environmental protection, combustion gas detection, medical diagnosis, civil safety, and food quality control. Yet, this area is still rapidly expanding. Thanks to the development of materials science and nanotechnology, new sensing materials are being constantly searched, as the modifications of well-known sensing materials are applied to improve the sensitivity, selectivity, and response times and decrease sensor operating temperature. Also, the rapid improvement of experimental techniques combined with computational power increase allow us to understand better mechanisms of particular gas detection. Thus, more efficient devices can be designed. Both review articles and original research papers are solicited in, though not limited to, the following areas:

- New materials for gas sensors;
- New sensing techniques;
- Novel approaches for gas sensor design and testing;
- Models and computational simulations for the gassensing material interaction;
- Processes and fabrication technologies for gas sensors.

Guest Editors

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Deadline for manuscript submissions

closed (20 July 2025)



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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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