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J797-1

STRUCTURE DETERMINATION SUMMARY FOR RW20Crystal Data for Mes*Al(NHPh)₂·Et₂O

Empirical Formula	C ₃₄ H ₅₁ Al N ₂ O
Color; Habit	colorless block
Crystal Size (mm)	0.28 x 0.30 x 0.42
Crystal System	Monoclinic
Space Group	P2 ₁ /c
Unit Cell Dimensions	$\underline{a}$ - 10.255(3) Å $\underline{b}$ - 16.733(5) Å $\underline{c}$ - 19.267(8) Å β - 95.09(3)°
Volume	3293(2) Å ³
Z	4
Formula Weight	530.7
Density(calc.)	1.070 Mg/m ³
Absorption Coefficient	0.724 mm ⁻¹
F(000)	1160

J797-2

Data Collection for Mes*Al(NHPh)₂•Et₂O

Diffractometer Used	Syntex P2 ₁
Radiation	CuK α (λ = 1.54178 Å)
Temperature (K)	130
Monochromator	Highly oriented graphite crystal
2 θ Range	0.0 to 114.0°
Scan Type	2 θ - θ
Scan Speed	Constant; 29.30°/min. in ω
Scan Range (ω)	1.60° plus K α -separation
Background Measurement	Stationary crystal and stationary counter at beginning and end of scan, each for 50.0% of total scan time
Standard Reflections	2 measured every 198 reflections
Index Ranges	-11 $\leq h \leq$ 11, 0 $\leq k \leq$ 18 0 $\leq l \leq$ 20
Reflections Collected	4932
Independent Reflections	4441 (R_{int} = 5.40%)
Observed Reflections	3070 ($F > 4.0\sigma(F)$)
Absorption Correction	XABS ¹
Range Transmission coefs	0.78 - 0.85

- 1) Program XABS provides an empirical correction based on F_o and F_c differences. Hope, H.; Moezzi, B.
Chemistry Department, University of California, Davis.

J797-3

Solution and Refinement for Mes*Al(NHPh)₂•Et₂O

System Used	Siemens SHELXTL PLUS (VMS) ^{1,2}
Solution	Direct Methods
Refinement Method	Full-Matrix Least-Squares
Quantity Minimized	$\sum w(F_o - F_c)^2$
Absolute Structure	N/A
Extinction Correction	N/A
Hydrogen Atoms	Riding model, fixed isotropic U
Weighting Scheme	$w^{-1} = \sigma^2(F) + 0.0006F^2$
Number of Parameters Refined	343
Final R Indices ³ (obs. data)	R = 6.14 %, wR = 7.00 %
R Indices (all data)	R = 8.83 %, wR = 7.68 %
Goodness-of-Fit ⁴	1.45
Largest and Mean Δ/σ	0.003, 0.001
Data-to-Parameter Ratio	9.0:1
Largest Difference Peak	0.28 eÅ ⁻³
Largest Difference Hole	-0.34 eÅ ⁻³

1) G. M. Sheldrick, SHELXTL PLUS, *A Program For Crystal Structure*

Determination, Version 4.2, 1990, Siemens Analytical X-ray
Instruments, Madison, Wisconsin.

2) Scattering factors (neutral atoms) are from "International
Tables for Crystallography" Vol. C, D. Reidel Publishing Co.
Boston, 1992.

3) $R = \sum ||F_o| - |F_c|| / \sum |F_o|$; $R_w = \sum ||F_o| - |F_c|| \sqrt{w} / \sum |F_o| \sqrt{w}$

4) Goodness-of-Fit = $[\sum (w \cdot ||F_o| - |F_c||^2) / (M-N)]^{1/2}$ where M is the number
of observed reflections and N is the number of parameters refined.

J797-4

Table 1. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement coefficients ($\text{\AA}^2 \times 10^3$) for $\text{Mes*Al}(\text{NHPH})_2 \cdot \text{Et}_2\text{O}$

	x	y	z	U(eq)
Al(1)	1284(1)	1702(1)	6644(1)	25(1)
O(1)	4372(3)	569(2)	7456(2)	42(1)
N(1)	1474(3)	1250(2)	7491(2)	31(1)
N(2)	2713(3)	1471(2)	6209(2)	28(1)
C(1)	-259(4)	2329(2)	6297(2)	23(1)
C(2)	-1365(4)	1940(2)	5950(2)	24(1)
C(3)	-2495(4)	2369(2)	5761(2)	26(1)
C(4)	-2607(4)	3183(2)	5874(2)	25(1)
C(5)	-1523(4)	3569(3)	6201(2)	27(1)
C(6)	-362(4)	3155(2)	6423(2)	23(1)
C(7)	-1450(4)	1040(3)	5792(2)	29(1)
C(8)	-144(4)	598(3)	5940(2)	33(2)
C(9)	-1888(5)	903(3)	5013(2)	46(2)
C(10)	-2419(4)	656(3)	6249(2)	41(2)
C(11)	-3906(4)	3604(3)	5651(2)	32(2)
C(12)	-3854(4)	4495(3)	5778(2)	40(2)
C(13)	-4977(4)	3247(3)	6082(3)	49(2)
C(14)	-4314(5)	3445(3)	4883(2)	52(2)
C(15)	728(4)	3673(2)	6807(2)	27(1)
C(16)	195(4)	4090(3)	7436(2)	46(2)
C(17)	1210(4)	4303(3)	6314(2)	44(2)
C(18)	1905(4)	3179(3)	7091(2)	36(2)
C(19)	829(4)	1352(3)	8090(2)	31(2)
C(20)	1353(5)	1055(3)	8729(2)	41(2)
C(21)	713(6)	1164(3)	9323(2)	57(2)
C(22)	-446(6)	1570(3)	9311(3)	58(2)
C(23)	-972(5)	1869(3)	8689(3)	55(2)
C(24)	-367(4)	1755(3)	8074(2)	43(2)
C(25)	2968(4)	1490(2)	5510(2)	25(1)
C(26)	2148(4)	1911(3)	5019(2)	32(2)
C(27)	2402(5)	1925(3)	4327(2)	39(2)
C(28)	3465(4)	1541(3)	4099(2)	38(2)
C(29)	4285(4)	1115(3)	4580(2)	34(2)
C(30)	4039(4)	1090(2)	5273(2)	29(1)
C(31)	5406(5)	1015(3)	7824(3)	51(2)
C(32)	4931(6)	1840(3)	7959(3)	70(2)
C(33)	4755(5)	-208(3)	7268(3)	50(2)
C(34)	3583(5)	-661(3)	6969(3)	60(2)

* Equivalent isotropic U defined as one third of the trace of the orthogonalized U_{ij} tensor

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Table 2. Bond lengths (Å) for Mes*Al(NHPh)₂·Et₂O

Al(1)-N(1)	1.795 (3)	Al(1)-N(2)	1.794 (4)
Al(1)-C(1)	1.966 (4)	O(1)-C(31)	1.432 (6)
O(1)-C(33)	1.415 (6)	N(1)-C(19)	1.391 (5)
N(2)-C(25)	1.394 (5)	C(1)-C(2)	1.421 (5)
C(1)-C(6)	1.410 (6)	C(2)-C(3)	1.384 (5)
C(2)-C(7)	1.538 (6)	C(3)-C(4)	1.386 (6)
C(4)-C(5)	1.387 (5)	C(4)-C(11)	1.534 (6)
C(5)-C(6)	1.410 (5)	C(6)-C(15)	1.550 (5)
C(7)-C(8)	1.534 (6)	C(7)-C(9)	1.544 (6)
C(7)-C(10)	1.528 (6)	C(11)-C(12)	1.511 (6)
C(11)-C(13)	1.554 (6)	C(11)-C(14)	1.525 (6)
C(15)-C(16)	1.539 (6)	C(15)-C(17)	1.530 (6)
C(15)-C(18)	1.524 (6)	C(19)-C(20)	1.391 (6)
C(19)-C(24)	1.397 (6)	C(20)-C(21)	1.380 (7)
C(21)-C(22)	1.368 (8)	C(22)-C(23)	1.364 (7)
C(23)-C(24)	1.399 (7)	C(25)-C(26)	1.400 (5)
C(25)-C(30)	1.397 (6)	C(26)-C(27)	1.382 (6)
C(27)-C(28)	1.369 (7)	C(28)-C(29)	1.392 (6)
C(29)-C(30)	1.381 (6)	C(31)-C(32)	1.495 (8)
C(33)-C(34)	1.493 (7)		

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Table 3. Bond angles ($^{\circ}$) for $\text{Mes*Al}(\text{NHPH})_2 \cdot \text{Et}_2\text{O}$

N(1)-Al(1)-N(2)	107.9(2)	N(1)-Al(1)-C(1)	123.7(2)
N(2)-Al(1)-C(1)	128.5(2)	C(31)-O(1)-C(33)	113.2(3)
Al(1)-N(1)-C(19)	133.0(3)	Al(1)-N(2)-C(25)	132.7(3)
Al(1)-C(1)-C(2)	120.1(3)	Al(1)-C(1)-C(6)	122.3(3)
C(2)-C(1)-C(6)	117.4(3)	C(1)-C(2)-C(3)	120.1(4)
C(1)-C(2)-C(7)	124.8(3)	C(3)-C(2)-C(7)	115.1(3)
C(2)-C(3)-C(4)	123.2(4)	C(3)-C(4)-C(5)	117.0(4)
C(3)-C(4)-C(11)	119.2(3)	C(5)-C(4)-C(11)	123.7(4)
C(4)-C(5)-C(6)	122.0(4)	C(1)-C(6)-C(5)	120.2(3)
C(1)-C(6)-C(15)	124.7(3)	C(5)-C(6)-C(15)	115.1(3)
C(2)-C(7)-C(8)	113.7(3)	C(2)-C(7)-C(9)	110.2(3)
C(8)-C(7)-C(9)	106.5(3)	C(2)-C(7)-C(10)	109.0(3)
C(8)-C(7)-C(10)	106.9(3)	C(9)-C(7)-C(10)	110.5(3)
C(4)-C(11)-C(12)	112.9(3)	C(4)-C(11)-C(13)	108.2(3)
C(12)-C(11)-C(13)	108.0(4)	C(4)-C(11)-C(14)	110.4(3)
C(12)-C(11)-C(14)	109.4(4)	C(13)-C(11)-C(14)	107.8(3)
C(6)-C(15)-C(16)	109.7(3)	C(6)-C(15)-C(17)	110.3(3)
C(16)-C(15)-C(17)	109.5(3)	C(6)-C(15)-C(18)	112.4(3)
C(16)-C(15)-C(18)	106.8(3)	C(17)-C(15)-C(18)	107.9(3)
N(1)-C(19)-C(20)	121.0(4)	N(1)-C(19)-C(24)	121.5(4)
C(20)-C(19)-C(24)	117.5(4)	C(19)-C(20)-C(21)	120.8(5)
C(20)-C(21)-C(22)	121.9(5)	C(21)-C(22)-C(23)	118.2(5)
C(22)-C(23)-C(24)	121.6(5)	C(19)-C(24)-C(23)	120.1(4)
N(2)-C(25)-C(26)	120.8(4)	N(2)-C(25)-C(30)	121.7(3)
C(26)-C(25)-C(30)	117.5(4)	C(25)-C(26)-C(27)	120.5(4)
C(26)-C(27)-C(28)	121.6(4)	C(27)-C(28)-C(29)	118.6(4)
C(28)-C(29)-C(30)	120.5(4)	C(25)-C(30)-C(29)	121.2(4)
O(1)-C(31)-C(32)	109.2(4)	O(1)-C(33)-C(34)	109.4(4)

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Table 4. Anisotropic displacement coefficients ($\text{\AA}^2 \times 10^3$) for $\text{Mes*Al}(\text{NHPH})_2 \cdot \text{Et}_2\text{O}$

