Electronic Supplementary Material (ESI) for *CrystEngComm*

Supporting Information For

A Layered Iodocuprate Basis on a 3D Cationic Supramolecular Network of Dimeric Co(II) Complexes by Offset Face-to-Face Interactions

Qiuyan Li and Yunlong Fu*

Figure. S1 Thermogravimetric curve

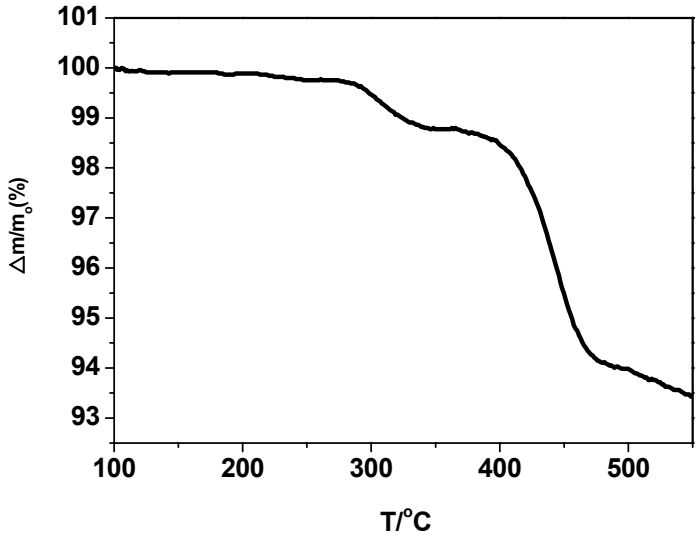

Figure. S2 FT-IR spectra

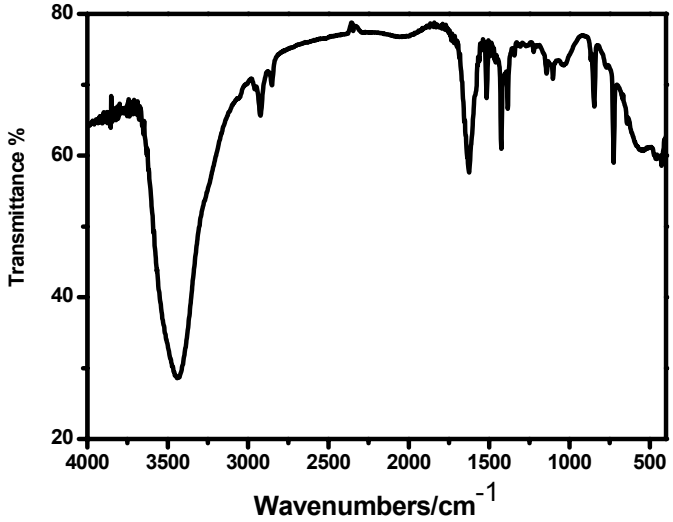

Figure. S3 Experimental and simulated powder XRPD patterns

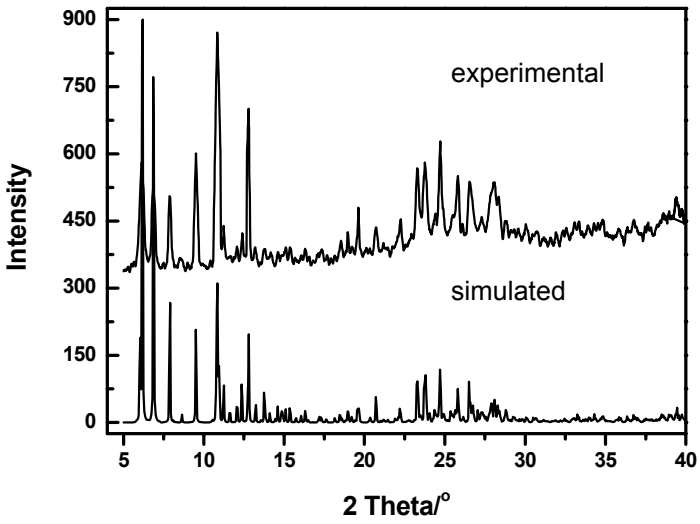

Figure. S4 UV-Vis spectra

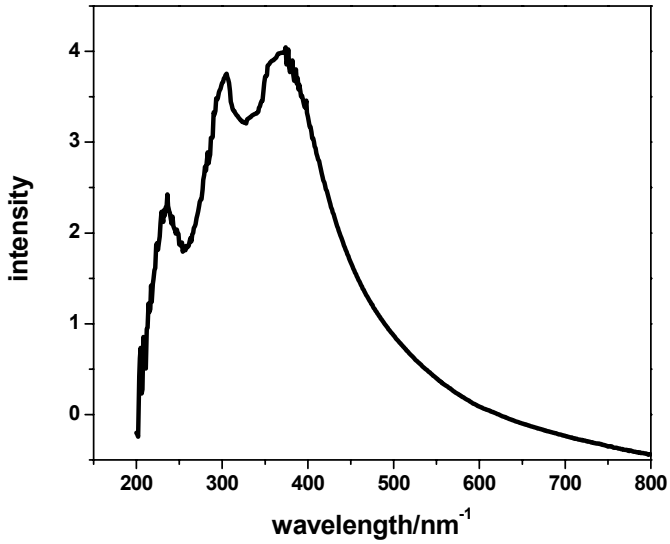

