Supplementary Materials

Thermal Analysis of Crystallization and Phase Transition in Novel Polyethylene Glycol Grafted Butene-1 Copolymers

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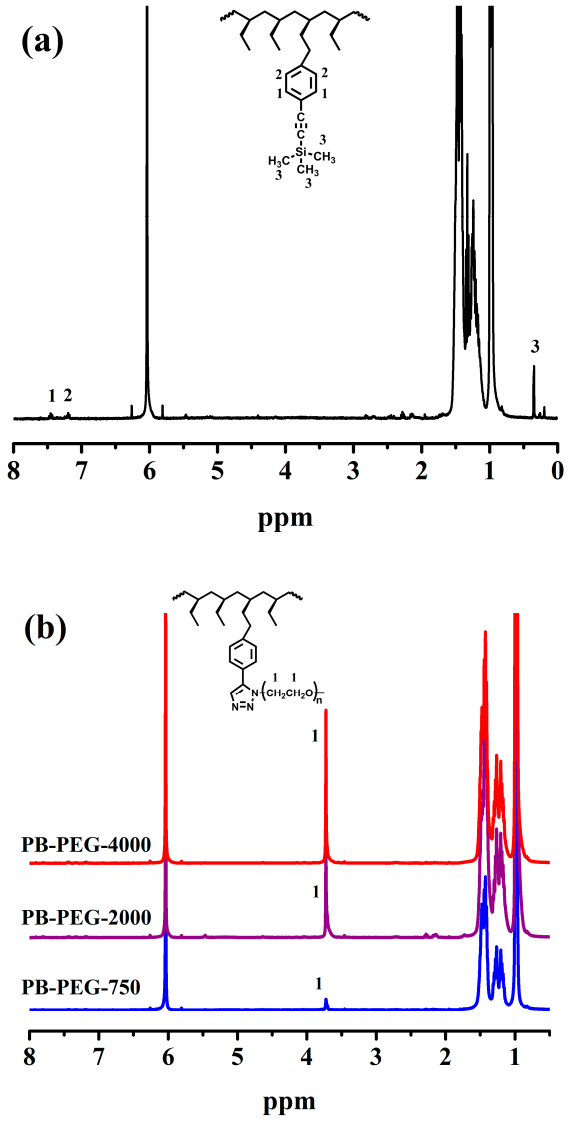


Figure S1. ^{1}H-NMR spectra of copolymer PB-TMS and PEG-grafted copolymers with different PEG molecular weights.

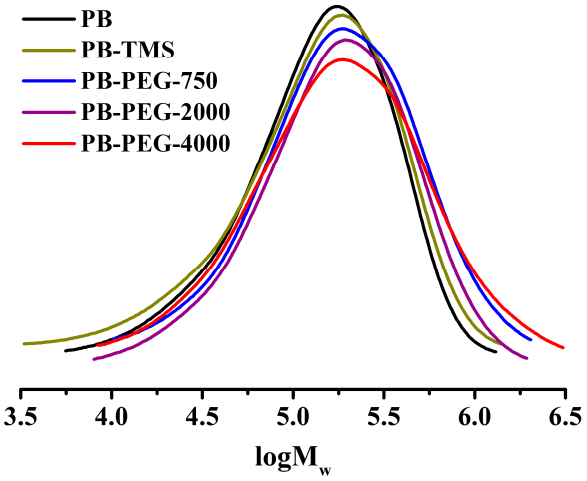
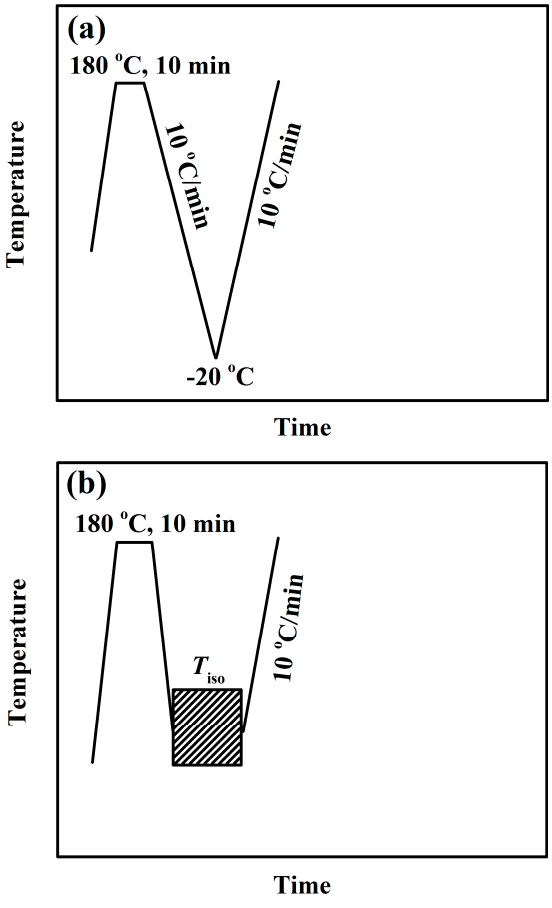


