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Table S1. Crystallographic Data for **1** and **2**.

Compound	$[Cu(dpp)_2](PF_6)$ (**1**)	$[Cu(dpp)_2](ClO_4)_2$ (**2**)
Formula	$CuC_{48}H_{32}F_6N_4P$	$CuC_{48}H_{32}Cl_2N_4O_8$
Color; Habit	red-brown prisms	blue-black blocks
Crystal Size (mm)	0.5 x 0.7 x 0.2	0.3 x 0.3 x 0.4
Crystal System	monoclinic	triclinic
Space Group	$P2_1/c$	$P\bar{1}$
a (Å)	11.081(4)	7.809(3)
b (Å)	25.491(8)	13.027(6)
c (Å)	14.263(5)	20.344(10)
α (°)		87.68(4)
β (°)	92.84(3)	89.16(4)
γ (°)		79.26(4)
V (Å^3)	4024(2)	2032(2)
Z	4	2
Formula Weight	873.3	927.2
Temperature (K)	295	188
2θ Range	3.0-50.0	3.0-50.0
Reflections Collected	10580	7400
Independent Reflections	7099	7177
Observed Reflections (F > 4.0σ(F))	4813	4943
Final R Indices (obs. data)	R = 5.41%; R_w = 6.43%	R = 5.22%; R_w = 5.37%
R Indices (all data)	R = 8.01%; R_w = 10.72%	R = 7.92%; R_w = 7.27%
Goodness of Fit	1.31	1.66
Data-to-Parameter Ratio	8.9:1	8.9:1

Table S2. Atomic coordinates (x10^4) and equivalent isotropic displacement coefficients (Å^2 x 10^3) for $[Cu(dpp)_2](PF_6)$, **1**.

	x	y	z	U(eq)
Cu(1)	182(1)	1171(1)	2057(1)	47(1)
P(1)	4858(1)	900(1)	-2743(1)	69(1)
F(1)	5127(5)	373(2)	-2260(4)	171(3)
F(2)	3473(3)	817(3)	-2674(4)	166(3)
F(3)	4757(5)	627(2)	-3717(3)	151(2)
F(4)	6229(3)	1001(2)	-2809(4)	137(2)
F(5)	4908(4)	1194(2)	-1777(3)	141(2)
F(6)	4598(5)	1441(2)	-3246(4)	156(2)
N(1B)	858(3)	932(1)	789(2)	45(1)
N(2B)	-1368(3)	846(1)	1499(2)	45(1)
N(1A)	519(3)	1984(1)	1956(2)	46(1)
N(2A)	1180(3)	1250(1)	3272(2)	44(1)
C(1B)	1929(4)	1007(2)	436(3)	51(1)
C(2B)	2155(5)	900(2)	-503(3)	63(2)
C(3B)	1258(5)	689(2)	-1080(3)	67(2)
C(4B)	109(4)	607(2)	-736(3)	56(2)
C(5B)	-57(4)	746(2)	211(3)	46(1)
C(6B)	-1217(4)	691(2)	585(3)	45(1)
C(7B)	-2187(4)	500(2)	5(3)	57(2)
C(8B)	-3313(4)	455(2)	398(4)	70(2)
C(9B)	-3446(4)	599(2)	1307(4)	69(2)
C(10B)	-2443(4)	801(2)	1850(3)	52(1)
C(11B)	-1985(5)	364(2)	-941(3)	68(2)
C(12B)	-892(5)	413(2)	-1290(3)	70(2)
C(1A)	284(4)	2322(2)	1247(3)	53(1)
C(2A)	888(5)	2803(2)	1202(4)	73(2)

C(3A)	1721(5)	2947(2)	1888(4)	72(2)
C(4A)	1991(4)	2600(2)	2630(3)	62(2)
C(5A)	1387(4)	2124(2)	2635(3)	50(1)
C(6A)	1706(4)	1730(2)	3344(3)	48(1)
C(7A)	2614(4)	1855(2)	4034(3)	62(2)
C(8A)	2951(4)	1460(2)	4670(3)	68(2)
C(9A)	2444(4)	977(2)	4597(3)	64(2)
C(10A)	1545(4)	874(2)	3881(3)	50(1)
C(11A)	3206(5)	2354(2)	4014(4)	77(2)
C(12A)	2914(5)	2713(2)	3348(4)	76(2)
C(1E)	2903(4)	1220(2)	1071(3)	56(2)
C(2E)	3215(4)	970(2)	1911(3)	66(2)
C(3E)	4100(5)	1181(3)	2506(4)	91(3)
C(4E)	4668(6)	1630(4)	2292(6)	105(3)
C(5E)	4369(6)	1888(3)	1463(6)	112(3)
C(6E)	3484(5)	1668(3)	845(5)	93(3)
C(1F)	-2632(4)	982(2)	2824(3)	56(2)
C(2F)	-3328(4)	684(2)	3409(4)	68(2)
C(3F)	-3552(5)	859(3)	4298(4)	84(3)
C(4F)	-3098(6)	1331(3)	4613(4)	88(3)
C(5F)	-2400(5)	1625(2)	4050(3)	72(2)
C(6F)	-2147(4)	1454(2)	3165(3)	60(2)
C(1C)	-590(4)	2154(2)	481(3)	57(2)
C(2C)	-1768(5)	2040(2)	639(4)	74(2)
C(3C)	-2557(5)	1881(2)	-91(5)	89(3)
C(4C)	-2171(7)	1837(3)	-971(5)	97(3)
C(5C)	-1004(7)	1960(3)	-1149(4)	94(3)
C(6C)	-203(5)	2119(2)	-427(4)	75(2)
C(1D)	998(4)	346(2)	3795(3)	51(1)
C(2D)	-240(4)	285(2)	3727(3)	56(2)
C(3D)	-745(5)	-207(2)	3685(3)	65(2)
C(4D)	-24(6)	-642(2)	3706(3)	75(2)
C(5D)	1221(6)	-584(2)	3775(4)	77(2)
C(6D)	1736(5)	-95(2)	3822(3)	64(2)

* Equivalent isotropic U defined as one third of the trace of the orthogonalized Uij tensor

Table S3. Bond Lengths (Å) for $[Cu(dpp)_2](PF_6)$, **1**.

