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Tris[bis(trimethylsilyl)amido] (trimethylsilylimido)uranium(V)

A. Zalkin, J.G. Brennan,
and R.A. Andersen

February 1988

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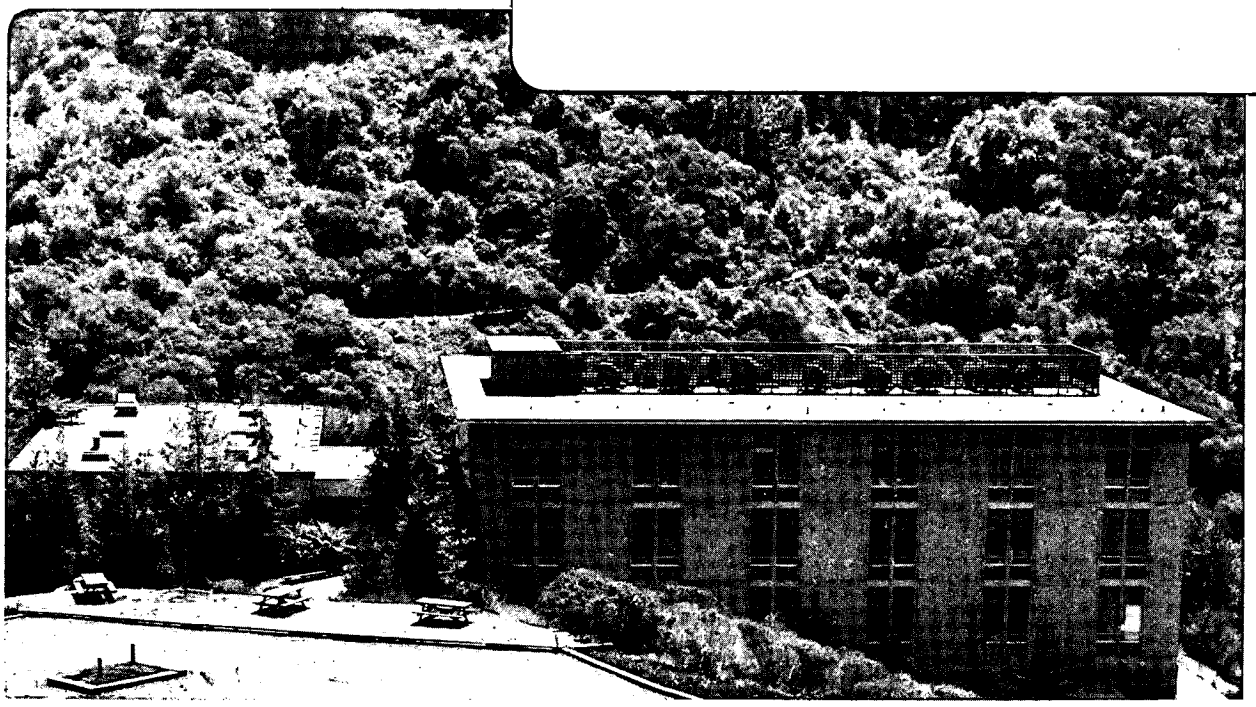

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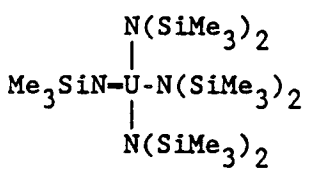
Tris[bis(trimethylsilyl)amido](trimethylsilylimido)uranium(V)

By Allan Zalkin, John G. Brennan and Richard A. Andersen

Materials and Chemical Sciences Division, Lawrence Berkeley Laboratory and Department of Chemistry, University of California, Berkeley CA 94720

Abstract. $\{[(CH_3)_3Si]_2N\}_3U{=}NSi(CH_3)_3$, M_r = 806.40, rhombohedral, R3c, a = 12.495(4) Å, α = 89.83(3)°, V = 1950.8 Å^3, Z = 2, D_x = 1.373 g/cm^3, λ(MoKα) = 0.71073 Å, μ = 41.7 cm^{-1}, F(000) = 814, T = 296 K, R = 0.027 for 1194 data with $F^2 > 3\sigma F^2$. The uranium(V) atom is on a 3-fold axis at the center of a tetrahedron of nitrogen atoms. Distances: U=N, 1.910(16) Å; U-N 2.295(10) Å; < Si-N >, 1.728 ± 0.027 Å; < Si-C >, 1.91 ± 0.04 Å.

Introduction. The title compound was prepared during a systematic synthetic and comparative X-ray crystallographic study of monomeric pentavalent uranium compounds. The only other pentavalent uranium organoimide that has been crystallographically examined is $(MeC_5H_4)_3U(NC_6H_5)$ (Brennan & Andersen, 1985). Since the phenylimide was unique it was of interest to examine other members of this class of molecule so that the structural systematics could be elucidated. To this end, tris[bis(trimethylsilyl)amido](trimethylsilyl-imido)uranium(V) was prepared and crystallographically examined. A structural representation of the complex is shown below.



Experimental. The compound was prepared from $\{[(Me_3Si]_2N\}_3U$ and Me_3SiN_3 in hexane. The crystal used in the X-ray studies was grown from hexane (-20°C) (Brennan,1985). A red, air-sensitive crystal, 0.2 x 0.2 x 0.35 mm, was sealed inside a thin-walled quartz capillary in an argon filled dry box. X-ray diffraction intensities (θ-2θ scans) were obtained using a modified Picker FACS-I automatic diffractometer equipped with a graphite monochromator. Cell dimensions from 22 reflections, $22° < 2\theta < 33°$; no absorption correction was made due to the fractured nature of crystal with its lack of measurable faces; max. $\sin\theta/\lambda = 0.60$ Å^{-1}, h 0 to 12; k -14 to 14, ℓ -14 to 14; three standard reflections, 1.9%, 3.0%, 2.2% variation in standards intensities from average, intensities adjusted isotropically; 6769 data, 2045 unique (including 1194, $F^2 > 3\sigma$), $R_{int} = 0.057$; structure solved by Patterson and Fourier methods; refined on F, 99 parameters, hydrogen

atoms not included, anisotropic thermal parameters; R = 0.072 (2045 data), R = 0.027 ($F^2>3\sigma F^2$), wR = 0.035, S = 1.24, $w = 4F^2[\sigma(F^2) + (0.04F^2)^2]^{-1}$; max (shift/$\sigma$) = 0.01; empirical extinction correction, $F_{corr} = (1 + 9.5 \times 10^{-7})$; max. and min. of ΔF synthesis 0.9 and -1.2 e/Å^3. Atomic scattering factors and anomalous dispersion terms were taken from International Tables[1]. Local unpublished programs and ORTEP (Johnson, 1965) used. Atomic parameters are listed in Table I. A list of selected bond distances and angles is given in Table II. An ORTEP[2] view of the molecule is shown in Figure 1.

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*Lists of anisotropic thermal parameters and structure factors have been deposited with the British Library Lending Division as Supplementary Publication No. XXXXX (12p.). Copies may be obtained through The Executive Secretary;, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England.

Results. The U-N(1)-Si(1) angle is required by the space group to be linear. The U-N(1) distance is 1.91(2)Å and is substantially shorter than that found in $(MeC_5H_4)_3U(NC_6H_5)$ of 2.019(6) Å (Brennan & Andersen, 1985), where the U-N-C angle is slightly non-linear (167.4(6)°). Clearly there is a profound change in the geometrical parameters upon replacing the methylcyclopentadienyl groups with the bis(trimethysilyl)amido groups in molecules of the same general stereochemistry, L_3UL'. The U-N(2) bond length is ca. 0.4 Å longer than U-N(1), while the Si-N distances in the imido and amido ligands are nearly equal, as are the Si-C distances. The N(2) atom is 0.07 Å from the plane consisting of U, Si(3) and Si(4).

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References

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Table I. Positional and Thermal Parameters with Estimated Standard deviations for $\{[(CH_3)_3Si]_2N\}_2U{=}NSi(CH_3)_3$

