

## Electronic supplementary information (ESI)

**Structural directing roles of isomeric phenylenediacetate ligands in the formation of coordination networks based on a flexible *N,N'*-di(3-pyridyl)suberoamide. A rare 5-fold cds net and a 1D network with new mode of entanglement.**

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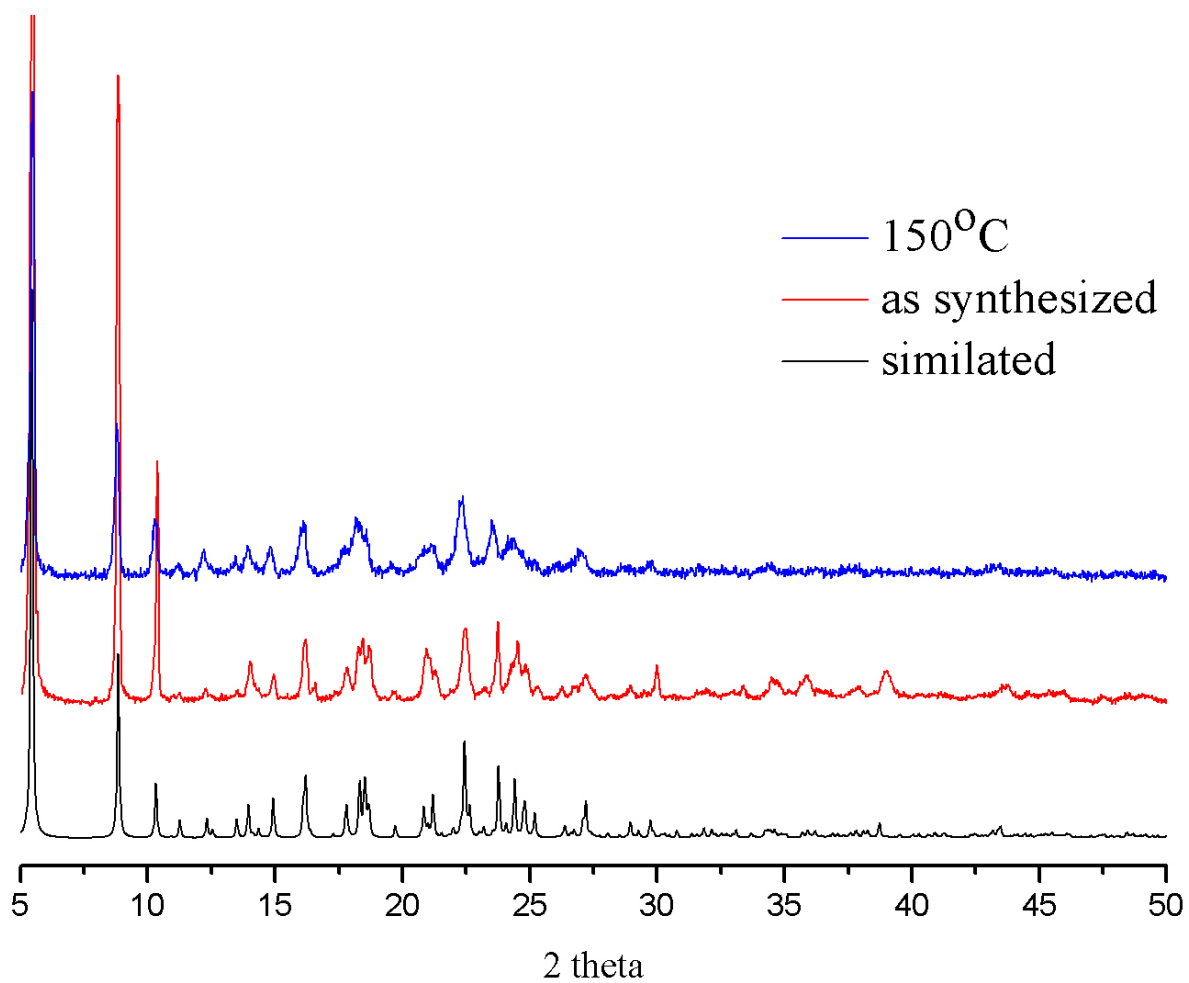