Figure. S5 The cation $[Co(phen)_2(\mu\text{-}Cl)]_2^{2+}$ (Cl atom is labled as Cl(1) and Cl(2)) interact with four neighboring cations via OFF interactions depicted by arrows. All atoms in each cation have the same symmetry codes denoted as A, B, C and D respectively. Symmetry codes: A=-x+1, -y, -z; B=x, -y+1/2, z-1/2; C=-x, -y, -z; D=x, -y+1/2, z+1/2. Hydrogen atoms are omitted for clarity.

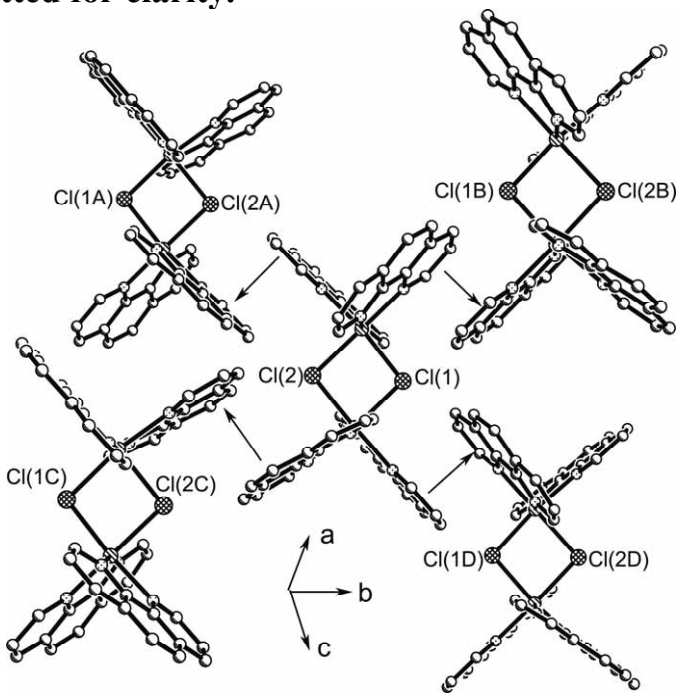

Figure. S6 The Cu(I) coordination environments with atom labeling (30% probability ellipsoids). Symmetry codes: I(7A): x, -y+3/2, z+1/2; I(8A): x, -y+3/2, z+1/2; I(2A): -x, -y+1, -z.; I(3A): -x, -y+1, -z.

