Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Structural conversion of three Copper(II) complexes with snapshot observation based on the different crystal colours and morphology

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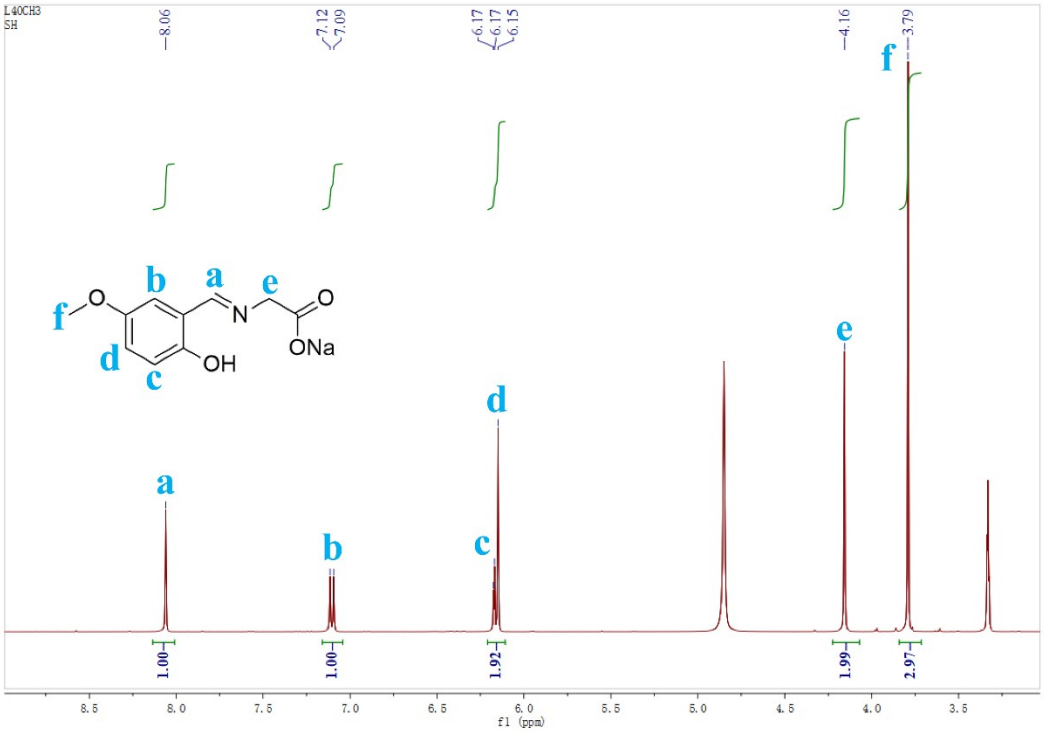

Fig. S1. ^{1}H NMR spectra of **L**.

