

ORGANOMETALLICS

Organometallics, 1998, 17(7), 1412-1419, DOI:[10.1021/om971000j](https://doi.org/10.1021/om971000j)

Terms & Conditions

Electronic Supporting Information files are available without a subscription to ACS Web Editions. The American Chemical Society holds a copyright ownership interest in any copyrightable Supporting Information. Files available from the ACS website may be downloaded for personal use only. Users are not otherwise permitted to reproduce, republish, redistribute, or sell any Supporting Information from the ACS website, either in whole or in part, in either machine-readable form or any other form without permission from the American Chemical Society. For permission to reproduce, republish and redistribute this material, requesters must process their own requests via the RightsLink permission system. Information about how to use the RightsLink permission system can be found at <http://pubs.acs.org/page/copyright/permissions.html>



ACS Publications

MOST TRUSTED. MOST CITED. MOST READ.

Copyright © 1998 American Chemical Society

Table 1 Crystal data and structure refinement for 1.

Identification code	glu34
Empirical formula	$C_{19}H_{30}Cl_4P_2Pt$
Formula weight	657.26
Temperature	173(2) K
Wavelength	0.71073 Å
Crystal system	Orthorhombic
Space group	$P2_12_12_1$
Unit cell dimensions	$a = 9.77980(2)$ Å $\alpha = 90^\circ$ $b = 13.5498(2)$ Å $\beta = 90^\circ$ $c = 18.21750(3)$ Å $\gamma = 90^\circ$
Volume, Z	$2414.08(5)$ Å ³ , 4
Density (calculated)	1.808 g/cm ³
Absorption coefficient	6.391 mm ⁻¹
F(000)	1280
Crystal size	0.40 x 0.30 x 0.20 mm
Crystal color	Colorless block
θ range for data collection	1.87 to 28.20°
Limiting indices	$-12 \leq h \leq 12$, $0 \leq k \leq 18$, $0 \leq l \leq 23$
Reflections collected	7311
Independent reflections	4777 ($R_{int} = 0.0243$)
Absorption correction	Empirical
Max. and min. transmission	1.000 and 0.376
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	4765 / 0 / 235
Goodness-of-fit on F^2	0.992
Final R indices [$I > 2\sigma(I)$]	$R1 = 0.0253$, $wR2 = 0.0609$
R indices (all data)	$R1 = 0.0272$, $wR2 = 0.0630$
Absolute structure parameter	0.017(7)

Largest diff. peak and hole 2.568 and -1.489 eÅ^{-3}

Table 2S Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 1. U(eq) is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Pt	-7047.2(2)	-15234.0(1)	-9833.3(1)	16(1)
P(1)	-7350(1)	-14736(1)	-8685(1)	17(1)
P(2)	-4926(1)	-15638(1)	-9524(1)	16(1)
Cl(1)	-6606(1)	-15757(1)	-11060(1)	26(1)
Cl(2)	-9340(1)	-14770(1)	-10124(1)	27(1)
C(1)	-6517(8)	-12747(5)	-8504(4)	40(2)
C(2)	-7766(6)	-13417(4)	-8598(3)	25(1)
C(3)	-8840(7)	-13364(5)	-7974(3)	38(2)
C(4)	-9738(7)	-14284(6)	-8034(3)	39(2)
C(5)	-8806(5)	-15192(5)	-8121(3)	26(1)
C(6)	-9510(7)	-16136(5)	-8405(4)	38(2)
C(7)	-5793(5)	-14975(3)	-8169(3)	18(1)
C(8)	-5665(5)	-14802(4)	-7405(2)	22(1)
C(9)	-4428(5)	-14968(4)	-7058(3)	23(1)
C(10)	-3287(5)	-15276(4)	-7454(3)	25(1)
C(11)	-3396(6)	-15453(4)	-8204(3)	23(1)
C(12)	-4651(5)	-15316(4)	-8564(2)	18(1)
C(13)	-4726(6)	-17612(4)	-8961(3)	27(1)
C(14)	-4487(5)	-16965(4)	-9636(3)	20(1)
C(15)	-3022(6)	-16955(4)	-9932(3)	27(1)
C(16)	-2878(6)	-16071(4)	-10444(3)	29(1)
C(17)	-3442(5)	-15158(4)	-10045(3)	22(1)
C(18)	-3723(7)	-14259(5)	-10544(3)	34(1)
Cl(3)	-7851(2)	-12470(1)	-12124(1)	56(1)
Cl(4)	-6730(3)	-12375(2)	-10636(1)	65(1)
C(19)	-7581(10)	-13107(6)	-11299(4)	58(2)

Table 3S Bond lengths [Å] and angles [°] for 1.

Pt-P(2)	2.2178(13)	Pt-P(1)	2.2183(11)
Pt-Cl(1)	2.3828(12)	Pt-Cl(2)	2.3881(12)
P(1)-C(7)	1.819(5)	P(1)-C(2)	1.839(5)
P(1)-C(5)	1.862(5)	P(2)-C(12)	1.823(5)
P(2)-C(17)	1.852(5)	P(2)-C(14)	1.860(5)
C(1)-C(2)	1.531(9)	C(2)-C(3)	1.549(8)
C(3)-C(4)	1.530(10)	C(4)-C(5)	1.538(9)
C(5)-C(6)	1.542(9)	C(7)-C(12)	1.407(7)
C(7)-C(8)	1.417(6)	C(8)-C(9)	1.383(7)
C(9)-C(10)	1.393(7)	C(10)-C(11)	1.391(7)
C(11)-C(12)	1.404(7)	C(13)-C(14)	1.529(7)
C(14)-C(15)	1.531(7)	C(15)-C(16)	1.525(8)
C(16)-C(17)	1.537(7)	C(17)-C(18)	1.545(8)
Cl(3)-C(19)	1.754(7)	Cl(4)-C(19)	1.771(8)
P(2)-Pt-P(1)	87.73(4)	P(2)-Pt-Cl(1)	89.72(5)
P(1)-Pt-Cl(1)	177.20(5)	P(2)-Pt-Cl(2)	177.91(5)
P(1)-Pt-Cl(2)	90.21(4)	Cl(1)-Pt-Cl(2)	92.34(4)
C(7)-P(1)-C(2)	108.3(2)	C(7)-P(1)-C(5)	107.2(2)
C(2)-P(1)-C(5)	96.0(3)	C(7)-P(1)-Pt	108.8(2)
C(2)-P(1)-Pt	114.0(2)	C(5)-P(1)-Pt	121.4(2)
C(12)-P(2)-C(17)	106.9(2)	C(12)-P(2)-C(14)	107.6(2)
C(17)-P(2)-C(14)	95.9(2)	C(12)-P(2)-Pt	108.8(2)
C(17)-P(2)-Pt	121.1(2)	C(14)-P(2)-Pt	115.2(2)
C(1)-C(2)-C(3)	115.6(5)	C(1)-C(2)-P(1)	114.1(4)
C(3)-C(2)-P(1)	105.0(4)	C(4)-C(3)-C(2)	107.4(5)
C(3)-C(4)-C(5)	108.6(5)	C(4)-C(5)-C(6)	115.7(5)
C(4)-C(5)-P(1)	104.2(4)	C(6)-C(5)-P(1)	115.5(4)
C(12)-C(7)-C(8)	119.2(4)	C(12)-C(7)-P(1)	117.3(3)
C(8)-C(7)-P(1)	123.5(4)	C(9)-C(8)-C(7)	119.9(5)
C(8)-C(9)-C(10)	120.9(4)	C(11)-C(10)-C(9)	119.9(5)
C(10)-C(11)-C(12)	120.2(5)	C(11)-C(12)-C(7)	119.9(4)
C(11)-C(12)-P(2)	123.1(4)	C(7)-C(12)-P(2)	116.9(4)
C(13)-C(14)-C(15)	115.6(5)	C(13)-C(14)-P(2)	115.5(4)
C(15)-C(14)-P(2)	104.2(4)	C(16)-C(15)-C(14)	107.9(4)
C(15)-C(16)-C(17)	108.1(4)	C(16)-C(17)-C(18)	114.8(4)
C(16)-C(17)-P(2)	103.9(4)	C(18)-C(17)-P(2)	116.0(4)
Cl(3)-C(19)-Cl(4)	112.3(4)		

Symmetry transformations used to generate equivalent atoms:

Table 4§ Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 1.

The anisotropic displacement factor exponent takes the form:

$$-2\pi^2 [(ha^*)^2 U_{11} + \dots + 2hka^* b^* U_{12}]$$

	U11	U22	U33	U23	U13	U12
Pt	21(1)	15(1)	12(1)	-1(1)	-2(1)	0(1)
P(1)	20(1)	18(1)	13(1)	-2(1)	-1(1)	3(1)
P(2)	19(1)	17(1)	11(1)	-1(1)	2(1)	0(1)
Cl(1)	35(1)	31(1)	13(1)	-4(1)	-3(1)	2(1)
Cl(2)	25(1)	33(1)	24(1)	-2(1)	-7(1)	4(1)
C(1)	54(4)	23(3)	43(4)	-3(3)	-14(3)	3(3)
C(2)	37(3)	20(2)	19(2)	-4(2)	-6(2)	12(3)
C(3)	44(3)	40(4)	29(3)	-6(3)	3(3)	19(3)
C(4)	31(3)	56(4)	30(3)	-1(3)	5(3)	12(3)
C(5)	19(2)	39(3)	21(2)	8(3)	4(2)	-3(3)
C(6)	31(3)	37(4)	45(4)	16(3)	-2(3)	-10(3)
C(7)	24(2)	14(3)	15(2)	-1(2)	0(2)	-1(2)
C(8)	30(2)	21(2)	13(2)	0(2)	3(2)	0(3)
C(9)	29(2)	25(3)	14(2)	-2(2)	-1(2)	-1(2)
C(10)	26(3)	29(3)	22(2)	3(2)	-5(2)	0(3)
C(11)	21(2)	28(3)	19(2)	-2(2)	-2(2)	0(2)
C(12)	23(2)	16(2)	14(2)	-2(2)	-1(2)	0(2)
C(13)	32(3)	21(3)	28(3)	2(2)	2(2)	1(3)
C(14)	24(2)	16(2)	19(2)	-2(2)	1(2)	0(2)
C(15)	28(2)	21(2)	31(3)	-4(2)	8(2)	7(2)
C(16)	30(3)	32(3)	26(2)	-2(2)	11(3)	0(3)
C(17)	23(2)	23(2)	21(2)	0(2)	5(2)	-3(2)
C(18)	45(4)	30(3)	27(3)	12(3)	5(3)	-7(3)
Cl(3)	61(1)	56(1)	52(1)	13(1)	2(1)	-1(1)
Cl(4)	100(2)	51(1)	44(1)	1(1)	8(1)	8(1)
C(19)	84(6)	34(4)	56(5)	13(3)	-6(4)	-4(4)

Table 5S Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 1.

	x	y	z	U(eq)
H(1A)	-5901(8)	-12832(5)	-8924(4)	60
H(1B)	-6036(8)	-12922(5)	-8051(4)	60
H(1C)	-6816(8)	-12057(5)	-8478(4)	60
H(2A)	-8235(6)	-13214(4)	-9062(3)	30
H(3A)	-8379(7)	-13344(5)	-7491(3)	45
H(3B)	-9404(7)	-12761(5)	-8027(3)	45
H(4A)	-10354(7)	-14227(6)	-8463(3)	47
H(4B)	-10306(7)	-14353(6)	-7587(3)	47
H(5A)	-8433(5)	-15348(5)	-7623(3)	32
H(6A)	-8835(7)	-16669(5)	-8441(4)	56
H(6B)	-9904(7)	-16010(5)	-8890(4)	56
H(6C)	-10236(7)	-16330(5)	-8064(4)	56
H(8A)	-6428(5)	-14571(4)	-7131(2)	26
H(9A)	-4356(5)	-14871(4)	-6543(3)	27
H(10A)	-2434(5)	-15364(4)	-7213(3)	31
H(11A)	-2619(6)	-15668(4)	-8473(3)	27
H(13A)	-5689(6)	-17570(4)	-8814(3)	41
H(13B)	-4146(6)	-17382(4)	-8557(3)	41
H(13C)	-4498(6)	-18298(4)	-9078(3)	41
H(14A)	-5084(5)	-17230(4)	-10037(3)	24
H(15A)	-2363(6)	-16901(4)	-9522(3)	32
H(15B)	-2831(6)	-17574(4)	-10203(3)	32
H(16A)	-3397(6)	-16187(4)	-10902(3)	35
H(16B)	-1905(6)	-15968(4)	-10573(3)	35
H(17A)	-2738(5)	-14951(4)	-9678(3)	27
H(18A)	-4078(7)	-13713(5)	-10247(3)	51
H(18B)	-4399(7)	-14439(5)	-10918(3)	51
H(18C)	-2872(7)	-14054(5)	-10783(3)	51
H(19A)	-7030(10)	-13705(6)	-11399(4)	70
H(19B)	-8474(10)	-13322(6)	-11099(4)	70

Table 65. Crystal data and structure refinement for 5.

