

## Special Issue

# High-Resolution Guided-Wave Optical Sensors

### Message from the Guest Editor

Guided-wave optical sensors (GWOSs) have become one of the most active research areas in the field of sensors. GWOSs encompass a wide range of modalities, including fiber sensors, optical waveguide sensors, microresonators, nanophotonic sensors, plasmonic sensors, microfluidics, etc. A common theme across all these different fields of research is the pursuit of ever-decreasing signal levels or, in other words, higher resolutions. Such an effort is often met with fundamental limitations, such as thermal noises and plasmonic losses, as well as technological challenges, such as restrictions caused by material properties and fabrication capabilities. Understanding, mitigating, and overcoming these limitations and challenges will lead to breakthroughs in sensor resolutions and open up even broader applications. The topical areas of Special Issue include but are not limited to:

- Fiber-optic sensors;
- Si nanophotonic sensors;
- Sensors based on microresonators;
- Plasmonic sensors;
- Photonic crystal sensors;
- Metamaterial sensors;
- Microfluidic sensors.

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### Guest Editor

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### Deadline for manuscript submissions

closed (20 April 2025)



## Sensors

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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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### Editor-in-Chief

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