



Preparation and Application of Photonic Devices for Optical Sensing and Detection

Guest Editors:

Dr. Chao Chen

Prof. Dr. Yongsen Yu

State Key Laboratory of
Integrated Optoelectronics,
College of Electronic Science and
Engineering, Jilin University,
Changchun 130012, China

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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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(Department of Electrical and
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Politecnico di Bari, Via Edoardo
Orabona n. 4, 70125 Bari, Italy

Message from the Editor-in-Chief

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