

## ESI

### **Mutual transformation between crystalline phases and dielectric properties of coordination polymers with formula of $[\text{Cd}(\text{N-methylimidazole})_2(\text{H}_2\text{O})_x(\text{glutarate})] \cdot n\text{H}_2\text{O}$ ( $x = 0$ or $1$ ; $n = 0$ or $4$ )**

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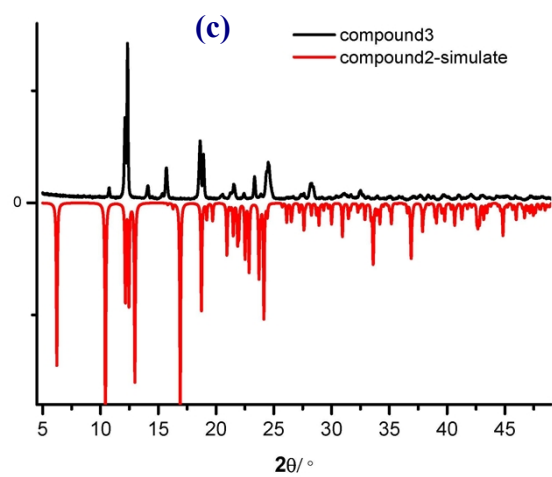
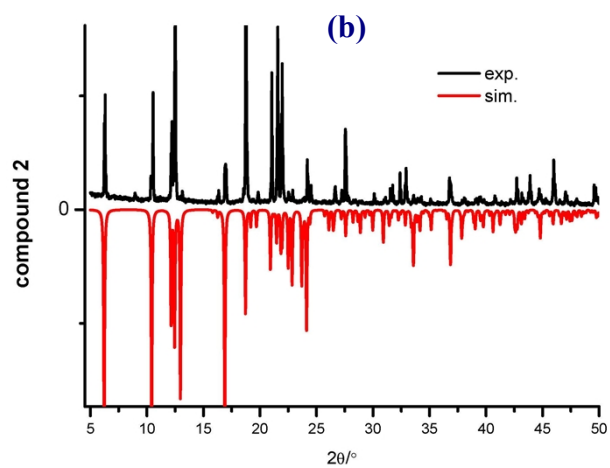
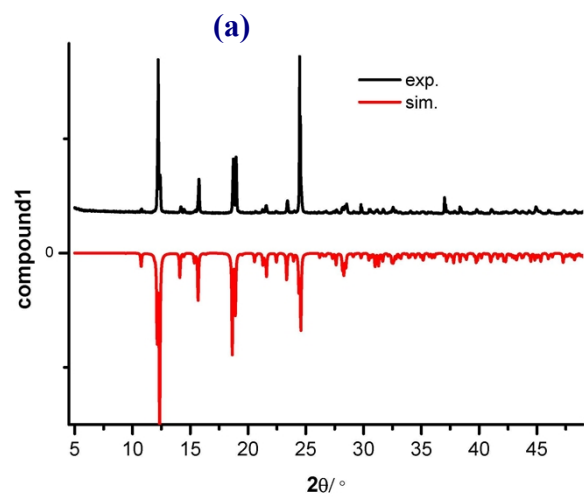
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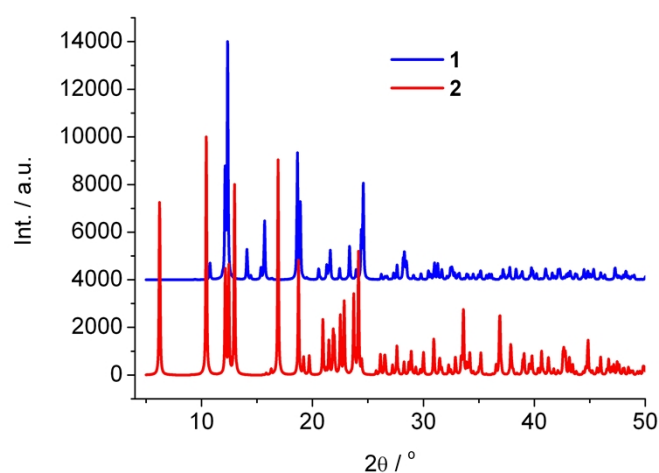


Figure S1 PXRD profiles of (a) the experimental and the simulated patterns for **1** (b) the experimental and the simulated patterns for **2** (c) the experimental pattern for **3** and the simulated pattern for **2** (d) the simulated patterns for **1** and **2** where the differences are obvious between the simulated PXRD patterns of **1** and **2**.

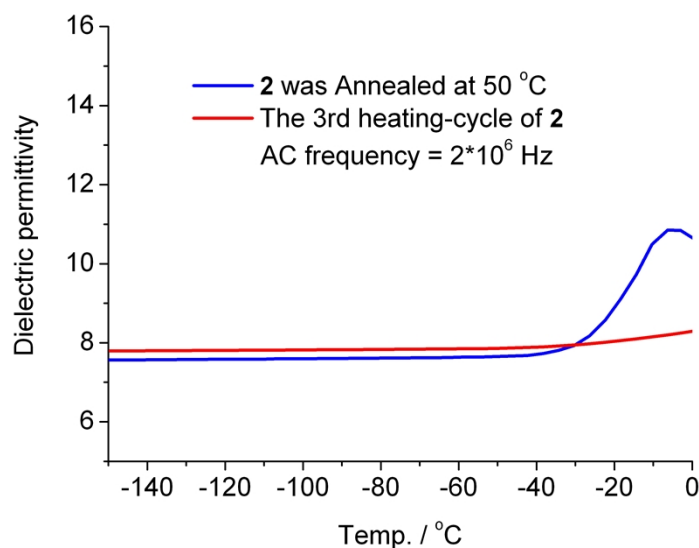


Figure S2 Temperature-dependent dielectric constants for **3** obtained from the annealed at 50 °C and the swept by N<sub>2</sub> flow, respectively, where the slight difference of two plots between -30 and 0 °C arises from the difference of a little amount of water in the samples.