

Supplementary Information

Synthesis, characterization, photoluminescence and intensity parameters of high quantum efficiency pure-red emitting Eu (III) fluorinated β -diketone complexes.

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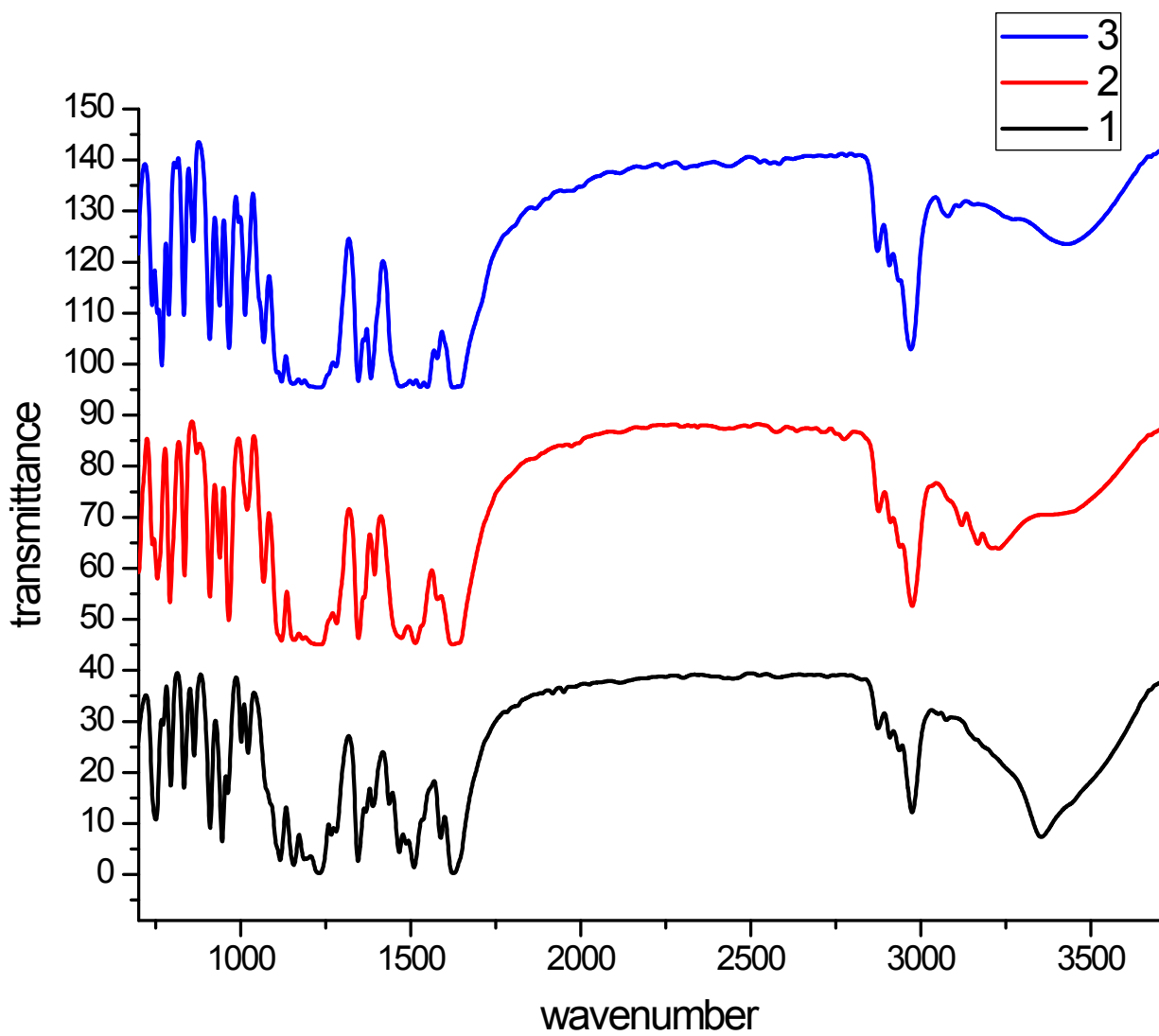


Fig. S1. IR spectra of the complexes **1** - **3**.

