Pentanuclear Polyhydride Cluster of Ruthenium with Trigonal Bipyramidal Geometry. Synthesis and Fluxional Behavior

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Supporting Information

Crystallographic data and results of the analyses are listed in Table S-1.

Table S-1. Crystal data and structure refinement for **1**, **2**, **4**, and **6**.

	1	**2**	**4**	**6**
Formula	$C_{11}H_{21}N_2ClRu$	$C_{25}H_{32}Ru_5$	$C_{60}H_{84}Ru_{10}$ $C_4H_{10}O$	$C_{30}H_{42}Ru_5$
Fw	317.82	837.88	1890.15	908.01
Crystal system	Orthorhombic	Triclinic	Triclinic	Monoclinic
Temperature (°C)	-100	-40	-50	-50
Space group	$P2_12_12_1$	$P\bar{1}$	$P\bar{1}$	$P2_1/a$
a (Å)	11.930(4)	13.494(3)	17.7090(1)	18.3544(6)
b (Å)	12.896(3)	18.619(3)	18.0233(2)	15.3264(2)
c (Å)	8.4847(8)	10.431(2)	10.9872(2)	9.9814(3)
α (°)		101.73(2)	104.941(1)	
β (°)		103.81(2)	96.936(1)	98.6235(6)
γ (°)		98.04(2)	92.7980(8)	
V (Å^3)	1305.4(4)	2442.5(10)	3351.76(7)	2776.1(1)
Z	4	4	2	4
D_{calcd}, (g/cm^3)	1.617	2.278	1.873	2.172
μ (cm^{-1})	13.78	30.32	22.22	26.77
Max 2θ (°)	60.1	55.0	55.0	55.0
no. of data collected	2085	11711	13777	6210
no. of uniquie data with $I > 3\sigma(I)$	2018	6508	5919 (>5σ)	5198
no. of params refined	137	541	601	317
R	0.032	0.050	0.058	0.034
Rw	0.037	0.056	0.058	0.032

Table S-2. Atomic coordinates, bond distances and angles for **1**

_atom_site_label
_atom_site_fract_x
_atom_site_fract_y
_atom_site_fract_z
_atom_site_U_iso_or_equiv
_atom_site_thermal_displace_type
_atom_site_calc_flag
_atom_site_calc_attached_atom
_atom_site_occupancy
_atom_site_refinement_flags

Ru(1)	0.06905(2)	0.14777(2)	0.18543(3)	0.0263(1)	Uani	d	.	1.00 .
Cl(1)	0.04692(9)	0.31518(7)	0.0422(2)	0.0482(2)	Uani	d	.	1.00 .
N(1)	-0.0043(3)	0.0696(3)	-0.0263(4)	0.0330(6)	Uani	d	.	1.00 .
N(2)	-0.1164(2)	0.1470(2)	0.2516(4)	0.0309(5)	Uani	d	.	1.00 .
C(1)	0.1338(3)	0.0485(4)	0.3656(6)	0.051(1)	Uani	d	.	1.00 .
C(2)	0.1405(4)	0.1542(4)	0.4155(5)	0.054(1)	Uani	d	.	1.00 .
C(3)	0.2111(3)	0.2080(4)	0.3058(5)	0.0457(8)	Uani	d	.	1.00 .
C(4)	0.2482(3)	0.1351(3)	0.1893(5)	0.0414(9)	Uani	d	.	1.00 .
C(5)	0.1977(3)	0.0383(3)	0.2294(6)	0.0453(10)	Uani	d	.	1.00 .
C(6)	0.0062(4)	-0.0441(3)	-0.0201(6)	0.047(1)	Uani	d	.	1.00 .
C(7)	0.0450(5)	0.1014(4)	-0.1789(5)	0.0520(10)	Uani	d	.	1.00 .
C(8)	-0.1248(3)	0.0978(3)	-0.0277(5)	0.0378(8)	Uani	d	.	1.00 .
C(9)	-0.1749(3)	0.0823(3)	0.1338(6)	0.0394(8)	Uani	d	.	1.00 .
C(10)	-0.1677(4)	0.2526(3)	0.2511(6)	0.0460(9)	Uani	d	.	1.00 .
C(11)	-0.1351(4)	0.1035(4)	0.4105(5)	0.0444(9)	Uani	d	.	1.00 .
H(1)	0.1032	-0.0286	0.4078	0.0465	Uiso	calc	.	1.00 .
H(2)	0.1067	0.1831	0.5101	0.0583	Uiso	calc	.	1.00 .
H(3)	0.2316	0.2794	0.3115	0.0501	Uiso	calc	.	1.00 .
H(4)	0.2955	0.1513	0.0985	0.0465	Uiso	calc	.	1.00 .
H(5)	0.2060	-0.0255	0.1416	0.0465	Uiso	calc	.	1.00 .
H(6)	0.0837	-0.0630	0.0037	0.0586	Uiso	calc	.	1.00 .
H(7)	-0.0192	-0.0779	-0.1059	0.0586	Uiso	calc	.	1.00 .
H(8)	-0.0360	-0.0687	0.0749	0.0586	Uiso	calc	.	1.00 .
H(9)	0.0183	0.0601	-0.2594	0.0591	Uiso	calc	.	1.00 .
H(10)	0.1255	0.0944	-0.1702	0.0591	Uiso	calc	.	1.00 .
H(11)	0.0282	0.1725	-0.1955	0.0591	Uiso	calc	.	1.00 .
H(12)	-0.1350	0.1662	-0.0560	0.0484	Uiso	calc	.	1.00 .
H(13)	-0.1642	0.0525	-0.0990	0.0484	Uiso	calc	.	1.00 .
H(14)	-0.1680	0.0094	0.1620	0.0496	Uiso	calc	.	1.00 .
H(15)	-0.2519	0.0990	0.1311	0.0496	Uiso	calc	.	1.00 .
H(16)	-0.1786	0.2744	0.1437	0.0487	Uiso	calc	.	1.00 .
H(17)	-0.1177	0.3004	0.3005	0.0487	Uiso	calc	.	1.00 .
H(18)	-0.2370	0.2526	0.3036	0.0487	Uiso	calc	.	1.00 .
H(19)	-0.1171	0.1557	0.4880	0.0469	Uiso	calc	.	1.00 .
H(20)	-0.0900	0.0446	0.4290	0.0469	Uiso	calc	.	1.00 .
H(21)	-0.2123	0.0855	0.4240	0.0469	Uiso	calc	.	1.00 .

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Ru(1)	0.0254(2)	0.0261(2)	0.0275(2)	-0.00160(7)	-0.00182(8)	0.00348(9)
Cl(1)	0.0492(5)	0.0319(4)	0.0636(6)	0.0007(3)	0.0036(5)	0.0167(4)
N(1)	0.032(1)	0.037(1)	0.029(1)	0.005(1)	0.000(1)	-0.004(1)
N(2)	0.031(1)	0.029(1)	0.033(1)	0.002(1)	0.002(1)	0.001(1)
C(1)	0.036(2)	0.061(2)	0.055(2)	-0.007(2)	-0.014(2)	0.028(2)
C(2)	0.046(2)	0.086(3)	0.031(2)	-0.009(2)	-0.009(2)	0.005(2)
C(3)	0.039(2)	0.052(2)	0.046(2)	-0.014(2)	-0.011(2)	-0.002(2)
C(4)	0.028(1)	0.052(2)	0.045(2)	-0.001(1)	-0.002(1)	0.014(2)
C(5)	0.035(2)	0.041(2)	0.060(3)	0.004(1)	-0.013(2)	0.010(2)
C(6)	0.060(2)	0.030(2)	0.052(3)	0.009(2)	-0.004(2)	-0.014(2)
C(7)	0.061(2)	0.062(2)	0.033(2)	0.006(2)	0.006(2)	-0.003(2)

```
 C(8)    0.034(2)    0.045(2)    0.034(2)    0.004(1)    -0.006(1)
-0.006(2)
 C(9)    0.030(1)    0.039(2)    0.049(2)    -0.004(1)    0.002(2)
-0.007(2)
 C(10)   0.055(2)    0.035(2)    0.048(2)    0.013(2)    0.009(2)
-0.002(2)
 C(11)   0.043(2)    0.049(2)    0.041(2)    -0.002(2)    0.013(2)
0.008(2)
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P=(Fo^2^+2Fc^2^)/3'
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_refine_ls_extinction_method              SHELXL
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_refine_ls_extinction_expression
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 Ru(1)    N(1)     2.247(4)    1_555 1_555 yes
 Ru(1)    N(2)     2.279(4)    1_555 1_555 yes
 Ru(1)    C(1)     2.119(5)    1_555 1_555 yes
 Ru(1)    C(2)     2.146(6)    1_555 1_555 yes
 Ru(1)    C(3)     2.130(5)    1_555 1_555 yes
 Ru(1)    C(4)     2.140(5)    1_555 1_555 yes
 Ru(1)    C(5)     2.108(4)    1_555 1_555 yes
 N(1)     C(6)     1.491(4)    1_555 1_555 yes
 N(1)     C(7)     1.442(7)    1_555 1_555 yes
 N(1)     C(8)     1.482(7)    1_555 1_555 yes
 N(2)     C(9)     1.482(7)    1_555 1_555 yes
 N(2)     C(10)    1.505(5)    1_555 1_555 yes
 N(2)     C(11)    1.472(7)    1_555 1_555 yes
 C(1)     C(2)     1.461(7)    1_555 1_555 yes
 C(1)     C(5)     1.367(10)   1_555 1_555 yes
 C(2)     C(3)     1.425(8)    1_555 1_555 yes
 C(3)     C(4)     1.431(8)    1_555 1_555 yes
 C(4)     C(5)     1.418(7)    1_555 1_555 yes
 C(8)     C(9)     1.485(9)    1_555 1_555 yes
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 Cl(1)    Ru(1)    N(1)     87.24(9)    1_555 1_555 1_555 yes
 Cl(1)    Ru(1)    N(2)     91.55(10)   1_555 1_555 1_555 yes
 Cl(1)    Ru(1)    C(1)     155.5(1)    1_555 1_555 1_555 yes
 Cl(1)    Ru(1)    C(2)     116.9(1)    1_555 1_555 1_555 yes
 Cl(1)    Ru(1)    C(3)     90.7(1)     1_555 1_555 1_555 yes
 Cl(1)    Ru(1)    C(4)     101.1(1)    1_555 1_555 1_555 yes
 Cl(1)    Ru(1)    C(5)     138.1(2)    1_555 1_555 1_555 yes
 N(1)     Ru(1)    N(2)     79.4(1)     1_555 1_555 1_555 yes
 N(1)     Ru(1)    C(1)     116.1(2)    1_555 1_555 1_555 yes
 N(1)     Ru(1)    C(2)     155.8(2)    1_555 1_555 1_555 yes
 N(1)     Ru(1)    C(3)     149.7(2)    1_555 1_555 1_555 yes
 N(1)     Ru(1)    C(4)     111.9(2)    1_555 1_555 1_555 yes
 N(1)     Ru(1)    C(5)     96.7(2)     1_555 1_555 1_555 yes
 N(2)     Ru(1)    C(1)     99.8(2)     1_555 1_555 1_555 yes
 N(2)     Ru(1)    C(2)     99.1(2)     1_555 1_555 1_555 yes
 N(2)     Ru(1)    C(3)     130.9(2)    1_555 1_555 1_555 yes
 N(2)     Ru(1)    C(4)     163.2(2)    1_555 1_555 1_555 yes
 N(2)     Ru(1)    C(5)     130.3(2)    1_555 1_555 1_555 yes
 C(1)     Ru(1)    C(2)     40.1(2)     1_555 1_555 1_555 yes
 C(1)     Ru(1)    C(3)     65.5(2)     1_555 1_555 1_555 yes
 C(1)     Ru(1)    C(4)     64.4(2)     1_555 1_555 1_555 yes
 C(1)     Ru(1)    C(5)     37.7(3)     1_555 1_555 1_555 yes
 C(2)     Ru(1)    C(3)     38.9(2)     1_555 1_555 1_555 yes
 C(2)     Ru(1)    C(4)     65.4(3)     1_555 1_555 1_555 yes
 C(2)     Ru(1)    C(5)     65.7(3)     1_555 1_555 1_555 yes
 C(3)     Ru(1)    C(4)     39.2(2)     1_555 1_555 1_555 yes
 C(3)     Ru(1)    C(5)     65.6(2)     1_555 1_555 1_555 yes
 C(4)     Ru(1)    C(5)     39.0(2)     1_555 1_555 1_555 yes
 Ru(1)    N(1)     C(6)     109.8(4)    1_555 1_555 1_555 yes
 Ru(1)    N(1)     C(7)     114.5(3)    1_555 1_555 1_555 yes
 Ru(1)    N(1)     C(8)     105.4(3)    1_555 1_555 1_555 yes
 C(6)     N(1)     C(7)     109.3(4)    1_555 1_555 1_555 yes
 C(6)     N(1)     C(8)     107.8(4)    1_555 1_555 1_555 yes
 C(7)     N(1)     C(8)     109.9(5)    1_555 1_555 1_555 yes
 Ru(1)    N(2)     C(9)     107.3(3)    1_555 1_555 1_555 yes
 Ru(1)    N(2)     C(10)    112.5(3)    1_555 1_555 1_555 yes
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Ru(1)	N(2)	C(11)	112.6(3)	1_555 1_555 1_555 yes
C(9)	N(2)	C(10)	108.7(4)	1_555 1_555 1_555 yes
C(9)	N(2)	C(11)	110.7(4)	1_555 1_555 1_555 yes
C(10)	N(2)	C(11)	105.1(4)	1_555 1_555 1_555 yes
Ru(1)	C(1)	C(2)	71.0(3)	1_555 1_555 1_555 yes
Ru(1)	C(1)	C(5)	70.7(3)	1_555 1_555 1_555 yes
Ru(1)	C(1)	H(1)	131.6(4)	1_555 1_555 1_555 no
C(2)	C(1)	C(5)	109.3(5)	1_555 1_555 1_555 yes
C(2)	C(1)	H(1)	137.7(7)	1_555 1_555 1_555 no
C(5)	C(1)	H(1)	112.1(5)	1_555 1_555 1_555 no
Ru(1)	C(2)	C(1)	69.0(3)	1_555 1_555 1_555 yes
Ru(1)	C(2)	C(3)	69.9(3)	1_555 1_555 1_555 yes
Ru(1)	C(2)	H(2)	127.7(5)	1_555 1_555 1_555 no
C(1)	C(2)	C(3)	105.6(5)	1_555 1_555 1_555 yes
C(1)	C(2)	H(2)	127.2(6)	1_555 1_555 1_555 no
C(3)	C(2)	H(2)	127.2(6)	1_555 1_555 1_555 no
Ru(1)	C(3)	C(2)	71.1(3)	1_555 1_555 1_555 yes
Ru(1)	C(3)	C(4)	70.8(3)	1_555 1_555 1_555 yes
Ru(1)	C(3)	H(3)	124.5(4)	1_555 1_555 1_555 no
C(2)	C(3)	C(4)	108.4(4)	1_555 1_555 1_555 yes
C(2)	C(3)	H(3)	126.5(6)	1_555 1_555 1_555 no
C(4)	C(3)	H(3)	125.1(6)	1_555 1_555 1_555 no
Ru(1)	C(4)	C(3)	70.0(3)	1_555 1_555 1_555 yes
Ru(1)	C(4)	C(5)	69.3(3)	1_555 1_555 1_555 yes
Ru(1)	C(4)	H(4)	121.3(4)	1_555 1_555 1_555 no
C(3)	C(4)	C(5)	107.5(6)	1_555 1_555 1_555 yes
C(3)	C(4)	H(4)	124.9(5)	1_555 1_555 1_555 no
C(5)	C(4)	H(4)	127.3(6)	1_555 1_555 1_555 no
Ru(1)	C(5)	C(1)	71.5(3)	1_555 1_555 1_555 yes
Ru(1)	C(5)	C(4)	71.7(3)	1_555 1_555 1_555 yes
Ru(1)	C(5)	H(5)	117.3(4)	1_555 1_555 1_555 no
C(1)	C(5)	C(4)	109.1(5)	1_555 1_555 1_555 yes
C(1)	C(5)	H(5)	133.1(5)	1_555 1_555 1_555 no
C(4)	C(5)	H(5)	117.4(7)	1_555 1_555 1_555 no
N(1)	C(6)	H(6)	109.7(4)	1_555 1_555 1_555 no
N(1)	C(6)	H(7)	110.0(5)	1_555 1_555 1_555 no
N(1)	C(6)	H(8)	110.4(5)	1_555 1_555 1_555 no
H(6)	C(6)	H(7)	108.4(5)	1_555 1_555 1_555 no
H(6)	C(6)	H(8)	108.9(6)	1_555 1_555 1_555 no
H(7)	C(6)	H(8)	109.4(5)	1_555 1_555 1_555 no
N(1)	C(7)	H(9)	110.4(5)	1_555 1_555 1_555 no
N(1)	C(7)	H(10)	109.4(5)	1_555 1_555 1_555 no
N(1)	C(7)	H(11)	110.2(5)	1_555 1_555 1_555 no
H(9)	C(7)	H(10)	108.1(5)	1_555 1_555 1_555 no
H(9)	C(7)	H(11)	110.0(5)	1_555 1_555 1_555 no
H(10)	C(7)	H(11)	108.7(6)	1_555 1_555 1_555 no
N(1)	C(8)	C(9)	111.6(5)	1_555 1_555 1_555 yes
N(1)	C(8)	H(12)	109.8(5)	1_555 1_555 1_555 no
N(1)	C(8)	H(13)	109.6(5)	1_555 1_555 1_555 no
C(9)	C(8)	H(12)	108.9(6)	1_555 1_555 1_555 no
C(9)	C(8)	H(13)	108.1(5)	1_555 1_555 1_555 no
H(12)	C(8)	H(13)	108.8(6)	1_555 1_555 1_555 no
N(2)	C(9)	C(8)	110.5(4)	1_555 1_555 1_555 yes
N(2)	C(9)	H(14)	109.4(6)	1_555 1_555 1_555 no
N(2)	C(9)	H(15)	108.7(5)	1_555 1_555 1_555 no
C(8)	C(9)	H(14)	109.6(5)	1_555 1_555 1_555 no
C(8)	C(9)	H(15)	109.7(6)	1_555 1_555 1_555 no
H(14)	C(9)	H(15)	108.9(5)	1_555 1_555 1_555 no
N(2)	C(10)	H(16)	109.8(5)	1_555 1_555 1_555 no
N(2)	C(10)	H(17)	109.6(4)	1_555 1_555 1_555 no
N(2)	C(10)	H(18)	111.1(4)	1_555 1_555 1_555 no
H(16)	C(10)	H(17)	108.0(5)	1_555 1_555 1_555 no
H(16)	C(10)	H(18)	109.6(5)	1_555 1_555 1_555 no
H(17)	C(10)	H(18)	108.7(6)	1_555 1_555 1_555 no
N(2)	C(11)	H(19)	111.3(4)	1_555 1_555 1_555 no
N(2)	C(11)	H(20)	109.7(5)	1_555 1_555 1_555 no
N(2)	C(11)	H(21)	110.5(5)	1_555 1_555 1_555 no
H(19)	C(11)	H(20)	108.5(6)	1_555 1_555 1_555 no
H(19)	C(11)	H(21)	109.6(6)	1_555 1_555 1_555 no
H(20)	C(11)	H(21)	107.2(5)	1_555 1_555 1_555 no

Table S-3. Atomic coordinates, bond distances and angles for 2

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_atom_site_fract_y
_atom_site_fract_z
_atom_site_U_iso_or_equiv
_atom_site_thermal_displace_type
_atom_site_calc_flag
_atom_site_calc_attached_atom
_atom_site_occupancy
_atom_site_refinement_flags

Ru(1) -0.34855(9) 0.21446(7) -0.2720(1) 0.0220(3) Uani d . 1.00 .
Ru(2) -0.36482(9) 0.21716(7) 0.0071(1) 0.0206(3) Uani d . 1.00 .
Ru(3) -0.54998(9) 0.17189(7) -0.2242(1) 0.0251(3) Uani d . 1.00 .
Ru(4) -0.39801(9) 0.08317(7) -0.1895(1) 0.0227(3) Uani d . 1.00 .
Ru(5) -0.4385(1) 0.32272(7) -0.1306(1) 0.0305(4) Uani d . 1.00 .
Ru(6) -0.26565(9) -0.31258(7) -0.3157(1) 0.0216(3) Uani d . 1.00 .
Ru(7) -0.07962(9) -0.29426(7) -0.4203(1) 0.0191(3) Uani d . 1.00 .
Ru(8) -0.07926(9) -0.35898(7) -0.1834(1) 0.0230(3) Uani d . 1.00 .
Ru(9) -0.19600(9) -0.43506(7) -0.4495(1) 0.0221(3) Uani d . 1.00 .
Ru(10) -0.08236(9) -0.20461(7) -0.1663(1) 0.0249(3) Uani d . 1.00 .
C(1) -0.290(2) 0.152(1) -0.426(2) 0.048(6) Uani d . 1.00 .
C(2) -0.205(1) 0.204(1) -0.324(2) 0.052(7) Uani d . 1.00 .
C(3) -0.223(1) 0.275(1) -0.325(2) 0.041(5) Uani d . 1.00 .
C(4) -0.318(1) 0.2683(10) -0.429(2) 0.039(5) Uani d . 1.00 .
C(5) -0.360(1) 0.191(1) -0.490(1) 0.039(5) Uani d . 1.00 .
C(6) -0.314(1) 0.1594(9) 0.165(1) 0.038(5) Uani d . 1.00 .
C(7) -0.230(1) 0.214(1) 0.169(1) 0.035(5) Uani d . 1.00 .
C(8) -0.260(1) 0.2841(10) 0.197(1) 0.037(5) Uani d . 1.00 .
C(9) -0.360(1) 0.2707(10) 0.215(1) 0.037(5) Uani d . 1.00 .

C(10) -0.396(1) 0.1942(10) 0.192(1) 0.032(5) Uani d . 1.00 .
C(11) -0.678(1) 0.079(1) -0.331(3) 0.064(7) Uani d . 1.00 .
C(12) -0.690(1) 0.113(2) -0.200(2) 0.066(7) Uani d . 1.00 .
C(13) -0.705(1) 0.185(1) -0.201(2) 0.050(6) Uani d . 1.00 .
C(14) -0.696(1) 0.196(1) -0.329(2) 0.052(6) Uani d . 1.00 .
C(15) -0.681(1) 0.132(1) -0.403(2) 0.050(6) Uani d . 1.00 .
C(16) -0.406(1) -0.0163(9) -0.113(2) 0.034(5) Uani d . 1.00 .
C(17) -0.304(1) 0.0066(8) -0.120(2) 0.033(5) Uani d . 1.00 .
C(18) -0.307(1) 0.0024(9) -0.255(2) 0.039(5) Uani d . 1.00 .
C(19) -0.410(1) -0.0194(9) -0.333(2) 0.042(5) Uani d . 1.00 .
C(20) -0.474(1) -0.0322(9) -0.245(2) 0.038(5) Uani d . 1.00 .
C(21) -0.440(2) 0.425(1) -0.200(2) 0.074(9) Uani d . 1.00 .
C(22) -0.378(2) 0.442(1) -0.059(3) 0.067(8) Uani d . 1.00 .
C(23) -0.449(2) 0.420(1) 0.012(2) 0.056(6) Uani d . 1.00 .
C(24) -0.549(2) 0.392(1) -0.080(2) 0.068(8) Uani d . 1.00 .
C(25) -0.541(2) 0.397(1) -0.208(2) 0.071(8) Uani d . 1.00 .
C(26) -0.427(1) -0.370(1) -0.410(2) 0.050(6) Uani d . 1.00 .
C(27) -0.403(1) -0.362(1) -0.268(2) 0.045(6) Uani d . 1.00 .
C(28) -0.379(1) -0.285(1) -0.205(2) 0.053(6) Uani d . 1.00 .
C(29) -0.388(1) -0.245(1) -0.309(2) 0.048(6) Uani d . 1.00 .
C(30) -0.419(1) -0.299(1) -0.432(2) 0.046(6) Uani d . 1.00 .
C(31) -0.030(1) -0.3462(9) -0.597(1) 0.031(5) Uani d . 1.00 .
C(32) 0.061(1) -0.2973(9) -0.494(1) 0.029(4) Uani d . 1.00 .
C(33) 0.040(1) -0.2257(9) -0.472(2) 0.032(5) Uani d . 1.00 .
C(34) -0.059(1) -0.2255(9) -0.561(2) 0.033(5) Uani d . 1.00 .
C(35) -0.100(1) -0.300(1) -0.636(1) 0.033(5) Uani d . 1.00 .
C(36) -0.073(2) -0.462(1) -0.113(2) 0.076(8) Uani d . 1.00 .
C(37) 0.023(2) -0.434(2) -0.121(2) 0.09(1) Uani d . 1.00 .
C(38) 0.061(1) -0.360(2) -0.025(2) 0.070(8) Uani d . 1.00 .
C(39) -0.019(2) -0.351(1) 0.037(2) 0.049(6) Uani d . 1.00 .
C(40) -0.100(1) -0.412(1) -0.019(2) 0.055(7) Uani d . 1.00 .
C(41) -0.154(1) -0.5267(8) -0.571(2) 0.037(5) Uani d . 1.00 .
C(42) -0.194(1) -0.5510(9) -0.473(1) 0.032(5) Uani d . 1.00 .
C(43) -0.298(1) -0.5394(10) -0.497(2) 0.041(5) Uani d . 1.00 .
C(44) -0.320(1) -0.5089(9) -0.610(2) 0.039(5) Uani d . 1.00 .
C(45) -0.234(1) -0.4996(9) -0.656(1) 0.040(5) Uani d . 1.00 .
C(46) 0.027(1) -0.099(1) -0.093(2) 0.044(5) Uani d . 1.00 .
C(47) 0.043(1) -0.1344(10) 0.010(2) 0.039(5) Uani d . 1.00 .
C(48) -0.049(2) -0.143(1) 0.046(2) 0.054(6) Uani d . 1.00 .
C(49) -0.122(1) -0.113(1) -0.034(2) 0.051(6) Uani d . 1.00 .
C(50) -0.076(1) -0.0840(10) -0.122(2) 0.045(6) Uani d . 1.00 .
H(1) -0.3004 0.0964 -0.4508 0.0568 Uiso calc . 1.00 .
H(2) -0.1462 0.1870 -0.2725 0.0602 Uiso calc . 1.00 .
H(3) -0.1757 0.3194 -0.2704 0.0524 Uiso calc . 1.00 .
H(4) -0.3488 0.3089 -0.4556 0.0497 Uiso calc . 1.00 .
H(5) -0.4244 0.1682 -0.5637 0.0484 Uiso calc . 1.00 .
H(6) -0.3145 0.1063 0.1488 0.0492 Uiso calc . 1.00 .
H(7) -0.1615 0.2082 0.1573 0.0438 Uiso calc . 1.00 .
H(8) -0.2154 0.3340 0.2077 0.0455 Uiso calc . 1.00 .
