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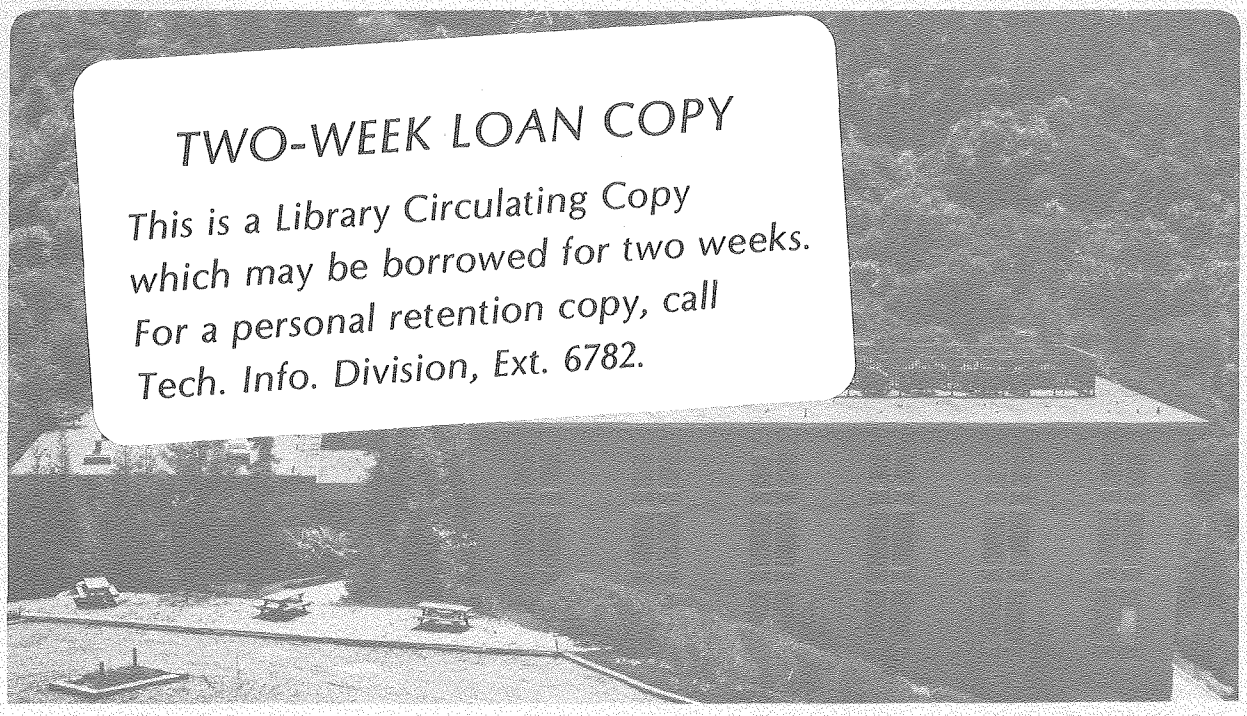

Prepared for the U.S. Department of Energy under Contract W-7405-ENG-48

DISCLAIMER

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ABSTRACT

The complex $[(Me_3Si)_2N]_2UCl_2$(1,2-dimethoxyethane) has been prepared from uranium tetrachloride and two molar equivalents of sodium bis(trimethylsilyl)amide in 1,2-dimethoxyethane. It may also be prepared from uranium tetrachloride and two molar equivalents of sodium bis(trimethylsilyl)amide in tetrahydrofuran followed by addition of 1,2-dimethyoxyethane. The green pentane-soluble complex crystallizes in space group Pbca with cell dimensions $\underline{a}$ = 15.207(4) Å, $\underline{b}$ = 12.021(3) Å, and $\underline{c}$ = 33.429(9) Å, Z = 8, and d_x = 1.57 g cm^{-3}. The uranium atom, which has approximate $\underline{C_2}$ symmetry, is coordinated to two nitrogen atoms from the amide groups, two oxygen atoms from the dimethoxyethane group, and two chlorine atoms. The average U-N, U-O, and U-Cl distances are 2.23 Å, 2.59 Å, and 2.64 Å respectively.

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INTRODUCTION

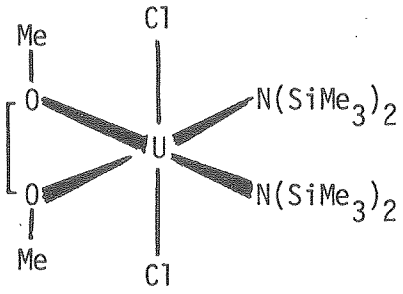
The tris[bis(trimethylsilyl)amido] derivatives of the actinide metals of the type $[(Me_3Si)_2N]_3MCl$ where M is thorium or uranium,[1] have given rise to a series of alkyl and hydride[2] derivatives that have a rich reaction chemistry.[3] The analogous Group 4B metal alkyl derivatives $[(Me_3Si)_2N]_3MMe$, where M is zirconium or hafnium, have also been described.[4] The bis-silylamido derivatives of the Group 4B metal alkyls of the type $[(Me_3Si)_2N]_2MR_2$, where M is zirconium or hafnium, also have an extensive reaction chemistry.[5,6] As part of a study of the comparative chemistry of the organometallic compounds of the transition metal Group 4B series relative to those of the actinide series, we have prepared bis[di(trimethylsilyl)amido]dichloro-uranium(IV) and describe the crystal structure of its 1,2-dimethoxy-ethane complex.

RESULTS AND DISCUSSION

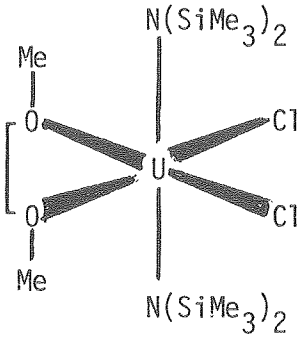
Addition of two molar equivalents of sodium bis(trimethylsilyl)amide to a tetrahydrofuran solution of uranium tetrachloride followed by crystallization from pentane yields microcrystals of $[(Me_3Si)_2N_2]_2UCl_2$. Addition of 1,2-dimethoxyethane to the dichloro species yields $[(Me_3Si)_2N]_2UCl_2$ (dimethoxyethane) as green prisms from pentane. The 1,2-dimethoxyethane complex may be prepared directly from two molar equivalents, sodium bis(trimethylsilyl)amide and uranium tetrachloride

in 1,2-dimethoxyethane. It is noteworthy that reaction of two molar equivalents of lithium bis(trimethylsilyl)amide and uranium tetrachloride in tetrahydrofuran affords the tris-derivative, $[(Me_3Si)_2N]_3UCl$.[1] The bis-thorium analogue $[(Me_3Si)_2N]_2ThCl_2$ could not be prepared; all attempted preparations yielded the tris-derivative $[(Me_3Si)_2N]_3ThCl$.[1] The latter result is doubtless related to the insolubility of $ThCl_4$ in tetrahydrofuran.

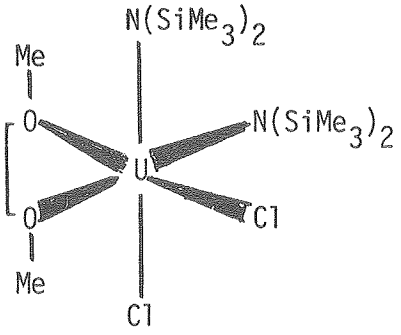
The structure of the 1,2-dimethoxyethane uranium species is of considerable interest. Three geometrical isomers based upon a cis-octahedron are possible (I, II or III):



(I)



(II)



(III)

Infrared spectroscopy cannot distinguish between I or II though it is capable of distinguishing among I or II and III, in theory, In practice, the low symmetry of the possible isomers and the difficulty associated with making accurate assignments of metal-nitrogen, metal-oxygen, and metal-chloride stretching frequencies makes this technique unreliable. Fortunately the complex yields crystals suitable for an x-ray examination. This technique shows I to be the correct isomer.

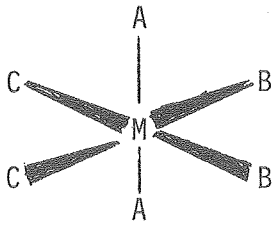
The uranium atom in this structure has approximate C_2 symmetry (see Fig. 1) and is hexacoordinated to the two oxygen atoms of the dimethoxyethane (DME) ligand, to two nitrogen atoms of the bis(trimethylsilylamide) ligands, and to two chloride ions. The two oxygen and two nitrogen atoms are approximately coplanar[7] with the uranium atom while the chloride ions are above and below this plane and bent towards the DME ligand.

The DME ligand exhibits considerable thermal motion, and the bond angles and distances reported for this ligand in Tables II and III represent the geometry of the average positions rather than realistic molecular dimensions. In our study of $[(Me_3Si)_2N]_2Eu(DME)_2$,[8] we observed a similar problem with the DME ligand, and in that structure the DME

ligand had to be described as a disordered group. The U-O distances of 2.585 and 2.603 Å are unusually large and perhaps reflect the steric effects caused by the crowding of the large trimethylsilylamide ligands on the chloride ions which in turn push on the DME ligand.

Each Si_2NU group is planar and the average U-N bond distance, 2.235 Å, is consistent with other terminally bonded amide U-N distances, such as 2.24 Å in $HU[N(SiMe_3)_2]_3$,[9] 2.21 Å in $U_3(CH_3NCH_2CH_2NCH_3)_6$,[10] 2.27 Å in $U[N(C_6H_5)_2]_4$;[11] and 2.22 Å in $U[N(C_2H_5)_2]_4$.[12]

The geometry of the complex was initially surprising since our intuition suggested that the two sterically large $(Me_3Si)_2$ N groups would occupy trans-positions (II) rather than cis ones (I) in a cis-octahedral arrangement. The observed geometry can be rationalized by reference to Kepert's point-on-a-sphere model.[13] In a molecule of the type M(bidentate)A_2B_2 (IV) the location of



C = oxygen atoms of 1,2-dimethoxyethane
A = Cl
B = $N(SiMe_3)_2$
M = uranium

the A atoms relative to the B atoms is dictated by the M-A and M-B bond distances. Monodentate ligands that have the shortest metal-ligand bond lengths will occupy the less sterically crowded B sites in complexes where the normalized bite of the chelating ligand is small. The average

uranium-nitrogen bond length in $[(Me_3Si)_2N]_2UCl_2$ (1,2-dimethyoxyethane) (2.34 Å) is shorter than the uranium-chloride bond length (2.63 Å) and the normalized bite (the distance between donor atoms in the chelate group divided by the metal-donor atom distance) of 1,2-dimethoxyethane is 1.06. Thus, the observed geometry is in accord with Kepert's model.

EXPERIMENTAL

Analyses were by the microanalytical laboratory of this department. The ^1H nuclear magnetic resonance spectra were recorded on a JEOL FX-90 machine operating at 90 MHz, and are reported in δ-values (Me_4Si, δ = 0). All operations were performed under nitrogen.

Bis(di(trimethylsilyl)amido]dichlorouranium (IV). Sodium bis(trimethylsilyl)amide (3.5 g, 0.019 mol) in tetrahydrofuran (20 mL) was added to a solution of uranium tetrachloride (3.6 g, 0.0095 mol) in tetrahydrofuran (25 mL). The suspension was stirred at room temperature for 12 hrs. The tetrahydrofuran was removed in vacuum and the gummy solid was exposed to vacuum for 24 hrs. The residue was extracted with pentane (80 mL), filtered, concentrated in vacuum to ca. 25 mL, and cooled (-70°C). The pink needles were isolated and dried in vacuum whereupon they turned to microcrystals, mp 77-79°C. Yield was 4.8 g (80%). Anal. Calcd for $C_{12}H_{36}Cl_2N_2Si_4U$: C, 22.9; H, 5.72; Cl, 11.3; N, 4.45. Found: C, 23.7; H, 5.56; Cl, 8.22; N, 4.54. The infrared spectrum

in the 500-200 cm^{-1} region (Nujol mull) consisted of medium intensity absorptions at 380, 280 and 260 cm^{-1}. The ^1H NMR spectrum (PhH, 30°C) was a singlet at δ - 1.23.

Bis[di(trimethylsilyl)amido]dichlorouranium (IV) - 1,2-dimethoxyethane. Sodium bis(trimethylsilyl)amide (4.8 g, 0.026 mol) in 1,2-dimethoxyethane (75 mL) was added to a suspension of uranium tetrachloride (4.9 g, 0.013 mol) in 1,2-dimethoxyethane (200 mL). The mixture was stirred at room temperature for 24 hrs. The 1,2-dimethoxyethane was removed in vacuum and the residue was extracted with pentane (2 x 100 mL). The combined extracts were filtered, concentrated to ca. 150 mL, and cooled (-10°C). The green prisms were collected and dried in vacuum, yield was 4.6 g (48%), mp 137-138°C (dec). Anal. Calc for $C_{16}H_{46}Cl_2N_2O_2Si_4U$: C, 26.7; H, 6.44; Cl, 9.85; N, 3.89. Found: C, 27.1; H, 6.55; Cl, 9.84; N, 3.91. The infrared spectrum (Nujol mull) consisted of absorptions at 388 s, 310 w, 290 w, and 255 m cm^{-1}. The ^1H NMR (PhMe-d_8) was temperature dependent. At 30°C a broad resonance centered at δ0.75, $\nu_{\frac{1}{2}}$ = 160 Hz, was observed, though sharp singlets were observed at 90 and -62°C.

Resonance (90°C)	Assignment	Resonance (-62°C)
-0.84	$(Me_3Si)_2N$-	0.31
13.6	MeO-	1.11
-13.3	$-CH_2O-$	1.37

The 1,2-dimethoxyethane complex can also be prepared by stirring $[(Me_3Si)_2N]_2UCl_2$ in 1,2-dimethoxyethane, evaporating to dryness, followed by crystallization from pentane.

X-RAY DIFFRACTION

Green crystals of the compound, because of their extreme sensitivity to the atmosphere, were sealed inside thin walled quartz capillaries in an argon filled drybox. A crystal approximately 0.16 x 0.3 x 0.3 mm in size was examined with a Picker FACS-I automatic diffractometer equipped with a graphite monochromator and a Mo x-ray tube ($\lambda(K\alpha_1)$0.70930 Å). Omega scans of several low angle reflections showed peaks with half-widths of 0.12 to 0.16°. The space group is Pbca. The setting angles of twelve manually centered reflections ($42° < 2\theta < 49°$) were used to determine by least squares the following cell parameters: $\underline{a}$ = 15.207(4) Å, $\underline{b}$ = 12.021(3) Å, $\underline{c}$ = 33.427(9) Å. For Z=8, V = 6110.6 $Å^3$ and a molecular weight of 719.84, the calculated density is 1.565 g cm^{-3}.

Intensity data of all the reflections indices ±h, +k, +l were collected using the θ-2θ scan technique with a scan speed of 2°/min in the range of $4° < 2\theta < 45°$. Each reflection was scanned 0.7° before $K\alpha_1$ peak, to 0.7° after the $K\alpha_2$ peak, and backgrounds were counted for 4 sec at each end of the scan range. The temperature during data collection was 23 ± 1°C. Three standard reflections were measured

after every 250th scan to monitor for crystal decay, instrumental stability and crystal alignment. A decay of 6% was observed in the intensities of the standards and the data were adjusted accordingly. A total of 8749 scans (including standards) were performed, resulting in 4011 unique data of which 3025 had $I > \sigma(I)$. Correction for absorption ($\mu = 54\ cm^{-1}$) was made by an analytical integration method,[14] and the factors ranged from 2.7 to 4.1.

