Special Issue

Nanophotonics and Surface Waves in Biosensing Applications

Message from the Guest Editors

An optical biosensor is a kind of micro-nano functional device which can transform a biological signal that is not easy to measure into an optical signal that is easy to observe and measure. Due to the interaction between the light waves and the measured bioanalyte, the slight change in the characteristics of the bioanalyte is represented by the relative obvious change in the parameters of the light signal, so as to achieve the purpose of accurately identifying and detecting the characteristics of the bioanalyte or the surrounding environment. Such sensors do not require labelled or modified biomolecules, so they are widely used in biomedicine, blood detection, biochemical detection, environmental monitoring, and other areas. This Special Issue aims to compile a series of research articles and reviews that address the implementation of nanophotonics and surface wave technologies in biosensors, including, but not limited to, surface plasmon resonance, optical Tamm state and topological edge state. The purpose of this Special Issue is to provide a platform for researchers to discuss the future opportunities and challenges of nanophotonics and surface waves in biodetection.

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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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