H(9) -0.3976 0.3104 0.2372 0.0472 Uiso calc . 1.00 .
H(10) -0.4633 0.1699 0.2009 0.0426 Uiso calc . 1.00 .
H(11) -0.6703 0.0266 -0.3661 0.0757 Uiso calc . 1.00 .
H(12) -0.6933 0.0840 -0.1302 0.0829 Uiso calc . 1.00 .
H(13) -0.7191 0.2199 -0.1282 0.0644 Uiso calc . 1.00 .
H(14) -0.7010 0.2409 -0.3629 0.0653 Uiso calc . 1.00 .
H(15) -0.6730 0.1250 -0.4958 0.0608 Uiso calc . 1.00 .
H(16) -0.4275 -0.0217 -0.0316 0.0406 Uiso calc . 1.00 .
H(17) -0.2441 0.0188 -0.0438 0.0394 Uiso calc . 1.00 .
H(18) -0.2487 0.0117 -0.2898 0.0478 Uiso calc . 1.00 .
H(19) -0.4361 -0.0287 -0.4301 0.0513 Uiso calc . 1.00 .
H(20) -0.5494 -0.0518 -0.2704 0.0459 Uiso calc . 1.00 .
H(21) -0.4173 0.4351 -0.2742 0.0799 Uiso calc . 1.00 .
H(22) -0.3059 0.4661 -0.0189 0.0781 Uiso calc . 1.00 .
H(23) -0.4321 0.4250 0.1112 0.0644 Uiso calc . 1.00 .
H(24) -0.6118 0.3741 -0.0528 0.0791 Uiso calc . 1.00 .
H(25) -0.6004 0.3812 -0.2903 0.0762 Uiso calc . 1.00 .
H(26) -0.4510 -0.4166 -0.4808 0.0634 Uiso calc . 1.00 .
H(27) -0.4083 -0.4025 -0.2201 0.0561 Uiso calc . 1.00 .
H(28) -0.3608 -0.2619 -0.1078 0.0650 Uiso calc . 1.00 .

H(29) -0.3764 -0.1896 -0.2944 0.0569 Uiso calc . 1.00 .
H(30) -0.4307 -0.2862 -0.5202 0.0544 Uiso calc . 1.00 .
H(31) -0.0372 -0.3995 -0.6347 0.0384 Uiso calc . 1.00 .
H(32) 0.1239 -0.3118 -0.4482 0.0347 Uiso calc . 1.00 .
H(33) 0.0884 -0.1809 -0.4080 0.0389 Uiso calc . 1.00 .
H(34) -0.0877 -0.1804 -0.5695 0.0404 Uiso calc . 1.00 .
H(35) -0.1653 -0.3163 -0.7048 0.0425 Uiso calc . 1.00 .
H(36) -0.1095 -0.5101 -0.1656 0.0887 Uiso calc . 1.00 .
H(37) 0.0656 -0.4572 -0.1765 0.0938 Uiso calc . 1.00 .
H(38) 0.1287 -0.3251 -0.0053 0.0863 Uiso calc . 1.00 .
H(39) -0.0194 -0.3088 0.1061 0.0584 Uiso calc . 1.00 .
H(40) -0.1627 -0.4234 0.0051 0.0667 Uiso calc . 1.00 .
H(41) -0.0853 -0.5296 -0.5818 0.0442 Uiso calc . 1.00 .
H(42) -0.1588 -0.5741 -0.4031 0.0374 Uiso calc . 1.00 .
H(43) -0.3471 -0.5529 -0.4466 0.0496 Uiso calc . 1.00 .
H(44) -0.3879 -0.4977 -0.6494 0.0469 Uiso calc . 1.00 .
H(45) -0.2287 -0.4816 -0.7345 0.0495 Uiso calc . 1.00 .
H(46) 0.0777 -0.0852 -0.1378 0.0568 Uiso calc . 1.00 .
H(47) 0.1059 -0.1508 0.0522 0.0482 Uiso calc . 1.00 .
H(48) -0.0635 -0.1684 0.1166 0.0633 Uiso calc . 1.00 .
H(49) -0.1953 -0.1137 -0.0269 0.0606 Uiso calc . 1.00 .
H(50) -0.1078 -0.0580 -0.1870 0.0552 Uiso calc . 1.00 .

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Ru(1) 0.0260(7) 0.0266(7) 0.0154(6) 0.0067(5) 0.0085(5) 0.0051(5)
Ru(2) 0.0223(6) 0.0263(7) 0.0149(6) 0.0075(5) 0.0069(5) 0.0051(5)
Ru(3) 0.0220(6) 0.0336(7) 0.0199(6) 0.0107(6) 0.0058(5) 0.0033(5)
Ru(4) 0.0250(6) 0.0234(6) 0.0220(6) 0.0078(5) 0.0092(5) 0.0052(5)
Ru(5) 0.0469(8) 0.0279(7) 0.0214(6) 0.0177(6) 0.0112(6) 0.0070(5)
Ru(6) 0.0189(6) 0.0306(7) 0.0179(6) 0.0078(5) 0.0086(5) 0.0059(5)
Ru(7) 0.0190(6) 0.0245(6) 0.0165(6) 0.0073(5) 0.0079(5) 0.0057(5)
Ru(8) 0.0244(6) 0.0294(7) 0.0166(6) 0.0088(5) 0.0054(5) 0.0066(5)
Ru(9) 0.0235(6) 0.0229(6) 0.0190(6) 0.0056(5) 0.0056(5) 0.0030(5)
Ru(10) 0.0247(7) 0.0267(7) 0.0224(6) 0.0059(5) 0.0099(5) -0.0006(5)
C(1) 0.07(1) 0.05(1) 0.04(1) 0.03(1) 0.04(1) 0.008(9)
C(2) 0.03(1) 0.11(2) 0.05(1) 0.04(1) 0.040(9) 0.05(1)
C(3) 0.034(10) 0.06(1) 0.034(9) -0.009(9) 0.018(8) 0.012(9)
C(4) 0.06(1) 0.04(1) 0.027(9) 0.010(9) 0.019(8) 0.021(8)
C(5) 0.05(1) 0.05(1) 0.016(8) 0.000(9) 0.016(7) 0.002(8)
C(6) 0.06(1) 0.04(1) 0.020(8) 0.023(9) 0.008(8) 0.008(7)
C(7) 0.019(8) 0.07(1) 0.014(7) 0.014(8) 0.005(6) 0.011(8)
C(8) 0.04(1) 0.04(1) 0.015(8) -0.004(9) 0.005(7) 0.003(7)
C(9) 0.05(1) 0.05(1) 0.011(7) 0.028(9) 0.009(7) 0.001(7)
C(10) 0.033(9) 0.05(1) 0.021(8) 0.008(8) 0.012(7) 0.022(8)
C(11) 0.022(10) 0.04(1) 0.11(2) 0.006(9) 0.01(1) 0.00(1)
C(12) 0.013(9) 0.12(2) 0.07(1) 0.00(1) 0.000(9) 0.06(2)
C(13) 0.029(10) 0.08(2) 0.03(1) 0.01(1) 0.012(8) 0.01(1)
C(14) 0.030(10) 0.07(1) 0.07(1) 0.023(10) 0.010(9) 0.04(1)
C(15) 0.03(1) 0.08(2) 0.04(1) 0.02(1) 0.015(8) 0.01(1)
C(16) 0.040(10) 0.024(9) 0.04(1) 0.008(8) 0.020(8) 0.010(8)
C(17) 0.028(9) 0.019(8) 0.05(1) 0.007(7) 0.008(8) 0.002(7)
C(18) 0.05(1) 0.030(9) 0.05(1) 0.020(8) 0.029(9) 0.008(8)
C(19) 0.05(1) 0.032(10) 0.04(1) 0.015(9) 0.010(9) 0.001(8)
C(20) 0.036(10) 0.028(9) 0.05(1) 0.009(8) 0.016(9) 0.009(8)
C(21) 0.14(2) 0.06(2) 0.06(1) 0.04(2) 0.07(2) 0.03(1)
C(22) 0.08(2) 0.02(1) 0.10(2) 0.01(1) 0.03(1) 0.00(1)
C(23) 0.08(2) 0.04(1) 0.04(1) 0.02(1) 0.01(1)

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-0.009(9)
 C(24)  0.07(2)     0.05(1)     0.07(2)     0.04(1)     0.01(1)
-0.01(1)
 C(25)  0.13(2)     0.05(1)     0.05(1)     0.07(2)     0.03(1)
0.02(1)
 C(26)  0.023(9)    0.08(2)     0.04(1)     0.006(10)   0.005(8)
0.00(1)
 C(27)  0.025(9)    0.06(1)     0.06(1)     0.006(9)    0.024(9)
0.02(1)
 C(28)  0.030(10)   0.11(2)     0.025(9)    0.03(1)     0.020(8)
0.02(1)
 C(29)  0.06(1)     0.05(1)     0.06(1)     0.04(1)     0.03(1)
0.02(1)
 C(30)  0.014(8)    0.09(2)     0.029(9)    0.017(9)    0.001(7)
0.01(1)
 C(31)  0.05(1)     0.041(10)   0.015(7)    0.015(8)    0.022(7)
0.007(7)
 C(32)  0.018(8)    0.05(1)     0.026(8)    0.012(7)    0.016(6)
0.015(8)
 C(33)  0.035(9)    0.036(10)   0.028(8)    0.007(8)    0.014(7)
0.013(7)
 C(34)  0.035(9)    0.038(10)   0.041(10)   0.012(8)    0.025(8)
0.024(8)
 C(35)  0.032(9)    0.06(1)     0.013(7)    0.012(8)    0.014(7)
0.017(8)
 C(36)  0.15(3)     0.05(1)     0.02(1)     0.03(2)     0.00(1)
0.014(10)
 C(37)  0.14(3)     0.13(2)     0.05(1)     0.11(2)     0.06(2)
0.06(2)
 C(38)  0.03(1)     0.15(2)     0.04(1)     0.04(1)     0.005(9)
0.06(1)
 C(39)  0.05(1)     0.07(1)     0.021(9)    0.02(1)     0.006(8)
0.006(9)
 C(40)  0.04(1)     0.09(2)     0.05(1)     0.01(1)     0.007(10)
0.05(1)
 C(41)  0.037(10)   0.020(8)    0.05(1)     0.003(7)    0.015(8)
-0.010(8)
 C(42)  0.05(1)     0.029(9)    0.021(8)    0.017(8)    0.006(7)
0.006(7)
 C(43)  0.04(1)     0.05(1)     0.04(1)     0.003(9)    0.017(8)
0.006(9)
 C(44)  0.04(1)     0.035(10)   0.029(9)    0.016(8)    -0.002(8)
-0.011(8)
 C(45)  0.06(1)     0.027(9)    0.016(8)    -0.009(9)   0.001(8)
-0.003(7)
 C(46)  0.04(1)     0.05(1)     0.035(10)   0.006(9)    0.005(8)
-0.007(9)
 C(47)  0.029(9)    0.04(1)     0.04(1)     -0.004(8)   0.012(8)
0.009(8)
 C(48)  0.08(2)     0.04(1)     0.027(9)    0.03(1)     0.002(10)
-0.007(8)
 C(49)  0.04(1)     0.05(1)     0.06(1)     0.018(9)    0.028(10)
-0.017(10)
 C(50)  0.05(1)     0.04(1)     0.04(1)     0.024(9)    0.016(9)
0.006(9)
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0.00002|Fo|^2^]'
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;
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_geom_bond_atom_site_label_2
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 Ru(1)   Ru(2)   2.963(2)   1_555 1_555 yes
 Ru(1)   Ru(3)   2.911(2)   1_555 1_555 yes
 Ru(1)   Ru(4)   2.799(2)   1_555 1_555 yes
 Ru(1)   Ru(5)   2.836(2)   1_555 1_555 yes
 Ru(1)   C(1)    2.16(1)    1_555 1_555 yes
 Ru(1)   C(2)    2.16(1)    1_555 1_555 yes
 Ru(1)   C(3)    2.15(2)    1_555 1_555 yes
 Ru(1)   C(4)    2.18(1)    1_555 1_555 yes
 Ru(1)   C(5)    2.19(1)    1_555 1_555 yes
 Ru(2)   Ru(3)   2.912(2)   1_555 1_555 yes
 Ru(2)   Ru(4)   2.793(2)   1_555 1_555 yes
 Ru(2)   Ru(5)   2.816(2)   1_555 1_555 yes
 Ru(2)   C(6)    2.17(2)    1_555 1_555 yes
 Ru(2)   C(7)    2.19(1)    1_555 1_555 yes
 Ru(2)   C(8)    2.16(1)    1_555 1_555 yes
 Ru(2)   C(9)    2.17(1)    1_555 1_555 yes
 Ru(2)   C(10)   2.18(1)    1_555 1_555 yes
 Ru(3)   Ru(4)   2.811(2)   1_555 1_555 yes
 Ru(3)   Ru(5)   2.847(2)   1_555 1_555 yes
 Ru(3)   C(11)   2.16(2)    1_555 1_555 yes
 Ru(3)   C(12)   2.15(2)    1_555 1_555 yes
 Ru(3)   C(13)   2.20(2)    1_555 1_555 yes
 Ru(3)   C(14)   2.16(2)    1_555 1_555 yes
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Ru(3)	C(15)	2.15(2)	1_555	1_555 yes
Ru(4)	C(16)	2.16(2)	1_555	1_555 yes
Ru(4)	C(17)	2.15(2)	1_555	1_555 yes
Ru(4)	C(18)	2.17(2)	1_555	1_555 yes
Ru(4)	C(19)	2.13(2)	1_555	1_555 yes
Ru(4)	C(20)	2.14(2)	1_555	1_555 yes
Ru(5)	C(21)	2.17(2)	1_555	1_555 yes
Ru(5)	C(22)	2.16(2)	1_555	1_555 yes
Ru(5)	C(23)	2.15(2)	1_555	1_555 yes
Ru(5)	C(24)	2.19(2)	1_555	1_555 yes
Ru(5)	C(25)	2.22(2)	1_555	1_555 yes
Ru(6)	Ru(7)	2.971(2)	1_555	1_555 yes
Ru(6)	Ru(8)	2.900(2)	1_555	1_555 yes
Ru(6)	Ru(9)	2.822(2)	1_555	1_555 yes
Ru(6)	Ru(10)	2.843(2)	1_555	1_555 yes
Ru(6)	C(26)	2.18(2)	1_555	1_555 yes
Ru(6)	C(27)	2.17(2)	1_555	1_555 yes
Ru(6)	C(28)	2.18(2)	1_555	1_555 yes
Ru(6)	C(29)	2.21(2)	1_555	1_555 yes
Ru(6)	C(30)	2.21(2)	1_555	1_555 yes
Ru(7)	Ru(8)	2.961(2)	1_555	1_555 yes
Ru(7)	Ru(9)	2.780(2)	1_555	1_555 yes
Ru(7)	Ru(10)	2.842(2)	1_555	1_555 yes
Ru(7)	C(31)	2.19(1)	1_555	1_555 yes
Ru(7)	C(32)	2.21(1)	1_555	1_555 yes
Ru(7)	C(33)	2.16(2)	1_555	1_555 yes
Ru(7)	C(34)	2.18(1)	1_555	1_555 yes
Ru(7)	C(35)	2.18(1)	1_555	1_555 yes
Ru(8)	Ru(9)	2.807(2)	1_555	1_555 yes
Ru(8)	Ru(10)	2.850(2)	1_555	1_555 yes
Ru(8)	C(36)	2.19(2)	1_555	1_555 yes
Ru(8)	C(37)	2.18(2)	1_555	1_555 yes
Ru(8)	C(38)	2.20(2)	1_555	1_555 yes
Ru(8)	C(39)	2.21(2)	1_555	1_555 yes
Ru(8)	C(40)	2.20(2)	1_555	1_555 yes
Ru(9)	C(41)	2.14(1)	1_555	1_555 yes
Ru(9)	C(42)	2.13(2)	1_555	1_555 yes
Ru(9)	C(43)	2.11(2)	1_555	1_555 yes
Ru(9)	C(44)	2.14(2)	1_555	1_555 yes
Ru(9)	C(45)	2.14(1)	1_555	1_555 yes
Ru(10)	C(46)	2.17(2)	1_555	1_555 yes
Ru(10)	C(47)	2.21(2)	1_555	1_555 yes
Ru(10)	C(48)	2.18(2)	1_555	1_555 yes
Ru(10)	C(49)	2.18(2)	1_555	1_555 yes
Ru(10)	C(50)	2.18(2)	1_555	1_555 yes
C(1)	C(2)	1.44(3)	1_555	1_555 yes
C(1)	C(5)	1.39(2)	1_555	1_555 yes
C(2)	C(3)	1.38(2)	1_555	1_555 yes
C(3)	C(4)	1.44(2)	1_555	1_555 yes
C(4)	C(5)	1.43(2)	1_555	1_555 yes
C(6)	C(7)	1.40(2)	1_555	1_555 yes
C(6)	C(10)	1.42(2)	1_555	1_555 yes
C(7)	C(8)	1.41(2)	1_555	1_555 yes
C(8)	C(9)	1.40(2)	1_555	1_555 yes
C(9)	C(10)	1.39(2)	1_555	1_555 yes
C(11)	C(12)	1.44(3)	1_555	1_555 yes
C(11)	C(15)	1.37(3)	1_555	1_555 yes
C(12)	C(13)	1.39(3)	1_555	1_555 yes
C(13)	C(14)	1.43(2)	1_555	1_555 yes
C(14)	C(15)	1.34(2)	1_555	1_555 yes
C(16)	C(17)	1.40(2)	1_555	1_555 yes
C(16)	C(20)	1.40(2)	1_555	1_555 yes
C(17)	C(18)	1.38(2)	1_555	1_555 yes
C(18)	C(19)	1.38(2)	1_555	1_555 yes
C(19)	C(20)	1.43(2)	1_555	1_555 yes
C(21)	C(22)	1.45(3)	1_555	1_555 yes
C(21)	C(25)	1.37(3)	1_555	1_555 yes
C(22)	C(23)	1.41(3)	1_555	1_555 yes
C(23)	C(24)	1.41(3)	1_555	1_555 yes
C(24)	C(25)	1.38(3)	1_555	1_555 yes
C(26)	C(27)	1.42(2)	1_555	1_555 yes
C(26)	C(30)	1.39(3)	1_555	1_555 yes
C(27)	C(28)	1.41(3)	1_555	1_555 yes
C(28)	C(29)	1.43(2)	1_555	1_555 yes
C(29)	C(30)	1.39(2)	1_555	1_555 yes
C(31)	C(32)	1.46(2)	1_555	1_555 yes
C(31)	C(35)	1.41(2)	1_555	1_555 yes
C(32)	C(33)	1.38(2)	1_555	1_555 yes
C(33)	C(34)	1.43(2)	1_555	1_555 yes
C(34)	C(35)	1.41(2)	1_555	1_555 yes
C(36)	C(37)	1.35(3)	1_555	1_555 yes
C(36)	C(40)	1.35(3)	1_555	1_555 yes
C(37)	C(38)	1.47(3)	1_555	1_555 yes
C(38)	C(39)	1.39(2)	1_555	1_555 yes
C(39)	C(40)	1.38(3)	1_555	1_555 yes
C(41)	C(42)	1.39(2)	1_555	1_555 yes
C(41)	C(45)	1.44(2)	1_555	1_555 yes
C(42)	C(43)	1.43(2)	1_555	1_555 yes
C(43)	C(44)	1.39(2)	1_555	1_555 yes
C(44)	C(45)	1.36(2)	1_555	1_555 yes
C(46)	C(47)	1.37(2)	1_555	1_555 yes
C(46)	C(50)	1.42(2)	1_555	1_555 yes
C(47)	C(48)	1.38(2)	1_555	1_555 yes
C(48)	C(49)	1.38(2)	1_555	1_555 yes
C(49)	C(50)	1.39(2)	1_555	1_555 yes

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loop_

_geom_angle_atom_site_label_1

_geom_angle_atom_site_label_2

_geom_angle_atom_site_label_3

_geom_angle

_geom_angle_site_symmetry_1

_geom_angle_site_symmetry_2

_geom_angle_site_symmetry_3

_geom_angle_publ_flag

Ru(2)	Ru(1)	Ru(3)	59.45(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	Ru(4)	57.90(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	Ru(5)	58.05(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(1)	139.8(5)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(2)	121.0(5)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(3)	126.4(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(4)	152.8(5)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(5)	168.2(5)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	Ru(4)	58.94(4)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	Ru(5)	59.38(4)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(1)	125.6(5)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(2)	159.6(6)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(3)	161.5(5)	1_555	1_555	1_555 yes

Ru(3)	Ru(1)	C(4)	126.8(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	Ru(2)	61.17(4)	1_555 1_555 1_555 yes
Ru(3)	Ru(1)	C(5)	111.5(4)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	Ru(4)	58.56(4)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	Ru(5)	106.16(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	Ru(5)	59.00(4)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(1)	89.3(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	C(11)	131.0(6)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(2)	102.8(6)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	C(12)	165.4(7)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(3)	139.6(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	C(13)	156.8(6)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(4)	149.3(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	C(14)	126.0(5)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(5)	111.6(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(3)	C(15)	115.9(5)	1_555 1_555 1_555 yes
Ru(5)	Ru(1)	C(1)	162.1(5)	1_555 1_555 1_555 yes	Ru(2)	Ru(3)	Ru(4)	58.38(4)	1_555 1_555 1_555 yes
Ru(5)	Ru(1)	C(2)	140.2(6)	1_555 1_555 1_555 yes	Ru(2)	Ru(3)	Ru(5)	58.52(4)	1_555 1_555 1_555 yes
Ru(5)	Ru(1)	C(3)	106.9(5)	1_555 1_555 1_555 yes	Ru(2)	Ru(3)	C(11)	141.7(7)	1_555 1_555 1_555 yes
Ru(5)	Ru(1)	C(4)	100.3(5)	1_555 1_555 1_555 yes	Ru(2)	Ru(3)	C(12)	118.5(5)	1_555 1_555 1_555 yes
Ru(5)	Ru(1)	C(5)	125.8(5)	1_555 1_555 1_555 yes	Ru(2)	Ru(3)	C(13)	121.7(5)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(2)	38.8(7)	1_555 1_555 1_555 yes	Ru(2)	Ru(3)	C(14)	148.2(6)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(3)	63.4(7)	1_555 1_555 1_555 yes	Ru(2)	Ru(3)	C(15)	175.4(5)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(4)	62.5(7)	1_555 1_555 1_555 yes	Ru(4)	Ru(3)	Ru(5)	105.55(5)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(5)	37.3(6)	1_555 1_555 1_555 yes	Ru(4)	Ru(3)	C(11)	94.9(5)	1_555 1_555 1_555 yes
C(2)	Ru(1)	C(3)	37.4(7)	1_555 1_555 1_555 yes	Ru(4)	Ru(3)	C(12)	108.0(7)	1_555 1_555 1_555 yes
C(2)	Ru(1)	C(4)	63.5(6)	1_555 1_555 1_555 yes	Ru(4)	Ru(3)	C(13)	144.3(6)	1_555 1_555 1_555 yes
C(2)	Ru(1)	C(5)	64.5(7)	1_555 1_555 1_555 yes	Ru(4)	Ru(3)	C(14)	153.4(6)	1_555 1_555 1_555 yes
C(3)	Ru(1)	C(4)	38.8(6)	1_555 1_555 1_555 yes	Ru(4)	Ru(3)	C(15)	117.2(5)	1_555 1_555 1_555 yes
C(3)	Ru(1)	C(5)	64.8(6)	1_555 1_555 1_555 yes	Ru(5)	Ru(3)	C(11)	158.5(6)	1_555 1_555 1_555 yes
C(4)	Ru(1)	C(5)	38.1(6)	1_555 1_555 1_555 yes	Ru(5)	Ru(3)	C(12)	134.7(8)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	Ru(3)	59.39(4)	1_555 1_555 1_555 yes	Ru(5)	Ru(3)	C(13)	101.4(6)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	Ru(4)	58.12(4)	1_555 1_555 1_555 yes	Ru(5)	Ru(3)	C(14)	96.7(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	Ru(5)	58.72(4)	1_555 1_555 1_555 yes	Ru(5)	Ru(3)	C(15)	123.8(6)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(6)	137.9(4)	1_555 1_555 1_555 yes	C(11)	Ru(3)	C(12)	39.1(8)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(7)	121.1(4)	1_555 1_555 1_555 yes	C(11)	Ru(3)	C(13)	63.3(7)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(8)	127.8(4)	1_555 1_555 1_555 yes	C(11)	Ru(3)	C(14)	61.9(7)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(9)	154.8(5)	1_555 1_555 1_555 yes	C(11)	Ru(3)	C(15)	36.9(7)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(10)	167.4(4)	1_555 1_555 1_555 yes	C(12)	Ru(3)	C(13)	37.4(8)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	Ru(4)	58.99(4)	1_555 1_555 1_555 yes	C(12)	Ru(3)	C(14)	63.0(7)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	Ru(5)	59.58(4)	1_555 1_555 1_555 yes	C(12)	Ru(3)	C(15)	63.2(7)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(6)	128.6(5)	1_555 1_555 1_555 yes	C(13)	Ru(3)	C(14)	38.2(7)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(7)	162.5(5)	1_555 1_555 1_555 yes	C(13)	Ru(3)	C(15)	62.5(6)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(8)	158.0(5)	1_555 1_555 1_555 yes	C(14)	Ru(3)	C(15)	36.2(7)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(9)	125.7(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(4)	Ru(2)	63.98(4)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(10)	112.3(4)	1_555 1_555 1_555 yes	Ru(1)	Ru(4)	Ru(3)	62.50(4)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	Ru(5)	106.89(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(4)	C(16)	169.7(4)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(6)	89.3(4)	1_555 1_555 1_555 yes	Ru(1)	Ru(4)	C(17)	131.9(4)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(7)	105.3(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(4)	C(18)	110.3(4)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(8)	142.9(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(4)	C(19)	116.3(5)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(9)	147.1(5)	1_555 1_555 1_555 yes	Ru(1)	Ru(4)	C(20)	148.1(5)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(10)	109.9(5)	1_555 1_555 1_555 yes	Ru(2)	Ru(4)	Ru(3)	62.63(4)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(6)	162.8(4)	1_555 1_555 1_555 yes	Ru(2)	Ru(4)	C(16)	115.0(4)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(7)	137.3(5)	1_555 1_555 1_555 yes	Ru(2)	Ru(4)	C(17)	112.8(4)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(8)	104.3(5)	1_555 1_555 1_555 yes	Ru(2)	Ru(4)	C(18)	137.7(5)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(9)	100.7(4)	1_555 1_555 1_555 yes	Ru(2)	Ru(4)	C(19)	175.2(5)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(10)	127.3(4)	1_555 1_555 1_555 yes	Ru(2)	Ru(4)	C(20)	142.7(5)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(7)	37.5(6)	1_555 1_555 1_555 yes	Ru(3)	Ru(4)	C(16)	127.0(4)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(8)	63.0(6)	1_555 1_555 1_555 yes	Ru(3)	Ru(4)	C(17)	163.1(4)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(9)	62.1(6)	1_555 1_555 1_555 yes	Ru(3)	Ru(4)	C(18)	155.8(5)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(10)	38.0(6)	1_555 1_555 1_555 yes	Ru(3)	Ru(4)	C(19)	122.0(5)	1_555 1_555 1_555 yes
