Special Issue

Advanced Crystals: Integrating Doping Strategies, Interface Control, and Numerical Simulations

Message from the Guest Editors

This Special Issue focuses on the advanced study of crystalline materials, emphasizing the integration of doping, interface control, and numerical simulation in growth processes. Advanced crystalline materials, such as Gallium Nitride (GaN), are prominent wide-bandgap semiconductors distinguished by their high breakdown voltage and enhanced electron mobility. We invite submissions that explore the intricate physical and chemical phenomena involved in both vapor- and liquid-phase growth of advanced crystalline materials. We encourage theoretical and experimental studies that delve into the interplay among doping, interface engineering, and numerical simulations during the growth processes. Furthermore, characterization techniques for assessing crystal quality and properties will also be highlighted. By synthesizing theoretical and experimental approaches, this Special Issue aims to advance the understanding of crystal growth and develop strategies for producing high-quality crystalline materials essential for next-generation technologies.

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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