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STATISTICAL EQUILIBRIUM CALCULATIONS FOR SILICON IN EARLY-TYPE MODEL STELLAR ATMOSPHERES

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16. Abstract

Line profiles of 36 multiplets of Silicon (Si) II, III, and IV were computed for a grid of model atmospheres covering the range from 15,000 to 35,000 K in effective temperature and 2.5 to 4.5 in log (gravity). A silicon-hydrogen abundance ratio of 3×10^{-5} was used, and, for a few models, a case with ratio of 1.2×10^{-5} was also computed. Generally, a microturbulent velocity (v_t) of 0 km/s was used, but cases were also done with $v_t = 5$ and 15 km/s.

The computations involved simultaneous solution of the steady-state statistical equilibrium equations for the populations and of the equation of radiative transfer in the lines. The variables were linearized, and successive corrections were computed until a minimal accuracy of 10^{-3} in the line intensities had been reached. Thus, the common assumption of local thermodynamic equilibrium (LTE) was dropped. The model atmospheres used also had been computed by non-LTE methods.

Some effects that were incorporated into the calculations were the depression of the continuum by free electrons, hydrogen and ionized helium line blocking, and auto-ionization and dielectronic recombination, which later were found to be insignificant.

Use of radiation damping and detailed electron (quadratic Stark) damping constants had small but significant effects on the strong resonance lines of Si III and IV.

For weak and intermediate-strength lines, large differences with respect to LTE computations, the results of which are also presented, were found in line shapes and strengths. For the strong lines the differences are generally small, except for the models at the hot, low-gravity extreme of our range.

These computations should be useful in the interpretation of the spectra of stars in the spectral range B0-B5, luminosity classes III, IV, and V.

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FOREWORD

The observed relative strengths of lines of the Silicon (Si) II, III, and IV spectra play an important role in the classification of B and O type stellar spectra. If the observed strengths of the silicon lines are to be interpreted reliably in terms of effective temperature, log g, and the abundance of silicon, a grid of profiles and equivalent widths of the observed lines of Si II, III, and IV must be calculated using realistic model stellar atmospheres and a realistic theory of line formation. Interpolation within this grid will then lead to the desired information about temperatures, gravities, and abundances.

To provide such computational material is the task Lucas W. Kamp has set for himself. He adopts a set of non local thermodynamic equilibrium (NLTE) model atmospheres for B stars computed by D. Mihalas and, using realistic model atoms for the first, second, and third ions of silicon, he solves the equations of statistical equilibrium and of radiative transfer to obtain the equivalent widths and line profiles of most of the lines of Si II, III, and IV which can be observed in the ultraviolet and visible spectra of B stars. The computed equivalent widths are listed in extensive tables and selected profiles are displayed to give norms against which observed profiles may be compared.

This body of computed results complements the data on computed hydrogen and helium lines for the same model atmospheres which have been provided by L. H. Auer and D. Mihalas. Its availability forms a milestone in the interpretation of B-type spectra. This material will be particularly useful for interpreting the ultraviolet spectra of B stars which will be observed from astronomical satellites.

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Code 670

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ILLUSTRATIONS

TABLES

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Silicon Ion	Model Atmosphere			Line Data	
	T_{eff}(K)	Log g (gravity)	v_t (km/s)	Table	Page
II	15,000	4.0	0	7	28
III		4.0	0	8	29
II		4.0	5	9	30
III		4.0	5	10	31
II		3.0	0	11	32
III		3.0	0	12	33
II		3.0	5	13	34
III		3.0	5	14	35
II	17,500	4.0	0	15	36
III		4.0	0	16	37
II		4.0	5(1)	17	38
III		4.0	5(1)	18	39
II		3.0	0	19	40
III		3.0	0	20	41
II		3.0	5(1)	21	42
III		3.0	5(1)	22	43
II		2.5	15	23	44
III		2.5	15	24	45
IV		2.5	15	25	46
II	20,000	4.0	0	26	47
III		4.0	0	27	48
IV		4.0	0(2)	28	49
II *		4.0	0	29	50
III *		4.0	0	30	51
II		4.0	5	31	52
III		4.0	5	32	53
IV		4.0	5	33	54
II		3.0	0(2)	34	55
III		3.0	0	35	56
IV		3.0	0(2)	36	57
II		3.0	5	37	58
III		3.0	5	38	59
IV		3.0	5	39	60

*Calculation with a silicon abundance of 0.4×standard.

(1) v_t = 5 km/s in Profile step only, using populations computed with v_t = 0 km/s.

(2) v_t = 0 km/s in Profile step only, using populations computed with v_t = 5 km/s.

INDEX TO TABLES OF LINE DATA (Continued)

Silicon Ion	Model Atmosphere			Line Data	
	T_{eff}(K)	Log g (gravity)	v_t (km/s)	Table	Page
II	20,000	2.5	15	40	61
III		2.5	15	41	62
IV		2.5	15	42	63
II	22,500	4.0	0	43	64
III		4.0	0	44	65
IV		4.0	0	45	66
II		4.0	5(1)	46	67
III		4.0	5(1)	47	68
IV		4.0	5(1)	48	69
II		3.0	0	49	70
III		3.0	0	50	71
IV		3.0	0	51	72
II		3.0	5(1)	52	73
III		3.0	5(1)	53	74
IV		3.0	5(1)	54	75
II	25,000	4.0	0	55	76
III		4.0	0	56	77
IV		4.0	0	57	78
II		4.0	5(1)	58	79
III		4.0	5	59	80
IV		4.0	5	60	81
II		3.0	0	61	82
III		3.0	0	62	83
IV		3.0	0(2)	63	84
II		3.0	5	64	85
III		3.0	5	65	86
IV		3.0	5	66	87
II	27,500	4.0	0	67	88
III		4.0	0	68	89
IV		4.0	0	69	90
II		4.0	5(1)	70	91
III		4.0	5	71	92
IV		4.0	5	72	93
III		3.0	0(2)	73	94
IV		3.0	0(2)	74	95

(1) v_t = 5 km/s in Profile step only, using populations computed with v_t = 0 km/s.

(2) v_t = 0 km/s in Profile step only, using populations computed with v_t = 5 km/s.

INDEX TO TABLES OF LINE DATA (Continued)

Silicon Ion	Model Atmosphere			Line Data	
	T_{eff}(K)	Log g (gravity)	v_t (km/s)	Table	Page
III	27,500	3.0	5	75	96
IV		3.0	5	76	97
III	30,000	4.5	5	77	98
IV		4.5	5	78	99
III		4.0	0	79	100
IV		4.0	0	80	101
III		4.0	5	81	102
IV		4.0	5	82	103
III		3.0	0	83	104
IV		3.0	0	84	105
III		3.0	5	85	106
IV		3.0	5	86	107
III	32,500	4.5	5	87	108
IV		4.5	5	88	109
III		4.0	0	89	110
IV		4.0	0	90	111
III		4.0	5	91	112
IV		4.0	5	92	113
III		3.3	5	93	114
IV		3.3	5	94	115
III	35,000	4.5	5	95	116
IV		4.5	5	96	117
III		4.0	0	97	118
IV		4.0	0	98	119
III		4.0	5	99	120
IV		4.0	5	100	121
III *		4.0	5	101	122
IV*		4.0	5	102	123
III		3.3	5	103	124
IV		3.3	5	104	125

*Calculation with a silicon abundance of 0 4×standard.

INDEX TO LINE PROFILE GRAPHS

*Ion, Temperature (T_{eff} in 1000K), Log g (gravity), microturbulent velocity (v_t).

†Non local thermodynamic equilibrium (NLTE).

INDEX TO LINE PROFILE GRAPHS (Continued)

Ion and Model*	Line Data		Line, Å/Overlap	NLTE† /LTE	Line Profile	
	Table	Page			Figure	Page
II 17.5 4.0 0 (continued)	15	36	5057.39	NLTE	41	136
				LTE	42	136
			5042.43	NLTE	43	137
				LTE	44	137
			4202.08	NLTE	45	137
				LTE	46	137
III 20.0 3.0 5	38	59	1206.50/2	NLTE	47	138
				LTE	48	138
			1298.95/5	NLTE	49	138
				LTE	50	138
			1113.23/5	NLTE	51	139
				LTE	52	139
			997.39	NLTE	53	139
				LTE	54	139
			1417.24	NLTE	55	140
				LTE	56	140
			1312.59	NLTE	57	140
				LTE	58	140
			1842.55	NLTE	59	141
				LTE	60	141
			5741.33	NLTE	61	141
				LTE	62	141
			2559.96	NLTE	63	142
				LTE	64	142
			3087.13	NLTE	65	142
				LTE	66	142
			4553.94	NLTE	67	143
				LTE	68	143
			4569.13	NLTE	69	143
				LTE	70	143
			4576.03	NLTE	71	144
				LTE	72	144
			3807.61	NLTE	73	144
				LTE	74	144

*Ion, Temperature (T_{eff} in 1000K), Log g (gravity), microturbulent velocity (v_t).

†Non local thermodynamic equilibrium (NLTE).

INDEX TO LINE PROFILE GRAPHS (Continued)

*Ion, Temperature (T_{eff} in 1000K), Log g (gravity), microturbulent velocity (v_t).

†Non local thermodynamic equilibrium (NLTE).

STATISTICAL EQUILIBRIUM CALCULATIONS FOR SILICON IN EARLY-TYPE MODEL STELLAR ATMOSPHERES

Lucas W. Kamp*
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INTRODUCTION

This paper describes a series of calculations for lines of 36 multiplets of Silicon (Si) II, III, and IV in a set of 23 model stellar atmospheres, forming a grid covering a range in effective temperature (T_{eff}) from 15,000 to 35,000 K, and in log g (gravity) from 2.5 to 4.5. The calculations do not invoke the assumption of local thermodynamic equilibrium (LTE) for the populations or source functions, and are therefore called non local thermodynamic equilibrium (NLTE). They assume statistical equilibrium and solve the resulting rate equations for the ionic level populations simultaneously with the radiative transfer equations in the spectral lines. The "complete linearization" scheme of Auer and Mihalas (1969) is used, with modifications by Kamp (1973). In the latter paper, using a 16-level model atom for Si III and IV, calculations were done for four model atmospheres with log g = 4 and T_{eff} = 25,000 to 45,000. These results and subsequent calculations showed that in the highest temperature region several difficulties prevented the models from adequately representing real stars. However, it was felt that results justified detailed computation of a grid of models in the range approximating B-type stars, which would be of significant aid in interpreting stellar spectra.

The author thanks Drs. S. R. Heap, A. H. Karp, M. A. J. Snijders, and A. B. Underhill for their valuable advice and assistance. He is especially indebted to Dr. M. A. J. Snijders for many discussions and for his aid in performing the machine computations.

DESCRIPTION OF THE CALCULATIONS

Method

For clarity, we briefly summarize the computational procedure used (Kamp 1973). One computer program calculates an initial solution for the populations of the levels in three iterations, using the equivalent two-level-atom (ETA) approximation for the lines and Lambda-iterations for the continuum radiation field. This solution is fed into a second

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program, which iterates linearizations of the radiation field in the important transitions (including the modification described by Auer, 1973) until convergence, producing a final solution for the populations. The latter is fed into a third program, which utilizes depth-dependent Voigt profiles for the lines (in contrast to depth-independent Gaussian profiles used in the preceding steps), to compute emergent flux profiles suitable for comparison with observations, for a limited set of lines. These three steps will hereafter be referred to as the ETA, Linearization, and Profile steps, respectively.

Data

The model atmospheres used are those of Mihalas (1972), unblanketed, with H, He, and a mean light element (C, N, and O) in NLTE.

Energy levels from Moore (1965) and other data for the states of Si II, III, and IV, included in the computations, are given in table 1.

As in Kamp (1973), fine structure in the levels is not included in the first two steps. A level of the model atom generally corresponds to a spectroscopic "term" and has the energy of the spectroscopic "level" belonging to the term with the highest statistical weight. In the Profile step, all levels are included, with populations distributed according to statistical weight. Sufficient levels were included so that the energy difference between the highest level and the continuum was of the order of the mean thermal energy of the gas (~kT, where k is the Boltzmann constant). A separate subroutine computes collisional coupling to hydrogenic levels beyond the highest explicitly-included level. These points are important in order to obtain the correct ionization balance, which depends on collisional coupling between the highest levels and the continuum, and radiative coupling between the lower levels and the higher ones.

When high-lying levels of different orbital angular momentum (l), but the same principal quantum number (n), differed by less than 0.5 eV, they were frequently grouped together in a single pseudo-level (e.g., 6d, 6f, 6g, 6h into 6 ⟨dh⟩), summing the statistical weights. In the Profile step such levels were separated, with populations distributed according to statistical weight (the same procedure as that followed for fine-structure levels).

Oscillator strengths (f-values) for the bound-bound transitions between the states are given in table 2, along with their source and an accuracy estimate. Column 1, Vacuum Wavelength, indicates the wavelength of the transition which is used in the ETA and Linearization steps. Only one line of each multiplet is included. When several levels have been combined into a mean level, the wavelength of a connecting transition may not correspond to any actual spectral line. In such a case, if the transition involves a line for which calculations are done in the Profile step, the correct wavelength is shown in column 1 with the notation P (for Profile) in column 3. Columns 2, 3, and 4 identify the upper and lower levels of the transition and the multiplet numbers. Column 5 shows the total f-value for the multiplet. In column 6 is entered the effective f-value $(f\text{☆})'$ of the strongest resolvable line(s) of the multiplet, scaled to give the correct (gf)-value when the total g-value of the lower level

Table 1 (Sheet 1 of 2)
Energy Level Data for Si II, III, and IV

Spectroscopic Term (1)	Energy (μm^{-1}) (2)	Statistical Weight (g) (3)	Model Level Number (4)	$\lvert\cos\phi\rvert$ $\ell\rightarrow\ell-1$ (5)	$\lvert\cos\phi\rvert$ $\ell\rightarrow\ell+1$ (6)
		Si II			
Doublets					
$3p\ ^2P^D$	0.0	6	1	0.95	0.59
$3p^2\ ^2D$	5.532544	10	2	0 88	0.96
$4s\ ^2S$	6.550073	2	3	–	0.06
$3d\ ^2D$	7.935528	10	4	0.25	0.76
$4p\ ^2P^D$	8.125158	6	5	0.99	0.53
$4d\ ^2D$	10.102461	10	6	0.18	0.93
$4f\ ^2F^D$	10.355642	14	7	–	–
$5p\ ^2P^D$	10 388551	6	8	0.98	0.47
5 ⟨dg⟩	11.41774	42	9	–	–
6 ⟨dh⟩	11.9652	14	10	–	–
7 ⟨di⟩	12.28851	90	11	–	–
8 ⟨dj⟩	12.49835	120	12	–	–
9 ⟨dk⟩	12.64222	154	13	–	–
Quartets					
$3p^2\ ^2P$	4.310797	12	14	0.91	0.94
$\langle 3p3d\rangle^4$	12.45	32	15	0.88	0.96
Limit $(3s^2(^1S)nl)$	13.18384				
Limit $(3s3p(^3P)nl)$	18.49530				
		Si III			
Singlets					
$3s^2\ ^1S$	0.0	1	1	–	0.47
$3p\ ^1P^D_1$	8.288441	3	2	0.99	0.35
$3p^2\ ^1D_2$	12.221452	5	3	0.66	0.54
$3p^2\ ^1S$	15.344423	1	4	0.95	0.074
$4s\ ^1S$	15.906961	1	5	–	0.57
$3d\ ^1D_2$	16.576500	5	6	0.07	0.58
$4p\ ^1P^D$	17.648719	3	7	1.00	0.068
$4\langle df\rangle^1$	20.482806	12	8	–	–
$5\langle fg\rangle^1$	23.030201	16	9	–	–

NOTES. Column 1 is the spectroscopic description of the level.
Column 2 is the energy in inverse micrometers.
Column 4 shows the sequential numbers assigned in the computations, and which are shown in figure 1.
Columns 5 and 6, the absolute $|\cos\phi|$ indicates the accuracy of the quantum defect calculation for the cross section. ℓ is the angular momentum quantum number of the orbital electron, which changes by +1 or -1 in a transition. The highest accuracy is shown by 1.00.

Table 1 (Sheet 2 of 2)
Energy Level Data for Si II, III, and IV

Spectroscopic Term (1)	Energy $\left(\mu_m^{-1}\right)$ (2)	Statistical Weight (g) (3)	Model Level Number (4)	$\lvert\cos\phi\rvert$ $\ell\rightarrow\ell-1$ (5)	$\lvert\cos\phi\rvert$ $\ell\rightarrow\ell+1$ (6)
Si III (continued)					
Triplets					
$3p\ ^3P_2^D$	5.311501	9	10	0.94	0 05
$3p^2\ ^3P_2$	13.010052	9	11	0.92	0.009
$3d\ ^3D_3$	14 294374	15	12	0.73	0.98
$4s\ ^3S$	15.337705	3	13	–	0.25
$4p\ ^3P_2^D$	17 533626	9	14	1.00	0.003
$4d\ ^3D_3$	20.159948	15	15	0.78	1.00
5 ⟨fg⟩^{3}	23.030235	48	16	–	–
Mixed					
6 ⟨fh⟩	24 263938	97	17	–	–
Limit (3s(^{2}S)nl)	27.01393				
Limit (3p(^{2}P)nl)	34.18879				
Si IV					
3s	0 0	2	1	–	0.47
3p	7.174864	6	2	0 98	0 50
3d	16.037441	10	3	0.93	0 85
4s	19.397889	2	4	–	0 45
4p	21.842867	6	5	0.99	0 37
4d	25.000802	10	6	0.94	0 96
4f	25.412903	14	7	–	–
5s	26.541795	2	8	–	0 41
5p	27.657903	6	9	1 0	0 26
5d	29.149760	10	10	0 93	0 99
5 ⟨fg⟩	29.3718	32	11*	–	–
5f	29.371899	14	11†	–	–
5g	29.383792	18	12†	–	–
6 ⟨dh⟩	31 5230	64	12*	–	–
6 ⟨fg⟩	31.530528	32	13†	–	–
6h	31.531736	22	14†	–	–
7 ⟨fi⟩	32.826	80	13*,15†	–	–
8 ⟨dj⟩	33.665	128	14*	–	–

*Used only in cooler models.
†Used only in hotter models.

is used. This quantity, f*, is used in the radiative transfer equations of the ETA and Linearization steps (Kamp, 1973).

In column 7, when C alone occurs, the calculation was done by the author, using the tables of Oertel and Shomo (1968). A lower-case n in column 7 indicates that different sources give discrepant results, which are discussed here

Si II 1807.49 Å Beck and Sinanoglu (1972) gives a value a factor of three higher than the adopted mean, while Hoffman (1971) is a factor of three too low.

Si II 3897.11 Å. Shulz-Gulde(1969) is 50 percent larger than the other determinations and was not used.

Si II 6348.86 Å. The theoretical calculation of A. W. Weiss was inferred from Hey (1959) and Wiese et al (1969), assuming that the two former values were averaged in the latter source. The results of A. W. Weiss and of Berry, et al. (1971) agree and their mean was used here. However, the measurements of Hey (1959) and Schulz-Gulde (1969) are less by almost a factor of two. An unweighted mean of the four sources gives f = 1.2. Equivalent widths calculated with the f = 1.2 value will be discussed later.

Si II 5057.39 Å: As for the Si II, 6348.86 Å line, the calculations of A. W. Weiss are almost a factor of two higher than the measurements of Hey (1959) and Schulz-Gulde (1969). However, the latter values have low accuracy, and Schulz-Gulde has scaled his results to force the f-value of this line to its value in the Coulomb approximation, slightly higher than that of Weiss. Our adopted value is slightly lower than that of Weiss. The consequent re-scaling of the results of Schulz-Gulde (1969) seems to bring most of them into better agreement with other determinations (but not Si 6348.86 Å).

Si III 1298.95 Å. Calculations of Wiese, et al. (1969) and Trefftz and Zare (1969) and Beck and Sinanoglu (1972) agree to within 5%. The measurements of Berry, et al. (1971) and Irwin and Livingston (1973) have a much larger scatter, but their weighted mean is close to the theoretical value.

Si III 997.39 Å. Calculations of Wiese, et al. (1969) and Trefftz and Zare (1969) agree, but are more than twice the measurement of Berry, et al. (1971), which has a quoted accuracy of 20%. The two sets were averaged.

Si III 3087.13 Å, 4553.90 Å, 3807.61 Å. The measured values of Berry, et al. (1971) for these lines are 20 to 30% below the theoretical determination of Trefftz and Zare (1969) and have a claimed accuracy of 10%. The former values were adopted.

Si IV 1393.75 Å. The measurement of Berry, et al. (1971), which has a large uncertainty, agrees with the calculation of Wiese, et al.(1969), claimed to be reliable. However, the measurement of Irwin and Livingston (1973), with a higher quoted precision, disagrees by 20%. A very high replenishment ratio was noted for the latter determination, which implies the possibility of large errors (Berry, et al., 1971), and we did not use this value. (The replenishment ratio is the ratio of the cascade repopulation rate to the decay depopulation rate and measures the degree of interaction of other transitions with the one of interest.)

Table 2 (Sheet 1 of 4)
Transitions of Si II, III, and IV

Vacuum Wavelength A (1)	Spectroscopic Terms (2)	Level Numbers from Table 1 (3)	Multiplet Numbers from Moore (1965) (4)	Total Multiplet f (5)	Effective f-value f* (6)	Source‡ (7)	Accuracy Estimate (8)	Linearized Transition Number (9)
			Si II					
2,319 76	$3p\ ^2P^o$ - $3p\ ^4P$	1-14	UV0 01	$1\ 06 \times 10^{-5}$	$6\ 54 \times 10^{-6}$	[1]T	E	
1,807 49	- $3p^2\ ^2D$	1-2	UV1	$6\ 0 \times 10^{-3}$	$4\ 0 \times 10^{-3}$	[1]T, [5], [7], [8]n	D	1
1,526 70	- $4s\ ^2S$	1-3	UV2	0 109	0 0726	[1]T E, [5]	D	2
1,260 16	- $3d\ ^2D$	1-4	UV4	0 84	0 507	[5], [6], [8], [9]	B	3
989 86	- $4d\ ^2D$	1-6	UV6	0 2	0 12	[1]T	D	4
3,857 11	$3p^2\ ^2D$ - $4p\ ^2P^o$	2-5	1	0 042	0 025	[1]T E, [6]n	B	5
2,073 36	- $4f\ ^2F^o$	2-7	UV9	0 093	0 0515	[1]T, [5], [6]	B	6
6,348 86	$4s\ ^2S$ - $4p\ ^2P^o$	3-5	2	1 52	1 01	[1]T, [3], [6]n	D	7
2,605 20	- $5p\ ^2P^o$	3-8	UV15	$1\ 5 \times 10^{3}$	$1\ 0 \times 10^{-3}$	C	E	
4,132 04	$3d\ ^2D$ - $4f\ ^2F^o$	4-7	3	0 52	0 31	[1]T E, [3], [6]	B	8
4,076 60	- $5p\ ^2P^o$	4-8	3 01	2×10^{-3}	$1\ 2 \times 10^{3}$	C	D	9
2,871 74	- 5 ⟨dg⟩	4-9	UV17	0 13	0 076	[1]T	D	10
2,906 54	- $5f\ ^2F^o$	P	UV17					
5,057 39	$4p\ ^2P^o$ - $4d\ ^2D$	5-6	5	0 88	0 546	[1]T E, [3]n	D	11
3,037 13	- 5 ⟨dg⟩	5-9	7	0 12	0 072	[1]C	D	
34,954 04	$4d\ ^2D$ - $5p\ ^2P^o$	6-8	–	0 33	0 2	C	D	
7,602 95	- 5 ⟨dg⟩	6-9	7 02	0 54	0 32	[1]C	D	12
4,173 82	- 8 ⟨dj⟩	6-12	7 06	0 048	0 0288	C	D	13
4,202 08	- $8f\ ^2F^o$	P	7 06					
9,415 33	$4f\ ^2F^o$ - 5 ⟨dg⟩	7-9	7 11	1 36	1 31	C	D	14
6,212 89	- 6 ⟨dh⟩	7-10	7 12	0 14	0 133	C	D	
9,716 39	$5p\ ^2P^o$ - 5 ⟨dg⟩	8-9	–	1 19	0 71	C	D	
18,571 70	5 ⟨dg⟩ - 6 ⟨dh⟩	9-10	–	1 15	0 71	C	D	
11,484.09	- 7 ⟨di⟩	9-11	–	0 17	0 09	C	D	
30,930 06	6 ⟨dh⟩ - 7 ⟨di⟩	10-11	–	1 5	0 7	C	D	

*Used only in cooler models (see sheet 4 of 4, column 9). †Used only in hotter models (see sheet 4 of 4, column 9).

‡The sources in column 7 are coded as follows [1] Wiese, et al (1969) critical compilation, [2] Nukumun (1969) theoretical, [3] Schulz-Gulde (1969) empirical, cascade arc, [4] Trefftz and Zare (1969) theoretical, with configuration interaction, [5] Hoffman (1971) empirical; [6] Berry, et al. (1971) empirical, beam-foil, [7] Beck and Sinanoglu (1972) theoretical, many-electron correlation, [8] Curtis and Smith (1974) empirical, electron beam phase-shift, and [9] Irwin and Livingston (1973) empirical, beam-foil. The letters denote C = Coulomb approximation; T = theoretical, other than Coulomb approximation, E = empirical, and n indicates that different sources give discrepant results. In Column 8, B indicates an estimated error within 10%; D, within 50%, and E, greater than 50%.

Table 2 (Sheet 2 of 4)
Transitions of Si II, III, and IV

Vacuum Wavelength A (1)	Spectroscopic Terms (2)	Level Numbers from Table 1 (3)	Multiplet Numbers from Moore (1965) (4)	Total Multiplet f (5)	Effective f-value f* (6)	Source‡ (7)	Accuracy Estimate (8)	Linearized Transition Number (9)
18,756 45	- 8 (d)^1	10-12	–	0 24	0 075	C	D	
47,655 36	7 (d)^1 - 8 (d)^1	11-12	–	1 8	0 6	C	D	
28,271 75	- 9 (d)^1	11-13	–	0 3	0 1	C	D	
69,507.19	8 (d)^1 - 9 (d)^1	12-13	–	2 0	0 6	Est	D	
			Si III					
1,229 38	$3p^2\ ^4P$ - $(3p3d)^4$	14-15	8 01, 8 02	0 65	0 34	[5]	D	
1,206 50	$3s^2\ ^1S$ - $3p\ ^1P^o$	1-2	UV2	1 70	1 70	[1]T, [4], [6], [9]	B+	1
566 61	- $4p\ ^1P^o$	1-7	UV3	0 015	0 015	[4]	E	
1,882 71	- $3p\ ^3P^o$	1-10	UV1	0 76 X 10^{-4}	042X 10^{-4}	[2]	E	
2,542.58	$3p\ ^1P^o$ - $3p^2\ ^1D$	2-3	UV6 09	0 06	0 06	[4], [6]	B	
1,417 24	- $3p^2\ ^1S$	2-4	UV9	0 261	0 261	[1]T, [4]	B	2
1,312 59	-$4s\ ^1S$	2-5	UV10	0 048	0 048	[1]T, [4]	B	3
1,206 56	-$3d\ ^1D_2$	2-6	UV11	1 78	1 78	[1]T	B	4
820 05	- 4 $(df)^1$	2-8	UV12	0 16	0 16	[4]	D	5
1,842 55	$3p^2\ ^1D$ - $4p\ ^1P^o$	3-7	UV20	0 096	0 096	[4]	D	6
4,339 72	$3p^2\ ^1S$ - $4p\ ^1P^o$	4-7	3	0 084	0 084	[4]	D	
5,741.33	$4s\ ^1S$ - $4p\ ^1P^o$	5-7	4	0 7	0 7	[1]T, [4]	B	7
9,186 08	$3d\ ^1D$ - $4p\ ^1P^o$	6-7	4 02	0 096	0 096	C	D	
2,559 96	- 4 $(df)^1$	6-8	UV55	0 44	0 44	[4]	D	8
3,528 47	$4p\ ^1P^o$ - 4 $(df)^1$	7-8	7	0 45	0 45	[6]	D	
3,925 58	4 $(df)^1$ - 5 $(fg)^1$	8-9	8 09, 8 14	0 65	0 38	C	D	
2,644 71	- 6 (fh)	8-17	UV78, UV84	0 26	0 17	[4],C	D	
8,105 46	5 $(fg)^1$ - 6 (fh)	9-17	12 02, 37	0 98	0 84	C	D	
1,298 95	$3p\ ^3P^o$ - $3p^2\ ^3P$	10-11	UV4	0 55	0 23	[1]T, [4], [6], [7], [9]n	B	9
1,113 23	- $3d\ ^3D$	10-12	UV5	0 89	0 49	[1]T, [4], [6]	B+	10
997 39	- $4s\ ^3S$	10-13	UV6	0 083	0 026	[1]T, [4], [6]	D	11

Table 2 (Sheet 3 of 4)
Transitions of Si II, III, and IV

Vacuum Wavelength Å (1)	Spectroscopic Terms (2)	Level Numbers from Table 1 (3)	Multiplet Numbers from Moore (1965) (4)	Total Multiplet f (5)	Effective f-value f* (6)	Source‡ (7)	Accuracy Estimate (8)	Linearized Transition Number (9)
670 10	- 4d ^{3}D	10-15	UV6 01	7 5 X 10^3	6 3 X 10^3	[1]T	D	
3,087 13	3d ^{3}D - 4p ^{3}P	12-14	1	0 12	0 056	[6]n	B	12
1,144 71	- 5 (fg)^3	12-16	UV41	0 27	0 206	C	D	
4,553 90	4s ^{3}S - 4p ^{3}P	13-14	2	0 92	0 53	[6]n	B	13
3,807 61	4p ^{3}P - 4d ^{3}D	14-15	5	0 80	0 44	[6]n	B	14
3,483 97	4d ^{3}D - 5 (fg)^3	15-16	8 06	0 391	0 385	[4]	D	
8,105 68	5 (fg)^3 - 6 (fh)	16-17	30, 36, 37	1 38	0 84	C	D	
			Si IV					
1,393 75	3s - 3p	1-2	UV1	0 803	0 536	[1]T n	B	18
457 81	- 4p	1-5	UV2	0 033	0 023	[1]T	D	2
361 56	- 5p	1-9	UV2 01	0 015	0 010	C	D	
1,128 35	3p - 3d	2-3	UV3	0 68	0 41	[6], [9]	B	3
818 13	- 4s	2-4	UV4	0 123	0 082	[1]T	D	4
560 98	- 4d	2-6	UV5	0 0081	0 0049	[1]T	E	5
516 34	- 5s	2-8	UV6	0 016	0 011	[1]C	D	
1,722 50	3d - 4p	3-5	UV10	0 148	0 088	[1]T	D	6
1,066 62	- 4f	3-7	UV11	0 51	0 51	[6], [9]	B	7
860 55	- 5p	3-9	UV12	0 012	0 008	[1]C	D	
749 94	- 5 (fg)	3-11	UV13	0 171	0 171	[1]C	D	
4,089 98	4s - 4p	4-5	1	1 17	0 784	[1]T n	B	8
1,210 65	- 5p	4-9	UV16	0 024	0 016	[1]C	D	
3,166 66	4p - 4d	5-6	2	1 1	0 66	[1]T, [6]	B	9
2,128 16	- 5s	5-8	UV18	0 203	0 136	[1]C	D	
24,271 84	4d - 4f	6-7	–	0 125	0 12	C	D	
3,763 50	- 5p	6-9	3	0 303	0 202	[1]T	D	10
2,287 81	- 5f	6-11	UV22	0 7	0 7	[1]C	D	11

Table 2 (Sheet 4 of 4)

Transitions of Si II, III, and IV

Vacuum Wavelength A (1)	Spectroscopic Terms (2)	Level Numbers from Table 1 (3)	Multiplet Numbers from Moore (1965) (4)	Total Multiplet f (5)	Effective f-value F (6)	Source‡ (7)	Accuracy Estimate (8)	Linearized Transition Number (9)
1,533 22	- 6 ⟨dh⟩	6-12*	UV24	0 176	0 176	[1]C	D	
1,531 46	- 6 ⟨fg⟩	6-13†	UV24	0 176	0 176	[1]C	D	
2,675 97	5f - 5d	7-10	UV25	0 0215	0 0215	[1]C	D	
2,525 89	- 5 ⟨fg⟩	7-11*	UV26	1 35	1 35	C	D	12+
2,518 26	- 5g	7-12†	UV26	1 35	1 35	C	D	12†
1,636 61	- 6 ⟨dh⟩	7-12*	UV27 UV28	0 2	0 2	[1]C C	D	
1,634 59	- 6 ⟨fg⟩	7-13†	UV28	0 2	0 2	C	D	
8,959 77	5s - 5p	8-9	3 01	1 52	1 01	[1]C	D	13
6,703 04	5p - 5d	9-10	3 02	1 52	1 01	[1]C	D	14
45,036 93	5d - 5f	10-11	–	1 0	1 0	C	D	
4,213 65	5d - 6 ⟨dh⟩	10-12*	5	0 64	0 64	[1]C	D	15*
4,200 33	- 6f	10-13†	5	0 64	0 64	[1]C	D	15†
4,648 57	5 ⟨fg⟩ - 6 ⟨dh⟩	11*-12*	5 02, 6, 6 02, 7	1 45	0 96	[1]C C	D	16*
840,830 74	5f - 5g	11†-12†	–	0 0264	0 0264	C	E	
4,632 57	- 6 ⟨fg⟩	11†-13†	6	1 07	1 07	C	D	16†
4,658 23	5g - 6 ⟨fg⟩	12†-13†	6 02	0 03	0 03	C	D	
4,655 61	5g - 6h	12†-14†	7	1 7	1 7	C	D	17†
2,895 03	5 ⟨fg⟩ - 7 ⟨fi⟩	11*-13*	UV34, UV36	0 2	0 1	Est	E	
2,895 11	5f - 7 ⟨fi⟩	11†-15†	UV34	0 935	0 935	C	D	
2,905 11	5g - 7 ⟨fi⟩	12†-15†	UV36	0 2	0 2	Est	E	
7,674 60	6 ⟨dh⟩ - 7 ⟨fi⟩	12*-13*	12, 16, 20, 22	1 0	0 5	Est	D	
827,814 57	6 ⟨fg⟩ - 6h	13†-14†	–	0 0023	0 0023	C	E	
7,719 19	- 7 ⟨fi⟩	13†-15†	12, 16	1 0	1 0	Est	D	
7,726 40	6h - 7 ⟨fi⟩	14†-15†	20, 22	1 0	1 0	Est	D	
11,917 97	7 ⟨fi⟩ - 8 ⟨dj⟩	13*-14*	–	1 0	1 0	Est	D	

Si IV 4089.98 Å. Berry, et al. (1971) finds a value significantly higher than the calculation of Wiese et al. (1969), with a large replenishment ratio, but a small quoted error. Irwin and Livingston (1973) cast some doubt on the measurement in question, and we ignored it in favor of the theoretical one.

In column 8 the accuracy estimate follows the convention of Wiese et al. (1969); but, in this table, only B (within 10%), D (within 50%), and E (greater than 50%) are used.

Column 9 indicates the transitions which were included explicitly in the Linearization step, listing their sequential numbering for each ion. It should be emphasized that it is only for these transitions that the radiation field and the level populations are fully consistent. It is also only for these transitions that computations were done in the Profile step.

Grotrian diagrams of the model atoms used are shown in figures 1 through 4. The transitions which were linearized are shown by solid lines, the remaining ones by dashed lines.

For Si IV, two model atoms were used, according to the temperature range. The levels in table 1 (sheet 2 of 2) and transitions in table 2 (sheet 4 of 4) of the two models are marked by * for that used in the cooler range, and † for the hotter one. These two model atoms are shown in figures 3 and 4.

Depression of Continuum Level

The cutoff used in the summation over non-explicitly-included hydrogenic upper levels (Kamp, 1973, equation 12, where the constant k was inadvertently miswritten as h) is now calculated from the density of charged particles. We follow the theory of Fischel and Sparks (1971), who assume quasi-static linear Stark broadening. The validity of this mechanism is questionable for high-ion states of heavy elements, as the quadratic Stark effect holds here, and according to Griem (1964, p. 87), electron impacts are the primary broadening agent. However, the results are quite insensitive to the cutoff level, over a broad range of this level, hence, it seemed justified to introduce at least an estimate for the density-dependence. We use equation (28) of Fischel and Sparks (1971) to derive for the principal quantum number of the hydrogenic cutoff level:

$$n_{max} = 3.55 \times 10^3 \, Z \cdot N_q^{1/6} \qquad (1)$$

where N_q is approximately the number of charged particles (see Fischel and Sparks, 1971), for which we include H II, He II, He III and free electrons.

Hydrogen and Helium Line Blocking

The Lyman and Balmer lines through n = 18 of H I and He II were included as opacity sources. We also interpolated between the highest line of each series and the corresponding photo-ionization edge, to get a pseudo-continuous opacity. The formulae and data of Underhill and Waddell (1959) were used, but the Stark-broadened profiles were recalculated with the semiempirical correction for the quasi-static electron contribution according to

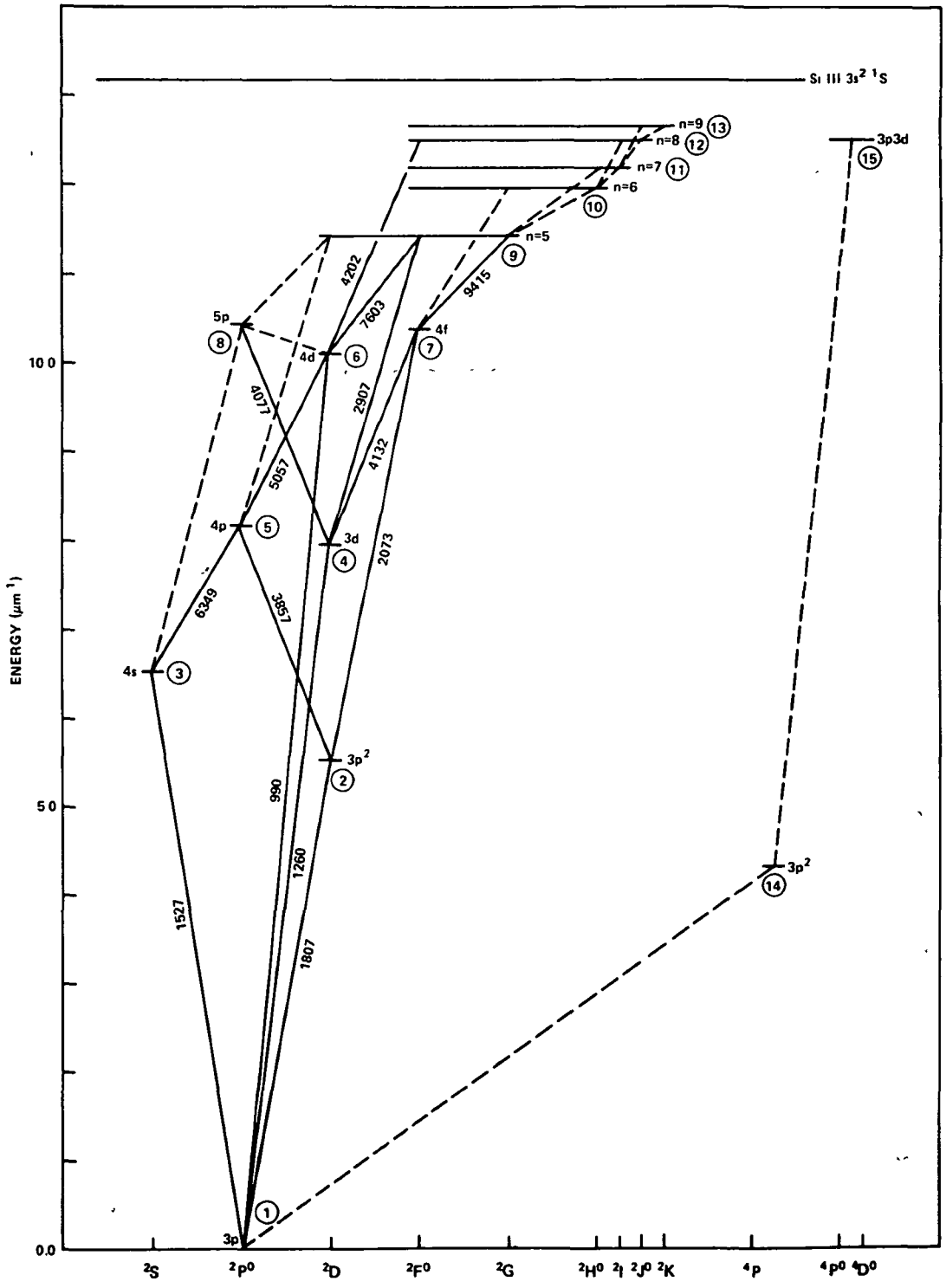

Figure 1. Energy levels and transitions of Si II.

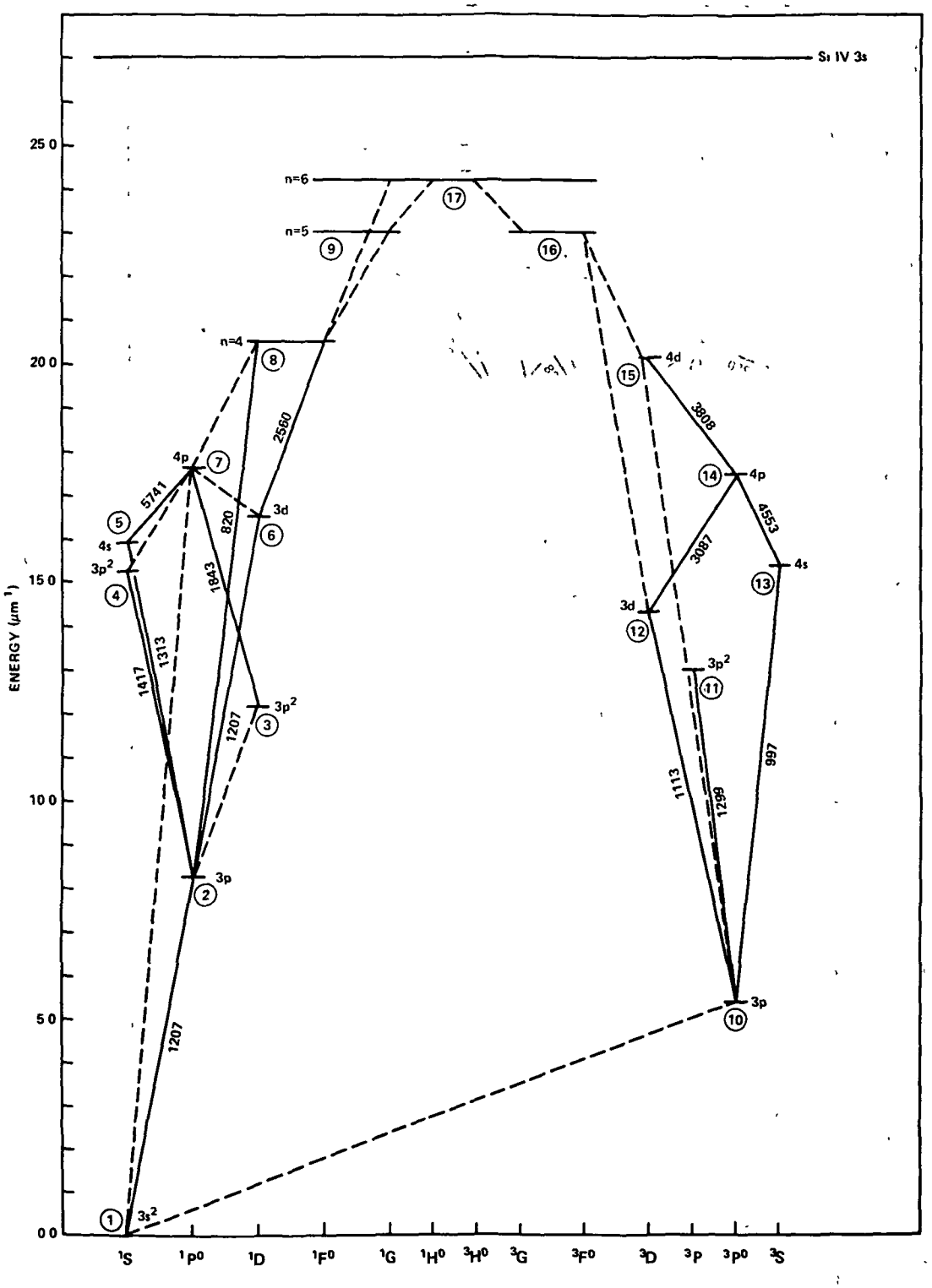

Figure 2. Energy levels and transitions of Si III.

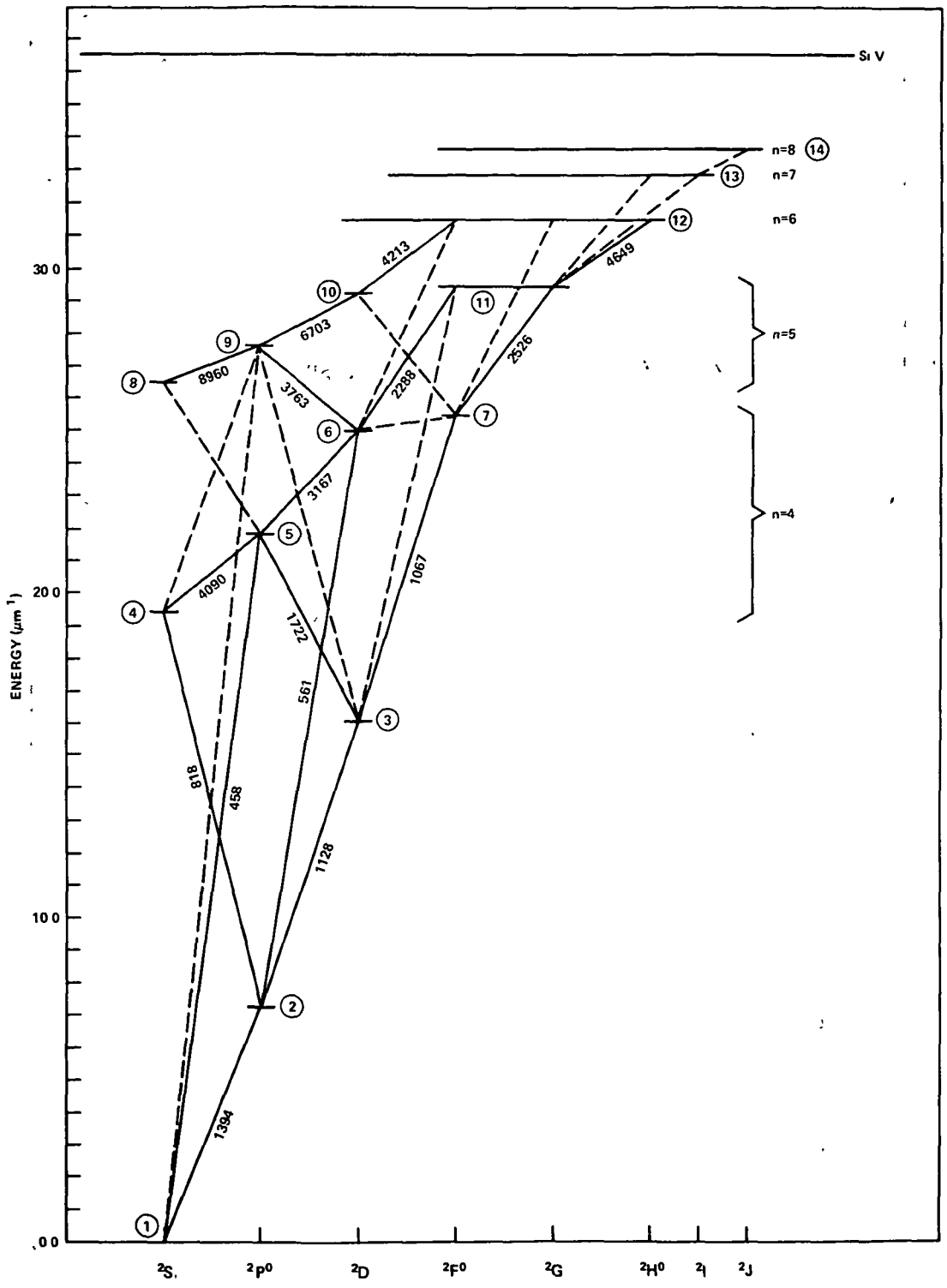

Figure 3 Energy levels and transitions of Si IV, cool models

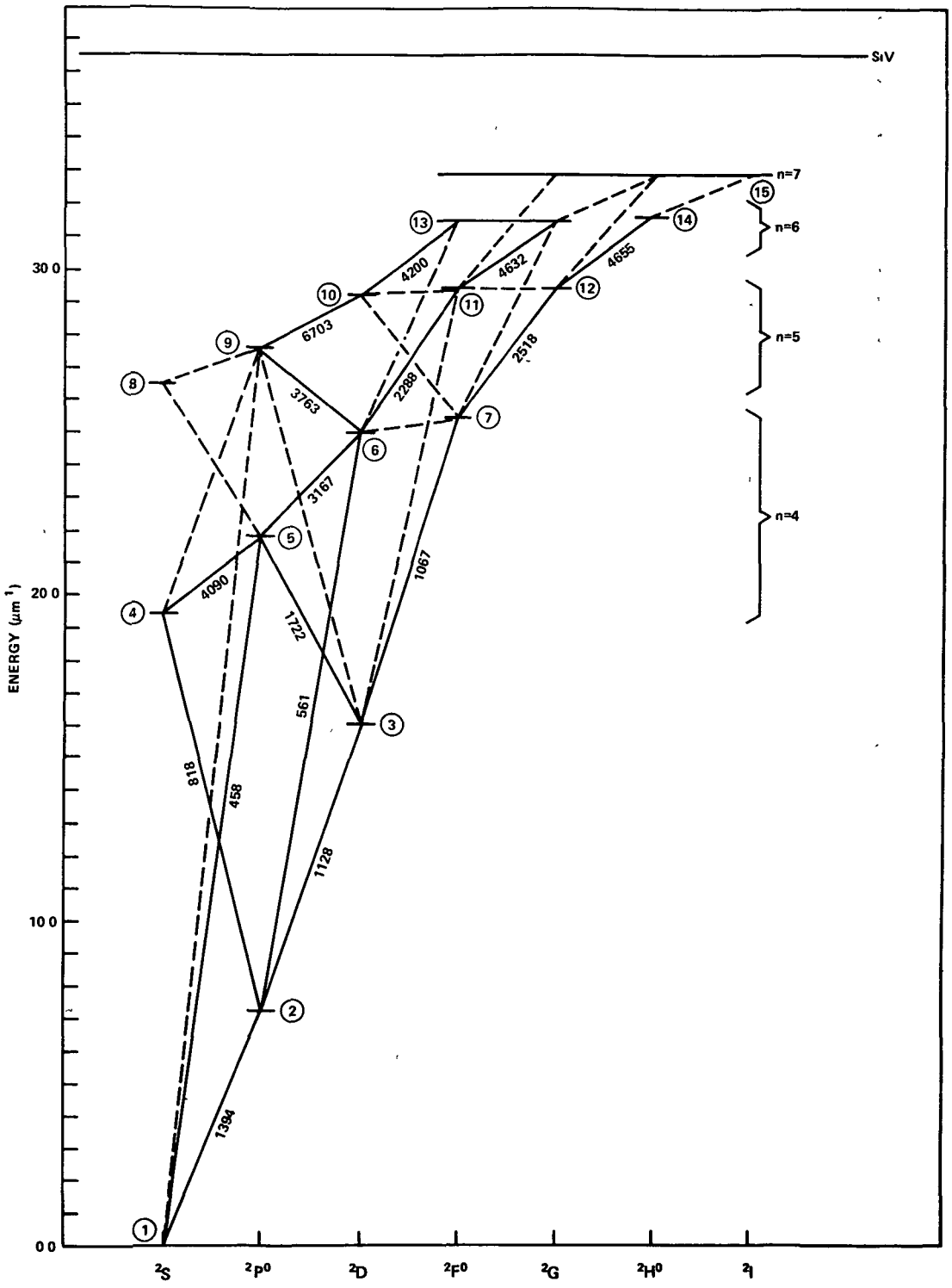

Figure 4. Energy levels and transitions of Si IV, hot models.

Edmonds, Schluter, and Wells (1967). It should be emphasized that our calculations do not employ model atmospheres that are line-blanketed by H and He, their effects on the temperature structure of the atmosphere are not included.

These line opacities contribute significantly to the background opacity of several silicon lines. Since we treat the background opacity (all opacity not due to the line transition itself) as constant over the line profile, the opacity due to H I or He II lines may occasionally be represented unrealistically in cases where a silicon line with strong wings lies close to an H I or He II line. The most significant example is the Si III 1206.5 Å line in the cooler models where H I Ly-α (1215 Å) dominates its red wing, an effect we ignore. In this case, our results for the line profile are unreliable, although the effects on the populations (and hence, other lines) are not likely to be significant.

Autoionization

Autoionization and its converse process, dielectronic recombination, were included in an approximate manner. The process is treated as a transition between a level "n" of ion i and a level "k" (usually the ground level) of ion i + 1, as shown in figure 5. This transition actually occurs in two steps: an inner-electron jump (corresponding to the transition $k \rightarrow \ell$ in ion i + 1) from "n" to the level "d," lying above the first ionization limit of ion i, followed by the autoionization of "d." Assuming that the transition probability for autoionization of "d," A_d (auto) is much larger than all other radiative decay processes from

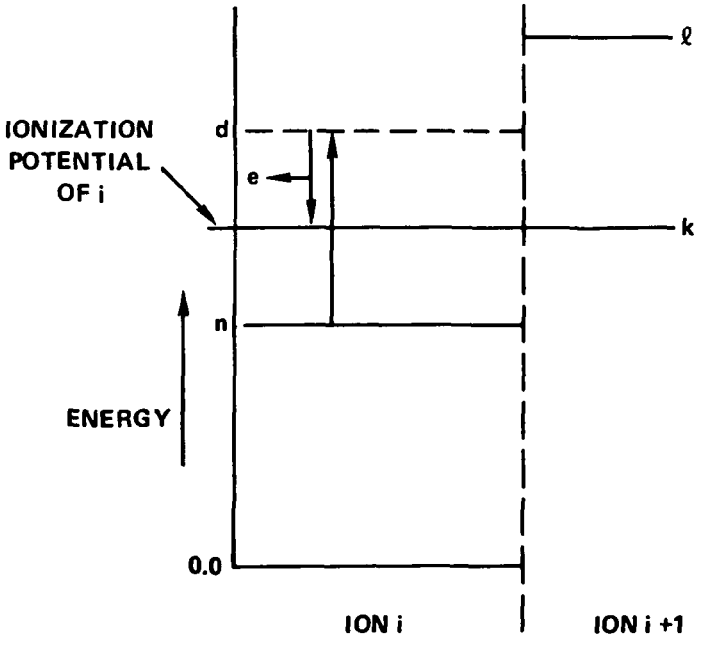

Figure 5. Autoionization process diagram

"d," we obtain for the transition rate between "n" and "k":

$$R(n \rightarrow k, e) = N_n B_{nd} J_\nu \tag{2a}$$

and from the usual argument invoking detailed balance in LTE, for the converse rate (involving dielectronic recombination to "d")

$$R(k, e \rightarrow n) = \frac{N_n}{N_k}^{\star} N_k B_{nd} \left[B_\nu (e^{h\nu/kT} - 1) + J_\nu \right] \tag{2b}$$

Here "e" denotes the free electron, N's are number densities and starred quantities are LTE values. The radiation field is taken to be the continuum value. We assume the frequency $\nu = \nu_{kl}$ and the Einstein coefficient $B_{nd} = B_{kl}$. The B_ν is the Planck function.

In reality A_d (auto) decreases with the cube of the effective quantum number (Shore, 1969) and the approximation preceding equation (2a) rapidly breaks down. Since detailed data are unavailable, we omitted this process for $(h\nu - I_n) >$ some cutoff energy (I_n is the ionization potential of n). For Si II, the cutoff energy was taken to be around the mildly autoionizing 3s3p4d levels (Shenstone, 1961), for Si III below 3p4f $^1F_3$ (Toresson, 1960). This treatment gives a crude estimate of the importance of this process, which turned out to be dominant in no case. The only rates that were significant compared to photoionization processes occurred for $T_{eff} \gtrsim 30{,}000$ in the Si III 4f singlet level. Their validity is uncertain, due to lack of relevant atomic data.

Separation of Ions

The calculations for each ion state were done separately due to requirements of computer space. Care was taken to couple these calculations by including the most important levels of the other ions and by starting with the calculation for the lowest ion which has a significant ($\gtrsim 10\%$) ionization fraction in the upper and middle layers of the atmosphere where the lines are formed. These results are then fed into the calculations for the remaining ions. Tests show that the errors thus introduced into the ion balance are probably less than 5% in all cases. Errors of this order in the populations have negligible effect on line formation, as long as the ratio of upper- to lower-level populations of the lines are correct. These ratios are unaffected by the errors in question.

Damping Constants

In the Profile step, absorption and stimulated emission were included in the estimate of the radiation damping constant. The effects were generally negligible, except on the strong UV lines.

Recently, some theoretical work has been done on the quadratic Stark broadening of ionic lines. Table 3 shows the quantity $[\log (\Gamma_e N_e^{-1}) + 6]$ for 5 lines of Si II using the semi-classical calculations of Sahal-Bréchot and Segre (1971) (SBS), Sahal-Bréchot (1969) (SB), and Jones, Bennett and Griem (1971) (JBG) and the general approximation formula used in Kamp (1973), equation 3b below.

Table 3
Log $\Gamma_e N_e^{-1}$ for Five Lines of Si II

Wavelength (Å)*	SBS/SB	JBG	General Formula
1526.70	0.30	0.58	0.24
1260.16	0.43	0.79	0.45
3857.11	0.75	1.09	0.48
4132.04	0.89	1.13	0.98
2906.54	1.55	1.74	1.37

*See table 2.

The roughly factor-of-two difference between the two sets of semi-classical results would be removed if there were a confusion between full and half half-widths in one source. However, there is no justification for this hypothesis. In view of the large discrepancy between the two sets of theoretical calculations and the fair agreement between one of these (SBS/SB) and our general formula, use of the latter was continued in most cases. Only for the strong UV lines of Si III and IV, where the agreement between the general formula and the results of SBS is not as good, and where electron damping can be significant, were the theoretical values used. These values were fitted to a parametric expression for the electron damping width:

$$\Gamma_e = Q_1 N_e T^{Q_2} . \tag{3a}$$

The general formula otherwise used is from Cowley (1971):

$$\Gamma_e = 5 \times 10^{-5} \left(\frac{n_u{}^{*2}}{Z+1} \right)^2 \frac{N_e}{T^{0.5}} \tag{3b}$$

where $n_u{}^*$ is the effective quantum number of the upper level of the transition, and Z is the residual charge on the ion. In table 4 are shown the values of Q_1 and Q_2 used and, for comparison, the value of Q_1 predicted by equation (3b).

Photoionization Cross Sections

It should be mentioned that unexplained discrepancies by factors of 2 to 4, exist between our photoionization cross sections, calculated using the quantum defect formulae and data of Peach (1967) and those given by Silk and Brown (1971) for the ground states of Si II, III, and IV. In order to facilitate evaluation of possible errors, the relevant quantum-defect parameters used in this work are given in table 5 (where μ is the quantum defect and x is the electron energy in atto-Joules (10^{-18} Joule). Note that 2.18 a J = 1 Rydberg.

These parameters were generally computed by the author from data in Moore (1965). In some cases, they were taken from Toresson (1960) or Shenstone (1961).

Table 4
Quadratic-Stark Broadening Constants Used in $\Gamma_e = Q_1 \cdot T^{Q_2} \cdot N_e$

Ion	Wavelength (Å) (from Table 2, col. 1)	SBS/SB		General Formula (Eq. 3b)
		Q_1	Q_2	Q_1
Si III	1206.50	1.1 (5)*	−0.23	9.0 (5)*
Si III	1298.95	3.5 (5)*	−0.3	7.0 (5)*
Si III	1113.23	4.7 (5)*	−0.4	2.0 (4)*
Si III	997.39	1.0 (6)*	+0.05	2.2 (4)*
Si IV	1393.75	5.2 (5)*	−0.4	7.2 (5)*
Si IV	1128.35	2.1 (4)*	−0.5	1.5 (4)*
Si IV	1066.62	8.3 (5)*	−0.3	5.1 (4)*

*Numbers in parentheses are powers of ten.

Table 5
Quantum Defect Parameters

Channel	Quantum Defect μ_0	$\partial\mu/\partial x$*
Si II ns ^{2}S	1.376	−0.1275
Si II nd ^{2}D	0.275	0.338
Si III np ^{1}P^0	0.78	0.0
Si IV np ^{2}P^0	0.508	−0.0349

*X = electron energy in atto-Joules (10^{-18}J)

For levels for which the quantum defect theory was used, the value of $|\cos\phi|$ is given in table 1, columns 5 and 6, where $\phi = \nu + \mu_0 + \chi$ in the notation of Peach (1967). This parameter is a measure of the sensitivity of the cross section to small errors in the integrals entering into the tabulated functions of Peach, the most reliable case being where $|\cos\phi| = 1.00$.

For levels of orbital quantum number $\ell \geq 3$, the cross section was computed using the hydrogenic formula, with an effective residual ionic charge derived from the ionization potential of the level. (This is always quite close to the ionic charge plus one.)

It is not anticipated that even quite large errors in the cross-sections would seriously affect the ion balance, as a scale factor error in the cross section does not change the ratio of photoionization to recombination.

Computation of Equivalent Widths (EW)

Figure 6 shows a sample line profile.

The equivalent width (EW) of a line is defined by

$$EW = \int (1 - R_\lambda)\, d_\lambda .$$

Here, $R_\lambda = F(\lambda)/F_c$ is the residual intensity, $F(\lambda)$ is the (flux) intensity at wavelength λ in the line, F_c is the continuum intensity and the limits of the integration are the points where $R_\lambda = 1$.

Residual intensities indicated by the tick marks in figure 6 for a given line profile were computed from line center out to a point where (a) the intensity is within 1 percent of the continuum level, and (b) the slope of the residual intensity versus displacement from line center in Doppler widths is less than 5×10^{-5}. The stepsize varied from one half to 24 times a unit stepsize. The bandwidth could not exceed 2000 unit stepsizes. To enable increase of the bandwidth, the unit stepsize was made an integer multiple of the Doppler width (Δ), the maximum used was 5Δ. The computed points also were fit by a third-order spline routine, which did an analytic integration to give the EW. The corresponding curve is shown in figure 6. A linear extrapolation from the last computed point to the continuum was added to this EW. This correction is never large, reaching 5 percent of the total for the Si III λ1206.5 line in the coolest models, but being usually much less. In the case of a line whose wing is overlapped by another, numerical quadrature plus a linear extrapolation across the overlap was done to estimate the EW. However, if the intensity turnover point lies inside the half-width, the lines are considered unresolvable.

The extrapolation across the overlap introduces some error in the resulting EW, with respect to an unoverlapped computation of the same line. This error is at most 10%, and occasionally there is a systematic effect, e.g., a decrease in the EW of the Si IV wavelength 1393.75 line with increasing v_t. In such a case, the total EW of the blend and the line profile are more reliable parameters.

LINE DATA TABLES FOR Si II, III, AND IV

The computational results are presented in tables of equivalent widths, optical depths and parameters describing the line shape. The index to these tables (page viii) shows for which effective temperatures (T_{eff}), gravities (g) and microturbulent velocities (v_t) computations were done for each ion. A list of the lines computed in the Profile step is given in table 6, which shows the vacuum wavelengths, lower and upper spectroscopic levels, and f-values of all the component lines of the multiplets. The line data are presented in tables 7 through 104.

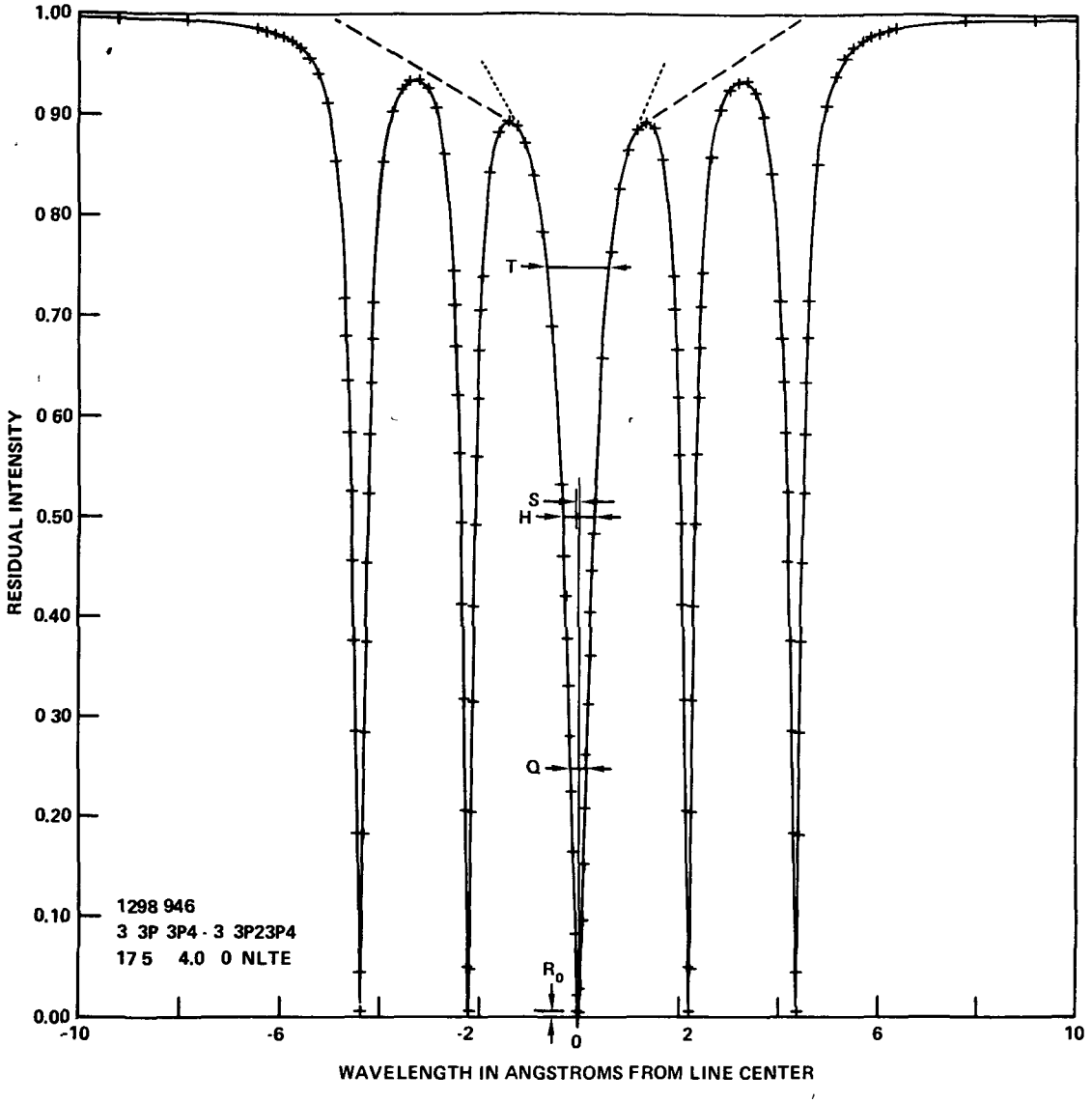

Figure 6. Sample line profile with definition of quantities shown in tables 7 through 104.

The equivalent width, EW, in tables 7-104, column 4 is defined by the dashed lines in figure 6. The dashed lines have a slope equal to one-half the slope of the dotted lines, which are drawn through the two points preceding the top or turnover point. Q, H, and T, figure 6, denote the full widths at quarter, half, and three-quarter residual line depths, columns 9-11 of tables 7 ff. S is the shift from the center of H to the line-center wavelength, column 12. R_0 is the residual intensity at the line center, column 8 of the tables.

Table 6 (Sheet 1 of 3)
Lines of Si II, III, and IV Computed in the Profile Step

Vacuum Wavelength Å	Lower and Upper Spectroscopic Levels	Transition Number (From Table 2, col. 9)	f	Figure Number
	Si II			
1808.00	$3p\ ^2P_1$ - $3p^2\ ^2D_2$	1	0.006	7
1533.43	$3p\ ^2P_2$ - $4s\ ^2S$	2	0.109	9
1526.70	$3p\ ^2P_1$ - $4s\ ^2S$	2	0.109	11
1264.73	$3p\ ^2P_2$ - $3d\ ^2D_3$	3	0.76	13
1265.00	- $3d\ ^2D_2$	3	0.084	13
1260.42	$3p\ ^2P_1$ - $3d\ ^2D_2$	3	0 84	15
992.68	$3p\ ^2P_2$ - $4d\ ^2D_3$	4	0.2	17
989.87	$3p\ ^2P_1$ - $4d\ ^2D_2$	4	0.2	19
3857.11	$3p^2\ ^2D_3$ - $4p\ ^2P_2$	5	0.042	21
3863.69	$3p^2\ ^2D_2$ - $4p\ ^2P_1$	5	0.035	23
2073.36	$3p^2\ ^2D_3$ - $4f\ ^2F_4$	6	0.093	25
2072.68	$3p^2\ ^2D_2$ - $4f\ ^2F_3$	6	0.093	27
6348.86	$4s\ ^2S$ - $4p\ ^2P_2$	7	1.01	29
6373.13	- $4p\ ^2P_1$	7	0.51	31
4132.06	$3d\ ^2D_3$ - $4f\ ^2F_4$	8	0.49	33
4129.22	$3d\ ^2D_2$ - $4f\ ^2F_3$	8	0.51	35
2906.54	$3d\ ^2D_3$ - $5f\ ^2F_4$	10	0.13	37
2905.13	$3d\ ^2D_2$ - $5f\ ^2F_3$	10	0.13	39
5057.39	$4p\ ^2P_2$ - $4d\ ^2D_3$	11	0.79	41
5057.73	- $4d\ ^2D_2$	11	0.09	41
5042.43	$4p\ ^2P_1$ - $4d\ ^2D_2$	11	0.88	43
4202.08	$4d\ ^2D_3$ - $8f\ ^2F$	13	0.048	45
	Si III			
1206.50	$3s^2\ ^1S$ - $3p\ ^1P$	1	1.7	47
1206.56	$3p\ ^1P$ - $3d\ ^1D$	4	1.78	47
1207.52[1]	$3p^2\ ^1D$ - $3d'\ ^1D$	–	0.41	47
1298.95	$3p\ ^3P^o_2$ - $3p^2\ ^3P_2$	9	0.414	49
1303.32	- $3p^2\ ^3P_1$	9	0.137	49
1294.55	$3p\ ^3P^o_1$ - $3p^2\ ^3P_2$	9	0.229	49
1298.89	- $3p^2\ ^3P_1$	9	0.137	49
1301.15	- $3p^2\ ^3P_0$	9	0.183	49
1296.73	$3p\ ^3P^o_0$ - $3p^2\ ^3P_1$	9	0.55	49
1113.23	$3p\ ^3P^o_2$ - $3d\ ^3D_3$	10	0.748	51

Table 6 (Sheet 2 of 3)
Lines of Si II, III, and IV Computed in the Profile Step

Vacuum Wavelength Å	Lower and Upper Spectroscopic Levels	Transition Number (From Table 2, Col. 9)	f	Figure Number
	Si III (Continued)			
1113.20	- $3d\ ^3D_2$	10	0.133	51
1113.17	- $3d\ ^3D_1$	10	0.0089	51
1109.97	$3p\ ^3P^o_1$ - $3d\ ^3D_2$	10	0.668	51
1109.94	- $3d\ ^3D_1$	10	0.223	51
1108.36	$3p\ ^3P^o_0$ - $3d\ ^3D_1$	10	0.893	51
997.39	$3p\ ^3P^o_2$ - $4s\ ^3S$	11	0.083	53
1417.24	$3p\ ^1P^o$ - $3p^2\ ^1S$	2	0.261	55
1312.59	- $4s\ ^1S$	3	0.048	57
1842.55	$3p^2\ ^1D$ - $4p\ ^1P$	6	0.096	59
5741.33	$4s\ ^1S$ - $4p\ ^1P$	7	0.7	61
2559.96	$3d\ ^1D$ - $4f\ ^1F$	8	0.44	63
3087.13	$3d\ ^3D_3$ - $4p\ ^3P_2$	12	0.12	65
4553.94	$4s\ ^3S$ - $4p\ ^3P_2$	13	0.51	67
4569.13	- $4p\ ^3P_1$	13	0.306	69
4576.03	- $4p\ ^3P_0$	13	0.103	71
3807.61	$4p\ ^3P_2$ - $4d\ ^3D_1$	14	0.8	73
3797.20	$4p\ ^3P_1$ - $4d\ ^3D$	14	0.8	75
3792.52	$4p\ ^3P_D$ - $4d\ ^3D$	14	0.8	77
	Si IV			
1393.75	$3s\ ^2S$ - $3p\ ^2P_{3/2}$	1	0.536	79
1402.77	- $3p\ ^2P_{1/2}$	1	0.266	79
1128.35	$3p\ ^2P_{3/2}$ - $3d\ ^2D$	3	0.68	81
1122.50	$3p\ ^2P_{1/2}$ - $3d\ ^2D$	3	0.68	83
1066.61	$3d\ ^2D$ - $4f\ ^2F$	7	0.51	85
1722.53	$3d\ ^2D_{5/2}$ - $4p\ ^2P_{3/2}$	6	0.148	87
1722.56	$3d\ ^2D_{3/2}$ - $4p\ ^2P_{3/2}$	6	0.0247	87
4090.02	$4s\ ^2S$ - $4p\ ^2P_{3/2}$	8	0.784	89
4117.26	- $4p\ ^2P_{1/2}$	8	0.391	91
3166.63	$4p\ ^2P_{3/2}$ - $4d\ ^2D$	9	1.1	93
3150.48	$4p\ ^2P_{1/2}$ - $4d\ ^2D$	9	1.1	95
3763.50	$4d\ ^2D$ - $5p\ ^2P_{3/2}$	10	0.337	97
2287.75	$4d\ ^2D$ - $5f\ ^2F$	11	0.7	99

Table 6 (Sheet 3 of 3)
Lines of Si II, III, and IV Computed in the Profile Step

Vacuum Wavelength Å	Lower and Upper Spectroscopic Levels	Transition Number (From Table 2, col. 9)	f	Figure Number
	Si IV (Continued)			
2518.33	$4f\ ^2F$ - $5g\ ^2G$	12	1.35	101
6703.06	$5p\ ^2P_{3/2}$ - $5d\ ^2D$	14	1.52	103
6669.41	$5p\ ^2P_{1/2}$ - $5d\ ^2D$	14	1.52	105
4213.60	$5d\ ^2D$ - $6f\ ^2F$	15	0.64	107
4632.57	$5f\ ^2F$ - $6g\ ^2G$	16	1.07	109
4655.61	$5g\ ^2G$ - $6h\ ^2H$	16*, 17†	1.7	111

(1) Approximated by using level number 8 (Table 1) as upper level and using the background opacity of transition number 1.

* Used only in hotter models.

† Used only in cooler models.

As a special case, the 6348.86 Å doublet of Si II was re-computed with an alternative f-value, because this quantity is rather uncertain for this very important line, as explained above under Description of Calculations, Data. The equivalent widths for this case are presented in table 105.

All computations were done with an abundance of N (Si) = $3 \times 10^{-5} \times$ N(H), except that at two points N(Si) = $1.2 \times$ N(H) was also done (tables 29, 30, 101, 102)

The format of tables 7 through 104 is as follows:

Column 1: Vacuum wavelength (in Å) of the principal line.

Column 2: Vacuum wavelengths of overlapping lines. If there are none, 0.0 is entered.

Column 3: Theory used. NLTE = results of our full calculation. LTE = results assuming local thermodynamic equilibrium for the populations.

Column 4: Equivalent width (EW) in Å, of the principal line. This is the EW of column 6 if no resolvable overlapping lines are present. Otherwise, it is computed by numerical quadrature, in which case it should be treated as an approximate estimate only (see Computation of Equivalent Widths (EW), above.

Column 5. Log (EW/Δ), where Δ is the Doppler width

Column 6. EW of entire blend, computed by the spline fit (see the Computation of Equivalent Widths (EW) section of this document).

Column 7 Log τ_0, the optical depth in the line.

Column 8. R_0 = residual intensity at wavelength of column 1.

Column 9. $W_{1/4}$ = full width at one-quarter residual line strength (see figure 6).

Column 10. $W_{1/2}$ = full width (Å) at half maximum.

Column 11: $W_{3/4}$ = full width at three-quarters residual line strength. (= 0.0 if an overlapping line lies between the one-half and three-quarters residual line strength points of a wing).

Note. If $R_0 > 1$ (emission line), the widths in columns 9 to 11 are all set equal to zero.

Column 12: Line center shift ≡ difference between the center of the one-half maximum depth points and the wavelength of column 1 (= 0.0 if there are no unresolvable overlapping lines).

Column 13. $\epsilon^{\star}$ ≡ LTE abundance (in units of the abundance used in the NLTE case) required for the LTE EW to equal the NLTE one (of column 6), assuming a linear log EW - log (abundance) relation. When one of the two cases (NLTE or LTE) is in emission, this cannot be computed and $\epsilon^{\star}$ is left blank.

The quantities in columns 7-11 refer to the principal line, in the case of an overlap. Those of the above quantities which describe the line profile are illustrated in figure 6.

The residual line strength is defined as $(R_\lambda - R_0)/(1 - R_0)$, where R_λ is the residual intensity.

The Doppler width (Δ) used above was computed using a mean temperature for the line-forming layers (between 2/3 and 4/5 of T_{eff}), which is constant for all lines in a given model atmosphere.

The optical depth in the line, τ_0, is defined by.

$$\tau_0 \equiv \left(\tau_{\nu_0}\right)_{\tau_c = 1} - 1,$$

where τ_{ν_0} is the total optical depth at the line center frequency, τ_c is the continuum (background) opacity, and the former is evaluated where the latter has the value of one. Some properties of this quantity (τ_0) include the fact that it equals the ratio of line-to-continuum opacity, if this ratio is constant throughout the atmosphere, which is commonly assumed when solving the radiative transfer equation in the Milne-Eddington approximation (Mihalas, 1970, Chapter 11, and Wrubel, 1949), also, that in the classical Schuster-Schwarzschild approximation, τ_0 equals the total line center optical depth.

The LTE overabundance, $\epsilon^{\star}$, can also be used to derive general information about the behavior of a line with changing abundance. From the above definition of $\epsilon^{\star}$, we have for the slope m of the LTE curve of growth at the value of log τ_0 given in column 7.

$$m = \frac{\log (EW/\Delta) - \log (EW^{\star}/\Delta)}{\log \epsilon^{\star}}$$

where starred quantities refer, as usual, to LTE values, and the two terms in the numerator are given directly in column 5 of tables 7 through 104. These computations show that in the cooler part of our grid, the derived value of m is quite close to the NLTE slope, to within a mean error of 2% for our Si II and III lines at 20,000 K, log g = 4. However, at 35,000 K, log g = 4, for the Si III and IV lines, the equality only holds to within 25%, plus a systematic increase of about 10% of the NLTE value over the LTE one.

To supplement the information described above, graphical profiles of the lines listed in table 6 are presented in figures 7 through 112 (at the end of the text, immediately following table 105). Each line is shown in two figures, at a point in the grid at which it is close to maximum strength. One figure (the figure number of which is given in table 6) shows the NLTE profile. The other shows two profiles computed in LTE, one profile for the standard abundance and the other for N(Si) = 7.5 X 10^{-5} N(H). A detailed explanation accompanies the figures. These line profiles are presented to aid in the interpretation of the information of tables 7 through 104, which was abstracted from such profiles, as shown in figure 6. They should also be useful in relating our EWs to those defined differently, e.g., integrated out to 99% residual intensity.

DISCUSSION OF POSSIBLE ERRORS

The possible sources of errors can be divided into four categories. Each of these is discussed below.

Inconsistencies in the Computations

Errors or inconsistencies in the calculations have been kept to a minimum (as far as is known), by ensuring a self-consistent solution of populations and radiation fields in the important transitions. The ETA solution for non-linearized transitions was not strictly consistent, but in practice approached this situation closely, being restricted to weak lines. Similarly, the non-consideration of the effects of Si on the model atmosphere probably incurred no significant errors (Kamp, 1973). The only known serious inconsistency in these computations was in the populations of C, N, O and Ne, of which the first five ion stages were included as opacity sources and for which NLTE populations were computed by a one-level atom approximation, as in Kamp (1973). This approximation neglects the effects of those elements on the energy balance, although an almost equivalent amount of a mean light element was included in the linearized equations in the construction of the model atmospheres (Mihalas, 1972). Furthermore, the approximation used overestimates the NLTE effects due to the omission of higher levels. (see Description of the Calculations, Data, above.) In practice, the effects of these approximations were not serious, except in the case of the hottest- and lowest-gravity models of our grid.

Here, the photo-ionization of Si IV, whose edge lies just longward of the He II Lyman edge, is very sensitive to the opacity due to C III. In this region, C III is the dominant opacity source (of those included in this work) and convergence between the C population and the continuum radiation field is very slow in the Lambda-iterations performed in the ETA step. Therefore, for log g = 3 (or 3.3) and $T_{eff} \geqslant 30{,}000$ K, and for all $T_{eff} = 35{,}000$ K models, we used the "mean light element" results of Mihalas (1972), redistributed over the levels of C, N and O which were normally included. Because of the crudity of the treatment of the ionization balance for C and because of the neglect of the probably most important opacity source, line blanketing, we can expect that for these models, our results are less reliable than usual; the sense of the error is likely to be that we underestimate the strengths of the Si IV lines.

Applicability of the Model Atom Used

Although care was taken to ensure realistic treatment of the most important lines, the limited set of transitions which we could include implies that results for some lines are less accurate because some interlocking transitions were neglected. That is, the EWs for the Si III λ3808 multiplet can be expected to be less accurate than usual, because the upper level of this transition ($4d\ ^3D$) is actually connected to at least four higher levels (Toresson, 1960), whereas we only include one and that in the ETA approximation (figure 2).

In the cooler models the results seem to be relatively insensitive to interlocking transitions. This is because for these models, the level populations are within a few tenths of percents of LTE values over the region of line formation (except for the cores of strong lines). The observed uniform NLTE strengthening of the weak and intermediate strength lines is due to a general relative underpopulation of upper levels with respect to the lower ones. However, in the hotter models, the level populations may deviate from their LTE values by orders of magnitude in the region of line formation, and NLTE effects on the lines are large both in the sense of strengthening and weakening. The basic cause of this temperature-related phenomenon is the well-known increasing relative importance (at a given optical depth) of radiative rates, which are subject to dilution effects, with respect to collisions with electrons, which are in LTE.

Atomic Data Used

The greatest source of errors in the results given in tables 7 through 104 lies in the f-values used. An estimate of the propagation of errors therein to the derived EWs can be obtained from consideration of the curve of growth (Mihalas, 1970, chapter 11). Since most of the lines for which we give results lie on the flat and damping parts of the curve of growth, the logarithmic derivative of EW with respect to $f_{\text{☆}}$ is about 1/2 or less. Assuming a value of 1/2, then we see from table 2, column 8, that for practically all of the lines for which we give EWs we obtain a maximum error estimate for EW of about 25%, while for almost one-half of these lines, including the most important ones, the uncertainty is 5% or less. As the latter value is probably better than the errors to be expected in the observations, the situation is

fairly satisfactory. However, due to considerations discussed above under Applicability of the Model Atom Used, the error estimate for the hotter models must be increased due to the interlocking effects between transitions and also to the increased slope in the curve of growth of NLTE EWs.

The damping width (Γ) is important only for strong ($\log \tau_0 \gtrsim 3.0$) lines which generally lie in the UV wavelength region. For these lines, an error in the f-value is added directly to that of the natural damping width. From Wrubel (1949), we estimate $\partial \log EW/\partial \log \Gamma = 0.5$ in the linear damping region. This implies that for these lines, the sensitivity of EW to errors in $f\text{☆}$ is almost squared, as the stimulated radiation and quadratic Stark broadening are much less significant than broadening due to spontaneous decay, which is usually dominated by the transition in question.

Uncertainties remain in the collisional rates where the same values were used as in Kamp (1973). Tests indicate that errors in these parameters of less than an order of magnitude do not seriously affect the results.

Applicability of the Model Atmospheres Used

Questions about the validity of the model atmospheres used to interpret observed stars, though important, are beyond the realm of this discussion. Rather, it is one of the purposes of this work to provide the computations which can be used to investigate these questions.

