Fig. S1 XRD patterns of TTzBT-DCAO film from chloroform solution used for spin coating on ITO substrate and the ITO (black curve).
Fig. S2 cyclic voltammograms in DCM solution of 0.1 M Bu$_4$NPF$_6$ with scan rate of 100 mV/s
**Fig. S3** The IPCE spectra of the OPVs based on SF8TBT:TTzBT-DCAO = 1:1
**Fig. S4** Current density versus voltage characteristics of the electron-only device.