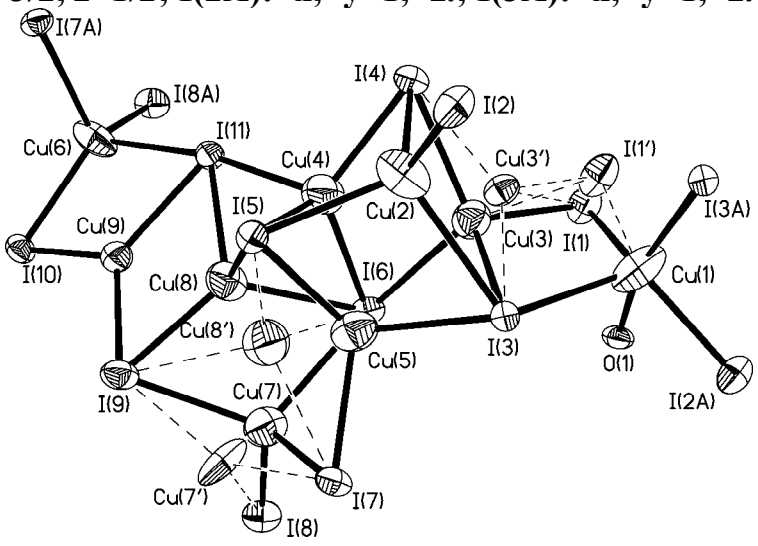

Figure. S7 EPR spectra

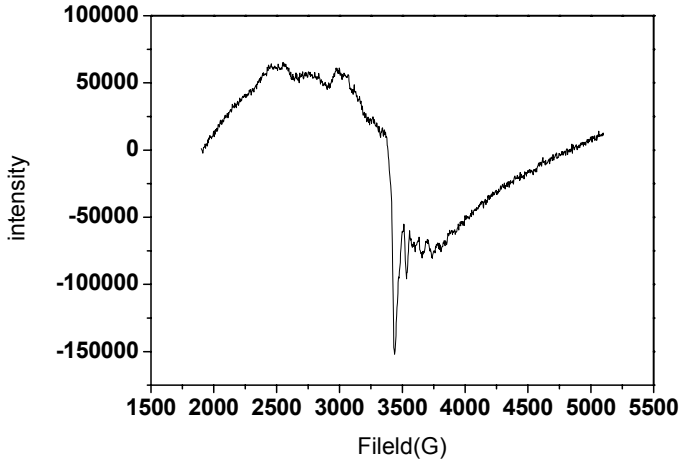

Table S2. Stacking parameters of OFF interactions between adjacent phens

Cg(I)-Cg(J)	dc-c (Å)	dπ,π (Å)	α (°)
Cg(1)-Cg(2)[a]	4.816	3.433	0.0
Cg(3) -Cg(4)[b]	4.244	3.511	7.1
Cg(5)-Cg(6)[c]	5.511	3.373	0.0

Cg(I)=plane I; α = dihedral angle between planes I and J; dc-c = centroid-centroid distance of planes; dπ,π= stacking distance defined as the centroid → normal to the plane averaged distance; definition of phen:

Cg(1)= N(5), N(6), C(1), C(2), C(3) →C(11), C(12)

Cg(2)[a] = N(5), N(6), C(1), C(2), C(3) →C(11), C(12);

Cg(3)= N(1), N(2), C(37), C(38), C(39) →C(47), C(48)

Cg(4)[b] = N(7), N(8), C(13), C(14), C(15) →C(23), C(24);

Cg(5)= N(3), N(4), C(25), C(26), C(27) →C(35), C(36)

Cg(6)[c] = N(3), N(4), C(25), C(26), C(27) →C(35), C(36);

Symmetry codes: a=-x, -y, -z; b= x, -y+1/2, z-1/2; c =-x+1, -y, -z.

Table S1. Selected bond distances and angles (Å, °)

