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Table S1: Analytical, ^{1}H NMR and UV data of three isomeric mono- (**6, 8, 9**) and bis-(**7**) crown [oxy(tetraethylenoxy)] (2,2'-dioxybinaphthylene-1,1') cyclophosphazene derivatives of general formula: $N_3P_3Cl_{4-2x}\{1,3\text{-}[O(CH_2CH_2O)_4]\}_x[O_2C_{20}H_{12}]$; where x = 1, 2 (**Supplementary Material**)

Code numbers			Formula[c]	Elemental Analysis, % [d]			^{1}H NMR, δ_H, ppm[e]			UV[f]	
No	x[a]	n, m[b]		C	H	N	**CH_2**-OC	**CH_2**-OP	**CH_{Ar}**	λ_{max}, nm	ε_{max}
6	1	5,5	$C_{28}H_{28}O_7N_3P_3Cl_2$	49.5 49.3	4.2 4.1	6.4 6.2	3.89-3.64 (m, 12 H)	4.37-4.22 (m, 4 H)	8.02-7.26 (2m, 12H)	305	9.8×10^3
7	2	5,5	$C_{36}H_{44}O_{12}N_3P_3$	53.6 53.8	5.4 5.5	5.3 5.2	3.79-3.67 (m, 24 H)	4.30-4.10 (m, 8 H)	7.99-7.22 (2m, 12H)	305	8.8×10^3
8	1	1,3	$C_{28}H_{28}O_7N_3P_3Cl_2$	49.1 49.3	4.1 4.1	6.3 6.2	3.97-3.55 (3m,12H)	4.42-4.21 (2m, 4 H)	8.02-6.88 (4m, 12H)	285	8.0×10^3
9	1	1,5	$C_{28}H_{28}O_7N_3P_3Cl_2$	49.2 49.3	4.0 4.1	6.1 6.2	4.04-3.62 (3m,12H)	4.42-4.20 (2m, 4 H)	8.05-6.84 (5m, 12H)	285	6.5×10^3

[a] x- number of 1,3-oxytetraethylenoxy units in P_3N_3 ring, [b] n,m - the positions of linking 2,2'-dioxy-1,1'-binaphthylene groups to the P_3N_3 ring [1,3 (ansa), 1,5 (ansa'), 5,5 (spiro)]; [c] for the structural formulae -see Scheme 1; [d] found/calc. [e] in $CDCl_3$; [f] in THF

Table S2. 1. Crystal data and structure refinement for $C_{36}H_{44}N_3O_{12}P_3$ (7)

Identification code	s92 (compound 7)
Empirical formula	$C_{36}H_{44}N_3O_{12}P_3$
Formula weight	803.65
Temperature	293(2) K
Wavelength	0.71069 A
Crystal system	MONOCLINIC
Space group	C2/c
Unit cell dimensions	a = 32.368(9) A alpha = 90 deg. b = 12.861 A beta = 128.65 deg. c = 23.184(3) A gamma = 90 deg.
Volume	7537(2) A^3
Z	8
Density (calculated)	1.416 Mg/m^3
Absorption coefficient	0.225 mm^-1
F(000)	3376
Crystal size	0.25 x 0.1 x 0.1 mm
Theta range for data collection	1.77 to 25.06 deg.
Index ranges	-35<=h<=34, -14<=k<=13, -23<=l<=27
Reflections collected	14254
Independent reflections	5523 [R(int) = 0.0941]
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	5523 / 58 / 565
Goodness-of-fit on F^2	0.933
Final R indices [I>2sigma(I)]	R1 = 0.0639, wR2 = 0.1447
R indices (all data)	R1 = 0.1217, wR2 = 0.1558
Largest diff. peak and hole	0.537 and -0.287 e.A^-3

Table S2. 2. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (A^2 x 10^3) for $C_{36}H_{44}N_3O_{12}P_3$. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor.

