

Table 2. Anisotropic Displacement Parameters (continued)

atom	U ₁₁	U ₂₂	U ₃₃	U ₁₂	U ₁₃	U ₂₃
C(28)	0.034(5)	0.026(4)	0.031(5)	-0.010(4)	0.017(4)	-0.011(4)
C(29)	0.046(5)	0.024(4)	0.033(5)	-0.001(4)	0.019(4)	-0.007(4)
C(30)	0.028(4)	0.027(4)	0.030(4)	0.003(3)	0.014(4)	-0.001(3)
C(31)	0.12(2)	0.13(2)	0.08(1)	0.03(1)	0.01(1)	0.02(1)

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

Table 3. Bond lengths (Å)

atom	atom	distance	atom	atom	distance
Ru(1)	O(4)	2.172(6)	Ru(1)	C(2)	2.152(8)
Ru(1)	C(3)	2.146(7)	Ru(1)	C(8)	2.20(1)
Ru(1)	C(9)	2.12(1)	Ru(1)	C(10)	2.236(9)
Ru(1)	C(11)	2.248(9)	Ru(1)	C(12)	2.18(1)
Ru(1)	C(13)	2.20(1)	Ru(2)	O(1)	2.149(5)
Ru(2)	C(17)	2.152(7)	Ru(2)	C(18)	2.146(8)
Ru(2)	C(23)	2.204(8)	Ru(2)	C(24)	2.133(8)
Ru(2)	C(25)	2.259(8)	Ru(2)	C(26)	2.238(8)
Ru(2)	C(27)	2.182(8)	Ru(2)	C(28)	2.222(8)
Cl(1)	C(31)	1.79(2)	Cl(2)	C(31)	1.49(2)
O(1)	C(1)	1.278(9)	O(2)	C(4)	1.225(9)
O(3)	C(5)	1.342(9)	O(3)	C(7)	1.43(1)
O(4)	C(16)	1.275(9)	O(5)	C(19)	1.23(1)
O(6)	C(20)	1.34(1)	O(6)	C(22)	1.42(1)
C(1)	C(2)	1.41(1)	C(1)	C(6)	1.45(1)
C(2)	C(3)	1.46(1)	C(2)	C(17)	1.50(1)
C(3)	C(4)	1.45(1)	C(4)	C(5)	1.50(1)
C(5)	C(6)	1.34(1)	C(8)	C(9)	1.42(2)
C(8)	C(15)	1.52(2)	C(9)	C(10)	1.39(2)
C(10)	C(11)	1.37(2)	C(11)	C(12)	1.42(2)
C(12)	C(13)	1.41(2)	C(13)	C(14)	1.49(2)
C(14)	C(15)	1.45(2)	C(16)	C(17)	1.42(1)
C(16)	C(21)	1.45(1)	C(17)	C(18)	1.45(1)
C(18)	C(19)	1.45(1)	C(19)	C(20)	1.49(1)
C(20)	C(21)	1.35(1)	C(23)	C(24)	1.42(1)
C(23)	C(30)	1.51(1)	C(24)	C(25)	1.42(1)
C(25)	C(26)	1.40(1)	C(26)	C(27)	1.44(1)
C(27)	C(28)	1.41(1)	C(28)	C(29)	1.50(1)
C(29)	C(30)	1.50(1)			

Table 4. Bond lengths involving hydrogens (Å)

atom	atom	distance	atom	atom	distance
Ru(1)	O(4)	2.172(6)	Ru(1)	C(2)	2.152(8)
Ru(1)	C(3)	2.146(7)	Ru(1)	C(8)	2.20(1)
Ru(1)	C(9)	2.12(1)	Ru(1)	C(10)	2.236(9)
Ru(1)	C(11)	2.248(9)	Ru(1)	C(12)	2.18(1)
Ru(1)	C(13)	2.20(1)	Ru(2)	O(1)	2.149(5)
Ru(2)	C(17)	2.152(7)	Ru(2)	C(18)	2.146(8)
Ru(2)	C(23)	2.204(8)	Ru(2)	C(24)	2.133(8)
Ru(2)	C(25)	2.259(8)	Ru(2)	C(26)	2.238(8)
Ru(2)	C(27)	2.182(8)	Ru(2)	C(28)	2.222(8)
C(3)	H(1)	0.950(9)	C(6)	H(2)	0.950(9)
C(7)	H(3)	0.95(1)	C(7)	H(4)	0.95(1)
C(7)	H(5)	0.95(1)	C(8)	H(6)	0.95(1)
C(9)	H(7)	0.95(1)	C(10)	H(8)	0.95(2)
C(11)	H(9)	0.95(2)	C(12)	H(10)	0.95(1)
C(13)	H(11)	0.95(1)	C(14)	H(12)	0.95(2)
C(14)	H(13)	0.95(2)	C(15)	H(14)	0.95(2)
C(15)	H(15)	0.95(1)	C(18)	H(16)	0.95(1)
C(21)	H(17)	0.95(1)	C(22)	H(18)	0.75(1)
C(22)	H(19)	0.99(1)	C(22)	H(20)	0.84(1)
C(23)	H(21)	0.95(1)	C(24)	H(22)	0.95(1)
C(25)	H(23)	0.95(1)	C(26)	H(24)	0.95(1)
C(27)	H(25)	0.95(1)	C(28)	H(26)	0.95(1)
C(29)	H(27)	0.95(1)	C(29)	H(28)	0.95(1)
C(30)	H(29)	0.95(1)	C(30)	H(30)	0.95(1)
C(31)	H(31)	0.95(3)	C(31)	H(32)	0.95(3)

Table 5. Bond angles (°)

atom	atom	atom	angle	atom	atom	atom	angle
O(4)	Ru(1)	C(2)	78.3(3)	O(4)	Ru(1)	C(3)	84.1(3)
C(2)	Ru(1)	C(3)	39.6(3)	O(4)	Ru(1)	C(8)	175.8(3)
C(2)	Ru(1)	C(8)	105.0(3)	C(3)	Ru(1)	C(8)	100.1(4)
O(4)	Ru(1)	C(9)	138.8(4)	C(2)	Ru(1)	C(9)	101.7(4)
C(3)	Ru(1)	C(9)	122.2(4)	C(8)	Ru(1)	C(9)	38.4(5)
O(4)	Ru(1)	C(10)	108.8(4)	C(2)	Ru(1)	C(10)	123.4(4)
C(3)	Ru(1)	C(10)	157.6(4)	C(8)	Ru(1)	C(10)	67.3(5)
C(9)	Ru(1)	C(10)	37.1(5)	O(4)	Ru(1)	C(11)	91.0(3)
C(2)	Ru(1)	C(11)	151.1(4)	C(3)	Ru(1)	C(11)	166.5(4)
C(8)	Ru(1)	C(11)	84.9(4)	C(9)	Ru(1)	C(11)	69.0(5)
O(4)	Ru(1)	C(12)	86.8(3)	C(2)	Ru(1)	C(12)	162.0(4)
C(3)	Ru(1)	C(12)	129.4(4)	C(8)	Ru(1)	C(12)	90.3(4)
C(9)	Ru(1)	C(12)	96.1(4)	O(4)	Ru(1)	C(13)	104.3(4)
C(2)	Ru(1)	C(13)	137.3(4)	C(3)	Ru(1)	C(13)	97.8(4)
C(8)	Ru(1)	C(13)	75.1(5)	C(9)	Ru(1)	C(13)	102.6(4)
C(10)	Ru(1)	C(11)	35.5(5)	C(10)	Ru(1)	C(12)	70.9(5)
C(11)	Ru(1)	C(12)	37.5(5)	C(10)	Ru(1)	C(13)	96.6(4)
C(11)	Ru(1)	C(13)	71.2(5)	C(12)	Ru(1)	C(13)	37.6(5)
O(1)	Ru(2)	C(17)	78.7(3)	O(1)	Ru(2)	C(18)	84.2(3)
C(17)	Ru(2)	C(18)	39.5(3)	O(1)	Ru(2)	C(23)	174.6(3)
C(17)	Ru(2)	C(23)	104.7(3)	C(18)	Ru(2)	C(23)	101.0(3)
O(1)	Ru(2)	C(24)	137.7(3)	C(17)	Ru(2)	C(24)	100.2(3)
C(18)	Ru(2)	C(24)	121.7(3)	C(23)	Ru(2)	C(24)	38.1(3)
O(1)	Ru(2)	C(25)	107.4(3)	C(17)	Ru(2)	C(25)	121.8(3)
C(18)	Ru(2)	C(25)	156.9(3)	C(23)	Ru(2)	C(25)	67.3(3)
C(24)	Ru(2)	C(25)	37.6(3)	O(1)	Ru(2)	C(26)	90.1(3)
C(17)	Ru(2)	C(26)	150.3(3)	C(18)	Ru(2)	C(26)	166.8(3)
C(23)	Ru(2)	C(26)	85.0(3)	C(24)	Ru(2)	C(26)	70.0(3)
O(1)	Ru(2)	C(27)	86.2(3)	C(17)	Ru(2)	C(27)	161.8(3)
C(18)	Ru(2)	C(27)	129.5(3)	C(23)	Ru(2)	C(27)	91.2(3)
C(24)	Ru(2)	C(27)	97.8(3)	O(1)	Ru(2)	C(28)	104.5(3)
C(17)	Ru(2)	C(28)	138.2(3)	C(18)	Ru(2)	C(28)	98.7(3)
C(23)	Ru(2)	C(28)	75.9(3)	C(24)	Ru(2)	C(28)	103.6(3)
C(25)	Ru(2)	C(26)	36.2(3)	C(25)	Ru(2)	C(27)	72.3(3)
C(26)	Ru(2)	C(27)	37.9(3)	C(25)	Ru(2)	C(28)	97.5(3)
C(26)	Ru(2)	C(28)	71.2(3)	C(27)	Ru(2)	C(28)	37.3(3)
Ru(2)	O(1)	C(1)	113.4(5)	C(5)	O(3)	C(7)	117.2(6)

