



an Open Access Journal by MDPI

Aqueous Zinc-Based Batteries: Issues and Opportunities

Guest Editors:

Prof. Dr. Xi Chen

School of Interdisciplinary Studies, Lingnan University, Tuen Mun, Hong Kong, China

Dr. Qing Li

Department of Materials Science and Engineering, City University of Hong Kong, 83 Tat Chee Avenue, Kowloon, Hong Kong, China

Deadline for manuscript submissions: **10 December 2024**

mdpi.com/si/202110

Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to shed light on recent progress in the field of aqueous zinc-based batteries, spanning electrode innovations, electrolyte modifications, and the introduction of novel battery systems. Our goal is to provide valuable insights and guide future research in this promising area.

Potential topics for this Special Issue include, but are not limited to, the following:

- Innovations in electrodes and electrolytes for zincbased batteries;
- Progress and challenges in zinc-based alkaline batteries;
- Advances in zinc air/oxygen batteries;
- Exploration of zinc gas batteries;
- Development of flexible zinc-based batteries;
- Environmental adaptability of aqueous zinc-based batteries;
- hybrid aqueous batteries incorporating zinc ions;
- Dual-ion battery systems utilizing zinc anodes;
- Optimization strategies aimed at enhancing the longevity and reliability of aqueous zinc-based batteries;
- Considerations for the industrialization of aqueous zinc-based batteries, including scalability, cost effectiveness, and market potential.







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