

Electronic supplementary information (ESI)

Metal-ion controlled solid-state reactivity and photoluminescence in two isomorphous coordination polymers †

Fang Li, Rui-Biao Lin, Yong-Sheng Wei, Pei-Qin Liao, Jie Bai, Wei Xue, Wei-Xiong Zhang*, Jie-Peng Zhang*, and Xiao-Ming Chen

MOE Key Laboratory of Bioinorganic and Synthetic Chemistry, State Key Laboratory of Optoelectronic Materials and Technologies, School of Chemistry and Chemical Engineering, Sun Yat-Sen University, Guangzhou 510275, China

* zhangwx6@mail.sysu.edu.cn (W.-X. Zhang) and zhangjp7@mail.sysu.edu.cn (J.-P. Zhang).

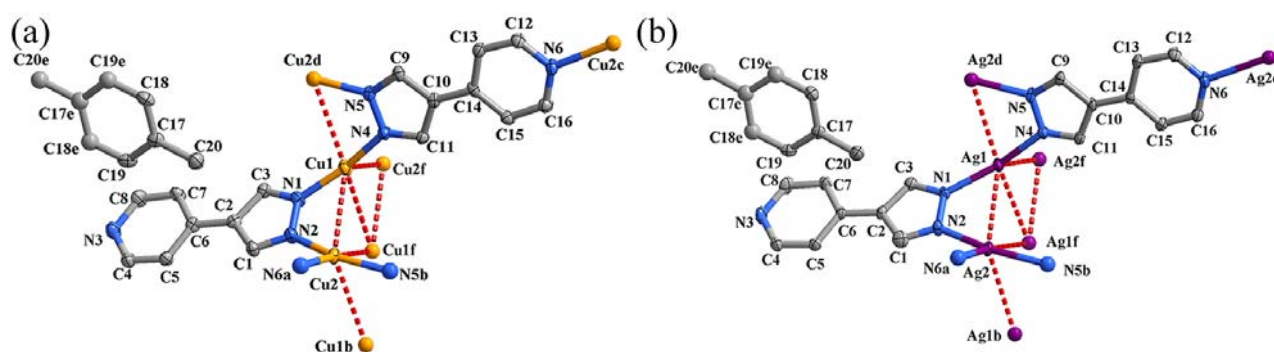


Fig. S1. Perspective views of the coordination environments of (a) **1·g** [$\text{Ag1} \cdots \text{Ag2}$ 3.2075(4) Å, $\text{Ag1b} \cdots \text{Ag2}$ 3.1413(4) Å, $\text{Ag1} \cdots \text{Ag2f}$ 3.1535(4) Å, $\text{Ag1} \cdots \text{Ag1f}$ 3.1353(4) Å] and (b) **2·g** ($\text{Cu1} \cdots \text{Cu2}$ 3.1609(6) Å, $\text{Cu1b} \cdots \text{Cu2}$ 3.0788(6) Å, $\text{Cu1} \cdots \text{Cu2f}$ 3.3483(6) Å, $\text{Cu1} \cdots \text{Cu1f}$ 3.3034(6) Å]. Symmetry codes: *a*) = 1 + *x*, 1.5 − *y*, 0.5 + *z*; *b*) = 1 + *x*, *y*, *z*; *c*) = −1 + *x*, 1.5 − *y*, −0.5 + *z*; *d*) = −1 + *x*, *y*, *z*; *e*) = −*x*, 1 − *y*, 2 − *z*; *f*) = 1 − *x*, 1 − *y*, 1 − *z* (probability drawn at 50%).