$$B_{eq} = 1/3\Sigma B_{ij} a_i^* a_j^* a_i \cdot a_j$$

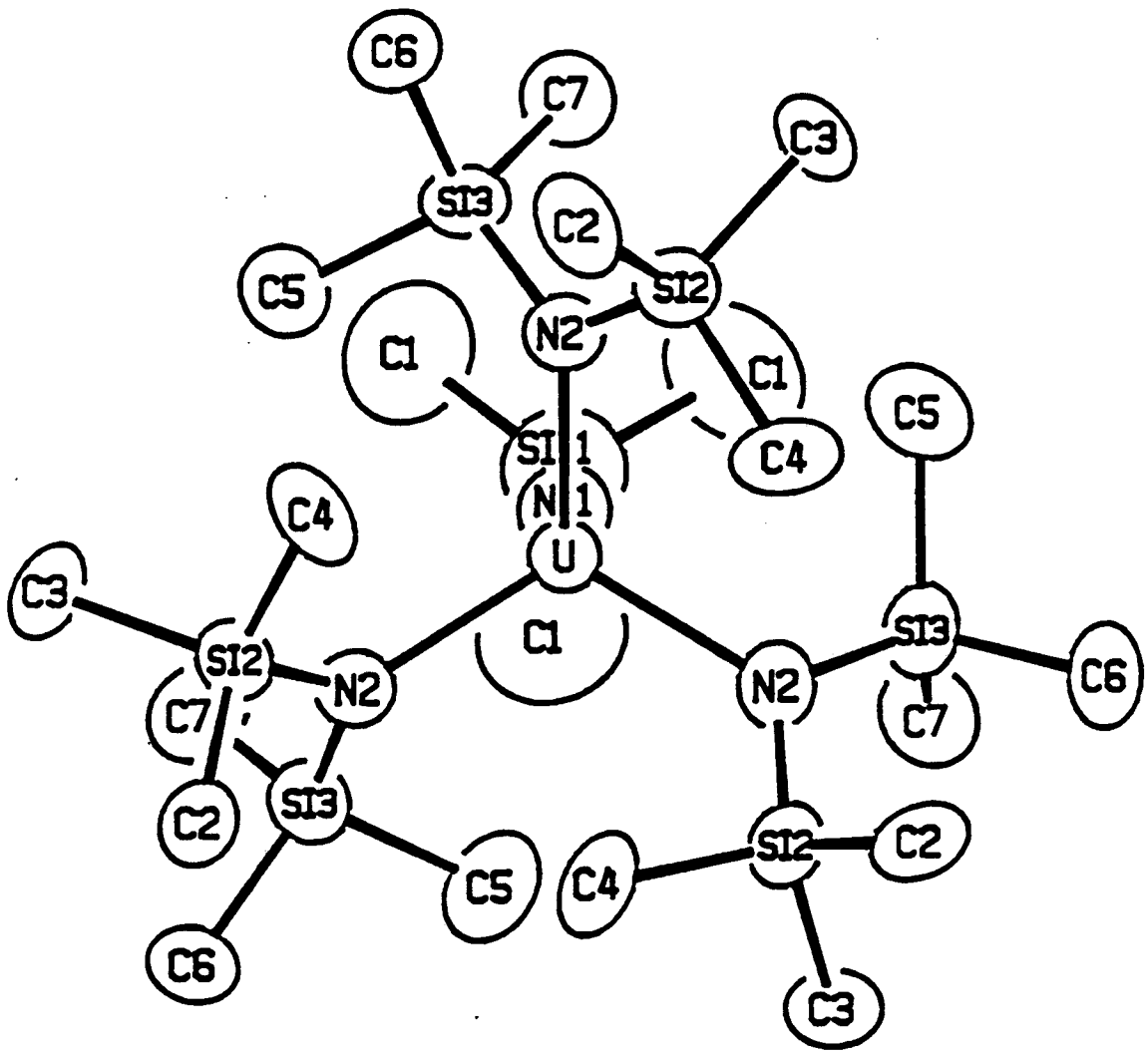
Atom	x	y	z	B_{eq}
U	0	0	0	3.42(1)
N(1)	-0.0880(17)	-0.0880	-0.0880	5.0(2)
N(2)	0.1633(19)	-0.0072(17)	-0.0842(19)	4.0(7)
Si(1)	-0.1690(6)	-0.1690	-0.1690	8.0(2)
Si(2)	0.2809(12)	-0.0256(10)	-0.0165(11)	4.6(5)
Si(3)	0.1594(7)	-0.0096(6)	-0.2211(7)	5.2(2)
C(1)	-0.170(4)	-0.122(4)	-0.310(4)	11.5(19)
C(2)	0.3843(22)	0.0836(25)	-0.036(3)	6.3(10)
C(3)	0.3465(25)	-0.1585(22)	-0.0557(27)	5.7(10)
C(4)	0.2553(23)	-0.0281(27)	0.1377(21)	5.4(10)
C(5)	0.0402(20)	0.0797(22)	-0.2729(15)	7.7(7)
C(6)	0.2835(26)	0.0457(25)	-0.2882(26)	7.2(11)
C(7)	0.1474(29)	-0.1485(27)	-0.2779(26)	6.5(11)

Table II. Selected Distances (Å) and Angles (°)

U	- N(1)	1.910(16)	Si(2) -	C(2)	1.896(13)
U	- 3 N(2)	2.295(10)	Si(2) -	C(3)	1.914(12)
N(1)	- Si(1)	1.759(17)	Si(2) -	C(4)	1.953(12)
N(2)	- Si(3)	1.711(10)	Si(3) -	C(7)	1.884(13)
N(2)	- Si(2)	1.713(11)	Si(3) -	C(6)	1.893(14)
Si(1)	- 3 C(1)	1.858(22)	Si(3) -	C(5)	1.970(15)

N(1)	-U -N(2)	103.10(23)	N(2)	-Si(2)-C(4)	110.6(5)
N(2)	-U -N(2)	115.02(17)	C(2)	-Si(2)-C(3)	107.6(6)
U	-N(1) -Si(1)	180.00	C(2)	-Si(2)-C(4)	104.1(7)
U	-N(2) -Si(2)	122.8(5)	C(3)	-Si(2)-C(4)	108.0(6)
U	-N(2) -Si(3)	115.6(5)	N(2)	-Si(3)-C(5)	109.9(7)
Si(2)	-N(2) -Si(3)	121.2(6)	N(2)	-Si(3)-C(6)	114.2(6)
N(1)	-Si(1)-C(1)	111.6(7)	N(2)	-Si(3)-C(7)	113.5(6)
C(1)	-Si(1)-C(1)	107.3(8)	C(5)	-Si(3)-C(6)	105.5(8)
N(2)	-Si(2)-C(2)	115.4(6)	C(5)	-Si(3)-C(7)	109.6(8)
N(2)	-Si(2)-C(3)	110.8(6)	C(6)	-Si(3)-C(7)	103.7(7)

Fig 1. ORTEP drawing of the molecule looking down and slightly off the 3-fold axis.



SUPPLEMENTARY MATERIALS

Tris[bis(trimethylsilyl)amido](trimethylsilylimido)uranium(V)

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Abstract. $\{[(CH_3)_3Si]_2N\}_3U{=}NSi(CH_3)_3$, M_r = 806.40, rhombohedral, R3c, a = 12.495(4) Å, α = 89.83(3)°, V = 1950.8 Å^3, Z = 2, D_x = 1.373 g/cm^3, λ(MoKα) = 0.71073 Å, μ = 41.7 cm^{-1}, F(000) = 814, T = 296 K, R = 0.027 for 1194 data with $F^2 > 3\sigma F^2$. The uranium(V) atom is on a 3-fold axis at the center of a tetrahedron of nitrogen atoms. Distances: U=N, 1.910(16) Å; U-N 2.295(10) Å; < Si-N >, 1.728 ± 0.027 Å; < Si-C >, 1.91 ± 0.04 Å.

Supplemental Table 1. Anisotropic Thermal Parameters ($Å^2$).

Atom	B_{11}	B_{22}	B_{33}	B_{12}	B_{13}	B_{23}
U	3.42(3)	3.42	3.42	0.070(17)	0.070	0.070
N(1)	5.0(7)	5.0	5.0	-0.6(8)	-0.6	-0.6
N(2)	4.5(12)	2.8(10)	4.8(12)	-0.2(9)	0.2(9)	-0.4(8)
Si(1)	8.0(5)	8.0	8.0	-2.2(4)	-2.2	-2.2
Si(2)	3.8(7)	4.1(8)	5.8(9)	0.6(6)	0.7(7)	0.4(5)
Si(3)	6.7(5)	4.5(4)	4.4(4)	1.0(4)	1.6(3)	-0.1(3)
C(1)	15.9(39)	11.4(31)	7.2(24)	-0.5(30)	-4.6(25)	-1.2(22)
C(2)	4.0(13)	5.0(15)	9.9(24)	-1.0(11)	0.8(14)	1.7(16)
C(3)	6.7(19)	4.5(14)	6.0(17)	2.7(13)	1.1(15)	1.1(13)
C(4)	4.4(15)	7.7(21)	4.0(13)	-0.6(14)	1.6(11)	-0.6(13)
C(5)	11.3(10)	5.4(16)	6.4(6)	3.7(13)	-0.7(6)	-1.2(7)
C(6)	8.9(19)	5.3(19)	7.4(21)	1.2(16)	4.1(16)	2.2(17)
C(7)	9.2(21)	5.0(18)	5.4(18)	0.9(15)	1.2(16)	-1.0(15)

* The isotropic temperature factor has the form

$$T = -\Sigma h_i h_j B_{ij} a_i^* a_j^* / 4$$

Supplemental Table II. Least-Squares Plane

Plane Equation: $1.13585\ a + 12.44391\ b + 0.29805\ c = 0.0$

Distance to the Plane from the Atoms Forming the Plane

Atom	d(Å)
U	0.000(000)
N(2)	0.071(010)
Si(2)	-0.005(006)
Si(3)	-0.004(006)

OBSERVED STRUCTURE FACTORS, STANDARD DEVIATIONS, AND DIFFERENCES (ALL X 4.0)
{[(CH3)3SI]2N}3U-NSI(CH3)3 F(0,0,0) = 2672

SG = Estimated standard deviation of Fob. DEL = /Fob/- /Fca/, where Fob and Fca are the observed and calculated structure factors.
* indicates zero weighted data.

