

[Electronic Supplementary Information]

Organic phototransistors with nanoscale phase-separated polymer/polymer bulk heterojunction layers

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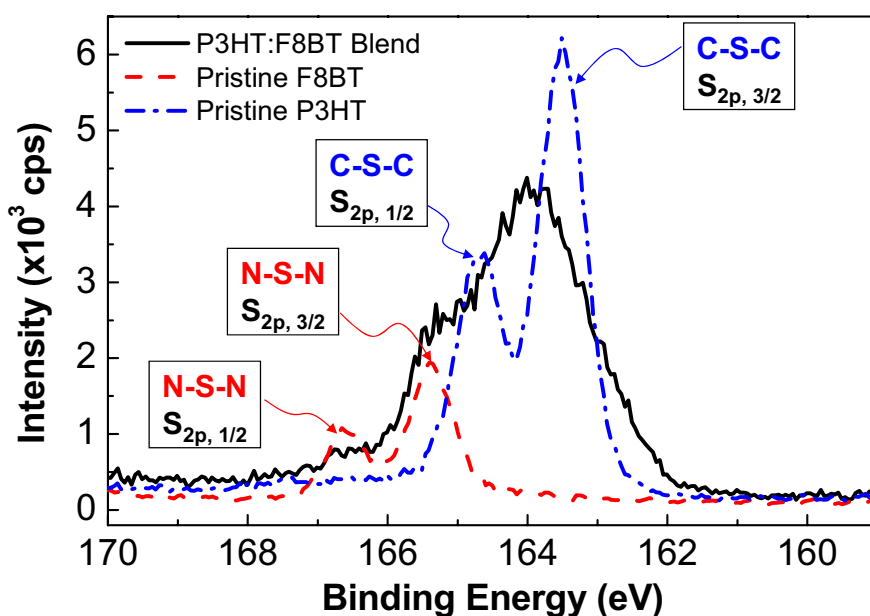


Figure S1. XPS spectra of P3HT:F8BT, pristine P3HT, and pristine F8BT films. The sulfur atoms were targeted for examination because both components have differently covalent-bonded sulfur atoms in the main chain.

