

Table 1. Crystal data and structure refinement for $[\text{Ag}_2(\text{pyrd-im2})_2](\text{PF}_6)_2 \cdot 2\text{CH}_3\text{OH}$ (1).Identification code $[\text{Ag}_2(\text{pyrd-im2})_2](\text{PF}_6)_2 \cdot 2\text{CH}_3\text{OH}$ (1).Empirical formula $\text{C}_{38} \text{H}_{60} \text{Ag}_2 \text{F}_{12} \text{N}_{12} \text{O}_6 \text{P}_2$

Formula weight 1286.64

Temperature -80°C Wavelength $0.71073 \text{ \AA}$

Crystal system monoclinic

Space group Cc (No. 9)

Unit cell dimensions

$$a = 13.688(5) \text{ \AA} \quad \alpha = 90^\circ$$

$$b = 32.668(8) \text{ \AA} \quad \beta = 119.95(2)^\circ$$

$$c = 13.718(4) \text{ \AA} \quad \gamma = 90^\circ$$

Volume $5315(3) \text{ \AA}^3$

Z 4

Density (calculated) 1.648 g / cm^3 Absorption coefficient 0.896 mm^{-1} $F(000)$ 2680Crystal size $0.3 \times 0.3 \times 0.5 \text{ mm}$ Theta range for data collection 2.12 to 27.50° Index ranges $-17 \leq h \leq 17$, $0 \leq k \leq 42$, $-17 \leq l \leq 17$

Reflections collected 12709

Independent reflections 12193 [$R(\text{int}) = 0.0126$]Refinement method Full-matrix least-squares on F^2

Data / restraints / parameters 12182 / 2 / 650

Goodness-of-fit on F^2 1.009Final R indices [$I > 2\sigma(I)$] $R1^a = 0.0428$, $wR2^b = 0.1088$ R indices (all data) $R1^a = 0.0639$, $wR2^b = 0.1273$

Absolute structure parameter 0.08(3)

Largest diff. peak and hole 0.818 and $-0.418 \text{ e \AA}^{-3}$

$$^a R1 = \sum ||F_o| - |F_c|| / \sum |F_o|.$$

$$^b wR2 = [\sum [w(F_o^2 - F_c^2)^2] / \sum [w(F_o^2)^2]]^{0.5},$$

$$\text{calc } w = 1/[\sigma^2(F_o^2) + (0.0679P)^2 + 7.1421P] \text{ where } P = (F_o^2 + 2F_c^2)/3.$$

Table 2. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $[\text{Ag}_2(\text{pyrd-im}2)_2](\text{PF}_6)_2 \cdot 2\text{CH}_3\text{OH}$ (1). $U(\text{eq})$ is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	$U(\text{eq})$
Ag (1)	8442 (1)	1250 (1)	1852 (1)	50 (1)
Ag (2)	4532 (1)	1250 (1)	1853 (1)	46 (1)
P (1)	11609 (2)	-723 (1)	3306 (2)	76 (1)
P (2)	5157 (2)	1777 (1)	5401 (2)	75 (1)
F (1)	11749 (8)	-1144 (2)	2764 (8)	154 (3)
F (2)	10399 (4)	-700 (2)	2273 (6)	129 (2)
F (3)	11157 (6)	-964 (2)	3973 (7)	134 (2)
F (4)	4521 (9)	2172 (2)	4933 (7)	185 (4)
F (5)	6313 (7)	2009 (3)	6100 (5)	162 (3)
F (6)	4978 (6)	1797 (2)	6432 (6)	128 (2)
F (7)	12062 (6)	-494 (3)	2605 (5)	163 (3)
F (8)	12840 (5)	-783 (2)	4315 (6)	126 (2)
F (9)	11430 (9)	-328 (2)	3759 (7)	186 (4)
F (10)	4036 (5)	1536 (2)	4733 (7)	133 (2)
F (11)	5385 (6)	1719 (2)	4391 (6)	126 (2)
F (12)	5829 (6)	1358 (2)	5925 (8)	152 (3)
O (1)	6128 (4)	482 (2)	-2121 (4)	80 (2)
O (2)	2996 (4)	2164 (2)	-1886 (4)	65 (1)
O (3)	6732 (4)	338 (2)	5588 (4)	62 (1)
O (4)	10099 (5)	2019 (2)	5821 (4)	79 (2)
O (5)	2307 (8)	3296 (3)	3631 (8)	148 (4)
O (6)	5524 (9)	4204 (3)	69 (8)	155 (4)
N (1)	8099 (4)	877 (2)	413 (4)	39 (1)
N (2)	7049 (5)	584 (2)	-1230 (4)	51 (1)
N (3)	6226 (5)	1184 (2)	436 (5)	50 (1)
N (4)	5404 (5)	1391 (2)	465 (4)	47 (1)
N (5)	3579 (4)	1693 (1)	577 (4)	37 (1)
N (6)	3013 (4)	2038 (2)	-1008 (4)	42 (1)
N (7)	4856 (4)	811 (1)	3127 (4)	35 (1)
N (8)	5876 (4)	464 (2)	4716 (4)	43 (1)
N (9)	6799 (5)	1111 (2)	3243 (4)	48 (1)
N (10)	7641 (5)	1316 (2)	3273 (4)	49 (1)
N (11)	9534 (4)	1621 (2)	3287 (4)	39 (1)
N (12)	10128 (5)	1915 (2)	4937 (4)	50 (1)

Table 2. Continued.

	x	y	z	U(eq)
C(1)	3687(4)	1736(2)	-293(4)	32(1)
C(2)	2241(4)	2202(2)	-614(4)	39(1)
C(3)	2810(5)	2009(2)	599(4)	38(1)
C(4)	2245(7)	2666(2)	-667(6)	67(2)
C(5)	1070(6)	2044(2)	-1417(5)	63(2)
C(6)	2010(6)	1815(2)	892(6)	60(2)
C(7)	3555(7)	2311(2)	1530(5)	65(2)
C(8)	4508(5)	1512(2)	-488(4)	37(1)
C(9)	4359(6)	1412(2)	-1535(5)	48(2)
C(10)	5199(6)	1197(2)	-1576(5)	50(2)
C(11)	6128(5)	1089(2)	-557(4)	34(1)
C(12)	7105(5)	858(2)	-433(5)	38(1)
C(13)	8866(5)	585(2)	300(5)	48(2)
C(14)	8172(5)	437(2)	-950(5)	47(1)
C(15)	9088(9)	254(2)	1160(6)	87(3)
C(16)	9954(5)	812(3)	578(6)	77(3)
C(17)	8453(7)	653(3)	-1741(6)	88(3)
C(18)	8116(8)	-31(3)	-1126(8)	94(3)
C(19)	5840(5)	765(2)	4000(4)	33(1)
C(20)	4065(5)	490(2)	3108(4)	38(1)
C(21)	4699(5)	297(2)	4308(4)	41(1)
C(22)	3877(7)	188(2)	2174(5)	67(2)
C(23)	2966(6)	687(2)	2811(6)	61(2)
C(24)	4769(7)	-168(2)	4364(5)	67(2)
C(25)	4348(6)	455(2)	5131(5)	63(2)
C(26)	6851(5)	990(2)	4189(4)	35(1)
C(27)	7758(6)	1089(2)	5244(5)	47(1)
C(28)	8623(6)	1304(2)	5276(5)	49(2)
C(29)	8535(5)	1413(2)	4260(4)	32(1)
C(30)	9394(5)	1641(2)	4138(4)	38(1)
C(31)	10979(5)	2064(2)	4657(5)	48(1)
C(32)	10422(5)	1915(2)	3401(5)	49(2)
C(33)	11092(9)	2531(3)	4833(8)	94(3)
C(34)	12042(7)	1848(3)	5442(6)	89(3)
C(35)	9793(8)	2245(2)	2546(6)	87(3)
C(36)	11227(6)	1690(3)	3136(6)	78(3)
C(37)	6263(13)	4425(5)	-190(14)	151(5)
C(38)	3306(13)	3074(5)	3893(14)	153(6)

Table 3. Bond lengths [Å] for [Ag₂(pyrd-im2)₂](PF₆)₂·2CH₃OH (1)

