Special Issue

Battery Interface: Analysis & Design

Message from the Guest Editors

This Special Issue, “Battery Interface: Analysis & Design”, seeks to bring together cutting-edge research on the characterizations, modeling, and optimization of battery interfaces across various chemistries. Contributions exploring in situ/operando techniques, interfacial reaction mechanisms, electrolyte engineering, and novel surface modifications are particularly encouraged. The potential topics of interest include, but are not limited to, the following:

- Advanced in situ/operando techniques for interfacial characterization;
- Electrolyte decomposition and interphase formation mechanisms;
- Solid-electrolyte interphase (SEI) and cathode-electrolyte interphase (CEI) engineering;
- Ion transport and charge transfer kinetics at battery interfaces;
- Surface modifications and coatings to enhance interfacial stability;
- Interface behavior in all-solid-state and multivalent-ion batteries;
- Computational modeling of interfacial processes in energy storage systems;
- Degradation mechanisms and strategies for interface longevity.

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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