Figure S2. GPC profiles of homopolymer, copolymer PB-TMS and PEG-grafted copolymers.



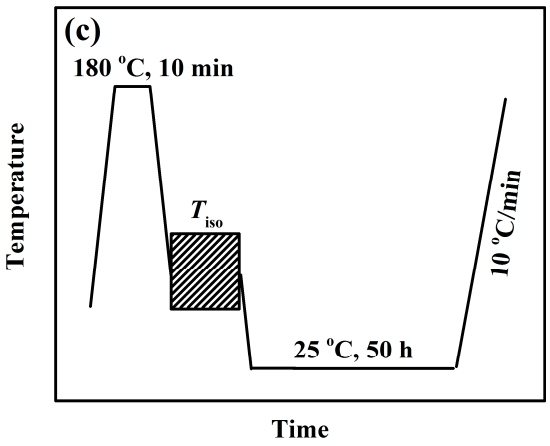
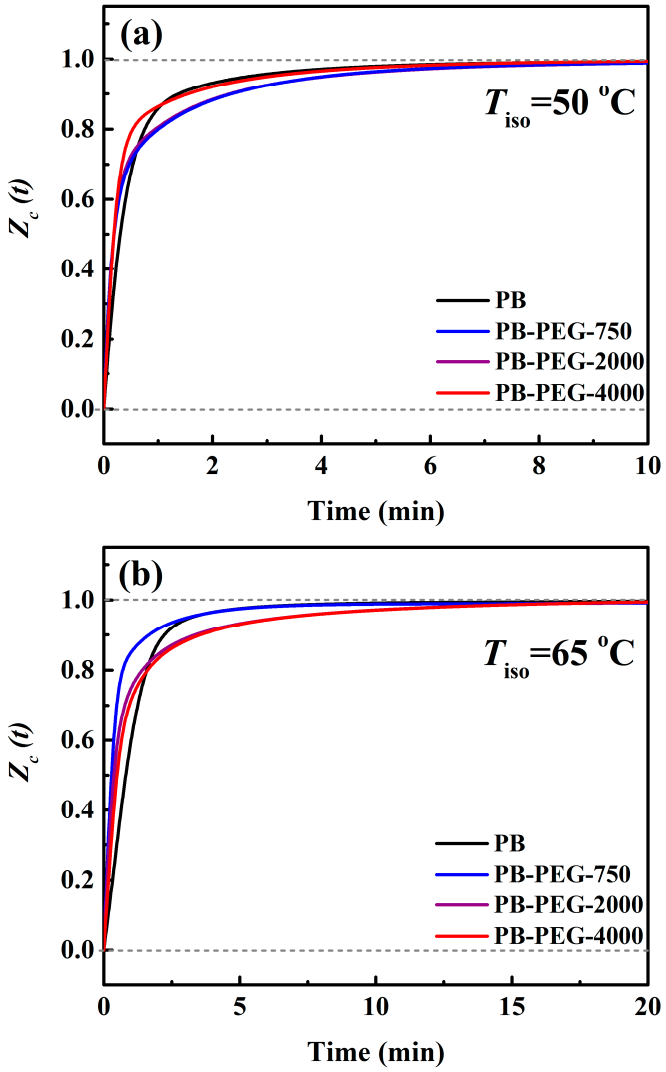


Figure S3. Schematic illustrations of thermal protocols applied for (a) cooling crystallization, (b) isothermal crystallization at different temperatures, and (c) phase transition at 25°C.



