

SUPPLEMENTARY MATERIALS FOR

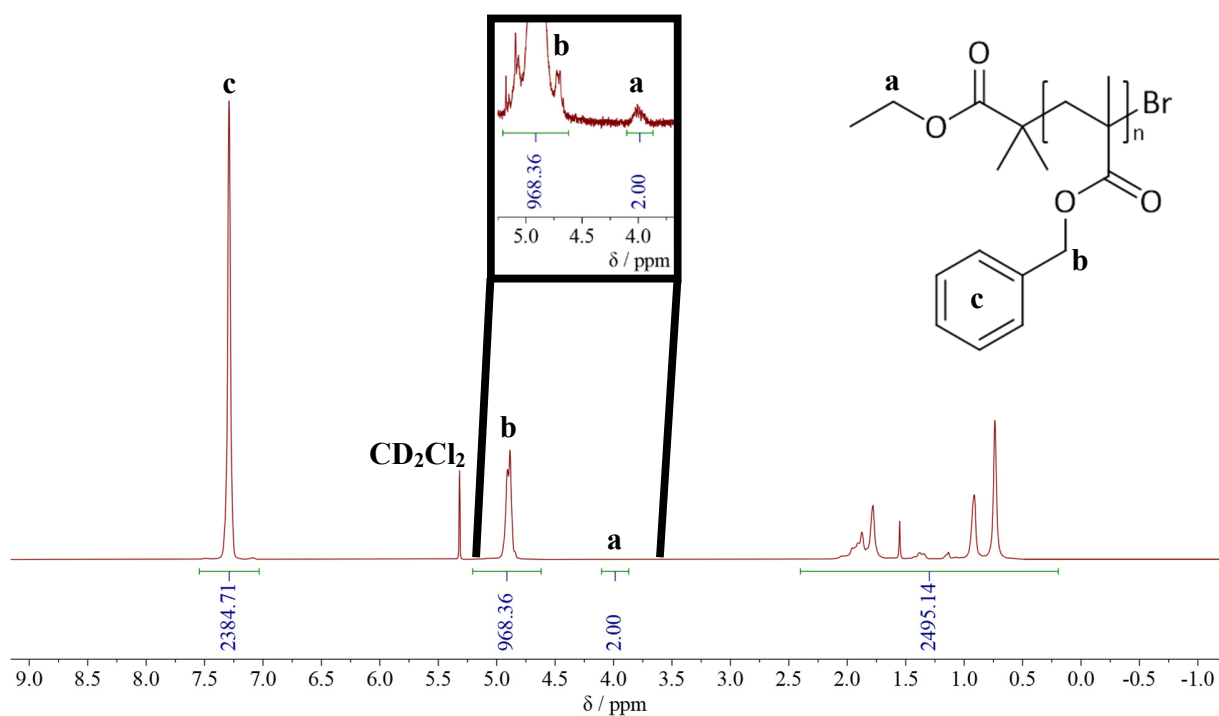
Unusual Lower Critical Solution Temperature Phase Behavior  
of Poly(benzyl methacrylate) in a Pyrrolidinium-Based Ionic Liquid

