Special Issue

Sustainable Materials and Recycling Processes for Battery Production

Message from the Guest Editors

Batteries are considered one of the most critical technologies in modern society. Determining how high-performance batteries can be developed by applying sustainable materials and recycling used batteries is necessary to meet the requirements of the growing market. (1) Sustainable materials that are naturally abundant, environmentally benign, and low-cost are promising to accommodate the inadequate supply of raw materials or batteries. Therefore, more research on the use of sustainable materials as electrodes, electrolytes, and separators in batteries is critical for the generation of "green batteries". (2) Recycling used batteries can further reduce soil/water pollution and allow for raw battery materials to be obtained. Hence, effective and environmentally friendly recycling processes are urgently needed for the development of reusable materials. Sustainable technologies for both the production and recycling of batteries will greatly benefit the environment. The realization of “green” processes for recycling batteries and producing recyclable batteries can not only reduce toxic wastes but also lower energy consumption and greenhouse gas emissions.

Guest Editors

Dr. Chenxu Wang

Dr. Lulu Ren

Dr. Xiahui Zhang

Deadline for manuscript submissions

25 September 2025

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/si/191394

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)