Table S1: Details of data collection and structure refinement for the crystal analysis of the Cu(II)-[H(56)NH_2Cl]H_{-1} complex.

Compound	**Cu(II)-[H(56)NH_2Cl] ($CuLH_{-1}$)**
Formula	Cu C_9 H_{12} N_3OCl, 2(H_2O)
Molecular weight (g mol^{-1})	313.25
Temperature (K)	173(2)
Crystal system	Monoclinic
Space group	$P2_1/c$
a (Å)	7.3116(2)
b (Å)	22.4070(9)
c (Å)	7.3570(2)
α (˚)	90
β (˚)	90.080(2)
γ (˚)	90
Volume of unit cell ($Å^3$)	1205.30(7)
Z	4
No. of reflections collected	5280
No. unique reflections	2860
Calculated density (g cm^{-3})	1.726
Absorption coefficient (mm^{-1})	2.034
F(000)	644
Crystal Size (mm)	0.05 x 0.07 x 0.10
Radiation	Mo Kα (λ= 0.71073 A˚)
theta range for data collection (∘)	3.3 - 27.9
Reflections measured	2860
R, R_w, goodness-of-fit	0.0267, 0.0668, 1.07
Min and max residual density (e $A^{\circ -3}$)	-0.65, 0.43