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C(15)-O(12)-P(4)	125.1(8)	O(14)-S(3)-C(29)	105.2(8)
C(16)-O(13)-P(4)	120.1(7)	O(15)-S(3)-C(29)	104.3(7)
C(4)-C(1)-C(2)	106.4(10)	F(6)-C(30)-F(5)	104.7(15)
C(4)-C(1)-S(1)	123.8(8)	F(6)-C(30)-F(4)	103.8(14)
C(2)-C(1)-S(1)	129.8(9)	F(5)-C(30)-F(4)	107.1(13)
C(3)-C(2)-C(1)	105.6(11)	F(6)-C(30)-S(4)	113.6(12)
C(2)-C(3)-O(1)	110.6(11)	F(5)-C(30)-S(4)	114.2(12)
O(1)-C(4)-C(1)	110.8(10)	F(4)-C(30)-S(4)	112.5(13)
O(6)-C(9A)-C(9B)	54.8(16)	O(18)-S(4)-O(19)	120.0(8)
O(6)-C(9B)-C(9A)	57.0(16)	O(18)-S(4)-O(17)	117.0(9)
N(1)-C(17)-C(18)	179.1(16)	O(19)-S(4)-O(17)	108.9(8)
N(2)-C(19)-C(20)	178.7(16)	O(18)-S(4)-C(30)	102.7(9)
N(3)-C(21)-C(22)	176.8(14)	O(19)-S(4)-C(30)	105.4(7)
N(4)-C(23)-C(24)	178.1(13)	O(17)-S(4)-C(30)	99.7(8)
N(5)-C(25)-C(26)	179.3(11)	F(8)-C(31)-F(7)	136(3)
N(6)-C(27)-C(28)	177.4(15)	F(8)-C(31)-F(9)	103(3)
F(3)-C(29)-F(2)	107.9(17)	F(7)-C(31)-F(9)	121(3)
F(3)-C(29)-F(1)	105.0(16)	F(8)-C(31)-S(5)	93.2(19)
F(2)-C(29)-F(1)	111.5(17)	F(7)-C(31)-S(5)	85(2)
F(3)-C(29)-S(3)	110.9(14)	F(9)-C(31)-S(5)	85(2)
F(2)-C(29)-S(3)	111.2(13)	O(20)-S(5)-O(21)	147.5(17)
F(1)-C(29)-S(3)	110.2(14)	O(20)-S(5)-O(22)	114.3(16)
O(16)-S(3)-O(14)	114.6(6)	O(21)-S(5)-O(22)	93.1(18)
O(16)-S(3)-O(15)	114.2(6)	O(20)-S(5)-C(31)	105.6(10)
O(14)-S(3)-O(15)	112.7(6)	O(21)-S(5)-C(31)	99.6(16)
O(16)-S(3)-C(29)	104.4(7)	O(22)-S(5)-C(31)	70.8(14)

Symmetry transformations used to generate equivalent atoms:

Table S35. Torsion angles [°] for **8**.

N(1)-Ru(1)-S(1)-C(1)	43(4)	N(4)-Ru(2)-S(2)-S(1)	-106(3)
N(2)-Ru(1)-S(1)-C(1)	92.6(4)	N(6)-Ru(2)-S(2)-S(1)	-60.1(3)
N(3)-Ru(1)-S(1)-C(1)	6.8(4)	N(5)-Ru(2)-S(2)-S(1)	22.9(3)
P(2)-Ru(1)-S(1)-C(1)	-176.7(4)	P(3)-Ru(2)-S(2)-S(1)	-151.83(17)
P(1)-Ru(1)-S(1)-C(1)	-85.4(4)	P(4)-Ru(2)-S(2)-S(1)	114.46(15)
N(1)-Ru(1)-S(1)-S(2)	-68(4)	N(1)-Ru(1)-P(1)-O(2)	2.5(4)
N(2)-Ru(1)-S(1)-S(2)	-18.2(3)	N(2)-Ru(1)-P(1)-O(2)	62(7)
N(3)-Ru(1)-S(1)-S(2)	-104.0(3)	N(3)-Ru(1)-P(1)-O(2)	86.2(4)
P(2)-Ru(1)-S(1)-S(2)	72.59(15)	P(2)-Ru(1)-P(1)-O(2)	-89.9(4)
P(1)-Ru(1)-S(1)-S(2)	163.87(15)	S(1)-Ru(1)-P(1)-O(2)	179.8(4)
C(1)-S(1)-S(2)-Ru(2)	84.1(4)	N(1)-Ru(1)-P(1)-O(3)	121.0(4)
Ru(1)-S(1)-S(2)-Ru(2)	-163.62(10)	N(2)-Ru(1)-P(1)-O(3)	-180(100)

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N(3)-Ru(1)-P(1)-O(3)	-155.2(4)	N(4)-Ru(2)-P(4)-O(12)	179.9(4)
P(2)-Ru(1)-P(1)-O(3)	28.6(4)	N(6)-Ru(2)-P(4)-O(12)	114(2)
S(1)-Ru(1)-P(1)-O(3)	-61.7(4)	N(5)-Ru(2)-P(4)-O(12)	91.0(4)
N(1)-Ru(1)-P(1)-O(4)	-119.7(4)	P(3)-Ru(2)-P(4)-O(12)	-90.3(4)
N(2)-Ru(1)-P(1)-O(4)	-61(7)	S(2)-Ru(2)-P(4)-O(12)	-3.4(4)
N(3)-Ru(1)-P(1)-O(4)	-35.9(4)	N(4)-Ru(2)-P(4)-O(13)	-56.5(4)
P(2)-Ru(1)-P(1)-O(4)	148.0(3)	N(6)-Ru(2)-P(4)-O(13)	-123(2)
S(1)-Ru(1)-P(1)-O(4)	57.7(3)	N(5)-Ru(2)-P(4)-O(13)	-145.4(4)
N(1)-Ru(1)-P(2)-O(5)	-157.2(4)	P(3)-Ru(2)-P(4)-O(13)	33.3(4)
N(2)-Ru(1)-P(2)-O(5)	116.7(4)	S(2)-Ru(2)-P(4)-O(13)	120.1(3)
N(3)-Ru(1)-P(2)-O(5)	164(3)	N(2)-Ru(1)-N(1)-C(17)	-49(6)
P(1)-Ru(1)-P(2)-O(5)	-64.4(3)	N(3)-Ru(1)-N(1)-C(17)	37(6)
S(1)-Ru(1)-P(2)-O(5)	25.0(3)	P(2)-Ru(1)-N(1)-C(17)	-139(6)
N(1)-Ru(1)-P(2)-O(7)	84.6(4)	P(1)-Ru(1)-N(1)-C(17)	129(6)
N(2)-Ru(1)-P(2)-O(7)	-1.5(4)	S(1)-Ru(1)-N(1)-C(17)	1(9)
N(3)-Ru(1)-P(2)-O(7)	45(3)	N(1)-Ru(1)-N(2)-C(19)	-119(11)
P(1)-Ru(1)-P(2)-O(7)	177.4(3)	N(3)-Ru(1)-N(2)-C(19)	157(11)
S(1)-Ru(1)-P(2)-O(7)	-93.2(3)	P(2)-Ru(1)-N(2)-C(19)	-26(11)
N(1)-Ru(1)-P(2)-O(6)	-32.3(5)	P(1)-Ru(1)-N(2)-C(19)	-178(100)
N(2)-Ru(1)-P(2)-O(6)	-118.4(5)	S(1)-Ru(1)-N(2)-C(19)	64(11)
N(3)-Ru(1)-P(2)-O(6)	-72(3)	N(1)-Ru(1)-N(3)-C(21)	-18(9)
P(1)-Ru(1)-P(2)-O(6)	60.5(5)	N(2)-Ru(1)-N(3)-C(21)	69(9)
S(1)-Ru(1)-P(2)-O(6)	149.8(5)	P(2)-Ru(1)-N(3)-C(21)	22(11)
N(4)-Ru(2)-P(3)-O(10)	23.5(6)	P(1)-Ru(1)-N(3)-C(21)	-110(9)
N(6)-Ru(2)-P(3)-O(10)	107.8(6)	S(1)-Ru(1)-N(3)-C(21)	160(9)
N(5)-Ru(2)-P(3)-O(10)	96(2)	N(6)-Ru(2)-N(4)-C(23)	-72(8)
P(4)-Ru(2)-P(3)-O(10)	-69.7(5)	N(5)-Ru(2)-N(4)-C(23)	-155(8)
S(2)-Ru(2)-P(3)-O(10)	-160.3(5)	P(3)-Ru(2)-N(4)-C(23)	20(8)
N(4)-Ru(2)-P(3)-O(9)	144.9(5)	P(4)-Ru(2)-N(4)-C(23)	113(8)
N(6)-Ru(2)-P(3)-O(9)	-130.8(5)	S(2)-Ru(2)-N(4)-C(23)	-26(10)
N(5)-Ru(2)-P(3)-O(9)	-142(2)	N(4)-Ru(2)-N(5)-C(25)	45(7)
P(4)-Ru(2)-P(3)-O(9)	51.7(4)	N(6)-Ru(2)-N(5)-C(25)	-39(7)
S(2)-Ru(2)-P(3)-O(9)	-38.9(4)	P(3)-Ru(2)-N(5)-C(25)	-28(8)
N(4)-Ru(2)-P(3)-O(8)	-93.0(5)	P(4)-Ru(2)-N(5)-C(25)	138(7)
N(6)-Ru(2)-P(3)-O(8)	-8.7(5)	S(2)-Ru(2)-N(5)-C(25)	-131(7)
N(5)-Ru(2)-P(3)-O(8)	-20(2)	N(4)-Ru(2)-N(6)-C(27)	-48(9)
P(4)-Ru(2)-P(3)-O(8)	173.8(4)	N(5)-Ru(2)-N(6)-C(27)	41(9)
S(2)-Ru(2)-P(3)-O(8)	83.2(4)	P(3)-Ru(2)-N(6)-C(27)	-138(9)
N(4)-Ru(2)-P(4)-O(11)	63.7(4)	P(4)-Ru(2)-N(6)-C(27)	19(11)
N(6)-Ru(2)-P(4)-O(11)	-3(2)	S(2)-Ru(2)-N(6)-C(27)	136(9)
N(5)-Ru(2)-P(4)-O(11)	-25.3(4)	O(3)-P(1)-O(2)-C(5)	47.9(12)
P(3)-Ru(2)-P(4)-O(11)	153.4(3)	O(4)-P(1)-O(2)-C(5)	-53.9(11)
S(2)-Ru(2)-P(4)-O(11)	-119.7(3)	Ru(1)-P(1)-O(2)-C(5)	177.0(10)

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O(2)-P(1)-O(3)-C(6)	-158.5(9)	S(1)-C(1)-C(2)-C(3)	176.5(9)
O(4)-P(1)-O(3)-C(6)	-50.8(10)	C(1)-C(2)-C(3)-O(1)	2.0(13)
Ru(1)-P(1)-O(3)-C(6)	78.1(10)	C(4)-O(1)-C(3)-C(2)	-1.7(13)
O(2)-P(1)-O(4)-C(7)	-55.4(9)	C(3)-O(1)-C(4)-C(1)	0.6(12)
O(3)-P(1)-O(4)-C(7)	-159.9(8)	C(2)-C(1)-C(4)-O(1)	0.6(13)
Ru(1)-P(1)-O(4)-C(7)	69.8(8)	S(1)-C(1)-C(4)-O(1)	-177.7(7)
O(7)-P(2)-O(5)-C(8)	-39.4(10)	P(2)-O(6)-C(9A)-C(9B)	-124(3)
O(6)-P(2)-O(5)-C(8)	65.1(11)	P(2)-O(6)-C(9B)-C(9A)	137(2)
Ru(1)-P(2)-O(5)-C(8)	-166.6(9)	Ru(1)-N(1)-C(17)-C(18)	-67(100)
O(5)-P(2)-O(6)-C(9B)	-32(2)	Ru(1)-N(2)-C(19)-C(20)	31(71)
O(7)-P(2)-O(6)-C(9B)	73(2)	Ru(1)-N(3)-C(21)-C(22)	176(19)
Ru(1)-P(2)-O(6)-C(9B)	-160(2)	Ru(2)-N(4)-C(23)-C(24)	67(44)
O(5)-P(2)-O(6)-C(9A)	69(3)	Ru(2)-N(5)-C(25)-C(26)	106(100)
O(7)-P(2)-O(6)-C(9A)	174(3)	Ru(2)-N(6)-C(27)-C(28)	-10(36)
Ru(1)-P(2)-O(6)-C(9A)	-59(3)	F(3)-C(29)-S(3)-O(16)	-61.2(15)
O(5)-P(2)-O(7)-C(10)	162.9(9)	F(2)-C(29)-S(3)-O(16)	178.8(13)
O(6)-P(2)-O(7)-C(10)	52.0(10)	F(1)-C(29)-S(3)-O(16)	54.7(15)
Ru(1)-P(2)-O(7)-C(10)	-72.6(9)	F(3)-C(29)-S(3)-O(14)	59.8(15)
O(10)-P(3)-O(8)-C(11)	168.1(11)	F(2)-C(29)-S(3)-O(14)	-60.2(15)
O(9)-P(3)-O(8)-C(11)	60.0(12)	F(1)-C(29)-S(3)-O(14)	175.7(12)
Ru(2)-P(3)-O(8)-C(11)	-67.2(12)	F(3)-C(29)-S(3)-O(15)	178.6(13)
O(10)-P(3)-O(9)-C(12)	-57.7(12)	F(2)-C(29)-S(3)-O(15)	58.6(15)
O(8)-P(3)-O(9)-C(12)	46.1(11)	F(1)-C(29)-S(3)-O(15)	-65.5(14)
Ru(2)-P(3)-O(9)-C(12)	175.5(10)	F(6)-C(30)-S(4)-O(18)	-63.6(15)
O(9)-P(3)-O(10)-C(13)	95(3)	F(5)-C(30)-S(4)-O(18)	56.4(14)
O(8)-P(3)-O(10)-C(13)	-13(3)	F(4)-C(30)-S(4)-O(18)	178.8(12)
Ru(2)-P(3)-O(10)-C(13)	-139(3)	F(6)-C(30)-S(4)-O(19)	62.9(14)
O(12)-P(4)-O(11)-C(14)	49.7(9)	F(5)-C(30)-S(4)-O(19)	-177.1(11)
O(13)-P(4)-O(11)-C(14)	-51.4(9)	F(4)-C(30)-S(4)-O(19)	-54.7(13)
Ru(2)-P(4)-O(11)-C(14)	178.8(7)	F(6)-C(30)-S(4)-O(17)	175.7(13)
O(11)-P(4)-O(12)-C(15)	-164.5(9)	F(5)-C(30)-S(4)-O(17)	-64.3(14)
O(13)-P(4)-O(12)-C(15)	-57.9(10)	F(4)-C(30)-S(4)-O(17)	58.1(14)
Ru(2)-P(4)-O(12)-C(15)	75.8(10)	F(8)-C(31)-S(5)-O(20)	29(2)
O(11)-P(4)-O(13)-C(16)	-58.2(9)	F(7)-C(31)-S(5)-O(20)	165.0(18)
O(12)-P(4)-O(13)-C(16)	-162.0(8)	F(9)-C(31)-S(5)-O(20)	-73(2)
Ru(2)-P(4)-O(13)-C(16)	63.6(9)	F(8)-C(31)-S(5)-O(21)	-171(2)
S(2)-S(1)-C(1)-C(4)	-140.7(9)	F(7)-C(31)-S(5)-O(21)	-36(2)
Ru(1)-S(1)-C(1)-C(4)	106.2(9)	F(9)-C(31)-S(5)-O(21)	86(2)
S(2)-S(1)-C(1)-C(2)	41.5(10)	F(8)-C(31)-S(5)-O(22)	-81(2)
Ru(1)-S(1)-C(1)-C(2)	-71.7(10)	F(7)-C(31)-S(5)-O(22)	54(2)
C(4)-C(1)-C(2)-C(3)	-1.6(12)	F(9)-C(31)-S(5)-O(22)	176(2)

Symmetry transformations used to generate equivalent atoms:

Table S36. Crystal data and structure refinement for **9**.

Empirical formula	$C_{33}H_{61}F_9N_6O_{22}P_4Ru_2S_5$	
Formula weight	1551.20	
Temperature	123(2) K	
Wavelength	0.71073 Å	
Crystal system	triclinic	
Space group	$P\bar{1}$	
Unit cell dimensions	$a = 12.5969(11)$ Å	$a = 90.962(2)^\circ$
	$b = 13.7742(12)$ Å	$b = 90.459(2)^\circ$
	$c = 18.7252(17)$ Å	$\gamma = 107.410(2)^\circ$
Volume	$3099.5(5)$ Å ³	
Z	2	
Density (calculated)	1.662 Mg/m ³	
Absorption coefficient	0.858 mm ⁻¹	
F(000)	1572	
Crystal size	$0.40 \times 0.35 \times 0.35$ mm ³	
Theta range for data collection	1.55 to 27.58°	
Index ranges	$-15 \leq h \leq 16$, $-17 \leq k \leq 17$, $-24 \leq l \leq 17$	
Reflections collected	19329	
Independent reflections	13467 [$R(\text{int}) = 0.0238$]	
Completeness to $\theta = 27.58^\circ$	93.8 %	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	$13467 / 0 / 827$	
Goodness-of-fit on F^2	1.033	
Final R indices [$I > 2\sigma(I)$]	$R1 = 0.0871$, $wR2 = 0.2122$	
R indices (all data)	$R1 = 0.0991$, $wR2 = 0.2226$	
Largest diff. peak and hole	3.817 and -5.006 e.Å ⁻³	

Table S37. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for **9**. $U(\text{eq})$ is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	$U(\text{eq})$
Ru(1)	7943(1)	9102(1)	1941(1)	22(1)
Ru(2)	7339(1)	5203(1)	3114(1)	51(1)
S(1)	7152(1)	7322(1)	2056(1)	30(1)
S(2)	8313(2)	6769(1)	2575(1)	31(1)
P(1)	6231(2)	9231(2)	1752(1)	46(1)
P(2)	7810(1)	9293(1)	3130(1)	28(1)
P(3)	8837(3)	4696(1)	2908(1)	56(1)
P(4)	7920(2)	5859(2)	4206(1)	58(1)
N(1)	8687(5)	10633(4)	1832(3)	30(1)
N(2)	9580(4)	9013(4)	2061(3)	26(1)

N(3)	8208(4)	9032(4)	824(3)	26(1)
N(4A)	6244(10)	3944(8)	3592(6)	22(2)
N(5)	5859(8)	5634(6)	3206(4)	64(3)
N(6)	6602(7)	4521(4)	2123(3)	50(2)
O(1)	6321(4)	5893(4)	207(3)	36(1)
O(2)	5318(4)	8568(5)	2252(4)	61(2)
O(3)	6184(5)	10334(6)	1822(7)	109(4)
O(4)	5579(7)	8568(7)	1058(4)	83(2)
O(5)	7008(4)	8332(4)	3507(3)	37(1)
O(6)	8980(4)	9480(5)	3525(3)	51(2)
O(7)	7433(4)	10229(4)	3436(3)	39(1)
O(8)	9988(6)	5565(4)	3031(3)	52(2)
O(9)	8908(7)	4227(4)	2127(3)	65(2)
O(10)	9012(7)	3763(5)	3332(4)	79(3)
O(11)	8586(6)	5250(7)	4657(3)	97(4)
O(12)	6912(6)	5894(6)	4705(3)	83(3)
O(13)	8654(4)	7008(5)	4335(3)	55(2)
C(1)	7076(6)	6768(5)	1191(3)	30(1)
C(2)	7954(6)	6708(5)	731(3)	31(1)
C(3)	7465(7)	6176(5)	143(4)	35(2)
C(4)	6090(6)	6262(5)	864(4)	34(2)
C(5)	7896(8)	5820(6)	-520(4)	46(2)
C(6)	4913(7)	6048(6)	1068(4)	43(2)
C(7)	4151(7)	8501(14)	2203(7)	103(5)
C(8)	5237(12)	10596(13)	1519(9)	52(4)
C(9)	5664(8)	8897(8)	377(4)	57(2)
C(10)	6260(20)	8396(15)	4018(18)	86(11)
C(11)	9242(11)	9837(12)	4211(7)	46(3)
C(12)	6404(13)	10269(11)	3534(8)	41(3)
C(13)	11036(10)	5442(7)	2817(5)	64(3)
C(14)	8964(11)	4803(8)	1474(4)	68(3)
C(15)	9813(12)	3642(11)	3884(8)	41(3)
C(16)	7970(13)	4422(11)	4960(8)	37(3)
C(17)	6174(11)	4831(12)	4897(8)	41(3)
C(18)	9813(6)	7362(6)	4146(4)	39(2)
C(19)	9198(6)	11452(5)	1726(4)	33(1)
C(20)	9861(8)	12493(5)	1604(4)	44(2)
C(21)	10442(6)	8977(6)	2178(4)	36(2)
C(22)	11564(9)	8956(12)	2354(5)	91(5)
C(23)	8426(6)	9075(5)	235(4)	31(1)
C(24)	8696(8)	9128(7)	-526(4)	48(2)
C(25A)	5637(10)	3229(10)	3823(7)	25(2)
C(26A)	4910(13)	2286(11)	4115(9)	40(3)

