

Electronic Supplementary Information for

Deep--red excimer emission from Ir doped organic electroluminescent devices

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1. Influence of the concentration by weight of solutions on electroluminescence
2. UV-VIS absorption spectra of blended films
3. ¹H Nuclear Magnetic Resonance (NMR) spectrum of IrDBQ
4. Luminance – voltage and current density characteristics

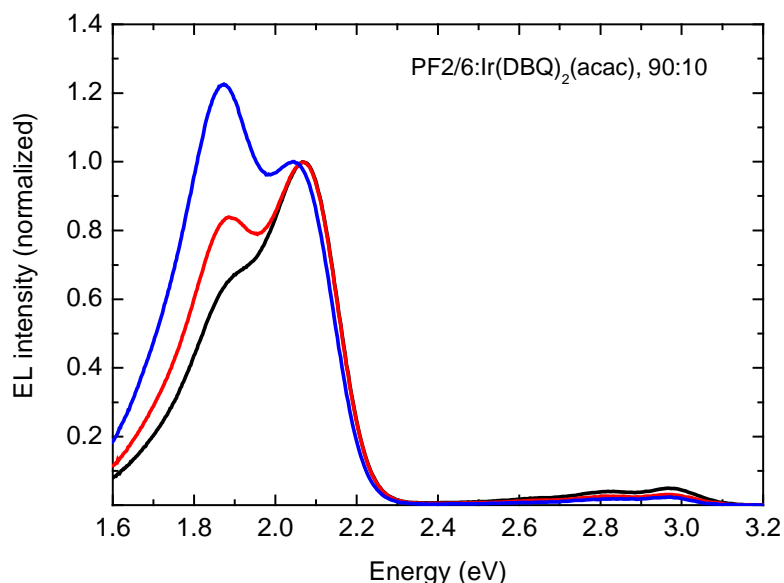


Figure S1: Influence of the concentration by weight of PF26:IrDBQ solutions on electroluminescence. EL spectra at room temperature of 90:10-PF26:Ir based devices with different emitting layer thickness. The diode structure was: ITO/PEDOT:PSS/PF26:Ir(90:10)/Ba/Al. The blended active layer was prepared from 2 wt.% (black), 3 wt.% (red) or 4 wt.% (blue) o-xylene solutions. EL spectra were measured under dc conditions at a constant current density of 100 mA/cm². Electric field was 3 MV/cm²(2 wt.%), 2.6 MV/cm (3 wt.%) and 2.1 (4 wt.%) MV/cm. They are normalized at the highest energy peak.

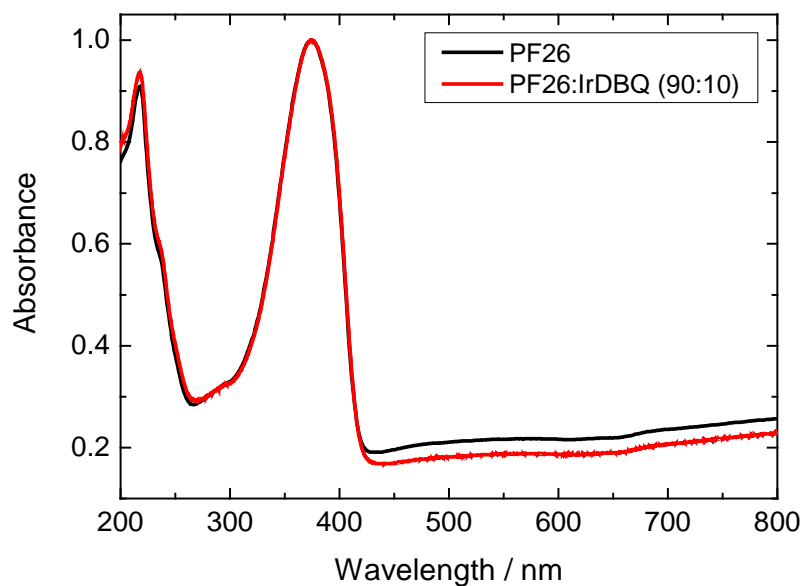


Figure S2: UV-VIS absorption spectra of thin films of PF2/6 and PF2/6:IrDBQ (90:10). Both films were deposited from 2%wt. ortho-xylene solutions by spin-coating on quartz substrates (SUPRASIL 2 grade B, from Heraeus).