Table 7

Line Data for Silicon II, T_{eff} = 15,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0865	0.7506	0.0865	3.1587	0.0243	0.0795	0.0873	0.0973	0.0	1.8870
	0.0	LTE	0.0812	0.7231	0.0812	3.1511	0.1504	0.0826	0.0894	0.0990	0.0	
1533.43	0.0	NLTE	0.6110	1.6713	0.6110	4.6690	0.0018	0.2813	0.4242	0.6748	0.0	1.0364
	0.0	LTE	0.6001	1.6635	0.6001	4.6615	0.1173	0.3249	0.4621	0.7225	0.0	
1526.70	0.0	NLTE	0.4295	1.5202	0.4295	4.3661	0.0023	0.1970	0.2983	0.4760	0.0	1.0402
	0.0	LTE	0.4211	1.5116	0.4211	4.3588	0.1080	0.2265	0.3239	0.5035	0.0	
1264.73	1265.00	NLTE	1.8586	2.2382	1.8586	5.4425	0.0003	0.9263	1.3144	2.0549	0.0381	1.0192
	0.0	LTE	1.8417	2.2342	1.8417	5.4354	0.0492	0.9707	1.3532	2.0996	0.0413	
1260.42	0.0	NLTE	1.2759	2.0762	1.2759	5.1835	0.0003	0.6063	0.9305	1.4425	0.0	1.0186
	0.0	LTE	1.2643	2.0723	1.2643	5.1754	0.0476	0.6368	0.9618	1.4776	0.0	
992.68	0.0	NLTE	0.5068	1.7790	0.5068	4.7669	0.0000	0.2412	0.3511	0.5523	0.0	1.0055
	0.0	LTE	0.5054	1.7778	0.5054	4.7599	0.0101	0.2437	0.3531	0.5546	0.0	
989.87	0.0	NLTE	0.3575	1.6287	0.3575	4.4645	0.0000	0.1699	0.2478	0.3878	0.0	1.0057
	0.0	LTE	0.3565	1.6274	0.3565	4.4576	0.0089	0.1714	0.2491	0.3892	0.0	
3857.11	0.0	NLTE	0.1131	0.5383	0.1131	2.0122	0.1815	0.1037	0.1355	0.1606	0.0	2.2600
	0.0	LTE	0.0969	0.4710	0.0969	2.0062	0.3646	0.1195	0.1449	0.1680	0.0	
3863.69	0.0	NLTE	0.1005	0.4862	0.1005	1.7577	0.2119	0.0978	0.1263	0.1533	0.0	2.1034
	0.0	LTE	0.0877	0.4269	0.0877	1.7517	0.3666	0.1091	0.1353	0.1579	0.0	
2073.36	0.0	NLTE	0.0812	0.6639	0.0812	2.0431	0.0733	0.0647	0.0796	0.0952	0.0	1.4235
	0.0	LTE	0.0746	0.6268	0.0746	2.0366	0.1893	0.0700	0.0821	0.0976	0.0	
2072.68	0.0	NLTE	0.0745	0.6263	0.0745	1.8668	0.0798	0.0607	0.0760	0.0891	0.0	1.4558
	0.0	LTE	0.0685	0.5899	0.0685	1.8604	0.1904	0.0645	0.0783	0.0919	0.0	
6348.86	0.0	NLTE	0.1743	0.5096	0.1743	2.3006	0.2734	0.1371	0.1989	0.2648	0.0	3.1404
	0.0	LTE	0.1184	0.3418	0.1184	2.2983	0.6520	0.2194	0.2617	0.3308	0.0	
6373.13	0.0	NLTE	0.1423	0.4199	0.1423	2.0054	0.3337	0.1277	0.1889	0.2511	0.0	3.1096
	0.0	LTE	0.1014	0.2728	0.1014	2.0032	0.6390	0.1924	0.2389	0.2920	0.0	
4132.06	0.0	NLTE	0.1328	0.5779	0.1328	1.9173	0.2352	0.1016	0.1418	0.1883	0.0	1.4205
	0.0	LTE	0.1173	0.5241	0.1173	1.9173	0.4054	0.1211	0.1580	0.2038	0.0	
4129.22	0.0	NLTE	0.1170	0.5234	0.1170	1.7583	0.2629	0.0958	0.1348	0.1746	0.0	1.4177
	0.0	LTE	0.1041	0.4726	0.1041	1.7583	0.4132	0.1138	0.1488	0.1894	0.0	
2906.54	0.0	NLTE	0.0401	0.2104	0.0401	0.7876	0.4457	0.0466	0.0676	0.0904	0.0	1.4754
	0.0	LTE	0.0350	0.1517	0.0350	0.7876	0.5448	0.0516	0.0720	0.0937	0.0	
2905.13	0.0	NLTE	0.0333	0.1304	0.0333	0.6114	0.5082	0.0427	0.0637	0.0863	0.0	1.3643
	0.0	LTE	0.0296	0.0785	0.0296	0.6113	0.5847	0.0468	0.0669	0.0892	0.0	
5057.39	5057.73	NLTE	0.1061	0.3928	0.1594	1.8033	0.3559	0.1094	0.1537	0.1981	0.0000	1.7050
	0.0	LTE	0.0884	0.3137	0.1374	1.8040	0.5262	0.1350	0.1720	0.2102	0.0000	
5042.43	0.0	NLTE	0.0896	0.3206	0.0896	1.5479	0.4067	0.0998	0.1426	0.1839	0.0	1.8400
	0.0	LTE	0.0764	0.2517	0.0764	1.5486	0.5441	0.1191	0.1562	0.1954	0.0	
4202.08	0.0	NLTE	0.0164	-0.3377	0.0164	-0.2998	0.8671	0.0577	0.0945	0.1422	0.0	0.9840
	0.0	LTE	0.0166	-0.3321	0.0166	-0.2971	0.8638	0.0571	0.0936	0.1411	0.0	

Table 8

Line Data for Silicon III, T_{eff} = 15,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	4.2610	2.6189	4.2610	6.1067	0.0011	1.4410	2.7483	5.1100	0.0002	1.0022
	1207.52	LTE	4.2562	2.6185	4.2562	6.1113	0.0810	1.7443	3.0208	5.3988	0.0006	
1298.95	1303.32	NLTE	0.9067	1.9148	2.4164	4.7241	0.0021	0.2176	0.4668	0.9702	-0.0095	1.0063
	1294.55	LTE	0.9045	1.9138	2.4096	4.7245	0.0582	0.2519	0.5051	1.0240	-0.0095	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.0704	2.3404	2.6100	5.1525	0.0006	0.3694	0.7582	1.4517	-0.0073	1.0009
	1113.17	LTE	2.0695	2.3402	2.6089	5.1529	0.0206	0.3898	0.7769	1.4772	-0.0075	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.3504	1.6167	0.3504	4.1698	0.0015	0.1050	0.2114	0.4045	0.0	0.9999
	0.0	LTE	0.3505	1.6167	0.3505	4.1701	0.0100	0.1075	0.2139	0.4071	0.0	
1417.24	0.0	NLTE	0.1619	1.1287	0.1619	3.0459	0.0367	0.0607	0.0883	0.1807	0.0	1.0100
	0.0	LTE	0.1612	1.1268	0.1612	3.0450	0.0504	0.0614	0.0895	0.1823	0.0	
1312.59	0.0	NLTE	0.0846	0.8803	0.0846	2.4301	0.0601	0.0496	0.0648	0.0873	0.0	1.0053
	0.0	LTE	0.0845	0.8795	0.0845	2.4301	0.0575	0.0492	0.0646	0.0871	0.0	
1842.55	0.0	NLTE	0.0244	0.1935	0.0244	0.6842	0.5548	0.0357	0.0528	0.0703	0.0	1.0557
	0.0	LTE	0.0240	0.1860	0.0240	0.6853	0.5619	0.0354	0.0527	0.0704	0.0	
5741.33	0.0	NLTE	0.0010	-1.6703	0.0010	-1.3428	0.9905	0.0649	0.1032	0.1445	0.0	1.0544
	0.0	LTE	0.0010	-1.6887	0.0010	-1.3250	0.9909	0.0651	0.1035	0.1448	0.0	
2559.96	0.0	NLTE	0.0012	-1.2510	0.0012	-1.6440	0.9773	0.0314	0.0502	0.0710	0.0	1.0486
	0.0	LTE	0.0012	-1.2660	0.0012	-1.6439	0.9781	0.0315	0.0503	0.0712	0.0	
3087.13	0.0	NLTE	0.0010	-1.4212	0.0010	-1.5720	0.9831	0.0349	0.0555	0.0776	0.0	1.1069
	0.0	LTE	0.0009	-1.4549	0.0009	-1.5683	0.9844	0.0350	0.0556	0.0777	0.0	
4553.94	0.0	NLTE	0.0087	-0.6486	0.0087	-0.1514	0.9174	0.0620	0.0978	0.1376	0.0	1.2825
	0.0	LTE	0.0076	-0.7084	0.0076	-0.1587	0.9297	0.0639	0.1002	0.1403	0.0	
4569.13	0.0	NLTE	0.0066	-0.7673	0.0066	-0.3719	0.9353	0.0603	0.0956	0.1348	0.0	1.2225
	0.0	LTE	0.0059	-0.8188	0.0059	-0.3792	0.9437	0.0618	0.0976	0.1372	0.0	
4576.03	0.0	NLTE	0.0031	-1.0927	0.0031	-0.8442	0.9672	0.0563	0.0898	0.1268	0.0	1.1504
	0.0	LTE	0.0029	-1.1345	0.0029	-0.8514	0.9706	0.0572	0.0911	0.1286	0.0	
3807.61	0.0	NLTE	0.0021	-1.1941	0.0021	-0.8591	0.9724	0.0446	0.0710	0.0989	0.0	1.2041
	0.0	LTE	0.0018	-1.2544	0.0018	-0.8536	0.9762	0.0449	0.0715	0.0997	0.0	
3797.20	0.0	NLTE	0.0013	-1.4029	0.0013	-1.0811	0.9824	0.0431	0.0685	0.0958	0.0	1.1949
	0.0	LTE	0.0011	-1.4653	0.0011	-1.0756	0.9849	0.0434	0.0690	0.0962	0.0	
3792.52	0.0	NLTE	0.0005	-1.8455	0.0005	-1.5588	0.9934	0.0414	0.0655	0.0932	0.0	1.1693
	0.0	LTE	0.0004	-1.9069	0.0004	-1.5543	0.9943	0.0416	0.0658	0.0935	0.0	

Table 9

Line Data for Silicon II, T_{eff} = 15,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1704	0.7021	0.1704	2.8333	0.0273	0.1588	0.1796	0.1943	0.0	2.3776
	0.0	LTE	0.1607	0.6765	0.1607	2.8230	0.1335	0.1694	0.1826	0.1957	0.0	
1533.43	0.0	NLTE	0.6282	1.3402	0.6282	4.3528	0.0021	0.2917	0.4354	0.6930	0.0	1.0656
	0.0	LTE	0.6086	1.3265	0.6086	4.3430	0.1055	0.3320	0.4624	0.7319	0.0	
1526.70	0.0	NLTE	0.4472	1.1946	0.4472	4.0499	0.0028	0.2127	0.3139	0.4888	0.0	1.0660
	0.0	LTE	0.4337	1.1812	0.4337	4.0401	0.0953	0.2320	0.3386	0.5167	0.0	
1264.73	1265.00	NLTE	1.8833	1.9007	1.8833	5.1296	0.0003	0.9295	1.3092	2.1119	0.0337	1.0290
	0.0	LTE	1.8577	1.8948	1.8577	5.1201	0.0464	0.9653	1.3417	2.1513	0.0331	
1260.42	0.0	NLTE	1.2947	1.7395	1.2947	4.8706	0.0004	0.6125	0.8962	1.4130	0.0	1.0277
	0.0	LTE	1.2773	1.7336	1.2773	4.8611	0.0439	0.6383	0.9159	1.4363	0.0	
992.68	0.0	NLTE	0.5165	1.4440	0.5165	4.4540	0.0000	0.2460	0.3616	0.5632	0.0	1.0094
	0.0	LTE	0.5141	1.4420	0.5141	4.4446	0.0087	0.2478	0.3626	0.5641	0.0	
989.87	0.0	NLTE	0.3673	1.2972	0.3673	4.1517	0.0000	0.1766	0.2601	0.3969	0.0	1.0098
	0.0	LTE	0.3656	1.2952	0.3656	4.1424	0.0075	0.1774	0.2606	0.3972	0.0	
3857.11	0.0	NLTE	0.2055	0.4544	0.2055	1.7033	0.2173	0.2118	0.2642	0.3193	0.0	2.6843
	0.0	LTE	0.1752	0.3851	0.1752	1.6993	0.3715	0.2300	0.2767	0.3275	0.0	
3863.69	0.0	NLTE	0.1817	0.4002	0.1817	1.4538	0.2536	0.1880	0.2469	0.2958	0.0	2.1708
	0.0	LTE	0.1579	0.3393	0.1579	1.4448	0.3823	0.2088	0.2558	0.3048	0.0	
2073.36	0.0	NLTE	0.1422	0.5640	0.1422	1.7363	0.0934	0.1269	0.1547	0.1807	0.0	1.7393
	0.0	LTE	0.1293	0.5229	0.1293	1.7265	0.1936	0.1301	0.1576	0.1822	0.0	
2072.68	0.0	NLTE	0.1319	0.5314	0.1319	1.5601	0.1039	0.1204	0.1451	0.1735	0.0	1.6949
	0.0	LTE	0.1203	0.4914	0.1203	1.5503	0.2000	0.1231	0.1475	0.1753	0.0	
6348.86	0.0	NLTE	0.2882	0.3848	0.2882	1.9838	0.3224	0.2684	0.4089	0.5219	0.0	7.3986
	0.0	LTE	0.1876	0.1984	0.1876	1.9837	0.6461	0.4053	0.4955	0.5746	0.0	
6373.13	0.0	NLTE	0.2404	0.3044	0.2404	1.6937	0.3875	0.2681	0.3861	0.4887	0.0	5.5561
	0.0	LTE	0.1681	0.1489	0.1681	1.6886	0.6413	0.3686	0.4484	0.5407	0.0	
4132.06	0.0	NLTE	0.2042	0.4218	0.2042	1.6282	0.2862	0.1992	0.2709	0.3397	0.0	1.7187
	0.0	LTE	0.1774	0.3605	0.1774	1.6267	0.4238	0.2297	0.2870	0.3528	0.0	
4129.22	0.0	NLTE	0.1831	0.3745	0.1831	1.4692	0.3182	0.1871	0.2585	0.3216	0.0	1.6493
	0.0	LTE	0.1607	0.3178	0.1607	1.4677	0.4384	0.2088	0.2720	0.3352	0.0	
2906.54	0.0	NLTE	0.1057	0.2884	0.1057	0.9152	0.3362	0.1131	0.1542	0.1984	0.0	1.1850
	0.0	LTE	0.1002	0.2653	0.1002	0.9149	0.3829	0.1163	0.1573	0.2003	0.0	
2905.13	0.0	NLTE	0.0898	0.2178	0.0898	0.7399	0.3933	0.1021	0.1433	0.1883	0.0	1.1426
	0.0	LTE	0.0856	0.1973	0.0856	0.7386	0.4297	0.1057	0.1453	0.1900	0.0	
5057.39	5057.73	NLTE	0.1209	0.1062	0.1628	1.1958	0.5661	0.1911	0.2725	0.3649	0.0003	3.3923
	0.0	LTE	0.0827	-0.0587	0.1143	1.1958	0.7435	0.2272	0.3171	0.0	0.0025	
5042.43	0.0	NLTE	0.0945	0.0008	0.0945	0.9413	0.6322	0.1693	0.2512	0.3350	0.0	3.4612
	0.0	LTE	0.0658	-0.1563	0.0658	0.9403	0.7709	0.2041	0.2858	0.3583	0.0	
4202.08	0.0	NLTE	-0.0034	-1.3630	-0.0034	-1.0752	1.0180	0.0	0.0	0.0	0.0	1.0443
	0.0	LTE	-0.0033	-1.3793	-0.0033	-1.0657	1.0171	0.0	0.0	0.0	0.0	

Table 10

Line Data for Silicon III, T_{eff} = 15,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	4.2407	2.2737	4.2407	5.7912	0.0013	1.4365	2.7482	4.9897	-0.0041	1.0029
	1207.52	LTE	4.2342	2.2730	4.2342	5.7975	0.1230	1.9039	3.1625	5.4755	0.0000	
1298.95	1303.32	NLTE	0.7852	1.5092	2.5259	4.4515	0.0030	0.2478	0.4716	0.9646	-0.0088	1.0130
	1294.55	LTE	0.7803	1.5064	2.5120	4.4521	0.0583	0.2720	0.5092	1.0126	-0.0101	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.0274	1.9881	2.6495	4.9057	0.0009	0.3730	0.7539	1.5033	-0.0050	1.0018
	1113.17	LTE	2.0259	1.9878	2.6474	4.9060	0.0210	0.3933	0.7741	1.5263	-0.0050	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.3685	1.2953	0.3685	3.9049	0.0024	0.1410	0.2198	0.4102	0.0	0.9997
	0.0	LTE	0.3685	1.2954	0.3685	3.9052	0.0078	0.1423	0.2214	0.4121	0.0	
1417.24	0.0	NLTE	0.1927	0.8812	0.1927	2.7732	0.0532	0.1113	0.1412	0.1923	0.0	1.0159
	0.0	LTE	0.1916	0.8586	0.1916	2.7733	0.0503	0.1112	0.1415	0.1931	0.0	
1312.59	0.0	NLTE	0.1179	0.6812	0.1179	2.1598	0.0859	0.0901	0.1135	0.1379	0.0	1.0047
	0.0	LTE	0.1178	0.6806	0.1178	2.1598	0.0807	0.0890	0.1131	0.1377	0.0	
1842.55	0.0	NLTE	0.0364	0.0232	0.0364	0.3942	0.6311	0.0669	0.0970	0.1282	0.0	1.0459
	0.0	LTE	0.0358	0.0162	0.0358	0.3960	0.6360	0.0662	0.0968	0.1281	0.0	
5741.33	0.0	NLTE	0.0011	-1.9861	0.0011	-1.6424	0.9947	0.1267	0.1976	0.2653	0.0	1.0253
	0.0	LTE	0.0011	-1.9953	0.0011	-1.6243	0.9948	0.1269	0.1980	0.2657	0.0	
2559.96	0.0	NLTE	0.0014	-1.5413	0.0014	-1.9423	0.9861	0.0597	0.0933	0.1328	0.0	1.0414
	0.0	LTE	0.0013	-1.5550	0.0013	-1.9419	0.9865	0.0597	0.0933	0.1329	0.0	
3087.13	0.0	NLTE	0.0011	-1.7299	0.0011	-1.8874	0.9906	0.0692	0.1079	0.1550	0.0	1.0585
	0.0	LTE	0.0010	-1.7502	0.0010	-1.8822	0.9910	0.0692	0.1078	0.1550	0.0	
4553.94	0.0	NLTE	0.0110	-0.8891	0.0110	-0.4358	0.9427	0.1168	0.1840	0.2518	0.0	1.2685
	0.0	LTE	0.0095	-0.9520	0.0095	-0.4452	0.9513	0.1191	0.1875	0.2549	0.0	
4569.13	0.0	NLTE	0.0082	-1.0202	0.0082	-0.6563	0.9564	0.1136	0.1787	0.2473	0.0	1.2128
	0.0	LTE	0.0072	-1.0749	0.0072	-0.6656	0.9621	0.1154	0.1817	0.2497	0.0	
4576.03	0.0	NLTE	0.0036	-1.3735	0.0036	-1.1285	0.9795	0.1065	0.1663	0.2366	0.0	1.1478
	0.0	LTE	0.0033	-1.4191	0.0033	-1.1379	0.9817	0.1075	0.1678	0.2380	0.0	
3807.61	0.0	NLTE	0.0023	-1.4925	0.0023	-1.1488	0.9838	0.0858	0.1337	0.1918	0.0	1.1762
	0.0	LTE	0.0020	-1.5497	0.0020	-1.1443	0.9859	0.0861	0.1343	0.1923	0.0	
3797.20	0.0	NLTE	0.0014	-1.7140	0.0014	-1.3718	0.9901	0.0834	0.1301	0.1880	0.0	1.1737
	0.0	LTE	0.0012	-1.7741	0.0012	-1.3680	0.9914	0.0837	0.1305	0.1884	0.0	
3792.52	0.0	NLTE	0.0005	-2.1740	0.0005	-1.8495	0.9965	0.0808	0.1264	0.1840	0.0	1.1599
	0.0	LTE	0.0004	-2.2345	0.0004	-1.8456	0.9969	0.0810	0.1266	0.1843	0.0	

Table 11

Line Data for Silicon II, T_{eff} = 15,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0864	0.7503	0.0864	3.2199	0.0187	0.0800	0.0879	0.0977	0.0	2.8321
	0.0	LTE	0.0801	0.7174	0.0801	3.2211	0.1658	0.0838	0.0904	0.0996	0.0	
1533.43	0.0	NLTE	0.6032	1.6657	0.6032	4.7206	0.0013	0.2798	0.4183	0.6642	0.0	1.0222
	0.0	LTE	0.5965	1.6609	0.5965	4.7213	0.1261	0.3282	0.4623	0.7205	0.0	
1526.70	0.0	NLTE	0.4242	1.5148	0.4242	4.4177	0.0017	0.1960	0.2934	0.4676	0.0	1.0272
	0.0	LTE	0.4186	1.5090	0.4186	4.4186	0.1196	0.2300	0.3251	0.5032	0.0	
1264.73	1265.00	NLTE	1.8372	2.2331	1.8372	5.4886	0.0001	0.9152	1.2945	2.0251	0.0361	1.0061
	0.0	LTE	1.8319	2.2319	1.8319	5.4894	0.0508	0.9667	1.3436	2.0884	0.0410	
1260.42	0.0	NLTE	1.2605	2.0710	1.2605	5.2296	0.0002	0.5977	0.9147	1.4185	0.0	1.0046
	0.0	LTE	1.2577	2.0700	1.2577	5.2303	0.0508	0.6346	0.9567	1.4703	0.0	
992.68	0.0	NLTE	0.3054	1.5590	0.3054	4.8138	0.0000	0.1454	0.2115	0.3311	0.0	0.9979
	0.0	LTE	0.3057	1.5594	0.3057	4.8144	0.0098	0.1475	0.2135	0.3334	0.0	
989.87	0.0	NLTE	0.2166	1.4110	0.2166	4.5115	0.0000	0.1040	0.1506	0.2331	0.0	0.9984
	0.0	LTE	0.2168	1.4114	0.2168	4.5121	0.0091	0.1053	0.1521	0.2344	0.0	
3857.11	0.0	NLTE	0.1197	0.5629	0.1197	2.0591	0.1303	0.1082	0.1386	0.1613	0.0	4.3206
	0.0	LTE	0.0970	0.4714	0.0970	2.0537	0.3652	0.1288	0.1485	0.1700	0.0	
3863.69	0.0	NLTE	0.1083	0.5185	0.1083	1.8046	0.1551	0.1017	0.1302	0.1543	0.0	3.6731
	0.0	LTE	0.0896	0.4361	0.0896	1.7992	0.3626	0.1152	0.1398	0.1594	0.0	
2073.36	0.0	NLTE	0.0791	0.6525	0.0791	2.0983	0.0525	0.0688	0.0805	0.0936	0.0	1.9380
	0.0	LTE	0.0711	0.6061	0.0711	2.0932	0.1870	0.0727	0.0829	0.0959	0.0	
2072.68	0.0	NLTE	0.0742	0.6246	0.0742	1.9221	0.0568	0.0638	0.0773	0.0880	0.0	1.9658
	0.0	LTE	0.0669	0.5796	0.0669	1.9170	0.1852	0.0688	0.0795	0.0908	0.0	
6348.86	0.0	NLTE	0.2004	0.5703	0.2004	2.3914	0.1903	0.1501	0.2072	0.2696	0.0	4.3078
	0.0	LTE	0.1226	0.3569	0.1226	2.3979	0.6579	0.2374	0.2808	0.3550	0.0	
6373.13	0.0	NLTE	0.1658	0.4862	0.1558	2.0963	0.2385	0.1354	0.1943	0.2543	0.0	4.7252
	0.0	LTE	0.1058	0.2910	0.1058	2.1027	0.6475	0.2132	0.2517	0.3049	0.0	
4132.06	0.0	NLTE	0.1304	0.5701	0.1304	1.9438	0.2033	0.1050	0.1426	0.1814	0.0	1.5632
	0.0	LTE	0.1132	0.5086	0.1132	1.9523	0.4061	0.1285	0.1608	0.1991	0.0	
4129.22	0.0	NLTE	0.1165	0.5214	0.1165	1.7843	0.2284	0.0984	0.1354	0.1713	0.0	1.5658
	0.0	LTE	0.1020	0.4636	0.1020	1.7933	0.4104	0.1200	0.1522	0.1857	0.0	
2906.54	0.0	NLTE	0.0462	0.2720	0.0462	0.9191	0.3658	0.0501	0.0702	0.0916	0.0	1.5763
	0.0	LTE	0.0405	0.2152	0.0405	0.9349	0.4884	0.0562	0.0770	0.0957	0.0	
2905.13	0.0	NLTE	0.0392	0.2011	0.0392	0.7428	0.4259	0.0456	0.0659	0.0875	0.0	1.4021
	0.0	LTE	0.0352	0.1543	0.0352	0.7586	0.5198	0.0518	0.0709	0.0913	0.0	
5057.39	5057.73	NLTE	0.1103	0.4095	0.1683	1.8556	0.3048	0.1131	0.1552	0.1954	0.0000	2.3306
	0.0	LTE	0.0868	0.3055	0.1391	1.8644	0.5267	0.1430	0.1782	0.2089	0.0000	
5042.43	0.0	NLTE	0.0945	0.3437	0.0945	1.6001	0.3518	0.1023	0.1438	0.1821	0.0	2.8438
	0.0	LTE	0.0766	0.2527	0.0766	1.6090	0.5385	0.1305	0.1615	0.1961	0.0	
4202.08	0.0	NLTE	0.0159	-0.3506	0.0159	-0.1307	0.8252	0.0509	0.0811	0.1151	0.0	0.9231
	0.0	LTE	0.0168	-0.3261	0.0168	-0.1243	0.8123	0.0502	0.0801	0.1134	0.0	

Table 12

Line Data for Silicon III, T_{eff} = 15,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG[W/D]	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	10.7940	3.0226	10.7940	7.0852	0.0002	4.5288	7.4781	12.3952	-0.0066	1.0028
	1207.52	LTE	10.7793	3.0220	10.7793	7.0851	0.0363	4.8190	7.7083	12.6551	-0.0098	
1298.95	1303.32	NLTE	1.3700	2.0941	3.5140	5.1443	0.0010	0.3614	0.7633	1.5005	-0.0088	1.0054
	1294.55	LTE	1.3671	2.0932	3.5059	5.1448	0.0569	0.4178	0.8194	1.5655	-0.0100	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	3.0863	2.5138	3.7807	5.5004	0.0003	0.6131	1.1902	2.2358	-0.0057	1.0009
	1113.17	LTE	3.0853	2.5137	3.7793	5.5008	0.0218	0.6474	1.2221	2.2799	-0.0067	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.4618	1.7366	0.4618	4.5752	0.0006	0.1611	0.2987	0.5550	0.0	0.9987
	0.0	LTE	0.4621	1.7369	0.4621	4.5755	0.0107	0.1654	0.3024	0.5591	0.0	
1417.24	0.0	NLTE	0.2679	1.3475	0.2679	3.4808	0.0155	0.0731	0.1462	0.3078	0.0	1.0142
	0.0	LTE	0.2661	1.3445	0.2661	3.4808	0.0640	0.0787	0.1569	0.3200	0.0	
1312.59	0.0	NLTE	0.1149	1.0133	0.1149	2.8338	0.0282	0.0568	0.0745	0.1237	0.0	1.0050
	0.0	LTE	0.1147	1.0125	0.1147	2.8338	0.0329	0.0569	0.0747	0.1242	0.0	
1842.55	0.0	NLTE	0.0385	0.3914	0.0365	1.2399	0.3792	0.0415	0.0597	0.0775	0.0	1.1103
	0.0	LTE	0.0375	0.3798	0.0375	1.2408	0.3943	0.0410	0.0597	0.0777	0.0	
5741.33	0.0	NLTE	0.0046	-1.0232	0.0046	-0.6621	0.9601	0.0690	0.1099	0.1536	0.0	1.4520
	0.0	LTE	0.0036	-1.1285	0.0036	-0.6583	0.9694	0.0709	0.1128	0.1580	0.0	
2559.96	0.0	NLTE	0.0042	-0.7152	0.0042	-0.8824	0.9289	0.0348	0.0549	0.0774	0.0	1.0845
	0.0	LTE	0.0040	-0.7356	0.0040	-0.8829	0.9325	0.0349	0.0552	0.0778	0.0	
3087.13	0.0	NLTE	0.0043	-0.7865	0.0043	-0.7319	0.9327	0.0379	0.0603	0.0844	0.0	1.2695
	0.0	LTE	0.0037	-0.8504	0.0037	-0.7339	0.9425	0.0383	0.0609	0.0854	0.0	
4553.94	0.0	NLTE	0.0232	-0.2222	0.0232	0.4849	0.7978	0.0685	0.1056	0.1468	0.0	1.9551
	0.0	LTE	0.0172	-0.3515	0.0172	0.4712	0.8594	0.0732	0.1118	0.1536	0.0	
4569.13	0.0	NLTE	0.0184	-0.3234	0.0184	0.2645	0.8341	0.0658	0.1028	0.1439	0.0	1.7517
	0.0	LTE	0.0142	-0.4377	0.0142	0.2507	0.8795	0.0706	0.1088	0.1504	0.0	
4576.03	0.0	NLTE	0.0099	-0.5947	0.0099	-0.2078	0.9040	0.0607	0.0963	0.1360	0.0	1.4591
	0.0	LTE	0.0080	-0.6848	0.0080	-0.2215	0.9253	0.0643	0.1008	0.1412	0.0	
3807.61	0.0	NLTE	0.0144	-0.3508	0.0144	0.2131	0.8450	0.0578	0.0886	0.1220	0.0	1.6314
	0.0	LTE	0.0115	-0.4473	0.0115	0.2149	0.8792	0.0594	0.0910	0.1250	0.0	
3797.20	0.0	NLTE	0.0106	-0.4843	0.0106	-0.0099	0.8802	0.0540	0.0842	0.1171	0.0	1.5510
	0.0	LTE	0.0085	-0.5800	0.0085	-0.0031	0.9064	0.0558	0.0866	0.1200	0.0	
3792.62	0.0	NLTE	0.0052	-0.7920	0.0052	-0.4876	0.9360	0.0490	0.0777	0.1090	0.0	1.3653
	0.0	LTE	0.0043	-0.8743	0.0043	-0.4858	0.9484	0.0505	0.0797	0.1116	0.0	

Table 13

Line Data for Silicon II, T_{eff} = 15,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1731	0.7090	0.1731	2.9010	0.0226	0.1647	0.1816	0.1955	0.0	3.4444
	0.0	LTE	0.1618	0.6795	0.1618	2.8926	0.1462	0.1732	0.1852	0.1972	0.0	
1533.43	0.0	NLTE	0.6201	1.3346	0.6201	4.4041	0.0016	0.2913	0.4317	0.6826	0.0	1.0631
	0.0	LTE	0.6016	1.3215	0.6016	4.3958	0.1171	0.3362	0.4617	0.7266	0.0	
1526.70	0.0	NLTE	0.4433	1.1908	0.4433	4.1012	0.0021	0.2128	0.3098	0.4805	0.0	1.0726
	0.0	LTE	0.4286	1.1761	0.4286	4.0928	0.1084	0.2348	0.3393	0.5147	0.0	
1264.73	1265.00	NLTE	1.8660	1.8967	1.8660	5.1740	0.0002	0.9204	1.2917	2.0846	0.0338	1.0314
	0.0	LTE	1.8385	1.8902	1.8385	5.1657	0.0500	0.9587	1.3275	2.1300	0.0333	
1260.42	0.0	NLTE	1.2826	1.7354	1.2826	4.9149	0.0002	0.6058	0.8846	1.3953	0.0	1.0296
	0.0	LTE	1.2642	1.7291	1.2642	4.9065	0.0489	0.6346	0.9078	1.4238	0.0	
992.68	0.0	NLTE	0.3128	1.2263	0.3128	4.4978	0.0000	0.1507	0.2213	0.3400	0.0	1.0114
	0.0	LTE	0.3111	1.2239	0.3111	4.4895	0.0089	0.1515	0.2221	0.3405	0.0	
989.87	0.0	NLTE	0.2303	1.0946	0.2303	4.1956	0.0000	0.1252	0.1537	0.2505	0.0	1.0120
	0.0	LTE	0.2291	1.0923	0.2291	4.1873	0.0079	0.1254	0.1540	0.2508	0.0	
3857.11	0.0	NLTE	0.2268	0.4971	0.2268	1.7555	0.1579	0.2231	0.2732	0.3251	0.0	5.0704
	0.0	LTE	0.1819	0.4014	0.1819	1.7396	0.3656	0.2402	0.2878	0.3329	0.0	
3863.69	0.0	NLTE	0.2032	0.4488	0.2032	1.5009	0.1880	0.2020	0.2541	0.3041	0.0	3.6068
	0.0	LTE	0.1663	0.3616	0.1663	1.4850	0.3706	0.2233	0.2641	0.3130	0.0	
2073.36	0.0	NLTE	0.1486	0.5831	0.1486	1.7922	0.0653	0.1328	0.1602	0.1825	0.0	2.4775
	0.0	LTE	0.1319	0.5312	0.1319	1.7754	0.1853	0.1358	0.1623	0.1836	0.0	
2072.68	0.0	NLTE	0.1395	0.5558	0.1395	1.6160	0.0720	0.1258	0.1502	0.1763	0.0	2.2878
	0.0	LTE	0.1241	0.5050	0.1241	1.5992	0.1881	0.1281	0.1522	0.1775	0.0	
6348.86	0.0	NLTE	0.3419	0.4590	0.3419	2.0835	0.2281	0.3128	0.4272	0.5350	0.0	17.0564
	0.0	LTE	0.1953	0.2158	0.1953	2.0785	0.6537	0.4410	0.5213	0.5889	0.0	
6373.13	0.0	NLTE	0.2899	0.3856	0.2899	1.7884	0.2830	0.2831	0.3983	0.5026	0.0	13.7177
	0.0	LTE	0.1775	0.1726	0.1775	1.7834	0.6421	0.3933	0.4759	0.5578	0.0	
4132.06	0.0	NLTE	0.2137	0.4414	0.2137	1.6475	0.2457	0.2074	0.2747	0.3395	0.0	2.1414
	0.0	LTE	0.1803	0.3676	0.1803	1.6500	0.4167	0.2415	0.2945	0.3545	0.0	
4129.22	0.0	NLTE	0.1934	0.3983	0.1934	1.4885	0.2748	0.1935	0.2620	0.3217	0.0	2.0060
	0.0	LTE	0.1653	0.3303	0.1653	1.4910	0.4268	0.2263	0.2787	0.3380	0.0	
2906.54	0.0	NLTE	0.0754	0.1418	0.0754	0.6108	0.4537	0.0931	0.1360	0.1791	0.0	1.5907
	0.0	LTE	0.0642	0.0722	0.0642	0.6157	0.5544	0.1020	0.1419	0.1851	0.0	
2905.13	0.0	NLTE	0.0618	0.0554	0.0618	0.4345	0.5241	0.0847	0.1278	0.1676	0.0	1.4244
	0.0	LTE	0.0536	-0.0065	0.0536	0.4394	0.6014	0.0900	0.1324	0.1733	0.0	
5057.39	5057.73	NLTE	0.2058	0.3373	0.2863	1.5485	0.3562	0.2308	0.3190	0.0	0.0027	2.5247
	0.0	LTE	0.1669	0.2463	0.2326	1.5507	0.5381	0.2757	0.3485	0.0	0.0051	
5042.43	0.0	NLTE	0.1674	0.2490	0.1674	1.2930	0.4098	0.2076	0.2880	0.3564	0.0	2.7204
	0.0	LTE	0.1350	0.1554	0.1350	1.2952	0.5603	0.2350	0.3104	0.3697	0.0	
4202.08	0.0	NLTE	0.0181	-0.6389	0.0181	-0.3989	0.8906	0.0970	0.1513	0.2171	0.0	0.9573
	0.0	LTE	0.0187	-0.6237	0.0187	-0.3946	0.8860	0.0965	0.1505	0.2162	0.0	

Table 14

Line Data for Silicon III, T_{eff} = 15,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	10.7723	2.6786	10.7723	6.7693	0.0002	4.5259	7.3842	12.7449	-0.0006	1.0014
	1207.52	LTE	10.7650	2.6783	10.7650	6.7900	0.0491	4.9224	7.7288	13.0831	0.0008	
1298.95	1303.32	NLTE	1.1256	1.6656	3.5887	4.8677	0.0014	0.3664	0.7513	1.5633	-0.0096	1.0115
	1294.55	LTE	1.1197	1.6633	3.5714	4.8681	0.0576	0.4234	0.8090	1.6473	-0.0089	
	1298.99											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.9716	2.1542	3.8113	5.2475	0.0004	0.6134	1.1997	2.2699	-0.0008	1.0018
	1113.17	LTE	2.9694	2.1536	3.8064	5.2480	0.0220	0.6474	1.2323	2.3045	-0.0000	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.4725	1.4033	0.4725	4.3061	0.0010	0.1725	0.3038	0.5315	0.0	0.9989
	0.0	LTE	0.4727	1.4035	0.4727	4.3065	0.0105	0.1754	0.3075	0.5350	0.0	
1417.24	0.0	NLTE	0.2949	1.0460	0.2949	3.2059	0.0234	0.1280	0.1688	0.3267	0.0	1.0193
	0.0	LTE	0.2925	1.0424	0.2925	3.2059	0.0529	0.1310	0.1725	0.3350	0.0	
1312.59	0.0	NLTE	0.1494	0.7839	0.1494	2.5602	0.0428	0.1037	0.1276	0.1548	0.0	1.0041
	0.0	LTE	0.1492	0.7833	0.1492	2.5602	0.0407	0.1033	0.1273	0.1546	0.0	
1842.55	0.0	NLTE	0.0612	0.2490	0.0612	0.9494	0.4549	0.0785	0.1121	0.1435	0.0	1.1029
	0.0	LTE	0.0596	0.2375	0.0596	0.9509	0.4667	0.0774	0.1117	0.1436	0.0	
5741.33	0.0	NLTE	0.0054	-1.3011	0.0054	-0.9702	0.9757	0.1349	0.2105	0.2978	0.0	1.3533
	0.0	LTE	0.0043	-1.3949	0.0043	-0.9590	0.9807	0.1371	0.2142	0.3011	0.0	
2559.96	0.0	NLTE	0.0052	-0.9649	0.0052	-1.1802	0.9519	0.0656	0.1035	0.1418	0.0	1.0758
	0.0	LTE	0.0050	-0.9849	0.0050	-1.1803	0.9542	0.0658	0.1038	0.1421	0.0	
3087.13	0.0	NLTE	0.0051	-1.0539	0.0051	-1.0427	0.9585	0.0750	0.1175	0.1639	0.0	1.1891
	0.0	LTE	0.0045	-1.1050	0.0045	-1.0455	0.9632	0.0753	0.1180	0.1645	0.0	
4553.94	0.0	NLTE	0.0322	-0.4224	0.0322	0.2035	0.8471	0.1298	0.2027	0.2781	0.0	1.9285
	0.0	LTE	0.0235	-0.5587	0.0235	0.1852	0.8927	0.1362	0.2111	0.2896	0.0	
4569.13	0.0	NLTE	0.0250	-0.5337	0.0250	-0.0170	0.8774	0.1251	0.1965	0.2694	0.0	1.7226
	0.0	LTE	0.0189	-0.6547	0.0189	-0.0353	0.9108	0.1313	0.2048	0.2810	0.0	
4576.03	0.0	NLTE	0.0127	-0.8299	0.0127	-0.4892	0.9332	0.1153	0.1818	0.2503	0.0	1.4491
	0.0	LTE	0.0101	-0.9280	0.0101	-0.5075	0.9482	0.1196	0.1882	0.2558	0.0	
3807.61	0.0	NLTE	0.0196	-0.5613	0.0196	-0.0726	0.8858	0.1071	0.1670	0.2276	0.0	1.5593
	0.0	LTE	0.0156	-0.6589	0.0156	-0.0706	0.9104	0.1091	0.1701	0.2326	0.0	
3797.20	0.0	NLTE	0.0139	-0.7091	0.0139	-0.2957	0.9147	0.1008	0.1582	0.2141	0.0	1.4932
	0.0	LTE	0.0111	-0.8067	0.0111	-0.2936	0.9331	0.1030	0.1616	0.2197	0.0	
3792.52	0.0	NLTE	0.0064	-1.0464	0.0064	-0.7733	0.9575	0.0919	0.1439	0.2009	0.0	1.3496
	0.0	LTE	0.0052	-1.1343	0.0052	-0.7713	0.9559	0.0936	0.1469	0.2033	0.0	

Table 15

Line Data for Silicon II, T_{eff} = 17,500 K, Log g = 4 0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	R0	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0805	0.6919	0.0805	2.6590	0.0400	0.0774	0.0849	0.0927	0.0	1.8911
	0.0	LTE	0.0763	0.6683	0.0763	2.6444	0.1406	0.0797	0.0864	0.0944	0.0	
1533.43	0.0	NLTE	0.3526	1.4048	0.3526	4.1640	0.0033	0.1614	0.2473	0.3914	0.0	1.0649
	0.0	LTE	0.3418	1.3913	0.3418	4.1498	0.1125	0.1838	0.2651	0.4134	0.0	
1526.70	0.0	NLTE	0.2505	1.2583	0.2505	3.8611	0.0043	0.1168	0.1777	0.2757	0.0	1.0709
	0.0	LTE	0.2423	1.2439	0.2423	3.8469	0.1011	0.1293	0.1879	0.2850	0.0	
1264.73	1265.00	NLTE	1.1100	1.9865	1.1100	4.9361	0.0005	0.6017	0.7898	1.2056	0.0479	1.0382
	0.0	LTE	1.0914	1.9792	1.0914	4.9222	0.0584	0.6231	0.8097	1.2258	0.0465	
1260.42	0.0	NLTE	0.7288	1.8053	0.7288	4.6771	0.0006	0.3438	0.5041	0.8327	0.0	1.0369
	0.0	LTE	0.7158	1.7975	0.7158	4.6632	0.0533	0.3608	0.5182	0.8558	0.0	
992.68	0.0	NLTE	0.2872	1.5046	0.2872	4.2617	0.0001	0.1367	0.1991	0.3129	0.0	1.0096
	0.0	LTE	0.2859	1.5026	0.2859	4.2480	0.0096	0.1378	0.1999	0.3135	0.0	
989.87	0.0	NLTE	0.2041	1.3574	0.2041	3.9594	0.0001	0.0987	0.1412	0.2218	0.0	1.0099
	0.0	LTE	0.2031	1.3553	0.2031	3.9457	0.0081	0.0993	0.1415	0.2220	0.0	
3857.11	0.0	NLTE	0.1046	0.4763	0.1046	1.7579	0.2236	0.1038	0.1350	0.1594	0.0	2.8760
	0.0	LTE	0.0867	0.3949	0.0867	1.7453	0.4101	0.1179	0.1436	0.1650	0.0	
3863.69	0.0	NLTE	0.0926	0.4228	0.0926	1.5033	0.2577	0.0972	0.1248	0.1518	0.0	2.4925
	0.0	LTE	0.0783	0.3502	0.0783	1.4907	0.4152	0.1074	0.1330	0.1562	0.0	
2073.36	0.0	NLTE	0.0767	0.6112	0.0767	1.8358	0.0897	0.0652	0.0796	0.0943	0.0	1.6341
	0.0	LTE	0.0691	0.5658	0.0691	1.8233	0.2137	0.0703	0.0819	0.0964	0.0	
2072.68	0.0	NLTE	0.0707	0.5760	0.0707	1.6596	0.0988	0.0607	0.0759	0.0881	0.0	1.6691
	0.0	LTE	0.0638	0.5316	0.0638	1.6470	0.2179	0.0643	0.0780	0.0907	0.0	
6348.86	0.0	NLTE	0.1627	0.4518	0.1627	2.1294	0.3057	0.1410	0.2040	0.2673	0.0	4.0012
	0.0	LTE	0.1051	0.2619	0.1051	2.1225	0.6706	0.2202	0.2627	0.3193	0.0	
6373.13	0.0	NLTE	0.1335	0.3644	0.1335	1.8342	0.3670	0.1309	0.1934	0.2537	0.0	4.0327
	0.0	LTE	0.0911	0.1983	0.0911	1.8275	0.6637	0.1943	0.2412	0.2907	0.0	
4132.06	0.0	NLTE	0.1229	0.5165	0.1229	1.7569	0.2575	0.1040	0.1434	0.1846	0.0	1.6479
	0.0	LTE	0.1044	0.4456	0.1044	1.7555	0.4501	0.1255	0.1601	0.2003	0.0	
4129.22	0.0	NLTE	0.1089	0.4644	0.1089	1.5979	0.2870	0.0977	0.1360	0.1731	0.0	1.6394
	0.0	LTE	0.0934	0.3976	0.0934	1.5966	0.4579	0.1173	0.1511	0.1872	0.0	
2906.54	0.0	NLTE	0.0424	0.2068	0.0424	0.7858	0.4423	0.0506	0.0718	0.0941	0.0	1.5102
	0.0	LTE	0.0369	0.1468	0.0369	0.7844	0.5439	0.0551	0.0768	0.0973	0.0	
2905.13	0.0	NLTE	0.0353	0.1279	0.0353	0.6095	0.5023	0.0462	0.0671	0.0899	0.0	1.3846
	0.0	LTE	0.0313	0.0749	0.0313	0.6081	0.5806	0.0505	0.0706	0.0926	0.0	
5057.39	5057.73	NLTE	0.1013	0.3447	0.1512	1.6716	0.3942	0.1157	0.1598	0.2021	0.0000	1.8709
	0.0	LTE	0.0823	0.2548	0.1274	1.6702	0.5642	0.1410	0.1791	0.2133	0.0000	
5042.43	0.0	NLTE	0.0853	0.2715	0.0853	1.4161	0.4428	0.1045	0.1474	0.1883	0.0	2.0868
	0.0	LTE	0.0711	0.1922	0.0711	1.4148	0.5817	0.1275	0.1614	0.1990	0.0	
4202.08	0.0	NLTE	0.0148	-0.4111	0.0148	-0.3553	0.8753	0.0572	0.0933	0.1392	0.0	0.9887
	0.0	LTE	0.0149	-0.4071	0.0149	-0.3537	0.8730	0.0568	0.0926	0.1383	0.0	

Table 16

Line Data for Silicon III, T_{eff} = 17,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	6.3552	2.7648	6.3552	6.6309	0.0006	2.5808	4.3904	7.4974	-0.0353	1.0064
	1207.52	LTE	6.3353	2.7634	6.3353	6.6308	0.1175	3.1489	4.9302	8.0551	-0.0541	
1298.95	1303.32	NLTE	1.1298	1.9826	3.0539	5.0051	0.0016	0.3037	0.6390	1.2715	-0.0076	1.0104
	1294.55	LTE	1.1250	1.9808	3.0401	5.0059	0.0963	0.3862	0.7332	1.3684	-0.0063	
	1296.89				>							
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.6189	2.4147	3.0779	5.3704	0.0005	0.4955	0.9548	1.7314	-0.0032	1.0022
	1113.17	LTE	2.6166	2.4144	3.0749	5.3710	0.0401	0.5466	1.0014	1.7820	-0.0049	
	1109.97											
	1109.94											
	1106.36											
957.39	0.0	NLTE	0.4397	1.6675	0.4397	4.4333	0.0009	0.1575	0.2910	0.5298	0.0	1.0004
	0.0	LTE	0.4396	1.6674	0.4396	4.4338	0.0201	0.1649	0.2971	0.5386	0.0	
1417.24	0.0	NLTE	0.2321	1.2573	0.2321	3.4690	0.0176	0.0724	0.1270	0.2656	0.0	1.0193
	0.0	LTE	0.2300	1.2534	0.2300	3.4689	0.0796	0.0782	0.1409	0.2774	0.0	
1312.59	0.0	NLTE	0.1089	0.9620	0.1089	2.8322	0.0313	0.0571	0.0750	0.1132	0.0	1.0073
	0.0	LTE	0.1086	0.9608	0.1086	2.8322	0.0396	0.0575	0.0753	0.1139	0.0	
1842.55	0.0	NLTE	0.0415	0.3954	0.0415	1.4140	0.3687	0.0430	0.0620	0.0809	0.0	1.0534
	0.0	LTE	0.0409	0.3892	0.0409	1.4145	0.3760	0.0425	0.0619	0.0810	0.0	
5741.33	0.0	NLTE	0.0051	-1.0065	0.0051	-0.4786	0.9572	0.0711	0.1130	0.1568	0.0	1.2388
	0.0	LTE	0.0044	-1.0687	0.0044	-0.4725	0.9636	0.0725	0.1152	0.1603	0.0	
2559.96	0.0	NLTE	0.0061	-0.5817	0.0061	-0.4927	0.9026	0.0365	0.0578	0.0815	0.0	1.0967
	0.0	LTE	0.0058	-0.6044	0.0058	-0.4926	0.9083	0.0368	0.0582	0.0820	0.0	
3087.13	0.0	NLTE	0.0064	-0.6407	0.0064	-0.3733	0.9043	0.0398	0.0632	0.0880	0.0	1.2771
	0.0	LTE	0.0055	-0.7046	0.0055	-0.3720	0.9185	0.0403	0.0640	0.0894	0.0	
4553.94	0.0	NLTE	0.0236	-0.2428	0.0236	0.5923	0.8025	0.0703	0.1095	0.1530	0.0	1.4826
	0.0	LTE	0.0197	-0.3208	0.0197	0.5888	0.8420	0.0742	0.1143	0.1581	0.0	
4569.13	0.0	NLTE	0.0187	-0.3444	0.0187	0.3718	0.8381	0.0680	0.1067	0.1499	0.0	1.3773
	0.0	LTE	0.0160	-0.4118	0.0160	0.3684	0.8667	0.0715	0.1110	0.1545	0.0	
4576.03	0.0	NLTE	0.0100	-0.6187	0.0100	-0.1005	0.9066	0.0628	0.0998	0.1407	0.0	1.2292
	0.0	LTE	0.0089	-0.6702	0.0089	-0.1039	0.9193	0.0650	0.1026	0.1441	0.0	
3807.61	0.0	NLTE	0.0095	-0.5591	0.0095	0.0335	0.8909	0.0526	0.0829	0.1155	0.0	1.3492
	0.0	LTE	0.0080	-0.6324	0.0080	0.0379	0.9089	0.0533	0.0840	0.1172	0.0	
3797.20	0.0	NLTE	0.0065	-0.7225	0.0065	-0.1895	0.9215	0.0498	0.0789	0.1099	0.0	1.3077
	0.0	LTE	0.0055	-0.7950	0.0055	-0.1851	0.9344	0.0505	0.0800	0.1116	0.0	
3792.52	0.0	NLTE	0.0028	-1.0919	0.0028	-0.6672	0.9540	0.0460	0.0730	0.1017	0.0	1.2254
	0.0	LTE	0.0024	-1.1583	0.0024	-0.6627	0.9694	0.0465	0.0739	0.1025	0.0	

Table 17

Line Data for Silicon II, T_{eff} = 17,500 K, Log g = 4 0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	R0	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1523	0.6472	0.1523	2.3502	0.0500	0.1449	0.1619	0.1830	0.0	1.7281
	0.0	LTE	0.1455	0.6274	0.1455	2.3364	0.1323	0.1491	0.1645	0.1848	0.0	
1233.43	0.0	NLTE	0.3729	1.1077	0.3729	3.8587	0.0043	0.1910	0.2525	0.4147	0.0	1.0876
	0.0	LTE	0.3588	1.0909	0.3588	3.8454	0.0991	0.1999	0.2669	0.4291	0.0	
1526.70	0.0	NLTE	0.2799	0.9850	0.2799	3.5558	0.0059	0.1686	0.1968	0.2809	0.0	1.0997
	0.0	LTE	0.2691	0.9680	0.2691	3.5424	0.0889	0.1749	0.2003	0.2901	0.0	
1264.73	1265.00	NLTE	1.1219	1.6697	1.1219	4.6336	0.0006	0.0054	0.7961	1.1819	0.0486	1.0424
	0.0	LTE	1.1011	1.6616	1.1011	4.6207	0.0516	0.6234	0.8114	1.2019	0.0465	
1260.42	0.0	NLTE	0.7375	1.4890	0.7375	4.3746	0.0008	0.3452	0.5091	0.8016	0.0	1.0402
	0.0	LTE	0.7232	1.4805	0.7232	4.3616	0.0465	0.3604	0.5182	0.8105	0.0	
952.68	0.0	NLTE	0.2958	1.1960	0.2958	3.9595	0.0001	0.1443	0.2078	0.3180	0.0	1.0110
	0.0	LTE	0.2943	1.1938	0.2943	3.9467	0.0079	0.1449	0.2084	0.3184	0.0	
989.87	0.0	NLTE	0.2186	1.0659	0.2186	3.6572	0.0001	0.1211	0.1471	0.2383	0.0	1.0118
	0.0	LTE	0.2175	1.0637	0.2175	3.6444	0.0066	0.1212	0.1473	0.2383	0.0	
3857.11	0.0	NLTE	0.1809	0.3930	0.1809	1.4611	0.2714	0.1941	0.2520	0.3015	0.0	2.7001
	0.0	LTE	0.1525	0.3187	0.1525	1.4493	0.4219	0.2213	0.2629	0.3122	0.0	
3863.69	0.0	NLTE	0.1575	0.3321	0.1575	1.2065	0.3150	0.1745	0.2348	0.2817	0.0	2.1029
	0.0	LTE	0.1358	0.2676	0.1358	1.1948	0.4360	0.1885	0.2433	0.2864	0.0	
2073.36	0.0	NLTE	0.1318	0.5249	0.1318	1.5386	0.1097	0.1220	0.1464	0.1749	0.0	1.8643
	0.0	LTE	0.1185	0.4788	0.1185	1.5269	0.2230	0.1260	0.1495	0.1772	0.0	
2072.68	0.0	NLTE	0.1214	0.4896	0.1214	1.3624	0.1264	0.1129	0.1387	0.1651	0.0	1.7554
	0.0	LTE	0.1098	0.4457	0.1098	1.3507	0.2318	0.1192	0.1413	0.1677	0.0	
6348.86	0.0	NLTE	0.2531	0.3224	0.2531	1.8276	0.3794	0.2738	0.3985	0.5118	0.0	7.3288
	0.0	LTE	0.1665	0.1405	0.1665	1.8213	0.6717	0.3960	0.4834	0.5675	0.0	
6373.13	0.0	NLTE	0.2089	0.2374	0.2089	1.5325	0.4531	0.2612	0.3813	0.4781	0.0	4.9650
	0.0	LTE	0.1492	0.0910	0.1492	1.5262	0.6705	0.3637	0.4389	0.5295	0.0	
4132.06	0.0	NLTE	0.1857	0.3743	0.1857	1.4748	0.3199	0.1915	0.2640	0.3275	0.0	1.8626
	0.0	LTE	0.1592	0.3075	0.1592	1.4737	0.4665	0.2271	0.2827	0.3453	0.0	
4129.22	0.0	NLTE	0.1656	0.3251	0.1656	1.3158	0.3560	0.1811	0.2519	0.3093	0.0	1.7270
	0.0	LTE	0.1443	0.2652	0.1443	1.3147	0.4798	0.2054	0.2678	0.3236	0.0	
2906.54	0.0	NLTE	0.0606	0.0412	0.0606	0.4900	0.5526	0.0883	0.1324	0.1748	0.0	1.3327
	0.0	LTE	0.0541	-0.0884	0.0541	0.4890	0.6138	0.0937	0.1367	0.1798	0.0	
2905.13	0.0	NLTE	0.0486	-0.0548	0.0486	0.3137	0.6194	0.0811	0.1244	0.1638	0.0	1.2435
	0.0	LTE	0.0439	-0.0986	0.0439	0.3127	0.6041	0.0842	0.1276	0.1668	0.0	
5057.39	5057.73	NLTE	0.1686	0.2447	0.2308	1.3782	0.4536	0.2183	0.3079	0.0	0.0018	1.7720
	0.0	LTE	0.1432	0.1739	0.1980	1.3770	0.5814	0.2528	0.3348	0.0	0.0039	
5042.43	0.0	NLTE	0.1352	0.1502	0.1352	1.1227	0.5129	0.1997	0.2765	0.3514	0.0	1.8172
	0.0	LTE	0.1161	0.0841	0.1161	1.1215	0.6084	0.2202	0.2964	0.3623	0.0	
4202.08	0.0	NLTE	0.0155	-0.7115	0.0155	-0.5533	0.9189	0.1030	0.1640	0.2362	0.0	0.9892
	0.0	LTE	0.0156	-0.7874	0.0156	-0.5518	0.9177	0.1027	0.1634	0.2356	0.0	

Table 18

Line Data for Silicon III, T_{eff} = 17,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	6.3470	2.4428	6.3470	6.3508	0.0010	2.5831	4.3305	7.2754	0.0004	1.0077
	1207.52	LTE	6.3225	2.4411	6.3225	6.3507	0.1207	3.1649	4.8496	7.8881	0.0004	
1298.95	1303.32	NLTE	0.9803	1.9996	3.1302	4.7490	0.0022	0.3153	0.6395	1.2605	-0.0097	1.0212
	1294.55	LTE	0.9706	1.9952	3.1016	4.7497	0.0968	0.3914	0.7233	1.3964	-0.0086	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.4113	2.0574	3.1127	5.1387	0.0007	0.4980	0.9514	1.7445	-0.0055	1.0046
	1113.17	LTE	2.4066	2.0566	3.1064	5.1392	0.0406	0.5486	0.9963	1.7995	-0.0057	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.4537	1.3797	0.4537	4.1856	0.0011	0.1707	0.2946	0.5113	0.0	1.0019
	0.0	LTE	0.4533	1.3793	0.4533	4.1861	0.0176	0.1752	0.3004	0.5173	0.0	
1417.24	0.0	NLTE	0.2596	0.9846	0.2596	3.2125	0.0232	0.1246	0.1596	0.2709	0.0	1.02568D 00
	0.0	LTE	0.2569	0.9801	0.2569	3.2125	0.0652	0.1292	0.1635	0.2846	0.0	
1312.59	0.0	NLTE	0.1430	0.7588	0.1430	2.5790	0.0416	0.1018	0.1248	0.1490	0.0	1.01012D 00
	0.0	LTE	0.1425	0.7575	0.1425	2.5790	0.0467	0.1020	0.1250	0.1491	0.0	
1842.55	0.0	NLTE	0.0635	0.2954	0.0635	1.1439	0.4377	0.0779	0.1120	0.1435	0.0	1.05631D 00
	0.0	LTE	0.0626	0.2927	0.0626	1.1444	0.4473	0.0780	0.1123	0.1440	0.0	
5741.33	0.0	NLTE	0.0059	-1.2655	0.0059	-0.7629	0.9734	0.1351	0.2107	0.2994	0.0	1.19685D 00
	0.0	LTE	0.0052	-1.3226	0.0052	-0.7569	0.9770	0.1368	0.2134	0.3018	0.0	
2559.96	0.0	NLTE	0.0075	-0.8130	0.0075	-0.7724	0.9324	0.0669	0.1055	0.1443	0.0	1.08197D 00
	0.0	LTE	0.0071	-0.8341	0.0071	-0.7724	0.9360	0.0673	0.1062	0.1450	0.0	
3087.13	0.0	NLTE	0.0078	-0.8781	0.0078	-0.6666	0.9377	0.0759	0.1187	0.1658	0.0	1.23002D 00
	0.0	LTE	0.0068	-0.9379	0.0068	-0.6654	0.9463	0.0768	0.1204	0.1672	0.0	
4553.94	0.0	NLTE	0.0309	-0.4463	0.0309	0.3215	0.8542	0.1296	0.2031	0.2794	0.0	1.39121D 00
	0.0	LTE	0.0263	-0.5168	0.0263	0.3182	0.8800	0.1352	0.2101	0.2882	0.0	
4569.13	0.0	NLTE	0.0240	-0.5584	0.0240	0.1011	0.8835	0.1255	0.1975	0.2706	0.0	1.29708D 00
	0.0	LTE	0.0209	-0.6182	0.0209	0.0978	0.9012	0.1301	0.2034	0.2785	0.0	
4576.03	0.0	NLTE	0.0120	-0.8582	0.0120	-0.3712	0.9370	0.1159	0.1825	0.2519	0.0	1.17896D 00
	0.0	LTE	0.0108	-0.9036	0.0108	-0.3745	0.9442	0.1183	0.1861	0.2548	0.0	
3807.61	0.0	NLTE	0.0117	-0.7510	0.0117	-0.2417	0.9257	0.0965	0.1513	0.2083	0.0	1.28478D 00
	0.0	LTE	0.0100	-0.8693	0.0100	-0.2374	0.9373	0.0979	0.1537	0.2103	0.0	
3797.20	0.0	NLTE	0.0077	-0.9717	0.0077	-0.4648	0.9489	0.0920	0.1434	0.2015	0.0	1.25449D 00
	0.0	LTE	0.0066	-1.0398	0.0066	-0.4605	0.9568	0.0931	0.1455	0.2032	0.0	
3792.52	0.0	NLTE	0.0031	-1.3724	0.0031	-0.9424	0.9785	0.0859	0.1339	0.1924	0.0	1.19487D 00
	0.0	LTE	0.0026	-1.4355	0.0026	-0.9381	0.9815	0.0866	0.1348	0.1934	0.0	

Table 19

Line Data for Silicon II, T_{eff} = 17,500 K, Log g = 3 0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0788	0.6827	0.0788	2.5354	0.0354	0.0724	0.0829	0.0935	0.0	3.6976
	0.0	LTE	0.0743	0.6570	0.0743	2.5310	0.1500	0.0764	0.0856	0.0948	0.0	
1533.43	0.0	NLTE	0.2859	1.3138	0.2859	4.0354	0.0029	0.1317	0.1952	0.3227	0.0	1.0582
	0.0	LTE	0.2780	1.3016	0.2780	4.0308	0.1302	0.1534	0.2152	0.3554	0.0	
1526.70	0.0	NLTE	0.2049	1.1709	0.2049	3.7324	0.0037	0.1004	0.1393	0.2189	0.0	1.0677
	0.0	LTE	0.1985	1.1572	0.1985	3.7279	0.1177	0.1103	0.1516	0.2333	0.0	
1264.73	1265.00	NLTE	0.9254	1.9075	0.9254	4.8022	0.0004	0.5279	0.6748	0.9706	0.0576	1.0277
	0.0	LTE	0.9142	1.9023	0.9142	4.7975	0.0707	0.5522	0.7016	1.0043	0.0561	
1260.42	0.0	NLTE	0.5919	1.7149	0.5919	4.5432	0.0004	0.2779	0.4097	0.6454	0.0	1.0243
	0.0	LTE	0.5849	1.7097	0.5849	4.5385	0.0658	0.2994	0.4307	0.6648	0.0	
992.68	0.0	NLTE	0.1479	1.2165	0.1479	4.1255	0.0000	0.0721	0.1000	0.1556	0.0	1.0044
	0.0	LTE	0.1476	1.2155	0.1476	4.1208	0.0130	0.0728	0.1011	0.1570	0.0	
989.87	0.0	NLTE	0.1106	1.0913	0.1106	3.8232	0.0001	0.0635	0.0736	0.1105	0.0	1.0059
	0.0	LTE	0.1103	1.0901	0.1103	3.8185	0.0111	0.0638	0.0738	0.1111	0.0	
3857.11	0.0	NLTE	0.1063	0.4833	0.1063	1.6745	0.1832	0.0931	0.1263	0.1679	0.0	4.5361
	0.0	LTE	0.0829	0.3753	0.0829	1.6574	0.4117	0.1021	0.1372	0.1777	0.0	
3863.69	0.0	NLTE	0.0939	0.4289	0.0939	1.4199	0.2168	0.0874	0.1167	0.1478	0.0	3.4632
	0.0	LTE	0.0747	0.3294	0.0747	1.4029	0.4175	0.0940	0.1230	0.1599	0.0	
2073.36	0.0	NLTE	0.0735	0.5926	0.0735	1.7528	0.0741	0.0575	0.0790	0.0988	0.0	2.2254
	0.0	LTE	0.0648	0.5384	0.0648	1.7365	0.2082	0.0602	0.0822	0.1005	0.0	
2072.68	0.0	NLTE	0.0682	0.5602	0.0682	1.5756	0.0824	0.0536	0.0719	0.0942	0.0	2.0699
	0.0	LTE	0.0603	0.5068	0.0603	1.5603	0.2117	0.0554	0.0744	0.0961	0.0	
6348.86	0.0	NLTE	0.1746	0.4826	0.1746	2.0652	0.2329	0.1455	0.2026	0.2785	0.0	8.3920
	0.0	LTE	0.0988	0.2353	0.0988	2.0648	0.6776	0.2057	0.2733	0.3305	0.0	
6373.13	0.0	NLTE	0.1453	0.4011	0.1453	1.7701	0.2865	0.1338	0.1886	0.2500	0.0	8.0517
	0.0	LTE	0.0870	0.1782	0.0870	1.7697	0.6662	0.1743	0.2369	0.3080	0.0	
4132.06	0.0	NLTE	0.1113	0.4736	0.1113	1.6748	0.2545	0.0955	0.1341	0.1849	0.0	1.9213
	0.0	LTE	0.0930	0.3955	0.0930	1.6820	0.4561	0.1111	0.1538	0.2017	0.0	
4129.22	0.0	NLTE	0.0995	0.4251	0.0995	1.5158	0.2844	0.0911	0.1273	0.1726	0.0	1.8699
	0.0	LTE	0.0841	0.3523	0.0841	1.5230	0.4640	0.1041	0.1414	0.1908	0.0	
2906.54	0.0	NLTE	0.0417	0.2000	0.0417	0.7440	0.4254	0.0452	0.0727	0.0956	0.0	1.4842
	0.0	LTE	0.0369	0.1469	0.0369	0.7558	0.5251	0.0556	0.0770	0.0984	0.0	
2905.13	0.0	NLTE	0.0347	0.1209	0.0347	0.5677	0.4901	0.0387	0.0687	0.0927	0.0	1.3262
	0.0	LTE	0.0314	0.0774	0.0314	0.5805	0.5638	0.0457	0.0726	0.0950	0.0	
5057.39	5057.73	NLTE	0.0970	0.3261	0.1438	1.6028	0.3818	0.1109	0.1516	0.1962	0.0000	2.2369
	0.0	LTE	0.0758	0.2192	0.1175	1.6089	0.5682	0.1251	0.1672	0.2224	0.0000	
5042.43	0.0	NLTE	0.0818	0.2533	0.0818	1.3473	0.4295	0.1023	0.1408	0.1793	0.0	2.7041
	0.0	LTE	0.0657	0.1580	0.0657	1.3535	0.5859	0.1149	0.1520	0.1895	0.0	
4202.08	0.0	NLTE	0.0114	-0.5217	0.0114	-0.2921	0.8744	0.0409	0.0821	0.1275	0.0	0.9278
	0.0	LTE	0.0121	-0.4966	0.0121	-0.2852	0.8646	0.0400	0.0803	0.1262	0.0	

Table 20

Line Data for Silicon III, T_{eff} = 17,500 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	11.5310	3.0235	11.5310	7.1543	0.0002	5.0719	8.0835	13.1521	-0.0129	1.0036
	1207.52	LTE	11.5109	3.0228	11.5109	7.1545	0.0850	5.7748	8.6514	13.8075	-0.0073	
1298.95	1303.32	NLTE	1.5842	2.1294	4.1502	5.3649	0.0010	0.4865	0.9678	1.8385	-0.0108	1.0078
	1294.55	LTE	1.5797	2.1282	4.1365	5.3668	0.0979	0.6171	1.0910	2.0056	-0.0071	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	3.7140	2.5665	4.1761	5.6528	0.0003	0.7757	1.3863	2.5009	-0.0104	1.0000
	1113.17	LTE	3.7160	2.5667	4.1761	5.6546	0.0444	0.8558	1.4511	2.6057	-0.0116	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.5501	1.7648	0.5501	4.6920	0.0006	0.2230	0.3707	0.6461	0.0	0.9969
	0.0	LTE	0.5509	1.7654	0.5509	4.6939	0.0235	0.2336	0.3796	0.6549	0.0	
1417.24	0.0	NLTE	0.3661	1.4553	0.3661	3.8565	0.0089	0.0971	0.2170	0.4299	0.0	1.0266
	0.0	LTE	0.3613	1.4497	0.3613	3.8569	0.1293	0.1331	0.2569	0.4743	0.0	
1312.59	0.0	NLTE	0.1419	1.0770	0.1419	3.1689	0.0166	0.0648	0.0898	0.1620	0.0	1.0153
	0.0	LTE	0.1409	1.0741	0.1409	3.1694	0.0554	0.0673	0.0926	0.1661	0.0	
1842.55	0.0	NLTE	0.0576	0.5384	0.0576	1.9541	0.2350	0.0515	0.0713	0.0915	0.0	1.1211
	0.0	LTE	0.0561	0.5271	0.0561	1.9549	0.2589	0.0516	0.0718	0.0921	0.0	
5741.33	0.0	NLTE	0.0177	-0.4678	0.0177	0.2121	0.8651	0.0788	0.1244	0.1739	0.0	2.0395
	0.0	LTE	0.0124	-0.6233	0.0124	0.2051	0.9105	0.0836	0.1311	0.1829	0.0	
2559.96	0.0	NLTE	0.0158	-0.1677	0.0158	0.2445	0.7813	0.0429	0.0658	0.0909	0.0	1.1719
	0.0	LTE	0.0147	-0.1980	0.0147	0.2444	0.7992	0.0435	0.0667	0.0920	0.0	
3087.13	0.0	NLTE	0.0191	-0.1651	0.0191	0.3477	0.7494	0.0461	0.0715	0.0993	0.0	1.7081
	0.0	LTE	0.0151	-0.2686	0.0151	0.3480	0.8095	0.0478	0.0739	0.1025	0.0	
4553.94	0.0	NLTE	0.0524	0.1038	0.0524	1.2140	0.6127	0.0812	0.1209	0.1653	0.0	2.4476
	0.0	LTE	0.0373	-0.0435	0.0373	1.2085	0.7483	0.0876	0.1322	0.1820	0.0	
4569.13	0.0	NLTE	0.0431	0.0181	0.0431	0.9536	0.6662	0.0765	0.1167	0.1617	0.0	2.1818
	0.0	LTE	0.0318	-0.1148	0.0318	0.9880	0.7754	0.0850	0.1283	0.1766	0.0	
4576.03	0.0	NLTE	0.0257	-0.2077	0.0257	0.5213	0.7818	0.0691	0.1087	0.1530	0.0	1.7280
	0.0	LTE	0.0202	-0.3125	0.0202	0.5158	0.8407	0.0768	0.1176	0.1617	0.0	
3807.61	0.0	NLTE	0.0342	-0.0032	0.0342	1.0230	0.6904	0.0708	0.1047	0.1416	0.0	1.9457
	0.0	LTE	0.0270	-0.1055	0.0270	1.0253	0.7649	0.0725	0.1093	0.1486	0.0	
3797.20	0.0	NLTE	0.0270	-0.1050	0.0270	0.7999	0.7400	0.0654	0.0986	0.1345	0.0	1.8347
	0.0	LTE	0.0214	-0.2055	0.0214	0.8022	0.8026	0.0689	0.1035	0.1407	0.0	
3792.52	0.0	NLTE	0.0156	-0.3429	0.0156	0.3223	0.8345	0.0577	0.0900	0.1251	0.0	1.5295
	0.0	LTE	0.0128	-0.4273	0.0128	0.3246	0.8692	0.0612	0.0942	0.1294	0.0	

Table 21

Line Data for Silicon II, T_{eff} = 17,500 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	R0	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1496	0.6394	0.1496	2.2273	0.0440	0.1424	0.1583	0.1768	0.0	1.8723
	0.0	LTE	0.1424	0.6181	0.1424	2.2235	0.1382	0.1476	0.1617	0.1804	0.0	
1533.43	0.0	NLTE	0.3102	1.0277	0.3102	3.7298	0.0037	0.1792	0.2102	0.3315	0.0	1.0950
	0.0	LTE	0.2980	1.0104	0.2980	3.7259	0.1156	0.1879	0.2244	0.3594	0.0	
1526.70	0.0	NLTE	0.2420	0.9218	0.2420	3.4269	0.0051	0.1606	0.1838	0.2290	0.0	1.1191
	0.0	LTE	0.2321	0.9037	0.2321	3.4229	0.1038	0.1665	0.1888	0.2409	0.0	
1264.73	1265.00	NLTE	0.9361	1.5911	0.9361	4.4986	0.0005	0.5365	0.6786	0.9732	0.0585	1.0353
	0.0	LTE	0.9221	1.5845	0.9221	4.4945	0.0640	0.5564	0.7025	1.0023	0.0569	
1260.42	0.0	NLTE	0.5967	1.3970	0.5967	4.2396	0.0006	0.2832	0.4130	0.6489	0.0	1.0301
	0.0	LTE	0.5880	1.3907	0.5880	4.2355	0.0586	0.3018	0.4314	0.6644	0.0	
952.68	0.0	NLTE	0.1736	0.9645	0.1736	3.8211	0.0001	0.1172	0.1276	0.1617	0.0	1.0102
	0.0	LTE	0.1729	0.9629	0.1729	3.8169	0.0109	0.1175	0.1278	0.1627	0.0	
989.87	0.0	NLTE	0.1435	0.8832	0.1435	3.5188	0.0001	0.1068	0.1191	0.1305	0.0	1.0140
	0.0	LTE	0.1430	0.8814	0.1430	3.5146	0.0092	0.1071	0.1192	0.1306	0.0	
3857.11	0.0	NLTE	0.1859	0.4048	0.1859	1.3776	0.2301	0.1886	0.2467	0.2912	0.0	3.9371
	0.0	LTE	0.1473	0.3037	0.1473	1.3616	0.4233	0.2131	0.2569	0.3013	0.0	
3853.69	0.0	NLTE	0.1611	0.3420	0.1611	1.1231	0.2767	0.1692	0.2277	0.2758	0.0	2.7870
	0.0	LTE	0.1307	0.2509	0.1307	1.1071	0.4388	0.1814	0.2365	0.2805	0.0	
2073.36	0.0	NLTE	0.1302	0.5199	0.1302	1.4545	0.0922	0.1209	0.1436	0.1706	0.0	2.2777
	0.0	LTE	0.1148	0.4650	0.1148	1.4392	0.2167	0.1238	0.1457	0.1725	0.0	
2072.68	0.0	NLTE	0.1204	0.4657	0.1204	1.2783	0.1077	0.1097	0.1361	0.1593	0.0	2.0520
	0.0	LTE	0.1065	0.4326	0.1065	1.2630	0.2260	0.1150	0.1380	0.1615	0.0	
6348.86	0.0	NLTE	0.2802	0.3665	0.2802	1.7641	0.2968	0.2789	0.3934	0.4952	0.0	19.1540
	0.0	LTE	0.1611	0.1262	0.1611	1.7641	0.6740	0.3938	0.4754	0.5596	0.0	
6373.13	0.0	NLTE	0.2314	0.2818	0.2314	1.4689	0.3717	0.2572	0.3687	0.4643	0.0	10.3499
	0.0	LTE	0.1452	0.0795	0.1452	1.4690	0.6707	0.3564	0.4323	0.5184	0.0	
4132.06	0.0	NLTE	0.1744	0.3472	0.1744	1.3896	0.3186	0.1836	0.2541	0.3104	0.0	2.0452
	0.0	LTE	0.1483	0.2769	0.1483	1.3967	0.4731	0.2179	0.2748	0.3309	0.0	
4129.22	0.0	NLTE	0.1555	0.2976	0.1555	1.2306	0.3575	0.1734	0.2413	0.2989	0.0	1.8120
	0.0	LTE	0.1349	0.2360	0.1349	1.2376	0.4872	0.1979	0.2602	0.3098	0.0	
2906.54	0.0	NLTE	0.0599	0.0355	0.0599	0.4457	0.5446	0.0856	0.1294	0.1696	0.0	1.2494
	0.0	LTE	0.0548	-0.0028	0.0548	0.4587	0.5992	0.0920	0.1347	0.1761	0.0	
2905.13	0.0	NLTE	0.0476	-0.0639	0.0476	0.2694	0.6165	0.0790	0.1215	0.1611	0.0	1.1618
	0.0	LTE	0.0444	-0.0943	0.0444	0.2824	0.6527	0.0827	0.1256	0.1639	0.0	
5057.39	5057.73	NLTE	0.1648	0.2347	0.2237	1.3071	0.4405	0.2124	0.2966	0.0	0.0010	1.9166
	0.0	LTE	0.1355	0.1499	0.1874	1.3131	0.5857	0.2456	0.3260	0.0	0.0031	
5042.43	0.0	NLTE	0.1316	0.1383	0.1316	1.0516	0.5037	0.1931	0.2691	0.3412	0.0	2.0272
	0.0	LTE	0.1101	0.0610	0.1101	1.0576	0.6139	0.2147	0.2876	0.3544	0.0	
4202.08	0.0	NLTE	0.0123	-0.8115	0.0123	-0.5497	0.9243	0.0956	0.1494	0.2161	0.0	0.9354
	0.0	LTE	0.0130	-0.7867	0.0130	-0.5437	0.9193	0.0951	0.1485	0.2150	0.0	

Table 22

Line Data for Silicon III, T_{eff} = 17,500 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG[W/D]	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	11.5154	2.7015	11.5154	6.9192	0.0004	5.0929	8.0017	13.4090	-0.0007	1.0039
	1207.62	LTE	11.4934	2.7007	11.4934	6.9194	0.0817	5.7563	8.7138	14.0448	-0.0658	
1298.95	1303.32	NLTE	1.3294	1.7319	4.2059	5.1037	0.0013	0.4902	0.9660	1.8891	-0.0087	1.0165
	1294.55	LTE	1.3197	1.7287	4.1767	5.1055	0.0984	0.6201	1.0834	2.0325	-0.0087	
	1296.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	3.3119	2.1953	4.2008	5.4129	0.0004	0.7789	1.4126	2.5188	-0.0083	1.0023
	1113.17	LTE	3.3095	2.1950	4.1968	5.4147	0.0447	0.8581	1.4833	2.6535	-0.0117	
	1109.97											
	1105.94											
	1108.36											
957.39	0.0	NLTE	0.5566	1.4684	0.5566	4.4357	0.0007	0.2259	0.3731	0.6228	0.0	0.9989
	0.0	LTE	0.5569	1.4687	0.5569	4.4374	0.0233	0.2363	0.3814	0.6327	0.0	
1417.24	0.0	NLTE	0.3885	1.1557	0.3885	3.5572	0.0115	0.1449	0.2254	0.4351	0.0	1.03942D 00
	0.0	LTE	0.3816	1.1520	0.3816	3.5576	0.1105	0.1582	0.2557	0.4775	0.0	
1312.59	0.0	NLTE	0.1750	0.8466	0.1750	2.9109	0.0219	0.1135	0.1388	0.1721	0.0	1.02076D 00
	0.0	LTE	0.1737	0.8436	0.1737	2.9115	0.0468	0.1158	0.1400	0.1732	0.0	
1842.55	0.0	NLTE	0.0921	0.4205	0.0921	1.6846	0.2865	0.0925	0.1287	0.1617	0.0	1.12989D 00
	0.0	LTE	0.0897	0.4091	0.0897	1.6853	0.3098	0.0936	0.1298	0.1626	0.0	
5741.33	0.0	NLTE	0.0224	-0.6672	0.0224	-0.0705	0.9075	0.1483	0.2334	0.3198	0.0	1.79454D 00
	0.0	LTE	0.0161	-0.8256	0.0161	-0.0774	0.9361	0.1560	0.2450	0.3326	0.0	
2559.96	0.0	NLTE	0.0211	-0.6619	0.0211	-0.0319	0.8320	0.0776	0.1205	0.1657	0.0	1.14878D 00
	0.0	LTE	0.0198	-0.6901	0.0198	-0.0320	0.8448	0.0789	0.1222	0.1678	0.0	
3087.13	0.0	NLTE	0.0256	-0.3595	0.0256	0.0574	0.8167	0.0861	0.1349	0.1842	0.0	1.56727D 00
	0.0	LTE	0.0205	-0.4564	0.0205	0.0576	0.8577	0.0894	0.1394	0.1908	0.0	
4553.94	0.0	NLTE	0.0728	-0.0744	0.0728	0.9441	0.6913	0.1461	0.2240	0.3074	0.0	2.31753D 00
	0.0	LTE	0.0527	-0.2146	0.0527	0.9388	0.7926	0.1625	0.2423	0.3255	0.0	
4569.13	0.0	NLTE	0.0589	-0.1660	0.0589	0.7237	0.7419	0.1400	0.2176	0.3002	0.0	2.00037D 00
	0.0	LTE	0.0444	-0.2905	0.0444	0.7184	0.8183	0.1553	0.2344	0.3172	0.0	
4576.03	0.0	NLTE	0.0335	-0.4138	0.0335	0.2514	0.8412	0.1287	0.2028	0.2797	0.0	1.55155D 00
	0.0	LTE	0.0271	-0.5050	0.0271	0.2462	0.8776	0.1385	0.2143	0.2930	0.0	
3807.61	0.0	NLTE	0.0488	-0.1706	0.0488	0.7545	0.7498	0.1249	0.1896	0.2576	0.0	1.80059D 00
	0.0	LTE	0.0390	-0.2678	0.0390	0.7567	0.8080	0.1325	0.1986	0.2665	0.0	
3757.20	0.0	NLTE	0.0373	-0.2859	0.0373	0.5315	0.7576	0.1163	0.1797	0.2458	0.0	1.66260D 00
	0.0	LTE	0.0301	-0.3765	0.0301	0.5337	0.8430	0.1235	0.1879	0.2545	0.0	
3792.52	0.0	NLTE	0.0202	-0.5519	0.0202	0.0538	0.8800	0.1044	0.1640	0.2234	0.0	1.39606D 00
	0.0	LTE	0.0170	-0.6263	0.0170	0.0560	0.9020	0.1091	0.1699	0.2310	0.0	

Table 23

Line Data for Silicon II, T_{eff} = 17,500 K, Log g = 2.5, v_t = 15 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.3364	0.5634	0.3364	1.5891	0.0815	0.3159	0.3844	0.4639	0.0	0.6870
	0.0	LTE	0.3473	0.5773	0.3473	1.6440	0.1158	0.3428	0.4098	0.4768	0.0	
1533.43	0.0	NLTE	0.4391	0.7506	0.4391	3.0879	0.0077	0.3422	0.4041	0.4795	0.0	1.0316
	0.0	LTE	0.4369	0.7484	0.4369	3.1418	0.0736	0.3557	0.4198	0.5165	0.0	
1526.70	0.0	NLTE	0.3988	0.7108	0.3988	2.7849	0.0100	0.3306	0.3836	0.4366	0.0	1.0970
	0.0	LTE	0.3942	0.7057	0.3942	2.8388	0.0681	0.3403	0.3928	0.4452	0.0	
1264.73	1265.00	NLTE	0.8708	1.1317	0.8708	3.8542	0.0012	0.6189	0.6898	0.8484	0.0959	0.9227
	0.0	LTE	0.8945	1.1433	0.8945	3.9075	0.0389	0.6332	0.7001	0.8951	0.0945	
1260.42	0.0	NLTE	0.5589	0.9406	0.5589	3.5952	0.0015	0.3699	0.4464	0.5213	0.0	0.9076
	0.0	LTE	0.5798	0.9565	0.5798	3.6485	0.0354	0.3934	0.4621	0.5776	0.0	
992.68	0.0	NLTE	0.2867	0.7543	0.2867	3.1728	0.0002	0.2288	0.2719	0.3314	0.0	0.9187
	0.0	LTE	0.2906	0.7602	0.2906	3.2259	0.0062	0.2317	0.2773	0.3395	0.0	
989.87	0.0	NLTE	0.2652	0.7218	0.2652	2.8705	0.0003	0.2200	0.2648	0.2896	0.0	0.9359
	0.0	LTE	0.2674	0.7254	0.2674	2.9236	0.0054	0.2213	0.2571	0.2930	0.0	
3857.11	0.0	NLTE	0.3622	0.2664	0.3622	0.8330	0.3210	0.4094	0.5401	0.6626	0.0	2.5556
	0.0	LTE	0.2739	0.1451	0.2739	0.7882	0.4843	0.4108	0.5368	0.6561	0.0	
3863.69	0.0	NLTE	0.2900	0.1692	0.2900	0.5785	0.3964	0.3497	0.4812	0.6114	0.0	2.0896
	0.0	LTE	0.2197	0.0485	0.2197	0.5337	0.5378	0.3458	0.4751	0.6038	0.0	
2073.36	0.0	NLTE	0.2650	0.4003	0.2650	0.9201	0.1717	0.2593	0.3231	0.3838	0.0	1.6212
	0.0	LTE	0.2356	0.3492	0.2356	0.8763	0.2462	0.2507	0.3160	0.3780	0.0	
2072.68	0.0	NLTE	0.2358	0.3498	0.2358	0.7438	0.2017	0.2326	0.2978	0.3627	0.0	1.5484
	0.0	LTE	0.2082	0.2958	0.2082	0.7001	0.2782	0.2234	0.2908	0.3560	0.0	
6348.86	0.0	NLTE	0.6392	0.2967	0.6392	1.2717	0.3355	0.7385	0.9748	1.1827	0.0	17.5249
	0.0	LTE	0.3309	0.0107	0.3309	1.2355	0.6779	0.8317	1.0386	1.3010	0.0	
6373.13	0.0	NLTE	0.5161	0.2021	0.5161	0.9766	0.4049	0.6383	0.8756	1.0941	0.0	8.1584
	0.0	LTE	0.2818	-0.0606	0.2818	0.9404	0.6934	0.7149	0.9296	1.1338	0.0	
4132.06	0.0	NLTE	0.2961	0.1490	0.2961	0.8349	0.4561	0.4003	0.5482	0.6862	0.0	1.4863
	0.0	LTE	0.2605	0.0933	0.2605	0.8359	0.5429	0.4314	0.5743	0.7077	0.0	
4129.22	0.0	NLTE	0.2518	0.0789	0.2518	0.6758	0.5070	0.3643	0.5103	0.6527	0.0	1.3533
	0.0	LTE	0.2251	0.0303	0.2251	0.6759	0.5765	0.3914	0.5326	0.6707	0.0	
2906.54	0.0	NLTE	0.0893	-0.2187	0.0893	-0.0485	0.7009	0.1919	0.2892	0.3937	0.0	1.2751
	0.0	LTE	0.0767	-0.2846	0.0767	-0.0492	0.7459	0.1954	0.2930	0.3974	0.0	
2905.13	0.0	NLTE	0.0653	-0.3548	0.0653	-0.2248	0.7732	0.1817	0.2765	0.3798	0.0	1.2286
	0.0	LTE	0.0564	-0.4179	0.0564	-0.2255	0.8054	0.1838	0.2792	0.3825	0.0	
5057.39	5057.73	NLTE	0.3421	0.1240	0.3421	0.7884	0.5363	0.5185	0.7321	0.9505	0.0360	2.0766
	0.0	LTE	0.2665	0.0154	0.2665	0.7794	0.6455	0.5367	0.7482	0.9615	0.0375	
5042.43	0.0	NLTE	0.2267	-0.0535	0.2267	0.5237	0.6166	0.4115	0.5879	0.7617	0.0	1.7727
	0.0	LTE	0.1772	-0.1605	0.1772	0.5146	0.7036	0.4207	0.5955	0.7674	0.0	
4202.08	0.0	NLTE	0.0096	-1.3474	0.0096	-1.0751	0.9754	0.2369	0.3673	0.5196	0.0	0.9930
	0.0	LTE	0.0097	-1.3444	0.0097	-1.0744	0.9751	0.2353	0.3652	0.5170	0.0	

Table 24

Line Data for Silicon III, T_{eff} = 17,500 K, Log g = 2.5, v_t = 15 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	R0	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	14.9271	2.3662	14.9271	6.6806	0.0002	6.6382	10.3973	16.8438	-0.0057	1.0038
	1207.82	LTE	14.8995	2.3854	14.8995	6.6810	0.0617	7.2791	10.9207	17.5761	-0.0144	
1298.95	1303.32	NLTE	1.9495	1.4701	5.1792	4.8337	0.0013	0.6480	1.2126	2.3753	-0.0097	1.0378
	1294.55	LTE	1.9345	1.4667	5.1075	4.8361	0.0839	0.7830	1.3233	0.0	-0.0108	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	4.5205	1.9023	4.9272	5.0897	0.0005	0.9683	1.6665	0.0	-0.0154	1.0042
	1113.17	LTE	4.5217	1.9025	4.9189	5.0923	0.0392	1.0490	1.7362	0.0	-0.0183	
	1109.97											
	1109.94											
	1108.36											
957.39	0.0	NLTE	0.6750	1.1248	0.6750	4.0504	0.0013	0.3320	0.4403	0.7182	0.0	0.9946
	0.0	LTE	0.6766	1.1252	0.6766	4.0531	0.0179	0.3363	0.4486	0.7296	0.0	
1417.24	0.0	NLTE	0.5721	0.8997	0.5721	3.2897	0.0157	0.3542	0.4203	0.5689	0.0	1.0510
	0.0	LTE	0.5617	0.8918	0.5617	3.2906	0.0643	0.3640	0.4260	0.5840	0.0	
1312.59	0.0	NLTE	0.3375	0.7038	0.3375	2.5682	0.0324	0.2807	0.3341	0.3802	0.0	1.0114
	0.0	LTE	0.3367	0.7029	0.3367	2.5693	0.0392	0.2820	0.3352	0.3808	0.0	
1842.55	0.0	NLTE	0.2274	0.3852	0.2274	1.5089	0.3074	0.2493	0.3355	0.4150	0.0	1.1502
	0.0	LTE	0.2211	0.3728	0.2211	1.5111	0.3231	0.2446	0.3347	0.4153	0.0	
5741.33	0.0	NLTE	0.0735	-0.5990	0.0735	-0.0609	0.8864	0.4188	0.6343	0.8601	0.0	2.6212
	0.0	LTE	0.0444	-0.8177	0.0444	-0.0725	0.9338	0.4376	0.6588	0.8998	0.0	
2559.96	0.0	NLTE	0.0622	-0.3207	0.0622	-0.0173	0.8109	0.2193	0.3231	0.4385	0.0	1.1961
	0.0	LTE	0.0576	-0.3541	0.0576	-0.0179	0.8261	0.2205	0.3256	0.4417	0.0	
3087.13	0.0	NLTE	0.0772	-0.3079	0.0772	0.1261	0.7961	0.2500	0.3712	0.5077	0.0	1.6514
	0.0	LTE	0.0614	-0.4075	0.0614	0.1212	0.8407	0.2538	0.3780	0.5175	0.0	
4553.94	0.0	NLTE	0.2209	-0.0204	0.2209	0.8834	0.6410	0.4172	0.6034	0.8102	0.0	4.6846
	0.0	LTE	0.1271	-0.2604	0.1271	0.8605	0.8037	0.4349	0.6414	0.8474	0.0	
4569.13	0.0	NLTE	0.1809	-0.1086	0.1809	0.6630	0.6931	0.3929	0.5772	0.7850	0.0	3.8246
	0.0	LTE	0.1086	-0.3302	0.1086	0.6401	0.8266	0.4218	0.6195	0.8260	0.0	
4576.03	0.0	NLTE	0.1044	-0.3483	0.1044	0.1907	0.8056	0.3485	0.5256	0.7195	0.0	2.5790
	0.0	LTE	0.0678	-0.5355	0.0678	0.1678	0.8809	0.3801	0.5608	0.7620	0.0	
3807.61	0.0	NLTE	0.1446	-0.1267	0.1446	0.6996	0.7218	0.3584	0.5171	0.6840	0.0	2.6751
	0.0	LTE	0.1022	-0.2775	0.1022	0.7022	0.8078	0.3631	0.5334	0.6995	0.0	
3797.20	0.0	NLTE	0.1133	-0.2314	0.1133	0.4766	0.7675	0.3314	0.4822	0.6495	0.0	2.4471
	0.0	LTE	0.0798	-0.3838	0.0798	0.4792	0.8410	0.3428	0.4997	0.6669	0.0	
3792.52	0.0	NLTE	0.0631	-0.4850	0.0631	-0.0011	0.8548	0.2864	0.4284	0.5786	0.0	1.9187
	0.0	LTE	0.0459	-0.6235	0.0459	0.0015	0.8977	0.3002	0.4431	0.5991	0.0	

Table 25

Line Data for Silicon IV, T_{eff} = 17,500, Log g = 2.5, v_t = 15 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.9801	1.6238	4.3407	5.3443	0.0106	0.3971	0.8557	2.9894	0.0000	1.02827D 00
	0.0	LTE	2.9497	1.6193	4.2884	5.3409	0.1114	0.4624	1.1315	3.3667	0.0001	
1128.35	0.0	NLTE	0.9231	1.2065	0.9231	3.5728	0.0466	0.2776	0.4168	1.0187	0.0	1.02695D 00
	0.0	LTE	0.9118	1.2012	0.9118	3.5692	0.0800	0.2807	0.4315	1.0556	0.0	
1122.50	0.0	NLTE	0.6646	1.1661	0.6646	3.2655	0.0573	0.2594	0.3540	0.7076	0.0	1.03887D 00
	0.0	LTE	0.6537	1.1589	0.6537	3.2659	0.0985	0.2650	0.3702	0.7396	0.0	
1066.61	0.0	NLTE	0.1889	0.5415	0.1889	0.6778	0.2489	0.1604	0.2329	0.2928	0.0	1.26050D 00
	0.0	LTE	0.1779	0.5160	0.1779	0.6741	0.3126	0.1666	0.2398	0.2967	0.0	
1722.53	1722.56	NLTE	0.0637	-0.1363	0.0637	-0.5458	0.7673	0.1885	0.2724	0.3512	0.0038	1.41723D 00
	0.0	LTE	0.0575	-0.1631	0.0575	-0.5460	0.7926	0.1896	0.2762	0.3564	0.0037	
4090.02	0.0	NLTE	0.0123	-1.2256	0.0123	-1.6122	0.5743	0.2961	0.4641	0.6253	0.0	2.31149D 00
	0.0	LTE	0.0080	-1.4139	0.0080	-1.6205	0.5839	0.3129	0.4874	0.6607	0.0	
4117.26	0.0	NLTE	0.0092	-1.3360	0.0092	-2.1115	0.5801	0.2863	0.4493	0.6124	0.0	1.79120D 00
	0.0	LTE	0.0067	-1.4948	0.0067	-2.1198	0.5861	0.3006	0.4698	0.6312	0.0	

Table 26

Line Data for Silicon II, T_{eff} = 20,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0727	0.6232	0.0727	2.0796	0.0646	0.0679	0.0799	0.0887	0.0	1.7090
	0.0	LTE	0.0690	0.6005	0.0690	2.0567	0.1489	0.0712	0.0813	0.0894	0.0	
1533.43	0.0	NLTE	0.1923	1.1170	0.1923	3.5830	0.0059	0.0967	0.1312	0.2064	0.0	1.1134
	0.0	LTE	0.1830	1.0955	0.1830	3.5608	0.1075	0.1025	0.1419	0.2155	0.0	
1526.70	0.0	NLTE	0.1441	0.9935	0.1441	3.2801	0.0077	0.0848	0.1010	0.1554	0.0	1.1268
	0.0	LTE	0.1371	0.9720	0.1371	3.2579	0.0979	0.0879	0.1032	0.1613	0.0	
1264.73	1265.00	NLTE	0.6352	1.7195	0.6352	4.3517	0.0010	0.2486	0.5178	0.6866	0.0794	1.0663
	0.0	LTE	0.6182	1.7077	0.6182	4.3299	0.0594	0.2626	0.5235	0.6931	0.0785	
1260.42	0.0	NLTE	0.3818	1.4999	0.3818	4.0925	0.0013	0.1797	0.2656	0.4182	0.0	1.0614
	0.0	LTE	0.3706	1.4870	0.3706	4.0708	0.0538	0.1873	0.2703	0.4215	0.0	
992.68	0.0	NLTE	0.1553	1.2131	0.1553	3.6739	0.0001	0.0756	0.1106	0.1688	0.0	1.0180
	0.0	LTE	0.1540	1.2094	0.1540	3.6523	0.0099	0.0759	0.1107	0.1587	0.0	
989.87	0.0	NLTE	0.1143	1.0811	0.1143	3.3717	0.0002	0.0629	0.0774	0.1230	0.0	1.0186
	0.0	LTE	0.1134	1.0776	0.1134	3.3500	0.0085	0.0630	0.0774	0.1228	0.0	
3857.11	0.0	NLTE	0.0908	0.3903	0.0908	1.4256	0.2860	0.0990	0.1277	0.1548	0.0	3.0756
	0.0	LTE	0.0733	0.2976	0.0733	1.4048	0.4601	0.1080	0.1355	0.1590	0.0	
3863.69	0.0	NLTE	0.0787	0.3276	0.0787	1.1711	0.3287	0.0877	0.1173	0.1458	0.0	2.4611
	0.0	LTE	0.0649	0.2437	0.0649	1.1503	0.4748	0.0983	0.1226	0.1498	0.0	
2073.36	0.0	NLTE	0.0687	0.5387	0.0687	1.5364	0.1263	0.0613	0.0768	0.0905	0.0	1.8370
	0.0	LTE	0.0609	0.4867	0.0609	1.5169	0.2477	0.0641	0.0785	0.0923	0.0	
2072.68	0.0	NLTE	0.0630	0.5013	0.0630	1.3601	0.1414	0.0573	0.0725	0.0858	0.0	1.7948
	0.0	LTE	0.0560	0.4504	0.0560	1.3406	0.2572	0.0593	0.0741	0.0867	0.0	
6348.86	0.0	NLTE	0.1402	0.3626	0.1402	1.8360	0.3606	0.1416	0.2022	0.2609	0.0	6.0656
	0.0	LTE	0.0861	0.1511	0.0861	1.8229	0.6898	0.2019	0.2492	0.3015	0.0	
6373.13	0.0	NLTE	0.1152	0.2755	0.1152	1.5409	0.4234	0.1300	0.1897	0.2472	0.0	5.2338
	0.0	LTE	0.0755	0.0921	0.0755	1.5277	0.6892	0.1797	0.2290	0.2715	0.0	
4132.06	0.0	NLTE	0.1065	0.4298	0.1065	1.5269	0.3016	0.1003	0.1387	0.1751	0.0	1.9951
	0.0	LTE	0.0865	0.3393	0.0865	1.5215	0.4971	0.1194	0.1542	0.1906	0.0	
4129.22	0.0	NLTE	0.0943	0.3774	0.0943	1.3679	0.3351	0.0937	0.1312	0.1679	0.0	1.9604
	0.0	LTE	0.0776	0.2923	0.0776	1.3626	0.5086	0.1118	0.1450	0.1769	0.0	
2906.54	0.0	NLTE	0.0377	0.1316	0.0377	0.6212	0.4958	0.0496	0.0710	0.0940	0.0	1.5222
	0.0	LTE	0.0322	0.0636	0.0322	0.6143	0.5905	0.0531	0.0750	0.0968	0.0	
2905.13	0.0	NLTE	0.0307	0.0426	0.0307	0.4449	0.5613	0.0447	0.0664	0.0898	0.0	1.3971
	0.0	LTE	0.0266	-0.0193	0.0266	0.4385	0.6344	0.0483	0.0691	0.0921	0.0	
5057.39	5057.73	NLTE	0.0893	0.2655	0.1290	1.4483	0.4529	0.1151	0.1586	0.2005	0.0000	1.9372
	0.0	LTE	0.0712	0.1669	0.1059	1.4434	0.6041	0.1359	0.1743	0.2101	0.0000	
5042.43	0.0	NLTE	0.0739	0.1847	0.0739	1.1929	0.5039	0.1028	0.1453	0.1859	0.0	2.1838
	0.0	LTE	0.0602	0.0959	0.0602	1.1879	0.6274	0.1186	0.1564	0.1952	0.0	
4202.08	0.0	NLTE	0.0107	-0.5749	0.0107	-0.4896	0.9095	0.0582	0.0947	0.1403	0.0	0.9910
	0.0	LTE	0.0108	-0.5715	0.0108	-0.4881	0.9076	0.0576	0.0937	0.1390	0.0	

