Table 1. *Fractional atomic coordinates and equivalent isotropic displacement parameters* (Å^2)

$$U_{\rm eq} = (1/3)\Sigma_i\Sigma_j U_{ij} a_i^* a_j^* \mathbf{a}_i.\mathbf{a}_j.$$

	x	*y*	*z*	$U_{\rm eq}$
Co1	0	0.05959 (6)	1/4	0.02601 (15)
Cl2	0.15071 (6)	0.20470 (9)	0.32712 (4)	0.0386 (2)
Cl1	−0.05398 (6)	−0.09866 (9)	0.33682 (4)	0.0395 (2)
N1	0.1342 (2)	0.3240 (3)	0.12121 (12)	0.0288 (5)
N3	0.1072 (2)	0.1459 (3)	0.01372 (13)	0.0283 (5)
C4	0.2122 (2)	0.0804 (3)	0.04387 (14)	0.0272 (6)
C6	0.2395 (2)	0.2592 (4)	0.1537 (2)	0.0324 (6)
C2	0.0621 (2)	0.2646 (3)	0.05027 (15)	0.0290 (6)
C5	0.2805 (2)	0.1406 (4)	0.1189 (2)	0.0332 (6)
O2	−0.0347 (2)	0.3119 (3)	0.01993 (12)	0.0432 (5)
N4	0.2457 (2)	−0.0294 (3)	0.0025 (2)	0.0365 (6)
C1	0.0951 (3)	0.4617 (4)	0.1587 (2)	0.0395 (7)

Table 2. *Selected geometric parameters* (Å, °)

Co1—Cl2	2.2628 (10)	N3—C2	1.383 (4)
Co1—Cl1	2.2791 (8)	C4—N4	1.309 (4)
N1—C6	1.359 (3)	C4—C5	1.416 (4)
N1—C2	1.375 (3)	C6—C5	1.335 (4)
N1—C1	1.464 (4)	C2—O2	1.217 (3)
N3—C4	1.355 (3)		
Cl2—Co1—Cl2$^{\rm i}$	117.62 (5)	N4—C4—N3	119.5 (2)
Cl2—Co1—Cl1	104.73 (3)	N4—C4—C5	124.0 (3)
Cl2$^{\rm i}$—Co1—Cl1	109.05 (3)	N3—C4—C5	116.4 (2)
Cl1—Co1—Cl1$^{\rm i}$	111.80 (5)	C5—C6—N1	123.3 (2)
C6—N1—C2	120.6 (2)	O2—C2—N1	123.8 (3)
C6—N1—C1	121.6 (2)	O2—C2—N3	120.9 (2)
C2—N1—C1	117.8 (2)	N1—C2—N3	115.3 (2)
C4—N3—C2	125.5 (2)	C6—C5—C4	118.7 (2)
C2—N3—C4—N4	−178.7 (3)	C1—N1—C2—N3	173.9 (2)
C2—N3—C4—C5	−0.4 (4)	C4—N3—C2—O2	−177.3 (3)
C2—N1—C6—C5	2.1 (4)	C4—N3—C2—N1	3.3 (4)
C1—N1—C6—C5	−175.8 (3)	N1—C6—C5—C4	1.1 (4)
C6—N1—C2—O2	176.5 (3)	N4—C4—C5—C6	176.4 (3)
C1—N1—C2—O2	−5.5 (4)	N3—C4—C5—C6	−1.9 (4)
C6—N1—C2—N3	−4.1 (4)		

Symmetry code: (i) $-x, y, \frac{1}{2} - z$.

Data collection: *P3/PC Diffractometer Program* (Siemens, 1989). Cell refinement: *P3/PC Diffractometer Program*. Data reduction: *SHELXTL-Plus XDISK* (Sheldrick, 1987). Program(s) used to solve structure: *SHELXS86* (Sheldrick, 1990). Program(s) used to refine structure: *SHELXL* (Sheldrick, 1994). Molecular graphics: *SHELXTL-Plus*. Software used to prepare material for publication: *SHELXL*. Absorption coefficients were taken from *International Tables for Crystallography* (1992, Vol. C). The space group was checked with *MISSYM* (Le Page, 1987).

