Special Issue

Optical Fiber Ring Laser Sensors

Message from the Guest Editor

This Special Issue will focus on the design, fabrication, characterization, and applications of optical fiber ring laser sensors. These sensors are of particular importance due to their high sensitivity, large signal-to-noise ratio and stability. The scope of this Special Issue includes basic physical principles, modeling and simulation, and potential new applications.

- High measurement sensitivity associated with fiber ring laser sensors incorporating Mach–Zehnder, Fabry–Pérot, and Sagnac interferometers.
- Elements necessary for the construction of optical fiber ring laser sensors, for example, fiber Bragg or long-period gratings, couplers, amplifiers, and lasers that additionally enhance the sensitivity and resolution of potential sensor set-ups.
- Optical fiber ring laser sensors using various types of special fibers, including polarization-maintaining fibers or photonic crystal fibers.
- Modeling and simulation
- Applications of optical fiber ring laser sensors in, for example, biomedicine, health monitoring, environmental monitoring, agriculture, aeronautics, and other emerging areas

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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