Electronic Supplementary Material (ESI) for Polymer Chemistry.
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Supporting Information

Naphthobisthiazole Diimide-Based n-Type Polymer Semiconductors: Synthesis, π-stacking, Field-Effect Charge Transport, and All-Polymer Solar Cells

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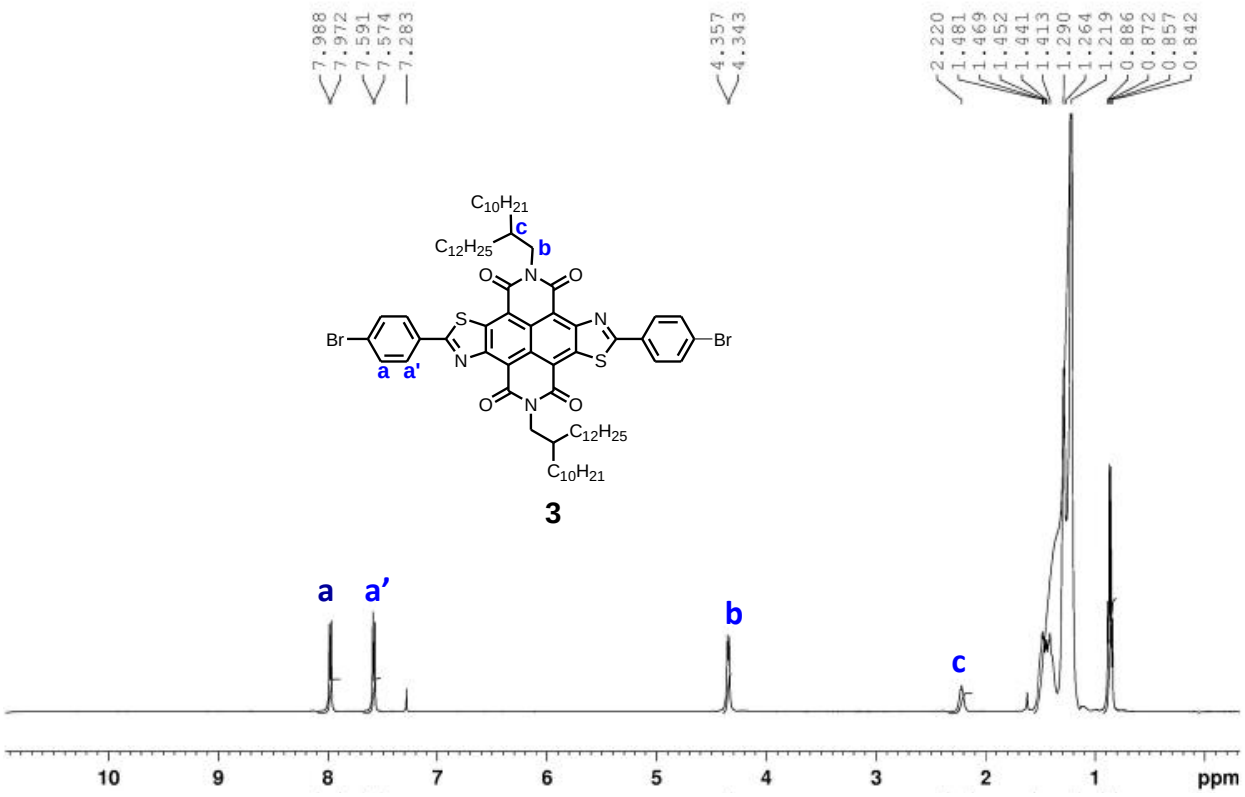

Figure S1. ^{1}H NMR (500 MHz) spectrum of NBTDI dibromide (**3**) in $CDCl_3$.

