

Supplementary information

Assembly of P3HT/CdSe nanowire networks in an insulating polymer host

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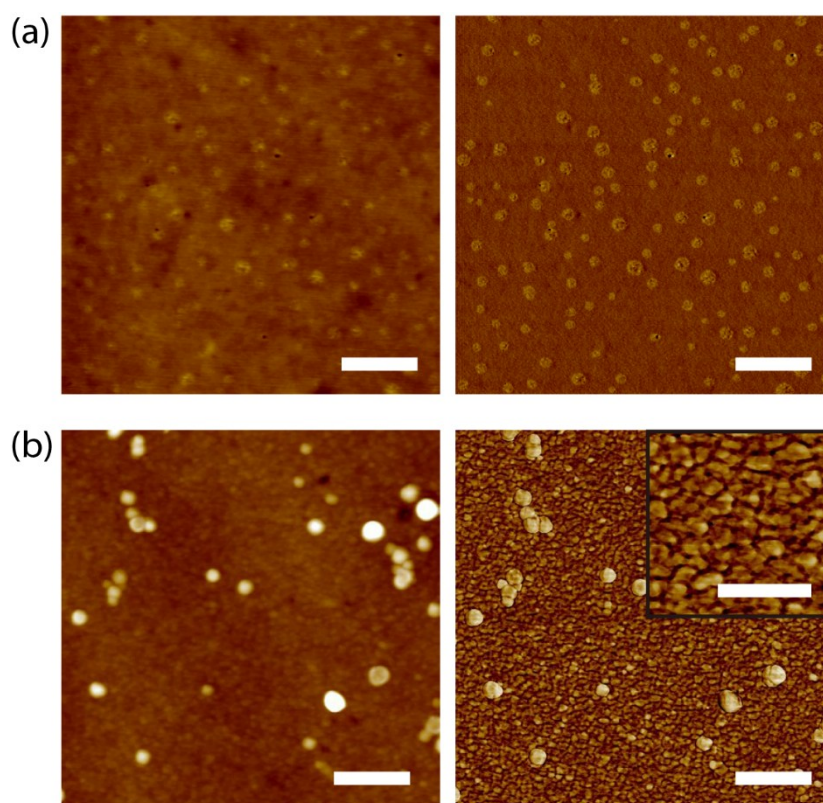


Fig. S1 AFM height (left) and phase (right) images of (a) extracted-P3HT/PS (50/50) blend structures in a 92 nm-thick film, and (b) after selective removal of the top PS layer by immersing in cyclohexane for 10 min, which reduced the film thickness to 35 nm. Scale bars are 1 μm.

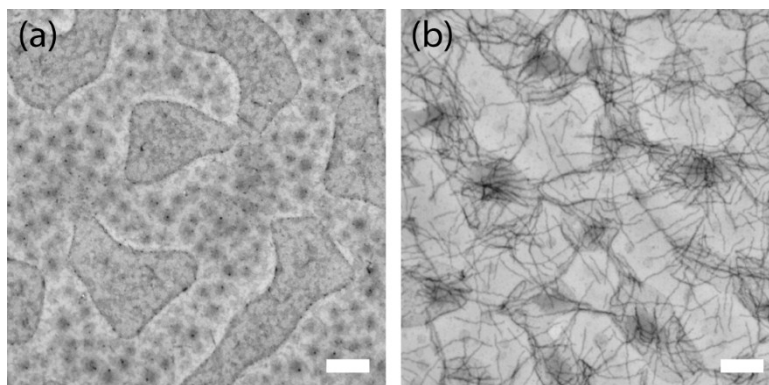


Fig. S2 TEM images of extracted-P3HT/PS (50/50) blends with 10 wt% of CdSe QDs: (a) 0 d aging, (b) 7 d aging. Scale bars are 1 μm .

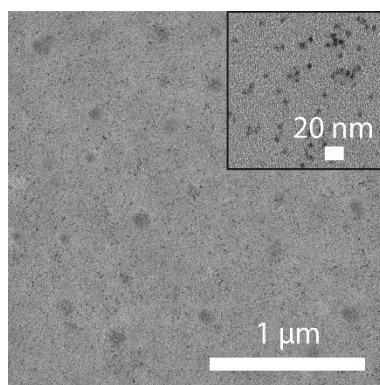


Fig. S3 TEM image of extracted-P3HT/PS (50/50) blend with 15 wt% of CdSe-PS QDs.

Table S1. Ratio of the out-of-plane intensity I_{op} (q_z axis) to the in-plane intensity I_{ip} (q_{xy} axis) for the π - π stacking peaks from GIWAXS.

QD loading (wt %)	Aging (d)	$I_{\text{op}}/I_{\text{ip}}$
0	0	1.44
	7	0.61
5	0	1.17
	7	0.98
15	0	1.08
	7	0.82

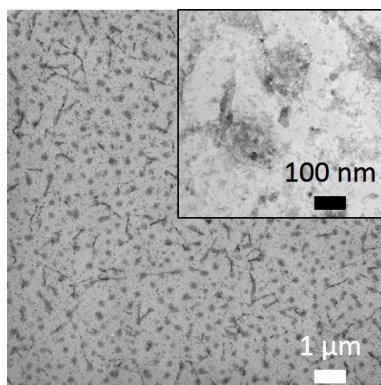


Fig. S4 TEM image of unextracted-P3HT with 15wt% of CdSe QDs following 7 d of aging.

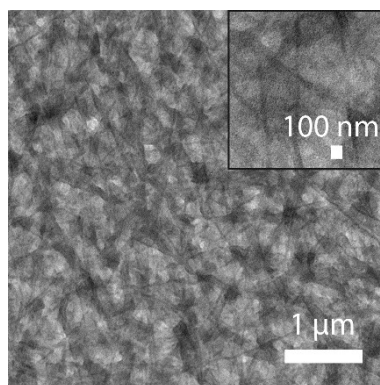


Fig. S5 TEM image of preformed P3HT nanowires by addition of 1,4-dioxane to a solution of extracted P3HT in chloroform (1:5 by volume).