Bonds	Bonds-Distances	Bonds	Bonds-Distances
I(1)-I(1')	0.632(8)	I(10)-Cu(9)	2.527(2)
I(1)-Cu(3')	2.487(9)	I(10)-Cu(6)	2.561(2)
I(1)-Cu(3)	2.580(7)	I(11)-Cu(9)	2.561(2)
I(1)-Cu(1)	2.582(7)	I(11)-Cu(4)	2.676(3)
I(1')-Cu(3')	2.506(11)	I(11)-Cu(8)	2.681(4)
I(1')-Cu(1)	2.636(8)	I(11)-Cu(6)	2.915(3)
I(1')-Cu(3)	2.783(9)	Cu(1)-I(2)#1	2.561(3)
I(2)-Cu(1)#1	2.561(3)	Cu(1)-O(1)	2.573(9)
I(2)-Cu(2)	2.564(3)	Cu(1)-Cu(3')	2.741(8)
I(3)-Cu(3)	2.699(4)	Cu(1)-I(3)#1	2.747(3)
I(3)-Cu(3')	2.708(7)	Cu(2)-Cu(3')	2.623(7)
I(3)-Cu(5)	2.733(3)	Cu(2)-Cu(3)	2.790(5)
I(3)-Cu(1)#1	2.747(3)	Cu(2)-Cu(4)	2.798(4)
I(3)-Cu(1)	2.839(4)	Cu(3)-Cu(3')	0.845(7)
I(3)-Cu(2)	2.920(4)	Cu(3)-Cu(4)	2.667(5)
I(4)-Cu(3')	2.485(7)	Cu(3)-Cu(5)	3.025(5)
I(4)-Cu(4)	2.555(3)	Cu(4)-Cu(8)	2.306(4)
I(4)-Cu(2)	2.631(3)	Cu(4)-Cu(5)	2.681(4)
I(4)-Cu(3)	2.688(4)	Cu(4)-Cu(8')	2.866(11)
I(5)-Cu(8')	2.470(10)	Cu(5)-Cu(8')	1.586(10)
I(5)-Cu(5)	2.675(3)	Cu(5)-Cu(8)	2.725(4)
I(5)-Cu(2)	2.707(3)	Cu(5)-Cu(7)	2.952(5)
I(5)-Cu(8)	2.748(4)	Cu(6)-Cu(7')#3	2.414(8)
I(5)-Cu(4)	2.791(3)	Cu(6)-I(8)#3	2.575(2)
I(6)-Cu(5)	2.627(3)	Cu(6)-I(7)#3	2.739(3)
I(6)-Cu(4)	2.698(3)	Cu(6)-Cu(7)#3	2.793(5)
I(6)-Cu(8)	2.904(4)	Cu(6)-Cu(9)	2.815(3)
I(6)-Cu(8')	2.904(10)	Cu(7)-Cu(7')	1.045(13)
I(6)-Cu(3)	2.905(5)	Cu(7)-Cu(8')	2.089(12)
I(6)-Cu(7)	2.909(5)	Cu(7)-Cu(8)	2.755(6)
I(7)-Cu(5)	2.603(3)	Cu(7)-Cu(6)#2	2.793(5)
I(7)-Cu(7)	2.670(5)	Cu(7')-Cu(6)#2	2.414(8)
I(7)-Cu(7')	2.707(8)	Cu(7')-Cu(8')	2.503(15)
I(7)-Cu(6)#2	2.739(3)	Cu(8)-Cu(8')	1.567(11)
I(7)-Cu(8')	2.745(10)	Cu(8)-Cu(9)	2.627(4)
I(8)-Cu(7)	2.555(5)	Co(1)-N(1)	2.129(9)
I(8)-Cu(6)#2	2.575(2)	Co(1)-N(4)	2.130(9)
I(8)-Cu(7')	2.609(7)	Co(1)-N(2)	2.141(9)
I(9)-Cu(7')	2.395(7)	Co(1)-N(3)	2.142(9)
I(9)-Cu(8)	2.530(4)	Co(1)-Cl(1)	2.446(3)
I(9)-Cu(9)	2.575(2)	Co(1)-Cl(2)	2.493(3)
I(9)-Cu(7)	2.787(5)	Co(2)-N(5)	2.110(9)
I(9)-Cu(8')	2.857(10)	Co(2)-N(7)	2.134(10)
Co(2)-N(6)	2.149(10)	Co(2)-N(6)	2.149(10)
Co(2)-Cl(1)	2.473(3)	Co(2)-Cl(2)	2.474(3)
Co(2)-Cl(2)	2.474(3)		
Bonds	Bond-Angles	Bonds	Bond-Angles
I(1')-I(1)-Cu(3')	84.4(13)	Cu(5)-I(5)-Cu(8)	60.32(10)

