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Table 5. Bond Angles(°)

atom	atom	atom	angle	atom	atom	atom	angle
P(1)	Au(1)	N(1)	175.3(5)	P(1)	Au(1)	C(1)	98.3(5)
P(1)	Au(1)	C(17)	103.0(5)	N(1)	Au(1)	C(1)	80.1(7)
N(1)	Au(1)	C(17)	78.8(7)	C(1)	Au(1)	C(17)	158.7(7)
P(2)	Au(2)	N(2)	173.9(5)	P(2)	Au(2)	C(18)	95.5(5)
P(2)	Au(2)	C(34)	103.1(5)	N(2)	Au(2)	C(18)	83.1(7)
N(2)	Au(2)	C(34)	78.9(8)	C(18)	Au(2)	C(34)	160.8(7)
P(3)	Au(3)	N(3)	175.8(5)	P(3)	Au(3)	C(60)	97.3(5)
P(3)	Au(3)	C(76)	104.1(5)	N(3)	Au(3)	C(60)	80.6(6)
N(3)	Au(3)	C(76)	78.2(6)	C(60)	Au(3)	C(76)	158.3(7)
P(4)	Au(4)	N(4)	172.8(4)	P(4)	Au(4)	C(77)	95.6(5)
P(4)	Au(4)	C(93)	105.1(6)	N(4)	Au(4)	C(77)	80.5(7)
N(4)	Au(4)	C(93)	79.4(7)	C(77)	Au(4)	C(93)	158.6(7)
O(1)	Cl(1)	O(2)	108(1)	O(1)	Cl(1)	O(3)	108(1)
O(1)	Cl(1)	O(4)	113(1)	O(2)	Cl(1)	O(3)	112(1)
O(2)	Cl(1)	O(4)	109(1)	O(3)	Cl(1)	O(4)	104(1)
O(5)	Cl(2)	O(6)	100(2)	O(5)	Cl(2)	O(7)	103(2)
O(5)	Cl(2)	O(8)	126(3)	O(6)	Cl(2)	O(7)	107(2)
O(6)	Cl(2)	O(8)	113(2)	O(7)	Cl(2)	O(8)	104(2)
O(9)	Cl(3)	O(10)	103(2)	O(9)	Cl(3)	O(11)	109(1)
O(9)	Cl(3)	O(12)	96(1)	O(10)	Cl(3)	O(11)	108(1)
O(10)	Cl(3)	O(12)	129(1)	O(11)	Cl(3)	O(12)	107(1)
O(13)	Cl(4)	O(14)	96(1)	O(13)	Cl(4)	O(15)	117(1)
O(13)	Cl(4)	O(16)	115(2)	O(14)	Cl(4)	O(15)	91(1)
O(14)	Cl(4)	O(16)	96(2)	O(15)	Cl(4)	O(16)	125(2)

Table 5. Bond Angles(°) (continued)

atom	atom	atom	angle	atom	atom	atom	angle
Au(1)	P(1)	C(35)	113.4(6)	Au(1)	P(1)	C(36)	112.4(6)
Au(1)	P(1)	C(42)	113.1(7)	C(35)	P(1)	C(36)	104.6(9)
C(35)	P(1)	C(42)	111.9(9)	C(36)	P(1)	C(42)	100.5(8)
Au(2)	P(2)	C(35)	113.8(6)	Au(2)	P(2)	C(48)	120.3(6)
Au(2)	P(2)	C(54)	108.7(6)	C(35)	P(2)	C(48)	102.1(9)
C(35)	P(2)	C(54)	105.6(9)	C(48)	P(2)	C(54)	105.2(9)
Au(3)	P(3)	C(94)	112.4(5)	Au(3)	P(3)	C(95)	111.7(6)
Au(3)	P(3)	C(101)	116.2(7)	C(94)	P(3)	C(95)	105.1(9)
C(94)	P(3)	C(101)	111.2(8)	C(95)	P(3)	C(101)	98.9(8)
Au(4)	P(4)	C(94)	113.7(5)	Au(4)	P(4)	C(107)	107.5(6)
Au(4)	P(4)	C(113)	119.5(7)	C(94)	P(4)	C(107)	106.3(9)
C(94)	P(4)	C(113)	103.2(8)	C(107)	P(4)	C(113)	105.6(9)
Au(1)	N(1)	C(7)	115(1)	Au(1)	N(1)	C(11)	116(1)
C(7)	N(1)	C(11)	127(1)	Au(2)	N(2)	C(24)	114(1)
Au(2)	N(2)	C(28)	119(1)	C(24)	N(2)	C(28)	125(1)
Au(3)	N(3)	C(66)	116(1)	Au(3)	N(3)	C(70)	118(1)
C(66)	N(3)	C(70)	124(1)	Au(4)	N(4)	C(83)	115(1)
Au(4)	N(4)	C(87)	117(1)	C(83)	N(4)	C(87)	126(1)
C(119)	N(5)	C(120)	124(2)	C(119)	N(5)	C(121)	125(3)
C(120)	N(5)	C(121)	110(2)	C(122)	N(6)	C(123)	104(3)
C(122)	N(6)	C(124)	131(3)	C(123)	N(6)	C(124)	122(3)
C(125)	N(7)	C(126)	125(4)	C(125)	N(7)	C(127)	103(3)
C(126)	N(7)	C(127)	127(4)	Au(1)	C(1)	C(2)	131(1)
Au(1)	C(1)	C(6)	110(1)	C(2)	C(1)	C(6)	117(1)

Table 5. Bond Angles(°) (continued)

atom	atom	atom	angle	atom	atom	atom	angle
C(1)	C(2)	C(3)	121(1)	C(2)	C(3)	C(4)	120(1)
C(3)	C(4)	C(5)	116(1)	C(4)	C(5)	C(6)	122(2)
C(1)	C(6)	C(5)	121(1)	C(1)	C(6)	C(7)	118(1)
C(5)	C(6)	C(7)	120(1)	N(1)	C(7)	C(6)	114(1)
N(1)	C(7)	C(8)	113(1)	C(6)	C(7)	C(8)	130(1)
C(7)	C(8)	C(9)	120(2)	C(8)	C(9)	C(10)	120(1)
C(9)	C(10)	C(11)	120(2)	N(1)	C(11)	C(10)	116(1)
N(1)	C(11)	C(12)	114(1)	C(10)	C(11)	C(12)	128(1)
C(11)	C(12)	C(13)	122(1)	C(11)	C(12)	C(17)	116(1)
C(13)	C(12)	C(17)	120(1)	C(12)	C(13)	C(14)	121(1)
C(13)	C(14)	C(15)	119(1)	C(14)	C(15)	C(16)	120(1)
C(15)	C(16)	C(17)	122(1)	Au(1)	C(17)	C(12)	112(1)
Au(1)	C(17)	C(16)	130(1)	C(12)	C(17)	C(16)	116(1)
Au(2)	C(18)	C(19)	132(1)	Au(2)	C(18)	C(23)	107(1)
C(19)	C(18)	C(23)	119(1)	C(18)	C(19)	C(20)	122(1)
C(19)	C(20)	C(21)	119(2)	C(20)	C(21)	C(22)	120(2)
C(21)	C(22)	C(23)	122(2)	C(18)	C(23)	C(22)	115(1)
C(18)	C(23)	C(24)	118(1)	C(22)	C(23)	C(24)	124(1)
N(2)	C(24)	C(23)	115(1)	N(2)	C(24)	C(25)	112(2)
C(23)	C(24)	C(25)	131(2)	C(24)	C(25)	C(26)	122(2)
C(25)	C(26)	C(27)	121(2)	C(26)	C(27)	C(28)	117(2)
N(2)	C(28)	C(27)	120(2)	N(2)	C(28)	C(29)	113(1)
C(27)	C(28)	C(29)	126(2)	C(28)	C(29)	C(30)	123(2)
C(28)	C(29)	C(34)	117(1)	C(30)	C(29)	C(34)	118(2)

