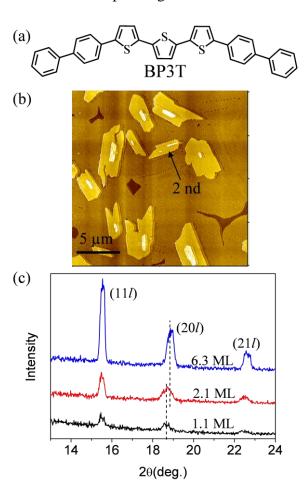
Supporting Information for:

## Highly Ordered Thin Films of 5,5"-Bis(3'-fluoro-biphenyl-4-yl)-2,2':5',2"-terthiophene with Two Meso-phases

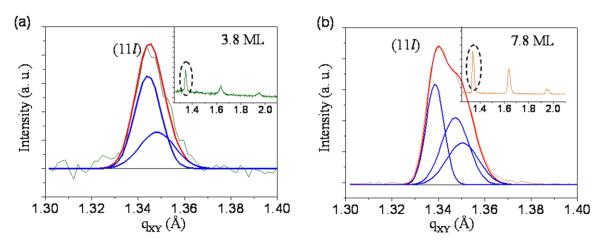
Xiaolan Qiao<sup>a</sup>, Hao Chang<sup>a</sup>, Lizhen Huang<sup>a</sup>, Jidong Zhang<sup>a</sup>, Hongkun Tian<sup>a</sup>, Yanhou Geng<sup>a</sup> and Donghang Yan\*<sup>a</sup>

**S1**. Detail information for the corresponding nonfluorinated molecule BP3T.



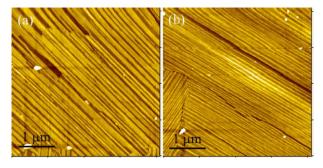
S1. (a) Molecular structure of BP3T. (b) The AFM image of 1.2 ML BP3T. (c) In-plane GIXD patterns of BP3T films with thickness varied from 1.1 to 6.3 ML. It is regular shape for the initial islands of the second layer, concomitant with the island growth mode and the transition of the thin film phase to the bulk phase

**S2**. (11l) peaks fitting of the m-F2BP3T films.



S2. (11*l*) peaks fitting for 3.8 ML (a) and 7.8 ML (b) *m*-F2BP3T films in the in-plane GIXD patterns, respectively. Gauss distribution was used for the peak fitting.

S3. AFM images of ZnPc grown on m-F2BP3T 4 ML and 5 ML.



S3. The AFM images of 4 nm ZnPc grown on *m*-F2BP3T 4 ML (a) and 5 ML (b).