

Supplementary Information

Highly Luminescent Bis-Diketone Lanthanide Complexes with Triple-Stranded Dinuclear Structure

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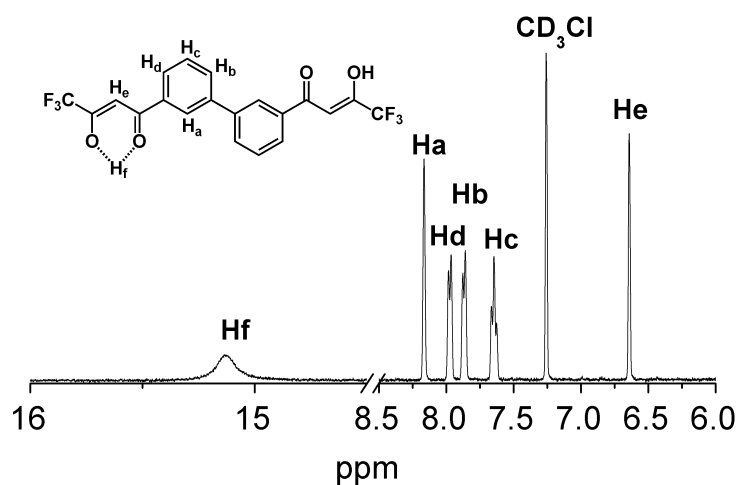


Fig. S1 400 MHz ¹H NMR spectrum of BTB in CDCl₃.

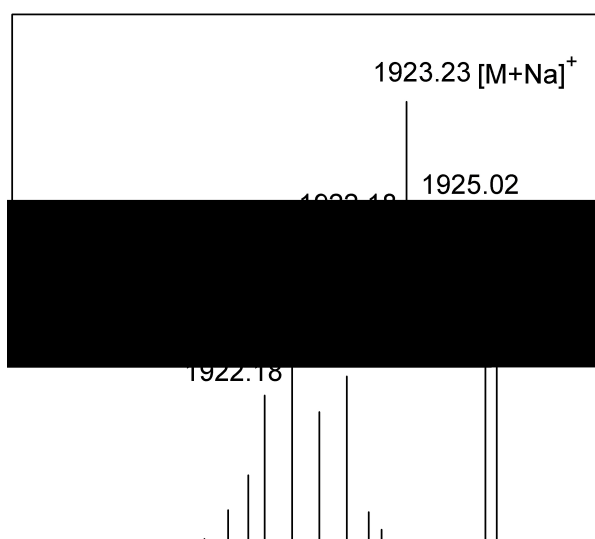


Fig. S2 Expanded regions of the ESI-MS of Eu₂(BTB)₃(bpy)₂ in methanol/toluene.

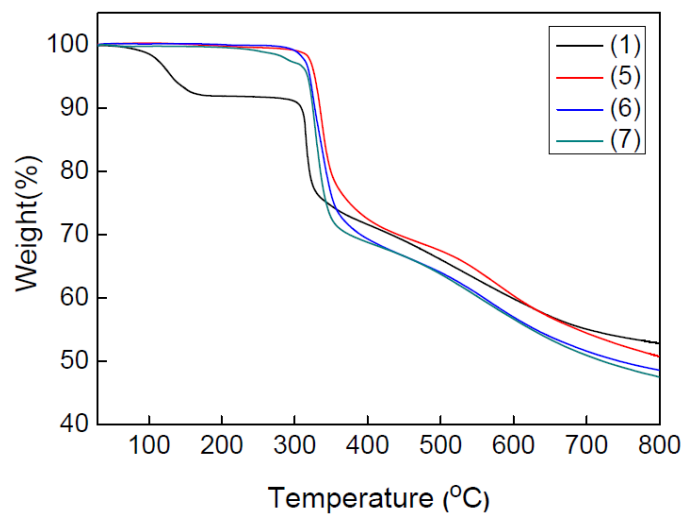


Fig. S3 Thermogravimetric curves for the complex **1** and **5–7**.

(a)

(b)

Fig. S4 Intermolecular C–H···F interactions of complex **1**, viewing along the direction of the [001] (a), and [010] (b).

