Special Issue

Recent Progress of Electrochemical Performance and Interface Analysis of Batteries

Message from the Guest Editors

Lithium-ion batteries are currently the most advanced electrochemical energy storage technology due to a favorable balance of performance and cost properties. However, as traditional Li-ion chemistry is approaching its physicochemical limit, what can we do to further reduce the cost of batteries while increasing their energy density, life and safety? This Special Issue on the recent progress of the electrochemical performance and interface analysis of batteries will focus on how to improve the performance of conventional lithium-ion batteries and post-lithium-ion batteries. This Special Issue will present the recent upgradation of conventional lithium-ion batteries and the development of next-generation electrochemical energy storage technologies. The perspectives and design ideas about materials, interfaces, configurations and characterizations toward better performance of batteries will be discussed. Potential topics include, but are not limited to, the following:

- Li-ion batteries
- post-lithium-ion batteries
- electrochemical performance
- interface analysis
- mechanism studies
- energy storage materials
- material design
- process optimization

Guest Editors

Dr. Longlong Wang
Department of Materials, University of Oxford, Oxford OX1 3PH, UK

Dr. Hui Gao
Department of Chemistry, University of Oxford, Mansfield Rd, Oxford OX1 3TA, UK

Deadline for manuscript submissions

closed (16 October 2023)

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/si/131256

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)