Electronic Supplementary Material (ESI) for RSC Applied Polymers.

Ion conduction and phase behaviour in dual cation polyelectrolyte blends for sodium ion batteries.

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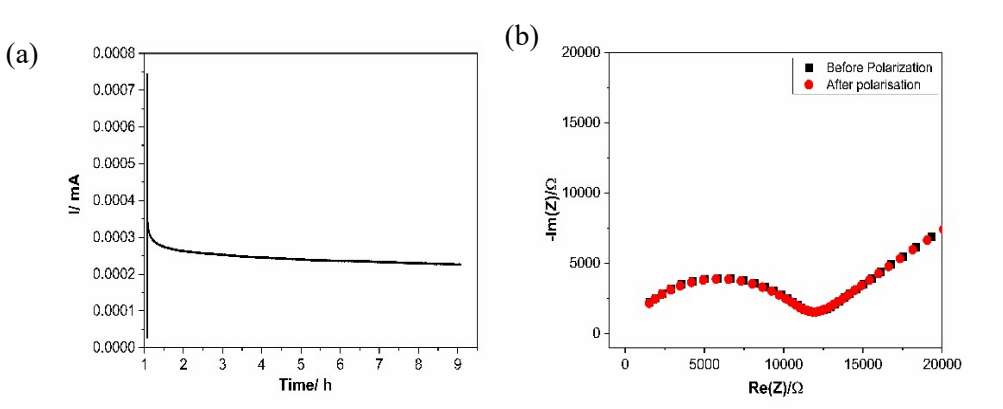
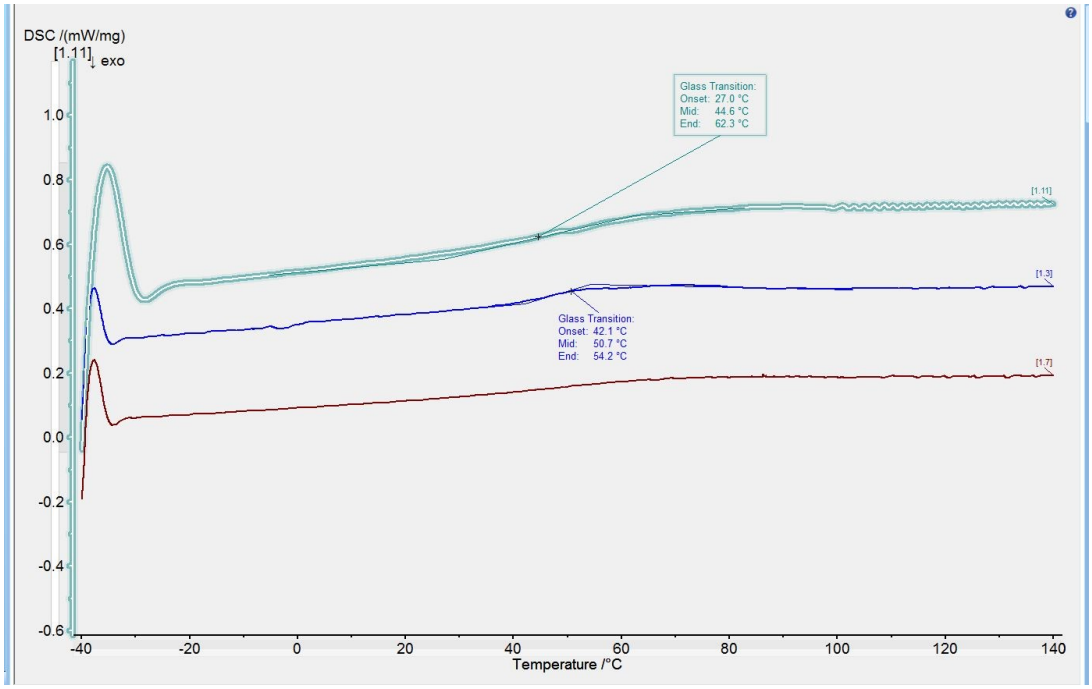


Figure S1: Electrochemistry studies of 50:50 mol% polymer blend of poly-P_{111i4}MTFSI and poly-NaMTFSI with 30 wt% NaFSI as plasticizer assembled with Na/Na symmetric cell at 70 °C (a) Current-time curve following a DC polarization (10 mV) of 50 mol% polymer blend with NaFSI plasticizer (b) Nquist plot of the cell before and after polarisation.

Figure S2: Raw data of Tg determination 1: 10% NaFSI addition, 2: 20% NaFSI addition and 3: 30% NaFSI addition.