Ag(1)-N(11)	2.152(4)	Ag(1)-N(1)	2.163(5)
Ag(1)-N(3)	2.672(6)	Ag(1)-N(10)	2.680(7)
Ag(2)-N(7)	2.129(4)	Ag(2)-N(5)	2.138(4)
Ag(2)-N(4)	2.743(7)	Ag(2)-N(9)	2.750(6)
Ag(1)-Ag(2)	5.352(2)		
O(1)-N(2)	1.287(7)	O(2)-N(6)	1.262(6)
O(3)-N(8)	1.254(6)	O(4)-N(12)	1.280(6)
O(5)-C(38)	1.43(2)	O(6)-C(37)	1.42(2)
N(1)-C(12)	1.275(7)	N(1)-C(13)	1.483(8)
N(2)-C(12)	1.383(7)	N(2)-C(14)	1.467(8)
N(3)-N(4)	1.329(8)	N(3)-C(11)	1.338(8)
N(4)-C(8)	1.331(7)	N(5)-C(1)	1.281(7)
N(5)-C(3)	1.487(7)	N(6)-C(1)	1.373(7)
N(6)-C(2)	1.505(7)	N(7)-C(19)	1.289(7)
N(7)-C(20)	1.498(7)	N(8)-C(19)	1.374(7)
N(8)-C(21)	1.519(7)	N(9)-N(10)	1.316(8)
N(9)-C(26)	1.324(7)	N(10)-C(29)	1.332(7)
N(11)-C(30)	1.276(7)	N(11)-C(32)	1.496(8)
N(12)-C(30)	1.383(7)	N(12)-C(31)	1.479(8)
C(1)-C(8)	1.472(8)	C(2)-C(5)	1.511(9)
C(2)-C(4)	1.520(9)	C(2)-C(3)	1.574(7)
C(3)-C(6)	1.485(9)	C(3)-C(7)	1.530(8)
C(8)-C(9)	1.386(8)	C(9)-C(10)	1.371(10)
C(10)-C(11)	1.386(8)	C(11)-C(12)	1.470(8)
C(13)-C(15)	1.515(10)	C(13)-C(16)	1.531(9)
C(13)-C(14)	1.565(8)	C(14)-C(17)	1.496(10)
C(14)-C(18)	1.546(10)	C(19)-C(26)	1.471(8)
C(20)-C(23)	1.494(9)	C(20)-C(22)	1.533(8)
C(20)-C(21)	1.560(7)	C(21)-C(24)	1.521(9)
C(21)-C(25)	1.521(8)	C(26)-C(27)	1.395(8)
C(27)-C(28)	1.359(10)	C(28)-C(29)	1.384(8)
C(29)-C(30)	1.469(8)	C(31)-C(34)	1.486(10)
C(31)-C(33)	1.541(10)	C(31)-C(32)	1.573(8)
C(32)-C(35)	1.505(10)	C(32)-C(36)	1.513(10)
P(1)-F(9)	1.504(7)	P(1)-F(3)	1.552(6)
P(1)-F(2)	1.553(6)	P(1)-F(7)	1.570(6)
P(1)-F(8)	1.571(6)	P(1)-F(1)	1.621(7)
P(2)-F(4)	1.509(7)	P(2)-F(10)	1.552(6)
P(2)-F(6)	1.553(6)	P(2)-F(11)	1.576(6)
P(2)-F(5)	1.575(6)	P(2)-F(12)	1.607(7)

Table 4. Bond angles [°] for [Ag₂(pyrd-im2)₂](PF₆)₂·2CH₃OH (1)

N(1)-Ag(1)-N(3)	68.9(2)	N(1)-Ag(1)-N(4)	85.6(2)
N(1)-Ag(1)-N(9)	120.0(2)	N(1)-Ag(1)-N(10)	136.7(2)
N(1)-Ag(1)-N(11)	152.5(2)	N(3)-Ag(1)-N(4)	16.9(2)
N(3)-Ag(1)-N(9)	66.2(2)	N(3)-Ag(1)-N(10)	78.9(2)
N(3)-Ag(1)-N(11)	136.7(2)	N(4)-Ag(1)-N(9)	56.2(1)
N(4)-Ag(1)-N(10)	66.1(1)	N(4)-Ag(1)-N(11)	119.9(2)
N(9)-Ag(1)-N(10)	16.7(2)	N(9)-Ag(1)-N(11)	85.4(2)
N(10)-Ag(1)-N(11)	68.9(2)	N(3)-Ag(2)-N(4)	16.7(2)
N(3)-Ag(2)-N(5)	84.0(2)	N(3)-Ag(2)-N(7)	117.6(2)
N(3)-Ag(2)-N(9)	64.5(2)	N(3)-Ag(2)-N(10)	54.7(1)
N(4)-Ag(2)-N(5)	67.5(2)	N(4)-Ag(2)-N(7)	134.3(2)
N(4)-Ag(2)-N(9)	77.2(2)	N(4)-Ag(2)-N(10)	64.6(1)
N(5)-Ag(2)-N(7)	156.7(2)	N(5)-Ag(2)-N(9)	134.1(2)
N(5)-Ag(2)-N(10)	117.6(2)	N(7)-Ag(2)-N(9)	67.6(2)
N(7)-Ag(2)-N(10)	83.9(2)	N(9)-Ag(2)-N(10)	16.5(2)
C(12)-N(1)-C(13)	111.2(5)	C(12)-N(1)-Ag(1)	120.4(4)
C(13)-N(1)-Ag(1)	128.0(3)	O(1)-N(2)-C(12)	124.1(5)
O(1)-N(2)-C(14)	124.4(5)	C(12)-N(2)-C(14)	111.5(5)
N(4)-N(3)-C(11)	119.5(5)	N(3)-N(4)-C(8)	120.1(5)
C(1)-N(5)-C(3)	110.8(4)	C(1)-N(5)-Ag(2)	122.0(4)
C(3)-N(5)-Ag(2)	127.0(3)	O(2)-N(6)-C(1)	127.0(5)
O(2)-N(6)-C(2)	123.0(4)	C(1)-N(6)-C(2)	109.9(4)
C(19)-N(7)-C(20)	110.2(4)	C(19)-N(7)-Ag(2)	122.3(4)
C(20)-N(7)-Ag(2)	127.2(3)	O(3)-N(8)-C(19)	126.9(5)
O(3)-N(8)-C(21)	123.2(5)	C(19)-N(8)-C(21)	109.9(4)
N(10)-N(9)-C(26)	120.2(5)	N(9)-N(10)-C(29)	119.9(5)
C(30)-N(11)-C(32)	110.9(4)	C(30)-N(11)-Ag(1)	120.9(4)
C(32)-N(11)-Ag(1)	127.9(3)	O(4)-N(12)-C(30)	124.8(5)
O(4)-N(12)-C(31)	124.0(5)	C(30)-N(12)-C(31)	111.3(5)
N(5)-C(1)-C(8)	113.3(5)	N(5)-C(1)-C(8)	124.6(5)
N(6)-C(1)-C(8)	121.9(5)	N(6)-C(2)-C(5)	107.2(5)
N(6)-C(2)-C(4)	108.5(5)	C(5)-C(2)-C(4)	109.4(5)
N(6)-C(2)-C(3)	99.9(4)	C(5)-C(2)-C(3)	114.9(5)
C(4)-C(2)-C(3)	115.9(5)	C(6)-C(3)-N(5)	109.5(5)
C(6)-C(3)-C(7)	108.9(5)	N(5)-C(3)-C(7)	106.3(5)
C(6)-C(3)-C(2)	114.5(5)	N(5)-C(3)-C(2)	103.7(4)
C(7)-C(3)-C(2)	113.4(5)	N(4)-C(8)-C(9)	122.2(6)
N(4)-C(8)-C(1)	112.5(5)	C(9)-C(8)-C(1)	125.2(5)
C(10)-C(9)-C(8)	118.1(5)	C(9)-C(10)-C(11)	117.1(5)
N(3)-C(11)-C(10)	122.8(6)	N(3)-C(11)-C(12)	112.3(5)
C(10)-C(11)-C(12)	124.9(5)	N(1)-C(12)-N(2)	111.4(5)
N(1)-C(12)-C(11)	125.1(5)	N(2)-C(12)-C(11)	123.5(5)
N(1)-C(13)-C(15)	104.7(5)	N(1)-C(13)-C(16)	108.4(5)
C(15)-C(13)-C(16)	111.1(6)	N(1)-C(13)-C(14)	103.9(4)
C(15)-C(13)-C(14)	114.1(6)	C(16)-C(13)-C(14)	113.8(5)
N(2)-C(14)-C(17)	105.7(6)	N(2)-C(14)-C(18)	108.6(5)
C(17)-C(14)-C(18)	111.4(7)	N(2)-C(14)-C(13)	99.7(4)
C(17)-C(14)-C(13)	114.5(5)	C(18)-C(14)-C(13)	115.6(6)
N(7)-C(19)-N(8)	113.3(5)	N(7)-C(19)-C(26)	124.1(5)
N(8)-C(19)-C(26)	122.4(5)	N(7)-C(20)-C(23)	108.9(5)
N(7)-C(20)-C(22)	106.5(5)	C(23)-C(20)-C(22)	108.9(5)
N(7)-C(20)-C(21)	104.4(4)	C(23)-C(20)-C(21)	114.6(5)
C(22)-C(20)-C(21)	113.2(5)	N(8)-C(21)-C(24)	108.2(5)

Table 4. Continued.

