

## Special Issue

# Advances in Photothermal Techniques for Material Characterization and Sensor Development

### Message from the Guest Editor

The continuous advancement of photothermal techniques enables the characterization of functional materials and provides insights into their properties and processes, determining their functions and applications in modern technology. This Special Issue aims to bring together authors and readers to share new directions and the latest research in photothermal sensor development for material characterization. Topics include:

- **Fundamentals** of photothermics/photoacoustics—thermophysical properties, laser ultrasonics, surface waves, nanoscale and ultrafast phenomena, laser physics, bio- and nanophotonics.
- **Methodologies**—instrumentation, measurement techniques, data processing, imaging, microscopy, spectroscopy, tomography, depth profiling, non-destructive evaluation.
- **Material characterization**—material science, analytical chemistry, photochemistry, thermal analysis, low-dimensional systems, nanoscale phenomena.
- **Applications**—microfluidics, atmospheric monitoring, environmental, agriculture, food, biomedical sensing, imaging, photothermal therapy, laser medicine, bioengineering.

---

### Guest Editor

Dr. Dorota Korte

Laboratory of Environmental Research, University of Nova Gorica, Vipavska 13, 5000 Nova Gorica, Slovenia

---

### Deadline for manuscript submissions

30 September 2026



## Sensors

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.0  
CiteScore 9.4  
Indexed in PubMed



[mdpi.com/si/229955](https://mdpi.com/si/229955)

*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 4.0  
CiteScore 9.4  
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)