Supporting information

Fluorination effects in XPhos gold(I) fluorothiolates

Guillermo Moreno-Alcantar,[1]* Cristian Díaz-Rosas,[1] Alberto Fernández-Alarcón,[2]* Luis Turcio-García,[1] Marcos Flores-Álamo,[1] Tomás Rocha-Rinza,[2] and Hugo Torrens.[1]

[1] School of Chemistry, National Autonomous University of Mexico, Circuito Escolar, Ciudad Universitaria, Coyoacán, 04510 Mexico City, México.

[2] Institute of Chemistry, National Autonomous University of Mexico, Circuito Exterior, Ciudad Universitaria, Coyoacán, 04510, Mexico City, México.

* Correspondence: lgma@comunidad.unam.mx; al.fedza@gmail.com; Tel.: +52-55-5622-3724

Contents

Conformers of 7 and 12

Compounds **7** and **12** present two different conformers in the crystal asymmetric unit. In compound **7**, the variations in molecular distances and angles are small. In contrast, the conformers of compound **12** are noticeably different, as shown in Table 1, in the body of the manuscript.

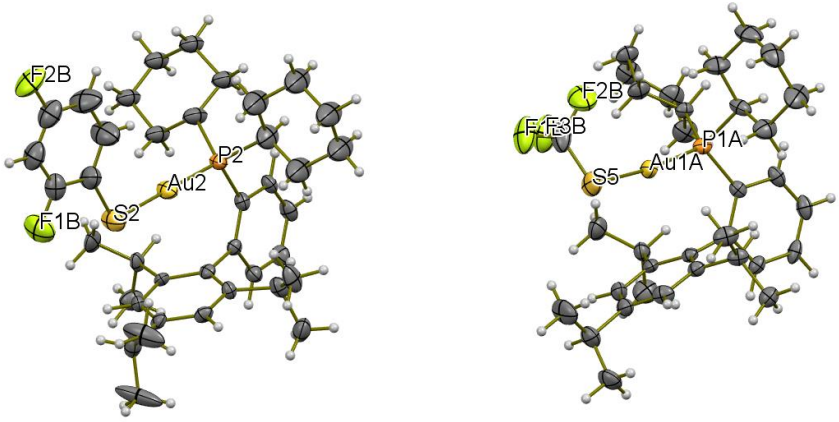

Figure S1. ORTEP diagrams at 50 % probability level of the conformers of **7** and **12** not shown in Figure 1 in the manuscript.

Supplementary QTAIM indicators

Table S 1 Additional QTAIM parameters for selected interactions. $\rho(r_{bcp})$ are absent when there's not a bcp associated to the interaction. DI (Au,F) are shown for potential Au-F interaction exist. Only the higher ρ and DI(Au,H) is reported when there's more than one Au-H contact. Atomic units are used throughout.

Structure	$\rho(r_{bcp})$		DI (A,B)				q					
	Au-H	S-H	Au,C$_{ortho-bis}$*	S,H	Au,F	Au,H	Au	S	P	C$_S$**	C$_{ipso}$	C$_{orto}$
1	0.0082	0.0068	0.0322	0.0352	0.0420	0.0372	-0.0212	-0.116	1.592	-0.0841	-0.0423	-0.0339
2	0.0065	0.0050	0.0355	0.0324	0.1049	0.0335	-0.0089	-0.1475	1.6362	-0.075	-0.0415	-0.0295
3	0.0066	0.0038	0.0319	0.0218	0.0987	0.0281	-0.0078	-0.1366	1.5986	-0.0836	-0.0409	-0.0292
4	0.0071	-	0.0327	0.0127	-	0.0354	-0.0243	-0.1508	1.5844	-0.145	-0.043	-0.0289
6	0.0074	0.0069	0.0347	0.0439	-	0.0330	-0.0339	-0.2005	1.6295	-0.1383	-0.0444	-0.0357
7	0.0082	-	0.0372	0.0418	-	0.0418	-0.0390	-0.1539	1.4996	-0.1419	-0.0466	-0.0287
8	0.0067	0.004	0.337	0.0242	-	0.0274	-0.0407	-0.2021	1.618	-0.1186	-0.0371	-0.028
12a	0.0061	-	0.0538	0.0079	-	0.0317	-0.0182	-0.1243	1.5942	1.5409	-0.0442	-0.0261
12b	0.0079	0.0038	0.0431	0.0243	-	0.0421	-0.0096	-0.0566	1.554	1.449	-0.0413	-0.0282

*C atom not directly involved in the Au-π interaction. ** C atom directly bonded to the sulfur.

Linear regression parameters

- **DI(Au,Ph) vs Distance Au···π.**

Table S2. Linear regression parameters for DI(Au,Ph) as a function of the Au···π distance in Figure 3a in the body of the manuscript.

Equation	y = a + b*x		
Weight	No Weighting		
Residual Sum of Squares	1.05169E-4		
Pearson's r (r^2)	-0.93532 (0.8748)		
Adj. R-Square	0.84979		
		Value	Standard Error
B	Intercept (a)	1.21861	0.16501
	Slope (b)	-0.31448	0.0532

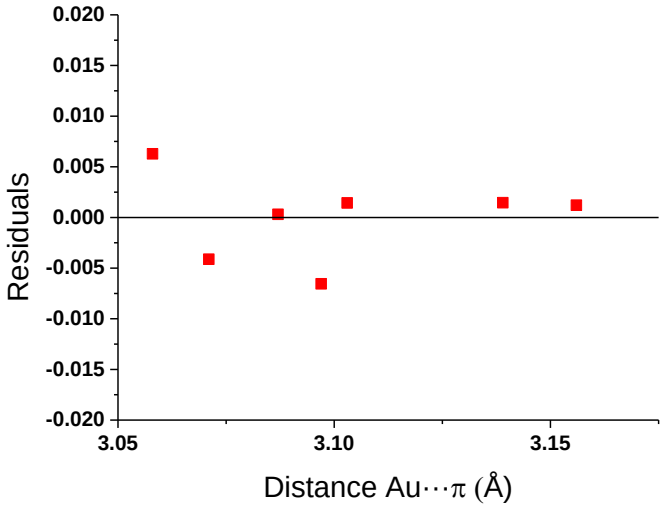

Figure S2. Residuals for the linear fit shown in Figure 3a in the body of the manuscript.

- **DI(C_{ipso},C_{ortho}) vs η_{DI}**

Table S3. Linear regression parameters for the relation between DI(C_{ipso},C_{ortho}) and η_{DI}, Figure 3b in the body of the manuscript.

Equation	y = a + b*x		
Weight	No Weighting		
Residual Sum of Squares	6.94574E-5		
Pearson's r (r^2)	-0.93433 (0.08730)		
Adj. R-Square	0.84757		
		Value	Standard Error
B	Intercept	1.52159	0.03968
	Slope	-0.12265	0.02092

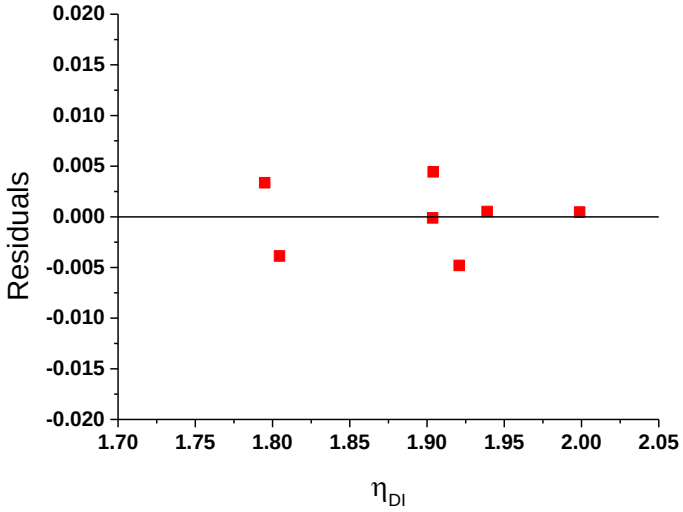

Figure S3 Residuals for the linear fit shown in Figure 3b in the body of the manuscript.

- **DI(Au,S) vs δ ^{31}P-NMR**

Table S4. Linear regression parameters for the relation between the DI(Au,S) and the δ ^{31}P-NMR, Figure 6 in the body of the manuscript

Equation	y = a + b*x		
Weight	No Weighting		
Residual Sum of Squares	5.46572E-4		
Pearson's r (r^2)	0.88608 (0.7891)		
Adj. R-Square	0.75445		
		Value	Standard Error
B	Intercept	-0.08673	0.22489
	Slope	0.02896	0.00573

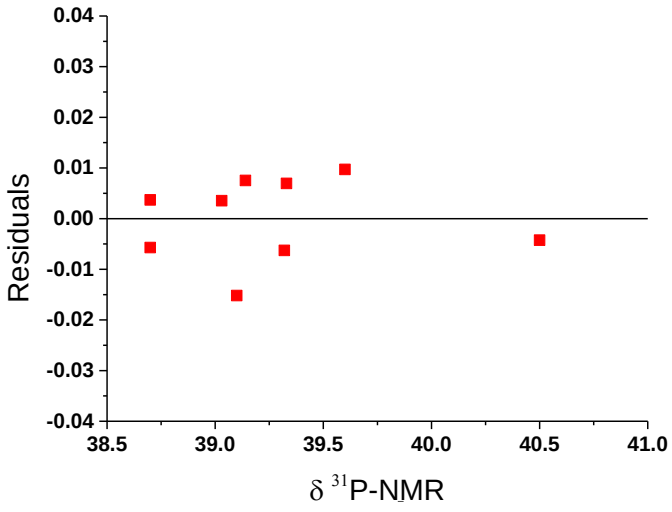

Figure S4 Residuals for the linear fit shown in Figure 6 in the body of the manuscript.

Crystallographic tables.

Compound 1.

Table S5. Crystal data and structure refinement for cldr07.

Identification code	cldr07	
Empirical formula	C40 H49 Au F7 P S	
Formula weight	922.79	
Temperature	130(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	P 21/n	
Unit cell dimensions	a = 15.7516(6) Å	α= 90°.
	b = 13.6785(5) Å	β= 94.721(4)°.
	c = 17.5928(7) Å	γ = 90°.
Volume	3777.7(3) $Å^3$	
Z	4	
Density (calculated)	1.623 Mg/m^3	
Absorption coefficient	4.055 mm^{-1}	
F(000)	1848	
Crystal size	0.398 x 0.263 x 0.070 mm^3	
Theta range for data collection	3.415 to 29.488°.	
Index ranges	-19<=h<=21, -18<=k<=13, -23<=l<=24	
Reflections collected	20281	
Independent reflections	8980 [R(int) = 0.0313]	
Completeness to theta = 25.242°	99.7 %	
Absorption correction	Analytical	
Max. and min. transmission	0.591 and 0.203	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	8980 / 0 / 457	
Goodness-of-fit on F^2	1.039	
Final R indices [I>2sigma(I)]	R1 = 0.0439, wR2 = 0.0868	
R indices (all data)	R1 = 0.0617, wR2 = 0.0961	
Extinction coefficient	n/a	
Largest diff. peak and hole	3.237 and -2.749 $e.Å^{-3}$	

Table S6. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for cldr07. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	6088(1)	2402(1)	4122(1)	28(1)
S(1)	5531(1)	1252(1)	4892(1)	57(1)
P(1)	6578(1)	3442(1)	3272(1)	19(1)
F(1)	4201(3)	1772(3)	5897(2)	68(1)
F(2)	2579(3)	1956(3)	5601(2)	70(1)
F(3)	2871(3)	1106(3)	3024(2)	63(1)
F(4)	4538(3)	947(3)	3341(2)	57(1)
F(5)	1283(3)	1844(5)	4690(3)	96(2)
F(6)	1393(3)	793(3)	3822(3)	93(2)
F(7)	1514(3)	2301(3)	3575(3)	67(1)
C(1)	4445(4)	1369(4)	4632(3)	37(1)
C(2)	3884(4)	1613(4)	5171(4)	45(2)
C(3)	3035(4)	1709(4)	5007(4)	43(1)
C(4)	2658(4)	1548(4)	4302(4)	46(2)
C(5)	3194(4)	1292(4)	3750(3)	41(1)
C(6)	4062(4)	1200(4)	3907(3)	37(1)
C(7)	6277(3)	2955(3)	2308(3)	22(1)
C(8)	6651(3)	1927(3)	2257(3)	27(1)
C(9)	6408(3)	1445(4)	1487(3)	33(1)
C(10)	5447(4)	1445(4)	1309(3)	37(1)
C(11)	5083(3)	2475(4)	1347(3)	37(1)
C(12)	5308(3)	2931(4)	2133(3)	28(1)
C(13)	6172(3)	4707(3)	3350(3)	23(1)
C(14)	5276(3)	4747(4)	3627(3)	32(1)
C(15)	5003(4)	5800(4)	3745(4)	41(1)
C(16)	5046(4)	6389(4)	3021(4)	41(1)
C(17)	5948(4)	6375(4)	2762(3)	36(1)
C(18)	6244(3)	5329(3)	2634(3)	28(1)
C(19)	7739(3)	3580(3)	3313(3)	19(1)
C(20)	8110(3)	3873(3)	2653(3)	21(1)
C(21)	8980(3)	4010(4)	2648(3)	26(1)
C(22)	9495(3)	3847(4)	3314(3)	27(1)
C(23)	9138(3)	3562(4)	3966(3)	25(1)
C(24)	8264(3)	3419(3)	3981(3)	19(1)
C(25)	7954(3)	3071(3)	4728(3)	20(1)
C(26)	7722(3)	3738(3)	5272(3)	21(1)
C(27)	7487(3)	3385(4)	5972(3)	24(1)
C(28)	7487(3)	2397(4)	6143(3)	24(1)
C(29)	7731(3)	1749(3)	5598(3)	23(1)
C(30)	7966(3)	2061(3)	4887(3)	21(1)
C(31)	7758(3)	4837(3)	5137(3)	24(1)
C(32)	6970(4)	5375(4)	5369(3)	34(1)
C(33)	8565(4)	5271(4)	5555(4)	41(1)
C(34)	7246(3)	2054(4)	6918(3)	27(1)

C(35)	8027(4)	1664(5)	7395(3)	47(2)
C(36)	6535(4)	1300(4)	6859(3)	42(1)
C(37)	8265(3)	1311(3)	4326(3)	25(1)
C(38)	9183(4)	1016(5)	4559(4)	45(2)
C(39)	7701(4)	413(4)	4248(3)	35(1)
C(40)	1727(5)	1617(5)	4087(5)	58(2)

Table S7. Bond lengths [Å] and angles [°] for cldr07.

Au(1)-P(1)	2.2463(12)
Au(1)-S(1)	2.2968(15)
S(1)-C(1)	1.743(6)
P(1)-C(19)	1.835(5)
P(1)-C(7)	1.848(5)
P(1)-C(13)	1.854(5)
F(1)-C(2)	1.350(7)
F(2)-C(3)	1.359(7)
F(3)-C(5)	1.360(7)
F(4)-C(6)	1.340(6)
F(5)-C(40)	1.355(9)
F(6)-C(40)	1.313(8)
F(7)-C(40)	1.322(8)
C(1)-C(6)	1.385(8)
C(1)-C(2)	1.388(9)
C(2)-C(3)	1.351(9)
C(3)-C(4)	1.348(9)
C(4)-C(5)	1.383(9)
C(4)-C(40)	1.487(9)
C(5)-C(6)	1.380(8)
C(7)-C(8)	1.529(6)
C(7)-C(12)	1.532(6)
C(7)-H(7)	1.0000
C(8)-C(9)	1.526(7)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.521(7)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.525(8)
C(10)-H(10A)	0.9900
C(10)-H(10B)	0.9900
C(11)-C(12)	1.531(7)
C(11)-H(11A)	0.9900
C(11)-H(11B)	0.9900
C(12)-H(12A)	0.9900
C(12)-H(12B)	0.9900
C(13)-C(14)	1.532(7)
C(13)-C(18)	1.532(7)
C(13)-H(13)	1.0000
C(14)-C(15)	1.522(8)
C(14)-H(14A)	0.9900
C(14)-H(14B)	0.9900
C(15)-C(16)	1.513(8)
C(15)-H(15A)	0.9900
C(15)-H(15B)	0.9900
C(16)-C(17)	1.527(8)

C(16)-H(16A)	0.9900
C(16)-H(16B)	0.9900
C(17)-C(18)	1.529(7)
C(17)-H(17A)	0.9900
C(17)-H(17B)	0.9900
C(18)-H(18A)	0.9900
C(18)-H(18B)	0.9900
C(19)-C(24)	1.396(6)
C(19)-C(20)	1.401(6)
C(20)-C(21)	1.384(6)
C(20)-H(20)	0.9500
C(21)-C(22)	1.387(7)
C(21)-H(21)	0.9500
C(22)-C(23)	1.374(7)
C(22)-H(22)	0.9500
C(23)-C(24)	1.394(6)
C(23)-H(23)	0.9500
C(24)-C(25)	1.516(6)
C(25)-C(26)	1.392(6)
C(25)-C(30)	1.410(6)
C(26)-C(27)	1.401(7)
C(26)-C(31)	1.524(6)
C(27)-C(28)	1.384(7)
C(27)-H(27)	0.9500
C(28)-C(29)	1.382(7)
C(28)-C(34)	1.520(6)
C(29)-C(30)	1.400(6)
C(29)-H(29)	0.9500
C(30)-C(37)	1.525(7)
C(31)-C(32)	1.528(7)
C(31)-C(33)	1.534(7)
C(31)-H(31)	1.0000
C(32)-H(32A)	0.9800
C(32)-H(32B)	0.9800
C(32)-H(32C)	0.9800
C(33)-H(33A)	0.9800
C(33)-H(33B)	0.9800
C(33)-H(33C)	0.9800
C(34)-C(36)	1.519(7)
C(34)-C(35)	1.526(7)
C(34)-H(34)	1.0000
C(35)-H(35A)	0.9800
C(35)-H(35B)	0.9800
C(35)-H(35C)	0.9800
C(36)-H(36A)	0.9800
C(36)-H(36B)	0.9800
C(36)-H(36C)	0.9800
C(37)-C(39)	1.516(7)
C(37)-C(38)	1.524(7)

C(37)-H(37)	1.0000
C(38)-H(38A)	0.9800
C(38)-H(38B)	0.9800
C(38)-H(38C)	0.9800
C(39)-H(39A)	0.9800
C(39)-H(39B)	0.9800
C(39)-H(39C)	0.9800

P(1)-Au(1)-S(1)	174.44(6)
C(1)-S(1)-Au(1)	101.30(19)
C(19)-P(1)-C(7)	104.6(2)
C(19)-P(1)-C(13)	104.5(2)
C(7)-P(1)-C(13)	109.9(2)
C(19)-P(1)-Au(1)	115.80(15)
C(7)-P(1)-Au(1)	107.86(16)
C(13)-P(1)-Au(1)	113.72(16)
C(6)-C(1)-C(2)	114.7(5)
C(6)-C(1)-S(1)	124.7(5)
C(2)-C(1)-S(1)	120.6(5)
F(1)-C(2)-C(3)	118.0(6)
F(1)-C(2)-C(1)	118.6(6)
C(3)-C(2)-C(1)	123.4(6)
C(4)-C(3)-C(2)	122.3(6)
C(4)-C(3)-F(2)	121.8(6)
C(2)-C(3)-F(2)	115.9(6)
C(3)-C(4)-C(5)	116.0(6)
C(3)-C(4)-C(40)	125.1(6)
C(5)-C(4)-C(40)	118.9(6)
F(3)-C(5)-C(6)	117.2(6)
F(3)-C(5)-C(4)	120.4(6)
C(6)-C(5)-C(4)	122.4(6)
F(4)-C(6)-C(5)	118.8(5)
F(4)-C(6)-C(1)	120.1(5)
C(5)-C(6)-C(1)	121.1(6)
C(8)-C(7)-C(12)	110.5(4)
C(8)-C(7)-P(1)	108.3(3)
C(12)-C(7)-P(1)	111.6(3)
C(8)-C(7)-H(7)	108.8
C(12)-C(7)-H(7)	108.8
P(1)-C(7)-H(7)	108.8
C(9)-C(8)-C(7)	112.3(4)
C(9)-C(8)-H(8A)	109.1
C(7)-C(8)-H(8A)	109.1
C(9)-C(8)-H(8B)	109.1
C(7)-C(8)-H(8B)	109.1
H(8A)-C(8)-H(8B)	107.9
C(10)-C(9)-C(8)	110.8(4)
C(10)-C(9)-H(9A)	109.5
C(8)-C(9)-H(9A)	109.5

C(10)-C(9)-H(9B)	109.5
C(8)-C(9)-H(9B)	109.5
H(9A)-C(9)-H(9B)	108.1
C(9)-C(10)-C(11)	111.2(4)
C(9)-C(10)-H(10A)	109.4
C(11)-C(10)-H(10A)	109.4
C(9)-C(10)-H(10B)	109.4
C(11)-C(10)-H(10B)	109.4
H(10A)-C(10)-H(10B)	108.0
C(10)-C(11)-C(12)	110.9(4)
C(10)-C(11)-H(11A)	109.5
C(12)-C(11)-H(11A)	109.5
C(10)-C(11)-H(11B)	109.5
C(12)-C(11)-H(11B)	109.5
H(11A)-C(11)-H(11B)	108.1
C(11)-C(12)-C(7)	110.0(4)
C(11)-C(12)-H(12A)	109.7
C(7)-C(12)-H(12A)	109.7
C(11)-C(12)-H(12B)	109.7
C(7)-C(12)-H(12B)	109.7
H(12A)-C(12)-H(12B)	108.2
C(14)-C(13)-C(18)	112.0(4)
C(14)-C(13)-P(1)	112.9(3)
C(18)-C(13)-P(1)	114.1(3)
C(14)-C(13)-H(13)	105.7
C(18)-C(13)-H(13)	105.7
P(1)-C(13)-H(13)	105.7
C(15)-C(14)-C(13)	110.7(4)
C(15)-C(14)-H(14A)	109.5
C(13)-C(14)-H(14A)	109.5
C(15)-C(14)-H(14B)	109.5
C(13)-C(14)-H(14B)	109.5
H(14A)-C(14)-H(14B)	108.1
C(16)-C(15)-C(14)	110.9(5)
C(16)-C(15)-H(15A)	109.5
C(14)-C(15)-H(15A)	109.5
C(16)-C(15)-H(15B)	109.5
C(14)-C(15)-H(15B)	109.5
H(15A)-C(15)-H(15B)	108.0
C(15)-C(16)-C(17)	110.5(5)
C(15)-C(16)-H(16A)	109.5
C(17)-C(16)-H(16A)	109.5
C(15)-C(16)-H(16B)	109.5
C(17)-C(16)-H(16B)	109.5
H(16A)-C(16)-H(16B)	108.1
C(16)-C(17)-C(18)	111.0(5)
C(16)-C(17)-H(17A)	109.4
C(18)-C(17)-H(17A)	109.4
C(16)-C(17)-H(17B)	109.4

C(18)-C(17)-H(17B)	109.4
H(17A)-C(17)-H(17B)	108.0
C(17)-C(18)-C(13)	110.7(4)
C(17)-C(18)-H(18A)	109.5
C(13)-C(18)-H(18A)	109.5
C(17)-C(18)-H(18B)	109.5
C(13)-C(18)-H(18B)	109.5
H(18A)-C(18)-H(18B)	108.1
C(24)-C(19)-C(20)	119.0(4)
C(24)-C(19)-P(1)	122.4(3)
C(20)-C(19)-P(1)	118.7(3)
C(21)-C(20)-C(19)	121.7(4)
C(21)-C(20)-H(20)	119.2
C(19)-C(20)-H(20)	119.2
C(20)-C(21)-C(22)	118.9(4)
C(20)-C(21)-H(21)	120.6
C(22)-C(21)-H(21)	120.6
C(23)-C(22)-C(21)	119.9(4)
C(23)-C(22)-H(22)	120.0
C(21)-C(22)-H(22)	120.0
C(22)-C(23)-C(24)	121.9(4)
C(22)-C(23)-H(23)	119.0
C(24)-C(23)-H(23)	119.0
C(23)-C(24)-C(19)	118.6(4)
C(23)-C(24)-C(25)	116.7(4)
C(19)-C(24)-C(25)	124.7(4)
C(26)-C(25)-C(30)	120.4(4)
C(26)-C(25)-C(24)	120.8(4)
C(30)-C(25)-C(24)	118.6(4)
C(25)-C(26)-C(27)	118.8(4)
C(25)-C(26)-C(31)	121.6(4)
C(27)-C(26)-C(31)	119.5(4)
C(28)-C(27)-C(26)	122.1(4)
C(28)-C(27)-H(27)	118.9
C(26)-C(27)-H(27)	118.9
C(29)-C(28)-C(27)	118.1(4)
C(29)-C(28)-C(34)	121.9(4)
C(27)-C(28)-C(34)	120.0(4)
C(28)-C(29)-C(30)	122.2(4)
C(28)-C(29)-H(29)	118.9
C(30)-C(29)-H(29)	118.9
C(29)-C(30)-C(25)	118.4(4)
C(29)-C(30)-C(37)	119.5(4)
C(25)-C(30)-C(37)	122.1(4)
C(26)-C(31)-C(32)	113.1(4)
C(26)-C(31)-C(33)	110.3(4)
C(32)-C(31)-C(33)	110.2(4)
C(26)-C(31)-H(31)	107.7
C(32)-C(31)-H(31)	107.7

C(33)-C(31)-H(31)	107.7
C(31)-C(32)-H(32A)	109.5
C(31)-C(32)-H(32B)	109.5
H(32A)-C(32)-H(32B)	109.5
C(31)-C(32)-H(32C)	109.5
H(32A)-C(32)-H(32C)	109.5
H(32B)-C(32)-H(32C)	109.5
C(31)-C(33)-H(33A)	109.5
C(31)-C(33)-H(33B)	109.5
H(33A)-C(33)-H(33B)	109.5
C(31)-C(33)-H(33C)	109.5
H(33A)-C(33)-H(33C)	109.5
H(33B)-C(33)-H(33C)	109.5
C(36)-C(34)-C(28)	112.6(4)
C(36)-C(34)-C(35)	110.8(5)
C(28)-C(34)-C(35)	110.6(4)
C(36)-C(34)-H(34)	107.5
C(28)-C(34)-H(34)	107.5
C(35)-C(34)-H(34)	107.5
C(34)-C(35)-H(35A)	109.5
C(34)-C(35)-H(35B)	109.5
H(35A)-C(35)-H(35B)	109.5
C(34)-C(35)-H(35C)	109.5
H(35A)-C(35)-H(35C)	109.5
H(35B)-C(35)-H(35C)	109.5
C(34)-C(36)-H(36A)	109.5
C(34)-C(36)-H(36B)	109.5
H(36A)-C(36)-H(36B)	109.5
C(34)-C(36)-H(36C)	109.5
H(36A)-C(36)-H(36C)	109.5
H(36B)-C(36)-H(36C)	109.5
C(39)-C(37)-C(38)	110.2(4)
C(39)-C(37)-C(30)	113.2(4)
C(38)-C(37)-C(30)	109.9(4)
C(39)-C(37)-H(37)	107.8
C(38)-C(37)-H(37)	107.8
C(30)-C(37)-H(37)	107.8
C(37)-C(38)-H(38A)	109.5
C(37)-C(38)-H(38B)	109.5
H(38A)-C(38)-H(38B)	109.5
C(37)-C(38)-H(38C)	109.5
H(38A)-C(38)-H(38C)	109.5
H(38B)-C(38)-H(38C)	109.5
C(37)-C(39)-H(39A)	109.5
C(37)-C(39)-H(39B)	109.5
H(39A)-C(39)-H(39B)	109.5
C(37)-C(39)-H(39C)	109.5
H(39A)-C(39)-H(39C)	109.5
H(39B)-C(39)-H(39C)	109.5

F(6)-C(40)-F(7)	107.1(6)
F(6)-C(40)-F(5)	104.8(6)
F(7)-C(40)-F(5)	104.7(6)
F(6)-C(40)-C(4)	113.2(6)
F(7)-C(40)-C(4)	114.1(6)
F(5)-C(40)-C(4)	112.2(6)

Symmetry transformations used to generate equivalent atoms:

Table S8. Anisotropic displacement parameters ($Å^2 x\ 10^3$)for cldr07. The anisotropic displacement factor exponent takes the form: $-2\pi^2[\ h^2 a^{*2} U^{11} + ... + 2\ h\ k\ a^*\ b^*\ U^{12}\ ]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	21(1)	32(1)	31(1)	12(1)	-3(1)	-7(1)
S(1)	34(1)	72(1)	61(1)	46(1)	-13(1)	-19(1)
P(1)	18(1)	19(1)	20(1)	3(1)	-2(1)	-2(1)
F(1)	94(3)	70(3)	39(2)	-8(2)	1(2)	-19(2)
F(2)	79(3)	63(3)	73(3)	-9(2)	32(2)	6(2)
F(3)	77(3)	59(2)	48(2)	7(2)	-22(2)	-5(2)
F(4)	67(3)	60(2)	46(2)	3(2)	20(2)	1(2)
F(5)	59(3)	149(5)	80(3)	12(3)	20(3)	17(3)
F(6)	55(3)	62(3)	154(5)	-4(3)	-36(3)	-5(2)
F(7)	55(2)	71(3)	73(3)	27(2)	-2(2)	20(2)
C(1)	38(3)	38(3)	35(3)	11(3)	2(2)	-10(3)
C(2)	60(4)	38(3)	38(3)	3(3)	1(3)	-14(3)
C(3)	50(4)	31(3)	51(4)	2(3)	21(3)	0(3)
C(4)	34(3)	35(3)	68(5)	19(3)	10(3)	-1(3)
C(5)	50(4)	34(3)	38(3)	8(3)	-11(3)	-2(3)
C(6)	44(3)	36(3)	33(3)	5(2)	9(3)	-4(3)
C(7)	23(2)	20(2)	21(2)	1(2)	-5(2)	2(2)
C(8)	28(3)	24(2)	28(3)	-2(2)	-1(2)	5(2)
C(9)	38(3)	31(3)	30(3)	-6(2)	2(2)	-2(2)
C(10)	39(3)	37(3)	34(3)	-9(2)	-9(2)	-10(3)
C(11)	30(3)	43(3)	35(3)	-4(3)	-14(2)	3(2)
C(12)	19(2)	31(3)	30(3)	0(2)	-7(2)	-1(2)
C(13)	22(2)	22(2)	25(2)	-1(2)	2(2)	1(2)
C(14)	25(3)	34(3)	37(3)	3(2)	8(2)	-1(2)
C(15)	31(3)	40(3)	53(4)	1(3)	15(3)	9(3)
C(16)	34(3)	31(3)	57(4)	5(3)	3(3)	9(3)
C(17)	46(3)	21(2)	42(3)	4(2)	12(3)	6(2)
C(18)	35(3)	22(2)	29(3)	2(2)	4(2)	3(2)
C(19)	20(2)	16(2)	22(2)	0(2)	1(2)	-1(2)
C(20)	22(2)	22(2)	18(2)	-2(2)	-1(2)	1(2)
C(21)	27(2)	26(2)	25(2)	0(2)	9(2)	-6(2)
C(22)	17(2)	30(3)	33(3)	-2(2)	3(2)	-6(2)
C(23)	21(2)	29(3)	24(2)	-2(2)	-4(2)	0(2)
C(24)	21(2)	15(2)	21(2)	-1(2)	-2(2)	-3(2)
C(25)	15(2)	23(2)	21(2)	2(2)	-3(2)	-4(2)
C(26)	19(2)	23(2)	20(2)	-1(2)	-2(2)	-2(2)
C(27)	25(2)	25(2)	22(2)	-2(2)	2(2)	-1(2)
C(28)	22(2)	30(3)	20(2)	2(2)	0(2)	-3(2)
C(29)	23(2)	23(2)	22(2)	4(2)	0(2)	-2(2)
C(30)	18(2)	24(2)	20(2)	-3(2)	-3(2)	-3(2)
C(31)	30(3)	18(2)	24(2)	0(2)	-1(2)	-2(2)
C(32)	41(3)	28(3)	34(3)	-3(2)	5(2)	5(2)
C(33)	45(3)	27(3)	49(4)	0(3)	-9(3)	-10(3)
C(34)	31(3)	32(3)	19(2)	3(2)	9(2)	2(2)

C(35)	43(3)	68(4)	30(3)	18(3)	5(3)	8(3)
C(36)	47(4)	42(3)	38(3)	-1(3)	19(3)	-12(3)
C(37)	31(3)	23(2)	20(2)	0(2)	-1(2)	1(2)
C(38)	41(3)	50(4)	43(3)	-18(3)	-1(3)	7(3)
C(39)	50(3)	25(3)	31(3)	-5(2)	4(3)	-3(2)
C(40)	50(4)	51(4)	72(5)	12(4)	7(4)	4(3)

Table S9. Torsion angles [°] for cldr07.

Au(1)-S(1)-C(1)-C(6)	61.7(5)
Au(1)-S(1)-C(1)-C(2)	-120.9(5)
C(6)-C(1)-C(2)-F(1)	178.7(5)
S(1)-C(1)-C(2)-F(1)	1.1(8)
C(6)-C(1)-C(2)-C(3)	-1.9(9)
S(1)-C(1)-C(2)-C(3)	-179.6(5)
F(1)-C(2)-C(3)-C(4)	-178.8(5)
C(1)-C(2)-C(3)-C(4)	1.8(10)
F(1)-C(2)-C(3)-F(2)	-0.3(8)
C(1)-C(2)-C(3)-F(2)	-179.6(5)
C(2)-C(3)-C(4)-C(5)	-0.9(9)
F(2)-C(3)-C(4)-C(5)	-179.4(5)
C(2)-C(3)-C(4)-C(40)	178.4(6)
F(2)-C(3)-C(4)-C(40)	0.0(10)
C(3)-C(4)-C(5)-F(3)	179.3(5)
C(40)-C(4)-C(5)-F(3)	-0.1(9)
C(3)-C(4)-C(5)-C(6)	0.3(9)
C(40)-C(4)-C(5)-C(6)	-179.1(6)
F(3)-C(5)-C(6)-F(4)	0.8(8)
C(4)-C(5)-C(6)-F(4)	179.9(5)
F(3)-C(5)-C(6)-C(1)	-179.6(5)
C(4)-C(5)-C(6)-C(1)	-0.6(9)
C(2)-C(1)-C(6)-F(4)	-179.2(5)
S(1)-C(1)-C(6)-F(4)	-1.6(8)
C(2)-C(1)-C(6)-C(5)	1.3(8)
S(1)-C(1)-C(6)-C(5)	178.8(5)
C(19)-P(1)-C(7)-C(8)	66.2(4)
C(13)-P(1)-C(7)-C(8)	177.9(3)
Au(1)-P(1)-C(7)-C(8)	-57.6(3)
C(19)-P(1)-C(7)-C(12)	-171.9(3)
C(13)-P(1)-C(7)-C(12)	-60.2(4)
Au(1)-P(1)-C(7)-C(12)	64.3(3)
C(12)-C(7)-C(8)-C(9)	55.3(6)
P(1)-C(7)-C(8)-C(9)	177.8(4)
C(7)-C(8)-C(9)-C(10)	-54.3(6)
C(8)-C(9)-C(10)-C(11)	55.0(6)
C(9)-C(10)-C(11)-C(12)	-57.6(6)
C(10)-C(11)-C(12)-C(7)	58.1(6)
C(8)-C(7)-C(12)-C(11)	-56.5(5)
P(1)-C(7)-C(12)-C(11)	-177.1(3)
C(19)-P(1)-C(13)-C(14)	-158.3(4)
C(7)-P(1)-C(13)-C(14)	89.9(4)
Au(1)-P(1)-C(13)-C(14)	-31.1(4)
C(19)-P(1)-C(13)-C(18)	72.3(4)
C(7)-P(1)-C(13)-C(18)	-39.4(4)
Au(1)-P(1)-C(13)-C(18)	-160.4(3)
C(18)-C(13)-C(14)-C(15)	-54.4(6)

P(1)-C(13)-C(14)-C(15)	175.2(4)
C(13)-C(14)-C(15)-C(16)	56.6(6)
C(14)-C(15)-C(16)-C(17)	-58.5(6)
C(15)-C(16)-C(17)-C(18)	57.9(7)
C(16)-C(17)-C(18)-C(13)	-55.2(6)
C(14)-C(13)-C(18)-C(17)	53.7(6)
P(1)-C(13)-C(18)-C(17)	-176.5(4)
C(7)-P(1)-C(19)-C(24)	-145.0(4)
C(13)-P(1)-C(19)-C(24)	99.5(4)
Au(1)-P(1)-C(19)-C(24)	-26.4(4)
C(7)-P(1)-C(19)-C(20)	36.1(4)
C(13)-P(1)-C(19)-C(20)	-79.4(4)
Au(1)-P(1)-C(19)-C(20)	154.7(3)
C(24)-C(19)-C(20)-C(21)	-0.1(7)
P(1)-C(19)-C(20)-C(21)	178.7(4)
C(19)-C(20)-C(21)-C(22)	0.2(7)
C(20)-C(21)-C(22)-C(23)	-0.4(7)
C(21)-C(22)-C(23)-C(24)	0.5(8)
C(22)-C(23)-C(24)-C(19)	-0.5(7)
C(22)-C(23)-C(24)-C(25)	178.0(4)
C(20)-C(19)-C(24)-C(23)	0.3(6)
P(1)-C(19)-C(24)-C(23)	-178.5(3)
C(20)-C(19)-C(24)-C(25)	-178.1(4)
P(1)-C(19)-C(24)-C(25)	3.1(6)
C(23)-C(24)-C(25)-C(26)	90.5(5)
C(19)-C(24)-C(25)-C(26)	-91.1(5)
C(23)-C(24)-C(25)-C(30)	-84.8(5)
C(19)-C(24)-C(25)-C(30)	93.6(5)
C(30)-C(25)-C(26)-C(27)	-1.1(6)
C(24)-C(25)-C(26)-C(27)	-176.3(4)
C(30)-C(25)-C(26)-C(31)	176.0(4)
C(24)-C(25)-C(26)-C(31)	0.8(6)
C(25)-C(26)-C(27)-C(28)	0.7(7)
C(31)-C(26)-C(27)-C(28)	-176.5(4)
C(26)-C(27)-C(28)-C(29)	0.2(7)
C(26)-C(27)-C(28)-C(34)	178.6(4)
C(27)-C(28)-C(29)-C(30)	-0.8(7)
C(34)-C(28)-C(29)-C(30)	-179.1(4)
C(28)-C(29)-C(30)-C(25)	0.3(7)
C(28)-C(29)-C(30)-C(37)	177.4(4)
C(26)-C(25)-C(30)-C(29)	0.6(6)
C(24)-C(25)-C(30)-C(29)	175.9(4)
C(26)-C(25)-C(30)-C(37)	-176.3(4)
C(24)-C(25)-C(30)-C(37)	-1.1(6)
C(25)-C(26)-C(31)-C(32)	135.5(5)
C(27)-C(26)-C(31)-C(32)	-47.4(6)
C(25)-C(26)-C(31)-C(33)	-100.6(5)
C(27)-C(26)-C(31)-C(33)	76.4(6)
C(29)-C(28)-C(34)-C(36)	-55.8(6)

C(27)-C(28)-C(34)-C(36)	125.9(5)
C(29)-C(28)-C(34)-C(35)	68.8(6)
C(27)-C(28)-C(34)-C(35)	-109.5(6)
C(29)-C(30)-C(37)-C(39)	46.1(6)
C(25)-C(30)-C(37)-C(39)	-137.0(5)
C(29)-C(30)-C(37)-C(38)	-77.6(6)
C(25)-C(30)-C(37)-C(38)	99.3(5)
C(3)-C(4)-C(40)-F(6)	-119.7(8)
C(5)-C(4)-C(40)-F(6)	59.6(9)
C(3)-C(4)-C(40)-F(7)	117.5(7)
C(5)-C(4)-C(40)-F(7)	-63.2(9)
C(3)-C(4)-C(40)-F(5)	-1.4(10)
C(5)-C(4)-C(40)-F(5)	178.0(6)

Compound 2.

