Heteroleptic Ir(III) complexes with varied π-conjugated diimine ligands: synthsis, tunable triplet states and nonlinear absorption properties

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1. Photophysical properties of Ir-1–Ir-5

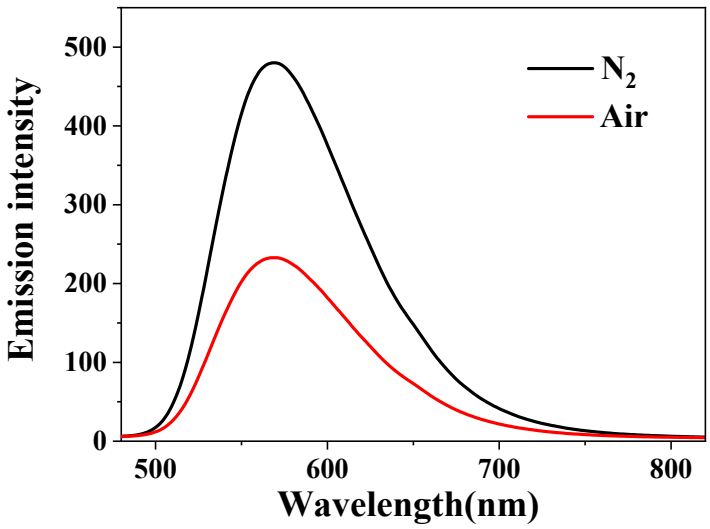

Fig. S1 Emission spectra of complex **Ir-1** in air-saturated and degassed CH_2Cl_2 solution.

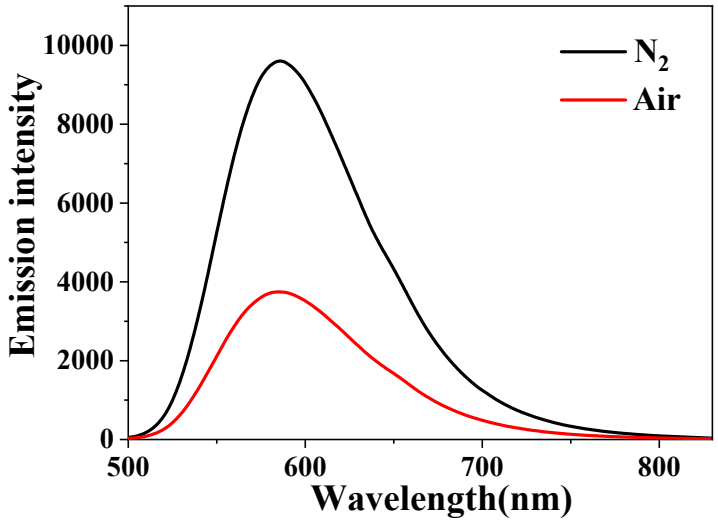

Fig. S2 Emission spectra of complex **Ir-2** in air-saturated and degassed CH_2Cl_2 solution

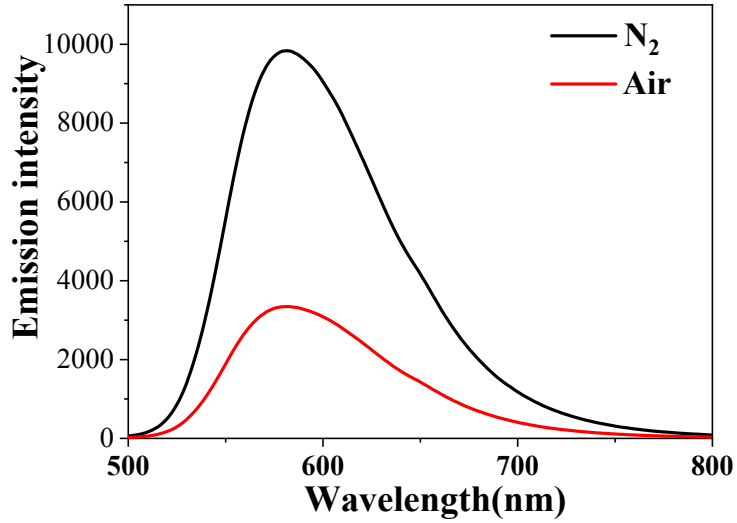

Fig. S3 Emission spectra of complex **Ir-3** in air-saturated and degassed CH_2Cl_2 solution

