Special Issue

Photonic Crystal Microsensors

Message from the Guest Editor

Since their proposal in the late 80s, photonic crystals have become one of the hottest topics in the field of nanophotonics due to their ability to control light at the nanoscale. By properly tuning the parameters of these structures, it is possible to achieve the presence of photonic bandgaps, obtain slow-wave propagation, or control the dispersion properties of the propagated modes. Although the main application of photonic crystals was related to the signal processing and light control fields, they have also demonstrated outstanding performances for sensing-related applications. Their special properties can achieve very high sensitivities while keeping a very reduced footprint, which is a must for the development of, for example, lab-on-a-chip devices. This Special Issue seeks reviews, regular research papers, and short communications on the different aspects related with the development of photonic crystal-based microsensors, from the proposal of novel configurations of these sensing structures to the experimental demonstration of their application in different fields.

Guest Editor

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