Cu(1)-N(1B)	2.082 (3)
Cu(1)-N(2B)	2.032 (3)
Cu(1)-N(1A)	2.112 (3)
Cu(1)-N(2A)	2.019 (3)
P(1)-F(1)	1.532 (5)
P(1)-F(2)	1.557 (4)
P(1)-F(3)	1.552 (5)
P(1)-F(4)	1.549 (4)
P(1)-F(5)	1.567 (5)
P(1)-F(6)	1.573 (5)
N(1B)-C(1B)	1.325 (6)
N(1B)-C(5B)	1.360 (5)
N(2B)-C(6B)	1.380 (5)
N(2B)-C(10B)	1.320 (6)
N(1A)-C(1A)	1.344 (6)
N(1A)-C(5A)	1.377 (5)
N(2A)-C(6A)	1.357 (6)
N(2A)-C(10A)	1.344 (5)

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C(1B)-C(2B)	1.402 (6)
C(1B)-C(1E)	1.478 (6)
C(2B)-C(3B)	1.368 (7)
C(3B)-C(4B)	1.403 (7)
C(4B)-C(5B)	1.416 (6)
C(4B)-C(12B)	1.419 (7)
C(5B)-C(6B)	1.424 (6)
C(6B)-C(7B)	1.411 (6)
C(7B)-C(8B)	1.398 (7)
C(7B)-C(11B)	1.422 (7)
C(8B)-C(9B)	1.362 (8)
C(9B)-C(10B)	1.420 (7)
C(10B)-C(1F)	1.489 (7)
C(11B)-C(12B)	1.338 (8)
C(1A)-C(2A)	1.402 (7)
C(1A)-C(1C)	1.487 (6)
C(2A)-C(3A)	1.362 (8)
C(3A)-C(4A)	1.399 (7)
C(4A)-C(5A)	1.387 (7)
C(4A)-C(12A)	1.440 (7)
C(5A)-C(6A)	1.456 (6)
C(6A)-C(7A)	1.408 (6)
C(7A)-C(8A)	1.394 (7)
C(7A)-C(11A)	1.432 (8)
C(8A)-C(9A)	1.354 (8)
C(9A)-C(10A)	1.416 (6)
C(10A)-C(1D)	1.477 (7)
C(11A)-C(12A)	1.349 (8)
C(1E)-C(2E)	1.385 (7)
C(1E)-C(6E)	1.357 (9)
C(2E)-C(3E)	1.375 (8)
C(3E)-C(4E)	1.348 (12)
C(4E)-C(5E)	1.378 (12)
C(5E)-C(6E)	1.404 (10)
C(1F)-C(2F)	1.390 (7)
C(1F)-C(6F)	1.394 (7)
C(2F)-C(3F)	1.378 (8)
C(3F)-C(4F)	1.373 (10)
C(4F)-C(5F)	1.366 (9)
C(5F)-C(6F)	1.377 (7)
C(1C)-C(2C)	1.366 (7)
C(1C)-C(6C)	1.388 (7)
C(2C)-C(3C)	1.386 (9)
C(3C)-C(4C)	1.351 (10)
C(4C)-C(5C)	1.366 (11)
C(5C)-C(6C)	1.386 (9)
C(1D)-C(2D)	1.380 (6)
C(1D)-C(6D)	1.389 (7)
C(2D)-C(3D)	1.372 (7)
C(3D)-C(4D)	1.368 (8)
C(4D)-C(5D)	1.386 (9)
C(5D)-C(6D)	1.372 (8)

Table S4. Bond angles for $[Cu(dpp)_2](PF_6)$, **1**.

N(1B)-Cu(1)-N(2B)	82.8(1)
N(1B)-Cu(1)-N(1A)	98.9(1)
N(2B)-Cu(1)-N(1A)	121.4(1)

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N(1B)-Cu(1)-N(2A)	124.7(1)
N(2B)-Cu(1)-N(2A)	142.4(1)
N(1A)-Cu(1)-N(2A)	82.5(1)
F(1)-P(1)-F(2)	91.3(3)
F(1)-P(1)-F(3)	90.7(3)
F(2)-P(1)-F(3)	88.2(3)
F(1)-P(1)-F(4)	90.1(3)
F(2)-P(1)-F(4)	178.3(3)
F(3)-P(1)-F(4)	92.7(3)
F(1)-P(1)-F(5)	91.5(3)
F(2)-P(1)-F(5)	90.0(3)
F(3)-P(1)-F(5)	177.2(3)
F(4)-P(1)-F(5)	89.0(3)
F(1)-P(1)-F(6)	179.2(3)
F(2)-P(1)-F(6)	89.4(3)
F(3)-P(1)-F(6)	89.0(3)
F(4)-P(1)-F(6)	89.2(3)
F(5)-P(1)-F(6)	88.8(3)
Cu(1)-N(1B)-C(1B)	130.9(3)
Cu(1)-N(1B)-C(5B)	109.8(3)
C(1B)-N(1B)-C(5B)	118.3(3)
Cu(1)-N(2B)-C(6B)	110.3(3)
Cu(1)-N(2B)-C(10B)	130.4(3)
C(6B)-N(2B)-C(10B)	119.1(3)
Cu(1)-N(1A)-C(1A)	130.7(3)
Cu(1)-N(1A)-C(5A)	109.0(3)
C(1A)-N(1A)-C(5A)	117.7(4)
Cu(1)-N(2A)-C(6A)	111.7(3)
Cu(1)-N(2A)-C(10A)	128.2(3)
C(6A)-N(2A)-C(10A)	118.7(3)
N(1B)-C(1B)-C(2B)	122.7(4)
N(1B)-C(1B)-C(1E)	117.4(4)
C(2B)-C(1B)-C(1E)	119.9(4)
C(1B)-C(2B)-C(3B)	119.5(5)
C(2B)-C(3B)-C(4B)	119.6(4)
C(3B)-C(4B)-C(5B)	117.3(4)
C(3B)-C(4B)-C(12B)	123.7(4)
C(5B)-C(4B)-C(12B)	118.9(4)
N(1B)-C(5B)-C(4B)	122.5(4)
N(1B)-C(5B)-C(6B)	117.8(3)
C(4B)-C(5B)-C(6B)	119.7(4)
N(2B)-C(6B)-C(5B)	118.7(3)
N(2B)-C(6B)-C(7B)	121.9(4)
C(5B)-C(6B)-C(7B)	119.3(4)
C(6B)-C(7B)-C(8B)	117.6(4)
C(6B)-C(7B)-C(11B)	119.3(4)
C(8B)-C(7B)-C(11B)	123.1(5)
C(7B)-C(8B)-C(9B)	120.0(5)
C(8B)-C(9B)-C(10B)	119.9(5)
N(2B)-C(10B)-C(9B)	121.5(4)
N(2B)-C(10B)-C(1F)	119.9(4)
C(9B)-C(10B)-C(1F)	118.7(4)
C(7B)-C(11B)-C(12B)	121.2(5)
C(4B)-C(12B)-C(11B)	121.5(5)
N(1A)-C(1A)-C(2A)	121.4(4)
N(1A)-C(1A)-C(1C)	117.6(4)
C(2A)-C(1A)-C(1C)	120.9(4)
C(1A)-C(2A)-C(3A)	120.6(5)