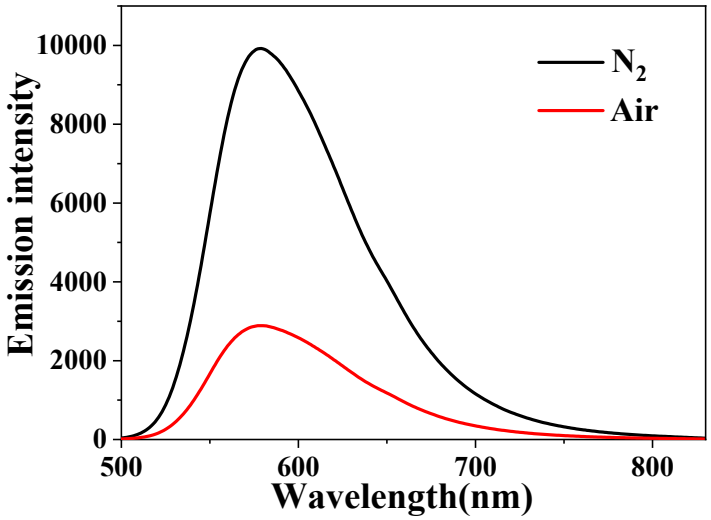

Fig. S4 Emission spectra of complex **Ir-4** in air-saturated and degassed CH_2Cl_2 solution

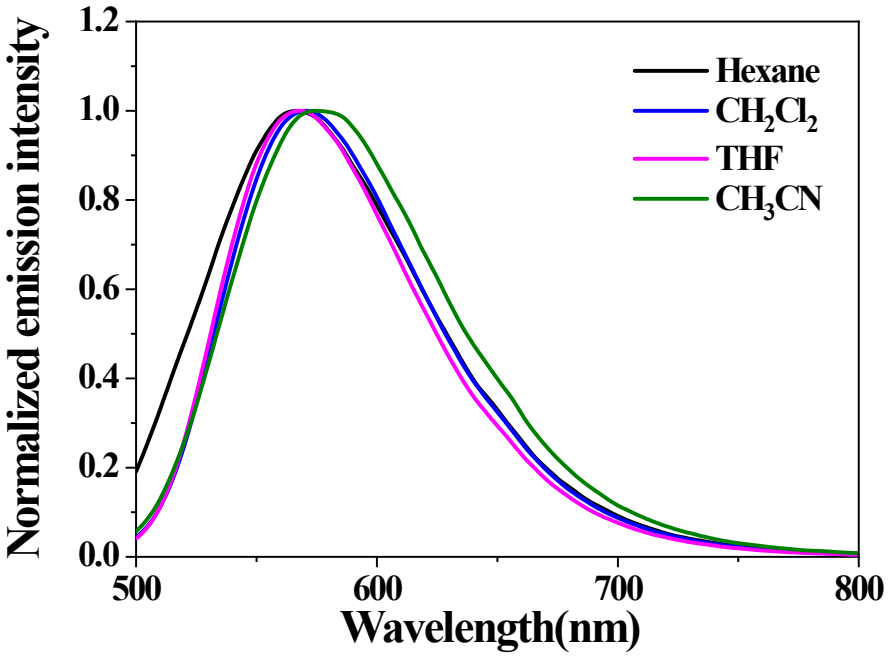

Fig. S5 Normalized emission spectra of **Ir-1** in different solvents.

