

Crystal structure refinement of magnesian alleghanyite

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Abstract

Alleghanyite from the Sterling Mine, Ogdensburg, New Jersey [(Mn_{0.568}Mg_{0.390}Zn_{0.037}Fe_{0.004}Ca_{0.001})₅(SiO₄)₂(OH_{1.06}F_{0.94}), *P* 2₁/b, *a* = 4.815(2), *b* = 10.574(3), *c* = 8.083(3) Å, α = 108.74(2)°] was refined to *R* = 0.048 (*R*_w = 0.053) using 1873 structure factors. The mean Si-O distance is 1.629 Å. Site refinement with Zn assigned to M(3) yielded Mg/(Mg+Mn) ratios of 0.14 in the M(1)O₆ octahedron (\langle M-O \rangle = 2.191 Å) and 0.10 in the M(2)O₅(F,OH) octahedron (\langle M-O \rangle = 2.212 Å). The M(3)O₄(OH,F)₂ site (\langle M-O \rangle = 2.118 Å) is occupied by 0.81 Mg, 0.10 Mn and 0.09 Zn atoms. Cations in this and all previously studied humite group minerals are ordered on the octahedral sites according to size criteria, although ligancy (O,OH,F) may be the controlling factor where charge balance and crystal-field effects are involved.

Introduction

The humite group, strictly, is the group of four homologues characterized by the general formula $n\text{Mg}_2\text{SiO}_4 \cdot \text{Mg}(\text{OH},\text{F})_2$ where *n* = 1 for norbergite, *n* = 2 for chondrodite, *n* = 3 for humite and *n* = 4 for clinohumite. Alleghanyite, the manganese analogue of the *n* = 2 homologue, was first described from Bald Knob, Alleghany County, North Carolina by Ross and Kerr (1932). Its isotypism with chondrodite was proposed by Rogers (1935) and subsequently established by Rentzeperis (1970). Alleghanyite was recognized in specimens from the mines at Franklin and Ogdensburg, Sussex County, New Jersey by Cook (1969) where it occurs in at least two parageneses—as isolated anhedral crystals in the Franklin marble and as euhedral crystals in veinlets cutting the ore. An example of the latter from the Sterling Mine (Harvard University #109468) exhibits crystals of magnesian alleghanyite among a druse of brilliant black cube-octahedrons of franklinite on a slickensided surface of red willemite-franklinite-calcite ore. The crystal structure of an untwinned crystal from this specimen approximately 0.3 × 0.2 × 0.1 mm in size was refined as part of an investigation of Mg/Mn ordering in the olivines and humites (Francis, 1980; Francis and Ribbe, 1978, 1980).

Experimental procedures

Chemical composition was determined on an automated ARL-EMX electron microprobe operating at 15 kv accelerating potential and 0.02 μA sample current on brass. Intensity data were reduced on line using the technique of Bence and Albee (1968) and the correction factors of Albee and Ray (1970). Simple oxides and silicates, including synthetic tephroite (Takei, 1976), were used as standards. The formula, Mn_{2.840}Mg_{1.948}Zn_{0.184}Fe_{0.023}Ca_{0.005}(SiO₄)₂(OH_{1.06}F_{0.94}) represents the average of

fifteen analyses on two crystals. The rather large amount of zinc and very minor amounts of iron and calcium are typical of Mn-rich olivines (Francis, 1980) and humites (Ribbe, 1982) from the Franklin marble.

The crystal was mounted on a Picker FACS-I four-circle diffractometer with its diad nearly parallel to the phi axis and was oriented in terms of the nonstandard space group *P*2₁/b to conform with previous studies (Taylor and West, 1928; Gibbs et al., 1970; Yamamoto, 1977) and the recommendations of Jones (1969). The unit cell dimensions: *a* = 4.815(2), *b* = 10.574(3), *c* = 8.083(3) Å, and α = 108.74(2)° were refined from twelve, individually-centered, high-angle reflections ($2\theta \geq 40^\circ$). Intensity data were collected in one quadrant ($2\theta \leq 72^\circ$) at 18°C using Nb-filtered MoK α_1 radiation (λ = 0.70926 Å) and a 2θ scan rate of 1° per minute. Twenty second background measurements were made on either side of dispersion-corrected scan ranges (1.2° 2θ base width).

Two reflections monitored after every fifty data were used to calibrate the data set by linear interpolation. The data were corrected for background, Lorentz and polarization effects. The shape of the crystal was approximated by a polyhedral envelope in the absorption correction (μ = 55.6 cm⁻¹). Structure factors for which $F_{\text{obs}} < 2\sigma$ were considered unobserved, leaving a data set of 1873 observations.

Refinement

Full matrix, least-squares refinement was carried out using the program *REFINE* (Finger and Prince, 1975). Scattering curves for neutral atoms were taken from Doyle and Turner (1968). Corrections for anomalous dispersion were taken from the *International Tables for Crystallography* (1974, p. 99, 149). Refinement was initiated using the positional parameters of Gibbs et al. (1970) with the octahedral sites fully occupied by Mn and with isotropic temperature factors of 0.5, 0.3, and 0.5 Å² for Mn, Si, and O respectively. After the positional parameters converged, Mg was assigned to the octahedral sites according to

RESULTS OF STRUCTURE FACTOR CALCULATIONS

LL REFLECTIONS

WEIGHTED F	NUMERATOR	DENOMINATOR	NUMREP	R
287887.44	102318880.00		1873	0.052
UNWEIGHTED F	1872.31	39134.30	1873	0.048

RANGES OF F(CES)

30784.66	4554123.00	1125	0.082
41103.53	16825376.00	433	0.045
37470.76	15855424.00	160	0.043
36687.53	27439936.00	88	0.037
26513.32	15247052.00	26	0.043
13355.95	5622943.00	10	0.049
9440.17	4574619.00	10	0.045
90532.25	8199226.00	17	0.105

RANGES OF (SIN(THETA))/LAMBDA)**2

173324.75	36993264.00	134	0.068
53450.87	22046656.00	164	0.049
20908.08	15040256.00	204	0.037
14314.68	10464056.00	227	0.037
6204.25	5978600.00	267	0.030
5042.57	3523324.00	258	0.036
6222.83	3865546.00	315	0.040
8522.01	3007065.00	304	0.053

REJECTED REFLECTIONS

WEIGHTED F	UNWEIGHTED F	RANGES OF F(CES)
287887.44	1872.31	30784.66
		41103.53
		37470.76
		36687.53
		26513.32
		13355.95
		9440.17
		90532.25

RANGES OF F(CES)

4534123.00	1125	0.082
16825376.00	433	0.049
15855424.00	160	0.043
27439936.00	88	0.037
15247052.00	26	0.043
5622943.00	10	0.049
4574619.00	10	0.045
8199226.00	17	0.105

RANGES OF (SIN(THETA))/LAMBDA)**2

173324.75	36993264.00	134	0.068
53450.87	22046656.00	164	0.049
20806.08	15040256.00	204	0.037
14314.68	10464056.00	227	0.037
6204.25	5978600.00	267	0.030
5042.57	3523324.00	258	0.036
6222.83	3865546.00	315	0.040
8522.01	3007065.00	304	0.053

SUM FCAL
STANDARD DEV OF UNIT WEIGHT OBS

38522.67
12.66

STANDARD STD. DEV. FOR OBS. OF UNIT WEIGHT 12.36
 PARAMETER CLE CHANGE NEW ERROR SHIFT/ERROR

EXTINCTION CORRECTION 0.0000E+00
 SCALE FACTOR 1 6.6093

ATCW 1 M1 EQUIPMENT FRACTION = 0.500
 OCCUPANCY SPECIES 2 0.13510
 OCCUPANCY SPECIES 3 0.86490
 TOTAL OCCUPANCY (FIXED) = 1.00000

X	0.5000000	0.5000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.00
Y	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.00
Z	0.0000000	0.5000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.00
BETA11	0.0028250	-0.0028245	0.0010347	0.0000790	0.00001258	0.00003181	0.0000790	-0.00
BETA22	0.0015570	0.0015571	0.0015571	0.0001258				0.00
BETA33	0.0000000	0.0000000	0.0000000					
BETA12	0.0000000	0.0000000	0.0000000					
BETA13	0.0000000	0.0000000	0.0000000					
BETA23	0.0000000	0.0000000	0.0000000					

ATCW 2 M2 EQUIPMENT FRACTION = 1.000
 OCCUPANCY SPECIES 2 0.09800
 OCCUPANCY SPECIES 5 0.90200
 TOTAL OCCUPANCY (FIXED) = 1.00000

X	0.0107000	0.0000243	0.0107245	0.0001552	0.0001552	0.0001552	0.0001552	0.16
Y	0.1718000	-0.0000208	0.1717792	0.0000685	0.0000685	0.0000685	0.0000685	-0.30
Z	0.3073000	-0.0000066	0.3072934	0.0000857	0.0000857	0.0000857	0.0000857	-0.08
BETA11	0.0042000	0.0000043	0.0042043	0.0002252	0.0002252	0.0002252	0.0002252	0.02
BETA22	0.0005550	-0.0000004	0.0005546	0.0000510	0.0000510	0.0000510	0.0000510	-0.01
BETA33	0.0016940	0.0000000	0.0016944	0.0000846	0.0000846	0.0000846	0.0000846	0.00
BETA12	0.0001710	-0.0000000	0.0001710	0.0001057	0.0001057	0.0001057	0.0001057	-0.00
BETA13	-0.0001200	0.0000022	-0.0001178	0.0001307	0.0001307	0.0001307	0.0001307	0.02
BETA23	0.0000430	-0.0000004	0.00004306	0.0000540	0.0000540	0.0000540	0.0000540	-0.01

ATCW 3 M3 EQUIPMENT FRACTION = 1.000
 OCCUPANCY SPECIES 2 0.80850
 OCCUPANCY SPECIES 5 0.09950
 TOTAL OCCUPANCY (FIXED) = 0.90800

X	0.4897000	0.0000065	0.4897065	0.0002556	0.0002556	0.0002556	0.0002556	0.03
Y	0.8841000	-0.0000406	0.8840591	0.0001121	0.0001121	0.0001121	0.0001121	-0.36
Z	0.0760000	-0.0000483	0.0759516	0.0001362	0.0001362	0.0001362	0.0001362	-0.35
BETA11	0.0036260	-0.0000018	0.0036242	0.0003788	0.0003788	0.0003788	0.0003788	-0.01
BETA22	0.0007930	-0.0000006	0.0007924	0.0000875	0.0000875	0.0000875	0.0000875	-0.01
BETA33	0.0015080	-0.0000013	0.0015067	0.0001456	0.0001456	0.0001456	0.0001456	-0.01
BETA12	0.0000880	-0.0000002	0.0000878	0.0001751	0.0001751	0.0001751	0.0001751	-0.00
BETA13	-0.0002700	0.0000003	-0.0002697	0.0002143	0.0002143	0.0002143	0.0002143	0.00
BETA23	0.00003220	-0.0000007	0.00003213	0.0000947	0.0000947	0.0000947	0.0000947	-0.01

ATCW 4 M3 EQUIPMENT FRACTION = 1.000
 OCCUPANCY SPECIES 7 0.09200

X	0.4897000	0.0000000	0.4897065	0.0000000	0.0000000	0.0000000	0.0000000	0.00
Y	0.8841000	-0.0000000	0.8840591	0.0000000	0.0000000	0.0000000	0.0000000	0.00
Z	0.0760000	-0.0000000	0.0759516	0.0000000	0.0000000	0.0000000	0.0000000	0.00
BETA11	0.0036260	-0.0000000	0.0036242	0.0000000	0.0000000	0.0000000	0.0000000	0.00
BETA22	0.0007930	-0.0000000	0.0007924	0.0000000	0.0000000	0.0000000	0.0000000	0.00
BETA33	0.0015080	-0.0000000	0.0015067	0.0000000	0.0000000	0.0000000	0.0000000	0.00
BETA12	0.0000880	-0.0000000	0.0000878	0.0000000	0.0000000	0.0000000	0.0000000	0.00
BETA13	-0.0002700	0.0000000	-0.0002697	0.0000000	0.0000000	0.0000000	0.0000000	0.00
BETA23	0.00003220	0.0000000	0.00003213	0.0000000	0.0000000	0.0000000	0.0000000	0.00

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES 3

X	1.00000	0.0757000	-0.0000335	1.00000	0.0756661	0.0002447	-0.14
Y	0.1445000	-0.0000081	0.1444919	0.0001258	0.0001551	0.0001258	-0.06
Z	0.7090000	0.0000106	0.7090105	0.0001551	0.0003715	0.0003715	0.07
BETA11	0.0015580	0.0000004	0.0015584	0.0000950	0.0000950	0.0000950	0.00
BETA22	0.0006670	-0.0000005	0.0006666	0.0001545	0.0001515	0.0001515	-0.00
BETA33	0.0015650	-0.0000004	0.0015645	-0.0001191	0.0001615	0.0001615	-0.00
BETA12	-0.0001200	0.0000009	0.0000009	0.0000571	0.0001987	0.0001987	0.01
BETA13	0.0000570	0.0000001	0.0000571	0.0002167	0.0000995	0.0000995	0.00
BETA23	0.0002170	-0.0000003	0.0002167	0.0000000	0.0000000	0.0000000	-0.00