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C(2A)-C(3A)-C(4A)	119.1(5)
C(3A)-C(4A)-C(5A)	118.1(4)
C(3A)-C(4A)-C(12A)	121.9(5)
C(5A)-C(4A)-C(12A)	119.8(5)
N(1A)-C(5A)-C(4A)	122.9(4)
N(1A)-C(5A)-C(6A)	116.6(4)
C(4A)-C(5A)-C(6A)	120.4(4)
N(2A)-C(6A)-C(5A)	118.7(3)
N(2A)-C(6A)-C(7A)	123.1(4)
C(5A)-C(6A)-C(7A)	118.1(4)
C(6A)-C(7A)-C(8A)	116.8(5)
C(6A)-C(7A)-C(11A)	119.9(4)
C(8A)-C(7A)-C(11A)	123.1(4)
C(7A)-C(8A)-C(9A)	120.6(4)
C(8A)-C(9A)-C(10A)	120.0(5)
N(2A)-C(10A)-C(9A)	120.8(4)
N(2A)-C(10A)-C(1D)	119.2(3)
C(9A)-C(10A)-C(1D)	120.1(4)
C(7A)-C(11A)-C(12A)	121.6(5)
C(4A)-C(12A)-C(11A)	120.1(5)
C(1B)-C(1E)-C(2E)	120.3(4)
C(1B)-C(1E)-C(6E)	120.2(4)
C(2E)-C(1E)-C(6E)	119.5(5)
C(1E)-C(2E)-C(3E)	119.6(5)
C(2E)-C(3E)-C(4E)	121.3(6)
C(3E)-C(4E)-C(5E)	120.3(7)
C(4E)-C(5E)-C(6E)	118.7(7)
C(1E)-C(6E)-C(5E)	120.7(6)
C(10B)-C(1F)-C(2F)	119.8(4)
C(10B)-C(1F)-C(6F)	121.6(4)
C(2F)-C(1F)-C(6F)	118.6(4)
C(1F)-C(2F)-C(3F)	120.4(5)
C(2F)-C(3F)-C(4F)	120.4(6)
C(3F)-C(4F)-C(5F)	119.8(6)
C(4F)-C(5F)-C(6F)	120.8(6)
C(1F)-C(6F)-C(5F)	120.1(5)
C(1A)-C(1C)-C(2C)	122.3(5)
C(1A)-C(1C)-C(6C)	118.9(4)
C(2C)-C(1C)-C(6C)	118.8(5)
C(1C)-C(2C)-C(3C)	120.7(5)
C(2C)-C(3C)-C(4C)	120.3(6)
C(3C)-C(4C)-C(5C)	120.0(6)
C(4C)-C(5C)-C(6C)	120.4(6)
C(1C)-C(6C)-C(5C)	119.7(6)
C(10A)-C(1D)-C(2D)	120.7(4)
C(10A)-C(1D)-C(6D)	119.7(4)
C(2D)-C(1D)-C(6D)	119.5(5)
C(1D)-C(2D)-C(3D)	120.5(5)
C(2D)-C(3D)-C(4D)	120.3(5)
C(3D)-C(4D)-C(5D)	119.5(5)
C(4D)-C(5D)-C(6D)	120.7(5)
C(1D)-C(6D)-C(5D)	119.4(5)

Table S5. Anisotropic displacement coefficients ($Å^2$ x 10^3) for $[Cu(dpp)_2](PF_6)$, **1**.

	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
Cu(1)	50(1)	56(1)	34(1)	-1(1)	-4(1)	-2(1)