Identification code	glu37
Empirical formula	$C_{46}H_{48}OP_2Pt$
Formula weight	873.97
Temperature	223(2) K
Wavelength	0.71073 Å
Crystal system	Orthorhombic
Space group	I222
Unit cell dimensions	$a = 16.8401(2)$ Å $\alpha = 90^\circ$ $b = 25.4756(2)$ Å $\beta = 90^\circ$ $c = 37.1463(3)$ Å $\gamma = 90^\circ$
Volume, Z	$15936.18(12)$ Å ³ , 16
Density (calculated)	1.427 g/cm ³
Absorption coefficient	3.634 mm ⁻¹
F(000)	6880
Crystal size	0.40 x 0.40 x 0.10 mm
Crystal color	Yellow plate
θ range for data collection	0.97 to 28.33°
Limiting indices	$-22 \leq h \leq 22$, $0 \leq k \leq 33$, $0 \leq l \leq 49$
Reflections collected	31912
Independent reflections	16507 ($R_{int} = 0.0347$)
Absorption correction	Empirical from DIFABS
Max. and min. transmission	1.000 and 0.420
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	16479 / 0 / 881
Goodness-of-fit on F^2	1.050
Final R indices [$I > 2\sigma(I)$]	$R1 = 0.0387$, $wR2 = 0.1000$
R indices (all data)	$R1 = 0.0494$, $wR2 = 0.1267$
Absolute structure parameter	0.038(7)

Largest diff. peak and hole 1.110 and -1.311 eÅ⁻³

Table 76. Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 5. U(eq) is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Pt(1)	2797.9(2)	2402.9(1)	2200.4(1)	27(1)
Pt(1')	2453.0(2)	2478.5(1)	-317.9(2)	28(1)
P(1)	3149(1)	2963(1)	1750(1)	30(1)
P(2)	2478(1)	1815(1)	1764(1)	30(1)
P(1')	2601(1)	1840(1)	-741(1)	34(1)
P(2')	2233(1)	3037(1)	-784(1)	28(1)
C(1)	3200(5)	2564(3)	1334(2)	40(2)
C(2)	2497(5)	2174(2)	1323(2)	39(2)
C(3)	4009(6)	2290(3)	1307(2)	55(2)
C(4)	1706(6)	2450(3)	1247(2)	52(2)
C(5)	2846(5)	2683(2)	2743(1)	29(1)
C(6)	2652(5)	2133(3)	2741(1)	29(2)
C(11)	4612(6)	3208(3)	2063(2)	45(2)
C(12)	5332(6)	3465(4)	2086(2)	52(2)
C(13)	5591(6)	3800(4)	1816(3)	56(2)
C(14)	5104(7)	3877(4)	1518(3)	61(3)
C(15)	4372(6)	3625(4)	1495(2)	54(2)
C(16)	4118(5)	3290(3)	1767(2)	38(2)
C(21)	2066(5)	3732(2)	1944(2)	32(2)
C(22)	1605(5)	4178(3)	1900(2)	43(2)
C(23)	1551(5)	4427(3)	1571(2)	43(2)
C(24)	1972(5)	4215(3)	1282(2)	41(2)
C(25)	2438(5)	3767(2)	1319(2)	35(2)
C(26)	2495(5)	3518(2)	1658(2)	31(2)
C(31)	874(6)	1864(5)	1938(2)	63(3)
C(32)	107(7)	1698(5)	1952(3)	81(4)
C(33)	-113(6)	1202(4)	1818(2)	61(3)
C(34)	472(7)	882(4)	1679(3)	78(3)
C(35)	1239(6)	1056(4)	1661(3)	61(3)
C(36)	1469(5)	1544(3)	1786(2)	35(2)
C(41)	3082(5)	927(3)	1379(2)	35(2)
C(42)	3486(6)	456(3)	1359(2)	45(2)
C(43)	3902(5)	264(3)	1651(2)	43(2)
C(44)	3911(5)	551(3)	1963(2)	42(2)
C(45)	3507(5)	1020(3)	1990(2)	36(2)
C(46)	3079(5)	1220(3)	1700(2)	30(2)
C(51)	2437(5)	3594(3)	2911(2)	35(2)
C(52)	1879(6)	3990(3)	2975(2)	46(2)
C(53)	1060(7)	3869(4)	2952(2)	55(3)
C(54)	837(6)	3359(3)	2874(2)	46(2)
C(55)	1398(5)	2969(3)	2807(2)	38(2)
C(56)	2205(4)	3082(2)	2823(2)	29(1)
C(61)	3017(5)	1222(3)	2934(2)	40(2)
C(62)	3553(6)	821(3)	3008(2)	48(2)
C(63)	4350(6)	920(3)	2990(2)	50(2)
C(64)	4631(6)	1421(3)	2895(2)	45(2)
C(65)	4082(5)	1818(3)	2821(2)	38(2)

C(66)	3272(4)	1728(2)	2834(2)	32(2)
C(1')	2296(5)	2112(2)	-1188(2)	37(2)
C(2')	2553(5)	2697(3)	-1207(2)	37(2)
C(3')	1401(6)	2038(3)	-1246(2)	52(2)
C(4')	3449(5)	2755(3)	-1258(2)	45(2)
C(5')	2508(6)	2244(3)	229(2)	41(2)
C(6')	2420(6)	2809(3)	207(2)	37(2)
C(11')	1567(5)	1132(3)	-411(2)	45(2)
C(12')	1122(7)	675(4)	-378(3)	64(3)
C(13')	1130(7)	302(4)	-636(4)	77(4)
C(14')	1608(9)	385(4)	-949(4)	85(4)
C(15')	2037(9)	843(3)	-989(3)	71(3)
C(16')	2027(5)	1221(3)	-711(2)	38(2)
C(21')	4103(6)	1646(4)	-489(2)	60(3)
C(22')	4906(8)	1450(5)	-495(3)	78(4)
C(23')	5161(6)	1188(4)	-797(2)	57(2)
C(24')	4695(7)	1148(4)	-1095(3)	63(3)
C(25')	3940(6)	1369(4)	-1094(2)	52(2)
C(26')	3627(5)	1599(3)	-783(2)	36(2)
C(31')	780(6)	3328(4)	-1145(2)	51(2)
C(32')	-6(6)	3472(5)	-1142(2)	62(3)
C(33')	-424(6)	3506(4)	-822(2)	58(3)
C(34')	-23(6)	3396(4)	-502(2)	60(3)
C(35')	761(6)	3249(3)	-503(2)	48(2)
C(36')	1185(5)	3221(3)	-826(2)	35(2)
C(41')	2585(6)	4005(3)	-1123(2)	46(2)
C(42')	2971(6)	4480(3)	-1164(2)	53(2)
C(43')	3480(8)	4636(3)	-905(3)	67(3)
C(44')	3635(7)	4316(4)	-597(3)	63(3)
C(45')	3265(6)	3836(3)	-566(2)	48(2)
C(46')	2715(5)	3677(2)	-827(2)	35(2)
C(51')	1063(6)	2045(4)	351(2)	53(2)
C(52')	491(9)	1725(5)	498(3)	84(4)
C(53')	666(13)	1259(7)	653(4)	144(10)
C(54')	1430(14)	1107(5)	662(4)	143(10)
C(55')	2053(8)	1413(3)	514(2)	72(4)
C(56')	1874(7)	1902(3)	365(2)	47(2)
C(61')	2846(8)	3719(3)	352(2)	67(3)
C(62')	3380(12)	4102(6)	424(3)	105(6)
C(63')	4185(12)	3967(7)	477(3)	106(6)
C(64')	4405(9)	3464(8)	438(3)	104(5)
C(65')	3835(8)	3054(6)	346(3)	79(4)
C(66')	3067(6)	3177(4)	301(2)	52(3)
O(71)	1806(5)	213(3)	2883(2)	71(2)
G(71)	1850(11)	245(6)	2506(3)	125(7)
C(72)	1326(9)	-120(4)	2334(3)	81(4)
C(73)	1120(8)	-505(4)	2636(3)	76(3)
C(74)	1297(7)	-215(3)	2979(3)	62(3)
O(81)	1482(32)	4819(18)	250(12)	126(15)
C(81)	947(57)	5168(33)	554(17)	333(38)
C(82)	1430(26)	4630(15)	-153(11)	138(13)
O(91)	6431(22)	-118(12)	-290(8)	82(9)
C(91)	6498(13)	335(7)	-338(5)	52(4)
C(92)	6697(19)	-439(11)	9(8)	101(9)

Table 8S. Bond lengths [Å] and angles [°] for 5.

Pt(1)-C(6)	2.137(5)	Pt(1)-C(5)	2.139(5)
Pt(1)-P(2)	2.272(2)	Pt(1)-P(1)	2.277(2)
Pt(1')-C(5')	2.118(6)	Pt(1')-C(6')	2.125(6)
Pt(1')-P(2')	2.271(2)	Pt(1')-P(1')	2.274(2)
P(1)-C(26)	1.826(7)	P(1)-C(16)	1.834(9)
P(1)-C(1)	1.852(7)	P(2)-C(46)	1.839(7)
P(2)-C(36)	1.836(8)	P(2)-C(2)	1.876(6)
P(1')-C(26')	1.840(8)	P(1')-C(16')	1.854(8)
P(1')-C(1')	1.871(6)	P(2')-C(46')	1.827(7)
P(2')-C(36')	1.833(8)	P(2')-C(2')	1.876(6)
C(1)-C(3)	1.533(12)	C(1)-C(2)	1.545(11)
C(2)-C(4)	1.532(12)	C(5)-C(6)	1.438(9)
C(5)-C(56)	1.514(9)	C(6)-C(66)	1.507(9)
C(11)-C(12)	1.380(12)	C(11)-C(16)	1.394(11)
C(12)-C(13)	1.388(13)	C(13)-C(14)	1.388(14)
C(14)-C(15)	1.393(14)	C(15)-C(16)	1.391(11)
C(21)-C(22)	1.385(10)	C(21)-C(26)	1.397(9)
C(22)-C(23)	1.381(10)	C(23)-C(24)	1.395(11)
C(24)-C(25)	1.392(11)	C(25)-C(26)	1.411(8)
C(31)-C(32)	1.36(2)	C(31)-C(36)	1.409(11)
C(32)-C(33)	1.41(2)	C(33)-C(34)	1.38(2)
C(34)-C(35)	1.37(2)	C(35)-C(36)	1.382(12)
C(41)-C(42)	1.382(11)	C(41)-C(46)	1.406(9)
C(42)-C(43)	1.379(11)	C(43)-C(44)	1.372(11)
C(44)-C(45)	1.377(11)	C(45)-C(46)	1.396(10)
C(51)-C(52)	1.398(11)	C(51)-C(56)	1.401(9)
C(52)-C(53)	1.416(14)	C(53)-C(54)	1.383(12)
C(54)-C(55)	1.393(11)	C(55)-C(56)	1.391(11)
C(61)-C(62)	1.391(12)	C(61)-C(66)	1.409(9)
C(62)-C(63)	1.367(14)	C(63)-C(64)	1.405(12)
C(64)-C(65)	1.398(11)	C(65)-C(66)	1.385(11)
C(1')-C(3')	1.535(13)	C(1')-C(2')	1.554(9)
C(2')-C(4')	1.527(12)	C(5')-C(6')	1.449(10)
C(5')-C(56')	1.469(12)	C(6')-C(66')	1.479(11)
C(11')-C(16')	1.377(11)	C(11')-C(12')	1.391(12)
C(12')-C(13')	1.348(14)	C(13')-C(14')	1.43(2)
C(14')-C(15')	1.38(2)	C(15')-C(16')	1.412(10)
C(21')-C(26')	1.361(11)	C(21')-C(22')	1.44(2)
C(22')-C(23')	1.373(13)	C(23')-C(24')	1.362(14)
C(24')-C(25')	1.391(14)	C(25')-C(26')	1.401(10)
C(31')-C(32')	1.374(14)	C(31')-C(36')	1.394(10)
C(32')-C(33')	1.383(13)	C(33')-C(34')	1.395(12)
C(34')-C(35')	1.372(14)	C(35')-C(36')	1.400(10)
C(41')-C(42')	1.382(12)	C(41')-C(46')	1.400(10)
C(42')-C(43')	1.35(2)	C(43')-C(44')	1.427(14)
C(44')-C(45')	1.377(12)	C(45')-C(46')	1.401(11)
C(51')-C(52')	1.376(13)	C(51')-C(56')	1.414(14)
C(52')-C(53')	1.35(2)	C(53')-C(54')	1.34(3)
C(54')-C(55')	1.42(2)	C(55')-C(56')	1.397(11)
C(61')-C(62')	1.35(2)	C(61')-C(66')	1.442(13)
C(62')-C(63')	1.41(2)	C(63')-C(64')	1.34(2)
C(64')-C(65')	1.46(2)	C(65')-C(66')	1.34(2)
O(71)-C(71)	1.406(12)	O(71)-C(74)	1.432(10)
C(71)-C(72)	1.43(2)	C(72)-C(73)	1.531(14)

C(73)-C(74)	1.503(13)	O(81)-C(82)#1	1.45(5)
O(81)-C(82)	1.57(5)	O(81)-C(81)	1.69(8)
C(81)-C(82)#1	1.77(8)	C(82)-O(81)#1	1.45(5)
C(82)-C(81)#1	1.77(8)	O(91)-C(91)	1.17(3)
O(91)-C(92)	1.45(4)	O(91)-C(92)#2	1.82(4)
C(91)-C(92)#2	1.29(3)	C(92)-C(91)#2	1.29(3)
C(92)-O(91)#2	1.82(4)		
C(6)-Pt(1)-C(5)	39.3(2)	C(6)-Pt(1)-P(2)	115.6(2)
C(5)-Pt(1)-P(2)	154.3(2)	C(6)-Pt(1)-P(1)	157.2(2)
C(5)-Pt(1)-P(1)	118.3(2)	P(2)-Pt(1)-P(1)	87.13(6)
C(5')-Pt(1')-C(6')	39.9(3)	C(5')-Pt(1')-P(2')	156.1(2)
C(6')-Pt(1')-P(2')	116.6(2)	C(5')-Pt(1')-P(1')	117.1(2)
C(6')-Pt(1')-P(1')	156.9(2)	P(2')-Pt(1')-P(1')	86.55(6)
C(26)-P(1)-C(16)	101.0(3)	C(26)-P(1)-C(1)	107.3(3)
C(16)-P(1)-C(1)	103.7(3)	C(26)-P(1)-Pt(1)	117.8(2)
C(16)-P(1)-Pt(1)	119.4(3)	C(1)-P(1)-Pt(1)	106.3(2)
C(46)-P(2)-C(36)	101.8(3)	C(46)-P(2)-C(2)	106.2(3)
C(36)-P(2)-C(2)	103.8(3)	C(46)-P(2)-Pt(1)	120.4(2)
C(36)-P(2)-Pt(1)	115.9(2)	C(2)-P(2)-Pt(1)	107.3(2)
C(26')-P(1')-C(16')	102.2(3)	C(26')-P(1')-C(1')	107.8(4)
C(16')-P(1')-C(1')	102.9(3)	C(26')-P(1')-Pt(1')	113.6(2)
C(16')-P(1')-Pt(1')	120.7(2)	C(1')-P(1')-Pt(1')	108.6(2)
C(46')-P(2')-C(36')	101.1(3)	C(46')-P(2')-C(2')	102.2(3)
C(36')-P(2')-C(2')	108.8(3)	C(46')-P(2')-Pt(1')	123.6(2)
C(36')-P(2')-Pt(1')	112.5(2)	C(2')-P(2')-Pt(1')	107.6(2)
C(3)-C(1)-C(2)	112.8(6)	C(3)-C(1)-P(1)	110.2(6)
C(2)-C(1)-P(1)	109.8(4)	C(4)-C(2)-C(1)	112.2(5)
C(4)-C(2)-P(2)	111.6(6)	C(1)-C(2)-P(2)	107.7(5)
C(6)-C(5)-C(56)	119.6(7)	C(6)-C(5)-Pt(1)	70.3(3)
C(56)-C(5)-Pt(1)	112.4(4)	C(5)-C(6)-C(66)	120.6(7)
C(5)-C(6)-Pt(1)	70.4(3)	C(66)-C(6)-Pt(1)	110.8(4)
C(12)-C(11)-C(16)	120.1(8)	C(11)-C(12)-C(13)	121.5(9)
C(12)-C(13)-C(14)	118.5(9)	C(13)-C(14)-C(15)	120.5(9)
C(16)-C(15)-C(14)	120.6(9)	C(15)-C(16)-C(11)	118.8(8)
C(15)-C(16)-P(1)	121.9(7)	C(11)-C(16)-P(1)	119.4(6)
C(22)-C(21)-C(26)	121.3(6)	C(23)-C(22)-C(21)	121.2(7)
C(22)-C(23)-C(24)	118.1(7)	C(25)-C(24)-C(23)	121.7(6)
C(24)-C(25)-C(26)	119.7(6)	C(21)-C(26)-C(25)	118.0(6)
C(21)-C(26)-P(1)	118.1(5)	C(25)-C(26)-P(1)	123.8(5)
C(32)-C(31)-C(36)	120.8(10)	C(31)-C(32)-C(33)	121.0(11)
C(34)-C(33)-C(32)	118.4(10)	C(35)-C(34)-C(33)	120.0(10)
C(34)-C(35)-C(36)	122.7(10)	C(35)-C(36)-C(31)	117.1(9)
C(35)-C(36)-P(2)	125.7(7)	C(31)-C(36)-P(2)	117.3(7)
C(42)-C(41)-C(46)	120.5(7)	C(43)-C(42)-C(41)	121.0(7)
C(44)-C(43)-C(42)	118.8(7)	C(43)-C(44)-C(45)	121.2(7)
C(44)-C(45)-C(46)	121.0(7)	C(45)-C(46)-C(41)	117.4(6)
C(45)-C(46)-P(2)	119.1(5)	C(41)-C(46)-P(2)	123.3(5)
C(52)-C(51)-C(56)	121.5(8)	C(51)-C(52)-C(53)	119.3(8)
C(54)-C(53)-C(52)	118.7(9)	C(53)-C(54)-C(55)	121.6(9)
C(56)-C(55)-C(54)	120.4(7)	C(55)-C(56)-C(51)	118.4(7)
C(55)-C(56)-C(5)	123.3(6)	C(51)-C(56)-C(5)	118.2(7)
C(62)-C(61)-C(66)	121.8(8)	C(63)-C(62)-C(61)	119.4(8)
C(62)-C(63)-C(64)	120.8(8)	C(65)-C(64)-C(63)	118.9(9)
C(66)-C(65)-C(64)	121.6(7)	C(65)-C(66)-C(61)	117.5(7)
C(65)-C(66)-C(6)	124.1(6)	C(61)-C(66)-C(6)	118.4(7)
C(3')-C(1')-C(2')	112.6(7)	C(3')-C(1')-P(1')	110.4(5)
C(2')-C(1')-P(1')	108.6(4)	C(4')-C(2')-C(1')	112.0(6)
C(4')-C(2')-P(2')	110.0(5)	C(1')-C(2')-P(2')	108.9(5)