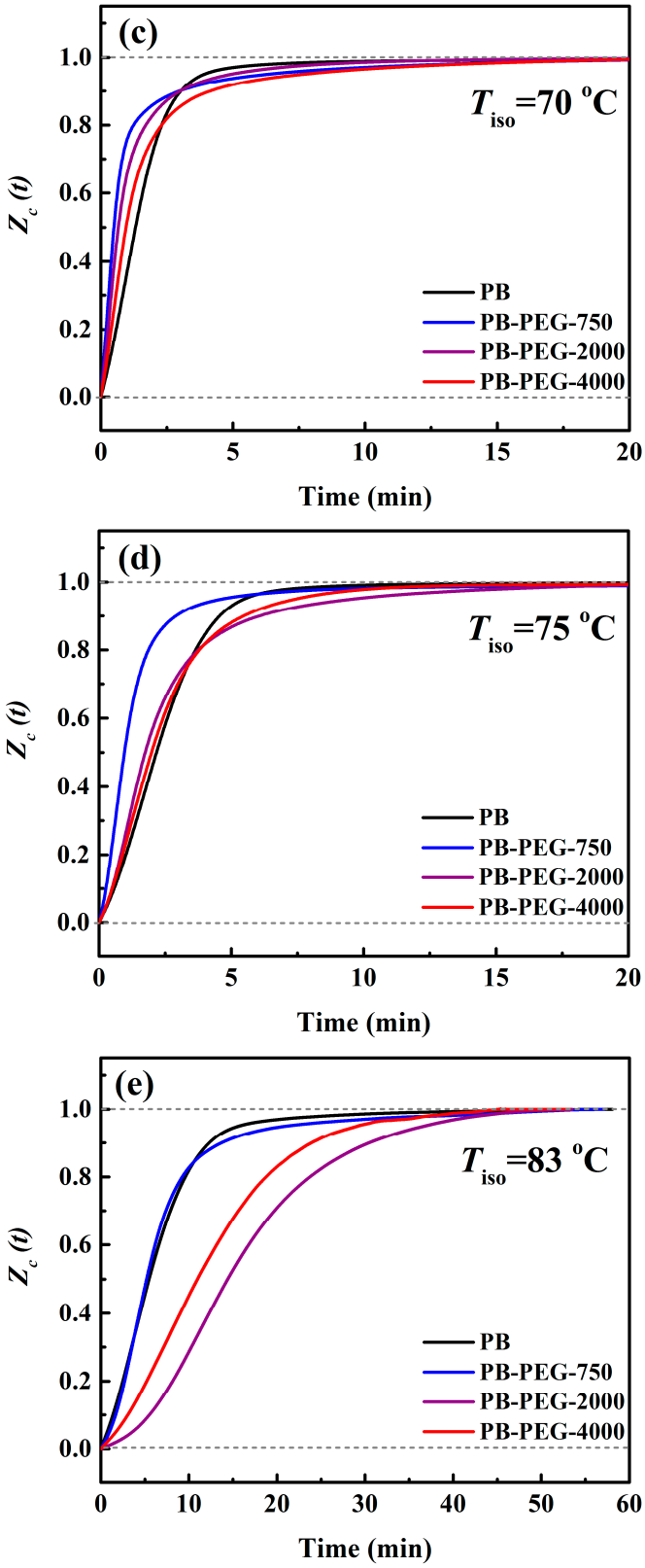


Figure S4. Kinetics of isothermal crystallization at (a) 50, (b) 65, (c) 70, (d) 75, and (e) 83°C.