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Lists of structure factors, anisotropic displacement parameters, H-atom coordinates and bond distances involving H atoms have been deposited with the British Library Document Supply Centre as Supplementary Publication No. SUP 71841 (10 pp.). Copies may be obtained through The Technical Editor, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England. [CIF reference: AB1122]

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$[Li\{N(Me_3SiNPPh_2)_2\}]_2.2.5C_7H_8$

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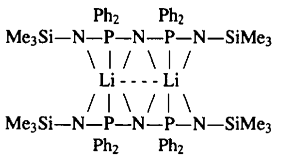
Abstract

The structure of the title compound bis{μ-*P*,*P*′-imido-1:2κ^2*N*″-bis[*P*,*P*-diphenyl-*N*-(trimethylsilyl)phosphine imido](1−)-1κ*N*,1κ*P*:2κ*N*′,2κ*P*′}dilithium(*Li*—*Li*), $[Li\{N[(CH_3)_3SiNP(C_6H_5)_2]_2\}]_2.2.5C_7H_8$ is reported. There is one molecule of the dimer in the asymmetric unit, two disordered molecules of the toluene solvent close to a centre of symmetry and another disordered solvent molecule situated on a twofold axis.

Comment

Organolithium compounds have received increasing attention in the past few years (see Gregory, Schleyer & Snaith, 1991, for a recent review), especially the amidolithium compounds (R_2NLi), mainly because of their use as proton abstractors in both organic and inorganic syntheses. The title compound, (I) (Pandey & Roesky, 1994; Steiner & Stalke, 1993), is a derivative of the monomer $[\{Ph_2P(Me_3SiN)_2\}Li(thf)_2]$, and is stabilized by a butterfly-like ligand conformation with pseudo-noncrystallographic C_2 symmetry and an Li—Li distance of 2.79 (1) Å.



(I)

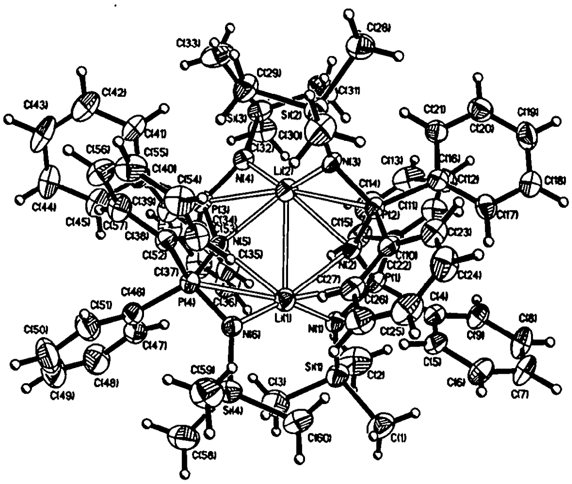


Fig. 1. Plot of (I), showing 50% probability displacement ellipsoids and atomic labelling.

The full-matrix anisotropic refinement finally converged to $R = 0.056$. The refinement of the disordered solvent molecules was carried out by means of a constraint-restraint model, refining the occupation factors of the two components along the twofold axis and the other two components close to a centre of symmetry as p and $1-p$.

The mean values of the distances and angles for the Li environment are: Li—N(Si) 1.99 (1), Li—N(P) 2.25 (5), Li—P 2.64 (1) Å, (Si)N—Li—N(Si) 140 (4), (P)N—Li—N(P) 103 (3), (P)N—Li—N(Si) 74 (1) and (Si)N—Li—N(P) 134 (6)°, showing distorted square-planar coordination of the Li atoms, in good agreement with other published results for similar lithium-ring compounds (Pauer & Stalke, 1991; Edelmann, Knösel, Pauer & Stalke, 1992; Stalke, Wedler & Edelmann, 1992; Hasselbring, Pandey, Roesky, Stalke & Steiner, 1993).

