

Special Issue

Advanced FET Based Sensors for Life Science Applications

Message from the Guest Editor

This Special Issue addresses the design, implementation, modelling, characterization, validation, and/or optimization of FET-based biosensors using standard microfabrication technologies including CMOS or Open-Gate Junction Field-Effect Transistors (OG-JFETs). Additionally, this Special Issue covers topics related to FET-based sensors using nanomaterials such as carbon nanotubes or graphene for bioengineering or biomedical engineering applications such as drug testing or other fundamental biological studies.

Keywords

- Field Effect Transistor (FET)
- BioFET
- nanomaterials
- Ion-Selective Filed Effect Transistors (ISFET)
- Complementary-Metal-Oxide-Semiconductor (CMOS) based FET sensors
- pH sensors
- DNA detection
- Point-of-Care Disease Diagnostics (PoCDD)
- life science applications

Guest Editor

Dr. Ebrahim Ghafar-Zadeh

Department of Electrical Engineering and Computer Science, York University, 4700 Keele Street, Lassonde Building, 1012D, Toronto, ON M3J1P3, Canada

Deadline for manuscript submissions

closed (1 July 2022)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/103534

Micromachines
Editorial Office
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 6.0
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 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).