Table 27

Line Data for Silicon III, T_{eff} = 20,000 K, Log g = 4 0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	6.9121	2.7767	6.9121	6.7435	0.0006	2.9902	4.9851	6.0420	-0.0471	1.0052
	1207.52	LTE	6.8945	2.7756	6.8945	6.7433	0.1031	3.5113	5.3407	8.4752	-0.0503	
1298.95	1303.32	NLTE	1.2608	2.0056	3.4138	5.1217	0.0017	0.3858	0.7836	1.4303	-0.0084	1.0107
	1294.55	LTE	1.2551	2.0037	3.3978	5.1334	0.1101	0.5039	0.8881	1.5684	-0.0106	
	1256.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.7299	2.4062	3.2313	5.4135	0.0006	0.5952	1.0454	1.7876	-0.0066	1.0014
	1113.17	LTE	2.7290	2.4080	3.2291	5.4149	0.0497	0.6607	1.0971	1.8562	-0.0083	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.4359	1.6591	0.4359	4.4499	0.0009	0.1809	0.2983	0.5133	0.0	0.9995
	0.0	LTE	0.4360	1.6592	0.4360	4.4513	0.0273	0.1902	0.3058	0.5257	0.0	
1417.24	0.0	NLTE	0.2940	1.3355	0.2940	3.7349	0.0119	0.0873	0.1800	0.3440	0.0	1.0303
	0.0	LTE	0.2898	1.3292	0.2898	3.7350	0.1224	0.1100	0.2047	0.3735	0.0	
1312.59	0.0	NLTE	0.1266	1.0030	0.1266	3.0445	0.0209	0.0644	0.0854	0.1415	0.0	1.0185
	0.0	LTE	0.1257	0.9998	0.1257	3.0447	0.0523	0.0663	0.0873	0.1451	0.0	
1842.55	0.0	NLTE	0.0586	0.5213	0.0586	1.9590	0.2481	0.0522	0.0725	0.0932	0.0	1.0766
	0.0	LTE	0.0576	0.5132	0.0576	1.9595	0.2673	0.0525	0.0731	0.0937	0.0	
5741.33	0.0	NLTE	0.0160	-0.5355	0.0160	0.2256	0.8807	0.0803	0.1268	0.1778	0.0	1.4631
	0.0	LTE	0.0131	-0.6237	0.0131	0.2258	0.9058	0.0836	0.1312	0.1832	0.0	
2559.96	0.0	NLTE	0.0178	-0.1387	0.0178	0.4202	0.7589	0.0440	0.0672	0.0926	0.0	1.1795
	0.0	LTE	0.0166	-0.1708	0.0166	0.4198	0.7803	0.0450	0.0685	0.0946	0.0	
3087.13	0.0	NLTE	0.0210	-0.1486	0.0210	0.4803	0.7319	0.0476	0.0734	0.1018	0.0	1.6270
	0.0	LTE	0.0169	-0.2429	0.0169	0.4813	0.7922	0.0498	0.0762	0.1049	0.0	
4553.94	0.0	NLTE	0.0479	0.0407	0.0479	1.1964	0.6535	0.0828	0.1239	0.1713	0.0	1.7209
	0.0	LTE	0.0389	-0.0503	0.0389	1.1964	0.7379	0.0887	0.1334	0.1828	0.0	
4569.13	0.0	NLTE	0.0393	-0.0467	0.0393	0.9760	0.7031	0.0787	0.1200	0.1655	0.0	1.5700
	0.0	LTE	0.0327	-0.1261	0.0327	0.9759	0.7678	0.0855	0.1286	0.1766	0.0	
4576.03	0.0	NLTE	0.0231	-0.2781	0.0231	0.5037	0.8079	0.0713	0.1114	0.1558	0.0	1.3369
	0.0	LTE	0.0202	-0.3374	0.0202	0.5037	0.8396	0.0762	0.1168	0.1608	0.0	
3807.61	0.0	NLTE	0.0255	-0.1558	0.0255	0.7985	0.7536	0.0649	0.0977	0.1331	0.0	1.5159
	0.0	LTE	0.0214	-0.2320	0.0214	0.8025	0.7980	0.0663	0.1000	0.1358	0.0	
3797.20	0.0	NLTE	0.0191	-0.2795	0.0191	0.5754	0.8032	0.0599	0.0921	0.1272	0.0	1.4455
	0.0	LTE	0.0161	-0.3543	0.0161	0.5795	0.8382	0.0616	0.0944	0.1297	0.0	
3792.52	0.0	NLTE	0.0098	-0.5696	0.0098	0.0973	0.8887	0.0531	0.0836	0.1172	0.0	1.2895
	0.0	LTE	0.0084	-0.6336	0.0084	0.1018	0.9059	0.0545	0.0856	0.1194	0.0	

Table 28

Line Data for Silicon IV, T_{eff} = 20,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	1.2963	1.5878	2.0992	5.5554	0.0118	0.0872	0.3623	1.3578	0.0000	1.00355D 00
	0.0	LTE	1.2971	1.5874	2.0953	5.5555	0.1144	0.1325	0.4893	1.5568	0.0000	
1128.35	0.0	NLTE	0.5468	1.7040	0.5468	4.4144	0.0473	0.0674	0.2127	0.6507	0.0	1.00370D 00
	0.0	LTE	0.5458	1.7032	0.5458	4.4141	0.0581	0.0688	0.2189	0.6590	0.0	
1122.50	0.0	NLTE	0.3803	1.5465	0.3803	4.1111	0.0578	0.0611	0.1503	0.4512	0.0	1.00490D 00
	0.0	LTE	0.3794	1.5475	0.3794	4.1109	0.0702	0.0620	0.1551	0.4569	0.0	
1066.61	0.0	NLTE	0.0978	0.9811	0.0978	2.2448	0.2217	0.0433	0.0642	0.1185	0.0	1.04036D 00
	0.0	LTE	0.0962	0.9736	0.0962	2.2446	0.2632	0.0451	0.0671	0.1249	0.0	
1722.53	1722.56	NLTE	0.0151	-0.0381	0.0151	0.1244	0.8034	0.0422	0.0716	0.1011	0.0059	1.15316D 00
	0.0	LTE	0.0144	-0.0603	0.0144	0.1242	0.8153	0.0425	0.0727	0.1022	0.0061	
4090.02	0.0	NLTE	0.0004	-2.0010	0.0004	-2.1540	0.9959	0.0563	0.0901	0.1275	0.0	1.73201D 00
	0.0	LTE	0.0003	-2.1816	0.0003	-2.1901	0.9973	0.0574	0.0917	0.1299	0.0	
4117.26	0.0	NLTE	0.0003	-2.1814	0.0003	-2.4934	0.9973	0.0555	0.0889	0.1258	0.0	1.47535D 00
	0.0	LTE	0.0002	-2.3173	0.0002	-2.4855	0.9980	0.0564	0.0903	0.1280	0.0	

Table 29

Line Data for Silicon II , T_{eff} = 20,000 K, Log g = 4.0, v_t = 0 km /s, Abundance = 0.4 X Standard

LINE	OVERLAPS		W(EQ)	LOG|b/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1868.00	0.0	NLTE	0.0657	0.5788	0.0657	1.6891	0.0842	0.0549	0.0748	0.0893	0.0	1.4293
	0.0	LTE	0.0628	0.5596	0.0628	1.6588	0.1490	0.0579	0.0764	0.0902	0.0	
1533.43	0.0	NLTE	0.1351	0.9635	0.1351	3.1923	0.0079	0.0796	0.1018	0.1364	0.0	1.1447
	0.0	LTE	0.1279	0.9399	0.1279	3.1629	0.0936	0.0844	0.1041	0.1389	0.0	
1526.70	0.0	NLTE	0.1067	0.8628	0.1067	2.8894	0.0102	0.0701	0.0852	0.1091	0.0	1.1654
	0.0	LTE	0.1012	0.8402	0.1012	2.8600	0.0863	0.0724	0.0867	0.1099	0.0	
1264.73	1265.00	NLTE	0.3113	1.4098	0.4355	3.9608	0.0014	0.1568	0.2325	0.0	0.0016	1.0830
	0.0	LTE	0.3009	1.3950	0.4210	3.9319	0.0501	0.1612	0.2342	0.0	0.0017	
1260.42	0.0	NLTE	0.2483	1.3131	0.2483	3.7017	0.0018	0.1170	0.1694	0.2813	0.0	1.0794
	0.0	LTE	0.2393	1.2969	0.2393	3.6729	0.0452	0.1194	0.1700	0.2801	0.0	
992.68	0.0	NLTE	0.1060	1.0471	0.1060	3.2830	0.0002	0.0623	0.0734	0.1072	0.0	1.0220
	0.0	LTE	0.1050	1.0431	0.1050	3.2544	0.0080	0.0624	0.0733	0.1068	0.0	
989.87	0.0	NLTE	0.0825	0.9395	0.0825	2.9807	0.0003	0.0531	0.0650	0.0785	0.0	1.0232
	0.0	LTE	0.0818	0.9359	0.0818	2.9521	0.0070	0.0531	0.0649	0.0782	0.0	
3857.11	0.0	NLTE	0.0738	0.3003	0.0738	1.0405	0.3415	0.0825	0.1106	0.1387	0.0	2.6115
	0.0	LTE	0.0588	0.2020	0.0588	1.0069	0.4909	0.0856	0.1131	0.1406	0.0	
3863.69	0.0	NLTE	0.0617	0.2217	0.0617	0.7860	0.3975	0.0750	0.1035	0.1319	0.0	2.1339
	0.0	LTE	0.0497	0.1284	0.0497	0.7524	0.5236	0.0771	0.1051	0.1331	0.0	
2073.36	0.0	NLTE	0.0566	0.4547	0.0566	1.1506	0.1684	0.0492	0.0649	0.0832	0.0	1.7850
	0.0	LTE	0.0497	0.3986	0.0497	1.1189	0.2739	0.0495	0.0652	0.0839	0.0	
2072.68	0.0	NLTE	0.0511	0.4104	0.0511	0.9744	0.1922	0.0464	0.0614	0.0763	0.0	1.7206
	0.0	LTE	0.0449	0.3540	0.0449	0.9427	0.2941	0.0466	0.0616	0.0765	0.0	
6348.86	0.0	NLTE	0.1108	0.2605	0.1108	1.4490	0.4325	0.1319	0.1848	0.2376	0.0	6.4782
	0.0	LTE	0.0683	0.0504	0.0683	1.4250	0.7008	0.1557	0.2095	0.2815	0.0	
6373.13	0.0	NLTE	0.0894	0.1655	0.0894	1.1538	0.4981	0.1221	0.1735	0.2249	0.0	4.6626
	0.0	LTE	0.0590	-0.0152	0.0590	1.1298	0.7084	0.1431	0.1911	0.2392	0.0	
4132.06	0.0	NLTE	0.0810	0.3108	0.0810	1.1337	0.3771	0.0872	0.1213	0.1554	0.0	1.9911
	0.0	LTE	0.0659	0.2216	0.0659	1.1237	0.5289	0.0946	0.1283	0.1693	0.0	
4129.22	0.0	NLTE	0.0707	0.2523	0.0707	0.9747	0.4175	0.0823	0.1157	0.1491	0.0	1.8569
	0.0	LTE	0.0583	0.1685	0.0583	0.9647	0.5494	0.0890	0.1214	0.1538	0.0	
2906.54	0.0	NLTE	0.0243	-0.0590	0.0243	0.2311	0.6267	0.0330	0.0640	0.0912	0.0	1.4334
	0.0	LTE	0.0202	-0.1389	0.0202	0.2168	0.6983	0.0349	0.0662	0.0926	0.0	
2905.13	0.0	NLTE	0.0185	-0.1765	0.0185	0.0548	0.7000	0.0298	0.0595	0.0885	0.0	1.3486
	0.0	LTE	0.0155	-0.2633	0.0155	0.0405	0.7544	0.0310	0.0615	0.0897	0.0	
5057.39	5057.73	NLTE	0.0693	0.1556	0.0932	1.0563	0.5184	0.1022	0.1413	0.1805	0.0000	1.7611
	0.0	LTE	0.0554	0.0586	0.0757	1.0455	0.6353	0.1090	0.1472	0.1854	0.0000	
5042.43	0.0	NLTE	0.0550	0.0560	0.0550	0.8009	0.5795	0.0854	0.1307	0.1705	0.0	1.8991
	0.0	LTE	0.0446	-0.0346	0.0446	0.7901	0.6729	0.0971	0.1355	0.1739	0.0	
4202.08	0.0	NLTE	0.0046	-0.9397	0.0046	-0.8859	0.9595	0.0476	0.0956	0.1443	0.0	1.0079
	0.0	LTE	0.0046	-0.9428	0.0046	-0.8861	0.9592	0.0467	0.0940	0.1430	0.0	

Table 30

Line Data for Silicon III, T_{eff} = 20,000 K, Log g = 4.0, v_t = 0 km/s, Abundance = 0.4 X Standard

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	4.3810	2.5786	4.3810	6.3459	0.0008	1.9055	3.0400	4.9976	-0.0027	1.0072
	1207.52	LTE	4.3653	2.5771	4.3653	6.3454	0.0980	2.2121	3.3130	5.2962	0.0010	
1298.95	1303.32	NLTE	0.7186	1.7615	2.2325	4.7347	0.0023	0.2533	0.4901	0.8795	-0.0094	1.0328
	1294.55	LTE	0.7072	1.7546	2.1979	4.7355	0.1122	0.3269	0.5563	0.9546	-0.0093	
	1298.89											
	1301.15											
	1296.72											
1113.23	1113.20	NLTE	1.6089	2.1785	2.1150	5.0164	0.0008	0.3779	0.6551	1.1187	-0.0049	1.0060
	1113.17	LTE	1.6043	2.1773	2.1088	5.0171	0.0512	0.4204	0.6890	1.1661	-0.0047	
	1109.97											
	1109.94											
	1108.36											
957.39	0.0	NLTE	0.2803	1.4473	0.2803	4.0528	0.0014	0.1163	0.1899	0.3188	0.0	1.0061
	0.0	LTE	0.2794	1.4460	0.2794	4.0534	0.0248	0.1216	0.1954	0.3241	0.0	
1417.24	0.0	NLTE	0.1945	1.1561	0.1945	3.3375	0.0184	0.0738	0.1178	0.2202	0.0	1.03286D 00
	0.0	LTE	0.1916	1.1497	0.1916	3.3371	0.0937	0.0802	0.1287	0.2350	0.0	
1312.59	0.0	NLTE	0.0925	0.8666	0.0925	2.6471	0.0335	0.0579	0.0745	0.0961	0.0	1.01727D 00
	0.0	LTE	0.0919	0.8640	0.0919	2.6459	0.0487	0.0587	0.0747	0.0966	0.0	
1842.55	0.0	NLTE	0.0465	0.4207	0.0465	1.5613	0.3272	0.0466	0.0664	0.0856	0.0	1.06317D 00
	0.0	LTE	0.0458	0.4140	0.0458	1.5615	0.3352	0.0461	0.0663	0.0857	0.0	
5741.33	0.0	NLTE	0.0089	-0.7917	0.0089	-0.1769	0.9296	0.0752	0.1193	0.1649	0.0	1.35223D 00
	0.0	LTE	0.0073	-0.8743	0.0073	-0.1721	0.9432	0.0773	0.1227	0.1700	0.0	
2559.96	0.0	NLTE	0.0112	-0.3416	0.0112	0.0225	0.8358	0.0402	0.0631	0.0883	0.0	1.15536D 00
	0.0	LTE	0.0104	-0.3736	0.0104	0.0219	0.8492	0.0407	0.0637	0.0892	0.0	
3087.13	0.0	NLTE	0.0125	-0.3735	0.0125	0.0829	0.8287	0.0438	0.0692	0.0961	0.0	1.41802D 00
	0.0	LTE	0.0104	-0.4541	0.0104	0.0834	0.8536	0.0448	0.0705	0.0983	0.0	
4553.94	0.0	NLTE	0.0327	-0.1255	0.0327	0.8012	0.7401	0.0749	0.1158	0.1612	0.0	1.66756D 00
	0.0	LTE	0.0262	-0.2214	0.0262	0.7985	0.8021	0.0799	0.1229	0.1577	0.0	
4569.13	0.0	NLTE	0.0261	-0.2245	0.0261	0.5807	0.7848	0.0719	0.1125	0.1575	0.0	1.52144D 00
	0.0	LTE	0.0215	-0.3083	0.0215	0.5780	0.8308	0.0765	0.1181	0.1634	0.0	
4576.03	0.0	NLTE	0.0141	-0.4917	0.0141	0.1084	0.8731	0.0659	0.1045	0.1468	0.0	1.31017D 00
	0.0	LTE	0.0122	-0.5564	0.0122	0.1053	0.8942	0.0698	0.1083	0.1514	0.0	
3807.61	0.0	NLTE	0.0163	-0.3509	0.0163	0.4004	0.8297	0.0585	0.0910	0.1261	0.0	1.43974D 00
	0.0	LTE	0.0136	-0.4296	0.0136	0.4043	0.8501	0.0593	0.0923	0.1280	0.0	
3797.20	0.0	NLTE	0.0116	-0.4964	0.0116	0.1774	0.8715	0.0547	0.0862	0.1196	0.0	1.38589D 00
	0.0	LTE	0.0097	-0.5755	0.0097	0.1815	0.8944	0.0556	0.0875	0.1217	0.0	
3792.52	0.0	NLTE	0.0053	-0.8364	0.0053	-0.3003	0.9360	0.0496	0.0786	0.1086	0.0	1.26670D 00
	0.0	LTE	0.0045	-0.9071	0.0045	-0.2951	0.9463	0.0503	0.0798	0.1101	0.0	

Table 31

Line Data for Silicon II, $T_{eff.}$ = 20,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG[W/D]	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1316	0.5781	0.1316	1.7893	0.0791	0.1241	0.1466	0.1632	0.0	1.5706
	0.0	LTE	0.1255	0.5572	0.1255	1.7681	0.1485	0.1301	0.1485	0.1640	0.0	
1533.43	0.0	NLTE	0.2323	0.8963	0.2323	3.2956	0.0072	0.1583	0.1810	0.2196	0.0	1.1641
	0.0	LTE	0.2202	0.8731	0.2202	3.2753	0.0965	0.1627	0.1842	0.2246	0.0	
1526.70	0.0	NLTE	0.1925	0.8166	0.1925	2.9927	0.0094	0.1501	0.1645	0.1889	0.0	1.2072
	0.0	LTE	0.1830	0.7945	0.1830	2.9724	0.0887	0.1527	0.1661	0.1905	0.0	
1264.73	1265.00	NLTE	0.6623	1.4350	0.6623	4.0653	0.0013	0.2551	0.5272	0.6986	0.0812	1.0715
	0.0	LTE	0.6445	1.4232	0.6445	4.0466	0.0523	0.2669	0.5306	0.7041	0.0802	
1260.42	0.0	NLTE	0.3930	1.2098	0.3930	3.8072	0.0016	0.1875	0.2787	0.4311	0.0	1.0654
	0.0	LTE	0.3813	1.1967	0.3813	3.7875	0.0472	0.1929	0.2833	0.4342	0.0	
992.68	0.0	NLTE	0.1757	0.9640	0.1757	3.3882	0.0002	0.1127	0.1260	0.1689	0.0	1.0105
	0.0	LTE	0.1750	0.9622	0.1750	3.3668	0.0084	0.1127	0.1262	0.1697	0.0	
989.87	0.0	NLTE	0.1427	0.8747	0.1427	3.0860	0.0002	0.1024	0.1138	0.1295	0.0	1.0146
	0.0	LTE	0.1420	0.6727	0.1420	3.0655	0.0073	0.1024	0.1137	0.1295	0.0	
3857.11	0.0	NLTE	0.1532	0.3150	0.1532	1.1504	0.3291	0.1730	0.2325	0.2795	0.0	2.8865
	0.0	LTE	0.1222	0.2168	0.1222	1.1256	0.4821	0.1827	0.2385	0.2828	0.0	
3863.69	0.0	NLTE	0.1292	0.2403	0.1292	0.8958	0.3807	0.1555	0.2091	0.2636	0.0	2.2374
	0.0	LTE	0.1047	0.1488	0.1047	0.8710	0.5090	0.1606	0.2135	0.2660	0.0	
2073.36	0.0	NLTE	0.1150	0.4598	0.1150	1.2620	0.1596	0.1104	0.1365	0.1627	0.0	1.9408
	0.0	LTE	0.1012	0.4044	0.1012	1.2390	0.2664	0.1125	0.1372	0.1634	0.0	
2072.68	0.0	NLTE	0.1045	0.4186	0.1045	1.0857	0.1810	0.0984	0.1285	0.1524	0.0	1.8049
	0.0	LTE	0.0921	0.3638	0.0921	1.0627	0.2831	0.0996	0.1291	0.1527	0.0	
6348.86	0.0	NLTE	0.2265	0.2683	0.2265	1.5533	0.4176	0.2738	0.3853	0.4806	0.0	10.3302
	0.0	LTE	0.1375	0.0514	0.1375	1.5383	0.6975	0.3622	0.4414	0.5335	0.0	
6373.13	0.0	NLTE	0.1854	0.1797	0.1954	1.2582	0.4825	0.2517	0.3578	0.4523	0.0	6.1609
	0.0	LTE	0.1212	-0.0049	0.1212	1.2431	0.7029	0.3095	0.4044	0.4837	0.0	
4132.06	0.0	NLTE	0.1621	0.3095	0.1621	1.2578	0.3597	0.1796	0.2485	0.3055	0.0	2.2753
	0.0	LTE	0.1313	0.2182	0.1313	1.2547	0.5194	0.2026	0.2652	0.3225	0.0	
4129.22	0.0	NLTE	0.1431	0.2558	0.1431	1.0988	0.3982	0.1686	0.2341	0.2936	0.0	2.0467
	0.0	LTE	0.1179	0.1714	0.1179	1.0957	0.5370	0.1855	0.2497	0.3031	0.0	
2906.54	0.0	NLTE	0.0524	-0.0279	0.0524	0.3443	0.5954	0.0826	0.1262	0.1671	0.0	1.4326
	0.0	LTE	0.0445	-0.0990	0.0445	0.3378	0.6664	0.0864	0.1300	0.1721	0.0	
2905.13	0.0	NLTE	0.0408	-0.1366	0.0408	0.1680	0.6672	0.0766	0.1187	0.1591	0.0	1.3305
	0.0	LTE	0.0351	-0.2024	0.0351	0.1615	0.7203	0.0789	0.1216	0.1613	0.0	
5057.39	5057.73	NLTE	0.1443	0.1712	0.1931	1.1703	0.5079	0.2115	0.2933	0.0	0.0009	1.8784
	0.0	LTE	0.1169	0.0799	0.1384	1.1660	0.6266	0.2304	0.3120	0.0	0.0020	
5042.43	0.0	NLTE	0.1145	0.0719	0.1145	0.9148	0.5650	0.1897	0.2600	0.3370	0.0	1.9647
	0.0	LTE	0.0938	-0.0145	0.0938	0.9105	0.6599	0.2024	0.2733	0.3460	0.0	
4202.08	0.0	NLTE	0.0109	-0.8692	0.0109	-0.6827	0.9422	0.1023	0.1634	0.2346	0.0	0.9726
	0.0	LTE	0.0112	-0.8584	0.0112	-0.6799	0.9403	0.1018	0.1623	0.2335	0.0	

Table 32

Line Data for Silicon III, T_{eff} = 20,000 K, Log g = 4 0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(F))	R0	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	6.8554	2.4704	6.8554	6.4772	0.0007	2.9747	4.7697	7.8184	0.0008	1.00703D 00
	1207.52	LTE	6.8313	2.4689	6.8313	6.4759	0.0988	3.4741	5.1956	8.3990	0.0007	
1298.95	1303.32	NLTE	1.0872	1.6387	3.4601	4.8810	0.0021	0.3886	0.7682	1.4617	-0.0095	1.01771D 00
	1294.55	LTE	1.0762	1.6342	3.4298	4.8825	0.1115	0.5063	0.9723	1.6327	-0.0090	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.3979	2.0492	3.0929	5.0911	0.0007	0.5604	0.9763	1.7188	-0.0058	1.00414D 00
	1113.17	LTE	2.3936	2.0484	3.0870	5.0927	0.0515	0.6238	1.0297	1.7569	-0.0059	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.4432	1.3637	0.4432	4.2012	0.0013	0.1846	0.2983	0.4899	0.0	1.00169D 00
	0.0	LTE	0.4428	1.3633	0.4428	4.2025	0.0261	0.1923	0.3070	0.4997	0.0	
1417.24	0.0	NLTE	0.3168	1.0652	0.3168	3.4866	0.0164	0.1394	0.1904	0.3635	0.0	1.04480D 00
	0.0	LTE	0.3107	1.0566	0.3107	3.4866	0.1005	0.1493	0.2087	0.3844	0.0	
1312.59	0.0	NLTE	0.1592	0.7956	0.1592	2.7976	0.0300	0.1104	0.1349	0.1631	0.0	1.02428D 00
	0.0	LTE	0.1580	0.7963	0.1580	2.7976	0.0487	0.1117	0.1357	0.1641	0.0	
1842.55	0.0	NLTE	0.0898	0.4040	0.0898	1.7000	0.3057	0.0924	0.1277	0.1607	0.0	1.07101D 00
	0.0	LTE	0.0884	0.3972	0.0884	1.7004	0.3167	0.0921	0.1279	0.1610	0.0	
5741.33	0.0	NLTE	0.0204	-0.7343	0.0204	-0.0368	0.9161	0.1485	0.2333	0.3206	0.0	1.38388D 00
	0.0	LTE	0.0168	-0.8181	0.0168	-0.0335	0.9324	0.1527	0.2398	0.3260	0.0	
2559.96	0.0	NLTE	0.0234	-0.6324	0.0234	0.1545	0.8141	0.0777	0.1206	0.1656	0.0	1.16587D 00
	0.0	LTE	0.0218	-0.6544	0.0218	0.1541	0.8293	0.0787	0.1219	0.1674	0.0	
3087.13	0.0	NLTE	0.0275	-0.5345	0.0275	0.2017	0.8049	0.0872	0.1362	0.1850	0.0	1.48026D 00
	0.0	LTE	0.0226	-0.6459	0.0226	0.2026	0.8432	0.0895	0.1394	0.1898	0.0	
4553.94	0.0	NLTE	0.0682	-0.1667	0.0682	0.5500	0.7138	0.1486	0.2267	0.3096	0.0	1.75614D 00
	0.0	LTE	0.0545	-0.2660	0.0545	0.5488	0.7820	0.1591	0.2383	0.3213	0.0	
4569.13	0.0	NLTE	0.0551	-0.2626	0.0551	0.7256	0.7595	0.1417	0.2192	0.3009	0.0	1.58325D 00
	0.0	LTE	0.0453	-0.2877	0.0453	0.7284	0.8109	0.1512	0.2296	0.3119	0.0	
4576.03	0.0	NLTE	0.0310	-0.4534	0.0310	0.2573	0.8522	0.1283	0.2015	0.2756	0.0	1.33797D 00
	0.0	LTE	0.0267	-0.5182	0.0267	0.2562	0.8766	0.1340	0.2086	0.2847	0.0	
3807.61	0.0	NLTE	0.0347	-0.3247	0.0347	0.5349	0.8085	0.1141	0.1761	0.2392	0.0	1.47660D 00
	0.0	LTE	0.0289	-0.4037	0.0289	0.5396	0.8429	0.1161	0.1790	0.2435	0.0	
3797.20	0.0	NLTE	0.0252	-0.4619	0.0252	0.3119	0.8523	0.1063	0.1659	0.2241	0.0	1.41329D 00
	0.0	LTE	0.0210	-0.5406	0.0210	0.3166	0.8788	0.1084	0.1690	0.2290	0.0	
3792.52	0.0	NLTE	0.0120	-0.7634	0.0120	-0.1657	0.9227	0.0952	0.1489	0.2067	0.0	1.28139D 00
	0.0	LTE	0.0102	-0.8534	0.0102	-0.1610	0.9351	0.0968	0.1516	0.2088	0.0	

Table 33

Line Data for Silicon IV, T_{eff} = 20,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	1.4045	1.7193	2.1720	5.3637	0.0144	0.1562	0.3682	1.3638	0.0000	1.00376D 00
	0.0	LTE	1.4036	1.7190	2.1682	5.3637	0.1291	0.2206	0.5116	1.6323	0.0000	
1128.35	0.0	NLTE	0.5731	1.4217	0.5731	4.1926	0.0561	0.1048	0.2262	0.6580	0.0	1.00348D 00
	0.0	LTE	0.5722	1.4210	0.5722	4.1924	0.0683	0.1080	0.2293	0.6667	0.0	
1122.50	0.0	NLTE	0.4008	1.2667	0.4008	3.8854	0.0706	0.0903	0.1931	0.4568	0.0	1.00545D 00
	0.0	LTE	0.3998	1.2676	0.3998	3.8851	0.0864	0.0937	0.1967	0.4663	0.0	
1066.61	0.0	NLTE	0.1095	0.7275	0.1095	2.0304	0.2522	0.0460	0.0919	0.1720	0.0	1.05282D 00
	0.0	LTE	0.1073	0.7184	0.1073	2.0302	0.2914	0.0477	0.0953	0.1770	0.0	
1722.53	1722.56	NLTE	0.0191	-0.2391	0.0191	-0.0585	0.8290	0.0608	0.1099	0.1514	0.0039	1.15102D 00
	0.0	LTE	0.0182	-0.2410	0.0182	-0.0587	0.8394	0.0623	0.1112	0.1525	0.0039	
4090.02	0.0	NLTE	0.0004	-2.2667	0.0004	-2.4406	0.9574	0.0708	0.1417	0.2210	0.0	1.64614D 00
	0.0	LTE	0.0003	-2.4421	0.0003	-2.4368	0.9583	0.0718	0.1437	0.2284	0.0	
4117.26	0.0	NLTE	0.0003	-2.4555	0.0003	-2.7400	0.9983	0.0702	0.1405	0.2134	0.0	1.43213D 00
	0.0	LTE	0.0002	-2.5577	0.0002	-2.7362	0.9987	0.0709	0.1418	0.2190	0.0	

Table 34

Line Data for Silicon II, T_{eff} = 20,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0681	0.5946	0.0681	1.8186	0.0832	0.0595	0.0776	0.0908	0.0	1.1881
	0.0	LTE	0.0671	0.5882	0.0671	1.8312	0.1537	0.0700	0.0814	0.0928	0.0	
1533.43	0.0	NLTE	0.1403	0.9800	0.1403	3.3140	0.0079	0.0834	0.1043	0.1411	0.0	1.0364
	0.0	LTE	0.1381	0.9732	0.1381	3.3265	0.1218	0.0931	0.1102	0.1557	0.0	
1526.70	0.0	NLTE	0.1103	0.8776	0.1103	3.0111	0.0097	0.0716	0.0887	0.1111	0.0	1.0611
	0.0	LTE	0.1080	0.8682	0.1080	3.0236	0.1112	0.0773	0.0954	0.1144	0.0	
1264.73	1265.00	NLTE	0.3327	1.4387	0.4614	4.0765	0.0013	0.1659	0.2497	0.0	0.0025	0.9893
	0.0	LTE	0.3385	1.4462	0.4634	4.0891	0.0718	0.1842	0.2749	0.0	0.0021	
1260.42	0.0	NLTE	0.2647	1.3408	0.2647	3.8175	0.0015	0.1235	0.1802	0.3031	0.0	0.9852
	0.0	LTE	0.2665	1.3438	0.2665	3.8301	0.0660	0.1354	0.1923	0.3214	0.0	
992.68	0.0	NLTE	0.0822	0.9369	0.0822	3.3963	0.0003	0.0591	0.0670	0.0748	0.0	0.9522
	0.0	LTE	0.0835	0.9437	0.0835	3.4090	0.0144	0.0600	0.0677	0.0758	0.0	
989.87	0.0	NLTE	0.0686	0.8595	0.0686	3.0941	0.0003	0.0501	0.0611	0.0705	0.0	0.9549
	0.0	LTE	0.0695	0.8648	0.0695	3.1067	0.0124	0.0516	0.0622	0.0711	0.0	
3857.11	0.0	NLTE	0.0903	0.3882	0.0903	1.2635	0.2552	0.0887	0.1182	0.1497	0.0	4.5099
	0.0	LTE	0.0663	0.2642	0.0663	1.2223	0.4707	0.0921	0.1212	0.1554	0.0	
3863.69	0.0	NLTE	0.0780	0.3235	0.0780	1.0090	0.2999	0.0827	0.1105	0.1383	0.0	3.5454
	0.0	LTE	0.0580	0.1552	0.0580	0.9678	0.4910	0.0852	0.1124	0.1397	0.0	
2073.36	0.0	NLTE	0.0646	0.5119	0.0646	1.3705	0.1278	0.0537	0.0717	0.0942	0.0	2.2221
	0.0	LTE	0.0557	0.4477	0.0557	1.3320	0.2459	0.0535	0.0714	0.0940	0.0	
2072.68	0.0	NLTE	0.0593	0.4752	0.0593	1.1942	0.1417	0.0506	0.0665	0.0864	0.0	2.0994
	0.0	LTE	0.0511	0.4103	0.0511	1.1558	0.2580	0.0504	0.0663	0.0860	0.0	
6348.86	0.0	NLTE	0.1524	0.3988	0.1524	1.7103	0.3102	0.1507	0.2041	0.2736	0.0	17.0027
	0.0	LTE	0.0790	0.1138	0.0790	1.6880	0.6934	0.1751	0.2398	0.3100	0.0	
6371.13	0.0	NLTE	0.1279	0.3211	0.1279	1.4151	0.3505	0.1374	0.1877	0.2380	0.0	12.5465
	0.0	LTE	0.0696	0.0670	0.0696	1.3928	0.6915	0.1567	0.2098	0.2803	0.0	
4132.06	0.0	NLTE	0.0902	0.3577	0.0902	1.3435	0.3379	0.0931	0.1274	0.1678	0.0	2.1149
	0.0	LTE	0.0740	0.2718	0.0740	1.3549	0.5107	0.1025	0.1395	0.1882	0.0	
4129.22	0.0	NLTE	0.0802	0.3067	0.0802	1.1845	0.3689	0.0881	0.1210	0.1538	0.0	1.9808
	0.0	LTE	0.0666	0.2262	0.0666	1.1959	0.5248	0.0968	0.1306	0.1731	0.0	
2906.54	0.0	NLTE	0.0344	0.0513	0.0344	0.5004	0.5059	0.0397	0.0701	0.0946	0.0	1.4500
	0.0	LTE	0.0298	0.0295	0.0298	0.5106	0.5952	0.0463	0.0740	0.0972	0.0	
2905.13	0.0	NLTE	0.0274	-0.0062	0.0274	0.3241	0.5803	0.0344	0.0655	0.0916	0.0	1.3108
	0.0	LTE	0.0243	-0.0593	0.0243	0.3343	0.6461	0.0384	0.0692	0.0940	0.0	
5057.39	5057.73	NLTE	0.0822	0.2297	0.1164	1.3062	0.4697	0.1121	0.1511	0.1901	0.0000	2.1492
	0.0	LTE	0.0635	0.1177	0.0921	1.3037	0.6131	0.1183	0.1583	0.2060	0.0000	
5042.43	0.0	NLTE	0.0680	0.1485	0.0680	1.0508	0.5153	0.1019	0.1397	0.1775	0.0	2.5681
	0.0	LTE	0.0532	0.0418	0.0532	1.0482	0.6406	0.1081	0.1454	0.1826	0.0	
4202.08	0.0	NLTE	0.0071	-0.7545	0.0071	-0.5159	0.9226	0.0414	0.0831	0.1292	0.0	0.9600
	0.0	LTE	0.0073	-0.7393	0.0073	-0.5117	0.9179	0.0402	0.0804	0.1273	0.0	

Table 35

Line Data for Silicon III, T_{eff} = 20,000 K, Log g = 3 0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	10.6663	2.9691	10.6663	7.0592	0.0002	4.8450	7.5708	12.0811	0.0093	1.00357D 00
	1207.52	LTE	10.6479	2.9643	10.6479	7.1002	0.0815	5.4411	8.1055	12.7580	-0.0078	
1298.95	1303.32	NLTE	1.5890	2.1061	4.2771	5.3757	0.0010	0.5835	1.0378	1.8457	-0.0100	1.00300D 00
	1294.55	LTE	1.5884	2.1060	4.2714	5.3818	0.1104	0.7344	1.1746	2.0631	-0.0069	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	3.3520	2.4973	4.0740	5.5943	0.0004	0.8304	1.3577	2.3394	-0.0072	9.92849D-01
	1113.17	LTE	3.3653	2.4990	4.0865	5.6003	0.0544	0.9193	1.4380	2.4589	-0.0108	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.4996	1.7184	0.4996	4.6082	0.0009	0.2199	0.3415	0.5896	0.0	9.88700D-01
	0.0	LTE	0.5024	1.7208	0.5024	4.6141	0.0318	0.2324	0.3536	0.6070	0.0	
1417.24	0.0	NLTE	0.4200	1.4904	0.4200	3.9787	0.0073	0.1351	0.2772	0.4915	0.0	1.03431D 00
	0.0	LTE	0.4129	1.4830	0.4129	3.9814	0.1553	0.1953	0.3271	0.5436	0.0	
1312.59	0.0	NLTE	0.1517	1.1815	0.1517	3.2490	0.0145	0.0731	0.1009	0.1735	0.0	1.02562D 00
	0.0	LTE	0.1500	1.1766	0.1500	3.2519	0.0848	0.0788	0.1075	0.1809	0.0	
1842.55	0.0	NLTE	0.0739	0.8216	0.0739	2.3958	0.1704	0.0626	0.0838	0.1034	0.0	1.16794D 00
	0.0	LTE	0.0715	0.8073	0.0715	2.3992	0.2138	0.0644	0.0854	0.1044	0.0	
5741.33	0.0	NLTE	0.0465	-0.0731	0.0465	0.9271	0.7008	0.0973	0.1472	0.2013	0.0	3.44947D 00
	0.0	LTE	0.0289	-0.2794	0.0289	0.9178	0.8254	0.1040	0.1565	0.2124	0.0	
2559.96	0.0	NLTE	0.0376	0.1650	0.0376	1.1329	0.5802	0.0539	0.0805	0.1096	0.0	1.32197D 00
	0.0	LTE	0.0339	0.1412	0.0339	1.1332	0.6313	0.0548	0.0825	0.1124	0.0	
3087.13	0.0	NLTE	0.0477	0.2072	0.0477	1.2185	0.5095	0.0622	0.0898	0.1186	0.0	2.54970D 00
	0.0	LTE	0.0351	0.0746	0.0351	1.2192	0.6588	0.0647	0.0946	0.1267	0.0	
4553.94	0.0	NLTE	0.0968	0.3459	0.0968	1.7924	0.4218	0.1011	0.1463	0.1967	0.0	3.29708D 00
	0.0	LTE	0.0643	0.1685	0.0643	1.7905	0.6551	0.1080	0.1591	0.2143	0.0	
4569.13	0.0	NLTE	0.0825	0.2750	0.0825	1.5720	0.4700	0.0947	0.1388	0.1886	0.0	3.05813D 00
	0.0	LTE	0.0561	0.1075	0.0561	1.5701	0.6771	0.1030	0.1533	0.2074	0.0	
4576.03	0.0	NLTE	0.0538	0.0691	0.0538	1.0597	0.6018	0.0817	0.1241	0.1711	0.0	2.49831D 00
	0.0	LTE	0.0385	-0.0567	0.0385	1.0578	0.7430	0.0928	0.1391	0.1885	0.0	
3807.61	0.0	NLTE	0.0614	0.2262	0.0614	1.6356	0.5377	0.0873	0.1261	0.1663	0.0	2.35839D 00
	0.0	LTE	0.0477	0.1167	0.0477	1.6424	0.6512	0.0869	0.1295	0.1722	0.0	
3797.20	0.0	NLTE	0.0512	0.1483	0.0512	1.4126	0.5835	0.0806	0.1180	0.1571	0.0	2.31063D 00
	0.0	LTE	0.0396	0.0367	0.0396	1.4154	0.6900	0.0822	0.1229	0.1640	0.0	
3792.52	0.0	NLTE	0.0335	-0.0354	0.0335	0.9349	0.6906	0.0697	0.1044	0.1409	0.0	1.91757D 00
	0.0	LTE	0.0265	-0.1371	0.0265	0.9418	0.7666	0.0744	0.1108	0.1472	0.0	

Table 36

Line Data for Silicon IV, T_{eff} = 20,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.8347	2.3269	4.4758	6.3501	0.0030	0.2169	1.1511	3.3540	0.0001	1.00509D 00
	0.0	LTE	2.8290	2.3260	4.4643	6.3469	0.1199	0.4630	1.5206	3.8068	0.0002	
1128.35	0.0	NLTE	0.9491	1.9435	0.9491	4.6192	0.0177	0.1116	0.4572	1.1655	0.0	1.00671D 00
	0.0	LTE	0.9460	1.9420	0.9460	4.6172	0.0579	0.1392	0.4954	1.2095	0.0	
1122.50	0.0	NLTE	0.6558	1.7852	0.6558	4.5160	0.0219	0.0837	0.3172	0.8008	0.0	1.00765D 00
	0.0	LTE	0.6533	1.7836	0.6533	4.5139	0.0598	0.0989	0.3395	0.8282	0.0	
1066.61	0.0	NLTE	0.1307	1.1070	0.1307	2.4445	0.1220	0.0485	0.0734	0.1527	0.0	1.04196D 00
	0.0	LTE	0.1283	1.0989	0.1283	2.4431	0.1748	0.0506	0.0766	0.1618	0.0	
1722.53	1722.56	NLTE	0.0402	0.3870	0.0402	1.1164	0.5930	0.0556	0.0906	0.1180	0.0095	1.29756D 00
	0.0	LTE	0.0370	0.3510	0.0370	1.1109	0.6348	0.0561	0.0930	0.1203	0.0098	
4090.02	0.0	NLTE	0.0096	-0.6101	0.0096	-0.2664	0.9244	0.0757	0.1154	0.1595	0.0	2.77266D 00
	0.0	LTE	0.0062	-0.8012	0.0062	-0.2621	0.9552	0.0820	0.1258	0.1741	0.0	
4117.26	0.0	NLTE	0.0075	-0.7232	0.0075	-0.5679	0.9393	0.0731	0.1126	0.1561	0.0	2.09756D 00
	0.0	LTE	0.0053	-0.8707	0.0053	-0.5815	0.9600	0.0807	0.1225	0.1688	0.0	

Table 37

Line Data for Silicon II, T_{eff} = 20,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TD)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1177	0.5295	0.1177	1.5299	0.0987	0.1160	0.1346	0.1518	0.0	1.0186
	0.0	LTE	0.1167	0.5259	0.1167	1.5437	0.1515	0.1240	0.1392	0.1596	0.0	
1533.43	0.0	NLTE	0.1926	0.8148	0.1926	3.0271	0.0095	0.1482	0.1728	0.1974	0.0	1.1774
	0.0	LTE	0.1858	0.7994	0.1858	3.0408	0.1098	0.1550	0.1777	0.2005	0.0	
1526.70	0.0	NLTE	0.1734	0.7712	0.1734	2.7242	0.0123	0.1439	0.1673	0.1908	0.0	1.3000
	0.0	LTE	0.1672	0.7553	0.1672	2.7379	0.1006	0.1501	0.1715	0.1932	0.0	
1264.73	1265.00	NLTE	0.3449	1.1517	0.5010	3.7908	0.0015	0.1773	0.2577	0.0	0.0033	1.0102
	0.0	LTE	0.3491	1.1569	0.4994	3.8045	0.0644	0.1937	0.2776	0.0	0.0044	
1260.42	0.0	NLTE	0.2777	1.0590	0.2777	3.5318	0.0019	0.1440	0.1933	0.2917	0.0	1.0038
	0.0	LTE	0.2773	1.0584	0.2773	3.5455	0.0587	0.1513	0.2046	0.3061	0.0	
992.68	0.0	NLTE	0.1211	0.8024	0.1211	3.1094	0.0003	0.0981	0.1120	0.1260	0.0	0.9966
	0.0	LTE	0.1212	0.8027	0.1212	3.1233	0.0123	0.0985	0.1125	0.1264	0.0	
989.87	0.0	NLTE	0.1144	0.7786	0.1144	2.8072	0.0004	0.0970	0.1103	0.1237	0.0	1.0245
	0.0	LTE	0.1141	0.7778	0.1141	2.8210	0.0106	0.0973	0.1105	0.1239	0.0	
3857.11	0.0	NLTE	0.1470	0.2969	0.1470	0.9837	0.3130	0.1675	0.2182	0.2649	0.0	3.2645
	0.0	LTE	0.1085	0.1651	0.1085	0.9441	0.4996	0.1720	0.2202	0.2656	0.0	
3863.69	0.0	NLTE	0.1213	0.2128	0.1213	0.7291	0.3762	0.1444	0.1963	0.2458	0.0	2.5289
	0.0	LTE	0.0904	0.0850	0.0904	0.6895	0.5369	0.1461	0.1965	0.2454	0.0	
2073.36	0.0	NLTE	0.1080	0.4328	0.1080	1.0908	0.1552	0.1063	0.1303	0.1536	0.0	2.0247
	0.0	LTE	0.0925	0.3654	0.0925	1.0540	0.2700	0.1049	0.1290	0.1525	0.0	
2072.68	0.0	NLTE	0.0977	0.3892	0.0977	0.9146	0.1800	0.0952	0.1209	0.1453	0.0	1.8912
	0.0	LTE	0.0834	0.3206	0.0834	0.8778	0.2927	0.0939	0.1195	0.1440	0.0	
6348.86	0.0	NLTE	0.2419	0.2970	0.2419	1.4272	0.3569	0.2831	0.3793	0.4656	0.0	16.7552
	0.0	LTE	0.1270	0.0170	0.1270	1.4053	0.6998	0.3420	0.4242	0.4998	0.0	
6373.13	0.0	NLTE	0.1976	0.2074	0.1976	1.1321	0.4221	0.2479	0.3438	0.4307	0.0	9.0081
	0.0	LTE	0.1113	-0.0420	0.1113	1.1107	0.7070	0.2969	0.3828	0.4618	0.0	
4132.06	0.0	NLTE	0.1372	0.2370	0.1372	1.0739	0.4007	0.1693	0.2292	0.2842	0.0	1.9212
	0.0	LTE	0.1143	0.1577	0.1143	1.0853	0.5385	0.1915	0.2479	0.3000	0.0	
4129.22	0.0	NLTE	0.1196	0.1778	0.1196	0.9149	0.4440	0.1552	0.2149	0.2705	0.0	1.7009
	0.0	LTE	0.1017	0.1072	0.1017	0.9268	0.5604	0.1760	0.2310	0.2835	0.0	
2906.54	0.0	NLTE	0.0450	-0.0940	0.0450	0.2219	0.6307	0.0801	0.1185	0.1594	0.0	1.2548
	0.0	LTE	0.0402	-0.1437	0.0402	0.2327	0.6815	0.0843	0.1232	0.1637	0.0	
2905.13	0.0	NLTE	0.0342	-0.2136	0.0342	0.0456	0.7059	0.0749	0.1121	0.1525	0.0	1.1805
	0.0	LTE	0.0310	-0.2558	0.0310	0.0564	0.7400	0.0777	0.1155	0.1561	0.0	
5057.39	5057.73	NLTE	0.1352	0.1430	0.1716	1.0283	0.5207	0.2032	0.2758	0.3471	0.0004	1.8751
	0.0	LTE	0.1070	0.0413	0.1374	1.0258	0.6405	0.2204	0.2894	0.3624	0.0005	
5042.43	0.0	NLTE	0.1020	0.0220	0.1020	0.7728	0.5838	0.1762	0.2457	0.3136	0.0	1.9401
	0.0	LTE	0.0816	-0.0753	0.0816	0.7703	0.6801	0.1876	0.2566	0.3224	0.0	
4202.08	0.0	NLTE	0.0074	-1.0400	0.0074	-0.7620	0.9539	0.0947	0.1480	0.2094	0.0	0.9653
	0.0	LTE	0.0076	-1.0258	0.0076	-0.7588	0.9519	0.0939	0.1467	0.2079	0.0	

Table 38

Line Data for Silicon III, T_{eff} = 20,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	10.6601	2.6622	10.6601	6.8343	0.0003	4.8471	7.4306	12.5946	0.0008	1.00379D 00
	1207.52	LTE	10.6401	2.6613	10.6401	6.8354	0.0814	5.4319	7.9581	13.1622	0.0007	
1298.95	1303.32	NLTE	1.3637	1.7370	4.3219	5.1235	0.0013	0.5854	1.0348	1.9127	-0.0092	1.01203D 00
	1294.55	LTE	1.3564	1.7347	4.2989	5.1295	0.1118	0.7364	1.1634	2.1217	-0.0092	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	3.2206	2.1773	4.0881	5.3614	0.0005	0.8361	1.3857	2.3619	-0.0043	9.95514D-01
	1113.17	LTE	3.2288	2.1784	4.0956	5.3673	0.0550	0.9222	1.4733	2.4608	-0.0095	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.4434	1.3638	0.4434	4.3578	0.0010	0.1953	0.2999	0.4333	0.0	9.92850D-01
	0.0	LTE	0.4449	1.3654	0.4449	4.3637	0.0321	0.2063	0.3113	0.4984	0.0	
1417.24	0.0	NLTE	0.4385	1.2064	0.4385	3.7303	0.0087	0.1629	0.2855	0.5050	0.0	1.05457D 00
	0.0	LTE	0.4276	1.1955	0.4276	3.7331	0.1451	0.2015	0.3368	0.5541	0.0	
1312.59	0.0	NLTE	0.1838	0.8622	0.1838	3.0005	0.0175	0.1240	0.1452	0.1779	0.0	1.04245D 00
	0.0	LTE	0.1812	0.8559	0.1812	3.0035	0.0700	0.1284	0.1475	0.1839	0.0	
1642.55	0.0	NLTE	0.1172	0.5194	0.1172	2.1417	0.1987	0.1119	0.1473	0.1753	0.0	1.19781D 00
	0.0	LTE	0.1135	0.5057	0.1135	2.1453	0.2340	0.1140	0.1491	0.1764	0.0	
5741.33	0.0	NLTE	0.0637	-0.2392	0.0637	0.6605	0.7674	0.1724	0.2663	0.3623	0.0	2.92286D 00
	0.0	LTE	0.0404	-0.4363	0.0404	0.6513	0.8604	0.1855	0.2825	0.3827	0.0	
2559.96	0.0	NLTE	0.0526	0.0284	0.0526	0.8752	0.6439	0.0966	0.1414	0.1876	0.0	1.32241D 00
	0.0	LTE	0.0476	-0.0150	0.0476	0.8756	0.6855	0.0994	0.1453	0.1911	0.0	
3087.13	0.0	NLTE	0.0688	0.0638	0.0688	0.9487	0.5862	0.1088	0.1603	0.2150	0.0	2.36685D 00
	0.0	LTE	0.0511	-0.0655	0.0511	0.9494	0.7075	0.1165	0.1689	0.2235	0.0	
4553.94	0.0	NLTE	0.1385	0.1991	0.1385	1.5366	0.4925	0.1797	0.2579	0.3405	0.0	3.69576D 00
	0.0	LTE	0.0915	0.0187	0.0915	1.5353	0.6931	0.1945	0.2831	0.3700	0.0	
4569.13	0.0	NLTE	0.1167	0.1232	0.1167	1.3162	0.5493	0.1670	0.2461	0.3306	0.0	3.15279D 00
	0.0	LTE	0.0799	-0.0416	0.0799	1.3146	0.7182	0.1866	0.2724	0.3537	0.0	
4576.03	0.0	NLTE	0.0733	-0.0793	0.0733	0.8440	0.6847	0.1452	0.2239	0.3063	0.0	2.24288D 00
	0.0	LTE	0.0538	-0.2134	0.0538	0.8423	0.7856	0.1651	0.2441	0.3244	0.0	
3807.61	0.0	NLTE	0.0914	0.0962	0.0914	1.3819	0.5920	0.1536	0.2209	0.2863	0.0	2.33911D 00
	0.0	LTE	0.0709	-0.0141	0.0709	1.3887	0.6952	0.1583	0.2312	0.2978	0.0	
3797.20	0.0	NLTE	0.0746	0.0091	0.0746	1.1589	0.6439	0.1414	0.2062	0.2726	0.0	2.15578D 00
	0.0	LTE	0.0581	-0.0996	0.0581	1.1656	0.7344	0.1495	0.2178	0.2819	0.0	
3792.52	0.0	NLTE	0.0460	-0.1999	0.0460	0.6812	0.7533	0.1202	0.1836	0.2482	0.0	1.70381D 00
	0.0	LTE	0.0372	-0.2924	0.0372	0.6880	0.8088	0.1291	0.1924	0.2566	0.0	

Table 39

Line Data for Silicon IV, T_{eff} = 20,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	3.1020	2.0034	4.5352	6.1106	0.0036	0.2597	1.1534	3.3448	0.0001	1.01095D 00
	0.0	LTE	3.0880	2.0014	4.5126	6.1074	0.1344	0.5007	1.5929	3.8095	0.0004	
1128.35	0.0	NLTE	0.9769	1.6533	0.9769	4.5855	0.0215	0.1630	0.4620	1.1775	0.0	1.00811D 00
	0.0	LTE	0.9730	1.6516	0.9730	4.5875	0.0588	0.1804	0.4992	1.2329	0.0	
1122.50	0.0	NLTE	0.6789	1.4975	0.6789	4.2662	0.0278	0.1367	0.3236	0.8036	0.0	1.00916D 00
	0.0	LTE	0.6759	1.4956	0.6759	4.2842	0.0602	0.1493	0.3423	0.8292	0.0	
1066.61	0.0	NLTE	0.1466	0.8540	0.1466	2.2201	0.1431	0.0548	0.1101	0.1930	0.0	1.05400D 00
	0.0	LTE	0.1434	0.8446	0.1434	2.2188	0.1957	0.0583	0.1195	0.1979	0.0	
1722.53	1722.56	NLTE	0.0517	0.1533	0.0517	0.8922	0.6245	0.0866	0.1298	0.1742	0.0047	1.34801D 00
	0.0	LTE	0.0474	0.1557	0.0474	0.8867	0.6651	0.0900	0.1327	0.1787	0.0050	
4090.02	0.0	NLTE	0.0122	-0.8057	0.0122	-0.5050	0.9408	0.0940	0.1879	0.3054	0.0	2.51353D 00
	0.0	LTE	0.0081	-0.9873	0.0081	-0.9226	0.9636	0.1062	0.2126	0.3223	0.0	
4117.26	0.0	NLTE	0.0093	-0.9255	0.0093	-0.8084	0.9535	0.0904	0.1808	0.2991	0.0	1.90109D 00
	0.0	LTE	0.0068	-1.0636	0.0068	-0.8219	0.9680	0.0997	0.1995	0.3148	0.0	

Table 40

Line Data for Silicon II, T_{eff} = 20,000 K, Log g = 2.5, v_t = 15 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1387	0.1778	0.1387	0.5709	0.3775	0.1662	0.2236	0.2806	0.0	0.0715
	0.0	LTE	0.2393	0.4146	0.2393	0.8515	0.1664	0.2379	0.2874	0.3378	0.0	
1533.43	0.0	NLTE	0.3262	0.6208	0.3262	2.0650	0.0518	0.3018	0.3558	0.4098	0.0	0.3693
	0.0	LTE	0.3522	0.6540	0.3522	2.3443	0.1016	0.3347	0.3806	0.4265	0.0	
1526.70	0.0	NLTE	0.2970	0.5819	0.2970	1.7621	0.0670	0.2735	0.3349	0.3974	0.0	0.0822
	0.0	LTE	0.3386	0.6388	0.3386	2.0414	0.0949	0.3264	0.3722	0.4180	0.0	
1264.73	1265.00	NLTE	0.5744	0.9501	0.5744	2.8259	0.0109	0.5283	0.5738	0.6193	0.1256	0.5953
	0.0	LTE	0.6217	0.9845	0.6217	3.1053	0.0607	0.5537	0.6026	0.6657	0.1209	
1260.42	0.0	NLTE	0.3214	0.6994	0.3214	2.5679	0.0136	0.2694	0.3120	0.3547	0.0	0.6233
	0.0	LTE	0.3561	0.7440	0.3561	2.8463	0.0557	0.2865	0.3335	0.3887	0.0	
992.68	0.0	NLTE	0.2418	0.6795	0.2418	2.1439	0.0046	0.2131	0.2428	0.2725	0.0	0.6754
	0.0	LTE	0.2480	0.6906	0.2480	2.4219	0.0125	0.2165	0.2469	0.2773	0.0	
989.87	0.0	NLTE	0.2319	0.6627	0.2319	1.8417	0.0056	0.2067	0.2375	0.2682	0.0	0.4336
	0.0	LTE	0.2414	0.6801	0.2414	2.1197	0.0110	0.2138	0.2431	0.2723	0.0	
3857.11	0.0	NLTE	0.1443	-0.1340	0.1443	0.2350	0.6353	0.2621	0.3867	0.5167	0.0	1.0468
	0.0	LTE	0.1406	-0.1454	0.1406	0.2486	0.6622	0.2833	0.4088	0.5411	0.0	
3863.69	0.0	NLTE	0.0925	-0.3277	0.0925	-0.0195	0.7501	0.2352	0.3556	0.4891	0.0	0.9686
	0.0	LTE	0.0944	-0.3193	0.0944	-0.0059	0.7549	0.2477	0.3722	0.5053	0.0	
2073.36	0.0	NLTE	0.1424	0.1298	0.1424	0.3514	0.4147	0.1712	0.2415	0.3115	0.0	0.8821
	0.0	LTE	0.1496	0.1511	0.1496	0.3633	0.3973	0.1764	0.2468	0.3172	0.0	
2072.68	0.0	NLTE	0.1132	0.0303	0.1132	0.1752	0.5011	0.1537	0.2227	0.2958	0.0	0.8832
	0.0	LTE	0.1202	0.0562	0.1202	0.1870	0.4795	0.1577	0.2271	0.2998	0.0	
6348.86	0.0	NLTE	0.3968	0.0888	0.3968	0.8399	0.5333	0.6349	0.8563	1.0632	0.0	5.8327
	0.0	LTE	0.2234	-0.1607	0.2234	0.8005	0.7379	0.6438	0.8599	1.0609	0.0	
6373.13	0.0	NLTE	0.3013	-0.0324	0.3013	0.5448	0.6034	0.5330	0.7550	0.9746	0.0	3.6721
	0.0	LTE	0.1741	-0.2706	0.1741	0.5054	0.7708	0.5374	0.7553	0.9701	0.0	
4132.06	0.0	NLTE	0.1925	-0.0389	0.1925	0.4315	0.5937	0.3298	0.4684	0.6079	0.0	1.5575
	0.0	LTE	0.1568	-0.1278	0.1568	0.4033	0.6676	0.3284	0.4662	0.6055	0.0	
4129.22	0.0	NLTE	0.1540	-0.1355	0.1540	0.2725	0.6537	0.2987	0.4350	0.5787	0.0	1.4659
	0.0	LTE	0.1250	-0.2259	0.1250	0.2443	0.7175	0.2969	0.4326	0.5759	0.0	
2906.54	0.0	NLTE	0.0551	-0.4293	0.0551	-0.3329	0.8047	0.1764	0.2697	0.3739	0.0	1.4433
	0.0	LTE	0.0414	-0.5539	0.0414	-0.3690	0.8529	0.1756	0.2686	0.3728	0.0	
2905.13	0.0	NLTE	0.0386	-0.5832	0.0386	-0.5092	0.8599	0.1708	0.2626	0.3671	0.0	1.4116
	0.0	LTE	0.0289	-0.7095	0.0289	-0.5453	0.8950	0.1702	0.2618	0.3663	0.0	
5057.39	5057.73	NLTE	0.1296	-0.2986	0.1296	0.3925	0.7764	0.3790	0.5568	0.7530	0.0215	0.6411
	0.0	LTE	0.1605	-0.2055	0.1605	0.3933	0.7447	0.4157	0.6066	0.8198	0.0249	
5042.43	0.0	NLTE	0.0703	-0.5631	0.0703	0.1276	0.8515	0.3044	0.4562	0.6227	0.0	0.6203
	0.0	LTE	0.0942	-0.4355	0.0942	0.1285	0.8168	0.3350	0.4997	0.6745	0.0	
4202.08	0.0	NLTE	0.0065	-1.5166	0.0065	-1.3739	0.9832	0.2347	0.3646	0.5166	0.0	1.7085
	0.0	LTE	0.0038	-1.7471	0.0038	-1.4207	0.9900	0.2318	0.3610	0.5124	0.0	

Table 41

Line Data for Silicon III, T_{eff} = 20,000 K, Log g = 2.5, v_t = 15 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	12.9352	2.3232	12.9352	6.5214	0.0003	5.7985	8.9666	14.6004	0.0163	0.9964
	1207.62	LTE	12.9590	2.3240	12.9590	6.5273	0.0793	6.5542	9.6889	15.4681	0.0100	
1298.95	1303.32	NLTE	1.8250	1.4406	4.9564	4.7650	0.0013	0.7015	1.1754	2.1021	-0.0090	1.0463
	1294.55	LTE	1.8193	1.4392	4.8683	4.7795	0.1106	0.8588	1.3160	2.4858	-0.0120	
	1296.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	4.0041	1.6468	4.5162	4.9839	0.0005	0.9373	1.4941	2.6650	-0.0106	0.9845
	1113.17	LTE	4.0504	1.6538	4.5454	4.9987	0.0569	1.0416	1.6046	2.9508	-0.0124	
	1109.97											
	1109.94											
	1108.36											
997.39	C.0	NLTE	0.5912	1.0658	C.5912	3.9273	0.0015	0.3225	C.3877	0.6407	0.0	0.9781
	C.0	LTE	0.5966	1.0697	C.5966	3.9422	0.0339	0.3299	0.4021	0.6619	0.0	
1417.24	0.0	NLTE	0.5802	0.9050	C.5802	3.3086	0.0102	0.3730	0.4297	0.5702	0.0	1.1100
	0.0	LTE	0.5576	0.8878	0.5576	3.3216	0.1376	0.3941	0.4545	0.6234	0.0	
1312.59	0.0	NLTE	0.3402	0.7065	C.3402	2.5513	0.0242	0.2864	0.3356	0.3791	0.0	1.0546
	0.0	LTE	0.3372	0.7026	C.3372	2.5647	0.0701	0.2959	0.3425	0.3828	0.0	
1842.55	C.0	NLTE	0.2776	0.4710	0.2776	1.8000	0.2156	0.2859	0.3690	0.4307	0.0	1.1547
	0.0	LTE	0.2715	C.4613	0.2715	1.8158	0.2405	0.2889	0.3732	0.4335	0.0	
5741.33	0.0	NLTE	0.2208	-0.1220	0.2208	0.6867	0.6974	0.5000	0.7217	0.9698	0.0	6.4220
	C.0	LTE	0.1064	-0.4391	0.1064	0.6580	0.8588	0.5203	0.7498	0.9977	0.0	
2559.96	0.0	NLTE	0.1381	C.C248	0.1381	0.8220	0.6204	0.2550	0.3660	0.4685	0.0	1.2406
	0.0	LTE	0.1289	-0.0049	0.1289	0.8312	0.6568	0.2630	0.3807	0.4802	0.0	
3087.13	0.0	NLTE	0.2009	0.1063	0.2009	1.0180	0.5426	0.3049	0.4384	0.5689	0.0	2.7152
	C.0	LTE	0.1476	-0.0277	0.1476	1.0195	0.6776	0.3171	0.4621	0.5881	0.0	
4553.94	C.0	NLTE	0.3930	0.2289	0.3930	1.3996	0.4303	0.4842	0.6922	0.8742	0.0	9.3166
	C.0	LTE	0.2093	-0.0446	C.2093	1.3893	0.7102	0.5055	0.7297	0.9162	0.0	
4569.13	0.0	NLTE	0.3356	0.1589	0.3356	1.1792	0.4854	0.4529	0.6513	0.8421	0.0	7.1333
	C.0	LTE	0.1849	-0.0999	0.1849	1.1688	0.7329	0.4845	0.7027	0.8800	0.0	
4576.03	C.0	NLTE	0.2138	-0.0375	C.2138	0.7069	0.6287	0.3911	0.5681	0.7657	0.0	4.1726
	C.0	LTE	0.1262	-0.2665	0.1262	0.6966	0.7945	0.4311	0.6124	0.8035	0.0	
3807.61	0.0	NLTE	0.2359	C.C650	0.2359	1.1450	0.5773	0.3995	0.5693	0.7126	0.0	3.2713
	0.0	LTE	0.1679	-0.0626	0.1679	1.1610	0.7072	0.4099	0.5892	0.7295	0.0	
3797.20	0.0	NLTE	0.1927	-0.0017	0.1927	0.9219	0.6278	0.3671	0.5206	0.6748	0.0	2.8803
	0.0	LTE	0.1371	-0.1495	0.1371	0.9380	0.7442	0.3817	0.5477	0.6919	0.0	
3792.52	0.0	NLTE	0.1152	-0.2247	0.1152	0.4443	0.7421	0.3062	0.4424	0.5897	0.0	2.0438
	0.0	LTE	0.0849	-0.3569	0.0849	0.4603	0.8164	0.3244	0.4591	0.6105	0.0	

Table 42

Line Data for Silicon IV, T_{eff} = 20,000 K, Log g = 2.5, v_t = 15 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	5.1875	1.6637	7.1831	5.5539	0.0026	0.5622	2.3186	5.5507	0.0014	1.041310 00
	0.0	LTE	5.1099	1.6571	7.0572	5.5651	0.1391	1.1293	2.9710	6.2885	0.0035	
1128.35	0.0	NLTE	1.4159	1.3915	1.4159	4.2351	0.0149	0.3360	0.7290	1.6830	0.0	1.018670 00
	0.0	LTE	1.4035	1.3877	1.4035	4.2287	0.0604	0.3629	0.7853	1.7355	0.0	
1122.50	0.0	NLTE	0.9928	1.2956	0.9928	3.9319	0.0194	0.3077	0.5145	1.1292	0.0	1.022620 00
	0.0	LTE	0.9826	1.2951	0.9826	3.9254	0.0615	0.3210	0.5484	1.1798	0.0	
1066.61	0.0	NLTE	0.2575	0.6757	0.2575	1.6654	0.1249	0.1903	0.2575	0.3123	0.0	1.099670 00
	0.0	LTE	0.2506	0.6639	0.2506	1.6758	0.1805	0.2046	0.2641	0.3167	0.0	
1722.53	1722.56	NLTE	0.1476	0.2256	0.1476	0.5209	0.5321	0.2227	0.3113	0.3953	0.0038	1.497080 00
	0.0	LTE	0.1341	0.1642	0.1341	0.5102	0.5877	0.2299	0.3227	0.4058	0.0041	
4090.02	0.0	NLTE	0.0800	-0.4160	0.0800	-0.0977	0.8588	0.3638	0.5482	0.7415	0.0	5.557780 00
	0.0	LTE	0.0430	-0.6652	0.0430	-0.1400	0.9280	0.3962	0.5825	0.7728	0.0	
4117.26	0.0	NLTE	0.0640	-0.5158	0.0640	-0.3570	0.8826	0.3445	0.5293	0.7218	0.0	3.765100 00
	0.0	LTE	0.0382	-0.7394	0.0382	-0.4353	0.9336	0.3769	0.5622	0.7531	0.0	
3166.63	0.0	NLTE	0.0086	-1.2725	0.0086	-2.0173	0.9769	0.2340	0.3659	0.4947	0.0	1.191320 00
	0.0	LTE	0.0079	-1.3114	0.0079	-1.9732	0.9792	0.2384	0.3723	0.5052	0.0	
3150.48	0.0	NLTE	0.0050	-1.5072	0.0050	-2.3205	0.9857	0.2160	0.3386	0.4632	0.0	1.162370 00
	0.0	LTE	0.0046	-1.5455	0.0046	-2.2764	0.9871	0.2204	0.3458	0.4696	0.0	
3763.50	0.0	NLTE	0.0111	-1.2382	0.0111	-1.4647	0.9751	0.2840	0.4385	0.5840	0.0	1.122040 00
	0.0	LTE	0.0104	-1.2654	0.0104	-1.4633	0.9763	0.2756	0.4310	0.5799	0.0	
2287.75	0.0	NLTE	0.0161	-0.8601	0.0161	-1.6007	0.9438	0.1836	0.2825	0.3823	0.0	1.130990 00
	0.0	LTE	0.0152	-0.8851	0.0152	-1.5738	0.9468	0.1816	0.2814	0.3826	0.0	
2518.33	0.0	NLTE	0.0146	-0.8445	0.0146	-1.6526	0.9558	0.2152	0.3238	0.4356	0.0	1.169090 00
	0.0	LTE	0.0135	-0.8766	0.0135	-1.5810	0.9577	0.2022	0.3132	0.4276	0.0	
6673.03	0.0	NLTE	0.0003	-3.0047	0.0003	-3.7632	0.9995	0.3851	0.6010	0.8731	0.0	1.549440 00
	0.0	LTE	0.0002	-3.1720	0.0002	-3.7615	0.9996	0.3895	0.6069	0.8794	0.0	
6669.41	0.0	NLTE	0.0002	-3.3022	0.0002	-4.0644	0.9997	0.3788	0.5921	0.8626	0.0	1.521320 00
	0.0	LTE	0.0001	-3.4743	0.0001	-4.0632	0.9998	0.3812	0.5952	0.8661	0.0	
4213.60	0.0	NLTE	0.0036	-1.7743	0.0036	-2.6621	0.9918	0.2696	0.4191	0.5894	0.0	1.727700 00
	0.0	LTE	0.0025	-1.9401	0.0025	-2.6455	0.9944	0.2722	0.4238	0.5941	0.0	
4632.57	0.0	NLTE	0.0036	-1.8144	0.0036	-2.5654	0.9926	0.3010	0.4681	0.6540	0.0	2.124290 00
	0.0	LTE	0.0021	-2.0412	0.0021	-2.5467	0.9956	0.3000	0.4674	0.6547	0.0	
4655.61	0.0	NLTE	0.0069	-1.5366	0.0069	-2.2574	0.9869	0.3253	0.5092	0.6907	0.0	2.031770 00
	0.0	LTE	0.0045	-1.7240	0.0045	-2.2347	0.9914	0.3235	0.5078	0.6918	0.0	

Table 43

Line Data for Silicon II, T_{eff} = 22,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0639	0.5447	0.0639	1.5454	0.1023	0.0623	0.0720	0.0834	0.0	1.6355
	0.0	LTE	0.0599	0.5170	0.0599	1.4815	0.1743	0.0633	0.0724	0.0836	0.0	
1533.43	0.0	NLTE	0.1234	0.9023	0.1234	3.0413	0.0104	0.0829	0.0952	0.1189	0.0	1.2774
	0.0	LTE	0.1133	0.8650	0.1133	2.9787	0.1092	0.0850	0.0962	0.1184	0.0	
1526.70	0.0	NLTE	0.1013	0.8185	0.1013	2.7384	0.0134	0.0779	0.0864	0.0997	0.0	1.3238
	0.0	LTE	0.0938	0.7849	0.0938	2.6757	0.1024	0.0791	0.0870	0.0998	0.0	
1264.73	1265.00	NLTE	0.2660	1.3194	0.3795	3.8041	0.0021	0.1336	0.2002	0.0	0.0009	1.1727
	0.0	LTE	0.2477	1.2885	0.3551	3.7421	0.0509	0.1351	0.1962	0.0	0.0008	
1260.42	0.0	NLTE	0.2120	1.2222	0.2120	3.5451	0.0026	0.1011	0.1498	0.2298	0.0	1.1671
	0.0	LTE	0.1969	1.1903	0.1969	3.4830	0.0558	0.1009	0.1472	0.2242	0.0	
992.68	0.0	NLTE	0.0921	0.9640	0.0921	3.1232	0.0003	0.0596	0.0666	0.0919	0.0	1.0540
	0.0	LTE	0.0903	0.9554	0.0903	3.0613	0.0116	0.0594	0.0664	0.0898	0.0	
989.87	0.0	NLTE	0.0750	0.8758	0.0750	2.8210	0.0004	0.0544	0.0603	0.0699	0.0	1.0574
	0.0	LTE	0.0737	0.8685	0.0737	2.7590	0.0103	0.0543	0.0600	0.0694	0.0	
3857.11	0.0	NLTE	0.0796	0.3114	0.0796	1.0988	0.3326	0.0892	0.1194	0.1488	0.0	3.5344
	0.0	LTE	0.0594	0.1838	0.0594	1.0438	0.5195	0.0963	0.1230	0.1513	0.0	
3863.69	0.0	NLTE	0.0666	0.2330	0.0666	0.8443	0.3891	0.0784	0.1091	0.1373	0.0	2.7036
	0.0	LTE	0.0502	0.1104	0.0502	0.7893	0.5490	0.0812	0.1111	0.1393	0.0	
2073.36	0.0	NLTE	0.0623	0.4745	0.0623	1.2319	0.1527	0.0576	0.0731	0.0865	0.0	2.3207
	0.0	LTE	0.0522	0.3975	0.0522	1.1812	0.2940	0.0579	0.0733	0.0867	0.0	
2072.68	0.0	NLTE	0.0564	0.4315	0.0564	1.0556	0.1750	0.0536	0.0677	0.0827	0.0	2.1695
	0.0	LTE	0.0472	0.3537	0.0472	1.0049	0.3126	0.0537	0.0678	0.0828	0.0	
6348.86	0.0	NLTE	0.1273	0.2987	0.1273	1.5639	0.3976	0.1437	0.2013	0.2566	0.0	10.2595
	0.0	LTE	0.0708	0.0441	0.0708	1.5123	0.7131	0.1824	0.2344	0.2832	0.0	
6373.13	0.0	NLTE	0.1038	0.2083	0.1038	1.2688	0.4602	0.1293	0.1861	0.2413	0.0	7.2288
	0.0	LTE	0.0616	-0.0180	0.0616	1.2172	0.7189	0.1643	0.2119	0.2597	0.0	
4132.06	0.0	NLTE	0.0987	0.3747	0.0987	1.2781	0.3117	0.0982	0.1346	0.1701	0.0	3.1938
	0.0	LTE	0.0706	0.2292	0.0706	1.2476	0.5463	0.1115	0.1460	0.1789	0.0	
4129.22	0.0	NLTE	0.0871	0.3204	0.0871	1.1191	0.3487	0.0905	0.1268	0.1627	0.0	2.9906
	0.0	LTE	0.0629	0.1793	0.0629	1.0886	0.5628	0.1035	0.1359	0.1694	0.0	
2906.54	0.0	NLTE	0.0358	0.0875	0.0358	0.4487	0.5074	0.0473	0.0692	0.0929	0.0	2.0705
	0.0	LTE	0.0260	-0.0515	0.0260	0.4105	0.6551	0.0500	0.0717	0.0952	0.0	
2905.13	0.0	NLTE	0.0283	-0.0145	0.0283	0.2724	0.5859	0.0428	0.0649	0.0889	0.0	1.8508
	0.0	LTE	0.0207	-0.1507	0.0207	0.2342	0.7063	0.0447	0.0667	0.0909	0.0	
5057.39	5057.73	NLTE	0.0837	0.2152	0.1159	1.2199	0.4725	0.1126	0.1557	0.1975	0.0000	2.5469
	0.0	LTE	0.0600	0.0705	0.0844	1.1887	0.6454	0.1272	0.1657	0.2048	0.0000	
5042.43	0.0	NLTE	0.0677	0.1246	0.0677	0.9644	0.5299	0.0995	0.1414	0.1815	0.0	2.9241
	0.0	LTE	0.0491	-0.0153	0.0491	0.9333	0.6766	0.1077	0.1486	0.1886	0.0	
4202.08	0.0	NLTE	0.0080	-0.7257	0.0080	-0.6582	0.9304	0.0579	0.0940	0.1386	0.0	1.1471
	0.0	LTE	0.0070	-0.7793	0.0070	-0.6726	0.9391	0.0583	0.0946	0.1396	0.0	

Table 44

Line Data for Silicon III, T_{eff} = 22,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	6.4710	2.7259	6.4710	6.6286	0.0007	2.9235	4.6233	7.5509	-0.0491	1.0052
	1207.52	LTE	6.4544	2.7248	6.4544	6.6383	0.0969	3.3542	5.0230	7.9813	-0.0598	
1298.95	1302.32	NLTE	1.2370	1.9753	3.3914	5.0801	0.0019	0.4444	0.8113	1.3843	-0.0092	1.0101
	1294.55	LTE	1.2321	1.9735	3.3759	5.0843	0.1295	0.5797	0.9200	1.5430	-0.0116	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.5415	2.3550	3.0567	5.3078	0.0007	0.6149	0.9956	1.6500	-0.0042	0.9984
	1113.17	LTE	2.5453	2.3586	3.0589	5.3118	0.0635	0.6866	1.0584	1.7254	-0.0071	
	1109.57											
	1105.54											
	1106.36											
957.39	0.0	NLTE	0.3888	1.5873	0.3888	4.3192	0.0011	0.1736	0.2671	0.4313	0.0	0.9961
	0.0	LTE	0.3895	1.5881	0.3895	4.3231	0.0352	0.1839	0.2760	0.4419	0.0	
1417.24	0.0	NLTE	0.3260	1.3583	0.3260	3.7723	0.0094	0.1084	0.2153	0.3796	0.0	1.0400
	0.0	LTE	0.3198	1.3459	0.3198	3.7731	0.1494	0.1513	0.2520	0.4188	0.0	
1312.59	0.0	NLTE	0.1313	0.9968	0.1313	3.0429	0.0169	0.0714	0.0922	0.1469	0.0	1.0322
	0.0	LTE	0.1296	0.9911	0.1296	3.0438	0.0712	0.0747	0.0946	0.1526	0.0	
1842.55	0.0	NLTE	0.0729	0.8937	0.0729	2.2833	0.1838	0.0613	0.0831	0.1037	0.0	1.1349
	0.0	LTE	0.0708	0.8808	0.0708	2.2848	0.2292	0.0644	0.0851	0.1051	0.0	
5741.33	0.0	NLTE	0.0361	-0.2049	0.0361	0.8092	0.7648	0.0950	0.1446	0.1984	0.0	1.8668
	0.0	LTE	0.0279	-0.3172	0.0279	0.8074	0.8283	0.1035	0.1536	0.2069	0.0	
2559.96	0.0	NLTE	0.0370	0.1559	0.0370	1.1172	0.5769	0.0521	0.0786	0.1076	0.0	1.3295
	0.0	LTE	0.0332	0.1099	0.0332	1.1171	0.6359	0.0548	0.0821	0.1111	0.0	
3087.13	0.0	NLTE	0.0443	0.1534	0.0443	1.1547	0.5291	0.0595	0.0876	0.1180	0.0	2.2682
	0.0	LTE	0.0337	0.0348	0.0337	1.1577	0.6692	0.0650	0.0949	0.1264	0.0	
4553.94	0.0	NLTE	0.0792	0.2369	0.0792	1.6560	0.5107	0.0954	0.1423	0.1945	0.0	2.0328
	0.0	LTE	0.0623	0.1323	0.0623	1.6598	0.6565	0.1091	0.1584	0.2112	0.0	
4569.13	0.0	NLTE	0.0667	0.1607	0.0667	1.4356	0.5637	0.0909	0.1371	0.1889	0.0	1.8387
	0.0	LTE	0.0540	0.0689	0.0540	1.4393	0.6798	0.1027	0.1514	0.2021	0.0	
4576.03	0.0	NLTE	0.0423	-0.0381	0.0423	0.9633	0.6885	0.0828	0.1254	0.1733	0.0	1.4929
	0.0	LTE	0.0361	-0.1060	0.0361	0.9670	0.7506	0.0905	0.1354	0.1833	0.0	
3807.61	0.0	NLTE	0.0481	0.0578	0.0481	1.3631	0.6061	0.0778	0.1152	0.1547	0.0	1.7064
	0.0	LTE	0.0402	0.0206	0.0402	1.3695	0.6836	0.0812	0.1202	0.1602	0.0	
3797.20	0.0	NLTE	0.0384	0.0009	0.0384	1.1401	0.6620	0.0725	0.1080	0.1459	0.0	1.6024
	0.0	LTE	0.0324	-0.0729	0.0324	1.1465	0.7262	0.0758	0.1130	0.1515	0.0	
3792.52	0.0	NLTE	0.0226	-0.2279	0.0226	0.6625	0.7754	0.0631	0.0962	0.1315	0.0	1.3621
	0.0	LTE	0.0197	-0.2879	0.0197	0.6689	0.8105	0.0665	0.0998	0.1347	0.0	

Table 45

Line Data for Silicon IV, T_{eff} = 22,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.1892	2.1526	3.4464	6.1078	0.0032	0.1755	0.8610	2.5893	0.0000	1.00673D 00
	0.0	LTE	2.1842	2.1916	3.4352	6.1072	0.1309	0.3794	1.1626	2.9317	0.0001	
1128.35	0.0	NLTE	0.8336	1.8850	0.8336	4.8818	0.0192	0.1066	0.4110	1.0257	0.0	1.00466D 00
	0.0	LTE	0.8316	1.8840	0.8316	4.8814	0.0650	0.1354	0.4505	1.0706	0.0	
1122.50	0.0	NLTE	0.5791	1.7690	0.5791	4.5785	0.0252	0.0839	0.2883	0.7105	0.0	1.00512D 00
	0.0	LTE	0.5776	1.7679	0.5776	4.5781	0.0670	0.0970	0.3127	0.7376	0.0	
1066.61	0.0	NLTE	0.1511	1.1477	0.1511	2.8689	0.1268	0.0513	0.0808	0.1836	0.0	1.02078D 00
	0.0	LTE	0.1497	1.1436	0.1497	2.8687	0.1612	0.0534	0.0834	0.1907	0.0	
1722.53	1728.86	NLTE	0.0366	0.3237	0.0366	1.2861	0.6136	0.0516	0.0872	0.1160	0.0086	1.18437D 00
	0.0	LTE	0.0346	0.2957	0.0346	1.2844	0.6447	0.0537	0.0899	0.1182	0.0089	
4090.02	0.0	NLTE	0.0039	-1.0198	0.0039	-0.6528	0.5642	0.0646	0.1024	0.1446	0.0	1.98435D 00
	0.0	LTE	0.0027	-1.1867	0.0027	-0.6597	0.5770	0.0690	0.1083	0.1517	0.0	
4117.26	0.0	NLTE	0.0028	-1.1665	0.0028	-0.9522	0.9738	0.0634	0.1009	0.1426	0.0	1.60376D 00
	0.0	LTE	0.0021	-1.2905	0.0021	-0.9591	0.9812	0.0670	0.1056	0.1483	0.0	
3166.63	0.0	NLTE	0.0005	-1.7815	0.0005	-2.4815	0.9533	0.0470	0.0749	0.1056	0.0	1.22475D 00
	0.0	LTE	0.0005	-1.8391	0.0005	-2.4834	0.9542	0.0480	0.0764	0.1076	0.0	
3150.48	0.0	NLTE	0.0003	-2.0671	0.0003	-2.7847	0.9964	0.0447	0.0713	0.1001	0.0	1.21401D 00
	0.0	LTE	0.0002	-2.1284	0.0002	-2.7866	0.9969	0.0455	0.0725	0.1019	0.0	

Table 46

Line Data for Silicon II, T_{eff} = 22,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.1090	0.4905	0.1090	1.2712	0.1258	0.1065	0.1253	0.1481	0.0	1.5234
	0.0	LTE	0.1022	0.4625	0.1022	1.2104	0.1830	0.1068	0.1247	0.1467	0.0	
1533.43	0.0	NLTE	0.1760	0.7700	0.1760	2.7692	0.0129	0.1473	0.1611	0.1753	0.0	1.4455
	0.0	LTE	0.1628	0.7361	0.1628	2.7095	0.1013	0.1487	0.1616	0.1745	0.0	
1526.70	0.0	NLTE	0.1553	0.7177	0.1553	2.4662	0.0174	0.1315	0.1511	0.1668	0.0	1.5303
	0.0	LTE	0.1446	0.6865	0.1446	2.4065	0.0966	0.1331	0.1510	0.1666	0.0	
1264.73	1265.00	NLTE	0.2777	1.0519	0.4315	3.5332	0.0026	0.1573	0.2045	0.0	0.0008	1.1929
	0.0	LTE	0.2595	1.0224	0.4065	3.4742	0.0546	0.1574	0.1996	0.0	0.0007	
1260.42	0.0	NLTE	0.2347	0.9801	0.2347	3.2742	0.0034	0.1406	0.1637	0.2344	0.0	1.1759
	0.0	LTE	0.2200	0.9621	0.2200	3.2151	0.0501	0.1403	0.1621	0.2268	0.0	
992.68	0.0	NLTE	0.1261	0.8143	0.1261	2.8515	0.0004	0.1003	0.1084	0.1225	0.0	1.0780
	0.0	LTE	0.1239	0.8065	0.1239	2.7927	0.0103	0.0998	0.1079	0.1215	0.0	
989.87	0.0	NLTE	0.1114	0.7614	0.1114	2.5493	0.0005	0.0950	0.1031	0.1112	0.0	1.1007
	0.0	LTE	0.1094	0.7537	0.1094	2.4905	0.0093	0.0940	0.1024	0.1108	0.0	
3857.11	0.0	NLTE	0.1226	0.2125	0.1226	0.8327	0.4011	0.1519	0.2042	0.2612	0.0	2.7527
	0.0	LTE	0.0916	0.0858	0.0916	0.7802	0.5571	0.1548	0.2057	0.2619	0.0	
3863.69	0.0	NLTE	0.0975	0.1124	0.0975	0.5782	0.4754	0.1285	0.1845	0.2413	0.0	2.1654
	0.0	LTE	0.0733	-0.0116	0.0733	0.5256	0.6058	0.1290	0.1843	0.2406	0.0	
2073.36	0.0	NLTE	0.0992	0.3899	0.0992	0.9680	0.1939	0.0935	0.1241	0.1499	0.0	2.1829
	0.0	LTE	0.0822	0.3085	0.0822	0.9197	0.3276	0.0929	0.1231	0.1491	0.0	
2072.68	0.0	NLTE	0.0877	0.3365	0.0877	0.7917	0.2313	0.0855	0.1135	0.1430	0.0	1.9746
	0.0	LTE	0.0725	0.2539	0.0725	0.7435	0.3591	0.0847	0.1122	0.1420	0.0	
6348.86	0.0	NLTE	0.1929	0.1930	0.1929	1.2942	0.4049	0.2538	0.3592	0.4554	0.0	10.1312
	0.0	LTE	0.1107	-0.0484	0.1107	1.2441	0.7268	0.3044	0.4029	0.4812	0.0	
6373.13	0.0	NLTE	0.1528	0.0901	0.1528	0.9990	0.5413	0.2306	0.3288	0.4306	0.0	5.4696
	0.0	LTE	0.0944	-0.1190	0.0944	0.9490	0.7402	0.2675	0.3617	0.4508	0.0	
4132.06	0.0	NLTE	0.1451	0.2558	0.1451	1.0235	0.3818	0.1670	0.2306	0.2926	0.0	3.1342
	0.0	LTE	0.1047	0.1142	0.1047	0.9947	0.5765	0.1799	0.2437	0.3000	0.0	
4129.22	0.0	NLTE	0.1259	0.1543	0.1259	0.8645	0.4294	0.1567	0.2154	0.2805	0.0	2.6986
	0.0	LTE	0.0920	0.0583	0.0920	0.8357	0.6006	0.1666	0.2250	0.2871	0.0	
2906.54	0.0	NLTE	0.0458	-0.0923	0.0458	0.1875	0.6313	0.0777	0.1204	0.1613	0.0	1.7858
	0.0	LTE	0.0335	-0.2287	0.0335	0.1511	0.7349	0.0792	0.1223	0.1628	0.0	
2905.13	0.0	NLTE	0.0346	-0.2142	0.0346	0.0112	0.7081	0.0731	0.1134	0.1561	0.0	1.6460
	0.0	LTE	0.0253	-0.3496	0.0253	-0.0252	0.7886	0.0740	0.1149	0.1573	0.0	
5057.39	5057.73	NLTE	0.1270	0.1100	0.1640	0.5569	0.5339	0.1961	0.2698	0.3546	0.0004	2.2817
	0.0	LTE	0.0925	-0.0276	0.1204	0.9269	0.6749	0.2080	0.2820	0.3632	0.0005	
5042.43	0.0	NLTE	0.0974	-0.0039	0.0974	0.7014	0.6042	0.1670	0.2426	0.3200	0.0	2.3440
	0.0	LTE	0.0716	-0.1376	0.0716	0.6714	0.7172	0.1775	0.2492	0.3283	0.0	
4202.08	0.0	NLTE	0.0082	-0.9588	0.0082	-0.8458	0.9553	0.1007	0.1596	0.2319	0.0	1.1440
	0.0	LTE	0.0073	-1.0529	0.0073	-0.8593	0.9608	0.1010	0.1602	0.2327	0.0	

