

Supporting Information

The role of emissive charge transfer states in two polymer/fullerene organic photovoltaic blends: tuning charge photogeneration through the use of processing additives

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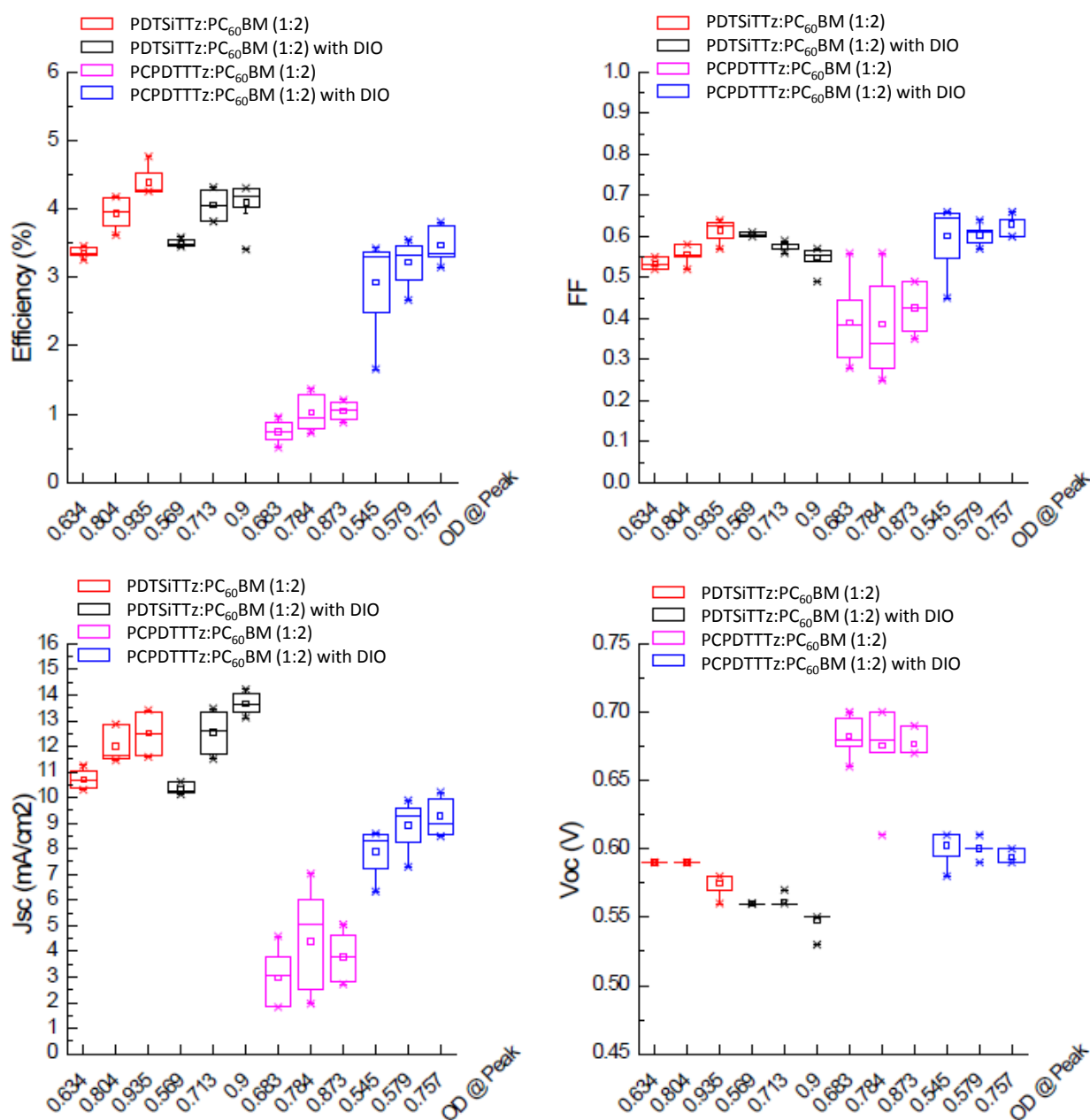


Figure S1. Summary of device data for PCPDTTTz:PCBM and PDTSiTTz:PCBM, showing average efficiency, FF, J_{sc} and V_{oc} over several devices of differing optical density (OD).

