Special Issue

Advances in Solid Electrolytes for Solid-State Batteries

Message from the Guest Editors

Solid-state batteries with high energy density and safety will become one of the promising next-generation battery technologies in the near future, and solid electrolyte is the core component of these. Breakthroughs are being achieved with regard to the development of novel crystal structures for ion conduction, property optimization of existing inorganic solid electrolytes through doping or coating, and advanced processing techniques that fabricate solid electrolyte materials into cell components for battery application.

This Special Issue aims to collect insightful reviews and original research papers on the latest development of inorganic-based solid electrolytes for solid-state batteries. The topics include, but are not limited to, the synthesis and processing of novel inorganic solid electrolytes or inorganics/polymer composite solid electrolytes; advanced characterization techniques such as solid-state NMR for investigating the properties of the solid electrolytes, or operand measurements for solid-state batteries; elucidation of ionic transport in crystals; the modification of electrode/electrolyte interfaces; and the integration of solid electrolytes into battery devices.

Guest Editors

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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.

Editor-in-Chief

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