

Supporting Information

Comparing Non-Fullerene Acceptors with Fullerene in Polymer Solar Cells: A Case Study

Authors:

Nicole Bauer^a, Qianqian Zhang^a, Jingbo Zhao^b, Long Ye^c, Joo-Hyun Kim^c, Iordania Constantinou^d, Liang Yan^a, Franky So^d, Harald Ade^c, He Yan^b, and Wei You^{a*}

^aDepartment of Chemistry, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599, USA

^bDepartment of Chemistry and Hong Kong Branch of Chinese National Engineering Research Center for Tissue Restoration & Reconstruction, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong

^cDepartment of Physics and ORaCEL, North Carolina State University, Raleigh, North Carolina 27695, USA

^dDepartment of Materials Science and Engineering, North Carolina State University, Raleigh, North Carolina 27606, USA

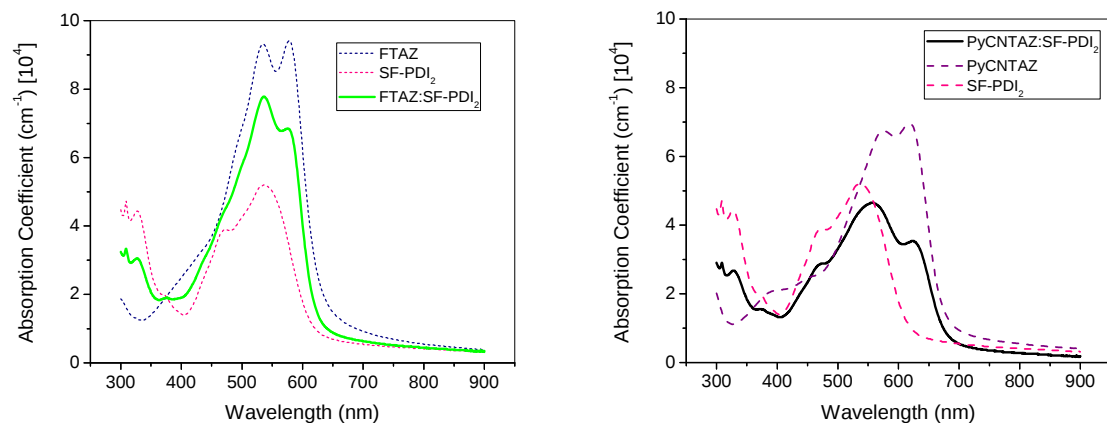


Figure S1 Absorption coefficients of neat material and SF-PDI₂ blend films

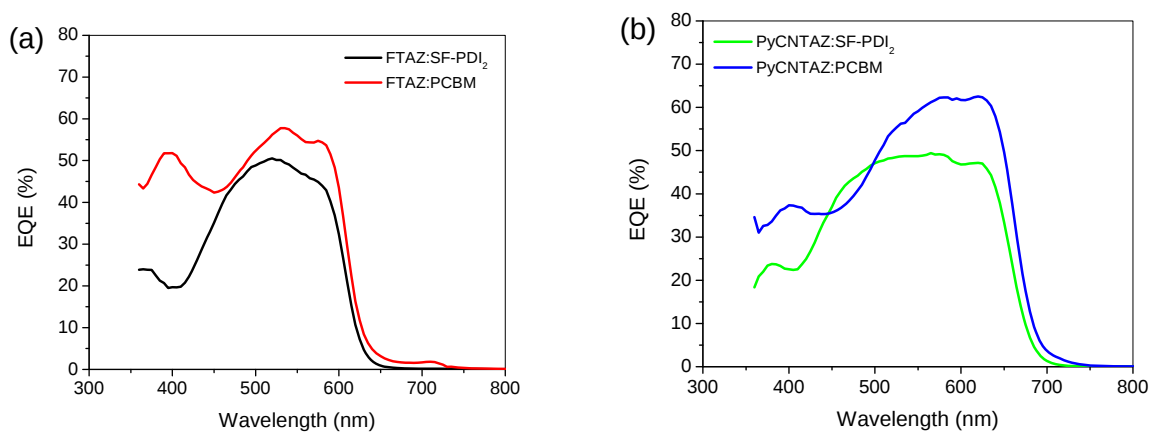


Figure S2 External quantum efficiencies of a) FTAZ and b) PyCNTAZ (right) devices