C(7)	Ru(2)	C(8)	37.9(6)	1_555 1_555 1_555 yes	Ru(3)	Ru(4)	C(20)	109.0(4)	1_555 1_555 1_555 yes
C(7)	Ru(2)	C(9)	62.5(6)	1_555 1_555 1_555 yes	C(16)	Ru(4)	C(17)	38.0(5)	1_555 1_555 1_555 yes
C(7)	Ru(2)	C(10)	63.6(6)	1_555 1_555 1_555 yes	C(16)	Ru(4)	C(18)	62.9(6)	1_555 1_555 1_555 yes
C(8)	Ru(2)	C(9)	37.7(6)	1_555 1_555 1_555 yes	C(16)	Ru(4)	C(19)	63.8(6)	1_555 1_555 1_555 yes
C(8)	Ru(2)	C(10)	63.7(6)	1_555 1_555 1_555 yes	C(16)	Ru(4)	C(20)	38.0(6)	1_555 1_555 1_555 yes
C(9)	Ru(2)	C(10)	37.3(6)	1_555 1_555 1_555 yes	C(17)	Ru(4)	C(18)	37.3(6)	1_555 1_555 1_555 yes

C(17)	Ru(4)	C(19)	63.2(6)	1_555	1_555	1_555	yes	C(26)	Ru(6)	C(27)	38.0(6)	1_555	1_555	1_555	yes
C(17)	Ru(4)	C(20)	63.9(6)	1_555	1_555	1_555	yes	C(26)	Ru(6)	C(28)	62.9(7)	1_555	1_555	1_555	yes
C(18)	Ru(4)	C(19)	37.5(6)	1_555	1_555	1_555	yes	C(26)	Ru(6)	C(29)	62.4(7)	1_555	1_555	1_555	yes
C(18)	Ru(4)	C(20)	63.8(6)	1_555	1_555	1_555	yes	C(26)	Ru(6)	C(30)	36.8(7)	1_555	1_555	1_555	yes
C(19)	Ru(4)	C(20)	39.1(6)	1_555	1_555	1_555	yes	C(27)	Ru(6)	C(28)	37.8(7)	1_555	1_555	1_555	yes
Ru(1)	Ru(5)	Ru(2)	63.23(4)	1_555	1_555	1_555	yes	C(27)	Ru(6)	C(29)	63.2(7)	1_555	1_555	1_555	yes
Ru(1)	Ru(5)	Ru(3)	61.61(4)	1_555	1_555	1_555	yes	C(27)	Ru(6)	C(30)	62.2(7)	1_555	1_555	1_555	yes
Ru(1)	Ru(5)	C(21)	115.6(5)	1_555	1_555	1_555	yes	C(28)	Ru(6)	C(29)	37.9(6)	1_555	1_555	1_555	yes
Ru(1)	Ru(5)	C(22)	127.0(6)	1_555	1_555	1_555	yes	C(28)	Ru(6)	C(30)	61.9(6)	1_555	1_555	1_555	yes
Ru(1)	Ru(5)	C(23)	159.6(6)	1_555	1_555	1_555	yes	C(29)	Ru(6)	C(30)	36.6(6)	1_555	1_555	1_555	yes
Ru(1)	Ru(5)	C(24)	161.8(6)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	Ru(8)	58.54(4)	1_555	1_555	1_555	yes
Ru(1)	Ru(5)	C(25)	130.3(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	Ru(9)	58.66(4)	1_555	1_555	1_555	yes
Ru(2)	Ru(5)	Ru(3)	61.89(4)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	Ru(10)	58.51(4)	1_555	1_555	1_555	yes
Ru(2)	Ru(5)	C(21)	159.8(8)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	C(31)	138.2(4)	1_555	1_555	1_555	yes
Ru(2)	Ru(5)	C(22)	123.6(7)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	C(32)	171.6(4)	1_555	1_555	1_555	yes
Ru(2)	Ru(5)	C(23)	110.3(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	C(33)	151.3(4)	1_555	1_555	1_555	yes
Ru(2)	Ru(5)	C(24)	126.1(6)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	C(34)	124.1(4)	1_555	1_555	1_555	yes
Ru(2)	Ru(5)	C(25)	160.1(7)	1_555	1_555	1_555	yes	Ru(6)	Ru(7)	C(35)	119.5(4)	1_555	1_555	1_555	yes
Ru(3)	Ru(5)	C(21)	137.0(8)	1_555	1_555	1_555	yes	Ru(8)	Ru(7)	Ru(9)	58.45(4)	1_555	1_555	1_555	yes
Ru(3)	Ru(5)	C(22)	170.7(6)	1_555	1_555	1_555	yes	Ru(8)	Ru(7)	Ru(10)	58.79(4)	1_555	1_555	1_555	yes
Ru(3)	Ru(5)	C(23)	134.6(6)	1_555	1_555	1_555	yes	Ru(8)	Ru(7)	C(31)	123.9(4)	1_555	1_555	1_555	yes
Ru(3)	Ru(5)	C(24)	106.9(6)	1_555	1_555	1_555	yes	Ru(8)	Ru(7)	C(32)	115.2(4)	1_555	1_555	1_555	yes
Ru(3)	Ru(5)	C(25)	109.0(7)	1_555	1_555	1_555	yes	Ru(8)	Ru(7)	C(33)	132.6(4)	1_555	1_555	1_555	yes
C(21)	Ru(5)	C(22)	39.1(8)	1_555	1_555	1_555	yes	Ru(8)	Ru(7)	C(34)	167.6(5)	1_555	1_555	1_555	yes
C(21)	Ru(5)	C(23)	63.2(8)	1_555	1_555	1_555	yes	Ru(8)	Ru(7)	C(35)	154.2(5)	1_555	1_555	1_555	yes
C(21)	Ru(5)	C(24)	61.8(9)	1_555	1_555	1_555	yes	Ru(9)	Ru(7)	Ru(10)	106.66(5)	1_555	1_555	1_555	yes
C(21)	Ru(5)	C(25)	36.3(8)	1_555	1_555	1_555	yes	Ru(9)	Ru(7)	C(31)	86.3(4)	1_555	1_555	1_555	yes
C(22)	Ru(5)	C(23)	38.3(8)	1_555	1_555	1_555	yes	Ru(9)	Ru(7)	C(32)	113.8(4)	1_555	1_555	1_555	yes
C(22)	Ru(5)	C(24)	63.8(8)	1_555	1_555	1_555	yes	Ru(9)	Ru(7)	C(33)	149.0(4)	1_555	1_555	1_555	yes
C(22)	Ru(5)	C(25)	63.3(9)	1_555	1_555	1_555	yes	Ru(9)	Ru(7)	C(34)	134.0(5)	1_555	1_555	1_555	yes
C(23)	Ru(5)	C(24)	37.9(7)	1_555	1_555	1_555	yes	Ru(9)	Ru(7)	C(35)	97.5(5)	1_555	1_555	1_555	yes
C(23)	Ru(5)	C(25)	62.1(7)	1_555	1_555	1_555	yes	Ru(10)	Ru(7)	C(31)	163.2(4)	1_555	1_555	1_555	yes
C(24)	Ru(5)	C(25)	36.5(7)	1_555	1_555	1_555	yes	Ru(10)	Ru(7)	C(32)	124.5(4)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	Ru(8)	60.55(4)	1_555	1_555	1_555	yes	Ru(10)	Ru(7)	C(33)	101.9(4)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	Ru(9)	57.28(4)	1_555	1_555	1_555	yes	Ru(10)	Ru(7)	C(34)	111.0(4)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	Ru(10)	58.47(4)	1_555	1_555	1_555	yes	Ru(10)	Ru(7)	C(35)	145.4(5)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	C(26)	133.1(5)	1_555	1_555	1_555	yes	C(31)	Ru(7)	C(32)	38.7(5)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	C(27)	162.1(5)	1_555	1_555	1_555	yes	C(31)	Ru(7)	C(33)	63.5(6)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	C(28)	160.0(6)	1_555	1_555	1_555	yes	C(31)	Ru(7)	C(34)	63.6(6)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	C(29)	131.5(5)	1_555	1_555	1_555	yes	C(31)	Ru(7)	C(35)	37.6(5)	1_555	1_555	1_555	yes
Ru(7)	Ru(6)	C(30)	121.5(5)	1_555	1_555	1_555	yes	C(32)	Ru(7)	C(33)	36.9(5)	1_555	1_555	1_555	yes
Ru(8)	Ru(6)	Ru(9)	58.74(4)	1_555	1_555	1_555	yes	C(32)	Ru(7)	C(34)	63.3(6)	1_555	1_555	1_555	yes
Ru(8)	Ru(6)	Ru(10)	59.50(4)	1_555	1_555	1_555	yes	C(32)	Ru(7)	C(35)	63.2(5)	1_555	1_555	1_555	yes
Ru(8)	Ru(6)	C(26)	133.6(6)	1_555	1_555	1_555	yes	C(33)	Ru(7)	C(34)	38.6(5)	1_555	1_555	1_555	yes
Ru(8)	Ru(6)	C(27)	112.6(5)	1_555	1_555	1_555	yes	C(33)	Ru(7)	C(35)	63.3(6)	1_555	1_555	1_555	yes
Ru(8)	Ru(6)	C(28)	120.2(5)	1_555	1_555	1_555	yes	C(34)	Ru(7)	C(35)	37.7(6)	1_555	1_555	1_555	yes
Ru(8)	Ru(6)	C(29)	151.0(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	Ru(7)	60.91(4)	1_555	1_555	1_555	yes
Ru(8)	Ru(6)	C(30)	169.7(6)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	Ru(9)	59.23(4)	1_555	1_555	1_555	yes
Ru(9)	Ru(6)	Ru(10)	105.50(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	Ru(10)	59.25(4)	1_555	1_555	1_555	yes
Ru(9)	Ru(6)	C(26)	90.5(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	C(36)	126.2(8)	1_555	1_555	1_555	yes
Ru(9)	Ru(6)	C(27)	104.8(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	C(37)	158.6(9)	1_555	1_555	1_555	yes
Ru(9)	Ru(6)	C(28)	142.1(6)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	C(38)	159.2(7)	1_555	1_555	1_555	yes
Ru(9)	Ru(6)	C(29)	149.4(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	C(39)	126.7(5)	1_555	1_555	1_555	yes
Ru(9)	Ru(6)	C(30)	112.9(5)	1_555	1_555	1_555	yes	Ru(6)	Ru(8)	C(40)	113.0(5)	1_555	1_555	1_555	yes
Ru(10)	Ru(6)	C(26)	163.9(5)	1_555	1_555	1_555	yes	Ru(7)	Ru(8)	Ru(9)	57.55(4)	1_555	1_555	1_555	yes
Ru(10)	Ru(6)	C(27)	134.8(5)	1_555	1_555	1_555	yes	Ru(7)	Ru(8)	Ru(10)	58.52(4)	1_555	1_555	1_555	yes
Ru(10)	Ru(6)	C(28)	103.5(5)	1_555	1_555	1_555	yes	Ru(7)	Ru(8)	C(36)	143.9(6)	1_555	1_555	1_555	yes
Ru(10)	Ru(6)	C(29)	101.7(5)	1_555	1_555	1_555	yes	Ru(7)	Ru(8)	C(37)	123.8(6)	1_555	1_555	1_555	yes
Ru(10)	Ru(6)	C(30)	130.7(6)	1_555	1_555	1_555	yes	Ru(7)	Ru(8)	C(38)	125.0(5)	1_555	1_555	1_555	yes

Ru(7)	Ru(8)	C(39)	149.5(6)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	C(40)	173.0(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	Ru(10)	105.69(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(36)	93.8(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(37)	103.9(8)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(38)	141.6(7)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(39)	152.8(6)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(40)	116.9(6)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(36)	157.5(6)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(37)	142.1(9)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(38)	105.0(7)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(39)	98.0(5)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(40)	122.5(6)	1_555	1_555 1_555 yes
C(36)	Ru(8)	C(37)	36.1(9)	1_555	1_555 1_555 yes
C(36)	Ru(8)	C(38)	62.9(9)	1_555	1_555 1_555 yes
C(36)	Ru(8)	C(39)	60.7(7)	1_555	1_555 1_555 yes
C(36)	Ru(8)	C(40)	35.7(8)	1_555	1_555 1_555 yes
C(37)	Ru(8)	C(38)	39.4(9)	1_555	1_555 1_555 yes
C(37)	Ru(8)	C(39)	61.8(7)	1_555	1_555 1_555 yes
C(37)	Ru(8)	C(40)	60.4(8)	1_555	1_555 1_555 yes
C(38)	Ru(8)	C(39)	36.8(6)	1_555	1_555 1_555 yes
C(38)	Ru(8)	C(40)	62.0(7)	1_555	1_555 1_555 yes
C(39)	Ru(8)	C(40)	36.4(7)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	Ru(7)	64.06(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	Ru(8)	62.02(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(41)	173.8(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(42)	145.0(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(43)	114.9(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(44)	111.4(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(45)	134.5(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(9)	Ru(8)	64.00(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(9)	C(41)	115.8(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(9)	C(42)	145.5(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(9)	C(43)	171.8(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(9)	C(44)	133.6(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(9)	C(45)	110.6(4)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(41)	123.9(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(42)	108.1(4)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(43)	123.4(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(44)	158.8(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(45)	160.5(5)	1_555	1_555 1_555 yes
C(41)	Ru(9)	C(42)	38.0(6)	1_555	1_555 1_555 yes
C(41)	Ru(9)	C(43)	64.2(6)	1_555	1_555 1_555 yes
C(41)	Ru(9)	C(44)	63.8(6)	1_555	1_555 1_555 yes
C(41)	Ru(9)	C(45)	39.3(6)	1_555	1_555 1_555 yes
C(42)	Ru(9)	C(43)	39.3(6)	1_555	1_555 1_555 yes
C(42)	Ru(9)	C(44)	64.8(6)	1_555	1_555 1_555 yes
C(42)	Ru(9)	C(45)	64.9(6)	1_555	1_555 1_555 yes
C(43)	Ru(9)	C(44)	38.3(6)	1_555	1_555 1_555 yes
C(43)	Ru(9)	C(45)	63.8(6)	1_555	1_555 1_555 yes
C(44)	Ru(9)	C(45)	37.1(6)	1_555	1_555 1_555 yes
Ru(6)	Ru(10)	Ru(7)	63.02(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(10)	Ru(8)	61.25(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(10)	C(46)	159.6(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(10)	C(47)	159.3(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(10)	C(48)	125.5(6)	1_555	1_555 1_555 yes
Ru(6)	Ru(10)	C(49)	109.6(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(10)	C(50)	123.7(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	Ru(8)	62.69(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(46)	115.9(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(47)	132.3(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(48)	166.5(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(49)	155.2(6)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(50)	124.8(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(46)	138.1(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(47)	110.1(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(48)	110.5(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(49)	137.1(6)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(50)	171.9(5)	1_555	1_555 1_555 yes
C(46)	Ru(10)	C(47)	36.4(6)	1_555	1_555 1_555 yes
C(46)	Ru(10)	C(48)	60.4(7)	1_555	1_555 1_555 yes
C(46)	Ru(10)	C(49)	62.1(7)	1_555	1_555 1_555 yes
C(46)	Ru(10)	C(50)	38.2(6)	1_555	1_555 1_555 yes
C(47)	Ru(10)	C(48)	36.6(6)	1_555	1_555 1_555 yes
C(47)	Ru(10)	C(49)	62.5(7)	1_555	1_555 1_555 yes
C(47)	Ru(10)	C(50)	62.9(7)	1_555	1_555 1_555 yes
C(48)	Ru(10)	C(49)	37.0(6)	1_555	1_555 1_555 yes
C(48)	Ru(10)	C(50)	61.5(7)	1_555	1_555 1_555 yes
C(49)	Ru(10)	C(50)	37.1(6)	1_555	1_555 1_555 yes
Ru(1)	C(1)	C(2)	70.6(9)	1_555	1_555 1_555 yes
Ru(1)	C(1)	C(5)	72.4(9)	1_555	1_555 1_555 yes
Ru(1)	C(1)	H(1)	123(1)	1_555	1_555 1_555 no
C(2)	C(1)	C(5)	110(1)	1_555	1_555 1_555 yes
C(2)	C(1)	H(1)	126(2)	1_555	1_555 1_555 no
C(5)	C(1)	H(1)	122(2)	1_555	1_555 1_555 no
Ru(1)	C(2)	C(1)	70.6(9)	1_555	1_555 1_555 yes
Ru(1)	C(2)	C(3)	70.7(9)	1_555	1_555 1_555 yes
Ru(1)	C(2)	H(2)	126(1)	1_555	1_555 1_555 no
C(1)	C(2)	C(3)	106(1)	1_555	1_555 1_555 yes
C(1)	C(2)	H(2)	122(2)	1_555	1_555 1_555 no
C(3)	C(2)	H(2)	130(2)	1_555	1_555 1_555 no
Ru(1)	C(3)	C(2)	71.9(9)	1_555	1_555 1_555 yes
Ru(1)	C(3)	C(4)	71.8(9)	1_555	1_555 1_555 yes
Ru(1)	C(3)	H(3)	126(1)	1_555	1_555 1_555 no
C(2)	C(3)	C(4)	108(1)	1_555	1_555 1_555 yes
C(2)	C(3)	H(3)	123(1)	1_555	1_555 1_555 no
C(4)	C(3)	H(3)	127(1)	1_555	1_555 1_555 no
Ru(1)	C(4)	C(3)	69.4(9)	1_555	1_555 1_555 yes
Ru(1)	C(4)	C(5)	71.3(9)	1_555	1_555 1_555 yes
Ru(1)	C(4)	H(4)	125(1)	1_555	1_555 1_555 no
C(3)	C(4)	C(5)	108(1)	1_555	1_555 1_555 yes
C(3)	C(4)	H(4)	127(1)	1_555	1_555 1_555 no
C(5)	C(4)	H(4)	124(1)	1_555	1_555 1_555 no
Ru(1)	C(5)	C(1)	70.3(9)	1_555	1_555 1_555 yes
Ru(1)	C(5)	C(4)	70.5(8)	1_555	1_555 1_555 yes
Ru(1)	C(5)	H(5)	125(1)	1_555	1_555 1_555 no
C(1)	C(5)	C(4)	106(1)	1_555	1_555 1_555 yes
C(1)	C(5)	H(5)	125(1)	1_555	1_555 1_555 no
C(4)	C(5)	H(5)	128(1)	1_555	1_555 1_555 no
Ru(2)	C(6)	C(7)	71.8(9)	1_555	1_555 1_555 yes
Ru(2)	C(6)	C(10)	71.3(9)	1_555	1_555 1_555 yes
Ru(2)	C(6)	H(6)	124(1)	1_555	1_555 1_555 no
C(7)	C(6)	C(10)	109(1)	1_555	1_555 1_555 yes

C(7)	C(6)	H(6)	125(1)	1_555 1_555 1_555	no
C(10)	C(6)	H(6)	125(1)	1_555 1_555 1_555	no
Ru(2)	C(7)	C(6)	70.7(9)	1_555 1_555 1_555	yes
Ru(2)	C(7)	C(8)	70.0(9)	1_555 1_555 1_555	yes
Ru(2)	C(7)	H(7)	125(1)	1_555 1_555 1_555	no
C(6)	C(7)	C(8)	107(1)	1_555 1_555 1_555	yes
C(6)	C(7)	H(7)	128(1)	1_555 1_555 1_555	no
C(8)	C(7)	H(7)	123(1)	1_555 1_555 1_555	no
Ru(2)	C(8)	C(7)	72.2(9)	1_555 1_555 1_555	yes
Ru(2)	C(8)	C(9)	71.7(9)	1_555 1_555 1_555	yes
Ru(2)	C(8)	H(8)	124(1)	1_555 1_555 1_555	no
C(7)	C(8)	C(9)	107(1)	1_555 1_555 1_555	yes
C(7)	C(8)	H(8)	125(1)	1_555 1_555 1_555	no
C(9)	C(8)	H(8)	126(1)	1_555 1_555 1_555	no
Ru(2)	C(9)	C(8)	70.6(9)	1_555 1_555 1_555	yes
Ru(2)	C(9)	C(10)	71.7(8)	1_555 1_555 1_555	yes
Ru(2)	C(9)	H(9)	123(1)	1_555 1_555 1_555	no
C(8)	C(9)	C(10)	110(1)	1_555 1_555 1_555	yes
C(8)	C(9)	H(9)	123(1)	1_555 1_555 1_555	no
C(10)	C(9)	H(9)	126(1)	1_555 1_555 1_555	no
Ru(2)	C(10)	C(6)	70.6(8)	1_555 1_555 1_555	yes
Ru(2)	C(10)	C(9)	71.0(8)	1_555 1_555 1_555	yes
Ru(2)	C(10)	H(10)	126(1)	1_555 1_555 1_555	no
C(6)	C(10)	C(9)	105(1)	1_555 1_555 1_555	yes
C(6)	C(10)	H(10)	127(1)	1_555 1_555 1_555	no
C(9)	C(10)	H(10)	126(1)	1_555 1_555 1_555	no
Ru(3)	C(11)	C(12)	69(1)	1_555 1_555 1_555	yes
Ru(3)	C(11)	C(15)	71(1)	1_555 1_555 1_555	yes
Ru(3)	C(11)	H(11)	125(1)	1_555 1_555 1_555	no
C(12)	C(11)	C(15)	106(1)	1_555 1_555 1_555	yes
C(12)	C(11)	H(11)	128(2)	1_555 1_555 1_555	no
C(15)	C(11)	H(11)	124(2)	1_555 1_555 1_555	no
Ru(3)	C(12)	C(11)	71(1)	1_555 1_555 1_555	yes
Ru(3)	C(12)	C(13)	73(1)	1_555 1_555 1_555	yes
Ru(3)	C(12)	H(12)	125(1)	1_555 1_555 1_555	no
C(11)	C(12)	C(13)	107(1)	1_555 1_555 1_555	yes
C(11)	C(12)	H(12)	122(2)	1_555 1_555 1_555	no
C(13)	C(12)	H(12)	129(2)	1_555 1_555 1_555	no
Ru(3)	C(13)	C(12)	69(1)	1_555 1_555 1_555	yes
Ru(3)	C(13)	C(14)	69.4(10)	1_555 1_555 1_555	yes
Ru(3)	C(13)	H(13)	126(1)	1_555 1_555 1_555	no
C(12)	C(13)	C(14)	105(1)	1_555 1_555 1_555	yes
C(12)	C(13)	H(13)	125(2)	1_555 1_555 1_555	no
C(14)	C(13)	H(13)	128(2)	1_555 1_555 1_555	no
Ru(3)	C(14)	C(13)	72(1)	1_555 1_555 1_555	yes
Ru(3)	C(14)	C(15)	71(1)	1_555 1_555 1_555	yes
Ru(3)	C(14)	H(14)	123(1)	1_555 1_555 1_555	no
C(13)	C(14)	C(15)	109(1)	1_555 1_555 1_555	yes
C(13)	C(14)	H(14)	127(2)	1_555 1_555 1_555	no
C(15)	C(14)	H(14)	123(2)	1_555 1_555 1_555	no
Ru(3)	C(15)	C(11)	71(1)	1_555 1_555 1_555	yes
Ru(3)	C(15)	C(14)	72(1)	1_555 1_555 1_555	yes
Ru(3)	C(15)	H(15)	122(1)	1_555 1_555 1_555	no
C(11)	C(15)	C(14)	110(1)	1_555 1_555 1_555	yes
C(11)	C(15)	H(15)	124(2)	1_555 1_555 1_555	no
C(14)	C(15)	H(15)	125(2)	1_555 1_555 1_555	no
Ru(4)	C(16)	C(17)	70.8(9)	1_555 1_555 1_555	yes
Ru(4)	C(16)	C(20)	70.4(9)	1_555 1_555 1_555	yes
Ru(4)	C(16)	H(16)	125(1)	1_555 1_555 1_555	no
C(17)	C(16)	C(20)	108(1)	1_555 1_555 1_555	yes
C(17)	C(16)	H(16)	126(1)	1_555 1_555 1_555	no
C(20)	C(16)	H(16)	124(1)	1_555 1_555 1_555	no
Ru(4)	C(17)	C(16)	71.2(9)	1_555 1_555 1_555	yes
Ru(4)	C(17)	C(18)	72.1(9)	1_555 1_555 1_555	yes
Ru(4)	C(17)	H(17)	126(1)	1_555 1_555 1_555	no
C(16)	C(17)	C(18)	108(1)	1_555 1_555 1_555	yes
C(16)	C(17)	H(17)	124(1)	1_555 1_555 1_555	no
C(18)	C(17)	H(17)	127(1)	1_555 1_555 1_555	no
Ru(4)	C(18)	C(17)	70.6(9)	1_555 1_555 1_555	yes
Ru(4)	C(18)	C(19)	69.6(9)	1_555 1_555 1_555	yes
Ru(4)	C(18)	H(18)	126(1)	1_555 1_555 1_555	no
C(17)	C(18)	C(19)	108(1)	1_555 1_555 1_555	yes
