Table S-1. Crystal data and structure refinement for $W_2(\mu\text{-DCPF})_4 \cdot 4THF$.

Empirical formula	$C_{68}H_{60}Cl_{16}N_8O_4W_2$
Formula weight	1988.14
Temperature	213(2) K
Wavelength	0.71073 Å
Crystal system	Triclinic
Space group	P1 bar
Unit cell dimensions	a = 12.6906(3) Å alpha = 109.173(1) deg b = 12.7818(4) Å beta = 93.865(1) deg c = 13.0450(3) Å gamma = 103.746(1) deg
Volume	1916.85(9) $Å^3$
Z	1
Density (calculated)	1.722 Mg/m^3
Absorption coefficient	3.608 mm^{-1}
F(000)	976
Crystal size	0.2 x 0.2 x 0.2 mm
Theta range for data collection	1.67 to 28.27 deg.
Index ranges	-9<=h<=16, -14<=k<=16, -16<=l<=14
Reflections collected	15198
Independent reflections	8027 [R(int) = 0.0347]
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	8027 / 0 / 442
Goodness-of-fit on F^2	1.014
Final R indices [I>2sigma(I)]	R1 = 0.0365, wR2 = 0.0660
R indices (all data)	R1 = 0.0496, wR2 = 0.0704
Largest diff. peak and hole	0.941 and -0.786 $e \cdot Å^{-3}$

Table S-2. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$ x 10^3) for $W_2(\mu\text{-DCPF})_4 \cdot 4THF$.

Atom	x	y	z	U(eq)
W(1)	5701(1)	5692(1)	9997(1)	16(1)
Cl(1)	5250(1)	11096(1)	12662(1)	53(1)
Cl(2)	7429(1)	9931(1)	9266(1)	58(1)
Cl(3)	10380(1)	7741(1)	10685(1)	61(1)
Cl(4)	9642(1)	3791(1)	7258(1)	60(1)
Cl(5)	8985(1)	7516(2)	7673(2)	74(1)
Cl(6)	5187(1)	6885(1)	5169(1)	40(1)
Cl(7)	1151(1)	-119(1)	7815(2)	72(1)
Cl(8)	587(1)	2108(1)	5067(1)	39(1)
N(1)	4709(3)	6865(3)	10206(3)	22(1)
N(2)	6766(3)	4594(3)	9794(3)	21(1)
N(3)	5340(3)	5188(3)	8247(3)	21(1)
N(4)	3865(3)	3724(3)	8251(3)	22(1)
C(1)	3666(4)	6509(4)	10312(4)	24(1)
C(2)	4473(3)	4297(4)	7706(3)	21(1)
C(3)	5161(4)	8055(4)	10420(4)	23(1)
C(4)	4956(4)	8902(4)	11319(4)	28(1)
C(5)	5498(4)	10043(4)	11536(4)	33(1)
C(6)	6263(4)	10381(4)	10920(4)	38(1)
C(7)	6463(4)	9530(4)	10039(4)	33(1)
C(8)	5909(4)	8383(4)	9768(4)	25(1)
C(9)	7848(3)	4910(4)	9558(4)	23(1)
C(10)	8536(4)	5998(4)	10204(4)	29(1)
C(11)	9547(4)	6375(4)	9904(4)	35(1)
C(12)	9906(4)	5713(5)	9018(4)	37(1)
C(13)	9217(4)	4633(5)	8406(4)	34(1)
C(14)	8190(4)	4221(4)	8651(4)	31(1)
C(15)	5898(4)	5800(4)	7611(3)	21(1)
C(16)	7022(4)	6283(4)	7885(4)	27(1)
C(17)	7576(4)	6924(4)	7312(4)	36(1)
C(18)	7033(4)	7118(4)	6468(4)	35(1)
C(19)	5917(4)	6636(4)	6219(3)	26(1)
C(20)	5327(4)	5998(4)	6765(3)	25(1)
C(21)	2904(3)	2830(4)	7617(3)	22(1)
C(22)	2558(4)	1893(4)	7944(4)	29(1)
C(23)	1592(4)	1038(4)	7391(4)	34(1)
C(24)	968(4)	1090(4)	6507(4)	34(1)
C(25)	1339(4)	2026(4)	6188(4)	26(1)
C(26)	2287(4)	2901(4)	6731(3)	25(1)
O(1S)	2634(3)	5321(3)	6252(3)	53(1)
C(1S)	2065(6)	5429(6)	5336(6)	73(2)
C(2S)	1534(11)	6330(11)	5785(10)	184(6)
C(3S)	1680(7)	6686(7)	6921(7)	89(3)
C(4S)	2431(5)	6086(6)	7248(5)	54(2)
O(2S)	6824(4)	1545(4)	6919(4)	70(1)
C(5S)	6507(9)	1604(9)	5890(10)	133(4)
C(6S)	6912(14)	749(12)	5064(8)	191(7)
C(7S)	7335(10)	140(9)	5579(8)	125(4)
C(8S)	7433(6)	747(7)	6740(6)	75(2)

Table S-3. Complete Table of Bond lengths [Å] and angles [deg] for $W_2(\mu\text{-DCPF})_4 \cdot 4THF$.