	x	y	z	U(eq)
P(1)	4169(1)	1787(1)	232(1)	47(1)
P(2)	4747(1)	2401(1)	-216(1)	49(1)
P(3)	4310(1)	3877(1)	139(1)	37(1)
O(1)	3641(2)	1129(3)	-336(2)	47(1)
O(2)	4377(1)	1291(3)	1000(2)	43(1)
O(3)	3856(1)	4645(3)	-405(2)	42(1)
O(4)	3115(2)	6032(3)	-1604(2)	67(1)
O(5)	2825(2)	4623(3)	-2850(2)	66(1)
O(6)	3227(2)	2504(3)	-2757(3)	75(1)
O(7)	4543(2)	2167(3)	-1023(2)	50(1)
O(8)	5354(2)	2308(2)	220(2)	45(1)
O(9)	6360(3)	1602(5)	1646(4)	37(2)
O(9')	5921(4)	1380(7)	1543(5)	85(3)
O(10)	5951(4)	1549(5)	2494(5)	47(3)
O(10')	6081(3)	2671(5)	2690(4)	53(2)
O(11)	5451(3)	3537(6)	2145(4)	56(2)
O(11')	5425(3)	4586(6)	2444(4)	53(2)
O(12)	4670(2)	4563(3)	848(2)	45(1)
N(1)	4531(2)	1516(3)	14(3)	55(2)
N(2)	4627(2)	3555(3)	-151(3)	51(1)
N(3)	4052(2)	2958(3)	271(2)	42(1)
C(1)	3276(3)	1013(4)	-195(3)	39(2)
C(2)	2813(3)	1590(4)	-624(3)	46(2)
C(3)	2446(2)	1484(4)	-521(3)	46(2)
C(4)	2545(2)	819(4)	38(3)	38(1)
C(5)	3017(2)	242(4)	477(3)	33(1)
C(6)	3397(2)	316(4)	342(3)	36(1)
C(7)	3111(2)	-366(4)	1054(3)	39(2)
C(8)	2755(2)	-400(4)	1188(3)	41(2)
C(9)	2291(3)	169(4)	757(3)	47(2)
C(10)	2181(2)	771(4)	187(3)	44(2)
C(11)	4359(3)	223(4)	1074(3)	43(2)
C(12)	4859(3)	-282(5)	1534(3)	55(2)
C(13)	4868(3)	-1335(5)	1652(4)	63(2)
C(14)	4389(3)	-1919(5)	1289(4)	57(2)
C(15)	3900(3)	-1392(4)	829(3)	42(2)
C(16)	3889(3)	-283(4)	757(3)	39(2)
C(17)	3436(3)	-2015(4)	439(3)	53(2)
C(18)	3458(3)	-3070(5)	520(4)	65(2)
C(19)	3950(3)	-3562(6)	997(4)	67(2)
C(20)	4409(3)	-3036(5)	1385(4)	70(2)
C(21)	3995(3)	1970(5)	-1613(4)	67(2)
C(22)	3745(3)	2796(5)	-2176(4)	75(2)
C(23)	2947(3)	3185(6)	-3373(4)	97(3)
C(24)	2565(3)	3818(5)	-3381(4)	92(3)

C(25)	2477(3)	5201(5)	-2801(4)	70(2)
C(26)	2734(3)	6178(5)	-2374(3)	65(2)
C(27)	3622(2)	5834(4)	-1372(3)	50(2)
C(28)	3982(2)	5649(4)	-546(3)	42(2)
C(29)	5606(3)	1312(4)	332(3)	58(2)
C(30)	5969(3)	1007(6)	1061(4)	95(3)
C(31)	6613(9)	1258(20)	2386(8)	87(8)
C(31')	6404(7)	1320(13)	2285(6)	64(7)
C(32)	6458(5)	1880(12)	2725(10)	82(6)
C(32')	6273(11)	1665(13)	2728(13)	103(8)
C(33)	5761(6)	1962(9)	2867(8)	75(5)
C(34)	5744(6)	3029(9)	2855(7)	107(11)
C(34A)	5822(7)	3007(10)	3033(10)	49(5)
C(34')	5823(5)	4016(10)	3115(6)	74(4)
C(35)	5480(6)	4648(8)	2069(6)	20(3)
C(35')	5573(7)	4708(17)	1979(9)	103(10)
C(36)	5198(4)	4957(9)	1319(6)	46(3)
C(36')	5222(4)	4146(11)	1307(6)	60(4)

Table S2. 3. Bond lengths [A] and angles [deg] for $C_{36}H_{44}N_3O_{12}P_3$. (7)