P(1)	55(1)	96(1)	54(1)	7(1)	2(1)	3(1)
F(1)	194(5)	118(4)	193(5)	-20(3)	-71(4)	63(4)
F(2)	63(2)	284(7)	151(4)	-27(3)	6(2)	-26(4)
F(3)	167(4)	201(5)	84(3)	8(4)	9(3)	-44(3)
F(4)	71(2)	181(5)	161(4)	-3(3)	19(3)	-6(3)
F(5)	143(4)	191(5)	90(3)	-6(3)	4(3)	-46(3)
F(6)	181(5)	134(4)	147(4)	15(3)	-45(3)	39(3)
N(1B)	54(2)	49(2)	31(2)	7(2)	2(1)	0(1)
N(2B)	47(2)	46(2)	40(2)	3(2)	-4(1)	1(1)
N(1A)	51(2)	41(2)	46(2)	1(1)	4(2)	1(1)
N(2A)	41(2)	56(2)	34(2)	-1(2)	0(1)	-2(2)
C(1B)	56(3)	56(3)	41(2)	7(2)	5(2)	6(2)
C(2B)	70(3)	73(3)	47(3)	1(3)	17(2)	4(2)
C(3B)	88(4)	81(4)	34(2)	6(3)	10(2)	1(2)
C(4B)	77(3)	56(3)	35(2)	8(2)	-3(2)	-2(2)
C(5B)	55(2)	44(2)	37(2)	6(2)	-3(2)	4(2)
C(6B)	54(2)	42(2)	40(2)	4(2)	-5(2)	2(2)
C(7B)	58(3)	51(3)	59(3)	3(2)	-14(2)	-7(2)
C(8B)	56(3)	75(3)	78(3)	-4(3)	-17(3)	-16(3)
C(9B)	48(3)	77(4)	80(4)	-9(2)	-2(2)	-5(3)
C(10B)	46(2)	52(3)	58(3)	3(2)	-2(2)	0(2)
C(11B)	80(4)	68(3)	55(3)	7(3)	-23(3)	-16(2)
C(12B)	100(4)	65(3)	42(2)	10(3)	-13(3)	-9(2)
C(1A)	58(3)	48(2)	53(3)	1(2)	3(2)	4(2)
C(2A)	83(4)	65(3)	69(3)	-7(3)	-6(3)	12(3)
C(3A)	82(4)	56(3)	79(4)	-15(3)	0(3)	2(3)
C(4A)	63(3)	58(3)	65(3)	-3(2)	1(2)	-10(2)
C(5A)	49(2)	54(3)	46(2)	-1(2)	3(2)	-9(2)
C(6A)	48(2)	58(3)	37(2)	2(2)	3(2)	-11(2)
C(7A)	59(3)	78(3)	48(3)	1(3)	-4(2)	-19(2)
C(8A)	62(3)	93(4)	47(3)	-6(3)	-17(2)	-6(3)
C(9A)	59(3)	91(4)	40(2)	1(3)	-8(2)	7(2)
C(10A)	53(2)	69(3)	29(2)	6(2)	1(2)	2(2)
C(11A)	71(3)	88(4)	70(3)	-12(3)	-16(3)	-26(3)
C(12A)	74(3)	69(4)	83(4)	-14(3)	-8(3)	-20(3)
C(1E)	47(2)	70(3)	51(2)	4(2)	6(2)	-2(2)
C(2E)	56(3)	92(4)	51(3)	22(3)	3(2)	-6(2)
C(3E)	57(3)	149(6)	66(3)	34(4)	-10(3)	-19(4)
C(4E)	53(3)	148(7)	111(6)	15(4)	-17(4)	-50(5)
C(5E)	84(5)	110(6)	141(7)	-41(4)	0(5)	-10(5)
C(6E)	78(4)	114(5)	86(4)	-22(4)	-12(3)	16(4)
C(1F)	44(2)	70(3)	53(3)	11(2)	2(2)	3(2)
C(2F)	47(3)	85(4)	71(3)	7(2)	3(2)	19(3)
C(3F)	61(3)	124(6)	68(4)	12(3)	15(3)	38(4)
C(4F)	83(4)	131(6)	50(3)	24(4)	4(3)	3(3)
C(5F)	73(3)	91(4)	52(3)	12(3)	-1(3)	-6(3)
C(6F)	52(3)	73(3)	56(3)	11(2)	2(2)	-1(2)
C(1C)	62(3)	49(3)	58(3)	2(2)	-6(2)	14(2)
C(2C)	76(4)	73(4)	70(3)	-3(3)	-10(3)	22(3)
C(3C)	65(3)	88(4)	111(5)	-13(3)	-22(4)	32(4)
C(4C)	116(6)	83(4)	88(5)	-16(4)	-49(4)	11(4)
C(5C)	117(6)	101(5)	61(4)	-2(4)	-18(3)	-1(3)
C(6C)	80(4)	80(4)	64(3)	1(3)	-3(3)	6(3)
C(1D)	64(3)	64(3)	25(2)	8(2)	-2(2)	7(2)
C(2D)	59(3)	68(3)	41(2)	12(2)	1(2)	6(2)
C(3D)	77(3)	66(3)	53(3)	-7(3)	5(2)	9(2)
C(4D)	116(5)	57(3)	51(3)	-9(3)	-4(3)	7(2)
C(5D)	108(5)	65(3)	57(3)	27(3)	-10(3)	3(3)

C(6D)	64(3)	81(4)	47(3)	20(3)	-5(2)	3(2)

Table S6. H-Atom coordinates (x 10^4) and isotropic displacement coefficients ($Å^2$ x 10^3) for $[Cu(dpp)_2](PF_6)$, **1**.

	x	y	z	U
H(2BA)	2933	974	-740	80
H(3BA)	1414	599	-1716	80
H(8BA)	-3994	324	27	80
H(9BA)	-4216	562	1580	80
H(11A)	-2646	236	-1338	80
H(12A)	-782	312	-1929	80
H(2AA)	712	3035	682	80
H(3AA)	2117	3281	1863	80
H(8AA)	3548	1531	5165	80
H(9AA)	2695	706	5031	80
H(11B)	3826	2434	4486	80
H(12B)	3321	3046	3352	80
H(2EA)	2812	652	2075	80
H(3EA)	4314	1004	3085	80
H(4EA)	5284	1769	2720	80
H(5EA)	4761	2211	1315	80
H(6EA)	3290	1836	254	80
H(2FA)	-3654	354	3192	80
H(3FA)	-4029	649	4698	80
H(4FA)	-3272	1455	5228	80
H(5FA)	-2079	1954	4275	80
H(6FA)	-1638	1660	2783	80
H(2CA)	-2051	2069	1262	80
H(3CA)	-3382	1802	30	80
H(4CA)	-2716	1719	-1472	80
H(5CA)	-737	1935	-1778	80
H(6CA)	616	2205	-555	80
H(2DA)	-753	589	3708	80
H(3DA)	-1608	-245	3641	80
H(4DA)	-377	-986	3673	80
H(5DA)	1728	-890	3791	80
H(6DA)	2599	-57	3871	80

Table S7. Atomic coordinates (x 10^4) and equivalent isotropic displacement coefficients ($Å^2$ x 10^3) for $[Cu(dpp)_2](ClO_4)_2$, **2**.

	x	y	z	U(eq)
Cu(1)	887(1)	2454(1)	2550(1)	32(1)
Cl(1)	3260(2)	-2310(1)	366(1)	50(1)
O(1)	3738(7)	-3289(3)	55(2)	79(2)
O(2)	1638(8)	-2276(4)	726(3)	92(2)
O(3)	2971(10)	-1499(4)	-92(3)	136(3)
O(4)	4514(9)	-2210(5)	807(4)	143(3)
Cl(2)	4383(2)	2707(1)	5797(1)	46(1)
O(5)	3754(7)	3756(3)	5580(2)	75(2)
O(6)	3182(6)	2361(4)	6235(3)	85(2)
O(7)	4640(6)	2072(3)	5230(2)	67(2)
O(8)	5993(6)	2624(5)	6114(2)	89(2)
N(1B)	1268(5)	3694(3)	2012(2)	33(1)
N(2B)	978(5)	1764(3)	1690(2)	31(1)

