Special Issue

Electrochemical Biosensors for Biomarker Detection and Medical Applications

Message from the Guest Editor

Electrochemical biosensors have emerged as powerful analytical tools for the detection of biomarkers, playing a crucial role in medical diagnostics, disease monitoring, and personalized healthcare. These biosensors use electrochemical transduction mechanisms to convert biochemical interactions into electrical signals, offering advantages such as high sensitivity, specificity, portability, and rapid response times.

The increasing demand for early disease detection and continuous health monitoring has driven significant advancements in electrochemical biosensor technology. These biosensors are now being integrated with advanced nanomaterials, microfluidics, and wearable devices, enhancing their performance and expanding their applications in point-of-care diagnostics.

Electrochemical biosensors enable the real-time monitoring of various biomarkers, allowing for timely medical interventions and personalized treatment plans. Furthermore, the miniaturization of biosensor devices facilitates the development of non-invasive and user-friendly diagnostic platforms, further increasing their accessibility and utility in modern healthcare systems.

Guest Editor

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Deadline for manuscript submissions

25 November 2025

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/236302

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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.

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