

## Special Issue

# Emerging Materials and Technologies for Post-Lithium-Ion Batteries

### Message from the Guest Editor

Currently, the rechargeable lithium-ion battery is generally considered to be the best battery for EVs, as a compromise between the advantages and drawbacks among various traditional battery candidates (e.g., fuel cells, solar cells, lead-acid, Ni-Cd and Ni-MH batteries). However, the application of lithium-ion battery is limited owing to some practical challenges such as high cost (e.g., lithium and cobalt raw resources), low energy/power density for high rate application, and intrinsic safety risk using organic electrolyte. Therefore, it is crucial to develop novel materials and technologies beyond the lithium-ion batteries with low price, high energy/power density, and reliable safety. In this special collection, potential topics include, but are not limited to:

- Sodium ion batteries;
- Lithium sulfur batteries;
- Metal air batteries;
- Solid state batteries;
- Supercapacitors;
- Fuel cells.

---

### Guest Editor

Dr. Hao Liu

Centre for Clean Energy Technology, School of Mathematical and Physical Sciences, Faculty of Science, University of Technology Sydney, P.O. Box 123, Broadway, Sydney, NSW 2007, Australia

---

### Deadline for manuscript submissions

closed (31 October 2023)



## Batteries

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.8  
CiteScore 6.6



[mdpi.com/si/146477](https://mdpi.com/si/146477)

*Batteries*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[batteries@mdpi.com](mailto: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)