W(1)-N(2)	2.138(4)
W(1)-N(1)	2.141(4)
W(1)-N(3)	2.142(3)
W(1)-N(4)#1	2.144(3)
W(1)-W(1)#1	2.1920(3)
Cl(1)-C(5)	1.742(5)
Cl(2)-C(7)	1.728(5)
Cl(3)-C(11)	1.735(5)
Cl(4)-C(13)	1.737(5)
Cl(5)-C(17)	1.733(5)
Cl(6)-C(19)	1.758(5)
Cl(7)-C(23)	1.730(5)
Cl(8)-C(25)	1.738(4)
N(1)-C(1)	1.326(5)
N(1)-C(3)	1.416(5)
N(2)-C(1)#1	1.343(5)
N(2)-C(9)	1.421(5)
N(3)-C(2)	1.334(5)
N(3)-C(15)	1.429(5)
N(4)-C(2)	1.337(5)
N(4)-C(21)	1.434(5)
N(4)-W(1)#1	2.144(3)
C(1)-N(2)#1	1.343(5)
C(3)-C(8)	1.397(6)
C(3)-C(4)	1.398(6)
C(4)-C(5)	1.381(6)
C(5)-C(6)	1.381(7)
C(6)-C(7)	1.384(7)
C(7)-C(8)	1.381(6)
C(9)-C(14)	1.389(6)
C(9)-C(10)	1.399(6)
C(10)-C(11)	1.389(6)
C(11)-C(12)	1.368(7)
C(12)-C(13)	1.384(7)
C(13)-C(14)	1.386(6)
C(15)-C(16)	1.383(6)
C(15)-C(20)	1.403(6)
C(16)-C(17)	1.386(6)
C(17)-C(18)	1.381(7)
C(18)-C(19)	1.373(6)
C(19)-C(20)	1.377(6)
C(21)-C(22)	1.385(6)
C(21)-C(26)	1.392(6)
C(22)-C(23)	1.394(6)
C(23)-C(24)	1.384(6)
C(24)-C(25)	1.382(6)
C(25)-C(26)	1.388(6)
O(1S)-C(1S)	1.417(7)
O(1S)-C(4S)	1.430(7)
C(1S)-C(2S)	1.450(11)
C(2S)-C(3S)	1.385(12)
C(3S)-C(4S)	1.478(9)
O(2S)-C(8S)	1.392(8)
O(2S)-C(5S)	1.406(10)
C(5S)-C(6S)	1.479(14)

Table S3 Continued.

C(6S)-C(7S)	1.357(13)
C(7S)-C(8S)	1.439(10)
N(1)-W(1)-N(3)	90.55(13)
N(2)-W(1)-N(4)#1	90.58(14)
N(1)-W(1)-N(4)#1	89.14(14)
N(3)-W(1)-N(4)#1	176.75(13)
N(2)-W(1)-W(1)#1	91.64(9)
N(1)-W(1)-W(1)#1	91.48(9)
N(3)-W(1)-W(1)#1	91.56(9)
N(4)#1-W(1)-W(1)#1	91.68(9)
C(1)-N(1)-C(3)	118.0(4)
C(1)-N(1)-W(1)	118.7(3)
C(3)-N(1)-W(1)	122.4(3)
C(1)#1-N(2)-C(9)	117.8(4)
C(1)#1-N(2)-W(1)	118.3(3)
C(9)-N(2)-W(1)	122.8(3)
C(2)-N(3)-C(15)	116.3(3)
C(2)-N(3)-W(1)	118.5(3)
C(15)-N(3)-W(1)	125.0(3)
C(2)-N(4)-C(21)	116.3(3)
C(2)-N(4)-W(1)#1	118.2(3)
C(21)-N(4)-W(1)#1	125.2(3)
N(1)-C(1)-N(2)#1	119.7(4)
N(3)-C(2)-N(4)	120.0(4)
C(8)-C(3)-C(4)	119.4(4)
C(8)-C(3)-N(1)	118.5(4)
C(4)-C(3)-N(1)	121.8(4)
C(5)-C(4)-C(3)	118.8(4)
C(4)-C(5)-C(6)	122.6(5)
C(4)-C(5)-Cl(1)	118.8(4)
C(6)-C(5)-Cl(1)	118.5(4)
C(5)-C(6)-C(7)	117.7(4)
C(8)-C(7)-C(6)	121.6(5)
C(8)-C(7)-Cl(2)	119.9(4)
C(6)-C(7)-Cl(2)	118.5(4)
C(7)-C(8)-C(3)	119.8(4)
C(14)-C(9)-C(10)	120.1(4)
C(14)-C(9)-N(2)	121.6(4)
C(10)-C(9)-N(2)	118.0(4)
C(11)-C(10)-C(9)	118.7(5)
C(12)-C(11)-C(10)	122.5(5)
C(12)-C(11)-Cl(3)	119.1(4)
C(10)-C(11)-Cl(3)	118.5(4)
C(11)-C(12)-C(13)	117.6(4)
C(12)-C(13)-C(14)	122.5(5)
C(12)-C(13)-Cl(4)	118.4(4)
C(14)-C(13)-Cl(4)	119.1(4)
C(13)-C(14)-C(9)	118.7(5)
C(16)-C(15)-C(20)	118.8(4)
C(16)-C(15)-N(3)	119.3(4)
C(20)-C(15)-N(3)	121.8(4)
C(15)-C(16)-C(17)	120.4(4)
C(18)-C(17)-C(16)	121.8(5)
C(18)-C(17)-Cl(5)	118.8(4)
C(16)-C(17)-Cl(5)	119.4(4)
C(19)-C(18)-C(17)	116.6(4)
C(18)-C(19)-C(20)	123.9(4)

Table S3 Continued.