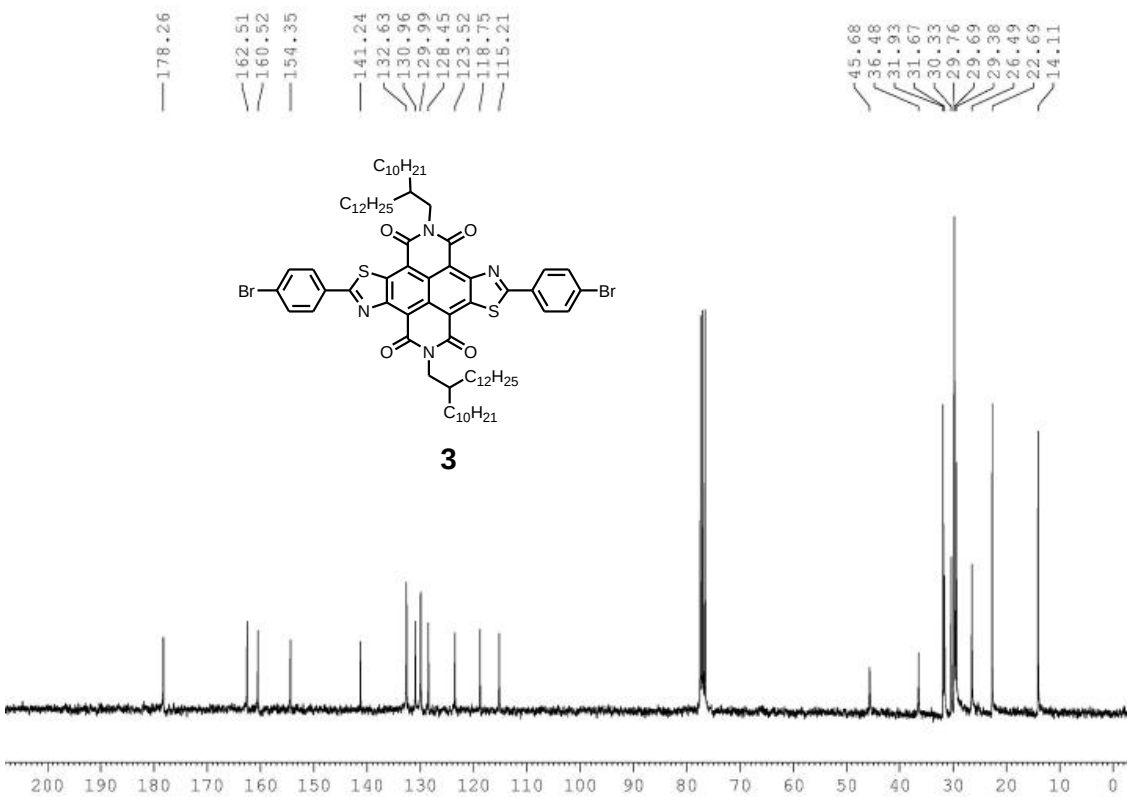

Figure S2. ^{13}C NMR (125 MHz) spectrum of NBTDI dibromide (**3**) in $CDCl_3$.

