Special Issue

High-Performance Supercapacitors: Preparation and Application

Message from the Guest Editor

This Special Issue on high-performance supercapacitors is focused on new supercapacitor technologies. In order to improve supercapacitor technology, research has been conducted to improve the energy storage capabilities of electrodes, which determine the specific capacitance of the material. Additionally, people are also working to enhance these supercapacitor devices via modeling and system development studies. What is the current status of the field, and what can we expect in the future? This Special Issue discusses the current status and future trend of supercapacitor material and device development, which are important to enhance their performances. Potential topics include, but are not limited to:

- Novel supercapacitor materials, positive electrode, negative electrode, and electrolytes;
- Electrode designs;
- Supercapacitor device designs;
- Electrochemical test methods;
- Modeling:
- Supercapacitor system studies.

Guest Editor

Prof. Dr. Xin Chen

Key Laboratory for Ultrafine Materials of Ministry of Education, and Shanghai Key Laboratory of Advanced Polymeric Materials, School of Materials Science and Engineering, East China University of Science and Technology, Shanghai 200237, China

Deadline for manuscript submissions

closed (15 May 2025)



Batteries

an Open Access Journal by MDPI

Impact Factor 4.8 CiteScore 6.6



mdpi.com/si/181797

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



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)