C(18)-C(19)-Cl(6)	118.2(3)
C(20)-C(19)-Cl(6)	117.9(4)
C(19)-C(20)-C(15)	118.5(4)
C(22)-C(21)-C(26)	119.5(4)
C(22)-C(21)-N(4)	117.9(4)
C(26)-C(21)-N(4)	122.5(4)
C(21)-C(22)-C(23)	119.8(4)
C(24)-C(23)-C(22)	121.6(4)
C(24)-C(23)-Cl(7)	118.7(3)
C(22)-C(23)-Cl(7)	119.7(4)
C(25)-C(24)-C(23)	117.4(4)
C(24)-C(25)-C(26)	122.4(4)
C(24)-C(25)-Cl(8)	118.7(3)
C(26)-C(25)-Cl(8)	118.9(4)
C(25)-C(26)-C(21)	119.2(4)
C(1S)-O(1S)-C(4S)	109.8(5)
O(1S)-C(1S)-C(2S)	106.0(6)
C(3S)-C(2S)-C(1S)	110.5(8)
C(2S)-C(3S)-C(4S)	107.0(7)
O(1S)-C(4S)-C(3S)	106.4(5)
C(8S)-O(2S)-C(5S)	106.8(6)
O(2S)-C(5S)-C(6S)	107.0(8)
C(7S)-C(6S)-C(5S)	107.9(9)
C(6S)-C(7S)-C(8S)	106.7(9)
O(2S)-C(8S)-C(7S)	109.6(7)

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

Table S-4. Anisotropic displacement parameters ($Å^2 \times 10^3$) for $W_2(\mu\text{-DCPF})_4 \cdot 4THF$. The anisotropic displacement factor exponent takes the form:

$$-2\pi^2 [\, h^2 a^{*2} U11 + \ldots + 2 h k a^* b^* U12 \,]$$

Atom	U11	U22	U33	U23	U13	U12
W(1)	15(1)	13(1)	19(1)	6(1)	5(1)	1(1)
Cl(1)	76(1)	26(1)	48(1)	-4(1)	9(1)	18(1)
Cl(2)	58(1)	47(1)	67(1)	30(1)	21(1)	-10(1)
Cl(3)	38(1)	45(1)	79(1)	16(1)	4(1)	-15(1)
Cl(4)	55(1)	70(1)	60(1)	17(1)	38(1)	25(1)
Cl(5)	28(1)	104(1)	107(1)	78(1)	9(1)	-7(1)
Cl(6)	61(1)	42(1)	26(1)	17(1)	10(1)	22(1)
Cl(7)	65(1)	49(1)	91(1)	48(1)	-24(1)	-28(1)
Cl(8)	33(1)	47(1)	31(1)	13(1)	-7(1)	4(1)
N(1)	24(2)	16(2)	30(2)	10(2)	5(2)	6(2)
N(2)	17(2)	18(2)	27(2)	9(2)	5(2)	3(2)
N(3)	18(2)	19(2)	23(2)	7(2)	7(2)	4(2)
N(4)	24(2)	18(2)	18(2)	4(2)	3(2)	-1(2)
C(1)	24(2)	24(2)	29(3)	11(2)	8(2)	8(2)
C(2)	21(2)	23(2)	16(2)	5(2)	4(2)	4(2)
C(3)	22(2)	19(2)	29(3)	10(2)	0(2)	6(2)
C(4)	32(3)	24(2)	31(3)	11(2)	7(2)	10(2)
C(5)	44(3)	22(3)	30(3)	6(2)	-2(2)	9(2)
C(6)	47(3)	18(2)	43(3)	11(2)	-5(3)	-2(2)
C(7)	35(3)	23(3)	41(3)	18(2)	1(2)	-1(2)
C(8)	28(2)	20(2)	27(3)	9(2)	4(2)	3(2)
C(9)	17(2)	25(2)	31(3)	12(2)	8(2)	8(2)
C(10)	22(2)	31(3)	32(3)	12(2)	4(2)	6(2)
C(11)	23(3)	36(3)	46(3)	22(3)	3(2)	-1(2)
C(12)	18(2)	49(3)	49(3)	25(3)	17(2)	7(2)
C(13)	32(3)	45(3)	38(3)	22(3)	23(2)	22(2)
C(14)	32(3)	29(3)	34(3)	13(2)	8(2)	12(2)
C(15)	27(2)	17(2)	20(2)	5(2)	10(2)	7(2)
C(16)	21(2)	33(3)	35(3)	20(2)	8(2)	7(2)
C(17)	25(3)	42(3)	52(3)	29(3)	16(2)	6(2)
C(18)	39(3)	35(3)	42(3)	23(3)	22(2)	12(2)
C(19)	38(3)	24(2)	18(2)	7(2)	11(2)	13(2)
C(20)	28(2)	22(2)	24(2)	8(2)	6(2)	8(2)
C(21)	20(2)	20(2)	22(2)	3(2)	8(2)	5(2)
C(22)	28(3)	24(2)	31(3)	11(2)	-2(2)	-1(2)
C(23)	30(3)	23(3)	44(3)	15(2)	-2(2)	-3(2)
C(24)	27(3)	29(3)	36(3)	7(2)	0(2)	-3(2)
C(25)	22(2)	29(3)	22(2)	4(2)	3(2)	7(2)
C(26)	26(2)	24(2)	23(2)	9(2)	7(2)	3(2)
O(1S)	50(2)	49(3)	64(3)	24(2)	5(2)	17(2)
C(1S)	73(5)	79(5)	67(5)	25(4)	-4(4)	25(4)
C(2S)	254(16)	205(13)	131(10)	34(9)	-25(10)	183(13)
C(3S)	85(6)	96(7)	109(7)	40(6)	30(5)	59(5)
C(4S)	53(4)	63(4)	55(4)	26(3)	18(3)	25(3)
O(2S)	81(4)	57(3)	75(3)	19(3)	31(3)	26(3)
C(5S)	150(10)	124(9)	142(10)	60(8)	-26(8)	66(8)
C(6S)	340(2)	195(14)	58(7)	30(8)	-4(9)	131(15)
C(7S)	178(11)	124(9)	83(7)	19(7)	47(7)	76(8)
C(8S)	91(6)	86(6)	60(5)	31(4)	14(4)	40(5)

