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Design, Performance, and Application of Lithium-Ion Batteries

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Deadline for manuscript
submissions:

closed (10 January 2024)

Message from the Guest Editor

With their advantageous high energy density, lithium-based energy storage systems power our daily lives, from smart phones to other consumer electronics. They also enable electrification of transportation systems and provide stationary storage of energy in the electrical grid, which is critical to developing a clean-energy economy. This Special Issue welcomes the submission of original research and review articles discussing the design, synthesis, and application of advanced lithium-ion batteries, to be published in the open access journal *Materials*. Topics of interest include 1) the advanced design of LIBs from a components point of view (electrodes, electrolytes, and additives) to thermal analysis; 2) simulation of LIBs from an electrochemical to thermal point of view to improve their performance and gain insight into their failure/improvement mechanisms; 3) advanced LIBs for high-performance energy storage applications; 4) advanced characterization of battery materials; and 5) application of LIBs from small- to large-scale systems.



mdpi.com/si/140767

Special Issue



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Message from the Editor-in-Chief

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