P(1)-N(3)	1.570(4)
P(1)-N(1)	1.578(4)
P(1)-O(2)	1.591(4)
P(1)-O(1)	1.599(4)
P(2)-O(8)	1.555(4)
P(2)-N(2)	1.565(4)
P(2)-O(7)	1.576(4)
P(2)-N(1)	1.592(4)
P(3)-O(3)	1.553(4)
P(3)-O(12)	1.564(4)
P(3)-N(3)	1.583(4)
P(3)-N(2)	1.593(4)
O(1)-C(1)	1.416(6)
O(2)-C(11)	1.389(6)
O(3)-C(28)	1.453(5)
O(4)-C(27)	1.396(6)
O(4)-C(26)	1.412(6)
O(5)-C(25)	1.412(7)
O(5)-C(24)	1.415(7)
O(6)-C(22)	1.395(8)
O(6)-C(23)	1.418(7)
O(7)-C(21)	1.434(7)
O(8)-C(29)	1.451(5)
O(9)-O(9')	1.315(11)
O(9)-C(30)	1.371(8)
O(9)-C(31')	1.44(2)
O(9)-C(31)	1.434(10)
O(9')-C(31')	1.430(10)
O(10)-C(32')	0.84(3)
O(10)-C(33)	1.438(9)
O(10)-C(32)	1.438(10)
O(10)-O(10')	1.493(10)
O(10)-C(31')	1.83(2)
O(10')-C(32')	1.416(11)
O(10')-C(34A)	1.53(2)
O(11)-C(34)	1.443(10)
O(11)-C(35)	1.451(9)
O(11)-O(11')	1.544(10)
O(11)-C(35')	1.66(2)
O(11)-C(36')	1.771(14)
O(11)-C(34A)	1.75(2)
O(11)-C(34')	1.871(13)
O(11')-C(35')	1.438(10)
O(11')-C(34')	1.453(9)
O(12)-C(36)	1.428(9)
O(12)-C(36')	1.495(8)
C(1)-C(6)	1.378(7)
C(1)-C(2)	1.389(7)
C(2)-C(3)	1.354(7)
C(3)-C(4)	1.413(7)
C(4)-C(5)	1.406(7)

C(4)-C(10)	1.420(7)
C(5)-C(7)	1.409(6)
C(5)-C(6)	1.451(7)
C(6)-C(16)	1.463(7)
C(7)-C(8)	1.369(6)
C(8)-C(9)	1.382(7)
C(9)-C(10)	1.371(7)
C(11)-C(16)	1.374(7)
C(11)-C(12)	1.421(8)
C(12)-C(13)	1.378(8)
C(13)-C(14)	1.429(8)
C(14)-C(15)	1.414(8)
C(14)-C(20)	1.449(8)
C(15)-C(17)	1.420(7)
C(15)-C(16)	1.433(7)
C(17)-C(18)	1.366(7)
C(18)-C(19)	1.400(9)
C(19)-C(20)	1.343(9)
C(21)-C(22)	1.472(8)
C(23)-C(24)	1.472(9)
C(25)-C(26)	1.491(8)
C(27)-C(28)	1.514(7)
C(29)-C(30)	1.382(7)
C(31)-C(31')	0.57(3)
C(31)-C(32)	1.414(11)
C(31)-C(32')	1.79(3)
C(31')-C(32)	1.17(2)
C(31')-C(32')	1.404(11)
C(32)-C(32')	0.66(2)
C(32')-C(33)	1.91(2)
C(33)-C(34A)	1.38(2)
C(33)-C(34)	1.373(10)
C(34A)-C(34')	1.31(2)
C(35)-C(36)	1.426(10)
C(35)-C(36')	1.55(2)
C(35')-C(36')	1.424(11)
C(36)-C(36')	1.05(2)

N(3)-P(1)-N(1)	119.0(2)
N(3)-P(1)-O(2)	105.6(2)
N(1)-P(1)-O(2)	112.9(2)
N(3)-P(1)-O(1)	112.5(2)
N(1)-P(1)-O(1)	104.2(2)
O(2)-P(1)-O(1)	101.4(2)
O(8)-P(2)-N(2)	107.5(2)
O(8)-P(2)-O(7)	100.3(2)
N(2)-P(2)-O(7)	110.5(2)
O(8)-P(2)-N(1)	111.7(2)
N(2)-P(2)-N(1)	117.3(2)
O(7)-P(2)-N(1)	108.4(2)
O(3)-P(3)-O(12)	101.6(2)
O(3)-P(3)-N(3)	106.5(2)
O(12)-P(3)-N(3)	110.8(2)
O(3)-P(3)-N(2)	110.8(2)
O(12)-P(3)-N(2)	109.7(2)