C(27)	5042(11)	5781(8)	3196(5)	68(4)
C(28)	3970(13)	5974(11)	3166(8)	101(5)
C(29)	6141(9)	4068(5)	1641(4)	50(2)
C(30)	5575(9)	3475(7)	1026(5)	57(3)
C(31)	8462(9)	2966(7)	9342(5)	58(2)
F(1)	9080(8)	2856(5)	8772(3)	95(2)
F(2)	7642(7)	3252(5)	9089(4)	94(2)
F(3)	9105(5)	3730(4)	9744(3)	66(2)
S(3)	8014(2)	1793(2)	9839(1)	51(1)
O(14)	7320(7)	1082(5)	9335(4)	65(2)
O(15)	9054(7)	1604(6)	10013(4)	72(2)
O(16)	7469(8)	2091(7)	10436(4)	84(2)
C(32)	6764(8)	607(8)	5755(5)	57(2)
F(4)	7690(5)	352(5)	5754(4)	73(2)
F(5)	6113(6)	79(6)	5233(4)	99(3)
F(6)	6266(6)	269(6)	6371(4)	102(3)
S(4)	7047(2)	1978(2)	5666(1)	51(1)
O(17)	7610(10)	2160(7)	4999(4)	96(3)
O(18)	7707(4)	2383(4)	6290(3)	42(1)
O(19)	5965(8)	2111(9)	5667(6)	133(5)
C(33)	2540(30)	1470(30)	2760(14)	552(8)
F(7)	2227(8)	1775(10)	3557(6)	163(5)
F(8)	3760(20)	2110(20)	2505(13)	298(11)
F(9)	1592(10)	1383(10)	2323(7)	189(7)
S(5)	3021(3)	2758(4)	2434(2)	96(1)
O(20)	3016(14)	2980(19)	1828(10)	268(15)
O(21)	3640(30)	3384(12)	3210(20)	540(40)
O(22)	1890(30)	3249(18)	2945(18)	410(30)
N(4B)	6702(11)	3689(8)	3481(6)	26(2)
C(25B)	6160(11)	2902(9)	3629(7)	27(3)
C(26B)	5447(12)	1886(10)	3816(8)	36(3)
C(8B)	5770(20)	11257(18)	1738(14)	58(6)
C(10B)	6849(12)	8148(10)	4291(7)	35(3)
C(11B)	9799(18)	10317(18)	3673(13)	52(5)
C(12B)	7981(13)	11339(11)	3308(8)	32(3)
C(15B)	8227(15)	2782(11)	3334(9)	36(4)
C(16B)	9012(14)	5191(15)	5364(8)	46(4)
C(17B)	6919(14)	6531(17)	5363(8)	55(5)

Table S38. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for **9**. The anisotropic displacement factor exponent takes the form: $-2\pi^2 [h^2 a^{*2} U^{11} + \dots + 2 h k a^* b^* U^{12}]$

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	U11	U22	U33	U23	U13	U12
Ru(1)	17(1)	23(1)	26(1)	-6(1)	3(1)	3(1)
Ru(2)	79(1)	27(1)	19(1)	3(1)	-4(1)	-27(1)
S(1)	30(1)	26(1)	23(1)	-5(1)	6(1)	-7(1)
S(2)	41(1)	19(1)	26(1)	0(1)	10(1)	-2(1)
P(1)	19(1)	92(2)	26(1)	-9(1)	-3(1)	18(1)
P(2)	20(1)	33(1)	28(1)	-11(1)	2(1)	6(1)
P(3)	112(2)	16(1)	25(1)	2(1)	-15(1)	-4(1)
P(4)	54(1)	64(1)	20(1)	-5(1)	6(1)	-37(1)
N(1)	28(3)	27(3)	37(3)	-8(2)	-5(2)	13(2)
N(2)	24(3)	22(2)	32(3)	5(2)	10(2)	9(2)
N(3)	24(2)	22(2)	33(3)	-2(2)	7(2)	6(2)
N(4A)	24(5)	16(5)	25(5)	0(4)	-4(4)	3(5)
N(5)	76(6)	51(4)	24(3)	-8(3)	18(4)	-42(4)
N(6)	90(6)	19(3)	26(3)	4(2)	-13(3)	-4(3)
O(1)	49(3)	33(2)	26(2)	-7(2)	-5(2)	11(2)
O(2)	22(3)	53(4)	107(6)	-11(4)	17(3)	9(2)
O(3)	33(3)	70(5)	235(12)	88(6)	10(5)	26(3)
O(4)	68(5)	111(7)	61(5)	-4(4)	-6(4)	16(5)
O(5)	41(3)	43(3)	26(2)	-3(2)	10(2)	10(2)
O(6)	30(3)	71(4)	53(3)	-36(3)	-14(2)	18(3)
O(7)	38(3)	29(2)	47(3)	-10(2)	17(2)	5(2)
O(8)	86(5)	22(2)	40(3)	-3(2)	10(3)	4(3)
O(9)	139(7)	30(3)	34(3)	-9(2)	-29(4)	39(4)
O(10)	98(5)	40(3)	70(5)	32(3)	-55(4)	-25(3)
O(11)	58(4)	145(8)	36(3)	43(4)	-27(3)	-49(5)
O(12)	71(4)	92(5)	37(3)	-29(3)	28(3)	-48(4)
O(13)	32(3)	62(4)	49(3)	-31(3)	16(2)	-21(3)
C(1)	43(4)	18(3)	23(3)	-1(2)	3(3)	-2(3)
C(2)	46(4)	20(3)	24(3)	0(2)	4(3)	4(3)
C(3)	53(4)	23(3)	28(3)	2(3)	1(3)	12(3)
C(4)	48(4)	24(3)	24(3)	-1(2)	0(3)	4(3)
C(5)	69(5)	46(4)	30(4)	-8(3)	-1(4)	28(4)
C(6)	43(4)	39(4)	39(4)	-10(3)	-3(3)	-1(3)
C(7)	19(4)	187(16)	94(9)	-34(10)	10(5)	16(6)
C(8)	44(8)	49(9)	75(11)	2(8)	-7(7)	30(7)
C(9)	59(5)	82(7)	32(4)	-4(4)	-10(4)	25(5)
C(10)	81(16)	31(10)	160(30)	30(13)	99(19)	31(11)
C(11)	44(7)	73(10)	27(6)	-19(6)	-12(5)	27(7)
C(12)	51(8)	37(7)	39(7)	-3(6)	0(6)	21(6)
C(13)	112(9)	43(5)	48(5)	-8(4)	-7(5)	39(5)
C(14)	143(10)	60(6)	27(4)	2(4)	1(5)	69(7)

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C(15)	47(8)	35(7)	42(8)	5(6)	-10(6)	14(6)
C(16)	47(8)	34(7)	33(7)	8(6)	-5(6)	14(6)
C(17)	32(7)	46(8)	42(8)	13(6)	11(6)	5(6)
C(18)	28(3)	38(4)	42(4)	-8(3)	7(3)	-6(3)
C(19)	38(4)	27(3)	35(4)	-5(3)	-6(3)	14(3)
C(20)	66(5)	20(3)	46(4)	-1(3)	1(4)	14(3)
C(21)	41(4)	55(4)	24(3)	3(3)	4(3)	33(3)
C(22)	75(7)	190(15)	47(5)	-37(7)	-25(5)	100(9)
C(23)	31(3)	23(3)	38(4)	-1(3)	10(3)	6(2)
C(24)	64(5)	45(4)	37(4)	1(3)	21(4)	18(4)
C(25A)	20(6)	29(6)	26(6)	-3(5)	-2(5)	8(5)
C(26A)	34(7)	31(7)	49(9)	15(6)	-3(6)	-1(6)
C(27)	85(8)	49(5)	37(5)	-11(4)	34(5)	-28(6)
C(28)	123(12)	93(10)	91(10)	-9(8)	61(9)	37(9)
C(29)	94(7)	22(3)	31(4)	1(3)	-14(4)	13(4)
C(30)	94(7)	39(4)	41(5)	-12(4)	-29(5)	27(5)
C(31)	88(7)	46(5)	51(5)	-4(4)	-17(5)	37(5)
F(1)	160(7)	74(4)	45(3)	-1(3)	26(4)	26(5)
F(2)	122(6)	53(4)	117(6)	-4(4)	-54(5)	44(4)
F(3)	83(4)	53(3)	56(3)	-10(3)	-5(3)	12(3)
S(3)	75(2)	45(1)	38(1)	2(1)	-4(1)	27(1)
O(14)	89(5)	45(3)	59(4)	-1(3)	-13(4)	17(3)
O(15)	101(6)	65(4)	67(5)	1(4)	-21(4)	51(4)
O(16)	98(6)	88(6)	62(5)	-11(4)	25(4)	20(5)
C(32)	44(5)	62(6)	59(6)	-23(5)	-3(4)	8(4)
F(4)	77(4)	60(4)	94(5)	-2(3)	-9(3)	41(3)
F(5)	85(5)	104(5)	106(6)	-70(5)	-39(4)	27(4)
F(6)	88(5)	78(5)	101(6)	-25(4)	32(4)	-33(4)
S(4)	63(1)	65(1)	41(1)	-21(1)	-21(1)	44(1)
O(17)	188(10)	84(6)	31(3)	5(4)	1(5)	64(6)
O(18)	37(3)	46(3)	39(3)	-5(2)	-3(2)	7(2)
O(19)	106(7)	184(10)	156(9)	-120(8)	-94(7)	125(8)
C(33)	510(20)	550(20)	170(20)	250(20)	-236(19)	-509
F(7)	107(7)	210(12)	134(8)	109(9)	-3(6)	-17(7)
F(9)	181(11)	195(11)	227(13)	-142(10)	-149(10)	124(10)
S(5)	88(2)	177(4)	52(2)	33(2)	10(2)	81(3)
O(20)	144(13)	390(30)	213(18)	230(20)	-47(12)	-22(16)
O(21)	540(40)	107(11)	810(60)	180(20)	-610(50)	-149(18)
O(22)	530(40)	270(20)	550(40)	-310(30)	-450(40)	330(30)
N(4B)	31(6)	19(5)	30(6)	1(4)	0(5)	13(5)
C(25B)	27(6)	21(6)	28(6)	8(5)	-1(5)	-2(5)
C(26B)	35(7)	21(6)	43(8)	12(6)	-1(6)	-6(6)
C(8B)	87(18)	40(12)	63(15)	2(11)	3(13)	44(13)

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C(10B)	49(8)	30(6)	29(6)	4(5)	14(5)	17(6)
C(11B)	38(11)	50(12)	62(14)	-9(10)	-6(10)	4(9)
C(12B)	42(8)	21(6)	32(7)	-5(6)	12(6)	10(6)
C(15B)	60(10)	18(6)	42(8)	9(6)	18(7)	30(7)
C(16B)	52(9)	71(11)	27(7)	0(7)	-8(6)	38(9)
C(17B)	39(8)	96(14)	26(7)	-22(8)	-1(6)	14(9)

Table S39. Bond lengths [Å] and angles [°] for **9**.

Ru(1)-N(1)	2.050(6)	N(5)-C(27)	1.107(16)
Ru(1)-N(2)	2.113(5)	N(6)-C(29)	1.138(10)
Ru(1)-N(3)	2.126(5)	O(1)-C(3)	1.383(9)
Ru(1)-P(1)	2.2421(19)	O(1)-C(4)	1.390(8)
Ru(1)-P(2)	2.2520(17)	O(2)-C(7)	1.448(11)
Ru(1)-S(1)	2.3688(16)	O(3)-C(8)	1.459(14)
Ru(2)-N(4A)	2.086(10)	O(3)-C(8B)	1.52(2)
Ru(2)-N(5)	2.126(12)	O(4)-C(9)	1.355(12)
Ru(2)-N(4B)	2.127(11)	O(5)-C(10)	1.369(18)
Ru(2)-N(6)	2.139(6)	O(5)-C(10B)	1.499(13)
Ru(2)-P(3)	2.233(3)	O(6)-C(11B)	1.32(2)
Ru(2)-P(4)	2.249(2)	O(6)-C(11)	1.370(13)
Ru(2)-S(2)	2.3834(16)	O(7)-C(12)	1.328(15)
S(1)-C(1)	1.769(6)	O(7)-C(12B)	1.502(15)
S(1)-S(2)	2.082(3)	O(8)-C(13)	1.440(13)
P(1)-O(3)	1.541(9)	O(9)-C(14)	1.459(10)
P(1)-O(2)	1.565(7)	O(10)-C(15B)	1.415(17)
P(1)-O(4)	1.639(8)	O(10)-C(15)	1.486(14)
P(2)-O(5)	1.585(5)	O(11)-C(16)	1.312(16)
P(2)-O(6)	1.592(5)	O(11)-C(16B)	1.436(15)
P(2)-O(7)	1.601(5)	O(12)-C(17B)	1.499(17)
P(3)-O(8)	1.592(7)	O(12)-C(17)	1.533(15)
P(3)-O(10)	1.592(6)	O(13)-C(18)	1.443(8)
P(3)-O(9)	1.604(6)	C(1)-C(4)	1.362(10)
P(4)-O(13)	1.589(6)	C(1)-C(2)	1.428(10)
P(4)-O(12)	1.594(7)	C(2)-C(3)	1.350(9)
P(4)-O(11)	1.597(9)	C(3)-C(5)	1.491(10)
N(1)-C(19)	1.140(9)	C(4)-C(6)	1.477(11)
N(2)-C(21)	1.121(9)	C(8)-C(8B)	1.03(3)
N(3)-C(23)	1.136(9)	C(10)-C(10B)	1.04(3)
N(4A)-N(4B)	0.787(13)	C(11)-C(11B)	1.30(3)
N(4A)-C(25A)	1.144(16)	C(16)-C(16B)	1.59(2)
N(4A)-C(25B)	1.409(17)	C(19)-C(20)	1.451(10)

C(21)-C(22)	1.458(11)	N(1)-Ru(1)-P(2)	91.50(17)
C(23)-C(24)	1.465(10)	N(2)-Ru(1)-P(2)	90.91(15)
C(25A)-C(25B)	0.972(18)	N(3)-Ru(1)-P(2)	174.75(15)
C(25A)-N(4B)	1.459(17)	P(1)-Ru(1)-P(2)	91.91(7)
C(25A)-C(26A)	1.466(18)	N(1)-Ru(1)-S(1)	177.69(16)
C(25A)-C(26B)	1.794(19)	N(2)-Ru(1)-S(1)	92.50(14)
C(26A)-C(26B)	1.14(2)	N(3)-Ru(1)-S(1)	94.94(14)
C(26A)-C(25B)	1.81(2)	P(1)-Ru(1)-S(1)	88.98(8)
C(27)-C(28)	1.45(2)	P(2)-Ru(1)-S(1)	89.27(6)
C(29)-C(30)	1.453(10)	N(4A)-Ru(2)-N(5)	77.2(4)
C(31)-F(2)	1.299(11)	N(4A)-Ru(2)-N(4B)	21.5(4)
C(31)-F(3)	1.336(11)	N(5)-Ru(2)-N(4B)	98.1(4)
C(31)-F(1)	1.358(12)	N(4A)-Ru(2)-N(6)	85.8(3)
C(31)-S(3)	1.818(10)	N(5)-Ru(2)-N(6)	83.9(3)
S(3)-O(16)	1.432(8)	N(4B)-Ru(2)-N(6)	82.9(3)
S(3)-O(14)	1.435(7)	N(4A)-Ru(2)-P(3)	103.2(4)
S(3)-O(15)	1.447(8)	N(5)-Ru(2)-P(3)	174.38(19)
C(32)-F(4)	1.315(11)	N(4B)-Ru(2)-P(3)	81.9(4)
C(32)-F(5)	1.328(10)	N(6)-Ru(2)-P(3)	90.5(2)
C(32)-F(6)	1.340(12)	N(4A)-Ru(2)-P(4)	89.1(3)
C(32)-S(4)	1.825(11)	N(5)-Ru(2)-P(4)	91.1(2)
S(4)-O(17)	1.429(9)	N(4B)-Ru(2)-P(4)	93.8(3)
S(4)-O(19)	1.429(7)	N(6)-Ru(2)-P(4)	173.6(2)
S(4)-O(18)	1.433(5)	P(3)-Ru(2)-P(4)	94.48(10)
C(33)-F(9)	1.41(3)	N(4A)-Ru(2)-S(2)	169.6(4)
C(33)-F(7)	1.63(5)	N(5)-Ru(2)-S(2)	92.4(2)
C(33)-F(8)	1.62(4)	N(4B)-Ru(2)-S(2)	168.4(4)
C(33)-S(5)	1.81(3)	N(6)-Ru(2)-S(2)	93.26(17)
F(8)-S(5)	1.48(3)	P(3)-Ru(2)-S(2)	87.22(7)
S(5)-O(20)	1.182(15)	P(4)-Ru(2)-S(2)	90.98(7)
S(5)-O(21)	1.74(3)	C(1)-S(1)-S(2)	102.7(3)
S(5)-O(22)	1.99(3)	C(1)-S(1)-Ru(1)	107.3(2)
N(4B)-C(25B)	1.135(16)	S(2)-S(1)-Ru(1)	107.90(8)
C(25B)-C(26B)	1.470(16)	S(1)-S(2)-Ru(2)	108.06(8)
C(12B)-C(15B)#1	1.92(2)	O(3)-P(1)-O(2)	107.1(4)
C(15B)-C(12B)#2	1.92(2)	O(3)-P(1)-O(4)	116.2(5)
		O(2)-P(1)-O(4)	89.7(4)
N(1)-Ru(1)-N(2)	85.3(2)	O(3)-P(1)-Ru(1)	112.9(3)
N(1)-Ru(1)-N(3)	84.2(2)	O(2)-P(1)-Ru(1)	114.6(3)
N(2)-Ru(1)-N(3)	85.8(2)	O(4)-P(1)-Ru(1)	114.0(3)
N(1)-Ru(1)-P(1)	93.17(16)	O(5)-P(2)-O(6)	104.6(3)
N(2)-Ru(1)-P(1)	176.83(15)	O(5)-P(2)-O(7)	104.1(3)
N(3)-Ru(1)-P(1)	91.30(15)	O(6)-P(2)-O(7)	101.3(3)