The three-dimensional Patterson calculations indicated the U atom positions and subsequent least-squares refinements and Fourier calculations revealed the positions of the Si, N, O and C atoms. Difference Fourier maps revealed some but not all of the hydrogen atoms. Hydrogen atoms of the bistrimethylsilylamide groups were included in the least squares refinements but restrained to positions of 0.95 ± 0.05 Å from adjacent carbon atoms in the manner suggested by Waser[15] and described in one of our previous papers.[16] Hydrogen atoms in the dimethoxyethane ligand were not included because of large thermal motions apparent on that portion of the structure. In the final refinements all of the non-hydrogen atoms were assigned anisotropic thermal parameters, and the hydrogen atoms were assigned one overall isotropic thermal parameter. Extinction effects were evident in the data and an empirical extinction correction of the type $F_{cor} = F_o(I + kI)$ was applied where $k = 2.8 \times 10^{-7}$ (I is the raw intensity, F_o is the observed structure factor, and F_{cor} is the modified observed structure factor); the largest intensity was the 200 reflection and its structure factor was increased by 18% by the extinction correction.

The full-matrix least-squares program minimizes the function $\Sigma \underline{w}(|F_o|-|F_c|)^2/\Sigma \underline{w}F_o^2$ where the assigned weights $\underline{w} = [\sigma(F)]^{-2}$ were derived from $\sigma(F^2) = [S^2 + \underline{p}F^2]^{1/2}$ where S^2 is the variance due to counting statistics and p = 0.04. Scattering factors from Doyle and Turner[17] for non-hydrogen atoms and from International Tables[18] for hydrogen were used and anomalous dispersion corrections[19] were applied. The final R factors, $R = \Sigma||F_o|-|F_c||/\Sigma|F_o|$, were 0.037 for 353 parameters and 2525 data with $F^2 > 2\sigma(F^2)$ and 0.079 for all 4083 data. The weighted $R_{\underline{w}} = (\Sigma \underline{w}(|F_o|-|F_c|)^2/\Sigma wF_o^2)^{1/2}$ was 0.035 and the estimated standard deviation of a reflection of unit weight was 1.05. In the last cycle no non-hydrogen atom parameter changed more than 0.15 σ. The largest peak in the difference Fourier was 1.2 e/Å^3 and is a ripple 1.03 Å from the uranium atom.

Positional parameters are given in Table I. Tables of the anisotropic thermal parameters, and the list of observed structure factors are given in the supplementary material. Distances and angles are given in Tables II and III, with atom numbers as in Fig. 1.

ACKNOWLEDGMENTS

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SUPPLEMENTARY MATERIAL AVAILABLE

A list of anisotropic thermal parameters and a list of observed structure factors (17 pages) is available. Ordering information is given on any current masthead page.

REFERENCES

1. Turner, H.W., Andersen, R.A., Templeton, D.H., Zalkin, A.; Inorg. Chem. (1979) 18. 1221.

2. Turner, H.W., Simpson, S.J., Andersen, R.A.; J. Am. Chem. Soc. (1979) 101, 2782.

3. Simpson, S.J., Turner, H.W., Andersen, R.A.; J. Am. Chem. Soc. (1979) 101, 7728.

4. Andersen, R.A., Inorg. Chem. (1979) 18, 1724.

5. Andersen, R.A., Inorg. Chem. (1979) 18, 2928.

6. Andersen, R.A., J. Organomet. Chem., (1980) 192, 189.

7. The deviations of some of the atoms from the least-squares plane defined by O(1), O(2), N(1) and N(2) are: O(1), 0.18 Å; O(2), -0.20 Å; N(1), 0.14 Å; N(2), -0.13 Å; U, 0.03 Å; Cl(1), 2.61 Å; Cl(2), -2.53 Å.

8. Tilley, T.D., Zalkin, A., Andersen, R.A., Templeton, D.H.; Inorg. Chem., submitted for publication.

9. Andersen, R.A., Zalkin, A., Templeton, D.H.; Inorg. Chem., submitted for publication.

10. Reynolds, J.G., Zalkin, A., Templeton, D.H., Edelstein, N.M.; Inorg. Chem. (1977) 16, 599.

11. Reynolds, J.G., Zalkin, A., Templeton, D.H., Edelstein, N.M.; Inorg. Chem. (1977) 16, 1090.

12. Reynolds, J.G., Zalkin, A., Templeton, D.H., Edelstein, N.M., Templeton, L.K.; Inorg. Chem. (1976) 15, 2498.

13. Kepert, D.L.; Prog. Inorg. Chem. (1977) 23, 1.

14. Templeton, L.K., Templeton, D.H.; Abstracts, American Crystallographic Association Proceedings (1973), Series 2, Vol. 1, p.143.

15. Waser, J.; Acta Crystallogr. (1963) 16, 1091.

16. Reynolds, J.G., Zalkin, A., Templeton, D.H., Edelstein, N.M.; Inorg. Chem. (1977) 16, 1858.

17. Doyle, P.A.; Turner, P.S.; Acta Crystallogr. Sect. A (1968) 24, 1968.

18. Ibers, J.A., Hamilton, W.C.; International Tables for X-Ray Crystallography, Vol. IV (Kynoch Press, Birmingham. England, 1974), p.97.

19. Cromer, D.T., Liberman, D.; J. Chem. Phys. (1970) 53, 1891.

Table I. Positional Parameters[a]

ATOM	X	Y	Z
U	.02718(2)	.19019(3)	.10858(1)
CL(1)	.1790(2)	.2939(3)	.0997(1)
CL(2)	-.0998(2)	.0519(2)	.0891(1)
SI(1)	.1459(2)	.1119(3)	.1966(1)
SI(2)	-.0504(2)	.1209(3)	.2002(1)
SI(3)	-.0302(2)	.4601(2)	.1198(1)
SI(4)	-.1417(2)	.3459(3)	.0591(1)
O(1)	.0737(5)	.1595(7)	.0345(2)
O(2)	.1037(5)	.0032(7)	.0928(3)
N(1)	.0455(4)	.1339(6)	.1716(2)
N(2)	-.0531(4)	.3397(6)	.0924(2)
C(1)	.2382(8)	.074(1)	.1625(4)
C(2)	.1828(8)	.238(1)	.2257(5)
C(3)	.142(1)	-.006(1)	.2315(6)
C(4)	-.1427(7)	.203(1)	.1773(4)
C(5)	-.0387(8)	.175(1)	.2519(4)
C(6)	-.089(1)	-.027(1)	.2036(5)
C(7)	.0324(8)	.425(1)	.1658(4)
C(8)	.038(1)	.561(1)	.0904(5)
C(9)	-.132(1)	.532(1)	.1397(4)
C(10)	-.2472(7)	.312(1)	.0847(4)
C(11)	-.1319(8)	.247(1)	.0152(4)
C(12)	-.151(1)	.487(1)	.0345(4)
C(13)	.0950(9)	.257(1)	.0090(4)
C(14)	.0802(9)	-.099(1)	.1132(5)
C(15)	.134(1)	.065(2)	.0288(6)
C(16)	.119(1)	-.021(2)	.0514(5)
H(1)	.256(8)	.125(7)	.143(3)
H(2)	.221(8)	.006(6)	.150(3)
H(3)	.282(6)	.064(8)	.182(2)
H(4)	.133(5)	.25(1)	.242(3)
H(5)	.187(7)	.27(1)	.203(2)
H(6)	.232(4)	.22(1)	.240(3)
H(7)	.130(6)	-.073(7)	.219(3)
H(8)	.100(5)	.009(9)	.253(3)
H(9)	.198(4)	-.015(9)	.246(3)
H(10)	-.164(7)	.183(9)	.151(2)
H(11)	-.146(7)	.284(4)	.178(3)
H(12)	-.192(6)	.180(8)	.194(3)
H(13)	-.024(6)	.251(5)	.249(4)
H(14)	.009(5)	.138(8)	.267(3)
H(15)	-.089(4)	.162(8)	.268(3)
H(16)	-.057(6)	-.091(7)	.214(3)
H(17)	-.096(7)	-.05(1)	.176(1)
H(18)	-.149(4)	-.035(9)	.214(3)

Table I. Continued

Atom	x	y	z
H(19)	.082(5)	.383(7)	.159(3)
H(20)	-.005(6)	.378(7)	.182(3)
H(21)	.047(7)	.487(6)	.182(3)
H(22)	.005(6)	.609(8)	.074(3)
H(23)	.085(5)	.531(9)	.075(3)
H(24)	.059(7)	.599(9)	.113(2)
H(25)	-.163(7)	.476(7)	.156(3)
H(26)	-.173(6)	.553(8)	.120(2)
H(27)	-.116(7)	.590(6)	.156(3)
H(28)	-.247(7)	.362(7)	.107(2)
H(29)	-.250(7)	.238(5)	.097(3)
H(30)	-.302(5)	.321(8)	.071(3)
H(31)	-.103(6)	.176(5)	.017(3)
H(32)	-.091(5)	.289(8)	-.003(3)
H(33)	-.180(5)	.238(9)	-.004(3)
H(34)	-.097(4)	.50(1)	.021(3)
H(35)	-.166(6)	.544(8)	.053(3)
H(36)	-.193(5)	.48(1)	.014(2)

[a]Estimated standard deviations of the least significant digit is given in parentheses here and in the following table.

Table II. Interatomic Distances

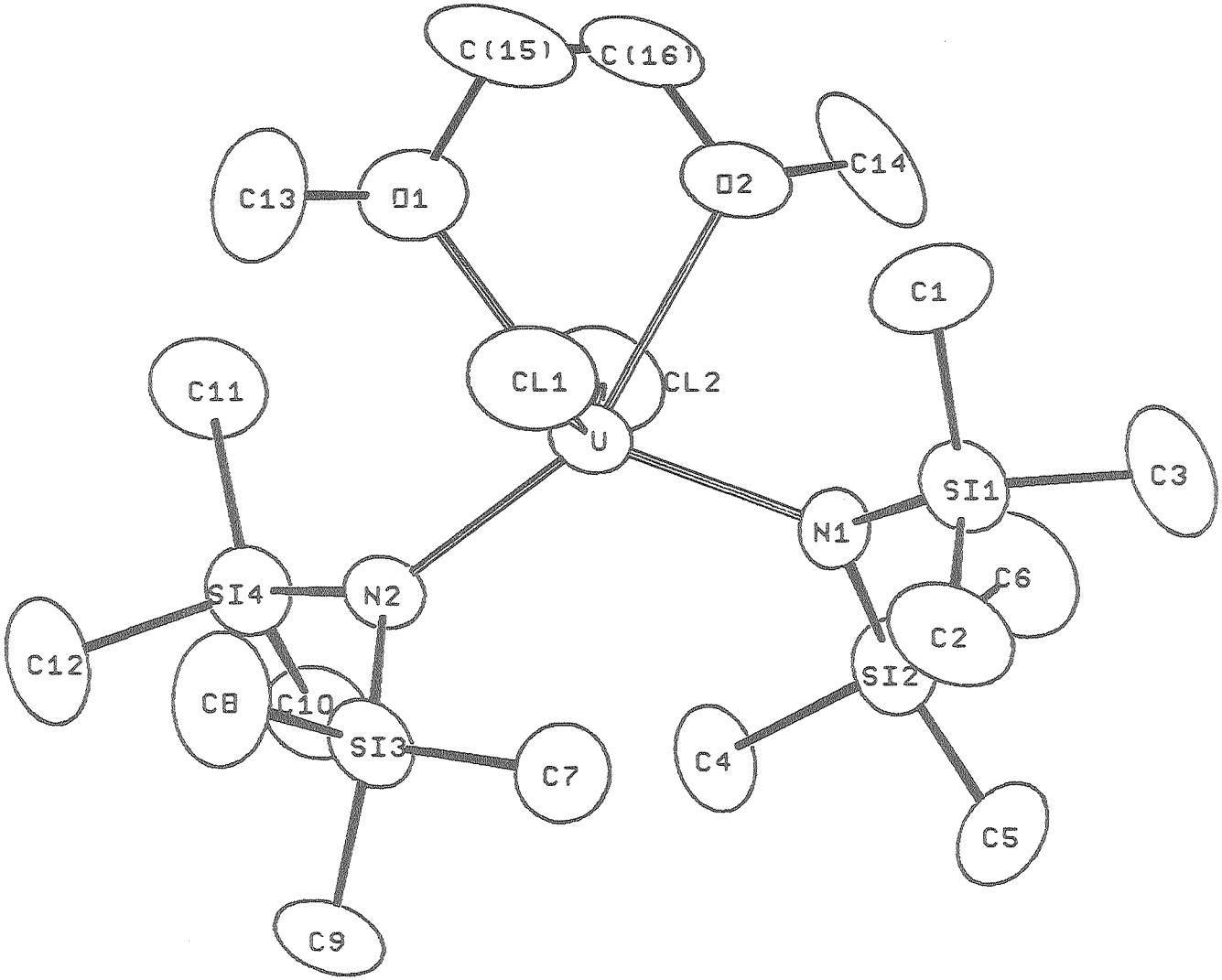
Atoms	D(Å)	Atoms	D(Å)
U -N(1)	2.231(8)	Si(2)-C(4)	1.88(1)
-N(2)	2.238(7)	-C(5)	1.86(2)
-O(1)	2.603(8)	-C(6)	1.88(2)
-O(2)	2.585(8)	Si(3)-C(7)	1.86(2)
-Cl(1)	2.640(3)	-C(8)	1.87(2)
-Cl(2)	2.630(3)	-C(9)	1.89(2)
N(1) -Si(1)	1.759(8)	Si(4)-C(10)	1.86(1)
-Si(2)	1.749(8)	-C(11)	1.89(1)
N(2) -Si(3)	1.749(8)	-C(12)	1.90(1)
-Si(4)	1.7541(8)	O(1) -C(13)	1.48(2)
Si(1)-C(1)	1.86(2)	-C(15)	1.46(2)
-C(2)	1.89(2)	O(2) -C(14)	1.45(2)
-C(3)	1.84(2)	-C(16)	1.44(2)
		C(15)-C(16)	1.30(2)

Table III. Selected Angles.

Atoms		Atoms	
Cl(1)-U -Cl(2)	155.9(1)	O(1) -U -O(2)	63.9(3)
Cl(1)-U -O(1)	73.9(2)	U -N(1)-Si(1)	126.9(4)
Cl(1)-U -O(2)	89.7(2)	U -N(1)-Si(2)	116.0(4)
Cl(2)-U -O(1)	82.8(2)	Si(1)-N(1)-Si(2)	116.8(5)
Cl(2)-U -O(2)	74.4(2)	U -N(2)-Si(3)	115.4(4)
Cl(1)-U -N(1)	98.1(2)	U -N(2)-Si(4)	127.5(4)
Cl(1)-U -N(2)	94.1(2)	Si(3)-N(2)-Si(4)	116.8(4)
Cl(2)-U -N(1)	97.7(2)	U -O(1)-C(13)	119.6(7)
Cl(2)-U -N(2)	92.7(2)	U -O(1)-C(15)	113.7(9)
N(1) -U -N(2)	122.7(3)	C(13)-O(1)-C(15)	113.5(11)
N(1) -U -O(1)	145.3(3)	U -O(2)-C(14)	122.1(8)
N(1) -U -O(2)	82.7(3)	U -O(2)-C(16)	116.6(9)
N(2) -U -O(1)	91.8(3)	C(14)-O(2)-C(16)	139.2(40)
N(2) -U -O(2)	153.4(3)		

FIGURE CAPTION

Fig. 1. ORTEP view of the structure.