C(1B)	1401(7)	4658(4)	2205(3)	40(2)
C(2B)	1495(8)	5454(5)	1732(3)	51(1)
C(3B)	1590(8)	5253(5)	1077(3)	57(2)
C(4B)	1557(7)	4240(4)	870(3)	47(2)
C(5B)	1351(6)	3489(4)	1357(2)	35(2)
C(6B)	1241(7)	2447(4)	1191(2)	36(2)
C(7B)	1452(7)	2161(4)	532(3)	44(2)
C(8B)	1402(8)	1103(5)	412(3)	52(2)
C(9B)	1119(7)	434(4)	906(2)	44(2)
C(10B)	881(6)	770(4)	1556(2)	33(2)
C(11B)	1734(9)	3925(5)	202(3)	59(2)
C(12B)	1693(8)	2934(5)	44(3)	56(2)
C(1E)	1471(7)	4800(4)	2920(3)	38(2)
C(2E)	466(7)	5674(4)	3211(3)	47(2)
C(3E)	486(8)	5742(5)	3885(3)	53(1)
C(4E)	1476(7)	4979(4)	4275(3)	47(2)
C(5E)	2516(7)	4121(4)	3988(3)	43(2)
C(6E)	2505(7)	4042(4)	3313(3)	39(2)
C(1F)	523(7)	61(4)	2100(2)	36(2)
C(2F)	1415(7)	-981(4)	2135(3)	44(2)
C(3F)	1142(8)	-1624(4)	2663(3)	50(2)
C(4F)	-41(8)	-1270(4)	3151(3)	51(2)
C(5F)	-954(7)	-254(4)	3114(3)	45(2)
C(6F)	-682(7)	408(4)	2594(2)	39(2)
N(1A)	2084(5)	1461(3)	3243(2)	28(1)
N(2A)	-807(5)	2959(3)	3264(2)	29(1)
C(1A)	3530(6)	718(3)	3218(2)	31(2)
C(2A)	4080(7)	73(4)	3774(3)	39(2)
C(3A)	3172(7)	207(4)	4355(2)	41(2)
C(4A)	1691(7)	1000(4)	4401(2)	36(2)
C(5A)	1187(6)	1606(3)	3826(2)	31(2)
C(6A)	-335(6)	2417(3)	3839(2)	31(2)
C(7A)	-1273(6)	2617(4)	4428(2)	35(2)
C(8A)	-2696(7)	3454(4)	4414(2)	38(2)
C(9A)	-3137(7)	4004(4)	3842(3)	38(2)
C(10A)	-2216(6)	3733(4)	3253(2)	33(2)
C(11A)	684(7)	1216(4)	4989(3)	44(2)
C(12A)	-726(7)	1979(4)	5000(3)	45(2)
C(1D)	-2806(6)	4265(4)	2624(2)	33(2)
C(2D)	-3450(7)	5336(4)	2593(3)	42(2)
C(3D)	-4003(8)	5835(5)	2003(3)	55(2)
C(4D)	-3948(8)	5273(5)	1437(3)	60(2)
C(5D)	-3361(8)	4206(5)	1464(3)	52(2)
C(6D)	-2796(7)	3710(4)	2050(2)	40(2)
C(1C)	4503(6)	575(4)	2588(2)	36(2)
C(2C)	5189(7)	-441(4)	2395(3)	41(2)
C(3C)	6005(7)	-585(4)	1787(3)	48(2)
C(4C)	6162(8)	263(5)	1376(3)	51(2)
C(5C)	5558(7)	1274(4)	1576(3)	42(2)
C(6C)	4742(6)	1422(4)	2184(2)	37(2)

* Equivalent isotropic U defined as one third of the trace of the orthogonalized Uij tensor

Table S8. Bond Lengths (Å) for $[Cu(dpp)_2](ClO_4)_2$, **2**.

Cu(1)-N(1B)	1.980 (4)
Cu(1)-N(2B)	1.994 (4)

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Cu(1)-N(1A) 1.993 (4)
Cu(1)-N(2A) 1.997 (4)
Cl(1)-O(1) 1.430 (5)
Cl(1)-O(2) 1.448 (6)
Cl(1)-O(3) 1.368 (6)
Cl(1)-O(4) 1.365 (7)
Cl(2)-O(5) 1.418 (4)
Cl(2)-O(6) 1.406 (5)
Cl(2)-O(7) 1.437 (5)
Cl(2)-O(8) 1.405 (5)
N(1B)-C(1B) 1.354 (7)
N(1B)-C(5B) 1.368 (6)
N(2B)-C(6B) 1.360 (6)
N(2B)-C(10B) 1.351 (6)
C(1B)-C(2B) 1.397 (8)
C(1B)-C(1E) 1.478 (8)
C(2B)-C(3B) 1.366 (9)
C(3B)-C(4B) 1.406 (9)
C(4B)-C(5B) 1.392 (7)
C(4B)-C(11B) 1.435 (8)
C(5B)-C(6B) 1.430 (7)
C(6B)-C(7B) 1.405 (7)
C(7B)-C(8B) 1.417 (9)
C(7B)-C(12B) 1.422 (8)
C(8B)-C(9B) 1.346 (8)
C(9B)-C(10B) 1.408 (7)
C(10B)-C(1F) 1.469 (7)
C(11B)-C(12B) 1.348 (10)
C(1E)-C(2E) 1.403 (7)
C(1E)-C(6E) 1.387 (7)
C(2E)-C(3E) 1.378 (8)
C(3E)-C(4E) 1.372 (8)
C(4E)-C(5E) 1.396 (7)
C(5E)-C(6E) 1.382 (8)
C(1F)-C(2F) 1.405 (7)
C(1F)-C(6F) 1.398 (7)
C(2F)-C(3F) 1.374 (8)
C(3F)-C(4F) 1.379 (8)
C(4F)-C(5F) 1.380 (8)
C(5F)-C(6F) 1.377 (8)
N(1A)-C(1A) 1.345 (5)
N(1A)-C(5A) 1.370 (6)
N(2A)-C(6A) 1.361 (6)
N(2A)-C(10A) 1.347 (5)
C(1A)-C(2A) 1.404 (7)
C(1A)-C(1C) 1.480 (7)
C(2A)-C(3A) 1.371 (7)
C(3A)-C(4A) 1.404 (7)
C(4A)-C(5A) 1.403 (6)
C(4A)-C(11A) 1.431 (7)
C(5A)-C(6A) 1.436 (6)
C(6A)-C(7A) 1.404 (7)
C(7A)-C(8A) 1.404 (7)
C(7A)-C(12A) 1.425 (7)
C(8A)-C(9A) 1.355 (7)
C(9A)-C(10A) 1.412 (7)
C(10A)-C(1D) 1.469 (7)
C(11A)-C(12A) 1.340 (7)

