Special Issue

Sensors and Biosensors: Fabrication, Properties and Biomedical Application

Message from the Guest Editors

A biosensor is defined by its biological or bioinspired receptor unit with unique specificities toward corresponding analytes. Biosensing, also includes the recording of electrophysiological signals of the human body, including ECG, EMG, EEG, ECoG, motion signals, etc., which is also defined as bioelectronics. The important parameters of biosensing are the detection specificity and sensitivity. In order to increase sensitivities and to lower detection limits down to even individual molecules, many new techniques are developed over recent decades, such as various kinds of nanomaterials, biomimetic designs, flexible electronics, lab-on-a chip, as well as microfabrication and microfluidics, called microelectromechanical systems (MEMS). Biosensing has been intensively applied in biomedical fields, such as medical diagnostics, the early screening of diseases, point-of-care testing, and healthcare monitoring.This Special Issue aims to collect recent advances in fabrication, properties, and biomedical application of biosensors and bioelectronics, as well as relevant prospects in terms of opportunities and challenges. High-quality articles, short communications, and reviews are welcome.

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About the Journal

Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the *Journal of Functional Biomaterials* (*JFB*) is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. *JFB* seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Pankaj Vadgama
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