

Supporting Information

Solvothermal Synthesis of luminescent Eu(BTC)(H₂O)DMF

Hierarchically architectures

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Table S1. Chemical compositions for the synthesis of Eu-MOF

Entry	DMF (ml)	Co-solvent (ml)	additives (mmol)
1	10	2 (H ₂ O)	0.1(Sodium acetate)
2	10	2 (H ₂ O)	0.2(Sodium acetate)
3	10	2 (H ₂ O)	0.3 (Sodium acetate)
4	10	2 (H ₂ O)	0.4 (Sodium acetate)
5	10	2 (H ₂ O)	0.5 (Sodium acetate)
6	10	2 (H ₂ O)	0.8 (Sodium acetate)
7	10	0.2(H ₂ O)	
8	10	0.25(H ₂ O)	
9	10	0.3(H ₂ O)	
10	10	0.5(H ₂ O)	
11	10	2(H ₂ O)	
12	6	6(H ₂ O)	
13	4	8(H ₂ O)	
14	2	10(H ₂ O)	
15	8	4(ethanol)+0.20(H ₂ O))	
16	8	4(ethanol)+0.21(H ₂ O))	
17	8	4(ethanol)+0.22(H ₂ O))	
18	8	4(ethanol)+0.23(H ₂ O))	
19	8	4(ethanol)+0.24(H ₂ O))	
20	8	4(ethanol)+0.25(H ₂ O))	

Table S2. Lifetime for the synthesis of Eu-MOF

<i>Entry</i>	<i>Morphology</i>	<i>Lifetime</i>
1	Straw-sheaf crystals	0.81ms
2	Urchin-like balls	0.71ms
3	Nanocrystals	0.66ms
4	Bulk crystals	0.67ms

Figure S1 SEM images of Eu-MOF crystals obtained with additions of water (a) 0.2mg, (b) 0.25mg, (c) 0.3mg and (d) 0.5mg

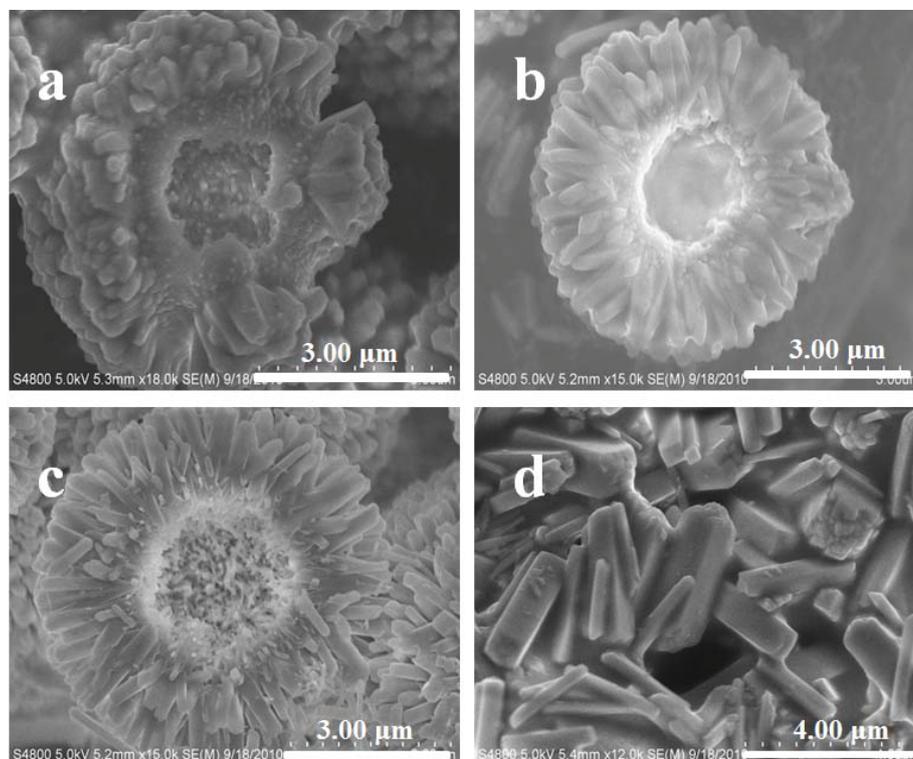


Figure S2 SEM images of Eu-MOF crystals obtained with additions of water (a) 0.2 mg, (b) 0.21 mg, (c) 0.22 mg, (d) 0.23 mg, (e) 0.24 mg and (f) 0.25 mg

