

Special Issue: Field Effect Transistor based Biosensing: Development and Applications

Aida Todri-Sanial, Abhishek Singh Dahiya

▶ To cite this version:

Aida Todri-Sanial, Abhishek Singh Dahiya. Special Issue: Field Effect Transistor based Biosensing: Development and Applications. Biosensors, 2021. lirmm-03024023

HAL Id: lirmm-03024023 https://hal-lirmm.ccsd.cnrs.fr/lirmm-03024023v1

Submitted on 25 Nov 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.





an Open Access Journal by MDPI

Field-Effect Transistor Based Biosensing: Development and Applications

Guest Editors:

Dr. Aida Todri-Sanial

Laboratoire of Informatique, Robotique, Microelectronics of Montpellier (LIRMM), University of Montpellier, Montpellier 34095, France

aida.todri@lirmm.fr

Dr. Abhishek Singh Dahiya

Bendable Electronics and Sensing Technologies (BEST) group, James Watt School of Engineering, University of Glasgow, Glasgow G12 8QQ, UK

AbhishekSingh.Dahiya@ glasgow.ac.uk

Deadline for manuscript submissions:

30 May 2021

Message from the Guest Editors

Among various sensing methods currently available, field-effect transistor (FET)-based biosensors are advantageous due to their attractive features. A plethora of materials/devices have been developed to promote the understanding of FET-based biosensing technology, including ion-sensitive FETs, CNT based FETs, thin-film transistors, silicon nanowires, 2D materials, organic FETs, graphene FETs, and compound-semiconductor FETs. These materials/devices have been used for a variety of clinical applications such as detection of cardiovascular diseases (CVDs), COVID-19, proteins, enzymatic reactions, glucose, stress hormones (e.g., cortisol), cancers, HIV, and DNA sequences.

This Special Issue will highlight recent advancements in different advanced materials and FET devices for potential application in clinical diagnosis, point-of-care testing, and on-site detection. We encourage researchers to share their theoretical and experimental studies on a variety of topics in biosensors, including fundamental principles, synthesis of advanced and novel materials. and micro/nanomanufacturing techniques targeting development of ultrasensitive biosensors for the abovementioned applications.







an Open Access Journal by MDPI

Editor-in-Chief

Dr. Giovanna Marrazza

Department of Chemistry "Ugo Schiff", University of Florence, via della Lastruccia 3, 50019 Sesto Fiorentino, (Fi), Italy

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.

Author Benefits

Open Access:—free for readers, with article processing charges (APC) paid by authors or their institutions

High Visibility: Covered in the Science Citation Index Expanded (SCIE - Web of Science), as well as Inspec (IET) and Scopus. Citations available in MEDLINE (PubMed), full-text archived in PubMed Central.

CiteScore (2019 Scopus data): **4.4**, which equals rank 52/115 (Q2) in 'Clinical Biochemistry'.

Contact Us