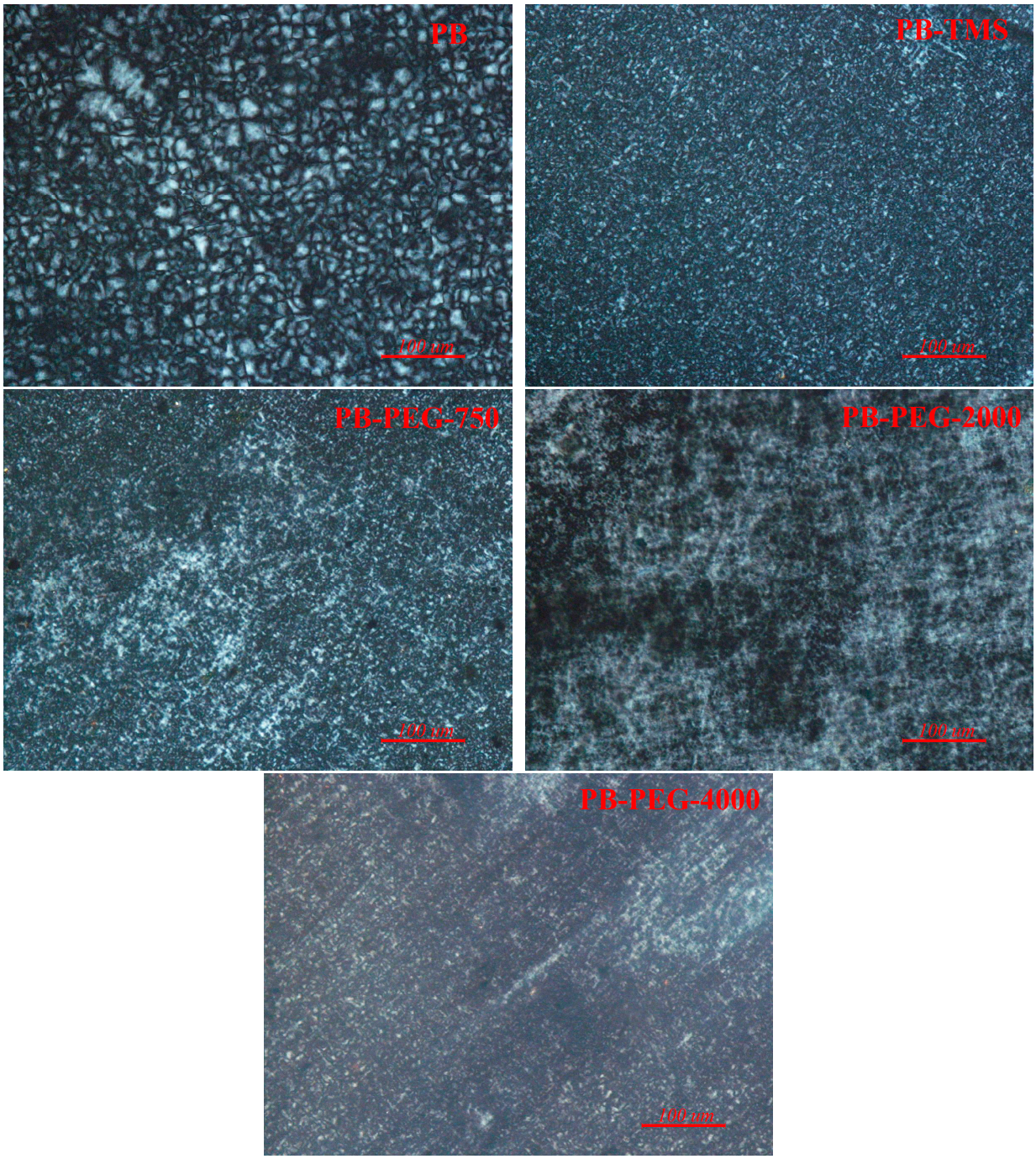


Figure S5. Polarized optical micrographs of homopolymer, copolymer PB-TMS and PEG-grafted copolymers crystallized at 60°C.