N(8)-C(21)-C(25)	105.9(5)	C(24)-C(21)-C(25)	109.7(5)
N(8)-C(21)-C(20)	99.9(4)	C(24)-C(21)-C(20)	116.4(5)
C(25)-C(21)-C(20)	115.5(5)	N(9)-C(26)-C(27)	122.1(6)
N(9)-C(26)-C(19)	113.0(5)	C(27)-C(26)-C(19)	124.8(5)
C(28)-C(27)-C(26)	117.6(5)	C(27)-C(28)-C(29)	117.7(5)
N(10)-C(29)-C(28)	122.4(5)	N(10)-C(29)-C(30)	112.7(5)
C(28)-C(29)-C(30)	124.9(5)	N(11)-C(30)-N(12)	112.1(5)
N(11)-C(30)-C(29)	124.9(5)	N(12)-C(30)-C(29)	123.0(5)
N(12)-C(31)-C(34)	105.7(6)	N(12)-C(31)-C(33)	108.5(6)
C(34)-C(31)-C(33)	111.7(7)	N(12)-C(31)-C(32)	99.7(4)
C(34)-C(31)-C(32)	114.3(5)	C(33)-C(31)-C(32)	115.6(6)
N(11)-C(32)-C(35)	105.1(5)	N(11)-C(32)-C(36)	108.2(5)
C(35)-C(32)-C(36)	111.3(7)	N(11)-C(32)-C(31)	103.7(5)
C(35)-C(32)-C(31)	114.2(6)	C(36)-C(32)-C(31)	113.6(5)
F(9)-P(1)-F(3)	89.8(5)	F(9)-P(1)-F(2)	91.0(4)
F(3)-P(1)-F(2)	90.3(4)	F(9)-P(1)-F(7)	92.3(6)
F(3)-P(1)-F(7)	177.8(5)	F(2)-P(1)-F(7)	89.2(4)
F(9)-P(1)-F(8)	93.9(5)	F(3)-P(1)-F(8)	89.1(4)
F(2)-P(1)-F(8)	175.1(4)	F(7)-P(1)-F(8)	91.3(3)
F(9)-P(1)-F(1)	177.4(5)	F(3)-P(1)-F(1)	90.6(4)
F(2)-P(1)-F(1)	86.5(4)	F(7)-P(1)-F(1)	87.2(5)
F(8)-P(1)-F(1)	88.7(5)	F(4)-P(2)-F(10)	89.5(5)
F(4)-P(2)-F(6)	91.8(4)	F(10)-P(2)-F(6)	90.0(4)
F(4)-P(2)-F(11)	93.2(5)	F(10)-P(2)-F(11)	89.5(4)
F(6)-P(2)-F(11)	175.0(4)	F(4)-P(2)-F(5)	92.3(6)
F(10)-P(2)-F(5)	178.2(5)	F(6)-P(2)-F(5)	89.6(4)
F(11)-P(2)-F(5)	90.8(3)	F(4)-P(2)-F(12)	178.6(5)
F(10)-P(2)-F(12)	90.5(4)	F(6)-P(2)-F(12)	86.8(4)
F(11)-P(2)-F(12)	88.3(5)	F(5)-P(2)-F(12)	87.7(5)

Table 5. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) $[\text{Ag}_2(\text{pyrd-im2})_2](\text{PF}_6)_2 \cdot 2\text{CH}_3\text{OH}$ (1). The anisotropic displacement factor exponent takes the form: $-2 \pi^2 [h^2 a^{*2} U_{11} + \dots + 2 h k a^* b^* U_{12}]$

	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ag(1)	46(1)	69(1)	33(1)	-17(1)	17(1)	-9(1)
Ag(2)	49(1)	48(1)	36(1)	16(1)	19(1)	8(1)
P(1)	65(1)	67(1)	96(2)	17(1)	42(1)	1(1)
P(2)	79(1)	67(1)	96(2)	-16(1)	56(1)	-16(1)
F(1)	186(7)	115(5)	226(9)	23(5)	151(7)	47(5)
F(2)	75(3)	137(5)	135(5)	-25(4)	23(3)	-12(3)
F(3)	145(5)	123(5)	197(7)	40(5)	134(5)	17(4)
F(4)	296(12)	78(4)	168(7)	21(4)	106(8)	67(6)
F(5)	171(6)	219(8)	99(4)	-57(4)	70(4)	-140(6)
F(6)	159(5)	135(5)	140(5)	31(4)	113(5)	17(4)
F(7)	131(5)	217(8)	100(4)	55(4)	27(4)	-85(5)
F(8)	90(4)	147(5)	126(5)	72(4)	42(3)	17(4)
F(9)	256(10)	76(4)	173(7)	-19(4)	67(7)	46(5)
F(10)	74(3)	118(5)	203(7)	-36(5)	67(4)	-23(3)
F(11)	139(5)	150(5)	119(5)	-61(4)	87(4)	-52(4)
F(12)	109(5)	112(5)	227(9)	-24(5)	79(5)	23(4)
O(1)	47(3)	110(4)	56(3)	-46(3)	6(2)	7(3)
O(2)	74(3)	87(3)	49(2)	37(2)	41(2)	36(3)
O(3)	41(2)	80(3)	46(2)	33(2)	7(2)	-1(2)
O(4)	86(4)	112(4)	59(3)	-48(3)	51(3)	-55(3)
O(5)	126(6)	175(8)	132(7)	-51(6)	57(6)	36(6)
O(6)	169(8)	177(8)	134(7)	-70(6)	86(7)	-106(7)
N(1)	31(2)	56(3)	30(2)	-10(2)	14(2)	-1(2)
N(2)	42(3)	63(3)	42(3)	-21(2)	17(2)	-1(2)
N(3)	38(3)	75(4)	29(2)	-5(2)	11(2)	11(2)
N(4)	43(3)	64(3)	36(3)	7(2)	23(2)	21(2)
N(5)	36(2)	39(2)	34(2)	6(2)	17(2)	5(2)
N(6)	47(3)	49(3)	31(2)	15(2)	20(2)	15(2)
N(7)	39(2)	36(2)	31(2)	4(2)	17(2)	2(2)
N(8)	39(2)	51(3)	34(2)	14(2)	15(2)	3(2)
N(9)	44(3)	64(3)	32(3)	5(2)	16(2)	-17(2)
N(10)	48(3)	71(3)	27(2)	-1(2)	17(2)	-15(2)
N(11)	33(2)	53(3)	30(2)	-11(2)	16(2)	-12(2)
N(12)	48(3)	65(3)	41(3)	-18(2)	26(2)	-16(2)

Table 5. Continued.