Table S-5. Hydrogen coordinates (x 10^4) and isotropic displacement parameters ($Å^2$ x 10^3) for $W_2(\mu\text{-DCPF})_4 \cdot 4THF$.

Atom	x	y	z	U(eq)
H(1A)	3231	7027	10461	29
H(2A)	4288	4073	6940	25
H(4B)	4458	8697	11768	34
H(6A)	6635	11162	11093	46
H(8A)	6034	7823	9147	30
H(10A)	8318	6464	10827	34
H(12A)	10595	5981	8831	44
H(14A)	7733	3490	8213	37
H(16A)	7413	6177	8464	33
H(18A)	7409	7557	6085	42
H(20A)	4560	5701	6576	30
H(22A)	2973	1835	8537	35
H(24A)	317	511	6137	41
H(26A)	2509	3535	6504	30
H(1SC)	1518	4702	4904	88
H(1SD)	2578	5639	4861	88
H(2SC)	1846	6987	5563	221
H(2SD)	747	6042	5492	221
H(3SA)	974	6488	7172	106
H(3SB)	1999	7523	7247	106
H(4SA)	3119	6642	7679	65
H(4SB)	2091	5654	7693	65
H(5SA)	6829	2379	5886	159
H(5SB)	5706	1425	5728	159
H(6SA)	6307	231	4476	229
H(6SB)	7479	1141	4737	229
H(7SA)	8057	88	5379	150
H(7SB)	6848	-642	5369	150
H(8SA)	7164	199	7105	89
H(8SB)	8207	1143	7052	89

Table S-7. Crystal data and structure refinement for $W_2(\mu\text{-OH})_2(\mu\text{-DCPF})_2(\eta^2\text{-DCPF})_2$.

Empirical formula	$C_{59}H_{35}Cl_{16}N_8O_2W_2$
Formula weight	1822.85
Temperature	213(2) K
Wavelength	0.71073 Å
Crystal system	Monoclinic
Space group	C2/c
Unit cell dimensions	a = 17.1524(1) A alpha = 90 deg. b = 20.6568(3) A beta = 102.791(1) deg. c = 19.3959(3) A gamma = 90 deg.
Volume	6701.7(2) $Å^3$
Z	4
Density (calculated)	1.807 Mg/m^3
Absorption coefficient	4.117 mm^{-1}
F(000)	3524
Crystal size	0.05 x 0.05 x 0.2 mm
Theta range for data collection	1.57 to 28.24 deg.
Index ranges	-22<=h<=21, -23<=k<=27, -24<=l<=25
Reflections collected	16774
Independent reflections	7288 [R(int) = 0.0345]
Absorption Correction	Semi-empirical from psi-scans
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	7288 / 0 / 415
Goodness-of-fit on F^2	1.112
Final R indices [I>2sigma(I)]	R1 = 0.0348, wR2 = 0.0595
R indices (all data)	R1 = 0.0562, wR2 = 0.0663
Largest diff. peak and hole	0.750 and -0.937 $e \cdot A^{-3}$

Table S-8. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (Å^2 x 10^3) for $W_2(\mu\text{-OH})_2(\mu\text{-DCPF})_2(\eta^2\text{-DCPF})_2$. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor.

