Electronic Supplementary Material (ESI) for CrystEngComm

Supporting Information of

Two new Ln/Ag heterometallic-based conversion phosphor constructed by 1*H*-benzimidazole-5, 6-dicarboxylic acid

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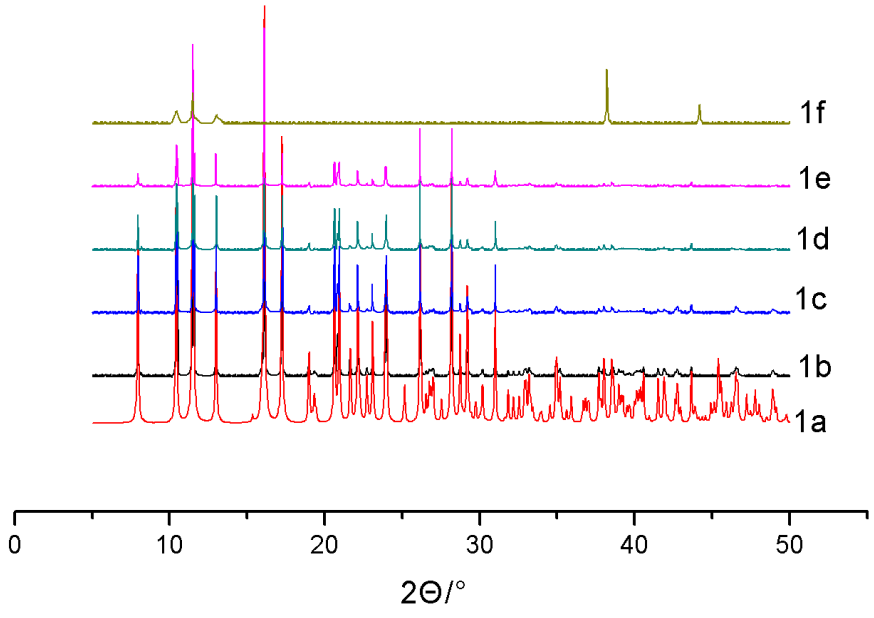

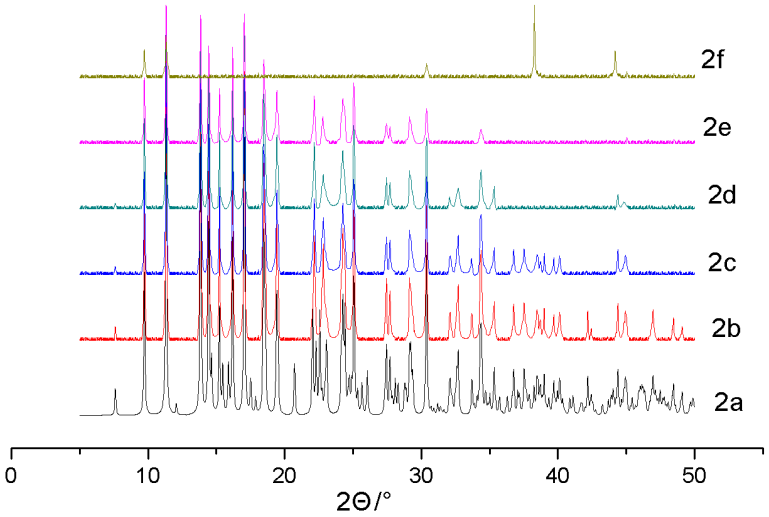

Fig. S1 The simulated and experimental PXRD patterns of **1** and **2.** the simulated (a); the experimental at 25°C (b), 80°C (c), 150°C (d) , 250°C (e), 350°C (f)

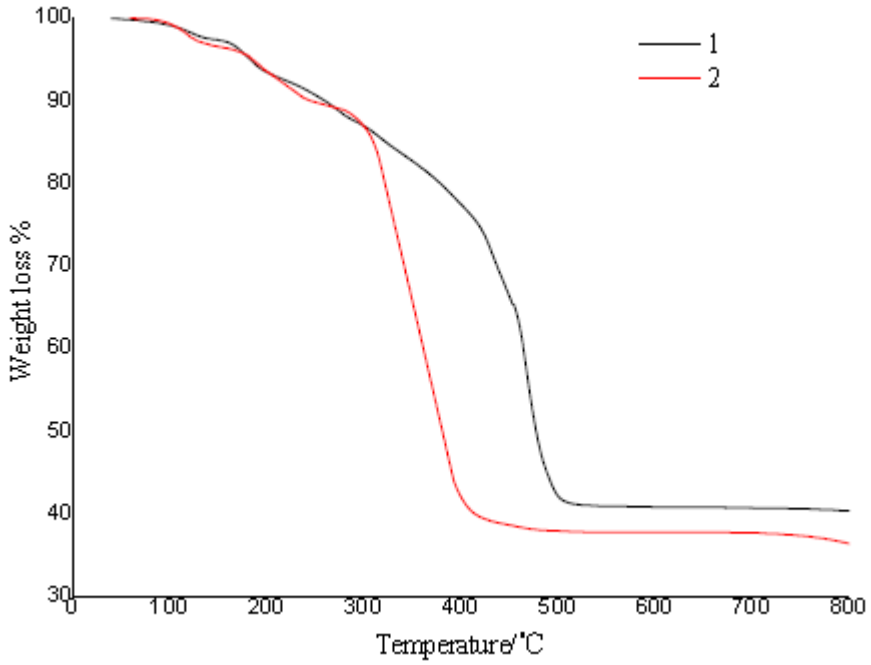

Fig. S1 The TGA of **1** and **2**

Table S1 A summary of the selected bond distances (Å) and bond angles (°) for complex **1** and **2**