Table 5. Bond Angles(°) (continued)

atom	atom	atom	angle	atom	atom	atom	angle
C(29)	C(30)	C(31)	120(2)	C(30)	C(31)	C(32)	119(2)
C(31)	C(32)	C(33)	121(2)	C(32)	C(33)	C(34)	119(2)
Au(2)	C(34)	C(29)	110(1)	Au(2)	C(34)	C(33)	130(1)
C(29)	C(34)	C(33)	119(1)	P(1)	C(35)	P(2)	124.0(10)
P(1)	C(36)	C(37)	117(1)	P(1)	C(36)	C(41)	124(1)
C(37)	C(36)	C(41)	117(1)	C(36)	C(37)	C(38)	121(2)
C(37)	C(38)	C(39)	122(2)	C(38)	C(39)	C(40)	118(2)
C(39)	C(40)	C(41)	123(2)	C(36)	C(41)	C(40)	117(1)
P(1)	C(42)	C(43)	120(1)	P(1)	C(42)	C(47)	118(1)
C(43)	C(42)	C(47)	120(1)	C(42)	C(43)	C(44)	120(2)
C(43)	C(44)	C(45)	118(2)	C(44)	C(45)	C(46)	122(2)
C(45)	C(46)	C(47)	119(2)	C(42)	C(47)	C(46)	119(2)
P(2)	C(48)	C(49)	122(1)	P(2)	C(48)	C(53)	116(1)
C(49)	C(48)	C(53)	121(1)	C(48)	C(49)	C(50)	122(2)
C(49)	C(50)	C(51)	113(2)	C(50)	C(51)	C(52)	124(2)
C(51)	C(52)	C(53)	118(2)	C(48)	C(53)	C(52)	118(2)
P(2)	C(54)	C(55)	123(1)	P(2)	C(54)	C(59)	116(1)
C(55)	C(54)	C(59)	119(1)	C(54)	C(55)	C(56)	121(2)
C(55)	C(56)	C(57)	117(2)	C(56)	C(57)	C(58)	123(2)
C(57)	C(58)	C(59)	116(2)	C(54)	C(59)	C(58)	120(2)
Au(3)	C(60)	C(61)	131(1)	Au(3)	C(60)	C(65)	110(1)
C(61)	C(60)	C(65)	117(1)	C(60)	C(61)	C(62)	121(1)
C(61)	C(62)	C(63)	118(1)	C(62)	C(63)	C(64)	120(1)
C(63)	C(64)	C(65)	121(1)	C(60)	C(65)	C(64)	119(1)

Table 5. Bond Angles(°) (continued)

atom	atom	atom	angle	atom	atom	atom	angle
C(60)	C(65)	C(66)	117(1)	C(64)	C(65)	C(66)	122(1)
N(3)	C(66)	C(65)	114(1)	N(3)	C(66)	C(67)	117(1)
C(65)	C(66)	C(67)	127(1)	C(66)	C(67)	C(68)	118(1)
C(67)	C(68)	C(69)	121(1)	C(68)	C(69)	C(70)	120(1)
N(3)	C(70)	C(69)	117(1)	N(3)	C(70)	C(71)	113(1)
C(69)	C(70)	C(71)	129(1)	C(70)	C(71)	C(72)	121(1)
C(70)	C(71)	C(76)	118(1)	C(72)	C(71)	C(76)	120(1)
C(71)	C(72)	C(73)	120(1)	C(72)	C(73)	C(74)	118(1)
C(73)	C(74)	C(75)	121(1)	C(74)	C(75)	C(76)	121(1)
Au(3)	C(76)	C(71)	111(1)	Au(3)	C(76)	C(75)	131(1)
C(71)	C(76)	C(75)	117(1)	Au(4)	C(77)	C(78)	131(1)
Au(4)	C(77)	C(82)	109(1)	C(78)	C(77)	C(82)	118(1)
C(77)	C(78)	C(79)	119(1)	C(78)	C(79)	C(80)	122(2)
C(79)	C(80)	C(81)	118(1)	C(80)	C(81)	C(82)	121(1)
C(77)	C(82)	C(81)	119(2)	C(77)	C(82)	C(83)	118(1)
C(81)	C(82)	C(83)	121(1)	N(4)	C(83)	C(82)	114(1)
N(4)	C(83)	C(84)	115(1)	C(82)	C(83)	C(84)	129(1)
C(83)	C(84)	C(85)	121(2)	C(84)	C(85)	C(86)	120(1)
C(85)	C(86)	C(87)	117(2)	N(4)	C(87)	C(86)	118(2)
N(4)	C(87)	C(88)	115(1)	C(86)	C(87)	C(88)	126(2)
C(87)	C(88)	C(89)	121(2)	C(87)	C(88)	C(93)	115(1)
C(89)	C(88)	C(93)	122(2)	C(88)	C(89)	C(90)	117(2)
C(89)	C(90)	C(91)	120(2)	C(90)	C(91)	C(92)	123(2)
C(91)	C(92)	C(93)	118(2)	Au(4)	C(93)	C(88)	111(1)

Table 5. Bond Angles(°) (continued)

atom	atom	atom	angle	atom	atom	atom	angle
Au(4)	C(93)	C(92)	130(1)	C(88)	C(93)	C(92)	117(1)
P(3)	C(94)	P(4)	123(1)	P(3)	C(95)	C(96)	115(1)
P(3)	C(95)	C(100)	124(1)	C(96)	C(95)	C(100)	120(1)
C(95)	C(96)	C(97)	120(2)	C(96)	C(97)	C(98)	120(2)
C(97)	C(98)	C(99)	119(2)	C(98)	C(99)	C(100)	118(2)
C(95)	C(100)	C(99)	120(2)	P(3)	C(101)	C(102)	119(1)
P(3)	C(101)	C(106)	119(1)	C(102)	C(101)	C(106)	121(1)
C(101)	C(102)	C(103)	118(2)	C(102)	C(103)	C(104)	119(2)
C(103)	C(104)	C(105)	123(2)	C(104)	C(105)	C(106)	118(2)
C(101)	C(106)	C(105)	120(2)	P(4)	C(107)	C(108)	123(1)
P(4)	C(107)	C(112)	117(1)	C(108)	C(107)	C(112)	118(2)
C(107)	C(108)	C(109)	118(2)	C(108)	C(109)	C(110)	122(2)
C(109)	C(110)	C(111)	120(2)	C(110)	C(111)	C(112)	116(2)
C(107)	C(112)	C(111)	123(2)	P(4)	C(113)	C(114)	118(1)
P(4)	C(113)	C(118)	122(1)	C(114)	C(113)	C(118)	119(1)
C(113)	C(114)	C(115)	117(2)	C(114)	C(115)	C(116)	122(2)
C(115)	C(116)	C(117)	119(2)	C(116)	C(117)	C(118)	120(2)
C(113)	C(118)	C(117)	119(2)	O(17)	C(119)	N(5)	123(3)
O(18)	C(122)	N(6)	114(3)	O(19)	C(125)	N(7)	112(4)

