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Fluorescence Sensors for Biological and Medical Applications

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Deadline for manuscript submissions:

closed (25 October 2025)

Message from the Guest Editor

Nature has used biosensing since time immemorial, using sensory neurons in the nose to detect odors and those in the tongue to taste dissolved substances. Our understanding of how biological organisms detect trace amounts of biochemicals in complex systems has evolved over time. Recently, fluorescence sensors have been extensively used in various fields such as life science, medical diagnosis and the development of new drugs because of their high sensitivity, better selectivity, rapid and easy response, and less reliance on instruments.

This Special Issue therefore aims to put together original research and review articles on recent advances, technologies, solutions, applications, and new challenges in the field of fluorescence sensors.

Potential topics include but are not limited to:

- Construction of new fluorescence sensors
- Fluorescence sensors for high-throughput screening
- Fluorescence sensors in the detection of disease markers
- Fluorescence sensors in the detection of disease progression
- New application of fluorescence sensors in the biomedicine field
- Fluorescent sensors combined with biological big data and artificial intelligence



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Special Issue



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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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