I(1')-I(1)-Cu(3)	102.2(14)	Cu(2)-I(5)-Cu(8)	107.51(10)
Cu(3')-I(1)-Cu(3)	19.08(18)	Cu(8')-I(5)-Cu(4)	65.7(2)
I(1')-I(1)-Cu(1)	87.9(13)	Cu(5)-I(5)-Cu(4)	58.72(8)
Cu(3')-I(1)-Cu(1)	65.4(2)	Cu(2)-I(5)-Cu(4)	61.18(7)
Cu(3)-I(1)-Cu(1)	73.3(2)	Cu(8)-I(5)-Cu(4)	49.21(9)
I(1)-I(1')-Cu(3')	81.0(13)	Cu(5)-I(6)-Cu(4)	60.45(9)
I(1)-I(1')-Cu(1)	78.2(12)	Cu(5)-I(6)-Cu(8)	58.79(9)
Cu(3')-I(1')-Cu(1)	64.4(2)	Cu(4)-I(6)-Cu(8)	48.45(9)
I(1)-I(1')-Cu(3)	64.9(12)	Cu(5)-I(6)-Cu(8')	32.8(2)
Cu(3')-I(1')-Cu(3)	17.38(18)	Cu(4)-I(6)-Cu(8')	61.4(2)
Cu(1)-I(1')-Cu(3)	69.3(2)	Cu(8)-I(6)-Cu(8')	31.3(2)
Cu(1)#1-I(2)-Cu(2)	78.66(11)	Cu(5)-I(6)-Cu(3)	66.09(10)
Cu(3)-I(3)-Cu(3')	17.97(15)	Cu(4)-I(6)-Cu(3)	56.69(9)
Cu(3)-I(3)-Cu(5)	67.68(11)	Cu(8)-I(6)-Cu(3)	100.92(10)
Cu(3')-I(3)-Cu(5)	82.76(19)	Cu(8')-I(6)-Cu(3)	94.1(2)
Cu(3)-I(3)-Cu(1)#1	110.50(12)	Cu(5)-I(6)-Cu(7)	64.20(11)
Cu(3')-I(3)-Cu(1)#1	93.75(19)	Cu(4)-I(6)-Cu(7)	101.41(12)
Cu(5)-I(3)-Cu(1)#1	127.59(9)	Cu(8)-I(6)-Cu(7)	56.57(12)
Cu(3)-I(3)-Cu(1)	67.59(10)	Cu(8')-I(6)-Cu(7)	42.1(2)
Cu(3')-I(3)-Cu(1)	59.17(17)	Cu(3)-I(6)-Cu(7)	129.99(12)
Cu(5)-I(3)-Cu(1)	129.62(9)	Cu(5)-I(7)-Cu(7)	68.07(12)
Cu(1)#1-I(3)-Cu(1)	89.38(9)	Cu(5)-I(7)-Cu(7')	84.9(3)
Cu(3)-I(3)-Cu(2)	59.39(10)	Cu(7)-I(7)-Cu(7')	22.4(3)
Cu(3')-I(3)-Cu(2)	55.41(15)	Cu(5)-I(7)-Cu(6)#2	128.06(9)
Cu(5)-I(3)-Cu(2)	65.46(8)	Cu(7)-I(7)-Cu(6)#2	62.15(11)
Cu(1)#1-I(3)-Cu(2)	69.86(8)	Cu(7')-I(7)-Cu(6)#2	52.62(19)