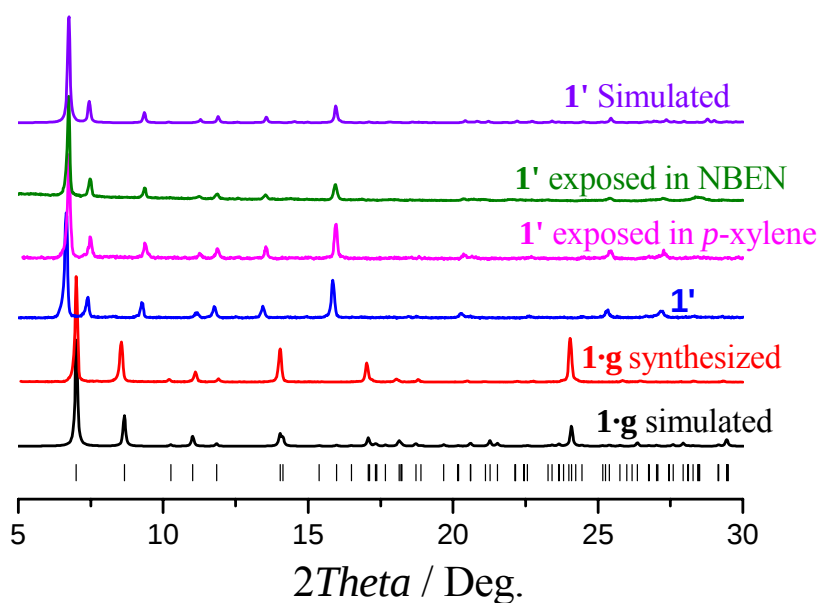


Fig. S2. PXRD patterns of **1·g** and **1'**.

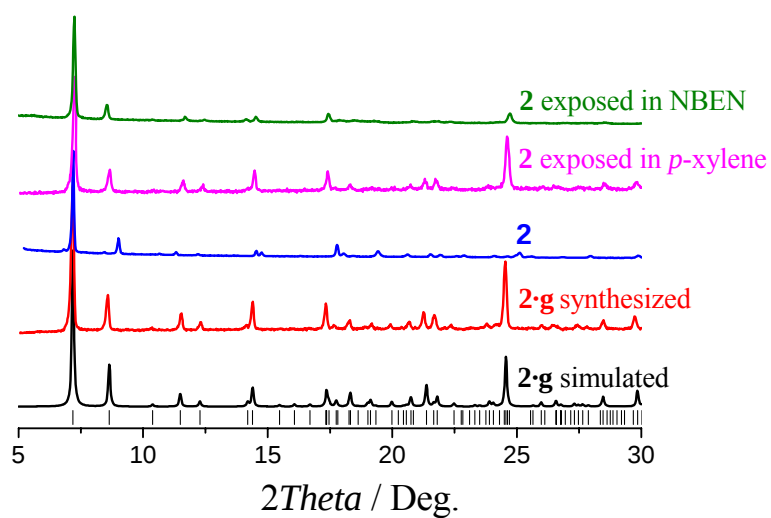


Fig. S3. PXRD patterns of **2·g** and **2**.

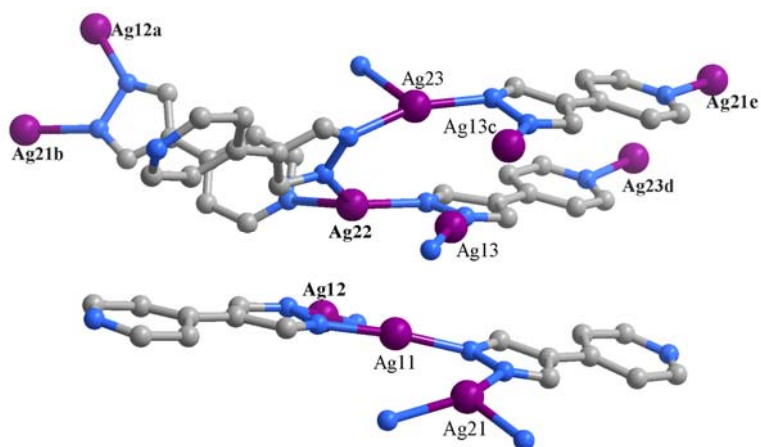


Fig. S4. Perspective views of the coordination environments of **1'**. Symmetry codes: $a = x, 0.5 - y, 0.5 + z$; $b = 1 - x, -0.5 + y, 0.5 - z$; $c = -x, 1 - y, -z$; $d = x, 0.5 - y, -0.5 + z$; $e = -x, -0.5 + y, -0.5 - z$.

