

Supplementary material

Table S1: Cu Coordination Geometry in PPLO

Angle	Triangular pyramidal ^a (His 528 at the apex)			Tetrahedral		Square pyramidal ^{a,b} (one equatorial ligand is missing; O _{axial} at the apex)	
	Measured	Ideal	Distortion	Ideal	Distortion	Ideal	Distortion
H528-Cu-H530	99.2°	90°	9.2°	109.5°	10.3°	90°	9.2°
H528-Cu-H694	100.0°	90°	10.0°	109.5°	9.4°	90°	10.0°
H530-Cu-H694	135.2°	120°	15.2°	109.5°	25.7°	180°	44.8°
H530-Cu-O _{axial}	106.1°	120°	13.9°	109.5°	3.4°	90°	16.1°
H528-Cu-O _{axial}	96.1°	90°	6.1°	109.5°	13.4°	90°	6.1°
H694-Cu-O _{axial}	111.6°	120°	8.5°	109.5°	2.1°	90°	21.6°
Average							
Distortion			10.5°		10.7°		18.0°
Deviation of Cu							
from base ^{a,b}			0.3 Å				0.6 Å
Cu distance							
from centre ^{c,d}					0.35 Å		

^aThe triangular pyramid has N^{ε2}(His 528) at the apex and N^{ε2}(His 530), N^{δ1}(His 964) and O_{axial} at the base.

^bThe square pyramid has O_{axial} at the apex, the N(His) atoms and a missing atom at the base.

^cThe centre of the tetrahedron is the unweighted mean position of N^{ε2}(His 528), N^{ε2}(His 530), N^{δ1}(His 964) and O_{axial}.