Table S10. Crystal data and structure refinement for cldr01.

Identification code	cldr01	
Empirical formula	C39 H49 Au F5 P S	
Formula weight	872.78	
Temperature	130(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	P 21/c	
Unit cell dimensions	a = 11.9863(4) Å	α= 90°.
	b = 16.3217(5) Å	β= 95.632(3)°.
	c = 18.9934(5) Å	γ = 90°.
Volume	3697.87(19) $Å^3$	
Z	4	
Density (calculated)	1.568 Mg/m^3	
Absorption coefficient	4.130 mm^{-1}	
F(000)	1752	
Crystal size	0.4292 x 0.2812 x 0.2502 mm^3	
Theta range for data collection	3.616 to 29.526°.	
Index ranges	-16<=h<=13, -13<=k<=22, -24<=l<=21	
Reflections collected	19400	
Independent reflections	8733 [R(int) = 0.0294]	
Completeness to theta = 25.242°	99.7 %	
Absorption correction	Analytical	
Max. and min. transmission	0.435 and 0.312	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	8733 / 0 / 430	
Goodness-of-fit on F^2	1.074	
Final R indices [I>2sigma(I)]	R1 = 0.0284, wR2 = 0.0581	
R indices (all data)	R1 = 0.0384, wR2 = 0.0630	
Extinction coefficient	n/a	
Largest diff. peak and hole	1.206 and -1.128 e.$Å^{-3}$	

Table S11. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for cldr01. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	6243(1)	4903(1)	7791(1)	18(1)
S(1)	6080(1)	5842(1)	8683(1)	27(1)
P(1)	6415(1)	3942(1)	6952(1)	16(1)
F(1)	4991(2)	6944(1)	9611(1)	36(1)
F(2)	3108(2)	6750(2)	10227(1)	50(1)
F(3)	1943(2)	5317(2)	10094(1)	54(1)
F(4)	2746(2)	4067(2)	9332(1)	45(1)
F(5)	4593(2)	4246(1)	8696(1)	35(1)
C(1)	4871(3)	5617(2)	9102(1)	23(1)
C(2)	4458(3)	6222(2)	9524(2)	27(1)
C(3)	3477(3)	6122(2)	9850(2)	34(1)
C(4)	2895(3)	5410(3)	9787(2)	36(1)
C(5)	3296(3)	4785(2)	9394(2)	31(1)
C(6)	4268(3)	4893(2)	9064(2)	26(1)
C(7)	6888(3)	2961(2)	7360(1)	20(1)
C(8)	6397(3)	2798(2)	8064(2)	28(1)
C(9)	6891(3)	2021(2)	8418(2)	37(1)
C(10)	6776(3)	1284(2)	7929(2)	40(1)
C(11)	7270(3)	1455(2)	7239(2)	33(1)
C(12)	6740(3)	2214(2)	6874(2)	26(1)
C(13)	5088(2)	3767(2)	6400(1)	17(1)
C(14)	4143(3)	3507(2)	6837(2)	25(1)
C(15)	3065(3)	3363(2)	6355(2)	27(1)
C(16)	2725(3)	4107(2)	5908(2)	27(1)
C(17)	3670(3)	4389(2)	5489(2)	27(1)
C(18)	4749(3)	4538(2)	5970(2)	23(1)
C(19)	7445(2)	4131(2)	6316(1)	15(1)
C(20)	7338(3)	3707(2)	5671(1)	19(1)
C(21)	8134(3)	3774(2)	5194(1)	23(1)
C(22)	9071(3)	4256(2)	5358(2)	25(1)
C(23)	9176(3)	4691(2)	5989(2)	23(1)
C(24)	8369(2)	4647(2)	6470(1)	17(1)
C(25)	8552(2)	5191(2)	7113(1)	17(1)
C(26)	8132(2)	5992(2)	7078(1)	17(1)
C(27)	8387(2)	6512(2)	7651(1)	20(1)
C(28)	9055(2)	6260(2)	8257(2)	20(1)
C(29)	9452(2)	5463(2)	8281(2)	20(1)
C(30)	9223(3)	4921(2)	7716(2)	18(1)
C(31)	7438(3)	6320(2)	6418(2)	21(1)
C(32)	8163(3)	6826(2)	5966(2)	35(1)
C(33)	6420(3)	6809(2)	6591(2)	34(1)
C(34)	9731(3)	4070(2)	7768(2)	24(1)
C(35)	9528(3)	3635(2)	8456(2)	35(1)
C(36)	10993(3)	4110(3)	7691(2)	39(1)

C(37)	9363(3)	6856(2)	8858(2)	27(1)
C(38)	10617(4)	7061(3)	8891(3)	69(2)
C(39)	9104(4)	6546(3)	9561(2)	65(2)

Table S12. Bond lengths [Å] and angles [°] for cldr01.

Au(1)-P(1)	2.2608(8)
Au(1)-S(1)	2.3067(8)
S(1)-C(1)	1.759(3)
P(1)-C(19)	1.835(3)
P(1)-C(13)	1.839(3)
P(1)-C(7)	1.844(3)
F(1)-C(2)	1.343(4)
F(2)-C(3)	1.348(4)
F(3)-C(4)	1.340(4)
F(4)-C(5)	1.345(4)
F(5)-C(6)	1.346(4)
C(1)-C(6)	1.383(5)
C(1)-C(2)	1.393(4)
C(2)-C(3)	1.392(5)
C(3)-C(4)	1.355(6)
C(4)-C(5)	1.377(5)
C(5)-C(6)	1.388(5)
C(7)-C(12)	1.529(4)
C(7)-C(8)	1.537(4)
C(7)-H(7)	1.0000
C(8)-C(9)	1.526(5)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.519(5)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.517(5)
C(10)-H(10A)	0.9900
C(10)-H(10B)	0.9900
C(11)-C(12)	1.527(4)
C(11)-H(11A)	0.9900
C(11)-H(11B)	0.9900
C(12)-H(12A)	0.9900
C(12)-H(12B)	0.9900
C(13)-C(14)	1.528(4)
C(13)-C(18)	1.534(4)
C(13)-H(13)	1.0000
C(14)-C(15)	1.526(4)
C(14)-H(14A)	0.9900
C(14)-H(14B)	0.9900
C(15)-C(16)	1.515(5)
C(15)-H(15A)	0.9900
C(15)-H(15B)	0.9900
C(16)-C(17)	1.518(4)
C(16)-H(16A)	0.9900
C(16)-H(16B)	0.9900
C(17)-C(18)	1.527(4)

C(17)-H(17A)	0.9900
C(17)-H(17B)	0.9900
C(18)-H(18A)	0.9900
C(18)-H(18B)	0.9900
C(19)-C(24)	1.400(4)
C(19)-C(20)	1.402(4)
C(20)-C(21)	1.383(4)
C(20)-H(20)	0.9500
C(21)-C(22)	1.381(4)
C(21)-H(21)	0.9500
C(22)-C(23)	1.386(4)
C(22)-H(22)	0.9500
C(23)-C(24)	1.396(4)
C(23)-H(23)	0.9500
C(24)-C(25)	1.509(4)
C(25)-C(26)	1.401(4)
C(25)-C(30)	1.404(4)
C(26)-C(27)	1.389(4)
C(26)-C(31)	1.530(4)
C(27)-C(28)	1.398(4)
C(27)-H(27)	0.9500
C(28)-C(29)	1.384(4)
C(28)-C(37)	1.518(4)
C(29)-C(30)	1.397(4)
C(29)-H(29)	0.9500
C(30)-C(34)	1.516(4)
C(31)-C(33)	1.522(5)
C(31)-C(32)	1.524(4)
C(31)-H(31)	1.0000
C(32)-H(32A)	0.9800
C(32)-H(32B)	0.9800
C(32)-H(32C)	0.9800
C(33)-H(33A)	0.9800
C(33)-H(33B)	0.9800
C(33)-H(33C)	0.9800
C(34)-C(35)	1.528(4)
C(34)-C(36)	1.535(5)
C(34)-H(34)	1.0000
C(35)-H(35A)	0.9800
C(35)-H(35B)	0.9800
C(35)-H(35C)	0.9800
C(36)-H(36A)	0.9800
C(36)-H(36B)	0.9800
C(36)-H(36C)	0.9800
C(37)-C(39)	1.487(5)
C(37)-C(38)	1.536(5)
C(37)-H(37)	1.0000
C(38)-H(38A)	0.9800
C(38)-H(38B)	0.9800

C(38)-H(38C)	0.9800
C(39)-H(39A)	0.9800
C(39)-H(39B)	0.9800
C(39)-H(39C)	0.9800

P(1)-Au(1)-S(1)	177.62(3)
C(1)-S(1)-Au(1)	109.03(11)
C(19)-P(1)-C(13)	104.56(12)
C(19)-P(1)-C(7)	102.92(14)
C(13)-P(1)-C(7)	108.55(14)
C(19)-P(1)-Au(1)	117.47(10)
C(13)-P(1)-Au(1)	112.04(10)
C(7)-P(1)-Au(1)	110.58(9)
C(6)-C(1)-C(2)	114.9(3)
C(6)-C(1)-S(1)	127.2(2)
C(2)-C(1)-S(1)	117.9(3)
F(1)-C(2)-C(3)	117.4(3)
F(1)-C(2)-C(1)	120.1(3)
C(3)-C(2)-C(1)	122.5(3)
F(2)-C(3)-C(4)	120.5(3)
F(2)-C(3)-C(2)	118.9(4)
C(4)-C(3)-C(2)	120.7(3)
F(3)-C(4)-C(3)	120.7(4)
F(3)-C(4)-C(5)	120.6(4)
C(3)-C(4)-C(5)	118.7(3)
F(4)-C(5)-C(4)	120.0(3)
F(4)-C(5)-C(6)	119.8(3)
C(4)-C(5)-C(6)	120.2(4)
F(5)-C(6)-C(1)	121.4(3)
F(5)-C(6)-C(5)	115.6(3)
C(1)-C(6)-C(5)	122.9(3)
C(12)-C(7)-C(8)	110.8(3)
C(12)-C(7)-P(1)	115.18(19)
C(8)-C(7)-P(1)	112.9(2)
C(12)-C(7)-H(7)	105.7
C(8)-C(7)-H(7)	105.7
P(1)-C(7)-H(7)	105.7
C(9)-C(8)-C(7)	111.2(3)
C(9)-C(8)-H(8A)	109.4
C(7)-C(8)-H(8A)	109.4
C(9)-C(8)-H(8B)	109.4
C(7)-C(8)-H(8B)	109.4
H(8A)-C(8)-H(8B)	108.0
C(10)-C(9)-C(8)	112.4(3)
C(10)-C(9)-H(9A)	109.1
C(8)-C(9)-H(9A)	109.1
C(10)-C(9)-H(9B)	109.1
C(8)-C(9)-H(9B)	109.1
H(9A)-C(9)-H(9B)	107.9

C(11)-C(10)-C(9)	111.2(3)
C(11)-C(10)-H(10A)	109.4
C(9)-C(10)-H(10A)	109.4
C(11)-C(10)-H(10B)	109.4
C(9)-C(10)-H(10B)	109.4
H(10A)-C(10)-H(10B)	108.0
C(10)-C(11)-C(12)	111.2(3)
C(10)-C(11)-H(11A)	109.4
C(12)-C(11)-H(11A)	109.4
C(10)-C(11)-H(11B)	109.4
C(12)-C(11)-H(11B)	109.4
H(11A)-C(11)-H(11B)	108.0
C(11)-C(12)-C(7)	110.7(2)
C(11)-C(12)-H(12A)	109.5
C(7)-C(12)-H(12A)	109.5
C(11)-C(12)-H(12B)	109.5
C(7)-C(12)-H(12B)	109.5
H(12A)-C(12)-H(12B)	108.1
C(14)-C(13)-C(18)	110.2(2)
C(14)-C(13)-P(1)	112.33(18)
C(18)-C(13)-P(1)	110.2(2)
C(14)-C(13)-H(13)	108.0
C(18)-C(13)-H(13)	108.0
P(1)-C(13)-H(13)	108.0
C(15)-C(14)-C(13)	110.3(2)
C(15)-C(14)-H(14A)	109.6
C(13)-C(14)-H(14A)	109.6
C(15)-C(14)-H(14B)	109.6
C(13)-C(14)-H(14B)	109.6
H(14A)-C(14)-H(14B)	108.1
C(16)-C(15)-C(14)	112.2(3)
C(16)-C(15)-H(15A)	109.2
C(14)-C(15)-H(15A)	109.2
C(16)-C(15)-H(15B)	109.2
C(14)-C(15)-H(15B)	109.2
H(15A)-C(15)-H(15B)	107.9
C(15)-C(16)-C(17)	111.3(3)
C(15)-C(16)-H(16A)	109.4
C(17)-C(16)-H(16A)	109.4
C(15)-C(16)-H(16B)	109.4
C(17)-C(16)-H(16B)	109.4
H(16A)-C(16)-H(16B)	108.0
C(16)-C(17)-C(18)	111.5(2)
C(16)-C(17)-H(17A)	109.3
C(18)-C(17)-H(17A)	109.3
C(16)-C(17)-H(17B)	109.3
C(18)-C(17)-H(17B)	109.3
H(17A)-C(17)-H(17B)	108.0
C(17)-C(18)-C(13)	110.6(3)

C(17)-C(18)-H(18A)	109.5
C(13)-C(18)-H(18A)	109.5
C(17)-C(18)-H(18B)	109.5
C(13)-C(18)-H(18B)	109.5
H(18A)-C(18)-H(18B)	108.1
C(24)-C(19)-C(20)	118.8(3)
C(24)-C(19)-P(1)	122.2(2)
C(20)-C(19)-P(1)	118.9(2)
C(21)-C(20)-C(19)	121.6(3)
C(21)-C(20)-H(20)	119.2
C(19)-C(20)-H(20)	119.2
C(22)-C(21)-C(20)	119.6(3)
C(22)-C(21)-H(21)	120.2
C(20)-C(21)-H(21)	120.2
C(21)-C(22)-C(23)	119.3(3)
C(21)-C(22)-H(22)	120.3
C(23)-C(22)-H(22)	120.3
C(22)-C(23)-C(24)	122.0(3)
C(22)-C(23)-H(23)	119.0
C(24)-C(23)-H(23)	119.0
C(23)-C(24)-C(19)	118.6(3)
C(23)-C(24)-C(25)	116.5(3)
C(19)-C(24)-C(25)	124.9(2)
C(26)-C(25)-C(30)	120.4(3)
C(26)-C(25)-C(24)	119.2(3)
C(30)-C(25)-C(24)	120.1(3)
C(27)-C(26)-C(25)	118.8(3)
C(27)-C(26)-C(31)	119.2(3)
C(25)-C(26)-C(31)	121.9(3)
C(26)-C(27)-C(28)	122.0(3)
C(26)-C(27)-H(27)	119.0
C(28)-C(27)-H(27)	119.0
C(29)-C(28)-C(27)	118.1(3)
C(29)-C(28)-C(37)	121.3(3)
C(27)-C(28)-C(37)	120.6(3)
C(28)-C(29)-C(30)	121.9(3)
C(28)-C(29)-H(29)	119.1
C(30)-C(29)-H(29)	119.1
C(29)-C(30)-C(25)	118.8(3)
C(29)-C(30)-C(34)	118.9(3)
C(25)-C(30)-C(34)	122.3(3)
C(33)-C(31)-C(32)	110.5(3)
C(33)-C(31)-C(26)	112.9(2)
C(32)-C(31)-C(26)	110.9(3)
C(33)-C(31)-H(31)	107.4
C(32)-C(31)-H(31)	107.4
C(26)-C(31)-H(31)	107.4
C(31)-C(32)-H(32A)	109.5
C(31)-C(32)-H(32B)	109.5

H(32A)-C(32)-H(32B)	109.5
C(31)-C(32)-H(32C)	109.5
H(32A)-C(32)-H(32C)	109.5
H(32B)-C(32)-H(32C)	109.5
C(31)-C(33)-H(33A)	109.5
C(31)-C(33)-H(33B)	109.5
H(33A)-C(33)-H(33B)	109.5
C(31)-C(33)-H(33C)	109.5
H(33A)-C(33)-H(33C)	109.5
H(33B)-C(33)-H(33C)	109.5
C(30)-C(34)-C(35)	112.6(3)
C(30)-C(34)-C(36)	110.3(3)
C(35)-C(34)-C(36)	110.0(3)
C(30)-C(34)-H(34)	107.9
C(35)-C(34)-H(34)	107.9
C(36)-C(34)-H(34)	107.9
C(34)-C(35)-H(35A)	109.5
C(34)-C(35)-H(35B)	109.5
H(35A)-C(35)-H(35B)	109.5
C(34)-C(35)-H(35C)	109.5
H(35A)-C(35)-H(35C)	109.5
H(35B)-C(35)-H(35C)	109.5
C(34)-C(36)-H(36A)	109.5
C(34)-C(36)-H(36B)	109.5
H(36A)-C(36)-H(36B)	109.5
C(34)-C(36)-H(36C)	109.5
H(36A)-C(36)-H(36C)	109.5
H(36B)-C(36)-H(36C)	109.5
C(39)-C(37)-C(28)	113.7(3)
C(39)-C(37)-C(38)	109.1(3)
C(28)-C(37)-C(38)	109.6(3)
C(39)-C(37)-H(37)	108.1
C(28)-C(37)-H(37)	108.1
C(38)-C(37)-H(37)	108.1
C(37)-C(38)-H(38A)	109.5
C(37)-C(38)-H(38B)	109.5
H(38A)-C(38)-H(38B)	109.5
C(37)-C(38)-H(38C)	109.5
H(38A)-C(38)-H(38C)	109.5
H(38B)-C(38)-H(38C)	109.5
C(37)-C(39)-H(39A)	109.5
C(37)-C(39)-H(39B)	109.5
H(39A)-C(39)-H(39B)	109.5
C(37)-C(39)-H(39C)	109.5
H(39A)-C(39)-H(39C)	109.5
H(39B)-C(39)-H(39C)	109.5

Table S13. Anisotropic displacement parameters ($Å^2$x 10^3)for cldr01. The anisotropic displacement factor exponent takes the form: $-2\pi^2[h^2a^{*2}U^{11} + ... + 2 h k a^* b^* U^{12}]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	20(1)	20(1)	14(1)	-1(1)	3(1)	-3(1)
S(1)	30(1)	26(1)	26(1)	-8(1)	7(1)	-5(1)
P(1)	20(1)	15(1)	12(1)	1(1)	0(1)	-4(1)
F(1)	54(1)	28(1)	25(1)	-6(1)	4(1)	4(1)
F(2)	66(2)	50(2)	35(1)	0(1)	19(1)	29(1)
F(3)	39(1)	75(2)	51(1)	13(1)	26(1)	14(1)
F(4)	42(1)	53(2)	44(1)	2(1)	16(1)	-14(1)
F(5)	44(1)	29(1)	35(1)	-7(1)	18(1)	-8(1)
C(1)	27(2)	26(2)	15(1)	0(1)	1(1)	4(2)
C(2)	39(2)	26(2)	15(1)	2(1)	0(1)	9(2)
C(3)	45(2)	40(2)	19(2)	2(2)	7(1)	24(2)
C(4)	33(2)	51(3)	25(2)	11(2)	14(1)	12(2)
C(5)	31(2)	38(2)	24(2)	9(2)	3(1)	-1(2)
C(6)	30(2)	30(2)	18(2)	1(1)	3(1)	6(2)
C(7)	24(2)	17(2)	19(1)	5(1)	-5(1)	-4(1)
C(8)	34(2)	29(2)	21(2)	10(1)	-2(1)	-3(2)
C(9)	40(2)	41(2)	28(2)	20(2)	-3(2)	-6(2)
C(10)	44(2)	26(2)	47(2)	20(2)	-8(2)	-4(2)
C(11)	41(2)	18(2)	39(2)	4(2)	-5(2)	2(2)
C(12)	31(2)	18(2)	27(2)	4(1)	-4(1)	-1(1)
C(13)	22(2)	15(2)	13(1)	-1(1)	-1(1)	-2(1)
C(14)	22(2)	30(2)	22(2)	10(1)	1(1)	-7(2)
C(15)	22(2)	28(2)	30(2)	2(2)	0(1)	-8(2)
C(16)	20(2)	30(2)	31(2)	-3(2)	0(1)	0(2)
C(17)	23(2)	35(2)	23(2)	7(2)	-2(1)	4(2)
C(18)	25(2)	22(2)	22(2)	5(1)	2(1)	0(1)
C(19)	21(2)	13(1)	11(1)	2(1)	-2(1)	0(1)
C(20)	26(2)	16(2)	15(1)	0(1)	-4(1)	-1(1)
C(21)	33(2)	22(2)	12(1)	-5(1)	-1(1)	5(1)
C(22)	32(2)	27(2)	17(1)	-1(1)	8(1)	0(2)
C(23)	23(2)	26(2)	22(2)	-2(1)	6(1)	-4(1)
C(24)	21(2)	14(2)	15(1)	0(1)	1(1)	0(1)
C(25)	16(1)	19(2)	16(1)	-1(1)	3(1)	-4(1)
C(26)	14(1)	20(2)	16(1)	2(1)	2(1)	-2(1)
C(27)	20(2)	19(2)	23(2)	-4(1)	4(1)	1(1)
C(28)	18(2)	26(2)	19(1)	-7(1)	4(1)	-2(1)
C(29)	19(2)	26(2)	16(1)	-2(1)	-1(1)	0(1)
C(30)	19(2)	18(2)	18(1)	-1(1)	2(1)	1(1)
C(31)	25(2)	17(2)	19(1)	-1(1)	-4(1)	-2(1)
C(32)	44(2)	39(2)	23(2)	5(2)	2(2)	-8(2)
C(33)	33(2)	35(2)	33(2)	9(2)	-1(1)	9(2)
C(34)	30(2)	21(2)	22(2)	-4(1)	-1(1)	3(2)
C(35)	46(2)	30(2)	28(2)	4(2)	-6(2)	2(2)
C(36)	30(2)	40(2)	48(2)	-1(2)	7(2)	12(2)

C(37)	30(2)	28(2)	22(2)	-12(1)	-5(1)	7(2)
C(38)	63(3)	71(4)	75(3)	-41(3)	17(2)	-29(3)
C(39)	98(4)	70(4)	28(2)	-21(2)	15(2)	-29(3)

Table S14. Torsion angles [°] for cldr01.

Au(1)-S(1)-C(1)-C(6)	16.7(3)
Au(1)-S(1)-C(1)-C(2)	-163.6(2)
C(6)-C(1)-C(2)-F(1)	178.6(3)
S(1)-C(1)-C(2)-F(1)	-1.1(4)
C(6)-C(1)-C(2)-C(3)	-3.6(4)
S(1)-C(1)-C(2)-C(3)	176.7(2)
F(1)-C(2)-C(3)-F(2)	0.5(4)
C(1)-C(2)-C(3)-F(2)	-177.3(3)
F(1)-C(2)-C(3)-C(4)	-179.9(3)
C(1)-C(2)-C(3)-C(4)	2.3(5)
F(2)-C(3)-C(4)-F(3)	0.3(5)
C(2)-C(3)-C(4)-F(3)	-179.2(3)
F(2)-C(3)-C(4)-C(5)	179.7(3)
C(2)-C(3)-C(4)-C(5)	0.1(5)
F(3)-C(4)-C(5)-F(4)	-1.7(5)
C(3)-C(4)-C(5)-F(4)	178.9(3)
F(3)-C(4)-C(5)-C(6)	178.4(3)
C(3)-C(4)-C(5)-C(6)	-0.9(5)
C(2)-C(1)-C(6)-F(5)	-177.6(3)
S(1)-C(1)-C(6)-F(5)	2.1(5)
C(2)-C(1)-C(6)-C(5)	2.8(5)
S(1)-C(1)-C(6)-C(5)	-177.5(3)
F(4)-C(5)-C(6)-F(5)	-0.2(5)
C(4)-C(5)-C(6)-F(5)	179.7(3)
F(4)-C(5)-C(6)-C(1)	179.5(3)
C(4)-C(5)-C(6)-C(1)	-0.6(5)
C(19)-P(1)-C(7)-C(12)	-69.2(2)
C(13)-P(1)-C(7)-C(12)	41.2(3)
Au(1)-P(1)-C(7)-C(12)	164.5(2)
C(19)-P(1)-C(7)-C(8)	162.1(2)
C(13)-P(1)-C(7)-C(8)	-87.4(2)
Au(1)-P(1)-C(7)-C(8)	35.8(2)
C(12)-C(7)-C(8)-C(9)	54.4(3)
P(1)-C(7)-C(8)-C(9)	-174.8(2)
C(7)-C(8)-C(9)-C(10)	-53.5(4)
C(8)-C(9)-C(10)-C(11)	54.2(4)
C(9)-C(10)-C(11)-C(12)	-55.9(4)
C(10)-C(11)-C(12)-C(7)	57.3(4)
C(8)-C(7)-C(12)-C(11)	-56.4(3)
P(1)-C(7)-C(12)-C(11)	174.0(2)
C(19)-P(1)-C(13)-C(14)	173.9(2)
C(7)-P(1)-C(13)-C(14)	64.6(3)
Au(1)-P(1)-C(13)-C(14)	-57.8(2)
C(19)-P(1)-C(13)-C(18)	-62.8(2)
C(7)-P(1)-C(13)-C(18)	-172.1(2)
Au(1)-P(1)-C(13)-C(18)	65.5(2)
C(18)-C(13)-C(14)-C(15)	57.1(3)

P(1)-C(13)-C(14)-C(15)	-179.6(2)
C(13)-C(14)-C(15)-C(16)	-56.0(4)
C(14)-C(15)-C(16)-C(17)	54.5(4)
C(15)-C(16)-C(17)-C(18)	-54.3(4)
C(16)-C(17)-C(18)-C(13)	56.2(4)
C(14)-C(13)-C(18)-C(17)	-57.6(3)
P(1)-C(13)-C(18)-C(17)	177.9(2)
C(13)-P(1)-C(19)-C(24)	148.9(2)
C(7)-P(1)-C(19)-C(24)	-97.7(3)
Au(1)-P(1)-C(19)-C(24)	24.0(3)
C(13)-P(1)-C(19)-C(20)	-34.9(3)
C(7)-P(1)-C(19)-C(20)	78.5(2)
Au(1)-P(1)-C(19)-C(20)	-159.8(2)
C(24)-C(19)-C(20)-C(21)	1.4(4)
P(1)-C(19)-C(20)-C(21)	-174.9(2)
C(19)-C(20)-C(21)-C(22)	1.3(5)
C(20)-C(21)-C(22)-C(23)	-2.4(5)
C(21)-C(22)-C(23)-C(24)	0.9(5)
C(22)-C(23)-C(24)-C(19)	1.8(5)
C(22)-C(23)-C(24)-C(25)	-176.3(3)
C(20)-C(19)-C(24)-C(23)	-2.9(4)
P(1)-C(19)-C(24)-C(23)	173.3(2)
C(20)-C(19)-C(24)-C(25)	175.0(3)
P(1)-C(19)-C(24)-C(25)	-8.8(4)
C(23)-C(24)-C(25)-C(26)	87.9(3)
C(19)-C(24)-C(25)-C(26)	-90.0(4)
C(23)-C(24)-C(25)-C(30)	-86.1(4)
C(19)-C(24)-C(25)-C(30)	95.9(4)
C(30)-C(25)-C(26)-C(27)	-0.4(4)
C(24)-C(25)-C(26)-C(27)	-174.4(3)
C(30)-C(25)-C(26)-C(31)	177.4(3)
C(24)-C(25)-C(26)-C(31)	3.4(4)
C(25)-C(26)-C(27)-C(28)	0.5(4)
C(31)-C(26)-C(27)-C(28)	-177.4(3)
C(26)-C(27)-C(28)-C(29)	-1.0(4)
C(26)-C(27)-C(28)-C(37)	177.1(3)
C(27)-C(28)-C(29)-C(30)	1.5(4)
C(37)-C(28)-C(29)-C(30)	-176.6(3)
C(28)-C(29)-C(30)-C(25)	-1.4(5)
C(28)-C(29)-C(30)-C(34)	177.2(3)
C(26)-C(25)-C(30)-C(29)	0.8(4)
C(24)-C(25)-C(30)-C(29)	174.8(3)
C(26)-C(25)-C(30)-C(34)	-177.7(3)
C(24)-C(25)-C(30)-C(34)	-3.7(4)
C(27)-C(26)-C(31)-C(33)	-45.8(4)
C(25)-C(26)-C(31)-C(33)	136.4(3)
C(27)-C(26)-C(31)-C(32)	78.8(3)
C(25)-C(26)-C(31)-C(32)	-98.9(3)
C(29)-C(30)-C(34)-C(35)	50.6(4)

C(25)-C(30)-C(34)-C(35)	-130.9(3)
C(29)-C(30)-C(34)-C(36)	-72.8(4)
C(25)-C(30)-C(34)-C(36)	105.7(3)
C(29)-C(28)-C(37)-C(39)	-54.3(4)
C(27)-C(28)-C(37)-C(39)	127.6(4)
C(29)-C(28)-C(37)-C(38)	68.0(4)
C(27)-C(28)-C(37)-C(38)	-110.1(4)

Compound 3

Table S15. Crystal data and structure refinement for cldr02.

Identification code	cldr02	
Empirical formula	C39 H50 Au F4 P S	
Formula weight	854.78	
Temperature	130(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	P 21/n	
Unit cell dimensions	a = 11.1097(4) Å	α= 90°.
	b = 18.1906(6) Å	β= 98.494(4)°.
	c = 18.0439(6) Å	γ = 90°.
Volume	3606.5(2) $Å^3$	
Z	4	
Density (calculated)	1.574 Mg/m^3	
Absorption coefficient	4.229 mm^{-1}	
F(000)	1720	
Crystal size	0.430 x 0.280 x 0.240 mm^3	
Theta range for data collection	3.524 to 29.562°.	
Index ranges	-14<=h<=14, -24<=k<=24, -24<=l<=25	
Reflections collected	47096	
Independent reflections	9037 [R(int) = 0.0488]	
Completeness to theta = 25.242°	99.8 %	
Absorption correction	Analytical	
Max. and min. transmission	0.417 and 0.254	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	9037 / 0 / 421	
Goodness-of-fit on F^2	1.083	
Final R indices [I>2sigma(I)]	R1 = 0.0256, wR2 = 0.0527	
R indices (all data)	R1 = 0.0339, wR2 = 0.0567	
Extinction coefficient	n/a	
Largest diff. peak and hole	0.939 and -1.303 e.$Å^{-3}$	

Table 2. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for cldr02. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	9535(1)	5972(1)	2585(1)	18(1)
S(1)	10232(1)	4888(1)	3160(1)	27(1)
P(1)	8882(1)	6998(1)	1937(1)	16(1)
F(1)	10370(2)	3486(1)	3940(1)	44(1)
F(2)	9348(2)	3061(1)	5105(1)	45(1)
F(3)	7421(2)	5362(1)	5138(1)	45(1)
F(4)	8424(2)	5798(1)	3983(1)	33(1)
C(1)	9442(2)	4658(1)	3899(1)	19(1)
C(2)	9632(3)	3965(1)	4221(2)	25(1)
C(3)	9097(3)	3744(2)	4824(2)	28(1)
C(4)	8335(3)	4198(2)	5149(2)	28(1)
C(5)	8134(3)	4880(2)	4836(2)	26(1)
C(6)	8667(2)	5106(1)	4233(1)	22(1)
C(7)	7408(2)	6836(1)	1347(1)	18(1)
C(8)	7570(2)	6270(2)	742(2)	24(1)
C(9)	6358(3)	6125(2)	244(2)	28(1)
C(10)	5397(3)	5859(2)	697(2)	36(1)
C(11)	5229(3)	6415(2)	1310(2)	33(1)
C(12)	6436(3)	6575(2)	1812(2)	28(1)
C(13)	8741(2)	7795(1)	2560(1)	19(1)
C(14)	8359(3)	7557(2)	3309(1)	29(1)
C(15)	8377(3)	8215(2)	3841(2)	35(1)
C(16)	7582(3)	8843(2)	3483(2)	37(1)
C(17)	7975(3)	9075(2)	2747(2)	33(1)
C(18)	7949(3)	8426(2)	2207(1)	26(1)
C(19)	9858(2)	7345(1)	1277(1)	15(1)
C(20)	9342(2)	7806(1)	694(1)	20(1)
C(21)	10037(3)	8110(1)	196(1)	22(1)
C(22)	11275(3)	7959(1)	274(1)	23(1)
C(23)	11790(2)	7502(1)	842(1)	21(1)
C(24)	11104(2)	7179(1)	1349(1)	15(1)
C(25)	11770(2)	6661(1)	1912(1)	15(1)
C(26)	12422(2)	6930(1)	2585(1)	16(1)
C(27)	13127(2)	6448(1)	3063(1)	19(1)
C(28)	13225(2)	5706(1)	2898(1)	17(1)
C(29)	12576(2)	5451(1)	2234(1)	17(1)
C(30)	11844(2)	5910(1)	1736(1)	16(1)
C(31)	12443(3)	7745(1)	2782(1)	22(1)
C(32)	12114(3)	7884(2)	3563(2)	29(1)
C(33)	13687(3)	8072(2)	2707(2)	39(1)
C(34)	14064(2)	5219(1)	3425(1)	22(1)
C(35)	15391(3)	5431(2)	3413(2)	35(1)
C(36)	13875(3)	4404(2)	3274(2)	34(1)
C(37)	11205(2)	5600(1)	1001(1)	18(1)

C(38)	10713(3)	4823(2)	1065(2)	29(1)
C(39)	12082(3)	5617(2)	425(2)	31(1)

Table S16. Bond lengths [Å] and angles [°] for cldr02.

