Special Issue

Nano Biosensor and Its Application for In Vivo/Vitro Diagnosis

Message from the Guest Editor

Nano-biosensors are a unique type of sensor that integrates the specific interactions of biomolecules and the superior properties of nanostructures into a sensor. The specific interactions of biomolecules, including nucleic acid hybridization, aptamer-target recognition, etc., ensure the high selectivity for detection and allow for the construction of various powerful signal generation/amplification principles for sensitive detection. On the other hand, the superior properties of nanostructures, such as electrical, magnetic, catalytic, and photothermal activities, enable them to serve as versatile and efficient signal transducers and thus construct diverse signal generation/amplification strategies for highly effective detection as well. As a result, the synergistic combination of the interactions of biomolecules and the properties of nanostructures into an integrated sensor allows for detecting and sensing with higher analytical performance. Such emerging nano-biosensors show significant advantages over conventional analytical methods, which make them attractive for the in vivo/vitro analysis of biomarkers toward applications in diagnosis.

Guest Editor

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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.

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