

Abstract Submitted
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Electrochemical Characterization of poly (styrene-b-ethylene oxide)/LiTFSI Lamellar Diblock Copolymer Electrolyte System NITASH BALSARA, University of California, Berkeley, CA, ASHOUTOSH PANDAY, Lawrence Berkeley Lab, Berkeley, CA, SCOTT MULLIN, NISITA WANAKULE, University of California, Berkeley, CA — We present the electrochemical characterization studies of symmetric poly (styrene-b-ethylene oxide) copolymers (SEO) and Li[N(SO₂CF₃)₂] (LiTFSI). The molar ratio of Li to ethylene monomers, r , was varied from 0.02 to 0.10. The ionic conductivity of these electrolytes increases with molecular weight over the entire range of temperatures and r values examined. Preliminary data suggest that the salt diffusion coefficient also increases with increasing MW of PEO block.

Ashoutosh Panday
Lawrence Berkeley Lab, Berkeley, CA

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