

Electronic Supplementary Information

Rational Utilization of Intramolecular and Intermolecular Hydrogen Bonds to Achieve Desirable Electron Transporting Materials with High Mobility and High Triplet Energy

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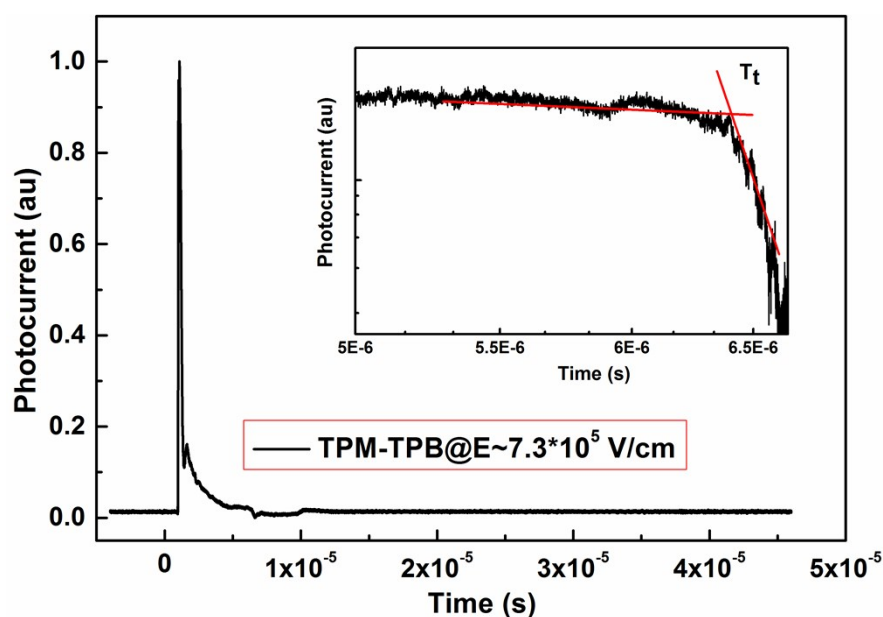


Fig. S1 TOF transients of electron for TPM-TPB at the electric field of 7.3×10^5 V/cm, the insets display the corresponding double-logarithmic plots.

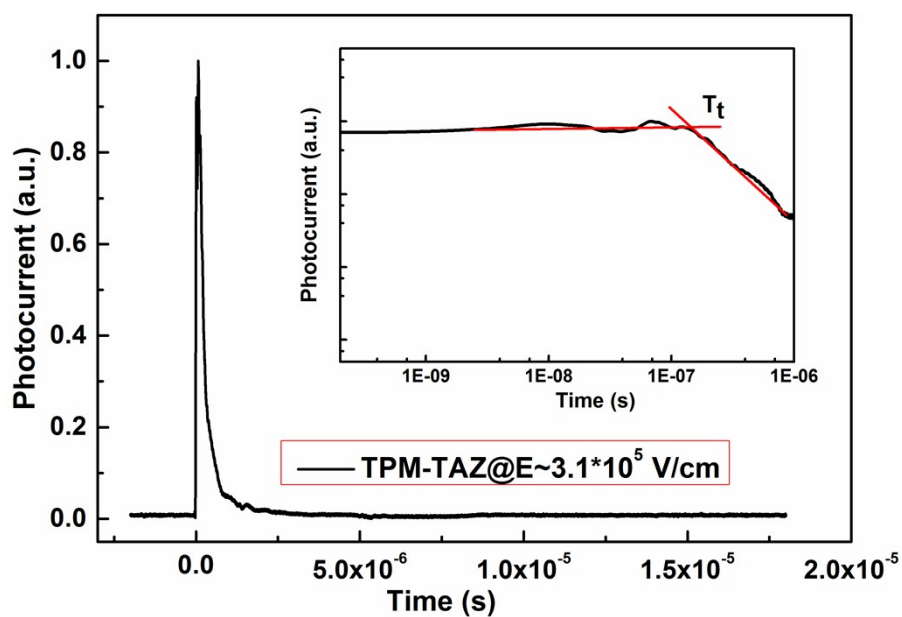


Fig. S2 TOF transients of electron for TPM-TAZ at the electric field of 3.1×10^5 V/cm, the insets display the corresponding double-logarithmic plots.

