

A Star-Shaped Conjugated Molecule Featuring a Triazole Core and Diketopyrrolopyrrole Branches is an Efficient Electron-Selective Interlayer for Inverted Polymer Solar Cells

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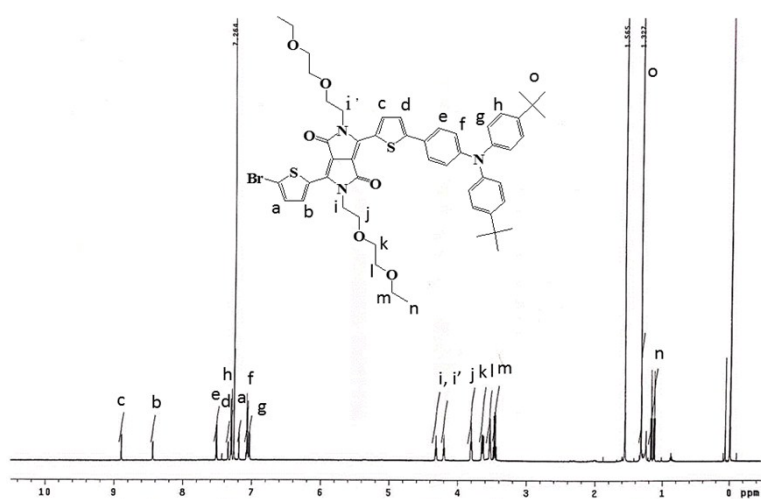


Figure S1. ^1H NMR spectrum of compound 3.

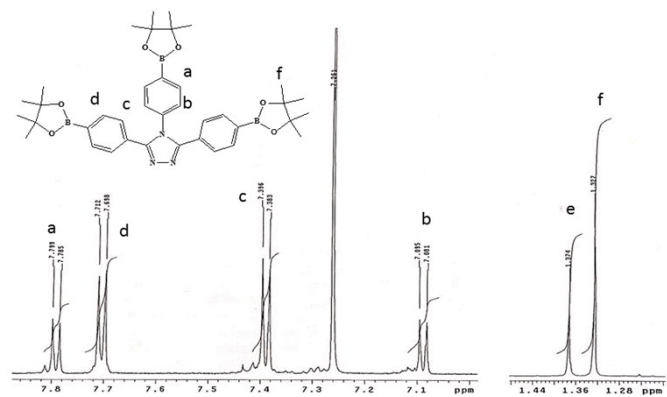


Figure S2 ^1H NMR spectrum of compound 5.

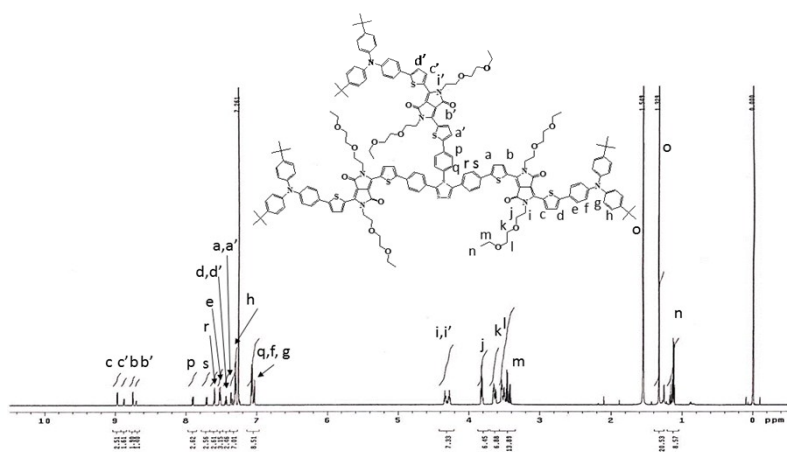


Figure S3 ^1H NMR spectrum of TDGTPA.

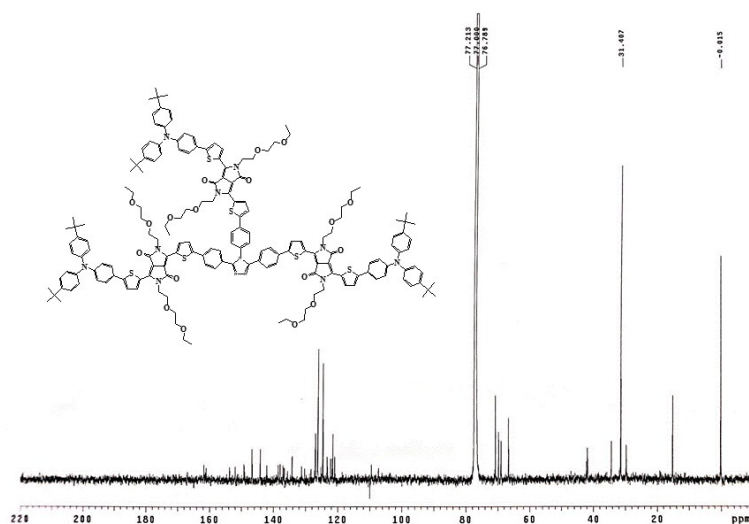


Figure S4 ^{13}C NMR spectrum of TDGTPA.