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
H,K=	0,		-10	-4	542	12	-4	-11	99	11	7	-8	252	6	1	-6	243	5	-5
-11	42	55	30*	H,K=	0,		-3	H,K=	1,		-9	-7	101	6	-4	-4	644	18	-8
-10	105	13	12	-14	17	61	8*	-11	37	61	18*	-6	310	7	3	-2	520	16	-12
H,K=	0,		-9	-13	104	9	5	-10	116	8	8	-5	158	4	10	0	957	21	-33
-11	109	9	1	-12	19	50	-18*	H,K=	1,		-8	-4	474	10	-9	H,K=	2,		-10
-10	35	57	28*	-11	182	6	6	-12	49	54	35*	H,K=	1,		-2	-10	109	14	-2
-9	129	10	-13	-10	24	53	13*	-11	163	7	8	-14	26	53	5*	H,K=	2,		-9
H,K=	0,		-8	-9	240	6	2	-10	8	58	-5*	-13	91	11	-2	-11	126	9	5
-12	89	21	-25*	-8	50	25	12*	-9	158	6	5	-12	17	57	1*	-10	46	59	38*
-11	0	59	-7*	-7	331	7	-7	H,K=	1,		-7	-11	178	6	-1	-9	116	12	6
-10	151	7	-3	-6	41	25	-6*	-13	0	63	-18*	-10	0	55	-5*	H,K=	2,		-8
-9	43	54	12*	-5	309	7	-18	-12	119	9	-8	-9	167	6	-1	-12	117	9	-8
-8	193	7	-9	-4	66	6	-4	-11	19	52	8*	-8	56	11	-15*	-11	25	60	9*
H,K=	0,		-7	-3	467	10	-30	-10	140	7	-5	-7	199	5	7	-10	160	7	7
-13	75	26	-10*	H,K=	0,		-2	-9	31	54	4*	-6	80	6	3	-9	0	51	-14*
-12	43	58	39*	-14	113	9	-2	-8	203	6	-3	-5	248	5	-8	-8	195	7	7
-11	139	7	-1	-13	0	59	-28*	H,K=	1,		-6	-4	185	4	27	H,K=	2,		-7
-10	47	56	15*	-12	140	7	-3	-13	96	11	5	-3	395	8	21	-13	119	9	16
-9	169	6	-1	-11	26	54	-9*	-12	0	59	-12*	H,K=	1,		-1	-12	52	60	31*
-8	40	53	18*	-10	245	6	-7	-11	127	7	-5	-14	124	8	5	-11	181	7	3
-7	236	7	1	-9	71	18	-21*	-10	19	48	-4*	-13	36	59	11*	-10	0	57	-36*
H,K=	0,		-6	-8	277	6	-10	-9	160	6	-15	-12	150	7	-5	-9	188	6	-5
-13	41	54	24*	-7	68	13	-10*	-8	32	55	-31*	-11	37	54	4*	-8	28	54	11*
-12	109	9	-4	-6	322	7	0	-7	243	6	-7	-10	229	6	-12	-7	292	7	13
-11	0	57	-36*	-5	60	7	-3	H,K=	1,		-5	-9	80	15	-13*	H,K=	2,		-6
-10	133	7	-5	-4	450	9	-24	-14	112	9	10	-8	283	6	-9	-13	31	62	18*
-9	29	53	-12*	-3	234	5	1	-13	38	54	9*	-7	112	5	6	-12	133	8	4
-8	243	6	5	-2	333	8	2	-12	154	7	10	-6	368	8	-13	-11	37	58	17*
-7	33	46	-2*	H,K=	0,		-1	-11	29	50	8*	-5	165	4	10	-10	164	6	-3
-6	295	7	-3	-14	29	53	2*	-10	153	6	-7	-4	428	14	11	-9	43	55	31*
H,K=	0,		-5	-13	166	7	0	-9	60	35	6*	-3	260	6	7	-8	292	7	1
-14	0	74	-14*	-12	43	55	14*	-8	311	7	0	-2	254	5	1	-7	45	53	17*
-13	124	8	-5	-11	265	6	-7	-7	66	10	0	H,K=	1,		0	-6	229	6	-5
-12	0	58	-6*	-10	65	21	22*	-6	205	5	0	-14	46	50	39*	H,K=	2,		-5
-11	165	6	-5	-9	275	6	-1	H,K=	1,		-4	-13	162	5	1	-13	115	9	2
-10	27	54	2*	-8	108	6	-1	-14	0	63	-13*	-12	0	47	-24*	-12	0	58	-29*
-9	212	6	0	-7	476	15	-40	-13	126	8	7	-11	217	5	-11	-11	192	6	0
-8	33	52	-10*	-6	89	5	4	-12	36	51	19*	-10	33	46	28*	-10	0	55	-12*
-7	345	7	0	-5	601	12	9	-11	198	6	-1	-9	215	5	-1	-9	222	6	-7
-6	36	41	-13*	-4	89	4	20	-10	33	54	-5*	-8	73	6	-14	-8	39	47	0*
-5	363	8	-18	-3	662	19	15	-9	259	6	-5	-7	422	9	-8	-7	341	7	7
H,K=	0,		-4	-2	168	4	6	-8	0	51	-17*	-6	52	10	-4*	-6	99	6	10
-14	106	10	-7	-1	912	19	-71	-7	372	8	-3	-5	458	9	-1	-5	266	6	-8
-13	0	60	-14*	H,K=	0,		0	-6	98	6	0	-4	191	4	21	H,K=	2,		-4
-12	150	7	-3	-14	170	7	8	-5	421	9	-5	-3	719	19	5	-14	108	10	-7
-11	32	49	6*	-12	190	6	-10	H,K=	1,		-3	-2	253	5	-4	-13	0	61	-10*
-10	214	6	1	-10	283	7	-17	-14	95	11	13	-1	833	27	-45	-12	181	6	0
-9	33	54	4*	-8	384	8	-1	-13	0	59	-24*	H,K=	1,		1	-11	43	56	41*
-8	372	8	-10	-6	614	21	-13	-12	123	8	-1	-14	136	8	13	-10	240	6	-7
-7	103	6	-1	-4	673	21	-36	-11	22	55	-12*	-12	145	7	1	-9	20	50	5*
-6	370	8	1	-2	647	21	-29	-10	206	6	-6	-10	250	6	-6	-8	344	7	-8
-5	112	5	-4	H,K=	1,		-10	-9	30	54	-4*	-8	278	6	-11	-7	34	49	-9*

