

## Supporting Information

for

On the importance of CH $\cdots$ X (X=O,  $\pi$ ) interaction of a new mixed ligand Cu(II) coordination polymer: Structure, Hirshfeld surface and theoretical studies

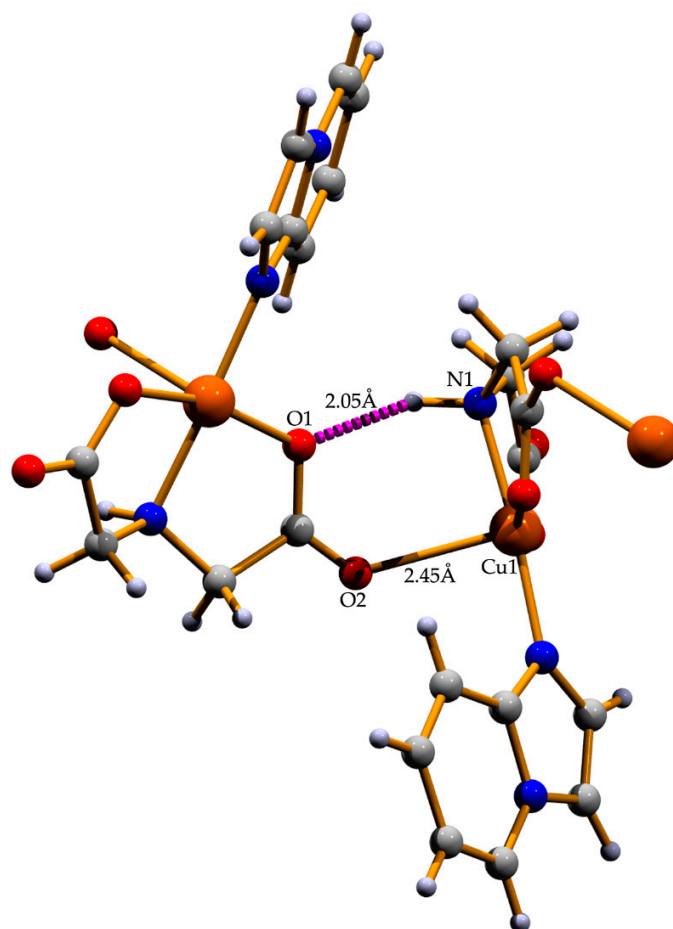
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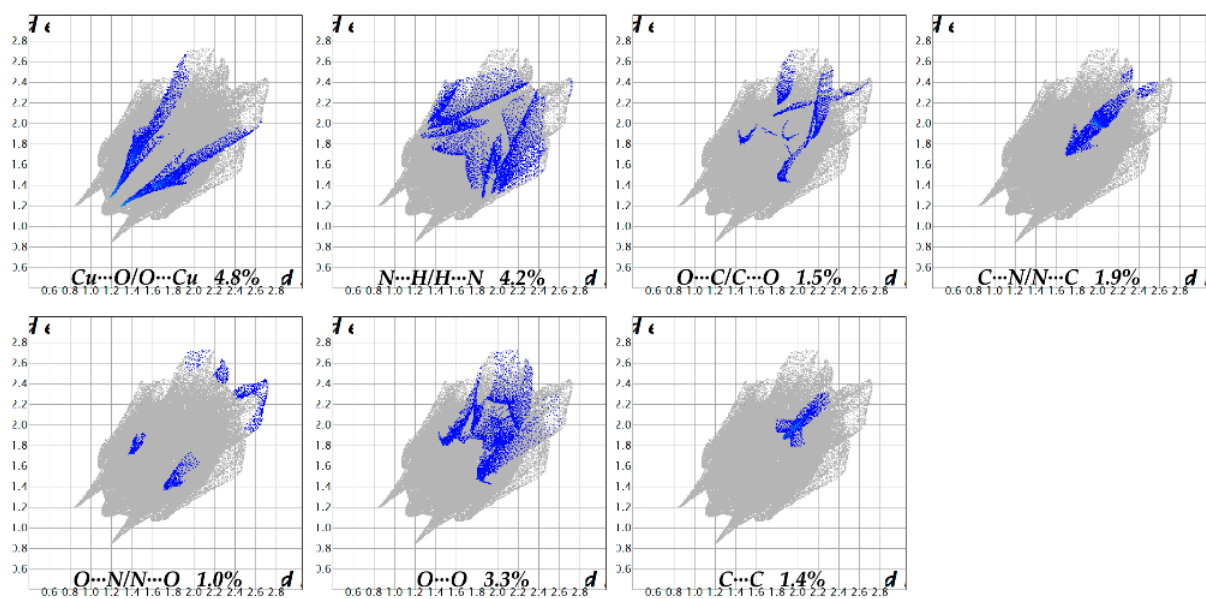
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**Table S1.** Selected Bond-lengths ( $\text{\AA}$ ) and angles ( $^\circ$ ).