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES 1

X	1.00000	0.7822000	-0.0000178	1.00000	0.7821822	0.0006541	-1.03
Y	-0.0005400	-0.0000370	-0.0000370	-0.0054370	0.0003143	0.0003143	-0.12
Z	0.2505999	-0.0000362	-0.0000362	0.2905632	0.0003913	0.0003913	-0.09
BETA11	0.0053860	-0.0000006	-0.0000006	0.0053654	0.0010906	0.0010906	-0.09
BETA22	0.0009110	-0.0000019	-0.0000019	0.0009091	0.0002559	0.0002559	-0.01
BETA33	0.0027890	0.0000011	0.0027901	0.0027901	0.0004354	0.0004354	0.00
BETA12	0.0003870	0.0000005	0.0000005	0.0003875	0.0004539	0.0004539	0.00
BETA13	0.0002460	0.0000008	0.0000008	0.0002468	0.0005635	0.0005635	0.00
BETA23	0.0006840	-0.0000001	0.0006839	0.0006839	0.0002844	0.0002844	-0.00

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES 1

X	1.00000	0.7186000	0.00000259	1.00000	0.7186258	0.0006560	0.04
Y	0.2446000	0.0000025	0.0000025	0.2446024	0.0003234	0.0003234	0.01
Z	0.1245000	-0.0000408	-0.0000408	0.1244592	0.0003891	0.0003891	-0.10
BETA11	0.0056530	0.0000002	0.0000002	0.0056532	0.0010982	0.0010982	0.00
BETA22	0.0013180	0.0000003	0.0000003	0.0013183	0.0002638	0.0002638	0.00
BETA33	0.0018470	0.0000011	0.0018481	0.0018481	0.0004143	0.0004143	0.00
BETA12	0.0001420	0.0000001	0.0000001	0.0001421	0.0004660	0.0004660	0.00
BETA13	0.0009360	-0.0000018	-0.0000018	0.0009342	0.0005632	0.0005632	-0.00
BETA23	-0.0002500	-0.0000060	-0.0000060	-0.0002560	0.0002804	0.0002804	-0.02

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES 1

X	1.00000	0.2135000	0.00000146	1.00000	0.2135146	0.0006548	0.02
Y	0.1698000	-0.0000235	-0.0000235	0.1697765	0.0003303	0.0003303	-0.07
Z	0.5373599	-0.0000198	-0.0000198	0.5373801	0.0003852	0.0003852	-0.05
BETA11	0.0061150	0.0000001	0.0000001	0.0061151	0.0011117	0.0011117	0.00
BETA22	0.0019150	-0.0000005	-0.0000005	0.0019185	0.0002851	0.0002851	-0.00
BETA33	0.0018080	-0.0000004	-0.0000004	0.0018076	0.0004237	0.0004237	-0.00
BETA12	0.0002160	0.0000002	0.0000002	0.0002162	0.0004792	0.0004792	0.00
BETA13	0.0004200	0.0000001	0.0000001	0.0004201	0.0005554	0.0005554	0.00
BETA23	0.0008620	-0.0000004	-0.0000004	0.0008616	0.0002929	0.0002929	-0.00

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES 1

X	1.00000	0.2632000	0.00000147	1.00000	0.2632146	0.0006150	0.02
Y	0.8550000	-0.0000130	-0.0000130	0.8549870	0.0003369	0.0003369	-0.04
Z	0.2889000	0.0000004	0.0000004	0.2889004	0.0004006	0.0004006	0.00
BETA11	0.0026430	-0.0000004	-0.0000004	0.0026426	0.0010579	0.0010579	-0.00
BETA22	0.0018680	0.0000003	0.0000003	0.0018677	0.0002878	0.0002878	-0.00
BETA33	0.0025750	0.0000002	0.0000002	0.0025752	0.0004388	0.0004388	0.00
BETA12	0.0001090	0.0000012	0.0000012	0.0001102	0.0004762	0.0004762	0.00
BETA13	0.0002520	-0.0000005	-0.0000005	0.0002515	0.0005615	0.0005615	-0.00
BETA23	0.0005120	-0.0000101	-0.0000101	0.0005019	0.0003020	0.0003020	-0.03

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES 1

X	1.00000	0.2614000	-0.0000455	1.00000	0.2613545	0.0006626	-0.07
Y	0.0527000	0.0000238	0.0000238	0.0527238	0.0003248	0.0003248	-0.07
Z	0.0919000	-0.0000440	-0.0000440	0.0918560	0.0003909	0.0003909	-0.11
BETA11	0.0067440	0.0000003	0.0000003	0.0067443	0.0011664	0.0011664	0.00

0.0014060
0.0026030
0.0009090
0.0023530
0.0004620

0.0000000
-0.0000000
0.0000001
0.0000004
0.0000002

0.0014060
0.0026030
0.0009091
0.0023534
0.0004622

0.0002722
0.0004411
0.0004773
0.0005865
0.0002907

0.00
0.00
0.00
0.00
0.00

MAXIMUM SHIFT/ERROR = -0.36
LEPAGE SHIFT/ERROR = 0.02

RESULTS OF STRUCTURE FACTOR CALCULATIONS

LL REFLECTIONS

WEIGHTED R	NUMERATOR	DENOMINATOR	NUMBER	R
287819.81	102318880.00	102318880.00	1873	0.053
UNWEIGHTED R	1876.53	29134.30	1873	0.048

RANGES OF F (OBS)

30941.50	4499943.00	1134	0.063
42860.16	17386192.00	443	0.050
43056.56	21200544.00	170	0.045
37402.45	28700464.00	91	0.036
26914.61	15513242.00	22	0.042
10940.10	4485657.00	5	0.049
5140.64	4973223.00	5	0.043
86862.88	5609422.00	3	0.124

RANGES OF (SIN(THETA))/LAMBDA)**2

126713.25	3165728.00	96	0.063
94486.37	24949264.00	166	0.062
21731.65	16115501.00	210	0.037
17346.84	11018384.00	234	0.040
6628.83	7306051.00	270	0.030
5343.23	4020314.00	267	0.036
6922.32	4050879.00	321	0.041
8646.65	3202656.00	308	0.052

UNREJECTED REFLECTIONS

WEIGHTED R	NUMERATOR	DENOMINATOR	NUMBER	R
287819.81	102318880.00	102318880.00	1873	0.053
UNWEIGHTED R	1876.53	29134.30	1873	0.048

RANGES OF F (OBS)

30941.50	4499943.00	1134	0.083
42860.16	17386192.00	443	0.050
43056.56	21200544.00	170	0.045
37402.45	28700464.00	91	0.036
26914.61	15513242.00	22	0.042
10940.10	4485657.00	5	0.049
5140.64	4973223.00	5	0.043
86862.88	5609422.00	3	0.124

RANGES OF (SIN(THETA))/LAMBDA)**2

126713.25	3165728.00	96	0.063
94486.37	24949264.00	166	0.062
21731.65	16115501.00	210	0.037
17346.84	11018384.00	234	0.040
6628.83	7306051.00	270	0.030
5343.23	4020314.00	267	0.036
6922.32	4050879.00	321	0.041
8646.65	3202656.00	308	0.052

SUM FCAL 38523.54
STANDARD DEV OF UNIT WEIGHT OBS 12.67

PARAMETER QLT CHANGE NEW ERROR SHIFT/ERROR
 STIPATED STD. DEV. FOR OBS. OF UNIT WEIGHT 12.67
 EXTINCTION CORRECTION 6.0000E+00
 SCALE FACTOR 1 6.6093 0.0001 6.6094 0.01351 0.01

ATCW 1 M1 EQUIPMENT FRACTION = 0.500
 OCCUPANCY SPECIES 2 0.13510
 OCCUPANCY SPECIES E 0.86490
 TOTAL OCCUPANCY (FIXED) = 1.00000
 X 0.5000000
 Y 0.0000000
 Z 0.5000000

ATCW 2 M2 EQUIPMENT FRACTION = 1.000
 OCCUPANCY SPECIES 2 0.09800
 OCCUPANCY SPECIES E 0.90200
 TOTAL OCCUPANCY (FIXED) = 1.00000
 X 0.0107245
 Y 0.1717792
 Z 0.3072934

ATCW 3 M3 EQUIPMENT FRACTION = 1.000
 OCCUPANCY SPECIES 2 0.80850
 OCCUPANCY SPECIES E 0.09950
 TOTAL OCCUPANCY (FIXED) = 0.90800
 X 0.4897066
 Y 0.8840591
 Z 0.0759516

ATCW 4 M3* EQUIPMENT FRACTION = 1.000
 OCCUPANCY SPECIES 2 0.09200
 OCCUPANCY SPECIES E 0.4897066
 X 0.8840591
 Y 0.0759516
 Z 0.0036242

BETA11 0.0028245 0.0000004 0.0028248 0.0003457 0.00
 BETA22 0.0010347 0.0000001 0.0010349 0.0000865 0.00
 BETA33 0.0015571 0.0000002 0.0015572 0.0001393 0.00
 BETA12 0.0000000 0.0000000 0.0000000 0.0000000 0.00
 BETA13 0.0000000 0.0000000 0.0000000 0.0000000 0.00
 BETA23 -0.0002036 0.0000000 -0.0002036 0.0000631 0.00
 BETA11 0.0107245 0.0000000 0.0107246 0.0001554 0.00
 BETA22 0.1717792 0.0000000 0.1717792 0.0000686 0.00
 BETA33 0.3072934 -0.0000000 0.3072934 0.0000858 -0.00
 BETA11 0.0042043 0.0000004 0.0042038 0.0002448 -0.00
 BETA22 0.0005546 -0.0000001 0.0005545 0.0000555 -0.00
 BETA33 0.0016944 -0.0000002 0.0016942 0.0000933 -0.00
 BETA12 0.0001178 -0.0000001 0.0001179 0.0001058 -0.00
 BETA13 0.00001178 -0.0000000 0.00001178 0.0001308 0.00
 BETA23 0.0004306 -0.0000000 0.0004305 0.0000547 -0.00
 BETA11 0.0000001 0.0000000 0.0000001 0.0002558 0.00
 BETA22 0.8840591 -0.0000000 0.8840591 0.0001122 -0.00
 BETA33 0.0759516 0.0000001 0.0759517 0.0001363 0.00
 BETA11 0.0036242 0.0000012 0.0036254 0.0000969 0.00
 BETA22 0.0007924 0.0000005 0.0007929 0.0001622 0.01
 BETA33 0.0015067 0.0000000 0.0015076 0.0001753 0.00
 BETA12 0.0000878 0.0000000 0.0000879 0.0002144 0.00
 BETA13 0.0002697 -0.0000000 0.0002697 0.0000962 -0.00
 BETA23 0.00003213 0.0000003 0.00003216 0.00003216 0.00

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES = 3

ATOM 10 CH*F
EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES = 1

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES = 1

X	0.0756661	0.0000000	0.0756661	0.0002450	0.00
Y	0.1444919	-0.0000000	0.1444919	0.0001259	-0.00
Z	0.7090105	0.0000000	0.7090105	0.0001552	-0.00
BETA11	0.0015584	0.0000003	0.0015587	0.0003768	0.00
BETA22	0.0006666	-0.0000000	0.0006665	0.0000966	-0.00
BETA33	0.0015645	0.0000001	0.0015646	0.0001531	0.00
BETA12	-0.0001191	-0.0000002	-0.0001192	0.0001616	-0.00
BETA13	0.0000571	0.0000000	0.0000572	0.0001789	0.00
BETA23	0.0002167	0.0000000	0.0002168	0.0000997	0.00

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES = 1

X	1.000000	-0.0000004	1.000000	0.0006570	-0.00
Y	0.7186258	0.0000000	0.7186257	0.0003238	-0.00
Z	0.2446024	-0.0000001	0.2446024	0.0003897	0.00
BETA11	0.1244592	0.0000001	0.1244593	0.0011017	0.00
BETA22	0.0056532	0.0000006	0.0056527	0.0002646	-0.00
BETA33	0.0013183	-0.0000001	0.0013182	0.0004151	-0.00
BETA12	0.0018491	-0.0000010	0.0018471	0.0004664	-0.00
BETA13	0.0001421	-0.0000002	0.0001419	0.0005638	0.00
BETA23	0.0009342	0.0000013	0.0009355	0.0002806	-0.00
BETA33	-0.0002560	-0.0000005	-0.0002564		

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES = 1

X	1.000000	0.0000000	1.000000	0.0006555	0.00
Y	0.2135146	0.0000003	0.2135146	0.0003317	0.00
Z	0.1697765	0.0000000	0.1697768	0.0003866	0.00
BETA11	0.5373801	0.0000000	0.5373801	0.0011149	0.00
BETA22	0.0061151	0.0000007	0.0061158	0.0002860	0.00
BETA33	0.0015185	0.0000006	0.0015192	0.0004250	-0.00
BETA12	0.0018076	-0.0000000	0.0018076	0.0004796	-0.00
BETA13	0.0002162	-0.0000000	0.0002162	0.0005598	0.00
BETA23	0.0004201	0.0000002	0.0004203	0.0002932	0.00
BETA33	0.0008616	0.0000004	0.0008621		

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES = 1

X	1.000000	0.0000003	1.000000	0.0006156	0.00
Y	0.2632146	-0.0000002	0.2632149	0.0003376	-0.00
Z	0.8549870	-0.0000000	0.8549867	0.0004614	-0.00
BETA11	0.2889004	0.0000003	0.2889001	0.0010597	0.00
BETA22	0.0028426	0.0000014	0.0028441	0.0002891	0.00
BETA33	0.0018677	0.0000006	0.0018683	0.0004401	-0.00
BETA12	0.0025752	-0.0000007	0.0025750	0.0004766	-0.00
BETA13	0.0001102	-0.0000008	0.0001094	0.0005621	0.00
BETA23	0.0002515	0.0000002	0.0002517	0.0003024	-0.00
BETA33	0.0005019	-0.0000002	0.0005017		

