

Supporting information file

Structural effect of glyme-Li salt solvate ionic liquids on the conformation of poly(ethylene oxide)

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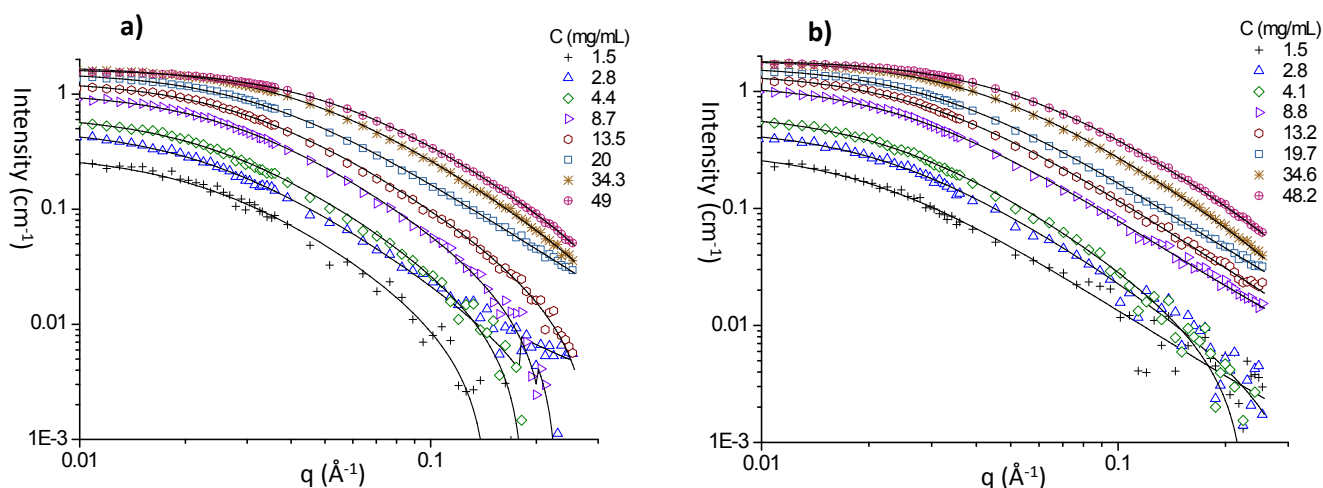
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Table S1. Scattering length densities of polymers and solvents used.

Sample	SLD (10^{-6} \AA^{-2})
H-PEO	0.68
d-PEO	6.9
[Li(G3)]TFSI	1.7
[Li(G4)]BETI	1.91
[Li(G4)]ClO ₄	1.03



Figure S1. SANS scattering traces of pure solvents.



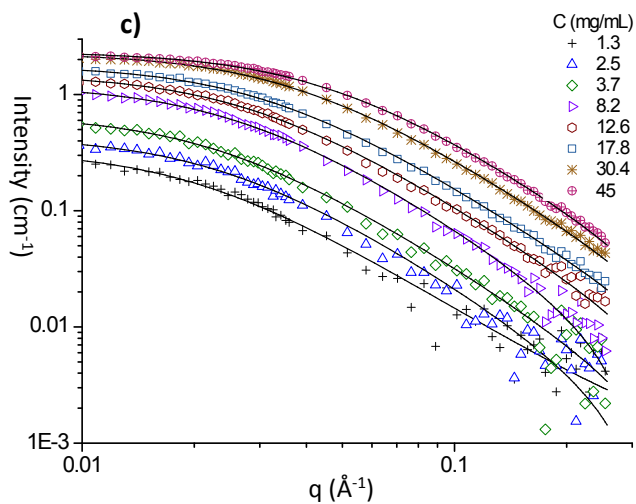
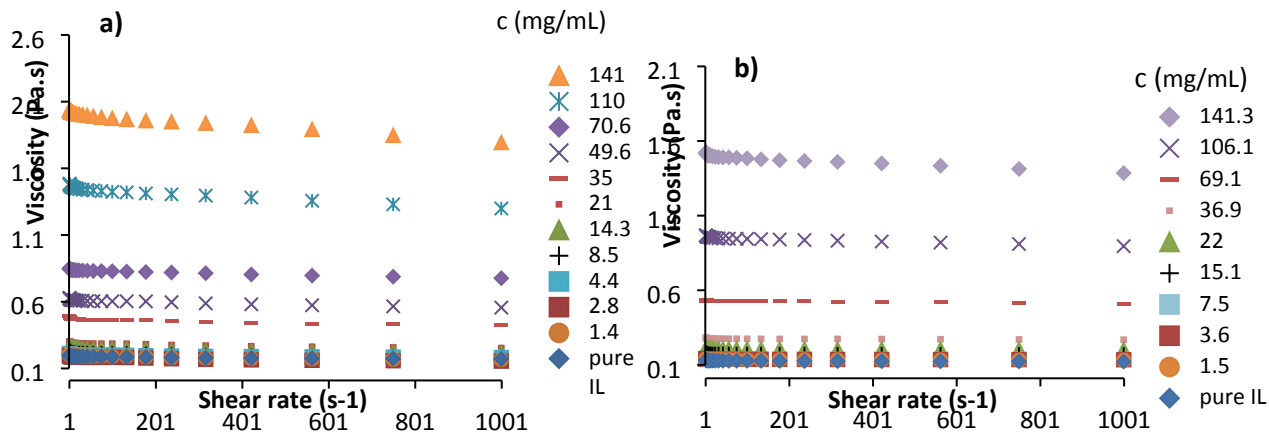


Figure S2. SANS intensity for a) d-PEO-[Li(G3)]TFSI, b) d-PEO-[Li(G4)]BETI and c) d-PEO-[Li(G4)]ClO₄ solutions of varying PEO concentration with background being subtracted. Lines are using Ornstein-Zernike formula fits to the data.



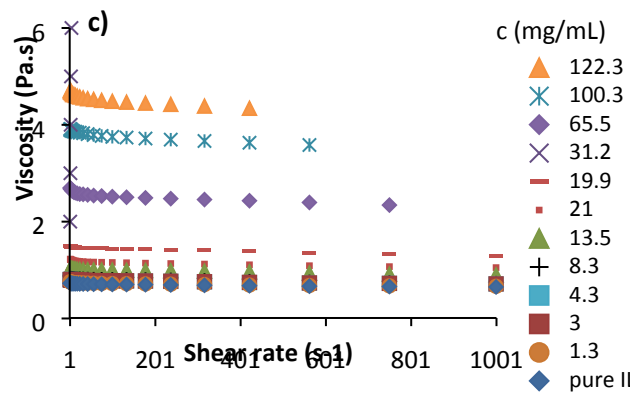


Figure S3. Apparent viscosity vs. shear rate for various PEO concentrations in a) PEO-[Li(G3)]TFSI at 25 °C, b) PEO-[Li(G4)]BETI at 30 °C and c) PEO-[Li(G4)]ClO₄ at 25 °C.