Table 47

Line Data for Silicon III, T_{eff} = 22,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG[W/D]	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	6.4546	2.4386	6.4546	6.3874	0.0009	2.9212	4.5272	7.3092	0.0010	1.0063
	1207.52	LTE	6.4341	2.4372	6.4341	6.3873	0.0977	3.3613	4.9203	7.7820	0.0011	
1298.95	1303.32	NLTE	1.0781	1.6293	3.4409	4.8428	0.0025	0.4473	0.7987	1.4235	-0.0091	1.0209
	1294.55	LTE	1.0669	1.6248	3.4081	4.8069	0.1306	0.5833	0.9109	1.6190	-0.0092	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.3711	2.0386	3.0802	5.0903	0.0009	0.6188	0.9883	1.6824	-0.0057	1.0014
	1113.17	LTE	2.3700	2.0384	3.0778	5.0942	0.0645	0.6897	1.0493	1.7417	-0.0058	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.3980	1.3113	0.3980	4.0841	0.0013	0.1786	0.2722	0.4377	0.0	0.9996
	0.0	LTE	0.3981	1.3113	0.3981	4.0878	0.0332	0.1880	0.2792	0.4473	0.0	
1417.24	0.0	NLTE	0.3466	1.0998	0.3466	3.9380	0.0118	0.1514	0.2238	0.3956	0.0	1.06020D 00
	0.0	LTE	0.3375	1.0871	0.3375	3.9389	0.1310	0.1703	0.2519	0.4199	0.0	
1312.59	0.0	NLTE	0.1645	0.8083	0.1645	2.8095	0.0215	0.1180	0.1393	0.1663	0.0	1.04847D 00
	0.0	LTE	0.1621	0.8019	0.1621	2.8104	0.0623	0.1221	0.1408	0.1679	0.0	
1842.55	0.0	NLTE	0.1115	0.4919	0.1115	2.0425	0.2187	0.1075	0.1427	0.1711	0.0	1.14528D 00
	0.0	LTE	0.1085	0.4804	0.1085	2.0440	0.2532	0.1106	0.1449	0.1723	0.0	
5741.33	0.0	NLTE	0.0475	-0.3725	0.0475	0.8542	0.8218	0.1657	0.2581	0.3526	0.0	1.65422D 00
	0.0	LTE	0.0375	-0.4746	0.0375	0.8523	0.8648	0.1761	0.2700	0.3669	0.0	
2559.96	0.0	NLTE	0.0502	0.0024	0.0502	0.8721	0.6475	0.0910	0.1357	0.1823	0.0	1.29439D 00
	0.0	LTE	0.0455	-0.0400	0.0455	0.8720	0.6907	0.0965	0.1409	0.1864	0.0	
3087.13	0.0	NLTE	0.0617	0.0110	0.0617	0.8967	0.6137	0.1023	0.1541	0.2087	0.0	1.99875D 00
	0.0	LTE	0.0480	-0.0577	0.0480	0.8956	0.7170	0.1136	0.1646	0.2180	0.0	
4553.94	0.0	NLTE	0.1098	0.0524	0.1098	1.4113	0.5846	0.1696	0.2500	0.3344	0.0	1.99294D 00
	0.0	LTE	0.0876	-0.0054	0.0876	1.4151	0.6945	0.1896	0.2743	0.3557	0.0	
4569.13	0.0	NLTE	0.0914	0.0114	0.0914	1.1509	0.6389	0.1606	0.2414	0.3256	0.0	1.72826D 00
	0.0	LTE	0.0755	-0.0714	0.0755	1.1546	0.7216	0.1804	0.2616	0.3402	0.0	
4576.03	0.0	NLTE	0.0560	-0.2021	0.0560	0.7186	0.7555	0.1434	0.2208	0.3016	0.0	1.37353D 00
	0.0	LTE	0.0490	-0.2600	0.0490	0.7224	0.7950	0.1548	0.2314	0.3110	0.0	
3807.61	0.0	NLTE	0.0676	-0.0402	0.0676	1.1176	0.6697	0.1348	0.1994	0.2663	0.0	1.59344D 00
	0.0	LTE	0.0573	-0.1120	0.0573	1.1238	0.7304	0.1440	0.2083	0.2734	0.0	
3797.20	0.0	NLTE	0.0526	-0.1485	0.0526	0.8546	0.7264	0.1236	0.1873	0.2533	0.0	1.47615D 00
	0.0	LTE	0.0450	-0.2156	0.0450	0.9008	0.7734	0.1310	0.1945	0.2598	0.0	
3792.52	0.0	NLTE	0.0290	-0.4057	0.0290	0.4169	0.8310	0.1076	0.1676	0.2273	0.0	1.27041D 00
	0.0	LTE	0.0257	-0.4583	0.0257	0.4231	0.8537	0.1114	0.1719	0.2326	0.0	

Table 48

Line Data for Silicon IV, T_{eff} = 22,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.0273	1.6730	3.4852	5.6641	0.0041	0.2021	0.8631	2.4872	0.0000	1.01753D 00
	0.0	LTE	2.0135	1.6700	3.4566	5.6634	0.1444	0.4012	1.1977	2.8802	0.0001	
1128.35	0.0	NLTE	0.8524	1.5884	0.8524	4.6708	0.0243	0.1371	0.4152	1.0384	0.0	1.00624D 00
	0.0	LTE	0.8497	1.5871	0.8497	4.6704	0.0660	0.1559	0.4526	1.0816	0.0	
1122.50	0.0	NLTE	0.5947	1.4343	0.5947	4.3676	0.0330	0.1228	0.2920	0.7162	0.0	1.00616D 00
	0.0	LTE	0.5929	1.4330	0.5929	4.3671	0.0661	0.1291	0.3109	0.7431	0.0	
1066.61	0.0	NLTE	0.1668	0.9043	0.1668	2.6664	0.1484	0.0835	0.1149	0.1949	0.0	1.02918D 00
	0.0	LTE	0.1647	0.8990	0.1647	2.6662	0.1809	0.0864	0.1171	0.2012	0.0	
1722.53	1722.56	NLTE	0.0463	0.1394	0.0463	1.0768	0.6491	0.0834	0.1245	0.1650	0.0052	1.19872D 00
	0.0	LTE	0.0438	0.1156	0.0438	1.0750	0.6762	0.0866	0.1280	0.1679	0.0055	
4090.02	0.0	NLTE	0.0046	-1.2370	0.0046	-0.9280	0.9744	0.1085	0.1715	0.2362	0.0	1.80513D 00
	0.0	LTE	0.0032	-1.3917	0.0032	-0.9350	0.9828	0.1145	0.1806	0.2477	0.0	
4117.26	0.0	NLTE	0.0032	-1.3930	0.0032	-1.2274	0.9816	0.1064	0.1679	0.2332	0.0	1.49659D 00
	0.0	LTE	0.0025	-1.5064	0.0025	-1.2343	0.9863	0.1108	0.1746	0.2387	0.0	
3166.63	0.0	NLTE	0.0006	-2.0093	0.0006	-2.7158	0.9954	0.0799	0.1255	0.1760	0.0	1.18901D 00
	0.0	LTE	0.0005	-2.0618	0.0005	-2.6582	0.9960	0.0812	0.1278	0.1778	0.0	
3150.48	0.0	NLTE	0.0003	-2.3107	0.0003	-3.0190	0.9976	0.0761	0.1191	0.1697	0.0	1.18481D 00
	0.0	LTE	0.0003	-2.3677	0.0003	-2.9614	0.9979	0.0771	0.1206	0.1710	0.0	

Table 49

Line Data for Silicon II, T_{eff} = 22,500 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0485	0.4247	0.0485	1.0637	0.1855	0.0437	0.0578	0.0757	0.0	0.5894
	0.0	LTE	0.0532	0.4651	0.0532	1.1201	0.1824	0.0479	0.0636	0.0825	0.0	
1533.43	0.0	NLTE	0.0869	0.7497	0.0869	2.5549	0.0227	0.0661	0.0786	0.0967	0.0	0.9579
	0.0	LTE	0.0878	0.7544	0.0878	2.6108	0.1217	0.0718	0.0851	0.1042	0.0	
1526.70	0.0	NLTE	0.0762	0.6949	0.0762	2.2519	0.0293	0.0632	0.0734	0.0837	0.0	0.9831
	0.0	LTE	0.0765	0.6962	0.0765	2.3079	0.1145	0.0670	0.0771	0.0902	0.0	
1264.73	1265.00	NLTE	0.1529	1.0789	0.2331	3.3153	0.0033	0.0829	0.1080	0.1667	0.0000	0.9021
	0.0	LTE	0.1602	1.0993	0.2426	3.3711	0.0732	0.0900	0.1212	0.1886	0.0001	
1260.42	0.0	NLTE	0.1245	0.9911	0.1245	3.0563	0.0041	0.0749	0.0890	0.1252	0.0	0.8988
	0.0	LTE	0.1304	1.0111	0.1304	3.1120	0.0681	0.0800	0.0935	0.1395	0.0	
992.68	0.0	NLTE	0.0583	0.7650	0.0583	2.6341	0.0014	0.0457	0.0545	0.0653	0.0	0.8576
	0.0	LTE	0.0600	0.7775	0.0600	2.6898	0.0171	0.0475	0.0576	0.0671	0.0	
989.87	0.0	NLTE	0.0529	0.7241	0.0529	2.3318	0.0017	0.0433	0.0498	0.0577	0.0	0.8779
	0.0	LTE	0.0539	0.7328	0.0539	2.3875	0.0154	0.0441	0.0511	0.0610	0.0	
3857.11	0.0	NLTE	0.0662	0.2309	0.0662	0.7477	0.3763	0.0780	0.1062	0.1343	0.0	2.9780
	0.0	LTE	0.0486	0.0966	0.0486	0.6999	0.5508	0.0800	0.1077	0.1354	0.0	
3863.69	0.0	NLTE	0.0524	0.1292	0.0524	0.4931	0.4536	0.0634	0.0979	0.1277	0.0	2.2607
	0.0	LTE	0.0387	-0.0029	0.0387	0.4454	0.6002	0.0648	0.0985	0.1283	0.0	
2073.36	0.0	NLTE	0.0531	0.4046	0.0531	0.8701	0.1771	0.0475	0.0627	0.0783	0.0	2.0970
	0.0	LTE	0.0445	0.3286	0.0445	0.8263	0.3068	0.0473	0.0625	0.0779	0.0	
2072.68	0.0	NLTE	0.0471	0.3533	0.0471	0.6939	0.2105	0.0442	0.0591	0.0739	0.0	1.9353
	0.0	LTE	0.0394	0.2754	0.0394	0.6501	0.3364	0.0439	0.0588	0.0738	0.0	
6348.86	0.0	NLTE	0.1237	0.2861	0.1237	1.3176	0.3904	0.1415	0.1930	0.2528	0.0	15.9187
	0.0	LTE	0.0634	-0.0043	0.0634	1.2768	0.7177	0.1562	0.2119	0.2837	0.0	
6373.13	0.0	NLTE	0.1003	0.1935	0.1003	1.0224	0.4479	0.1279	0.1775	0.2271	0.0	9.1132
	0.0	LTE	0.0544	-0.0719	0.0544	0.9817	0.7264	0.1414	0.1906	0.2419	0.0	
4132.06	0.0	NLTE	0.0646	0.1906	0.0646	0.8979	0.4581	0.0839	0.1160	0.1480	0.0	1.5834
	0.0	LTE	0.0566	0.1329	0.0566	0.9187	0.5714	0.0929	0.1254	0.1623	0.0	
4129.22	0.0	NLTE	0.0555	0.1248	0.0555	0.7389	0.5023	0.0781	0.1102	0.1423	0.0	1.4135
	0.0	LTE	0.0497	0.0774	0.0497	0.7597	0.5938	0.0870	0.1184	0.1498	0.0	
2906.54	0.0	NLTE	0.0221	-0.1225	0.0221	0.1624	0.6600	0.0339	0.0648	0.0912	0.0	1.1015
	0.0	LTE	0.0210	-0.1446	0.0210	0.1799	0.6901	0.0371	0.0679	0.0933	0.0	
2905.13	0.0	NLTE	0.0165	-0.2490	0.0165	-0.0139	0.7337	0.0308	0.0609	0.0888	0.0	1.0573
	0.0	LTE	0.0160	-0.2638	0.0160	0.0036	0.7512	0.0328	0.0636	0.0905	0.0	
5057.39	5057.73	NLTE	0.0609	0.0771	0.0791	0.9242	0.5736	0.1037	0.1416	0.1795	0.0000	1.5406
	0.0	LTE	0.0507	-0.0026	0.0670	0.9135	0.6628	0.1091	0.1473	0.1854	0.0000	
5042.43	0.0	NLTE	0.0473	-0.0317	0.0473	0.6688	0.6317	0.0869	0.1299	0.1688	0.0	1.6309
	0.0	LTE	0.0400	-0.1042	0.0400	0.6580	0.7025	0.0967	0.1348	0.1729	0.0	
4202.08	0.0	NLTE	0.0044	-0.9876	0.0044	-0.8559	0.9516	0.0413	0.0830	0.1280	0.0	1.2627
	0.0	LTE	0.0035	-1.0828	0.0035	-0.8710	0.9603	0.0402	0.0807	0.1264	0.0	

Table 50

Line Data for Silicon III, T_{eff} = 22,500 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	8.7808	2.8565	8.7808	6.8737	0.0004	4.0533	6.1834	10.0371	0.0068	0.9911
	1207.52	LTE	8.8200	2.8604	8.8200	6.8802	0.0922	4.6296	6.7540	10.6636	0.0285	
1258.95	1303.32	NLTE	1.4153	2.0337	3.8456	5.1954	0.0013	0.5717	0.9317	1.5819	-0.0117	0.9861
	1294.55	LTE	1.4290	2.0379	3.8730	5.2141	0.1285	0.7173	1.0666	1.7747	-0.0052	
	1258.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.9856	2.4249	3.5302	5.3549	0.0006	0.7378	1.1509	1.9174	-0.0085	0.9703
	1113.17	LTE	3.0365	2.4323	3.5776	5.4135	0.0685	0.8342	1.2447	2.0520	-0.0044	
	1105.57											
	1105.94											
	1108.36											
957.39	0.0	NLTE	0.4109	1.6114	0.4109	4.3554	0.0010	0.1860	0.2798	0.4509	0.0	0.9653
	0.0	LTE	0.4180	1.6188	0.4180	4.4139	0.0437	0.2011	0.2963	0.4872	0.0	
1417.24	0.0	NLTE	0.4046	1.4521	0.4046	3.8511	0.0053	0.1571	0.2761	0.4624	0.0	1.0247
	0.0	LTE	0.3996	1.4467	0.3996	3.8645	0.1715	0.2189	0.3284	0.5221	0.0	
1312.59	0.0	NLTE	0.1417	1.0298	0.1417	3.0566	0.0121	0.0774	0.0980	0.1586	0.0	1.0209
	0.0	LTE	0.1404	1.0257	0.1404	3.1101	0.1046	0.0839	0.1049	0.1692	0.0	
1842.55	0.0	NLTE	0.0831	0.6507	0.0831	2.4572	0.1359	0.0722	0.0925	0.1099	0.0	1.2476
	0.0	LTE	0.0796	0.6322	0.0796	2.4739	0.2207	0.0788	0.0961	0.1120	0.0	
5741.33	0.0	NLTE	0.0839	0.1611	0.0839	1.4081	0.5268	0.1155	0.1688	0.2250	0.0	5.6602
	0.0	LTE	0.0500	-0.0634	0.0500	1.4109	0.7482	0.1310	0.1897	0.2473	0.0	
2559.96	0.0	NLTE	0.0640	0.3944	0.0640	1.6181	0.3656	0.0615	0.0903	0.1208	0.0	1.5144
	0.0	LTE	0.0559	0.3256	0.0559	1.6342	0.5005	0.0707	0.1002	0.1303	0.0	
3087.13	0.0	NLTE	0.0804	0.4123	0.0804	1.7976	0.3086	0.0735	0.1047	0.1380	0.0	3.1639
	0.0	LTE	0.0581	0.2714	0.0581	1.8144	0.5721	0.0899	0.1215	0.1554	0.0	
4553.94	0.0	NLTE	0.1348	0.4678	0.1348	2.0779	0.2913	0.1144	0.1621	0.2188	0.0	3.4397
	0.0	LTE	0.0902	0.2932	0.0902	2.0962	0.6097	0.1411	0.1940	0.2520	0.0	
4569.13	0.0	NLTE	0.1161	0.4013	0.1161	1.8574	0.3375	0.1057	0.1545	0.2079	0.0	3.2433
	0.0	LTE	0.0799	0.2394	0.0799	1.8758	0.6166	0.1315	0.1837	0.2378	0.0	
4576.03	0.0	NLTE	0.0791	0.2342	0.0791	1.3852	0.4729	0.0924	0.1395	0.1899	0.0	2.6958
	0.0	LTE	0.0580	0.0991	0.0580	1.4035	0.6621	0.1120	0.1615	0.2072	0.0	
3807.61	0.0	NLTE	0.0835	0.3374	0.0835	1.8710	0.4224	0.0960	0.1384	0.1807	0.0	2.3880
	0.0	LTE	0.0673	0.2440	0.0673	1.8963	0.5694	0.1075	0.1510	0.1914	0.0	
3797.20	0.0	NLTE	0.0709	0.2677	0.0709	1.6479	0.4710	0.0886	0.1302	0.1698	0.0	2.2441
	0.0	LTE	0.0577	0.1784	0.0577	1.6733	0.6001	0.1000	0.1420	0.1803	0.0	
3792.52	0.0	NLTE	0.0489	0.1068	0.0489	1.1703	0.5861	0.0783	0.1164	0.1537	0.0	1.7450
	0.0	LTE	0.0414	0.0351	0.0414	1.1957	0.6695	0.0860	0.1244	0.1600	0.0	

Table 51

Line Data for Silicon IV, T_{eff} = 22,500 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RC	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	4.2170	0.4773	6.4517	0.8045	0.0013	0.6598	2.3197	4.9809	0.0018	1.02389D 00
	0.0	LTE	4.1734	0.4728	6.3830	0.8053	0.1522	1.3068	2.9266	5.6441	0.0036	
1128.35	0.0	NLTE	1.2730	0.1048	1.2730	0.1059	0.0056	0.2474	0.7462	1.5630	0.0	1.01027D 00
	0.0	LTE	1.2666	0.1037	1.2666	0.1074	0.0084	0.3245	0.8207	1.6652	0.0	
1122.50	0.0	NLTE	0.8771	0.0954	0.8771	0.0966	0.0073	0.1712	0.5135	1.0747	0.0	1.01173D 00
	0.0	LTE	0.8721	0.0949	0.8721	0.0941	0.0706	0.2236	0.5662	1.1279	0.0	
1066.61	0.0	NLTE	0.1741	0.2412	0.1741	0.2451	0.0644	0.0564	0.0939	0.2088	0.0	1.00871D 00
	0.0	LTE	0.1733	0.2374	0.1733	0.2381	0.1020	0.0592	0.1005	0.2179	0.0	
1722.53	1722.56	NLTE	0.0765	0.0441	0.0765	0.0443	0.3703	0.0676	0.1019	0.1327	0.0106	1.22506D 00
	0.0	LTE	0.0715	0.0146	0.0715	0.0406	0.4472	0.0739	0.1079	0.1389	0.0109	
4090.02	0.0	NLTE	0.0370	-0.0470	0.0370	0.0577	0.7558	0.0864	0.1301	0.1816	0.0	1.28040D 00
	0.0	LTE	0.0233	-0.2472	0.0233	0.0357	0.8688	0.0992	0.1505	0.2053	0.0	
4117.26	0.0	NLTE	0.0294	-0.1458	0.0294	0.0443	0.7572	0.0830	0.1262	0.1783	0.0	1.29585D 00
	0.0	LTE	0.0203	-0.3106	0.0203	0.0363	0.8787	0.0967	0.1463	0.1998	0.0	
3166.63	0.0	NLTE	0.0060	-0.7226	0.0060	-0.5002	0.9368	0.0590	0.0903	0.1243	0.0	1.36710D 00
	0.0	LTE	0.0053	-0.7757	0.0053	-0.4745	0.9465	0.0618	0.0938	0.1278	0.0	
3150.48	0.0	NLTE	0.0039	-0.9146	0.0039	-0.8034	0.9565	0.0541	0.0844	0.1176	0.0	1.30019D 00
	0.0	LTE	0.0034	-0.9667	0.0034	-0.7777	0.9629	0.0567	0.0876	0.1208	0.0	

Table 52

Line Data for Silicon II, T_{eff} = 22,500 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0789	0.3499	0.0789	0.7896	0.2289	0.0787	0.1030	0.1264	0.0	0.5509
	0.0	LTE	0.0886	0.4003	0.0886	0.8476	0.1963	0.0867	0.1111	0.1314	0.0	
1533.43	0.0	NLTE	0.1420	0.6770	0.1420	2.2819	0.0283	0.1252	0.1420	0.1613	0.0	1.0707
	0.0	LTE	0.1405	0.6723	0.1405	2.3395	0.1134	0.1332	0.1503	0.1661	0.0	
1526.70	0.0	NLTE	0.1286	0.6356	0.1286	1.9789	0.0382	0.1188	0.1324	0.1476	0.0	1.0175
	0.0	LTE	0.1283	0.6345	0.1283	2.0366	0.1080	0.1246	0.1375	0.1553	0.0	
1264.73	1265.00	NLTE	0.1830	0.8706	0.3076	3.0431	0.0041	0.1307	0.1464	0.1792	0.0000	0.9498
	0.0	LTE	0.1862	0.8781	0.3118	3.1005	0.0669	0.1357	0.1543	0.1963	0.0001	
1260.42	0.0	NLTE	0.1621	0.8194	0.1621	2.7841	0.0053	0.1248	0.1364	0.1566	0.0	0.9553
	0.0	LTE	0.1641	0.8248	0.1641	2.8415	0.0621	0.1283	0.1398	0.1626	0.0	
952.68	0.0	NLTE	0.0996	0.7116	0.0996	2.3605	0.0017	0.0875	0.0985	0.1076	0.0	0.9039
	0.0	LTE	0.1007	0.7163	0.1007	2.4179	0.0153	0.0903	0.1004	0.1087	0.0	
989.87	0.0	NLTE	0.0926	0.6815	0.0926	2.0583	0.0021	0.0820	0.0905	0.1020	0.0	0.9029
	0.0	LTE	0.0936	0.6859	0.0936	2.1157	0.0140	0.0833	0.0923	0.1038	0.0	
3657.11	0.0	NLTE	0.0957	0.1048	0.0957	0.4799	0.4668	0.1224	0.1783	0.2317	0.0	2.2376
	0.0	LTE	0.0699	-0.0313	0.0699	0.4344	0.6096	0.1225	0.1779	0.2305	0.0	
3663.69	0.0	NLTE	0.0699	-0.0325	0.0699	0.2253	0.5719	0.1050	0.1608	0.2128	0.0	1.8383
	0.0	LTE	0.0510	-0.1694	0.0510	0.1799	0.6856	0.1042	0.1595	0.2117	0.0	
2073.36	0.0	NLTE	0.0819	0.3067	0.0819	0.6030	0.2382	0.0808	0.1066	0.1368	0.0	1.8476
	0.0	LTE	0.0679	0.2252	0.0679	0.5614	0.3604	0.0795	0.1052	0.1355	0.0	
2072.68	0.0	NLTE	0.0693	0.2343	0.0693	0.4267	0.3002	0.0689	0.0982	0.1278	0.0	1.6791
	0.0	LTE	0.0570	0.1499	0.0570	0.3652	0.4161	0.0672	0.0969	0.1261	0.0	
6348.86	0.0	NLTE	0.1880	0.1816	0.1880	1.0504	0.4512	0.2488	0.3396	0.4353	0.0	12.0348
	0.0	LTE	0.0985	-0.0992	0.0985	1.0112	0.7339	0.2765	0.3710	0.4540	0.0	
6373.13	0.0	NLTE	0.1451	0.0676	0.1451	0.7553	0.5320	0.2109	0.3059	0.4028	0.0	5.8255
	0.0	LTE	0.0812	-0.1843	0.0812	0.7161	0.7536	0.2426	0.3251	0.4208	0.0	
4132.06	0.0	NLTE	0.0915	0.0555	0.0915	0.6397	0.5389	0.1350	0.1954	0.2561	0.0	1.3387
	0.0	LTE	0.0830	0.0131	0.0830	0.6613	0.6124	0.1575	0.2102	0.2722	0.0	
4129.22	0.0	NLTE	0.0754	-0.0282	0.0754	0.4807	0.5948	0.1216	0.1830	0.2384	0.0	1.1945
	0.0	LTE	0.0703	-0.0584	0.0703	0.5023	0.6463	0.1360	0.1954	0.2555	0.0	
2906.54	0.0	NLTE	0.0261	-0.3373	0.0261	-0.0997	0.7705	0.0700	0.1082	0.1519	0.0	1.0446
	0.0	LTE	0.0253	-0.3497	0.0253	-0.0815	0.7818	0.0719	0.1113	0.1543	0.0	
2905.13	0.0	NLTE	0.0186	-0.4825	0.0186	-0.2760	0.8306	0.0672	0.1042	0.1486	0.0	1.0223
	0.0	LTE	0.0183	-0.4896	0.0183	-0.2578	0.8361	0.0686	0.1062	0.1504	0.0	
5057.39	5057.73	NLTE	0.0889	-0.0446	0.1086	0.6601	0.6335	0.1676	0.2409	0.3178	0.0002	1.4134
	0.0	LTE	0.0754	-0.1161	0.0932	0.6499	0.7010	0.1811	0.2501	0.3292	0.0003	
5042.43	0.0	NLTE	0.0637	-0.1881	0.0637	0.4046	0.7077	0.1414	0.2153	0.2820	0.0	1.3824
	0.0	LTE	0.0550	-0.2518	0.0550	0.3945	0.7552	0.1479	0.2223	0.2883	0.0	
4202.08	0.0	NLTE	0.0045	-1.2644	0.0045	-1.0985	0.9717	0.0930	0.1458	0.2125	0.0	1.2620
	0.0	LTE	0.0036	-1.3620	0.0036	-1.1128	0.9772	0.0922	0.1446	0.2110	0.0	

Table 53

Line Data for Silicon III, T_{eff} = 22,500 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	8.7717	2.5718	8.7717	6.6136	0.0005	4.0429	6.1258	10.2502	0.0009	0.9916
	1207.52	LTE	8.8078	2.5736	8.8078	6.6205	0.0925	4.5940	6.6384	11.0608	0.0010	
1298.95	1303.32	NLTE	1.2186	1.6825	3.8883	4.9467	0.0016	0.5731	0.9249	1.6626	-0.0090	0.9952
	1294.55	LTE	1.2204	1.6831	3.8947	4.9656	0.1309	0.7164	1.0611	1.8567	-0.0088	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.7484	2.1027	3.5489	5.1643	0.0007	0.7434	1.1584	1.9401	0.0004	0.9726
	1113.17	LTE	2.7854	2.1085	3.5915	5.1830	0.0698	0.8360	1.2653	2.1063	0.0049	
	1105.97											
	1109.94											
	1108.36											
957.39	0.0	NLTE	0.4185	1.3330	0.4185	4.1462	0.0013	0.1908	0.2824	0.4565	0.0	0.9653
	0.0	LTE	0.4257	1.3405	0.4257	4.1649	0.0434	0.2068	0.3010	0.4752	0.0	
1417.24	0.0	NLTE	0.4214	1.1835	0.4214	3.6076	0.0066	0.1786	0.2870	0.4740	0.0	1.05069D 00
	0.0	LTE	0.4116	1.1733	0.4116	3.6212	0.1622	0.2238	0.3415	0.5347	0.0	
1312.59	0.0	NLTE	0.1756	0.8365	0.1756	2.8523	0.0153	0.1274	0.1439	0.1707	0.0	1.05433D 00
	0.0	LTE	0.1725	0.8290	0.1725	2.8659	0.0916	0.1317	0.1470	0.1741	0.0	
1842.55	0.0	NLTE	0.1313	0.5631	0.1313	2.2124	0.1550	0.1251	0.1565	0.1834	0.0	1.28936D 00
	0.0	LTE	0.1265	0.5469	0.1265	2.2293	0.2174	0.1343	0.1603	0.1866	0.0	
5741.33	0.0	NLTE	0.1194	0.0283	0.1194	1.1557	0.6034	0.1986	0.2942	0.3935	0.0	4.63549D 00
	0.0	LTE	0.0731	-0.1451	0.0731	1.1590	0.7789	0.2291	0.3289	0.4202	0.0	
2559.96	0.0	NLTE	0.0904	0.2583	0.0904	1.3748	0.4382	0.1073	0.1560	0.2018	0.0	1.55646D 00
	0.0	LTE	0.0795	0.2025	0.0795	1.3910	0.5423	0.1193	0.1683	0.2140	0.0	
3087.13	0.0	NLTE	0.1175	0.2906	0.1175	1.5447	0.3805	0.1275	0.1837	0.2383	0.0	3.39794D 00
	0.0	LTE	0.0862	0.1560	0.0862	1.5617	0.5940	0.1493	0.2061	0.2602	0.0	
4553.94	0.0	NLTE	0.1923	0.3358	0.1923	1.8339	0.3566	0.1962	0.2834	0.3715	0.0	4.53264D 00
	0.0	LTE	0.1282	0.1597	0.1282	1.8526	0.6276	0.2387	0.3264	0.4075	0.0	
4569.13	0.0	NLTE	0.1651	0.2661	0.1651	1.8134	0.4150	0.1854	0.2711	0.3558	0.0	3.76379D 00
	0.0	LTE	0.1148	0.1165	0.1148	1.8321	0.6424	0.2221	0.3098	0.3915	0.0	
4576.03	0.0	NLTE	0.1100	0.0511	0.1100	1.1412	0.5613	0.1642	0.2445	0.3242	0.0	2.43855D 00
	0.0	LTE	0.0831	-0.0305	0.0831	1.1595	0.6990	0.1919	0.2737	0.3432	0.0	
3807.61	0.0	NLTE	0.1249	0.2261	0.1249	1.6283	0.4796	0.1663	0.2401	0.3080	0.0	2.32078D 00
	0.0	LTE	0.1018	0.1374	0.1018	1.6536	0.6029	0.1847	0.2575	0.3224	0.0	
3797.20	0.0	NLTE	0.1047	0.1506	0.1047	1.4053	0.5349	0.1558	0.2264	0.2874	0.0	2.04212D 00
	0.0	LTE	0.0866	0.0665	0.0866	1.4306	0.6377	0.1711	0.2414	0.3029	0.0	
3792.52	0.0	NLTE	0.0690	-0.0295	0.0690	0.9276	0.6533	0.1366	0.1982	0.2601	0.0	1.53650D 00
	0.0	LTE	0.0598	-0.0518	0.0598	0.9529	0.7127	0.1484	0.2089	0.2672	0.0	

Table 54

Line Data for Silicon IV, T_{eff} = 22,500 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LCG(W/D)	W(TOTAL)	LCG(TO)	R0	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	3.7625	2.1438	6.4689	6.4551	0.0017	0.6706	2.2894	5.2127	0.0013	1.03110D 00
	0.0	LTE	3.7292	2.1377	6.3794	6.4501	0.1559	1.3286	2.9022	5.8274	0.0033	
1128.38	0.0	NLTE	1.2895	1.7682	1.2855	4.5603	0.0070	0.2527	0.7518	1.5708	0.0	1.01318D 00
	0.0	LTE	1.2812	1.7654	1.2812	4.5579	0.0694	0.3273	0.8279	1.6481	0.0	
1122.50	0.0	NLTE	0.8937	1.6112	0.8937	4.6570	0.0097	0.1801	0.5243	1.0877	0.0	1.01561D 00
	0.0	LTE	0.8870	1.6080	0.8870	4.6547	0.0721	0.2301	0.5760	1.1386	0.0	
1066.61	0.0	NLTE	0.1914	0.5641	0.1914	2.7563	0.0781	0.0908	0.1236	0.2169	0.0	1.02042D 00
	0.0	LTE	0.1897	0.5662	0.1897	2.7553	0.1164	0.0943	0.1286	0.2259	0.0	
1722.53	1722.56	NLTE	0.0960	0.4563	0.0960	1.8343	0.4044	0.1008	0.1451	0.1878	0.0065	1.28755D 00
	0.0	LTE	0.0891	0.4241	0.0891	1.8307	0.4777	0.1096	0.1546	0.1960	0.0070	
4090.02	0.0	NLTE	0.0477	-0.2230	0.0477	0.7298	0.7970	0.1414	0.2163	0.2983	0.0	2.30967D 00
	0.0	LTE	0.0306	-0.4154	0.0306	0.7080	0.8856	0.1680	0.2486	0.3304	0.0	
4117.26	0.0	NLTE	0.0375	-0.3300	0.0375	0.4305	0.8356	0.1365	0.2121	0.2944	0.0	2.45582D 00
	0.0	LTE	0.0266	-0.4789	0.0266	0.4087	0.8954	0.1625	0.2392	0.3171	0.0	
3166.63	0.0	NLTE	0.0079	-0.8555	0.0079	-0.7461	0.9502	0.0979	0.1526	0.2104	0.0	1.29512D 00
	0.0	LTE	0.0070	-0.9464	0.0070	-0.7208	0.9570	0.1023	0.1578	0.2161	0.0	
3150.48	0.0	NLTE	0.0048	-1.1032	0.0048	-1.0453	0.9671	0.0906	0.1427	0.1966	0.0	1.23239D 00
	0.0	LTE	0.0043	-1.1499	0.0043	-1.0240	0.9712	0.0941	0.1471	0.2020	0.0	

Table 55

Line Data for Silicon II, T_{eff} = 25,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0463	0.3844	0.0463	0.8908	0.2251	0.0480	0.0600	0.0724	0.0	0.8307
	0.0	LTE	0.0480	0.4000	0.0480	0.8864	0.2216	0.0498	0.0617	0.0735	0.0	
1533.43	0.0	NLTE	0.0872	0.7314	0.0872	2.3835	0.0282	0.0725	0.0831	0.0920	0.0	1.1972
	0.0	LTE	0.0838	0.7140	0.0838	2.3789	0.1185	0.0773	0.0852	0.0950	0.0	
1526.70	0.0	NLTE	0.0768	0.6779	0.0768	2.0806	0.0362	0.0674	0.0762	0.0863	0.0	1.2229
	0.0	LTE	0.0741	0.6623	0.0741	2.0760	0.1155	0.0699	0.0784	0.0877	0.0	
1264.73	1265.00	NLTE	0.1419	1.0265	0.2184	3.1448	0.0047	0.0805	0.0987	0.1575	0.0000	1.0482
	0.0	LTE	0.1395	1.0190	0.2147	3.1403	0.0649	0.0831	0.1030	0.1520	0.0000	
1260.42	0.0	NLTE	0.1151	0.9371	0.1151	2.8858	0.0059	0.0732	0.0839	0.1175	0.0	1.0469
	0.0	LTE	0.1130	0.9291	0.1130	2.8812	0.0610	0.0756	0.0852	0.1235	0.0	
992.68	0.0	NLTE	0.0637	0.7839	0.0637	2.4632	0.0023	0.0524	0.0569	0.0638	0.0	0.9780
	0.0	LTE	0.0640	0.7858	0.0640	2.4587	0.0150	0.0528	0.0573	0.0644	0.0	
989.87	0.0	NLTE	0.0567	0.7343	0.0567	2.1610	0.0028	0.0477	0.0533	0.0582	0.0	0.9862
	0.0	LTE	0.0568	0.7352	0.0568	2.1564	0.0142	0.0483	0.0538	0.0586	0.0	
3857.11	0.0	NLTE	0.0603	0.1704	0.0603	0.6657	0.4415	0.0767	0.1077	0.1368	0.0	2.6056
	0.0	LTE	0.0443	0.0367	0.0443	0.6141	0.5943	0.0781	0.1087	0.1378	0.0	
3863.69	0.0	NLTE	0.0467	0.0589	0.0467	0.4111	0.5223	0.0674	0.0960	0.1260	0.0	2.0783
	0.0	LTE	0.0344	-0.0743	0.0344	0.3596	0.6497	0.0676	0.0962	0.1262	0.0	
2073.36	0.0	NLTE	0.0507	0.3649	0.0507	0.8035	0.2251	0.0496	0.0649	0.0807	0.0	2.0435
	0.0	LTE	0.0420	0.2830	0.0420	0.7574	0.3573	0.0493	0.0646	0.0806	0.0	
2072.68	0.0	NLTE	0.0442	0.3054	0.0442	0.6273	0.2575	0.0435	0.0599	0.0758	0.0	1.8582
	0.0	LTE	0.0364	0.2216	0.0364	0.5811	0.3936	0.0431	0.0595	0.0755	0.0	
6348.86	0.0	NLTE	0.0930	0.1424	0.0930	1.2037	0.5389	0.1403	0.1961	0.2502	0.0	6.0024
	0.0	LTE	0.0580	-0.0628	0.0580	1.1695	0.7406	0.1671	0.2180	0.2649	0.0	
6373.13	0.0	NLTE	0.0741	0.0420	0.0741	0.9086	0.5949	0.1245	0.1790	0.2320	0.0	3.9026
	0.0	LTE	0.0490	-0.1381	0.0490	0.8744	0.7539	0.1421	0.1942	0.2460	0.0	
4132.06	0.0	NLTE	0.0668	0.1853	0.0668	0.8927	0.4832	0.0886	0.1245	0.1601	0.0	1.7826
	0.0	LTE	0.0560	0.1084	0.0560	0.8921	0.5979	0.1002	0.1333	0.1673	0.0	
4129.22	0.0	NLTE	0.0574	0.1195	0.0574	0.7337	0.5247	0.0816	0.1167	0.1516	0.0	1.6204
	0.0	LTE	0.0488	0.0490	0.0488	0.7331	0.6212	0.0895	0.1240	0.1588	0.0	
2906.54	0.0	NLTE	0.0212	-0.1604	0.0212	0.1418	0.6928	0.0428	0.0654	0.0901	0.0	1.2173
	0.0	LTE	0.0190	-0.2074	0.0190	0.1388	0.7322	0.0448	0.0673	0.0920	0.0	
2905.13	0.0	NLTE	0.0158	-0.2872	0.0158	-0.0344	0.7595	0.0399	0.0623	0.0869	0.0	1.1700
	0.0	LTE	0.0143	-0.3306	0.0143	-0.0375	0.7874	0.0411	0.0637	0.0885	0.0	
5057.39	5057.73	NLTE	0.0571	0.0294	0.0745	0.8895	0.6253	0.1084	0.1505	0.1918	0.0000	1.4549
	0.0	LTE	0.0489	-0.0383	0.0642	0.8723	0.6885	0.1131	0.1546	0.1957	0.0000	
5042.43	0.0	NLTE	0.0441	-0.0816	0.0441	0.6341	0.6774	0.0939	0.1342	0.1726	0.0	1.5034
	0.0	LTE	0.0379	-0.1471	0.0379	0.5169	0.7291	0.0968	0.1376	0.1769	0.0	
4202.08	0.0	NLTE	0.0046	-0.9838	0.0046	-0.9331	0.9588	0.0581	0.0941	0.1379	0.0	1.1774
	0.0	LTE	0.0039	-1.0507	0.0039	-0.9477	0.9647	0.0581	0.0941	0.1380	0.0	

Table 56

Line Data for Silicon III, T_{eff} = 25,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	5.4611	2.6322	5.4611	6.4364	0.0010	2.5213	3.8271	6.2680	0.0015	1.0061
	1207.52	LTE	5.4446	2.6309	5.4446	6.4357	0.1101	2.9131	4.2653	6.7400	-0.0408	
1298.95	1303.32	NLTE	1.0896	1.9001	3.0185	4.9138	0.0023	0.4371	0.7274	1.2134	-0.0055	1.0043
	1294.55	LTE	1.0889	1.8998	3.0119	4.9239	0.1500	0.5617	0.8496	1.3439	-0.0098	
	1296.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	2.1640	2.2681	2.6570	5.1193	0.0010	0.5535	0.8561	1.3912	-0.0069	0.9886
	1113.17	LTE	2.1786	2.2680	2.6710	5.1291	0.0802	0.6271	0.9257	1.4786	-0.0026	
	1109.97											
	1109.94											
	1106.36											
957.39	0.0	NLTE	0.3192	1.4816	0.3192	4.1207	0.0014	0.1476	0.2195	0.3500	0.0	0.9868
	0.0	LTE	0.3213	1.4845	0.3213	4.1304	0.0430	0.1575	0.2290	0.3618	0.0	
1417.24	0.0	NLTE	0.3205	1.3309	0.3205	3.6531	0.0082	0.1258	0.2201	0.3643	0.0	1.0505
	0.0	LTE	0.3129	1.3203	0.3129	3.6560	0.1615	0.1674	0.2553	0.4076	0.0	
1312.59	0.0	NLTE	0.1244	0.9530	0.1244	2.9032	0.0159	0.0751	0.0919	0.1329	0.0	1.0493
	0.0	LTE	0.1220	0.9446	0.1220	2.9061	0.0883	0.0791	0.0944	0.1415	0.0	
1842.55	0.0	NLTE	0.0818	0.6236	0.0818	2.3339	0.1544	0.0707	0.0916	0.1102	0.0	1.2222
	0.0	LTE	0.0783	0.6049	0.0783	2.3389	0.2292	0.0761	0.0947	0.1121	0.0	
5741.33	0.0	NLTE	0.0634	0.0196	0.0634	1.2164	0.6390	0.1130	0.1673	0.2244	0.0	2.7222
	0.0	LTE	0.0459	-0.1203	0.0459	1.2158	0.7608	0.1270	0.1836	0.2404	0.0	
2559.96	0.0	NLTE	0.0605	0.3500	0.0605	1.5228	0.3896	0.0600	0.0887	0.1190	0.0	1.6241
	0.0	LTE	0.0515	0.2603	0.0515	1.5268	0.5278	0.0696	0.0980	0.1280	0.0	
3087.13	0.0	NLTE	0.0703	0.3339	0.0703	1.6244	0.3718	0.0712	0.1029	0.1357	0.0	3.0363
	0.0	LTE	0.0516	0.1997	0.0516	1.6350	0.5981	0.0871	0.1179	0.1502	0.0	
4553.94	0.0	NLTE	0.1118	0.3664	0.1118	1.9160	0.3995	0.1105	0.1611	0.2184	0.0	2.3883
	0.0	LTE	0.0845	0.2451	0.0845	1.9275	0.6171	0.1388	0.1897	0.2437	0.0	
4569.13	0.0	NLTE	0.0955	0.2968	0.0955	1.6955	0.4485	0.1040	0.1548	0.2084	0.0	2.2109
	0.0	LTE	0.0746	0.1694	0.0746	1.7071	0.6271	0.1294	0.1793	0.2316	0.0	
4576.03	0.0	NLTE	0.0639	0.1211	0.0639	1.2233	0.5755	0.0933	0.1408	0.1905	0.0	1.7396
	0.0	LTE	0.0532	0.0419	0.0532	1.2348	0.6781	0.1079	0.1555	0.2017	0.0	
3807.61	0.0	NLTE	0.0716	0.2508	0.0716	1.6790	0.4872	0.0909	0.1320	0.1721	0.0	1.9431
	0.0	LTE	0.0596	0.1712	0.0596	1.6933	0.6038	0.1027	0.1431	0.1830	0.0	
3797.20	0.0	NLTE	0.0593	0.1702	0.0593	1.4560	0.5405	0.0840	0.1238	0.1632	0.0	1.7966
	0.0	LTE	0.0500	0.0962	0.0500	1.4703	0.6371	0.0930	0.1329	0.1701	0.0	
3792.52	0.0	NLTE	0.0384	-0.0184	0.0384	0.9784	0.6598	0.0737	0.1096	0.1463	0.0	1.4384
	0.0	LTE	0.0337	-0.0745	0.0337	0.9925	0.7143	0.0786	0.1153	0.1517	0.0	

Table 57

Line Data for Silicon IV, T_{eff} = 25,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	3.1282	[illegible]	4.6779	6.3467	0.0023	0.4333	1.5506	3.4880	0.0003	1.01017D 00
	0.0	LTE	3.1160	[illegible]	4.6555	6.3480	0.1696	0.9287	2.0650	3.9936	0.0008	
1128.35	0.0	NLTE	1.0629	1.9505	1.0629	5.1373	0.0070	0.2034	0.6117	1.3370	0.0	1.00910D 00
	0.0	LTE	1.0581	1.9485	1.0581	5.1368	0.0766	0.2743	0.6822	1.4228	0.0	
1122.50	0.0	NLTE	0.7390	1.7545	0.7390	4.8341	0.0093	0.1438	0.4230	0.8900	0.0	1.01280D 00
	0.0	LTE	0.7343	1.7522	0.7343	4.8336	0.0802	0.1937	0.4725	0.9409	0.0	
1066.61	0.0	NLTE	0.1916	1.2807	0.1916	3.2478	0.0683	0.0524	0.1049	0.2371	0.0	1.01881D 00
	0.0	LTE	0.1899	1.2769	0.1899	3.2475	0.0982	0.0541	0.1081	0.2449	0.0	
1722.53	1722.56	NLTE	0.0661	[illegible]	0.0661	2.0284	0.4256	0.0539	0.0963	0.1439	0.0104	1.15780D 00
	0.0	LTE	0.0631	[illegible]	0.0631	2.0272	0.4731	0.0583	0.1001	0.1474	0.0101	
4090.02	0.0	NLTE	0.0179	[illegible]	0.0179	0.5069	0.8622	0.0577	0.1155	0.1732	0.0	2.36668D 00
	0.0	LTE	0.0122	[illegible]	0.0122	0.4984	0.9121	0.0600	0.1200	0.1799	0.0	
4117.26	0.0	NLTE	0.0136	[illegible]	0.0136	0.2074	0.8926	0.0574	0.1148	0.1722	0.0	1.93361D 00
	0.0	LTE	0.0101	[illegible]	0.0101	0.1990	0.9242	0.0589	0.1178	0.1767	0.0	
3166.63	0.0	NLTE	0.0041	[illegible]	0.0041	-0.6518	0.9551	0.0431	0.0862	0.1293	0.0	1.34826D 00
	0.0	LTE	0.0036	[illegible]	0.0036	-0.6217	0.9617	0.0435	0.0869	0.1304	0.0	
3150.48	0.0	NLTE	0.0025	-1.1194	0.0025	-0.5950	0.9715	0.0421	0.0843	0.1264	0.0	1.30097D 00
	0.0	LTE	0.0022	-1.1611	0.0022	-0.5249	0.9755	0.0423	0.0847	0.1270	0.0	

Table 58

Line Data for Silicon II, T_{eff} = 25,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0713	0.3004	0.0713	0.6309	0.2729	0.0744	0.0976	0.1232	0.0	0.8402
	0.0	LTE	0.0745	0.3194	0.0745	0.6281	0.2533	0.0760	0.0992	0.1244	0.0	
1533.43	0.0	NLTE	0.1384	0.6601	0.1384	2.1249	0.0349	0.1236	0.1393	0.1590	0.0	1.3571
	0.0	LTE	0.1325	0.6412	0.1325	2.1219	0.1142	0.1275	0.1423	0.1613	0.0	
1526.70	0.0	NLTE	0.1248	0.6171	0.1248	1.8219	0.0465	0.1165	0.1303	0.1442	0.0	1.3205
	0.0	LTE	0.1204	0.6015	0.1204	1.8190	0.1137	0.1196	0.1325	0.1465	0.0	
1264.73	1265.00	NLTE	0.1730	0.8407	0.2928	2.8870	0.0059	0.1287	0.1423	0.1670	0.0000	1.0966
	0.0	LTE	0.1688	0.8299	0.2863	2.8842	0.0601	0.1308	0.1439	0.1700	0.0000	
1260.42	0.0	NLTE	0.1541	0.7920	0.1541	2.6280	0.0076	0.1228	0.1344	0.1513	0.0	1.0962
	0.0	LTE	0.1504	0.7815	0.1504	2.6251	0.0569	0.1245	0.1356	0.1534	0.0	
952.68	0.0	NLTE	0.1002	0.7086	0.1002	2.2046	0.0027	0.0857	0.0967	0.1071	0.0	1.0205
	0.0	LTE	0.0999	0.7073	0.0999	2.2017	0.0141	0.0861	0.0972	0.1074	0.0	
565.87	0.0	NLTE	0.0918	0.6722	0.0918	1.9023	0.0035	0.0806	0.0889	0.1002	0.0	1.0303
	0.0	LTE	0.0915	0.6705	0.0915	1.8995	0.0137	0.0809	0.0892	0.1006	0.0	
3857.11	0.0	NLTE	0.0838	0.0418	0.0838	0.4115	0.5306	0.1193	0.1768	0.2320	0.0	2.1047
	0.0	LTE	0.0612	-0.0946	0.0612	0.3621	0.6556	0.1187	0.1759	0.2304	0.0	
3663.69	0.0	NLTE	0.0603	-0.1018	0.0603	0.1570	0.6315	0.1043	0.1607	0.2140	0.0	1.7846
	0.0	LTE	0.0439	-0.2399	0.0439	0.1075	0.7301	0.1033	0.1593	0.2130	0.0	
2073.36	0.0	NLTE	0.0744	0.2596	0.0744	0.5514	0.2964	0.0776	0.1046	0.1356	0.0	1.8112
	0.0	LTE	0.0609	0.1729	0.0609	0.5073	0.4175	0.0757	0.1033	0.1343	0.0	
2072.68	0.0	NLTE	0.0620	0.1805	0.0620	0.3751	0.3659	0.0662	0.0967	0.1267	0.0	1.6536
	0.0	LTE	0.0504	0.0907	0.0504	0.3311	0.4783	0.0648	0.0955	0.1252	0.0	
6348.86	0.0	NLTE	0.1352	0.0328	0.1352	0.9489	0.5968	0.2376	0.3308	0.4308	0.0	4.6464
	0.0	LTE	0.0866	-0.1604	0.0866	0.9159	0.7602	0.2653	0.3592	0.4491	0.0	
6373.13	0.0	NLTE	0.1029	-0.0875	0.1029	0.6538	0.6645	0.2037	0.3014	0.3998	0.0	2.8809
	0.0	LTE	0.0700	-0.2543	0.0700	0.6208	0.7831	0.2273	0.3173	0.4154	0.0	
4132.06	0.0	NLTE	0.0929	0.0567	0.0929	0.6492	0.5545	0.1427	0.2037	0.2686	0.0	1.5783
	0.0	LTE	0.0794	-0.0119	0.0794	0.6494	0.6376	0.1580	0.2134	0.2775	0.0	
4129.22	0.0	NLTE	0.0773	-0.0230	0.0773	0.4902	0.6052	0.1284	0.1913	0.2537	0.0	1.4268
	0.0	LTE	0.0671	-0.0847	0.0671	0.4904	0.6708	0.1379	0.1987	0.2622	0.0	
2906.54	0.0	NLTE	0.0248	-0.3644	0.0248	-0.1044	0.7876	0.0715	0.1110	0.1549	0.0	1.1585
	0.0	LTE	0.0225	-0.4070	0.0225	-0.1065	0.8101	0.0727	0.1130	0.1563	0.0	
2905.13	0.0	NLTE	0.0178	-0.5080	0.0178	-0.2807	0.8425	0.0686	0.1066	0.1514	0.0	1.1316
	0.0	LTE	0.0162	-0.5481	0.0162	-0.2828	0.8579	0.0695	0.1079	0.1526	0.0	
5057.39	5057.73	NLTE	0.0815	-0.0883	0.1003	0.6395	0.6751	0.1734	0.2476	0.3297	0.0003	1.3810
	0.0	LTE	0.0702	-0.1531	0.0868	0.6231	0.7254	0.1804	0.2522	0.3347	0.0003	
5042.43	0.0	NLTE	0.0588	-0.2289	0.0588	0.3840	0.7400	0.1462	0.2222	0.2922	0.0	1.3622
	0.0	LTE	0.0509	-0.2912	0.0509	0.3676	0.7778	0.1493	0.2252	0.2965	0.0	
4202.08	0.0	NLTE	0.0047	-1.2468	0.0047	-1.1217	0.9737	0.0995	0.1575	0.2293	0.0	1.1753
	0.0	LTE	0.0040	-1.3141	0.0040	-1.1355	0.9775	0.0994	0.1575	0.2294	0.0	

Table 59

Line Data for Silicon III, T_{eff} = 25,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	5.4617	2.3605	5.4617	6.1887	0.0011	2.5176	3.8414	6.1464	0.0014	1.01124D 00
	1207.52	LTE	5.4314	2.3581	5.4314	6.1871	0.1113	2.9165	4.1911	6.5939	0.0016	
1298.95	1303.32	NLTE	0.9770	1.9810	3.0764	4.6784	0.0026	0.4383	0.7168	1.1890	-0.0090	1.01702D 00
	1294.55	LTE	0.9683	1.9771	3.0518	4.6878	0.1479	0.5631	0.8263	1.3442	-0.0092	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	1.9305	1.9438	2.6238	4.8893	0.0012	0.5380	0.8299	1.4056	-0.0050	9.94181D-01
	1113.17	LTE	1.9351	1.9443	2.6302	4.8987	0.0864	0.6149	0.9013	1.5204	-0.0056	
	1109.97											
	1109.54											
	1108.36											
957.39	0.0	NLTE	0.3287	1.2226	0.3287	3.8848	0.0017	0.1553	0.2286	0.3578	0.0	9.92911D-01
	0.0	LTE	0.3298	1.2240	0.3298	3.8939	0.0403	0.1634	0.2386	0.3686	0.0	
1417.24	0.0	NLTE	0.3403	1.0851	0.3403	3.4230	0.0102	0.1607	0.2278	0.3877	0.0	1.08232D 00
	0.0	LTE	0.3282	1.0654	0.3282	3.4254	0.1463	0.1822	0.2559	0.4148	0.0	
1312.59	0.0	NLTE	0.1599	0.7503	0.1599	2.6728	0.0201	0.1218	0.1397	0.1617	0.0	1.08555D 00
	0.0	LTE	0.1561	0.7800	0.1561	2.6751	0.0782	0.1269	0.1416	0.1644	0.0	
1642.55	0.0	NLTE	0.1253	0.5372	0.1253	2.1024	0.1780	0.1198	0.1528	0.1770	0.0	1.27324D 00
	0.0	LTE	0.1203	0.5197	0.1203	2.1070	0.2343	0.1259	0.1558	0.1801	0.0	
5741.33	0.0	NLTE	0.0919	-0.0912	0.0919	0.9857	0.6911	0.1949	0.2904	0.3892	0.0	2.51763D 00
	0.0	LTE	0.0663	-0.2329	0.0663	0.9866	0.7897	0.2173	0.3096	0.4053	0.0	
2559.96	0.0	NLTE	0.0843	0.2221	0.0843	1.2524	0.4658	0.1052	0.1523	0.1958	0.0	1.66063D 00
	0.0	LTE	0.0721	0.1544	0.0721	1.2550	0.5692	0.1139	0.1620	0.2062	0.0	
3087.13	0.0	NLTE	0.1030	0.2282	0.1030	1.3834	0.4403	0.1258	0.1795	0.2312	0.0	3.14964D 00
	0.0	LTE	0.0756	0.0937	0.0756	1.3920	0.6238	0.1412	0.1968	0.2476	0.0	
4553.94	0.0	NLTE	0.1624	0.2568	0.1624	1.6553	0.4519	0.1958	0.2825	0.3674	0.0	2.91526D 00
	0.0	LTE	0.1211	0.1294	0.1211	1.7049	0.6342	0.2289	0.3143	0.3969	0.0	
4569.13	0.0	NLTE	0.1390	0.1880	0.1390	1.4749	0.5026	0.1854	0.2696	0.3493	0.0	2.45629D 00
	0.0	LTE	0.1075	0.0761	0.1075	1.4845	0.6511	0.2126	0.2979	0.3778	0.0	
4576.03	0.0	NLTE	0.0914	0.0050	0.0914	1.0026	0.6297	0.1615	0.2398	0.3196	0.0	1.74102D 00
	0.0	LTE	0.0756	-0.0075	0.0756	1.0122	0.7132	0.1823	0.2584	0.3323	0.0	
3807.61	0.0	NLTE	0.1059	0.1489	0.1059	1.4478	0.5396	0.1592	0.2279	0.2895	0.0	1.98168D 00
	0.0	LTE	0.0876	0.0664	0.0876	1.4610	0.6374	0.1698	0.2401	0.3021	0.0	
3797.20	0.0	NLTE	0.0867	0.0634	0.0867	1.2248	0.5944	0.1477	0.2114	0.2745	0.0	1.78165D 00
	0.0	LTE	0.0726	-0.0141	0.0726	1.2380	0.6757	0.1569	0.2233	0.2823	0.0	
3792.52	0.0	NLTE	0.0534	-0.1465	0.0534	0.7472	0.7141	0.1219	0.1835	0.2463	0.0	1.41427D 00
	0.0	LTE	0.0464	-0.2073	0.0464	0.7604	0.7595	0.1294	0.1901	0.2527	0.0	

Table 60

Line Data for Silicon IV, T_{eff} = 25,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.9133	2.0249	4.6716	6.1345	0.0029	0.4389	1.5386	3.5202	0.0002	1.01977D 00
	0.0	LTE	2.8909	2.0215	4.6285	6.1337	0.1726	0.9400	2.0913	4.0770	0.0012	
1128.35	0.0	NLTE	1.0534	1.6748	1.0534	4.9363	0.0088	0.2083	0.6145	1.2920	0.0	1.01144D 00
	0.0	LTE	1.0474	1.6724	1.0474	4.9358	0.0786	0.2816	0.6874	1.3636	0.0	
1122.50	0.0	NLTE	0.7370	1.8220	0.7370	4.6330	0.0124	0.1546	0.4284	0.8941	0.0	1.01381D 00
	0.0	LTE	0.7321	1.8190	0.7321	4.6325	0.0822	0.1980	0.4754	0.9448	0.0	
1066.61	0.0	NLTE	0.2052	0.9889	0.2052	3.0555	0.0839	0.0929	0.1293	0.2502	0.0	1.02092D 00
	0.0	LTE	0.2034	0.9849	0.2034	3.0553	0.1125	0.0960	0.1325	0.2570	0.0	
1722.53	1722.56	NLTE	0.0821	0.3628	0.0821	1.8313	0.4633	0.0971	0.1409	0.1818	0.0061	1.18945D 00
	0.0	LTE	0.0780	0.3607	0.0780	1.8301	0.5062	0.1025	0.1459	0.1882	0.0064	
4090.02	0.0	NLTE	0.0219	-0.5670	0.0219	0.2846	0.8925	0.1269	0.1929	0.2650	0.0	2.03890D 00
	0.0	LTE	0.0157	-0.7115	0.0157	0.2762	0.9282	0.1393	0.2093	0.2816	0.0	
4117.26	0.0	NLTE	0.0163	-0.6575	0.0163	-0.0148	0.9179	0.1239	0.1887	0.2599	0.0	1.63519D 00
	0.0	LTE	0.0127	-0.8048	0.0127	-0.0232	0.9392	0.1335	0.2010	0.2712	0.0	
3166.63	0.0	NLTE	0.0050	-1.0554	0.0050	-0.8888	0.9662	0.0930	0.1416	0.1948	0.0	1.24011D 00
	0.0	LTE	0.0044	-1.1504	0.0044	-0.8591	0.9706	0.0958	0.1452	0.1986	0.0	
3150.48	0.0	NLTE	0.0029	-1.3386	0.0029	-1.1920	0.9794	0.0866	0.1328	0.1830	0.0	1.20418D 00
	0.0	LTE	0.0025	-1.3884	0.0025	-1.1623	0.9820	0.0890	0.1356	0.1862	0.0	

Table 61

Line Data for Silicon II, T_{eff} = 25,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TD)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	-0.0016	-1.0938	-0.0016	-0.5158	1.0166	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0255	0.1126	0.0255	0.1197	0.4188	0.0298	0.0428	0.0572	0.0	
1533.43	0.0	NLTE	0.0334	0.3026	0.0334	0.9809	0.2637	0.0363	0.0463	0.0560	0.0	0.0118
	0.0	LTE	0.0619	0.5699	0.0619	1.6102	0.1537	0.0629	0.0710	0.0784	0.0	
1526.70	0.0	NLTE	0.0252	0.1823	0.0252	0.6780	0.3462	0.0289	0.0394	0.0488	0.0	0.0043
	0.0	LTE	0.0555	0.5243	0.0555	1.3073	0.1533	0.0558	0.0639	0.0734	0.0	
1264.73	1265.00	NLTE	0.0511	0.5702	0.0511	1.7442	0.0669	0.0463	0.0547	0.0616	0.0000	0.0135
	0.0	LTE	0.0779	0.7538	0.1312	2.3706	0.0924	0.0664	0.0724	0.0825	0.0000	
1260.42	0.0	NLTE	0.0454	0.5207	0.0454	1.4852	0.0831	0.0429	0.0496	0.0575	0.0	0.1416
	0.0	LTE	0.0690	0.7021	0.0690	2.1116	0.0892	0.0607	0.0680	0.0747	0.0	
992.68	0.0	NLTE	0.0335	0.4918	0.0335	1.0648	0.0752	0.0299	0.0363	0.0418	0.0	0.0480
	0.0	LTE	0.0470	0.6394	0.0470	1.6894	0.0296	0.0431	0.0475	0.0530	0.0	
989.87	0.0	NLTE	0.0284	0.4214	0.0284	0.7625	0.1000	0.0254	0.0314	0.0383	0.0	0.0344
	0.0	LTE	0.0430	0.6014	0.0430	1.3871	0.0290	0.0381	0.0438	0.0490	0.0	
3857.11	0.0	NLTE	0.0055	-0.8795	0.0055	-0.3454	0.9203	0.0419	0.0656	0.0927	0.0	0.1977
	0.0	LTE	0.0170	-0.3919	0.0170	-0.1385	0.7930	0.0507	0.0792	0.1098	0.0	
3863.69	0.0	NLTE	0.0029	-1.1574	0.0029	-0.5999	0.9574	0.0408	0.0642	0.0922	0.0	0.2134
	0.0	LTE	0.0104	-0.6046	0.0104	-0.3930	0.8675	0.0474	0.0753	0.1055	0.0	
2073.36	0.0	NLTE	0.0122	-0.2680	0.0122	-0.2034	0.7236	0.0270	0.0423	0.0589	0.0	0.4040
	0.0	LTE	0.0201	-0.0489	0.0201	-0.0062	0.5781	0.0306	0.0463	0.0632	0.0	
2072.68	0.0	NLTE	0.0086	-0.4175	0.0086	-0.3797	0.7982	0.0258	0.0409	0.0572	0.0	0.4303
	0.0	LTE	0.0150	-0.1762	0.0150	-0.1824	0.6698	0.0282	0.0439	0.0608	0.0	
6348.86	0.0	NLTE	0.0114	-0.7815	0.0114	0.3092	0.8860	0.0711	0.1081	0.1424	0.0	0.0360
	0.0	LTE	0.0374	-0.2652	0.0374	0.5208	0.7852	0.1228	0.1715	0.2167	0.0	
6373.13	0.0	NLTE	0.0053	-1.1169	0.0053	0.0140	0.9391	0.0619	0.0931	0.1283	0.0	0.0361
	0.0	LTE	0.0275	-0.4004	0.0275	0.2257	0.8213	0.1017	0.1486	0.2001	0.0	
4132.06	0.0	NLTE	0.0267	-0.2250	0.0267	0.0411	0.7191	0.0598	0.0911	0.1252	0.0	0.9990
	0.0	LTE	0.0268	-0.2248	0.0268	0.1468	0.7283	0.0637	0.0945	0.1283	0.0	
4129.22	0.0	NLTE	0.0202	-0.3466	0.0202	-0.1180	0.7779	0.0555	0.0867	0.1207	0.0	0.9750
	0.0	LTE	0.0205	-0.3396	0.0205	-0.0123	0.7797	0.0578	0.0890	0.1230	0.0	
2906.54	0.0	NLTE	0.0058	-0.7331	0.0058	-0.6542	0.9021	0.0354	0.0565	0.0798	0.0	0.8412
	0.0	LTE	0.0068	-0.6698	0.0068	-0.5450	0.8889	0.0362	0.0577	0.0814	0.0	
2905.13	0.0	NLTE	0.0040	-0.8996	0.0040	-0.8305	0.9325	0.0348	0.0557	0.0788	0.0	0.8422
	0.0	LTE	0.0046	-0.8330	0.0046	-0.7213	0.9225	0.0354	0.0567	0.0802	0.0	
5057.39	5057.73	NLTE	-0.0256	-0.3313	-0.0256	-0.0221	1.1841	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0253	-0.3375	0.0253	0.1683	0.7855	0.0768	0.1142	0.1549	0.0000	
5042.43	0.0	NLTE	-0.0194	-0.4501	-0.0194	-0.2775	1.1575	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0159	-0.5383	0.0159	-0.0872	0.8534	0.0666	0.1041	0.1445	0.0	
4202.08	0.0	NLTE	0.0018	-1.3950	0.0018	-1.5352	0.9791	0.0509	0.0819	0.1173	0.0	2.4959
	0.0	LTE	0.0007	-1.7920	0.0007	-1.5755	0.9915	0.0505	0.0813	0.1165	0.0	

Table 62

Line Data for Silicon III, T_{eff} = 25,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG[W/D]	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	5.1212	2.5519	5.1212	6.3735	0.0007	2.3577	3.5768	5.8927	0.0005	0.8106
	1207.52	LTE	5.6807	2.6369	5.6807	6.4672	0.1288	3.0992	4.5411	7.2198	-0.0569	
1298.95	1303.32	NLTE	0.8768	1.7533	2.4643	4.7335	0.0022	0.3705	0.5723	0.9538	-0.0091	0.7651
	1294.55	LTE	1.0047	1.8525	2.7893	4.8721	0.1772	0.5480	0.8089	1.2690	-0.0078	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	1.7793	2.1677	2.2168	4.9278	0.0012	0.4579	0.7088	1.1390	-0.0031	0.7379
	1111.17	LTE	2.0775	2.2350	2.5516	5.0661	0.1067	0.6194	0.9007	1.4352	-0.0043	
	1109.57											
	1109.94											
	1108.36											
957.39	0.0	NLTE	0.2464	1.3567	0.2464	3.9256	0.0024	0.1131	0.1683	0.2677	0.0	0.7344
	0.0	LTE	0.2872	1.4234	0.2872	4.0638	0.0692	0.1446	0.2088	0.3303	0.0	
1417.24	0.0	NLTE	0.2813	1.2618	0.2813	3.4449	0.0070	0.1229	0.1939	0.3159	0.0	0.8503
	0.0	LTE	0.3047	1.2965	0.3047	3.5553	0.2041	0.1825	0.2615	0.4079	0.0	
1312.59	0.0	NLTE	0.1051	0.8674	0.1051	2.6832	0.0213	0.0727	0.0833	0.1037	0.0	0.8569
	0.0	LTE	0.1112	0.8919	0.1112	2.7534	0.1361	0.0796	0.0918	0.1271	0.0	
1842.55	0.0	NLTE	0.0766	0.8828	0.0766	2.1344	0.1864	0.0779	0.0926	0.1066	0.0	0.9938
	0.0	LTE	0.0766	0.8829	0.0766	2.2534	0.2764	0.0876	0.0993	0.1121	0.0	
5741.33	0.0	NLTE	0.1188	0.2798	0.1188	1.4034	0.4171	0.1472	0.1978	0.2477	0.0	17.3976
	0.0	LTE	0.0634	0.0072	0.0634	1.4836	0.7279	0.1750	0.2254	0.2731	0.0	
2559.96	0.0	NLTE	0.0582	0.3206	0.0582	1.5225	0.2961	0.0568	0.0806	0.1042	0.0	0.5837
	0.0	LTE	0.0672	0.3834	0.0672	1.6522	0.4648	0.0904	0.1140	0.1376	0.0	
3087.13	0.0	NLTE	0.0926	0.4413	0.0926	1.7496	0.2349	0.0846	0.1143	0.1444	0.0	3.0437
	0.0	LTE	0.0698	0.3181	0.0698	1.9096	0.5856	0.1228	0.1482	0.1760	0.0	
4553.94	0.0	NLTE	0.1556	0.4977	0.1556	1.9050	0.2261	0.1359	0.1824	0.2309	0.0	5.3975
	0.0	LTE	0.0956	0.2662	0.0956	2.0288	0.6438	0.1877	0.2279	0.2758	0.0	
4569.13	0.0	NLTE	0.1364	0.4389	0.1364	1.6845	0.2581	0.1260	0.1714	0.2178	0.0	5.3820
	0.0	LTE	0.0870	0.2438	0.0870	1.8084	0.6314	0.1717	0.2115	0.2523	0.0	
4576.03	0.0	NLTE	0.0964	0.2675	0.0964	1.2123	0.3705	0.1024	0.1472	0.1911	0.0	4.1201
	0.0	LTE	0.0670	0.1298	0.0670	1.3361	0.6376	0.1358	0.1774	0.2165	0.0	
3807.61	0.0	NLTE	0.0790	0.2811	0.0790	1.6720	0.4208	0.0972	0.1355	0.1705	0.0	1.3205
	0.0	LTE	0.0749	0.2581	0.0749	1.8103	0.5639	0.1350	0.1677	0.1988	0.0	
3797.20	0.0	NLTE	0.0667	0.2085	0.0667	1.4490	0.4698	0.0878	0.1253	0.1504	0.0	1.0338
	0.0	LTE	0.0662	0.2053	0.0662	1.5872	0.5753	0.1198	0.1545	0.1866	0.0	
3792.52	0.0	NLTE	0.0438	0.0265	0.0438	0.9713	0.5947	0.0739	0.1077	0.1390	0.0	0.6167
	0.0	LTE	0.0496	0.0810	0.0496	1.1096	0.6166	0.0962	0.1292	0.1609	0.0	

Table 63

Line Data for Silicon IV, T_{eff} = 25,000 K, Log g = 3 0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LCG(B/D)	W(TOTAL)	LCC(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	5.1178	2.5289	7.6559	6.6275	0.0011	1.4810	3.2284	5.9250	0.0049	1.08734D 00
	0.0	LTE	4.9292	2.5126	7.5650	6.8153	0.2053	2.4306	4.0055	6.8867	0.0130	
1128.35	0.0	NLTE	1.3909	2.0549	1.3909	5.3464	0.0019	0.4052	0.9089	1.6970	0.0	1.01437D 00
	0.0	LTE	1.3811	2.0518	1.3811	5.3463	0.0994	0.5375	1.0161	1.8780	0.0	
1122.50	0.0	NLTE	0.9618	1.8969	0.9618	5.0431	0.0024	0.2804	0.6274	1.1436	0.0	1.01769D 00
	0.0	LTE	0.9534	1.8931	0.9534	5.0450	0.1017	0.3726	0.7041	1.2295	0.0	
1066.61	0.0	NLTE	0.1742	1.1771	0.1742	3.2477	0.0466	0.0593	0.1057	0.2076	0.0	8.70012D-01
	0.0	LTE	0.1857	1.2049	0.1857	3.2556	0.0689	0.0678	0.1194	0.2293	0.0	
1722.53	1722.56	NLTE	0.0910	0.6671	0.0910	2.6321	0.2790	0.0668	0.1002	0.1392	0.0105	6.26593D-01
	0.0	LTE	0.1066	0.7557	0.1066	2.6356	0.3034	0.0886	0.1207	0.1577	0.0113	
4090.02	0.0	NLTE	0.1347	0.4818	0.1347	1.9264	0.3421	0.1179	0.1640	0.2206	0.0	8.27749D 00
	0.0	LTE	0.0589	0.1225	0.0589	1.8193	0.7417	0.1162	0.1744	0.2437	0.0	
4117.26	0.0	NLTE	0.1101	0.3913	0.1101	1.6270	0.3963	0.1049	0.1525	0.2056	0.0	7.39615D 00
	0.0	LTE	0.0508	0.0553	0.0508	1.8199	0.7579	0.1127	0.1697	0.2360	0.0	
3166.63	0.0	NLTE	0.0324	-0.0263	0.0324	1.0587	0.7193	0.0726	0.1074	0.1451	0.0	2.84575D 00
	0.0	LTE	0.0228	-0.1795	0.0228	0.9820	0.8133	0.0746	0.1128	0.1531	0.0	
3150.48	0.0	NLTE	0.0235	-0.1639	0.0235	0.7555	0.7748	0.0658	0.0981	0.1342	0.0	2.70740D 00
	0.0	LTE	0.0164	-0.3208	0.0164	0.6788	0.8528	0.0693	0.1051	0.1436	0.0	

Table 64

Line Data for Silicon II, T_{eff} = 25,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	-0.0044	-0.9085	-0.0044	-0.8082	1.0576	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0314	-0.0586	0.0314	-0.1387	0.5705	0.0459	0.0712	0.0969	0.0	
1533.43	0.0	NLTE	0.0451	0.1698	0.0451	0.0913	0.3811	0.0553	0.0733	0.0927	0.0	0.0022
	0.0	LTE	0.1020	0.5242	0.1020	1.3528	0.1514	0.1013	0.1192	0.1354	0.0	
1526.70	0.0	NLTE	0.0301	-0.0037	0.0301	0.3884	0.5083	0.0411	0.0617	0.0798	0.0	0.0009
	0.0	LTE	0.0906	0.4743	0.0906	1.0499	0.1543	0.0904	0.1054	0.1245	0.0	
1264.73	1265.00	NLTE	0.0782	0.4925	0.0782	1.4551	0.1116	0.0748	0.0885	0.1044	0.0000	0.0021
	0.0	LTE	0.1177	0.6699	0.2049	2.1138	0.0882	0.1080	0.1218	0.1355	0.0000	
1260.42	0.0	NLTE	0.0685	0.4360	0.0685	1.1961	0.1393	0.0653	0.0808	0.0934	0.0	0.0391
	0.0	LTE	0.1087	0.6368	0.1087	1.8548	0.0856	0.1018	0.1126	0.1278	0.0	
992.68	0.0	NLTE	0.0488	0.3928	0.0488	0.7746	0.1475	0.0443	0.0576	0.0696	0.0	0.0164
	0.0	LTE	0.0787	0.6001	0.0787	1.4314	0.0288	0.0699	0.0808	0.0899	0.0	
989.67	0.0	NLTE	0.0383	0.2882	0.0383	0.4724	0.2166	0.0361	0.0484	0.0625	0.0	0.0105
	0.0	LTE	0.0712	0.5578	0.0712	1.1291	0.0291	0.0619	0.0721	0.0844	0.0	
3857.11	0.0	NLTE	0.0050	-1.1837	0.0050	-0.5850	0.9601	0.0762	0.1190	0.1735	0.0	0.2077
	0.0	LTE	0.0185	-0.6188	0.0185	-0.3925	0.8702	0.0869	0.1348	0.1931	0.0	
3863.69	0.0	NLTE	0.0027	-1.4615	0.0027	-0.8406	0.9792	0.0761	0.1199	0.1759	0.0	0.2146
	0.0	LTE	0.0109	-0.8505	0.0109	-0.6470	0.9221	0.0843	0.1315	0.1905	0.0	
2073.36	0.0	NLTE	0.0137	-0.4794	0.0137	-0.4441	0.8225	0.0471	0.0731	0.1046	0.0	0.4627
	0.0	LTE	0.0235	-0.2448	0.0235	-0.2599	0.7095	0.0500	0.0775	0.1083	0.0	
2072.68	0.0	NLTE	0.0094	-0.6404	0.0094	-0.6203	0.8754	0.0460	0.0716	0.1033	0.0	0.4801
	0.0	LTE	0.0168	-0.3910	0.0168	-0.4361	0.7863	0.0480	0.0746	0.1060	0.0	
6348.86	0.0	NLTE	-0.0265	-0.6792	-0.0265	0.0088	1.0703	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0495	-0.4070	0.0495	0.2694	0.8226	0.1813	0.2741	0.3572	0.0	
6373.13	0.0	NLTE	-0.0188	-0.8292	-0.0188	-0.2853	1.0622	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0330	-0.5849	0.0330	-0.0257	0.8706	0.1586	0.2455	0.3374	0.0	
4132.06	0.0	NLTE	0.0312	-0.4208	0.0312	-0.1937	0.8069	0.0993	0.1537	0.2154	0.0	1.0005
	0.0	LTE	0.0312	-0.4210	0.0312	-0.1005	0.8081	0.1004	0.1552	0.2160	0.0	
4129.22	0.0	NLTE	0.0228	-0.5576	0.0228	-0.3528	0.8550	0.0955	0.1482	0.2111	0.0	0.9975
	0.0	LTE	0.0228	-0.5567	0.0228	-0.2595	0.8548	0.0959	0.1486	0.2111	0.0	
2906.54	0.0	NLTE	0.0061	-0.9749	0.0061	-0.8913	0.9423	0.0639	0.0998	0.1446	0.0	0.8553
	0.0	LTE	0.0071	-0.9133	0.0071	-0.7942	0.9339	0.0644	0.1006	0.1454	0.0	
2905.13	0.0	NLTE	0.0041	-1.1458	0.0041	-1.0676	0.9608	0.0633	0.0990	0.1438	0.0	0.8565
	0.0	LTE	0.0048	-1.0827	0.0048	-0.9705	0.9549	0.0636	0.0996	0.1444	0.0	
5057.39	5057.73	NLTE	-0.0655	-0.1868	-0.0655	-0.2817	1.2629	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0296	-0.5316	0.0336	-0.0835	0.8494	0.1223	0.1888	0.2635	0.0000	
5042.43	0.0	NLTE	-0.0377	-0.4256	-0.0377	-0.5372	1.1883	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0172	-0.7650	0.0172	-0.3390	0.9077	0.1139	0.1767	0.2532	0.0	
4202.08	0.0	NLTE	0.0024	-1.5404	0.0024	-1.7214	0.9844	0.0916	0.1438	0.2094	0.0	3.2608
	0.0	LTE	0.0007	-2.0527	0.0007	-1.8144	0.9952	0.0913	0.1434	0.2092	0.0	

Table 65

Line Data for Silicon III, T_{eff} = 25,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	5.1476	2.3311	5.1476	6.1249	0.0008	2.3690	3.6211	5.8378	0.0012	8.26890D-01
	1207.52	LTE	5.6578	2.3722	5.6578	6.2143	0.1300	3.1045	4.4460	6.9945	0.0012	
1298.95	1303.32	NLTE	0.8082	1.4950	2.5319	4.4938	0.0025	0.3749	0.5818	0.9455	-0.0092	7.93587D-01
	1294.55	LTE	0.8986	1.5410	2.8160	4.6272	0.1783	0.5529	0.7832	1.2499	-0.0097	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	1.6557	1.8734	2.2508	4.7034	0.0013	0.4647	0.7026	1.1472	-0.0049	7.47617D-01
	1113.17	LTE	1.8914	1.9313	2.5705	4.8368	0.1057	0.6190	0.8913	1.5020	-0.0057	
	1109.97											
	1109.94											
	1108.36											
997.39	0.0	NLTE	0.2639	1.1237	0.2639	3.6846	0.0027	0.1375	0.1817	0.2784	0.0	7.66122D-01
	0.0	LTE	0.2985	1.1771	0.2985	3.8176	0.0665	0.1560	0.2157	0.3387	0.0	
1417.24	0.0	NLTE	0.3020	1.0297	0.3020	3.2059	0.0081	0.1584	0.2038	0.3350	0.0	8.99834D-01
	0.0	LTE	0.3165	1.0500	0.3165	3.3154	0.1937	0.1932	0.2626	0.4210	0.0	
1312.59	0.0	NLTE	0.1433	0.7392	0.1433	2.4429	0.0243	0.1146	0.1329	0.1507	0.0	9.22082D-01
	0.0	LTE	0.1461	0.7476	0.1461	2.5522	0.1262	0.1264	0.1420	0.1563	0.0	
1842.55	0.0	NLTE	0.1227	0.5244	0.1227	1.8953	0.1868	0.1257	0.1538	0.1742	0.0	1.01520D 00
	0.0	LTE	0.1224	0.5235	0.1224	2.0149	0.2645	0.1455	0.1635	0.1807	0.0	
5741.33	0.0	NLTE	0.1902	0.2213	0.1902	1.1799	0.4368	0.2471	0.3367	0.4227	0.0	1.89062D 01
	0.0	LTE	0.0955	-0.0777	0.0955	1.2429	0.7381	0.2730	0.3662	0.4415	0.0	
2559.96	0.0	NLTE	0.0797	0.1943	0.0797	1.2877	0.3954	0.0928	0.1319	0.1715	0.0	4.19216D-01
	0.0	LTE	0.0975	0.2819	0.0975	1.4199	0.4782	0.1423	0.1810	0.2207	0.0	
3087.13	0.0	NLTE	0.1409	0.3603	0.1409	1.5188	0.2828	0.1419	0.1954	0.2400	0.0	4.79306D 00
	0.0	LTE	0.1044	0.2303	0.1044	1.6696	0.5785	0.1956	0.2366	0.2823	0.0	
4553.94	0.0	NLTE	0.2366	0.4167	0.2366	1.5887	0.2612	0.2315	0.3112	0.3854	0.0	1.30865D 01
	0.0	LTE	0.1387	0.1846	0.1387	1.7941	0.6374	0.2958	0.3618	0.4268	0.0	
4569.13	0.0	NLTE	0.2081	0.3596	0.2081	1.4682	0.2987	0.2120	0.2926	0.3594	0.0	9.81070D 00
	0.0	LTE	0.1278	0.1477	0.1278	1.5737	0.6326	0.2750	0.3346	0.4053	0.0	
4576.03	0.0	NLTE	0.1446	0.2006	0.1446	0.9960	0.4248	0.1763	0.2469	0.3221	0.0	4.40322D 00
	0.0	LTE	0.0979	0.0313	0.0979	1.1015	0.6567	0.2107	0.2842	0.3463	0.0	
3807.61	0.0	NLTE	0.1200	0.1995	0.1200	1.4485	0.4704	0.1659	0.2306	0.2854	0.0	1.21422D 00
	0.0	LTE	0.1156	0.1835	0.1156	1.5762	0.5729	0.2168	0.2708	0.3267	0.0	
3797.20	0.0	NLTE	0.0992	0.1183	0.0992	1.2255	0.5239	0.1520	0.2094	0.2687	0.0	9.27170D-01
	0.0	LTE	0.1009	0.1253	0.1009	1.3532	0.5929	0.1898	0.2511	0.2985	0.0	
3792.52	0.0	NLTE	0.0605	-0.0962	0.0605	0.7479	0.6574	0.1172	0.1760	0.2265	0.0	5.82952D-01
	0.0	LTE	0.0716	-0.0230	0.0716	0.8755	0.6527	0.1534	0.2053	0.2637	0.0	

Table 66

Line Data for Silicon IV, T_{eff} = 25,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LCG(W/D)	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	4.5837	2.2181	7.8632	6.6043	0.0014	1.4828	3.2257	6.0619	0.0051	1.08933D 00
	0.0	LTE	4.4118	2.2015	7.5667	6.5933	0.1987	2.3832	3.9619	6.9761	0.0177	
1128.35	0.0	NLTE	1.4052	1.7964	1.4052	5.1347	0.0022	0.4080	0.9133	1.6656	0.0	1.01952D 00
	0.0	LTE	1.3916	1.7521	1.3916	5.1370	0.1000	0.5411	1.0213	1.7819	0.0	
1122.80	0.0	NLTE	0.9764	1.6405	0.9764	4.8314	0.0029	0.2841	0.6338	1.1540	0.0	1.02539D 00
	0.0	LTE	0.9642	1.6350	0.9642	4.8338	0.1027	0.3764	0.7046	1.2286	0.0	
1066.61	0.0	NLTE	0.1915	0.9552	0.1915	3.0435	0.0571	0.0938	0.1331	0.2146	0.0	8.76859D-01
	0.0	LTE	0.2023	0.9791	0.2023	3.0517	0.0736	0.1012	0.1421	0.2314	0.0	
1722.53	1722.56	NLTE	0.1126	0.5164	0.1126	2.4352	0.3157	0.0988	0.1431	0.1953	0.0065	8.03788D-01
	0.0	LTE	0.1302	0.5796	0.1302	2.4389	0.3251	0.1251	0.1705	0.2121	0.0077	
4090.02	0.0	NLTE	0.1784	0.3407	0.1784	1.7116	0.3909	0.1856	0.2645	0.3472	0.0	1.19585D 01
	0.0	LTE	0.0753	-0.0340	0.0753	1.6060	0.7658	0.1919	0.2827	0.3761	0.0	
4117.26	0.0	NLTE	0.1454	0.2489	0.1454	1.4123	0.4597	0.1701	0.2468	0.3274	0.0	9.87265D 00
	0.0	LTE	0.0656	-0.0564	0.0656	1.3066	0.7825	0.1857	0.2743	0.3651	0.0	
3166.63	0.0	NLTE	0.0444	-0.1523	0.0444	0.8655	0.7580	0.1199	0.1761	0.2365	0.0	2.79402D 00
	0.0	LTE	0.0312	-0.3059	0.0312	0.7531	0.8386	0.1266	0.1873	0.2476	0.0	
3150.48	0.0	NLTE	0.0312	-0.3026	0.0312	0.5662	0.8140	0.1061	0.1621	0.2218	0.0	2.48546D 00
	0.0	LTE	0.0220	-0.4543	0.0220	0.4499	0.8761	0.1153	0.1728	0.2323	0.0	

Table 67

Line Data for Silicon II, T_{eff} = 27,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TD)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0124	-0.2106	0.0124	-0.0763	0.6830	0.0244	0.0379	0.0524	0.0	0.1936
	0.0	LTE	0.0260	0.1106	0.0260	0.1307	0.4299	0.0312	0.0447	0.0592	0.0	
1533.43	0.0	NLTE	0.0571	0.5232	0.0571	1.4187	0.1047	0.0539	0.0638	0.0740	0.0	0.4173
	0.0	LTE	0.0649	0.5788	0.0649	1.6227	0.1431	0.0658	0.0733	0.0829	0.0	
1526.70	0.0	NLTE	0.0492	0.4609	0.0492	1.1153	0.1341	0.0460	0.0572	0.0673	0.0	0.3419
	0.0	LTE	0.0579	0.5314	0.0579	1.3198	0.1461	0.0573	0.0667	0.0757	0.0	
1264.73	1265.00	NLTE	0.0742	0.7207	0.1244	2.1820	0.0233	0.0611	0.0693	0.0776	0.0000	0.6071
	0.0	LTE	0.0832	0.7703	0.1391	2.3841	0.0769	0.0685	0.0752	0.0854	0.0000	
1260.42	0.0	NLTE	0.0662	0.6724	0.0662	1.9230	0.0287	0.0567	0.0642	0.0724	0.0	0.6304
	0.0	LTE	0.0731	0.7157	0.0731	2.1250	0.0751	0.0643	0.0706	0.0793	0.0	
992.68	0.0	NLTE	0.0458	0.6166	0.0458	1.5012	0.0176	0.0403	0.0460	0.0512	0.0	0.5154
	0.0	LTE	0.0501	0.6557	0.0501	1.7027	0.0236	0.0446	0.0494	0.0557	0.0	
989.87	0.0	NLTE	0.0411	0.5705	0.0411	1.1989	0.0221	0.0358	0.0413	0.0477	0.0	0.4850
	0.0	LTE	0.0454	0.6137	0.0454	1.4004	0.0239	0.0399	0.0456	0.0508	0.0	
3857.11	0.0	NLTE	0.0233	-0.2664	0.0233	-0.0022	0.7329	0.0546	0.0842	0.1163	0.0	1.0774
	0.0	LTE	0.0223	-0.2854	0.0223	-0.0039	0.7545	0.0579	0.0878	0.1203	0.0	
3863.69	0.0	NLTE	0.0149	-0.4628	0.0149	-0.2567	0.8213	0.0505	0.0797	0.1117	0.0	1.0309
	0.0	LTE	0.0145	-0.4723	0.0145	-0.2585	0.8307	0.0526	0.0824	0.1150	0.0	
2073.36	0.0	NLTE	0.0263	0.0553	0.0263	0.1440	0.4925	0.0346	0.0503	0.0673	0.0	1.1666
	0.0	LTE	0.0244	0.0232	0.0244	0.1410	0.5349	0.0353	0.0510	0.0680	0.0	
2072.68	0.0	NLTE	0.0202	-0.0590	0.0202	-0.0322	0.5871	0.0311	0.0472	0.0647	0.0	1.1323
	0.0	LTE	0.0188	-0.0903	0.0188	-0.0352	0.6201	0.0316	0.0477	0.0653	0.0	
6348.86	0.0	NLTE	0.0494	-0.1566	0.0494	0.6465	0.7247	0.1239	0.1760	0.2269	0.0	1.7856
	0.0	LTE	0.0405	-0.2427	0.0405	0.6334	0.7870	0.1335	0.1861	0.2387	0.0	
6373.13	0.0	NLTE	0.0362	-0.2928	0.0362	0.3514	0.7752	0.1074	0.1556	0.2078	0.0	1.4262
	0.0	LTE	0.0309	-0.3620	0.0309	0.3382	0.8169	0.1136	0.1636	0.2146	0.0	
4132.06	0.0	NLTE	0.0323	-0.1543	0.0323	0.2909	0.6893	0.0681	0.0996	0.1340	0.0	0.8201
	0.0	LTE	0.0352	-0.1169	0.0352	0.3346	0.6908	0.0763	0.1099	0.1441	0.0	
4129.22	0.0	NLTE	0.0252	-0.2624	0.0252	0.1319	0.7441	0.0617	0.0938	0.1289	0.0	0.7917
	0.0	LTE	0.0284	-0.2104	0.0284	0.1756	0.7339	0.0699	0.1018	0.1367	0.0	
2906.54	0.0	NLTE	0.0077	-0.6235	0.0077	-0.4083	0.8773	0.0373	0.0594	0.0841	0.0	0.8138
	0.0	LTE	0.0091	-0.5542	0.0091	-0.3683	0.8623	0.0392	0.0619	0.0873	0.0	
2905.13	0.0	NLTE	0.0053	-0.7847	0.0053	-0.5846	0.9139	0.0365	0.0583	0.0827	0.0	0.8127
	0.0	LTE	0.0063	-0.7095	0.0063	-0.5445	0.9013	0.0379	0.0604	0.0856	0.0	
5057.39	5057.73	NLTE	0.0164	-0.5377	0.0164	0.3355	0.8602	0.0773	0.1142	0.1538	0.0000	0.1990
	0.0	LTE	0.0317	-0.2506	0.0379	0.3425	0.7631	0.0908	0.1306	0.1707	0.0000	
5042.43	0.0	NLTE	0.0097	-0.7653	0.0097	0.0801	0.9083	0.0655	0.1021	0.1405	0.0	0.2470
	0.0	LTE	0.0215	-0.4181	0.0215	0.0870	0.8232	0.0774	0.1167	0.1595	0.0	
4202.08	0.0	NLTE	0.0026	-1.2488	0.0026	-1.3533	0.9757	0.0580	0.0937	0.1366	0.0	1.8527
	0.0	LTE	0.0014	-1.5134	0.0014	-1.4267	0.9866	0.0576	0.0931	0.1359	0.0	