C(6')-C(5')-C(56')	122.2(9)	C(6')-C(5')-Pt(1')	70.3(4)
C(56')-C(5')-Pt(1')	117.8(5)	C(5')-C(6')-C(66')	122.8(9)
C(5')-C(6')-Pt(1')	69.8(3)	C(66')-C(6')-Pt(1')	116.6(5)
C(16')-C(11')-C(12')	120.8(8)	C(13')-C(12')-C(11')	121.5(10)
C(12')-C(13')-C(14')	118.7(9)	C(15')-C(14')-C(13')	120.4(9)
C(14')-C(15')-C(16')	119.4(10)	C(11')-C(16')-C(15')	119.2(8)
C(11')-C(16')-P(1')	118.7(5)	C(15')-C(16')-P(1')	122.1(7)
C(26')-C(21')-C(22')	120.6(8)	C(23')-C(22')-C(21')	118.5(10)
C(24')-C(23')-C(22')	121.3(10)	C(23')-C(24')-C(25')	119.7(8)
C(24')-C(25')-C(26')	121.0(8)	C(21')-C(26')-C(25')	118.6(8)
C(21')-C(26')-P(1')	117.1(6)	C(25')-C(26')-P(1')	124.3(6)
C(32')-C(31')-C(36')	121.1(8)	C(31')-C(32')-C(33')	120.9(8)
C(32')-C(33')-C(34')	118.3(9)	C(35')-C(34')-C(33')	121.2(8)
C(34')-C(35')-C(36')	120.4(8)	C(31')-C(36')-C(35')	118.1(8)
C(31')-C(36')-P(2')	126.5(6)	C(35')-C(36')-P(2')	115.4(6)
C(42')-C(41')-C(46')	122.5(8)	C(43')-C(42')-C(41')	118.5(8)
C(42')-C(43')-C(44')	121.3(9)	C(45')-C(44')-C(43')	119.5(9)
C(44')-C(45')-C(46')	119.8(8)	C(41')-C(46')-C(45')	118.3(7)
C(41')-C(46')-P(2')	122.2(6)	C(45')-C(46')-P(2')	119.5(5)
C(52')-C(51')-C(56')	120.6(10)	C(53')-C(52')-C(51')	123(2)
C(54')-C(53')-C(52')	118.2(14)	C(53')-C(54')-C(55')	122.7(12)
C(56')-C(55')-C(54')	119.0(13)	C(55')-C(56')-C(51')	116.9(9)
C(55')-C(56')-C(5')	120.6(10)	C(51')-C(56')-C(5')	122.5(7)
C(62')-C(61')-C(66')	122.9(14)	C(61')-C(62')-C(63')	119(2)
C(64')-C(63')-C(62')	118.9(14)	C(63')-C(64')-C(65')	122(2)
C(66')-C(65')-C(64')	119.7(14)	C(65')-C(66')-C(61')	117.2(10)
C(65')-C(66')-C(6')	126.2(10)	C(61')-C(66')-C(6')	116.6(10)
C(71)-O(71)-C(74)	108.8(8)	O(71)-C(71)-C(72)	112.1(10)
C(71)-C(72)-C(73)	103.1(10)	C(74)-C(73)-C(72)	105.2(8)
O(71)-C(74)-C(73)	106.5(8)	C(82)#1-O(81)-C(82)	93(4)
C(82)#1-O(81)-C(81)	68(4)	C(82)-O(81)-C(81)	140(5)
O(81)-C(81)-C(82)#1	49(3)	O(81)#1-C(82)-O(81)	86(4)
O(81)#1-C(82)-C(81)#1	63(4)	O(81)-C(82)-C(81)#1	137(4)
C(91)-O(91)-C(92)	130(3)	C(91)-O(91)-C(92)#2	45(2)
C(92)-O(91)-C(92)#2	86(2)	O(91)-C(91)-C(92)#2	95(2)
C(91)#2-C(92)-O(91)	122(3)	C(91)#2-C(92)-O(91)#2	40(2)
O(91)-C(92)-O(91)#2	86(2)		

Symmetry transformations used to generate equivalent atoms:

#1 x, -y+1, -z #2 x, -y, -z

Table 95. Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 5.

The anisotropic displacement factor exponent takes the form:

$$-2\pi^2 [(h a^*)^2 U_{11} + \dots + 2 h k a^* b^* U_{12}]$$

	U11	U22	U33	U23	U13	U12
Pt(1)	37(1)	29(1)	16(1)	2(1)	2(1)	0(1)
Pt(1')	39(1)	33(1)	14(1)	-1(1)	-2(1)	6(1)
P(1)	42(1)	30(1)	18(1)	3(1)	5(1)	0(1)
P(2)	42(1)	28(1)	19(1)	1(1)	2(1)	2(1)
P(1')	48(1)	35(1)	19(1)	-4(1)	1(1)	5(1)
P(2')	35(1)	33(1)	15(1)	0(1)	-2(1)	3(1)
C(1)	62(5)	32(3)	25(3)	2(3)	12(3)	0(4)
C(2)	67(6)	28(3)	22(3)	1(2)	-2(3)	3(4)
C(3)	76(7)	38(4)	51(5)	-3(3)	28(5)	3(4)
C(4)	83(7)	38(4)	35(4)	5(3)	-25(4)	0(4)
C(5)	26(4)	43(3)	19(3)	-4(2)	-2(2)	-4(3)
C(6)	28(4)	48(3)	11(3)	2(2)	5(2)	0(3)
C(11)	53(6)	40(4)	42(4)	3(3)	3(4)	6(4)
C(12)	36(5)	66(5)	54(5)	-3(4)	-5(4)	1(4)
C(13)	43(6)	56(5)	68(6)	-7(4)	13(5)	5(4)
C(14)	64(7)	55(5)	64(6)	11(4)	31(5)	-9(5)
C(15)	58(6)	65(5)	40(4)	16(4)	3(4)	-15(5)
C(16)	38(5)	40(4)	37(4)	-5(3)	7(3)	2(3)
C(21)	38(5)	33(3)	25(3)	0(2)	8(3)	-3(3)
C(22)	38(5)	49(4)	41(4)	-9(3)	-2(4)	6(4)
C(23)	42(5)	35(4)	51(5)	7(3)	-18(4)	-4(3)
C(24)	55(6)	37(3)	31(3)	7(3)	-16(4)	-8(4)
C(25)	50(5)	39(3)	17(3)	3(2)	1(3)	-2(3)
C(26)	39(4)	33(3)	20(3)	1(2)	-2(3)	-6(3)
C(31)	40(6)	97(7)	52(5)	-26(5)	-3(4)	17(5)
C(32)	50(7)	136(11)	57(6)	-34(7)	8(5)	10(7)
C(33)	24(5)	109(8)	49(5)	29(5)	-5(4)	2(5)
C(34)	58(7)	61(6)	116(10)	7(6)	8(7)	-13(5)
C(35)	48(6)	46(5)	89(7)	-2(5)	15(5)	-10(4)
C(36)	40(5)	45(4)	21(3)	6(3)	5(3)	10(3)
C(41)	43(5)	32(3)	31(3)	-1(3)	-2(3)	-4(3)
C(42)	54(6)	41(4)	39(4)	-8(3)	6(4)	-7(4)
C(43)	39(5)	33(4)	56(5)	5(3)	12(4)	3(3)
C(44)	41(5)	47(4)	40(4)	13(3)	4(4)	9(4)
C(45)	35(5)	48(4)	26(3)	5(3)	1(3)	1(3)
C(46)	31(4)	33(3)	26(3)	0(2)	11(3)	0(3)
C(51)	34(4)	43(3)	28(3)	-2(2)	-1(3)	-2(3)
C(52)	68(7)	43(4)	28(3)	-5(3)	1(4)	4(4)
C(53)	70(8)	60(5)	36(4)	-7(4)	3(4)	21(5)
C(54)	42(5)	65(5)	30(4)	2(3)	0(3)	-1(4)
C(55)	43(5)	48(4)	24(3)	-3(3)	-2(3)	-3(3)
C(56)	36(4)	42(3)	11(2)	3(2)	3(3)	0(3)
C(61)	46(5)	39(4)	33(4)	4(3)	1(3)	-2(3)
C(62)	68(7)	40(4)	37(4)	8(3)	-7(4)	-3(4)
C(63)	58(6)	57(5)	34(4)	4(3)	0(4)	11(4)
C(64)	40(5)	60(5)	36(4)	7(3)	-5(4)	4(4)
C(65)	39(5)	44(4)	32(3)	2(3)	-5(4)	-3(3)

C(66)	39(5)	39(3)	17(3)	7(3)	-1(3)	-1(3)
C(1')	57(6)	35(3)	19(3)	0(2)	-7(3)	1(3)
C(2')	56(5)	41(3)	16(3)	3(2)	2(3)	6(3)
C(3')	66(7)	49(4)	41(4)	-5(3)	-17(4)	-5(4)
C(4')	54(5)	48(4)	35(4)	1(3)	17(4)	2(4)
C(5')	62(6)	56(4)	5(2)	0(2)	-6(3)	2(4)
C(6')	52(5)	45(3)	15(3)	-9(2)	1(3)	-6(4)
C(11')	40(5)	47(4)	46(4)	-8(3)	0(4)	5(4)
C(12')	54(7)	55(5)	82(7)	-2(5)	17(6)	-5(5)
C(13')	62(8)	38(5)	132(11)	-4(6)	13(7)	-8(5)
C(14')	102(11)	45(5)	108(9)	-27(6)	-8(8)	-11(6)
C(15')	112(11)	40(4)	61(6)	-14(4)	17(6)	-3(6)
C(16')	37(5)	37(3)	39(4)	-9(3)	-3(3)	5(3)
C(21')	42(6)	107(8)	30(4)	-4(4)	3(4)	16(5)
C(22')	61(8)	135(11)	38(5)	-5(6)	0(5)	19(8)
C(23')	47(6)	75(6)	50(5)	7(4)	9(4)	20(5)
C(24')	62(7)	68(6)	59(6)	-28(5)	9(5)	10(5)
C(25')	52(6)	68(6)	35(4)	-16(4)	-4(4)	10(5)
C(26')	39(5)	39(4)	31(3)	-5(3)	0(3)	6(3)
C(31')	48(6)	79(6)	26(4)	6(4)	-5(4)	14(5)
C(32')	51(6)	94(8)	41(5)	16(5)	-7(4)	23(6)
C(33')	33(5)	93(7)	49(5)	14(5)	-5(4)	11(5)
C(34')	37(5)	106(8)	36(5)	13(5)	2(4)	12(5)
C(35')	51(6)	67(5)	26(4)	9(3)	5(4)	5(4)
C(36')	37(5)	40(4)	26(3)	2(3)	-4(3)	-3(3)
C(41')	50(6)	42(4)	45(4)	9(3)	-3(4)	3(4)
C(42')	62(7)	41(4)	56(5)	3(4)	12(5)	6(4)
C(43')	94(9)	39(4)	70(7)	-10(4)	46(6)	-3(5)
C(44')	67(7)	69(6)	52(5)	-25(4)	10(5)	-17(5)
C(45')	64(6)	49(4)	30(4)	-5(3)	3(4)	-4(4)
C(46')	43(5)	35(3)	26(3)	2(2)	5(3)	3(3)
C(51')	62(7)	60(5)	36(4)	0(4)	14(4)	-17(4)
C(52')	104(11)	103(9)	43(5)	4(6)	-11(6)	-50(8)
C(53')	220(23)	139(14)	74(9)	50(9)	-62(12)	-140(16)
C(54')	234(23)	71(8)	124(12)	61(8)	-123(15)	-83(12)
C(55')	116(10)	44(4)	57(5)	11(4)	-50(6)	-24(5)
C(56')	91(8)	38(3)	14(3)	1(3)	-5(4)	-7(4)
C(61')	103(9)	61(5)	38(4)	-21(4)	10(5)	-23(6)
C(62')	150(17)	101(9)	65(8)	-39(7)	33(9)	-60(11)
C(63')	125(15)	130(13)	65(8)	-28(8)	11(9)	-62(12)
C(64')	72(10)	183(17)	56(7)	-7(9)	-5(6)	-42(11)
C(65')	74(9)	120(10)	44(5)	8(6)	-2(6)	-21(7)
C(66')	65(7)	84(6)	9(3)	-4(3)	-4(3)	-30(5)
O(71)	79(5)	66(4)	67(4)	-8(3)	10(4)	-30(4)
C(71)	179(17)	142(12)	53(7)	-15(7)	25(8)	-112(12)
C(72)	92(10)	70(7)	82(8)	0(6)	-3(7)	-13(7)
C(73)	92(10)	57(6)	80(7)	-1(5)	-8(7)	-17(6)
C(74)	69(7)	46(5)	70(6)	6(4)	16(5)	-12(5)

