Special Issue

Lithium-Sulfur Batteries: Research Progress of Key Materials

Message from the Guest Editors

This Special Issue on Lithium-Sulfur Batteries is focused on the research progress of key materials. Aiming at the severe shuttle effect, the continuous consumption of electrolyte and the growth of lithium dendrites, how can we perform to substantially improve the practicability of lithium-sulfur batteries? In terms of the main components of lithium-sulfur batteries, great enhancements of electrochemical performances have been made through electrocatalysis by polar substrates or solid-phase conversion by short-chain sulfur in cathodes, functional modification on separators, non-ether-based or solid-state electrolytes, as well as surface engineering on lithium anodes. Can these strategies be rationally designed and coupled to efficiently increase the energy density and lifespan for application? This Special Issue welcomes novel research on key materials to promote the performance of lithium-sulfur batteries, and provides valuable guidance for their large-scale commercialization.

Guest Editors

Prof. Dr. Mingtao Li

School of Chemical Engineering and Technology, Xi'an Jiaotong University, Xi'an 710049, China

Prof. Dr. Weibo Hua

School of Chemical Engineering and Technology, Xi'an Jiaotong University, Xi'an 710049, China

Deadline for manuscript submissions

closed (26 February 2023)

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/si/131539

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)