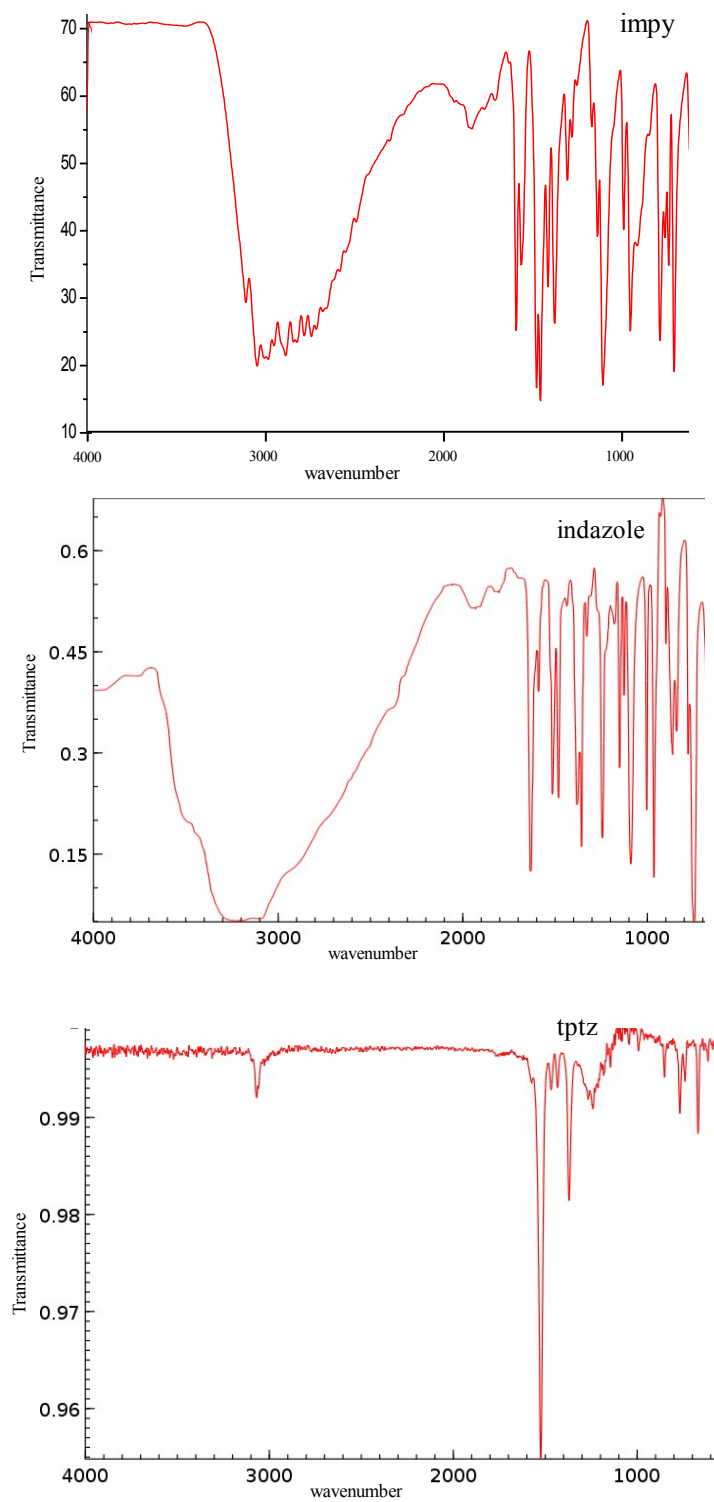


Fig. S2. IR spectra of the ligands.

