

**Supporting Information for “The Reduction of Oxygen
in Various Room Temperature Ionic Liquids in the
Temperature Range 293–318 K: Exploring the
Applicability of the Stokes-Einstein Relationship in
Room Temperature Ionic Liquids.”**

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Figure Legends

1. Typical cyclic voltammograms at a range of temperatures (298, 303, 308, 313, 318 and 323 K) for the reduction of 1 atm O₂ on a 10 μm diameter platinum electrode *vs* Ag in (a) [C₄mpyrr][NTf₂], (b) [C₄dmim][NTf₂], (c) [C₄mim][PF₆] and (d) [N_{6,2,2,2}][NTf₂] at a scan rate of 1000 mV s⁻¹.
2. Plots of $\ln \eta$ *vs* T^{-1} for the ionic liquids [C₄mim][NTf₂], [C₄mpyrr][NTf₂], [C₄dmim][NTf₂], [C₄mim][BF₄], [C₄mim][PF₆] and [N_{6,2,2,2}][NTf₂], used to determine the activation energy of viscosity values quoted in Table 2.

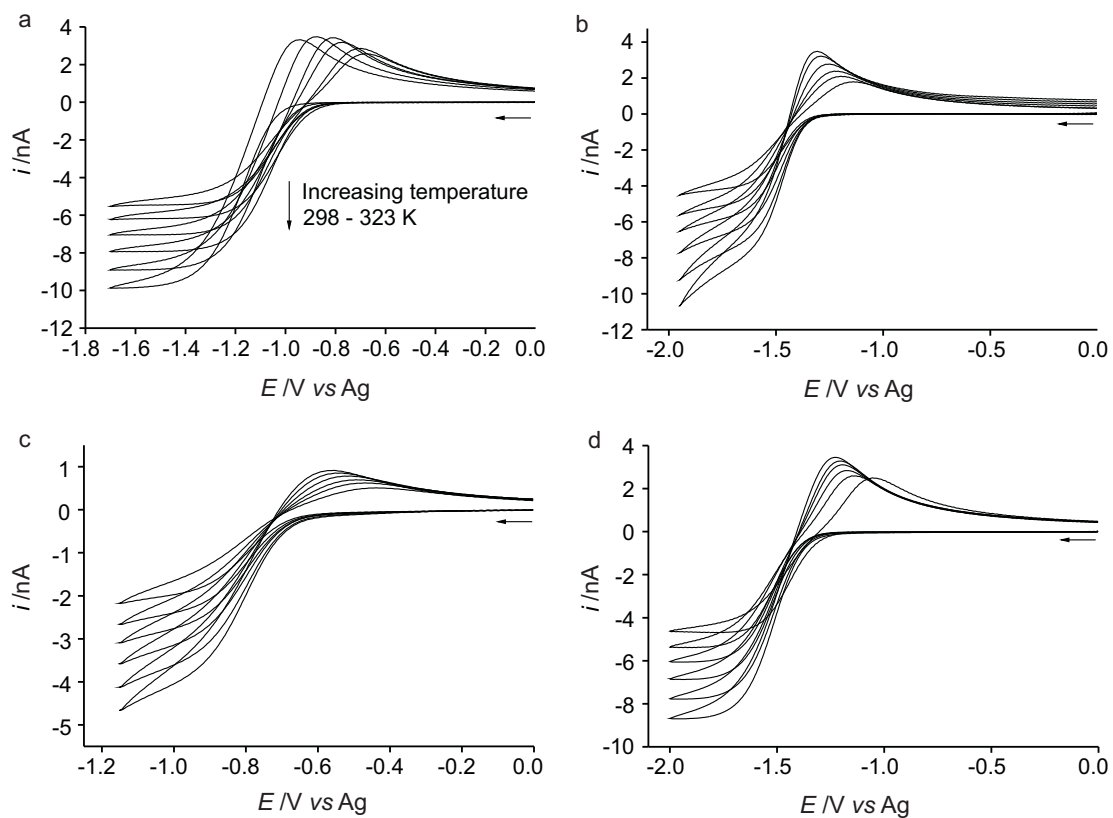


Figure 1: Typical cyclic voltammograms at a range of temperatures (298, 303, 308, 313, 318 and 323 K) for the reduction of 1 atm O_2 on a 10 μm diameter platinum electrode *vs* Ag in (a) $[\text{C}_4\text{mpyrr}][\text{NTf}_2]$, (b) $[\text{C}_4\text{dmim}][\text{NTf}_2]$, (c) $[\text{C}_4\text{mim}][\text{PF}_6]$ and (d) $[\text{N}_{6,2,2,2}][\text{NTf}_2]$ at a scan rate of 1000 mV s^{-1} .

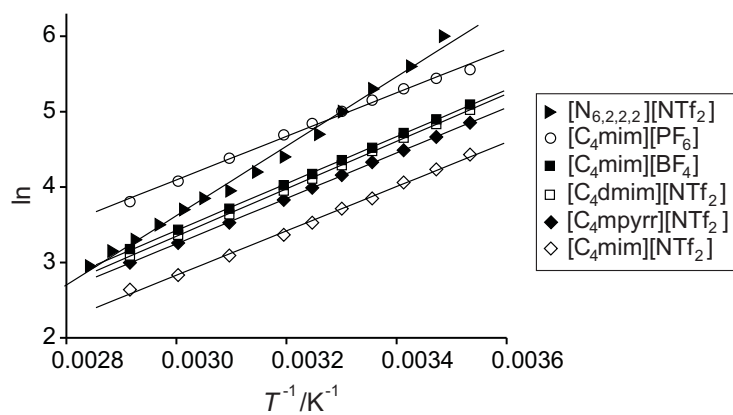


Figure 2: Plots of $\ln \eta$ vs T^{-1} for the ionic liquids $[\text{C}_4\text{mim}][\text{NTf}_2]$, $[\text{C}_4\text{mpyrr}][\text{NTf}_2]$, $[\text{C}_4\text{dmim}][\text{NTf}_2]$, $[\text{C}_4\text{mim}][\text{BF}_4]$, $[\text{C}_4\text{mim}][\text{PF}_6]$ and $[\text{N}_{6,2,2,2}][\text{NTf}_2]$, used to determine the activation energy of viscosity values quoted in Table 2.