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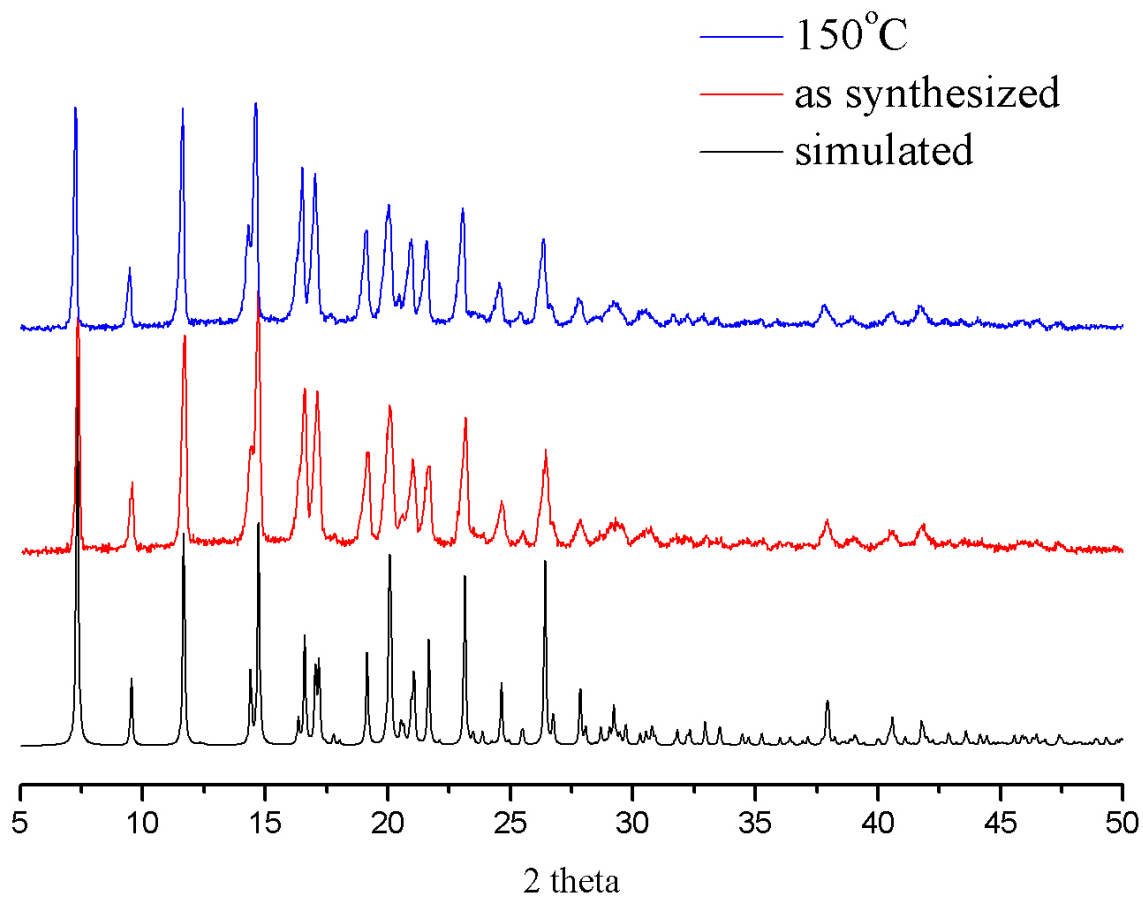
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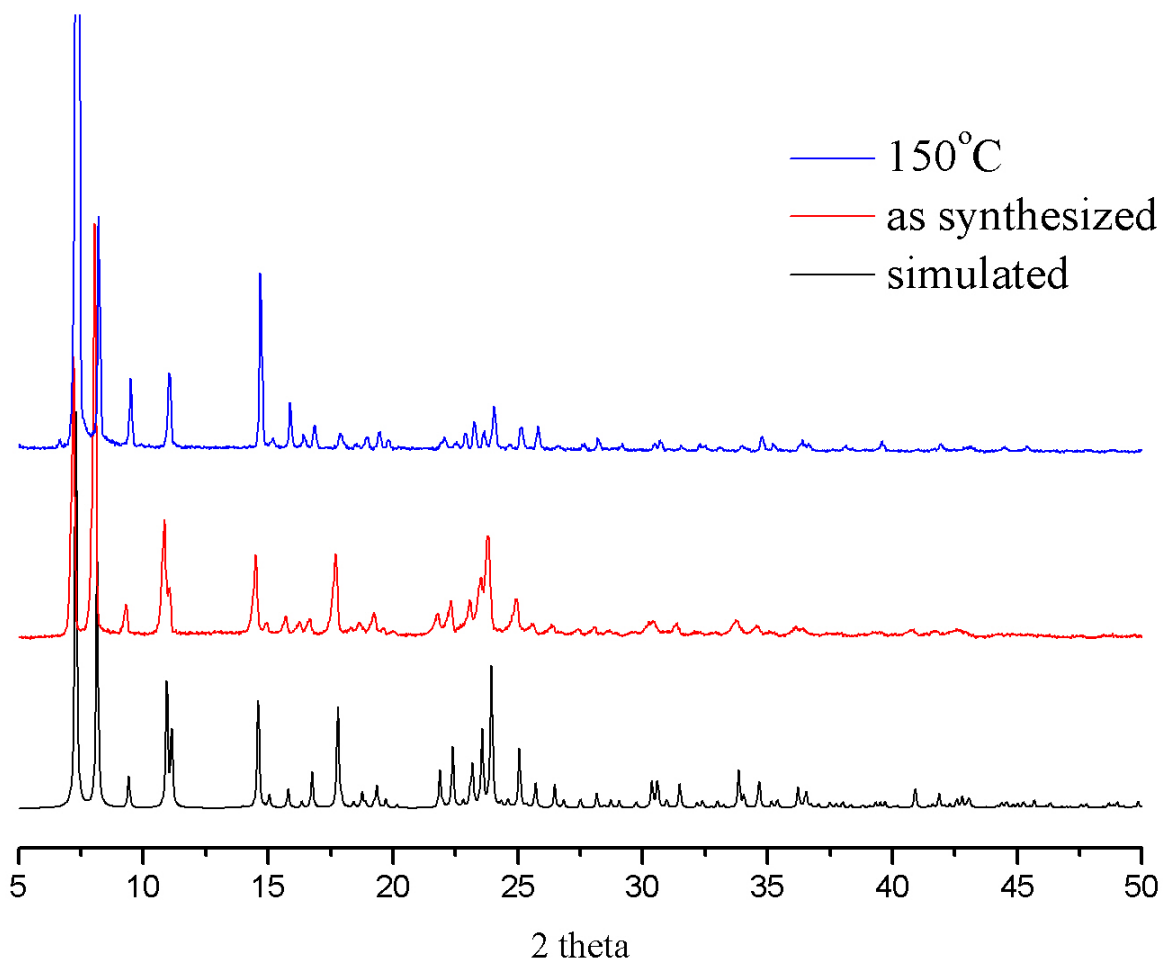
**Fig. S1.** Simulated (black) and as synthesized (red) PXRD patterns of complex **1**, and the pattern (blue) of the compound heated at 150 °C for 3hr.