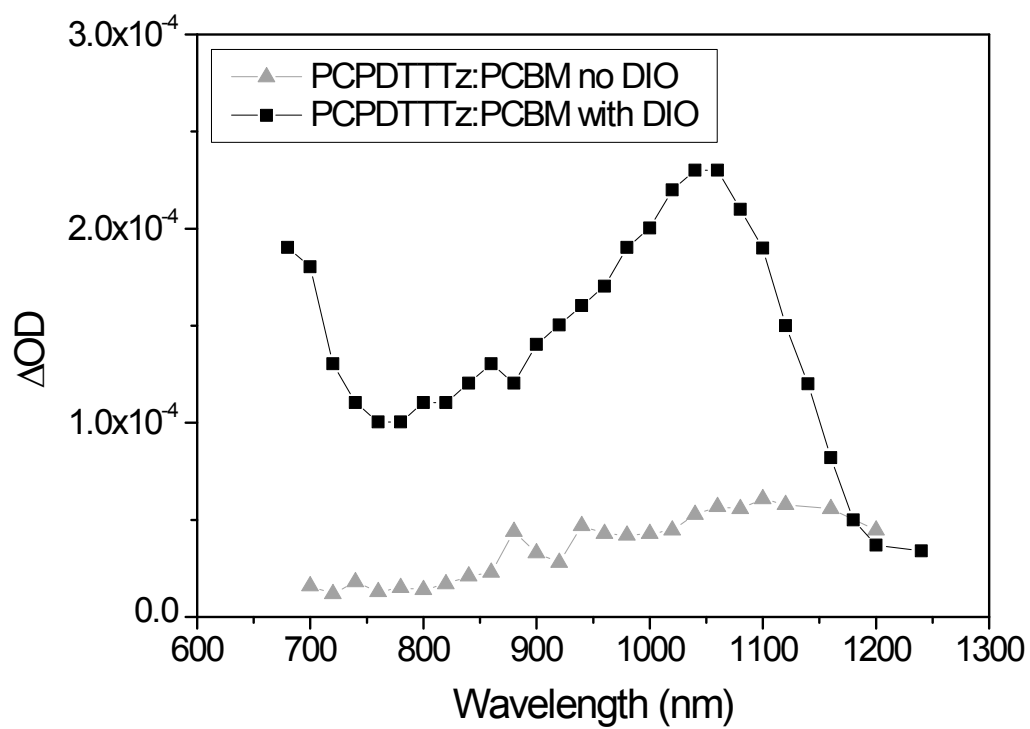


Figure S2. Transient absorption spectra of PCPDTTTz:PCBM blend films measured with and without DIO.