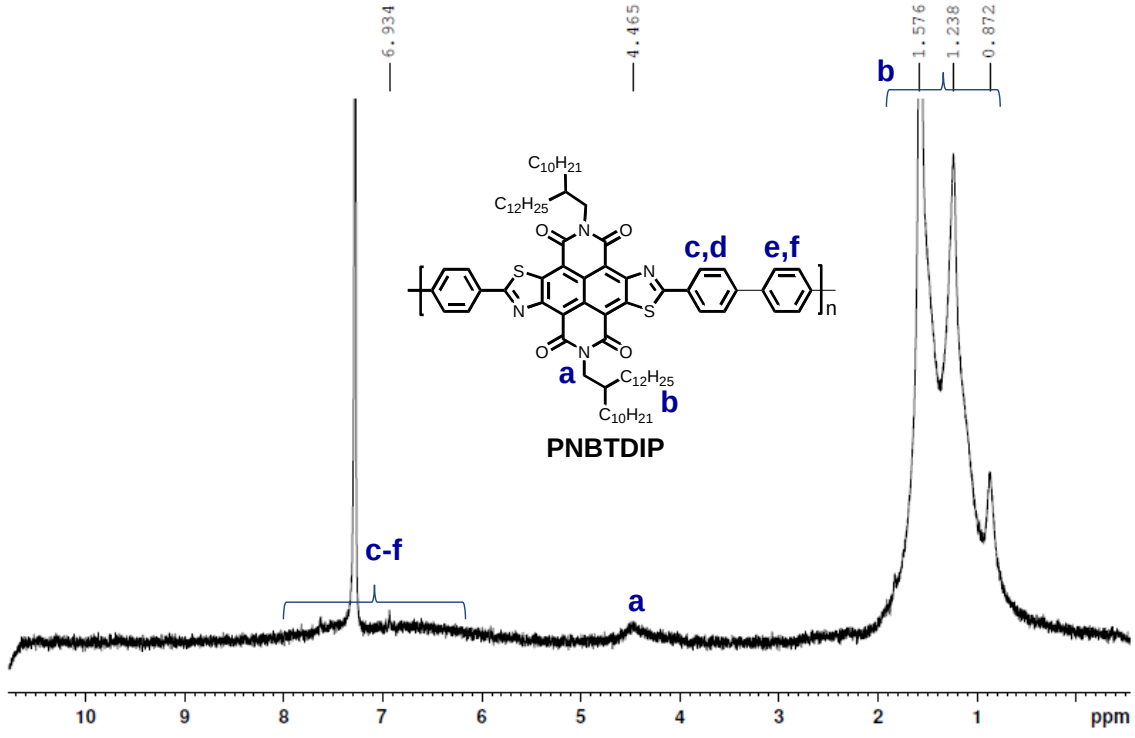

Figure S3. ^{1}H NMR (500 MHz) spectrum of PNBTDIP in $CDCl_3$.

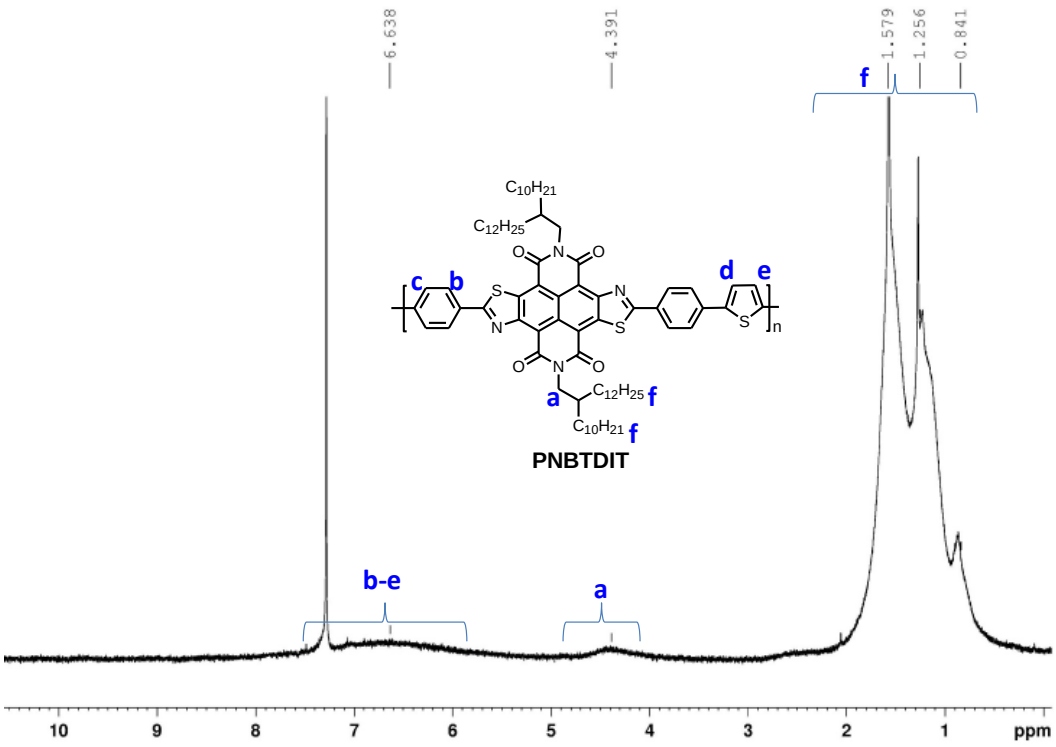

Figure S4. ^{1}H NMR (500 MHz) spectrum of PNBTDIT in $CDCl_3$.