Table 68

Line Data for Silicon III, T_{eff} = 27,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	R0	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	3.9299	2.4651	3.9299	6.1125	0.0013	1.8232	2.7531	4.5760	0.0030	1.0155
	1207.52	LTE	3.9001	2.4618	3.9001	6.1086	0.1373	2.1764	3.0643	4.9944	0.0025	
1298.95	1303.32	NLTE	0.8252	1.7553	2.3276	4.6331	0.0033	0.3480	0.5427	0.9146	-0.0095	0.9922
	1294.55	LTE	0.8300	1.7578	2.3354	4.6552	0.1721	0.4528	0.6517	1.0318	-0.0052	
	1296.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	1.6017	2.1103	2.0124	4.8300	0.0016	0.4201	0.6438	1.0392	0.0012	0.9692
	1113.17	LTE	1.6291	2.1177	2.0420	4.8520	0.1017	0.4907	0.7232	1.1282	-0.0037	
	1109.97											
	1109.94											
	1108.36											
957.39	0.0	NLTE	0.2334	1.3214	0.2334	3.8276	0.0022	0.1100	0.1618	0.2546	0.0	0.9673
	0.0	LTE	0.2372	1.3285	0.2372	3.8496	0.0533	0.1195	0.1716	0.2678	0.0	
1417.24	0.0	NLTE	0.2722	1.2357	0.2722	3.4116	0.0089	0.1185	0.1889	0.3059	0.0	1.0710
	0.0	LTE	0.2633	1.2213	0.2633	3.4195	0.1736	0.1521	0.2178	0.3420	0.0	
1312.59	0.0	NLTE	0.1085	0.8696	0.1085	2.8521	0.0190	0.0746	0.0872	0.1064	0.0	1.0813
	0.0	LTE	0.1055	0.8572	0.1055	2.8600	0.1073	0.0781	0.0898	0.1120	0.0	
1842.55	0.0	NLTE	0.0831	0.6066	0.0831	2.1832	0.1602	0.0782	0.0957	0.1115	0.0	1.3570
	0.0	LTE	0.0786	0.5820	0.0786	2.1976	0.2571	0.0855	0.0996	0.1137	0.0	
5741.33	0.0	NLTE	0.0912	0.1535	0.0912	1.3504	0.5376	0.1327	0.1901	0.2460	0.0	5.0863
	0.0	LTE	0.0599	-0.0296	0.0599	1.3566	0.7310	0.1618	0.2153	0.2656	0.0	
2559.96	0.0	NLTE	0.0803	0.4487	0.0803	1.5990	0.2410	0.0686	0.0967	0.1262	0.0	2.1647
	0.0	LTE	0.0639	0.3493	0.0639	1.6137	0.4846	0.0850	0.1118	0.1380	0.0	
3087.13	0.0	NLTE	0.0914	0.4237	0.0914	1.7547	0.2747	0.0844	0.1171	0.1510	0.0	4.0609
	0.0	LTE	0.0636	0.2662	0.0636	1.7826	0.5876	0.1125	0.1396	0.1674	0.0	
4553.94	0.0	NLTE	0.1358	0.4267	0.1358	1.9161	0.3326	0.1283	0.1803	0.2358	0.0	3.1369
	0.0	LTE	0.0962	0.2769	0.0962	1.9428	0.6240	0.1744	0.2198	0.2713	0.0	
4569.13	0.0	NLTE	0.1175	0.3626	0.1175	1.6957	0.3732	0.1195	0.1716	0.2250	0.0	2.9379
	0.0	LTE	0.0863	0.2286	0.0863	1.7224	0.6205	0.1596	0.2043	0.2487	0.0	
4576.03	0.0	NLTE	0.0811	0.2009	0.0811	1.2234	0.4919	0.1033	0.1521	0.1990	0.0	2.2426
	0.0	LTE	0.0644	0.1009	0.0644	1.2501	0.6446	0.1291	0.1732	0.2155	0.0	
3807.61	0.0	NLTE	0.0890	0.3210	0.0890	1.7129	0.4119	0.1045	0.1461	0.1862	0.0	2.4728
	0.0	LTE	0.0721	0.2298	0.0721	1.7437	0.5782	0.1256	0.1633	0.1987	0.0	
3797.20	0.0	NLTE	0.0753	0.2498	0.0753	1.4899	0.4599	0.0955	0.1365	0.1735	0.0	2.1972
	0.0	LTE	0.0624	0.1679	0.0624	1.5207	0.5969	0.1134	0.1509	0.1862	0.0	
3792.52	0.0	NLTE	0.0510	0.0810	0.0510	1.0123	0.5757	0.0810	0.1181	0.1544	0.0	1.5397
	0.0	LTE	0.0448	0.0248	0.0448	1.0431	0.6515	0.0909	0.1266	0.1610	0.0	

Table 69

Line Data for Silicon IV, T_{eff} = 27,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	3.6822	2.3706	5.4902	6.4442	0.0024	0.8318	2.1122	4.0134	0.0009	1.01246D 00
	0.0	LTE	3.6344	2.3665	5.4582	6.4440	0.2084	1.6116	2.7639	4.7272	0.0027	
1128.35	0.0	NLTE	1.1614	1.9648	1.1614	5.2219	0.0028	0.3126	0.7473	1.4498	0.0	1.01077D 00
	0.0	LTE	1.1552	1.9625	1.1552	5.2217	0.0972	0.4288	0.8384	1.5503	0.0	
1122.50	0.0	NLTE	0.8088	1.8059	0.8088	4.9186	0.0037	0.2170	0.5172	0.9558	0.0	1.01527D 00
	0.0	LTE	0.8027	1.8066	0.8027	4.9185	0.1009	0.2996	0.5816	1.0216	0.0	
1066.61	0.0	NLTE	0.2065	1.2392	0.2065	3.4133	0.0366	0.0599	0.1286	0.2539	0.0	1.01135D 00
	0.0	LTE	0.2054	1.2368	0.2054	3.4137	0.0633	0.0620	0.1347	0.2601	0.0	
1722.53	1722.56	NLTE	0.0993	0.7133	0.0993	2.5377	0.2663	0.0666	0.1094	0.1574	0.0091	1.11547D 00
	0.0	LTE	0.0958	0.6974	0.0958	2.5372	0.3268	0.0716	0.1160	0.1612	0.0080	
4050.02	0.0	NLTE	0.0512	0.0000	0.0512	1.3401	0.6613	0.0628	0.1255	0.1883	0.0	2.60430D 00
	0.0	LTE	0.0353	-0.1121	0.0353	1.3263	0.7907	0.0676	0.1352	0.2029	0.0	
4117.26	0.0	NLTE	0.0406	-0.0940	0.0406	1.0406	0.7198	0.0617	0.1234	0.1851	0.0	2.21460D 00
	0.0	LTE	0.0294	-0.1534	0.0294	1.0285	0.8132	0.0654	0.1307	0.1961	0.0	
3166.63	0.0	NLTE	0.0180	-0.2536	0.0180	0.6213	0.8232	0.0455	0.0910	0.1365	0.0	1.70566D 00
	0.0	LTE	0.0145	-0.3867	0.0145	0.6183	0.8634	0.0468	0.0935	0.1403	0.0	
3150.48	0.0	NLTE	0.0121	-0.4619	0.0121	0.3181	0.8729	0.0438	0.0877	0.1315	0.0	1.62176D 00
	0.0	LTE	0.0098	-0.5540	0.0098	0.3181	0.9004	0.0447	0.0894	0.1341	0.0	
3763.50	0.0	NLTE	0.0057	-0.8659	0.0057	-0.2341	0.9481	0.0510	0.1020	0.1531	0.0	1.47053D 00
	0.0	LTE	0.0045	-0.9678	0.0045	-0.2331	0.9583	0.0509	0.1018	0.1526	0.0	
2267.75	0.0	NLTE	0.0214	-0.6774	0.0214	0.7526	0.7590	0.0372	0.0744	0.1115	0.0	1.28843D 00
	0.0	LTE	0.0194	-0.7189	0.0194	0.7500	0.7862	0.0379	0.0757	0.1136	0.0	
2518.33	0.0	NLTE	0.0237	-0.6735	0.0237	0.6454	0.7722	0.0417	0.0834	0.1250	0.0	1.44621D 00
	0.0	LTE	0.0204	-0.7385	0.0204	0.6415	0.8094	0.0425	0.0849	0.1274	0.0	
6673.03	0.0	NLTE	0.0018	-1.6251	0.0018	-1.1544	0.9907	0.0895	0.1789	0.2684	0.0	1.73162D 00
	0.0	LTE	0.0012	-1.8044	0.0012	-1.1654	0.9939	0.0900	0.1800	0.2700	0.0	
6669.41	0.0	NLTE	0.0010	-1.8519	0.0010	-1.4556	0.9949	0.0889	0.1779	0.2668	0.0	1.63030D 00
	0.0	LTE	0.0006	-2.0652	0.0006	-1.4667	0.9966	0.0893	0.1786	0.2679	0.0	
4213.60	0.0	NLTE	0.0067	-0.8480	0.0067	-0.4201	0.9512	0.0603	0.1207	0.1810	0.0	1.46916D 00
	0.0	LTE	0.0054	-0.9438	0.0054	-0.4132	0.9620	0.0614	0.1228	0.1842	0.0	
4632.57	0.0	NLTE	0.0074	-0.8464	0.0074	-0.3192	0.9503	0.0657	0.1315	0.1972	0.0	1.84286D 00
	0.0	LTE	0.0052	-0.9962	0.0052	-0.3095	0.9659	0.0669	0.1338	0.2008	0.0	
4655.61	0.0	NLTE	0.0124	-0.6239	0.0124	-0.0065	0.9234	0.0688	0.1376	0.2064	0.0	1.83597D 00
	0.0	LTE	0.0090	-0.7454	0.0090	0.0011	0.9461	0.0704	0.1408	0.2111	0.0	

Table 70

Line Data for Silicon II, T_{eff} = 27,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1808.00	0.0	NLTE	0.0137	-0.4233	0.0137	-0.3248	0.7966	0.0414	0.0640	0.0914	0.0	0.2388
	0.0	LTE	0.0320	-0.0540	0.0320	-0.1158	0.5706	0.0470	0.0727	0.0986	0.0	
1533.43	0.0	NLTE	0.0907	0.4694	0.0907	1.1712	0.1279	0.0878	0.1043	0.1239	0.0	0.3664
	0.0	LTE	0.1042	0.5296	0.1042	1.3773	0.1438	0.1023	0.1209	0.1374	0.0	
1526.70	0.0	NLTE	0.0762	0.3958	0.0762	0.8683	0.1702	0.0709	0.0930	0.1111	0.0	0.3025
	0.0	LTE	0.0923	0.4787	0.0923	1.0744	0.1504	0.0916	0.1070	0.1265	0.0	
1264.73	1265.00	NLTE	0.1137	0.6511	0.1930	1.9353	0.0283	0.1011	0.1131	0.1289	0.0000	0.5773
	0.0	LTE	0.1216	0.6805	0.2111	2.1394	0.0743	0.1093	0.1238	0.1377	0.0000	
1260.42	0.0	NLTE	0.1040	0.6140	0.1040	1.6762	0.0362	0.0942	0.1067	0.1182	0.0	0.6082
	0.0	LTE	0.1120	0.6462	0.1120	1.8803	0.0733	0.1031	0.1142	0.1299	0.0	
992.68	0.0	NLTE	0.0742	0.5709	0.0742	1.2535	0.0212	0.0639	0.0748	0.0869	0.0	0.5035
	0.0	LTE	0.0808	0.6081	0.0808	1.4570	0.0237	0.0714	0.0821	0.0913	0.0	
989.87	0.0	NLTE	0.0656	0.5186	0.0656	0.9513	0.0284	0.0570	0.0670	0.0786	0.0	0.4750
	0.0	LTE	0.0729	0.5644	0.0729	1.1548	0.0248	0.0630	0.0732	0.0857	0.0	
3857.11	0.0	NLTE	0.0263	-0.4688	0.0263	-0.2455	0.8226	0.0911	0.1412	0.2000	0.0	1.0347
	0.0	LTE	0.0257	-0.4793	0.0257	-0.2455	0.8307	0.0935	0.1450	0.2033	0.0	
3863.69	0.0	NLTE	0.0160	-0.6858	0.0160	-0.5001	0.8890	0.0876	0.1363	0.1958	0.0	1.0097
	0.0	LTE	0.0159	-0.6892	0.0159	-0.5000	0.8916	0.0892	0.1387	0.1983	0.0	
2073.36	0.0	NLTE	0.0318	-0.1171	0.0318	-0.0980	0.6259	0.0531	0.0824	0.1124	0.0	1.1256
	0.0	LTE	0.0295	-0.1487	0.0295	-0.0993	0.6541	0.0534	0.0829	0.1128	0.0	
2072.68	0.0	NLTE	0.0233	-0.2521	0.0233	-0.2742	0.7151	0.0504	0.0781	0.1094	0.0	1.1064
	0.0	LTE	0.0217	-0.2832	0.0217	-0.2755	0.7359	0.0506	0.0785	0.1098	0.0	
6348.86	0.0	NLTE	0.0652	-0.2907	0.0652	0.4045	0.7737	0.1873	0.2831	0.3731	0.0	1.5136
	0.0	LTE	0.0546	-0.3678	0.0546	0.3926	0.8181	0.1998	0.2950	0.3894	0.0	
6373.13	0.0	NLTE	0.0443	-0.4609	0.0443	0.1094	0.8330	0.1654	0.2566	0.3482	0.0	1.2811
	0.0	LTE	0.0385	-0.5217	0.0385	0.0975	0.8588	0.1715	0.2651	0.3549	0.0	
4132.06	0.0	NLTE	0.0385	-0.3328	0.0385	0.0558	0.7728	0.1051	0.1631	0.2234	0.0	0.7901
	0.0	LTE	0.0439	-0.2765	0.0439	0.1010	0.7567	0.1134	0.1750	0.2329	0.0	
4129.22	0.0	NLTE	0.0288	-0.4593	0.0288	-0.1032	0.8238	0.1000	0.1551	0.2178	0.0	0.7779
	0.0	LTE	0.0338	-0.3900	0.0338	-0.0580	0.8035	0.1062	0.1652	0.2256	0.0	
2906.54	0.0	NLTE	0.0081	-0.8564	0.0081	-0.6444	0.9253	0.0653	0.1020	0.1474	0.0	0.8139
	0.0	LTE	0.0097	-0.7800	0.0097	-0.6027	0.9129	0.0669	0.1044	0.1499	0.0	
2905.13	0.0	NLTE	0.0055	-1.0246	0.0055	-0.8207	0.9488	0.0645	0.1009	0.1463	0.0	0.8122
	0.0	LTE	0.0066	-0.9435	0.0066	-0.7790	0.9394	0.0657	0.1027	0.1483	0.0	
5057.39	5057.73	NLTE	0.0189	-0.7299	0.0212	0.0960	0.9020	0.1206	0.1849	0.2597	0.0000	0.2841
	0.0	LTE	0.0395	-0.4093	0.0459	0.1039	0.8166	0.1364	0.2109	0.2823	0.0001	
5042.43	0.0	NLTE	0.0102	-0.9980	0.0102	-0.1595	0.9436	0.1106	0.1707	0.2461	0.0	0.2767
	0.0	LTE	0.0249	-0.6090	0.0249	-0.1516	0.8762	0.1239	0.1923	0.2682	0.0	
4202.08	0.0	NLTE	0.0027	-1.4991	0.0027	-1.5468	0.9847	0.0982	0.1553	0.2263	0.0	1.8486
	0.0	LTE	0.0015	-1.7633	0.0015	-1.6185	0.9916	0.0978	0.1547	0.2257	0.0	

Table 71

Line Data for Silicon III, T_{eff} = 27,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	3.9378	2.2112	3.9378	5.8715	0.0016	1.9777	2.7614	4.4342	-0.0040	1.0183
	1207.52	LTE	3.9025	2.2073	3.9025	5.8685	0.1393	2.2049	3.0732	4.8274	-0.0024	
1298.95	1303.32	NLTE	0.7554	1.4621	2.3835	4.4026	0.0041	0.3514	0.5491	0.8874	-0.0095	1.0076
	1294.55	LTE	0.7515	1.4598	2.3738	4.4247	0.1672	0.4542	0.6452	1.0176	-0.0101	
	1298.89											
	1301.15											
	1296.73											
1113.23	1113.20	NLTE	1.5359	1.8373	2.0318	4.6173	0.0020	0.4227	0.6344	1.0223	-0.0047	0.9742
	1113.17	LTE	1.5560	1.8429	2.0561	4.6392	0.0995	0.4921	0.7063	1.1317	-0.0046	
	1109.97											
	1109.94											
	1108.36											
957.39	0.0	NLTE	0.2502	1.0969	0.2502	3.5959	0.0026	0.1327	0.1741	0.2643	0.0	0.9790
	0.0	LTE	0.2525	1.1009	0.2525	3.6178	0.0492	0.1393	0.1802	0.2745	0.0	
1417.24	0.0	NLTE	0.2928	1.0126	0.2928	3.1657	0.0109	0.1573	0.1999	0.3270	0.0	1.11041D 00
	0.0	LTE	0.2793	0.9922	0.2793	3.1940	0.1619	0.1743	0.2225	0.3635	0.0	
1312.59	0.0	NLTE	0.1460	0.7437	0.1460	2.4284	0.0233	0.1179	0.1352	0.1492	0.0	1.14775D 00
	0.0	LTE	0.1412	0.7251	0.1412	2.4337	0.0999	0.1246	0.1376	0.1529	0.0	
1842.55	0.0	NLTE	0.1273	0.5369	0.1273	1.9582	0.1752	0.1275	0.1550	0.1773	0.0	1.42889D 00
	0.0	LTE	0.1209	0.5146	0.1209	1.9726	0.2537	0.1395	0.1592	0.1820	0.0	
5741.33	0.0	NLTE	0.1285	0.0475	0.1285	1.1179	0.5956	0.2213	0.3139	0.4068	0.0	4.05739D 00
	0.0	LTE	0.0869	-0.1223	0.0869	1.1245	0.7497	0.2511	0.3467	0.4273	0.0	
2559.96	0.0	NLTE	0.1117	0.3374	0.1117	1.3766	0.3116	0.1105	0.1582	0.2019	0.0	2.29521D 00
	0.0	LTE	0.0901	0.2440	0.0901	1.3515	0.5066	0.1342	0.1763	0.2185	0.0	
3087.13	0.0	NLTE	0.1311	0.3255	0.1311	1.5234	0.3365	0.1365	0.1942	0.2475	0.0	4.77194D 00
	0.0	LTE	0.0934	0.1781	0.0934	1.5514	0.5933	0.1780	0.2225	0.2701	0.0	
4553.94	0.0	NLTE	0.1901	0.3180	0.1901	1.6911	0.3851	0.2085	0.2979	0.3825	0.0	4.11061D 00
	0.0	LTE	0.1361	0.1728	0.1361	1.7178	0.6278	0.2748	0.3483	0.4153	0.0	
4569.13	0.0	NLTE	0.1644	0.2535	0.1644	1.4706	0.4354	0.1971	0.2844	0.3645	0.0	3.26609D 00
	0.0	LTE	0.1235	0.1293	0.1235	1.4974	0.6314	0.2533	0.3229	0.3963	0.0	
4576.03	0.0	NLTE	0.1111	0.0627	0.1111	0.9584	0.5632	0.1751	0.2500	0.3245	0.0	1.94617D 00
	0.0	LTE	0.0913	-0.0027	0.0913	1.0251	0.6711	0.1991	0.2749	0.3395	0.0	
3807.61	0.0	NLTE	0.1292	0.2282	0.1292	1.4880	0.4639	0.1701	0.2410	0.3040	0.0	2.32020D 00
	0.0	LTE	0.1071	0.1467	0.1071	1.5164	0.5950	0.2014	0.2623	0.3223	0.0	
3757.20	0.0	NLTE	0.1078	0.1508	0.1078	1.2649	0.5187	0.1577	0.2251	0.2825	0.0	1.90528D 00
	0.0	LTE	0.0917	0.0604	0.0917	1.2954	0.6213	0.1785	0.2425	0.2980	0.0	
3792.52	0.0	NLTE	0.0693	-0.0406	0.0693	0.7673	0.6418	0.1316	0.1908	0.2526	0.0	1.34038D 00
	0.0	LTE	0.0626	-0.0649	0.0626	0.8177	0.6915	0.1455	0.2007	0.2604	0.0	

Table 72

Line Data for Silicon IV, T_{eff} = 27,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	3.4091	2.0855	5.4761	6.2370	0.0030	0.8361	2.1408	4.0860	0.0013	1.02042D 00
	0.0	LTE	3.3815	2.0824	5.4244	6.2368	0.2010	1.5742	2.7675	4.7440	0.0027	
1128.35	0.0	NLTE	1.1495	1.7056	1.1495	5.0281	0.0035	0.3172	0.7489	1.3795	0.0	1.01743D 00
	0.0	LTE	1.1396	1.7018	1.1396	5.0280	0.0989	0.4337	0.8412	1.4780	0.0	
1122.50	0.0	NLTE	0.8049	1.5530	0.8049	4.7249	0.0048	0.2227	0.5204	0.9578	0.0	1.02280D 00
	0.0	LTE	0.7959	1.5482	0.7959	4.7248	0.1031	0.3055	0.5852	1.0268	0.0	
1066.61	0.0	NLTE	0.2208	1.0134	0.2208	3.2288	0.0469	0.1022	0.1413	0.2645	0.0	1.01251D 00
	0.0	LTE	0.2196	1.0111	0.2196	3.2252	0.0708	0.1047	0.1441	0.2696	0.0	
1722.53	1722.56	NLTE	0.1215	0.5458	0.1215	2.3524	0.3026	0.1093	0.1560	0.2074	0.0069	1.14199D 00
	0.0	LTE	0.1169	0.5251	0.1169	2.3519	0.3544	0.1171	0.1618	0.2129	0.0071	
4090.02	0.0	NLTE	0.0665	-0.0511	0.0665	1.1298	0.7154	0.1462	0.2191	0.2971	0.0	2.53680D 00
	0.0	LTE	0.0465	-0.2472	0.0465	1.1183	0.8181	0.1637	0.2410	0.3188	0.0	
4117.26	0.0	NLTE	0.0516	-0.2046	0.0516	0.8305	0.7706	0.1403	0.2125	0.2894	0.0	2.01327D 00
	0.0	LTE	0.0387	-0.3293	0.0387	0.8189	0.8402	0.1568	0.2311	0.3069	0.0	
3166.63	0.0	NLTE	0.0233	-0.4359	0.0233	0.3552	0.8574	0.1041	0.1575	0.2137	0.0	1.54537D 00
	0.0	LTE	0.0193	-0.5178	0.0193	0.3559	0.8872	0.1107	0.1661	0.2233	0.0	
3150.48	0.0	NLTE	0.0150	-0.6256	0.0150	0.0960	0.9015	0.0964	0.1465	0.2011	0.0	1.42263D 00
	0.0	LTE	0.0126	-0.7009	0.0126	0.0927	0.9204	0.1018	0.1537	0.2078	0.0	
3763.50	0.0	NLTE	0.0065	-1.0638	0.0065	-0.4508	0.9610	0.1055	0.1601	0.2193	0.0	1.47789D 00
	0.0	LTE	0.0050	-1.1763	0.0050	-0.4501	0.9697	0.1032	0.1582	0.2180	0.0	
2287.75	0.0	NLTE	0.0282	-0.2113	0.0282	0.5856	0.7917	0.0882	0.1300	0.1732	0.0	1.30310D 00
	0.0	LTE	0.0255	-0.2558	0.0255	0.5830	0.8155	0.0896	0.1327	0.1762	0.0	
2518.33	0.0	NLTE	0.0309	-0.2137	0.0309	0.6372	0.8010	0.0985	0.1446	0.1930	0.0	1.52573D 00
	0.0	LTE	0.0261	-0.2870	0.0261	0.6332	0.8356	0.0990	0.1473	0.1978	0.0	
6673.03	0.0	NLTE	0.0017	-1.8580	0.0017	-1.4078	0.9938	0.1637	0.2552	0.3617	0.0	1.59993D 00
	0.0	LTE	0.0012	-2.0646	0.0012	-1.3791	0.9959	0.1673	0.2603	0.3672	0.0	
6669.41	0.0	NLTE	0.0009	-2.1789	0.0009	-1.7091	0.9967	0.1593	0.2491	0.3544	0.0	1.54290D 00
	0.0	LTE	0.0006	-2.3436	0.0006	-1.6804	0.9978	0.1617	0.2523	0.3583	0.0	
4213.60	0.0	NLTE	0.0074	-1.0585	0.0074	-0.6197	0.9631	0.1221	0.1868	0.2604	0.0	1.37681D 00
	0.0	LTE	0.0061	-1.1450	0.0061	-0.6130	0.9706	0.1262	0.1926	0.2672	0.0	
4632.57	0.0	NLTE	0.0082	-1.0523	0.0082	-0.5220	0.9624	0.1342	0.2048	0.2848	0.0	1.70990D 00
	0.0	LTE	0.0059	-1.1952	0.0059	-0.5126	0.9738	0.1384	0.2113	0.2933	0.0	
4655.61	0.0	NLTE	0.0145	-0.8084	0.0145	-0.2107	0.9393	0.1459	0.2217	0.3054	0.0	1.77029D 00
	0.0	LTE	0.0107	-0.9422	0.0107	-0.2013	0.9569	0.1502	0.2290	0.3148	0.0	

Table 73

Line Data for Silicon III, T_{eff} = 27,500 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	1.2632	1.5505	1.2506	5.1496	0.0022	0.5268	0.8466	1.4294	0.0018	3.86085D-01
	1207.52	LTE	1.9095	2.1259	1.9856	5.5762	0.2313	1.2255	1.7060	0.0	0.0014	
1298.95	1298.89	NLTE	0.2738	1.2543	0.2738	3.7128	0.0060	0.1464	0.1897	0.2935	-0.0124	4.62665D-01
	0.0	LTE	0.3977	1.4165	0.3977	4.1645	0.2661	0.2678	0.3678	0.5664	-0.0102	
1303.32	0.0	NLTE	0.1466	0.9816	0.1466	3.2340	0.0095	0.0832	0.1026	0.1511	0.0	4.60225D-01
	0.0	LTE	0.2123	1.1424	0.2123	3.6656	0.2486	0.1371	0.1992	0.3026	0.0	
1294.55	0.0	NLTE	0.1441	0.9770	0.1441	3.2323	0.0097	0.0823	0.1013	0.1484	0.0	4.63475D-01
	0.0	LTE	0.2079	1.1362	0.2079	3.6640	0.2536	0.1354	0.1964	0.2982	0.0	
1301.15	0.0	NLTE	0.1346	0.9453	0.1346	3.1371	0.0107	0.0810	0.0975	0.1359	0.0	4.73428D-01
	0.0	LTE	0.1907	1.0966	0.1907	3.5888	0.2463	0.1233	0.1768	0.2683	0.0	
1296.73	0.0	NLTE	0.1335	0.9432	0.1335	3.1365	0.0108	0.0806	0.0969	0.1348	0.0	4.75279D-01
	0.0	LTE	0.1888	1.0936	0.1888	3.5881	0.2488	0.1225	0.1754	0.2660	0.0	
1113.23	1113.20	NLTE	0.3161	1.3837	0.3161	3.9068	0.0038	0.1517	0.2116	0.3436	-0.0048	3.93534D-01
	1113.17	LTE	0.5011	1.5839	0.5011	4.3581	0.1848	0.2918	0.4139	0.6502	-0.0043	
1109.97	1109.94	NLTE	0.2471	1.2761	0.2471	3.6339	0.0048	0.1192	0.1701	0.2681	-0.0068	3.98527D-01
	0.0	LTE	0.3880	1.4741	0.3880	4.0652	0.1812	0.2274	0.3205	0.5007	-0.0076	
1108.36	0.0	NLTE	0.1456	1.0490	0.1456	3.2808	0.0071	0.0768	0.0980	0.1622	0.0	4.07169D-01
	0.0	LTE	0.2249	1.2378	0.2249	3.7322	0.1730	0.1293	0.1876	0.2856	0.0	
997.39	0.0	NLTE	0.0875	0.8738	0.0875	2.9037	0.0137	0.0608	0.0683	0.0832	0.0	3.95776D-01
	0.0	LTE	0.1320	1.0522	0.1320	3.3552	0.1134	0.0769	0.0984	0.1617	0.0	
1417.24	0.0	NLTE	0.1060	0.8045	0.1060	2.5152	0.0305	0.0729	0.0873	0.1077	0.0	0.4704
	0.0	LTE	0.1475	0.9479	0.1475	2.9329	0.2673	0.1042	0.1393	0.2058	0.0	
1312.59	0.0	NLTE	0.0599	0.5899	0.0599	1.7518	0.0742	0.0530	0.0636	0.0720	0.0	0.4567
	0.0	LTE	0.0721	0.6706	0.0721	2.1696	0.1963	0.0700	0.0779	0.0882	0.0	
1842.55	0.0	NLTE	0.0439	0.3079	0.0439	1.3230	0.3726	0.0562	0.0720	0.0843	0.0	0.1013
	0.0	LTE	0.0596	0.4403	0.0596	1.7375	0.3688	0.0816	0.0922	0.1037	0.0	
5741.33	0.0	NLTE	0.0800	0.0746	0.0800	0.8641	0.5789	0.1335	0.1869	0.2389	0.0	14.9840
	0.0	LTE	0.0438	-0.1866	0.0438	1.1307	0.8021	0.1726	0.2187	0.2587	0.0	
2559.96	0.0	NLTE	-0.0132	-0.3563	-0.0132	0.8555	0.8061	0.0238	0.0322	0.0406	0.0	
	0.0	LTE	0.0503	0.2240	0.0503	1.2904	0.5638	0.0898	0.1093	0.1309	0.0	
3087.13	0.0	NLTE	0.0390	0.0321	0.0390	1.0799	0.5049	0.0596	0.0836	0.1043	0.0	0.2928
	0.0	LTE	0.0502	0.1417	0.0502	1.5277	0.6680	0.1198	0.1424	0.1646	0.0	
4553.94	0.0	NLTE	0.1323	0.3937	0.1323	1.3592	0.2966	0.1366	0.1805	0.2225	0.0	27.5081
	0.0	LTE	0.0633	0.0738	0.0633	1.6206	0.7281	0.1827	0.2173	0.2493	0.0	
4569.13	0.0	NLTE	0.1151	0.3319	0.1151	1.1387	0.3319	0.1256	0.1674	0.2060	0.0	20.7479
	0.0	LTE	0.0590	0.0412	0.0590	1.4002	0.7195	0.1680	0.1995	0.2358	0.0	
4576.03	0.0	NLTE	0.0771	0.1570	0.0771	0.6665	0.4564	0.0964	0.1380	0.1794	0.0	7.3335
	0.0	LTE	0.0452	-0.0752	0.0452	0.9279	0.7284	0.1276	0.1624	0.1986	0.0	
3807.61	0.0	NLTE	0.0167	-0.4262	0.0167	1.0825	0.7359	0.0624	0.0872	0.1087	0.0	0.0011
	0.0	LTE	0.0551	0.0508	0.0551	1.4338	0.6645	0.1373	0.1626	0.1911	0.0	
3797.20	0.0	NLTE	0.0099	-0.6549	0.0099	0.9249	0.7870	0.0523	0.0767	0.0949	0.0	0.0002
	0.0	LTE	0.0498	0.0481	0.0498	1.2762	0.6730	0.1226	0.1523	0.1795	0.0	
3752.52	0.0	NLTE	-0.0008	-1.7327	-0.0008	0.5927	0.8970	0.0370	0.0521	0.0672	0.0	
	0.0	LTE	0.0402	-0.0438	0.0402	0.9440	0.6915	0.1027	0.1302	0.1596	0.0	

Table 74

Line Data for Silicon IV, T_{eff} = 27,500 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	4.1556	2.4050	6.7822	6.6977	0.0017	1.1787	2.8919	5.2952	0.0033	9.38166D-01
	0.0	LTE	4.2904	2.4189	6.9849	6.7518	0.2853	2.7690	4.3060	7.0075	0.0200	
1128.35	0.0	NLTE	1.1983	1.9567	1.1983	5.2101	0.0021	0.4254	0.8176	1.4035	0.0	8.88426D-01
	0.0	LTE	1.2700	1.9819	1.2700	5.2898	0.1778	0.6740	1.0506	1.7214	0.0	
1122.50	0.0	NLTE	0.8325	1.8007	0.8325	4.9068	0.0028	0.2968	0.5694	0.9803	0.0	8.95660D-01
	0.0	LTE	0.8794	1.8246	0.8794	4.9865	0.1827	0.4710	0.7376	1.1984	0.0	
1066.61	0.0	NLTE	0.1278	1.0090	0.1278	3.1393	0.0290	0.0583	0.0908	0.1459	0.0	5.74869D-01
	0.0	LTE	0.1650	1.1201	0.1650	3.2422	0.1457	0.0825	0.1262	0.2096	0.0	
1722.53	1722.56	NLTE	0.0781	0.5873	0.0781	2.7143	0.2074	0.0586	0.0894	0.1262	0.0091	3.18349D-01
	0.0	LTE	0.1118	0.7429	0.1118	2.8129	0.3876	0.1167	0.1409	0.1775	0.0111	
4090.02	0.0	NLTE	0.2076	0.6361	0.2076	2.3330	0.1823	0.1444	0.1924	0.2647	0.0	1.24226D 01
	0.0	LTE	0.0837	0.2415	0.0837	2.2820	0.7260	0.1654	0.2244	0.3178	0.0	
4117.26	0.0	NLTE	0.1714	0.5499	0.1714	2.0336	0.2213	0.1271	0.1788	0.2397	0.0	1.06288D 01
	0.0	LTE	0.0743	0.1870	0.0743	1.9826	0.7136	0.1472	0.2069	0.2808	0.0	
3166.63	0.0	NLTE	0.0644	0.2385	0.0644	1.8741	0.4913	0.0828	0.1189	0.1573	0.0	4.88313D 00
	0.0	LTE	0.0427	0.0604	0.0427	1.8230	0.7280	0.1016	0.1424	0.1846	0.0	
3150.48	0.0	NLTE	0.0489	0.1214	0.0489	1.5709	0.5641	0.0739	0.1072	0.1437	0.0	4.28006D 00
	0.0	LTE	0.0329	-0.0512	0.0329	1.5198	0.7579	0.0883	0.1288	0.1698	0.0	
3763.50	0.0	NLTE	0.0066	-0.8240	0.0066	1.2851	0.9467	0.1368	0.1490	0.1611	0.0	6.23115D-03
	0.0	LTE	0.0334	-0.1210	0.0334	1.3003	0.7910	0.1020	0.1522	0.2013	0.0	
2287.75	0.0	NLTE	0.0356	0.1230	0.0356	1.5318	0.6065	0.0694	0.0921	0.1133	0.0	7.15509D-01
	0.0	LTE	0.0387	0.1593	0.0387	1.5474	0.6258	0.0695	0.1017	0.1301	0.0	
2518.33	0.0	NLTE	0.0559	0.2772	0.0559	1.7967	0.4256	0.0683	0.0973	0.1254	0.0	1.38574D 00
	0.0	LTE	0.0498	0.2262	0.0498	1.8036	0.6431	0.0806	0.1192	0.1608	0.0	
6673.03	0.0	NLTE	0.0370	-0.3253	0.0370	0.4300	0.8142	0.1188	0.1864	0.2584	0.0	1.29353D 01
	0.0	LTE	0.0112	-0.8463	0.0112	0.2691	0.9524	0.1401	0.2156	0.2970	0.0	
6669.41	0.0	NLTE	0.0235	-0.5228	0.0235	0.1287	0.8730	0.1100	0.1737	0.2384	0.0	8.84267D 00
	0.0	LTE	0.0075	-1.0164	0.0075	-0.0322	0.9650	0.1294	0.2014	0.2795	0.0	
4213.60	0.0	NLTE	0.0156	-0.5023	0.0156	0.5856	0.8480	0.0689	0.1059	0.1398	0.0	5.77936D-01
	0.0	LTE	0.0191	-0.4125	0.0191	0.5583	0.8790	0.1030	0.1523	0.1999	0.0	
4632.57	0.0	NLTE	0.0222	-0.3890	0.0222	0.8139	0.8117	0.0822	0.1245	0.1609	0.0	1.13985D 00
	0.0	LTE	0.0211	-0.4105	0.0211	0.7722	0.8827	0.1156	0.1729	0.2299	0.0	
4655.61	0.0	NLTE	0.0301	-0.2592	0.0301	1.1110	0.7813	0.1006	0.1438	0.1871	0.0	1.30119D 00
	0.0	LTE	0.0274	-0.3003	0.0274	1.0717	0.8620	0.1226	0.1849	0.2483	0.0	

Table 75

Line Data for Silicon III, T_{eff} = 27,500 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	1.1570	1.6723	1.2526	4.8925	0.0025	0.5181	0.8369	1.3648	0.0032	3.67479D-01
	1207.52	LTE	1.8387	1.8735	2.0155	5.3415	0.2330	1.2163	1.7071	0.0	0.0028	
1298.95	1298.89	NLTE	0.2988	1.0524	0.2988	3.4815	0.0065	0.1856	0.2213	0.2933	-0.0168	5.10759D-01
	0.0	LTE	0.4065	1.1860	0.4065	3.9345	0.2593	0.2750	0.3685	0.5671	-0.0099	
1303.32	0.0	NLTE	0.1792	0.8288	0.1792	3.0011	0.0099	0.1226	0.1454	0.1847	0.0	5.76753D-01
	0.0	LTE	0.2274	0.9323	0.2274	3.4541	0.2397	0.1688	0.2043	0.3000	0.0	
1294.55	0.0	NLTE	0.1767	0.8257	0.1767	2.9995	0.0101	0.1215	0.1440	0.1822	0.0	5.83534D-01
	0.0	LTE	0.2229	0.9266	0.2229	3.4524	0.2446	0.1671	0.2022	0.2956	0.0	
1301.15	0.0	NLTE	0.1688	0.8035	0.1688	2.9043	0.0110	0.1206	0.1417	0.1720	0.0	6.09159D-01
	0.0	LTE	0.2075	0.8933	0.2075	3.3572	0.2371	0.1569	0.1935	0.2660	0.0	
1296.73	0.0	NLTE	0.1676	0.8021	0.1676	2.9036	0.0111	0.1201	0.1410	0.1707	0.0	6.12937D-01
	0.0	LTE	0.2055	0.8906	0.2055	3.3566	0.2396	0.1560	0.1925	0.2640	0.0	
1113.23	1113.20	NLTE	0.3281	1.1600	0.3281	3.6929	0.0042	0.1752	0.2226	0.3419	-0.0077	4.09970D-01
	1113.17	LTE	0.5056	1.3477	0.5056	4.1457	0.1807	0.2939	0.4131	0.6746	-0.0047	
1109.97	1109.94	NLTE	0.2645	1.0677	0.2645	3.4261	0.0054	0.1511	0.1885	0.2688	-0.0107	4.31679D-01
	0.0	LTE	0.3947	1.2415	0.3947	3.8788	0.1760	0.2309	0.3210	0.5088	-0.0077	
1108.36	0.0	NLTE	0.1691	0.8739	0.1691	3.0480	0.0080	0.1077	0.1297	0.1707	0.0	4.69887D-01
	0.0	LTE	0.2362	1.0191	0.2362	3.5009	0.1661	0.1516	0.1882	0.2897	0.0	
997.39	0.0	NLTE	0.1167	0.7589	0.1167	2.6706	0.0132	0.0911	0.1050	0.1189	0.0	4.98593D-01
	0.0	LTE	0.1512	0.8713	0.1512	3.1236	0.1075	0.1047	0.1272	0.1607	0.0	
1417.24	0.0	NLTE	0.1421	0.6915	0.1421	2.2639	0.0367	0.1180	0.1342	0.1561	0.0	5.79904D-01
	0.0	LTE	0.1712	0.7727	0.1712	2.7057	0.2564	0.1515	0.1684	0.2153	0.0	
1312.59	0.0	NLTE	0.0884	0.5187	0.0884	1.4989	0.1036	0.0833	0.0980	0.1158	0.0	3.19125D-01
	0.0	LTE	0.1062	0.5986	0.1062	1.9410	0.1896	0.1113	0.1228	0.1356	0.0	
1842.55	0.0	NLTE	0.0619	0.2170	0.0619	1.0699	0.4233	0.0836	0.1093	0.1340	0.0	4.70157D-02
	0.0	LTE	0.0933	0.3951	0.0933	1.5106	0.3657	0.1245	0.1447	0.1691	0.0	
5741.33	0.0	NLTE	0.1298	0.0448	0.1298	0.6621	0.5748	0.2152	0.3014	0.3927	0.0	1.52879D 01
	0.0	LTE	0.0635	-0.2658	0.0635	0.9047	0.8102	0.2551	0.3311	0.4160	0.0	
2559.96	0.0	NLTE	-0.0281	-0.2686	-0.0281	0.6121	0.9755	0.0049	0.0098	0.0146	0.0	
	0.0	LTE	0.0726	0.1432	0.0726	1.0708	0.5741	0.1299	0.1691	0.2008	0.0	
3087.13	0.0	NLTE	0.0580	-0.0357	0.0580	0.8610	0.5698	0.0930	0.1382	0.1752	0.0	2.64542D-01
	0.0	LTE	0.0746	0.0738	0.0746	1.3029	0.6680	0.1839	0.2204	0.2570	0.0	
4553.94	0.0	NLTE	0.1965	0.3255	0.1965	1.1392	0.3297	0.2165	0.2916	0.3544	0.0	4.96370D 01
	0.0	LTE	0.0932	0.0018	0.0932	1.3988	0.7268	0.2830	0.3319	0.3901	0.0	
4569.13	0.0	NLTE	0.1693	0.2595	0.1693	0.9188	0.3715	0.1978	0.2651	0.3368	0.0	2.35374D 01
	0.0	LTE	0.0864	-0.0328	0.0864	1.1784	0.7226	0.2434	0.3095	0.3617	0.0	
4576.03	0.0	NLTE	0.1073	0.0607	0.1073	0.4465	0.5176	0.1459	0.2185	0.2836	0.0	5.37144D 00
	0.0	LTE	0.0630	-0.1709	0.0630	0.7061	0.7462	0.1867	0.2439	0.3123	0.0	
3807.61	0.0	NLTE	0.0226	-0.5359	0.0226	0.8434	0.7929	0.0954	0.1373	0.1758	0.0	1.36278D-03
	0.0	LTE	0.0829	0.0285	0.0829	1.2112	0.6703	0.1996	0.2550	0.2975	0.0	
3797.20	0.0	NLTE	0.0022	-1.5540	0.0022	0.6391	0.8853	0.0679	0.0960	0.1214	0.0	5.79516D-07
	0.0	LTE	0.0706	-0.0401	0.0706	0.9891	0.6873	0.1737	0.2290	0.2740	0.0	
3792.52	0.0	NLTE	-0.0131	-0.7703	-0.0131	0.1614	1.0227	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0451	-0.2343	0.0451	0.5104	0.7465	0.1227	0.1765	0.2282	0.0	

Table 76

Line Data for Silicon IV, T_{eff} = 27,500 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	3.9729	2.1454	6.8060	6.4780	0.0019	1.1964	2.8941	5.4532	0.0032	0.9471
	0.0	LTE	4.0783	2.1568	6.9776	6.5339	0.2861	2.7745	4.1564	6.9136	0.0228	
1128.35	0.0	NLTE	1.2070	1.7198	1.2070	5.0001	0.0025	0.4294	0.8217	1.4087	0.0	8.84200D-01
	0.0	LTE	1.2824	1.7461	1.2824	5.0814	0.1794	0.6740	1.0523	1.7269	0.0	
1122.50	0.0	NLTE	0.8409	1.5651	0.8409	4.6968	0.0032	0.2990	0.5778	0.9750	0.0	8.96376D-01
	0.0	LTE	0.8882	1.5688	0.8882	4.7781	0.1846	0.4753	0.7291	1.2045	0.0	
1066.61	0.0	NLTE	0.1443	0.8219	0.1443	2.9395	0.0381	0.0907	0.1176	0.1598	0.0	8.69643D-01
	0.0	LTE	0.1815	0.9214	0.1815	3.0424	0.1347	0.1109	0.1451	0.2123	0.0	
1722.53	1722.56	NLTE	0.	0.4302	0.	2.5241	0.2692	0.0895	0.1244	0.1638	0.0050	1.09571D-01
	0.0	LTE	0.1376	0.5929	0.1376	2.6238	0.3709	0.1592	0.1915	0.2236	0.0083	
4090.02	0.0	NLTE	0.2991	0.5547	0.2991	2.1705	0.1897	0.2422	0.3191	0.4051	0.0	3.25805D 01
	0.0	LTE	0.1062	0.1050	0.1062	2.0793	0.7264	0.2514	0.3360	0.4276	0.0	
4117.26	0.0	NLTE	0.2515	0.4765	0.2515	1.8712	0.2316	0.2138	0.2967	0.3823	0.0	2.48738D 01
	0.0	LTE	0.0958	0.0573	0.0958	1.7799	0.7249	0.2249	0.3156	0.4025	0.0	
3166.63	0.0	NLTE	0.0948	0.1670	0.0948	1.6924	0.5368	0.1409	0.2008	0.2577	0.0	6.45172D 00
	0.0	LTE	0.0597	-0.0338	0.0597	1.6102	0.7423	0.1587	0.2254	0.2888	0.0	
3150.48	0.0	NLTE	0.0719	0.0491	0.0719	1.3892	0.6089	0.1248	0.1809	0.2390	0.0	4.96900D 00
	0.0	LTE	0.0457	-0.1476	0.0457	1.3070	0.7794	0.1417	0.2054	0.2642	0.0	
3763.50	0.0	NLTE	0.0112	-0.8350	0.0112	1.1066	0.9596	0.2332	0.2540	0.2748	0.0	1.41199D-02
	0.0	LTE	0.0447	-0.2350	0.0447	1.0971	0.8135	0.1638	0.2382	0.3024	0.0	
2287.75	0.0	NLTE	0.0544	0.0670	0.0544	1.3494	0.6355	0.1149	0.1520	0.1821	0.0	1.02267D 00
	0.0	LTE	0.0541	0.0643	0.0541	1.3428	0.6565	0.1111	0.1588	0.2010	0.0	
2518.33	0.0	NLTE	0.0853	0.2206	0.0853	1.6144	0.4694	0.1147	0.1617	0.2025	0.0	2.42352D 00
	0.0	LTE	0.0654	0.1048	0.0654	1.6007	0.6689	0.1287	0.1862	0.2392	0.0	
6673.03	0.0	NLTE	0.0516	-0.4211	0.0516	0.2460	0.8387	0.1957	0.3063	0.4137	0.0	1.47154D 01
	0.0	LTE	0.0138	-0.9955	0.0138	0.0611	0.9610	0.2190	0.3376	0.4613	0.0	
6669.41	0.0	NLTE	0.0323	-0.6247	0.0323	-0.0552	0.8919	0.1816	0.2844	0.3911	0.0	9.73350D 00
	0.0	LTE	0.0090	-1.1770	0.0090	-0.2401	0.9723	0.2010	0.3137	0.4260	0.0	
4213.60	0.0	NLTE	0.0243	-0.5480	0.0243	0.3975	0.8631	0.1152	0.1769	0.2367	0.0	9.79756D-01
	0.0	LTE	0.0245	-0.5447	0.0245	0.3564	0.8957	0.1566	0.2294	0.3049	0.0	
4632.57	0.0	NLTE	0.0340	-0.4442	0.0340	0.6214	0.8346	0.1365	0.2083	0.2711	0.0	1.73693D 00
	0.0	LTE	0.0276	-0.5336	0.0276	0.5670	0.8981	0.1831	0.2666	0.3497	0.0	
4655.61	0.0	NLTE	0.0449	-0.3250	0.0449	0.9161	0.8107	0.1662	0.2399	0.3122	0.0	1.88800D 00
	0.0	LTE	0.0361	-0.4202	0.0361	0.8670	0.8781	0.1979	0.2902	0.3740	0.0	

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Table 79

Line Data for Silicon III, T_{eff} = 30,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG[W/D]	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	1.7506	2.0821	1.8793	5.4367	0.0027	0.8330	1.3143	0.0	-0.0117	1.01652D 00
	1207.52	LTE	1.7429	2.0802	1.8646	5.4396	0.1952	1.0915	1.5432	0.0	-0.0084	
1298.95	1298.89	NLTE	0.4203	1.4304	0.4203	4.0608	0.0060	0.1938	0.2943	0.4637	-0.0109	9.64197D-01
	0.0	LTE	0.4276	1.4379	0.4276	4.1212	0.2133	0.2674	0.3694	0.5694	-0.0108	
1303.32	0.0	NLTE	0.2238	1.1552	0.2238	3.5820	0.0096	0.1050	0.1534	0.2467	0.0	9.53121D-01
	0.0	LTE	0.2289	1.1650	0.2289	3.6423	0.1906	0.1364	0.1993	0.3038	0.0	
1294.55	0.0	NLTE	0.2200	1.1507	0.2200	3.5803	0.0098	0.1035	0.1509	0.2434	0.0	9.63127D-01
	0.0	LTE	0.2238	1.1582	0.2238	3.6407	0.1944	0.1346	0.1965	0.2995	0.0	
1301.15	0.0	NLTE	0.2021	1.1116	0.2021	3.4851	0.0108	0.0995	0.1382	0.2286	0.0	9.66744D-01
	0.0	LTE	0.2051	1.1182	0.2051	3.5455	0.1871	0.1229	0.1759	0.2676	0.0	
1296.73	0.0	NLTE	0.2004	1.1095	0.2004	3.4844	0.0109	0.0988	0.1371	0.2270	0.0	9.68042D-01
	0.0	LTE	0.2033	1.1157	0.2033	3.5448	0.1890	0.1221	0.1745	0.2654	0.0	
1113.23	1113.20	NLTE	0.4835	1.5583	0.4835	4.2564	0.0034	0.2209	0.3336	0.5336	-0.0042	9.09680D-01
	1113.17	LTE	0.5064	1.5784	0.5064	4.3167	0.1417	0.2827	0.3990	0.6238	-0.0044	
1109.97	1109.94	NLTE	0.3755	1.4498	0.3755	3.9834	0.0044	0.1750	0.2610	0.4139	-0.0069	9.12577D-01
	0.0	LTE	0.3927	1.4692	0.3927	4.0437	0.1350	0.2197	0.3091	0.4811	-0.0087	
1108.36	0.0	NLTE	0.2188	1.2158	0.2188	3.6299	0.0065	0.1024	0.1551	0.2438	0.0	9.17254D-01
	0.0	LTE	0.2280	1.2337	0.2280	3.6902	0.1241	0.1249	0.1826	0.2786	0.0	
997.39	0.0	NLTE	0.1306	1.0377	0.1306	3.2530	0.0053	0.0734	0.0889	0.1415	0.0	9.13756D-01
	0.0	LTE	0.1359	1.0547	0.1359	3.3134	0.0742	0.0782	0.0979	0.1599	0.0	
1417.24	0.0	NLTE	0.1719	1.0043	0.1719	2.9207	0.0155	0.0922	0.1190	0.1931	0.0	1.11651D 00
	0.0	LTE	0.1635	0.9826	0.1635	2.9489	0.2022	0.1061	0.1393	0.2135	0.0	
1312.59	0.0	NLTE	0.0834	0.7236	0.0834	2.1579	0.0333	0.0673	0.0780	0.0878	0.0	1.17927D 00
	0.0	LTE	0.0799	0.7050	0.0799	2.1853	0.1407	0.0716	0.0810	0.0919	0.0	
1842.55	0.0	NLTE	0.0726	0.5159	0.0726	1.7793	0.2128	0.0758	0.0923	0.1051	0.0	1.41337D 00
	0.0	LTE	0.0688	0.4925	0.0688	1.8251	0.3099	0.0835	0.0968	0.1099	0.0	
5741.33	0.0	NLTE	0.0914	0.1224	0.0914	1.1374	0.5516	0.1430	0.1993	0.2537	0.0	8.06823D 00
	0.0	LTE	0.0549	-0.0987	0.0549	1.1643	0.7606	0.1739	0.2239	0.2704	0.0	
2559.96	0.0	NLTE	0.0762	0.3943	0.0762	1.3663	0.2344	0.0684	0.0944	0.1198	0.0	2.58665D 00
	0.0	LTE	0.0593	0.2852	0.0593	1.4125	0.5222	0.0915	0.1150	0.1397	0.0	
3087.13	0.0	NLTE	0.0868	0.3694	0.0868	1.5001	0.2935	0.0863	0.1185	0.1478	0.0	5.55506D 00
	0.0	LTE	0.0582	0.1957	0.0582	1.5695	0.6244	0.1199	0.1439	0.1709	0.0	
4553.94	0.0	NLTE	0.1287	0.3716	0.1287	1.6388	0.3614	0.1375	0.1880	0.2378	0.0	5.25223D 00
	0.0	LTE	0.0830	0.1813	0.0830	1.5920	0.6579	0.1849	0.2243	0.2656	0.0	
4569.13	0.0	NLTE	0.1118	0.3092	0.1118	1.4184	0.3979	0.1276	0.1772	0.2232	0.0	4.70337D 00
	0.0	LTE	0.0755	0.1388	0.0755	1.4715	0.6631	0.1686	0.2075	0.2500	0.0	
4576.03	0.0	NLTE	0.0767	0.1447	0.0767	0.9461	0.5104	0.1054	0.1516	0.1971	0.0	2.91126D 00
	0.0	LTE	0.0570	0.0156	0.0570	0.9993	0.6801	0.1326	0.1716	0.2120	0.0	
3807.61	0.0	NLTE	0.0843	0.2657	0.0843	1.4777	0.4378	0.1087	0.1482	0.1836	0.0	2.97467D 00
	0.0	LTE	0.0673	0.1677	0.0673	1.5438	0.6186	0.1379	0.1705	0.2040	0.0	
3797.20	0.0	NLTE	0.0710	0.1924	0.0710	1.2547	0.4846	0.0971	0.1361	0.1725	0.0	2.38613D 00
	0.0	LTE	0.0586	0.1089	0.0586	1.3208	0.6317	0.1220	0.1567	0.1884	0.0	
3792.52	0.0	NLTE	0.0463	0.0072	0.0463	0.7770	0.6036	0.0795	0.1151	0.1495	0.0	1.37589D 00
	0.0	LTE	0.0421	-0.0347	0.0421	0.8431	0.6743	0.0925	0.1274	0.1619	0.0	

Table 80

Line Data for Silicon IV, T_{eff} = 30,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LCG(W/D)	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	3.2116	2.2830	5.5039	6.3963	0.0028	1.0577	2.2707	4.0130	0.0012	1.03409D 00
	0.0	LTE	3.1630	2.2764	5.4170	6.3931	0.2315	1.8805	2.8793	5.0852	0.0030	
1128.35	0.0	NLTE	1.1247	1.9190	1.1247	5.1473	0.0030	0.3921	0.7661	1.3165	0.0	1.02237D 00
	0.0	LTE	1.1122	1.9142	1.1122	5.1455	0.1322	0.5342	0.8800	1.4474	0.0	
1122.80	0.0	NLTE	0.7829	1.7640	0.7829	4.6440	0.0039	0.2723	0.5405	0.9281	0.0	1.02944D 00
	0.0	LTE	0.7717	1.7577	0.7717	4.6462	0.1381	0.3748	0.6212	0.9998	0.0	
1066.61	0.0	NLTE	0.1967	1.1663	0.1967	3.3789	0.0214	0.0725	0.1272	0.2270	0.0	1.00035D 00
	0.0	LTE	0.1966	1.1861	0.1966	3.3842	0.0967	0.0819	0.1407	0.2427	0.0	
1722.53	1722.56	NLTE	0.1261	0.7649	0.1261	2.7567	0.1628	0.0850	0.1213	0.1593	0.0110	1.17405D 00
	0.0	LTE	0.1195	0.7617	0.1195	2.8002	0.3152	0.1050	0.1351	0.1760	0.0108	
4090.02	0.0	NLTE	0.1150	0.3656	0.1150	1.9678	0.4241	0.1115	0.1653	0.2299	0.0	3.89475D 00
	0.0	LTE	0.0730	0.1721	0.0730	1.9506	0.6897	0.1311	0.1925	0.2499	0.0	
4117.26	0.0	NLTE	0.0939	0.2783	0.0939	1.6684	0.4817	0.1039	0.1551	0.2204	0.0	3.25900D 00
	0.0	LTE	0.0629	0.1041	0.0629	1.6512	0.6956	0.1180	0.1773	0.2381	0.0	
3166.63	0.0	NLTE	0.0507	0.1250	0.0507	1.5205	0.5742	0.0731	0.1087	0.1544	0.0	2.66860D 00
	0.0	LTE	0.0381	0.0002	0.0381	1.5103	0.7205	0.0842	0.1243	0.1704	0.0	
3150.48	0.0	NLTE	0.0365	-0.0152	0.0365	1.2173	0.6610	0.0666	0.1011	0.1419	0.0	2.16299D 00
	0.0	LTE	0.0283	-0.1266	0.0283	1.2071	0.7650	0.0756	0.1123	0.1577	0.0	
3763.50	0.0	NLTE	0.0194	-0.3673	0.0194	0.6953	0.8535	0.0864	0.1245	0.1713	0.0	1.18020D 00
	0.0	LTE	0.0180	-0.3998	0.0180	0.6850	0.8573	0.0784	0.1187	0.1647	0.0	
2287.75	0.0	NLTE	0.0418	0.1817	0.0418	1.5026	0.6003	0.0631	0.0953	0.1288	0.0	1.25029D 00
	0.0	LTE	0.0388	0.1502	0.0388	1.5003	0.6357	0.0631	0.0971	0.1309	0.0	
2518.33	0.0	NLTE	0.0538	0.2504	0.0538	1.6810	0.5701	0.0690	0.1043	0.1445	0.0	1.52547D 00
	0.0	LTE	0.0460	0.1823	0.0460	1.6760	0.6546	0.0707	0.1095	0.1501	0.0	
6673.03	0.0	NLTE	0.0116	-0.6379	0.0116	-0.1029	0.9386	0.0970	0.1788	0.2503	0.0	2.32539D 00
	0.0	LTE	0.0068	-1.0703	0.0068	-0.1124	0.9660	0.1070	0.1878	0.2589	0.0	
6669.41	0.0	NLTE	0.0068	-1.0740	0.0068	-0.4042	0.9628	0.0908	0.1721	0.2441	0.0	2.06026D 00
	0.0	LTE	0.0041	-1.2949	0.0041	-0.4136	0.9786	0.0978	0.1794	0.2505	0.0	
4213.60	0.0	NLTE	0.0197	-0.4101	0.0197	0.3969	0.8645	0.0854	0.1324	0.1869	0.0	1.62537D 00
	0.0	LTE	0.0155	-0.5131	0.0155	0.3922	0.9007	0.0917	0.1406	0.2024	0.0	
4632.57	0.0	NLTE	0.0244	-0.3574	0.0244	0.5558	0.8467	0.0952	0.1455	0.2036	0.0	2.22905D 00
	0.0	LTE	0.0167	-0.5232	0.0167	0.5455	0.9030	0.1000	0.1537	0.2216	0.0	
4655.61	0.0	NLTE	0.0379	-0.1688	0.0379	0.6664	0.7907	0.1053	0.1587	0.2294	0.0	2.30141D 00
	0.0	LTE	0.0263	-0.3272	0.0263	0.8601	0.8654	0.1084	0.1665	0.2426	0.0	

Table 81

Line Data for Silicon III, T_{eff} = 30,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(ST))
1206.50	1206.56	NLTE	1.8239	1.8666	1.9155	5.2076	0.0030	0.8347	1.2867	0.0	0.0031	1.02593D 00
	1207.52	LTE	1.8233	1.8665	1.8923	5.2122	0.1967	1.0847	1.5223	0.0	0.0029	
1298.95	1296.89	NLTE	0.4407	1.2177	0.4407	3.8484	0.0066	0.2203	0.3010	0.4809	-0.0093	1.02194D 00
	0.0	LTE	0.4359	1.2129	0.4359	3.9004	0.2037	0.2700	0.3748	0.5723	-0.0063	
1303.32	0.0	NLTE	0.2490	0.9963	0.2490	3.3678	0.0105	0.1478	0.1773	0.2540	0.0	1.04154D 00
	0.0	LTE	0.2443	0.9599	0.2443	3.4198	0.1801	0.1659	0.1990	0.3153	0.0	
1294.55	0.0	NLTE	0.2453	0.9647	0.2453	3.3661	0.0107	0.1463	0.1753	0.2498	0.0	1.04675D 00
	0.0	LTE	0.2401	0.9554	0.2401	3.4181	0.1837	0.1644	0.1964	0.3100	0.0	
1301.15	0.0	NLTE	0.2294	0.9334	0.2294	3.2709	0.0118	0.1440	0.1694	0.2290	0.0	1.05547D 00
	0.0	LTE	0.2240	0.9230	0.2240	3.3229	0.1767	0.1580	0.1834	0.2668	0.0	
1296.73	0.0	NLTE	0.2278	0.9318	0.2278	3.2702	0.0119	0.1433	0.1685	0.2271	0.0	1.05830D 00
	0.0	LTE	0.2221	0.9209	0.2221	3.3223	0.1785	0.1573	0.1825	0.2642	0.0	
1113.23	1113.20	NLTE	0.4968	1.3367	0.4968	4.0613	0.0037	0.2309	0.3419	0.5463	-0.0037	9.41221D-01
	1113.17	LTE	0.5115	1.3494	0.5115	4.1134	0.1357	0.2855	0.4057	0.6253	-0.0055	
1109.97	1109.94	NLTE	0.3902	1.2331	0.3902	3.7549	0.0047	0.1872	0.2695	0.4231	-0.0057	9.54193D-01
	0.0	LTE	0.3987	1.2425	0.3987	3.8470	0.1284	0.2224	0.3194	0.4880	-0.0069	
1108.36	0.0	NLTE	0.2367	1.0166	0.2367	3.4158	0.0071	0.1342	0.1610	0.2551	0.0	9.61616D-01
	0.0	LTE	0.2408	1.0241	0.2408	3.4678	0.1164	0.1458	0.1807	0.2953	0.0	
997.39	0.0	NLTE	0.1556	0.8804	0.1556	3.0387	0.0068	0.1093	0.1206	0.1442	0.0	9.60384D-01
	0.0	LTE	0.1577	0.8861	0.1577	3.0908	0.0689	0.1126	0.1259	0.1569	0.0	
1417.24	0.0	NLTE	0.2023	0.8416	0.2023	2.7009	0.0193	0.1382	0.1621	0.1984	0.0	1.21589D 00
	0.0	LTE	0.1881	0.8101	0.1881	2.7315	0.1922	0.1523	0.1703	0.2202	0.0	
1312.59	0.0	NLTE	0.1206	0.6503	0.1206	1.9369	0.0390	0.1079	0.1210	0.1341	0.0	1.33616D 00
	0.0	LTE	0.1147	0.6287	0.1147	1.9677	0.1365	0.1123	0.1244	0.1389	0.0	
1842.55	0.0	NLTE	0.1100	0.4631	0.1100	1.5594	0.2252	0.1188	0.1421	0.1688	0.0	1.40792D 00
	0.0	LTE	0.1048	0.4419	0.1048	1.6087	0.3099	0.1268	0.1503	0.1743	0.0	
5741.33	0.0	NLTE	0.1326	0.0507	0.1326	0.9216	0.5857	0.2291	0.3158	0.4107	0.0	6.97726D 00
	0.0	LTE	0.0783	-0.1779	0.0783	0.9449	0.7731	0.2570	0.3412	0.4292	0.0	
2559.96	0.0	NLTE	0.1034	0.2933	0.1034	1.1522	0.3129	0.1072	0.1471	0.1899	0.0	2.41588D 00
	0.0	LTE	0.0834	0.2003	0.0834	1.2013	0.5356	0.1346	0.1760	0.2092	0.0	
3087.13	0.0	NLTE	0.1228	0.2867	0.1228	1.2896	0.3535	0.1363	0.1888	0.2372	0.0	6.04498D 00
	0.0	LTE	0.0845	0.1246	0.0845	1.3511	0.6285	0.1795	0.2222	0.2647	0.0	
4553.94	0.0	NLTE	0.1961	0.3213	0.1961	1.4450	0.3712	0.2242	0.3064	0.3728	0.0	1.04175D 01
	0.0	LTE	0.1179	0.1001	0.1179	1.4774	0.6700	0.2842	0.3412	0.4116	0.0	
4569.13	0.0	NLTE	0.1707	0.2595	0.1707	1.2246	0.4100	0.2071	0.2866	0.3561	0.0	7.47796D 00
	0.0	LTE	0.1077	0.0595	0.1077	1.2570	0.6699	0.2482	0.3189	0.3770	0.0	
4576.03	0.0	NLTE	0.1143	0.0847	0.1143	0.7524	0.5321	0.1661	0.2393	0.3149	0.0	3.35256D 00
	0.0	LTE	0.0788	-0.0770	0.0788	0.7847	0.7018	0.1942	0.2583	0.3320	0.0	
3807.61	0.0	NLTE	0.1257	0.2058	0.1257	1.2730	0.4665	0.1724	0.2375	0.2942	0.0	3.19591D 00
	0.0	LTE	0.0988	0.1014	0.0988	1.3289	0.6275	0.2058	0.2643	0.3119	0.0	
3797.20	0.0	NLTE	0.1042	0.1257	0.1042	1.0500	0.5182	0.1576	0.2150	0.2772	0.0	2.35151D 00
	0.0	LTE	0.0848	0.0362	0.0848	1.1059	0.6472	0.1812	0.2417	0.2939	0.0	
3792.52	0.0	NLTE	0.0636	-0.0880	0.0636	0.5723	0.6511	0.1192	0.1803	0.2342	0.0	1.36188D 00
	0.0	LTE	0.0568	-0.1375	0.0568	0.6283	0.7099	0.1350	0.1937	0.2520	0.0	

Table 82

Line Data for Silicon IV, T_{eff} = 30,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N#/N(STD)
1393.75	1402.77	NLTE	3.2214	2.0510	5.5174	6.1501	0.0033	1.0619	2.2688	3.9908	0.0011	1.04527D 00
	0.0	LTE	3.1582	2.0424	5.4021	6.1372	0.2315	1.8773	2.8738	5.0652	0.0030	
1128.35	0.0	NLTE	1.1268	1.6665	1.1268	4.5535	0.0032	0.3945	0.7647	1.3109	0.0	1.03178D 00
	0.0	LTE	1.1091	1.6757	1.1091	4.5555	0.1349	0.5380	0.8813	1.4467	0.0	
1122.50	0.0	NLTE	0.7871	1.5330	0.7871	4.6502	0.0042	0.2762	0.5413	0.9278	0.0	1.04186D 00
	0.0	LTE	0.7712	1.5241	0.7712	4.6526	0.1421	0.3796	0.6243	1.0024	0.0	
1066.61	0.0	NLTE	0.2116	0.5647	0.2116	3.1554	0.0277	0.1047	0.1465	0.2316	0.0	1.00784D 00
	0.0	LTE	0.2108	0.5631	0.2108	3.2005	0.0878	0.1119	0.1546	0.2446	0.0	
1722.53	1722.56	NLTE	0.1527	0.6347	0.1527	2.6175	0.1687	0.1200	0.1682	0.2122	0.0074	1.21513D 00
	0.0	LTE	0.1448	0.6116	0.1448	2.6215	0.3084	0.1429	0.1817	0.2207	0.0079	
4090.02	0.0	NLTE	0.1564	0.2752	0.1564	1.7741	0.4539	0.1874	0.2672	0.3467	0.0	5.47826D 00
	0.0	LTE	0.0945	0.0516	0.0945	1.7508	0.7035	0.2059	0.2894	0.3753	0.0	
4117.26	0.0	NLTE	0.1294	0.1645	0.1294	1.4747	0.5154	0.1731	0.2492	0.3289	0.0	4.15993D 00
	0.0	LTE	0.0817	-0.0150	0.0817	1.4515	0.7191	0.1891	0.2719	0.3533	0.0	
3166.63	0.0	NLTE	0.0666	0.0231	0.0666	1.3146	0.6316	0.1202	0.1782	0.2406	0.0	2.52537D 00
	0.0	LTE	0.0517	-0.1000	0.0517	1.3013	0.7464	0.1369	0.1972	0.2561	0.0	
3150.48	0.0	NLTE	0.0487	-0.1241	0.0487	1.0114	0.7141	0.1067	0.1641	0.2249	0.0	2.03951D 00
	0.0	LTE	0.0377	-0.2234	0.0377	0.9980	0.7954	0.1211	0.1788	0.2387	0.0	
3763.50	0.0	NLTE	0.0237	-0.5136	0.0237	0.4530	0.8833	0.1338	0.1967	0.2627	0.0	1.12839D 00
	0.0	LTE	0.0224	-0.5392	0.0224	0.4801	0.8842	0.1199	0.1860	0.2541	0.0	
2287.75	0.0	NLTE	0.0553	0.0703	0.0553	1.3080	0.6429	0.1039	0.1496	0.1934	0.0	1.27583D 00
	0.0	LTE	0.0512	0.0367	0.0512	1.3037	0.6720	0.1027	0.1506	0.1966	0.0	
2518.33	0.0	NLTE	0.0688	0.1236	0.0688	1.4872	0.6205	0.1152	0.1664	0.2190	0.0	1.60747D 00
	0.0	LTE	0.0584	0.0522	0.0584	1.4800	0.6873	0.1151	0.1698	0.2261	0.0	
6673.03	0.0	NLTE	0.0137	-0.5959	0.0137	-0.3038	0.9536	0.1754	0.2749	0.3887	0.0	2.35088D 00
	0.0	LTE	0.0077	-1.2456	0.0077	-0.3153	0.9748	0.1827	0.2880	0.3994	0.0	
6669.41	0.0	NLTE	0.0077	-1.2477	0.0077	-0.6050	0.9727	0.1685	0.2636	0.3777	0.0	2.09819D 00
	0.0	LTE	0.0044	-1.4886	0.0044	-0.6165	0.9847	0.1737	0.2718	0.3854	0.0	
4213.60	0.0	NLTE	0.0241	-0.5553	0.0241	0.2070	0.8886	0.1300	0.2038	0.2812	0.0	1.67693D 00
	0.0	LTE	0.0185	-0.6702	0.0185	0.2010	0.9187	0.1378	0.2139	0.2948	0.0	
4632.57	0.0	NLTE	0.0303	-0.4971	0.0303	0.3626	0.8742	0.1461	0.2276	0.3129	0.0	2.26551D 00
	0.0	LTE	0.0201	-0.6752	0.0201	0.3551	0.9206	0.1528	0.2375	0.3279	0.0	
4655.61	0.0	NLTE	0.0476	-0.3037	0.0476	0.6736	0.8233	0.1646	0.2499	0.3419	0.0	2.41927D 00
	0.0	LTE	0.0322	-0.4731	0.0322	0.6664	0.8860	0.1698	0.2590	0.3549	0.0	

Table 83

Line Data for Silicon III, T_{eff} = 30,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.66	NLTE	0.1738	1.0662	0.1738	3.4164	0.0129	0.1188	0.1405	0.1810	0.0183	1.83926D-01
	0.0	LTE	0.4015	1.4237	0.4015	4.3612	0.4450	0.3549	0.4759	0.7152	0.0037	
1298.95	1298.89	NLTE	0.1072	0.8182	0.1072	2.1057	0.0477	0.1055	0.1171	0.1256	-0.0234	6.20657D-01
	0.0	LTE	0.1232	0.8767	0.1232	3.1273	0.4294	0.1433	0.1553	0.1916	-0.0210	
1303.32	0.0	NLTE	0.0559	0.8341	0.0559	1.6308	0.0717	0.0514	0.0603	0.0708	0.0	4.20326D-01
	0.0	LTE	0.0708	0.8363	0.0708	2.6485	0.3920	0.0848	0.0924	0.1056	0.0	
1294.85	0.0	NLTE	0.0550	0.8301	0.0550	1.6291	0.0733	0.0509	0.0596	0.0698	0.0	4.29210D-01
	0.0	LTE	0.0690	0.8284	0.0690	2.6468	0.3999	0.0841	0.0916	0.1042	0.0	
1301.15	0.0	NLTE	0.0534	0.8151	0.0534	1.5335	0.0797	0.0500	0.0584	0.0678	0.0	4.03135D-01
	0.0	LTE	0.0670	0.8135	0.0670	2.5516	0.3873	0.0820	0.0900	0.0985	0.0	
1296.73	0.0	NLTE	0.0530	0.8130	0.0530	1.5333	0.0805	0.0498	0.0580	0.0673	0.0	4.17871D-01
	0.0	LTE	0.0662	0.8093	0.0662	2.5510	0.3912	0.0816	0.0896	0.0977	0.0	
1113.23	1113.20	NLTE	0.0891	0.8047	0.0891	2.3052	0.0424	0.0775	0.0967	0.1074	-0.0172	2.60276D-01
	1113.17	LTE	0.1483	1.0262	0.1483	3.3226	0.3336	0.1318	0.1526	0.2107	-0.0125	
1109.97	1109.94	NLTE	0.0774	0.7447	0.0774	2.0321	0.0539	0.0740	0.0837	0.0917	-0.0125	3.12011D-01
	0.0	LTE	0.1175	0.9264	0.1175	3.0455	0.3204	0.1076	0.1198	0.1638	-0.0114	
1108.36	0.0	NLTE	0.0469	0.8283	0.0469	1.6763	0.0774	0.0436	0.0514	0.0603	0.0	2.33061D-01
	0.0	LTE	0.0741	0.7268	0.0741	2.6558	0.3005	0.0735	0.0803	0.0956	0.0	
997.39	0.0	NLTE	0.0317	0.4044	0.0317	1.3015	0.1557	0.0313	0.0399	0.0457	0.0	6.11293D-02
	0.0	LTE	0.0588	0.6719	0.0588	2.3191	0.2100	0.0578	0.0650	0.0727	0.0	
1417.24	0.0	NLTE	0.0413	0.3661	0.0413	1.1045	0.2153	0.0382	0.0517	0.0682	0.0	2.46374D-01
	0.0	LTE	0.0583	0.5160	0.0583	1.9860	0.4057	0.0716	0.0835	0.1027	0.0	
1312.59	0.0	NLTE	0.0146	-0.0519	0.0146	0.3416	0.5514	0.0199	0.0339	0.0450	0.0	1.20911D-03
	0.0	LTE	0.0422	0.4085	0.0422	1.2229	0.3292	0.0520	0.0631	0.0732	0.0	
1842.55	0.0	NLTE	-0.0011	-1.3386	-0.0011	0.0255	0.9604	0.0064	0.0128	0.0192	0.0	
	0.0	LTE	0.0322	0.1439	0.0322	0.8975	0.5393	0.0510	0.0676	0.0891	0.0	
5741.33	0.0	NLTE	0.0106	-0.8310	0.0106	-0.2697	0.9180	0.0619	0.1241	0.1885	0.0	6.10017D-01
	0.0	LTE	0.0136	-0.7233	0.0136	0.4270	0.9060	0.0931	0.1515	0.1978	0.0	
2559.96	0.0	NLTE	-0.0164	-0.2908	-0.0164	-0.2394	1.2031	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0202	-0.2020	0.0202	0.5752	0.7420	0.0575	0.0776	0.0978	0.0	
3087.13	0.0	NLTE	0.0033	-1.0749	0.0033	-0.0232	0.9265	0.0226	0.0451	0.0715	0.0	2.36609D-03
	0.0	LTE	0.0195	-0.2972	0.0195	0.7711	0.8073	0.0757	0.0993	0.1229	0.0	
4553.94	0.0	NLTE	0.0648	0.0544	0.0648	0.3072	0.5385	0.0958	0.1370	0.1782	0.0	3.63998D 01
	0.0	LTE	0.0242	-0.3722	0.0242	0.8714	0.8400	0.1156	0.1500	0.1843	0.0	
4569.13	0.0	NLTE	0.0490	-0.0677	0.0490	0.0868	0.6202	0.0771	0.1274	0.1707	0.0	1.04434D 01
	0.0	LTE	0.0215	-0.4257	0.0215	0.6509	0.8412	0.1039	0.1373	0.1706	0.0	
4576.03	0.0	NLTE	0.0219	-0.4179	0.0219	-0.3655	0.8098	0.0587	0.1129	0.1606	0.0	2.73802D 00
	0.0	LTE	0.0106	-0.7341	0.0106	0.1787	0.8956	0.0537	0.1047	0.1478	0.0	
3807.61	0.0	NLTE	-0.0055	-0.9425	-0.0055	-0.0345	1.0241	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0214	-0.3485	0.0214	0.7227	0.8101	0.0882	0.1146	0.1411	0.0	
3797.20	0.0	NLTE	-0.0059	-0.9048	-0.0059	-0.2575	1.0426	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0154	-0.4911	0.0154	0.4997	0.8376	0.0685	0.1014	0.1291	0.0	
3792.52	0.0	NLTE	-0.0036	-1.1217	-0.0036	-0.7352	1.0355	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0046	-1.0184	0.0046	0.0220	0.9268	0.0312	0.0624	0.0999	0.0	

Table 84

Line Data for Silicon IV, T_{eff} = 30,000 K, Log g = 3.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	1.8189	2.0172	2.9861	6.1339	0.0050	0.0991	1.2809	2.3312	0.0001	4.50459D-01
	0.0	LTE	2.6772	2.1851	4.3420	6.5087	0.5123	2.6762	3.6006	5.7687	0.0075	
1128.35	0.0	NLTE	0.6179	1.6400	0.6179	4.7201	0.0069	0.1685	0.4334	0.7538	0.0	4.51109D-01
	0.0	LTE	0.9239	1.8147	0.9239	5.1070	0.3885	0.7337	1.0174	1.5694	0.0	
1122.50	0.0	NLTE	0.4320	1.4869	0.4320	4.4168	0.0089	0.1198	0.2997	0.5392	0.0	4.52817D-01
	0.0	LTE	0.6404	1.6578	0.6404	4.8037	0.4030	0.5277	0.7156	1.1047	0.0	
1066.61	0.0	NLTE	0.0384	0.4577	0.0384	2.7059	0.0765	0.0452	0.0587	0.0723	0.0	7.28070D-02
	0.0	LTE	0.1248	0.9697	0.1248	3.0922	0.3368	0.0966	0.1255	0.1931	0.0	
1722.53	1722.56	NLTE	0.0434	C.3C27	C.CC99	2.3192	0.3449	0.0489	0.0682	0.0851	0.0049	4.30425D-04
	0.0	LTE	0.0765	C.5451	C.0765	2.7225	0.6362	0.1408	0.1544	0.1821	0.0104	
4090.02	0.0	NLTE	C.1430	C.4451	C.1430	2.2C18	0.2981	0.1341	0.1844	0.2408	0.0	7.25958D 02
	0.0	LTE	0.0403	-C.1044	C.0403	2.3713	0.8994	0.2760	0.3067	0.3733	0.0	
4117.26	C.0	NLTE	C.1216	C.3720	C.1216	1.5C24	0.3475	0.1208	0.1719	0.2265	0.0	7.87901D 01
	0.0	LTE	0.0460	-C.C5C3	C.C460	2.C719	0.8510	0.2259	0.2574	0.3045	0.0	
3166.63	0.0	NLTE	0.0254	-C.1537	C.0254	1.5257	0.6478	0.0729	0.1001	0.1250	0.0	1.53406D-01
	0.0	LTE	0.0279	-C.1535	C.0279	2.1310	0.8821	0.1737	0.1919	0.2202	0.0	
3150.48	0.0	NLTE	C.0147	-C.4295	C.0147	1.6265	0.7239	0.0570	0.0846	0.1059	0.0	3.81061D-05
	0.0	LTE	0.0232	-C.2318	C.C232	1.6278	0.8657	0.1393	0.1633	0.1873	0.0	
3763.50	0.0	NLTE	-C.0013	-1.5438	-C.C013	1.2619	0.9327	0.1149	0.1242	0.1335	0.0	
	0.0	LTE	0.0140	-C.5290	C.C140	1.4392	0.8249	0.1184	0.1589	0.1940	0.0	
2287.75	C.0	NLTE	-0.0066	-C.6396	-C.C066	1.4753	0.9316	0.0529	0.0621	0.0679	0.0	
	0.0	LTE	0.0343	C.C774	C.0343	1.6512	0.6825	0.0865	0.1086	0.1310	0.0	
2518.33	0.0	NLTE	0.0276	-C.C585	C.C276	1.6168	0.4293	0.0648	0.0860	0.1055	0.0	1.60722D-01
	0.0	LTE	0.0395	C.C572	C.0395	1.5783	0.7401	0.1139	0.1401	0.1684	0.0	
6673.03	0.0	NLTE	-0.0514	-C.2119	-0.0514	C.7634	1.0901	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0131	-C.6CC3	C.0131	C.8841	0.9479	0.1688	0.2403	0.3155	0.0	
6669.41	0.0	NLTE	-0.0472	-C.2461	-C.0472	0.4621	1.1411	0.0	0.0	0.0	0.0	
	0.0	LTE	C.0090	-C.5675	C.C090	0.5829	0.9590	0.1406	0.2114	0.2855	0.0	
4213.60	0.0	NLTE	-0.0018	-1.4740	-C.0018	0.6951	0.8926	0.0470	0.0686	0.0866	0.0	
	0.0	LTE	0.0173	-C.4654	C.0173	0.7825	0.8813	0.1002	0.1432	0.1884	0.0	
4632.57	0.0	NLTE	0.0318	-C.2616	C.C318	1.C128	0.6716	0.0812	0.1207	0.1505	0.0	4.21139D 00
	0.0	LTE	0.0203	-C.4560	C.0203	1.C753	0.8838	0.1232	0.1746	0.2217	0.0	
4655.61	0.0	NLTE	0.0269	-C.3359	C.C269	1.3C88	0.7255	0.0972	0.1361	0.1661	0.0	1.19488D 00
	0.0	LTE	0.0256	-C.3584	C.0256	1.3795	0.8712	0.1408	0.1963	0.2481	0.0	

Table 85

Line Data for Silicon III, T_{eff} = 30,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.1573	C.8541	C.2086	3.1935	0.0149	0.1435	0.1762	0.2091	0.0181	1.65159D-01
	1207.52	LTE	0.4045	1.2059	C.4645	4.1443	0.4356	0.3533	0.4706	0.7399	0.0038	
1298.95	1298.89	NLTE	0.1346	C.6558	C.1346	1.8850	0.0664	0.1233	0.1478	0.1694	-0.0185	6.84601D-01
	0.0	LTE	0.1461	0.7317	C.1461	2.9137	0.4141	0.1845	0.2008	0.2282	-0.0233	
1303.32	C.0	NLTE	0.0795	C.4661	C.C795	1.4044	0.1005	0.0669	0.0858	0.1047	0.0	2.36679D-01
	0.0	LTE	0.0988	C.5600	C.C988	2.4330	0.3768	0.1254	C.1397	0.1540	0.0	
1294.55	0.0	NLTE	0.0782	C.4615	C.0782	1.4027	0.1027	0.0661	0.0847	0.1032	0.0	2.34018D-01
	0.0	LTE	0.0967	C.5537	C.0967	2.4313	0.3844	0.1246	0.1387	C.1528	0.0	
1301.15	0.0	NLTE	0.0754	C.4434	C.0754	1.3075	0.1120	0.0651	0.0830	0.1010	0.0	1.51294D-01
	0.0	LTE	0.0961	C.5487	C.0961	2.3361	0.3721	0.1238	0.1380	0.1521	0.0	
1296.73	C.0	NLTE	0.0747	C.4410	C.0747	1.3068	0.1132	0.0648	0.0825	0.1003	0.0	1.49200D-01
	0.0	LTE	0.0951	C.5457	C.0951	2.3355	0.3759	0.1234	0.1375	0.1515	0.0	
1113.23	1113.20	NLTE	0.1108	C.6785	0.1108	2.0583	0.0544	0.0950	0.1221	0.1416	-0.0100	2.99378D-01
	1113.17	LTE	0.1647	C.8505	0.1647	3.1264	0.3219	0.1621	0.1843	0.2192	-0.0142	
1109.97	1109.94	NLTE	0.1018	C.6431	C.1018	1.8321	0.0686	0.0865	0.1109	0.1348	-0.0113	3.51004D-01
	0.0	LTE	0.1375	C.7733	C.1375	2.8602	0.3086	0.1379	0.1552	0.1905	-0.0120	
1108.36	C.0	NLTE	0.0674	C.4646	0.0674	1.4524	0.1013	0.0568	0.0729	0.0891	0.0	1.33441D-01
	0.0	LTE	0.0994	C.6334	C.0994	2.4805	0.2873	0.1069	0.1200	0.1331	0.0	
997.39	C.0	NLTE	0.0433	C.3184	C.0433	1.0754	0.2173	0.0456	0.0578	0.0699	0.0	1.68685D-03
	0.0	LTE	0.0875	0.6235	0.0875	2.1035	0.2000	0.0919	0.1032	0.1146	0.0	
1417.24	0.0	NLTE	0.0574	0.2881	0.0574	0.9009	0.2783	0.0626	0.0798	0.0997	0.0	9.42286D-02
	0.0	LTE	0.0843	0.4549	0.0843	1.7734	0.3934	0.1160	0.1306	0.1441	0.0	
1312.59	0.0	NLTE	0.0170	-0.2061	0.0170	0.1369	0.6613	0.0329	0.0489	0.0682	0.0	6.06205D-04
	0.0	LTE	0.0621	0.3557	0.0621	1.0090	0.3296	0.0752	0.0923	0.1065	0.0	
1842.55	0.0	NLTE	-0.0037	-1.0177	-0.0037	-0.1814	1.0100	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0459	0.0770	0.0459	0.6639	0.5540	0.0806	0.1021	0.1282	0.0	
5741.33	0.0	NLTE	0.0084	-1.1526	0.0084	-0.4879	0.9587	0.1232	0.1933	0.2809	0.0	4.60160D-01
	0.0	LTE	0.0148	-0.9090	0.0148	0.2160	0.9285	0.1394	0.2044	0.2820	0.0	
2559.96	0.0	NLTE	-0.0200	-0.4268	-0.0200	-0.4133	1.1698	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0251	-0.3286	0.0251	0.3680	0.7772	0.0752	0.1122	0.1461	0.0	
3087.13	0.0	NLTE	0.0031	-1.3231	0.0031	-0.2100	0.9600	0.0470	0.0828	0.1120	0.0	3.89833D-03
	0.0	LTE	0.0259	-0.3960	0.0259	0.5608	0.8228	0.1040	0.1481	0.1836	0.0	
4553.94	0.0	NLTE	0.0788	-0.0815	0.0788	0.1047	0.6227	0.1324	0.2030	0.2718	0.0	1.19794D 01
	0.0	LTE	0.0328	-0.4622	0.0328	0.6629	0.8493	0.1664	0.2248	0.2718	0.0	
4569.13	0.0	NLTE	0.0565	-0.2274	0.0565	-0.1158	0.7125	0.1219	0.1875	0.2617	0.0	4.64611D 00
	0.0	LTE	0.0268	-0.5508	0.0268	0.4424	0.8607	0.1341	0.1974	0.2526	0.0	
4576.03	0.0	NLTE	0.0232	-0.6147	0.0232	-0.5880	0.8726	0.1105	0.1715	0.2478	0.0	2.33717D 00
	0.0	LTE	0.0100	-0.9804	0.0100	-0.0298	0.9319	0.0978	0.1459	0.1972	0.0	
3807.61	0.0	NLTE	-0.0074	-1.0327	-0.0074	-0.2310	1.0295	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0273	-0.4646	0.0273	0.5118	0.8304	0.1153	0.1679	0.2101	0.0	
3797.20	0.0	NLTE	-0.0070	-1.0518	-0.0070	-0.4540	1.0366	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0169	-0.6708	0.0169	0.2888	0.8718	0.0938	0.1354	0.1825	0.0	
3792.52	0.0	NLTE	-0.0036	-1.3375	-0.0036	-0.9317	1.0232	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0027	-1.4711	0.0027	-0.1889	0.9641	0.0516	0.0939	0.1257	0.0	

Table 86

Line Data for Silicon IV, T_{eff} = 30,000 K, Log g = 3.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	1.8555	1.8048	3.0872	5.9336	0.0054	0.1707	1.3045	2.3689	0.0001	4.87146D-01
	0.0	LTE	2.6386	1.9577	4.3310	6.2977	0.5147	2.6900	3.7302	5.6253	0.0140	
1128.35	0.0	NLTE	0.6392	1.4337	0.6392	4.5240	0.0070	0.1910	0.4465	0.7645	0.0	4.77507D-01
	0.0	LTE	0.9243	1.5939	0.9243	4.9017	0.3943	0.7433	1.0252	1.5698	0.0	
1122.50	0.0	NLTE	0.4476	1.2812	0.4476	4.2208	0.0091	0.1512	0.3066	0.5434	0.0	4.96912D-01
	0.0	LTE	0.6349	1.4330	0.6349	4.5984	0.4087	0.5318	0.7290	1.0977	0.0	
1066.61	0.0	NLTE	0.0659	0.4711	0.0659	2.5182	0.0822	0.0735	0.0901	0.1057	0.0	1.36177D-01
	0.0	LTE	0.1401	0.7991	0.1401	2.8940	0.3204	0.1256	0.1437	0.1955	0.0	
1722.53	1722.56	NLTE	0.0642	0.2522	0.0294	2.1428	0.3542	0.0796	0.1046	0.1232	0.0041	9.91485D-04
	0.0	LTE	0.0956	0.4246	0.0956	2.5369	0.6114	0.1887	0.2042	0.2326	0.0083	
4090.02	0.0	NLTE	0.2223	0.4156	0.2223	2.0419	0.2920	0.2256	0.3014	0.3744	0.0	8.48653D 01
	0.0	LTE	0.0468	-0.2612	0.0468	2.1753	0.8768	0.3701	0.4067	0.4534	0.0	
4117.26	0.0	NLTE	0.1897	0.3440	0.1897	1.7426	0.3415	0.2028	0.2796	0.3530	0.0	1.33264D 03
	0.0	LTE	0.0642	-0.1267	0.0642	1.8760	0.8341	0.3166	0.3628	0.4131	0.0	
3166.63	0.0	NLTE	0.0525	-0.1003	0.0525	1.7550	0.6464	0.1235	0.1695	0.2091	0.0	3.99838D 01
	0.0	LTE	0.0423	-0.1935	0.0423	1.9287	0.8597	0.2466	0.2777	0.3118	0.0	
3150.48	0.0	NLTE	0.0325	-0.3061	0.0325	1.4518	0.7236	0.1001	0.1427	0.1787	0.0	3.61452D-01
	0.0	LTE	0.0349	-0.2750	0.0349	1.6255	0.8536	0.1993	0.2376	0.2738	0.0	
3763.50	0.0	NLTE	0.0016	-1.6831	0.0016	1.0886	0.9675	0.1994	0.2085	0.2176	0.0	8.78369D-07
	0.0	LTE	0.0374	-0.3223	0.0374	1.2433	0.8341	0.1777	0.2349	0.2839	0.0	
2287.75	0.0	NLTE	0.0028	-1.2360	0.0028	1.2975	0.9006	0.0903	0.1110	0.1240	0.0	4.27953D-08
	0.0	LTE	0.0491	0.0125	0.0491	1.4532	0.6893	0.1271	0.1634	0.1926	0.0	
2518.33	0.0	NLTE	0.0662	0.1001	0.0662	1.6408	0.4449	0.1068	0.1448	0.1744	0.0	2.21522D 00
	0.0	LTE	0.0552	0.0212	0.0552	1.7829	0.7322	0.1660	0.2045	0.2379	0.0	
6673.03	0.0	NLTE	-0.0363	-0.5843	-0.0363	0.5799	1.0231	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0164	-0.9291	0.0164	0.6890	0.9544	0.2470	0.3534	0.4560	0.0	
6669.41	0.0	NLTE	-0.0384	-0.5598	-0.0384	0.2787	1.0711	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0107	-1.1130	0.0107	0.3868	0.9663	0.2101	0.3093	0.4098	0.0	
4213.60	0.0	NLTE	0.0072	-1.0877	0.0072	0.5023	0.8969	0.0843	0.1240	0.1586	0.0	8.11834D-02
	0.0	LTE	0.0215	-0.6116	0.0215	0.5876	0.8980	0.1483	0.2102	0.2709	0.0	
4632.57	0.0	NLTE	0.0527	-0.2639	0.0527	0.8190	0.7152	0.1378	0.1976	0.2510	0.0	6.55326D 00
	0.0	LTE	0.0265	-0.5617	0.0265	0.8780	0.8963	0.1833	0.2579	0.3237	0.0	
4655.61	0.0	NLTE	0.0495	-0.2927	0.0495	1.1096	0.7533	0.1659	0.2262	0.2766	0.0	3.32611D 00
	0.0	LTE	0.0345	-0.4496	0.0345	1.1828	0.8801	0.2134	0.2920	0.3615	0.0	

