Supporting Information

NIR luminescence of a series of benzoyltrifluoroacetone erbium complexes

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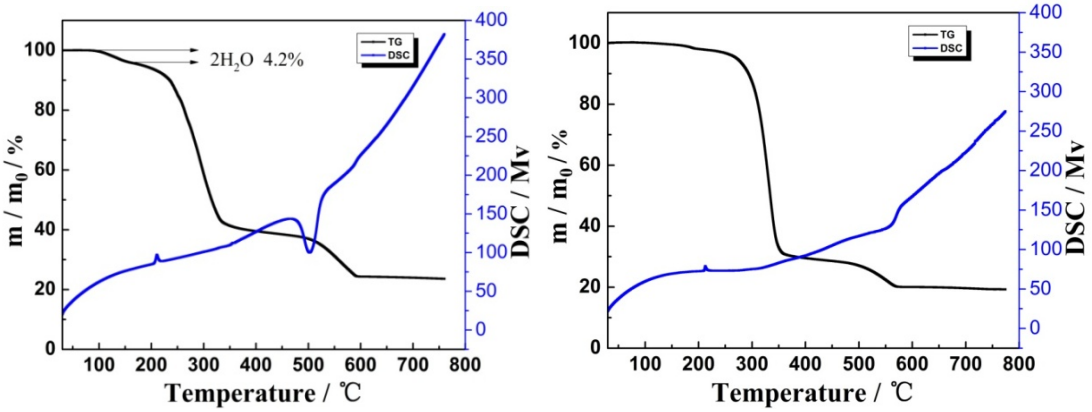

Fig. S1 TG–DSC curves of complexes **1** (left) and **2** (right).

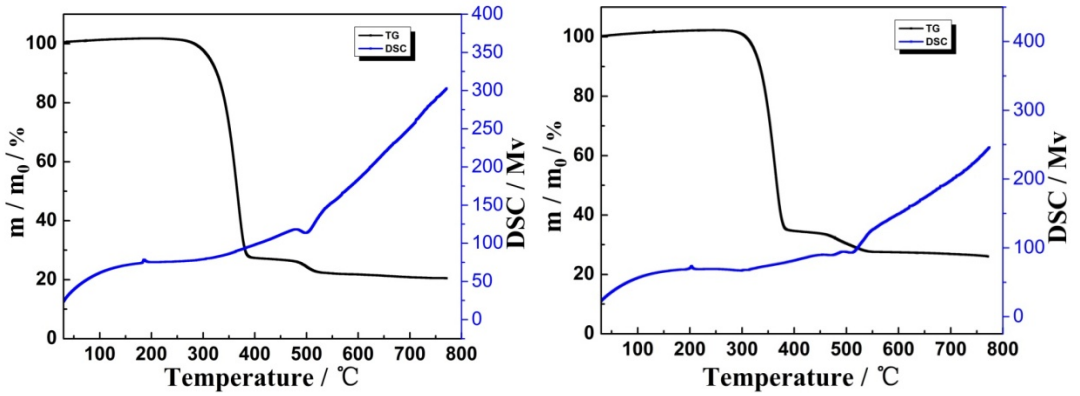

Fig. S2 TG–DSC curves of complexes **3** (left) and **4** (right)

