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Supplementary Material

Construction of Cu(II) cluster-based magnetic metal-organic framework derived from a V-shaped aromatic dicarboxylate ligand

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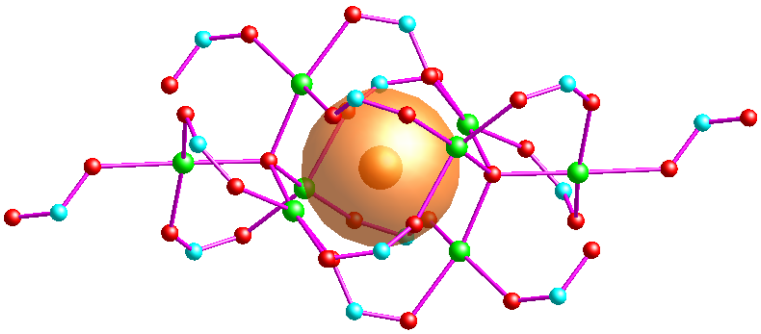
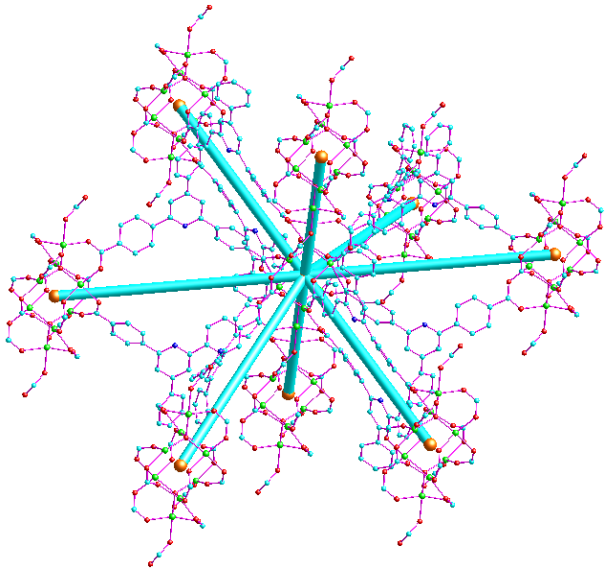
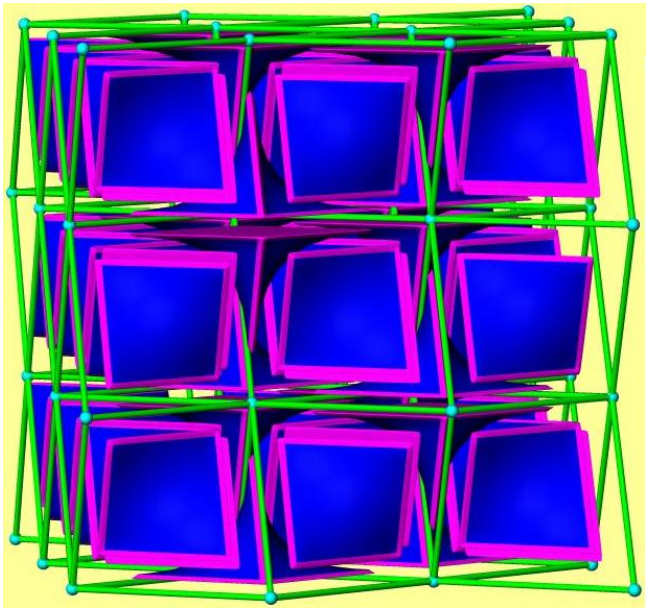


(a)



(b)



(c)

Fig. S1. (a) The [Cu_8] unit of **1**; (b) the simplified 8-*c* node in **1**; (c) the tiling structure of **1**.

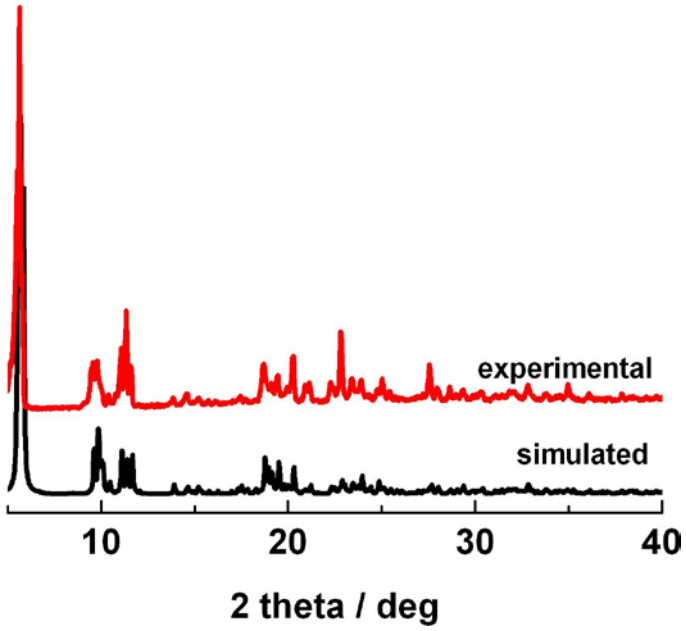


Fig. S2. X-ray powder diffraction (PXRD) patterns of **1**.

