

Special Issue

Research Progress of Advanced Crystals: Growth and Doping

Message from the Guest Editors

Crystalline materials, including but not limited to Gallium Nitride (GaN), are wide-bandgap semiconductors characterized by high breakdown voltage and improved electron mobility. Research into the growth and properties of various crystalline materials has significantly advanced the fields of optoelectronics and electronics. However, the presence of low-quality crystals, which often exhibit high dislocation density, low transparency, and a small radius of curvature, poses challenges for the development of high-performance devices. Therefore, the pursuit of high-quality, large-size, and cost-effective crystalline materials is essential for enhancing device performance and expanding their applications. As part of this Special Issue, we invite submissions that investigate the physical and chemical phenomena associated with the vapor and liquid phase growth of various crystalline materials, along with theoretical and experimental studies related to these processes. We will also emphasize research that analyzes the effects of doping on the properties of crystals.

Guest Editors

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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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