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C(1D)-C(2D)	1.391 (7)
C(1D)-C(6D)	1.397 (7)
C(2D)-C(3D)	1.376 (8)
C(3D)-C(4D)	1.386 (9)
C(4D)-C(5D)	1.380 (9)
C(5D)-C(6D)	1.372 (7)
C(1C)-C(2C)	1.401 (7)
C(1C)-C(6C)	1.389 (7)
C(2C)-C(3C)	1.387 (8)
C(3C)-C(4C)	1.381 (8)
C(4C)-C(5C)	1.389 (8)
C(5C)-C(6C)	1.386 (7)

Table S9. Bond angles for $[Cu(dpp)_2](ClO_4)_2$, **2**.

N(1B)-Cu(1)-N(2B)	84.6(2)
N(1B)-Cu(1)-N(1A)	139.5(2)
N(2B)-Cu(1)-N(1A)	110.5(1)
N(1B)-Cu(1)-N(2A)	107.5(2)
N(2B)-Cu(1)-N(2A)	140.2(2)
N(1A)-Cu(1)-N(2A)	85.0(1)
O(1)-Cl(1)-O(2)	110.0(3)
O(1)-Cl(1)-O(3)	110.9(3)
O(2)-Cl(1)-O(3)	106.3(4)
O(1)-Cl(1)-O(4)	109.3(4)
O(2)-Cl(1)-O(4)	107.7(4)
O(3)-Cl(1)-O(4)	112.5(5)
O(5)-Cl(2)-O(6)	110.3(3)
O(5)-Cl(2)-O(7)	108.1(3)
O(6)-Cl(2)-O(7)	110.4(3)
O(5)-Cl(2)-O(8)	110.5(3)
O(6)-Cl(2)-O(8)	109.2(3)
O(7)-Cl(2)-O(8)	108.4(3)
Cu(1)-N(1B)-C(1B)	129.4(3)
Cu(1)-N(1B)-C(5B)	111.0(3)
C(1B)-N(1B)-C(5B)	119.6(4)
Cu(1)-N(2B)-C(6B)	110.2(3)
Cu(1)-N(2B)-C(10B)	130.1(3)
C(6B)-N(2B)-C(10B)	119.7(4)
N(1B)-C(1B)-C(2B)	119.7(5)
N(1B)-C(1B)-C(1E)	116.9(4)
C(2B)-C(1B)-C(1E)	123.4(5)
C(1B)-C(2B)-C(3B)	120.9(6)
C(2B)-C(3B)-C(4B)	120.0(6)
C(3B)-C(4B)-C(5B)	117.0(5)
C(3B)-C(4B)-C(11B)	125.0(5)
C(5B)-C(4B)-C(11B)	118.0(5)
N(1B)-C(5B)-C(4B)	122.6(5)
N(1B)-C(5B)-C(6B)	116.5(4)
C(4B)-C(5B)-C(6B)	120.9(4)
N(2B)-C(6B)-C(5B)	117.7(4)
N(2B)-C(6B)-C(7B)	122.8(5)
C(5B)-C(6B)-C(7B)	119.5(5)
C(6B)-C(7B)-C(8B)	116.0(5)
C(6B)-C(7B)-C(12B)	118.7(5)
C(8B)-C(7B)-C(12B)	125.3(5)
C(7B)-C(8B)-C(9B)	120.9(5)
C(8B)-C(9B)-C(10B)	120.5(5)

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N(2B)-C(10B)-C(9B)	120.0(4)
N(2B)-C(10B)-C(1F)	118.5(4)
C(9B)-C(10B)-C(1F)	121.5(5)
C(4B)-C(11B)-C(12B)	121.4(6)
C(7B)-C(12B)-C(11B)	121.4(5)
C(1B)-C(1E)-C(2E)	121.0(4)
C(1B)-C(1E)-C(6E)	119.5(4)
C(2E)-C(1E)-C(6E)	119.5(5)
C(1E)-C(2E)-C(3E)	119.1(5)
C(2E)-C(3E)-C(4E)	121.4(5)
C(3E)-C(4E)-C(5E)	119.9(5)
C(4E)-C(5E)-C(6E)	119.3(5)
C(1E)-C(6E)-C(5E)	120.8(5)
C(10B)-C(1F)-C(2F)	120.1(4)
C(10B)-C(1F)-C(6F)	121.1(4)
C(2F)-C(1F)-C(6F)	118.8(5)
C(1F)-C(2F)-C(3F)	119.8(5)
C(2F)-C(3F)-C(4F)	120.8(5)
C(3F)-C(4F)-C(5F)	119.9(5)
C(4F)-C(5F)-C(6F)	120.3(5)
C(1F)-C(6F)-C(5F)	120.4(5)
Cu(1)-N(1A)-C(1A)	131.2(3)
Cu(1)-N(1A)-C(5A)	109.8(3)
C(1A)-N(1A)-C(5A)	119.0(4)
Cu(1)-N(2A)-C(6A)	110.3(3)
Cu(1)-N(2A)-C(10A)	130.3(3)
C(6A)-N(2A)-C(10A)	119.4(4)
N(1A)-C(1A)-C(2A)	120.6(4)
N(1A)-C(1A)-C(1C)	118.7(4)
C(2A)-C(1A)-C(1C)	120.6(4)
C(1A)-C(2A)-C(3A)	120.4(4)
C(2A)-C(3A)-C(4A)	120.1(4)
C(3A)-C(4A)-C(5A)	116.9(4)
C(3A)-C(4A)-C(11A)	124.2(4)
C(5A)-C(4A)-C(11A)	119.0(4)
N(1A)-C(5A)-C(4A)	122.9(4)
N(1A)-C(5A)-C(6A)	117.7(4)
C(4A)-C(5A)-C(6A)	119.4(4)
N(2A)-C(6A)-C(5A)	117.3(4)
N(2A)-C(6A)-C(7A)	122.8(4)
C(5A)-C(6A)-C(7A)	119.9(4)
C(6A)-C(7A)-C(8A)	117.0(4)
C(6A)-C(7A)-C(12A)	118.9(4)
C(8A)-C(7A)-C(12A)	124.2(4)
C(7A)-C(8A)-C(9A)	119.9(4)
C(8A)-C(9A)-C(10A)	121.0(4)
N(2A)-C(10A)-C(9A)	119.8(4)
N(2A)-C(10A)-C(1D)	119.5(4)
C(9A)-C(10A)-C(1D)	120.8(4)
C(4A)-C(11A)-C(12A)	121.4(5)
C(7A)-C(12A)-C(11A)	121.4(5)
C(10A)-C(1D)-C(2D)	120.3(5)
C(10A)-C(1D)-C(6D)	121.2(4)
C(2D)-C(1D)-C(6D)	118.4(4)
C(1D)-C(2D)-C(3D)	120.3(5)
C(2D)-C(3D)-C(4D)	120.3(5)
C(3D)-C(4D)-C(5D)	120.0(5)
C(4D)-C(5D)-C(6D)	119.6(5)

