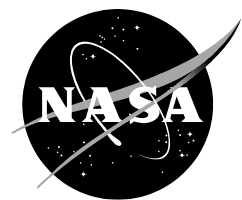


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# **Curve Fits of the NIST-JANAF Thermochemical Tables Fourth Edition**

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**February 2021**

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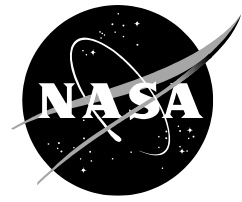
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**February 2021**

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## Abstract

Piecewise polynomial coefficients providing ideal gas, temperature-dependent molar specific heat, enthalpy, and entropy are tabulated for 1,068 common elemental and molecular species from the Fourth Edition (1998) to the NIST-JANAF Thermochemical Tables. The coefficients provide predictive values covering a wide range of temperatures (in many cases for gas state species from 298.15 to 6,000 K). A total of 1,760 fits are provided covering both single states (for example, gas, liquid, and crystal) and multiple states (crystal and liquid). Appropriate units and reference states are used for the two different fit formats, but the requisite procedure to adjust the coefficients for any other units and reference states is discussed.

## Nomenclature

$a_0$	first coefficient in Aerotherm specific heat fit, J/mol-K or cal/mol-K
$a_1$	second coefficient in Aerotherm specific heat fit, J/mol or cal/mol
$a_2$	third coefficient in Aerotherm specific heat fit, J-K/mol or cal-K/mol
$C_p$	molar specific heat, or J/mol-K or cal/mol-K
$\overline{C_p}$	tabulated molar specific heat, or J/mol-K or cal/mol-K
$f$	function to minimize
$g$	continuity constraint
$h$	molar enthalpy, J/mol or cal/mol
$\overline{h}$	tabulated molar enthalpy, J/mol or cal/mol
$\Delta h$	change in molar enthalpy from reference condition at 298.15 K, J/mol or cal/mol
$\overline{\Delta h}$	actual change in molar enthalpy from reference condition at 298.15 K, J/mol or cal/mol
$m$	number of specific heat-temperature points in an interval
$n$	number of temperature intervals or temperature exponent
$p$	number of phase change points
$R$	universal gas constant, 8.31446 J/mol-K or 1.98720 cal/mol-K
$s$	molar entropy, J/mol-K or cal/mol-K
$\overline{s}$	tabulated molar entropy, J/mol-K or cal/mol-K
$T$	absolute temperature, K
$\mathcal{L}$	Lagrangian function
$\lambda$	Lagrange multiplier
$\overline{A}$	coefficient column vector
$\overline{B}$	temperature interval minimized function submatrix
$\overline{C}$	specific heat column vector
$\overline{D}$	equality constraint row vector

### Subscripts

$f$	formation
$i$	specific heat-temperature interval
$j$	specific heat-temperature value
3,000K	fitting reference temperature, 3,000 K
ref	reference
L	lower temperature interval intersection point

### Superscripts

0	at the standard state taken to be 0.1 MPa or 1 atm at 298.15 K
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## Acronyms

ACE	Aerotherm Chemical Equilibrium
JANAF	Joint Army Navy Air Force
NASA	National Aeronautics and Space Administration
NIST	National Institute of Standards and Technology

## Introduction

Analysis of high-temperature chemical systems commonly encountered in aerospace engineering applications require accurate thermodynamic data, namely specific heat, entropy, enthalpy, and free energy, to determine equilibrium compositions and gas thermal properties. To meet this need, the Standard Reference Data Program at the National Institute of Standards and Technology (NIST) has compiled an extensive source for such data (refs. 1-5). Formerly known as simply the JANAF (Joint Army Navy Air Force) Thermochemical Tables, the *NIST-JANAF Thermochemical Tables Fourth Edition* is the most recent embodiment of these data.

Since the publication of the fourth edition, other more recent thermochemical databases have been published using updated information (refs. 6-9). Much of the Aerospace industry, however, continues to rely on the NIST-JANAF thermochemical tables for simulations; this resource has been found generally to be satisfactory.

The NIST-JANAF thermochemical tables are compilations of the thermodynamic properties of substances over a wide temperature range, with single state tables for the crystal, liquid, and ideal gas state and reference tables that combine the single state tables into one. The properties given are ideal gas heat capacity, entropy, Gibbs free energy, enthalpy, enthalpy of formation, Gibbs free energy of formation, and the logarithm of the equilibrium constant for formation of each compound from the elements in their standard reference states. As stated in the Foreword to reference 1, the "... objective is to provide critically evaluated physical and chemical property data, fully documented as to the original sources and the criteria used for evaluation."

The NIST-JANAF thermochemical tables have undergone three revisions and an expansion of the chemical species covered. While the latest (the fourth) edition is not a complete rewrite of the previous versions, this latest version does contain numerous new and revised thermochemical tables. The fourth edition contains thermochemical data including molar specific heat, enthalpy, and entropy for 1,068 common species comprised of 47 elements plus 1 isotope and an electron. There are a total of 1,796 tabular results covering different states of the 1,068 species. Table 1 provides a breakdown of the thermochemical tables by states. The entire listing of tabular thermodynamic data is openly available online at reference 1.

Table 1. Summary of *NIST-JANAF Thermochemical Tables Fourth Edition* by state.

State	State abbreviation	Number
Fluid	(fl)	2
Liquid and gas	(l,g)	3
Reference	(ref)	49
Crystal and liquid	(cr,l)	219
Liquid	(l)	222
Crystal	(cr)	401
Gas	(g)	900
Total		1,796

While tables of thermochemical properties are useful, it is often more desirable to have simplified representations of the tables that are amenable to computer calculations. A standard method for representing such relationships is by using piecewise polynomial functions. Simplified representations, such as piecewise polynomial approximations, allow the data to be stored in a more compact form and enable easier extraction of values for computer simulations. In a piecewise fitting scheme, the curve fits are broken into discrete temperature intervals so that the complete description of the thermodynamic species state consists of fits over multiple intervals. This report develops polynomial relationships for the entire NIST-JANAF database, which researchers should find useful in aerospace analysis.

Various fitted versions of the JANAF data have been circulating throughout the aerospace community over the past decades. In fact, the author has accumulated three versions of fitted JANAF data (labeled 71, 81, and 88) over the years that he has utilized in his computer simulations. He is aware that other researchers have also used these data in a similar way; however, the pedigree of these data is unknown, and while the author has verified some of the most commonly used fits, to his knowledge there has been no comprehensive source documenting the origin or accuracy of these data. Additionally, these fits only cover the range from 500 to 6,000 K, which is insufficient to accurately represent these data for temperatures commonly required in aerospace analysis. It is the purpose of this report to provide a well-documented reference source of the NIST-JANAF data so that researchers can use these data with confidence as to the source and quality.

The basic thermodynamic data provided in the fourth edition of the *NIST-JANAF Thermochemical Tables* are summarized in tables listing ideal gas thermodynamic properties as a function of temperature for each chemical species. These tables are used in this report to develop piecewise polynomial fits of the specific heat with temperature, from which the other temperature-dependent quantities of enthalpy, entropy, and Gibbs free energy can be derived. The polynomial fits are performed over several intervals with values of the specific heat constrained at the intersection points of the intervals to provide greater accuracy. All polynomials consist of a constant term, a linear temperature term, and an inverse squared temperature term. Additionally, values for the standard enthalpy and entropy of formation and the values of the property changes with phase are also needed, resulting in a set of piecewise polynomials covering the full temperature range of these data.

The piecewise polynomial equations derived here are presented in a standard format employed by several heritage computer codes. The format used here was first documented by Brown (ref. 10), and was promoted extensively by the Aerotherm Corporation in the 1960s and consists of three-term fits. This format is standard and is still widely used among the aerospace community. Among the many codes that use this format, the Aerotherm Chemical Equilibrium (ACE) (ref. 11) and the Boundary Layer Integral Matrix Procedure (BLIMP) (ref. 12) are the most well-known. A previous study similar to the work presented here, but with older data, is documented in reference 13.

For the piecewise polynomial fits, between two and eight temperature intervals were used to fit the thermodynamic data for each species. The original Aerotherm format defined two temperature intervals for any one species. Subsequent versions of many of the Aerotherm codes have been modified to allow a greater number of temperature intervals to be used. Therefore, the fits calculated here include between two and eight temperature ranges.

Appendix A provides a summary of the fits. Appendix B contains a cross reference of species by component elements. A description of the standard data format is provided in appendix C.

## Fitting Methodology

As stated previously, the standard fitting format consists of piecewise polynomial fits over an arbitrary number of intervals. The curve fit for specific heat  $C_p$  across a single interval consists of a three-term polynomial in temperature  $T$  (ref. 6) as shown in equation (1):



$$C_p(T) = a_0 + a_1T + a_2\frac{1}{T^2} \quad (1)$$

where  $C_p$  is in cal/mol-K and the temperature is in K.

Based on the definition of enthalpy,  $h$ , and entropy,  $s$ , the equations to calculate enthalpy and entropy from specific heat are given by equation (2) and equation (3), respectively:

$$h(T) = \int_{T_{ref}}^T C_p dT \quad (2)$$

$$s(T) = \int_{T_{ref}}^T \frac{1}{T} C_p dT \quad (3)$$

where  $T_{ref}$  is the reference state temperature.

Using equation (1) and following the definitions given in equation (2) and in equation (3) the enthalpy and entropy for any interval become after integration, equation (4) (enthalpy):

$$h = a_0T + \frac{1}{2}a_1T^2 - a_2\frac{1}{T} + h_{ref} \quad (4)$$

and equation (5) (entropy).

$$s = a_0 \ln T + a_1T - \frac{1}{2}a_2\frac{1}{T^2} + s_{ref} \quad (5)$$

In the original Aerotherm formulation for fits, the form of equation (4) and equation (5) is not employed directly; instead, the equations are formulated around an intermediate temperature equal to 3,000 K, leading to equation (6):

$$h = a_0(T - 3,000 K) + \frac{1}{2}a_1(T^2 - (3,000 K)^2) - a_2\left(\frac{1}{T} - \frac{1}{3,000 K}\right) + \Delta h_{3,000K} + h_f^0 \quad (6)$$

and equation (7).

$$s = a_0 \ln(T/3000 K) + a_1(T - 3,000 K) - \frac{1}{2}a_2\left(\frac{1}{T^2} - \frac{1}{(3,000 K)^2}\right) + s_{3,000K} \quad (7)$$

To simplify the entropy equation, the two constant entropy terms  $s_{ref} + s_0$  have been combined into one term  $s_{3,000K}$ . Equation (1), equation (5), and equation (6) therefore contain three specific heat fitting coefficients:  $a_0, a_1, a_2$ , and three integration constants  $h_f^0, \Delta h_{3,000K}$ , and  $s_{3,000K}$  describing the specific heat, enthalpy, and entropy for a single species temperature interval.

Note that the constants  $\Delta h_{3,000K}$  and  $s_{3,000K}$  are not the actual value of the enthalpy change or entropy at 3000 K; instead, these values are derived to match the proper values of the enthalpy and entropy for the specific fit. The definitions of the two constants for a specific interval are as shown in equation (8) and equation (9):

$$\Delta h_{3,000K} = \overline{\Delta h}_{3,000K} - a_0(T_L - 3,000 K) + \frac{1}{2}a_1(T_L^2 - (3,000 K)^2) - a_2\left(\frac{1}{T_L} - \frac{1}{3,000 K}\right) \quad (8)$$

$$s_{3,000K} = \overline{s}_{3,000K} - a_0 \ln(T_L/3000) K + a_1(T_L - 3,000 K) - \frac{1}{2}a_2\left(\frac{1}{T_L^2} - \frac{1}{(3,000 K)^2}\right) \quad (9)$$

where  $\overline{\Delta h}_{3,000K}$  and  $\overline{s}_{3,000K}$  are the actual values of enthalpy change and entropy at 3,000 K and  $T_L$  is the temperature at the lower end of the interval. If the lower fit temperature is 3,000 K, then the constants are equal to the actual values of enthalpy change and entropy.

The number of temperature intervals for a species varies based on the behavior of the thermodynamic properties with temperature. In the original Aerotherm fitting formulation of the format, two temperature intervals were allowed. Since then, many of the codes that utilize this fitting formulation have been expanded to allow more than two temperature intervals. In this report, up to eight temperature intervals are employed. The most common fits have five temperature intervals.

The six constants for each temperature interval defined above were determined using least squares of the tabular data presented in reference 1. For a species fit that encompasses only one state, the specific heat, enthalpy, and entropy are continuous across the entire temperature span of the fit. For cases in which the fits cover multiple phases, the properties at the phase transition points may not be continuous. At these points, there may be abrupt changes in all of the properties: specific heat, enthalpy, and entropy. At these transition points, therefore, rather than being continuous, the fits must account for these discontinuities. Appendix D discusses the fitting procedure in detail.

The enthalpy and entropy were calculated using the integral relationships expressed in equation (6) and equation (7) with the NIST-JANAF standard state values at 298.15 K as initial conditions. At phase discontinuities, the calculated enthalpy and entropy difference between states was applied to calculate the change between states. This method provides accurate values for the enthalpy and entropy changes at the phase change point and provides continuity of the free energy.

### **Selection and Optimization of Temperature Intervals**

As stated above, the number of temperature intervals chosen for a species varies based on the behavior of the thermodynamic properties with temperature. Prior NIST-JANAF data fits utilized two fixed intervals with intersection limits from 500 to 3,000 K and 3,000 to 6,000 K. While this capability was often satisfactory, many of the new fits developed herein could not be accurately fit using two intervals. Additionally, the use of the fixed intervals was commonly not optimal - a better overall fit could have been obtained using different interval limits.

In this report, the allowed number of intervals was increased from two to eight. The number of intervals chosen was based solely upon engineering judgement as to what was required to provide a “good” overall fit and to fix intersection points at phase change temperatures. The intersection points of temperature intervals not associated with phase change points were determined using the Microsoft® Excel® (Microsoft Corporation, Redmond, Washington) optimization routine. This routine determined the non-phase change points that minimized the overall mean square error of the fit across all temperature intervals. This optimization utilized a gradient search algorithm and was performed in an outer loop where at each outer loop iteration, the optimum coefficients for each temperature interval were calculated using the least squares routine.

It is important to note that the outer loop Excel® optimization was an important, but not a critical, part of producing good fits for most species. Prior works have used fixed interval intersection points for

every fit (for example, 3,000 K). The optimization provided significantly better results than the fixed intersection point method. Better results were achieved even if the optimal intersection points were found only approximately.

## Unit Conversions and Gas Constants

In the original Aerotherm method, the polynomial coefficients are formulated in units of calories. The NIST- JANAF Thermochemical Tables Fourth Edition data, however, are reported in units of joules. Those who wish to use these fits where units of joules are required must multiply the coefficients by the conversion factor for calories to joules. The values for the universal gas constants used in this report are 8.31446 J/mol-K and 1.98720 cal/mol-K leading to a conversion factor from calories to joules of 4.184 J/cal.

