



an Open Access Journal by MDPI

# **Exploring the Sensing Potential of Acoustic Wave Devices**

Guest Editors:

#### Dr. Chen Fu

Key Laboratory of Optoelectronic Devices and Systems of Ministry of Education and Guangdong Province, College of Physics and Optoelectronic Engineering, Shenzhen University, Shenzhen 518060, China

#### Dr. Sami Ramadan

Department of Materials, Imperial College London, London SW7 2AZ, UK

Deadline for manuscript submissions:

### 30 December 2024



Acoustic wave devices are instrumental in various applications, leveraging the sensing potential of acoustic waves for precise and sensitive measurements. These devices exploit the interaction between acoustic waves and the material properties to enable sensing capabilities. Changes in the physical or chemical properties of the material in contact with the acoustic wave can lead to detectable alterations in the wave characteristics, allowing for precise measurements. In addition, acoustic wave devices based on MEMS fabrication technology can be miniaturized, allowing for compact and portable sensing systems to be developed. Integration with microelectronics enables the creation of sensor arrays and multi-sensor platforms for simultaneous detection of multiple analytes.

- Capacitive Acoustic Wave Sensor;
- Piezoelectric Acoustic Wave Sensor;
- MEMS Acoustic Wave Sensor;
- Fiber-Optic Acoustic Wave Sensor;
- Surface Acoustic Wave (SAW) Sensor;
- Bulk Acoustic Wave (BAW) Sensor;
- Acoustic Emission Sensor;
- Microphone;
- Ultrasonic Sensor;
- Infrasonic Sensor;
- Sonar Sensor;
- Acoustic Camera.





mdpi.com/si/198309





an Open Access Journal by MDPI

### **Editor-in-Chief**

### Message from the 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

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.

# **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 & Instrumentation*) / CiteScore - Q1 (*Instrumentation*)

# Contact Us

Sensors Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/sensors sensors@mdpi.com X@Sensors\_MDPI