

Supporting Information

Robust Polythiophene Nanowires Cross-linked with Functional Fullerenes

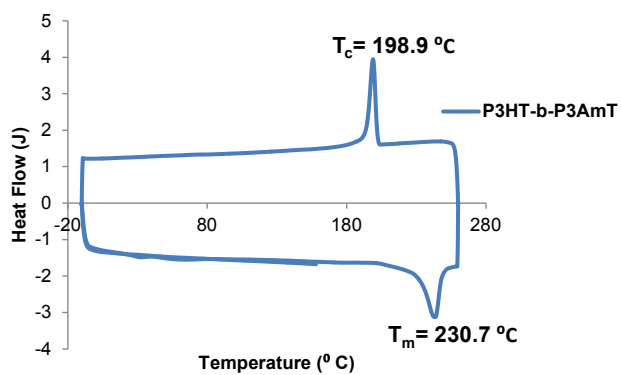
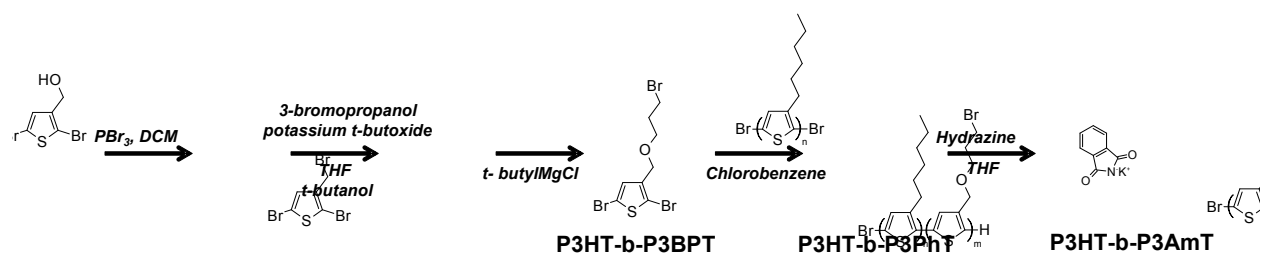
Brenton A. G. Hammer^a, Marcos A. Reyes-Martinez^a, Felicia A. Bokel^a, Feng Liu^a, Thomas P. Russell^a, Alejandro L. Briseno^a, Ryan C. Hayward^a, and Todd Emrick^{a*}

^aDept. of Polymer Science and Engineering, University of Massachusetts, Amherst MA 01003
E-mail: tsemrick@mail.pse.umass.edu

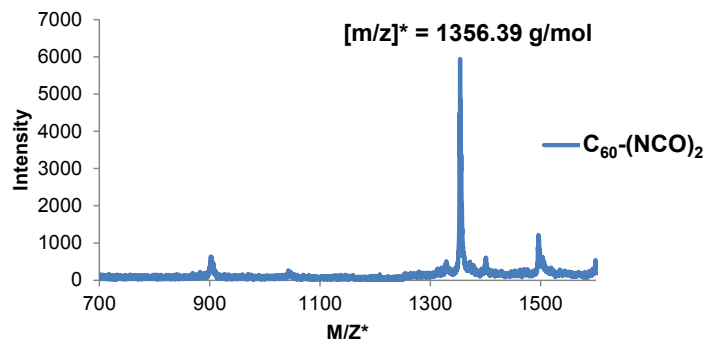
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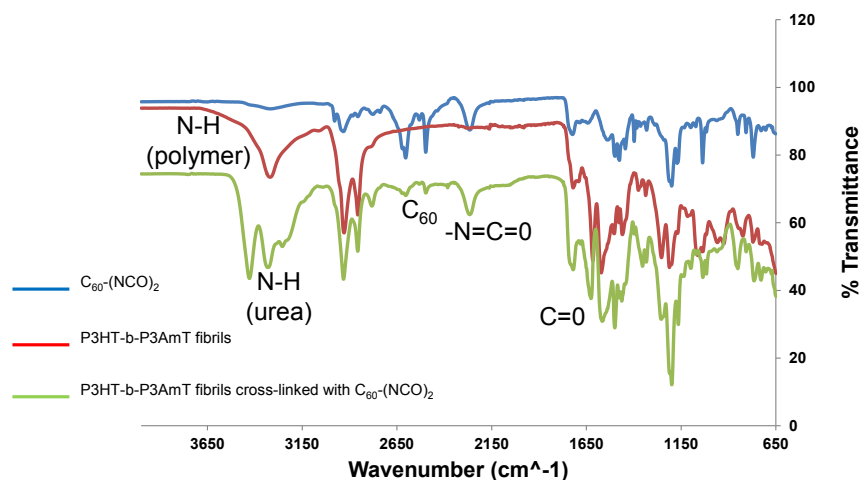
SI-Scheme 1: Synthesis of P3HT-b-P3AmT diblock copolymers.



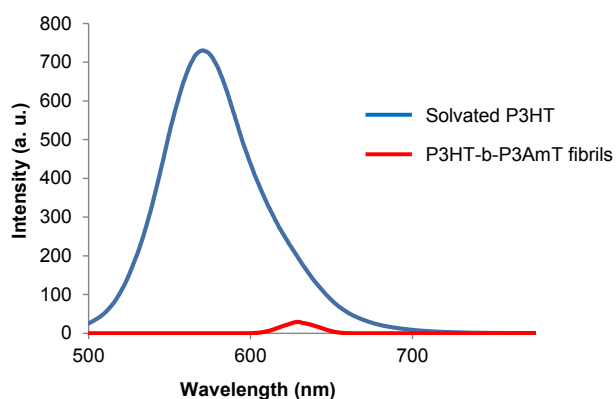
SI-Figure 1: Differential scanning calorimetry (DSC) plot of P3HT-b-P3AmT.



