



Crystals for Radiation Detectors, UV Filters and Lasers

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Message from the Guest Editor

Single-crystal-based radiation detectors, crystalline materials for optical UV band pass filters and lasers have drawn great attention from scientists studying radiation detector technology due to their numerous application potentials. There are two types of crystal-based detector: solid-state detectors and scintillator detectors. Solid-state detectors are semiconductors that use the ionizing radiation principle, whereas scintillation detectors work with the principle of the excitation effect of incident radiation. These detectors can offer a multitude of information about incident radiation, such as the energy, charge, particle, and source direction.

These applications can be fulfilled by producing high-quality single crystals and studying their properties for use in everyday life. Optimized growth, crystalline perfection, and improved applications can be realized by understanding the underlying science. Coupling basic science with the engineering of single crystals will lead to the development of portable and efficient detectors. The development and characterization of these new materials are required for the development of technology.





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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.

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