

Supplementary Information

Synthesis, crystal structure and photophysical properties of lanthanide coordination polymers of 4-[4-(9H-carbazol-9-yl)butoxy]benzoate: The effect of bidentate nitrogen donors on luminescence

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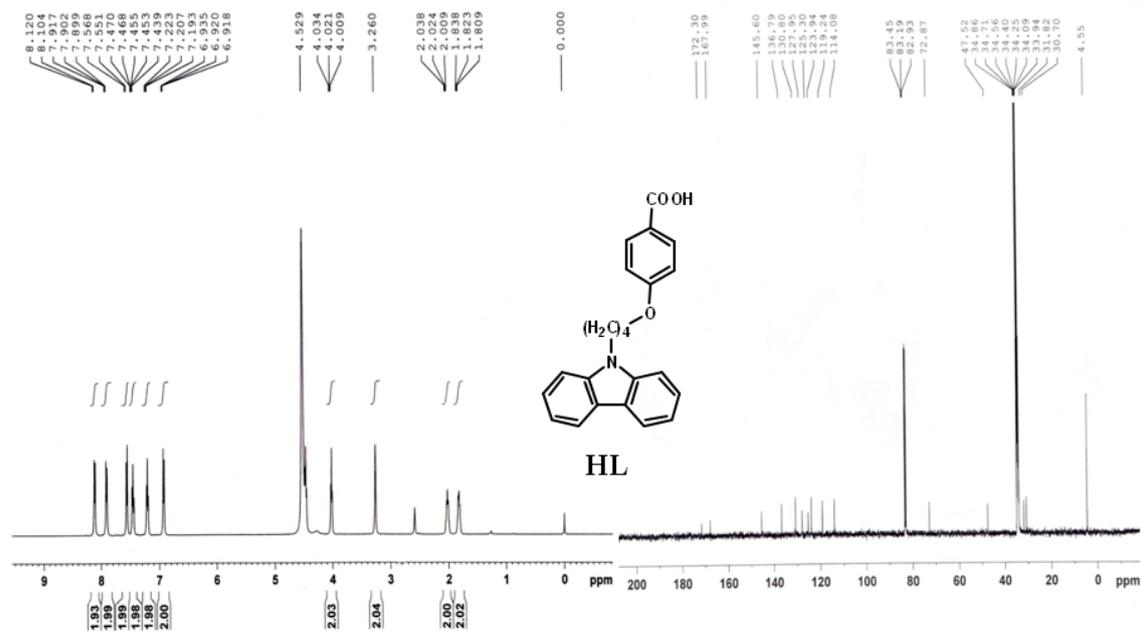


Fig. S1 ¹H and ¹³C NMR spectra for HL in Acetone-d₆ and CDCl₃ solution.

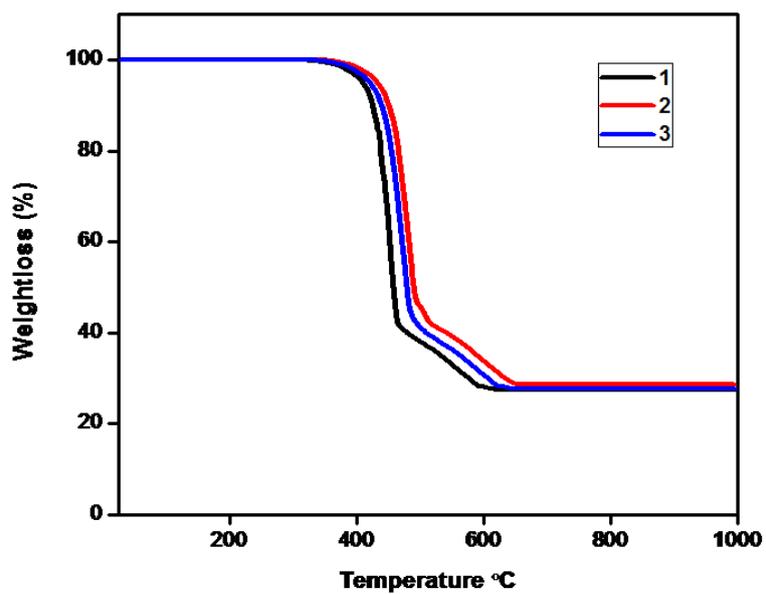


Fig. S2 Thermogravimetric curves for complexes 1-3.

