Special Issue

Optical Characterization of Functional Materials

Message from the Guest Editor

The exploration of the optical properties of materials is essential in materials science, with direct implications for photonics, optoelectronics, sensing, and energy applications. This Special Issue aims to gather recent advances in functional materials' synthesis, characterization, and modeling. We welcome contributions focused on both crystalline and nanostructured materials, including but not limited to:

- Two-dimensional materials such as graphene (CVD, exfoliated) and graphene oxide;
- Metal oxides and chalcogenides;
- Rare-earth-doped crystals and luminescent compounds;
- Hybrid and composite photonic materials;
- Thin films, heterostructures, and engineered multilayers.

This Special Issue will particularly emphasize the use of advanced techniques such as:

- Spectroscopic ellipsometry for optical constant modeling;
- Raman and photoluminescence spectroscopy for structural and electronic analysis;
- Terahertz time-domain spectroscopy for low-energy excitations and transport;
- UV-Vis-NIR spectroscopy for bandgap and absorption properties

Guest Editor

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Deadline for manuscript submissions

25 November 2025

Crystals

an Open Access Journal by MDPI

Impact Factor 2.4
CiteScore 5.0

mdpi.com/si/242091

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About the Journal

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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