	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
Al(1)	24(1)	27(1)	25(1)	3(1)	3(1)	1(1)
O(1)	44(2)	37(2)	43(2)	15(2)	-4(2)	-5(2)
N(1)	35(2)	32(2)	28(2)	6(2)	3(2)	4(2)
N(2)	22(2)	35(2)	28(2)	8(2)	5(2)	1(2)
C(1)	23(2)	22(2)	23(2)	1(2)	5(2)	0(2)
C(2)	24(2)	26(2)	21(2)	0(2)	1(2)	0(2)
C(3)	22(2)	27(3)	29(2)	-3(2)	4(2)	-3(2)
C(4)	24(2)	27(3)	22(2)	2(2)	3(2)	-3(2)
C(5)	30(3)	27(3)	24(2)	3(2)	1(2)	-2(2)
C(6)	24(2)	27(3)	19(2)	-1(2)	3(2)	-1(2)
C(7)	27(2)	24(3)	37(3)	1(2)	0(2)	-4(2)
C(8)	30(3)	25(3)	45(3)	0(2)	2(2)	-6(2)
C(9)	50(3)	37(3)	48(3)	6(2)	-5(2)	-20(2)
C(10)	35(3)	25(3)	64(3)	-3(2)	4(2)	0(2)
C(11)	26(2)	28(3)	40(3)	6(2)	-8(2)	-6(2)
C(12)	33(3)	31(3)	56(3)	10(2)	-5(2)	-4(2)
C(13)	28(3)	40(3)	80(4)	3(2)	11(3)	-2(3)
C(14)	54(3)	44(3)	52(3)	15(3)	-21(3)	-5(3)
C(15)	27(2)	23(2)	30(2)	0(2)	-3(2)	-3(2)
C(16)	42(3)	54(3)	40(3)	-2(3)	-3(2)	-23(2)
C(17)	38(3)	37(3)	55(3)	-10(2)	-6(2)	4(2)
C(18)	34(3)	33(3)	37(3)	-1(2)	-11(2)	-4(2)
C(19)	38(3)	26(3)	28(2)	-8(2)	4(2)	3(2)
C(20)	63(3)	32(3)	30(3)	-4(2)	4(2)	3(2)
C(21)	89(5)	51(4)	30(3)	-18(3)	4(3)	4(2)
C(22)	72(4)	71(4)	35(3)	-17(3)	22(3)	-11(3)
C(23)	47(3)	75(4)	45(3)	-2(3)	17(3)	-7(3)
C(24)	37(3)	58(3)	36(3)	0(3)	13(2)	-3(2)
C(25)	20(2)	23(2)	32(2)	-1(2)	5(2)	-4(2)
C(26)	34(3)	34(3)	29(2)	7(2)	4(2)	5(2)
C(27)	48(3)	35(3)	36(3)	5(2)	5(2)	4(2)
C(28)	48(3)	38(3)	31(3)	-3(2)	10(2)	-5(2)
C(29)	26(3)	36(3)	41(3)	-1(2)	10(2)	-13(2)
C(30)	24(2)	27(2)	36(3)	0(2)	3(2)	-9(2)
C(31)	38(3)	71(4)	45(3)	4(3)	1(2)	-2(3)
C(32)	72(4)	57(4)	76(4)	2(3)	-17(3)	-12(3)
C(33)	55(3)	46(3)	51(3)	8(3)	22(3)	5(3)
C(34)	71(4)	52(4)	60(4)	3(3)	22(3)	-9(3)

The anisotropic displacement factor exponent takes the form:

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

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Table 5. H-Atom coordinates ($\times 10^4$) and isotropic displacement coefficients ($\text{\AA}^2 \times 10^3$) for $\text{Mes*Al}(\text{NHPh})_2 \cdot \text{Et}_2\text{O}$

	x	y	z	U
H(1)	2327	1053	7598	50
H(2)	3412	1200	6454	50
H(3A)	-3242	2091	5544	50
H(5A)	-1557	4136	6269	50
H(8A)	-305	44	5835	80
H(8B)	507	776	5646	80
H(8C)	-6	537	6437	80
H(9A)	-2705	1170	4890	80
H(9B)	-1231	1113	4738	80
H(9C)	-1990	341	4927	80
H(10A)	-2137	750	6730	80
H(10B)	-3271	887	6142	80
H(10C)	-2460	91	6163	80
H(12A)	-3193	4719	5513	80
H(12B)	-4685	4735	5634	80
H(12C)	-3634	4595	6264	80
H(13A)	-4751	3342	6569	80
H(13B)	-5806	3492	5942	80
H(13C)	-5035	2682	5998	80
H(14A)	-3666	3665	4607	80
H(14B)	-4376	2879	4806	80
H(14C)	-5147	3689	4750	80
H(16A)	864	4416	7673	80
H(16B)	-541	4417	7279	80
H(16C)	-77	3689	7750	80
H(17A)	1883	4622	6557	80
H(17B)	1558	4038	5929	80
H(17C)	494	4640	6144	80
H(18A)	1719	2774	7421	80
H(18B)	2350	2988	6705	80
H(18C)	2501	3542	7339	80
H(20A)	2172	774	8754	80
H(21A)	1079	941	9756	80
H(22A)	-864	1652	9732	80
H(23A)	-1788	2153	8674	80
H(24A)	-761	1959	7639	80
H(26A)	1403	2190	5167	80
H(27A)	1826	2207	3992	80
H(28A)	3652	1576	3621	80
H(29A)	5016	828	4426	80
H(30A)	4608	794	5602	80
H(31A)	6137	1044	7546	80
H(31B)	5690	756	8256	80
H(32A)	5620	2147	8202	80
H(32B)	4655	2095	7525	80
H(32C)	4204	1805	8239	80
H(33A)	5146	-479	7674	80
H(33B)	5392	-177	6933	80
H(34A)	3837	-1191	6845	80
H(34B)	2954	-693	7309	80
H(34C)	3201	-389	6562	80

Table 10. Crystal data for [Mes*AlNPh]₂.

J797-9

Identification code	RW34
Empirical formula	C ₂₄ H ₃₄ AlN
Formula weight	363.50
Crystal size	0.67 x 0.48 x 0.10 mm
Crystal habit	plate
Crystal color	colorless
Crystal system	Triclinic
Space group	P $\bar{1}$
Unit cell dimensions	$a = 8.7500(10) \text{ \AA}$ $\alpha = 101.04(2)^\circ$ $b = 9.326(2) \text{ \AA}$ $\beta = 92.900(10)^\circ$ $c = 14.025(3) \text{ \AA}$ $\gamma = 103.110(10)^\circ$
Volume	1088.7(4) $\text{\AA}^3$
Z	1 (2/2)
Density (calculated)	1.109 Mg·m ³
Absorption coefficient	0.840 mm ⁻¹
F(000)	396
Absorption correction ¹	XABS2
Max. and min. transmission	0.92 and 0.71

- 1) Parkin, S. R., Moezzi, B. Hope, H. (1995). XABS2: an empirical absorption correction program. J. Appl. Cryst., 28, 53-56.

Table 11. Data collection for [Mes*AlNPh]₂.

J797-10

Diffractometer	Syntex P2 ₁
Temperature	130(2) K
Radiation source	normal-focus sealed tube
Wavelength	1.54178 Å (CuKα)
Monochromator	graphite
θ range for data collection	3.23 to 57.04°
Scan type	2 θ - θ
Index ranges	-9 ≤ h ≤ 9, -10 ≤ k ≤ 9, 0 ≤ l ≤ 15
Reflections collected	3180
Independent reflections	2950 (R _{int} = 0.0766)
Observed [I>2σ(I)] reflections	2629
Standard reflections	2 (measured every 198 reflections)
Percent decay of standards	stable

Table 12. Solution and refinement of [Mes*AlNPh]₂.

J797-11

System for solution	SHELXS (Sheldrick, 1994)
Structure solution	direct
System for refinement	SHELXTL (Sheldrick, 1994)
Refinement method	Full-matrix least-squares on F^2
Hydrogen atoms	riding model, fixed thermal parameters
Extinction correction	none
Data / restraints / parameters	2950 / 0 / 244
Goodness-of-fit on F^2	1.049
Final R indices [$I > 2\sigma(I)$]	$R1 = 0.0526$, $wR2 = 0.1437$
Weighting scheme	$w^{-1} = \sigma^2(F_o^2) + (0.0944P)^2 + 0.7597P$, where $P = (F_o^2 + 2F_c^2)/3$
R indices (all data)	$R1 = 0.0584$, $wR2 = 0.1495$
Largest diff. peak and hole	0.393 and -0.475 $e\text{\AA}^{-3}$

$$1) \quad R1 = \sum ||F_o - F_c| | / \sum |F_o|$$

$$wR2 = [\sum [w(F_o^2 - F_c^2)^2] / \sum [w(F_o^2)^2]]^{1/2}$$

$$2) \quad \text{Goodness-of-Fit} = [\sum [w(F_o^2 - F_c^2)^2] / (M - N)]^{1/2}$$

where M is the number of reflections

and N is the number of parameters refined.

J797-12

Table 13. Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for $[\text{Mes*AlNPh}]_2$.

$U(\text{eq})$ is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
Al(1)	4594(1)	9669(1)	5828(1)	14(1)
N(1)	3855(2)	8944(2)	4546(1)	15(1)
C(1)	3973(3)	9056(3)	7043(2)	14(1)
C(2)	2912(3)	9719(3)	7596(2)	16(1)
C(3)	2447(3)	9261(3)	8448(2)	18(1)
C(4)	2961(3)	8127(3)	8786(2)	16(1)
C(5)	3978(3)	7461(3)	8237(2)	18(1)
C(6)	4510(3)	7902(3)	7389(2)	15(1)
C(7)	2174(3)	10958(3)	7320(2)	18(1)
C(8)	2663(3)	12390(3)	8122(2)	29(1)
C(9)	368(3)	10386(3)	7179(2)	32(1)
C(10)	2677(3)	11387(3)	6366(2)	23(1)
C(11)	2424(3)	7694(3)	9741(2)	21(1)
C(12)	615(4)	7255(4)	9674(2)	45(1)
C(13)	3010(4)	9036(3)	10586(2)	36(1)
C(14)	3048(5)	6375(4)	9958(3)	56(1)
C(15)	5670(3)	7057(3)	6884(2)	17(1)
C(16)	7070(3)	7133(3)	7620(2)	27(1)
C(17)	4815(3)	5407(3)	6477(2)	29(1)
C(18)	6358(3)	7715(3)	6039(2)	23(1)
C(19)	2602(3)	7803(3)	4056(2)	15(1)
C(20)	1379(3)	7096(3)	4547(2)	20(1)
C(21)	126(3)	5976(3)	4049(2)	24(1)
C(22)	27(3)	5489(3)	3047(2)	24(1)
C(23)	1223(3)	6170(3)	2551(2)	23(1)
C(24)	2480(3)	7297(3)	3038(2)	18(1)

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Table 14. Bond lengths [Å] for [Mes*AlNPh]₂.

Al(1)-N(1)	1.824(2)	Al(1)-N(1)#1	1.824(2)
Al(1)-C(1)	1.962(2)	Al(1)-Al(1)#1	2.6074(14)
N(1)-C(19)	1.386(3)	N(1)-Al(1)#1	1.824(2)
C(1)-C(2)	1.412(3)	C(1)-C(6)	1.422(3)
C(2)-C(3)	1.394(4)	C(2)-C(7)	1.545(3)
C(3)-C(4)	1.390(4)	C(4)-C(5)	1.381(4)
C(4)-C(11)	1.537(3)	C(5)-C(6)	1.399(3)
C(6)-C(15)	1.541(3)	C(7)-C(10)	1.527(4)
C(7)-C(8)	1.533(4)	C(7)-C(9)	1.538(4)
C(11)-C(13)	1.521(4)	C(11)-C(14)	1.528(4)
C(11)-C(12)	1.536(4)	C(15)-C(18)	1.525(3)
C(15)-C(17)	1.533(4)	C(15)-C(16)	1.542(4)
C(19)-C(24)	1.406(3)	C(19)-C(20)	1.409(3)
C(20)-C(21)	1.380(4)	C(21)-C(22)	1.383(4)
C(22)-C(23)	1.387(4)	C(23)-C(24)	1.380(3)

Symmetry transformations used to generate equivalent atoms:

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

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Table 15. Bond angles [$^{\circ}$] for [Mes*AlNPh]₂.

N(1)-Al(1)-N(1)#1	88.75(9)	N(1)-Al(1)-C(1)	133.51(10)
N(1)#1-Al(1)-C(1)	137.65(10)	N(1)-Al(1)-Al(1)#1	44.37(6)
N(1)#1-Al(1)-Al(1)#1	44.38(6)	C(1)-Al(1)-Al(1)#1	176.91(8)
C(19)-N(1)-Al(1)	134.2(2)	C(19)-N(1)-Al(1)#1	134.6(2)
Al(1)-N(1)-Al(1)#1	91.25(9)	C(2)-C(1)-C(6)	116.9(2)
C(2)-C(1)-Al(1)	120.7(2)	C(6)-C(1)-Al(1)	122.4(2)
C(3)-C(2)-C(1)	120.6(2)	C(3)-C(2)-C(7)	115.1(2)
C(1)-C(2)-C(7)	124.3(2)	C(4)-C(3)-C(2)	122.6(2)
C(5)-C(4)-C(3)	116.8(2)	C(5)-C(4)-C(11)	123.2(2)
C(3)-C(4)-C(11)	120.0(2)	C(4)-C(5)-C(6)	122.8(2)
C(5)-C(6)-C(1)	120.2(2)	C(5)-C(6)-C(15)	115.6(2)
C(1)-C(6)-C(15)	124.2(2)	C(10)-C(7)-C(8)	107.2(2)
C(10)-C(7)-C(9)	106.7(2)	C(8)-C(7)-C(9)	110.4(2)
C(10)-C(7)-C(2)	113.2(2)	C(8)-C(7)-C(2)	110.0(2)
C(9)-C(7)-C(2)	109.3(2)	C(13)-C(11)-C(14)	108.7(3)
C(13)-C(11)-C(12)	108.1(2)	C(14)-C(11)-C(12)	108.7(3)
C(13)-C(11)-C(4)	109.6(2)	C(14)-C(11)-C(4)	111.9(2)
C(12)-C(11)-C(4)	109.8(2)	C(18)-C(15)-C(17)	107.8(2)
C(18)-C(15)-C(6)	113.0(2)	C(17)-C(15)-C(6)	109.4(2)
C(18)-C(15)-C(16)	107.0(2)	C(17)-C(15)-C(16)	109.5(2)
C(6)-C(15)-C(16)	110.0(2)	N(1)-C(19)-C(24)	121.6(2)
N(1)-C(19)-C(20)	122.0(2)	C(24)-C(19)-C(20)	116.4(2)
C(21)-C(20)-C(19)	121.4(2)	C(20)-C(21)-C(22)	121.4(2)
C(21)-C(22)-C(23)	118.0(2)	C(24)-C(23)-C(22)	121.3(2)
C(23)-C(24)-C(19)	121.5(2)		

Symmetry transformations used to generate equivalent atoms:

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

Table 16. Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$]
for [Mes*AlNPh]₂.