Table 87

Line Data for Silicon III, T_{eff} = 32,500 K, Log g = 4.5, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.9167	1.5579	1.0256	4.5967	0.0064	0.4166	0.6568	1.0805	0.0039	1.07805D 00
	1207.52	LTE	0.8834	1.5419	0.9909	4.5904	0.2356	0.5706	0.7954	1.2868	0.0038	
1298.95	1298.89	NLTE	-0.2998	1.0405	0.2998	3.3780	0.0117	0.1950	0.2316	0.3107	-0.0138	1.18103D 00
	0.0	LTE	-0.2810	1.0124	0.2810	3.4143	0.2152	0.2185	0.2578	0.3526	-0.0138	
1303.32	0.0	NLTE	0.1771	0.8103	0.1771	2.8971	0.0188	0.1354	0.1521	0.2082	0.0	1.21510D 00
	0.0	LTE	0.1659	0.7820	0.1659	2.9334	0.1914	0.1460	0.1654	0.2248	0.0	
1294.55	0.0	NLTE	0.1746	0.8073	0.1746	2.8955	0.0192	0.1340	0.1507	0.2057	0.0	1.22635D 00
	0.0	LTE	0.1632	0.7777	0.1632	2.9318	0.1952	0.1448	0.1632	0.2226	0.0	
1301.15	0.0	NLTE	0.1662	0.7835	0.1662	2.8003	0.0210	0.1320	0.1485	0.1949	0.0	1.23712D 00
	0.0	LTE	0.1551	0.7535	0.1551	2.8366	0.1885	0.1425	0.1544	0.2135	0.0	
1296.73	0.0	NLTE	0.1651	0.7821	0.1651	2.7996	0.0213	0.1314	0.1479	0.1936	0.0	1.24315D 00
	0.0	LTE	0.1539	0.7515	0.1539	2.8359	0.1904	0.1419	0.1538	0.2124	0.0	
1113.23	1113.20	NLTE	0.3143	1.1281	0.3143	3.5926	0.0069	0.1800	0.2177	0.3264	-0.0068	1.03070D 00
	1113.17	LTE	0.3103	1.1224	0.3103	3.6291	0.1484	0.1976	0.2430	0.3723	-0.0045	
1109.97	1109.94	NLTE	0.2533	1.0357	0.2533	3.3267	0.0088	0.1564	0.1882	0.2607	-0.0053	1.05633D 00
	0.0	LTE	0.2479	1.0262	0.2479	3.3633	0.1397	0.1708	0.2079	0.2918	-0.0076	
1108.36	0.0	NLTE	0.1629	0.8445	0.1629	2.9461	0.0133	0.1211	0.1329	0.1869	0.0	1.07935D 00
	0.0	LTE	0.1588	0.8335	0.1588	2.9826	0.1273	0.1260	0.1494	0.1961	0.0	
997.39	0.0	NLTE	0.1189	0.7535	0.1189	2.5694	0.0141	0.1004	0.1103	0.1264	0.0	1.03969D 00
	0.0	LTE	0.1171	0.7468	0.1171	2.6060	0.0794	0.1033	0.1129	0.1387	0.0	
1417.24	0.0	NLTE	0.1588	0.7266	0.1588	2.3000	0.0354	0.1243	0.1445	0.1681	0.0	1.49471D 00
	0.0	LTE	0.1419	0.6779	0.1419	2.3146	0.2132	0.1335	0.1530	0.1726	0.0	
1312.59	0.0	NLTE	0.1033	0.5732	0.1033	1.5362	0.0699	0.0914	0.1100	0.1265	0.0	1.47708D 00
	0.0	LTE	0.0971	0.5465	0.0971	1.5511	0.1668	0.0965	0.1139	0.1287	0.0	
1842.55	0.0	NLTE	0.0937	0.3837	0.0937	1.2452	0.2840	0.1058	0.1317	0.1557	0.0	1.36002D 00
	0.0	LTE	0.0890	0.3613	0.0890	1.2777	0.3575	0.1166	0.1373	0.1625	0.0	
5741.33	0.0	NLTE	0.0939	-0.1089	0.0939	0.6850	0.6926	0.2087	0.3005	0.3953	0.0	3.77501D 00
	0.0	LTE	0.0604	-0.3007	0.0604	0.6904	0.8102	0.2299	0.3123	0.4058	0.0	
2559.96	0.0	NLTE	0.0863	0.2051	0.0863	0.9470	0.4045	0.1008	0.1414	0.1853	0.0	2.18298D 00
	0.0	LTE	0.0700	0.1138	0.0700	0.9757	0.5828	0.1233	0.1650	0.2014	0.0	
3087.13	0.0	NLTE	0.0978	0.1781	0.0978	1.0332	0.4496	0.1272	0.1752	0.2270	0.0	4.27947D 00
	0.0	LTE	0.0694	0.0290	0.0694	1.0825	0.6664	0.1569	0.2064	0.2468	0.0	
4553.94	0.0	NLTE	0.1586	0.2192	0.1586	1.1909	0.4625	0.2121	0.2917	0.3598	0.0	8.16746D 00
	0.0	LTE	0.0969	0.0052	0.0969	1.2110	0.7038	0.2486	0.3193	0.3803	0.0	
4569.13	0.0	NLTE	0.1358	0.1504	0.1358	0.9705	0.5028	0.1959	0.2679	0.3430	0.0	5.49405D 00
	0.0	LTE	0.0871	-0.0427	0.0871	0.9906	0.7081	0.2207	0.2942	0.3584	0.0	
4576.03	0.0	NLTE	0.0851	-0.0535	0.0851	0.4982	0.6288	0.1492	0.2241	0.2955	0.0	2.59280D 00
	0.0	LTE	0.0589	-0.2131	0.0589	0.5183	0.7554	0.1635	0.2354	0.3088	0.0	
3807.61	0.0	NLTE	0.1014	0.1026	0.1014	1.0300	0.5443	0.1617	0.2207	0.2828	0.0	2.90939D 00
	0.0	LTE	0.0783	-0.0098	0.0783	1.0775	0.6840	0.1862	0.2478	0.2995	0.0	
3797.20	0.0	NLTE	0.0813	0.0078	0.0813	0.8070	0.6004	0.1405	0.2007	0.2636	0.0	2.15304D 00
	0.0	LTE	0.0650	-0.0891	0.0650	0.8544	0.7085	0.1653	0.2203	0.2805	0.0	
3792.52	0.0	NLTE	0.0449	-0.2494	0.0449	0.3293	0.7392	0.1090	0.1683	0.2251	0.0	1.33232D 00
	0.0	LTE	0.0393	-0.3072	0.0393	0.3768	0.7839	0.1181	0.1789	0.2331	0.0	

Table 88

Line Data for Silicon IV, T_{eff} = 32,500 K, Log g = 4.5, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.5569	1.9440	4.3787	5.9039	0.0058	0.7395	1.7965	3.1641	0.0005	1.04738D 00
	0.0	LTE	2.5059	1.9353	4.2807	5.9029	0.2947	1.6612	2.4508	3.9258	0.0016	
1128.35	0.0	NLTE	0.9638	1.6120	0.9638	4.7512	0.0053	0.3474	0.6612	1.1307	0.0	1.04618D 00
	0.0	LTE	0.9423	1.6022	0.9423	4.7547	0.2064	0.5362	0.8119	1.2856	0.0	
1122.50	0.0	NLTE	0.6745	1.4553	0.6745	4.4479	0.0070	0.2444	0.4560	0.7882	0.0	1.06092D 00
	0.0	LTE	0.6550	1.4465	0.6550	4.4515	0.2161	0.3767	0.5834	0.9207	0.0	
1066.61	0.0	NLTE	0.2091	0.9729	0.2091	3.1011	0.0258	0.1055	0.1462	0.2265	0.0	1.03051D 00
	0.0	LTE	0.2064	0.9671	0.2064	3.1080	0.1162	0.1156	0.1571	0.2446	0.0	
1722.53	1722.56	NLTE	0.1569	0.6400	0.1569	2.5621	0.1802	0.1267	0.1723	0.2137	0.0074	1.37217D 00
	0.0	LTE	0.1442	0.6032	0.1442	2.5678	0.3435	0.1560	0.1886	0.2236	0.0079	
4090.02	0.0	NLTE	0.1566	0.2636	0.1566	1.7952	0.4720	0.1920	0.2741	0.3567	0.0	5.61613D 00
	0.0	LTE	0.0989	0.0640	0.0989	1.7805	0.7128	0.2385	0.3107	0.3903	0.0	
4117.26	0.0	NLTE	0.1287	0.1755	0.1287	1.4559	0.5286	0.1778	0.2570	0.3341	0.0	3.82955D 00
	0.0	LTE	0.0874	0.0074	0.0874	1.4811	0.7133	0.2062	0.2857	0.3645	0.0	
3166.63	0.0	NLTE	0.0890	0.1291	0.0890	1.5462	0.5528	0.1314	0.1900	0.2513	0.0	3.41684D 00
	0.0	LTE	0.0650	-0.0069	0.0650	1.5355	0.7137	0.1575	0.2184	0.2777	0.0	
3150.48	0.0	NLTE	0.0649	-0.0058	0.0649	1.2430	0.6400	0.1154	0.1735	0.2348	0.0	2.44091D 00
	0.0	LTE	0.0494	-0.1242	0.0494	1.2363	0.7524	0.1369	0.1948	0.2503	0.0	
3763.50	0.0	NLTE	0.0313	-0.3999	0.0313	0.6125	0.8483	0.1356	0.1988	0.2659	0.0	1.27880D 00
	0.0	LTE	0.0279	-0.4492	0.0279	0.6048	0.8604	0.1257	0.1922	0.2617	0.0	
2287.75	0.0	NLTE	0.0693	0.1618	0.0693	1.4772	0.5704	0.1066	0.1536	0.1995	0.0	1.33568D 00
	0.0	LTE	0.0634	0.1229	0.0634	1.4772	0.6183	0.1091	0.1576	0.2046	0.0	
2518.33	0.0	NLTE	0.0892	0.2298	0.0892	1.6567	0.5352	0.1197	0.1727	0.2280	0.0	1.71056D 00
	0.0	LTE	0.0747	0.1529	0.0747	1.6948	0.6352	0.1263	0.1817	0.2386	0.0	
6673.03	0.0	NLTE	0.0240	-0.7631	0.0240	0.0340	0.9216	0.1813	0.2861	0.3978	0.0	2.33720D 00
	0.0	LTE	0.0141	-0.9546	0.0141	0.0320	0.9562	0.1917	0.3024	0.4148	0.0	
6669.41	0.0	NLTE	0.0138	-1.0023	0.0138	-0.2672	0.9527	0.1729	0.2711	0.3849	0.0	2.03206D 00
	0.0	LTE	0.0084	-1.2214	0.0084	-0.2653	0.9724	0.1799	0.2833	0.3948	0.0	
4213.60	0.0	NLTE	0.0319	-0.4403	0.0319	0.4305	0.8600	0.1353	0.2110	0.2927	0.0	1.44807D 00
	0.0	LTE	0.0265	-0.5215	0.0265	0.4291	0.8892	0.1430	0.2203	0.3041	0.0	
4632.57	0.0	NLTE	0.0408	-0.3743	0.0408	0.6078	0.8409	0.1539	0.2376	0.3281	0.0	1.84832D 00
	0.0	LTE	0.0304	-0.5027	0.0304	0.6055	0.8874	0.1611	0.2474	0.3411	0.0	
4655.61	0.0	NLTE	0.0632	-0.1868	0.0632	0.9190	0.7829	0.1764	0.2628	0.3576	0.0	1.93993D 00
	0.0	LTE	0.0475	-0.3103	0.0475	0.9167	0.8447	0.1826	0.2727	0.3702	0.0	

Table 89

Line Data for Silicon III, T_{eff} = 32,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LCG|W/D|	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.6354	1.6142	0.6824	4.4885	0.0067	0.2703	0.4347	0.7339	0.0042	8.71411D-01
	1207.52	LTE	0.6677	1.6358	0.7268	4.5788	0.2742	0.4413	0.6250	0.9617	-0.0030	
1298.95	1298.89	NLTE	0.2029	1.0665	0.2029	3.2647	0.0119	0.1283	0.1574	0.2075	-0.0192	1.02936D 00
	0.0	LTE	0.2002	1.0806	0.2002	3.4072	0.2591	0.1556	0.1873	0.2683	-0.0149	
1303.32	0.0	NLTE	0.1100	0.8189	0.1100	2.7859	0.0182	0.0689	0.0886	0.1146	0.0	1.03031D 00
	0.0	LTE	0.1085	0.8132	0.1085	2.9283	0.2327	0.0796	0.1016	0.1468	0.0	
1294.55	0.0	NLTE	0.1084	0.8156	0.1084	2.7842	0.0186	0.0683	0.0877	0.1123	0.0	1.04202D 00
	0.0	LTE	0.1065	0.8080	0.1065	2.9267	0.2374	0.0789	0.1005	0.1451	0.0	
1301.15	0.0	NLTE	0.1030	0.7910	0.1030	2.6890	0.0203	0.0675	0.0861	0.1047	0.0	1.07010D 00
	0.0	LTE	0.1003	0.7795	0.1003	2.8315	0.2294	0.0765	0.0964	0.1362	0.0	
1296.73	0.0	NLTE	0.1023	0.7896	0.1023	2.6884	0.0205	0.0671	0.0857	0.1042	0.0	1.07663D 00
	0.0	LTE	0.0994	0.7770	0.0994	2.8308	0.2317	0.0762	0.0959	0.1353	0.0	
1113.23	1113.20	NLTE	0.2144	1.1773	0.2144	3.4616	0.0078	0.1219	0.1534	0.2186	-0.0113	8.48754D-01
	1113.17	LTE	0.2295	1.2070	0.2295	3.6042	0.1869	0.1485	0.1922	0.2854	-0.0080	
1109.97	1109.94	NLTE	0.1710	1.0805	0.1710	3.1885	0.0101	0.0978	0.1303	0.1755	-0.0122	8.74215D-01
	0.0	LTE	0.1812	1.1056	0.1812	3.3311	0.1772	0.1245	0.1529	0.2235	-0.0102	
1108.36	0.0	NLTE	0.1024	0.8582	0.1024	2.8343	0.0147	0.0606	0.0788	0.1111	0.0	8.93091D-01
	0.0	LTE	0.1073	0.8784	0.1073	2.9768	0.1639	0.0696	0.0913	0.1311	0.0	
957.39	0.0	NLTE	0.0723	0.7531	0.0723	2.4576	0.0159	0.0515	0.0640	0.0766	0.0	9.02153D-01
	0.0	LTE	0.0746	0.7664	0.0746	2.6003	0.1070	0.0547	0.0677	0.0807	0.0	
1417.24	0.0	NLTE	0.0994	0.7387	0.0994	2.1984	0.0388	0.0704	0.0881	0.1096	0.0	1.20121D 00
	0.0	LTE	0.0934	0.7115	0.0934	2.3060	0.2521	0.0845	0.1017	0.1175	0.0	
1312.59	0.0	NLTE	0.0607	0.5577	0.0607	1.4352	0.0870	0.0556	0.0661	0.0766	0.0	1.15308D 00
	0.0	LTE	0.0593	0.5475	0.0593	1.5434	0.1588	0.0608	0.0703	0.0797	0.0	
1842.55	0.0	NLTE	0.0526	0.3480	0.0526	1.1404	0.3229	0.0559	0.0789	0.0989	0.0	8.52327D-01
	0.0	LTE	0.0539	0.3589	0.0539	1.2708	0.3855	0.0701	0.0892	0.1046	0.0	
5741.33	0.0	NLTE	0.0663	-0.0450	0.0663	0.6979	0.6578	0.1329	0.1874	0.2452	0.0	5.88993D 00
	0.0	LTE	0.0386	-0.2801	0.0386	0.7619	0.8130	0.1443	0.1978	0.2632	0.0	
2559.96	0.0	NLTE	0.0438	0.1258	0.0438	0.8643	0.4568	0.0555	0.0789	0.1022	0.0	8.92538D-01
	0.0	LTE	0.0451	0.1388	0.0451	0.9527	0.5899	0.0752	0.1051	0.1370	0.0	
3087.13	0.0	NLTE	0.0559	0.1504	0.0559	0.9713	0.4673	0.0720	0.1014	0.1332	0.0	2.78171D 00
	0.0	LTE	0.0439	0.0460	0.0439	1.1299	0.6781	0.0956	0.1339	0.1683	0.0	
4553.94	0.0	NLTE	0.1065	0.2618	0.1065	1.1483	0.4239	0.1238	0.1755	0.2363	0.0	1.04718D 01
	0.0	LTE	0.0608	0.0180	0.0608	1.2454	0.7197	0.1527	0.2109	0.2572	0.0	
4569.13	0.0	NLTE	0.0908	0.1911	0.0908	0.9279	0.4653	0.1147	0.1612	0.2197	0.0	6.96780D 00
	0.0	LTE	0.0548	-0.0284	0.0548	1.0250	0.7196	0.1344	0.1870	0.2438	0.0	
4576.03	0.0	NLTE	0.0565	-0.0158	0.0565	0.4556	0.5995	0.0935	0.1379	0.1811	0.0	2.99233D 00
	0.0	LTE	0.0380	-0.1877	0.0380	0.5527	0.7542	0.1070	0.1490	0.1911	0.0	
3807.61	0.0	NLTE	0.0573	0.0701	0.0573	0.9958	0.5724	0.0931	0.1299	0.1741	0.0	1.45406D 00
	0.0	LTE	0.0527	0.0339	0.0527	1.1378	0.6769	0.1155	0.1619	0.2049	0.0	
3797.20	0.0	NLTE	0.0455	-0.0291	0.0455	0.7728	0.6264	0.0847	0.1196	0.1545	0.0	1.08054D 00
	0.0	LTE	0.0446	-0.0379	0.0446	0.9148	0.6950	0.1027	0.1406	0.1886	0.0	
3792.52	0.0	NLTE	0.0243	-0.3005	0.0243	0.2951	0.7626	0.0578	0.1025	0.1395	0.0	6.76755D-01
	0.0	LTE	0.0285	-0.2310	0.0285	0.4372	0.7558	0.0810	0.1155	0.1501	0.0	

Table 90

Line Data for Silicon IV, T_{eff} = 32,500 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LCG(W/D)	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.5776	2.1597	4.2692	6.1657	0.0046	0.1173	1.8008	3.3484	0.0005	0.9878
	0.0	LTE	2.5980	2.1631	4.2937	6.1863	0.3368	1.8319	2.6704	4.1533	0.0034	
1128.35	0.0	NLTE	0.9281	1.6678	0.9281	4.9427	0.0044	0.3527	0.6476	1.0848	0.0	5.89747D-01
	0.0	LTE	0.9327	1.6100	0.9327	4.9723	0.2373	0.5713	0.8362	1.3025	0.0	
1122.50	0.0	NLTE	0.6471	1.6535	0.6471	4.6354	0.0057	0.2452	0.4442	0.7491	0.0	1.00209D 00
	0.0	LTE	0.6463	1.6529	0.6463	4.6651	0.2488	0.3995	0.6006	0.9311	0.0	
1066.61	0.0	NLTE	0.1617	1.6734	0.1617	3.2064	0.0188	0.0705	0.1108	0.1804	0.0	5.26271D-01
	0.0	LTE	0.1674	1.0886	0.1674	3.2427	0.1729	0.0920	0.1339	0.2155	0.0	
1722.53	1722.56	NLTE	0.1275	0.7619	0.1275	2.7325	0.1191	0.0883	0.1233	0.1570	0.0107	1.27089D 00
	0.0	LTE	0.1176	0.7271	0.1176	2.7709	0.4116	0.1287	0.1507	0.1892	0.0101	
4090.02	0.0	NLTE	0.1622	0.4910	0.1622	2.2440	0.3124	0.1273	0.1911	0.2557	0.0	4.99260D 00
	0.0	LTE	0.0944	0.2557	0.0944	2.2433	0.7289	0.2047	0.2549	0.3392	0.0	
4117.26	0.0	NLTE	0.1328	0.4013	0.1328	1.9446	0.3683	0.1176	0.1788	0.2424	0.0	4.42900D 00
	0.0	LTE	0.0835	0.1997	0.0835	1.9439	0.7005	0.1776	0.2268	0.2996	0.0	
3166.63	0.0	NLTE	0.0794	0.2917	0.0794	1.9891	0.4419	0.0883	0.1306	0.1758	0.0	5.76145D 00
	0.0	LTE	0.0539	0.1233	0.0539	1.9935	0.7157	0.1344	0.1675	0.2096	0.0	
3150.48	0.0	NLTE	0.0609	0.1787	0.0609	1.6859	0.5148	0.0792	0.1174	0.1633	0.0	4.49399D 00
	0.0	LTE	0.0433	0.0308	0.0433	1.6902	0.7229	0.1058	0.1482	0.1838	0.0	
3763.50	0.0	NLTE	0.0348	-0.1411	0.0348	1.2155	0.7802	0.1078	0.1487	0.1970	0.0	5.35140D-01
	0.0	LTE	0.0356	-0.1317	0.0356	1.2197	0.7711	0.0986	0.1456	0.1986	0.0	
2267.75	0.0	NLTE	0.0556	0.2786	0.0556	1.7723	0.4975	0.0722	0.1051	0.1333	0.0	1.18234D 00
	0.0	LTE	0.0532	0.2591	0.0532	1.7906	0.5573	0.0780	0.1119	0.1417	0.0	
2518.33	0.0	NLTE	0.0841	0.4162	0.0841	2.0449	0.3666	0.0757	0.1142	0.1506	0.0	1.82525D 00
	0.0	LTE	0.0688	0.3292	0.0688	2.0598	0.5928	0.0996	0.1359	0.1844	0.0	
6673.03	0.0	NLTE	0.0344	-0.3949	0.0344	0.5543	0.8342	0.1168	0.1947	0.2648	0.0	3.29874D 00
	0.0	LTE	0.0195	-0.6422	0.0195	0.5700	0.9182	0.1445	0.2175	0.3073	0.0	
6669.41	0.0	NLTE	0.0212	-0.6042	0.0212	0.2530	0.8906	0.1043	0.1846	0.2544	0.0	2.45373D 00
	0.0	LTE	0.0129	-0.6215	0.0129	0.2687	0.9406	0.1288	0.2026	0.2746	0.0	
4213.60	0.0	NLTE	0.0349	-0.1892	0.0349	0.8276	0.7651	0.0909	0.1372	0.1938	0.0	1.38678D 00
	0.0	LTE	0.0305	-0.2481	0.0305	0.8299	0.8217	0.1033	0.1555	0.2192	0.0	
4632.57	0.0	NLTE	0.0468	-0.1031	0.0468	1.0536	0.7204	0.1043	0.1546	0.2177	0.0	2.10339D 00
	0.0	LTE	0.0351	-0.2280	0.0351	1.0511	0.8217	0.1171	0.1768	0.2477	0.0	
4655.61	0.0	NLTE	0.0584	-0.0089	0.0584	1.3520	0.6947	0.1167	0.1719	0.2411	0.0	1.87475D 00
	0.0	LTE	0.0464	-0.1089	0.0464	1.3516	0.7930	0.1280	0.1948	0.2660	0.0	

Table 91

Line Data for Silicon III, T_{eff} = 32,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|R/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.6175	1.3883	0.7016	4.2683	0.0073	0.2734	0.4354	0.7047	0.0043	8.74607D-01
	1207.82	LTE	0.6523	1.4102	0.7449	4.3674	0.2655	0.4401	0.6083	0.9399	0.0042	
1298.95	1298.89	NLTE	0.2347	0.9341	0.2347	3.0529	0.0136	0.1833	0.2040	0.2420	-0.0193	1.17154D 00
	0.0	LTE	0.2236	0.9131	0.2236	3.2004	0.2481	0.2040	0.2308	0.2799	-0.0129	
1303.32	0.0	NLTE	0.1454	0.7248	0.1454	2.5721	0.0216	0.1255	0.1403	0.1611	0.0	1.19687D 00
	0.0	LTE	0.1369	0.6987	0.1369	2.7195	0.2229	0.1393	0.1501	0.2013	0.0	
1294.55	0.0	NLTE	0.1437	0.7226	0.1437	2.5704	0.0221	0.1244	0.1390	0.1583	0.0	1.21588D 00
	0.0	LTE	0.1347	0.6946	0.1347	2.7179	0.2274	0.1382	0.1489	0.1992	0.0	
1301.15	0.0	NLTE	0.1393	0.7069	0.1393	2.4752	0.0242	0.1233	0.1366	0.1512	0.0	1.23434D 00
	0.0	LTE	0.1301	0.6771	0.1301	2.6227	0.2199	0.1352	0.1467	0.1883	0.0	
1296.73	0.0	NLTE	0.1385	0.7059	0.1385	2.4745	0.0245	0.1227	0.1360	0.1506	0.0	1.24466D 00
	0.0	LTE	0.1290	0.6752	0.1290	2.6220	0.2221	0.1347	0.1462	0.1872	0.0	
1113.23	1113.20	NLTE	0.2351	1.0019	0.2351	3.2670	0.0084	0.1600	0.1884	0.2254	-0.0096	9.07307D-01
	1113.17	LTE	0.2461	1.0201	0.2461	3.4146	0.1787	0.1827	0.2091	0.2916	-0.0072	
1109.97	1109.94	NLTE	0.1946	0.9212	0.1946	3.0011	0.0107	0.1452	0.1629	0.2049	-0.0094	9.48619D-01
	0.0	LTE	0.1988	0.9304	0.1988	3.1488	0.1695	0.1581	0.1830	0.2333	-0.0052	
1108.36	0.0	NLTE	0.1320	0.7830	0.1320	2.6206	0.0161	0.1104	0.1227	0.1532	0.0	9.75099D-01
	0.0	LTE	0.1322	0.7837	0.1322	2.7681	0.1559	0.1202	0.1296	0.1783	0.0	
957.39	0.0	NLTE	0.1020	0.6869	0.1020	2.2435	0.0226	0.0923	0.1013	0.1120	0.0	8.67823D-01
	0.0	LTE	0.1030	0.6913	0.1030	2.3915	0.1019	0.0985	0.1071	0.1168	0.0	
1417.24	0.0	NLTE	0.1351	0.6564	0.1351	1.9869	0.0469	0.1169	0.1326	0.1516	0.0	1.49292D 00
	0.0	LTE	0.1228	0.6151	0.1228	2.1007	0.2453	0.1275	0.1424	0.1646	0.0	
1312.59	0.0	NLTE	0.0865	0.4961	0.0865	1.2225	0.1151	0.0822	0.0970	0.1147	0.0	9.86338D-01
	0.0	LTE	0.0867	0.4969	0.0867	1.3370	0.1992	0.0902	0.1051	0.1231	0.0	
1842.55	0.0	NLTE	0.0729	0.2744	0.0729	0.9304	0.3679	0.0883	0.1167	0.1415	0.0	6.61297D-01
	0.0	LTE	0.0785	0.3069	0.0785	1.0658	0.3928	0.1051	0.1297	0.1503	0.0	
5741.33	0.0	NLTE	0.0990	-0.0860	0.0990	0.5158	0.6646	0.1980	0.2907	0.3822	0.0	6.10134D 00
	0.0	LTE	0.0512	-0.3727	0.0512	0.5563	0.8307	0.2101	0.2977	0.3881	0.0	
2559.96	0.0	NLTE	0.0513	-0.0212	0.0513	0.6612	0.5738	0.0781	0.1185	0.1544	0.0	5.27995D-01
	0.0	LTE	0.0614	0.0573	0.0614	0.7938	0.6090	0.1162	0.1538	0.1932	0.0	
3087.13	0.0	NLTE	0.0707	0.0372	0.0707	0.7599	0.5431	0.1039	0.1530	0.1987	0.0	1.75664D 00
	0.0	LTE	0.0614	-0.0241	0.0614	0.9260	0.6888	0.1485	0.1963	0.2391	0.0	
4553.94	0.0	NLTE	0.1544	0.2074	0.1544	0.9808	0.4581	0.2070	0.2822	0.3513	0.0	1.25028D 01
	0.0	LTE	0.0845	-0.0544	0.0845	1.0439	0.7266	0.2333	0.3052	0.3640	0.0	
4569.13	0.0	NLTE	0.1308	0.1339	0.1308	0.7604	0.5017	0.1898	0.2570	0.3329	0.0	7.35234D 00
	0.0	LTE	0.0752	-0.1066	0.0752	0.8234	0.7320	0.2084	0.2753	0.3450	0.0	
4576.03	0.0	NLTE	0.0781	-0.0904	0.0781	0.2881	0.6430	0.1399	0.2138	0.2807	0.0	3.00281D 00
	0.0	LTE	0.0482	-0.3004	0.0482	0.3512	0.7865	0.1477	0.2210	0.2881	0.0	
3807.61	0.0	NLTE	0.0786	-0.0077	0.0786	0.8052	0.6185	0.1469	0.2041	0.2658	0.0	1.27077D 00
	0.0	LTE	0.0741	-0.0335	0.0741	0.9354	0.6892	0.1805	0.2387	0.2920	0.0	
3797.20	0.0	NLTE	0.0606	-0.1200	0.0606	0.5822	0.6766	0.1245	0.1854	0.2412	0.0	9.80422D-01
	0.0	LTE	0.0609	-0.1174	0.0609	0.7124	0.7150	0.1595	0.2110	0.2714	0.0	
3792.52	0.0	NLTE	0.0297	-0.4292	0.0297	0.1045	0.8145	0.0997	0.1535	0.2139	0.0	7.26980D-01
	0.0	LTE	0.0350	-0.3580	0.0350	0.2347	0.7986	0.1112	0.1703	0.2258	0.0	

Table 92

Line Data for Silicon IV, T_{eff} = 32,500 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	1402.77	NLTE	2.6068	1.9492	4.3023	5.9682	0.0052	0.1889	1.8088	3.1324	0.0005	1.01208D 00
	0.0	LTE	2.6003	1.9481	4.2746	5.9878	0.3387	1.8409	2.6171	4.4707	0.0022	
1128.35	0.0	NLTE	0.9270	1.5919	0.9270	4.7561	0.0048	0.3578	0.6428	1.0822	0.0	1.01244D 00
	0.0	LTE	0.9209	1.5890	0.9209	4.7843	0.2426	0.5724	0.8339	1.3133	0.0	
1122.50	0.0	NLTE	0.6538	1.4425	0.6538	4.4528	0.0064	0.2511	0.4590	0.7674	0.0	1.03076D 00
	0.0	LTE	0.6438	1.4358	0.6438	4.4810	0.2531	0.4068	0.5914	0.9253	0.0	
1066.61	0.0	NLTE	0.1810	0.9070	0.1810	3.0321	0.0217	0.1047	0.1354	0.1870	0.0	9.81417D-01
	0.0	LTE	0.1823	0.9100	0.1823	3.0663	0.1592	0.1222	0.1470	0.2188	0.0	
1722.53	1722.56	NLTE	0.1553	0.6324	0.1553	2.5643	0.1402	0.1224	0.1689	0.2071	0.0074	1.42966D 00
	0.0	LTE	0.1416	0.5923	0.1416	2.6010	0.3924	0.1725	0.1985	0.2387	0.0082	
4090.02	0.0	NLTE	0.2177	0.4034	0.2177	2.0669	0.3357	0.2132	0.2960	0.3800	0.0	9.26361D 00
	0.0	LTE	0.1188	0.1402	0.1188	2.0550	0.7176	0.2964	0.3616	0.4363	0.0	
4117.26	0.0	NLTE	0.1808	0.3198	0.1808	1.7675	0.3938	0.1956	0.2781	0.3615	0.0	6.83449D 00
	0.0	LTE	0.1078	0.0952	0.1078	1.7566	0.6997	0.2572	0.3289	0.4018	0.0	
3166.63	0.0	NLTE	0.1116	0.2242	0.1116	1.8034	0.4780	0.1483	0.2080	0.2679	0.0	7.35473D 00
	0.0	LTE	0.0744	0.0481	0.0744	1.7994	0.7117	0.1958	0.2483	0.2988	0.0	
3150.48	0.0	NLTE	0.0855	0.1106	0.0855	1.5002	0.5553	0.1296	0.1887	0.2468	0.0	4.49111D 00
	0.0	LTE	0.0597	-0.0449	0.0597	1.4962	0.7313	0.1639	0.2198	0.2721	0.0	
3763.50	0.0	NLTE	0.0432	-0.2631	0.0432	1.0296	0.8177	0.1782	0.2309	0.2865	0.0	8.13692D-01
	0.0	LTE	0.0464	-0.2322	0.0464	1.0292	0.7946	0.1538	0.2211	0.2861	0.0	
2287.75	0.0	NLTE	0.0757	0.1967	0.0757	1.5917	0.5342	0.1189	0.1607	0.1994	0.0	1.24674D 00
	0.0	LTE	0.0712	0.1706	0.0712	1.6071	0.5801	0.1225	0.1680	0.2075	0.0	
2518.33	0.0	NLTE	0.1098	0.3168	0.1098	1.8627	0.4128	0.1248	0.1751	0.2250	0.0	2.17659D 00
	0.0	LTE	0.0871	0.2162	0.0871	1.8771	0.6037	0.1495	0.2005	0.2509	0.0	
6673.03	0.0	NLTE	0.0460	-0.4844	0.0460	0.4113	0.8554	0.1959	0.2996	0.4130	0.0	3.70444D 00
	0.0	LTE	0.0233	-0.7797	0.0233	0.3805	0.9328	0.2186	0.3285	0.4448	0.0	
6669.41	0.0	NLTE	0.0279	-0.7018	0.0279	0.1100	0.9069	0.1829	0.2816	0.3887	0.0	2.80876D 00
	0.0	LTE	0.0149	-0.9737	0.0149	0.0792	0.9535	0.1986	0.3025	0.4158	0.0	
4213.60	0.0	NLTE	0.0457	-0.2873	0.0457	0.6502	0.7930	0.1412	0.2106	0.2835	0.0	1.58084D 00
	0.0	LTE	0.0375	-0.3739	0.0375	0.6503	0.8459	0.1585	0.2323	0.3071	0.0	
4632.57	0.0	NLTE	0.0623	-0.1943	0.0623	0.8733	0.7536	0.1657	0.2425	0.3212	0.0	2.39939D 00
	0.0	LTE	0.0438	-0.3475	0.0438	0.8683	0.8438	0.1824	0.2676	0.3529	0.0	
4655.61	0.0	NLTE	0.0761	-0.1092	0.0761	1.1705	0.7322	0.1888	0.2712	0.3543	0.0	2.08052D 00
	0.0	LTE	0.0582	-0.2258	0.0582	1.1692	0.8134	0.2015	0.2926	0.3811	0.0	

Table 93

Line Data for Silicon III, T_{eff} = 32,500 K, Log g = 3.3, v_t = 5 km/s

LINE	CVEFL/FS		W(EQ)	LOG(W/D)	W(TOTAL)	LCG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	C.1668	C.E147	C.166E	2.7532	0.0255	0.1418	0.1667	0.1841	0.0174	4.91642D-01
	0.0	LTE	0.2238	C.5424	C.2238	3.5445	0.3953	0.2158	0.2494	0.3583	0.0073	
1258.95	1298.89	NLTE	0.1238	C.E533	C.1238	1.6C9C	0.C546	0.1236	0.1423	0.1573	-0.0199	E.28781D-01
	0.0	LTE	0.1252	C.6580	0.1252	2.4263	0.3778	0.1734	0.1835	0.1973	-0.0216	
1303.32	C.C	NLTE	C.0727	C.4205	C.C727	1.1281	0.1437	0.0697	0.0864	0.1012	0.0	2.97606D-01
	0.0	LTE	C.0850	C.4E15	C.C85C	1.9454	0.3518	0.1151	0.1251	0.1382	0.0	
1294.55	C.C	NLTE	0.0714	C.4155	C.E714	1.1264	0.1469	0.0688	0.0853	0.0998	0.0	3.00128D-01
	0.0	LTE	0.0833	C.4E26	C.C833	1.9437	0.3589	0.1142	0.1240	0.1370	0.0	
1301.15	C.0	NLTE	0.0662	C.3537	C.CE62	1.C312	0.1604	0.0664	0.0826	0.0971	0.0	2.25605D-01
	0.0	LTE	C.0823	C.4753	C.C823	1.E4E5	0.3500	0.1105	0.1220	0.1343	0.0	
1296.73	0.0	NLTE	0.0676	C.3513	C.0676	1.0306	0.1621	0.0660	0.0821	0.0965	0.0	2.25910D-01
	0.0	LTE	C.0815	C.4724	C.C815	1.8479	0.3535	0.1100	0.1215	0.1336	0.0	
1113.23	1113.20	NLTE	C.1033	C.E41E	C.1033	1.E24E	0.C690	0.0963	0.1125	0.1279	-0.0098	3.40120D-01
	1113.17	LTE	0.1267	C.7302	C.1267	2.E409	0.2552	0.1455	0.1567	0.1719	-0.0150	
1109.97	1109.54	NLTE	C.0954	C.EC83	C.C954	1.5590	C.C870	0.0927	0.1073	0.1194	-0.0109	3.52332D-01
	0.0	LTE	0.1125	C.EEC1	C.1125	2.3752	0.2854	0.1332	0.1424	0.1547	-0.0118	
1108.36	C.0	NLTE	C.0638	C.4343	C.C638	1.1777	0.1289	0.0606	0.0747	0.0871	0.0	1.57150D-01
	0.0	LTE	0.0835	C.5511	C.C835	1.9541	0.2713	0.0996	0.1083	0.1199	0.0	
957.39	C.0	NLTE	C.0388	C.2641	C.C388	0.8014	0.2751	0.0420	0.0547	0.0661	0.0	E.27516D-03
	0.0	LTE	C.0730	C.5365	C.C73C	1.E177	0.1997	0.0797	0.0889	0.0987	0.0	
1417.24	C.0	NLTE	0.0497	C.2190	C.0497	0.6606	0.3460	0.0574	0.0754	0.0964	0.0	1.03645D-01
	0.0	LTE	0.0720	C.3800	0.0720	1.3468	0.3898	0.0976	0.1136	0.1326	0.0	
1312.59	0.0	NLTE	0.0135	-C.3141	0.0135	-0.1024	0.7405	0.0324	0.0496	0.0703	0.0	E.11205D-03
	0.0	LTE	0.0478	C.2353	0.0478	0.5833	0.3723	0.0580	0.0750	0.0949	0.0	
1842.55	C.0	NLTE	0.0011	-1.5538	C.0011	-0.3584	0.9716	0.0251	0.0456	0.0616	0.0	2.25470D-04
	C.0	LTE	0.0336	-0.C653	0.0336	0.3342	0.6203	0.0598	0.0879	0.1120	0.0	
5741.33	C.0	NLTE	0.0081	-1.1785	0.0081	-0.6589	0.9634	0.1325	0.2071	0.3016	0.0	6.42694D-01
	0.0	LTE	0.0116	-1.0216	0.0116	-0.0865	0.9473	0.1363	0.2082	0.2984	0.0	
2559.96	0.0	NLTE	-0.0055	-0.9939	-0.0055	-0.5133	1.0451	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0190	-0.4558	0.0190	0.0991	0.8243	0.0682	0.1039	0.1429	0.0	
3087.13	0.0	NLTE	0.0034	-1.2816	C.0034	-0.3880	0.9673	0.0638	0.0995	0.1430	0.0	3.75237D-02
	0.0	LTE	0.0200	-0.5150	C.0200	0.2441	0.8521	0.0874	0.1325	0.1761	0.0	
4553.94	0.0	NLTE	0.0596	-C.2091	0.0596	-0.0754	0.7043	0.1251	0.1941	0.2652	0.0	4.58805D 00
	0.0	LTE	0.0287	-0.5270	0.0287	0.3579	0.8604	0.1368	0.2043	0.2635	0.0	
4569.13	0.0	NLTE	0.0411	-0.3714	0.0411	-0.2558	0.7866	0.1179	0.1829	0.2577	0.0	2.77689D 00
	0.0	LTE	0.0215	-0.6524	0.0215	0.1375	0.8856	0.1202	0.1818	0.2502	0.0	
4576.03	0.0	NLTE	0.0161	-0.7806	0.0161	-0.7680	0.9119	0.1099	0.1714	0.2477	0.0	2.05970D 00
	0.0	LTE	0.0079	-1.0877	0.0079	-0.3347	0.9529	0.1023	0.1583	0.2301	0.0	
3807.61	0.0	NLTE	0.0035	-1.3594	C.0035	-0.3394	0.9720	0.0781	0.1206	0.1704	0.0	3.26506D-02
	0.0	LTE	0.0243	-0.5212	0.0243	0.2540	0.8474	0.1045	0.1570	0.2098	0.0	
3797.20	0.0	NLTE	0.0013	-1.7965	C.0013	-0.5624	0.9886	0.0643	0.1096	0.1501	0.0	4.41380D-02
	0.0	LTE	0.0147	-0.7380	0.0147	0.0310	0.8960	0.0906	0.1363	0.1923	0.0	
3792.52	0.0	NLTE	0.0001	-2.9649	0.0001	-1.0401	0.9990	0.0444	0.0870	0.1244	0.0	4.39899D-02
	0.0	LTE	0.0039	-1.3172	0.0039	-0.4466	0.9688	0.0752	0.1188	0.1681	0.0	

Table 94

Line Data for Silicon IV, T_{eff} = 32,500 K, Log g = 3.3, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(T))	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	0.0	NLTE	1.3202	1.6505	1.3202	5.6255	0.0082	0.1490	0.9236	1.7219	0.0	5.02228D-01
	0.0	LTE	1.8578	1.7989	1.8578	5.9719	0.5045	1.8800	2.5536	3.8196	0.0	
1402.77	0.0	NLTE	0.9777	1.5173	0.9777	5.3251	0.0103	0.1449	0.6792	1.2681	0.0	5.17089D-01
	0.0	LTE	1.3606	1.6608	1.3606	5.5704	0.5001	1.3585	1.8414	2.7830	0.0	
1128.35	0.0	NLTE	0.5278	1.3441	0.5278	4.3785	0.0094	0.1668	0.3647	0.6173	0.0	5.18105D-01
	0.0	LTE	0.7319	1.4861	0.7319	4.7039	0.4004	0.5947	0.8547	1.2853	0.0	
1122.50	0.0	NLTE	0.3748	1.1977	0.3748	4.0753	0.0122	0.1366	0.2564	0.4303	0.0	5.53431D-01
	0.0	LTE	0.5006	1.3234	0.5006	4.4055	0.4141	0.4220	0.5741	0.9323	0.0	
1066.61	0.0	NLTE	0.0878	0.5897	0.0878	2.5633	0.0781	0.0750	0.0960	0.1171	0.0	3.47253D-01
	0.0	LTE	0.1310	0.7634	0.1310	2.8613	0.3108	0.1089	0.1452	0.1893	0.0	
1722.53	1722.56	NLTE		0.3463		2.1619	0.3017	0.0887	0.1197	0.1457	0.0046	1.64131D-01
	0.0	LTE	0.1028	0.4500	0.1028	2.4862	0.5780	0.1853	0.2060	0.2262	0.0082	
4090.02	0.0	NLTE	0.2088	0.3820	0.2088	1.9805	0.3368	0.2142	0.2967	0.3785	0.0	6.28409D 01
	0.0	LTE	0.0815	-0.0263	0.0815	2.1467	0.8393	0.3718	0.4134	0.4821	0.0	
4117.26	0.0	NLTE	0.1758	0.3045	0.1758	1.6811	0.3909	0.1941	0.2772	0.3572	0.0	4.64285D 01
	0.0	LTE	0.0822	-0.0255	0.0822	1.8474	0.8041	0.3249	0.3760	0.4294	0.0	
3166.63	0.0	NLTE	0.0625	-0.0309	0.0625	1.7605	0.6358	0.1323	0.1805	0.2280	0.0	5.09491D 00
	0.0	LTE	0.0532	-0.1010	0.0532	1.9614	0.8343	0.2593	0.2908	0.3224	0.0	
3150.48	0.0	NLTE	0.0421	-0.2001	0.0421	1.4572	0.7080	0.1058	0.1550	0.1980	0.0	6.47922D-01
	0.0	LTE	0.0442	-0.1789	0.0442	1.6581	0.8308	0.2131	0.2519	0.2952	0.0	
3763.50	0.0	NLTE	0.0295	-0.4324	0.0295	1.1333	0.8764	0.2008	0.2369	0.2720	0.0	1.01540D-01
	0.0	LTE	0.0499	-0.2034	0.0499	1.2931	0.8032	0.1925	0.2543	0.3034	0.0	
2287.75	0.0	NLTE	0.0259	-0.2720	0.0259	1.3882	0.7901	0.1068	0.1365	0.1607	0.0	6.84040D-03
	0.0	LTE	0.0585	0.0822	0.0585	1.5445	0.6634	0.1420	0.1732	0.2083	0.0	
2518.33	0.0	NLTE	0.0813	0.1829	0.0813	1.7269	0.4408	0.1135	0.1564	0.1912	0.0	2.51726D 00
	0.0	LTE	0.0676	0.1032	0.0676	1.8767	0.7132	0.1819	0.2209	0.2541	0.0	
6673.03	0.0	NLTE	-0.0291	-0.6870	-0.0291	0.6165	1.0157	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0263	-0.7308	0.0263	0.7648	0.9318	0.2688	0.3715	0.4869	0.0	
6669.41	0.0	NLTE	-0.0311	-0.6571	-0.0311	0.3153	1.0578	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0180	-0.8937	0.0180	0.4835	0.9465	0.2164	0.3265	0.4352	0.0	
4213.60	0.0	NLTE	0.0244	-0.5637	0.0244	0.6002	0.8392	0.1052	0.1574	0.2128	0.0	4.43500D-01
	0.0	LTE	0.0334	-0.4274	0.0334	0.7064	0.8559	0.1592	0.2263	0.2983	0.0	
4632.57	0.0	NLTE	0.0635	-0.1887	0.0635	0.9025	0.6970	0.1435	0.2144	0.2737	0.0	4.47943D 00
	0.0	LTE	0.0400	-0.3898	0.0400	0.9562	0.8575	0.2022	0.2782	0.3521	0.0	
4655.61	0.0	NLTE	0.0624	-0.1985	0.0624	1.1991	0.7358	0.1809	0.2450	0.3107	0.0	2.41254D 00
	0.0	LTE	0.0502	-0.2933	0.0502	1.3010	0.8438	0.2358	0.3174	0.3881	0.0	

Table 95

Line Data for Silicon III, T_{eff} = 35,000 K, Log g = 4 5, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.3677	1.1545	0.4315	3.7102	0.0149	0.1891	0.2552	0.3918	0.0104	1.03829D 00
	1207.52	LTE	0.3580	1.1432	0.4244	3.7590	0.2703	0.2459	0.3222	0.4908	0.0068	
1298.95	1298.89	NLTE	0.1926	0.8421	0.1926	2.5503	0.0271	0.1647	0.1850	0.2053	-0.0238	1.74736D 00
	0.0	LTE	0.1703	0.7885	0.1703	2.7057	0.2580	0.1777	0.1960	0.2230	-0.0235	
1303.32	0.0	NLTE	0.1268	0.6590	0.1268	2.1091	0.0410	0.1113	0.1295	0.1477	0.0	1.99722D 00
	0.0	LTE	0.1136	0.6114	0.1136	2.2245	0.2393	0.1211	0.1369	0.1527	0.0	
1294.55	0.0	NLTE	0.1254	0.6570	0.1254	2.1075	0.0419	0.1102	0.1284	0.1466	0.0	2.06622D 00
	0.0	LTE	0.1119	0.6076	0.1119	2.2229	0.2442	0.1202	0.1359	0.1516	0.0	
1301.15	0.0	NLTE	0.1227	0.6453	0.1227	2.0123	0.0456	0.1093	0.1277	0.1461	0.0	2.13024D 00
	0.0	LTE	0.1103	0.5992	0.1103	2.1277	0.2380	0.1196	0.1352	0.1508	0.0	
1296.73	0.0	NLTE	0.1220	0.6443	0.1220	2.0116	0.0461	0.1088	0.1272	0.1455	0.0	2.17017D 00
	0.0	LTE	0.1094	0.5970	0.1094	2.1270	0.2404	0.1191	0.1347	0.1503	0.0	
1113.23	1113.20	NLTE	0.1772	0.8729	0.1772	2.8068	0.0173	0.1336	0.1594	0.1876	-0.0169	1.11611D 00
	1113.17	LTE	0.1715	0.8586	0.1715	2.9223	0.1873	0.1521	0.1733	0.1996	-0.0160	
1109.97	1109.94	NLTE	0.1539	0.8128	0.1539	2.8415	0.0219	0.1239	0.1411	0.1595	-0.0116	1.22035D 00
	0.0	LTE	0.1462	0.7905	0.1462	2.6671	0.1801	0.1319	0.1493	0.1796	-0.0119	
1108.36	0.0	NLTE	0.1133	0.6805	0.1133	2.1594	0.0324	0.0976	0.1124	0.1273	0.0	1.36911D 00
	0.0	LTE	0.1073	0.6568	0.1073	2.2748	0.1706	0.1036	0.1173	0.1309	0.0	
997.39	0.0	NLTE	0.0925	0.6384	0.0925	1.7831	0.0353	0.0829	0.0968	0.1107	0.0	1.06426D 00
	0.0	LTE	0.0919	0.6352	0.0919	1.8589	0.1188	0.0892	0.1013	0.1134	0.0	
1417.24	0.0	NLTE	0.1136	0.5747	0.1136	1.6019	0.0820	0.0995	0.1213	0.1398	0.0	2.09698D 00
	0.0	LTE	0.0992	0.5160	0.0992	1.6661	0.2765	0.1131	0.1304	0.1452	0.0	
1312.59	0.0	NLTE	0.0690	0.3917	0.0690	0.8384	0.1917	0.0655	0.0857	0.1033	0.0	9.60646D-01
	0.0	LTE	0.0695	0.3951	0.0695	0.9034	0.2464	0.0732	0.0919	0.1073	0.0	
1842.55	0.0	NLTE	0.0556	0.1502	0.0556	0.6167	0.4631	0.0775	0.1025	0.1320	0.0	7.05453D-01
	0.0	LTE	0.0606	0.1882	0.0606	0.7031	0.4595	0.0855	0.1113	0.1392	0.0	
5741.33	0.0	NLTE	0.0681	-0.2553	0.0681	0.2459	0.7530	0.1762	0.2698	0.3552	0.0	4.02178D 00
	0.0	LTE	0.0341	-0.5553	0.0341	0.2459	0.8753	0.1752	0.2677	0.3526	0.0	
2559.96	0.0	NLTE	0.0433	-0.1013	0.0433	0.4292	0.6437	0.0772	0.1184	0.1566	0.0	8.37005D-01
	0.0	LTE	0.0461	-0.0733	0.0461	0.5077	0.6715	0.0977	0.1370	0.1791	0.0	
3087.13	0.0	NLTE	0.0500	-0.1196	0.0500	0.4673	0.6557	0.0931	0.1424	0.1879	0.0	1.30690D 00
	0.0	LTE	0.0458	-0.1580	0.0458	0.5987	0.7361	0.1264	0.1701	0.2206	0.0	
4553.94	0.0	NLTE	0.1070	0.0417	0.1070	0.6717	0.5893	0.1866	0.2543	0.3312	0.0	5.41568D 00
	0.0	LTE	0.0644	-0.1789	0.0644	0.7236	0.7641	0.2012	0.2662	0.3403	0.0	
4569.13	0.0	NLTE	0.0869	-0.0500	0.0869	0.4512	0.6364	0.1589	0.2337	0.3077	0.0	3.52411D 00
	0.0	LTE	0.0546	-0.2521	0.0546	0.5031	0.7794	0.1708	0.2417	0.3161	0.0	
4576.03	0.0	NLTE	0.0452	-0.3342	0.0452	-0.0210	0.7786	0.1265	0.1960	0.2695	0.0	2.02735D 00
	0.0	LTE	0.0296	-0.5176	0.0296	0.0309	0.8565	0.1287	0.1990	0.2713	0.0	
3807.61	0.0	NLTE	0.0549	-0.1702	0.0549	0.5319	0.7153	0.1282	0.1903	0.2486	0.0	1.06636D 00
	0.0	LTE	0.0538	-0.1792	0.0538	0.6409	0.7489	0.1575	0.2107	0.2727	0.0	
3797.20	0.0	NLTE	0.0398	-0.3083	0.0398	0.3089	0.7741	0.1124	0.1727	0.2297	0.0	9.17080D-01
	0.0	LTE	0.0413	-0.2928	0.0413	0.4179	0.7852	0.1281	0.1895	0.2468	0.0	
3792.52	0.0	NLTE	0.0173	-0.6687	0.0173	-0.1688	0.8891	0.0960	0.1485	0.2117	0.0	8.03367D-01
	0.0	LTE	0.0201	-0.6056	0.0201	-0.0598	0.8772	0.1014	0.1563	0.2182	0.0	

Table 96

Line Data for Silicon IV, T_{eff} = 35,000 K, Log g = 4.5, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	0.0	NLTE	1.8629	1.7969	1.8629	5.6475	0.0098	0.1631	1.3109	2.3291	0.0	1.02289D 00
	0.0	LTE	1.8409	1.7917	1.8409	5.6642	0.4010	1.4805	2.0730	3.2131	0.0	
1402.77	0.0	NLTE	1.3724	1.6614	1.3724	5.3460	0.0123	0.1673	0.9654	1.7098	0.0	1.04233D 00
	0.0	LTE	1.3439	1.6523	1.3439	5.3628	0.4036	1.0990	1.5085	2.3473	0.0	
1128.35	0.0	NLTE	0.7633	1.5012	0.7633	4.5455	0.0083	0.2827	0.5237	0.9328	0.0	1.04059D 00
	0.0	LTE	0.7478	1.4922	0.7478	4.5669	0.3004	0.5036	0.7128	1.1295	0.0	
1122.50	0.0	NLTE	0.5342	1.3484	0.5342	4.2422	0.0108	0.2016	0.3664	0.6151	0.0	1.06553D 00
	0.0	LTE	0.5169	1.3341	0.5169	4.2636	0.3031	0.3532	0.4976	0.8102	0.0	
1066.61	0.0	NLTE	0.1768	0.8903	0.1768	2.9451	0.0275	0.0953	0.1297	0.1928	0.0	1.04660D 00
	0.0	LTE	0.1734	0.8820	0.1734	2.9682	0.1812	0.1100	0.1517	0.2158	0.0	
1722.53	1722.56	NLTE	0.1556	0.6266	0.1556	2.4570	0.1442	0.1269	0.1718	0.2067	0.0073	1.84907D 00
	0.0	LTE	0.1335	0.5603	0.1335	2.4847	0.4225	0.1746	0.1983	0.2354	0.0081	
4090.02	0.0	NLTE	0.1910	0.3402	0.1910	1.9689	0.4073	0.2095	0.2955	0.3793	0.0	8.03065D 00
	0.0	LTE	0.1108	0.1036	0.1108	1.9714	0.7443	0.3139	0.3724	0.4427	0.0	
4117.26	0.0	NLTE	0.1586	0.2565	0.1586	1.6695	0.4643	0.1948	0.2798	0.3615	0.0	5.58138D 00
	0.0	LTE	0.1019	0.0643	0.1019	1.6721	0.7227	0.2733	0.3375	0.4047	0.0	
3166.63	0.0	NLTE	0.1135	0.2254	0.1135	1.8271	0.4889	0.1546	0.2163	0.2762	0.0	6.78468D 00
	0.0	LTE	0.0778	0.0611	0.0778	1.8380	0.7221	0.2191	0.2652	0.3129	0.0	
3150.48	0.0	NLTE	0.0874	0.1139	0.0874	1.5239	0.5602	0.1356	0.1958	0.2528	0.0	4.36985D 00
	0.0	LTE	0.0635	-0.0246	0.0635	1.5347	0.7331	0.1845	0.2338	0.2819	0.0	
3763.50	0.0	NLTE	0.0517	-0.1911	0.0517	1.0028	0.7834	0.1777	0.2323	0.2895	0.0	1.34299D 00
	0.0	LTE	0.0469	-0.2335	0.0469	1.0085	0.7983	0.1627	0.2275	0.2901	0.0	
2287.75	0.0	NLTE	0.0825	0.2277	0.0825	1.6092	0.5133	0.1229	0.1653	0.2045	0.0	1.34401D 00
	0.0	LTE	0.0764	0.1945	0.0764	1.6231	0.5748	0.1331	0.1743	0.2121	0.0	
2518.33	0.0	NLTE	0.1213	0.3536	0.1213	1.8988	0.3954	0.1325	0.1843	0.2343	0.0	2.41748D 00
	0.0	LTE	0.0939	0.2424	0.0939	1.9111	0.6094	0.1667	0.2135	0.2612	0.0	
6673.03	0.0	NLTE	0.0481	-0.4716	0.0481	0.5420	0.8520	0.1994	0.3048	0.4209	0.0	2.47606D 00
	0.0	LTE	0.0313	-0.6576	0.0313	0.5435	0.9143	0.2365	0.3459	0.4604	0.0	
6669.41	0.0	NLTE	0.0291	-0.6892	0.0291	0.2408	0.9046	0.1858	0.2862	0.3957	0.0	1.84443D 00
	0.0	LTE	0.0205	-0.8419	0.0205	0.2423	0.9382	0.2072	0.3125	0.4272	0.0	
4213.60	0.0	NLTE	0.0516	-0.2414	0.0516	0.6969	0.7763	0.1463	0.2172	0.2917	0.0	1.40038D 00
	0.0	LTE	0.0445	-0.3050	0.0445	0.7047	0.8225	0.1619	0.2361	0.3128	0.0	
4632.57	0.0	NLTE	0.0715	-0.1407	0.0715	0.9414	0.7310	0.1713	0.2508	0.3333	0.0	2.09160D 00
	0.0	LTE	0.0536	-0.2656	0.0536	0.9469	0.8187	0.1925	0.2777	0.3633	0.0	
4655.61	0.0	NLTE	0.0887	-0.0489	0.0887	1.2415	0.7085	0.1991	0.2839	0.3696	0.0	1.91541D 00
	0.0	LTE	0.0707	-0.1475	0.0707	1.2491	0.7909	0.2216	0.3094	0.4003	0.0	

Table 97

Line Data for Silicon III, T_{eff} = 35,000 K, Log g = 4.0, v_t = 0 km/s

LINE	CVERL/FS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.2016	1.0911	0.2016	3.3737	0.0188	0.1306	0.1557	0.2148	0.0182	8.01187D-01
	0.0	LTE	0.2217	1.1323	0.2217	3.6145	0.3198	0.1740	0.2233	0.3313	0.0070	
1298.95	1298.89	NLTE	0.1262	0.8997	0.1262	2.2814	0.0380	0.1172	0.1292	0.1410	-0.0230	1.72904D 00
	0.0	LTE	0.1128	0.8670	0.1128	2.5720	0.3127	0.1343	0.1423	0.1553	-0.0234	
1303.32	0.0	NLTE	0.0703	0.8997	0.0703	1.7725	0.0569	0.0625	0.0733	0.0833	0.0	1.38146D 00
	0.0	LTE	0.0658	0.8715	0.0658	2.0931	0.2934	0.0754	0.0856	0.0950	0.0	
1294.55	0.0	NLTE	0.0694	0.8971	0.0694	1.7709	0.0582	0.0616	0.0726	0.0823	0.0	1.42670D 00
	0.0	LTE	0.0646	0.8664	0.0646	2.0914	0.2993	0.0747	0.0848	0.0943	0.0	
1301.15	0.0	NLTE	0.0674	0.8823	0.0674	1.6757	0.0632	0.0593	0.0715	0.0807	0.0	1.40078D 00
	0.0	LTE	0.0633	0.8545	0.0633	1.9562	0.2923	0.0732	0.0826	0.0932	0.0	
1296.73	0.0	NLTE	0.0670	0.8810	0.0670	1.6750	0.0639	0.0590	0.0712	0.0803	0.0	1.42371D 00
	0.0	LTE	0.0627	0.8524	0.0627	1.9556	0.2953	0.0729	0.0822	0.0928	0.0	
1113.23	1113.20	NLTE	0.1136	0.8770	0.1136	2.4512	0.0283	0.0984	0.1123	0.1241	-0.0180	8.86051D-01
	1113.17	LTE	0.1169	0.8894	0.1169	2.7716	0.2359	0.1166	0.1263	0.1430	-0.0185	
1109.97	1109.94	NLTE	0.0907	0.8803	0.0967	2.1761	0.0359	0.0864	0.0962	0.1062	-0.0125	5.88467D-01
	0.0	LTE	0.0965	0.8673	0.0965	2.4585	0.2286	0.0997	0.1068	0.1180	-0.0130	
1108.36	0.0	NLTE	0.0625	0.8150	0.0625	1.8227	0.0514	0.0562	0.0640	0.0736	0.0	8.89683D-01
	0.0	LTE	0.0639	0.8286	0.0639	2.1431	0.2196	0.0657	0.0744	0.0819	0.0	
957.39	0.0	NLTE	0.0480	0.8507	0.0480	1.4462	0.0717	0.0427	0.0518	0.0594	0.0	5.13441D-01
	0.0	LTE	0.0532	0.8565	0.0532	1.7673	0.1599	0.0537	0.0598	0.0683	0.0	
1417.24	0.0	NLTE	0.0604	0.4978	0.0604	1.2942	0.1315	0.0553	0.0690	0.0811	0.0	1.32407D 00
	0.0	LTE	0.0570	0.4728	0.0570	1.5370	0.3334	0.0670	0.0784	0.0941	0.0	
1312.59	0.0	NLTE	0.0305	0.2348	0.0305	0.8318	0.3306	0.0321	0.0443	0.0592	0.0	3.42726D-01
	0.0	LTE	0.0387	0.3377	0.0387	0.7754	0.3037	0.0400	0.0554	0.0696	0.0	
1842.55	0.0	NLTE	0.0205	-0.0850	0.0205	0.3161	0.6344	0.0387	0.0555	0.0724	0.0	2.01242D-01
	0.0	LTE	0.0324	0.1128	0.0324	0.5808	0.5193	0.0477	0.0653	0.0877	0.0	
5741.33	0.0	NLTE	0.0373	-0.3187	0.0373	0.0291	0.7734	0.0975	0.1621	0.2185	0.0	4.09811D 00
	0.0	LTE	0.0176	-0.6463	0.0176	0.1646	0.8961	0.1061	0.1663	0.2212	0.0	
2559.96	0.0	NLTE	0.0121	-0.4586	0.0121	0.1476	0.8157	0.0348	0.0650	0.0904	0.0	1.68942D-01
	0.0	LTE	0.0246	-0.1487	0.0246	0.3949	0.7142	0.0585	0.0828	0.1102	0.0	
3087.13	0.0	NLTE	0.0144	-0.4633	0.0144	0.1870	0.8126	0.0407	0.0768	0.1073	0.0	2.34279D-01
	0.0	LTE	0.0242	-0.2377	0.0242	0.4967	0.7730	0.0736	0.1026	0.1375	0.0	
4553.94	0.0	NLTE	0.0684	0.0449	0.0684	0.4806	0.5785	0.1100	0.1549	0.2113	0.0	8.40480D 00
	0.0	LTE	0.0342	-0.2566	0.0342	0.6189	0.7967	0.1157	0.1602	0.2174	0.0	
4569.13	0.0	NLTE	0.0543	-0.0573	0.0543	0.2601	0.6336	0.0989	0.1430	0.1879	0.0	4.86018D 00
	0.0	LTE	0.0286	-0.3358	0.0286	0.3985	0.8118	0.1034	0.1463	0.1930	0.0	
4576.03	0.0	NLTE	0.0265	-0.3695	0.0265	-0.2121	0.7932	0.0713	0.1253	0.1716	0.0	2.46704D 00
	0.0	LTE	0.0146	-0.6288	0.0146	-0.0738	0.8861	0.0719	0.1255	0.1713	0.0	
3807.61	0.0	NLTE	0.0226	-0.3578	0.0226	0.3010	0.8018	0.0761	0.1126	0.1483	0.0	4.06221D-01
	0.0	LTE	0.0307	-0.2253	0.0307	0.5517	0.7676	0.0923	0.1278	0.1712	0.0	
3797.20	0.0	NLTE	0.0154	-0.5251	0.0154	0.0779	0.8538	0.0604	0.1041	0.1413	0.0	3.99157D-01
	0.0	LTE	0.0231	-0.3482	0.0231	0.3267	0.8043	0.0808	0.1158	0.1509	0.0	
3792.82	0.0	NLTE	0.0059	-0.9398	0.0059	-0.3997	0.9385	0.0488	0.0940	0.1343	0.0	4.51479D-01
	0.0	LTE	0.0105	-0.6897	0.0105	-0.1490	0.8959	0.0545	0.0997	0.1381	0.0	

Table 98

Line Data for Silicon IV, T_{eff} = 35,000 K, Log g = 4.0, v_t = 0 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TAU)	RD	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	0.0	NLTE	1.4986	1.8996	1.4986	5.7652	0.0101	0.1380	1.0610	1.8894	0.0	8.14611D-01
	0.0	LTE	1.6606	1.9442	1.6606	5.8841	0.4465	1.4752	2.0330	3.1113	0.0	
1402.77	0.0	NLTE	1.0950	1.7605	1.0950	5.4647	0.0127	0.1349	0.7715	1.3698	0.0	8.11207D-01
	0.0	LTE	1.2165	1.8062	1.2165	5.5825	0.4451	1.0844	1.4760	2.2634	0.0	
1128.35	0.0	NLTE	0.6318	1.6162	0.6318	4.6395	0.0095	0.2134	0.4379	0.7666	0.0	8.27862D-01
	0.0	LTE	0.6929	1.6563	0.6929	4.7439	0.3456	0.5047	0.7074	1.0934	0.0	
1122.50	0.0	NLTE	0.4392	1.4606	0.4392	4.3356	0.0123	0.1482	0.3060	0.5159	0.0	8.41079D-01
	0.0	LTE	0.4776	1.4969	0.4776	4.4455	0.3545	0.3555	0.4924	0.8005	0.0	
1066.61	0.0	NLTE	0.1232	0.9305	0.1232	2.9893	0.0383	0.0657	0.0987	0.1350	0.0	7.65477D-01
	0.0	LTE	0.1383	0.9809	0.1383	3.0823	0.2501	0.0968	0.1245	0.1700	0.0	
1722.53	1722.56	NLTE	0.1060	0.6574	0.1060	2.5271	0.1709	0.0819	0.1184	0.1487	0.0102	1.19297D 00
	0.0	LTE	0.1003	0.6332	0.1003	2.6371	0.5043	0.1369	0.1545	0.1881	0.0101	
4090.02	0.0	NLTE	0.1505	0.4338	0.1505	2.1612	0.3727	0.1324	0.1993	0.2730	0.0	4.40946D 00
	0.0	LTE	0.0890	0.2059	0.0890	2.2578	0.7899	0.2562	0.3076	0.4063	0.0	
4117.26	0.0	NLTE	0.1239	0.3465	0.1239	1.8818	0.4265	0.1233	0.1890	0.2510	0.0	4.07288D 00
	0.0	LTE	0.0803	0.1580	0.0803	1.9584	0.7573	0.2145	0.2657	0.3275	0.0	
3166.63	0.0	NLTE	0.0702	0.2135	0.0702	2.0269	0.5179	0.0929	0.1381	0.1801	0.0	3.80557D 00
	0.0	LTE	0.0528	0.0901	0.0528	2.1161	0.7778	0.1677	0.2008	0.2414	0.0	
3150.48	0.0	NLTE	0.0533	0.0965	0.0533	1.7237	0.5832	0.0824	0.1229	0.1668	0.0	3.06786D 00
	0.0	LTE	0.0433	0.0058	0.0433	1.8129	0.7737	0.1451	0.1735	0.2123	0.0	
3763.50	0.0	NLTE	0.0406	-0.0990	0.0406	1.3108	0.7562	0.1183	0.1610	0.2020	0.0	9.43755D-01
	0.0	LTE	0.0412	-0.0930	0.0412	1.3852	0.7777	0.1286	0.1776	0.2174	0.0	
2287.75	0.0	NLTE	0.0474	0.1849	0.0474	1.7445	0.5810	0.0802	0.1099	0.1344	0.0	5.60752D-01
	0.0	LTE	0.0537	0.2383	0.0537	1.8110	0.5987	0.0999	0.1240	0.1549	0.0	
2518.33	0.0	NLTE	0.0808	0.3745	0.0808	2.0577	0.3765	0.0801	0.1177	0.1502	0.0	1.63558D 00
	0.0	LTE	0.0692	0.3071	0.0692	2.1235	0.6556	0.1276	0.1614	0.2012	0.0	
6673.03	0.0	NLTE	0.0117	-0.6873	0.0117	0.8458	0.9178	0.0801	0.1550	0.2176	0.0	7.66856D-02
	0.0	LTE	0.0286	-0.4991	0.0286	0.9150	0.8999	0.1808	0.2622	0.3562	0.0	
6669.41	0.0	NLTE	0.0044	-1.3103	0.0044	0.5446	0.9611	0.0640	0.1280	0.1926	0.0	2.76460D-02
	0.0	LTE	0.0207	-0.6809	0.0207	0.6137	0.9164	0.1569	0.2288	0.3207	0.0	
4213.60	0.0	NLTE	0.0343	-0.2218	0.0343	0.8990	0.7534	0.0888	0.1321	0.1795	0.0	7.82300D-01
	0.0	LTE	0.0373	-0.1846	0.0373	0.9465	0.7926	0.1138	0.1677	0.2266	0.0	
4632.57	0.0	NLTE	0.0530	-0.0733	0.0530	1.1722	0.6672	0.1055	0.1527	0.2093	0.0	1.96649D 00
	0.0	LTE	0.0431	-0.1637	0.0431	1.2173	0.8025	0.1396	0.2047	0.2625	0.0	
4655.61	0.0	NLTE	0.0600	-0.0215	0.0600	1.4734	0.6783	0.1233	0.1771	0.2398	0.0	1.42944D 00
	0.0	LTE	0.0540	-0.0676	0.0540	1.5204	0.7922	0.1696	0.2318	0.2882	0.0	

Table 99

Line Data for Silicon III, T_{eff} = 35,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.2255	0.5355	0.2255	3.1745	0.0204	0.1595	0.1904	0.2289	0.0199	5.04862D-01
	0.0	LTE	0.2344	0.5562	0.2344	3.4183	0.3108	0.2023	0.2315	0.3285	0.0126	
1298.95	1298.89	NLTE	0.1589	0.7554	0.1589	2.0485	0.0444	0.1425	0.1656	0.1868	-0.0178	2.33802D 00
	0.0	LTE	0.1401	0.7066	0.1401	2.3794	0.3050	0.1651	0.1880	0.2091	-0.0221	
1303.32	0.0	NLTE	0.1010	0.5570	0.1010	1.5674	0.0669	0.0784	0.1055	0.1371	0.0	1.39772D 00
	0.0	LTE	0.0567	0.5383	0.0567	1.8563	0.2884	0.1166	0.1348	0.1530	0.0	
1294.55	0.0	NLTE	0.0997	0.5544	0.0997	1.5657	0.0683	0.0775	0.1042	0.1357	0.0	1.45508D 00
	0.0	LTE	0.0950	0.5334	0.0950	1.8566	0.2943	0.1155	0.1337	0.1519	0.0	
1301.15	0.0	NLTE	0.0962	0.5366	0.0962	1.4705	0.0742	0.0755	0.1001	0.1316	0.0	1.28253D 00
	0.0	LTE	0.0929	0.5216	0.0929	1.8014	0.2880	0.1106	0.1311	0.1508	0.0	
1296.73	0.0	NLTE	0.0956	0.5353	0.0956	1.4698	0.0751	0.0751	0.0995	0.1309	0.0	1.30445D 00
	0.0	LTE	0.0921	0.5152	0.0921	1.8007	0.2909	0.1099	0.1305	0.1502	0.0	
1113.23	1113.20	NLTE	0.1377	0.7601	0.1377	2.2653	0.0337	0.1220	0.1400	0.1581	-0.0119	1.03570D 00
	1113.17	LTE	0.1366	0.7565	0.1366	2.5959	0.2295	0.1377	0.1549	0.1772	-0.0141	
1109.97	1109.94	NLTE	0.1262	0.7234	0.1262	2.0002	0.0423	0.1089	0.1333	0.1517	-0.0113	1.16214D 00
	0.0	LTE	0.1233	0.7135	0.1233	2.3308	0.2233	0.1320	0.1459	0.1599	-0.0118	
1108.36	0.0	NLTE	0.0895	0.5750	0.0895	1.6177	0.0620	0.0693	0.0952	0.1200	0.0	7.29089D-01
	0.0	LTE	0.0931	0.5522	0.0931	1.9464	0.2152	0.1015	0.1163	0.1312	0.0	
957.39	0.0	NLTE	0.0655	0.4853	0.0655	1.2409	0.1031	0.0547	0.0702	0.0859	0.0	3.61325D-01
	0.0	LTE	0.0774	0.5577	0.0774	1.5725	0.1581	0.0694	0.0929	0.1115	0.0	
1417.24	0.0	NLTE	0.0826	0.4333	0.0826	1.1021	0.1705	0.0780	0.0996	0.1167	0.0	1.14687D 00
	0.0	LTE	0.0806	0.4229	0.0806	1.3449	0.3329	0.0994	0.1161	0.1360	0.0	
1312.59	0.0	NLTE	0.0374	0.1230	0.0374	0.3388	0.4296	0.0442	0.0650	0.0837	0.0	2.57127D-01
	0.0	LTE	0.0531	0.2749	0.0531	0.5822	0.3231	0.0597	0.0773	0.0977	0.0	
1842.55	0.0	NLTE	0.0234	-0.2277	0.0234	0.1287	0.7153	0.0525	0.0805	0.1084	0.0	1.91650D-01
	0.0	LTE	0.0423	0.0288	0.0423	0.3880	0.5583	0.0667	0.0950	0.1227	0.0	
5741.33	0.0	NLTE	0.0451	-0.4366	0.0451	-0.1485	0.8174	0.1526	0.2360	0.3305	0.0	3.52695D 00
	0.0	LTE	0.0200	-0.7891	0.0200	-0.0276	0.9197	0.1553	0.2391	0.3322	0.0	
2559.96	0.0	NLTE	0.0113	-0.6864	0.0113	-0.0347	0.8859	0.0612	0.0940	0.1352	0.0	1.40418D-01
	0.0	LTE	0.0298	-0.2656	0.0298	0.2076	0.7569	0.0786	0.1197	0.1575	0.0	
3087.13	0.0	NLTE	0.0107	-0.7907	0.0107	-0.0019	0.9029	0.0691	0.1059	0.1515	0.0	9.72293D-02
	0.0	LTE	0.0302	-0.3421	0.0302	0.3058	0.8014	0.0996	0.1494	0.1933	0.0	
4553.94	0.0	NLTE	0.1002	0.0104	0.1002	0.3377	0.5783	0.1586	0.2326	0.3055	0.0	8.37431D 00
	0.0	LTE	0.0436	-0.3514	0.0436	0.4297	0.8160	0.1605	0.2324	0.3023	0.0	
4569.13	0.0	NLTE	0.0768	-0.1066	0.0768	0.1172	0.6490	0.1391	0.2133	0.2819	0.0	4.92514D 00
	0.0	LTE	0.0346	-0.4530	0.0346	0.2092	0.8406	0.1389	0.2120	0.2794	0.0	
4576.03	0.0	NLTE	0.0352	-0.4462	0.0352	-0.3550	0.8190	0.1187	0.1839	0.2607	0.0	2.86325D 00
	0.0	LTE	0.0158	-0.7529	0.0158	-0.2630	0.9172	0.1169	0.1808	0.2576	0.0	
3807.61	0.0	NLTE	0.0284	-0.4589	0.0284	0.1309	0.8348	0.1092	0.1678	0.2260	0.0	4.80915D-01
	0.0	LTE	0.0388	-0.3245	0.0388	0.3610	0.7945	0.1255	0.1863	0.2400	0.0	
3797.20	0.0	NLTE	0.0187	-0.6400	0.0187	-0.0921	0.8837	0.0996	0.1533	0.2157	0.0	5.03228D-01
	0.0	LTE	0.0274	-0.4746	0.0274	0.1380	0.8402	0.1088	0.1669	0.2248	0.0	
3792.52	0.0	NLTE	0.0069	-1.0697	0.0069	-0.5698	0.9538	0.0909	0.1416	0.2054	0.0	5.59951D-01
	0.0	LTE	0.0112	-0.8636	0.0112	-0.3397	0.9271	0.0935	0.1447	0.2082	0.0	

Table 100
Line Data for Silicon IV, T_{eff} = 35,000 K, Log g = 4.0, v_t = 5 km/s

LINE	OVERLAPS.		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	0.0	NLTE	1.5280	1.7077	1.5280	5.5838	0.0107	0.1568	1.0787	1.9198	0.0	8.44871D-01
	0.0	LTE	1.6607	1.7439	1.6607	5.6935	0.4511	1.4822	2.0356	3.1155	0.0	
1402.77	0.0	NLTE	1.1214	1.5706	1.1214	5.2823	0.0136	0.1584	0.7834	1.4001	0.0	8.65482D-01
	0.0	LTE	1.2041	1.6015	1.2041	5.3920	0.4507	1.0986	1.4741	2.2853	0.0	
1128.35	0.0	NLTE	0.6462	1.4257	0.6462	4.4632	0.0099	0.2239	0.4444	0.7628	0.0	8.72535D-01
	0.0	LTE	0.6904	1.4544	0.6904	4.5659	0.3483	0.5082	0.7059	1.1145	0.0	
1122.50	0.0	NLTE	0.4540	1.2747	0.4540	4.1600	0.0129	0.1664	0.3128	0.5220	0.0	9.03977D-01
	0.0	LTE	0.4760	1.2952	0.4760	4.2626	0.3538	0.3574	0.4941	0.7879	0.0	
1066.61	0.0	NLTE	0.1419	0.7917	0.1419	2.8214	0.0416	0.0881	0.1165	0.1616	0.0	8.79470D-01
	0.0	LTE	0.1490	0.8131	0.1490	2.9096	0.2374	0.1078	0.1428	0.1981	0.0	
1722.53	1722.56	NLTE	0.1348	0.5615	0.1348	2.3664	0.1803	0.1177	0.1609	0.1957	0.0068	1.52088D 00
	0.0	LTE	0.1208	0.5137	0.1208	2.4717	0.4891	0.1824	0.2025	0.2390	0.0081	
4090.02	0.0	NLTE	0.2023	0.3620	0.2023	2.0143	0.3848	0.2152	0.3024	0.3873	0.0	9.65228D 00
	0.0	LTE	0.1094	0.0952	0.1094	2.0780	0.7778	0.3542	0.4060	0.4758	0.0	
4117.26	0.0	NLTE	0.1689	0.2808	0.1689	1.7149	0.4399	0.1990	0.2868	0.3683	0.0	7.35430D 00
	0.0	LTE	0.1025	0.0639	0.1025	1.7786	0.7509	0.3112	0.3668	0.4285	0.0	
3166.63	0.0	NLTE	0.1007	0.1703	0.1007	1.8532	0.5334	0.1535	0.2131	0.2708	0.0	6.82274D 00
	0.0	LTE	0.0720	0.0242	0.0720	1.9313	0.7664	0.2480	0.2860	0.3272	0.0	
3150.48	0.0	NLTE	0.0767	0.0545	0.0767	1.5500	0.6007	0.1327	0.1914	0.2466	0.0	3.89693D 00
	0.0	LTE	0.0602	-0.0513	0.0602	1.6281	0.7685	0.2106	0.2530	0.2939	0.0	
3763.50	0.0	NLTE	0.0528	-0.1852	0.0528	1.1393	0.7895	0.1954	0.2430	0.2932	0.0	8.46728D-01
	0.0	LTE	0.0550	-0.1678	0.0550	1.2035	0.7852	0.1919	0.2520	0.3076	0.0	
2287.75	0.0	NLTE	0.0682	0.1420	0.0682	1.5749	0.5857	0.1268	0.1642	0.1989	0.0	6.97582D-01
	0.0	LTE	0.0730	0.1715	0.0730	1.6341	0.6022	0.1452	0.1813	0.2138	0.0	
2518.33	0.0	NLTE	0.1125	0.3178	0.1125	1.8895	0.3985	0.1312	0.1799	0.2254	0.0	2.55321D 00
	0.0	LTE	0.0878	0.2102	0.0878	1.9478	0.6499	0.1871	0.2259	0.2660	0.0	
6673.03	0.0	NLTE	0.0284	-0.7038	0.0284	0.6744	0.8963	0.1731	0.2642	0.3624	0.0	5.36036D-01
	0.0	LTE	0.0358	-0.6026	0.0358	0.7349	0.9089	0.2668	0.3772	0.4886	0.0	
6669.41	0.0	NLTE	0.0144	-0.9990	0.0144	0.3731	0.9432	0.1589	0.2424	0.3361	0.0	3.20012D-01
	0.0	LTE	0.0248	-0.7610	0.0248	0.4336	0.9286	0.2282	0.3334	0.4441	0.0	
4213.60	0.0	NLTE	0.0468	-0.2868	0.0468	0.7292	0.7779	0.1364	0.2028	0.2725	0.0	9.99761D-01
	0.0	LTE	0.0467	-0.2880	0.0467	0.7727	0.8130	0.1698	0.2414	0.3124	0.0	
4632.57	0.0	NLTE	0.0724	-0.1383	0.0724	0.9999	0.7047	0.1666	0.2397	0.3135	0.0	2.28776D 00
	0.0	LTE	0.0553	-0.2553	0.0553	1.0407	0.8156	0.2125	0.2914	0.3679	0.0	
4655.61	0.0	NLTE	0.0827	-0.0825	0.0827	1.3006	0.7079	0.2008	0.2776	0.3521	0.0	1.80644D 00
	0.0	LTE	0.0697	-0.1569	0.0697	1.3443	0.7987	0.2488	0.3301	0.4088	0.0	

Table 101

Line Data for Silicon III, T_{eff} = 35,000 K, Log g = 4.0, v_t = 5 km/s, Abundance = 0.4 X Standard

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.1826	-0.8478	0.1826	-0.7750	0.0257	0.1424	0.1740	0.1983	0.0199	1.08044D 00
	0.0	LTE	0.1781	-0.8365	0.1781	-0.7502	0.2928	0.1767	0.1975	0.2307	0.0207	
1298.95	1298.89	NLTE	0.1347	-0.8836	0.1347	-0.8162	0.0761	0.1238	0.1475	0.1736	-0.0211	1.75409D 00
	0.0	LTE	0.1264	-0.8958	0.1264	-0.7815	0.2932	0.1533	0.1719	0.1936	-0.0176	
1303.32	0.0	NLTE	0.0804	-0.9481	0.0804	-0.8350	0.1152	0.0688	0.0884	0.1079	0.0	8.70079D-01
	0.0	LTE	0.0824	-0.9467	0.0824	-0.8003	0.2828	0.0846	0.1133	0.1417	0.0	
1294.55	0.0	NLTE	0.0793	-0.9550	0.0793	-0.8334	0.1178	0.0681	0.0875	0.1068	0.0	8.87669D-01
	0.0	LTE	0.0810	-0.9640	0.0810	-0.8157	0.2886	0.0837	0.1120	0.1405	0.0	
1301.15	0.0	NLTE	0.0764	-0.9368	0.0764	-0.8382	0.1283	0.0670	0.0861	0.1052	0.0	8.45324D-01
	0.0	LTE	0.0788	-0.9459	0.0788	-0.8035	0.2837	0.0805	0.1057	0.1367	0.0	
1296.73	0.0	NLTE	0.0759	-0.9352	0.0759	-0.8375	0.1297	0.0667	0.0857	0.1047	0.0	8.52974D-01
	0.0	LTE	0.0781	-0.9475	0.0781	-0.8028	0.2866	0.0802	0.1051	0.1361	0.0	
1113.23	1113.20	NLTE	0.1159	-0.8854	0.1159	-0.8335	0.0515	0.0950	0.1229	0.1473	-0.0093	7.65789D-01
	1113.17	LTE	0.1203	-0.7614	0.1203	-0.1580	0.2178	0.1299	0.1454	0.1608	-0.0122	
1109.97	1109.94	NLTE	0.1056	-0.8461	0.1056	-0.5884	0.0647	0.0882	0.1102	0.1375	-0.0109	6.92246D-01
	0.0	LTE	0.1104	-0.8654	0.1104	-0.5329	0.2140	0.1226	0.1385	0.1543	-0.0114	
1108.36	0.0	NLTE	0.0723	-0.9421	0.0723	-0.1860	0.0552	0.0599	0.0770	0.0940	0.0	5.66220D-01
	0.0	LTE	0.0796	-0.9243	0.0796	-0.5504	0.2101	0.0751	0.1011	0.1229	0.0	
997.39	0.0	NLTE	0.0484	-0.9538	0.0484	-0.8050	0.2061	0.0474	0.0619	0.0764	0.0	1.74119D-01
	0.0	LTE	0.0659	-0.9875	0.0659	-0.1746	0.1581	0.0581	0.0741	0.0951	0.0	
1417.24	0.0	NLTE	0.0603	-0.2965	0.0603	-0.7130	0.2811	0.0636	0.0827	0.1053	0.0	5.61043D-01
	0.0	LTE	0.0675	-0.3454	0.0675	-0.9470	0.3389	0.0807	0.1012	0.1180	0.0	
1314.59	0.0	NLTE	0.0203	-0.1428	0.0203	-0.0499	0.6451	0.0360	0.0550	0.0765	0.0	2.66994D-01
	0.0	LTE	0.0358	-0.1038	0.0358	-0.1843	0.4426	0.0422	0.0635	0.0825	0.0	
1842.55	0.0	NLTE	0.0104	-0.5808	0.0104	-0.2595	0.8608	0.0461	0.0710	0.1018	0.0	2.23793D-01
	0.0	LTE	0.0248	-0.2027	0.0248	-0.0099	0.6958	0.0517	0.0789	0.1087	0.0	
5741.33	0.0	NLTE	0.0216	-0.7568	0.0216	-0.5251	0.9074	0.1422	0.2204	0.3183	0.0	2.73538D 00
	0.0	LTE	0.0094	-1.1260	0.0094	-0.4255	0.9597	0.1418	0.2198	0.3175	0.0	
2559.96	0.0	NLTE	0.0043	-1.1023	0.0043	-0.4107	0.9553	0.0587	0.0915	0.1334	0.0	1.71541D-01
	0.0	LTE	0.0154	-0.8516	0.0154	-0.1503	0.8585	0.0671	0.1033	0.1468	0.0	
3087.13	0.0	NLTE	0.0012	-1.7341	0.0012	-0.3878	0.9855	0.0482	0.0865	0.1190	0.0	2.07664D-02
	0.0	LTE	0.0164	-0.6062	0.0164	-0.0921	0.8770	0.0826	0.1267	0.1785	0.0	
4553.94	0.0	NLTE	0.0706	-0.1420	0.0706	-0.0064	0.6633	0.1313	0.2022	0.2755	0.0	5.50273D 00
	0.0	LTE	0.0249	-0.6538	0.0249	0.0317	0.8768	0.1266	0.1938	0.2686	0.0	
4569.13	0.0	NLTE	0.0495	-0.2970	0.0495	-0.2268	0.7509	0.1226	0.1890	0.2664	0.0	4.09971D 00
	0.0	LTE	0.0178	-0.7415	0.0178	-0.1887	0.9079	0.1189	0.1831	0.2607	0.0	
4576.03	0.0	NLTE	0.0199	-0.6542	0.0199	-0.6590	0.8932	0.1128	0.1753	0.2538	0.0	3.21852D 00
	0.0	LTE	0.0069	-1.1508	0.0069	-0.6609	0.9621	0.1105	0.1723	0.2505	0.0	
3807.61	0.0	NLTE	0.0167	-0.6504	0.0167	-0.2402	0.8958	0.0990	0.1524	0.2169	0.0	6.87808D-01
	0.0	LTE	0.0213	-0.5643	0.0213	-0.0369	0.8698	0.1023	0.1566	0.2198	0.0	
3797.20	0.0	NLTE	0.0103	-0.8574	0.0103	-0.4632	0.9330	0.0942	0.1460	0.2106	0.0	7.16263D-01
	0.0	LTE	0.0134	-0.7645	0.0134	-0.2600	0.9137	0.0955	0.1472	0.2115	0.0	
3792.52	0.0	NLTE	0.0036	-1.3525	0.0036	-0.5409	0.9757	0.0900	0.1407	0.2050	0.0	7.52893D-01
	0.0	LTE	0.0047	-1.2369	0.0047	-0.7376	0.9682	0.0897	0.1400	0.2040	0.0	

Table 102

Line Data for Silicon IV, T_{eff} = 35,000 K, Log g = 4.0, v_t = 5 km/s, Abundance = 0.4 X Standard

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	0.0	NLTE	1.0068	1.5266	1.0068	5.2004	0.0121	0.1616	0.6960	1.2837	0.0	9.17371D-01
	0.0	LTE	1.0499	1.5448	1.0499	5.2956	0.4625	0.9691	1.3337	1.9914	0.0	
1402.77	0.0	NLTE	0.7466	1.3939	0.7466	4.8989	0.0153	0.1630	0.5105	0.8966	0.0	9.47199D-01
	0.0	LTE	0.7653	1.4046	0.7653	4.9941	0.4632	0.6940	0.9643	1.4429	0.0	
1128.35	0.0	NLTE	0.4259	1.2447	0.4259	4.0762	0.0114	0.1630	0.2898	0.4850	0.0	9.44116D-01
	0.0	LTE	0.4370	1.2558	0.4370	4.1680	0.3471	0.3259	0.4491	0.6927	0.0	
1122.50	0.0	NLTE	0.3059	1.1032	0.3059	3.7730	0.0149	0.1372	0.2088	0.3413	0.0	9.96393D-01
	0.0	LTE	0.3059	1.1032	0.3059	3.8647	0.3446	0.2298	0.3158	0.4822	0.0	
1066.61	0.0	NLTE	0.1130	0.6929	0.1130	2.4311	0.0524	0.0828	0.1060	0.1292	0.0	9.86537D-01
	0.0	LTE	0.1134	0.6944	0.1134	2.5117	0.2144	0.0936	0.1163	0.1438	0.0	
1722.53	1722.56	NLTE	0.1135	C.4E68	C.1135	1.5772	0.2183	0.1080	0.1455	0.1767	0.0059	1.59088D 00
	0.0	LTE	0.1037	C.4475	C.1037	2.0738	0.4637	0.1591	0.1802	0.2033	0.0074	
4090.02	0.0	NLTE	C.1755	C.3CC4	C.1755	1.6473	0.4110	0.2071	0.2850	0.3576	0.0	1.86062D 01
	0.0	LTE	0.0898	C.CCS2	C.C898	1.6ECC	0.7627	0.2908	0.3464	0.4053	0.0	
4117.26	0.0	NLTE	0.1450	C.2146	C.1450	1.3460	0.4696	0.1870	0.2659	0.3384	0.0	1.03599D 01
	0.0	LTE	C.0833	-C.C2E0	C.C833	1.3EC7	0.7468	0.2544	0.3141	0.3745	0.0	
3166.63	0.0	NLTE	0.0877	C.1103	C.C877	1.4758	0.5643	0.1432	0.2006	0.2540	0.0	6.85246D 00
	0.0	LTE	0.0617	-C.0423	C.C617	1.5334	0.7562	0.2038	0.2481	0.2918	0.0	
3150.48	0.0	NLTE	C.0650	-C.C179	C.0650	1.1766	0.6371	0.1242	0.1779	0.2293	0.0	3.38493D 00
	0.0	LTE	0.0494	-C.1366	C.C494	1.2302	0.7727	0.1685	0.2165	0.2620	0.0	
3763.50	0.0	NLTE	C.0448	-C.2563	0.0448	0.7643	0.8001	0.1652	0.2193	0.2738	0.0	1.38272D 00
	0.0	LTE	C.0400	-C.3058	C.0400	0.EC56	0.8153	0.1529	0.2131	0.2720	0.0	
2267.75	C.0	NLTE	0.0577	C.CE55	C.0577	1.1526	0.6133	0.1128	0.1491	0.1839	0.0	5.20850D-01
	0.0	LTE	0.0588	C.C778	C.0588	1.2262	0.6262	0.1199	0.1572	0.1919	0.0	
2518.33	C.0	NLTE	C.0545	C.2422	C.C945	1.5CE2	0.4544	0.1234	0.1691	0.2121	0.0	3.19412D 00
	0.0	LTE	C.0711	C.1166	C.C711	1.5458	0.6531	0.1556	0.1964	0.2364	0.0	
6673.03	0.0	NLTE	C.0176	-C.5122	C.0176	0.2747	0.9339	0.1642	0.2509	0.3501	0.0	6.28483D-01
	0.0	LTE	0.0223	-C.ECE1	C.0223	0.3365	0.9340	0.2167	0.3221	0.4327	0.0	
6669.41	0.0	NLTE	0.0085	-1.2260	C.C085	-0.0265	0.9663	0.1517	0.2370	0.3324	0.0	4.71887D-01
	0.0	LTE	0.0138	-1.C164	C.0138	0.0357	0.9554	0.1921	0.2923	0.4013	0.0	
4213.60	0.0	NLTE	0.0320	-C.4514	C.C320	0.3379	0.8398	0.1263	0.1909	0.2590	0.0	1.17347D 00
	0.0	LTE	C.0295	-C.4EEE	C.0255	0.3748	0.8634	0.1400	0.2073	0.2778	0.0	
4632.57	0.0	NLTE	C.0515	-C.2EE5	C.C515	0.6101	0.7804	0.1530	0.2262	0.3017	0.0	2.07800D 00
	0.0	LTE	C.0380	-C.41E7	C.C380	0.6427	0.8525	0.1747	0.2497	0.3268	0.0	
4655.61	0.0	NLTE	0.0615	-C.2116	C.C615	0.9CE2	0.7710	0.1854	0.2608	0.3361	0.0	1.69081D 00
	0.0	LTE	C.0513	-C.2E5E	C.C513	C.9463	0.8242	0.2022	0.2825	0.3602	0.0	

Table 103

Line Data for Silicon III, T_{eff} = 35,000 K, Log g = 3.3, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG(W/D)	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1206.50	1206.56	NLTE	0.0791	-0.4611	0.0789	-1.1078	0.1640	0.0714	0.0924	0.1213	0.0039	1.58292D-01
	0.0	LTE	0.1028	-0.5553	0.1028	-0.4059	0.4380	0.1573	0.1680	0.1817	0.0184	
1298.95	1298.89	NLTE	0.0399	-1.1521	0.0399	-0.4258	0.4766	0.0455	0.0684	0.1080	-0.0039	3.32218D-03
	0.0	LTE	0.0801	-0.4545	0.0801	-0.3939	0.4500	0.1306	0.1455	0.1605	-0.0198	
1303.32	0.0	NLTE	0.0143	-1.2545	0.0143	-0.0555	0.7200	0.0327	0.0490	0.0672	0.0	1.76464D-03
	0.0	LTE	0.0487	-0.2372	0.0487	-0.9127	0.4488	0.0729	0.0881	0.1032	0.0	
1294.55	0.0	NLTE	0.0134	-1.3187	0.0134	-0.0571	0.7308	0.0318	0.0479	0.0655	0.0	1.57511D-03
	0.0	LTE	0.0473	-0.2274	0.0473	-0.9111	0.4580	0.0720	0.0870	0.1018	0.0	
1301.15	0.0	NLTE	0.0114	-1.3925	0.0114	-0.1523	0.7703	0.0310	0.0473	0.0652	0.0	1.42151D-03
	0.0	LTE	0.0458	-0.2112	0.0458	-0.8159	0.4546	0.0686	0.0838	0.0984	0.0	
1296.73	0.0	NLTE	0.0110	-1.4058	0.0110	-0.1530	0.7754	0.0306	0.0468	0.0645	0.0	1.34151D-03
	0.0	LTE	0.0451	-0.2061	0.0451	-0.8152	0.4593	0.0682	0.0833	0.0977	0.0	
1113.23	1113.20	NLTE	0.0396	-0.2155	0.0396	-0.6432	0.3789	0.0470	0.0639	0.0802	-0.0041	8.24668D-03
	1113.17	LTE	0.0777	-0.5065	0.0777	-1.6105	0.3573	0.1045	0.1177	0.1327	-0.0099	
1109.97	1109.94	NLTE	0.0301	-0.5962	0.0301	-0.3764	0.4961	0.0411	0.0601	0.0780	-0.0069	1.14992D-03
	0.0	LTE	0.0723	-0.4767	0.0723	-1.3455	0.3573	0.0989	0.1114	0.1241	-0.0109	
1108.36	0.0	NLTE	0.0110	-1.3395	0.0110	-0.0048	0.7233	0.0256	0.0387	0.0526	0.0	2.39226D-04
	0.0	LTE	0.0500	-0.3194	0.0500	-0.5628	0.3617	0.0651	0.0777	0.0910	0.0	
997.39	0.0	NLTE	0.0047	-1.6575	0.0047	-0.3789	0.8691	0.0219	0.0343	0.0481	0.0	1.91025D-04
	0.0	LTE	0.0409	-0.2760	0.0409	-0.5670	0.3130	0.0459	0.0591	0.0725	0.0	
1417.24	0.0	NLTE	0.0056	-0.7413	0.0056	-0.5921	0.9008	0.0338	0.0528	0.0767	0.0	1.33977D-02
	0.0	LTE	0.0301	-0.0086	0.0301	0.3715	0.5730	0.0483	0.0699	0.0882	0.0	
1312.59	0.0	NLTE	0.0007	-1.5861	0.0007	-1.3546	0.9855	0.0305	0.0479	0.0700	0.0	6.28149D-02
	0.0	LTE	0.0082	-0.5388	0.0082	-0.3912	0.8402	0.0314	0.0486	0.0703	0.0	

Table 104

Line Data for Silicon IV, T_{eff} = 35,000 K, Log g = 3.3, v_t = 5 km/s

LINE	OVERLAPS		W(EQ)	LOG|W/D|	W(TOTAL)	LOG(TO)	RO	W(1/4)	W(1/2)	W(3/4)	SHIFT	N*/N(STD)
1393.75	0.0	NLTE	0.4619	1.1851	0.4619	4.8714	0.0132	0.1401	0.2597	0.5897	0.0	3.46728D-01
	0.0	LTE	0.7756	1.4102	0.7756	5.4611	0.6008	1.0614	1.3743	1.9644	0.0	
1402.77	0.0	NLTE	0.3607	1.0749	0.3607	4.5699	0.0166	0.1371	0.2197	0.4375	0.0	3.83846D-01
	0.0	LTE	0.5722	1.2753	0.5722	5.1596	0.5954	0.7515	1.0314	1.4377	0.0	
1128.35	0.0	NLTE	0.2212	0.9571	0.2212	3.7634	0.0222	0.1099	0.1602	0.2557	0.0	3.38942D-01
	0.0	LTE	0.3763	1.1878	0.3763	4.3110	0.4885	0.3762	0.5033	0.7728	0.0	
1122.50	0.0	NLTE	0.1679	0.8396	0.1679	3.4602	0.0287	0.0996	0.1350	0.1945	0.0	4.24221D-01
	0.0	LTE	0.2574	1.0252	0.2574	4.0077	0.4989	0.2678	0.3540	0.5244	0.0	
1066.61	0.0	NLTE	0.0436	0.2759	0.0436	2.1029	0.2003	0.0450	0.0791	0.1017	0.0	8.59440D-02
	0.0	LTE	0.0913	0.5970	0.0913	2.5733	0.3818	0.0965	0.1184	0.1511	0.0	
1722.53	1722.56	NLTE	0.0367	-0.0073	0.0135	1.6955	0.5525	0.0638	0.0864	0.1030	0.0030	3.18976D-06
	0.0	LTE	0.0704	0.2759	0.0704	2.2040	0.6532	0.1725	0.1886	0.2065	0.0077	
4090.02	0.0	NLTE	0.0417	-0.3272	0.0417	1.5843	0.4968	0.1846	0.2512	0.3116	0.0	8.23411D-01
	0.0	LTE	0.0417	-0.3270	0.0417	1.9188	0.8907	0.3430	0.3754	0.4147	0.0	
4117.26	0.0	NLTE	0.0992	0.0465	0.0992	1.2850	0.5603	0.1611	0.2279	0.2890	0.0	1.12492D 02
	0.0	LTE	0.0479	-0.2697	0.0479	1.6194	0.8621	0.2990	0.3416	0.3831	0.0	
3166.63	0.0	NLTE	-0.0033	-1.3179	-0.0033	1.4344	0.8906	0.0811	0.1131	0.1350	0.0	
	0.0	LTE	0.0294	-0.3674	0.0294	1.7877	0.8958	0.2421	0.2705	0.2966	0.0	
3150.48	0.0	NLTE	-0.0157	-0.6390	-0.0157	1.1311	0.9603	0.0429	0.0609	0.0770	0.0	
	0.0	LTE	0.0226	-0.4791	0.0226	1.4845	0.8998	0.1976	0.2306	0.2580	0.0	
3763.50	0.0	NLTE	0.0018	-1.6486	0.0018	0.8835	1.0016	0.0	0.0	0.0	0.0	1.34313D-05
	0.0	LTE	0.0285	-0.4562	0.0285	1.1379	0.8714	0.1820	0.2314	0.2739	0.0	
2287.75	0.0	NLTE	-0.0100	-0.6956	-0.0100	1.1275	0.9844	0.0359	0.0525	0.0607	0.0	
	0.0	LTE	0.0392	-0.1017	0.0392	1.3788	0.7564	0.1350	0.1647	0.1906	0.0	
2518.33	0.0	NLTE	0.0471	-0.0631	0.0471	1.4888	0.5907	0.0999	0.1371	0.1676	0.0	1.49515D 00
	0.0	LTE	0.0426	-0.1070	0.0426	1.7243	0.7975	0.1796	0.2096	0.2376	0.0	
6673.03	0.0	NLTE	-0.0697	-0.3164	-0.0697	0.3826	1.1207	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0122	-1.0750	0.0122	0.7283	0.9626	0.2400	0.3295	0.4143	0.0	
6669.41	0.0	NLTE	-0.0597	-0.3833	-0.0597	0.0814	1.1462	0.0	0.0	0.0	0.0	
	0.0	LTE	0.0069	-1.3193	0.0069	0.4270	0.9738	0.1832	0.2676	0.3498	0.0	
4213.60	0.0	NLTE	0.0227	-0.6038	0.0227	0.4122	0.8512	0.1058	0.1569	0.2068	0.0	1.43497D 00
	0.0	LTE	0.0191	-0.6793	0.0191	0.5954	0.9068	0.1441	0.2037	0.2622	0.0	
4632.57	0.0	NLTE	0.0684	-0.1663	0.0684	0.7367	0.6950	0.1575	0.2243	0.2895	0.0	2.21105D 01
	0.0	LTE	0.0236	-0.6283	0.0236	0.8991	0.9071	0.1884	0.2561	0.3173	0.0	
4655.61	0.0	NLTE	0.0418	-0.3822	0.0418	1.0176	0.8232	0.1852	0.2480	0.3036	0.0	3.55100D 00
	0.0	LTE	0.0304	-0.5204	0.0304	1.2046	0.8977	0.2337	0.3004	0.3614	0.0	

Table 105
Equivalent Widths (EW) of Si II 6348.86 Å Doublet
for f (multiplet) = 1.2

T_{eff}(K)	Model log g	v_t (k/s)	EW (Å) of 6348.86 line NLTE	EW (Å) of 6348.86 line LTE	EW (Å) of 6373.13 line NLTE	EW (Å) of 6373.13 line LTE
15,000	4.0	0	0.1612	0.1106	0.1312	0.0951
15,000	4.0	5	0.2694	0.1784	0.2227	0.1592
15,000	3.0	0	0.1865	0.1147	0.1538	0.0995
15,000	3.0	5	0.3220	0.1869	0.2703	0.1692
17,500	4.0	0	0.1508	0.0985	0.1233	0.0856
17,500	4.0	5	0.2358	0.1586	0.1930	0.1413
17,500	4.0	0	0.1625	0.0928	0.1344	0.0821
17,500	3.0	5	0.2615	0.1540	0.2132	0.1377
17,500	3.0	15	0.5947	0.3110	0.4707	0.2606
20,000	4.0	0	0.1303	0.0812	0.1059	0.0710
20,000	4.0	0*	0.1025	0.0642	0.0815	0.0549
20,000	4.0	5	0.2107	0.1302	0.1699	0.1136
20,000	3.0	5	0.2255	0.1202	0.1806	0.1037
20,000	2.5	15	0.3629	0.2047	0.2659	0.1538
22,500	4.0	0	0.1181	0.0667	0.0949	0.0575
22,500	4.0	5	0.1775	0.1038	0.1379	0.0869
22,500	3.0	0	0.1148	0.0595	0.0914	0.0503
22,500	3.0	5	0.1719	0.0914	0.1291	0.0734
25,000	4.0	0	0.0857	0.0541	0.0668	0.0448
25,000	4.0	5	0.1226	0.0798	0.0908	0.0627
25,000	3.0	0	0.0084	0.0336	0.0035	0.0236
25,000	3.0	5	-0.0247	0.0428	-0.0165	0.0273
27,500	4.0	0	0.0442	0.0367	0.0313	0.0269
27,500	4.0	5	0.0568	0.0481	0.0370	0.0325

*Model has abundance of 0.4 X standard.