Table of Least-Squares Planes

---------- Plane number 1 ----------

Atoms Defining Plane	Distance	esd
N(1)	0.0070	0.0159
C(7)	-0.0047	0.0197
C(8)	-0.0067	0.0211
C(9)	0.0155	0.0243
C(10)	-0.0078	0.0234
C(11)	-0.0045	0.0188

Additional Atoms	Distance
N(2)	-3.4423
C(24)	-3.3346
C(25)	-3.4466
C(26)	-3.5715
C(27)	-3.5889
C(28)	-3.4880

Mean deviation from plane is 0.0077 angstroms
Chi-squared: 0.8

---------- Plane number 2 ----------

Atoms Defining Plane	Distance	esd
N(2)	-0.0317	0.0163
C(24)	0.0305	0.0198
C(25)	-0.0023	0.0256
C(26)	-0.0205	0.0285
C(27)	0.0022	0.0255
C(28)	0.0286	0.0196

Additional Atoms	Distance
N(1)	3.2916
C(7)	3.2152
C(8)	3.2700
C(9)	3.4034
C(10)	3.4382
C(11)	3.3886

Mean deviation from plane is 0.0193 angstroms
Chi-squared: 8.0

Dihedral angles between least-squares planes

plane	plane	angle
2	1	4.61

Table of Least-Squares Planes (continued)

---------- Plane number 3 ----------

Atoms Defining Plane	Distance	esd
N(3)	-0.0040	0.0157
C(66)	0.0125	0.0183
C(67)	-0.0189	0.0219
C(68)	0.0128	0.0251
C(69)	0.0013	0.0232
C(70)	-0.0019	0.0192

Additional Atoms	Distance
N(4)	-3.4056
C(83)	-3.3736
C(84)	-3.5382
C(85)	-3.6614
C(86)	-3.6471
C(87)	-3.4759

Mean deviation from plane is 0.0086 angstroms
Chi-squared: 1.4

Dihedral angles between least-squares planes

plane	plane	angle
3	1	8.50
3	2	13.10

---------- Plane number 4 ----------

Atoms Defining Plane	Distance	esd
N(4)	-0.0207	0.0142
C(83)	0.0196	0.0172
C(84)	-0.0068	0.0229
C(85)	-0.0054	0.0229
C(86)	-0.0050	0.0225
C(87)	0.0236	0.0184

Additional Atoms	Distance
N(3)	3.3181
C(66)	3.3074
C(67)	3.3982
C(68)	3.5713
C(69)	3.5809
C(70)	3.4557

Mean deviation from plane is 0.0135 angstroms
Chi-squared: 4.8

Dihedral angles between least-squares planes

plane	plane	angle
4	1	2.14
4	2	6.74
4	3	6.42

Crystal data for $[Au_2(C^N^C)_2(\mu\text{-dppe})](ClO_4)_2$, $6(ClO_4)_2 \cdot CH_3CN$

Complex $6(ClO_4)_2 \cdot CH_3CN$: ip 157

Crystal data. $\{[C_{60}H_{46}N_2P_2Au_2]^{2+}\ 2ClO_4^-\ .\ CH_3CN\}$; formula weight = 1490.88, monoclinic, space group *P2/c* (No. 13), a = 19.889(3) Å, b = 15.157(3) Å, c = 19.907 (3) Å, β = 101.87(2)°, V = 5872(1) Å^3, Z = 4, D_c = 1.686 g cm^{-3}, μ(Mo-Kα)= 52.10 cm^{-1}, F(000) = 2912, T = 301K. A yellow crystal of dimensions 0.20 x 0.15 x 0.30 mm in a sealed capillary tube was used for data collection at 28°C on a MAR diffractometer with a 300 mm image plate detector using graphite monochromatized Mo-Kα radiation (λ = 0.71073 Å). Data collection were made with 3° oscillation (64 images) at 120 mm distance and 240 s exposure. The images were interpreted and intensities integrated using program *DENZO* [1]. 10692 unique reflections were obtained from a total of 54914 measured reflections. 8200 reflections with $I > 3\ \sigma(I)$ were considered observed and used in the structural analysis. These reflections were in the range h : 0 to 24; k: 0 to 18; and l: -23 to 23 with a $2\theta_{max}$ = 51.3°. The space group was determined based on systematic absences and a statistical analysis of intensity distribution and the refinement of the structure solved by Patterson methods and expanded by Fourier methods (*PATTY* [2]) and refinement by full-matrix least-squares using the software package *TeXsan* [3] on a Silicon Graphics Indy computer. One crystallographic asymmetric unit consists of one complex cation, one perchlorate anion, two half perchlorate anions with the chlorine atoms at special positions with an occupation number of 0.5 and one CH_3CN solvent molecule. In the least-squares refinement, all 79 non-H atoms were refined anisotropically. 49 H atoms at calculated positions with thermal parameters equal to 1.3 times that of the attached C atoms were not refined. Convergence for 710 variable parameters by least-squares refinement on F with $w = 4\,F_o^2 / \sigma^2(F_o^2)$, where $\sigma^2(F_o^2) = [\,\sigma^2(I) + (0.040\,F_o^2)^2]$ for 8194 reflections with $I > 3\ \sigma(I)$ was reached at R = 0.037 and wR = 0.054 with a goodness-of-fit of 1.62. $(\Delta/\sigma)_{max}$ = 0.04 for atoms of the complex cation. The final difference Fourier map was featureless, with maximum positive and negative peaks of 2.02 and 1.55 e Å^{-3} respectively. The *ORTEP* [4] drawing of the complex cation with H atoms omitted shows thermal ellipsoids at the 50 % probability level and the numbering scheme.