The anisotropic displacement factor exponent takes the form:

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

	U11	U22	U33	U23	U13	U12
Al(1)	14(1)	15(1)	13(1)	3(1)	1(1)	2(1)
N(1)	14(1)	15(1)	14(1)	2(1)	1(1)	3(1)
C(1)	13(1)	13(1)	16(1)	1(1)	1(1)	2(1)
C(2)	15(1)	13(1)	19(1)	2(1)	-3(1)	2(1)
C(3)	15(1)	18(1)	22(1)	2(1)	6(1)	5(1)
C(4)	16(1)	15(1)	15(1)	2(1)	1(1)	-1(1)
C(5)	19(1)	16(1)	18(1)	4(1)	0(1)	4(1)
C(6)	14(1)	14(1)	14(1)	3(1)	-2(1)	1(1)
C(7)	17(1)	19(1)	22(1)	5(1)	6(1)	10(1)
C(8)	37(2)	23(1)	29(2)	3(1)	5(1)	15(1)
C(9)	20(1)	34(2)	47(2)	15(1)	5(1)	13(1)
C(10)	26(1)	23(1)	27(2)	9(1)	6(1)	15(1)
C(11)	27(1)	19(1)	17(1)	4(1)	7(1)	3(1)
C(12)	37(2)	60(2)	26(2)	11(2)	6(1)	-13(2)
C(13)	47(2)	36(2)	17(1)	4(1)	4(1)	-4(1)
C(14)	101(3)	51(2)	40(2)	30(2)	39(2)	44(2)
C(15)	20(1)	16(1)	17(1)	4(1)	3(1)	7(1)
C(16)	27(2)	35(2)	26(2)	9(1)	6(1)	18(1)
C(17)	33(2)	19(1)	34(2)	0(1)	11(1)	9(1)
C(18)	22(1)	28(2)	26(1)	10(1)	10(1)	17(1)
C(19)	13(1)	13(1)	19(1)	2(1)	-2(1)	7(1)
C(20)	21(1)	22(1)	16(1)	5(1)	1(1)	4(1)
C(21)	20(1)	23(1)	29(2)	10(1)	1(1)	2(1)
C(22)	19(1)	19(1)	31(2)	1(1)	-8(1)	1(1)
C(23)	23(1)	23(1)	19(1)	-3(1)	-3(1)	8(1)
C(24)	17(1)	20(1)	18(1)	2(1)	2(1)	7(1)

Table 17. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $[\text{Mes*AlNPh}]_2$.

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	x	y	z	U(eq)
H(3A)	1766(3)	9733(3)	8805(2)	22
H(5A)	4324(3)	6685(3)	8440(2)	21
H(8A)	2324(20)	12169(6)	8729(3)	43
H(8B)	2183(18)	13147(8)	7951(7)	43
H(8C)	3790(4)	12751(12)	8187(10)	43
H(9A)	-16(4)	10241(21)	7792(4)	48
H(9B)	82(3)	9448(12)	6713(11)	48
H(9C)	-89(3)	11113(11)	6946(14)	48
H(10A)	3803(4)	11745(18)	6419(5)	34
H(10B)	2193(16)	12166(14)	6236(7)	34
H(10C)	2352(18)	10521(5)	5841(3)	34
H(12A)	217(4)	6441(17)	9124(10)	67
H(12B)	211(4)	8105(8)	9596(17)	67
H(12C)	285(4)	6944(25)	10261(7)	67
H(13A)	2643(20)	9879(8)	10451(7)	53
H(13B)	4142(4)	9292(15)	10666(10)	53
H(13C)	2614(20)	8784(8)	11174(3)	53
H(14A)	2706(27)	5527(10)	9422(9)	84
H(14B)	2651(27)	6109(21)	10542(12)	84
H(14C)	4180(5)	6660(11)	10045(20)	84
H(16A)	7566(13)	8166(3)	7904(10)	41
H(16B)	7820(11)	6662(18)	7290(3)	41
H(16C)	6695(4)	6618(18)	8125(7)	41
H(17A)	3951(14)	5360(3)	6012(10)	43
H(17B)	4421(19)	4949(6)	7001(3)	43
H(17C)	5537(7)	4880(6)	6162(12)	43
H(18A)	5529(4)	7600(17)	5535(5)	34
H(18B)	7126(14)	7195(13)	5783(8)	34
H(18C)	6852(17)	8764(5)	6267(3)	34
H(20A)	1416(3)	7390(3)	5222(2)	24
H(21A)	-669(3)	5538(3)	4394(2)	29
H(22A)	-816(3)	4728(3)	2716(2)	29
H(23A)	1176(3)	5862(3)	1877(2)	27
H(24A)	3263(3)	7730(3)	2684(2)	22

Table 1. Crystal data for [Mes*AlPPh]₃•Et₂O.

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Identification code	RW32
Empirical formula	C ₇₆ H ₁₁₂ Al ₃ OP ₃
Formula weight	1215.51
Crystal size	0.70 x 0.18 x 0.15 mm
Crystal habit	needle
Crystal color	colorless
Crystal system	Triclinic
Space group	P $\bar{1}$
Unit cell dimensions	$a = 9.383(5) \text{ \AA}$ $\alpha = 80.86(4)^\circ$ $b = 17.719(7) \text{ \AA}$ $\beta = 82.50(5)^\circ$ $c = 23.603(14) \text{ \AA}$ $\gamma = 75.61(4)^\circ$
Volume	3736(3) $\text{\AA}^3$
Z	2
Density (calculated)	1.081 Mg•m ³
Absorption coefficient	1.366 mm ⁻¹
F(000)	1320
Absorption correction ¹	XABS2
Max. and min. transmission	0.84 and 0.76

- 1) Parkin, S. R., Moezzi, B. Hope, H. (1995). XABS2: an empirical absorption correction program. J. Appl. Cryst., 28, 53-56.

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Table 2. Data collection for $[\text{Mes}^*\text{AlPPh}]_3 \cdot \text{Et}_2\text{O}$.

Diffractometer	Syntex P2 ₁
Temperature	130(2) K
Radiation source	normal-focus sealed tube
Wavelength	1.54178 Å (CuK α)
Monochromator	graphite
θ range for data collection	1.90 to 56.27°
Scan type	ω
Index ranges	$-9 \leq h \leq 10$, $-18 \leq k \leq 19$, $0 \leq l \leq 25$
Reflections collected	10553
Independent reflections	9824 ($R_{\text{int}} = 0.1231$)
Observed $[I > 2\sigma(I)]$ reflections	5626
Standard reflections	2 (measured every 198 reflections)
Percent decay of standards	stable

J797-19

Table 3. Solution and refinement of [Mes*AlPPh]₃·Et₂O.

System for solution	SHELXS-86 (Sheldrick, 1990), and dataset from RW25
Structure solution	direct
System for refinement	SHELXTL (Sheldrick, 1994)
Refinement method	Full-matrix least-squares on F ²
Hydrogen atoms	riding model, fixed thermal parameters
Extinction correction	none
Data / restraints / parameters	9811 / 0 / 744
Goodness-of-fit on F ²	1.033
Final R indices [I>2σ(I)]	R1 = 0.0845, wR2 = 0.1854
Weighting scheme	$w^{-1} = \sigma^2(\text{Fo}^2) + (0.0965\text{P})^2 + 3.9103\text{P}$, where $\text{P} = (\text{Fo}^2 + 2\text{Fc}^2)/3$
R indices (all data)	R1 = 0.1557, wR2 = 0.2394
Largest diff. peak and hole	0.432 and -0.422 eÅ ⁻³

$$1) \quad R1 = \sum ||\text{Fo}-\text{Fc}|| / \sum |\text{Fo}|$$

$$wR2 = [\sum [w(\text{Fo}^2 - \text{Fc}^2)^2] / \sum [w(\text{Fo}^2)^2]]^{1/2}$$

$$2) \quad \text{Goodness-of-Fit} = [\sum [w(\text{Fo}^2 - \text{Fc}^2)^2] / (M-N)]^{1/2}$$

where M is the number of reflections

and N is the number of parameters refined.

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Table 4. Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for $[\text{Mes*AlPPh}]_3 \cdot \text{Et}_2\text{O}$.

U(eq) is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
P(1)	4991(2)	1559(1)	1676(1)	40(1)
Al(1)	4831(2)	1265(1)	2675(1)	38(1)
P(2)	7536(2)	2906(1)	1922(1)	43(1)
Al(2)	6900(2)	2174(1)	1299(1)	41(1)
P(3)	5577(2)	2066(1)	3211(1)	39(1)
Al(3)	5617(2)	3255(1)	2637(1)	40(1)
C(1)	4037(8)	409(4)	3166(3)	33(2)
C(2)	2530(8)	543(4)	3399(3)	34(2)
C(3)	2084(8)	17(4)	3846(3)	35(2)
C(4)	3048(8)	-650(4)	4090(3)	36(2)
C(5)	4511(8)	-781(4)	3848(3)	38(2)
C(6)	5022(8)	-279(4)	3399(3)	32(2)
C(7)	1269(8)	1244(4)	3181(3)	37(2)
C(8)	145(9)	908(4)	2936(3)	52(2)
C(9)	1811(8)	1817(4)	2700(3)	51(2)
C(10)	475(8)	1708(4)	3669(3)	48(2)
C(11)	2538(8)	-1184(4)	4613(3)	38(2)
C(12)	3625(8)	-1975(4)	4721(3)	45(2)
C(13)	2361(8)	-749(4)	5141(3)	45(2)
C(14)	1029(8)	-1334(4)	4537(3)	49(2)
C(15)	6687(7)	-529(4)	3197(3)	36(2)
C(16)	7046(8)	-1352(4)	3001(3)	45(2)
C(17)	7216(8)	20(4)	2693(3)	43(2)
C(18)	7627(8)	-558(5)	3690(3)	49(2)
C(19)	5203(7)	640(4)	1370(3)	37(2)
C(20)	5853(8)	545(4)	819(3)	44(2)
C(21)	5877(8)	-114(4)	569(3)	47(2)
C(22)	5246(9)	-700(5)	875(3)	55(2)
C(23)	4606(9)	-635(4)	1429(3)	48(2)
C(24)	4584(8)	35(4)	1674(3)	43(2)
C(25)	7874(8)	2161(4)	498(3)	39(2)
C(26)	9297(8)	1663(4)	392(3)	43(2)
C(27)	10061(8)	1704(4)	-155(3)	45(2)
C(28)	9460(9)	2191(4)	-625(3)	48(2)
C(29)	8042(9)	2646(4)	-524(3)	48(2)
C(30)	7252(8)	2661(4)	24(3)	42(2)
C(31)	10152(8)	1057(4)	856(3)	43(2)
C(32)	9164(8)	918(4)	1416(3)	47(2)
C(33)	11433(10)	1354(5)	999(4)	73(3)
C(34)	10723(10)	250(4)	643(3)	63(2)
C(35)	10358(9)	2216(5)	-1217(3)	53(2)

