Special Issue

Nanomaterials for Biosensors and Biomedical Devices

Message from the Guest Editor

Nanomaterials contain components (e.g., clusters or surface features) with size between 1 nanometer and 100 nanometers. Nanomaterials may be prepared via top-down approaches or via bottom-up approaches; these materials have potential use in biosensors and other biomedical devices. Top-down manufacturing methods involve preparing nanomaterials through external control over shaping or patterning. Bottom-up manufacturing methods involve self-assembly of nanoscale constituents into larger assemblies. Recent advances involving the use of nanomaterials for biosensors and other biomedical devices have arisen due to two forces. First, there is a focus on nanomaterials since novel processing, characterization, and modeling methods have become available. Second, nanomaterials provide unique capabilities for interactions with small-scale biomedical structures such as nucleic acids and viruses. Nanomaterials may also integrate multiple functions in a single medical device, increase medical device stability, and decrease medical device cost. The Special Issue will consider recent advances in nanomaterials for biosensors and other biomedical devices.

Guest Editor

Prof. Dr. Roger Narayan
Joint UNC/NCSU Department of Biomedical Engineering, North Carolina State University, Raleigh, NC 27695, USA

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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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