

Supporting Information

Phase Behavior of Polyisoprene-Poly(butylene oxide) and Poly(ethylene-*alt*-propylene)-Poly(butylene oxide) Block Copolymers

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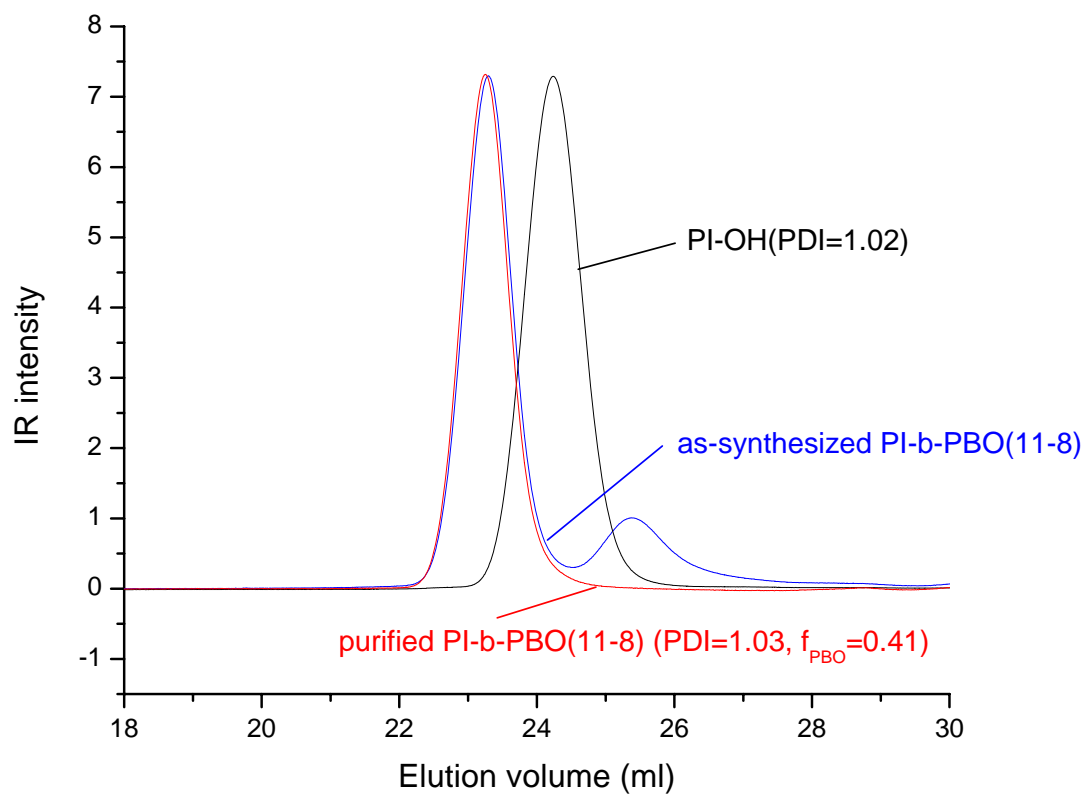


Figure S1. SEC profiles of PI-OH precursor ($M_n = 10,850$ g/mol), PI-*b*-PBO(11-8) diblock copolymer before and after purification.