EQUIPOINT FRACTION = 1.000
OCCUPANCY SPECIES = 1

X	1.000000	-0.0000001	1.000000	0.0006634	-0.00
Y	0.2613545	0.0000002	0.2613544	0.0003253	0.00
Z	0.0527238	0.0000001	0.0527240	0.0003915	0.00
BETA11	0.0918560	-0.0000000	0.0918561	0.0011696	-0.00
BETA11	0.0067443	-0.0000000	0.0067443		

DELTA2
DELTA3
DELTA12
DELTA13
DELTA23

0.0014056	0.0000002	0.0014052	0.00002729	0.00
0.0026030	0.0000008	0.0026037	0.00004420	0.00
0.0009091	-0.0000001	0.0009090	0.0004777	0.00
0.0023534	-0.0000001	0.0023533	0.0005865	0.00
0.0004622	-0.0000005	0.0004617	0.0002905	-0.00

MAXIMUM SHIFT/ERROR = 0.01
AVERAGE SHIFT/ERROR = 0.00

	F (FCS)	F (CALC)	A (CALC)	E (CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	21.243	20.542	20.942	0.000	0.301	1.5712	1.0000
2	35.056	36.295	-36.255	0.000	-1.239	-7.0369	1.0000
3	41.184	44.420	44.404	0.000	-3.220	-18.5691	1.0000
4	15.472	20.169	20.169	0.000	-0.637	-3.2877	1.0000
5	38.600	37.837	-37.837	0.000	-1.238	-6.8675	1.0000
6	6.627	6.262	-6.262	0.000	0.345	1.0405	1.0000
7	25.837	40.631	40.631	0.000	-0.994	-5.2760	1.0000
8	34.812	35.649	-35.649	0.000	-1.138	-5.8516	1.0000
9	21.500	20.576	-20.576	0.000	0.924	4.2824	1.0000
10	23.175	23.353	23.353	0.000	-0.173	-0.8142	1.0000
11	5.4326	4.549	-4.549	0.000	0.776	1.7411	1.0000
12	7.938	8.668	-8.668	0.000	-0.909	-3.5672	1.0000
13	4.009	2.521	-2.521	0.000	1.488	3.3337	1.0000
14	8.740	8.444	-8.444	0.000	0.316	1.3183	1.0000
15	52.850	50.652	-50.652	0.000	1.697	10.0532	1.0000
16	3.504	4.442	-4.442	0.000	-0.539	-1.0366	1.0000
17	6.309	6.533	6.533	0.000	-0.224	-0.6377	1.0000
18	17.702	15.746	15.746	0.000	1.956	9.5561	1.0000
19	27.460	26.835	26.835	0.000	0.545	3.0548	1.0000
20	47.584	45.608	-45.608	0.000	1.976	11.4450	1.0000
21	15.871	15.432	15.432	0.000	0.439	2.1777	1.0000
22	42.409	41.248	41.248	0.000	1.162	7.5129	1.0000
23	21.506	22.304	-22.304	0.000	-0.395	-2.3892	1.0000
24	56.450	54.704	-54.704	0.000	1.746	11.4008	1.0000
25	42.636	38.217	-38.217	0.000	4.419	28.1928	1.0000
26	51.276	45.324	45.324	0.000	5.952	37.3920	1.0000
27	47.962	45.022	-45.022	0.000	2.940	16.8271	1.0000
28	19.185	18.833	18.833	0.000	0.352	2.0681	1.0000
29	49.036	46.810	46.810	0.000	2.226	14.8487	1.0000
30	33.180	29.336	29.336	0.000	3.844	24.7858	1.0000
31	15.977	13.988	-13.988	0.000	1.989	11.1151	1.0000
32	21.226	31.957	31.957	0.000	-0.769	-4.6719	1.0000
33	5.628	6.101	-6.101	0.000	-0.473	-1.4952	1.0000
34	23.452	23.478	-23.478	0.000	-0.026	-0.1431	1.0000
36	16.991	16.300	-16.300	0.000	0.691	3.8731	1.0000
37	67.223	65.365	-65.365	0.000	1.853	13.1016	1.0000
38	62.774	60.061	60.061	0.000	2.714	18.9998	1.0000
39	19.170	16.517	-16.517	0.000	2.653	16.4624	1.0000
40	66.663	65.108	-65.108	0.000	1.555	11.5080	1.0000
41	12.755	10.800	10.800	0.000	1.955	10.5641	1.0000
42	37.036	35.829	35.829	0.000	1.209	9.2282	1.0000
43	68.872	68.346	-68.346	0.000	0.526	4.0235	1.0000
44	3.177	2.730	-2.730	0.000	0.447	1.1247	1.0000
45	43.529	43.043	43.043	0.000	0.486	3.4411	1.0000
46	5.205	3.637	-3.637	0.000	1.568	5.3834	1.0000
47	18.837	20.546	-20.546	0.000	-1.709	-9.9680	1.0000
48	52.849	53.772	53.772	0.000	-0.923	-5.6926	1.0000
49	44.694	42.408	42.408	0.000	2.287	16.2330	1.0000
50	17.430	14.584	14.584	0.000	2.846	18.6623	1.0000
51	42.288	37.743	37.743	0.000	4.546	34.2978	1.0000
52	7.671	6.745	-6.745	0.000	0.926	4.7202	1.0000
53	48.295	44.552	44.552	0.000	3.743	32.2584	1.0000
54	45.647	44.717	-44.717	0.000	0.930	8.2717	1.0000

	F(GES)	F(CALC)	A(CALC)	E(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
55	2.466	1.725	1.735	0.000	0.731	1.7892	1.0000
56	14.570	13.923	-13.923	0.000	0.647	4.8108	1.0000
57	3.556	3.156	3.156	0.000	0.399	1.1307	1.0000
58	62.073	61.766	-61.766	0.000	0.267	2.0629	1.0000
59	22.660	22.158	22.158	0.000	0.522	3.5450	1.0000
60	8.957	9.058	-9.058	0.000	-0.101	-0.4786	1.0000
61	8.367	9.185	-9.185	0.000	-0.818	-3.1336	1.0000
62	5.522	4.091	-4.091	0.000	1.431	4.7578	1.0000
63	112.280	114.778	114.778	0.000	-2.498	-20.5608	1.0000
64	41.048	37.067	-37.067	0.000	3.980	32.8027	1.0000
65	33.226	31.345	-31.345	0.000	1.877	17.5711	1.0000
66	76.286	74.893	74.893	0.000	1.392	14.4236	1.0000
67	144.125	162.850	162.850	0.000	-18.761	-197.1369	1.0000
68	67.419	67.466	-67.466	0.000	-0.046	-0.4721	1.0000
69	31.955	31.552	31.552	0.000	0.402	3.8273	1.0000
70	38.809	38.424	38.424	0.000	0.384	3.4977	1.0000
71	33.740	33.762	-33.762	0.000	-0.022	-0.1850	1.0000
72	71.595	70.290	-70.290	0.000	1.305	10.5477	1.0000
73	26.402	25.767	25.767	0.000	0.635	4.5593	1.0000
74	15.463	15.540	-15.540	0.000	-0.477	-2.5331	1.0000
75	28.323	27.785	-27.785	0.000	0.538	3.3903	1.0000
76	7.868	8.742	8.742	0.000	-0.874	-3.5567	1.0000
77	53.606	49.033	-49.033	0.000	4.573	40.1926	1.0000
78	54.347	54.030	-54.030	0.000	0.317	3.3225	1.0000
79	80.522	81.504	81.504	0.000	-0.982	-11.9704	1.0000
80	56.132	57.011	-57.011	0.000	-0.878	-11.0174	1.0000
81	46.767	46.390	-46.390	0.000	0.377	4.5149	1.0000
82	61.246	61.243	61.243	0.000	0.003	0.0362	1.0000
83	45.889	45.268	45.268	0.000	0.622	6.4059	1.0000
84	46.676	44.545	-44.545	0.000	1.731	16.4662	1.0000
85	59.748	58.727	58.727	0.000	1.022	9.0281	1.0000
86	35.450	34.526	34.526	0.000	0.923	7.4237	1.0000
87	28.762	27.965	-27.965	0.000	0.797	5.8469	1.0000
88	23.088	23.969	-23.969	0.000	-0.881	-5.8204	1.0000
89	35.631	36.352	36.352	0.000	-0.721	-4.5704	1.0000
90	38.037	37.402	-37.402	0.000	0.635	3.7857	1.0000
91	11.105	11.096	-11.096	0.000	0.009	0.0858	1.0000
92	35.519	35.052	-35.052	0.000	0.867	15.8214	1.0000
93	41.586	40.021	40.021	0.000	1.965	30.7808	1.0000
94	65.256	68.149	-68.149	0.000	-2.894	-40.5524	1.0000
95	23.724	22.516	22.516	0.000	1.208	14.9770	1.0000
96	60.702	60.194	-60.194	0.000	0.507	5.8408	1.0000
97	2.451	0.426	-0.426	0.000	2.025	5.5621	1.0000
98	35.510	34.977	-34.977	0.000	0.533	4.9978	1.0000
99	27.673	25.909	25.909	0.000	1.764	14.9065	1.0000
100	22.922	23.015	-23.015	0.000	-0.093	-0.6989	1.0000
101	11.428	10.686	10.686	0.000	0.753	3.9993	1.0000
102	18.201	18.105	18.105	0.000	0.097	0.5492	1.0000
103	3.828	1.348	-1.348	0.000	2.480	5.8130	1.0000
104	41.184	43.357	-43.357	0.000	-2.173	-34.0336	1.0000
105	53.984	54.970	54.970	0.000	-0.986	-13.3807	1.0000
106	43.045	43.223	43.223	0.000	-0.178	-1.9801	1.0000
107	11.045	8.894	8.894	0.000	2.151	5.3517	1.0000

	F(CBS)	F(CALC)	Δ(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
0	21.515	21.262	21.262	0.000	0.253	1.7519	1.0000
0	46.533	45.976	-45.976	0.000	0.568	7.7569	1.0000
0	34.315	32.605	-32.605	0.000	1.710	11.6113	1.0000
0	64.197	62.900	62.900	0.000	1.396	9.6440	1.0000
0	9.436	8.702	-8.702	0.000	0.724	1.9105	1.0000
0	15.296	13.728	-13.728	0.000	1.568	6.6145	1.0000
0	11.272	11.055	-11.055	0.000	0.176	1.6888	1.0000
0	1E.358	14.905	14.905	0.000	3.494	39.7425	1.0000
0	7E.616	E1.965	E1.965	0.000	-3.353	-40.5662	1.0000
0	16.416	15.729	-15.729	0.000	0.687	7.1836	1.0000
0	37.311	36.184	36.184	0.000	1.127	11.6924	1.0000
0	51.124	51.101	51.101	0.000	0.023	0.2241	1.0000
0	6.052	6.265	-6.265	0.000	-0.213	-1.0658	1.0000
0	56.148	55.602	-55.602	0.000	0.545	4.5212	1.0000
0	28.959	27.905	27.905	0.000	1.054	7.8152	1.0000
0	22.060	21.228	-21.228	0.000	0.832	5.4641	1.0000
0	33.180	32.253	-32.253	0.000	0.927	5.9184	1.0000
0	2.723	2.735	-2.735	0.000	-0.012	-0.0187	1.0000
0	33.165	34.159	34.159	0.000	-0.994	-5.5183	1.0000
0	52.834	49.033	-49.033	0.000	3.801	33.2780	1.0000
0	20.985	15.752	-15.752	0.000	1.234	10.8150	1.0000
0	56.042	97.635	-97.635	0.000	-1.589	-14.8592	1.0000
0	42.061	35.451	-35.451	0.000	2.611	22.8232	1.0000
0	6.506	5.985	-5.985	0.000	0.521	2.4164	1.0000
0	27.310	26.772	-26.772	0.000	0.537	4.0136	1.0000
0	2.043	2.205	2.205	0.000	-0.166	-0.2533	1.0000
0	60.253	60.166	-60.166	0.000	0.127	0.8829	1.0000
0	15.281	14.745	-14.745	0.000	0.536	2.9038	1.0000
0	13.557	13.676	13.676	0.000	-0.119	-0.5826	1.0000
0	15.675	15.972	15.972	0.000	-0.297	-1.4217	1.0000
0	111.281	114.778	114.778	0.000	-3.497	-28.8517	1.0000
0	146.534	158.830	-158.830	0.000	-12.296	-97.5593	1.0000
0	68.085	64.179	-64.179	0.000	3.907	31.1459	1.0000
0	29.006	25.934	-25.934	0.000	2.072	15.3862	1.0000
0	3.344	4.741	4.741	0.000	-1.397	-3.2321	1.0000
0	65.065	88.798	-88.798	0.000	0.257	1.8716	1.0000
0	67.873	65.415	-65.415	0.000	2.455	16.8817	1.0000
0	28.702	28.123	-28.123	0.000	0.578	3.5862	1.0000
0	25.464	24.261	-24.261	0.000	1.202	6.9775	1.0000
0	5.280	4.893	4.893	0.000	0.388	0.9993	1.0000
0	53.651	54.490	54.490	0.000	-0.839	-4.6113	1.0000
0	43.801	42.408	-42.408	0.000	1.394	9.9600	1.0000
0	10.258	7.667	-7.667	0.000	2.591	12.5747	1.0000
0	16.754	14.325	-14.325	0.000	2.470	14.6124	1.0000
0	41.517	39.365	-39.365	0.000	2.151	14.4360	1.0000
0	6.594	4.596	-4.596	0.000	3.998	16.5243	1.0000
0	16.749	15.774	-15.774	0.000	0.975	5.3525	1.0000
0	19.533	19.287	-19.287	0.000	0.248	1.3255	1.0000
0	20.552	19.804	-19.804	0.000	0.788	4.1391	1.0000
0	31.565	31.892	31.892	0.000	-0.527	-2.7693	1.0000
0	16.354	10.509	-10.509	0.000	-0.115	-0.4257	1.0000
0	16.598	16.300	-16.300	0.000	0.298	1.7219	1.0000
0	43.136	43.893	43.893	0.000	-0.758	-5.2056	1.0000

