

## Special Issue

# Recent Advances in Magnetic Sensors: Materials, Design and Applications

### Message from the Guest Editors

Magnetic sensors are widely used in a variety of activities in the fields of geophysical observations, space and deep-sea explorations, navigation, electric grids, mineral prospection, archeology, clinical medicine, and industrial applications. Most of the applications rely on the identification of weak magnetic variations in time and/or in space by means of differential or gradient measurements. The ultimate resolution of these measurements is limited by the intrinsic noise levels in the magnetic sensors, which are relevant to the working principle, material, size, weight, power consumption, etc. The advances in material science and technology over the last several decades have enabled the construction of magnetic sensors of increased sensitivity. This Special Issue will be a detailed overview of the recent research and development of the materials, design, and applications of magnetic sensors. It is my pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews related to this topic are all welcome.

---

### Guest Editors

Dr. Xin Zhuang

Key Laboratory of Electromagnetic Radiation and Sensing Technology, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China

Dr. Chung Ming Leung

School of Mechanical Engineering and Automation, Harbin Institute of Technology, Shenzhen 518055, China

---

### Deadline for manuscript submissions

closed (31 December 2023)



## Sensors

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/153856](https://mdpi.com/si/153856)

*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)