Au(1)-P(1)	2.2647(6)
Au(1)-S(1)	2.3081(7)
S(1)-C(1)	1.752(3)
P(1)-C(19)	1.837(2)
P(1)-C(7)	1.840(3)
P(1)-C(13)	1.855(3)
F(1)-C(2)	1.345(3)
F(2)-C(3)	1.355(3)
F(3)-C(5)	1.349(3)
F(4)-C(6)	1.351(3)
C(1)-C(6)	1.386(4)
C(1)-C(2)	1.392(4)
C(2)-C(3)	1.374(4)
C(3)-C(4)	1.375(4)
C(4)-C(5)	1.368(4)
C(4)-H(4)	0.9500
C(5)-C(6)	1.376(4)
C(7)-C(8)	1.530(4)
C(7)-C(12)	1.538(4)
C(7)-H(7)	1.0000
C(8)-C(9)	1.528(4)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.517(4)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.530(4)
C(10)-H(10A)	0.9900
C(10)-H(10B)	0.9900
C(11)-C(12)	1.531(4)
C(11)-H(11A)	0.9900
C(11)-H(11B)	0.9900
C(12)-H(12A)	0.9900
C(12)-H(12B)	0.9900
C(13)-C(18)	1.527(4)
C(13)-C(14)	1.537(3)
C(13)-H(13)	1.0000
C(14)-C(15)	1.533(4)
C(14)-H(14A)	0.9900
C(14)-H(14B)	0.9900
C(15)-C(16)	1.527(4)
C(15)-H(15A)	0.9900
C(15)-H(15B)	0.9900
C(16)-C(17)	1.519(4)
C(16)-H(16A)	0.9900
C(16)-H(16B)	0.9900
C(17)-C(18)	1.528(4)

C(17)-H(17A)	0.9900
C(17)-H(17B)	0.9900
C(18)-H(18A)	0.9900
C(18)-H(18B)	0.9900
C(19)-C(20)	1.399(3)
C(19)-C(24)	1.404(3)
C(20)-C(21)	1.384(4)
C(20)-H(20)	0.9500
C(21)-C(22)	1.390(4)
C(21)-H(21)	0.9500
C(22)-C(23)	1.377(4)
C(22)-H(22)	0.9500
C(23)-C(24)	1.402(3)
C(23)-H(23)	0.9500
C(24)-C(25)	1.499(3)
C(25)-C(30)	1.407(3)
C(25)-C(26)	1.407(3)
C(26)-C(27)	1.387(3)
C(26)-C(31)	1.523(3)
C(27)-C(28)	1.389(4)
C(27)-H(27)	0.9500
C(28)-C(29)	1.385(3)
C(28)-C(34)	1.515(3)
C(29)-C(30)	1.396(3)
C(29)-H(29)	0.9500
C(30)-C(37)	1.518(3)
C(31)-C(32)	1.528(4)
C(31)-C(33)	1.528(4)
C(31)-H(31)	1.0000
C(32)-H(32A)	0.9800
C(32)-H(32B)	0.9800
C(32)-H(32C)	0.9800
C(33)-H(33A)	0.9800
C(33)-H(33B)	0.9800
C(33)-H(33C)	0.9800
C(34)-C(36)	1.517(4)
C(34)-C(35)	1.527(4)
C(34)-H(34)	1.0000
C(35)-H(35A)	0.9800
C(35)-H(35B)	0.9800
C(35)-H(35C)	0.9800
C(36)-H(36A)	0.9800
C(36)-H(36B)	0.9800
C(36)-H(36C)	0.9800
C(37)-C(39)	1.525(4)
C(37)-C(38)	1.526(4)
C(37)-H(37)	1.0000
C(38)-H(38A)	0.9800
C(38)-H(38B)	0.9800

C(38)-H(38C)	0.9800
C(39)-H(39A)	0.9800
C(39)-H(39B)	0.9800
C(39)-H(39C)	0.9800

P(1)-Au(1)-S(1)	175.62(2)
C(1)-S(1)-Au(1)	111.94(9)
C(19)-P(1)-C(7)	103.90(11)
C(19)-P(1)-C(13)	103.62(11)
C(7)-P(1)-C(13)	109.16(12)
C(19)-P(1)-Au(1)	116.31(8)
C(7)-P(1)-Au(1)	110.88(8)
C(13)-P(1)-Au(1)	112.33(8)
C(6)-C(1)-C(2)	114.6(2)
C(6)-C(1)-S(1)	127.2(2)
C(2)-C(1)-S(1)	118.1(2)
F(1)-C(2)-C(3)	117.9(2)
F(1)-C(2)-C(1)	119.5(2)
C(3)-C(2)-C(1)	122.5(3)
F(2)-C(3)-C(2)	118.4(3)
F(2)-C(3)-C(4)	119.7(2)
C(2)-C(3)-C(4)	121.9(3)
C(5)-C(4)-C(3)	116.2(2)
C(5)-C(4)-H(4)	121.9
C(3)-C(4)-H(4)	121.9
F(3)-C(5)-C(4)	119.6(2)
F(3)-C(5)-C(6)	118.1(2)
C(4)-C(5)-C(6)	122.3(3)
F(4)-C(6)-C(5)	117.1(2)
F(4)-C(6)-C(1)	120.5(2)
C(5)-C(6)-C(1)	122.4(2)
C(8)-C(7)-C(12)	110.4(2)
C(8)-C(7)-P(1)	109.39(17)
C(12)-C(7)-P(1)	111.74(17)
C(8)-C(7)-H(7)	108.4
C(12)-C(7)-H(7)	108.4
P(1)-C(7)-H(7)	108.4
C(9)-C(8)-C(7)	110.5(2)
C(9)-C(8)-H(8A)	109.6
C(7)-C(8)-H(8A)	109.6
C(9)-C(8)-H(8B)	109.6
C(7)-C(8)-H(8B)	109.6
H(8A)-C(8)-H(8B)	108.1
C(10)-C(9)-C(8)	111.6(2)
C(10)-C(9)-H(9A)	109.3
C(8)-C(9)-H(9A)	109.3
C(10)-C(9)-H(9B)	109.3
C(8)-C(9)-H(9B)	109.3
H(9A)-C(9)-H(9B)	108.0

C(9)-C(10)-C(11)	110.5(2)
C(9)-C(10)-H(10A)	109.6
C(11)-C(10)-H(10A)	109.6
C(9)-C(10)-H(10B)	109.6
C(11)-C(10)-H(10B)	109.6
H(10A)-C(10)-H(10B)	108.1
C(10)-C(11)-C(12)	111.3(3)
C(10)-C(11)-H(11A)	109.4
C(12)-C(11)-H(11A)	109.4
C(10)-C(11)-H(11B)	109.4
C(12)-C(11)-H(11B)	109.4
H(11A)-C(11)-H(11B)	108.0
C(11)-C(12)-C(7)	111.1(2)
C(11)-C(12)-H(12A)	109.4
C(7)-C(12)-H(12A)	109.4
C(11)-C(12)-H(12B)	109.4
C(7)-C(12)-H(12B)	109.4
H(12A)-C(12)-H(12B)	108.0
C(18)-C(13)-C(14)	111.2(2)
C(18)-C(13)-P(1)	115.41(17)
C(14)-C(13)-P(1)	111.85(18)
C(18)-C(13)-H(13)	105.9
C(14)-C(13)-H(13)	105.9
P(1)-C(13)-H(13)	105.9
C(15)-C(14)-C(13)	110.6(2)
C(15)-C(14)-H(14A)	109.5
C(13)-C(14)-H(14A)	109.5
C(15)-C(14)-H(14B)	109.5
C(13)-C(14)-H(14B)	109.5
H(14A)-C(14)-H(14B)	108.1
C(16)-C(15)-C(14)	111.5(2)
C(16)-C(15)-H(15A)	109.3
C(14)-C(15)-H(15A)	109.3
C(16)-C(15)-H(15B)	109.3
C(14)-C(15)-H(15B)	109.3
H(15A)-C(15)-H(15B)	108.0
C(17)-C(16)-C(15)	110.7(3)
C(17)-C(16)-H(16A)	109.5
C(15)-C(16)-H(16A)	109.5
C(17)-C(16)-H(16B)	109.5
C(15)-C(16)-H(16B)	109.5
H(16A)-C(16)-H(16B)	108.1
C(16)-C(17)-C(18)	111.3(2)
C(16)-C(17)-H(17A)	109.4
C(18)-C(17)-H(17A)	109.4
C(16)-C(17)-H(17B)	109.4
C(18)-C(17)-H(17B)	109.4
H(17A)-C(17)-H(17B)	108.0
C(13)-C(18)-C(17)	111.0(2)

C(13)-C(18)-H(18A)	109.4
C(17)-C(18)-H(18A)	109.4
C(13)-C(18)-H(18B)	109.4
C(17)-C(18)-H(18B)	109.4
H(18A)-C(18)-H(18B)	108.0
C(20)-C(19)-C(24)	119.2(2)
C(20)-C(19)-P(1)	118.49(19)
C(24)-C(19)-P(1)	122.32(18)
C(21)-C(20)-C(19)	121.4(2)
C(21)-C(20)-H(20)	119.3
C(19)-C(20)-H(20)	119.3
C(20)-C(21)-C(22)	119.7(2)
C(20)-C(21)-H(21)	120.2
C(22)-C(21)-H(21)	120.2
C(23)-C(22)-C(21)	119.3(2)
C(23)-C(22)-H(22)	120.3
C(21)-C(22)-H(22)	120.3
C(22)-C(23)-C(24)	122.2(2)
C(22)-C(23)-H(23)	118.9
C(24)-C(23)-H(23)	118.9
C(23)-C(24)-C(19)	118.2(2)
C(23)-C(24)-C(25)	116.4(2)
C(19)-C(24)-C(25)	125.4(2)
C(30)-C(25)-C(26)	119.5(2)
C(30)-C(25)-C(24)	119.8(2)
C(26)-C(25)-C(24)	120.4(2)
C(27)-C(26)-C(25)	119.1(2)
C(27)-C(26)-C(31)	118.9(2)
C(25)-C(26)-C(31)	121.9(2)
C(26)-C(27)-C(28)	122.4(2)
C(26)-C(27)-H(27)	118.8
C(28)-C(27)-H(27)	118.8
C(29)-C(28)-C(27)	117.5(2)
C(29)-C(28)-C(34)	122.7(2)
C(27)-C(28)-C(34)	119.7(2)
C(28)-C(29)-C(30)	122.4(2)
C(28)-C(29)-H(29)	118.8
C(30)-C(29)-H(29)	118.8
C(29)-C(30)-C(25)	118.9(2)
C(29)-C(30)-C(37)	119.5(2)
C(25)-C(30)-C(37)	121.5(2)
C(26)-C(31)-C(32)	112.2(2)
C(26)-C(31)-C(33)	110.0(2)
C(32)-C(31)-C(33)	111.1(2)
C(26)-C(31)-H(31)	107.8
C(32)-C(31)-H(31)	107.8
C(33)-C(31)-H(31)	107.8
C(31)-C(32)-H(32A)	109.5
C(31)-C(32)-H(32B)	109.5

H(32A)-C(32)-H(32B)	109.5
C(31)-C(32)-H(32C)	109.5
H(32A)-C(32)-H(32C)	109.5
H(32B)-C(32)-H(32C)	109.5
C(31)-C(33)-H(33A)	109.5
C(31)-C(33)-H(33B)	109.5
H(33A)-C(33)-H(33B)	109.5
C(31)-C(33)-H(33C)	109.5
H(33A)-C(33)-H(33C)	109.5
H(33B)-C(33)-H(33C)	109.5
C(28)-C(34)-C(36)	113.8(2)
C(28)-C(34)-C(35)	110.4(2)
C(36)-C(34)-C(35)	110.7(2)
C(28)-C(34)-H(34)	107.2
C(36)-C(34)-H(34)	107.2
C(35)-C(34)-H(34)	107.2
C(34)-C(35)-H(35A)	109.5
C(34)-C(35)-H(35B)	109.5
H(35A)-C(35)-H(35B)	109.5
C(34)-C(35)-H(35C)	109.5
H(35A)-C(35)-H(35C)	109.5
H(35B)-C(35)-H(35C)	109.5
C(34)-C(36)-H(36A)	109.5
C(34)-C(36)-H(36B)	109.5
H(36A)-C(36)-H(36B)	109.5
C(34)-C(36)-H(36C)	109.5
H(36A)-C(36)-H(36C)	109.5
H(36B)-C(36)-H(36C)	109.5
C(30)-C(37)-C(39)	109.0(2)
C(30)-C(37)-C(38)	113.8(2)
C(39)-C(37)-C(38)	110.0(2)
C(30)-C(37)-H(37)	108.0
C(39)-C(37)-H(37)	108.0
C(38)-C(37)-H(37)	108.0
C(37)-C(38)-H(38A)	109.5
C(37)-C(38)-H(38B)	109.5
H(38A)-C(38)-H(38B)	109.5
C(37)-C(38)-H(38C)	109.5
H(38A)-C(38)-H(38C)	109.5
H(38B)-C(38)-H(38C)	109.5
C(37)-C(39)-H(39A)	109.5
C(37)-C(39)-H(39B)	109.5
H(39A)-C(39)-H(39B)	109.5
C(37)-C(39)-H(39C)	109.5
H(39A)-C(39)-H(39C)	109.5
H(39B)-C(39)-H(39C)	109.5

Table S17. Anisotropic displacement parameters ($Å^2$x 10^3)for cldr02. The anisotropic displacement factor exponent takes the form: $-2\pi^2[h^2a^{*2}U^{11} + ... + 2 h k a^* b^* U^{12}]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	17(1)	20(1)	16(1)	6(1)	4(1)	1(1)
S(1)	32(1)	27(1)	25(1)	11(1)	14(1)	11(1)
P(1)	14(1)	19(1)	15(1)	4(1)	3(1)	1(1)
F(1)	75(2)	26(1)	38(1)	9(1)	25(1)	19(1)
F(2)	80(2)	22(1)	36(1)	12(1)	17(1)	-2(1)
F(3)	50(1)	51(1)	39(1)	12(1)	28(1)	18(1)
F(4)	39(1)	29(1)	34(1)	13(1)	16(1)	14(1)
C(1)	20(1)	23(1)	15(1)	3(1)	2(1)	-2(1)
C(2)	36(2)	20(1)	20(1)	0(1)	5(1)	1(1)
C(3)	41(2)	18(1)	23(1)	5(1)	-1(1)	-7(1)
C(4)	30(2)	34(2)	22(1)	5(1)	7(1)	-10(1)
C(5)	23(2)	33(2)	24(1)	3(1)	7(1)	2(1)
C(6)	20(1)	24(1)	20(1)	6(1)	2(1)	-1(1)
C(7)	14(1)	22(1)	19(1)	4(1)	2(1)	1(1)
C(8)	17(1)	24(1)	28(1)	-3(1)	1(1)	1(1)
C(9)	21(2)	33(2)	31(2)	-9(1)	-1(1)	-4(1)
C(10)	24(2)	35(2)	48(2)	-2(2)	-1(1)	-11(1)
C(11)	15(1)	46(2)	38(2)	3(2)	4(1)	-8(1)
C(12)	20(2)	40(2)	26(1)	3(1)	6(1)	-5(1)
C(13)	16(1)	25(1)	17(1)	0(1)	4(1)	1(1)
C(14)	39(2)	31(2)	18(1)	2(1)	7(1)	1(1)
C(15)	47(2)	39(2)	20(1)	-2(1)	11(1)	1(2)
C(16)	43(2)	38(2)	34(2)	-9(1)	16(2)	6(2)
C(17)	41(2)	27(2)	32(2)	1(1)	9(1)	9(1)
C(18)	32(2)	26(1)	19(1)	0(1)	4(1)	6(1)
C(19)	17(1)	15(1)	12(1)	0(1)	3(1)	-2(1)
C(20)	18(1)	21(1)	18(1)	3(1)	0(1)	2(1)
C(21)	30(2)	21(1)	15(1)	7(1)	-1(1)	1(1)
C(22)	30(2)	24(1)	19(1)	6(1)	9(1)	-2(1)
C(23)	16(1)	22(1)	25(1)	3(1)	7(1)	0(1)
C(24)	18(1)	14(1)	14(1)	0(1)	3(1)	-1(1)
C(25)	12(1)	17(1)	16(1)	3(1)	4(1)	2(1)
C(26)	19(1)	15(1)	17(1)	1(1)	7(1)	0(1)
C(27)	18(1)	22(1)	14(1)	-1(1)	-1(1)	-4(1)
C(28)	14(1)	21(1)	17(1)	5(1)	5(1)	0(1)
C(29)	15(1)	16(1)	21(1)	0(1)	4(1)	-1(1)
C(30)	13(1)	19(1)	16(1)	-1(1)	5(1)	-1(1)
C(31)	31(2)	16(1)	19(1)	-3(1)	1(1)	-1(1)
C(32)	38(2)	27(2)	23(1)	-6(1)	5(1)	2(1)
C(33)	51(2)	25(2)	43(2)	-9(1)	18(2)	-16(1)
C(34)	19(1)	24(1)	22(1)	6(1)	0(1)	4(1)
C(35)	21(2)	40(2)	42(2)	6(2)	-5(1)	2(1)
C(36)	33(2)	26(2)	41(2)	13(1)	-2(1)	6(1)
C(37)	18(1)	18(1)	17(1)	0(1)	0(1)	1(1)

C(38)	34(2)	29(2)	23(1)	-1(1)	-3(1)	-11(1)
C(39)	32(2)	39(2)	24(1)	-9(1)	10(1)	-9(1)

Table S18. Torsion angles [°] for cldr02.

Au(1)-S(1)-C(1)-C(6)	-12.9(3)
Au(1)-S(1)-C(1)-C(2)	170.16(19)
C(6)-C(1)-C(2)-F(1)	-179.9(2)
S(1)-C(1)-C(2)-F(1)	-2.6(4)
C(6)-C(1)-C(2)-C(3)	-0.3(4)
S(1)-C(1)-C(2)-C(3)	177.1(2)
F(1)-C(2)-C(3)-F(2)	0.5(4)
C(1)-C(2)-C(3)-F(2)	-179.2(3)
F(1)-C(2)-C(3)-C(4)	179.6(3)
C(1)-C(2)-C(3)-C(4)	0.0(5)
F(2)-C(3)-C(4)-C(5)	179.6(3)
C(2)-C(3)-C(4)-C(5)	0.4(4)
C(3)-C(4)-C(5)-F(3)	-178.3(3)
C(3)-C(4)-C(5)-C(6)	-0.4(4)
F(3)-C(5)-C(6)-F(4)	-0.5(4)
C(4)-C(5)-C(6)-F(4)	-178.4(3)
F(3)-C(5)-C(6)-C(1)	178.1(2)
C(4)-C(5)-C(6)-C(1)	0.2(4)
C(2)-C(1)-C(6)-F(4)	178.8(2)
S(1)-C(1)-C(6)-F(4)	1.7(4)
C(2)-C(1)-C(6)-C(5)	0.2(4)
S(1)-C(1)-C(6)-C(5)	-176.8(2)
C(19)-P(1)-C(7)-C(8)	60.26(19)
C(13)-P(1)-C(7)-C(8)	170.31(17)
Au(1)-P(1)-C(7)-C(8)	-65.42(18)
C(19)-P(1)-C(7)-C(12)	-177.23(19)
C(13)-P(1)-C(7)-C(12)	-67.2(2)
Au(1)-P(1)-C(7)-C(12)	57.1(2)
C(12)-C(7)-C(8)-C(9)	56.6(3)
P(1)-C(7)-C(8)-C(9)	179.92(19)
C(7)-C(8)-C(9)-C(10)	-57.7(3)
C(8)-C(9)-C(10)-C(11)	56.7(3)
C(9)-C(10)-C(11)-C(12)	-55.6(3)
C(10)-C(11)-C(12)-C(7)	55.6(3)
C(8)-C(7)-C(12)-C(11)	-55.9(3)
P(1)-C(7)-C(12)-C(11)	-177.9(2)
C(19)-P(1)-C(13)-C(18)	72.0(2)
C(7)-P(1)-C(13)-C(18)	-38.2(2)
Au(1)-P(1)-C(13)-C(18)	-161.62(17)
C(19)-P(1)-C(13)-C(14)	-159.50(19)
C(7)-P(1)-C(13)-C(14)	90.3(2)
Au(1)-P(1)-C(13)-C(14)	-33.2(2)
C(18)-C(13)-C(14)-C(15)	-55.1(3)
P(1)-C(13)-C(14)-C(15)	174.2(2)
C(13)-C(14)-C(15)-C(16)	55.5(3)
C(14)-C(15)-C(16)-C(17)	-56.3(4)
C(15)-C(16)-C(17)-C(18)	56.5(4)

C(14)-C(13)-C(18)-C(17)	55.7(3)
P(1)-C(13)-C(18)-C(17)	-175.6(2)
C(16)-C(17)-C(18)-C(13)	-56.4(3)
C(7)-P(1)-C(19)-C(20)	36.7(2)
C(13)-P(1)-C(19)-C(20)	-77.4(2)
Au(1)-P(1)-C(19)-C(20)	158.81(16)
C(7)-P(1)-C(19)-C(24)	-144.9(2)
C(13)-P(1)-C(19)-C(24)	101.0(2)
Au(1)-P(1)-C(19)-C(24)	-22.7(2)
C(24)-C(19)-C(20)-C(21)	-1.1(4)
P(1)-C(19)-C(20)-C(21)	177.39(19)
C(19)-C(20)-C(21)-C(22)	-0.3(4)
C(20)-C(21)-C(22)-C(23)	0.7(4)
C(21)-C(22)-C(23)-C(24)	0.2(4)
C(22)-C(23)-C(24)-C(19)	-1.5(4)
C(22)-C(23)-C(24)-C(25)	176.7(2)
C(20)-C(19)-C(24)-C(23)	2.0(3)
P(1)-C(19)-C(24)-C(23)	-176.49(18)
C(20)-C(19)-C(24)-C(25)	-176.1(2)
P(1)-C(19)-C(24)-C(25)	5.5(3)
C(23)-C(24)-C(25)-C(30)	-88.9(3)
C(19)-C(24)-C(25)-C(30)	89.2(3)
C(23)-C(24)-C(25)-C(26)	84.9(3)
C(19)-C(24)-C(25)-C(26)	-97.0(3)
C(30)-C(25)-C(26)-C(27)	0.1(3)
C(24)-C(25)-C(26)-C(27)	-173.7(2)
C(30)-C(25)-C(26)-C(31)	176.0(2)
C(24)-C(25)-C(26)-C(31)	2.2(4)
C(25)-C(26)-C(27)-C(28)	0.7(4)
C(31)-C(26)-C(27)-C(28)	-175.4(2)
C(26)-C(27)-C(28)-C(29)	-0.7(4)
C(26)-C(27)-C(28)-C(34)	176.7(2)
C(27)-C(28)-C(29)-C(30)	0.1(4)
C(34)-C(28)-C(29)-C(30)	-177.3(2)
C(28)-C(29)-C(30)-C(25)	0.6(4)
C(28)-C(29)-C(30)-C(37)	177.1(2)
C(26)-C(25)-C(30)-C(29)	-0.7(3)
C(24)-C(25)-C(30)-C(29)	173.2(2)
C(26)-C(25)-C(30)-C(37)	-177.1(2)
C(24)-C(25)-C(30)-C(37)	-3.3(3)
C(27)-C(26)-C(31)-C(32)	-55.4(3)
C(25)-C(26)-C(31)-C(32)	128.7(3)
C(27)-C(26)-C(31)-C(33)	68.8(3)
C(25)-C(26)-C(31)-C(33)	-107.2(3)
C(29)-C(28)-C(34)-C(36)	-15.6(4)
C(27)-C(28)-C(34)-C(36)	167.1(2)
C(29)-C(28)-C(34)-C(35)	109.6(3)
C(27)-C(28)-C(34)-C(35)	-67.7(3)
C(29)-C(30)-C(37)-C(39)	-84.4(3)

C(25)-C(30)-C(37)-C(39)	92.0(3)
C(29)-C(30)-C(37)-C(38)	38.8(3)
C(25)-C(30)-C(37)-C(38)	-144.8(2)

Compound 4

Table S19. Crystal data and structure refinement for cldr09.

Identification code	cldr09	
Empirical formula	C41 H52 Au F6 P S	
Formula weight	918.82	
Temperature	130(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	P 21/n	
Unit cell dimensions	a = 12.5649(5) Å	α= 90°.
	b = 15.7464(8) Å	β= 107.425(5)°.
	c = 20.5938(9) Å	γ = 90°.
Volume	3887.5(3) $Å^3$	
Z	4	
Density (calculated)	1.570 Mg/m^3	
Absorption coefficient	3.936 mm^{-1}	
F(000)	1848	
Crystal size	0.450 x 0.340 x 0.120 mm^3	
Theta range for data collection	3.423 to 29.427°.	
Index ranges	-17<=h<=12, -16<=k<=20, -28<=l<=28	
Reflections collected	20486	
Independent reflections	9204 [R(int) = 0.0371]	
Completeness to theta = 25.242°	99.7 %	
Absorption correction	Analytical	
Max. and min. transmission	0.627 and 0.273	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	9204 / 0 / 455	
Goodness-of-fit on F^2	1.032	
Final R indices [I>2sigma(I)]	R1 = 0.0368, wR2 = 0.0720	
R indices (all data)	R1 = 0.0548, wR2 = 0.0801	
Extinction coefficient	n/a	
Largest diff. peak and hole	1.763 and -1.089 $e.Å^{-3}$	

Table S20. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for cldr09. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	2364(1)	1598(1)	4560(1)	20(1)
S(1)	1999(1)	1315(1)	5570(1)	29(1)
P(1)	2897(1)	1774(1)	3613(1)	18(1)
F(4)	2574(3)	5237(2)	6154(2)	61(1)
F(5)	2774(2)	4581(2)	5285(2)	52(1)
F(6)	1167(3)	4988(2)	5300(2)	57(1)
C(1)	1863(3)	2281(3)	5928(2)	27(1)
C(2)	1549(4)	2288(3)	6531(2)	32(1)
C(3)	1432(4)	3050(3)	6838(2)	33(1)
C(4)	1619(4)	3825(3)	6584(2)	34(1)
C(5)	1934(3)	3827(3)	5992(2)	27(1)
C(6)	2051(3)	3076(3)	5669(2)	26(1)
C(7)	3828(3)	2709(3)	3670(2)	20(1)
C(8)	4361(4)	2967(3)	4407(2)	34(1)
C(9)	5170(4)	3712(3)	4471(3)	44(1)
C(10)	4578(4)	4472(3)	4070(3)	41(1)
C(11)	4059(5)	4212(4)	3332(3)	51(2)
C(12)	3257(4)	3466(3)	3261(3)	44(1)
C(13)	3747(3)	864(3)	3511(2)	20(1)
C(14)	4784(3)	768(3)	4130(2)	28(1)
C(15)	5481(3)	0(3)	4052(2)	33(1)
C(16)	4810(4)	-810(3)	3916(2)	35(1)
C(17)	3769(4)	-713(3)	3312(2)	32(1)
C(18)	3074(3)	42(3)	3402(2)	29(1)
C(19)	1812(3)	1835(3)	2791(2)	20(1)
C(20)	2159(3)	1788(3)	2205(2)	24(1)
C(21)	1400(4)	1803(3)	1559(2)	30(1)
C(22)	273(4)	1860(3)	1489(2)	29(1)
C(23)	-84(3)	1910(3)	2058(2)	25(1)
C(24)	669(3)	1901(3)	2720(2)	19(1)
C(25)	177(3)	1967(3)	3299(2)	18(1)
C(26)	-115(3)	1223(3)	3588(2)	21(1)
C(27)	-591(3)	1312(3)	4112(2)	26(1)
C(28)	-794(3)	2090(3)	4364(2)	24(1)
C(29)	-529(3)	2808(3)	4056(2)	24(1)
C(30)	-54(3)	2766(3)	3526(2)	20(1)
C(31)	38(3)	356(3)	3319(2)	27(1)
C(32)	-1054(4)	46(3)	2824(3)	42(1)
C(33)	490(4)	-307(3)	3879(2)	32(1)
C(34)	-1268(4)	2120(3)	4961(2)	33(1)
C(35)	-2437(4)	1750(4)	4762(3)	52(2)
C(36)	-1250(4)	2994(4)	5279(3)	43(1)
C(37)	138(3)	3578(3)	3180(2)	24(1)
C(38)	-967(4)	3899(3)	2693(2)	34(1)

C(39)	679(4)	4284(3)	3678(2)	37(1)
C(40)	1044(5)	3020(4)	7445(3)	47(1)
C(41)	2126(4)	4646(3)	5690(2)	36(1)
F(1)	1003(8)	3730(6)	7760(4)	78(1)
F(2)	21(7)	2661(7)	7329(4)	78(1)
F(3)	1702(7)	2482(7)	7933(4)	78(1)
F(1A)	1651(9)	3598(7)	7933(5)	78(1)
F(2A)	32(8)	3301(8)	7344(4)	78(1)
F(3A)	1202(9)	2295(8)	7803(5)	78(1)

Table S21. Bond lengths [Å] and angles [°] for cldr09.

Au(1)-P(1)	2.2586(10)
Au(1)-S(1)	2.3055(11)
S(1)-C(1)	1.720(5)
P(1)-C(19)	1.831(4)
P(1)-C(13)	1.837(4)
P(1)-C(7)	1.863(4)
F(4)-C(41)	1.332(6)
F(5)-C(41)	1.333(5)
F(6)-C(41)	1.345(5)
C(1)-C(6)	1.409(6)
C(1)-C(2)	1.411(6)
C(2)-C(3)	1.385(7)
C(2)-H(2)	0.9500
C(3)-C(4)	1.376(7)
C(3)-C(40)	1.471(7)
C(4)-C(5)	1.390(6)
C(4)-H(4)	0.9500
C(5)-C(6)	1.385(6)
C(5)-C(41)	1.482(7)
C(6)-H(6)	0.9500
C(7)-C(12)	1.512(6)
C(7)-C(8)	1.520(6)
C(7)-H(7)	1.0000
C(8)-C(9)	1.531(7)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.516(7)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.520(7)
C(10)-H(10A)	0.9900
C(10)-H(10B)	0.9900
C(11)-C(12)	1.526(7)
C(11)-H(11A)	0.9900
C(11)-H(11B)	0.9900
C(12)-H(12A)	0.9900
C(12)-H(12B)	0.9900
C(13)-C(18)	1.525(6)
C(13)-C(14)	1.533(5)
C(13)-H(13)	1.0000
C(14)-C(15)	1.530(6)
C(14)-H(14A)	0.9900
C(14)-H(14B)	0.9900
C(15)-C(16)	1.508(6)
C(15)-H(15A)	0.9900
C(15)-H(15B)	0.9900
C(16)-C(17)	1.519(6)

C(16)-H(16A)	0.9900
C(16)-H(16B)	0.9900
C(17)-C(18)	1.519(6)
C(17)-H(17A)	0.9900
C(17)-H(17B)	0.9900
C(18)-H(18A)	0.9900
C(18)-H(18B)	0.9900
C(19)-C(24)	1.403(5)
C(19)-C(20)	1.404(6)
C(20)-C(21)	1.384(6)
C(20)-H(20)	0.9500
C(21)-C(22)	1.383(6)
C(21)-H(21)	0.9500
C(22)-C(23)	1.375(6)
C(22)-H(22)	0.9500
C(23)-C(24)	1.407(5)
C(23)-H(23)	0.9500
C(24)-C(25)	1.501(5)
C(25)-C(30)	1.403(6)
C(25)-C(26)	1.411(6)
C(26)-C(27)	1.390(6)
C(26)-C(31)	1.508(6)
C(27)-C(28)	1.382(6)
C(27)-H(27)	0.9500
C(28)-C(29)	1.385(6)
C(28)-C(34)	1.518(6)
C(29)-C(30)	1.394(6)
C(29)-H(29)	0.9500
C(30)-C(37)	1.517(6)
C(31)-C(32)	1.524(6)
C(31)-C(33)	1.532(6)
C(31)-H(31)	1.0000
C(32)-H(32A)	0.9800
C(32)-H(32B)	0.9800
C(32)-H(32C)	0.9800
C(33)-H(33A)	0.9800
C(33)-H(33B)	0.9800
C(33)-H(33C)	0.9800
C(34)-C(35)	1.519(6)
C(34)-C(36)	1.521(7)
C(34)-H(34)	1.0000
C(35)-H(35A)	0.9800
C(35)-H(35B)	0.9800
C(35)-H(35C)	0.9800
C(36)-H(36A)	0.9800
C(36)-H(36B)	0.9800
C(36)-H(36C)	0.9800
C(37)-C(39)	1.528(6)
C(37)-C(38)	1.534(6)

C(37)-H(37)	1.0000
C(38)-H(38A)	0.9800
C(38)-H(38B)	0.9800
C(38)-H(38C)	0.9800
C(39)-H(39A)	0.9800
C(39)-H(39B)	0.9800
C(39)-H(39C)	0.9800
C(40)-F(1)	1.301(10)
C(40)-F(2A)	1.303(11)
C(40)-F(3A)	1.340(14)
C(40)-F(2)	1.359(10)
C(40)-F(3)	1.382(12)
C(40)-F(1A)	1.401(12)

P(1)-Au(1)-S(1)	173.25(4)
C(1)-S(1)-Au(1)	106.71(16)
C(19)-P(1)-C(13)	103.45(18)
C(19)-P(1)-C(7)	107.21(18)
C(13)-P(1)-C(7)	104.36(19)
C(19)-P(1)-Au(1)	118.25(14)
C(13)-P(1)-Au(1)	109.66(14)
C(7)-P(1)-Au(1)	112.67(13)
C(6)-C(1)-C(2)	116.7(4)
C(6)-C(1)-S(1)	125.0(3)
C(2)-C(1)-S(1)	118.3(4)
C(3)-C(2)-C(1)	120.4(5)
C(3)-C(2)-H(2)	119.8
C(1)-C(2)-H(2)	119.8
C(4)-C(3)-C(2)	122.7(4)
C(4)-C(3)-C(40)	119.4(5)
C(2)-C(3)-C(40)	117.9(5)
C(3)-C(4)-C(5)	117.6(5)
C(3)-C(4)-H(4)	121.2
C(5)-C(4)-H(4)	121.2
C(6)-C(5)-C(4)	121.2(4)
C(6)-C(5)-C(41)	119.2(4)
C(4)-C(5)-C(41)	119.6(4)
C(5)-C(6)-C(1)	121.5(4)
C(5)-C(6)-H(6)	119.2
C(1)-C(6)-H(6)	119.2
C(12)-C(7)-C(8)	109.8(4)
C(12)-C(7)-P(1)	113.8(3)
C(8)-C(7)-P(1)	110.8(3)
C(12)-C(7)-H(7)	107.4
C(8)-C(7)-H(7)	107.4
P(1)-C(7)-H(7)	107.4
C(7)-C(8)-C(9)	111.9(4)
C(7)-C(8)-H(8A)	109.2
C(9)-C(8)-H(8A)	109.2

C(7)-C(8)-H(8B)	109.2
C(9)-C(8)-H(8B)	109.2
H(8A)-C(8)-H(8B)	107.9
C(10)-C(9)-C(8)	110.7(4)
C(10)-C(9)-H(9A)	109.5
C(8)-C(9)-H(9A)	109.5
C(10)-C(9)-H(9B)	109.5
C(8)-C(9)-H(9B)	109.5
H(9A)-C(9)-H(9B)	108.1
C(9)-C(10)-C(11)	109.0(4)
C(9)-C(10)-H(10A)	109.9
C(11)-C(10)-H(10A)	109.9
C(9)-C(10)-H(10B)	109.9
C(11)-C(10)-H(10B)	109.9
H(10A)-C(10)-H(10B)	108.3
C(10)-C(11)-C(12)	112.1(4)
C(10)-C(11)-H(11A)	109.2
C(12)-C(11)-H(11A)	109.2
C(10)-C(11)-H(11B)	109.2
C(12)-C(11)-H(11B)	109.2
H(11A)-C(11)-H(11B)	107.9
C(7)-C(12)-C(11)	111.3(4)
C(7)-C(12)-H(12A)	109.4
C(11)-C(12)-H(12A)	109.4
C(7)-C(12)-H(12B)	109.4
C(11)-C(12)-H(12B)	109.4
H(12A)-C(12)-H(12B)	108.0
C(18)-C(13)-C(14)	109.6(4)
C(18)-C(13)-P(1)	111.3(3)
C(14)-C(13)-P(1)	111.1(3)
C(18)-C(13)-H(13)	108.3
C(14)-C(13)-H(13)	108.3
P(1)-C(13)-H(13)	108.3
C(15)-C(14)-C(13)	111.2(4)
C(15)-C(14)-H(14A)	109.4
C(13)-C(14)-H(14A)	109.4
C(15)-C(14)-H(14B)	109.4
C(13)-C(14)-H(14B)	109.4
H(14A)-C(14)-H(14B)	108.0
C(16)-C(15)-C(14)	112.5(4)
C(16)-C(15)-H(15A)	109.1
C(14)-C(15)-H(15A)	109.1
C(16)-C(15)-H(15B)	109.1
C(14)-C(15)-H(15B)	109.1
H(15A)-C(15)-H(15B)	107.8
C(15)-C(16)-C(17)	111.3(4)
C(15)-C(16)-H(16A)	109.4
C(17)-C(16)-H(16A)	109.4
C(15)-C(16)-H(16B)	109.4

C(17)-C(16)-H(16B)	109.4
H(16A)-C(16)-H(16B)	108.0
C(18)-C(17)-C(16)	111.4(4)
C(18)-C(17)-H(17A)	109.3
C(16)-C(17)-H(17A)	109.3
C(18)-C(17)-H(17B)	109.3
C(16)-C(17)-H(17B)	109.3
H(17A)-C(17)-H(17B)	108.0
C(17)-C(18)-C(13)	111.6(3)
C(17)-C(18)-H(18A)	109.3
C(13)-C(18)-H(18A)	109.3
C(17)-C(18)-H(18B)	109.3
C(13)-C(18)-H(18B)	109.3
H(18A)-C(18)-H(18B)	108.0
C(24)-C(19)-C(20)	119.1(3)
C(24)-C(19)-P(1)	123.8(3)
C(20)-C(19)-P(1)	117.1(3)
C(21)-C(20)-C(19)	121.5(4)
C(21)-C(20)-H(20)	119.2
C(19)-C(20)-H(20)	119.2
C(22)-C(21)-C(20)	119.3(4)
C(22)-C(21)-H(21)	120.3
C(20)-C(21)-H(21)	120.3
C(23)-C(22)-C(21)	120.0(4)
C(23)-C(22)-H(22)	120.0
C(21)-C(22)-H(22)	120.0
C(22)-C(23)-C(24)	121.9(4)
C(22)-C(23)-H(23)	119.1
C(24)-C(23)-H(23)	119.1
C(19)-C(24)-C(23)	118.1(4)
C(19)-C(24)-C(25)	125.0(3)
C(23)-C(24)-C(25)	116.8(3)
C(30)-C(25)-C(26)	119.9(4)
C(30)-C(25)-C(24)	120.1(4)
C(26)-C(25)-C(24)	119.9(4)
C(27)-C(26)-C(25)	118.1(4)
C(27)-C(26)-C(31)	120.6(4)
C(25)-C(26)-C(31)	121.3(4)
C(28)-C(27)-C(26)	123.5(4)
C(28)-C(27)-H(27)	118.3
C(26)-C(27)-H(27)	118.3
C(27)-C(28)-C(29)	117.0(4)
C(27)-C(28)-C(34)	119.5(4)
C(29)-C(28)-C(34)	123.4(4)
C(28)-C(29)-C(30)	122.6(4)
C(28)-C(29)-H(29)	118.7
C(30)-C(29)-H(29)	118.7
C(29)-C(30)-C(25)	118.9(4)
C(29)-C(30)-C(37)	119.6(4)

C(25)-C(30)-C(37)	121.4(4)
C(26)-C(31)-C(32)	110.3(4)
C(26)-C(31)-C(33)	113.6(4)
C(32)-C(31)-C(33)	110.0(4)
C(26)-C(31)-H(31)	107.6
C(32)-C(31)-H(31)	107.6
C(33)-C(31)-H(31)	107.6
C(31)-C(32)-H(32A)	109.5
C(31)-C(32)-H(32B)	109.5
H(32A)-C(32)-H(32B)	109.5
C(31)-C(32)-H(32C)	109.5
H(32A)-C(32)-H(32C)	109.5
H(32B)-C(32)-H(32C)	109.5
C(31)-C(33)-H(33A)	109.5
C(31)-C(33)-H(33B)	109.5
H(33A)-C(33)-H(33B)	109.5
C(31)-C(33)-H(33C)	109.5
H(33A)-C(33)-H(33C)	109.5
H(33B)-C(33)-H(33C)	109.5
C(28)-C(34)-C(35)	110.6(4)
C(28)-C(34)-C(36)	114.7(4)
C(35)-C(34)-C(36)	110.6(4)
C(28)-C(34)-H(34)	106.8
C(35)-C(34)-H(34)	106.8
C(36)-C(34)-H(34)	106.8
C(34)-C(35)-H(35A)	109.5
C(34)-C(35)-H(35B)	109.5
H(35A)-C(35)-H(35B)	109.5
C(34)-C(35)-H(35C)	109.5
H(35A)-C(35)-H(35C)	109.5
H(35B)-C(35)-H(35C)	109.5
C(34)-C(36)-H(36A)	109.5
C(34)-C(36)-H(36B)	109.5
H(36A)-C(36)-H(36B)	109.5
C(34)-C(36)-H(36C)	109.5
H(36A)-C(36)-H(36C)	109.5
H(36B)-C(36)-H(36C)	109.5
C(30)-C(37)-C(39)	113.5(4)
C(30)-C(37)-C(38)	110.2(3)
C(39)-C(37)-C(38)	109.4(4)
C(30)-C(37)-H(37)	107.9
C(39)-C(37)-H(37)	107.9
C(38)-C(37)-H(37)	107.9
C(37)-C(38)-H(38A)	109.5
C(37)-C(38)-H(38B)	109.5
H(38A)-C(38)-H(38B)	109.5
C(37)-C(38)-H(38C)	109.5
H(38A)-C(38)-H(38C)	109.5
H(38B)-C(38)-H(38C)	109.5