	F(OBS)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	29.456	28.379	26.379	0.000	1.079	6.7722	1.0000
2	36.430	35.944	-35.944	0.000	2.486	14.9507	1.0000
3	66.811	67.068	67.068	0.000	1.744	10.4299	1.0000
4	12.072	12.756	12.756	0.000	0.316	1.4149	1.0000
5	11.574	11.704	-11.704	0.000	-0.130	-0.5452	1.0000
6	15.251	15.443	-15.443	0.000	-0.153	-0.7092	1.0000
7	41.487	41.248	41.248	0.000	0.239	1.5658	1.0000
8	64.030	64.190	-64.190	0.000	-0.160	-1.0436	1.0000
9	18.615	17.254	17.254	0.000	1.401	7.7676	1.0000
10	37.992	37.598	37.598	0.000	0.353	2.3062	1.0000
11	6.821	6.812	6.812	0.000	-0.291	-0.5011	1.0000
12	27.854	27.293	-27.293	0.000	0.561	2.8674	1.0000
13	62.365	64.168	64.168	0.000	-1.803	-9.3465	1.0000
14	5.356	4.549	-4.549	0.000	0.807	1.8944	1.0000
15	30.744	31.438	-31.438	0.000	-0.694	-4.0861	1.0000
16	3.056	1.454	-1.454	0.000	1.603	2.8342	1.0000
17	9.774	11.150	-11.150	0.000	-1.416	-5.8221	1.0000
18	8.881	6.538	8.938	0.000	-0.057	-0.2166	1.0000
19	20.350	20.942	20.942	0.000	-0.592	-3.1463	1.0000
20	35.147	38.823	38.823	0.000	-3.676	-20.7992	1.0000
21	24.450	26.349	-26.349	0.000	-1.899	-11.0186	1.0000
22	41.335	44.341	44.341	0.000	0.306	0.2764	1.0000
23	3.964	3.842	-3.842	0.000	0.122	-1.7618	1.0000
24	11.151	11.379	-11.379	0.000	-0.228	-1.0359	1.0000
25	5.432	4.741	-4.741	0.000	0.691	2.0548	1.0000
26	15.111	13.813	13.813	0.000	1.302	6.0002	1.0000
27	17.294	18.286	18.286	0.000	-0.592	-5.6284	1.0000
28	11.499	11.717	-11.717	0.000	-0.219	-1.0680	1.0000
29	7.278	7.466	7.466	0.000	-0.189	-0.7128	1.0000
30	40.836	42.386	42.386	0.000	-1.550	-9.1627	1.0000
31	38.476	40.211	-40.211	0.000	-1.736	-9.8216	1.0000
32	3.132	4.060	-4.060	0.000	-0.928	-1.5084	1.0000
33	14.570	14.838	-14.838	0.000	-0.268	-1.2192	1.0000
34	2.512	1.894	1.894	0.000	0.618	0.8040	1.0000
35	2.194	0.375	0.375	0.000	1.819	2.2554	1.0000
36	9.487	9.753	9.753	0.000	-0.267	-1.1103	1.0000
37	6.052	7.606	7.606	0.000	-1.554	-5.0332	1.0000
38	15.644	14.990	14.990	0.000	0.654	3.7735	1.0000
39	3.041	0.833	0.833	0.000	2.208	4.1950	1.0000
40	2.058	1.859	1.859	0.000	0.199	0.3056	1.0000
41	13.602	13.468	13.468	0.000	0.134	0.7572	1.0000
42	43.272	44.200	-44.200	0.000	-0.928	-6.0008	1.0000
43	4.403	3.349	3.349	0.000	1.054	2.5872	1.0000
44	20.531	20.033	-20.033	0.000	0.498	2.6546	1.0000
45	14.979	14.554	-14.554	0.000	0.425	2.0116	1.0000
46	12.270	11.995	-11.995	0.000	0.276	1.1503	1.0000
47	24.344	24.135	24.135	0.000	0.209	1.0043	1.0000
48	7.701	6.605	6.605	0.000	1.096	3.8790	1.0000
49	10.183	9.324	-9.324	0.000	0.858	3.9120	1.0000
50	5.250	5.747	5.747	0.000	-0.496	-1.6243	1.0000
51	2.436	0.632	0.632	0.000	1.804	3.2574	1.0000
52	13.481	10.659	10.659	0.000	2.822	16.0228	1.0000
53	89.782	91.804	-91.804	0.000	-2.022	-15.1529	1.0000

STRUCTURE FACTORS

L	H	F(GES)	F(CALC)	A(CALC)	F(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	1	45.461	42.310	42.310	0.000	3.170	22.7763	1.0000
1	1	32.513	21.162	-21.162	0.000	1.351	8.5374	1.0000
1	1	41.260	38.755	-38.755	0.000	2.504	16.0222	1.0000
1	1	7.663	1.929	1.929	0.000	0.734	1.1633	1.0000
1	1	56.904	55.221	55.221	0.000	1.683	10.1663	1.0000
1	1	36.176	35.217	-35.217	0.000	0.959	5.4245	1.0000
1	1	16.856	16.834	16.834	0.000	0.021	0.1010	1.0000
1	1	32.227	32.454	32.454	0.000	-0.227	-1.1588	1.0000
1	1	7.898	8.153	-8.153	0.000	-0.255	-0.8208	1.0000
1	1	7.005	6.671	6.671	0.000	0.334	1.0555	1.0000
1	1	10.636	10.763	-10.763	0.000	-0.126	-0.5257	1.0000
1	1	10.606	11.114	-11.114	0.000	-0.508	-2.2836	1.0000
1	1	5.129	5.893	5.893	0.000	-0.764	-2.2191	1.0000
1	1	17.112	15.308	15.308	0.000	1.804	10.5500	1.0000
1	1	3.011	2.294	2.294	0.000	0.717	1.4104	1.0000
1	1	8.064	7.854	7.854	0.000	0.211	0.9142	1.0000
1	1	24.132	24.433	24.433	0.000	-0.301	-2.0821	1.0000
1	1	23.013	22.907	-22.907	0.000	0.105	0.7404	1.0000
1	1	8.337	8.036	8.036	0.000	0.301	1.5699	1.0000
1	1	29.080	27.338	-27.338	0.000	1.742	12.6272	1.0000
1	1	12.861	12.443	-12.443	0.000	0.418	2.4250	1.0000
1	1	88.632	85.688	85.688	0.000	2.943	21.5662	1.0000
1	1	15.624	18.072	-18.072	0.000	1.551	9.8205	1.0000
1	1	17.430	16.605	16.605	0.000	0.824	4.9674	1.0000
1	1	22.544	22.665	22.665	0.000	-0.126	-0.7536	1.0000
1	1	17.884	17.638	17.638	0.000	0.245	1.3413	1.0000
1	1	36.342	36.226	-36.226	0.000	0.117	0.6662	1.0000
1	1	17.460	16.332	16.332	0.000	1.128	5.6155	1.0000
1	1	14.404	14.931	-14.931	0.000	-0.527	-2.4515	1.0000
1	1	5.150	5.273	-5.273	0.000	-0.083	-0.2283	1.0000
1	1	14.328	14.231	14.231	0.000	0.097	0.5325	1.0000
1	1	22.877	23.083	23.083	0.000	-0.207	-1.4406	1.0000
1	1	6.294	5.747	5.747	0.000	0.547	2.3203	1.0000
1	1	2.154	2.755	-2.755	0.000	-0.561	-0.5392	1.0000
1	1	22.771	20.834	-20.834	0.000	1.937	14.3974	1.0000
1	1	3.117	1.501	-1.501	0.000	1.616	3.8631	1.0000
1	1	15.593	17.906	-17.906	0.000	1.688	12.7612	1.0000
1	1	47.756	43.755	43.755	0.000	4.040	35.0001	1.0000
1	1	73.517	70.078	70.078	0.000	3.439	29.4800	1.0000
1	1	30.820	28.759	-28.759	0.000	2.020	16.7548	1.0000
1	1	71.111	68.403	68.403	0.000	2.708	22.7997	1.0000
1	1	3.253	3.217	3.217	0.000	0.036	0.0952	1.0000
1	1	26.069	25.714	-25.714	0.000	0.355	2.6459	1.0000
1	1	25.918	25.525	-25.525	0.000	0.393	2.7540	1.0000
1	1	20.910	20.113	20.113	0.000	0.797	5.1066	1.0000
1	1	53.258	53.460	-53.460	0.000	-0.203	-1.3227	1.0000
1	1	6.960	7.054	-7.054	0.000	-0.094	-0.3428	1.0000
1	1	9.835	9.407	9.407	0.000	0.427	1.8508	1.0000
1	1	3.798	3.302	3.302	0.000	0.496	1.0398	1.0000
1	1	3.404	0.449	-0.449	0.000	2.955	7.0239	1.0000
1	1	2.935	2.455	2.455	0.000	0.480	1.0418	1.0000
1	1	3.056	1.158	-1.158	0.000	1.898	4.4590	1.0000
1	1	1.740	0.415	-0.415	0.000	1.325	2.0418	1.0000

	F(IFCS)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	3.298	3.485	-3.485	0.000	-0.187	-0.5384	1.0000
1	28.898	27.045	27.045	0.000	1.853	15.8441	1.0000
1	10.016	8.585	-8.585	0.000	1.031	7.2648	1.0000
1	15.009	14.837	14.837	0.000	0.172	1.4456	1.0000
1	3.026	1.745	-1.745	0.000	1.261	4.0547	1.0000
1	6.335	4.339	-4.339	0.000	1.971	10.6152	1.0000
1	108.077	114.315	-114.315	0.000	-8.238	-77.4534	1.0000
1	89.418	92.279	92.279	0.000	-2.861	-29.4540	1.0000
1	7.565	6.533	-6.533	0.000	0.932	6.7136	1.0000
1	73.713	73.641	-73.641	0.000	0.073	0.7418	1.0000
1	62.578	61.633	-61.633	0.000	0.945	9.0897	1.0000
1	61.746	60.036	-60.036	0.000	1.710	15.4400	1.0000
1	72.110	71.297	-71.297	0.000	0.852	7.1576	1.0000
1	21.618	21.301	-21.301	0.000	0.517	3.7556	1.0000
1	29.872	28.397	-28.397	0.000	0.925	6.5514	1.0000
1	20.815	19.964	-19.964	0.000	0.855	5.3480	1.0000
1	32.983	32.925	-32.925	0.000	0.055	0.3623	1.0000
1	40.488	40.695	40.695	0.000	-0.407	-2.3959	1.0000
1	3.642	2.151	-2.151	0.000	1.692	3.8087	1.0000
1	6.406	5.879	-5.879	0.000	0.521	1.8680	1.0000
1	6.385	6.574	-6.574	0.000	-0.190	-0.7112	1.0000
1	10.152	10.136	-10.136	0.000	0.017	0.0913	1.0000
1	19.835	19.967	19.967	0.000	-0.132	-0.9259	1.0000
1	6.744	6.500	-6.500	0.000	0.248	1.3013	1.0000
1	8.049	7.521	-7.521	0.000	0.528	3.3287	1.0000
1	16.356	16.371	16.371	0.000	-0.016	-0.1356	1.0000
1	8.155	7.971	-7.971	0.000	0.184	1.3482	1.0000
1	35.020	36.917	-36.917	0.000	2.103	23.3221	1.0000
1	65.891	61.512	-61.512	0.000	4.380	51.9676	1.0000
1	7.020	8.336	8.336	0.000	-1.315	-10.7185	1.0000
1	38.097	32.755	-32.755	0.000	5.335	52.5855	1.0000
1	12.301	9.171	-9.171	0.000	3.130	30.1559	1.0000
1	63.365	65.085	-65.085	0.000	-1.724	-23.3595	1.0000
1	86.680	93.165	-93.165	0.000	-6.485	-86.0701	1.0000
1	58.568	58.473	-58.473	0.000	0.095	1.1643	1.0000
1	60.717	60.946	-60.946	0.000	-0.229	-2.5452	1.0000
1	5.250	4.184	-4.184	0.000	1.066	5.9597	1.0000
1	16.416	15.350	-15.350	0.000	1.066	9.1143	1.0000
1	42.440	40.993	-40.993	0.000	1.446	12.4464	1.0000
1	14.041	14.128	-14.128	0.000	-0.087	-0.5961	1.0000
1	43.847	43.787	-43.787	0.000	0.060	0.4344	1.0000
1	5.810	5.198	-5.198	0.000	0.612	2.1333	1.0000
1	7.777	7.872	-7.872	0.000	-0.096	-0.3608	1.0000
1	2.454	2.454	-2.454	0.000	-0.245	-0.3269	1.0000
1	12.270	11.995	-11.995	0.000	0.275	1.4846	1.0000
1	1.664	1.242	-1.242	0.000	0.422	0.5413	1.0000
1	12.210	12.745	12.745	0.000	-0.535	-3.4064	1.0000
1	8.533	8.429	-8.429	0.000	0.105	0.6222	1.0000
1	10.137	10.631	10.631	0.000	-0.494	-3.4821	1.0000
1	27.400	27.985	-27.985	0.000	-0.584	-5.5663	1.0000
1	2.194	1.946	-1.946	0.000	0.248	0.7344	1.0000
1	20.032	18.603	-18.603	0.000	1.429	16.3440	1.0000
1	6.506	4.502	-4.502	0.000	2.004	19.9463	1.0000

