

## Special Issue

# Current Trends and Future Prospects of Chemistry-Augmented Radio Frequency (RF) Sensors in Environment and Healthcare Applications

### Message from the Guest Editor

Sensing environmental, physical, and human physiological interactions is essential in modern life. This issue aims to bridge advances in the field of chemistry sensors and chemistry interactive materials (CIM) with RF wireless transmission, enabling the transfer of sensed data. Among the various wireless transmission technologies available, Radio Frequency Identification (RFID) technology is considered the most efficient and cost-effective candidate. Building on this foundation, novel RFID sensors enhanced by CIM can be developed. Hence, specially designed chemistry substrates or superstrates can drive the evolution of RFID sensors to meet market demands. This has the potential to disrupt existing sensor industries and introduce entirely new and innovative sensing solutions.

### Guest Editor

Dr. Maher Khaliel

Institute of Digital Signal Processing, Duisburg-Essen University, 47057 Duisburg, Germany

### Deadline for manuscript submissions

closed (1 August 2025)



## Sensors

an Open Access Journal  
by MDPI

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/215194](https://mdpi.com/si/215194)

*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)