

Supporting Information

All-Conjugated Poly(3-alkylthiophene) Diblock Copolymer-Based Bulk Heterojunction Solar Cells with Controlled Molecular Organization and Nanoscale Morphology

Ming He, Wei Han, Jing Ge, Yuliang Yang, Feng Qiu, and Zhiqun Lin**

Fig. S1

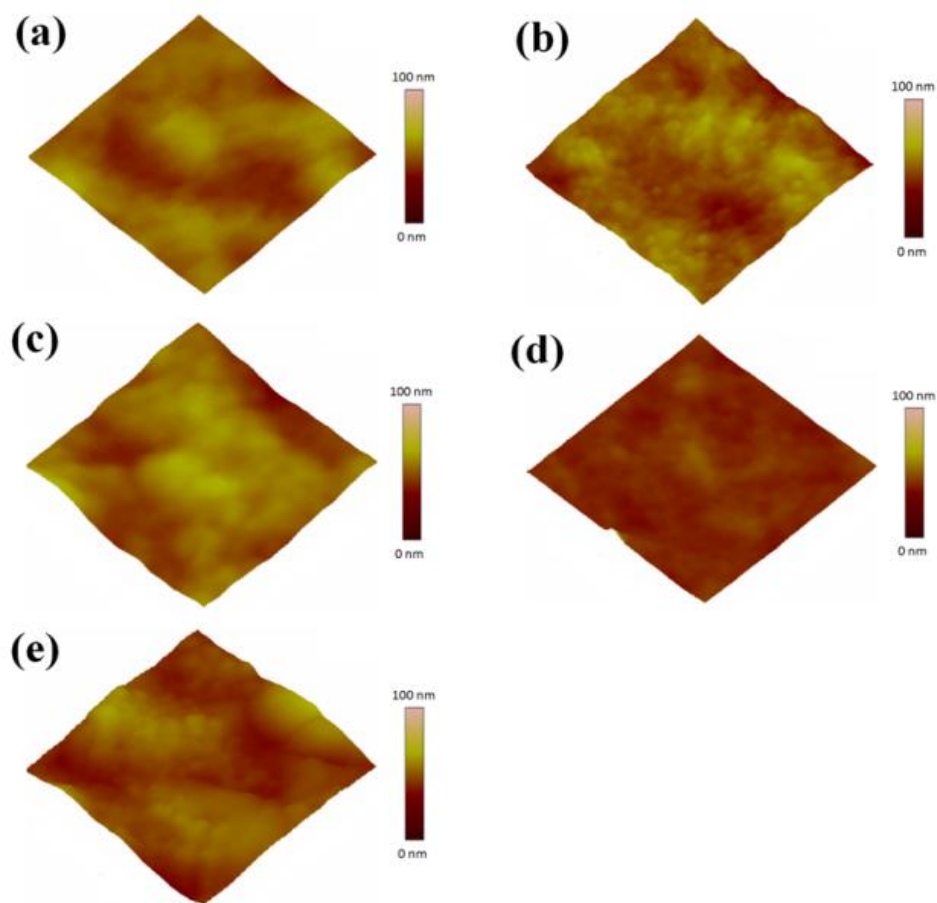


Fig. S1 AFM height images of blend films yielded by following the fabrication procedures of the photovoltaic devices, but without depositing the Ca/Al layers on the top. (a) P3BT/PC₇₁BM with a root mean square (rms) roughness of 2.9 nm; (b) P3BHT21/PC₇₁BM with a rms roughness of 8.8 nm; (c) P3BHT11/PC₇₁BM with a rms roughness of 8.0 nm; (d) P3BHT12/PC₇₁BM with a rms roughness of 2.0 nm; and (e) P3HT/PC₇₁BM with a rms roughness of 8.9 nm. The scanning size = $1 \times 1 \mu\text{m}^2$ for all images.

Table S1.

Table S1. Summary of parameters extracted from the J - V curves of P3BT/PC₇₁BM, P3BHT/PC₇₁BM, and P3HT/PC₇₁BM space-charge limited current (SCLC) devices according to the Mott-Gurney equation.

P3BHT:PC ₇₁ BM	μ (cm ² V ⁻¹ s ⁻¹)	β
P3BT	3.8×10^{-6}	-8.4×10^{-4}
P3BHT21	2.0×10^{-4}	-4.2×10^{-4}
P3BHT11	5.3×10^{-6}	-6.5×10^{-4}
P3BHT12	2.3×10^{-6}	-5.8×10^{-4}
P3HT	4.2×10^{-5}	-4.6×10^{-4}