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O(5)-P(2)-Ru(1)	114.34(19)	C(15B)-O(10)-C(15)	100.4(9)
O(6)-P(2)-Ru(1)	111.7(2)	C(15B)-O(10)-P(3)	123.9(8)
O(7)-P(2)-Ru(1)	119.1(2)	C(15)-O(10)-P(3)	135.0(7)
O(8)-P(3)-O(10)	103.2(4)	C(16)-O(11)-C(16B)	70.7(10)
O(8)-P(3)-O(9)	105.5(4)	C(16)-O(11)-P(4)	115.5(8)
O(10)-P(3)-O(9)	95.7(4)	C(16B)-O(11)-P(4)	141.6(11)
O(8)-P(3)-Ru(2)	114.1(3)	C(17B)-O(12)-C(17)	104.3(10)
O(10)-P(3)-Ru(2)	119.9(4)	C(17B)-O(12)-P(4)	129.3(8)
O(9)-P(3)-Ru(2)	116.0(3)	C(17)-O(12)-P(4)	112.5(8)
O(13)-P(4)-O(12)	97.1(3)	C(18)-O(13)-P(4)	122.0(5)
O(13)-P(4)-O(11)	102.3(4)	C(4)-C(1)-C(2)	108.1(6)
O(12)-P(4)-O(11)	104.4(5)	C(4)-C(1)-S(1)	122.5(6)
O(13)-P(4)-Ru(2)	122.6(3)	C(2)-C(1)-S(1)	129.3(5)
O(12)-P(4)-Ru(2)	112.2(3)	C(3)-C(2)-C(1)	106.5(7)
O(11)-P(4)-Ru(2)	115.4(4)	C(2)-C(3)-O(1)	109.9(6)
C(19)-N(1)-Ru(1)	171.7(6)	C(2)-C(3)-C(5)	133.9(8)
C(21)-N(2)-Ru(1)	174.8(5)	O(1)-C(3)-C(5)	116.2(6)
C(23)-N(3)-Ru(1)	173.8(5)	C(1)-C(4)-O(1)	108.0(6)
N(4B)-N(4A)-C(25A)	96.4(15)	C(1)-C(4)-C(6)	133.8(6)
N(4B)-N(4A)-C(25B)	53.5(12)	O(1)-C(4)-C(6)	118.2(6)
C(25A)-N(4A)-C(25B)	43.2(9)	C(8B)-C(8)-O(3)	73.0(15)
N(4B)-N(4A)-Ru(2)	82.1(12)	C(10B)-C(10)-O(5)	75.6(13)
C(25A)-N(4A)-Ru(2)	176.7(11)	C(11B)-C(11)-O(6)	59.1(11)
C(25B)-N(4A)-Ru(2)	134.9(10)	O(11)-C(16)-C(16B)	58.3(9)
C(27)-N(5)-Ru(2)	172.2(8)	N(1)-C(19)-C(20)	178.8(8)
C(29)-N(6)-Ru(2)	172.2(7)	N(2)-C(21)-C(22)	177.9(9)
C(3)-O(1)-C(4)	107.5(5)	N(3)-C(23)-C(24)	179.4(8)
C(7)-O(2)-P(1)	124.0(9)	C(25B)-C(25A)-N(4A)	83.1(13)
C(8)-O(3)-C(8B)	40.4(12)	C(25B)-C(25A)-N(4B)	51.0(10)
C(8)-O(3)-P(1)	119.5(10)	N(4A)-C(25A)-N(4B)	32.4(7)
C(8B)-O(3)-P(1)	160.0(13)	C(25B)-C(25A)-C(26A)	93.7(14)
C(9)-O(4)-P(1)	125.1(8)	N(4A)-C(25A)-C(26A)	176.7(15)
C(10)-O(5)-C(10B)	42.2(15)	N(4B)-C(25A)-C(26A)	144.3(13)
C(10)-O(5)-P(2)	123.5(9)	C(25B)-C(25A)-C(26B)	55.0(11)
C(10B)-O(5)-P(2)	128.1(6)	N(4A)-C(25A)-C(26B)	137.8(13)
C(11B)-O(6)-C(11)	57.9(13)	N(4B)-C(25A)-C(26B)	105.9(10)
C(11B)-O(6)-P(2)	132.1(12)	C(26A)-C(25A)-C(26B)	39.2(9)
C(11)-O(6)-P(2)	126.3(7)	C(26B)-C(26A)-C(25A)	86.2(13)
C(12)-O(7)-C(12B)	98.1(9)	C(26B)-C(26A)-C(25B)	54.2(10)
C(12)-O(7)-P(2)	127.7(7)	C(25A)-C(26A)-C(25B)	32.4(7)
C(12B)-O(7)-P(2)	126.9(6)	N(5)-C(27)-C(28)	178.7(11)
C(13)-O(8)-P(3)	122.5(5)	N(6)-C(29)-C(30)	178.4(11)
C(14)-O(9)-P(3)	123.2(5)	F(2)-C(31)-F(3)	107.9(7)

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F(2)-C(31)-F(1)	106.4(9)	O(20)-S(5)-C(33)	124.7(16)
F(3)-C(31)-F(1)	106.5(9)	F(8)-S(5)-C(33)	58(2)
F(2)-C(31)-S(3)	113.5(8)	O(21)-S(5)-C(33)	99.3(9)
F(3)-C(31)-S(3)	111.4(6)	O(20)-S(5)-O(22)	108.4(14)
F(1)-C(31)-S(3)	110.8(6)	F(8)-S(5)-O(22)	143.4(13)
O(16)-S(3)-O(14)	116.7(5)	O(21)-S(5)-O(22)	72.1(15)
O(16)-S(3)-O(15)	114.7(5)	C(33)-S(5)-O(22)	95(2)
O(14)-S(3)-O(15)	114.7(5)	N(4A)-N(4B)-C(25B)	92.5(16)
O(16)-S(3)-C(31)	101.9(5)	N(4A)-N(4B)-C(25A)	51.2(12)
O(14)-S(3)-C(31)	103.3(4)	C(25B)-N(4B)-C(25A)	41.7(9)
O(15)-S(3)-C(31)	102.7(5)	N(4A)-N(4B)-Ru(2)	76.3(11)
F(4)-C(32)-F(5)	107.6(8)	C(25B)-N(4B)-Ru(2)	165.8(12)
F(4)-C(32)-F(6)	105.8(9)	C(25A)-N(4B)-Ru(2)	127.5(9)
F(5)-C(32)-F(6)	106.8(8)	C(25A)-C(25B)-N(4B)	87.3(14)
F(4)-C(32)-S(4)	111.2(7)	C(25A)-C(25B)-N(4A)	53.7(11)
F(5)-C(32)-S(4)	112.6(8)	N(4B)-C(25B)-N(4A)	33.9(7)
F(6)-C(32)-S(4)	112.4(7)	C(25A)-C(25B)-C(26B)	92.3(14)
O(17)-S(4)-O(19)	115.3(7)	N(4B)-C(25B)-C(26B)	179.3(16)
O(17)-S(4)-O(18)	116.1(5)	N(4A)-C(25B)-C(26B)	145.6(14)
O(19)-S(4)-O(18)	114.1(4)	C(25A)-C(25B)-C(26A)	53.9(11)
O(17)-S(4)-C(32)	102.2(5)	N(4B)-C(25B)-C(26A)	140.9(15)
O(19)-S(4)-C(32)	103.5(6)	N(4A)-C(25B)-C(26A)	107.6(12)
O(18)-S(4)-C(32)	103.0(4)	C(26B)-C(25B)-C(26A)	38.8(8)
F(9)-C(33)-F(7)	107(4)	C(26A)-C(26B)-C(25B)	87.0(13)
F(9)-C(33)-F(8)	120.7(16)	C(26A)-C(26B)-C(25A)	54.6(10)
F(7)-C(33)-F(8)	114.0(16)	C(25B)-C(26B)-C(25A)	32.8(7)
F(9)-C(33)-S(5)	85(2)	C(8)-C(8B)-O(3)	66.5(13)
F(7)-C(33)-S(5)	96(3)	C(10)-C(10B)-O(5)	62.2(14)
F(8)-C(33)-S(5)	50.6(10)	C(11)-C(11B)-O(6)	63.0(12)
S(5)-F(8)-C(33)	72(2)	O(7)-C(12B)-C(15B)#1	159.4(11)
O(20)-S(5)-F(8)	107.5(17)	O(10)-C(15B)-C(12B)#2	147.0(12)
O(20)-S(5)-O(21)	135.1(14)	O(11)-C(16B)-C(16)	51.0(8)
F(8)-S(5)-O(21)	87.1(14)		

Symmetry transformations used to generate equivalent atoms:

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

Table S40. Torsion angles [°] for **9**.

N(1)-Ru(1)-S(1)-C(1)	-70(4)	P(2)-Ru(1)-S(1)-C(1)	-179.7(3)
N(2)-Ru(1)-S(1)-C(1)	-88.8(3)	N(1)-Ru(1)-S(1)-S(2)	40(4)
N(3)-Ru(1)-S(1)-C(1)	-2.9(3)	N(2)-Ru(1)-S(1)-S(2)	21.21(16)
P(1)-Ru(1)-S(1)-C(1)	88.4(3)	N(3)-Ru(1)-S(1)-S(2)	107.19(16)

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P(1)-Ru(1)-S(1)-S(2)	-161.60(9)	N(6)-Ru(2)-P(3)-O(8)	132.0(3)
P(2)-Ru(1)-S(1)-S(2)	-69.67(8)	P(4)-Ru(2)-P(3)-O(8)	-52.0(3)
C(1)-S(1)-S(2)-Ru(2)	-89.8(2)	S(2)-Ru(2)-P(3)-O(8)	38.7(3)
Ru(1)-S(1)-S(2)-Ru(2)	157.12(6)	N(4A)-Ru(2)-P(3)-O(10)	-19.2(4)
N(4A)-Ru(2)-S(2)-S(1)	-27.6(16)	N(5)-Ru(2)-P(3)-O(10)	-112(2)
N(5)-Ru(2)-S(2)-S(1)	-27.01(19)	N(4B)-Ru(2)-P(3)-O(10)	-22.3(4)
N(4B)-Ru(2)-S(2)-S(1)	127.3(15)	N(6)-Ru(2)-P(3)-O(10)	-105.0(3)
N(6)-Ru(2)-S(2)-S(1)	57.0(2)	P(4)-Ru(2)-P(3)-O(10)	71.0(3)
P(3)-Ru(2)-S(2)-S(1)	147.38(9)	S(2)-Ru(2)-P(3)-O(10)	161.7(3)
P(4)-Ru(2)-S(2)-S(1)	-118.19(11)	N(4A)-Ru(2)-P(3)-O(9)	94.9(4)
N(1)-Ru(1)-P(1)-O(3)	-15.6(5)	N(5)-Ru(2)-P(3)-O(9)	2(2)
N(2)-Ru(1)-P(1)-O(3)	-77(3)	N(4B)-Ru(2)-P(3)-O(9)	91.8(4)
N(3)-Ru(1)-P(1)-O(3)	-99.8(5)	N(6)-Ru(2)-P(3)-O(9)	9.0(3)
P(2)-Ru(1)-P(1)-O(3)	76.1(5)	P(4)-Ru(2)-P(3)-O(9)	-175.0(3)
S(1)-Ru(1)-P(1)-O(3)	165.3(5)	S(2)-Ru(2)-P(3)-O(9)	-84.2(3)
N(1)-Ru(1)-P(1)-O(2)	-138.6(3)	N(4A)-Ru(2)-P(4)-O(13)	-167.0(5)
N(2)-Ru(1)-P(1)-O(2)	160(3)	N(5)-Ru(2)-P(4)-O(13)	-89.8(4)
N(3)-Ru(1)-P(1)-O(2)	137.2(3)	N(4B)-Ru(2)-P(4)-O(13)	172.0(5)
P(2)-Ru(1)-P(1)-O(2)	-47.0(3)	N(6)-Ru(2)-P(4)-O(13)	-128.8(17)
S(1)-Ru(1)-P(1)-O(2)	42.3(3)	P(3)-Ru(2)-P(4)-O(13)	89.9(3)
N(1)-Ru(1)-P(1)-O(4)	119.9(4)	S(2)-Ru(2)-P(4)-O(13)	2.6(3)
N(2)-Ru(1)-P(1)-O(4)	59(3)	N(4A)-Ru(2)-P(4)-O(12)	-52.1(5)
N(3)-Ru(1)-P(1)-O(4)	35.7(4)	N(5)-Ru(2)-P(4)-O(12)	25.0(4)
P(2)-Ru(1)-P(1)-O(4)	-148.5(4)	N(4B)-Ru(2)-P(4)-O(12)	-73.1(5)
S(1)-Ru(1)-P(1)-O(4)	-59.2(4)	N(6)-Ru(2)-P(4)-O(12)	-14.0(19)
N(1)-Ru(1)-P(2)-O(5)	166.3(3)	P(3)-Ru(2)-P(4)-O(12)	-155.3(4)
N(2)-Ru(1)-P(2)-O(5)	-108.4(3)	S(2)-Ru(2)-P(4)-O(12)	117.5(4)
N(3)-Ru(1)-P(2)-O(5)	-159.2(16)	N(4A)-Ru(2)-P(4)-O(11)	67.3(5)
P(1)-Ru(1)-P(2)-O(5)	73.1(2)	N(5)-Ru(2)-P(4)-O(11)	144.4(3)
S(1)-Ru(1)-P(2)-O(5)	-15.9(2)	N(4B)-Ru(2)-P(4)-O(11)	46.2(5)
N(1)-Ru(1)-P(2)-O(6)	-75.2(3)	N(6)-Ru(2)-P(4)-O(11)	105.4(18)
N(2)-Ru(1)-P(2)-O(6)	10.2(3)	P(3)-Ru(2)-P(4)-O(11)	-35.9(3)
N(3)-Ru(1)-P(2)-O(6)	-40.7(17)	S(2)-Ru(2)-P(4)-O(11)	-123.2(3)
P(1)-Ru(1)-P(2)-O(6)	-168.4(3)	N(2)-Ru(1)-N(1)-C(19)	38(4)
S(1)-Ru(1)-P(2)-O(6)	102.7(3)	N(3)-Ru(1)-N(1)-C(19)	-48(4)
N(1)-Ru(1)-P(2)-O(7)	42.4(3)	P(1)-Ru(1)-N(1)-C(19)	-139(4)
N(2)-Ru(1)-P(2)-O(7)	127.7(3)	P(2)-Ru(1)-N(1)-C(19)	129(4)
N(3)-Ru(1)-P(2)-O(7)	76.9(17)	S(1)-Ru(1)-N(1)-C(19)	20(7)
P(1)-Ru(1)-P(2)-O(7)	-50.8(2)	N(1)-Ru(1)-N(2)-C(21)	89(6)
S(1)-Ru(1)-P(2)-O(7)	-139.8(2)	N(3)-Ru(1)-N(2)-C(21)	173(6)
N(4A)-Ru(2)-P(3)-O(8)	-142.2(4)	P(1)-Ru(1)-N(2)-C(21)	150(5)
N(5)-Ru(2)-P(3)-O(8)	125(2)	P(2)-Ru(1)-N(2)-C(21)	-3(6)
N(4B)-Ru(2)-P(3)-O(8)	-145.3(4)	S(1)-Ru(1)-N(2)-C(21)	-92(6)

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N(1)-Ru(1)-N(3)-C(23)	24(5)	O(3)-P(1)-O(4)-C(9)	47.5(10)
N(2)-Ru(1)-N(3)-C(23)	-62(5)	O(2)-P(1)-O(4)-C(9)	156.5(9)
P(1)-Ru(1)-N(3)-C(23)	117(5)	Ru(1)-P(1)-O(4)-C(9)	-86.5(9)
P(2)-Ru(1)-N(3)-C(23)	-11(6)	O(6)-P(2)-O(5)-C(10)	101(2)
S(1)-Ru(1)-N(3)-C(23)	-154(5)	O(7)-P(2)-O(5)-C(10)	-5(2)
N(5)-Ru(2)-N(4A)-N(4B)	165.9(12)	Ru(1)-P(2)-O(5)-C(10)	-137(2)
N(6)-Ru(2)-N(4A)-N(4B)	81.3(12)	O(6)-P(2)-O(5)-C(10B)	48.5(9)
P(3)-Ru(2)-N(4A)-N(4B)	-8.3(12)	O(7)-P(2)-O(5)-C(10B)	-57.4(9)
P(4)-Ru(2)-N(4A)-N(4B)	-102.7(12)	Ru(1)-P(2)-O(5)-C(10B)	171.0(8)
S(2)-Ru(2)-N(4A)-N(4B)	166.6(12)	O(5)-P(2)-O(6)-C(11B)	-147.9(16)
N(5)-Ru(2)-N(4A)-C(25A)	102(21)	O(7)-P(2)-O(6)-C(11B)	-39.9(16)
N(4B)-Ru(2)-N(4A)-C(25A)	-64(21)	Ru(1)-P(2)-O(6)-C(11B)	87.9(16)
N(6)-Ru(2)-N(4A)-C(25A)	18(21)	O(5)-P(2)-O(6)-C(11)	-70.8(11)
P(3)-Ru(2)-N(4A)-C(25A)	-72(21)	O(7)-P(2)-O(6)-C(11)	37.2(11)
P(4)-Ru(2)-N(4A)-C(25A)	-166(21)	Ru(1)-P(2)-O(6)-C(11)	165.0(10)
S(2)-Ru(2)-N(4A)-C(25A)	103(21)	O(5)-P(2)-O(7)-C(12)	-42.3(10)
N(5)-Ru(2)-N(4A)-C(25B)	155.8(12)	O(6)-P(2)-O(7)-C(12)	-150.6(9)
N(4B)-Ru(2)-N(4A)-C(25B)	-10.1(11)	Ru(1)-P(2)-O(7)-C(12)	86.5(9)
N(6)-Ru(2)-N(4A)-C(25B)	71.2(11)	O(5)-P(2)-O(7)-C(12B)	174.2(9)
P(3)-Ru(2)-N(4A)-C(25B)	-18.4(12)	O(6)-P(2)-O(7)-C(12B)	65.8(10)
P(4)-Ru(2)-N(4A)-C(25B)	-112.8(11)	Ru(1)-P(2)-O(7)-C(12B)	-57.0(9)
S(2)-Ru(2)-N(4A)-C(25B)	156.5(12)	O(10)-P(3)-O(8)-C(13)	58.7(8)
N(4A)-Ru(2)-N(5)-C(27)	-71(6)	O(9)-P(3)-O(8)-C(13)	-41.1(7)
N(4B)-Ru(2)-N(5)-C(27)	-66(6)	Ru(2)-P(3)-O(8)-C(13)	-169.6(6)
N(6)-Ru(2)-N(5)-C(27)	16(6)	O(8)-P(3)-O(9)-C(14)	-65.5(10)
P(3)-Ru(2)-N(5)-C(27)	23(8)	O(10)-P(3)-O(9)-C(14)	-170.9(9)
P(4)-Ru(2)-N(5)-C(27)	-160(6)	Ru(2)-P(3)-O(9)-C(14)	61.8(10)
S(2)-Ru(2)-N(5)-C(27)	109(6)	O(8)-P(3)-O(10)-C(15B)	-175.4(10)
N(4A)-Ru(2)-N(6)-C(29)	-3(6)	O(9)-P(3)-O(10)-C(15B)	-68.0(11)
N(5)-Ru(2)-N(6)-C(29)	-81(6)	Ru(2)-P(3)-O(10)-C(15B)	56.4(11)
N(4B)-Ru(2)-N(6)-C(29)	18(6)	O(8)-P(3)-O(10)-C(15)	16.3(14)
P(3)-Ru(2)-N(6)-C(29)	100(6)	O(9)-P(3)-O(10)-C(15)	123.7(13)
P(4)-Ru(2)-N(6)-C(29)	-41(7)	Ru(2)-P(3)-O(10)-C(15)	-111.8(12)
S(2)-Ru(2)-N(6)-C(29)	-173(6)	O(13)-P(4)-O(11)-C(16)	146.0(10)
O(3)-P(1)-O(2)-C(7)	56.6(10)	O(12)-P(4)-O(11)-C(16)	45.2(11)
O(4)-P(1)-O(2)-C(7)	-60.8(9)	Ru(2)-P(4)-O(11)-C(16)	-78.4(10)
Ru(1)-P(1)-O(2)-C(7)	-177.3(8)	O(13)-P(4)-O(11)-C(16B)	55.2(15)
O(2)-P(1)-O(3)-C(8)	-70.7(12)	O(12)-P(4)-O(11)-C(16B)	-45.5(15)
O(4)-P(1)-O(3)-C(8)	27.7(12)	Ru(2)-P(4)-O(11)-C(16B)	-169.2(14)
Ru(1)-P(1)-O(3)-C(8)	162.2(10)	O(13)-P(4)-O(12)-C(17B)	-29.8(14)
O(2)-P(1)-O(3)-C(8B)	-73(4)	O(11)-P(4)-O(12)-C(17B)	74.9(14)
O(4)-P(1)-O(3)-C(8B)	25(4)	Ru(2)-P(4)-O(12)-C(17B)	-159.5(13)
Ru(1)-P(1)-O(3)-C(8B)	160(4)	O(13)-P(4)-O(12)-C(17)	-163.1(8)