Experimental

Crystal data

$[Li_2(C_{30}H_{38}N_3P_2Si_2)_2]$.-
$2.5C_7H_8$
$M_r = 1361.72$
Monoclinic
$C2/c$
$a = 51.814\ (10)$ Å
$b = 12.232\ (2)$ Å
$c = 23.984\ (5)$ Å
$\beta = 92.91\ (3)°$
$V = 15181.2\ (50)$ Å^3
$Z = 8$

$D_x = 1.192$ Mg m^{-3}
Mo $K\alpha$ radiation
$\lambda = 0.71073$ Å
Cell parameters from 60 reflections
$\theta = 20$-25°
$\mu = 0.208$ mm^{-1}
$T = 187\ (2)$ K
Transparent needles
$0.2 \times 0.2 \times 0.1$ mm
Colourless

Data collection

Stoe Siemens AED four-circle diffractometer
Profile data from $2\theta/\omega$ scans
Absorption correction: empirical
$T_{min} = 0.761$, $T_{max} = 0.779$
8169 measured reflections
7038 independent reflections

5113 observed reflections $[I > 2\sigma(I)]$
$R_{int} = 0.0235$
$\theta_{max} = 20.00°$
$h = -49 \rightarrow 49$
$k = -11 \rightarrow 11$
$l = -3 \rightarrow 23$
3 standard reflections
frequency: 90 min
intensity variation: 3%

Refinement

Refinement on F^2
$R(F) = 0.0557$
$wR(F^2) = 0.1343$
$S = 1.079$
7037 reflections
908 parameters
Calculated weights
$w = 1/[\sigma^2(F_o^2) + (0.0712P)^2 + 69.5000P]$
where $P = (F_o^2 + 2F_c^2)/3$

$(\Delta/\sigma)_{max} = -0.237$
$\Delta\rho_{max} = 0.325$ e Å^{-3}
$\Delta\rho_{min} = -0.476$ e Å^{-3}
Extinction correction: none
Atomic scattering factors from *International Tables for Crystallography* (1992, Vol. C, Tables 4.2.6.8, 6.1.1.4)

Table 1. *Fractional atomic coordinates and equivalent isotropic displacement parameters* (Å^2)

$$U_{eq} = (1/3)\Sigma_i\Sigma_j U_{ij}a_i^*a_j^*\mathbf{a}_i.\mathbf{a}_j.$$

	x	y	z	U_{eq}
Li1	0.1327 (2)	0.2765 (7)	−0.0504 (4)	0.034 (2)
N1	0.12539 (8)	0.1560 (3)	−0.1061 (2)	0.0289 (11)
Si1	0.14541 (3)	0.09058 (14)	−0.14945 (7)	0.0403 (5)
C1	0.14356 (12)	0.1440 (6)	−0.2220 (2)	0.059 (2)
C2	0.13916 (14)	−0.0591 (5)	−0.1549 (3)	0.067 (2)
C3	0.17912 (11)	0.1120 (6)	−0.1206 (3)	0.059 (2)
P1	0.09536 (3)	0.17637 (11)	−0.10836 (6)	0.0278 (4)
C4	0.08305 (10)	0.2148 (4)	−0.1775 (2)	0.0278 (13)
C5	0.08927 (10)	0.3176 (5)	−0.1964 (2)	0.0348 (15)
C6	0.08091 (11)	0.3539 (5)	−0.2488 (2)	0.041 (2)
C7	0.06627 (12)	0.2856 (5)	−0.2835 (2)	0.048 (2)
C8	0.06037 (12)	0.1824 (5)	−0.2657 (2)	0.047 (2)
C9	0.06894 (10)	0.1457 (5)	−0.2135 (2)	0.0359 (15)
C10	0.07783 (11)	0.0545 (4)	−0.0885 (2)	0.0303 (14)
C11	0.05142 (12)	0.0401 (5)	−0.0994 (2)	0.042 (2)
C12	0.03910 (13)	−0.0530 (5)	−0.0812 (3)	0.052 (2)
C13	0.0529 (2)	−0.1314 (5)	−0.0523 (3)	0.056 (2)
C14	0.0789 (2)	−0.1173 (5)	−0.0407 (3)	0.056 (2)
C15	0.09142 (12)	−0.0253 (5)	−0.0584 (2)	0.042 (2)
N2	0.09037 (8)	0.2745 (3)	−0.0649 (2)	0.0271 (11)
P2	0.06680 (3)	0.35724 (11)	−0.05332 (6)	0.0263 (4)
C16	0.03608 (10)	0.3015 (4)	−0.0799 (2)	0.0286 (14)
C17	0.02724 (10)	0.3053 (4)	−0.1356 (2)	0.0331 (14)
C18	0.00418 (11)	0.2561 (5)	−0.1529 (3)	0.042 (2)
C19	−0.01005 (11)	0.2002 (5)	−0.1150 (3)	0.046 (2)
C20	−0.00152 (11)	0.1953 (5)	−0.0597 (3)	0.042 (2)
C21	0.02125 (10)	0.2463 (4)	−0.0426 (2)	0.0327 (14)
C22	0.07081 (10)	0.4833 (4)	−0.0917 (2)	0.0275 (13)
C23	0.05019 (11)	0.5432 (5)	−0.1141 (2)	0.038 (2)
C24	0.05401 (13)	0.6413 (5)	−0.1413 (2)	0.048 (2)
C25	0.07847 (13)	0.6814 (5)	−0.1452 (2)	0.046 (2)
C26	0.09929 (12)	0.6251 (5)	−0.1214 (2)	0.042 (2)
C27	0.09543 (11)	0.5267 (5)	−0.0949 (2)	0.0338 (15)
N3	0.06724 (7)	0.3759 (3)	0.0113 (2)	0.0267 (11)
Si2	0.05441 (3)	0.46368 (13)	0.05685 (6)	0.0321 (4)
C28	0.01974 (11)	0.4358 (5)	0.0688 (2)	0.050 (2)
C29	0.07283 (11)	0.4460 (5)	0.1248 (2)	0.042 (2)