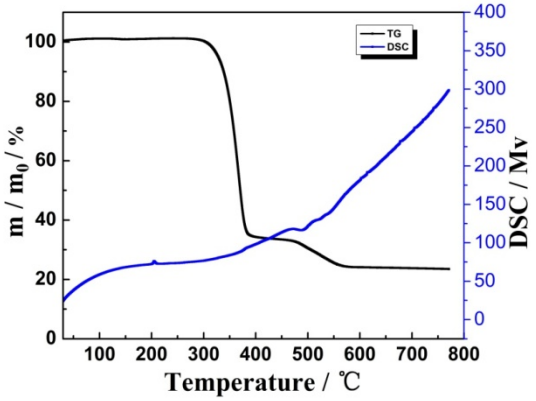

Fig. S3 TG–DSC curves of complex **5**

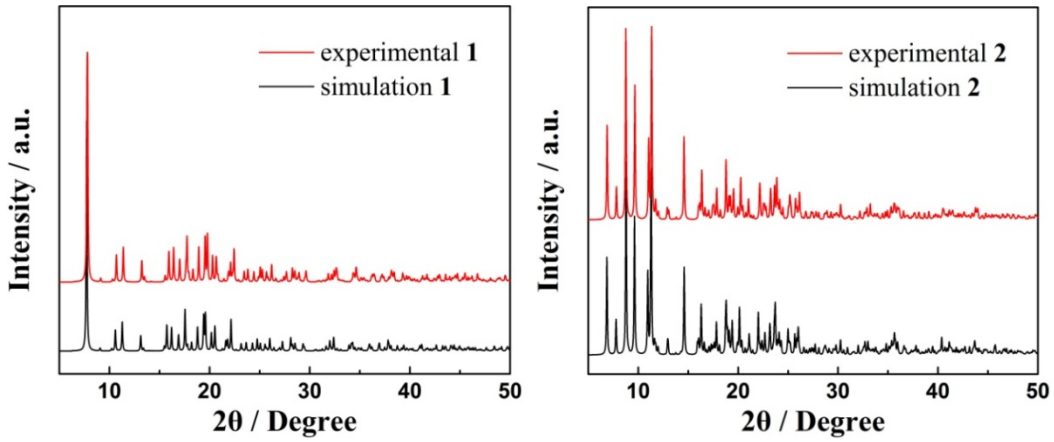

Fig. S4 The powder X–ray diffraction spectra of the simulated patterns and experimental for complexes **1** (left) and **2** (right).

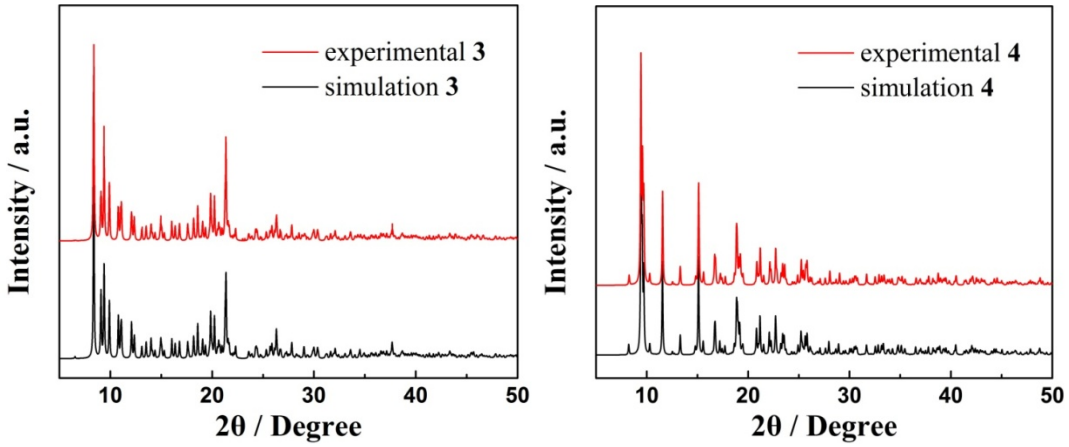

Fig. S5 The powder X–ray diffraction spectra of the simulated patterns and experimental for complexes **3** (left) and **4** (right).

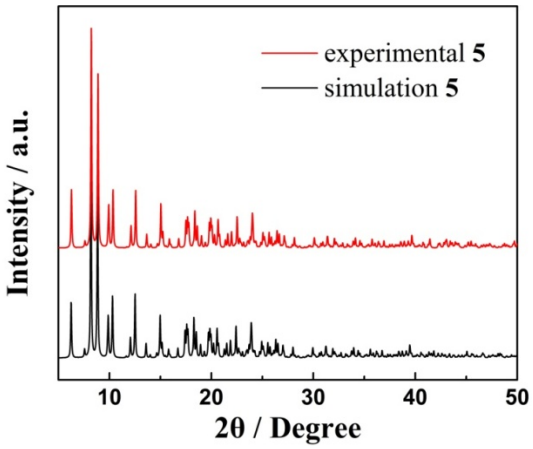

Fig. S6 The powder X–ray diffraction spectra of the simulated patterns and experimental for complex **5**.

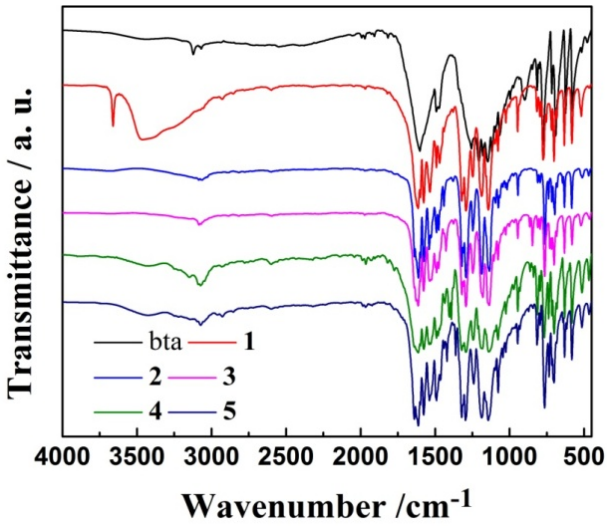

Fig. S7 IR spectra of bta and complexes **1**−**5**.