C(17)	C(18)	H(18)	126(1)	1_555 1_555 1_555	no
C(19)	C(18)	H(18)	125(1)	1_555 1_555 1_555	no
Ru(4)	C(19)	C(18)	72.9(9)	1_555 1_555 1_555	yes
Ru(4)	C(19)	C(20)	70.9(9)	1_555 1_555 1_555	yes
Ru(4)	C(19)	H(19)	125(1)	1_555 1_555 1_555	no
C(18)	C(19)	C(20)	108(1)	1_555 1_555 1_555	yes
C(18)	C(19)	H(19)	127(1)	1_555 1_555 1_555	no
C(20)	C(19)	H(19)	123(1)	1_555 1_555 1_555	no
Ru(4)	C(20)	C(16)	71.5(9)	1_555 1_555 1_555	yes
Ru(4)	C(20)	C(19)	70.0(9)	1_555 1_555 1_555	yes
Ru(4)	C(20)	H(20)	126(1)	1_555 1_555 1_555	no
C(16)	C(20)	C(19)	106(1)	1_555 1_555 1_555	yes
C(16)	C(20)	H(20)	125(1)	1_555 1_555 1_555	no
C(19)	C(20)	H(20)	127(1)	1_555 1_555 1_555	no
Ru(5)	C(21)	C(22)	69(1)	1_555 1_555 1_555	yes
Ru(5)	C(21)	C(25)	73(1)	1_555 1_555 1_555	yes
Ru(5)	C(21)	H(21)	125(1)	1_555 1_555 1_555	no
C(22)	C(21)	C(25)	109(1)	1_555 1_555 1_555	yes
C(22)	C(21)	H(21)	126(3)	1_555 1_555 1_555	no
C(25)	C(21)	H(21)	124(2)	1_555 1_555 1_555	no

Ru(5)	C(22)	C(21)	71(1)	1_555 1_555 1_555	yes
Ru(5)	C(22)	C(23)	70(1)	1_555 1_555 1_555	yes
Ru(5)	C(22)	H(22)	126(1)	1_555 1_555 1_555	no
C(21)	C(22)	C(23)	104(1)	1_555 1_555 1_555	yes
C(21)	C(22)	H(22)	129(2)	1_555 1_555 1_555	no
C(23)	C(22)	H(22)	125(2)	1_555 1_555 1_555	no
Ru(5)	C(23)	C(22)	71(1)	1_555 1_555 1_555	yes
Ru(5)	C(23)	C(24)	72(1)	1_555 1_555 1_555	yes
Ru(5)	C(23)	H(23)	123(1)	1_555 1_555 1_555	no
C(22)	C(23)	C(24)	109(1)	1_555 1_555 1_555	yes
C(22)	C(23)	H(23)	125(2)	1_555 1_555 1_555	no
C(24)	C(23)	H(23)	125(2)	1_555 1_555 1_555	no
Ru(5)	C(24)	C(23)	69(1)	1_555 1_555 1_555	yes
Ru(5)	C(24)	C(25)	72(1)	1_555 1_555 1_555	yes
Ru(5)	C(24)	H(24)	124(1)	1_555 1_555 1_555	no
C(23)	C(24)	C(25)	107(2)	1_555 1_555 1_555	yes
C(23)	C(24)	H(24)	123(2)	1_555 1_555 1_555	no
C(25)	C(24)	H(24)	128(2)	1_555 1_555 1_555	no
Ru(5)	C(25)	C(21)	70(1)	1_555 1_555 1_555	yes
Ru(5)	C(25)	C(24)	70(1)	1_555 1_555 1_555	yes
Ru(5)	C(25)	H(25)	125(1)	1_555 1_555 1_555	no
C(21)	C(25)	C(24)	109(2)	1_555 1_555 1_555	yes
C(21)	C(25)	H(25)	126(2)	1_555 1_555 1_555	no
C(24)	C(25)	H(25)	123(2)	1_555 1_555 1_555	no
Ru(6)	C(26)	C(27)	70.6(10)	1_555 1_555 1_555	yes
Ru(6)	C(26)	C(30)	72(1)	1_555 1_555 1_555	yes
Ru(6)	C(26)	H(26)	125(1)	1_555 1_555 1_555	no
C(27)	C(26)	C(30)	107(1)	1_555 1_555 1_555	yes
C(27)	C(26)	H(26)	126(2)	1_555 1_555 1_555	no
C(30)	C(26)	H(26)	125(1)	1_555 1_555 1_555	no
Ru(6)	C(27)	C(26)	71.5(10)	1_555 1_555 1_555	yes
Ru(6)	C(27)	C(28)	71.6(10)	1_555 1_555 1_555	yes
Ru(6)	C(27)	H(27)	126(1)	1_555 1_555 1_555	no
C(26)	C(27)	C(28)	107(1)	1_555 1_555 1_555	yes
C(26)	C(27)	H(27)	127(2)	1_555 1_555 1_555	no
C(28)	C(27)	H(27)	125(1)	1_555 1_555 1_555	no
Ru(6)	C(28)	C(27)	70.7(9)	1_555 1_555 1_555	yes
Ru(6)	C(28)	C(29)	72.1(9)	1_555 1_555 1_555	yes
Ru(6)	C(28)	H(28)	123(1)	1_555 1_555 1_555	no
C(27)	C(28)	C(29)	108(1)	1_555 1_555 1_555	yes
C(27)	C(28)	H(28)	127(2)	1_555 1_555 1_555	no
C(29)	C(28)	H(28)	124(2)	1_555 1_555 1_555	no
Ru(6)	C(29)	C(28)	70.0(9)	1_555 1_555 1_555	yes
Ru(6)	C(29)	C(30)	71.5(9)	1_555 1_555 1_555	yes
Ru(6)	C(29)	H(29)	124(1)	1_555 1_555 1_555	no
C(28)	C(29)	C(30)	106(1)	1_555 1_555 1_555	yes
C(28)	C(29)	H(29)	126(1)	1_555 1_555 1_555	no
C(30)	C(29)	H(29)	127(1)	1_555 1_555 1_555	no
Ru(6)	C(30)	C(26)	70.7(10)	1_555 1_555 1_555	yes
Ru(6)	C(30)	C(29)	71.9(9)	1_555 1_555 1_555	yes
Ru(6)	C(30)	H(30)	123(1)	1_555 1_555 1_555	no
C(26)	C(30)	C(29)	110(1)	1_555 1_555 1_555	yes
C(26)	C(30)	H(30)	126(1)	1_555 1_555 1_555	no
C(29)	C(30)	H(30)	123(2)	1_555 1_555 1_555	no
Ru(7)	C(31)	C(32)	71.3(8)	1_555 1_555 1_555	yes
Ru(7)	C(31)	C(35)	70.6(8)	1_555 1_555 1_555	yes
Ru(7)	C(31)	H(31)	126(1)	1_555 1_555 1_555	no
C(32)	C(31)	C(35)	106(1)	1_555 1_555 1_555	yes
C(32)	C(31)	H(31)	125(1)	1_555 1_555 1_555	no
C(35)	C(31)	H(31)	127(1)	1_555 1_555 1_555	no
Ru(7)	C(32)	C(31)	69.9(8)	1_555 1_555 1_555	yes
Ru(7)	C(32)	C(33)	69.4(8)	1_555 1_555 1_555	yes
Ru(7)	C(32)	H(32)	125(1)	1_555 1_555 1_555	no
C(31)	C(32)	C(33)	107(1)	1_555 1_555 1_555	yes
C(31)	C(32)	H(32)	127(1)	1_555 1_555 1_555	no
C(33)	C(32)	H(32)	125(1)	1_555 1_555 1_555	no
Ru(7)	C(33)	C(32)	73.7(9)	1_555 1_555 1_555	yes
Ru(7)	C(33)	C(34)	71.5(9)	1_555 1_555 1_555	yes
Ru(7)	C(33)	H(33)	123(1)	1_555 1_555 1_555	no
C(32)	C(33)	C(34)	109(1)	1_555 1_555 1_555	yes
C(32)	C(33)	H(33)	124(1)	1_555 1_555 1_555	no
C(34)	C(33)	H(33)	125(1)	1_555 1_555 1_555	no
Ru(7)	C(34)	C(33)	69.9(9)	1_555 1_555 1_555	yes
Ru(7)	C(34)	C(35)	71.1(8)	1_555 1_555 1_555	yes
Ru(7)	C(34)	H(34)	126(1)	1_555 1_555 1_555	no
C(33)	C(34)	C(35)	106(1)	1_555 1_555 1_555	yes
C(33)	C(34)	H(34)	124(1)	1_555 1_555 1_555	no
C(35)	C(34)	H(34)	128(1)	1_555 1_555 1_555	no
Ru(7)	C(35)	C(31)	71.8(8)	1_555 1_555 1_555	yes
Ru(7)	C(35)	C(34)	71.2(8)	1_555 1_555 1_555	yes
Ru(7)	C(35)	H(35)	124(1)	1_555 1_555 1_555	no
C(31)	C(35)	C(34)	109(1)	1_555 1_555 1_555	yes
C(31)	C(35)	H(35)	125(1)	1_555 1_555 1_555	no
C(34)	C(35)	H(35)	124(1)	1_555 1_555 1_555	no
Ru(8)	C(36)	C(37)	71(1)	1_555 1_555 1_555	yes
Ru(8)	C(36)	C(40)	72(1)	1_555 1_555 1_555	yes
Ru(8)	C(36)	H(36)	124(1)	1_555 1_555 1_555	no
C(37)	C(36)	C(40)	109(2)	1_555 1_555 1_555	yes
C(37)	C(36)	H(36)	120(3)	1_555 1_555 1_555	no
C(40)	C(36)	H(36)	130(3)	1_555 1_555 1_555	no
Ru(8)	C(37)	C(36)	72(1)	1_555 1_555 1_555	yes

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   Ru(8)     C(37)     C(38)     70(1)      1_555  1_555  1_555
yes
   Ru(8)     C(37)     H(37)     123(1)     1_555 1_555 1_555 no
   C(36)     C(37)     C(38)     107(1)     1_555  1_555  1_555
yes
   C(36)     C(37)     H(37)     129(3)     1_555 1_555 1_555 no
   C(38)     C(37)     H(37)     122(3)     1_555 1_555 1_555 no
   Ru(8)     C(38)     C(37)     69(1)      1_555  1_555  1_555
yes
   Ru(8)     C(38)     C(39)     72.3(10)   1_555 1_555 1_555 yes
   Ru(8)     C(38)     H(38)     123(1)     1_555 1_555 1_555 no
   C(37)     C(38)     C(39)     103(1)     1_555  1_555  1_555
yes
   C(37)     C(38)     H(38)     128(2)     1_555 1_555 1_555 no
   C(39)     C(38)     H(38)     127(2)     1_555 1_555 1_555 no
   Ru(8)     C(39)     C(38)     70.9(10)   1_555 1_555 1_555 yes
   Ru(8)     C(39)     C(40)     71.2(10)   1_555 1_555 1_555 yes
   Ru(8)     C(39)     H(39)     123(1)     1_555 1_555 1_555 no
   C(38)     C(39)     C(40)     109(1)     1_555  1_555  1_555
yes
   C(38)     C(39)     H(39)     125(2)     1_555 1_555 1_555 no
   C(40)     C(39)     H(39)     124(2)     1_555 1_555 1_555 no
   Ru(8)     C(40)     C(36)     71(1)      1_555  1_555  1_555
yes
   Ru(8)     C(40)     C(39)     72(1)      1_555  1_555  1_555
yes
   Ru(8)     C(40)     H(40)     126(1)     1_555 1_555 1_555 no
   C(36)     C(40)     C(39)     109(1)     1_555  1_555  1_555
yes
   C(36)     C(40)     H(40)     121(2)     1_555 1_555 1_555 no
   C(39)     C(40)     H(40)     128(2)     1_555 1_555 1_555 no
   Ru(9)     C(41)     C(42)     70.7(9)    1_555 1_555 1_555 yes
   Ru(9)     C(41)     C(45)     70.5(9)    1_555 1_555 1_555 yes
   Ru(9)     C(41)     H(41)     126(1)     1_555 1_555 1_555 no
   C(42)     C(41)     C(45)     108(1)     1_555  1_555  1_555
yes
   C(42)     C(41)     H(41)     125(1)     1_555 1_555 1_555 no
   C(45)     C(41)     H(41)     126(1)     1_555 1_555 1_555 no
   Ru(9)     C(42)     C(41)     71.3(9)    1_555 1_555 1_555 yes
   Ru(9)     C(42)     C(43)     69.7(9)    1_555 1_555 1_555 yes
   Ru(9)     C(42)     H(42)     126(1)     1_555 1_555 1_555 no
   C(41)     C(42)     C(43)     106(1)     1_555  1_555  1_555
yes
   C(41)     C(42)     H(42)     127(1)     1_555 1_555 1_555 no
   C(43)     C(42)     H(42)     126(1)     1_555 1_555 1_555 no
   Ru(9)     C(43)     C(42)     71.0(9)    1_555 1_555 1_555 yes
   Ru(9)     C(43)     C(44)     71.8(10)   1_555 1_555 1_555 yes
   Ru(9)     C(43)     H(43)     125(1)     1_555 1_555 1_555 no
   C(42)     C(43)     C(44)     108(1)     1_555  1_555  1_555
yes
   C(42)     C(43)     H(43)     125(1)     1_555 1_555 1_555 no
   C(44)     C(43)     H(43)     126(1)     1_555 1_555 1_555 no
   Ru(9)     C(44)     C(43)     69.9(9)    1_555 1_555 1_555 yes
   Ru(9)     C(44)     C(45)     71.6(9)    1_555 1_555 1_555 yes
   Ru(9)     C(44)     H(44)     126(1)     1_555 1_555 1_555 no
   C(43)     C(44)     C(45)     109(1)     1_555  1_555  1_555
yes
   C(43)     C(44)     H(44)     123(1)     1_555 1_555 1_555 no
   C(45)     C(44)     H(44)     126(1)     1_555 1_555 1_555 no
   Ru(9)     C(45)     C(41)     70.2(8)    1_555 1_555 1_555 yes
   Ru(9)     C(45)     C(44)     71.3(9)    1_555 1_555 1_555 yes
   Ru(9)     C(45)     H(45)     127(1)     1_555 1_555 1_555 no
   C(41)     C(45)     C(44)     107(1)     1_555  1_555  1_555
yes
   C(41)     C(45)     H(45)     126(1)     1_555 1_555 1_555 no
   C(44)     C(45)     H(45)     126(1)     1_555 1_555 1_555 no
   Ru(10)    C(46)     C(47)     73(1)      1_555  1_555  1_555
yes
   Ru(10)    C(46)     C(50)     71(1)      1_555  1_555  1_555
yes
   Ru(10)    C(46)     H(46)     121(1)     1_555 1_555 1_555 no
   C(47)     C(46)     C(50)     110(1)     1_555  1_555  1_555
yes
   C(47)     C(46)     H(46)     124(1)     1_555 1_555 1_555 no
   C(50)     C(46)     H(46)     125(1)     1_555 1_555 1_555 no
   Ru(10)    C(47)     C(46)     70.0(10)   1_555 1_555 1_555 yes
   Ru(10)    C(47)     C(48)     70.7(10)   1_555 1_555 1_555 yes
   Ru(10)    C(47)     H(47)     124(1)     1_555 1_555 1_555 no
   C(46)     C(47)     C(48)     105(1)     1_555  1_555  1_555
yes
   C(46)     C(47)     H(47)     128(1)     1_555 1_555 1_555 no
   C(48)     C(47)     H(47)     125(1)     1_555 1_555 1_555 no
   Ru(10)    C(48)     C(47)     72(1)      1_555  1_555  1_555
yes
   Ru(10)    C(48)     C(49)     71.3(10)   1_555 1_555 1_555 yes
   Ru(10)    C(48)     H(48)     121(1)     1_555 1_555 1_555 no
   C(47)     C(48)     C(49)     110(1)     1_555  1_555  1_555
yes
   C(47)     C(48)     H(48)     125(1)     1_555 1_555 1_555 no
   C(49)     C(48)     H(48)     123(2)     1_555 1_555 1_555 no
   Ru(10)    C(49)     C(48)     71.7(10)   1_555 1_555 1_555 yes
   Ru(10)    C(49)     C(50)     71.6(10)   1_555 1_555 1_555 yes
   Ru(10)    C(49)     H(49)     122(1)     1_555 1_555 1_555 no
   C(48)     C(49)     C(50)     107(1)     1_555  1_555  1_555
yes
   C(48)     C(49)     H(49)     124(2)     1_555 1_555 1_555 no
   C(50)     C(49)     H(49)     127(2)     1_555 1_555 1_555 no
   Ru(10)    C(50)     C(46)     70(1)      1_555  1_555  1_555
yes
   Ru(10)    C(50)     C(49)     71(1)      1_555  1_555  1_555
yes
   Ru(10)    C(50)     H(50)     124(1)     1_555 1_555 1_555 no
   C(46)     C(50)     C(49)     105(1)     1_555  1_555  1_555
yes
   C(46)     C(50)     H(50)     128(1)     1_555 1_555 1_555 no
   C(49)     C(50)     H(50)     125(1)     1_555 1_555 1_555 no
#------------------------------------------------------------------------------
loop_
_geom_contact_atom_site_label_1
_geom_contact_atom_site_label_2
_geom_contact_distance
_geom_contact_site_symmetry_1
_geom_contact_site_symmetry_2
_geom_contact_publ_flag
   Ru(1)     Ru(2)     2.963(2)   1_555 1_555 ?
   Ru(1)     Ru(3)     2.911(2)   1_555 1_555 ?
   Ru(1)     Ru(4)     2.799(2)   1_555 1_555 ?
   Ru(1)     Ru(5)     2.836(2)   1_555 1_555 ?
```

Ru(2)	Ru(3)	2.912(2)	1_555 1_555 ?
Ru(2)	Ru(4)	2.793(2)	1_555 1_555 ?
Ru(2)	Ru(5)	2.816(2)	1_555 1_555 ?
Ru(3)	Ru(4)	2.811(2)	1_555 1_555 ?
Ru(3)	Ru(5)	2.847(2)	1_555 1_555 ?
Ru(6)	Ru(7)	2.971(2)	1_555 1_555 ?
Ru(6)	Ru(8)	2.900(2)	1_555 1_555 ?
Ru(6)	Ru(9)	2.822(2)	1_555 1_555 ?
Ru(6)	Ru(10)	2.843(2)	1_555 1_555 ?
Ru(7)	Ru(8)	2.961(2)	1_555 1_555 ?
Ru(7)	Ru(9)	2.780(2)	1_555 1_555 ?
Ru(7)	Ru(10)	2.842(2)	1_555 1_555 ?
Ru(8)	Ru(9)	2.807(2)	1_555 1_555 ?
Ru(8)	Ru(10)	2.850(2)	1_555 1_555 ?
C(2)	C(33)	3.46(2)	1_555 2_554 ?
C(2)	C(32)	3.54(2)	1_555 2_554 ?
C(3)	C(32)	3.25(2)	1_555 2_554 ?
C(5)	C(10)	3.25(2)	1_555 1_554 ?
C(7)	C(32)	3.50(2)	1_555 2_555 ?
C(7)	C(33)	3.50(2)	1_555 2_555 ?
C(8)	C(32)	3.52(2)	1_555 2_555 ?
C(9)	C(28)	3.55(2)	1_555 2_455 ?
C(10)	C(20)	3.48(2)	1_555 2_455 ?
C(10)	C(29)	3.59(2)	1_555 2_455 ?
C(14)	C(34)	3.40(2)	1_555 2_454 ?
C(14)	C(35)	3.58(2)	1_555 2_454 ?
C(22)	C(24)	3.52(3)	1_555 2_465 ?
C(23)	C(24)	3.43(3)	1_555 2_465 ?
C(23)	C(23)	3.47(4)	1_555 2_465 ?
C(25)	C(44)	3.54(3)	1_555 2_454 ?
C(32)	C(42)	3.55(2)	1_555 2_544 ?
C(36)	C(36)	3.38(4)	1_555 2_545 ?
C(36)	C(37)	3.41(3)	1_555 2_545 ?
C(46)	C(50)	3.55(2)	1_555 2_555 ?
C(50)	C(50)	3.60(4)	1_555 2_555 ?

Table S-4. Atomic coordinates, bond distances and angles for 4

_atom_site_label
_atom_site_fract_x
_atom_site_fract_y
_atom_site_fract_z
_atom_site_U_iso_or_equiv
_atom_site_thermal_displace_type
_atom_site_calc_flag
_atom_site_calc_attached_atom
_atom_site_occupancy
_atom_site_refinement_flags

Ru(1)	0.15459(8)	0.09112(8)	0.3686(1)	0.0403(4)	Uani d .	1.00 .
Ru(2)	0.28850(7)	0.05778(7)	0.2557(1)	0.0341(4)	Uani d .	1.00 .
Ru(3)	0.16500(7)	-0.06086(7)	0.2283(1)	0.0356(4)	Uani d .	1.00 .
Ru(4)	0.14406(6)	0.07039(7)	0.1053(1)	0.0248(3)	Uani d .	1.00 .
Ru(5)	0.23669(7)	-0.05188(7)	0.0131(1)	0.0374(4)	Uani d .	1.00 .
Ru(6)	-0.44524(7)	-0.38541(8)	-0.2356(1)	0.0363(4)	Uani d .	1.00 .
Ru(7)	-0.37242(8)	-0.50125(7)	-0.1507(1)	0.0415(4)	Uani d .	1.00 .
Ru(8)	-0.28958(7)	-0.40004(7)	-0.2647(1)	0.0273(3)	Uani d .	1.00 .
Ru(9)	-0.33944(7)	-0.33216(7)	-0.0170(1)	0.0315(4)	Uani d .	1.00 .
Ru(10)	-0.22230(9)	-0.43609(8)	-0.0345(1)	0.0436(4)	Uani d .	1.00 .
O(1)	0.6567(10)	0.225(1)	0.535(2)	0.109(6)	Uiso d .	1.00 .
C(1)	0.182(2)	0.188(2)	0.543(2)	0.09(1)	Uani d .	1.00 .
C(2)	0.173(2)	0.123(2)	0.574(3)	0.094(8)	Uiso d .	1.00 .
C(3)	0.101(2)	0.089(1)	0.531(3)	0.13(1)	Uani d .	1.00 .
C(4)	0.061(1)	0.144(2)	0.453(2)	0.104(10)	Uani d .	1.00 .
C(5)	0.123(2)	0.201(1)	0.470(2)	0.079(8)	Uani d .	1.00 .
C(6)	0.3716(9)	0.160(1)	0.302(2)	0.060(7)	Uani d .	1.00 .
C(7)	0.403(1)	0.093(2)	0.224(2)	0.075(8)	Uani d .	1.00 .
C(8)	0.4111(9)	0.035(1)	0.291(3)	0.075(8)	Uani d .	1.00 .
C(9)	0.381(1)	0.063(1)	0.409(3)	0.082(9)	Uani d .	1.00 .
C(10)	0.359(1)	0.141(1)	0.421(2)	0.080(8)	Uani d .	1.00 .
C(11)	0.188(1)	-0.132(1)	0.359(2)	0.071(8)	Uani d .	1.00 .
C(12)	0.118(1)	-0.100(1)	0.381(2)	0.075(6)	Uiso d .	1.00 .
C(13)	0.069(1)	-0.130(1)	0.261(3)	0.095(9)	Uani d .	1.00 .
C(14)	0.109(2)	-0.178(1)	0.181(3)	0.088(8)	Uiso d .	1.00 .
C(15)	0.182(2)	-0.180(2)	0.234(3)	0.097(8)	Uiso d .	1.00 .
C(16)	0.1397(8)	0.1827(8)	0.062(2)	0.035(5)	Uani d .	1.00 .
C(17)	0.0764(8)	0.1724(9)	0.132(2)	0.042(5)	Uani d .	1.00 .
C(18)	0.0297(8)	0.1040(10)	0.055(2)	0.044(5)	Uani d .	1.00 .
C(19)	0.0618(9)	0.0754(9)	-0.060(2)	0.041(5)	Uani d .	1.00 .
C(20)	0.1326(10)	0.1238(9)	-0.052(2)	0.049(6)	Uani d .	1.00 .
C(21)	0.282(2)	-0.057(1)	-0.163(2)	0.091(8)	Uiso d .	1.00 .
C(22)	0.3313(9)	-0.093(2)	-0.084(2)	0.111(8)	Uani d .	1.00 .
C(23)	0.283(1)	-0.159(1)	-0.073(3)	0.081(9)	Uani d .	1.00 .
C(24)	0.214(2)	-0.159(2)	-0.138(2)	0.093(10)	Uani d .	1.00 .
C(25)	0.216(1)	-0.101(1)	-0.191(2)	0.084(7)	Uiso d .	1.00 .

1.00 .
C(26) 0.324(4) 0.010(1) -0.192(5) 0.39(3) Uani d .
1.00 .
C(27) 0.417(1) -0.095(2) -0.014(4) 0.21(2) Uani d .
1.00 .
C(28) 0.300(2) -0.229(2) -0.015(4) 0.20(2) Uani d .
1.00 .
C(29) 0.146(2) -0.228(2) -0.155(4) 0.18(2) Uani d .
1.00 .
C(30) 0.141(2) -0.095(4) -0.274(2) 0.33(3) Uani d .
1.00 .
C(31) -0.5047(9) -0.348(1) -0.392(2) 0.058(6) Uani d . 1.00 .
C(32) -0.5374(10) -0.421(1) -0.390(2) 0.059(6) Uani d . 1.00 .
C(33) -0.5677(9) -0.4151(10) -0.271(2) 0.054(6) Uani d . 1.00 .
C(34) -0.5535(9) -0.3349(10) -0.194(2) 0.055(6) Uani d . 1.00 .
C(35) -0.5120(10) -0.295(1) -0.274(2) 0.060(7) Uani d . 1.00 .
C(36) -0.472(1) -0.5807(9) -0.251(3) 0.086(8) Uani d . 1.00 .
C(37) -0.462(2) -0.571(2) -0.104(5) 0.20(2) Uani d . 1.00 .
C(38) -0.400(3) -0.598(1) -0.077(3) 0.16(2) Uani d . 1.00 .
C(39) -0.358(2) -0.6245(10) -0.181(2) 0.091(9) Uani d . 1.00 .
C(40) -0.408(1) -0.6134(8) -0.290(2) 0.049(6) Uani d . 1.00 .
C(41) -0.305(1) -0.370(1) -0.449(2) 0.053(5) Uiso d . 1.00 .
C(42) -0.2454(10) -0.3205(10) -0.363(2) 0.044(5) Uani d . 1.00 .
C(43) -0.1845(10) -0.3636(10) -0.330(2) 0.044(5) Uani d . 1.00 .
C(44) -0.207(1) -0.4437(10) -0.393(2) 0.054(6) Uani d . 1.00 .
C(45) -0.2822(9) -0.447(1) -0.465(1) 0.051(6) Uani d . 1.00 .
C(46) -0.405(1) -0.2279(10) 0.027(2) 0.059(6) Uani d . 1.00 .
C(47) -0.3230(9) -0.2061(9) 0.039(2) 0.047(5) Uani d .
1.00 .
C(48) -0.283(1) -0.2348(9) 0.137(2) 0.044(5) Uani d .
1.00 .
C(49) -0.339(1) -0.277(1) 0.188(2) 0.060(6) Uani d .
1.00 .
C(50) -0.412(1) -0.271(1) 0.119(2) 0.056(6) Uani d .
1.00 .
C(51) -0.099(2) -0.436(2) -0.031(3) 0.103(9) Uiso d . 1.00 .
C(52) -0.114(1) -0.391(1) 0.083(2) 0.057(6) Uani d .
1.00 .
C(53) -0.152(1) -0.434(1) 0.145(2) 0.065(7) Uani d .
1.00 .
C(54) -0.165(1) -0.506(2) 0.068(3) 0.085(7) Uiso d .
1.00 .
C(55) -0.134(2) -0.512(2) -0.037(3) 0.13(1) Uani d . 1.00 .
C(56) -0.046(1) -0.412(3) -0.116(4) 0.26(2) Uani d . 1.00 .
C(57) -0.080(1) -0.305(1) 0.145(3) 0.11(1) Uani d .
1.00 .
C(58) -0.177(2) -0.404(2) 0.283(3) 0.15(1) Uani d .
1.00 .
C(59) -0.202(2) -0.584(2) 0.097(4) 0.17(1) Uiso d .
1.00 .
C(60) -0.126(3) -0.588(3) -0.143(4) 0.34(3) Uani d . 1.00 .
C(61) 0.751(2) 0.312(2) 0.483(3) 0.15(1) Uiso d .
1.00 .
C(62) 0.693(2) 0.241(2) 0.425(3) 0.14(1) Uiso d .
1.00 .
C(63) 0.594(2) 0.166(2) 0.508(3) 0.125(10) Uiso d .
1.00 .
C(64) 0.563(2) 0.160(2) 0.620(3) 0.121(10) Uiso d .
1.00 .