C30	0.05614 (12)	0.6084 (4)	0.0338 (2)	0.047 (2)
Li2	0.0956 (2)	0.2712 (7)	0.0297 (4)	0.034 (2)
N4	0.10479 (7)	0.1664 (3)	0.0911 (2)	0.0280 (11)
Si3	0.08415 (3)	0.07679 (13)	0.11976 (6)	0.0345 (4)
C31	0.05188 (11)	0.0954 (5)	0.0834 (3)	0.055 (2)
C32	0.09356 (12)	−0.0684 (4)	0.1112 (3)	0.047 (2)
C33	0.08087 (13)	0.1024 (5)	0.1961 (2)	0.056 (2)
P3	0.13464 (3)	0.18522 (11)	0.09106 (6)	0.0273 (4)
C34	0.15169 (10)	0.0585 (4)	0.0794 (2)	0.0281 (14)
C35	0.15485 (11)	0.0212 (5)	0.0255 (2)	0.039 (2)
C36	0.16523 (12)	−0.0806 (5)	0.0160 (3)	0.051 (2)
C37	0.17243 (12)	−0.1473 (5)	0.0603 (3)	0.053 (2)
C38	0.16956 (11)	−0.1117 (5)	0.1141 (3)	0.048 (2)
C39	0.15912 (11)	−0.0103 (5)	0.1237 (2)	0.039 (2)
C40	0.14810 (11)	0.2324 (4)	0.1578 (2)	0.0301 (14)
C41	0.13173 (12)	0.2814 (5)	0.1947 (2)	0.039 (2)
C42	0.14120 (15)	0.3210 (5)	0.2456 (3)	0.052 (2)
C43	0.1670 (2)	0.3117 (5)	0.2602 (3)	0.061 (2)
C44	0.18367 (13)	0.2631 (5)	0.2247 (3)	0.052 (2)
C45	0.17410 (12)	0.2236 (4)	0.1733 (2)	0.041 (2)
N5	0.13999 (7)	0.2701 (3)	0.0416 (2)	0.0263 (11)
P4	0.15805 (3)	0.37641 (11)	0.03271 (6)	0.0277 (4)
C46	0.19116 (10)	0.3508 (5)	0.0551 (2)	0.0324 (14)
C47	0.20216 (11)	0.2500 (5)	0.0443 (2)	0.040 (2)
C48	0.22810 (13)	0.2309 (6)	0.0557 (3)	0.057 (2)
C49	0.24328 (13)	0.3118 (8)	0.0780 (3)	0.074 (2)
C50	0.23313 (13)	0.4132 (7)	0.0883 (3)	0.069 (2)
C51	0.20719 (12)	0.4327 (6)	0.0770 (3)	0.051 (2)
C52	0.14767 (10)	0.4893 (4)	0.0757 (2)	0.0298 (14)
C53	0.13221 (10)	0.5703 (5)	0.0512 (2)	0.0359 (15)
C54	0.12343 (11)	0.6552 (5)	0.0833 (3)	0.044 (2)
C55	0.12972 (12)	0.6608 (5)	0.1396 (3)	0.045 (2)
C56	0.14506 (12)	0.5808 (5)	0.1644 (2)	0.040 (2)
C57	0.15389 (11)	0.4963 (5)	0.1326 (2)	0.0378 (15)
