

Special Issue

Materials Designs for Non-Lithium Metal Ion Batteries: Beyond Lithium Ion Batteries

Message from the Guest Editor

The commercialization of lithium ion batteries (LIBs) has revolutionized every aspect of our lifestyle; LIBs are currently the most extensively used power source for various applications. Unfortunately, lithium sources are scarce and unevenly distributed, such that they may not be sufficient to meet surging global demand. In response to this concern, non-lithium metal ion (Na, K, Ca, Al, Zn and Mg) batteries have been spotlighted recently as a viable alternative to LIBs because of their reasonable price, near complete inexhaustibility, and similar storage mechanism to lithium. This Special Issue on “Materials Designs for Non-Lithium Metal Ion Batteries: Beyond Lithium Ion Batteries” will focus on rational design toward high-performance electrode materials for non-lithium metal ion batteries. Potential topics include, but are not limited to:

- Non-lithium metal ion batteries;
- Na-ion batteries;
- K-ion batteries;
- Al-ion batteries;
- Ca-ion batteries;
- Mg-ion batteries;
- Zn-ion batteries;
- Design of high-performance electrode materials;
- Alkali metal ion storage mechanism;
- Electrochemical performance optimization;
- Materials synthesis and processing.

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