

## Special Issue

# Innovative Schemes for Bio/Chemical Sensors Based on Specialty Optical Fibers, Metasurfaces and Optofluidics

### Message from the Guest Editors

This Special Issue will focus on intriguing sensing approaches for developing probes used in bio/chemical sensing. These methods include the utilization of plastic optical fibers (POFs), specialty optical fibers, metasurfaces, and optofluidics. For instance, there is a significant interest in using innovative POF-based extrinsic or intrinsic schemes. Moreover, using different receptor layers combined with optical probes to detect specific substances in different application fields is equally intriguing.

The topics of this Special Issue include, but are not limited to, the following:

- POF probes for bio/chemical sensing
- metasurfaces
- optofluidics
- specialty optical fibers for sensing
- POF-based optical chemical sensors
- POF-based sensor systems
- HW and SW for POF sensor systems
- machine and deep learning strategies for POF chips
- MathMaterial interfaces and POFs

### Guest Editors

Prof. Dr. Nunzio Cennamo

Department of Engineering, University of Campania Luigi Vanvitelli, Via Roma 29, 81031 Aversa, Italy

Dr. Francesco Arcadio

Department of Engineering, University of Campania Luigi Vanvitelli, Via Roma 29, 81031 Aversa, Italy

### Deadline for manuscript submissions

20 January 2026



## Sensors

an Open Access Journal  
by MDPI

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/200971](https://mdpi.com/si/200971)

*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

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)