



an Open Access Journal by MDPI

Biosensors Based on Nanostructured Materials

Guest Editors:

Dr. Beatriz Prieto-Simón

Department of Electronic
Engineering, Universitat Rovira i
Virgili, 43007 Tarragona, Spain

Dr. Maria Alba

Monash Institute of
Pharmaceutical Sciences,
Monash University, Parkville, VIC,
Australia

Deadline for manuscript
submissions:

closed (30 June 2020)

Message from the Guest Editors

Although biosensors have often been conceived as powerful screening tools, advances in nanotechnology have been essential to re-shape their definition and scope, being today of high interest in many fields of application due to their unique advantages.

Materials science has a key role in the contributions of nanotechnology to improve biosensors analytical performance and facilitate their design to fulfill the requirements of the end-user. The advanced development of new nanostructured transducers opens new insights in the design, characteristics and performance of optical, electrochemical and mass-sensitive biosensors, but also nanoelectromechanical biosystems. Apart from the signal enhancement achieved by using transducers of large surface area, nanostructured materials offer a wide range of possibilities in terms of engineering new sensing paradigms, single molecule detection, multiplexing capabilities and integration into portable devices, among others.

This Special Issue aims to cover recent advances in the development of nanostructure-based biosensors, with a special focus on highlighting the advantages of introducing structures at the nanoscale level in their design.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Author Benefits

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

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)