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O(11)-P(4)-O(12)-C(17)	-58.3(8)	C(26B)-C(25A)-C(26A)-C(25B)	8.2(15)
Ru(2)-P(4)-O(12)-C(17)	67.3(9)	Ru(2)-N(5)-C(27)-C(28)	-43(55)
O(12)-P(4)-O(13)-C(18)	164.8(7)	Ru(2)-N(6)-C(29)-C(30)	-86(40)
O(11)-P(4)-O(13)-C(18)	58.3(7)	F(2)-C(31)-S(3)-O(16)	-65.0(8)
Ru(2)-P(4)-O(13)-C(18)	-73.0(7)	F(3)-C(31)-S(3)-O(16)	57.0(9)
S(2)-S(1)-C(1)-C(4)	130.0(6)	F(1)-C(31)-S(3)-O(16)	175.4(8)
Ru(1)-S(1)-C(1)-C(4)	-116.4(5)	F(2)-C(31)-S(3)-O(14)	56.4(8)
S(2)-S(1)-C(1)-C(2)	-46.7(6)	F(3)-C(31)-S(3)-O(14)	178.5(7)
Ru(1)-S(1)-C(1)-C(2)	66.9(7)	F(1)-C(31)-S(3)-O(14)	-63.2(8)
C(4)-C(1)-C(2)-C(3)	0.5(8)	F(2)-C(31)-S(3)-O(15)	176.0(7)
S(1)-C(1)-C(2)-C(3)	177.6(5)	F(3)-C(31)-S(3)-O(15)	-62.0(8)
C(1)-C(2)-C(3)-O(1)	-0.2(7)	F(1)-C(31)-S(3)-O(15)	56.4(8)
C(1)-C(2)-C(3)-C(5)	-177.7(8)	F(4)-C(32)-S(4)-O(17)	59.1(8)
C(4)-O(1)-C(3)-C(2)	-0.2(7)	F(5)-C(32)-S(4)-O(17)	-61.7(9)
C(4)-O(1)-C(3)-C(5)	177.9(6)	F(6)-C(32)-S(4)-O(17)	177.5(8)
C(2)-C(1)-C(4)-O(1)	-0.6(8)	F(4)-C(32)-S(4)-O(19)	179.3(7)
S(1)-C(1)-C(4)-O(1)	-177.9(5)	F(5)-C(32)-S(4)-O(19)	58.4(9)
C(2)-C(1)-C(4)-C(6)	179.1(8)	F(6)-C(32)-S(4)-O(19)	-62.3(9)
S(1)-C(1)-C(4)-C(6)	1.7(12)	F(4)-C(32)-S(4)-O(18)	-61.6(7)
C(3)-O(1)-C(4)-C(1)	0.5(7)	F(5)-C(32)-S(4)-O(18)	177.5(7)
C(3)-O(1)-C(4)-C(6)	-179.2(6)	F(6)-C(32)-S(4)-O(18)	56.8(8)
P(1)-O(3)-C(8)-C(8B)	-178.6(18)	F(9)-C(33)-F(8)-S(5)	51(4)
P(2)-O(5)-C(10)-C(10B)	-111.8(12)	F(7)-C(33)-F(8)-S(5)	-78(3)
P(2)-O(6)-C(11)-C(11B)	-121.5(15)	C(33)-F(8)-S(5)-O(20)	-120.5(16)
P(4)-O(11)-C(16)-C(16B)	-138.8(11)	C(33)-F(8)-S(5)-O(21)	102.8(17)
Ru(1)-N(1)-C(19)-C(20)	-87(45)	C(33)-F(8)-S(5)-O(22)	49(2)
Ru(1)-N(2)-C(21)-C(22)	-27(33)	F(9)-C(33)-S(5)-O(20)	-48(4)
Ru(1)-N(3)-C(23)-C(24)	-132(70)	F(7)-C(33)-S(5)-O(20)	-154.1(14)
N(4B)-N(4A)-C(25A)-C(25B)	-6.9(16)	F(8)-C(33)-S(5)-O(20)	89.7(19)
Ru(2)-N(4A)-C(25A)-C(25B)	56(21)	F(9)-C(33)-S(5)-F(8)	-138(3)
C(25B)-N(4A)-C(25A)-N(4B)	6.9(16)	F(7)-C(33)-S(5)-F(8)	116.1(18)
Ru(2)-N(4A)-C(25A)-N(4B)	63(21)	F(9)-C(33)-S(5)-O(21)	142(3)
N(4B)-N(4A)-C(25A)-C(26A)	9(25)	F(7)-C(33)-S(5)-O(21)	35(3)
C(25B)-N(4A)-C(25A)-C(26A)	16(24)	F(8)-C(33)-S(5)-O(21)	-81(2)
Ru(2)-N(4A)-C(25A)-C(26A)	73(34)	F(9)-C(33)-S(5)-O(22)	69(2)
N(4B)-N(4A)-C(25A)-C(26B)	-13(2)	F(7)-C(33)-S(5)-O(22)	-37.2(18)
C(25B)-N(4A)-C(25A)-C(26B)	-6.5(13)	F(8)-C(33)-S(5)-O(22)	-153.3(14)
Ru(2)-N(4A)-C(25A)-C(26B)	50(22)	C(25A)-N(4A)-N(4B)-C(25B)	5.9(13)
C(25B)-C(25A)-C(26A)-C(26B)	-8.2(15)	Ru(2)-N(4A)-N(4B)-C(25B)	-171.1(10)
N(4A)-C(25A)-C(26A)-C(26B)	-24(25)	C(25B)-N(4A)-N(4B)-C(25A)	-5.9(13)
N(4B)-C(25A)-C(26A)-C(26B)	-16(2)	Ru(2)-N(4A)-N(4B)-C(25A)	-177.0(10)
N(4A)-C(25A)-C(26A)-C(25B)	-16(24)	C(25A)-N(4A)-N(4B)-Ru(2)	177.0(10)
N(4B)-C(25A)-C(26A)-C(25B)	-7.6(15)	C(25B)-N(4A)-N(4B)-Ru(2)	171.1(10)

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C(25B)-C(25A)-N(4B)-N(4A) 171(2)
 C(26A)-C(25A)-N(4B)-N(4A) -179(2)
 C(26B)-C(25A)-N(4B)-N(4A) 170.6(16)
 N(4A)-C(25A)-N(4B)-C(25B) -171(2)
 C(26A)-C(25A)-N(4B)-C(25B) 10(2)
 C(26B)-C(25A)-N(4B)-C(25B) -0.5(12)
 C(25B)-C(25A)-N(4B)-Ru(2) 167.5(15)
 N(4A)-C(25A)-N(4B)-Ru(2) -3.6(12)
 C(26A)-C(25A)-N(4B)-Ru(2) 177.3(16)
 C(26B)-C(25A)-N(4B)-Ru(2) 167.0(8)
 N(5)-Ru(2)-N(4B)-N(4A) -13.9(12)
 N(6)-Ru(2)-N(4B)-N(4A) -96.6(12)
 P(3)-Ru(2)-N(4B)-N(4A) 171.8(12)
 P(4)-Ru(2)-N(4B)-N(4A) 77.8(11)
 S(2)-Ru(2)-N(4B)-N(4A) -168.0(11)
 N(4A)-Ru(2)-N(4B)-C(25B) 39(5)
 N(5)-Ru(2)-N(4B)-C(25B) 25(5)
 N(6)-Ru(2)-N(4B)-C(25B) -58(5)
 P(3)-Ru(2)-N(4B)-C(25B) -149(5)
 P(4)-Ru(2)-N(4B)-C(25B) 117(5)
 S(2)-Ru(2)-N(4B)-C(25B) -129(5)
 N(4A)-Ru(2)-N(4B)-C(25A) 2.9(10)
 N(5)-Ru(2)-N(4B)-C(25A) -10.9(11)
 N(6)-Ru(2)-N(4B)-C(25A) -93.7(10)
 P(3)-Ru(2)-N(4B)-C(25A) 174.7(10)
 P(4)-Ru(2)-N(4B)-C(25A) 80.7(10)
 S(2)-Ru(2)-N(4B)-C(25A) -165.0(10)
 N(4A)-C(25A)-C(25B)-N(4B) 4.8(11)
 C(26A)-C(25A)-C(25B)-N(4B) -174.3(11)
 C(26B)-C(25A)-C(25B)-N(4B) 179.4(14)
 N(4B)-C(25A)-C(25B)-N(4A) -4.8(11)
 C(26A)-C(25A)-C(25B)-N(4A) -179.1(13)
 C(26B)-C(25A)-C(25B)-N(4A) 174.6(11)
 N(4A)-C(25A)-C(25B)-C(26B) -174.6(11)
 N(4B)-C(25A)-C(25B)-C(26B) -179.4(14)
 C(26A)-C(25A)-C(25B)-C(26B) 6.3(12)
 N(4A)-C(25A)-C(25B)-C(26A) 179.1(13)
 N(4B)-C(25A)-C(25B)-C(26A) 174.3(11)
 C(26B)-C(25A)-C(25B)-C(26A) -6.3(12)
 N(4A)-N(4B)-C(25B)-C(25A) -6.9(16)
 Ru(2)-N(4B)-C(25B)-C(25A) -45(5)
 C(25A)-N(4B)-C(25B)-N(4A) 6.9(16)
 Ru(2)-N(4B)-C(25B)-N(4A) -38(4)

N(4A)-N(4B)-C(25B)-C(26B) 49(100)
 C(25A)-N(4B)-C(25B)-C(26B) 56(100)
 Ru(2)-N(4B)-C(25B)-C(26B) 11(100)
 N(4A)-N(4B)-C(25B)-C(26A) -14(2)
 C(25A)-N(4B)-C(25B)-C(26A) -7.3(15)
 Ru(2)-N(4B)-C(25B)-C(26A) -52(6)
 N(4B)-N(4A)-C(25B)-C(25A) 171.4(19)
 Ru(2)-N(4A)-C(25B)-C(25A) -176.1(14)
 C(25A)-N(4A)-C(25B)-N(4B) -171.4(19)
 Ru(2)-N(4A)-C(25B)-N(4B) 12.5(14)
 N(4B)-N(4A)-C(25B)-C(26B) -179(2)
 C(25A)-N(4A)-C(25B)-C(26B) 10(2)
 Ru(2)-N(4A)-C(25B)-C(26B) -166.6(16)
 N(4B)-N(4A)-C(25B)-C(26A) 170.6(16)
 C(25A)-N(4A)-C(25B)-C(26A) -0.8(11)
 Ru(2)-N(4A)-C(25B)-C(26A) -176.9(9)
 C(26B)-C(26A)-C(25B)-C(25A) 169.9(19)
 C(26B)-C(26A)-C(25B)-N(4B) 179(2)
 C(25A)-C(26A)-C(25B)-N(4B) 9.1(18)
 C(26B)-C(26A)-C(25B)-N(4A) 170.7(15)
 C(25A)-C(26A)-C(25B)-N(4A) 0.8(11)
 C(25A)-C(26A)-C(25B)-C(26B) -169.9(19)
 C(25A)-C(26A)-C(26B)-C(25B) 5.4(10)
 C(25B)-C(26A)-C(26B)-C(25A) -5.4(10)
 C(25A)-C(25B)-C(26B)-C(26A) -8.1(15)
 N(4B)-C(25B)-C(26B)-C(26A) -64(100)
 N(4A)-C(25B)-C(26B)-C(26A) -16(3)
 N(4B)-C(25B)-C(26B)-C(25A) -56(100)
 N(4A)-C(25B)-C(26B)-C(25A) -7.7(16)
 C(26A)-C(25B)-C(26B)-C(25A) 8.1(15)
 C(25B)-C(25A)-C(26B)-C(26A) 170.0(19)
 N(4A)-C(25A)-C(26B)-C(26A) 178(2)
 N(4B)-C(25A)-C(26B)-C(26A) 170.5(15)
 N(4A)-C(25A)-C(26B)-C(25B) 7.9(16)
 N(4B)-C(25A)-C(26B)-C(25B) 0.5(11)
 C(26A)-C(25A)-C(26B)-C(25B) -170.0(19)
 P(1)-O(3)-C(8B)-C(8) 4(5)
 P(2)-O(5)-C(10B)-C(10) 100.3(17)
 P(2)-O(6)-C(11B)-C(11) 112.0(13)
 C(12)-O(7)-C(12B)-C(15B)#1 24(4)
 P(2)-O(7)-C(12B)-C(15B)#1 175(3)
 C(15)-O(10)-C(15B)-C(12B)#2 -48(2)
 P(3)-O(10)-C(15B)-C(12B)#2 140.2(19)

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P(4)-O(11)-C(16B)-C(16) 107.1(15)

Symmetry transformations used to generate equivalent atoms:

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

Table S41. Crystal data and structure refinement for **10**.

Empirical formula	$C_{36}H_{64}F_{12}N_6O_{24}P_4Ru_2S_6$	
Formula weight	1711.31	
Temperature	293(2) K	
Wavelength	0.71073 Å	
Crystal system	triclinic	
Space group	$P\bar{1}$	
Unit cell dimensions	$a = 13.089(6)$ Å	$a = 88.661(9)^\circ$.
	$b = 16.069(7)$ Å	$b = 87.729(10)^\circ$.
	$c = 17.022(7)$ Å	$\gamma = 78.099(9)^\circ$.
	$3500(3)$ Å ³	
Volume	2	
Z	1.624 Mg/m ³	
Density (calculated)	0.805 mm ⁻¹	
Absorption coefficient	1732	
F(000)	$0.23 \times 0.05 \times 0.03$ mm ³	
Crystal size	1.20 to 27.69°.	
Theta range for data collection	$-17 \leq h \leq 15, -20 \leq k \leq 20, -19 \leq l \leq 22$	
Index ranges	22854	
Reflections collected	15648 [R(int) = 0.1183]	
Independent reflections	95.5 %	
Completeness to theta = 27.69°	Full-matrix least-squares on F ²	
Refinement method	15648 / 0 / 671	
Data / restraints / parameters	0.804	
Goodness-of-fit on F ²	$R1 = 0.1009, wR2 = 0.2473$	
Final R indices [I > 2sigma(I)]	$R1 = 0.2888, wR2 = 0.3472$	
R indices (all data)	0.789 and -0.944 e.Å ⁻³	
Largest diff. peak and hole		

Table S42. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters (Å² $\times 10^3$) for **10**. U(eq) is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Ru(1)	2689(1)	2653(1)	4218(1)	68(1)
Ru(2)	2809(1)	2397(1)	892(1)	61(1)
S(1)	3379(3)	2377(2)	2956(2)	65(1)
S(2)	2165(3)	2310(2)	2175(2)	64(1)
P(1)	4334(3)	2337(3)	4633(2)	84(1)
P(2)	2779(4)	4028(3)	4045(2)	92(1)
P(3)	1225(3)	2300(2)	478(2)	75(1)
P(4)	2357(3)	3823(2)	947(2)	77(1)
N(1)	2086(10)	2867(8)	5321(8)	90(4)
N(2)	1129(11)	2903(8)	3852(7)	87(4)

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N(3)	2410(9)	1430(7)	4448(6)	74(3)
N(4)	3372(8)	2461(7)	-228(7)	69(3)
N(5)	4341(10)	2401(7)	1212(6)	74(3)
N(6)	3346(9)	1053(8)	830(7)	76(3)
O(1)	4678(9)	1350(7)	4817(8)	131(4)
O(2)	5168(10)	2481(10)	3981(7)	144(5)
O(3)	4727(12)	2757(10)	5313(9)	165(6)
O(4)	3193(13)	4375(8)	4768(8)	162(6)
O(5)	1772(12)	4643(8)	3855(11)	166(6)
O(6)	3453(12)	4214(7)	3338(7)	150(6)
O(7)	1217(9)	1386(8)	232(8)	138(5)
O(8)	658(10)	2887(8)	-155(7)	134(4)
O(9)	356(8)	2497(8)	1143(6)	115(4)
O(10)	1692(12)	4160(7)	1683(7)	136(5)
O(11)	3263(9)	4312(6)	1069(7)	107(3)
O(12)	1819(10)	4227(6)	202(6)	119(4)
C(9)	5540(20)	914(17)	5110(15)	221(13)
C(10)	6187(18)	2602(19)	4024(14)	212(14)
C(11)	4330(20)	2800(20)	6082(13)	267(19)
C(12)	3300(20)	5199(15)	4986(13)	231(14)
C(13)	970(20)	4887(17)	4400(20)	270(20)
C(14)	3590(20)	4954(13)	2958(12)	184(10)
C(15)	580(20)	1082(15)	-228(15)	214(14)
C(16)	969(16)	2947(13)	-977(9)	147(8)
C(17)	-709(13)	2612(14)	1090(11)	142(7)
C(18)	1030(20)	4750(20)	1897(15)	330(30)
C(19)	4042(16)	4384(13)	431(13)	172(10)
C(20)	1484(16)	5139(10)	5(11)	137(7)
C(21)	1696(16)	2908(12)	5943(10)	116(6)
C(22)	1188(16)	2872(14)	6701(9)	156(9)
C(23)	320(15)	2941(10)	3661(9)	90(5)
C(24)	-721(14)	3022(13)	3378(10)	137(7)
C(25)	2096(13)	884(12)	4677(9)	98(5)
C(26)	1615(15)	135(10)	4930(12)	153(9)
C(27)	3738(12)	2482(9)	-847(9)	78(4)
C(28)	4209(14)	2480(10)	-1630(8)	109(6)
C(29)	5139(13)	2416(10)	1368(8)	80(4)
C(30)	6204(14)	2431(13)	1568(12)	144(7)
C(31)	3645(14)	375(11)	756(10)	101(5)
C(32)	4080(20)	-530(10)	687(16)	237(15)
C(1)	3944(10)	1276(8)	2851(7)	71(4)
C(2)	3149(13)	741(10)	2724(8)	81(4)
C(3)	2125(12)	1210(8)	2471(7)	72(4)

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C(4)	1276(13)	950(9)	2469(8)	85(4)
C(5)	524(14)	551(10)	2515(9)	96(5)
C(6)	316(18)	40(13)	1800(12)	174(10)
C(7)	3383(15)	-118(9)	2835(9)	116(6)
C(8)	-208(17)	579(14)	3211(11)	164(9)
C(33)	1780(80)	7750(60)	3580(50)	400(50)
F(1)	2263(18)	8373(14)	3646(12)	257(9)
F(2)	2630(20)	7247(18)	3879(15)	282(12)
F(3)	1490(20)	7417(15)	3183(13)	282(10)
O(13)	722(11)	7039(9)	4665(7)	145(5)
O(14)	1613(14)	8065(11)	5172(10)	197(6)
O(15)	196(18)	8432(14)	4339(12)	243(9)
S(3)	1070(5)	7827(4)	4580(3)	123(2)
C(34)	6756(16)	9732(13)	2708(13)	112(6)
F(4)	6601(19)	10435(17)	3032(14)	314(11)
F(5)	7830(20)	9325(17)	3107(16)	360(13)
F(6)	6160(30)	9290(20)	3035(18)	403(16)
O(16)	7530(30)	8770(30)	1860(20)	391(17)
O(17)	5850(30)	10090(20)	1681(19)	352(17)
O(18)	7640(20)	10252(17)	1625(16)	310(12)
S(4)	6807(18)	9744(13)	1960(12)	361(9)
C(35)	3080(80)	5490(60)	7810(60)	510(60)
F(7)	3649(19)	5056(15)	8258(14)	275(10)
F(8)	4020(20)	4643(18)	7249(17)	355(13)
F(9)	3260(30)	5790(20)	7220(20)	370(17)
O(19)	1872(17)	4855(12)	6712(13)	227(8)
O(20)	1480(20)	5342(16)	8023(15)	278(11)
O(21)	2370(20)	3940(20)	7780(17)	329(13)
S(5)	2196(6)	4772(5)	7488(5)	162(2)
C(36)	1950(80)	7800(60)	1350(60)	520(70)
F(10)	3300(20)	6576(17)	1559(14)	325(11)
F(11)	1840(20)	7080(20)	1522(17)	326(13)
F(12)	2852(19)	7814(14)	1820(12)	254(9)
O(22)	4032(12)	7534(9)	417(8)	148(5)
O(23)	2757(14)	6666(11)	1(10)	195(6)
O(24)	2210(20)	8192(17)	331(15)	290(11)
S(6)	3088(7)	7273(5)	487(5)	179(3)

