



Supporting Materials

## The Scissors Effect in Action: The Fox-Flory Relationship Between the Glass Transition Temperature of Crosslinked Poly(Methyl Methacrylate) and Mc in Nanophase Separated Poly(Methyl Methacrylate)-*l*-Polyisobutylene Conetworks

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## Content

Molecular weight distribution curves of MA–PIB–MA and PMMA samples (Figures S1–S6) <sup>1</sup>H NMR spectra of MA–PIB–MA samples (Figures S7–S11)



**Figure S1.** The molecular weight distribution of the MA–PIB–MA2.3 methacrylate–telechelic polyisobutylene in logarithmic scale obtained by GPC measurement ( $M_n = 2600 \text{ g/mol}, M_w/M_n = 1.06$ ).



**Figure S2.** The molecular weight distribution of the MA–PIB–MA4.1 methacrylate–telechelic polyisobutylene in logarithmic scale obtained by GPC measurement ( $M_n = 4500$  g/mol,  $M_w/M_n = 1.15$ ).



**Figure S3.** The molecular weight distribution of the MA–PIB–MA6.9 methacrylate–telechelic polyisobutylene in logarithmic scale obtained by GPC measurement ( $M_n = 6800 \text{ g/mol}, M_w/M_n = 1.12$ ).



**Figure S4.** The molecular weight distribution of the MA–PIB–MA9.2 methacrylate–telechelic polyisobutylene in logarithmic scale obtained by GPC measurement ( $M_n$  = 9100 g/mol,  $M_w/M_n$  = 1.13)



**Figure S5.** The molecular weight distribution of the MA–PIB–MA13.3 methacrylate–telechelic polyisobutylene in logarithmic scale obtained by GPC measurement ( $M_n = 11,900$  g/mol,  $M_w/M_n = 1.07$ ).



**Figure S6.** The molecular weight distribution of the PMMA in logarithmic scale obtained by GPC measurement ( $M_n$  = 23,300,  $M_w/M_n$  = 4.97).



Figure S7. <sup>1</sup>H NMR spectrum of the MA–PIB–MA2.3 sample.



Figure S8. <sup>1</sup>H NMR spectrum of the MA–PIB–MA4.1 sample.



Figure S9. <sup>1</sup>H NMR spectrum of the MA–PIB–MA6.9 sample.









Figure S11. <sup>1</sup>H NMR spectrum of the MA–PIB–MA13.3 sample.