Special Issue

Optical Spectroscopy for Sensing, Monitoring and Analysis: 2nd Edition

Message from the Guest Editors

There is a growing need for sensors that are capable of monitoring a plethora of analytes in complex and hazardous environments in real time. Optical spectroscopy is an ideal candidate for these sensor applications due to the intrinsic ability to send light to and from a measurement point using optics or fibers, thereby protecting expensive equipment from exposure. These applications of optical spectroscopy have seen rapid growth in their capabilities due to advances in equipment, modeling techniques, and sensor fusion. Outside of in situ analysis, similar advances have been made to enable the use of optical spectroscopy for further sample characterization.

This Special Issue therefore aims to put together original research and review articles on recent advances, technologies, solutions, applications, and new challenges in the field of optical spectroscopy for sensing, monitoring, and analysis. Potential topics include but are not limited to:

- optical spectroscopy
- laser spectroscopy
- laser-induced breakdown spectroscopy
- Raman spectroscopy
- spectrophotometry
- fluorescence spectroscopy
- online monitoring
- sensor fusion
- chemometrics
- machine learning

Guest Editors

Dr. Hunter B. Andrews

Dr. Luke R. Sadergaski

Dr. Kyle C. Hartig

Deadline for manuscript submissions

25 April 2026



Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/213939

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

mdpi.com/journal/

sensors





Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



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)