Special Issue

Surface Chemistry and Surface Design to Improve Biosensing by Field-Effect Transistors

Message from the Guest Editors

More than a half-century has witnessed the emergence of biosensors based on field-effect transistors as a superior tool to detect a variety of biomolecules and substances. During the recent decades, enormous time and efforts have been invested into FET biosensors to exploit them for determining numerous biomarkers (proteins, microRNAs, and so on) at ultra-low concentrations. They are therefore expected to play vital roles in diagnosis of chronic diseases as well as development of precision medicine in the future. This Special Issue welcomes high-quality publications including review, perspective, communication, and research articles related to recent advances in sensing technology by FETs, especially studies to improve FET-based biosensors for biomedical applications. The potential themes cover, but are not restricted to the following: materials for FETs; nano-structured transducers; probe design and synthesis; transducer fabrication techniques; surface modification methods; antifouling functions; sensing biomarkers of pandemic; improving sensitivity and detection limit; applications in biologics manufacturing (biomanufacturing)

Guest Editors

Prof. Dr. Wen-Yih Chen
Department of Chemical and Materials Engineering, National Central University, Taoyuan City 320317, Taiwan

Dr. Cao-An Vu
Department of Chemical and Materials Engineering, National Central University, Taoyuan 320317, Taiwan

Deadline for manuscript submissions

closed (31 March 2022)

Biosensors

an Open Access Journal by MDPI

Impact Factor 5.6
CiteScore 9.8
Indexed in PubMed

mdpi.com/si/67529

Biosensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biosensors@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Giovanna Marrazza
Department of Chemistry "Ugo Schiff", University of Florence, Via della Lastruccia 3, 50019 Sesto Fiorentino, Italy

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