

Supporting Information

Improvement of exciton utilization by suppressing exciton leakage for high efficiency blue and white organic light-emitting diodes

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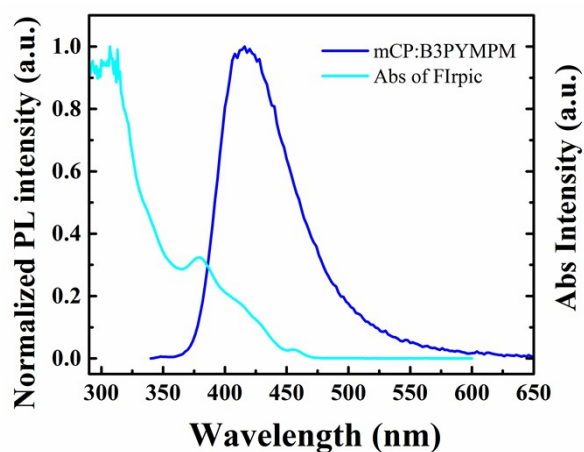


Fig. S1. PL spectra of the exciplex mCP:B3PYMPM films at room temperature and the absorption spectra of Firpic in dilute dichloromethane solution with excitation at 300 nm.

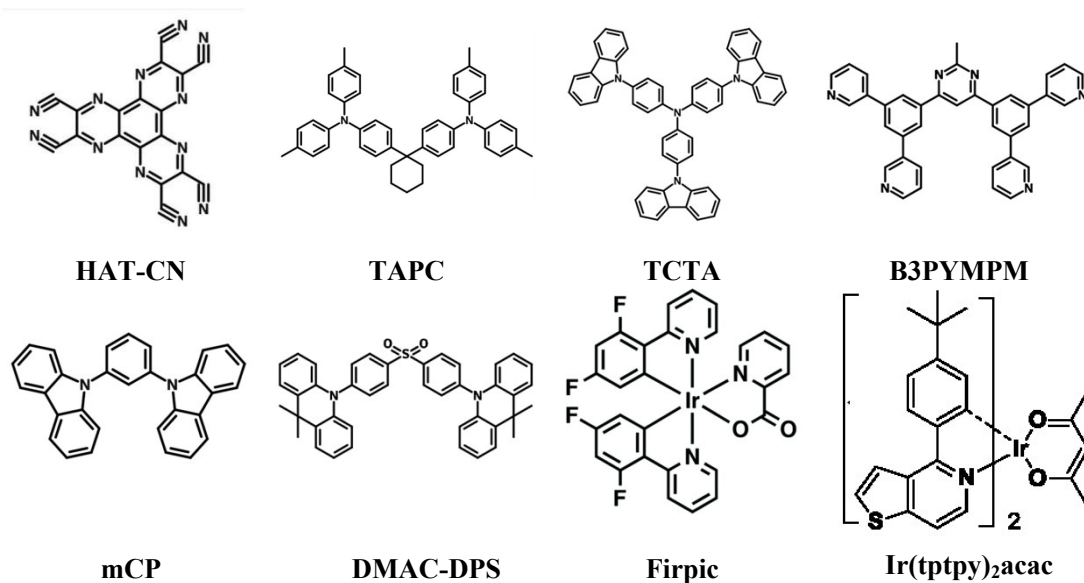


Fig. S2. Molecular structures of organic materials

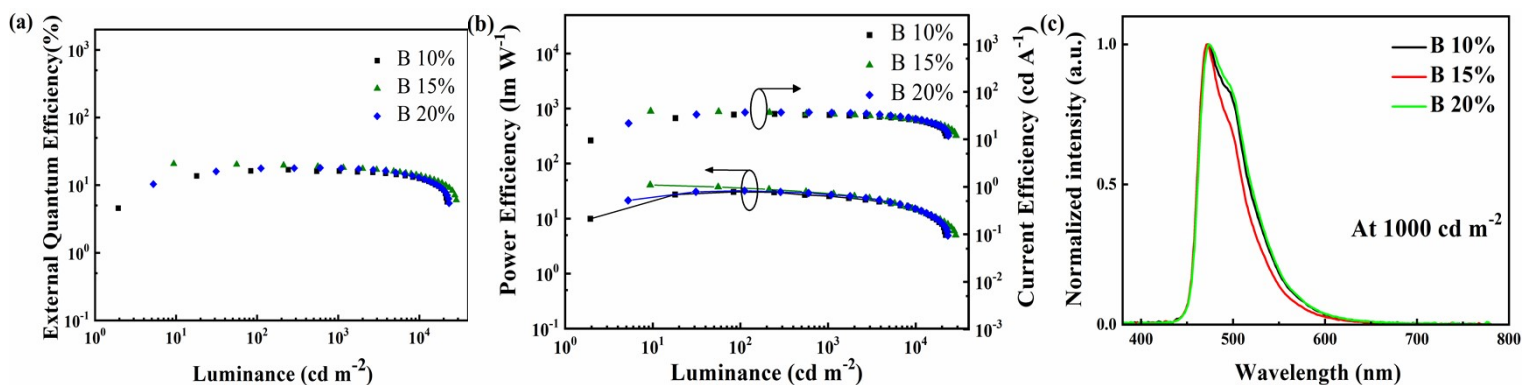


Fig. S3. (a) EQE-luminance (EQE-L), (b) power efficiency-current efficiency-luminance (PE-CE-L) characteristics of the resulting blue OLEDs with different Firpic doping concentrations, and (c) the corresponding EL spectra at the luminance of 1000 cd m^{-2} .

Table S1. Summary of the performance parameters of the fabricated blue OLEDs with different FIrpic doping concentrations.

Device	$V_{on}(V)$	EQE ^a /CE ^a /PE ^a	EQE ^b /CE ^b /PE ^b
		[% / cd A ⁻¹ / lm W ⁻¹]	[% / cd A ⁻¹ / lm W ⁻¹]
B 10%	3.0	16.9/34.4/30.5	16.1/32.6/25.6
B 15%	3.0	19.3/39.6/41.0	18.2/36.6/28.7
B 20%	3.2	18.0/37.1/36.3	17.7/36.3/27.1

^a Maximum value of current efficiency, power efficiency and EQE.

^b PE, CE and EQE at 1000 cd m⁻². V_{on} : turn-on voltage at 1 cd m⁻².