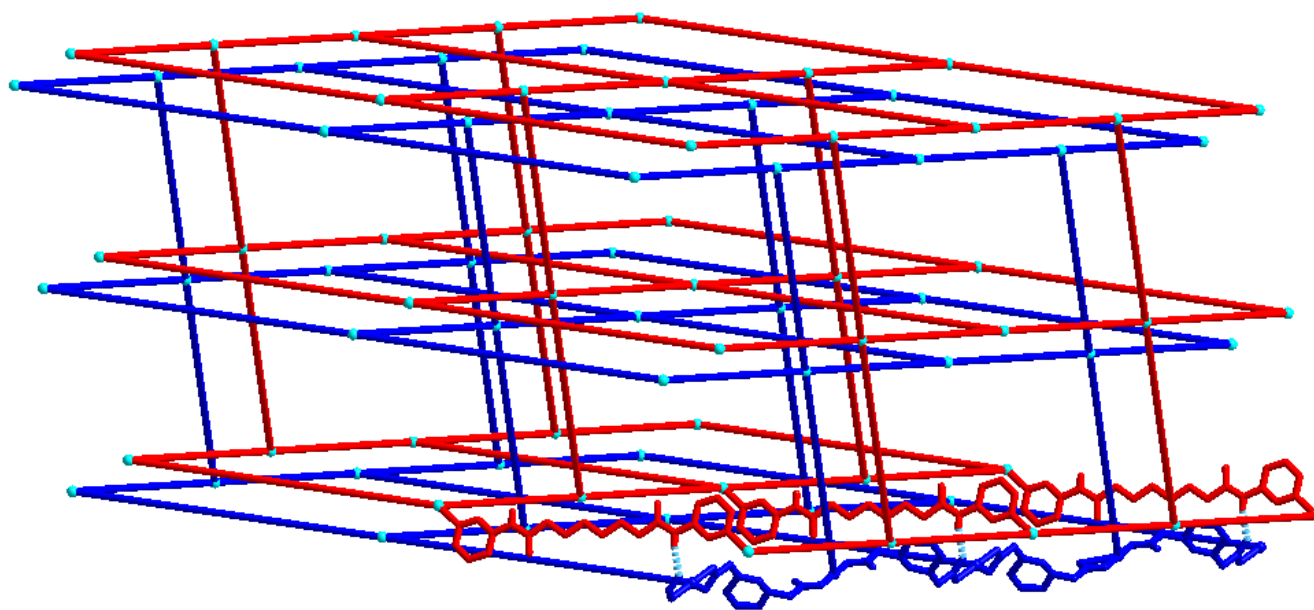
**Fig. S2.** Simulated (black) and as synthesized (red) PXRD patterns of complex **2**, and the pattern (blue) of the compound heated at 150 °C for 3hr.