Cu(1)-I(3)-Cu(2)	108.50(8)	Cu(5)-I(7)-Cu(8')	34.4(2)
Cu(3')-I(4)-Cu(4)	77.9(2)	Cu(7)-I(7)-Cu(8')	45.4(2)
Cu(3')-I(4)-Cu(2)	61.61(17)	Cu(7')-I(7)-Cu(8')	54.6(3)
Cu(4)-I(4)-Cu(2)	65.28(9)	Cu(6)#2-I(7)-Cu(8')	106.0(2)
Cu(3')-I(4)-Cu(3)	18.25(17)	Cu(7)-I(8)-Cu(6)#2	65.96(12)
Cu(4)-I(4)-Cu(3)	61.08(11)	Cu(7)-I(8)-Cu(7')	23.3(3)
Cu(2)-I(4)-Cu(3)	63.27(11)	Cu(6)#2-I(8)-Cu(7')	55.51(19)
Cu(8')-I(5)-Cu(5)	35.6(2)	Cu(7')-I(9)-Cu(8)	81.7(4)
Cu(8')-I(5)-Cu(2)	102.9(2)	Cu(7')-I(9)-Cu(9)	125.7(3)
Cu(5)-I(5)-Cu(2)	69.33(10)	Cu(8)-I(9)-Cu(9)	61.93(9)
Cu(8')-I(5)-Cu(8)	34.4(2)	Cu(7')-I(9)-Cu(7)	21.6(3)
Cu(9)-I(10)-Cu(6)	67.19(8)	Cu(3')-Cu(2)-I(3)	58.20(16)
Cu(9)-I(11)-Cu(4)	111.02(8)	I(4)-Cu(2)-I(3)	114.24(10)
Cu(9)-I(11)-Cu(8)	60.10(9)	I(5)-Cu(2)-I(3)	103.26(9)
Cu(4)-I(11)-Cu(8)	51.01(10)	Cu(3)-Cu(2)-I(3)	56.36(10)
Cu(9)-I(11)-Cu(6)	61.48(6)	Cu(4)-Cu(2)-I(3)	97.09(11)
Cu(4)-I(11)-Cu(6)	171.06(8)	Cu(3')-Cu(3)-I(1)	74.3(6)
Cu(8)-I(11)-Cu(6)	121.54(9)	Cu(3')-Cu(3)-Cu(4)	119.4(6)
I(2)#1-Cu(1)-O(1)	62.8(2)	I(1)-Cu(3)-Cu(4)	142.5(2)
I(2)#1-Cu(1)-I(1)	113.03(17)	Cu(3')-Cu(3)-I(4)	67.2(6)
O(1)-Cu(1)-I(1)	58.1(2)	I(1)-Cu(3)-I(4)	108.25(18)
I(2)#1-Cu(1)-I(1')	118.8(2)	Cu(4)-Cu(3)-I(4)	57.01(10)
O(1)-Cu(1)-I(1')	70.3(3)	Cu(3')-Cu(3)-I(3)	81.6(6)
I(1)-Cu(1)-I(1')	13.86(18)	I(1)-Cu(3)-I(3)	110.6(2)
I(2)#1-Cu(1)-Cu(3')	157.3(2)	Cu(4)-Cu(3)-I(3)	106.05(14)
O(1)-Cu(1)-Cu(3')	96.3(3)	I(4)-Cu(3)-I(3)	119.99(15)
I(1)-Cu(1)-Cu(3')	55.6(2)	Cu(3')-Cu(3)-I(1')	62.4(6)