Atom	x	y	z	U(eq)
W(1)	5554(1)	350(1)	109(1)	18(1)
Cl(1)	5885(1)	765(1)	-2951(1)	45(1)
Cl(2)	7917(1)	2542(1)	-1561(1)	58(1)
Cl(3)	6016(1)	889(1)	3361(1)	52(1)
Cl(4)	8976(1)	1117(1)	2885(1)	76(1)
Cl(5)	5176(1)	3247(1)	1468(1)	102(1)
Cl(6)	5792(1)	3150(1)	-1128(1)	82(1)
Cl(7)	8916(1)	35(1)	-572(1)	83(1)
Cl(8)	8906(1)	-614(1)	2121(1)	89(1)
O(1)	5027(2)	-23(1)	818(1)	22(1)
N(1)	6437(2)	926(2)	-275(2)	23(1)
N(2)	6492(2)	844(2)	867(2)	23(1)
N(3)	4778(2)	1159(2)	-3(2)	23(1)
N(4)	6314(2)	-472(2)	206(2)	24(1)
C(1)	6831(3)	1087(2)	375(2)	24(1)
C(2)	6633(2)	1162(2)	-896(2)	23(1)
C(3)	6241(3)	877(2)	-1533(2)	29(1)
C(4)	6386(3)	1112(2)	-2159(2)	32(1)
C(5)	6909(3)	1614(2)	-2186(2)	34(1)
C(6)	7286(3)	1884(2)	-1544(3)	31(1)
C(7)	7165(3)	1670(2)	-901(2)	28(1)
C(8)	6838(3)	883(2)	1597(2)	25(1)
C(9)	6322(3)	869(2)	2058(2)	28(1)
C(10)	6657(3)	925(3)	2779(2)	35(1)
C(11)	7469(3)	990(3)	3044(2)	42(1)
C(12)	7959(3)	1004(3)	2571(2)	39(1)
C(13)	7658(3)	945(3)	1848(2)	34(1)
C(14)	3984(3)	1059(2)	-141(2)	25(1)
C(15)	5012(3)	1829(2)	58(2)	27(1)
C(16)	5000(3)	2168(2)	674(3)	40(1)
C(17)	5218(4)	2815(3)	713(4)	56(2)
C(18)	5453(4)	3123(3)	163(4)	63(2)
C(19)	5475(3)	2774(3)	-431(3)	48(2)
C(20)	5249(3)	2131(2)	-503(3)	34(1)
C(21)	7185(2)	-433(2)	393(2)	26(1)
C(22)	7577(3)	-544(2)	1084(3)	37(1)
C(23)	8402(3)	-482(3)	1254(3)	50(2)
C(24)	8827(3)	-299(3)	761(3)	57(2)
C(25)	8415(3)	-195(3)	74(3)	47(2)
C(26)	7585(3)	-257(2)	-121(3)	34(1)
C(1S)	2730(28)	2666(20)	1254(19)	144(16)
C(2S)	2663(22)	2577(13)	477(18)	105(11)
C(3S)	3076(8)	2865(6)	160(11)	105(4)
C(4S)	3158(12)	2908(9)	-467(12)	85(7)
C(1SB)	2229(20)	2412(17)	922(31)	120(15)
C(2SB)	2797(44)	2748(29)	799(28)	201(47)

Table S-9. Complete Table of Bond lengths [Å] and angles [deg] for $W_2(\mu\text{-OH})_2(\mu\text{-DCPF})_2(\eta^2\text{-DCPF})_2$.

W(1)-O(1)	1.963(3)
W(1)-O(1)#1	1.972(3)
W(1)-N(3)	2.116(4)
W(1)-N(4)	2.124(4)
W(1)-N(2)	2.178(3)
W(1)-N(1)	2.182(3)
W(1)-W(1)#1	2.3508(3)
W(1)-C(1)	2.623(4)
Cl(1)-C(4)	1.741(5)
Cl(2)-C(6)	1.741(5)
Cl(3)-C(10)	1.743(5)
Cl(4)-C(12)	1.731(5)
Cl(5)-C(17)	1.731(6)
Cl(6)-C(19)	1.747(6)
Cl(7)-C(25)	1.736(6)
Cl(8)-C(23)	1.734(6)
O(1)-W(1)#1	1.972(3)
N(1)-C(1)	1.335(5)
N(1)-C(2)	1.408(5)
N(2)-C(1)	1.322(5)
N(2)-C(8)	1.411(5)
N(3)-C(14)	1.344(5)
N(3)-C(15)	1.440(6)
N(4)-C(14)#1	1.312(5)
N(4)-C(21)	1.459(5)
C(2)-C(7)	1.392(6)
C(2)-C(3)	1.399(6)
C(3)-C(4)	1.380(6)
C(4)-C(5)	1.380(6)
C(5)-C(6)	1.387(6)
C(6)-C(7)	1.382(6)
C(8)-C(13)	1.388(6)
C(8)-C(9)	1.391(6)
C(9)-C(10)	1.394(6)
C(10)-C(11)	1.380(6)
C(11)-C(12)	1.376(7)
C(12)-C(13)	1.388(6)
C(14)-N(4)#1	1.312(5)
C(15)-C(16)	1.389(6)
C(15)-C(20)	1.389(6)
C(16)-C(17)	1.386(7)
C(17)-C(18)	1.376(9)
C(18)-C(19)	1.367(8)
C(19)-C(20)	1.383(7)
C(21)-C(26)	1.378(6)
C(21)-C(22)	1.379(6)
C(22)-C(23)	1.386(7)
C(23)-C(24)	1.378(8)
C(24)-C(25)	1.379(8)
C(25)-C(26)	1.396(6)
C(1S)-C(2SB)	0.93(8)
C(1S)-C(1SB)	1.09(6)
C(1S)-C(2S)	1.50(5)
C(2S)-C(2SB)	0.71(4)
C(2S)-C(3S)	1.19(3)

Table S-9 Continued.