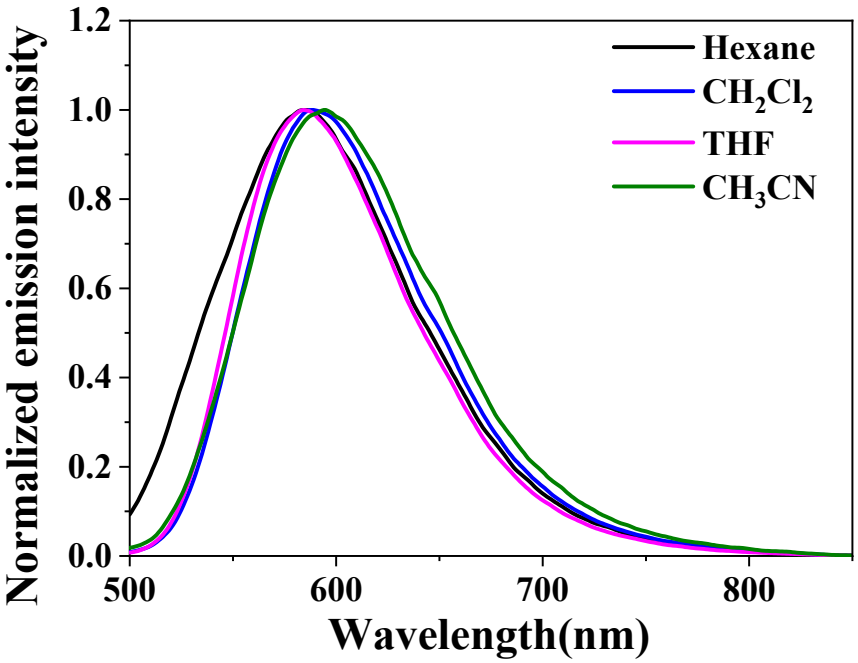

Fig. S6 Normalized emission spectra of **Ir-2** in different solvents.

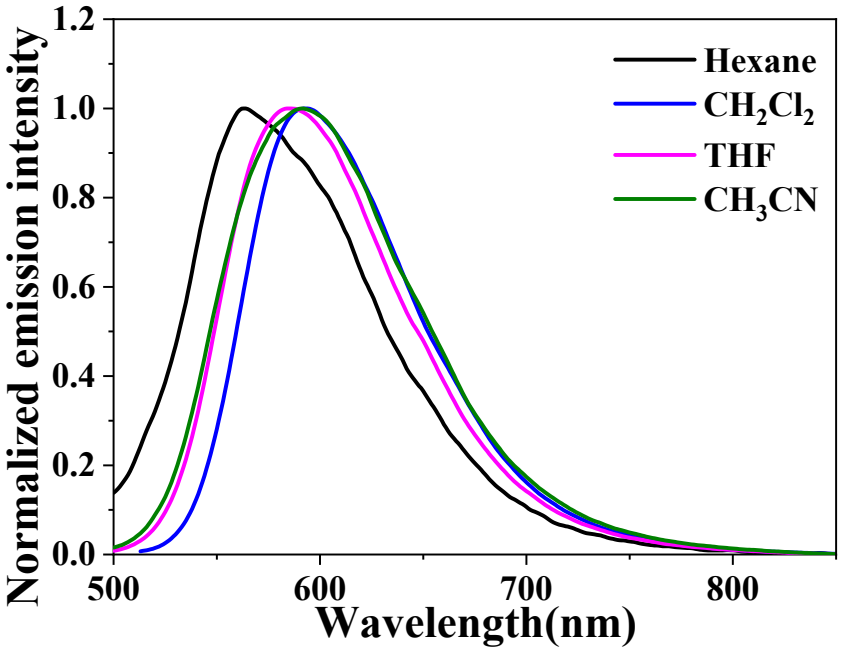

Fig. S7 Normalized emission spectra of **Ir-3** in different solvents

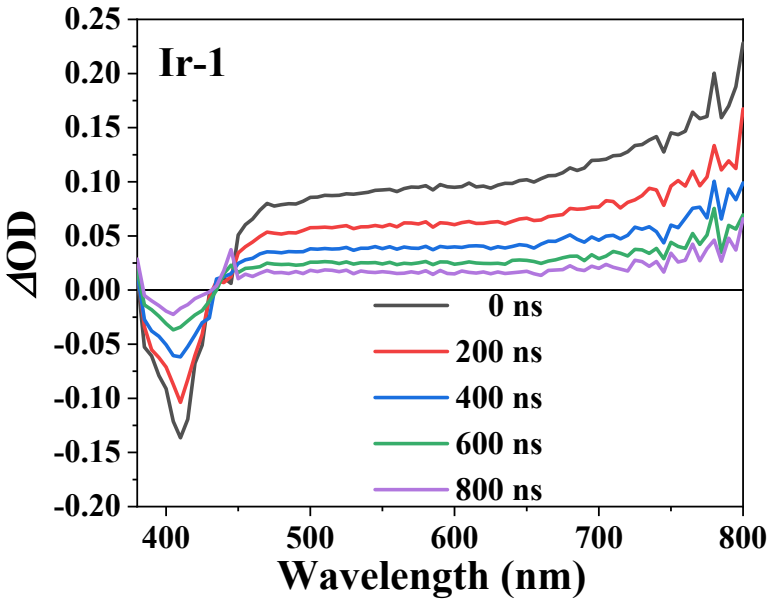

Fig.S8 Time-resolved TA spectra of **Ir-1** in toluene without SE signals, $c = 1 \times 10^{-5}$ mol L^{-1}, $\lambda_{ex} = 355$ nm

