

Special Issue

Recent Advancements in Optical Biosensors

Message from the Guest Editors

Optical sensing is revolutionizing biomedical applications by offering significant advantages over conventional analytical techniques. These sensors enable the direct, real-time, and label-free detection of biological and chemical substances, making them highly effective for diagnostics, environmental monitoring, and food safety.

This Special Issue explores the latest advancements in optical biosensor technology, covering a wide range of innovations, from optical fibers to plasmonic biosensors, showcasing enhanced sensitivity and detection capabilities. The Special Issue also examines the integration of biosensors with cutting-edge technologies like microfluidics, lab-on-a-chip systems, and wearable diagnostics, pushing the boundaries of personalized medicine and point-of-care testing.

By bringing together researchers from optics, photonics, biology, and medicine, this Special Issue fosters interdisciplinary collaboration and showcases how optical biosensors are shaping the future of diagnostics and analytical science. As these technologies continue to evolve, they hold immense potential to revolutionize healthcare, drug discovery, and environmental monitoring.

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Deadline for manuscript submissions

30 September 2026



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 9.4
Indexed in PubMed



mdpi.com/si/238176

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. *Sensors* organizes Special Issues devoted to specific sensing areas and applications each year.

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