

Electronic Supplementary Information

Hydrogencyanamido Bridged Multinuclear Copper(II) Complexes: From Strong Antiferromagnetic Couplings to Weak Ferromagnetic Couplings

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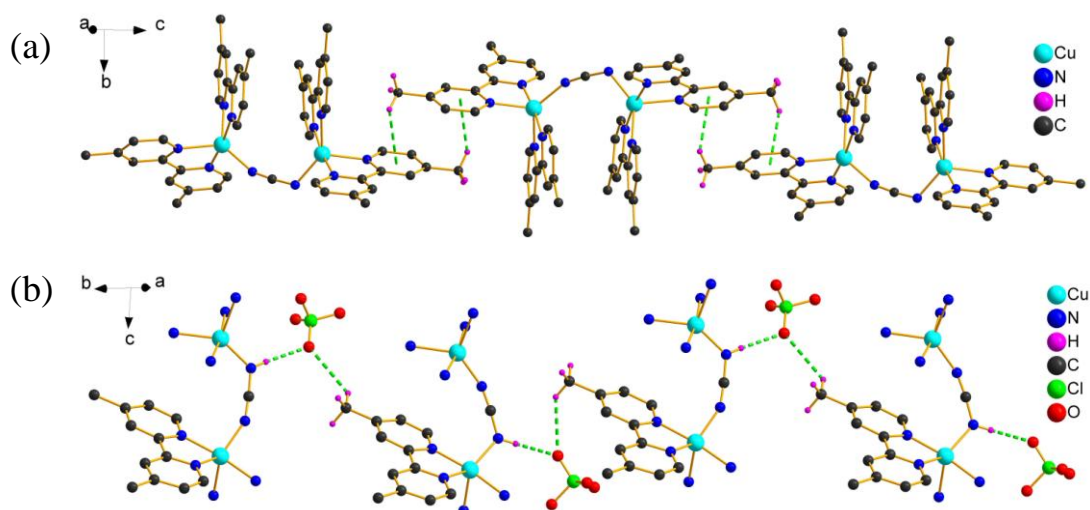


Fig. S1 1D chain structures formed by C–H··· π interactions (a) and hydrogen bonds (b) (green dash lines) in complex 1.

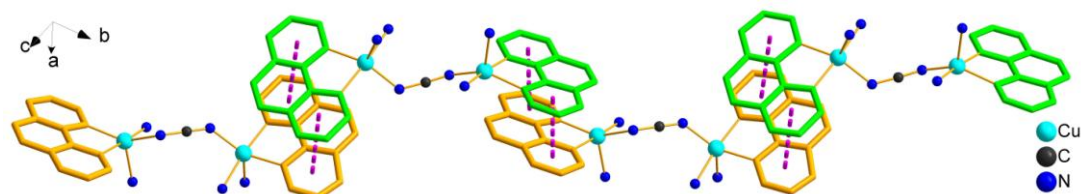


Fig. S2 1D chain structures formed by π ··· π interactions (purple dash lines) in complex 2.

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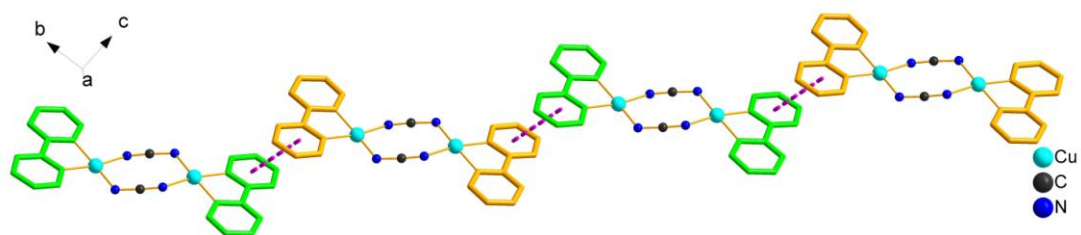


Fig. S3 1D chain structures formed by $\pi \cdots \pi$ interactions (purple dash lines) in complex 3.

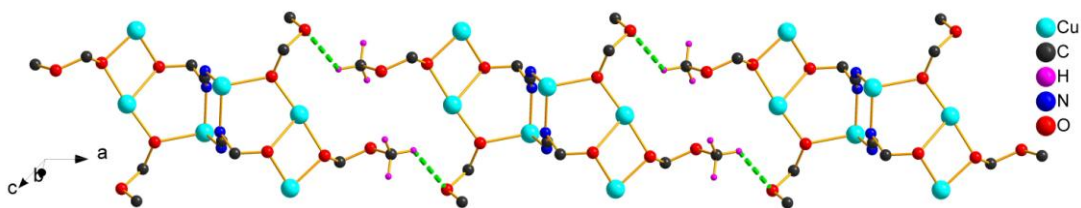


Fig. S4 1D chain structures formed by hydrogen bonds (green dash lines) in complex 4.