LINE PROFILES FOR Si II, III, AND IV

Figures 7 through 112 depict the line profiles for all the spectral lines included in the computations described by this report.

Two figures are shown for each separate line. The first is computed using the general theory of line formation (called "non-LTE" or "NLTE"); the second is computed making the assumption of local thermodynamic equilibrium for line formation (called "LTE"). The figures for the LTE case each contain two curves, corresponding to standard and 0.4 X standard abundance. ("Standard abundance" is that used in the NLTE cases and equals 3×10^{-5} N(H).)

A list of the lines included is given in table 6, in which the last column shows the number of the figure with the NLTE profile of the corresponding line. The figures fall into two groups, (a) those which include only one spectral line, and (b) those which include more than one spectral line (the maximum is six). In case (a), the line profile is symmetrical about the line center, hence only one-half of the profile is shown. In case (b), the strongest line is called the "principal line"; the other lines are called "overlaps."

The format of the figures is as follows: The abscissa is the displacement in Angstroms (Å) from the wavelength of the center of the principal line. The ordinate is the residual flux, the flux in the line profile divided by the continuum flux.

The three lines of data in the lower, left-hand corner of each graph identify (1) the wavelength; (2) the spectroscopic energy levels involved in the transition which give rise to the principal line, with the lower level at the left; and (3) the specification of the model atmosphere for which the profile was calculated. The specific data are shown below.

1808 .004 Å—Vacuum rest wavelength of the center of the principal line.

```
                  Silicon II
                  3p = one p-electron with principal quantum number (n) = 3. Description of
2 3P 2P2          the outer electrons of the level.
                  ²P₂ = spectroscopic notation for the total quantum numbers of the level.
```

```
                  Silicon II
2 3P2 2D4         3p² = two p-electrons with n = 3.
                  ²D₄ = spectroscopic notation for the total quantum numbers of the level.
```

```
                  17,500 K, the effective temperature in 1000 K.
17.5 4.0 0.0      Logarithm of the gravity.
                  Microturbulent velocity in km/s, e.g., 0.0.
LTE               LTE or NLTE, the theory of line formation used.
```

The overlaps are not listed on the graph. They can be determined from table 6 or from column 2 in the appropriate table of tables 7 through 104.

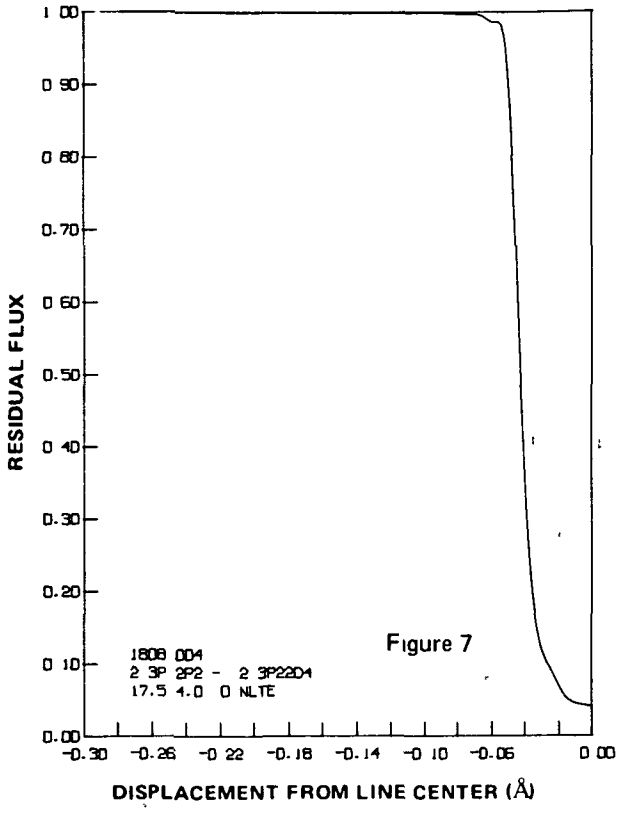


Figure 7

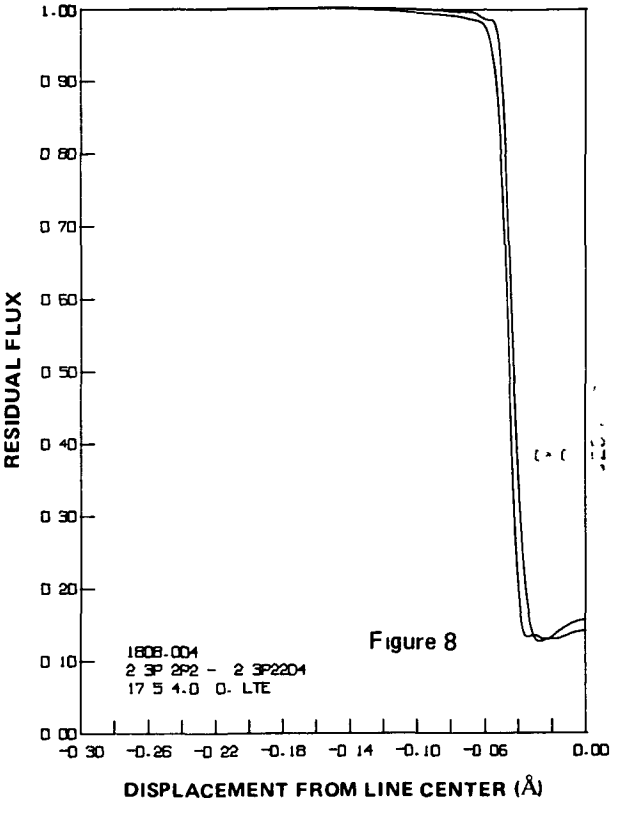


Figure 8

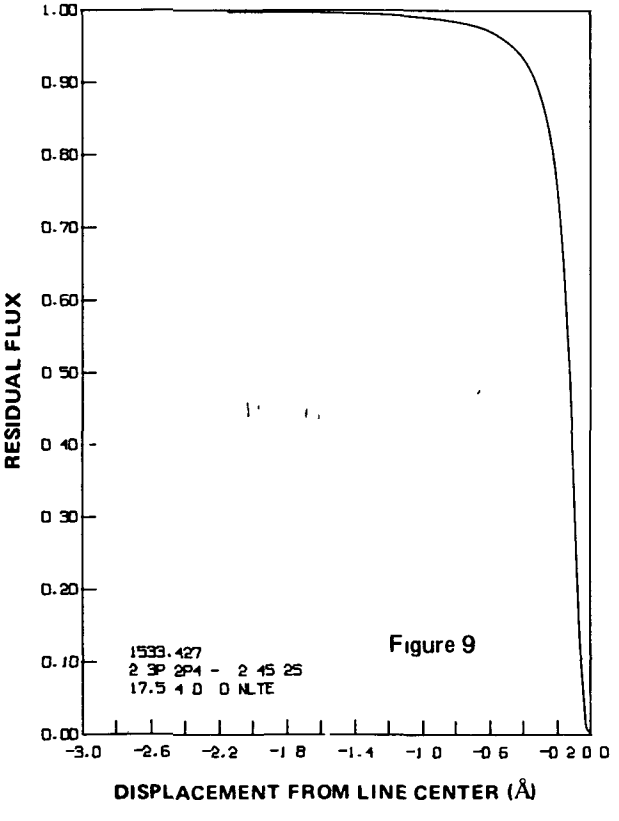


Figure 9

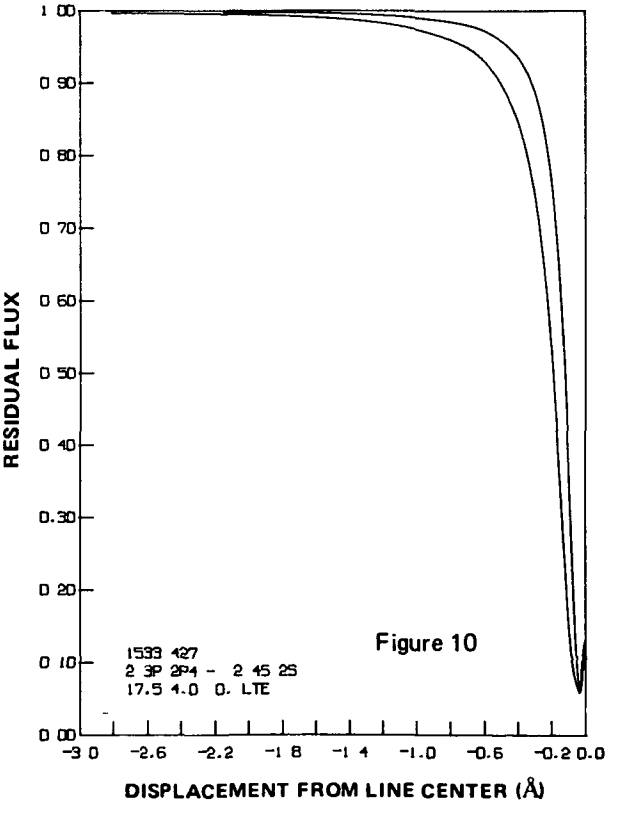


Figure 10

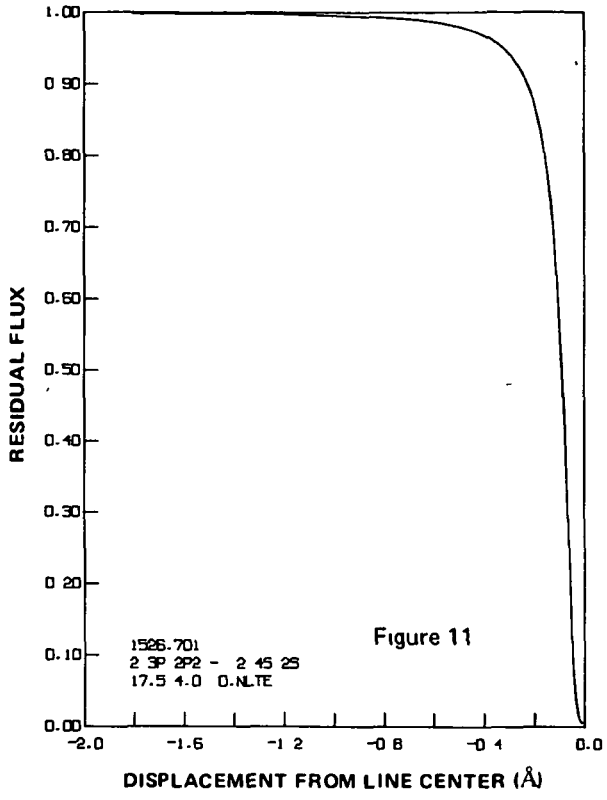
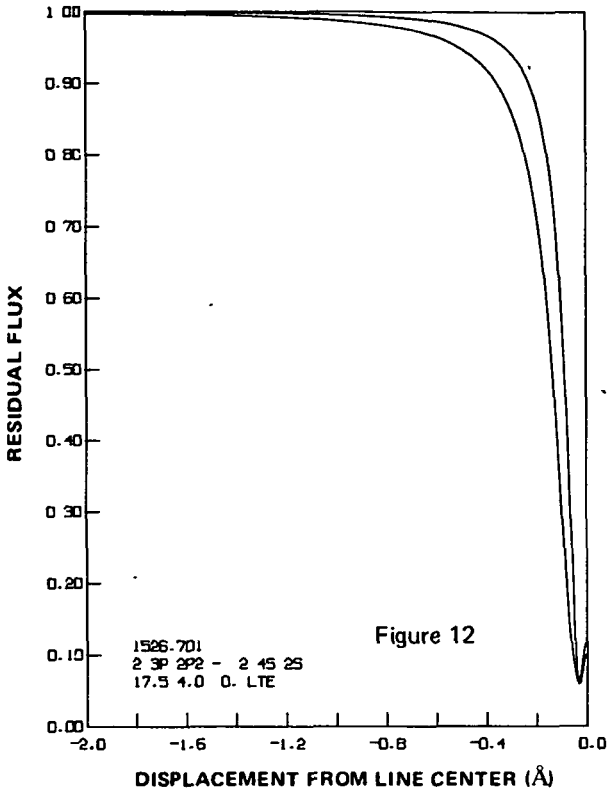


Figure 11



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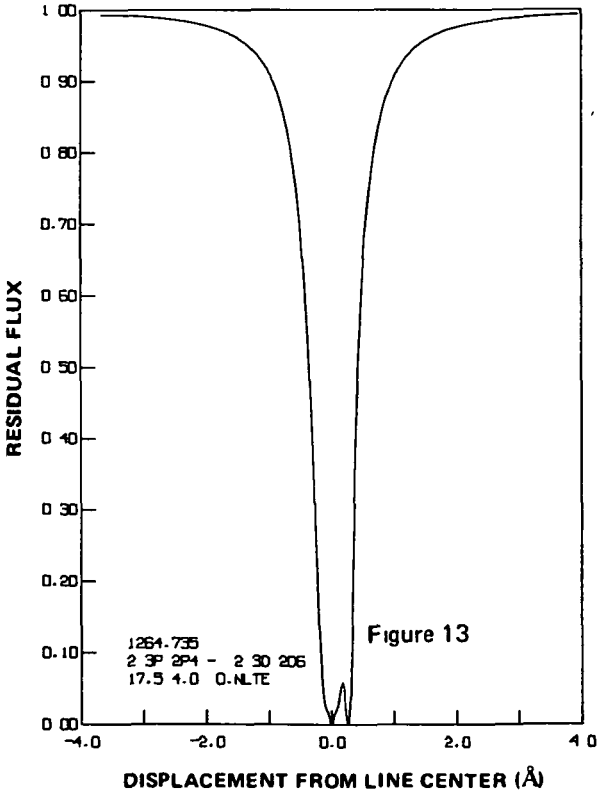

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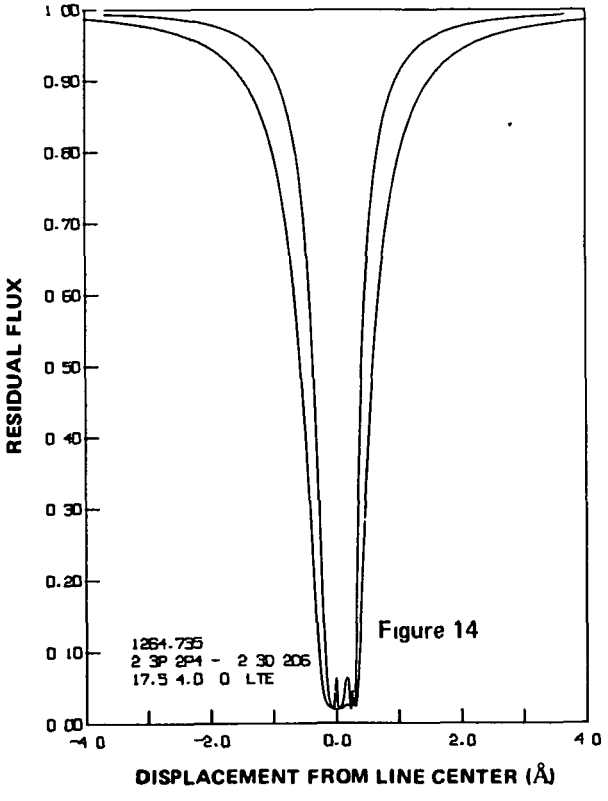

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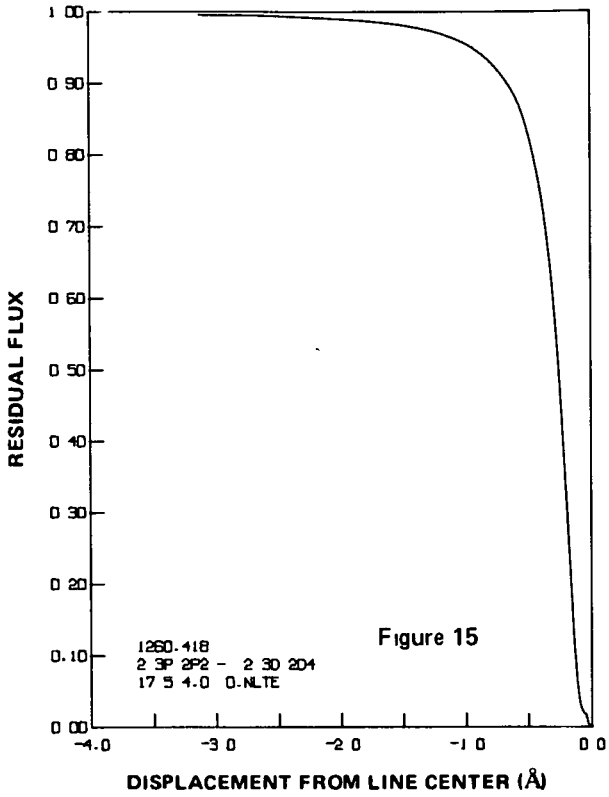

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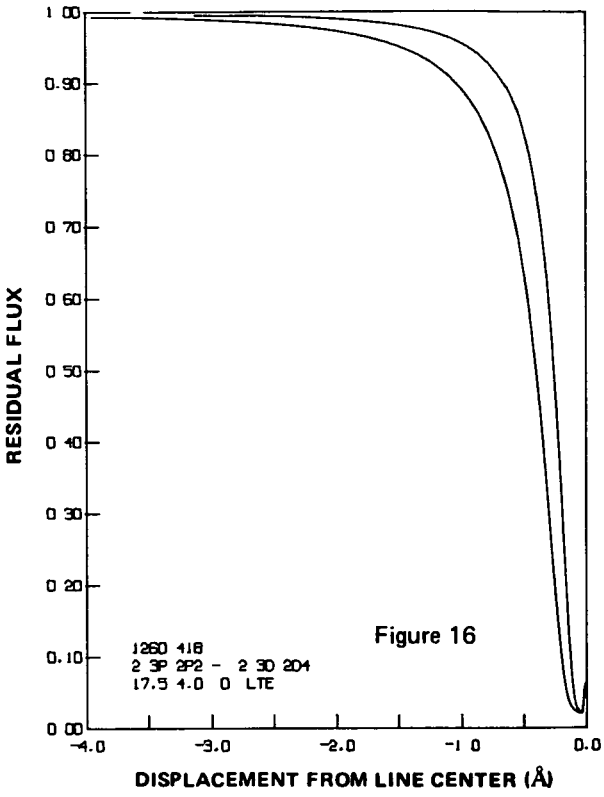

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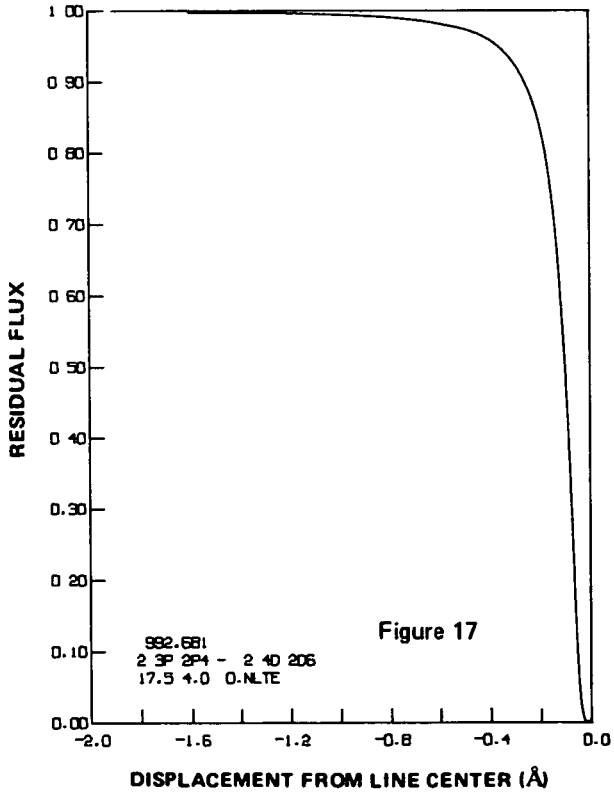

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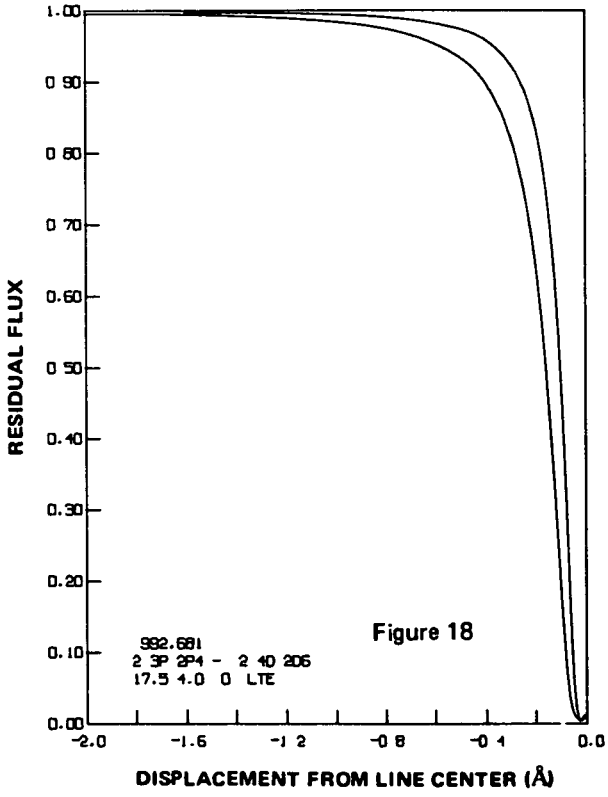

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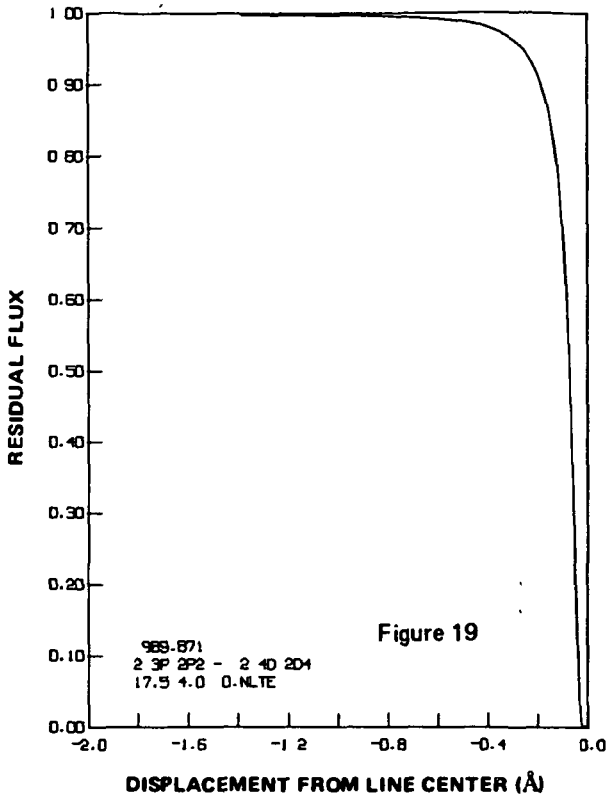

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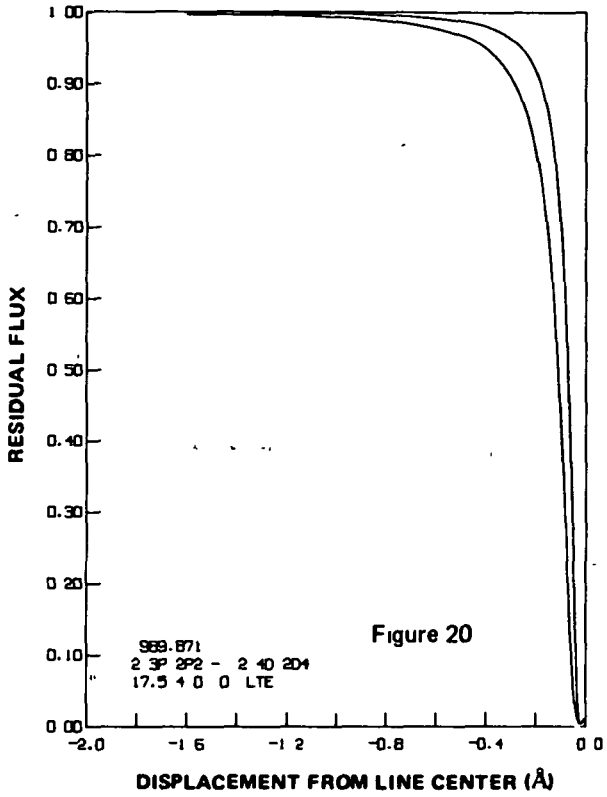

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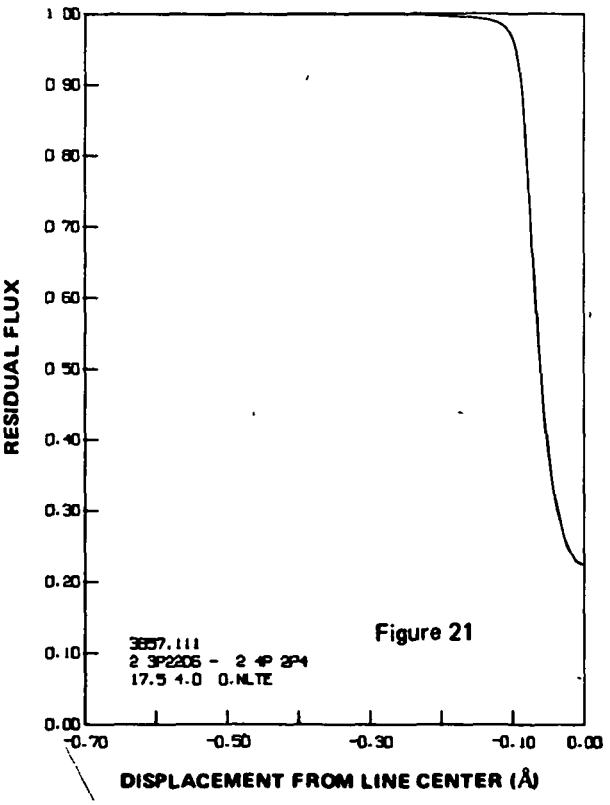

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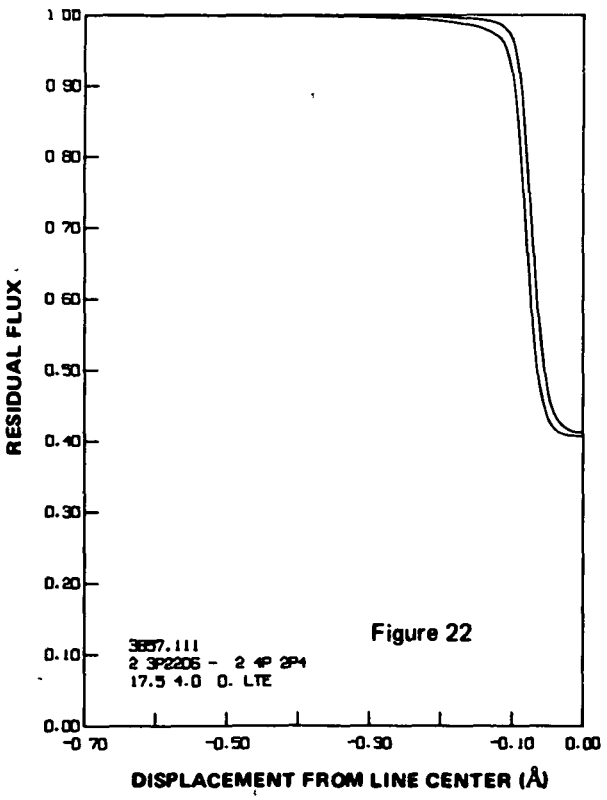

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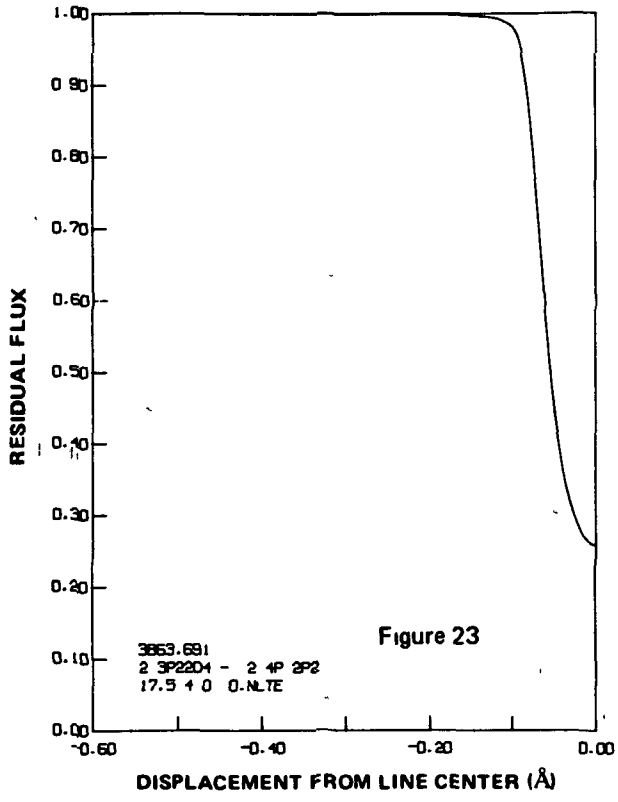

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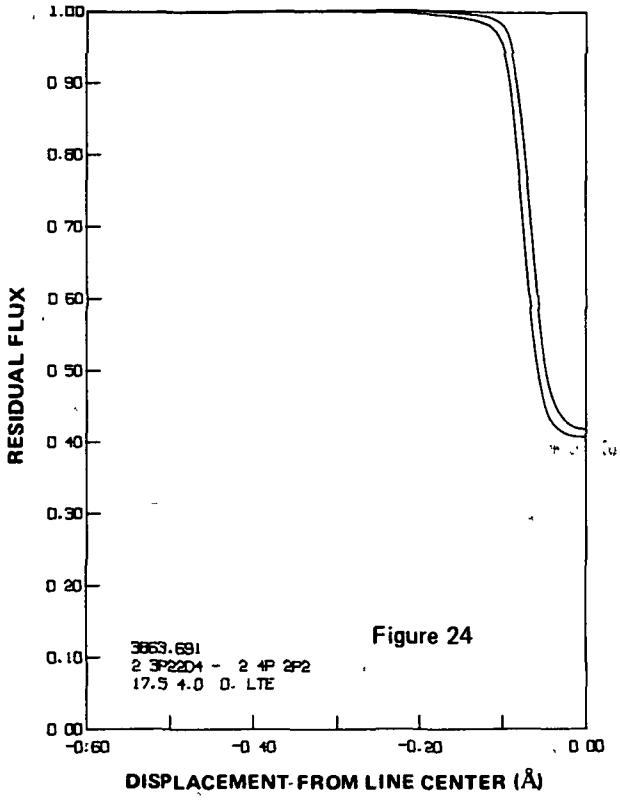

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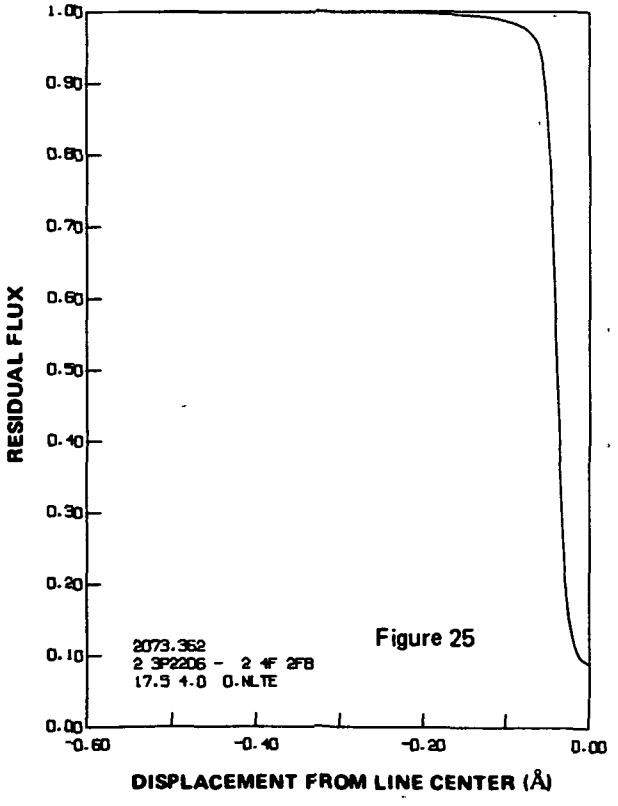

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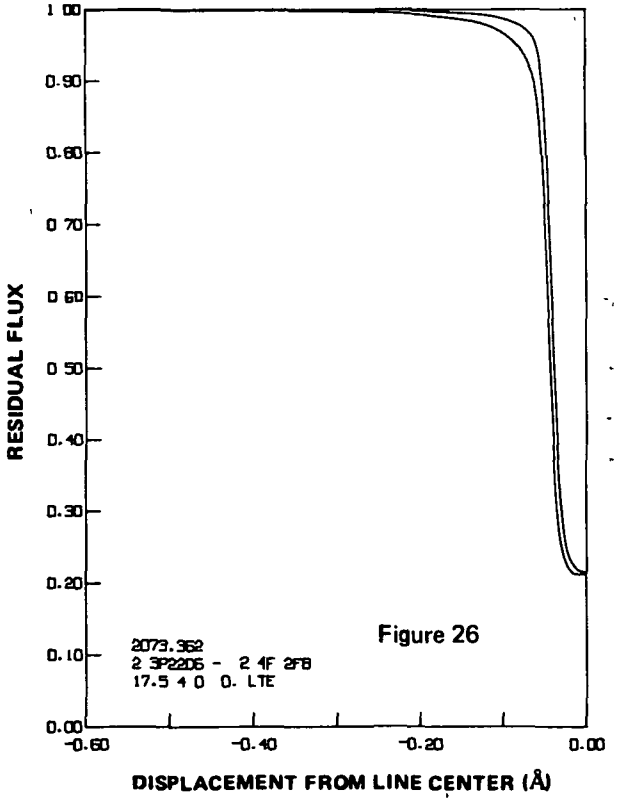

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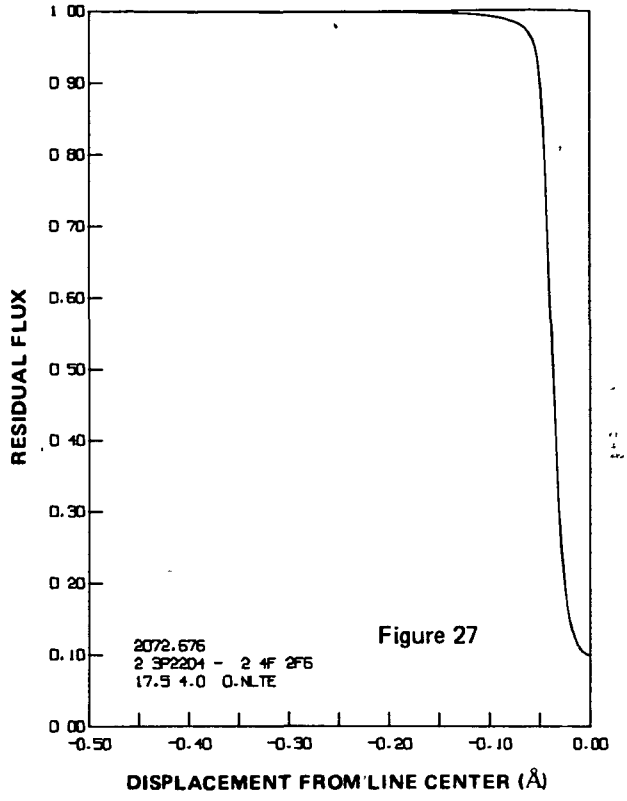

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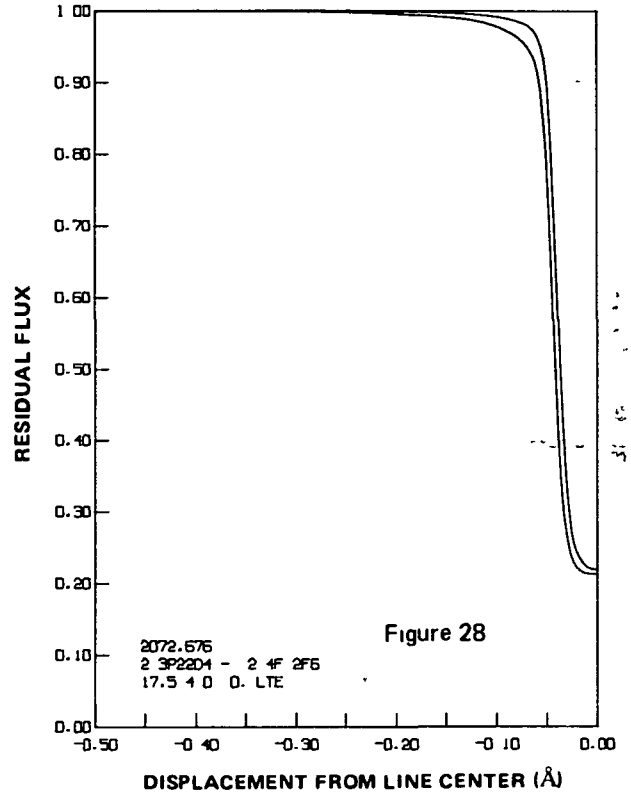

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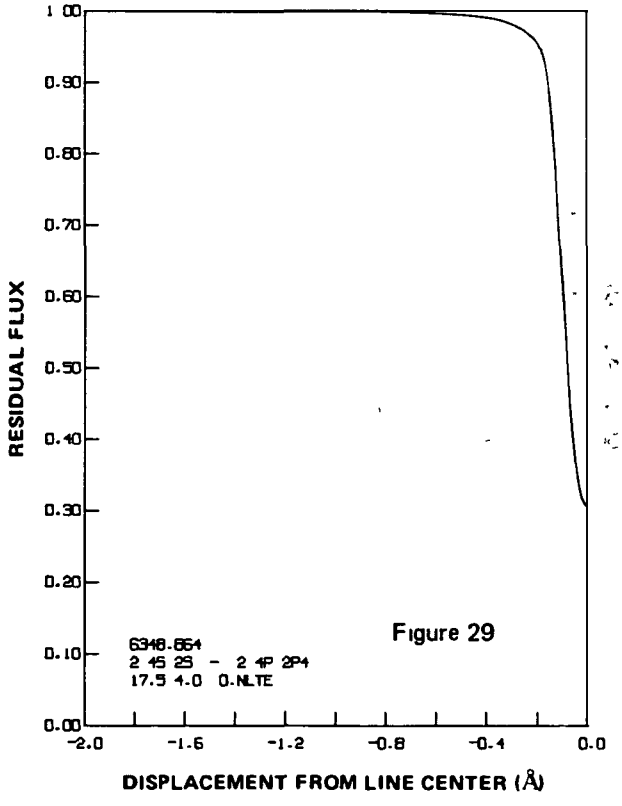

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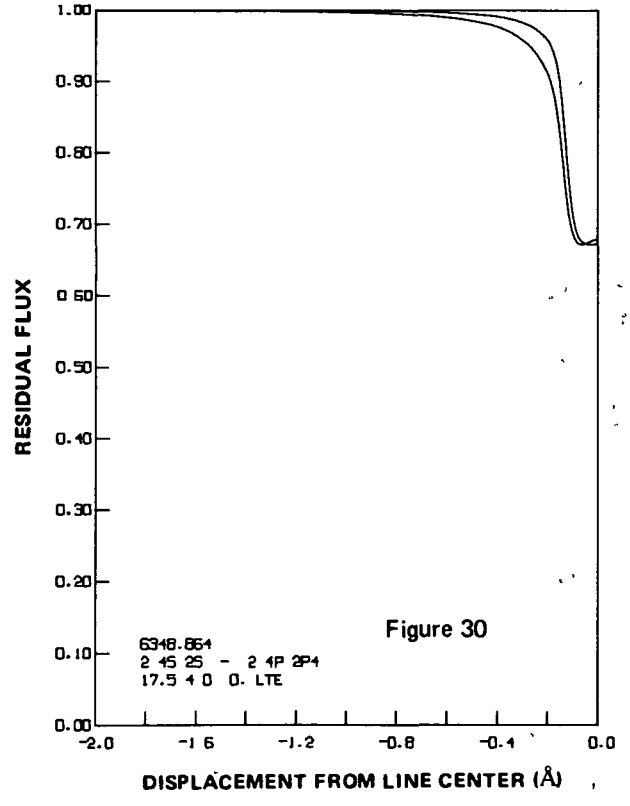

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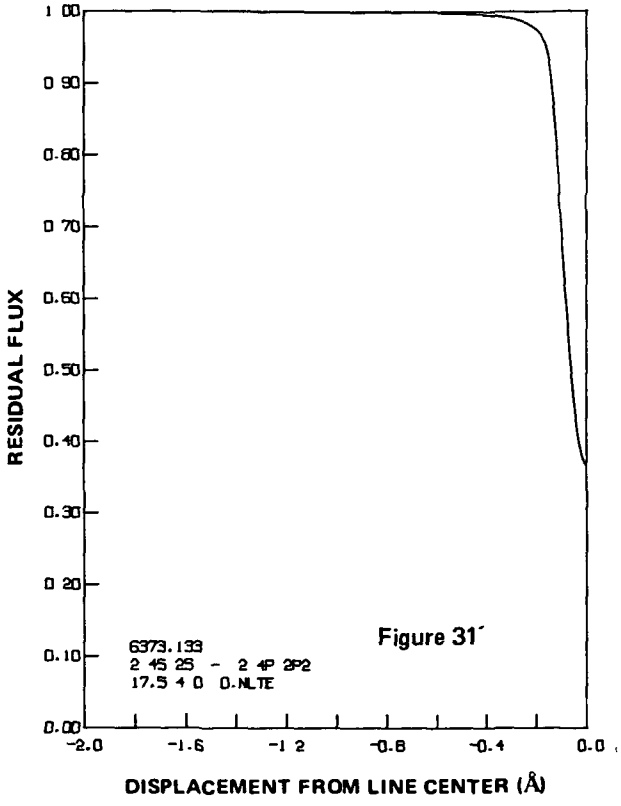

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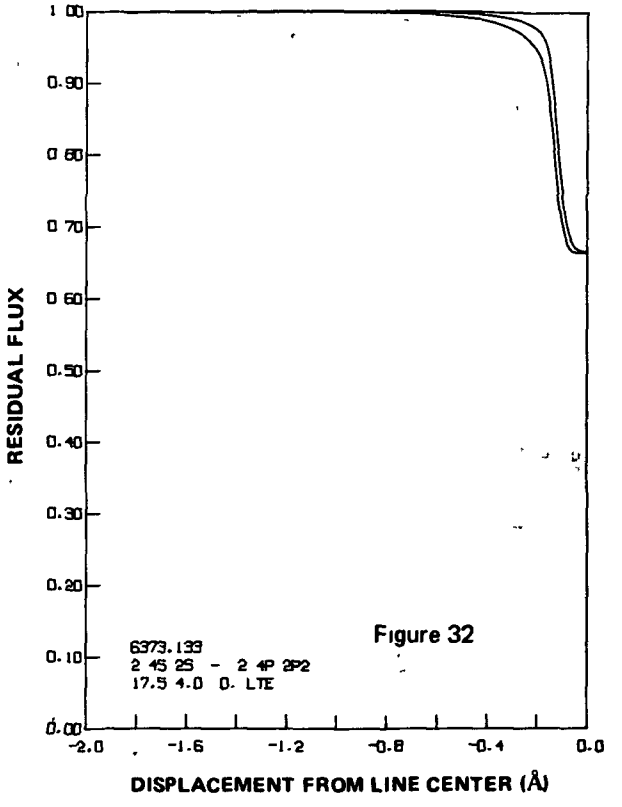

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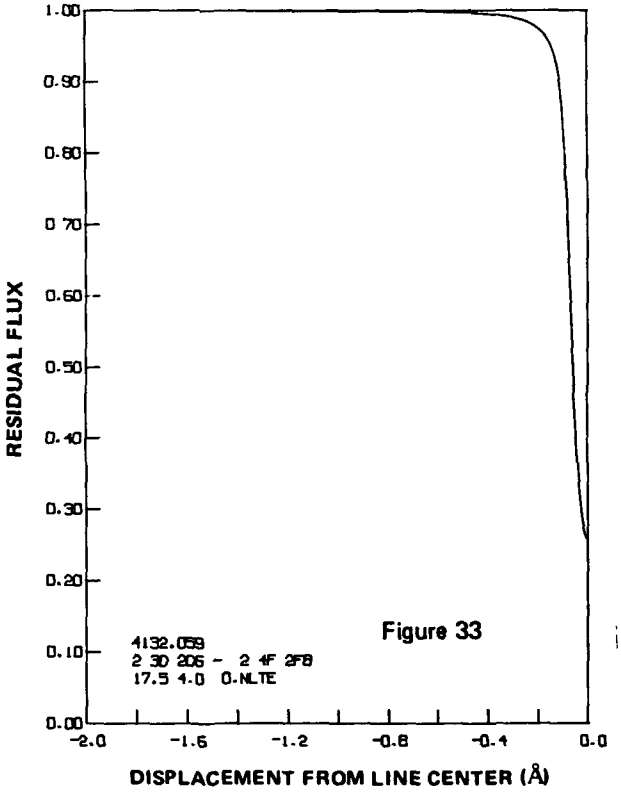

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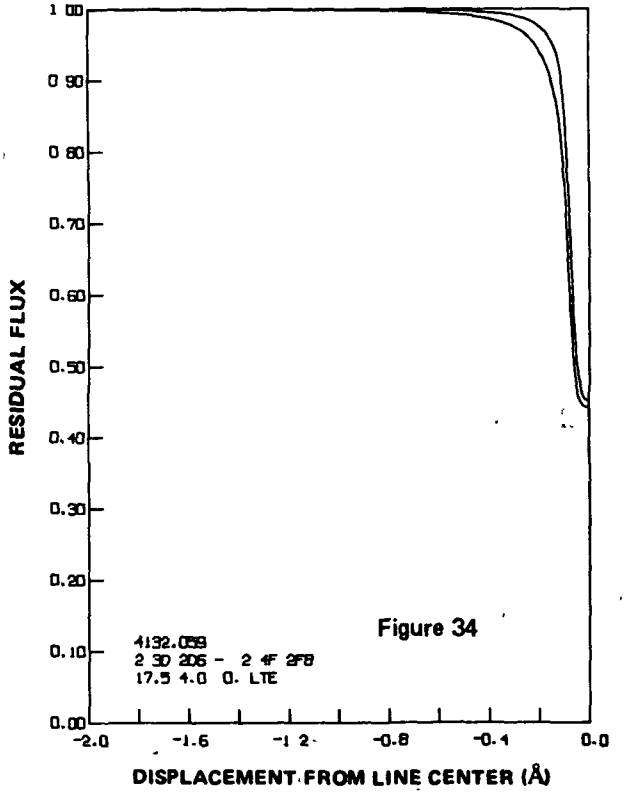

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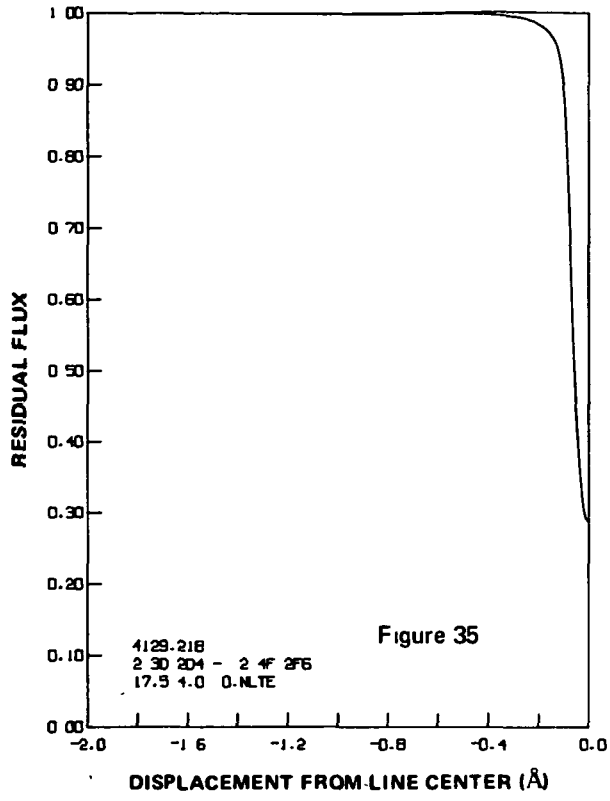

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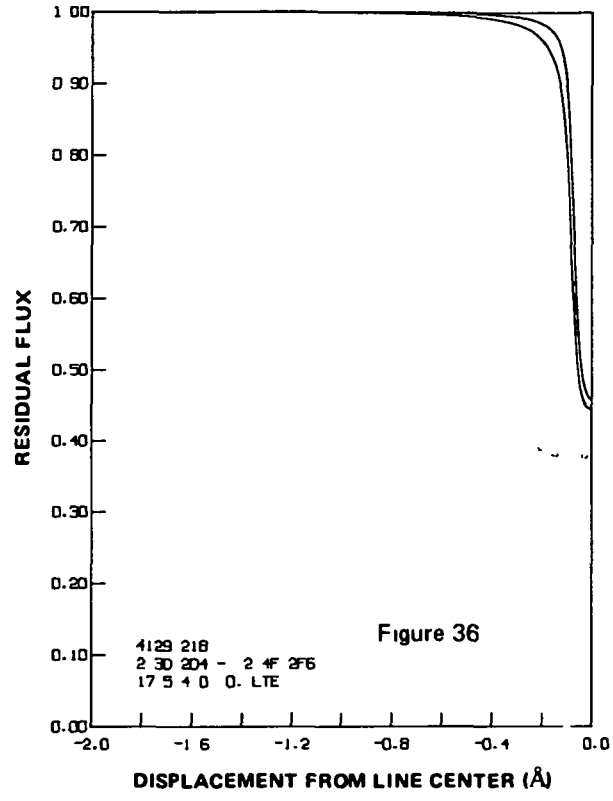

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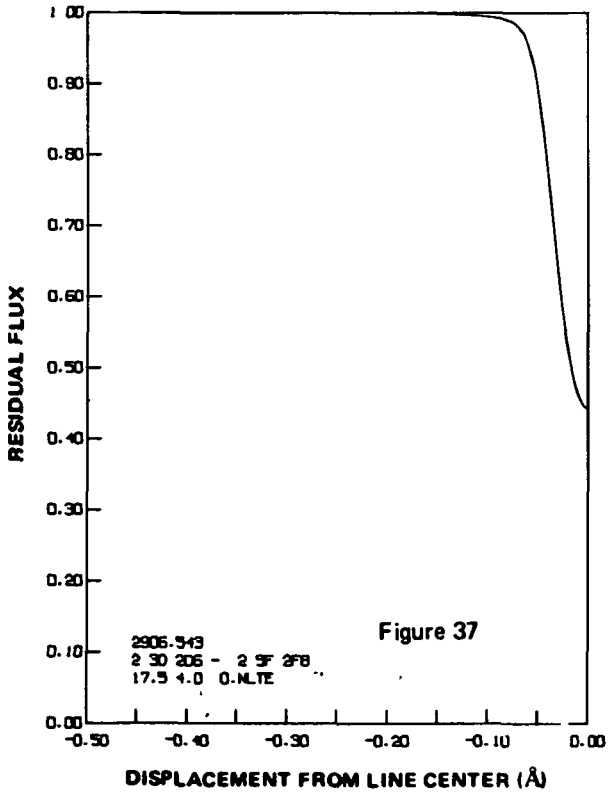

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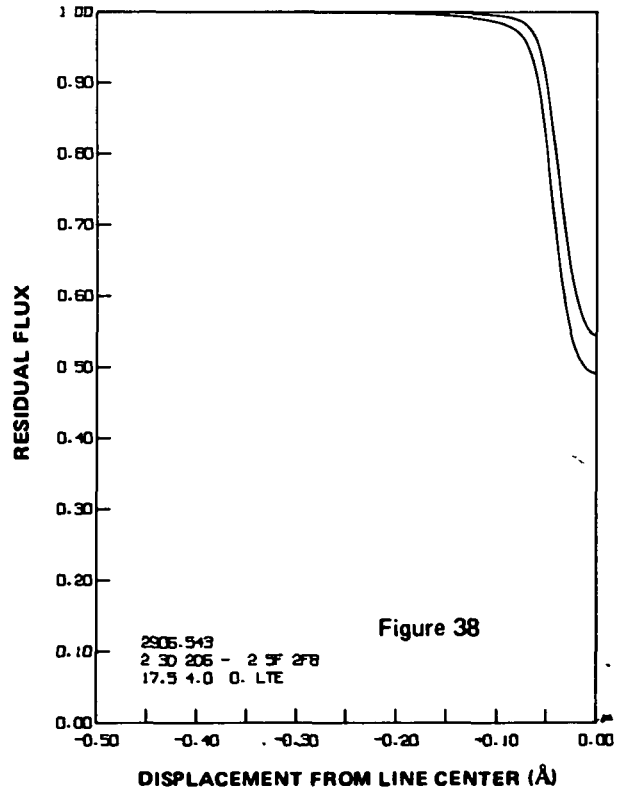

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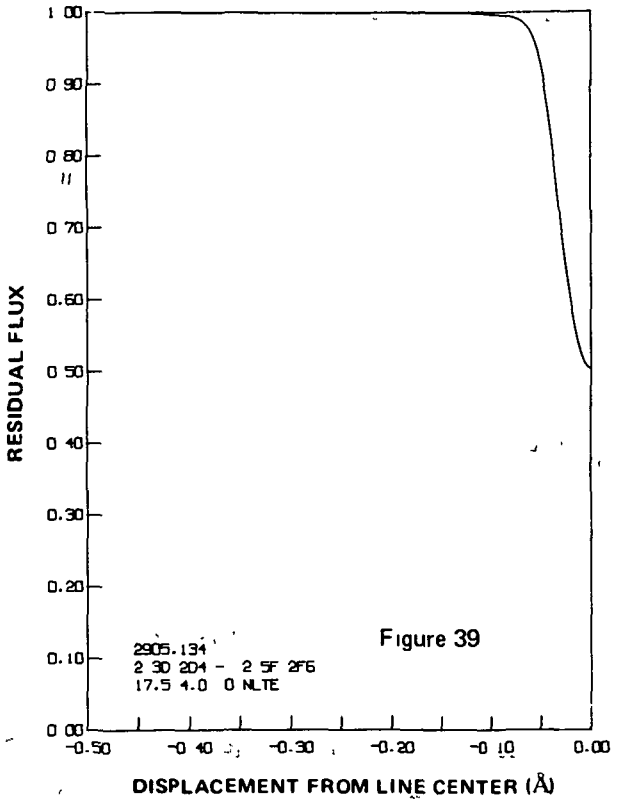

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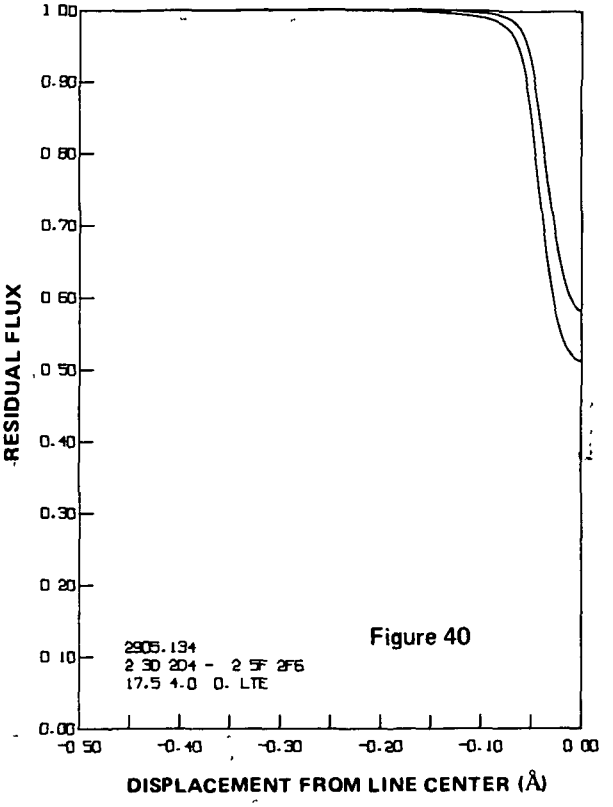

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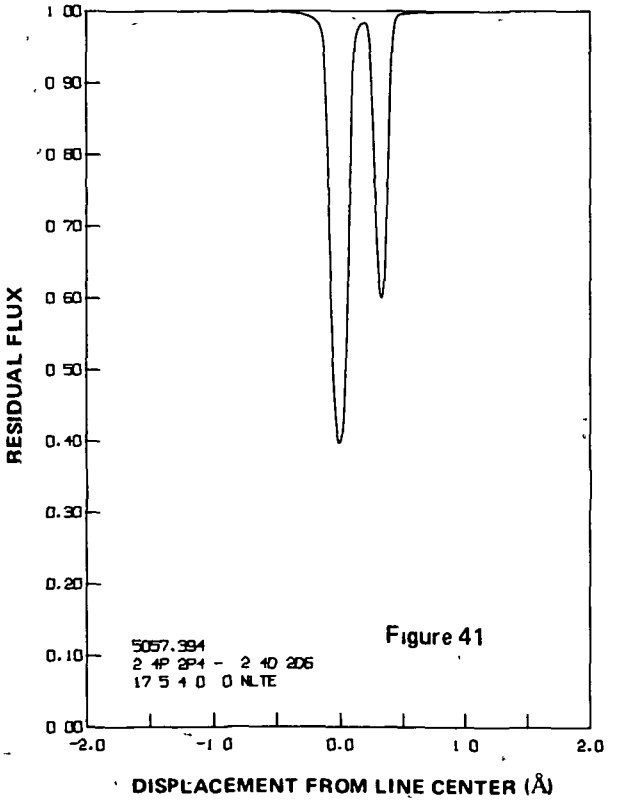

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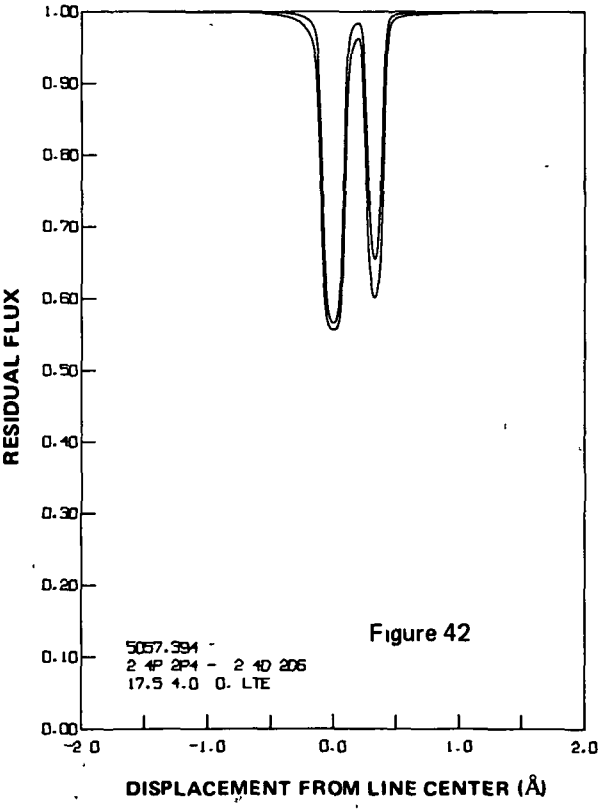

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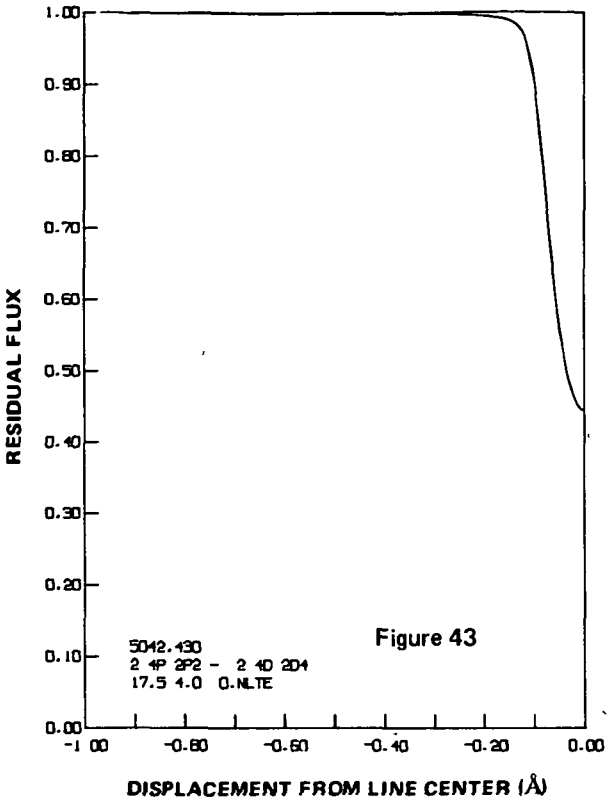


Figure 43

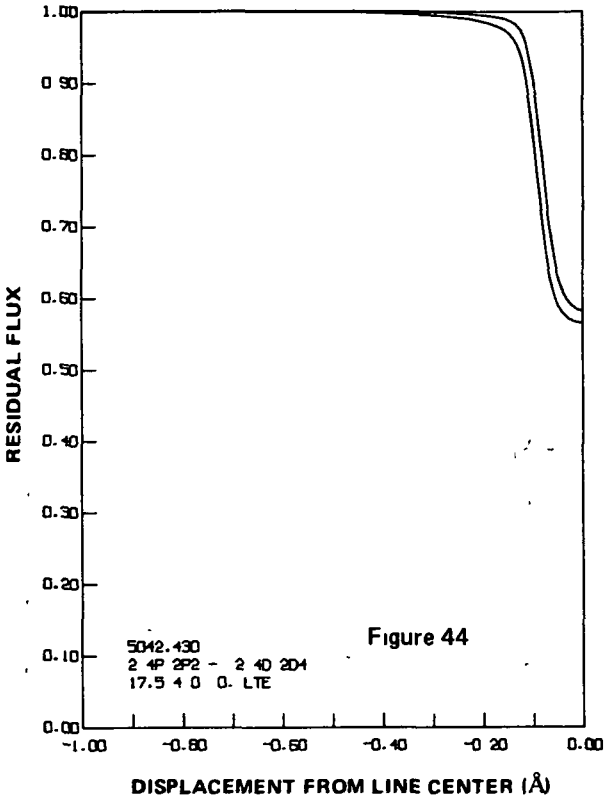


Figure 44

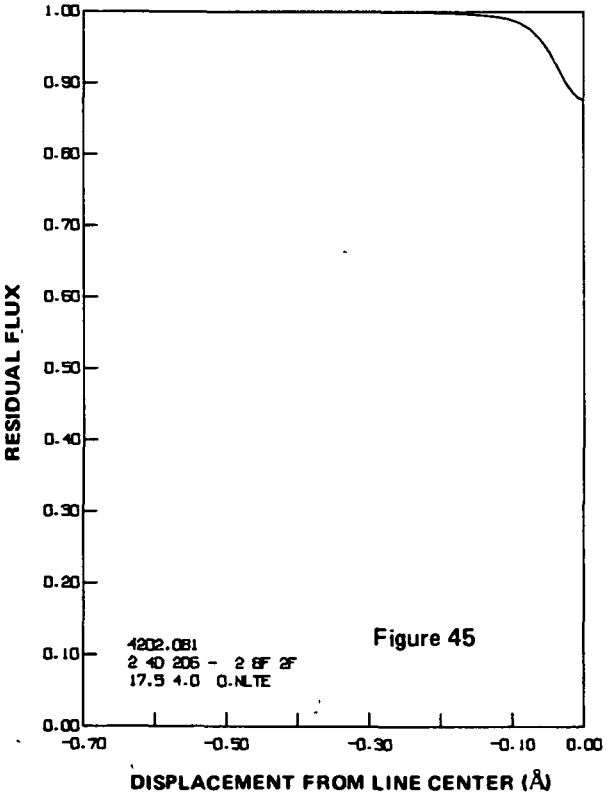


Figure 45

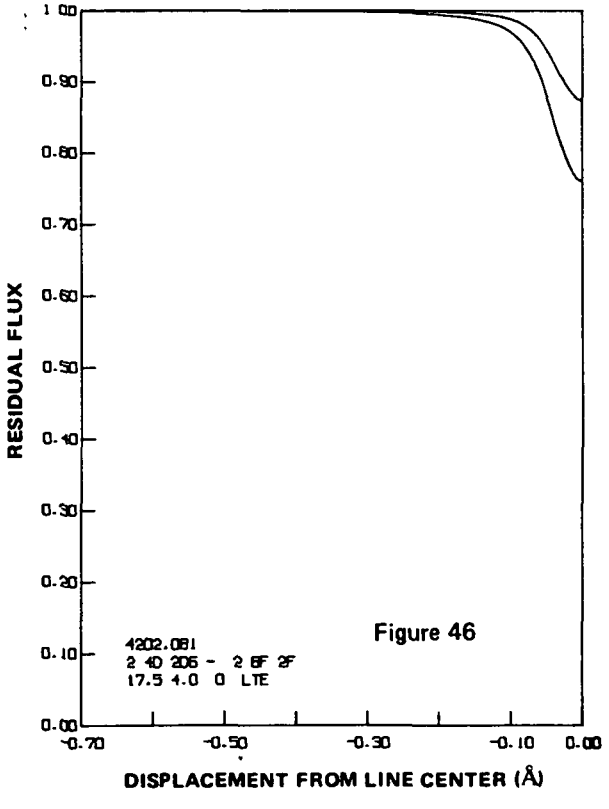


Figure 46

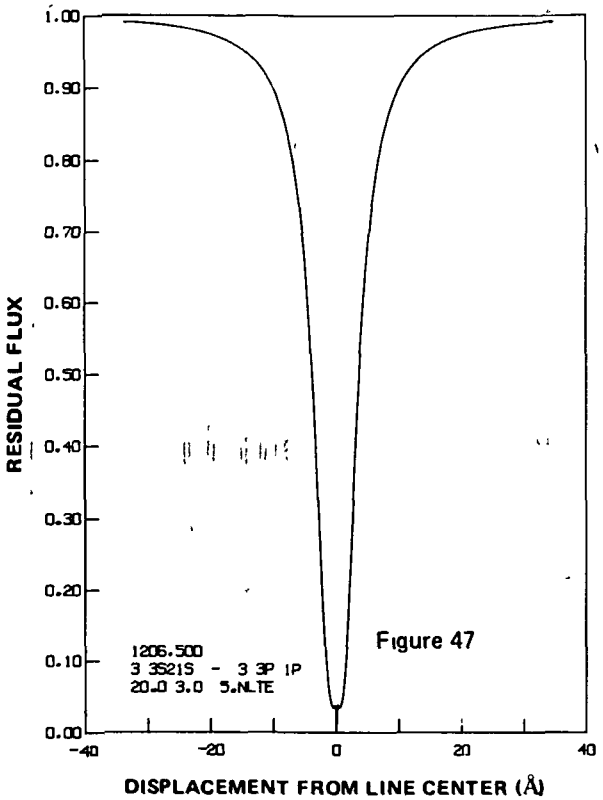
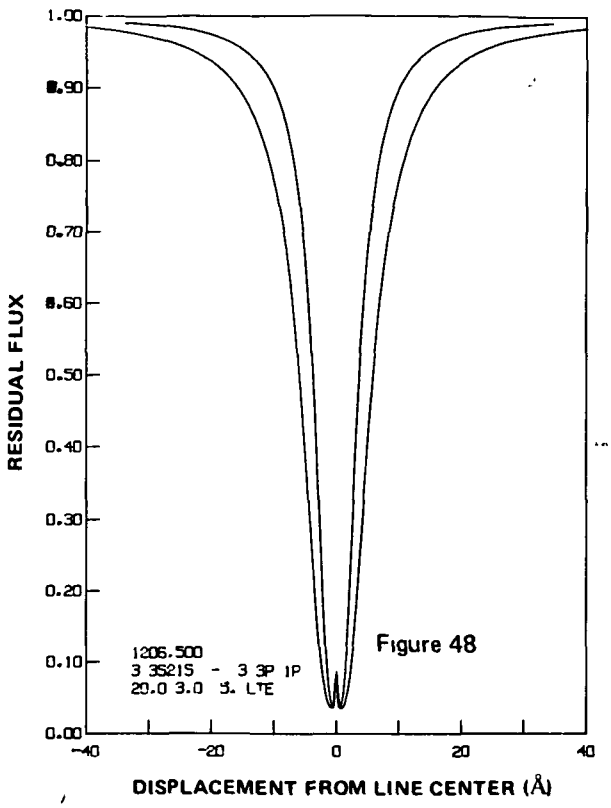


Figure 47



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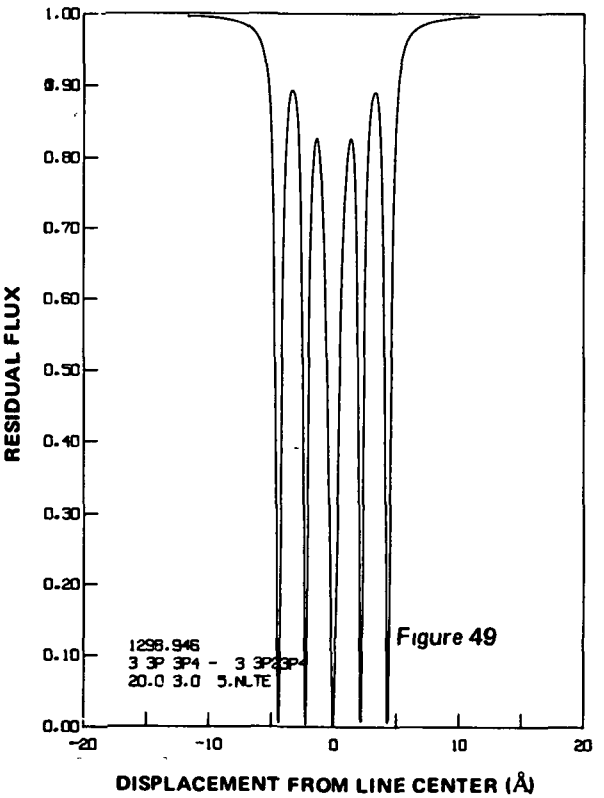

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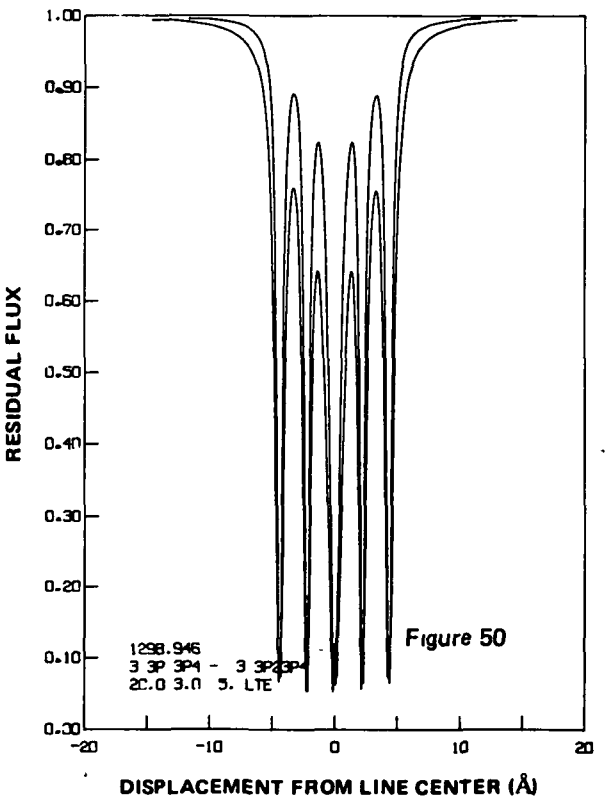
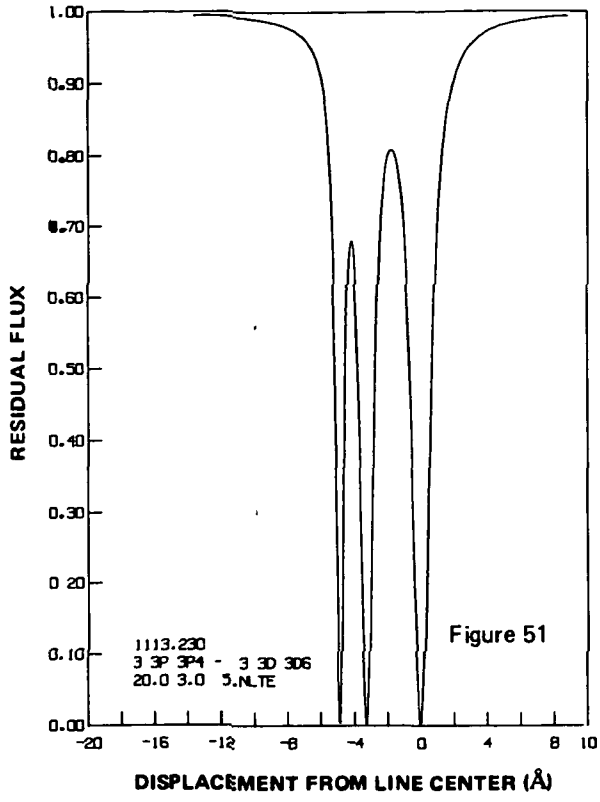


Figure 50



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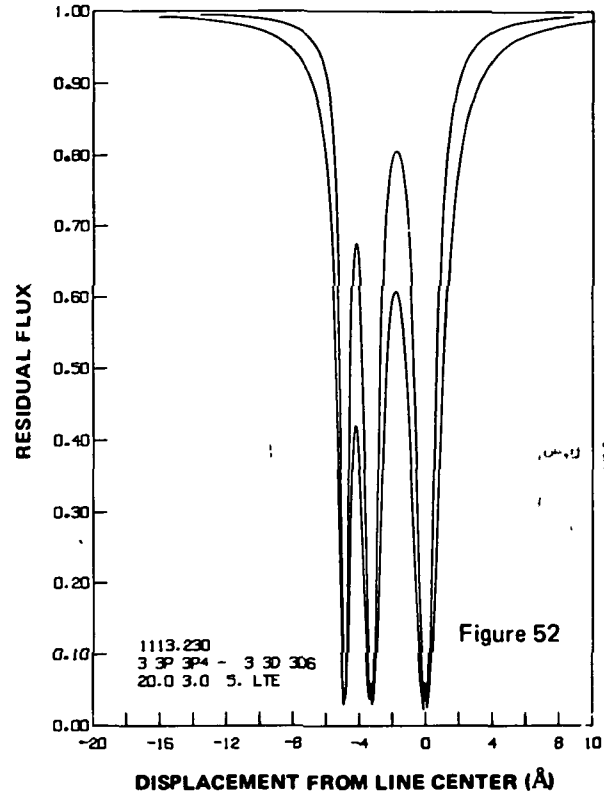

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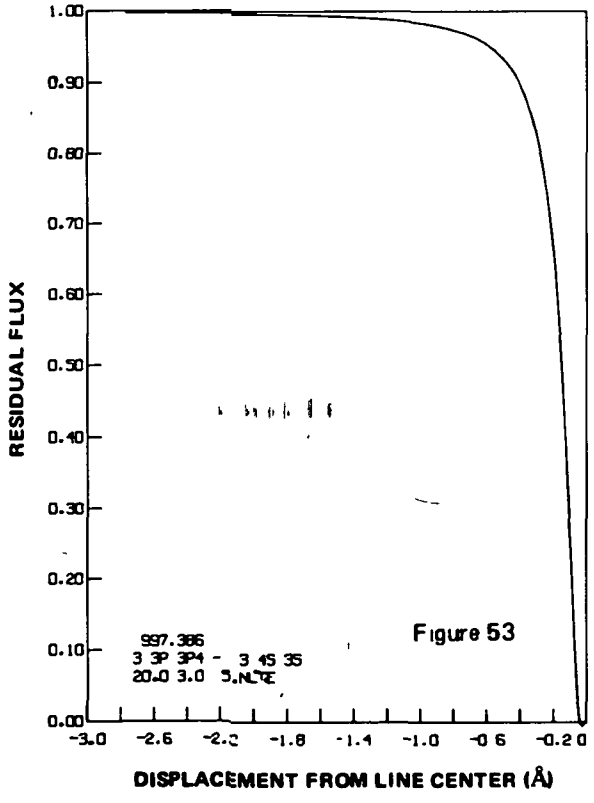

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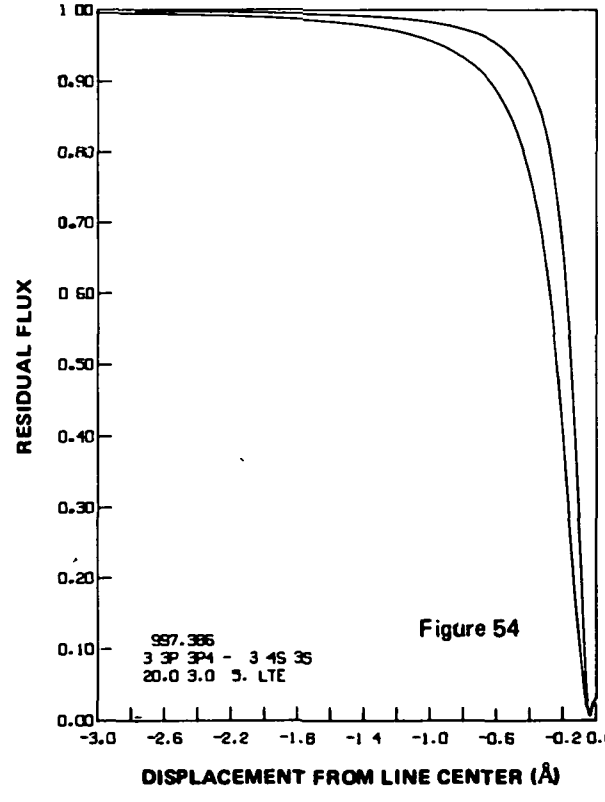