Table 105. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 5.

	x	y	z	U(eq)
H(1A)	3148(5)	2804(3)	1126(2)	48
H(2A)	2596(5)	1917(2)	1129(2)	47
H(3A)	4428(6)	2551(3)	1315(2)	83
H(3B)	4040(6)	2098(3)	1082(2)	83
H(3C)	4071(6)	2049(3)	1507(2)	83
H(4A)	1282(6)	2192(3)	1243(2)	78
H(4B)	1733(6)	2626(3)	1016(2)	78
H(4C)	1602(6)	2705(3)	1435(2)	78
H(5A)	3383(5)	2771(2)	2833(1)	35
H(6A)	2102(5)	2045(3)	2813(1)	35
H(11A)	4454(6)	2978(3)	2247(2)	54
H(12A)	5655(6)	3411(4)	2289(2)	62
H(13A)	6083(6)	3971(4)	1833(3)	67
H(14A)	5270(7)	4101(4)	1332(3)	73
H(15A)	4047(6)	3682(4)	1293(2)	65
H(21A)	2091(5)	3570(2)	2172(2)	39
H(22A)	1324(5)	4313(3)	2098(2)	51
H(23A)	1240(5)	4730(3)	1543(2)	51
H(24A)	1939(5)	4379(3)	1056(2)	50
H(25A)	2714(5)	3631(2)	1120(2)	42
H(31A)	1008(6)	2195(5)	2030(2)	76
H(32A)	-283(7)	1918(5)	2052(3)	97
H(33A)	-645(6)	1092(4)	1824(2)	73
H(34A)	344(7)	543(4)	1597(3)	94
H(35A)	1626(6)	835(4)	1560(3)	73
H(41A)	2807(5)	1053(3)	1176(2)	42
H(42A)	3477(6)	263(3)	1143(2)	54
H(43A)	4174(5)	-57(3)	1636(2)	51
H(44A)	4197(5)	426(3)	2163(2)	51
H(45A)	3521(5)	1208(3)	2208(2)	43
H(51A)	2981(5)	3674(3)	2929(2)	42
H(52A)	2045(6)	4332(3)	3032(2)	55
H(53A)	675(7)	4131(4)	2989(2)	67
H(54A)	295(6)	3274(3)	2865(2)	55
H(55A)	1229(5)	2627(3)	2752(2)	46
H(61A)	2469(5)	1154(3)	2952(2)	48
H(62A)	3369(6)	484(3)	3071(2)	58
H(63A)	4713(6)	651(3)	3041(2)	60
H(64A)	5179(6)	1487(3)	2882(2)	54
H(65A)	4268(5)	2155(3)	2761(2)	46
H(1'A)	2582(5)	1916(2)	-1378(2)	45
H(2'A)	2282(5)	2863(3)	-1414(2)	45
H(3'A)	1270(6)	1668(3)	-1231(2)	78
H(3'B)	1254(6)	2171(3)	-1481(2)	78
H(3'C)	1111(6)	2229(3)	-1062(2)	78
H(4'A)	3585(5)	3125(3)	-1269(2)	68
H(4'B)	3608(5)	2585(3)	-1480(2)	68
H(4'G)	3723(5)	2593(3)	-1057(2)	68

H(5'A)	3045(6)	2132(3)	305(2)	50
H(6'A)	1887(6)	2934(3)	279(2)	45
H(11B)	1553(5)	1384(3)	-226(2)	53
H(12B)	809(7)	624(4)	-172(3)	76
H(13B)	827(7)	-5(4)	-610(4)	93
H(14B)	1630(9)	125(4)	-1129(4)	102
H(15B)	2333(9)	903(3)	-1200(3)	85
H(21B)	3907(6)	1807(4)	-279(2)	72
H(22B)	5247(8)	1501(5)	-298(3)	93
H(23B)	5668(6)	1033(4)	-797(2)	69
H(24B)	4883(7)	972(4)	-1300(3)	76
H(25B)	3635(6)	1363(4)	-1306(2)	62
H(31B)	1049(6)	3302(4)	-1366(2)	62
H(32B)	-264(6)	3550(5)	-1360(2)	75
H(33B)	-963(6)	3600(4)	-820(2)	70
H(34B)	-295(6)	3422(4)	-282(2)	71
H(35B)	1016(6)	3168(3)	-284(2)	57
H(41B)	2222(6)	3899(3)	-1300(2)	55
H(42B)	2881(6)	4690(3)	-1368(2)	63
H(43B)	3737(8)	4961(3)	-927(3)	81
H(44B)	3987(7)	4432(4)	-418(3)	75
H(45B)	3382(6)	3616(3)	-369(2)	57
H(51B)	913(6)	2362(4)	240(2)	63
H(52B)	-42(9)	1834(5)	491(3)	100
H(53B)	264(13)	1047(7)	752(4)	173
H(54B)	1556(14)	784(5)	770(4)	171
H(55B)	2579(8)	1289(3)	517(2)	87
H(61B)	2306(8)	3810(3)	336(2)	81
H(62B)	3217(12)	4454(6)	438(3)	126
H(63B)	4560(12)	4225(7)	538(3)	128
H(64B)	4941(9)	3373(8)	471(3)	124
H(65B)	4006(8)	2705(6)	318(3)	95
H(71A)	2396(11)	174(6)	2429(3)	150
H(71B)	1713(11)	602(6)	2430(3)	150
H(72A)	1592(9)	-299(4)	2134(3)	98
H(72B)	850(9)	57(4)	2243(3)	98
H(73A)	558(8)	-604(4)	2625(3)	92
H(73B)	1444(8)	-823(4)	2618(3)	92
H(74A)	806(7)	-84(3)	3088(3)	74
H(74B)	1562(7)	-447(3)	3152(3)	74

Table 115. Crystal data and structure refinement for 4.

Identification code	glu38
Empirical formula	$C_{52}H_{48}FeOP_2Pt$
Formula weight	1001.78
Temperature	257(2) K
Wavelength	0.71073 Å
Crystal system	Monoclinic
Space group	$P2_1/n$
Unit cell dimensions	$a = 14.701(9)$ Å $\alpha = 90^\circ$ $b = 17.195(7)$ Å $\beta = 94.67(3)^\circ$ $c = 17.739(5)$ Å $\gamma = 90^\circ$
Volume, Z	$4469(4)$ Å ³ , 4
Density (calculated)	1.489 Mg/m ³
Absorption coefficient	3.560 mm ⁻¹
F(000)	2008
Crystal size	0.40 x 0.40 x 0.30 mm
Crystal color	red
θ range for data collection	2.10 to 25.00°
Limiting indices	$-17 \leq h \leq 1$, $-20 \leq k \leq 1$, $-20 \leq l \leq 20$
Reflections collected	9394
Independent reflections	7799 ($R_{int} = 0.0686$)
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	7797 / 2 / 507
Goodness-of-fit on F^2	1.014
Final R indices [$I > 2\sigma(I)$]	$R1 = 0.0628$, $wR2 = 0.1253$
R indices (all data)	$R1 = 0.1446$, $wR2 = 0.1643$
Largest diff. peak and hole	1.028 and -1.821 eÅ ⁻³

Table 2. Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 4. U(eq) is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Pt	7143(1)	8083(1)	912(1)	44(1)
Fe	5393(1)	8042(1)	-1076(1)	53(1)
P(1)	5839(2)	7388(2)	704(2)	45(1)
P(2)	7304(2)	8748(2)	-169(2)	47(1)
C(1)	5446(8)	7203(7)	-274(6)	43(3)
C(2)	6041(10)	7021(8)	-842(7)	62(4)
C(3)	5508(11)	6959(9)	-1550(8)	76(4)
C(4)	4590(11)	7105(9)	-1427(8)	75(5)
C(5)	4530(9)	7255(8)	-647(8)	60(4)
C(6)	6301(8)	8907(7)	-810(7)	47(3)
C(7)	6193(9)	8800(8)	-1623(7)	58(4)
C(8)	5251(10)	8918(9)	-1852(8)	68(4)
C(9)	4780(10)	9108(9)	-1221(8)	68(4)
C(10)	5431(8)	9099(7)	-579(7)	53(3)
C(11)	5900(9)	6431(8)	1112(7)	53(3)
C(12)	5731(12)	5759(10)	702(9)	102(6)
C(13)	5797(15)	5025(10)	1050(10)	123(8)
C(14)	6019(12)	4955(11)	1792(9)	98(6)
C(15)	6212(10)	5623(9)	2210(8)	76(5)
C(16)	6142(9)	6337(8)	1880(7)	55(4)
C(17)	4845(8)	7774(8)	1104(7)	50(3)
C(18)	4086(10)	7336(10)	1197(8)	74(4)
C(19)	3329(11)	7624(13)	1531(11)	90(6)
C(20)	3345(13)	8363(14)	1768(12)	108(7)
C(21)	4090(12)	8834(10)	1715(9)	85(5)
C(22)	4861(10)	8541(9)	1382(7)	62(4)
C(23)	7703(9)	9720(7)	46(6)	45(3)
C(24)	8619(10)	9819(10)	296(8)	73(4)
C(25)	8967(12)	10535(11)	516(9)	86(5)
C(26)	8402(15)	11174(11)	485(10)	91(6)
C(27)	7531(14)	11098(10)	222(10)	94(6)
C(28)	7179(11)	10375(8)	7(8)	70(4)
C(29)	8142(8)	8397(8)	-779(7)	50(3)
C(30)	8512(10)	7675(10)	-648(8)	69(4)
C(31)	9181(12)	7380(12)	-1094(11)	102(6)
C(32)	9466(12)	7817(13)	-1664(9)	93(6)
C(33)	9115(11)	8544(12)	-1808(8)	82(5)
C(34)	8452(10)	8837(10)	-1374(8)	70(4)
C(35)	6845(12)	9121(12)	2494(9)	89(5)
C(36)	6370(15)	9500(15)	3046(13)	129(8)
C(37)	6229(17)	9120(18)	3702(15)	132(10)
C(38)	6484(19)	8386(17)	3812(13)	143(11)
C(39)	6966(11)	8004(12)	3285(8)	99(6)
C(40)	7156(10)	8367(11)	2608(8)	72(5)
C(41)	7666(8)	7932(9)	2054(6)	60(4)
C(42)	8338(9)	8345(10)	1629(7)	70(5)
C(43)	9160(10)	7944(14)	1441(9)	84(6)

C(44)	9193(13)	7174(17)	1294(9)	115(9)
C(45)	9972(19)	6773(19)	1092(11)	157(13)
C(46)	10714(22)	7280(30)	1061(20)	207(28)
C(47)	10778(25)	8021(26)	1135(18)	188(22)
C(48)	9948(9)	8398(17)	1362(9)	158(13)
O(100)	1379(28)	4903(24)	1150(25)	416(21)
C(100)	1861(22)	4669(25)	433(20)	305(22)
C(101)	2663(32)	5119(30)	534(20)	367(28)
C(102)	3047(24)	5059(24)	1470(20)	288(20)
C(103)	2349(30)	5007(26)	1905(18)	300(21)

Table 135. Bond lengths [Å] and angles [°] for 4.

Pt-C(41)	2.123(11)	Pt-C(42)	2.131(12)
Pt-P(2)	2.261(3)	Pt-P(1)	2.263(3)
Fe-C(10)	2.018(13)	Fe-C(2)	2.025(14)
Fe-C(1)	2.024(11)	Fe-C(6)	2.028(13)
Fe-C(8)	2.038(13)	Fe-C(9)	2.05(2)
Fe-C(5)	2.046(13)	Fe-C(7)	2.051(14)
Fe-C(3)	2.06(2)	Fe-C(4)	2.064(14)
P(1)-C(11)	1.797(13)	P(1)-C(17)	1.802(13)
P(1)-C(1)	1.812(11)	P(2)-C(23)	1.802(12)
P(2)-C(6)	1.807(12)	P(2)-C(29)	1.808(13)
C(1)-C(2)	1.42(2)	C(1)-C(5)	1.45(2)
C(2)-C(3)	1.43(2)	C(3)-C(4)	1.41(2)
C(4)-C(5)	1.42(2)	C(6)-C(10)	1.41(2)
C(6)-C(7)	1.45(2)	C(7)-C(8)	1.42(2)
C(8)-C(9)	1.40(2)	C(9)-C(10)	1.43(2)
C(11)-C(12)	1.38(2)	C(11)-C(16)	1.39(2)
C(12)-C(13)	1.41(2)	C(13)-C(14)	1.34(2)
C(14)-C(15)	1.38(2)	C(15)-C(16)	1.36(2)
C(17)-C(18)	1.37(2)	C(17)-C(22)	1.41(2)
C(18)-C(19)	1.39(2)	C(19)-C(20)	1.34(2)
C(20)-C(21)	1.37(2)	C(21)-C(22)	1.41(2)
C(23)-C(28)	1.36(2)	C(23)-C(24)	1.39(2)
C(24)-C(25)	1.38(2)	C(25)-C(26)	1.38(2)
C(26)-C(27)	1.33(2)	C(27)-C(28)	1.39(2)
C(29)-C(30)	1.37(2)	C(29)-C(34)	1.40(2)
C(30)-C(31)	1.41(2)	C(31)-C(32)	1.35(2)
C(32)-C(33)	1.37(2)	C(33)-C(34)	1.39(2)
C(35)-C(36)	1.41(2)	C(35)-C(40)	1.38(2)
C(36)-C(37)	1.36(3)	C(37)-C(38)	1.33(3)
C(38)-C(39)	1.38(3)	C(39)-C(40)	1.40(2)
C(40)-C(41)	1.49(2)	C(41)-C(42)	1.47(2)
C(42)-C(43)	1.45(2)	C(43)-C(44)	1.35(3)
C(43)-C(48)	1.41(2)	C(44)-C(45)	1.41(3)
C(45)-C(46)	1.40(4)	C(46)-C(47)	1.28(6)
C(47)-C(48)	1.47(5)	O(100)-C(100)	1.56(4)
O(100)-C(103)	1.89(5)	C(100)-C(101)	1.41(5)
C(101)-C(102)	1.71(4)	C(102)-C(103)	1.34(4)
C(41)-Pt-C(42)	40.5(5)	C(41)-Pt-P(2)	144.7(4)
C(42)-Pt-P(2)	105.1(4)	C(41)-Pt-P(1)	109.1(4)
C(42)-Pt-P(1)	148.7(4)	P(2)-Pt-P(1)	105.95(12)
C(10)-Fe-C(2)	134.1(5)	C(10)-Fe-C(1)	109.7(5)
C(2)-Fe-C(1)	41.1(5)	C(10)-Fe-C(6)	40.9(5)
C(2)-Fe-C(6)	107.4(5)	C(1)-Fe-C(6)	111.9(5)
C(10)-Fe-C(8)	68.2(6)	C(2)-Fe-C(8)	143.1(6)
C(1)-Fe-C(8)	175.6(6)	C(6)-Fe-C(8)	69.2(5)
C(10)-Fe-C(9)	41.1(5)	C(2)-Fe-C(9)	175.0(5)
C(1)-Fe-C(9)	135.8(6)	C(6)-Fe-C(9)	69.4(5)
C(8)-Fe-C(9)	40.1(5)	C(10)-Fe-C(5)	115.5(6)
C(2)-Fe-C(5)	69.2(5)	C(1)-Fe-C(5)	41.9(4)
C(6)-Fe-C(5)	144.7(5)	C(8)-Fe-C(5)	135.0(5)
C(9)-Fe-C(5)	111.0(6)	C(10)-Fe-C(7)	68.8(5)
C(2)-Fe-C(7)	111.8(6)	C(1)-Fe-C(7)	142.7(5)
C(6)-Fe-C(7)	41.6(5)	C(8)-Fe-C(7)	40.8(5)