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C(36)	10904(10)	1396(5)	-1394(3)	63(2)
C(37)	9417(12)	2732(6)	-1694(3)	94(4)
C(38)	11688(11)	2560(5)	-1175(4)	85(3)
C(39)	5692(9)	3219(4)	47(3)	46(2)
C(40)	5674(11)	4007(5)	-335(4)	82(3)
C(41)	5141(9)	3430(5)	652(3)	56(2)
C(42)	4581(10)	2820(6)	-152(4)	83(3)
C(43)	7973(8)	3782(4)	1474(3)	45(2)
C(44)	9131(10)	3696(5)	1047(3)	60(2)
C(45)	9612(11)	4323(5)	728(3)	72(3)
C(46)	8921(11)	5065(5)	827(3)	68(3)
C(47)	7738(10)	5188(4)	1245(3)	60(2)
C(48)	7263(9)	4554(4)	1567(3)	53(2)
C(49)	4506(9)	4267(4)	2900(3)	42(2)
C(50)	3037(9)	4609(4)	2746(3)	40(2)
C(51)	2131(9)	5197(4)	3043(3)	49(2)
C(52)	2519(9)	5478(4)	3499(3)	45(2)
C(53)	3971(9)	5163(4)	3633(3)	47(2)
C(54)	4953(8)	4577(4)	3344(3)	40(2)
C(55)	2381(9)	4391(4)	2250(3)	47(2)
C(56)	2956(28)	4940(11)	1663(8)	50(6)
C(57)	2924(34)	3605(16)	2144(13)	79(10)
C(58)	701(27)	4653(17)	2248(11)	84(9)
C(56A)	2035(21)	5048(8)	1794(6)	59(5)
C(57A)	3371(17)	3644(8)	2002(6)	35(4)
C(58A)	893(15)	4108(9)	2522(6)	54(5)
C(59)	1432(9)	6059(4)	3851(3)	55(2)
C(60)	2176(17)	6377(10)	4290(8)	67(5)
C(61)	241(20)	5689(9)	4189(7)	65(5)
C(62)	728(20)	6774(9)	3442(6)	66(5)
C(60A)	2151(29)	6613(17)	4053(14)	63(8)
C(61A)	865(37)	5499(16)	4396(12)	66(8)
C(62A)	89(37)	6518(18)	3510(11)	76(10)
C(63)	6532(9)	4301(4)	3549(3)	45(2)
C(64)	7589(9)	3711(4)	3209(3)	54(2)
C(65)	7223(9)	5018(5)	3503(4)	65(2)
C(66)	6400(10)	3922(6)	4186(3)	79(3)
C(67)	4183(8)	2159(4)	3838(3)	38(2)
C(68)	3301(9)	2882(4)	3978(3)	51(2)
C(69)	2329(9)	2929(5)	4486(3)	54(2)
C(70)	2231(9)	2252(5)	4853(3)	53(2)
C(71)	3060(9)	1529(5)	4715(3)	47(2)
C(72)	4036(8)	1494(4)	4217(3)	40(2)
O(1)	3412(7)	7660(3)	2464(2)	66(2)
C(73)	3116(10)	8265(5)	2819(4)	63(2)
C(74)	1614(11)	8792(6)	2703(4)	85(3)
C(75)	4791(11)	7113(6)	2562(4)	76(3)
C(76)	4940(12)	6470(6)	2189(4)	89(3)

The ortho and para t-butylgroups C(56)-C(58) and C(60)-C(62) showed rotational disorder and were modeled with split occupancies of 40.8(18)/59.2(18)% and 63.4(27)/36.6(27), resp.

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Table 5. Bond lengths [Å] for [Mes*AlPPh]₃·Et₂O.

P(1)-C(19)	1.840(7)	P(1)-Al(1)	2.325(3)
P(1)-Al(2)	2.332(3)	Al(1)-C(1)	1.994(6)
Al(1)-P(3)	2.324(3)	P(2)-C(43)	1.838(7)
P(2)-Al(2)	2.328(3)	P(2)-Al(3)	2.336(3)
Al(2)-C(25)	1.990(7)	P(3)-C(67)	1.842(7)
P(3)-Al(3)	2.323(3)	Al(3)-C(49)	1.985(8)
C(1)-C(6)	1.416(9)	C(1)-C(2)	1.425(9)
C(2)-C(3)	1.386(8)	C(2)-C(7)	1.561(9)
C(3)-C(4)	1.390(9)	C(4)-C(5)	1.394(9)
C(4)-C(11)	1.533(9)	C(5)-C(6)	1.387(8)
C(6)-C(15)	1.548(9)	C(7)-C(9)	1.522(9)
C(7)-C(10)	1.527(9)	C(7)-C(8)	1.542(9)
C(11)-C(12)	1.521(9)	C(11)-C(13)	1.537(9)
C(11)-C(14)	1.541(9)	C(15)-C(17)	1.523(8)
C(15)-C(18)	1.538(9)	C(15)-C(16)	1.544(9)
C(19)-C(20)	1.379(9)	C(19)-C(24)	1.400(9)
C(20)-C(21)	1.384(10)	C(21)-C(22)	1.380(10)
C(22)-C(23)	1.376(10)	C(23)-C(24)	1.395(10)
C(25)-C(30)	1.406(9)	C(25)-C(26)	1.422(10)
C(26)-C(27)	1.393(9)	C(26)-C(31)	1.556(10)
C(27)-C(28)	1.384(10)	C(28)-C(29)	1.387(10)
C(28)-C(35)	1.534(9)	C(29)-C(30)	1.405(9)
C(30)-C(39)	1.549(10)	C(31)-C(33)	1.521(10)
C(31)-C(32)	1.535(9)	C(31)-C(34)	1.536(10)
C(35)-C(36)	1.522(10)	C(35)-C(38)	1.539(11)
C(35)-C(37)	1.553(11)	C(39)-C(41)	1.525(10)
C(39)-C(40)	1.534(10)	C(39)-C(42)	1.551(11)
C(43)-C(44)	1.380(10)	C(43)-C(48)	1.402(10)
C(44)-C(45)	1.379(10)	C(45)-C(46)	1.355(11)
C(46)-C(47)	1.383(11)	C(47)-C(48)	1.389(10)
C(49)-C(54)	1.409(9)	C(49)-C(50)	1.431(10)
C(50)-C(51)	1.390(10)	C(50)-C(55)	1.531(10)
C(51)-C(52)	1.381(10)	C(52)-C(53)	1.395(10)
C(52)-C(59)	1.522(10)	C(53)-C(54)	1.407(10)
C(54)-C(63)	1.556(10)	C(55)-C(57)	1.41(3)
C(55)-C(56A)	1.458(14)	C(55)-C(58)	1.53(2)
C(55)-C(57A)	1.57(2)	C(55)-C(58A)	1.619(14)
C(55)-C(56)	1.67(2)	C(59)-C(60A)	1.49(2)
C(59)-C(61)	1.51(2)	C(59)-C(62)	1.53(2)
C(59)-C(62A)	1.56(3)	C(59)-C(60)	1.56(2)
C(59)-C(61A)	1.61(2)	C(63)-C(64)	1.504(10)
C(63)-C(65)	1.547(9)	C(63)-C(66)	1.550(10)
C(67)-C(72)	1.386(9)	C(67)-C(68)	1.404(10)
C(68)-C(69)	1.408(10)	C(69)-C(70)	1.379(10)
C(70)-C(71)	1.386(10)	C(71)-C(72)	1.393(9)
O(1)-C(73)	1.415(9)	O(1)-C(75)	1.432(10)
C(73)-C(74)	1.515(12)	C(75)-C(76)	1.516(12)

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Table 5. Bond lengths [Å] for [Mes*AlPPh]₃·Et₂O.

P(1)-C(19)	1.840(7)	P(1)-Al(1)	2.325(3)
P(1)-Al(2)	2.332(3)	Al(1)-C(1)	1.994(6)
Al(1)-P(3)	2.324(3)	P(2)-C(43)	1.838(7)
P(2)-Al(2)	2.328(3)	P(2)-Al(3)	2.336(3)
Al(2)-C(25)	1.990(7)	P(3)-C(67)	1.842(7)
P(3)-Al(3)	2.323(3)	Al(3)-C(49)	1.985(8)
C(1)-C(6)	1.416(9)	C(1)-C(2)	1.425(9)
C(2)-C(3)	1.386(8)	C(2)-C(7)	1.561(9)
C(3)-C(4)	1.390(9)	C(4)-C(5)	1.394(9)
C(4)-C(11)	1.533(9)	C(5)-C(6)	1.387(8)
C(6)-C(15)	1.548(9)	C(7)-C(9)	1.522(9)
C(7)-C(10)	1.527(9)	C(7)-C(8)	1.542(9)
C(11)-C(12)	1.521(9)	C(11)-C(13)	1.537(9)
C(11)-C(14)	1.541(9)	C(15)-C(17)	1.523(8)
C(15)-C(18)	1.538(9)	C(15)-C(16)	1.544(9)
C(19)-C(20)	1.379(9)	C(19)-C(24)	1.400(9)
C(20)-C(21)	1.384(10)	C(21)-C(22)	1.380(10)
C(22)-C(23)	1.376(10)	C(23)-C(24)	1.395(10)
C(25)-C(30)	1.406(9)	C(25)-C(26)	1.422(10)
C(26)-C(27)	1.393(9)	C(26)-C(31)	1.556(10)
C(27)-C(28)	1.384(10)	C(28)-C(29)	1.387(10)
C(28)-C(35)	1.534(9)	C(29)-C(30)	1.405(9)
C(30)-C(39)	1.549(10)	C(31)-C(33)	1.521(10)
C(31)-C(32)	1.535(9)	C(31)-C(34)	1.536(10)
C(35)-C(36)	1.522(10)	C(35)-C(38)	1.539(11)
C(35)-C(37)	1.553(11)	C(39)-C(41)	1.525(10)
C(39)-C(40)	1.534(10)	C(39)-C(42)	1.551(11)
C(43)-C(44)	1.380(10)	C(43)-C(48)	1.402(10)
C(44)-C(45)	1.379(10)	C(45)-C(46)	1.355(11)
C(46)-C(47)	1.383(11)	C(47)-C(48)	1.389(10)
C(49)-C(54)	1.409(9)	C(49)-C(50)	1.431(10)
C(50)-C(51)	1.390(10)	C(50)-C(55)	1.531(10)
C(51)-C(52)	1.381(10)	C(52)-C(53)	1.395(10)
C(52)-C(59)	1.522(10)	C(53)-C(54)	1.407(10)
C(54)-C(63)	1.556(10)	C(55)-C(57)	1.41(3)
C(55)-C(56A)	1.458(14)	C(55)-C(58)	1.53(2)
C(55)-C(57A)	1.57(2)	C(55)-C(58A)	1.619(14)
C(55)-C(56)	1.67(2)	C(59)-C(60A)	1.49(2)
C(59)-C(61)	1.51(2)	C(59)-C(62)	1.53(2)
C(59)-C(62A)	1.56(3)	C(59)-C(60)	1.56(2)
C(59)-C(61A)	1.61(2)	C(63)-C(64)	1.504(10)
C(63)-C(65)	1.547(9)	C(63)-C(66)	1.550(10)
C(67)-C(72)	1.386(9)	C(67)-C(68)	1.404(10)
C(68)-C(69)	1.408(10)	C(69)-C(70)	1.379(10)
C(70)-C(71)	1.386(10)	C(71)-C(72)	1.393(9)
O(1)-C(73)	1.415(9)	O(1)-C(75)	1.432(10)
C(73)-C(74)	1.515(12)	C(75)-C(76)	1.516(12)

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Table 6. Bond angles [$^{\circ}$] for [Mes*AlPPh]₃·Et₂O.