loop_
_atom_site_aniso_label
_atom_site_aniso_U_11
_atom_site_aniso_U_22
_atom_site_aniso_U_33
_atom_site_aniso_U_12
_atom_site_aniso_U_13
_atom_site_aniso_U_23
Ru(1) 0.0466(8) 0.0464(9) 0.0273(8) -0.0041(7) 0.0072(6)
0.0094(7)
Ru(2) 0.0261(6) 0.0316(7) 0.0417(9) -0.0039(6) -0.0052(6)
0.0099(6)
Ru(3) 0.0353(7) 0.0337(7) 0.0380(9) -0.0064(6) -0.0072(6)
0.0174(6)
Ru(4) 0.0243(6) 0.0227(6) 0.0269(7) 0.0002(5) 0.0005(5)
0.0075(5)
Ru(5) 0.0421(8) 0.0283(7) 0.0398(9) 0.0095(6) 0.0060(6)
0.0041(6)
Ru(6) 0.0288(7) 0.0374(8) 0.0368(9) -0.0044(6) 0.0106(6)
-0.0020(6)
Ru(7) 0.0672(9) 0.0234(7) 0.0322(8) -0.0084(7) 0.0200(7)
0.0008(6)
Ru(8) 0.0309(7) 0.0261(7) 0.0245(7) 0.0011(6) 0.0065(5)
0.0052(6)
Ru(9) 0.0413(7) 0.0232(7) 0.0272(8) -0.0041(6) 0.0114(6)
-0.0004(6)
Ru(10) 0.0661(10) 0.0318(8) 0.0314(9) 0.0111(7) 0.0003(7)
0.0074(6)
C(1) 0.09(2) 0.13(3) 0.04(1) 0.02(2) 0.01(1)
-0.02(2)
C(3) 0.23(3) 0.07(2) 0.10(2) -0.02(2) 0.13(2)
0.02(2)
C(4) 0.05(1) 0.15(3) 0.08(2) 0.02(2) 0.04(1)
-0.04(2)
C(5) 0.12(2) 0.05(1) 0.06(2) -0.01(1) 0.05(1)
-0.02(1)
C(6) 0.015(8) 0.06(1) 0.10(2) -0.003(9) -0.008(10)
0.02(1)
C(7) 0.027(10) 0.09(2) 0.10(2) 0.00(1) 0.02(1)
0.02(2)
C(8) 0.014(9) 0.06(1) 0.14(2) 0.001(10) -0.02(1)
0.04(2)
C(9) 0.03(1) 0.07(2) 0.14(2) -0.03(1) -0.04(1)
0.04(2)
C(10) 0.05(1) 0.10(2) 0.07(2) -0.02(1) -0.03(1)
0.01(1)
C(11) 0.04(1) 0.10(2) 0.10(2) -0.01(1) -0.02(1)
0.09(2)
C(13) 0.05(1) 0.10(2) 0.17(3) -0.03(1) -0.02(2)
0.12(2)
C(16) 0.020(7) 0.029(9) 0.06(1) -0.002(7) 0.001(7)
0.022(9)
C(17) 0.030(8) 0.036(10) 0.06(1) 0.003(8) -0.012(8)
0.023(9)
C(18) 0.019(7) 0.05(1) 0.07(1) -0.004(8) -0.001(8)
0.031(10)
C(19) 0.037(9) 0.037(10) 0.05(1) -0.003(8) -0.011(9)
0.025(9)

```
 C(20)  0.06(1)     0.034(10)  0.05(1)     -0.001(9)  -0.019(9)  0.01(1)
0.022(9)
 C(22)  0.015(8)    0.17(3)    0.08(2)     -0.03(1)   0.031(9)   -0.06(2)
-0.09(2)
 C(23)  0.10(2)     0.04(1)    0.13(2)     0.06(1)    0.08(2)    0.28(5)
0.04(1)
 C(24)  0.08(2)     0.09(2)    0.08(2)     0.02(2)    0.01(1)    0.03(2)
-0.01(2)
 C(26)  0.9(1)      0.02(1)    0.32(5)     0.03(3)    0.51(8)    0.03(2)
0.03(2)
 C(27)  0.06(2)     0.24(4)    0.22(4)     0.02(2)    0.02(2)    -0.18(4)
-0.14(3)
 C(28)  0.31(5)     0.09(2)    0.31(5)     0.14(3)    0.24(4)
0.13(3)
 C(29)  0.15(3)     0.12(3)    0.23(4)     -0.06(2)   0.05(3)
-0.05(3)
 C(30)  0.20(4)     0.7(1)     0.01(2)     0.23(5)    -0.02(2)
-0.07(3)
 C(31)  0.027(9)    0.09(2)    0.06(1)     0.00(1)    -0.005(9)
0.02(1)
 C(32)  0.04(1)     0.08(1)    0.05(1)     -0.01(1)   0.000(9)
0.00(1)
 C(33)  0.037(10)   0.04(1)    0.08(2)     -0.008(9)  0.010(10)
0.01(1)
 C(34)  0.034(9)    0.04(1)    0.09(2)     -0.017(9)  0.002(9)
0.01(1)
 C(35)  0.04(1)     0.06(1)    0.07(2)     0.01(1)    -0.009(10)
0.01(1)
 C(36)  0.05(1)     0.009(9)   0.19(3)     -0.010(9)  0.07(2)
0.00(1)
 C(37)  0.23(4)     0.05(2)    0.29(5)     -0.09(2)   0.25(4)
-0.09(2)
 C(38)  0.37(6)     0.03(1)    0.08(2)     -0.06(2)   0.15(3)
-0.01(1)
 C(39)  0.17(2)     0.014(9)   0.08(2)     -0.01(1)   -0.01(2)
0.03(1)
 C(40)  0.07(1)     0.009(8)   0.06(1)     -0.003(9)  0.00(1)
0.003(8)
 C(42)  0.05(1)     0.04(1)    0.06(1)     0.006(9)   0.026(9)
0.024(9)
 C(43)  0.05(1)     0.05(1)    0.04(1)     0.001(9)   0.032(9)
0.016(9)
 C(44)  0.08(1)     0.04(1)    0.04(1)     0.00(1)    0.03(1)
0.006(9)
 C(45)  0.045(10)   0.09(1)    0.015(9)    -0.02(1)   0.017(7)
-0.001(9)
 C(46)  0.06(1)     0.04(1)    0.06(1)     0.007(10)  0.015(10)
-0.027(10)
 C(47)  0.041(10)   0.031(9)   0.06(1)     0.004(8)   0.013(9)
-0.014(9)
 C(48)  0.07(1)     0.031(9)   0.018(10)   -0.001(9)  0.002(9)
-0.004(8)
 C(49)  0.08(1)     0.05(1)    0.04(1)     0.00(1)    0.02(1)
-0.010(10)
 C(50)  0.08(1)     0.04(1)    0.04(1)     0.00(1)    0.04(1)
-0.016(9)
 C(52)  0.05(1)     0.03(1)    0.08(2)     0.014(9)   0.00(1)
0.02(1)
 C(53)  0.08(1)     0.06(1)    0.06(2)     0.01(1)    -0.01(1)
 C(55)  0.14(2)     0.13(2)    0.08(2)     0.12(2)    -0.06(2)
-0.06(2)
 C(56)  0.06(2)     0.65(9)    0.17(3)     0.15(3)    0.06(2)
0.28(5)
 C(57)  0.08(2)     0.05(1)    0.19(3)     -0.01(1)   -0.04(2)
0.03(2)
 C(58)  0.15(3)     0.23(4)    0.05(2)     0.04(3)    0.00(2)
0.03(2)
 C(60)  0.34(6)     0.32(6)    0.18(4)     0.29(5)    -0.16(4)
-0.18(4)
#------------------------------------------------------------------------
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;
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;
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_refine_ls_matrix_type                  full
_refine_ls_weighting_scheme             'w = 1/[¥s^2^(Fo) +
0.00010|Fo|^2^]'
_refine_ls_hydrogen_treatment           ?
_refine_ls_extinction_method            none
_refine_ls_extinction_coef              ?
_refine_ls_abs_structure_details        ?
_refine_ls_abs_structure_Flack          ?
_refine_ls_number_reflns                5919
_refine_ls_number_parameters            601
_refine_ls_number_restraints            0
_refine_ls_number_constraints           0
_refine_ls_R_factor_all                 ?
_refine_ls_R_factor_obs                 0.0579
_refine_ls_wR_factor_all                ?
_refine_ls_wR_factor_obs                0.0585
_refine_ls_goodness_of_fit_all          ?
_refine_ls_goodness_of_fit_obs          2.552
_refine_ls_shift/esd_max                0.0890
_refine_ls_shift/esd_mean               0.0030
_refine_diff_density_min                -0.90
_refine_diff_density_max                0.86
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_geom_special_details
;
 ?
;
loop_
_geom_bond_atom_site_label_1
_geom_bond_atom_site_label_2
_geom_bond_distance
_geom_bond_site_symmetry_1
_geom_bond_site_symmetry_2
_geom_bond_publ_flag
 Ru(1)   Ru(2)   2.826(2)  1_555 1_555 yes
 Ru(1)   Ru(3)   2.803(2)  1_555 1_555 yes
 Ru(1)   Ru(4)   2.802(2)  1_555 1_555 yes
 Ru(1)   C(1)    2.22(2)   1_555 1_555 yes
 Ru(1)   C(2)    2.16(3)   1_555 1_555 yes
 Ru(1)   C(3)    2.13(2)   1_555 1_555 yes
 Ru(1)   C(4)    2.14(2)   1_555 1_555 yes
 Ru(1)   C(5)    2.14(2)   1_555 1_555 yes
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Ru(2)	Ru(3)	2.915(2)	1_555	1_555 yes
Ru(2)	Ru(4)	2.925(2)	1_555	1_555 yes
Ru(2)	Ru(5)	2.893(2)	1_555	1_555 yes
Ru(2)	C(6)	2.21(2)	1_555	1_555 yes
Ru(2)	C(7)	2.19(2)	1_555	1_555 yes
Ru(2)	C(8)	2.24(2)	1_555	1_555 yes
Ru(2)	C(9)	2.19(2)	1_555	1_555 yes
Ru(2)	C(10)	2.23(2)	1_555	1_555 yes
Ru(3)	Ru(5)	2.851(2)	1_555	1_555 yes
Ru(3)	C(11)	2.18(2)	1_555	1_555 yes
Ru(3)	C(12)	2.22(2)	1_555	1_555 yes
Ru(3)	C(13)	2.19(1)	1_555	1_555 yes
Ru(3)	C(14)	2.19(2)	1_555	1_555 yes
Ru(3)	C(15)	2.19(3)	1_555	1_555 yes
Ru(4)	Ru(5)	2.859(2)	1_555	1_555 yes
Ru(4)	C(16)	2.20(1)	1_555	1_555 yes
Ru(4)	C(17)	2.22(2)	1_555	1_555 yes
Ru(4)	C(18)	2.19(2)	1_555	1_555 yes
Ru(4)	C(19)	2.21(2)	1_555	1_555 yes
Ru(4)	C(20)	2.18(2)	1_555	1_555 yes
Ru(5)	C(21)	2.16(3)	1_555	1_555 yes
Ru(5)	C(22)	2.15(2)	1_555	1_555 yes
Ru(5)	C(23)	2.17(2)	1_555	1_555 yes
Ru(5)	C(24)	2.18(2)	1_555	1_555 yes
Ru(5)	C(25)	2.17(3)	1_555	1_555 yes
Ru(6)	Ru(7)	2.805(2)	1_555	1_555 yes
Ru(6)	Ru(8)	2.830(2)	1_555	1_555 yes
Ru(6)	Ru(9)	2.784(2)	1_555	1_555 yes
Ru(6)	C(31)	2.18(2)	1_555	1_555 yes
Ru(6)	C(32)	2.15(2)	1_555	1_555 yes
Ru(6)	C(33)	2.17(2)	1_555	1_555 yes
Ru(6)	C(34)	2.21(2)	1_555	1_555 yes
Ru(6)	C(35)	2.15(2)	1_555	1_555 yes
Ru(7)	Ru(8)	2.899(2)	1_555	1_555 yes
Ru(7)	Ru(10)	2.860(2)	1_555	1_555 yes
Ru(7)	C(36)	2.21(2)	1_555	1_555 yes
Ru(7)	C(37)	2.17(2)	1_555	1_555 yes
Ru(7)	C(38)	2.16(2)	1_555	1_555 yes
Ru(7)	C(39)	2.19(2)	1_555	1_555 yes
Ru(7)	C(40)	2.21(1)	1_555	1_555 yes
Ru(8)	Ru(9)	2.941(2)	1_555	1_555 yes
Ru(8)	Ru(10)	2.904(2)	1_555	1_555 yes
Ru(8)	C(41)	2.23(2)	1_555	1_555 yes
Ru(8)	C(42)	2.18(1)	1_555	1_555 yes
Ru(8)	C(43)	2.21(1)	1_555	1_555 yes
Ru(8)	C(44)	2.19(2)	1_555	1_555 yes
Ru(8)	C(45)	2.17(2)	1_555	1_555 yes
Ru(9)	Ru(10)	2.853(2)	1_555	1_555 yes
Ru(9)	C(46)	2.23(2)	1_555	1_555 yes
Ru(9)	C(47)	2.19(2)	1_555	1_555 yes
Ru(9)	C(48)	2.20(1)	1_555	1_555 yes
Ru(9)	C(49)	2.21(2)	1_555	1_555 yes
Ru(9)	C(50)	2.20(2)	1_555	1_555 yes
Ru(10)	C(51)	2.17(3)	1_555	1_555 yes
Ru(10)	C(52)	2.18(2)	1_555	1_555 yes
Ru(10)	C(53)	2.19(2)	1_555	1_555 yes
Ru(10)	C(54)	2.12(3)	1_555	1_555 yes
Ru(10)	C(55)	2.12(2)	1_555	1_555 yes
O(1)	C(62)	1.52(3)	1_555	1_555 yes
O(1)	C(63)	1.45(3)	1_555	1_555 yes
C(1)	C(2)	1.32(3)	1_555	1_555 yes
C(1)	C(5)	1.31(3)	1_555	1_555 yes
C(2)	C(3)	1.36(4)	1_555	1_555 yes
C(3)	C(4)	1.61(4)	1_555	1_555 yes
C(4)	C(5)	1.43(3)	1_555	1_555 yes
C(6)	C(7)	1.46(3)	1_555	1_555 yes
C(6)	C(10)	1.47(3)	1_555	1_555 yes
C(7)	C(8)	1.43(3)	1_555	1_555 yes
C(8)	C(9)	1.44(3)	1_555	1_555 yes
C(9)	C(10)	1.46(3)	1_555	1_555 yes
C(11)	C(12)	1.42(3)	1_555	1_555 yes
C(11)	C(15)	1.41(3)	1_555	1_555 yes
C(12)	C(13)	1.45(3)	1_555	1_555 yes
C(13)	C(14)	1.36(3)	1_555	1_555 yes
C(14)	C(15)	1.35(3)	1_555	1_555 yes
C(16)	C(17)	1.47(2)	1_555	1_555 yes
C(16)	C(20)	1.40(2)	1_555	1_555 yes
C(17)	C(18)	1.45(2)	1_555	1_555 yes
C(18)	C(19)	1.43(2)	1_555	1_555 yes
C(19)	C(20)	1.47(2)	1_555	1_555 yes
C(21)	C(22)	1.45(3)	1_555	1_555 yes
C(21)	C(25)	1.33(3)	1_555	1_555 yes
C(21)	C(26)	1.51(3)	1_555	1_555 yes
C(22)	C(23)	1.47(3)	1_555	1_555 yes
C(22)	C(27)	1.63(4)	1_555	1_555 yes
C(23)	C(24)	1.34(3)	1_555	1_555 yes
C(23)	C(28)	1.58(3)	1_555	1_555 yes
C(24)	C(25)	1.31(3)	1_555	1_555 yes
C(24)	C(29)	1.65(4)	1_555	1_555 yes
C(25)	C(30)	1.54(4)	1_555	1_555 yes
C(31)	C(32)	1.43(2)	1_555	1_555 yes
C(31)	C(35)	1.43(3)	1_555	1_555 yes
C(32)	C(33)	1.45(2)	1_555	1_555 yes
C(33)	C(34)	1.47(2)	1_555	1_555 yes
C(34)	C(35)	1.50(3)	1_555	1_555 yes
C(36)	C(37)	1.57(6)	1_555	1_555 yes
C(36)	C(40)	1.38(3)	1_555	1_555 yes
C(37)	C(38)	1.25(7)	1_555	1_555 yes
C(38)	C(39)	1.42(4)	1_555	1_555 yes
C(39)	C(40)	1.46(3)	1_555	1_555 yes
C(41)	C(42)	1.43(2)	1_555	1_555 yes
C(41)	C(45)	1.45(3)	1_555	1_555 yes
C(42)	C(43)	1.42(2)	1_555	1_555 yes
C(43)	C(44)	1.44(2)	1_555	1_555 yes
C(44)	C(45)	1.46(2)	1_555	1_555 yes
C(46)	C(47)	1.46(2)	1_555	1_555 yes
C(46)	C(50)	1.44(3)	1_555	1_555 yes
C(47)	C(48)	1.43(2)	1_555	1_555 yes
C(48)	C(49)	1.47(2)	1_555	1_555 yes
C(49)	C(50)	1.45(3)	1_555	1_555 yes
C(51)	C(52)	1.37(3)	1_555	1_555 yes
C(51)	C(55)	1.45(4)	1_555	1_555 yes
C(51)	C(56)	1.52(4)	1_555	1_555 yes
C(52)	C(53)	1.36(3)	1_555	1_555 yes
C(52)	C(57)	1.56(3)	1_555	1_555 yes
C(53)	C(54)	1.34(3)	1_555	1_555 yes
C(53)	C(58)	1.61(3)	1_555	1_555 yes
C(54)	C(55)	1.32(4)	1_555	1_555 yes

C(54)	C(59)	1.64(4)	1_555 1_555 yes
C(55)	C(60)	1.58(4)	1_555 1_555 yes
C(61)	C(62)	1.54(4)	1_555 1_555 yes
C(63)	C(64)	1.43(4)	1_555 1_555 yes

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loop_

_geom_angle_atom_site_label_1

_geom_angle_atom_site_label_2

_geom_angle_atom_site_label_3

_geom_angle

_geom_angle_site_symmetry_1

_geom_angle_site_symmetry_2

_geom_angle_site_symmetry_3

_geom_angle_publ_flag

Ru(2)	Ru(1)	Ru(3)	62.38(5)	1_555 1_555 1_555 yes
Ru(2)	Ru(1)	Ru(4)	62.62(5)	1_555 1_555 1_555 yes
Ru(2)	Ru(1)	C(1)	109.1(7)	1_555 1_555 1_555 yes
Ru(2)	Ru(1)	C(2)	114.2(7)	1_555 1_555 1_555 yes
Ru(2)	Ru(1)	C(3)	143(1)	1_555 1_555 1_555 yes
Ru(2)	Ru(1)	C(4)	166.1(9)	1_555 1_555 1_555 yes
Ru(2)	Ru(1)	C(5)	128.1(6)	1_555 1_555 1_555 yes
Ru(3)	Ru(1)	Ru(4)	65.42(5)	1_555 1_555 1_555 yes
Ru(3)	Ru(1)	C(1)	152.3(9)	1_555 1_555 1_555 yes
Ru(3)	Ru(1)	C(2)	121.2(8)	1_555 1_555 1_555 yes
Ru(3)	Ru(1)	C(3)	108.6(7)	1_555 1_555 1_555 yes
Ru(3)	Ru(1)	C(4)	130.2(7)	1_555 1_555 1_555 yes
Ru(3)	Ru(1)	C(5)	168.8(7)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(1)	136.9(9)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(2)	171.3(8)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(3)	149(1)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(4)	114.6(8)	1_555 1_555 1_555 yes
Ru(4)	Ru(1)	C(5)	114.0(7)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(2)	34.9(9)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(3)	61.3(10)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(4)	62.7(9)	1_555 1_555 1_555 yes
C(1)	Ru(1)	C(5)	34.7(9)	1_555 1_555 1_555 yes
C(2)	Ru(1)	C(3)	37.1(10)	1_555 1_555 1_555 yes
C(2)	Ru(1)	C(4)	66(1)	1_555 1_555 1_555 yes
C(2)	Ru(1)	C(5)	60(1)	1_555 1_555 1_555 yes
C(3)	Ru(1)	C(4)	44(1)	1_555 1_555 1_555 yes
C(3)	Ru(1)	C(5)	65.7(9)	1_555 1_555 1_555 yes
C(4)	Ru(1)	C(5)	38.9(9)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	Ru(3)	58.41(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	Ru(4)	58.27(4)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	Ru(5)	104.89(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(6)	111.8(6)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(7)	150.6(7)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(8)	145.0(8)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(9)	107.4(8)	1_555 1_555 1_555 yes
Ru(1)	Ru(2)	C(10)	91.0(6)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	Ru(4)	62.47(4)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	Ru(5)	58.80(4)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(6)	170.1(6)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(7)	150.8(7)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(8)	121.9(5)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(9)	114.9(5)	1_555 1_555 1_555 yes
Ru(3)	Ru(2)	C(10)	134.6(7)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	Ru(5)	58.88(4)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(6)	115.3(5)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(7)	126.5(7)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(8)	156.6(8)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(9)	165.1(9)	1_555 1_555 1_555 yes
Ru(4)	Ru(2)	C(10)	131.7(7)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(6)	129.4(7)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(7)	99.9(6)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(8)	102.1(7)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(9)	133.9(8)	1_555 1_555 1_555 yes
Ru(5)	Ru(2)	C(10)	164.0(6)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(7)	38.8(7)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(8)	64.4(7)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(9)	64.5(7)	1_555 1_555 1_555 yes
C(6)	Ru(2)	C(10)	38.7(7)	1_555 1_555 1_555 yes
C(7)	Ru(2)	C(8)	37.7(8)	1_555 1_555 1_555 yes
C(7)	Ru(2)	C(9)	63.6(9)	1_555 1_555 1_555 yes
C(7)	Ru(2)	C(10)	64.2(9)	1_555 1_555 1_555 yes
C(8)	Ru(2)	C(9)	38.0(8)	1_555 1_555 1_555 yes
C(8)	Ru(2)	C(10)	64.1(9)	1_555 1_555 1_555 yes
C(9)	Ru(2)	C(10)	38.4(8)	1_555 1_555 1_555 yes
Ru(1)	Ru(3)	Ru(2)	59.21(4)	1_555 1_555 1_555 yes
Ru(1)	Ru(3)	Ru(5)	106.63(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(3)	C(11)	109.1(7)	1_555 1_555 1_555 yes
Ru(1)	Ru(3)	C(12)	88.2(6)	1_555 1_555 1_555 yes
Ru(1)	Ru(3)	C(13)	106.7(9)	1_555 1_555 1_555 yes
Ru(1)	Ru(3)	C(14)	142.8(8)	1_555 1_555 1_555 yes
Ru(1)	Ru(3)	C(15)	146.6(8)	1_555 1_555 1_555 yes
Ru(2)	Ru(3)	Ru(5)	60.21(4)	1_555 1_555 1_555 yes
Ru(2)	Ru(3)	C(11)	112.3(4)	1_555 1_555 1_555 yes
Ru(2)	Ru(3)	C(12)	127.7(6)	1_555 1_555 1_555 yes
Ru(2)	Ru(3)	C(13)	163.8(9)	1_555 1_555 1_555 yes
Ru(2)	Ru(3)	C(14)	157.1(8)	1_555 1_555 1_555 yes
Ru(2)	Ru(3)	C(15)	124.5(7)	1_555 1_555 1_555 yes
Ru(5)	Ru(3)	C(11)	129.5(7)	1_555 1_555 1_555 yes
Ru(5)	Ru(3)	C(12)	164.6(6)	1_555 1_555 1_555 yes
Ru(5)	Ru(3)	C(13)	135.6(8)	1_555 1_555 1_555 yes
Ru(5)	Ru(3)	C(14)	106.0(7)	1_555 1_555 1_555 yes
Ru(5)	Ru(3)	C(15)	101.4(7)	1_555 1_555 1_555 yes
C(11)	Ru(3)	C(12)	37.7(8)	1_555 1_555 1_555 yes
C(11)	Ru(3)	C(13)	62.5(7)	1_555 1_555 1_555 yes
C(11)	Ru(3)	C(14)	60.5(9)	1_555 1_555 1_555 yes
C(11)	Ru(3)	C(15)	37.5(8)	1_555 1_555 1_555 yes
C(12)	Ru(3)	C(13)	38.4(8)	1_555 1_555 1_555 yes
C(12)	Ru(3)	C(14)	61.7(9)	1_555 1_555 1_555 yes
C(12)	Ru(3)	C(15)	63.3(10)	1_555 1_555 1_555 yes
C(13)	Ru(3)	C(14)	36.0(9)	1_555 1_555 1_555 yes
C(13)	Ru(3)	C(15)	61.9(9)	1_555 1_555 1_555 yes
C(14)	Ru(3)	C(15)	35.9(8)	1_555 1_555 1_555 yes
Ru(1)	Ru(4)	Ru(2)	59.10(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(4)	Ru(5)	106.44(6)	1_555 1_555 1_555 yes
Ru(1)	Ru(4)	C(16)	109.7(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(4)	C(17)	86.9(4)	1_555 1_555 1_555 yes
Ru(1)	Ru(4)	C(18)	103.2(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(4)	C(19)	140.9(5)	1_555 1_555 1_555 yes
Ru(1)	Ru(4)	C(20)	147.1(5)	1_555 1_555 1_555 yes

Ru(2)	Ru(4)	Ru(5)	60.00(5)	1_555	1_555	1_555 yes
Ru(2)	Ru(4)	C(16)	112.2(3)	1_555	1_555	1_555 yes
Ru(2)	Ru(4)	C(17)	126.5(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(4)	C(18)	160.7(5)	1_555	1_555	1_555 yes
Ru(2)	Ru(4)	C(19)	159.8(5)	1_555	1_555	1_555 yes
Ru(2)	Ru(4)	C(20)	125.0(4)	1_555	1_555	1_555 yes
Ru(5)	Ru(4)	C(16)	128.7(4)	1_555	1_555	1_555 yes
Ru(5)	Ru(4)	C(17)	165.7(4)	1_555	1_555	1_555 yes
Ru(5)	Ru(4)	C(18)	138.1(5)	1_555	1_555	1_555 yes
Ru(5)	Ru(4)	C(19)	106.0(5)	1_555	1_555	1_555 yes
Ru(5)	Ru(4)	C(20)	101.2(5)	1_555	1_555	1_555 yes
C(16)	Ru(4)	C(17)	38.7(6)	1_555	1_555	1_555 yes
C(16)	Ru(4)	C(18)	64.3(5)	1_555	1_555	1_555 yes
C(16)	Ru(4)	C(19)	63.6(5)	1_555	1_555	1_555 yes
C(16)	Ru(4)	C(20)	37.4(6)	1_555	1_555	1_555 yes
C(17)	Ru(4)	C(18)	38.5(6)	1_555	1_555	1_555 yes
C(17)	Ru(4)	C(19)	63.9(6)	1_555	1_555	1_555 yes
C(17)	Ru(4)	C(20)	64.5(7)	1_555	1_555	1_555 yes
C(18)	Ru(4)	C(19)	38.0(6)	1_555	1_555	1_555 yes
C(18)	Ru(4)	C(20)	64.9(7)	1_555	1_555	1_555 yes
C(19)	Ru(4)	C(20)	39.2(5)	1_555	1_555	1_555 yes
Ru(2)	Ru(5)	Ru(3)	60.99(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(5)	Ru(4)	61.12(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(5)	C(21)	126.0(6)	1_555	1_555	1_555 yes
Ru(2)	Ru(5)	C(22)	111.3(4)	1_555	1_555	1_555 yes
Ru(2)	Ru(5)	C(23)	128.9(8)	1_555	1_555	1_555 yes
Ru(2)	Ru(5)	C(24)	162.2(8)	1_555	1_555	1_555 yes
Ru(2)	Ru(5)	C(25)	159.6(7)	1_555	1_555	1_555 yes
Ru(3)	Ru(5)	Ru(4)	64.06(5)	1_555	1_555	1_555 yes
Ru(3)	Ru(5)	C(21)	173.0(6)	1_555	1_555	1_555 yes
Ru(3)	Ru(5)	C(22)	141.3(9)	1_555	1_555	1_555 yes
