



an Open Access Journal by MDPI

Advances in Acoustic Wave Biosensors

Guest Editor:

Prof. Dr. Venkat R. Bhethanabotla

Department of Chemical and Biomedical Engineering, University of South Florida Tampa, Tampa, FL 33620, USA

Deadline for manuscript submissions: **31 May 2024**



Message from the Guest Editor

Dear Colleagues,

Acoustic wave devices have been used in materials characterization and in chemical and biological sensing for quite some time. Rayleigh wave surface acoustic wave (SAW) devices have been demonstrated in gas phase chemical sensing. Shear horizontal wave propagation in suitable cuts of piezoelectric materials has since allowed for liquid phase operation and construction of label-free biosensors using SAW devices. At higher frequencies of operation. SAW devices are much more sensitive as biosensors. Other types of acoustic waves generated in piezoelectric materials such as acoustic plate mode (APM) and flexural plate mode (FPM) have also been tried as chemical and biological sensors in the literature to a lesser extent. Theoretical understanding of these devices has progressed via modeling, including finite elements. Many advances in sensing materials and schemes have been described recently. All of these types of advances in the use of acoustic wave devices in biological sensing are welcome as contributions to this Special Issue of Sensors and are invited from researchers around the world

Prof. Dr. Venkat R. Bhethanabotla *Guest Editor*







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