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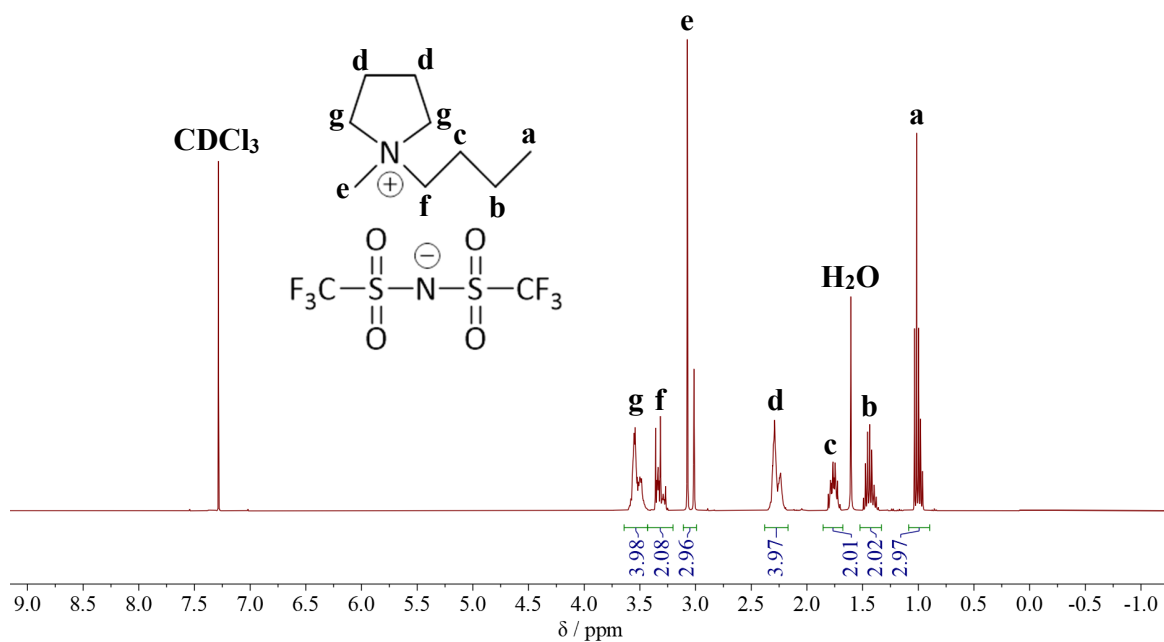
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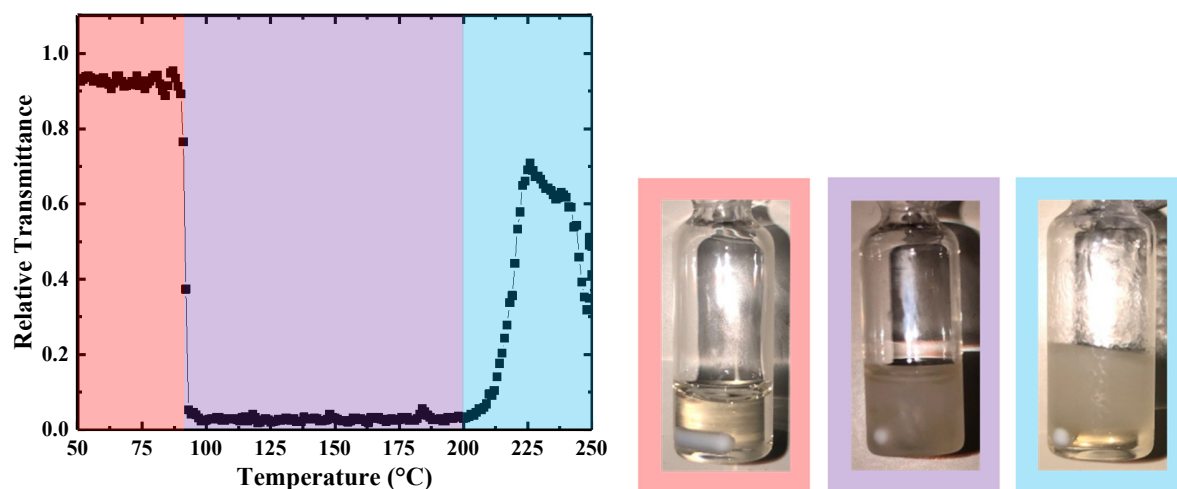
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**Figure S1:** Annotated  $^1\text{H}$  NMR spectrum of PBzMA-76 in  $\text{CD}_2\text{Cl}_2$ .



**Figure S2:** Annotated  $^1\text{H}$  NMR spectrum of [BMP][TFSI] in  $\text{CDCl}_3$ .



**Figure S3:** Temperature dependence of relative transmittance for 40 wt% PBzMA-63 in [BMP][TFSI] at a heating rate of 1 °C/min. The images represent the solutions at stages characterized by the corresponding colored regimes on the graph ordered from left to right: (red) a homogenous, single phase solution, (purple) a biphasic mixture during phase separation, and (blue) PBzMA-rich biphasic top layer with a [BMP][TFSI]-rich bottom layer. The solid line serves as a guide to the eye.