I(1')-Cu(1)-Cu(3')	55.5(2)	I(1)-Cu(3)-I(1')	12.82(19)
I(2)#1-Cu(1)-I(3)#1	107.82(11)	Cu(4)-Cu(3)-I(1')	142.1(2)
O(1)-Cu(1)-I(3)#1	165.5(3)	I(4)-Cu(3)-I(1')	97.91(19)
I(1)-Cu(1)-I(3)#1	121.85(15)	I(3)-Cu(3)-I(1')	111.4(2)
I(1')-Cu(1)-I(3)#1	108.32(18)	Cu(3')-Cu(3)-Cu(2)	69.9(6)
Cu(3')-Cu(1)-I(3)#1	94.35(19)	I(1)-Cu(3)-Cu(2)	144.2(2)
I(2)#1-Cu(1)-I(3)	115.56(12)	Cu(4)-Cu(3)-Cu(2)	61.65(12)
O(1)-Cu(1)-I(3)	103.4(2)	I(4)-Cu(3)-Cu(2)	57.38(10)
I(1)-Cu(1)-I(3)	106.31(17)	I(3)-Cu(3)-Cu(2)	64.25(11)
I(1')-Cu(1)-I(3)	111.6(2)	I(1')-Cu(3)-Cu(2)	132.1(2)
Cu(3')-Cu(1)-I(3)	58.04(16)	Cu(3')-Cu(3)-I(6)	177.1(7)
I(3)#1-Cu(1)-I(3)	90.62(9)	I(1)-Cu(3)-I(6)	107.61(19)
I(2)-Cu(2)-Cu(3')	119.3(2)	Cu(4)-Cu(3)-I(6)	57.74(11)
I(2)-Cu(2)-I(4)	113.84(11)	I(4)-Cu(3)-I(6)	109.93(14)
Cu(3')-Cu(2)-I(4)	56.45(16)	I(3)-Cu(3)-I(6)	99.64(13)
I(2)-Cu(2)-I(5)	113.85(11)	I(1')-Cu(3)-I(6)	119.2(2)
Cu(3')-Cu(2)-I(5)	126.2(2)	Cu(2)-Cu(3)-I(6)	108.17(14)
I(4)-Cu(2)-I(5)	108.44(11)	Cu(3')-Cu(3)-Cu(5)	127.0(6)
I(2)-Cu(2)-Cu(3)	136.20(15)	I(1)-Cu(3)-Cu(5)	146.4(2)
Cu(3')-Cu(2)-Cu(3)	17.60(17)	Cu(4)-Cu(3)-Cu(5)	55.78(11)
I(4)-Cu(2)-Cu(3)	59.35(10)	I(4)-Cu(3)-Cu(5)	104.44(13)
I(5)-Cu(2)-Cu(3)	108.67(13)	I(3)-Cu(3)-Cu(5)	56.70(9)
I(2)-Cu(2)-Cu(4)	160.15(16)	I(1')-Cu(3)-Cu(5)	157.7(2)
Cu(3')-Cu(2)-Cu(4)	71.4(2)	Cu(2)-Cu(3)-Cu(5)	63.36(11)
I(4)-Cu(2)-Cu(4)	56.05(8)	I(6)-Cu(3)-Cu(5)	52.53(10)
I(5)-Cu(2)-Cu(4)	60.89(9)	Cu(3)-Cu(3')-I(4)	94.6(6)
Cu(3)-Cu(2)-Cu(4)	57.00(12)	Cu(3)-Cu(3')-I(1)	86.7(6)
I(2)-Cu(2)-I(3)	102.76(10)	I(4)-Cu(3')-I(1)	118.3(3)
I(6)-Cu(4)-Cu(2)	114.11(12)	Cu(3)-Cu(3')-I(1')	100.2(7)
I(5)-Cu(4)-Cu(2)	57.93(8)	I(4)-Cu(3')-I(1')	111.5(3)
Cu(8)-Cu(4)-Cu(8')	33.1(2)	I(1)-Cu(3')-I(1')	14.53(18)
I(4)-Cu(4)-Cu(8')	149.4(2)	Cu(3)-Cu(3')-Cu(2)	92.5(6)
Cu(3)-Cu(4)-Cu(8')	100.4(2)	I(4)-Cu(3')-Cu(2)	61.94(17)
I(11)-Cu(4)-Cu(8')	97.7(2)	I(1)-Cu(3')-Cu(2)	179.1(4)
Cu(5)-Cu(4)-Cu(8')	33.0(2)	I(1')-Cu(3')-Cu(2)	166.3(4)
I(6)-Cu(4)-Cu(8')	62.8(2)	Cu(3)-Cu(3')-I(3)	80.4(6)
I(5)-Cu(4)-Cu(8')	51.8(2)	I(4)-Cu(3')-I(3)	127.8(3)
Cu(2)-Cu(4)-Cu(8')	91.3(2)	I(1)-Cu(3')-I(3)	113.3(3)
Cu(8')-Cu(5)-I(7)	77.7(4)	I(1')-Cu(3')-I(3)	120.6(3)
Cu(8')-Cu(5)-I(6)	83.2(4)	Cu(2)-Cu(3')-I(3)	66.40(18)
I(7)-Cu(5)-I(6)	108.44(11)	Cu(3)-Cu(3')-Cu(1)	106.0(7)
Cu(8')-Cu(5)-I(5)	65.1(4)	I(4)-Cu(3')-Cu(1)	158.7(4)
I(7)-Cu(5)-I(5)	113.20(11)	I(1)-Cu(3')-Cu(1)	58.9(2)
I(6)-Cu(5)-I(5)	118.98(10)	I(1')-Cu(3')-Cu(1)	60.1(2)
Cu(8')-Cu(5)-Cu(4)	79.9(4)	Cu(2)-Cu(3')-Cu(1)	121.2(3)
I(7)-Cu(5)-Cu(4)	156.33(14)	I(3)-Cu(3')-Cu(1)	62.79(17)
I(6)-Cu(5)-Cu(4)	61.10(9)	Cu(8)-Cu(4)-I(4)	168.20(18)
I(5)-Cu(5)-Cu(4)	62.80(9)	Cu(8)-Cu(4)-Cu(3)	128.39(18)
Cu(8')-Cu(5)-Cu(8)	30.0(4)	I(4)-Cu(4)-Cu(3)	61.91(11)
I(7)-Cu(5)-Cu(8)	106.26(13)	Cu(8)-Cu(4)-I(11)	64.62(11)
I(6)-Cu(5)-Cu(8)	65.70(11)	I(4)-Cu(4)-I(11)	110.56(10)
I(5)-Cu(5)-Cu(8)	61.17(10)	Cu(3)-Cu(4)-I(11)	146.30(15)
Cu(4)-Cu(5)-Cu(8)	50.49(10)	Cu(8)-Cu(4)-Cu(5)	65.74(13)

