Special Issue

Advancements in Photoacoustic Sensors for Gas Detection and Air Quality Assessment

Message from the Guest Editor

Recent years have witnessed significant progress in photoacoustic sensing technologies, driven by the growing demand for accurate, sensitive, and compact systems for environmental monitoring. While traditionally focused on trace gas detection, the scope of photoacoustic sensors has rapidly expanded to include a broader range of air quality indicators such as particulate matter, volatile organic compounds (VOCs), humidity, and aerosols. This Special Issue aims to highlight cutting-edge research and development in photoacoustic-based sensing systems designed not only for gas detection but also for holistic air quality assessment in both indoor and outdoor environments. This Special Issue invites contributions that address various aspects of research and development related to photoacoustic-based sensing. The scope and applications include, but are not limited to, air quality and environmental monitoring, biomedical imaging, combustion monitoring, workplace safety, agriculture and food monitoring, clinical/medical applications such as breath monitoring, and industrial inspection for gas and liquid sensing.

Guest Editor

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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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