	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
C(1)	34(3)	30(2)	34(2)	3(2)	18(2)	3(2)
C(2)	39(3)	40(3)	38(3)	6(2)	19(2)	13(2)
C(3)	39(3)	45(3)	31(3)	4(2)	19(2)	9(2)
C(4)	98(5)	50(3)	55(4)	14(3)	40(4)	24(3)
C(5)	54(4)	80(5)	46(3)	8(3)	19(3)	7(3)
C(6)	54(4)	83(5)	50(3)	16(3)	31(3)	23(3)
C(7)	84(5)	55(4)	39(3)	-9(3)	18(3)	6(3)
C(8)	42(3)	36(3)	28(2)	3(2)	15(2)	1(2)
C(9)	41(3)	62(3)	31(3)	3(2)	10(2)	10(3)
C(10)	46(3)	69(4)	28(3)	-2(2)	14(2)	5(3)
C(11)	29(2)	39(2)	31(2)	-7(2)	14(2)	-3(2)
C(12)	38(3)	45(3)	29(2)	-6(2)	16(2)	-3(2)
C(13)	42(3)	64(4)	37(3)	-6(3)	19(2)	1(3)
C(14)	35(3)	64(4)	41(3)	-18(3)	19(2)	-2(2)
C(15)	112(7)	69(5)	57(4)	14(4)	26(4)	46(5)
C(16)	30(3)	127(7)	71(4)	-43(5)	24(3)	-19(3)
C(17)	66(4)	151(8)	53(4)	-14(4)	33(4)	-40(5)
C(18)	85(5)	82(6)	93(6)	-35(5)	28(5)	21(4)
C(19)	35(3)	36(2)	31(2)	5(2)	18(2)	2(2)
C(20)	37(3)	42(3)	30(3)	6(2)	13(2)	-5(2)
C(21)	40(3)	42(3)	39(3)	5(2)	18(2)	-7(2)
C(22)	90(5)	58(4)	40(3)	-11(3)	22(3)	-17(3)
C(23)	46(3)	83(5)	57(4)	17(3)	28(3)	-1(3)
C(24)	83(5)	48(3)	49(3)	13(3)	16(3)	-5(3)
C(25)	64(4)	80(5)	45(3)	4(3)	29(3)	2(3)
C(26)	39(3)	34(2)	31(2)	0(2)	16(2)	0(2)
C(27)	53(4)	61(3)	24(3)	3(2)	17(2)	-9(3)
C(28)	50(3)	69(4)	24(2)	-3(2)	17(2)	-11(3)
C(29)	35(3)	35(2)	32(2)	-5(2)	20(2)	-3(2)
C(30)	39(3)	44(3)	27(2)	-7(2)	14(2)	-5(2)
C(31)	42(3)	63(4)	42(3)	-16(3)	23(3)	-13(3)
C(32)	43(3)	62(4)	38(3)	-7(3)	18(2)	-8(3)
C(33)	130(8)	77(5)	96(6)	-29(5)	72(6)	-49(5)
C(34)	56(4)	155(9)	50(4)	-15(4)	21(3)	21(5)
C(35)	111(7)	72(5)	52(4)	15(4)	22(4)	-31(5)
C(36)	55(4)	130(7)	72(5)	-48(5)	47(4)	-28(4)
C(37)	162(13)	117(10)	192(15)	7(9)	103(12)	-41(9)
C(38)	144(12)	128(11)	185(14)	9(10)	80(11)	50(9)

Table 6. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $[\text{Ag}_2(\text{pyridim2})_2](\text{PF}_6)_2 \cdot 2\text{CH}_3\text{OH}$ (1).

	x	y	z	U(eq)
H(4A)	2989(7)	2766(2)	-157(6)	101
H(4B)	1724(7)	2775(2)	-458(6)	101
H(4C)	2026(7)	2751(2)	-1419(6)	101
H(5A)	1067(6)	1751(2)	-1386(5)	94
H(5B)	851(6)	2130(2)	-2169(5)	94
H(5C)	549(6)	2152(2)	-1208(5)	94
H(6A)	1540(6)	1625(2)	313(6)	91
H(6B)	1548(6)	2022(2)	958(6)	91
H(6C)	2424(6)	1673(2)	1596(6)	91
H(7A)	4078(7)	2437(2)	1349(5)	98
H(7B)	3964(7)	2167(2)	2231(5)	98
H(7C)	3092(7)	2517(2)	1594(5)	98
H(9)	3709(6)	1488(2)	-2192(5)	58
H(10)	5146(6)	1127(2)	-2257(5)	60
H(15A)	8395(9)	117(2)	967(6)	130
H(15B)	9391(9)	376(2)	1892(6)	130
H(15C)	9618(9)	61(2)	1165(6)	130
H(16A)	9792(5)	1019(3)	20(6)	115
H(16B)	10490(5)	621(3)	582(6)	115
H(16C)	10262(5)	937(3)	1305(6)	115
H(17A)	8484(7)	943(3)	-1611(6)	132
H(17B)	7884(7)	595(3)	-2503(6)	132
H(17C)	9171(7)	560(3)	-1617(6)	132
H(18A)	7936(8)	-161(3)	-608(8)	140
H(18B)	8832(8)	-129(3)	-998(8)	140
H(18C)	7544(8)	-95(3)	-1883(8)	140
H(22A)	4580(7)	61(2)	2357(5)	101
H(22B)	3587(7)	332(2)	1474(5)	101
H(22C)	3347(7)	-18(2)	2109(5)	101
H(23A)	3076(6)	878(2)	3390(6)	91
H(23B)	2436(6)	481(2)	2743(6)	91
H(23C)	2680(6)	830(2)	2109(6)	91
H(24A)	4990(7)	-266(2)	3843(5)	101
H(24B)	4046(7)	-279(2)	4172(5)	101
H(24C)	5316(7)	-251(2)	5113(5)	101
H(25A)	4308(6)	749(2)	5096(5)	94
H(25B)	4892(6)	371(2)	5880(5)	94
H(25C)	3622(6)	345(2)	4936(5)	94
H(27)	7769(6)	1011(2)	5902(5)	57
H(28)	9253(6)	1375(2)	5956(5)	58

Table 6. continued.

H(33A)	10392(9)	2660(3)	4315(8)	141
H(33B)	11679(9)	2630(3)	4705(8)	141
H(33C)	11277(9)	2594(3)	5590(8)	141
H(34A)	11942(7)	1559(3)	5308(6)	134
H(34B)	12234(7)	1905(3)	6204(6)	134
H(34C)	12638(7)	1942(3)	5320(6)	134
H(35A)	9290(8)	2382(2)	2734(6)	130
H(35B)	9368(8)	2123(2)	1813(6)	130
H(35C)	10321(8)	2438(2)	2545(6)	130
H(36A)	11618(6)	1483(3)	3695(6)	118
H(36B)	11763(6)	1879(3)	3138(6)	118
H(36C)	10812(6)	1564(3)	2409(6)	118

Table 7. Crystal data and structure refinement for $[\text{Ag}_2(\text{bpy-im2})_2](\text{PF}_6)_2 \cdot \text{CH}_3\text{OH}$ (2).Identification code $[\text{Ag}_2(\text{bpy-im2})_2](\text{PF}_6)_2 \cdot \text{CH}_3\text{OH}$ Empirical formula $\text{C}_{49} \text{H}_{64} \text{Ag}_2 \text{F}_{12} \text{N}_{12} \text{O}_5 \text{P}_2$

Formula weight 1406.80

Temperature 193(2) K

Wavelength 0.71073 Å

Crystal system Orthorhombic

Space group Pbca (No. 61)

Unit cell dimensions

$$a = 26.844(5) \text{ Å} \quad \alpha = 90^\circ$$

$$b = 29.650(5) \text{ Å} \quad \beta = 90^\circ$$

$$c = 14.509(5) \text{ Å} \quad \gamma = 90^\circ$$

Volume $11548(5) \text{ Å}^3$

Z 8

Density (calculated) 1.618 g / cm^3 Absorption coefficient 0.828 mm^{-1} $F(000)$ 5712Crystal size $0.1 \times 0.3 \times 0.5 \text{ mm}$ Theta range for data collection 2.05 to 25.01° Index ranges $0 \leq h \leq 31$, $0 \leq k \leq 35$, $0 \leq l \leq 17$

Reflections collected 10175

Independent reflections 10175 [$R(\text{int}) = 0.0000$]Refinement method Full-matrix least-squares on F^2

Data / restraints / parameters 10125 / 2 / 776

Goodness-of-fit on F^2 1.007Final R indices [$I > 2\sigma(I)$] $R1^a = 0.0620$, $wR2^b = 0.1474$ R indices (all data) $R1^a = 0.1499$, $wR2^b = 0.1973$ Largest diff. peak and hole 2.036 and -0.481 e Å^{-3}

$$^a R1 = \sum ||F_o| - |F_c|| / \sum |F_o|.$$

$$^b wR2 = [\sum [w(F_o^2 - F_c^2)^2] / \sum [w(F_o^2)^2]]^{0.5},$$

$$\text{calc } w = 1 / [\sigma^2(F_o^2) + (0.0891P)^2 + 10.3209P] \text{ where } P = (F_o^2 + 2F_c^2) / 3.$$