C(2S)-C(1SB)	1.30(6)
C(2S)-C(4S)#2	1.73(5)
C(2S)-C(3S)#2	1.81(4)
C(2S)-C(2S)#2	1.84(7)
C(3S)-C(4S)	1.26(2)
C(3S)-C(2SB)	1.44(7)
C(3S)-C(2S)#2	1.81(4)
C(4S)-C(1SB)#2	1.18(5)
C(4S)-C(2S)#2	1.73(5)
C(1SB)-C(4S)#2	1.18(5)
C(1SB)-C(2SB)	1.26(9)
O(1)-W(1)-O(1)#1	106.64(9)
O(1)-W(1)-N(3)	90.30(12)
O(1)#1-W(1)-N(3)	89.86(12)
O(1)-W(1)-N(4)	89.61(13)
O(1)#1-W(1)-N(4)	89.04(12)
N(3)-W(1)-N(4)	178.82(12)
O(1)-W(1)-N(2)	95.55(12)
O(1)#1-W(1)-N(2)	157.60(12)
N(3)-W(1)-N(2)	93.08(13)
N(4)-W(1)-N(2)	88.10(13)
O(1)-W(1)-N(1)	156.25(12)
O(1)#1-W(1)-N(1)	97.10(12)
N(3)-W(1)-N(1)	90.16(13)
N(4)-W(1)-N(1)	90.40(13)
N(2)-W(1)-N(1)	60.72(12)
O(1)-W(1)-W(1)#1	53.50(8)
O(1)#1-W(1)-W(1)#1	53.14(8)
N(3)-W(1)-W(1)#1	90.13(10)
N(4)-W(1)-W(1)#1	88.86(10)
N(2)-W(1)-W(1)#1	148.93(9)
N(1)-W(1)-W(1)#1	150.24(9)
O(1)-W(1)-C(1)	125.74(12)
O(1)#1-W(1)-C(1)	127.54(12)
N(3)-W(1)-C(1)	92.37(14)
N(4)-W(1)-C(1)	88.64(14)
N(2)-W(1)-C(1)	30.18(12)
N(1)-W(1)-C(1)	30.54(12)
W(1)#1-W(1)-C(1)	177.40(10)
W(1)-O(1)-W(1)#1	73.36(9)
C(1)-N(1)-C(2)	123.7(4)
C(1)-N(1)-W(1)	93.3(3)
C(2)-N(1)-W(1)	142.8(3)
C(1)-N(2)-C(8)	123.2(4)
C(1)-N(2)-W(1)	93.9(3)
C(8)-N(2)-W(1)	142.0(3)
C(14)-N(3)-C(15)	114.5(4)
C(14)-N(3)-W(1)	119.1(3)
C(15)-N(3)-W(1)	126.4(3)
C(14)#1-N(4)-C(21)	115.5(4)
C(14)#1-N(4)-W(1)	120.8(3)
C(21)-N(4)-W(1)	123.6(3)
N(2)-C(1)-N(1)	112.1(4)
N(2)-C(1)-W(1)	55.9(2)
N(1)-C(1)-W(1)	56.1(2)
C(7)-C(2)-C(3)	120.0(4)
C(7)-C(2)-N(1)	123.2(4)

Table S-9 Continued.