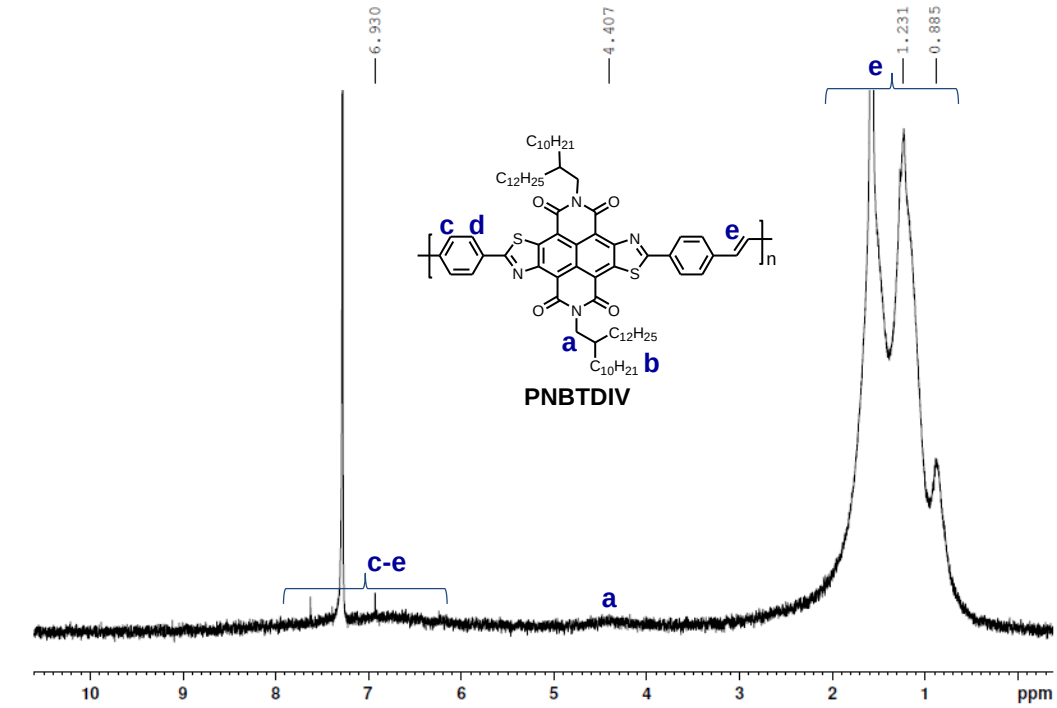

Figure S5. ^{1}H NMR (500 MHz) spectrum of PNBTDIV in $CDCl_3$.

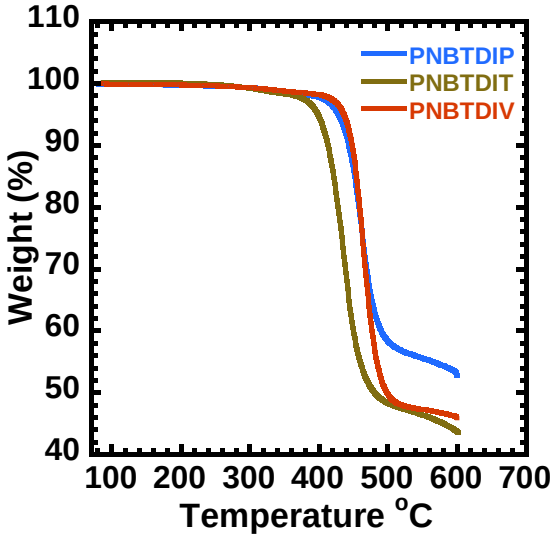

Figure S6. TGA thermograms of PNBTDIs in N_2 obtained at a 10 ºC min^{-1} heating rate.

