



Polymer-Based Electrolytes for Solid-State Li/Na Ion Batteries

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Message from the Guest Editors

The development of solid electrolytes is of crucial importance in order to avoid catastrophic fire or even explosion caused by the improper use and electrolyte leakage of commercial lithium batteries based on flammable organic liquid electrolytes. SPEs, consisting of polymer matrix and lithium salt, have the special merits of flexibility, lightweight, and good processability, beneficial for the fabrication of wearable and high energy density batteries. Moreover, their superior flexibility and plasticity are beneficial for reducing interface contact resistance. In order to further achieve prominent ionic conductivity and mechanical property simultaneously, developing composite polymer electrolytes by incorporating ceramic fillers into polymer matrix is also a prevailing solution.

This Special Issue welcomes research articles and reviews related to polymer-based solid electrolytes for lithium or sodium ion batteries. The scope may include, but is not limited to, the preparation of polymer-based electrolytes, new types of polymer separators, performance-oriented design of polymer-based electrolytes, and interface modification of polymer electrolytes with electrodes.





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