Ref:

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Crystal data for $[Au_2(C^N^C)_2(\mu\text{-dppe})](ClO_4)_2$, $6(ClO_4)_2 \cdot CH_3CN$

Table 1. Atomic coordinates and B_{iso}/B_{eq}

atom	x	y	z	B_{eq}
Au(1)	0.16970(1)	0.15339(2)	0.09191(1)	3.366(6)
Au(2)	0.27041(1)	0.24000(2)	-0.06189(1)	3.589(6)
Cl(1)	0.5000	0.4251(3)	0.2500	6.89(9)
Cl(2)	1.0000	0.1067(3)	0.2500	7.15(8)
Cl(3)	0.2114(1)	0.3494(1)	0.5649(1)	6.42(6)
P(1)	0.18871(8)	0.2910(1)	0.13834(9)	3.20(3)
P(2)	0.35087(9)	0.3013(1)	0.02353(9)	3.48(4)
O(1)	0.4433(5)	0.3786(9)	0.2479(8)	16.0(5)
O(2)	0.4928(9)	0.466(1)	0.1904(7)	25.2(8)
O(3)	0.9530(5)	0.1513(7)	0.2034(5)	13.6(4)
O(4)	1.031(1)	0.063(1)	0.2157(8)	39(1)
O(5)	0.1738(9)	0.3365(10)	0.5014(6)	18.4(6)
O(6)	0.1694(7)	0.3298(6)	0.6090(6)	15.3(5)
O(7)	0.2643(5)	0.2906(6)	0.5716(8)	15.8(5)
O(8)	0.2371(4)	0.4346(5)	0.5753(6)	11.9(3)
N(1)	0.1438(3)	0.0328(4)	0.0502(3)	4.1(1)
N(2)	0.2067(3)	0.1812(4)	-0.1414(3)	4.2(1)
N(3)	0.6450(7)	0.2635(8)	0.6922(8)	11.0(4)
C(1)	0.2324(4)	0.0735(5)	0.1666(4)	4.2(2)
C(2)	0.2831(4)	0.0949(5)	0.2234(4)	5.0(2)
C(3)	0.3233(5)	0.0289(6)	0.2615(5)	6.0(2)
C(4)	0.3135(5)	-0.0588(6)	0.2425(6)	6.4(3)
C(5)	0.2643(5)	-0.0807(5)	0.1859(5)	5.4(2)
C(6)	0.2222(4)	-0.0167(5)	0.1477(4)	4.8(2)

Table 1. Atomic coordinates and B_{iso}/B_{eq} (continued)

atom	x	y	z	B_{eq}
C(7)	0.1689(4)	-0.0380(5)	0.0857(4)	5.1(2)
C(8)	0.1459(5)	-0.1198(5)	0.0632(6)	6.0(2)
C(9)	0.0990(6)	-0.1261(7)	0.0042(6)	7.0(3)
C(10)	0.0753(4)	-0.0535(7)	-0.0330(5)	6.2(2)
C(11)	0.0981(4)	0.0298(5)	-0.0099(4)	4.8(2)
C(12)	0.0798(3)	0.1169(6)	-0.0408(4)	4.5(2)
C(13)	0.0409(4)	0.1272(7)	-0.1050(5)	5.7(2)
C(14)	0.0276(5)	0.2108(8)	-0.1338(5)	6.6(3)
C(15)	0.0526(5)	0.2828(7)	-0.0961(5)	6.1(2)
C(16)	0.0908(4)	0.2740(5)	-0.0303(4)	4.3(2)
C(17)	0.1055(4)	0.1925(5)	-0.0017(4)	4.2(2)
C(18)	0.2859(4)	0.1076(5)	-0.0319(4)	4.4(2)
C(19)	0.3270(4)	0.0684(5)	0.0266(4)	4.7(2)
C(20)	0.3255(5)	-0.0203(6)	0.0359(5)	5.6(2)
C(21)	0.2852(5)	-0.0743(6)	-0.0131(6)	6.4(3)
C(22)	0.2450(5)	-0.0391(6)	-0.0711(5)	5.9(2)
C(23)	0.2443(4)	0.0521(5)	-0.0817(4)	4.6(2)
C(24)	0.2023(4)	0.0931(5)	-0.1422(4)	4.5(2)
C(25)	0.1611(4)	0.0521(6)	-0.1982(5)	5.5(2)
C(26)	0.1297(4)	0.1035(7)	-0.2530(5)	6.2(2)
C(27)	0.1368(4)	0.1943(7)	-0.2515(4)	5.8(2)
C(28)	0.1756(4)	0.2339(6)	-0.1934(4)	4.8(2)
C(29)	0.1830(4)	0.3278(6)	-0.1785(4)	4.8(2)
C(30)	0.1473(4)	0.3927(7)	-0.2213(5)	6.1(2)

Table 1. Atomic coordinates and B_{iso}/B_{eq} (continued)

atom	x	y	z	B_{eq}
C(31)	0.1488(5)	0.4802(7)	-0.1989(6)	6.8(3)
C(32)	0.1872(4)	0.5026(5)	-0.1348(5)	5.5(2)
C(33)	0.2260(4)	0.4396(5)	-0.0932(4)	4.4(2)
C(34)	0.2251(3)	0.3528(5)	-0.1133(4)	4.1(2)
C(35)	0.2498(3)	0.3477(4)	0.0965(4)	3.7(1)
C(36)	0.3181(3)	0.2982(5)	0.1023(3)	3.6(1)
C(37)	0.2209(3)	0.2951(4)	0.2298(3)	3.6(1)
C(38)	0.1819(4)	0.2571(5)	0.2722(4)	4.3(2)
C(39)	0.2069(5)	0.2575(5)	0.3422(4)	4.9(2)
C(40)	0.2686(5)	0.2952(6)	0.3707(4)	5.5(2)
C(41)	0.3063(4)	0.3338(6)	0.3288(4)	5.6(2)
C(42)	0.2828(4)	0.3349(5)	0.2585(4)	4.5(2)
C(43)	0.1098(3)	0.3537(4)	0.1236(3)	3.8(1)
C(44)	0.0495(4)	0.3129(5)	0.1266(5)	5.2(2)
C(45)	-0.0118(4)	0.3609(7)	0.1141(6)	7.3(3)
C(46)	-0.0099(5)	0.4489(7)	0.0980(7)	7.7(3)
C(47)	0.0477(5)	0.4891(6)	0.0960(6)	6.8(3)
C(48)	0.1100(4)	0.4438(5)	0.1089(4)	4.8(2)
C(49)	0.3761(3)	0.4122(5)	0.0092(3)	3.6(1)
C(50)	0.3745(4)	0.4798(5)	0.0540(4)	5.0(2)
C(51)	0.3966(5)	0.5642(6)	0.0400(6)	6.6(3)
C(52)	0.4212(5)	0.5785(7)	-0.0181(6)	6.9(3)
C(53)	0.4249(4)	0.5123(7)	-0.0627(5)	5.9(2)
C(54)	0.4014(4)	0.4298(6)	-0.0504(4)	5.1(2)

