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Advanced Anode Materials for Alkali-Ion Batteries

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Message from the Guest Editors

Lithium-ion batteries (LIBs) are essential for powering many daily-used electronic devices, and keep gaining increasing interest because of their implementation in electric vehicles and their applicability in electric grid storage coupled with renewable energy sources. Although the electroactive materials that typically comprise Li-ion batteries are well-established, the significantly increased demand for LIBs raises concerns about the long-term availability, environmental implications, and cost of the critical raw materials used in LIB production. Additionally, finding more sustainable and low-cost options, such as the new emerging sodium-ion and potassium-ion batteries, has attracted significant attention. In this scenario, the incessant search for new materials and the improvement of the existing ones continues in order to meet the requirements and specifications for new applications.

This Special Issue aims to gather recent research and advances on anode materials for alkali-ion batteries, tackling topics from lithium-ion batteries to the currently available commercial sodium-ion batteries, as well as emerging potassium-ion batteries.





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Message from the Editor-in-Chief

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