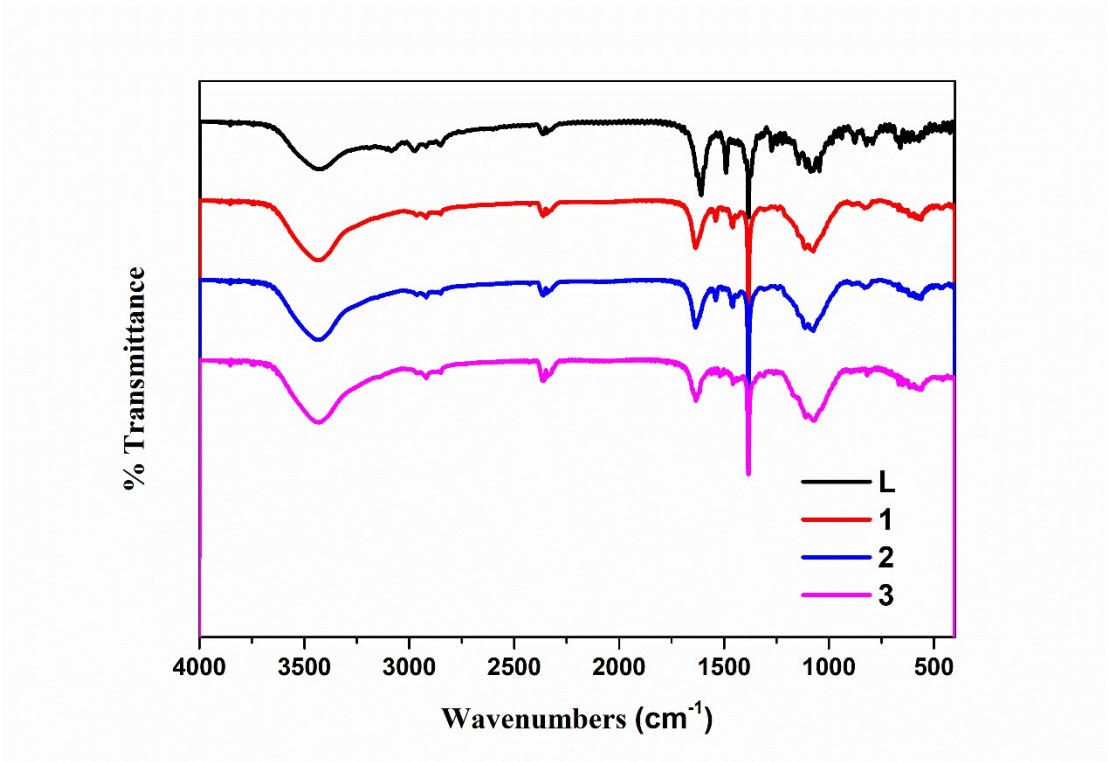

Fig. S2. IR spectra of **L**, **1**, **2** and **3**.

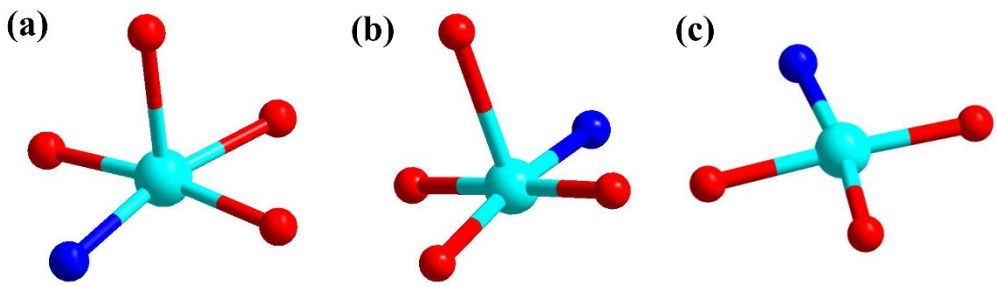

Fig. S3. Coordination modes of the metal in the compounds **1**(a), **2**(b) and **3**(c).