Table 5. Bond angles (°) -- continued

atom	atom	atom	angle	atom	atom	atom	angle
Ru(1)	O(4)	C(16)	113.6(5)	C(20)	O(6)	C(22)	117.4(8)
O(1)	C(1)	C(2)	120.2(7)	O(1)	C(1)	C(6)	119.7(7)
C(2)	C(1)	C(6)	120.1(7)	Ru(1)	C(2)	C(1)	115.6(6)
Ru(1)	C(2)	C(3)	70.0(4)	C(1)	C(2)	C(3)	120.6(7)
Ru(1)	C(2)	C(17)	105.8(5)	C(1)	C(2)	C(17)	114.3(7)
C(3)	C(2)	C(17)	120.5(7)	Ru(1)	C(3)	C(2)	70.4(4)
Ru(1)	C(3)	C(4)	116.0(5)	C(2)	C(3)	C(4)	119.6(7)
O(2)	C(4)	C(3)	124.5(7)	O(2)	C(4)	C(5)	119.4(7)
C(3)	C(4)	C(5)	116.1(7)	O(3)	C(5)	C(4)	111.7(7)
O(3)	C(5)	C(6)	125.2(7)	C(4)	C(5)	C(6)	123.1(7)
C(1)	C(6)	C(5)	120.3(7)	Ru(1)	C(8)	C(9)	67.8(6)
Ru(1)	C(8)	C(15)	112.2(7)	C(9)	C(8)	C(15)	122.2(9)
Ru(1)	C(9)	C(8)	73.7(6)	Ru(1)	C(9)	C(10)	75.9(7)
C(8)	C(9)	C(10)	121.6(1)	Ru(1)	C(10)	C(9)	67.0(6)
Ru(1)	C(10)	C(11)	72.7(6)	C(9)	C(10)	C(11)	127.9(1)
Ru(1)	C(11)	C(10)	71.8(6)	Ru(1)	C(11)	C(12)	68.5(6)
C(10)	C(11)	C(12)	133.1(1)	Ru(1)	C(12)	C(11)	74.0(6)
Ru(1)	C(12)	C(13)	72.0(6)	C(11)	C(12)	C(13)	132.1(1)
Ru(1)	C(13)	C(12)	70.3(6)	Ru(1)	C(13)	C(14)	113.7(9)
C(12)	C(13)	C(14)	126.7(1)	C(13)	C(14)	C(15)	108.1(9)
C(8)	C(15)	C(14)	107.2(9)	O(4)	C(16)	C(17)	119.5(7)
O(4)	C(16)	C(21)	121.0(8)	C(17)	C(16)	C(21)	119.5(7)
Ru(2)	C(17)	C(2)	105.6(5)	Ru(2)	C(17)	C(16)	116.1(5)
C(2)	C(17)	C(16)	114.6(7)	Ru(2)	C(17)	C(18)	70.0(4)
C(2)	C(17)	C(18)	120.2(7)	C(16)	C(17)	C(18)	120.3(7)
Ru(2)	C(18)	C(17)	70.5(4)	Ru(2)	C(18)	C(19)	117.8(5)
C(17)	C(18)	C(19)	120.0(7)	O(5)	C(19)	C(18)	123.6(9)
O(5)	C(19)	C(20)	119.8(8)	C(18)	C(19)	C(20)	116.5(7)
O(6)	C(20)	C(19)	111.0(8)	O(6)	C(20)	C(21)	126.5(9)
C(19)	C(20)	C(21)	122.5(8)	C(16)	C(21)	C(20)	120.8(8)
Ru(2)	C(23)	C(24)	68.2(4)	Ru(2)	C(23)	C(30)	112.0(6)
C(24)	C(23)	C(30)	121.3(8)	Ru(2)	C(24)	C(23)	73.7(5)
Ru(2)	C(24)	C(25)	76.0(5)	C(23)	C(24)	C(25)	121.2(8)
Ru(2)	C(25)	C(24)	66.4(4)	Ru(2)	C(25)	C(26)	71.0(5)
C(24)	C(25)	C(26)	125.8(8)	Ru(2)	C(26)	C(25)	72.7(5)
Ru(2)	C(26)	C(27)	68.9(5)	C(25)	C(26)	C(27)	135.0(8)
Ru(2)	C(27)	C(26)	73.2(5)	Ru(2)	C(27)	C(28)	72.9(5)

Table 5. Bond angles (°) -- continued

atom	atom	atom	angle	atom	atom	atom	angle
C(26)	C(27)	C(28)	131.6(8)	Ru(2)	C(28)	C(27)	69.8(5)
Ru(2)	C(28)	C(29)	112.8(6)	C(27)	C(28)	C(29)	126.2(8)
C(28)	C(29)	C(30)	108.0(7)	C(23)	C(30)	C(29)	106.6(7)
Cl(1)	C(31)	Cl(2)	105.0(2)				

Table 6. Bond angles involving hydrogens ($^{\circ}$)

atom	atom	atom	angle	atom	atom	atom	angle
O(4)	Ru(1)	C(2)	78.3(3)	O(4)	Ru(1)	C(3)	84.1(3)
C(2)	Ru(1)	C(3)	39.6(3)	O(4)	Ru(1)	C(8)	175.8(3)
C(2)	Ru(1)	C(8)	105.0(3)	C(3)	Ru(1)	C(8)	100.1(4)
O(4)	Ru(1)	C(9)	138.8(4)	C(2)	Ru(1)	C(9)	101.7(4)
C(3)	Ru(1)	C(9)	122.2(4)	C(8)	Ru(1)	C(9)	38.4(5)
O(4)	Ru(1)	C(10)	108.8(4)	C(2)	Ru(1)	C(10)	123.4(4)
C(3)	Ru(1)	C(10)	157.6(4)	C(8)	Ru(1)	C(10)	67.3(5)
C(9)	Ru(1)	C(10)	37.1(5)	O(4)	Ru(1)	C(11)	91.0(3)
C(2)	Ru(1)	C(11)	151.1(4)	C(3)	Ru(1)	C(11)	166.5(4)
C(8)	Ru(1)	C(11)	84.9(4)	C(9)	Ru(1)	C(11)	69.0(5)
O(4)	Ru(1)	C(12)	86.8(3)	C(2)	Ru(1)	C(12)	162.0(4)
C(3)	Ru(1)	C(12)	129.4(4)	C(8)	Ru(1)	C(12)	90.3(4)
C(9)	Ru(1)	C(12)	96.1(4)	O(4)	Ru(1)	C(13)	104.3(4)
C(2)	Ru(1)	C(13)	137.3(4)	C(3)	Ru(1)	C(13)	97.8(4)
C(8)	Ru(1)	C(13)	75.1(5)	C(9)	Ru(1)	C(13)	102.6(4)
C(10)	Ru(1)	C(11)	35.5(5)	C(10)	Ru(1)	C(12)	70.9(5)
C(11)	Ru(1)	C(12)	37.5(5)	C(10)	Ru(1)	C(13)	96.6(4)
C(11)	Ru(1)	C(13)	71.2(5)	C(12)	Ru(1)	C(13)	37.6(5)
O(1)	Ru(2)	C(17)	78.7(3)	O(1)	Ru(2)	C(18)	84.2(3)
C(17)	Ru(2)	C(18)	39.5(3)	O(1)	Ru(2)	C(23)	174.6(3)
C(17)	Ru(2)	C(23)	104.7(3)	C(18)	Ru(2)	C(23)	101.0(3)
O(1)	Ru(2)	C(24)	137.7(3)	C(17)	Ru(2)	C(24)	100.2(3)
C(18)	Ru(2)	C(24)	121.7(3)	C(23)	Ru(2)	C(24)	38.1(3)
O(1)	Ru(2)	C(25)	107.4(3)	C(17)	Ru(2)	C(25)	121.8(3)
C(18)	Ru(2)	C(25)	156.9(3)	C(23)	Ru(2)	C(25)	67.3(3)
C(24)	Ru(2)	C(25)	37.6(3)	O(1)	Ru(2)	C(26)	90.1(3)
C(17)	Ru(2)	C(26)	150.3(3)	C(18)	Ru(2)	C(26)	166.8(3)
C(23)	Ru(2)	C(26)	85.0(3)	C(24)	Ru(2)	C(26)	70.0(3)
O(1)	Ru(2)	C(27)	86.2(3)	C(17)	Ru(2)	C(27)	161.8(3)
C(18)	Ru(2)	C(27)	129.5(3)	C(23)	Ru(2)	C(27)	91.2(3)
C(24)	Ru(2)	C(27)	97.8(3)	O(1)	Ru(2)	C(28)	104.5(3)
C(17)	Ru(2)	C(28)	138.2(3)	C(18)	Ru(2)	C(28)	98.7(3)
C(23)	Ru(2)	C(28)	75.9(3)	C(24)	Ru(2)	C(28)	103.6(3)
C(25)	Ru(2)	C(26)	36.2(3)	C(25)	Ru(2)	C(27)	72.3(3)
C(26)	Ru(2)	C(27)	37.9(3)	C(25)	Ru(2)	C(28)	97.5(3)
C(26)	Ru(2)	C(28)	71.2(3)	C(27)	Ru(2)	C(28)	37.3(3)
Ru(2)	O(1)	C(1)	113.4(5)	Ru(1)	O(4)	C(16)	113.6(5)

Table 6. Bond angles involving hydrogens ($^{\circ}$) -- continued

atom	atom	atom	angle	atom	atom	atom	angle
Ru(1)	C(2)	C(1)	115.6(6)	Ru(1)	C(2)	C(3)	70.0(4)
Ru(1)	C(2)	C(17)	105.8(5)	Ru(1)	C(3)	C(2)	70.4(4)
Ru(1)	C(3)	C(4)	116.0(5)	Ru(1)	C(3)	H(1)	114.4(7)
C(2)	C(3)	H(1)	113.9(9)	C(4)	C(3)	H(1)	115.1(9)
C(1)	C(6)	H(2)	119.9(1)	C(5)	C(6)	H(2)	119.8(1)
O(3)	C(7)	H(3)	108.6(1)	O(3)	C(7)	H(4)	109.8(1)
H(3)	C(7)	H(4)	109.5(1)	O(3)	C(7)	H(5)	110.0(1)
H(3)	C(7)	H(5)	109.5(1)	H(4)	C(7)	H(5)	109.5(1)
Ru(1)	C(8)	C(9)	67.8(6)	Ru(1)	C(8)	C(15)	112.2(7)
Ru(1)	C(8)	H(6)	115.3(1)	C(9)	C(8)	H(6)	115.5(1)
C(15)	C(8)	H(6)	115.0(1)	Ru(1)	C(9)	C(8)	73.7(6)
Ru(1)	C(9)	C(10)	75.9(7)	Ru(1)	C(9)	H(7)	118.6(1)
C(8)	C(9)	H(7)	118.7(1)	C(10)	C(9)	H(7)	119.6(2)
Ru(1)	C(10)	C(9)	67.0(6)	Ru(1)	C(10)	C(11)	72.7(6)
Ru(1)	C(10)	H(8)	112.8(1)	C(9)	C(10)	H(8)	112.2(1)
C(11)	C(10)	H(8)	113.1(1)	Ru(1)	C(11)	C(10)	71.8(6)
Ru(1)	C(11)	C(12)	68.5(6)	Ru(1)	C(11)	H(9)	107.2(1)
C(10)	C(11)	H(9)	107.5(1)	C(12)	C(11)	H(9)	107.2(1)
Ru(1)	C(12)	C(11)	74.0(6)	Ru(1)	C(12)	C(13)	72.0(6)
Ru(1)	C(12)	H(10)	111.5(1)	C(11)	C(12)	H(10)	112.2(1)
C(13)	C(12)	H(10)	111.2(1)	Ru(1)	C(13)	C(12)	70.3(6)
Ru(1)	C(13)	C(14)	113.7(9)	Ru(1)	C(13)	H(11)	112.6(1)
C(12)	C(13)	H(11)	113.3(1)	C(14)	C(13)	H(11)	112.7(1)
C(13)	C(14)	H(12)	110.1(2)	C(15)	C(14)	H(12)	110.2(2)
C(13)	C(14)	H(13)	109.5(2)	C(15)	C(14)	H(13)	109.5(2)
H(12)	C(14)	H(13)	109.5(2)	C(8)	C(15)	H(14)	109.4(1)
C(14)	C(15)	H(14)	109.8(1)	C(8)	C(15)	H(15)	110.6(1)
C(14)	C(15)	H(15)	110.4(1)	H(14)	C(15)	H(15)	109.5(2)
Ru(2)	C(17)	C(2)	105.6(5)	Ru(2)	C(17)	C(16)	116.1(5)
Ru(2)	C(17)	C(18)	70.0(4)	Ru(2)	C(18)	C(17)	70.5(4)
Ru(2)	C(18)	C(19)	117.8(5)	Ru(2)	C(18)	H(16)	113.8(7)
C(17)	C(18)	H(16)	113.6(9)	C(19)	C(18)	H(16)	114.2(1)
C(16)	C(21)	H(17)	119.6(1)	C(20)	C(21)	H(17)	119.5(1)
O(6)	C(22)	H(18)	110.9(1)	O(6)	C(22)	H(19)	108.0(1)
H(18)	C(22)	H(19)	108.4(2)	O(6)	C(22)	H(20)	109.6(1)
H(18)	C(22)	H(20)	117.4(2)	H(19)	C(22)	H(20)	101.9(1)
Ru(2)	C(23)	C(24)	68.2(4)	Ru(2)	C(23)	C(30)	112.0(6)

