

Special Issue

Micro and Nano Optics for Advanced Sensing Technology

Message from the Guest Editors

Detection of nanoscale objects with ultrahigh sensitivity is of critical importance in various fields including early-stage disease diagnosis, environmental monitoring, and process control of manufacturing. The state-of-the-art optical sensors realize a detection limit down to single nanoparticle/molecule employing diversified schemes such as scattering interferometry, plasmonic structures, microcavity, and nanofiber sensors. In particular, microcavity sensors attract much attention for their high-quality factors and small mode volumes enabling significant enhancement of light-matter interactions in confined space. Micro and nanofibers (MNFs) with subwavelength diameters offer engineerable waveguiding properties including optical confinement, fractional evanescent fields, and surface intensity, which is appealing for optical sensing on the micro and nano scales. This Special Issue aims to attract original contributions in topics related to both experiment and theory regarding the measurement principles, detection techniques, and applications for micro and nano optical sensors and related technologies.

Guest Editors

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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