STRUCTURE FACTORS continued for
{[(CH3)3SI]2N}3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
-6	354	8	-5	-4	595	15	22	-12	144	7	14	-2	667	14	-7	-2	526	18	-11
-5	70	7	-4	-3	56	8	23	-11	47	57	27*	H,K=	3,		0	0	465	10	-8
-4	578	12	-1	-2	432	11	-10	-10	190	6	2	-14	12	52	-14*	2	384	8	-5
H,K=	2,		-3	-1	256	5	-2	-9	42	54	19*	-13	142	6	-7	H,K=	4,		-10
-14	50	54	41*	0	606	18	-21	-8	272	6	3	-12	46	38	27*	-10	31	76	-62*
-13	131	8	4	H,K=	2,		1	-7	66	19	2*	-11	200	5	-6	H,K=	4,		-9
-12	9	58	-5*	-14	28	51	6*	-6	271	6	-2	-10	49	26	11*	-11	89	12	-4
-11	237	6	-4	-13	144	6	5	H,K=	3,		-4	-9	210	5	0	-10	38	53	23*
-10	51	34	6*	-12	30	48	20*	-14	42	43	28*	-8	26	42	-9*	-9	59	29	-16*
-9	246	6	-7	-11	214	5	-2	-13	110	10	-12	-7	408	9	-5	H,K=	4,		-8
-8	0	51	-17*	-10	41	26	15*	-12	16	51	3*	-6	93	4	0	-11	0	62	-27*
-7	394	8	-11	-9	262	6	-6	-11	228	6	0	-5	431	9	4	-10	115	9	-10
-6	31	45	-36*	-8	59	13	-18*	-10	19	54	9*	-4	148	4	7	-9	37	58	7*
-5	363	8	-14	-7	313	7	1	-9	210	6	6	-3	684	18	0	-8	167	8	-5
-4	83	5	8	-6	112	4	-6	-8	0	54	-25*	-2	58	5	26	H,K=	4,		-7
-3	566	12	-11	-5	405	8	7	-7	397	8	-5	-1	684	18	23	-12	50	61	48*
H,K=	2,		-2	-4	110	3	17	-6	106	6	8	H,K=	3,		1	-11	149	7	8
-14	127	8	16	-3	664	17	-11	-5	400	9	-3	-14	106	10	-2	-10	64	36	42*
-13	38	59	-7*	-2	164	4	2	H,K=	3,		-3	-13	45	50	13*	-9	164	6	-5
-12	166	6	9	-1	147	3	-11	-14	113	9	0	-12	124	6	-11	-8	0	55	-4*
-11	35	50	24*	0	172	4	10	-13	49	52	38*	-11	40	44	5*	-7	247	7	5
-10	212	6	1	1	645	13	-34	-12	167	7	3	-10	232	5	-7	H,K=	4,		-6
-9	0	47	-39*	H,K=	2,		2	-11	32	55	11*	-9	51	21	-35*	-13	46	62	33*
-8	235	6	6	-14	132	8	14	-10	244	6	-9	-8	253	6	-7	-12	71	27	-12*
-7	20	47	-2*	-12	158	7	8	-9	0	55	-6*	-7	98	5	-2	-11	4	60	-21*
-6	310	7	2	-10	280	7	-7	-8	325	7	-3	-6	397	8	-11	-10	160	7	-1
-5	145	4	0	-8	359	8	-17	-7	61	19	-18*	-5	83	4	0	-9	44	55	16*
-4	347	7	-5	-6	280	6	-6	-6	438	9	-9	-4	597	16	15	-8	197	6	-5
-3	289	6	55	-4	597	24	20	-5	54	9	0	-3	157	4	29	-7	61	34	37*
-2	456	10	19	-2	412	19	22	-4	575	18	-5	-2	478	10	24	-6	271	7	-8
H,K=	2,		-1	0	333	7	1	H,K=	3,		-2	-1	265	6	12	H,K=	4,		-5
-14	30	55	18*	2	623	13	12	-14	0	63	-12*	0	739	16	49	-13	74	27	-21*
-13	129	8	-9	H,K=	3,		-9	-13	144	7	5	H,K=	3,		2	-12	0	60	-19*
-12	32	56	15*	-11	38	61	27*	-12	0	58	-21*	-14	31	46	10*	-11	162	7	0
-11	216	6	0	-10	98	10	-5	-11	232	6	4	-13	146	5	-1	-10	0	56	-20*
-10	48	49	-3*	H,K=	3,		-8	-10	22	50	-16*	-12	46	26	39*	-9	157	6	2
-9	209	6	2	-12	35	63	14*	-9	219	6	4	-11	223	5	2	-8	66	13	2*
-8	72	9	-11	-11	150	7	9	-8	10	51	-17*	-10	28	44	-16*	-7	274	6	9
-7	379	8	6	-10	28	59	17*	-7	475	10	-5	-9	252	6	-1	-6	22	51	-35*
-6	103	5	-6	-9	158	6	4	-6	40	15	0*	-8	65	9	-7	-5	228	6	2
-5	350	7	11	H,K=	3,		-7	-5	323	7	1	-7	413	9	-1	H,K=	4,		-4
-4	29	38	21*	-12	113	9	4	-4	33	35	-2*	-6	74	6	-7	-13	0	61	-6*
-3	484	10	24	-11	22	59	-3*	-3	605	12	0	-5	403	8	2	-12	127	8	8
-2	166	4	4	-10	190	6	6	H,K=	3,		-1	-4	47	9	3*	-11	33	56	6*
-1	452	10	-11	-9	44	55	13*	-14	145	8	-1	-3	605	14	5	-10	184	6	0
H,K=	2,		0	-8	262	6	5	-13	39	59	11*	-2	293	6	58	-9	42	54	23*
-14	130	6	4	H,K=	3,		-6	-12	154	7	3	-1	377	10	32	-8	208	6	7
-13	18	44	16*	-13	103	10	14	-11	30	48	8*	0	241	5	7	-7	51	30	-23*
-12	143	5	-11	-12	9	53	-7*	-10	235	6	-8	1	548	11	-9	-6	324	7	3
-11	15	46	-7*	-11	162	7	4	-9	56	25	-11*	H,K=	3,		3	-5	48	25	-13*
-10	253	6	-3	-10	29	50	-10*	-8	333	7	9	-14	139	8	9	-4	382	9	-11
-9	49	15	-5*	-9	223	6	7	-7	64	16	-12*	-12	173	7	-2	H,K=	4,		-3
-8	327	7	-6	-8	0	55	-24*	-6	419	9	3	-10	259	6	-8	-14	27	63	16*
-7	135	4	-11	-7	304	7	2	-5	136	4	-2	-8	350	8	0	-13	49	57	-40*
-6	306	6	-10	H,K=	3,		-5	-4	523	11	19	-6	515	11	-5	-12	33	58	12*
-5	64	6	-1	-13	44	61	31*	-3	155	4	27	-4	522	18	-12	-11	163	6	-1

STRUCTURE FACTORS continued for
{[(CH3)3SI]2N}3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
-10	0	56	-24*	-12	38	48	23*	-4	364	8	-16	-12	44	52	18*	-11	132	5	3
-9	167	6	-1	-11	154	5	7	-2	587	12	10	-11	145	7	-4	-10	23	41	-14*
-8	10	54	1*	-10	27	46	-4*	0	559	12	15	-10	13	55	-26*	-9	195	5	-2
-7	390	8	-10	-9	174	5	2	2	501	10	-5	-9	133	7	-2	-8	27	41	0*
-6	31	41	15*	-8	67	11	-7	4	431	9	-10	-8	37	48	-23*	-7	216	5	6
-5	237	5	13	-7	323	7	-2	H,K=	5,		-9	-7	243	6	2	-6	73	10	-3
-4	64	7	-3	-6	123	4	0	-10	118	9	15	-6	56	20	5*	-5	202	5	6
-3	552	12	-14	-5	405	8	-19	H,K=	5,		-8	-5	210	5	6	-4	38	24	-9*
H,K=	4,		-2	-4	59	5	-3	-11	123	9	-3	-4	119	5	6	-3	373	8	12
-14	116	9	0	-3	543	13	17	-10	16	61	-20*	-3	426	9	5	-2	147	4	3
-13	0	61	-5*	-2	42	11	34*	-9	108	9	-8	H,K=	5,		-1	-1	268	6	-1
-12	108	9	3	-1	404	8	-3	H,K=	5,		-7	-13	30	62	20*	0	59	4	-4
-11	0	57	-23*	0	86	3	16	-12	80	24	-4*	-12	116	9	-1	1	438	9	13
-10	220	6	4	1	936	22	50	-11	50	54	38*	-11	0	57	-18*	H,K=	5,		3
-9	0	55	-27*	H,K=	4,		2	-10	171	7	6	-10	241	6	6	-13	18	49	13*
-8	238	6	5	-14	89	10	-1	-9	31	58	-3*	-9	14	57	-41*	-12	103	9	-5
-7	45	40	14*	-13	20	48	0*	-8	158	6	-3	-8	176	6	1	-11	17	44	-5*
-6	393	8	-12	-12	108	7	-3	H,K=	5,		-6	-7	21	51	-2*	-10	209	5	-4
-5	61	8	15	-11	36	45	10*	-12	0	62	-20*	-6	392	8	3	-9	43	44	-3*
-4	348	7	-3	-10	198	5	-6	-11	134	8	-5	-5	56	18	-5*	-8	210	5	-9
-3	44	17	1*	-9	41	44	-19*	-10	0	51	-26*	-4	395	8	-9	-7	116	5	5
-2	602	13	13	-8	201	5	0	-9	159	6	11	-3	82	6	-1	-6	328	7	5
H,K=	4,		-1	-7	27	40	-14*	-8	0	55	-28*	-2	385	8	4	-5	33	36	10*
-14	0	63	-1*	-6	416	9	-7	-7	189	6	-3	H,K=	5,		0	-4	218	5	16
-13	130	8	6	-5	114	4	0	H,K=	5,		-5	-14	43	53	27*	-3	45	14	-8*
-12	0	51	-31*	-4	351	7	-2	-13	50	63	38*	-13	136	6	3	-2	400	8	-7
-11	211	6	10	-3	47	9	11*	-12	125	9	-7	-12	51	36	27*	-1	156	4	8
-10	51	54	46*	-2	415	9	12	-11	51	58	34*	-11	192	5	-4	0	296	6	-12
-9	225	6	5	-1	189	4	30	-10	177	6	-1	-10	36	41	23*	1	78	4	-1
-8	0	53	-47*	0	504	10	2	-9	0	55	-12*	-9	232	5	-4	2	415	8	-11
-7	426	9	-5	1	134	3	12	-8	191	6	-5	-8	46	30	-12*	H,K=	5,		4
-6	0	46	-17*	2	514	11	15	-7	38	49	10*	-7	317	7	-7	-13	105	7	5
-5	367	8	-2	H,K=	4,		3	-6	249	6	-1	-6	115	4	-4	-12	38	45	22*
-4	66	6	3	-14	40	53	27*	H,K=	5,		-4	-5	425	9	8	-11	148	5	2
-3	613	19	26	-13	138	6	-4	-13	121	9	1	-4	30	36	-13*	-10	54	19	22*
-2	111	4	18	-12	36	47	32*	-12	29	54	1*	-3	431	9	4	-9	183	5	2
-1	592	12	-4	-11	180	5	-1	-11	172	7	-3	-2	70	4	5	-8	22	48	-2*
H,K=	4,		0	-10	5	46	-3*	-10	37	56	-2*	-1	394	8	-10	-7	251	6	-4
-14	117	9	-6	-9	229	5	2	-9	177	6	-8	H,K=	5,		1	-6	64	16	-24*
-13	24	51	11*	-8	42	43	-10*	-8	40	50	2*	-13	47	49	31*	-5	317	7	-7
-12	116	6	-8	-7	438	9	-8	-7	328	7	2	-12	111	6	6	-4	49	16	-12*
-11	44	44	2*	-6	38	39	3*	-6	58	23	-12*	-11	43	39	9*	-3	417	9	-3
-10	256	6	-7	-5	322	7	1	-5	277	6	-7	-10	218	5	-2	-2	79	5	5
-9	58	17	-2*	-4	55	11	-11*	H,K=	5,		-3	-9	30	47	15*	-1	403	8	2
-8	225	5	-7	-3	588	12	1	-13	0	62	-5*	-8	152	5	2	0	117	3	1
-7	96	5	-4	-2	78	4	4	-12	107	9	5	-7	66	11	-3	1	466	10	-12
-6	484	10	-11	-1	450	9	-4	-11	16	57	-4*	-6	373	8	-7	2	75	5	-14
-5	31	36	-12*	0	76	3	4	-10	188	6	-1	-5	38	29	-23*	3	395	8	-13
-4	476	10	6	1	379	8	-6	-9	0	56	-22*	-4	330	7	-5	H,K=	5,		5
-3	149	4	8	2	68	3	2	-8	168	6	-4	-3	139	4	1	-12	78	13	8
-2	560	11	15	3	471	10	-10	-7	9	54	-53*	-2	395	8	12	-10	170	6	-3
-1	192	4	22	H,K=	4,		4	-6	287	6	2	-1	169	4	15	-8	69	12	1
0	682	17	-14	-12	126	8	-5	-5	42	34	18*	0	596	12	18	-6	272	6	-7
H,K=	4,		1	-10	202	6	-4	-4	350	8	7	H,K=	5,		2	-4	220	5	1
-14	58	31	48*	-8	230	6	1	H,K=	5,		-2	-13	96	10	2	-2	314	7	-5
-13	111	9	-3	-6	490	19	-24	-13	89	19	3*	-12	32	50	22*	0	349	7	-9

