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Materials for Electrochemical Energy Storage-Challenges and Opportunities

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

With the rapid developments of portable electronics, electric vehicles, and electrical grids, electrochemical energy storage systems have attracted increasing interest due to their high energy density. However, new battery chemistries and materials are highly desired to meet the urgent demands of stable and safe energy storage systems. Recently, a lot of effects have been made to improve the electrochemical performance of aqueous and nonaqueous batteries, from material design to interface engineering. For battery degradation and safety issues, material failure is one of the root causes. Therefore, it is critical to develop in situ and ex situ characterization to explore the failure process of energy materials. In addition to experiments, multiscale modelling plays a pivotal role in revealing the underlying mechanisms of electrochemical reactions for advanced materials in energy storage systems.

Prof. Dr. Feng Hao Guest Editor



Specialsue





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Message from the Editor-in-Chief

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