Electronic Supplementary Information (ESI)

A stable pillared-layer Cu(II) metal–organic framework for dye adsorption and separation and magnetic properties

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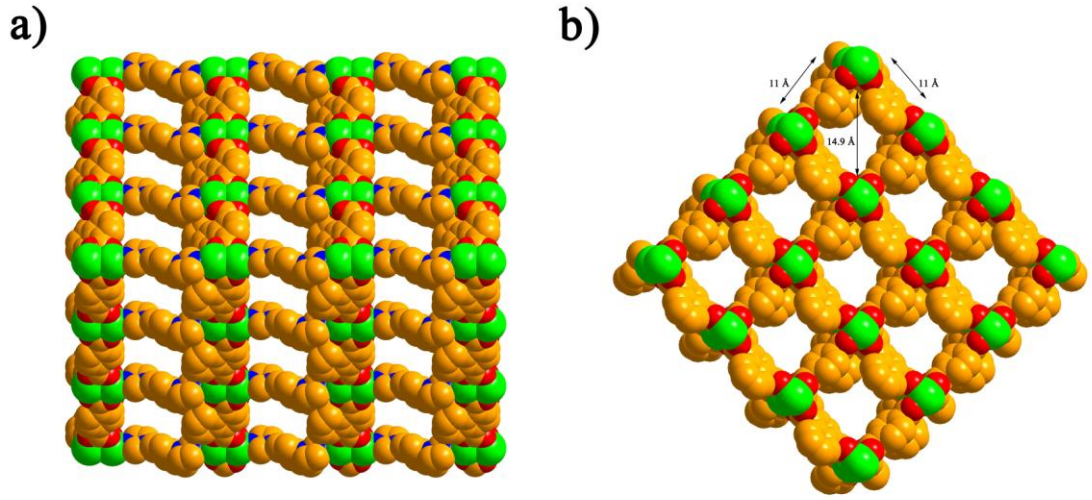

Fig. S1 The space-filling structure of **1** along *a* axis a) and *c* axis b). All hydrogen atoms are omitted for clarity. The green, red and blue represent copper, oxygen and nitrogen atoms, respectively.

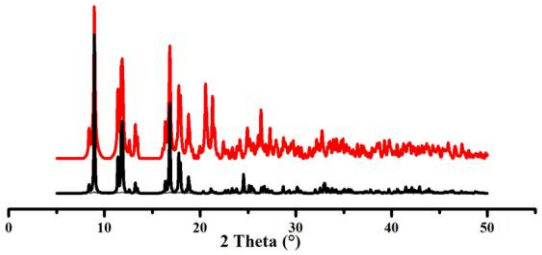

Fig. S2 PXRD powder diffraction patterns of **1**: simulated (black), as-synthesized (red).

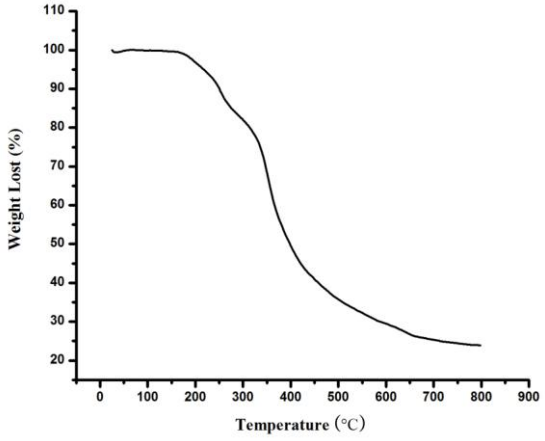

Fig. S3 The TG curve of **1**.

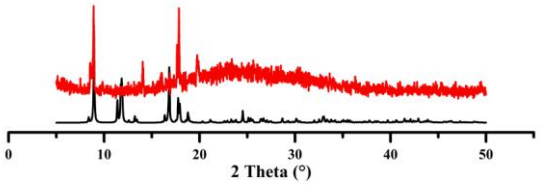

Fig. S4 PXRD powder diffraction patterns of **1**: simulated (black), at 220 ℃ (red).

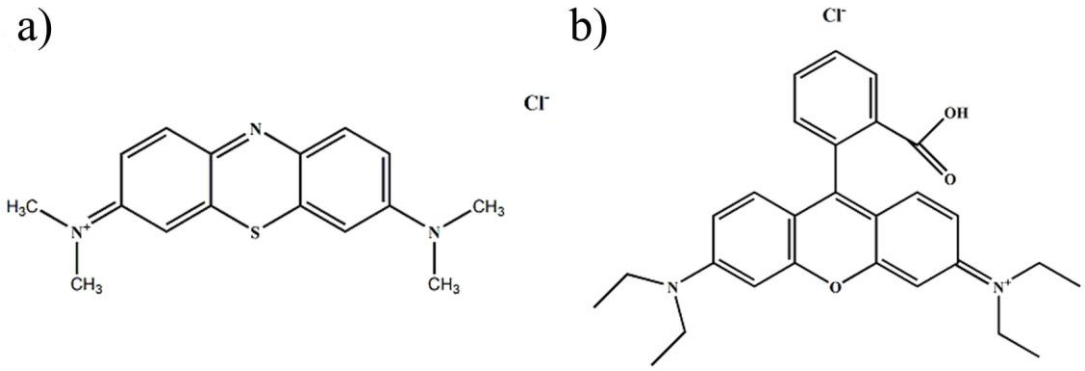

Fig. S5 The structures of MB (a) and RB.

