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Design and synthesis of cation-functionalized ionic liquid for application as electrolyte in proton exchange membrane fuel cell

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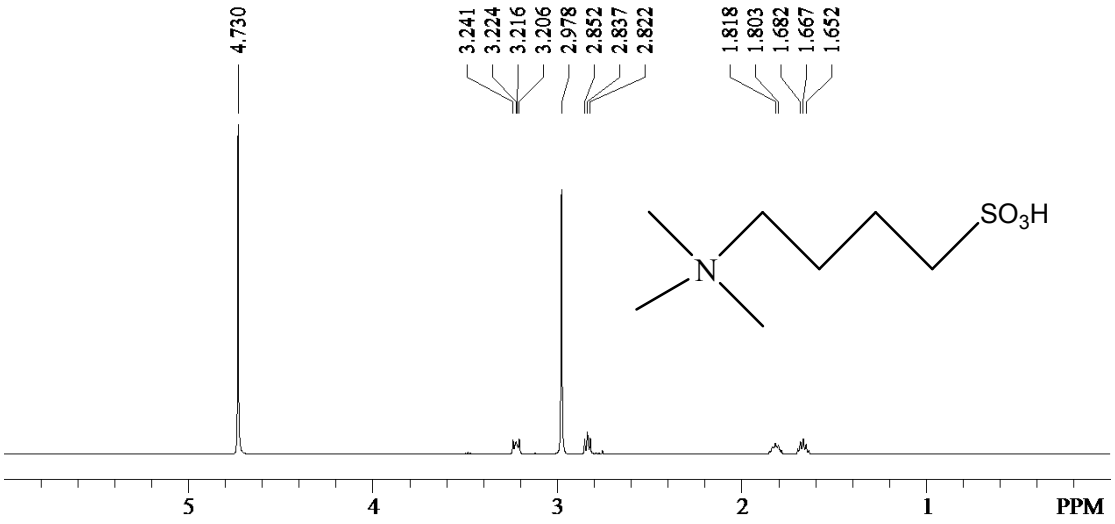
Supporting Information



δH (500 MHz, D_2O) 4.73(D), 3.24-3.20 (m, 2H $NC\underline{H_2}CH_2CH_2CH_2SO_3H$;), 2.978(s, 9H; $N(C\underline{H_3})_3$) , 2.852-2.822 (t, 2H; $NCH_2CH_2CH_2\underline{CH_2}SO_3H$) , 1.81-1.80 (d, 2H; $NCH_2C\underline{H_2}C\underline{H_2}CH_2SO_3H$), 1.68-1.65 (t, 2H; $NCH_2CH_2C\underline{H_2}CH_2SO_3H$).

^{1}H NMR for $[N1114SO_3H]HSO_4$

Element analysis

	C	H	N	S
Calculated(wt%)	28.64	6.47	4.77	21.82
Measured(wt)	28.53	6.22	4.81	21.93