C(9)-Fe-C(7)	68.7(6)	C(5)-Fe-C(7)	173.6(5)
C(10)-Fe-C(3)	173.6(6)	C(2)-Fe-C(3)	41.0(5)
C(1)-Fe-C(3)	69.0(5)	C(6)-Fe-C(3)	133.2(6)
C(8)-Fe-C(3)	113.6(6)	C(9)-Fe-C(3)	144.0(5)
C(5)-Fe-C(3)	68.1(6)	C(7)-Fe-C(3)	108.2(6)
C(10)-Fe-C(4)	146.0(6)	C(2)-Fe-C(4)	68.4(6)
C(1)-Fe-C(4)	69.1(5)	C(6)-Fe-C(4)	172.9(6)
C(8)-Fe-C(4)	110.4(5)	C(9)-Fe-C(4)	115.2(6)
C(5)-Fe-C(4)	40.3(5)	C(7)-Fe-C(4)	133.6(6)
C(3)-Fe-C(4)	39.9(6)	C(11)-P(1)-C(17)	101.2(6)
C(11)-P(1)-C(1)	103.1(6)	C(17)-P(1)-C(1)	103.6(6)
C(11)-P(1)-Pt	113.8(4)	C(17)-P(1)-Pt	116.4(5)
C(1)-P(1)-Pt	116.7(4)	C(23)-P(2)-C(6)	103.2(6)
C(23)-P(2)-C(29)	102.2(6)	C(6)-P(2)-C(29)	103.5(6)
C(23)-P(2)-Pt	110.1(4)	C(6)-P(2)-Pt	118.3(4)
C(29)-P(2)-Pt	117.5(5)	C(2)-C(1)-C(5)	107.0(11)
C(2)-C(1)-P(1)	123.4(9)	C(5)-C(1)-P(1)	129.5(10)
C(2)-C(1)-Fe	69.5(7)	C(5)-C(1)-Fe	69.9(7)
P(1)-C(1)-Fe	122.6(6)	C(1)-C(2)-C(3)	108.3(13)
C(1)-C(2)-Fe	69.4(7)	C(3)-C(2)-Fe	70.7(9)
C(4)-C(3)-C(2)	108.2(14)	C(4)-C(3)-Fe	70.3(9)
C(2)-C(3)-Fe	68.3(8)	C(3)-C(4)-C(5)	108.8(11)
C(3)-C(4)-Fe	69.7(9)	C(5)-C(4)-Fe	69.1(8)
C(4)-C(5)-C(1)	107.7(12)	C(4)-C(5)-Fe	70.5(9)
C(1)-C(5)-Fe	68.3(7)	C(10)-C(6)-C(7)	106.8(11)
C(10)-C(6)-P(2)	124.3(9)	C(7)-C(6)-P(2)	128.7(10)
C(10)-C(6)-Fe	69.2(7)	C(7)-C(6)-Fe	70.0(7)
P(2)-C(6)-Fe	121.5(6)	C(8)-C(7)-C(6)	106.9(12)
C(8)-C(7)-Fe	69.2(8)	C(6)-C(7)-Fe	68.3(7)
C(9)-C(8)-C(7)	109.7(12)	C(9)-C(8)-Fe	70.3(8)
C(7)-C(8)-Fe	70.1(8)	C(8)-C(9)-C(10)	106.9(12)
C(8)-C(9)-Fe	69.5(9)	C(10)-C(9)-Fe	68.3(8)
C(6)-C(10)-C(9)	109.6(12)	C(6)-C(10)-Fe	69.9(8)
C(9)-C(10)-Fe	70.6(8)	C(12)-C(11)-C(16)	116.2(13)
C(12)-C(11)-P(1)	123.6(11)	C(16)-C(11)-P(1)	120.2(10)
C(11)-C(12)-C(13)	121(2)	C(14)-C(13)-C(12)	121(2)
C(13)-C(14)-C(15)	119(2)	C(16)-C(15)-C(14)	120.9(13)
C(15)-C(16)-C(11)	122.2(13)	C(18)-C(17)-C(22)	117.7(14)
C(18)-C(17)-P(1)	122.7(12)	C(22)-C(17)-P(1)	119.5(10)
C(17)-C(18)-C(19)	123(2)	C(20)-C(19)-C(18)	119(2)
C(19)-C(20)-C(21)	122(2)	C(20)-C(21)-C(22)	119(2)
C(17)-C(22)-C(21)	119(2)	C(28)-C(23)-C(24)	116.3(13)
C(28)-C(23)-P(2)	125.6(11)	C(24)-C(23)-P(2)	118.0(11)
C(25)-C(24)-C(23)	122(2)	C(24)-C(25)-C(26)	120(2)
C(27)-C(26)-C(25)	120(2)	C(26)-C(27)-C(28)	121(2)
C(23)-C(28)-C(27)	122(2)	C(30)-C(29)-C(34)	117.9(13)
C(30)-C(29)-P(2)	118.9(11)	C(34)-C(29)-P(2)	123.3(11)
C(29)-C(30)-C(31)	121(2)	C(32)-C(31)-C(30)	120(2)
C(31)-C(32)-C(33)	121(2)	C(32)-C(33)-C(34)	120(2)
C(33)-C(34)-C(29)	121(2)	C(36)-C(35)-C(40)	121(2)
C(37)-C(36)-C(35)	119(2)	C(38)-C(37)-C(36)	121(3)
C(37)-C(38)-C(39)	120(2)	C(38)-C(39)-C(40)	121(2)
C(39)-C(40)-C(35)	117(2)	C(39)-C(40)-C(41)	119(2)
C(35)-C(40)-C(41)	124(2)	C(42)-C(41)-C(40)	119.5(14)
C(42)-C(41)-Pt	70.1(6)	C(40)-C(41)-Pt	114.1(9)
C(43)-C(42)-C(41)	120(2)	C(43)-C(42)-Pt	115.1(10)
C(41)-C(42)-Pt	69.4(7)	C(44)-C(43)-C(48)	119(2)
C(44)-C(43)-C(42)	124(2)	C(48)-C(43)-C(42)	118(2)
C(43)-C(44)-C(45)	125(3)	C(46)-C(45)-C(44)	111(3)

C(47)-C(46)-C(45)	132(4)	C(46)-C(47)-C(48)	114(4)
C(43)-C(48)-C(47)	119(3)	C(100)-O(100)-C(103)	104(3)
C(101)-C(100)-O(100)	101(3)	C(100)-C(101)-C(102)	107(3)
C(103)-C(102)-C(101)	111(3)	C(102)-C(103)-O(100)	100(3)

Symmetry transformations used to generate equivalent atoms:

Table 45. Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 4.

The anisotropic displacement factor exponent takes the form:

$$-2\pi^2 [(ha^*)^2 U_{11} + \dots + 2hka^*b^* U_{12}]$$

	U11	U22	U33	U23	U13	U12
Pt	40(1)	56(1)	36(1)	1(1)	-8(1)	-2(1)
Fe	56(1)	56(1)	43(1)	5(1)	-18(1)	-2(1)
P(1)	47(2)	43(2)	41(2)	0(2)	-12(2)	1(2)
P(2)	43(2)	55(2)	40(2)	2(2)	-8(1)	-1(2)
C(1)	44(7)	46(8)	37(7)	4(6)	-12(6)	1(6)
C(2)	69(9)	60(10)	54(8)	-6(8)	-9(7)	0(8)
C(3)	95(12)	71(10)	56(9)	-8(9)	-29(8)	-6(11)
C(4)	90(12)	74(12)	52(9)	1(8)	-46(8)	-18(9)
C(5)	44(8)	52(8)	79(10)	11(8)	-20(7)	-7(7)
C(6)	48(8)	47(8)	44(7)	2(6)	-5(6)	7(7)
C(7)	53(8)	76(10)	45(8)	3(7)	-7(6)	1(8)
C(8)	74(10)	80(11)	45(8)	20(8)	-21(7)	-11(9)
C(9)	62(9)	76(11)	61(9)	22(8)	-24(8)	6(8)
C(10)	49(8)	50(8)	58(8)	8(7)	-11(6)	-4(7)
C(11)	53(8)	49(9)	53(8)	0(7)	-12(6)	2(7)
C(12)	137(16)	78(13)	80(12)	18(10)	-54(11)	-10(12)
C(13)	213(23)	43(10)	100(14)	-2(10)	-67(15)	-10(13)
C(14)	123(15)	81(13)	79(12)	37(10)	-53(11)	-19(11)
C(15)	94(12)	69(11)	60(9)	28(9)	-21(8)	-12(10)
C(16)	72(9)	51(9)	40(7)	7(7)	-6(7)	12(8)
C(17)	27(6)	62(9)	60(9)	6(7)	-4(6)	-7(6)
C(18)	71(11)	75(11)	73(10)	15(9)	2(8)	13(9)
C(19)	45(10)	102(15)	125(16)	13(14)	24(10)	-18(11)
C(20)	48(11)	140(20)	136(18)	21(16)	8(11)	14(13)
C(21)	92(13)	80(12)	81(11)	-14(10)	-3(10)	40(11)
C(22)	67(10)	59(10)	58(9)	-3(8)	-10(7)	22(8)
C(23)	55(8)	41(8)	40(7)	7(6)	7(6)	-8(7)
C(24)	61(10)	74(11)	84(11)	-8(9)	-4(8)	-3(9)
C(25)	74(12)	99(15)	85(12)	-30(11)	13(9)	-38(12)
C(26)	123(17)	65(12)	85(13)	-17(10)	7(12)	-33(13)
C(27)	112(16)	62(12)	108(15)	-1(11)	6(12)	2(11)
C(28)	73(10)	50(9)	86(11)	3(8)	-7(8)	6(9)
C(29)	45(8)	58(8)	48(8)	-10(7)	1(6)	4(7)
C(30)	69(10)	80(11)	60(9)	-14(9)	16(8)	13(9)
C(31)	95(14)	110(16)	100(15)	-29(13)	10(12)	34(12)
C(32)	83(13)	148(20)	50(10)	-20(11)	10(9)	27(13)
C(33)	77(12)	120(16)	51(10)	-4(10)	12(8)	7(12)
C(34)	62(9)	92(12)	55(9)	-1(9)	3(8)	1(9)
C(35)	96(13)	110(16)	59(10)	-22(11)	-14(9)	0(12)
C(36)	124(18)	154(23)	105(17)	-57(17)	-20(14)	19(16)
C(37)	135(20)	174(27)	90(18)	-45(20)	23(15)	-48(22)
C(38)	181(25)	167(25)	91(16)	-13(18)	78(16)	-87(22)
C(39)	104(13)	149(18)	47(9)	-21(12)	25(9)	-48(14)
C(40)	54(9)	102(14)	54(9)	0(9)	-21(7)	-38(9)
C(41)	48(7)	98(12)	33(6)	-1(7)	-3(6)	-3(8)
C(42)	48(8)	112(14)	47(8)	-14(8)	-20(6)	-11(8)
C(43)	42(9)	160(19)	47(9)	10(12)	-10(6)	16(13)

G(44)	74(12)	219(28)	53(10)	30(15)	8(8)	72(17)
G(45)	153(22)	247(35)	72(13)	22(17)	13(14)	128(26)
G(46)	64(18)	441(80)	119(22)	141(42)	26(16)	60(35)
G(47)	96(20)	381(60)	83(16)	124(32)	-26(13)	-63(33)
G(48)	13(7)	378(40)	79(11)	108(18)	-13(7)	-27(13)

Table 155. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for U .

	x	y	z	U(eq)
H(2A)	6702(10)	6948(8)	-761(7)	74
H(3A)	5744(11)	6848(9)	-2040(8)	91
H(4A)	4079(11)	7118(9)	-1818(8)	90
H(5A)	3972(9)	7376(8)	-403(8)	72
H(7A)	6673(9)	8662(8)	-1951(7)	70
H(8A)	4973(10)	8864(9)	-2370(8)	81
H(9A)	4126(10)	9219(9)	-1220(8)	81
H(10A)	5295(8)	9203(7)	-57(7)	64
H(12A)	5569(12)	5792(10)	185(9)	122
H(13A)	5685(15)	4580(10)	758(10)	148
H(14A)	6043(12)	4469(11)	2023(9)	117
H(15A)	6392(10)	5584(9)	2723(8)	91
H(16A)	6260(9)	6776(8)	2178(7)	66
H(18A)	4074(10)	6823(10)	1030(8)	88
H(19A)	2825(11)	7310(13)	1588(11)	108
H(20A)	2833(13)	8563(14)	1975(12)	130
H(21A)	4087(12)	9342(10)	1897(9)	102
H(22A)	5374(10)	8852(9)	1348(7)	74
H(24A)	9005(10)	9390(10)	316(8)	88
H(25A)	9580(12)	10587(11)	685(9)	103
H(26A)	8627(15)	11657(11)	646(10)	109
H(27A)	7155(14)	11534(10)	182(10)	113
H(28A)	6567(11)	10336(8)	-169(8)	84
H(30A)	8318(10)	7374(10)	-256(8)	83
H(31A)	9427(12)	6888(12)	-997(11)	122
H(32A)	9906(12)	7620(13)	-1961(9)	112
H(33A)	9322(11)	8842(12)	-2197(8)	99
H(34A)	8209(10)	9329(10)	-1477(8)	84
H(35A)	6951(12)	9379(12)	2049(9)	107
H(36A)	6155(15)	10004(15)	2964(13)	155
H(37A)	5948(17)	9381(18)	4079(15)	159
H(38A)	6338(19)	8126(17)	4246(13)	171
H(39A)	7166(11)	7498(12)	3381(8)	119
H(41A)	7829(8)	7397(9)	2198(6)	72
H(42A)	8420(9)	8896(10)	1757(7)	84
H(44A)	8662(13)	6887(17)	1330(9)	138
H(45A)	9992(19)	6243(19)	993(11)	189
H(46A)	11259(22)	7036(30)	971(20)	249
H(47A)	11305(25)	8296(26)	1051(18)	226
H(48A)	9941(9)	8930(17)	1454(9)	189
H(10B)	1996(22)	4117(25)	428(20)	366
H(10C)	1497(22)	4808(25)	-28(20)	366
H(10D)	2535(32)	5655(30)	394(20)	441
H(10E)	3121(32)	4920(30)	220(20)	441
H(10F)	3436(24)	4606(24)	1550(20)	346
H(10G)	3407(24)	5516(24)	1612(20)	346
H(10H)	2289(30)	5472(26)	2207(18)	360
H(10I)	2404(30)	4556(26)	2234(18)	360

Table 16s. Crystal data and structure refinement for $\mathbf{8}$.

