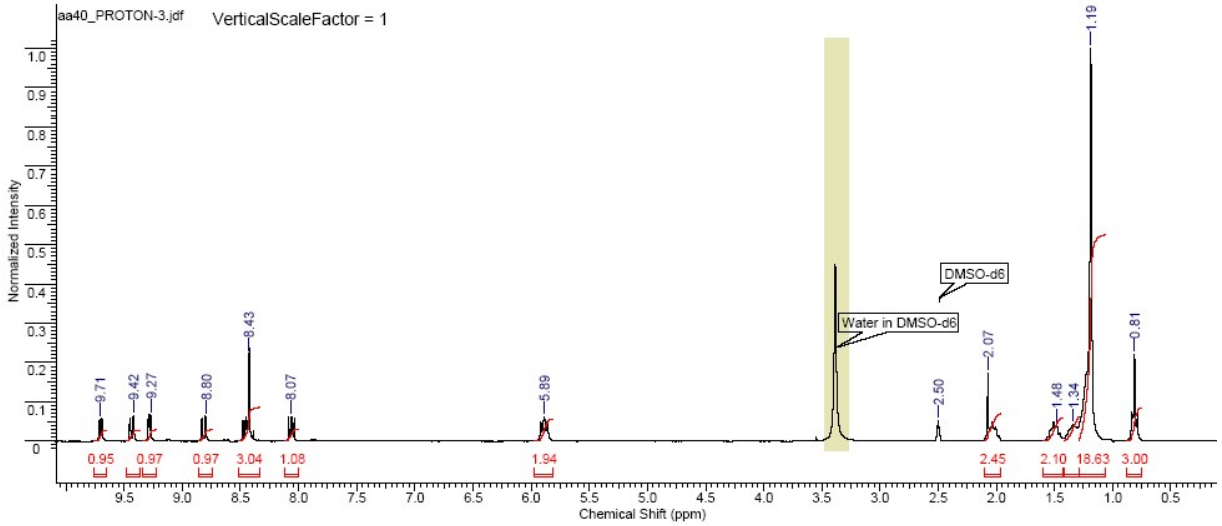
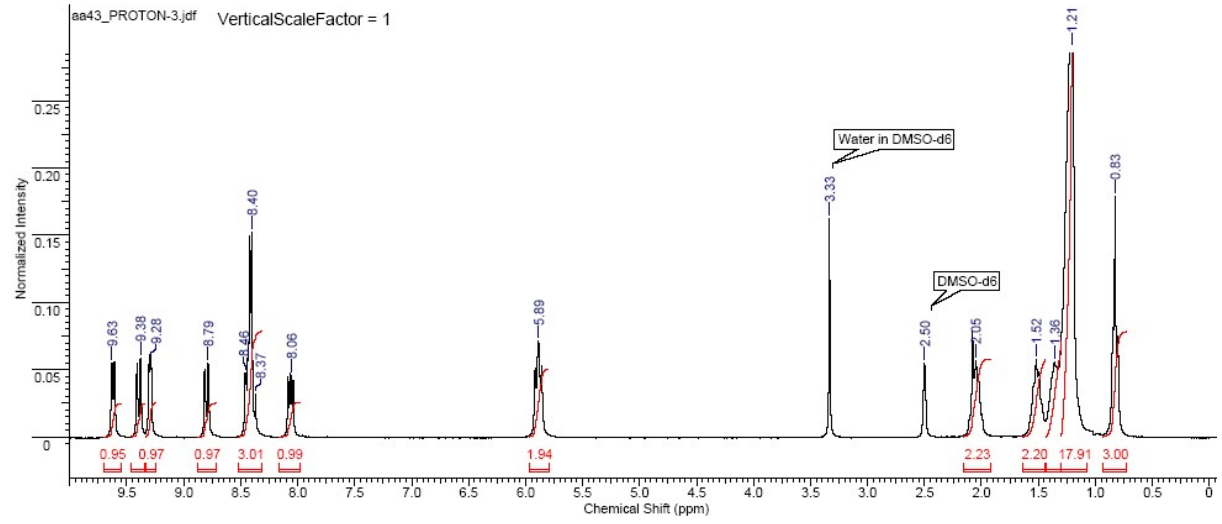
Supporting Information