Table 8. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $[\text{Ag}_2(\text{bpy-im}2)_2](\text{PF}_6)_2 \cdot \text{CH}_3\text{OH}$ (2). $U(\text{eq})$ is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	$U(\text{eq})$
Ag (1)	3082 (1)	-946 (1)	6996 (1)	51 (1)
Ag (2)	3955 (1)	897 (1)	7681 (1)	59 (1)
O (1)	1393 (2)	-172 (2)	5773 (5)	74 (2)
O (2)	5738 (3)	271 (3)	6467 (5)	89 (2)
O (3)	4855 (3)	-1690 (2)	7827 (5)	85 (2)
O (4)	2244 (3)	1382 (2)	9347 (6)	109 (3)
O (5)	4239 (6)	2864 (6)	6766 (20)	340 (15)
N (1)	2953 (2)	-180 (2)	6258 (4)	38 (1)
N (2)	4138 (2)	286 (2)	6566 (4)	40 (2)
N (3)	2278 (2)	-815 (2)	6870 (5)	47 (2)
N (4)	1633 (2)	-459 (2)	6249 (5)	52 (2)
N (5)	4777 (3)	789 (2)	7617 (5)	52 (2)
N (6)	5462 (3)	510 (2)	6970 (5)	59 (2)
N (7)	3745 (2)	-664 (2)	8069 (4)	40 (2)
N (8)	3322 (2)	424 (2)	8569 (4)	45 (2)
N (9)	3717 (2)	-1399 (2)	6913 (5)	47 (2)
N (10)	4443 (3)	-1673 (2)	7395 (5)	55 (2)
N (11)	3306 (3)	1321 (2)	8041 (5)	62 (2)
N (12)	2609 (4)	1468 (3)	8824 (6)	85 (3)
C (1)	2469 (3)	-71 (2)	6261 (5)	40 (2)
C (2)	2301 (3)	368 (2)	6124 (5)	46 (2)
C (3)	2650 (3)	705 (3)	5993 (6)	52 (2)
C (4)	3150 (3)	604 (2)	6011 (5)	45 (2)
C (5)	3290 (3)	152 (2)	6148 (5)	37 (2)
C (6)	3819 (3)	17 (2)	6136 (5)	37 (2)
C (7)	3970 (3)	-376 (2)	5684 (5)	44 (2)
C (8)	4462 (3)	-480 (2)	5674 (6)	50 (2)
C (9)	4809 (3)	-207 (2)	6104 (5)	50 (2)
C (10)	4627 (3)	179 (2)	6558 (5)	39 (2)
C (11)	2133 (3)	-458 (3)	6468 (5)	45 (2)
C (12)	1844 (3)	-1127 (3)	6984 (7)	71 (3)
C (13)	1397 (3)	-879 (3)	6622 (6)	58 (2)
C (14)	1971 (5)	-1550 (4)	6391 (16)	208 (11)
C (15)	1807 (4)	-1230 (7)	8011 (11)	194 (10)
C (16)	1104 (7)	-1083 (5)	5834 (11)	193 (10)
C (17)	1029 (4)	-722 (5)	7361 (9)	130 (6)

Table 8. Continued.

	x	y	z	U(eq)
C(18)	4943(3)	498(3)	7056(6)	46(2)
C(19)	5212(4)	1041(3)	8043(6)	69(3)
C(20)	5656(3)	900(3)	7492(7)	68(3)
C(21)	5276(7)	825(5)	9007(8)	177(9)
C(22)	5087(4)	1526(4)	8037(14)	172(8)
C(23)	6127(5)	769(5)	7949(11)	148(7)
C(24)	5781(6)	1253(4)	6706(10)	138(6)
C(25)	4168(3)	-911(2)	7959(5)	42(2)
C(26)	4622(3)	-768(3)	8315(6)	50(2)
C(27)	4648(3)	-370(3)	8797(6)	53(2)
C(28)	4212(3)	-121(3)	8912(5)	52(2)
C(29)	3774(3)	-278(2)	8529(5)	46(2)
C(30)	3293(3)	-31(3)	8634(5)	47(2)
C(31)	2853(3)	-262(3)	8792(5)	53(2)
C(32)	2415(3)	-13(3)	8892(5)	58(2)
C(33)	2440(4)	452(3)	8829(6)	65(3)
C(34)	2896(4)	652(3)	8660(5)	51(2)
C(35)	4098(3)	-1324(2)	7406(6)	46(2)
C(36)	3779(3)	-1842(2)	6415(6)	54(2)
C(37)	4216(3)	-2076(2)	6927(7)	63(2)
C(38)	3897(3)	-1720(3)	5428(6)	69(3)
C(39)	3294(3)	-2090(3)	6451(7)	75(3)
C(40)	4596(3)	-2309(3)	6302(7)	77(3)
C(41)	4046(4)	-2395(3)	7691(7)	78(3)
C(42)	2949(4)	1146(3)	8501(6)	62(3)
C(43)	3233(4)	1818(3)	8019(7)	74(3)
C(44)	2728(5)	1916(3)	8441(7)	104(4)
C(45)	3657(6)	2007(4)	8566(13)	159(7)
C(46)	3253(6)	1962(4)	7010(8)	141(6)
C(47)	2326(6)	1995(7)	7774(13)	267(15)
C(48)	2707(8)	2250(4)	9186(11)	240(13)
C(49)	4418(18)	2720(10)	5786(25)	409(31)
P(1)	3363(1)	-1656(1)	9875(2)	57(1)
F(1)	3336(2)	-1129(2)	10080(4)	83(2)
F(2)	3397(2)	-2180(2)	9660(4)	89(2)
F(3)	2826(2)	-1730(2)	10272(5)	111(2)
F(4)	3902(2)	-1580(2)	9459(4)	92(2)
F(5)	3152(2)	-1577(2)	8871(4)	96(2)
F(6)	3608(3)	-1740(2)	10849(4)	104(2)
P(2)	4360(1)	1383(1)	4923(2)	69(1)
F(7)	4122(3)	1392(2)	5917(4)	106(2)
F(8)	4646(4)	1327(3)	3999(5)	157(4)
F(9)	4010(7)	963(7)	4660(13)	114(7)
F(10)	4741(5)	1744(5)	5286(6)	100(5)
F(11)	4724(4)	999(4)	5415(7)	102(5)
F(12)	4071(7)	1711(5)	4411(13)	171(8)
F(13)	4351(11)	1950(6)	4981(25)	130(13)
F(14)	3774(9)	1521(12)	4779(24)	145(14)
F(15)	4886(7)	1406(10)	4947(22)	119(12)
F(16)	4272(14)	923(9)	4684(32)	120(18)

Table 9. Bond lengths [Å] for [Ag₂(bpy-im2)₂](PF₆)₂·CH₃OH (2).

Ag(1)-N(9)	2.174(6)	Ag(1)-N(3)	2.200(6)
Ag(1)-N(7)	2.508(6)	Ag(1)-N(1)	2.534(6)
Ag(2)-N(11)	2.213(7)	Ag(2)-N(5)	2.230(7)
Ag(2)-N(2)	2.477(6)	Ag(2)-N(8)	2.552(6)
O(1)-N(4)	1.272(8)	O(2)-N(6)	1.259(9)
O(3)-N(10)	1.270(9)	O(4)-N(12)	1.265(10)
O(5)-C(49)	1.56(4)	N(1)-C(1)	1.338(9)
N(1)-C(5)	1.346(9)	N(2)-C(6)	1.326(9)
N(2)-C(10)	1.350(9)	N(3)-C(11)	1.271(9)
N(3)-C(12)	1.496(10)	N(4)-C(11)	1.381(9)
N(4)-C(13)	1.496(10)	N(5)-C(18)	1.267(10)
N(5)-C(19)	1.520(11)	N(6)-C(18)	1.402(10)
N(6)-C(20)	1.477(11)	N(7)-C(29)	1.329(9)
N(7)-C(25)	1.359(9)	N(8)-C(34)	1.332(10)
N(8)-C(30)	1.354(10)	N(9)-C(35)	1.267(10)
N(9)-C(36)	1.507(9)	N(10)-C(35)	1.391(9)
N(10)-C(37)	1.503(11)	N(11)-C(42)	1.277(11)
N(11)-C(43)	1.486(10)	N(12)-C(42)	1.402(11)
N(12)-C(44)	1.475(13)	C(1)-C(2)	1.392(10)
C(1)-C(11)	1.490(10)	C(2)-C(3)	1.384(10)
C(3)-C(4)	1.376(10)	C(4)-C(5)	1.404(10)
C(5)-C(6)	1.476(10)	C(6)-C(7)	1.397(10)
C(7)-C(8)	1.357(10)	C(8)-C(9)	1.380(10)
C(9)-C(10)	1.410(10)	C(10)-C(18)	1.461(10)
C(12)-C(13)	1.501(13)	C(12)-C(15)	1.52(2)
C(12)-C(14)	1.56(2)	C(13)-C(16)	1.514(14)
C(13)-C(17)	1.532(14)	C(19)-C(22)	1.475(14)
C(19)-C(20)	1.493(13)	C(19)-C(21)	1.55(2)
C(20)-C(23)	1.481(14)	C(20)-C(24)	1.58(2)
C(25)-C(26)	1.389(10)	C(25)-C(35)	1.477(10)
C(26)-C(27)	1.374(11)	C(27)-C(28)	1.394(11)
C(28)-C(29)	1.380(11)	C(29)-C(30)	1.493(11)
C(30)-C(31)	1.386(11)	C(31)-C(32)	1.396(11)
C(32)-C(33)	1.384(12)	C(33)-C(34)	1.381(12)
C(34)-C(42)	1.492(12)	C(36)-C(39)	1.498(11)
C(36)-C(38)	1.511(12)	C(36)-C(37)	1.552(12)
C(37)-C(40)	1.528(11)	C(37)-C(41)	1.529(12)
C(43)-C(45)	1.50(2)	C(43)-C(44)	1.51(2)
C(43)-C(46)	1.526(14)	C(44)-C(48)	1.467(5)
C(44)-C(47)	1.470(5)		
P(1)-F(3)	1.570(6)	P(1)-F(5)	1.579(6)
P(1)-F(6)	1.578(6)	P(1)-F(4)	1.584(6)
P(1)-F(2)	1.590(5)	P(1)-F(1)	1.592(5)
P(2)-F(15)	1.41(2)	P(2)-F(16)	1.43(3)
P(2)-F(12)	1.449(11)	P(2)-F(8)	1.554(7)
P(2)-F(10)	1.572(9)	P(2)-F(7)	1.577(6)
P(2)-F(9)	1.61(2)	P(2)-F(14)	1.64(2)
P(2)-F(11)	1.662(9)	P(2)-F(13)	1.68(2)
F(8)-F(15)	1.54(3)		

