

Supplementary Information

Hybrid Solid Electrolyte in Combination of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Ceramic and Ionic Liquid for High Voltage Pseudo-Solid-State Li-ion Batteries

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Supplementary Figures

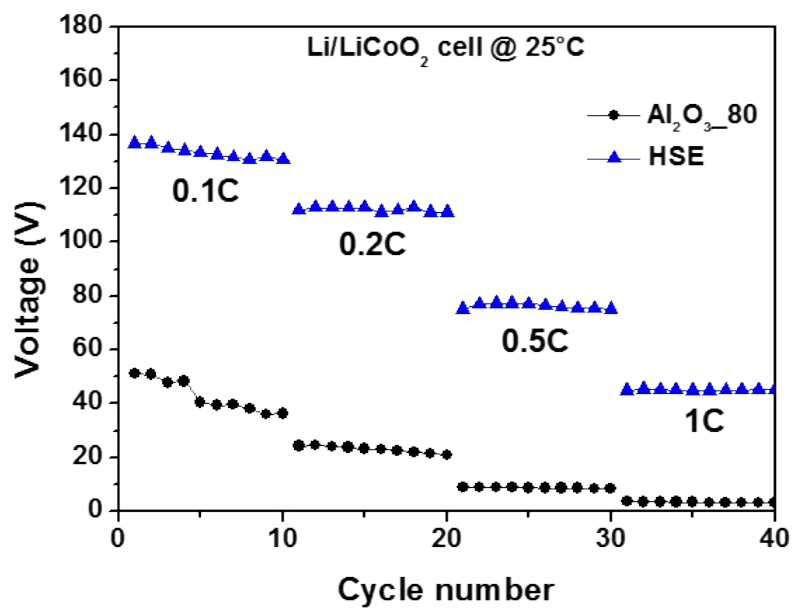


Fig. S1 Galvanostatic charge-discharge rate capability studies for the cells Li/HSE/LiCoO₂, Li/Al₂O₃_80/LiCoO₂ in between 3.0 to 4.3 V with a constant current density from 0.1 C to 1C rate at 25 °C.

Table S1 The state and ionic conductivity corresponding to the composition of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ and LiTFSI in $\text{Py}_{14}\text{TFSI}$

Mass ratio (wt. %)		State	Ionic conductivity (mS cm^{-1} @ 25 °C)
$\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$	LiTFSI in $\text{Py}_{14}\text{TFSI}$		
60	40	solution	0.6
70	30	solution	0.5
80	20	gel	0.4
> 80	15	solid	> 0.1