Special Issue

Emerging Research in Nanoplasmonic Biosensing: From Fundamentals to Novel Applications

Message from the Guest Editors

Nanoplasmonic biosensors, utilizing localized surface plasmon resonance (LSPR) effects, have the potential to transform biomedical diagnostics by offering high sensitivity, reduced fabrication complexity, and seamless integration. These biosensors enable the detection of various biomolecules, with applications spanning diagnostics, environmental monitoring, and drug discovery. The performance of nanoplasmonic biosensors depends on the optimization of resonant structures, materials, and sensor interrogation methods. This Special Issue aims to explore the diverse landscape of nanoplasmonic biosensor configurations and their underlying principles, as well as the role of machine learning in refining their capabilities. As an interdisciplinary research domain, nanoplasmonic biosensing brings together experts from various fields, including material science, biochemistry, nanotechnology, and electronic systems. This Special Issue invites researchers to submit original research papers, reviews, and perspectives related to this exciting area, fostering the exchange of knowledge and propelling advancements in the field.

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Deadline for manuscript submissions

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Biosensors

About the Journal

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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