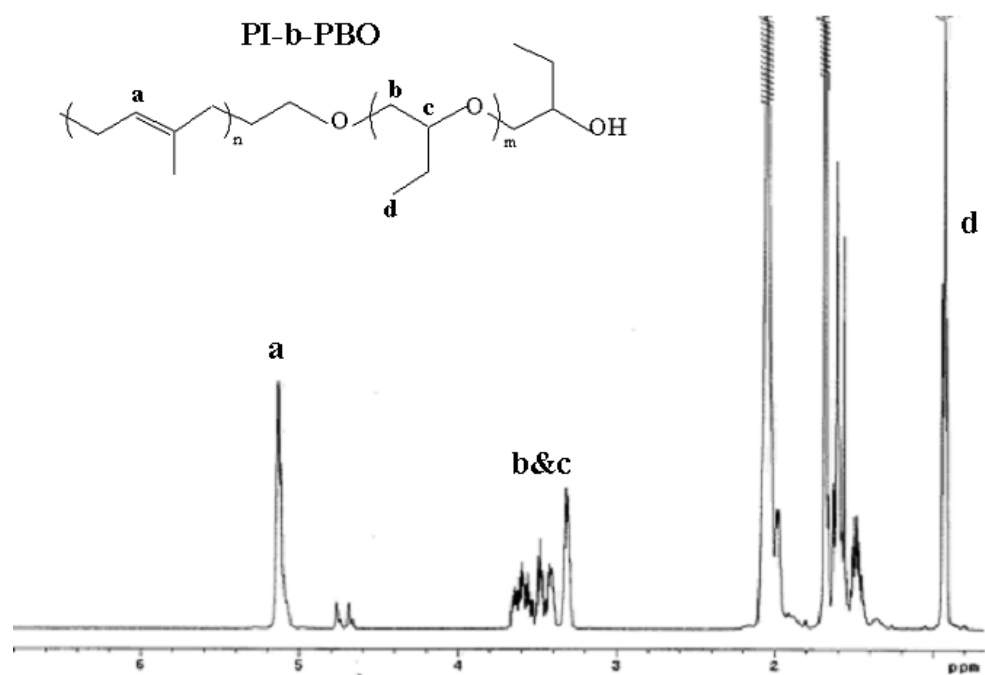
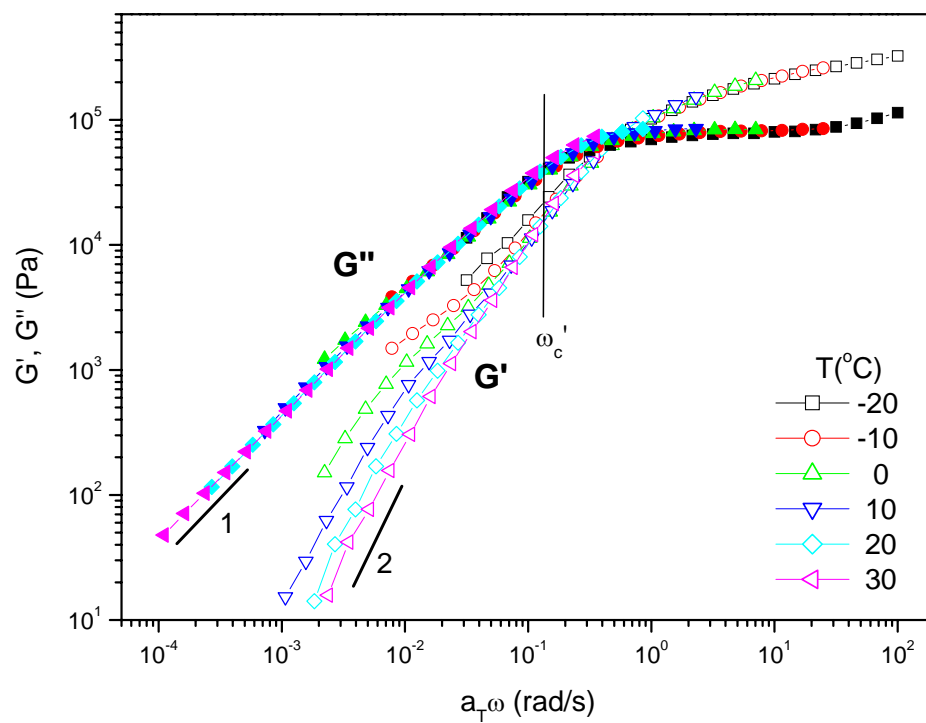
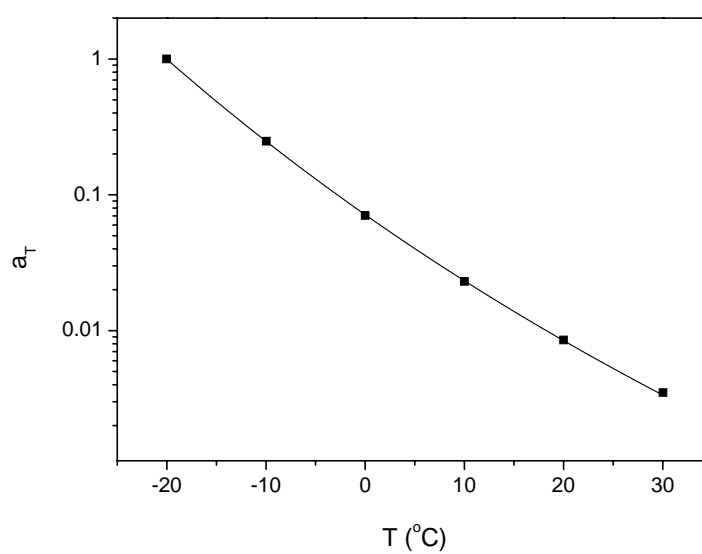


