## **Supplementary information**

## New in-Situ Cleavage of Both S-S and S-C(sp<sup>2</sup>) Bonds and Re-arrangement Reactions Toward the Construction of Copper(I) Cluster-Based Coordination Networks

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Figure S1. Observed (blue) and calculated (purple) powder X-ray diffraction patterns of 1.



*Figure S2.* The Fluorescence decay (hollow black square), the best fit (red line) of Fluorescence lifetime ( $\tau$  in  $\mu$ s): 2.61 (b) of **1**.