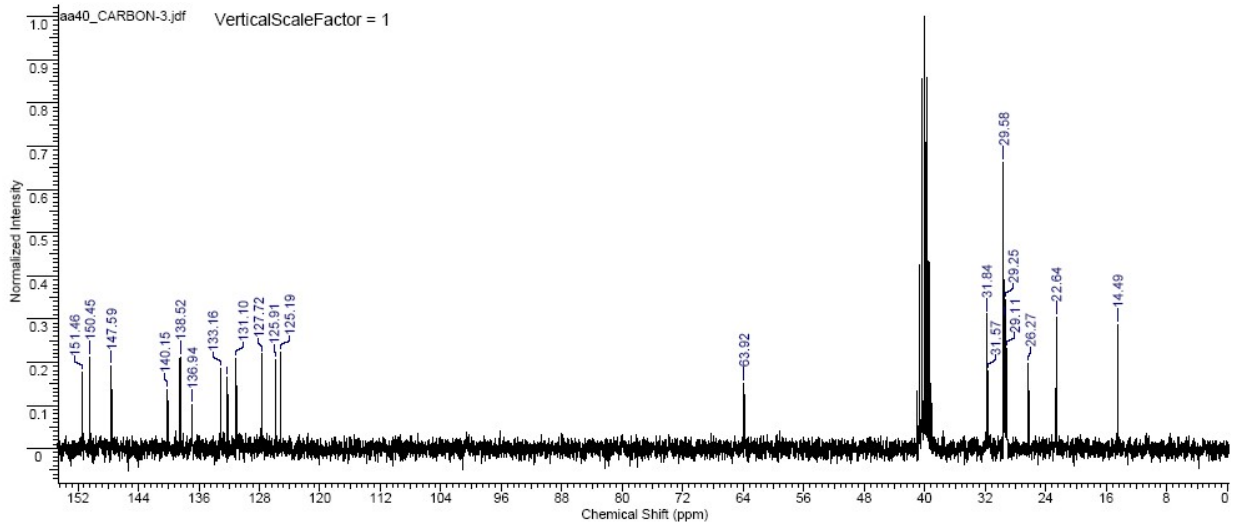
NMR Spectra



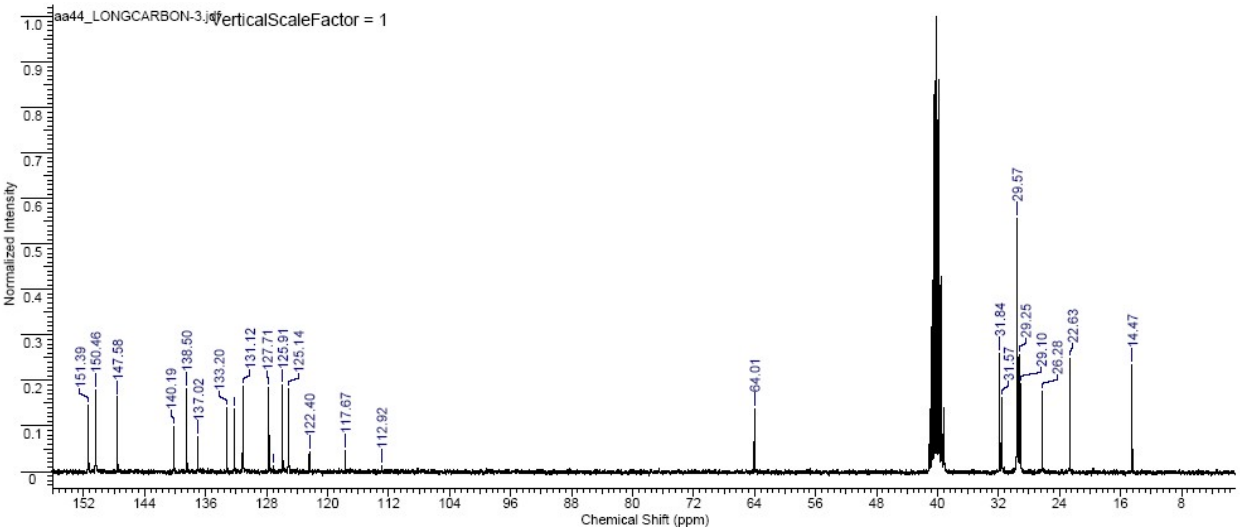
a



b


aa40_CARBON-3.jdf
VerticalScaleFactor = 1
Normalized Intensity
Chemical Shift (ppm)
151.46
150.45
147.59
140.15
138.52
136.94
133.16
131.10
127.72
125.91
125.19
63.92
29.58
31.84
31.57
29.25
29.11
26.27
22.64
