

Constructing enhanced composite solid-state electrolyte with Sb / Nb co-doped LLZO and PVDF-HFP

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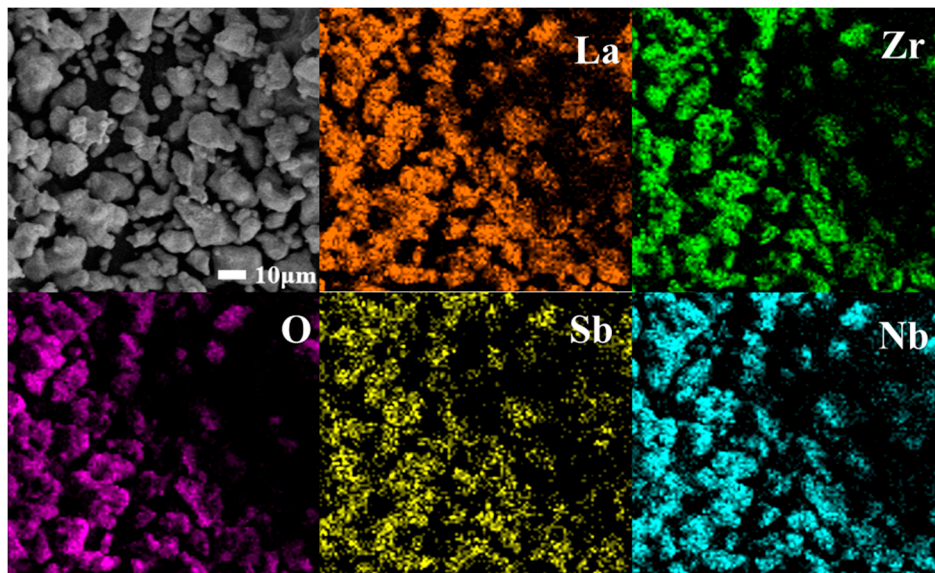


Fig. S1 SEM and EDS mapping of LLZSNO powders.

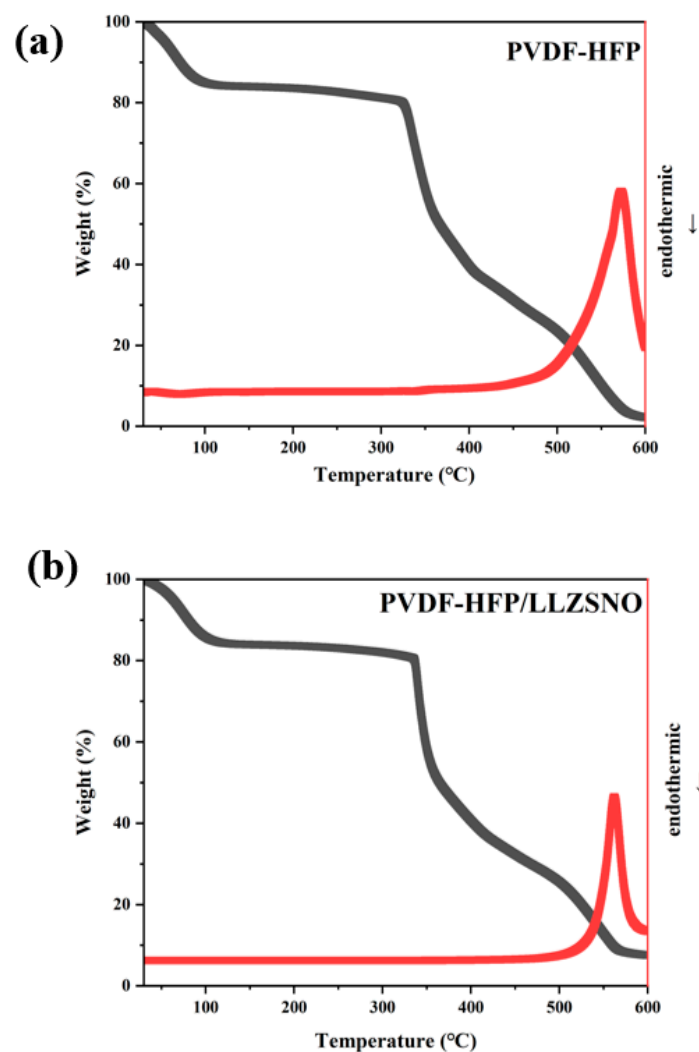


Fig. S2 TG-DSC synchronous thermal analysis of solid electrolyte (a) PVDF-HFP, (b) PVDF-HFP / LLZSNO.

