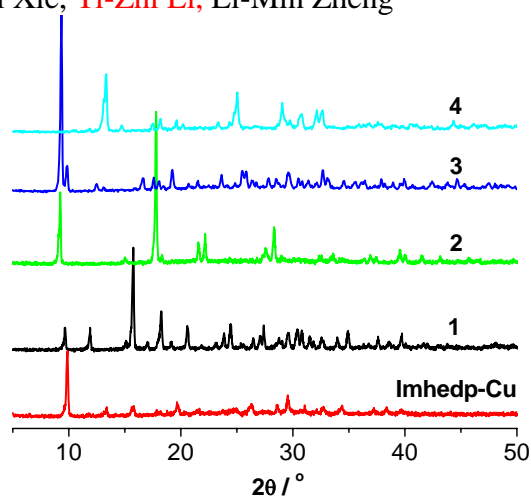


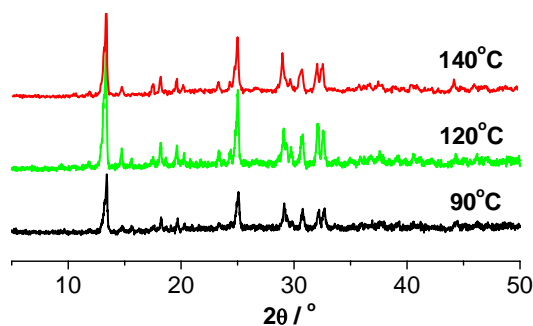
## Supplementary materials

### Copper Diphosphonates with Zero-, One- and Two-Dimensional Structures: Ferrimagnetism in Layer Compound $\text{Cu}_3(\text{ImhedpH})_2 \cdot 2\text{H}_2\text{O}$ [ $\text{ImhedpH}_4 = (1\text{-C}_3\text{H}_3\text{N}_2)\text{CH}_2\text{C}(\text{OH})(\text{PO}_3\text{H}_2)_2$ ]

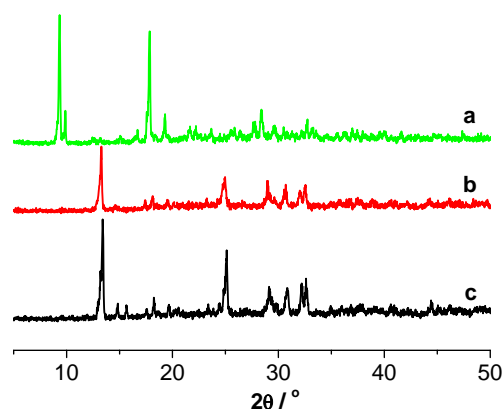
Deng-Ke Cao, Xiao-Ji Xie, Yi-Zhi Li, Li-Min Zheng\*



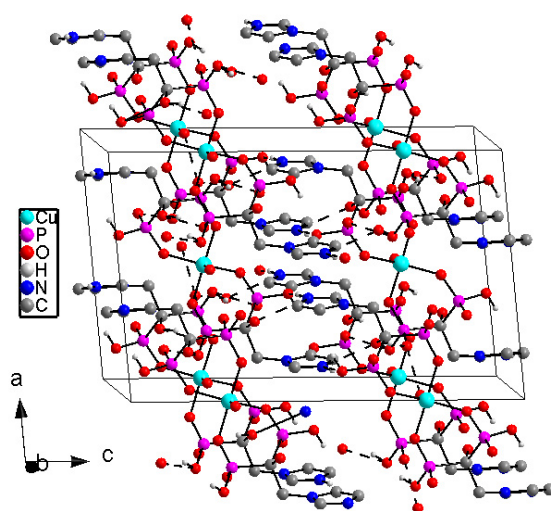
**Fig. S1** XRD patterns of compounds 1-4 and Imhedp-Cu.



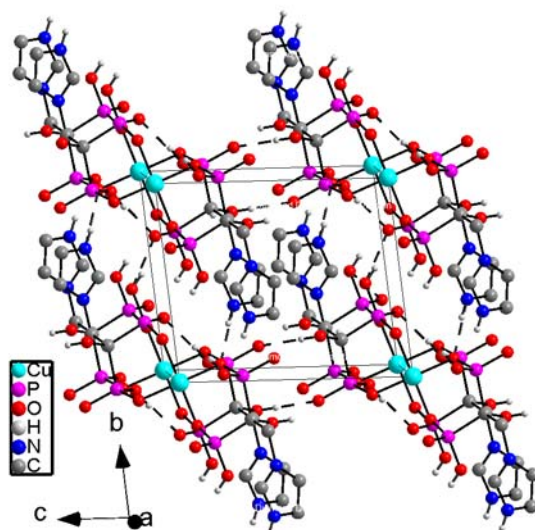
**Fig. S2** XRD patterns of compound 4 obtained at 90, 120, 140°C, respectively.



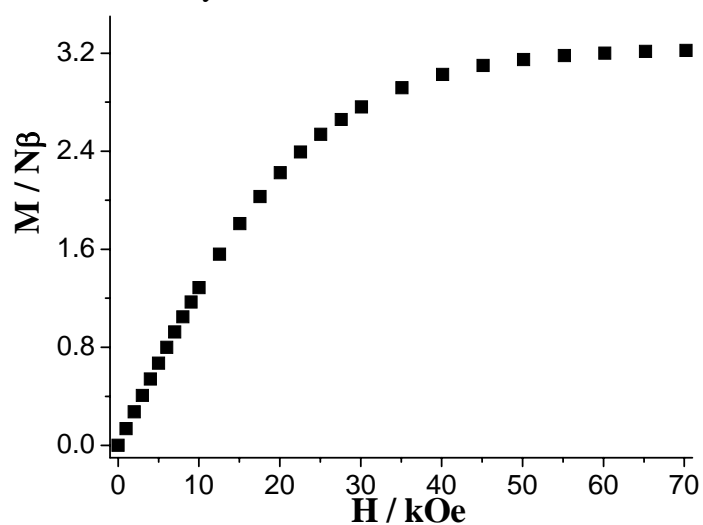
**Fig. S3** The XRD patterns of (a) the mixture of 2 and 3 when 1 is used as starting material; (b) compound 4 when 1 is used as starting material; (c) compound 4 when the mixture of 2 and 3 are used as starting materials.



**Fig. S4** Packing diagram of structure **1** viewed approximately along the *b*-axis. All H atoms attached to C are omitted for clarity.



**Fig. S5** Packing diagram of structure **2** viewed along the *a*-axis. All H atoms attached to C atoms are omitted for clarity.



**Fig. S6** Field dependent magnetization for **3** at 1.8 K.