## **Electronic Supplementary Information**

For

## Anion-dependent coordinative networking of macrocycle with copper(I) halides

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**Fig. S1** Comparison of XRPD patterns: (top) as synthesized and (bottom) **1** simulated from the single crystal X-ray data.



**Fig. S2** Comparison of XRPD patterns: (top) as synthesized and (bottom) **2** simulated from the single crystal X-ray data.





**Fig. S6** (a)  ${}^{1}$ H and (b)  ${}^{13}$ C NMR spectra of L in CDCl<sub>3</sub>.



Fig. S7 EPR spectrum of 1 at room temperature.



**Fig. S8** Comparison of the 2D network structures of (left) **3a**,  $\{[Cu_4I_4(L)_2] \cdot CH_2Cl_2\}_n$  and (right) **3b**,  $\{[Cu_4I_4(L)_2] \cdot CH_2Cl_2\}_n$ : (a) square grid structures (ball) and (b) layer-tolayer packing arrangements (stick).



**Fig. S9** Crystal structure of **L**, showing the disorder between two oxygen atoms (55:45).