Table 1. Atomic coordinates and B_{iso}/B_{eq} (continued)

atom	x	y	z	B_{eq}
C(55)	0.4305(4)	0.2397(5)	0.0394(4)	4.4(2)
C(56)	0.4502(5)	0.1945(7)	-0.0130(5)	6.2(2)
C(57)	0.5137(6)	0.1507(8)	0.0004(7)	8.7(4)
C(58)	0.5552(6)	0.1546(8)	0.0654(8)	8.8(4)
C(59)	0.5365(5)	0.2005(9)	0.1141(6)	7.5(3)
C(60)	0.4746(4)	0.2433(6)	0.1017(5)	5.8(2)
C(61)	0.6564(7)	0.3298(9)	0.7202(7)	8.1(4)
C(62)	0.6740(8)	0.416(1)	0.7516(8)	11.7(5)
H(1)	0.2907	0.1549	0.2365	5.9616
H(2)	0.3573	0.0444	0.3005	7.1708
H(3)	0.3407	-0.1035	0.2685	7.6895
H(4)	0.2586	-0.1408	0.1724	6.5309
H(5)	0.1626	-0.1711	0.0886	7.1602
H(6)	0.0821	-0.1826	-0.0118	8.3777
H(7)	0.0430	-0.0597	-0.0751	7.4735
H(8)	0.0225	0.0767	-0.1306	6.8131
H(9)	0.0014	0.2174	-0.1791	7.8755
H(10)	0.0437	0.3399	-0.1155	7.2676
H(11)	0.1071	0.3252	-0.0045	5.1788
H(12)	0.3559	0.1041	0.0597	5.6837
H(13)	0.3523	-0.0458	0.0762	6.6538
H(14)	0.2857	-0.1363	-0.0062	7.7029
H(15)	0.2176	-0.0766	-0.1040	7.1016
H(16)	0.1547	-0.0101	-0.1988	6.6268

Table 1. Atomic coordinates and B_{iso}/B_{eq} (continued)

atom	x	y	z	B_{eq}
H(17)	0.1027	0.0760	-0.2924	7.4671
H(18)	0.1154	0.2291	-0.2897	7.0081
H(19)	0.1219	0.3774	-0.2656	7.2931
H(20)	0.1237	0.5243	-0.2275	8.1548
H(21)	0.1869	0.5618	-0.1191	6.5909
H(22)	0.2534	0.4567	-0.0503	5.3269
H(23)	0.2295	0.3546	0.0493	4.4632
H(24)	0.2591	0.4041	0.1171	4.4632
H(25)	0.3114	0.2384	0.1134	4.3752
H(26)	0.3512	0.3243	0.1380	4.3752
H(27)	0.1386	0.2311	0.2534	5.1918
H(28)	0.1805	0.2308	0.3714	5.9224
H(29)	0.2849	0.2945	0.4190	6.6455
H(30)	0.3492	0.3604	0.3481	6.7343
H(31)	0.3092	0.3627	0.2299	5.3532
H(32)	0.0491	0.2518	0.1372	6.2334
H(33)	-0.0541	0.3332	0.1167	8.7846
H(34)	-0.0516	0.4814	0.0880	9.2166
H(35)	0.0472	0.5503	0.0855	8.1815
H(36)	0.1518	0.4735	0.1077	5.6946
H(37)	0.3582	0.4696	0.0949	6.0330
H(38)	0.3945	0.6114	0.0709	7.8558
H(39)	0.4361	0.6360	-0.0274	8.3089
H(40)	0.4435	0.5227	-0.1022	7.0482

Table 1. Atomic coordinates and B_{iso}/B_{eq} (continued)

atom	x	y	z	B_{eq}
H(41)	0.4024	0.3839	-0.0827	6.1326
H(42)	0.4214	0.1929	-0.0575	7.5026
H(43)	0.5283	0.1185	-0.0350	10.3723
H(44)	0.5976	0.1237	0.0746	10.5692
H(45)	0.5659	0.2040	0.1581	9.0212
H(46)	0.4620	0.2766	0.1376	6.9014
H(47)	0.7226	0.4200	0.7662	13.9870
H(48)	0.6582	0.4608	0.7192	13.9870
H(49)	0.6531	0.4223	0.7901	13.9870

$$B_{eq} = \frac{8}{3}\pi^2(U_{11}(aa^*)^2 + U_{22}(bb^*)^2 + U_{33}(cc^*)^2 + 2U_{12}aa^*bb^*\cos\gamma + 2U_{13}aa^*cc^*\cos\beta + 2U_{23}bb^*cc^*\cos\alpha)$$

Crystal data for $[Au_2(C^N^C)_2(\mu\text{-dppe})](ClO_4)_2$, **6**$(ClO_4)_2 \cdot CH_3CN$

Table 2. Anisotropic Displacement Parameters

atom	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
Au(1)	0.0430(1)	0.0376(2)	0.0495(2)	-0.00057(10)	0.0147(1)	-0.0051(1)
Au(2)	0.0441(2)	0.0449(2)	0.0492(2)	-0.0041(1)	0.0138(1)	-0.0046(1)
Cl(1)	0.056(2)	0.153(4)	0.053(2)	0.0000	0.012(1)	0.0000
Cl(3)	0.100(2)	0.053(1)	0.098(2)	-0.007(1)	0.036(1)	-0.002(1)
P(1)	0.0403(8)	0.0357(9)	0.0479(9)	0.0004(7)	0.0143(7)	-0.0036(7)
P(2)	0.0392(8)	0.0454(10)	0.0494(9)	-0.0020(7)	0.0136(8)	-0.0013(8)
O(1)	0.078(6)	0.26(1)	0.27(2)	-0.034(7)	0.049(8)	-0.03(1)
O(2)	0.29(2)	0.52(3)	0.16(1)	0.12(2)	0.07(1)	0.19(2)
O(3)	0.172(9)	0.20(1)	0.158(8)	0.128(8)	0.070(7)	0.099(8)
O(4)	0.53(4)	0.53(3)	0.29(2)	0.45(3)	-0.22(2)	-0.31(2)
O(5)	0.28(2)	0.27(2)	0.123(9)	-0.07(1)	-0.02(1)	0.015(9)
O(6)	0.35(2)	0.089(7)	0.21(1)	-0.061(8)	0.22(1)	-0.041(6)
O(7)	0.136(8)	0.068(6)	0.40(2)	0.013(6)	0.06(1)	-0.001(8)
O(8)	0.121(6)	0.064(5)	0.29(1)	-0.027(4)	0.103(8)	-0.030(6)
N(1)	0.050(3)	0.042(3)	0.067(4)	-0.003(3)	0.020(3)	-0.009(3)
N(2)	0.049(3)	0.056(4)	0.058(4)	-0.007(3)	0.017(3)	-0.010(3)
N(3)	0.16(1)	0.098(9)	0.17(1)	-0.003(8)	0.072(10)	0.042(8)
C(1)	0.057(4)	0.043(4)	0.063(4)	0.006(3)	0.024(4)	0.005(3)
C(2)	0.060(5)	0.055(5)	0.074(5)	0.007(4)	0.016(4)	0.004(4)
C(3)	0.064(5)	0.073(6)	0.087(6)	0.016(4)	0.009(5)	0.009(5)
C(4)	0.078(6)	0.068(6)	0.102(7)	0.027(5)	0.031(6)	0.032(5)
C(5)	0.082(6)	0.044(5)	0.091(6)	0.015(4)	0.042(5)	0.013(4)
C(6)	0.071(5)	0.044(4)	0.075(5)	0.006(4)	0.035(4)	-0.001(4)
C(7)	0.075(5)	0.052(5)	0.079(6)	-0.001(4)	0.046(5)	-0.005(4)