XBL 803-8700

Fig. 1

SUPPLEMENTARY MATERIALS FOR

PREPARATION AND CRYSTAL STRUCTURE OF 1,2-DIMETHOXYETHANE COMPLEX OF BIS[DI(TRIMETHYLSILYL)AMIDO]DICHLOROURANIUM(IV)

Laughlin G. McCullough, Howard W. Turner, Richard A. Andersen, Allan Zalkin* and David H. Templeton

Table of Thermal Parameters[a,b]

ATOM	B11	B22	B33	B12	B13	B23
U	2.73(2)	3.09(2)	4.05(2)	.01(2)	.22(2)	-.31(2)
CL(1)	4.3(1)	6.8(2)	9.1(2)	-1.8(1)	.9(1)	-1.4(2)
CL(2)	4.4(1)	5.1(2)	8.7(2)	-1.2(1)	-.9(1)	-.7(2)
SI(1)	4.4(2)	5.4(2)	5.5(2)	1.4(1)	-.6(1)	.1(2)
SI(2)	4.6(2)	5.5(2)	5.3(2)	.6(1)	1.0(1)	1.7(2)
SI(3)	5.5(2)	3.2(1)	5.3(2)	.5(1)	-1.0(2)	-.3(1)
SI(4)	4.3(1)	4.2(2)	4.7(2)	.2(1)	-.9(1)	-.1(1)
O(1)	4.7(4)	6.9(5)	5.5(5)	.4(4)	1.3(4)	-.5(4)
O(2)	5.6(4)	5.9(5)	7.0(6)	2.1(4)	-.4(4)	-1.9(4)
N(1)	2.9(4)	4.4(4)	3.7(4)	.8(3)	.0(3)	.7(4)
N(2)	3.0(3)	2.9(4)	3.7(4)	-.1(3)	-.2(3)	-.4(3)
C(1)	4.7(7)	11.8(12)	6.7(9)	2.6(8)	-1.0(7)	-1.1(9)
C(2)	6.0(7)	8.9(10)	8.4(10)	1.0(8)	-4.0(7)	-2.5(8)
C(3)	7.8(9)	8.5(10)	10.8(13)	3.0(8)	-1.8(9)	2.1(9)
C(4)	3.6(5)	7.6(8)	6.8(7)	1.8(6)	.7(5)	2.8(7)
C(5)	6.5(7)	10.6(10)	5.3(7)	2.9(8)	1.6(6)	3.0(8)
C(6)	7.7(9)	6.8(9)	11.5(12)	-1.2(7)	2.4(9)	3.1(9)
C(7)	6.2(7)	5.4(7)	6.2(8)	-.6(6)	-1.6(7)	-1.2(6)
C(8)	11.6(11)	5.0(7)	8.3(10)	-2.5(8)	-1.3(9)	1.7(7)
C(9)	9.1(10)	6.2(8)	6.5(9)	3.5(7)	-2.3(7)	-2.8(7)
C(10)	2.9(4)	6.4(7)	7.9(8)	.3(5)	-.6(5)	-.4(8)
C(11)	5.9(7)	7.4(8)	7.9(10)	.7(6)	-3.4(7)	-2.8(7)
C(12)	8.0(8)	6.7(9)	6.9(10)	.6(7)	-1.5(7)	.8(7)
C(13)	7.6(8)	8.9(9)	6.7(9)	-1.7(7)	2.4(7)	3.2(7)
C(14)	8.3(8)	3.0(6)	13.5(13)	.4(5)	-2.2(9)	1.7(8)
C(15)	13.1(13)	9.0(11)	9.0(13)	4.6(11)	5.6(10)	-1.6(10)
C(16)	18.8(18)	10.2(13)	6.0(11)	8.3(13)	2.7(11)	-1.0(10)

[a] The anisotropic temperature factor has the form $\exp(-0.25(B_{11}h^2a^{*2} + 2B_{12}hka^*b^* + \ldots))$.

[b] The one isotropic thermal parameter applied to all the hydrogen atoms is B = 9.26(6) Å and the isotropic temperature factor for has the form $\exp(-B\sin^2\theta/\lambda^2)$.

OBSERVED STRUCTURE FACTORS, STANDARD DEVIATIONS, AND DIFFERENCES (ALL X 1.0)
U(N(SI(CH3)3)2)2CL2.CH3OCH2CH2OCH3 F(0,0,0) = 2673

FOB AND FCA ARE THE OBSERVED AND CALCULATED STRUCTURE FACTORS.
SG = ESTIMATED STANDARD DEVIATION OF FOB. DEL = /FOB/ - /FCA/.
* 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,	0	33	38	28	-16*	12	87	4	1	1	58	10	-3	32	41	15	1*
4	746	15	26	34	50	11	3	13	170	4	-4	2	46	9	31	34	23	27	-3*
6	544	11	2	35	96	6	6	14	214	5	3	3	149	4	-3	H,K=		1,	1
8	267	5	11	H,K=		0,	4	15	103	4	-0	4	155	6	-2	1	240	7	31
10	751	15	25	0	74	3	-0	16	0	25	-18*	5	0	29	-33*	2	747	15	-114
12	92	3	1	1	277	6	-6	17	186	5	-7	6	81	9	-1	3	144	5	-1
14	603	12	17	2	128	3	1	18	171	5	-3	7	170	6	1	4	217	7	3
16	90	3	0	3	174	4	-7	19	71	6	-4	8	107	10	-4	5	32	5	5
18	294	6	-0	4	8	18	-19*	20	81	8	1	9	26	29	-9*	6	254	8	-10
20	244	5	-7	5	221	5	4	21	128	4	8	10	181	5	4	7	196	4	-6
22	232	5	2	6	113	3	-3	22	90	10	-5	11	121	5	-6	8	361	10	-7
24	175	4	4	7	360	7	-14	23	62	13	-0	12	24	30	-24*	9	213	5	-1
26	66	6	-2	8	254	5	1	24	94	5	-2	13	59	9	-8	10	201	4	-1
28	105	4	-6	9	166	4	2	25	117	5	-4	14	179	5	7	11	151	6	-8
30	9	27	-18*	10	38	5	1	26	32	17	13*	15	92	6	-2	12	547	11	5
32	130	5	1	11	426	9	-13	27	84	6	-6	16	39	13	9*	13	169	6	-3
34	20	34	8*	12	58	8	-2	28	98	6	-5	17	92	6	2	14	27	9	-13*
36	120	5	9	13	133	3	-5	29	103	5	3	18	104	5	-0	15	99	12	-8
H,K=		0,	2	14	12	25	-26*	30	0	31	-13*	19	72	7	7	16	342	7	-5
0	243	5	-4	15	382	8	-1	31	51	23	1*	20	90	6	5	17	21	34	-24*
1	419	9	-28	16	69	4	-8	H,K=		0,	8	21	72	8	3	18	110	3	-4
2	131	3	2	17	263	6	0	0	302	6	-5	22	77	7	-5	19	93	17	-17
3	102	4	-7	18	44	17	-10*	1	60	12	-6	H,K=		0,	12	20	272	6	4
4	187	5	-6	19	218	5	-0	2	132	5	1	0	62	9	-8	21	2	21	-35*
5	127	5	1	20	31	23	-5*	3	38	9	2	1	100	6	-5	22	192	4	-2
6	203	4	-7	21	250	6	3	4	366	8	-14	2	43	12	27	23	102	3	-1
7	157	4	-6	22	46	8	-10	5	0	26	-15*	3	134	7	5	24	138	3	-1
8	298	6	2	23	83	5	1	6	243	5	-5	4	61	9	-3	25	9	32	6*
9	87	4	-1	24	0	40	-19*	7	0	26	-6*	5	47	12	3	26	156	4	-0
10	352	7	10	25	232	6	3	8	238	5	-5	6	33	21	11*	27	56	11	7
11	379	8	-2	26	39	43	35*	9	0	28	-31*	7	122	5	-7	28	0	23	-18*
12	0	27	-20*	27	76	6	4	10	214	5	-7	8	18	31	-7*	29	41	44	-15*
13	220	5	4	28	0	29	-40*	11	44	36	-1*	9	13	32	-10*	30	141	4	2
14	303	6	-2	29	175	5	1	12	0	29	-28*	10	69	8	0	31	20	37	-14*
15	165	4	4	30	0	35	-35*	13	36	39	-12*	11	127	5	1	32	32	11	2*
16	0	21	-7*	31	120	8	9	14	269	6	-1	12	20	32	-4*	33	58	13	-11
17	125	6	4	32	0	31	-2*	15	72	9	1	13	66	8	18	34	113	4	-1
18	288	7	-3	33	64	8	-2	16	62	7	10	H,K=		1,	0	35	14	32	-11*
19	52	6	2	34	0	32	-15*	17	0	28	-6*	4	91	2	-9	H,K=		1,	2
20	132	4	-7	H,K=		0,	6	18	204	6	-0	6	73	5	-5	1	136	3	-5
21	182	4	0	0	312	7	-5	19	21	31	-8*	8	123	4	-4	2	102	3	-4
22	159	7	7	1	83	3	-4	20	52	9	-2	10	137	3	4	3	10	22	2*
23	62	6	-5	2	114	3	-2	21	57	8	2	12	149	3	2	4	48	6	1
24	204	5	4	3	336	7	-2	22	110	6	1	14	59	4	3	5	52	2	7
25	169	6	2	4	225	5	-3	23	2	34	-10*	16	153	3	7	6	133	3	4
26	20	27	-13*	5	0	21	-17*	24	109	5	3	18	71	5	4	7	46	11	-8
27	18	30	-12*	6	247	6	-2	25	48	12	18	20	34	5	-2	8	131	4	3
28	172	4	-1	7	335	7	-1	26	42	25	-9*	22	57	4	4	9	48	5	0
29	87	9	-3	8	122	4	-4	27	9	35	-1*	24	59	5	3	10	135	3	2
30	0	29	-9*	9	14	22	6*	28	125	5	4	26	39	8	2	11	26	7	-2
31	121	7	-5	10	108	3	2	H,K=		0,	10	28	0	27	-14*	12	102	3	3
32	106	7	-1	11	99	4	-1	0	153	4	3	30	35	9	-1	13	62	3	-1

STRUCTURE FACTORS CONTINUED FOR
U(N(SI(CH3)3)2)2CL2.CH3OCH2CH2OCH3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
14	26	5	16	34	28	32	-5*	20	52	12	-12	10	164	4	-5	6	201	4	-1
15	19	10	2*	H,K=		1,	4	21	47	6	-3	11	42	9	-2	7	35	10	-1
16	46	3	2	1	85	2	-2	22	76	5	2	12	245	5	-3	8	159	4	-4
17	50	3	-0	2	0	23	-8*	23	169	5	1	13	88	4	-0	9	44	7	2
18	55	3	3	3	16	20	-11*	24	44	10	10	14	17	21	8*	10	97	5	2
19	39	5	8	4	101	2	-0	25	72	5	-0	15	83	5	4	11	0	24	-11*
20	20	20	3*	5	150	3	1	26	63	5	8	16	269	6	-10	12	193	4	-2
21	16	20	-0*	6	21	22	14*	27	162	4	4	17	72	10	0	13	0	41	-15*
22	26	10	7*	7	61	3	2	28	30	34	3*	18	42	7	-0	14	7	27	3*
23	57	4	-3	8	106	3	4	29	89	4	2	19	87	4	-3	15	62	7	-4
24	29	9	9*	9	34	5	-5	30	42	9	-5	20	173	5	0	16	188	4	3
25	12	22	6*	10	20	7	8*	31	90	4	2	21	15	24	13*	17	24	38	8*
26	34	8	-1	11	30	5	8	32	21	26	15*	22	58	7	-4	18	63	5	-4
27	23	33	10*	12	65	3	-1	33	90	8	5	23	90	5	-1	19	32	11	9*
28	15	23	7*	13	0	17	-12*	H,K=		1,	6	24	84	8	-1	20	127	4	3
29	0	25	-2*	14	19	23	-2*	1	34	6	-4	25	40	9	-10	21	0	25	-21*
30	24	22	-7*	15	7	18	0*	2	15	21	4*	26	122	4	-4	22	103	4	-0
31	22	24	16*	16	46	6	-3	3	16	17	3*	27	71	6	1	23	20	27	3*
32	21	26	8*	17	45	5	-1	4	19	12	-6*	28	44	8	2	24	71	5	-1
33	23	25	17*	18	19	24	15*	5	0	18	-7*	29	25	26	0*	25	14	27	4*
34	0	26	-8*	19	29	14	-6*	6	74	3	-3	30	90	7	4	H,K=		1,	10
35	13	26	-6*	20	38	7	7	7	47	4	2	H,K=		1,	8	1	38	9	9
H,K=		1,	3	21	8	21	4*	8	43	4	-4	1	55	4	2	2	90	7	-0
1	348	11	-9	22	43	6	10	9	54	5	5	2	19	21	-3*	3	0	27	-2*
2	135	4	9	23	21	23	-4*	10	30	8	1	3	12	21	-6*	4	50	7	1
3	326	9	3	24	30	15	-3*	11	24	10	-8*	4	35	7	4	5	40	8	3
4	170	4	1	25	25	15	11*	12	59	4	1	5	35	7	3	6	29	23	-2*
5	284	6	3	26	0	28	-7*	13	27	13	5*	6	36	12	-7*	7	29	18	27*
6	230	6	0	27	26	15	5*	14	26	28	-2*	7	21	18	3*	8	61	9	-2
7	191	4	4	28	20	23	7*	15	22	13	5*	8	31	9	24*	9	12	24	-8*
8	156	3	0	29	28	14	22*	16	35	7	4	9	31	9	15	10	4	26	-1*
9	391	10	-16	30	0	25	-7*	17	39	6	10	10	46	6	-1	11	0	25	-2*
10	161	3	3	31	30	13	12*	18	8	26	-4*	11	22	25	19*	12	38	9	2
11	76	3	-1	32	9	25	3*	19	22	22	9*	12	32	9	-8	13	14	24	-1*
12	127	4	-3	33	0	26	-8*	20	17	24	6*	13	20	22	4*	14	15	25	5*
13	454	10	4	34	17	27	14*	21	34	11	-8*	14	18	30	10*	15	23	24	6*
14	40	13	-2*	H,K=		1,	5	22	18	23	15*	15	15	23	9*	16	13	28	-11*
15	188	4	-1	1	264	5	-13	23	32	24	13*	16	49	6	3	17	13	25	4*
16	177	4	-0	2	145	3	-3	24	0	25	-8*	17	28	29	5*	18	30	15	16*
17	190	4	1	3	131	3	-2	25	29	12	3*	18	23	29	4*	19	31	14	10*
18	24	21	-10*	4	10	16	-3*	26	19	26	9*	19	0	30	-12*	20	35	12	13*
19	223	5	3	5	413	8	-13	27	37	9	3	20	40	8	-5	21	15	26	13*
20	120	3	-2	6	45	5	9	28	11	25	-4*	21	19	23	9*	22	43	9	7
21	120	3	-4	7	29	6	-16	29	0	25	-10*	22	0	33	-22*	H,K=		1,	11
22	98	4	-2	8	65	3	-3	30	32	18	10*	23	11	24	7*	1	134	4	-6
23	236	5	-3	9	321	7	-4	31	29	17	11*	24	22	25	-1*	2	109	4	2
24	0	43	-10*	10	20	9	10*	H,K=		1,	7	25	18	33	3*	3	85	5	4
25	21	23	-7*	11	96	3	-4	1	129	3	-1	26	44	15	13*	4	17	25	7*
26	128	5	-2	12	70	3	3	2	360	8	-6	27	0	26	-8*	5	188	5	5
27	191	7	0	13	202	4	-6	3	23	11	2*	28	0	27	-2*	6	91	4	5
28	26	16	0*	14	75	4	-4	4	254	5	-3	H,K=		1,	9	7	43	8	6
29	97	5	-9	15	267	8	-5	5	199	4	-1	1	25	15	9*	8	98	4	6
30	86	4	-4	16	82	4	2	6	343	7	-12	2	201	5	-6	9	170	4	-0
31	96	4	-2	17	173	4	-3	7	22	12	15*	3	30	24	-3*	10	58	10	7
32	0	41	-16*	18	64	5	-4	8	226	5	-5	4	87	5	0	11	21	28	-1*
33	113	4	-2	19	232	5	-2	9	122	3	-0	5	68	4	1	12	120	5	4