(1)



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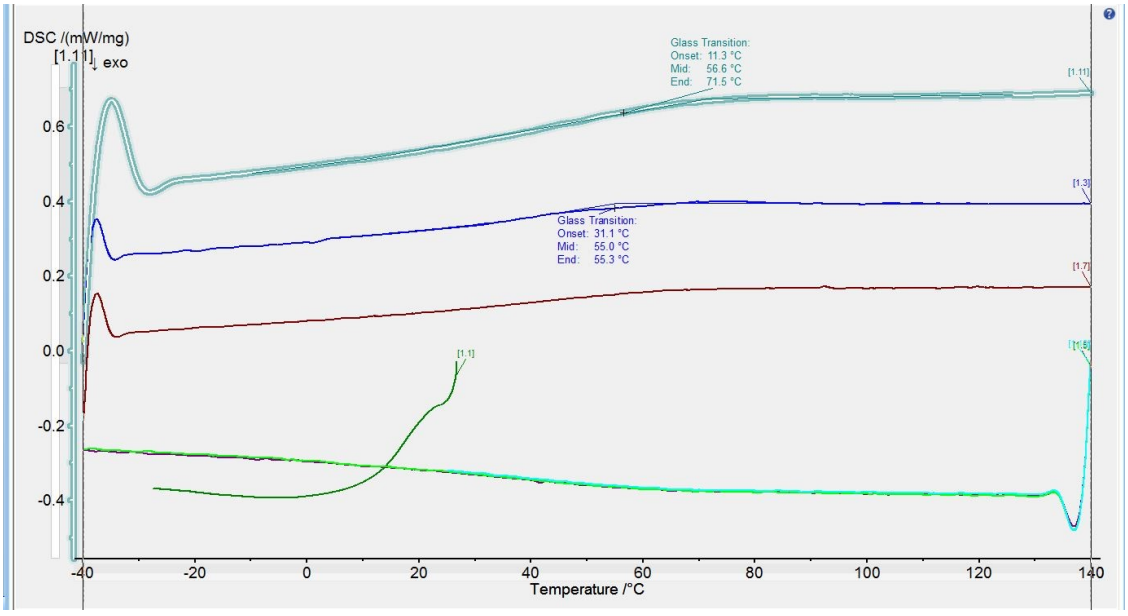


(3)

