Electronic Supplementary Material (ESI) for Photochemical & Photobiological Sciences.

A new luminescent lanthanide supramolecular network possessing free Lewis base sites for highly selective and sensitive Cu^{2+} sensing

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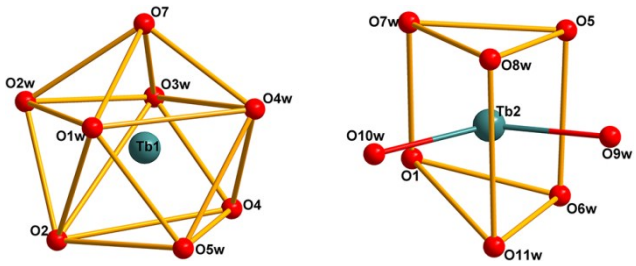

(a) *(b)*

Fig. S1 Coordination environments of (a) Tb1 and (b) Tb2 in the dinuclear unit.

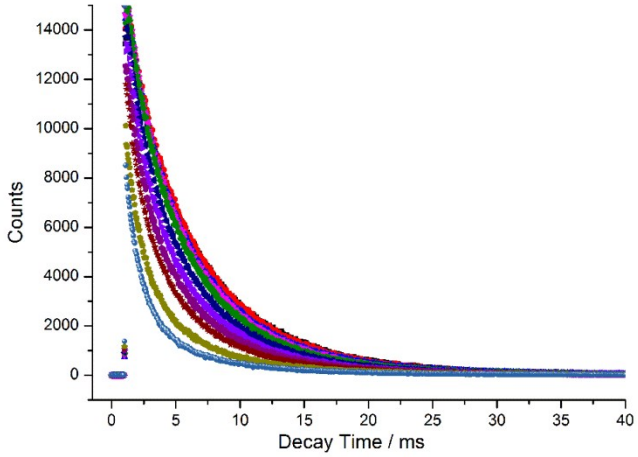

Fig. S2 Decay time of **3** (0.0001 M) in the presence and absence of Cu^{2+}. The concentration of Cu^{2+} is from 0.00005 M to 0.001 M.

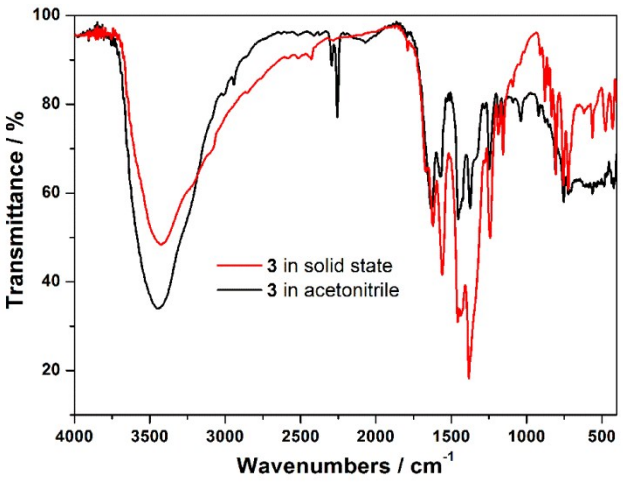

Fig. S3 Infrared spectra of **3** in solid state and in acetonitrile solution.

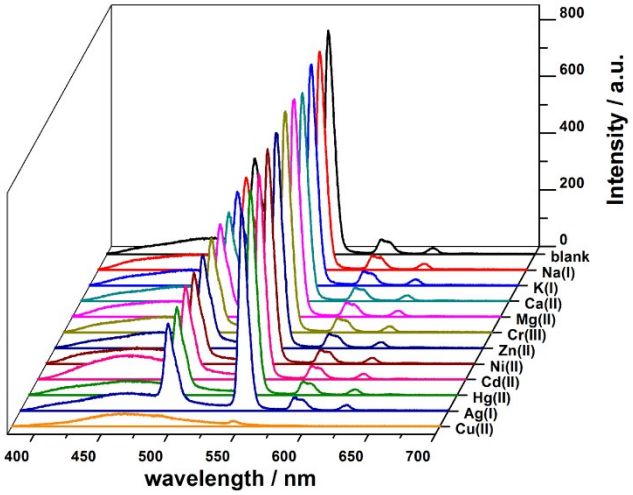

Fig. S4 Emission spectra of **3** dissolved in acetonitrile containing 0.005 M different metal ions at an excitation of 352 nm.