Table 2. Anisotropic Displacement Parameters (continued)

atom	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
C(8)	0.086(6)	0.041(4)	0.107(7)	-0.013(4)	0.035(6)	-0.014(5)
C(9)	0.091(7)	0.058(6)	0.126(9)	-0.019(5)	0.045(7)	-0.034(6)
C(10)	0.062(5)	0.078(6)	0.101(7)	-0.018(5)	0.028(5)	-0.045(6)
C(11)	0.049(4)	0.062(5)	0.080(6)	-0.009(3)	0.030(4)	-0.028(4)
C(12)	0.036(3)	0.078(6)	0.059(4)	0.000(3)	0.011(3)	-0.016(4)
C(13)	0.052(4)	0.089(7)	0.077(6)	-0.010(4)	0.017(4)	-0.022(5)
C(14)	0.055(5)	0.130(9)	0.059(5)	0.001(5)	0.001(4)	-0.017(6)
C(15)	0.057(5)	0.100(7)	0.072(6)	0.011(5)	0.011(5)	0.009(5)
C(16)	0.042(4)	0.072(5)	0.046(4)	0.004(3)	0.001(3)	-0.005(3)
C(17)	0.046(4)	0.057(5)	0.056(4)	-0.002(3)	0.013(3)	-0.005(3)
C(18)	0.061(4)	0.041(4)	0.073(5)	-0.001(3)	0.035(4)	0.001(3)
C(19)	0.070(5)	0.049(4)	0.068(5)	0.006(4)	0.032(4)	0.003(4)
C(20)	0.078(6)	0.066(6)	0.075(6)	0.013(4)	0.033(5)	0.008(4)
C(21)	0.094(7)	0.047(5)	0.117(8)	0.004(5)	0.055(6)	-0.006(5)
C(22)	0.100(7)	0.052(5)	0.088(6)	-0.011(5)	0.054(6)	-0.021(5)
C(23)	0.070(5)	0.045(4)	0.073(5)	-0.004(3)	0.043(4)	-0.014(4)
C(24)	0.055(4)	0.059(5)	0.065(5)	-0.010(3)	0.031(4)	-0.013(4)
C(25)	0.067(5)	0.071(6)	0.077(6)	-0.020(4)	0.028(5)	-0.027(5)
C(26)	0.056(5)	0.116(8)	0.067(6)	-0.020(5)	0.017(4)	-0.038(6)
C(27)	0.061(5)	0.108(8)	0.054(5)	-0.018(5)	0.015(4)	-0.013(5)
C(28)	0.042(4)	0.084(6)	0.057(5)	-0.009(4)	0.010(4)	-0.007(4)
C(29)	0.051(4)	0.071(5)	0.064(5)	-0.006(4)	0.019(4)	0.006(4)
C(30)	0.061(5)	0.100(8)	0.066(5)	-0.009(5)	0.005(4)	0.017(5)
C(31)	0.085(6)	0.078(7)	0.095(7)	0.016(5)	0.016(6)	0.032(6)

Table 2. Anisotropic Displacement Parameters (continued)

atom	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
C(32)	0.067(5)	0.055(5)	0.086(6)	-0.002(4)	0.013(5)	0.014(4)
C(33)	0.048(4)	0.050(4)	0.071(5)	-0.002(3)	0.014(4)	0.003(4)
C(34)	0.038(3)	0.056(4)	0.060(4)	0.002(3)	0.010(3)	0.007(3)
C(35)	0.043(3)	0.051(4)	0.049(4)	0.001(3)	0.012(3)	0.000(3)
C(36)	0.040(3)	0.054(4)	0.045(4)	0.003(3)	0.009(3)	0.005(3)
C(37)	0.051(4)	0.038(4)	0.049(4)	0.003(3)	0.013(3)	-0.005(3)
C(38)	0.057(4)	0.052(4)	0.060(5)	0.002(3)	0.022(4)	0.006(3)
C(39)	0.085(6)	0.059(5)	0.050(4)	0.012(4)	0.028(4)	0.009(3)
C(40)	0.091(6)	0.077(6)	0.041(4)	0.009(5)	0.009(4)	-0.006(4)
C(41)	0.066(5)	0.085(6)	0.057(5)	-0.010(4)	0.001(4)	-0.015(4)
C(42)	0.060(4)	0.055(5)	0.059(4)	-0.009(3)	0.022(4)	-0.009(3)
C(43)	0.045(4)	0.049(4)	0.049(4)	-0.001(3)	0.012(3)	-0.002(3)
C(44)	0.050(4)	0.060(5)	0.092(6)	0.003(4)	0.025(4)	-0.001(4)
C(45)	0.039(4)	0.102(8)	0.14(1)	0.006(4)	0.022(5)	0.008(7)
C(46)	0.058(5)	0.087(8)	0.15(1)	0.028(5)	0.037(6)	0.008(7)
C(47)	0.073(6)	0.065(6)	0.124(8)	0.024(5)	0.026(6)	0.016(5)
C(48)	0.057(4)	0.046(4)	0.081(5)	0.012(3)	0.023(4)	-0.001(4)
C(49)	0.037(3)	0.052(4)	0.049(4)	-0.007(3)	0.008(3)	0.007(3)
C(50)	0.065(5)	0.058(5)	0.073(5)	-0.010(4)	0.023(4)	0.004(4)
C(51)	0.083(6)	0.053(5)	0.111(8)	-0.014(4)	0.016(6)	0.002(5)
C(52)	0.074(6)	0.071(6)	0.108(8)	-0.020(5)	-0.005(6)	0.039(6)
C(53)	0.057(5)	0.085(7)	0.079(6)	-0.008(4)	0.010(5)	0.038(5)
C(54)	0.054(4)	0.077(6)	0.061(5)	-0.011(4)	0.006(4)	0.007(4)
C(55)	0.042(4)	0.061(5)	0.072(5)	0.003(3)	0.027(4)	0.007(4)

Table 2. Anisotropic Displacement Parameters (continued)

atom	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
C(56)	0.066(5)	0.085(7)	0.094(7)	0.011(5)	0.033(5)	-0.018(5)
C(57)	0.095(8)	0.12(1)	0.13(1)	0.041(7)	0.061(8)	0.006(8)
C(58)	0.075(7)	0.111(10)	0.15(1)	0.039(6)	0.036(8)	0.045(8)
C(59)	0.060(6)	0.127(10)	0.101(8)	0.022(6)	0.020(6)	0.002(7)
C(60)	0.053(5)	0.090(7)	0.075(6)	0.018(4)	0.011(5)	0.000(4)
C(61)	0.118(10)	0.091(9)	0.107(9)	0.031(8)	0.044(8)	0.020(7)
C(62)	0.14(1)	0.16(1)	0.15(1)	0.04(1)	0.04(1)	-0.03(1)

