

Special Issue

Preparation and Application of Photonic Devices for Optical Sensing and Detection

Message from the Guest Editors

Optical sensing and detection technology is widely used in environmental monitoring, energy exploration, autonomous driving, biomedicine and other fields, such as coherent laser detection, laser spectrum measurement and fiber optic distributed sensing.

Lasers and optical sensors are the signal emitting and sensing units of optical sensing systems. The continuous breakthroughs in the mechanism, structure and performance of these photonic devices directly promote the progress of existing optical sensing technologies, further promoting the emergence of new optical sensing technologies and new application fields. This Special Issue welcomes scholars from relevant research fields to submit high-quality original articles and reviews. The theme of this issue is but not limited to the following:

- High-coherence laser and its application in coherent laser detection;
- Tunable laser and its application in laser sensing;
- Optical fiber photonic device and its application in optical sensing;
- New optical sensors for extreme environments;
- Silicon-based sensors and their hybrid integration with semiconductor lasers;
- Preparation and sensing application of mid-infrared fiber gratings.

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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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