Special Issue

Biomimetic Strategies and Artificial Optical Biosensors

Message from the Guest Editors

Receptors or enzymes generated by natural evolution in living organisms show a surprising ability to specifically recognize target molecules. When used as biosensor recognition elements, these biomolecules provide very high selectivity. However, they suffer from instability and low durability. The design of alternative robust artificial receptors and antibodies circumvents these limits. The topic of this Special Issue is related to biomimetic detection exploiting alternatives to natural receptors, such as antibodies, enzymes, etc., separated into the following categories: (1) Artificial receptors as molecularly imprinted polymers and aptamers etc. (2) Nucleic acids and nanozymes, nanoparticles or soft (sol–gel, hydrogel, etc.) and self-assembled materials used as artificial enzymes or extracellular matrix.

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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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