

Special Issue

Advances in Laser-Based Gas Sensing Technologies

Message from the Guest Editor

The rapid development of coherent and broadband light sources, optical and fiber-optics as well as electronics components has resulted in the rise of a broad range of their novel applications. One of those which has been an object of very intensive research carried on worldwide is laser spectroscopy for gas sensing. To date, laser-aided gas sensors have been constructed based on the use of clever measurement techniques, including TDLAS, WMS, PTS, QEPAS, CRDS, broadband optical frequency comb spectroscopy and many more. This Special Issue aims to summarize the state-of-the-art methods, solutions, materials and apparatus currently used in selective, sensitive and precise optical gas sensing. The main topics of the Special Issue are connected with:

- Photothermal spectroscopy;
- Photoacoustic spectroscopy;
- Dispersion spectroscopy;
- Optical frequency comb spectroscopy;
- Remote sensing;
- Tunable and wavelength modulation spectroscopy;
- Single-frequency and broadband laser sources;
- Novel materials for optical gas sensing;
- Microstructured optical fibers and waveguides;
- Photodetectors and spectrometers.

For more information, please visit: mdpi.com/si/147249

Guest Editor

Dr. Piotr Jaworski

Laser Spectroscopy Group, Faculty of Electronics, Photonics and Microsystems, Wrocław University of Science and Technology, Wybrzeże Wyspiańskiego 27, 50-370 Wrocław, Poland

Deadline for manuscript submissions

closed (30 September 2023)



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/147249

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

[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)





Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)



About the Journal

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.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)