N(3)-P(3)-N(2)	116.4(2)
C(1)-O(1)-P(1)	118.8(3)
C(11)-O(2)-P(1)	120.8(3)
C(28)-O(3)-P(3)	119.4(3)
C(27)-O(4)-C(26)	113.5(4)
C(25)-O(5)-C(24)	112.7(6)
C(22)-O(6)-C(23)	115.6(6)
C(21)-O(7)-P(2)	121.2(3)
C(29)-O(8)-P(2)	121.6(4)
O(9')-O(9)-C(30)	58.4(5)
O(9')-O(9)-C(31')	62.2(7)
C(30)-O(9)-C(31')	108.2(9)
O(9')-O(9)-C(31)	83.9(13)
C(30)-O(9)-C(31)	119.7(14)
C(31')-O(9)-C(31)	22.7(14)
O(9)-O(9')-C(31')	63.3(9)
C(32')-O(10)-C(33)	112(2)
C(32')-O(10)-C(32)	15(2)
C(33)-O(10)-C(32)	118.9(11)
C(32')-O(10)-O(10')	68.3(10)
C(33)-O(10)-O(10')	66.7(6)
C(32)-O(10)-O(10')	64.0(8)
C(32')-O(10)-C(31')	47(2)
C(33)-O(10)-C(31')	158.5(10)
C(32)-O(10)-C(31')	39.6(9)
O(10')-O(10)-C(31')	96.7(7)
C(32')-O(10')-O(10)	33.3(11)
C(32')-O(10')-C(34A)	126.0(12)
O(10)-O(10')-C(34A)	106.8(7)
C(34)-O(11)-C(35)	122.6(9)
C(34)-O(11)-O(11')	93.8(7)
C(35)-O(11)-O(11')	38.6(6)
C(34)-O(11)-C(35')	126.3(10)
C(35)-O(11)-C(35')	15.4(10)
O(11')-O(11)-C(35')	53.1(6)
C(34)-O(11)-C(36')	167.8(8)
C(35)-O(11)-C(36')	56.3(7)
O(11')-O(11)-C(36')	90.1(6)
C(35')-O(11)-C(36')	48.9(5)
C(34)-O(11)-C(34A)	4.0(8)
C(35)-O(11)-C(34A)	118.6(8)
O(11')-O(11)-C(34A)	90.1(6)
C(35')-O(11)-C(34A)	122.6(9)
C(36')-O(11)-C(34A)	166.8(8)
C(34)-O(11)-C(34')	46.3(5)
C(35)-O(11)-C(34')	77.3(7)
O(11')-O(11)-C(34')	49.2(4)
C(35')-O(11)-C(34')	85.0(7)
C(36')-O(11)-C(34')	133.3(7)
C(34A)-O(11)-C(34')	42.3(6)
C(35')-O(11')-C(34')	111.7(12)
C(35')-O(11')-O(11)	67.7(10)
C(34')-O(11')-O(11)	77.2(6)
C(36)-O(12)-C(36')	41.9(6)
C(36)-O(12)-P(3)	138.9(6)