C(19)-P(1)-Al(1)	108.1(2)	C(19)-P(1)-Al(2)	110.9(2)
Al(1)-P(1)-Al(2)	113.44(11)	C(1)-Al(1)-P(3)	112.8(2)
C(1)-Al(1)-P(1)	128.2(2)	P(3)-Al(1)-P(1)	118.94(10)
C(43)-P(2)-Al(2)	106.4(2)	C(43)-P(2)-Al(3)	111.0(3)
Al(2)-P(2)-Al(3)	111.57(12)	C(25)-Al(2)-P(2)	120.3(2)
C(25)-Al(2)-P(1)	125.0(2)	P(2)-Al(2)-P(1)	114.57(11)
C(67)-P(3)-Al(3)	113.3(2)	C(67)-P(3)-Al(1)	104.1(2)
Al(3)-P(3)-Al(1)	108.13(11)	C(49)-Al(3)-P(3)	121.0(2)
C(49)-Al(3)-P(2)	134.3(2)	P(3)-Al(3)-P(2)	103.09(12)
C(6)-C(1)-C(2)	117.4(6)	C(6)-C(1)-Al(1)	119.9(5)
C(2)-C(1)-Al(1)	121.1(5)	C(3)-C(2)-C(1)	120.0(6)
C(3)-C(2)-C(7)	115.0(6)	C(1)-C(2)-C(7)	125.0(5)
C(2)-C(3)-C(4)	123.1(6)	C(3)-C(4)-C(5)	116.2(6)
C(3)-C(4)-C(11)	121.6(6)	C(5)-C(4)-C(11)	122.2(6)
C(6)-C(5)-C(4)	123.4(6)	C(5)-C(6)-C(1)	119.8(6)
C(5)-C(6)-C(15)	115.3(6)	C(1)-C(6)-C(15)	124.9(5)
C(9)-C(7)-C(10)	107.8(6)	C(9)-C(7)-C(8)	107.3(6)
C(10)-C(7)-C(8)	108.9(6)	C(9)-C(7)-C(2)	113.3(6)
C(10)-C(7)-C(2)	111.4(5)	C(8)-C(7)-C(2)	108.2(5)
C(12)-C(11)-C(4)	113.2(6)	C(12)-C(11)-C(13)	109.1(6)
C(4)-C(11)-C(13)	107.1(5)	C(12)-C(11)-C(14)	108.2(6)
C(4)-C(11)-C(14)	110.6(5)	C(13)-C(11)-C(14)	108.5(6)
C(17)-C(15)-C(18)	106.5(5)	C(17)-C(15)-C(16)	106.7(6)
C(18)-C(15)-C(16)	108.6(6)	C(17)-C(15)-C(6)	114.4(5)
C(18)-C(15)-C(6)	110.4(5)	C(16)-C(15)-C(6)	110.0(5)
C(20)-C(19)-C(24)	117.4(7)	C(20)-C(19)-P(1)	122.0(5)
C(24)-C(19)-P(1)	120.4(5)	C(19)-C(20)-C(21)	121.8(7)
C(22)-C(21)-C(20)	119.9(7)	C(23)-C(22)-C(21)	120.2(7)
C(22)-C(23)-C(24)	119.3(7)	C(23)-C(24)-C(19)	121.5(7)
C(30)-C(25)-C(26)	117.2(6)	C(30)-C(25)-Al(2)	122.8(6)
C(26)-C(25)-Al(2)	119.9(5)	C(27)-C(26)-C(25)	120.8(7)
C(27)-C(26)-C(31)	114.3(7)	C(25)-C(26)-C(31)	125.0(6)
C(28)-C(27)-C(26)	122.5(7)	C(27)-C(28)-C(29)	116.2(6)
C(27)-C(28)-C(35)	120.3(7)	C(29)-C(28)-C(35)	123.5(7)
C(28)-C(29)-C(30)	123.6(7)	C(29)-C(30)-C(25)	119.5(7)
C(29)-C(30)-C(39)	115.6(6)	C(25)-C(30)-C(39)	124.9(6)
C(33)-C(31)-C(32)	108.2(6)	C(33)-C(31)-C(34)	110.3(7)
C(32)-C(31)-C(34)	105.8(6)	C(33)-C(31)-C(26)	109.6(6)
C(32)-C(31)-C(26)	112.2(6)	C(34)-C(31)-C(26)	110.8(6)
C(36)-C(35)-C(28)	110.9(6)	C(36)-C(35)-C(38)	109.6(7)
C(28)-C(35)-C(38)	108.0(6)	C(36)-C(35)-C(37)	107.3(7)
C(28)-C(35)-C(37)	111.6(7)	C(38)-C(35)-C(37)	109.5(7)
C(41)-C(39)-C(40)	105.2(6)	C(41)-C(39)-C(30)	112.2(6)
C(40)-C(39)-C(30)	111.9(6)	C(41)-C(39)-C(42)	108.5(7)
C(40)-C(39)-C(42)	109.2(7)	C(30)-C(39)-C(42)	109.6(7)
C(44)-C(43)-C(48)	116.5(6)	C(44)-C(43)-P(2)	119.6(6)
C(48)-C(43)-P(2)	123.7(5)	C(45)-C(44)-C(43)	123.0(8)
C(46)-C(45)-C(44)	119.6(8)	C(45)-C(46)-C(47)	120.0(7)
C(46)-C(47)-C(48)	120.2(8)	C(47)-C(48)-C(43)	120.7(8)

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C(54)-C(49)-C(50)	116.2(7)	C(54)-C(49)-Al(3)	122.1(6)
C(50)-C(49)-Al(3)	120.0(5)	C(51)-C(50)-C(49)	119.7(7)
C(51)-C(50)-C(55)	116.2(7)	C(49)-C(50)-C(55)	124.1(7)
C(52)-C(51)-C(50)	125.0(8)	C(51)-C(52)-C(53)	115.0(7)
C(51)-C(52)-C(59)	122.9(8)	C(53)-C(52)-C(59)	122.1(7)
C(52)-C(53)-C(54)	122.8(7)	C(53)-C(54)-C(49)	121.2(7)
C(53)-C(54)-C(63)	115.7(6)	C(49)-C(54)-C(63)	123.2(7)
C(57)-C(55)-C(58)	112(2)	C(57)-C(55)-C(50)	114.6(13)
C(56A)-C(55)-C(50)	112.3(8)	C(58)-C(55)-C(50)	116.2(11)
C(56A)-C(55)-C(57A)	111.2(9)	C(50)-C(55)-C(57A)	112.7(7)
C(56A)-C(55)-C(58A)	110.1(9)	C(50)-C(55)-C(58A)	107.1(7)
C(57A)-C(55)-C(58A)	102.9(8)	C(57)-C(55)-C(56)	105.7(14)
C(58)-C(55)-C(56)	101.9(12)	C(50)-C(55)-C(56)	104.6(8)
C(60A)-C(59)-C(52)	112.3(12)	C(61)-C(59)-C(52)	111.0(8)
C(61)-C(59)-C(62)	109.6(10)	C(52)-C(59)-C(62)	108.9(8)
C(60A)-C(59)-C(62A)	111(2)	C(52)-C(59)-C(62A)	111.5(12)
C(61)-C(59)-C(60)	107.5(9)	C(52)-C(59)-C(60)	113.3(9)
C(62)-C(59)-C(60)	106.4(9)	C(60A)-C(59)-C(61A)	109.7(14)
C(52)-C(59)-C(61A)	103.1(11)	C(62A)-C(59)-C(61A)	109(2)
C(64)-C(63)-C(65)	106.9(6)	C(64)-C(63)-C(66)	108.0(7)
C(65)-C(63)-C(66)	109.4(6)	C(64)-C(63)-C(54)	114.7(6)
C(65)-C(63)-C(54)	109.5(6)	C(66)-C(63)-C(54)	108.3(6)
C(72)-C(67)-C(68)	117.1(6)	C(72)-C(67)-P(3)	119.4(6)
C(68)-C(67)-P(3)	123.4(5)	C(67)-C(68)-C(69)	121.3(7)
C(70)-C(69)-C(68)	119.6(7)	C(69)-C(70)-C(71)	120.1(7)
C(70)-C(71)-C(72)	119.6(7)	C(67)-C(72)-C(71)	122.3(7)
C(73)-O(1)-C(75)	111.8(7)	O(1)-C(73)-C(74)	107.9(7)
O(1)-C(75)-C(76)	107.0(8)		

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Table 7. Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$]for $[\text{Mes*AlPPh}]_3 \cdot \text{Et}_2\text{O}$.

The anisotropic displacement factor exponent takes the form:

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

	U11	U22	U33	U23	U13	U12
P(1)	42(1)	42(1)	37(1)	-4(1)	-4(1)	-12(1)
Al(1)	37(1)	41(1)	35(1)	-5(1)	-4(1)	-11(1)
P(2)	48(1)	44(1)	40(1)	-5(1)	-1(1)	-16(1)
Al(2)	42(2)	41(1)	37(1)	-3(1)	-5(1)	-8(1)
P(3)	43(1)	37(1)	38(1)	-6(1)	-2(1)	-12(1)
Al(3)	44(2)	37(1)	40(1)	-2(1)	-4(1)	-13(1)
C(1)	41(5)	29(4)	35(3)	-13(3)	-3(3)	-13(3)
C(2)	32(5)	35(4)	39(4)	-12(3)	-7(3)	-6(3)
C(3)	28(4)	35(4)	40(4)	-6(3)	-3(3)	-7(3)
C(4)	28(5)	36(4)	46(4)	-7(3)	-8(3)	-9(3)
C(5)	35(5)	35(4)	43(4)	0(3)	-8(3)	-6(4)
C(6)	36(5)	26(4)	34(3)	-7(3)	-5(3)	-4(3)
C(7)	30(5)	38(4)	43(4)	-5(3)	-9(3)	-6(3)
C(8)	52(6)	48(5)	59(5)	-6(4)	-14(4)	-15(4)
C(9)	37(5)	48(5)	58(5)	10(4)	-8(4)	-2(4)
C(10)	47(5)	42(4)	48(4)	-7(3)	-4(4)	1(4)
C(11)	34(5)	42(4)	39(4)	-5(3)	-7(3)	-9(4)
C(12)	36(5)	48(5)	49(4)	8(3)	-13(4)	-10(4)
C(13)	46(5)	49(5)	41(4)	-4(3)	-3(4)	-12(4)
C(14)	52(6)	52(5)	45(4)	-1(4)	-9(4)	-18(4)
C(15)	22(4)	44(4)	41(4)	-2(3)	-6(3)	-6(3)
C(16)	40(5)	40(4)	52(4)	-12(3)	2(4)	-4(4)
C(17)	34(5)	48(5)	46(4)	-4(3)	-5(3)	-8(4)
C(18)	43(5)	64(5)	41(4)	-1(4)	-10(4)	-14(4)
C(19)	15(4)	52(5)	39(4)	-3(3)	-12(3)	4(3)
C(20)	30(5)	58(5)	41(4)	-6(4)	-9(3)	-4(4)
C(21)	38(5)	59(5)	43(4)	-20(4)	-10(3)	4(4)
C(22)	56(6)	51(5)	57(5)	-17(4)	-15(4)	-2(4)
C(23)	56(6)	43(5)	46(4)	-3(3)	-17(4)	-6(4)
C(24)	42(5)	48(5)	37(4)	-2(3)	-9(3)	-5(4)
C(25)	31(5)	34(4)	51(4)	-7(3)	-5(3)	-6(4)
C(26)	42(5)	44(4)	45(4)	-5(3)	-9(4)	-12(4)
C(27)	35(5)	52(5)	44(4)	-7(4)	8(4)	-7(4)
C(28)	45(6)	49(5)	44(4)	-2(4)	1(4)	-7(4)
C(29)	55(6)	50(5)	37(4)	5(3)	-7(4)	-13(4)
C(30)	42(5)	44(4)	38(4)	1(3)	-13(3)	-8(4)
C(31)	31(5)	56(5)	44(4)	-10(3)	-4(3)	-12(4)
C(32)	48(5)	46(5)	41(4)	-6(3)	-6(4)	1(4)
C(33)	65(7)	80(7)	76(6)	19(5)	-24(5)	-27(5)
C(34)	78(7)	51(5)	48(4)	-4(4)	6(4)	-1(5)
C(35)	56(6)	59(5)	40(4)	-6(4)	7(4)	-11(5)
C(36)	73(7)	65(6)	42(4)	-9(4)	10(4)	-8(5)

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C(37)	119(10)	82(7)	47(5)	16(5)	15(5)	13(6)
C(38)	110(9)	79(7)	69(6)	-21(5)	33(6)	-43(7)
C(39)	45(5)	50(5)	37(4)	2(3)	-8(3)	-3(4)
C(40)	100(8)	59(6)	65(6)	5(5)	13(5)	5(6)
C(41)	46(6)	61(5)	48(4)	3(4)	-1(4)	0(4)
C(42)	53(7)	103(8)	102(7)	-41(6)	-26(6)	-9(6)
C(43)	43(5)	52(5)	42(4)	-2(3)	0(4)	-20(4)
C(44)	75(7)	55(5)	53(5)	-15(4)	12(4)	-27(5)
C(45)	93(8)	69(6)	54(5)	-10(4)	24(5)	-37(6)
C(46)	99(8)	64(6)	49(5)	1(4)	5(5)	-41(6)
C(47)	82(7)	37(5)	58(5)	6(4)	-14(5)	-10(5)
C(48)	48(6)	46(5)	58(5)	1(4)	-1(4)	-7(4)
C(49)	51(6)	38(4)	36(4)	0(3)	-1(4)	-17(4)
C(50)	50(5)	34(4)	37(4)	-9(3)	0(4)	-12(4)
C(51)	43(5)	50(5)	55(5)	-3(4)	-5(4)	-15(4)
C(52)	43(6)	41(4)	52(4)	-8(4)	-4(4)	-10(4)
C(53)	66(6)	39(4)	41(4)	-13(3)	-5(4)	-15(4)
C(54)	38(5)	39(4)	44(4)	-3(3)	-7(3)	-12(4)
C(55)	40(5)	50(5)	54(4)	-19(4)	-8(4)	-4(4)
C(59)	61(6)	45(5)	58(5)	-21(4)	-2(4)	-6(4)
C(63)	52(6)	41(4)	47(4)	-15(3)	-7(4)	-15(4)
C(64)	45(6)	47(5)	71(5)	-7(4)	-19(4)	-5(4)
C(65)	50(6)	55(5)	99(7)	-27(5)	-28(5)	-10(5)
C(66)	68(7)	102(8)	64(6)	5(5)	-23(5)	-15(6)
C(67)	31(5)	45(4)	43(4)	-7(3)	-4(3)	-16(4)
C(68)	63(6)	45(5)	47(4)	-10(4)	4(4)	-21(4)
C(69)	58(6)	47(5)	54(5)	-16(4)	8(4)	-10(4)
C(70)	60(6)	68(6)	36(4)	-10(4)	3(4)	-27(5)
C(71)	55(6)	57(5)	35(4)	-12(3)	7(4)	-27(4)
C(72)	34(5)	45(4)	42(4)	-8(3)	-7(3)	-9(4)
O(1)	58(4)	73(4)	68(4)	-20(3)	-15(3)	-8(3)
C(73)	64(7)	70(6)	62(5)	-12(4)	-9(5)	-21(5)
C(74)	80(8)	73(7)	104(8)	-29(6)	-18(6)	-3(6)
C(75)	54(7)	83(7)	78(6)	-2(5)	-11(5)	4(6)
C(76)	107(9)	73(7)	81(7)	-23(5)	-3(6)	-4(6)

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Table 8. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $[\text{Mes}^*\text{AlPPh}]_3 \cdot \text{Et}_2\text{O}$.