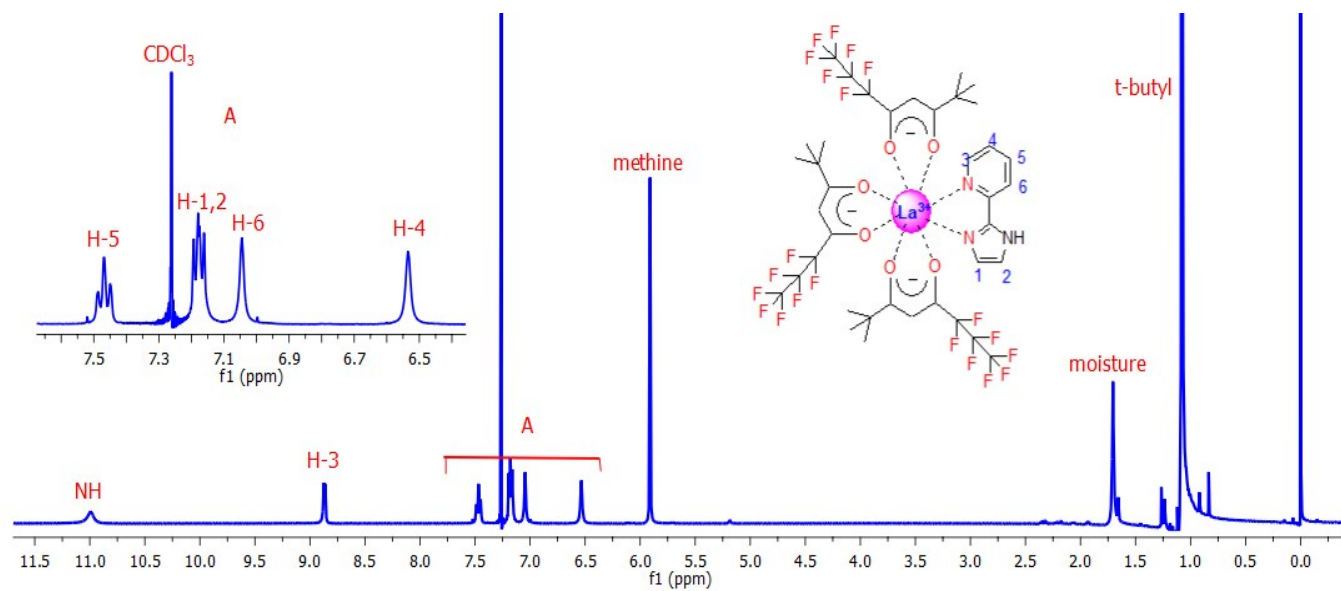


Fig. S3. ^1H NMR spectra of $[\text{La}(\text{fod})_3\text{impy}]$ in CDCl_3 .

