

Special Issue

Machine Learning for Advanced Battery Systems

Message from the Guest Editors

Machine learning has significant potential to enable a more economic, efficient, and reliable low-carbon transition of energy systems, such as improving generation and load forecasting, accelerating the design of next-generation battery chemistries, enhancing distributed energy resources coordination, and advancing battery management systems. The purpose of this Special Issue is to provide an overview of the state of the art, and to discuss promising future research directions at the interface between energy and machine learning. Potential topics include, but are not limited to, the following:

- Machine learning for battery management system including battery lifetime prediction, and optimal charge design;
- Reinforcement learning for distributed optimization and control of large-scale energy systems;
- Machine-learning-based time aggregation method for energy system planning;
- Battery system fault diagnosis with data-driven methods;
- Battery materials design assisted by machine learning.

Guest Editors

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Deadline for manuscript submissions

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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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