Table 10. Bond angles [°] for [Ag₂(bpy-im2)₂](PF₆)₂·CH₃OH (2).

N(9)-Ag(1)-N(3)	150.8(2)	N(9)-Ag(1)-N(7)	71.6(2)
N(3)-Ag(1)-N(7)	133.6(2)	N(9)-Ag(1)-N(1)	129.6(2)
N(3)-Ag(1)-N(1)	70.9(2)	N(7)-Ag(1)-N(1)	93.5(2)
N(11)-Ag(2)-N(5)	150.5(3)	N(11)-Ag(2)-N(2)	136.6(2)
N(5)-Ag(2)-N(2)	70.9(2)	N(11)-Ag(2)-N(8)	70.6(2)
N(5)-Ag(2)-N(8)	127.0(2)	N(2)-Ag(2)-N(8)	93.5(2)
C(1)-N(1)-C(5)	118.4(6)	C(1)-N(1)-Ag(1)	110.4(4)
C(5)-N(1)-Ag(1)	127.9(5)	C(6)-N(2)-C(10)	118.8(6)
C(6)-N(2)-Ag(2)	128.2(5)	C(10)-N(2)-Ag(2)	111.7(4)
C(11)-N(3)-C(12)	109.1(7)	C(11)-N(3)-Ag(1)	119.0(5)
C(12)-N(3)-Ag(1)	130.3(5)	O(1)-N(4)-C(11)	127.9(7)
O(1)-N(4)-C(13)	122.7(6)	C(11)-N(4)-C(13)	109.3(6)
C(18)-N(5)-C(19)	109.0(7)	C(18)-N(5)-Ag(2)	118.2(5)
C(19)-N(5)-Ag(2)	132.3(6)	O(2)-N(6)-C(18)	128.5(7)
O(2)-N(6)-C(20)	122.2(7)	C(18)-N(6)-C(20)	108.9(7)
C(29)-N(7)-C(25)	118.3(7)	C(29)-N(7)-Ag(1)	129.8(5)
C(25)-N(7)-Ag(1)	109.9(4)	C(34)-N(8)-C(30)	116.6(7)
C(34)-N(8)-Ag(2)	110.1(5)	C(30)-N(8)-Ag(2)	128.3(5)
C(35)-N(9)-C(36)	109.5(6)	C(35)-N(9)-Ag(1)	119.5(5)
C(36)-N(9)-Ag(1)	130.7(5)	O(3)-N(10)-C(35)	127.1(7)
O(3)-N(10)-C(37)	123.0(6)	C(35)-N(10)-C(37)	109.0(7)
C(42)-N(11)-C(43)	108.4(7)	C(42)-N(11)-Ag(2)	118.8(5)
C(43)-N(11)-Ag(2)	131.6(7)	O(4)-N(12)-C(42)	124.6(9)
O(4)-N(12)-C(44)	125.2(8)	C(42)-N(12)-C(44)	110.2(9)
N(1)-C(1)-C(2)	122.8(7)	N(1)-C(1)-C(11)	113.7(6)
C(2)-C(1)-C(11)	123.4(7)	C(3)-C(2)-C(1)	118.3(7)
C(4)-C(3)-C(2)	120.0(7)	C(3)-C(4)-C(5)	118.2(7)
N(1)-C(5)-C(4)	122.3(7)	N(1)-C(5)-C(6)	116.7(6)
C(4)-C(5)-C(6)	120.9(6)	N(2)-C(6)-C(7)	122.3(7)
N(2)-C(6)-C(5)	116.9(6)	C(7)-C(6)-C(5)	120.8(7)
C(8)-C(7)-C(6)	118.6(7)	C(7)-C(8)-C(9)	121.1(7)
C(8)-C(9)-C(10)	117.0(7)	N(2)-C(10)-C(9)	122.1(7)
N(2)-C(10)-C(18)	114.1(6)	C(9)-C(10)-C(18)	123.8(7)
N(3)-C(11)-N(4)	113.6(7)	N(3)-C(11)-C(1)	123.3(7)
N(4)-C(11)-C(1)	123.1(7)	C(13)-C(12)-N(3)	106.3(7)
C(13)-C(12)-C(15)	112.9(9)	N(3)-C(12)-C(15)	106.4(9)
C(13)-C(12)-C(14)	112.1(11)	N(3)-C(12)-C(14)	105.3(7)
C(15)-C(12)-C(14)	113.1(13)	N(4)-C(13)-C(12)	101.3(6)
N(4)-C(13)-C(16)	106.2(8)	C(12)-C(13)-C(16)	118.9(10)
N(4)-C(13)-C(17)	105.8(8)	C(12)-C(13)-C(17)	114.8(8)
C(16)-C(13)-C(17)	108.3(11)	N(5)-C(18)-N(6)	113.0(7)
N(5)-C(18)-C(10)	123.6(7)	N(6)-C(18)-C(10)	123.4(7)
C(22)-C(19)-C(20)	116.8(9)	C(22)-C(19)-N(5)	107.5(9)
C(20)-C(19)-N(5)	105.0(7)	C(22)-C(19)-C(21)	115.7(12)
C(20)-C(19)-C(21)	106.3(11)	N(5)-C(19)-C(21)	104.3(8)
N(6)-C(20)-C(23)	108.9(8)	N(6)-C(20)-C(19)	102.3(7)
C(23)-C(20)-C(19)	121.0(10)	N(6)-C(20)-C(24)	102.9(8)
C(23)-C(20)-C(24)	108.3(11)	C(19)-C(20)-C(24)	111.7(8)
N(7)-C(25)-C(26)	121.6(7)	N(7)-C(25)-C(35)	113.8(7)
C(26)-C(25)-C(35)	124.6(7)	C(27)-C(26)-C(25)	119.7(7)
C(26)-C(27)-C(28)	118.3(8)	C(29)-C(28)-C(27)	119.2(7)
N(7)-C(29)-C(28)	122.9(7)	N(7)-C(29)-C(30)	115.1(7)
C(28)-C(29)-C(30)	122.0(7)	N(8)-C(30)-C(31)	123.6(7)

Table 10. Continued.