C(3)-C(2)-N(1)	116.8(4)
C(4)-C(3)-C(2)	118.9(4)
C(3)-C(4)-C(5)	122.9(4)
C(3)-C(4)-Cl(1)	118.8(4)
C(5)-C(4)-Cl(1)	118.3(4)
C(4)-C(5)-C(6)	116.5(4)
C(7)-C(6)-C(5)	123.3(4)
C(7)-C(6)-Cl(2)	118.9(4)
C(5)-C(6)-Cl(2)	117.8(4)
C(6)-C(7)-C(2)	118.4(4)
C(13)-C(8)-C(9)	121.0(4)
C(13)-C(8)-N(2)	121.7(4)
C(9)-C(8)-N(2)	117.2(4)
C(8)-C(9)-C(10)	117.7(4)
C(11)-C(10)-C(9)	122.6(4)
C(11)-C(10)-Cl(3)	119.5(4)
C(9)-C(10)-Cl(3)	117.9(4)
C(12)-C(11)-C(10)	118.0(4)
C(11)-C(12)-C(13)	121.7(4)
C(11)-C(12)-Cl(4)	119.0(4)
C(13)-C(12)-Cl(4)	119.2(4)
C(12)-C(13)-C(8)	119.0(4)
N(4)#1-C(14)-N(3)	121.1(4)
C(16)-C(15)-C(20)	120.7(5)
C(16)-C(15)-N(3)	119.9(4)
C(20)-C(15)-N(3)	119.4(4)
C(17)-C(16)-C(15)	118.5(5)
C(18)-C(17)-C(16)	121.7(6)
C(18)-C(17)-Cl(5)	119.5(5)
C(16)-C(17)-Cl(5)	118.8(5)
C(19)-C(18)-C(17)	118.5(6)
C(18)-C(19)-C(20)	122.1(6)
C(18)-C(19)-Cl(6)	119.3(5)
C(20)-C(19)-Cl(6)	118.5(5)
C(19)-C(20)-C(15)	118.4(5)
C(26)-C(21)-C(22)	122.3(4)
C(26)-C(21)-N(4)	118.7(4)
C(22)-C(21)-N(4)	119.0(4)
C(21)-C(22)-C(23)	117.9(5)
C(24)-C(23)-C(22)	122.0(5)
C(24)-C(23)-Cl(8)	119.3(4)
C(22)-C(23)-Cl(8)	118.7(5)
C(23)-C(24)-C(25)	118.5(5)
C(24)-C(25)-C(26)	121.4(5)
C(24)-C(25)-Cl(7)	120.7(4)
C(26)-C(25)-Cl(7)	117.9(5)
C(21)-C(26)-C(25)	118.0(5)
C(2SB)-C(1S)-C(1SB)	77(6)
C(2SB)-C(1S)-C(2S)	21(5)
C(1SB)-C(1S)-C(2S)	58(4)
C(2SB)-C(2S)-C(3S)	95(10)
C(2SB)-C(2S)-C(1SB)	71(9)
C(3S)-C(2S)-C(1SB)	164(4)
C(2SB)-C(2S)-C(1S)	28(9)
C(3S)-C(2S)-C(1S)	122(4)
C(1SB)-C(2S)-C(1S)	45(3)
C(2SB)-C(2S)-C(4S)#2	114(9)
C(3S)-C(2S)-C(4S)#2	149(3)

Table S-9 Continued.

C(1SB)-C(2S)-C(4S)#2	43(3)
C(1S)-C(2S)-C(4S)#2	88(3)
C(2SB)-C(2S)-C(3S)#2	153(9)
C(3S)-C(2S)-C(3S)#2	108(3)
C(1SB)-C(2S)-C(3S)#2	85(3)
C(1S)-C(2S)-C(3S)#2	130(3)
C(4S)#2-C(2S)-C(3S)#2	41.6(12)
C(2SB)-C(2S)-C(2S)#2	160(9)
C(3S)-C(2S)-C(2S)#2	70(2)
C(1SB)-C(2S)-C(2S)#2	122(5)
C(1S)-C(2S)-C(2S)#2	167(4)
C(4S)#2-C(2S)-C(2S)#2	80(3)
C(3S)#2-C(2S)-C(2S)#2	38(2)
C(2S)-C(3S)-C(4S)	138(3)
C(2S)-C(3S)-C(2SB)	29(3)
C(4S)-C(3S)-C(2SB)	166(3)
C(2S)-C(3S)-C(2S)#2	72(3)
C(4S)-C(3S)-C(2S)#2	66(2)
C(2SB)-C(3S)-C(2S)#2	101(4)
C(1SB)#2-C(4S)-C(3S)	121(3)
C(1SB)#2-C(4S)-C(2S)#2	49(3)
C(3S)-C(4S)-C(2S)#2	73(2)
C(1S)-C(1SB)-C(4S)#2	162(7)
C(1S)-C(1SB)-C(2SB)	46(3)
C(4S)#2-C(1SB)-C(2SB)	120(6)
C(1S)-C(1SB)-C(2S)	77(4)
C(4S)#2-C(1SB)-C(2S)	88(5)
C(2SB)-C(1SB)-C(2S)	32(2)
C(2S)-C(2SB)-C(1S)	131(10)
C(2S)-C(2SB)-C(1SB)	77(9)
C(1S)-C(2SB)-C(1SB)	57(8)
C(2S)-C(2SB)-C(3S)	55(7)
C(1S)-C(2SB)-C(3S)	168(8)
C(1SB)-C(2SB)-C(3S)	132(6)

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

Table S-10. Anisotropic displacement parameters ($Å^2 \times 10^3$) for $W_2(\mu\text{-}OH)_2(\mu\text{-}DCPF)_2(\eta^2\text{-}DCPF)_2$. The anisotropic displacement factor exponent takes the form:

$$-2\pi^2 [\, h^2 a^{*2} U11 + \ldots + 2 h k a^* b^* U12 \,]$$

Atom	U11	U22	U33	U23	U13	U12
W(1)	16(1)	20(1)	16(1)	0(1)	3(1)	-2(1)
Cl(1)	51(1)	62(1)	22(1)	-6(1)	8(1)	-14(1)
Cl(2)	72(1)	48(1)	56(1)	6(1)	19(1)	-34(1)
Cl(3)	52(1)	81(1)	26(1)	1(1)	17(1)	7(1)
Cl(4)	36(1)	137(2)	46(1)	14(1)	-11(1)	-36(1)
Cl(5)	128(2)	66(1)	111(2)	-59(1)	25(1)	-8(1)
Cl(6)	67(1)	57(1)	132(2)	52(1)	44(1)	3(1)
Cl(7)	46(1)	111(2)	105(2)	-20(1)	45(1)	-26(1)
Cl(8)	55(1)	130(2)	63(1)	-16(1)	-29(1)	35(1)
O(1)	21(2)	22(2)	22(2)	0(1)	4(1)	-1(1)
N(1)	22(2)	25(2)	22(2)	-1(2)	7(1)	-5(2)
N(2)	23(2)	24(2)	21(2)	-1(2)	5(2)	-7(2)
N(3)	22(2)	20(2)	27(2)	-4(2)	7(2)	-5(2)
N(4)	17(2)	28(2)	24(2)	-3(2)	2(1)	-1(2)
C(1)	22(2)	23(3)	27(2)	-1(2)	5(2)	-5(2)
C(2)	19(2)	25(3)	25(2)	3(2)	6(2)	-2(2)
C(3)	28(3)	34(3)	24(2)	0(2)	7(2)	-9(2)
C(4)	34(3)	34(3)	25(2)	-5(2)	3(2)	-5(2)
C(5)	45(3)	33(3)	29(2)	6(2)	16(2)	-4(3)
C(6)	31(3)	27(3)	38(3)	5(2)	12(2)	-9(2)
C(7)	31(3)	28(3)	27(2)	-2(2)	7(2)	-7(2)
C(8)	29(2)	25(3)	19(2)	-3(2)	1(2)	-11(2)
C(9)	24(2)	36(3)	23(2)	1(2)	3(2)	1(2)
C(10)	43(3)	38(3)	27(2)	-3(2)	12(2)	0(3)
C(11)	42(3)	56(4)	22(2)	-2(2)	-5(2)	-16(3)
C(12)	28(3)	53(4)	32(3)	1(3)	-1(2)	-15(3)
C(13)	28(3)	45(3)	28(2)	1(2)	5(2)	-14(2)
C(14)	27(3)	23(3)	26(2)	1(2)	6(2)	3(2)
C(15)	24(2)	19(3)	37(3)	-2(2)	6(2)	1(2)
C(16)	44(3)	25(3)	50(3)	-8(2)	12(3)	-7(2)
C(17)	56(4)	37(4)	72(4)	-23(3)	8(3)	-2(3)
C(18)	52(4)	27(3)	108(6)	-3(4)	11(4)	-5(3)
C(19)	26(3)	35(3)	85(5)	19(3)	18(3)	-1(3)
C(20)	27(3)	25(3)	49(3)	6(2)	9(2)	2(2)
C(21)	18(2)	24(3)	35(2)	-5(2)	3(2)	1(2)
C(22)	30(3)	38(3)	39(3)	0(2)	2(2)	9(2)
C(23)	27(3)	61(4)	51(3)	-14(3)	-12(2)	13(3)
C(24)	20(3)	70(5)	75(4)	-25(4)	-1(3)	-1(3)
C(25)	24(3)	44(4)	78(4)	-15(3)	20(3)	-5(3)
C(26)	25(2)	37(3)	41(3)	-10(2)	8(2)	-4(2)
C(1S)	217(45)	113(25)	104(23)	5(21)	43(26)	77(27)
C(2S)	161(29)	51(16)	128(24)	21(17)	86(26)	68(16)
C(3S)	102(8)	56(7)	161(13)	28(9)	41(11)	35(6)
C(4S)	108(15)	59(12)	68(12)	-11(10)	-27(11)	41(11)
C(1SB)	119(25)	81(23)	154(46)	49(28)	22(26)	56(17)
C(2SB)	254(72)	135(44)	145(48)	-91(41)	-103(53)	153(49)

Table S-11. Hydrogen coordinates (x 10^4) and isotropic displacement parameters ($Å^2$ x 10^3) for $W_2(\mu\text{-}OH)_2(\mu\text{-}DCPF)_2(\eta^2\text{-}DCPF)_2$.

Atom	x	y	z	U(eq)
H(1A)	7309(3)	1344(2)	473(2)	29
H(3A)	5885(3)	531(2)	-1535(2)	34
H(5A)	7005(3)	1765(2)	-2617(2)	41
H(7A)	7436(3)	1864(2)	-476(2)	34
H(9A)	5768(3)	823(2)	1890(2)	34
H(11A)	7680(3)	1025(3)	3533(2)	50
H(13A)	8003(3)	948(3)	1534(2)	41
H(14A)	3637(3)	1417(2)	-193(2)	30
H(16A)	4847(3)	1963(2)	1056(3)	48
H(18A)	5595(4)	3563(3)	195(4)	76
H(20A)	5255(3)	1903(2)	-921(3)	40
H(22A)	7293(3)	-658(2)	1429(3)	44
H(24A)	9384(3)	-246(3)	889(3)	68
H(26A)	7307(3)	-181(2)	-589(3)	41