Table 6. Bond angles involving hydrogens (°) -- continued

atom	atom	atom	angle	atom	atom	atom	angle
Ru(2)	C(23)	H(21)	115.6(8)	C(24)	C(23)	H(21)	115.5(1)
C(30)	C(23)	H(21)	115.4(1)	Ru(2)	C(24)	C(23)	73.7(5)
Ru(2)	C(24)	C(25)	76.0(5)	Ru(2)	C(24)	H(22)	119.2(8)
C(23)	C(24)	H(22)	119.3(1)	C(25)	C(24)	H(22)	119.5(1)
Ru(2)	C(25)	C(24)	66.4(4)	Ru(2)	C(25)	C(26)	71.0(5)
Ru(2)	C(25)	H(23)	113.3(8)	C(24)	C(25)	H(23)	113.2(1)
C(26)	C(25)	H(23)	113.6(1)	Ru(2)	C(26)	C(25)	72.7(5)
Ru(2)	C(26)	C(27)	68.9(5)	Ru(2)	C(26)	H(24)	106.2(8)
C(25)	C(26)	H(24)	106.5(1)	C(27)	C(26)	H(24)	106.0(1)
Ru(2)	C(27)	C(26)	73.2(5)	Ru(2)	C(27)	C(28)	72.9(5)
Ru(2)	C(27)	H(25)	111.9(8)	C(26)	C(27)	H(25)	112.2(1)
C(28)	C(27)	H(25)	112.1(1)	Ru(2)	C(28)	C(27)	69.8(5)
Ru(2)	C(28)	C(29)	112.8(6)	Ru(2)	C(28)	H(26)	113.2(8)
C(27)	C(28)	H(26)	113.1(1)	C(29)	C(28)	H(26)	113.8(1)
C(28)	C(29)	H(27)	110.4(1)	C(30)	C(29)	H(27)	110.3(1)
C(28)	C(29)	H(28)	109.5(1)	C(30)	C(29)	H(28)	109.1(1)
H(27)	C(29)	H(28)	109.5(1)	C(23)	C(30)	H(29)	109.8(1)
C(29)	C(30)	H(29)	109.3(1)	C(23)	C(30)	H(30)	110.3(1)
C(29)	C(30)	H(30)	111.2(1)	H(29)	C(30)	H(30)	109.5(1)
Cl(1)	C(31)	H(31)	110.5(2)	Cl(2)	C(31)	H(31)	110.0(2)
Cl(1)	C(31)	H(32)	109.8(2)	Cl(2)	C(31)	H(32)	112.1(2)
H(31)	C(31)	H(32)	109.5(3)				

Table 7. Torsion Angles(°)

atom	atom	atom	atom	angle	atom	atom	atom	atom	angle
C(2)	Ru(1)	O(4)	C(16)	-13.2(1)	C(3)	Ru(1)	O(4)	C(16)	-52.8(1)
C(8)	Ru(1)	O(4)	C(16)	129.1(2)	C(9)	Ru(1)	O(4)	C(16)	81.4(2)
C(10)	Ru(1)	O(4)	C(16)	108.5(1)	C(11)	Ru(1)	O(4)	C(16)	139.8(1)
C(12)	Ru(1)	O(4)	C(16)	177.1(1)	C(13)	Ru(1)	O(4)	C(16)	-149.3(1)
O(4)	Ru(1)	C(2)	C(1)	149.9(1)	O(4)	Ru(1)	C(2)	C(3)	-94.9(8)
O(4)	Ru(1)	C(2)	C(17)	22.3(1)	C(3)	Ru(1)	C(2)	C(1)	-115.2(1)
C(3)	Ru(1)	C(2)	C(3)	0.0(6)	C(3)	Ru(1)	C(2)	C(17)	117.2(1)
C(8)	Ru(1)	C(2)	C(1)	-27.4(2)	C(8)	Ru(1)	C(2)	C(3)	87.8(1)
C(8)	Ru(1)	C(2)	C(17)	-155.0(1)	C(9)	Ru(1)	C(2)	C(1)	11.9(2)
C(9)	Ru(1)	C(2)	C(3)	127.2(1)	C(9)	Ru(1)	C(2)	C(17)	-115.6(1)
C(10)	Ru(1)	C(2)	C(1)	45.0(2)	C(10)	Ru(1)	C(2)	C(3)	160.2(2)
C(10)	Ru(1)	C(2)	C(17)	-82.6(2)	C(11)	Ru(1)	C(2)	C(1)	79.6(3)
C(11)	Ru(1)	C(2)	C(3)	-165.2(3)	C(11)	Ru(1)	C(2)	C(17)	-47.9(3)
C(12)	Ru(1)	C(2)	C(1)	-175.2(4)	C(12)	Ru(1)	C(2)	C(3)	-59.9(5)
C(12)	Ru(1)	C(2)	C(17)	57.3(5)	C(13)	Ru(1)	C(2)	C(1)	-111.6(2)
C(13)	Ru(1)	C(2)	C(3)	3.6(2)	C(13)	Ru(1)	C(2)	C(17)	120.8(2)
O(4)	Ru(1)	C(3)	C(2)	78.8(8)	O(4)	Ru(1)	C(3)	C(4)	-167.0(1)
C(2)	Ru(1)	C(3)	C(2)	0.0(6)	C(2)	Ru(1)	C(3)	C(4)	114.2(1)
C(8)	Ru(1)	C(3)	C(2)	-101.3(1)	C(8)	Ru(1)	C(3)	C(4)	12.8(2)
C(9)	Ru(1)	C(3)	C(2)	-67.3(2)	C(9)	Ru(1)	C(3)	C(4)	46.9(2)
C(10)	Ru(1)	C(3)	C(2)	-48.1(4)	C(10)	Ru(1)	C(3)	C(4)	66.1(4)
C(11)	Ru(1)	C(3)	C(2)	148.0(6)	C(11)	Ru(1)	C(3)	C(4)	-97.8(6)
C(12)	Ru(1)	C(3)	C(2)	159.8(2)	C(12)	Ru(1)	C(3)	C(4)	-86.0(2)
C(13)	Ru(1)	C(3)	C(2)	-177.6(1)	C(13)	Ru(1)	C(3)	C(4)	-63.4(2)
O(4)	Ru(1)	C(8)	C(9)	-51.5(1)	O(4)	Ru(1)	C(8)	C(15)	65.6(1)
C(2)	Ru(1)	C(8)	C(9)	90.0(1)	C(2)	Ru(1)	C(8)	C(15)	-152.8(1)
C(3)	Ru(1)	C(8)	C(9)	130.3(1)	C(3)	Ru(1)	C(8)	C(15)	-112.5(2)
C(9)	Ru(1)	C(8)	C(9)	0.0(1)	C(9)	Ru(1)	C(8)	C(15)	117.1(2)
C(10)	Ru(1)	C(8)	C(9)	-30.4(1)	C(10)	Ru(1)	C(8)	C(15)	86.8(2)
C(11)	Ru(1)	C(8)	C(9)	-62.3(1)	C(11)	Ru(1)	C(8)	C(15)	54.8(2)
C(12)	Ru(1)	C(8)	C(9)	-99.5(2)	C(12)	Ru(1)	C(8)	C(15)	17.7(2)
C(13)	Ru(1)	C(8)	C(9)	-134.2(2)	C(13)	Ru(1)	C(8)	C(15)	-17.1(2)
O(4)	Ru(1)	C(9)	C(8)	174.9(1)	O(4)	Ru(1)	C(9)	C(10)	45.5(2)
C(2)	Ru(1)	C(9)	C(8)	-99.4(1)	C(2)	Ru(1)	C(9)	C(10)	131.1(1)
C(3)	Ru(1)	C(9)	C(8)	-62.5(2)	C(3)	Ru(1)	C(9)	C(10)	168.0(1)
C(8)	Ru(1)	C(9)	C(8)	0.0(9)	C(8)	Ru(1)	C(9)	C(10)	-129.4(2)
C(10)	Ru(1)	C(9)	C(8)	129.4(2)	C(10)	Ru(1)	C(9)	C(10)	0.0(1)

Table 7. Torsion angles (°) -- continued

atom	atom	atom	atom	angle	atom	atom	atom	atom	angle
C(11)	Ru(1)	C(9)	C(8)	109.2(2)	C(11)	Ru(1)	C(9)	C(10)	-20.3(1)
C(12)	Ru(1)	C(9)	C(8)	82.8(2)	C(12)	Ru(1)	C(9)	C(10)	-46.7(2)
C(13)	Ru(1)	C(9)	C(8)	45.2(2)	C(13)	Ru(1)	C(9)	C(10)	-84.3(2)
O(4)	Ru(1)	C(10)	C(9)	-150.3(1)	O(4)	Ru(1)	C(10)	C(11)	63.6(1)
C(2)	Ru(1)	C(10)	C(9)	-62.1(2)	C(2)	Ru(1)	C(10)	C(11)	151.8(1)
C(3)	Ru(1)	C(10)	C(9)	-27.5(3)	C(3)	Ru(1)	C(10)	C(11)	-173.6(3)
C(8)	Ru(1)	C(10)	C(9)	31.4(1)	C(8)	Ru(1)	C(10)	C(11)	-114.8(2)
C(9)	Ru(1)	C(10)	C(9)	0.0(1)	C(9)	Ru(1)	C(10)	C(11)	-146.2(2)
C(11)	Ru(1)	C(10)	C(9)	146.2(2)	C(11)	Ru(1)	C(10)	C(11)	0.0(1)
C(12)	Ru(1)	C(10)	C(9)	130.1(2)	C(12)	Ru(1)	C(10)	C(11)	-16.1(1)
C(13)	Ru(1)	C(10)	C(9)	102.2(2)	C(13)	Ru(1)	C(10)	C(11)	-44.0(2)
O(4)	Ru(1)	C(11)	C(10)	-122.0(1)	O(4)	Ru(1)	C(11)	C(12)	83.5(1)
C(2)	Ru(1)	C(11)	C(10)	-54.8(3)	C(2)	Ru(1)	C(11)	C(12)	150.7(2)
C(3)	Ru(1)	C(11)	C(10)	169.6(4)	C(3)	Ru(1)	C(11)	C(12)	15.1(5)
C(8)	Ru(1)	C(11)	C(10)	57.2(1)	C(8)	Ru(1)	C(11)	C(12)	-97.3(2)
C(9)	Ru(1)	C(11)	C(10)	21.1(1)	C(9)	Ru(1)	C(11)	C(12)	-133.4(2)
C(10)	Ru(1)	C(11)	C(10)	0.0(1)	C(10)	Ru(1)	C(11)	C(12)	-154.5(2)
C(12)	Ru(1)	C(11)	C(10)	154.5(2)	C(12)	Ru(1)	C(11)	C(12)	0.0(1)
C(13)	Ru(1)	C(11)	C(10)	133.2(2)	C(13)	Ru(1)	C(11)	C(12)	-21.3(1)
O(4)	Ru(1)	C(12)	C(11)	-95.8(1)	O(4)	Ru(1)	C(12)	C(13)	118.5(1)
C(2)	Ru(1)	C(12)	C(11)	-130.0(3)	C(2)	Ru(1)	C(12)	C(13)	84.3(4)
C(3)	Ru(1)	C(12)	C(11)	-175.5(1)	C(3)	Ru(1)	C(12)	C(13)	38.8(2)
C(8)	Ru(1)	C(12)	C(11)	81.1(1)	C(8)	Ru(1)	C(12)	C(13)	-64.7(1)
C(9)	Ru(1)	C(12)	C(11)	43.0(2)	C(9)	Ru(1)	C(12)	C(13)	-102.7(2)
C(10)	Ru(1)	C(12)	C(11)	15.3(1)	C(10)	Ru(1)	C(12)	C(13)	-130.4(2)
C(11)	Ru(1)	C(12)	C(11)	0.0(1)	C(11)	Ru(1)	C(12)	C(13)	-145.7(2)
C(13)	Ru(1)	C(12)	C(11)	145.7(2)	C(13)	Ru(1)	C(12)	C(13)	0.0(1)
O(4)	Ru(1)	C(13)	C(12)	-64.9(1)	O(4)	Ru(1)	C(13)	C(14)	172.7(2)
C(2)	Ru(1)	C(13)	C(12)	-153.1(2)	C(2)	Ru(1)	C(13)	C(14)	84.5(2)
C(3)	Ru(1)	C(13)	C(12)	-150.8(1)	C(3)	Ru(1)	C(13)	C(14)	86.8(2)
C(8)	Ru(1)	C(13)	C(12)	110.8(2)	C(8)	Ru(1)	C(13)	C(14)	-11.7(2)
C(9)	Ru(1)	C(13)	C(12)	83.6(2)	C(9)	Ru(1)	C(13)	C(14)	-38.8(2)
C(10)	Ru(1)	C(13)	C(12)	46.4(2)	C(10)	Ru(1)	C(13)	C(14)	-76.0(2)
C(11)	Ru(1)	C(13)	C(12)	21.2(1)	C(11)	Ru(1)	C(13)	C(14)	-101.3(2)
C(12)	Ru(1)	C(13)	C(12)	0.0(1)	C(12)	Ru(1)	C(13)	C(14)	-122.5(2)
C(17)	Ru(2)	O(1)	C(1)	-13.6(1)	C(18)	Ru(2)	O(1)	C(1)	-53.2(1)
C(23)	Ru(2)	O(1)	C(1)	116.0(1)	C(24)	Ru(2)	O(1)	C(1)	79.1(2)