STRUCTURE FACTORS continued for
{[(CH3)3SI]2N}3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
2	458	9	-21	H,K=		6,	-2	0	86	3	1	H,K=		6,	5	-9	214	6	6
4	279	6	-15	-13	49	26	20*	1	471	10	-9	-12	48	52	34*	-8	0	56	-33*
H,K=		6,	-9	-12	89	19	-17*	H,K=		6,	2	-11	130	6	-9	-7	260	6	3
-10	0	63	-12*	-11	38	58	0*	-13	0	51	-6*	-10	21	49	8*	-6	27	50	17*
-9	121	12	2	-10	195	6	-1	-12	117	6	4	-9	160	5	0	-5	263	6	3
H,K=		6,	-8	-9	50	37	33*	-11	39	49	15*	-8	46	47	-2*	H,K=		7,	-3
-11	35	56	21*	-8	142	6	-3	-10	220	5	-1	-7	131	5	1	-12	77	27	-24*
-10	145	8	-1	-7	12	55	-35*	-9	48	24	-3*	-6	21	48	11*	-11	0	54	-8*
-9	0	60	-37*	-6	277	6	4	-8	215	5	0	-5	259	6	4	-10	200	6	14
-8	162	9	7	-5	73	9	-4	-7	34	40	-15*	-4	46	22	-10*	-9	39	57	24*
H,K=		6,	-7	-4	400	9	3	-6	235	5	-4	-3	271	6	3	-8	239	6	-2
-11	135	8	4	-3	77	7	-4	-5	40	42	-12*	-2	84	8	-5	-7	28	56	0*
-10	58	59	54*	-2	327	7	-9	-4	352	7	-13	-1	236	5	4	-6	293	7	1
-9	155	7	1	H,K=		6,	-1	-3	24	36	-16*	0	21	36	-28*	-5	118	7	7
-8	32	57	26*	-13	111	10	0	-2	344	7	8	1	342	7	-11	-4	440	9	-3
-7	177	8	-4	-12	42	59	40*	-1	75	5	-1	2	27	34	2*	H,K=		7,	-2
H,K=		6,	-6	-11	172	7	-3	0	264	5	0	3	261	6	1	-12	10	62	-5*
-12	92	11	5	-10	21	56	-13*	1	60	7	4	4	27	38	6*	-11	124	8	-1
-11	0	62	-29*	-9	177	6	2	2	319	7	-5	5	220	5	-6	-10	32	51	13*
-10	155	7	-4	-8	73	11	9	H,K=		6,	3	H,K=		6,	6	-9	197	6	-3
-9	0	58	-15*	-7	254	6	-5	-13	121	7	-2	-12	47	65	-26*	-8	29	49	1*
-8	159	6	-13	-6	25	45	3*	-12	30	51	15*	-10	184	7	-2	-7	268	6	1
-7	6	56	-42*	-5	359	8	0	-11	157	5	0	-8	103	8	-7	-6	43	54	-5*
-6	205	7	-4	-4	117	5	-5	-10	41	45	23*	-6	167	6	-4	-5	232	6	4
H,K=		6,	-5	-3	376	8	0	-9	250	6	-1	-4	220	6	-4	-4	39	50	-2*
-12	27	62	20*	-2	110	5	-8	-8	57	21	17*	-2	269	6	-2	-3	425	9	6
-11	151	7	-1	-1	264	6	-7	-7	265	6	-1	0	252	6	3	H,K=		7,	-1
-10	0	59	-13*	H,K=		6,	0	-6	73	12	0	2	178	5	-2	-13	50	57	13*
-9	189	6	-2	-13	17	50	-9*	-5	268	6	6	4	219	5	-4	-12	95	11	-2
-8	0	55	-35*	-12	153	5	7	-4	29	40	13*	6	128	10	-1	-11	33	55	14*
-7	248	6	-2	-11	42	48	24*	-3	430	9	-2	H,K=		7,	-8	-10	185	6	2
-6	40	54	30*	-10	248	6	-6	-2	53	13	-14*	-10	38	56	11*	-9	10	56	-5*
-5	254	7	-4	-9	43	46	19*	-1	277	6	3	-9	143	8	11	-8	205	6	2
H,K=		6,	-4	-8	241	6	-2	0	50	11	3*	H,K=		7,	-7	-7	97	8	9
-13	0	63	-16*	-7	41	43	-21*	1	302	6	-2	-11	45	63	31*	-6	317	7	4
-12	142	8	-1	-6	405	8	2	2	54	9	-18	-10	131	8	8	-5	59	32	-10*
-11	0	59	-17*	-5	116	4	-3	3	344	7	-3	-9	11	61	-33*	-4	294	6	-2
-10	220	6	1	-4	453	9	-7	H,K=		6,	4	-8	178	6	8	-3	108	6	9
-9	37	55	8*	-3	88	4	-4	-13	47	53	41*	H,K=		7,	-6	-2	345	7	8
-8	258	6	1	-2	331	7	0	-12	102	7	-11	-11	78	25	-1*	H,K=		7,	0
-7	57	15	27*	-1	45	13	-11*	-11	19	48	-9*	-10	45	60	21*	-13	119	7	0
-6	329	7	-3	0	596	12	0	-10	205	5	0	-9	134	8	-2	-12	0	52	-15*
-5	87	8	-1	H,K=		6,	1	-9	46	47	13*	-8	41	57	7*	-11	155	5	8
-4	482	11	-20	-13	129	9	0	-8	185	5	-5	-7	165	6	-6	-10	0	46	-30*
H,K=		6,	-3	-12	31	50	19*	-7	32	45	22*	H,K=		7,	-5	-9	223	5	-2
-13	92	12	-10	-11	174	5	-9	-6	336	7	-2	-12	79	26	-9*	-8	25	46	1*
-12	54	42	37*	-10	12	45	-14*	-5	46	27	-23*	-11	35	61	16*	-7	315	7	-12
-11	166	7	-1	-9	236	5	-9	-4	313	7	6	-10	132	8	4	-6	48	27	-14*
-10	0	57	-23*	-8	74	11	10	-3	103	5	5	-9	0	58	-12*	-5	326	7	-5
-9	227	6	-5	-7	279	6	-8	-2	386	8	-4	-8	182	6	-1	-4	99	5	-1
-8	0	49	-6*	-6	30	40	8*	-1	93	5	-5	-7	59	28	-15*	-3	418	9	4
-7	288	7	2	-5	364	8	-1	0	356	7	4	-6	151	6	-6	-2	137	4	-8
-6	62	23	-11*	-4	21	37	5*	1	29	35	3*	H,K=		7,	-4	-1	431	9	5
-5	331	7	5	-3	430	9	4	2	387	8	-6	-12	22	62	1*	H,K=		7,	1
-4	18	48	-18*	-2	102	4	-7	3	61	8	-19	-11	135	8	3	-13	13	54	-12*
-3	544	12	-7	-1	361	8	-13	4	274	6	-13	-10	21	59	21*	-12	108	7	-2