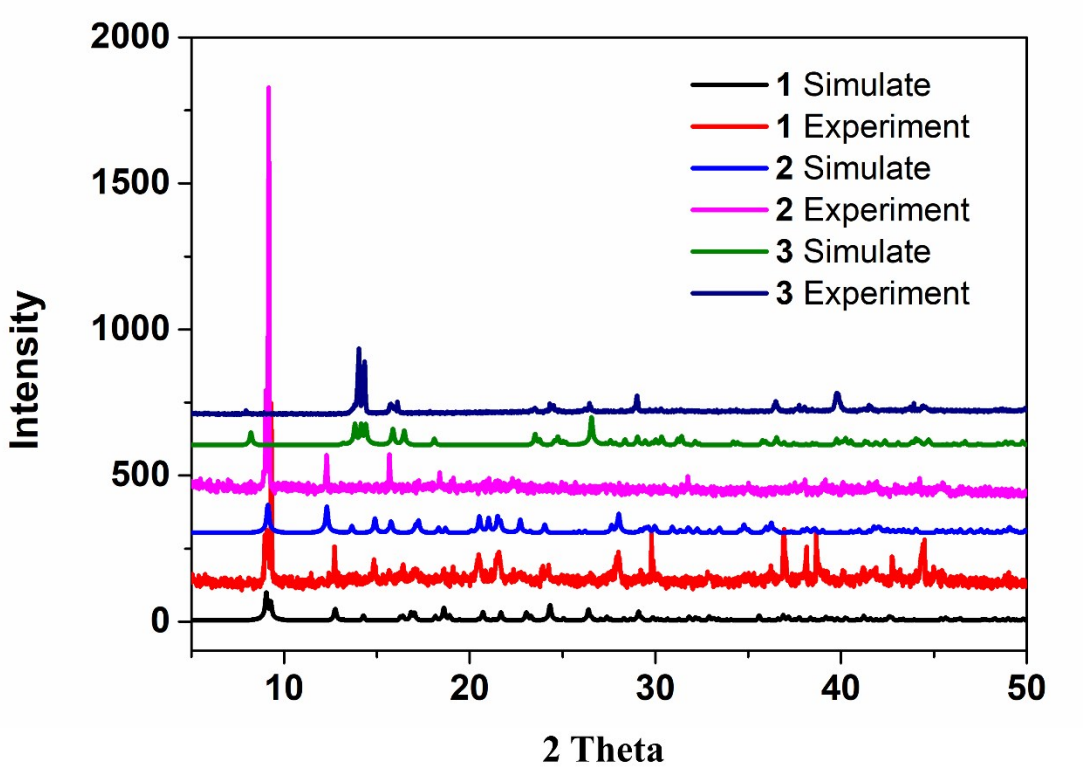

Fig. S4. Simulation and experiment PXRD pattern of **1**, **2** and **3**.

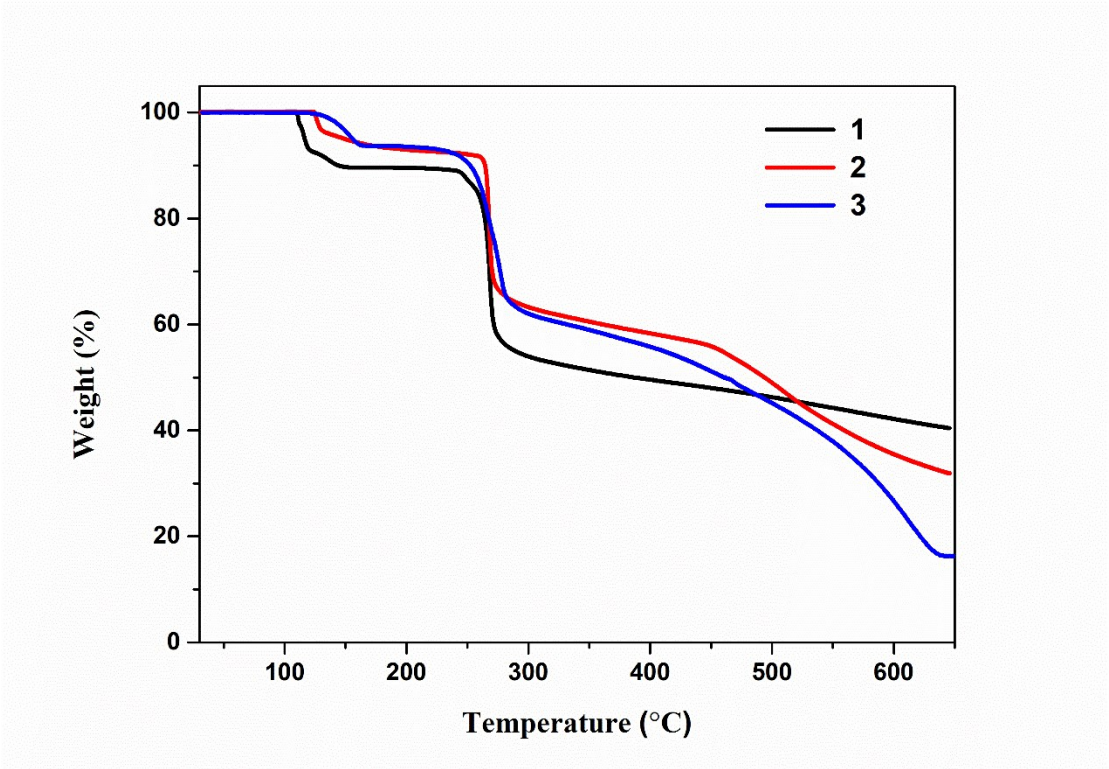

Fig. S5. TG curves of **1**, **2** and **3**.