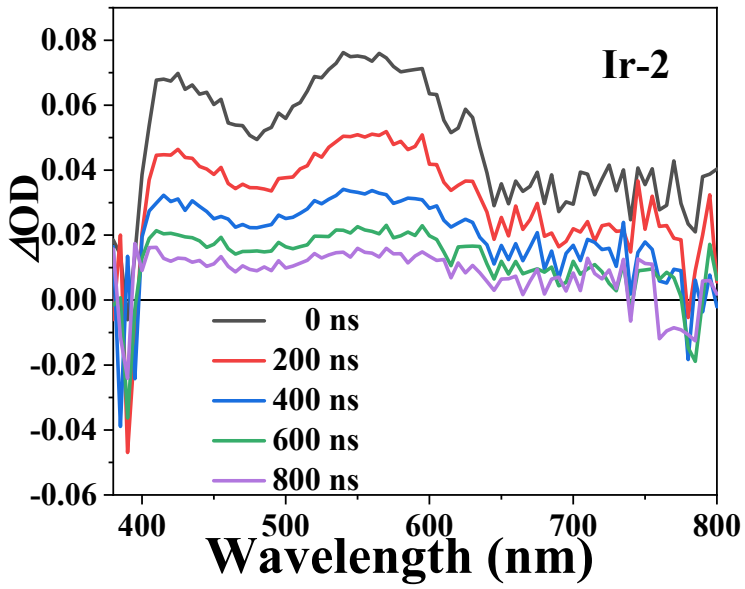

Fig.S9 Time-resolved TA spectra of **Ir-2** in toluene without SE signals, $c = 1 \times 10^{-5}$ mol L^{-1}, $\lambda_{ex} = 355$ nm

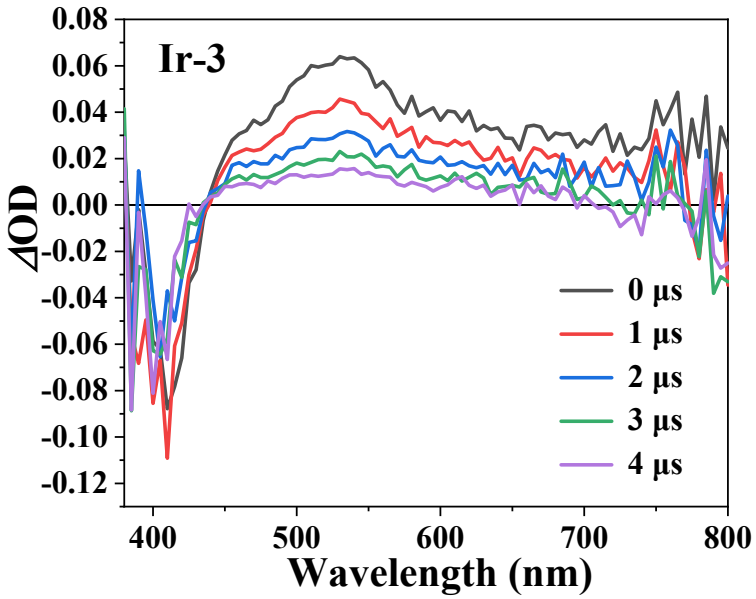

Fig.S10 Time-resolved TA spectra of **Ir-3** in toluene without SE signals, $c = 1 \times 10^{-5}$ mol L^{-1}, $\lambda_{ex} = 355$ nm

