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Current Advance in Transistor-Based Biosensors for Diagnostics

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Deadline for manuscript submissions:

closed (30 April 2024)

Message from the Guest Editors

Transistor-based biosensors have exhibited outstanding performances in the last decade in terms of selectivity, limit of detection, and portability. Thanks to the properties of active materials, transistor-based biosensors can be realized on flexible substrates with cost-effective printing techniques, characteristics that make these devices suitable to realize diagnostic platforms at the point of care.

This Special Issue aims to collect papers on the latest advances in the field of biosensing for diagnostics, underlining proof-of-concept innovations in terms of technology, targets, and portability. Applications to achieve biosensing with samples from patients and technological solutions for point-of-care applications are welcome.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: field-effect transistor (FET) biosensors for diagnostics based on organic semiconductors, carbon nanotubes, graphene, and inorganic semiconductors; microfluidics platforms for FETs; and new device architectures for point-of-care applications.



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Special Issue



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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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