N6	0.15552 (7)	0.4045 (3)	−0.0314 (2)	0.0285 (11)
Si4	0.17384 (3)	0.47379 (13)	−0.07636 (6)	0.0359 (4)
C58	0.20821 (11)	0.4297 (6)	−0.0748 (3)	0.062 (2)
C59	0.17392 (13)	0.6243 (5)	−0.0628 (3)	0.056 (2)
C60	0.15988 (12)	0.4445 (5)	−0.1481 (2)	0.047 (2)
C61	0	0.8337 (69)	−1/4	0.280 (21)
C62	0	0.7340 (56)	−1/4	0.204 (14)
C63	−0.0161 (13)	0.6828 (54)	−0.2208 (32)	0.202 (14)
C64	−0.0164 (7)	0.5755 (54)	−0.2221 (18)	0.198 (14)
C65	0	0.5255 (56)	−1/4	0.202 (15)
C61′	0	0.9237 (39)	−1/4	0.308 (19)
C62′	0	0.8224 (31)	−1/4	0.220 (12)
C63′	−0.0141 (4)	0.7722 (26)	−0.2162 (9)	0.200 (12)
C64′	−0.0146 (6)	0.6665 (25)	−0.2176 (14)	0.188 (12)
C65′	0	0.6118 (29)	−1/4	0.188 (12)
C66	0.2233 (3)	−0.0164 (14)	0.2136 (7)	0.334 (12)
C67	0.2444 (2)	0.0356 (10)	0.2252 (5)	0.246 (6)
C68	0.2484 (2)	0.1360 (10)	0.1998 (4)	0.215 (6)
C69	0.2706 (3)	0.1960 (9)	0.2136 (5)	0.248 (6)
C70	0.2888 (2)	0.1556 (11)	0.2528 (5)	0.226 (6)
C71	0.2849 (2)	0.0552 (11)	0.2782 (4)	0.268 (8)
C72	0.2627 (3)	−0.0048 (9)	0.2644 (5)	0.258 (6)
C73	0.2376 (4)	0.1470 (21)	0.5110 (10)	0.216 (10)
C74	0.2370 (4)	0.1877 (16)	0.4668 (7)	0.237 (10)
C75	0.2228 (3)	0.1398 (15)	0.4225 (9)	0.243 (9)
C76	0.2236 (4)	0.1839 (19)	0.3692 (8)	0.256 (10)
C77	0.2386 (4)	0.2759 (19)	0.3602 (8)	0.246 (9)
C78	0.2528 (4)	0.3237 (15)	0.4045 (11)	0.243 (9)
C79	0.2520 (4)	0.2796 (16)	0.4578 (9)	0.240 (10)
C73′	0.2374 (7)	0.2251 (33)	0.4095 (16)	0.290 (14)
C74′	0.2441 (5)	0.1892 (23)	0.3659 (13)	0.311 (13)
C75′	0.2272 (4)	0.1295 (24)	0.3310 (15)	0.318 (13)
C76′	0.2356 (6)	0.0847 (21)	0.2819 (14)	0.290 (14)
C77′	0.2611 (6)	0.0995 (22)	0.2678 (12)	0.315 (15)
C78′	0.2780 (5)	0.1592 (25)	0.3027 (14)	0.302 (15)
C79′	0.2696 (5)	0.2041 (23)	0.3517 (14)	0.330 (16)