## Reference State

An important distinction is needed with regard to the reference state. In the prior Aerotherm work, the standard reference state for each species was defined as the species condition at the reference temperature of 298.15 K and at a total pressure of 1 atm. The *NIST-JANAF Thermochemical Tables Fourth Edition*, however, defines the reference state at 298.15 K and a total pressure of 0.1 MPa (1 bar). The curve fits for the Aerotherm format follow the original reference state definition and hence are at a reference pressure of 1 atm. Those wishing to use the Aerotherm fits for a reference pressure of 0.1 MPa must adjust the entropy term for gas phase species; therefore, the quantity  $R \ln(1.01325)$ , where  $R$  is the universal gas constant and 1.01325 is the ratio of atm to 0.1 MPa, must be added to the entropy term in the Aerotherm fits. The resulting values to add are thus 0.0261575 cal/mol-K or 0.109443 J/mol-K. A more thorough discussion of reference states is given in the Introduction to reference 1.

## Phase and State Designations

Fits for multiple states follow the phase state numbering convention developed by Aerotherm, which is noted in the phase state designation field (defined in appendix C). In this convention “1” designates a gas, “2” a solid, and “3” a liquid. The original Aerotherm formulation allowed only one combination of mixed phases: liquid and solid.

Unfortunately, changes of phase within the same state cannot be accommodated in this format. Changes of phase within the same phase state commonly occur in the NIST- JANAF Thermochemical Tables data and to properly represent these changes, an additional phase numbering field for each temperature interval has been added. This field begins at one and is incremented at each change of phase. For details, see appendix C.

## Element Properties

Although not directly used in the fitting routines (since the both the data and the fits are molar units), the atomic weight of each species is displayed in the plotted results. The elemental atomic weights used in this report to calculate the species atomic masses were taken from the latest International Union of Pure and Applied Chemistry (IUPAC) values (ref. 18). Atomic numbers for most species are their normal, respective values. For Deuterium, the atomic number is set to 201 to distinguish it from hydrogen in the fitted results. An electron is given atomic number 99, per prior convention.

## Results

Textual data output for 1,761 fits are provided in appendix E. Thirty-six of the reference species were not fit since these fits are duplicated in the crystal, liquid, and gas state fits. Plots illustrating the quality of the calculations compared to the tabular data are provided in appendix F. The plots illustrate the fits of specific heat, enthalpy, entropy, and reduced thermodynamic potential  $-(G^0 - H^0(T_{ref}))/T$  as a function of temperature for a reference state of 0.1 MPa. Each plot also includes the local relative error between the fit and the tabular data. Finally, shown on the abscissa are the location of the interval intersection points between the various temperature intervals. Generally, all of the fits result in very good representation of the tabular data, with greater than 96 percent having an average standard deviation between the fit and tabular values of less than 0.01 percent, and over 99 percent having an error less than 0.1 percent. The best fits were obtained for the gas state species. Fits with multiple phase changes, possess a higher overall error. The individual plots in appendix F can be consulted to assess the error of any individual fit.

The plots also include the summary value for the fitting coefficients in Aerotherm format. The coefficients are presented in the format described in appendix C. The composition of eleven species cannot be properly represented in the Aerotherm format because they contain non-integer stoichiometric coefficients: C0.98Nb1(cr), Fe0.877S1(cr), Fe0.947O1(cr), H15O10.5S1(cr,l), Mo1O2.750(cr), Mo1O2.875(cr), Mo1O2.889(cr), N0.465V1(cr), O2.72W1(cr), O2.90W1(cr), and O2.96W1(cr). The fits for these species have been included but the stoichiometric coefficients have been rounded to the nearest integer for each elemental component with a non-integer coefficient.

Finally, 209 species were expressed in the Aerotherm format by combining the data from the individual crystal and liquid fits. These fits use the heat of formation at the reference temperature of the solid and liquid states for the respective temperature intervals, rather than the solid state enthalpy for all intervals. These fits are denoted by an asterisk (“\*”) after the species formula.

## Summary

A total of 1,761 simplified polynomial representations of 1,068 common molecular species consisting of 49 elements plus one isotope and an electron have been developed. The fits cover both single states (for example, gas, liquid, and crystal) and multiple states (crystal and liquid). Up to eight temperature intervals were employed in each fit and the temperature intersection points for the temperature intervals were determined using an optimization procedure to minimize total error between fit and tabular data over the entire temperature range. The fits were created in the standard Aerotherm format. Over 96 percent of the fits possess a root-mean-square deviation between the fit and tabular values of less than 0.01 percent, and over 99 percent exhibit an error less than 0.1 percent.

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## Appendix A Summary of Fits

This appendix contains a list of data fits performed in this work for the original JANAF species. Summarized in the table that follows includes the species formula, species name, temperature fitting limits and the number of temperature intervals for each of the fitted species and phase.

### Key:

(cr) = crystal

(cr, l) = crystal and liquid

(fl) = fluid

(g) = gas

(l) = liquid

(l, g) = liquid and gas

(ref) = reference

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
2	Al(cr)	Aluminum (Al)	4	298.15	1200
1759	Al(cr,l)	Aluminum (Al)	4	298.15	3000
4	Al(g)	Aluminum (Al)	6	298.15	6000
1521	Al-(g)	Aluminum, ion (Al <sup>-</sup> )	5	298.15	6000
3	Al(l)	Aluminum (Al)	4	298.15	3000
843	Al+(g)	Aluminum, ion (Al <sup>+</sup> )	5	298.15	6000
887	AlB1O2(g)	Aluminum borate (AlBO <sub>2</sub> )	5	298.15	6000
493	AlBr1(g)	Aluminum bromide (AlBr)	5	298.15	6000
494	AlBr3(cr)	Aluminum bromide (AlBr <sub>3</sub> )	5	298.15	1500
1530	AlBr3(cr,l)	Aluminum bromide (AlBr <sub>3</sub> )	2	298.15	1500
496	AlBr3(g)	Aluminum bromide (AlBr <sub>3</sub> )	5	298.15	6000
495	AlBr3(l)	Aluminum bromide (AlBr <sub>3</sub> )	2	298.15	1500
6	AlCl1(g)	Aluminum chloride (AlCl)	5	298.15	6000
1010	AlCl1+(g)	Aluminum chloride, ion (AlCl <sup>+</sup> )	5	298.15	6000
7	AlCl1F1(g)	Aluminum chloride fluoride (AlClF)	5	298.15	6000
1309	AlCl1F1+(g)	Aluminum chloride fluoride, ion (AlClF <sup>+</sup> )	5	298.15	6000
8	AlCl1F2(g)	Aluminum chloride fluoride (AlClF <sub>2</sub> )	5	298.15	6000
807	AlCl1O1(cr)	Aluminum chloride oxide (OAlCl)	5	298.15	3000
9	AlCl1O1(g)	Aluminum chloride oxide (OAlCl)	5	298.15	6000
10	AlCl2(g)	Aluminum chloride (AlCl <sub>2</sub> )	5	298.15	6000
1012	AlCl2-(g)	Aluminum chloride, ion (AlCl <sub>2</sub> <sup>-</sup> )	5	298.15	6000
1011	AlCl2+(g)	Aluminum chloride, ion (AlCl <sub>2</sub> <sup>+</sup> )	5	298.15	6000
11	AlCl2F1(g)	Aluminum chloride fluoride (AlCl <sub>2</sub> F)	5	298.15	6000
12	AlCl3(cr)	Aluminum chloride (AlCl <sub>3</sub> )	2	298.15	1500
1531	AlCl3(cr,l)	Aluminum chloride (AlCl <sub>3</sub> )	2	298.15	1500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
14	AlCl3(g)	Aluminum chloride (AlCl <sub>3</sub> )	5	298.15	6000
13	AlCl3(l)	Aluminum chloride (AlCl <sub>3</sub> )	2	298.15	1500
649	AlCl4K1(cr)	Potassium tetrachloroaluminate (KAlCl <sub>4</sub> )	3	298.15	1000
770	AlCl4Na1(cr)	Sodium tetrachloroaluminate (NaAlCl <sub>4</sub> )	3	298.15	1000
650	AlCl6K3(cr)	Potassium hexachloroaluminate (K <sub>3</sub> AlCl <sub>6</sub> )	5	298.15	2000
794	AlCl6Na3(cr)	Sodium hexachloroaluminate (Na <sub>3</sub> AlCl <sub>6</sub> )	5	298.15	2000
15	AlF1(g)	Aluminum fluoride (AlF)	5	298.15	6000
1013	AlF1+(g)	Aluminum fluoride, ion (AlF <sup>+</sup> )	5	298.15	6000
16	AlF1O1(g)	Aluminum fluoride oxide (OAlF)	4	298.15	6000
17	AlF2(g)	Aluminum fluoride (AlF <sub>2</sub> )	4	298.15	6000
1015	AlF2-(g)	Aluminum fluoride, ion (AlF <sub>2</sub> <sup>-</sup> )	5	298.15	6000
1014	AlF2+(g)	Aluminum fluoride, ion (AlF <sub>2</sub> <sup>+</sup> )	4	298.15	6000
1310	AlF2O1(g)	Aluminum fluoride oxide (OAlF <sub>2</sub> )	5	298.15	6000
1311	AlF2O1-(g)	Aluminum fluoride oxide, ion (OAlF <sub>2</sub> <sup>-</sup> )	5	298.15	6000
18	AlF3(cr)	Aluminum fluoride (AlF <sub>3</sub> )	4	298.15	3000
1533	AlF3(cr,l)	Aluminum fluoride (AlF <sub>3</sub> )	5	298.15	4000
19	AlF3(g)	Aluminum fluoride (AlF <sub>3</sub> )	5	298.15	6000
1532	AlF3(l)	Aluminum fluoride (AlF <sub>3</sub> )	5	298.15	4000
1312	AlF4-(g)	Tetrafluoroaluminate, ion (AlF <sub>4</sub> <sup>-</sup> )	5	298.15	6000
684	AlF4Li1(g)	Lithium tetrafluoroaluminate (LiAlF <sub>4</sub> )	5	298.15	6000
1084	AlF4Na1(g)	Sodium tetrafluoroaluminate (NaAlF <sub>4</sub> )	5	298.15	6000
651	AlF6K3(cr)	Potassium hexafluoroaluminate (K <sub>3</sub> AlF <sub>6</sub> )	5	298.15	2000
795	AlF6Li3(cr)	Lithium hexafluoroaluminate (Li <sub>3</sub> AlF <sub>6</sub> )	5	298.15	1600
1744	AlF6Li3(cr,l)	Lithium hexafluoroaluminate (Li <sub>3</sub> AlF <sub>6</sub> )	6	298.15	3000
1085	AlF6Li3(l)	Lithium hexafluoroaluminate (Li <sub>3</sub> AlF <sub>6</sub> )	5	298.15	3000
460	AlF6Na3(cr)_01	Cryolite, alpha (Na <sub>3</sub> AlF <sub>6</sub> )	3	298.15	1200
1535	AlF6Na3(cr)_02	Cryolite, beta (Na <sub>3</sub> AlF <sub>6</sub> )	3	298.15	1500
1536	AlF6Na3(cr,l)	Cryolite (Na <sub>3</sub> AlF <sub>6</sub> )	4	298.15	3000
1048	AlF6Na3(l)	Cryolite (Na <sub>3</sub> AlF <sub>6</sub> )	3	298.15	3000
20	AlH1(g)	Aluminum hydride (AlH)	5	298.15	6000
21	AlH1O1(g)_01	Aluminum hydride oxide (OAlH)	5	298.15	6000
1000	AlH1O1(g)_02	Aluminum hydroxide, ion (AlOH <sup>-</sup> )	5	298.15	6000
808	AlH1O1-(g)	Aluminum hydroxide (AlOH)	5	298.15	6000
999	AlH1O1+(g)	Aluminum hydroxide, ion (AlOH <sup>+</sup> )	5	298.15	6000
22	AlH1O2(g)	Aluminum hydroxide oxide (OAlOH)	5	298.15	6000
771	AlH4Li1(cr)	Lithium tetrahydroaluminate (LiAlH <sub>4</sub> )	5	298.15	2000
497	AlI1(g)	Aluminum iodide (AlI)	5	298.15	6000
498	AlI3(cr)	Aluminum iodide (AlI <sub>3</sub> )	5	298.15	1500
1534	AlI3(cr,l)	Aluminum iodide (AlI <sub>3</sub> )	2	298.15	1500
500	AlI3(g)	Aluminum iodide (AlI <sub>3</sub> )	5	298.15	6000
499	AlI3(l)	Aluminum iodide (AlI <sub>3</sub> )	2	298.15	2000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
23	AlLiO2(cr)	Lithium aluminum oxide (LiAlO <sub>2</sub> )	5	298.15	2200
1537	AlLiO2(cr,l)	Lithium aluminum oxide (LiAlO <sub>2</sub> )	5	298.15	4000
461	AlLiO2(l)	Lithium aluminum oxide (LiAlO <sub>2</sub> )	2	298.15	4000
24	AlN1(cr)	Aluminum nitride (AlN)	5	298.15	3000
25	AlN1(g)	Aluminum nitride (AlN)	5	298.15	6000
26	AlNaO2(cr)	Sodium aluminum oxide (NaAlO <sub>2</sub> )	5	298.15	3000
27	AlO1(g)	Aluminum oxide (AlO)	5	298.15	6000
1294	AlO1-(g)	Aluminum oxide, ion (AlO <sup>-</sup> )	5	298.15	6000
1016	AlO1+(g)	Aluminum oxide, ion (AlO <sup>+</sup> )	5	298.15	6000
1017	AlO2(g)	Aluminum oxide (AlO <sub>2</sub> )	5	298.15	6000
1018	AlO2-(g)	Aluminum oxide, ion (AlO <sub>2</sub> <sup>-</sup> )	5	298.15	6000
28	AlS1(g)	Aluminum sulfide (AlS)	5	298.15	6000
1522	Al2(g)	Aluminum (Al <sub>2</sub> )	5	298.15	6000
565	Al2BeO4(cr)	Beryllium aluminum oxide (BeAl <sub>2</sub> O <sub>4</sub> )	6	298.15	2400
1538	Al2BeO4(cr,l)	Beryllium aluminum oxide (BeAl <sub>2</sub> O <sub>4</sub> )	6	298.15	4000
1148	Al2BeO4(l)	Beryllium aluminum oxide (BeAl <sub>2</sub> O <sub>4</sub> )	5	298.15	4000
501	Al2Br6(g)	Aluminum bromide ((AlBr <sub>3</sub> ) <sub>2</sub> )	5	298.15	6000
29	Al2Cl6(g)	Aluminum chloride ((AlCl <sub>3</sub> ) <sub>2</sub> )	5	298.15	6000
652	Al2Cl9K3(cr)	Potassium aluminum chloride (K <sub>3</sub> Al <sub>2</sub> Cl <sub>9</sub> )	5	298.15	1500
1086	Al2F6(g)	Aluminum fluoride ((AlF <sub>3</sub> ) <sub>2</sub> )	5	298.15	6000
502	Al2I6(g)	Aluminum iodide ((AlI <sub>3</sub> ) <sub>2</sub> )	5	298.15	6000
30	Al2MgO4(cr)	Magnesium aluminum oxide (MgAl <sub>2</sub> O <sub>4</sub> )	4	298.15	2800
1539	Al2MgO4(cr,l)	Magnesium aluminum oxide (MgAl <sub>2</sub> O <sub>4</sub> )	4	298.15	4000
1149	Al2MgO4(l)	Magnesium aluminum oxide (MgAl <sub>2</sub> O <sub>4</sub> )	4	298.15	4000
31	Al2O1(g)	Aluminum oxide (Al <sub>2</sub> O)	5	298.15	6000
1019	Al2O1+(g)	Aluminum oxide, ion (Al <sub>2</sub> O <sup>+</sup> )	5	298.15	6000
32	Al2O2(g)	Aluminum oxide ((AlO) <sub>2</sub> )	5	298.15	6000
1020	Al2O2+(g)	Aluminum oxide, ion (Al <sub>2</sub> O <sub>2</sub> <sup>+</sup> )	5	298.15	6000
33	Al2O3(cr)_01	Aluminum oxide, alpha (Al <sub>2</sub> O <sub>3</sub> )	5	298.15	3000
1290	Al2O3(cr)_02	Aluminum oxide, delta (Al <sub>2</sub> O <sub>3</sub> )	5	298.15	3000
285	Al2O3(cr)_03	Aluminum oxide, gamma (Al <sub>2</sub> O <sub>3</sub> )	5	298.15	3000
1291	Al2O3(cr)_04	Aluminum oxide, kappa (Al <sub>2</sub> O <sub>3</sub> )	5	298.15	3000
1540	Al2O3(cr,l)	Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	5	298.15	4000
34	Al2O3(l)	Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	5	298.15	4000
924	Al2O5Si1(cr)_01	Aluminum silicate, andalusite (Al <sub>2</sub> SiO <sub>5</sub> )	4	298.15	3000
925	Al2O5Si1(cr)_02	Aluminum silicate, kyanite (Al <sub>2</sub> SiO <sub>5</sub> )	4	298.15	3000
35	Al2O5Si1(cr)_03	Aluminum silicate, sillimanite (Al <sub>2</sub> SiO <sub>5</sub> )	3	298.15	3000
1541	Al2S3(cr)	Aluminum sulfide (Al <sub>2</sub> S <sub>3</sub> )	3	298.15	1500
1542	Al3F14Na5(cr)	Chiolite (Na <sub>5</sub> Al <sub>3</sub> F <sub>14</sub> )	5	298.15	1500
1544	Al3F14Na5(cr,l)	Chiolite (Na <sub>5</sub> Al <sub>3</sub> F <sub>14</sub> )	5	298.15	3000
1543	Al3F14Na5(l)	Chiolite (Na <sub>5</sub> Al <sub>3</sub> F <sub>14</sub> )	3	298.15	3000



JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1150	Al6Be1O10(cr)	Beryllium aluminum oxide (BeAl <sub>6</sub> O <sub>10</sub> )	5	298.15	3000
1566	Al6Be1O10(cr,l)	Beryllium aluminum oxide (BeAl <sub>6</sub> O <sub>10</sub> )	5	298.15	4000
1151	Al6Be1O10(l)	Beryllium aluminum oxide (BeAl <sub>6</sub> O <sub>10</sub> )	4	298.15	4000
926	Al6O13Si2(cr)	Aluminum silicate, mullite (Al <sub>6</sub> Si <sub>2</sub> O <sub>13</sub> )	5	298.15	3000
1353	Ar1(ref)	Argon (Ar)	2	298.15	6000
1354	Ar1+(g)	Argon, ion (Ar <sup>+</sup> )	5	298.15	6000
38	B1(cr)	Boron, beta rhombohedral (B)	5	298.15	2800
1681	B1(cr,l)	Boron (B)	6	298.15	4500
40	B1(g)	Boron (B)	4	298.15	6000
1503	B1-(g)	Boron, ion (B <sup>-</sup> )	3	298.15	6000
39	B1(l)	Boron (B)	5	298.15	4500
1001	B1+(g)	Boron, ion (B <sup>+</sup> )	5	298.15	6000
696	B10H14(cr)	Decaborane (B <sub>10</sub> H <sub>14</sub> )	5	298.15	1500
1578	B10H14(cr,l)	Decaborane (B <sub>10</sub> H <sub>14</sub> )	6	298.15	1500
82	B10H14(g)	Decaborane (B <sub>10</sub> H <sub>14</sub> )	5	298.15	6000
697	B10H14(l)	Decaborane (B <sub>10</sub> H <sub>14</sub> )	5	298.15	1500
579	B10O17Pb2(cr)	Lead borate (Pb <sub>2</sub> B <sub>10</sub> O <sub>17</sub> )	5	298.15	2000
888	B1Be1O2(g)	Beryllium borate (BeBO <sub>2</sub> )	5	298.15	6000
503	B1Br1(g)	Bromoborane (BBr)	3	298.15	6000
718	B1Br1Cl1(g)	Bromochloroborane (BBrCl)	3	298.15	6000
685	B1Br1Cl2(g)	Bromodichloroborane (BBrCl <sub>2</sub> )	3	298.15	6000
719	B1Br1F1(g)	Bromofluoroborane (BBrF)	4	298.15	6000
686	B1Br1F2(g)	Bromodifluoroborane (BBrF <sub>2</sub> )	5	298.15	6000
720	B1Br1O1(g)	Boron bromide oxide (OBBr)	4	298.15	6000
566	B1Br2(g)	Dibromoborane (BBr <sub>2</sub> )	4	298.15	6000
687	B1Br2Cl1(g)	Dibromochloroborane (BBr <sub>2</sub> Cl)	4	298.15	6000
688	B1Br2F1(g)	Dibromofluoroborane (BBr <sub>2</sub> F)	4	298.15	6000
872	B1Br2H1(g)	Dibromoborane (BHBr <sub>2</sub> )	5	298.15	6000
505	B1Br3(g)	Tribromoborane (BBr <sub>3</sub> )	4	298.15	6000
504	B1Br3(l)	Tribromoborane (BBr <sub>3</sub> )	2	298.15	1000
41	B1Cl1(g)	Chloroborane (BCl)	4	298.15	6000
1021	B1Cl1+(g)	Chloroborane, ion (BCl <sup>+</sup> )	5	298.15	6000
42	B1Cl1F1(g)	Chlorofluoroborane (BClF)	5	298.15	6000
43	B1Cl1F2(g)	Chlorodifluoroborane (BClF <sub>2</sub> )	5	298.15	6000
44	B1Cl1O1(g)	Boron chloride oxide (OBCl)	5	298.15	6000
45	B1Cl2(g)	Dichloroborane (BCl <sub>2</sub> )	5	298.15	6000
1023	B1Cl2-(g)	Dichloroborane, ion (BCl <sub>2</sub> <sup>-</sup> )	5	298.15	6000
1022	B1Cl2+(g)	Dichloroborane, ion (BCl <sub>2</sub> <sup>+</sup> )	5	298.15	6000
46	B1Cl2F1(g)	Dichlorofluoroborane (BCl <sub>2</sub> F)	5	298.15	6000
873	B1Cl2H1(g)	Dichloroborane (BHCl <sub>2</sub> )	5	298.15	6000
47	B1Cl3(g)	Trichloroborane (BCl <sub>3</sub> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
48	B1F1(g)	Fluoroborane (BF)	5	298.15	6000
49	B1F1O1(g)	Boron fluoride oxide (OBF)	5	298.15	6000
50	B1F2(g)	Difluoroborane (BF <sub>2</sub> )	5	298.15	6000
1025	B1F2-(g)	Difluoroborane, ion (BF <sub>2</sub> <sup>-</sup> )	5	298.15	6000
1024	B1F2+(g)	Difluoroborane, ion (BF <sub>2</sub> <sup>+</sup> )	5	298.15	6000
466	B1F2H1(g)	Difluoroborane (BHF <sub>2</sub> )	5	298.15	6000
722	B1F2H1O1(g)	Difluorohydroxyborane (BF <sub>2</sub> OH)	5	298.15	6000
477	B1F2O1(g)	Boron fluoride oxide (OBF <sub>2</sub> )	5	298.15	6000
51	B1F3(g)	Trifluoroborane (BF <sub>3</sub> )	5	298.15	6000
689	B1F4K1(cr)	Potassium tetrafluoroborate (KBF <sub>4</sub> )	3	298.15	1500
1567	B1F4K1(cr,l)	Potassium tetrafluoroborate (KBF <sub>4</sub> )	3	298.15	1500
690	B1F4K1(g)	Potassium tetrafluoroborate (KBF <sub>4</sub> )	5	298.15	6000
1077	B1F4K1(l)	Potassium tetrafluoroborate (KBF <sub>4</sub> )	2	298.15	1500
52	B1H1(g)	Borane (BH)	5	298.15	6000
53	B1H1O1(g)	Boron hydride oxide (HBO)	5	298.15	6000
1295	B1H1O1-(g)	Boron hydride oxide, ion (HBO <sup>-</sup> )	5	298.15	6000
1026	B1H1O1+(g)	Boron hydride oxide, ion (HBO <sup>+</sup> )	5	298.15	6000
716	B1H1O2(cr)	Boric acid (HBO <sub>2</sub> )	5	298.15	1500
54	B1H1O2(g)	Boric acid (HBO <sub>2</sub> )	5	298.15	6000
1296	B1H1S1(g)	Boron hydride sulfide (HBS)	5	298.15	6000
1297	B1H1S1+(g)	Boron hydride sulfide, ion (HBS <sup>+</sup> )	5	298.15	6000
55	B1H2(g)	Borane (BH <sub>2</sub> )	5	298.15	6000
56	B1H2O2(g)	Dihydroxyborane (B(OH) <sub>2</sub> )	5	298.15	6000
57	B1H3(g)	Borane (BH <sub>3</sub> )	5	298.15	6000
717	B1H3O3(cr)	Boric acid (H <sub>3</sub> BO <sub>3</sub> )	5	298.15	1500
58	B1H3O3(g)	Boric acid (H <sub>3</sub> BO <sub>3</sub> )	5	298.15	6000
744	B1H4K1(cr)	Potassium tetrahydroborate (KBH <sub>4</sub> )	5	298.15	2000
745	B1H4Li1(cr)	Lithium tetrahydroborate (LiBH <sub>4</sub> )	5	298.15	2000
59	B1H4Na1(cr)	Sodium tetrahydroborate (NaBH <sub>4</sub> )	5	298.15	2000
772	B1I1(g)	Iodoborane (BI)	5	298.15	6000
567	B1I2(g)	Diiodoborane (BI <sub>2</sub> )	5	298.15	6000
506	B1I3(g)	Triiodoborane (BI <sub>3</sub> )	5	298.15	6000
1121	B1K1O2(cr)	Potassium borate (KBO <sub>2</sub> )	5	298.15	2000
1568	B1K1O2(cr,l)	Potassium borate (KBO <sub>2</sub> )	5	298.15	2000
1123	B1K1O2(g)	Potassium borate (KBO <sub>2</sub> )	4	298.15	6000
1122	B1K1O2(l)	Potassium borate (KBO <sub>2</sub> )	4	298.15	2000
444	B1Li1O2(cr)	Lithium borate (LiBO <sub>2</sub> )	5	298.15	2000
1569	B1Li1O2(cr,l)	Lithium borate (LiBO <sub>2</sub> )	5	298.15	3000
653	B1Li1O2(g)	Lithium borate (LiBO <sub>2</sub> )	5	298.15	6000
445	B1Li1O2(l)	Lithium borate (LiBO <sub>2</sub> )	3	298.15	3000
60	B1N1(cr)	Boron nitride (BN)	5	298.15	3500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
61	B1N1(g)	Boron nitride (BN)	5	298.15	6000
62	B1Na1O2(cr)	Sodium borate (NaBO <sub>2</sub> )	5	298.15	2000
1570	B1Na1O2(cr,l)	Sodium borate (NaBO <sub>2</sub> )	5	298.15	2500
832	B1Na1O2(g)	Sodium borate (NaBO <sub>2</sub> )	5	298.15	6000
63	B1Na1O2(l)	Sodium borate (NaBO <sub>2</sub> )	3	298.15	2500
64	B1O1(g)	Boron oxide (BO)	5	298.15	6000
773	B1O2(g)	Boron oxide (BO <sub>2</sub> )	5	298.15	6000
1027	B1O2-(g)	Boron oxide, ion (BO <sub>2</sub> <sup>-</sup> )	5	298.15	6000
65	B1S1(g)	Boron sulfide (BS)	5	298.15	6000
746	B1Ti1(cr)	Titanium boride (TiB)	4	298.15	4000
66	B2(g)	Boron (B <sub>2</sub> )	5	298.15	6000
723	B2Be1O4(g)	Beryllium borate (Be(BO <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
927	B2Be3O6(cr)	Beryllium borate (Be <sub>3</sub> B <sub>2</sub> O <sub>6</sub> )	5	298.15	3000
67	B2Cl4(g)	Dichloroborane ((BCl <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
827	B2F4(g)	Difluoroborane ((BF <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
1102	B2F4O1(g)	Difluoroborane oxide (O(BF <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
875	B2H4O4(cr)	Dihydroxyborane ((B(OH) <sub>2</sub> ) <sub>2</sub> )	5	298.15	1500
874	B2H4O4(g)	Dihydroxyborane ((B(OH) <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
68	B2H6(g)	Diborane (B <sub>2</sub> H <sub>6</sub> )	5	298.15	6000
747	B2Mg1(cr)	Magnesium boride (MgB <sub>2</sub> )	5	298.15	2000
889	B2O1(g)	Boron oxide (B <sub>2</sub> O)	5	298.15	6000
69	B2O2(g)	Boron oxide ((BO) <sub>2</sub> )	5	298.15	6000
70	B2O3(cr)	Boron oxide (B <sub>2</sub> O <sub>3</sub> )	5	298.15	1500
1571	B2O3(cr,l)	Boron oxide (B <sub>2</sub> O <sub>3</sub> )	5	298.15	3000
72	B2O3(g)	Boron oxide (B <sub>2</sub> O <sub>3</sub> )	5	298.15	6000
71	B2O3(l)	Boron oxide (B <sub>2</sub> O <sub>3</sub> )	5	298.15	3000
576	B2O4Pb1(cr)	Lead borate (PbB <sub>2</sub> O <sub>4</sub> )	5	298.15	2000
691	B2Ti1(cr)	Titanium boride (TiB <sub>2</sub> )	5	298.15	4000
1572	B2Ti1(cr,l)	Titanium boride (TiB <sub>2</sub> )	5	298.15	6000
692	B2Ti1(l)	Titanium boride (TiB <sub>2</sub> )	5	298.15	6000
693	B2Zr1(cr)	Zirconium boride (ZrB <sub>2</sub> )	5	298.15	4000
1573	B2Zr1(cr,l)	Zirconium boride (ZrB <sub>2</sub> )	5	298.15	5000
694	B2Zr1(l)	Zirconium boride (ZrB <sub>2</sub> )	5	298.15	5000
73	B3Cl3O3(g)	Trichloroboroxin (B <sub>3</sub> O <sub>3</sub> Cl <sub>3</sub> )	5	298.15	6000
748	B3F1H2O3(g)	Fluoroboroxin (B <sub>3</sub> H <sub>2</sub> O <sub>3</sub> F)	5	298.15	6000
749	B3F2H1O3(g)	Difluoroboroxin (B <sub>3</sub> HO <sub>3</sub> F <sub>2</sub> )	5	298.15	6000
695	B3F3O3(cr)	Trifluoroboroxin (B <sub>3</sub> O <sub>3</sub> F <sub>3</sub> )	5	298.15	1500
74	B3F3O3(g)	Trifluoroboroxin (B <sub>3</sub> O <sub>3</sub> F <sub>3</sub> )	5	298.15	6000
835	B3H3O3(cr)	Boroxin (B <sub>3</sub> H <sub>3</sub> O <sub>3</sub> )	5	298.15	2000
750	B3H3O3(g)	Boroxin (B <sub>3</sub> H <sub>3</sub> O <sub>3</sub> )	5	298.15	6000
75	B3H3O6(g)	Boric acid ((HBO <sub>2</sub> ) <sub>3</sub> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
76	B3H6N3(g)	Borazine (B <sub>3</sub> H <sub>6</sub> N <sub>3</sub> )	5	298.15	6000
751	B4K2O7(cr)	Potassium borate (K <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	5	298.15	1500
1574	B4K2O7(cr,l)	Potassium borate (K <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	6	298.15	3000
752	B4K2O7(l)	Potassium borate (K <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	5	298.15	3000
570	B4Li2O7(cr)	Lithium borate (Li <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	5	298.15	2000
1575	B4Li2O7(cr,l)	Lithium borate (Li <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	6	298.15	3000
571	B4Li2O7(l)	Lithium borate (Li <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	3	298.15	3000
753	B4Mg1(cr)	Magnesium boride (MgB <sub>4</sub> )	5	298.15	2000
79	B4Na2O7(cr)	Sodium borate (Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	5	298.15	2000
1576	B4Na2O7(cr,l)	Sodium borate (Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	5	298.15	3000
80	B4Na2O7(l)	Sodium borate (Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> )	3	298.15	3000
577	B4O7Pb1(cr)	Lead borate (PbB <sub>4</sub> O <sub>7</sub> )	5	298.15	2000
81	B5H9(g)	Pentaborane (B <sub>5</sub> H <sub>9</sub> )	5	298.15	6000
724	B5H9(l)	Pentaborane (B <sub>5</sub> H <sub>9</sub> )	5	298.15	1500
754	B6K2O10(cr)	Potassium borate (K <sub>2</sub> B <sub>6</sub> O <sub>10</sub> )	5	298.15	2000
572	B6Li2O10(cr)	Lithium borate (Li <sub>2</sub> B <sub>6</sub> O <sub>10</sub> )	5	298.15	2000
755	B6Na2O10(cr)	Sodium borate (Na <sub>2</sub> B <sub>6</sub> O <sub>10</sub> )	5	298.15	2000
578	B6O10Pb1(cr)	Lead borate (PbB <sub>6</sub> O <sub>10</sub> )	5	298.15	2000
756	B8K2O13(cr)	Potassium borate (K <sub>2</sub> B <sub>8</sub> O <sub>13</sub> )	5	298.15	2000
1577	B8K2O13(cr,l)	Potassium borate (K <sub>2</sub> B <sub>8</sub> O <sub>13</sub> )	5	298.15	3000
757	B8K2O13(l)	Potassium borate (K <sub>2</sub> B <sub>8</sub> O <sub>13</sub> )	5	298.15	3000
574	B8Li2O13(cr)	Lithium borate (Li <sub>2</sub> B <sub>8</sub> O <sub>13</sub> )	5	298.15	2000
1104	Ba1(cr)	Barium (Ba)	5	298.15	1500
1585	Ba1(cr,l)	Barium (Ba)	8	298.15	3500
1106	Ba1(g)	Barium (Ba)	5	298.15	6000
1105	Ba1(l)	Barium (Ba)	5	298.15	3500
1555	Ba1+(g)	Barium, ion (Ba <sup>+</sup> )	5	298.15	6000
1268	Ba1Br1(g)	Barium bromide (BaBr)	5	298.15	6000
1269	Ba1Br2(cr)	Barium bromide (BaBr <sub>2</sub> )	2	298.15	1500
1579	Ba1Br2(cr,l)	Barium bromide (BaBr <sub>2</sub> )	5	298.15	3000
1271	Ba1Br2(g)	Barium bromide (BaBr <sub>2</sub> )	5	298.15	6000
1270	Ba1Br2(l)	Barium bromide (BaBr <sub>2</sub> )	2	298.15	3000
1155	Ba1Cl1(g)	Barium chloride (BaCl)	5	298.15	6000
1156	Ba1Cl2(cr)	Barium chloride (BaCl <sub>2</sub> )	5	298.15	2000
1580	Ba1Cl2(cr,l)	Barium chloride (BaCl <sub>2</sub> )	5	298.15	3000
1158	Ba1Cl2(g)	Barium chloride (BaCl <sub>2</sub> )	5	298.15	6000
1157	Ba1Cl2(l)	Barium chloride (BaCl <sub>2</sub> )	4	298.15	3000
1159	Ba1F1(g)	Barium fluoride (BaF)	5	298.15	6000
1160	Ba1F1+(g)	Barium fluoride, ion (BaF <sup>+</sup> )	5	298.15	6000
1161	Ba1F2(cr)	Barium fluoride (BaF <sub>2</sub> )	8	298.15	2000
1581	Ba1F2(cr,l)	Barium fluoride (BaF <sub>2</sub> )	7	298.15	3500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1163	Ba1F2(g)	Barium fluoride (BaF <sub>2</sub> )	5	298.15	6000
1162	Ba1F2(l)	Barium fluoride (BaF <sub>2</sub> )	5	298.15	3500
1292	Ba1H1O1(g)	Barium hydroxide (BaOH)	5	298.15	6000
1298	Ba1H1O1+(g)	Barium hydroxide, ion (BaOH <sup>+</sup> )	5	298.15	6000
1299	Ba1H2O2(cr)	Barium hydroxide, alpha (Ba(OH) <sub>2</sub> )	4	298.15	1000
1582	Ba1H2O2(cr,l)	Barium hydroxide (Ba(OH) <sub>2</sub> )	5	298.15	2000
1301	Ba1H2O2(g)	Barium hydroxide (Ba(OH) <sub>2</sub> )	5	298.15	6000
1300	Ba1H2O2(l)	Barium hydroxide (Ba(OH) <sub>2</sub> )	2	298.15	2000
1247	Ba1I1(g)	Barium iodide (BaI)	5	298.15	6000
1248	Ba1I2(cr)	Barium iodide (BaI <sub>2</sub> )	2	298.15	1500
1583	Ba1I2(cr,l)	Barium iodide (BaI <sub>2</sub> )	2	298.15	2800
1250	Ba1I2(g)	Barium iodide (BaI <sub>2</sub> )	3	298.15	6000
1249	Ba1I2(l)	Barium iodide (BaI <sub>2</sub> )	2	298.15	2800
1164	Ba1O1(cr)	Barium oxide (BaO)	5	298.15	3000
1584	Ba1O1(cr,l)	Barium oxide (BaO)	5	298.15	5000
1251	Ba1O1(g)	Barium oxide (BaO)	5	298.15	6000
1165	Ba1O1(l)	Barium oxide (BaO)	5	298.15	5000
1396	Ba1S1(cr)	Barium sulfide (BaS)	5	298.15	3000
1397	Ba1S1(g)	Barium sulfide (BaS)	5	298.15	6000
84	Be1(cr)	Beryllium (Be)	6	298.15	2000
1766	Be1(cr,l)	Beryllium (Be)	6	298.15	3500
86	Be1(g)	Beryllium (Be)	5	298.15	6000
85	Be1(l)	Beryllium (Be)	5	298.15	3500
844	Be1+(g)	Beryllium, ion (Be <sup>+</sup> )	5	298.15	6000
507	Be1Br1(g)	Beryllium bromide (BeBr)	5	298.15	6000
508	Be1Br2(cr)	Beryllium bromide (BeBr <sub>2</sub> )	5	298.15	1500
510	Be1Br2(g)	Beryllium bromide (BeBr <sub>2</sub> )	5	298.15	6000
88	Be1Cl1(g)	Beryllium chloride (BeCl)	5	298.15	6000
1028	Be1Cl1+(g)	Beryllium chloride, ion (BeCl <sup>+</sup> )	5	298.15	6000
89	Be1Cl1F1(g)	Beryllium chloride fluoride (BeClF)	5	298.15	6000
845	Be1Cl2(cr)_01	Beryllium chloride, alpha (BeCl <sub>2</sub> )	5	298.15	1500
462	Be1Cl2(cr)_02	Beryllium chloride, beta (BeCl <sub>2</sub> )	5	298.15	1500
1587	Be1Cl2(cr,l)	Beryllium chloride (BeCl <sub>2</sub> )	5	298.15	2000
90	Be1Cl2(g)	Beryllium chloride (BeCl <sub>2</sub> )	5	298.15	6000
463	Be1Cl2(l)	Beryllium chloride (BeCl <sub>2</sub> )	2	298.15	2000
91	Be1F1(g)	Beryllium fluoride (BeF)	5	298.15	6000
464	Be1F2(cr)	Beryllium fluoride (BeF <sub>2</sub> )	2	298.15	1300
1588	Be1F2(cr,l)	Beryllium fluoride (BeF <sub>2</sub> )	5	298.15	2000
92	Be1F2(g)	Beryllium fluoride (BeF <sub>2</sub> )	5	298.15	6000
465	Be1F2(l)	Beryllium fluoride (BeF <sub>2</sub> )	5	298.15	2000
890	Be1F3Li1(cr)	Lithium trifluoroberyllate (LiBeF <sub>3</sub> )	2	298.15	1200

