Special Issue

Prognostics of Battery Health and Faults

Message from the Guest Editors

Lithium-ion batteries have become one of the most promising energy storage devices due to fast charge capability, high densities, and long cycle life. As a complex electrochemical system, its performance and life gradually deteriorate during usage or storage. Battery degradation is caused by many different factors, including physical and chemical mechanisms. Due to its complexity, battery health prediction is an extremely challenging task. Moreover, faults in the battery system can accelerate battery degradation. These faults can be generally divided into battery faults, sensor faults, and actuator faults. As one of the most expensive and essential components in the electrified transportation systems and smart grids, battery failures can cause safety issues. Therefore, developing accurate health and faults prognostics technologies is becoming increasing critical for the safe and efficient battery management. For this Special Issue, we warmly welcome the submission of comprehensive reviews and original research articles.

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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