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## Development of Novel Electrode and Electrolyte Materials for Lithium and Sodium Ion Batteries

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Deadline for manuscript  
submissions:

**closed (20 August 2023)**

### Message from the Guest Editors

The development of novel electrode and electrolyte materials is of great interest concerning the need to meet the increasing demands for advanced lithium/sodium ion batteries (LIBs/SIBs). The performance enhancements of LIBs/SIBs depend critically on the development of novel anode materials with a high capacity, low voltage platform, high electronic conductivity and robust structure, and novel cathode materials with a high capacity, high-voltage platform, high lithium/sodium ion diffusion coefficient and high reaction reversibility, novel electrolyte with high ionic conductivity, high chemical stability, wide electrochemical window and excellent nonflammability. This Special Issue focuses on the synthesis, characterization and theoretical calculation of novel electrode and electrolyte materials for performance improvements and mechanism revelations of lithium/sodium ion batteries.

### Keywords

- lithium/sodium ion battery anode
- lithium/sodium ion battery cathode
- lithium/sodium ion battery electrolyte
- high capacity
- extended voltage range
- long life cycle
- high safety
- performance enhancement mechanism
- energy storage mechanism



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