

## Special Issue

# Physical Properties of Sodium-Ion Battery Materials

### Message from the Guest Editor

The sodium-ion secondary battery is a promising, low-cost energy storage device. In order to create high-performance, safe devices, however, we should know much about the cathode and anode materials and clarify what happens in them during the charge and discharge processes. From a different perspective, the cathode and anode materials are a unique system in which we can electrochemically control the sodium concentration by an order of one. In such a system, the strong interaction between the host framework and the guest sodium ion causes a variety of phenomena, such as phase transition, phase separation, and so on. These phenomena are not only scientifically interesting, but also technologically significant to make a safe device. In this Special Issue, we focus on the physical properties of the cathode and anode materials.

---

### Guest Editor

Prof. Dr. Yutaka Moritomo

Faculty of Pure and Applied Science, University of Tsukuba, Tsukuba  
305-8577, Japan

---

### Deadline for manuscript submissions

closed (30 March 2017)



## Batteries

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.8  
CiteScore 6.6



[mdpi.com/si/8069](http://mdpi.com/si/8069)

*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](http://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)