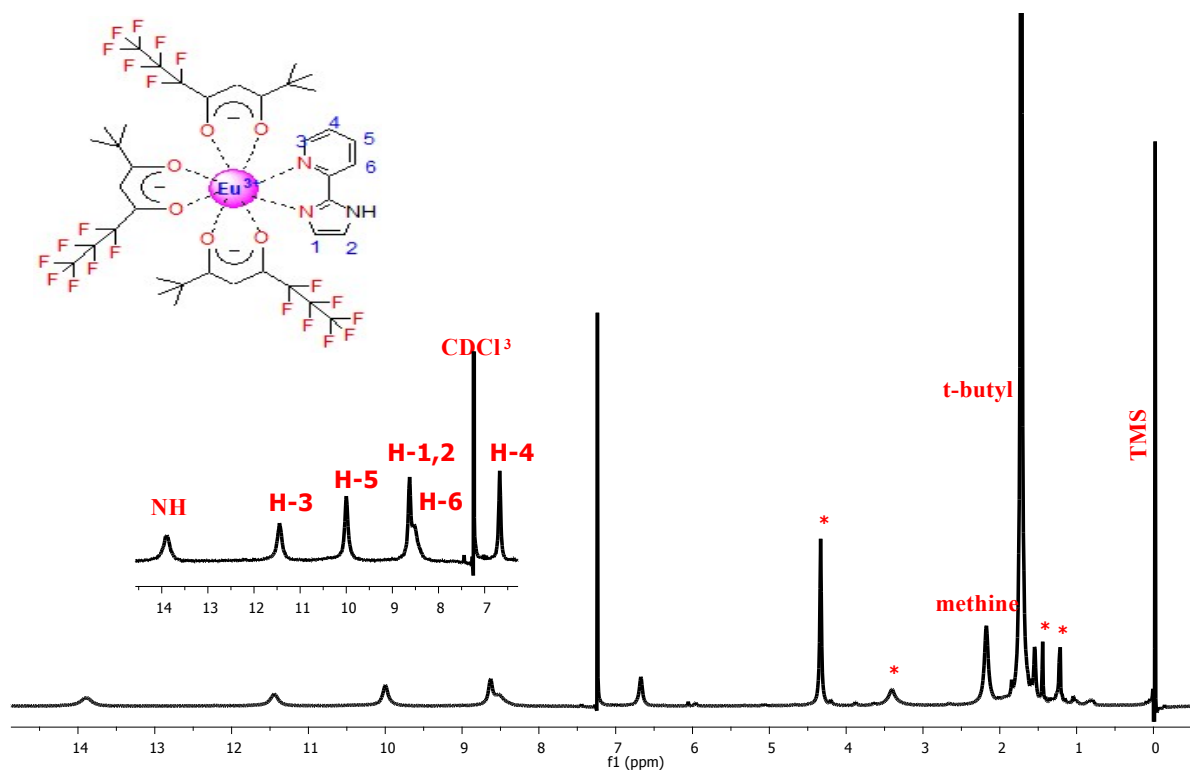


Fig. S4. ^1H NMR spectra of $[\text{Eu}(\text{fod})_3]\text{imp}$ (2) in CDCl_3 . *some impurities.

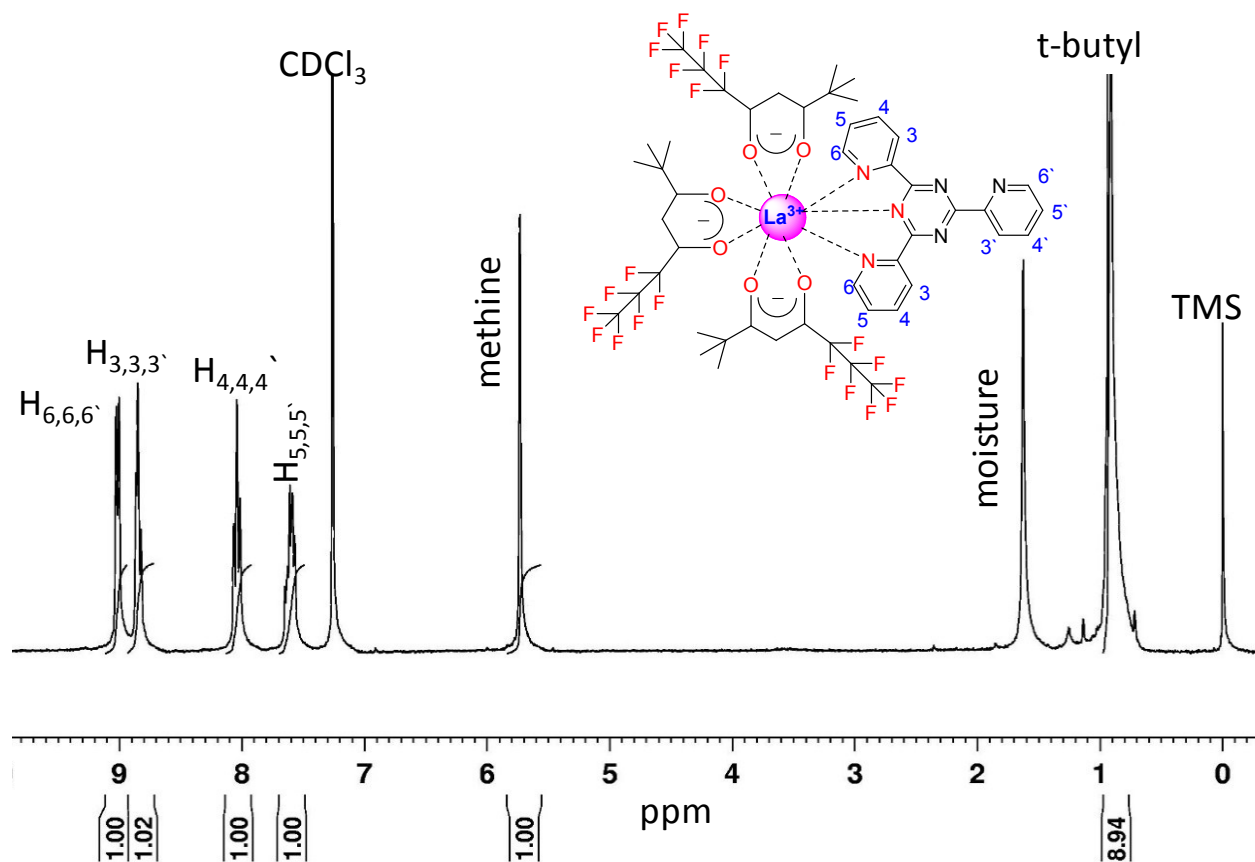


Fig. S5. ^1H NMR spectra of $[\text{La}(\text{fod})_3\text{tptz}]$ in CDCl_3 .

