Electronic Supplementary Information for Dalton Transactions

Electronic Supporting Information

Synthesis of an ionic liquid with an iron coordination cation

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Table S1. Infrared Data for **1** and Diethanolamine. The peaks highlighted in red (bold) in the first column correspond to the diethanolamine ligands.

	$Fe(NH(CH_2CH_2OH)_2)_6(CF_3SO_3)_3$	$NH(CH_2CH_2OH)_2$
IR Peak Positions	**3440(m)**	3359(sh)
	3309(sh)	3300(w)
	3094(w)	2913(w)
	2938(w)	2833(m)
	2862(m)	1453(s)
	1608(m)	1352(w)
	1453(m)	1332(w)
	1273(sh)	1239(m)
	1240(s)	1196(m)
	1224(s)	1122(s)
	1161(s)	1048(s)
	1061(s)	941(s)
	1024(s)	862(m)
	811(m)	812(w)
	760(m)	626(w)
	635(s)	525(w)
	574(m)	486(w)
	515(m)	439(w)

Fig. S1. Viscosity plot of **1**. Since the viscosity of **1** stays constant as the shear rate is varied, compound **1** is therefore a Newtonian fluid.