STRUCTURE FACTORS continued for
([(CH3)3SI]2N)3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
-11	41	47	29*	0	105	4	1	-8	0	55	-44*	-6	72	21	7*	-8	0	49	-19*
-10	211	5	-6	1	468	10	-10	-7	179	8	4	-5	173	6	0	-7	228	5	-5
-9	42	47	-7*	2	27	36	17*	H,K=	8,		-6	-4	66	20	-8*	-6	30	47	24*
-8	236	5	-4	3	320	7	-4	-11	47	63	40*	-3	256	6	1	-5	177	5	1
-7	65	18	-22*	H,K=	7,		5	-10	85	21	2*	-2	74	9	-2	-4	0	46	-9*
-6	269	6	-3	-12	87	9	-2	-9	42	61	10*	-1	296	7	-4	-3	304	6	4
-5	11	43	-12*	-11	28	52	12*	-8	140	7	-4	H,K=	8,		0	-2	30	44	13*
-4	423	9	-9	-10	168	6	-7	-7	31	57	4*	-12	88	14	-3	-1	257	6	3
-3	70	8	-6	-9	16	49	-7*	-6	104	12	-23	-11	59	25	38*	0	47	15	9*
-2	405	8	0	-8	162	5	-3	H,K=	8,		-5	-10	156	5	1	1	375	8	-5
-1	112	4	6	-7	76	8	2	-11	71	28	-4*	-9	44	37	2*	2	30	38	-15*
0	471	10	-31	-6	269	6	2	-10	0	62	-6*	-8	180	5	-4	3	225	5	-1
H,K=	7,		2	-5	32	47	3*	-9	97	10	-5	-7	34	44	10*	H,K=	8,		4
-12	33	52	16*	-4	263	6	5	-8	0	58	-18*	-6	270	6	-1	-11	41	52	34*
-11	140	6	-6	-3	52	22	-12*	-7	147	7	-10	-5	36	46	-23*	-10	125	6	6
-10	36	46	27*	-2	385	8	11	-6	32	56	-16*	-4	254	6	-10	-9	55	31	16*
-9	235	6	-3	-1	56	21	-9*	-5	97	12	-4	-3	45	25	9*	-8	172	5	2
-8	44	47	7*	0	342	7	6	H,K=	8,		-4	-2	345	7	0	-7	53	28	20*
-7	251	6	4	1	80	5	-7	-11	0	62	-14*	-1	50	20	-37*	-6	273	6	-3
-6	34	41	-13*	2	268	6	-4	-10	116	9	2	0	389	8	8	-5	27	46	-11*
-5	235	5	-2	3	65	10	-10	-9	43	58	19*	H,K=	8,		1	-4	214	5	7
-4	38	31	7*	4	301	6	-1	-8	176	6	9	-12	33	52	14*	-3	20	46	-5*
-3	464	10	-1	H,K=	7,		6	-7	45	48	15*	-11	76	13	-5	-2	364	8	-2
-2	33	39	10*	-11	90	12	-10	-6	185	6	-2	-10	0	50	-6*	-1	35	44	18*
-1	207	5	6	-10	54	30	34*	-5	62	25	38*	-9	181	5	-1	0	386	8	0
0	79	4	1	-9	184	5	5	-4	224	7	8	-8	37	46	-6*	1	94	5	4
1	385	8	-16	-8	22	47	-5*	H,K=	8,		-3	-7	197	5	-8	2	288	6	-13
H,K=	7,		3	-7	152	5	-7	-12	0	64	-9*	-6	63	17	-1*	3	38	39	26*
-12	107	10	-9	-6	20	38	-29*	-11	106	10	0	-5	217	5	-1	4	283	6	-5
-11	28	48	2*	-5	185	5	8	-10	30	60	14*	-4	47	25	1*	H,K=	8,		5
-10	209	5	5	-4	43	44	18*	-9	166	7	3	-3	355	7	7	-11	73	22	-17*
-9	45	46	0*	-3	291	6	4	-8	0	56	-19*	-2	69	12	-14	-10	35	51	24*
-8	238	6	-5	-2	27	44	-1*	-7	244	6	-3	-1	329	7	-4	-9	146	6	-2
-7	32	45	4*	-1	263	6	-6	-6	26	50	-13*	0	103	4	-5	-8	33	46	15*
-6	289	6	1	0	43	22	8*	-5	205	6	-7	1	505	15	1	-7	187	5	-2
-5	53	19	-8*	1	245	5	-3	-4	0	55	-52*	H,K=	8,		2	-6	39	45	4*
-4	368	8	-8	2	34	41	-14*	-3	350	8	10	-12	78	17	-6*	-5	227	5	-2
-3	42	31	-37*	3	179	4	4	H,K=	8,		-2	-11	31	46	4*	-4	64	17	-1*
-2	393	8	-1	4	48	18	-14*	-12	81	24	2*	-10	150	5	8	-3	287	6	2
-1	108	4	3	5	215	5	-8	-11	47	62	35*	-9	49	31	43*	-2	36	47	-2*
0	339	7	5	H,K=	7,		7	-10	122	8	6	-8	177	5	-1	-1	331	7	8
1	99	4	-9	-10	135	8	2	-9	26	58	0*	-7	42	46	14*	0	49	17	7*
2	415	9	-6	-8	172	7	8	-8	184	6	-3	-6	158	5	3	1	316	7	-5
H,K=	7,		4	-6	176	6	-2	-7	24	56	-14*	-5	44	45	-17*	2	47	20	-20*
-12	33	50	27*	-4	217	6	2	-6	234	6	-1	-4	220	5	4	3	256	6	-7
-11	127	6	-8	-2	286	7	11	-5	35	54	8*	-3	34	42	6*	4	46	27	13*
-10	41	50	11*	0	210	5	0	-4	176	6	-1	-2	252	6	8	5	288	6	-8
-9	209	5	7	2	157	5	-9	-3	44	20	-28*	-1	60	11	-12*	H,K=	8,		6
-8	40	47	10*	4	249	6	-6	-2	384	9	-6	0	325	7	-6	-11	41	53	32*
-7	267	6	-2	6	117	6	7	H,K=	8,		-1	1	29	35	-10*	-10	131	6	1
-6	36	48	5*	H,K=	8,		-8	-12	0	64	-24*	2	333	7	5	-9	51	23	6*
-5	340	7	2	-9	43	55	16*	-11	88	12	1	H,K=	8,		3	-8	136	6	-8
-4	73	10	-2	-8	141	10	10	-10	50	52	22*	-12	43	53	26*	-7	38	49	4*
-3	409	9	-1	H,K=	8,		-7	-9	138	7	-2	-11	100	7	2	-6	188	5	-1
-2	39	29	-4*	-10	38	64	20*	-8	0	57	-44*	-10	32	48	17*	-5	25	47	-3*
-1	395	8	3	-9	117	9	0	-7	247	6	3	-9	176	5	-3	-4	200	5	-4