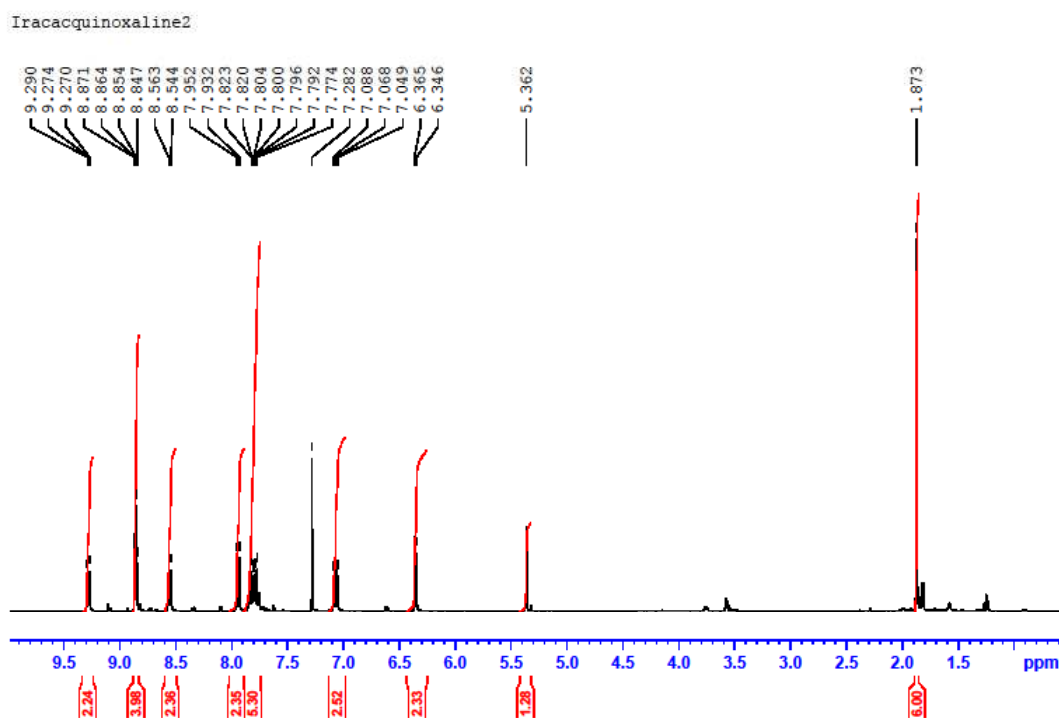


Figure S3: ^1H Nuclear Magnetic Resonance (NMR) spectrum: ^1H NMR (400MHz) spectrum of $\text{Ir}(\text{DBQ})_2\text{acac}$ measured in deuterated chloroform (CDCl_3). For each peak, integrated area is indicated in the bottom part of the spectrum. The same peaks reported by Duan et al. [*Adv. Mater.*, **15**(3), 2003, 224] are displayed.

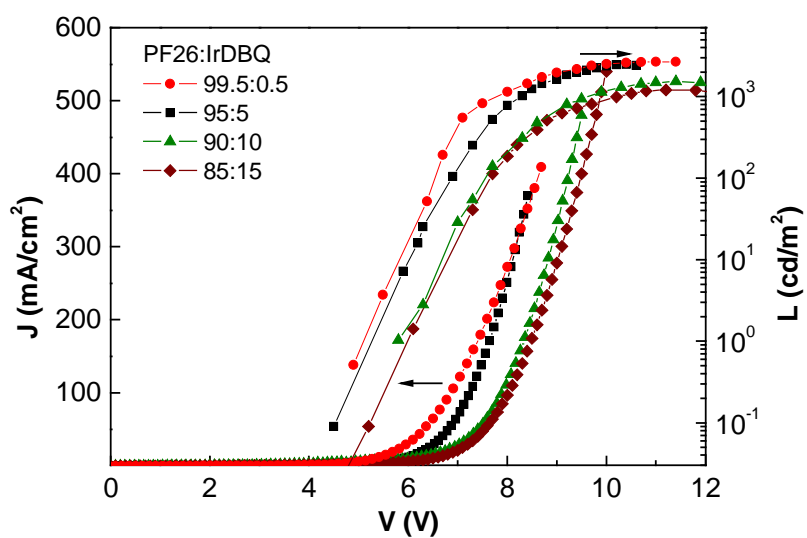


Figure S4: Luminance – voltage and current density - voltage characteristics. Emitting layers of devices are blends of PF26:IrDBQ with different doping ratios (0.5%, 5%, 10%, 15%). They were spin coated from 2% wt. o-xylene solutions.