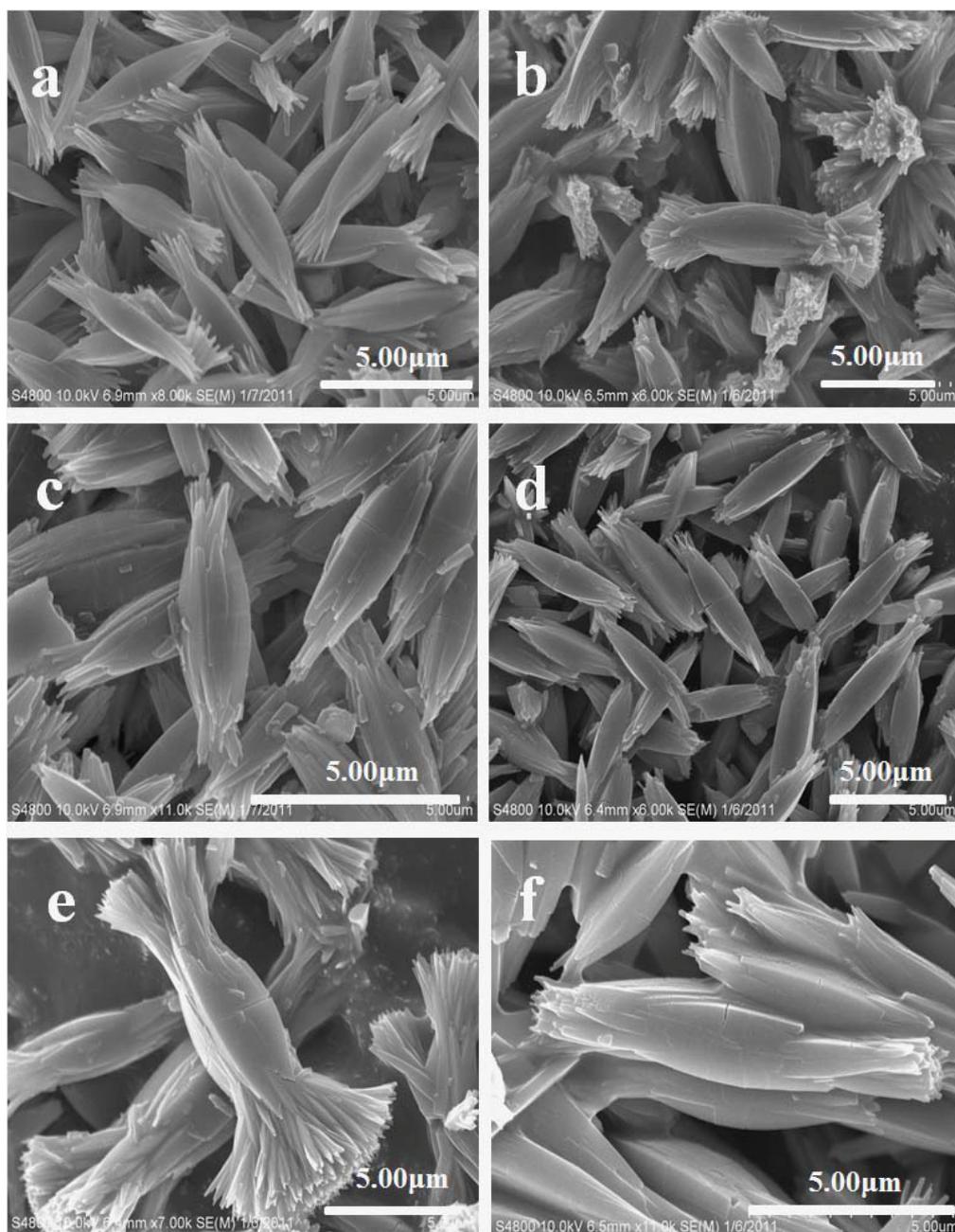


Figure S3 XRD patterns of Eu-MOF crystals synthesized with different DMF/water volume ratios: (a)0.2, (b)1, (c)2 and (d)5