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1589	Be1F3Li1(cr,l)	Lithium trifluoroberyllate (LiBeF <sub>3</sub> )	2	298.15	2000
725	Be1F3Li1(g)	Lithium trifluoroberyllate (LiBeF <sub>3</sub> )	5	298.15	6000
1133	Be1F3Li1(l)	Lithium trifluoroberyllate (LiBeF <sub>3</sub> )	2	298.15	2000
891	Be1F4Li2(cr)	Lithium tetrafluoroberyllate (Li <sub>2</sub> BeF <sub>4</sub> )	2	298.15	1500
1590	Be1F4Li2(cr,l)	Lithium tetrafluoroberyllate (Li <sub>2</sub> BeF <sub>4</sub> )	2	298.15	2500
892	Be1F4Li2(l)	Lithium tetrafluoroberyllate (Li <sub>2</sub> BeF <sub>4</sub> )	2	298.15	2500
93	Be1H1(g)	Beryllium hydride (BeH)	5	298.15	6000
928	Be1H1+(g)	Beryllium hydride, ion (BeH <sup>+</sup> )	5	298.15	6000
94	Be1H1O1(g)	Beryllium hydroxide (BeOH)	5	298.15	6000
1029	Be1H1O1+(g)	Beryllium hydroxide, ion (BeOH <sup>+</sup> )	5	298.15	6000
95	Be1H2(g)	Beryllium hydride (BeH <sub>2</sub> )	5	298.15	6000
951	Be1H2O2(cr)_01	Beryllium hydroxide, alpha (Be(OH) <sub>2</sub> )	2	298.15	1000
96	Be1H2O2(cr)_02	Beryllium hydroxide, beta (Be(OH) <sub>2</sub> )	2	298.15	1000
97	Be1H2O2(g)	Beryllium hydroxide (Be(OH) <sub>2</sub> )	5	298.15	6000
511	Be1I1(g)	Beryllium iodide (BeI)	5	298.15	6000
512	Be1I2(cr)	Beryllium iodide (BeI <sub>2</sub> )	4	298.15	1500
1591	Be1I2(cr,l)	Beryllium iodide (BeI <sub>2</sub> )	3	298.15	1500
514	Be1I2(g)	Beryllium iodide (BeI <sub>2</sub> )	5	298.15	6000
513	Be1I2(l)	Beryllium iodide (BeI <sub>2</sub> )	2	298.15	1500
774	Be1N1(g)	Beryllium nitride (BeN)	5	298.15	6000
98	Be1O1(cr)_01	Beryllium oxide, alpha (BeO)	5	298.15	3500
1124	Be1O1(cr)_02	Beryllium oxide, beta (BeO)	5	298.15	3500
1592	Be1O1(cr,l)	Beryllium oxide (BeO)	5	298.15	5000
100	Be1O1(g)	Beryllium oxide (BeO)	5	298.15	6000
99	Be1O1(l)	Beryllium oxide (BeO)	5	298.15	5000
929	Be1O4S1(cr)_01	Beryllium sulfate, alpha (BeSO <sub>4</sub> )	5	298.15	2300
930	Be1O4S1(cr)_02	Beryllium sulfate, beta (BeSO <sub>4</sub> )	5	298.15	2300
931	Be1O4S1(cr)_03	Beryllium sulfate, gamma (BeSO <sub>4</sub> )	5	298.15	2300
775	Be1O4W1(cr)	Beryllium tungsten oxide (BeWO <sub>4</sub> )	5	298.15	2000
1398	Be1S1(cr)	Beryllium sulfide (BeS)	5	298.15	3000
1399	Be1S1(g)	Beryllium sulfide (BeS)	5	298.15	6000
1749	Be2(g)	Beryllium (Be <sub>2</sub> )	5	298.15	6000
103	Be2Cl4(g)	Beryllium chloride ((BeCl <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
893	Be2F2O1(g)	Beryllium fluoride oxide (O(BeF) <sub>2</sub> )	5	298.15	6000
796	Be2O1(g)	Beryllium oxide (Be <sub>2</sub> O)	5	298.15	6000
104	Be2O2(g)	Beryllium oxide ((BeO) <sub>2</sub> )	5	298.15	6000
467	Be2O4Si1(cr)	Beryllium silicate (Be <sub>2</sub> SiO <sub>4</sub> )	5	298.15	3000
105	Be3N2(cr)	Beryllium nitride, alpha (Be <sub>3</sub> N <sub>2</sub> )	6	298.15	3000
1593	Be3N2(cr,l)	Beryllium nitride (Be <sub>3</sub> N <sub>2</sub> )	6	298.15	4000
106	Be3N2(l)	Beryllium nitride (Be <sub>3</sub> N <sub>2</sub> )	2	298.15	4000
107	Be3O3(g)	Beryllium oxide ((BeO) <sub>3</sub> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
108	Be4O4(g)	Beryllium oxide ((BeO) <sub>4</sub> )	5	298.15	6000
109	Be5O5(g)	Beryllium oxide ((BeO) <sub>5</sub> )	5	298.15	6000
110	Be6O6(g)	Beryllium oxide ((BeO) <sub>6</sub> )	5	298.15	6000
468	Br1(g)	Bromine (Br)	5	298.15	6000
1734	Br1-(g)	Bromine, ion (Br <sup>-</sup> )	2	298.15	6000
1733	Br1+(g)	Bromine, ion (Br <sup>+</sup> )	5	298.15	6000
1272	Br1Ca1(g)	Calcium bromide (CaBr)	5	298.15	6000
699	Br1Cl1(g)	Bromine chloride (BrCl)	5	298.15	6000
654	Br1F1(g)	Bromine fluoride (BrF)	5	298.15	6000
655	Br1F3(g)	Bromine fluoride (BrF <sub>3</sub> )	5	298.15	6000
700	Br1F5(g)	Bromine fluoride (BrF <sub>5</sub> )	5	298.15	6000
1434	Br1F5S1(g)	Sulfur bromide fluoride (SBrF <sub>5</sub> )	5	298.15	6000
469	Br1H1(g)	Hydrogen bromide (HBr)	5	298.15	6000
1323	Br1H3Si1(g)	Bromosilane (SiH <sub>3</sub> Br)	5	298.15	6000
580	Br1H4N1(cr)	Ammonium bromide (NH <sub>4</sub> Br)	5	298.15	1500
515	Br1Hg1(g)	Mercury bromide (HgBr)	5	298.15	6000
701	Br1I1(g)	Iodine bromide (IBr)	5	298.15	6000
516	Br1K1(cr)	Potassium bromide (KBr)	5	298.15	1500
1594	Br1K1(cr,l)	Potassium bromide (KBr)	5	298.15	2500
518	Br1K1(g)	Potassium bromide (KBr)	5	298.15	6000
517	Br1K1(l)	Potassium bromide (KBr)	2	298.15	2500
470	Br1Li1(cr)	Lithium bromide (LiBr)	5	298.15	2000
1595	Br1Li1(cr,l)	Lithium bromide (LiBr)	4	298.15	2000
472	Br1Li1(g)	Lithium bromide (LiBr)	5	298.15	6000
471	Br1Li1(l)	Lithium bromide (LiBr)	2	298.15	2000
894	Br1Mg1(g)	Magnesium bromide (MgBr)	5	298.15	6000
1468	Br1Mo1(g)	Molybdenum bromide (MoBr)	5	298.15	6000
726	Br1N1(g)	Bromoimidogen (NBr)	5	298.15	6000
581	Br1N1O1(g)	Nitrosyl bromide (ONBr)	5	298.15	6000
821	Br1Na1(cr)	Sodium bromide (NaBr)	5	298.15	2000
1596	Br1Na1(cr,l)	Sodium bromide (NaBr)	4	298.15	2500
823	Br1Na1(g)	Sodium bromide (NaBr)	5	298.15	6000
822	Br1Na1(l)	Sodium bromide (NaBr)	2	298.15	2500
776	Br1P1(g)	Phosphorus bromide (PBr)	5	298.15	6000
582	Br1Pb1(g)	Lead bromide (PbBr)	5	298.15	6000
1324	Br1Si1(g)	Bromosilylidyne (SiBr)	5	298.15	6000
1273	Br1Sr1(g)	Strontium bromide (SrBr)	5	298.15	6000
519	Br1Ti1(g)	Titanium bromide (TiBr)	5	298.15	6000
977	Br1W1(g)	Tungsten bromide (WBr)	5	298.15	6000
824	Br1Zr1(g)	Zirconium bromide (ZrBr)	5	298.15	6000
474	Br2(cr,l)	Bromine (Br <sub>2</sub> )	2	298.15	500

