

Special Issue

Recent Advances in Photonic Crystal Sensors: Innovative Materials, Designs, and Analysis Methods

Message from the Guest Editor

Photonic crystals (PhCs) exhibit a strong confinement of light in a very small volume, providing local modes which are able to enhance the interaction of radiation with an analyte in an efficient optical sensing scheme. Over the years, the use of PhCs has therefore gone far beyond the realization of low-threshold lasers, low-loss resonators, optical switches, waveguides, and optical fibers, with innovative sensing designs for environmental monitoring, medical diagnosis, defense, and food quality control repeatedly envisaged (to name a few). An example is given by the on-chip integration of PhC-based sensors with microfluidics and transducing elements in biological analysis platforms or the application of field enhancement effects induced in PhCs to vibrational, Raman, and fluorescence spectroscopies. This Special Issue will host the most recent and innovative studies in PhC-based sensing, in particular those involving the use of new emerging materials, advanced architectures, new detection mechanisms, and analytical tools mainly (but not exclusively) for applications in chemistry, biology, and medical diagnosis.

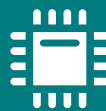
Guest Editor

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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.

Editor-in-Chief

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