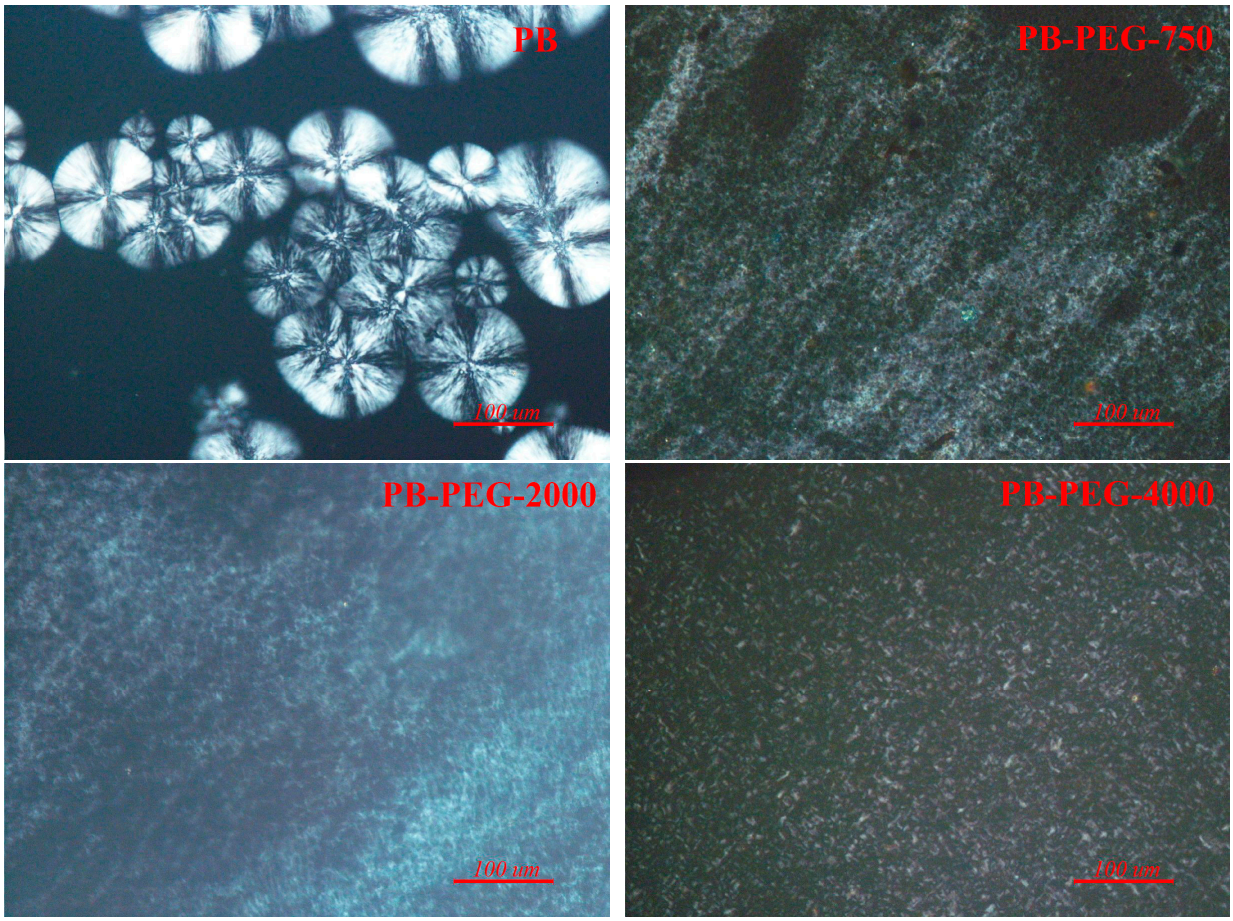


Figure S6. Polarized optical micrographs of homopolymer and PEG-grafted copolymers crystallized at 85°C for their $t_{1/2}$.

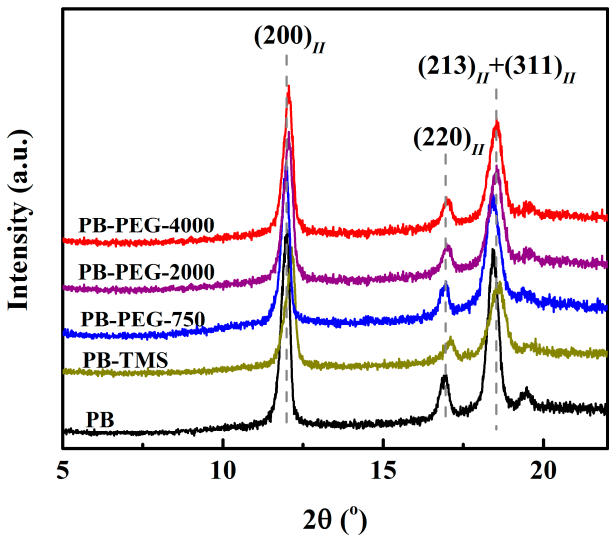


Figure S7. XRD curves of PB, PB-TMS, and PB-PEG copolymers crystallized during cooling at 10°C/min.