SI-Figure 2: MALDI-TOF spectrum of $C_{60}-(NCO)_2$.



SI-Figure 3: FT-IR spectra of $C_{60}-(NCO)_2$, P3HT-b-P3AmT, and P3HT-b-P3AmT fibrils cross-linked with $C_{60}-(NCO)_2$.

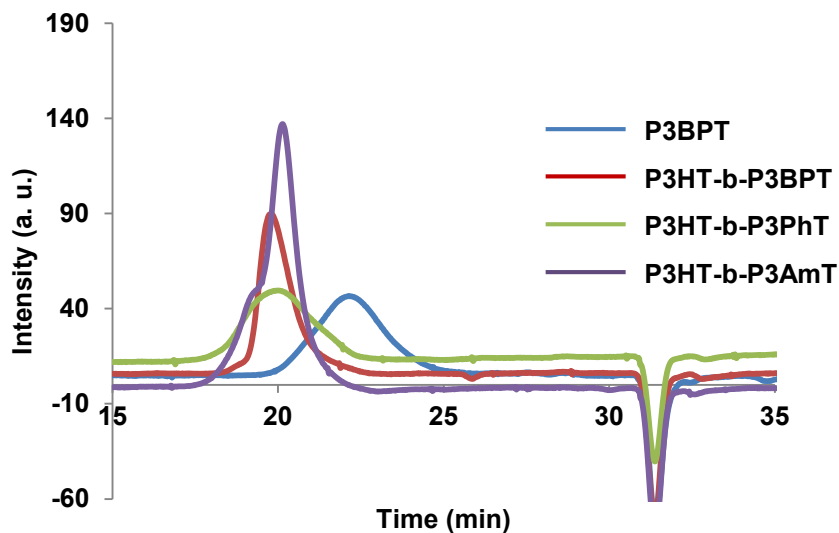


SI-Figure 4: Photoluminescence spectra of solvated P3HT and P3HT-b-P3AmT fibrils ($CHCl_3:CH_2Cl_2$ of 1:7).

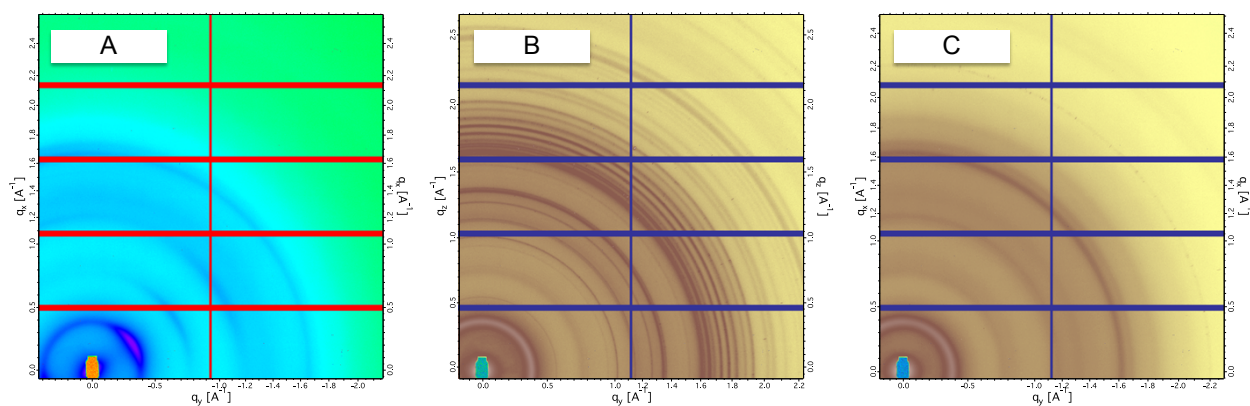
SI-Table 1: Molecular weight information for P3HT-b-P3AmT diblock copolymers.

Entry	Polymer	$M_{n(Th\text{eor.})}(g/mol)^a$	$M_{n(Exp.)}(g/mol)^b$	PDI ^b	P3HT: P3AmT molar ratios ^c
1	P3HT-b-P3AmT	12,000	11,650	1.35	3:1
2	P3HT-b-P3AmT	16,000	16,720	1.30	4.2:1

^a From monomer to catalyst ratio. ^b Estimated by GPC against PS standards. ^c Calculated from 1H NMR spectroscopy.



SI-Figure 5: Gel permeation chromatogram for poly(3-(3-bromopropyl)oxymethylthiophene) (P3BPT), P3HT-b-P3BPT, P3HT-b-poly(3-phthalimide thiophene) (P3PhT), and P3HT-b-poly(3-aminopropyl)oxymethylthiophene) (P3AmT) diblock copolymers with trichlorobenzene as the eluent and flow marker (negative refractive index signal at ~ 31min) measured against polystyrene standards.



SI-Figure 6: Grazing incidence x-ray diffraction (GIXD) for A) P3HT-b-P3AmT fibrils B) P3HT-b-P3AmT fibrils cross-linked with hexyl-1,6-diisocyanate and C) P3HT-b-P3AmT fibrils cross-linked with C₆₀-(NCO)₂.