

Special Issue

Bioelectronics and Biosensors in Diagnostics, Biotechnology and Clinical Research: Challenges and Opportunities

Message from the Guest Editors

Recent attention has been addressed to novel strategies for lowering the costs of sensitive biosensors fabrication, to customized hardware for ensuring effective conditioning in integrated solutions, and, finally, to advanced signal processing techniques to enhance the performances of the developed platforms from a multi-parametric perspective (e.g., deep learning, multi-sensor networks). The aim of this Special Issue is to collect the most recent developments in this field, providing a comprehensive picture of the most promising trends and of the open challenges still to be overcome for strengthening the role of biosensors in the study, detection, and control of pathophysiological processes. Both research papers and review articles covering the following topics are welcome to this Special Issue:

- Biosensors and bioelectronics
- Printed electronics for biosensing
- Biomaterials for biosensors
- Biomarkers detection
- Cell culture monitoring
- Electrochemical sensors
- Non-invasive sensing
- Nanostructured sensors
- Points of care
- Advanced signal processing/machine learning for biotechnology

Guest Editors

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Deadline for manuscript submissions

closed (20 March 2023)



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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.4 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).