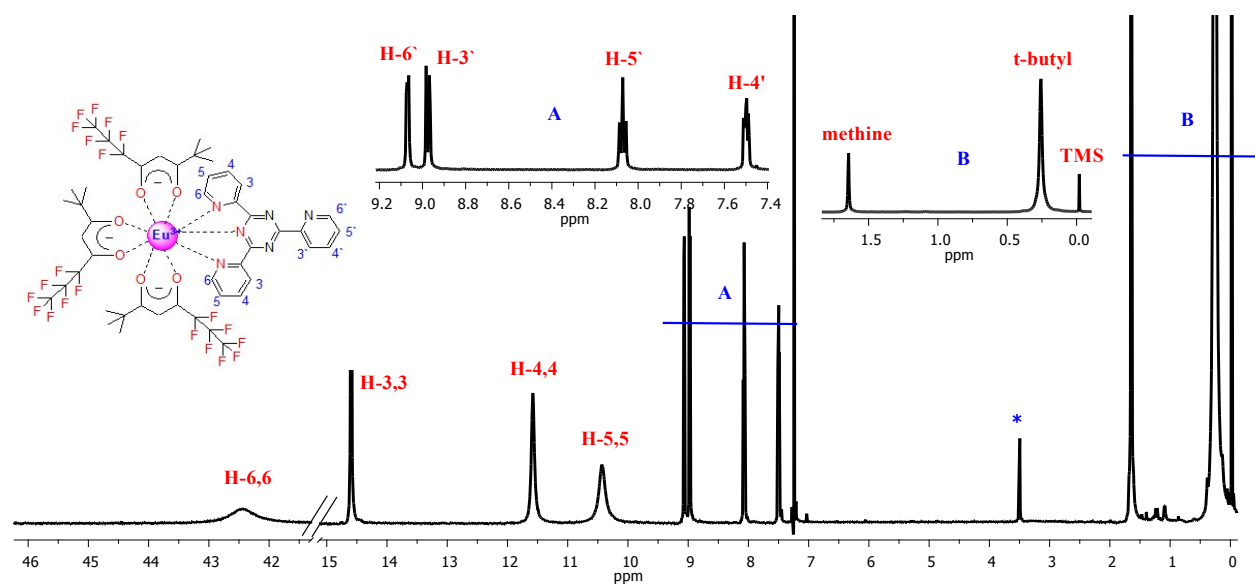


Fig. S6. ^1H NMR spectra of $[\text{Eu}(\text{fod})_3\text{tptz}]$ (3) in CDCl_3 .

