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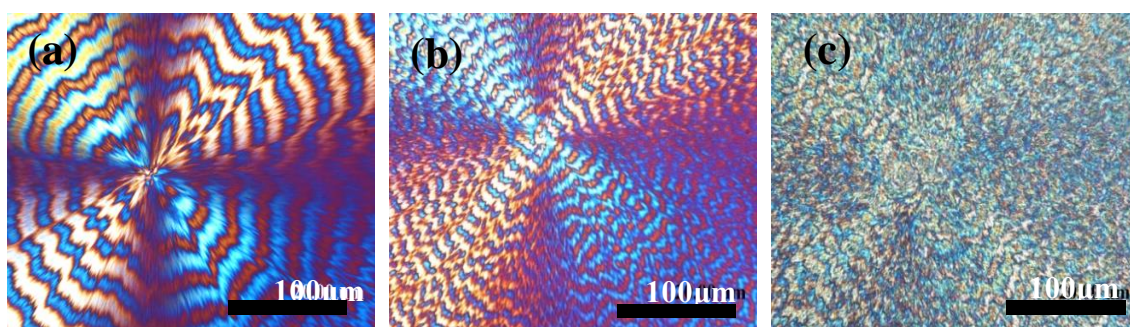
## Supporting Information

### Crystal-by-Crystal Assembly in Two Types of Periodically Banded Aggregates of Poly(p-dioxanone)

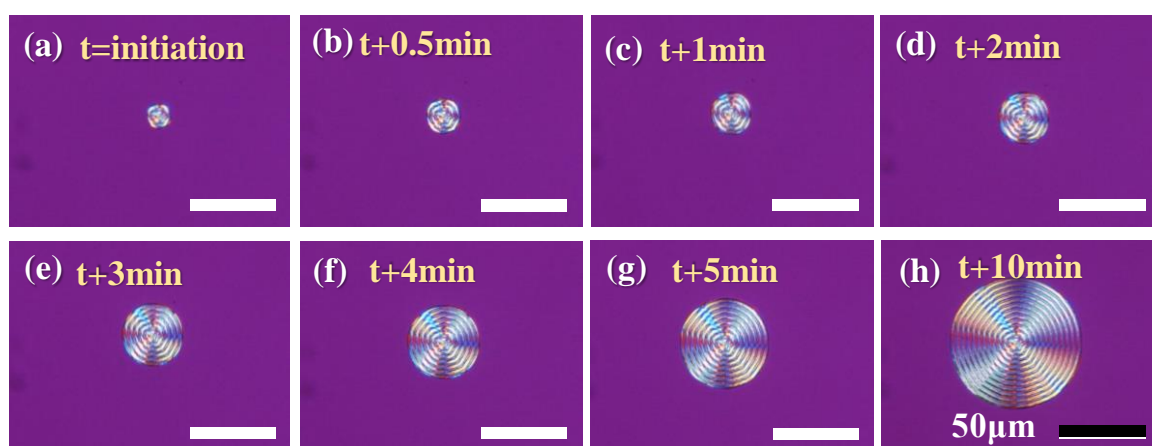
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**Figure S1.** POM graphs of PPDO crystallized at higher  $T_c$ : (a) 80 oC, (b) 85, (c) 90 oC, showing increasingly corrupted bands with lesser regularity. Two types of bands disappear at high  $T_c$ .

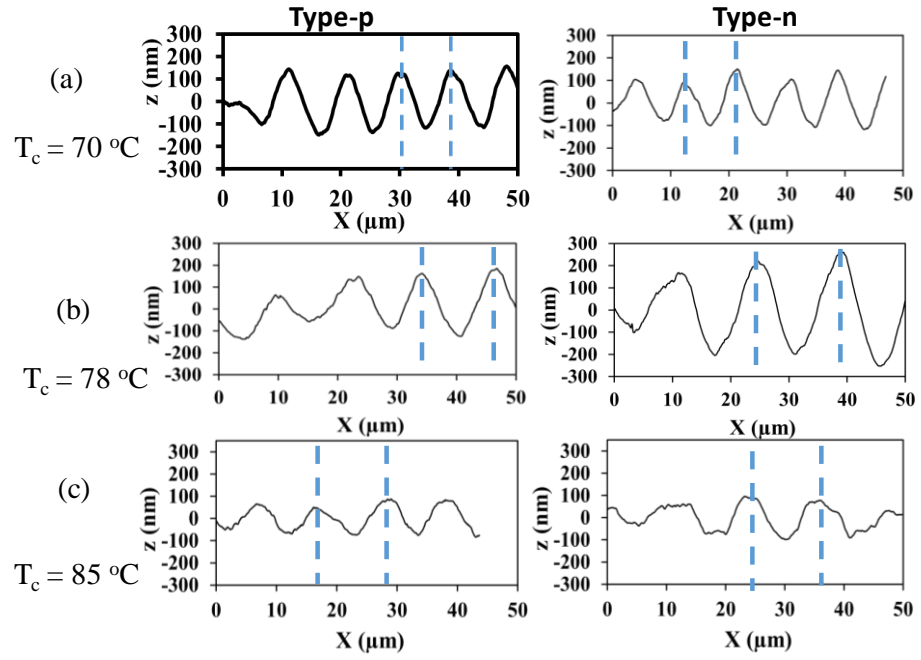


**Figure S2.** (a)-(h) In-situ POM graphs of PPDO captured at  $T_c = 76^{\circ}\text{C}$  at different times (0.5 – 10 min) of crystallization by quenching from  $T_{\text{max}} = 150^{\circ}\text{C}$ . (max. melt temp. from which specimens were rapidly quenched to isothermal  $T_c$ ).

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| $T_c$ | Type-p no. % | Type-n no. % |
|-------|--------------|--------------|
| 70    | 75           | 25           |
| 72    | 72.7         | 27.3         |
| 74    | 65.4         | 34.6         |
| 76    | 96           | 4            |
| 78    | 75           | 25           |

**Table S1.** Variation of number fractions of Type-p and Type-n spherulites of PPDO at increasing  $T_c$  = 70 °C, 72 °C, 74 °C, 76 °C, and 78 °C. (Type-n no. % = 100% - (Type-p no. %)).



**Figure S3.** AFM height profiles of Type-p and Type-n of PPDO crystallized at various  $T_c$ : (a) 70 °C, (b) 78 °C, (c) 85 °C.