14.49

c


aa44_LONGCARBON-3.jdf
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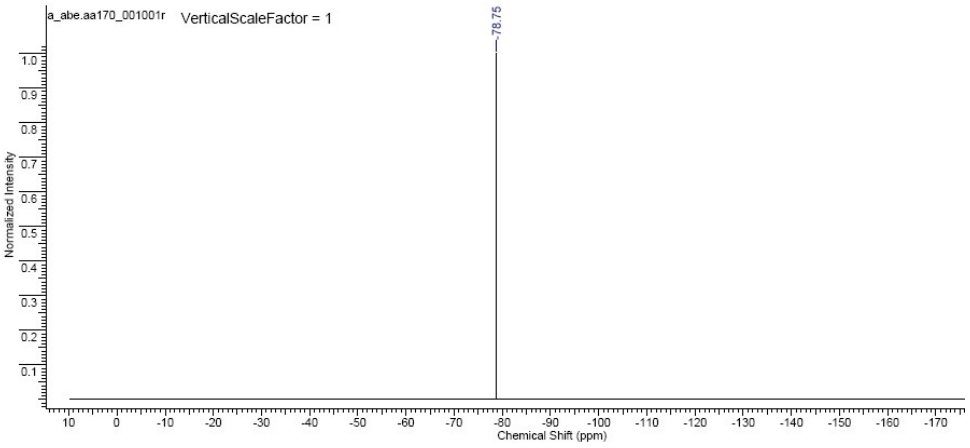
Normalized Intensity
Chemical Shift (ppm)
151.39
150.46
147.58
140.19
138.50
137.02
133.20
131.12
127.71
125.91
125.14
122.40
117.67
112.92
64.01
29.57
31.84
31.57
29.25
29.10
26.28
22.63
14.47

