

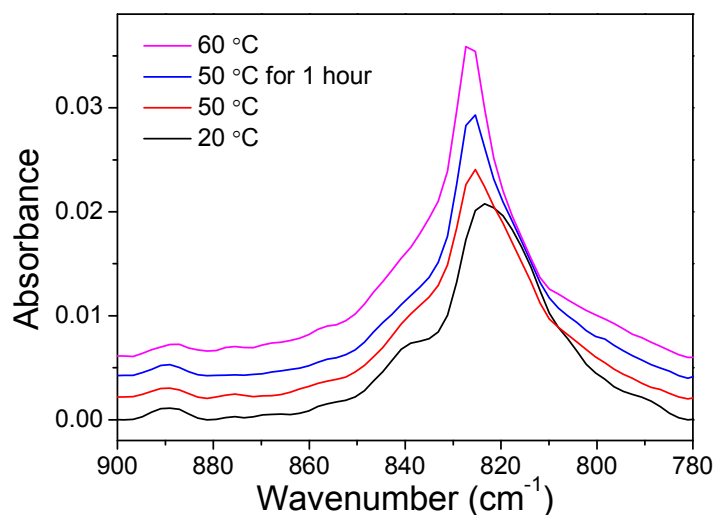
## Supplementary Information

### Influence of Molecular Weight on Polymorphs and Temperature-Induced Structure Evolution of Regioregular Poly(3-dodecylthiophene)

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**Figure S1.** FTIR spectra in the C<sub>β</sub>-H out-of-plane bending region of DDT-5K films upon rapid heating (130 °C/min) to 60 °C and 50 °C, respectively, and of the latter annealed at 50 °C for 1 hour. These films were recrystallized from melt to 20 °C at a rate of 10 °C/min, which contained both form I and form II as revealed by the FTIR spectrum. Upon heating to higher temperatures, the 826 cm<sup>-1</sup> component (form II) rises at the expense of the 820 cm<sup>-1</sup> component (form I), revealing the transformation of form I to form II.