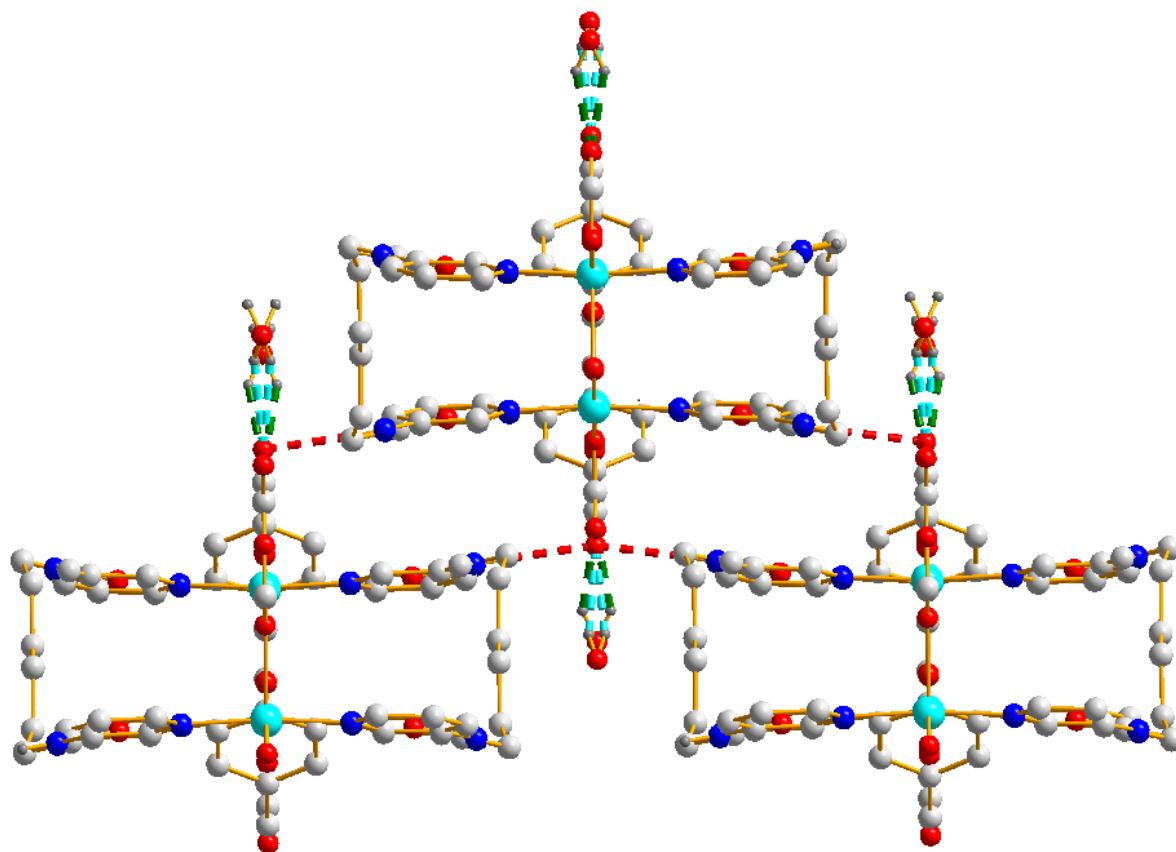
**Fig. S3.** Simulated (black) and as synthesized (red) PXRD patterns of complex **3**, and the pattern (blue) of the compound heated at 150 °C for 3hr.



