



Intelligent Battery Energy Storage Management: Enhancing Performance, Safety, and Sustainability

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Message from the Guest Editors

Lithium-ion batteries, as a critical component of modern energy storage systems, play an indispensable role in facilitating the transition towards sustainable energy sources. However, the performance optimization and safety enhancement of batteries remain significant challenges in practical applications. Indeed, accurate and reliable battery operation is key to enhancing battery safety, durability, and reliability. These measures are primarily manifested in intelligent management, including accurate “SOX” estimation, early warning and fault diagnosis, energy management and life extension strategies, retired battery sorting, etc. Advances in these areas can not only improve battery performance and lifespan but also ensure safety during use, thereby driving the development and application scope of battery technology.

Thus, we propose the Special Issue, titled “Intelligent Battery Energy Storage Management: Enhancing Performance, Safety, and Sustainability”. The initiative aims to unite scholars focused on similar topics, providing a platform to present their most recent accomplishments and research findings.





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