N(8)-C(30)-C(29)	115.6(8)	C(31)-C(30)-C(29)	120.7(7)
C(30)-C(31)-C(32)	118.2(8)	C(33)-C(32)-C(31)	118.7(9)
C(34)-C(33)-C(32)	118.7(8)	N(8)-C(34)-C(33)	124.1(8)
N(8)-C(34)-C(42)	113.6(8)	C(33)-C(34)-C(42)	122.2(8)
N(9)-C(35)-N(10)	113.7(7)	N(9)-C(35)-C(25)	123.8(7)
N(10)-C(35)-C(25)	122.6(7)	C(39)-C(36)-C(38)	109.5(8)
C(39)-C(36)-N(9)	108.4(6)	C(38)-C(36)-N(9)	105.6(6)
C(39)-C(36)-C(37)	114.9(7)	C(38)-C(36)-C(37)	113.7(7)
N(9)-C(36)-C(37)	104.1(7)	N(10)-C(37)-C(40)	110.9(7)
N(10)-C(37)-C(41)	106.6(8)	C(40)-C(37)-C(41)	110.5(7)
N(10)-C(37)-C(36)	99.7(6)	C(40)-C(37)-C(36)	115.0(8)
C(41)-C(37)-C(36)	113.5(7)	N(11)-C(42)-N(12)	112.7(8)
N(11)-C(42)-C(34)	123.5(8)	N(12)-C(42)-C(34)	123.8(9)
N(11)-C(43)-C(45)	105.0(8)	N(11)-C(43)-C(44)	107.5(8)
C(45)-C(43)-C(44)	113.2(10)	N(11)-C(43)-C(46)	107.0(8)
C(45)-C(43)-C(46)	112.1(12)	C(44)-C(43)-C(46)	111.5(9)
C(48)-C(44)-C(47)	110.4(14)	C(48)-C(44)-N(12)	108.8(9)
C(47)-C(44)-N(12)	103.4(10)	C(48)-C(44)-C(43)	117.6(12)
C(47)-C(44)-C(43)	115.0(11)	N(12)-C(44)-C(43)	100.0(7)
F(3)-P(1)-F(5)	91.7(4)	F(3)-P(1)-F(6)	91.8(4)
F(5)-P(1)-F(6)	176.3(4)	F(3)-P(1)-F(4)	179.2(4)
F(5)-P(1)-F(4)	87.5(4)	F(6)-P(1)-F(4)	89.0(4)
F(3)-P(1)-F(2)	89.2(3)	F(5)-P(1)-F(2)	89.1(3)
F(6)-P(1)-F(2)	89.7(3)	F(4)-P(1)-F(2)	90.7(3)
F(3)-P(1)-F(1)	91.6(3)	F(5)-P(1)-F(1)	90.6(3)
F(6)-P(1)-F(1)	90.5(3)	F(4)-P(1)-F(1)	88.5(3)
F(2)-P(1)-F(1)	179.2(3)	F(15)-P(2)-F(16)	103(2)
F(15)-P(2)-F(8)	62.1(12)	F(16)-P(2)-F(8)	77(2)
F(12)-P(2)-F(8)	83.9(9)	F(12)-P(2)-F(10)	93.6(7)
F(8)-P(2)-F(10)	92.3(5)	F(15)-P(2)-F(7)	112.4(13)
F(16)-P(2)-F(7)	100(2)	F(12)-P(2)-F(7)	104.0(10)
F(8)-P(2)-F(7)	172.2(5)	F(10)-P(2)-F(7)	86.9(5)
F(12)-P(2)-F(9)	94.9(10)	F(8)-P(2)-F(9)	90.1(7)
F(10)-P(2)-F(9)	171.3(9)	F(7)-P(2)-F(9)	89.6(7)
F(15)-P(2)-F(14)	162(2)	F(16)-P(2)-F(14)	93(2)
F(8)-P(2)-F(14)	113.0(13)	F(7)-P(2)-F(14)	74.0(13)
F(12)-P(2)-F(11)	174.2(10)	F(8)-P(2)-F(11)	90.3(5)
F(10)-P(2)-F(11)	86.5(7)	F(7)-P(2)-F(11)	81.8(4)
F(9)-P(2)-F(11)	85.1(8)	F(15)-P(2)-F(13)	88.0(14)
F(16)-P(2)-F(13)	165(2)	F(8)-P(2)-F(13)	99.0(10)
F(7)-P(2)-F(13)	86.1(10)	F(14)-P(2)-F(13)	75.1(14)
F(15)-F(8)-P(2)	54.4(9)	P(2)-F(15)-F(8)	63.4(9)

Table 11. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $[\text{Ag}_2(\text{bpy-im}2)_2](\text{PF}_6)_2 \cdot \text{CH}_3\text{OH}$ (2).
 The anisotropic displacement factor exponent takes the form: $-2\pi^2 [h^2 a^{*2} U_{11} + \dots + 2hk a^* b^* U_{12}]$

	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
Ag (1)	44 (1)	36 (1)	71 (1)	0 (1)	2 (1)	7 (1)
Ag (2)	72 (1)	39 (1)	66 (1)	-5 (1)	2 (1)	13 (1)
O (1)	62 (4)	64 (4)	96 (5)	6 (4)	-9 (4)	-2 (3)
O (2)	62 (4)	108 (6)	97 (5)	-18 (5)	1 (4)	-9 (4)
O (3)	68 (4)	54 (4)	133 (6)	1 (4)	-2 (4)	24 (3)
O (4)	119 (7)	71 (5)	138 (7)	-6 (5)	43 (6)	39 (5)
O (5)	165 (12)	201 (16)	655 (44)	192 (22)	-162 (20)	-96 (12)
N (1)	38 (4)	30 (3)	47 (4)	-2 (3)	3 (3)	0 (3)
N (2)	42 (4)	29 (3)	48 (4)	5 (3)	-6 (3)	-7 (3)
N (3)	41 (4)	30 (3)	70 (4)	10 (3)	12 (3)	0 (3)
N (4)	41 (4)	37 (4)	77 (5)	6 (4)	2 (4)	-2 (3)
N (5)	62 (4)	36 (4)	59 (4)	11 (3)	-12 (4)	-6 (3)
N (6)	55 (5)	56 (4)	64 (5)	-2 (4)	-15 (4)	-6 (4)
N (7)	51 (4)	23 (3)	47 (4)	6 (3)	1 (3)	8 (3)
N (8)	58 (4)	38 (4)	39 (4)	5 (3)	4 (3)	14 (3)
N (9)	50 (4)	26 (3)	66 (5)	-2 (3)	12 (4)	1 (3)
N (10)	46 (4)	31 (3)	89 (5)	5 (4)	7 (4)	12 (3)
N (11)	92 (6)	34 (4)	58 (5)	3 (3)	8 (4)	25 (4)
N (12)	97 (7)	61 (5)	97 (7)	-6 (5)	23 (6)	43 (5)
C (1)	44 (5)	34 (4)	44 (4)	-1 (3)	5 (4)	5 (3)
C (2)	42 (5)	41 (4)	55 (5)	3 (4)	6 (4)	5 (4)
C (3)	59 (6)	38 (4)	60 (5)	-1 (4)	5 (4)	6 (4)
C (4)	46 (5)	31 (4)	57 (5)	7 (4)	-4 (4)	-3 (4)
C (5)	37 (4)	36 (4)	37 (4)	-2 (3)	3 (3)	-3 (3)
C (6)	36 (4)	32 (4)	42 (4)	7 (3)	5 (3)	-4 (3)
C (7)	48 (5)	32 (4)	53 (5)	-7 (4)	5 (4)	1 (4)
C (8)	48 (5)	34 (4)	67 (6)	-7 (4)	10 (4)	6 (4)
C (9)	48 (5)	43 (5)	58 (5)	-1 (4)	5 (4)	1 (4)
C (10)	43 (5)	36 (4)	37 (4)	6 (3)	-6 (4)	-4 (3)
C (11)	35 (4)	47 (5)	55 (5)	-2 (4)	4 (4)	-5 (4)
C (12)	55 (6)	55 (5)	103 (8)	10 (5)	30 (6)	-12 (4)
C (13)	42 (5)	59 (5)	73 (6)	0 (5)	-3 (4)	-9 (4)
C (14)	97 (10)	61 (8)	467 (34)	-93 (13)	86 (15)	-33 (7)
C (15)	52 (7)	314 (23)	217 (18)	210 (18)	-10 (9)	-43 (10)
C (16)	320 (25)	88 (9)	172 (15)	12 (10)	-134 (16)	-92 (13)
C (17)	99 (9)	155 (12)	137 (11)	79 (10)	55 (9)	67 (9)

Table 11. Continued.