C(37)-C(39)-H(39A)	109.5
C(37)-C(39)-H(39B)	109.5
H(39A)-C(39)-H(39B)	109.5
C(37)-C(39)-H(39C)	109.5
H(39A)-C(39)-H(39C)	109.5
H(39B)-C(39)-H(39C)	109.5
F(2A)-C(40)-F(3A)	110.8(7)
F(1)-C(40)-F(2)	105.6(6)
F(1)-C(40)-F(3)	105.6(7)
F(2)-C(40)-F(3)	101.6(7)
F(2A)-C(40)-F(1A)	100.9(7)
F(3A)-C(40)-F(1A)	101.5(7)
F(1)-C(40)-C(3)	117.9(6)
F(2A)-C(40)-C(3)	114.1(6)
F(3A)-C(40)-C(3)	117.5(6)
F(2)-C(40)-C(3)	113.6(5)
F(3)-C(40)-C(3)	111.1(5)
F(1A)-C(40)-C(3)	110.0(6)
F(4)-C(41)-F(5)	107.1(4)
F(4)-C(41)-F(6)	105.0(4)
F(5)-C(41)-F(6)	105.2(4)
F(4)-C(41)-C(5)	113.3(4)
F(5)-C(41)-C(5)	113.7(4)
F(6)-C(41)-C(5)	111.7(4)

Table S22. Anisotropic displacement parameters ($Å^2 x\ 10^3$)for cldr09. The anisotropic displacement factor exponent takes the form: $-2\pi^2[\ h^2 a^{*2} U^{11} + ... + 2\ h\ k\ a^*\ b^*\ U^{12}\ ]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	20(1)	26(1)	17(1)	1(1)	7(1)	3(1)
S(1)	36(1)	31(1)	26(1)	3(1)	18(1)	3(1)
P(1)	16(1)	24(1)	15(1)	-1(1)	5(1)	1(1)
F(4)	95(2)	41(2)	42(2)	-13(2)	13(2)	-22(2)
F(5)	61(2)	48(2)	56(2)	2(2)	33(2)	-8(2)
F(6)	56(2)	49(2)	62(2)	18(2)	12(2)	11(2)
C(1)	20(2)	38(3)	21(2)	3(2)	2(2)	2(2)
C(2)	33(2)	35(3)	28(2)	-1(2)	12(2)	4(2)
C(3)	31(2)	43(3)	30(2)	-5(2)	14(2)	-1(2)
C(4)	33(2)	36(3)	33(2)	-4(2)	11(2)	-1(2)
C(5)	24(2)	29(3)	27(2)	-3(2)	5(2)	0(2)
C(6)	24(2)	30(3)	28(2)	2(2)	11(2)	-1(2)
C(7)	23(2)	21(2)	19(2)	-2(2)	9(2)	-2(2)
C(8)	43(3)	25(3)	27(2)	-2(2)	2(2)	-10(2)
C(9)	47(3)	35(3)	38(3)	0(2)	-4(2)	-9(2)
C(10)	38(3)	31(3)	48(3)	-1(2)	2(2)	-7(2)
C(11)	55(3)	39(3)	43(3)	17(3)	-7(3)	-16(3)
C(12)	41(3)	37(3)	38(3)	9(2)	-10(2)	-6(2)
C(13)	16(2)	27(2)	19(2)	-2(2)	6(2)	3(2)
C(14)	19(2)	32(3)	27(2)	-6(2)	-2(2)	5(2)
C(15)	23(2)	28(3)	42(3)	-1(2)	2(2)	2(2)
C(16)	35(2)	26(3)	37(3)	-3(2)	1(2)	3(2)
C(17)	38(2)	24(3)	30(2)	-11(2)	3(2)	3(2)
C(18)	24(2)	31(3)	28(2)	-4(2)	1(2)	0(2)
C(19)	26(2)	14(2)	17(2)	-3(2)	4(2)	0(2)
C(20)	27(2)	26(3)	20(2)	1(2)	8(2)	1(2)
C(21)	38(2)	35(3)	18(2)	-3(2)	9(2)	-4(2)
C(22)	29(2)	34(3)	17(2)	1(2)	-4(2)	-2(2)
C(23)	23(2)	26(3)	25(2)	1(2)	5(2)	0(2)
C(24)	21(2)	13(2)	20(2)	1(2)	3(2)	-2(2)
C(25)	13(2)	23(2)	18(2)	0(2)	4(2)	-2(2)
C(26)	17(2)	19(2)	26(2)	6(2)	3(2)	1(2)
C(27)	20(2)	27(3)	30(2)	14(2)	7(2)	-1(2)
C(28)	18(2)	29(3)	26(2)	6(2)	8(2)	5(2)
C(29)	23(2)	25(3)	25(2)	1(2)	9(2)	4(2)
C(30)	16(2)	22(2)	19(2)	2(2)	1(2)	2(2)
C(31)	28(2)	22(3)	32(2)	6(2)	13(2)	-1(2)
C(32)	43(3)	30(3)	45(3)	0(2)	3(2)	-3(2)
C(33)	30(2)	23(3)	43(3)	8(2)	12(2)	2(2)
C(34)	28(2)	43(3)	33(2)	8(2)	15(2)	5(2)
C(35)	39(3)	69(5)	59(3)	-7(3)	31(3)	-14(3)
C(36)	44(3)	54(4)	39(3)	-2(2)	26(2)	-4(3)
C(37)	28(2)	20(2)	27(2)	2(2)	12(2)	1(2)
C(38)	40(3)	31(3)	32(2)	11(2)	9(2)	6(2)

C(39)	47(3)	30(3)	37(3)	-4(2)	19(2)	-9(2)
C(40)	62(4)	43(4)	46(3)	-8(3)	31(3)	3(3)
C(41)	40(3)	35(3)	31(2)	-1(2)	8(2)	-1(2)
F(1)	90(3)	101(3)	66(2)	-9(2)	57(2)	-8(3)
F(2)	90(3)	101(3)	66(2)	-9(2)	57(2)	-8(3)
F(3)	90(3)	101(3)	66(2)	-9(2)	57(2)	-8(3)
F(1A)	90(3)	101(3)	66(2)	-9(2)	57(2)	-8(3)
F(2A)	90(3)	101(3)	66(2)	-9(2)	57(2)	-8(3)
F(3A)	90(3)	101(3)	66(2)	-9(2)	57(2)	-8(3)

Table S23. Torsion angles [°] for cldr09.

Au(1)-S(1)-C(1)-C(6)	-5.4(4)
Au(1)-S(1)-C(1)-C(2)	175.2(3)
C(6)-C(1)-C(2)-C(3)	0.4(6)
S(1)-C(1)-C(2)-C(3)	179.8(3)
C(1)-C(2)-C(3)-C(4)	-0.5(7)
C(1)-C(2)-C(3)-C(40)	176.8(4)
C(2)-C(3)-C(4)-C(5)	0.2(7)
C(40)-C(3)-C(4)-C(5)	-177.1(4)
C(3)-C(4)-C(5)-C(6)	0.3(6)
C(3)-C(4)-C(5)-C(41)	178.9(4)
C(4)-C(5)-C(6)-C(1)	-0.4(6)
C(41)-C(5)-C(6)-C(1)	-179.1(4)
C(2)-C(1)-C(6)-C(5)	0.1(6)
S(1)-C(1)-C(6)-C(5)	-179.3(3)
C(19)-P(1)-C(7)-C(12)	27.5(4)
C(13)-P(1)-C(7)-C(12)	136.9(3)
Au(1)-P(1)-C(7)-C(12)	-104.2(3)
C(19)-P(1)-C(7)-C(8)	151.9(3)
C(13)-P(1)-C(7)-C(8)	-98.8(3)
Au(1)-P(1)-C(7)-C(8)	20.1(3)
C(12)-C(7)-C(8)-C(9)	-55.8(5)
P(1)-C(7)-C(8)-C(9)	177.6(3)
C(7)-C(8)-C(9)-C(10)	57.9(6)
C(8)-C(9)-C(10)-C(11)	-57.0(6)
C(9)-C(10)-C(11)-C(12)	57.1(6)
C(8)-C(7)-C(12)-C(11)	54.7(6)
P(1)-C(7)-C(12)-C(11)	179.6(4)
C(10)-C(11)-C(12)-C(7)	-56.9(6)
C(19)-P(1)-C(13)-C(18)	-63.6(3)
C(7)-P(1)-C(13)-C(18)	-175.7(3)
Au(1)-P(1)-C(13)-C(18)	63.4(3)
C(19)-P(1)-C(13)-C(14)	173.9(3)
C(7)-P(1)-C(13)-C(14)	61.9(3)
Au(1)-P(1)-C(13)-C(14)	-59.0(3)
C(18)-C(13)-C(14)-C(15)	55.4(5)
P(1)-C(13)-C(14)-C(15)	178.8(3)
C(13)-C(14)-C(15)-C(16)	-54.6(5)
C(14)-C(15)-C(16)-C(17)	53.5(5)
C(15)-C(16)-C(17)-C(18)	-54.3(6)
C(16)-C(17)-C(18)-C(13)	56.9(5)
C(14)-C(13)-C(18)-C(17)	-57.1(5)
P(1)-C(13)-C(18)-C(17)	179.6(3)
C(13)-P(1)-C(19)-C(24)	130.8(4)
C(7)-P(1)-C(19)-C(24)	-119.2(4)
Au(1)-P(1)-C(19)-C(24)	9.4(4)
C(13)-P(1)-C(19)-C(20)	-47.2(4)
C(7)-P(1)-C(19)-C(20)	62.7(4)

Au(1)-P(1)-C(19)-C(20)	-168.6(3)
C(24)-C(19)-C(20)-C(21)	-0.1(6)
P(1)-C(19)-C(20)-C(21)	178.1(4)
C(19)-C(20)-C(21)-C(22)	-0.6(7)
C(20)-C(21)-C(22)-C(23)	0.7(7)
C(21)-C(22)-C(23)-C(24)	-0.3(7)
C(20)-C(19)-C(24)-C(23)	0.5(6)
P(1)-C(19)-C(24)-C(23)	-177.5(3)
C(20)-C(19)-C(24)-C(25)	-179.3(4)
P(1)-C(19)-C(24)-C(25)	2.7(6)
C(22)-C(23)-C(24)-C(19)	-0.4(7)
C(22)-C(23)-C(24)-C(25)	179.5(4)
C(19)-C(24)-C(25)-C(30)	94.1(5)
C(23)-C(24)-C(25)-C(30)	-85.7(5)
C(19)-C(24)-C(25)-C(26)	-89.6(5)
C(23)-C(24)-C(25)-C(26)	90.5(5)
C(30)-C(25)-C(26)-C(27)	-2.3(5)
C(24)-C(25)-C(26)-C(27)	-178.6(3)
C(30)-C(25)-C(26)-C(31)	175.2(3)
C(24)-C(25)-C(26)-C(31)	-1.0(5)
C(25)-C(26)-C(27)-C(28)	0.1(6)
C(31)-C(26)-C(27)-C(28)	-177.5(4)
C(26)-C(27)-C(28)-C(29)	1.9(6)
C(26)-C(27)-C(28)-C(34)	-177.2(4)
C(27)-C(28)-C(29)-C(30)	-1.6(6)
C(34)-C(28)-C(29)-C(30)	177.4(4)
C(28)-C(29)-C(30)-C(25)	-0.6(6)
C(28)-C(29)-C(30)-C(37)	175.7(4)
C(26)-C(25)-C(30)-C(29)	2.6(5)
C(24)-C(25)-C(30)-C(29)	178.8(3)
C(26)-C(25)-C(30)-C(37)	-173.6(3)
C(24)-C(25)-C(30)-C(37)	2.6(5)
C(27)-C(26)-C(31)-C(32)	80.3(5)
C(25)-C(26)-C(31)-C(32)	-97.1(4)
C(27)-C(26)-C(31)-C(33)	-43.7(5)
C(25)-C(26)-C(31)-C(33)	138.9(4)
C(27)-C(28)-C(34)-C(35)	-65.1(5)
C(29)-C(28)-C(34)-C(35)	115.9(5)
C(27)-C(28)-C(34)-C(36)	169.0(4)
C(29)-C(28)-C(34)-C(36)	-10.0(6)
C(29)-C(30)-C(37)-C(39)	46.6(5)
C(25)-C(30)-C(37)-C(39)	-137.2(4)
C(29)-C(30)-C(37)-C(38)	-76.5(5)
C(25)-C(30)-C(37)-C(38)	99.7(4)
C(4)-C(3)-C(40)-F(1)	-6.9(9)
C(2)-C(3)-C(40)-F(1)	175.7(7)
C(4)-C(3)-C(40)-F(2A)	68.4(8)
C(2)-C(3)-C(40)-F(2A)	-109.0(8)
C(4)-C(3)-C(40)-F(3A)	-159.5(7)

C(2)-C(3)-C(40)-F(3A)	23.1(9)
C(4)-C(3)-C(40)-F(2)	117.3(7)
C(2)-C(3)-C(40)-F(2)	-60.1(8)
C(4)-C(3)-C(40)-F(3)	-128.9(7)
C(2)-C(3)-C(40)-F(3)	53.7(8)
C(4)-C(3)-C(40)-F(1A)	-44.1(8)
C(2)-C(3)-C(40)-F(1A)	138.5(7)
C(6)-C(5)-C(41)-F(4)	-146.0(4)
C(4)-C(5)-C(41)-F(4)	35.3(6)
C(6)-C(5)-C(41)-F(5)	-23.3(6)
C(4)-C(5)-C(41)-F(5)	158.0(4)
C(6)-C(5)-C(41)-F(6)	95.6(5)
C(4)-C(5)-C(41)-F(6)	-83.1(5)

Compound 6

Table S24. Crystal data and structure refinement for cldr10.

Identification code	cldr10	
Empirical formula	C40 H53 Au F3 P S	
Formula weight	850.82	
Temperature	130(2) K	
Wavelength	0.71073 Å	
Crystal system	Triclinic	
Space group	P -1	
Unit cell dimensions	a = 10.5002(4) Å	α= 83.432(3)°.
	b = 12.5850(5) Å	β= 75.794(3)°.
	c = 16.0270(6) Å	γ = 69.324(3)°.
Volume	1919.99(14) $Å^3$	
Z	2	
Density (calculated)	1.472 Mg/m^3	
Absorption coefficient	3.968 mm^{-1}	
F(000)	860	
Crystal size	0.600 x 0.540 x 0.350 mm^3	
Theta range for data collection	3.580 to 29.602°.	
Index ranges	-13<=h<=14, -17<=k<=17, -20<=l<=21	
Reflections collected	21341	
Independent reflections	9139 [R(int) = 0.0272]	
Completeness to theta = 25.242°	99.7 %	
Absorption correction	Analytical	
Max. and min. transmission	0.335 and 0.193	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	9139 / 0 / 419	
Goodness-of-fit on F^2	1.048	
Final R indices [I>2sigma(I)]	R1 = 0.0264, wR2 = 0.0582	
R indices (all data)	R1 = 0.0321, wR2 = 0.0609	
Extinction coefficient	n/a	
Largest diff. peak and hole	1.213 and -1.086 e.$Å^{-3}$	

Table 2. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for cldr10. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	-4092(1)	8346(1)	7617(1)	22(1)
S(1)	-3997(1)	9873(1)	8231(1)	35(1)
P(1)	-4003(1)	6793(1)	6992(1)	18(1)
C(1)	-3033(3)	10526(2)	7429(2)	26(1)
C(2)	-2724(4)	11423(3)	7669(2)	45(1)
C(3)	-1982(4)	11988(3)	7085(3)	49(1)
C(4)	-1520(3)	11681(3)	6236(2)	35(1)
C(5)	-1801(4)	10792(3)	5983(2)	35(1)
C(6)	-2550(3)	10223(3)	6574(2)	30(1)
C(7)	-4430(3)	7136(2)	5920(2)	22(1)
C(8)	-3981(3)	8125(3)	5461(2)	29(1)
C(9)	-4481(4)	8479(3)	4616(2)	37(1)
C(10)	-3986(5)	7484(3)	4029(2)	45(1)
C(11)	-4423(4)	6504(3)	4484(2)	43(1)
C(12)	-3925(4)	6130(3)	5323(2)	32(1)
C(13)	-2248(3)	5720(2)	6894(2)	21(1)
C(14)	-1124(3)	6187(3)	6366(2)	29(1)
C(15)	338(3)	5320(3)	6341(2)	37(1)
C(16)	579(3)	4941(3)	7237(2)	39(1)
C(17)	-532(3)	4474(3)	7765(2)	38(1)
C(18)	-1991(3)	5337(3)	7799(2)	32(1)
C(19)	-5170(3)	6033(2)	7563(2)	19(1)
C(20)	-4870(3)	4902(2)	7365(2)	24(1)
C(21)	-5735(3)	4299(2)	7762(2)	26(1)
C(22)	-6928(3)	4815(3)	8371(2)	26(1)
C(23)	-7231(3)	5920(2)	8575(2)	24(1)
C(24)	-6371(3)	6551(2)	8190(2)	18(1)
C(25)	-6805(3)	7748(2)	8474(2)	19(1)
C(26)	-6354(3)	7960(2)	9181(2)	23(1)
C(27)	-6833(3)	9071(3)	9457(2)	28(1)
C(28)	-7724(3)	9961(2)	9058(2)	31(1)
C(29)	-8155(3)	9727(3)	8377(2)	30(1)
C(30)	-7716(3)	8634(2)	8074(2)	24(1)
C(31)	-5397(3)	6998(3)	9633(2)	27(1)
C(32)	-6228(4)	6487(3)	10391(2)	38(1)
C(33)	-4332(4)	7348(3)	9937(2)	39(1)
C(34)	-8189(4)	11167(3)	9371(3)	47(1)
C(35)	-9775(6)	11628(4)	9707(5)	113(3)
C(36)	-7795(5)	11965(3)	8658(3)	58(1)
C(37)	-8259(4)	8420(3)	7338(2)	38(1)
C(38)	-9736(4)	8375(4)	7656(3)	62(1)
C(39)	-8213(5)	9298(4)	6597(3)	55(1)
C(40)	-741(5)	12295(3)	5612(3)	56(1)
F(1)	-95(6)	11822(4)	4881(3)	78(1)

F(2)	354(5)	12397(3)	5926(3)	78(1)
F(3)	-1474(5)	13381(4)	5523(3)	78(1)
F(1A)	-957(14)	12290(10)	4750(7)	78(1)
F(2A)	600(13)	11689(9)	5297(7)	78(1)
F(3A)	-817(14)	13302(11)	5688(8)	78(1)

Table S25. Bond lengths [Å] and angles [°] for cldr10.

Au(1)-P(1)	2.2598(7)
Au(1)-S(1)	2.2982(7)
S(1)-C(1)	1.748(3)
P(1)-C(19)	1.825(3)
P(1)-C(13)	1.842(3)
P(1)-C(7)	1.847(3)
C(1)-C(6)	1.388(4)
C(1)-C(2)	1.396(4)
C(2)-C(3)	1.367(5)
C(2)-H(2)	0.9500
C(3)-C(4)	1.379(5)
C(3)-H(3)	0.9500
C(4)-C(5)	1.378(5)
C(4)-C(40)	1.461(5)
C(5)-C(6)	1.380(4)
C(5)-H(5)	0.9500
C(6)-H(6)	0.9500
C(7)-C(8)	1.532(4)
C(7)-C(12)	1.534(4)
C(7)-H(7)	1.0000
C(8)-C(9)	1.534(4)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.514(5)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.514(5)
C(10)-H(10A)	0.9900
C(10)-H(10B)	0.9900
C(11)-C(12)	1.527(5)
C(11)-H(11A)	0.9900
C(11)-H(11B)	0.9900
C(12)-H(12A)	0.9900
C(12)-H(12B)	0.9900
C(13)-C(14)	1.529(4)
C(13)-C(18)	1.534(4)
C(13)-H(13)	1.0000
C(14)-C(15)	1.531(4)
C(14)-H(14A)	0.9900
C(14)-H(14B)	0.9900
C(15)-C(16)	1.513(5)
C(15)-H(15A)	0.9900
C(15)-H(15B)	0.9900
C(16)-C(17)	1.519(5)
C(16)-H(16A)	0.9900
C(16)-H(16B)	0.9900
C(17)-C(18)	1.525(4)

C(17)-H(17A)	0.9900
C(17)-H(17B)	0.9900
C(18)-H(18A)	0.9900
C(18)-H(18B)	0.9900
C(19)-C(20)	1.401(4)
C(19)-C(24)	1.405(4)
C(20)-C(21)	1.378(4)
C(20)-H(20)	0.9500
C(21)-C(22)	1.384(4)
C(21)-H(21)	0.9500
C(22)-C(23)	1.372(4)
C(22)-H(22)	0.9500
C(23)-C(24)	1.395(4)
C(23)-H(23)	0.9500
C(24)-C(25)	1.501(4)
C(25)-C(30)	1.398(4)
C(25)-C(26)	1.415(4)
C(26)-C(27)	1.393(4)
C(26)-C(31)	1.515(4)
C(27)-C(28)	1.388(5)
C(27)-H(27)	0.9500
C(28)-C(29)	1.377(5)
C(28)-C(34)	1.524(4)
C(29)-C(30)	1.391(4)
C(29)-H(29)	0.9500
C(30)-C(37)	1.517(5)
C(31)-C(32)	1.532(4)
C(31)-C(33)	1.532(4)
C(31)-H(31)	1.0000
C(32)-H(32A)	0.9800
C(32)-H(32B)	0.9800
C(32)-H(32C)	0.9800
C(33)-H(33A)	0.9800
C(33)-H(33B)	0.9800
C(33)-H(33C)	0.9800
C(34)-C(36)	1.511(5)
C(34)-C(35)	1.533(6)
C(34)-H(34)	1.0000
C(35)-H(35A)	0.9800
C(35)-H(35B)	0.9800
C(35)-H(35C)	0.9800
C(36)-H(36A)	0.9800
C(36)-H(36B)	0.9800
C(36)-H(36C)	0.9800
C(37)-C(38)	1.529(6)
C(37)-C(39)	1.531(5)
C(37)-H(37)	1.0000
C(38)-H(38A)	0.9800
C(38)-H(38B)	0.9800

C(38)-H(38C)	0.9800
C(39)-H(39A)	0.9800
C(39)-H(39B)	0.9800
C(39)-H(39C)	0.9800
C(40)-F(3A)	1.260(13)
C(40)-F(1)	1.293(6)
C(40)-F(3)	1.322(6)
C(40)-F(2A)	1.341(13)
C(40)-F(2)	1.413(6)
C(40)-F(1A)	1.455(13)

P(1)-Au(1)-S(1)	175.57(3)
C(1)-S(1)-Au(1)	106.72(10)
C(19)-P(1)-C(13)	103.96(13)
C(19)-P(1)-C(7)	104.11(12)
C(13)-P(1)-C(7)	109.68(13)
C(19)-P(1)-Au(1)	117.12(9)
C(13)-P(1)-Au(1)	109.45(9)
C(7)-P(1)-Au(1)	112.04(9)
C(6)-C(1)-C(2)	117.3(3)
C(6)-C(1)-S(1)	125.2(2)
C(2)-C(1)-S(1)	117.5(2)
C(3)-C(2)-C(1)	121.6(3)
C(3)-C(2)-H(2)	119.2
C(1)-C(2)-H(2)	119.2
C(2)-C(3)-C(4)	120.3(3)
C(2)-C(3)-H(3)	119.9
C(4)-C(3)-H(3)	119.9
C(5)-C(4)-C(3)	119.4(3)
C(5)-C(4)-C(40)	120.5(3)
C(3)-C(4)-C(40)	120.1(3)
C(4)-C(5)-C(6)	120.3(3)
C(4)-C(5)-H(5)	119.9
C(6)-C(5)-H(5)	119.9
C(5)-C(6)-C(1)	121.2(3)
C(5)-C(6)-H(6)	119.4
C(1)-C(6)-H(6)	119.4
C(8)-C(7)-C(12)	110.9(2)
C(8)-C(7)-P(1)	112.1(2)
C(12)-C(7)-P(1)	115.6(2)
C(8)-C(7)-H(7)	105.8
C(12)-C(7)-H(7)	105.8
P(1)-C(7)-H(7)	105.8
C(7)-C(8)-C(9)	111.3(3)
C(7)-C(8)-H(8A)	109.4
C(9)-C(8)-H(8A)	109.4
C(7)-C(8)-H(8B)	109.4
C(9)-C(8)-H(8B)	109.4
H(8A)-C(8)-H(8B)	108.0

C(10)-C(9)-C(8)	111.5(3)
C(10)-C(9)-H(9A)	109.3
C(8)-C(9)-H(9A)	109.3
C(10)-C(9)-H(9B)	109.3
C(8)-C(9)-H(9B)	109.3
H(9A)-C(9)-H(9B)	108.0
C(11)-C(10)-C(9)	111.1(3)
C(11)-C(10)-H(10A)	109.4
C(9)-C(10)-H(10A)	109.4
C(11)-C(10)-H(10B)	109.4
C(9)-C(10)-H(10B)	109.4
H(10A)-C(10)-H(10B)	108.0
C(10)-C(11)-C(12)	112.4(3)
C(10)-C(11)-H(11A)	109.1
C(12)-C(11)-H(11A)	109.1
C(10)-C(11)-H(11B)	109.1
C(12)-C(11)-H(11B)	109.1
H(11A)-C(11)-H(11B)	107.9
C(11)-C(12)-C(7)	110.7(3)
C(11)-C(12)-H(12A)	109.5
C(7)-C(12)-H(12A)	109.5
C(11)-C(12)-H(12B)	109.5
C(7)-C(12)-H(12B)	109.5
H(12A)-C(12)-H(12B)	108.1
C(14)-C(13)-C(18)	110.7(2)
C(14)-C(13)-P(1)	111.4(2)
C(18)-C(13)-P(1)	108.75(19)
C(14)-C(13)-H(13)	108.7
C(18)-C(13)-H(13)	108.7
P(1)-C(13)-H(13)	108.7
C(13)-C(14)-C(15)	111.1(3)
C(13)-C(14)-H(14A)	109.4
C(15)-C(14)-H(14A)	109.4
C(13)-C(14)-H(14B)	109.4
C(15)-C(14)-H(14B)	109.4
H(14A)-C(14)-H(14B)	108.0
C(16)-C(15)-C(14)	111.7(3)
C(16)-C(15)-H(15A)	109.3
C(14)-C(15)-H(15A)	109.3
C(16)-C(15)-H(15B)	109.3
C(14)-C(15)-H(15B)	109.3
H(15A)-C(15)-H(15B)	107.9
C(15)-C(16)-C(17)	111.6(3)
C(15)-C(16)-H(16A)	109.3
C(17)-C(16)-H(16A)	109.3
C(15)-C(16)-H(16B)	109.3
C(17)-C(16)-H(16B)	109.3
H(16A)-C(16)-H(16B)	108.0
C(16)-C(17)-C(18)	111.1(3)

C(16)-C(17)-H(17A)	109.4
C(18)-C(17)-H(17A)	109.4
C(16)-C(17)-H(17B)	109.4
C(18)-C(17)-H(17B)	109.4
H(17A)-C(17)-H(17B)	108.0
C(17)-C(18)-C(13)	111.5(3)
C(17)-C(18)-H(18A)	109.3
C(13)-C(18)-H(18A)	109.3
C(17)-C(18)-H(18B)	109.3
C(13)-C(18)-H(18B)	109.3
H(18A)-C(18)-H(18B)	108.0
C(20)-C(19)-C(24)	118.8(2)
C(20)-C(19)-P(1)	119.2(2)
C(24)-C(19)-P(1)	122.0(2)
C(21)-C(20)-C(19)	121.5(3)
C(21)-C(20)-H(20)	119.2
C(19)-C(20)-H(20)	119.2
C(20)-C(21)-C(22)	119.6(3)
C(20)-C(21)-H(21)	120.2
C(22)-C(21)-H(21)	120.2
C(23)-C(22)-C(21)	119.5(3)
C(23)-C(22)-H(22)	120.2
C(21)-C(22)-H(22)	120.2
C(22)-C(23)-C(24)	122.3(3)
C(22)-C(23)-H(23)	118.9
C(24)-C(23)-H(23)	118.9
C(23)-C(24)-C(19)	118.3(2)
C(23)-C(24)-C(25)	117.3(2)
C(19)-C(24)-C(25)	124.4(2)
C(30)-C(25)-C(26)	120.4(3)
C(30)-C(25)-C(24)	120.0(2)
C(26)-C(25)-C(24)	119.5(2)
C(27)-C(26)-C(25)	118.1(3)
C(27)-C(26)-C(31)	121.1(3)
C(25)-C(26)-C(31)	120.7(2)
C(28)-C(27)-C(26)	122.0(3)
C(28)-C(27)-H(27)	119.0
C(26)-C(27)-H(27)	119.0
C(29)-C(28)-C(27)	118.5(3)
C(29)-C(28)-C(34)	121.5(3)
C(27)-C(28)-C(34)	119.9(3)
C(28)-C(29)-C(30)	122.1(3)
C(28)-C(29)-H(29)	119.0
C(30)-C(29)-H(29)	119.0
C(29)-C(30)-C(25)	118.8(3)
C(29)-C(30)-C(37)	119.8(3)
C(25)-C(30)-C(37)	121.4(3)
C(26)-C(31)-C(32)	111.4(3)
C(26)-C(31)-C(33)	113.1(3)

C(32)-C(31)-C(33)	110.0(3)
C(26)-C(31)-H(31)	107.3
C(32)-C(31)-H(31)	107.3
C(33)-C(31)-H(31)	107.3
C(31)-C(32)-H(32A)	109.5
C(31)-C(32)-H(32B)	109.5
H(32A)-C(32)-H(32B)	109.5
C(31)-C(32)-H(32C)	109.5
H(32A)-C(32)-H(32C)	109.5
H(32B)-C(32)-H(32C)	109.5
C(31)-C(33)-H(33A)	109.5
C(31)-C(33)-H(33B)	109.5
H(33A)-C(33)-H(33B)	109.5
C(31)-C(33)-H(33C)	109.5
H(33A)-C(33)-H(33C)	109.5
H(33B)-C(33)-H(33C)	109.5
C(36)-C(34)-C(28)	111.5(3)
C(36)-C(34)-C(35)	108.1(4)
C(28)-C(34)-C(35)	110.7(3)
C(36)-C(34)-H(34)	108.8
C(28)-C(34)-H(34)	108.8
C(35)-C(34)-H(34)	108.8
C(34)-C(35)-H(35A)	109.5
C(34)-C(35)-H(35B)	109.5
H(35A)-C(35)-H(35B)	109.5
C(34)-C(35)-H(35C)	109.5
H(35A)-C(35)-H(35C)	109.5
H(35B)-C(35)-H(35C)	109.5
C(34)-C(36)-H(36A)	109.5
C(34)-C(36)-H(36B)	109.5
H(36A)-C(36)-H(36B)	109.5
C(34)-C(36)-H(36C)	109.5
H(36A)-C(36)-H(36C)	109.5
H(36B)-C(36)-H(36C)	109.5
C(30)-C(37)-C(38)	110.9(3)
C(30)-C(37)-C(39)	112.5(3)
C(38)-C(37)-C(39)	110.5(3)
C(30)-C(37)-H(37)	107.6
C(38)-C(37)-H(37)	107.6
C(39)-C(37)-H(37)	107.6
C(37)-C(38)-H(38A)	109.5
C(37)-C(38)-H(38B)	109.5
H(38A)-C(38)-H(38B)	109.5
C(37)-C(38)-H(38C)	109.5
H(38A)-C(38)-H(38C)	109.5
H(38B)-C(38)-H(38C)	109.5
C(37)-C(39)-H(39A)	109.5
C(37)-C(39)-H(39B)	109.5
H(39A)-C(39)-H(39B)	109.5

C(37)-C(39)-H(39C)	109.5
H(39A)-C(39)-H(39C)	109.5
H(39B)-C(39)-H(39C)	109.5
F(1)-C(40)-F(3)	112.5(4)
F(3A)-C(40)-F(2A)	107.9(8)
F(1)-C(40)-F(2)	102.5(4)
F(3)-C(40)-F(2)	99.8(4)
F(3A)-C(40)-F(1A)	103.9(8)
F(2A)-C(40)-F(1A)	86.7(8)
F(3A)-C(40)-C(4)	124.7(6)
F(1)-C(40)-C(4)	116.5(3)
F(3)-C(40)-C(4)	112.7(4)
F(2A)-C(40)-C(4)	115.0(5)
F(2)-C(40)-C(4)	110.9(4)
F(1A)-C(40)-C(4)	111.6(5)

Table S26. Anisotropic displacement parameters ($Å^2$x 10^3)for cldr10. The anisotropic displacement factor exponent takes the form: $-2\pi^2[h^2a^{*2}U^{11} + ... + 2 h k a^* b^* U^{12}]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	23(1)	20(1)	23(1)	-4(1)	-1(1)	-10(1)
S(1)	43(1)	35(1)	32(1)	-15(1)	9(1)	-25(1)
P(1)	18(1)	17(1)	19(1)	-2(1)	-4(1)	-6(1)
C(1)	20(1)	20(1)	37(2)	-4(1)	-4(1)	-7(1)
C(2)	55(2)	41(2)	44(2)	-23(2)	16(2)	-32(2)
C(3)	54(2)	37(2)	58(2)	-24(2)	17(2)	-30(2)
C(4)	34(2)	21(2)	48(2)	2(1)	-2(2)	-11(1)
C(5)	46(2)	36(2)	29(2)	3(1)	-12(2)	-20(2)
C(6)	40(2)	29(2)	32(2)	2(1)	-15(1)	-19(1)
C(7)	24(1)	23(1)	20(1)	1(1)	-7(1)	-8(1)
C(8)	39(2)	24(2)	26(2)	4(1)	-11(1)	-12(1)
C(9)	52(2)	32(2)	28(2)	6(1)	-15(2)	-12(2)
C(10)	71(3)	41(2)	22(2)	5(1)	-16(2)	-18(2)
C(11)	64(2)	41(2)	31(2)	-1(2)	-20(2)	-22(2)
C(12)	47(2)	28(2)	25(2)	-2(1)	-11(1)	-15(2)
C(13)	19(1)	22(1)	23(1)	-3(1)	-6(1)	-5(1)
C(14)	20(1)	32(2)	34(2)	0(1)	-3(1)	-9(1)
C(15)	21(2)	42(2)	44(2)	-2(2)	-4(1)	-7(1)
C(16)	25(2)	39(2)	53(2)	-7(2)	-19(2)	-1(1)
C(17)	34(2)	38(2)	37(2)	4(2)	-19(2)	-1(2)
C(18)	28(2)	36(2)	27(2)	3(1)	-7(1)	-5(1)
C(19)	22(1)	17(1)	20(1)	2(1)	-9(1)	-8(1)
C(20)	29(2)	21(1)	24(2)	-2(1)	-7(1)	-8(1)
C(21)	38(2)	20(1)	28(2)	1(1)	-15(1)	-13(1)
C(22)	32(2)	28(2)	28(2)	5(1)	-13(1)	-18(1)
C(23)	24(1)	29(2)	21(1)	2(1)	-7(1)	-11(1)
C(24)	20(1)	17(1)	19(1)	0(1)	-8(1)	-6(1)
C(25)	17(1)	18(1)	19(1)	-1(1)	-1(1)	-7(1)
C(26)	25(1)	22(1)	20(1)	1(1)	0(1)	-9(1)
C(27)	37(2)	26(2)	23(2)	-5(1)	0(1)	-15(1)
C(28)	34(2)	18(1)	35(2)	-2(1)	5(1)	-11(1)
C(29)	25(2)	21(2)	39(2)	3(1)	-4(1)	-4(1)
C(30)	21(1)	22(1)	28(2)	1(1)	-4(1)	-6(1)
C(31)	38(2)	26(2)	21(2)	-1(1)	-11(1)	-11(1)
C(32)	59(2)	36(2)	28(2)	6(1)	-15(2)	-26(2)
C(33)	49(2)	42(2)	33(2)	9(2)	-21(2)	-20(2)
C(34)	58(2)	20(2)	56(2)	-9(2)	2(2)	-13(2)
C(35)	96(4)	42(3)	160(6)	-49(3)	76(4)	-30(3)
C(36)	57(3)	26(2)	91(3)	4(2)	-14(2)	-18(2)
C(37)	35(2)	28(2)	51(2)	0(2)	-25(2)	-2(1)
C(38)	42(2)	53(3)	103(4)	6(2)	-44(2)	-14(2)
C(39)	72(3)	45(2)	47(2)	6(2)	-34(2)	-6(2)
C(40)	67(3)	33(2)	62(3)	-8(2)	15(2)	-29(2)
F(1)	97(2)	67(1)	74(2)	2(1)	12(2)	-56(2)

F(2)	97(2)	67(1)	74(2)	2(1)	12(2)	-56(2)
F(3)	97(2)	67(1)	74(2)	2(1)	12(2)	-56(2)
F(1A)	97(2)	67(1)	74(2)	2(1)	12(2)	-56(2)
F(2A)	97(2)	67(1)	74(2)	2(1)	12(2)	-56(2)
F(3A)	97(2)	67(1)	74(2)	2(1)	12(2)	-56(2)

Table S27. Torsion angles [°] for cldr10.

