Special Issue

Emerging Topics in Advanced Electrode Materials for Metal-Ion Batteries

Message from the Guest Editor

Metal-ion batteries are now a promising alternative to LIBs for economic and safety reasons. This scenario is illustrated by the advances made in the field of Na-ion batteries, which already reach interesting levels of performance despite some limitations. Large-scale applications and the growing demand for energy storage reinforce the interest in metal-ion batteries, including a wide range of systems: Na, K, Mg, Zn and Ca-ion batteries with the double challenge of finding for each system an appropriate positive and negative electrode. This Special Issue provides an update on the electrochemical and structural properties presented in outstanding positive or negative electrode materials for the M-ion batteries. In addition to performance in terms of capacity, energy density and cycle life, the structure–electrochemistry relationships should be at the heart of the discussion. Research topics will cover advanced and/or original cathode and anode materials including oxides, polyanionic frameworks, chalcogenides etc. Organic electrolytes will be considered, as well as some specific aqueous electrolytes. In this Special Issue, original research articles and reviews are welcome.

Guest Editor

Prof. Dr. Jean Pierre Pereira-Ramos
Institut de Chimie et des Matriéaux Paris-Est (ICMPE), UMR 7182 CNRS et Université Paris-Est Créteil, 2 rue Henri Dunant, 94320 Thiais, France

Deadline for manuscript submissions

closed (15 January 2024)

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/si/158328

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

mdpi.com/journal/batteries

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/journal/batteries

MDPI

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)