Supporting Information

for

Hierarchical Network-like Structure of Poly(3-hexlthiophene) (P3HT) by Accelerating the Disentanglement of P3HT in P3HT/PS (polystyrene) Blend

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Figure Captions

Table S1

The physical characteristics of P3HT and PS

Figure S1

Bright-field optical microscopy images of P3HT films (a) pristine PH3T films, (b) polarized OM image of pristine P3HT films, (c) annealed PH3T films, (d) polarized OM image of annealed P3HT film, (e) pristine PS/P3HT blend films, (f) polarized OM image of pristine PS/P3HT blend films. All the samples were drop-cast with the same procedure. The annealed film was annealed at 250 ℃ for 60 min under nitrogen protection, then cooled to the room temperature at the rate of 10 ℃/min.

Figure S2

(a) Fluorescence microscope image of pure PS film (1kDa), the films were drop-cast with in CB with a concentration of 10 mg/mL.

Figure S3

The DSC thermograms of P3HT/PS blend (P3HT:PS=1:20) crystallized at 187°C

Figure S4

GI-XRD patterns of pure PS films and annealed blend film (PS/P3HT=20/1), after immersing the blend film in cyclohexane for 5 min. The annealed film was annealed at 250 ℃ for 60 min under nitrogen protection, then cooled down to the room temperature at the rate of 10 ℃/min.

Figure S5

(a) Bright-field optical microscopy images of annealed blend films (PMMA/P3HT=20/1), (b) corresponding AFM phase image with an area of 1 μm × 1 μm. The samples were fabricated as the same as PS/P3HT blend. The drop-cast film was annealed at 250 ℃ for 60 min under nitrogen protection, then cooled down slowly to the room temperature at the rate of 10 ℃/min.

Table S1

	Density(g/cm3)	Glass transition temperature (℃)	Melting temperature (℃)	State(20℃)
P3HT	1.1	110-120	185-195	solid
PS	0.96-1.04	90-100	230-240	solid