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475	Br2(g)	Bromine (Br <sub>2</sub> )	5	298.15	6000
1252	Br2Ca1(cr)	Calcium bromide (CaBr <sub>2</sub> )	5	298.15	1500
1597	Br2Ca1(cr,l)	Calcium bromide (CaBr <sub>2</sub> )	5	298.15	2500
1254	Br2Ca1(g)	Calcium bromide (CaBr <sub>2</sub> )	5	298.15	6000
1253	Br2Ca1(l)	Calcium bromide (CaBr <sub>2</sub> )	3	298.15	2500
932	Br2Fe1(cr)	Iron bromide (FeBr <sub>2</sub> )	2	298.15	1500
1598	Br2Fe1(cr,l)	Iron bromide (FeBr <sub>2</sub> )	4	298.15	2000
934	Br2Fe1(g)	Iron bromide (FeBr <sub>2</sub> )	5	298.15	6000
933	Br2Fe1(l)	Iron bromide (FeBr <sub>2</sub> )	2	298.15	2000
1325	Br2H2Si1(g)	Dibromosilane (SiH <sub>2</sub> Br <sub>2</sub> )	5	298.15	6000
583	Br2Hg1(cr)	Mercury bromide (HgBr <sub>2</sub> )	2	298.15	1500
1599	Br2Hg1(cr,l)	Mercury bromide (HgBr <sub>2</sub> )	3	298.15	1500
585	Br2Hg1(g)	Mercury bromide (HgBr <sub>2</sub> )	5	298.15	6000
584	Br2Hg1(l)	Mercury bromide (HgBr <sub>2</sub> )	2	298.15	1500
586	Br2Hg2(cr)	Mercury bromide (Hg <sub>2</sub> Br <sub>2</sub> )	5	298.15	1500
520	Br2K2(g)	Potassium bromide ((KBr) <sub>2</sub> )	5	298.15	6000
476	Br2Li2(g)	Lithium bromide ((LiBr) <sub>2</sub> )	5	298.15	6000
895	Br2Mg1(cr)	Magnesium bromide (MgBr <sub>2</sub> )	5	298.15	1500
1600	Br2Mg1(cr,l)	Magnesium bromide (MgBr <sub>2</sub> )	5	298.15	2000
897	Br2Mg1(g)	Magnesium bromide (MgBr <sub>2</sub> )	5	298.15	6000
896	Br2Mg1(l)	Magnesium bromide (MgBr <sub>2</sub> )	3	298.15	2000
1255	Br2Mg1+(g)	Magnesium bromide, ion (MgBr <sub>2</sub> <sup>+</sup> )	5	298.15	6000
1469	Br2Mo1(cr)	Molybdenum bromide (MoBr <sub>2</sub> )	2	298.15	1800
1470	Br2Mo1(g)	Molybdenum bromide (MoBr <sub>2</sub> )	5	298.15	6000
825	Br2Na2(g)	Sodium bromide ((NaBr) <sub>2</sub> )	5	298.15	6000
587	Br2Pb1(cr)	Lead bromide (PbBr <sub>2</sub> )	4	298.15	1000
1601	Br2Pb1(cr,l)	Lead bromide (PbBr <sub>2</sub> )	3	298.15	2000
589	Br2Pb1(g)	Lead bromide (PbBr <sub>2</sub> )	5	298.15	6000
588	Br2Pb1(l)	Lead bromide (PbBr <sub>2</sub> )	2	298.15	2000
1326	Br2Si1(g)	Dibromosilylene (SiBr <sub>2</sub> )	5	298.15	6000
1256	Br2Sr1(cr)	Strontium bromide (SrBr <sub>2</sub> )	5	298.15	1500
1602	Br2Sr1(cr,l)	Strontium bromide (SrBr <sub>2</sub> )	5	298.15	3000
1258	Br2Sr1(g)	Strontium bromide (SrBr <sub>2</sub> )	5	298.15	6000
1257	Br2Sr1(l)	Strontium bromide (SrBr <sub>2</sub> )	2	298.15	3000
521	Br2Ti1(cr)	Titanium bromide (TiBr <sub>2</sub> )	2	298.15	1500
813	Br2Ti1(g)	Titanium bromide (TiBr <sub>2</sub> )	5	298.15	6000
590	Br2Zr1(cr)	Zirconium bromide (ZrBr <sub>2</sub> )	2	298.15	1500
1603	Br2Zr1(cr,l)	Zirconium bromide (ZrBr <sub>2</sub> )	2	298.15	2000
592	Br2Zr1(g)	Zirconium bromide (ZrBr <sub>2</sub> )	5	298.15	6000
591	Br2Zr1(l)	Zirconium bromide (ZrBr <sub>2</sub> )	2	298.15	2000
1327	Br3H1Si1(g)	Tribromosilane (SiHBr <sub>3</sub> )	5	298.15	6000



JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1471	Br3Mo1(cr)	Molybdenum bromide (MoBr <sub>3</sub> )	2	298.15	1500
1472	Br3Mo1(g)	Molybdenum bromide (MoBr <sub>3</sub> )	5	298.15	6000
758	Br3O1P1(g)	Phosphoryl bromide (POBr <sub>3</sub> )	5	298.15	6000
805	Br3P1(g)	Phosphorus bromide (PBr <sub>3</sub> )	5	298.15	6000
759	Br3P1S1(g)	Thiophosphoryl bromide (PSBr <sub>3</sub> )	5	298.15	6000
1435	Br3Si1(g)	Tribromosilyl (SiBr <sub>3</sub> )	5	298.15	6000
522	Br3Ti1(cr)	Titanium bromide (TiBr <sub>3</sub> )	5	298.15	1500
814	Br3Ti1(g)	Titanium bromide (TiBr <sub>3</sub> )	5	298.15	6000
593	Br3Zr1(cr)	Zirconium bromide (ZrBr <sub>3</sub> )	5	298.15	2000
815	Br3Zr1(g)	Zirconium bromide (ZrBr <sub>3</sub> )	5	298.15	6000
935	Br4Fe2(g)	Iron bromide ((FeBr <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
1259	Br4Mg2(g)	Magnesium bromide ((MgBr <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
1473	Br4Mo1(cr)	Molybdenum bromide (MoBr <sub>4</sub> )	3	298.15	1000
1474	Br4Mo1(g)	Molybdenum bromide (MoBr <sub>4</sub> )	5	298.15	6000
656	Br4Pb1(g)	Lead bromide (PbBr <sub>4</sub> )	5	298.15	6000
1329	Br4Si1(g)	Tetrabromosilane (SiBr <sub>4</sub> )	5	298.15	6000
1328	Br4Si1(l)	Tetrabromosilane (SiBr <sub>4</sub> )	2	298.15	800
523	Br4Ti1(cr)	Titanium bromide (TiBr <sub>4</sub> )	2	298.15	1500
1604	Br4Ti1(cr,l)	Titanium bromide (TiBr <sub>4</sub> )	3	298.15	1000
525	Br4Ti1(g)	Titanium bromide (TiBr <sub>4</sub> )	5	298.15	6000
524	Br4Ti1(l)	Titanium bromide (TiBr <sub>4</sub> )	2	298.15	1000
595	Br4Zr1(cr)	Zirconium bromide (ZrBr <sub>4</sub> )	4	298.15	1000
597	Br4Zr1(g)	Zirconium bromide (ZrBr <sub>4</sub> )	5	298.15	6000
1274	Br5Nb1(cr)	Niobium bromide (NbBr <sub>5</sub> )	2	298.15	800
1605	Br5Nb1(cr,l)	Niobium bromide (NbBr <sub>5</sub> )	4	298.15	900
1276	Br5Nb1(g)	Niobium bromide (NbBr <sub>5</sub> )	5	298.15	6000
1275	Br5Nb1(l)	Niobium bromide (NbBr <sub>5</sub> )	4	298.15	900
727	Br5W1(cr)	Tungsten bromide (WBr <sub>5</sub> )	4	298.15	1000
1606	Br5W1(cr,l)	Tungsten bromide (WBr <sub>5</sub> )	2	298.15	1000
729	Br5W1(g)	Tungsten bromide (WBr <sub>5</sub> )	5	298.15	6000
728	Br5W1(l)	Tungsten bromide (WBr <sub>5</sub> )	2	298.15	1000
730	Br6W1(cr)	Tungsten bromide (WBr <sub>6</sub> )	2	298.15	1000
731	Br6W1(g)	Tungsten bromide (WBr <sub>6</sub> )	5	298.15	6000
1208	C0.98Nb1(cr)	Niobium carbide (NbC <sub>0.98</sub> )	5	298.15	3000
112	C1(g)	Carbon (C)	5	298.15	6000
568	C1-(g)	Carbon, ion (C <sup>-</sup> )	5	298.15	6000
111	C1(ref)	Carbon (C)	5	298.15	6000
1441	C1+(g)	Carbon, ion (C <sup>+</sup> )	5	298.15	6000
5	C1Al1(g)	Aluminum carbide (AlC)	5	298.15	6000
721	C1B1(g)	Boron carbide (BC)	5	298.15	6000
77	C1B4(cr)	Boron carbide (B <sub>4</sub> C)	5	298.15	3200

