Supporting information for

Enantiomeric Poly(D-lactide) with a Higher Melting Point Served as Significant Nucleating Agent for Poly(L-lactide)

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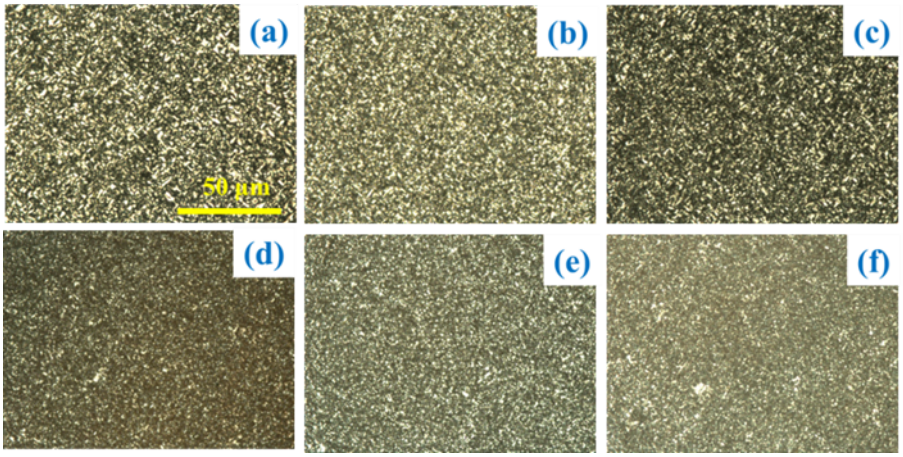

Fig. S1 Final morphologies of (a) *h*PDLA-0.1 (b) *h*PDLA-0.3 (c) *h*PDLA-0.5 (d) *h*PDLA-1.0 (e) *h*PDLA-3.0 (f) *h*PDLA-5.0 at T_c of 130 ˚C. The scale bar in panel (a) applies to all the micrographs.

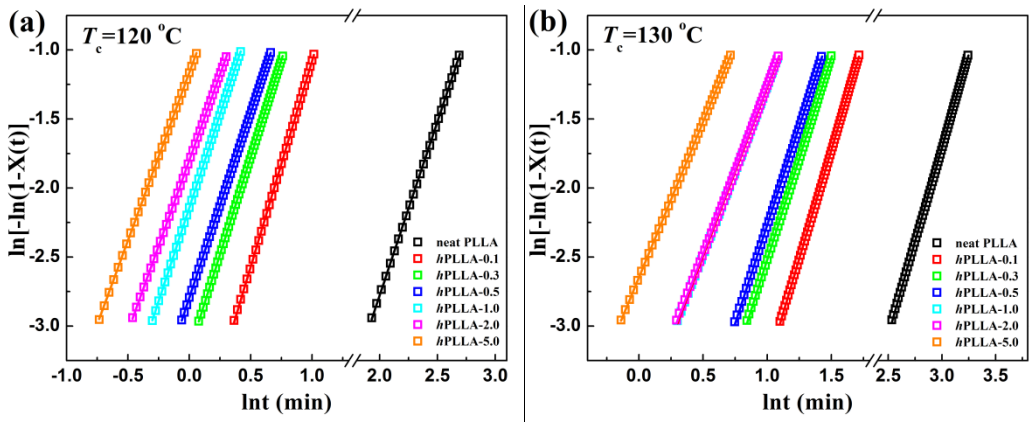

Fig. S2. Avrami plots of ln[−ln(1 − X_t)] versus ln t for neat PLLA and the blends at T_c of (a) 120 °C and (b) 130 °C.

Based on the DSC data in Fig. 6, the isothermal crystallization kinetics of PLLA in the blends crystallized at 120 and 130 °C were analyzed by the Avrami equation as follows:[1, 2]

$$1 - X_t = exp[-k(T)t^n] \quad (1)$$

where n is the Avrami index and $K(T)$ is the overall rate constant. The linear form of eq 1 can be stated as:

$$ln[-ln(1-X_t)] = lnk(T) + nlnt \quad (2)$$

k(T) and *n* can be estimated from the linear fitting of ln [−ln(1 −X_t)] vs ln *t*. To ensure the accuracy of the Avrami analysis, the data in a limited conversion range (3 − 30%) was employed for fitting. The obtained data were shown in Fig.S2.

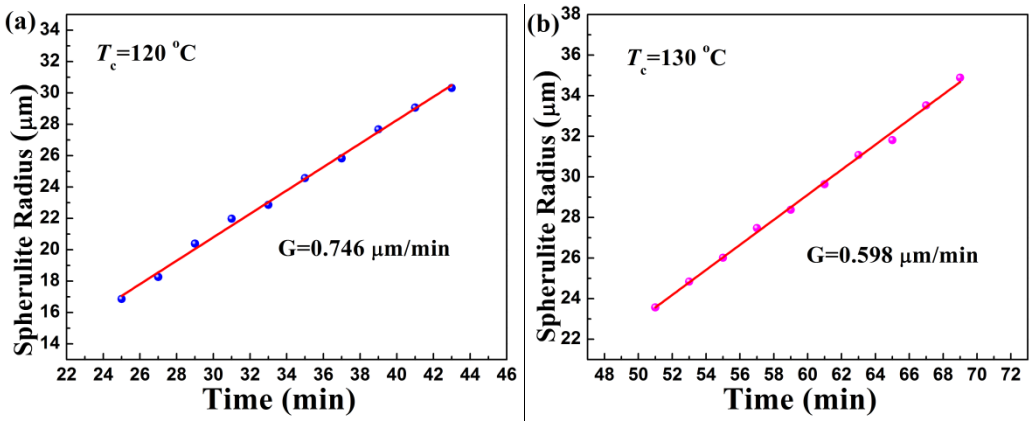

Fig. S3. The spherulite radius as a function of time for neat PLLA at T_c of (a) 120 °C and (b) 130 °C, the sample was first melting at 180 °C for 3 min and then cooled to T_c at 40 °C/min.

References

1. M. Avrami, *The Journal of Chemical Physics*, 1939, **7**, 1103-1112.
2. M. Avrami, *The Journal of Chemical Physics*, 1940, **8**, 212-224.