Identification code	glu39
Empirical formula	$\text{C}_{45}\text{H}_{44}\text{O}_2\text{P}_2\text{Pt}$
Formula weight	873.92
Temperature	213(2) K
Wavelength	0.71073 Å
Crystal system	Triclinic
Space group	$\text{P}\bar{1}$
Unit cell dimensions	$a = 12.5542(2)$ Å $\alpha = 75.6220(6)^\circ$ $b = 14.2110(2)$ Å $\beta = 68.8019(7)^\circ$ $c = 14.3244(2)$ Å $\gamma = 70.4527(7)^\circ$
Volume, Z	$2221.64(8)$ Å ³ , 2
Density (calculated)	1.409 Mg/m ³
Absorption coefficient	3.268 mm ⁻¹
F(000)	942
Crystal size	0.40 x 0.20 x 0.20 mm
Crystal color	yellow
θ range for data collection	1.54 to 28.04°
Limiting indices	$-15 \leq h \leq 16$, $-17 \leq k \leq 18$, $0 \leq l \leq 18$
Reflections collected	9398
Independent reflections	9398 ($R_{\text{int}} = 0.0446$)
Absorption correction	Empirical
Max. and min. transmission	1.000 and 0.781
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	9398 / 9 / 474
Goodness-of-fit on F^2	1.121
Final R indices [$I > 2\sigma(I)$]	$R_1 = 0.0468$, $wR_2 = 0.1287$
R indices (all data)	$R_1 = 0.0589$, $wR_2 = 0.1436$
Largest diff. peak and hole	2.446 and -2.081 eÅ ⁻³

Table 17s. Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for Q . $U(\text{eq})$ is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Pt	2261(1)	1874(1)	2375(1)	25(1)
P(1)	919(2)	3094(1)	3322(1)	29(1)
P(2)	3487(2)	1085(1)	3354(1)	28(1)
O(1)	4241(7)	3604(7)	3662(8)	45(3)
O(1')	4125(9)	3307(6)	4236(9)	50(3)
O(2)	2289(5)	4280(4)	4496(4)	49(1)
C(1)	4258(6)	1909(6)	3539(6)	33(2)
C(2)	3553(16)	2966(14)	3763(14)	64(5)
C(2')	3450(13)	2633(11)	4360(11)	36(3)
C(3)	2411(8)	3350(7)	4245(13)	96(5)
C(4)	1213(6)	3133(7)	4489(6)	42(2)
C(5)	3454(5)	4312(6)	4299(7)	74(4)
C(6)	4184(19)	5008(16)	3570(15)	72(6)
C(6')	3365(28)	5214(16)	3469(17)	96(8)
C(7)	3546(11)	4530(9)	5250(9)	104(6)
C(8)	671(7)	4431(6)	2746(6)	41(2)
C(9)	1430(7)	4714(6)	1791(6)	43(2)
C(10)	1294(10)	5727(8)	1375(7)	62(3)
C(11)	412(11)	6473(7)	1898(8)	65(3)
C(12)	-347(10)	6197(7)	2840(8)	62(3)
C(13)	-203(8)	5197(7)	3275(6)	51(2)
C(14)	-608(6)	2952(5)	3804(5)	26(1)
C(15)	-1205(7)	3119(6)	3092(6)	36(2)
C(16)	-2355(9)	3025(7)	3403(8)	55(2)
C(17)	-2897(8)	2699(6)	4422(9)	57(3)
C(18)	-2310(8)	2514(6)	5121(7)	48(2)
C(19)	-1173(7)	2624(6)	4823(5)	35(2)
C(20)	4766(6)	22(6)	2845(5)	33(2)
C(21)	5543(8)	206(7)	1886(6)	47(2)
C(22)	6503(8)	-587(9)	1457(7)	60(3)
C(23)	6673(8)	-1540(9)	1987(9)	69(3)
C(24)	5880(10)	-1739(8)	2929(9)	68(3)
C(25)	4930(8)	-957(6)	3367(6)	45(2)
C(26)	2775(6)	518(5)	4643(5)	32(1)
C(27)	1765(7)	213(6)	4801(6)	38(2)
C(28)	1190(8)	-203(7)	5764(6)	46(2)
C(29)	1615(7)	-338(7)	6571(6)	46(2)
C(30)	2603(7)	-24(8)	6428(6)	49(2)
C(31)	3186(7)	394(7)	5456(5)	40(2)
C(32)	3619(7)	-861(7)	1284(7)	48(2)
C(33)	3463(9)	-1831(6)	1597(9)	61(3)
C(34)	2347(9)	-1975(7)	2094(8)	58(2)
C(35)	1384(8)	-1130(7)	2309(8)	54(2)
C(36)	1527(7)	-172(7)	2037(7)	45(2)
C(37)	2659(6)	5(5)	1494(5)	29(1)
C(38)	2841(6)	1025(5)	1151(5)	28(1)
C(39)	1905(7)	1937(6)	1003(4)	34(2)

G(40)	2133(7)	2807(5)	214(5)	33(2)
G(41)	1207(7)	3485(6)	-153(6)	42(2)
G(42)	1437(9)	4302(7)	-910(7)	59(3)
G(43)	2515(9)	4481(8)	-1313(7)	64(3)
G(44)	3430(8)	3827(8)	-955(7)	60(3)
G(45)	3261(8)	3001(7)	-192(6)	49(2)
G(100)	-4393(29)	4547(29)	-49(31)	241(15)
G(101)	-4477(32)	3694(30)	864(28)	233(14)
G(102)	-3152(28)	2662(25)	929(22)	197(11)
G(103)	-1666(42)	2000(40)	731(35)	298(20)
G(104)	-1223(29)	942(28)	427(24)	198(11)
G(105)	-4(31)	535(22)	-107(26)	200(12)

Table 18s. Bond lengths [Å] and angles [°] for 8.

Pt-C(39)	2.143(6)	Pt-C(38)	2.145(6)
Pt-P(2)	2.284(2)	Pt-P(1)	2.290(2)
P(1)-C(8)	1.844(8)	P(1)-C(14)	1.850(7)
P(1)-C(4)	1.856(7)	P(2)-C(26)	1.846(7)
P(2)-C(20)	1.863(7)	P(2)-C(1)	1.864(7)
O(1)-C(5)	1.3998(10)	O(1)-C(2)	1.3992(11)
O(1')-C(2')	1.42(2)	O(1')-C(5)	1.4012(10)
O(2)-C(5)	1.4001(10)	O(2)-C(3)	1.3999(10)
C(1)-C(2)	1.51(2)	C(1)-C(2')	1.59(2)
C(2)-C(3)	1.33(2)	C(2')-C(3)	1.40(2)
C(3)-C(4)	1.534(11)	C(5)-C(6)	1.5198(10)
C(5)-C(7)	1.5198(10)	C(5)-C(6')	1.5202(10)
C(8)-C(9)	1.407(10)	C(8)-C(13)	1.404(11)
C(9)-C(10)	1.392(12)	C(10)-C(11)	1.386(14)
C(11)-C(12)	1.393(14)	C(12)-C(13)	1.382(13)
C(14)-C(15)	1.404(9)	C(14)-C(19)	1.409(9)
C(15)-C(16)	1.391(12)	C(16)-C(17)	1.402(14)
C(17)-C(18)	1.374(14)	C(18)-C(19)	1.386(11)
C(20)-C(21)	1.390(11)	C(20)-C(25)	1.392(11)
C(21)-C(22)	1.414(13)	C(22)-C(23)	1.37(2)
C(23)-C(24)	1.39(2)	C(24)-C(25)	1.403(12)
C(26)-C(31)	1.388(10)	C(26)-C(27)	1.399(10)
C(27)-C(28)	1.391(11)	C(28)-C(29)	1.387(12)
C(29)-C(30)	1.387(12)	C(30)-C(31)	1.403(11)
C(32)-C(33)	1.396(13)	C(32)-C(37)	1.409(11)
C(33)-C(34)	1.382(14)	C(34)-C(35)	1.393(13)
C(35)-C(36)	1.374(12)	C(36)-C(37)	1.425(10)
C(37)-C(38)	1.477(10)	C(38)-C(39)	1.459(10)
C(39)-C(40)	1.482(10)	C(40)-C(45)	1.417(12)
C(40)-C(41)	1.414(10)	C(41)-C(42)	1.406(12)
C(42)-C(43)	1.35(2)	C(43)-C(44)	1.386(13)
C(44)-C(45)	1.407(12)	C(100)-C(101)	1.54(5)
C(100)-C(100)#1	1.62(6)	C(101)-C(102)	1.83(4)
C(102)-C(103)	1.74(5)	C(103)-C(104)	1.53(5)
C(104)-C(105)	1.43(4)	C(105)-C(105)#2	1.47(6)
C(39)-Pt-C(38)	39.8(3)	C(39)-Pt-P(2)	146.3(2)
C(38)-Pt-P(2)	106.8(2)	C(39)-Pt-P(1)	112.8(2)
C(38)-Pt-P(1)	151.8(2)	P(2)-Pt-P(1)	100.85(6)
C(8)-P(1)-C(14)	101.7(3)	C(8)-P(1)-C(4)	101.5(4)
C(14)-P(1)-C(4)	102.9(3)	C(8)-P(1)-Pt	119.6(3)
C(14)-P(1)-Pt	113.5(2)	C(4)-P(1)-Pt	115.5(3)
C(26)-P(2)-C(20)	103.2(3)	C(26)-P(2)-C(1)	104.9(3)
C(20)-P(2)-C(1)	101.3(3)	C(26)-P(2)-Pt	115.5(2)
C(20)-P(2)-Pt	115.8(2)	C(1)-P(2)-Pt	114.4(3)
C(5)-O(1)-C(2)	102.5(10)	C(2')-O(1')-C(5)	114.2(9)
C(5)-O(2)-C(3)	104.7(6)	C(2)-C(1)-P(2)	118.5(6)
C(2')-C(1)-P(2)	113.9(7)	C(3)-C(2)-O(1)	111.9(13)
C(3)-C(2)-C(1)	131.7(10)	O(1)-C(2)-C(1)	114.6(13)
C(3)-C(2')-O(1')	98.1(10)	C(3)-C(2')-C(1)	121.1(12)
O(1')-C(2')-C(1)	104.0(10)	C(2)-C(3)-O(2)	108.0(8)
C(2')-C(3)-O(2)	112.1(9)	C(2)-C(3)-C(4)	138.8(7)
C(2')-C(3)-C(4)	125.3(10)	O(2)-C(3)-C(4)	112.7(7)
C(3)-C(4)-P(1)	111.4(8)	O(2)-C(5)-O(1)	109.5(6)

O(2)-C(5)-C(6)	133.0(12)	O(1)-C(5)-C(6)	83.4(11)
O(2)-C(5)-C(7)	107.9(6)	O(1)-C(5)-C(7)	129.0(8)
C(6)-C(5)-C(7)	95.4(11)	O(2)-C(5)-C(6')	93.6(13)
C(7)-C(5)-C(6')	114.6(14)	O(2)-C(5)-O(1')	103.9(6)
C(7)-C(5)-O(1')	104.0(8)	C(6')-C(5)-O(1')	130.0(14)
C(9)-C(8)-C(13)	118.3(7)	C(9)-C(8)-P(1)	120.1(6)
C(13)-C(8)-P(1)	121.4(6)	C(10)-C(9)-C(8)	120.6(8)
C(11)-C(10)-C(9)	120.5(8)	C(10)-C(11)-C(12)	119.1(9)
C(13)-C(12)-C(11)	121.0(9)	C(12)-C(13)-C(8)	120.4(8)
C(15)-C(14)-C(19)	118.3(7)	C(15)-C(14)-P(1)	117.4(5)
C(19)-C(14)-P(1)	124.2(5)	C(16)-C(15)-C(14)	120.4(8)
C(15)-C(16)-C(17)	120.1(9)	C(18)-C(17)-C(16)	119.9(9)
C(17)-C(18)-C(19)	120.5(8)	C(18)-C(19)-C(14)	120.8(7)
C(21)-C(20)-C(25)	119.1(7)	C(21)-C(20)-P(2)	118.4(6)
C(25)-C(20)-P(2)	122.3(6)	C(20)-C(21)-C(22)	120.3(9)
C(23)-C(22)-C(21)	120.0(9)	C(22)-C(23)-C(24)	120.1(8)
C(23)-C(24)-C(25)	120.3(10)	C(20)-C(25)-C(24)	120.0(9)
C(31)-C(26)-C(27)	119.0(7)	C(31)-C(26)-P(2)	123.1(6)
C(27)-C(26)-P(2)	117.9(5)	C(28)-C(27)-C(26)	119.8(7)
C(27)-C(28)-C(29)	121.0(8)	C(28)-C(29)-C(30)	119.8(7)
C(29)-C(30)-C(31)	119.3(7)	C(26)-C(31)-C(30)	121.2(7)
C(33)-C(32)-C(37)	121.7(8)	C(32)-C(33)-C(34)	120.9(8)
C(35)-C(34)-C(33)	118.5(8)	C(36)-C(35)-C(34)	121.4(9)
C(35)-C(36)-C(37)	121.6(8)	C(32)-C(37)-C(36)	115.9(7)
C(32)-C(37)-C(38)	120.9(7)	C(36)-C(37)-C(38)	123.2(6)
C(39)-C(38)-C(37)	123.9(6)	C(39)-C(38)-Pt	70.1(4)
C(37)-C(38)-Pt	112.6(4)	C(38)-C(39)-C(40)	122.8(6)
C(38)-C(39)-Pt	70.2(4)	C(40)-C(39)-Pt	115.7(5)
C(45)-C(40)-C(41)	117.5(7)	C(45)-C(40)-C(39)	122.3(7)
C(41)-C(40)-C(39)	120.2(7)	C(42)-C(41)-C(40)	119.7(8)
C(43)-C(42)-C(41)	123.1(8)	C(42)-C(43)-C(44)	118.0(9)
C(43)-C(44)-C(45)	122.1(9)	C(44)-C(45)-C(40)	119.7(8)
C(101)-C(100)-C(100)#1	113(4)	C(100)-C(101)-C(102)	119(3)
C(103)-C(102)-C(101)	160(3)	C(104)-C(103)-C(102)	120(4)
C(105)-C(104)-C(103)	121(3)	C(105)#2-C(105)-C(104)	98(4)

Symmetry transformations used to generate equivalent atoms:

#1 -x-1,-y+1,-z #2 -x,-y,-z

Table 19s. Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 8.