STRUCTURE FACTORS CONTINUED FOR
U(N(SI(CH3)3)2)2CL2.CH3OCH2CH2OCH3 PAGE 3

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
13	141	4	3	16	73	3	-10	35	66	6	-3	18	16	22	-15*	4	187	4	-6
14	13	33	-14*	17	35	48	-5*	H,K=		2,	3	19	145	3	-3	5	25	8	0*
15	72	6	2	18	81	3	-2	0	179	4	9	20	0	26	-5*	6	133	3	0
16	71	5	-1	19	31	21	-9*	1	61	5	8	21	259	5	-5	7	325	9	-6
17	98	4	-2	20	20	29	-27*	2	110	4	4	22	0	23	-8*	8	165	4	-7
18	47	8	17	21	39	13	-6*	3	175	4	5	23	41	9	2	9	87	3	3
H,K=		1,	12	22	61	4	2	4	177	4	2	24	0	37	-20*	10	181	4	2
1	31	14	15*	23	0	22	-10*	5	12	21	5*	25	193	5	2	11	189	4	-5
2	9	31	2*	24	39	22	-18*	6	292	10	-0	26	16	35	0*	12	77	3	-3
3	34	18	15*	25	37	40	-17*	7	72	2	6	27	68	5	-4	13	191	5	2
4	23	29	11*	26	73	4	4	8	110	3	2	28	0	24	-6*	14	201	4	-4
5	0	26	-21*	27	0	33	-10*	9	130	3	3	29	124	4	-1	15	98	3	2
6	18	27	14*	28	76	5	-1	10	131	3	1	30	0	26	-17*	16	34	11	6*
7	22	26	21*	29	0	32	-4*	11	78	2	-1	31	100	4	6	17	178	4	-4
8	19	26	15*	30	7	23	-13*	12	14	16	2*	32	24	26	15*	18	143	4	-0
9	44	9	7	31	9	29	2*	13	15	17	4*	33	52	15	-3*	19	18	22	2*
10	19	28	12*	32	61	5	5	14	47	6	-7	34	0	37	-7*	20	64	5	4
11	33	13	12*	33	0	26	-10*	15	93	3	1	H,K=		2,	5	21	145	4	-2
12	21	36	16*	34	37	10	3	16	48	4	5	0	34	5	-7	22	102	6	-1
13	43	18	19*	35	34	37	24*	17	71	3	0	1	58	3	-3	23	49	9	-4
H,K=		2,	0	H,K=		2,	2	18	83	3	3	2	39	4	-4	24	77	4	-2
0	827	18	24	0	198	4	5	19	52	5	-3	3	149	3	3	25	123	4	-4
2	69	2	1	1	283	6	1	20	36	8	-5	4	87	2	-2	26	38	9	-8
4	564	13	12	2	70	4	10	21	95	4	-0	5	26	7	2	27	73	5	3
6	312	7	1	3	330	9	-7	22	0	21	-5*	6	33	5	6	28	95	4	2
8	397	9	12	4	170	4	3	23	0	22	-8*	7	139	3	0	29	88	6	6
10	488	10	-0	5	56	5	3	24	26	20	3*	8	52	5	-1	30	29	29	16*
12	162	3	-6	6	88	4	2	25	63	5	-2	9	35	5	-8	31	71	6	7
14	463	10	-0	7	340	10	-3	26	25	26	22*	10	89	4	-7	H,K=		2,	7
16	26	7	12	8	227	8	-1	27	22	23	0*	11	59	3	-0	0	32	8	1
18	287	6	-5	9	117	3	1	28	0	23	-15*	12	14	18	-1*	1	44	5	-0
20	129	3	1	10	147	3	-3	29	22	35	2*	13	29	7	1	2	17	19	-2*
22	240	5	3	11	281	9	-4	30	29	16	20*	14	86	3	-1	3	78	3	-3
24	113	5	2	12	84	3	1	31	25	27	7*	15	49	4	-8	4	84	4	-1
26	96	3	1	13	159	4	-7	32	0	27	-8*	16	50	6	4	5	70	6	-4
28	155	4	-3	14	266	6	2	33	28	33	6*	17	94	3	3	6	27	11	7*
30	0	26	-12*	15	162	4	-3	34	28	29	23*	18	12	21	-5*	7	40	6	-8
32	140	4	2	16	0	21	-16*	H,K=		2,	4	19	24	13	-7*	8	103	5	1
34	10	25	-12*	17	172	4	1	0	85	3	4	20	33	9	6	9	41	6	-6
H,K=		2,	1	18	201	4	-3	1	417	11	4	21	45	6	-7	10	69	4	2
0	180	4	11	19	8	19	-24*	2	70	3	0	22	21	24	15*	11	74	4	-3
1	164	3	12	20	117	6	-6	3	453	14	-13	23	38	13	36*	12	48	7	-3
2	9	13	-16*	21	197	4	-2	4	54	3	-6	24	23	26	2*	13	35	7	9
3	185	4	19	22	143	4	-0	5	159	7	1	25	58	5	3	14	72	4	-7
4	142	3	-14	23	15	36	11*	6	34	4	3	26	55	6	14	15	11	22	-19*
5	82	5	8	24	135	7	-5	7	439	14	-5	27	15	24	1*	16	17	22	-5*
6	34	8	-13	25	134	4	-1	8	63	5	3	28	11	24	-1*	17	14	22	7*
7	44	13	4	26	45	7	-12	9	2	16	-8*	29	43	8	4	18	57	5	4
8	157	23	-15	27	66	14	-10	10	0	18	-4*	30	26	27	9*	19	32	10	2*
9	142	34	-41	28	146	5	-3	11	375	11	-11	31	0	32	-25*	20	31	17	8*
10	173	8	-14	29	86	7	-0	12	0	18	-9*	32	0	29	-15*	21	45	9	12
11	64	22	-23*	30	0	24	-9*	13	187	4	-5	H,K=		2,	6	22	42	9	-9
12	66	14	-17	31	78	11	-10	14	0	18	-5*	0	247	5	2	23	50	6	13
13	48	8	0	32	103	4	2	15	300	9	-6	1	135	3	1	24	40	13	-2*
14	173	4	-5	33	57	15	4	16	20	21	-17*	2	40	5	9	25	31	12	-9*
15	110	17	-18	34	40	9	-1	17	262	5	-7	3	305	6	-5	26	42	10	16

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
27	0	26	-2*	21	28	20	1*	6	0	32	-17*	31	21	39	-15*	16	74	4	-0
28	70	6	13	22	41	9	-7	7	146	4	5	32	0	31	-16*	17	208	7	-1
29	22	32	-10*	23	12	25	11*	8	24	32	4*	33	27	82	-13*	18	51	9	-19
30	28	27	26*	24	43	9	0	9	0	27	-19*	34	94	4	-0	19	278	6	-2
H,K=		2,	8	25	28	30	13*	10	18	27	-12*	35	0	40	-12*	20	50	12	-2
0	285	6	-4	H,K=		2,	10	11	120	8	-1	H,K=		3,	2	21	57	4	-3
1	39	6	-2	0	126	4	0	12	31	18	7*	1	157	4	-3	22	70	11	-11
2	67	4	-9	1	72	6	-2	H,K=		3,	0	2	248	5	1	23	198	4	-2
3	70	5	-3	2	32	11	7*	2	179	4	14	3	29	16	9*	24	60	6	-1
4	267	6	-6	3	128	4	2	4	206	4	7	4	59	7	5	25	43	8	-11
5	28	10	-11*	4	124	4	-0	6	195	4	4	5	145	4	-3	26	77	4	5
6	175	4	-4	5	31	33	3*	8	76	3	-4	6	188	4	4	27	109	8	3
7	97	4	-1	6	79	4	-2	10	149	3	2	7	20	10	5*	28	0	30	-12*
8	215	5	-3	7	143	5	-2	12	225	5	-0	8	123	3	4	29	67	5	-3
9	20	23	-3*	8	89	4	-3	14	34	6	8	9	133	3	-1	30	47	7	4
10	193	4	-4	9	13	24	3*	16	246	5	-3	10	101	3	-3	31	68	5	-3
11	78	4	2	10	114	4	-2	18	29	7	4	11	7	31	1*	32	8	25	-7*
12	86	4	0	11	113	4	3	20	116	4	-1	12	147	4	-7	33	62	6	-5
13	26	14	4*	12	34	11	-13*	22	63	4	3	13	171	4	-2	34	28	20	-12*
14	232	5	2	13	40	8	1	24	88	5	3	14	26	10	4*	H,K=		3,	4
15	24	31	-11*	14	121	4	-6	26	120	3	1	15	112	4	1	1	287	8	4
16	26	27	17*	15	83	4	-4	28	35	41	-3*	16	84	4	-5	2	21	14	2*
17	26	27	-4*	16	0	25	-7*	30	107	4	-0	17	111	3	-1	3	121	3	3
18	188	5	-2	17	60	7	2	32	24	27	1*	18	14	24	-7*	4	49	3	3
19	17	35	17*	18	118	4	-0	34	66	12	7	19	83	4	-6	5	279	8	2
20	71	4	3	19	43	13	-7*	H,K=		3,	1	20	74	3	-6	6	29	6	-2
21	35	10	5	20	64	6	-1	1	70	3	-5	21	27	12	-1*	7	9	23	-6*
22	114	4	-5	21	65	7	-0	2	300	6	4	22	5	32	-21*	8	60	3	2
23	0	30	-10*	22	84	5	5	3	28	5	-7	23	80	7	1	9	162	3	-3
24	114	4	-1	H,K=		2,	11	4	95	3	1	24	74	5	-2	10	44	4	4
25	11	28	-7*	0	84	4	6	5	146	3	6	25	35	14	-1*	11	87	3	-4
26	66	9	2	1	44	11	-1	6	448	9	6	26	36	9	-12	12	26	8	3*
27	0	26	-3*	2	29	31	10*	7	60	8	1	27	60	9	-7	13	124	3	1
28	113	5	7	3	64	8	4	8	228	5	4	28	30	18	-1*	14	0	22	-6*
H,K=		2,	9	4	47	7	-1	9	68	5	5	29	25	27	-12*	15	172	4	1
0	131	4	1	5	0	26	-5*	10	202	4	-2	30	58	10	-2	16	22	18	-2*
1	10	26	3*	6	61	11	7	11	92	17	80	31	0	31	-27*	17	70	3	0
2	54	5	-0	7	74	5	7	12	307	9	-7	32	26	17	22*	18	26	10	-2*
3	36	8	2	8	27	16	22*	13	94	3	-4	33	0	26	-18*	19	152	4	0
4	86	4	-1	9	39	11	8	14	62	8	0	34	26	32	-11*	20	0	22	-3*
5	29	15	28*	10	52	10	11	15	60	5	4	H,K=		3,	3	21	25	12	10*
6	84	4	-3	11	72	6	11	16	285	6	-2	1	462	12	4	22	48	11	-5
7	20	23	13*	12	29	15	23*	17	46	7	-9	2	91	4	-1	23	102	5	4
8	49	7	3	13	39	10	-4	18	68	5	-15	3	207	4	2	24	0	29	-8*
9	47	6	10	14	30	15	15*	19	120	4	-7	4	148	3	1	25	39	17	6*
10	69	7	-5	15	43	9	30	20	203	8	-11	5	502	16	-7	26	0	26	-14*
11	37	8	16	16	33	13	31*	21	10	26	-4*	6	90	3	7	27	73	6	7
12	37	9	2	17	34	13	-1*	22	76	9	3	7	66	3	0	28	0	28	-11*
13	24	33	-5*	18	39	10	21	23	87	5	-5	8	122	3	0	29	49	8	-1
14	69	5	-3	H,K=		2,	12	24	132	13	-10	9	384	11	-3	30	25	32	19*
15	41	8	-1	0	54	11	1	25	58	11	-3	10	25	13	0*	31	31	13	-1*
16	20	24	14*	1	97	4	6	26	126	12	-13	11	115	3	2	32	33	12	31*
17	34	14	23*	2	14	26	12*	27	42	17	-20*	12	123	3	-5	33	47	15	1*
18	67	6	-2	3	132	4	5	28	28	60	-22*	13	275	6	-8	H,K=		3,	5
19	41	8	-1	4	52	7	16	29	72	6	3	14	35	5	-1	1	347	10	6
20	39	10	-2	5	42	10	3	30	155	5	2	15	201	4	-7	2	92	3	2

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
3	154	4	-4	26	40	9	-3	20	95	5	2	22	37	12	-0*	4	193	4	-2
4	46	4	9	27	53	6	-8	21	29	30	4*	H,K=		3,	11	5	119	3	7
5	363	7	-10	28	0	26	-26*	22	62	5	2	1	117	5	1	6	61	2	10
6	57	3	-3	29	31	34	-6*	23	32	12	23*	2	92	4	-1	7	226	5	10
7	17	18	10*	30	44	9	2	24	71	5	4	3	69	5	2	8	144	3	0
8	107	3	-0	31	39	10	11	25	0	26	-13*	4	65	7	6	9	85	2	3
9	322	7	-4	H,K=		3,	7	26	60	6	-2	5	157	5	1	10	54	5	-6
10	42	5	-9	1	74	4	-2	27	22	31	13*	6	70	5	7	11	134	3	3
11	148	4	-4	2	275	6	-4	H,K=		3,	9	7	38	9	13	12	75	3	2
12	157	4	-3	3	67	6	-5	1	33	9	9	8	61	7	6	13	90	4	-0
13	264	6	-3	4	66	3	2	2	175	4	2	9	145	4	-3	14	217	5	9
14	95	3	-8	5	178	4	-5	3	27	13	18*	10	51	8	8	15	116	4	-1
15	194	4	-0	6	235	5	2	4	102	4	-1	11	44	12	8	16	30	34	10*
16	50	7	-4	7	22	15	12*	5	11	26	3*	12	52	10	4	17	135	9	26
17	89	4	4	8	182	4	-4	6	130	4	-1	13	115	6	5	18	217	22	-20
18	60	4	-6	9	200	4	2	7	4	24	-18*	14	27	22	8*	19	92	5	-6
19	215	5	-5	10	184	4	-3	8	123	4	-0	15	84	5	11	20	15	82	2*
20	0	26	-17*	11	83	4	3	9	32	10	19*	16	73	5	7	21	7	75	-15*
21	14	22	4*	12	227	5	1	10	80	4	-3	17	77	6	13	22	121	4	-1
22	29	21	11*	13	104	3	1	11	25	27	11*	H,K=		3,	12	23	0	26	-1*
23	195	5	-0	14	62	5	-7	12	146	6	2	1	56	7	5	24	97	9	-8
24	0	46	-24*	15	101	4	-0	13	34	23	-1*	2	29	18	16*	25	37	10	-9*
25	44	12	-7	16	176	4	-1	14	24	30	5*	3	41	10	3	26	41	10	-12
26	36	10	-4	17	29	28	-0*	15	0	24	-13*	4	32	13	21*	27	0	32	-30*
27	133	4	4	18	11	23	-7*	16	157	4	1	5	61	9	-7	28	114	11	-16
28	0	33	-11*	19	90	4	-4	17	48	9	1	6	31	15	28*	29	43	47	-10*
29	80	5	-1	20	148	4	1	18	49	7	10	7	24	26	20*	30	27	18	13*
30	60	11	4	21	6	31	-15*	19	16	25	-10*	8	17	34	12*	31	0	82	-11*
31	48	9	-3	22	80	6	-6	20	131	4	4	9	78	5	1	32	84	10	2
32	0	26	-10*	23	77	5	-0	21	7	26	2*	10	18	27	10*	33	0	35	-13*
H,K=		3,	6	24	101	4	-1	22	95	5	0	11	43	9	18	34	10	26	-5*
1	87	3	3	25	35	11	11*	23	53	10	8	12	22	27	18*	H,K=		4,	2
2	128	3	-1	26	98	5	3	24	62	6	-0	H,K=		4,	0	0	392	8	6
3	92	3	-3	27	66	6	4	25	0	36	-11*	0	91	4	-7	1	145	3	2
4	59	4	2	28	58	6	4	H,K=		3,	10	2	94	3	9	2	46	7	-1
5	113	3	2	29	15	27	-19*	1	50	9	1	4	531	11	12	3	232	5	7
6	86	3	-1	H,K=		3,	8	2	146	5	-0	6	205	4	7	4	269	5	5
7	27	8	-4*	1	10	22	-18*	3	25	18	6*	8	364	7	-6	5	25	5	5
8	80	3	-1	2	103	4	-1	4	71	5	-1	10	270	6	1	6	332	7	9
9	200	5	1	3	23	15	21*	5	44	14	-0*	12	77	2	-1	7	239	5	0
10	48	4	2	4	31	9	1*	6	86	4	-8	14	336	7	3	8	140	3	2
11	27	9	11*	5	21	29	-1*	7	14	30	6*	16	5	26	-12*	9	21	9	11*
12	108	4	1	6	66	5	-3	8	105	4	-4	18	298	6	3	10	236	5	3
13	162	4	-0	7	0	23	-6*	9	54	6	-7	20	48	7	-1	11	120	8	-3
14	19	21	0*	8	81	4	2	10	27	15	-9*	22	206	4	-2	12	48	11	-12
15	33	8	-3	9	41	9	10	11	20	26	10*	24	79	4	-4	13	35	54	-21*
16	81	4	-6	10	87	4	-4	12	76	5	-2	26	100	4	-1	14	201	11	-9
17	65	5	1	11	28	13	3*	13	47	7	-7	28	168	4	5	15	160	7	-15
18	22	25	-2*	12	98	4	-3	14	23	25	16*	30	18	33	-3*	16	66	84	-40*
19	95	4	-4	13	30	11	13*	15	22	29	-2*	32	116	4	1	17	180	7	-7
20	32	11	1*	14	48	6	3	16	68	5	6	34	31	16	-11*	18	61	31	-23*
21	41	12	5*	15	8	29	-6*	17	24	25	9*	H,K=		4,	1	19	99	30	-17*
22	27	31	10*	16	91	4	5	18	37	10	17	0	140	4	-1	20	119	6	1
23	107	4	1	17	24	18	5*	19	37	20	-3*	1	31	10	-5*	21	194	5	-3
24	49	6	4	18	21	24	-10*	20	52	7	5	2	168	4	2	22	50	16	-18*
25	24	21	10*	19	21	28	2*	21	19	28	14*	3	222	5	5	23	9	71	-18*