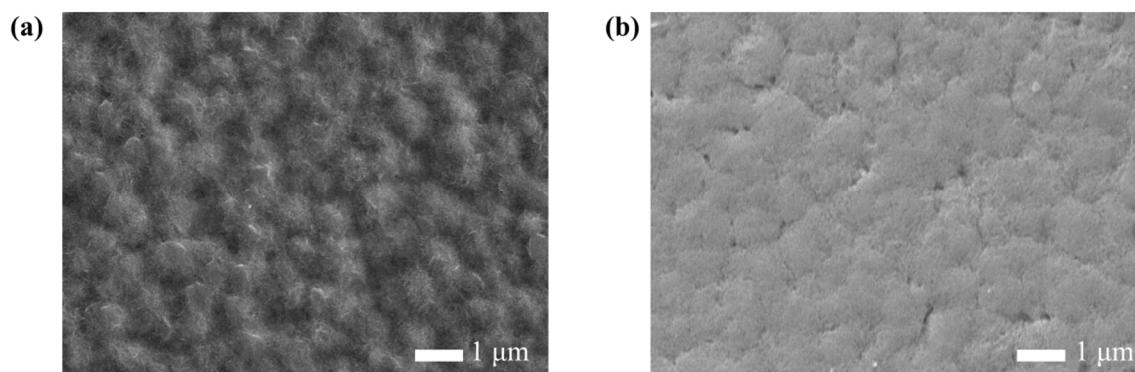


Fig. S3 SEM images comparison of surface morphology between (a) PVDF-HFP, and (b) PVDF-HFP / LLZSNO.

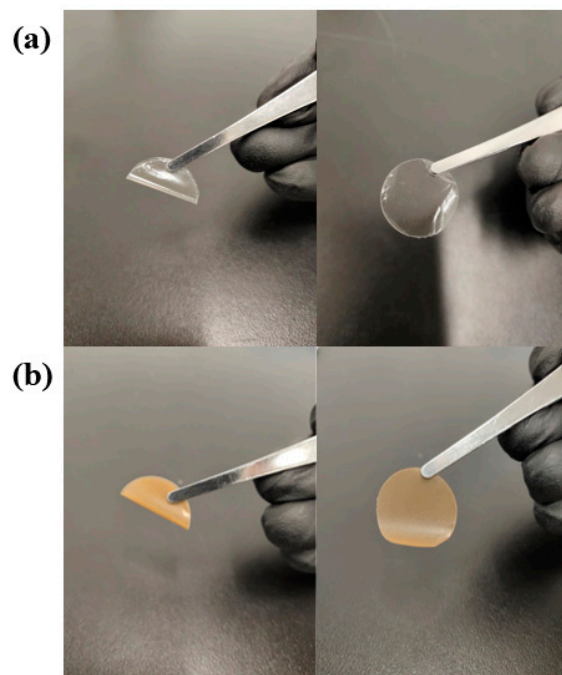


Fig. S4 Flexibility of (a) Polymer SSE membrane, and (b) CSE membrane.

