Special Issue

Advanced Materials for Zinc Based Battery: Development and Challenges

Message from the Guest Editors

This Special Issue provides insights and new directions in the development of electrolytes (aqueous, non-aqueous, hybrid) for Zn batteries. In addition to sustainable electrolyte solutions, innovations in cell architectures for Zn batteries are welcome. Various challenges pertaining to the development of zinc-based batteries will be addressed and possible means of overcoming these challenges will be delineated. In this Special Issue, we are looking for contributions to provide insights on advanced nanomaterials (cathode and anode), understanding the electrochemical mechanism to enhance the cycling stability of the Zn-based batteries, inhibiting Zn dendrite formation, the development of robust multivalent Zn electrolyte systems, and innovative design of battery architectures to prolong their lifespans. Topics of interest include, but are not limited to:

- Advanced nanomaterials for Zn-based batteries;
- Recent advancements in the development of multivalent Zn electrolyte systems;
- Inhibition of Zn dendrite formation;
- Solid-state Zn batteries;
- The Holy Grail of Zn–air batteries.

Guest Editors

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Deadline for manuscript submissions

closed (10 April 2023)

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/si/139492

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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.

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