Au(1)-S(1)-C(1)-C(6)	5.5(3)
Au(1)-S(1)-C(1)-C(2)	-174.4(3)
C(6)-C(1)-C(2)-C(3)	0.4(6)
S(1)-C(1)-C(2)-C(3)	-179.7(3)
C(1)-C(2)-C(3)-C(4)	0.1(7)
C(2)-C(3)-C(4)-C(5)	-0.6(6)
C(2)-C(3)-C(4)-C(40)	179.3(4)
C(3)-C(4)-C(5)-C(6)	0.6(6)
C(40)-C(4)-C(5)-C(6)	-179.4(4)
C(4)-C(5)-C(6)-C(1)	-0.1(5)
C(2)-C(1)-C(6)-C(5)	-0.4(5)
S(1)-C(1)-C(6)-C(5)	179.7(3)
C(19)-P(1)-C(7)-C(8)	159.0(2)
C(13)-P(1)-C(7)-C(8)	-90.3(2)
Au(1)-P(1)-C(7)-C(8)	31.5(2)
C(19)-P(1)-C(7)-C(12)	-72.7(2)
C(13)-P(1)-C(7)-C(12)	38.1(3)
Au(1)-P(1)-C(7)-C(12)	159.82(19)
C(12)-C(7)-C(8)-C(9)	55.2(4)
P(1)-C(7)-C(8)-C(9)	-174.0(2)
C(7)-C(8)-C(9)-C(10)	-55.4(4)
C(8)-C(9)-C(10)-C(11)	55.0(4)
C(9)-C(10)-C(11)-C(12)	-55.5(4)
C(10)-C(11)-C(12)-C(7)	55.4(4)
C(8)-C(7)-C(12)-C(11)	-54.8(4)
P(1)-C(7)-C(12)-C(11)	176.2(2)
C(19)-P(1)-C(13)-C(14)	175.8(2)
C(7)-P(1)-C(13)-C(14)	64.9(2)
Au(1)-P(1)-C(13)-C(14)	-58.4(2)
C(19)-P(1)-C(13)-C(18)	-62.0(2)
C(7)-P(1)-C(13)-C(18)	-172.8(2)
Au(1)-P(1)-C(13)-C(18)	63.9(2)
C(18)-C(13)-C(14)-C(15)	54.8(3)
P(1)-C(13)-C(14)-C(15)	176.0(2)
C(13)-C(14)-C(15)-C(16)	-55.2(4)
C(14)-C(15)-C(16)-C(17)	55.4(4)
C(15)-C(16)-C(17)-C(18)	-55.3(4)
C(16)-C(17)-C(18)-C(13)	55.5(4)
C(14)-C(13)-C(18)-C(17)	-55.4(3)
P(1)-C(13)-C(18)-C(17)	-178.1(2)
C(13)-P(1)-C(19)-C(20)	-39.0(3)
C(7)-P(1)-C(19)-C(20)	75.8(2)
Au(1)-P(1)-C(19)-C(20)	-159.9(2)
C(13)-P(1)-C(19)-C(24)	141.6(2)
C(7)-P(1)-C(19)-C(24)	-103.5(2)
Au(1)-P(1)-C(19)-C(24)	20.8(3)
C(24)-C(19)-C(20)-C(21)	1.0(4)

P(1)-C(19)-C(20)-C(21)	-178.4(2)
C(19)-C(20)-C(21)-C(22)	-0.1(5)
C(20)-C(21)-C(22)-C(23)	-0.3(5)
C(21)-C(22)-C(23)-C(24)	-0.2(5)
C(22)-C(23)-C(24)-C(19)	1.1(4)
C(22)-C(23)-C(24)-C(25)	-179.3(3)
C(20)-C(19)-C(24)-C(23)	-1.4(4)
P(1)-C(19)-C(24)-C(23)	177.9(2)
C(20)-C(19)-C(24)-C(25)	179.0(3)
P(1)-C(19)-C(24)-C(25)	-1.6(4)
C(23)-C(24)-C(25)-C(30)	-87.0(3)
C(19)-C(24)-C(25)-C(30)	92.5(3)
C(23)-C(24)-C(25)-C(26)	89.0(3)
C(19)-C(24)-C(25)-C(26)	-91.4(3)
C(30)-C(25)-C(26)-C(27)	-0.7(4)
C(24)-C(25)-C(26)-C(27)	-176.7(2)
C(30)-C(25)-C(26)-C(31)	178.3(3)
C(24)-C(25)-C(26)-C(31)	2.3(4)
C(25)-C(26)-C(27)-C(28)	-0.2(4)
C(31)-C(26)-C(27)-C(28)	-179.2(3)
C(26)-C(27)-C(28)-C(29)	0.8(4)
C(26)-C(27)-C(28)-C(34)	-178.5(3)
C(27)-C(28)-C(29)-C(30)	-0.6(5)
C(34)-C(28)-C(29)-C(30)	178.7(3)
C(28)-C(29)-C(30)-C(25)	-0.3(4)
C(28)-C(29)-C(30)-C(37)	178.2(3)
C(26)-C(25)-C(30)-C(29)	0.9(4)
C(24)-C(25)-C(30)-C(29)	176.9(2)
C(26)-C(25)-C(30)-C(37)	-177.5(3)
C(24)-C(25)-C(30)-C(37)	-1.5(4)
C(27)-C(26)-C(31)-C(32)	87.3(3)
C(25)-C(26)-C(31)-C(32)	-91.7(3)
C(27)-C(26)-C(31)-C(33)	-37.2(4)
C(25)-C(26)-C(31)-C(33)	143.8(3)
C(29)-C(28)-C(34)-C(36)	-57.3(5)
C(27)-C(28)-C(34)-C(36)	121.9(4)
C(29)-C(28)-C(34)-C(35)	63.1(5)
C(27)-C(28)-C(34)-C(35)	-117.7(5)
C(29)-C(30)-C(37)-C(38)	-78.3(4)
C(25)-C(30)-C(37)-C(38)	100.1(4)
C(29)-C(30)-C(37)-C(39)	46.0(4)
C(25)-C(30)-C(37)-C(39)	-135.6(3)
C(5)-C(4)-C(40)-F(3A)	155.4(10)
C(3)-C(4)-C(40)-F(3A)	-24.6(11)
C(5)-C(4)-C(40)-F(1)	-14.1(7)
C(3)-C(4)-C(40)-F(1)	166.0(5)
C(5)-C(4)-C(40)-F(3)	118.2(5)
C(3)-C(4)-C(40)-F(3)	-61.8(6)
C(5)-C(4)-C(40)-F(2A)	-67.3(8)

C(3)-C(4)-C(40)-F(2A)	112.8(8)
C(5)-C(4)-C(40)-F(2)	-130.8(4)
C(3)-C(4)-C(40)-F(2)	49.2(5)
C(5)-C(4)-C(40)-F(1A)	29.4(8)
C(3)-C(4)-C(40)-F(1A)	-150.6(7)

Compound 7.

Table S28. Crystal data and structure refinement for cldr08b.

Identification code	cldr08b	
Empirical formula	C78 H103 Au2 F4 P2 S2	
Formula weight	1636.59	
Temperature	130(2) K	
Wavelength	1.54184 Å	
Crystal system	Triclinic	
Space group	P -1	
Unit cell dimensions	a = 10.1282(5) Å	α= 85.780(4)°.
	b = 17.4731(7) Å	β= 82.939(4)°.
	c = 20.6629(10) Å	γ = 89.929(4)°.
Volume	3619.1(3) $Å^3$	
Z	2	
Density (calculated)	1.502 Mg/m^3	
Absorption coefficient	8.874 mm^{-1}	
F(000)	1654	
Crystal size	0.420 x 0.120 x 0.080 mm^3	
Theta range for data collection	3.452 to 73.917°.	
Index ranges	-12<=h<=12, -19<=k<=21, -25<=l<=25	
Reflections collected	80882	
Independent reflections	14388 [R(int) = 0.0883]	
Completeness to theta = 67.684°	99.9 %	
Absorption correction	Analytical	
Max. and min. transmission	0.529 and 0.155	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	14388 / 140 / 765	
Goodness-of-fit on F^2	1.058	
Final R indices [I>2sigma(I)]	R1 = 0.0703, wR2 = 0.1477	
R indices (all data)	R1 = 0.1001, wR2 = 0.1639	
Extinction coefficient	n/a	
Largest diff. peak and hole	5.273 and -4.715 $e.Å^{-3}$	

Table S29. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for cldr08b. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	6480(1)	2169(1)	2851(1)	33(1)
S(1)	7939(3)	3200(2)	2774(1)	48(1)
P(1)	5094(2)	1152(1)	2866(1)	26(1)
F(1)	9855(14)	4296(9)	3106(6)	155(4)
F(2)	8695(14)	4259(8)	5337(6)	155(4)
C(1)	8079(12)	3488(7)	3544(6)	51(3)
C(2)	9072(15)	4018(9)	3641(8)	71(4)
C(3)	9250(20)	4291(13)	4221(9)	119(5)
C(4)	8510(20)	4017(13)	4737(9)	119(5)
C(5)	7370(20)	3552(12)	4703(9)	119(5)
C(6)	7210(20)	3278(10)	4097(7)	96(6)
C(7)	5750(11)	262(6)	3272(5)	42(3)
C(8)	6222(17)	432(7)	3928(7)	70(4)
C(9)	6850(20)	-285(9)	4229(9)	120(9)
C(10)	6150(20)	-960(9)	4243(7)	90(6)
C(11)	5790(20)	-1115(8)	3576(7)	88(6)
C(12)	4971(15)	-432(7)	3325(7)	65(4)
C(13)	3402(11)	1304(8)	3282(6)	51(2)
C(14)	3408(12)	1627(10)	3944(5)	67(4)
C(15)	2003(13)	1723(10)	4284(6)	71(4)
C(16)	1165(12)	2222(9)	3874(6)	63(4)
C(17)	1183(11)	1932(7)	3197(6)	51(2)
C(18)	2563(13)	1867(9)	2868(5)	61(4)
C(19)	4802(9)	848(5)	2054(4)	25(2)
C(20)	3715(9)	357(6)	2024(5)	33(2)
C(21)	3406(9)	124(6)	1442(5)	37(2)
C(22)	4163(10)	374(6)	867(5)	37(2)
C(23)	5249(9)	861(6)	890(5)	33(2)
C(24)	5579(8)	1101(5)	1474(4)	23(2)
C(25)	6794(8)	1635(5)	1424(4)	22(2)
C(26)	8072(9)	1318(5)	1452(4)	27(2)
C(27)	9162(8)	1816(5)	1369(4)	26(2)
C(28)	9031(9)	2598(5)	1247(4)	27(2)
C(29)	7764(8)	2894(5)	1213(4)	27(2)
C(30)	6638(9)	2422(5)	1297(4)	27(2)
C(31)	8294(10)	456(5)	1553(5)	35(2)
C(32)	8795(14)	136(7)	914(7)	61(4)
C(33)	9212(12)	269(7)	2076(7)	59(4)
C(34)	10204(10)	3151(6)	1166(5)	36(2)
C(35)	11515(10)	2795(8)	1308(7)	57(3)
C(36)	10396(11)	3581(8)	487(6)	56(3)
C(37)	5280(8)	2788(5)	1234(4)	26(2)
C(38)	5045(11)	3502(6)	1635(5)	42(3)
C(39)	5163(11)	3004(7)	513(5)	47(3)

Au(2)	4186(1)	-2883(1)	2844(1)	43(1)
S(2)	2708(4)	-1880(2)	2763(2)	60(1)
P(2)	5692(2)	-3838(1)	2889(1)	29(1)
F(1B)	1015(8)	-587(5)	3095(4)	80(2)
F(2B)	938(8)	-810(5)	5360(4)	83(3)
C(1B)	2219(13)	-1595(7)	3545(6)	55(3)
C(2B)	1385(10)	-964(7)	3628(6)	48(3)
C(3B)	977(13)	-684(8)	4220(7)	60(3)
C(4B)	1340(13)	-1063(8)	4756(7)	61(4)
C(5B)	2134(16)	-1711(10)	4740(7)	81(5)
C(6B)	2552(17)	-1962(9)	4131(7)	79(5)
C(7B)	7103(10)	-3562(7)	3317(5)	46(2)
C(13B)	5035(12)	-4734(7)	3345(5)	56(3)
C(19B)	6427(9)	-4145(5)	2098(4)	27(2)
C(20B)	7487(9)	-4661(5)	2104(5)	31(2)
C(21B)	8139(9)	-4924(6)	1538(5)	35(2)
C(22B)	7760(9)	-4664(6)	943(5)	35(2)
C(23B)	6710(9)	-4158(5)	924(5)	32(2)
C(24B)	6023(8)	-3891(5)	1496(4)	24(2)
C(25B)	4860(9)	-3363(5)	1406(4)	25(2)
C(26B)	3605(8)	-3676(5)	1359(4)	26(2)
C(27B)	2555(9)	-3175(6)	1244(4)	29(2)
C(28B)	2723(9)	-2389(5)	1167(4)	27(2)
C(29B)	3996(9)	-2091(5)	1185(4)	27(2)
C(30B)	5067(9)	-2561(5)	1303(4)	25(2)
C(31B)	3338(9)	-4543(6)	1397(5)	37(2)
C(32B)	2018(10)	-4776(7)	1792(7)	52(3)
C(33B)	3392(12)	-4815(7)	705(6)	52(3)
C(34B)	1559(10)	-1877(6)	1053(5)	39(2)
C(35B)	1277(15)	-1849(12)	354(6)	105(7)
C(36B)	304(14)	-2089(11)	1483(7)	91(6)
C(37B)	6425(9)	-2194(5)	1309(5)	30(2)
C(38B)	7062(11)	-2002(7)	605(5)	47(3)
C(39B)	6400(11)	-1482(6)	1685(6)	46(3)
C(8B)	7830(30)	-2875(15)	2933(13)	46(2)
C(9B)	8760(30)	-2477(16)	3331(13)	46(2)
C(10B)	9570(30)	-3060(15)	3690(15)	46(2)
C(11B)	8720(30)	-3696(16)	4078(12)	46(2)
C(12B)	7900(20)	-4155(11)	3665(12)	46(2)
C(14B)	4370(20)	-4616(10)	4021(7)	83(4)
C(15B)	3960(20)	-5382(11)	4387(8)	83(4)
C(16B)	3020(20)	-5832(12)	4035(7)	83(4)
C(17B)	3680(20)	-5940(12)	3359(8)	83(4)
C(18B)	4110(40)	-5175(13)	2993(13)	83(4)
C(8P)	8210(20)	-3078(18)	2915(12)	89(5)
C(9P)	9430(20)	-2922(18)	3242(10)	89(5)
C(10P)	9020(30)	-2657(17)	3925(10)	89(5)
C(11P)	7960(20)	-3153(17)	4336(10)	89(5)
C(12P)	6730(20)	-3271(16)	3983(8)	89(5)

C(14P)	3940(50)	-4470(30)	3850(30)	83(4)
C(15P)	3100(70)	-5180(30)	4120(30)	83(4)
C(16P)	3880(80)	-5920(40)	4220(20)	83(4)
C(17P)	4180(80)	-5990(40)	3490(20)	83(4)
C(18P)	4320(140)	-5300(40)	2990(40)	83(4)

Table S30. Bond lengths [Å] and angles [°] for cldr08b.

Au(1)-P(1)	2.262(2)
Au(1)-S(1)	2.316(3)
S(1)-C(1)	1.725(12)
P(1)-C(13)	1.848(11)
P(1)-C(19)	1.853(9)
P(1)-C(7)	1.871(11)
F(1)-C(2)	1.339(19)
F(2)-C(4)	1.374(18)
C(1)-C(6)	1.38(2)
C(1)-C(2)	1.410(18)
C(2)-C(3)	1.35(2)
C(3)-C(4)	1.29(3)
C(3)-H(3)	0.9500
C(4)-C(5)	1.42(3)
C(5)-C(6)	1.40(2)
C(5)-H(5)	0.9500
C(6)-H(6)	0.9500
C(7)-C(12)	1.438(17)
C(7)-C(8)	1.541(15)
C(7)-H(7)	1.0000
C(8)-C(9)	1.530(19)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.38(2)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.511(18)
C(10)-H(10E)	0.9900
C(10)-H(10F)	0.9900
C(11)-C(12)	1.550(18)
C(11)-H(11E)	0.9900
C(11)-H(11F)	0.9900
C(12)-H(12E)	0.9900
C(12)-H(12F)	0.9900
C(13)-C(14)	1.519(16)
C(13)-C(18)	1.573(16)
C(13)-H(13)	1.0000
C(14)-C(15)	1.523(16)
C(14)-H(14E)	0.9900
C(14)-H(14F)	0.9900
C(15)-C(16)	1.504(19)
C(15)-H(15E)	0.9900
C(15)-H(15F)	0.9900
C(16)-C(17)	1.521(17)
C(16)-H(16E)	0.9900
C(16)-H(16F)	0.9900
C(17)-C(18)	1.486(16)

C(17)-H(17E)	0.9900
C(17)-H(17F)	0.9900
C(18)-H(18E)	0.9900
C(18)-H(18F)	0.9900
C(19)-C(24)	1.394(12)
C(19)-C(20)	1.408(12)
C(20)-C(21)	1.369(14)
C(20)-H(20)	0.9500
C(21)-C(22)	1.376(14)
C(21)-H(21)	0.9500
C(22)-C(23)	1.398(13)
C(22)-H(22)	0.9500
C(23)-C(24)	1.385(12)
C(23)-H(23)	0.9500
C(24)-C(25)	1.534(12)
C(25)-C(30)	1.393(13)
C(25)-C(26)	1.413(12)
C(26)-C(27)	1.393(12)
C(26)-C(31)	1.526(13)
C(27)-C(28)	1.380(13)
C(27)-H(27)	0.9500
C(28)-C(29)	1.391(12)
C(28)-C(34)	1.517(13)
C(29)-C(30)	1.393(12)
C(29)-H(29)	0.9500
C(30)-C(37)	1.532(12)
C(31)-C(32)	1.502(15)
C(31)-C(33)	1.527(14)
C(31)-H(31)	1.0000
C(32)-H(32D)	0.9800
C(32)-H(32E)	0.9800
C(32)-H(32F)	0.9800
C(33)-H(33D)	0.9800
C(33)-H(33E)	0.9800
C(33)-H(33F)	0.9800
C(34)-C(35)	1.517(15)
C(34)-C(36)	1.533(15)
C(34)-H(34)	1.0000
C(35)-H(35D)	0.9800
C(35)-H(35E)	0.9800
C(35)-H(35F)	0.9800
C(36)-H(36D)	0.9800
C(36)-H(36E)	0.9800
C(36)-H(36F)	0.9800
C(37)-C(39)	1.528(13)
C(37)-C(38)	1.550(13)
C(37)-H(37)	1.0000
C(38)-H(38D)	0.9800
C(38)-H(38E)	0.9800

C(38)-H(38F)	0.9800
C(39)-H(39D)	0.9800
C(39)-H(39E)	0.9800
C(39)-H(39F)	0.9800
Au(2)-P(2)	2.264(2)
Au(2)-S(2)	2.313(3)
S(2)-C(1B)	1.738(12)
P(2)-C(19B)	1.829(9)
P(2)-C(13B)	1.848(11)
P(2)-C(7B)	1.853(10)
F(1B)-C(2B)	1.335(14)
F(2B)-C(4B)	1.368(14)
C(1B)-C(2B)	1.395(16)
C(1B)-C(6B)	1.406(18)
C(2B)-C(3B)	1.367(17)
C(3B)-C(4B)	1.340(19)
C(3B)-H(3B)	0.9500
C(4B)-C(5B)	1.39(2)
C(5B)-C(6B)	1.380(17)
C(5B)-H(5B)	0.9500
C(6B)-H(6B)	0.9500
C(7B)-C(12P)	1.505(13)
C(7B)-C(12B)	1.510(8)
C(7B)-C(8B)	1.526(12)
C(7B)-C(8P)	1.526(16)
C(13B)-C(14B)	1.502(11)
C(13B)-C(18B)	1.502(11)
C(13B)-C(18P)	1.51(2)
C(13B)-C(14P)	1.52(2)
C(13B)-H(13B)	1.0001
C(19B)-C(24B)	1.398(12)
C(19B)-C(20B)	1.401(12)
C(20B)-C(21B)	1.379(13)
C(20B)-H(20B)	0.9500
C(21B)-C(22B)	1.379(13)
C(21B)-H(21B)	0.9500
C(22B)-C(23B)	1.384(13)
C(22B)-H(22B)	0.9500
C(23B)-C(24B)	1.406(12)
C(23B)-H(23B)	0.9500
C(24B)-C(25B)	1.517(12)
C(25B)-C(26B)	1.402(12)
C(25B)-C(30B)	1.413(12)
C(26B)-C(27B)	1.409(12)
C(26B)-C(31B)	1.534(13)
C(27B)-C(28B)	1.380(13)
C(27B)-H(27B)	0.9500
C(28B)-C(29B)	1.397(12)
C(28B)-C(34B)	1.509(13)

C(29B)-C(30B)	1.393(12)
C(29B)-H(29B)	0.9500
C(30B)-C(37B)	1.521(12)
C(31B)-C(32B)	1.518(14)
C(31B)-C(33B)	1.535(15)
C(31B)-H(31B)	1.0000
C(32B)-H(32A)	0.9800
C(32B)-H(32B)	0.9800
C(32B)-H(32C)	0.9800
C(33B)-H(33A)	0.9800
C(33B)-H(33B)	0.9800
C(33B)-H(33C)	0.9800
C(34B)-C(36B)	1.489(17)
C(34B)-C(35B)	1.504(17)
C(34B)-H(34B)	1.0000
C(35B)-H(35A)	0.9800
C(35B)-H(35B)	0.9800
C(35B)-H(35C)	0.9800
C(36B)-H(36A)	0.9800
C(36B)-H(36B)	0.9800
C(36B)-H(36C)	0.9800
C(37B)-C(39B)	1.513(14)
C(37B)-C(38B)	1.530(14)
C(37B)-H(37B)	1.0000
C(38B)-H(38A)	0.9800
C(38B)-H(38B)	0.9800
C(38B)-H(38C)	0.9800
C(39B)-H(39A)	0.9800
C(39B)-H(39B)	0.9800
C(39B)-H(39C)	0.9800
C(8B)-C(9B)	1.522(13)
C(8B)-H(8BA)	0.9697
C(8B)-H(8BB)	0.9701
C(9B)-C(10B)	1.517(13)
C(9B)-H(9BA)	0.9900
C(9B)-H(9BB)	0.9900
C(10B)-C(11B)	1.522(12)
C(10B)-H(10A)	0.9900
C(10B)-H(10B)	0.9900
C(11B)-C(12B)	1.527(12)
C(11B)-H(11A)	0.9900
C(11B)-H(11B)	0.9900
C(12B)-H(12A)	0.9702
C(12B)-H(12B)	0.9696
C(14B)-C(15B)	1.521(11)
C(14B)-H(14A)	0.9701
C(14B)-H(14B)	0.9701
C(15B)-C(16B)	1.517(12)
C(15B)-H(15A)	0.9900

C(15B)-H(15B)	0.9900
C(16B)-C(17B)	1.497(12)
C(16B)-H(16A)	0.9900
C(16B)-H(16B)	0.9900
C(17B)-C(18B)	1.523(12)
C(17B)-H(17A)	0.9900
C(17B)-H(17B)	0.9900
C(18B)-H(18A)	0.9703
C(18B)-H(18B)	0.9699
C(8P)-C(9P)	1.513(13)
C(8P)-H(8PA)	0.9900
C(8P)-H(8PB)	0.9900
C(9P)-C(10P)	1.525(18)
C(9P)-H(9PA)	0.9900
C(9P)-H(9PB)	0.9900
C(10P)-C(11P)	1.516(13)
C(10P)-H(10C)	0.9900
C(10P)-H(10D)	0.9900
C(11P)-C(12P)	1.540(17)
C(11P)-H(11C)	0.9900
C(11P)-H(11D)	0.9900
C(12P)-H(12C)	0.9697
C(12P)-H(12D)	0.9702
C(14P)-C(15P)	1.53(2)
C(14P)-H(14C)	0.9699
C(14P)-H(14D)	0.9698
C(15P)-C(16P)	1.53(2)
C(15P)-H(15C)	0.9900
C(15P)-H(15D)	0.9900
C(16P)-C(17P)	1.51(2)
C(16P)-H(16C)	0.9900
C(16P)-H(16D)	0.9900
C(17P)-C(18P)	1.53(2)
C(17P)-H(17C)	0.9900
C(17P)-H(17D)	0.9900
C(18P)-H(18C)	0.9699
C(18P)-H(18D)	0.9702

P(1)-Au(1)-S(1)	176.77(9)
C(1)-S(1)-Au(1)	109.8(4)
C(13)-P(1)-C(19)	103.8(5)
C(13)-P(1)-C(7)	107.1(6)
C(19)-P(1)-C(7)	103.1(4)
C(13)-P(1)-Au(1)	113.9(4)
C(19)-P(1)-Au(1)	115.6(3)
C(7)-P(1)-Au(1)	112.2(3)
C(6)-C(1)-C(2)	114.4(13)
C(6)-C(1)-S(1)	124.8(11)
C(2)-C(1)-S(1)	120.7(11)

F(1)-C(2)-C(3)	118.1(16)
F(1)-C(2)-C(1)	116.6(13)
C(3)-C(2)-C(1)	125.3(17)
C(4)-C(3)-C(2)	118.2(19)
C(4)-C(3)-H(3)	120.9
C(2)-C(3)-H(3)	120.9
C(3)-C(4)-F(2)	119.7(18)
C(3)-C(4)-C(5)	122.1(17)
F(2)-C(4)-C(5)	117.6(19)
C(6)-C(5)-C(4)	117.4(19)
C(6)-C(5)-H(5)	121.3
C(4)-C(5)-H(5)	121.3
C(1)-C(6)-C(5)	121.6(17)
C(1)-C(6)-H(6)	119.2
C(5)-C(6)-H(6)	119.2
C(12)-C(7)-C(8)	112.1(10)
C(12)-C(7)-P(1)	118.8(8)
C(8)-C(7)-P(1)	110.7(8)
C(12)-C(7)-H(7)	104.6
C(8)-C(7)-H(7)	104.6
P(1)-C(7)-H(7)	104.6
C(9)-C(8)-C(7)	110.1(11)
C(9)-C(8)-H(8A)	109.6
C(7)-C(8)-H(8A)	109.6
C(9)-C(8)-H(8B)	109.6
C(7)-C(8)-H(8B)	109.6
H(8A)-C(8)-H(8B)	108.2
C(10)-C(9)-C(8)	116.3(14)
C(10)-C(9)-H(9A)	108.2
C(8)-C(9)-H(9A)	108.2
C(10)-C(9)-H(9B)	108.2
C(8)-C(9)-H(9B)	108.2
H(9A)-C(9)-H(9B)	107.4
C(9)-C(10)-C(11)	111.9(14)
C(9)-C(10)-H(10E)	109.2
C(11)-C(10)-H(10E)	109.2
C(9)-C(10)-H(10F)	109.2
C(11)-C(10)-H(10F)	109.2
H(10E)-C(10)-H(10F)	107.9
C(10)-C(11)-C(12)	108.6(12)
C(10)-C(11)-H(11E)	110.0
C(12)-C(11)-H(11E)	110.0
C(10)-C(11)-H(11F)	110.0
C(12)-C(11)-H(11F)	110.0
H(11E)-C(11)-H(11F)	108.4
C(7)-C(12)-C(11)	109.8(12)
C(7)-C(12)-H(12E)	109.7
C(11)-C(12)-H(12E)	109.7
C(7)-C(12)-H(12F)	109.7

C(11)-C(12)-H(12F)	109.7
H(12E)-C(12)-H(12F)	108.2
C(14)-C(13)-C(18)	107.1(10)
C(14)-C(13)-P(1)	112.8(8)
C(18)-C(13)-P(1)	112.6(9)
C(14)-C(13)-H(13)	108.1
C(18)-C(13)-H(13)	108.1
P(1)-C(13)-H(13)	108.1
C(13)-C(14)-C(15)	111.6(11)
C(13)-C(14)-H(14E)	109.3
C(15)-C(14)-H(14E)	109.3
C(13)-C(14)-H(14F)	109.3
C(15)-C(14)-H(14F)	109.3
H(14E)-C(14)-H(14F)	108.0
C(16)-C(15)-C(14)	112.3(11)
C(16)-C(15)-H(15E)	109.2
C(14)-C(15)-H(15E)	109.2
C(16)-C(15)-H(15F)	109.2
C(14)-C(15)-H(15F)	109.2
H(15E)-C(15)-H(15F)	107.9
C(15)-C(16)-C(17)	110.9(11)
C(15)-C(16)-H(16E)	109.5
C(17)-C(16)-H(16E)	109.5
C(15)-C(16)-H(16F)	109.5
C(17)-C(16)-H(16F)	109.5
H(16E)-C(16)-H(16F)	108.0
C(18)-C(17)-C(16)	111.5(10)
C(18)-C(17)-H(17E)	109.3
C(16)-C(17)-H(17E)	109.3
C(18)-C(17)-H(17F)	109.3
C(16)-C(17)-H(17F)	109.3
H(17E)-C(17)-H(17F)	108.0
C(17)-C(18)-C(13)	110.9(10)
C(17)-C(18)-H(18E)	109.5
C(13)-C(18)-H(18E)	109.5
C(17)-C(18)-H(18F)	109.5
C(13)-C(18)-H(18F)	109.5
H(18E)-C(18)-H(18F)	108.0
C(24)-C(19)-C(20)	118.7(8)
C(24)-C(19)-P(1)	123.3(7)
C(20)-C(19)-P(1)	118.0(7)
C(21)-C(20)-C(19)	121.6(9)
C(21)-C(20)-H(20)	119.2
C(19)-C(20)-H(20)	119.2
C(20)-C(21)-C(22)	120.0(9)
C(20)-C(21)-H(21)	120.0
C(22)-C(21)-H(21)	120.0
C(21)-C(22)-C(23)	118.9(9)
C(21)-C(22)-H(22)	120.5

C(23)-C(22)-H(22)	120.5
C(24)-C(23)-C(22)	121.9(9)
C(24)-C(23)-H(23)	119.0
C(22)-C(23)-H(23)	119.0
C(23)-C(24)-C(19)	118.8(8)
C(23)-C(24)-C(25)	116.2(8)
C(19)-C(24)-C(25)	125.1(8)
C(30)-C(25)-C(26)	120.7(8)
C(30)-C(25)-C(24)	119.5(7)
C(26)-C(25)-C(24)	119.6(8)
C(27)-C(26)-C(25)	118.2(8)
C(27)-C(26)-C(31)	119.4(8)
C(25)-C(26)-C(31)	122.4(8)
C(28)-C(27)-C(26)	122.1(8)
C(28)-C(27)-H(27)	118.9
C(26)-C(27)-H(27)	118.9
C(27)-C(28)-C(29)	118.5(8)
C(27)-C(28)-C(34)	122.8(8)
C(29)-C(28)-C(34)	118.6(8)
C(28)-C(29)-C(30)	121.7(9)
C(28)-C(29)-H(29)	119.1
C(30)-C(29)-H(29)	119.1
C(25)-C(30)-C(29)	118.8(8)
C(25)-C(30)-C(37)	122.6(8)
C(29)-C(30)-C(37)	118.6(8)
C(32)-C(31)-C(26)	110.2(9)
C(32)-C(31)-C(33)	112.2(10)
C(26)-C(31)-C(33)	111.5(9)
C(32)-C(31)-H(31)	107.5
C(26)-C(31)-H(31)	107.5
C(33)-C(31)-H(31)	107.5
C(31)-C(32)-H(32D)	109.5
C(31)-C(32)-H(32E)	109.5
H(32D)-C(32)-H(32E)	109.5
C(31)-C(32)-H(32F)	109.5
H(32D)-C(32)-H(32F)	109.5
H(32E)-C(32)-H(32F)	109.5
C(31)-C(33)-H(33D)	109.5
C(31)-C(33)-H(33E)	109.5
H(33D)-C(33)-H(33E)	109.5
C(31)-C(33)-H(33F)	109.5
H(33D)-C(33)-H(33F)	109.5
H(33E)-C(33)-H(33F)	109.5
C(28)-C(34)-C(35)	115.0(9)
C(28)-C(34)-C(36)	112.2(8)
C(35)-C(34)-C(36)	109.1(9)
C(28)-C(34)-H(34)	106.7
C(35)-C(34)-H(34)	106.7
C(36)-C(34)-H(34)	106.7

C(34)-C(35)-H(35D)	109.5
C(34)-C(35)-H(35E)	109.5
H(35D)-C(35)-H(35E)	109.5
C(34)-C(35)-H(35F)	109.5
H(35D)-C(35)-H(35F)	109.5
H(35E)-C(35)-H(35F)	109.5
C(34)-C(36)-H(36D)	109.5
C(34)-C(36)-H(36E)	109.5
H(36D)-C(36)-H(36E)	109.5
C(34)-C(36)-H(36F)	109.5
H(36D)-C(36)-H(36F)	109.5
H(36E)-C(36)-H(36F)	109.5
C(39)-C(37)-C(30)	109.4(7)
C(39)-C(37)-C(38)	110.2(8)
C(30)-C(37)-C(38)	112.4(8)
C(39)-C(37)-H(37)	108.2
C(30)-C(37)-H(37)	108.2
C(38)-C(37)-H(37)	108.2
C(37)-C(38)-H(38D)	109.5
C(37)-C(38)-H(38E)	109.5
H(38D)-C(38)-H(38E)	109.5
C(37)-C(38)-H(38F)	109.5
H(38D)-C(38)-H(38F)	109.5
H(38E)-C(38)-H(38F)	109.5
C(37)-C(39)-H(39D)	109.5
C(37)-C(39)-H(39E)	109.5
H(39D)-C(39)-H(39E)	109.5
C(37)-C(39)-H(39F)	109.5
H(39D)-C(39)-H(39F)	109.5
H(39E)-C(39)-H(39F)	109.5
P(2)-Au(2)-S(2)	177.60(11)
C(1B)-S(2)-Au(2)	108.2(4)
C(19B)-P(2)-C(13B)	104.1(5)
C(19B)-P(2)-C(7B)	106.1(5)
C(13B)-P(2)-C(7B)	104.4(5)
C(19B)-P(2)-Au(2)	115.4(3)
C(13B)-P(2)-Au(2)	114.4(4)
C(7B)-P(2)-Au(2)	111.4(4)
C(2B)-C(1B)-C(6B)	114.4(12)
C(2B)-C(1B)-S(2)	119.7(10)
C(6B)-C(1B)-S(2)	125.9(10)
F(1B)-C(2B)-C(3B)	117.8(11)
F(1B)-C(2B)-C(1B)	118.1(11)
C(3B)-C(2B)-C(1B)	124.0(13)
C(4B)-C(3B)-C(2B)	118.0(12)
C(4B)-C(3B)-H(3B)	121.0
C(2B)-C(3B)-H(3B)	121.0
C(3B)-C(4B)-F(2B)	120.0(12)
C(3B)-C(4B)-C(5B)	123.4(12)

F(2B)-C(4B)-C(5B)	116.6(14)
C(6B)-C(5B)-C(4B)	116.6(14)
C(6B)-C(5B)-H(5B)	121.7
C(4B)-C(5B)-H(5B)	121.7
C(5B)-C(6B)-C(1B)	123.5(14)
C(5B)-C(6B)-H(6B)	118.2
C(1B)-C(6B)-H(6B)	118.2
C(12B)-C(7B)-C(8B)	118.8(17)
C(12P)-C(7B)-C(8P)	111.8(16)
C(12P)-C(7B)-P(2)	115.7(10)
C(12B)-C(7B)-P(2)	121.6(10)
C(8B)-C(7B)-P(2)	109.0(11)
C(8P)-C(7B)-P(2)	116.8(10)
C(14B)-C(13B)-C(18B)	109.0(17)
C(18P)-C(13B)-C(14P)	103(6)
C(14B)-C(13B)-P(2)	113.4(9)
C(18B)-C(13B)-P(2)	114.0(11)
C(18P)-C(13B)-P(2)	119(3)
C(14P)-C(13B)-P(2)	104(2)
C(14B)-C(13B)-H(13B)	106.6
C(18B)-C(13B)-H(13B)	106.8
C(18P)-C(13B)-H(13B)	95.2
C(14P)-C(13B)-H(13B)	130.4
P(2)-C(13B)-H(13B)	106.6
C(24B)-C(19B)-C(20B)	118.5(8)
C(24B)-C(19B)-P(2)	124.7(7)
C(20B)-C(19B)-P(2)	116.8(7)
C(21B)-C(20B)-C(19B)	122.3(9)
C(21B)-C(20B)-H(20B)	118.9
C(19B)-C(20B)-H(20B)	118.9
C(22B)-C(21B)-C(20B)	119.4(9)
C(22B)-C(21B)-H(21B)	120.3
C(20B)-C(21B)-H(21B)	120.3
C(21B)-C(22B)-C(23B)	119.4(9)
C(21B)-C(22B)-H(22B)	120.3
C(23B)-C(22B)-H(22B)	120.3
C(22B)-C(23B)-C(24B)	122.0(9)
C(22B)-C(23B)-H(23B)	119.0
C(24B)-C(23B)-H(23B)	119.0
C(19B)-C(24B)-C(23B)	118.4(8)
C(19B)-C(24B)-C(25B)	125.2(8)
C(23B)-C(24B)-C(25B)	116.4(8)
C(26B)-C(25B)-C(30B)	119.8(8)
C(26B)-C(25B)-C(24B)	119.7(8)
C(30B)-C(25B)-C(24B)	120.2(8)
C(25B)-C(26B)-C(27B)	118.7(8)
C(25B)-C(26B)-C(31B)	122.9(8)
C(27B)-C(26B)-C(31B)	118.4(8)
C(28B)-C(27B)-C(26B)	122.4(8)

C(28B)-C(27B)-H(27B)	118.8
C(26B)-C(27B)-H(27B)	118.8
C(27B)-C(28B)-C(29B)	117.9(8)
C(27B)-C(28B)-C(34B)	120.1(8)
C(29B)-C(28B)-C(34B)	121.9(8)
C(30B)-C(29B)-C(28B)	122.0(8)
C(30B)-C(29B)-H(29B)	119.0
C(28B)-C(29B)-H(29B)	119.0
C(29B)-C(30B)-C(25B)	119.1(8)
C(29B)-C(30B)-C(37B)	118.8(8)
C(25B)-C(30B)-C(37B)	122.1(8)
C(32B)-C(31B)-C(26B)	113.0(9)
C(32B)-C(31B)-C(33B)	109.9(9)
C(26B)-C(31B)-C(33B)	109.8(8)
C(32B)-C(31B)-H(31B)	108.0
C(26B)-C(31B)-H(31B)	108.0
C(33B)-C(31B)-H(31B)	108.0
C(31B)-C(32B)-H(32A)	109.5
C(31B)-C(32B)-H(32B)	109.5
H(32A)-C(32B)-H(32B)	109.5
C(31B)-C(32B)-H(32C)	109.5
H(32A)-C(32B)-H(32C)	109.5
H(32B)-C(32B)-H(32C)	109.5
C(31B)-C(33B)-H(33A)	109.5
C(31B)-C(33B)-H(33B)	109.5
H(33A)-C(33B)-H(33B)	109.5
C(31B)-C(33B)-H(33C)	109.5
H(33A)-C(33B)-H(33C)	109.5
H(33B)-C(33B)-H(33C)	109.5
C(36B)-C(34B)-C(35B)	108.3(11)
C(36B)-C(34B)-C(28B)	114.5(10)
C(35B)-C(34B)-C(28B)	111.8(9)
C(36B)-C(34B)-H(34B)	107.3
C(35B)-C(34B)-H(34B)	107.3
C(28B)-C(34B)-H(34B)	107.3
C(34B)-C(35B)-H(35A)	109.5
C(34B)-C(35B)-H(35B)	109.5
H(35A)-C(35B)-H(35B)	109.5
C(34B)-C(35B)-H(35C)	109.5
H(35A)-C(35B)-H(35C)	109.5
H(35B)-C(35B)-H(35C)	109.5
C(34B)-C(36B)-H(36A)	109.5
C(34B)-C(36B)-H(36B)	109.5
H(36A)-C(36B)-H(36B)	109.5
C(34B)-C(36B)-H(36C)	109.5
H(36A)-C(36B)-H(36C)	109.5
H(36B)-C(36B)-H(36C)	109.5
C(39B)-C(37B)-C(30B)	114.2(8)
C(39B)-C(37B)-C(38B)	109.6(9)

