



Battery Energy Storage in Advanced Power Systems

Guest Editors:

Prof. Dr. Xiaogang Wu

School of Electrical & Electronic Engineering, Harbin University of Science and Technology, Harbin, China

Dr. Yanan Wang

School of Vehicle and Mobility, Tsinghua University, Beijing, China

Dr. Chengshan Xu

School of Vehicle and Mobility, Tsinghua University, Beijing, China

Deadline for manuscript submissions:

closed (30 April 2023)

Message from the Guest Editors

Dear Colleagues,

In order to solve the shortage of traditional energy sources and the urgent need to improve environmental quality and accelerate decarbonization, advanced power systems using renewable energy generation and energy storage integration have received a wealth of attention from all over the world. The performance of the battery energy storage system greatly affects the efficiency and safety of the advanced power system. Therefore, the battery energy storage system plays a vital role in the safe and reliable operation of electric power systems, which includes researching new battery electrodes and electrolyte materials with high energy density and solid safety, developing a battery energy storage thermoelectric management system with excellent consistency, durability and safety, and optimizing the intelligent energy management strategy.

Therefore, this Special Issue is focused on recent advances in battery energy storage materials, including electro-thermal management systems that address the above-mentioned aspects and go beyond the state-of-the-art.





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](#), [CAPlus / 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

mdpi.com/journal/batteries
batteries@mdpi.com
[X@batteriesmdpi](https://twitter.com/batteriesmdpi)