



Advanced Technologies in Lithium-Ion Batteries

Guest Editors:

Prof. Dr. Fan Wu

Institute of Physics (IOP), Chinese
Academy of Science, Beijing
100049, China

Dr. Jingyu Lu

School of Science, Harbin
Institute of Technology
(Shenzhen), Shenzhen, China

Dr. Deping Li

School of Materials Science and
Engineering, Harbin Institute of
Technology (Shenzhen),
Shenzhen, China

Deadline for manuscript
submissions:

closed (31 March 2023)

Message from the Guest Editors

Since their first commercialization by Sony in 1991, Li-ion batteries (LIBs) have been powering the boom of various portable devices and electric vehicles. They have seen a continuous enhancement in the achievable energy density, cycle life and safety, while their cost has reduced. LIBs are also vital to realize the zero-carbon-emission society in the future. This would not be possible without the great advances in LIB technologies.

In this Special Issue of *Crystals*, we aim to publish a collection of reports on advanced technologies in lithium-ion batteries. We sincerely invite researchers and experts, from universities, institutions and industries to contribute research articles, letters, perspectives or reviews on topics including but not limited to:

- Cathode technologies.
- Anode technologies.
- Separator technologies.
- Solid-state batteries.
- Electric vehicles.
- Battery management systems (BMSs).
- Battery thermal management systems (BTMSs).
- Characterization techniques.
- Lithium extraction technologies (from the sea, salt lakes).
- Recycling of Li-ion batteries.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, Italy

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.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [Inspec](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Crystallography*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/crystals
crystals@mdpi.com
[X@Crystals_MDPI](#)