C(30B)-C(37B)-C(38B)	109.4(8)
C(39B)-C(37B)-H(37B)	107.8
C(30B)-C(37B)-H(37B)	107.8
C(38B)-C(37B)-H(37B)	107.8
C(37B)-C(38B)-H(38A)	109.5
C(37B)-C(38B)-H(38B)	109.5
H(38A)-C(38B)-H(38B)	109.5
C(37B)-C(38B)-H(38C)	109.5
H(38A)-C(38B)-H(38C)	109.5
H(38B)-C(38B)-H(38C)	109.5
C(37B)-C(39B)-H(39A)	109.5
C(37B)-C(39B)-H(39B)	109.5
H(39A)-C(39B)-H(39B)	109.5
C(37B)-C(39B)-H(39C)	109.5
H(39A)-C(39B)-H(39C)	109.5
H(39B)-C(39B)-H(39C)	109.5
C(9B)-C(8B)-C(7B)	112.5(19)
C(9B)-C(8B)-H(8BA)	109.1
C(7B)-C(8B)-H(8BA)	109.5
C(9B)-C(8B)-H(8BB)	108.3
C(7B)-C(8B)-H(8BB)	107.9
H(8BA)-C(8B)-H(8BB)	109.4
C(10B)-C(9B)-C(8B)	111(2)
C(10B)-C(9B)-H(9BA)	109.5
C(8B)-C(9B)-H(9BA)	109.5
C(10B)-C(9B)-H(9BB)	109.5
C(8B)-C(9B)-H(9BB)	109.5
H(9BA)-C(9B)-H(9BB)	108.1
C(9B)-C(10B)-C(11B)	113(2)
C(9B)-C(10B)-H(10A)	109.0
C(11B)-C(10B)-H(10A)	109.0
C(9B)-C(10B)-H(10B)	109.0
C(11B)-C(10B)-H(10B)	109.0
H(10A)-C(10B)-H(10B)	107.8
C(10B)-C(11B)-C(12B)	114(2)
C(10B)-C(11B)-H(11A)	108.7
C(12B)-C(11B)-H(11A)	108.7
C(10B)-C(11B)-H(11B)	108.7
C(12B)-C(11B)-H(11B)	108.7
H(11A)-C(11B)-H(11B)	107.6
C(7B)-C(12B)-C(11B)	104.7(17)
C(7B)-C(12B)-H(12A)	110.0
C(11B)-C(12B)-H(12A)	110.6
C(7B)-C(12B)-H(12B)	111.4
C(11B)-C(12B)-H(12B)	110.6
H(12A)-C(12B)-H(12B)	109.5
C(13B)-C(14B)-C(15B)	110.5(14)
C(13B)-C(14B)-H(14A)	110.3
C(15B)-C(14B)-H(14A)	109.8

C(13B)-C(14B)-H(14B)	107.8
C(15B)-C(14B)-H(14B)	108.8
H(14A)-C(14B)-H(14B)	109.5
C(16B)-C(15B)-C(14B)	112.4(16)
C(16B)-C(15B)-H(15A)	109.1
C(14B)-C(15B)-H(15A)	109.1
C(16B)-C(15B)-H(15B)	109.1
C(14B)-C(15B)-H(15B)	109.1
H(15A)-C(15B)-H(15B)	107.9
C(17B)-C(16B)-C(15B)	108.7(15)
C(17B)-C(16B)-H(16A)	109.9
C(15B)-C(16B)-H(16A)	109.9
C(17B)-C(16B)-H(16B)	109.9
C(15B)-C(16B)-H(16B)	109.9
H(16A)-C(16B)-H(16B)	108.3
C(16B)-C(17B)-C(18B)	111(2)
C(16B)-C(17B)-H(17A)	109.4
C(18B)-C(17B)-H(17A)	109.4
C(16B)-C(17B)-H(17B)	109.4
C(18B)-C(17B)-H(17B)	109.4
H(17A)-C(17B)-H(17B)	108.0
C(13B)-C(18B)-C(17B)	112.4(16)
C(13B)-C(18B)-H(18A)	108.8
C(17B)-C(18B)-H(18A)	108.8
C(13B)-C(18B)-H(18B)	108.5
C(17B)-C(18B)-H(18B)	108.9
H(18A)-C(18B)-H(18B)	109.4
C(9P)-C(8P)-C(7B)	116.9(17)
C(9P)-C(8P)-H(8PA)	108.1
C(7B)-C(8P)-H(8PA)	108.1
C(9P)-C(8P)-H(8PB)	108.1
C(7B)-C(8P)-H(8PB)	108.1
H(8PA)-C(8P)-H(8PB)	107.3
C(8P)-C(9P)-C(10P)	110(2)
C(8P)-C(9P)-H(9PA)	109.6
C(10P)-C(9P)-H(9PA)	109.6
C(8P)-C(9P)-H(9PB)	109.6
C(10P)-C(9P)-H(9PB)	109.6
H(9PA)-C(9P)-H(9PB)	108.1
C(11P)-C(10P)-C(9P)	114(2)
C(11P)-C(10P)-H(10C)	108.7
C(9P)-C(10P)-H(10C)	108.7
C(11P)-C(10P)-H(10D)	108.7
C(9P)-C(10P)-H(10D)	108.7
H(10C)-C(10P)-H(10D)	107.6
C(10P)-C(11P)-C(12P)	112.7(18)
C(10P)-C(11P)-H(11C)	109.1
C(12P)-C(11P)-H(11C)	109.1
C(10P)-C(11P)-H(11D)	109.1

C(12P)-C(11P)-H(11D)	109.1
H(11C)-C(11P)-H(11D)	107.8
C(7B)-C(12P)-C(11P)	112.0(17)
C(7B)-C(12P)-H(12C)	109.2
C(11P)-C(12P)-H(12C)	107.4
C(7B)-C(12P)-H(12D)	108.8
C(11P)-C(12P)-H(12D)	109.9
H(12C)-C(12P)-H(12D)	109.5
C(13B)-C(14P)-C(15P)	108(4)
C(13B)-C(14P)-H(14C)	108.9
C(15P)-C(14P)-H(14C)	109.0
C(13B)-C(14P)-H(14D)	109.6
C(15P)-C(14P)-H(14D)	112.0
H(14C)-C(14P)-H(14D)	109.5
C(14P)-C(15P)-C(16P)	115(6)
C(14P)-C(15P)-H(15C)	108.4
C(16P)-C(15P)-H(15C)	108.4
C(14P)-C(15P)-H(15D)	108.4
C(16P)-C(15P)-H(15D)	108.4
H(15C)-C(15P)-H(15D)	107.5
C(17P)-C(16P)-C(15P)	92(2)
C(17P)-C(16P)-H(16C)	113.2
C(15P)-C(16P)-H(16C)	113.2
C(17P)-C(16P)-H(16D)	113.2
C(15P)-C(16P)-H(16D)	113.2
H(16C)-C(16P)-H(16D)	110.6
C(16P)-C(17P)-C(18P)	123(6)
C(16P)-C(17P)-H(17C)	106.6
C(18P)-C(17P)-H(17C)	106.6
C(16P)-C(17P)-H(17D)	106.6
C(18P)-C(17P)-H(17D)	106.6
H(17C)-C(17P)-H(17D)	106.6
C(13B)-C(18P)-C(17P)	101(5)
C(13B)-C(18P)-H(18C)	105.2
C(17P)-C(18P)-H(18C)	112.7
C(13B)-C(18P)-H(18D)	114.5
C(17P)-C(18P)-H(18D)	113.2
H(18C)-C(18P)-H(18D)	109.5

Table S31.. Anisotropic displacement parameters ($Å^2 x\ 10^3$)for cldr08b. The anisotropic displacement factor exponent takes the form: $-2\pi^2[\ h^2 a^{*2} U^{11} + ... + 2\ h\ k\ a^*\ b^*\ U^{12}\ ]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	35(1)	35(1)	29(1)	-7(1)	-2(1)	-8(1)
S(1)	50(2)	44(2)	49(2)	-11(1)	-3(1)	-20(1)
P(1)	26(1)	28(1)	25(1)	2(1)	-5(1)	-5(1)
F(1)	174(9)	186(9)	113(7)	-63(7)	-11(6)	-82(7)
F(2)	174(9)	186(9)	113(7)	-63(7)	-11(6)	-82(7)
C(1)	55(7)	47(8)	55(7)	-13(6)	-17(6)	-3(6)
C(2)	68(9)	74(11)	80(10)	-29(8)	-27(8)	4(8)
C(3)	155(12)	135(11)	77(7)	-53(8)	-31(7)	-42(8)
C(4)	155(12)	135(11)	77(7)	-53(8)	-31(7)	-42(8)
C(5)	155(12)	135(11)	77(7)	-53(8)	-31(7)	-42(8)
C(6)	151(17)	80(12)	55(9)	-24(8)	4(10)	-41(11)
C(7)	44(6)	45(7)	41(6)	2(5)	-21(5)	-3(5)
C(8)	117(12)	46(8)	59(8)	2(6)	-58(8)	-5(8)
C(9)	200(20)	60(11)	119(15)	32(10)	-136(16)	-33(12)
C(10)	149(17)	67(11)	60(9)	10(8)	-50(10)	12(11)
C(11)	168(17)	42(8)	71(9)	-18(7)	-69(11)	27(9)
C(12)	90(11)	47(8)	63(8)	-4(6)	-27(7)	-1(7)
C(13)	40(4)	58(6)	58(5)	-15(4)	-16(4)	16(4)
C(14)	51(7)	120(13)	29(6)	-16(7)	2(5)	9(8)
C(15)	50(7)	125(14)	34(6)	0(7)	10(5)	13(8)
C(16)	43(7)	78(10)	65(8)	-17(7)	12(6)	-1(6)
C(17)	40(4)	58(6)	58(5)	-15(4)	-16(4)	16(4)
C(18)	62(8)	97(11)	26(5)	-12(6)	-4(5)	15(7)
C(19)	29(5)	21(5)	26(4)	-1(3)	-8(3)	-2(4)
C(20)	30(5)	29(6)	38(5)	0(4)	0(4)	-5(4)
C(21)	26(5)	39(6)	47(6)	-8(5)	-6(4)	-4(4)
C(22)	42(6)	31(6)	42(6)	-10(4)	-14(4)	-3(4)
C(23)	34(5)	31(6)	36(5)	-6(4)	-8(4)	3(4)
C(24)	25(4)	13(4)	31(4)	0(3)	-5(3)	5(3)
C(25)	18(4)	27(5)	21(4)	-4(3)	-4(3)	-1(3)
C(26)	26(5)	27(5)	27(4)	-2(4)	-4(3)	1(4)
C(27)	22(4)	25(5)	32(5)	2(4)	-4(3)	5(4)
C(28)	26(5)	32(5)	23(4)	1(4)	-1(3)	-5(4)
C(29)	24(4)	22(5)	35(5)	1(4)	-4(4)	2(4)
C(30)	29(5)	29(5)	22(4)	0(4)	5(3)	3(4)
C(31)	31(5)	18(5)	57(6)	1(4)	-10(4)	2(4)
C(32)	69(9)	36(7)	77(9)	-21(6)	6(7)	16(6)
C(33)	54(7)	35(7)	89(10)	18(6)	-34(7)	7(6)
C(34)	33(5)	32(6)	44(6)	-11(4)	0(4)	-3(4)
C(35)	28(6)	63(9)	74(8)	20(7)	-5(5)	-11(5)
C(36)	36(6)	66(9)	62(8)	24(6)	-7(5)	-21(6)
C(37)	24(4)	23(5)	31(5)	2(4)	-4(3)	-3(4)
C(38)	53(7)	26(6)	49(6)	-9(5)	-6(5)	12(5)
C(39)	38(6)	64(8)	38(6)	1(5)	-11(5)	16(5)

Au(2)	55(1)	44(1)	29(1)	-6(1)	-4(1)	19(1)
S(2)	79(2)	56(2)	45(2)	-8(1)	-10(2)	36(2)
P(2)	32(1)	31(1)	24(1)	1(1)	-5(1)	2(1)
F(1B)	70(5)	83(6)	85(6)	4(5)	-12(4)	32(5)
F(2B)	74(5)	106(7)	71(5)	-56(5)	7(4)	7(5)
C(1B)	69(8)	46(8)	53(7)	-12(6)	-14(6)	16(6)
C(2B)	31(6)	42(7)	69(8)	-7(6)	-1(5)	0(5)
C(3B)	54(8)	53(8)	74(9)	-26(7)	0(7)	12(6)
C(4B)	51(7)	66(9)	67(9)	-28(7)	6(6)	1(7)
C(5B)	86(11)	109(13)	50(8)	-28(8)	-7(7)	32(10)
C(6B)	105(12)	83(11)	47(7)	-11(7)	1(8)	39(9)
C(7B)	46(5)	60(6)	33(4)	4(4)	-14(4)	-17(4)
C(13B)	64(8)	52(8)	49(7)	4(6)	3(6)	-24(6)
C(19B)	27(5)	22(5)	32(5)	0(4)	-2(4)	2(4)
C(20B)	31(5)	25(5)	36(5)	5(4)	-7(4)	5(4)
C(21B)	23(5)	30(6)	51(6)	4(4)	-7(4)	7(4)
C(22B)	32(5)	36(6)	36(5)	-4(4)	1(4)	6(4)
C(23B)	36(5)	29(5)	31(5)	2(4)	-4(4)	2(4)
C(24B)	21(4)	24(5)	27(4)	-2(4)	-4(3)	-4(3)
C(25B)	29(5)	26(5)	19(4)	-5(3)	-1(3)	5(4)
C(26B)	25(4)	21(5)	32(5)	1(4)	-4(3)	2(4)
C(27B)	23(4)	35(6)	31(5)	-8(4)	-8(4)	2(4)
C(28B)	29(5)	26(5)	31(5)	-14(4)	-9(4)	7(4)
C(29B)	37(5)	17(5)	28(4)	-1(3)	-11(4)	1(4)
C(30B)	32(5)	22(5)	22(4)	-4(3)	-12(3)	-2(4)
C(31B)	27(5)	35(6)	48(6)	3(5)	-8(4)	3(4)
C(32B)	34(6)	36(7)	84(9)	15(6)	-9(6)	-12(5)
C(33B)	58(7)	35(7)	67(8)	-16(6)	-21(6)	2(5)
C(34B)	33(5)	29(6)	59(7)	-10(5)	-20(5)	4(4)
C(35B)	67(10)	190(20)	41(7)	45(10)	6(6)	68(11)
C(36B)	65(9)	148(16)	52(8)	20(9)	11(7)	74(10)
C(37B)	27(5)	20(5)	46(5)	1(4)	-13(4)	-6(4)
C(38B)	39(6)	57(8)	46(6)	-4(5)	-10(5)	-9(5)
C(39B)	51(7)	31(6)	61(7)	-6(5)	-25(5)	-14(5)
C(8B)	46(5)	60(6)	33(4)	4(4)	-14(4)	-17(4)
C(9B)	46(5)	60(6)	33(4)	4(4)	-14(4)	-17(4)
C(10B)	46(5)	60(6)	33(4)	4(4)	-14(4)	-17(4)
C(11B)	46(5)	60(6)	33(4)	4(4)	-14(4)	-17(4)
C(12B)	46(5)	60(6)	33(4)	4(4)	-14(4)	-17(4)
C(14B)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(15B)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(16B)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(17B)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(18B)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(8P)	89(10)	116(12)	62(7)	1(7)	-20(6)	-62(9)
C(9P)	89(10)	116(12)	62(7)	1(7)	-20(6)	-62(9)
C(10P)	89(10)	116(12)	62(7)	1(7)	-20(6)	-62(9)
C(11P)	89(10)	116(12)	62(7)	1(7)	-20(6)	-62(9)
C(12P)	89(10)	116(12)	62(7)	1(7)	-20(6)	-62(9)

C(14P)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(15P)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(16P)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(17P)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)
C(18P)	128(9)	71(6)	45(4)	7(4)	-3(5)	-50(6)

Table S32. Torsion angles [°] for cldr08b.

Au(1)-S(1)-C(1)-C(6)	-15.5(15)
Au(1)-S(1)-C(1)-C(2)	169.2(10)
C(6)-C(1)-C(2)-F(1)	-173.7(16)
S(1)-C(1)-C(2)-F(1)	2(2)
C(6)-C(1)-C(2)-C(3)	3(3)
S(1)-C(1)-C(2)-C(3)	178.7(16)
F(1)-C(2)-C(3)-C(4)	-179(2)
C(1)-C(2)-C(3)-C(4)	4(3)
C(2)-C(3)-C(4)-F(2)	177.5(19)
C(2)-C(3)-C(4)-C(5)	-12(4)
C(3)-C(4)-C(5)-C(6)	12(4)
F(2)-C(4)-C(5)-C(6)	-177(2)
C(2)-C(1)-C(6)-C(5)	-3(3)
S(1)-C(1)-C(6)-C(5)	-178.1(16)
C(4)-C(5)-C(6)-C(1)	-4(3)
C(13)-P(1)-C(7)-C(12)	53.7(11)
C(19)-P(1)-C(7)-C(12)	-55.5(11)
Au(1)-P(1)-C(7)-C(12)	179.4(9)
C(13)-P(1)-C(7)-C(8)	-78.0(10)
C(19)-P(1)-C(7)-C(8)	172.8(9)
Au(1)-P(1)-C(7)-C(8)	47.7(10)
C(12)-C(7)-C(8)-C(9)	49.2(19)
P(1)-C(7)-C(8)-C(9)	-175.8(13)
C(7)-C(8)-C(9)-C(10)	-47(2)
C(8)-C(9)-C(10)-C(11)	53(3)
C(9)-C(10)-C(11)-C(12)	-58(2)
C(8)-C(7)-C(12)-C(11)	-57.6(16)
P(1)-C(7)-C(12)-C(11)	171.3(10)
C(10)-C(11)-C(12)-C(7)	60.7(19)
C(19)-P(1)-C(13)-C(14)	-175.0(10)
C(7)-P(1)-C(13)-C(14)	76.4(11)
Au(1)-P(1)-C(13)-C(14)	-48.3(11)
C(19)-P(1)-C(13)-C(18)	-53.6(10)
C(7)-P(1)-C(13)-C(18)	-162.3(9)
Au(1)-P(1)-C(13)-C(18)	73.0(9)
C(18)-C(13)-C(14)-C(15)	57.3(16)
P(1)-C(13)-C(14)-C(15)	-178.2(10)
C(13)-C(14)-C(15)-C(16)	-56.5(18)
C(14)-C(15)-C(16)-C(17)	53.1(17)
C(15)-C(16)-C(17)-C(18)	-55.2(16)
C(16)-C(17)-C(18)-C(13)	59.0(15)
C(14)-C(13)-C(18)-C(17)	-59.4(14)
P(1)-C(13)-C(18)-C(17)	176.0(9)
C(13)-P(1)-C(19)-C(24)	139.2(8)
C(7)-P(1)-C(19)-C(24)	-109.2(8)
Au(1)-P(1)-C(19)-C(24)	13.6(9)
C(13)-P(1)-C(19)-C(20)	-38.7(9)

C(7)-P(1)-C(19)-C(20)	72.9(8)
Au(1)-P(1)-C(19)-C(20)	-164.3(6)
C(24)-C(19)-C(20)-C(21)	-0.1(14)
P(1)-C(19)-C(20)-C(21)	178.0(8)
C(19)-C(20)-C(21)-C(22)	-0.3(16)
C(20)-C(21)-C(22)-C(23)	0.5(16)
C(21)-C(22)-C(23)-C(24)	-0.4(15)
C(22)-C(23)-C(24)-C(19)	0.1(14)
C(22)-C(23)-C(24)-C(25)	-179.8(8)
C(20)-C(19)-C(24)-C(23)	0.2(13)
P(1)-C(19)-C(24)-C(23)	-177.8(7)
C(20)-C(19)-C(24)-C(25)	-179.9(8)
P(1)-C(19)-C(24)-C(25)	2.1(12)
C(23)-C(24)-C(25)-C(30)	85.0(10)
C(19)-C(24)-C(25)-C(30)	-94.9(10)
C(23)-C(24)-C(25)-C(26)	-89.6(10)
C(19)-C(24)-C(25)-C(26)	90.5(11)
C(30)-C(25)-C(26)-C(27)	1.9(12)
C(24)-C(25)-C(26)-C(27)	176.5(8)
C(30)-C(25)-C(26)-C(31)	-176.7(8)
C(24)-C(25)-C(26)-C(31)	-2.1(12)
C(25)-C(26)-C(27)-C(28)	-1.5(13)
C(31)-C(26)-C(27)-C(28)	177.1(8)
C(26)-C(27)-C(28)-C(29)	0.6(13)
C(26)-C(27)-C(28)-C(34)	179.1(8)
C(27)-C(28)-C(29)-C(30)	0.0(13)
C(34)-C(28)-C(29)-C(30)	-178.6(8)
C(26)-C(25)-C(30)-C(29)	-1.4(12)
C(24)-C(25)-C(30)-C(29)	-176.0(8)
C(26)-C(25)-C(30)-C(37)	177.4(8)
C(24)-C(25)-C(30)-C(37)	2.8(12)
C(28)-C(29)-C(30)-C(25)	0.4(13)
C(28)-C(29)-C(30)-C(37)	-178.4(8)
C(27)-C(26)-C(31)-C(32)	-76.9(12)
C(25)-C(26)-C(31)-C(32)	101.7(11)
C(27)-C(26)-C(31)-C(33)	48.5(13)
C(25)-C(26)-C(31)-C(33)	-132.9(10)
C(27)-C(28)-C(34)-C(35)	-7.0(14)
C(29)-C(28)-C(34)-C(35)	171.5(9)
C(27)-C(28)-C(34)-C(36)	118.5(11)
C(29)-C(28)-C(34)-C(36)	-63.0(12)
C(25)-C(30)-C(37)-C(39)	-104.4(10)
C(29)-C(30)-C(37)-C(39)	74.4(11)
C(25)-C(30)-C(37)-C(38)	132.8(9)
C(29)-C(30)-C(37)-C(38)	-48.4(11)
Au(2)-S(2)-C(1B)-C(2B)	176.1(9)
Au(2)-S(2)-C(1B)-C(6B)	-6.2(15)
C(6B)-C(1B)-C(2B)-F(1B)	-179.6(13)
S(2)-C(1B)-C(2B)-F(1B)	-1.6(17)

C(6B)-C(1B)-C(2B)-C(3B)	4(2)
S(2)-C(1B)-C(2B)-C(3B)	-178.2(10)
F(1B)-C(2B)-C(3B)-C(4B)	179.7(12)
C(1B)-C(2B)-C(3B)-C(4B)	-4(2)
C(2B)-C(3B)-C(4B)-F(2B)	-179.1(11)
C(2B)-C(3B)-C(4B)-C(5B)	2(2)
C(3B)-C(4B)-C(5B)-C(6B)	0(2)
F(2B)-C(4B)-C(5B)-C(6B)	-179.4(14)
C(4B)-C(5B)-C(6B)-C(1B)	0(3)
C(2B)-C(1B)-C(6B)-C(5B)	-2(2)
S(2)-C(1B)-C(6B)-C(5B)	-179.9(14)
C(19B)-P(2)-C(7B)-C(12P)	178.8(13)
C(13B)-P(2)-C(7B)-C(12P)	-71.5(14)
Au(2)-P(2)-C(7B)-C(12P)	52.5(14)
C(19B)-P(2)-C(7B)-C(12B)	-80.2(15)
C(13B)-P(2)-C(7B)-C(12B)	29.4(16)
Au(2)-P(2)-C(7B)-C(12B)	153.4(14)
C(19B)-P(2)-C(7B)-C(8B)	63.7(17)
C(13B)-P(2)-C(7B)-C(8B)	173.4(17)
Au(2)-P(2)-C(7B)-C(8B)	-62.6(17)
C(19B)-P(2)-C(7B)-C(8P)	44.1(18)
C(13B)-P(2)-C(7B)-C(8P)	153.8(17)
Au(2)-P(2)-C(7B)-C(8P)	-82.3(17)
C(19B)-P(2)-C(13B)-C(14B)	-179.8(13)
C(7B)-P(2)-C(13B)-C(14B)	69.1(14)
Au(2)-P(2)-C(13B)-C(14B)	-53.0(14)
C(19B)-P(2)-C(13B)-C(18B)	-54(2)
C(7B)-P(2)-C(13B)-C(18B)	-165.4(19)
Au(2)-P(2)-C(13B)-C(18B)	73(2)
C(19B)-P(2)-C(13B)-C(18P)	-42(7)
C(7B)-P(2)-C(13B)-C(18P)	-153(7)
Au(2)-P(2)-C(13B)-C(18P)	85(7)
C(19B)-P(2)-C(13B)-C(14P)	-156(3)
C(7B)-P(2)-C(13B)-C(14P)	93(3)
Au(2)-P(2)-C(13B)-C(14P)	-29(3)
C(13B)-P(2)-C(19B)-C(24B)	119.3(9)
C(7B)-P(2)-C(19B)-C(24B)	-130.9(8)
Au(2)-P(2)-C(19B)-C(24B)	-7.0(9)
C(13B)-P(2)-C(19B)-C(20B)	-62.0(9)
C(7B)-P(2)-C(19B)-C(20B)	47.8(8)
Au(2)-P(2)-C(19B)-C(20B)	171.7(6)
C(24B)-C(19B)-C(20B)-C(21B)	-0.1(14)
P(2)-C(19B)-C(20B)-C(21B)	-178.8(8)
C(19B)-C(20B)-C(21B)-C(22B)	1.3(15)
C(20B)-C(21B)-C(22B)-C(23B)	-1.6(15)
C(21B)-C(22B)-C(23B)-C(24B)	0.8(15)
C(20B)-C(19B)-C(24B)-C(23B)	-0.8(13)
P(2)-C(19B)-C(24B)-C(23B)	177.9(7)
C(20B)-C(19B)-C(24B)-C(25B)	177.2(8)

P(2)-C(19B)-C(24B)-C(25B)	-4.1(13)
C(22B)-C(23B)-C(24B)-C(19B)	0.4(14)
C(22B)-C(23B)-C(24B)-C(25B)	-177.8(9)
C(19B)-C(24B)-C(25B)-C(26B)	-93.5(11)
C(23B)-C(24B)-C(25B)-C(26B)	84.5(10)
C(19B)-C(24B)-C(25B)-C(30B)	93.0(11)
C(23B)-C(24B)-C(25B)-C(30B)	-89.0(10)
C(30B)-C(25B)-C(26B)-C(27B)	-3.5(12)
C(24B)-C(25B)-C(26B)-C(27B)	-177.0(8)
C(30B)-C(25B)-C(26B)-C(31B)	173.8(8)
C(24B)-C(25B)-C(26B)-C(31B)	0.3(13)
C(25B)-C(26B)-C(27B)-C(28B)	1.0(13)
C(31B)-C(26B)-C(27B)-C(28B)	-176.4(8)
C(26B)-C(27B)-C(28B)-C(29B)	2.0(13)
C(26B)-C(27B)-C(28B)-C(34B)	-179.3(9)
C(27B)-C(28B)-C(29B)-C(30B)	-2.5(13)
C(34B)-C(28B)-C(29B)-C(30B)	178.8(9)
C(28B)-C(29B)-C(30B)-C(25B)	0.1(13)
C(28B)-C(29B)-C(30B)-C(37B)	179.5(8)
C(26B)-C(25B)-C(30B)-C(29B)	3.0(12)
C(24B)-C(25B)-C(30B)-C(29B)	176.5(8)
C(26B)-C(25B)-C(30B)-C(37B)	-176.4(8)
C(24B)-C(25B)-C(30B)-C(37B)	-2.9(12)
C(25B)-C(26B)-C(31B)-C(32B)	139.4(9)
C(27B)-C(26B)-C(31B)-C(32B)	-43.3(12)
C(25B)-C(26B)-C(31B)-C(33B)	-97.4(10)
C(27B)-C(26B)-C(31B)-C(33B)	79.9(11)
C(27B)-C(28B)-C(34B)-C(36B)	44.3(14)
C(29B)-C(28B)-C(34B)-C(36B)	-137.0(12)
C(27B)-C(28B)-C(34B)-C(35B)	-79.3(14)
C(29B)-C(28B)-C(34B)-C(35B)	99.4(13)
C(29B)-C(30B)-C(37B)-C(39B)	44.7(12)
C(25B)-C(30B)-C(37B)-C(39B)	-135.9(9)
C(29B)-C(30B)-C(37B)-C(38B)	-78.5(11)
C(25B)-C(30B)-C(37B)-C(38B)	100.9(10)
C(12B)-C(7B)-C(8B)-C(9B)	-50(3)
P(2)-C(7B)-C(8B)-C(9B)	165(2)
C(7B)-C(8B)-C(9B)-C(10B)	45(4)
C(8B)-C(9B)-C(10B)-C(11B)	-51(4)
C(9B)-C(10B)-C(11B)-C(12B)	59(4)
C(8B)-C(7B)-C(12B)-C(11B)	52(3)
P(2)-C(7B)-C(12B)-C(11B)	-167.0(14)
C(10B)-C(11B)-C(12B)-C(7B)	-55(3)
C(18B)-C(13B)-C(14B)-C(15B)	57(2)
P(2)-C(13B)-C(14B)-C(15B)	-175.3(14)
C(13B)-C(14B)-C(15B)-C(16B)	-58(3)
C(14B)-C(15B)-C(16B)-C(17B)	57(3)
C(15B)-C(16B)-C(17B)-C(18B)	-55(3)
C(14B)-C(13B)-C(18B)-C(17B)	-57(3)

P(2)-C(13B)-C(18B)-C(17B)	175.3(19)
C(16B)-C(17B)-C(18B)-C(13B)	57(3)
C(12P)-C(7B)-C(8P)-C(9P)	50(3)
P(2)-C(7B)-C(8P)-C(9P)	-174(2)
C(7B)-C(8P)-C(9P)-C(10P)	-48(4)
C(8P)-C(9P)-C(10P)-C(11P)	48(4)
C(9P)-C(10P)-C(11P)-C(12P)	-52(4)
C(8P)-C(7B)-C(12P)-C(11P)	-50(3)
P(2)-C(7B)-C(12P)-C(11P)	172.8(15)
C(10P)-C(11P)-C(12P)-C(7B)	53(3)
C(18P)-C(13B)-C(14P)-C(15P)	41(6)
P(2)-C(13B)-C(14P)-C(15P)	165(4)
C(13B)-C(14P)-C(15P)-C(16P)	38(7)
C(14P)-C(15P)-C(16P)-C(17P)	-71(6)
C(15P)-C(16P)-C(17P)-C(18P)	30(9)
C(14P)-C(13B)-C(18P)-C(17P)	-75(8)
P(2)-C(13B)-C(18P)-C(17P)	170(5)
C(16P)-C(17P)-C(18P)-C(13B)	38(12)

Compound 8

Table S33. Crystal data and structure refinement for cldr03.

Identification code	cldr03	
Empirical formula	C39 H52 Au F2 P S	
Formula weight	818.80	
Temperature	130(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	P 21/n	
Unit cell dimensions	a = 11.1506(3) Å	α= 90°.
	b = 18.0770(7) Å	β= 98.273(3)°.
	c = 17.9759(5) Å	γ = 90°.
Volume	3585.7(2) $Å^3$	
Z	4	
Density (calculated)	1.517 Mg/m^3	
Absorption coefficient	4.242 mm^{-1}	
F(000)	1656	
Crystal size	0.540 x 0.430 x 0.320 mm^3	
Theta range for data collection	3.538 to 29.517°.	
Index ranges	-14<=h<=15, -24<=k<=24, -24<=l<=23	
Reflections collected	24406	
Independent reflections	8582 [R(int) = 0.0463]	
Completeness to theta = 25.242°	99.8 %	
Absorption correction	Analytical	
Max. and min. transmission	0.153 and 0.069	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	8582 / 0 / 403	
Goodness-of-fit on F^2	1.102	
Final R indices [I>2sigma(I)]	R1 = 0.0348, wR2 = 0.0770	
R indices (all data)	R1 = 0.0498, wR2 = 0.0876	
Extinction coefficient	n/a	
Largest diff. peak and hole	2.507 and -1.068 e.$Å^{-3}$	

Table S34. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for cldr03. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	5469(1)	4038(1)	2432(1)	20(1)
S(1)	4758(1)	5131(1)	1877(1)	29(1)
P(1)	6140(1)	2998(1)	3065(1)	19(1)
F(1)	5525(3)	6934(2)	-135(2)	53(1)
F(2)	7611(2)	4682(2)	-76(2)	49(1)
C(1)	5531(4)	5373(2)	1128(2)	23(1)
C(2)	5273(4)	6065(2)	801(2)	29(1)
C(3)	5814(4)	6264(2)	192(2)	33(1)
C(4)	6614(4)	5822(3)	-125(2)	33(1)
C(5)	6841(4)	5149(3)	217(2)	32(1)
C(6)	6348(3)	4915(3)	832(2)	27(1)
C(7)	6255(3)	2200(2)	2436(2)	22(1)
C(8)	6641(4)	2436(2)	1683(2)	29(1)
C(9)	6604(4)	1778(3)	1144(2)	33(1)
C(10)	7393(4)	1141(3)	1498(3)	37(1)
C(11)	6992(4)	903(2)	2236(3)	33(1)
C(12)	7034(4)	1553(2)	2785(2)	27(1)
C(13)	7613(3)	3149(2)	3649(2)	22(1)
C(14)	8589(4)	3404(3)	3182(2)	31(1)
C(15)	9791(4)	3550(3)	3684(3)	36(1)
C(16)	9644(4)	4105(3)	4299(3)	36(1)
C(17)	8678(4)	3856(3)	4760(2)	31(1)
C(18)	7476(3)	3723(2)	4260(2)	25(1)
C(19)	5179(3)	2656(2)	3741(2)	18(1)
C(20)	5696(3)	2182(2)	4323(2)	20(1)
C(21)	5012(4)	1891(2)	4831(2)	24(1)
C(22)	3788(3)	2056(2)	4773(2)	23(1)
C(23)	3273(3)	2520(2)	4211(2)	24(1)
C(24)	3941(3)	2836(2)	3686(2)	18(1)
C(25)	3272(3)	3352(2)	3116(2)	17(1)
C(26)	3191(3)	4106(2)	3282(2)	17(1)
C(27)	2449(3)	4557(2)	2779(2)	19(1)
C(28)	1806(3)	4282(2)	2112(2)	18(1)
C(29)	1926(3)	3540(2)	1959(2)	21(1)
C(30)	2636(3)	3063(2)	2452(2)	20(1)
C(31)	3809(3)	4433(2)	4015(2)	20(1)
C(32)	2930(4)	4428(3)	4593(2)	32(1)
C(33)	4294(4)	5211(2)	3939(2)	30(1)
C(34)	963(3)	4759(2)	1572(2)	22(1)
C(35)	-357(4)	4533(3)	1595(3)	33(1)
C(36)	1120(4)	5586(2)	1705(3)	32(1)
C(37)	2625(4)	2243(2)	2266(2)	24(1)
C(38)	1408(4)	1908(2)	2385(3)	36(1)
C(39)	2897(4)	2085(2)	1472(2)	29(1)

Table S35. Bond lengths [Å] and angles [°] for cldr03.

