

# Supporting information

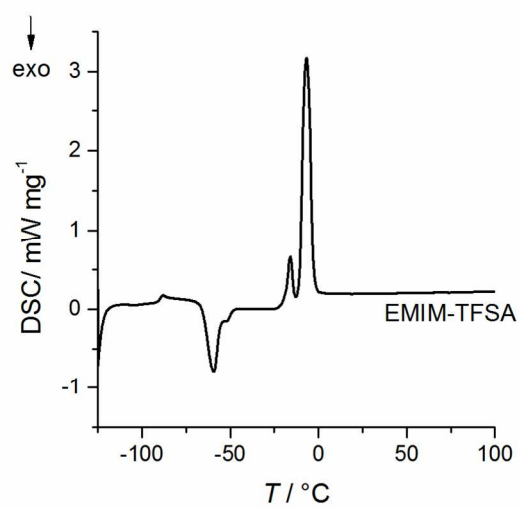
## Investigation of Binary Mixtures Containing 1-Ethyl-3-methylimidazolium Bis(trifluoromethanesulfonyl)azanide and Ethylene Carbonate

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**Table SI-1.** DSC data of additional EMIM-TFSA/EC mixtures (melting temperature ( $T_m$ ), crystallizing temperature ( $T_K$ ), glass transition temperature ( $T_g$ )) measured in closed Al crucibles (Standard uncertainties  $u$  are  $u(\chi) = 0.0002$ ;  $u(T) = 3$  °C). The experimental pressure during the measurement inside the closed Al crucibles was not determined but estimated to be  $p = 0.1$  MPa ( $u(p) = 10$  kPa) at  $T \ll T_b$  ( $T_b$  = boiling point).

EMIM-TFSA : EC (wt./wt.)	$\chi$ EC	solid-liquid transition / °C DSC, 10 Kmin <sup>-1</sup>	$T_m$ / °C (DSC) (peak max) <sup>[a]</sup>	$T_g$ / °C (DSC) (point of inflection) <sup>[c]</sup>
97.5:2.6	0.10594	-27.3	-14.6	-89.5
96.3:3.7	0.14583	-26.9	-16.2	-89.9
94.8:5.2	0.19598	-25.8	-18.8	-90.2
92.9:7.4	0.26143	-24.8	-21.8	-90.7
91.4:9.3	0.31136	-24.6	--	-91.1
89.3:10.3	0.33886	-25.6	--	-91.3
86.2:12.8	0.39754	-26.8	--	-91.5
84.5:15.2	0.44424	-25	--	-92.2
81.6:18.8	0.50588	-26.1	--	-92.9
78.6:22.5	0.55987	-26.2	-9.2	-94.0

[a] DSC: heating/cooling at 10 K min<sup>-1</sup>; the peak maximum was chosen because of the heavily detectable onset of the  $T_m$ . [b] Values could be obtained because the mixture remains liquid below its melting point (supercooled liquid). [c] The glass transition temperature is extracted from heating-up curves at 5 K·min<sup>-1</sup>.



**Figure SI-1.** DSC measurement of EMIM-TFSA in closed Al crucible from -150 °C to 100 °C at 5 K min<sup>-1</sup> (exo down) without annealing before the measurement (cooling down at 10 K min<sup>-1</sup>; 5 min isothermal period at -150 °C).