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H	K	L	F(IGES)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	0	2	15.654	17.640	-17.640	0.000	2.014	28.3835	1.0000
1	-1	0	23.351	23.276	23.276	0.000	0.085	1.3846	1.0000
1	0	0	11.983	9.171	-9.171	0.000	2.612	25.6002	1.0000
1	-1	1	30.911	29.051	29.051	0.000	1.860	30.4263	1.0000
1	-1	3	81.112	84.506	84.506	0.000	-3.394	-46.2486	1.0000
1	-1	4	57.933	57.547	57.547	0.000	0.386	4.7146	1.0000
1	-1	5	2.391	1.419	1.419	0.000	0.971	3.2623	1.0000
1	-1	6	6.355	5.776	5.776	0.000	0.578	3.6726	1.0000
1	-1	7	84.970	86.887	86.887	0.000	-1.917	-17.8938	1.0000
1	-1	8	41.159	39.849	-39.849	0.000	1.350	0.2103	1.0000
1	-1	9	18.322	18.109	-18.109	0.000	0.213	1.5269	1.0000
1	-1	10	10.712	10.422	10.422	0.000	0.290	1.6644	1.0000
1	-1	11	53.485	53.854	-53.854	0.000	-0.370	-2.3077	1.0000
1	-2	12	5.840	6.125	-6.125	0.000	-0.285	-0.9821	1.0000
1	-2	11	4.100	5.024	5.024	0.000	-0.924	-2.6495	1.0000
1	-2	10	2.043	0.632	-0.632	0.000	1.410	2.4070	1.0000
1	-2	9	4.650	4.418	-4.418	0.000	0.273	1.0868	1.0000
1	-2	8	12.800	11.274	11.274	0.000	1.526	11.4107	1.0000
1	-2	7	12.422	12.433	12.433	0.000	-0.011	-0.0904	1.0000
1	-2	6	6.718	6.753	6.753	0.000	-0.035	-0.2410	1.0000
1	-2	5	11.484	11.082	-11.082	0.000	0.402	3.9417	1.0000
1	-2	4	16.235	16.911	16.911	0.000	-0.677	-7.9173	1.0000
1	-2	3	71.005	67.155	-67.155	0.000	3.850	52.5759	1.0000
1	-2	2	29.004	27.032	-27.032	0.000	1.972	28.6508	1.0000
1	-2	1	16.492	15.514	-15.514	0.000	0.978	13.0030	1.0000
1	-2	0	38.275	32.759	32.759	0.000	5.520	54.0524	1.0000
1	-3	0	108.630	114.315	-114.315	0.000	-5.484	-50.4157	1.0000
1	-3	1	51.295	96.517	96.517	0.000	-5.223	-61.5315	1.0000
1	-3	2	90.341	94.688	94.688	0.000	-4.347	-58.1610	1.0000
1	-3	3	13.859	11.552	11.552	0.000	2.307	27.7728	1.0000
1	-3	4	46.358	45.092	-45.092	0.000	1.266	15.4967	1.0000
1	-3	5	58.058	102.046	102.046	0.000	-3.988	-45.1319	1.0000
1	-3	6	48.082	47.666	-47.666	0.000	0.417	4.3048	1.0000
1	-3	7	48.038	46.985	-46.985	0.000	1.053	9.9838	1.0000
1	-3	8	4.963	4.175	-4.175	0.000	0.787	3.6500	1.0000
1	-3	9	11.907	11.101	11.101	0.000	0.806	5.5278	1.0000
1	-3	10	59.930	59.549	-59.549	0.000	0.381	2.8716	1.0000
1	-3	11	13.874	13.892	13.892	0.000	-0.018	-0.1086	1.0000
1	-3	12	11.378	10.484	10.484	0.000	0.894	4.6109	1.0000
1	-3	13	3.677	4.564	-4.564	0.000	-0.888	-1.9598	1.0000
1	-4	13	12.028	12.023	-12.023	0.000	0.005	0.0252	1.0000
1	-4	12	8.775	8.041	8.041	0.000	0.735	3.4694	1.0000
1	-4	11	5.174	6.442	6.442	0.000	-1.267	-4.3354	1.0000
1	-4	10	11.393	11.775	11.775	0.000	-0.382	-2.3340	1.0000
1	-4	9	14.661	14.844	14.844	0.000	-0.184	-1.4302	1.0000
1	-4	8	13.753	13.869	-13.869	0.000	-0.116	-0.9603	1.0000
1	-4	7	29.443	28.642	-28.642	0.000	0.801	7.9995	1.0000
1	-4	6	17.672	16.615	-16.615	0.000	1.056	10.8925	1.0000
1	-4	5	5.053	3.199	-3.199	0.000	1.854	3.4578	1.0000
1	-4	3	1.210	0.157	-0.157	0.000	1.053	8.1149	1.0000
1	-4	2	78.570	71.665	71.665	0.000	6.905	71.3133	1.0000
1	-4	1	6.642	4.338	4.338	0.000	2.304	11.6579	1.0000
1	-5	0	50.005	43.755	43.755	0.000	6.249	51.9544	1.0000

I	K	L	F(COFS)	F(CALC)	A(CALC)	E(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	-5	1	18.701	15.216	15.216	0.000	3.485	28.3643	1.0000
1	-5	2	42.788	39.876	-39.876	0.000	2.912	30.6539	1.0000
1	-5	3	49.475	48.206	48.206	0.000	1.265	14.1662	1.0000
1	-5	4	71.762	72.308	-72.308	0.000	-0.546	-6.0553	1.0000
1	-5	5	19.139	18.363	-18.363	0.000	0.777	7.7442	1.0000
1	-5	6	27.658	26.076	-26.076	0.000	1.582	15.2615	1.0000
1	-5	7	5.432	4.961	-4.961	0.000	0.471	2.5207	1.0000
1	-5	8	39.701	39.713	-39.713	0.000	-0.012	-0.1023	1.0000
1	-5	9	35.162	34.710	34.710	0.000	0.453	3.6310	1.0000
1	-5	10	8.972	9.103	-9.103	0.000	-0.130	-0.7091	1.0000
1	-5	11	12.407	11.416	11.416	0.000	0.950	5.6920	1.0000
1	-5	12	14.192	13.932	13.932	0.000	0.260	1.4735	1.0000
1	-5	13	25.076	25.872	25.872	0.000	-0.802	-4.6716	1.0000
1	-6	13	4.221	3.143	3.143	0.000	1.078	3.1138	1.0000
1	-6	12	4.252	5.122	5.122	0.000	-0.870	-2.3733	1.0000
1	-6	11	10.046	10.562	10.562	0.000	-0.515	-2.7133	1.0000
1	-6	10	12.664	11.845	-11.845	0.000	0.819	5.1780	1.0000
1	-6	8	6.097	6.610	-6.610	0.000	-0.513	-2.7866	1.0000
1	-6	7	4.416	5.157	5.157	0.000	-0.739	-3.3707	1.0000
1	-6	6	21.318	20.712	-20.712	0.000	0.606	5.5323	1.0000
1	-6	5	11.378	11.347	11.347	0.000	0.031	0.2596	1.0000
1	-6	4	3.465	1.752	-1.752	0.000	1.712	7.3780	1.0000
1	-6	3	2.646	1.000	-1.000	0.000	1.647	5.3480	1.0000
1	-6	2	14.646	14.848	-14.848	0.000	-0.202	-1.6591	1.0000
1	-6	1	19.775	16.050	16.050	0.000	3.724	28.1653	1.0000
1	-6	0	20.531	17.906	17.906	0.000	2.625	19.3225	1.0000
1	-7	0	8.382	8.036	8.036	0.000	0.346	1.7012	1.0000
1	-7	1	36.902	32.627	32.627	0.000	4.075	31.3897	1.0000
1	-7	2	118.861	121.854	-121.854	0.000	-2.992	-25.4187	1.0000
1	-7	3	2.678	1.579	1.579	0.000	1.099	3.0241	1.0000
1	-7	4	16.356	15.475	15.475	0.000	0.881	7.5491	1.0000
1	-7	5	42.539	42.011	-42.011	0.000	0.928	8.7114	1.0000
1	-7	6	43.211	41.969	-41.969	0.000	1.242	11.3532	1.0000
1	-7	7	85.651	86.089	86.089	0.000	-0.438	-3.8771	1.0000
1	-7	8	6.339	6.845	-6.845	0.000	-0.506	-2.5882	1.0000
1	-7	9	7.777	7.211	-7.211	0.000	0.566	3.1245	1.0000
1	-7	10	38.067	38.071	38.071	0.000	-0.003	-0.0249	1.0000
1	-7	11	35.283	35.187	35.187	0.000	0.097	0.6526	1.0000
1	-7	12	43.045	43.817	-43.817	0.000	-0.772	-4.9505	1.0000
1	-7	13	13.420	13.895	13.895	0.000	-0.474	-2.4782	1.0000
1	-8	13	2.693	1.567	1.567	0.000	1.126	2.0571	1.0000
1	-8	11	13.617	13.936	13.936	0.000	-0.319	-1.8379	1.0000
1	-8	10	6.914	6.680	6.680	0.000	0.234	1.0724	1.0000
1	-8	9	7.958	7.563	-7.563	0.000	0.396	2.1512	1.0000
1	-8	8	3.238	2.237	2.237	0.000	1.001	2.7556	1.0000
1	-8	7	9.547	7.081	-7.081	0.000	2.467	15.8891	1.0000
1	-8	6	20.138	19.125	-19.125	0.000	1.013	8.2865	1.0000
1	-8	5	24.617	23.951	-23.951	0.000	0.666	5.6338	1.0000
1	-8	4	23.618	23.497	23.497	0.000	0.120	1.0055	1.0000
1	-8	3	3.435	2.773	-2.773	0.000	0.662	1.9364	1.0000
1	-8	2	23.013	17.951	17.951	0.000	5.062	36.1269	1.0000
1	-8	1	24.117	21.434	21.434	0.000	2.683	18.6868	1.0000
1	-8	0	23.921	22.907	22.907	0.000	1.013	6.9335	1.0000

H	K	L	F(GES)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR	
1	-9	0	93.428	91.804	-91.804	0.000	1.624	11.6944	1.0000	444
1	-9	1	18.564	14.959	-14.959	0.000	0.625	3.7647	1.0000	445
1	-9	2	24.526	21.829	-21.829	0.000	2.696	18.3345	1.0000	446
1	-9	3	5.449	5.222	-5.222	0.000	0.467	1.7350	1.0000	447
1	-9	4	46.227	43.520	-43.520	0.000	2.717	21.6645	1.0000	448
1	-9	5	83.351	82.001	-82.001	0.000	1.351	11.1599	1.0000	449
1	-9	6	16.265	14.792	-14.792	0.000	1.473	10.8175	1.0000	450
1	-9	7	1.455	0.632	-0.632	0.000	1.062	1.7165	1.0000	451
1	-9	8	12.422	12.716	12.716	0.000	-0.295	-1.9046	1.0000	452
1	-9	9	33.695	32.789	-32.789	0.000	0.905	6.3600	1.0000	453
1	-9	10	39.323	39.417	-39.417	0.000	-0.094	-0.6505	1.0000	454
1	-9	11	2.154	0.087	-0.087	0.000	2.107	3.3043	1.0000	455
1	-9	12	4.058	4.077	-4.077	0.000	-0.022	-0.0555	1.0000	456
1	-10	12	7.066	6.563	-6.563	0.000	0.503	1.9552	1.0000	457
1	-10	11	3.359	3.001	-3.001	0.000	0.358	0.7628	1.0000	458
1	-10	16	3.934	3.818	-3.818	0.000	0.116	0.2997	1.0000	459
1	-10	17	17.400	17.752	-17.752	0.000	-0.352	-2.2410	1.0000	460
1	-10	8	1.831	1.348	-1.348	0.000	0.483	0.7616	1.0000	461
1	-10	7	1.589	0.392	-0.392	0.000	1.197	1.6926	1.0000	462
1	-10	5	13.678	11.134	-11.134	0.000	2.544	16.4494	1.0000	464
1	-10	4	13.496	13.128	-13.128	0.000	0.368	2.2499	1.0000	465
1	-10	4	4.454	4.129	-4.129	0.000	0.365	1.0803	1.0000	466
1	-10	2	11.680	12.131	-12.131	0.000	-0.451	-2.4331	1.0000	467
1	-10	1	8.170	6.389	-6.389	0.000	1.781	7.8646	1.0000	468
1	-10	0	13.829	10.659	-10.659	0.000	3.170	16.5877	1.0000	469
1	-10	0	3.253	1.859	-1.859	0.000	1.354	3.0913	1.0000	470
1	-11	0	12.785	11.961	-11.961	0.000	0.824	4.5144	1.0000	471
1	-11	2	10.712	7.771	-7.771	0.000	2.941	15.1402	1.0000	472
1	-11	3	61.140	58.296	-58.296	0.000	2.845	18.8030	1.0000	473
1	-11	4	17.203	16.185	-16.185	0.000	1.018	6.0063	1.0000	474
1	-11	5	21.893	20.823	-20.823	0.000	1.070	6.9632	1.0000	475
1	-11	6	8.987	9.307	-9.307	0.000	-0.320	-1.6497	1.0000	476
1	-11	7	5.507	5.324	-5.324	0.000	0.183	0.6868	1.0000	477
1	-11	8	41.577	41.573	-41.573	0.000	0.004	0.0296	1.0000	478
1	-11	9	20.683	21.261	-21.261	0.000	-0.579	-3.6145	1.0000	479
1	-11	10	25.661	25.662	-25.662	0.000	-0.002	-0.0117	1.0000	480
1	-11	11	19.442	19.752	-19.752	0.000	-0.310	-1.7915	1.0000	481
1	-12	12	4.418	4.077	-4.077	0.000	0.341	0.7907	1.0000	483
1	-12	11	4.146	3.949	-3.949	0.000	0.197	0.4241	1.0000	484
1	-12	11	8.443	8.239	-8.239	0.000	0.203	0.8598	1.0000	485
1	-12	10	2.391	2.256	-2.256	0.000	0.135	0.2188	1.0000	486
1	-12	9	3.767	3.389	-3.389	0.000	0.379	0.9656	1.0000	487
1	-12	8	3.571	3.841	-3.841	0.000	-0.271	-0.6522	1.0000	488
1	-12	7	12.089	10.577	-10.577	0.000	1.512	8.1927	1.0000	489
1	-12	6	9.381	7.734	-7.734	0.000	1.646	7.7784	1.0000	490
1	-12	5	5.114	4.643	-4.643	0.000	0.471	1.3695	1.0000	491
1	-12	4	8.503	8.614	-8.614	0.000	-0.111	-0.4779	1.0000	492
1	-12	3	5.991	4.705	-4.705	0.000	1.286	4.3891	1.0000	493
1	-12	2	9.033	7.443	-7.443	0.000	1.590	7.0760	1.0000	494
1	-12	1	2.436	0.833	-0.833	0.000	1.603	2.3642	1.0000	495
1	-13	0	17.702	18.286	-18.286	0.000	-0.584	-3.2315	1.0000	496
1	-13	0	60.505	60.654	-60.654	0.000	-0.149	-0.9392	1.0000	497
1	-13	2	42.515	42.354	-42.354	0.000	0.161	0.9967	1.0000	498