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1607	C1B4(cr,l)	Boron carbide (B <sub>4</sub> C)	5	298.15	4500
78	C1B4(l)	Boron carbide (B <sub>4</sub> C)	5	298.15	4500
101	C1Be2(cr)	Beryllium carbide (Be <sub>2</sub> C)	6	298.15	3500
1608	C1Be2(cr,l)	Beryllium carbide (Be <sub>2</sub> C)	5	298.15	3500
102	C1Be2(l)	Beryllium carbide (Be <sub>2</sub> C)	5	298.15	3500
978	C1Br1(g)	Bromomethylidyne (CBr)	5	298.15	6000
1073	C1Br1F3(g)	Bromotrifluoromethane (CBrF <sub>3</sub> )	5	298.15	6000
698	C1Br1N1(g)	Cyanogen bromide (BrCN)	5	298.15	6000
806	C1Br4(g)	Tetrabromomethane (CBr <sub>4</sub> )	5	298.15	6000
113	C1Cl1(g)	Chloromethylidyne (CCl)	5	298.15	6000
114	C1Cl1F1O1(g)	Carbonic chloride fluoride (COClF)	5	298.15	6000
115	C1Cl1F3(g)	Chlorotrifluoromethane (CClF <sub>3</sub> )	5	298.15	6000
116	C1Cl1N1(g)	Cyanogen chloride (ClCN)	5	298.15	6000
480	C1Cl1O1(g)	Carbonyl chloride (COCl)	5	298.15	6000
838	C1Cl2(g)	Dichloromethylene (CCl <sub>2</sub> )	5	298.15	6000
446	C1Cl2F2(g)	Dichlorodifluoromethane (CCl <sub>2</sub> F <sub>2</sub> )	5	298.15	6000
117	C1Cl2O1(g)	Carbonic dichloride (COCl <sub>2</sub> )	5	298.15	6000
842	C1Cl3(g)	Trichloromethyl (CCl <sub>3</sub> )	5	298.15	6000
118	C1Cl3F1(g)	Trichlorofluoromethane (CCl <sub>3</sub> F)	5	298.15	6000
119	C1Cl4(g)	Tetrachloromethane (CCl <sub>4</sub> )	5	298.15	6000
1134	C1Cu1N1(cr)	Copper cyanide (CuCN)	4	298.15	1000
120	C1F1(g)	Fluoromethylidyne (CF)	5	298.15	6000
1107	C1F1+(g)	Fluoromethylidyne, ion (CF <sup>+</sup> )	5	298.15	6000
121	C1F1N1(g)	Cyanogen fluoride (FCN)	5	298.15	6000
550	C1F1O1(g)	Carbonyl fluoride (COF)	5	298.15	6000
122	C1F2(g)	Difluoromethylene (CF <sub>2</sub> )	5	298.15	6000
1108	C1F2+(g)	Difluoromethylene, ion (CF <sub>2</sub> <sup>+</sup> )	5	298.15	6000
123	C1F2O1(g)	Carbonic difluoride (COF <sub>2</sub> )	5	298.15	6000
124	C1F3(g)	Trifluoromethyl (CF <sub>3</sub> )	5	298.15	6000
1135	C1F3+(g)	Trifluoromethyl, ion (CF <sub>3</sub> <sup>+</sup> )	5	298.15	6000
1074	C1F3I1(g)	Trifluoriodomethane (CIF <sub>3</sub> )	5	298.15	6000
125	C1F4(g)	Tetrafluoromethane (CF <sub>4</sub> )	5	298.15	6000
834	C1F4O1(g)	Trifluoromethyl hypofluorite (CF <sub>3</sub> OF)	5	298.15	6000
1436	C1F8S1(g)	Pentafluoro(trifluoromethyl)sulfur (CF <sub>3</sub> SF <sub>5</sub> )	5	298.15	6000
126	C1H1(g)	Methylidyne (CH)	5	298.15	6000
1136	C1H1+(g)	Methylidyne, ion (CH <sup>+</sup> )	5	298.15	6000
1078	C1H1Cl1(g)	Chloromethylene (CHCl)	5	298.15	6000
127	C1H1Cl1F2(g)	Chlorodifluoromethane (CHClF <sub>2</sub> )	5	298.15	6000
128	C1H1Cl2F1(g)	Dichlorofluoromethane (CHCl <sub>2</sub> F)	5	298.15	6000
129	C1H1Cl3(g)	Trichloromethane (CHCl <sub>3</sub> )	5	298.15	6000
1079	C1H1F1(g)	Fluoromethylene (CHF)	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
130	C1H1F1O1(g)	Formyl fluoride (HCOF)	5	298.15	6000
131	C1H1F3(g)	Trifluoromethane (CHF <sub>3</sub> )	5	298.15	6000
132	C1H1N1(g)	Hydrogen cyanide (HCN)	5	298.15	6000
133	C1H1N1O1(g)	Hydrogen isocyanate (HNCO)	5	298.15	6000
134	C1H1O1(g)	Formyl (HCO)	5	298.15	6000
898	C1H1O1+(g)	Formyl, unipositive ion (HCO <sup>+</sup> )	5	298.15	6000
1080	C1H1P1(g)	Methinophosphide (CHP)	5	298.15	6000
135	C1H2(g)	Methylene (CH <sub>2</sub> )	5	298.15	6000
136	C1H2Cl1F1(g)	Chlorofluoromethane (CH <sub>2</sub> ClF)	5	298.15	6000
137	C1H2Cl2(g)	Dichloromethane (CH <sub>2</sub> Cl <sub>2</sub> )	5	298.15	6000
138	C1H2F2(g)	Difluoromethane (CH <sub>2</sub> F <sub>2</sub> )	5	298.15	6000
139	C1H2O1(g)	Formaldehyde (H <sub>2</sub> CO)	5	298.15	6000
140	C1H3(g)	Methyl (CH <sub>3</sub> )	5	298.15	6000
141	C1H3Cl1(g)	Chloromethane (CH <sub>3</sub> Cl)	5	298.15	6000
142	C1H3Cl3Si1(g)	Trichloromethylsilane (SiCH <sub>3</sub> Cl <sub>3</sub> )	4	298.15	1500
143	C1H3F1(g)	Fluoromethane (CH <sub>3</sub> F)	5	298.15	6000
144	C1H3F3Si1(g)	Trifluoromethylsilane (SiCH <sub>3</sub> F <sub>3</sub> )	4	298.15	1500
145	C1H4(g)	Methane (CH <sub>4</sub> )	5	298.15	6000
702	C1I1N1(g)	Cyanogen iodide (CNI)	5	298.15	6000
657	C1K1N1(cr)	Potassium cyanide (KCN)	2	298.15	2000
1609	C1K1N1(cr,l)	Potassium cyanide (KCN)	4	298.15	3000
659	C1K1N1(g)	Potassium cyanide (KCN)	5	298.15	6000
658	C1K1N1(l)	Potassium cyanide (KCN)	2	298.15	3000
526	C1K2O3(cr)	Potassium carbonate (K <sub>2</sub> CO <sub>3</sub> )	5	298.15	2000
1610	C1K2O3(cr,l)	Potassium carbonate (K <sub>2</sub> CO <sub>3</sub> )	5	298.15	2500
527	C1K2O3(l)	Potassium carbonate (K <sub>2</sub> CO <sub>3</sub> )	3	298.15	2500
876	C1Li2O3(cr)	Lithium carbonate (Li <sub>2</sub> CO <sub>3</sub> )	5	298.15	2000
1611	C1Li2O3(cr,l)	Lithium carbonate (Li <sub>2</sub> CO <sub>3</sub> )	5	298.15	2000
877	C1Li2O3(l)	Lithium carbonate (Li <sub>2</sub> CO <sub>3</sub> )	5	298.15	2000
146	C1Mg1O3(cr)	Magnesium carbonate (MgCO <sub>3</sub> )	4	298.15	1000
147	C1N1(g)	Cyanogen (CN)	5	298.15	6000
1076	C1N1-(g)	Cyanide (CN <sup>-</sup> )	5	298.15	6000
1075	C1N1+(g)	Cyanogen, ion (CN <sup>+</sup> )	5	298.15	6000
148	C1N1Na1(cr)	Sodium cyanide (NaCN)	4	298.15	2000
1612	C1N1Na1(cr,l)	Sodium cyanide (NaCN)	5	298.15	3000
150	C1N1Na1(g)	Sodium cyanide (NaCN)	5	298.15	6000
149	C1N1Na1(l)	Sodium cyanide (NaCN)	2	298.15	3000
1109	C1N1O1(g)	NCO radical (NCO)	5	298.15	6000
899	C1N2(g)_01	CNN radical (CNN)	5	298.15	6000
900	C1N2(g)_02	NCN radical (NCN)	5	298.15	6000
151	C1Na2O3(cr)	Sodium carbonate (Na <sub>2</sub> CO <sub>3</sub> )	5	298.15	2000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1613	C1Na2O3(cr,l)	Sodium carbonate (NaCO <sub>3</sub> )	5	298.15	2500
152	C1Na2O3(l)	Sodium carbonate (Na <sub>2</sub> CO <sub>3</sub> )	4	298.15	2500
153	C1O1(g)	Carbon monoxide (CO)	5	298.15	6000
154	C1O1S1(g)	Carbon oxide sulfide (COS)	5	298.15	6000
155	C1O2(g)	Carbon dioxide (CO <sub>2</sub> )	5	298.15	6000
901	C1O2-(g)	Carbon dioxide, ion (CO <sub>2</sub> <sup>-</sup> )	5	298.15	6000
156	C1P1(g)	Carbon phosphide (CP)	5	298.15	6000
157	C1S1(g)	Carbon sulfide (CS)	5	298.15	6000
158	C1S2(g)	Carbon disulfide (CS <sub>2</sub> )	5	298.15	6000
159	C1Si1(cr)_01	Silicon carbide, alpha (SiC)	5	298.15	4000
967	C1Si1(cr)_02	Silicon carbide, beta (SiC)	5	298.15	4000
968	C1Si1(g)	Silicon carbide (SiC)	5	298.15	6000
969	C1Si2(g)	Silicon carbide (Si <sub>2</sub> C)	5	298.15	6000
1209	C1Ta1(cr)	Tantalum carbide (TaC)	5	298.15	4700
1614	C1Ta1(cr,l)	Tantalum carbide (TaC)	5	298.15	6000
1210	C1Ta1(l)	Tantalum carbide (TaC)	5	298.15	6000
160	C1Ti1(cr)	Titanium carbide (TiC)	5	298.15	4000
1565	C1Ti1(cr,l)	Titanium carbide (TiC)	6	298.15	4500
161	C1Ti1(l)	Titanium carbide (TiC)	5	298.15	4500
598	C1Zr1(cr)	Zirconium carbide (ZrC)	5	298.15	5000
1615	C1Zr1(cr,l)	Zirconium carbide (ZrC)	5	298.15	6000
599	C1Zr1(l)	Zirconium carbide (ZrC)	5	298.15	6000
162	C2(g)	Carbon (C <sub>2</sub> )	5	298.15	6000
902	C2-(g)	Carbon, ion (C <sub>2</sub> <sup>-</sup> )	5	298.15	6000
87	C2Be1(g)	Beryllium carbide (BeC <sub>2</sub> )	5	298.15	6000
1049	C2Cl2(g)	Dichloroethyne (C <sub>2</sub> Cl <sub>2</sub> )	5	298.15	6000
992	C2Cl4(g)	Tetrachloroethene (C <sub>2</sub> Cl <sub>4</sub> )	5	298.15	6000
993	C2Cl6(g)	Hexachloroethane (C <sub>2</sub> Cl <sub>6</sub> )	5	298.15	6000
1211	C2Cr3(cr)	Chromium carbide (Cr <sub>3</sub> C <sub>2</sub> )	5	298.15	2500
163	C2F2(g)	Difluoroethyne (C <sub>2</sub> F <sub>2</sub> )	5	298.15	6000
1081	C2F3N1(g)	Trifluoroacetonitrile (CF <sub>3</sub> CN)	5	298.15	6000
164	C2F4(g)	Tetrafluoroethene (C <sub>2</sub> F <sub>4</sub> )	5	298.15	6000
569	C2F6(g)	Hexafluoroethane (C <sub>2</sub> F <sub>6</sub> )	5	298.15	6000
952	C2H1(g)	Ethynyl (C <sub>2</sub> H)	5	298.15	6000
1050	C2H1Cl1(g)	Chloroethyne (C <sub>2</sub> HCl)	5	298.15	6000
1002	C2H1F1(g)	Fluoroethyne (C <sub>2</sub> HF)	5	298.15	6000
165	C2H2(g)	Ethyne (C <sub>2</sub> H <sub>2</sub> )	5	298.15	6000
166	C2H4(g)	Ethene (C <sub>2</sub> H <sub>4</sub> )	5	298.15	6000
167	C2H4O1(g)	Oxirane (C <sub>2</sub> H <sub>4</sub> O)	5	298.15	6000
660	C2K2N2(g)	Potassium cyanide ((KCN) <sub>2</sub> )	5	298.15	6000
168	C2Li2(cr)	Lithium carbide (Li <sub>2</sub> C <sub>2</sub> )	5	298.15	2000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
169	C2Mg1(cr)	Magnesium carbide (MgC <sub>2</sub> )	5	298.15	2500
970	C2N1(g)	CNC radical (C <sub>2</sub> N)	5	298.15	6000
170	C2N2(g)	Ethanedinitrile ((CN) <sub>2</sub> )	5	298.15	6000
878	C2N2Na2(g)	Sodium cyanide ((NaCN) <sub>2</sub> )	5	298.15	6000
903	C2O1(g)	CCO radical (C <sub>2</sub> O)	5	298.15	6000
971	C2Si1(g)	Silicon carbide (SiC <sub>2</sub> )	5	298.15	6000
171	C3(g)	Carbon (C <sub>3</sub> )	5	298.15	6000
36	C3Al4(cr)	Aluminum carbide (Al <sub>4</sub> C <sub>3</sub> )	5	298.15	3000
1213	C3Cr7(cr)	Chromium carbide (Cr <sub>7</sub> C <sub>3</sub> )	5	298.15	2500
172	C3Mg2(cr)	Magnesium carbide (Mg <sub>2</sub> C <sub>3</sub> )	5	298.15	2500
173	C3O2(g)	Carbon suboxide (C <sub>3</sub> O <sub>2</sub> )	5	298.15	6000
174	C4(g)	Carbon (C <sub>4</sub> )	5	298.15	6000
175	C4H12Si1(g)	Tetramethylsilane (Si(CH <sub>3</sub> ) <sub>4</sub> )	5	298.15	1500
176	C4N2(g)	<sup>2</sup> Butynedinitrile (C <sub>4</sub> N <sub>2</sub> )	5	298.15	6000
1443	C4Ni1O4(g)	Nickel carbonyl (Ni(CO) <sub>4</sub> )	5	298.15	6000
1442	C4Ni1O4(l)	Nickel carbonyl (Ni(CO) <sub>4</sub> )	2	298.15	700
177	C5(g)	Carbon (C <sub>5</sub> )	5	298.15	6000
1445	C5Fe1O5(g)	Iron carbonyl (Fe(CO) <sub>5</sub> )	5	298.15	6000