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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
24	64	75	-34*	9	52	3	1	30	16	26	-0*	20	61	5	-5	17	25	19	18*
25	89	6	-11	10	16	18	12*	31	68	6	6	21	101	4	-4	18	101	4	6
26	33	54	-7*	11	296	6	1	32	24	26	10*	22	105	6	-2	19	0	27	-7*
27	58	79	-20*	12	77	3	-2	H,K=		4,	6	23	16	25	9*	20	38	11	-5*
28	88	9	-14	13	133	3	-1	0	151	4	-1	24	92	4	2	21	23	27	2*
29	62	11	-3	14	25	16	15*	1	96	3	-2	25	60	6	2	22	66	6	-9
30	0	51	-8*	15	203	4	-3	2	35	5	16	26	55	7	-3	23	17	26	-0*
31	44	58	-7*	16	66	4	-1	3	98	3	1	27	32	14	2*	24	52	7	3
32	68	7	-8	17	176	4	3	4	148	3	-5	28	67	6	-1	H,K=		4,	10
33	19	30	-17*	18	30	9	-1*	5	44	4	-1	29	32	14	8*	0	135	4	-3
34	22	38	-6*	19	77	6	-3	6	75	3	-0	H,K=		4,	8	1	75	7	2
H,K=		4,	3	20	13	33	-7*	7	165	4	-1	0	255	5	-3	2	70	7	2
0	234	5	10	21	209	5	-1	8	161	4	-1	1	8	25	-8*	3	102	5	7
1	228	5	11	22	30	16	-12*	9	42	5	2	2	44	6	3	4	115	4	6
2	59	2	3	23	0	26	-7*	10	211	4	-0	3	67	5	3	5	29	16	-10*
3	390	9	5	24	21	26	-8*	11	192	4	-1	4	189	4	2	6	98	4	1
4	150	3	0	25	137	4	-1	12	44	5	2	5	56	5	4	7	113	4	4
5	78	2	2	26	23	24	6*	13	97	3	2	6	115	3	-2	8	66	6	2
6	77	3	4	27	48	7	-7	14	142	3	5	7	111	5	3	9	14	27	8*
7	271	6	4	28	23	24	17*	15	113	3	-2	8	151	4	1	10	82	4	-0
8	68	3	4	29	80	5	1	16	18	23	16*	9	26	14	11*	11	89	4	-2
9	62	4	5	30	15	32	11*	17	127	5	-1	10	163	4	-7	12	36	9	22
10	188	4	1	31	61	6	-1	18	68	7	-4	11	57	7	4	13	51	7	23
11	210	7	-2	32	0	27	-7*	19	38	8	18	12	76	4	2	14	81	5	-7
12	83	3	-2	33	49	9	2	20	40	8	4	13	51	10	-1	15	76	5	1
13	229	5	-4	H,K=		4,	5	21	149	4	2	14	178	4	3	16	15	31	1*
14	70	4	-8	0	171	4	5	22	81	8	-3	15	16	33	9*	17	41	42	-4*
15	94	3	1	1	241	5	2	23	0	24	-18*	16	0	30	-7*	18	98	4	6
16	36	42	-10*	2	87	3	0	24	52	7	-3	17	24	26	-8*	19	43	12	11
17	237	5	0	3	279	6	2	25	115	4	-1	18	148	4	-1	20	59	6	7
18	0	25	-18*	4	153	3	-2	26	63	6	6	19	0	31	-6*	21	66	9	2
19	29	10	-8*	5	87	3	1	27	56	9	15	20	82	4	6	H,K=		4,	11
20	60	7	3	6	104	3	-0	28	56	8	-10	21	22	30	14*	0	43	8	15
21	85	4	1	7	240	5	-3	29	63	11	4	22	106	4	1	1	65	5	0
22	55	6	-10	8	68	4	-1	30	27	28	10*	23	0	31	-9*	2	39	13	21*
23	30	20	7*	9	133	3	-3	H,K=		4,	7	24	91	4	-1	3	92	4	3
24	20	36	-3*	10	18	19	4*	0	179	4	1	25	21	26	11*	4	39	10	-13
25	107	4	-2	11	276	6	-2	1	86	3	-3	26	54	7	-0	5	28	15	18*
26	48	20	-5*	12	28	11	-5*	2	31	7	12	H,K=		4,	9	6	50	8	6
27	62	5	-3	13	135	3	1	3	84	3	2	0	159	5	1	7	97	4	1
28	0	26	-14*	14	94	3	-0	4	91	3	-5	1	46	6	3	8	46	15	-2*
29	93	4	10	15	131	4	-5	5	30	8	9	2	4	24	-3*	9	39	9	1
30	7	29	1*	16	17	21	14*	6	41	6	-1	3	27	18	14*	10	41	14	5*
31	64	6	1	17	144	4	3	7	109	3	-2	4	148	4	-1	11	83	5	2
32	53	7	17	18	95	6	-2	8	52	11	2	5	38	9	16	12	15	28	7*
33	22	26	-10*	19	24	24	13*	9	33	9	6	6	87	4	1	13	25	26	-17*
H,K=		4,	4	20	30	11	-7*	10	139	3	-2	7	0	29	-7*	14	41	14	-4*
0	65	3	4	21	159	4	-1	11	119	4	-4	8	105	4	-0	15	33	14	-2*
1	294	6	5	22	11	27	-8*	12	112	4	-4	9	13	25	3*	16	42	9	16
2	17	19	9*	23	0	24	-2*	13	9	23	-3*	10	131	4	1	H,K=		4,	12
3	404	8	-1	24	24	32	-1*	14	123	3	-2	11	78	4	2	0	21	33	-18*
4	53	3	3	25	116	4	2	15	78	6	-5	12	63	5	-0	1	76	7	7
5	72	3	6	26	16	25	-6*	16	10	23	-4*	13	14	24	-6*	2	0	35	-16*
6	35	8	1	27	23	25	-7*	17	43	7	-9	14	107	4	-2	3	106	4	-1
7	383	12	-4	28	31	15	1*	18	92	6	-5	15	34	10	-3*	4	36	11	15*
8	40	7	9	29	39	10	-5	19	0	33	-20*	16	28	13	26*	5	44	9	12

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
6	30	17	11*	33	32	54	-5*	20	14	27	-4*	9	191	4	-0	2	182	4	1
7	127	4	-0	34	66	8	-1	21	23	31	-3*	10	29	7	7	3	30	8	7
8	21	27	-2*	H,K=		5,	2	22	41	59	-16*	11	53	4	-1	4	43	6	6
9	10	31	-0*	1	238	5	4	23	118	4	-2	12	96	3	1	5	56	5	3
10	16	41	2*	2	237	5	-2	24	23	24	3*	13	149	3	0	6	156	4	3
H,K=		5,	0	3	125	3	5	25	0	32	-22*	14	61	6	-1	7	17	21	-8*
2	354	7	8	4	72	2	-2	26	28	49	-30*	15	92	3	1	8	108	3	1
4	208	4	-5	5	420	9	10	27	78	5	2	16	28	10	18*	9	78	4	-1
6	303	6	2	6	137	3	1	28	24	25	20*	17	102	4	-0	10	107	5	-5
8	99	2	7	7	133	3	-4	29	6	28	-25*	18	25	26	7*	11	14	24	7*
10	88	2	0	8	142	3	2	30	21	38	-4*	19	128	3	2	12	145	5	-3
12	167	4	1	9	263	5	0	31	61	8	3	20	16	24	3*	13	69	4	3
14	39	4	2	10	170	4	0	32	17	38	7*	21	41	10	7	14	59	8	2
16	366	8	6	11	113	3	-0	33	47	11	-2	22	18	29	-10*	15	51	6	3
18	26	9	15*	12	199	4	1	H,K=		5,	4	23	132	5	0	16	134	4	4
20	252	5	1	13	96	10	-1	1	298	6	6	24	0	27	-7*	17	44	13	9
22	84	4	-3	14	118	5	3	2	0	17	-4*	25	19	24	-6*	18	15	23	2*
24	49	6	-2	15	285	7	-4	3	162	3	4	26	0	25	-17*	19	50	9	-5
26	191	5	-0	16	199	5	1	4	108	3	0	27	97	5	6	20	119	5	-0
28	29	17	13*	17	102	4	-1	5	279	6	5	28	34	11	22*	21	30	12	21*
30	138	4	2	18	19	35	-14*	6	70	3	4	29	45	8	-3	22	77	4	2
32	8	26	4*	19	90	25	-11	7	12	18	6*	30	20	27	-7*	23	46	8	-6
34	84	6	13	20	160	5	-8	8	59	3	5	31	45	18	-3*	24	67	5	1
H,K=		5,	1	21	30	52	-28*	9	293	6	-0	H,K=		5,	6	25	0	27	-10*
1	110	2	0	22	81	5	-3	10	15	22	7*	1	256	5	1	26	69	5	6
2	360	7	3	23	29	44	-6*	11	182	4	-3	2	165	4	2	27	52	11	7
3	6	17	-3*	24	91	4	-3	12	107	4	-6	3	196	4	1	28	20	26	-7*
4	75	2	5	25	29	53	-11*	13	235	5	-2	4	61	4	3	H,K=		5,	8
5	12	16	-5*	26	62	79	-26*	14	40	5	3	5	196	4	-2	1	16	27	3*
6	321	7	3	27	110	5	-1	15	238	5	-1	6	49	4	-4	2	208	5	1
7	105	3	1	28	12	25	-22*	16	108	4	-3	7	58	4	-1	3	38	8	-6
8	294	6	0	29	28	51	-22*	17	59	5	4	8	56	4	-1	4	9	22	-8*
9	12	15	-7*	30	60	40	-15*	18	54	8	-5	9	243	5	-4	5	39	7	-4
10	150	3	2	31	77	9	7	19	156	4	-0	10	86	4	0	6	106	3	-1
11	60	3	0	32	14	30	8*	20	35	12	-9*	11	78	4	-2	7	33	10	0
12	249	5	4	33	3	56	-32*	21	28	12	20*	12	111	4	0	8	164	4	-1
13	45	7	2	H,K=		5,	3	22	30	45	-16*	13	214	5	-3	9	33	9	12
14	25	11	-4*	1	283	6	5	23	157	4	4	14	97	3	-3	10	85	5	-2
15	0	26	-10*	2	169	4	-0	24	43	12	0	15	38	9	1	11	0	27	-3*
16	256	5	-3	3	148	3	-0	25	26	31	2*	16	124	3	5	12	169	4	0
17	90	4	4	4	139	3	4	26	14	38	1*	17	75	4	2	13	33	12	13*
18	76	25	-7*	5	299	6	3	27	125	5	4	18	20	30	14*	14	55	5	0
19	71	44	-2*	6	94	3	-0	28	18	26	17*	19	130	5	-6	15	13	33	-12*
20	151	16	-14	7	36	4	-3	29	78	5	-1	20	97	5	-0	16	121	4	-5
21	0	37	-28*	8	214	5	5	30	0	33	-13*	21	25	21	19*	17	24	28	6*
22	97	4	-4	9	265	6	6	31	56	10	-4	22	72	5	0	18	56	9	4
23	53	66	-24*	10	15	18	4*	32	16	41	-8*	23	146	4	-2	19	23	25	-22*
24	74	20	-11	11	101	3	-1	H,K=		5,	5	24	80	8	2	20	109	4	-1
25	39	45	6*	12	127	3	5	1	146	3	-1	25	0	25	-5*	21	25	20	18*
26	129	4	-2	13	170	4	-1	2	53	8	-2	26	91	4	7	22	100	4	4
27	41	86	-13*	14	41	5	-8	3	105	3	3	27	56	6	4	23	28	34	7*
28	16	32	-1*	15	129	4	2	4	65	3	1	28	0	28	-14*	24	88	7	-0
29	17	63	-24*	16	65	6	-8	5	183	4	4	29	14	27	-21*	25	45	9	4
30	91	6	-3	17	107	5	-3	6	69	4	1	30	54	7	3	26	70	6	4
31	20	43	-4*	18	73	23	-12*	7	30	6	0	H,K=		5,	7	H,K=		5,	9
32	15	26	-7*	19	158	4	-3	8	88	4	-3	1	33	11	-1*	1	12	26	-6*