H	K	L	F(FCS)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
2	-12	1	5.795	6.782	6.782	0.000	-0.987	-2.8393	1.0390
2	-12	0	5.628	6.035	6.035	0.000	-0.407	-1.2206	1.0000
2	-14	0	12.603	12.776	-12.776	0.000	-0.173	-0.8393	1.0000
2	-14	1	7.974	9.577	9.577	0.000	-1.603	-6.2747	1.0000
2	-14	2	25.837	24.503	24.503	0.000	1.354	7.6645	1.0000
2	-14	3	31.591	31.516	-31.516	0.000	0.075	0.4350	1.0000
2	-14	4	37.904	37.656	37.656	0.000	-1.752	-10.0795	1.0000
2	-14	5	24.753	24.110	24.110	0.000	0.643	3.4421	1.0000
2	-14	6	4.100	5.104	-5.104	0.000	-1.003	-2.1281	1.0000
2	-14	7	2.148	0.198	-0.198	0.000	1.951	2.4989	1.0000
2	-14	8	30.790	31.644	31.644	0.000	-0.854	-4.7283	1.0000
2	-14	9	25.827	27.564	-27.564	0.000	-1.737	-9.7435	1.0000
2	-14	10	19.750	19.537	-19.537	0.000	0.223	1.1769	1.0000
2	-14	11	5.748	6.308	6.308	0.000	0.440	1.5981	1.0000
2	-15	10	8.806	7.963	-7.963	0.000	0.842	3.6126	1.0000
2	-15	9	4.100	3.343	3.343	0.000	0.758	1.9391	1.0000
2	-15	8	12.664	12.049	12.049	0.000	0.615	3.0814	1.0000
2	-15	7	1.937	0.457	-0.457	0.000	1.479	1.9363	1.0000
2	-15	6	10.304	10.195	-10.195	0.000	0.109	0.4960	1.0000
2	-15	5	6.007	5.508	5.508	0.000	0.498	1.5505	1.0000
2	-15	4	4.721	2.965	2.965	0.000	1.755	4.6327	1.0000
2	-15	3	18.837	18.247	-18.247	0.000	0.550	3.2121	1.0000
2	-15	2	2.723	1.981	-1.981	0.000	0.742	1.2764	1.0000
2	-15	1	10.878	11.404	11.404	0.000	-0.525	-2.4610	1.0000
2	-12	0	16.416	16.210	16.210	0.000	0.206	1.1498	1.0000
2	-12	1	13.829	13.306	-13.306	0.000	0.523	2.7538	1.0000
2	-12	2	28.626	28.963	-28.963	0.000	-0.337	-2.0647	1.0000
2	-12	3	4.267	3.407	-3.407	0.000	0.860	2.1886	1.0000
2	-12	4	26.581	27.933	27.933	0.000	0.647	3.8195	1.0000
2	-12	5	32.015	31.386	-31.386	0.000	0.629	3.9173	1.0000
2	-12	6	14.041	12.820	12.820	0.000	1.221	6.9445	1.0000
2	-12	7	14.585	14.204	14.204	0.000	0.381	2.1807	1.0000
2	-12	8	4.826	4.770	4.770	0.000	0.056	0.1730	1.0000
2	-12	9	9.229	10.356	-10.356	0.000	-1.127	-5.2046	1.0000
2	-12	10	38.445	39.917	39.917	0.000	-1.472	-8.9334	1.0000
2	-12	11	10.001	10.361	-10.361	0.000	-0.360	-1.6137	1.0000
2	-12	12	10.167	10.456	10.456	0.000	-0.289	-1.3163	1.0000
2	-11	11	7.066	7.132	-7.132	0.000	-0.067	-0.2586	1.0000
2	-11	10	3.692	1.761	-1.761	0.000	1.931	5.1404	1.0000
2	-11	9	14.207	13.589	13.589	0.000	0.618	3.5815	1.0000
2	-11	8	7.762	7.798	-7.798	0.000	-0.037	-0.1649	1.0000
2	-11	7	15.372	15.515	-15.515	0.000	-0.143	-0.8740	1.0000
2	-11	6	7.777	7.778	7.778	0.000	-0.001	-0.0046	1.0000
2	-11	5	9.350	8.719	8.719	0.000	0.631	3.2516	1.0000
2	-11	4	22.725	21.847	-21.847	0.000	0.878	5.4772	1.0000
2	-11	3	6.415	6.563	6.563	0.000	-0.148	-0.5459	1.0000
2	-11	2	17.324	16.876	16.876	0.000	0.448	2.5851	1.0000
2	-11	1	8.564	8.641	-8.641	0.000	-0.078	-0.3535	1.0000
2	-10	0	11.953	12.109	-12.109	0.000	-0.156	-0.8065	1.0000
2	-10	0	26.039	24.809	24.809	0.000	1.230	7.7916	1.0000
2	-10	1	37.563	35.845	-35.845	0.000	1.738	11.4650	1.0000
2	-10	2	58.114	55.564	55.564	0.000	2.550	17.1309	1.0000
2	-10	3	47.826	44.844	-44.844	0.000	2.982	20.0085	1.0000

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I	J	L	F(CES)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR	
2	-10	4	54.044	51.267	-51.267	0.000	2.778	19.8694	1.0000	610
2	-10	5	28.096	25.621	-25.621	0.000	2.475	17.8395	1.0000	611
2	-10	4	26.992	24.233	24.233	0.000	2.759	19.7597	1.0000	612
2	-10	7	64.617	65.045	-65.045	0.000	-0.228	-1.6678	1.0000	613
2	-10	8	26.146	25.850	25.850	0.000	0.295	2.0251	1.0000	614
2	-10	9	31.001	29.841	29.841	0.000	1.161	7.8447	1.0000	615
2	-10	5	6.551	4.699	4.699	0.000	1.852	7.4151	1.0000	616
2	-10	10	12.286	16.920	-10.920	0.000	1.365	7.1560	1.0000	617
2	-10	11	46.358	48.081	48.081	0.000	-1.722	-10.2740	1.0000	618
2	-10	12	13.224	13.538	-13.938	0.000	-0.714	-3.6599	1.0000	619
2	-9	10	12.089	12.290	12.250	0.000	-0.201	-1.1259	1.0000	621
2	-9	10	15.720	15.986	-15.986	0.000	-0.266	-1.7065	1.0000	622
2	-9	9	3.344	3.392	-3.352	0.000	-0.045	-0.1378	1.0000	623
2	-9	8	17.218	17.364	17.364	0.000	-0.146	-1.0251	1.0000	624
2	-9	7	2.527	1.820	1.820	0.000	0.707	2.0563	1.0000	625
2	-9	5	21.863	22.335	-22.335	0.000	-0.473	-3.5374	1.0000	626
2	-9	4	13.662	14.056	14.056	0.000	-0.434	-2.9003	1.0000	627
2	-9	3	10.379	10.170	10.170	0.000	0.209	1.1507	1.0000	628
2	-9	2	17.521	16.872	-16.872	0.000	0.648	4.0150	1.0000	629
2	-9	1	2.754	0.108	-0.108	0.000	2.646	5.3527	1.0000	630
2	-9	0	22.347	22.254	22.254	0.000	0.093	0.5896	1.0000	631
2	-8	0	16.250	14.186	14.186	0.000	2.064	12.6201	1.0000	632
2	-8	1	44.210	42.320	42.320	0.000	1.890	13.3204	1.0000	633
2	-8	2	64.378	57.606	57.606	0.000	6.772	49.0223	1.0000	634
2	-8	3	50.217	47.177	-47.177	0.000	3.040	24.2362	1.0000	635
2	-8	4	41.653	40.740	40.740	0.000	0.912	7.5574	1.0000	636
2	-8	5	5.642	2.717	-2.717	0.000	2.926	14.4551	1.0000	637
2	-8	6	45.889	45.935	-45.935	0.000	-0.046	-0.3785	1.0000	638
2	-8	7	28.143	36.364	-36.364	0.000	1.779	14.2326	1.0000	639
2	-8	8	14.101	13.273	13.273	0.000	0.828	5.6729	1.0000	640
2	-8	9	36.811	36.951	-36.951	0.000	-0.139	-1.0112	1.0000	641
2	-8	10	3.722	2.881	-2.881	0.000	0.841	2.2961	1.0000	642
2	-8	11	23.225	24.052	24.052	0.000	-0.827	-5.1737	1.0000	643
2	-8	12	11.696	12.071	12.071	0.000	-0.376	-1.9039	1.0000	644
2	-7	12	4.085	3.795	-3.795	0.000	0.290	0.8121	1.0000	645
2	-7	11	12.957	12.468	12.468	0.000	0.529	3.0542	1.0000	646
2	-7	10	9.199	8.437	-8.437	0.000	0.762	4.2063	1.0000	647
2	-7	9	10.878	11.374	-11.374	0.000	-0.496	-3.0051	1.0000	648
2	-7	8	9.441	9.521	9.521	0.000	-0.080	-0.4953	1.0000	649
2	-7	7	11.438	11.309	11.309	0.000	0.129	0.9416	1.0000	650
2	-7	6	17.142	17.187	-17.187	0.000	-0.045	-0.3668	1.0000	651
2	-7	5	6.245	6.039	6.039	0.000	0.209	1.2040	1.0000	652
2	-7	4	31.924	31.667	31.667	0.000	0.257	2.2830	1.0000	653
2	-7	3	11.302	10.903	-10.903	0.000	0.399	2.8684	1.0000	654
2	-7	2	18.504	18.387	-18.387	0.000	0.117	0.8587	1.0000	655
2	-7	1	26.054	13.426	13.426	0.000	12.628	45.4966	1.0000	656
2	-7	0	5.674	4.477	4.477	0.000	1.196	9.44344	1.0000	657
2	-6	0	66.043	60.636	60.636	0.000	5.406	40.6041	1.0000	658
2	-6	1	8.261	5.612	-5.612	0.000	2.649	13.5924	1.0000	659
2	-6	2	19.427	17.838	-17.838	0.000	1.589	12.9652	1.0000	660
2	-6	3	24.042	22.046	22.046	0.000	1.996	18.2441	1.0000	661
2	-6	4	43.877	42.081	42.081	0.000	1.796	17.2789	1.0000	662
2	-6	5	41.653	40.595	-40.595	0.000	1.058	9.9603	1.0000	663