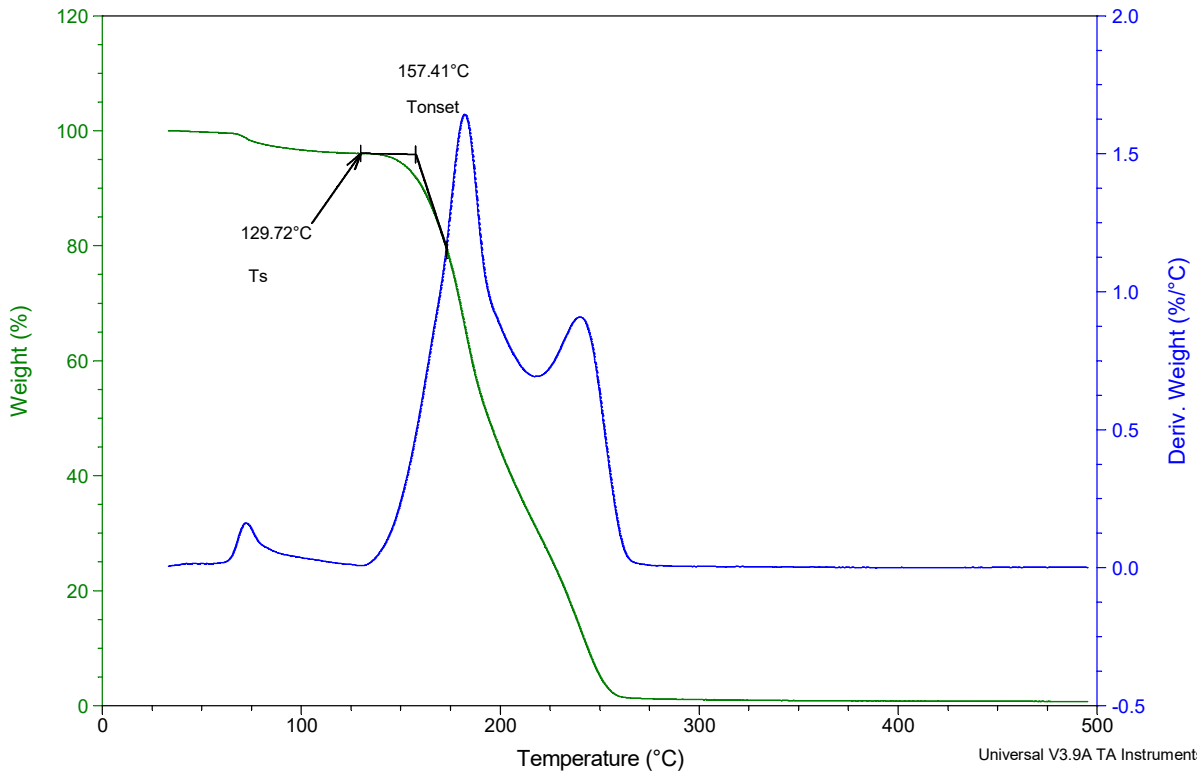
d


a_abe.aa170_001001r
VerticalScaleFactor = 1
Normalized Intensity
Chemical Shift (ppm)
78.75