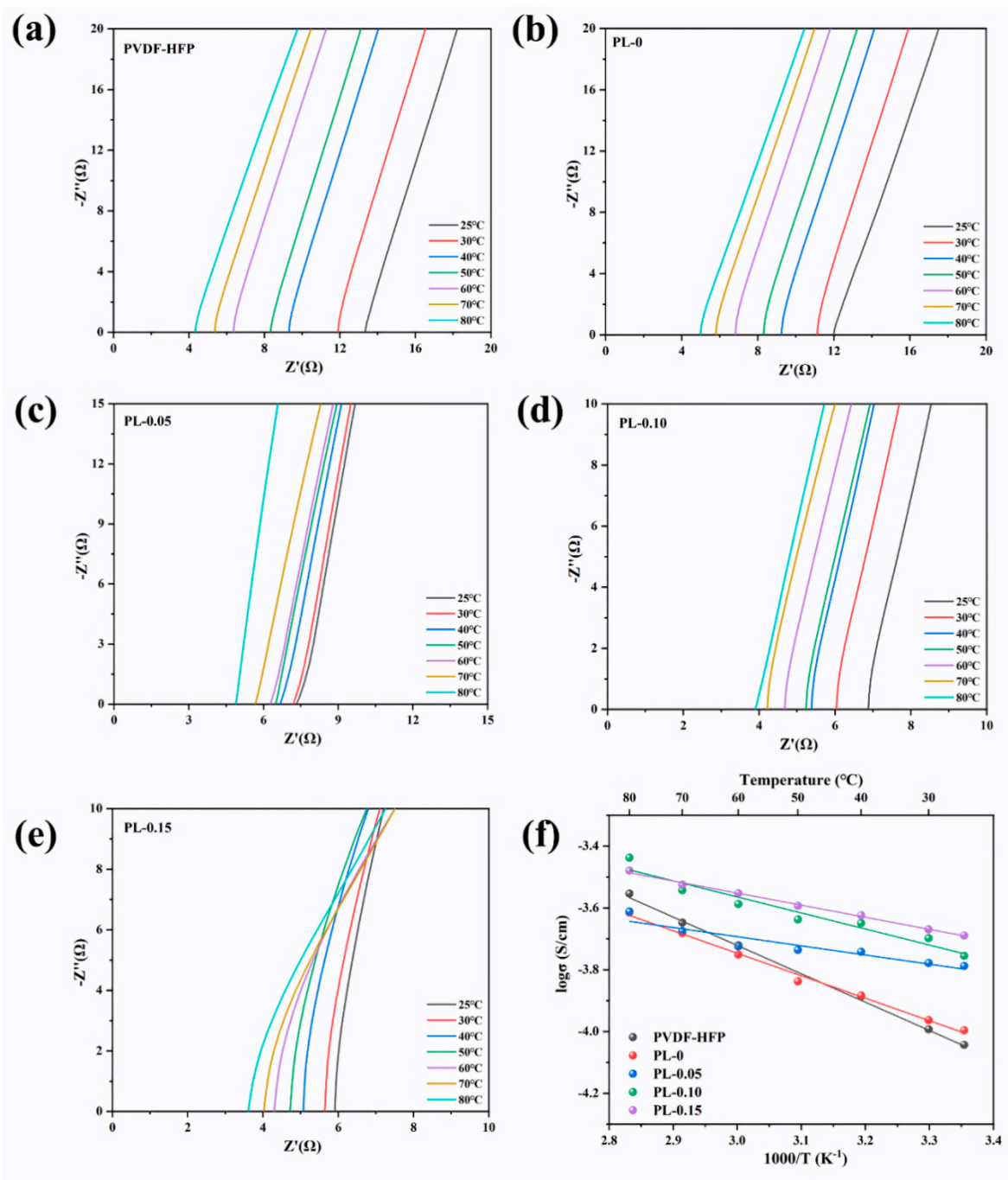


Fig. S5 (a-e) EIS, and (f) Arrhenius plot of PVDF-HFP and PL-x solid electrolytes.

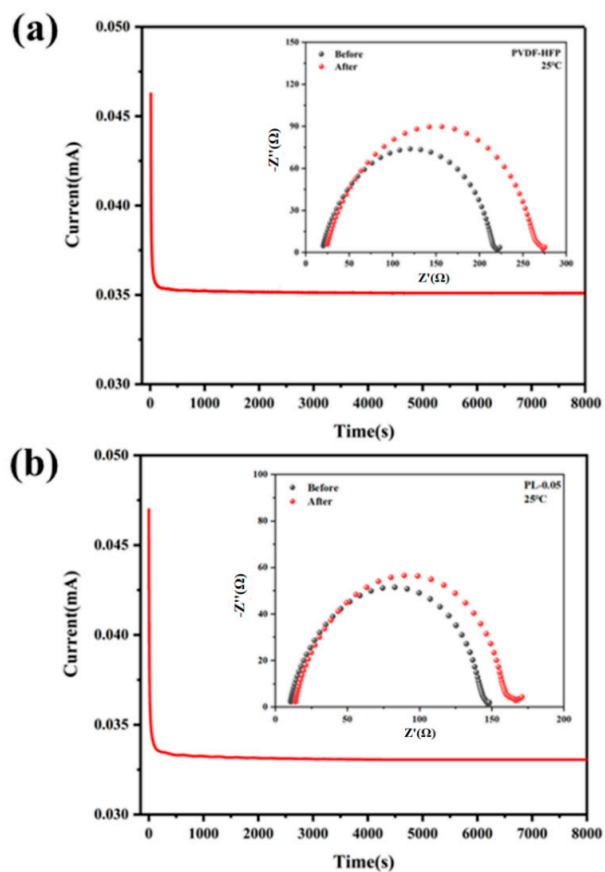


Fig. S6 EIS and DC polarization curves of (a) PVDF-HFP, and (b) PL-0.05.

Table S1 Ionic Conductivity and Activation Energy of SSEs at Room Temperature.

Sample	Ionic Conductivity (S / cm, 25 °C)	Activation Energy (eV)
PVDF-HFP	9.05×10^{-5}	0.113
PL-0	1.01×10^{-4}	0.093
PL-0.05	1.76×10^{-4}	0.076
PL-0.10	1.63×10^{-4}	0.082
PL-0.15	1.50×10^{-4}	0.078