Electronic Supplementary Information for

Large Interfacial Area Enhances Electrical Conductivity of Poly(3hexylthiophene)/Insulating Polymer Blends

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Figure S1. Dependence of conductivity on film thickness of P3HT/PI (1:1 weight ratio) blends.



Figure S2. (a) TEM images of P3HT/PI blend films spin-coated from solution mixing for different time. (b) Conductivity dependence of P3HT/PI blend films on mixing time of solution.



Figure S3. UV-Vis absorption spectra of pure P3HT, PS and PI films.



Figure S4. Normalized UV-Vis absorption spectra of P3HT/PI blend films prepared by spin-coating from the solution mixing for different time.



Figure S5. (a) Normalized UV-Vis absorption spectra of P3HT whiskers in films before and after mixing with PS. (b) TEM images of P3HT and P3HT/PS samples. The samples were acquired by diluting the pristine concentrated solution (10 mg/mL) to 0.1 mg/mL with the same mixed solvent (ODCB:dioxane=7:1) and then drop casted onto copper grids covered with carbon film placed on a piece of filter paper in order to dry fast (in a few seconds) and maintain the original P3HT whisker morphology in the solution.

Those indicate that the P3HT had already sufficiently crystallized into whiskers in the solution before mixing with PS solution.