Supplementary Information

Orientation and crystallization of regioregular poly(3-dodecylthiophene) in alumina nanopores

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Determination of the components in P3DDT bulk film by FTIR. To analyze the components in the sample, using P3DDT bulk film as example, the FTIR spectrum in the region of 870–790 cm⁻¹ were secondly derived. Fig. S1 shows the second derivative spectrum of bulk film. Four bands are identified at 819, 827, 836, and 806 cm⁻¹. Besides the 819 cm⁻¹ band of Form I modification, the appearance of a small 827 cm⁻¹ band indicates the bulk film contains the Form II crystals.
**Fig. S1**  Infrared spectrum and second derivative of P3DDT bulk film in the region of 870-790 cm⁻¹.

**1-D diffraction profiles of P3DDT nanowires.** Fig. S2 shows the 1-D diffraction profiles extracted from the azimuthal integration of the 2-D diffraction patterns (Fig. 3B). A series of reflections at the scattering vector (q) values of 2.3, 4.6, 6.9, and 16.4 nm⁻¹ are indexed as (100), (200), (300), and (020), respectively.²
Fig. S2 1-D intensity profiles of P3DDT in nanowires with diameter of (a) 35 nm, (b) 65 nm, and (c) 300 nm calculated by the azimuthal integration of the 2-D diffraction patterns.

References