

Supplementary Information

for

Effects of CNT on Thermal Transitions, Thermal Diffusivity and Electrical Conductivity in Nanocomposites: Comparison between an Amorphous and a Semicrystalline Polymer Matrix

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S.1. Additional DSC results for neat polyethylene (PE) under various cooling/crystallization treatments

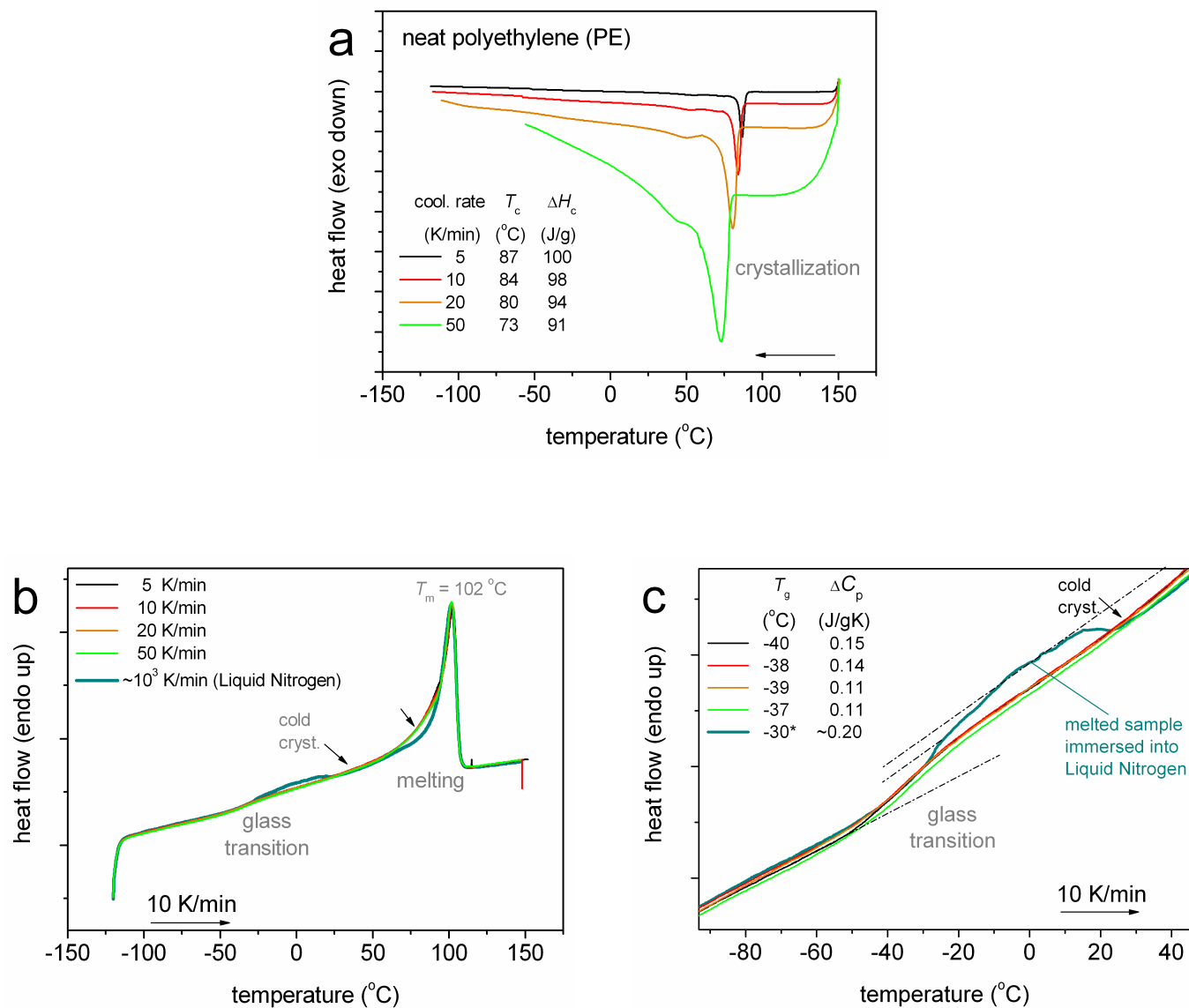


Figure S1. (a) DSC thermograms of neat PE during cooling at different rates 5, 10, 20, and 50 K/min. (b, c) show results during the subsequent heating at 10 K/min in (b) the overall temperature range and (c) the region of glass transition. For comparison, result for PE previously quenched by immersion in liquid