C(36')-O(12)-P(3)	108.7(5)
P(1)-N(1)-P(2)	121.3(3)
P(2)-N(2)-P(3)	123.5(2)
P(1)-N(3)-P(3)	122.0(2)
C(6)-C(1)-C(2)	124.3(5)
C(6)-C(1)-O(1)	118.1(5)
C(2)-C(1)-O(1)	117.6(5)
C(3)-C(2)-C(1)	119.6(5)
C(2)-C(3)-C(4)	120.1(6)
C(5)-C(4)-C(3)	120.3(5)
C(5)-C(4)-C(10)	119.3(5)
C(3)-C(4)-C(10)	120.2(6)
C(4)-C(5)-C(7)	118.4(5)
C(4)-C(5)-C(6)	119.5(5)
C(7)-C(5)-C(6)	122.1(5)
C(1)-C(6)-C(5)	116.0(5)
C(1)-C(6)-C(16)	121.0(5)
C(5)-C(6)-C(16)	123.0(5)
C(8)-C(7)-C(5)	121.2(5)
C(7)-C(8)-C(9)	120.5(5)
C(10)-C(9)-C(8)	120.4(5)
C(9)-C(10)-C(4)	120.2(5)
C(16)-C(11)-O(2)	121.4(5)
C(16)-C(11)-C(12)	123.1(5)
O(2)-C(11)-C(12)	115.4(5)
C(13)-C(12)-C(11)	118.1(6)
C(12)-C(13)-C(14)	121.3(6)
C(15)-C(14)-C(13)	118.9(6)
C(15)-C(14)-C(20)	120.9(7)
C(13)-C(14)-C(20)	120.2(7)
C(14)-C(15)-C(17)	116.8(6)
C(14)-C(15)-C(16)	120.0(6)
C(17)-C(15)-C(16)	123.2(6)
C(11)-C(16)-C(15)	118.1(6)
C(11)-C(16)-C(6)	119.3(5)
C(15)-C(16)-C(6)	122.5(5)
C(18)-C(17)-C(15)	122.0(6)
C(17)-C(18)-C(19)	119.6(7)
C(20)-C(19)-C(18)	122.5(7)
C(19)-C(20)-C(14)	118.2(7)
O(7)-C(21)-C(22)	112.7(5)
O(6)-C(22)-C(21)	109.0(6)
O(6)-C(23)-C(24)	110.9(6)
O(5)-C(24)-C(23)	110.8(7)
O(5)-C(25)-C(26)	110.8(6)
O(4)-C(26)-C(25)	114.3(5)
O(4)-C(27)-C(28)	107.9(4)
O(3)-C(28)-C(27)	108.8(4)
C(30)-C(29)-O(8)	115.1(5)
O(9)-C(30)-C(29)	127.2(7)
C(31')-C(31)-C(32)	53(3)
C(31')-C(31)-O(9)	80(2)
C(32)-C(31)-O(9)	111(2)
C(31')-C(31)-C(32')	40(2)
C(32)-C(31)-C(32')	19.8(10)

O(9)-C(31)-C(32')	113.0(12)
C(31)-C(31')-C(32)	104(3)
C(31)-C(31')-C(32')	125(3)
C(32)-C(31')-C(32')	28.0(12)
C(31)-C(31')-O(9')	129(2)
C(32)-C(31')-O(9')	118(2)
C(32')-C(31')-O(9')	105(2)
C(31)-C(31')-O(9)	78(2)
C(32)-C(31')-O(9)	127(2)
C(32')-C(31')-O(9)	142(2)
O(9')-C(31')-O(9)	54.5(6)
C(31)-C(31')-O(10)	149(2)
C(32)-C(31')-O(10)	51.6(9)
C(32')-C(31')-O(10)	25.8(12)
O(9')-C(31')-O(10)	81.8(10)
O(9)-C(31')-O(10)	130.5(11)
C(32')-C(32)-C(31')	96(3)
C(32')-C(32)-C(31)	114(3)
C(31')-C(32)-C(31)	23(2)
C(32')-C(32)-O(10)	19(3)
C(31')-C(32)-O(10)	88.8(13)
C(31)-C(32)-O(10)	110(2)
C(32)-C(32')-O(10)	147(4)
C(32)-C(32')-O(10')	89(2)
O(10)-C(32')-O(10')	78.4(13)
C(32)-C(32')-C(31')	56(2)
O(10)-C(32')-C(31')	107(3)
O(10')-C(32')-C(31')	125(2)
C(32)-C(32')-C(31)	46(2)
O(10)-C(32')-C(31)	122(2)
O(10')-C(32')-C(31)	128(2)
C(31')-C(32')-C(31)	15.1(11)
C(32)-C(32')-C(33)	143(2)
O(10)-C(32')-C(33)	44.2(12)
O(10')-C(32')-C(33)	55.5(8)
C(31')-C(32')-C(33)	151(2)
C(31)-C(32')-C(33)	166(2)
C(34A)-C(33)-C(34)	13.5(10)
C(34A)-C(33)-O(10)	119.3(11)
C(34)-C(33)-O(10)	112.6(9)
C(34A)-C(33)-C(32')	104.8(11)
C(34)-C(33)-C(32')	102.9(9)
O(10)-C(33)-C(32')	23.9(9)
C(33)-C(34)-O(11)	117.7(12)
C(34')-C(34A)-C(33)	173(2)
C(34')-C(34A)-O(10')	113.6(12)
C(33)-C(34A)-O(10')	67.0(8)
C(34')-C(34A)-O(11)	73.9(9)
C(33)-C(34A)-O(11)	100.3(12)
O(10')-C(34A)-O(11)	72.2(8)
C(34A)-C(34')-O(11')	115.1(13)
C(34A)-C(34')-O(11)	63.8(10)
O(11')-C(34')-O(11)	53.6(5)
O(11)-C(35)-C(36)	112.5(9)
O(11)-C(35)-C(36')	72.4(8)

