

Special Issue

Recent Advances in Battery Mechanism

Message from the Guest Editor

Lithium-ion batteries (LIBs) have become the most popular and important energy storage devices for 3C electronics, electric vehicles and large-scale energy storage systems. Meanwhile, sodium-ion batteries (SIBs), solid-state lithium-ion batteries (SSLIBs) and other novel ion batteries are also attracting more and more attention as next-generation energy storage devices. To further improve performance and safety, it is quite important to understand the mechanisms in the batteries. The development of novel materials and advanced techniques also greatly promotes the exploration of the underlying mechanism. Therefore, this Special Issue is focused on mechanisms in batteries and characterization methods. Potential topics include, but are not limited to, the following:

- Failure analysis on LIBs and SIBs;
- Property and evolution of interfaces in SSLIBs;
- Design and development of novel materials for LIBs, SIBs and other novel ion batteries;
- DFT and MD modeling on electrolyte and electrode materials;
- Advanced experimental and theoretical characterization methods for battery analysis.

Guest Editor

Dr. Shuai Li

Academy for Advanced Interdisciplinary Studies, Southern University of Science and Technology, Shenzhen 518055, China

Deadline for manuscript submissions

closed (31 August 2023)



Batteries

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 6.6



mdpi.com/si/161625

Batteries
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
batteries@mdpi.com

[mdpi.com/journal/
batteries](https://mdpi.com/journal/batteries)





Batteries

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 6.6



[mdpi.com/journal/
batteries](https://mdpi.com/journal/batteries)



About the Journal

Message from the Editor-in-Chief

Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

Editor-in-Chief

Prof. Dr. Karim Zaghib

Department of Chemical and Materials Engineering, Concordia
University, Montréal, QC H3G 1M8, Canada

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, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Electrochemistry) / CiteScore - Q1 (Electrical and Electronic Engineering)