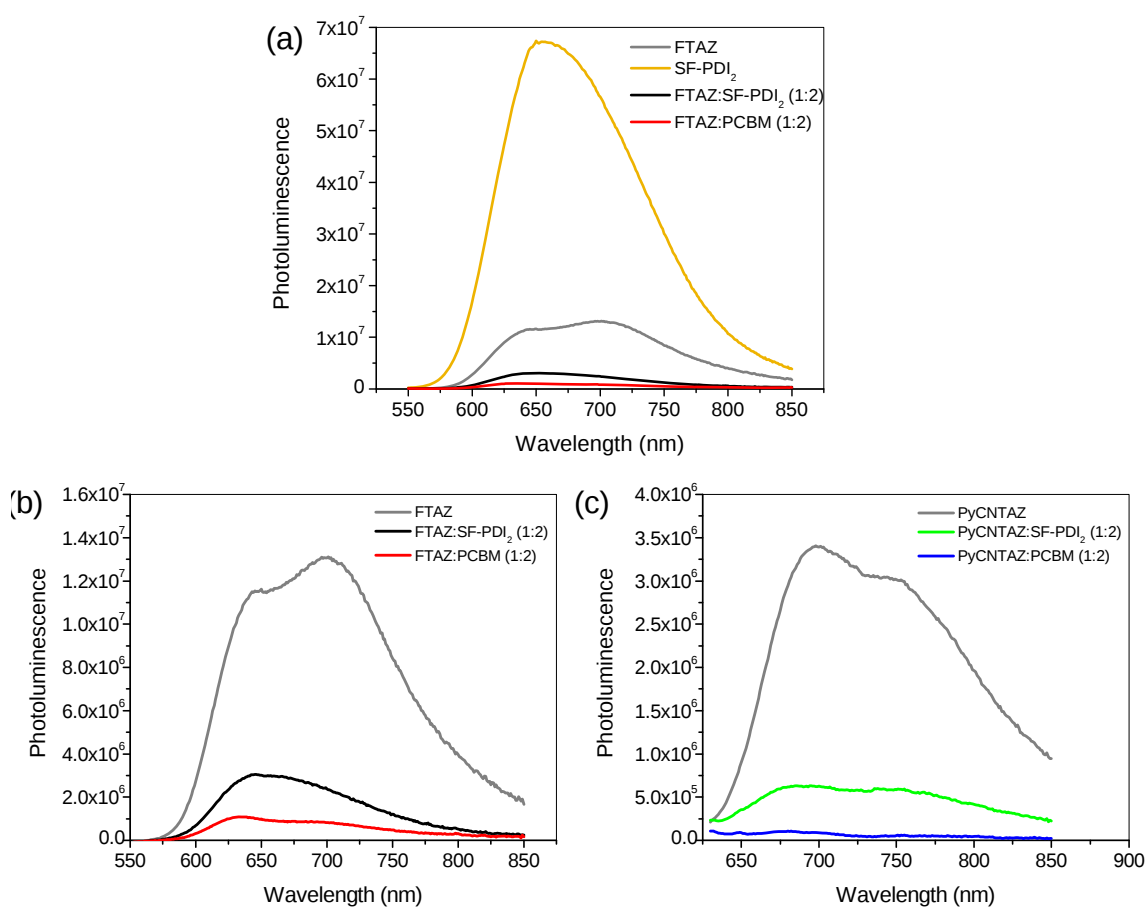


Figure S3 Photoluminescence of a) neat FTAZ and SF-PDI₂ films and FTAZ blends; b) FTAZ blends with D:A=1:2; c) PyCNTAZ blends with D:A=1:2

Table S1 Photovoltaic performance of FTAZ:PCBM device with thick active layer (~250 nm)

Blend	J_{sc} (mA/cm ²)	V_{oc} (V)	FF (%)	PCE (%)
FTAZ:PCBM	11.97 ± 0.29	0.790 ± 0.006	68.9 ± 1.1	6.52 ± 0.14