Special Issue

Advances of Nonlinear Optical Materials

Message from the Guest Editors

Nonlinear optical (NLO) materials, as the heart of frequency conversion systems, are used to convert coherent light to other desirable wavelengths, ranging from deep-ultraviolet (DUV) to infrared (IR). The conversion occurs via a number of processes, such as second-harmonic generation (SHG) and difference-frequency generation. NLO materials have played an increasing role in a variety of areas, such as information storage, medical devices, laser systems, detectors, and photolithography. Ideally, SHG materials should satisfy several fundamental requirements, including proper phase matching, high NLO coefficients, stability in various chemical environments, a high laser-induced damage threshold (LIDT), relevant transparent windows in applied wavelengths, and the ability to be grown as large, crack-free single crystals. Therefore, exploring new NLO fundamental modules, achieving a good performance balance, and identifying novel NLO crystal candidates are topics of interest in the field of NLO materials.

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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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