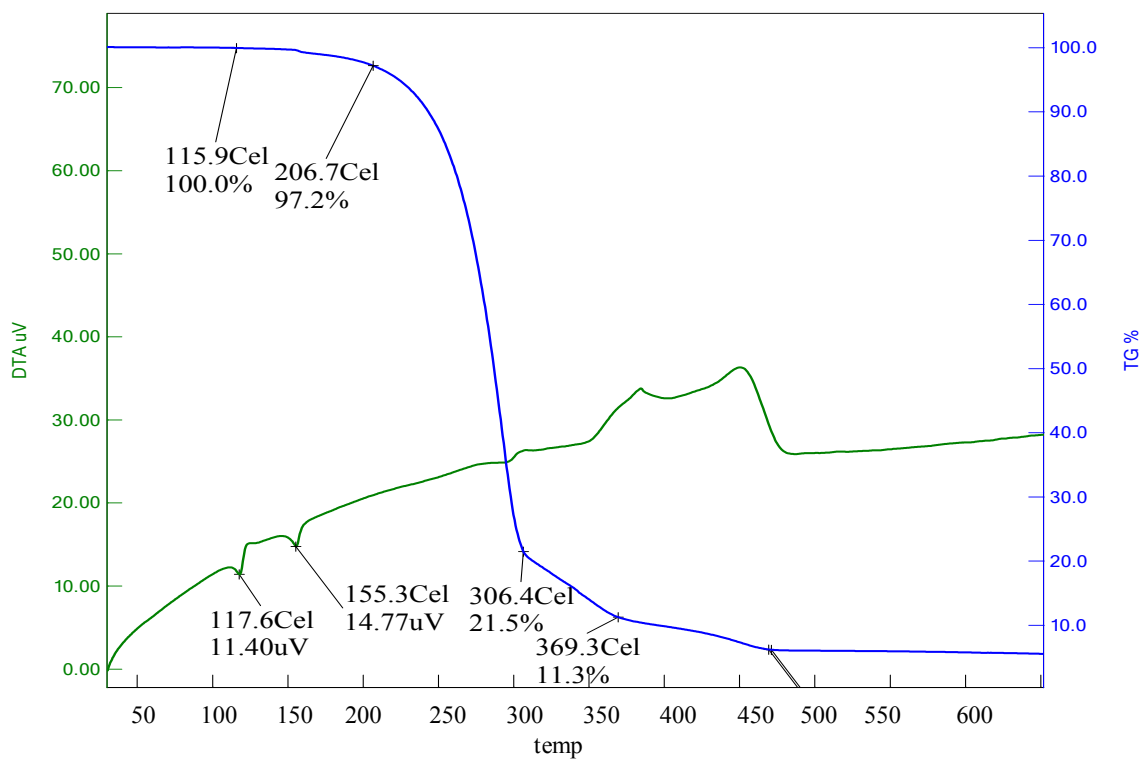


Fig. S7. TGA-DTA plot of $[\text{Eu}(\text{fod})_3\text{impz}]$ (**2**).

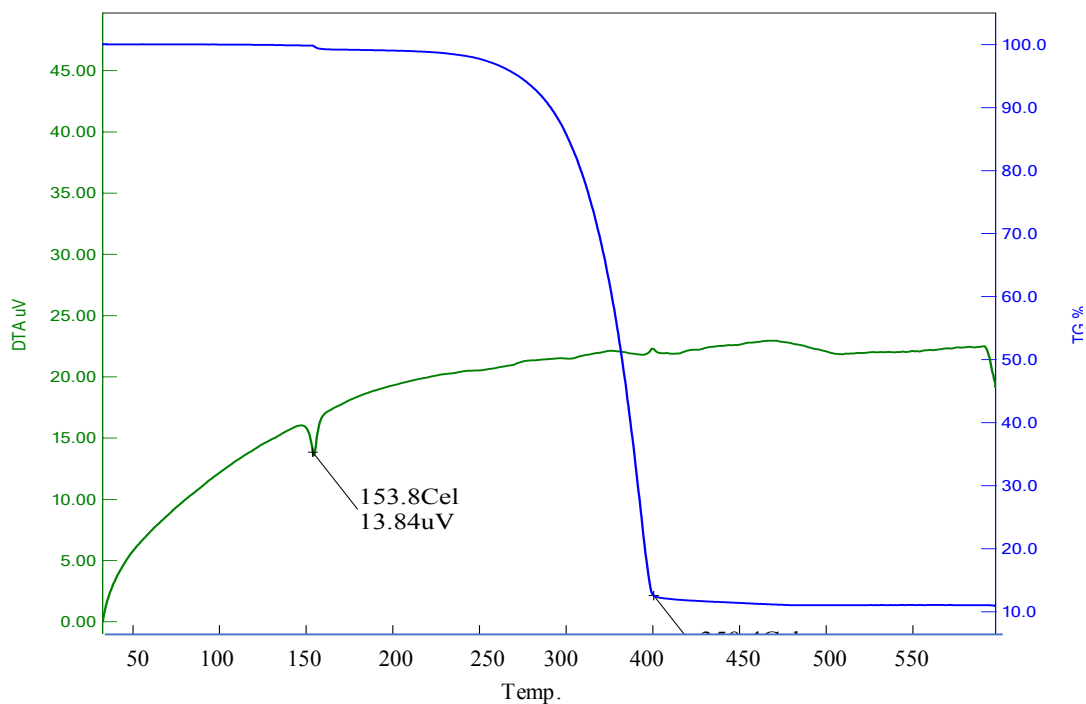


Fig. S8. TGA-DTA plot of $[\text{Eu}(\text{fod})_3\text{tpz}]$ (**3**).