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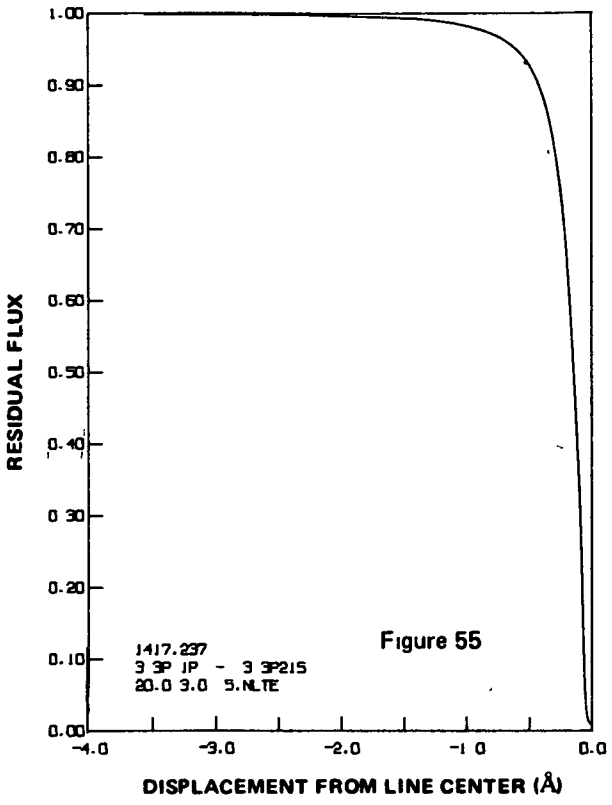

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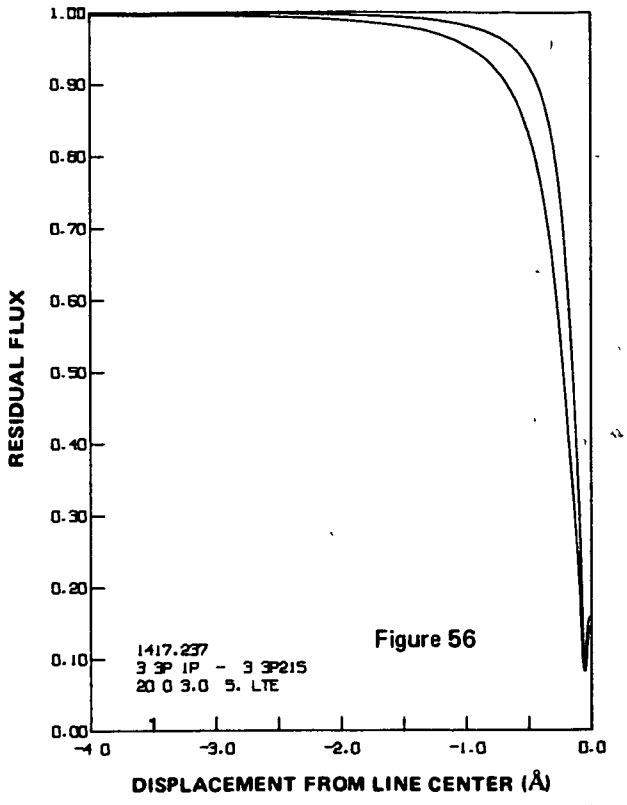

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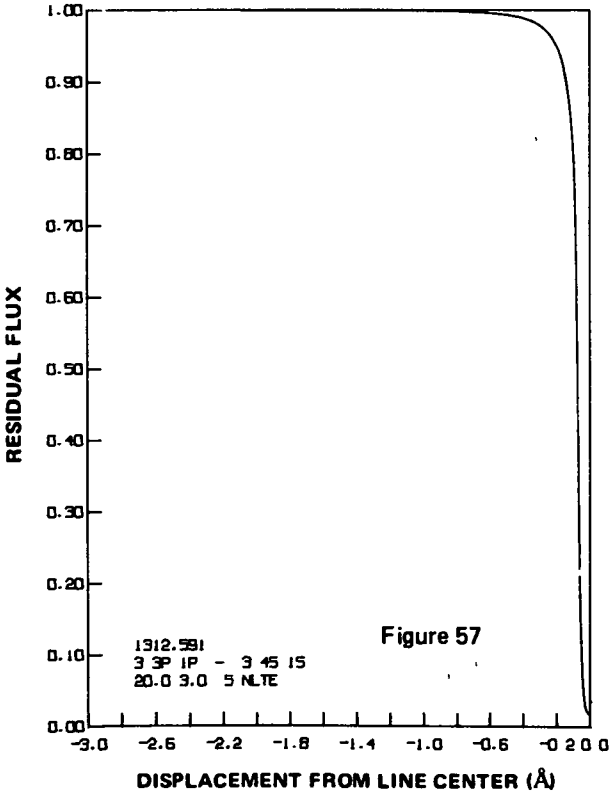

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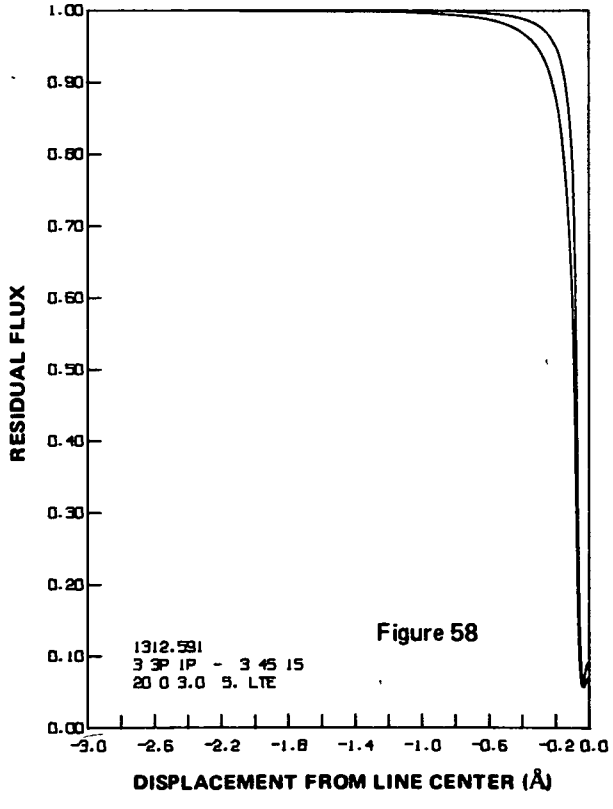

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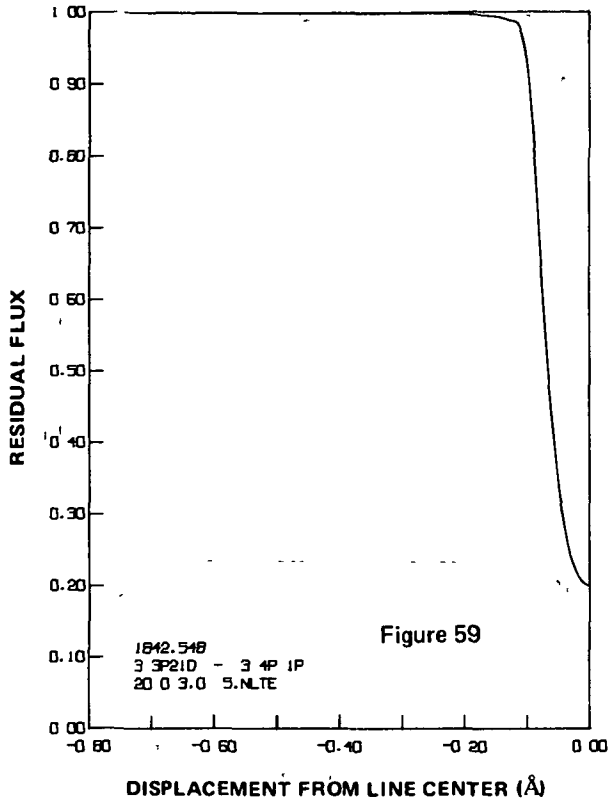

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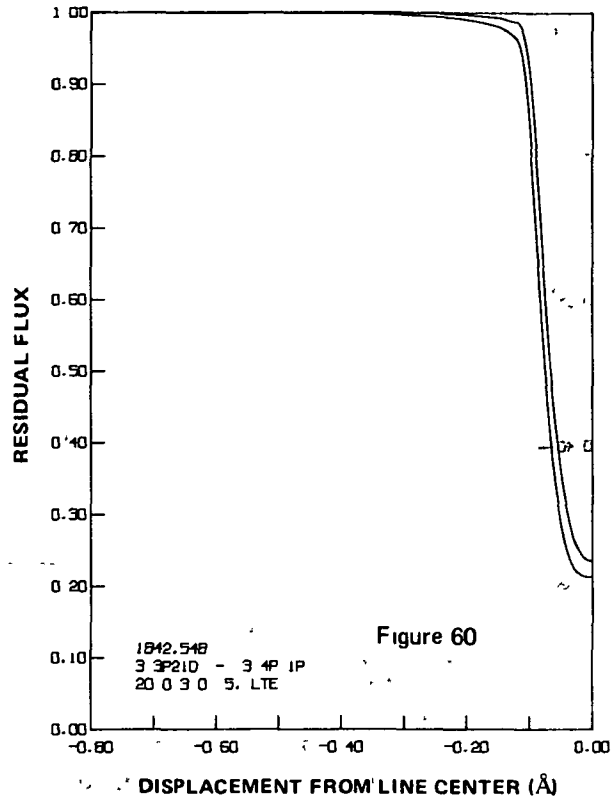

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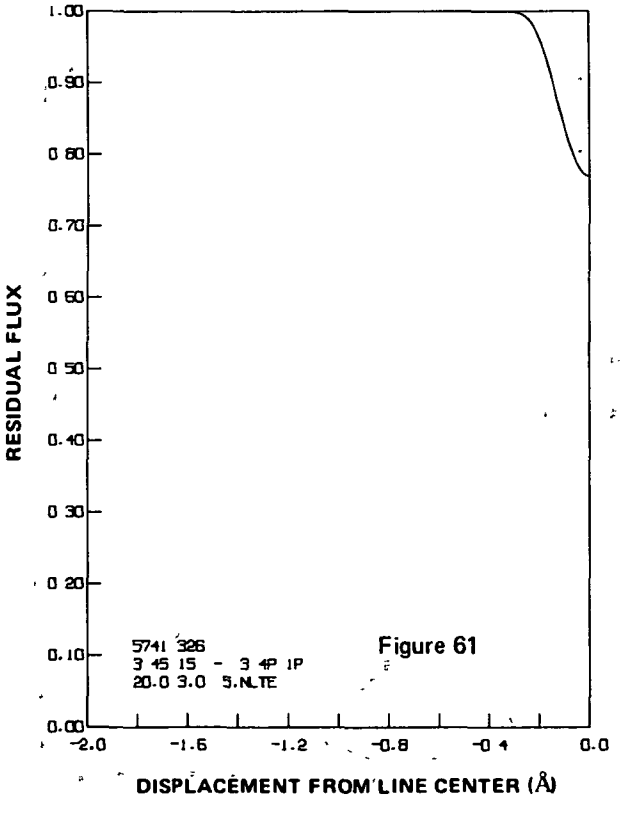

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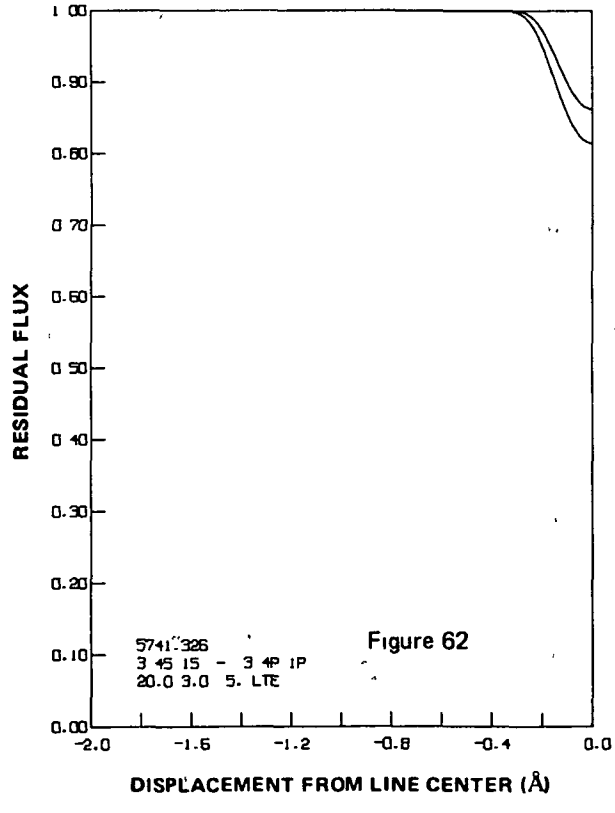

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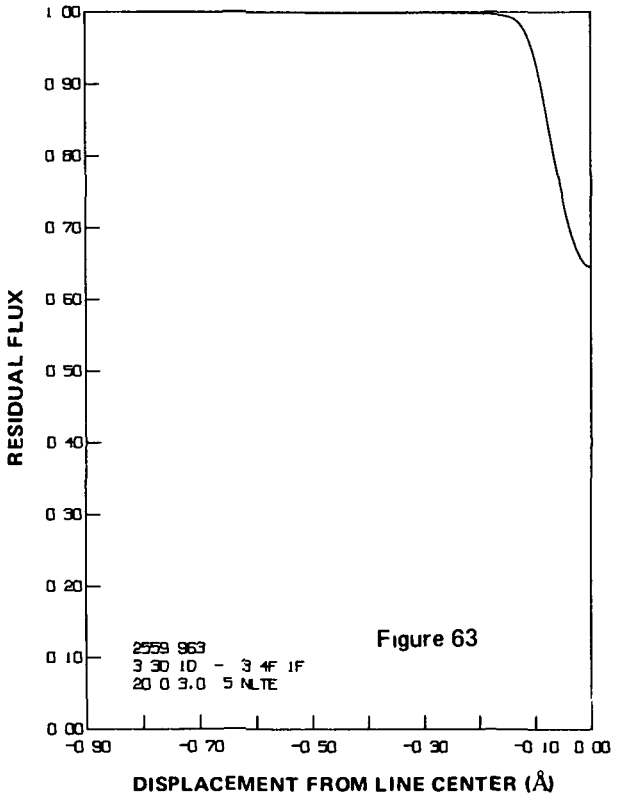

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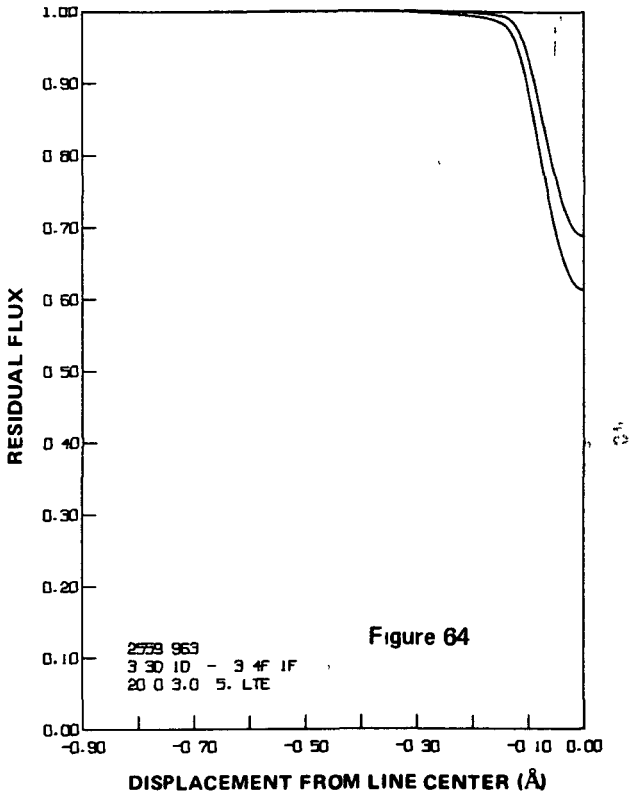

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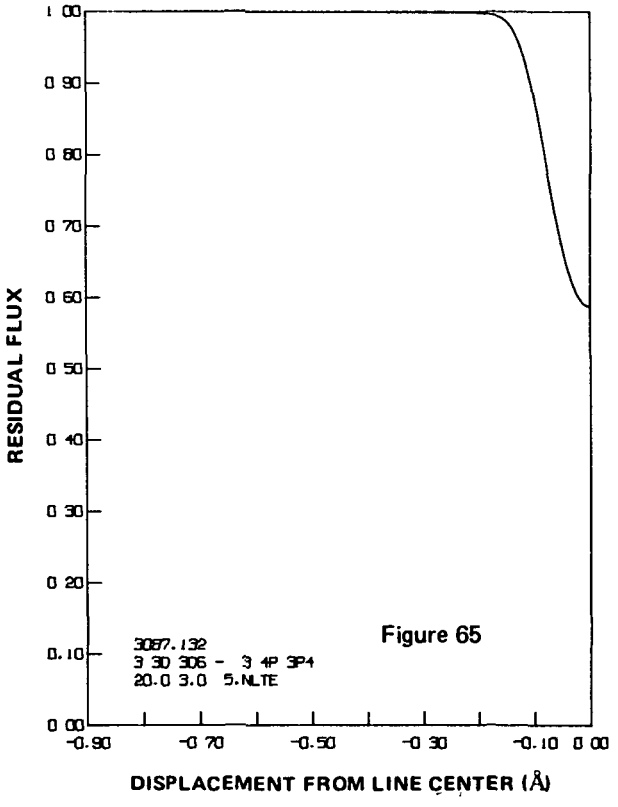

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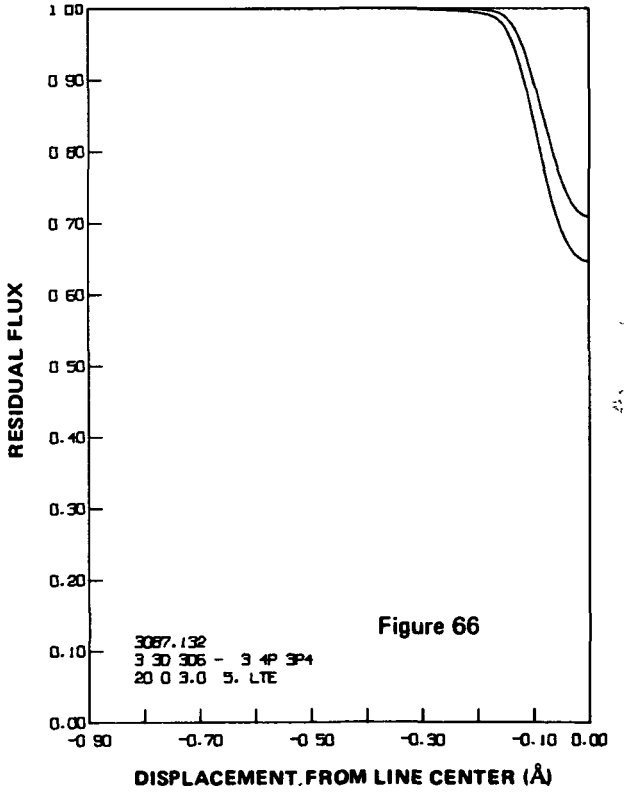

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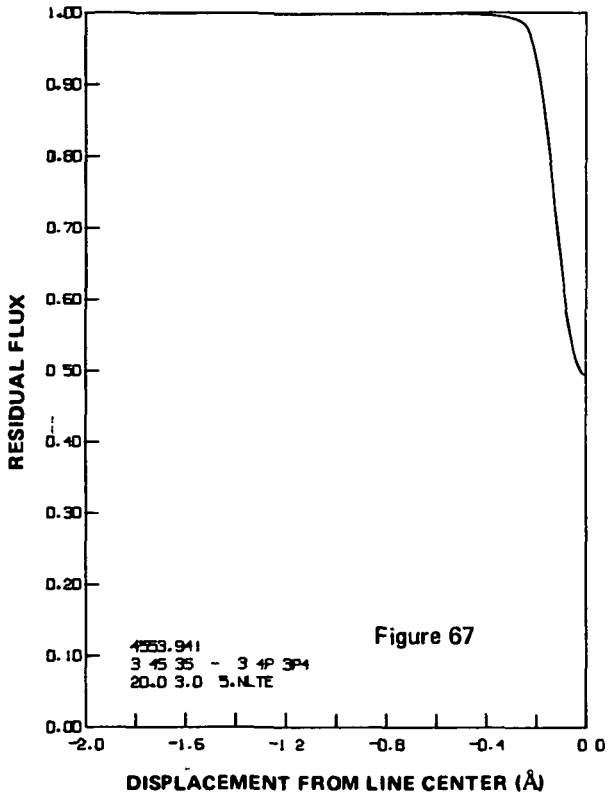

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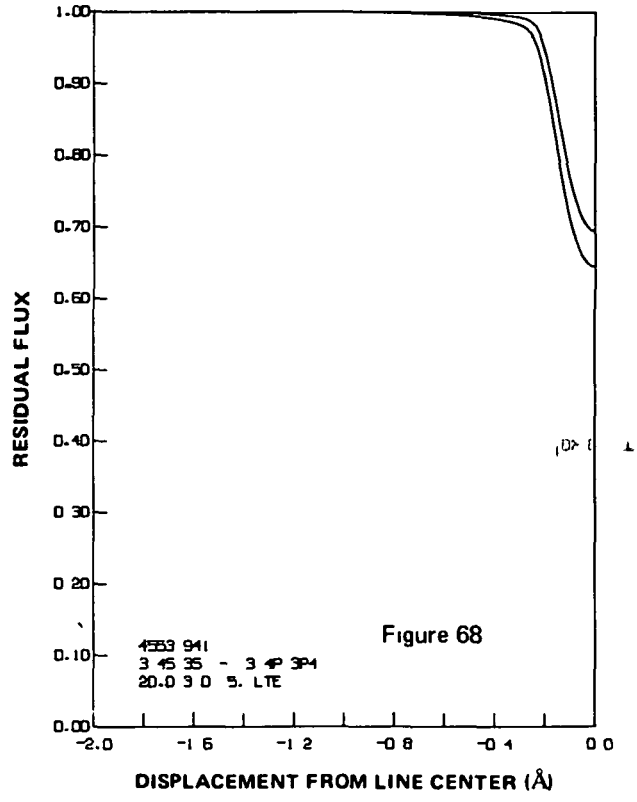

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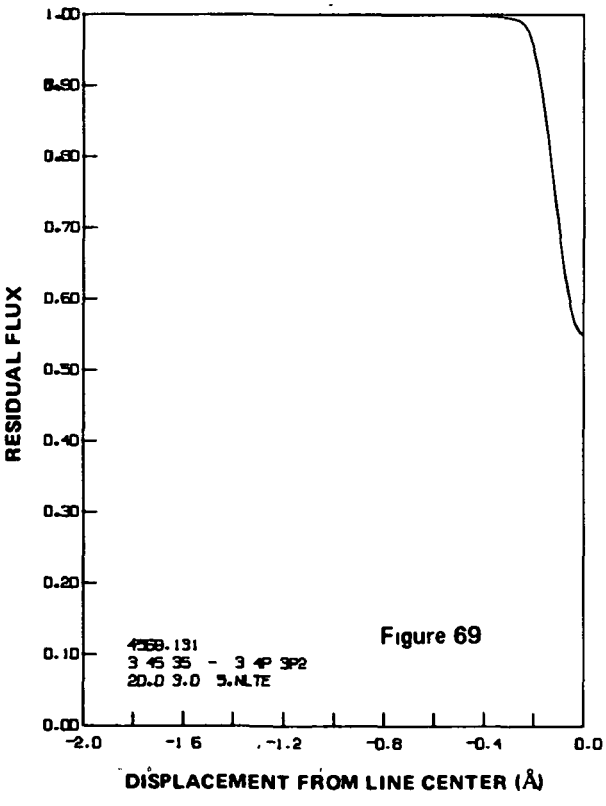

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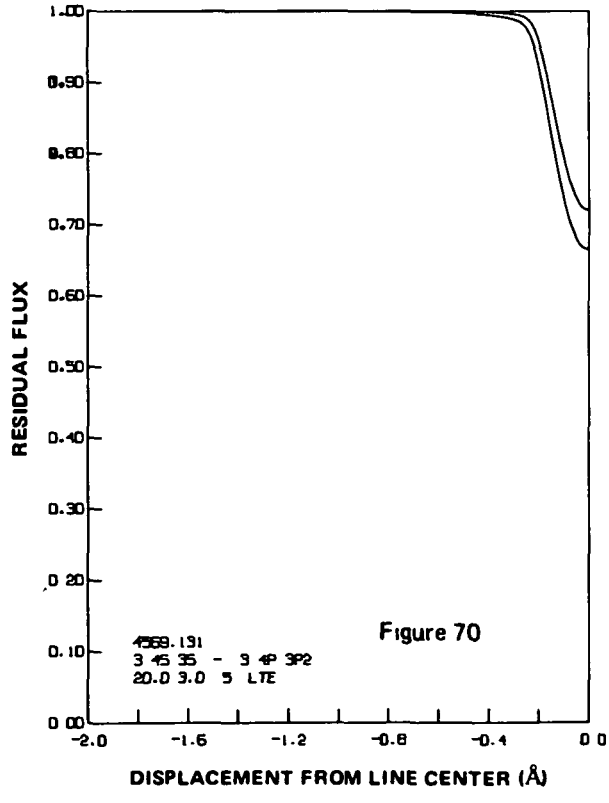

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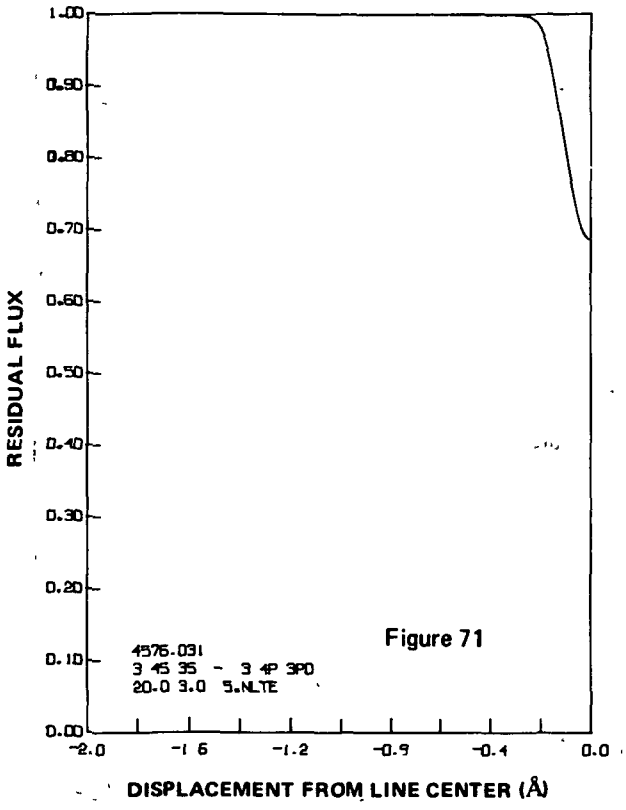

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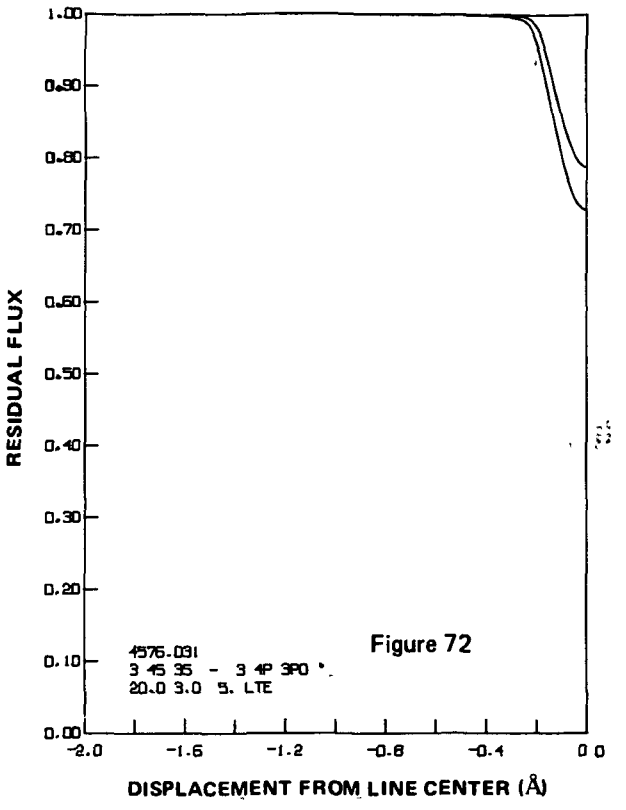

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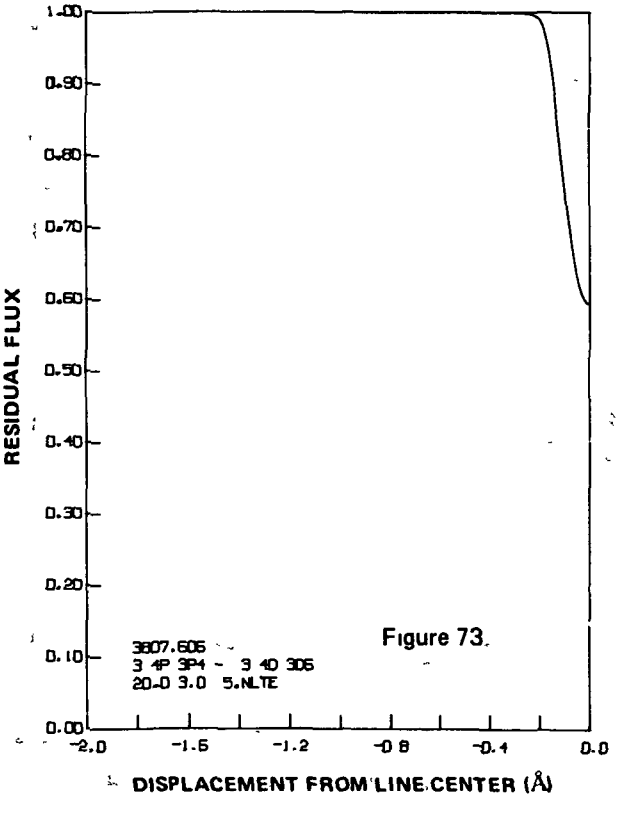

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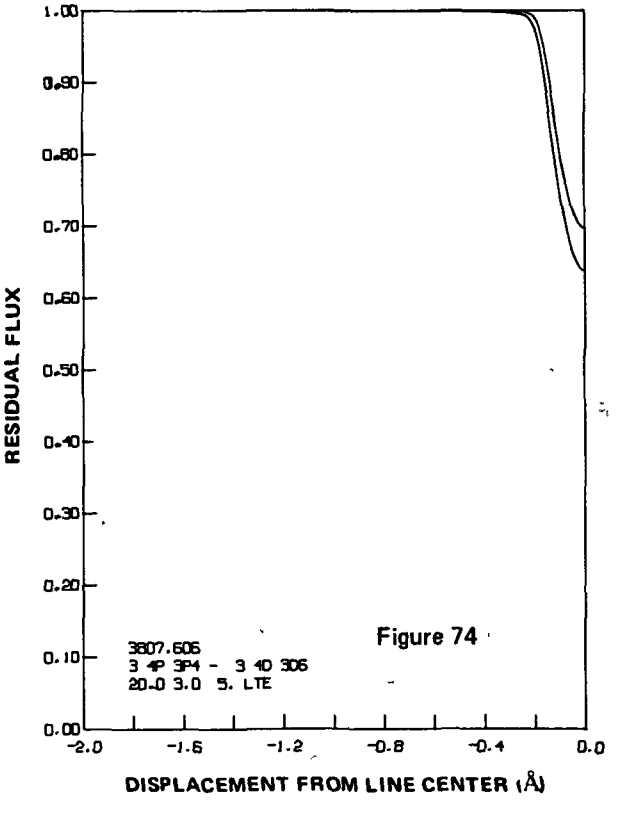

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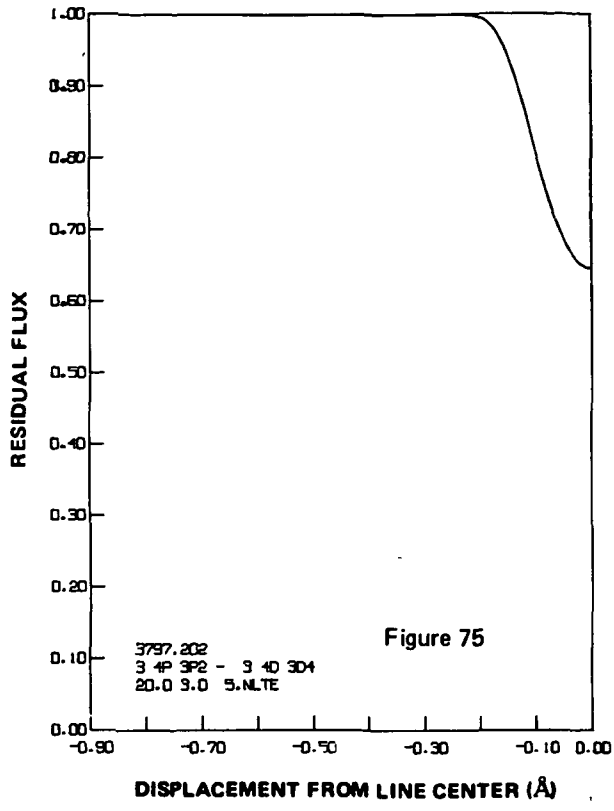

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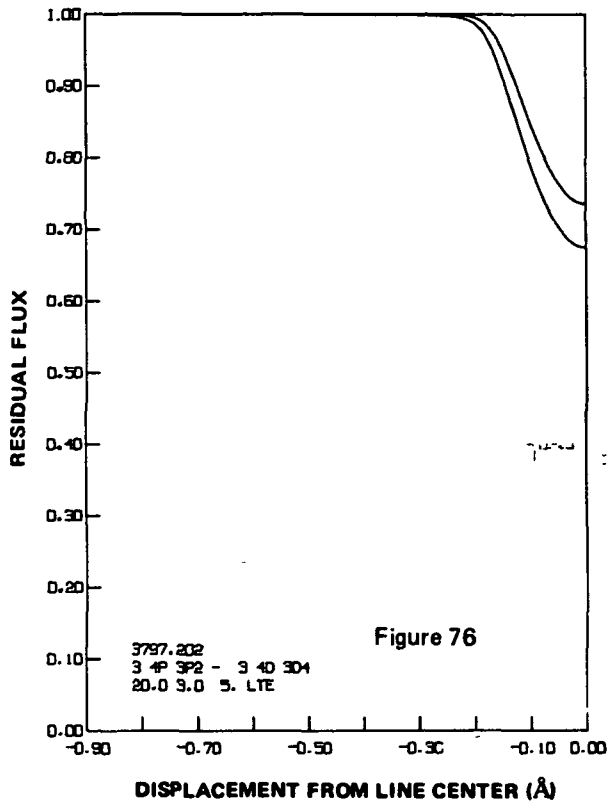

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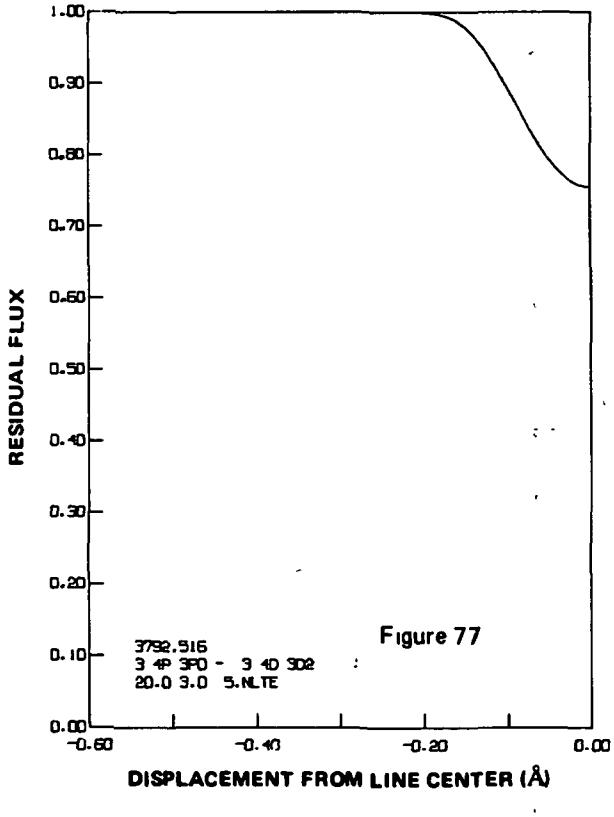

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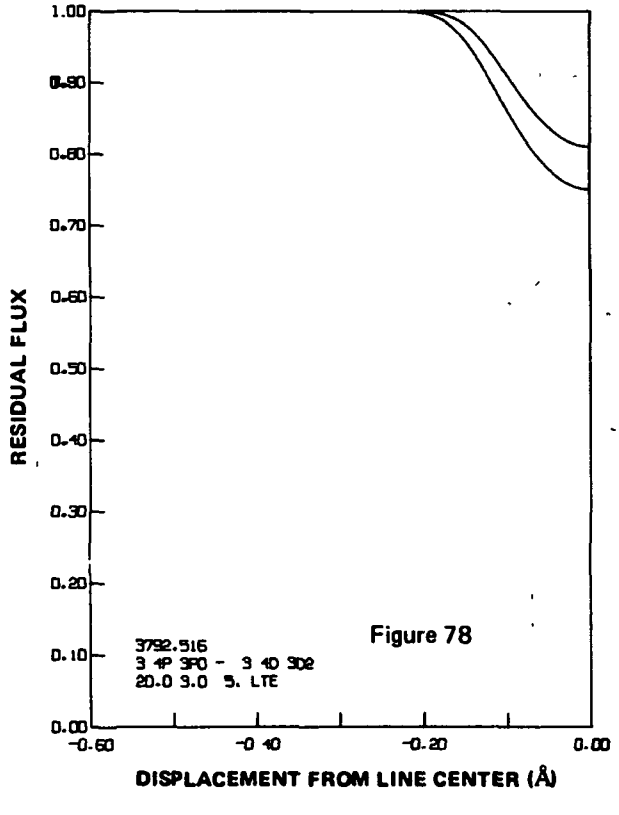

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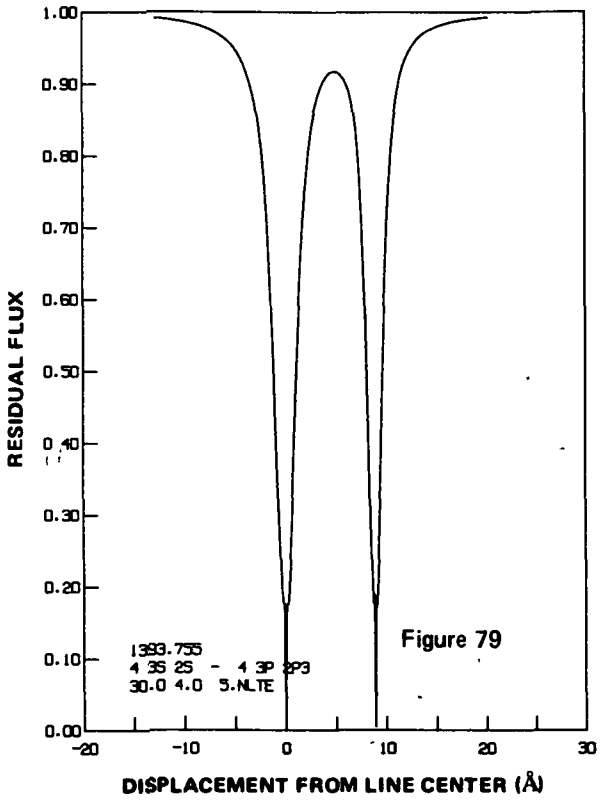

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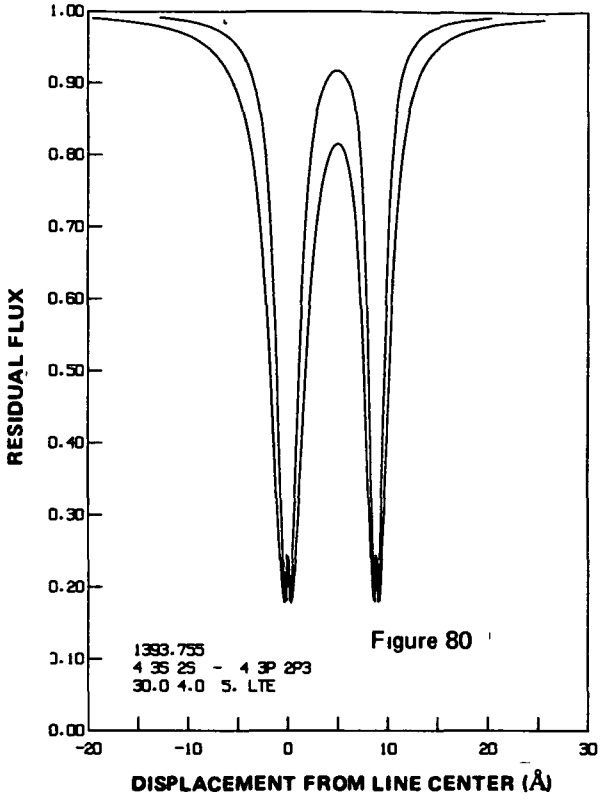

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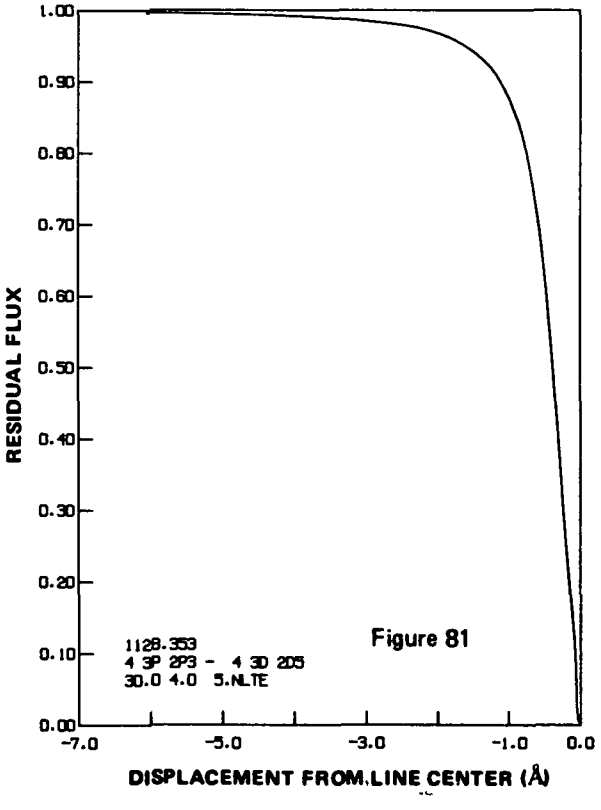

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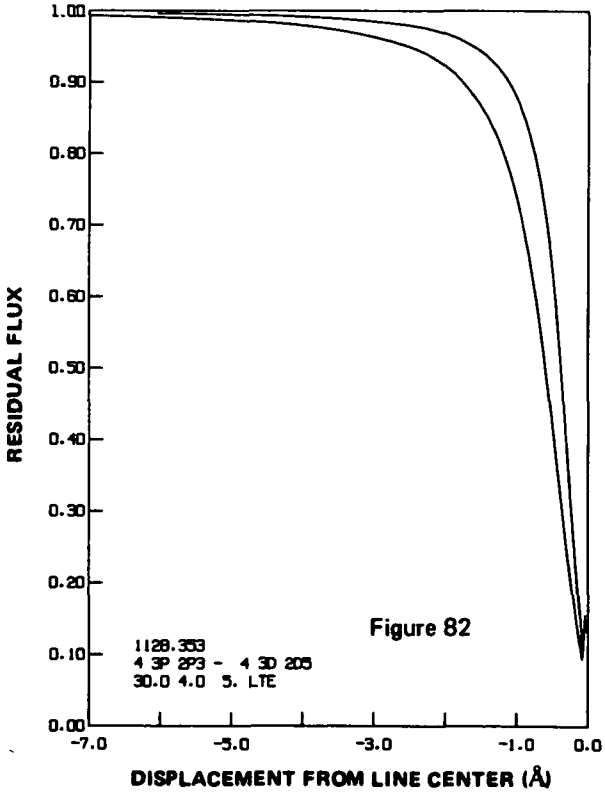

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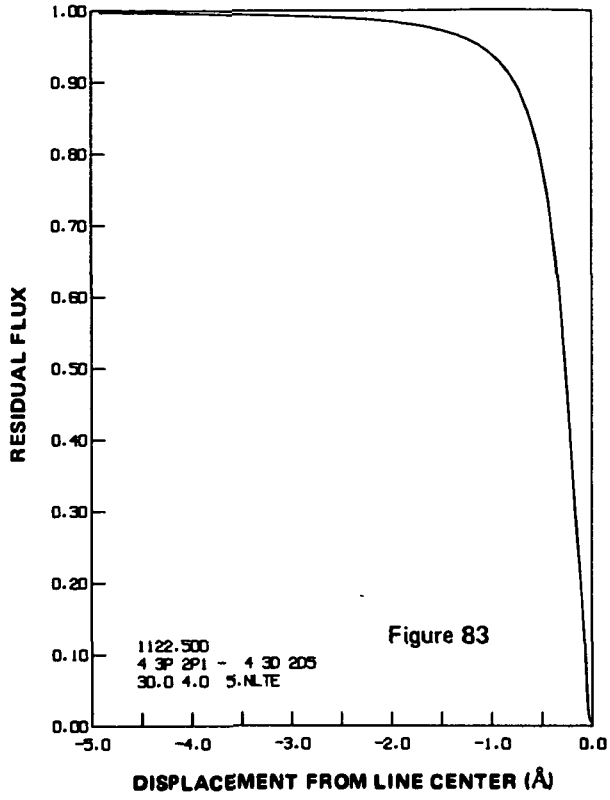

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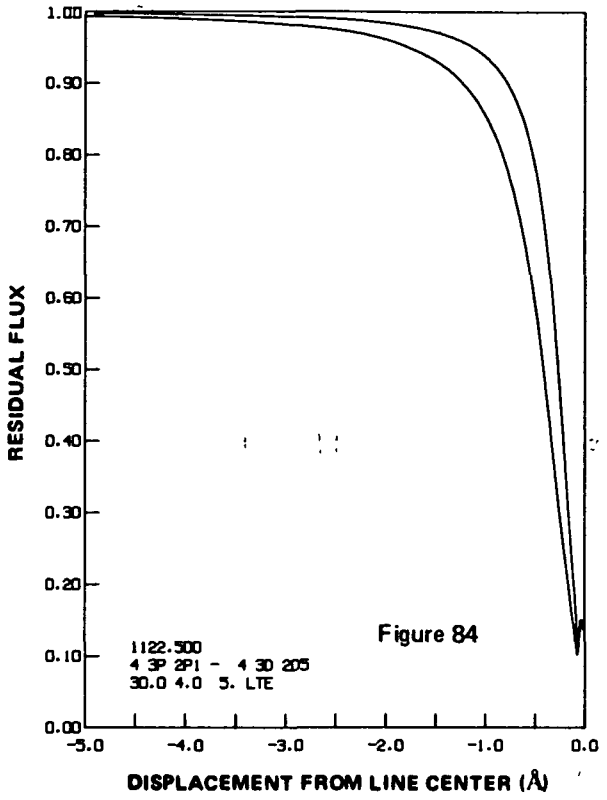

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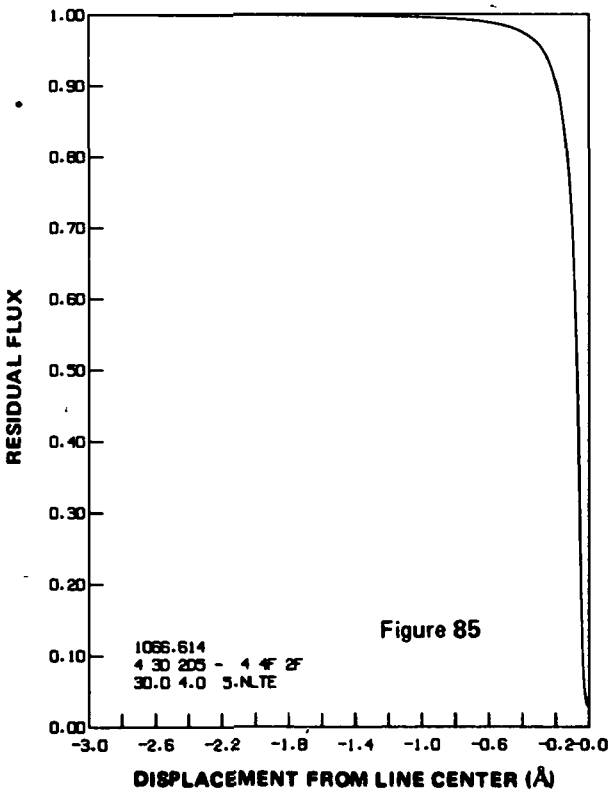

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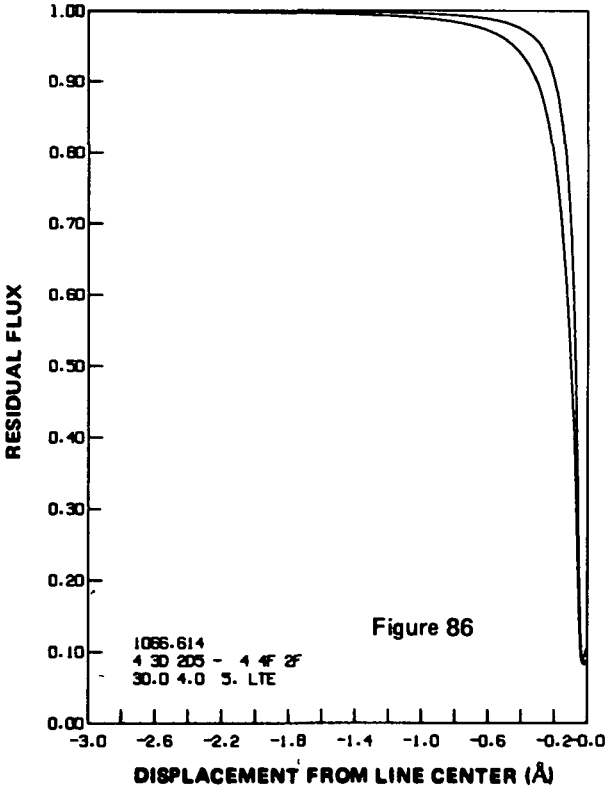

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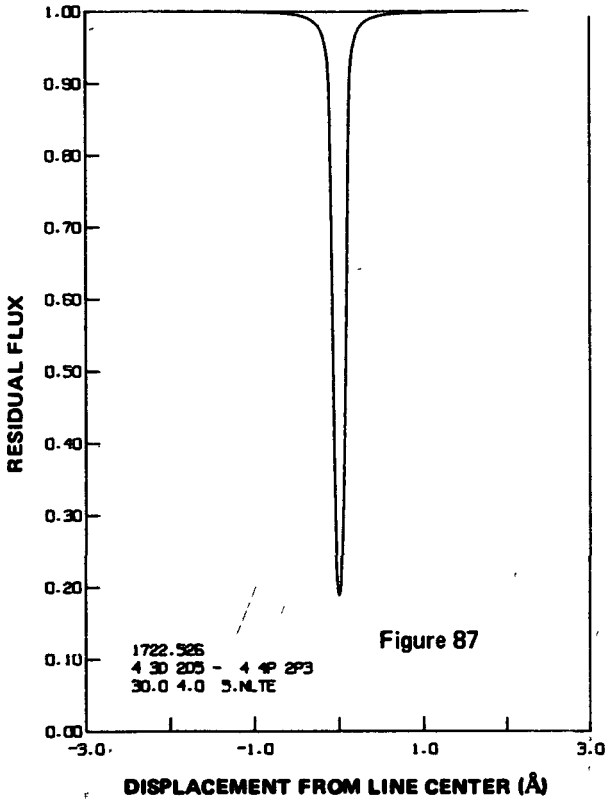

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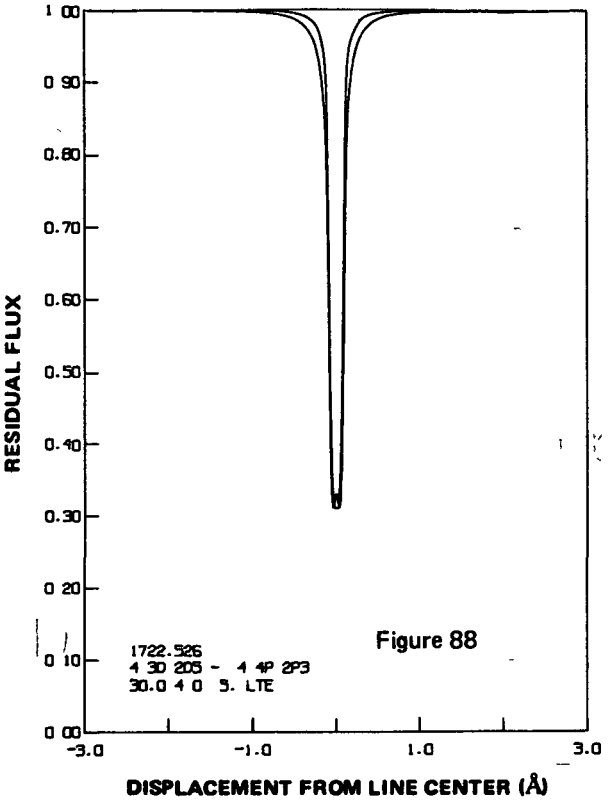

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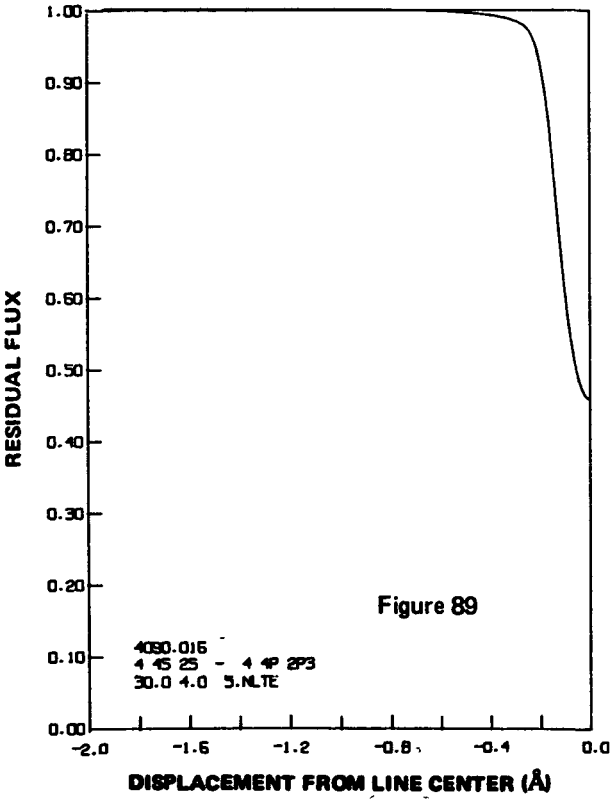

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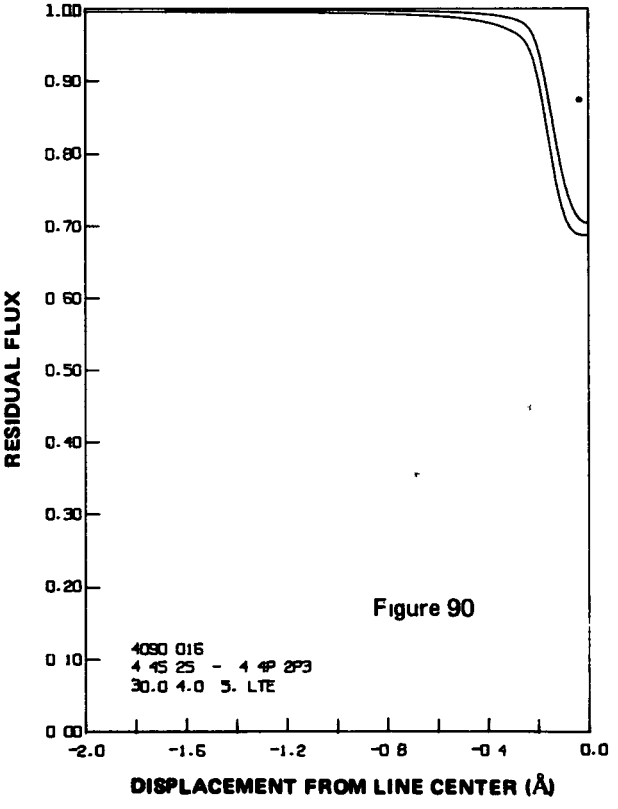

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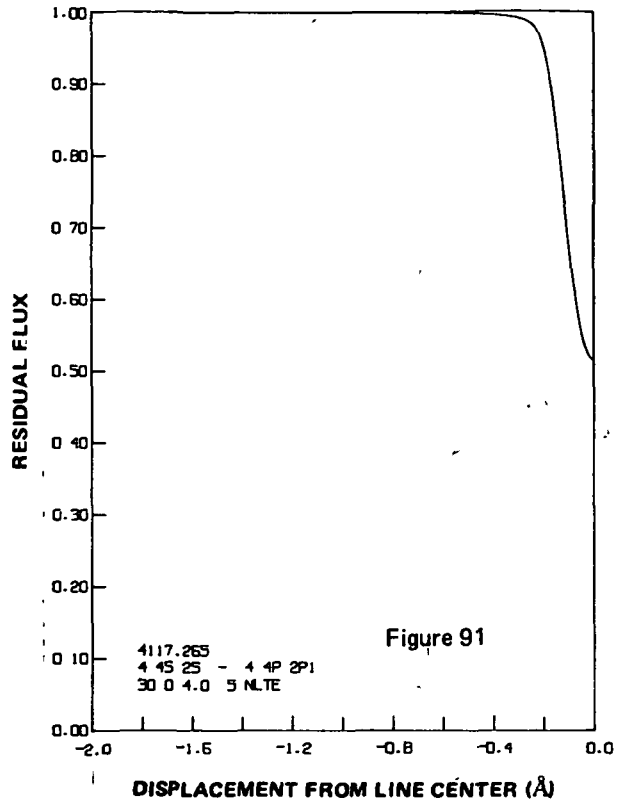

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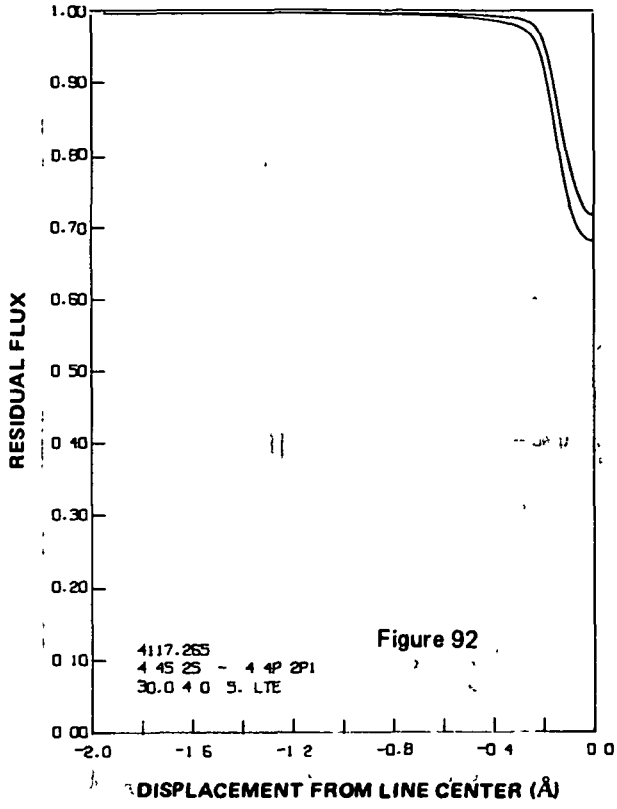

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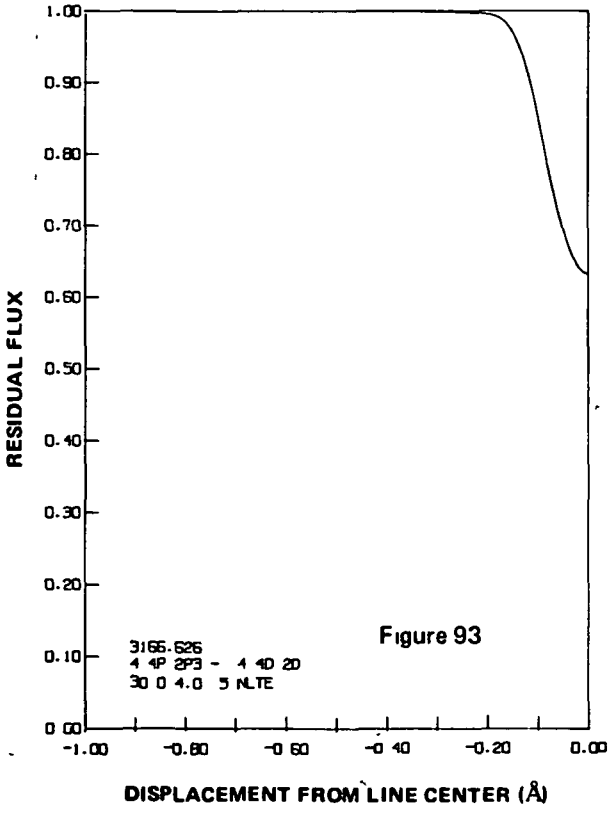

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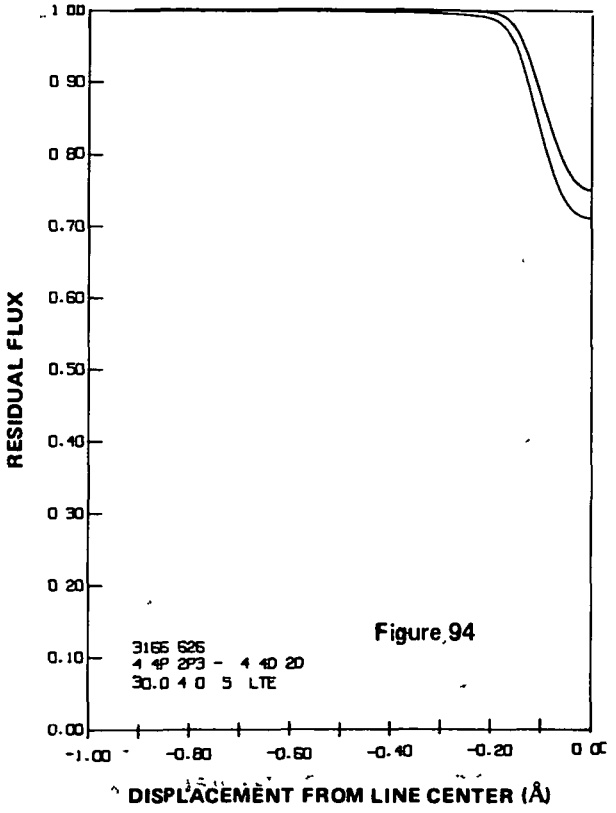

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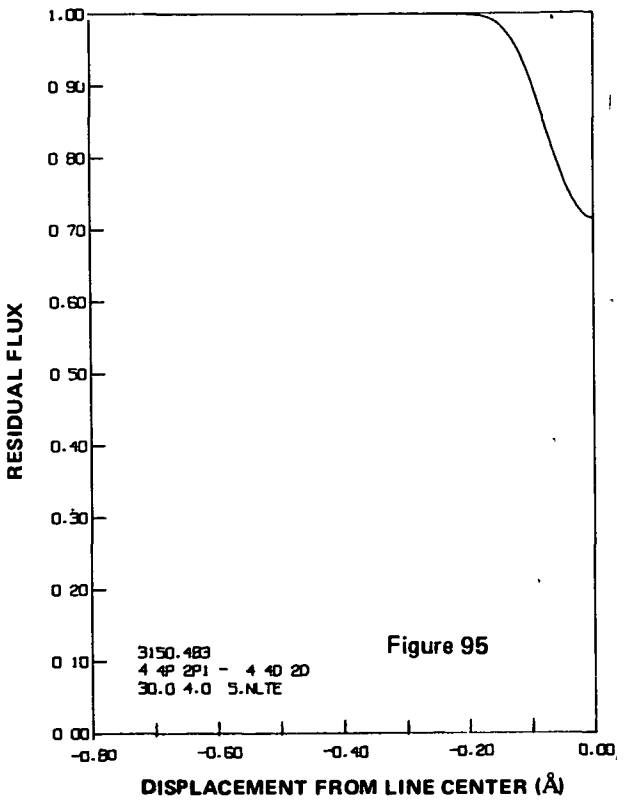

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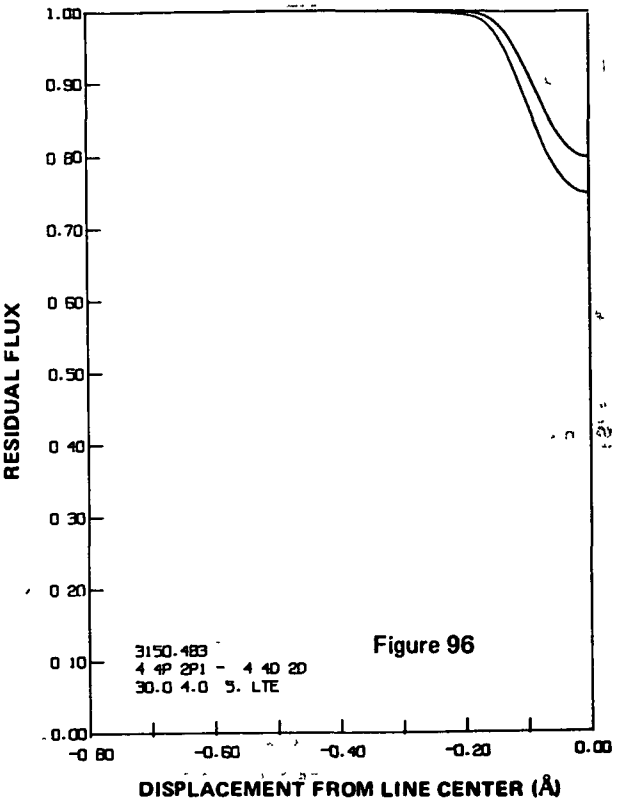

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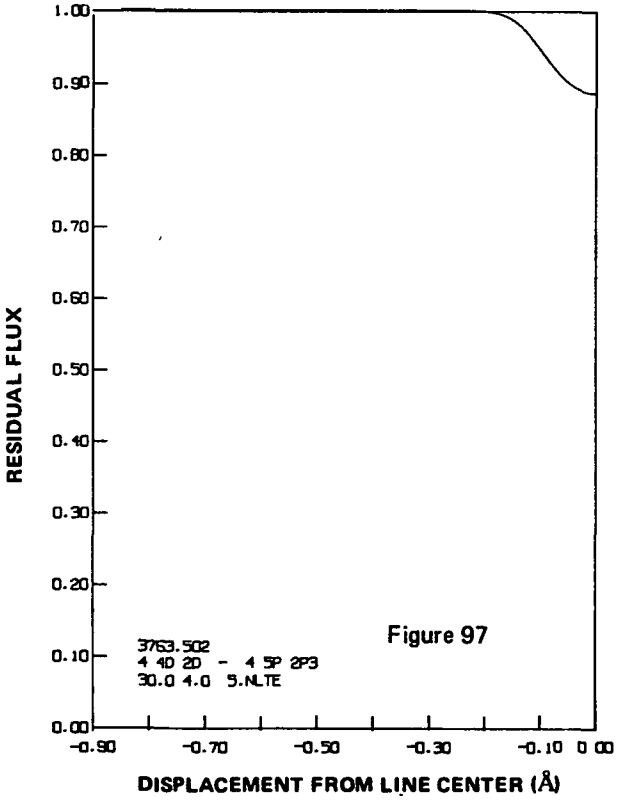

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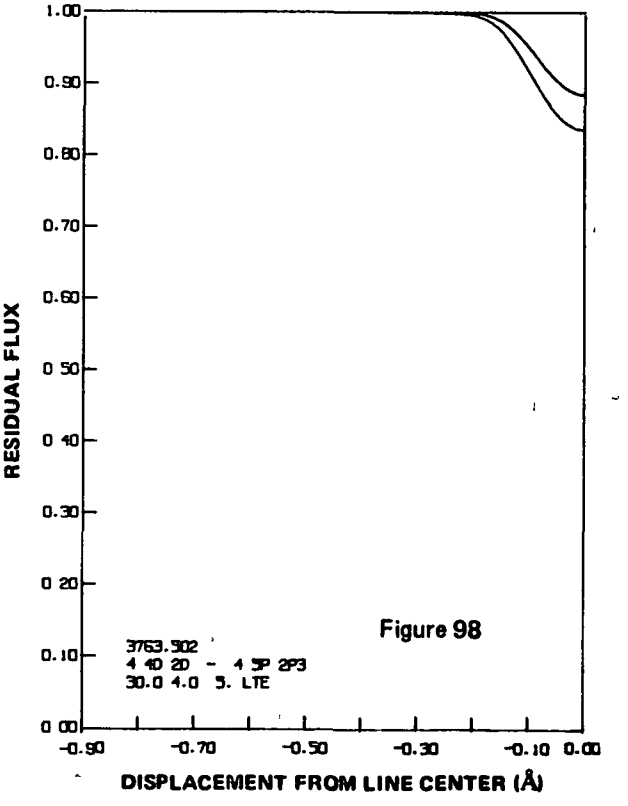

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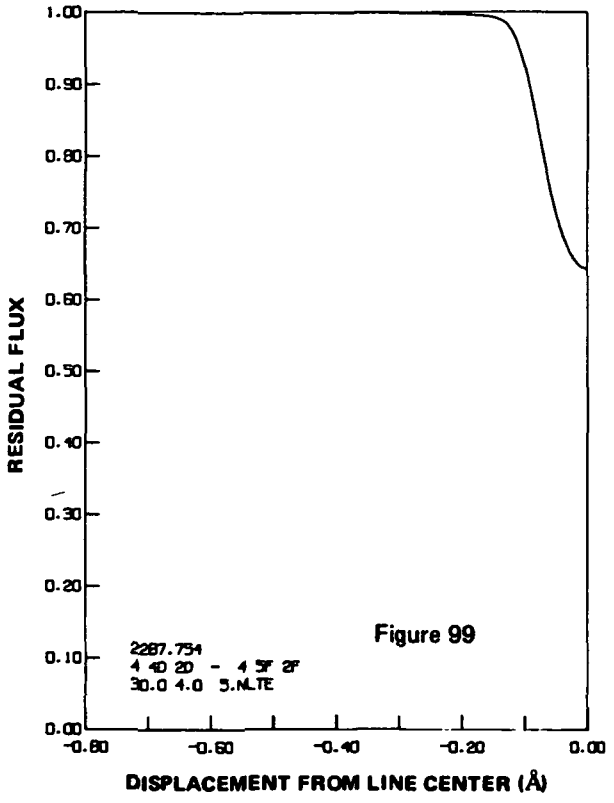

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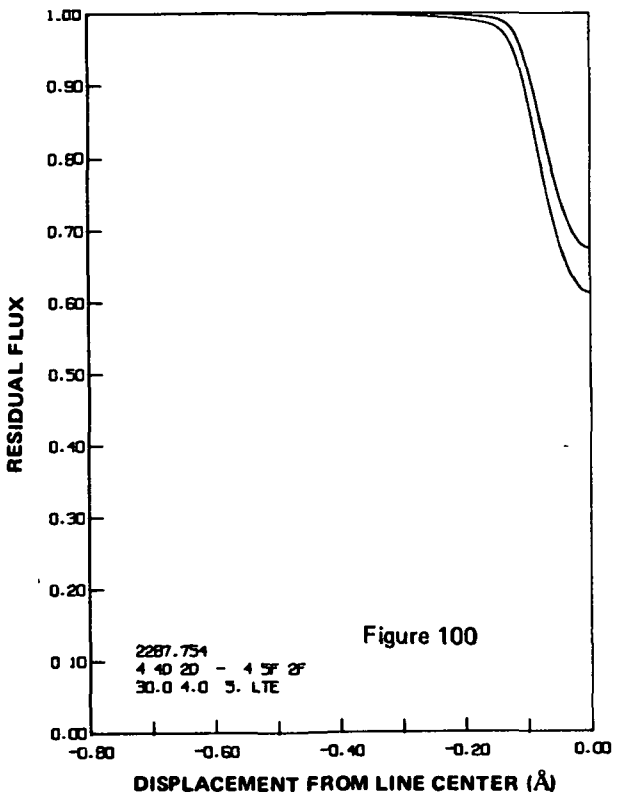

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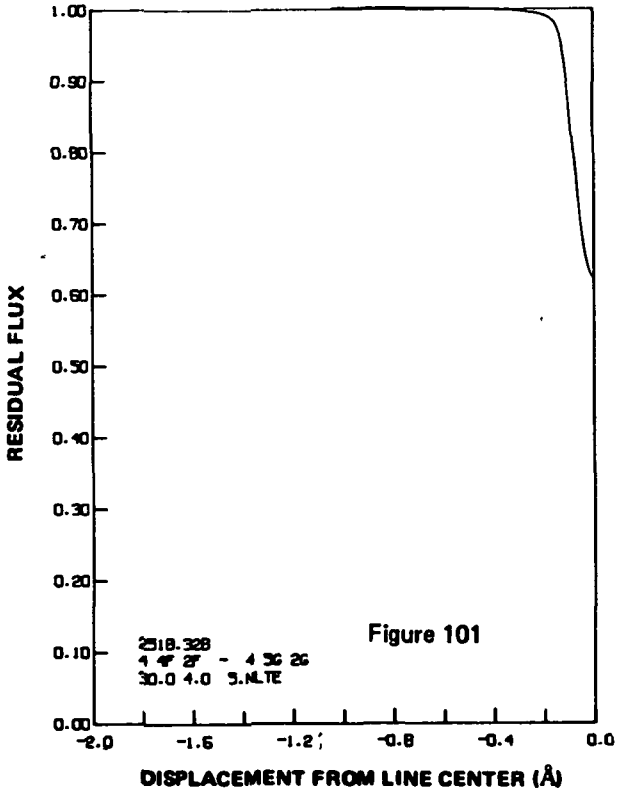

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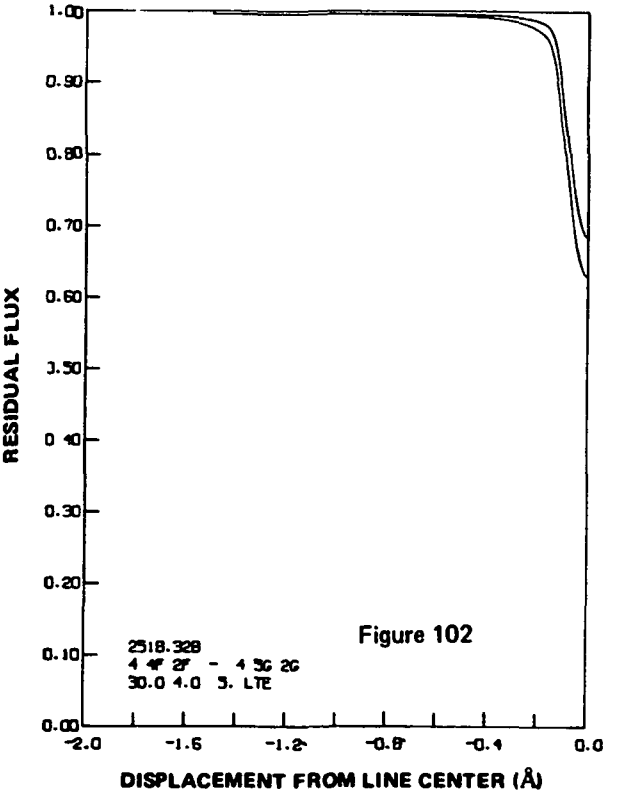

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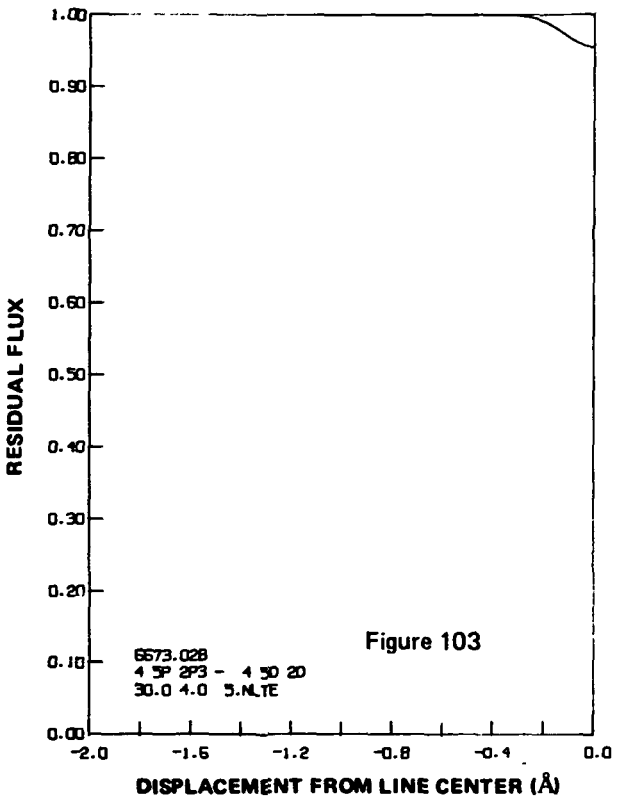

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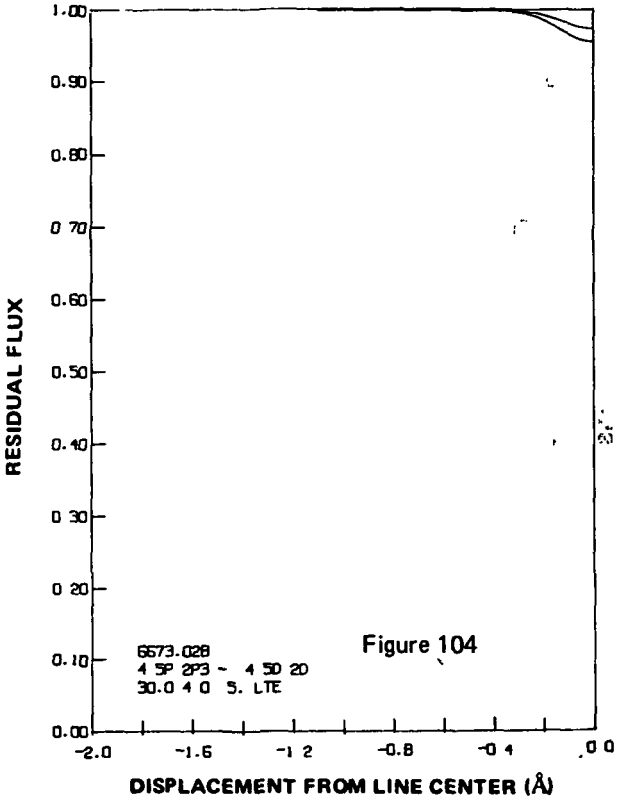

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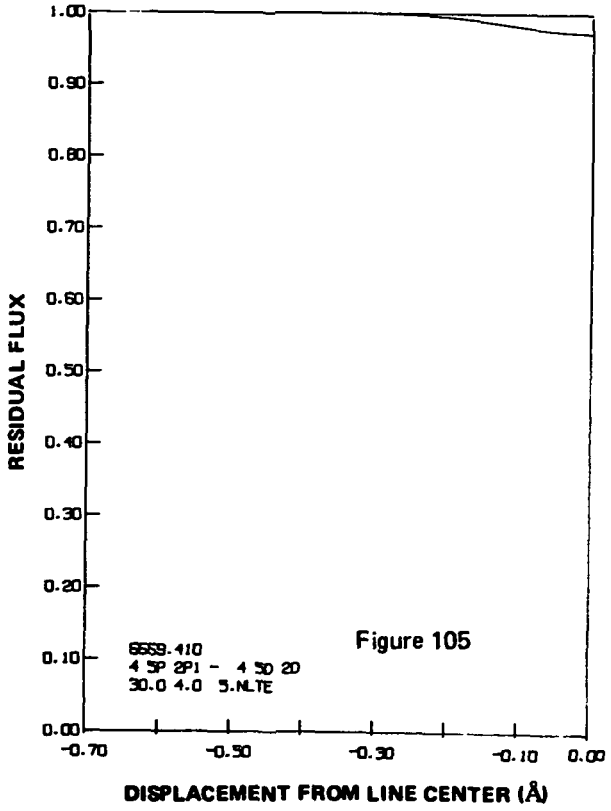

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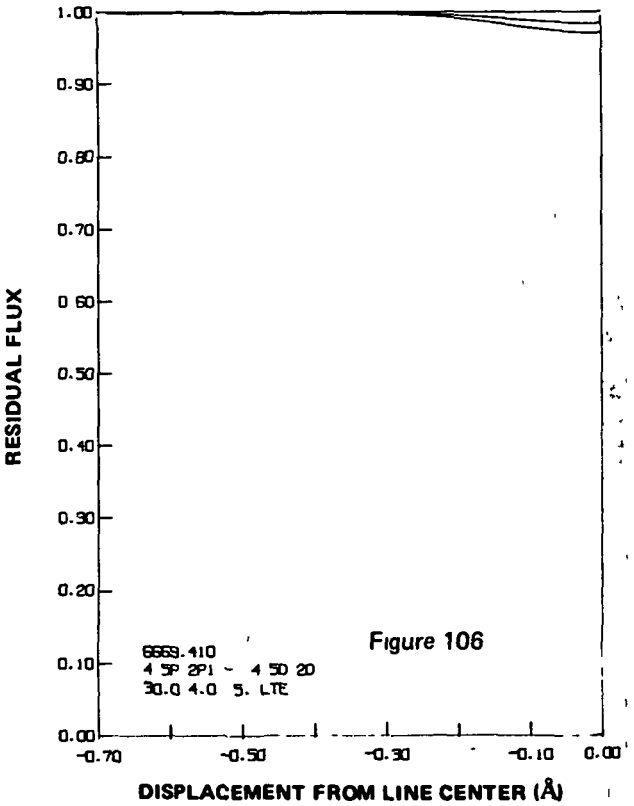

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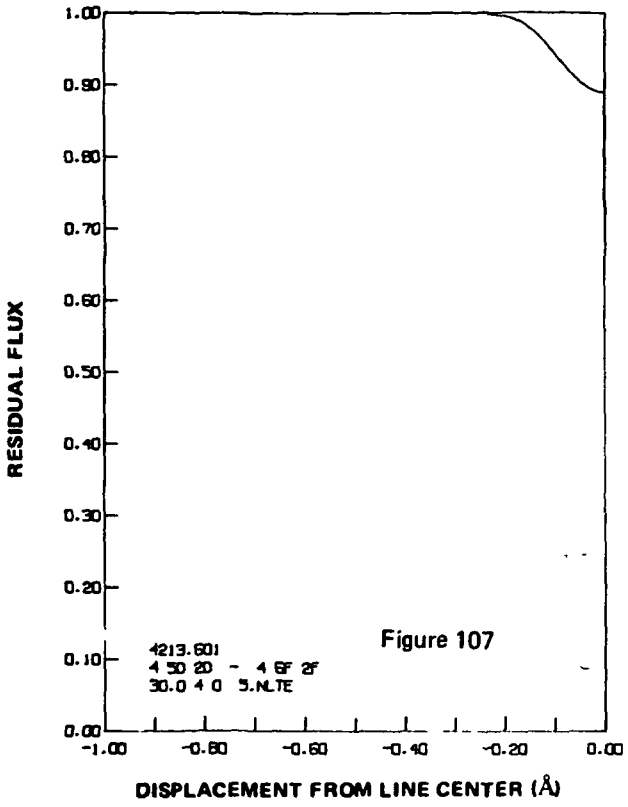

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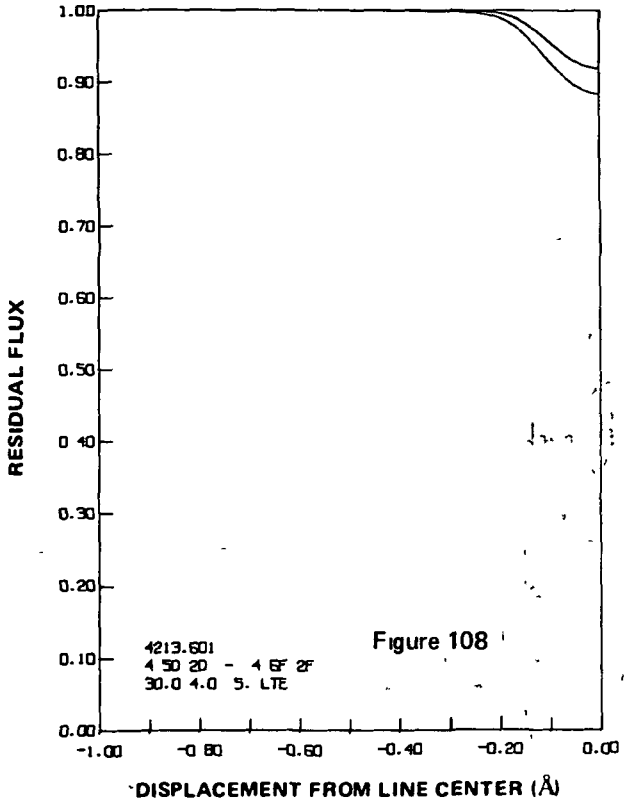

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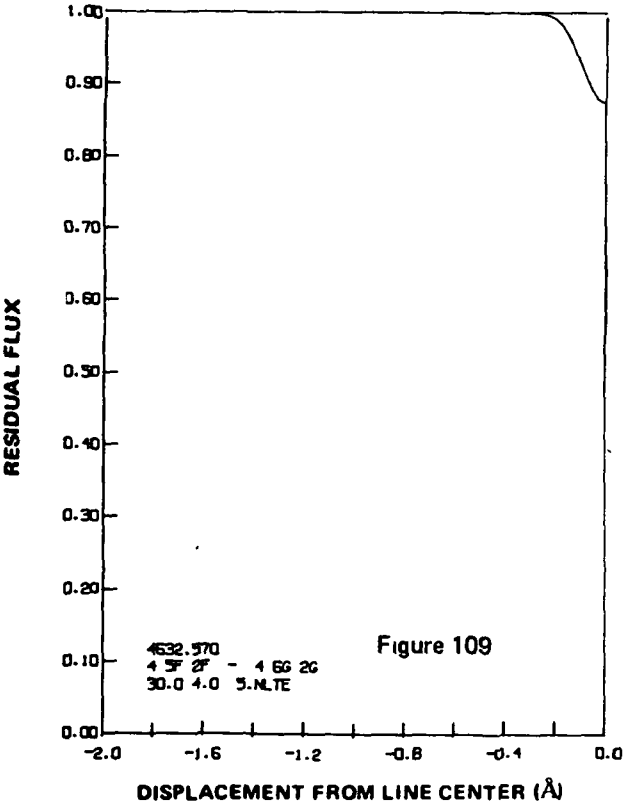

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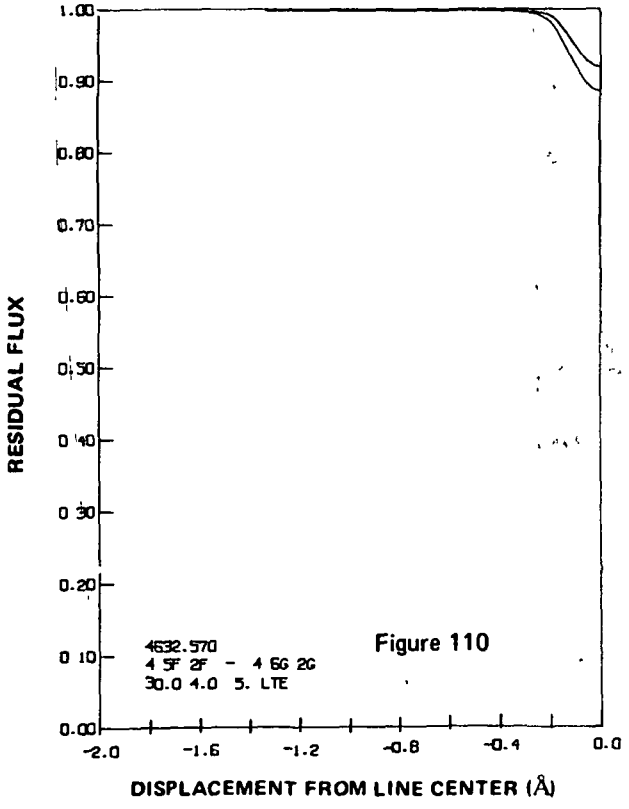

Figure 110

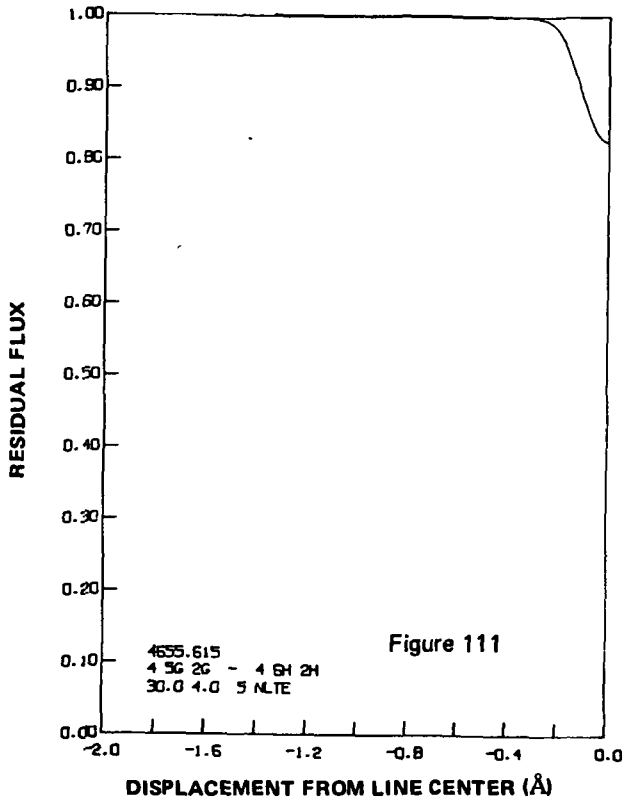

Figure 111

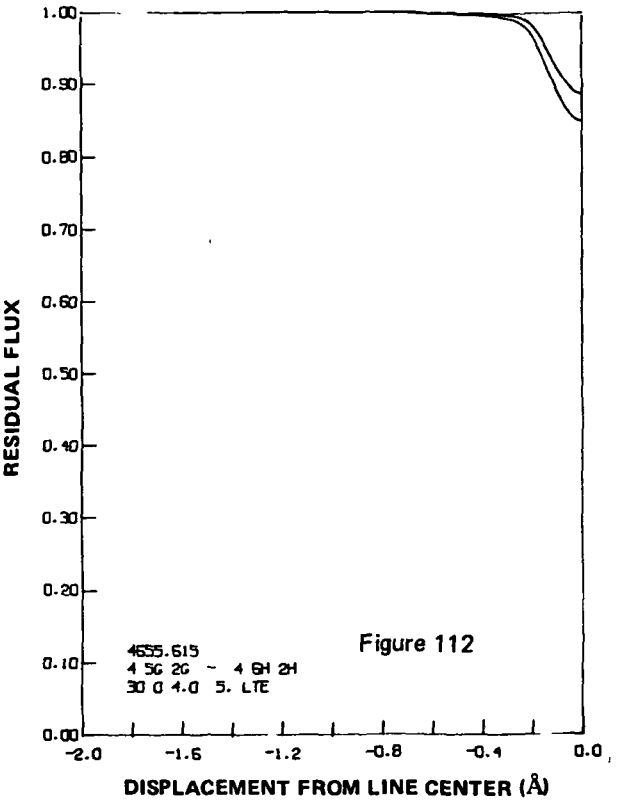

Figure 112

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