

Electronic Supplementary Information (ESI)

Orange iridium(III) complex with wide-bandwidth in electroluminescence for high-quality white organic light-emitting diode

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Table S1 The calculated energy levels of the lower-lying transitions of complex **(pbi)₂Ir(piq)**.

States	Assignment ^a	eV	λ (nm)	f	Nature ^b
T ₁	H→L (90%)	2.11	587	0	³ MLCT/ ³ LLCT/ ³ LC
T ₂	H-2→L (83%)	2.53	489	0	³ MLCT/ ³ LLCT/ ³ LC
T ₃	H-1→L (89%)	2.85	434	0	³ MLCT/ ³ LLCT/ ³ LC

^a H and L denote HOMO and LUMO, respectively. ^b MLCT, LLCT and LC denote metal-to-ligand charge transfer, ligand-to-ligand charge transfer and ligand centered, respectively.

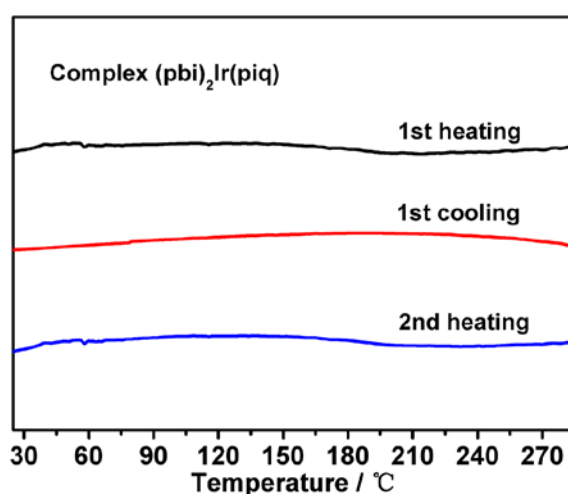


Fig. S1 DSC curves of complex **(pbi)₂Ir(piq)**. Heating and cooling rates are 10 °C min⁻¹ in a nitrogen atmosphere.

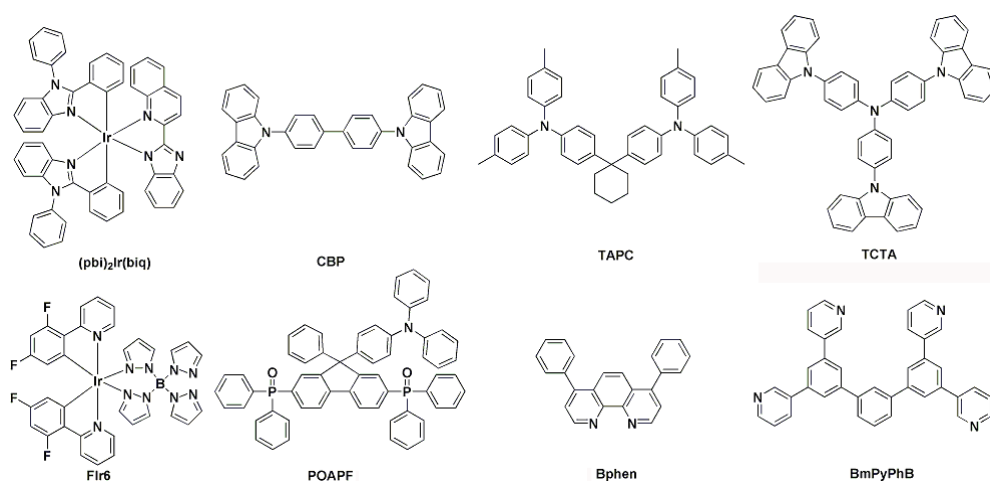


Fig. S2 Chemical structures of the materials used in OLEDs.

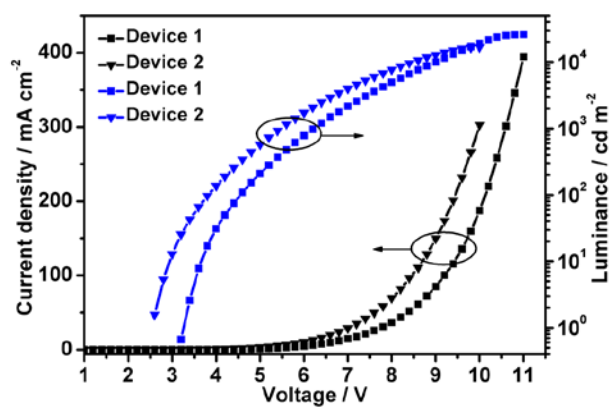


Fig. S3 Current density–voltage–luminance characteristics for orange devices **1** and **2**.

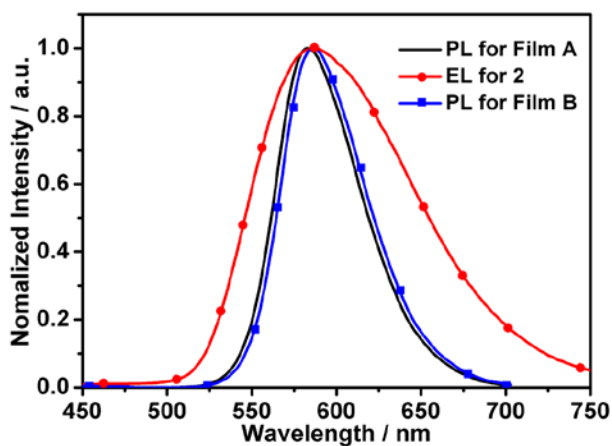


Fig. S4 PL spectra of $(\text{pbi})_2\text{Ir}(\text{biq})$ in the spin-coated (**Film A**) and evaporated neat films (**Film B**) and EL spectrum for orange device **2**.