	F (GESS)	F (CALC)	A (CALC)	E (CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
2	44.921	43.329	43.329	0.000	1.592	14.5341	1.0000
2	22.211	20.841	20.841	0.000	1.370	11.4239	1.0000
2	4.085	2.832	-2.832	0.000	1.253	4.8106	1.0000
2	25.070	24.703	-24.703	0.000	0.368	2.7357	1.0000
2	25.812	26.738	26.738	0.000	-0.927	-6.4193	1.0000
2	43.166	43.403	-43.403	0.000	-0.237	-1.5860	1.0000
2	11.317	11.221	-11.221	0.000	0.096	0.4924	1.0000
2	12.452	12.457	12.457	0.000	-0.005	-0.0266	1.0000
2	5.558	5.975	-5.975	0.000	-0.381	-1.4153	1.0000
2	14.313	13.980	-13.980	0.000	0.333	2.1468	1.0000
2	18.262	17.849	17.849	0.000	0.413	2.9847	1.0000
2	13.723	14.414	14.414	0.000	-0.691	-5.0435	1.0000
2	16.628	16.947	-16.947	0.000	-0.319	-2.5971	1.0000
2	1.740	1.014	1.014	0.000	0.726	1.5915	1.0000
2	30.078	30.160	30.160	0.000	-0.081	-0.7925	1.0000
2	29.171	26.825	-28.825	0.000	0.345	3.4841	1.0000
2	23.240	22.940	-22.940	0.000	0.299	2.9806	1.0000
2	18.171	17.526	17.526	0.000	0.645	5.9043	1.0000
2	9.658	8.573	8.573	0.000	1.125	7.2906	1.0000
2	38.960	35.955	-35.955	0.000	3.005	22.7481	1.0000
2	66.784	60.402	-60.402	0.000	6.382	51.1289	1.0000
2	125.050	132.844	-132.844	0.000	-7.795	-72.7666	1.0000
2	65.710	65.180	65.180	0.000	0.530	5.6908	1.0000
2	11.469	64.449	-64.449	0.000	1.170	12.9480	1.0000
2	9.572	9.572	-9.572	0.000	1.897	17.9883	1.0000
2	35.268	32.860	32.860	0.000	2.408	24.5279	1.0000
2	75.372	77.648	77.648	0.000	1.725	16.7132	1.0000
2	48.688	47.918	-47.918	0.000	0.771	6.9210	1.0000
2	55.043	54.353	54.353	0.000	0.690	5.7771	1.0000
2	26.720	26.124	26.124	0.000	0.596	4.5456	1.0000
2	9.880	9.783	-9.783	0.000	0.097	0.5272	1.0000
2	23.966	22.511	-22.511	0.000	1.455	9.4630	1.0000
2	30.790	30.730	30.730	0.000	0.060	0.3705	1.0000
2	3.601	3.134	-3.134	0.000	0.467	1.0933	1.0000
2	3.152	3.476	-3.476	0.000	-0.283	-0.6666	1.0000
2	14.585	14.942	14.942	0.000	-0.356	-2.2738	1.0000
2	5.976	5.551	-5.551	0.000	0.425	2.1085	1.0000
2	15.312	15.238	-15.238	0.000	0.074	0.5612	1.0000
2	1.468	0.118	0.118	0.000	1.350	2.4278	1.0000
2	12.210	12.945	12.945	0.000	-0.735	-6.2318	1.0000
2	19.896	20.396	-20.396	0.000	-0.500	-5.0258	1.0000
2	4.842	4.840	4.840	0.000	0.001	0.0079	1.0000
2	18.807	18.406	18.406	0.000	0.401	4.5350	1.0000
2	1.770	1.764	-1.764	0.000	0.007	0.0235	1.0000
2	21.212	20.525	-20.525	0.000	0.687	6.9948	1.0000
2	7.217	6.960	6.960	0.000	0.257	1.4583	1.0000
2	7.232	5.319	-5.319	0.000	1.913	9.0244	1.0000
2	9.759	8.705	8.705	0.000	1.050	11.3248	1.0000
2	9.093	6.673	-6.673	0.000	2.420	27.0658	1.0000
2	7.822	7.076	7.076	0.000	0.746	6.3799	1.0000
2	14.918	13.540	-13.540	0.000	1.378	13.2783	1.0000
2	24.556	25.297	-25.297	0.000	-0.741	-6.9114	1.0000
2	7.928	7.229	7.229	0.000	0.699	4.6210	1.0000

I	K	L	F (GRS)	F (CALC)	A (CALC)	B (CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
2	-2	8	58.462	58.583	58.583	0.000	-0.121	-1.0095	1.0000
2	-2	6	5.750	5.730	-5.730	0.000	0.064	0.2839	1.0000
2	-2	10	15.750	14.526	14.526	0.000	1.225	7.8277	1.0000
2	-2	11	17.445	16.716	16.716	0.000	0.729	4.3699	1.0000
2	-2	12	3.435	0.678	-0.678	0.000	2.756	6.7172	1.0000
2	-1	12	10.621	10.548	-10.548	0.000	0.073	0.3440	1.0000
2	-1	11	9.596	9.750	9.750	0.000	0.206	1.0237	1.0000
2	-1	10	1.574	1.668	1.668	0.000	-0.295	-0.3780	1.0000
2	-1	9	13.889	14.110	-14.110	0.000	-0.251	-1.6533	1.0000
2	-1	8	2.735	2.168	-2.168	0.000	0.571	1.5479	1.0000
2	-1	7	19.511	20.677	20.677	0.000	-0.766	-6.3802	1.0000
2	-1	6	17.233	17.158	-17.158	0.000	0.075	0.6713	1.0000
2	-1	5	20.214	20.858	-20.858	0.000	-0.685	-6.7451	1.0000
2	-1	4	27.128	27.206	27.206	0.000	-0.078	-0.8591	1.0000
2	-1	3	6.216	5.926	5.926	0.000	0.293	2.6058	1.0000
2	-1	2	25.676	26.647	-26.647	0.000	-0.971	-12.4356	1.0000
2	-1	1	19.291	18.974	18.974	0.000	0.317	4.1179	1.0000
2	0	0	58.372	54.159	54.159	0.000	4.212	37.1709	1.0000
2	0	0	62.699	67.396	67.396	0.000	-4.698	-46.6893	1.0000
2	0	1	29.594	28.288	-28.288	0.000	1.307	17.0685	1.0000
2	0	2	2.965	1.730	-1.730	0.000	1.235	7.1546	1.0000
2	0	3	46.177	44.441	44.441	0.000	1.736	20.3798	1.0000
2	0	4	33.846	31.533	31.533	0.000	2.313	25.0220	1.0000
2	0	5	64.726	64.210	-64.210	0.000	0.516	5.1884	1.0000
2	0	6	27.764	26.905	26.905	0.000	0.655	7.7521	1.0000
2	0	7	23.058	23.063	-23.063	0.000	-0.005	-0.0415	1.0000
2	0	8	36.100	35.105	-35.105	0.000	0.995	7.8371	1.0000
2	0	9	27.718	27.298	-27.298	0.000	0.420	2.9754	1.0000
2	0	10	35.355	35.486	35.486	0.000	-0.127	-0.8497	1.0000
2	0	11	27.189	26.043	-26.043	0.000	-0.855	-5.2120	1.0000
2	0	12	18.534	18.480	18.480	0.000	0.054	0.2989	1.0000
2	0	12	12.119	12.868	12.868	0.000	-0.749	-3.5073	1.0000
2	0	11	5.689	5.559	5.559	0.000	0.130	0.4489	1.0000
2	0	10	18.595	18.561	-18.561	0.000	0.034	0.2041	1.0000
2	0	9	2.557	0.631	-0.631	0.000	1.926	4.0961	1.0000
2	0	8	16.280	16.785	16.785	0.000	-0.505	-3.4897	1.0000
2	0	7	15.629	16.167	-16.167	0.000	-0.537	-3.9806	1.0000
2	0	6	17.566	17.480	-17.480	0.000	0.086	0.7093	1.0000
2	0	5	39.368	39.960	39.960	0.000	-0.592	-5.6530	1.0000
2	0	4	7.565	7.562	7.562	0.000	0.003	0.0257	1.0000
2	0	3	20.834	21.711	-21.711	0.000	-0.877	-9.3816	1.0000
2	0	2	12.210	12.316	12.316	0.000	-0.106	-1.1424	1.0000
2	0	1	37.477	36.684	36.684	0.000	0.794	9.1053	1.0000
2	1	0	58.795	54.159	-54.159	0.000	4.636	41.2413	1.0000
2	1	0	6.687	5.319	-5.319	0.000	1.368	6.5863	1.0000
2	1	1	49.551	46.729	-46.729	0.000	2.822	28.7416	1.0000
2	1	2	132.948	151.563	151.563	0.000	-18.615	-196.2278	1.0000
2	1	3	19.790	19.800	-19.800	0.000	-0.010	-0.1001	1.0000
2	1	4	19.730	17.608	17.608	0.000	2.122	18.8231	1.0000
2	1	5	32.076	30.114	30.114	0.000	1.961	17.3757	1.0000
2	1	6	45.511	44.916	44.916	0.000	0.595	5.0157	1.0000
2	1	7	66.209	64.232	-64.232	0.000	1.977	15.6642	1.0000
2	1	8	25.903	25.058	25.058	0.000	0.845	5.9736	1.0000

I	K	L	F(OBS)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
2	2	9	9.510	10.100	-10.100	0.000	-0.190	-0.9615	1.0000
2	2	10	36.759	31.335	-31.335	0.000	-0.576	-3.5704	1.0000
2	2	11	29.004	29.628	-29.628	0.000	-0.623	-3.5557	1.0000
2	2	11	8.261	8.346	-8.346	0.000	-0.085	-0.3247	1.0000
2	2	10	5.976	5.902	5.902	0.000	0.074	0.2558	1.0000
2	2	9	10.071	9.865	9.865	0.000	0.162	0.8165	1.0000
2	2	7	7.141	6.355	-6.355	0.000	0.786	3.9715	1.0000
2	2	6	14.548	15.239	-15.239	0.000	-0.291	-2.0412	1.0000
2	2	5	4.887	4.923	-4.923	0.000	-0.036	-0.1575	1.0000
2	2	4	16.169	16.411	-16.411	0.000	-0.222	-1.8259	1.0000
2	2	3	6.324	6.352	-6.352	0.000	-0.028	-0.1701	1.0000
2	2	2	16.259	15.963	15.963	0.000	0.332	2.9268	1.0000
2	2	1	9.184	9.048	-9.048	0.000	0.135	1.0196	1.0000
2	2	0	7.066	6.960	-6.960	0.000	0.106	0.6589	1.0000
2	2	0	63.576	60.402	-60.402	0.000	3.175	27.2496	1.0000
2	2	1	6.960	6.918	-6.918	0.000	0.041	0.2382	1.0000
2	2	1	22.877	20.901	20.901	0.000	1.975	16.5666	1.0000
2	2	2	47.977	46.073	-46.073	0.000	1.905	16.4352	1.0000
2	2	4	78.631	77.961	77.961	0.000	0.670	5.6556	1.0000
2	2	5	36.811	35.548	35.548	0.000	1.264	9.9794	1.0000
2	2	6	5.174	3.895	3.895	0.000	1.279	5.1049	1.0000
2	2	7	5.432	4.754	4.754	0.000	0.678	2.6038	1.0000
2	2	8	27.915	27.409	27.409	0.000	0.506	3.2773	1.0000
2	2	9	30.290	30.994	-30.994	0.000	-0.703	-4.2564	1.0000
2	2	10	3.283	3.490	-3.490	0.000	-0.207	-0.3925	1.0000
2	2	10	5.002	9.753	9.753	0.000	-0.751	-2.9853	1.0000
2	2	9	2.905	4.224	-4.224	0.000	-1.319	-2.2939	1.0000
2	2	8	13.466	12.983	-12.983	0.000	0.482	2.5937	1.0000
2	2	7	14.404	14.231	14.231	0.000	0.173	0.9818	1.0000
2	2	6	3.026	1.112	1.112	0.000	1.914	4.7473	1.0000
2	2	5	21.591	21.892	-21.892	0.000	-0.302	-2.1242	1.0000
2	2	4	5.522	6.712	6.712	0.000	-1.189	-5.1713	1.0000
2	2	3	15.654	18.923	18.923	0.000	0.731	5.4372	1.0000
2	2	2	23.225	22.304	-22.304	0.000	0.921	7.1493	1.0000
2	2	1	19.503	18.816	-18.816	0.000	0.687	5.0785	1.0000
2	2	0	36.675	35.955	35.955	0.000	0.720	5.9212	1.0000
2	2	0	62.835	60.637	60.637	0.000	2.198	17.8063	1.0000
2	2	0	51.034	47.584	-47.584	0.000	3.450	26.2365	1.0000
2	2	1	21.197	19.503	-19.503	0.000	1.695	12.0041	1.0000
2	2	2	4.146	2.498	2.498	0.000	1.648	5.2809	1.0000
2	2	3	16.749	17.039	-17.039	0.000	-0.290	-1.9074	1.0000
2	2	4	61.534	60.173	-60.173	0.000	1.361	9.5974	1.0000
2	2	5	38.022	37.858	37.858	0.000	0.163	1.0679	1.0000
2	2	6	3.601	1.176	-1.176	0.000	2.425	5.7709	1.0000
2	2	7	1.967	0.186	0.186	0.000	1.781	2.1210	1.0000
2	2	8	10.500	10.354	10.354	0.000	0.146	0.6420	1.0000
2	2	9	40.064	41.269	41.269	0.000	-1.204	-6.4930	1.0000
2	2	10	4.766	5.715	-5.715	0.000	-0.949	-2.2215	1.0000
2	2	7	15.781	16.576	16.576	0.000	-0.795	-3.9391	1.0000
2	2	8	22.846	22.745	-22.745	0.000	0.101	0.6075	1.0000
2	2	9	9.577	9.405	9.405	0.000	0.172	0.8576	1.0000
2	2	10	8.866	9.152	9.152	0.000	-0.286	-1.3981	1.0000
2	2	7	19.624	20.029	-20.029	0.000	-0.406	-2.6494	1.0000

