**Supporting Information** 

Rheology of concentrated polymer/ionic liquid solutions: an anomalous plasticizing effect and a universality in nonlinear shear rheology

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Figure S1. DSC traces for (a) PEO, (b)  $[Bmim][PF_6]$ , (c) PMMA, and (d)  $[Bmim][Tf_2N]$  obtained at 10 °C/min heating. Endothermal heat flow is up.



**Figure S2**. DSC traces for polymer/IL solutions obtained at 10 °C/min heating. Endothermal heat flow is up.



**Figure S3.** The normalized terminal relaxation time  $\tau_d/\phi^{2.0}$  for (a) PMMA-125kg/mol and (b) PMMA-335kg/mol and their solutions in 1-ethyl-3-methaylimidazolium bis(trifluoromethanesulfonyl)imide ([Emim][Tf<sub>2</sub>N]). The curves are horizontal shift of WLF fitting for pure PMMA. Data are from ref [1].

## Reference

1. Mok, M.M.; Liu, X.C.; Bai, Z.F.; Lei, Y.; Lodge, T.P. Effect of concentration on the glass

transition and viscoelastic properties of poly(methyl methacrylate)/ionic liquid solutions. *Macromolecules* **2011**, *44*, 1016-1025.