

# Enhancing performance of Solid-State Lithium-ion batteries with glass fiber-reinforced polymer electrolyte

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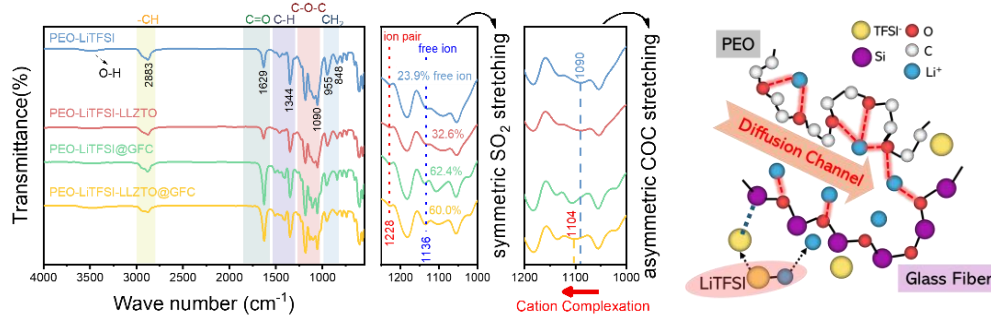


Figure 1. FTIR analysis of PEO-LiTFSI, PEO-LiTFSI-LLZTO, PEO-LiTFSI@GFC, and PEO-LiTFSI-LLZTO@GFC and schematic illustration of lithium diffusion pathway in the CPEs.

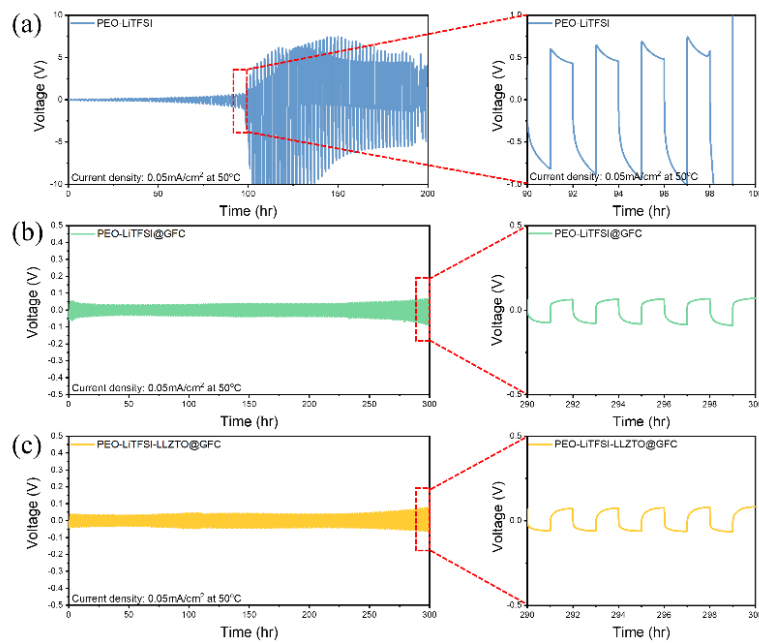


Figure 2. The voltage profiles of Li plating/stripping cycling of Li//Li cells with (a) PEO-LiTFSI, (b) PEO-LiTFSI@GFC, and (c) PEO-LiTFSI-LLZTO@GFC cycling under 0.05 mA/cm<sup>2</sup> at 50°C.

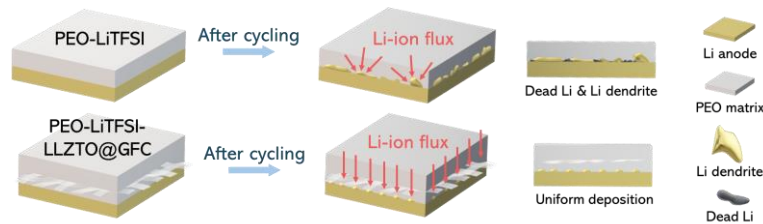


Figure 3. The schematic illustration of dead lithium and lithium dendrite formation for lithium symmetric batteries and solid-state batteries.