



## Advanced Electrolytes for Metal Ion Batteries

Guest Editors:

**Dr. Jin Han**

International School of Materials  
Science and Engineering, Wuhan  
University of Technology, Wuhan  
430070, China

**Dr. Mariani Alessandro**

Department of Materials,  
Environmental Sciences and  
Urban Planning SIMAU,  
Università Politecnica delle  
Marche, 60121 Ancona, Italy

Deadline for manuscript  
submissions:

**closed (16 May 2023)**

### Message from the Guest Editors

Dear Colleagues,

This Special Issue “Advanced Electrolytes for Metal Ion Batteries” is focused on advanced electrolytes for batteries that employ a variety of metal-ion charge carriers, e.g., Li<sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup>, Zn<sup>+</sup>, Mg<sup>2+</sup>, Ca<sup>2+</sup>, Al<sup>3+</sup>. As a critical component of batteries, electrolytes play a significant role in the performance of batteries. Under tremendous efforts of researchers, electrolytes have achieved great development. Nevertheless, electrolytes have a lot of room for improvement to further release the performance of batteries.

We are therefore organizing this Special Issue in Batteries. In this Special Issue, we are looking for original and innovative papers as well as reviews relevant to electrolytes for all kinds of metal Ion Batteries.

Potential topics include but are not limited to:

- Liquid, quasi-solid and all-solid-state electrolytes;
- Solid electrolytes interface;
- Interfacial design and evolution;
- Ion-conductive mechanisms;
- Safety evaluation for electrolytes ;
- Characterization techniques and theoretical computations/simulations of electrolytes;
- Materials Genome Initiative, artificial intelligence (AI) and machine learning (ML) of electrolytes.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Karim Zaghib**

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

## 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.

## 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](#), [CAPus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (Electrochemistry) / CiteScore - Q2 (Electrical and Electronic Engineering)

## Contact Us

---

Batteries Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/batteries](http://mdpi.com/journal/batteries)  
[batteries@mdpi.com](mailto:batteries@mdpi.com)  
[X@batteriesmdpi](#)