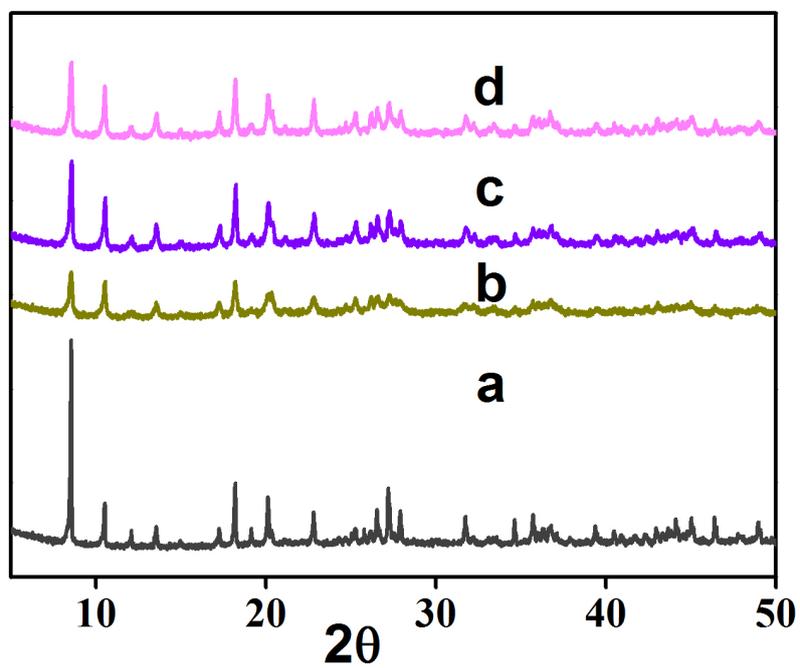


Figure S4 EDX spectra of Eu-MOF Urchin-like balls crystals, straw-sheaf crystals, large single crystals and nanocrystals

