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Formation, Characterization and Optical Properties of Crystals

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Deadline for manuscript submissions:
closed (20 November 2023)

Message from the Guest Editors

As crucial functional materials, crystals come in many forms, such as laser crystals, nonlinear optical (NLO) crystals, piezoelectric crystals and scintillation crystals. In the last few decades, numerous crystals, for example Nd3+: Y3Al5O12, KTiOPO4, KH2PO4, LiNbO3 have been developed and applied as laser and NLO materials. The development of optical technology necessitates new crystal materials with excellent optical properties. Nanometer-sized crystalline materials may have potential optical properties and represent an opportunity for new applications.

We are inviting researchers to submit original work to this Special Issue, which intends to highlight the state of the art for all kinds of crystals and relevant aspects of these materials. Bulk functional crystals, nanocrystals, and their preparation, characterization and properties will be covered.

Topics:
Growth and characterization of crystals;
Formation and related mechanism of crystals;
Properties of crystal materials;
Preparation of nanocrystalline materials;
X-ray photoelectron spectroscopy studies;
Microstructure and morphology;
Luminescence;
Absorption properties;
Relationship between structure and properties

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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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