



an Open Access Journal by MDPI

## CMOS Biosensor and Bioelectronic

Guest Editors:

**Dr. Fuze Jiang**

Department of Information  
Technology and Electrical  
Engineering, ETH Zurich, CH-8093  
Zürich, Switzerland

**Prof. Dr. Ha-Duong Ngo**

Hochschule für Technik und  
Wirtschaft Berlin, University of  
Applied Sciences, Treskowallee 8,  
10318 Berlin, Germany

Deadline for manuscript  
submissions:

**closed (31 March 2024)**

### Message from the Guest Editors

The rapid advancements in complementary metal–oxide–semiconductor (CMOS) processes have facilitated the integration of the analog sensing front end into an IC chip, making it a viable option. It has emerged as the predominant choice for manufacturing next-generation custom microdevices. The advancement of CMOS high-density microelectrode arrays has significantly streamlined the closed-loop System-on-Chip (SoC) recording of electrical signals from larger areas and entire cell populations. In this configuration, multiple electrodes are strategically distributed across a substantial area, enabling simultaneous recording of functions from thousands of cells. This versatile capability finds utility in both in vivo implantation and in vitro cell cultures and tissue preparations, broadening its potential applications in both academic research and industrial domains. For this Special Issue, our primary objective is to comprehensively cover the latest advances and progress in CMOS bioelectronics and its various applications. High-quality research articles, communications, and reviews are welcome for submission.





an Open Access Journal by MDPI

## Editor-in-Chief

## 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 (*Chemistry, Analytical*) / CiteScore - Q2 (*Mechanical Engineering*)

## Contact Us

---

*Micromachines* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/micromachines](http://mdpi.com/journal/micromachines)  
[micromachines@mdpi.com](mailto:micromachines@mdpi.com)  
[X@micromach\\_mdpi](https://twitter.com/micromach_mdpi)