Table 2. *Selected geometric parameters* (Å, °)

Li1—N6	2.001 (10)	N2—Li2	2.273 (9)
Li1—N1	2.012 (10)	P2—Li2	2.646 (9)
Li1—N2	2.203 (9)	N3—Li2	1.983 (9)
Li1—N5	2.221 (9)	Li2—N4	1.991 (9)
Li1—P1	2.627 (9)	Li2—N5	2.302 (9)
Li1—P4	2.632 (9)	Li2—P3	2.656 (9)
Li1—Li2	2.786 (12)		
N6—Li1—N1	144.4 (5)	N3—Li2—N4	136.6 (5)
N6—Li1—N2	128.1 (5)	N3—Li2—N2	73.5 (3)
N1—Li1—N2	74.6 (3)	N4—Li2—N2	139.6 (5)
N6—Li1—N5	74.5 (3)	N3—Li2—N5	139.1 (5)
N1—Li1—N5	130.6 (5)	N4—Li2—N5	72.9 (3)
N2—Li1—N5	106.0 (4)	N2—Li2—N5	101.0 (4)
N6—Li1—P1	153.7 (5)	N3—Li2—P2	36.1 (2)
N1—Li1—P1	36.7 (2)	N4—Li2—P2	156.5 (5)
N2—Li1—P1	37.9 (2)	N2—Li2—P2	37.5 (2)
N5—Li1—P1	126.4 (4)	N5—Li2—P2	128.1 (4)
N6—Li1—P4	36.6 (2)	N3—Li2—P3	156.1 (4)
N1—Li1—P4	155.9 (4)	N4—Li2—P3	35.8 (2)
N2—Li1—P4	125.4 (4)	N2—Li2—P3	127.5 (4)
N5—Li1—P4	37.9 (2)	N5—Li2—P3	37.1 (2)
P1—Li1—P4	160.6 (4)	P2—Li2—P3	163.5 (4)
N6—Li1—Li2	106.3 (4)	N3—Li2—Li1	111.1 (4)
N1—Li1—Li2	109.2 (4)	N4—Li2—Li1	112.2 (4)
N2—Li1—Li2	52.6 (3)	N2—Li2—Li1	50.4 (3)
N5—Li1—Li2	53.3 (3)	N5—Li2—Li1	50.7 (3)
P1—Li1—Li2	80.8 (3)	P2—Li2—Li1	81.6 (3)
P4—Li1—Li2	79.8 (3)	P3—Li2—Li1	81.9 (3)

The refinement of the disordered solvent molecules was carried out using a constraint-restraint model. The two rings of the toluene molecules close to a centre of symmetry, one of them having two components [occupation factors 0.59 (1) and 0.41 (1)], were refined constraining them to regular hexagons, restraining planarity and chemically equivalent 1,3 and 1,4 distances to be equal for the Me group, and restraining displacement parameters along the bond directions for all the C atoms. The toluene molecule along the twofold axis, also having two components [occupation factors 0.68 (3) and 0.32 (3)], was refined restraining displacement parameters along the bond directions and chemically equivalent 1,2, 1,3 and 1,4 distances for all the C atoms. The H atoms were refined with a riding model for the positional parameters and with a common isotropic displacement parameter for the methyl H atoms and a different common isotropic factor for the phenyl H atoms.

Data collection and cell refinement were performed using *DIF*4 (Stoe & Cie, 1988*a*). Data reduction was by *REDU*4 (Stoe & Cie, 1988*b*). The structure was solved with *SHELXS*86 (Sheldrick, 1990) and refined with *SHELXL* (Sheldrick, 1994). Molecular graphics were prepared using *SHELXTL-Plus* (Sheldrick, 1987) and the material for publication was prepared with *SHELXL*.