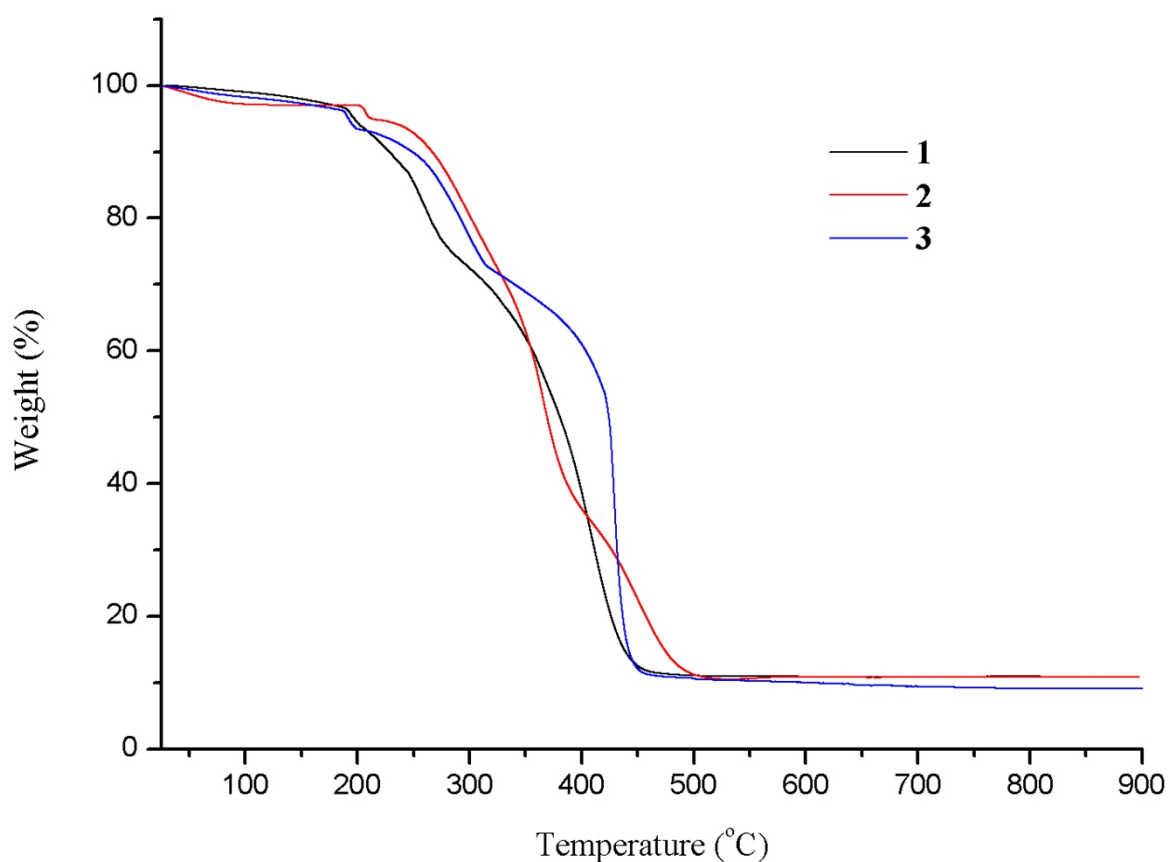
**Fig. S4.** A drawing showing the hydrogen bonds in **2**. Only two independent nets are shown for clarity.



**Fig. S5.** A drawing showing the hydrogen bonds in **3**.



**Fig. S6.** TGA curves for **1** – **3**.



**Table S1.** Thermal properties of **1** - **3**.

Complex	Weight loss of H <sub>2</sub> O, T, °C (found/calc), %	Weight loss of ligands, T, °C (found/calc), %
<b>1</b>	50 - 190 (3.53 / 5.02)	200 – 460 (84.96 / 86.41)
<b>2</b>	45 – 200 (2.16 / 3.00)	200 – 510 (86.19 / 86.41)
<b>3</b>	50 – 200 (6.56 / 5.83)	200 – 460 (83.26 / 83.39)