



Highly Sensitive Transducers for Biosensing

Guest Editor:

Dr. Mar Álvarez

Instituto de Microelectrónica de
Barcelona, IMB-CNM (CSIC),
Campus UAB, 08193 Cerdanyola
del Valles, Spain

Deadline for manuscript
submissions:

closed (10 September 2019)

Message from the Guest Editor

A transducer is a device that converts energy from one form to another. In the case of biosensors, a transducer device converts biochemical interactions occurring at the transducer interface into a readable signal. A wide range of transducer principles has been developed and used for detection of biomolecular interactions in the last few decades, looking to achieve higher sensitivities that could satisfy the continuous demanding requirements to detect low concentrations and small molecules. The development of highly sensitive transducers and biosensors offers a powerful opportunity in early diagnosis and treatment of diseases, reducing the cost of patient care associated with advanced stages of diseases. This Special Issue is aimed to report recent developments and advances in design, simulation and fabrication of highly sensitive transducers for biosensing applications. It is envisaged that this will cover a wide range of areas, including electrochemical, nanomechanical, piezoelectric, piezoresistive or optical (photonic and plasmonic) transducers, combined with enzymes, antibodies, DNA, aptamers or molecularly imprinted polymers for the specific detection of desired analyte.





an Open Access Journal by MDPI

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

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.

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, PMC, Ei Compendex, dblp, and other databases.

Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Mechanical Engineering*)

Contact Us

Micromachines Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/micromachines
micromachines@mdpi.com
[X@micromach_mdpi](https://twitter.com/micromach_mdpi)