Table S43. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for **10**. The anisotropic displacement factor exponent takes the form: $-2\pi^2 [h^2 a^{*2} U^{11} + \dots + 2 h k a^* b^* U^{12}]$

U^{11}	U^{22}	U^{33}	U^{23}	U^{13}	U^{12}
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Ru(1)	78(1)	69(1)	58(1)	6(1)	-1(1)	-20(1)
Ru(2)	66(1)	61(1)	58(1)	6(1)	-3(1)	-16(1)
S(1)	68(2)	68(2)	60(2)	6(2)	-3(2)	-20(2)
S(2)	70(2)	67(2)	57(2)	6(2)	-5(2)	-19(2)
P(1)	88(3)	98(3)	72(2)	8(2)	-16(2)	-29(3)
P(2)	123(4)	75(3)	77(3)	-3(2)	8(3)	-26(3)
P(3)	79(3)	82(3)	66(2)	6(2)	-14(2)	-23(2)
P(4)	93(3)	69(2)	71(2)	4(2)	3(2)	-23(2)
N(1)	84(9)	107(10)	83(9)	1(8)	-14(7)	-27(8)
N(2)	80(9)	87(9)	88(9)	9(7)	7(8)	-6(9)
N(3)	86(9)	76(8)	62(7)	20(6)	-4(6)	-23(7)
N(4)	61(7)	76(8)	69(7)	7(6)	-11(6)	-11(6)
N(5)	78(9)	76(8)	75(8)	7(6)	-11(7)	-29(8)
N(6)	76(8)	62(7)	91(8)	-11(7)	-1(6)	-16(7)
O(1)	91(9)	98(9)	196(12)	25(8)	-72(9)	3(7)
O(2)	98(9)	238(16)	107(9)	13(9)	-1(8)	-61(10)
O(3)	166(14)	197(15)	142(12)	-35(11)	-62(11)	-46(12)
O(4)	274(19)	101(10)	129(11)	-6(8)	-33(11)	-78(12)
O(5)	119(12)	95(10)	258(18)	31(10)	7(12)	33(9)
O(6)	236(16)	79(8)	134(10)	17(7)	67(10)	-47(9)
O(7)	112(9)	120(10)	194(13)	-30(9)	-79(9)	-36(8)
O(8)	123(10)	154(11)	129(10)	50(8)	-67(8)	-35(9)
O(9)	70(7)	191(12)	88(7)	-6(7)	-22(6)	-28(8)
O(10)	196(14)	80(8)	114(9)	-10(7)	58(9)	7(8)
O(11)	118(9)	80(7)	134(9)	-1(6)	-9(7)	-46(7)
O(12)	162(11)	81(7)	112(8)	33(6)	-52(8)	-14(7)
C(9)	210(30)	220(30)	240(30)	50(20)	-120(20)	-30(20)
C(10)	140(20)	370(40)	160(20)	10(20)	15(17)	-150(30)
C(11)	200(30)	520(60)	86(16)	-70(30)	25(18)	-80(30)
C(12)	380(40)	170(20)	150(20)	-84(18)	10(20)	-90(30)
C(13)	180(30)	140(20)	480(60)	-100(30)	40(30)	40(20)
C(14)	290(30)	139(19)	140(18)	18(15)	44(19)	-90(20)
C(15)	280(40)	180(20)	220(30)	-50(20)	10(30)	-150(30)
C(16)	170(20)	200(20)	69(11)	22(12)	-14(12)	-43(17)
C(17)	76(13)	210(20)	146(17)	-10(15)	-17(12)	-34(14)
C(18)	270(40)	440(50)	130(20)	40(30)	40(20)	250(40)
C(19)	140(18)	180(20)	220(20)	19(17)	81(17)	-96(17)
C(20)	170(20)	74(12)	152(17)	36(11)	-8(14)	10(12)
C(21)	146(17)	140(16)	76(12)	-23(11)	8(12)	-61(14)
C(22)	180(20)	230(20)	71(11)	-22(13)	43(12)	-80(18)
C(23)	86(13)	90(12)	86(11)	26(9)	9(11)	-8(12)
C(24)	88(14)	180(20)	132(15)	39(14)	-51(12)	-4(14)

C(25)	86(12)	127(15)	87(11)	4(10)	-2(9)	-36(12)
C(26)	149(18)	102(13)	220(20)	74(14)	28(16)	-64(13)
C(27)	80(11)	77(10)	75(10)	3(8)	-15(9)	-9(8)
C(28)	147(16)	111(13)	54(9)	15(8)	27(9)	-1(11)
C(29)	76(11)	94(11)	77(10)	13(8)	-9(9)	-36(10)
C(30)	97(15)	158(19)	190(20)	-3(15)	-29(14)	-43(14)
C(31)	119(15)	73(11)	103(12)	4(10)	12(10)	-8(11)
C(32)	300(40)	39(11)	340(40)	3(16)	60(30)	24(16)
C(1)	63(9)	71(9)	73(8)	7(7)	-13(7)	-1(7)
C(2)	94(12)	85(11)	66(9)	0(8)	1(8)	-20(10)
C(3)	88(11)	71(9)	62(8)	3(7)	2(8)	-27(9)
C(4)	88(11)	91(11)	89(11)	21(8)	-15(9)	-45(10)
C(5)	118(14)	94(11)	87(11)	4(9)	-1(10)	-50(11)
C(6)	210(20)	180(20)	170(20)	-57(17)	-14(18)	-120(20)
C(7)	159(18)	47(9)	140(15)	11(9)	-10(13)	-18(11)
C(8)	170(20)	240(30)	114(15)	40(15)	9(14)	-120(20)

Table S44. Bond lengths [Å] and angles [°] for **10**.

Ru(1)-N(1)	2.017(13)	P(3)-O(9)	1.562(11)
Ru(1)-N(3)	2.097(11)	P(4)-O(12)	1.540(10)
Ru(1)-N(2)	2.114(14)	P(4)-O(10)	1.540(11)
Ru(1)-P(1)	2.246(5)	P(4)-O(11)	1.574(10)
Ru(1)-P(2)	2.249(4)	N(1)-C(21)	1.154(17)
Ru(1)-S(1)	2.314(3)	N(2)-C(23)	1.110(18)
Ru(2)-N(4)	2.024(12)	N(3)-C(25)	1.101(16)
Ru(2)-N(5)	2.100(13)	N(4)-C(27)	1.143(15)
Ru(2)-N(6)	2.132(12)	N(5)-C(29)	1.093(16)
Ru(2)-P(4)	2.250(4)	N(6)-C(31)	1.087(16)
Ru(2)-P(3)	2.252(4)	O(1)-C(9)	1.31(2)
Ru(2)-S(2)	2.322(3)	O(2)-C(10)	1.39(2)
S(1)-C(1)	1.781(12)	O(3)-C(11)	1.39(2)
S(1)-S(2)	2.131(4)	O(4)-C(12)	1.42(2)
S(2)-C(3)	1.838(13)	O(5)-C(13)	1.37(3)
P(1)-O(3)	1.513(13)	O(6)-C(14)	1.383(19)
P(1)-O(2)	1.572(12)	O(7)-C(15)	1.33(2)
P(1)-O(1)	1.584(12)	O(8)-C(16)	1.448(18)
P(2)-O(5)	1.517(14)	O(9)-C(17)	1.374(17)
P(2)-O(6)	1.524(11)	O(10)-C(18)	1.20(2)
P(2)-O(4)	1.526(13)	O(11)-C(19)	1.480(18)
P(3)-O(7)	1.539(12)	O(12)-C(20)	1.475(16)
P(3)-O(8)	1.525(11)	C(21)-C(22)	1.43(2)

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C(23)-C(24)	1.44(2)	N(1)-Ru(1)-N(3)	82.9(5)
C(25)-C(26)	1.51(2)	N(1)-Ru(1)-N(2)	86.6(5)
C(27)-C(28)	1.446(19)	N(3)-Ru(1)-N(2)	83.3(5)
C(29)-C(30)	1.45(2)	N(1)-Ru(1)-P(1)	92.4(4)
C(31)-C(32)	1.45(2)	N(3)-Ru(1)-P(1)	94.4(3)
C(1)-C(2)	1.504(17)	N(2)-Ru(1)-P(1)	177.5(4)
C(2)-C(7)	1.362(18)	N(1)-Ru(1)-P(2)	91.6(4)
C(2)-C(3)	1.47(2)	N(3)-Ru(1)-P(2)	172.5(4)
C(3)-C(4)	1.266(18)	N(2)-Ru(1)-P(2)	91.3(4)
C(4)-C(5)	1.279(19)	P(1)-Ru(1)-P(2)	91.01(18)
C(5)-C(8)	1.49(2)	N(1)-Ru(1)-S(1)	178.7(4)
C(5)-C(6)	1.55(2)	N(3)-Ru(1)-S(1)	95.8(3)
C(33)-F(2)	1.35(10)	N(2)-Ru(1)-S(1)	93.3(3)
C(33)-F(1)	1.29(9)	P(1)-Ru(1)-S(1)	87.58(14)
C(33)-F(3)	1.01(9)	P(2)-Ru(1)-S(1)	89.65(13)
C(33)-S(3)	1.90(9)	N(4)-Ru(2)-N(5)	85.3(4)
O(13)-S(3)	1.434(13)	N(4)-Ru(2)-N(6)	87.0(4)
O(14)-S(3)	1.362(17)	N(5)-Ru(2)-N(6)	84.6(4)
O(15)-S(3)	1.41(2)	N(4)-Ru(2)-P(4)	91.2(3)
C(34)-F(4)	1.24(3)	N(5)-Ru(2)-P(4)	91.8(3)
C(34)-F(6)	1.27(3)	N(6)-Ru(2)-P(4)	176.1(3)
C(34)-S(4)	1.27(2)	N(4)-Ru(2)-P(3)	91.6(3)
C(34)-F(5)	1.60(3)	N(5)-Ru(2)-P(3)	175.1(3)
F(4)-S(4)	2.14(3)	N(6)-Ru(2)-P(3)	91.5(3)
F(6)-S(4)	2.16(3)	P(4)-Ru(2)-P(3)	92.11(15)
O(16)-S(4)	1.66(4)	N(4)-Ru(2)-S(2)	179.5(3)
O(17)-S(4)	1.36(4)	N(5)-Ru(2)-S(2)	94.7(3)
O(18)-S(4)	1.57(3)	N(6)-Ru(2)-S(2)	92.5(3)
C(35)-F(7)	1.20(10)	P(4)-Ru(2)-S(2)	89.25(13)
C(35)-F(9)	1.14(10)	P(3)-Ru(2)-S(2)	88.31(13)
C(35)-F(8)	1.89(10)	C(1)-S(1)-S(2)	92.4(4)
C(35)-S(5)	1.90(10)	C(1)-S(1)-Ru(1)	110.7(4)
O(19)-S(5)	1.40(2)	S(2)-S(1)-Ru(1)	110.16(17)
O(20)-S(5)	1.47(3)	C(3)-S(2)-S(1)	93.1(5)
O(21)-S(5)	1.39(3)	C(3)-S(2)-Ru(2)	111.8(4)
C(36)-F(12)	1.45(10)	S(1)-S(2)-Ru(2)	108.61(16)
C(36)-F(11)	1.23(10)	O(3)-P(1)-O(2)	99.0(8)
C(36)-F(10)	2.39(11)	O(3)-P(1)-O(1)	104.3(8)
C(36)-S(6)	2.12(10)	O(2)-P(1)-O(1)	102.1(8)
O(22)-S(6)	1.384(14)	O(3)-P(1)-Ru(1)	124.8(7)
O(23)-S(6)	1.437(16)	O(2)-P(1)-Ru(1)	113.2(5)
O(24)-S(6)	1.69(3)	O(1)-P(1)-Ru(1)	110.7(5)
		O(5)-P(2)-O(6)	99.0(8)

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O(5)-P(2)-O(4)	106.3(10)	C(7)-C(2)-C(1)	121.2(15)
O(6)-P(2)-O(4)	107.3(8)	C(3)-C(2)-C(1)	115.4(12)
O(5)-P(2)-Ru(1)	116.8(6)	C(4)-C(3)-C(2)	127.9(13)
O(6)-P(2)-Ru(1)	115.0(5)	C(4)-C(3)-S(2)	120.5(13)
O(4)-P(2)-Ru(1)	111.4(5)	C(2)-C(3)-S(2)	111.6(10)
O(7)-P(3)-O(8)	106.4(7)	C(5)-C(4)-C(3)	168.9(17)
O(7)-P(3)-O(9)	104.6(7)	C(4)-C(5)-C(8)	123.7(15)
O(8)-P(3)-O(9)	97.5(7)	C(4)-C(5)-C(6)	119.2(15)
O(7)-P(3)-Ru(2)	110.8(5)	C(8)-C(5)-C(6)	117.1(15)
O(8)-P(3)-Ru(2)	123.0(5)	F(2)-C(33)-F(1)	87(7)
O(9)-P(3)-Ru(2)	112.5(4)	F(2)-C(33)-F(3)	108(8)
O(12)-P(4)-O(10)	109.9(8)	F(1)-C(33)-F(3)	143(10)
O(12)-P(4)-O(11)	105.1(6)	F(2)-C(33)-S(3)	91(5)
O(10)-P(4)-O(11)	96.6(7)	F(1)-C(33)-S(3)	99(5)
O(12)-P(4)-Ru(2)	112.6(4)	F(3)-C(33)-S(3)	114(8)
O(10)-P(4)-Ru(2)	114.4(5)	O(14)-S(3)-O(13)	118.4(10)
O(11)-P(4)-Ru(2)	116.8(5)	O(14)-S(3)-O(15)	116.0(12)
C(21)-N(1)-Ru(1)	172.3(13)	O(13)-S(3)-O(15)	105.7(11)
C(23)-N(2)-Ru(1)	172.4(15)	O(14)-S(3)-C(33)	114(3)
C(25)-N(3)-Ru(1)	164.4(14)	O(13)-S(3)-C(33)	104(3)
C(27)-N(4)-Ru(2)	176.7(11)	O(15)-S(3)-C(33)	95(3)
C(29)-N(5)-Ru(2)	178.6(13)	F(4)-C(34)-F(6)	109(2)
C(31)-N(6)-Ru(2)	175.8(13)	F(4)-C(34)-S(4)	116(2)
C(9)-O(1)-P(1)	130.4(15)	F(6)-C(34)-S(4)	117(2)
C(10)-O(2)-P(1)	132.2(13)	F(4)-C(34)-F(5)	97(2)
C(11)-O(3)-P(1)	126.7(17)	F(6)-C(34)-F(5)	101(2)
C(12)-O(4)-P(2)	133.6(14)	S(4)-C(34)-F(5)	114(2)
C(13)-O(5)-P(2)	123(2)	C(34)-F(4)-S(4)	32.2(13)
C(14)-O(6)-P(2)	133.7(14)	C(34)-F(6)-S(4)	31.7(14)
C(15)-O(7)-P(3)	131.2(16)	C(34)-S(4)-O(17)	110(3)
C(16)-O(8)-P(3)	127.7(13)	C(34)-S(4)-O(18)	112(2)
C(17)-O(9)-P(3)	129.1(11)	O(17)-S(4)-O(18)	110(3)
C(18)-O(10)-P(4)	141.0(17)	C(34)-S(4)-O(16)	96(2)
C(19)-O(11)-P(4)	121.1(11)	O(17)-S(4)-O(16)	130(3)
C(20)-O(12)-P(4)	127.9(11)	O(18)-S(4)-O(16)	98(2)
N(1)-C(21)-C(22)	173.8(19)	C(34)-S(4)-F(4)	31.5(13)
N(2)-C(23)-C(24)	176.8(19)	O(17)-S(4)-F(4)	96(2)
N(3)-C(25)-C(26)	175.2(18)	O(18)-S(4)-F(4)	92.0(16)
N(4)-C(27)-C(28)	178.2(15)	O(16)-S(4)-F(4)	124(2)
N(5)-C(29)-C(30)	179(2)	C(34)-S(4)-F(6)	31.5(13)
N(6)-C(31)-C(32)	177(2)	O(17)-S(4)-F(6)	93(2)
C(2)-C(1)-S(1)	113.1(10)	O(18)-S(4)-F(6)	143(2)
C(7)-C(2)-C(3)	123.3(15)	O(16)-S(4)-F(6)	87.4(18)

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F(4)-S(4)-F(6)	56.6(11)	F(12)-C(36)-F(11)	99(8)
F(7)-C(35)-F(9)	130(10)	F(12)-C(36)-F(10)	57(4)
F(7)-C(35)-F(8)	70(5)	F(11)-C(36)-F(10)	53(5)
F(9)-C(35)-F(8)	73(6)	F(12)-C(36)-S(6)	84(5)
F(7)-C(35)-S(5)	104(7)	F(11)-C(36)-S(6)	88(6)
F(9)-C(35)-S(5)	101(7)	F(10)-C(36)-S(6)	56(3)
F(8)-C(35)-S(5)	78(4)	O(22)-S(6)-O(23)	126.3(11)
O(21)-S(5)-O(19)	113.7(15)	O(22)-S(6)-C(36)	120(3)
O(21)-S(5)-O(20)	110.4(17)	O(23)-S(6)-C(36)	113(3)
O(19)-S(5)-O(20)	112.2(15)	O(22)-S(6)-O(24)	102.3(11)
O(21)-S(5)-C(35)	118(3)	O(23)-S(6)-O(24)	104.4(13)
O(19)-S(5)-C(35)	118(3)	C(36)-S(6)-O(24)	58(3)
O(20)-S(5)-C(35)	79(3)		

Symmetry transformations used to generate equivalent atoms:

Table S45. Torsion angles [°] for **10**.