C(36)-C(35)-C(36')	41.0(7)
O(11')-C(35')-C(36')	110.5(12)
O(11')-C(35')-O(11)	59.2(7)
C(36')-C(35')-O(11)	69.5(10)
C(36')-C(36)-O(12)	72.4(7)
C(36')-C(36)-C(35)	75.7(11)
O(12)-C(36)-C(35)	112.4(9)
C(36)-C(36')-C(35')	59.2(12)
C(36)-C(36')-O(12)	65.7(7)
C(35')-C(36')-O(12)	112.3(12)
C(36)-C(36')-C(35)	63.3(9)
C(35')-C(36')-C(35)	17.5(9)
O(12)-C(36')-C(35)	102.5(8)
C(36)-C(36')-O(11)	113.6(11)
C(35')-C(36')-O(11)	61.6(10)
O(12)-C(36')-O(11)	115.9(8)
C(35)-C(36')-O(11)	51.3(5)

Symmetry transformations used to generate equivalent atoms:

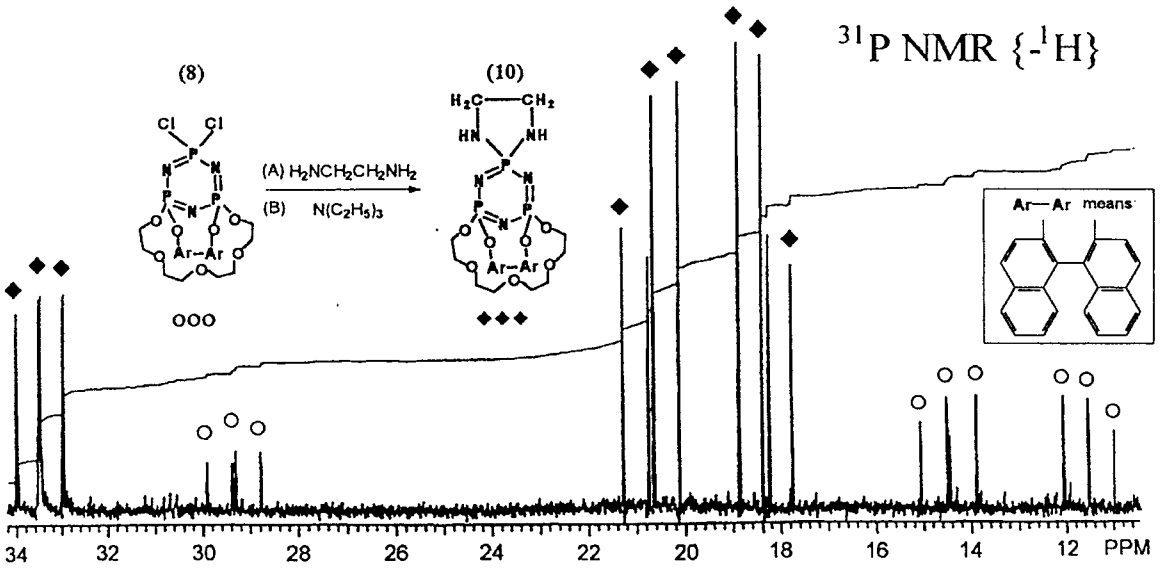
Table S2. 4. Anisotropic displacement parameters (A^2 x 10^3) for $C_{36}H_{44}N_3O_{12}P_3$. The anisotropic displacement factor exponent takes the form: -2 pi^2 [h^2 a*^2 U11 + ... + 2 h k a* b* U12]