C(1D)-C(6D)-C(5D)	121.2(5)
C(1A)-C(1C)-C(2C)	119.1(4)
C(1A)-C(1C)-C(6C)	121.6(4)
C(2C)-C(1C)-C(6C)	119.4(5)
C(1C)-C(2C)-C(3C)	119.4(5)
C(2C)-C(3C)-C(4C)	120.6(5)
C(3C)-C(4C)-C(5C)	120.4(5)
C(4C)-C(5C)-C(6C)	119.3(5)
C(1C)-C(6C)-C(5C)	120.9(5)

Table S10. Anisotropic displacement coefficients ($Å^2$ x 10^3) for $[Cu(dpp)_2](ClO_4)_2$, **2**.

	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
Cu(1)	41(1)	29(1)	25(1)	-3(1)	3(1)	-1(1)
Cl(1)	75(1)	38(1)	36(1)	-8(1)	3(1)	-2(1)
O(1)	112(4)	58(3)	67(3)	-6(3)	7(3)	-33(2)
O(2)	119(5)	73(3)	92(4)	-39(3)	48(3)	-34(3)
O(3)	221(8)	77(4)	87(4)	17(4)	53(5)	38(3)
O(4)	115(5)	135(6)	168(7)	31(4)	-72(5)	-93(5)
Cl(2)	45(1)	42(1)	48(1)	-2(1)	9(1)	1(1)
O(5)	111(4)	37(2)	71(3)	3(2)	27(3)	3(2)
O(6)	61(3)	80(3)	100(4)	7(2)	36(3)	36(3)
O(7)	93(4)	46(2)	61(3)	-3(2)	-3(2)	-16(2)
O(8)	60(3)	136(5)	70(3)	-16(3)	-10(3)	-18(3)
N(1B)	33(2)	32(2)	33(2)	-7(2)	0(2)	3(2)
N(2B)	33(2)	33(2)	27(2)	-7(2)	1(2)	-2(2)
C(1B)	41(3)	29(3)	51(3)	-10(2)	-3(2)	2(2)
C(3B)	67(4)	51(4)	59(4)	-28(3)	-7(3)	22(3)
C(4B)	49(3)	51(3)	40(3)	-15(3)	-3(3)	14(3)
C(5B)	36(3)	41(3)	28(2)	-9(2)	0(2)	6(2)
C(6B)	37(3)	43(3)	26(2)	-3(2)	1(2)	2(2)
C(7B)	49(3)	51(3)	31(3)	-7(3)	2(2)	0(2)
C(8B)	62(4)	62(4)	29(3)	-4(3)	2(3)	-13(3)
C(9B)	55(4)	46(3)	30(3)	-9(3)	0(2)	-9(2)
C(10B)	32(3)	38(3)	30(3)	-5(2)	0(2)	-6(2)
C(11B)	76(5)	69(4)	35(3)	-25(4)	4(3)	19(3)
C(12B)	71(4)	70(4)	27(3)	-15(3)	3(3)	6(3)
C(1E)	35(3)	30(3)	52(3)	-12(2)	-1(2)	-7(2)
C(2E)	42(3)	32(3)	67(4)	-11(2)	-4(3)	-6(3)
C(4E)	53(3)	53(3)	42(3)	-22(3)	6(3)	-18(3)
C(5E)	37(3)	44(3)	50(3)	-15(2)	-5(2)	-4(2)
C(6E)	37(3)	37(3)	45(3)	-9(2)	-3(2)	-9(2)
C(1F)	40(3)	35(3)	34(3)	-11(2)	-9(2)	-4(2)
C(2F)	52(3)	36(3)	44(3)	-10(2)	-3(3)	-9(2)
C(3F)	68(4)	37(3)	48(3)	-15(3)	-11(3)	-1(3)
C(4F)	67(4)	50(3)	43(3)	-31(3)	-9(3)	7(3)
C(5F)	48(3)	52(3)	37(3)	-16(3)	2(2)	1(2)
C(6F)	40(3)	43(3)	37(3)	-12(2)	-2(2)	-6(2)
N(1A)	31(2)	26(2)	28(2)	-9(2)	0(2)	-1(2)
N(2A)	27(2)	32(2)	29(2)	-9(2)	1(2)	-4(2)
C(1A)	31(3)	31(3)	30(2)	-6(2)	-3(2)	-2(2)
C(2A)	39(3)	34(3)	41(3)	-1(2)	-2(2)	4(2)
C(3A)	47(3)	43(3)	32(3)	-10(2)	-7(2)	7(2)
C(4A)	39(3)	41(3)	30(3)	-13(2)	0(2)	1(2)
C(5A)	39(3)	31(3)	23(2)	-12(2)	1(2)	-3(2)
C(6A)	37(3)	31(3)	26(2)	-9(2)	-3(2)	-3(2)
C(7A)	36(3)	43(3)	30(3)	-14(2)	4(2)	-6(2)