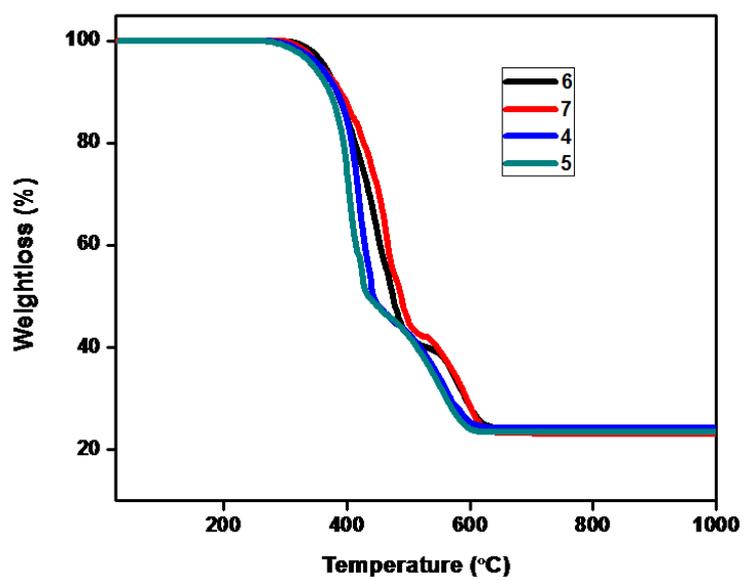


Fig. S3 Thermogravimetric curves for complexes 4-7.

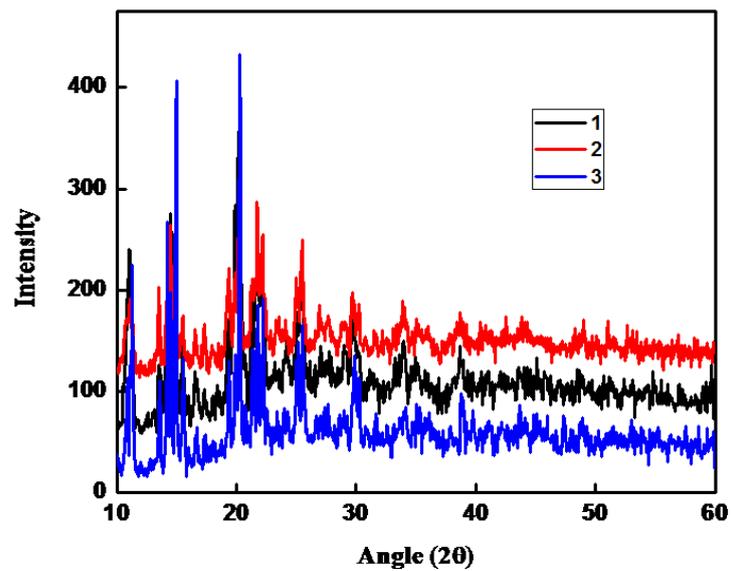


Fig. S4 XRD pattern for complexes 1, 2 and 3.

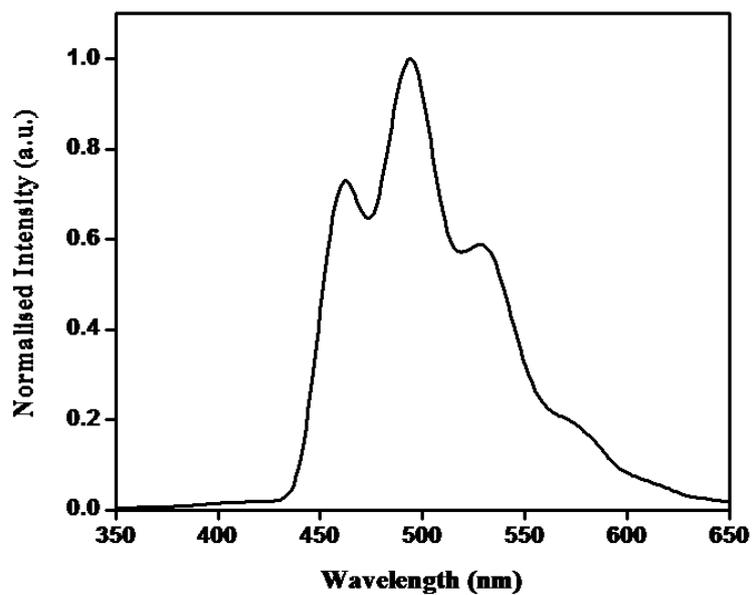


Fig. S5 Phosphorescence spectrum for [Gd(tmphen)(NO₃)₃] at 77 K.

Table S1 Infrared vibrational frequencies for the carboxylate functionality of ligand HL and complexes **1-7**.

	$\nu(\text{C}=\text{N}) \text{ cm}^{-1}$	$\nu_{\text{as}}(\text{C}=\text{O}) \text{ cm}^{-1}$	$\nu_{\text{s}}(\text{C}=\text{O}) \text{ cm}^{-1}$	$\Delta\nu_{(\text{C}=\text{O})} \text{ cm}^{-1}$
HL	-	1696 1588	1425	163
phen	1644	-	-	-
tmphen	1608	-	-	-
1	-	1594	1422	172
2	-	1589	1416	173
3	-	1588	1414	174
4	1615	1567, 1526	1453, 1424	114, 102
5	1604	1558, 1526	1452, 1416	106, 110
6	1619	1568, 1525	1453, 1424	115, 101
7	1606	1563, 1527	1453, 1421	110, 106