Table 7. Torsion angles ($^{\circ}$) -- continued

atom	atom	atom	atom	angle	atom	atom	atom	atom	angle
C(25)	Ru(2)	O(1)	C(1)	106.4(1)	C(26)	Ru(2)	O(1)	C(1)	138.7(1)
C(27)	Ru(2)	O(1)	C(1)	176.5(1)	C(28)	Ru(2)	O(1)	C(1)	-150.7(1)
O(1)	Ru(2)	C(17)	C(2)	22.3(1)	O(1)	Ru(2)	C(17)	C(16)	150.5(1)
O(1)	Ru(2)	C(17)	C(18)	-94.7(8)	C(18)	Ru(2)	C(17)	C(2)	117.0(1)
C(18)	Ru(2)	C(17)	C(16)	-114.8(2)	C(18)	Ru(2)	C(17)	C(18)	0.0(6)
C(23)	Ru(2)	C(17)	C(2)	-153.5(1)	C(23)	Ru(2)	C(17)	C(16)	-25.3(2)
C(23)	Ru(2)	C(17)	C(18)	89.6(1)	C(24)	Ru(2)	C(17)	C(2)	-114.6(1)
C(24)	Ru(2)	C(17)	C(16)	13.6(2)	C(24)	Ru(2)	C(17)	C(18)	128.4(1)
C(25)	Ru(2)	C(17)	C(2)	-81.3(1)	C(25)	Ru(2)	C(17)	C(16)	46.9(2)
C(25)	Ru(2)	C(17)	C(18)	161.7(1)	C(26)	Ru(2)	C(17)	C(2)	-47.3(3)
C(26)	Ru(2)	C(17)	C(16)	80.9(3)	C(26)	Ru(2)	C(17)	C(18)	-164.3(2)
C(27)	Ru(2)	C(17)	C(2)	56.3(4)	C(27)	Ru(2)	C(17)	C(16)	-175.5(3)
C(27)	Ru(2)	C(17)	C(18)	-60.7(4)	C(28)	Ru(2)	C(17)	C(2)	121.4(2)
C(28)	Ru(2)	C(17)	C(16)	-110.4(2)	C(28)	Ru(2)	C(17)	C(18)	4.4(2)
O(1)	Ru(2)	C(18)	C(17)	79.2(8)	O(1)	Ru(2)	C(18)	C(19)	-166.4(1)
C(17)	Ru(2)	C(18)	C(17)	0.0(6)	C(17)	Ru(2)	C(18)	C(19)	114.4(2)
C(23)	Ru(2)	C(18)	C(17)	-99.8(1)	C(23)	Ru(2)	C(18)	C(19)	14.6(2)
C(24)	Ru(2)	C(18)	C(17)	-65.0(1)	C(24)	Ru(2)	C(18)	C(19)	49.4(2)
C(25)	Ru(2)	C(18)	C(17)	-42.8(3)	C(25)	Ru(2)	C(18)	C(19)	71.6(3)
C(26)	Ru(2)	C(18)	C(17)	144.0(5)	C(26)	Ru(2)	C(18)	C(19)	-101.6(5)
C(27)	Ru(2)	C(18)	C(17)	159.4(1)	C(27)	Ru(2)	C(18)	C(19)	-86.2(2)
C(28)	Ru(2)	C(18)	C(17)	-177.0(1)	C(28)	Ru(2)	C(18)	C(19)	-62.6(2)
O(1)	Ru(2)	C(23)	C(24)	-40.9(9)	O(1)	Ru(2)	C(23)	C(30)	75.3(9)
C(17)	Ru(2)	C(23)	C(24)	87.7(1)	C(17)	Ru(2)	C(23)	C(30)	-156.1(1)
C(18)	Ru(2)	C(23)	C(24)	128.2(1)	C(18)	Ru(2)	C(23)	C(30)	-115.6(1)
C(24)	Ru(2)	C(23)	C(24)	0.0(7)	C(24)	Ru(2)	C(23)	C(30)	116.2(2)
C(25)	Ru(2)	C(23)	C(24)	-31.0(8)	C(25)	Ru(2)	C(23)	C(30)	85.3(1)
C(26)	Ru(2)	C(23)	C(24)	-63.7(1)	C(26)	Ru(2)	C(23)	C(30)	52.5(1)
C(27)	Ru(2)	C(23)	C(24)	-101.2(1)	C(27)	Ru(2)	C(23)	C(30)	15.1(1)
C(28)	Ru(2)	C(23)	C(24)	-135.5(1)	C(28)	Ru(2)	C(23)	C(30)	-19.3(1)
O(1)	Ru(2)	C(24)	C(23)	174.8(1)	O(1)	Ru(2)	C(24)	C(25)	45.8(1)
C(17)	Ru(2)	C(24)	C(23)	-101.0(1)	C(17)	Ru(2)	C(24)	C(25)	130.1(1)
C(18)	Ru(2)	C(24)	C(23)	-65.1(1)	C(18)	Ru(2)	C(24)	C(25)	165.9(1)
C(23)	Ru(2)	C(24)	C(23)	0.0(7)	C(23)	Ru(2)	C(24)	C(25)	-129.0(1)
C(25)	Ru(2)	C(24)	C(23)	129.0(1)	C(25)	Ru(2)	C(24)	C(25)	0.0(7)
C(26)	Ru(2)	C(24)	C(23)	108.2(1)	C(26)	Ru(2)	C(24)	C(25)	-20.8(9)
C(27)	Ru(2)	C(24)	C(23)	81.9(1)	C(27)	Ru(2)	C(24)	C(25)	-47.1(1)

Table 7. Torsion angles (°) -- continued

atom	atom	atom	atom	angle	atom	atom	atom	atom	angle
C(28)	Ru(2)	C(24)	C(23)	44.4(1)	C(28)	Ru(2)	C(24)	C(25)	-84.6(1)
O(1)	Ru(2)	C(25)	C(24)	-149.6(1)	O(1)	Ru(2)	C(25)	C(26)	64.8(1)
C(17)	Ru(2)	C(25)	C(24)	-62.4(1)	C(17)	Ru(2)	C(25)	C(26)	152.1(1)
C(18)	Ru(2)	C(25)	C(24)	-31.8(3)	C(18)	Ru(2)	C(25)	C(26)	-177.4(3)
C(23)	Ru(2)	C(25)	C(24)	31.4(9)	C(23)	Ru(2)	C(25)	C(26)	-114.2(1)
C(24)	Ru(2)	C(25)	C(24)	0.0(7)	C(24)	Ru(2)	C(25)	C(26)	-145.6(2)
C(26)	Ru(2)	C(25)	C(24)	145.6(2)	C(26)	Ru(2)	C(25)	C(26)	0.0(7)
C(27)	Ru(2)	C(25)	C(24)	130.4(1)	C(27)	Ru(2)	C(25)	C(26)	-15.2(9)
C(28)	Ru(2)	C(25)	C(24)	102.6(1)	C(28)	Ru(2)	C(25)	C(26)	-43.0(1)
O(1)	Ru(2)	C(26)	C(25)	-120.3(1)	O(1)	Ru(2)	C(26)	C(27)	83.7(1)
C(17)	Ru(2)	C(26)	C(25)	-53.5(2)	C(17)	Ru(2)	C(26)	C(27)	150.4(2)
C(18)	Ru(2)	C(26)	C(25)	175.4(4)	C(18)	Ru(2)	C(26)	C(27)	19.4(5)
C(23)	Ru(2)	C(26)	C(25)	57.6(1)	C(23)	Ru(2)	C(26)	C(27)	-98.4(1)
C(24)	Ru(2)	C(26)	C(25)	21.5(9)	C(24)	Ru(2)	C(26)	C(27)	-134.5(1)
C(25)	Ru(2)	C(26)	C(25)	0.0(7)	C(25)	Ru(2)	C(26)	C(27)	-156.0(2)
C(27)	Ru(2)	C(26)	C(25)	156.0(2)	C(27)	Ru(2)	C(26)	C(27)	0.0(7)
C(28)	Ru(2)	C(26)	C(25)	134.4(1)	C(28)	Ru(2)	C(26)	C(27)	-21.6(9)
O(1)	Ru(2)	C(27)	C(26)	-95.0(1)	O(1)	Ru(2)	C(27)	C(28)	120.1(1)
C(17)	Ru(2)	C(27)	C(26)	-128.4(3)	C(17)	Ru(2)	C(27)	C(28)	86.7(3)
C(18)	Ru(2)	C(27)	C(26)	-174.4(1)	C(18)	Ru(2)	C(27)	C(28)	40.8(2)
C(23)	Ru(2)	C(27)	C(26)	80.3(1)	C(23)	Ru(2)	C(27)	C(28)	-64.6(1)
C(24)	Ru(2)	C(27)	C(26)	42.6(1)	C(24)	Ru(2)	C(27)	C(28)	-102.3(1)
C(25)	Ru(2)	C(27)	C(26)	14.6(9)	C(25)	Ru(2)	C(27)	C(28)	-130.3(1)
C(26)	Ru(2)	C(27)	C(26)	0.0(7)	C(26)	Ru(2)	C(27)	C(28)	-144.9(2)
C(28)	Ru(2)	C(27)	C(26)	144.9(2)	C(28)	Ru(2)	C(27)	C(28)	0.0(7)
O(1)	Ru(2)	C(28)	C(27)	-63.1(1)	O(1)	Ru(2)	C(28)	C(29)	175.1(1)
C(17)	Ru(2)	C(28)	C(27)	-152.2(2)	C(17)	Ru(2)	C(28)	C(29)	86.0(2)
C(18)	Ru(2)	C(28)	C(27)	-149.3(1)	C(18)	Ru(2)	C(28)	C(29)	88.8(1)
C(23)	Ru(2)	C(28)	C(27)	111.4(1)	C(23)	Ru(2)	C(28)	C(29)	-10.5(1)
C(24)	Ru(2)	C(28)	C(27)	84.9(1)	C(24)	Ru(2)	C(28)	C(29)	-36.9(2)
C(25)	Ru(2)	C(28)	C(27)	47.1(1)	C(25)	Ru(2)	C(28)	C(29)	-74.7(2)
C(26)	Ru(2)	C(28)	C(27)	21.9(9)	C(26)	Ru(2)	C(28)	C(29)	-99.9(1)
C(27)	Ru(2)	C(28)	C(27)	0.0(7)	C(27)	Ru(2)	C(28)	C(29)	-121.8(2)
Ru(2)	O(1)	C(1)	C(2)	-0.2(1)	Ru(2)	O(1)	C(1)	C(6)	178.5(7)
C(7)	O(3)	C(5)	C(4)	-178.8(1)	C(7)	O(3)	C(5)	C(6)	2.8(2)
Ru(1)	O(4)	C(16)	C(17)	-1.1(1)	Ru(1)	O(4)	C(16)	C(21)	178.1(7)
C(22)	O(6)	C(20)	C(19)	178.8(1)	C(22)	O(6)	C(20)	C(21)	0.5(2)