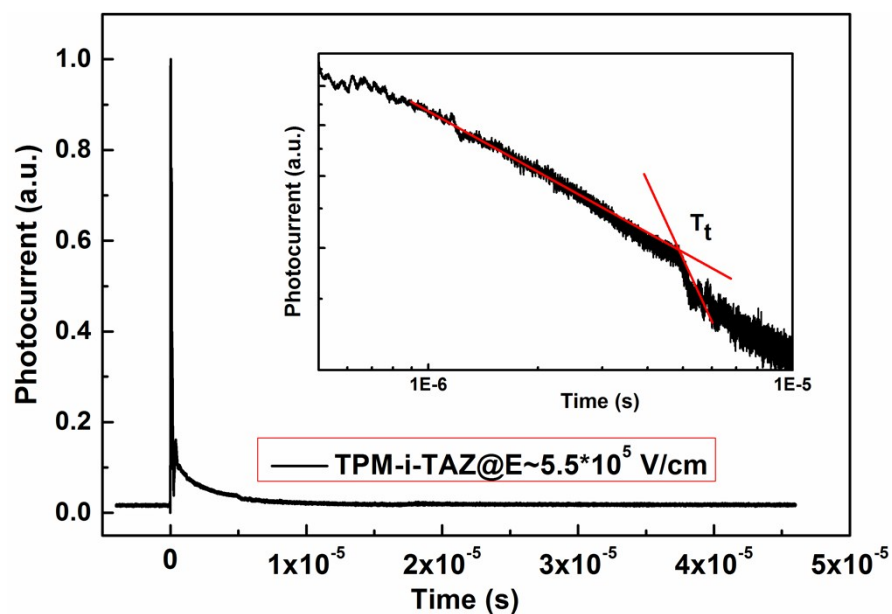
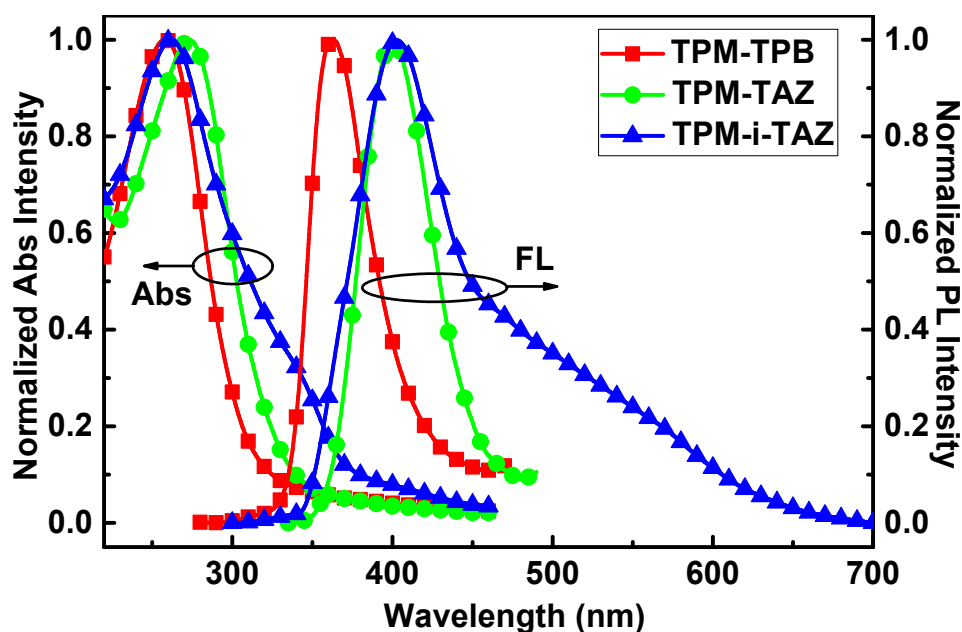


Fig. S3 TOF transients of electron for TPM-i-TAZ at the electric field of 5.5×10^5 V/cm, the insets display the corresponding double-logarithmic plots.

Table S1. Detail single crystal X-ray diffraction data of the compounds.

Molecules	TPM-TPB ^a	TPM-TAZ ^a	TPM-i-TAZ ^b
CCDC	1435065	1435063	1435062
Temperature:	296 K	296 K	100 K
Moiety formula:	C ₃₆ H ₂₄ N ₆	C ₃₃ H ₂₁ N ₉	C ₃₃ H ₂₁ N ₉ *CHCl ₃
Formula weight:	540.61	543.59	662.96
Crystal system:	monoclinic	monoclinic	Triclinic
Space group:	P 21/c	P 21/n	P -1
a (Å):	13.250(8)	12.689(6)	9.0707(10)
b (Å):	9.163(6)	7.276(4)	10.2070(12)
c (Å):	23.928(15)	28.901(15)	16.8469(19)
alpha (deg.):	90	90	76.256(2)
beta (deg.):	102.006(8)	94.641(7)	79.265(2)
gamma (deg.):	90	90	85.927(2)
Volume(Å ³):	2842(3)	2660(2)	1488.0 (3)
Z:	84	78	2
Dx (g/cm ³):	1.327	1.316	1.480
Mu(mm ⁻¹):	0.094	0.093	0.351
F(000):	1176.0	1092.0	680.0
Final R indices	R ₁ = 0.0784,	R ₁ = 0.0556,	R ₁ = 0.0492,
[I > 2_ σ (I)]:	wR2 = 0.2279	wR2 = 0.1533	wR2 = 0.1428
R indices (all):	R ₁ = 0.1013,	R ₁ = 0.0939,	R ₁ = 0.0612,
	wR2 = 0.2605	wR2 = 0.1844	wR2 = 0.1656
Goodness-of-fit on F ² :	1.085	1.039	1.050

^aObtained by vacuum sublimation method; ^bObtained by solvent diffusion method from chloroform /n-hexane.

**Fig. S4** Normalized UV-vis absorption and fluorescence emission spectrum of the compounds in thin film state.