Special Issue

New Progress in Optical Fiber-Based Biosensors—2nd Edition

Message from the Guest Editors

Optical fiber biosensors are a promising technology that merge photonics and biotechnology, utilizing the principles of light propagation (phase, amplitude, frequency, light polarization) in optical fibers for sensing applications. They can measure a wide range of physical, chemical, and biological parameters and have seen rapid advancements and growing applications in areas like medical diagnostics, environmental monitoring, food safety, drug discovery and development, and biotechnology and research.

In these sensors, the optical beam is transmitted through the optical fiber, which responds to external stimuli, detecting biological molecules or interactions by integrating biological recognition elements such as enzymes, antibodies, DNA, or aptamers that selectively bind to the target analyte (e.g., proteins, pathogens, toxins).

In this context, it is a pleasure to announce the second edition of the Special Issue titled “New Progress in Optical Fiber-Based Biosensors”. All authors are cordially invited to submit original research and reviews of new fabrication processes, materials, transducing devices, and immobilization methods for optical biosensors.

Guest Editors

Prof. Dr. Arnaldo Leal-Junior

Graduate Program in Electrical Engineering, Federal University of Espirito Santo, Vitoria 29075-910, Brazil

Dr. Camilo A.R. Díaz

Graduate Program in Electrical Engineering, Federal University of Espirito Santo, Vitoria 29075-910, Brazil

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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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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.

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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