

Special Issue

Electrochemical Sensors and Bioelectronic Devices for Medical, Environmental and Food Applications

Message from the Guest Editor

The development of innovative electrochemical sensors for medical diagnostics, environmental monitoring, and food safety is a fast-growing, interdisciplinary field.

Research focuses on disposable, miniaturized, low-cost, and highly sensitive sensors for point-of-care and in-field applications. Key areas include biomarker detection for Alzheimer's disease, glucose monitoring, SSRI quantification in water, and rapid diagnosis tools for Dry Eye Disease. Advances also explore integrating biofuel cell technology for energy-harvesting diagnostics. Emphasis is placed on combining electrochemical sensing with bioelectronics, microfluidics, and smartphone-based readout systems. This Special Issue welcomes contributions on novel electrode materials, biorecognition integration, microfabrication of disposable sensors, wearable technologies, mobile device interfacing, and electrochemical assays for multiplexed detection. Special focus will be given to paper-based devices, lab-on-chip systems, and real-sample testing.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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