N(1)-Ru(1)-S(1)-C(1)	-22(16)	N(3)-Ru(1)-P(1)-O(3)	-118.4(9)
N(3)-Ru(1)-S(1)-C(1)	-26.5(6)	N(2)-Ru(1)-P(1)-O(3)	-102(9)
N(2)-Ru(1)-S(1)-C(1)	-110.0(6)	P(2)-Ru(1)-P(1)-O(3)	56.3(8)
P(1)-Ru(1)-S(1)-C(1)	67.7(5)	S(1)-Ru(1)-P(1)-O(3)	145.9(8)
P(2)-Ru(1)-S(1)-C(1)	158.7(5)	N(1)-Ru(1)-P(1)-O(2)	-155.8(7)
N(1)-Ru(1)-S(1)-S(2)	79(16)	N(3)-Ru(1)-P(1)-O(2)	121.1(7)
N(3)-Ru(1)-S(1)-S(2)	74.3(4)	N(2)-Ru(1)-P(1)-O(2)	137(8)
N(2)-Ru(1)-S(1)-S(2)	-9.3(4)	P(2)-Ru(1)-P(1)-O(2)	-64.1(6)
P(1)-Ru(1)-S(1)-S(2)	168.41(19)	S(1)-Ru(1)-P(1)-O(2)	25.5(6)
P(2)-Ru(1)-S(1)-S(2)	-100.6(2)	N(1)-Ru(1)-P(1)-O(1)	90.3(7)
C(1)-S(1)-S(2)-C(3)	32.4(6)	N(3)-Ru(1)-P(1)-O(1)	7.3(6)
Ru(1)-S(1)-S(2)-C(3)	-80.7(5)	N(2)-Ru(1)-P(1)-O(1)	23(9)
C(1)-S(1)-S(2)-Ru(2)	-81.9(4)	P(2)-Ru(1)-P(1)-O(1)	-178.0(6)
Ru(1)-S(1)-S(2)-Ru(2)	165.02(12)	S(1)-Ru(1)-P(1)-O(1)	-88.4(6)
N(4)-Ru(2)-S(2)-C(3)	-4(34)	N(1)-Ru(1)-P(2)-O(5)	-79.2(9)
N(5)-Ru(2)-S(2)-C(3)	-97.1(6)	N(3)-Ru(1)-P(2)-O(5)	-36(3)
N(6)-Ru(2)-S(2)-C(3)	-12.3(6)	N(2)-Ru(1)-P(2)-O(5)	7.5(9)
P(4)-Ru(2)-S(2)-C(3)	171.2(6)	P(1)-Ru(1)-P(2)-O(5)	-171.6(8)
P(3)-Ru(2)-S(2)-C(3)	79.1(6)	S(1)-Ru(1)-P(2)-O(5)	100.8(8)
N(4)-Ru(2)-S(2)-S(1)	98(34)	N(1)-Ru(1)-P(2)-O(6)	165.5(8)
N(5)-Ru(2)-S(2)-S(1)	4.2(3)	N(3)-Ru(1)-P(2)-O(6)	-151(2)
N(6)-Ru(2)-S(2)-S(1)	89.0(3)	N(2)-Ru(1)-P(2)-O(6)	-107.8(8)
P(4)-Ru(2)-S(2)-S(1)	-87.53(19)	P(1)-Ru(1)-P(2)-O(6)	73.0(7)
P(3)-Ru(2)-S(2)-S(1)	-179.66(19)	S(1)-Ru(1)-P(2)-O(6)	-14.5(7)
N(1)-Ru(1)-P(1)-O(3)	-35.4(9)	N(1)-Ru(1)-P(2)-O(4)	43.1(8)

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N(3)-Ru(1)-P(2)-O(4)	86(3)	S(1)-Ru(1)-N(2)-C(23)	82(10)
N(2)-Ru(1)-P(2)-O(4)	129.8(8)	N(1)-Ru(1)-N(3)-C(25)	27(5)
P(1)-Ru(1)-P(2)-O(4)	-49.3(8)	N(2)-Ru(1)-N(3)-C(25)	-60(5)
S(1)-Ru(1)-P(2)-O(4)	-136.9(8)	P(1)-Ru(1)-N(3)-C(25)	119(5)
N(4)-Ru(2)-P(3)-O(7)	80.1(7)	P(2)-Ru(1)-N(3)-C(25)	-16(7)
N(5)-Ru(2)-P(3)-O(7)	29(4)	S(1)-Ru(1)-N(3)-C(25)	-153(5)
N(6)-Ru(2)-P(3)-O(7)	-7.0(7)	N(5)-Ru(2)-N(4)-C(27)	20(20)
P(4)-Ru(2)-P(3)-O(7)	171.4(6)	N(6)-Ru(2)-N(4)-C(27)	-65(20)
S(2)-Ru(2)-P(3)-O(7)	-99.4(6)	P(4)-Ru(2)-N(4)-C(27)	111(20)
N(4)-Ru(2)-P(3)-O(8)	-47.3(8)	P(3)-Ru(2)-N(4)-C(27)	-156(20)
N(5)-Ru(2)-P(3)-O(8)	-98(4)	S(2)-Ru(2)-N(4)-C(27)	-74(43)
N(6)-Ru(2)-P(3)-O(8)	-134.3(8)	N(4)-Ru(2)-N(5)-C(29)	41(59)
P(4)-Ru(2)-P(3)-O(8)	44.1(7)	N(6)-Ru(2)-N(5)-C(29)	129(59)
S(2)-Ru(2)-P(3)-O(8)	133.2(7)	P(4)-Ru(2)-N(5)-C(29)	-50(59)
N(4)-Ru(2)-P(3)-O(9)	-163.2(6)	P(3)-Ru(2)-N(5)-C(29)	93(59)
N(5)-Ru(2)-P(3)-O(9)	146(4)	S(2)-Ru(2)-N(5)-C(29)	-139(59)
N(6)-Ru(2)-P(3)-O(9)	109.7(6)	N(4)-Ru(2)-N(6)-C(31)	5(21)
P(4)-Ru(2)-P(3)-O(9)	-71.9(6)	N(5)-Ru(2)-N(6)-C(31)	-80(21)
S(2)-Ru(2)-P(3)-O(9)	17.3(5)	P(4)-Ru(2)-N(6)-C(31)	-59(23)
N(4)-Ru(2)-P(4)-O(12)	44.3(6)	P(3)-Ru(2)-N(6)-C(31)	97(21)
N(5)-Ru(2)-P(4)-O(12)	129.6(6)	S(2)-Ru(2)-N(6)-C(31)	-175(21)
N(6)-Ru(2)-P(4)-O(12)	108(5)	O(3)-P(1)-O(1)-C(9)	-39(2)
P(3)-Ru(2)-P(4)-O(12)	-47.4(6)	O(2)-P(1)-O(1)-C(9)	64(2)
S(2)-Ru(2)-P(4)-O(12)	-135.7(6)	Ru(1)-P(1)-O(1)-C(9)	-176(2)
N(4)-Ru(2)-P(4)-O(10)	170.8(7)	O(3)-P(1)-O(2)-C(10)	25(2)
N(5)-Ru(2)-P(4)-O(10)	-103.9(7)	O(1)-P(1)-O(2)-C(10)	-82(2)
N(6)-Ru(2)-P(4)-O(10)	-125(5)	Ru(1)-P(1)-O(2)-C(10)	159(2)
P(3)-Ru(2)-P(4)-O(10)	79.1(7)	O(2)-P(1)-O(3)-C(11)	-177(2)
S(2)-Ru(2)-P(4)-O(10)	-9.2(7)	O(1)-P(1)-O(3)-C(11)	-72(2)
N(4)-Ru(2)-P(4)-O(11)	-77.5(6)	Ru(1)-P(1)-O(3)-C(11)	56(2)
N(5)-Ru(2)-P(4)-O(11)	7.9(6)	O(5)-P(2)-O(4)-C(12)	-45(3)
N(6)-Ru(2)-P(4)-O(11)	-13(5)	O(6)-P(2)-O(4)-C(12)	60(3)
P(3)-Ru(2)-P(4)-O(11)	-169.2(5)	Ru(1)-P(2)-O(4)-C(12)	-173(2)
S(2)-Ru(2)-P(4)-O(11)	102.6(5)	O(6)-P(2)-O(5)-C(13)	-163(2)
N(3)-Ru(1)-N(1)-C(21)	-18(11)	O(4)-P(2)-O(5)-C(13)	-52(2)
N(2)-Ru(1)-N(1)-C(21)	66(11)	Ru(1)-P(2)-O(5)-C(13)	73(2)
P(1)-Ru(1)-N(1)-C(21)	-112(11)	O(5)-P(2)-O(6)-C(14)	43(2)
P(2)-Ru(1)-N(1)-C(21)	157(11)	O(4)-P(2)-O(6)-C(14)	-67(2)
S(1)-Ru(1)-N(1)-C(21)	-23(25)	Ru(1)-P(2)-O(6)-C(14)	168.6(19)
N(1)-Ru(1)-N(2)-C(23)	-97(10)	O(8)-P(3)-O(7)-C(15)	-24(2)
N(3)-Ru(1)-N(2)-C(23)	-14(10)	O(9)-P(3)-O(7)-C(15)	79(2)
P(1)-Ru(1)-N(2)-C(23)	-30(17)	Ru(2)-P(3)-O(7)-C(15)	-159.6(18)
P(2)-Ru(1)-N(2)-C(23)	171(10)	O(7)-P(3)-O(8)-C(16)	-64.0(15)

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O(9)-P(3)-O(8)-C(16)	-171.7(14)	F(1)-C(33)-S(3)-O(15)	87(5)
Ru(2)-P(3)-O(8)-C(16)	65.3(15)	F(3)-C(33)-S(3)-O(15)	-76(8)
O(7)-P(3)-O(9)-C(17)	-69.1(17)	F(6)-C(34)-F(4)-S(4)	-134(4)
O(8)-P(3)-O(9)-C(17)	40.0(18)	F(5)-C(34)-F(4)-S(4)	122(3)
Ru(2)-P(3)-O(9)-C(17)	170.5(15)	F(4)-C(34)-F(6)-S(4)	134(4)
O(12)-P(4)-O(10)-C(18)	-22(4)	F(5)-C(34)-F(6)-S(4)	-124(3)
O(11)-P(4)-O(10)-C(18)	87(4)	F(4)-C(34)-S(4)-O(17)	-68(3)
Ru(2)-P(4)-O(10)-C(18)	-150(4)	F(6)-C(34)-S(4)-O(17)	62(4)
O(12)-P(4)-O(11)-C(19)	-53.4(14)	F(5)-C(34)-S(4)-O(17)	179(2)
O(10)-P(4)-O(11)-C(19)	-166.2(13)	F(4)-C(34)-S(4)-O(18)	54(3)
Ru(2)-P(4)-O(11)-C(19)	72.2(13)	F(6)-C(34)-S(4)-O(18)	-175(2)
O(10)-P(4)-O(12)-C(20)	55.8(16)	F(5)-C(34)-S(4)-O(18)	-58(3)
O(11)-P(4)-O(12)-C(20)	-47.2(16)	F(4)-C(34)-S(4)-O(16)	155(2)
Ru(2)-P(4)-O(12)-C(20)	-175.4(13)	F(6)-C(34)-S(4)-O(16)	-75(3)
Ru(1)-N(1)-C(21)-C(22)	8(29)	F(5)-C(34)-S(4)-O(16)	42(3)
Ru(1)-N(2)-C(23)-C(24)	-130(34)	F(6)-C(34)-S(4)-F(4)	130(4)
Ru(1)-N(3)-C(25)-C(26)	100(23)	F(5)-C(34)-S(4)-F(4)	-112(3)
Ru(2)-N(4)-C(27)-C(28)	71(57)	F(4)-C(34)-S(4)-F(6)	-130(4)
Ru(2)-N(5)-C(29)-C(30)	-73(100)	F(5)-C(34)-S(4)-F(6)	117(3)
Ru(2)-N(6)-C(31)-C(32)	114(43)	C(34)-F(4)-S(4)-O(17)	118(3)
S(2)-S(1)-C(1)-C(2)	-32.5(9)	C(34)-F(4)-S(4)-O(18)	-131(3)
Ru(1)-S(1)-C(1)-C(2)	80.1(9)	C(34)-F(4)-S(4)-O(16)	-31(3)
S(1)-C(1)-C(2)-C(7)	-162.6(12)	C(34)-F(4)-S(4)-F(6)	28(2)
S(1)-C(1)-C(2)-C(3)	17.7(14)	C(34)-F(6)-S(4)-O(17)	-123(4)
C(7)-C(2)-C(3)-C(4)	15(2)	C(34)-F(6)-S(4)-O(18)	7(4)
C(1)-C(2)-C(3)-C(4)	-165.2(14)	C(34)-F(6)-S(4)-O(16)	106(3)
C(7)-C(2)-C(3)-S(2)	-167.7(12)	C(34)-F(6)-S(4)-F(4)	-28(3)
C(1)-C(2)-C(3)-S(2)	12.0(14)	F(7)-C(35)-S(5)-O(21)	-2(8)
S(1)-S(2)-C(3)-C(4)	148.2(12)	F(9)-C(35)-S(5)-O(21)	134(6)
Ru(2)-S(2)-C(3)-C(4)	-100.3(12)	F(8)-C(35)-S(5)-O(21)	64(4)
S(1)-S(2)-C(3)-C(2)	-29.2(9)	F(7)-C(35)-S(5)-O(19)	-145(5)
Ru(2)-S(2)-C(3)-C(2)	82.3(9)	F(9)-C(35)-S(5)-O(19)	-9(9)
C(2)-C(3)-C(4)-C(5)	-2(9)	F(8)-C(35)-S(5)-O(19)	-79(4)
S(2)-C(3)-C(4)-C(5)	-179(100)	F(7)-C(35)-S(5)-O(20)	106(7)
C(3)-C(4)-C(5)-C(8)	95(9)	F(9)-C(35)-S(5)-O(20)	-118(7)
C(3)-C(4)-C(5)-C(6)	-88(9)	F(8)-C(35)-S(5)-O(20)	172(4)
F(2)-C(33)-S(3)-O(14)	52(5)	F(12)-C(36)-S(6)-O(22)	-35(6)
F(1)-C(33)-S(3)-O(14)	-35(6)	F(11)-C(36)-S(6)-O(22)	-134(5)
F(3)-C(33)-S(3)-O(14)	163(7)	F(10)-C(36)-S(6)-O(22)	-89(2)
F(2)-C(33)-S(3)-O(13)	-78(5)	F(12)-C(36)-S(6)-O(23)	146(3)
F(1)-C(33)-S(3)-O(13)	-165(5)	F(11)-C(36)-S(6)-O(23)	48(7)
F(3)-C(33)-S(3)-O(13)	32(9)	F(10)-C(36)-S(6)-O(23)	92(2)
F(2)-C(33)-S(3)-O(15)	174(5)	F(12)-C(36)-S(6)-O(24)	-121(5)

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F(11)-C(36)-S(6)-O(24)	140(7)	F(10)-C(36)-S(6)-O(24)	-175(3)
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Symmetry transformations used to generate equivalent atoms:

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Table S46. Crystal data and structure refinement for **11**.

Empirical formula	$\text{C}_{35}\text{H}_{65}\text{F}_{12}\text{N}_5\text{O}_{25}\text{P}_4\text{Ru}_2\text{S}_6$	
Formula weight	1702.30	
Temperature	293(2) K	
Wavelength	0.71073 Å	
Crystal system	triclinic	
Space group	$P-1$	
Unit cell dimensions	$a = 12.132(5)$ Å	$a = 100.335(7)^\circ$.
	$b = 12.597(5)$ Å	$b = 92.309(7)^\circ$.
	$c = 26.036(10)$ Å	$g = 115.124(7)^\circ$.
Volume	$3514(2)$ Å ³	
Z	2	
Density (calculated)	1.609 Mg/m ³	
Absorption coefficient	0.802 mm ⁻¹	
F(000)	1724	
Crystal size	0.5 x 0.35 x 0.25 mm ³	
Theta range for data collection	0.80 to 27.57°.	
Index ranges	$-15 \leq h \leq 8, -14 \leq k \leq 16, -33 \leq l \leq 33$	
Reflections collected	20811	
Independent reflections	14613 [R(int) = 0.0278]	
Completeness to theta = 27.57°	89.8 %	
Refinement method	Full-matrix least-squares on F ²	
Data / restraints / parameters	14613 / 0 / 687	
Goodness-of-fit on F ²	1.287	
Final R indices [I > 2sigma(I)]	R1 = 0.1167, wR2 = 0.3366	
R indices (all data)	R1 = 0.1847, wR2 = 0.3877	
Largest diff. peak and hole	3.223 and -3.666 e.Å ⁻³	

Table S47. Atomic coordinates (x 10⁴) and equivalent isotropic displacement parameters (Å² x 10³) for **11**. U(eq) is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Ru(1)	7649(1)	1894(1)	3688(1)	50(1)
Ru(2)	5626(1)	3091(1)	1355(1)	43(1)
S(1)	6123(2)	1882(2)	3155(1)	49(1)
S(2)	5306(2)	1165(2)	1457(1)	45(1)
P(1)	6360(3)	111(3)	3843(1)	65(1)
P(2)	7282(4)	2925(3)	4384(1)	77(1)
P(3)	7510(2)	3541(2)	1117(1)	52(1)
P(4)	4767(3)	2258(3)	513(1)	60(1)
N(1)	9118(8)	1861(8)	4108(4)	62(2)
N(2)	8981(8)	3509(8)	3497(4)	58(2)

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N(3)	5856(7)	4792(8)	1264(3)	50(2)
N(4)	6315(7)	3897(7)	2175(3)	51(2)
N(5)	3895(7)	2846(8)	1607(4)	58(2)
C(10)	7397(17)	-220(20)	4698(9)	197(10)
C(11)	3956(19)	-790(30)	3961(14)	334(18)
C(12)	6040(30)	-2186(16)	3452(12)	215(14)
C(13)	7410(20)	5106(18)	4599(8)	192(9)
C(14)	8590(30)	3510(30)	5229(13)	440(20)
C(15)	5570(40)	2310(40)	4860(20)	460(30)
C(16)	8992(11)	2477(13)	860(5)	79(4)
C(17)	8962(13)	5591(11)	1786(7)	105(6)
C(18)	8819(16)	4740(18)	410(8)	154(7)
C(19)	5710(20)	1820(20)	-388(7)	158(8)
C(20)	3452(16)	3425(16)	357(8)	126(6)
C(21)	2780(20)	250(20)	15(8)	189(12)
C(22)	9941(11)	1815(11)	4320(5)	74(4)
C(23)	10941(13)	1773(15)	4614(7)	105(5)
C(24)	9738(11)	4264(11)	3374(6)	74(4)
C(25)	10712(15)	5260(14)	3201(8)	126(7)
C(26)	5982(10)	5717(10)	1220(5)	62(3)
C(27)	6154(13)	6868(12)	1210(8)	107(6)
C(28)	6517(10)	4375(9)	2595(4)	56(3)
C(29)	6775(17)	5040(12)	3147(5)	106(6)
C(30)	3036(11)	2853(11)	1717(7)	93(5)
C(31)	1838(15)	2789(17)	1893(14)	228(16)
O(2)	6315(10)	-180(9)	4398(4)	112(4)
O(3)	4986(9)	-274(10)	3686(5)	138(5)
O(4)	6583(12)	-837(8)	3489(5)	119(4)
O(5)	7293(13)	4073(9)	4241(4)	130(4)
O(6)	8182(18)	3380(20)	4886(5)	249(9)
O(7)	6067(16)	2309(13)	4580(6)	187(7)
O(8)	7790(6)	2439(6)	929(3)	65(2)
O(9)	8635(6)	4315(7)	1559(4)	71(2)
O(10)	7728(8)	4279(8)	679(4)	87(3)
O(11)	5598(11)	1906(11)	141(5)	75(3)
O(12)	4483(12)	3074(12)	181(5)	86(4)
O(13)	3669(14)	1113(15)	491(7)	108(6)
O(11B)	5200(70)	1470(30)	80(20)	120(30)
O(12B)	4050(70)	3010(70)	190(30)	170(30)
O(13B)	3390(40)	900(60)	530(20)	90(20)
C(1)	7282(8)	949(9)	2432(4)	50(2)
C(2)	6254(8)	1305(7)	2560(4)	41(2)
C(3)	5279(8)	1048(7)	2151(4)	40(2)

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C(4)	4064(8)	398(8)	2103(4)	49(2)
C(5)	3683(9)	267(8)	1537(4)	50(3)
C(6)	8970(10)	760(14)	2901(5)	87(4)
C(7)	6715(11)	-367(11)	2130(6)	86(4)
C(8)	8114(10)	1813(13)	2111(5)	79(4)
C(9)	3226(11)	-195(13)	2477(6)	89(4)
O(1)	7961(6)	1068(6)	2921(3)	57(2)
C(32)	268(17)	8454(17)	3282(8)	115(6)
F(1)	743(12)	9625(12)	3264(6)	163(5)
F(2)	958(13)	8002(13)	3045(6)	169(5)
F(3)	-882(14)	7934(14)	2930(6)	193(6)
O(14)	1112(17)	8791(17)	4188(8)	199(7)
O(15)	-531(13)	6968(13)	3829(6)	149(5)
O(16)	-795(18)	8717(17)	4043(8)	189(7)
S(3)	-65(4)	8171(4)	3887(2)	90(1)
C(33)	2940(40)	3240(40)	3348(19)	280(20)
F(4)	2160(20)	2270(20)	3253(11)	305(12)
F(5)	3830(17)	3060(16)	3049(8)	216(7)
F(6)	3180(40)	2370(40)	3672(17)	470(20)
O(17)	2268(18)	4143(17)	4040(8)	203(8)
O(18)	4540(20)	5190(20)	3913(10)	236(10)
O(19)	3390(30)	5140(30)	3409(13)	328(15)
S(4)	3342(6)	4404(6)	3776(3)	135(2)
C(34)	2280(30)	6030(30)	2148(16)	253(15)
F(7)	1407(15)	4971(15)	1903(7)	234(6)
F(8)	3116(14)	6983(14)	2466(6)	216(5)
F(9)	2106(8)	7016(7)	2258(3)	126(2)
O(20)	3237(15)	5399(15)	1252(7)	189(6)
O(21)	1780(30)	6610(30)	1171(15)	374(18)
O(22)	3970(40)	7500(40)	1792(19)	440(20)
S(5)	2837(10)	6270(10)	1511(4)	197(4)
C(35)	9874(18)	9189(18)	1517(9)	120(6)
F(10)	10671(14)	10046(14)	1938(7)	224(6)
F(11)	10719(12)	8434(12)	1569(6)	191(5)
F(12)	9036(13)	8266(12)	1789(6)	197(5)
O(23)	9240(20)	7950(20)	741(11)	266(12)
O(24)	10780(20)	10370(20)	1009(10)	258(10)
O(25)	8784(19)	9722(18)	1181(8)	200(8)
S(6)	9694(7)	9429(7)	1163(3)	155(2)