The general temperature factor expression:

$$\exp(-2\pi^2(a^{*2}U_{11}h^2 + b^{*2}U_{22}k^2 + c^{*2}U_{33}l^2 + 2a^*b^*U_{12}hk + 2a^*c^*U_{13}hl + 2b^*c^*U_{23}kl))$$

Crystal data for $[Au_2(C^N^C)_2(\mu\text{-dppe})](ClO_4)_2$, **6**$(ClO_4)_2 \cdot CH_3CN$

Table 3. Bond Lengths(Å)

atom	atom	distance	atom	atom	distance
Au(1)	P(1)	2.281(2)	Au(1)	N(1)	2.030(6)
Au(1)	C(1)	2.114(7)	Au(1)	C(17)	2.116(7)
Au(2)	P(2)	2.280(2)	Au(2)	N(2)	2.019(6)
Au(2)	C(18)	2.099(7)	Au(2)	C(34)	2.099(7)
Cl(1)	O(1)	1.32(1)	Cl(1)	O(1)	1.32(1)
Cl(1)	O(2)	1.32(1)	Cl(1)	O(2)	1.32(1)
Cl(2)	O(3)	1.355(7)	Cl(2)	O(3)	1.355(7)
Cl(2)	O(4)	1.21(1)	Cl(2)	O(4)	1.21(1)
Cl(3)	O(5)	1.34(1)	Cl(3)	O(6)	1.364(9)
Cl(3)	O(7)	1.363(10)	Cl(3)	O(8)	1.389(7)
P(1)	C(35)	1.823(7)	P(1)	C(37)	1.803(7)
P(1)	C(43)	1.807(7)	P(2)	C(36)	1.818(7)
P(2)	C(49)	1.793(7)	P(2)	C(55)	1.810(7)
N(1)	C(7)	1.325(10)	N(1)	C(11)	1.346(10)
N(2)	C(24)	1.338(9)	N(2)	C(28)	1.35(1)
N(3)	C(61)	1.15(2)	C(1)	C(2)	1.39(1)
C(1)	C(6)	1.422(10)	C(2)	C(3)	1.40(1)
C(3)	C(4)	1.38(1)	C(4)	C(5)	1.37(1)
C(5)	C(6)	1.40(1)	C(6)	C(7)	1.49(1)
C(7)	C(8)	1.36(1)	C(8)	C(9)	1.34(1)
C(9)	C(10)	1.35(1)	C(10)	C(11)	1.39(1)
C(11)	C(12)	1.47(1)	C(12)	C(13)	1.36(1)
C(12)	C(17)	1.42(1)	C(13)	C(14)	1.39(1)
C(14)	C(15)	1.36(1)	C(15)	C(16)	1.38(1)

Table 3. Bond Lengths(Å) (continued)

atom	atom	distance	atom	atom	distance
C(16)	C(17)	1.37(1)	C(18)	C(19)	1.41(1)
C(18)	C(23)	1.43(1)	C(19)	C(20)	1.36(1)
C(20)	C(21)	1.39(1)	C(21)	C(22)	1.37(1)
C(22)	C(23)	1.40(1)	C(23)	C(24)	1.46(1)
C(24)	C(25)	1.39(1)	C(25)	C(26)	1.38(1)
C(26)	C(27)	1.38(1)	C(27)	C(28)	1.39(1)
C(28)	C(29)	1.46(1)	C(29)	C(30)	1.40(1)
C(29)	C(34)	1.44(1)	C(30)	C(31)	1.40(1)
C(31)	C(32)	1.39(1)	C(32)	C(33)	1.39(1)
C(33)	C(34)	1.37(1)	C(35)	C(36)	1.536(9)
C(37)	C(38)	1.38(1)	C(37)	C(42)	1.385(10)
C(38)	C(39)	1.38(1)	C(39)	C(40)	1.37(1)
C(40)	C(41)	1.36(1)	C(41)	C(42)	1.38(1)
C(43)	C(44)	1.361(10)	C(43)	C(48)	1.396(9)
C(44)	C(45)	1.40(1)	C(45)	C(46)	1.37(1)
C(46)	C(47)	1.31(1)	C(47)	C(48)	1.39(1)
C(49)	C(50)	1.36(1)	C(49)	C(54)	1.41(1)
C(50)	C(51)	1.40(1)	C(51)	C(52)	1.36(2)
C(52)	C(53)	1.35(1)	C(53)	C(54)	1.37(1)
C(55)	C(56)	1.37(1)	C(55)	C(60)	1.36(1)
C(56)	C(57)	1.40(1)	C(57)	C(58)	1.38(2)
C(58)	C(59)	1.31(2)	C(59)	C(60)	1.37(1)
C(61)	C(62)	1.46(2)			

Crystal data for $[Au_2(C^N^C)_2(\mu\text{-dppe})](ClO_4)_2$, **6**$(ClO_4)_2 \cdot CH_3CN$

Table 5. Bond Angles(°)

atom	atom	atom	angle	atom	atom	atom	angle
P(1)	Au(1)	N(1)	174.9(2)	P(1)	Au(1)	C(1)	102.4(2)
P(1)	Au(1)	C(17)	96.9(2)	N(1)	Au(1)	C(1)	80.5(3)
N(1)	Au(1)	C(17)	80.6(3)	C(1)	Au(1)	C(17)	160.4(3)
P(2)	Au(2)	N(2)	174.5(2)	P(2)	Au(2)	C(18)	97.9(2)
P(2)	Au(2)	C(34)	101.4(2)	N(2)	Au(2)	C(18)	80.4(3)
N(2)	Au(2)	C(34)	80.8(3)	C(18)	Au(2)	C(34)	160.2(3)
O(1)	Cl(1)	O(1)	115(1)	O(1)	Cl(1)	O(2)	106(1)
O(1)	Cl(1)	O(2)	102(1)	O(1)	Cl(1)	O(2)	102(1)
O(1)	Cl(1)	O(2)	106(1)	O(2)	Cl(1)	O(2)	124(2)
O(3)	Cl(2)	O(3)	120(1)	O(3)	Cl(2)	O(4)	104.5(8)
O(3)	Cl(2)	O(4)	107(1)	O(3)	Cl(2)	O(4)	107(1)
O(3)	Cl(2)	O(4)	104.5(8)	O(4)	Cl(2)	O(4)	113(2)
O(5)	Cl(3)	O(6)	106.1(9)	O(5)	Cl(3)	O(7)	105.5(10)
O(5)	Cl(3)	O(8)	113.1(8)	O(6)	Cl(3)	O(7)	110.9(8)
O(6)	Cl(3)	O(8)	111.2(6)	O(7)	Cl(3)	O(8)	109.9(6)
Au(1)	P(1)	C(35)	108.5(2)	Au(1)	P(1)	C(37)	115.8(2)
Au(1)	P(1)	C(43)	110.4(2)	C(35)	P(1)	C(37)	108.3(3)
C(35)	P(1)	C(43)	108.5(3)	C(37)	P(1)	C(43)	105.1(3)
Au(2)	P(2)	C(36)	108.2(2)	Au(2)	P(2)	C(49)	116.1(2)
Au(2)	P(2)	C(55)	112.0(3)	C(36)	P(2)	C(49)	108.8(3)
C(36)	P(2)	C(55)	107.0(3)	C(49)	P(2)	C(55)	104.4(3)
Au(1)	N(1)	C(7)	118.4(5)	Au(1)	N(1)	C(11)	117.5(5)
C(7)	N(1)	C(11)	123.9(7)	Au(2)	N(2)	C(24)	118.6(5)
Au(2)	N(2)	C(28)	117.0(5)	C(24)	N(2)	C(28)	124.1(6)

