

**Supporting information for**

**Insight into ion dynamics in NaClO<sub>4</sub> doped Polycaprolactone solid  
polymer electrolyte for solid state batteries**

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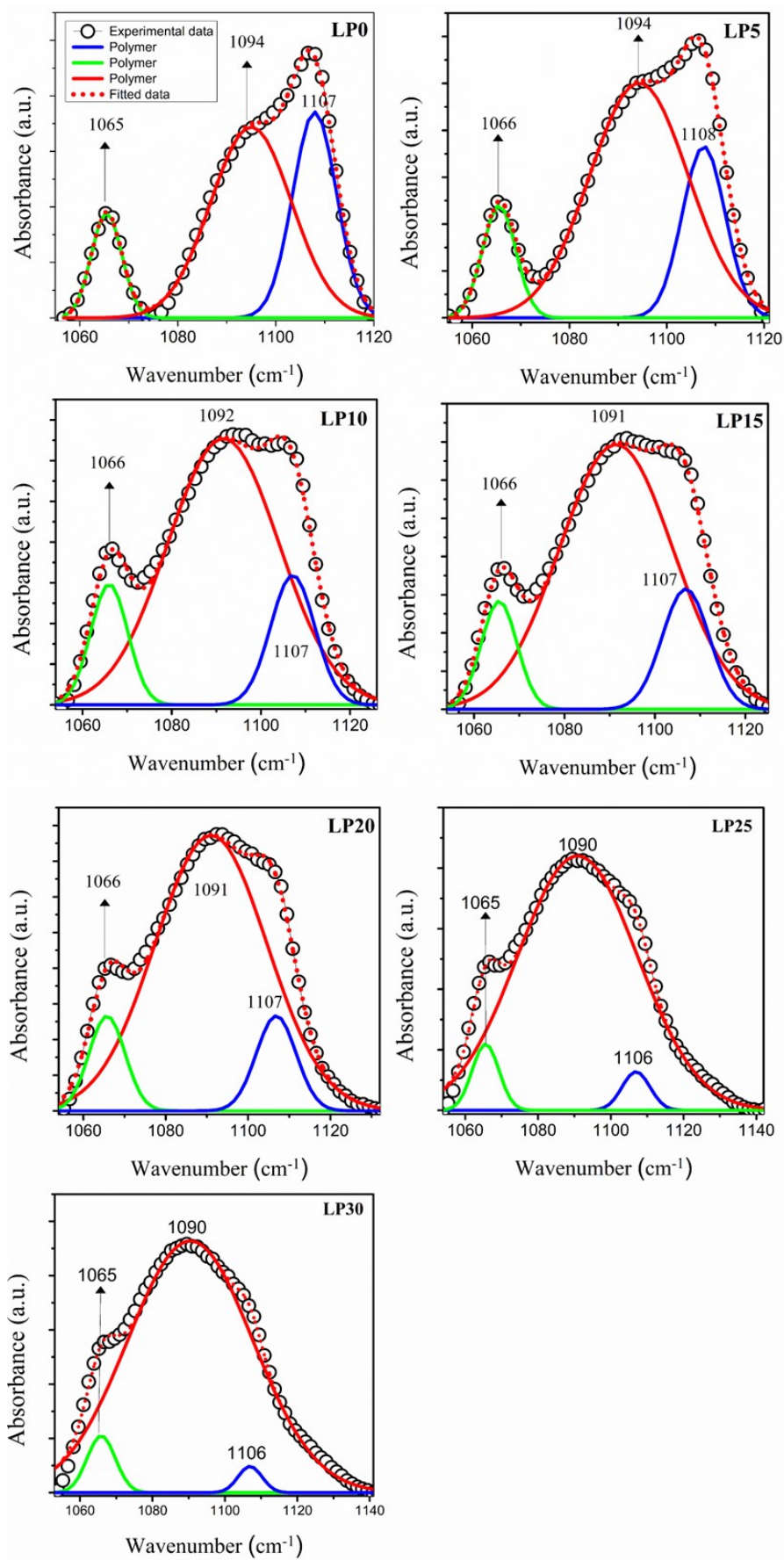
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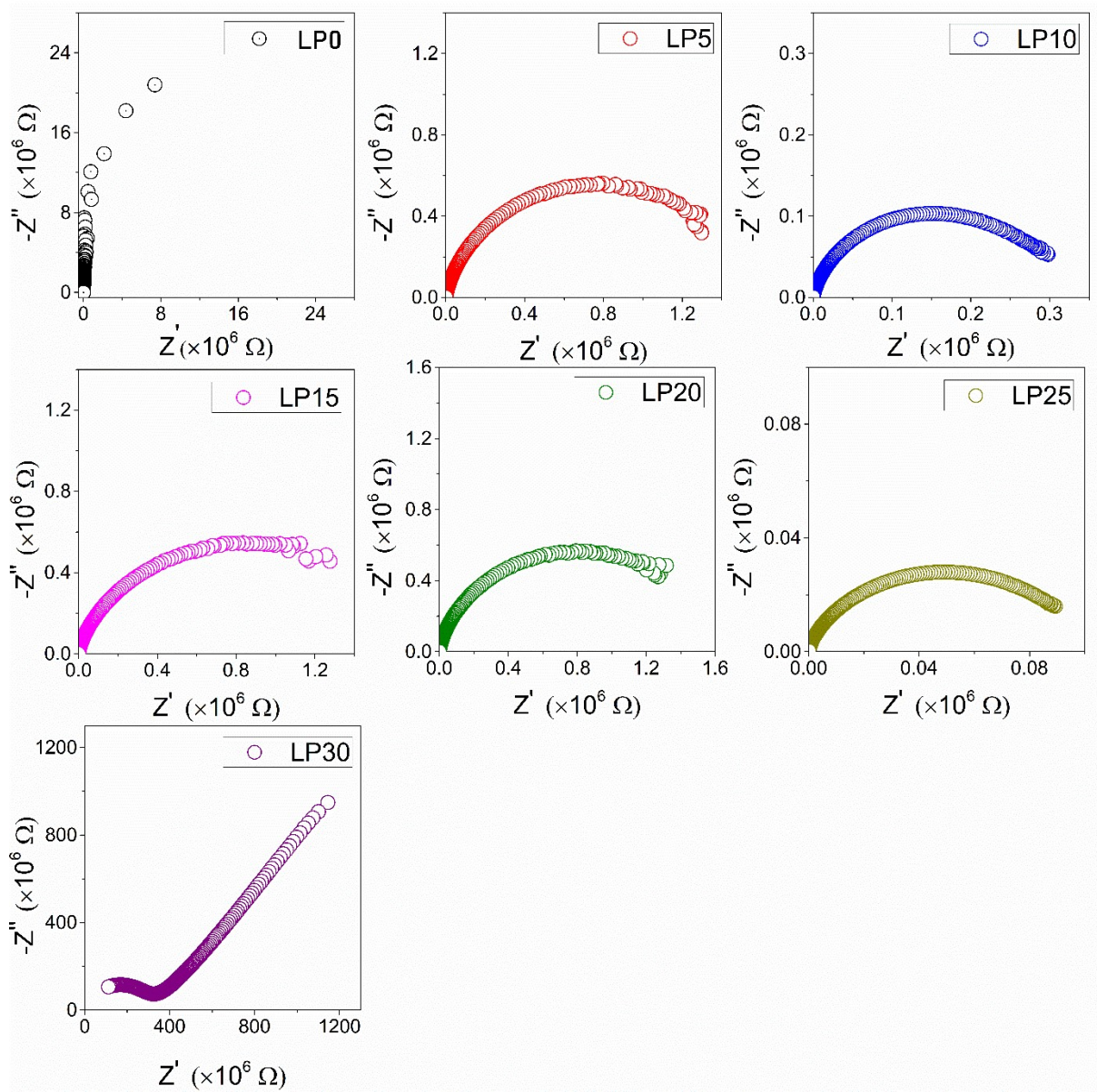
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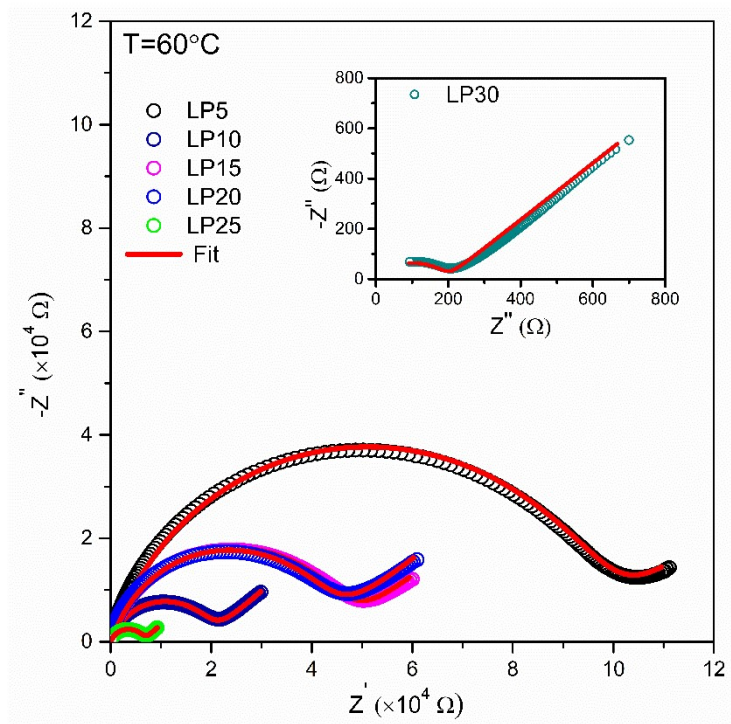
**Fig. S1** FTIR deconvoluted spectra at 1200-1000 cm<sup>-1</sup> region.

**Table 1S.** Variation of ionic conductivity of LP30 sample at different temperatures

Temperature (°C)	Ionic conductivity of LP30 sample (S cm <sup>-1</sup> )
25	1.02E-05
30	1.05E-05
35	1.07E-05
40	1.09E-05
45	1.10E-05
50	1.11E-05
55	1.20E-05
60	1.60E-05



**Fig. S2** Nyquist plot of samples at 25°C.



**Fig. S3** Nyquist plot of doped samples at  $60^{\circ}\text{C}$ .