	U11	U22	U33	U23	U13	U12
P(1)	75(1)	32(1)	74(1)	-9(1)	66(1)	-12(1)
P(2)	77(2)	30(1)	84(1)	-3(1)	73(1)	-4(1)
P(3)	50(1)	30(1)	56(1)	-7(1)	45(1)	-7(1)
O(1)	78(3)	35(2)	62(3)	-14(2)	62(3)	-21(2)
O(2)	59(3)	34(2)	63(3)	-8(2)	50(3)	-14(2)
O(3)	36(3)	41(2)	52(2)	8(2)	29(2)	-3(2)
O(4)	56(3)	108(4)	49(3)	11(2)	38(3)	16(3)
O(5)	78(4)	53(3)	56(3)	-13(2)	37(3)	-8(3)
O(6)	94(4)	52(3)	66(3)	1(3)	43(3)	-7(3)
O(7)	62(3)	47(3)	71(3)	-8(2)	57(3)	-6(2)
O(8)	66(3)	33(2)	72(3)	4(2)	59(3)	6(2)
O(9)	45(6)	34(4)	41(5)	4(4)	30(5)	1(4)
O(9')	118(11)	75(7)	84(8)	24(6)	74(8)	29(6)
O(10)	67(8)	36(5)	79(7)	4(4)	65(7)	6(4)
O(10')	75(7)	33(5)	57(5)	9(4)	44(5)	8(4)
O(11)	63(7)	54(6)	52(5)	15(4)	36(5)	13(4)
O(11')	41(6)	67(6)	45(5)	-19(5)	24(5)	3(5)
O(12)	41(3)	54(3)	42(2)	-9(2)	27(2)	-14(2)
N(1)	91(4)	28(3)	106(4)	-9(3)	91(4)	-7(3)
N(2)	80(4)	31(3)	98(4)	-2(3)	83(4)	-5(2)
N(3)	61(4)	31(3)	66(3)	-11(2)	55(3)	-12(2)
C(1)	64(5)	26(3)	46(3)	-13(3)	43(4)	-15(3)
C(2)	74(5)	30(4)	42(4)	-3(3)	40(4)	-8(3)
C(3)	57(5)	38(4)	52(4)	-7(3)	38(4)	-8(3)
C(4)	49(4)	30(3)	46(4)	-11(3)	36(4)	-14(3)
C(5)	46(4)	23(3)	44(3)	-11(3)	35(4)	-13(3)
C(6)	54(4)	23(3)	45(3)	-13(3)	38(4)	-13(3)
C(7)	55(4)	26(3)	54(4)	-8(3)	43(4)	-9(3)
C(8)	54(5)	31(3)	58(4)	-6(3)	46(4)	-8(3)
C(9)	61(5)	38(4)	69(4)	-14(3)	55(4)	-17(3)
C(10)	41(4)	32(3)	62(4)	-12(3)	33(4)	-10(3)
C(11)	62(5)	35(4)	63(4)	-3(3)	53(4)	3(4)
C(12)	77(6)	53(4)	78(5)	-8(4)	69(5)	-6(4)
C(13)	86(6)	66(5)	82(5)	16(4)	75(5)	26(4)
C(14)	97(7)	51(4)	78(5)	-4(4)	81(5)	-2(4)
C(15)	69(5)	35(4)	54(4)	-3(3)	54(4)	1(4)
C(16)	61(5)	35(4)	53(4)	-10(3)	51(4)	-11(3)
C(17)	95(6)	31(4)	66(4)	-11(3)	66(5)	-16(4)
C(18)	115(7)	39(4)	77(5)	-16(4)	78(6)	-24(4)
C(19)	90(4)	60(4)	75(4)	-6(3)	62(3)	-3(3)
C(20)	115(7)	58(5)	85(5)	7(4)	86(6)	19(5)
C(21)	75(6)	53(4)	95(5)	3(4)	63(5)	-9(4)
C(22)	107(7)	53(5)	76(5)	3(4)	63(6)	-5(5)
C(23)	160(9)	58(5)	55(5)	7(4)	58(6)	31(5)
C(24)	111(8)	54(5)	54(4)	-3(4)	25(5)	-4(5)