Figure S1

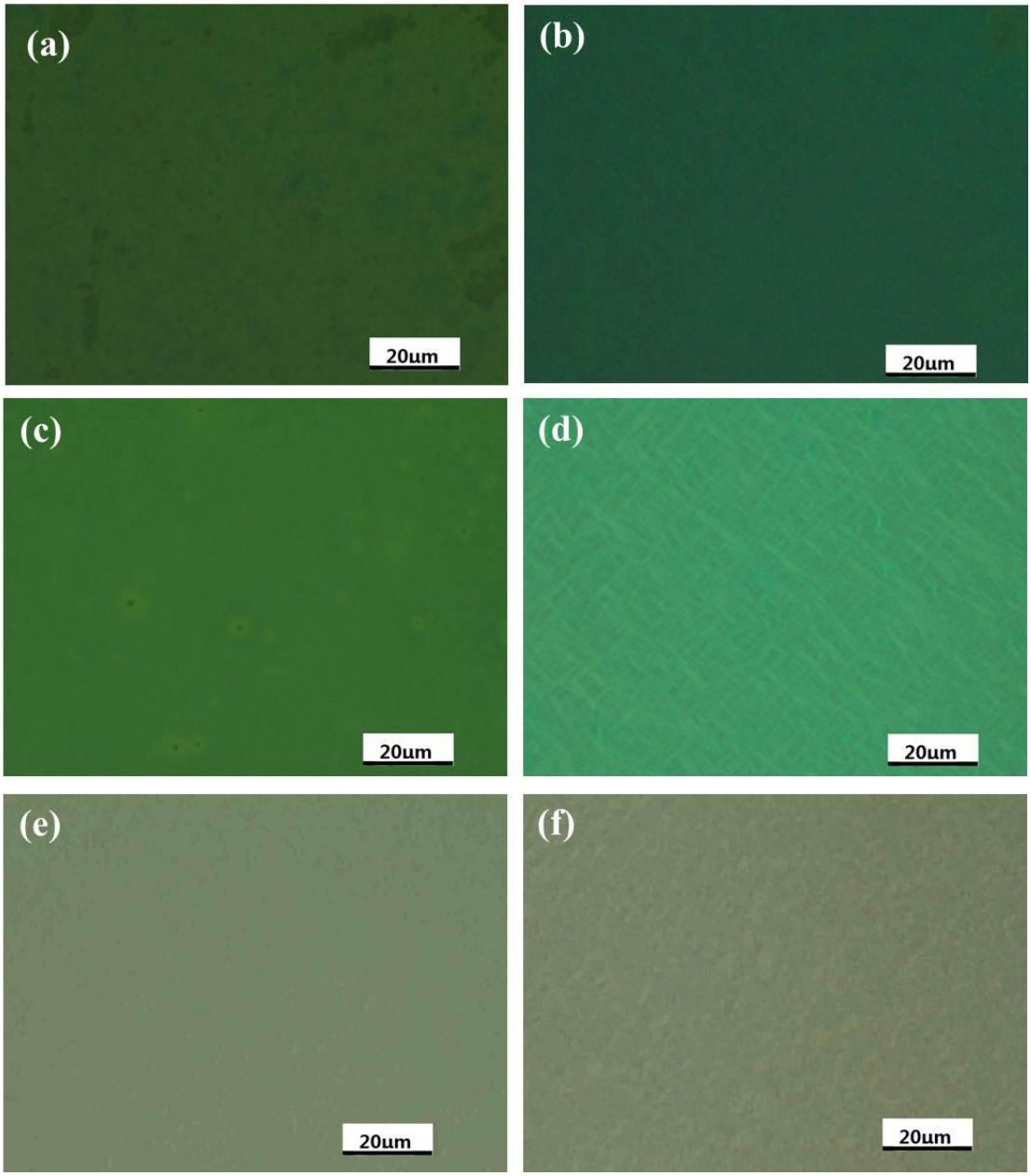

Figure S2

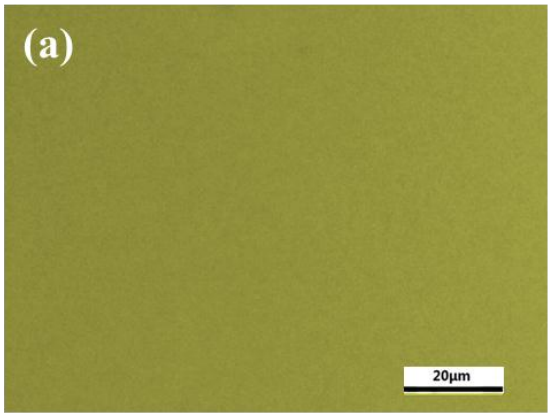

Figure S3

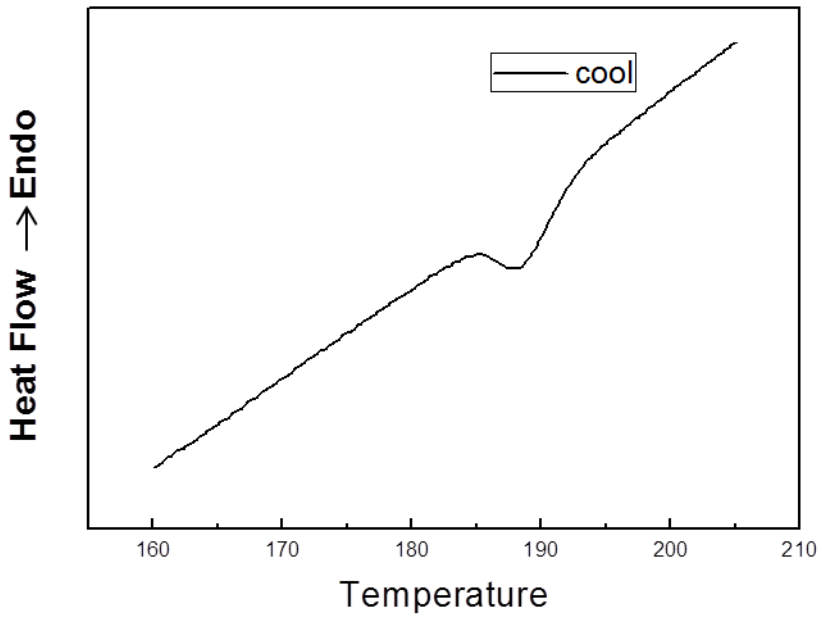

Figure S4

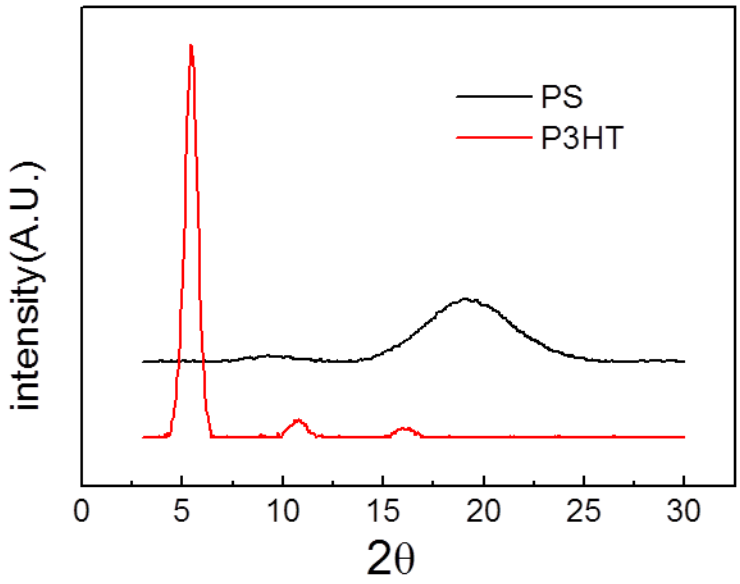

Figure S5