



## Gas Sensors: Simulation, Modeling, and Characterization

Guest Editors:

**Prof. Dr. Valerio Vignoli**

DIISM – University of Siena, via  
Roma 56 – 53100 Siena, Italy

**Dr. Enza Panzardi**

Department of Information  
Engineering and Mathematics,  
Università degli Studi di Siena,  
53100 Siena, Italy

Deadline for manuscript  
submissions:

**closed (15 February 2022)**

### Message from the Guest Editors

In recent decades, a large amount of research work has been devoted to understanding the sensing mechanism of gas sensors. In most cases, e.g., metal oxide sensors, the sensing principle is understood in its essential features, but an exhaustive knowledge of their behavior has not yet been achieved in general.

The development of a gas sensor dynamic model is strictly related to the techniques used for sensor characterization: from this point of view, there is a wide range of possibilities, each open to different implementations, depending on the specific sensor and operation conditions (consider, for example, temperature modulation).

The aim of this Special Issue is to highlight recent advances in these fields, with reference to the different families of devices that can be used for gas sensing. Authors are therefore invited to submit works dealing with simulations, modeling, and characterization for resistive, electrochemical, optical, mass-variation, and any other type of gas sensors, also with reference to results obtained with new gas sensor materials. Both review articles and research papers are welcome.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Nicole Jaffrezic-Renault

Institute of Analytical Sciences,  
UMR CNRS 5280, Department  
LSA, 5 Rue de La Doua, 69100  
Villeurbanne, France

## Message from the Editor-in-Chief

*Chemosensors* continues to grow as a forum for all manners of sensing that encompass chemistry. *Chemosensors* is published in open access format – all articles and content are released on the internet immediately following acceptance, thus allowing unlimited access to the content as soon as it is published. We would be happy to have you join our growing list of 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 \(Web of Science\)](#), [CAPlus / SciFinder](#), [Inspec](#), [Engineering Village](#) and [other databases](#).

**Journal Rank:** JCR - Q1 (Instruments and Instrumentation) / CiteScore - Q2 (*Analytical Chemistry*)

## Contact Us

---

*Chemosensors* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/chemosensors](http://mdpi.com/journal/chemosensors)  
[chemosensors@mdpi.com](mailto:chemosensors@mdpi.com)  
[X@chemosens\\_MDPI](https://twitter.com/chemosens_MDPI)