C(25)	77(6)	74(5)	63(5)	17(4)	46(5)	-2(4)
C(26)	75(6)	74(5)	51(4)	-1(4)	42(5)	6(4)
C(27)	58(5)	52(4)	64(4)	6(3)	50(4)	11(3)
C(28)	53(4)	34(3)	58(4)	-3(3)	43(4)	-5(3)
C(29)	96(6)	40(4)	73(5)	7(3)	70(5)	17(4)
C(30)	100(7)	89(6)	61(5)	-13(5)	33(6)	38(5)
C(31)	93(10)	98(10)	83(10)	-2(5)	61(7)	5(5)
C(31')	120(20)	35(8)	14(7)	3(6)	30(10)	22(10)
C(32)	78(8)	78(8)	86(8)	9(5)	49(6)	-1(5)
C(32')	103(9)	99(10)	106(9)	3(5)	65(7)	9(5)
C(33)	123(14)	53(9)	108(12)	31(9)	101(12)	26(9)
C(34)	145(20)	187(26)	53(12)	-2(12)	93(14)	18(15)
C(34')	93(12)	92(12)	41(8)	15(8)	44(9)	42(10)
C(35)	25(5)	24(5)	13(5)	-10(4)	14(4)	6(4)
C(35')	112(19)	117(16)	157(22)	40(14)	121(18)	13(12)
C(36)	44(5)	44(5)	51(5)	-3(4)	30(4)	-7(4)
C(36')	19(8)	102(12)	24(7)	-37(8)	-3(7)	-5(7)

Table S2. 5 Hydrogen coordinates (x 10^4) and isotropic displacement parameters (A^2 x 10^3) for $C_{36}H_{44}N_3O_{12}P_3$ (7)

	x	y	z	U(eq)
H(2)	2754(3)	2047(4)	-979(3)	55
H(3)	2129(2)	1849(4)	-819(3)	55
H(7)	3422(2)	-752(4)	1350(3)	47
H(8)	2824(2)	-809(4)	1570(3)	49
H(9)	2053(3)	144(4)	854(3)	56
H(10)	1868(2)	1148(4)	-102(3)	53
H(12)	5171(3)	88(5)	1751(3)	67
H(13)	5191(3)	-1672(5)	1973(4)	75
H(17)	3108(3)	-1695(4)	119(3)	64
H(18)	3148(3)	-3459(5)	259(4)	78
H(19)	3960(3)	-4281(6)	1047(4)	81
H(20)	4731(3)	-3380(5)	1707(4)	84
H(21A)	3809(3)	1906(5)	-1411(4)	81
H(21B)	3961(3)	1314(5)	-1845(4)	81
H(22A)	3744(3)	3443(5)	-1961(4)	90
H(22B)	3942(3)	2902(5)	-2358(4)	90
H(23A)	2762(3)	2781(6)	-3825(4)	116
H(23B)	3196(3)	3637(6)	-3352(4)	116
H(24A)	2310(3)	4118(5)	-3868(4)	110
H(24B)	2375(3)	3379(5)	-3277(4)	110
H(25A)	2374(3)	4785(5)	-2561(4)	84
H(25B)	2160(3)	5371(5)	-3293(4)	84
H(26A)	2904(3)	6513(5)	-2552(3)	78
H(26B)	2463(3)	6645(5)	-2468(3)	78
H(27A)	3747(2)	6422(4)	-1486(3)	61
H(27B)	3618(2)	5226(4)	-1623(3)	61
H(28A)	4349(2)	5659(4)	-350(3)	51
H(28B)	3932(2)	6194(4)	-305(3)	51
H(29A)	5333(3)	784(4)	68(3)	70
H(29B)	5783(3)	1344(4)	116(3)	70



(C) Figure S1:

The ^{31}P $\{-^1H\}$ NMR spectrum of the crude mixture (in $CDCl_3$ solution) formed by substitution of the regioisomer **8** with ethylenediamine: circles (ooo) denote the AMX spin system characteristic of unreacted isomer **8,** and diamonds (♦) denote the AMX spin system of its spiro[ethylenediamino] derivative **10.**

(C) Fig S-1

(D) Fig - S2.

(D) Figure S2:

LSIMS spectrum of the complex of the compound **9** with LiBr , showing molecular ion **9-Li**$^+$ at m/e 688