nitrogen (cooling rate $\sim 10^3$ K/min) were included in (b,c). Main values of interest are listed in (a) and (c).

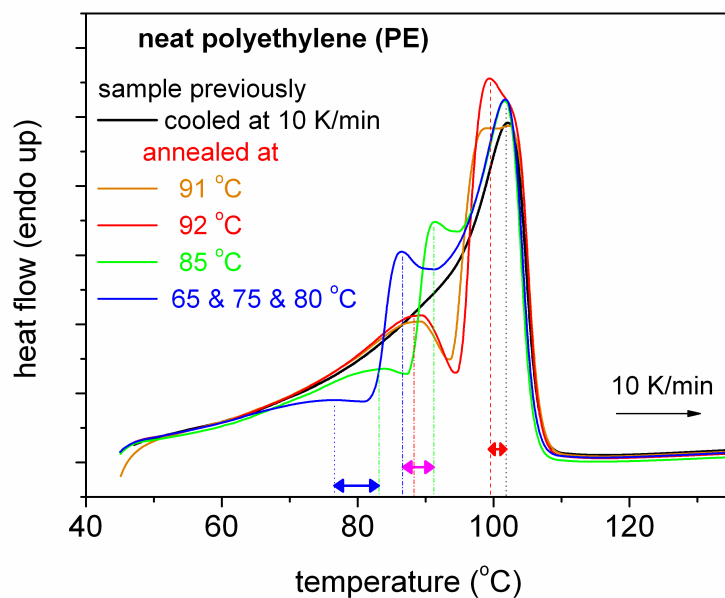


Figure S2. DSC results for neat PE during heating at 10 K/min in the region of crystals melting, for samples previously crystallized at the conditions described on the plot. Simple melting peak is observed for sample previously cooled continuously at 10 K/min, while quite complex melting is observed upon isothermal annealing.

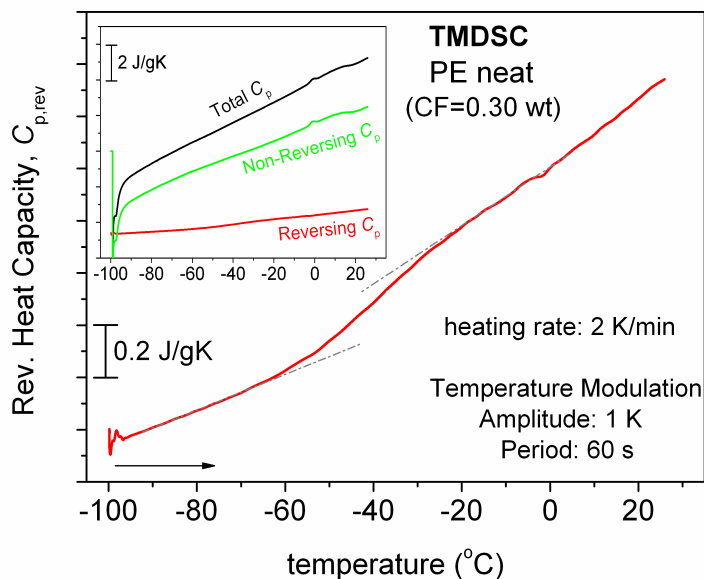


Figure S3. Temperature Modulation DSC (TMDSC) results for neat PE, for the measurement and crystallization condition conditions described on the plot, at the temperature range of glass transition.