Ru(3)	Ru(5)	C(23)	112.2(6)	1_555	1_555	1_555 yes
Ru(3)	Ru(5)	C(24)	111.4(8)	1_555	1_555	1_555 yes
Ru(3)	Ru(5)	C(25)	137.3(6)	1_555	1_555	1_555 yes
Ru(4)	Ru(5)	C(21)	118.2(7)	1_555	1_555	1_555 yes
Ru(4)	Ru(5)	C(22)	149.7(9)	1_555	1_555	1_555 yes
Ru(4)	Ru(5)	C(23)	167.4(7)	1_555	1_555	1_555 yes
Ru(4)	Ru(5)	C(24)	132.4(7)	1_555	1_555	1_555 yes
Ru(4)	Ru(5)	C(25)	114.3(7)	1_555	1_555	1_555 yes
C(21)	Ru(5)	C(22)	39.4(9)	1_555	1_555	1_555 yes
C(21)	Ru(5)	C(23)	64.1(9)	1_555	1_555	1_555 yes
C(21)	Ru(5)	C(24)	62.0(10)	1_555	1_555	1_555 yes
C(21)	Ru(5)	C(25)	35.9(8)	1_555	1_555	1_555 yes
C(22)	Ru(5)	C(23)	39.8(9)	1_555	1_555	1_555 yes
C(22)	Ru(5)	C(24)	63.5(8)	1_555	1_555	1_555 yes
C(22)	Ru(5)	C(25)	61.6(9)	1_555	1_555	1_555 yes
C(23)	Ru(5)	C(24)	36.0(9)	1_555	1_555	1_555 yes
C(23)	Ru(5)	C(25)	59(1)	1_555	1_555	1_555 yes
C(24)	Ru(5)	C(25)	35.2(8)	1_555	1_555	1_555 yes
Ru(7)	Ru(6)	Ru(8)	61.92(5)	1_555	1_555	1_555 yes
Ru(7)	Ru(6)	Ru(9)	65.31(5)	1_555	1_555	1_555 yes
Ru(7)	Ru(6)	C(31)	148.7(6)	1_555	1_555	1_555 yes
Ru(7)	Ru(6)	C(32)	117.4(6)	1_555	1_555	1_555 yes
Ru(7)	Ru(6)	C(33)	109.2(5)	1_555	1_555	1_555 yes
Ru(7)	Ru(6)	C(34)	130.5(5)	1_555	1_555	1_555 yes
Ru(7)	Ru(6)	C(35)	170.1(6)	1_555	1_555	1_555 yes
Ru(8)	Ru(6)	Ru(9)	63.18(4)	1_555	1_555	1_555 yes
Ru(8)	Ru(6)	C(31)	110.5(5)	1_555	1_555	1_555 yes
Ru(8)	Ru(6)	C(32)	123.9(5)	1_555	1_555	1_555 yes
Ru(8)	Ru(6)	C(33)	157.8(5)	1_555	1_555	1_555 yes
Ru(8)	Ru(6)	C(34)	161.7(4)	1_555	1_555	1_555 yes
Ru(8)	Ru(6)	C(35)	126.1(5)	1_555	1_555	1_555 yes
Ru(9)	Ru(6)	C(31)	141.7(5)	1_555	1_555	1_555 yes
Ru(9)	Ru(6)	C(32)	172.9(5)	1_555	1_555	1_555 yes
Ru(9)	Ru(6)	C(33)	134.2(5)	1_555	1_555	1_555 yes
Ru(9)	Ru(6)	C(34)	107.3(5)	1_555	1_555	1_555 yes
Ru(9)	Ru(6)	C(35)	111.7(5)	1_555	1_555	1_555 yes
C(31)	Ru(6)	C(32)	38.4(7)	1_555	1_555	1_555 yes
C(31)	Ru(6)	C(33)	65.5(7)	1_555	1_555	1_555 yes
C(31)	Ru(6)	C(34)	66.3(7)	1_555	1_555	1_555 yes
C(31)	Ru(6)	C(35)	38.4(7)	1_555	1_555	1_555 yes
C(32)	Ru(6)	C(33)	39.2(7)	1_555	1_555	1_555 yes
C(32)	Ru(6)	C(34)	65.7(7)	1_555	1_555	1_555 yes
C(32)	Ru(6)	C(35)	64.4(7)	1_555	1_555	1_555 yes
C(33)	Ru(6)	C(34)	39.1(6)	1_555	1_555	1_555 yes
C(33)	Ru(6)	C(35)	65.5(7)	1_555	1_555	1_555 yes
C(34)	Ru(6)	C(35)	40.1(7)	1_555	1_555	1_555 yes
Ru(6)	Ru(7)	Ru(8)	59.46(4)	1_555	1_555	1_555 yes
Ru(6)	Ru(7)	Ru(10)	106.45(5)	1_555	1_555	1_555 yes
Ru(6)	Ru(7)	C(36)	87.3(6)	1_555	1_555	1_555 yes
Ru(6)	Ru(7)	C(37)	106(1)	1_555	1_555	1_555 yes
Ru(6)	Ru(7)	C(38)	139(1)	1_555	1_555	1_555 yes
Ru(6)	Ru(7)	C(39)	147.7(6)	1_555	1_555	1_555 yes
Ru(6)	Ru(7)	C(40)	109.1(5)	1_555	1_555	1_555 yes
Ru(8)	Ru(7)	Ru(10)	60.56(4)	1_555	1_555	1_555 yes
Ru(8)	Ru(7)	C(36)	124.1(7)	1_555	1_555	1_555 yes
Ru(8)	Ru(7)	C(37)	163(1)	1_555	1_555	1_555 yes
Ru(8)	Ru(7)	C(38)	160(1)	1_555	1_555	1_555 yes
Ru(8)	Ru(7)	C(39)	124.3(8)	1_555	1_555	1_555 yes
Ru(8)	Ru(7)	C(40)	110.5(5)	1_555	1_555	1_555 yes
Ru(10)	Ru(7)	C(36)	164.4(6)	1_555	1_555	1_555 yes
Ru(10)	Ru(7)	C(37)	135(1)	1_555	1_555	1_555 yes
Ru(10)	Ru(7)	C(38)	107(1)	1_555	1_555	1_555 yes
Ru(10)	Ru(7)	C(39)	100.9(7)	1_555	1_555	1_555 yes
Ru(10)	Ru(7)	C(40)	129.0(5)	1_555	1_555	1_555 yes
C(36)	Ru(7)	C(37)	42(1)	1_555	1_555	1_555 yes
C(36)	Ru(7)	C(38)	62(1)	1_555	1_555	1_555 yes
C(36)	Ru(7)	C(39)	63.9(9)	1_555	1_555	1_555 yes
C(36)	Ru(7)	C(40)	36.4(7)	1_555	1_555	1_555 yes
C(37)	Ru(7)	C(38)	33(1)	1_555	1_555	1_555 yes
C(37)	Ru(7)	C(39)	62(1)	1_555	1_555	1_555 yes
C(37)	Ru(7)	C(40)	64(1)	1_555	1_555	1_555 yes
C(38)	Ru(7)	C(39)	38(1)	1_555	1_555	1_555 yes
C(38)	Ru(7)	C(40)	62.5(9)	1_555	1_555	1_555 yes
C(39)	Ru(7)	C(40)	38.7(7)	1_555	1_555	1_555 yes

Ru(6)	Ru(8)	Ru(7)	58.62(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(8)	Ru(9)	57.65(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(8)	Ru(10)	104.62(6)	1_555	1_555 1_555 yes
Ru(6)	Ru(8)	C(41)	92.2(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(8)	C(42)	112.7(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(8)	C(43)	150.6(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(8)	C(44)	146.9(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(8)	C(45)	108.2(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	Ru(9)	62.18(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	Ru(10)	59.05(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	C(41)	135.2(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	C(42)	170.8(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	C(43)	150.8(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	C(44)	121.1(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(8)	C(45)	114.6(4)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	Ru(10)	58.42(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(41)	132.7(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(42)	117.0(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(43)	125.9(4)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(44)	155.2(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(8)	C(45)	165.6(5)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(41)	163.0(5)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(42)	129.2(5)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(43)	99.2(5)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(44)	100.6(5)	1_555	1_555 1_555 yes
Ru(10)	Ru(8)	C(45)	133.6(6)	1_555	1_555 1_555 yes
C(41)	Ru(8)	C(42)	37.8(6)	1_555	1_555 1_555 yes
C(41)	Ru(8)	C(43)	64.0(6)	1_555	1_555 1_555 yes
C(41)	Ru(8)	C(44)	64.9(7)	1_555	1_555 1_555 yes
C(41)	Ru(8)	C(45)	38.5(7)	1_555	1_555 1_555 yes
C(42)	Ru(8)	C(43)	37.9(6)	1_555	1_555 1_555 yes
C(42)	Ru(8)	C(44)	63.9(7)	1_555	1_555 1_555 yes
C(42)	Ru(8)	C(45)	63.7(6)	1_555	1_555 1_555 yes
C(43)	Ru(8)	C(44)	38.3(6)	1_555	1_555 1_555 yes
C(43)	Ru(8)	C(45)	64.4(6)	1_555	1_555 1_555 yes
C(44)	Ru(8)	C(45)	39.2(6)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	Ru(8)	59.17(4)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	Ru(10)	107.21(6)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(46)	86.5(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(47)	111.3(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(48)	148.9(5)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(49)	138.5(6)	1_555	1_555 1_555 yes
Ru(6)	Ru(9)	C(50)	101.0(6)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	Ru(10)	60.14(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(46)	124.8(6)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(47)	112.6(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(48)	127.9(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(49)	162.3(6)	1_555	1_555 1_555 yes
Ru(8)	Ru(9)	C(50)	158.0(6)	1_555	1_555 1_555 yes
Ru(10)	Ru(9)	C(46)	164.3(4)	1_555	1_555 1_555 yes
Ru(10)	Ru(9)	C(47)	126.4(4)	1_555	1_555 1_555 yes
Ru(10)	Ru(9)	C(48)	100.3(5)	1_555	1_555 1_555 yes
Ru(10)	Ru(9)	C(49)	106.5(6)	1_555	1_555 1_555 yes
Ru(10)	Ru(9)	C(50)	140.9(6)	1_555	1_555 1_555 yes
C(46)	Ru(9)	C(47)	38.6(6)	1_555	1_555 1_555 yes
C(46)	Ru(9)	C(48)	64.6(7)	1_555	1_555 1_555 yes
C(46)	Ru(9)	C(49)	65.0(8)	1_555	1_555 1_555 yes
C(46)	Ru(9)	C(50)	37.9(7)	1_555	1_555 1_555 yes
C(47)	Ru(9)	C(48)	38.1(6)	1_555	1_555 1_555 yes
C(47)	Ru(9)	C(49)	64.6(7)	1_555	1_555 1_555 yes
C(47)	Ru(9)	C(50)	63.3(6)	1_555	1_555 1_555 yes
C(48)	Ru(9)	C(49)	38.8(6)	1_555	1_555 1_555 yes
C(48)	Ru(9)	C(50)	63.7(7)	1_555	1_555 1_555 yes
C(49)	Ru(9)	C(50)	38.4(7)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	Ru(8)	60.39(4)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	Ru(9)	63.74(5)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(51)	149.4(9)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(52)	170.2(6)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(53)	134.1(6)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(54)	112.6(6)	1_555	1_555 1_555 yes
Ru(7)	Ru(10)	C(55)	117.8(8)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	Ru(9)	61.44(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(51)	109.4(8)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(52)	128.7(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(53)	164.2(5)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(54)	154.0(8)	1_555	1_555 1_555 yes
Ru(8)	Ru(10)	C(55)	121.4(9)	1_555	1_555 1_555 yes
Ru(9)	Ru(10)	C(51)	140.3(8)	1_555	1_555 1_555 yes
Ru(9)	Ru(10)	C(52)	115.6(5)	1_555	1_555 1_555 yes
Ru(9)	Ru(10)	C(53)	116.0(6)	1_555	1_555 1_555 yes
Ru(9)	Ru(10)	C(54)	141.2(8)	1_555	1_555 1_555 yes
Ru(9)	Ru(10)	C(55)	177.1(8)	1_555	1_555 1_555 yes
C(51)	Ru(10)	C(52)	36.8(9)	1_555	1_555 1_555 yes
C(51)	Ru(10)	C(53)	61.7(10)	1_555	1_555 1_555 yes
C(51)	Ru(10)	C(54)	62.7(10)	1_555	1_555 1_555 yes
C(51)	Ru(10)	C(55)	39(1)	1_555	1_555 1_555 yes
C(52)	Ru(10)	C(53)	36.4(7)	1_555	1_555 1_555 yes
C(52)	Ru(10)	C(54)	61.2(8)	1_555	1_555 1_555 yes
C(52)	Ru(10)	C(55)	62.4(8)	1_555	1_555 1_555 yes
C(53)	Ru(10)	C(54)	36.3(8)	1_555	1_555 1_555 yes
C(53)	Ru(10)	C(55)	61.1(9)	1_555	1_555 1_555 yes
C(54)	Ru(10)	C(55)	36(1)	1_555	1_555 1_555 yes
C(62)	O(1)	C(63)	118(2)	1_555	1_555 1_555 yes
Ru(1)	C(1)	C(2)	70(1)	1_555	1_555 1_555 yes
Ru(1)	C(1)	C(5)	69(1)	1_555	1_555 1_555 yes
C(2)	C(1)	C(5)	112(2)	1_555	1_555 1_555 yes
Ru(1)	C(2)	C(1)	75(1)	1_555	1_555 1_555 yes
Ru(1)	C(2)	C(3)	70(1)	1_555	1_555 1_555 yes
C(1)	C(2)	C(3)	111(2)	1_555	1_555 1_555 yes
Ru(1)	C(3)	C(2)	72(1)	1_555	1_555 1_555 yes
Ru(1)	C(3)	C(4)	68(1)	1_555	1_555 1_555 yes
C(2)	C(3)	C(4)	104(1)	1_555	1_555 1_555 yes
Ru(1)	C(4)	C(3)	67(1)	1_555	1_555 1_555 yes
Ru(1)	C(4)	C(5)	70(1)	1_555	1_555 1_555 yes
C(3)	C(4)	C(5)	99(2)	1_555	1_555 1_555 yes

Ru(1)	C(5)	C(1)	75(1)	1_555	1_555	1_555	yes
Ru(1)	C(5)	C(4)	70(1)	1_555	1_555	1_555	yes
C(1)	C(5)	C(4)	112(2)	1_555	1_555	1_555	yes
Ru(2)	C(6)	C(7)	69.6(10)	1_555	1_555	1_555	yes
Ru(2)	C(6)	C(10)	71.4(9)	1_555	1_555	1_555	yes
C(7)	C(6)	C(10)	106(1)	1_555	1_555	1_555	yes
Ru(2)	C(7)	C(6)	71.6(10)	1_555	1_555	1_555	yes
Ru(2)	C(7)	C(8)	73(1)	1_555	1_555	1_555	yes
C(6)	C(7)	C(8)	110(2)	1_555	1_555	1_555	yes
Ru(2)	C(8)	C(7)	69(1)	1_555	1_555	1_555	yes
Ru(2)	C(8)	C(9)	69(1)	1_555	1_555	1_555	yes
C(7)	C(8)	C(9)	106(2)	1_555	1_555	1_555	yes
Ru(2)	C(9)	C(8)	72(1)	1_555	1_555	1_555	yes
Ru(2)	C(9)	C(10)	72(1)	1_555	1_555	1_555	yes
C(8)	C(9)	C(10)	109(2)	1_555	1_555	1_555	yes
Ru(2)	C(10)	C(6)	69.9(10)	1_555	1_555	1_555	yes
Ru(2)	C(10)	C(9)	69(1)	1_555	1_555	1_555	yes
C(6)	C(10)	C(9)	106(2)	1_555	1_555	1_555	yes
Ru(3)	C(11)	C(12)	72(1)	1_555	1_555	1_555	yes
Ru(3)	C(11)	C(15)	71(1)	1_555	1_555	1_555	yes
C(12)	C(11)	C(15)	109(1)	1_555	1_555	1_555	yes
Ru(3)	C(12)	C(11)	69(1)	1_555	1_555	1_555	yes
Ru(3)	C(12)	C(13)	69(1)	1_555	1_555	1_555	yes
C(11)	C(12)	C(13)	104(2)	1_555	1_555	1_555	yes
Ru(3)	C(13)	C(12)	71(1)	1_555	1_555	1_555	yes
Ru(3)	C(13)	C(14)	72(1)	1_555	1_555	1_555	yes
C(12)	C(13)	C(14)	107(2)	1_555	1_555	1_555	yes
Ru(3)	C(14)	C(13)	71(1)	1_555	1_555	1_555	yes
Ru(3)	C(14)	C(15)	71(1)	1_555	1_555	1_555	yes
C(13)	C(14)	C(15)	112(2)	1_555	1_555	1_555	yes
Ru(3)	C(15)	C(11)	70(1)	1_555	1_555	1_555	yes
Ru(3)	C(15)	C(14)	72(1)	1_555	1_555	1_555	yes
C(11)	C(15)	C(14)	106(2)	1_555	1_555	1_555	yes
Ru(4)	C(16)	C(17)	71.4(8)	1_555	1_555	1_555	yes
Ru(4)	C(16)	C(20)	70.6(9)	1_555	1_555	1_555	yes
C(17)	C(16)	C(20)	109(1)	1_555	1_555	1_555	yes
Ru(4)	C(17)	C(16)	69.9(9)	1_555	1_555	1_555	yes
Ru(4)	C(17)	C(18)	69.7(10)	1_555	1_555	1_555	yes
C(16)	C(17)	C(18)	106(1)	1_555	1_555	1_555	yes
Ru(4)	C(18)	C(17)	71.8(9)	1_555	1_555	1_555	yes
Ru(4)	C(18)	C(19)	71.7(9)	1_555	1_555	1_555	yes
C(17)	C(18)	C(19)	108(1)	1_555	1_555	1_555	yes
Ru(4)	C(19)	C(18)	70.4(9)	1_555	1_555	1_555	yes
Ru(4)	C(19)	C(20)	69.4(9)	1_555	1_555	1_555	yes
C(18)	C(19)	C(20)	107(1)	1_555	1_555	1_555	yes
Ru(4)	C(20)	C(16)	72.0(9)	1_555	1_555	1_555	yes
Ru(4)	C(20)	C(19)	71.4(9)	1_555	1_555	1_555	yes
C(16)	C(20)	C(19)	107(1)	1_555	1_555	1_555	yes
Ru(5)	C(21)	C(22)	69(1)	1_555	1_555	1_555	yes
Ru(5)	C(21)	C(25)	72(1)	1_555	1_555	1_555	yes
Ru(5)	C(21)	C(26)	124(1)	1_555	1_555	1_555	yes
C(22)	C(21)	C(25)	105(2)	1_555	1_555	1_555	yes
C(22)	C(21)	C(26)	111(3)	1_555	1_555	1_555	yes
C(25)	C(21)	C(26)	143(3)	1_555	1_555	1_555	yes
Ru(5)	C(22)	C(21)	70(1)	1_555	1_555	1_555	yes
Ru(5)	C(22)	C(23)	70.7(10)	1_555	1_555	1_555	yes
Ru(5)	C(22)	C(27)	124(1)	1_555	1_555	1_555	yes
C(21)	C(22)	C(23)	103(1)	1_555	1_555	1_555	yes
C(21)	C(22)	C(27)	146(2)	1_555	1_555	1_555	yes
C(23)	C(22)	C(27)	109(3)	1_555	1_555	1_555	yes
Ru(5)	C(23)	C(22)	69(1)	1_555	1_555	1_555	yes
Ru(5)	C(23)	C(24)	72(1)	1_555	1_555	1_555	yes
Ru(5)	C(23)	C(28)	128(1)	1_555	1_555	1_555	yes
C(22)	C(23)	C(24)	108(2)	1_555	1_555	1_555	yes
C(22)	C(23)	C(28)	132(2)	1_555	1_555	1_555	yes
C(24)	C(23)	C(28)	118(2)	1_555	1_555	1_555	yes
Ru(5)	C(24)	C(23)	71(1)	1_555	1_555	1_555	

Ru(5)	C(24)	C(25)	72(1)	1_555	1_555	1_555	yes
Ru(5)	C(24)	C(29)	127(1)	1_555	1_555	1_555	yes
C(23)	C(24)	C(25)	107(2)	1_555	1_555	1_555	yes
C(23)	C(24)	C(29)	121(2)	1_555	1_555	1_555	yes
C(25)	C(24)	C(29)	130(2)	1_555	1_555	1_555	yes
Ru(5)	C(25)	C(21)	71(1)	1_555	1_555	1_555	yes
Ru(5)	C(25)	C(24)	72(1)	1_555	1_555	1_555	yes
Ru(5)	C(25)	C(30)	122(1)	1_555	1_555	1_555	yes
C(21)	C(25)	C(24)	115(2)	1_555	1_555	1_555	yes
C(21)	C(25)	C(30)	130(3)	1_555	1_555	1_555	yes
C(24)	C(25)	C(30)	114(3)	1_555	1_555	1_555	yes
Ru(6)	C(31)	C(32)	69(1)	1_555	1_555	1_555	yes
Ru(6)	C(31)	C(35)	69(1)	1_555	1_555	1_555	yes
C(32)	C(31)	C(35)	106(1)	1_555	1_555	1_555	yes
Ru(6)	C(32)	C(31)	72.1(9)	1_555	1_555	1_555	yes
Ru(6)	C(32)	C(33)	71.3(10)	1_555	1_555	1_555	yes
C(31)	C(32)	C(33)	110(1)	1_555	1_555	1_555	yes
Ru(6)	C(33)	C(32)	69.5(9)	1_555	1_555	1_555	yes
Ru(6)	C(33)	C(34)	71.8(8)	1_555	1_555	1_555	yes
C(32)	C(33)	C(34)	108(1)	1_555	1_555	1_555	yes
Ru(6)	C(34)	C(33)	69.0(10)	1_555	1_555	1_555	yes
Ru(6)	C(34)	C(35)	67(1)	1_555	1_555	1_555	yes
C(33)	C(34)	C(35)	104(1)	1_555	1_555	1_555	yes
Ru(6)	C(35)	C(31)	71(1)	1_555	1_555	1_555	yes
Ru(6)	C(35)	C(34)	72(1)	1_555	1_555	1_555	yes
C(31)	C(35)	C(34)	110(1)	1_555	1_555	1_555	yes
Ru(7)	C(36)	C(37)	67(1)	1_555	1_555	1_555	yes
Ru(7)	C(36)	C(40)	71(1)	1_555	1_555	1_555	yes
C(37)	C(36)	C(40)	104(2)	1_555	1_555	1_555	yes
Ru(7)	C(37)	C(36)	70(1)	1_555	1_555	1_555	yes
Ru(7)	C(37)	C(38)	72(1)	1_555	1_555	1_555	yes
C(36)	C(37)	C(38)	106(2)	1_555	1_555	1_555	yes
Ru(7)	C(38)	C(37)	73(2)	1_555	1_555	1_555	yes
Ru(7)	C(38)	C(39)	72(1)	1_555	1_555	1_555	yes
C(37)	C(38)	C(39)	115(4)	1_555	1_555	1_555	yes
Ru(7)	C(39)	C(38)	69(1)	1_555	1_555	1_555	yes
Ru(7)	C(39)	C(40)	71.1(10)	1_555	1_555	1_555	yes
C(38)	C(39)	C(40)	103(2)	1_555	1_555	1_555	yes
Ru(7)	C(40)	C(36)	71(1)	1_555	1_555	1_555	yes
Ru(7)	C(40)	C(39)	70.1(10)	1_555	1_555	1_555	yes
C(36)	C(40)	C(39)	110(2)	1_555	1_555	1_555	yes
Ru(8)	C(41)	C(42)	69.2(10)	1_555	1_555	1_555	yes
Ru(8)	C(41)	C(45)	68.8(10)	1_555	1_555	1_555	yes
C(42)	C(41)	C(45)	105(1)	1_555	1_555	1_555	yes
Ru(8)	C(42)	C(41)	73.0(9)	1_555	1_555	1_555	yes
Ru(8)	C(42)	C(43)	72.2(9)	1_555	1_555	1_555	yes
C(41)	C(42)	C(43)	111(1)	1_555	1_555	1_555	yes
Ru(8)	C(43)	C(42)	69.9(8)	1_555	1_555	1_555	yes
Ru(8)	C(43)	C(44)	70.2(9)	1_555	1_555	1_555	yes
C(42)	C(43)	C(44)	107(1)	1_555	1_555	1_555	yes
Ru(8)	C(44)	C(43)	71.5(9)	1_555	1_555	1_555	yes
Ru(8)	C(44)	C(45)	69.9(10)	1_555	1_555	1_555	yes
C(43)	C(44)	C(45)	107(1)	1_555	1_555	1_555	yes
Ru(8)	C(45)	C(41)	72(1)	1_555	1_555	1_555	yes
Ru(8)	C(45)	C(44)	70.9(9)	1_555	1_555	1_555	yes
C(41)	C(45)	C(44)	108(1)	1_555	1_555	1_555	yes
Ru(9)	C(46)	C(47)	69(1)	1_555	1_555	1_555	yes
Ru(9)	C(46)	C(50)	69(1)	1_555	1_555	1_555	yes
C(47)	C(46)	C(50)	105(1)	1_555	1_555	1_555	yes
Ru(9)	C(47)	C(46)	72.3(9)	1_555	1_555	1_555	yes
Ru(9)	C(47)	C(48)	71.2(9)	1_555	1_555	1_555	yes
C(46)	C(47)	C(48)	109(1)	1_555	1_555	1_555	yes
Ru(9)	C(48)	C(47)	70.6(8)	1_555	1_555	1_555	yes
Ru(9)	C(48)	C(49)	71.0(8)	1_555	1_555	1_555	yes
C(47)	C(48)	C(49)	108(1)	1_555	1_555	1_555	yes
Ru(9)	C(49)	C(48)	70.1(9)	1_555	1_555	1_555	yes
Ru(9)	C(49)	C(50)	70.5(10)	1_555	1_555	1_555	yes
C(48)	C(49)	C(50)	105(1)	1_555	1_555	1_555	yes
Ru(9)	C(50)	C(46)	72(1)	1_555	1_555	1_555	yes
Ru(9)	C(50)	C(49)	71(1)	1_555	1_555	1_555	yes

C(46)	C(50)	C(49)	111(1)	1_555	1_555	1_555	yes	
Ru(10)	C(51)	C(52)	71(1)	1_555	1_555	1_555	yes	
Ru(10)	C(51)	C(55)	68(1)	1_555	1_555	1_555	yes	
Ru(10)	C(51)	C(56)	131(1)	1_555	1_555	1_555	yes	
C(52)	C(51)	C(55)	104(2)	1_555	1_555	1_555	yes	
C(52)	C(51)	C(56)	125(3)	1_555	1_555	1_555	yes	
C(55)	C(51)	C(56)	129(3)	1_555	1_555	1_555	yes	
Ru(10)	C(52)	C(51)	71(1)	1_555	1_555	1_555	yes	
Ru(10)	C(52)	C(53)	72(1)	1_555	1_555	1_555	yes	
Ru(10)	C(52)	C(57)	130(1)	1_555	1_555	1_555	yes	
C(51)	C(52)	C(53)	109(1)	1_555	1_555	1_555	yes	
C(51)	C(52)	C(57)	125(2)	1_555	1_555	1_555	yes	
C(53)	C(52)	C(57)	124(2)	1_555	1_555	1_555	yes	
Ru(10)	C(53)	C(52)	71(1)	1_555	1_555	1_555	yes	
Ru(10)	C(53)	C(54)	68(1)	1_555	1_555	1_555	yes	
Ru(10)	C(53)	C(58)	125(1)	1_555	1_555	1_555	yes	
C(52)	C(53)	C(54)	107(2)	1_555	1_555	1_555	yes	
C(52)	C(53)	C(58)	125(2)	1_555	1_555	1_555	yes	
C(54)	C(53)	C(58)	126(2)	1_555	1_555	1_555	yes	
Ru(10)	C(54)	C(53)	74(1)	1_555	1_555	1_555	yes	
Ru(10)	C(54)	C(55)	71(1)	1_555	1_555	1_555	yes	
Ru(10)	C(54)	C(59)	126(1)	1_555	1_555	1_555	yes	
C(53)	C(54)	C(55)	110(2)	1_555	1_555	1_555	yes	
C(53)	C(54)	C(59)	129(2)	1_555	1_555	1_555	yes	
C(55)	C(54)	C(59)	119(3)	1_555	1_555	1_555	yes	
Ru(10)	C(55)	C(51)	72(1)	1_555	1_555	1_555	yes	
Ru(10)	C(55)	C(54)	71(1)	1_555	1_555	1_555	yes	
Ru(10)	C(55)	C(60)	127(1)	1_555	1_555	1_555	yes	
C(51)	C(55)	C(54)	107(2)	1_555	1_555	1_555	yes	
C(51)	C(55)	C(60)	124(4)	1_555	1_555	1_555	yes	
C(54)	C(55)	C(60)	127(4)	1_555	1_555	1_555	yes	
O(1)	C(62)	C(61)	106(2)	1_555	1_555	1_555	yes	
O(1)	C(63)	C(64)	112(2)	1_555	1_555	1_555	yes	

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loop_

_geom_contact_atom_site_label_1

_geom_contact_atom_site_label_2

_geom_contact_distance

_geom_contact_site_symmetry_1

_geom_contact_site_symmetry_2

_geom_contact_publ_flag

Ru(1)	Ru(2)	2.826(2)	1_555	1_555	?