Table S1. Selected bond distances (Å) and angles (°) for **1**.

Cu(1)–N(2)	1.929(2)	Cu(1)–O(2)	1.958(2)
Cu(1)–O(1)	1.9659(18)	Cu(1)–O(1)	1.9983(18)
Cu(1)–O(5)	2.252(2)		
N(2)–Cu(1)–O(2)	82.94(9)	N(2)–Cu(1)–O(1)	93.11(8)
O(2)–Cu(1)–O(1)	171.02(8)	N(2)–Cu(1)–O(1)	167.65(9)
O(2)–Cu(1)–O(1)	103.59(8)	O(1)–Cu(1)–O(1)	78.88(8)
N(2)–Cu(1)–O(5)	100.02(9)	O(2)–Cu(1)–O(5)	93.53(9)
O(1)–Cu(1)–O(5)	95.10(8)	O(1)–Cu(1)–O(5)	90.13(8)

Table S2. Selected bond distances (Å) and angles (°) for **2**.

Cu(1)–O(3)	1.906(6)	Cu(1)–N(1)	1.920(8)
Cu(1)–O(2)	1.959(6)	Cu(1)–O(1)	1.962(6)
Cu(1)–O(3)	2.433(6)		
O(3)–Cu(1)–N(1)	94.9(3)	O(3)–Cu(1)–O(2)	85.2(3)
N(1)–Cu(1)–O(2)	171.2(3)	O(3)–Cu(1)–O(1)	177.5(3)
N(1)–Cu(1)–O(1)	83.7(3)	O(2)–Cu(1)–O(1)	95.8(3)
O(3)–Cu(1)–O(3)	90.1(2)	N(1)–Cu(1)–O(3)	95.0(3)
O(2)–Cu(1)–O(3)	93.8(3)	O(1)–Cu(1)–O(3)	92.2(2)

Table S3. Selected bond distances (Å) and angles (°) for **3**.

Cu(1)–O(1)	1.883(2)	Cu(1)–N(1)	1.921(2)
Cu(1)–O(2)	1.931(2)	Cu(1)–O(5)	1.933(2)
O(1)–Cu(1)–N(1)	95.62(9)	O(1)–Cu(1)–O(2)	176.21(10)
N(1)–Cu(1)–O(2)	84.01(10)	O(1)–Cu(1)–O(5)	93.52(10)
N(1)–Cu(1)–O(5)	169.80(10)	O(2)–Cu(1)–O(5)	87.16(10)

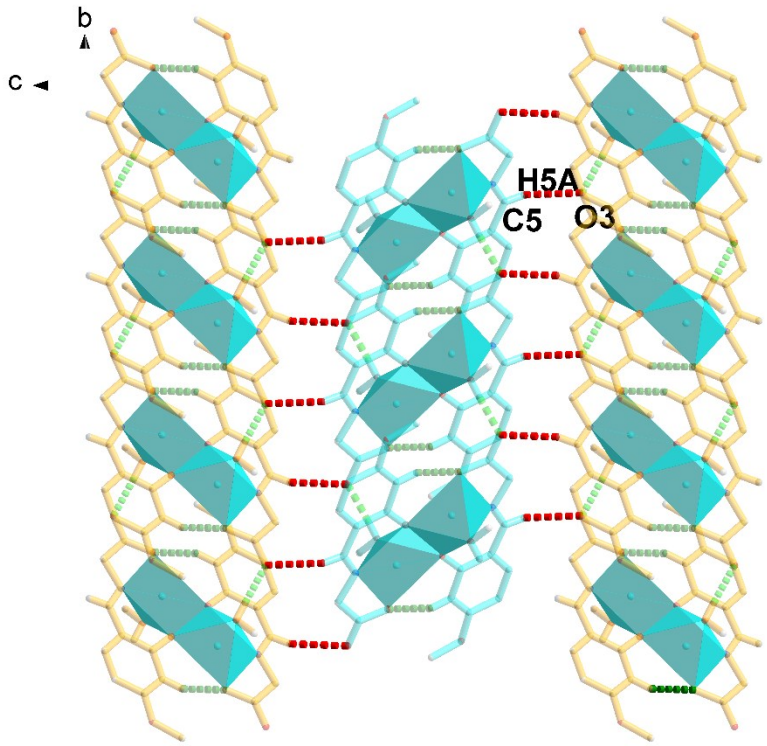

Fig. S6. 2D layer structure of **2**.

