Sodium-Ion Battery: Materials and Devices

Message from the Guest Editor

Dear Colleagues,

Room-temperature sodium-ion batteries (NIBs) may offer key benefits over other commercial battery technologies such as lithium-ion batteries and lead-acid batteries in cost, safety, and performance. NIB technology is still in its infancy, and despite recent advances, significant knowledge gaps still exist. Sodium-ion cell chemistries require research into materials, electrochemical testing methods, materials processing for electrodes, novel electrolyte systems, and a greater knowledge of the failure mechanisms for safety and performance. This special issue “Sodium-Ion Battery: Materials and Devices” will focus on aspects of advancements in sodium-ion technology.

Prof. Dr. Emma Kendrick
Guest Editor

Keywords

- sodium-ion batteries
- NIB
- SIB
- electrode
- electrolyte
- cathode
- anode
- cell design
- safety
- failure mechanism
- degradation

mdpi.com/si/11896
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