Ru(1)	Ru(3)	2.803(2)	1_555	1_555	?
Ru(1)	Ru(4)	2.802(2)	1_555	1_555	?
Ru(2)	Ru(3)	2.915(2)	1_555	1_555	?
Ru(2)	Ru(4)	2.925(2)	1_555	1_555	?
Ru(2)	Ru(5)	2.893(2)	1_555	1_555	?
Ru(3)	Ru(5)	2.851(2)	1_555	1_555	?
Ru(4)	Ru(5)	2.859(2)	1_555	1_555	?
Ru(6)	Ru(7)	2.805(2)	1_555	1_555	?
Ru(6)	Ru(8)	2.830(2)	1_555	1_555	?
Ru(6)	Ru(9)	2.784(2)	1_555	1_555	?
Ru(7)	Ru(8)	2.899(2)	1_555	1_555	?
Ru(7)	Ru(10)	2.860(2)	1_555	1_555	?
Ru(8)	Ru(9)	2.941(2)	1_555	1_555	?
Ru(8)	Ru(10)	2.904(2)	1_555	1_555	?
Ru(9)	Ru(10)	2.853(2)	1_555	1_555	?
O(1)	C(40)	3.38(3)	1_555	1_666	?
O(1)	C(11)	3.52(3)	1_555	2_656	?
C(2)	C(48)	3.57(3)	1_555	2_556	?
C(5)	C(42)	3.49(2)	1_555	2_555	?
C(6)	C(35)	3.49(2)	1_555	2_555	?
C(13)	C(19)	3.36(3)	1_555	2_555	?
C(16)	C(47)	3.60(2)	1_555	2_555	?
C(18)	C(19)	3.56(2)	1_555	2_555	?
C(20)	C(47)	3.59(2)	1_555	2_555	?
C(26)	C(47)	3.50(3)	1_555	2_555	?
C(28)	C(59)	3.57(5)	1_555	2_545	?
C(31)	C(40)	3.52(3)	1_555	2_444	?
C(37)	C(37)	3.42(6)	1_555	2_445	?
C(37)	C(50)	3.48(3)	1_555	2_445	?

Table S-5. Atomic coordinates, bond distances and angles for **6**

_atom_site_label

_atom_site_fract_x

_atom_site_fract_y

_atom_site_fract_z

_atom_site_U_iso_or_equiv
_atom_site_thermal_displace_type
_atom_site_calc_flag
_atom_site_calc_attached_atom
_atom_site_occupancy
_atom_site_refinement_flags

Ru(1)	0.30535(2)	0.69609(2)	1.07219(4)	0.02139(9)	Uani	d	.	1.00 .
Ru(2)	0.25808(2)	0.74372(2)	0.79619(4)	0.02152(9)	Uani	d	.	1.00 .
Ru(3)	0.30855(2)	0.56729(2)	0.86617(4)	0.01928(9)	Uani	d	.	1.00 .
Ru(4)	0.16725(2)	0.63050(2)	0.94336(4)	0.02092(9)	Uani	d	.	1.00 .
Ru(5)	0.18262(2)	0.59716(2)	0.67383(4)	0.02404(9)	Uani	d	.	1.00 .
C(1)	0.4024(3)	0.6924(4)	1.2333(5)	0.040(1)	Uani	d	.	1.00 .
C(2)	0.3356(3)	0.6880(4)	1.2907(5)	0.041(2)	Uani	d	.	1.00 .
C(3)	0.2954(3)	0.7659(4)	1.2563(5)	0.037(1)	Uani	d	.	1.00 .
C(4)	0.3365(3)	0.8203(3)	1.1792(5)	0.036(1)	Uani	d	.	1.00 .
C(5)	0.4017(3)	0.7740(4)	1.1639(5)	0.037(1)	Uani	d	.	1.00 .
C(6)	0.4637(4)	0.6296(5)	1.2523(7)	0.063(2)	Uani	d	.	1.00 .
C(7)	0.2119(3)	0.8627(3)	0.6946(6)	0.043(2)	Uani	d	.	1.00 .
C(8)	0.2511(4)	0.8148(3)	0.6067(5)	0.048(2)	Uani	d	.	1.00 .
C(9)	0.3248(4)	0.8106(3)	0.6644(7)	0.054(2)	Uani	d	.	1.00 .
C(10)	0.3332(4)	0.8534(4)	0.7863(8)	0.054(2)	Uani	d	.	1.00 .
C(11)	0.2642(4)	0.8876(3)	0.8067(6)	0.042(2)	Uani	d	.	1.00 .
C(12)	0.1346(5)	0.8901(5)	0.6626(9)	0.085(3)	Uani	d	.	1.00 .
C(13)	0.3903(3)	0.5245(3)	0.7432(5)	0.032(1)	Uani	d	.	1.00 .
C(14)	0.4240(3)	0.5352(3)	0.8798(6)	0.033(1)	Uani	d	.	1.00 .
C(15)	0.3909(3)	0.4752(3)	0.9619(5)	0.030(1)	Uani	d	.	1.00 .
C(16)	0.3368(3)	0.4268(3)	0.8764(6)	0.033(1)	Uani	d	.	1.00 .
C(17)	0.3367(3)	0.4573(3)	0.7431(5)	0.032(1)	Uani	d	.	1.00 .
C(18)	0.4126(4)	0.5712(4)	0.6239(6)	0.051(2)	Uani	d	.	1.00 .
C(19)	0.0566(3)	0.6810(3)	0.9512(6)	0.034(1)	Uani	d	.	1.00 .
C(20)	0.0939(3)	0.6685(4)	1.0851(5)	0.037(1)	Uani	d	.	1.00 .
C(21)	0.1109(3)	0.5783(4)	1.1028(6)	0.038(1)	Uani	d	.	1.00 .
C(22)	0.0849(3)	0.5356(3)	0.9825(6)	0.040(2)	Uani	d	.	1.00 .
C(23)	0.0503(3)	0.5968(3)	0.8895(6)	0.036(1)	Uani	d	.	1.00 .
C(24)	0.0250(4)	0.7632(4)	0.8910(7)	0.054(2)	Uani	d	.	1.00 .
C(25)	0.0868(3)	0.6102(4)	0.5183(6)	0.049(2)	Uani	d	.	1.00 .
C(26)	0.1535(4)	0.6193(4)	0.4591(6)	0.054(2)	Uani	d	.	1.00 .
C(27)	0.1920(3)	0.5390(4)	0.4808(6)	0.046(2)	Uani	d	.	1.00 .
C(28)	0.1525(3)	0.4818(3)	0.5512(5)	0.038(1)	Uani	d	.	1.00 .
C(29)	0.0880(3)	0.5248(3)	0.5736(5)	0.038(1)	Uani	d	.	1.00 .
C(30)	0.0255(5)	0.6740(5)	0.5063(10)	0.100(3)	Uani	d	.	1.00 .
H(1)	0.2437	0.6248	1.1041	0.0386	Uiso	calc	.	1.00 .
H(2)	0.3214	0.5942	1.0333	0.0386	Uiso	calc	.	1.00 .
H(3)	0.3369	0.6874	0.9211	0.0386	Uiso	calc	.	1.00 .
H(4)	0.2243	0.7436	0.9467	0.0386	Uiso	calc	.	1.00 .
H(5)	0.2832	0.6221	0.7455	0.0386	Uiso	calc	.	1.00 .
H(6)	0.1748	0.7035	0.7796	0.0386	Uiso	calc	.	1.00 .
H(7)	0.3217	0.6415	1.3479	0.0503	Uiso	calc	.	1.00 .
H(8)	0.2492	0.7808	1.2857	0.0410	Uiso	calc	.	1.00 .
H(9)	0.3227	0.8769	1.1462	0.0435	Uiso	calc	.	1.00 .
H(10)	0.4411	0.7959	1.1165	0.0446	Uiso	calc	.	1.00 .
H(11)	0.4836	0.6224	1.1710	0.0740	Uiso	calc	.	1.00 .
H(12)	0.4462	0.5747	1.2797	0.0740	Uiso	calc	.	1.00 .
H(13)	0.5015	0.6499	1.3219	0.0740	Uiso	calc	.	1.00 .
H(14)	0.2313	0.7913	0.5189	0.0588	Uiso	calc	.	1.00 .
H(15)	0.3630	0.7827	0.6211	0.0617	Uiso	calc	.	1.00 .
H(16)	0.3797	0.8616	0.8464	0.0630	Uiso	calc	.	1.00 .
H(17)	0.2545	0.9229	0.8825	0.0508	Uiso	calc	.	1.00 .
H(18)	0.1235	0.9180	0.5785	0.1018	Uiso	calc	.	1.00 .
H(19)	0.1019	0.8390	0.6616	0.1018	Uiso	calc	.	1.00 .
H(20)	0.1211	0.9280	0.7324	0.1018	Uiso	calc	.	1.00 .
H(21)	0.4641	0.5745	0.9112	0.0401	Uiso	calc	.	1.00 .

H(22) 0.4047 0.4673 1.0582 0.0367 Uiso calc . 1.00 .
H(23) 0.3064 0.3807 0.9048 0.0388 Uiso calc . 1.00 .
H(24) 0.3063 0.4344 0.6629 0.0372 Uiso calc . 1.00 .
H(25) 0.3749 0.5682 0.5469 0.0618 Uiso calc . 1.00 .
H(26) 0.4215 0.6325 0.6447 0.0618 Uiso calc . 1.00 .
H(27) 0.4568 0.5474 0.6003 0.0618 Uiso calc . 1.00 .
H(28) 0.1038 0.7135 1.1538 0.0452 Uiso calc . 1.00 .
H(29) 0.1343 0.5518 1.1864 0.0426 Uiso calc . 1.00 .
H(30) 0.0869 0.4736 0.9659 0.0483 Uiso calc . 1.00 .
H(31) 0.0257 0.5841 0.7995 0.0426 Uiso calc . 1.00 .
H(32) 0.0188 0.7593 0.7928 0.0645 Uiso calc . 1.00 .
H(33) -0.0221 0.7742 0.9161 0.0645 Uiso calc . 1.00 .
H(34) 0.0567 0.8111 0.9176 0.0645 Uiso calc . 1.00 .
H(35) 0.1664 0.6707 0.4093 0.0618 Uiso calc . 1.00 .
H(36) 0.2383 0.5264 0.4477 0.0551 Uiso calc . 1.00 .
H(37) 0.1662 0.4229 0.5760 0.0444 Uiso calc . 1.00 .
H(38) 0.0492 0.5002 0.6192 0.0462 Uiso calc . 1.00 .
H(39) 0.0405 0.7289 0.5520 0.1192 Uiso calc . 1.00 .
H(40) -0.0158 0.6530 0.5473 0.1192 Uiso calc . 1.00 .
H(41) 0.0066 0.6888 0.4139 0.1192 Uiso calc . 1.00 .

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Ru(3) 0.0168(2) 0.0199(2) 0.0209(2) 0.0006(1) 0.0022(1) -0.0019(1)
Ru(4) 0.0161(2) 0.0250(2) 0.0217(2) 0.0007(1) 0.0030(1) 0.0001(1)
Ru(5) 0.0234(2) 0.0258(2) 0.0210(2) -0.0012(1) -0.0028(2) -0.0028(1)
C(1) 0.033(3) 0.054(3) 0.028(3) 0.009(3) -0.011(2) -0.008(2)
C(2) 0.053(4) 0.051(3) 0.019(3) -0.002(3) 0.003(2) 0.005(2)
C(3) 0.042(3) 0.045(3) 0.025(3) -0.006(2) 0.007(2) -0.011(2)
C(4) 0.038(3) 0.034(2) 0.034(3) -0.001(2) 0.003(2) -0.013(2)
C(5) 0.030(3) 0.050(3) 0.030(3) -0.010(2) -0.001(2) -0.007(2)
C(6) 0.050(4) 0.075(4) 0.053(4) 0.016(4) -0.021(3) -0.009(4)
C(7) 0.044(3) 0.036(3) 0.049(4) 0.003(2) 0.003(3) 0.022(2)
C(8) 0.094(5) 0.025(2) 0.027(3) -0.019(3) 0.015(3) 0.004(2)
C(9) 0.063(4) 0.026(3) 0.082(5) 0.000(3) 0.040(4) 0.013(3)
C(10) 0.047(4) 0.035(3) 0.079(5) -0.019(3) 0.004(4) 0.009(3)
C(11) 0.065(4) 0.025(2) 0.037(3) -0.009(2) 0.009(3) -0.001(2)
C(12) 0.070(6) 0.074(5) 0.114(7) 0.025(4) 0.018(5) 0.048(5)
C(13) 0.027(3) 0.034(2) 0.038(3) 0.007(2) 0.012(2) 0.001(2)
C(14) 0.019(2) 0.033(2) 0.047(3) 0.001(2) 0.001(2) -0.003(2)
C(15) 0.031(3) 0.025(2) 0.032(3) 0.016(2) 0.001(2) 0.003(2)
C(16) 0.031(3) 0.022(2) 0.047(3) 0.008(2) 0.010(2) 0.004(2)
C(17) 0.030(3) 0.031(2) 0.034(3) 0.009(2) 0.003(2) -0.014(2)
C(18) 0.057(4) 0.056(3) 0.047(4) 0.011(3) 0.026(3) 0.007(3)
C(19) 0.019(2) 0.042(3) 0.043(3) 0.005(2) 0.011(2) 0.002(2)
C(20) 0.027(3) 0.052(3) 0.035(3) 0.004(2) 0.014(2) -0.011(2)
C(21) 0.032(3) 0.048(3) 0.037(3) 0.004(2) 0.015(3) 0.008(2)
C(22) 0.031(3) 0.031(2) 0.061(4) -0.005(2) 0.019(3) 0.002(2)
C(23) 0.020(3) 0.045(3) 0.044(3) -0.007(2) 0.010(2) -0.007(2)
C(24) 0.043(4) 0.040(3) 0.079(5) 0.005(3) 0.010(3) 0.010(3)
C(25) 0.047(4) 0.046(3) 0.045(4) 0.007(3) -0.025(3) -0.011(3)
C(26) 0.079(5) 0.053(3) 0.023(3) -0.015(3) -0.014(3) 0.004(2)
C(27) 0.047(4) 0.063(4) 0.028(3) -0.004(3) 0.002(3) -0.013(3)
C(28) 0.048(3) 0.032(2) 0.031(3) -0.002(2) -0.006(3) -0.005(2)
C(29) 0.031(3) 0.047(3) 0.032(3) -0.013(2) -0.006(2) -0.014(2)
C(30) 0.101(7) 0.079(5) 0.097(7) 0.043(5) -0.061(6)

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 Ru(1)   C(1)    2.215(5)   1_555 1_555 yes
 Ru(1)   C(2)    2.172(5)   1_555 1_555 yes
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 Ru(2)   C(9)    2.183(6)   1_555 1_555 yes
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 C(25)   C(29)   1.420(8)   1_555 1_555 yes
 C(25)   C(30)   1.482(9)   1_555 1_555 yes
 C(26)   C(27)   1.419(9)   1_555 1_555 yes
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Ru(2)	Ru(1)	C(1)	143.3(2)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(2)	168.0(2)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(3)	130.0(2)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(4)	105.3(1)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	C(5)	111.7(1)	1_555	1_555	1_555 yes
Ru(2)	Ru(1)	H(1)	103.84(2)	1_555	1_555	1_555 no
Ru(2)	Ru(1)	H(2)	93.11(2)	1_555	1_555	1_555 no
Ru(2)	Ru(1)	H(3)	42.16(1)	1_555	1_555	1_555 no
Ru(3)	Ru(1)	Ru(4)	62.88(1)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(1)	113.8(1)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(2)	130.8(2)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(3)	165.7(1)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(4)	155.3(1)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	C(5)	124.7(1)	1_555	1_555	1_555 yes
Ru(3)	Ru(1)	H(1)	76.61(1)	1_555	1_555	1_555 no
Ru(3)	Ru(1)	H(2)	31.930(10)	1_555	1_555	1_555 no
Ru(3)	Ru(1)	H(3)	42.35(1)	1_555	1_555	1_555 no
Ru(4)	Ru(1)	C(1)	152.1(2)	1_555	1_555	1_555 yes
Ru(4)	Ru(1)	C(2)	120.6(2)	1_555	1_555	1_555 yes
Ru(4)	Ru(1)	C(3)	112.1(2)	1_555	1_555	1_555 yes
Ru(4)	Ru(1)	C(4)	132.0(1)	1_555	1_555	1_555 yes
Ru(4)	Ru(1)	C(5)	168.0(1)	1_555	1_555	1_555 yes
Ru(4)	Ru(1)	H(1)	42.14(1)	1_555	1_555	1_555 no
Ru(4)	Ru(1)	H(2)	74.77(1)	1_555	1_555	1_555 no
Ru(4)	Ru(1)	H(3)	88.29(2)	1_555	1_555	1_555 no
C(1)	Ru(1)	C(2)	38.1(2)	1_555	1_555	1_555 yes
C(1)	Ru(1)	C(3)	63.6(2)	1_555	1_555	1_555 yes
C(1)	Ru(1)	C(4)	63.3(2)	1_555	1_555	1_555 yes
C(1)	Ru(1)	C(5)	37.6(2)	1_555	1_555	1_555 yes
C(1)	Ru(1)	H(1)	110.2(2)	1_555	1_555	1_555 no
C(1)	Ru(1)	H(2)	89.7(1)	1_555	1_555	1_555 no
C(1)	Ru(1)	H(3)	107.4(2)	1_555	1_555	1_555 no
C(2)	Ru(1)	C(3)	38.2(2)	1_555	1_555	1_555 yes
C(2)	Ru(1)	C(4)	63.7(2)	1_555	1_555	1_555 yes
C(2)	Ru(1)	C(5)	63.1(2)	1_555	1_555	1_555 yes
C(2)	Ru(1)	H(1)	81.2(2)	1_555	1_555	1_555 no
C(2)	Ru(1)	H(2)	98.9(1)	1_555	1_555	1_555 no
C(2)	Ru(1)	H(3)	144.8(2)	1_555	1_555	1_555 no
C(3)	Ru(1)	C(4)	38.0(2)	1_555	1_555	1_555 yes
C(3)	Ru(1)	C(5)	62.9(2)	1_555	1_555	1_555 yes
C(3)	Ru(1)	H(1)	90.9(1)	1_555	1_555	1_555 no
C(3)	Ru(1)	H(2)	135.4(2)	1_555	1_555	1_555 no
C(3)	Ru(1)	H(3)	151.4(1)	1_555	1_555	1_555 no
C(4)	Ru(1)	C(5)	37.3(2)	1_555	1_555	1_555 yes
C(4)	Ru(1)	H(1)	128.0(1)	1_555	1_555	1_555 no
C(4)	Ru(1)	H(2)	152.4(1)	1_555	1_555	1_555 no
C(4)	Ru(1)	H(3)	113.4(1)	1_555	1_555	1_555 no
C(5)	Ru(1)	H(1)	144.2(1)	1_555	1_555	1_555 no
C(5)	Ru(1)	H(2)	116.7(1)	1_555	1_555	1_555 no
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H(1)	Ru(1)	H(2)	64.30(1)	1_555	1_555	1_555 no
H(1)	Ru(1)	H(3)	117.21(2)	1_555	1_555	1_555 no
H(2)	Ru(1)	H(3)	67.65(1)	1_555	1_555	1_555 no
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Ru(1)	Ru(2)	C(8)	159.9(2)	1_555	1_555	1_555 yes
Ru(1)	Ru(2)	C(9)	125.8(2)	1_555	1_555	1_555 yes
Ru(1)	Ru(2)	C(10)	97.9(2)	1_555	1_555	1_555 yes
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Ru(1)	Ru(2)	H(4)	41.37(1)	1_555	1_555	1_555 no
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Ru(3)	Ru(2)	C(8)	130.6(2)	1_555	1_555	1_555 yes
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Ru(3)	Ru(2)	C(10)	123.0(2)	1_555	1_555	1_555 yes
Ru(3)	Ru(2)	C(11)	154.7(2)	1_555	1_555	1_555 yes
Ru(3)	Ru(2)	H(4)	86.11(1)	1_555	1_555	1_555 no
Ru(3)	Ru(2)	H(6)	86.15(1)	1_555	1_555	1_555 no
Ru(4)	Ru(2)	Ru(5)	57.92(1)	1_555	1_555	1_555 yes
Ru(4)	Ru(2)	C(7)	120.8(2)	1_555	1_555	1_555 yes
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Ru(4)	Ru(2)	H(4)	41.77(1)	1_555	1_555	1_555 no
Ru(4)	Ru(2)	H(6)	40.32(1)	1_555	1_555	1_555 no
Ru(5)	Ru(2)	C(7)	109.4(2)	1_555	1_555	1_555 yes
Ru(5)	Ru(2)	C(8)	93.5(1)	1_555	1_555	1_555 yes
Ru(5)	Ru(2)	C(9)	113.4(2)	1_555	1_555	1_555 yes
Ru(5)	Ru(2)	C(10)	149.9(2)	1_555	1_555	1_555 yes
Ru(5)	Ru(2)	C(11)	146.5(2)	1_555	1_555	1_555 yes
Ru(5)	Ru(2)	H(4)	99.24(2)	1_555	1_555	1_555 no
Ru(5)	Ru(2)	H(6)	42.58(1)	1_555	1_555	1_555 no
C(7)	Ru(2)	C(8)	38.0(2)	1_555	1_555	1_555 yes
C(7)	Ru(2)	C(9)	62.8(2)	1_555	1_555	1_555 yes
C(7)	Ru(2)	C(10)	62.8(2)	1_555	1_555	1_555 yes
C(7)	Ru(2)	C(11)	37.4(2)	1_555	1_555	1_555 yes
C(7)	Ru(2)	H(4)	104.0(2)	1_555	1_555	1_555 no
C(7)	Ru(2)	H(6)	88.7(2)	1_555	1_555	1_555 no
C(8)	Ru(2)	C(9)	37.3(2)	1_555	1_555	1_555 yes
C(8)	Ru(2)	C(10)	62.0(2)	1_555	1_555	1_555 yes
C(8)	Ru(2)	C(11)	62.4(2)	1_555	1_555	1_555 yes
C(8)	Ru(2)	H(4)	141.7(2)	1_555	1_555	1_555 no
C(8)	Ru(2)	H(6)	99.7(2)	1_555	1_555	1_555 no
C(9)	Ru(2)	C(10)	36.6(2)	1_555	1_555	1_555 yes
C(9)	Ru(2)	C(11)	62.0(2)	1_555	1_555	1_555 yes
C(9)	Ru(2)	H(4)	147.2(2)	1_555	1_555	1_555 no
C(9)	Ru(2)	H(6)	135.8(2)	1_555	1_555	1_555 no
C(10)	Ru(2)	C(11)	37.5(2)	1_555	1_555	1_555 yes
C(10)	Ru(2)	H(4)	110.8(2)	1_555	1_555	1_555 no
C(10)	Ru(2)	H(6)	150.8(2)	1_555	1_555	1_555 no
C(11)	Ru(2)	H(4)	89.0(2)	1_555	1_555	1_555 no
C(11)	Ru(2)	H(6)	115.0(2)	1_555	1_555	1_555 no
H(4)	Ru(2)	H(6)	68.39(1)	1_555	1_555	1_555 no
Ru(1)	Ru(3)	Ru(2)	59.37(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	Ru(4)	58.41(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	Ru(5)	105.99(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	C(13)	134.8(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	C(14)	103.8(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	C(15)	102.7(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	C(16)	132.0(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	C(17)	165.1(1)	1_555	1_555	1_555 yes
Ru(1)	Ru(3)	H(2)	30.796(10)	1_555	1_555	1_555 no
Ru(1)	Ru(3)	H(5)	98.94(2)	1_555	1_555	1_555 no

Ru(2)	Ru(3)	Ru(4)	60.08(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(3)	Ru(5)	59.02(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(3)	C(13)	111.5(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(3)	C(14)	120.1(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(3)	C(15)	151.8(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(3)	C(16)	168.3(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(3)	C(17)	132.3(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(3)	H(2)	90.13(1)	1_555	1_555 1_555 no
Ru(2)	Ru(3)	H(5)	39.63(1)	1_555	1_555 1_555 no
Ru(4)	Ru(3)	Ru(5)	57.64(1)	1_555	1_555 1_555 yes
Ru(4)	Ru(3)	C(13)	160.9(1)	1_555	1_555 1_555 yes
Ru(4)	Ru(3)	C(14)	160.5(1)	1_555	1_555 1_555 yes
Ru(4)	Ru(3)	C(15)	132.1(1)	1_555	1_555 1_555 yes
Ru(4)	Ru(3)	C(16)	120.8(1)	1_555	1_555 1_555 yes
Ru(4)	Ru(3)	C(17)	133.1(1)	1_555	1_555 1_555 yes