Table 7. Torsion angles ($^{\circ}$) -- continued

atom	atom	atom	atom	angle	atom	atom	atom	atom	angle
O(1)	C(1)	C(2)	Ru(1)	-101.5(9)	O(1)	C(1)	C(2)	C(3)	177.5(8)
O(1)	C(1)	C(2)	C(17)	21.7(1)	C(6)	C(1)	C(2)	Ru(1)	79.8(1)
C(6)	C(1)	C(2)	C(3)	-1.2(2)	C(6)	C(1)	C(2)	C(17)	-157.0(1)
O(1)	C(1)	C(6)	C(5)	-178.7(9)	C(2)	C(1)	C(6)	C(5)	-0.1(2)
Ru(1)	C(2)	C(3)	Ru(1)	0.00(5)	Ru(1)	C(2)	C(3)	C(4)	-109.5(9)
C(1)	C(2)	C(3)	Ru(1)	108.6(1)	C(1)	C(2)	C(3)	C(4)	-0.9(2)
C(17)	C(2)	C(3)	Ru(1)	-97.1(1)	C(17)	C(2)	C(3)	C(4)	153.4(1)
Ru(1)	C(2)	C(17)	Ru(2)	98.2(5)	Ru(1)	C(2)	C(17)	C(16)	-30.9(1)
Ru(1)	C(2)	C(17)	C(18)	173.9(8)	C(1)	C(2)	C(17)	Ru(2)	-30.1(1)
C(1)	C(2)	C(17)	C(16)	-159.2(1)	C(1)	C(2)	C(17)	C(18)	45.5(2)
C(3)	C(2)	C(17)	Ru(2)	174.0(8)	C(3)	C(2)	C(17)	C(16)	44.9(2)
C(3)	C(2)	C(17)	C(18)	-110.3(1)	Ru(1)	C(3)	C(4)	O(2)	104.2(1)
Ru(1)	C(3)	C(4)	C(5)	-77.5(9)	C(2)	C(3)	C(4)	O(2)	-174.5(1)
C(2)	C(3)	C(4)	C(5)	3.9(2)	O(2)	C(4)	C(5)	O(3)	-5.3(1)
O(2)	C(4)	C(5)	C(6)	173.2(1)	C(3)	C(4)	C(5)	O(3)	176.3(9)
C(3)	C(4)	C(5)	C(6)	-5.2(2)	O(3)	C(5)	C(6)	C(1)	-178.4(8)
C(4)	C(5)	C(6)	C(1)	3.4(2)	Ru(1)	C(8)	C(9)	Ru(1)	0.00(5)
Ru(1)	C(8)	C(9)	C(10)	61.5(1)	C(15)	C(8)	C(9)	Ru(1)	-103.0(2)
C(15)	C(8)	C(9)	C(10)	-41.5(2)	Ru(1)	C(8)	C(15)	C(14)	44.0(1)
C(9)	C(8)	C(15)	C(14)	121.0(2)	Ru(1)	C(9)	C(10)	Ru(1)	0.00(5)
Ru(1)	C(9)	C(10)	C(11)	42.4(2)	C(8)	C(9)	C(10)	Ru(1)	-60.5(1)
C(8)	C(9)	C(10)	C(11)	-18.1(3)	Ru(1)	C(10)	C(11)	Ru(1)	0.00(5)
Ru(1)	C(10)	C(11)	C(12)	33.3(2)	C(9)	C(10)	C(11)	Ru(1)	-40.5(2)
C(9)	C(10)	C(11)	C(12)	-7.2(3)	Ru(1)	C(11)	C(12)	Ru(1)	0.00(5)
Ru(1)	C(11)	C(12)	C(13)	46.2(2)	C(10)	C(11)	C(12)	Ru(1)	-34.0(2)
C(10)	C(11)	C(12)	C(13)	12.2(3)	Ru(1)	C(12)	C(13)	Ru(1)	0.00(5)
Ru(1)	C(12)	C(13)	C(14)	105.4(2)	C(11)	C(12)	C(13)	Ru(1)	-46.9(2)
C(11)	C(12)	C(13)	C(14)	58.5(3)	Ru(1)	C(13)	C(14)	C(15)	39.7(2)
C(12)	C(13)	C(14)	C(15)	-42.8(2)	C(13)	C(14)	C(15)	C(8)	-53.0(2)
O(4)	C(16)	C(17)	Ru(2)	-101.0(9)	O(4)	C(16)	C(17)	C(2)	22.7(1)
O(4)	C(16)	C(17)	C(18)	177.9(9)	C(21)	C(16)	C(17)	Ru(2)	79.8(1)
C(21)	C(16)	C(17)	C(2)	-156.6(1)	C(21)	C(16)	C(17)	C(18)	-1.4(2)
O(4)	C(16)	C(21)	C(20)	-178.2(1)	C(17)	C(16)	C(21)	C(20)	1.1(2)
Ru(2)	C(17)	C(18)	Ru(2)	0.00(5)	Ru(2)	C(17)	C(18)	C(19)	-111.5(1)
C(2)	C(17)	C(18)	Ru(2)	-96.9(9)	C(2)	C(17)	C(18)	C(19)	151.6(1)
C(16)	C(17)	C(18)	Ru(2)	109.3(1)	C(16)	C(17)	C(18)	C(19)	-2.2(2)
Ru(2)	C(18)	C(19)	O(5)	105.8(1)	Ru(2)	C(18)	C(19)	C(20)	-76.7(1)

Table 7. Torsion angles ($^{\circ}$) -- continued

atom	atom	atom	atom	angle	atom	atom	atom	atom	angle
C(17)	C(18)	C(19)	O(5)	-171.8(1)	C(17)	C(18)	C(19)	C(20)	5.7(2)
O(5)	C(19)	C(20)	O(6)	-6.9(2)	O(5)	C(19)	C(20)	C(21)	171.5(1)
C(18)	C(19)	C(20)	O(6)	175.5(1)	C(18)	C(19)	C(20)	C(21)	-6.2(2)
O(6)	C(20)	C(21)	C(16)	-179.1(9)	C(19)	C(20)	C(21)	C(16)	2.8(2)
Ru(2)	C(23)	C(24)	Ru(2)	0.00(5)	Ru(2)	C(23)	C(24)	C(25)	61.8(9)
C(30)	C(23)	C(24)	Ru(2)	-103.3(1)	C(30)	C(23)	C(24)	C(25)	-41.4(2)
Ru(2)	C(23)	C(30)	C(29)	45.7(1)	C(24)	C(23)	C(30)	C(29)	122.9(1)
Ru(2)	C(24)	C(25)	Ru(2)	0.00(5)	Ru(2)	C(24)	C(25)	C(26)	41.2(1)
C(23)	C(24)	C(25)	Ru(2)	-60.7(1)	C(23)	C(24)	C(25)	C(26)	-19.4(2)
Ru(2)	C(25)	C(26)	Ru(2)	0.00(5)	Ru(2)	C(25)	C(26)	C(27)	32.4(1)
C(24)	C(25)	C(26)	Ru(2)	-39.7(1)	C(24)	C(25)	C(26)	C(27)	-7.3(2)
Ru(2)	C(26)	C(27)	Ru(2)	0.00(5)	Ru(2)	C(26)	C(27)	C(28)	47.3(1)
C(25)	C(26)	C(27)	Ru(2)	-33.3(1)	C(25)	C(26)	C(27)	C(28)	14.0(3)
Ru(2)	C(27)	C(28)	Ru(2)	0.00(5)	Ru(2)	C(27)	C(28)	C(29)	104.0(1)
C(26)	C(27)	C(28)	Ru(2)	-47.4(1)	C(26)	C(27)	C(28)	C(29)	56.6(2)
Ru(2)	C(28)	C(29)	C(30)	38.4(1)	C(27)	C(28)	C(29)	C(30)	-42.5(2)
C(28)	C(29)	C(30)	C(23)	-53.9(1)					