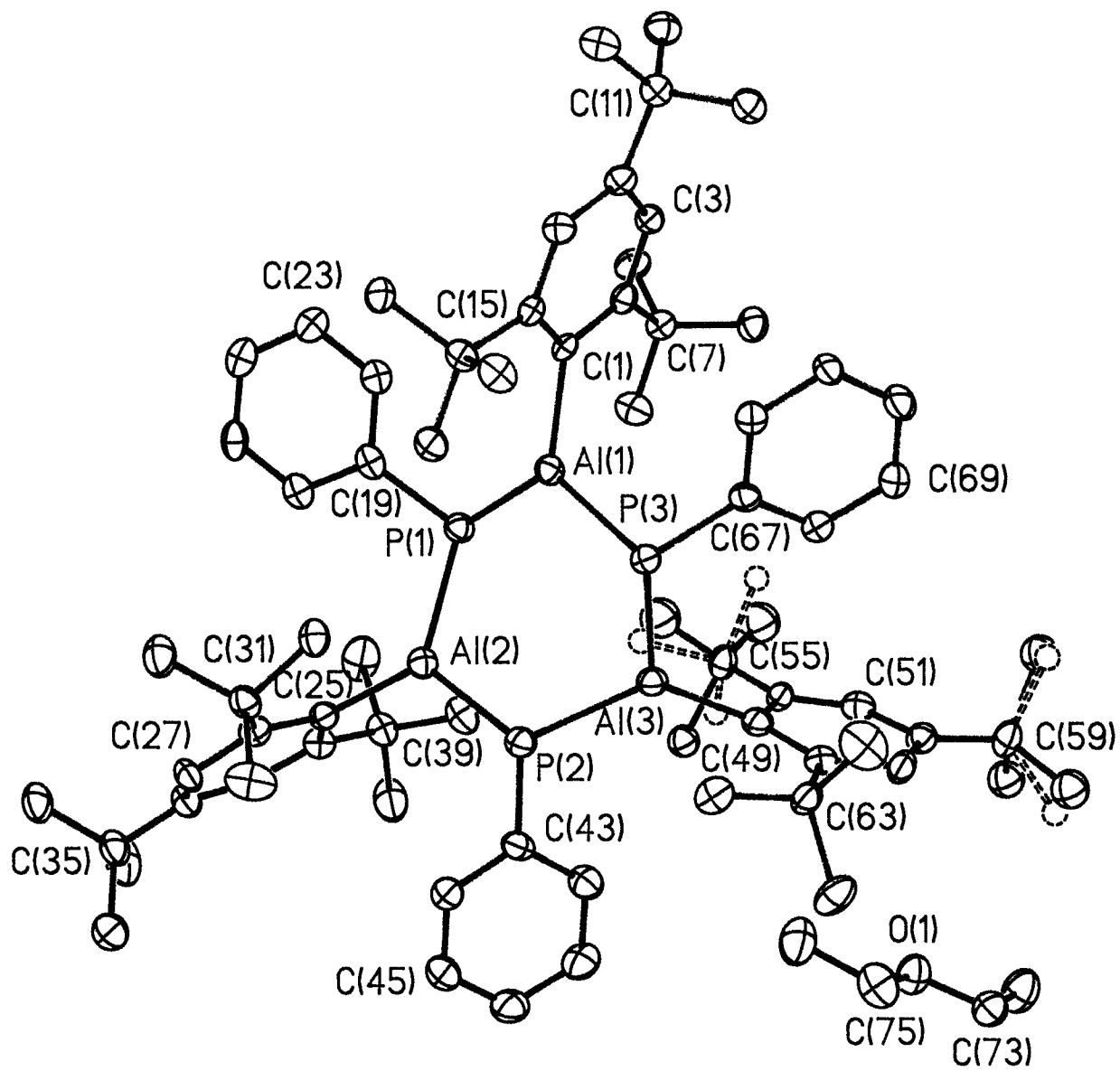
	x	y	z	U(eq)
H(3A)	1072(8)	117(4)	3992(3)	42
H(5A)	5194(8)	-1238(4)	3999(3)	46
H(8A)	-228(9)	535(4)	3235(3)	78
H(8B)	630(9)	638(4)	2606(3)	78
H(8C)	-680(9)	1338(4)	2812(3)	78
H(9A)	2326(8)	1534(4)	2380(3)	76
H(9B)	2491(8)	2063(4)	2847(3)	76
H(9C)	965(8)	2224(4)	2564(3)	76
H(10A)	114(8)	1352(4)	3985(3)	72
H(10B)	-362(8)	2115(4)	3526(3)	72
H(10C)	1163(8)	1955(4)	3809(3)	72
H(12A)	3242(8)	-2290(4)	5060(3)	68
H(12B)	4580(8)	-1893(4)	4791(3)	68
H(12C)	3754(8)	-2253(4)	4384(3)	68
H(13A)	1661(8)	-239(4)	5073(3)	68
H(13B)	3322(8)	-668(4)	5203(3)	68
H(13C)	1987(8)	-1063(4)	5481(3)	68
H(14A)	312(8)	-830(4)	4467(3)	74
H(14B)	684(8)	-1641(4)	4888(3)	74
H(14C)	1131(8)	-1626(4)	4209(3)	74
H(16A)	6723(8)	-1725(4)	3313(3)	67
H(16B)	8115(8)	-1524(4)	2903(3)	67
H(16C)	6530(8)	-1329(4)	2661(3)	67
H(17A)	6645(8)	58(4)	2366(3)	64
H(17B)	8266(8)	-188(4)	2581(3)	64
H(17C)	7075(8)	542(4)	2809(3)	64
H(18A)	7326(8)	-906(5)	4026(3)	74
H(18B)	7481(8)	-28(5)	3794(3)	74
H(18C)	8673(8)	-758(5)	3566(3)	74
H(20A)	6297(8)	943(4)	606(3)	52
H(21A)	6327(8)	-163(4)	188(3)	57
H(22A)	5253(9)	-1151(5)	702(3)	66
H(23A)	4183(9)	-1041(4)	1642(3)	58
H(24A)	4139(8)	81(4)	2056(3)	52
H(27A)	11033(8)	1384(4)	-206(3)	54
H(29A)	7579(9)	2965(4)	-843(3)	58
H(32A)	8330(8)	726(4)	1332(3)	71
H(32B)	8790(8)	1413(4)	1579(3)	71
H(32C)	9739(8)	527(4)	1692(3)	71
H(33A)	12079(10)	1446(5)	646(4)	110
H(33B)	11998(10)	960(5)	1277(4)	110
H(33C)	11049(10)	1846(5)	1165(4)	110
H(34A)	9888(10)	65(4)	552(3)	94

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H(34B)	11234(10)	-126(4)	945(3)	94
H(34C)	11410(10)	296(4)	296(3)	94
H(36A)	11474(10)	1426(5)	-1772(3)	94
H(36B)	10055(10)	1175(5)	-1415(3)	94
H(36C)	11533(10)	1059(5)	-1109(3)	94
H(37A)	9047(12)	3266(6)	-1593(3)	141
H(37B)	8581(12)	2507(6)	-1726(3)	141
H(37C)	10030(12)	2747(6)	-2063(3)	141
H(38A)	11334(11)	3088(5)	-1060(4)	128
H(38B)	12271(11)	2590(5)	-1550(4)	128
H(38C)	12307(11)	2221(5)	-886(4)	128
H(40A)	6020(11)	3913(5)	-733(4)	124
H(40B)	6326(11)	4277(5)	-195(4)	124
H(40C)	4664(11)	4335(5)	-321(4)	124
H(41A)	5125(9)	2949(5)	920(3)	83
H(41B)	4141(9)	3768(5)	649(3)	83
H(41C)	5803(9)	3710(5)	775(3)	83
H(42A)	4921(10)	2681(6)	-541(4)	124
H(42B)	3606(10)	3184(6)	-156(4)	124
H(42C)	4514(10)	2344(6)	114(4)	124
H(44A)	9620(10)	3180(5)	968(3)	71
H(45A)	10422(11)	4237(5)	441(3)	86
H(46A)	9248(11)	5500(5)	610(3)	82
H(47A)	7250(10)	5708(4)	1313(3)	72
H(48A)	6447(9)	4643(4)	1852(3)	63
H(51A)	1172(9)	5422(4)	2922(3)	58
H(53A)	4312(9)	5353(4)	3933(3)	57
H(56A)	2611(28)	5497(11)	1712(8)	75
H(56B)	2554(28)	4842(11)	1326(8)	75
H(56C)	4038(28)	4802(11)	1607(8)	75
H(57A)	4002(34)	3461(16)	2148(13)	119
H(57B)	2665(34)	3548(16)	1767(13)	119
H(57C)	2484(34)	3258(16)	2444(13)	119
H(58A)	369(27)	5201(17)	2324(11)	126
H(58B)	234(27)	4318(17)	2547(11)	126
H(58C)	422(27)	4610(17)	1870(11)	126
H(56D)	1619(21)	4882(8)	1488(6)	89
H(56E)	2940(21)	5219(8)	1636(6)	89
H(56F)	1314(21)	5485(8)	1952(6)	89
H(57D)	3586(17)	3212(8)	2318(6)	53
H(57E)	4298(17)	3761(8)	1812(6)	53
H(57F)	2847(17)	3491(8)	1722(6)	53
H(58D)	1137(15)	3667(9)	2828(6)	81
H(58E)	464(15)	3942(9)	2219(6)	81
H(58F)	179(15)	4545(9)	2682(6)	81
H(60A)	2956(17)	6623(10)	4083(8)	100
H(60B)	2607(17)	5940(10)	4573(8)	100
H(60C)	1433(17)	6767(10)	4488(8)	100
H(61A)	-444(20)	6074(9)	4411(7)	98
H(61B)	694(20)	5233(9)	4452(7)	98
H(61C)	-299(20)	5521(9)	3922(7)	98
H(62A)	1503(20)	7014(9)	3224(6)	100
H(62B)	46(20)	7158(9)	3665(6)	100
H(62C)	185(20)	6609(9)	3174(6)	100
H(60D)	1413(29)	6975(17)	4277(14)	95

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H(60E)	2587(29)	6913(17)	3720(14)	95
H(60F)	2928(29)	6316(17)	4296(14)	95
H(61D)	392(37)	5135(16)	4261(12)	99
H(61E)	151(37)	5822(16)	4654(12)	99
H(61F)	1709(37)	5200(16)	4605(12)	99
H(62D)	-370(37)	6143(18)	3381(11)	114
H(62E)	433(37)	6851(18)	3174(11)	114
H(62F)	-637(37)	6846(18)	3761(11)	114
H(64A)	7190(9)	3246(4)	3228(3)	81
H(64B)	8545(9)	3559(4)	3371(3)	81
H(64C)	7721(9)	3945(4)	2806(3)	81
H(65A)	6565(9)	5417(5)	3720(4)	97
H(65B)	7359(9)	5239(5)	3097(4)	97
H(65C)	8183(9)	4852(5)	3662(4)	97
H(66A)	5717(10)	4297(6)	4417(3)	119
H(66B)	7375(10)	3783(6)	4333(3)	119
H(66C)	6026(10)	3447(6)	4212(3)	119
H(68A)	3362(9)	3350(4)	3725(3)	61
H(69A)	1745(9)	3423(5)	4575(3)	64
H(70A)	1595(9)	2281(5)	5200(3)	64
H(71A)	2963(9)	1060(5)	4959(3)	56
H(72A)	4621(8)	997(4)	4133(3)	48
H(73A)	3885(10)	8572(5)	2728(4)	76
H(73B)	3115(10)	8037(5)	3230(4)	76
H(74A)	1383(11)	9217(6)	2944(4)	128
H(74B)	861(11)	8483(6)	2795(4)	128
H(74C)	1628(11)	9016(6)	2296(4)	128
H(75A)	4803(11)	6889(6)	2973(4)	91
H(75B)	5619(11)	7378(6)	2454(4)	91
H(76A)	5875(12)	6082(6)	2243(4)	134
H(76B)	4926(12)	6699(6)	1783(4)	134
H(76C)	4115(12)	6212(6)	2299(4)	134



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Table 1. Crystal data for [Mes*AlAsPh]₃·OEt₂.

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Identification code	RW25
Empirical formula	C ₇₆ H ₁₁₂ Al ₃ As ₃ O
Formula weight	1347.36
Crystal size	1.00 x 0.20 x 0.12 mm
Crystal habit	needle
Crystal color	colorless
Crystal system	Triclinic
Space group	P $\bar{1}$
Unit cell dimensions	$a = 9.404(7) \text{ \AA}$ $\alpha = 81.01(6)^\circ$ $b = 17.79(2) \text{ \AA}$ $\beta = 83.04(5)^\circ$ $c = 23.643(10) \text{ \AA}$ $\gamma = 75.68(7)^\circ$
Volume	3771(5) $\text{\AA}^3$
Z	2
Density (calculated)	1.186 Mg·m ³
Absorption coefficient	2.214 mm ⁻¹
F(000)	1428
Absorption correction ¹	XABS2
Max. and min. transmission	0.80 and 0.69

- 1) XABS2 calculates 24 coefficients from a least-squares fit of $(1/A \text{ vs } \sin^2(\theta))$ to a cubic equation in $\sin^2(\theta)$ by minimization of F_o^2 and F_c^2 differences.