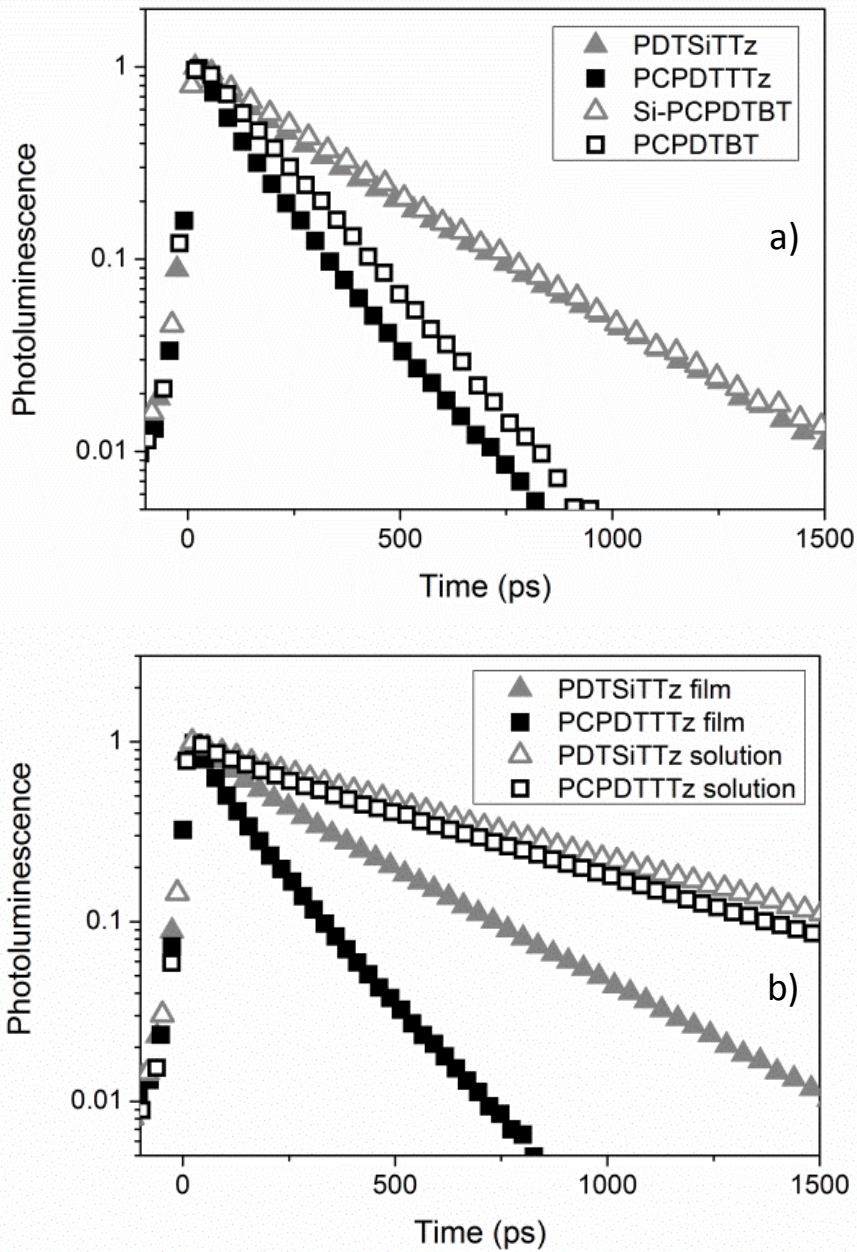


Figure S3. The photoluminescence decays in the 670-700 nm spectral range for pristine PDTSiTTz and PCPD TTTz films as compared to solutions in o-dichlorobenzene (a). The photoluminescence decays with time for pristine PDTSiTTz and PCPD TTTz (on encapsulated quartz) measured in the spectral range at the emission maximum of 670 – 700 nm, compared to PCPD TBT and Si-PCPD TBT (on encapsulated glass) (b).

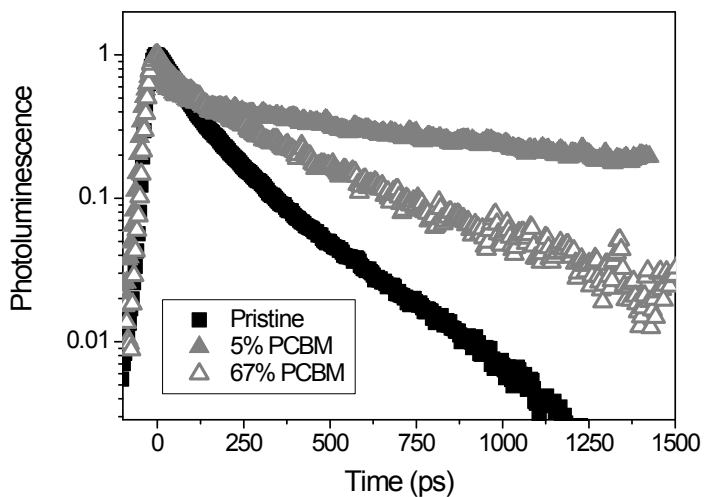


Figure S4. The photoluminescence decays with time for pristine PCPDTTz and blends with PCBM, varying the weight percentage of PCBM and measuring in the spectral range of 1000-1100 nm (c).

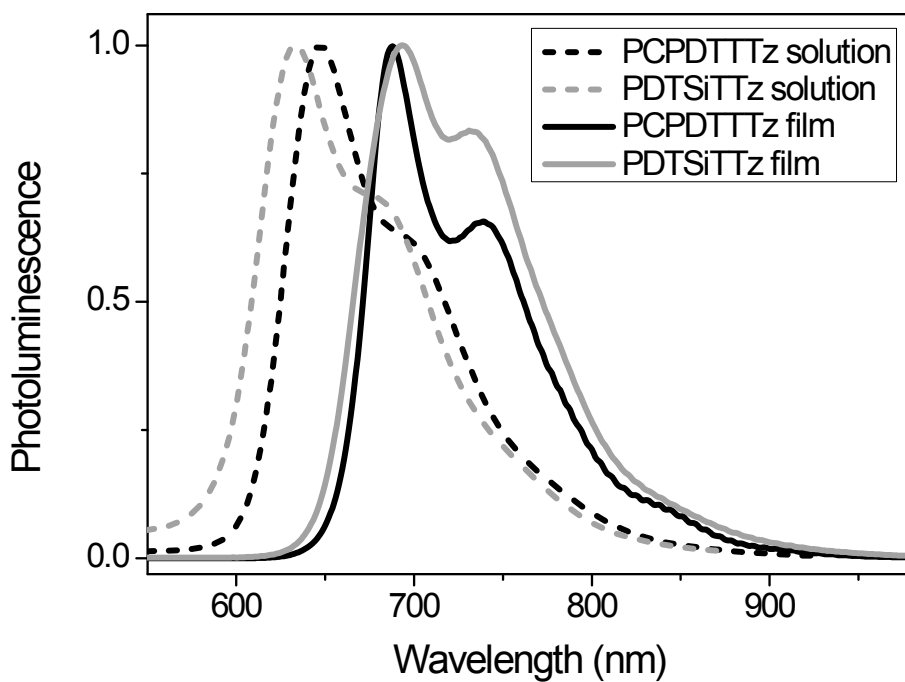


Figure S5. Steady-state absorption spectra of pristine PCPDTTz and PDTSiTTZ solutions (o-DCB) and thin films.