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
2	153	4	-1	13	74	8	-1	25	39	32	-11*	11	228	5	-2	0	100	6	3
3	30	11	3*	14	17	26	13*	26	25	40	-14*	12	141	4	-1	1	232	5	-1
4	89	4	0	15	41	16	-16*	27	27	63	15*	13	226	5	3	2	75	3	0
5	37	8	7	H,K=	5,	12		28	148	4	3	14	120	4	-3	3	215	5	3
6	130	4	6	1	89	6	-1	29	73	10	6	15	127	3	2	4	119	3	-0
7	14	24	9*	2	31	24	22*	30	28	48	17*	16	22	15	-7*	5	115	3	2
8	114	4	5	3	19	27	-18*	31	0	49	-13*	17	221	5	-2	6	27	19	-3*
9	30	33	-6*	4	4	34	-9*	32	88	5	-8	18	38	29	-12*	7	223	5	-0
10	51	6	-1	5	124	4	7	33	25	49	8*	19	78	4	-1	8	87	3	3
11	0	24	-3*	6	34	13	11*	H,K=	6,		2	20	66	5	-2	9	88	3	1
12	135	5	2	7	0	30	-8*	0	279	6	2	21	98	4	-4	10	21	22	2*
13	42	8	1	8	0	26	-9*	1	83	2	-2	22	93	5	4	11	305	8	-3
14	0	25	-12*	H,K=	6,		0	2	0	20	-14*	23	0	24	-18*	12	77	4	1
15	11	27	-1*	0	250	5	-1	3	50	3	-3	24	36	64	-32*	13	94	4	-2
16	117	5	2	2	22	5	-3	4	237	5	5	25	151	4	6	14	86	3	3
17	22	25	-7*	4	201	4	-1	5	80	2	0	26	32	17	-21*	15	171	4	-0
18	44	9	0	6	134	3	-0	6	196	4	1	27	55	14	-12	16	69	4	1
19	34	12	-5*	8	148	3	3	7	155	3	1	28	34	61	-8*	17	128	5	-3
20	83	5	3	10	148	3	5	8	62	3	-3	29	110	5	2	18	107	3	0
21	9	26	7*	12	143	4	-0	9	43	4	6	30	0	57	-6*	19	66	5	4
22	76	5	8	14	213	5	-2	10	202	4	2	31	80	7	0	20	29	27	-0*
23	0	27	-32*	16	54	5	-1	11	159	3	1	32	40	42	-7*	21	191	5	2
H,K=	5,	10		18	213	5	6	12	14	20	-9*	H,K=	6,		4	22	50	9	-2
1	69	5	-6	20	73	4	-1	13	63	4	8	0	27	6	-4	23	28	16	7*
2	105	5	-6	22	120	3	-2	14	140	4	-3	1	147	3	1	24	30	47	-10*
3	58	7	7	24	148	4	-4	15	85	4	-4	2	0	17	-9*	25	147	5	-1
4	48	7	5	26	41	16	5*	16	58	7	-1	3	187	4	3	26	22	25	-3*
5	58	6	-4	28	95	4	3	17	55	8	-4	4	17	23	-12*	27	30	14	1*
6	145	4	-4	30	38	13	28*	18	94	4	-6	5	88	3	-1	28	22	44	-14*
7	23	26	-6*	32	57	7	-5	19	27	51	5*	6	4	18	-2*	29	56	7	-14
8	87	5	-1	H,K=	6,		1	20	80	4	0	7	224	5	1	30	0	42	-17*
9	100	4	0	0	432	9	13	21	78	9	-7	8	70	4	-2	H,K=	6,		6
10	93	4	5	1	24	8	2*	22	47	23	-1*	9	54	7	3	0	123	3	-1
11	54	6	4	2	165	3	0	23	22	32	17*	10	29	13	10*	1	48	6	6
12	111	4	2	3	199	4	4	24	83	10	-2	11	136	4	4	2	34	7	-3
13	75	5	-1	4	369	8	5	25	71	16	-5	12	28	8	-2*	3	55	7	5
14	20	25	18*	5	129	3	0	26	0	38	-10*	13	131	3	1	4	120	4	2
15	37	10	3	6	191	4	-2	27	28	25	15*	14	52	6	-5	5	22	25	7*
16	104	4	0	7	237	5	2	28	55	11	7	15	75	3	6	6	68	5	5
17	19	26	10*	8	198	4	-1	29	59	10	6	16	29	12	-9*	7	58	4	2
18	13	26	-8*	9	7	17	-11*	30	0	29	-7*	17	96	4	-4	8	64	4	-6
19	55	8	1	10	215	4	-2	31	45	11	2	18	19	23	-5*	9	23	14	-3*
20	71	6	0	11	116	3	0	32	40	14	-3*	19	45	6	-11	10	60	4	1
H,K=	5,	11		12	62	5	8	33	22	27	1*	20	6	23	-10*	11	61	4	-3
1	85	4	-5	13	114	4	-2	H,K=	6,		3	21	80	5	-2	12	25	12	2*
2	100	4	6	14	307	6	8	0	277	6	2	22	24	28	17*	13	17	22	-1*
3	47	8	-2	15	88	6	1	1	172	4	5	23	25	16	12*	14	69	7	5
4	53	7	-1	16	42	5	1	2	24	8	14*	24	0	27	-6*	15	78	4	-2
5	117	4	2	17	102	6	-1	3	303	6	0	25	72	5	-1	16	27	12	-2*
6	47	13	-8	18	321	7	-2	4	152	3	-1	26	19	24	5*	17	73	6	5
7	31	18	25*	19	102	7	-1	5	110	3	3	27	25	25	11*	18	102	4	0
8	48	8	-13	20	44	64	-15*	6	71	3	3	28	11	29	-8*	19	36	10	-11
9	102	5	1	21	38	45	17*	7	292	6	6	29	65	8	0	20	31	20	-7*
10	19	28	-11*	22	123	5	-1	8	116	3	2	30	0	36	-1*	21	76	4	-2
11	38	10	2	23	9	89	-15*	9	12	24	6*	31	46	11	6	22	59	8	4
12	62	6	-4	24	166	5	1	10	234	5	3	H,K=	6,		5	23	21	24	11*

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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
24	50	7	-1	20	55	6	5	5	36	14	15*	25	23	35	19*	15	86	4	-1
25	54	12	-5	21	21	26	14*	6	48	12	-5	26	66	6	2	16	43	7	6
26	36	10	18	22	59	6	-2	7	108	4	3	27	19	40	-5*	17	20	22	12*
27	40	23	3*	23	23	30	19*	8	74	5	4	28	17	25	16*	18	14	25	4*
28	39	10	1	24	44	9	-11	9	32	13	15*	29	14	28	7*	19	60	5	1
29	48	9	7	25	25	26	12*	10	57	11	-3	30	33	14	0*	20	34	11	14*
H,K=		6,	7	H,K=		6,	9	11	97	4	2	31	18	35	11*	21	15	23	12*
0	236	5	-0	0	209	5	-1	12	22	26	17*	32	28	23	25*	22	30	11	19*
1	108	3	6	1	75	6	-5	13	42	10	9	H,K=		7,	2	23	53	8	1
2	37	7	11	2	15	26	-8*	H,K=		6,	12	1	233	5	1	24	24	28	20*
3	118	3	-2	3	59	6	1	0	40	10	18	2	368	8	3	25	19	24	16*
4	159	4	1	4	208	5	-0	1	62	7	2	3	118	3	7	26	16	25	-5*
5	22	24	8*	5	29	13	-1*	2	30	16	30*	4	145	3	0	27	53	9	-4
6	114	3	3	6	114	4	4	3	76	7	2	5	325	7	1	28	5	26	5*
7	107	3	-2	7	73	5	-0	H,K=		7,	0	6	272	6	2	29	18	28	-7*
8	61	4	0	8	147	4	1	2	474	10	10	7	41	7	6	30	29	17	2*
9	38	7	6	9	34	12	-11*	4	215	4	4	8	235	5	2	31	41	11	8
10	189	4	-2	10	179	4	4	6	333	7	-5	9	248	5	-1	H,K=		7,	4
11	93	4	-4	11	96	4	-0	8	342	7	-8	10	189	4	-1	1	164	4	1
12	79	4	-1	12	70	5	4	10	92	2	1	11	82	3	1	2	37	5	4
13	39	7	26	13	28	15	-1*	12	341	7	5	12	259	5	4	3	146	3	2
14	155	4	-1	14	150	4	-2	14	82	3	2	13	169	5	1	4	8	18	-8*
15	70	5	-6	15	26	27	-2*	16	309	6	-4	14	39	6	-7	5	182	4	2
16	0	28	-4*	16	30	12	15*	18	94	5	-3	15	154	4	-4	6	11	19	-7*
17	54	6	-6	17	19	25	0*	20	171	4	1	16	253	5	-2	7	61	3	-2
18	124	6	-2	18	113	4	-2	22	147	4	2	17	133	9	-2	8	86	4	-4
19	28	30	6*	19	0	38	-16*	24	65	7	-4	18	36	29	-8*	9	231	5	3
20	98	4	-3	20	58	7	2	26	173	5	1	19	111	4	-1	10	22	12	9*
21	92	4	1	21	19	26	-9*	28	15	26	-11*	20	163	8	-6	11	72	3	5
22	108	4	-0	22	95	4	4	30	138	5	4	21	23	76	-17*	12	29	10	3*
23	17	26	7*	H,K=		6,	10	32	22	27	-0*	22	105	4	3	13	224	5	3
24	107	4	3	0	111	4	3	H,K=		7,	1	23	106	12	-0	14	0	23	-7*
25	49	8	-4	1	11	31	-24*	1	42	4	0	24	75	27	-22*	15	161	4	2
26	51	8	-0	2	26	32	6*	2	174	4	-2	25	0	39	-32*	16	13	22	-9*
27	32	15	12*	3	74	5	4	3	27	5	1	26	105	10	-5	17	151	4	-1
H,K=		6,	8	4	72	5	-7	4	61	3	-3	27	95	20	-8	18	54	5	4
0	123	3	-1	5	18	24	-5*	5	15	18	5*	28	26	41	-7*	19	196	4	-0
1	24	25	-8*	6	50	7	-5	6	79	3	2	29	43	13	5*	20	0	40	-4*
2	36	13	5*	7	87	5	7	7	14	16	13*	30	87	5	1	21	58	5	-1
3	48	6	-0	8	50	7	4	8	89	2	1	31	33	39	-26*	22	34	43	-7*
4	136	4	-2	9	20	25	16*	9	83	4	0	32	24	27	14*	23	202	5	-3
5	15	24	-10*	10	89	4	-2	10	32	9	-0	H,K=		7,	3	24	11	37	1*
6	75	4	3	11	56	6	-1	11	44	4	2	1	85	2	2	25	29	14	-7*
7	25	32	19*	12	9	25	5*	12	100	3	-2	2	48	7	3	26	6	52	-7*
8	112	3	3	13	40	9	7	13	25	8	-8*	3	129	3	2	27	133	4	3
9	13	32	10*	14	81	7	2	14	59	3	-3	4	21	15	-2*	28	0	29	-16*
10	115	6	1	15	24	30	-14*	15	34	11	5*	5	148	3	5	29	88	7	5
11	34	9	18	16	34	12	-0*	16	110	3	0	6	64	3	1	30	0	30	-9*
12	27	32	-8*	17	47	8	5	17	22	23	10*	7	47	4	-4	H,K=		7,	5
13	18	25	16*	18	29	34	-6*	18	0	21	-10*	8	18	17	-3*	1	80	4	-2
14	119	4	-4	H,K=		6,	11	19	24	17	8*	9	173	4	1	2	41	7	-11
15	35	14	16*	0	45	8	-2	20	101	4	-3	10	12	19	7*	3	64	5	3
16	17	23	7*	1	54	7	-7	21	0	50	-14*	11	106	3	-2	4	46	5	6
17	13	24	10*	2	31	13	6*	22	94	4	1	12	32	7	-3	5	129	3	3
18	109	4	-1	3	98	5	2	23	19	60	-15*	13	93	3	3	6	34	6	5
19	23	24	8*	4	75	6	1	24	38	28	6*	14	52	5	4	7	22	18	11*

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
8	51	4	6	5	43	6	10	10	31	17	-0*	28	13	25	-2*	20	24	30	20*
9	107	3	-2	6	73	4	2	11	25	19	16*	30	8	28	-8*	21	36	12	16*
10	17	22	-10*	7	0	29	-13*	12	83	4	7	H,K=		8,	1	22	43	12	10
11	51	6	1	8	56	5	-3	13	24	29	16*	0	338	7	1	23	30	30	12*
12	21	22	-15*	9	26	26	12*	14	0	29	-12*	1	159	4	1	24	29	12	11*
13	61	5	-0	10	33	9	0	15	32	13	8*	2	38	5	-7	25	27	35	8*
14	28	13	-5*	11	20	23	17*	16	51	7	-2	3	184	4	-4	26	15	25	7*
15	82	4	-2	12	57	7	4	17	0	26	-6*	4	372	8	-3	27	16	29	5*
16	29	11	3*	13	52	5	3	18	23	25	-5*	5	31	5	9	28	10	29	-7*
17	69	4	-2	14	41	10	19	19	33	13	24*	6	204	4	-4	29	27	37	13*
18	0	29	-7*	15	29	12	6*	20	9	27	-18*	7	146	3	0	30	41	10	30
19	73	4	-2	16	87	9	-4	H,K=		7,	10	8	225	5	-1	H,K=		8,	3
20	37	19	-8*	17	31	33	6*	1	76	7	0	9	39	6	-3	0	116	3	3
21	10	29	-3*	18	30	11	14*	2	141	4	-5	10	319	7	-2	1	169	4	1
22	40	8	-5	19	50	6	9	3	43	11	2	11	145	4	-0	2	39	6	6
23	53	6	1	20	69	5	-5	4	52	10	-10	12	71	3	-4	3	281	6	3
24	13	25	5*	21	16	24	9*	5	92	5	-7	13	35	7	8	4	158	4	1
25	30	13	5*	22	20	25	-13*	6	129	4	-1	14	295	6	-0	5	79	3	-0
26	35	15	15*	23	33	12	-4*	7	29	13	15*	15	106	4	3	6	108	3	1
27	35	18	-4*	24	14	26	-11*	8	104	5	3	16	52	5	-3	7	252	5	2
28	0	26	-1*	25	24	26	0*	9	105	6	-1	17	58	4	8	8	135	3	-1
29	35	11	4*	26	42	9	1	10	88	4	-1	18	210	6	-2	9	74	3	6
H,K=		7,	6	H,K=		7,	8	11	38	11	0	19	58	8	8	10	92	3	-7
1	204	4	3	1	43	7	11	12	124	4	4	20	101	3	-1	11	208	5	-0
2	151	4	4	2	266	6	-4	13	79	5	5	21	62	8	-5	12	93	3	1
3	113	4	-5	3	34	14	11*	14	35	11	12*	22	131	5	4	13	118	3	-2
4	49	5	11	4	127	4	-1	15	33	26	-7*	23	0	68	-4*	14	115	3	4
5	230	5	4	5	33	10	10*	16	121	5	2	24	139	4	1	15	182	4	4
6	138	4	4	6	181	4	-2	17	25	32	1*	25	52	81	-20*	16	4	23	-1*
7	15	23	12*	7	34	9	28	H,K=		7,	11	26	78	22	-7	17	180	4	6
8	93	4	-1	8	209	5	-4	1	62	6	14	27	0	54	-4*	18	124	4	1
9	233	5	-6	9	16	26	9*	2	41	9	4	28	130	4	3	19	102	6	-2
10	101	5	3	10	75	6	-4	3	24	26	-4*	29	38	75	4*	20	46	7	5
11	43	7	12	11	17	23	6*	4	32	13	29*	30	24	26	22*	21	207	5	0
12	138	4	-3	12	205	5	-0	5	37	14	-6*	31	33	41	19*	22	67	28	-15*
13	174	4	-1	13	32	10	29*	6	39	18	7*	H,K=		8,	2	23	36	38	0*
14	50	7	-4	14	27	15	18*	7	27	27	19*	0	30	6	-3	24	73	8	11
15	82	4	1	15	0	24	-10*	8	0	26	-36*	1	40	4	5	25	154	5	6
16	131	5	4	16	145	4	1	9	42	9	4	2	13	17	-3*	26	21	51	-10*
17	87	5	-1	17	9	29	7*	10	0	30	-17*	3	80	3	-1	27	61	7	-0
18	18	27	7*	18	83	4	1	11	0	30	-14*	4	20	25	9*	28	59	7	2
19	125	4	2	19	0	25	-16*	H,K=		8,	0	5	61	5	-5	29	72	11	-4
20	119	4	0	20	100	4	-3	0	77	2	-2	6	21	9	3*	30	0	27	-0*
21	32	11	3*	21	0	26	-2*	2	61	3	-2	7	125	3	0	H,K=		8,	4
22	71	5	2	22	96	5	1	4	61	4	5	8	18	19	10*	0	45	5	4
23	123	5	5	23	15	29	-8*	6	33	6	3	9	9	18	-13*	1	19	20	-7*
24	74	9	-1	H,K=		7,	9	8	22	8	4*	10	20	15	9*	2	0	19	-9*
25	0	26	-6*	1	9	29	-5*	10	19	11	6*	11	61	3	0	3	53	4	-7
26	73	8	1	2	87	6	4	12	8	20	-0*	12	10	19	-1*	4	28	7	20
27	71	7	-2	3	0	28	-10*	14	26	9	3*	13	80	4	1	5	45	4	8
28	28	20	2*	4	30	12	18*	16	30	8	0	14	27	14	16*	6	32	7	2
H,K=		7,	7	5	29	12	0*	18	59	7	3	15	38	6	25	7	113	3	-1
1	79	4	-3	6	78	5	9	20	16	22	-1*	16	46	6	-0	8	11	20	2*
2	84	4	1	7	32	17	6*	22	40	10	12	17	50	6	1	9	35	7	-5
3	15	26	9*	8	64	5	4	24	52	7	-0	18	38	11	3*	10	32	13	13*
4	39	9	-9	9	41	8	4	26	15	26	13*	19	10	23	0*	11	76	4	-2

