



Advances in Lithium Battery Technologies

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Message from the Guest Editors

Dear Colleagues,

A Li metal battery is one of the most promising next generation batteries in achieving the high energy density. However, the uncontrolled Li growth and the accompanying side-reactions will cause thermal runaway and explosion hazards. Another major issue is the use of organic liquid electrolytes in commercial Li-ion batteries, especially the extremely high reactivity of liquid organic electrolytes with Li metal anode in rechargeable Li metal batteries cause safety concerns, such as fire hazard. In recent years, growing research efforts have been devoted to improving the understanding of Li metal batteries, especially the Li metal solid-state batteries. This Special Issue will focus on the recent progress on advanced characterization of Li metal anode and solid-state electrolyte by using variety ex/in situ techniques, attempt to clarify the fundamental mechanisms and provide the design guidance for the development of high performance and safe Li metal solid-state batteries.

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Message from the Editor-in-Chief

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