Special Issue

Recent Progress in Optical and Biomedical Sensing

Message from the Guest Editors

Optical and biomedical sensing has emerged as one of the most dynamic interdisciplinary fields covering photonics, optoelectronics, analytical chemistry, and biomedical engineering. With rapid advances in photonic integration, high-sensitivity sensing mechanisms, micro/nano-fabrication, and multi-channel multiplexing techniques, optical and biomedical sensing technologies are enabling breakthrough applications in clinical diagnosis, health monitoring, environmental detection, food safety, and biochemical analysis. High-performance optical sensors, integrated photonic sensing chips, resonant enhancement structures, and biomedical detection systems have become core research directions. Potential topics include, but are not limited to, the following:

- Integrated optical sensors and silicon photonic sensors;
- High-sensitivity optical sensing mechanisms and resonant structures;
- Biomedical photonic sensors and biochemical detection;
- On-chip sensing systems and multiplexed sensing techniques;
- Optical sensing device design, fabrication, and testing;
- Opto-mechanical integration and system packaging;
- Novel materials and structures for optical sensing;
- Applications of optical and biomedical sensors.

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Deadline for manuscript submissions

20 December 2026

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Photonics

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Impact Factor 1.9
CiteScore 3.5

mdpi.com/si/278278

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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