Ru(4)	Ru(3)	H(2)	70.43(1)	1_555	1_555 1_555 no
Ru(4)	Ru(3)	H(5)	81.18(2)	1_555	1_555 1_555 no
Ru(5)	Ru(3)	C(13)	103.3(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(3)	C(14)	141.1(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(3)	C(15)	148.1(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(3)	C(16)	110.6(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(3)	C(17)	88.9(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(3)	H(2)	127.53(2)	1_555	1_555 1_555 no
Ru(5)	Ru(3)	H(5)	39.51(1)	1_555	1_555 1_555 no
C(13)	Ru(3)	C(14)	38.2(2)	1_555	1_555 1_555 yes
C(13)	Ru(3)	C(15)	64.0(2)	1_555	1_555 1_555 yes
C(13)	Ru(3)	C(16)	63.7(2)	1_555	1_555 1_555 yes
C(13)	Ru(3)	C(17)	38.0(2)	1_555	1_555 1_555 yes
C(13)	Ru(3)	H(2)	128.4(1)	1_555	1_555 1_555 no
C(13)	Ru(3)	H(5)	82.6(1)	1_555	1_555 1_555 no
C(14)	Ru(3)	C(15)	38.4(2)	1_555	1_555 1_555 yes
C(14)	Ru(3)	C(16)	63.6(2)	1_555	1_555 1_555 yes
C(14)	Ru(3)	C(17)	63.2(2)	1_555	1_555 1_555 yes
C(14)	Ru(3)	H(2)	90.2(1)	1_555	1_555 1_555 no
C(14)	Ru(3)	H(5)	111.4(1)	1_555	1_555 1_555 no
C(15)	Ru(3)	C(16)	37.6(2)	1_555	1_555 1_555 yes
C(15)	Ru(3)	C(17)	62.7(2)	1_555	1_555 1_555 yes
C(15)	Ru(3)	H(2)	75.1(1)	1_555	1_555 1_555 no
C(15)	Ru(3)	H(5)	146.5(1)	1_555	1_555 1_555 no
C(16)	Ru(3)	C(17)	37.3(2)	1_555	1_555 1_555 yes
C(16)	Ru(3)	H(2)	101.2(1)	1_555	1_555 1_555 no
C(16)	Ru(3)	H(5)	129.1(1)	1_555	1_555 1_555 no
C(17)	Ru(3)	H(2)	136.6(1)	1_555	1_555 1_555 no
C(17)	Ru(3)	H(5)	93.0(1)	1_555	1_555 1_555 no
H(2)	Ru(3)	H(5)	129.73(2)	1_555	1_555 1_555 no
Ru(1)	Ru(4)	Ru(2)	59.03(1)	1_555	1_555 1_555 yes
Ru(1)	Ru(4)	Ru(3)	58.71(1)	1_555	1_555 1_555 yes
Ru(1)	Ru(4)	Ru(5)	106.72(2)	1_555	1_555 1_555 yes
Ru(1)	Ru(4)	C(19)	128.9(1)	1_555	1_555 1_555 yes
Ru(1)	Ru(4)	C(20)	102.0(1)	1_555	1_555 1_555 yes
Ru(1)	Ru(4)	C(21)	106.7(2)	1_555	1_555 1_555 yes
Ru(1)	Ru(4)	C(22)	138.6(2)	1_555	1_555 1_555 yes
Ru(1)	Ru(4)	C(23)	164.8(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(4)	Ru(3)	58.83(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(4)	Ru(5)	58.76(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(4)	C(19)	114.0(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(4)	C(20)	128.2(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(4)	C(21)	161.3(2)	1_555	1_555 1_555 yes
Ru(2)	Ru(4)	C(22)	160.7(2)	1_555	1_555 1_555 yes
Ru(2)	Ru(4)	C(23)	128.5(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(4)	Ru(5)	58.23(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(4)	C(19)	167.1(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(4)	C(20)	154.8(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(4)	C(21)	126.7(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(4)	C(22)	119.0(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(4)	C(23)	135.9(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(4)	C(19)	109.1(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(4)	C(20)	146.9(1)	1_555	1_555 1_555 yes
Ru(5)	Ru(4)	C(21)	139.9(2)	1_555	1_555 1_555 yes
Ru(5)	Ru(4)	C(22)	102.9(2)	1_555	1_555 1_555 yes
Ru(5)	Ru(4)	C(23)	87.5(1)	1_555	1_555 1_555 yes
C(19)	Ru(4)	C(20)	38.0(2)	1_555	1_555 1_555 yes
C(19)	Ru(4)	C(21)	63.8(2)	1_555	1_555 1_555 yes
C(19)	Ru(4)	C(22)	63.6(2)	1_555	1_555 1_555 yes
C(19)	Ru(4)	C(23)	38.0(2)	1_555	1_555 1_555 yes
C(20)	Ru(4)	C(21)	38.1(2)	1_555	1_555 1_555 yes
C(20)	Ru(4)	C(22)	63.1(2)	1_555	1_555 1_555 yes
C(20)	Ru(4)	C(23)	62.9(2)	1_555	1_555 1_555 yes
C(21)	Ru(4)	C(22)	37.2(2)	1_555	1_555 1_555 yes
C(21)	Ru(4)	C(23)	62.5(2)	1_555	1_555 1_555 yes
C(22)	Ru(4)	C(23)	37.5(2)	1_555	1_555 1_555 yes
Ru(2)	Ru(5)	Ru(3)	62.21(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(5)	Ru(4)	63.33(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(5)	C(25)	121.9(1)	1_555	1_555 1_555 yes
Ru(2)	Ru(5)	C(26)	109.7(2)	1_555	1_555 1_555 yes
Ru(2)	Ru(5)	C(27)	128.1(2)	1_555	1_555 1_555 yes
Ru(2)	Ru(5)	C(28)	163.5(2)	1_555	1_555 1_555 yes
Ru(2)	Ru(5)	C(29)	155.9(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(5)	Ru(4)	64.13(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(5)	C(25)	175.5(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(5)	C(26)	139.5(2)	1_555	1_555 1_555 yes
Ru(3)	Ru(5)	C(27)	112.1(2)	1_555	1_555 1_555 yes
Ru(3)	Ru(5)	C(28)	111.4(1)	1_555	1_555 1_555 yes
Ru(3)	Ru(5)	C(29)	138.5(1)	1_555	1_555 1_555 yes
Ru(4)	Ru(5)	C(25)	118.9(2)	1_555	1_555 1_555 yes
Ru(4)	Ru(5)	C(26)	151.9(2)	1_555	1_555 1_555 yes
Ru(4)	Ru(5)	C(27)	166.1(2)	1_555	1_555 1_555 yes
Ru(4)	Ru(5)	C(28)	129.6(2)	1_555	1_555 1_555 yes
Ru(4)	Ru(5)	C(29)	110.3(2)	1_555	1_555 1_555 yes
C(25)	Ru(5)	C(26)	38.9(3)	1_555	1_555 1_555 yes
C(25)	Ru(5)	C(27)	64.1(2)	1_555	1_555 1_555 yes
C(25)	Ru(5)	C(28)	64.1(2)	1_555	1_555 1_555 yes
C(25)	Ru(5)	C(29)	38.1(2)	1_555	1_555 1_555 yes
C(26)	Ru(5)	C(27)	38.4(2)	1_555	1_555 1_555 yes
C(26)	Ru(5)	C(28)	64.2(2)	1_555	1_555 1_555 yes
C(26)	Ru(5)	C(29)	64.0(2)	1_555	1_555 1_555 yes
C(27)	Ru(5)	C(28)	37.6(2)	1_555	1_555 1_555 yes
C(27)	Ru(5)	C(29)	62.8(2)	1_555	1_555 1_555 yes
C(28)	Ru(5)	C(29)	37.6(2)	1_555	1_555 1_555 yes
Ru(1)	C(1)	C(2)	69.3(3)	1_555	1_555 1_555 yes
Ru(1)	C(1)	C(5)	71.2(3)	1_555	1_555 1_555 yes
Ru(1)	C(1)	C(6)	128.8(4)	1_555	1_555 1_555 yes
C(2)	C(1)	C(5)	106.8(5)	1_555	1_555 1_555 yes
C(2)	C(1)	C(6)	127.0(6)	1_555	1_555 1_555 yes
C(5)	C(1)	C(6)	126.0(6)	1_555	1_555 1_555 yes
Ru(1)	C(2)	C(1)	72.6(3)	1_555	1_555 1_555 yes
Ru(1)	C(2)	C(3)	70.4(3)	1_555	1_555 1_555 yes
Ru(1)	C(2)	H(7)	125.6(4)	1_555	1_555 1_555 no

C(1)	C(2)	C(3)	108.0(5)	1_555 1_555 1_555 yes
C(1)	C(2)	H(7)	125.8(6)	1_555 1_555 1_555 no
C(3)	C(2)	H(7)	126.1(6)	1_555 1_555 1_555 no
Ru(1)	C(3)	C(2)	71.4(3)	1_555 1_555 1_555 yes
Ru(1)	C(3)	C(4)	73.2(3)	1_555 1_555 1_555 yes
Ru(1)	C(3)	H(8)	124.5(4)	1_555 1_555 1_555 no
C(2)	C(3)	C(4)	109.0(5)	1_555 1_555 1_555 yes
C(2)	C(3)	H(8)	125.1(6)	1_555 1_555 1_555 no
C(4)	C(3)	H(8)	125.8(5)	1_555 1_555 1_555 no
Ru(1)	C(4)	C(3)	68.8(3)	1_555 1_555 1_555 yes
Ru(1)	C(4)	C(5)	71.3(3)	1_555 1_555 1_555 yes
Ru(1)	C(4)	H(9)	125.6(4)	1_555 1_555 1_555 no
C(3)	C(4)	C(5)	106.8(5)	1_555 1_555 1_555 yes
C(3)	C(4)	H(9)	125.9(5)	1_555 1_555 1_555 no
C(5)	C(4)	H(9)	127.4(6)	1_555 1_555 1_555 no
Ru(1)	C(5)	C(1)	71.2(3)	1_555 1_555 1_555 yes
Ru(1)	C(5)	C(4)	71.4(3)	1_555 1_555 1_555 yes
Ru(1)	C(5)	H(10)	125.9(4)	1_555 1_555 1_555 no
C(1)	C(5)	C(4)	109.4(5)	1_555 1_555 1_555 yes
C(1)	C(5)	H(10)	125.4(6)	1_555 1_555 1_555 no
C(4)	C(5)	H(10)	125.1(6)	1_555 1_555 1_555 no
C(1)	C(6)	H(11)	110.6(6)	1_555 1_555 1_555 no
C(1)	C(6)	H(12)	109.3(6)	1_555 1_555 1_555 no
C(1)	C(6)	H(13)	109.7(6)	1_555 1_555 1_555 no
H(11)	C(6)	H(12)	109.4(7)	1_555 1_555 1_555 no
H(11)	C(6)	H(13)	109.2(7)	1_555 1_555 1_555 no
H(12)	C(6)	H(13)	108.5(7)	1_555 1_555 1_555 no
Ru(2)	C(7)	C(8)	70.1(3)	1_555 1_555 1_555 yes
Ru(2)	C(7)	C(11)	71.9(3)	1_555 1_555 1_555 yes
Ru(2)	C(7)	C(12)	129.2(4)	1_555 1_555 1_555 yes
C(8)	C(7)	C(11)	106.4(5)	1_555 1_555 1_555 yes
C(8)	C(7)	C(12)	125.2(7)	1_555 1_555 1_555 yes
C(11)	C(7)	C(12)	127.9(7)	1_555 1_555 1_555 yes
Ru(2)	C(8)	C(7)	72.0(3)	1_555 1_555 1_555 yes
Ru(2)	C(8)	C(9)	71.9(3)	1_555 1_555 1_555 yes
Ru(2)	C(8)	H(14)	124.6(4)	1_555 1_555 1_555 no
C(7)	C(8)	C(9)	108.6(5)	1_555 1_555 1_555 yes
C(7)	C(8)	H(14)	126.7(7)	1_555 1_555 1_555 no
C(9)	C(8)	H(14)	124.6(7)	1_555 1_555 1_555 no
Ru(2)	C(9)	C(8)	70.9(3)	1_555 1_555 1_555 yes
Ru(2)	C(9)	C(10)	71.8(3)	1_555 1_555 1_555 yes
Ru(2)	C(9)	H(15)	124.5(4)	1_555 1_555 1_555 no
C(8)	C(9)	C(10)	108.6(6)	1_555 1_555 1_555 yes
C(8)	C(9)	H(15)	123.8(7)	1_555 1_555 1_555 no
C(10)	C(9)	H(15)	127.6(8)	1_555 1_555 1_555 no
Ru(2)	C(10)	C(9)	71.6(3)	1_555 1_555 1_555 yes
Ru(2)	C(10)	C(11)	72.2(3)	1_555 1_555 1_555 yes
Ru(2)	C(10)	H(16)	124.8(5)	1_555 1_555 1_555 no
C(9)	C(10)	C(11)	108.8(6)	1_555 1_555 1_555 yes
C(9)	C(10)	H(16)	125.4(7)	1_555 1_555 1_555 no
C(11)	C(10)	H(16)	125.7(7)	1_555 1_555 1_555 no
Ru(2)	C(11)	C(7)	70.7(3)	1_555 1_555 1_555 yes
Ru(2)	C(11)	C(10)	70.3(3)	1_555 1_555 1_555 yes
Ru(2)	C(11)	H(17)	125.5(4)	1_555 1_555 1_555 no
C(7)	C(11)	C(10)	107.6(5)	1_555 1_555 1_555 yes
C(7)	C(11)	H(17)	125.9(7)	1_555 1_555 1_555 no
C(10)	C(11)	H(17)	126.4(6)	1_555 1_555 1_555 no
C(7)	C(12)	H(18)	113.5(8)	1_555 1_555 1_555 no
C(7)	C(12)	H(19)	110.0(6)	1_555 1_555 1_555 no
C(7)	C(12)	H(20)	111.0(8)	1_555 1_555 1_555 no
H(18)	C(12)	H(19)	107.7(9)	1_555 1_555 1_555 no
H(18)	C(12)	H(20)	109.1(7)	1_555 1_555 1_555 no
H(19)	C(12)	H(20)	105.2(8)	1_555 1_555 1_555 no
Ru(3)	C(13)	C(14)	70.2(3)	1_555 1_555 1_555 yes
Ru(3)	C(13)	C(17)	71.6(3)	1_555 1_555 1_555 yes
Ru(3)	C(13)	C(18)	126.7(4)	1_555 1_555 1_555 yes
C(14)	C(13)	C(17)	106.6(4)	1_555 1_555 1_555 yes
C(14)	C(13)	C(18)	125.2(5)	1_555 1_555 1_555 yes
C(17)	C(13)	C(18)	128.1(5)	1_555 1_555 1_555 yes
Ru(3)	C(14)	C(13)	71.6(3)	1_555 1_555 1_555 yes
Ru(3)	C(14)	C(15)	71.6(3)	1_555 1_555 1_555 yes
Ru(3)	C(14)	H(21)	124.8(4)	1_555 1_555 1_555 no
C(13)	C(14)	C(15)	108.4(4)	1_555 1_555 1_555 yes
C(13)	C(14)	H(21)	125.8(5)	1_555 1_555 1_555 no
C(15)	C(14)	H(21)	125.8(5)	1_555 1_555 1_555 no
Ru(3)	C(15)	C(14)	70.0(3)	1_555 1_555 1_555 yes
Ru(3)	C(15)	C(16)	72.4(3)	1_555 1_555 1_555 yes
Ru(3)	C(15)	H(22)	125.4(4)	1_555 1_555 1_555 no
C(14)	C(15)	C(16)	108.2(4)	1_555 1_555 1_555 yes
C(14)	C(15)	H(22)	125.6(5)	1_555 1_555 1_555 no
C(16)	C(15)	H(22)	126.2(5)	1_555 1_555 1_555 no
Ru(3)	C(16)	C(15)	69.9(2)	1_555 1_555 1_555 yes
Ru(3)	C(16)	C(17)	70.5(3)	1_555 1_555 1_555 yes
Ru(3)	C(16)	H(23)	125.6(4)	1_555 1_555 1_555 no
C(15)	C(16)	C(17)	107.2(4)	1_555 1_555 1_555 yes
C(15)	C(16)	H(23)	126.0(5)	1_555 1_555 1_555 no
C(17)	C(16)	H(23)	126.8(5)	1_555 1_555 1_555 no
Ru(3)	C(17)	C(13)	70.4(3)	1_555 1_555 1_555 yes
Ru(3)	C(17)	C(16)	72.1(3)	1_555 1_555 1_555 yes
Ru(3)	C(17)	H(24)	125.9(4)	1_555 1_555 1_555 no
C(13)	C(17)	C(16)	109.6(5)	1_555 1_555 1_555 yes
C(13)	C(17)	H(24)	125.0(5)	1_555 1_555 1_555 no
C(16)	C(17)	H(24)	125.3(5)	1_555 1_555 1_555 no
C(13)	C(18)	H(25)	111.4(6)	1_555 1_555 1_555 no
C(13)	C(18)	H(26)	110.5(5)	1_555 1_555 1_555 no
C(13)	C(18)	H(27)	111.1(5)	1_555 1_555 1_555 no
H(25)	C(18)	H(26)	107.2(6)	1_555 1_555 1_555 no
H(25)	C(18)	H(27)	108.9(6)	1_555 1_555 1_555 no
H(26)	C(18)	H(27)	107.6(6)	1_555 1_555 1_555 no
Ru(4)	C(19)	C(20)	70.6(3)	1_555 1_555 1_555 yes
Ru(4)	C(19)	C(23)	71.3(3)	1_555 1_555 1_555 yes
Ru(4)	C(19)	C(24)	126.8(4)	1_555 1_555 1_555 yes
C(20)	C(19)	C(23)	106.3(5)	1_555 1_555 1_555 yes
C(20)	C(19)	C(24)	127.0(5)	1_555 1_555 1_555 yes
C(23)	C(19)	C(24)	126.5(5)	1_555 1_555 1_555 yes
Ru(4)	C(20)	C(19)	71.4(3)	1_555 1_555 1_555 yes
Ru(4)	C(20)	C(21)	71.0(3)	1_555 1_555 1_555 yes
Ru(4)	C(20)	H(28)	125.5(4)	1_555 1_555 1_555 no
C(19)	C(20)	C(21)	108.3(5)	1_555 1_555 1_555 yes
C(19)	C(20)	H(28)	125.6(5)	1_555 1_555 1_555 no
C(21)	C(20)	H(28)	126.0(6)	1_555 1_555 1_555 no
Ru(4)	C(21)	C(20)	70.8(3)	1_555 1_555 1_555 yes
Ru(4)	C(21)	C(22)	71.4(3)	1_555 1_555 1_555 yes
Ru(4)	C(21)	H(29)	125.9(4)	1_555 1_555 1_555 no
C(20)	C(21)	C(22)	108.1(5)	1_555 1_555 1_555 yes
C(20)	C(21)	H(29)	125.2(6)	1_555 1_555 1_555 no
C(22)	C(21)	H(29)	126.7(5)	1_555 1_555 1_555 no
Ru(4)	C(22)	C(21)	71.4(3)	1_555 1_555 1_555 yes

Ru(4)	C(22)	C(23)	72.0(3)	1_555 1_555 1_555 yes
Ru(4)	C(22)	H(30)	125.5(4)	1_555 1_555 1_555 no
C(21)	C(22)	C(23)	108.6(4)	1_555 1_555 1_555 yes
C(21)	C(22)	H(30)	126.6(6)	1_555 1_555 1_555 no
C(23)	C(22)	H(30)	124.7(6)	1_555 1_555 1_555 no
Ru(4)	C(23)	C(19)	70.6(3)	1_555 1_555 1_555 yes
Ru(4)	C(23)	C(22)	70.6(3)	1_555 1_555 1_555 yes
Ru(4)	C(23)	H(31)	125.5(4)	1_555 1_555 1_555 no
C(19)	C(23)	C(22)	108.7(5)	1_555 1_555 1_555 yes
C(19)	C(23)	H(31)	125.6(6)	1_555 1_555 1_555 no
C(22)	C(23)	H(31)	125.7(5)	1_555 1_555 1_555 no
C(19)	C(24)	H(32)	109.7(6)	1_555 1_555 1_555 no
C(19)	C(24)	H(33)	111.2(6)	1_555 1_555 1_555 no
C(19)	C(24)	H(34)	111.0(6)	1_555 1_555 1_555 no
H(32)	C(24)	H(33)	107.7(6)	1_555 1_555 1_555 no
H(32)	C(24)	H(34)	107.6(6)	1_555 1_555 1_555 no
H(33)	C(24)	H(34)	109.5(6)	1_555 1_555 1_555 no
Ru(5)	C(25)	C(26)	69.9(3)	1_555 1_555 1_555 yes
Ru(5)	C(25)	C(29)	70.9(3)	1_555 1_555 1_555 yes
Ru(5)	C(25)	C(30)	129.9(5)	1_555 1_555 1_555 yes
C(26)	C(25)	C(29)	106.4(5)	1_555 1_555 1_555 yes
C(26)	C(25)	C(30)	125.8(7)	1_555 1_555 1_555 yes
C(29)	C(25)	C(30)	127.3(7)	1_555 1_555 1_555 yes
Ru(5)	C(26)	C(25)	71.2(3)	1_555 1_555 1_555 yes
Ru(5)	C(26)	C(27)	70.7(3)	1_555 1_555 1_555 yes
Ru(5)	C(26)	H(35)	126.0(4)	1_555 1_555 1_555 no
C(25)	C(26)	C(27)	106.8(5)	1_555 1_555 1_555 yes
C(25)	C(26)	H(35)	124.6(7)	1_555 1_555 1_555 no
C(27)	C(26)	H(35)	128.5(8)	1_555 1_555 1_555 no
Ru(5)	C(27)	C(26)	70.9(3)	1_555 1_555 1_555 yes
Ru(5)	C(27)	C(28)	72.1(3)	1_555 1_555 1_555 yes
Ru(5)	C(27)	H(36)	125.1(4)	1_555 1_555 1_555 no
C(26)	C(27)	C(28)	109.7(6)	1_555 1_555 1_555 yes
C(26)	C(27)	H(36)	123.9(6)	1_555 1_555 1_555 no
C(28)	C(27)	H(36)	126.3(6)	1_555 1_555 1_555 no
Ru(5)	C(28)	C(27)	70.4(3)	1_555 1_555 1_555 yes
Ru(5)	C(28)	C(29)	71.2(3)	1_555 1_555 1_555 yes
Ru(5)	C(28)	H(37)	125.8(4)	1_555 1_555 1_555 no
C(27)	C(28)	C(29)	107.5(5)	1_555 1_555 1_555 yes
C(27)	C(28)	H(37)	125.8(6)	1_555 1_555 1_555 no
C(29)	C(28)	H(37)	126.6(6)	1_555 1_555 1_555 no
Ru(5)	C(29)	C(25)	70.9(3)	1_555 1_555 1_555 yes
Ru(5)	C(29)	C(28)	71.2(3)	1_555 1_555 1_555 yes
Ru(5)	C(29)	H(38)	124.8(4)	1_555 1_555 1_555 no
C(25)	C(29)	C(28)	109.6(5)	1_555 1_555 1_555 yes
C(25)	C(29)	H(38)	124.6(6)	1_555 1_555 1_555 no
C(28)	C(29)	H(38)	125.8(5)	1_555 1_555 1_555 no
C(25)	C(30)	H(39)	111.9(7)	1_555 1_555 1_555 no
C(25)	C(30)	H(40)	112.4(8)	1_555 1_555 1_555 no
C(25)	C(30)	H(41)	113.1(9)	1_555 1_555 1_555 no
H(39)	C(30)	H(40)	105.8(10)	1_555 1_555 1_555 no
H(39)	C(30)	H(41)	106.3(8)	1_555 1_555 1_555 no
H(40)	C(30)	H(41)	106.9(8)	1_555 1_555 1_555 no

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loop_

_geom_contact_atom_site_label_1

_geom_contact_atom_site_label_2

_geom_contact_distance

_geom_contact_site_symmetry_1

_geom_contact_site_symmetry_2

_geom_contact_publ_flag

Ru(1)	Ru(2)	2.8562(5)	1_555 1_555 ?
Ru(1)	Ru(3)	2.8574(5)	1_555 1_555 ?
Ru(1)	Ru(4)	2.8482(5)	1_555 1_555 ?
Ru(2)	Ru(3)	2.9092(5)	1_555 1_555 ?
Ru(2)	Ru(4)	2.9466(5)	1_555 1_555 ?
Ru(2)	Ru(5)	2.8193(5)	1_555 1_555 ?
Ru(3)	Ru(4)	2.9762(5)	1_555 1_555 ?
Ru(3)	Ru(5)	2.8119(5)	1_555 1_555 ?
Ru(4)	Ru(5)	2.7939(5)	1_555 1_555 ?
C(3)	C(16)	3.572(8)	1_555 2_557 ?
C(4)	C(16)	3.544(8)	1_555 2_557 ?
C(6)	C(13)	3.567(8)	1_555 3_667 ?
C(9)	C(28)	3.457(8)	1_555 2_556 ?
C(14)	C(15)	3.530(7)	1_555 3_667 ?
C(14)	C(14)	3.56(1)	1_555 3_667 ?
C(14)	C(24)	3.597(8)	1_555 4_565 ?
C(21)	C(26)	3.580(8)	1_555 1_556 ?
C(22)	C(22)	3.37(1)	1_555 3_567 ?
C(22)	C(23)	3.586(7)	1_555 3_567 ?
C(29)	C(29)	3.43(1)	1_555 3_566 ?