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Lists of structure factors, anisotropic displacement parameters, H-atom coordinates and complete geometry have been deposited with the British Library Document Supply Centre as Supplementary Publication No. SUP 71712 (32 pp.). Copies may be obtained through The Technical Editor, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England. [CIF reference: AL1068]

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Lithium Tris(trimethylsilyl)silylselenolate Mono(1,2-dimethoxyethane)

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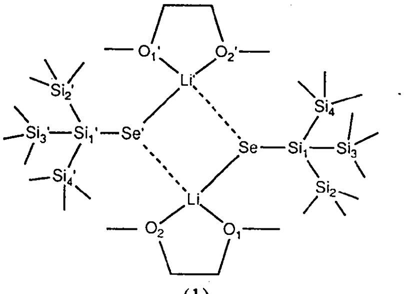
Abstract

The X-ray crystal structure of (1,2-dimethoxyethane-$\kappa O,O'$)lithium tris(trimethylsilyl)silylselenolate, [Li(C$_4$H$_{10}$O$_2$)][SeSi(C$_3$H$_9$Si)$_3$], was determined and the compound was found to be dimeric in the solid state. Pertinent parameters of the dimer [(1,2-dimethoxyethane)LiSeSi(SiMe$_3$)$_3$]$_2$ are compared to those found in related lithium tellurolates.

Comment

The solid-state structure of lithium tris(trimethylsilyl)silylselenoate mono(1,2-dimethoxyethane) (1) was determined in order to compare its features with other related silyl chalcogenolates. Compound (1) was synthesized in a manner similar to that described by Bonasia, Gindelberger, Dabbousi & Arnold (1992).



(1)

As for the structure of the analogous compound [(thf)$_2$LiTeSi(SiMe$_3$)$_3$]$_2$ (2), and that of the mono-thf adduct [(thf)LiTeSi(SiMe$_3$)$_3$]$_2$ (3) (Bonasia, Christou & Arnold, 1993), the selenolate was found to be dimeric in the solid state consisting of two asymmetric units related by a center of inversion. The central Li$_2$Se$_2$ four-membered ring in (1) was found to be planar. The Li—Se—Li(i) angle is much more acute than the analagous angle in (2) [90.4 (6)°] but only slightly larger than the Li—Se—Li(i) angle in (3) [70.17 (25)°]. The Li—Se—Li angles in (1) were found to be between similar angles in (2) [123.2 (5), 130.2 (5)°] and in (3) [98.26 (17), 103.47 (17)°], as was the Se—Li—Se(i) angle in (1) [(2) 89.6 (6) and (3) 109.83 (25)°]. The trend observed in these angles might be accounted for by two factors: firstly, the increase in steric interactions caused by the change from a mono-thf adduct to a 1,2-dimethoxyethane (DME) or bis-thf adduct causes an increase in bulk about the Li atom, and, secondly, the decrease in the Li—E (E = Se, Te) bond length on substitution of Se for Te can effectively bring the bulk of the silyl ligands closer to the bound ethers. In

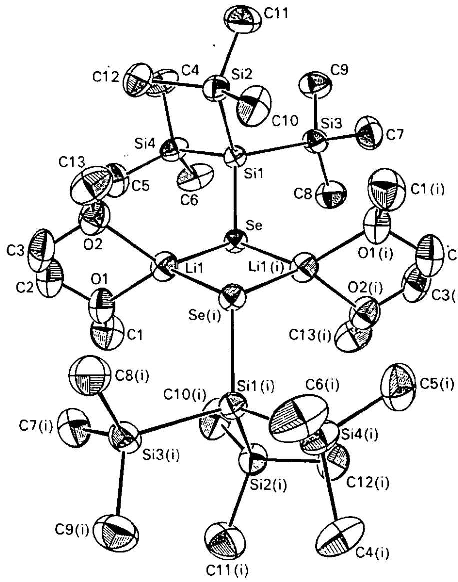


Fig. 1. *ORTEP* (Johnson, 1965) drawing of the molecular structure of [Li(C$_4$H$_{10}$O$_2$)][SeSi(C$_3$H$_9$Si)$_3$] showing 50% probability displacement ellipsoids and the atom-numbering scheme. The H atoms have been omitted for clarity.