Special Issue

Lithium-Ion Batteries and Li-Ion Capacitors: From Fundamentals to Practical Applications: 2nd Edition

Message from the Guest Editor

As the representatives of energy and power devices, lithium-ion batteries (LIBs) and lithium-ion capacitors (LICs) have developed rapidly in recent years. LIBs have in fact become the first choice for new energy vehicles, 3C electronic products, and electrochemical energy storage. Due to their high power density, energy density, and long cycle life, the application of LICs in automotive energy recovery, electrochemical energy storage and power assistance, fast charging, and high functional devices could be promising. However, many problems remain unsolved in the basic research and application of LIBs and LICs, including increases in the capacity, rate, and lifespan of electrode materials; the increase in the ion transmission and storage capacity of anodes and cathodes; and the improvement of the electrode/electrolyte interface and stability of SEI. On the other hand, advances related to the surface density of electrodes and the proportion of active substances have become key issues in the research of lithium-ion batteries and lithium-ion capacitors.

Guest Editor

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