

## Special Issue

# Cutting-Edge Microfluidic Innovations: Materials, Design Mastery, and Transformative Applications

### Message from the Guest Editor

Microfluidics, a subject at the dynamic crossroads of physics, chemistry, engineering, and biology, has experienced a profound and transformative evolution in recent years. This SI will serve as a window into the vanguard of progress within this rapidly evolving discipline. Within the pages of these articles, our aim is to spotlight the cutting-edge of microfluidic technology, unveil revolutionary materials and design strategies, and elucidate their pioneering applications. These groundbreaking innovations are not only revolutionizing our capacity in the realms of diagnostics and drug delivery, but also expanding our abilities to minutely investigate the behaviors of cells, tissues, and organs under the influence of changing environmental factors. The profound impact of these applications is already tangible and is poised to continue reshaping the landscape of both research and industry. The fusion of these pivotal elements within microfluidics promises to propel scientific discovery and technological advancement in myriad ways, fueling innovation and progress in the scientific and industrial spheres alike.

### Guest Editor

Prof. Dr. Sławomir Jakiela

Department of Physics and Biophysics, Institute of Biology, Warsaw University of Life Sciences, 02-776 Warsaw, Poland

### Deadline for manuscript submissions

closed (31 December 2024)



## Sensors

an Open Access Journal  
by MDPI

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/189113](https://mdpi.com/si/189113)

*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)