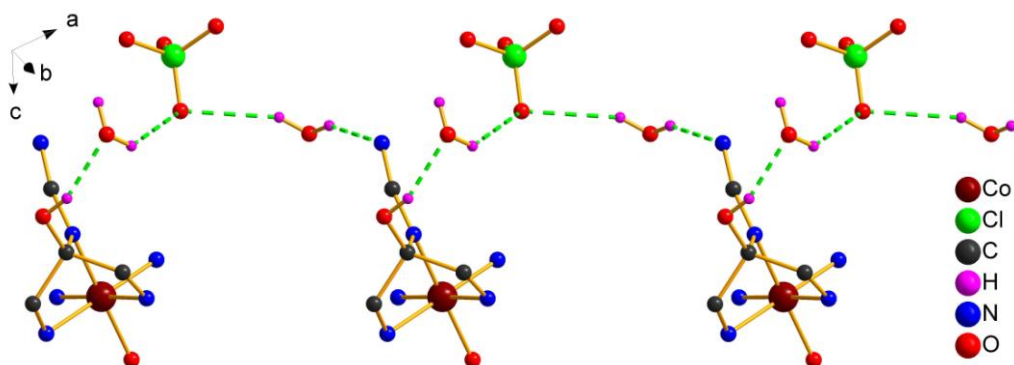


Fig. S5 1D chain structures formed by hydrogen bonds (green dash lines) in complex 5.

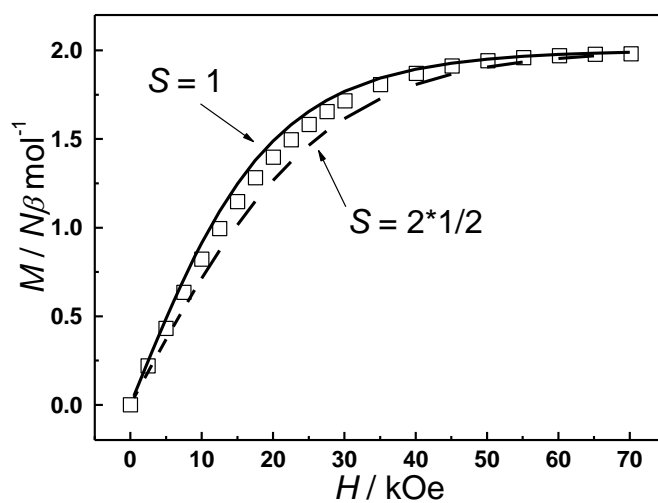
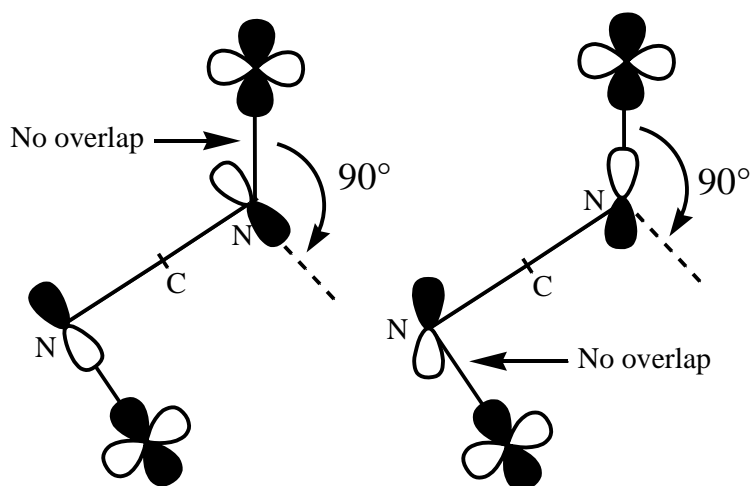
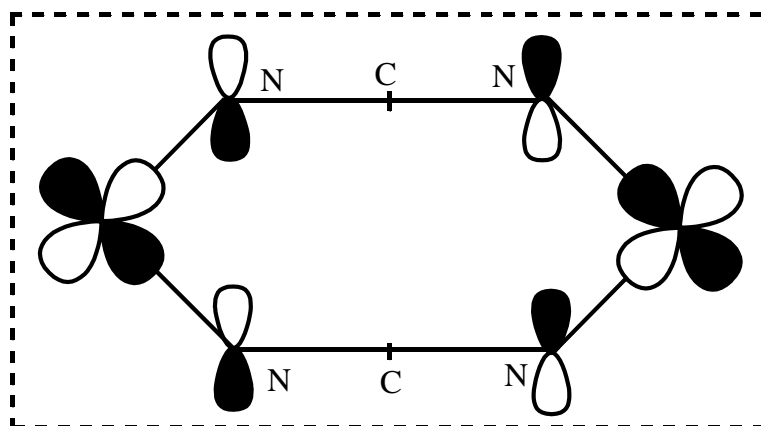


Fig. S6 Field dependence of magnetization of **2** at 1.8 K. The lines represent the Brillouin function that corresponds to $S = 1$ state (solid) and noninteracting $S = 2S_{\text{Cu}}^{\text{II}}$ (break) and with $g = 2.0$.



Scheme S1 Accidental orthogonality of SOMOs with $\varphi = 90^\circ$



Scheme S2 Excellent orbital overlap with perfect coplanarity of SOMOs.