Table S48. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for **11**. The anisotropic displacement factor exponent takes the form: $-2\pi^2 [h^2 a^{*2} U^{11} + \dots + 2 h k a^* b^* U^{12}]$

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	U11	U22	U33	U23	U13	U12
Ru(1)	54(1)	56(1)	45(1)	14(1)	5(1)	26(1)
Ru(2)	39(1)	48(1)	38(1)	4(1)	4(1)	18(1)
S(1)	50(1)	59(1)	45(1)	11(1)	9(1)	31(1)
S(2)	41(1)	46(1)	40(1)	0(1)	1(1)	16(1)
P(1)	61(2)	65(2)	74(2)	34(1)	11(1)	25(1)
P(2)	102(2)	91(2)	43(2)	9(1)	8(2)	51(2)
P(3)	44(1)	57(1)	56(2)	14(1)	16(1)	21(1)
P(4)	67(2)	70(2)	40(1)	3(1)	-4(1)	32(1)
N(1)	64(5)	65(5)	60(5)	27(4)	11(4)	27(4)
N(2)	51(5)	56(5)	63(5)	22(4)	9(4)	16(4)
N(3)	36(4)	59(5)	51(5)	1(4)	12(3)	23(3)
N(4)	37(4)	53(4)	50(5)	6(4)	7(4)	9(3)
N(5)	41(4)	55(5)	69(6)	5(4)	8(4)	17(4)
C(10)	113(14)	290(20)	220(20)	188(16)	12(14)	76(15)
C(11)	86(13)	540(40)	470(40)	400(30)	117(19)	110(20)
C(12)	250(30)	67(11)	250(30)	11(16)	60(30)	12(15)
C(13)	350(20)	144(14)	135(15)	28(12)	128(17)	155(16)
C(14)	630(40)	490(40)	250(30)	-220(30)	-300(30)	460(30)
C(15)	370(50)	360(40)	780(90)	410(50)	310(50)	160(40)
C(16)	66(7)	105(9)	73(8)	16(7)	22(6)	44(7)
C(17)	74(9)	55(7)	139(14)	-14(8)	20(9)	-3(7)
C(18)	149(12)	191(16)	194(15)	130(12)	135(11)	99(11)
C(19)	224(17)	260(20)	51(9)	16(11)	13(11)	174(16)
C(20)	165(11)	152(11)	109(13)	-1(10)	-23(11)	130(9)
C(21)	165(19)	180(20)	79(12)	-32(13)	-29(12)	-23(16)
C(22)	66(7)	82(7)	69(8)	17(6)	-9(6)	30(6)
C(23)	101(9)	113(10)	110(12)	19(9)	-20(9)	59(8)
C(24)	66(7)	64(7)	93(9)	26(6)	-6(7)	28(6)
C(25)	101(11)	91(10)	190(18)	68(11)	45(12)	29(9)
C(26)	57(6)	55(6)	76(7)	14(5)	8(5)	27(5)
C(27)	81(9)	77(8)	184(16)	61(9)	29(10)	41(7)
C(28)	67(6)	43(5)	40(5)	-1(4)	0(5)	13(5)
C(29)	167(15)	68(8)	49(7)	-6(6)	-8(9)	30(9)
C(30)	55(6)	57(7)	175(15)	23(8)	37(8)	30(5)
C(31)	91(10)	114(13)	510(50)	60(20)	119(19)	65(9)
O(2)	110(7)	116(7)	99(7)	69(6)	18(6)	23(6)
O(3)	72(6)	144(8)	189(11)	117(8)	-1(7)	10(6)
O(4)	143(9)	62(5)	122(9)	22(6)	30(7)	14(6)
O(5)	232(11)	103(7)	92(7)	19(5)	50(8)	106(7)
O(6)	346(18)	400(20)	58(7)	-70(10)	-82(10)	274(17)

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O(7)	255(13)	122(10)	178(12)	21(9)	165(11)	70(10)
O(8)	55(4)	59(4)	77(5)	9(4)	19(4)	22(3)
O(9)	38(4)	56(4)	96(6)	-4(4)	1(4)	10(3)
O(10)	83(5)	110(6)	90(6)	56(5)	51(4)	46(5)
O(11)	92(7)	85(7)	49(6)	-10(6)	0(5)	51(6)
O(12)	126(7)	115(8)	51(7)	4(5)	-15(6)	91(6)
O(13)	86(11)	86(9)	86(10)	13(7)	-38(8)	-18(8)
O(11B)	210(60)	8(17)	100(40)	11(19)	-30(40)	10(20)
O(12B)	170(50)	130(50)	100(40)	30(30)	-130(40)	-10(40)
O(13B)	13(17)	100(40)	60(30)	-50(30)	-8(17)	-40(20)
C(1)	42(4)	59(5)	50(6)	2(4)	11(4)	26(4)
C(2)	36(4)	38(4)	45(5)	9(4)	5(4)	12(4)
C(3)	40(4)	38(4)	43(5)	9(4)	11(4)	17(4)
C(4)	40(5)	45(5)	56(6)	12(4)	8(4)	13(4)
C(5)	43(5)	39(5)	51(6)	2(4)	3(4)	6(4)
C(6)	71(6)	141(10)	76(9)	17(7)	1(6)	74(7)
C(7)	80(7)	82(7)	96(10)	-26(7)	2(7)	54(6)
C(8)	52(6)	122(9)	76(8)	40(7)	24(6)	41(6)
C(9)	58(7)	111(10)	92(10)	42(8)	27(7)	24(7)
O(1)	50(3)	66(4)	62(4)	2(3)	-1(3)	37(3)

Table S49. Bond lengths [Å] and angles [°] for **11**.

Ru(1)-N(1)	2.072(10)	P(2)-O(7)	1.506(15)
Ru(1)-N(2)	2.153(9)	P(2)-O(5)	1.551(12)
Ru(1)-O(1)	2.206(7)	P(3)-O(8)	1.566(8)
Ru(1)-P(2)	2.210(4)	P(3)-O(10)	1.560(9)
Ru(1)-P(1)	2.246(3)	P(3)-O(9)	1.575(8)
Ru(1)-S(1)	2.262(3)	P(4)-O(13)	1.480(15)
Ru(2)-N(3)	2.100(9)	P(4)-O(11)	1.566(12)
Ru(2)-N(5)	2.138(9)	P(4)-O(12)	1.586(15)
Ru(2)-N(4)	2.156(8)	P(4)-O(11B)	1.63(7)
Ru(2)-P(4)	2.249(3)	P(4)-O(12B)	1.81(9)
Ru(2)-P(3)	2.251(3)	P(4)-O(13B)	1.82(5)
Ru(2)-S(2)	2.354(3)	N(1)-C(22)	1.150(15)
S(1)-C(2)	1.631(10)	N(2)-C(24)	1.114(14)
S(2)-C(3)	1.840(10)	N(3)-C(26)	1.137(14)
S(2)-C(5)	1.851(10)	N(4)-C(28)	1.110(12)
P(1)-O(4)	1.501(12)	N(5)-C(30)	1.095(15)
P(1)-O(3)	1.540(11)	C(10)-O(2)	1.52(2)
P(1)-O(2)	1.549(10)	C(11)-O(3)	1.43(3)
P(2)-O(6)	1.520(14)	C(12)-O(4)	1.52(2)

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C(13)-O(5)	1.404(19)	C(34)-F(9)	1.33(4)
C(14)-O(6)	0.96(3)	C(34)-F(8)	1.30(4)
C(15)-O(7)	0.97(5)	C(34)-F(7)	1.33(4)
C(16)-O(8)	1.459(14)	C(34)-S(5)	1.84(4)
C(17)-O(9)	1.480(15)	F(8)-F(9)	1.340(17)
C(18)-O(10)	1.465(17)	O(20)-S(5)	1.451(18)
C(19)-O(11)	1.38(2)	O(21)-S(5)	1.76(4)
C(19)-O(11B)	1.43(7)	O(22)-S(5)	1.60(4)
C(20)-O(12B)	1.12(11)	C(35)-S(6)	1.06(2)
C(20)-O(12)	1.55(2)	C(35)-F(10)	1.38(2)
C(21)-O(13B)	1.43(5)	C(35)-F(12)	1.49(2)
C(21)-O(13)	1.52(2)	C(35)-F(11)	1.68(3)
C(22)-C(23)	1.434(19)	F(10)-S(6)	2.131(18)
C(24)-C(25)	1.469(19)	O(23)-S(6)	1.83(3)
C(26)-C(27)	1.380(18)	O(24)-S(6)	1.48(2)
C(28)-C(29)	1.474(16)	O(25)-S(6)	1.30(2)
C(30)-C(31)	1.52(2)		
O(11)-O(11B)	0.54(5)	N(1)-Ru(1)-N(2)	86.1(3)
C(1)-O(1)	1.435(12)	N(1)-Ru(1)-O(1)	94.5(3)
C(1)-C(8)	1.538(16)	N(2)-Ru(1)-O(1)	82.1(3)
C(1)-C(2)	1.525(13)	N(1)-Ru(1)-P(2)	92.6(3)
C(1)-C(7)	1.536(15)	N(2)-Ru(1)-P(2)	91.9(3)
C(2)-C(3)	1.445(12)	O(1)-Ru(1)-P(2)	170.4(2)
C(3)-C(4)	1.335(12)	N(1)-Ru(1)-P(1)	91.2(3)
C(4)-C(5)	1.486(14)	N(2)-Ru(1)-P(1)	174.2(3)
C(4)-C(9)	1.496(16)	O(1)-Ru(1)-P(1)	92.9(2)
C(6)-O(1)	1.433(13)	P(2)-Ru(1)-P(1)	93.39(14)
C(32)-F(2)	1.31(2)	N(1)-Ru(1)-S(1)	174.2(3)
C(32)-F(1)	1.35(2)	N(2)-Ru(1)-S(1)	91.9(2)
C(32)-F(3)	1.46(2)	O(1)-Ru(1)-S(1)	79.80(19)
C(32)-S(3)	1.70(2)	P(2)-Ru(1)-S(1)	92.94(12)
O(14)-S(3)	1.416(18)	P(1)-Ru(1)-S(1)	90.26(11)
O(15)-S(3)	1.350(14)	N(3)-Ru(2)-N(5)	86.8(3)
O(16)-S(3)	1.37(2)	N(3)-Ru(2)-N(4)	87.1(3)
C(33)-F(4)	1.16(5)	N(5)-Ru(2)-N(4)	83.7(3)
C(33)-F(5)	1.42(5)	N(3)-Ru(2)-P(4)	91.6(2)
C(33)-F(6)	1.60(6)	N(5)-Ru(2)-P(4)	91.8(3)
C(33)-S(4)	1.55(4)	N(4)-Ru(2)-P(4)	175.4(2)
F(4)-F(6)	1.56(5)	N(3)-Ru(2)-P(3)	88.2(2)
O(17)-S(4)	1.44(2)	N(5)-Ru(2)-P(3)	174.4(2)
O(18)-S(4)	1.35(2)	N(4)-Ru(2)-P(3)	93.6(2)
O(18)-O(19)	1.85(4)	P(4)-Ru(2)-P(3)	90.77(11)
O(19)-S(4)	1.43(4)	N(3)-Ru(2)-S(2)	178.3(2)

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N(5)-Ru(2)-S(2)	91.7(3)	O(12)-P(4)-Ru(2)	117.6(5)
N(4)-Ru(2)-S(2)	93.3(2)	O(11B)-P(4)-Ru(2)	126(2)
P(4)-Ru(2)-S(2)	87.90(10)	O(12B)-P(4)-Ru(2)	117(2)
P(3)-Ru(2)-S(2)	93.35(10)	O(13B)-P(4)-Ru(2)	105.9(19)
C(2)-S(1)-Ru(1)	105.8(3)	C(22)-N(1)-Ru(1)	176.9(10)
C(3)-S(2)-C(5)	73.2(4)	C(24)-N(2)-Ru(1)	171.7(10)
C(3)-S(2)-Ru(2)	111.9(3)	C(26)-N(3)-Ru(2)	179.4(9)
C(5)-S(2)-Ru(2)	110.4(4)	C(28)-N(4)-Ru(2)	168.1(10)
O(4)-P(1)-O(3)	102.7(8)	C(30)-N(5)-Ru(2)	171.0(11)
O(4)-P(1)-O(2)	106.6(7)	O(11)-C(19)-O(11B)	22.2(18)
O(3)-P(1)-O(2)	99.6(7)	O(12B)-C(20)-O(12)	10(3)
O(4)-P(1)-Ru(1)	107.3(4)	O(13B)-C(21)-O(13)	14(2)
O(3)-P(1)-Ru(1)	115.5(4)	N(1)-C(22)-C(23)	176.6(16)
O(2)-P(1)-Ru(1)	123.0(4)	N(2)-C(24)-C(25)	178.4(15)
O(6)-P(2)-O(7)	102.2(11)	N(3)-C(26)-C(27)	175.4(15)
O(6)-P(2)-O(5)	104.6(10)	N(4)-C(28)-C(29)	178.1(14)
O(7)-P(2)-O(5)	105.6(10)	N(5)-C(30)-C(31)	176(2)
O(6)-P(2)-Ru(1)	118.2(7)	C(10)-O(2)-P(1)	122.5(12)
O(7)-P(2)-Ru(1)	116.6(5)	C(11)-O(3)-P(1)	130.5(15)
O(5)-P(2)-Ru(1)	108.3(5)	C(12)-O(4)-P(1)	130.2(14)
O(8)-P(3)-O(10)	109.1(5)	C(13)-O(5)-P(2)	126.2(13)
O(8)-P(3)-O(9)	99.5(4)	C(14)-O(6)-P(2)	166(4)
O(10)-P(3)-O(9)	105.0(5)	C(15)-O(7)-P(2)	147(3)
O(8)-P(3)-Ru(2)	115.3(3)	C(16)-O(8)-P(3)	126.6(7)
O(10)-P(3)-Ru(2)	110.1(4)	C(17)-O(9)-P(3)	121.1(9)
O(9)-P(3)-Ru(2)	116.9(3)	C(18)-O(10)-P(3)	128.0(11)
O(13)-P(4)-O(11)	104.7(9)	O(11B)-O(11)-C(19)	84(8)
O(13)-P(4)-O(12)	111.6(9)	O(11B)-O(11)-P(4)	87(9)
O(11)-P(4)-O(12)	97.9(7)	C(19)-O(11)-P(4)	134.8(13)
O(13)-P(4)-O(11B)	86(2)	C(20)-O(12)-P(4)	115.2(12)
O(11)-P(4)-O(11B)	19(2)	P(4)-O(13)-C(21)	128.6(15)
O(12)-P(4)-O(11B)	102(2)	O(11)-O(11B)-C(19)	73(7)
O(13)-P(4)-O(12B)	99(2)	O(11)-O(11B)-P(4)	74(8)
O(11)-P(4)-O(12B)	110(3)	C(19)-O(11B)-P(4)	125(3)
O(12)-P(4)-O(12B)	15(3)	C(20)-O(12B)-P(4)	128(6)
O(11B)-P(4)-O(12B)	110(4)	C(21)-O(13B)-P(4)	112(4)
O(13)-P(4)-O(13B)	4(2)	O(1)-C(1)-C(8)	110.3(8)
O(11)-P(4)-O(13B)	109(2)	O(1)-C(1)-C(2)	107.8(7)
O(12)-P(4)-O(13B)	112(3)	C(8)-C(1)-C(2)	107.9(9)
O(11B)-P(4)-O(13B)	90(3)	O(1)-C(1)-C(7)	109.4(10)
O(12B)-P(4)-O(13B)	98(3)	C(8)-C(1)-C(7)	112.3(10)
O(13)-P(4)-Ru(2)	109.2(7)	C(2)-C(1)-C(7)	109.0(8)
O(11)-P(4)-Ru(2)	114.8(4)	C(3)-C(2)-C(1)	119.8(8)

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C(3)-C(2)-S(1)	116.7(7)	O(17)-S(4)-O(19)	110.9(17)
C(1)-C(2)-S(1)	123.3(7)	O(18)-S(4)-C(33)	121(2)
C(4)-C(3)-C(2)	132.1(9)	O(17)-S(4)-C(33)	102.0(19)
C(4)-C(3)-S(2)	94.9(7)	O(19)-S(4)-C(33)	94(2)
C(2)-C(3)-S(2)	131.4(7)	F(9)-C(34)-F(8)	61(2)
C(3)-C(4)-C(5)	102.4(8)	F(9)-C(34)-F(7)	123(3)
C(3)-C(4)-C(9)	132.5(10)	F(8)-C(34)-F(7)	169(4)
C(5)-C(4)-C(9)	124.9(9)	F(9)-C(34)-S(5)	96(2)
C(4)-C(5)-S(2)	89.5(6)	F(8)-C(34)-S(5)	101(3)
C(6)-O(1)-C(1)	118.1(8)	F(7)-C(34)-S(5)	89(2)
C(6)-O(1)-Ru(1)	118.8(7)	C(34)-F(8)-F(9)	60.4(19)
C(1)-O(1)-Ru(1)	122.7(5)	C(34)-F(9)-F(8)	58.2(17)
F(2)-C(32)-F(1)	107.7(17)	O(20)-S(5)-O(22)	112(2)
F(2)-C(32)-F(3)	105.3(16)	O(20)-S(5)-O(21)	120.9(16)
F(1)-C(32)-F(3)	102.8(16)	O(22)-S(5)-O(21)	108(2)
F(2)-C(32)-S(3)	117.1(16)	O(20)-S(5)-C(34)	115.0(17)
F(1)-C(32)-S(3)	114.4(14)	O(22)-S(5)-C(34)	91(2)
F(3)-C(32)-S(3)	108.1(14)	O(21)-S(5)-C(34)	105.8(19)
O(15)-S(3)-O(16)	118.3(11)	S(6)-C(35)-F(10)	121(2)
O(15)-S(3)-O(14)	112.8(11)	S(6)-C(35)-F(12)	130.0(18)
O(16)-S(3)-O(14)	110.6(12)	F(10)-C(35)-F(12)	101.5(17)
O(15)-S(3)-C(32)	106.1(10)	S(6)-C(35)-F(11)	123.3(19)
O(16)-S(3)-C(32)	105.8(12)	F(10)-C(35)-F(11)	86.5(14)
O(14)-S(3)-C(32)	101.4(11)	F(12)-C(35)-F(11)	81.3(13)
F(4)-C(33)-F(5)	100(4)	C(35)-F(10)-S(6)	25.3(10)
F(4)-C(33)-F(6)	67(3)	C(35)-S(6)-O(25)	111.4(17)
F(5)-C(33)-F(6)	83(3)	C(35)-S(6)-O(24)	114.3(16)
F(4)-C(33)-S(4)	138(5)	O(25)-S(6)-O(24)	110.9(15)
F(5)-C(33)-S(4)	119(3)	C(35)-S(6)-O(23)	95.6(15)
F(6)-C(33)-S(4)	102(3)	O(25)-S(6)-O(23)	111.7(13)
C(33)-F(4)-F(6)	70(3)	O(24)-S(6)-O(23)	112.3(14)
C(33)-F(6)-F(4)	43(2)	C(35)-S(6)-F(10)	33.8(12)
S(4)-O(18)-O(19)	50.2(13)	O(25)-S(6)-F(10)	106.8(12)
S(4)-O(19)-O(18)	46.6(12)	O(24)-S(6)-F(10)	86.7(11)
O(18)-S(4)-O(17)	133.7(15)	O(23)-S(6)-F(10)	125.8(11)
O(18)-S(4)-O(19)	83.3(16)		

Symmetry transformations used to generate equivalent atoms:

Table S50. Torsion angles [°] for **11**.