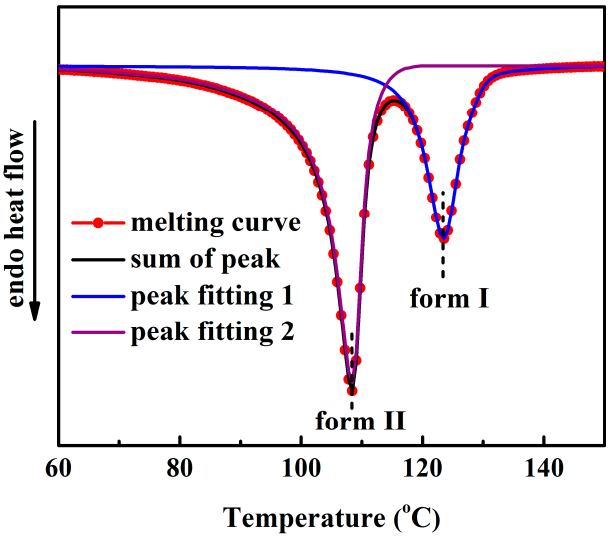


Figure S8. Fitting method to determine the melting entropies of residual form II and transformed form I.

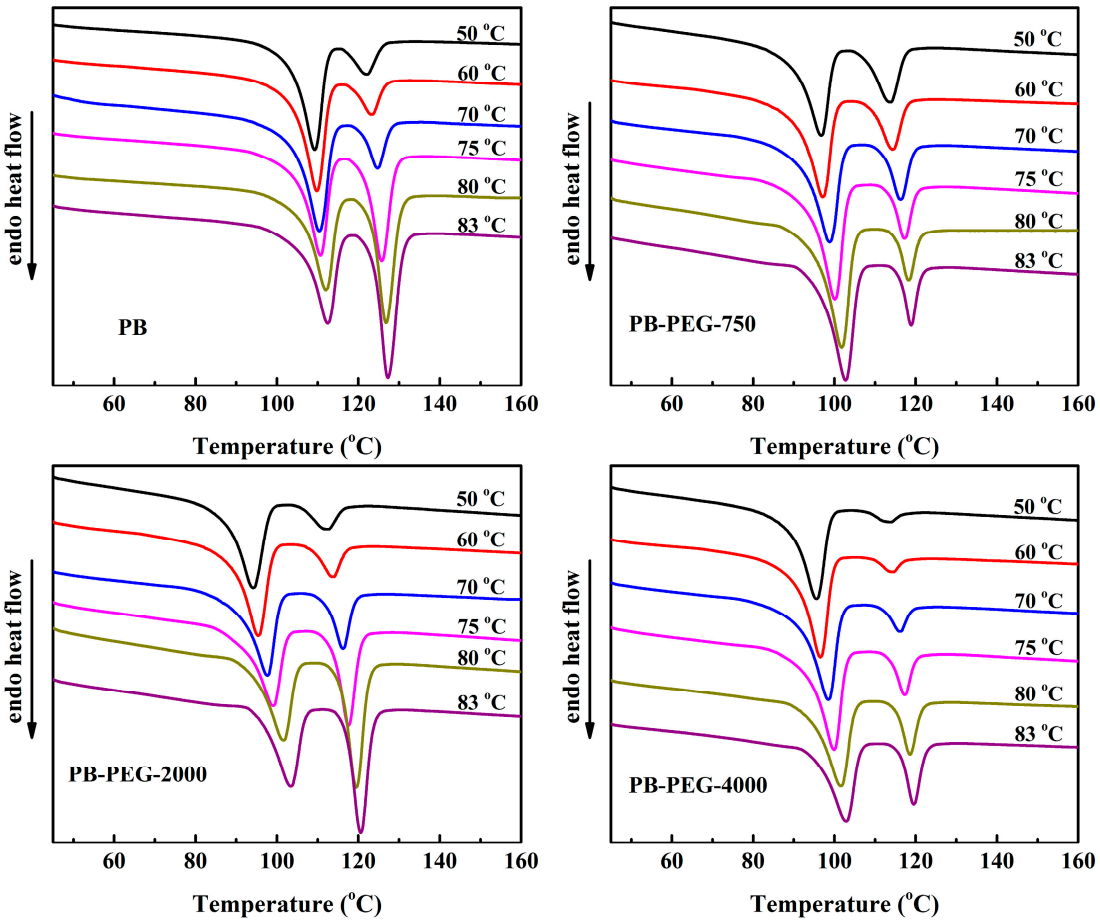


Figure S9. DSC heating curves of homopolymer and PEG-grafted copolymers after annealing at 25°C for 50 h as a function of the isothermal crystallization temperature.