Supplementary materials

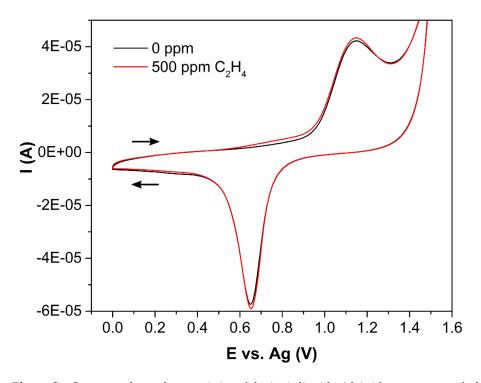


Figure S1. Current-voltage characteristics of the ionic liquid with/without gaseous ethylene (23 $^{\circ}$ C, 40 $^{\circ}$ RH, 101.325 kPa, 1 L/min, scan rate = 50 mV/s).

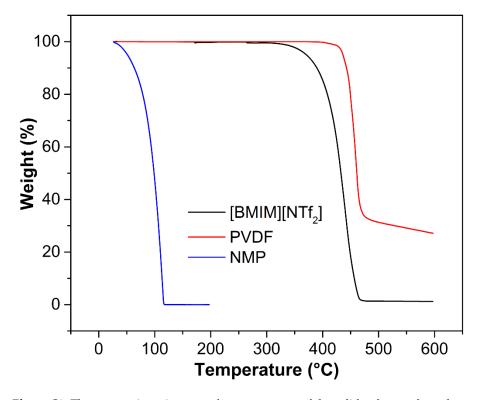


Figure S2. Thermogravimetric curves for components of the solid polymer electrolyte.