The anisotropic displacement factor exponent takes the form:

$$-2\pi^2 [(ha^*)^2 U_{11} + \dots + 2hka^*b^*U_{12}]$$

	U11	U22	U33	U23	U13	U12
Pt	27(1)	26(1)	22(1)	-6(1)	-8(1)	-4(1)
P(1)	28(1)	29(1)	27(1)	-8(1)	-4(1)	-6(1)
P(2)	28(1)	29(1)	29(1)	-9(1)	-10(1)	-6(1)
O(2)	53(4)	35(3)	57(3)	-19(3)	-16(3)	-5(3)
C(1)	23(3)	33(4)	49(4)	-18(3)	-9(3)	-7(3)
C(3)	28(5)	81(8)	201(15)	-107(10)	-20(7)	2(5)
C(4)	19(3)	65(5)	46(4)	-32(4)	-11(3)	2(3)
C(5)	40(5)	55(6)	122(10)	-46(6)	9(5)	-21(5)
C(7)	73(8)	49(6)	231(18)	-41(9)	-95(11)	1(6)
C(8)	38(4)	37(4)	41(4)	-4(3)	0(3)	-15(3)
C(9)	41(4)	34(4)	46(4)	-11(3)	2(3)	-13(3)
C(10)	73(7)	52(6)	53(5)	6(4)	0(5)	-36(5)
C(11)	95(8)	30(4)	63(6)	-5(4)	-12(5)	-23(5)
C(12)	73(7)	37(5)	66(6)	-6(4)	-13(5)	-10(5)
C(13)	56(5)	39(4)	45(4)	-15(4)	4(4)	-12(4)
C(14)	26(3)	21(3)	33(3)	-6(2)	-14(3)	-2(2)
C(15)	42(4)	30(4)	45(4)	-2(3)	-26(3)	-10(3)
C(16)	59(6)	42(5)	83(7)	-5(5)	-43(5)	-16(4)
C(17)	44(5)	30(4)	94(7)	-21(4)	-7(5)	-11(4)
C(18)	55(5)	29(4)	53(5)	-5(3)	-3(4)	-19(4)
C(19)	39(4)	35(4)	34(3)	-4(3)	-8(3)	-15(3)
C(20)	30(4)	36(4)	37(3)	-15(3)	-19(3)	1(3)
C(21)	46(5)	60(6)	36(4)	-8(4)	-14(3)	-13(4)
C(22)	48(5)	92(8)	43(4)	-38(5)	-13(4)	-1(5)
C(23)	41(5)	83(8)	85(7)	-61(6)	-37(5)	34(5)
C(24)	81(8)	45(5)	75(7)	-30(5)	-30(6)	11(5)
C(25)	54(5)	34(4)	41(4)	-12(3)	-17(4)	2(4)
C(26)	32(4)	30(3)	35(3)	-12(3)	-13(3)	-3(3)
C(27)	43(4)	39(4)	38(4)	-7(3)	-16(3)	-16(3)
C(28)	38(4)	51(5)	48(4)	3(4)	-13(4)	-17(4)
C(29)	30(4)	58(5)	36(4)	3(4)	-9(3)	-1(4)
C(30)	28(4)	79(7)	36(4)	-10(4)	-12(3)	-6(4)
C(31)	31(4)	63(5)	28(3)	-2(3)	-15(3)	-10(4)
C(32)	31(4)	49(5)	59(5)	-21(4)	-7(4)	-4(4)
C(33)	49(5)	24(4)	96(7)	-13(4)	-13(5)	2(4)
C(34)	62(6)	31(4)	80(6)	-14(4)	-18(5)	-12(4)
C(35)	44(5)	43(5)	72(6)	-23(4)	-7(4)	-11(4)
C(36)	28(4)	42(5)	60(5)	-15(4)	-11(3)	0(3)
C(37)	30(3)	33(4)	26(3)	-5(3)	-15(3)	-3(3)
C(38)	23(3)	37(4)	30(3)	-10(3)	-15(3)	-1(3)
C(39)	41(4)	46(4)	17(3)	-10(3)	-10(3)	-10(3)
C(40)	42(4)	24(3)	22(3)	-3(2)	-9(3)	1(3)
C(41)	41(4)	38(4)	41(4)	-1(3)	-22(3)	3(3)
C(42)	56(6)	49(5)	54(5)	1(4)	-24(4)	10(4)
C(43)	58(6)	55(6)	54(5)	2(4)	-12(5)	2(5)
C(44)	38(5)	52(5)	59(5)	6(4)	0(4)	1(4)
C(45)	45(5)	42(5)	43(4)	-2(4)	-3(4)	-3(4)

Table 20s. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 8.

	x	y	z	U(eq)
H(2A)	3460(16)	3213(14)	3079(14)	77
H(2'A)	3305(13)	2246(11)	5050(11)	43
H(4A)	578(6)	3659(7)	4854(6)	50
H(4B)	1212(6)	2485(7)	4931(6)	50
H(6A)	4955(19)	4817(16)	3673(15)	108
H(6B)	3776(19)	5699(16)	3691(15)	108
H(6C)	4286(19)	4952(16)	2879(15)	108
H(6'A)	3302(28)	5015(16)	2894(17)	144
H(6'B)	4068(28)	5451(16)	3261(17)	144
H(6'C)	2667(28)	5750(16)	3722(17)	144
H(7A)	4336(11)	4588(9)	5122(9)	156
H(7B)	3396(11)	3983(9)	5796(9)	156
H(7C)	2964(11)	5156(9)	5438(9)	156
H(9A)	2034(7)	4215(6)	1431(6)	51
H(10A)	1804(10)	5905(8)	736(7)	75
H(11A)	328(11)	7157(7)	1621(8)	78
H(12A)	-967(10)	6698(7)	3185(8)	75
H(13A)	-693(8)	5028(7)	3929(6)	61
H(15A)	-825(7)	3295(6)	2402(6)	44
H(16A)	-2769(9)	3180(7)	2929(8)	66
H(17A)	-3661(8)	2607(6)	4627(9)	69
H(18A)	-2683(8)	2312(6)	5807(7)	57
H(19A)	-773(7)	2478(6)	5306(5)	43
H(21A)	5430(8)	861(7)	1521(6)	56
H(22A)	7025(8)	-458(9)	807(7)	72
H(23A)	7328(8)	-2061(9)	1712(9)	82
H(24A)	5979(10)	-2401(8)	3278(9)	82
H(25A)	4404(8)	-1094(6)	4012(6)	54
H(27A)	1476(7)	289(6)	4258(6)	45
H(28A)	503(8)	-396(7)	5870(6)	56
H(29A)	1234(7)	-642(7)	7213(6)	56
H(30A)	2880(7)	-89(8)	6975(6)	59
H(31A)	3868(7)	593(7)	5354(5)	48
H(32A)	4383(7)	-784(7)	924(7)	57
H(33A)	4127(9)	-2394(6)	1468(9)	73
H(34A)	2240(9)	-2627(7)	2283(8)	69
H(35A)	620(8)	-1217(7)	2647(8)	64
H(36A)	863(7)	380(7)	2213(7)	54
H(38A)	3640(6)	1039(5)	680(5)	34
H(39A)	1138(7)	1806(6)	1114(4)	41
H(41A)	441(7)	3391(6)	107(6)	50
H(42A)	811(9)	4744(7)	-1146(7)	71
H(43A)	2641(9)	5031(8)	-1820(7)	76
H(44A)	4187(8)	3940(8)	-1230(7)	72
H(45A)	3894(8)	2581(7)	48(6)	59

Table 2|5 Crystal data and structure refinement for 6.

Identification code	glu40
Empirical formula	$C_{66}H_{60}OP_2Pt$
Formula weight	1126.17
Temperature	213(2) K
Wavelength	0.71073 Å
Crystal system	Orthorhombic
Space group	$P2_12_12_1$
Unit cell dimensions	$a = 11.0429(2)$ Å $\alpha = 90^\circ$ $b = 16.4825(3)$ Å $\beta = 90^\circ$ $c = 28.8459(4)$ Å $\gamma = 90^\circ$
Volume, Z	$5250.38(15)$ Å ³ , 4
Density (calculated)	1.425 g/cm ³
Absorption coefficient	2.777 mm ⁻¹
F(000)	2288
Crystal size	0.30 x 0.30 x 0.20 mm
Crystal color	Yellow plate
θ range for data collection	1.41 to 28.33°
Limiting indices	$-14 \leq h \leq 14$, $-21 \leq k \leq 21$, $-31 \leq l \leq 37$
Reflections collected	32698
Independent reflections	12072 ($R_{int} = 0.0333$)
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	12066 / 0 / 631
Goodness-of-fit on F^2	1.019
Final R indices [$I > 2\sigma(I)$]	$R1 = 0.0298$, $wR2 = 0.0614$
R indices (all data)	$R1 = 0.0355$, $wR2 = 0.0647$
Absolute structure parameter	0.031(5)
Largest diff. peak and hole	0.883 and -1.120 eÅ ⁻³

Table 22S Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for **6**. $U(\text{eq})$ is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Pt	2998.8(1)	10384.1(1)	5694.9(0)	22(1)
P(1)	1795(1)	10442(1)	6338(1)	23(1)
P(2)	4206(1)	9379(1)	5981(1)	22(1)
C(1)	1524(3)	9425(2)	6574(1)	24(1)
C(2)	446(3)	9014(3)	6429(1)	29(1)
C(3)	248(3)	8220(3)	6526(2)	33(1)
C(4)	1102(3)	7761(2)	6787(1)	29(1)
C(5)	926(4)	6933(3)	6894(2)	38(1)
C(6)	1751(4)	6489(3)	7138(2)	41(1)
C(7)	2830(4)	6874(3)	7294(2)	39(1)
C(8)	3026(4)	7680(2)	7197(1)	32(1)
C(9)	2178(3)	8154(2)	6941(1)	26(1)
C(10)	2406(3)	8992(3)	6818(1)	24(1)
C(11)	3627(3)	9340(2)	6943(1)	25(1)
C(12)	3898(3)	9487(2)	7427(1)	27(1)
C(13)	3042(4)	9379(2)	7789(1)	34(1)
C(14)	3325(4)	9500(3)	8242(2)	44(1)
C(15)	4502(4)	9736(3)	8367(2)	49(1)
C(16)	5354(4)	9863(3)	8033(2)	42(1)
C(17)	5083(3)	9749(2)	7561(1)	30(1)
C(18)	5950(4)	9874(2)	7206(1)	32(1)
C(19)	5678(3)	9755(2)	6750(1)	27(1)
C(20)	4510(3)	9469(2)	6609(1)	22(1)
C(21)	2379(3)	11041(3)	6827(2)	26(1)
C(22)	1895(4)	10961(2)	7270(1)	32(1)
C(23)	2277(3)	11467(3)	7623(2)	36(1)
C(24)	3130(4)	12075(3)	7545(2)	41(1)
C(25)	3617(4)	12141(3)	7101(2)	48(1)
C(26)	3254(4)	11628(3)	6745(2)	38(1)
C(27)	3489(5)	12631(4)	7936(2)	68(2)
C(28)	282(3)	10895(2)	6286(1)	26(1)
C(29)	-637(3)	10808(3)	6621(2)	34(1)
C(30)	-1705(3)	11251(3)	6578(2)	36(1)
C(31)	-1885(4)	11794(3)	6219(2)	37(1)
C(32)	-989(4)	11882(3)	5894(2)	41(1)
C(33)	85(3)	11421(3)	5922(2)	36(1)
C(34)	-3035(5)	12291(4)	6190(2)	63(2)
C(35)	3639(3)	8348(2)	5913(1)	25(1)
C(36)	2718(3)	8173(2)	5598(1)	31(1)
C(37)	2292(4)	7386(3)	5550(2)	39(1)
C(38)	2786(4)	6753(3)	5810(1)	35(1)
C(39)	3717(4)	6930(3)	6116(2)	34(1)
C(40)	4131(3)	7713(2)	6171(1)	29(1)
C(41)	2314(4)	5883(3)	5774(2)	55(1)
C(42)	5753(3)	9330(2)	5734(1)	27(1)
C(43)	6334(3)	10047(3)	5628(2)	33(1)
C(44)	7531(4)	10053(3)	5475(2)	39(1)

C(45)	8175(3)	9337(3)	5417(1)	39(1)
C(46)	7586(4)	8619(3)	5517(2)	42(1)
C(47)	6384(3)	8605(3)	5673(2)	36(1)
C(48)	9453(4)	9344(4)	5226(2)	57(2)
C(49)	4050(4)	12326(3)	5451(2)	39(1)
C(50)	4289(4)	13105(3)	5592(2)	49(1)
C(51)	3390(5)	13686(3)	5566(2)	61(2)
C(52)	2256(4)	13477(3)	5405(2)	54(1)
C(53)	2028(4)	12689(3)	5265(2)	42(1)
C(54)	2908(4)	12078(3)	5289(1)	32(1)
C(55)	2617(3)	11240(3)	5154(1)	30(1)
C(56)	3525(3)	10659(3)	5008(1)	29(1)
C(57)	3261(3)	9969(3)	4692(1)	34(1)
C(58)	4203(4)	9474(4)	4542(2)	64(2)
C(59)	4000(5)	8807(4)	4260(2)	75(2)
C(60)	2832(5)	8597(3)	4128(2)	57(1)
C(61)	1892(4)	9066(3)	4284(2)	54(1)
C(62)	2088(4)	9750(3)	4559(2)	45(1)
C(100)	311(10)	4546(6)	6692(4)	132(4)
C(101)	53(9)	3691(5)	6532(3)	110(3)
C(102)	383(10)	3189(5)	6926(4)	143(5)
C(103)	891(10)	3761(5)	7270(3)	112(3)
O(100)	545(7)	4517(4)	7153(2)	128(2)

Table 3 Bond lengths [Å] and angles [°] for 6.