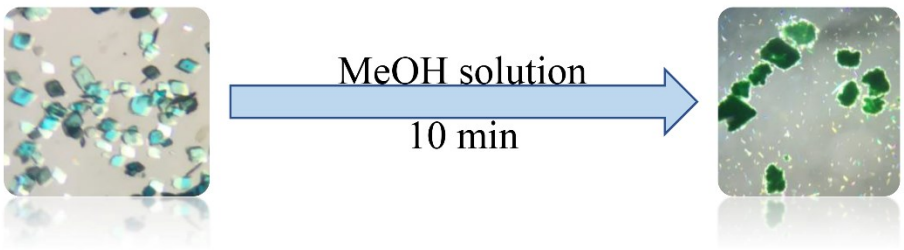

Fig. S7. The rhombus-shaped crystals of **2** convert quickly to rod-shaped crystals of **1** in methanol solution within 10 min.

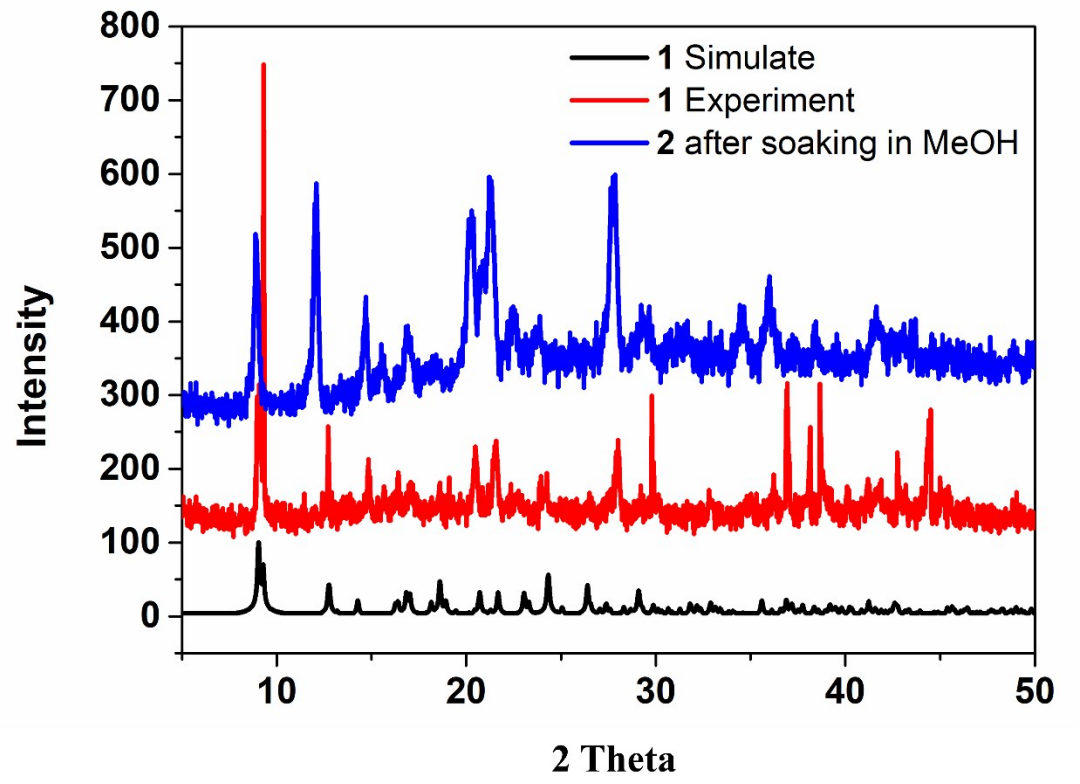

Fig. S8. PXRD pattern of **2** after soaking in MeOH solution.