

## Special Issue

# Recent Advances in MEMS Resonator-Based Magnetic Sensors

### Message from the Guest Editor

Nowadays, magnetic sensors have gained significant prominence in various fields such as biomedical sensors, automotive sensors, non-contact sensing, and nondestructive testing. Amongst the various types of magnetic sensors, MEMS resonator magnetic sensors have the advantages of small size, batch manufacturing, low-power consumption, high sensitivity and resolution, and facile integration with the CMOS technique. This Special Issue centres around the advancements in MEMS resonator magnetic sensors and their recent progress. The Special Issue encompasses various subjects such as the design, manufacturing, analysis, packaging, and integration of magnetic sensors based on MEMS resonators.

- Design and fabrication techniques for MEMS resonant magnetic sensors
- Characterization and modeling, stimulation of MEMS resonant magnetic sensors
- Novel materials and new device concepts for MEMS resonant magnetic sensors
- Physical sensing mechanisms and principles
- Integration of MEMS resonant magnetic sensors in practical applications
- MEMS resonant magnetic sensors for harsh environments
- Applications and markets evaluation for MEMS resonant magnetic sensor

---

### Guest Editor

Dr. Zilong Zhang

Ultra-Wide Bandgap Semiconductors Group, National Institute for Materials Science (NIMS), Tsukuba, Ibaraki 305-0044, Japan

---

### Deadline for manuscript submissions

closed (31 July 2024)



## Micromachines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 5.2  
Indexed in PubMed



[mdpi.com/si/177764](https://mdpi.com/si/177764)

*Micromachines*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
micromachines@mdpi.com

[mdpi.com/journal/  
micromachines](https://mdpi.com/journal/micromachines)





# Micromachines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 5.2  
Indexed in PubMed



[mdpi.com/journal/  
micromachines](https://mdpi.com/journal/micromachines)



## About the Journal

### Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

---

### Editor-in-Chief

Prof. Dr. Ai-Qun Liu

1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

#### Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Mechanical Engineering)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.2 days after submission; acceptance to publication is undertaken in 1.8 days (median values for papers published in this journal in the second half of 2024).