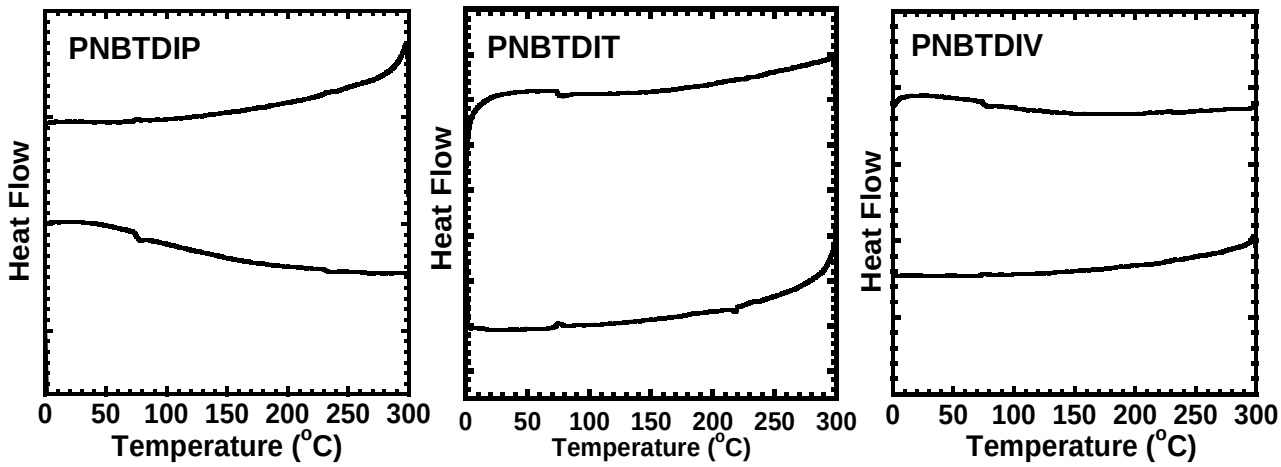

Figure S7. DSC scans of PNBTDIs at a heating/cooling rate of 10 °C min^{-1} in nitrogen.

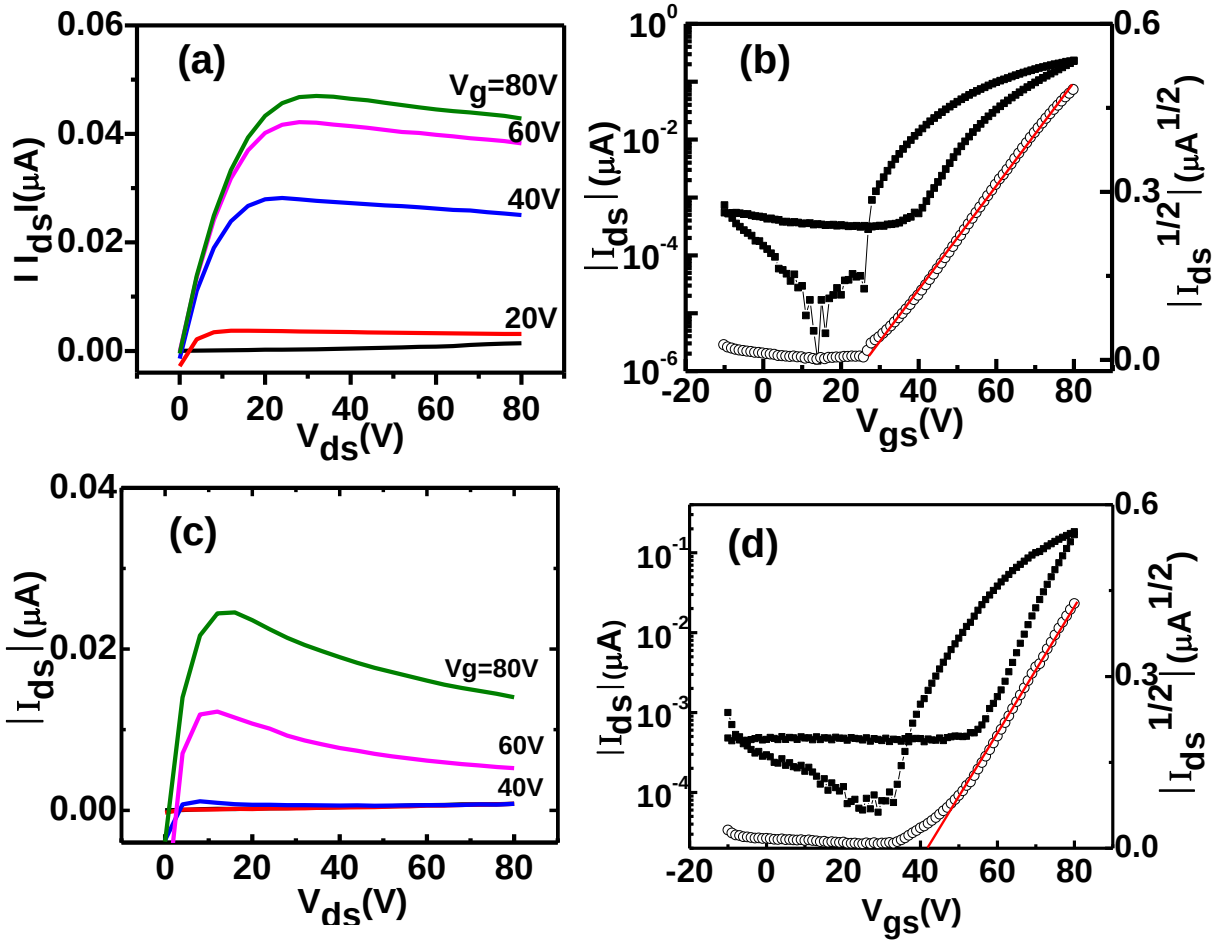

Figure S8. Output (a & c) and transfer (b & d) characteristics of PNBTDIT and PNBTDIP OFETs.