STRUCTURE FACTORS continued for
{[(CH3)3SI]2N}3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
-3	24	45	0*	-9	107	9	1	-3	37	44	-30*	-4	167	5	-3	4	47	26	32*
-2	304	7	8	-8	53	58	14*	-2	241	5	5	-3	29	47	5*	5	177	5	-1
-1	58	15	-5*	-7	194	6	5	-1	71	13	-22	-2	236	5	1	6	51	28	31*
0	232	5	6	-6	0	56	-32*	0	297	6	4	-1	44	46	-10*	7	136	5	5
1	34	43	12*	-5	166	6	-6	H,K=	9,	2		0	204	5	4	H,K=	9,	9	
2	226	5	-3	H,K=	9,			-3	-11	84	12	-5	1	46	20	27*	-6	123	9
3	40	42	1*	-11	0	64	-27*	-10	30	51	11*	2	247	5	-5	-4	88	12	-2
4	259	6	-4	-10	125	9	-6	-9	131	6	2	3	34	41	7*	-2	114	9	5
5	39	41	7*	-9	13	60	-6*	-8	32	48	6*	4	207	5	-8	0	155	6	1
6	148	6	2	-8	184	6	4	-7	171	5	-11	H,K=	9,	6		2	135	6	-1
H,K=	8,	7		-7	52	42	7*	-6	21	44	4*	-10	38	54	20*	4	135	6	10
-10	35	53	23*	-6	250	6	5	-5	138	5	-1	-9	125	6	3	6	145	7	2
-9	149	6	5	-5	0	56	-46*	-4	0	48	-28*	-8	46	49	14*	H,K=	10,	-7	
-8	43	46	-1*	-4	212	6	3	-3	205	5	6	-7	120	6	-3	-8	25	57	13*
-7	161	5	-3	H,K=	9,			-2	-2	18	46	-21*	-6	41	47	26*	-7	148	11	7
-6	0	49	-6*	-11	109	10	-2	-1	199	5	-3	-5	160	5	-1	H,K=	10,	-6	
-5	179	5	3	-10	34	62	21*	0	90	5	-2	-4	30	48	2*	-9	0	65	-19*
-4	34	45	29*	-9	125	8	0	1	296	6	9	-3	215	5	3	-8	138	8	9
-3	247	6	4	-8	37	58	32*	H,K=	9,	3		-2	39	48	27*	-7	30	62	10*
-2	33	45	16*	-7	235	6	0	-11	31	53	16*	-1	178	5	0	-6	195	9	-6
-1	210	5	-1	-6	0	56	-51*	-10	121	6	4	0	54	15	14*	H,K=	10,	-5	
0	49	17	27*	-5	176	6	-1	-9	16	48	-4*	1	218	5	1	-9	109	10	3
1	226	5	0	-4	12	57	-48*	-8	158	5	2	2	51	18	7*	-8	47	61	35*
2	8	43	-6*	-3	242	6	2	-7	28	48	12*	3	191	5	-6	-7	168	7	-3
3	194	5	-4	H,K=	9,			-1	-6	215	5	-1	4	39	41	24*	-6	41	58	29*
4	30	42	2*	-11	32	63	21*	-5	13	47	-10*	5	163	5	-10	-5	177	8	-5
5	192	5	-2	-10	136	8	-1	-4	145	5	0	H,K=	9,	7		H,K=	10,	-4	
6	37	39	26*	-9	37	60	5*	-3	13	48	7*	-9	21	51	0*	-10	128	9	11
7	118	7	3	-8	151	7	3	-2	225	5	-4	-8	118	7	0	-9	44	62	35*
H,K=	8,	8		-7	0	57	-49*	-1	40	46	6*	-7	62	27	18*	-8	117	9	3
-8	134	8	2	-6	236	6	3	0	222	5	5	-6	158	6	1	-7	31	53	0*
-6	170	7	-4	-5	25	49	10*	1	25	40	0*	-5	38	50	4*	-6	202	6	4
-4	175	6	4	-4	138	7	-1	2	154	4	5	-4	162	5	0	-5	26	57	-6*
-2	197	6	15	-3	55	32	-32*	H,K=	9,	4		-3	28	49	-3*	-4	194	8	-4
0	223	6	4	-2	248	6	0	-11	94	8	6	-2	192	5	1	H,K=	10,	-3	
2	217	6	5	H,K=	9,			0	-10	31	49	23*	-1	28	45	1*	-10	49	56
4	182	5	2	-11	117	7	2	-9	109	7	-4	0	176	5	-2	-9	137	8	1
6	152	6	-5	-10	23	49	1*	-8	0	50	-24*	1	33	41	24*	-8	18	61	2*
8	126	12	-6	-9	142	6	-6	-7	200	5	5	2	202	5	1	-7	212	6	7
H,K=	9,	-7		-8	48	32	6*	-6	32	49	2*	3	45	30	28*	-6	0	58	-19*
-9	7	64	-13*	-7	207	5	1	-5	182	5	-7	4	165	5	1	-5	211	6	-1
-8	136	8	-4	-6	26	45	2*	-4	33	44	15*	5	37	42	14*	-4	41	55	33*
H,K=	9,	-6		-5	239	6	0	-3	207	5	6	6	140	5	-6	-3	275	8	3
-10	0	64	-10*	-4	58	21	-2*	-2	35	45	20*	H,K=	9,	8		H,K=	10,	-2	
-9	109	10	-9	-3	199	5	0	-1	243	6	-1	-8	39	51	11*	-10	138	9	-3
-8	31	62	-14*	-2	44	36	-11*	0	32	39	3*	-7	131	6	4	-9	0	62	-18*
-7	188	7	6	-1	190	5	-4	1	233	5	4	-6	40	52	3*	-8	159	7	7
H,K=	9,	-5		H,K=	9,			1	2	31	41	13*	-5	143	6	4	-7	43	57	34*
-10	90	21	-10*	-11	26	52	9*	3	174	5	-1	-4	36	50	5*	-6	228	6	1
-9	31	54	6*	-10	133	6	6	H,K=	9,	5		-3	151	5	6	-5	0	57	-36*
-8	134	8	1	-9	29	48	-2*	-10	91	12	-8	-2	30	49	16*	-4	206	6	3
-7	17	59	-7*	-8	146	5	5	-9	36	51	11*	-1	169	5	2	-3	46	51	3*
-6	169	6	9	-7	27	47	12*	-8	114	6	7	0	32	44	1*	-2	299	8	7
H,K=	9,	-4		-6	190	5	0	-7	48	22	36*	1	212	5	6	H,K=	10,	-1	
-11	90	22	-20*	-5	41	48	-15*	-6	193	5	0	2	35	42	24*	-10	17	64	-2*
-10	40	62	34*	-4	233	5	-1	-5	0	47	-12*	3	113	6	-8	-9	137	8	13

STRUCTURE FACTORS continued for
{[(CH3)3SI]2N}3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
-8	0	61	-6*	-3	243	6	-3	H,K=	10,		7	H,K=	11,		-5	H,K=	11,		2
-7	204	6	4	-2	55	19	9*	-8	39	53	20*	-8	88	22	-1*	-9	126	7	0
-6	43	57	17*	-1	193	5	3	-7	124	6	9	-7	0	55	-16*	-8	32	52	19*
-5	207	6	2	0	0	42	-12*	-6	56	34	51*	-6	152	7	-1	-7	128	6	1
-4	44	57	12*	1	201	5	-2	-5	159	6	4	H,K=	11,		-4	-6	36	45	-3*
-3	219	6	-4	2	31	36	9*	-4	54	36	32*	-9	108	10	11	-5	163	5	3
-2	47	51	21*	3	192	5	0	-3	176	5	10	-8	46	62	39*	-4	48	25	25*
-1	228	7	0	H,K=	10,		4	-2	37	44	1*	-7	131	8	4	-3	236	6	-3
H,K=	10,		0	-10	108	8	-4	-1	145	5	-1	-6	35	61	6*	-2	24	42	14*
-11	43	54	33*	-9	21	53	16*	0	29	43	-3*	-5	133	8	-11	-1	202	5	3
-10	162	6	-7	-8	123	6	-1	1	173	5	10	H,K=	11,		-3	0	0	43	-35*
-9	35	51	13*	-7	22	50	22*	2	23	44	14*	-9	41	64	27*	1	222	5	-7
-8	136	6	5	-6	210	5	3	3	125	5	3	-8	106	10	-4	H,K=	11,		3
-7	41	43	11*	-5	15	45	-24*	4	30	43	19*	-7	36	60	11*	-9	31	51	5*
-6	251	6	3	-4	187	5	-1	5	159	5	8	-6	161	7	-3	-8	121	6	6
-5	45	27	32*	-3	32	47	22*	6	13	47	-6*	-5	0	59	-22*	-7	23	49	15*
-4	244	6	-2	-2	231	5	-6	7	105	8	-4	-4	186	6	4	-6	167	5	2
-3	37	47	-1*	-1	42	45	4*	H,K=	10,		8	H,K=	11,		-2	-5	18	50	-1*
-2	235	6	-2	0	182	5	5	-7	35	55	7*	-9	118	9	10	-4	171	5	7
-1	30	45	25*	1	43	29	21*	-6	151	6	6	-8	0	63	-27*	-3	8	43	-13*
0	257	6	-5	2	202	5	3	-5	44	53	7*	-7	165	7	5	-2	245	6	-3
H,K=	10,		1	3	5	41	-11*	-4	122	6	3	-6	0	54	-24*	-1	34	47	0*
-10	40	50	22*	4	188	5	9	-3	33	46	22*	-5	151	7	-6	0	166	4	-2
-9	148	6	-6	H,K=	10,		5	-2	145	6	-2	-4	40	57	14*	1	10	42	-4*
-8	21	51	-6*	-9	106	8	1	-1	32	50	19*	-3	239	6	0	2	198	5	-2
-7	179	5	3	-8	30	52	24*	0	155	5	4	H,K=	11,		-1	H,K=	11,		4
-6	43	45	9*	-7	123	6	-2	1	20	46	-25*	-9	8	63	-9*	-9	116	7	-3
-5	241	6	-1	-6	42	48	29*	2	141	5	6	-8	88	12	8	-8	33	52	19*
-4	18	44	13*	-5	183	5	1	3	30	43	23*	-7	14	62	1*	-7	147	6	15
-3	249	6	1	-4	46	47	26*	4	136	5	2	-6	195	6	0	-6	40	49	22*
-2	33	45	-18*	-3	192	5	3	5	0	47	-13*	-5	48	51	15*	-5	180	5	-1
-1	233	5	-4	-2	30	47	19*	6	131	5	-2	-4	149	7	1	-4	24	49	-3*
0	31	40	-12*	-1	139	5	-9	7	16	49	-2*	-3	0	58	-34*	-3	222	5	-2
1	304	7	-5	0	37	41	12*	H,K=	10,		9	-2	240	6	5	-2	31	48	29*
H,K=	10,		2	1	181	5	-1	-6	25	55	12*	H,K=	11,		0	-1	192	5	1
-10	132	6	-4	2	35	39	25*	-5	96	8	-7	-10	39	53	30*	0	33	41	7*
-9	20	53	7*	3	182	5	2	-4	35	53	20*	-9	125	6	5	1	186	5	-1
-8	134	6	8	4	27	43	11*	-3	109	7	10	-8	39	51	19*	2	26	42	16*
-7	23	49	4*	5	127	6	-2	-2	38	50	29*	-7	135	6	0	3	193	5	2
-6	192	5	-4	H,K=	10,		6	-1	99	8	-1	-6	45	47	27*	H,K=	11,		5
-5	46	21	7*	-9	41	52	30*	0	23	45	17*	-5	193	5	-6	-8	72	19	-22*
-4	217	5	-3	-8	80	13	-9	1	124	6	2	-4	36	47	-6*	-7	40	52	21*
-3	33	45	-5*	-7	45	49	21*	2	43	45	24*	-3	199	5	-6	-6	160	6	2
-2	233	5	6	-6	157	6	9	3	101	6	-6	-2	39	46	16*	-5	32	51	15*
-1	47	33	42*	-5	46	50	20*	4	37	47	30*	-1	220	5	-3	-4	167	5	-1
0	240	5	-4	-4	155	5	6	5	123	5	4	H,K=	11,		1	-3	28	50	8*
1	38	39	16*	-3	22	47	-18*	6	37	48	28*	-9	24	53	14*	-2	198	5	-1
2	217	5	0	-2	162	5	-4	H,K=	10,		10	-8	105	7	8	-1	25	46	4*
H,K=	10,		3	-1	18	48	-4*	-4	81	26	-10*	-7	29	44	9*	0	162	5	1
-10	24	53	3*	0	119	5	-4	-2	125	9	22	-6	187	5	5	1	35	42	26*
-9	138	6	3	1	33	42	16*	0	79	16	3*	-5	18	48	-1*	2	187	5	0
-8	44	50	28*	2	174	5	-1	2	109	8	5	-4	202	5	3	3	27	43	17*
-7	182	5	9	3	9	42	-7*	4	102	9	11	-3	20	47	-2*	4	151	5	11
-6	8	49	-16*	4	128	5	-6	H,K=	11,		-6	-2	239	6	2	H,K=	11,		6
-5	184	5	-1	5	25	45	18*	-8	30	65	21*	-1	36	38	4*	-8	28	55	21*
-4	12	45	-13*	6	134	6	-1	-7	119	9	3	0	253	6	-6	-7	46	53	-39*