Au(1)-P(1)	2.2698(10)
Au(1)-S(1)	2.3005(10)
S(1)-C(1)	1.755(4)
P(1)-C(13)	1.838(4)
P(1)-C(19)	1.839(4)
P(1)-C(7)	1.847(4)
F(1)-C(3)	1.363(5)
F(2)-C(5)	1.364(5)
C(1)-C(6)	1.392(6)
C(1)-C(2)	1.394(6)
C(2)-C(3)	1.371(6)
C(2)-H(2)	0.9500
C(3)-C(4)	1.381(7)
C(4)-C(5)	1.369(7)
C(4)-H(4)	0.9500
C(5)-C(6)	1.370(6)
C(6)-H(6)	0.9500
C(7)-C(12)	1.537(6)
C(7)-C(8)	1.539(5)
C(7)-H(7)	1.0000
C(8)-C(9)	1.531(6)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.531(6)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.521(6)
C(10)-H(10A)	0.9900
C(10)-H(10B)	0.9900
C(11)-C(12)	1.531(6)
C(11)-H(11A)	0.9900
C(11)-H(11B)	0.9900
C(12)-H(12A)	0.9900
C(12)-H(12B)	0.9900
C(13)-C(18)	1.534(5)
C(13)-C(14)	1.538(5)
C(13)-H(13)	1.0000
C(14)-C(15)	1.528(6)
C(14)-H(14A)	0.9900
C(14)-H(14B)	0.9900
C(15)-C(16)	1.521(7)
C(15)-H(15A)	0.9900
C(15)-H(15B)	0.9900
C(16)-C(17)	1.518(6)
C(16)-H(16A)	0.9900
C(16)-H(16B)	0.9900
C(17)-C(18)	1.521(6)

C(17)-H(17A)	0.9900
C(17)-H(17B)	0.9900
C(18)-H(18A)	0.9900
C(18)-H(18B)	0.9900
C(19)-C(24)	1.408(5)
C(19)-C(20)	1.411(5)
C(20)-C(21)	1.376(5)
C(20)-H(20)	0.9500
C(21)-C(22)	1.386(5)
C(21)-H(21)	0.9500
C(22)-C(23)	1.375(5)
C(22)-H(22)	0.9500
C(23)-C(24)	1.405(5)
C(23)-H(23)	0.9500
C(24)-C(25)	1.501(5)
C(25)-C(30)	1.400(5)
C(25)-C(26)	1.402(5)
C(26)-C(27)	1.397(5)
C(26)-C(31)	1.516(5)
C(27)-C(28)	1.397(5)
C(27)-H(27)	0.9500
C(28)-C(29)	1.379(5)
C(28)-C(34)	1.519(5)
C(29)-C(30)	1.397(5)
C(29)-H(29)	0.9500
C(30)-C(37)	1.520(5)
C(31)-C(33)	1.520(6)
C(31)-C(32)	1.527(5)
C(31)-H(31)	1.0000
C(32)-H(32A)	0.9800
C(32)-H(32B)	0.9800
C(32)-H(32C)	0.9800
C(33)-H(33A)	0.9800
C(33)-H(33B)	0.9800
C(33)-H(33C)	0.9800
C(34)-C(36)	1.519(6)
C(34)-C(35)	1.533(6)
C(34)-H(34)	1.0000
C(35)-H(35A)	0.9800
C(35)-H(35B)	0.9800
C(35)-H(35C)	0.9800
C(36)-H(36A)	0.9800
C(36)-H(36B)	0.9800
C(36)-H(36C)	0.9800
C(37)-C(38)	1.529(6)
C(37)-C(39)	1.529(5)
C(37)-H(37)	1.0000
C(38)-H(38A)	0.9800
C(38)-H(38B)	0.9800

C(38)-H(38C)	0.9800
C(39)-H(39A)	0.9800
C(39)-H(39B)	0.9800
C(39)-H(39C)	0.9800

P(1)-Au(1)-S(1)	175.54(4)
C(1)-S(1)-Au(1)	111.73(14)
C(13)-P(1)-C(19)	103.35(17)
C(13)-P(1)-C(7)	109.33(17)
C(19)-P(1)-C(7)	103.92(17)
C(13)-P(1)-Au(1)	111.48(13)
C(19)-P(1)-Au(1)	115.35(12)
C(7)-P(1)-Au(1)	112.72(13)
C(6)-C(1)-C(2)	118.6(4)
C(6)-C(1)-S(1)	124.4(3)
C(2)-C(1)-S(1)	117.0(3)
C(3)-C(2)-C(1)	119.0(4)
C(3)-C(2)-H(2)	120.5
C(1)-C(2)-H(2)	120.5
F(1)-C(3)-C(2)	118.2(4)
F(1)-C(3)-C(4)	117.6(4)
C(2)-C(3)-C(4)	124.2(4)
C(5)-C(4)-C(3)	114.7(4)
C(5)-C(4)-H(4)	122.7
C(3)-C(4)-H(4)	122.7
F(2)-C(5)-C(4)	117.5(4)
F(2)-C(5)-C(6)	117.9(4)
C(4)-C(5)-C(6)	124.5(4)
C(5)-C(6)-C(1)	119.1(4)
C(5)-C(6)-H(6)	120.5
C(1)-C(6)-H(6)	120.5
C(12)-C(7)-C(8)	110.9(3)
C(12)-C(7)-P(1)	115.4(3)
C(8)-C(7)-P(1)	112.0(3)
C(12)-C(7)-H(7)	105.9
C(8)-C(7)-H(7)	105.9
P(1)-C(7)-H(7)	105.9
C(9)-C(8)-C(7)	110.8(4)
C(9)-C(8)-H(8A)	109.5
C(7)-C(8)-H(8A)	109.5
C(9)-C(8)-H(8B)	109.5
C(7)-C(8)-H(8B)	109.5
H(8A)-C(8)-H(8B)	108.1
C(8)-C(9)-C(10)	111.1(4)
C(8)-C(9)-H(9A)	109.4
C(10)-C(9)-H(9A)	109.4
C(8)-C(9)-H(9B)	109.4
C(10)-C(9)-H(9B)	109.4
H(9A)-C(9)-H(9B)	108.0

C(11)-C(10)-C(9)	110.6(4)
C(11)-C(10)-H(10A)	109.5
C(9)-C(10)-H(10A)	109.5
C(11)-C(10)-H(10B)	109.5
C(9)-C(10)-H(10B)	109.5
H(10A)-C(10)-H(10B)	108.1
C(10)-C(11)-C(12)	111.1(4)
C(10)-C(11)-H(11A)	109.4
C(12)-C(11)-H(11A)	109.4
C(10)-C(11)-H(11B)	109.4
C(12)-C(11)-H(11B)	109.4
H(11A)-C(11)-H(11B)	108.0
C(11)-C(12)-C(7)	110.9(3)
C(11)-C(12)-H(12A)	109.5
C(7)-C(12)-H(12A)	109.4
C(11)-C(12)-H(12B)	109.4
C(7)-C(12)-H(12B)	109.4
H(12A)-C(12)-H(12B)	108.0
C(18)-C(13)-C(14)	109.8(3)
C(18)-C(13)-P(1)	109.7(3)
C(14)-C(13)-P(1)	112.1(3)
C(18)-C(13)-H(13)	108.4
C(14)-C(13)-H(13)	108.4
P(1)-C(13)-H(13)	108.4
C(15)-C(14)-C(13)	111.0(3)
C(15)-C(14)-H(14A)	109.4
C(13)-C(14)-H(14A)	109.4
C(15)-C(14)-H(14B)	109.4
C(13)-C(14)-H(14B)	109.4
H(14A)-C(14)-H(14B)	108.0
C(16)-C(15)-C(14)	111.5(4)
C(16)-C(15)-H(15A)	109.3
C(14)-C(15)-H(15A)	109.3
C(16)-C(15)-H(15B)	109.3
C(14)-C(15)-H(15B)	109.3
H(15A)-C(15)-H(15B)	108.0
C(17)-C(16)-C(15)	111.1(4)
C(17)-C(16)-H(16A)	109.4
C(15)-C(16)-H(16A)	109.4
C(17)-C(16)-H(16B)	109.4
C(15)-C(16)-H(16B)	109.4
H(16A)-C(16)-H(16B)	108.0
C(16)-C(17)-C(18)	111.0(4)
C(16)-C(17)-H(17A)	109.4
C(18)-C(17)-H(17A)	109.4
C(16)-C(17)-H(17B)	109.4
C(18)-C(17)-H(17B)	109.4
H(17A)-C(17)-H(17B)	108.0
C(17)-C(18)-C(13)	111.1(3)

C(17)-C(18)-H(18A)	109.4
C(13)-C(18)-H(18A)	109.4
C(17)-C(18)-H(18B)	109.4
C(13)-C(18)-H(18B)	109.4
H(18A)-C(18)-H(18B)	108.0
C(24)-C(19)-C(20)	119.0(3)
C(24)-C(19)-P(1)	122.4(3)
C(20)-C(19)-P(1)	118.6(3)
C(21)-C(20)-C(19)	121.2(3)
C(21)-C(20)-H(20)	119.4
C(19)-C(20)-H(20)	119.4
C(20)-C(21)-C(22)	120.2(4)
C(20)-C(21)-H(21)	119.9
C(22)-C(21)-H(21)	119.9
C(23)-C(22)-C(21)	119.3(3)
C(23)-C(22)-H(22)	120.4
C(21)-C(22)-H(22)	120.4
C(22)-C(23)-C(24)	122.4(4)
C(22)-C(23)-H(23)	118.8
C(24)-C(23)-H(23)	118.8
C(23)-C(24)-C(19)	117.9(3)
C(23)-C(24)-C(25)	116.8(3)
C(19)-C(24)-C(25)	125.2(3)
C(30)-C(25)-C(26)	120.3(3)
C(30)-C(25)-C(24)	119.5(3)
C(26)-C(25)-C(24)	120.0(3)
C(27)-C(26)-C(25)	118.7(3)
C(27)-C(26)-C(31)	119.3(3)
C(25)-C(26)-C(31)	121.9(3)
C(26)-C(27)-C(28)	122.1(4)
C(26)-C(27)-H(27)	119.0
C(28)-C(27)-H(27)	119.0
C(29)-C(28)-C(27)	117.7(3)
C(29)-C(28)-C(34)	119.6(3)
C(27)-C(28)-C(34)	122.7(4)
C(28)-C(29)-C(30)	122.4(4)
C(28)-C(29)-H(29)	118.8
C(30)-C(29)-H(29)	118.8
C(29)-C(30)-C(25)	118.9(4)
C(29)-C(30)-C(37)	118.5(3)
C(25)-C(30)-C(37)	122.6(3)
C(26)-C(31)-C(33)	113.9(3)
C(26)-C(31)-C(32)	109.4(3)
C(33)-C(31)-C(32)	109.8(3)
C(26)-C(31)-H(31)	107.9
C(33)-C(31)-H(31)	107.9
C(32)-C(31)-H(31)	107.9
C(31)-C(32)-H(32A)	109.5
C(31)-C(32)-H(32B)	109.5

H(32A)-C(32)-H(32B)	109.5
C(31)-C(32)-H(32C)	109.5
H(32A)-C(32)-H(32C)	109.5
H(32B)-C(32)-H(32C)	109.5
C(31)-C(33)-H(33A)	109.5
C(31)-C(33)-H(33B)	109.5
H(33A)-C(33)-H(33B)	109.5
C(31)-C(33)-H(33C)	109.5
H(33A)-C(33)-H(33C)	109.5
H(33B)-C(33)-H(33C)	109.5
C(28)-C(34)-C(36)	114.3(3)
C(28)-C(34)-C(35)	109.9(3)
C(36)-C(34)-C(35)	110.3(3)
C(28)-C(34)-H(34)	107.4
C(36)-C(34)-H(34)	107.4
C(35)-C(34)-H(34)	107.4
C(34)-C(35)-H(35A)	109.5
C(34)-C(35)-H(35B)	109.5
H(35A)-C(35)-H(35B)	109.5
C(34)-C(35)-H(35C)	109.5
H(35A)-C(35)-H(35C)	109.5
H(35B)-C(35)-H(35C)	109.5
C(34)-C(36)-H(36A)	109.5
C(34)-C(36)-H(36B)	109.5
H(36A)-C(36)-H(36B)	109.5
C(34)-C(36)-H(36C)	109.5
H(36A)-C(36)-H(36C)	109.5
H(36B)-C(36)-H(36C)	109.5
C(30)-C(37)-C(38)	109.6(3)
C(30)-C(37)-C(39)	113.0(3)
C(38)-C(37)-C(39)	110.9(3)
C(30)-C(37)-H(37)	107.7
C(38)-C(37)-H(37)	107.7
C(39)-C(37)-H(37)	107.7
C(37)-C(38)-H(38A)	109.5
C(37)-C(38)-H(38B)	109.5
H(38A)-C(38)-H(38B)	109.5
C(37)-C(38)-H(38C)	109.5
H(38A)-C(38)-H(38C)	109.5
H(38B)-C(38)-H(38C)	109.5
C(37)-C(39)-H(39A)	109.5
C(37)-C(39)-H(39B)	109.5
H(39A)-C(39)-H(39B)	109.5
C(37)-C(39)-H(39C)	109.5
H(39A)-C(39)-H(39C)	109.5
H(39B)-C(39)-H(39C)	109.5

Table S36. Anisotropic displacement parameters ($Å^2$x 10^3)for cldr03. The anisotropic displacement factor exponent takes the form: $-2\pi^2[h^2a^{*2}U^{11} + ... + 2 h k a^* b^* U^{12}]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	21(1)	19(1)	22(1)	5(1)	4(1)	2(1)
S(1)	35(1)	23(1)	30(1)	9(1)	12(1)	11(1)
P(1)	17(1)	18(1)	21(1)	3(1)	2(1)	1(1)
F(1)	92(2)	26(2)	41(2)	16(1)	12(2)	-3(2)
F(2)	44(2)	68(2)	40(2)	9(2)	21(1)	15(2)
C(1)	28(2)	22(2)	20(2)	2(2)	2(2)	-6(2)
C(2)	39(2)	22(2)	24(2)	2(2)	1(2)	0(2)
C(3)	43(3)	22(2)	29(2)	5(2)	-4(2)	-9(2)
C(4)	36(2)	37(3)	24(2)	4(2)	3(2)	-14(2)
C(5)	22(2)	47(3)	27(2)	0(2)	3(2)	-2(2)
C(6)	25(2)	28(2)	29(2)	3(2)	5(2)	1(2)
C(7)	19(2)	20(2)	24(2)	-1(2)	0(2)	0(2)
C(8)	37(2)	25(2)	24(2)	4(2)	7(2)	2(2)
C(9)	41(2)	35(3)	25(2)	-6(2)	7(2)	3(2)
C(10)	42(3)	35(3)	35(3)	-6(2)	11(2)	6(2)
C(11)	40(3)	24(2)	35(3)	0(2)	6(2)	9(2)
C(12)	32(2)	25(2)	25(2)	0(2)	3(2)	4(2)
C(13)	18(2)	20(2)	27(2)	2(2)	2(2)	-1(2)
C(14)	26(2)	38(3)	30(2)	6(2)	4(2)	-2(2)
C(15)	20(2)	45(3)	42(3)	8(2)	3(2)	-4(2)
C(16)	24(2)	37(3)	45(3)	3(2)	-3(2)	-9(2)
C(17)	26(2)	31(2)	33(2)	-5(2)	-2(2)	0(2)
C(18)	23(2)	19(2)	33(2)	-4(2)	2(2)	0(2)
C(19)	20(2)	13(2)	21(2)	2(2)	3(2)	-1(2)
C(20)	22(2)	18(2)	19(2)	0(2)	-3(2)	1(2)
C(21)	30(2)	20(2)	20(2)	2(2)	-2(2)	1(2)
C(22)	30(2)	22(2)	19(2)	5(2)	7(2)	-2(2)
C(23)	22(2)	23(2)	26(2)	4(2)	5(2)	0(2)
C(24)	21(2)	14(2)	18(2)	-3(1)	3(1)	0(2)
C(25)	17(2)	18(2)	18(2)	2(2)	3(1)	-2(2)
C(26)	15(2)	19(2)	18(2)	-3(1)	5(1)	-2(2)
C(27)	19(2)	13(2)	25(2)	-1(2)	2(2)	-1(2)
C(28)	18(2)	15(2)	22(2)	3(2)	3(2)	-3(2)
C(29)	24(2)	20(2)	20(2)	1(2)	1(2)	-2(2)
C(30)	22(2)	16(2)	22(2)	1(2)	3(2)	-1(2)
C(31)	21(2)	14(2)	23(2)	-2(2)	0(2)	1(2)
C(32)	30(2)	35(3)	32(2)	-8(2)	9(2)	-6(2)
C(33)	34(2)	29(2)	25(2)	-1(2)	-2(2)	-6(2)
C(34)	21(2)	21(2)	24(2)	2(2)	-1(2)	5(2)
C(35)	23(2)	31(3)	43(3)	2(2)	-4(2)	4(2)
C(36)	33(2)	21(2)	40(3)	8(2)	-3(2)	3(2)
C(37)	27(2)	17(2)	27(2)	-4(2)	0(2)	1(2)
C(38)	44(3)	20(2)	46(3)	-6(2)	14(2)	-11(2)
C(39)	35(2)	24(2)	28(2)	-2(2)	2(2)	2(2)

Table S37. Torsion angles [°] for cldr03.

Au(1)-S(1)-C(1)-C(6)	8.7(4)
Au(1)-S(1)-C(1)-C(2)	-173.1(3)
C(6)-C(1)-C(2)-C(3)	1.2(6)
S(1)-C(1)-C(2)-C(3)	-177.1(3)
C(1)-C(2)-C(3)-F(1)	178.2(4)
C(1)-C(2)-C(3)-C(4)	-0.2(7)
F(1)-C(3)-C(4)-C(5)	-178.4(4)
C(2)-C(3)-C(4)-C(5)	0.0(7)
C(3)-C(4)-C(5)-F(2)	179.0(4)
C(3)-C(4)-C(5)-C(6)	-0.8(7)
F(2)-C(5)-C(6)-C(1)	-178.0(4)
C(4)-C(5)-C(6)-C(1)	1.8(7)
C(2)-C(1)-C(6)-C(5)	-1.9(6)
S(1)-C(1)-C(6)-C(5)	176.2(3)
C(13)-P(1)-C(7)-C(12)	38.4(3)
C(19)-P(1)-C(7)-C(12)	-71.4(3)
Au(1)-P(1)-C(7)-C(12)	163.0(2)
C(13)-P(1)-C(7)-C(8)	-89.8(3)
C(19)-P(1)-C(7)-C(8)	160.4(3)
Au(1)-P(1)-C(7)-C(8)	34.8(3)
C(12)-C(7)-C(8)-C(9)	55.2(4)
P(1)-C(7)-C(8)-C(9)	-174.3(3)
C(7)-C(8)-C(9)-C(10)	-56.2(5)
C(8)-C(9)-C(10)-C(11)	57.2(5)
C(9)-C(10)-C(11)-C(12)	-57.2(5)
C(10)-C(11)-C(12)-C(7)	56.6(5)
C(8)-C(7)-C(12)-C(11)	-55.3(4)
P(1)-C(7)-C(12)-C(11)	175.9(3)
C(19)-P(1)-C(13)-C(18)	-60.5(3)
C(7)-P(1)-C(13)-C(18)	-170.7(3)
Au(1)-P(1)-C(13)-C(18)	63.9(3)
C(19)-P(1)-C(13)-C(14)	177.2(3)
C(7)-P(1)-C(13)-C(14)	67.0(3)
Au(1)-P(1)-C(13)-C(14)	-58.3(3)
C(18)-C(13)-C(14)-C(15)	56.0(5)
P(1)-C(13)-C(14)-C(15)	178.2(3)
C(13)-C(14)-C(15)-C(16)	-55.7(5)
C(14)-C(15)-C(16)-C(17)	55.4(5)
C(15)-C(16)-C(17)-C(18)	-56.2(5)
C(16)-C(17)-C(18)-C(13)	57.4(5)
C(14)-C(13)-C(18)-C(17)	-57.0(4)
P(1)-C(13)-C(18)-C(17)	179.4(3)
C(13)-P(1)-C(19)-C(24)	144.4(3)
C(7)-P(1)-C(19)-C(24)	-101.4(3)
Au(1)-P(1)-C(19)-C(24)	22.5(4)
C(13)-P(1)-C(19)-C(20)	-37.2(3)
C(7)-P(1)-C(19)-C(20)	77.0(3)

Au(1)-P(1)-C(19)-C(20)	-159.1(3)
C(24)-C(19)-C(20)-C(21)	0.4(6)
P(1)-C(19)-C(20)-C(21)	-178.0(3)
C(19)-C(20)-C(21)-C(22)	0.7(6)
C(20)-C(21)-C(22)-C(23)	-1.0(6)
C(21)-C(22)-C(23)-C(24)	0.3(6)
C(22)-C(23)-C(24)-C(19)	0.9(6)
C(22)-C(23)-C(24)-C(25)	-178.2(4)
C(20)-C(19)-C(24)-C(23)	-1.2(5)
P(1)-C(19)-C(24)-C(23)	177.2(3)
C(20)-C(19)-C(24)-C(25)	177.8(3)
P(1)-C(19)-C(24)-C(25)	-3.8(5)
C(23)-C(24)-C(25)-C(30)	-86.1(4)
C(19)-C(24)-C(25)-C(30)	94.9(5)
C(23)-C(24)-C(25)-C(26)	87.8(4)
C(19)-C(24)-C(25)-C(26)	-91.2(5)
C(30)-C(25)-C(26)-C(27)	1.1(5)
C(24)-C(25)-C(26)-C(27)	-172.7(3)
C(30)-C(25)-C(26)-C(31)	176.6(3)
C(24)-C(25)-C(26)-C(31)	2.8(5)
C(25)-C(26)-C(27)-C(28)	-1.1(5)
C(31)-C(26)-C(27)-C(28)	-176.8(3)
C(26)-C(27)-C(28)-C(29)	-0.2(5)
C(26)-C(27)-C(28)-C(34)	177.9(3)
C(27)-C(28)-C(29)-C(30)	1.6(5)
C(34)-C(28)-C(29)-C(30)	-176.5(3)
C(28)-C(29)-C(30)-C(25)	-1.6(5)
C(28)-C(29)-C(30)-C(37)	174.7(3)
C(26)-C(25)-C(30)-C(29)	0.2(5)
C(24)-C(25)-C(30)-C(29)	174.1(3)
C(26)-C(25)-C(30)-C(37)	-175.9(3)
C(24)-C(25)-C(30)-C(37)	-2.1(5)
C(27)-C(26)-C(31)-C(33)	-40.0(5)
C(25)-C(26)-C(31)-C(33)	144.5(4)
C(27)-C(26)-C(31)-C(32)	83.2(4)
C(25)-C(26)-C(31)-C(32)	-92.3(4)
C(29)-C(28)-C(34)-C(36)	-166.9(3)
C(27)-C(28)-C(34)-C(36)	15.1(5)
C(29)-C(28)-C(34)-C(35)	68.5(4)
C(27)-C(28)-C(34)-C(35)	-109.5(4)
C(29)-C(30)-C(37)-C(38)	-71.7(5)
C(25)-C(30)-C(37)-C(38)	104.5(4)
C(29)-C(30)-C(37)-C(39)	52.5(5)
C(25)-C(30)-C(37)-C(39)	-131.3(4)

Compound 12

Table S38. Crystal data and structure refinement for au601.

Identification code	au601	
Empirical formula	C34 H49 Au F3 P S	
Formula weight	774.73	
Temperature	130(2) K	
Wavelength	0.71073 Å	
Crystal system	Triclinic	
Space group	P -1	
Unit cell dimensions	a = 9.2691(5) Å	α= 86.078(4)°.
	b = 19.1597(8) Å	β= 76.950(5)°.
	c = 19.6184(10) Å	γ = 88.752(4)°.
Volume	3386.1(3) $Å^3$	
Z	4	
Density (calculated)	1.520 Mg/m^3	
Absorption coefficient	4.491 mm^{-1}	
F(000)	1560	
Crystal size	0.552 x 0.218 x 0.163 mm^3	
Theta range for data collection	3.373 to 29.544°.	
Index ranges	-12<=h<=12, -23<=k<=24, -27<=l<=21	
Reflections collected	30066	
Independent reflections	15838 [R(int) = 0.0332]	
Completeness to theta = 25.242°	99.7 %	
Absorption correction	Analytical	
Max. and min. transmission	0.535 and 0.347	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	15838 / 55 / 734	
Goodness-of-fit on F^2	1.026	
Final R indices [I>2sigma(I)]	R1 = 0.0373, wR2 = 0.0746	
R indices (all data)	R1 = 0.0574, wR2 = 0.0845	
Extinction coefficient	n/a	
Largest diff. peak and hole	1.973 and -1.623 e.$Å^{-3}$	

Table S39. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters ($Å^2$x 10^3) for au601. U(eq) is defined as one third of the trace of the orthogonalized U^{ij} tensor.

	x	y	z	U(eq)
Au(1)	8482(1)	2434(1)	3012(1)	26(1)
S(1)	8107(2)	2710(1)	1900(1)	44(1)
P(1)	8911(1)	2208(1)	4093(1)	23(1)
F(1)	7186(5)	3841(2)	1368(2)	85(1)
F(2)	8196(3)	4013(2)	2215(2)	57(1)
F(3)	6058(3)	3597(2)	2432(2)	76(1)
C(6)	9831(5)	2951(2)	4380(2)	30(1)
C(7)	9358(5)	3653(2)	4071(3)	40(1)
C(8)	10002(6)	4265(3)	4378(3)	54(2)
C(9)	11615(6)	4227(3)	4238(3)	52(1)
C(10)	12135(6)	3532(3)	4530(3)	52(1)
C(11)	11497(5)	2922(3)	4226(3)	47(1)
C(12)	7247(4)	2048(2)	4802(2)	28(1)
C(13)	6196(5)	2680(2)	4894(3)	36(1)
C(14)	4842(5)	2514(3)	5494(3)	45(1)
C(15)	4047(5)	1866(3)	5372(3)	43(1)
C(16)	5100(5)	1244(3)	5278(3)	45(1)
C(17)	6450(5)	1398(2)	4681(3)	36(1)
C(18)	10080(4)	1440(2)	4179(2)	23(1)
C(19)	10365(5)	1268(2)	4846(2)	32(1)
C(20)	11300(5)	720(2)	4951(2)	34(1)
C(21)	11970(5)	338(2)	4395(3)	36(1)
C(22)	11685(4)	492(2)	3746(2)	30(1)
C(23)	10736(4)	1040(2)	3619(2)	22(1)
C(24)	10508(4)	1144(2)	2884(2)	21(1)
C(25)	9423(4)	757(2)	2683(2)	23(1)
C(26)	9324(4)	809(2)	1984(2)	24(1)
C(27)	10270(4)	1224(2)	1477(2)	25(1)
C(28)	11341(4)	1593(2)	1690(2)	24(1)
C(29)	11492(4)	1566(2)	2377(2)	23(1)
C(30)	8406(4)	256(2)	3205(2)	28(1)
C(31)	8970(6)	-492(2)	3116(2)	43(1)
C(32)	6790(5)	319(3)	3138(3)	48(1)
C(33)	10202(5)	1267(2)	708(2)	31(1)
C(34)	8755(6)	1027(3)	579(3)	54(2)
C(35)	11507(7)	885(4)	276(3)	66(2)
C(36)	12694(4)	1978(2)	2570(2)	31(1)
C(37)	14210(5)	1630(3)	2314(3)	45(1)
C(38)	12706(5)	2746(2)	2293(3)	40(1)
C(39)	7368(5)	3549(3)	1989(3)	40(1)
Au(1A)	6168(1)	3051(1)	7519(1)	34(1)
S(5)	7671(2)	2185(1)	6964(1)	58(1)
P(1A)	4855(1)	3983(1)	7959(1)	26(1)
F(1B)	10264(4)	2335(2)	6201(2)	85(1)

F(2B)	8912(4)	3253(2)	6182(2)	92(1)
F(3B)	9819(4)	2997(2)	7067(2)	86(1)
C(10B)	8262(6)	5463(3)	8606(3)	50(1)
C(11B)	6676(5)	5467(3)	9024(3)	50(1)
C(13B)	4005(5)	4455(2)	7300(2)	36(1)
C(14B)	5166(6)	4740(3)	6664(3)	51(1)
C(15B)	4437(7)	5123(3)	6120(3)	60(2)
C(16B)	3371(6)	4670(3)	5893(3)	56(2)
C(17B)	2211(6)	4399(4)	6519(3)	69(2)
C(18B)	2907(6)	3997(3)	7063(3)	48(1)
C(19B)	3318(4)	3797(2)	8703(2)	24(1)
C(20B)	2296(5)	4335(2)	8920(2)	33(1)
C(21B)	1135(5)	4234(3)	9490(3)	38(1)
C(22B)	960(4)	3606(3)	9872(2)	35(1)
C(23B)	1944(4)	3070(2)	9670(2)	29(1)
C(24B)	3126(4)	3147(2)	9087(2)	21(1)
C(25B)	4044(4)	2500(2)	8916(2)	24(1)
C(26B)	3588(4)	2010(2)	8513(2)	27(1)
C(27B)	4291(5)	1358(2)	8467(2)	37(1)
C(28B)	5416(5)	1180(2)	8808(3)	35(1)
C(29B)	5886(5)	1681(2)	9173(3)	35(1)
C(30B)	5226(4)	2339(2)	9243(2)	28(1)
C(31B)	2341(5)	2168(2)	8137(2)	32(1)
C(32B)	923(5)	1767(3)	8485(2)	36(1)
C(33B)	2836(6)	2017(3)	7365(2)	43(1)
C(34B)	6124(6)	458(3)	8772(3)	46(1)
C(35B)	5011(6)	-119(3)	8996(3)	52(1)
C(36B)	7115(7)	364(3)	8061(3)	72(2)
C(37B)	5764(4)	2848(2)	9683(2)	33(1)
C(38B)	5304(6)	2613(3)	10462(3)	53(1)
C(39B)	7428(5)	2956(3)	9464(3)	50(1)
C(40B)	9170(6)	2703(4)	6605(3)	60(2)
C(7B)	5927(8)	4724(4)	8178(4)	25(2)
C(8B)	7552(11)	4671(5)	7797(6)	40(1)
C(9B)	8385(8)	5334(4)	7883(4)	40(1)
C(12B)	5794(9)	4824(5)	8954(5)	50(1)
C(7P)	6259(16)	4426(9)	8336(8)	31(4)
C(8P)	7760(20)	4447(10)	7884(11)	40(1)
C(9P)	8845(15)	4752(8)	8281(8)	40(1)
C(12P)	5735(17)	5174(9)	8533(9)	50(1)

Table S40. Bond lengths [Å] and angles [°] for au601.

Au(1)-P(1)	2.2557(10)
Au(1)-S(1)	2.3112(12)
S(1)-C(39)	1.739(5)
P(1)-C(18)	1.829(4)
P(1)-C(12)	1.844(4)
P(1)-C(6)	1.857(4)
F(1)-C(39)	1.349(6)
F(2)-C(39)	1.347(6)
F(3)-C(39)	1.330(6)
C(6)-C(11)	1.505(6)
C(6)-C(7)	1.533(6)
C(6)-H(6)	1.0000
C(7)-C(8)	1.544(7)
C(7)-H(7A)	0.9900
C(7)-H(7C)	0.9900
C(8)-C(9)	1.459(7)
C(8)-H(8A)	0.9900
C(8)-H(8B)	0.9900
C(9)-C(10)	1.526(7)
C(9)-H(9A)	0.9900
C(9)-H(9B)	0.9900
C(10)-C(11)	1.535(7)
C(10)-H(10C)	0.9900
C(10)-H(10D)	0.9900
C(11)-H(11C)	0.9900
C(11)-H(11D)	0.9900
C(12)-C(17)	1.519(6)
C(12)-C(13)	1.533(6)
C(12)-H(12)	1.0000
C(13)-C(14)	1.536(6)
C(13)-H(13A)	0.9900
C(13)-H(13C)	0.9900
C(14)-C(15)	1.516(7)
C(14)-H(14C)	0.9900
C(14)-H(14D)	0.9900
C(15)-C(16)	1.518(7)
C(15)-H(15C)	0.9900
C(15)-H(15D)	0.9900
C(16)-C(17)	1.526(6)
C(16)-H(16C)	0.9900
C(16)-H(16D)	0.9900
C(17)-H(17C)	0.9900
C(17)-H(17D)	0.9900
C(18)-C(23)	1.400(6)
C(18)-C(19)	1.409(6)
C(19)-C(20)	1.381(6)
C(19)-H(19)	0.9500

C(20)-C(21)	1.376(7)
C(20)-H(20)	0.9500
C(21)-C(22)	1.370(6)
C(21)-H(21)	0.9500
C(22)-C(23)	1.400(6)
C(22)-H(22)	0.9500
C(23)-C(24)	1.502(5)
C(24)-C(25)	1.404(6)
C(24)-C(29)	1.410(5)
C(25)-C(26)	1.391(5)
C(25)-C(30)	1.526(5)
C(26)-C(27)	1.386(5)
C(26)-H(26)	0.9500
C(27)-C(28)	1.385(6)
C(27)-C(33)	1.519(6)
C(28)-C(29)	1.383(6)
C(28)-H(28)	0.9500
C(29)-C(36)	1.509(6)
C(30)-C(31)	1.524(7)
C(30)-C(32)	1.534(6)
C(30)-H(30)	1.0000
C(31)-H(31A)	0.9800
C(31)-H(31C)	0.9800
C(31)-H(31D)	0.9800
C(32)-H(32D)	0.9800
C(32)-H(32E)	0.9800
C(32)-H(32F)	0.9800
C(33)-C(34)	1.507(7)
C(33)-C(35)	1.516(7)
C(33)-H(33)	1.0000
C(34)-H(34A)	0.9800
C(34)-H(34C)	0.9800
C(34)-H(34D)	0.9800
C(35)-H(35D)	0.9800
C(35)-H(35E)	0.9800
C(35)-H(35F)	0.9800
C(36)-C(38)	1.532(6)
C(36)-C(37)	1.535(6)
C(36)-H(36)	1.0000
C(37)-H(37A)	0.9800
C(37)-H(37C)	0.9800
C(37)-H(37D)	0.9800
C(38)-H(38D)	0.9800
C(38)-H(38E)	0.9800
C(38)-H(38F)	0.9800
Au(1A)-P(1A)	2.2497(12)
Au(1A)-S(5)	2.3102(13)
S(5)-C(40B)	1.713(7)
P(1A)-C(19B)	1.817(4)

P(1A)-C(13B)	1.838(4)
P(1A)-C(7B)	1.878(7)
P(1A)-C(7P)	1.878(16)
F(1B)-C(40B)	1.354(6)
F(2B)-C(40B)	1.347(7)
F(3B)-C(40B)	1.354(7)
C(10B)-C(9B)	1.436(9)
C(10B)-C(11B)	1.513(7)
C(10B)-C(9P)	1.577(16)
C(10B)-H(10A)	0.8529
C(10B)-H(10B)	0.8791
C(11B)-C(12B)	1.524(9)
C(11B)-C(12P)	1.574(16)
C(11B)-H(11A)	0.8581
C(11B)-H(11B)	0.8646
C(13B)-C(18B)	1.526(7)
C(13B)-C(14B)	1.529(6)
C(13B)-H(13B)	1.0000
C(14B)-C(15B)	1.527(7)
C(14B)-H(14A)	0.9900
C(14B)-H(14B)	0.9900
C(15B)-C(16B)	1.490(9)
C(15B)-H(15A)	0.9900
C(15B)-H(15B)	0.9900
C(16B)-C(17B)	1.508(8)
C(16B)-H(16A)	0.9900
C(16B)-H(16B)	0.9900
C(17B)-C(18B)	1.525(7)
C(17B)-H(17A)	0.9900
C(17B)-H(17B)	0.9900
C(18B)-H(18A)	0.9900
C(18B)-H(18B)	0.9900
C(19B)-C(24B)	1.403(6)
C(19B)-C(20B)	1.405(6)
C(20B)-C(21B)	1.373(6)
C(20B)-H(20B)	0.9500
C(21B)-C(22B)	1.366(7)
C(21B)-H(21B)	0.9500
C(22B)-C(23B)	1.376(6)
C(22B)-H(22B)	0.9500
C(23B)-C(24B)	1.395(5)
C(23B)-H(23B)	0.9500
C(24B)-C(25B)	1.503(5)
C(25B)-C(26B)	1.399(6)
C(25B)-C(30B)	1.408(6)
C(26B)-C(27B)	1.395(6)
C(26B)-C(31B)	1.520(6)
C(27B)-C(28B)	1.385(7)
C(27B)-H(27B)	0.9500

C(28B)-C(29B)	1.372(7)
C(28B)-C(34B)	1.518(6)
C(29B)-C(30B)	1.391(6)
C(29B)-H(29B)	0.9500
C(30B)-C(37B)	1.508(6)
C(31B)-C(33B)	1.527(6)
C(31B)-C(32B)	1.532(6)
C(31B)-H(31B)	1.0000
C(32B)-H(32A)	0.9800
C(32B)-H(32B)	0.9800
C(32B)-H(32C)	0.9800
C(33B)-H(33A)	0.9800
C(33B)-H(33B)	0.9800
C(33B)-H(33C)	0.9800
C(34B)-C(35B)	1.502(7)
C(34B)-C(36B)	1.508(8)
C(34B)-H(34B)	1.0000
C(35B)-H(35A)	0.9800
C(35B)-H(35B)	0.9800
C(35B)-H(35C)	0.9800
C(36B)-H(36A)	0.9800
C(36B)-H(36B)	0.9800
C(36B)-H(36C)	0.9800
C(37B)-C(39B)	1.520(6)
C(37B)-C(38B)	1.528(7)
C(37B)-H(37B)	1.0000
C(38B)-H(38A)	0.9800
C(38B)-H(38B)	0.9800
C(38B)-H(38C)	0.9800
C(39B)-H(39A)	0.9800
C(39B)-H(39B)	0.9800
C(39B)-H(39C)	0.9800
C(7B)-C(12B)	1.525(11)
C(7B)-C(8B)	1.527(13)
C(7B)-H(7B)	1.0000
C(8B)-C(9B)	1.539(12)
C(8B)-H(8BA)	0.9899
C(8B)-H(8BB)	0.9906
C(9B)-H(9BA)	0.9376
C(9B)-H(9BB)	0.8698
C(12B)-H(12A)	0.8437
C(12B)-H(12B)	0.8491
C(7P)-C(8P)	1.47(3)
C(7P)-C(12P)	1.55(2)
C(7P)-H(7P)	0.9999
C(8P)-C(9P)	1.55(3)
C(8P)-H(8PA)	0.9899
C(8P)-H(8PB)	0.9901
C(9P)-H(10B)	1.1860

C(9P)-H(9PA)	0.8531
C(9P)-H(9PB)	0.8793
C(12P)-H(12C)	0.8475
C(12P)-H(12D)	0.8504

P(1)-Au(1)-S(1)	177.42(4)
C(39)-S(1)-Au(1)	101.12(18)
C(18)-P(1)-C(12)	103.77(19)
C(18)-P(1)-C(6)	106.05(18)
C(12)-P(1)-C(6)	104.0(2)
C(18)-P(1)-Au(1)	114.65(14)
C(12)-P(1)-Au(1)	115.32(14)
C(6)-P(1)-Au(1)	111.99(14)
C(11)-C(6)-C(7)	108.5(4)
C(11)-C(6)-P(1)	115.9(3)
C(7)-C(6)-P(1)	111.3(3)
C(11)-C(6)-H(6)	106.9
C(7)-C(6)-H(6)	106.9
P(1)-C(6)-H(6)	106.9
C(6)-C(7)-C(8)	110.4(4)
C(6)-C(7)-H(7A)	109.6
C(8)-C(7)-H(7A)	109.6
C(6)-C(7)-H(7C)	109.6
C(8)-C(7)-H(7C)	109.6
H(7A)-C(7)-H(7C)	108.1
C(9)-C(8)-C(7)	111.3(5)
C(9)-C(8)-H(8A)	109.4
C(7)-C(8)-H(8A)	109.4
C(9)-C(8)-H(8B)	109.4
C(7)-C(8)-H(8B)	109.4
H(8A)-C(8)-H(8B)	108.0
C(8)-C(9)-C(10)	111.1(5)
C(8)-C(9)-H(9A)	109.4
C(10)-C(9)-H(9A)	109.4
C(8)-C(9)-H(9B)	109.4
C(10)-C(9)-H(9B)	109.4
H(9A)-C(9)-H(9B)	108.0
C(9)-C(10)-C(11)	110.1(4)
C(9)-C(10)-H(10C)	109.6
C(11)-C(10)-H(10C)	109.6
C(9)-C(10)-H(10D)	109.6
C(11)-C(10)-H(10D)	109.6
H(10C)-C(10)-H(10D)	108.2
C(6)-C(11)-C(10)	111.5(4)
C(6)-C(11)-H(11C)	109.3
C(10)-C(11)-H(11C)	109.3
C(6)-C(11)-H(11D)	109.3
C(10)-C(11)-H(11D)	109.3
H(11C)-C(11)-H(11D)	108.0