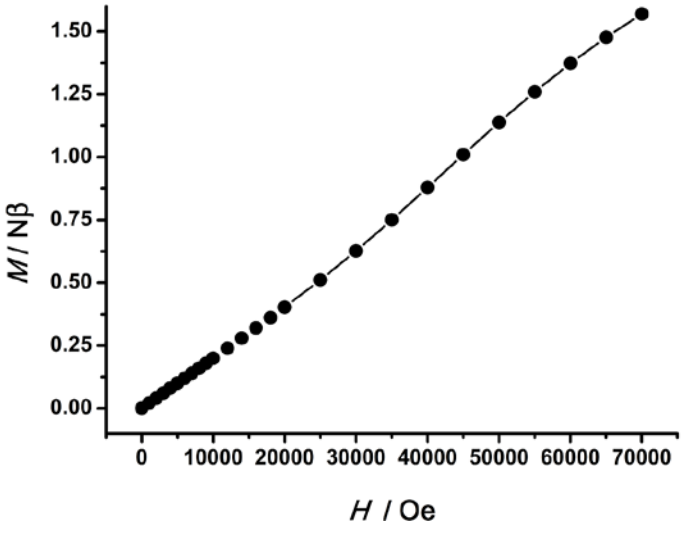


Fig. S3. The *M vs. H* plot for **1** (●) measured at 2 K.

Table S1. Selected bond lengths (Å) and angles (°) for **1**[a]

Cu1—O1	1.929(6)	Cu3—O10	1.926(6)
Cu1—O9^{i}	1.938(6)	Cu3—O1	1.932(5)
Cu1—O13^{ii}	1.979(6)	Cu3—O12^{ii}	1.977(6)
Cu1—O2^{iii}	2.064(6)	Cu3—O5^{vi}	1.990(6)
Cu2—O1	1.927(5)	Cu4—O1	1.926(5)
Cu2—O3	1.939(6)	Cu4—O7^{v}	1.934(6)
Cu2—O4^{iv}	1.960(6)	Cu4—O8^{i}	1.946(6)
Cu2—O6	2.001(6)	Cu4—O11^{v}	1.994(6)
O1—Cu1—O9^{i}	98.6(2)	O4^{iv}—Cu2—O11^{v}	92.4(3)
O1—Cu1—O13^{ii}	90.1(2)	O6—Cu2—O11^{v}	120.9(2)
O9^{i}—Cu1—O13^{ii}	156.5(3)	O10—Cu3—O1	173.8(3)
O1—Cu1—O2^{iii}	176.8(2)	O10—Cu3—O12^{ii}	84.6(3)
O9^{i}—Cu1—O2^{iii}	82.2(2)	O1—Cu3—O12^{ii}	100.1(2)
O13^{ii}—Cu1—O2^{iii}	88.0(2)	O10—Cu3—O5^{vi}	92.7(3)
O1—Cu1—O2	95.3(2)	O1—Cu3—O5^{vi}	84.4(2)
O9^{i}—Cu1—O2	105.8(3)	O12^{ii}—Cu3—O5^{vi}	159.6(3)
O13^{ii}—Cu1—O2	95.0(2)	O10—Cu3—O6	98.9(3)
O2^{iii}—Cu1—O2	87.5(2)	O1—Cu3—O6	78.2(2)
O1—Cu2—O3	100.1(2)	O12^{ii}—Cu3—O6	78.8(2)
O1—Cu2—O4^{iv}	165.8(3)	O5^{vi}—Cu3—O6	121.6(2)
O3—Cu2—O4^{iv}	87.1(3)	O1—Cu4—O7^{v}	167.8(3)
O1—Cu2—O6	89.5(2)	O1—Cu4—O8^{i}	104.3(3)
O3—Cu2—O6	152.9(3)	O7^{v}—Cu4—O8^{i}	84.0(3)
O4^{iv}—Cu2—O6	89.4(3)	O1—Cu4—O11^{v}	86.8(2)
O1—Cu2—O11^{v}	76.0(2)	O7^{v}—Cu4—O11^{v}	91.7(3)
O3—Cu2—O11^{v}	86.2(2)	O8^{i}—Cu4—O11^{v}	144.1(3)
O8^{i}—Cu4—O5^{vi}	97.1(3)	O1—Cu4—O5^{vi}	74.1(2)
O11^{v}—Cu4—O5^{vi}	118.8(2)	O7^{v}—Cu4—O5^{vi}	96.2(3)

[a]Symmetry codes: (i) x+1, y+1, z+1; (ii) −x+1, −y+2, −z; (iii) −x+2, −y+2, −z+1; (iv) −x+1, −y+1, −z+1; (v) −x+1, −y+2, −z+1; (vi) x, y+1, z.