

Supporting Information

Structural Evolution Analysis and Cold-Crystallization Kinetics to Spherical Crystal in Poly (trimethylene terephthalate) Film using Raman Spectroscopy

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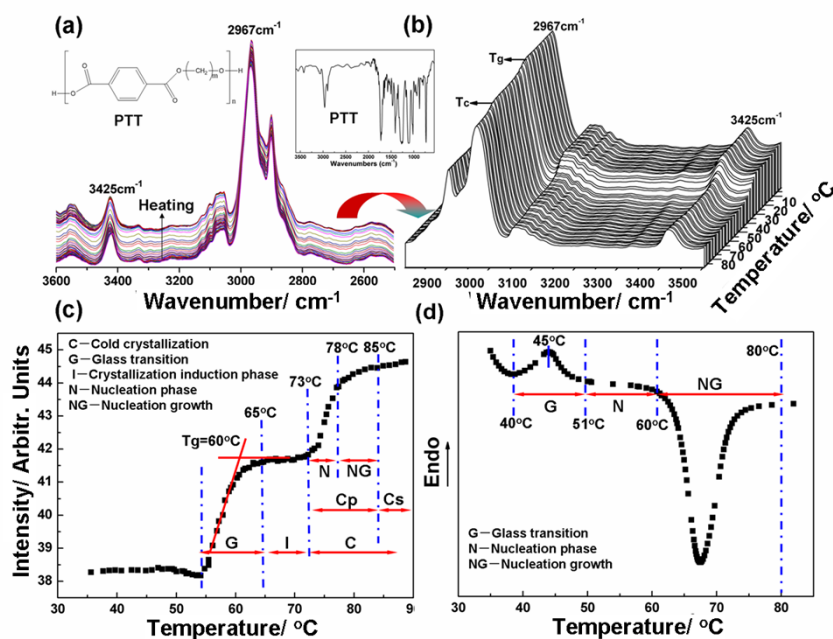


Figure S1 (a) and (b) Typical FTIR spectra of an amorphous PTT film at certain temperatures. (c) FTIR absorbance of an amorphous PTT film at 2967 cm^{-1} with a function of temperature (the heating rate was $5\text{ }^{\circ}\text{C}/\text{min}$ in air). Cp and Cs represented primary crystallization and secondary crystallization, respectively. (d) DSC heating versus temperature of an amorphous PTT film collected at a heating rate of $5\text{ }^{\circ}\text{C}/\text{min}$ in nitrogen).

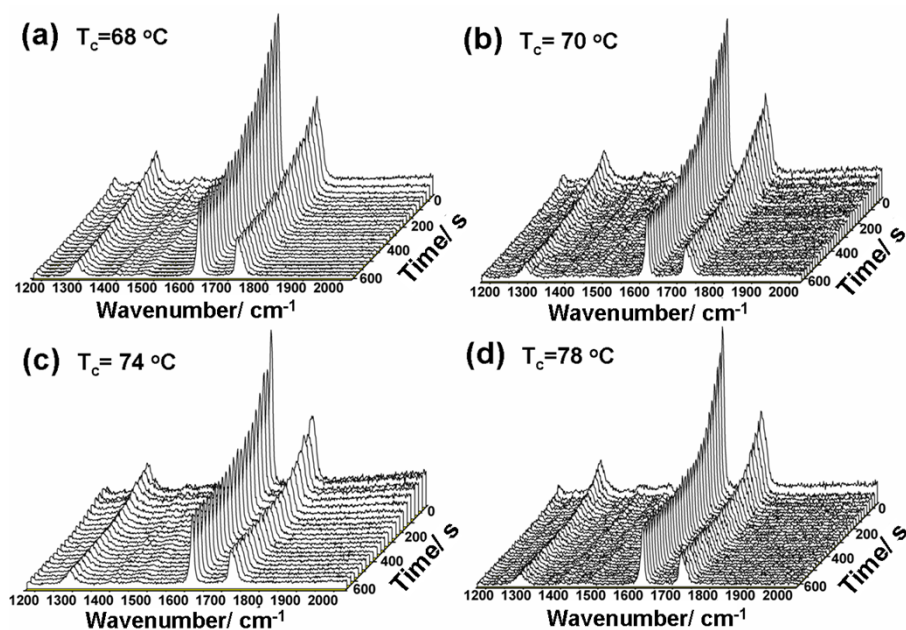


Figure S2 The Raman spectra of an amorphous PTT film at certain isothermal crystallization temperature (T_c) (a) $T_c=68\text{ }^{\circ}\text{C}$, (b) $T_c=70\text{ }^{\circ}\text{C}$, (c) $T_c=74\text{ }^{\circ}\text{C}$ and (d) $T_c=78\text{ }^{\circ}\text{C}$.

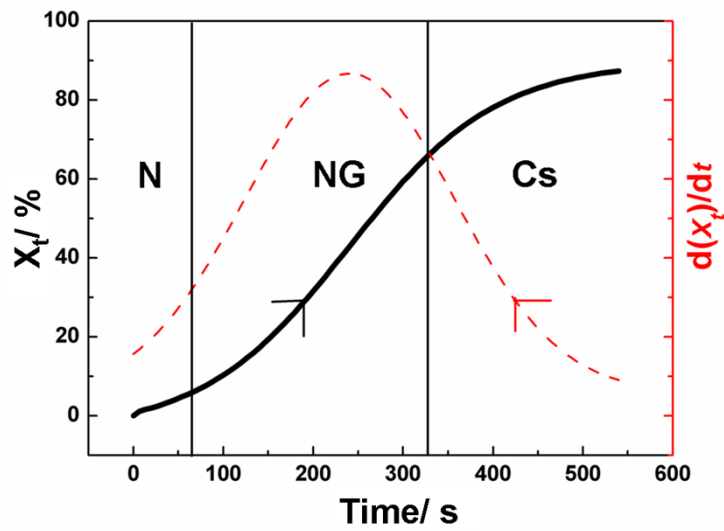


Figure S3 Dependence of relative crystallinity on crystallization time (solid line) and its differential curve (dash line). Crystallization temperature was 68 °C. The dynamic process contained four phases: (N) nucleation phase, (NG) nucleus growth phase and (Cs) secondary crystallization phase.