Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information

Boosting Charge and Thermal Transport – Role of Insulators for Stable and Efficient N-type Polymer Transistors

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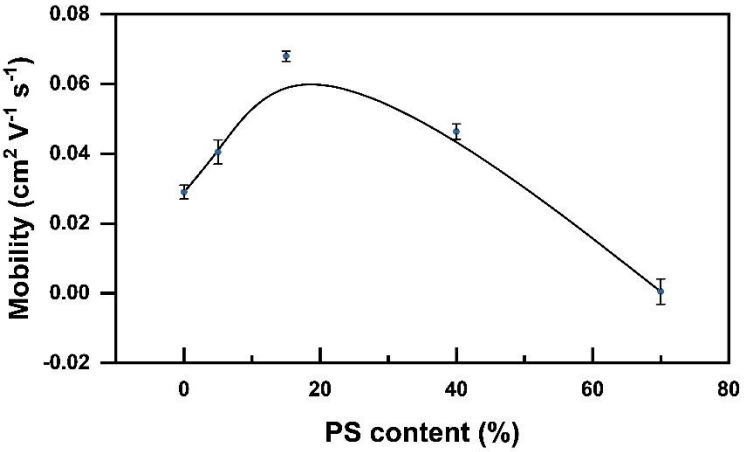

Figure R1. The average mobility of N2200 extracted in the saturation regime as a function of PS content.

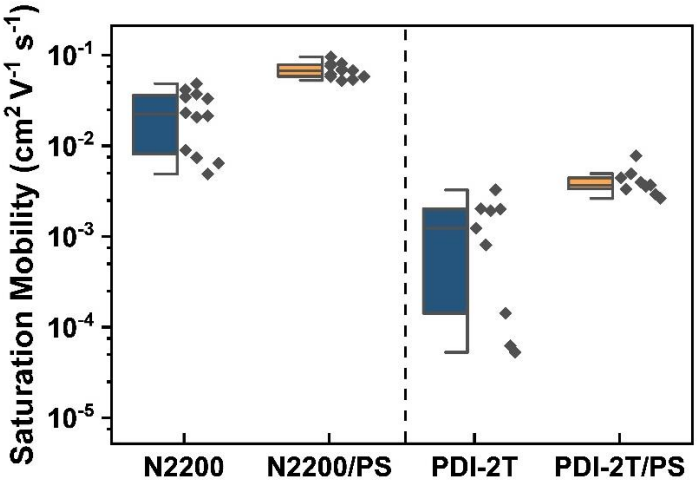

Figure S2. Distribution of average saturation mobility of measured top-gate bottom-contact devices based on neat and blended films of PDI-2T and N2200.

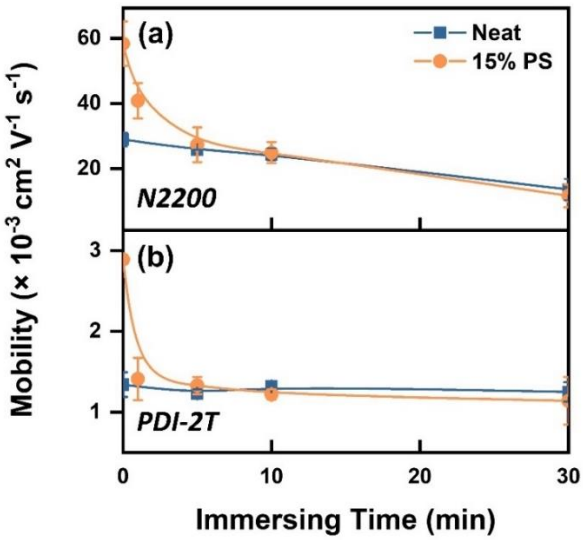

Figure S3. Bottom-gate top-contact OFET mobilities for neat semiconductor and blends based on (a) N2200 and (b) PDI-2T as a function of immersing time in 2-propanol.

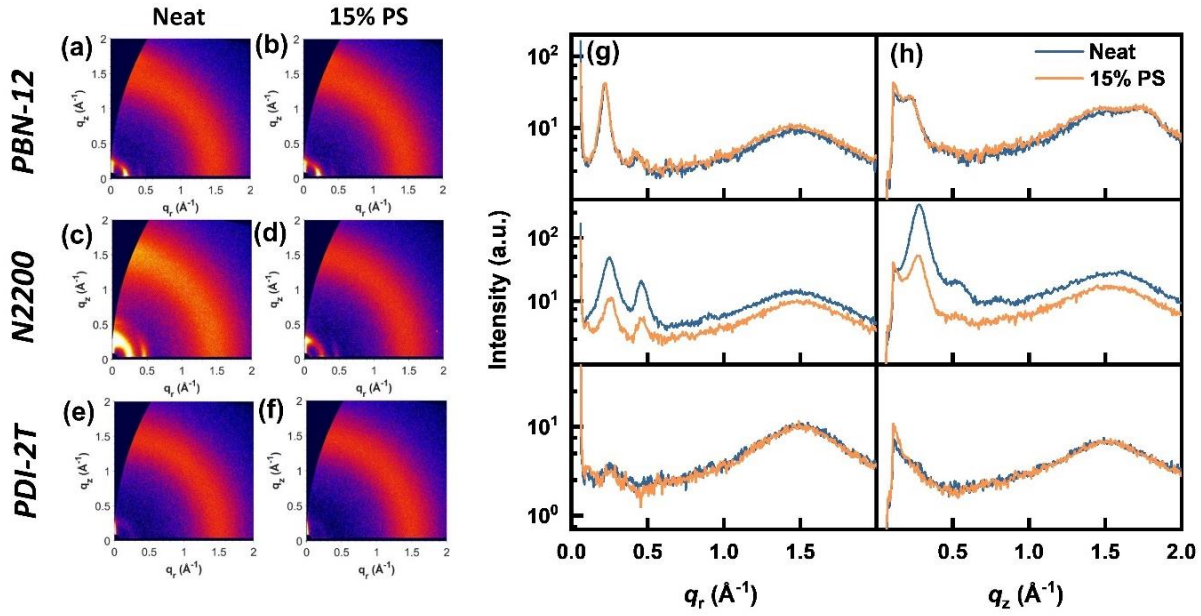

Figure S4. GIWAXS profiles of PBN-12, N2200, PDI-2T without (a, c, e) and with (b, d, f) PS incorporation. (g–h) show the corresponding signal intensity along q_r and q_z axes.

Chemical List:

N2200: Poly{[*N*,*N*'-bis(2-octyldodecyl)naphthalene-1,4,5,8-bis(dicarboximide)-2,6-diyl]-alt-5,5'-(2,2'-bithiophene)}
PDI-2T: Poly[[1,2,3,8,9,10-hexahydro-2,9-bis(1-nonyldecyl)-1,3,8,10-tetraoxoanthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-5,12-diyl][2,2'-bithiophene]-5,5'-diyl]
P(S-r-BCB-r-MMA): Poly(styrene–co–methyl methacrylate–co–vinyl benzocyclobutene)
PPFS: Poly(2,3,4,5,6-pentafluorostyrene)
PDINO: *N*,*N*-dioxide of bis(*N*,*N*'-dimethylaminopropyl)perylene diimide