N(1)-Ru(1)-S(1)-C(2)	11(2)	O(1)-Ru(1)-S(1)-C(2)	-0.9(4)
N(2)-Ru(1)-S(1)-C(2)	80.7(4)	P(2)-Ru(1)-S(1)-C(2)	172.7(3)

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P(1)-Ru(1)-S(1)-C(2)	-93.9(3)	N(4)-Ru(2)-P(3)-O(8)	111.7(4)
N(3)-Ru(2)-S(2)-C(3)	-85(8)	P(4)-Ru(2)-P(3)-O(8)	-69.7(4)
N(5)-Ru(2)-S(2)-C(3)	-66.2(4)	S(2)-Ru(2)-P(3)-O(8)	18.3(4)
N(4)-Ru(2)-S(2)-C(3)	17.7(4)	N(3)-Ru(2)-P(3)-O(10)	-37.3(4)
P(4)-Ru(2)-S(2)-C(3)	-157.9(3)	N(5)-Ru(2)-P(3)-O(10)	-63(3)
P(3)-Ru(2)-S(2)-C(3)	111.4(3)	N(4)-Ru(2)-P(3)-O(10)	-124.3(5)
N(3)-Ru(2)-S(2)-C(5)	-5(8)	P(4)-Ru(2)-P(3)-O(10)	54.3(4)
N(5)-Ru(2)-S(2)-C(5)	13.3(4)	S(2)-Ru(2)-P(3)-O(10)	142.2(4)
N(4)-Ru(2)-S(2)-C(5)	97.1(4)	N(3)-Ru(2)-P(3)-O(9)	82.3(4)
P(4)-Ru(2)-S(2)-C(5)	-78.4(3)	N(5)-Ru(2)-P(3)-O(9)	56(3)
P(3)-Ru(2)-S(2)-C(5)	-169.1(3)	N(4)-Ru(2)-P(3)-O(9)	-4.6(5)
N(1)-Ru(1)-P(1)-O(4)	-75.7(6)	P(4)-Ru(2)-P(3)-O(9)	173.9(4)
N(2)-Ru(1)-P(1)-O(4)	-13(3)	S(2)-Ru(2)-P(3)-O(9)	-98.1(4)
O(1)-Ru(1)-P(1)-O(4)	18.8(6)	N(3)-Ru(2)-P(4)-O(13)	-135.4(9)
P(2)-Ru(1)-P(1)-O(4)	-168.4(6)	N(5)-Ru(2)-P(4)-O(13)	-48.6(9)
S(1)-Ru(1)-P(1)-O(4)	98.6(6)	N(4)-Ru(2)-P(4)-O(13)	-62(3)
N(1)-Ru(1)-P(1)-O(3)	170.4(7)	P(3)-Ru(2)-P(4)-O(13)	136.3(9)
N(2)-Ru(1)-P(1)-O(3)	-127(3)	S(2)-Ru(2)-P(4)-O(13)	43.0(9)
O(1)-Ru(1)-P(1)-O(3)	-95.0(7)	N(3)-Ru(2)-P(4)-O(11)	107.4(6)
P(2)-Ru(1)-P(1)-O(3)	77.7(7)	N(5)-Ru(2)-P(4)-O(11)	-165.8(6)
S(1)-Ru(1)-P(1)-O(3)	-15.2(7)	N(4)-Ru(2)-P(4)-O(11)	-179(100)
N(1)-Ru(1)-P(1)-O(2)	48.3(7)	P(3)-Ru(2)-P(4)-O(11)	19.1(6)
N(2)-Ru(1)-P(1)-O(2)	111(3)	S(2)-Ru(2)-P(4)-O(11)	-74.2(6)
O(1)-Ru(1)-P(1)-O(2)	142.9(6)	N(3)-Ru(2)-P(4)-O(12)	-7.0(6)
P(2)-Ru(1)-P(1)-O(2)	-44.4(6)	N(5)-Ru(2)-P(4)-O(12)	79.8(6)
S(1)-Ru(1)-P(1)-O(2)	-137.3(6)	N(4)-Ru(2)-P(4)-O(12)	67(3)
N(1)-Ru(1)-P(2)-O(6)	6.4(11)	P(3)-Ru(2)-P(4)-O(12)	-95.2(6)
N(2)-Ru(1)-P(2)-O(6)	-79.8(11)	S(2)-Ru(2)-P(4)-O(12)	171.4(6)
O(1)-Ru(1)-P(2)-O(6)	-131.2(15)	N(3)-Ru(2)-P(4)-O(11B)	126(2)
P(1)-Ru(1)-P(2)-O(6)	97.8(11)	N(5)-Ru(2)-P(4)-O(11B)	-147(2)
S(1)-Ru(1)-P(2)-O(6)	-171.8(11)	N(4)-Ru(2)-P(4)-O(11B)	-161(4)
N(1)-Ru(1)-P(2)-O(7)	-116.1(10)	P(3)-Ru(2)-P(4)-O(11B)	37(2)
N(2)-Ru(1)-P(2)-O(7)	157.7(10)	S(2)-Ru(2)-P(4)-O(11B)	-56(2)
O(1)-Ru(1)-P(2)-O(7)	106.3(15)	N(3)-Ru(2)-P(4)-O(12B)	-24(3)
P(1)-Ru(1)-P(2)-O(7)	-24.8(10)	N(5)-Ru(2)-P(4)-O(12B)	63(3)
S(1)-Ru(1)-P(2)-O(7)	65.7(10)	N(4)-Ru(2)-P(4)-O(12B)	50(4)
N(1)-Ru(1)-P(2)-O(5)	125.0(6)	P(3)-Ru(2)-P(4)-O(12B)	-112(3)
N(2)-Ru(1)-P(2)-O(5)	38.8(6)	S(2)-Ru(2)-P(4)-O(12B)	154(3)
O(1)-Ru(1)-P(2)-O(5)	-12.5(13)	N(3)-Ru(2)-P(4)-O(13B)	-133(3)
P(1)-Ru(1)-P(2)-O(5)	-143.6(6)	N(5)-Ru(2)-P(4)-O(13B)	-46(3)
S(1)-Ru(1)-P(2)-O(5)	-53.2(6)	N(4)-Ru(2)-P(4)-O(13B)	-59(4)
N(3)-Ru(2)-P(3)-O(8)	-161.3(4)	P(3)-Ru(2)-P(4)-O(13B)	139(3)
N(5)-Ru(2)-P(3)-O(8)	173(3)	S(2)-Ru(2)-P(4)-O(13B)	46(3)

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N(2)-Ru(1)-N(1)-C(22)	-87(18)	O(5)-P(2)-O(6)-C(14)	137(13)
O(1)-Ru(1)-N(1)-C(22)	-6(18)	Ru(1)-P(2)-O(6)-C(14)	-103(12)
P(2)-Ru(1)-N(1)-C(22)	-179(100)	O(6)-P(2)-O(7)-C(15)	36(8)
P(1)-Ru(1)-N(1)-C(22)	87(18)	O(5)-P(2)-O(7)-C(15)	-73(7)
S(1)-Ru(1)-N(1)-C(22)	-17(19)	Ru(1)-P(2)-O(7)-C(15)	167(7)
N(1)-Ru(1)-N(2)-C(24)	56(7)	O(10)-P(3)-O(8)-C(16)	69.3(10)
O(1)-Ru(1)-N(2)-C(24)	-39(7)	O(9)-P(3)-O(8)-C(16)	-40.3(10)
P(2)-Ru(1)-N(2)-C(24)	149(7)	Ru(2)-P(3)-O(8)-C(16)	-166.2(9)
P(1)-Ru(1)-N(2)-C(24)	-6(9)	O(8)-P(3)-O(9)-C(17)	166.2(10)
S(1)-Ru(1)-N(2)-C(24)	-118(7)	O(10)-P(3)-O(9)-C(17)	53.3(11)
N(5)-Ru(2)-N(3)-C(26)	68(74)	Ru(2)-P(3)-O(9)-C(17)	-69.0(11)
N(4)-Ru(2)-N(3)-C(26)	-15(74)	O(8)-P(3)-O(10)-C(18)	-51.7(14)
P(4)-Ru(2)-N(3)-C(26)	160(100)	O(9)-P(3)-O(10)-C(18)	54.1(14)
P(3)-Ru(2)-N(3)-C(26)	-109(74)	Ru(2)-P(3)-O(10)-C(18)	-179.2(12)
S(2)-Ru(2)-N(3)-C(26)	87(74)	O(11B)-C(19)-O(11)-P(4)	-80(9)
N(3)-Ru(2)-N(4)-C(28)	53(4)	O(13)-P(4)-O(11)-O(11B)	11(8)
N(5)-Ru(2)-N(4)-C(28)	-34(4)	O(12)-P(4)-O(11)-O(11B)	-104(7)
P(4)-Ru(2)-N(4)-C(28)	-21(6)	O(12B)-P(4)-O(11)-O(11B)	-94(8)
P(3)-Ru(2)-N(4)-C(28)	141(4)	O(13B)-P(4)-O(11)-O(11B)	12(8)
S(2)-Ru(2)-N(4)-C(28)	-125(4)	Ru(2)-P(4)-O(11)-O(11B)	131(7)
N(3)-Ru(2)-N(5)-C(30)	8(7)	O(13)-P(4)-O(11)-C(19)	90(2)
N(4)-Ru(2)-N(5)-C(30)	95(8)	O(12)-P(4)-O(11)-C(19)	-25(2)
P(4)-Ru(2)-N(5)-C(30)	-84(7)	O(11B)-P(4)-O(11)-C(19)	79(7)
P(3)-Ru(2)-N(5)-C(30)	34(9)	O(12B)-P(4)-O(11)-C(19)	-15(3)
S(2)-Ru(2)-N(5)-C(30)	-172(7)	O(13B)-P(4)-O(11)-C(19)	91(3)
Ru(1)-N(1)-C(22)-C(23)	-161(16)	Ru(2)-P(4)-O(11)-C(19)	-150.3(18)
Ru(1)-N(2)-C(24)-C(25)	111(63)	O(12B)-C(20)-O(12)-P(4)	-81(23)
Ru(2)-N(3)-C(26)-C(27)	6(87)	O(13)-P(4)-O(12)-C(20)	59.2(13)
Ru(2)-N(4)-C(28)-C(29)	-34(44)	O(11)-P(4)-O(12)-C(20)	168.4(10)
Ru(2)-N(5)-C(30)-C(31)	-165(20)	O(11B)-P(4)-O(12)-C(20)	149(2)
O(4)-P(1)-O(2)-C(10)	60.4(15)	O(12B)-P(4)-O(12)-C(20)	25(10)
O(3)-P(1)-O(2)-C(10)	166.9(14)	O(13B)-P(4)-O(12)-C(20)	55(2)
Ru(1)-P(1)-O(2)-C(10)	-63.9(15)	Ru(2)-P(4)-O(12)-C(20)	-68.1(11)
O(4)-P(1)-O(3)-C(11)	108(3)	O(11)-P(4)-O(13)-C(21)	-58(2)
O(2)-P(1)-O(3)-C(11)	-2(3)	O(12)-P(4)-O(13)-C(21)	47(3)
Ru(1)-P(1)-O(3)-C(11)	-136(2)	O(11B)-P(4)-O(13)-C(21)	-55(3)
O(3)-P(1)-O(4)-C(12)	-62(2)	O(12B)-P(4)-O(13)-C(21)	55(4)
O(2)-P(1)-O(4)-C(12)	42(2)	O(13B)-P(4)-O(13)-C(21)	139(43)
Ru(1)-P(1)-O(4)-C(12)	175.5(18)	Ru(2)-P(4)-O(13)-C(21)	178(2)
O(6)-P(2)-O(5)-C(13)	-35.5(19)	O(13B)-C(21)-O(13)-P(4)	-165(17)
O(7)-P(2)-O(5)-C(13)	71.9(18)	P(4)-O(11)-O(11B)-C(19)	135.6(14)
Ru(1)-P(2)-O(5)-C(13)	-162.5(16)	C(19)-O(11)-O(11B)-P(4)	-135.6(14)
O(7)-P(2)-O(6)-C(14)	27(13)	O(11)-C(19)-O(11B)-P(4)	55(5)

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O(13)-P(4)-O(11B)-O(11)	-169(7)	C(2)-C(3)-C(4)-C(9)	8(2)
O(12)-P(4)-O(11B)-O(11)	79(7)	S(2)-C(3)-C(4)-C(9)	174.7(12)
O(12B)-P(4)-O(11B)-O(11)	93(8)	C(3)-C(4)-C(5)-S(2)	-0.4(8)
O(13B)-P(4)-O(11B)-O(11)	-168(8)	C(9)-C(4)-C(5)-S(2)	-175.3(11)
Ru(2)-P(4)-O(11B)-O(11)	-59(8)	C(3)-S(2)-C(5)-C(4)	0.3(6)
O(13)-P(4)-O(11B)-C(19)	135(5)	Ru(2)-S(2)-C(5)-C(4)	-107.4(6)
O(11)-P(4)-O(11B)-C(19)	-55(5)	C(8)-C(1)-O(1)-C(6)	-63.5(12)
O(12)-P(4)-O(11B)-C(19)	24(6)	C(2)-C(1)-O(1)-C(6)	179.0(9)
O(12B)-P(4)-O(11B)-C(19)	38(6)	C(7)-C(1)-O(1)-C(6)	60.5(12)
O(13B)-P(4)-O(11B)-C(19)	136(6)	C(8)-C(1)-O(1)-Ru(1)	109.3(8)
Ru(2)-P(4)-O(11B)-C(19)	-114(5)	C(2)-C(1)-O(1)-Ru(1)	-8.3(10)
O(12)-C(20)-O(12B)-P(4)	83(21)	C(7)-C(1)-O(1)-Ru(1)	-126.7(8)
O(13)-P(4)-O(12B)-C(20)	75(6)	N(1)-Ru(1)-O(1)-C(6)	-0.5(9)
O(11)-P(4)-O(12B)-C(20)	-176(5)	N(2)-Ru(1)-O(1)-C(6)	85.0(9)
O(12)-P(4)-O(12B)-C(20)	-137(13)	P(2)-Ru(1)-O(1)-C(6)	137.0(12)
O(11B)-P(4)-O(12B)-C(20)	163(5)	P(1)-Ru(1)-O(1)-C(6)	-91.9(8)
O(13B)-P(4)-O(12B)-C(20)	70(6)	S(1)-Ru(1)-O(1)-C(6)	178.4(8)
Ru(2)-P(4)-O(12B)-C(20)	-43(6)	N(1)-Ru(1)-O(1)-C(1)	-173.2(7)
O(13)-C(21)-O(13B)-P(4)	10(12)	N(2)-Ru(1)-O(1)-C(1)	-87.7(7)
O(13)-P(4)-O(13B)-C(21)	-36(38)	P(2)-Ru(1)-O(1)-C(1)	-35.7(16)
O(11)-P(4)-O(13B)-C(21)	-54(5)	P(1)-Ru(1)-O(1)-C(1)	95.4(7)
O(12)-P(4)-O(13B)-C(21)	53(5)	S(1)-Ru(1)-O(1)-C(1)	5.6(6)
O(11B)-P(4)-O(13B)-C(21)	-50(5)	F(2)-C(32)-S(3)-O(15)	-52.8(17)
O(12B)-P(4)-O(13B)-C(21)	61(6)	F(1)-C(32)-S(3)-O(15)	179.7(14)
Ru(2)-P(4)-O(13B)-C(21)	-178(4)	F(3)-C(32)-S(3)-O(15)	65.8(16)
O(1)-C(1)-C(2)-C(3)	-167.8(8)	F(2)-C(32)-S(3)-O(16)	-179.3(15)
C(8)-C(1)-C(2)-C(3)	73.1(10)	F(1)-C(32)-S(3)-O(16)	53.3(17)
C(7)-C(1)-C(2)-C(3)	-49.1(13)	F(3)-C(32)-S(3)-O(16)	-60.7(16)
O(1)-C(1)-C(2)-S(1)	7.3(11)	F(2)-C(32)-S(3)-O(14)	65.2(17)
C(8)-C(1)-C(2)-S(1)	-111.8(9)	F(1)-C(32)-S(3)-O(14)	-62.2(17)
C(7)-C(1)-C(2)-S(1)	126.0(9)	F(3)-C(32)-S(3)-O(14)	-176.1(15)
Ru(1)-S(1)-C(2)-C(3)	171.9(6)	F(5)-C(33)-F(4)-F(6)	78(3)
Ru(1)-S(1)-C(2)-C(1)	-3.3(8)	S(4)-C(33)-F(4)-F(6)	-82(6)
C(1)-C(2)-C(3)-C(4)	120.8(12)	F(5)-C(33)-F(6)-F(4)	-104(4)
S(1)-C(2)-C(3)-C(4)	-54.6(13)	S(4)-C(33)-F(6)-F(4)	137(5)
C(1)-C(2)-C(3)-S(2)	-40.9(12)	O(19)-O(18)-S(4)-O(17)	-113(2)
S(1)-C(2)-C(3)-S(2)	143.7(6)	O(19)-O(18)-S(4)-C(33)	91(3)
C(5)-S(2)-C(3)-C(4)	-0.3(7)	O(18)-O(19)-S(4)-O(17)	134.5(16)
Ru(2)-S(2)-C(3)-C(4)	105.4(6)	O(18)-O(19)-S(4)-C(33)	-121(2)
C(5)-S(2)-C(3)-C(2)	166.2(10)	F(4)-C(33)-S(4)-O(18)	150(6)
Ru(2)-S(2)-C(3)-C(2)	-88.1(9)	F(5)-C(33)-S(4)-O(18)	-8(5)
C(2)-C(3)-C(4)-C(5)	-165.9(10)	F(6)-C(33)-S(4)-O(18)	81(3)
S(2)-C(3)-C(4)-C(5)	0.4(8)	F(4)-C(33)-S(4)-O(17)	-13(7)

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F(5)-C(33)-S(4)-O(17)	-170(3)	F(7)-C(34)-S(5)-O(21)	75(2)
F(6)-C(33)-S(4)-O(17)	-82(3)	F(12)-C(35)-F(10)-S(6)	-152(3)
F(4)-C(33)-S(4)-O(19)	-126(7)	F(11)-C(35)-F(10)-S(6)	127(3)
F(5)-C(33)-S(4)-O(19)	77(4)	F(10)-C(35)-S(6)-O(25)	-88(2)
F(6)-C(33)-S(4)-O(19)	166(3)	F(12)-C(35)-S(6)-O(25)	55(3)
F(7)-C(34)-F(8)-F(9)	-115(21)	F(11)-C(35)-S(6)-O(25)	163.6(15)
S(5)-C(34)-F(8)-F(9)	91(2)	F(10)-C(35)-S(6)-O(24)	38(3)
F(7)-C(34)-F(9)-F(8)	168(5)	F(12)-C(35)-S(6)-O(24)	-178(2)
S(5)-C(34)-F(9)-F(8)	-99(2)	F(11)-C(35)-S(6)-O(24)	-70(2)
F(9)-C(34)-S(5)-O(20)	176.0(16)	F(10)-C(35)-S(6)-O(23)	156(2)
F(8)-C(34)-S(5)-O(20)	114(2)	F(12)-C(35)-S(6)-O(23)	-61(3)
F(7)-C(34)-S(5)-O(20)	-61(2)	F(11)-C(35)-S(6)-O(23)	47.8(19)
F(9)-C(34)-S(5)-O(22)	62(3)	F(12)-C(35)-S(6)-F(10)	144(4)
F(8)-C(34)-S(5)-O(22)	0(3)	F(11)-C(35)-S(6)-F(10)	-108(3)
F(7)-C(34)-S(5)-O(22)	-176(3)	C(35)-F(10)-S(6)-O(25)	103(3)
F(9)-C(34)-S(5)-O(21)	-48(2)	C(35)-F(10)-S(6)-O(24)	-146(3)
F(8)-C(34)-S(5)-O(21)	-110(3)	C(35)-F(10)-S(6)-O(23)	-30(3)

Symmetry transformations used to generate equivalent atoms: