Special Issue

Recent Advances in Microfluidic Biosensors in Biomedical Applications

Message from the Guest Editor

Microfluidic biosensors are crucial in biosensing applications. These miniature devices allow rapid, realtime analysis with minimized sample volumes. In biomedical and clinical settings, they play pivotal roles in disease diagnostics, biomarker monitoring, pathogen detection, and therapeutic drug monitoring. Their automation potential facilitates high-throughput screening, ensuring biocompatibility and reducing sample contamination to maintain the integrity of biological samples. The recent emphasis on developing microfluidic-based biosensor technologies with high sensitivity, reproducibility, and stability has made these devices a focal point of interest, particularly in the biomedical field. This Special Issue welcomes original research papers, as well as reviews of current developments in the design of high-sensitivity and reproducible microfluidic-based biosensors.

Guest Editor

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Message from the Editor-in-Chief

Biosensors is a leading journal, devoted to fast publication of the latest achievements, technological developments and scientific research in the exciting multidisciplinary area of biosensors. Both experimental and theoretical papers are published, including all aspects of biosensor design, technology, proof of concept and application. Special issues are devoted to specific technologies and applications, and a selection of the most outstanding papers each year is recognized. Pushing the boundaries of the discipline, we invite original papers, as well as timely reviews on cutting edge fields within the subject area.

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