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
12	25	25	22*	7	54	8	16	9	8	30	1*	4	71	5	-1	6	272	6	-3
13	67	4	0	8	12	22	-3*	10	42	8	-4	5	27	31	1*	7	41	12	2*
14	29	10	3*	9	38	8	8	11	0	23	-8*	6	59	6	3	8	139	4	-2
15	38	8	-3	10	26	21	20*	12	13	24	4*	7	91	4	-3	9	218	5	0
16	22	29	11*	11	58	5	3	13	11	27	7*	H,K=		9,	0	10	164	4	0
17	67	8	4	12	22	25	-8*	14	30	16	-3*	2	284	6	5	11	97	3	-3
18	14	24	-18*	13	46	7	6	15	28	28	3*	4	32	7	3	12	187	4	1
19	17	23	6*	14	19	26	4*	16	0	25	-10*	6	247	5	-3	13	179	5	-3
20	19	27	17*	15	25	22	-3*	17	0	25	-14*	8	248	5	-2	14	78	4	-3
21	40	8	-6	16	29	33	7*	18	25	28	-0*	10	104	3	6	15	97	3	-1
22	36	13	33*	17	33	12	-6*	19	30	13	16*	12	289	6	1	16	192	4	-2
23	19	27	-5*	18	53	6	-2	20	25	27	14*	14	9	20	2*	17	120	4	1
24	15	24	-1*	19	0	24	-11*	21	29	15	5*	16	220	5	-3	18	35	9	7
25	39	13	4*	20	22	24	5*	22	28	21	7*	18	90	3	2	19	158	4	6
26	15	27	13*	21	33	11	-8*	H,K=		8,	9	20	151	4	-0	20	142	7	1
27	17	27	-4*	22	27	17	13*	0	230	5	-5	22	123	5	0	21	0	37	-17*
28	28	18	26*	23	17	30	2*	1	45	8	2	24	133	4	1	22	78	4	5
29	30	30	6*	24	37	10	9	2	60	5	3	26	127	5	7	23	151	4	3
H,K=		8,	5	25	24	26	14*	3	96	4	-1	28	34	13	0*	24	91	21	-12
0	72	3	0	26	10	31	-0*	4	190	5	2	30	123	5	-2	25	0	31	-23*
1	179	4	1	H,K=		8,	7	5	12	24	4*	H,K=		9,	1	26	97	5	-3
2	26	9	8*	0	195	4	9	6	117	5	-4	1	71	4	1	27	57	27	-13*
3	264	5	-2	1	62	5	3	7	80	4	-4	2	77	3	3	28	48	13	14
4	102	3	1	2	65	6	-4	8	131	4	-1	3	26	8	1*	29	23	35	-7*
5	81	3	1	3	115	3	4	9	27	16	5*	4	31	5	-1	H,K=		9,	3
6	28	9	4*	4	197	5	2	10	164	4	2	5	130	3	2	1	24	9	0*
7	288	6	-1	5	23	19	-3*	11	43	10	-2	6	42	5	6	2	18	18	9*
8	123	5	-0	6	146	4	0	12	79	6	0	7	12	18	-3*	3	30	7	-3
9	17	27	10*	7	147	4	-3	13	25	29	11*	8	34	5	3	4	71	3	0
10	98	4	-2	8	139	5	-5	14	151	4	-0	9	0	19	-22*	5	78	4	2
11	247	5	-0	9	34	9	12	15	26	29	-8*	10	3	19	-8*	6	54	4	1
12	62	5	-5	10	186	5	1	16	16	30	13*	11	44	5	0	7	15	22	3*
13	88	4	-4	11	123	4	-4	17	35	14	10*	12	32	10	6*	8	33	7	-6
14	100	3	5	12	35	18	9*	18	139	4	0	13	38	6	-5	9	26	17	-2*
15	159	4	-2	13	64	6	-2	19	32	14	8*	14	22	15	5*	10	0	20	-12*
16	29	12	-2*	14	155	4	-1	H,K=		8,	10	15	52	5	-6	11	9	21	6*
17	183	5	2	15	25	19	-20*	0	41	8	19	16	17	24	16*	12	15	31	8*
18	74	9	1	16	57	8	5	1	29	13	6*	17	24	25	2*	13	35	8	11
19	98	5	-3	17	73	5	5	2	17	25	4*	18	25	18	8*	14	63	4	3
20	15	27	2*	18	133	5	-2	3	39	10	28	19	7	22	-0*	15	0	22	-21*
21	177	5	-2	19	30	13	24*	4	0	27	-16*	20	19	26	3*	16	20	23	-2*
22	70	5	8	20	81	4	1	5	26	19	19*	21	12	23	-4*	17	21	23	1*
23	30	12	24*	21	64	8	2	6	28	28	20*	22	3	24	-2*	18	16	27	2*
24	34	11	8*	22	74	5	-2	7	15	25	1*	23	29	18	3*	19	30	11	6*
25	138	4	2	23	17	27	11*	8	18	27	5*	24	35	13	21*	20	0	33	-11*
26	38	14	-9*	24	99	5	9	9	20	30	7*	25	0	28	-18*	21	17	24	8*
27	54	7	7	H,K=		8,	8	10	21	26	-5*	26	5	25	-2*	22	17	24	2*
28	36	11	2*	0	56	7	-2	11	24	28	4*	27	0	29	-11*	23	30	15	23*
H,K=		8,	6	1	47	6	14	12	27	17	26*	28	23	31	3*	24	17	25	-3*
0	42	6	12	2	13	34	3*	13	12	25	3*	29	12	27	1*	25	30	13	-5*
1	74	5	-2	3	24	27	-7*	14	22	27	-1*	H,K=		9,	2	26	38	11	29
2	0	22	-10*	4	26	29	-17*	H,K=		8,	11	1	285	6	-3	27	10	26	-0*
3	78	4	4	5	0	29	-17*	0	93	5	-5	2	196	4	2	28	0	26	-3*
4	43	6	3	6	14	26	-4*	1	51	7	-3	3	147	3	1	H,K=		9,	4
5	27	12	15*	7	13	24	5*	2	36	11	10*	4	85	3	3	1	229	5	-1
6	54	7	8	8	34	9	22	3	86	4	11	5	279	6	-4	2	28	8	11

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
3	125	3	1	3	91	5	5	9	52	6	7	28	0	26	-10*	24	27	30	21*
4	67	3	-1	4	42	7	1	10	91	4	-7	H,K=		10,	1	25	30	14	0*
5	303	6	0	5	288	6	5	11	31	11	4*	0	218	5	-0	26	25	26	11*
6	19	20	3*	6	169	4	1	12	166	4	0	1	122	3	-5	27	27	19	20*
7	10	20	5*	7	26	14	10*	13	30	13	7*	2	24	9	-1*	28	7	27	4*
8	28	9	12*	8	130	4	0	14	17	24	12*	3	136	3	-2	H,K=		10,	3
9	252	6	-6	9	253	6	3	15	20	34	-8*	4	267	6	-8	0	78	3	-3
10	27	10	18*	10	117	4	0	16	145	5	-5	5	42	8	-2	1	162	4	1
11	90	3	0	11	82	7	3	17	20	34	-10*	6	123	3	-1	2	49	4	11
12	48	6	1	12	144	4	1	18	60	7	9	7	133	3	-1	3	261	5	2
13	187	4	5	13	149	4	-0	19	35	11	13*	8	177	4	2	4	119	3	-0
14	0	23	-6*	14	28	18	20*	20	122	5	0	9	20	16	-1*	5	62	4	-3
15	158	4	3	15	146	4	2	H,K=		9,	9	10	211	5	-5	6	92	3	2
16	30	11	6*	16	133	5	4	1	13	24	-13*	11	119	3	2	7	259	6	-1
17	137	5	-2	17	71	5	4	2	0	24	-10*	12	78	3	-2	8	85	4	-3
18	31	11	12*	18	25	30	9*	3	17	32	-4*	13	40	7	9	9	74	5	-2
19	217	5	-0	19	125	4	1	4	23	30	5*	14	213	5	-1	10	82	4	3
20	0	36	-14*	20	94	8	-6	5	0	24	-1*	15	83	6	-0	11	202	5	-1
21	34	21	16*	21	25	28	-1*	6	9	24	-11*	16	17	22	7*	12	62	5	-5
22	32	36	16*	22	56	7	-1	7	34	10	6	17	59	5	2	13	124	3	2
23	180	4	0	23	98	4	1	8	30	18	29*	18	175	6	-4	14	96	4	2
24	0	33	-7*	24	49	9	-2	9	21	24	13*	19	42	13	-3*	15	148	4	0
25	61	6	-3	25	0	26	-10*	10	0	25	-1*	20	73	7	-2	16	29	12	22*
26	17	32	4*	H,K=		9,	7	11	36	10	13	21	79	4	-1	17	172	5	-2
27	109	4	1	1	41	8	11	12	24	26	20*	22	138	4	1	18	90	6	2
28	15	31	-0*	2	21	24	7*	13	3	29	1*	23	0	30	-4*	19	70	4	5
H,K=		9,	5	3	38	8	7	14	27	37	14*	24	113	5	4	20	33	19	1*
1	58	5	-0	4	33	23	7*	15	17	26	8*	25	54	19	-0*	21	183	5	2
2	62	4	-3	5	27	13	23*	16	13	26	10*	26	66	6	-0	22	61	10	2
3	46	5	3	6	26	13	6*	H,K=		9,	10	27	13	36	5*	23	31	13	-4*
4	29	9	20*	7	0	28	-15*	1	69	8	6	28	119	4	6	24	43	9	-2
5	20	22	8*	8	27	28	2*	2	139	6	-1	H,K=		10,	2	25	124	5	4
6	33	10	3*	9	38	7	22	3	37	10	4	0	69	5	-1	26	27	21	-0*
7	37	8	-4	10	15	27	-1*	4	41	12	-8*	1	77	4	-2	27	63	7	8
8	31	12	-6*	11	37	15	8*	5	82	6	2	2	38	5	5	H,K=		10,	4
9	35	8	5	12	26	27	7*	6	88	4	3	3	95	3	1	0	130	3	-1
10	51	7	11	13	23	23	11*	7	24	26	22*	4	59	3	1	1	33	12	1*
11	48	6	3	14	16	25	11*	8	87	4	6	5	65	3	-1	2	26	27	-3*
12	39	8	-3	15	0	24	-10*	9	70	8	-6	6	73	3	-2	3	48	8	8
13	39	8	-2	16	6	24	-6*	10	88	6	10	7	46	8	-7	4	0	21	-2*
14	24	18	-6*	17	14	24	2*	11	0	26	-13*	8	22	13	5*	5	33	8	0
15	0	23	-7*	18	25	26	9*	H,K=		10,	0	9	29	9	10*	6	19	23	14*
16	35	13	4*	19	22	25	12*	0	174	4	-2	10	49	6	4	7	70	4	1
17	21	29	-6*	20	0	27	-7*	2	62	3	-4	11	93	4	1	8	76	4	2
18	31	13	12*	21	21	25	20*	4	18	22	2*	12	36	8	-5	9	0	22	-11*
19	13	28	-8*	22	18	26	9*	6	37	6	-6	13	0	28	-8*	10	69	6	-1
20	0	26	-8*	23	0	27	-4*	8	62	3	-1	14	17	23	-13*	11	32	14	-10*
21	35	11	1*	H,K=		9,	8	10	21	21	12*	15	46	11	-3	12	25	19	23*
22	29	17	28*	1	20	26	15*	12	72	4	2	16	22	26	9*	13	52	8	5
23	6	27	-9*	2	209	5	3	14	38	10	1	17	16	24	3*	14	14	23	6*
24	15	26	9*	3	32	13	10*	16	60	5	-6	18	16	23	11*	15	26	22	11*
25	30	13	27*	4	104	5	0	18	0	30	-15*	19	7	27	-11*	16	29	11	18*
26	6	26	-13*	5	27	13	20*	20	35	8	16	20	18	27	8*	17	32	10	11*
H,K=		9,	6	6	157	4	-8	22	74	4	6	21	40	8	-3	18	18	30	1*
1	202	4	1	7	34	9	30	24	26	28	13*	22	0	24	-4*	19	16	27	-5*
2	121	3	0	8	147	5	2	26	19	30	6*	23	45	7	8	20	53	9	6