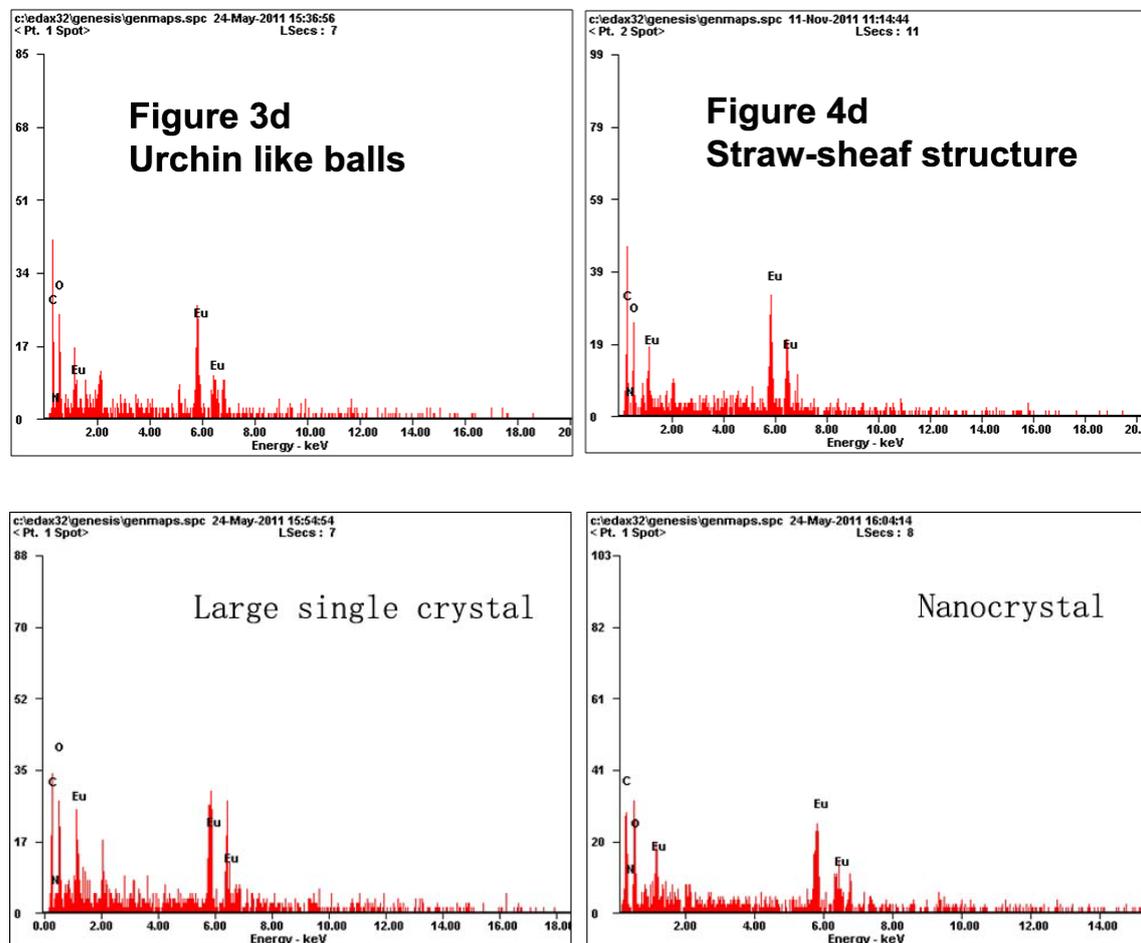


Figure S5 XRD patterns of Eu-MOF crystals synthesized with additions of sodium acetate (a) 0mmol, (b) 0.1mmol, (c) 0.3mmol, (d) 0.5mmol and (e) 0.8mmol