Table 8. Distances beyond the asymmetric unit out to 3.60 Å

atom	atom	distance	ADC	atom	atom	distance	ADC
RU(1)	O(4)	2.172(6)	(1)	RU(1)	C(1)	3.042(8)	(1)
RU(1)	C(2)	2.152(8)	(1)	RU(1)	C(3)	2.146(7)	(1)
RU(1)	C(4)	3.076(7)	(1)	RU(1)	C(8)	2.20(1)	(1)
RU(1)	C(9)	2.12(1)	(1)	RU(1)	C(10)	2.236(9)	(1)
RU(1)	C(11)	2.248(9)	(1)	RU(1)	C(12)	2.18(1)	(1)
RU(1)	C(13)	2.20(1)	(1)	RU(1)	C(14)	3.11(1)	(1)
RU(1)	C(15)	3.11(1)	(1)	RU(1)	C(16)	2.925(8)	(1)
RU(1)	C(17)	2.942(8)	(1)	RU(2)	O(1)	2.149(5)	(1)
RU(2)	C(1)	2.904(8)	(1)	RU(2)	C(2)	2.938(7)	(1)
RU(2)	C(16)	3.057(8)	(1)	RU(2)	C(17)	2.152(7)	(1)
RU(2)	C(18)	2.146(8)	(1)	RU(2)	C(19)	3.098(9)	(1)
RU(2)	C(23)	2.204(8)	(1)	RU(2)	C(24)	2.133(8)	(1)
RU(2)	C(25)	2.259(8)	(1)	RU(2)	C(26)	2.238(8)	(1)
RU(2)	C(27)	2.182(8)	(1)	RU(2)	C(28)	2.222(8)	(1)
RU(2)	C(29)	3.125(9)	(1)	RU(2)	C(30)	3.101(8)	(1)
CL(1)	CL(2)	2.60(2)	(1)	CL(1)	CL(2)	3.57(2)	(-1,1,-2,0,-1)
CL(1)	C(3)	3.54(1)	(-1,1,-1,0,-1)	CL(1)	C(26)	3.46(1)	(-1,1,-1)
CL(1)	C(31)	1.79(2)	(1)	CL(2)	CL(2)	3.27(4)	(-1,1,-2,0,-1)
CL(2)	C(22)	3.53(2)	(-1,1,-2,0,-1)	CL(2)	C(31)	1.49(2)	(1)
CL(2)	C(31)	3.37(3)	(-1,1,-2,0,-1)	O(1)	C(1)	1.278(9)	
O(1)	C(2)	2.334(9)	(1)	O(1)	C(5)	3.572(9)	(1)
O(1)	C(6)	2.359(9)	(1)	O(1)	C(17)	2.73(1)	(1)
O(1)	C(18)	2.88(1)	(1)	O(1)	C(25)	3.554(9)	(1)
O(1)	C(26)	3.105(9)	(1)	O(1)	C(27)	2.96(1)	(1)
O(1)	C(28)	3.46(1)	(1)	O(1)	C(28)	3.38(1)	(-1)
O(2)	O(3)	2.606(8)	(1)	O(2)	C(3)	2.373(9)	(1)
O(2)	C(4)	1.225(9)	(1)	O(2)	C(5)	2.36(1)	(1)
O(2)	C(6)	3.58(1)	(1)	O(2)	C(7)	3.25(1)	(-2,1,-1,-1,-1)
O(2)	C(10)	3.41(1)	(-2,1,0,-1,-1)	O(2)	C(11)	3.42(1)	
O(2)	C(24)	3.31(1)	(-2,1,0,-1,-1)	O(2)	C(25)	3.42(1)	
O(3)	C(4)	2.35(1)	(1)	O(3)	C(5)	1.342(9)	(1)
O(3)	C(6)	2.383(9)	(1)	O(3)	C(7)	1.43(1)	(1)
O(3)	C(10)	3.29(1)	(-2,1,0,-1,-1)	O(3)	C(25)	3.36(1)	
O(4)	C(2)	2.732(9)	(1)	O(4)	C(3)	2.893(9)	(1)
O(4)	C(7)	3.52(1)	(1,1,-1)	O(4)	C(9)	3.35(1)	(-2,1,-1,-1,-1)
O(4)	C(10)	3.58(1)	(1)	O(4)	C(11)	3.15(1)	(1)
O(4)	C(12)	2.99(1)	(1)	O(4)	C(13)	3.45(1)	(1)

Table 8. Distances beyond the asymmetric unit out to 3.60 Å (continued)

atom	atom	distance	ADC	atom	atom	distance	ADC
O(4)	C(16)	1.275(9)	(1)	O(4)	C(17)	2.331(9)	(1)
O(4)	C(20)	3.59(1)	(1)	O(4)	C(21)	2.38(1)	(1)
O(5)	O(6)	2.60(1)	(1)	O(5)	C(12)	3.39(1)	(2,1,-1,0,-1)
O(5)	C(14)	3.41(1)	(2,1,-1,0,-1)	O(5)	C(18)	2.36(1)	(1)
O(5)	C(19)	1.23(1)	(1)	O(5)	C(20)	2.36(1)	(1)
O(5)	C(21)	3.58(1)	(1)	O(6)	O(6)	3.55(1)	(-1,1,-1,0,-1)
O(6)	C(15)	3.49(1)	(2,1,-1,0,-1)	O(6)	C(19)	2.34(1)	(1)
O(6)	C(20)	1.34(1)	(1)	O(6)	C(21)	2.40(1)	(1)
O(6)	C(22)	1.42(1)	(1)	O(6)	C(22)	3.58(1)	(-1,1,-1,0,-1)
C(1)	C(2)	1.41(1)	(1)	C(1)	C(3)	2.49(1)	(1)
C(1)	C(4)	2.89(1)	(1)	C(1)	C(5)	2.42(1)	(1)
C(1)	C(6)	1.45(1)	(1)	C(1)	C(8)	3.52(1)	(1)
C(1)	C(9)	3.31(1)	(1)	C(1)	C(17)	2.45(1)	(1)
C(1)	C(18)	2.98(1)	(1)	C(2)	C(3)	1.46(1)	(1)
C(2)	C(4)	2.51(1)	(1)	C(2)	C(5)	2.84(1)	(1)
C(2)	C(6)	2.48(1)	(1)	C(2)	C(8)	3.45(1)	(1)
C(2)	C(9)	3.31(1)	(1)	C(2)	C(16)	2.46(1)	(1)
C(2)	C(17)	1.50(1)	(1)	C(2)	C(18)	2.56(1)	(1)
C(3)	C(4)	1.45(1)	(1)	C(3)	C(5)	2.51(1)	(1)
C(3)	C(6)	2.88(1)	(1)	C(3)	C(8)	3.33(1)	(1)
C(3)	C(13)	3.27(1)	(1)	C(3)	C(16)	3.00(1)	(1)
C(3)	C(17)	2.57(1)	(1)	C(4)	C(5)	1.50(1)	(1)
C(4)	C(6)	2.50(1)	(1)	C(4)	C(8)	3.31(1)	(1)
C(4)	C(31)	3.58(2)	(-1,1,-1,0,-1)	C(4)	C(5)	C(6)	1.34(1) (1)
C(5)	C(7)	2.36(1)	(1)	C(5)	C(8)	3.31(1)	(1)
C(6)	C(7)	2.77(1)	(1)	C(6)	C(8)	3.46(1)	(1)
C(8)	C(9)	1.42(2)	(1)	C(8)	C(10)	2.46(2)	(1)
C(8)	C(11)	3.00(1)	(1)	C(8)	C(12)	3.10(2)	(1)
C(8)	C(13)	2.68(2)	(1)	C(8)	C(14)	2.38(2)	(1)
C(8)	C(15)	1.52(2)	(1)	C(9)	C(10)	1.39(2)	(1)
C(9)	C(11)	2.48(2)	(1)	C(9)	C(12)	3.20(2)	(1)
C(9)	C(13)	3.37(2)	(1)	C(9)	C(14)	3.52(2)	(1)
C(9)	C(15)	2.58(2)	(1)	C(10)	C(11)	1.37(2)	(1)
C(10)	C(12)	2.56(2)	(1)	C(10)	C(13)	3.31(2)	(1)
C(10)	C(15)	3.09(2)	(1)	C(11)	C(12)	1.42(2)	(1)
C(11)	C(13)	2.59(2)	(1)	C(11)	C(14)	3.44(2)	(1)
C(11)	C(15)	3.16(1)	(1)	C(12)	C(13)	1.41(2)	(1)

Table 8. Distances beyond the asymmetric unit out to 3.60 Å (continued)

atom	atom	distance	ADC	atom	atom	distance	ADC
C(12)	C(14)	2.60(2)	(1)	C(12)	C(15)	2.94(2)	(1)
C(13)	C(14)	1.49(2)	(1)	C(13)	C(15)	2.38(2)	(1)
C(14)	C(15)	1.45(2)	(1)	C(16)	C(17)	1.42(1)	(1)
C(16)	C(18)	2.49(1)	(1)	C(16)	C(19)	2.90(1)	(1)
C(16)	C(20)	2.44(1)	(1)	C(16)	C(21)	1.45(1)	(1)
C(16)	C(23)	3.52(1)	(1)	C(16)	C(24)	3.28(1)	(1)
C(17)	C(18)	1.45(1)	(1)	C(17)	C(19)	2.51(1)	(1)
C(17)	C(20)	2.85(1)	(1)	C(17)	C(21)	2.48(1)	(1)
C(17)	C(23)	3.45(1)	(1)	C(17)	C(24)	3.29(1)	(1)
C(18)	C(19)	1.45(1)	(1)	C(18)	C(20)	2.50(1)	(1)
C(18)	C(21)	2.87(1)	(1)	C(18)	C(23)	3.36(1)	(1)
C(18)	C(28)	3.31(1)	(1)	C(19)	C(20)	1.49(1)	(1)
C(19)	C(21)	2.49(1)	(1)	C(19)	C(23)	3.39(1)	(1)
C(20)	C(21)	1.35(1)	(1)	C(20)	C(22)	2.36(1)	(1)
C(20)	C(23)	3.37(1)	(1)	C(21)	C(22)	2.80(1)	(1)
C(21)	C(23)	3.47(1)	(1)	C(23)	C(24)	1.42(1)	(1)
C(23)	C(25)	2.47(1)	(1)	C(23)	C(26)	3.00(1)	(1)
C(23)	C(27)	3.13(1)	(1)	C(23)	C(28)	2.72(1)	(1)
C(23)	C(29)	2.41(1)	(1)	C(23)	C(30)	1.51(1)	(1)
C(24)	C(25)	1.42(1)	(1)	C(24)	C(26)	2.51(1)	(1)
C(24)	C(27)	3.25(1)	(1)	C(24)	C(28)	3.42(1)	(1)
C(24)	C(29)	3.54(1)	(1)	C(24)	C(30)	2.55(1)	(1)
C(25)	C(26)	1.40(1)	(1)	C(25)	C(27)	2.62(1)	(1)
C(25)	C(28)	3.37(1)	(1)	C(25)	C(30)	3.07(1)	(1)
C(26)	C(27)	1.44(1)	(1)	C(26)	C(28)	2.60(1)	(1)
C(26)	C(29)	3.42(1)	(1)	C(26)	C(30)	3.12(1)	(1)
C(27)	C(28)	1.41(1)	(1)	C(27)	C(29)	2.59(1)	(1)
C(27)	C(30)	2.96(1)	(1)	C(28)	C(29)	1.50(1)	(1)
C(28)	C(30)	2.42(1)	(1)	C(29)	C(30)	1.50(1)	(1)

*ADC (S, L, TX, TY, TZ) represents:

S: Symmetry operation number. -S is inversion of operation S.

(1) X,Y,Z

(2) $-X+1/2, Y+1/2, -Z+1/2$

L: Lattice translation.

(1) 0, 0, 0

TX, TY, TZ: Unit cell translation along the x, y, and z directions.