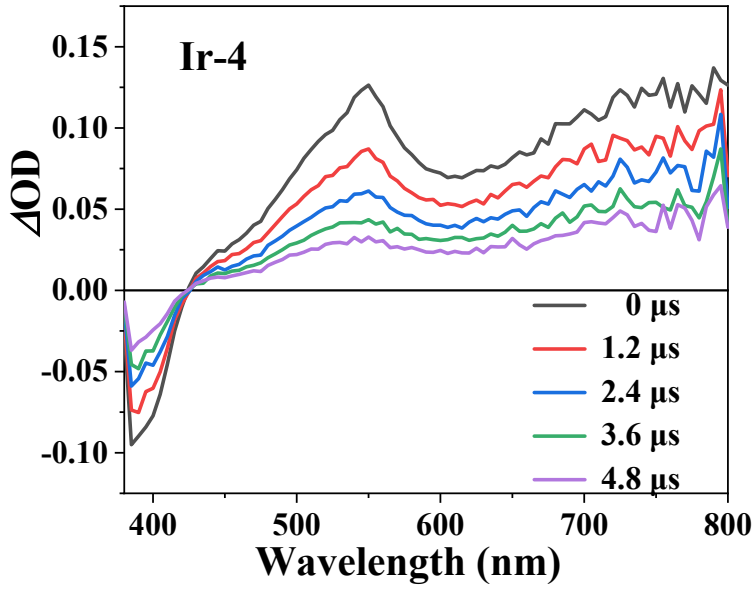

Fig.S11 Time-resolved TA spectra of **Ir-4** in toluene without SE signals, $c = 1 \times 10^{-5}$ mol L^{-1}, $\lambda_{ex} = 355$ nm

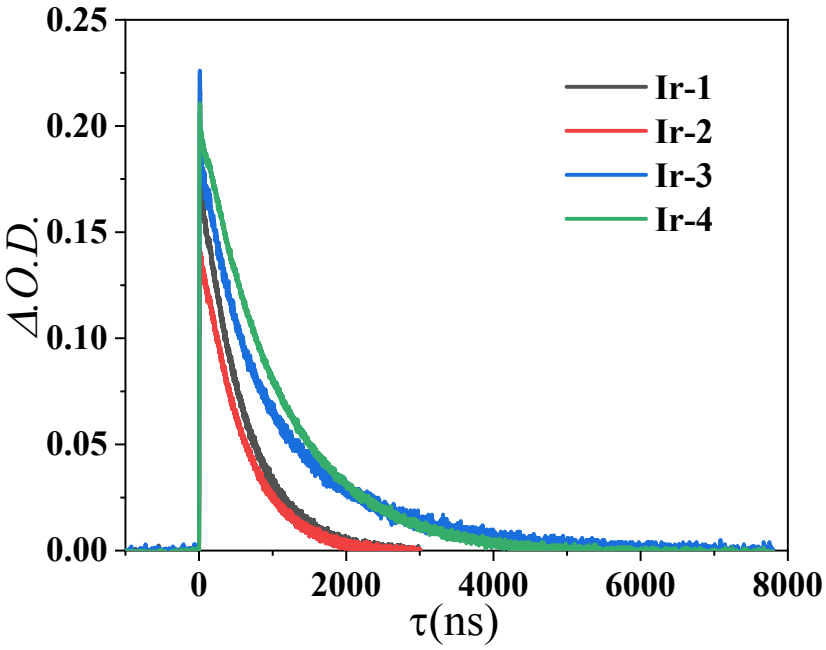

Fig. S12 Emission delay time of **Ir-1–Ir-4**

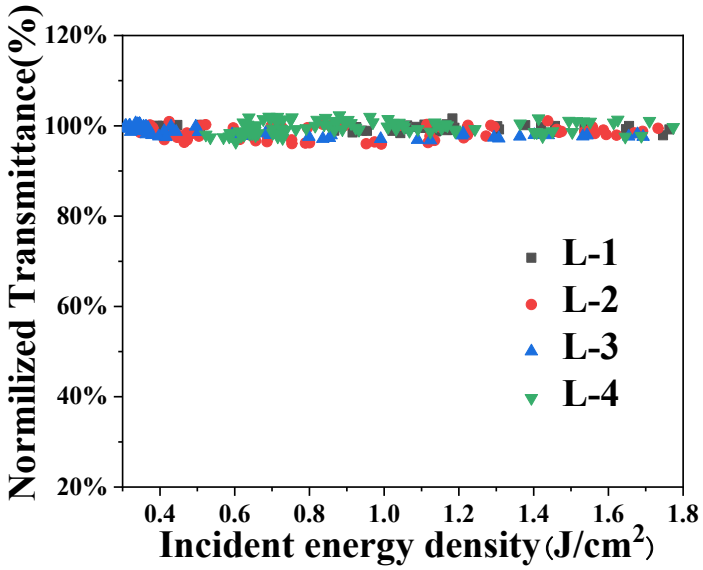

Fig. S13 Nonlinear transmission curves for **L-1** – **L-4** in toluene for 4.1 ns laser pulses at 532 nm. ($c = 5 \times 10^{-4}$ mol/L)