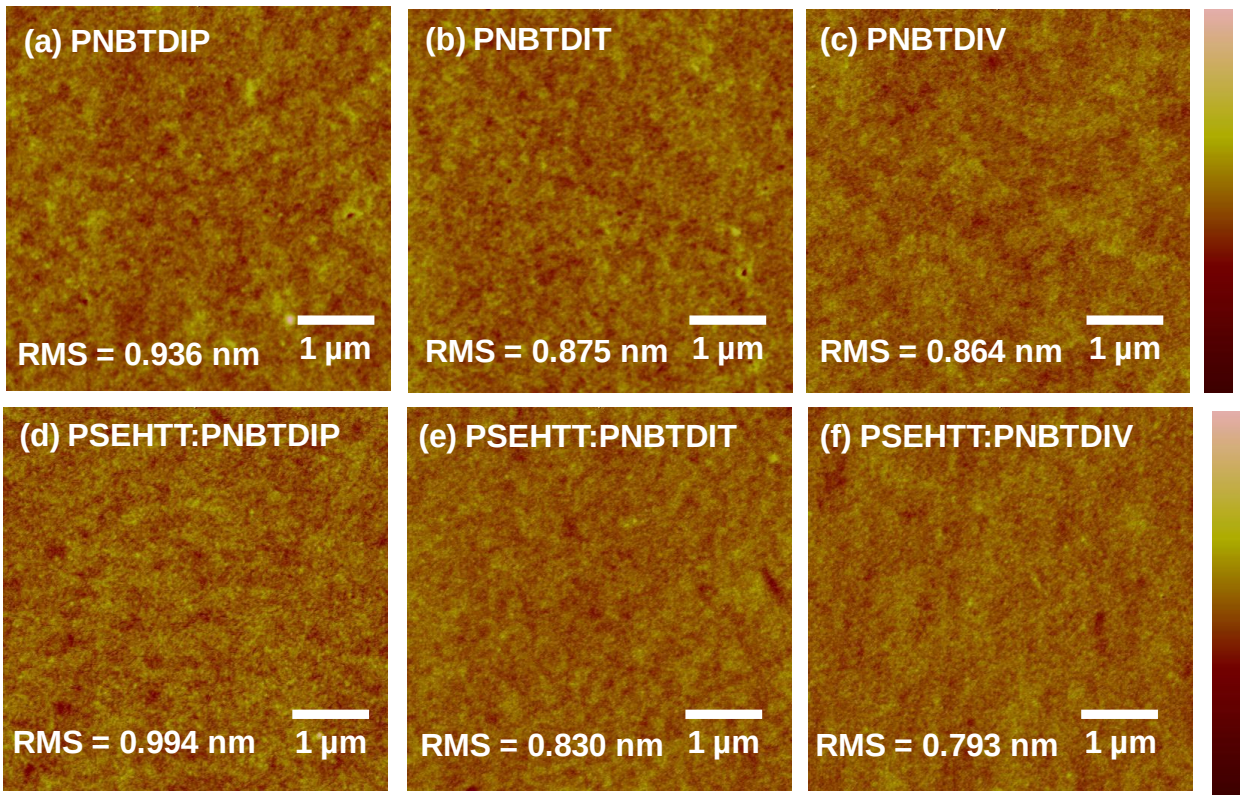

Figure S9. AFM topographical images (5 x 5 μm^2) of the surfaces of poly(naphthobisthiazole diimide)s and PSEHTT:PNBTDI blends: (a) PNBTDIP, (b) PNBTDIT, and (c) PNBTDIV; and their corresponding blend images of (d) PSEHTT:PNBTDIP, (e) PSEHTT:PNBTDIT and (f) PSEHTT:PNBTDIV.