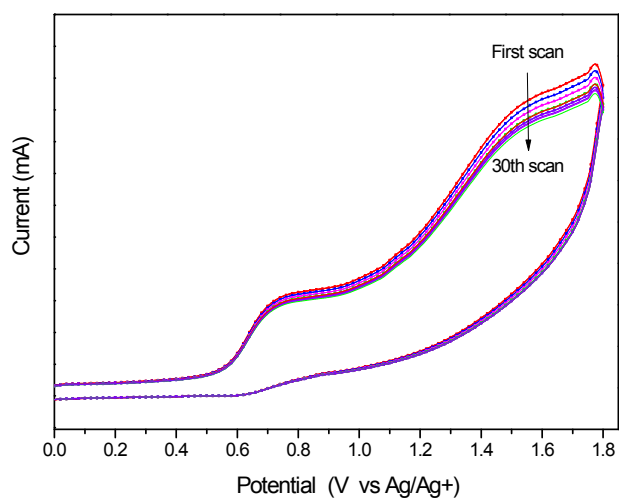


Figure S5. CV spectra of TDGTPA measured with 30 runs of scan.

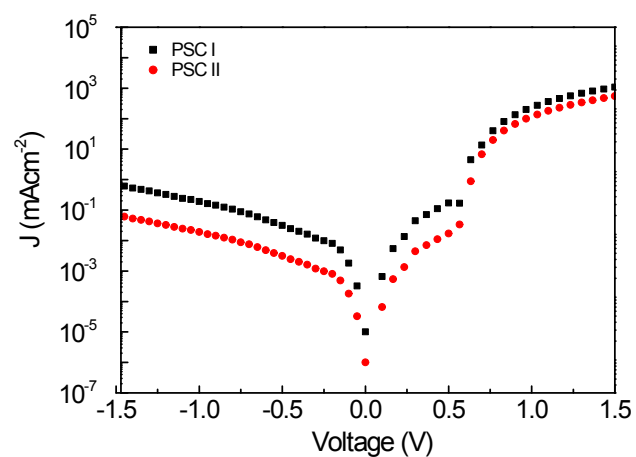


Figure S6. Dark J-V curves of the inverted PSCs with/without a TDGTPA interlayer between ZnO and photoactive layer.

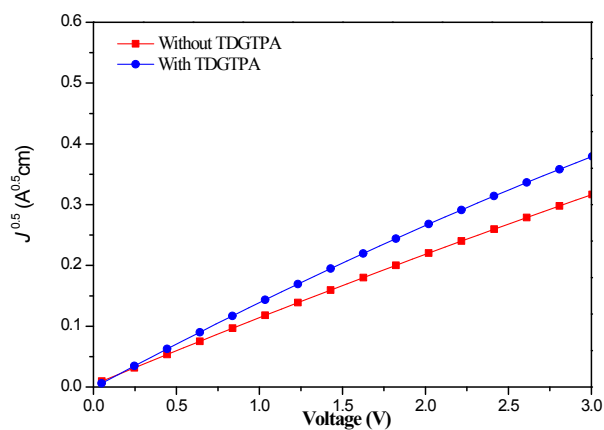


Figure S7. Plots of $(J)^{0.5}$ vs. V of P3HT/PC₇₁BM based electron-only devices with/without a TDGTPA interlayer (device architecture: ITO/ZnO/Interlayer/P3HT:PC₇₁BM/Al).

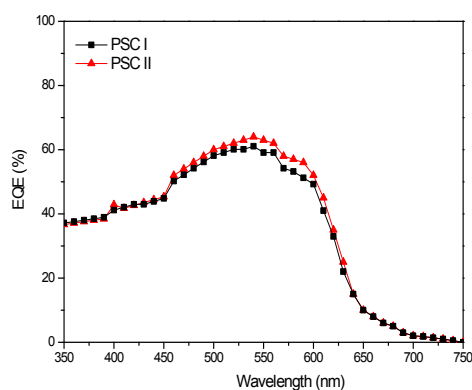


Figure S8. EQE spectra of the P3HT/PC₇₁BM based inverted PSCs with/without a TDGTPA interlayer.

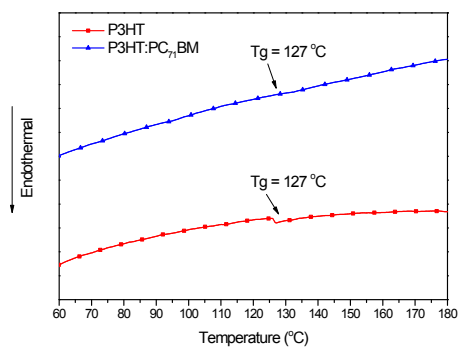


Figure S9. DSC thermograms of P3HT and P3HT:PC₇₁BM blend (1:1, w/w).

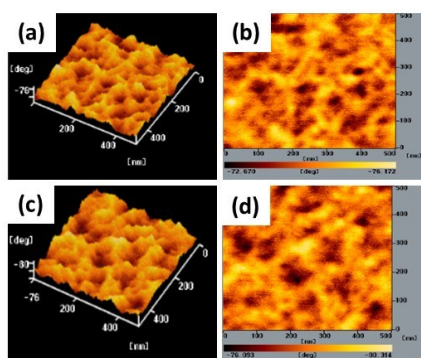


Figure S10. Topographic (a, c) and phase (b, d) images of ZnO/TDGTPA/P3HT:PC₇₁BM film (1:1, w/w) measured by AFM before and after 10 days storage in air ambient ((a, b): pristine sample; (c, d): sample after 10 days storage).