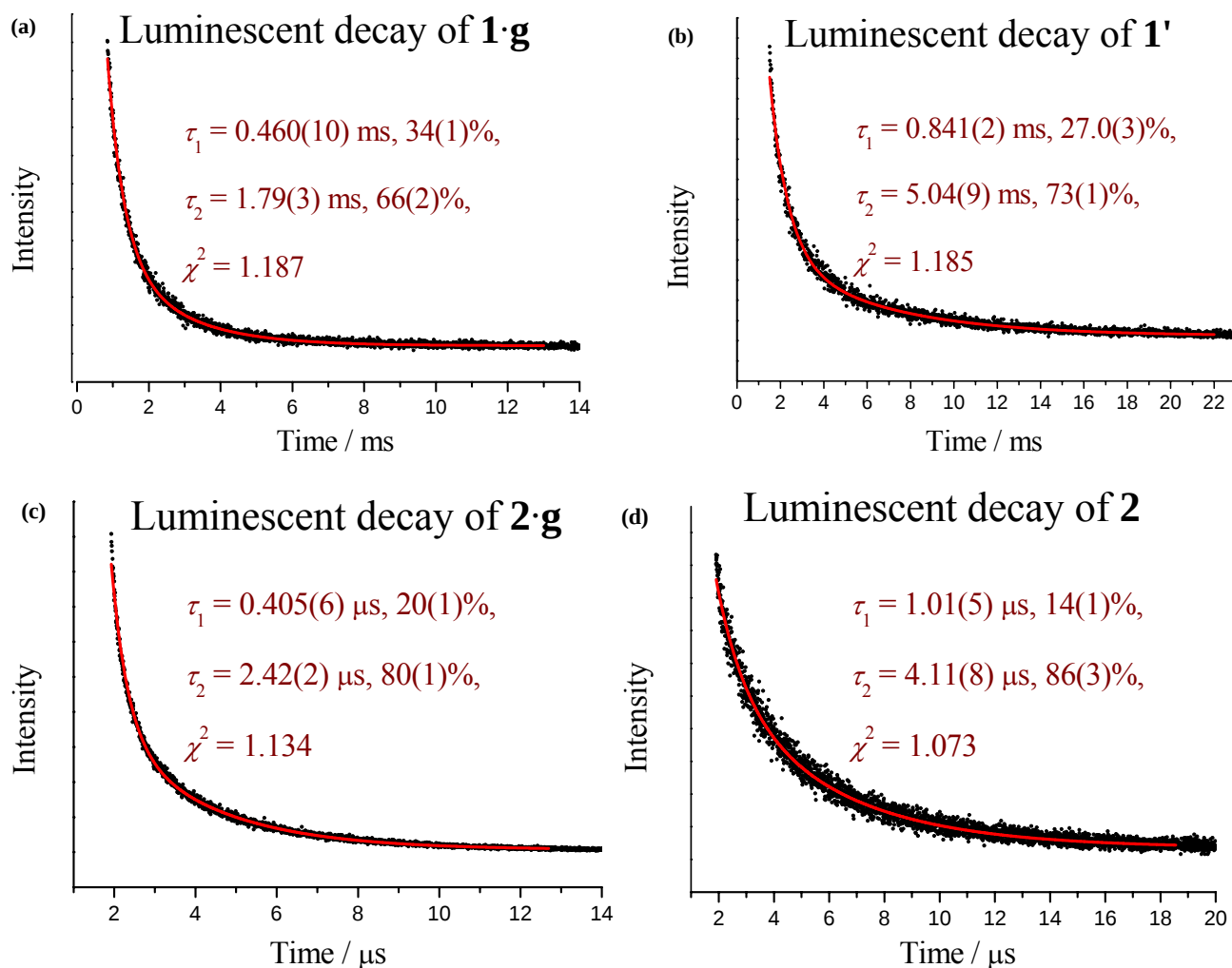


Fig. S5. Luminescence decay profiles and fittings of **1•g**, **1'**, **2•g** and **2**.

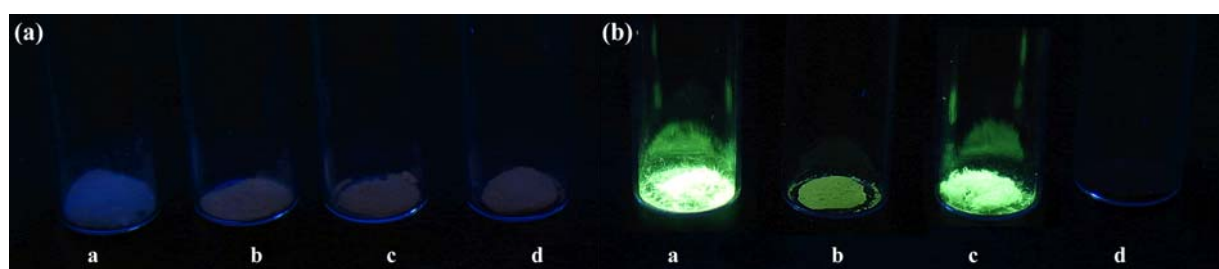


Fig. S6. Photographs (under 365-nm ultraviolet) of (a) a: **1•g**, b: **1'**, c: **1'** exposed in *p*-xylene, d: **1'** exposed in NBEN; (b) a: **2•g**, b: **2**, c: **2** exposed in *p*-xylene, d: **2** exposed in NBEN.