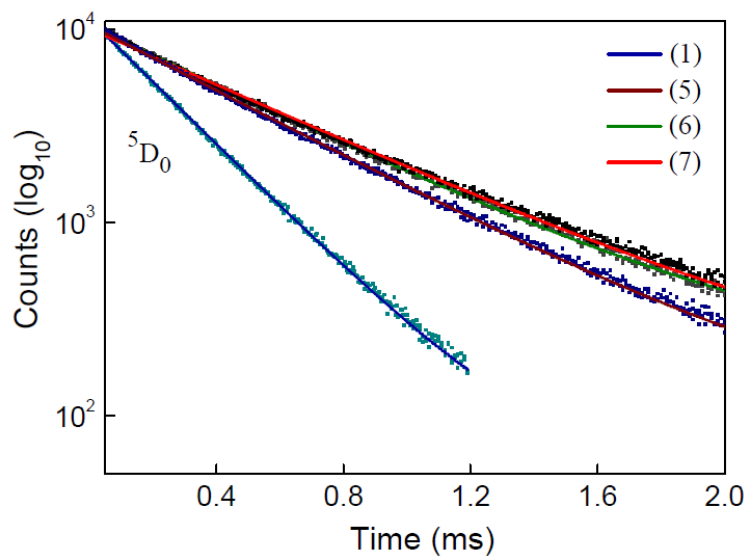


Fig. S5 Luminescence decay curves of complex **1** and **5-7** monitored at 614 nm.

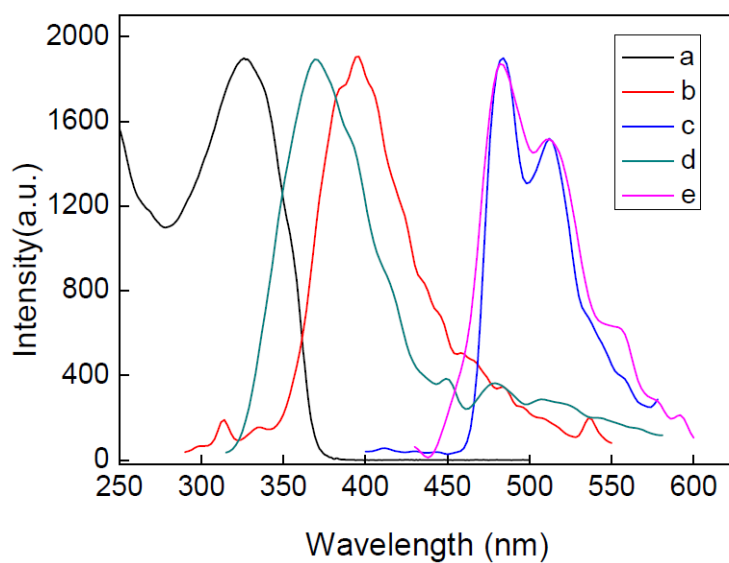


Fig. S6 (a) UV-vis absorption spectrum of BTB at room temperature; (b) Emission spectrum of BTB at room temperature; (c) Phosphorescence spectrum of **2** at 77K; (d) Emission spectrum of phen at room temperature; (e) Phosphorescence spectrum of Gd(phen)₂(NO₃)₃ at 77K.

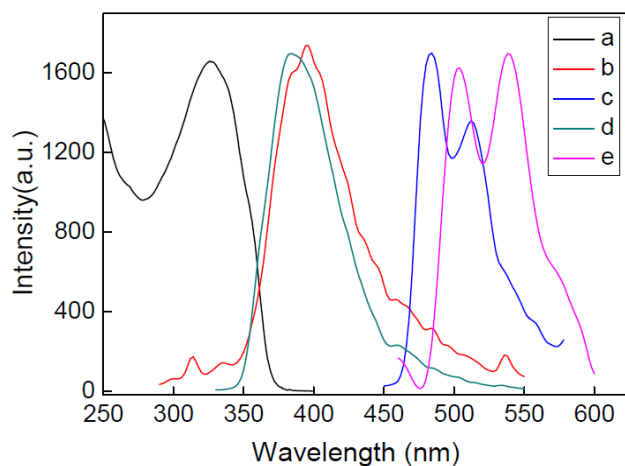


Fig. S7 (a) UV-vis absorption spectrum of BTB at room temperature; (b) Emission spectrum of BTB at room temperature; (c) Phosphorescence spectrum of **2** at 77K; (d) Emission spectrum of bath at room temperature; (e) Phosphorescence spectrum of Gd(bath)₂(NO₃)₃ at 77K.

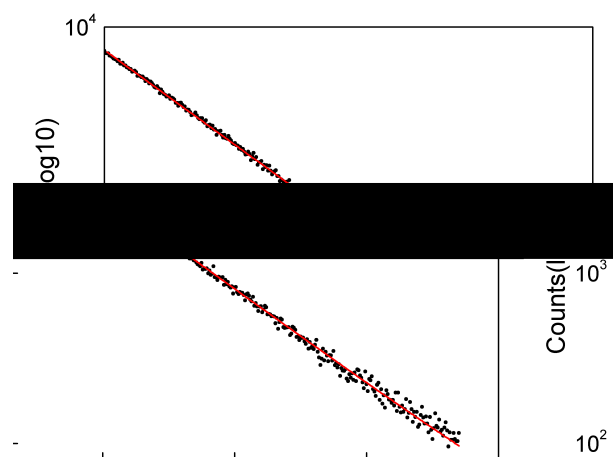


Fig. S8 Luminescence decay curves of complex **4** monitored at 977 nm.