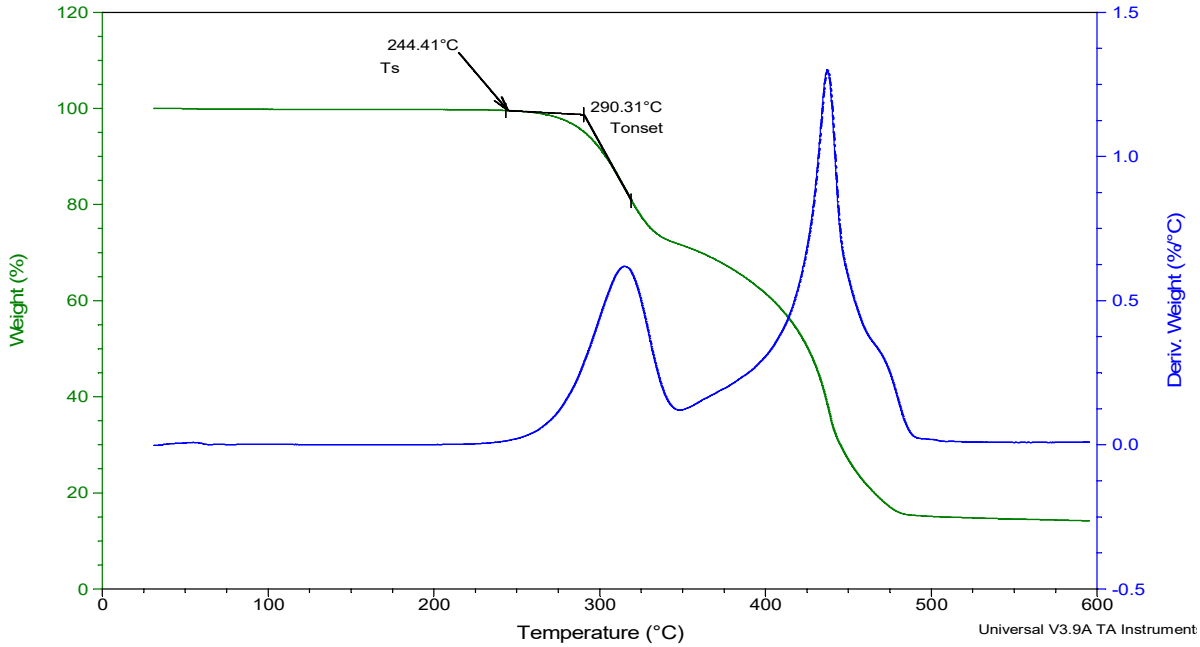
e

Figure 1: a) ^{1}H NMR of $[C_{26}H_{37}N_2]Br$, b) ^{1}H NMR of $[C_{26}H_{37}N_2][(CF_3SO_2)_2N]$, c) ^{13}C NMR of $[C_{26}H_{37}N_2]Br$, d) ^{13}C NMR of $[C_{26}H_{37}N_2][(CF_3SO_2)_2N]$, e) ^{19}F NMR of $[C_{26}H_{37}N_2][(CF_3SO_2)_2N]$

Thermograms



a



B

Figure 2: Characteristic decomposition curve determined by TGA, indicating the start and onset temperatures of: a) $[C_{26}H_{37}N_2]Br$, b)$[C_{26}H_{37}N_2][(CF_3SO_2)_2N]$

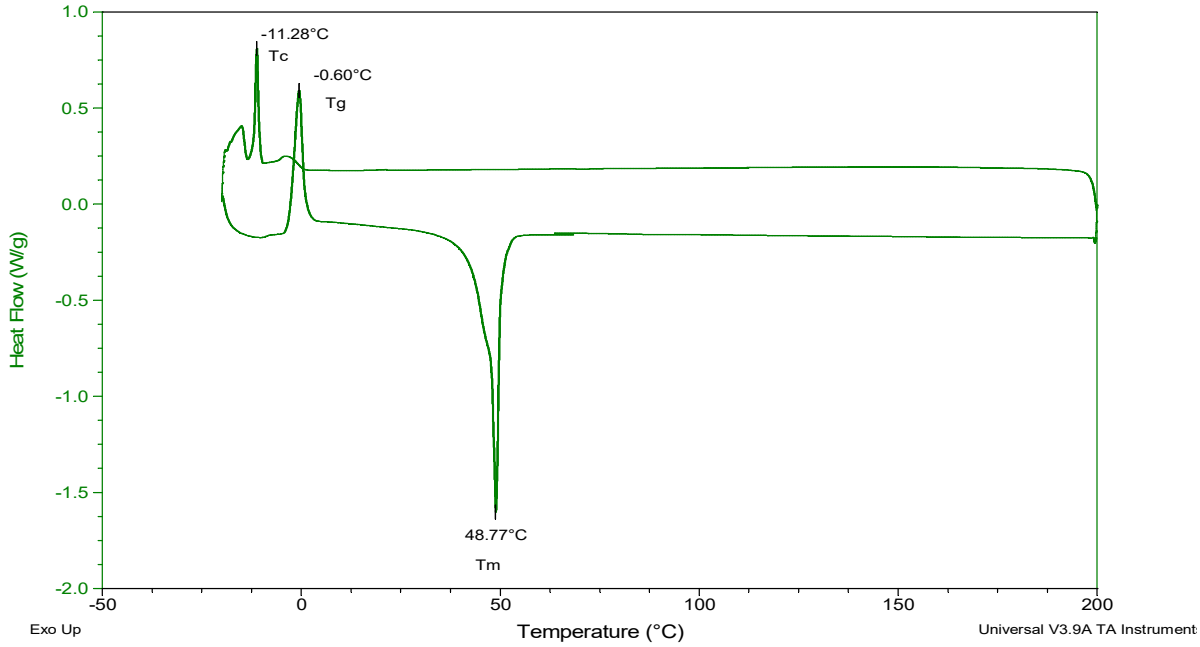


Figure 3: Characteristic phase transition of $[C_{26}H_{37}N_2][(CF_3SO_2)_2N]$, determined by DSC, indicating the melting and crystallization temperatures of $[C_{26}H_{37}N_2][(CF_3SO_2)_2N]$