Pt-C(56)	2.115(4)	Pt-C(55)	2.146(4)
Pt-P(2)	2.2806(9)	Pt-P(1)	2.2840(8)
P(1)-C(1)	1.833(4)	P(1)-C(28)	1.837(4)
P(1)-C(21)	1.838(4)	P(2)-C(35)	1.821(4)
P(2)-C(20)	1.850(4)	P(2)-C(42)	1.853(3)
C(1)-C(10)	1.398(5)	C(1)-C(2)	1.432(5)
C(2)-C(3)	1.356(6)	C(3)-C(4)	1.424(6)
C(4)-C(5)	1.412(6)	C(4)-C(9)	1.424(5)
C(5)-C(6)	1.365(6)	C(6)-C(7)	1.422(6)
C(7)-C(8)	1.374(6)	C(8)-C(9)	1.426(5)
C(9)-C(10)	1.449(5)	C(10)-C(11)	1.508(5)
C(11)-C(20)	1.387(5)	C(11)-C(12)	1.446(5)
C(12)-C(13)	1.421(5)	C(12)-C(17)	1.431(5)
C(13)-C(14)	1.358(6)	C(14)-C(15)	1.404(6)
C(15)-C(16)	1.364(6)	C(16)-C(17)	1.406(6)
C(17)-C(18)	1.416(5)	C(18)-C(19)	1.365(5)
C(19)-C(20)	1.433(5)	C(21)-C(26)	1.389(6)
C(21)-C(22)	1.391(5)	C(22)-C(23)	1.381(6)
C(23)-C(24)	1.394(6)	C(24)-C(25)	1.394(6)
C(24)-C(27)	1.505(6)	C(25)-C(26)	1.388(6)
C(28)-C(33)	1.379(6)	C(28)-C(29)	1.410(5)
C(29)-C(30)	1.393(5)	C(30)-C(31)	1.382(6)
C(31)-C(32)	1.371(6)	C(31)-C(34)	1.513(6)
C(32)-C(33)	1.411(6)	C(35)-C(40)	1.394(5)
C(35)-C(36)	1.393(5)	C(36)-C(37)	1.387(6)
C(37)-C(38)	1.397(6)	C(38)-C(39)	1.385(6)
C(38)-C(41)	1.529(6)	C(39)-C(40)	1.379(6)
C(42)-C(43)	1.379(5)	C(42)-C(47)	1.394(5)
C(43)-C(44)	1.394(5)	C(44)-C(45)	1.387(7)
C(45)-C(46)	1.381(7)	C(45)-C(48)	1.515(5)
C(46)-C(47)	1.401(5)	C(49)-C(50)	1.373(6)
C(49)-C(54)	1.406(6)	C(50)-C(51)	1.381(7)
C(51)-C(52)	1.381(7)	C(52)-C(53)	1.383(7)
C(53)-C(54)	1.400(6)	C(54)-C(55)	1.471(6)
C(55)-C(56)	1.450(5)	C(56)-C(57)	1.485(6)
C(57)-C(58)	1.390(6)	C(57)-C(62)	1.399(6)
C(58)-C(59)	1.387(8)	C(59)-C(60)	1.388(7)
C(60)-C(61)	1.369(7)	C(61)-C(62)	1.396(7)
C(100)-O(100)	1.355(10)	C(100)-C(101)	1.510(12)
C(101)-C(102)	1.451(12)	C(102)-C(103)	1.479(11)
C(103)-O(100)	1.348(9)		
C(56)-Pt-C(55)	39.79(14)	C(56)-Pt-P(2)	109.48(11)
C(55)-Pt-P(2)	148.81(10)	C(56)-Pt-P(1)	155.83(10)
C(55)-Pt-P(1)	116.67(10)	P(2)-Pt-P(1)	94.41(3)
C(1)-P(1)-C(28)	104.7(2)	C(1)-P(1)-C(21)	105.3(2)
C(28)-P(1)-C(21)	99.4(2)	C(1)-P(1)-Pt	111.00(12)
C(28)-P(1)-Pt	118.69(13)	C(21)-P(1)-Pt	116.16(13)
C(35)-P(2)-C(20)	104.0(2)	C(35)-P(2)-C(42)	103.6(2)
C(20)-P(2)-C(42)	102.3(2)	C(35)-P(2)-Pt	115.99(12)
C(20)-P(2)-Pt	113.70(11)	C(42)-P(2)-Pt	115.59(12)
C(10)-C(1)-C(2)	119.1(4)	C(10)-C(1)-P(1)	122.7(3)
C(2)-C(1)-P(1)	117.4(3)	C(3)-C(2)-C(1)	122.0(4)
C(2)-C(3)-C(4)	121.0(4)	C(5)-C(4)-C(3)	122.5(4)

C(5)-C(4)-C(9)	119.1(4)	C(3)-C(4)-C(9)	118.4(4)
C(6)-C(5)-C(4)	122.6(4)	C(5)-C(6)-C(7)	118.9(4)
C(8)-C(7)-C(6)	119.9(4)	C(7)-C(8)-C(9)	122.1(4)
C(4)-C(9)-C(8)	117.4(4)	C(4)-C(9)-C(10)	120.2(4)
C(8)-C(9)-C(10)	122.3(3)	C(1)-C(10)-C(9)	119.2(3)
C(1)-C(10)-C(11)	123.3(4)	C(9)-C(10)-C(11)	117.4(3)
C(20)-C(11)-C(12)	119.9(3)	C(20)-C(11)-C(10)	121.3(3)
C(12)-C(11)-C(10)	118.7(3)	C(13)-C(12)-C(17)	116.5(3)
C(13)-C(12)-C(11)	123.4(3)	C(17)-C(12)-C(11)	120.1(3)
C(14)-C(13)-C(12)	122.4(4)	C(13)-C(14)-C(15)	120.1(4)
C(16)-C(15)-C(14)	119.9(4)	C(15)-C(16)-C(17)	121.2(4)
C(16)-C(17)-C(18)	122.4(4)	C(16)-C(17)-C(12)	119.8(4)
C(18)-C(17)-C(12)	117.8(3)	C(19)-C(18)-C(17)	121.8(4)
C(18)-C(19)-C(20)	121.2(3)	C(11)-C(20)-C(19)	119.2(3)
C(11)-C(20)-P(2)	122.7(3)	C(19)-C(20)-P(2)	117.9(3)
C(26)-C(21)-C(22)	119.3(4)	C(26)-C(21)-P(1)	119.3(3)
C(22)-C(21)-P(1)	121.3(3)	C(23)-C(22)-C(21)	120.2(4)
C(22)-C(23)-C(24)	121.5(4)	C(23)-C(24)-C(25)	117.6(4)
C(23)-C(24)-C(27)	119.8(4)	C(25)-C(24)-C(27)	122.6(4)
C(26)-C(25)-C(24)	121.4(4)	C(25)-C(26)-C(21)	120.0(4)
C(33)-C(28)-C(29)	118.3(4)	C(33)-C(28)-P(1)	117.5(3)
C(29)-C(28)-P(1)	123.9(3)	C(30)-C(29)-C(28)	119.6(4)
C(31)-C(30)-C(29)	122.0(4)	C(32)-C(31)-C(30)	118.5(4)
C(32)-C(31)-C(34)	120.7(4)	C(30)-C(31)-C(34)	120.9(4)
C(31)-C(32)-C(33)	120.7(4)	C(28)-C(33)-C(32)	120.9(4)
C(40)-C(35)-C(36)	118.4(4)	C(40)-C(35)-P(2)	120.6(3)
C(36)-C(35)-P(2)	120.9(3)	C(37)-C(36)-C(35)	120.5(4)
C(36)-C(37)-C(38)	120.8(4)	C(39)-C(38)-C(37)	118.4(4)
C(39)-C(38)-C(41)	119.6(4)	C(37)-C(38)-C(41)	122.0(4)
C(40)-C(39)-C(38)	121.0(4)	C(39)-C(40)-C(35)	120.9(4)
C(43)-C(42)-C(47)	118.3(3)	C(43)-C(42)-P(2)	118.5(3)
C(47)-C(42)-P(2)	123.2(3)	C(42)-C(43)-C(44)	121.2(4)
C(45)-C(44)-C(43)	121.2(4)	C(44)-C(45)-C(46)	117.5(4)
C(44)-C(45)-C(48)	121.0(4)	C(46)-C(45)-C(48)	121.4(4)
C(45)-C(46)-C(47)	121.8(4)	C(42)-C(47)-C(46)	120.0(4)
C(50)-C(49)-C(54)	122.8(4)	C(49)-C(50)-C(51)	119.7(5)
C(52)-C(51)-C(50)	119.8(5)	C(51)-C(52)-C(53)	119.9(5)
C(52)-C(53)-C(54)	122.3(4)	C(53)-C(54)-C(49)	115.5(4)
C(53)-C(54)-C(55)	120.6(4)	C(49)-C(54)-C(55)	123.8(4)
C(56)-C(55)-C(54)	123.1(3)	C(56)-C(55)-Pt	69.0(2)
C(54)-C(55)-Pt	112.4(3)	C(55)-C(56)-C(57)	123.3(3)
C(55)-C(56)-Pt	71.3(2)	C(57)-C(56)-Pt	110.9(3)
C(58)-C(57)-C(62)	117.2(4)	C(58)-C(57)-C(56)	119.5(4)
C(62)-C(57)-C(56)	123.2(4)	C(57)-C(58)-C(59)	121.7(5)
C(60)-C(59)-C(58)	120.6(5)	C(61)-C(60)-C(59)	118.3(5)
C(60)-C(61)-C(62)	121.7(5)	C(61)-C(62)-C(57)	120.5(5)
O(100)-C(100)-C(101)	107.6(7)	C(102)-C(101)-C(100)	104.3(7)
C(101)-C(102)-C(103)	104.9(7)	O(100)-C(103)-C(102)	108.3(7)
C(103)-O(100)-C(100)	109.4(7)		

Symmetry transformations used to generate equivalent atoms:

Table 245 Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for 6.

The anisotropic displacement factor exponent takes the form:

$$-2\pi^2 [(ha^*)^2 U_{11} + \dots + 2hka^*b^* U_{12}]$$

	U11	U22	U33	U23	U13	U12
Pt	20(1)	25(1)	21(1)	1(1)	1(1)	2(1)
P(1)	21(1)	26(1)	22(1)	0(1)	2(1)	2(1)
P(2)	20(1)	24(1)	23(1)	-1(1)	0(1)	1(1)
C(1)	24(2)	25(2)	24(2)	-2(2)	2(1)	1(1)
C(2)	21(2)	37(2)	28(2)	-3(2)	0(1)	0(2)
C(3)	27(2)	34(2)	39(2)	-6(2)	2(2)	-12(2)
C(4)	27(2)	29(2)	31(2)	2(2)	9(2)	-7(2)
C(5)	40(2)	33(2)	40(2)	0(2)	9(2)	-11(2)
C(6)	55(3)	24(2)	44(3)	7(2)	9(2)	-9(2)
C(7)	46(3)	33(2)	39(2)	8(2)	5(2)	2(2)
C(8)	33(2)	34(2)	29(2)	7(2)	1(2)	0(2)
C(9)	25(2)	27(2)	25(2)	-2(2)	4(1)	-1(2)
C(10)	27(2)	28(2)	19(2)	0(2)	4(1)	-3(2)
C(11)	27(2)	22(2)	25(2)	2(2)	-3(1)	1(2)
C(12)	31(2)	25(2)	26(2)	5(2)	-2(1)	0(2)
C(13)	34(2)	39(2)	29(2)	0(2)	2(2)	-2(2)
C(14)	57(3)	46(3)	30(2)	1(2)	9(2)	-5(2)
C(15)	65(3)	59(4)	24(2)	0(2)	-7(2)	-7(3)
C(16)	43(2)	54(3)	31(2)	-5(2)	-9(2)	-11(2)
C(17)	32(2)	30(2)	28(2)	1(2)	-6(2)	-1(2)
C(18)	30(2)	33(2)	33(2)	-1(2)	-8(2)	-6(2)
C(19)	23(2)	27(2)	31(2)	0(2)	-2(1)	-1(1)
C(20)	22(2)	16(2)	29(2)	1(2)	-2(1)	2(1)
C(21)	23(2)	25(2)	29(2)	-2(2)	0(1)	4(2)
C(22)	35(2)	32(2)	28(2)	-3(2)	4(2)	-2(2)
C(23)	34(2)	46(3)	27(2)	-3(2)	3(2)	-2(2)
C(24)	33(2)	48(3)	41(2)	-11(2)	-7(2)	-5(2)
C(25)	42(2)	54(3)	49(3)	-6(3)	1(2)	-24(2)
C(26)	35(2)	47(3)	31(2)	-1(2)	3(2)	-9(2)
C(27)	69(3)	78(4)	56(4)	-17(3)	-11(3)	-32(3)
C(28)	22(2)	26(2)	31(2)	-5(2)	1(1)	0(2)
C(29)	30(2)	43(3)	29(2)	2(2)	3(2)	7(2)
C(30)	26(2)	47(3)	36(2)	-9(2)	5(2)	4(2)
C(31)	27(2)	36(2)	47(2)	-13(2)	-9(2)	6(2)
C(32)	34(2)	43(3)	44(3)	10(2)	-4(2)	8(2)
C(33)	26(2)	43(3)	39(2)	3(2)	2(2)	5(2)
C(34)	37(2)	73(4)	78(4)	-16(3)	-11(3)	28(3)
C(35)	20(2)	29(2)	26(2)	-6(2)	1(1)	-1(2)
C(36)	28(2)	31(2)	33(2)	-6(2)	-3(1)	4(2)
C(37)	30(2)	44(3)	43(3)	-13(2)	-2(2)	-5(2)
C(38)	37(2)	29(2)	39(2)	-11(2)	13(2)	-7(2)
C(39)	36(2)	32(2)	34(2)	-1(2)	9(2)	4(2)
C(40)	26(2)	33(2)	29(2)	-1(2)	0(2)	0(2)
C(41)	57(3)	40(3)	70(4)	-19(3)	14(2)	-16(2)
C(42)	22(2)	36(2)	23(2)	3(2)	0(2)	2(1)
C(43)	31(2)	35(2)	32(2)	-4(2)	2(2)	-3(2)
C(44)	31(2)	52(3)	34(2)	-5(2)	4(2)	-14(2)

C(45)	22(2)	65(3)	31(2)	-5(2)	1(2)	-2(2)
C(46)	33(2)	48(3)	44(3)	-5(2)	5(2)	14(2)
C(47)	30(2)	40(2)	39(2)	-1(2)	7(2)	5(2)
C(48)	26(2)	101(5)	44(3)	-5(3)	7(2)	-6(2)
C(49)	31(2)	34(2)	50(3)	7(2)	-3(2)	6(2)
C(50)	40(2)	38(3)	68(4)	4(2)	-8(2)	1(2)
C(51)	60(3)	32(3)	91(5)	3(3)	-6(3)	7(2)
C(52)	43(3)	36(3)	82(4)	17(3)	4(2)	13(2)
C(53)	30(2)	43(2)	53(3)	19(2)	1(2)	9(2)
C(54)	27(2)	38(2)	32(2)	13(2)	2(2)	6(2)
C(55)	23(2)	37(2)	30(2)	9(2)	1(1)	3(2)
C(56)	24(2)	40(2)	24(2)	7(2)	3(1)	0(2)
C(57)	33(2)	46(2)	24(2)	3(2)	0(2)	-2(2)
C(58)	37(2)	90(5)	64(3)	-41(3)	6(2)	-2(3)
C(59)	59(3)	87(5)	79(4)	-50(4)	8(3)	-3(3)
C(60)	69(4)	55(3)	47(3)	-12(2)	-3(3)	-13(3)
C(61)	47(2)	57(3)	60(3)	-1(3)	-12(3)	-14(2)
C(62)	34(2)	56(3)	47(3)	4(2)	-1(2)	-4(2)
C(100)	171(9)	104(7)	120(8)	50(7)	-42(7)	-55(7)
C(101)	144(8)	95(7)	92(6)	-22(5)	-1(6)	-13(6)
C(102)	173(10)	53(5)	204(13)	-22(7)	-78(9)	8(5)
C(103)	175(9)	79(6)	83(6)	15(5)	-14(6)	-25(6)
O(100)	223(7)	65(4)	94(4)	-9(4)	-4(4)	-22(4)