Table 9. Distances beyond the asymmetric unit out to 3.60 Å

atom	atom	distance	ADC	atom	atom	distance	ADC
RU(1)	O(4)	2.172(6)	(1)	RU(1)	C(1)	3.042(8)	(1)
RU(1)	C(2)	2.152(8)	(1)	RU(1)	C(3)	2.146(7)	(1)
RU(1)	C(4)	3.076(7)	(1)	RU(1)	C(8)	2.20(1)	(1)
RU(1)	C(9)	2.12(1)	(1)	RU(1)	C(10)	2.236(9)	(1)
RU(1)	C(11)	2.248(9)	(1)	RU(1)	C(12)	2.18(1)	(1)
RU(1)	C(13)	2.20(1)	(1)	RU(1)	C(14)	3.11(1)	(1)
RU(1)	C(15)	3.11(1)	(1)	RU(1)	C(16)	2.925(8)	(1)
RU(1)	C(17)	2.942(8)	(1)	RU(1)	H(1)	2.68(2)	(1)
RU(1)	H(6)	2.74(3)	(1)	RU(1)	H(7)	2.71(3)	(1)
RU(1)	H(8)	2.75(4)	(1)	RU(1)	H(9)	2.69(3)	(1)
RU(1)	H(10)	2.68(3)	(1)	RU(1)	H(11)	2.71(3)	(1)
RU(1)	H(13)	3.38(5)	(1)	RU(1)	H(14)	3.33(3)	(1)
RU(2)	O(1)	2.149(5)	(1)	RU(2)	C(1)	2.904(8)	(1)
RU(2)	C(2)	2.938(7)	(1)	RU(2)	C(16)	3.057(8)	(1)
RU(2)	C(17)	2.152(7)	(1)	RU(2)	C(18)	2.146(8)	(1)
RU(2)	C(19)	3.098(9)	(1)	RU(2)	C(23)	2.204(8)	(1)
RU(2)	C(24)	2.133(8)	(1)	RU(2)	C(25)	2.259(8)	(1)
RU(2)	C(26)	2.238(8)	(1)	RU(2)	C(27)	2.182(8)	(1)
RU(2)	C(28)	2.222(8)	(1)	RU(2)	C(29)	3.125(9)	(1)
RU(2)	C(30)	3.101(8)	(1)	RU(2)	H(16)	2.67(2)	(1)
RU(2)	H(21)	2.75(2)	(1)	RU(2)	H(22)	2.73(2)	(1)
RU(2)	H(23)	2.78(2)	(1)	RU(2)	H(24)	2.66(2)	(1)
RU(2)	H(25)	2.69(2)	(1)	RU(2)	H(26)	2.74(2)	(1)
RU(2)	H(26)	3.29(2)	(-1)	RU(2)	H(28)	3.40(3)	(1)
RU(2)	H(29)	3.31(3)	(1)	CL(1)	H(1)	2.8(1)	(-1,1,-1,0,-1)
CL(1)	H(15)	2.8(2)	(2,1,-1,0,-1)	CL(1)	H(19)	2.77(4)	(1)
CL(1)	H(29)	3.5(1)	(-1,1,-1)	CL(1)	H(31)	2.30(6)	(1)
CL(1)	H(32)	2.29(6)	(1)	CL(2)	H(16)	2.9(2)	(-1,1,-1,0,-1)
CL(2)	H(18)	3.2(1)	(-1,1,-2,0,-1)	CL(2)	H(19)	3.19(8)	
CL(2)	H(27)	3.3(2)	(1,1,-1,0,-1)	CL(2)	H(31)	2.02(5)	(1)
CL(2)	H(31)	2.95(5)	(-1,1,-2,0,-1)	CL(2)	H(32)	2.04(6)	(1)
O(1)	H(2)	2.57(3)	(1)	O(1)	H(7)	3.10(4)	(1)
O(1)	H(10)	3.12(8)	(-2,1,0,-1)	O(1)	H(11)	3.26(8)	(-2,1,0,-1)
O(1)	H(16)	2.72(3)	(1)	O(1)	H(24)	2.83(3)	(1)
O(1)	H(25)	2.72(3)	(1)	O(1)	H(26)	3.51(4)	(1)
O(1)	H(26)	2.59(4)	(-1)	O(1)	H(27)	3.46(6)	(-1)
O(1)	H(28)	3.47(6)	(-1)	O(2)	H(1)	2.61(3)	(1)

Table 9. Distances beyond the asymmetric unit out to 3.60 Å (continued)

atom	atom	distance	ADC	atom	atom	distance	ADC
O(2)	H(3)	2.60(5)	(-2,1,-1,-1,-1)	O(2)	O(2)	H(4)	3.56(5)
	(-2,1,-1,-1,-1)						
O(2)	H(5)	3.15(5)	(-2,1,-1,-1,-1)	O(2)	H(8)	2.7(1)	
	(-2,1,0,-1,-1)						
O(2)	H(9)	2.7(1)	(-2,1,0,-1,-1)	O(2)	H(13)	3.01(4) (1)	
O(2)	H(22)	2.76(9)	(-2,1,0,-1,-1)	O(2)	H(23)	2.98(9)	
	(-2,1,0,-1,-1)						
O(2)	H(32)	2.8(4)	(-1,1,-1,0,-1)	O(3)	H(2)	2.60(3) (1)	
O(3)	H(3)	1.95(2)	(1)	O(3)	H(4)	1.96(2) (1)	
O(3)	H(5)	1.97(2)	(1)	O(3)	H(6)	3.11(4) (1)	
O(3)	H(8)	2.6(1)	(-2,1,0,-1,-1)	O(3)	H(17)	3.55(9) (1,1,1)	
O(3)	H(23)	2.63(9)	(-2,1,0,-1,-1)	O(4)	H(1)	2.74(3) (1)	
O(4)	H(4)	3.55(8)	(1,1,-1)	O(4)	H(5)	2.70(9) (1,1,-1)	
O(4)	H(7)	2.84(6)	(-2,1,-1,-1,-1)	O(4)	H(9)	2.90(4) (1)	
O(4)	H(10)	2.74(3)	(1)	O(4)	H(11)	3.48(5) (1)	
O(4)	H(17)	2.59(3)	(1)	O(4)	H(22)	3.04(3) (1)	
O(5)	H(12)	2.8(1)	(2,1,-1,0,-1)	O(5)	H(14)	3.0(1) (2,1,-1,0,-1)	
O(5)	H(16)	2.58(3)	(1)	O(5)	H(19)	3.55(5) (-1,1,-1,0,-1)	
O(5)	H(20)	3.06(5)	(-1,1,-1,0,-1)	O(5)	H(25)	2.76(6) (-1)	
O(5)	H(28)	3.20(4)	(1)	O(5)	H(31)	3.4(2) (1,1,1)	
O(6)	H(12)	3.1(1)	(2,1,-1,0,-1)	O(6)	H(14)	3.1(1) (2,1,-1,0,-1)	
O(6)	H(15)	3.2(1)	(2,1,-1,0,-1)	O(6)	H(17)	2.62(3) (1)	
O(6)	H(18)	1.83(2)	(1)	O(6)	H(19)	1.97(2) (1)	
O(6)	H(19)	3.57(2)	(-1,1,-1,0,-1)	O(6)	H(20)	1.88(2) (1)	
O(6)	H(20)	3.06(2)	(-1,1,-1,0,-1)	O(6)	H(21)	3.20(3) (1)	
O(6)	H(29)	3.55(6)	(-1,1,-1)	O(6)	H(30)	3.37(6) (-1,1,-1)	
C(1)	H(1)	3.23(3)	(1)	C(1)	H(2)	2.09(2) (1)	
C(1)	H(6)	3.21(4)	(1)	C(1)	H(7)	2.92(4) (1)	
C(1)	H(11)	3.48(7)	(-2,1,0,-1)	C(1)	H(16)	2.75(3) (1)	
C(1)	H(26)	3.36(6)	(-1)	C(1)	H(27)	3.49(9) (-1)	
C(2)	H(1)	2.03(2)	(1)	C(2)	H(2)	3.33(3) (1)	
C(2)	H(6)	3.42(4)	(1)	C(2)	H(7)	3.29(4) (1)	
C(2)	H(16)	2.63(3)	(1)	C(3)	H(1)	0.950(9) (1)	
C(3)	H(6)	3.27(4)	(1)	C(3)	H(11)	3.27(4) (1)	
C(3)	H(16)	3.59(4)	(1)	C(3)	H(32)	3.3(3) (-1,1,-1,0,-1)	
C(4)	H(1)	2.05(2)	(1)	C(4)	H(2)	3.36(4) (1)	
C(4)	H(3)	3.42(5)	(-2,1,-1,-1,-1)	C(4)	H(6)	2.91(4) (1)	
C(4)	H(8)	3.48(9)	(-2,1,0,-1,-1)	C(4)	H(13)	3.21(4) (1)	
C(4)	H(32)	2.9(3)	(-1,1,-1,0,-1)	C(5)	H(1)	3.29(3) (1)	
C(5)	H(2)	1.99(2)	(1)	C(5)	H(3)	2.58(3) (1)	

Table 9. Distances beyond the asymmetric unit out to 3.60 Å (continued)

atom	atom	distance	ADC	atom	atom	distance	ADC
C(5)	H(4)	2.59(3)	(1)	C(5)	H(5)	3.15(4)	(1)
C(5)	H(6)	2.57(4)	(1)	C(5)	H(8)	3.5(1)	(-2,1,0,-1,-1)
C(5)	H(23)	3.60(9)	(-2,1,0,-1,-1)	C(5)	H(32)	3.5(4)	
	(-1,1,-1,0,-1)						
C(6)	H(2)	0.950(9)	(1)	C(6)	H(3)	2.72(3)	(1)
C(6)	H(4)	2.70(3)	(1)	C(6)	H(6)	2.79(4)	(1)
C(6)	H(7)	3.33(5)	(1)	C(6)	H(11)	2.92(8)	(-2,1,0,-1)
C(6)	H(27)	3.2(1)	(-1)	C(7)	H(2)	2.46(3)	(1)
C(7)	H(3)	0.95(1)	(1)	C(7)	H(4)	0.95(1)	(1)
C(7)	H(5)	0.95(1)	(1)	C(7)	H(8)	3.4(1)	(-2,1,0,-1,-1)
C(7)	H(9)	3.5(1)	(1,1,1)	C(7)	H(17)	3.2(1)	(1,1,1)
C(7)	H(22)	2.9(1)	(1,1,1)	C(7)	H(23)	3.4(1)	(-2,1,0,-1,-1)
C(8)	H(6)	0.95(1)	(1)	C(8)	H(7)	2.06(3)	(1)
C(8)	H(8)	3.25(6)	(1)	C(8)	H(11)	3.49(5)	(1)
C(8)	H(12)	3.23(5)	(1)	C(8)	H(13)	2.60(5)	(1)
C(8)	H(14)	2.04(3)	(1)	C(8)	H(15)	2.05(3)	(1)
C(9)	H(6)	2.02(4)	(1)	C(9)	H(7)	0.95(1)	(1)
C(9)	H(8)	1.96(4)	(1)	C(9)	H(9)	3.15(6)	(1)
C(9)	H(14)	2.61(4)	(1)	C(9)	H(15)	3.18(5)	(1)
C(9)	H(17)	3.0(1)	(-2,1,0,-1)	C(9)	H(23)	3.35(5)	(1)
C(10)	H(6)	3.27(6)	(1)	C(10)	H(7)	2.04(4)	(1)
C(10)	H(8)	0.95(2)	(1)	C(10)	H(9)	1.89(3)	(1)
C(10)	H(10)	3.24(5)	(1)	C(10)	H(14)	2.74(5)	(1)
C(10)	H(17)	3.06(8)	(-2,1,0,-1)	C(10)	H(23)	2.95(4)	(1)
C(11)	H(7)	3.29(5)	(1)	C(11)	H(8)	1.95(3)	(1)
C(11)	H(9)	0.95(2)	(1)	C(11)	H(10)	1.99(3)	(1)
C(11)	H(11)	3.32(6)	(1)	C(11)	H(14)	2.70(4)	(1)
C(11)	H(24)	3.59(8)	(-2,1,-1,-1,-1)	C(11)	H(32)	3.0(3)	
	(2,1,-2,-1,-1)						
C(12)	H(8)	3.26(5)	(1)	C(12)	H(9)	1.93(4)	(1)
C(12)	H(10)	0.95(1)	(1)	C(12)	H(11)	1.99(4)	(1)
C(12)	H(12)	2.95(6)	(1)	C(12)	H(13)	3.32(7)	(1)
C(12)	H(14)	2.71(4)	(1)	C(12)	H(24)	3.1(1)	(-2,1,-1,-1,-1)
C(13)	H(1)	3.54(5)	(1)	C(13)	H(2)	3.08(9)	(-2,1,-1,-1,-1)
C(13)	H(6)	3.33(5)	(1)	C(13)	H(9)	3.25(7)	(1)
C(13)	H(10)	1.97(4)	(1)	C(13)	H(11)	0.95(1)	(1)
C(13)	H(12)	2.03(3)	(1)	C(13)	H(13)	2.02(5)	(1)
C(13)	H(14)	2.60(4)	(1)	C(13)	H(15)	3.21(5)	(1)
C(14)	H(6)	2.86(5)	(1)	C(14)	H(10)	3.32(7)	(1)