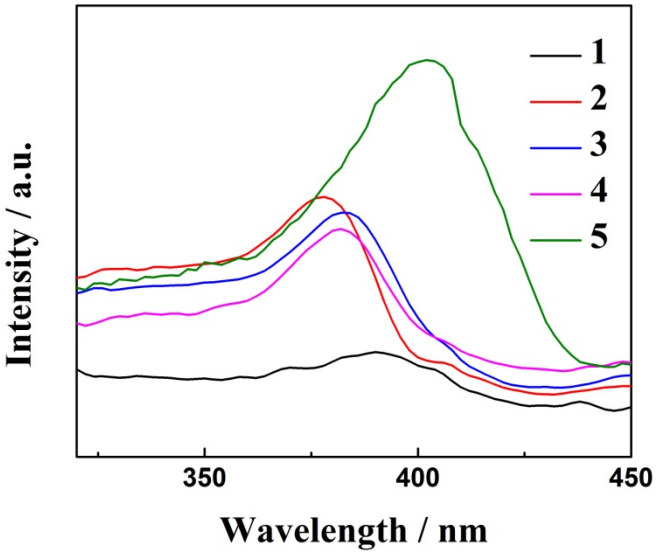

Fig. S8 Excitation spectra of complexes **1**–**5**

Table S1 Selected bond lengths (Å) and angles (°) for complexes **1**−**3**.

1		**2**		**3**	
O(1)−Er(1)	2.371(3)	O(1)−Er(1)	2.304(4)	O(7)−Er(2)	2.335(4)
O(2)−Er(1)	2.391(3)	O(2)−Er(1)	2.328(3)	O(8)−Er(2)	2.294(4)
O(3)−Er(1)	2.338(3)	O(3)−Er(1)	2.301(3)	O(9)−Er(2)	2.263(4)
O(4)−Er(1)	2.293(4)	O(4)−Er(1)	2.278(4)	O(10)−Er(2)	2.313(4)
O(5)−Er(1)	2.349(3)	O(5)−Er(1)	2.282(4)	O(11)−Er(2)	2.293(4)
O(6)−Er(1)	2.284(3)	O(6)−Er(1)	2.312(4)	O(12)−Er(2)	2.315(3)
O(7)−Er(1)	2.247(3)	N(1)−Er(1)	2.515(4)	N(3)−Er(2)	2.525(4)
O(8)−Er(1)	2.401(3)	N(2)−Er(1)	2.513(4)	N(4)−Er(2)	2.556(4)
O(6)−Er(1)−O(4)	136.56(12)	O(3)−Er(1)−O(2)	78.90(13)	O(10)−Er(2)−O(7)	116.45(14)
O(7)−Er(1)−O(3)	75.56(13)	O(5)−Er(1)−O(2)	148.33(13)	O(8)−Er(2)−O(7)	72.00(13)
O(6)−Er(1)−O(5)	72.73(12)	O(4)−Er(1)−N(1)	142.56(13)	O(9)−Er(2)−N(3)	138.28(13)
O(6)−Er(1)−O(1)	73.09(12)	O(6)−Er(1)−N(2)	71.05(14)	O(11)−Er(2)−N(4)	70.13(13)

Table S2 Selected bond lengths (Å) and angles (°) for complexes **4** and **5**.

4		**5**	
O(1)−Er(1)	2.295(5)	O(1)−Er(1)	2.300(5)
O(2)−Er(1)	2.320(6)	O(2)−Er(1)	2.304(5)
O(3)−Er(1)	2.282(5)	O(3)−Er(1)	2.295(5)
O(4)−Er(1)	2.272(6)	O(4)−Er(1)	2.266(5)
O(5)−Er(1)	2.296(5)	O(5)−Er(1)	2.303(5)
O(6)−Er(1)	2.301(6)	O(6)−Er(1)	2.304(5)
N(1)−Er(1)	2.526(7)	N(1)−Er(1)	2.507(5)
N(2)−Er(1)	2.531(8)	N(2)−Er(1)	2.508(5)
O(5)−Er(1)−O(1)	116.0(2)	O(4)−Er(1)−O(3)	73.43(18)
O(5)−Er(1)−O(4)	86.3(2)	O(3)−Er(1)−O(1)	121.88(17)
O(5)−Er(1)−N(1)	149.1(2)	O(4)−Er(1)−N(1)	145.90(18)
O(3)−Er(1)−N(2)	71.7(2)	O(4)−Er(1)−N(2)	149.52(18)