STRUCTURE FACTORS continued for
{[(CH3)3SI]2N}3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
-6	48	36	19*	-6	104	15	9	-8	85	9	2	-2	152	6	3	-6	91	12	-7
-5	139	6	0	H,K=	12,			-5	-7	31	50	16*	-1	23	52	12*	-5	0	61	-5*
-4	12	51	-12*	-7	88	13	6	-6	105	7	-8	0	133	5	14	-4	73	25	-2*
-3	157	5	1	-6	16	55	2*	-5	26	48	1*	1	34	46	22*	-3	18	62	7*
-2	18	48	-2*	-5	56	40	-20*	-4	88	11	-11	2	127	5	2	-2	112	9	-1
-1	151	5	4	H,K=	12,			-4	-3	23	50	3*	3	29	46	7*	-1	17	60	-7*
0	32	42	-4*	-7	27	63	21*	-2	177	5	1	4	130	5	-1	0	100	7	3
1	150	5	2	-6	102	10	-6	-1	25	49	9*	5	30	45	22*	1	20	50	-1*
2	18	43	3*	-5	0	63	-15*	0	146	5	0	6	88	15	-16	2	92	9	-13
3	131	5	-3	-4	114	13	9	1	32	43	9*	H,K=	12,		7	H,K=	13,		4
4	0	46	-2*	H,K=	12,			-3	2	141	5	3	-5	99	8	9	-6	39	65	23*
5	137	5	6	-8	37	57	20*	H,K=	12,			3	-4	30	52	27*	-5	118	9	-3
H,K=	11,		7	-7	114	10	4	-8	11	55	2*	-3	86	16	-18*	-4	29	61	23*
-7	39	48	26*	-6	58	61	43*	-7	78	19	-20*	-2	22	51	2*	-3	106	10	6
-6	139	6	9	-5	111	9	1	-6	30	52	14*	-1	145	6	3	-2	70	33	60*
-5	35	52	23*	-4	31	60	27*	-5	116	8	2	0	29	46	25*	-1	115	7	5
-4	132	6	4	-3	164	9	1	-4	12	51	-9*	1	113	6	10	0	30	48	16*
-3	36	51	11*	H,K=	12,			-2	-3	153	5	2	2	42	44	34*	1	136	5	2
-2	184	6	5	-8	67	35	-17*	-2	42	49	28*	3	104	6	-1	2	22	46	11*
-1	34	51	23*	-7	52	61	35*	-1	138	5	6	4	15	48	9*	3	86	9	-1
0	141	5	9	-6	137	8	8	0	43	25	6*	5	111	8	-8	H,K=	13,		5
1	34	45	23*	-5	40	60	30*	1	148	5	-1	H,K=	12,		8	-5	0	59	-11*
2	126	5	-1	-4	113	9	5	2	24	43	15*	-3	35	54	14*	-4	89	10	-5
3	33	44	17*	-3	0	60	-7*	3	126	6	-3	-2	140	6	11	-3	17	54	3*
4	143	5	8	-2	168	9	5	H,K=	12,			4	-1	52	29	39*	-2	109	8	-5
5	19	48	14*	H,K=	12,			-1	-7	48	37	27*	0	125	6	4	-1	24	56	-4*
6	100	8	-6	-8	6	57	-13*	-6	149	6	4	1	35	46	31*	0	124	6	4
H,K=	11,		8	-7	110	10	1	-5	17	52	-11*	2	115	6	-1	1	42	48	31*
-6	34	55	19*	-6	32	61	20*	-4	114	7	-3	3	32	48	23*	2	123	5	2
-5	138	6	5	-5	129	8	8	-3	0	50	-13*	H,K=	13,		0	3	27	49	22*
-4	39	54	12*	-4	33	59	18*	-2	181	5	3	-7	86	23	-21*	4	107	6	5
-3	139	6	3	-3	133	7	1	-1	34	47	17*	-6	19	44	-7*	H,K=	13,		6
-2	48	52	32*	-2	23	59	13*	0	150	5	3	-5	145	8	3	-4	36	59	23*
-1	161	6	5	-1	166	9	5	1	47	28	16*	-4	18	60	6*	-3	70	27	-9*
0	29	46	23*	H,K=	12,			0	2	158	5	0	-3	132	8	-6	-2	17	58	5*
1	151	5	7	-8	71	18	-8*	3	34	44	23*	-2	8	59	6*	-1	117	8	15
2	33	44	8*	-7	23	52	8*	4	127	7	0	-1	156	7	0	0	28	50	12*
3	129	5	0	-6	142	6	-13	H,K=	12,			5	H,K=	13,		1	1	100	9	6
4	37	44	23*	-5	35	50	11*	-7	89	12	-6	-7	56	63	19*	2	45	47	34*
5	140	5	5	-4	115	6	-1	-6	41	50	33*	-6	122	9	12	3	76	14	-18*
6	40	48	24*	-3	47	39	27*	-5	146	6	0	-5	25	61	15*	4	0	48	-11*
H,K=	11,		9	-2	162	5	-7	-4	14	52	-5*	-4	134	8	9	H,K=	13,		7
-4	83	13	-17	-1	33	46	9*	-3	139	6	8	-3	0	60	-28*	-2	112	14	13
-3	19	52	9*	0	188	6	0	-2	43	49	13*	-2	129	8	-11	-1	35	59	18*
-2	126	7	5	H,K=	12,			1	-1	157	6	0	-1	36	53	11*	0	83	11	-2
-1	33	53	15*	-8	37	50	13*	0	27	41	21*	0	157	5	0	1	19	51	11*
0	105	6	0	-7	84	12	-4	1	172	5	5	H,K=	13,		2	2	69	17	-12*
1	22	45	19*	-6	21	51	20*	2	13	44	-9*	-6	50	62	21*	H,K=	14,		0
2	133	5	6	-5	135	6	4	3	141	5	-1	-5	99	11	4	-5	19	63	3*
3	20	47	5*	-4	39	49	8*	4	32	46	15*	-4	0	62	-5*	-4	125	9	0
4	107	8	-4	-3	146	5	-6	5	136	7	6	-3	125	8	-1	-3	0	56	-26*
H,K=	11,		10	-2	37	46	20*	H,K=	12,		6	-2	49	59	3*	-2	121	9	-5
-1	88	9	-2	-1	168	5	2	-6	76	19	-18*	-1	75	24	-24*	-1	0	61	-7*
0	38	47	26*	0	25	40	-4*	-5	43	53	23*	0	27	50	-1*	0	133	8	-14
1	94	9	1	1	184	5	-2	-4	86	12	1	1	137	5	4	H,K=	14,		1
H,K=	12,		-6	H,K=	12,			2	-3	22	52	6*	H,K=	13,		3	-4	0	65	-1*

STRUCTURE FACTORS continued for
([(CH3)3SI]2N)3U-NSI(CH3)3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
-3	144	8	-2																
-2	29	61	17*																
-1	132	8	14																
0	46	49	19*																
1	167	7	6																
H,K=	14,	2																	
-4	124	9	4																
-3	0	56	-11*																
-2	125	9	11																
-1	48	60	27*																
0	127	6	9																
1	27	52	2*																
2	134	7	7																
H,K=	14,	3																	
-4	0	63	-12*																
-3	123	9	19																
-2	32	61	24*																
-1	52	57	-30*																
0	20	52	11*																
1	122	9	0																
2	32	48	24*																
3	68	16	-8*																
H,K=	14,	4																	
-3	31	63	18*																
-2	115	9	6																
-1	11	63	-2*																
0	83	13	-18																
1	28	53	19*																
2	107	7	0																
3	32	53	27*																
H,K=	14,	5																	
-1	102	16	1																
0	4	53	-9*																
1	106	7	-2																

LAWRENCE BERKELEY LABORATORY
TECHNICAL INFORMATION DEPARTMENT
UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA 94720

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