

Supporting Information

Multifunctional terpyridine/diphenylamine derivatives as highly efficient blue fluorescent emitters and red phosphorescent hosts

Chuan-Lin Liu, Cai-Jun Zheng,* Xiao-Ke Liu, Zhan Chen, Ji-Ping Yang,* Fan Li, Xue-Mei Ou, Xiao-Hong Zhang *

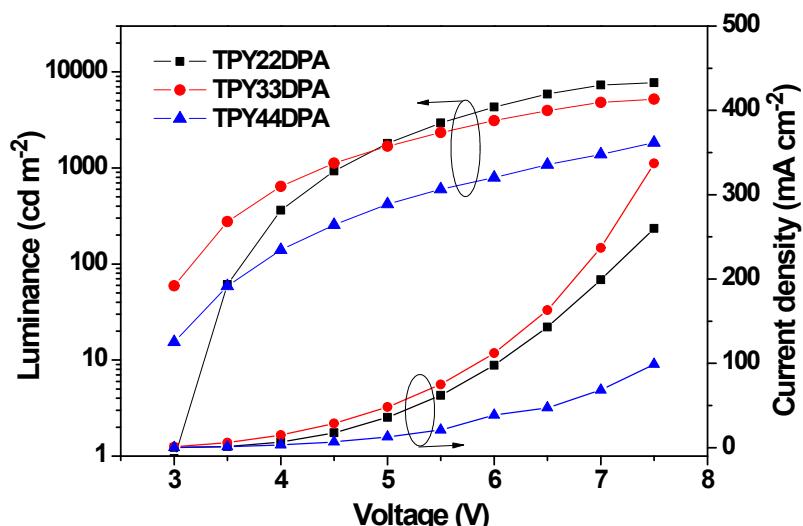


Figure S1. Current density-Luminance-Voltage characteristics of device B1, B2, and B3.

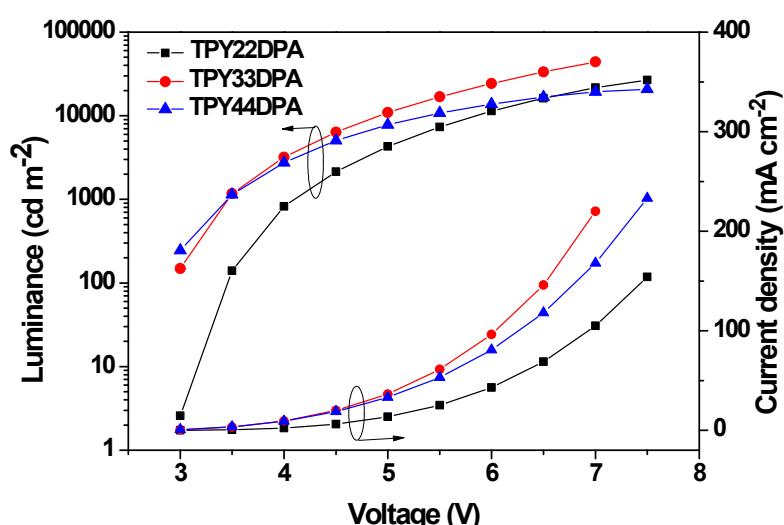


Figure S2. Current density-Luminance-Voltage characteristics of device R1, R2, and R3.

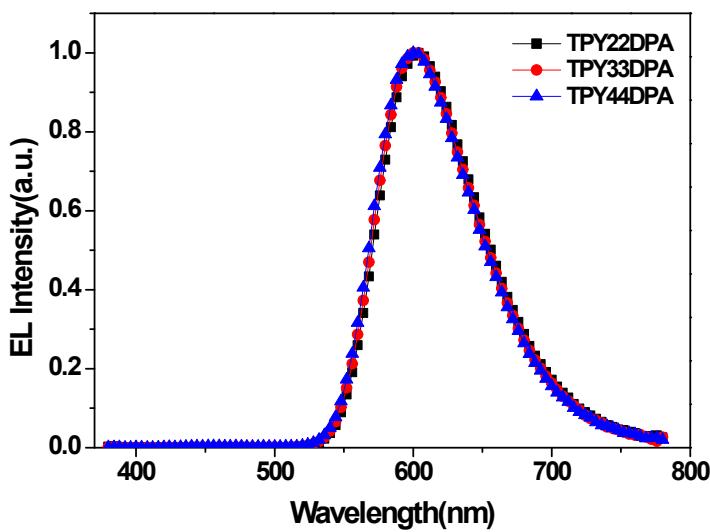


Figure S3. The EL spectra of device R1, R2, and R3.

Table S1. Electroluminescence properties of compounds used as blue emitters as well as hosts for red phosphors

Compd.	Dopant	V ^a _{Turn-on} [V]	Max ^b . CE/EQE [cd A ⁻¹ /%]	CIE(x, y) ^c
TPY22DPA	-	3.0	5.6/4.9	(0.15, 0.11)
	Ir(MDQ) ₂ acac	2.9	38.5/19.1	(0.60, 0.48)
5 ¹	-	2.9	1.8/1.4	(0.15, 0.15)
	Ir(fbi) ₂ acac	3.1	22.0/7.8	(0.53, 0.47)
Zn(PPI) ₂ ²	-	3.2	2.1/2.1	(0.15, 0.09)
	Ir(MDQ) ₂ acac	2.3	15.9/15.2	(0.64, 0.39)
Be(PPI) ₂ ²	-	3.2	2.1/2.8	(0.15, 0.09)
	Ir(MDQ) ₂ acac	2.3	15.9/15.1	(0.64, 0.39)

^aTurn-on voltage. ^bMaximum current efficiency and external quantum efficiency. ^cAt 100 cd/ m²

(1) C.-H. Chen, W.-S. Huang, M.-Y. Lai, W.-C. Tsao, J.-T. Lin, Y.-H. Wu, T.-H. Ke, L.-Y. Chen, C.-C. Wu, *Adv Funct Mater.* 2009, **19**, 2661.

(2) K. Wang, F.C. Zhao, C.G. Wang, S.Y. Chen, D. Chen, H.Y. Zhang, Y. Liu, D.G. Ma, Y. Wang, *Adv Funct Mater.* 2013, **23**, 2672.