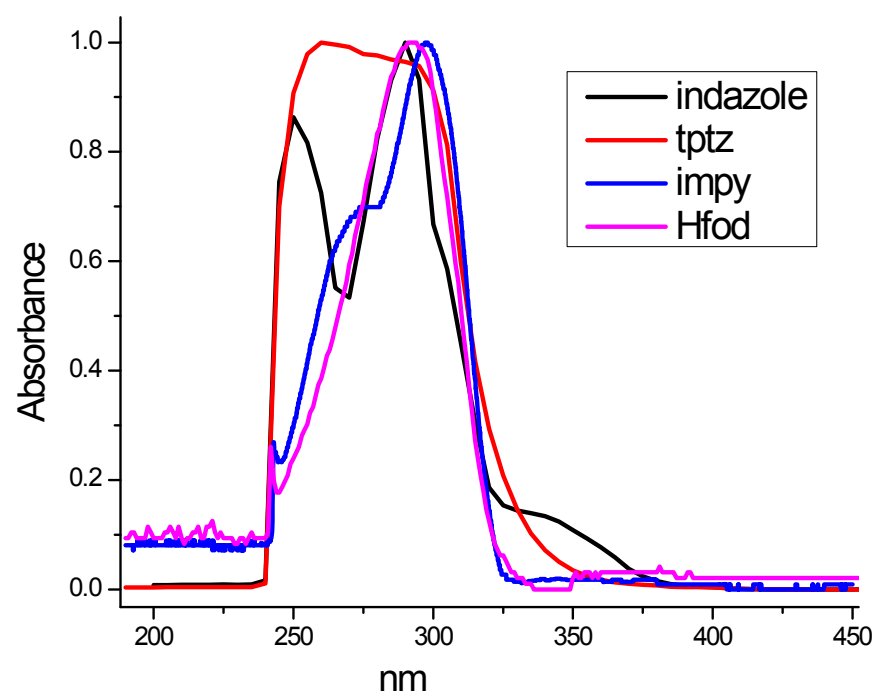


Fig. S9. Absorption spectra of the ligands in chloroform.

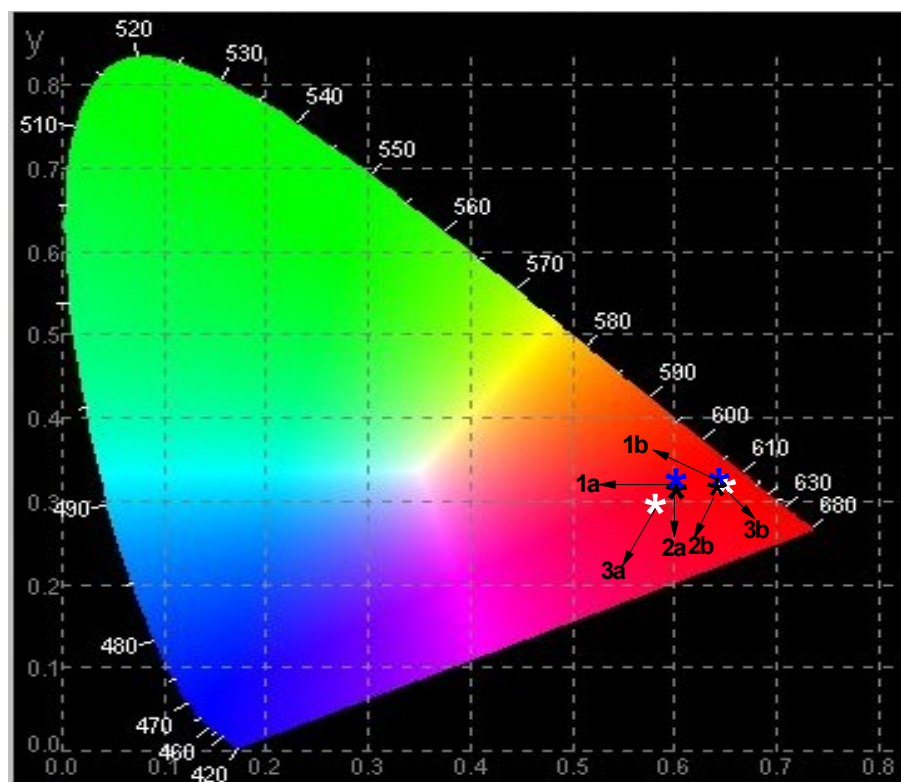


Fig. S10. CIE chromaticity diagram of the complexes **1** – **3** chloroform solution and solid phase.