Table 9. Distances beyond the asymmetric unit out to 3.60 Å (continued)

atom	atom	distance	ADC	atom	atom	distance	ADC
C(14)	H(11)	2.06(4)	(1)	C(14)	H(12)	0.95(2)	(1)
C(14)	H(13)	0.95(2)	(1)	C(14)	H(14)	1.98(4)	(1)
C(14)	H(15)	1.99(4)	(1)	C(14)	H(28)	3.5(2)	(2,1,-1,-1,-1)
C(14)	H(29)	3.3(2)	(-2,1,0,-1,-1)	C(14)	H(30)	3.4(2)	
	(-2,1,0,-1,-1)						
C(15)	H(6)	2.10(3)	(1)	C(15)	H(7)	3.36(5)	(1)
C(15)	H(11)	3.22(5)	(1)	C(15)	H(12)	1.99(4)	(1)
C(15)	H(13)	1.98(4)	(1)	C(15)	H(14)	0.95(2)	(1)
C(15)	H(15)	0.95(1)	(1)	C(15)	H(17)	3.6(1)	(-2,1,0,-1)
C(15)	H(20)	3.5(2)	(-2,1,0,-1)	C(16)	H(1)	2.77(3)	(1)
C(16)	H(4)	3.59(9)	(1,1,-1)	C(16)	H(5)	3.3(1)	(1,1,-1)
C(16)	H(16)	3.24(4)	(1)	C(16)	H(17)	2.09(2)	(1)
C(16)	H(21)	3.22(4)	(1)	C(16)	H(22)	2.89(4)	(1)
C(17)	H(1)	2.65(3)	(1)	C(17)	H(16)	2.03(2)	(1)
C(17)	H(17)	3.34(4)	(1)	C(17)	H(21)	3.43(4)	(1)
C(17)	H(22)	3.26(4)	(1)	C(18)	H(1)	3.60(4)	(1)
C(18)	H(16)	0.95(1)	(1)	C(18)	H(21)	3.31(4)	(1)
C(18)	H(25)	3.21(5)	(-1)	C(18)	H(26)	3.32(4)	(1)
C(18)	H(26)	3.12(4)	(-1)	C(19)	H(12)	3.5(1)	(2,1,-1,0,-1)
C(19)	H(16)	2.03(2)	(1)	C(19)	H(17)	3.35(4)	(1)
C(19)	H(20)	3.55(5)	(-1,1,-1,0,-1)	C(19)	H(21)	2.99(4)	(1)
C(19)	H(25)	3.35(6)	(-1)	C(19)	H(28)	3.33(5)	(1)
C(20)	H(16)	3.28(4)	(1)	C(20)	H(17)	2.00(2)	(1)
C(20)	H(18)	2.52(3)	(1)	C(20)	H(19)	3.16(4)	(1)
C(20)	H(20)	2.62(3)	(1)	C(20)	H(20)	3.56(3)	(-1,1,-1,0,-1)
C(20)	H(21)	2.65(3)	(1)	C(21)	H(4)	3.2(1)	(1,1,-1)
C(21)	H(5)	3.4(1)	(1,1,-1)	C(21)	H(14)	3.5(1)	(-2,1,-1,-1,-1)
C(21)	H(17)	0.95(1)	(1)	C(21)	H(18)	2.73(4)	(1)
C(21)	H(20)	2.86(4)	(1)	C(21)	H(21)	2.81(3)	(1)
C(21)	H(22)	3.34(4)	(1)	C(22)	H(14)	3.4(2)	(-2,1,-1,-1,-1)
C(22)	H(15)	3.5(2)	(2,1,-1,0,-1)	C(22)	H(17)	2.50(3)	(1)
C(22)	H(18)	0.75(1)	(1)	C(22)	H(19)	0.99(1)	(1)
C(22)	H(20)	0.84(1)	(1)	C(22)	H(27)	3.6(1)	(-1,1,-1)
C(22)	H(29)	3.50(9)	(-1,1,-1)	C(23)	H(4)	3.5(1)	(1,1,-1)
C(23)	H(13)	3.3(1)	(-2,1,-1,-1)	C(23)	H(21)	0.95(1)	(1)
C(23)	H(22)	2.06(2)	(1)	C(23)	H(23)	3.27(4)	(1)
C(23)	H(26)	3.53(4)	(1)	C(23)	H(27)	3.25(4)	(1)
C(23)	H(28)	2.61(3)	(1)	C(23)	H(29)	2.04(2)	(1)

Table 9. Distances beyond the asymmetric unit out to 3.60 Å (continued)

atom	atom	distance	ADC	atom	atom	distance	ADC
C(23)	H(30)	2.04(3)	(1)	C(23)	H(30)	3.10(3)	(-1,1,-1)
C(24)	H(4)	3.2(1)	(1,1,-1)	C(24)	H(8)	3.39(5)	(1)
C(24)	H(13)	2.8(1)	(-2,1,-1,-1)	C(24)	H(21)	2.02(2)	(1)
C(24)	H(22)	0.95(1)	(1)	C(24)	H(23)	2.00(2)	(1)
C(24)	H(24)	3.17(4)	(1)	C(24)	H(29)	2.59(3)	(1)
C(24)	H(30)	3.14(4)	(1)	C(25)	H(8)	2.95(4)	(1)
C(25)	H(13)	3.1(1)	(-2,1,-1,-1)	C(25)	H(21)	3.29(4)	(1)
C(25)	H(22)	2.06(2)	(1)	C(25)	H(23)	0.95(1)	(1)
C(25)	H(24)	1.90(2)	(1)	C(25)	H(25)	3.29(4)	(1)
C(25)	H(29)	2.69(3)	(1)	C(26)	H(10)	3.3(1)	(-2,1,0,-1)
C(26)	H(22)	3.32(4)	(1)	C(26)	H(23)	1.98(2)	(1)
C(26)	H(24)	0.95(1)	(1)	C(26)	H(25)	2.00(3)	(1)
C(26)	H(26)	3.33(4)	(1)	C(26)	H(29)	2.65(3)	(1)
C(26)	H(31)	3.2(3)	(-1,1,-1)	C(27)	H(16)	3.11(5)	(-1)
C(27)	H(23)	3.31(4)	(1)	C(27)	H(24)	1.93(3)	(1)
C(27)	H(25)	0.95(1)	(1)	C(27)	H(26)	1.98(3)	(1)
C(27)	H(26)	3.23(3)	(-1)	C(27)	H(27)	2.96(4)	(1)
C(27)	H(28)	3.32(4)	(1)	C(27)	H(29)	2.72(4)	(1)
C(27)	H(31)	3.1(3)	(-1,1,-1)	C(28)	H(16)	3.58(5)	(1)
C(28)	H(16)	3.04(5)	(-1)	C(28)	H(21)	3.36(4)	(1)
C(28)	H(24)	3.25(4)	(1)	C(28)	H(25)	1.97(2)	(1)
C(28)	H(25)	3.58(2)	(-1)	C(28)	H(26)	0.95(1)	(1)
C(28)	H(26)	2.95(1)	(-1)	C(28)	H(27)	2.04(3)	(1)
C(28)	H(28)	2.02(3)	(1)	C(28)	H(29)	2.63(4)	(1)
C(28)	H(30)	3.26(4)	(1)	C(29)	H(2)	3.4(1)	(-1)
C(29)	H(21)	2.87(3)	(1)	C(29)	H(25)	3.33(4)	(1)
C(29)	H(26)	2.07(3)	(1)	C(29)	H(27)	0.95(1)	(1)
C(29)	H(28)	0.95(1)	(1)	C(29)	H(29)	2.02(3)	(1)
C(29)	H(30)	2.04(3)	(1)	C(29)	H(30)	3.29(3)	(-1,1,-1)
C(30)	H(12)	3.2(2)	(-2,1,-1,-1)	C(30)	H(13)	3.3(2)	(-2,1,-1,-1)
C(30)	H(21)	2.10(2)	(1)	C(30)	H(21)	3.42(2)	(-1,1,-1)
C(30)	H(22)	3.34(4)	(1)	C(30)	H(26)	3.27(4)	(1)
C(30)	H(27)	2.03(3)	(1)	C(30)	H(28)	2.02(3)	(1)
C(30)	H(29)	0.95(1)	(1)	C(30)	H(30)	0.95(1)	(1)
C(30)	H(30)	2.87(1)	(-1,1,-1)	C(31)	H(1)	3.3(3)	(-1,1,-1,0,-1)
C(31)	H(9)	3.5(3)	(2,1,-2,0,-1)	C(31)	H(24)	3.5(3)	(-1,1,-1)
C(31)	H(31)	0.95(3)	(1)	C(31)	H(32)	0.95(3)	(1)

Table 9. Distances beyond the asymmetric unit out to 3.60 Å (continued)

atom	atom	distance	ADC	atom	atom	distance	ADC
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*ADC (S, L, TX, TY, TZ) represents:

S: Symmetry operation number. -S is inversion of operation S.

(1) X,Y,Z

(2) -X+1/2,Y+1/2,-Z+1/2

L: Lattice translation.

(1) 0, 0, 0

TX, TY, TZ: Unit cell translation along the x, y, and z directions.

Table 10. Least Squares Planes

Plane number 1

Co-ordinates of the defining atoms projected onto the best plane

Type	Serial	XP	YP	ZP
C	1	0.780	-1.191	0.012
C	2	-0.629	-1.284	-0.008
C	3	-1.450	-0.083	-0.012
C	4	-0.812	1.223	0.026
C	5	0.687	1.228	-0.023
C	6	1.423	0.106	0.004

Plane number 2

Co-ordinates of the defining atoms projected onto the best plane

Type	Serial	XP	YP	ZP
C	16	-0.754	-1.217	-0.019
C	17	0.667	-1.270	0.006
C	18	1.446	-0.044	0.022
C	19	0.778	1.240	-0.035
C	20	-0.714	1.218	0.024
C	21	-1.423	0.072	0.003

Plane number 3

Co-ordinates of the defining atoms projected onto the best plane

Type	Serial	XP	YP	ZP
RU	1	1.348	-0.004	0.000
C	2	-0.679	-0.725	0.000
C	3	-0.669	0.729	0.000

Plane number 4

Co-ordinates of the defining atoms projected onto the best plane

Type	Serial	XP	YP	ZP
RU	2	1.348	-0.004	0.000
C	17	-0.680	-0.724	0.000
C	18	-0.669	0.728	0.000

Angle between plane 1 and plane 2 is 119.13 Degrees

Angle between plane 1 and plane 3 is 107.72 Degrees

Angle between plane 2 and plane 4 is 71.50 Degrees



