Special Issue

Advances in Aqueous Batteries and Electrolyte Materials

Message from the Guest Editors

This Special Issue will focus on the recent progress in aqueous batteries and innovative electrolyte materials. We welcome the submission of original research (a full research article and letter) and reviews addressing new aqueous electrolyte design, advanced electrolyte characterization, and electrolyte–electrode interfaces. Contributions highlighting new salt formulations, in situ/operando characterization, and practical applications are encouraged to promote the development of next-generation aqueous energy storage systems. This Special Issue aims to compile the latest research findings in the above areas, address the existing challenges, and explore future development directions, offering both theoretical insights and practical guidance to advance energy storage technologies. We also welcome submissions on the application of machine learning and artificial intelligence in aqueous electrolytes. Potential topics include, but are not limited to, the following:

- The advanced characterization of the solvation structure of
- Electrochemical reactions in aqueous
- The surface/interface chemistry in aqueous
- Electrode material design for aqueous electrolyte
- .....

Guest Editors

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Deadline for manuscript submissions

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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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