batteries

an Open Access Journal by MDPI

IMPACT FACTOR 4.6

CITESCORE 4.0

Advances in Rechargeable Li Metal Batteries

Guest Editors:

Dr. Shen Wang
Department of NanoEngineering, University of California San Diego, San Diego, CA, USA

Dr. Jianbin Zhou
Department of NanoEngineering, University of California San Diego, La Jolla, CA 92093, USA

Deadline for manuscript submissions:
closed (31 October 2023)

Message from the Guest Editors

The rechargeable lithium metal battery, as the 'holy grail' in battery technology, has ultrahigh theoretical capacity (3862mAh g^{-1}) and great electrochemical potential (–3.04V vs. SHE). Therefore, researchers from academia and industry are dedicating great efforts for batteries toward a mature technology. However, lithium-metal corrosion, dendrite formation/growth, volume expansion, and inventory loss lead to severe safety issues and capacity fading. To address these concerns, this edition discusses the suitability of rechargeable lithium-metal batteries for applications and characterizations. Potential topics for the Special Issue include but are not limited to the following:

- All-solid-state lithium metal battery;
- Advanced characterizations for lithium-metal batteries;
- Liquid electrolyte;
- Lithium metal anode protection;
- Artificial solid–electrolyte interface (SEI);
- High-capacity cathode for lithium-metal batteries;
- Lithium metal electrostripping/electroplating mechanisms;
- Lithium host.

batteries

an Open Access Journal by MDPI

IMPACT FACTOR 4.6

CITESCORE 4.0

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 (*Energy and Fuels*) / CiteScore - Q2 (*Energy Engineering and Power Technology*)

Contact Us

Batteries Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/batteries
batteries@mdpi.com
𝕏@batteriesmdpi