complex **1**			
Ho(1)-O(2)#1	2.295(3)	O(2)#1-Ho(1)-O(3)#	174.67(12)
Ho(1)-O(1)	2.341(3)	O(2)#1-Ho(1)-O(1)	133.67(13)
Ho(1)-O(9)	2.478(3)	O(2)#1-Ho(1)-O(12)	143.63(12)
Ho(1)-O(3)#1	2.306(3)	O(1)-Ho(1)-O(12)	79.21(3)
Ho(1)-O(12)	2.362(3)	O(8)-Ho(1)-O(5)	149.70(12)
Ho(1)-O(6)	2.562(3)	O(2)#1-Ho(1)-O(9)	71.37(12)
Ho(1)-O(8)	2.337(3)	O(1)-Ho(1)-O(9)	147.65(13)
Ho(1)-O(5)	2.370(3)	O(2)#1-Ho(1)-O(6)	70.02(11)
Ag(1)-N(2)	2.185(4)	O(1)-Ho(1)-O(6)	68.52(11)
Ag(1)-N(3)#1	2.157(4)	O(9)-Ho(1)-O(6)	116.00(10)
Ag(1)-O(5)#2	2.695(4)	N(2)-Ag(1)-O(5)#2	95.03(14)
O(2)#1-Ho(1)-O(8)	96.67(12)	O(3)#1-Ho(1)-O(8)	77.70(12)
O(3)#1-Ho(1)-O(1)	77.90(13)	O(8)-Ho(1)-O(1)	113.04(11)
O(3)#1-Ho(1)-O(12)	136.94(12)	O(8)-Ho(1)-O(12)	78.49(12)
O(2)#1-Ho(1)-O(5)	85.66(12)	O(3)#1-Ho(1)-O(5)	131.39(12)
O(1)-Ho(1)-O(5)	85.32(10)	O(12)-Ho(1)-O(5)	81.88(12)
O(3)#1-Ho(1)-O(9)	134.08(11)	O(8)-Ho(1)-O(9)	76.57(11)
O(12)-Ho(1)-O(9)	72.47(12)	O(5)-Ho(1)-O(9)	75.63(11)
O(3)#1-Ho(1)-O(6)	78.82(12)	O(8)-Ho(1)-O(6)	155.42(11)
O(12)-Ho(1)-O(6)	124.59(11)	O(5)-Ho(1)-O(6)	52.61(11)
N(3)#1-Ag(1)-N(2)	151.83(14)	N(3)#1-Ag(1)-O(5)#2	107.72(13)
Complex 2			
Eu(1)-O(3)	2.395(10)	Eu(1)-O(5)	2.614(11)
Eu(1)-O(23)	2.502(12)	Eu(1)-O(7)	2.479(10)
Eu(1)-O(8)	2.501(10)	Eu(1)-O(18)	2.407(11)
Eu(1)-O(12)	2.529(12)	Eu(1)-O(9)	2.433(10)
Eu(1)-O(6)	2.467(10)	Ag(1)-N(1)	2.124(13)
Ag(1)-N(4)#1	2.130(13)	Ag(1)-O(1)#2	2.695(4)

O(3)-Eu(1)-O(8)	144.0(3)	O(18)-Eu(1)-O(8)	77.7(4)
O(9)-Eu(1)-O(8)	74.2(3)	O(18)-Eu(1)-O(7)	121.8(4)
O(6)-Eu(1)-O(8)	129.4(3)	O(6)-Eu(1)-O(7)	78.8(3)
O(9)-Eu(1)-O(7)	109.0(4)	O(12)-Eu(1)-O(5)	66.5(3)
N(1)-Ag(1)-N(4)#1	163.1(5)	O(3)-Eu(1)-O(23)	82.3(4)
O(23)-Eu(1)-O(5)	121.1(4)	O(3)-Eu(1)-O(18)	90.4(4)
O(3)-Eu(1)-O(9)	70.2(4)	O(18)-Eu(1)-O(9)	79.3(4)
O(3)-Eu(1)-O(6)	84.6(3)	O(18)-Eu(1)-O(6)	127.7(4)
O(9)-Eu(1)-O(6)	143.9(4)	O(3)-Eu(1)-O(7)	147.6(4)
O(7)-Eu(1)-O(8)	52.5(3)	O(8)-Eu(1)-O(5)	137.4(4)
O(18)-Eu(1)-O(23)	154.8(4)	O(9)-Eu(1)-O(23)	75.5(4)
O(6)-Eu(1)-O(23)	75.8(4)	O(7)-Eu(1)-O(23)	66.7(4)
O(8)-Eu(1)-O(23)	94.1(4)	O(3)-Eu(1)-O(12)	135.1(4)
O(18)-Eu(1)-O(12)	70.6(4)	O(9)-Eu(1)-O(12)	138.9(4)
O(6)-Eu(1)-O(12)	77.1(4)	O(7)-Eu(1)-O(12)	67.5(3)
O(8)-Eu(1)-O(12)	72.7(4)	O(23)-Eu(1)-O(12)	130.2(4)
O(3)-Eu(1)-O(5)	70.0(4)	O(18)-Eu(1)-O(5)	78.0(4)
O(9)-Eu(1)-O(5)	133.6(4)	O(6)-Eu(1)-O(5)	51.4(3)
O(7)-Eu(1)-O(5)	117.4(3)		