Table 5. Bond Angles(°) (continued)

atom	atom	atom	angle	atom	atom	atom	angle
Au(1)	C(1)	C(2)	131.6(6)	Au(1)	C(1)	C(6)	109.5(5)
C(2)	C(1)	C(6)	118.6(7)	C(1)	C(2)	C(3)	120.8(8)
C(2)	C(3)	C(4)	120.4(8)	C(3)	C(4)	C(5)	119.5(8)
C(4)	C(5)	C(6)	121.6(8)	C(1)	C(6)	C(5)	119.2(8)
C(1)	C(6)	C(7)	117.8(7)	C(5)	C(6)	C(7)	123.0(7)
N(1)	C(7)	C(6)	113.1(7)	N(1)	C(7)	C(8)	119.7(9)
C(6)	C(7)	C(8)	127.2(8)	C(7)	C(8)	C(9)	118.5(9)
C(8)	C(9)	C(10)	121.3(9)	C(9)	C(10)	C(11)	120.3(9)
N(1)	C(11)	C(10)	116.1(9)	N(1)	C(11)	C(12)	113.9(6)
C(10)	C(11)	C(12)	130.0(9)	C(11)	C(12)	C(13)	122.7(8)
C(11)	C(12)	C(17)	117.8(7)	C(13)	C(12)	C(17)	119.5(8)
C(12)	C(13)	C(14)	121.0(8)	C(13)	C(14)	C(15)	119.0(9)
C(14)	C(15)	C(16)	121.0(10)	C(15)	C(16)	C(17)	120.7(8)
Au(1)	C(17)	C(12)	109.9(6)	Au(1)	C(17)	C(16)	131.2(6)
C(12)	C(17)	C(16)	118.7(7)	Au(2)	C(18)	C(19)	131.7(6)
Au(2)	C(18)	C(23)	109.6(6)	C(19)	C(18)	C(23)	118.7(7)
C(18)	C(19)	C(20)	120.3(8)	C(19)	C(20)	C(21)	120.8(8)
C(20)	C(21)	C(22)	120.9(8)	C(21)	C(22)	C(23)	119.8(8)
C(18)	C(23)	C(22)	119.5(8)	C(18)	C(23)	C(24)	118.3(7)
C(22)	C(23)	C(24)	122.2(8)	N(2)	C(24)	C(23)	113.0(6)
N(2)	C(24)	C(25)	118.9(8)	C(23)	C(24)	C(25)	128.0(8)
C(24)	C(25)	C(26)	118.6(8)	C(25)	C(26)	C(27)	121.1(7)
C(26)	C(27)	C(28)	118.9(9)	N(2)	C(28)	C(27)	118.2(8)
N(2)	C(28)	C(29)	114.2(7)	C(27)	C(28)	C(29)	127.5(8)

Table 5. Bond Angles(°) (continued)

atom	atom	atom	angle	atom	atom	atom	angle
C(28)	C(29)	C(30)	123.1(8)	C(28)	C(29)	C(34)	117.2(7)
C(30)	C(29)	C(34)	119.5(8)	C(29)	C(30)	C(31)	119.9(8)
C(30)	C(31)	C(32)	119.8(8)	C(31)	C(32)	C(33)	120.9(8)
C(32)	C(33)	C(34)	120.8(7)	Au(2)	C(34)	C(29)	109.6(5)
Au(2)	C(34)	C(33)	131.2(6)	C(29)	C(34)	C(33)	119.0(7)
P(1)	C(35)	C(36)	113.5(5)	P(2)	C(36)	C(35)	113.1(5)
P(1)	C(37)	C(38)	118.3(5)	P(1)	C(37)	C(42)	122.2(6)
C(38)	C(37)	C(42)	119.5(6)	C(37)	C(38)	C(39)	118.9(7)
C(38)	C(39)	C(40)	121.9(8)	C(39)	C(40)	C(41)	119.0(7)
C(40)	C(41)	C(42)	120.7(7)	C(37)	C(42)	C(41)	120.0(7)
P(1)	C(43)	C(44)	119.8(6)	P(1)	C(43)	C(48)	120.5(5)
C(44)	C(43)	C(48)	119.7(7)	C(43)	C(44)	C(45)	120.0(8)
C(44)	C(45)	C(46)	118.8(8)	C(45)	C(46)	C(47)	121.8(8)
C(46)	C(47)	C(48)	121.1(9)	C(43)	C(48)	C(47)	118.6(8)
P(2)	C(49)	C(50)	123.8(6)	P(2)	C(49)	C(54)	118.2(6)
C(50)	C(49)	C(54)	118.0(7)	C(49)	C(50)	C(51)	120.4(8)
C(50)	C(51)	C(52)	119.8(9)	C(51)	C(52)	C(53)	121.1(9)
C(52)	C(53)	C(54)	119.5(9)	C(49)	C(54)	C(53)	121.1(8)
P(2)	C(55)	C(56)	120.1(7)	P(2)	C(55)	C(60)	120.9(6)
C(56)	C(55)	C(60)	118.8(8)	C(55)	C(56)	C(57)	118.5(10)
C(56)	C(57)	C(58)	119(1)	C(57)	C(58)	C(59)	120.7(10)
C(58)	C(59)	C(60)	120(1)	C(55)	C(60)	C(59)	122.1(9)
N(3)	C(61)	C(62)	175(1)				

Table 9. Least Squares Planes

Plane number 1

Atoms defining plane	Distance
N(1)	-0.011(6)
C(7)	0.014(7)
C(8)	-0.002(10)
C(9)	-0.01(1)
C(10)	0.005(9)
C(11)	0.008(7)

Additional Atoms	Distance
N(2)	3.478
C(24)	3.497
C(25)	3.577
C(26)	3.718
C(27)	3.733
C(28)	3.586

Plane number 2

Atoms defining plane	Distance
N(2)	-0.005(6)
C(24)	0.018(7)
C(25)	-0.022(9)
C(26)	0.002(9)
C(27)	0.017(9)
C(28)	-0.010(8)

Additional Atoms	Distance
N(1)	-3.241
C(7)	-3.132
C(8)	-3.196
C(9)	-3.340
C(10)	-3.407
C(11)	-3.356

Summary

plane	mean deviation	χ^2
1	0.0090	10.2
2	0.0121	18.7

Crystal data for $[Au_2(C^N^C)_2(\mu\text{-dppe})](ClO_4)_2$, **6**$(ClO_4)_2 \cdot CH_3CN$

Dihedral angles between planes (°)

plane	1
2	5.72