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
21	18	24	13*	23	32	17	15*	13	19	26	14*	6	187	4	1	9	214	5	-3
22	27	15	12*	H,K=	10,	7		H,K=	10,	10	7	43	9	1	10	10	29	3*	
23	46	9	25	0	151	7	-2	0	24	28	2*	8	162	4	-4	11	94	4	-1
24	21	25	18*	1	72	6	0	1	34	12	9*	9	195	4	-2	12	42	7	13
25	12	25	4*	2	44	10	-0	2	11	27	0*	10	95	3	0	13	151	4	-2
26	23	28	10*	3	107	4	1	3	24	25	17*	11	55	5	7	14	0	27	-11*
H,K=	10,	5		4	153	4	-2	4	36	18	25*	12	163	4	-2	15	152	4	1
0	89	3	3	5	38	8	4	5	25	25	20*	13	140	5	-2	16	0	28	-6*
1	180	4	-1	6	95	4	0	6	0	26	-2*	14	25	15	-3*	17	86	4	0
2	0	26	-4*	7	114	4	-4	H,K=	11,	0		15	96	4	1	18	33	11	5*
3	282	6	-4	8	117	4	-1	2	252	5	-4	16	147	5	-4	19	163	4	3
4	96	3	0	9	31	11	9*	4	120	4	-2	17	95	4	-3	20	34	11	26*
5	74	4	6	10	136	5	1	6	192	4	-2	18	17	23	-10*	21	27	31	18*
6	46	14	-6*	11	116	5	-0	8	189	5	-1	19	116	4	-0	22	8	26	1*
7	293	6	-1	12	26	26	-5*	10	88	4	-2	20	116	4	-2	23	127	4	2
8	96	4	-2	13	56	9	-8	12	195	4	-5	21	0	25	-29*	24	0	38	-5*
9	54	5	6	14	130	4	-1	14	17	25	6*	22	70	5	1	H,K=	11,	5	
10	100	4	-3	15	48	12	0	16	199	5	-1	23	93	5	-8	1	44	6	-6
11	225	5	3	16	24	33	-2*	18	46	9	-11	24	65	6	3	2	74	5	-2
12	29	40	-4*	17	68	5	-1	20	160	4	-1	25	22	27	5*	3	37	11	26*
13	128	5	-1	18	113	6	-5	22	113	4	2	26	80	5	2	4	33	13	-1*
14	72	5	1	19	0	27	-10*	24	69	7	-2	H,K=	11,	3	5	118	5	-1	
15	141	4	5	20	53	7	-1	26	126	4	2	1	80	3	-5	6	19	28	6*
16	15	25	-0*	H,K=	10,	8		H,K=	11,	1		2	29	9	6*	7	34	17	2*
17	172	4	-2	0	13	24	3*	1	29	9	8*	3	104	4	-4	8	58	5	-6
18	62	10	-9	1	40	8	5	2	111	3	-1	4	59	4	-3	9	67	7	-6
19	58	6	-3	2	15	28	-12*	3	51	4	-2	5	70	5	4	10	37	13	10*
20	30	18	21*	3	49	7	1	4	18	24	1*	6	62	8	6	11	0	24	-19*
21	151	5	-2	4	46	8	10	5	67	3	-3	7	16	23	9*	12	27	20	18*
22	51	7	11	5	0	24	-16*	6	27	12	16*	8	15	31	9*	13	22	25	-12*
23	35	11	20*	6	26	28	4*	7	7	20	1*	9	118	5	-0	14	13	24	9*
24	41	9	13	7	30	14	22*	8	23	24	-1*	10	12	22	7*	15	80	4	6
H,K=	10,	6		8	61	8	6	9	40	7	12	11	78	4	3	16	22	30	15*
0	67	5	2	9	25	26	-6*	10	0	22	-13*	12	15	22	10*	17	61	6	5
1	29	16	-12*	10	0	25	-4*	11	0	21	-15*	13	79	4	-5	18	25	21	8*
2	40	12	3*	11	15	27	1*	12	56	8	-4	14	39	7	4	19	45	8	-1
3	33	11	3*	12	30	12	26*	13	49	5	-4	15	26	14	-17*	20	28	28	15*
4	26	14	-1*	13	20	25	15*	14	65	4	-2	16	30	12	10*	21	20	25	3*
5	31	15	28*	14	2	25	-25*	15	0	28	-4*	17	26	14	18*	22	25	34	1*
6	57	10	3	15	0	28	-6*	16	38	7	-5	18	20	23	11*	H,K=	11,	6	
7	44	8	12	16	0	31	-3*	17	11	22	-2*	19	43	10	7	1	138	4	-3
8	24	27	13*	17	23	26	21*	18	18	29	7*	20	35	13	31*	2	150	6	-1
9	43	9	-8	H,K=	10,	9		19	24	16	-1*	21	18	25	2*	3	92	6	6
10	14	24	11*	0	182	4	1	20	63	5	-6	22	15	28	7*	4	67	7	-5
11	0	28	-16*	1	37	9	11	21	14	27	4*	23	39	10	4	5	152	5	-3
12	43	6	30	2	31	19	2*	22	37	9	5	24	20	29	10*	6	106	7	-6
13	26	14	21*	3	40	9	-1	23	41	12	-3*	25	23	37	10*	7	28	29	13*
14	0	24	-7*	4	144	4	2	24	43	8	2	H,K=	11,	4	8	103	4	-1	
15	33	10	-1*	5	41	8	24	25	34	17	22*	1	190	4	4	9	160	4	1
16	18	24	14*	6	74	6	-5	26	17	26	4*	2	17	23	-3*	10	51	6	7
17	33	11	-2*	7	27	33	-14*	H,K=	11,	2		3	121	4	-4	11	53	6	3
18	35	11	3*	8	110	4	2	1	115	3	1	4	36	7	33	12	98	5	-0
19	23	25	-19*	9	26	20	15*	2	230	5	-4	5	224	5	-3	13	138	4	2
20	19	28	18*	10	121	4	-2	3	88	5	-3	6	27	28	17*	14	39	8	28
21	13	33	-4*	11	34	12	2*	4	93	3	6	7	22	23	12*	15	80	7	-2
22	17	30	15*	12	74	5	1	5	181	5	-5	8	41	7	37	16	98	7	2

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
17	78	5	-2	14	91	5	-1	23	33	12	21*	6	82	5	2	3	28	16	-6*
18	16	32	-9*	16	47	7	8	H,K= 12,				3	7	155	5	-4	4	58	6 -10
19	96	5	-6	18	85	4	-6	0	174	4	2	8	33	9	7	5	14	28	8*
20	66	9	-4	20	28	14	-2*	1	102	6	-2	9	31	15	-6*	6	40	9	3
H,K= 11,		7		22	82	6	1	2	35	10	9*	10	43	12	-0	7	35	11	14*
1	39	8	-12	24	40	9	6	3	125	5	0	11	153	4	-0	8	59	6	-9
2	28	29	-3*	H,K= 12,			1	4	123	5	4	12	9	24	-2*	9	23	26	11*
3	17	24	12*	0	263	6	-4	5	69	6	-5	13	80	4	-3	10	34	12	-10*
4	40	17	-1*	1	22	26	1*	6	73	5	-3	14	40	9	2	H,K= 13,			0
5	60	5	3	2	66	4	-2	7	175	5	-2	15	107	5	0	2	206	4	0
6	69	5	6	3	46	7	-2	8	60	10	-3	16	30	13	20*	4	85	5	-2
7	19	27	14*	4	207	4	-7	9	11	28	-6*	17	106	4	4	6	130	5	-2
8	6	24	-7*	5	55	7	2	10	118	3	-3	18	61	9	13	8	126	3	-2
9	36	9	14	6	150	4	-3	11	155	4	0	19	47	8	-2	10	78	5	-3
10	40	8	-1	7	102	5	-1	12	13	30	-2*	20	29	16	3*	12	151	5	-1
11	32	17	21*	8	123	5	-3	13	95	4	0	H,K= 12,			6	14	20	24	3*
12	4	28	-10*	9	33	9	12	14	96	5	1	0	36	10	-14	16	152	6	-3
13	27	16	-3*	10	175	5	-1	15	85	4	-4	1	30	31	-2*	18	43	8	-7
14	17	26	1*	11	86	5	-6	16	48	6	17	2	0	25	-8*	20	119	5	2
15	36	11	9*	12	50	5	-0	17	118	4	1	3	77	5	-3	H,K= 13,			1
16	58	8	-8	13	15	24	-9*	18	58	6	3	4	56	5	4	1	28	34	-8*
17	35	14	18*	14	171	5	-3	19	40	9	0	5	19	23	12*	2	143	4	-1
18	34	11	21*	15	64	7	-3	20	38	12	3*	6	33	13	-3*	3	29	11	24*
H,K= 11,		8		16	0	30	-16*	21	102	4	4	7	78	6	5	4	52	5	6
1	29	17	4*	17	39	9	-6	22	54	7	21	8	44	7	-1	5	55	5	1
2	155	4	2	18	171	4	-0	23	0	26	-3*	9	4	28	-2*	6	138	4	2
3	19	25	13*	19	30	34	-15*	H,K= 12,			4	10	21	30	-3*	7	4	33	-10*
4	51	7	4	20	71	5	-5	0	17	30	-6*	11	49	7	-5	8	110	4	-7
5	25	20	9*	21	46	7	-5	1	84	6	-5	12	6	25	-11*	9	24	31	-11*
6	120	4	2	22	91	4	2	2	18	24	-1*	13	44	8	0	10	80	5	3
7	43	8	26	23	32	17	20*	3	116	3	0	14	48	7	3	11	12	25	-10*
8	107	4	-0	24	116	5	3	4	33	12	20*	15	37	10	0	12	124	3	2
9	29	14	20*	H,K= 12,			2	5	37	8	-4	16	36	17	22*	13	26	18	7*
10	68	5	-5	0	68	4	-1	6	0	23	-4*	17	58	6	8	14	0	23	-4*
11	26	19	15*	1	80	4	-0	7	134	3	-2	18	51	10	-0	15	21	24	-7*
12	131	5	-1	2	0	21	-13*	8	40	10	6	H,K= 12,			7	16	98	5	-7
13	19	29	13*	3	50	5	-1	9	31	9	14*	0	133	5	-2	17	25	25	10*
14	27	19	3*	4	54	8	-4	10	19	32	6*	1	38	9	-6	18	22	30	-10*
H,K= 11,		9		5	23	25	-10*	11	82	4	-1	2	31	12	7*	19	47	7	8
1	19	27	-19*	6	45	7	5	12	0	24	-8*	3	58	8	2	20	82	5	-5
2	5	26	-25*	7	84	3	2	13	66	5	4	4	110	4	-6	21	30	13	27*
3	24	36	8*	8	32	15	-6*	14	18	24	5*	5	28	14	20*	H,K= 13,			2
4	29	15	20*	9	35	14	-4*	15	57	6	-4	6	76	5	3	1	64	5	6
5	25	26	23*	10	53	8	-5	16	27	14	21*	7	48	7	5	2	181	4	-3
6	43	15	-2*	11	85	4	-4	17	57	7	-3	8	61	6	-1	3	73	4	2
7	41	9	6	12	17	23	-2*	18	27	30	21*	9	22	30	17*	4	81	4	1
8	35	11	12*	13	45	6	1	19	29	16	-16*	10	106	4	2	5	89	5	3
9	0	26	-5*	14	62	5	1	20	0	28	-14*	11	59	6	7	6	105	8	-1
H,K= 12,		0		15	40	7	-1	21	61	6	2	12	40	19	4*	7	33	13	-1*
0	147	3	1	16	0	23	-2*	H,K= 12,			5	13	9	28	-2*	8	125	4	-6
2	21	16	5*	17	45	6	10	0	108	4	3	14	109	4	3	9	118	4	-6
4	101	3	-1	18	60	5	2	1	126	5	1	15	54	7	-4	10	62	5	-1
6	29	10	-1*	19	29	22	16*	2	52	5	15	H,K= 12,			8	11	24	17	2*
8	75	4	-2	20	25	26	-0*	3	151	5	-3	0	58	6	1	12	133	4	0
10	81	6	-3	21	61	8	0	4	91	4	2	1	35	11	14*	13	93	5	-2
12	77	7	10	22	48	7	5	5	56	8	-5	2	23	25	8*	14	22	26	20*

STRUCTURE FACTORS CONTINUED FOR
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L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
15	50	6	-3	9	93	5	-1	9	26	14	22*	8	18	25	15*	1	64	5	-6
16	105	4	-4	10	18	24	9*	10	121	6	0	9	31	12	17*	2	48	7	-13
17	43	9	-9	11	17	25	-11*	11	60	6	-4	10	28	14	3*	3	39	9	-2
18	38	10	8	12	31	21	10*	12	37	22	-2*	11	108	4	0	4	29	17	-7*
19	71	5	2	13	80	5	-5	13	22	27	13*	12	33	11	17*	5	39	8	-5
20	73	5	-1	14	0	25	-5*	14	101	4	-5	13	24	25	7*	6	57	7	1
21	21	31	-2*	15	44	8	-4	15	49	7	2	14	0	26	-11*	7	34	10	5*
H,K= 13,			3	16	34	15	9*	16	24	26	16*	15	105	4	-5	8	33	11	-13*
1	96	4	2	17	54	8	6	17	28	15	1*	H,K= 14,			5	9	71	6	2
2	56	6	5	H,K= 13,			6	18	78	5	4	0	75	5	2	10	26	19	-5*
3	57	6	-9	1	72	5	-7	H,K= 14,			2	1	63	5	4	11	26	17	10*
4	39	7	15	2	106	6	-4	0	98	7	-4	2	22	27	10*	12	64	5	8
5	114	4	-2	3	51	8	0	1	63	4	5	3	110	5	-0	13	75	5	-2
6	33	11	2*	4	58	6	-3	2	25	29	17*	4	52	8	2	H,K= 15,			3
7	0	23	-9*	5	91	4	3	3	104	3	5	5	35	10	7	1	98	4	2
8	31	15	-10*	6	65	5	-4	4	82	5	-4	6	47	9	-6	2	47	11	6
9	107	5	2	7	21	31	2*	5	37	14	28*	7	119	4	3	3	57	6	-2
10	23	24	-3*	8	86	6	5	6	74	4	6	8	20	25	0*	4	26	28	4*
11	15	23	-2*	9	89	5	4	7	101	4	2	9	15	25	11*	5	118	4	1
12	47	7	1	10	24	26	-5*	8	82	4	2	10	52	7	-1	6	39	9	6
13	80	4	6	11	16	30	3*	9	16	24	10*	11	79	5	-4	7	27	16	10*
14	14	33	6*	12	76	7	4	10	96	4	4	12	41	12	18	8	44	8	3
15	39	13	3*	13	84	5	3	11	47	10	-2	H,K= 14,			6	9	116	5	5
16	52	6	11	14	36	13	19*	12	25	29	-6*	0	63	5	1	10	32	12	-0*
17	80	5	1	H,K= 13,			7	13	31	11	3*	1	50	8	4	11	12	29	-1*
18	22	41	6*	1	32	12	9*	14	90	4	2	2	19	25	15*	H,K= 15,			4
19	77	6	-1	2	85	4	-2	15	57	9	1	3	53	7	-4	1	77	5	-0
20	29	16	-1*	3	36	12	27*	16	26	18	12*	4	70	5	0	2	0	25	-23*
H,K= 13,			4	4	37	10	11	17	67	5	2	5	30	18	16*	3	23	26	-7*
1	119	5	-1	5	55	6	14	H,K= 14,			3	6	17	26	-17*	4	38	11	23
2	18	26	14*	6	85	5	2	0	51	7	-5	7	74	6	-6	5	101	4	1
3	68	6	-7	7	22	26	21*	1	84	7	-2	8	52	9	-5	6	25	26	7*
4	0	28	-7*	8	68	6	1	2	44	7	6	H,K= 15,			0	7	28	29	27*
5	143	5	-3	9	59	6	6	3	93	4	1	2	94	4	2	8	43	9	14
6	20	29	5*	10	40	10	-12	4	47	7	-14	4	22	25	8*	9	82	5	0
7	33	9	31	H,K= 14,			0	5	21	27	-1*	6	53	6	-2	H,K= 15,			5
8	11	25	6*	0	189	5	-3	6	50	8	8	8	91	4	3	1	90	4	-3
9	146	5	-0	2	35	8	0	7	110	4	2	10	58	6	9	2	17	28	4*
10	16	27	5*	4	206	6	2	8	52	6	-2	12	103	4	1	3	61	6	2
11	68	5	-0	6	130	4	-3	9	47	8	14	14	32	12	7*	4	32	13	22*
12	8	31	-16*	8	150	4	1	10	50	7	8	H,K= 15,			1	H,K= 16,			0
13	98	4	-3	10	162	4	-1	11	107	4	-1	1	61	5	5	0	162	5	-2
14	7	30	-18*	12	17	26	7*	12	29	14	23*	2	145	4	-4	2	37	14	11*
15	95	5	4	14	139	6	0	13	51	6	9	3	26	19	7*	4	147	4	3
16	28	17	22*	16	44	11	-0	14	45	8	-1	4	53	6	-4	6	84	4	0
17	55	6	7	18	118	5	10	15	59	6	-2	5	78	4	8	H,K= 16,			1
18	0	26	-3*	H,K= 14,			1	16	29	25	18*	6	139	5	-1	0	57	8	3
H,K= 13,			5	0	155	4	0	H,K= 14,			4	7	15	24	1*	1	40	12	4*
1	83	4	-2	1	51	7	9	0	61	6	12	8	107	5	-6	2	18	24	15*
2	19	23	11*	2	24	26	-0*	1	77	5	-5	9	37	9	-3	3	22	27	-6*
3	43	7	-6	3	30	10	0*	2	22	27	5*	10	67	6	2	4	48	8	6
4	27	13	16*	4	105	5	-1	3	90	4	-1	11	36	10	3	5	32	11	20*
5	91	4	-6	5	21	24	-1*	4	21	29	1*	12	121	5	1	6	20	25	-14*
6	19	24	-7*	6	64	5	-6	5	38	8	-2	13	22	25	4*	7	42	13	20*
7	26	15	16*	7	28	18	-12*	6	8	28	-23*	14	4	26	0*	H,K= 16,			2
8	18	26	7*	8	74	5	1	7	101	4	-5	H,K= 15,			2	0	64	7	-4

STRUCTURE FACTORS CONTINUED FOR
U(N(SI(CH3)3)2)2CL2.CH3OCH2CH2OCH3 PAGE16

L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL	L	FOB	SG	DEL
1	64	9	-7																
2	9	34	-2*																
3	99	4	2																
4	77	6	4																
5	34	13	14*																