Special Issue

Key Materials in Lithium-Ion Batteries

Message from the Guest Editors

Great strides have been made over the past century in our ability to store energy sources with various batteries, leading to profound transformations—both good and bad—in society. Looking at the battery systems of today, it is clear that meeting the energy needs of the world now and in the years to come requires the concerted efforts of many different actors across a range of technologies and approaches. This Special Issue aims to share advances in various battery systems. The issues faced are diverse and multifaceted, covering fields including Li-ion battery, lithium metal battery, Na-ion batteries, fuel cells, metal-air battery, flow cells, photovoltaic cells, solid-state battery, supercapacitors, surface/interface chemistry, battery recycling, flexible battery, as well as new related concepts and devices. However, a common theme emerges in that changes to adapt and improve our battery system are greatly needed. By improving our mutual understanding of the issues faced by each area of battery research, these changes can happen more smoothly, efficiently, and rapidly.

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Deadline for manuscript submissions

closed (29 July 2022)

Crystals

an Open Access Journal by MDPI

Impact Factor 2.4
CiteScore 5.0

mdpi.com/si/103454

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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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