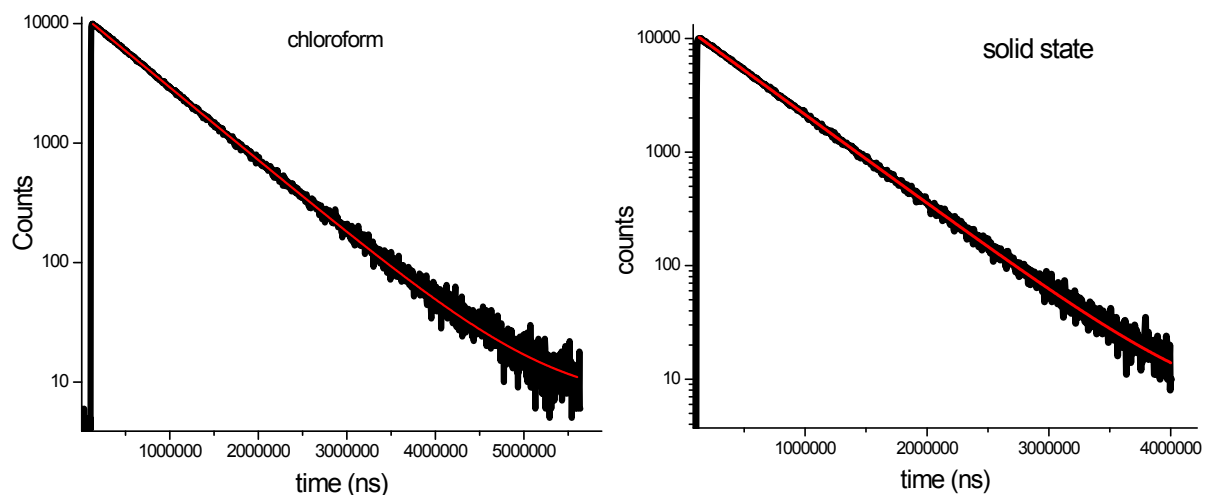


Fig. S11. Emission decay curves of $[\text{Eu}(\text{fod})_3\text{imp}]$ (**2**) in chloroform and solid state.

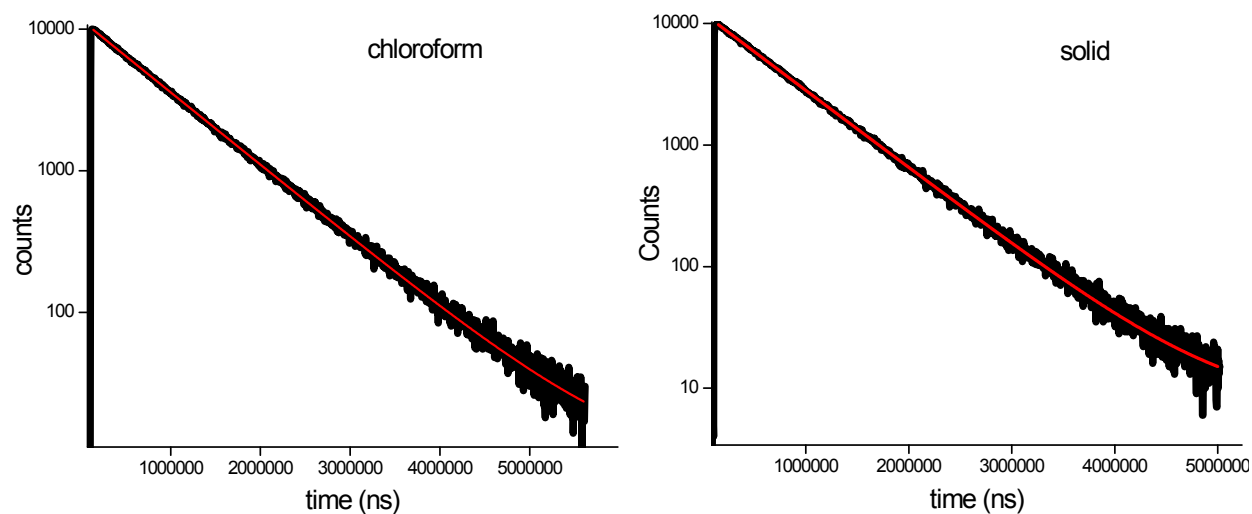


Fig. S12. Emission decay curves of $[\text{Eu}(\text{fod})_3\text{tpz}]$ (**3**) in chloroform and solid state.