Parkin, S. R., Moezzi, B. Hope, H. (1995). J. Appl. Cryst., in press.

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Table 2. Data collection for $[\text{Mes*AlAsPh}]_3 \cdot \text{OEt}_2$.

Diffractometer	Syntex
Temperature	130(2) K
Radiation source	normal-focus sealed tube
Wavelength	1.54178 Å (CuK α)
Monochromator	graphite
θ range for data collection	1.90 to 55.06°
Scan type	ω
Scan speed	constant; 58.6°/min in ω
Scan range	3.00°
Index ranges	$-9 \leq h \leq 9$, $-18 \leq k \leq 18$, $0 \leq l \leq 25$
Reflections collected	10175
Independent reflections	9466 ($R_{\text{int}} = 0.0000$)
Observed [$I > 2\sigma(I)$] reflections	6363
Standard reflections	2 (measured every 198 reflections)
Percent decay of standards	stable

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Table 3. Solution and refinement of $[\text{Mes}^*\text{AlAsPh}]_3 \cdot \text{OEt}_2$.

System for solution	SHELXS-86 (Sheldrick, 1990)
Structure solution	direct
System for refinement	SHELXL-93 (Sheldrick, 1993)
Refinement method	Full-matrix least-squares on F^2
Hydrogen atoms	riding model
Extinction correction	none
Data / restraints / parameters	9441 / 0 / 779
Goodness-of-fit on F^2	1.027
Final R indices [$I > 2\sigma(I)$]	$R1 = 0.0632$, $wR2 = 0.1336$
Weighting scheme	$w^{-1} = \sigma^2(F_o^2) + (0.0543P)^2 + 8.3182P$, where $P = (F_o^2 + 2F_c^2)/3$
R indices (all data)	$R1 = 0.1061$, $wR2 = 0.1693$
Largest diff. peak and hole	0.865 and $-0.837 \text{ e}\text{\AA}^{-3}$

$$1) \quad R1 = \sum ||F_o - F_c| | / \sum |F_o|$$

$$wR2 = [\sum [w(F_o^2 - F_c^2)^2] / \sum [w(F_o^2)^2]]^{1/2}$$

$$2) \quad \text{Goodness-of-Fit} = [\sum [w(F_o^2 - F_c^2)^2] / (M - N)]^{1/2}$$

where M is the number of reflections

and N is the number of parameters refined.

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Table 4. Atomic coordinates [$\times 10^4$] and equivalent isotropic displacement parameters [$\text{\AA}^2 \times 10^3$] for $[\text{Mes*AlAsPh}]_3 \cdot \text{OEt}_2$.

U(eq) is defined as one third of the trace of the orthogonalized U_{ij} tensor.

	x	y	z	U(eq)
As(1)	4832(1)	1613(1)	1641(1)	40(1)
Al(1)	4814(3)	1272(1)	2678(1)	38(1)
As(2)	7722(1)	2887(1)	1945(1)	40(1)
Al(2)	6922(3)	2183(1)	1285(1)	39(1)
As(3)	5714(1)	2038(1)	3261(1)	39(1)
Al(3)	5687(3)	3271(1)	2657(1)	39(1)
C(1)	4036(8)	420(4)	3166(3)	33(2)
C(2)	2515(8)	557(4)	3400(3)	37(2)
C(3)	2096(8)	21(4)	3842(3)	36(2)
C(4)	3082(8)	-640(4)	4088(3)	37(2)
C(5)	4534(8)	-774(4)	3849(3)	37(2)
C(6)	5030(8)	-268(4)	3397(3)	35(2)
C(7)	1268(8)	1238(4)	3181(3)	36(2)
C(8)	208(9)	919(5)	2893(4)	55(2)
C(9)	1803(9)	1843(4)	2737(3)	51(2)
C(10)	404(9)	1674(5)	3673(3)	55(2)
C(11)	2570(8)	-1161(4)	4614(3)	40(2)
C(12)	3675(9)	-1954(4)	4711(3)	47(2)
C(13)	2439(9)	-732(4)	5139(3)	49(2)
C(14)	1067(8)	-1322(5)	4543(3)	49(2)
C(15)	6685(8)	-517(4)	3187(3)	36(2)
C(16)	7033(9)	-1333(4)	2996(3)	50(2)
C(17)	7158(8)	27(4)	2671(3)	41(2)
C(18)	7621(8)	-521(5)	3678(3)	49(2)
C(19)	5138(8)	609(4)	1350(3)	40(2)
C(20)	5830(8)	494(5)	805(3)	47(2)
C(21)	5866(9)	-180(5)	569(3)	52(2)
C(22)	5231(10)	-752(5)	876(4)	57(2)
C(23)	4579(9)	-671(5)	1425(4)	56(2)
C(24)	4538(8)	9(4)	1660(3)	44(2)
C(25)	7888(8)	2157(4)	491(3)	38(2)
C(26)	9271(8)	1659(4)	386(3)	37(2)
C(27)	10028(9)	1695(5)	-164(3)	47(2)
C(28)	9428(10)	2190(5)	-635(3)	50(2)
C(29)	8038(10)	2668(5)	-529(3)	50(2)
C(30)	7287(8)	2676(4)	10(3)	39(2)
C(31)	10093(8)	1059(4)	853(3)	42(2)
C(32)	9102(9)	888(4)	1400(3)	47(2)
C(33)	11351(9)	1362(5)	1024(4)	63(3)
C(34)	10735(10)	255(5)	645(3)	57(2)
C(35)	10344(11)	2221(5)	-1216(3)	58(3)

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C(36)	10875(10)	1401(5)	-1398(3)	64(3)
C(37)	9442(13)	2738(6)	-1696(4)	99(4)
C(38)	11666(12)	2550(6)	-1162(4)	88(4)
C(39)	5739(9)	3248(4)	47(3)	46(2)
C(40)	5709(11)	4007(5)	-364(4)	71(3)
C(41)	5243(9)	3494(5)	640(3)	52(2)
C(42)	4601(10)	2842(6)	-122(4)	71(3)
C(43)	8095(9)	3841(4)	1465(3)	41(2)
C(44)	9266(10)	3742(5)	1035(3)	59(2)
C(45)	9681(11)	4401(5)	724(4)	70(3)
C(46)	8935(11)	5151(5)	829(4)	64(3)
C(47)	7787(10)	5238(5)	1247(4)	57(2)
C(48)	7371(9)	4589(4)	1566(3)	48(2)
C(49)	4555(8)	4278(4)	2916(3)	37(2)
C(50)	3105(9)	4606(4)	2759(3)	40(2)
C(51)	2186(9)	5190(4)	3051(3)	44(2)
C(52)	2604(9)	5463(4)	3506(3)	42(2)
C(53)	4034(10)	5158(4)	3643(3)	47(2)
C(54)	5009(8)	4600(4)	3362(3)	39(2)
C(55)	2444(9)	4381(5)	2261(3)	45(2)
C(56)	2913(28)	4960(10)	1681(8)	42(6)
C(57)	3116(32)	3572(16)	2137(13)	64(9)
C(58)	817(26)	4560(18)	2291(12)	76(9)
C(56A)	2095(26)	5034(9)	1813(8)	61(6)
C(57A)	3440(20)	3660(10)	2013(8)	36(5)
C(58A)	989(16)	4095(11)	2520(7)	49(5)
C(59)	1496(9)	6056(5)	3855(4)	51(2)
C(60)	2295(21)	6398(14)	4266(11)	57(6)
C(61)	360(28)	5663(12)	4194(11)	55(7)
C(62)	699(27)	6763(13)	3440(8)	65(7)
C(60A)	2223(25)	6621(15)	4043(13)	65(7)
C(61A)	893(31)	5546(12)	4401(11)	71(7)
C(62A)	154(32)	6488(16)	3537(10)	78(9)
C(63)	6576(9)	4332(4)	3570(3)	46(2)
C(64)	7664(9)	3751(5)	3230(4)	54(2)
C(65)	7273(11)	5040(5)	3535(5)	78(3)
C(66)	6484(11)	3932(6)	4205(4)	84(3)
C(67)	4131(8)	2174(4)	3883(3)	39(2)
C(68)	3289(9)	2896(4)	4019(3)	47(2)
C(69)	2298(10)	2955(5)	4500(4)	58(2)
C(70)	2092(9)	2289(5)	4861(3)	53(2)
C(71)	2891(9)	1565(5)	4729(3)	51(2)
C(72)	3907(9)	1516(5)	4251(3)	46(2)
O(1)	3419(7)	7653(4)	2478(3)	68(2)
C(73)	3113(10)	8271(5)	2824(4)	60(2)
C(74)	1616(10)	8770(5)	2722(5)	77(3)
C(75)	4792(11)	7127(6)	2566(4)	77(3)
C(76)	4955(12)	6481(6)	2204(4)	87(3)

Rotational disorder in the o- (C(56)-C(58)) and p- (C(60)-C(62)) t-butyl groups of the C(49)-Mes* substituent was refined isotropically with split occupancies of 0.434(25) and 0.517(35), respectively.

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Table 5. Bond lengths [Å] for [Mes*AlAsPh]₃·OEt₂.

As(1)-C(19)	1.957(8)	As(1)-Al(1)	2.432(3)
As(1)-Al(2)	2.433(3)	Al(1)-C(1)	1.990(7)
Al(1)-As(3)	2.433(3)	As(2)-C(43)	1.971(7)
As(2)-Al(3)	2.428(3)	As(2)-Al(2)	2.435(3)
Al(2)-C(25)	1.985(7)	As(3)-C(67)	1.959(7)
As(3)-Al(3)	2.418(3)	Al(3)-C(49)	1.990(8)
C(1)-C(6)	1.422(10)	C(1)-C(2)	1.445(10)
C(2)-C(3)	1.390(9)	C(2)-C(7)	1.537(10)
C(3)-C(4)	1.399(10)	C(4)-C(5)	1.391(10)
C(4)-C(11)	1.535(10)	C(5)-C(6)	1.397(9)
C(6)-C(15)	1.551(10)	C(7)-C(9)	1.516(9)
C(7)-C(8)	1.532(10)	C(7)-C(10)	1.534(10)
C(11)-C(13)	1.532(10)	C(11)-C(12)	1.535(10)
C(11)-C(14)	1.543(10)	C(15)-C(17)	1.528(9)
C(15)-C(16)	1.535(10)	C(15)-C(18)	1.538(10)
C(19)-C(20)	1.392(10)	C(19)-C(24)	1.396(10)
C(20)-C(21)	1.391(11)	C(21)-C(22)	1.373(11)
C(22)-C(23)	1.380(11)	C(23)-C(24)	1.398(11)
C(25)-C(26)	1.400(10)	C(25)-C(30)	1.426(10)
C(26)-C(27)	1.404(10)	C(26)-C(31)	1.546(10)
C(27)-C(28)	1.392(11)	C(28)-C(29)	1.390(11)
C(28)-C(35)	1.532(10)	C(29)-C(30)	1.381(10)
C(30)-C(39)	1.558(11)	C(31)-C(33)	1.533(11)
C(31)-C(32)	1.535(10)	C(31)-C(34)	1.540(10)
C(35)-C(38)	1.525(13)	C(35)-C(36)	1.532(11)
C(35)-C(37)	1.540(12)	C(39)-C(41)	1.518(10)
C(39)-C(40)	1.531(10)	C(39)-C(42)	1.550(11)
C(43)-C(48)	1.380(10)	C(43)-C(44)	1.401(10)
C(44)-C(45)	1.398(11)	C(45)-C(46)	1.390(12)
C(46)-C(47)	1.368(11)	C(47)-C(48)	1.391(10)
C(49)-C(50)	1.413(10)	C(49)-C(54)	1.429(10)
C(50)-C(51)	1.392(10)	C(50)-C(55)	1.543(11)
C(51)-C(52)	1.381(10)	C(52)-C(53)	1.378(11)
C(52)-C(59)	1.550(10)	C(53)-C(54)	1.369(10)
C(54)-C(63)	1.548(11)	C(55)-C(56A)	1.45(2)
C(55)-C(58)	1.48(2)	C(55)-C(57)	1.48(3)
C(55)-C(57A)	1.54(2)	C(55)-C(58A)	1.60(2)
C(55)-C(56)	1.67(2)	C(59)-C(60A)	1.49(2)
C(59)-C(61)	1.50(2)	C(59)-C(62A)	1.52(2)
C(59)-C(62)	1.56(2)	C(59)-C(60)	1.57(2)
C(59)-C(61A)	1.59(2)	C(63)-C(64)	1.516(10)
C(63)-C(65)	1.544(11)	C(63)-C(66)	1.561(11)
C(67)-C(72)	1.390(10)	C(67)-C(68)	1.395(10)
C(68)-C(69)	1.380(10)	C(69)-C(70)	1.387(11)
C(70)-C(71)	1.381(11)	C(71)-C(72)	1.389(10)
O(1)-C(75)	1.411(10)	O(1)-C(73)	1.424(9)
C(73)-C(74)	1.492(12)	C(75)-C(76)	1.503(12)

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Table 6. Bond angles [$^{\circ}$] for $[\text{Mes}^*\text{AlAsPh}]_3 \cdot \text{OEt}_2$.

