

Special Issue

Optical Properties of Crystals

Message from the Guest Editor

Crystals with exceptional optical and spectral properties have gained notable recognition as essential materials for a wide range of advanced applications, including laser systems, photonic devices, and infrared imaging. These materials exhibit remarkable performance across the electromagnetic spectrum, encompassing the ultraviolet, visible, and infrared regions. Using innovative doping strategies, including the incorporation of rare earth ions, transition metal ions, or other functional dopants, their optical, thermal, and mechanical properties can be tailored to meet specific requirements, enabling functionalities such as efficient energy transfer, a high photoluminescence yield, tunable absorption bands, and thermal stability. This Special Issue aims to feature full papers, communications, and reviews in the field of rare earth-doped crystal research. We invite you to submit papers on topics such as growth techniques, optical and spectral characterization, energy transfer mechanisms, and the computational modeling of optical properties. Contributions covering innovative methodologies, emerging applications, and interdisciplinary approaches are also encouraged.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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