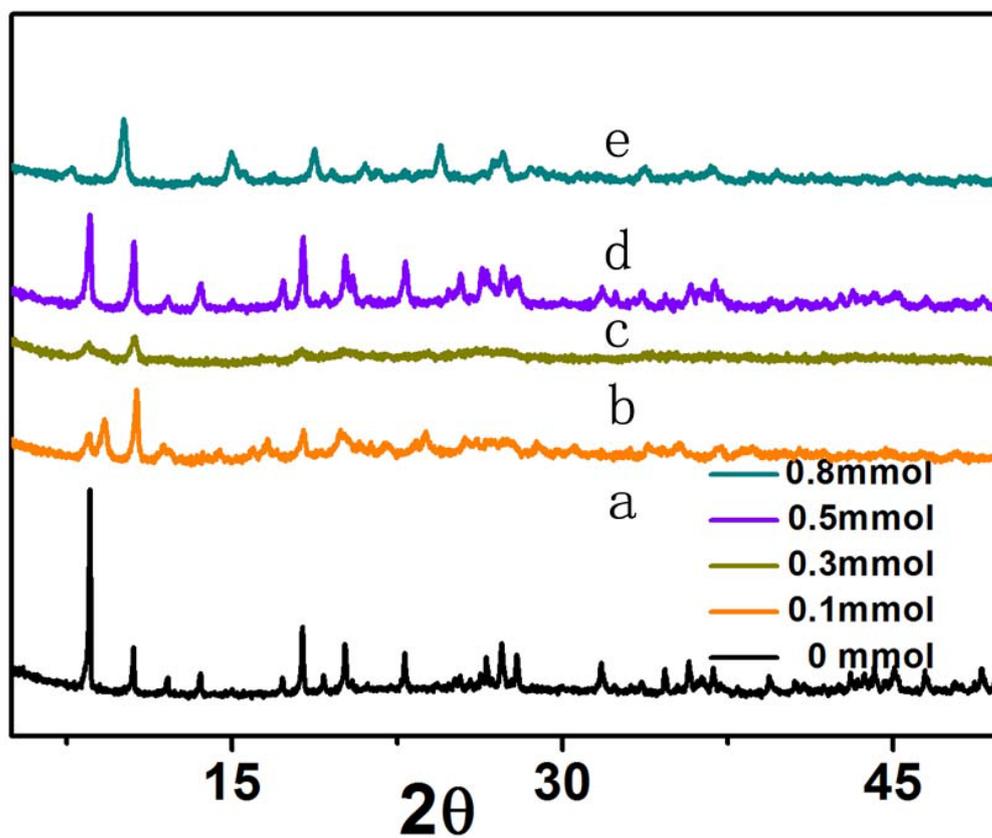


Figure S6 PL decay curve for the ${}^5D_0 \rightarrow {}^7F_2$ (615 nm) emission of Eu-MOF nanocrystals

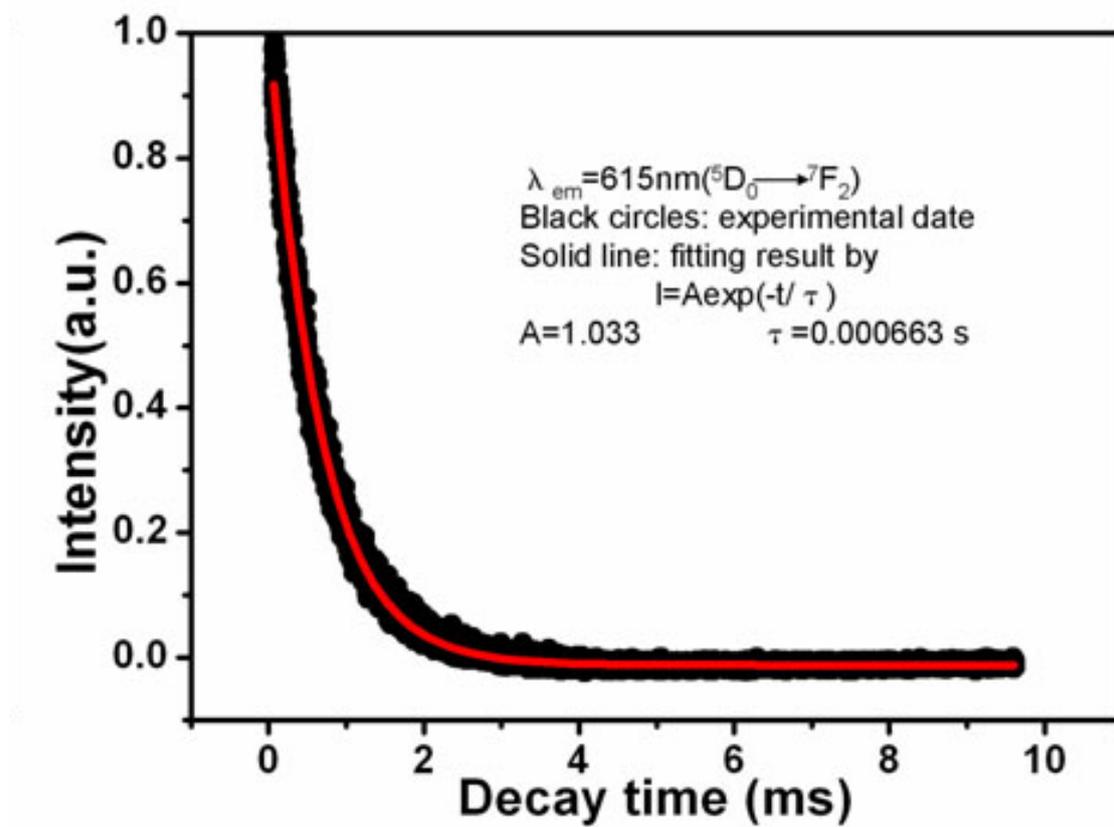


Figure S7 The fluorescent images of Eu-MOF Urchin-like crystals, straw-sheaf crystals, large single crystals and nanocrystals