	U_{11}	U_{22}	U_{33}	U_{23}	U_{13}	U_{12}
C(18)	47(5)	38(4)	52(5)	6(4)	-12(4)	-1(4)
C(19)	99(8)	54(5)	53(5)	-14(4)	-10(5)	-32(5)
C(20)	55(6)	41(5)	107(8)	2(5)	-26(6)	-14(4)
C(21)	272(21)	181(15)	78(9)	42(9)	-70(11)	-149(15)
C(22)	63(7)	71(8)	382(26)	-102(12)	12(12)	-17(6)
C(23)	131(12)	132(11)	181(15)	-79(11)	-94(11)	41(10)
C(24)	158(13)	72(8)	183(14)	8(9)	53(11)	-40(9)
C(25)	48(5)	28(4)	51(5)	13(4)	1(4)	7(3)
C(26)	41(5)	40(4)	68(6)	6(4)	-4(4)	14(4)
C(27)	50(5)	39(5)	70(6)	2(4)	-6(4)	7(4)
C(28)	77(6)	37(4)	41(5)	2(4)	-2(4)	4(4)
C(29)	61(5)	34(4)	44(5)	8(4)	6(4)	7(4)
C(30)	64(5)	46(5)	32(4)	1(4)	-2(4)	13(4)
C(31)	68(6)	43(5)	47(5)	2(4)	2(4)	5(5)
C(32)	63(6)	64(6)	48(5)	2(5)	-2(4)	10(5)
C(33)	81(7)	68(6)	45(5)	-2(5)	0(5)	37(6)
C(34)	65(6)	46(5)	42(5)	2(4)	4(4)	22(5)
C(35)	53(5)	21(3)	64(5)	9(4)	7(4)	3(3)
C(36)	68(6)	25(4)	68(6)	-8(4)	15(5)	5(4)
C(37)	64(6)	26(4)	100(7)	-8(5)	18(5)	8(4)
C(38)	73(7)	48(5)	86(7)	-13(5)	1(5)	4(5)
C(39)	74(6)	32(4)	118(8)	-15(5)	19(6)	-9(4)
C(40)	84(7)	39(5)	110(8)	-3(5)	32(6)	19(5)
C(41)	110(8)	30(4)	95(7)	8(5)	25(6)	-2(5)
C(42)	102(8)	39(5)	45(5)	2(4)	0(5)	31(5)
C(43)	111(8)	31(4)	79(7)	8(5)	17(6)	32(5)
C(44)	151(12)	54(6)	107(9)	21(6)	28(9)	53(7)
C(45)	153(13)	43(6)	281(21)	-45(10)	-28(15)	19(8)
C(46)	244(17)	76(8)	104(10)	45(7)	77(11)	78(10)
C(47)	181(19)	329(31)	290(27)	230(25)	27(18)	129(20)
C(48)	402(31)	60(8)	257(22)	-59(11)	226(23)	-19(13)
C(49)	721(79)	179(25)	328(41)	-122(28)	34(44)	179(36)
P(1)	81(2)	34(1)	54(2)	1(1)	2(1)	-5(1)
F(1)	116(5)	36(3)	97(4)	-2(3)	2(4)	5(3)
F(2)	135(5)	37(3)	95(4)	-3(3)	17(4)	-9(3)
F(3)	100(5)	92(4)	140(6)	-14(4)	50(4)	-13(4)
F(4)	75(4)	67(3)	135(5)	9(3)	19(4)	-6(3)
F(5)	127(5)	96(4)	66(4)	15(3)	-29(3)	-22(4)
F(6)	171(6)	66(4)	76(4)	10(3)	-37(4)	-3(4)
P(2)	71(2)	72(2)	63(2)	4(1)	6(1)	-12(1)
F(7)	145(6)	85(4)	88(4)	-1(3)	39(4)	-1(4)
F(8)	252(11)	126(7)	93(5)	-5(5)	69(6)	-55(7)
F(9)	125(14)	123(13)	94(9)	-9(7)	14(10)	-69(11)
F(10)	126(11)	99(10)	74(6)	-7(6)	7(7)	-56(9)
F(11)	113(9)	98(9)	96(8)	29(6)	20(6)	54(7)
F(12)	155(15)	87(9)	271(19)	75(11)	-140(15)	-35(10)
F(13)	96(19)	51(12)	243(34)	25(17)	45(21)	-3(12)
F(14)	85(18)	155(29)	195(31)	-62(22)	-68(19)	-14(17)
F(15)	56(12)	133(25)	167(27)	-44(21)	-35(14)	32(14)
F(16)	137(32)	30(10)	193(35)	-21(14)	88(31)	-27(16)

Table 12. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $[\text{Ag}_2(\text{bpy-im}2)_2](\text{PF}_6)_2 \cdot \text{CH}_3\text{OH}$ (2).

	x	y	z	U(eq)
H(2)	1962(3)	432(2)	6120(5)	55
H(3)	2546(3)	1000(3)	5893(6)	63
H(4)	3389(3)	828(2)	5934(5)	54
H(7)	3739(3)	-562(2)	5397(5)	53
H(8)	4568(3)	-740(2)	5372(6)	60
H(9)	5147(3)	-276(2)	6093(5)	60
H(14A)	2258(5)	-1698(4)	6645(16)	312
H(14B)	2041(5)	-1458(4)	5770(16)	312
H(14C)	1693(5)	-1753(4)	6394(16)	312
H(15A)	2101(4)	-1389(7)	8206(11)	292
H(15B)	1519(4)	-1413(7)	8124(11)	292
H(15C)	1779(4)	-953(7)	8349(11)	292
H(16A)	832(7)	-888(5)	5678(11)	290
H(16B)	978(7)	-1372(5)	6015(11)	290
H(16C)	1318(7)	-1117(5)	5307(11)	290
H(17A)	756(4)	-567(5)	7073(9)	195
H(17B)	1194(4)	-522(5)	7781(9)	195
H(17C)	905(4)	-979(5)	7692(9)	195
H(21A)	5357(7)	511(5)	8939(8)	266
H(21B)	4971(7)	854(5)	9348(8)	266
H(21C)	5540(7)	975(5)	9332(8)	266
H(22A)	4797(4)	1576(4)	8411(14)	258
H(22B)	5020(4)	1620(4)	7416(14)	258
H(22C)	5362(4)	1696(4)	8278(14)	258
H(23A)	6370(5)	690(5)	7490(11)	222
H(23B)	6068(5)	515(5)	8344(11)	222
H(23C)	6249(5)	1018(5)	8308(11)	222
H(24A)	5479(6)	1342(4)	6402(10)	206
H(24B)	6003(6)	1118(4)	6267(10)	206
H(24C)	5937(6)	1513(4)	6973(10)	206
H(26)	4907(3)	-941(3)	8227(6)	60
H(27)	4948(3)	-269(3)	9041(6)	63
H(28)	4215(3)	148(3)	9243(5)	62
H(31)	2849(3)	-575(3)	8829(5)	63
H(32)	2113(3)	-156(3)	9000(5)	70
H(33)	2155(4)	628(3)	8898(6)	78
H(38A)	4208(3)	-1560(3)	5405(6)	103
H(38B)	3637(3)	-1532(3)	5186(6)	103
H(38C)	3922(3)	-1990(3)	5066(6)	103
H(39A)	3219(3)	-2168(3)	7079(7)	112
H(39B)	3318(3)	-2360(3)	6089(7)	112
H(39C)	3034(3)	-1902(3)	6210(7)	112

Table 12. Continued.

	<i>x</i>	<i>y</i>	<i>z</i>	<i>U</i> (eq)
H(40A)	4699(3)	-2104(3)	5827(7)	116
H(40B)	4446(3)	-2570(3)	6027(7)	116
H(40C)	4880(3)	-2398(3)	6660(7)	116
H(41A)	3808(4)	-2244(3)	8077(7)	117
H(41B)	4328(4)	-2485(3)	8054(7)	117
H(41C)	3894(4)	-2658(3)	7422(7)	117
H(45A)	3966(6)	1935(4)	8266(13)	239
H(45B)	3655(6)	1879(4)	9173(13)	239
H(45C)	3623(6)	2329(4)	8608(13)	239
H(46A)	2975(6)	1834(4)	6685(8)	212
H(46B)	3558(6)	1857(4)	6739(8)	212
H(46C)	3238(6)	2285(4)	6971(8)	212
H(47A)	2344(6)	1775(7)	7291(13)	400
H(47B)	2360(6)	2292(7)	7515(13)	400
H(47C)	2010(6)	1971(7)	8080(13)	400
H(48A)	2971(8)	2194(4)	9616(11)	359
H(48B)	2392(8)	2227(4)	9497(11)	359
H(48C)	2743(8)	2548(4)	8932(11)	359