Figure S2. ¹H NMR (500 Hz) spectrum of the purified IB(39-22) diblock copolymer.

a)



b)



c)

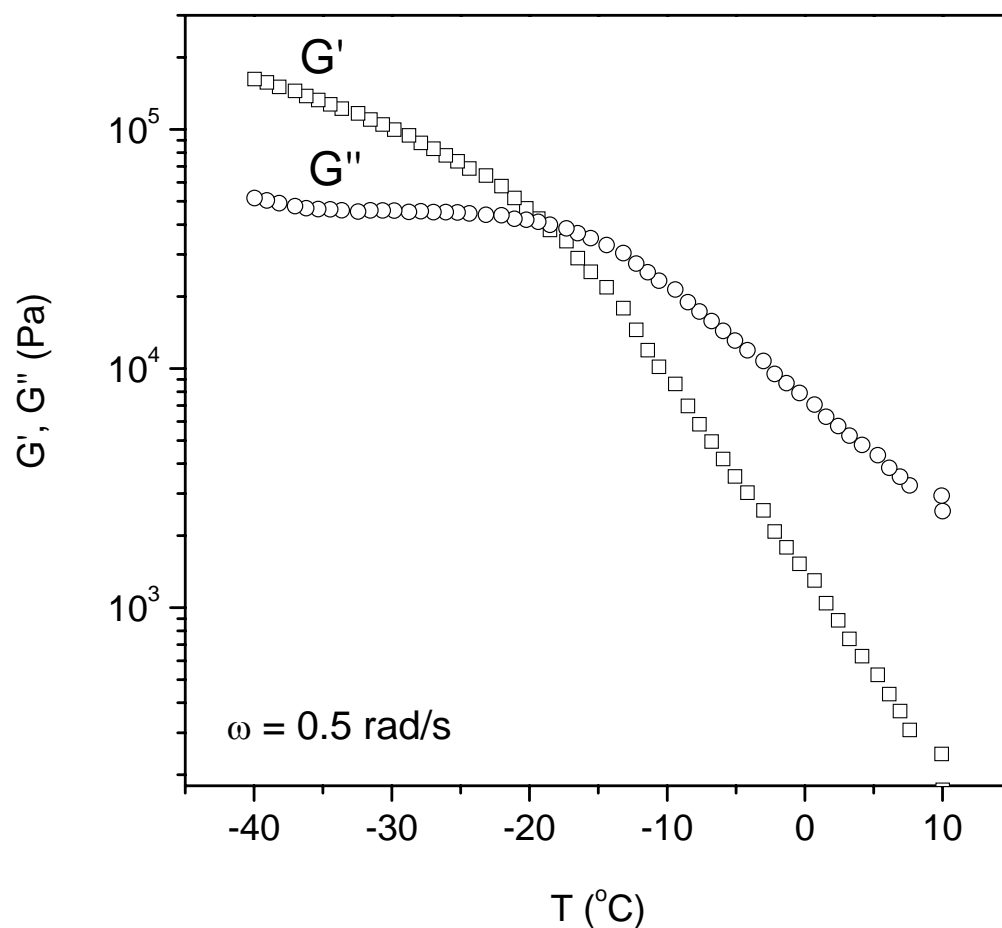


Figure S3. a) Reduced frequency plot for representative dynamic elastic and loss data obtained from the IB(39-22) copolymer. Shift factors were determined by concurrently superimposing G' (open symbols) and G'' (filled symbols) for $\omega > \omega_c'$ and $\omega > \omega_c''$, respectively, to the -20 °C data. b) Shift factors as a function of temperature, fitted with the WLF equation. c) Dynamic temperature ramp data for IB(39-22) at the frequency of 0.5 rad/s upon cooling.