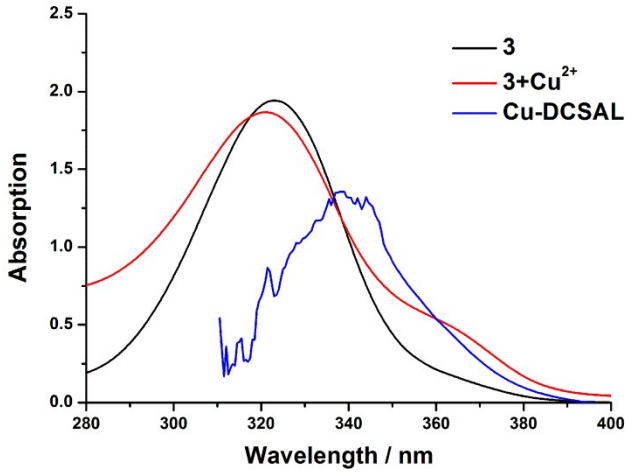

Fig. S5 UV-vis spectra of acetonitrile solution of **3** (0.0001 M) in the presence and absence of Cu^{2+}. The concentration of Cu^{2+} is 0.001 M

Table S1 Selected Bond Lengths complexes **1-3**

1			
Eu(1)-O(1)	2.329(4)	Eu(1)-O(7)	2.343(4)
Eu(1)-O(4W)	2.367(4)	Eu(1)-O(2W)	2.399(4)
Eu(1)-O(5)	2.412(4)	Eu(1)-O(3W)	2.435(4)
Eu(1)-O(1W)	2.469(4)	Eu(1)-O(5W)	2.492(4)
Eu(2)-O(4)	2.306(4)	Eu(2)-O(2)	2.386(4)
Eu(2)-O(7W)	2.395(4)	Eu(2)-O(11W)	2.406(4)
Eu(2)-O(6W)	2.416(4)	Eu(2)-O(8W)	2.422(4)
Eu(2)-O(10W)	2.425(4)	Eu(2)-O(9W)	2.464(4)
2			
Gd(1)-O(1)	2.321(3)	Gd(1)-O(7)	2.331(3)
Gd(1)-O(4W)	2.353(4)	Gd(1)-O(2W)	2.397(4)
Gd(1)-O(5)	2.397(4)	Gd(1)-O(3W)	2.419(4)
Gd(1)-O(1W)	2.461(4)	Gd(1)-O(5W)	2.477(4)
Gd(2)-O(4)	2.299(4)	Gd(2)-O(2)	2.371(3)
Gd(2)-O(7W)	2.382(4)	Gd(2)-O(11W)	2.396(4)
Gd(2)-O(10W)	2.406(4)	Gd(2)-O(8W)	2.406(4)
Gd(2)-O(6W)	2.411(4)	Gd(2)-O(9W)	2.453(3)
3			
Tb(1)-O(1)	2.273(6)	Tb(1)-O(5)	2.337(6)
Tb(1)-O(7)	2.289(6)	Tb(1)-O(1w)	2.409(7)
Tb(1)-O(2w)	2.334(6)	Tb(1)-O(3w)	2.363(6)
Tb(1)-O(4w)	2.296(6)	Tb(1)-O(5w)	2.438(6)
Tb(2)-O(2)	2.309(6)	Tb(2)-O(4)	2.244(7)
Tb(2)-O(6w)	2.362(6)	Tb(2)-O(7w)	2.334(6)
Tb(2)-O(8w)	2.361(7)	Tb(2)-O(9w)	2.407(6)
Tb(2)-O(10w)	2.362(6)	Tb(2)-O(11w)	2.348(6)