Cu(8')-Cu(5)-I(3)	170.7(4)	I(4)-Cu(4)-Cu(5)	119.33(12)
I(7)-Cu(5)-I(3)	98.61(9)	Cu(3)-Cu(4)-Cu(5)	68.90(12)
I(6)-Cu(5)-I(3)	106.09(10)	I(11)-Cu(4)-Cu(5)	129.98(12)
I(5)-Cu(5)-I(3)	109.37(11)	Cu(8)-Cu(4)-I(6)	70.45(13)
Cu(4)-Cu(5)-I(3)	104.68(11)	I(4)-Cu(4)-I(6)	121.35(12)
Cu(8)-Cu(5)-I(3)	155.13(14)	Cu(3)-Cu(4)-I(6)	65.56(12)
Cu(8')-Cu(5)-Cu(7)	42.9(4)	I(11)-Cu(4)-I(6)	98.75(9)
I(7)-Cu(5)-Cu(7)	57.04(11)	Cu(5)-Cu(4)-I(6)	58.45(9)
I(6)-Cu(5)-Cu(7)	62.55(12)	Cu(8)-Cu(4)-I(5)	64.44(12)
I(5)-Cu(5)-Cu(7)	107.94(14)	I(4)-Cu(4)-I(5)	108.12(10)
Cu(4)-Cu(5)-Cu(7)	100.74(13)	Cu(3)-Cu(4)-I(5)	109.82(12)
Cu(8)-Cu(5)-Cu(7)	57.90(13)	I(11)-Cu(4)-I(5)	103.73(10)
I(3)-Cu(5)-Cu(7)	141.40(14)	Cu(5)-Cu(4)-I(5)	58.49(9)
Cu(8')-Cu(5)-Cu(3)	131.9(4)	I(6)-Cu(4)-I(5)	112.62(10)
I(7)-Cu(5)-Cu(3)	141.52(13)	Cu(8)-Cu(4)-Cu(2)	118.72(15)
I(6)-Cu(5)-Cu(3)	61.38(10)	I(4)-Cu(4)-Cu(2)	58.67(8)
I(5)-Cu(5)-Cu(3)	102.99(12)	Cu(3)-Cu(4)-Cu(2)	61.35(13)
Cu(4)-Cu(5)-Cu(3)	55.32(11)	I(11)-Cu(4)-Cu(2)	146.35(14)
Cu(8)-Cu(5)-Cu(3)	102.21(13)	Cu(5)-Cu(4)-Cu(2)	67.88(11)
N(1)-Co(1)-N(4)	165.5(4)	N(8)-Co(2)-N(6)	93.6(4)
N(1)-Co(1)-N(2)	77.8(3)	N(5)-Co(2)-Cl(1)	94.3(3)
N(4)-Co(1)-N(2)	91.8(4)	N(7)-Co(2)-Cl(1)	93.2(3)
N(1)-Co(1)-N(3)	91.4(3)	N(8)-Co(2)-Cl(1)	95.4(3)
N(4)-Co(1)-N(3)	78.8(3)	N(6)-Co(2)-Cl(1)	168.7(3)
N(2)-Co(1)-N(3)	92.0(3)	N(5)-Co(2)-Cl(2)	90.8(3)
N(1)-Co(1)-Cl(1)	96.9(3)	N(7)-Co(2)-Cl(2)	175.0(3)
N(4)-Co(1)-Cl(1)	94.0(3)	N(8)-Co(2)-Cl(2)	97.1(3)
N(2)-Co(1)-Cl(1)	95.2(3)	N(6)-Co(2)-Cl(2)	87.4(3)
N(3)-Co(1)-Cl(1)	170.0(3)	Cl(1)-Co(2)-Cl(2)	84.69(10)
N(1)-Co(1)-Cl(2)	96.1(3)	Co(1)-Cl(1)-Co(2)	95.80(10)
N(4)-Co(1)-Cl(2)	94.4(3)	Co(2)-Cl(2)-Co(1)	94.58(10)
N(2)-Co(1)-Cl(2)	173.8(3)	N(5)-Co(2)-N(7)	93.8(4)
N(3)-Co(1)-Cl(2)	88.7(3)	N(5)-Co(2)-N(8)	168.0(4)
Cl(1)-Co(1)-Cl(2)	84.85(10)	N(7)-Co(2)-N(8)	78.7(4)
N(1)-Co(1)-N(3)	91.4(3)	N(5)-Co(2)-N(6)	77.7(4)
N(4)-Co(1)-N(3)	78.8(3)	N(7)-Co(2)-N(6)	95.4(4)
N(2)-Co(1)-N(3)	92.0(3)	N(1)-Co(1)-N(4)	165.5(4)
N(1)-Co(1)-Cl(1)	96.9(3)	N(1)-Co(1)-N(2)	77.8(3)
N(4)-Co(1)-Cl(1)	94.0(3)	N(4)-Co(1)-N(2)	91.8(4)
N(2)-Co(1)-Cl(1)	95.2(3)		

Symmetry transformations used to generate equivalent atoms: #1 x,-y+1/2,z+1/2
#2 -x+1,-y,-z+1 #3 x,-y+1/2,z-1/2