C(17)-C(12)-C(13)	111.0(4)
C(17)-C(12)-P(1)	110.4(3)
C(13)-C(12)-P(1)	112.7(3)
C(17)-C(12)-H(12)	107.5
C(13)-C(12)-H(12)	107.5
P(1)-C(12)-H(12)	107.5
C(12)-C(13)-C(14)	110.1(4)
C(12)-C(13)-H(13A)	109.6
C(14)-C(13)-H(13A)	109.6
C(12)-C(13)-H(13C)	109.6
C(14)-C(13)-H(13C)	109.6
H(13A)-C(13)-H(13C)	108.2
C(15)-C(14)-C(13)	111.5(4)
C(15)-C(14)-H(14C)	109.3
C(13)-C(14)-H(14C)	109.3
C(15)-C(14)-H(14D)	109.3
C(13)-C(14)-H(14D)	109.3
H(14C)-C(14)-H(14D)	108.0
C(14)-C(15)-C(16)	110.6(4)
C(14)-C(15)-H(15C)	109.5
C(16)-C(15)-H(15C)	109.5
C(14)-C(15)-H(15D)	109.5
C(16)-C(15)-H(15D)	109.5
H(15C)-C(15)-H(15D)	108.1
C(15)-C(16)-C(17)	111.3(4)
C(15)-C(16)-H(16C)	109.4
C(17)-C(16)-H(16C)	109.4
C(15)-C(16)-H(16D)	109.4
C(17)-C(16)-H(16D)	109.4
H(16C)-C(16)-H(16D)	108.0
C(12)-C(17)-C(16)	111.0(4)
C(12)-C(17)-H(17C)	109.4
C(16)-C(17)-H(17C)	109.4
C(12)-C(17)-H(17D)	109.4
C(16)-C(17)-H(17D)	109.4
H(17C)-C(17)-H(17D)	108.0
C(23)-C(18)-C(19)	119.3(4)
C(23)-C(18)-P(1)	123.6(3)
C(19)-C(18)-P(1)	117.1(3)
C(20)-C(19)-C(18)	121.0(4)
C(20)-C(19)-H(19)	119.5
C(18)-C(19)-H(19)	119.5
C(21)-C(20)-C(19)	119.6(4)
C(21)-C(20)-H(20)	120.2
C(19)-C(20)-H(20)	120.2
C(22)-C(21)-C(20)	120.1(4)
C(22)-C(21)-H(21)	120.0
C(20)-C(21)-H(21)	120.0
C(21)-C(22)-C(23)	122.1(4)

C(21)-C(22)-H(22)	118.9
C(23)-C(22)-H(22)	118.9
C(18)-C(23)-C(22)	118.0(4)
C(18)-C(23)-C(24)	125.6(3)
C(22)-C(23)-C(24)	116.4(4)
C(25)-C(24)-C(29)	119.8(4)
C(25)-C(24)-C(23)	119.8(3)
C(29)-C(24)-C(23)	120.1(3)
C(26)-C(25)-C(24)	119.0(4)
C(26)-C(25)-C(30)	119.5(4)
C(24)-C(25)-C(30)	121.4(4)
C(27)-C(26)-C(25)	122.4(4)
C(27)-C(26)-H(26)	118.8
C(25)-C(26)-H(26)	118.8
C(28)-C(27)-C(26)	117.3(4)
C(28)-C(27)-C(33)	119.9(4)
C(26)-C(27)-C(33)	122.8(4)
C(29)-C(28)-C(27)	123.1(4)
C(29)-C(28)-H(28)	118.4
C(27)-C(28)-H(28)	118.4
C(28)-C(29)-C(24)	118.5(4)
C(28)-C(29)-C(36)	120.2(4)
C(24)-C(29)-C(36)	121.4(4)
C(31)-C(30)-C(25)	109.9(3)
C(31)-C(30)-C(32)	110.8(4)
C(25)-C(30)-C(32)	112.3(4)
C(31)-C(30)-H(30)	107.9
C(25)-C(30)-H(30)	107.9
C(32)-C(30)-H(30)	107.9
C(30)-C(31)-H(31A)	109.5
C(30)-C(31)-H(31C)	109.5
H(31A)-C(31)-H(31C)	109.5
C(30)-C(31)-H(31D)	109.5
H(31A)-C(31)-H(31D)	109.5
H(31C)-C(31)-H(31D)	109.5
C(30)-C(32)-H(32D)	109.5
C(30)-C(32)-H(32E)	109.5
H(32D)-C(32)-H(32E)	109.5
C(30)-C(32)-H(32F)	109.5
H(32D)-C(32)-H(32F)	109.5
H(32E)-C(32)-H(32F)	109.5
C(34)-C(33)-C(35)	111.4(5)
C(34)-C(33)-C(27)	114.1(4)
C(35)-C(33)-C(27)	110.8(4)
C(34)-C(33)-H(33)	106.7
C(35)-C(33)-H(33)	106.7
C(27)-C(33)-H(33)	106.7
C(33)-C(34)-H(34A)	109.5
C(33)-C(34)-H(34C)	109.5

H(34A)-C(34)-H(34C)	109.5
C(33)-C(34)-H(34D)	109.5
H(34A)-C(34)-H(34D)	109.5
H(34C)-C(34)-H(34D)	109.5
C(33)-C(35)-H(35D)	109.5
C(33)-C(35)-H(35E)	109.5
H(35D)-C(35)-H(35E)	109.5
C(33)-C(35)-H(35F)	109.5
H(35D)-C(35)-H(35F)	109.5
H(35E)-C(35)-H(35F)	109.5
C(29)-C(36)-C(38)	112.3(4)
C(29)-C(36)-C(37)	110.4(4)
C(38)-C(36)-C(37)	111.1(4)
C(29)-C(36)-H(36)	107.6
C(38)-C(36)-H(36)	107.6
C(37)-C(36)-H(36)	107.6
C(36)-C(37)-H(37A)	109.5
C(36)-C(37)-H(37C)	109.5
H(37A)-C(37)-H(37C)	109.5
C(36)-C(37)-H(37D)	109.5
H(37A)-C(37)-H(37D)	109.5
H(37C)-C(37)-H(37D)	109.5
C(36)-C(38)-H(38D)	109.5
C(36)-C(38)-H(38E)	109.5
H(38D)-C(38)-H(38E)	109.5
C(36)-C(38)-H(38F)	109.5
H(38D)-C(38)-H(38F)	109.5
H(38E)-C(38)-H(38F)	109.5
F(3)-C(39)-F(2)	103.0(4)
F(3)-C(39)-F(1)	105.9(4)
F(2)-C(39)-F(1)	104.4(4)
F(3)-C(39)-S(1)	115.7(4)
F(2)-C(39)-S(1)	115.7(3)
F(1)-C(39)-S(1)	111.0(4)
P(1A)-Au(1A)-S(5)	173.18(5)
C(40B)-S(5)-Au(1A)	97.0(2)
C(19B)-P(1A)-C(13B)	104.4(2)
C(19B)-P(1A)-C(7B)	107.5(3)
C(13B)-P(1A)-C(7B)	98.8(3)
C(19B)-P(1A)-C(7P)	104.5(5)
C(13B)-P(1A)-C(7P)	120.4(5)
C(19B)-P(1A)-Au(1A)	115.98(14)
C(13B)-P(1A)-Au(1A)	111.27(16)
C(7B)-P(1A)-Au(1A)	116.9(2)
C(7P)-P(1A)-Au(1A)	100.8(5)
C(9B)-C(10B)-C(11B)	112.9(5)
C(11B)-C(10B)-C(9P)	116.1(6)
C(9B)-C(10B)-H(10A)	111.5
C(11B)-C(10B)-H(10A)	122.5

C(9P)-C(10B)-H(10A)	118.2
C(9B)-C(10B)-H(10B)	104.0
C(11B)-C(10B)-H(10B)	93.2
C(9P)-C(10B)-H(10B)	48.1
H(10A)-C(10B)-H(10B)	109.4
C(10B)-C(11B)-C(12B)	114.2(5)
C(10B)-C(11B)-C(12P)	105.4(7)
C(10B)-C(11B)-H(11A)	109.6
C(12B)-C(11B)-H(11A)	100.6
C(12P)-C(11B)-H(11A)	135.8
C(10B)-C(11B)-H(11B)	92.5
C(12B)-C(11B)-H(11B)	123.6
C(12P)-C(11B)-H(11B)	87.5
H(11A)-C(11B)-H(11B)	116.5
C(18B)-C(13B)-C(14B)	110.0(4)
C(18B)-C(13B)-P(1A)	111.6(3)
C(14B)-C(13B)-P(1A)	112.0(3)
C(18B)-C(13B)-H(13B)	107.7
C(14B)-C(13B)-H(13B)	107.7
P(1A)-C(13B)-H(13B)	107.7
C(15B)-C(14B)-C(13B)	111.2(4)
C(15B)-C(14B)-H(14A)	109.4
C(13B)-C(14B)-H(14A)	109.4
C(15B)-C(14B)-H(14B)	109.4
C(13B)-C(14B)-H(14B)	109.4
H(14A)-C(14B)-H(14B)	108.0
C(16B)-C(15B)-C(14B)	111.9(5)
C(16B)-C(15B)-H(15A)	109.2
C(14B)-C(15B)-H(15A)	109.2
C(16B)-C(15B)-H(15B)	109.2
C(14B)-C(15B)-H(15B)	109.2
H(15A)-C(15B)-H(15B)	107.9
C(15B)-C(16B)-C(17B)	110.1(5)
C(15B)-C(16B)-H(16A)	109.6
C(17B)-C(16B)-H(16A)	109.6
C(15B)-C(16B)-H(16B)	109.6
C(17B)-C(16B)-H(16B)	109.6
H(16A)-C(16B)-H(16B)	108.2
C(16B)-C(17B)-C(18B)	111.6(5)
C(16B)-C(17B)-H(17A)	109.3
C(18B)-C(17B)-H(17A)	109.3
C(16B)-C(17B)-H(17B)	109.3
C(18B)-C(17B)-H(17B)	109.3
H(17A)-C(17B)-H(17B)	108.0
C(17B)-C(18B)-C(13B)	110.7(5)
C(17B)-C(18B)-H(18A)	109.5
C(13B)-C(18B)-H(18A)	109.5
C(17B)-C(18B)-H(18B)	109.5
C(13B)-C(18B)-H(18B)	109.5

H(18A)-C(18B)-H(18B)	108.1
C(24B)-C(19B)-C(20B)	118.3(4)
C(24B)-C(19B)-P(1A)	123.1(3)
C(20B)-C(19B)-P(1A)	118.6(3)
C(21B)-C(20B)-C(19B)	121.5(4)
C(21B)-C(20B)-H(20B)	119.3
C(19B)-C(20B)-H(20B)	119.3
C(22B)-C(21B)-C(20B)	120.4(4)
C(22B)-C(21B)-H(21B)	119.8
C(20B)-C(21B)-H(21B)	119.8
C(21B)-C(22B)-C(23B)	119.3(4)
C(21B)-C(22B)-H(22B)	120.4
C(23B)-C(22B)-H(22B)	120.4
C(22B)-C(23B)-C(24B)	122.2(4)
C(22B)-C(23B)-H(23B)	118.9
C(24B)-C(23B)-H(23B)	118.9
C(23B)-C(24B)-C(19B)	118.4(4)
C(23B)-C(24B)-C(25B)	115.3(4)
C(19B)-C(24B)-C(25B)	126.2(3)
C(26B)-C(25B)-C(30B)	120.0(4)
C(26B)-C(25B)-C(24B)	119.4(3)
C(30B)-C(25B)-C(24B)	120.0(4)
C(27B)-C(26B)-C(25B)	118.6(4)
C(27B)-C(26B)-C(31B)	119.8(4)
C(25B)-C(26B)-C(31B)	121.7(4)
C(28B)-C(27B)-C(26B)	122.3(4)
C(28B)-C(27B)-H(27B)	118.8
C(26B)-C(27B)-H(27B)	118.8
C(29B)-C(28B)-C(27B)	117.8(4)
C(29B)-C(28B)-C(34B)	120.8(4)
C(27B)-C(28B)-C(34B)	121.4(5)
C(28B)-C(29B)-C(30B)	122.6(4)
C(28B)-C(29B)-H(29B)	118.7
C(30B)-C(29B)-H(29B)	118.7
C(29B)-C(30B)-C(25B)	118.6(4)
C(29B)-C(30B)-C(37B)	119.2(4)
C(25B)-C(30B)-C(37B)	122.2(4)
C(26B)-C(31B)-C(33B)	110.5(4)
C(26B)-C(31B)-C(32B)	112.4(4)
C(33B)-C(31B)-C(32B)	110.7(4)
C(26B)-C(31B)-H(31B)	107.7
C(33B)-C(31B)-H(31B)	107.7
C(32B)-C(31B)-H(31B)	107.7
C(31B)-C(32B)-H(32A)	109.5
C(31B)-C(32B)-H(32B)	109.5
H(32A)-C(32B)-H(32B)	109.5
C(31B)-C(32B)-H(32C)	109.5
H(32A)-C(32B)-H(32C)	109.5
H(32B)-C(32B)-H(32C)	109.5

C(31B)-C(33B)-H(33A)	109.5
C(31B)-C(33B)-H(33B)	109.5
H(33A)-C(33B)-H(33B)	109.5
C(31B)-C(33B)-H(33C)	109.5
H(33A)-C(33B)-H(33C)	109.5
H(33B)-C(33B)-H(33C)	109.5
C(35B)-C(34B)-C(36B)	112.4(5)
C(35B)-C(34B)-C(28B)	112.7(4)
C(36B)-C(34B)-C(28B)	111.3(4)
C(35B)-C(34B)-H(34B)	106.7
C(36B)-C(34B)-H(34B)	106.7
C(28B)-C(34B)-H(34B)	106.7
C(34B)-C(35B)-H(35A)	109.5
C(34B)-C(35B)-H(35B)	109.5
H(35A)-C(35B)-H(35B)	109.5
C(34B)-C(35B)-H(35C)	109.5
H(35A)-C(35B)-H(35C)	109.5
H(35B)-C(35B)-H(35C)	109.5
C(34B)-C(36B)-H(36A)	109.5
C(34B)-C(36B)-H(36B)	109.5
H(36A)-C(36B)-H(36B)	109.5
C(34B)-C(36B)-H(36C)	109.5
H(36A)-C(36B)-H(36C)	109.5
H(36B)-C(36B)-H(36C)	109.5
C(30B)-C(37B)-C(39B)	112.4(4)
C(30B)-C(37B)-C(38B)	110.8(4)
C(39B)-C(37B)-C(38B)	110.6(4)
C(30B)-C(37B)-H(37B)	107.6
C(39B)-C(37B)-H(37B)	107.6
C(38B)-C(37B)-H(37B)	107.6
C(37B)-C(38B)-H(38A)	109.5
C(37B)-C(38B)-H(38B)	109.5
H(38A)-C(38B)-H(38B)	109.5
C(37B)-C(38B)-H(38C)	109.5
H(38A)-C(38B)-H(38C)	109.5
H(38B)-C(38B)-H(38C)	109.5
C(37B)-C(39B)-H(39A)	109.5
C(37B)-C(39B)-H(39B)	109.5
H(39A)-C(39B)-H(39B)	109.5
C(37B)-C(39B)-H(39C)	109.5
H(39A)-C(39B)-H(39C)	109.5
H(39B)-C(39B)-H(39C)	109.5
F(2B)-C(40B)-F(1B)	104.8(5)
F(2B)-C(40B)-F(3B)	103.3(6)
F(1B)-C(40B)-F(3B)	105.0(4)
F(2B)-C(40B)-S(5)	115.6(4)
F(1B)-C(40B)-S(5)	111.2(5)
F(3B)-C(40B)-S(5)	115.8(4)
C(12B)-C(7B)-C(8B)	110.6(7)

C(12B)-C(7B)-P(1A)	116.7(5)
C(8B)-C(7B)-P(1A)	109.9(6)
C(12B)-C(7B)-H(7B)	106.3
C(8B)-C(7B)-H(7B)	106.3
P(1A)-C(7B)-H(7B)	106.4
C(7B)-C(8B)-C(9B)	110.1(7)
C(7B)-C(8B)-H(8BA)	110.0
C(9B)-C(8B)-H(8BA)	109.5
C(7B)-C(8B)-H(8BB)	109.4
C(9B)-C(8B)-H(8BB)	109.7
H(8BA)-C(8B)-H(8BB)	108.1
C(10B)-C(9B)-C(8B)	112.2(7)
C(10B)-C(9B)-H(9BA)	83.0
C(8B)-C(9B)-H(9BA)	88.9
C(10B)-C(9B)-H(9BB)	121.9
C(8B)-C(9B)-H(9BB)	111.7
H(9BA)-C(9B)-H(9BB)	133.5
C(11B)-C(12B)-C(7B)	108.8(6)
C(11B)-C(12B)-H(12A)	100.3
C(7B)-C(12B)-H(12A)	114.3
C(11B)-C(12B)-H(12B)	139.0
C(7B)-C(12B)-H(12B)	85.1
H(12A)-C(12B)-H(12B)	108.9
C(8P)-C(7P)-C(12P)	110.2(14)
C(8P)-C(7P)-P(1A)	114.4(13)
C(12P)-C(7P)-P(1A)	110.7(10)
C(8P)-C(7P)-H(7P)	106.2
C(12P)-C(7P)-H(7P)	107.6
P(1A)-C(7P)-H(7P)	107.4
C(7P)-C(8P)-C(9P)	109.6(16)
C(7P)-C(8P)-H(8PA)	108.6
C(9P)-C(8P)-H(8PA)	110.6
C(7P)-C(8P)-H(8PB)	109.9
C(9P)-C(8P)-H(8PB)	109.9
H(8PA)-C(8P)-H(8PB)	108.2
C(8P)-C(9P)-C(10B)	112.1(11)
C(8P)-C(9P)-H(10B)	123.6
C(10B)-C(9P)-H(10B)	33.5
C(8P)-C(9P)-H(9PA)	91.6
C(10B)-C(9P)-H(9PA)	124.3
H(10B)-C(9P)-H(9PA)	91.2
C(8P)-C(9P)-H(9PB)	116.7
C(10B)-C(9P)-H(9PB)	107.9
H(10B)-C(9P)-H(9PB)	117.0
H(9PA)-C(9P)-H(9PB)	103.9
C(7P)-C(12P)-C(11B)	110.5(12)
C(7P)-C(12P)-H(12C)	116.6
C(11B)-C(12P)-H(12C)	132.6
C(7P)-C(12P)-H(12D)	83.0

C(11B)-C(12P)-H(12D)	78.3
H(12C)-C(12P)-H(12D)	101.8

Table S41. Anisotropic displacement parameters ($Å^2$x 10^3)for au601. The anisotropic displacement factor exponent takes the form: $-2\pi^2[h^2a^{*2}U^{11} + ... + 2 h k a^* b^* U^{12}]$

	U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
Au(1)	30(1)	26(1)	26(1)	-2(1)	-12(1)	3(1)
S(1)	75(1)	29(1)	37(1)	-6(1)	-32(1)	11(1)
P(1)	24(1)	22(1)	24(1)	-1(1)	-8(1)	0(1)
F(1)	155(4)	37(2)	85(3)	11(2)	-80(3)	12(2)
F(2)	61(2)	34(2)	83(2)	-12(2)	-30(2)	-8(1)
F(3)	39(2)	56(2)	130(3)	0(2)	-16(2)	10(2)
C(6)	38(2)	27(2)	27(2)	-3(2)	-13(2)	-2(2)
C(7)	45(3)	27(3)	55(3)	3(2)	-25(2)	-7(2)
C(8)	66(4)	28(3)	74(4)	-1(3)	-32(3)	-4(2)
C(9)	65(4)	36(3)	56(3)	0(3)	-18(3)	-9(3)
C(10)	52(3)	47(4)	65(4)	-10(3)	-29(3)	-9(2)
C(11)	46(3)	43(3)	57(3)	-8(3)	-19(3)	-4(2)
C(12)	28(2)	28(2)	28(2)	0(2)	-6(2)	0(2)
C(13)	35(2)	28(3)	41(3)	-3(2)	1(2)	0(2)
C(14)	36(3)	48(3)	44(3)	-3(2)	3(2)	4(2)
C(15)	25(2)	53(3)	47(3)	3(3)	2(2)	-2(2)
C(16)	39(3)	37(3)	54(3)	8(2)	0(2)	-6(2)
C(17)	35(2)	27(3)	46(3)	-3(2)	-9(2)	-1(2)
C(18)	22(2)	23(2)	26(2)	-1(2)	-10(2)	-5(2)
C(19)	35(2)	36(3)	27(2)	-4(2)	-14(2)	-1(2)
C(20)	40(2)	35(3)	34(2)	6(2)	-22(2)	-5(2)
C(21)	39(3)	30(3)	43(3)	3(2)	-20(2)	5(2)
C(22)	31(2)	24(2)	35(2)	-5(2)	-9(2)	3(2)
C(23)	21(2)	18(2)	28(2)	1(2)	-6(2)	-7(2)
C(24)	24(2)	18(2)	19(2)	-2(2)	-4(2)	1(2)
C(25)	29(2)	16(2)	23(2)	0(2)	-5(2)	-3(2)
C(26)	29(2)	24(2)	21(2)	-4(2)	-4(2)	-7(2)
C(27)	33(2)	19(2)	24(2)	-2(2)	-7(2)	4(2)
C(28)	25(2)	19(2)	25(2)	4(2)	1(2)	-3(2)
C(29)	20(2)	19(2)	31(2)	-1(2)	-6(2)	0(2)
C(30)	36(2)	29(3)	20(2)	2(2)	-6(2)	-15(2)
C(31)	71(3)	28(3)	28(2)	-2(2)	-5(2)	-22(2)
C(32)	36(3)	78(4)	32(3)	4(3)	-7(2)	-24(3)
C(33)	42(2)	28(3)	21(2)	3(2)	-7(2)	-2(2)
C(34)	53(3)	81(5)	29(3)	6(3)	-15(2)	-14(3)
C(35)	75(4)	96(5)	28(3)	-16(3)	-11(3)	33(4)
C(36)	27(2)	29(3)	37(2)	0(2)	-7(2)	-10(2)
C(37)	32(3)	44(3)	62(3)	-1(3)	-17(2)	-6(2)
C(38)	41(3)	28(3)	49(3)	-3(2)	-7(2)	-12(2)
C(39)	41(3)	31(3)	54(3)	0(2)	-26(2)	0(2)
Au(1A)	30(1)	31(1)	37(1)	0(1)	-1(1)	2(1)
S(5)	46(1)	43(1)	75(1)	-10(1)	8(1)	11(1)
P(1A)	31(1)	26(1)	23(1)	-1(1)	-7(1)	-4(1)
F(1B)	57(2)	127(4)	68(2)	-36(2)	2(2)	28(2)

F(2B)	92(3)	104(3)	61(2)	26(2)	11(2)	18(2)
F(3B)	58(2)	121(4)	86(3)	-43(3)	-19(2)	5(2)
C(10B)	57(2)	43(2)	59(2)	-10(2)	-25(2)	-13(2)
C(11B)	57(2)	43(2)	59(2)	-10(2)	-25(2)	-13(2)
C(13B)	54(3)	27(3)	27(2)	3(2)	-9(2)	5(2)
C(14B)	65(3)	52(4)	32(3)	8(2)	-8(3)	-11(3)
C(15B)	86(4)	52(4)	33(3)	16(3)	-4(3)	7(3)
C(16B)	64(4)	67(4)	37(3)	3(3)	-18(3)	10(3)
C(17B)	59(4)	109(6)	39(3)	23(3)	-23(3)	-5(3)
C(18B)	53(3)	58(4)	35(3)	8(3)	-18(2)	-10(3)
C(19B)	30(2)	21(2)	22(2)	-6(2)	-10(2)	1(2)
C(20B)	40(2)	26(3)	39(3)	-8(2)	-16(2)	10(2)
C(21B)	36(3)	41(3)	40(3)	-18(2)	-13(2)	16(2)
C(22B)	20(2)	52(3)	31(2)	-18(2)	0(2)	4(2)
C(23B)	25(2)	35(3)	26(2)	-6(2)	-3(2)	-3(2)
C(24B)	20(2)	24(2)	22(2)	-6(2)	-8(2)	1(2)
C(25B)	23(2)	22(2)	23(2)	-3(2)	0(2)	-2(2)
C(26B)	27(2)	24(2)	28(2)	-3(2)	0(2)	-2(2)
C(27B)	46(3)	27(3)	34(2)	-10(2)	-2(2)	-2(2)
C(28B)	32(2)	27(3)	41(3)	-1(2)	1(2)	5(2)
C(29B)	27(2)	31(3)	44(3)	-2(2)	-4(2)	4(2)
C(30B)	22(2)	26(2)	30(2)	7(2)	2(2)	-2(2)
C(31B)	39(2)	29(3)	28(2)	-5(2)	-8(2)	-7(2)
C(32B)	33(2)	41(3)	34(2)	-6(2)	-5(2)	-4(2)
C(33B)	54(3)	43(3)	32(3)	-6(2)	-10(2)	-14(2)
C(34B)	48(3)	31(3)	57(3)	-3(2)	-7(3)	12(2)
C(35B)	65(3)	26(3)	61(4)	1(3)	-8(3)	10(2)
C(36B)	84(4)	45(4)	71(4)	-4(3)	15(4)	35(3)
C(37B)	28(2)	32(3)	40(3)	-2(2)	-12(2)	3(2)
C(38B)	59(3)	64(4)	39(3)	-5(3)	-15(3)	-5(3)
C(39B)	32(3)	52(4)	68(4)	-1(3)	-17(3)	-5(2)
C(40B)	48(3)	93(5)	37(3)	-15(3)	-5(3)	26(3)
C(7B)	29(4)	24(4)	24(4)	-2(3)	-10(3)	-6(3)
C(8B)	41(3)	35(3)	45(3)	-4(3)	-11(2)	-12(2)
C(9B)	41(3)	35(3)	45(3)	-4(3)	-11(2)	-12(2)
C(12B)	57(2)	43(2)	59(2)	-10(2)	-25(2)	-13(2)
C(7P)	32(8)	31(10)	34(8)	7(7)	-17(6)	0(6)
C(8P)	41(3)	35(3)	45(3)	-4(3)	-11(2)	-12(2)
C(9P)	41(3)	35(3)	45(3)	-4(3)	-11(2)	-12(2)
C(12P)	57(2)	43(2)	59(2)	-10(2)	-25(2)	-13(2)

Table S42. Torsion angles [°] for au601.

C(18)-P(1)-C(6)-C(11)	32.8(4)
C(12)-P(1)-C(6)-C(11)	141.9(4)
Au(1)-P(1)-C(6)-C(11)	-92.9(4)
C(18)-P(1)-C(6)-C(7)	157.4(3)
C(12)-P(1)-C(6)-C(7)	-93.6(3)
Au(1)-P(1)-C(6)-C(7)	31.6(4)
C(11)-C(6)-C(7)-C(8)	-57.4(6)
P(1)-C(6)-C(7)-C(8)	174.0(4)
C(6)-C(7)-C(8)-C(9)	58.3(6)
C(7)-C(8)-C(9)-C(10)	-57.1(6)
C(8)-C(9)-C(10)-C(11)	56.3(7)
C(7)-C(6)-C(11)-C(10)	58.0(6)
P(1)-C(6)-C(11)-C(10)	-176.0(4)
C(9)-C(10)-C(11)-C(6)	-57.4(6)
C(18)-P(1)-C(12)-C(17)	-63.3(3)
C(6)-P(1)-C(12)-C(17)	-174.0(3)
Au(1)-P(1)-C(12)-C(17)	62.9(3)
C(18)-P(1)-C(12)-C(13)	171.9(3)
C(6)-P(1)-C(12)-C(13)	61.1(4)
Au(1)-P(1)-C(12)-C(13)	-61.9(4)
C(17)-C(12)-C(13)-C(14)	55.9(5)
P(1)-C(12)-C(13)-C(14)	-179.7(3)
C(12)-C(13)-C(14)-C(15)	-56.2(5)
C(13)-C(14)-C(15)-C(16)	56.5(6)
C(14)-C(15)-C(16)-C(17)	-56.3(6)
C(13)-C(12)-C(17)-C(16)	-56.3(5)
P(1)-C(12)-C(17)-C(16)	178.0(3)
C(15)-C(16)-C(17)-C(12)	56.4(6)
C(12)-P(1)-C(18)-C(23)	130.1(3)
C(6)-P(1)-C(18)-C(23)	-120.6(3)
Au(1)-P(1)-C(18)-C(23)	3.5(4)
C(12)-P(1)-C(18)-C(19)	-52.4(4)
C(6)-P(1)-C(18)-C(19)	56.9(4)
Au(1)-P(1)-C(18)-C(19)	-179.0(3)
C(23)-C(18)-C(19)-C(20)	1.1(6)
P(1)-C(18)-C(19)-C(20)	-176.5(3)
C(18)-C(19)-C(20)-C(21)	0.3(7)
C(19)-C(20)-C(21)-C(22)	-1.3(7)
C(20)-C(21)-C(22)-C(23)	0.9(7)
C(19)-C(18)-C(23)-C(22)	-1.5(6)
P(1)-C(18)-C(23)-C(22)	175.9(3)
C(19)-C(18)-C(23)-C(24)	178.2(4)
P(1)-C(18)-C(23)-C(24)	-4.4(6)
C(21)-C(22)-C(23)-C(18)	0.6(6)
C(21)-C(22)-C(23)-C(24)	-179.2(4)
C(18)-C(23)-C(24)-C(25)	-94.2(5)
C(22)-C(23)-C(24)-C(25)	85.5(5)

C(18)-C(23)-C(24)-C(29)	93.2(5)
C(22)-C(23)-C(24)-C(29)	-87.1(5)
C(29)-C(24)-C(25)-C(26)	-1.1(6)
C(23)-C(24)-C(25)-C(26)	-173.8(3)
C(29)-C(24)-C(25)-C(30)	175.8(4)
C(23)-C(24)-C(25)-C(30)	3.1(6)
C(24)-C(25)-C(26)-C(27)	0.7(6)
C(30)-C(25)-C(26)-C(27)	-176.3(4)
C(25)-C(26)-C(27)-C(28)	0.0(6)
C(25)-C(26)-C(27)-C(33)	178.0(4)
C(26)-C(27)-C(28)-C(29)	-0.4(6)
C(33)-C(27)-C(28)-C(29)	-178.4(4)
C(27)-C(28)-C(29)-C(24)	0.0(6)
C(27)-C(28)-C(29)-C(36)	179.5(4)
C(25)-C(24)-C(29)-C(28)	0.8(6)
C(23)-C(24)-C(29)-C(28)	173.5(4)
C(25)-C(24)-C(29)-C(36)	-178.7(4)
C(23)-C(24)-C(29)-C(36)	-6.0(6)
C(26)-C(25)-C(30)-C(31)	77.2(5)
C(24)-C(25)-C(30)-C(31)	-99.7(5)
C(26)-C(25)-C(30)-C(32)	-46.6(5)
C(24)-C(25)-C(30)-C(32)	136.4(4)
C(28)-C(27)-C(33)-C(34)	-162.7(4)
C(26)-C(27)-C(33)-C(34)	19.4(6)
C(28)-C(27)-C(33)-C(35)	70.6(6)
C(26)-C(27)-C(33)-C(35)	-107.3(5)
C(28)-C(29)-C(36)-C(38)	50.4(5)
C(24)-C(29)-C(36)-C(38)	-130.1(4)
C(28)-C(29)-C(36)-C(37)	-74.2(5)
C(24)-C(29)-C(36)-C(37)	105.3(5)
Au(1)-S(1)-C(39)-F(3)	-64.9(4)
Au(1)-S(1)-C(39)-F(2)	55.6(4)
Au(1)-S(1)-C(39)-F(1)	174.4(3)
C(9B)-C(10B)-C(11B)-C(12B)	51.9(8)
C(9P)-C(10B)-C(11B)-C(12P)	-51.3(10)
C(19B)-P(1A)-C(13B)-C(18B)	-63.6(4)
C(7B)-P(1A)-C(13B)-C(18B)	-174.3(4)
C(7P)-P(1A)-C(13B)-C(18B)	179.7(6)
Au(1A)-P(1A)-C(13B)-C(18B)	62.3(4)
C(19B)-P(1A)-C(13B)-C(14B)	172.7(4)
C(7B)-P(1A)-C(13B)-C(14B)	62.0(4)
C(7P)-P(1A)-C(13B)-C(14B)	55.9(7)
Au(1A)-P(1A)-C(13B)-C(14B)	-61.5(4)
C(18B)-C(13B)-C(14B)-C(15B)	54.8(6)
P(1A)-C(13B)-C(14B)-C(15B)	179.5(4)
C(13B)-C(14B)-C(15B)-C(16B)	-56.3(7)
C(14B)-C(15B)-C(16B)-C(17B)	56.8(7)
C(15B)-C(16B)-C(17B)-C(18B)	-57.4(7)
C(16B)-C(17B)-C(18B)-C(13B)	57.2(7)

C(14B)-C(13B)-C(18B)-C(17B)	-55.3(6)
P(1A)-C(13B)-C(18B)-C(17B)	179.8(4)
C(13B)-P(1A)-C(19B)-C(24B)	136.3(4)
C(7B)-P(1A)-C(19B)-C(24B)	-119.4(4)
C(7P)-P(1A)-C(19B)-C(24B)	-96.4(6)
Au(1A)-P(1A)-C(19B)-C(24B)	13.5(4)
C(13B)-P(1A)-C(19B)-C(20B)	-45.6(4)
C(7B)-P(1A)-C(19B)-C(20B)	58.7(4)
C(7P)-P(1A)-C(19B)-C(20B)	81.7(6)
Au(1A)-P(1A)-C(19B)-C(20B)	-168.4(3)
C(24B)-C(19B)-C(20B)-C(21B)	0.1(6)
P(1A)-C(19B)-C(20B)-C(21B)	-178.1(4)
C(19B)-C(20B)-C(21B)-C(22B)	1.0(7)
C(20B)-C(21B)-C(22B)-C(23B)	-1.2(7)
C(21B)-C(22B)-C(23B)-C(24B)	0.2(7)
C(22B)-C(23B)-C(24B)-C(19B)	0.9(6)
C(22B)-C(23B)-C(24B)-C(25B)	-176.7(4)
C(20B)-C(19B)-C(24B)-C(23B)	-1.0(6)
P(1A)-C(19B)-C(24B)-C(23B)	177.1(3)
C(20B)-C(19B)-C(24B)-C(25B)	176.3(4)
P(1A)-C(19B)-C(24B)-C(25B)	-5.6(6)
C(23B)-C(24B)-C(25B)-C(26B)	84.3(5)
C(19B)-C(24B)-C(25B)-C(26B)	-93.1(5)
C(23B)-C(24B)-C(25B)-C(30B)	-86.4(5)
C(19B)-C(24B)-C(25B)-C(30B)	96.1(5)
C(30B)-C(25B)-C(26B)-C(27B)	2.3(6)
C(24B)-C(25B)-C(26B)-C(27B)	-168.4(4)
C(30B)-C(25B)-C(26B)-C(31B)	-178.5(4)
C(24B)-C(25B)-C(26B)-C(31B)	10.7(6)
C(25B)-C(26B)-C(27B)-C(28B)	0.3(6)
C(31B)-C(26B)-C(27B)-C(28B)	-178.8(4)
C(26B)-C(27B)-C(28B)-C(29B)	-3.2(7)
C(26B)-C(27B)-C(28B)-C(34B)	177.6(4)
C(27B)-C(28B)-C(29B)-C(30B)	3.5(7)
C(34B)-C(28B)-C(29B)-C(30B)	-177.3(4)
C(28B)-C(29B)-C(30B)-C(25B)	-1.0(6)
C(28B)-C(29B)-C(30B)-C(37B)	177.1(4)
C(26B)-C(25B)-C(30B)-C(29B)	-2.0(6)
C(24B)-C(25B)-C(30B)-C(29B)	168.7(4)
C(26B)-C(25B)-C(30B)-C(37B)	180.0(4)
C(24B)-C(25B)-C(30B)-C(37B)	-9.3(6)
C(27B)-C(26B)-C(31B)-C(33B)	-52.7(5)
C(25B)-C(26B)-C(31B)-C(33B)	128.2(4)
C(27B)-C(26B)-C(31B)-C(32B)	71.5(5)
C(25B)-C(26B)-C(31B)-C(32B)	-107.6(5)
C(29B)-C(28B)-C(34B)-C(35B)	126.4(5)
C(27B)-C(28B)-C(34B)-C(35B)	-54.4(6)
C(29B)-C(28B)-C(34B)-C(36B)	-106.2(6)
C(27B)-C(28B)-C(34B)-C(36B)	73.0(6)

C(29B)-C(30B)-C(37B)-C(39B)	53.3(6)
C(25B)-C(30B)-C(37B)-C(39B)	-128.7(4)
C(29B)-C(30B)-C(37B)-C(38B)	-70.9(5)
C(25B)-C(30B)-C(37B)-C(38B)	107.1(5)
Au(1A)-S(5)-C(40B)-F(2B)	-57.7(5)
Au(1A)-S(5)-C(40B)-F(1B)	-177.1(4)
Au(1A)-S(5)-C(40B)-F(3B)	63.2(4)
C(19B)-P(1A)-C(7B)-C(12B)	24.3(7)
C(13B)-P(1A)-C(7B)-C(12B)	132.5(6)
Au(1A)-P(1A)-C(7B)-C(12B)	-108.2(6)
C(19B)-P(1A)-C(7B)-C(8B)	151.2(5)
C(13B)-P(1A)-C(7B)-C(8B)	-100.6(6)
Au(1A)-P(1A)-C(7B)-C(8B)	18.8(6)
C(12B)-C(7B)-C(8B)-C(9B)	-58.3(9)
P(1A)-C(7B)-C(8B)-C(9B)	171.4(6)
C(11B)-C(10B)-C(9B)-C(8B)	-52.4(8)
C(7B)-C(8B)-C(9B)-C(10B)	56.4(9)
C(10B)-C(11B)-C(12B)-C(7B)	-52.6(8)
C(8B)-C(7B)-C(12B)-C(11B)	56.1(9)
P(1A)-C(7B)-C(12B)-C(11B)	-177.3(5)
C(19B)-P(1A)-C(7P)-C(8P)	163.2(11)
C(13B)-P(1A)-C(7P)-C(8P)	-80.0(13)
Au(1A)-P(1A)-C(7P)-C(8P)	42.6(12)
C(19B)-P(1A)-C(7P)-C(12P)	-71.6(12)
C(13B)-P(1A)-C(7P)-C(12P)	45.1(13)
Au(1A)-P(1A)-C(7P)-C(12P)	167.8(10)
C(12P)-C(7P)-C(8P)-C(9P)	60.5(17)
P(1A)-C(7P)-C(8P)-C(9P)	-174.1(11)
C(7P)-C(8P)-C(9P)-C(10B)	-50.5(17)
C(11B)-C(10B)-C(9P)-C(8P)	48.8(14)
C(8P)-C(7P)-C(12P)-C(11B)	-67.5(17)
P(1A)-C(7P)-C(12P)-C(11B)	165.0(9)
C(10B)-C(11B)-C(12P)-C(7P)	59.3(13)