

Special Issue

Emerging Innovations in Microstructured Fibers for Sensing and Beyond

Message from the Guest Editors

With the continuous expansion of global information exchange and enhancements in the demand for sensing capabilities, the need for intelligent, miniaturized, and integrated optical sensing devices dedicated to information acquisition is growing. Distinct from conventional optical fibers, microstructured optical fibers (MOFs), which possess a flexible microporous architecture and tunable optical properties, have infused new momentum into the advancement of functional sensing devices. In addition, the unique structural properties of MOFs, when combined with advanced materials and innovative fabrication techniques, facilitate significant performance optimization in areas such as trace-level detection, multi-scenario biochemical monitoring, and customized sensing solutions. Nevertheless, significant challenges related to the structural design, sensing technology, and interdisciplinary integration of MOFs persist. This Special Issue aims to present recent research findings that focus on **innovations in technology and the structure of MOFs**; this is in order to explore groundbreaking advancements and the potential implementation of MOF sensing technologies.

Guest Editors

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