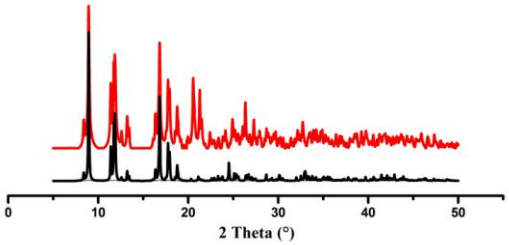

Fig. S6 PXRD powder diffraction patterns of **1**: simulated (black), after dye adsoption and releasing (red).

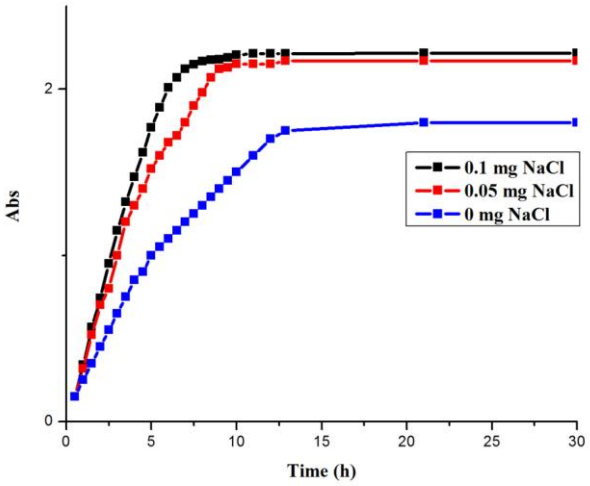

Fig. S7 The dye release from **1@MB** crystal.

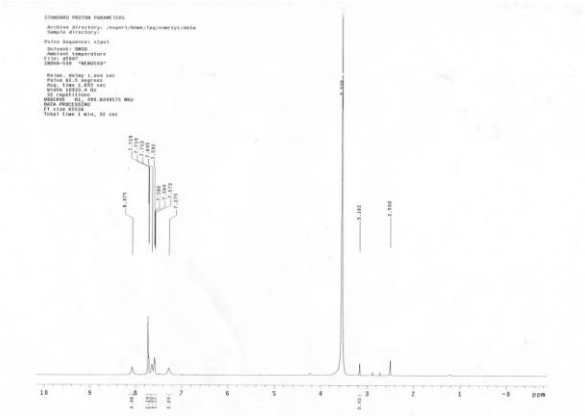

Fig. S8 The NMR spectrum of L.

Table S1 Selected Bonds Lengths (Å) and Angles (°) for **1**

Compound **1**

N(1)-Cu(1)#5	2.032(14)	N(4)-Cu(2)	2.129(13)
O(1)-Cu(2)	1.956(11)	O(2)-Cu(1)	2.021(11)
O(3)-Cu(2)	2.058(11)	O(4)-Cu(1)	1.955(11)
O(5)-Cu(2)	2.024(10)	O(6)-Cu(1)	1.965(11)
O(7)-Cu(2)	1.912(10)	O(8)-Cu(1)	2.077(10)
Cu(1)-N(1)#6	2.046(13)	O(4)-Cu(1)-O(6)	171.7(5)
O(4)-Cu(1)-O(2)	86.4(4)	O(6)-Cu(1)-O(2)	88.7(5)
O(4)-Cu(1)-N(1)#6	92.9(5)	O(6)-Cu(1)-N(1)#6	95.2(5)
O(2)-Cu(1)-N(1)#6	112.0(5)	O(4)-Cu(1)-O(8)	88.2(5)
O(6)-Cu(1)-O(8)	93.2(4)	O(2)-Cu(1)-O(8)	153.3(4)
N(1)#6-Cu(1)-O(8)	94.4(5)	O(7)-Cu(2)-O(1)	174.9(5)
O(7)-Cu(2)-O(5)	89.2(4)	O(1)-Cu(2)-O(5)	87.2(5)
O(7)-Cu(2)-O(3)	91.9(5)	O(1)-Cu(2)-O(3)	89.9(4)
O(5)-Cu(2)-O(3)	155.8(4)	O(7)-Cu(2)-N(4)	95.9(5)
O(1)-Cu(2)-N(4)	88.5(5)	O(5)-Cu(2)-N(4)	105.6(5)
O(3)-Cu(2)-N(4)	98.4(5)		

Symmetry transformations used to generate equivalent atoms: #5 = x, y, z+1; #6 = x, y, z-1.