

## Special Issue

# Recent Advancements in Optical Biosensors

### Message from the Guest Editors

Optical sensing is revolutionizing biomedical applications by offering significant advantages over conventional analytical techniques. These sensors enable the direct, real-time, and label-free detection of biological and chemical substances, making them highly effective for diagnostics, environmental monitoring, and food safety.

This Special Issue explores the latest advancements in optical biosensor technology, covering a wide range of innovations, from optical fibers to plasmonic biosensors, showcasing enhanced sensitivity and detection capabilities. The Special Issue also examines the integration of biosensors with cutting-edge technologies like microfluidics, lab-on-a-chip systems, and wearable diagnostics, pushing the boundaries of personalized medicine and point-of-care testing.

By bringing together researchers from optics, photonics, biology, and medicine, this Special Issue fosters interdisciplinary collaboration and showcases how optical biosensors are shaping the future of diagnostics and analytical science. As these technologies continue to evolve, they hold immense potential to revolutionize healthcare, drug discovery, and environmental monitoring.

---

### Guest Editors

Prof. Dr. Guo-En Chang

Department of Mechanical Engineering, National Chung Cheng University, Chiayi 62102, Taiwan

Dr. Devesh Barshilia

Department of Mechanical Engineering, National Chung Cheng University, Chiayi 62102, Taiwan

---

### Deadline for manuscript submissions

30 September 2026



## Sensors

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/238176](https://mdpi.com/si/238176)

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

Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 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)