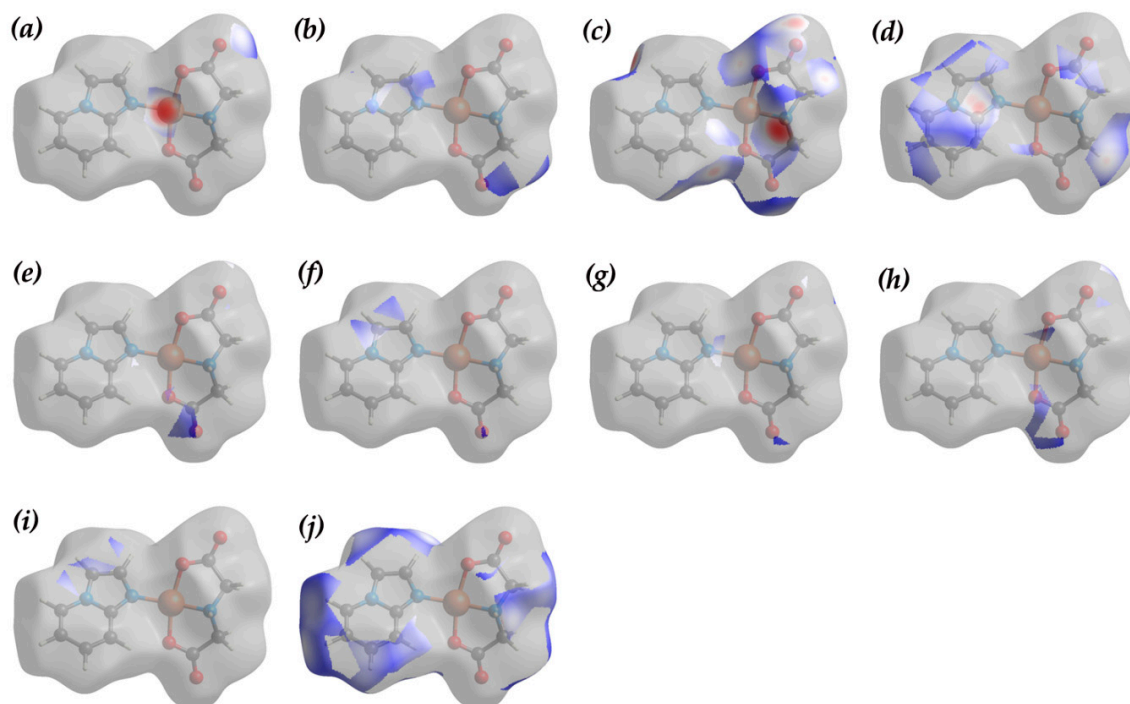
Cu(1)-N(1)	1.968(3)	Cu(1)-O(1)	1.956(2)
Cu(1)-N(2)	1.957(3)	Cu(1)-O(4)	1.949(2)
Cu(1)-O(2)	2.455(2)		
O(4)-Cu(1)-O(1)	163.90(10)	O(4)-Cu(1)-N(1)	84.84(11)
O(4)-Cu(1)-N(2)	96.73(11)	O(1)-Cu(1)-N(1)	84.66(10)
O(1)-Cu(1)-N(2)	94.64(11)	N(2)-Cu(1)-N(1)	175.60(12)



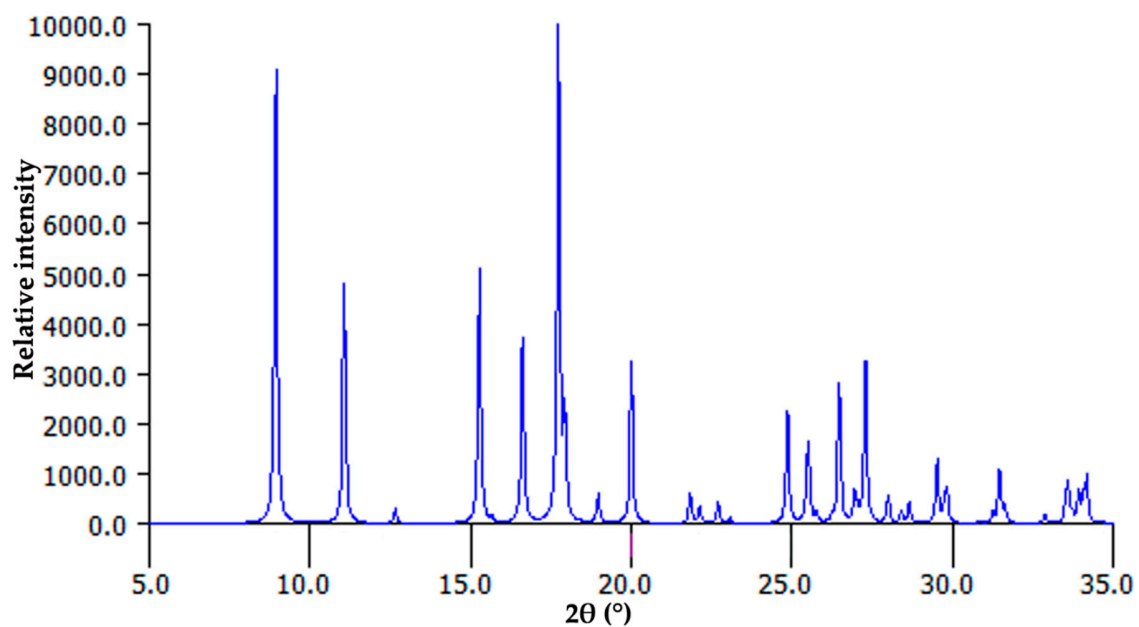
**Figure S1.** Perspective view of the N-H...O bonded motif and the symmetry generated coordination bond that forms chain network.



**Figure S2.** Fingerprint plots that resolved into diverse interactions within the compound showing percentages of contacts contributed less than 5% to the total Hirshfeld surface area of the molecules.



**Figure S3.** Decomposed  $d_{norm}$  plots for Cu...O/O...Cu (a); N...H/H...N (b); O...H/H...O (c); C...H/H...C (d); O...C/C...O (e); C...N/N...C (f); O...N/N...O (g); O...O (h); C...C (i) and H...H (j) contacts contributed to the total Hirshfeld surface area of the molecules.



**Figure S4.** Calculated powder diffraction pattern of the title compound.