Special Issue

Spectral Sensing Techniques in Biological Detection and Analysis

Message from the Guest Editor

This special issue explores the potential of spectral sensing techniques in biological detection and analysis, advancing high-sensitivity, non-invasive tools for biomedical, environmental, and forensic applications. Spectral methods, including Raman, infrared, fluorescence, and UV-Vis spectroscopy, enable precise identification and quantification of biomolecules, pathogens, and cellular processes. These techniques offer rapid, selective detection critical for disease diagnostics, biomolecular profiling, and real-time monitoring, just to name a few. This issue aims to showcase innovative sensor designs, signal processing algorithms, and integration strategies that may enhance spectral sensing performance in biological applications.

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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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