Special Issue

Recent Advances in Plasma Biosensors: From Nanotechnology to Diagnostics

Message from the Guest Editors

The convergence of nanotechnology and plasma science is at the forefront of diagnostic innovation. This Special Issue will explore the latest breakthroughs in plasma biosensors, charting the course from nanotechnology to practical diagnostics. Plasma biosensors, leveraging the sensitivity and versatility of surface plasmon resonance (SPR), localized surface plasmon resonance (LSPR), and metasurface plasmon resonance (Meta-SPR), are set to revolutionize early detection and monitoring of diseases. These innovative devices exploit the quantum mechanical properties of metallic nanoparticles interacting with light, which have demonstrated remarkable potential across a spectrum of biomedical applications. This Special Issue will focus on recent advances in translating these cutting-edge technologies into tangible diagnostic solutions. We eagerly anticipate your submissions and look forward to showcasing the groundbreaking work that will shape the next generation of plasma biosensors in diagnostics.

Guest Editors

Dr. Wenjun Hu

Department of Nano Biosensing and Artificial Intelligence, College of Life Science and Technology, Huazhong University of Science and Technology, Wuhan 430074, China

Prof. Dr. Gang Logan Liu

Department of Nano Biosensing and Artificial Intelligence, College of Life Science and Technology, Huazhong University of Science and Technology, Wuhan 430074, China

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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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