C(19)-As(1)-Al(1)	104.3(2)	C(19)-As(1)-Al(2)	108.7(2)
Al(1)-As(1)-Al(2)	109.35(10)	C(1)-Al(1)-As(1)	127.8(2)
C(1)-Al(1)-As(3)	111.1(2)	As(1)-Al(1)-As(3)	120.97(10)
C(43)-As(2)-Al(3)	108.4(2)	C(43)-As(2)-Al(2)	104.4(2)
Al(3)-As(2)-Al(2)	108.39(10)	C(25)-Al(2)-As(1)	123.9(2)
C(25)-Al(2)-As(2)	119.9(2)	As(1)-Al(2)-As(2)	116.13(10)
C(67)-As(3)-Al(3)	110.2(2)	C(67)-As(3)-Al(1)	101.0(2)
Al(3)-As(3)-Al(1)	104.45(10)	C(49)-Al(3)-As(3)	121.1(2)
C(49)-Al(3)-As(2)	135.4(2)	As(3)-Al(3)-As(2)	101.31(11)
C(6)-C(1)-C(2)	117.8(6)	C(6)-C(1)-Al(1)	119.8(5)
C(2)-C(1)-Al(1)	120.8(5)	C(3)-C(2)-C(1)	119.0(7)
C(3)-C(2)-C(7)	115.7(6)	C(1)-C(2)-C(7)	125.2(6)
C(2)-C(3)-C(4)	123.4(7)	C(5)-C(4)-C(3)	116.9(6)
C(5)-C(4)-C(11)	122.6(7)	C(3)-C(4)-C(11)	120.4(6)
C(4)-C(5)-C(6)	122.9(7)	C(5)-C(6)-C(1)	119.9(7)
C(5)-C(6)-C(15)	115.4(6)	C(1)-C(6)-C(15)	124.7(6)
C(9)-C(7)-C(8)	106.8(6)	C(9)-C(7)-C(10)	106.8(6)
C(8)-C(7)-C(10)	108.8(7)	C(9)-C(7)-C(2)	113.5(6)
C(8)-C(7)-C(2)	109.2(6)	C(10)-C(7)-C(2)	111.5(6)
C(13)-C(11)-C(4)	107.5(6)	C(13)-C(11)-C(12)	109.3(6)
C(4)-C(11)-C(12)	111.4(6)	C(13)-C(11)-C(14)	109.8(6)
C(4)-C(11)-C(14)	111.3(6)	C(12)-C(11)-C(14)	107.6(6)
C(17)-C(15)-C(16)	106.2(6)	C(17)-C(15)-C(18)	107.7(6)
C(16)-C(15)-C(18)	110.0(6)	C(17)-C(15)-C(6)	113.6(6)
C(16)-C(15)-C(6)	110.2(6)	C(18)-C(15)-C(6)	109.2(6)
C(20)-C(19)-C(24)	117.6(7)	C(20)-C(19)-As(1)	121.4(6)
C(24)-C(19)-As(1)	120.7(5)	C(21)-C(20)-C(19)	121.2(8)
C(22)-C(21)-C(20)	120.1(8)	C(21)-C(22)-C(23)	120.4(8)
C(22)-C(23)-C(24)	119.3(8)	C(19)-C(24)-C(23)	121.4(8)
C(26)-C(25)-C(30)	116.4(7)	C(26)-C(25)-Al(2)	120.6(6)
C(30)-C(25)-Al(2)	122.8(6)	C(25)-C(26)-C(27)	120.9(7)
C(25)-C(26)-C(31)	123.7(6)	C(27)-C(26)-C(31)	115.4(7)
C(28)-C(27)-C(26)	122.5(8)	C(29)-C(28)-C(27)	116.1(7)
C(29)-C(28)-C(35)	124.2(8)	C(27)-C(28)-C(35)	119.6(8)
C(30)-C(29)-C(28)	123.1(8)	C(29)-C(30)-C(25)	120.9(7)
C(29)-C(30)-C(39)	115.9(7)	C(25)-C(30)-C(39)	123.1(6)
C(33)-C(31)-C(32)	108.0(6)	C(33)-C(31)-C(34)	108.9(7)
C(32)-C(31)-C(34)	104.6(6)	C(33)-C(31)-C(26)	109.7(6)
C(32)-C(31)-C(26)	113.6(6)	C(34)-C(31)-C(26)	111.8(6)
C(38)-C(35)-C(36)	109.7(8)	C(38)-C(35)-C(28)	108.7(7)
C(36)-C(35)-C(28)	110.4(6)	C(38)-C(35)-C(37)	109.2(8)
C(36)-C(35)-C(37)	106.9(8)	C(28)-C(35)-C(37)	111.9(8)
C(41)-C(39)-C(40)	105.9(7)	C(41)-C(39)-C(42)	108.7(7)
C(40)-C(39)-C(42)	108.5(7)	C(41)-C(39)-C(30)	113.6(7)
C(40)-C(39)-C(30)	111.4(6)	C(42)-C(39)-C(30)	108.4(7)
C(48)-C(43)-C(44)	118.9(7)	C(48)-C(43)-As(2)	123.7(6)
C(44)-C(43)-As(2)	117.0(6)	C(45)-C(44)-C(43)	119.4(8)
C(46)-C(45)-C(44)	120.9(8)	C(47)-C(46)-C(45)	119.0(8)
C(46)-C(47)-C(48)	120.9(8)	C(43)-C(48)-C(47)	120.8(8)

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C(50)-C(49)-C(54)	116.5(7)	C(50)-C(49)-Al(3)	120.1(5)
C(54)-C(49)-Al(3)	121.8(6)	C(51)-C(50)-C(49)	120.0(7)
C(51)-C(50)-C(55)	115.6(7)	C(49)-C(50)-C(55)	124.4(7)
C(52)-C(51)-C(50)	123.1(8)	C(53)-C(52)-C(51)	116.5(7)
C(53)-C(52)-C(59)	122.2(7)	C(51)-C(52)-C(59)	121.3(8)
C(54)-C(53)-C(52)	123.3(7)	C(53)-C(54)-C(49)	120.5(7)
C(53)-C(54)-C(63)	116.2(7)	C(49)-C(54)-C(63)	123.2(7)
C(58)-C(55)-C(57)	112(2)	C(56A)-C(55)-C(57A)	110.9(11)
C(56A)-C(55)-C(50)	111.6(9)	C(58)-C(55)-C(50)	115.8(11)
C(57)-C(55)-C(50)	113.3(13)	C(57A)-C(55)-C(50)	112.5(9)
C(56A)-C(55)-C(58A)	110.1(11)	C(57A)-C(55)-C(58A)	103.7(10)
C(50)-C(55)-C(58A)	107.8(8)	C(58)-C(55)-C(56)	104.0(13)
C(57)-C(55)-C(56)	105.4(13)	C(50)-C(55)-C(56)	105.0(9)
C(60A)-C(59)-C(62A)	110.7(13)	C(60A)-C(59)-C(52)	111.5(10)
C(61)-C(59)-C(52)	109.3(9)	C(62A)-C(59)-C(52)	113.0(11)
C(61)-C(59)-C(62)	109(2)	C(52)-C(59)-C(62)	110.0(9)
C(61)-C(59)-C(60)	111(2)	C(52)-C(59)-C(60)	111.5(9)
C(62)-C(59)-C(60)	106.9(11)	C(60A)-C(59)-C(61A)	110(2)
C(62A)-C(59)-C(61A)	106(2)	C(52)-C(59)-C(61A)	105.6(9)
C(64)-C(63)-C(65)	105.6(7)	C(64)-C(63)-C(54)	115.4(6)
C(65)-C(63)-C(54)	110.4(7)	C(64)-C(63)-C(66)	106.6(7)
C(65)-C(63)-C(66)	109.3(7)	C(54)-C(63)-C(66)	109.3(7)
C(72)-C(67)-C(68)	116.6(7)	C(72)-C(67)-As(3)	118.5(6)
C(68)-C(67)-As(3)	124.6(5)	C(69)-C(68)-C(67)	121.7(7)
C(68)-C(69)-C(70)	120.6(8)	C(71)-C(70)-C(69)	118.9(7)
C(70)-C(71)-C(72)	119.8(8)	C(71)-C(72)-C(67)	122.3(8)
C(75)-O(1)-C(73)	112.8(7)	O(1)-C(73)-C(74)	108.7(7)
O(1)-C(75)-C(76)	107.9(9)		

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Table 7. Anisotropic displacement parameters [$\text{\AA}^2 \times 10^3$]for $[\text{Mes*AlAsPh}]_3 \cdot \text{OEt}_2$.

The anisotropic displacement factor exponent takes the form:

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

	U11	U22	U33	U23	U13	U12
As(1)	40(1)	41(1)	38(1)	-4(1)	-4(1)	-9(1)
Al(1)	40(2)	38(1)	37(1)	-4(1)	-3(1)	-10(1)
As(2)	41(1)	40(1)	39(1)	-5(1)	-2(1)	-10(1)
Al(2)	40(2)	38(1)	38(1)	-3(1)	-4(1)	-8(1)
As(3)	40(1)	38(1)	39(1)	-5(1)	-2(1)	-10(1)
Al(3)	43(2)	37(1)	38(1)	-4(1)	-1(1)	-10(1)
C(1)	37(5)	32(4)	35(4)	-12(3)	0(4)	-12(4)
C(2)	34(5)	40(4)	39(4)	-10(3)	-3(4)	-10(4)
C(3)	32(5)	39(4)	43(4)	-14(4)	-1(4)	-16(4)
C(4)	39(5)	38(4)	34(4)	-7(3)	-1(4)	-11(4)
C(5)	37(5)	40(4)	35(4)	-4(3)	-11(4)	-5(4)
C(6)	30(5)	38(4)	39(4)	-10(3)	-8(4)	-5(4)
C(7)	35(5)	35(4)	38(4)	1(3)	-7(4)	-9(4)
C(8)	54(6)	50(5)	68(6)	-5(4)	-21(5)	-18(5)
C(9)	36(5)	42(5)	67(6)	2(4)	-4(4)	-1(4)
C(10)	57(6)	50(5)	50(5)	-9(4)	6(4)	-4(4)
C(11)	35(5)	37(4)	45(5)	-4(4)	-3(4)	-6(4)
C(12)	46(6)	48(5)	49(5)	7(4)	-7(4)	-20(4)
C(13)	51(6)	50(5)	46(5)	-7(4)	2(4)	-13(4)
C(14)	40(5)	55(5)	52(5)	2(4)	-6(4)	-19(4)
C(15)	27(5)	40(4)	41(4)	-6(3)	-2(4)	-6(4)
C(16)	39(5)	49(5)	62(5)	-12(4)	5(4)	-9(4)
C(17)	36(5)	40(4)	45(5)	-5(4)	2(4)	-6(4)
C(18)	32(5)	58(5)	53(5)	2(4)	-9(4)	-6(4)
C(19)	26(5)	53(5)	38(4)	-7(4)	-8(4)	0(4)
C(20)	34(5)	58(5)	47(5)	-12(4)	-11(4)	-1(4)
C(21)	50(6)	60(6)	44(5)	-16(4)	-11(4)	1(5)
C(22)	56(6)	52(5)	65(6)	-19(5)	-16(5)	-2(5)
C(23)	51(6)	50(5)	68(6)	-12(5)	-18(5)	-7(5)
C(24)	37(5)	50(5)	44(5)	-6(4)	-10(4)	-6(4)
C(25)	43(5)	29(4)	45(5)	-7(3)	-3(4)	-16(4)
C(26)	28(5)	40(4)	43(5)	-7(4)	-4(4)	-7(4)
C(27)	38(5)	50(5)	50(5)	-8(4)	4(4)	-9(4)
C(28)	58(6)	46(5)	44(5)	-1(4)	1(4)	-14(5)
C(29)	56(6)	46(5)	43(5)	2(4)	-8(4)	-9(5)
C(30)	39(5)	42(4)	31(4)	3(3)	-4(4)	-4(4)
C(31)	38(5)	42(5)	45(5)	-2(4)	-6(4)	-11(4)
C(32)	50(6)	45(5)	44(5)	-8(4)	-6(4)	-4(4)
C(33)	45(6)	77(6)	66(6)	12(5)	-20(5)	-22(5)
C(34)	60(6)	53(5)	44(5)	-5(4)	6(4)	7(5)
C(35)	78(7)	49(5)	40(5)	-3(4)	12(5)	-12(5)
C(36)	82(7)	67(6)	34(5)	-11(4)	8(5)	-5(5)