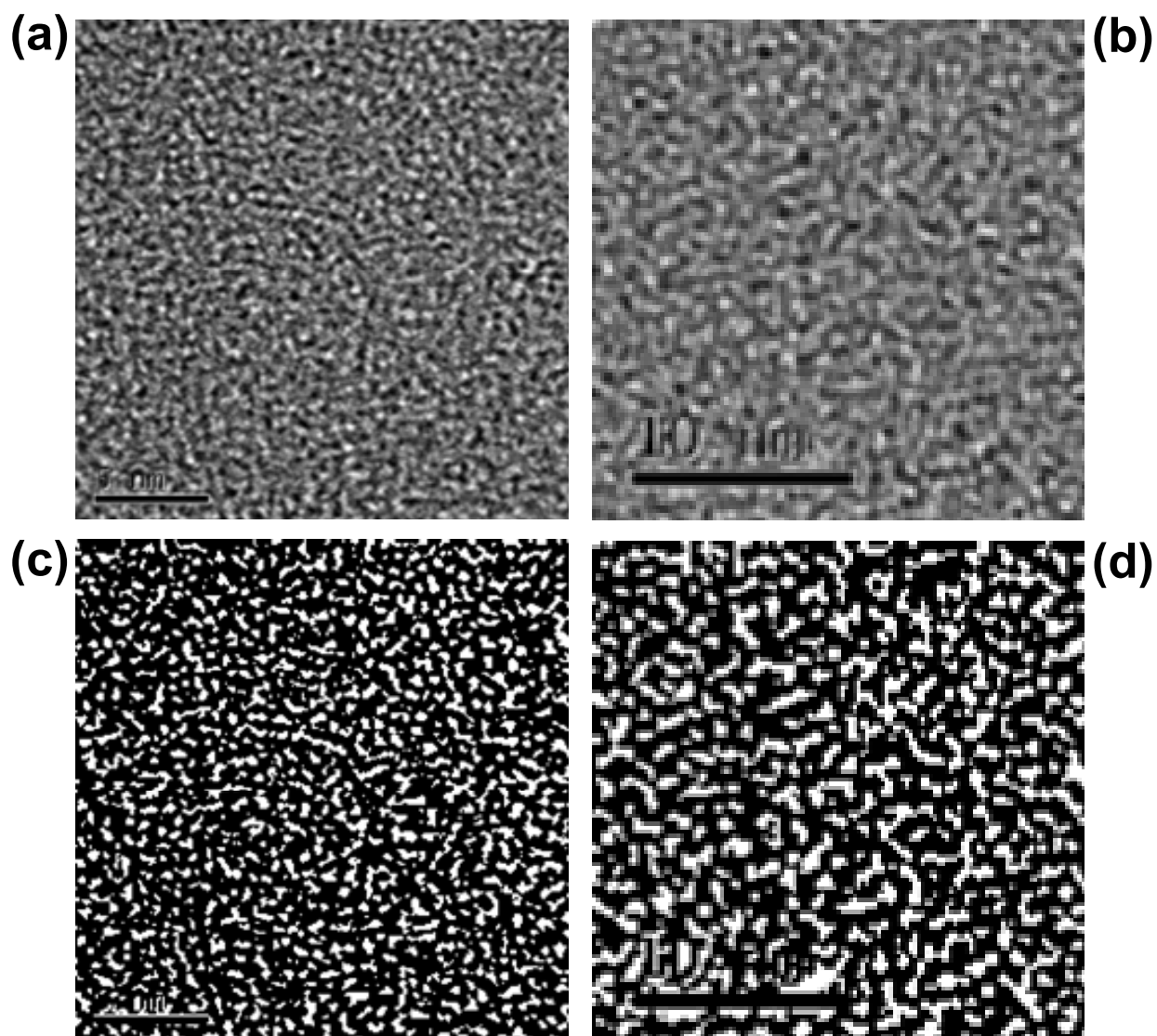


Figure S2. HRTEM image of (a,c) P3HT:F8BT and (b,d) pristine P3HT films: (a,b) Real images and (c,d) contrast-manipulated images (same as in Fig. 2c,d) for better comparison.

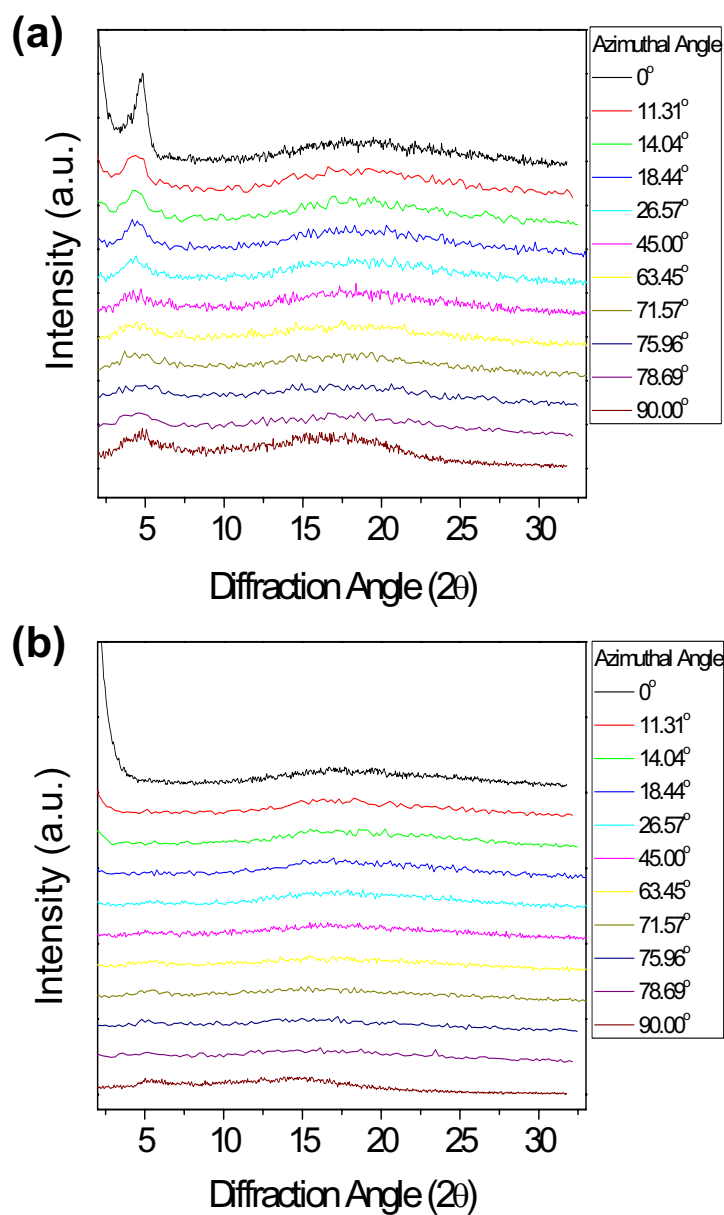


Figure S3. 1D GIXD profiles as a function of azimuthal angle: (a) P3HT:F8BT nanolayer coated on the PI/ITO-glass substrate and (b) PI layer coated on the ITO-glass substrate. The peaks at around 5 degree correspond to the (100) peaks of P3HT chain packing in (a), while almost no OOP peak is observed in the PI layer in (b) though some IP peaks are likely to grow as the azimuthal angle increases from OOP to IP directions.