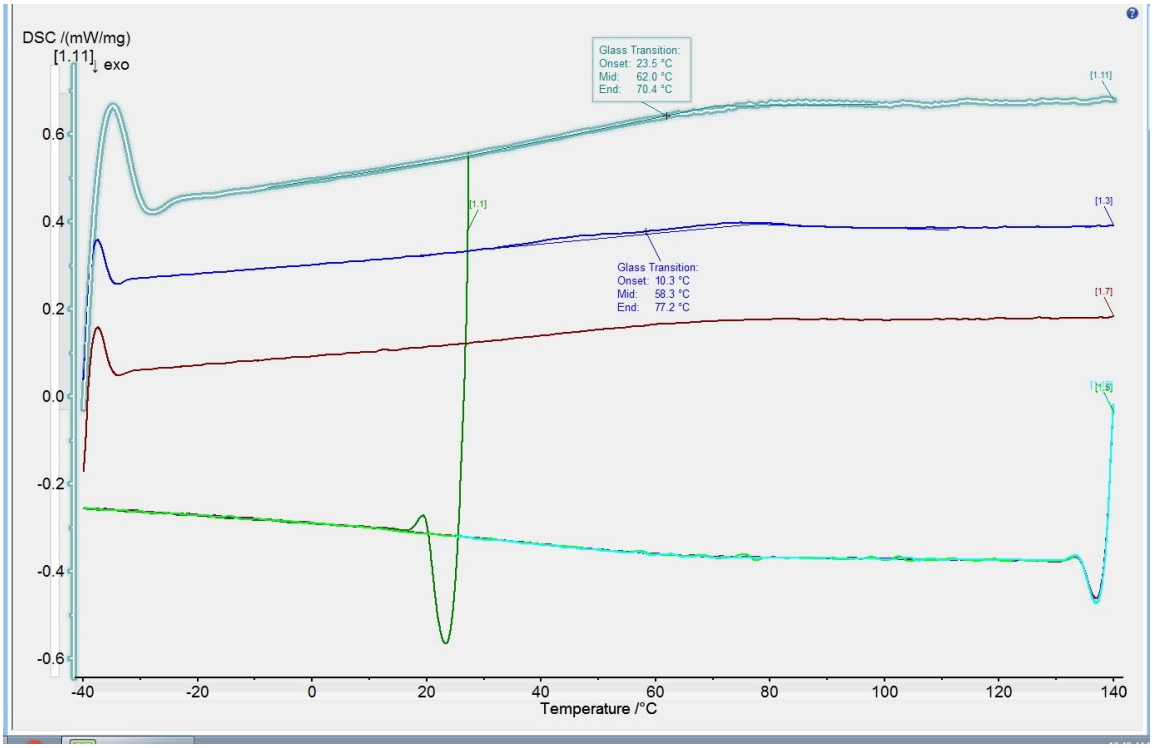
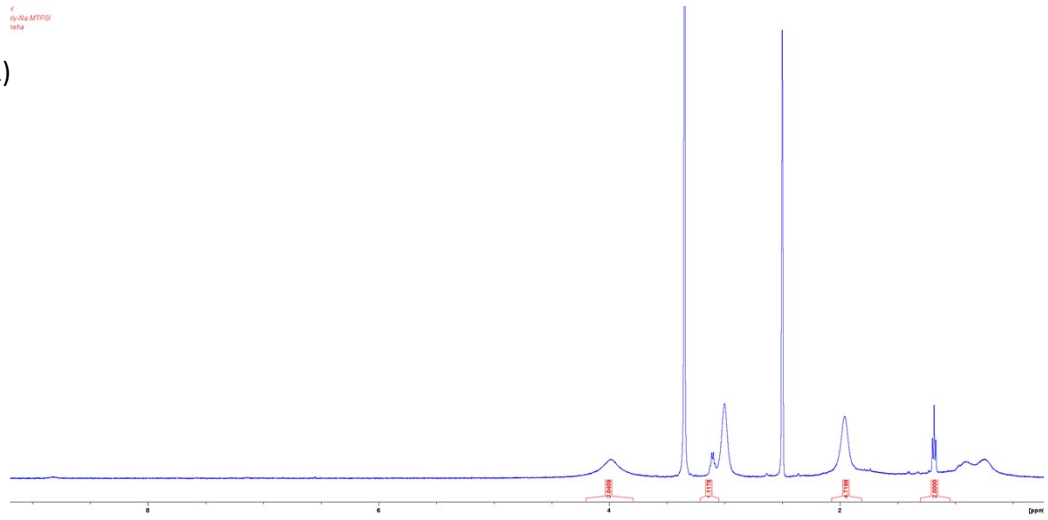
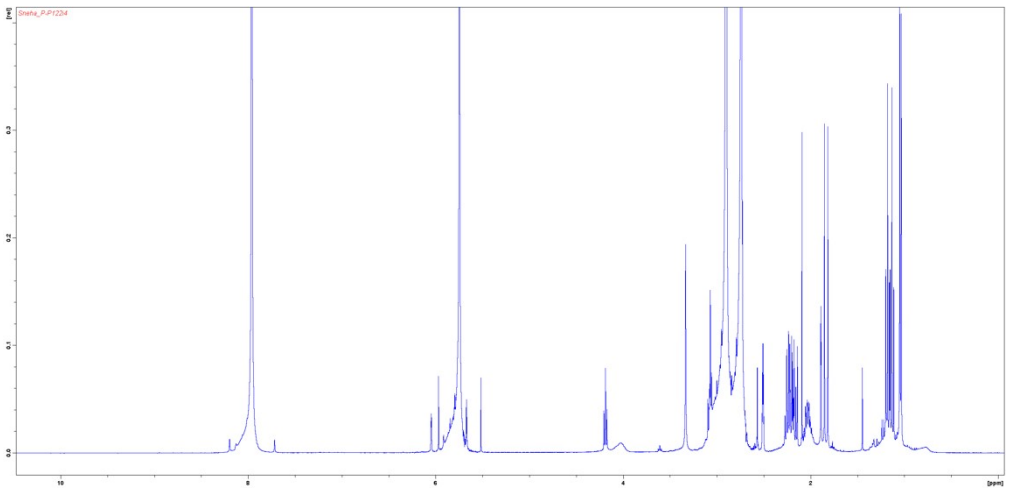

DSC /(mW/mg)
[1.11]
exo
Glass Transition:
Onset: 23.5 °C
Mid: 62.0 °C
End: 70.4 °C
Glass Transition:
Onset: 10.3 °C
Mid: 58.3 °C
End: 77.2 °C
[1.11]
[1.3]
[1.7]
[1.5]
[1.1]
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
-40
-20
0
20
40
60
80
100
120
140
Temperature /°C

Figure S3: [1] H- NMR spectra of (1) poly-NaMTFSI (2) poly-P_{111i4}MTFSI and (3) poly-$_{P122i4}$MTFSI

(1)



(2)



(3)