C(8A)	37(3)	43(3)	34(3)	-9(2)	12(2)	-10(2)
C(9A)	34(3)	37(3)	44(3)	-6(2)	6(2)	-10(2)
C(10A)	30(3)	33(3)	37(3)	-7(2)	-2(2)	-9(2)
C(11A)	50(3)	54(3)	29(3)	-13(3)	-1(2)	5(2)
C(12A)	47(3)	56(3)	34(3)	-13(3)	4(2)	-4(2)
C(1D)	24(3)	37(3)	38(3)	-4(2)	2(2)	-5(2)
C(2D)	40(3)	37(3)	48(3)	-1(2)	-2(2)	-4(2)
C(3D)	54(4)	42(3)	63(4)	3(3)	-1(3)	10(3)
C(4D)	58(4)	69(4)	47(4)	1(3)	-5(3)	14(3)
C(5D)	57(4)	63(4)	35(3)	-5(3)	-5(3)	-3(3)
C(6D)	41(3)	41(3)	36(3)	-4(2)	-5(2)	-5(2)
C(1C)	31(3)	37(3)	37(3)	-3(2)	-3(2)	-3(2)
C(2C)	38(3)	37(3)	47(3)	-6(2)	-2(2)	-6(2)
C(3C)	54(4)	43(3)	47(3)	-6(3)	6(3)	-16(3)
C(4C)	54(4)	60(4)	36(3)	-5(3)	7(3)	-14(3)
C(5C)	38(3)	51(3)	37(3)	-12(3)	2(2)	3(2)
C(6C)	34(3)	37(3)	38(3)	-3(2)	0(2)	-4(2)

Table S11. H-Atom coordinates (x 10^4) and isotropic displacement coefficients ($Å^2$ x 10^3) for $[Cu(dpp)_2](ClO_4)_2$, **2**.

	x	y	z	U
H(2BA)	1491	6151	1868	60
H(3BA)	1681	5804	757	60
H(8BA)	1571	860	-27	60
H(9BA)	1079	-278	814	60
H(11A)	1885	4430	-141	60
H(12A)	1828	2747	-408	60
H(2EA)	-223	6217	2944	60
H(3EA)	-210	6335	4086	60
H(4EA)	1455	5036	4744	60
H(5EA)	3230	3592	4257	60
H(6EA)	3223	3456	3113	60
H(2FA)	2214	-1243	1791	60
H(3FA)	1781	-2329	2692	60
H(4FA)	-229	-1728	3515	60
H(5FA)	-1781	-9	3452	60
H(6FA)	-1326	1113	2571	60
H(2AA)	5097	-466	3746	60
H(3AA)	3549	-242	4732	60
H(8AA)	-3356	3636	4808	60
H(9AA)	-4091	4588	3838	60
H(11B)	1025	805	5384	60
H(12B)	-1382	2098	5401	60
H(2DA)	-3509	5729	2984	60
H(3DA)	-4429	6576	1984	60
H(4DA)	-4319	5627	1026	60
H(5DA)	-3348	3812	1074	60
H(6DA)	-2386	2967	2067	60
H(2CA)	5095	-1032	2682	60
H(3CA)	6465	-1280	1651	60
H(4CA)	6689	153	949	60
H(5CA)	5705	1864	1297	60
H(6CA)	4337	2120	2327	60

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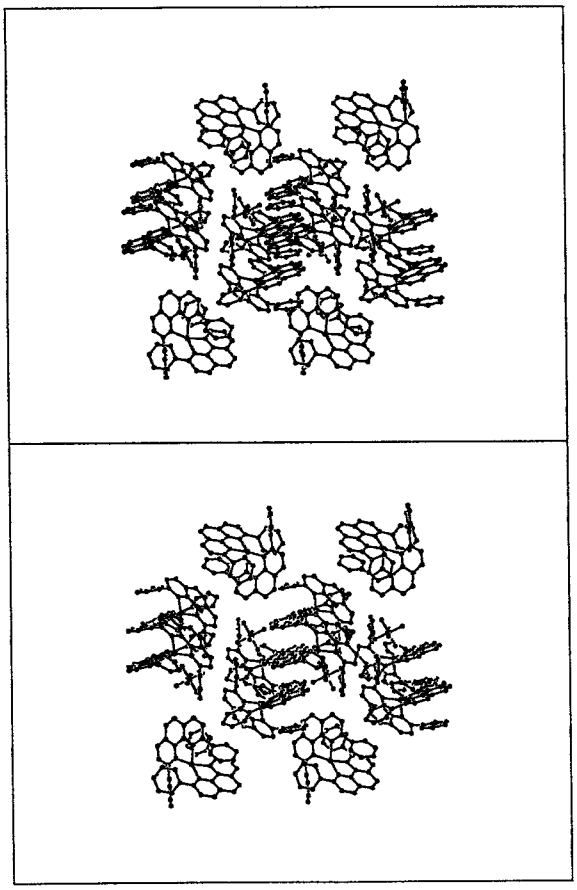
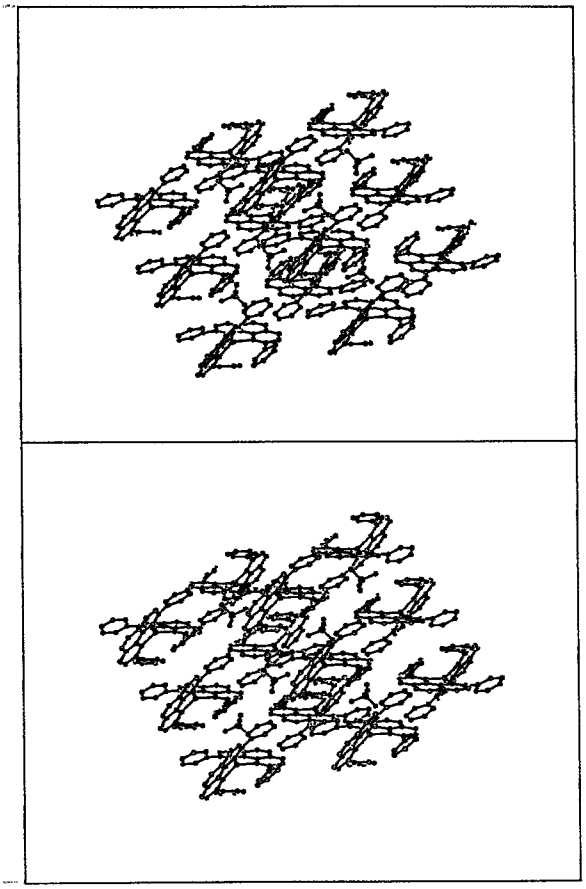


Stereoview of unit cell of $[Cu(dpp)_2](PF_6)$, **1**



Stereoview of unit cell of $[Cu(dpp)_2](ClO_4)_2$, **2**