H	K	L	F(OBS)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR	
15	0	0	26.629	29.254	-29.254	0.000	-2.626	-15.0245	1.0000	880
14	2	2	3.147	3.918	-3.918	0.000	-0.771	-1.5715	1.0000	881
14	1	1	11.272	12.846	12.846	0.000	-1.574	-7.5123	1.0000	882
14	0	0	8.473	9.102	-9.102	0.000	-0.629	-2.7087	1.0000	883
13	0	0	3.208	5.043	5.043	0.000	-1.836	-3.5529	1.0000	884
13	1	1	2.456	3.189	-3.189	0.000	-0.693	-1.1417	1.0000	885
13	2	2	5.940	10.981	10.981	0.000	-1.040	-4.6486	1.0000	886
13	3	3	22.422	25.418	25.418	0.000	-2.996	-16.7368	1.0000	887
13	4	4	2.073	3.489	3.489	0.000	-1.416	-1.8143	1.0000	888
12	5	5	10.158	11.016	11.016	0.000	-0.818	-3.8761	1.0000	889
12	2	2	13.072	14.543	-14.543	0.000	-1.470	-7.6345	1.0000	890
12	1	1	21.076	21.187	-21.187	0.000	-0.110	-0.6614	1.0000	891
12	0	0	21.016	21.884	21.884	0.000	-0.869	-5.2425	1.0000	892
11	0	0	2.542	0.027	-0.027	0.000	2.515	5.0272	1.0000	893
11	1	1	19.548	20.042	20.042	0.000	-0.494	-3.0114	1.0000	894
11	2	2	42.354	43.883	-43.883	0.000	-1.489	-9.4425	1.0000	895
11	3	3	12.676	13.415	13.415	0.000	-0.543	-2.7213	1.0000	896
11	4	4	11.968	13.218	-13.218	0.000	-1.250	-5.8379	1.0000	897
11	5	5	10.954	12.002	-12.002	0.000	-1.048	-4.5679	1.0000	898
10	6	6	16.058	15.850	15.850	0.000	0.249	1.1701	1.0000	899
10	5	5	8.609	9.488	-9.488	0.000	-0.879	-3.3482	1.0000	900
10	4	4	27.264	28.082	-28.082	0.000	-0.817	-4.6696	1.0000	901
10	3	3	19.291	20.431	20.431	0.000	-1.140	-6.4644	1.0000	902
10	2	2	9.365	8.663	8.663	0.000	0.702	3.2173	1.0000	903
10	1	1	22.529	22.662	-22.662	0.000	-1.133	-0.8592	1.0000	904
10	0	0	5.685	4.343	-4.343	0.000	1.345	5.1493	1.0000	905
9	5	5	68.993	71.536	-71.536	0.000	-2.543	-18.3089	1.0000	906
9	4	4	15.221	14.143	14.143	0.000	1.077	6.7749	1.0000	907
9	3	3	11.711	11.232	-11.232	0.000	0.478	2.5948	1.0000	908
9	2	2	31.228	31.385	-31.385	0.000	-0.157	-0.5668	1.0000	909
9	1	1	7.474	7.078	-7.078	0.000	0.396	1.4684	1.0000	910
9	0	0	48.234	48.909	48.909	0.000	-0.674	-3.9027	1.0000	911
8	6	6	18.050	17.374	-17.374	0.000	0.676	3.4418	1.0000	912
8	5	5	16.658	16.905	16.905	0.000	-0.247	-1.1791	1.0000	913
8	4	4	17.778	18.143	18.143	0.000	-0.365	-1.7586	1.0000	914
8	3	3	2.330	1.956	-1.956	0.000	0.374	0.5067	1.0000	915
8	2	2	8.458	9.066	-9.066	0.000	-0.608	-2.4440	1.0000	916
8	1	1	20.501	20.480	20.480	0.000	0.021	0.1209	1.0000	917
8	0	0	9.214	8.740	-8.740	0.000	0.474	2.1574	1.0000	918
8	3	3	43.756	42.048	-42.048	0.000	1.708	11.0109	1.0000	919
8	2	2	4.342	2.478	2.478	0.000	1.864	5.8226	1.0000	920
8	1	1	11.151	11.744	11.744	0.000	-0.594	-3.4388	1.0000	921
8	0	0	20.577	20.790	-20.790	0.000	-0.213	-1.4724	1.0000	922
7	8	8	21.995	21.625	-21.625	0.000	0.374	2.6827	1.0000	923
7	7	7	16.507	16.175	-16.175	0.000	0.332	2.1825	1.0000	924
7	6	6	12.270	11.539	11.539	0.000	0.731	4.0867	1.0000	925
7	5	5	62.200	61.742	61.742	0.000	0.457	3.1265	1.0000	926
7	4	4	21.878	21.309	-21.309	0.000	0.569	3.5434	1.0000	927
7	3	3	25.191	24.643	24.643	0.000	0.548	3.3585	1.0000	928
7	2	2	21.999	22.232	22.232	0.000	-0.233	-1.3488	1.0000	929
7	1	1	4.085	3.415	-3.415	0.000	0.670	1.5846	1.0000	930
7	0	0	24.541	25.305	-25.305	0.000	-0.764	-4.0766	1.0000	931
6	9	9	8.745	7.593	-7.593	0.000	1.152	4.4624	1.0000	932

	F(DES)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	6.566	6.014	6.014	0.000	0.552	1.8785	1.0000
2	4.766	6.262	6.262	0.000	-1.496	-4.1053	1.0000
3	9.023	5.517	-5.517	0.000	-0.485	-2.2371	1.0000
4	24.223	23.625	-23.625	0.000	0.598	3.8522	1.0000
5	18.958	18.270	18.270	0.000	0.688	4.5013	1.0000
6	5.901	6.456	6.456	0.000	-0.555	-2.2594	1.0000
7	13.587	13.703	-13.703	0.000	-0.116	-0.7354	1.0000
8	4.025	4.618	4.618	0.000	0.298	2.2194	1.0000
9	29.418	29.418	29.418	0.000	0.966	7.1622	1.0000
10	22.105	21.139	21.139	0.000	3.731	28.2796	1.0000
11	71.081	67.350	67.350	0.000	2.961	22.6801	1.0000
12	44.861	41.899	-41.899	0.000	1.891	14.2487	1.0000
13	43.620	41.729	41.729	0.000	0.947	1.9940	1.0000
14	2.375	1.429	1.429	0.000	0.897	3.5256	1.0000
15	6.203	5.306	-5.306	0.000	0.958	6.3452	1.0000
16	31.470	30.512	-30.512	0.000	0.556	3.5056	1.0000
17	28.293	27.737	27.737	0.000	-0.997	-6.0378	1.0000
18	37.598	38.155	-38.155	0.000	0.147	0.6190	1.0000
19	9.260	9.112	-9.112	0.000	-0.196	-1.0361	1.0000
20	18.867	19.063	19.063	0.000	2.767	5.2417	1.0000
21	2.860	0.093	-0.093	0.000	-1.351	-8.4711	1.0000
22	31.788	33.135	-33.135	0.000	-0.310	-1.6855	1.0000
23	10.455	10.764	10.764	0.000	0.572	3.9826	1.0000
24	26.175	25.603	25.603	0.000	0.737	5.4078	1.0000
25	27.113	26.376	-26.376	0.000	1.823	13.9483	1.0000
26	25.576	23.852	-23.852	0.000	-0.977	-7.8528	1.0000
27	51.064	52.040	52.040	0.000	-0.467	-3.0057	1.0000
28	9.774	10.241	-10.241	0.000	1.228	9.5517	1.0000
29	31.849	30.620	-30.620	0.000	1.193	9.3633	1.0000
30	37.099	35.906	35.906	0.000	1.078	8.6968	1.0000
31	65.044	63.966	-63.966	0.000	2.383	20.1649	1.0000
32	56.117	53.734	53.734	0.000	-0.647	-5.2791	1.0000
33	18.913	15.560	15.560	0.000	1.143	9.8070	1.0000
34	51.593	50.451	-50.451	0.000	2.250	18.8755	1.0000
35	50.338	48.087	-48.087	0.000	1.074	8.5289	1.0000
36	35.480	34.406	34.406	0.000	0.648	4.9143	1.0000
37	58.417	57.769	-57.769	0.000	-0.374	-2.3253	1.0000
38	14.888	15.262	-15.262	0.000	-0.374	-2.2584	1.0000
39	16.416	16.790	16.790	0.000	-0.531	-3.1828	1.0000
40	22.710	23.241	23.241	0.000	-0.612	-3.4334	1.0000
41	22.581	20.201	-20.201	0.000	-0.001	-0.0071	1.0000
42	10.183	10.184	-10.184	0.000	-0.443	-2.7287	1.0000
43	21.000	21.443	21.443	0.000	-0.341	-1.1373	1.0000
44	4.630	4.970	-4.970	0.000	1.180	8.8033	1.0000
45	39.081	37.901	-37.901	0.000	0.185	1.2602	1.0000
46	11.105	10.920	-10.920	0.000	-0.644	-5.0964	1.0000
47	19.003	19.647	19.647	0.000	0.070	0.6112	1.0000
48	28.051	27.981	-27.981	0.000	0.759	5.9719	1.0000
49	10.077	9.318	-9.318	0.000	0.037	0.3509	1.0000
50	77.072	77.035	77.035	0.000	1.478	12.6741	1.0000
51	17.521	16.042	-16.042	0.000	1.628	12.7982	1.0000
52	29.942	28.314	-28.314	0.000	4.385	34.3403	1.0000
53	37.114	32.729	-32.729	0.000			

H	K	L	F(CRS)	F(CALC)	A(CALC)	B(CALC)	DELTA F	DELTA/SIGMA	EXT. FACTOR
1	1	1	56.374	53.899	-53.899	0.000	2.475	24.7875	1.0000
1	1	2	53.542	54.778	-54.778	0.000	0.764	7.7929	1.0000
1	1	3	20.066	26.693	26.693	0.000	1.374	13.3307	1.0000
1	1	4	66.466	65.015	-65.015	0.000	1.451	13.6014	1.0000
1	1	5	13.496	12.729	32.569	0.000	0.767	6.2651	1.0000
1	1	6	32.286	32.569	32.569	0.000	0.686	5.6577	1.0000
1	1	7	18.892	18.503	18.503	0.000	0.349	2.5607	1.0000
1	1	8	8.337	8.044	-8.044	0.000	0.293	1.5002	1.0000
1	1	9	45.072	45.233	45.233	0.000	-0.161	-1.0918	1.0000
1	1	10	6.627	3.412	-3.412	0.000	3.215	13.0024	1.0000
1	1	11	8.912	9.059	-9.059	0.000	-0.147	-0.6239	1.0000
0	0	10	6.067	6.717	6.717	0.000	-0.650	-2.3065	1.0000
0	0	10	10.636	11.904	-11.904	0.000	-1.267	-6.5486	1.0000
0	0	9	15.327	15.136	-15.136	0.000	0.191	1.1821	1.0000
0	0	8	17.808	16.997	16.997	0.000	0.811	5.6618	1.0000
0	0	7	6.718	6.353	-6.353	0.000	0.365	1.9771	1.0000
0	0	6	7.958	8.255	-8.255	0.000	-0.301	-1.8881	1.0000
0	0	5	6.037	7.573	7.573	0.000	-1.536	-9.3816	1.0000
0	0	4	25.267	24.899	24.899	0.000	0.368	3.5120	1.0000
0	0	3	25.479	25.542	-25.542	0.000	-0.063	-0.6387	1.0000
0	0	2	8.246	8.810	-8.810	0.000	-0.564	-5.0938	1.0000
0	0	1	16.083	15.503	-15.503	0.000	0.581	6.2604	1.0000
-1	-1	0	36.887	32.729	-32.729	0.000	4.158	31.9187	1.0000
-1	-1	1	62.563	60.732	-60.732	0.000	1.831	20.6516	1.0000
-1	-1	2	64.923	64.196	-64.196	0.000	0.727	8.1605	1.0000
-1	-1	3	57.539	57.268	57.268	0.000	0.271	2.8986	1.0000
-1	-1	4	33.468	31.521	31.521	0.000	1.946	19.4904	1.0000
-1	-1	5	21.999	20.907	20.907	0.000	1.092	10.0381	1.0000
-1	-1	6	22.604	22.185	-22.185	0.000	0.419	3.5894	1.0000
-1	-1	7	61.277	60.825	-60.825	0.000	0.451	3.7620	1.0000
-1	-1	8	25.025	24.501	-24.501	0.000	0.524	3.9513	1.0000
-1	-1	9	6.551	6.151	-6.151	0.000	0.400	1.7643	1.0000
-1	-1	11	4.297	5.867	5.867	0.000	-1.570	-4.0730	1.0000
-2	-2	12	18.232	18.993	-18.993	0.000	-0.762	-4.1677	1.0000
-2	-2	11	6.203	5.658	-5.658	0.000	0.546	2.0432	1.0000
-2	-2	10	27.400	26.578	26.578	0.000	0.823	5.4446	1.0000
-2	-2	9	13.146	12.783	-12.783	0.000	0.365	2.3334	1.0000
-2	-2	8	28.248	27.470	-27.470	0.000	0.777	5.9956	1.0000
-2	-2	7	31.455	32.018	32.018	0.000	-0.562	-4.6577	1.0000
-2	-2	6	8.685	8.938	8.938	0.000	-0.253	-1.7863	1.0000
-2	-2	5	34.239	33.719	-33.719	0.000	0.520	4.9561	1.0000
-2	-2	4	14.434	13.525	13.525	0.000	0.909	8.7327	1.0000
-2	-2	3	71.883	71.847	71.847	0.000	0.036	0.3839	1.0000
-2	-2	2	34.043	33.691	-33.691	0.000	0.352	3.8260	1.0000
-2	-2	1	19.261	18.299	-18.299	0.000	0.961	9.5128	1.0000
-3	-3	0	30.926	28.313	28.313	0.000	2.612	19.6200	1.0000
-3	-3	0	67.601	63.966	-63.966	0.000	3.635	27.3614	1.0000
-3	-3	1	62.805	59.044	-59.044	0.000	3.761	34.6691	1.0000
-3	-3	2	66.205	65.080	65.080	0.000	1.129	11.6576	1.0000
-3	-3	3	4.872	5.143	-5.143	0.000	-0.271	-1.7557	1.0000
-3	-3	4	19.639	18.974	-18.974	0.000	0.665	6.4814	1.0000
-3	-3	5	75.045	75.909	75.909	0.000	-0.864	-8.3384	1.0000
-3	-3	6	39.626	38.284	-38.284	0.000	1.341	12.0438	1.0000

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