1444	C5Fe1O5(l)	Iron carbonyl (Fe(CO) <sub>5</sub> )	2	298.15	700
1214	C6Cr23(cr)	Chromium carbide (Cr <sub>23</sub> C <sub>6</sub> )	5	298.15	2000
1052	Ca1(cr)_01	Calcium, alpha (Ca)	4	298.15	1100
1053	Ca1(cr)_02	Calcium, beta (Ca)	5	298.15	1500
509	Ca1(cr,l)	Calcium (Ca)	5	298.15	2500
1055	Ca1(g)	Calcium (Ca)	5	298.15	6000
1054	Ca1(l)	Calcium (Ca)	2	298.15	2500
1110	Ca1+(g)	Calcium, ion (Ca <sup>+</sup> )	5	298.15	6000
1087	Ca1Cl1(g)	Calcium chloride (CaCl)	5	298.15	6000
1088	Ca1Cl2(cr)	Calcium chloride (CaCl <sub>2</sub> )	5	298.15	2000
1745	Ca1Cl2(cr,l)	Calcium chloride (CaCl <sub>2</sub> )	5	298.15	3000
1090	Ca1Cl2(g)	Calcium chloride (CaCl <sub>2</sub> )	5	298.15	6000
1089	Ca1Cl2(l)	Calcium chloride (CaCl <sub>2</sub> )	3	298.15	3000
1056	Ca1F1(g)	Calcium fluoride (CaF)	5	298.15	6000
1057	Ca1F2(cr)	Calcium fluoride (CaF <sub>2</sub> )	5	298.15	2700
1617	Ca1F2(cr,l)	Calcium fluoride (CaF <sub>2</sub> )	5	298.15	4000
1059	Ca1F2(g)	Calcium fluoride (CaF <sub>2</sub> )	4	298.15	6000
1058	Ca1F2(l)	Calcium fluoride (CaF <sub>2</sub> )	5	298.15	4000
1091	Ca1H1O1(g)	Calcium hydroxide (CaOH)	5	298.15	6000
1092	Ca1H1O1+(g)	Calcium hydroxide, ion (CaOH <sup>+</sup> )	5	298.15	6000
1137	Ca1H2O2(cr)	Calcium hydroxide (Ca(OH) <sub>2</sub> )	2	298.15	1000
1302	Ca1H2O2(g)	Calcium hydroxide (Ca(OH) <sub>2</sub> )	5	298.15	6000
1260	Ca1I1(g)	Calcium iodide (CaI)	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1261	CaI2(cr)	Calcium iodide (CaI <sub>2</sub> )	2	298.15	1500
1618	CaI2(cr,l)	Calcium iodide (CaI <sub>2</sub> )	5	298.15	2500
1263	CaI2(g)	Calcium iodide (CaI <sub>2</sub> )	5	298.15	6000
1262	CaI2(l)	Calcium iodide (CaI <sub>2</sub> )	3	298.15	2500
1125	CaIO1(cr)	Calcium oxide (CaO)	5	298.15	3600
1619	CaIO1(cr,l)	Calcium oxide (CaO)	5	298.15	4500
1277	CaIO1(g)	Calcium oxide (CaO)	5	298.15	6000
1126	CaIO1(l)	Calcium oxide (CaO)	5	298.15	4500
1138	CaS1(cr)	Calcium sulfide (CaS)	5	298.15	3000
1400	CaS1(g)	Calcium sulfide (CaS)	5	298.15	6000
1278	Ca2(g)	Calcium (Ca <sub>2</sub> )	5	298.15	6000
178	Cl1(g)	Chlorine (Cl)	5	298.15	6000
847	Cl1-(g)	Chlorine, ion (Cl <sup>-</sup> )	2	298.15	6000
846	Cl1+(g)	Chlorine, ion (Cl <sup>+</sup> )	5	298.15	6000
954	Cl10W2(g)	Tungsten chloride ((WCl <sub>5</sub> ) <sub>2</sub> )	4	298.15	6000
1215	Cl1Co1(g)	Cobalt chloride (CoCl)	5	298.15	6000
1030	Cl1Cs1(cr)	Cesium chloride (CsCl)	4	298.15	2000
1620	Cl1Cs1(cr,l)	Cesium chloride (CsCl)	5	298.15	3000
1032	Cl1Cs1(g)	Cesium chloride (CsCl)	5	298.15	6000
1031	Cl1Cs1(l)	Cesium chloride (CsCl)	2	298.15	3000
879	Cl1Cu1(cr)	Copper chloride (CuCl)	5	298.15	1500
1621	Cl1Cu1(cr,l)	Copper chloride (CuCl)	5	298.15	3000
881	Cl1Cu1(g)	Copper chloride (CuCl)	4	298.15	6000
880	Cl1Cu1(l)	Copper chloride (CuCl)	2	298.15	3000
1373	Cl1D1(g)	Hydrochloric acid·D (DCl)	5	298.15	6000
1504	Cl1D1O1(g)	Hypochlorous acid·D (DOCl)	5	298.15	6000
179	Cl1F1(g)	Chlorine fluoride (ClF)	5	298.15	6000
180	Cl1F1Li2(g)	Lithium chloride fluoride (Li <sub>2</sub> ClF)	5	298.15	6000
181	Cl1F1Mg1(g)	Magnesium chloride fluoride (MgClF)	5	298.15	6000
1127	Cl1F1O2S1(g)	Sulfuryl chloride fluoride (SO <sub>2</sub> ClF)	5	298.15	6000
182	Cl1F1O3(g)	Perchloryl fluoride (ClO <sub>3</sub> F)	5	298.15	6000
760	Cl1F2O1P1(g)	Phosphoryl chloride fluoride (POClF <sub>2</sub> )	5	298.15	6000
183	Cl1F3(g)	Chlorine fluoride (ClF <sub>3</sub> )	5	298.15	6000
184	Cl1F3Si1(g)	Chlorotrifluorosilane (SiClF <sub>3</sub> )	5	298.15	6000
904	Cl1F5(g)	Chlorine fluoride (ClF <sub>5</sub> )	5	298.15	6000
1437	Cl1F5S1(g)	Sulfur chloride fluoride (SClF <sub>5</sub> )	5	298.15	6000
848	Cl1Fe1(g)	Iron chloride (FeCl)	5	298.15	6000
185	Cl1H1(g)	Hydrogen chloride (HCl)	5	298.15	6000
186	Cl1H1O1(g)	Hypochlorous acid (HOCl)	5	298.15	6000
187	Cl1H3Si1(g)	Chlorosilane (SiH <sub>3</sub> Cl)	5	298.15	6000
188	Cl1H4N1(cr)	Ammonium chloride (NH <sub>4</sub> Cl)	5	298.15	1500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
189	Cl1H4N1O4(cr)	Ammonium perchlorate (NH <sub>4</sub> ClO <sub>4</sub> )	5	298.15	1500
528	Cl1Hg1(g)	Mercury chloride (HgCl)	4	298.15	6000
600	Cl1I1(cr)	Iodine chloride (ICl)	4	298.15	1000
1622	Cl1I1(cr,l)	Iodine chloride (ICl)	4	298.15	1000
602	Cl1I1(g)	Iodine chloride (ICl)	4	298.15	6000
601	Cl1I1(l)	Iodine chloride (ICl)	4	298.15	1000
529	Cl1K1(cr)	Potassium chloride (KCl)	5	298.15	1500
1623	Cl1K1(cr,l)	Potassium chloride (KCl)	5	298.15	2000
531	Cl1K1(g)	Potassium chloride (KCl)	4	298.15	6000
530	Cl1K1(l)	Potassium chloride (KCl)	2	298.15	2000
777	Cl1K1O4(cr)	Potassium perchlorate (KClO <sub>4</sub> )	5	298.15	1500
190	Cl1Li1(cr)	Lithium chloride (LiCl)	5	298.15	2000
1624	Cl1Li1(cr,l)	Lithium chloride (LiCl)	4	298.15	2000
192	Cl1Li1(g)	Lithium chloride (LiCl)	5	298.15	6000
191	Cl1Li1(l)	Lithium chloride (LiCl)	3	298.15	2000
193	Cl1Li1O1(g)	Lithium hypochlorite (LiOCl)	5	298.15	6000
194	Cl1Li1O4(cr)	Lithium perchlorate (LiClO <sub>4</sub> )	5	298.15	1500
1625	Cl1Li1O4(cr,l)	Lithium perchlorate (LiClO <sub>4</sub> )	3	298.15	1500
195	Cl1Li1O4(l)	Lithium perchlorate (LiClO <sub>4</sub> )	2	298.15	1500
196	Cl1Mg1(g)	Magnesium chloride (MgCl)	4	298.15	6000
1033	Cl1Mg1+(g)	Magnesium chloride, ion (MgCl <sup>+</sup> )	5	298.15	6000
197	Cl1N1O1(g)	Nitrosyl chloride (ONCl)	5	298.15	6000
733	Cl1N1O2(g)	Nitryl chloride (NO <sub>2</sub> Cl)	5	298.15	6000
198	Cl1Na1(cr)	Sodium chloride (NaCl)	5	298.15	1500
1626	Cl1Na1(cr,l)	Sodium chloride (NaCl)	5	298.15	2500
200	Cl1Na1(g)	Sodium chloride (NaCl)	4	298.15	6000
199	Cl1Na1(l)	Sodium chloride (NaCl)	5	298.15	2500
778	Cl1Na1O4(cr)	Sodium perchlorate (NaClO <sub>4</sub> )	5	298.15	1500
1401	Cl1Ni1(g)	Nickel chloride (NiCl)	5	298.15	6000
201	Cl1O1(g)	Chlorine oxide (ClO)	5	298.15	6000
797	Cl1O1Ti1(g)	Titanium chloride oxide (OTiCl)	5	298.15	6000
202	Cl1O2(g)	Chlorine oxide (ClO <sub>2</sub> )	5	298.15	6000
779	Cl1P1(g)	Phosphorus chloride (PCl)	5	298.15	6000
603	Cl1Pb1(g)	Lead chloride (PbCl)	5	298.15	6000
1189	Cl1Pb1+(g)	Lead chloride, ion (PbCl <sup>+</sup> )	5	298.15	6000
732	Cl1S1(g)	Sulfur chloride (SCl)	5	298.15	6000
1475	Cl1S1+(g)	Sulfur chloride, ion (SCl <sup>+</sup> )	5	298.15	6000
1448	Cl1S2(g)	Sulfur chloride (S <sub>2</sub> Cl)	5	298.15	6000
203	Cl1Si1(g)	Chlorosilylydyne (SiCl)	5	298.15	6000
1166	Cl1Sr1(g)	Strontium chloride (SrCl)	4	298.15	6000
204	Cl1Ti1(g)	Titanium chloride (TiCl)	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
979	Cl1W1(g)	Tungsten chloride (WCl)	5	298.15	6000
458	Cl1Zr1(g)	Zirconium chloride (ZrCl)	5	298.15	6000
205	Cl2(ref)	Chlorine (Cl <sub>2</sub> )	5	298.15	6000
1190	Cl2Co1(cr)	Cobalt chloride (CoCl <sub>2</sub> )	5	298.15	1500
1627	Cl2Co1(cr,l)	Cobalt chloride (CoCl <sub>2</sub> )	5	298.15	2000
1216	Cl2Co1(g)	Cobalt chloride (CoCl <sub>2</sub> )	5	298.15	6000
1191	Cl2Co1(l)	Cobalt chloride (CoCl <sub>2</sub> )	3	298.15	2000
1034	Cl2Cs2(g)	Cesium chloride ((CsCl) <sub>2</sub> )	4	298.15	6000
882	Cl2Cu1(cr)	Copper chloride (CuCl <sub>2</sub> )	5	298.15	1500
761	Cl2F1O1P1(g)	Phosphoryl chloride fluoride (POCl <sub>2</sub> F)	4	298.15	6000
849	Cl2Fe1(cr)	Iron chloride (FeCl <sub>2</sub> )	5	298.15	2000
1628	Cl2Fe1(cr,l)	Iron chloride (FeCl <sub>2</sub> )	5	298.15	2000
851	Cl2Fe1(g)	Iron chloride (FeCl <sub>2</sub> )	5	298.15	6000
850	Cl2Fe1(l)	Iron chloride (FeCl <sub>2</sub> )	2	298.15	2000
206	Cl2H2Si1(g)	Dichlorosilane (SiH <sub>2</sub> Cl <sub>2</sub> )	5	298.15	6000
604	Cl2Hg1(cr)	Mercury chloride (HgCl <sub>2</sub> )	5	298.15	1500
1629	Cl2Hg1(cr,l)	Mercury chloride (HgCl <sub>2</sub> )	3	298.15	1500
606	Cl2Hg1(g)	Mercury chloride (HgCl <sub>2</sub> )	4	298.15	6000
605	Cl2Hg1(l)	Mercury chloride (HgCl <sub>2</sub> )	2	298.15	1500
532	Cl2Hg2(cr)	Mercury chloride (Hg <sub>2</sub> Cl <sub>2</sub> )	5	298.15	1500
533	Cl2K2(g)	Potassium chloride ((KCl) <sub>2</sub> )	5	298.15	6000
207	Cl2Li2(g)	Lithium chloride ((LiCl) <sub>2</sub> )	5	298.15	6000
208	Cl2Mg1(cr)	Magnesium chloride (MgCl <sub>2</sub> )	5	298.15	2000
1630	Cl2Mg1(cr,l)	Magnesium chloride (MgCl <sub>2</sub> )	5	298.15	2500
210	Cl2Mg1(g)	Magnesium chloride (MgCl <sub>2</sub> )	4	298.15	6000
209	Cl2Mg1(l)	Magnesium chloride (MgCl <sub>2</sub> )	3	298.15	2500
1093	Cl2Mo1O2(g)	Molybdenum chloride oxide (MoO <sub>2</sub> Cl <sub>2</sub> )	4	298.15	6000
828	Cl2Na2(g)	Sodium chloride ((NaCl) <sub>2</sub> )	5	298.15	6000
1402	Cl2Ni1(cr)	Nickel chloride (NiCl <sub>2</sub> )	5	298.15	1800
1631	Cl2Ni1(cr,l)	Nickel chloride (NiCl <sub>2</sub> )	5	298.15	1800
1404	Cl2Ni1(g)	Nickel chloride (NiCl <sub>2</sub> )	5	298.15	6000
1403	Cl2Ni1(l)	Nickel chloride (NiCl <sub>2</sub> )	5	298.15	1800
211	Cl2O1(g)	Chlorine oxide (Cl <sub>2</sub> O)	4	298.15	6000
798	Cl2O1Ti1(g)	Titanium chloride oxide (TiOCl <sub>2</sub> )	4	298.15	6000
1128	Cl2O2S1(g)	Sulfuryl chloride (SO <sub>2</sub> Cl <sub>2</sub> )	5	298.15	6000
703	Cl2O2W1(cr)	Tungsten chloride oxide (WO <sub>2</sub> Cl <sub>2</sub> )	4	298.15	1000
704	Cl2O2W1(g)	Tungsten chloride oxide (WO <sub>2</sub> Cl <sub>2</sub> )	5	298.15	6000
607	Cl2Pb1(cr)	Lead chloride (PbCl <sub>2</sub> )	2	298.15	1500
1632	Cl2Pb1(cr,l)	Lead chloride (PbCl <sub>2</sub> )	5	298.15	2000
609	Cl2Pb1(g)	Lead chloride (PbCl <sub>2</sub> )	5	298.15	6000
608	Cl2Pb1(l)	Lead chloride (PbCl <sub>2</sub> )	2	298.15	2000



JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1192	Cl2Pb1+(g)	Lead chloride, ion (PbCl <sub>2</sub> <sup>+</sup> )	5	298.15	6000
1456	Cl2S1(g)	Sulfur chloride (SCl <sub>2</sub> )	5	298.15	6000
1455	Cl2S1(l)	Sulfur chloride (SCl <sub>2</sub> )	2	298.15	800
1457	Cl2S1+(g)	Sulfur chloride, ion (SCl <sub>2</sub> <sup>+</sup> )	5	298.15	6000
1447	Cl2S2(g)	Sulfur chloride (ClSSCl)	4	298.15	1500
1446	Cl2S2(l)	Sulfur chloride (ClSSCl)	2	298.15	1000
212	Cl2Si1(g)	Dichlorosilylene (SiCl <sub>2</sub> )	5	298.15	6000
1167	Cl2Sr1(cr)	Strontium chloride (SrCl <sub>2</sub> )	4	298.15	2000
1633	Cl2Sr1(cr,l)	Strontium chloride (SrCl <sub>2</sub> )	4	298.15	3000
1169	Cl2Sr1(g)	Strontium chloride (SrCl <sub>2</sub> )	4	298.15	6000
1168	Cl2Sr1(l)	Strontium chloride (SrCl <sub>2</sub> )	3	298.15	3000
213	Cl2Ti1(cr)	Titanium chloride (TiCl <sub>2</sub> )	2	298.15	2000
215	Cl2Ti1(g)	Titanium chloride (TiCl <sub>2</sub> )	5	298.15	6000
705	Cl2W1(cr)	Tungsten chloride (WCl <sub>2</sub> )	2	298.15	2000
706	Cl2W1(g)	Tungsten chloride (WCl <sub>2</sub> )	5	298.15	6000
216	Cl2Zr1(cr)	Zirconium chloride (ZrCl <sub>2</sub> )	5	298.15	1500
1634	Cl2Zr1(cr,l)	Zirconium chloride (ZrCl <sub>2</sub> )	4	298.15	2000
218	Cl2Zr1(g)	Zirconium chloride (ZrCl <sub>2</sub> )	5	298.15	6000
217	Cl2Zr1(l)	Zirconium chloride (ZrCl <sub>2</sub> )	2	298.15	2000
1217	Cl3Co1(g)	Cobalt chloride (CoCl <sub>3</sub> )	5	298.15	6000
883	Cl3Cu3(g)	Copper chloride ((CuCl) <sub>3</sub> )	4	298.15	6000
219	Cl3F1Si1(g)	Trichlorofluorosilane (SiCl <sub>3</sub> F)	4	298.15	6000
852	Cl3Fe1(cr)	Iron chloride (FeCl <sub>3</sub> )	5	298.15	1500
1635	Cl3Fe1(cr,l)	Iron chloride (FeCl <sub>3</sub> )	3	298.15	1500
854	Cl3Fe1(g)	Iron chloride (FeCl <sub>3</sub> )	4	298.15	6000
853	Cl3Fe1(l)	Iron chloride (FeCl <sub>3</sub> )	2	298.15	1500
220	Cl3H1Si1(g)	Trichlorosilane (SiHCl <sub>3</sub> )	5	298.15	6000
221	Cl3Li3(g)	Lithium chloride ((LiCl) <sub>3</sub> )	4	298.15	6000
222	Cl3O1P1(g)	Phosphoryl chloride (OPCl <sub>3</sub> )	5	298.15	6000
223	Cl3P1(g)	Phosphorus chloride (PCl <sub>3</sub> )	4	298.15	6000
224	Cl3P1S1(g)	Thiophosphoryl chloride (SPCl <sub>3</sub> )	4	298.15	6000
1082	Cl3Si1(g)	Trichlorosilyl (SiCl <sub>3</sub> )	4	298.15	6000
225	Cl3Ti1(cr)	Titanium chloride (TiCl <sub>3</sub> )	4	298.15	1500
226	Cl3Ti1(g)	Titanium chloride (TiCl <sub>3</sub> )	5	298.15	6000
227	Cl3Zr1(cr)	Zirconium chloride (ZrCl <sub>3</sub> )	5	298.15	2000
229	Cl3Zr1(g)	Zirconium chloride (ZrCl <sub>3</sub> )	5	298.15	6000
1218	Cl4Co2(g)	Cobalt chloride ((CoCl <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
1111	Cl4Fe2(g)	Iron chloride ((FeCl <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
1083	Cl4Mg2(g)	Magnesium chloride ((MgCl <sub>2</sub> ) <sub>2</sub> )	4	298.15	6000
1060	Cl4Mo1(cr)	Molybdenum chloride (MoCl <sub>4</sub> )	5	298.15	1500
1636	Cl4Mo1(cr,l)	Molybdenum chloride (MoCl <sub>4</sub> )	3	298.15	1500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1062	Cl4Mo1(g)	Molybdenum chloride (MoCl4)	5	298.15	6000
1061	Cl4Mo1(l)	Molybdenum chloride (MoCl4)	2	298.15	1500
707	Cl4O1W1(cr)	Tungsten chloride oxide (OWCl4)	3	298.15	1000
1637	Cl4O1W1(cr,l)	Tungsten chloride oxide (OWCl4)	3	298.15	1000
708	Cl4O1W1(g)	Tungsten chloride oxide (OWCl4)	5	298.15	6000
972	Cl4O1W1(l)	Tungsten chloride oxide (OWCl4)	2	298.15	1000
610	Cl4Pb1(g)	Lead chloride (PbCl4)	5	298.15	6000
230	Cl4Si1(g)	Tetrachlorosilane (SiCl4)	5	298.15	6000
478	Cl4Ti1(cr)	Titanium chloride (TiCl4)	2	298.15	500
1638	Cl4Ti1(cr,l)	Titanium chloride (TiCl4)	3	298.15	1000
231	Cl4Ti1(g)	Titanium chloride (TiCl4)	4	298.15	6000
479	Cl4Ti1(l)	Titanium chloride (TiCl4)	2	298.15	1000
709	Cl4W1(cr)	Tungsten chloride (WCl4)	3	298.15	2000
710	Cl4W1(g)	Tungsten chloride (WCl4)	5	298.15	6000
232	Cl4Zr1(cr)	Zirconium chloride (ZrCl4)	2	298.15	1000
234	Cl4Zr1(g)	Zirconium chloride (ZrCl4)	4	298.15	6000
1063	Cl5Mo1(cr)	Molybdenum chloride (MoCl5)	2	298.15	1000
1639	Cl5Mo1(cr,l)	Molybdenum chloride (MoCl5)	3	298.15	1200
1065	Cl5Mo1(g)	Molybdenum chloride (MoCl5)	5	298.15	6000
1064	Cl5Mo1(l)	Molybdenum chloride (MoCl5)	2	298.15	1200
1279	Cl5Nb1(cr)	Niobium chloride (NbCl5)	2	298.15	700
1640	Cl5Nb1(cr,l)	Niobium chloride (NbCl5)	3	298.15	800
1281	Cl5Nb1(g)	Niobium chloride (NbCl5)	4	298.15	6000
1280	Cl5Nb1(l)	Niobium chloride (NbCl5)	3	298.15	800
235	Cl5P1(g)	Phosphorus chloride (PCl5)	4	298.15	6000
1282	Cl5Ta1(cr)	Tantalum chloride (TaCl5)	2	298.15	700
1641	Cl5Ta1(cr,l)	Tantalum chloride (TaCl5)	3	298.15	800
1284	Cl5Ta1(g)	Tantalum chloride (TaCl5)	4	298.15	6000
1283	Cl5Ta1(l)	Tantalum chloride (TaCl5)	3	298.15	800
734	Cl5W1(cr)	Tungsten chloride (WCl5)	5	298.15	1500
1642	Cl5W1(cr,l)	Tungsten chloride (WCl5)	3	298.15	1500
736	Cl5W1(g)	Tungsten chloride (WCl5)	5	298.15	6000
735	Cl5W1(l)	Tungsten chloride (WCl5)	2	298.15	1500
855	Cl6Fe2(g)	Iron chloride ((FeCl3)2)	4	298.15	6000
1066	Cl6Mo1(cr)	Molybdenum chloride (MoCl6)	5	298.15	1500
1067	Cl6Mo1(g)	Molybdenum chloride (MoCl6)	5	298.15	6000
737	Cl6W1(cr)_01	Tungsten chloride, alpha (WCl6)	4	298.15	1000
953	Cl6W1(cr)_02	Tungsten chloride, beta (WCl6)	2	298.15	1500
1643	Cl6W1(cr,l)	Tungsten chloride (WCl6)	4	298.15	1500
739	Cl6W1(g)	Tungsten chloride (WCl6)	4	298.15	6000
738	Cl6W1(l)	Tungsten chloride (WCl6)	2	298.15	1500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
995	Co1(cr)	Cobalt (Co)	8	298.15	2500
1767	Co1(cr,l)	Cobalt (Co)	8	298.15	4000
997	Co1(g)	Cobalt (Co)	5	298.15	6000
1550	Co1-(g)	Cobalt, ion (Co <sup>-</sup> )	5	298.15	6000
996	Co1(l)	Cobalt (Co)	6	298.15	4000
998	Co1+(g)	Cobalt, ion (Co <sup>+</sup> )	6	298.15	6000
1094	Co1F2(cr)	Cobalt fluoride (CoF <sub>2</sub> )	3	298.15	2000
1644	Co1F2(cr,l)	Cobalt fluoride (CoF <sub>2</sub> )	5	298.15	3000
1096	Co1F2(g)	Cobalt fluoride (CoF <sub>2</sub> )	5	298.15	6000
1095	Co1F2(l)	Cobalt fluoride (CoF <sub>2</sub> )	2	298.15	3000
1112	Co1F3(cr)	Cobalt fluoride (CoF <sub>3</sub> )	5	298.15	1500
1113	Co1O1(cr)	Cobalt oxide (CoO)	5	298.15	3000
1139	Co1O4S1(cr)	Cobalt sulfate (CoSO <sub>4</sub> )	5	298.15	2000
1114	Co3O4(cr)	Cobalt oxide (Co <sub>3</sub> O <sub>4</sub> )	5	298.15	1500
1194	Cr1(cr)	Chromium (Cr)	5	298.15	2800
1768	Cr1(cr,l)	Chromium (Cr)	5	298.15	3500
1196	Cr1(g)	Chromium (Cr)	5	298.15	6000
1548	Cr1-(g)	Chromium, ion (Cr <sup>-</sup> )	2	298.15	6000
1195	Cr1(l)	Chromium (Cr)	5	298.15	3500
1559	Cr1+(g)	Chromium, ion (Cr <sup>+</sup> )	5	298.15	6000
1219	Cr1N1(cr)	Chromium nitride (CrN)	5	298.15	2500
1220	Cr1N1(g)	Chromium nitride (CrN)	5	298.15	6000
1221	Cr1O1(g)	Chromium oxide (CrO)	5	298.15	6000
1222	Cr1O2(g)	Chromium oxide (CrO <sub>2</sub> )	4	298.15	6000
1223	Cr1O3(g)	Chromium oxide (CrO <sub>3</sub> )	5	298.15	6000
1224	Cr2N1(cr)	Chromium nitride (Cr <sub>2</sub> N)	5	298.15	2500
1225	Cr2O3(cr)	Chromium oxide (Cr <sub>2</sub> O <sub>3</sub> )	5	298.15	3000
1645	Cr2O3(cr,l)	Chromium oxide (Cr <sub>2</sub> O <sub>3</sub> )	5	298.15	4500
1226	Cr2O3(l)	Chromium oxide (Cr <sub>2</sub> O <sub>3</sub> )	5	298.15	4500
1036	Cs1(cr)	Cesium (Cs)	4	298.15	1000
1769	Cs1(cr,l)	Cesium (Cs)	4	298.15	1500
1038	Cs1(g)	Cesium (Cs)	6	298.15	6000
1786	Cs1-(g)	Cesium, ion (Cs <sup>-</sup> )	2	298.15	6000
1037	Cs1(l)	Cesium (Cs)	3	298.15	1500
1039	Cs1+(g)	Cesium, ion (Cs <sup>+</sup> )	2	298.15	6000
1040	Cs1F1(cr)	Cesium fluoride (CsF)	4	298.15	2000
1646	Cs1F1(cr,l)	Cesium fluoride (CsF)	5	298.15	3000
1042	Cs1F1(g)	Cesium fluoride (CsF)	4	298.15	6000
1041	Cs1F1(l)	Cesium fluoride (CsF)	2	298.15	3000
1129	Cs1H1O1(cr)	Cesium hydroxide (CsOH)	3	298.15	1000
1647	Cs1H1O1(cr,l)	Cesium hydroxide (CsOH)	5	298.15	2000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1131	Cs1H1O1(g)	Cesium hydroxide (CsOH)	5	298.15	6000
1130	Cs1H1O1(l)	Cesium hydroxide (CsOH)	2	298.15	2000
1140	Cs1H1O1+(g)	Cesium hydroxide, ion (CsOH <sup>+</sup> )	5	298.15	6000
1068	Cs1O1(g)	Cesium oxide (CsO)	5	298.15	6000
1043	Cs2(g)	Cesium (Cs <sub>2</sub> )	5	298.15	6000
1044	Cs2F2(g)	Cesium fluoride ((CsF) <sub>2</sub> )	5	298.15	6000
1132	Cs2H2O2(g)	Cesium hydroxide ((CsOH) <sub>2</sub> )	5	298.15	6000
1069	Cs2O1(g)	Cesium oxide (Cs <sub>2</sub> O)	4	298.15	6000
1524	Cs2O4S1(cr)_01	Cesium sulfate, I (Cs <sub>2</sub> SO <sub>4</sub> )	3	298.15	1500
1523	Cs2O4S1(cr)_02	Cesium sulfate, II (Cs <sub>2</sub> SO <sub>4</sub> )	3	298.15	1200
1526	Cs2O4S1(cr,l)	Cesium sulfate (Cs <sub>2</sub> SO <sub>4</sub> )	5	298.15	3000
1527	Cs2O4S1(g)	Cesium sulfate (Cs <sub>2</sub> SO <sub>4</sub> )	5	298.15	6000
1525	Cs2O4S1(l)	Cesium sulfate (Cs <sub>2</sub> SO <sub>4</sub> )	4	298.15	3000
596	Cu1(cr)	Copper (Cu)	5	298.15	2000
1770	Cu1(cr,l)	Copper (Cu)	5	298.15	4000
673	Cu1(g)	Copper (Cu)	5	298.15	6000
1552	Cu1-(g)	Copper, ion (Cu <sup>-</sup> )	2	298.15	6000
636	Cu1(l)	Copper (Cu)	5	298.15	4000
683	Cu1+(g)	Copper, ion (Cu <sup>+</sup> )	5	298.15	6000
905	Cu1F1(cr)	Copper fluoride (CuF)	5	298.15	2000
906	Cu1F1(g)	Copper fluoride (CuF)	5	298.15	6000
907	Cu1F2(cr)	Copper fluoride (CuF <sub>2</sub> )	5	298.15	2000
1648	Cu1F2(cr,l)	Copper fluoride (CuF <sub>2</sub> )	5	298.15	2500
909	Cu1F2(g)	Copper fluoride (CuF <sub>2</sub> )	5	298.15	6000
908	Cu1F2(l)	Copper fluoride (CuF <sub>2</sub> )	3	298.15	2500
910	Cu1H2O2(cr)	Copper hydroxide (Cu(OH) <sub>2</sub> )	5	298.15	1500
911	Cu1O1(cr)	Copper oxide (CuO)	2	298.15	2000
936	Cu1O1(g)	Copper oxide (CuO)	5	298.15	6000
912	Cu1O4S1(cr)	Copper sulfate (CuSO <sub>4</sub> )	4	298.15	2000
937	Cu2(g)	Copper (Cu <sub>2</sub> )	5	298.15	6000
913	Cu2O1(cr)	Copper oxide (Cu <sub>2</sub> O)	3	298.15	2000
1649	Cu2O1(cr,l)	Copper oxide (Cu <sub>2</sub> O)	5	298.15	2000
914	Cu2O1(l)	Copper oxide (Cu <sub>2</sub> O)	4	298.15	2000
915	Cu2O5S1(cr)	Copper oxide sulfate (CuO*CuSO <sub>4</sub> )	4	298.15	1500
1355	D1(g)	Deuterium (D)	2	298.15	6000
1357	D1-(g)	Deuterium, ion (D <sup>-</sup> )	2	298.15	6000
1356	D1+(g)	Deuterium, ion (D <sup>+</sup> )	2	298.15	6000
1374	D1F1(g)	Hydrofluoric acid-D (DF)	5	298.15	6000
1375	D1H1(g)	Hydrogen-D <sub>1</sub> (HD)	5	298.15	6000
1406	D1H1-(g)	Hydrogen-D <sub>1</sub> , ion (HD <sup>-</sup> )	5	298.15	6000
1405	D1H1+(g)	Hydrogen-D <sub>1</sub> , ion (HD <sup>+</sup> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1376	D1H1O1(g)	Water-D <sub>1</sub> (HDO)	5	298.15	6000
1377	D1N1(g)	Imidogen-D <sub>1</sub> (ND)	5	298.15	6000
1378	D1O1(g)	Hydroxyl-D <sub>1</sub> (OD)	5	298.15	6000
1379	D1S1(g)	Mercapto-D <sub>1</sub> (SD)	5	298.15	6000
1408	D2-(g)	Deuterium, ion (D <sub>2</sub> <sup>-</sup> )	5	298.15	6000
1358	D2(ref)	Deuterium (D <sub>2</sub> )	5	298.15	6000
1407	D2+(g)	Deuterium, ion (D <sub>2</sub> <sup>+</sup> )	5	298.15	6000
1380	D2N1(g)	Amidogen-D <sub>2</sub> (ND <sub>2</sub> )	5	298.15	6000
1381	D2N2(g)	Diazene-D <sub>2</sub> , cis (DNND)	5	298.15	6000
1382	D2O1(g)	Water-D <sub>2</sub> (D <sub>2</sub> O)	5	298.15	6000
1383	D2S1(g)	Hydrogen sulfide-D <sub>2</sub> (D <sub>2</sub> S)	5	298.15	6000
1384	D3N1(g)	Ammonia-D <sub>3</sub> (ND <sub>3</sub> )	5	298.15	6000
831	e1-(ref)	Electron gas (E <sup>-</sup> )	2	298.15	6000
236	F1(g)	Fluorine (F)	4	298.15	6000
856	F1-(g)	Fluorine, ion (F <sup>-</sup> )	2	298.15	6000
1735	F1+(g)	Fluorine, ion (F <sup>+</sup> )	5	298.15	6000
1505	F10Mo2(g)	Molybdenum fluoride ((MoF <sub>5</sub> ) <sub>2</sub> )	5	298.15	6000
1438	F10S2(g)	Sulfur fluoride (S <sub>2</sub> F <sub>10</sub> )	5	298.15	6000
1506	F15Mo3(g)	Molybdenum fluoride ((MoF <sub>5</sub> ) <sub>3</sub> )	5	298.15	6000
573	F1Fe1(g)	Iron fluoride (FeF)	4	298.15	6000
237	F1H1(g)	Hydrogen fluoride (HF)	5	298.15	6000
238	F1H1O1(g)	Hypofluorous acid (HOF)	5	298.15	6000
1152	F1H1O3S1(g)	Fluorosulfuric acid (HSO <sub>3</sub> F)	5	298.15	6000
239	F1H3Si1(g)	Fluorosilane (SiH <sub>3</sub> F)	5	298.15	6000
534	F1Hg1(g)	Mercury fluoride (HgF)	4	298.15	6000
611	F1I1(g)	Iodine fluoride (IF)	4	298.15	6000
535	F1K1(cr)	Potassium fluoride (KF)	5	298.15	2000
1650	F1K1(cr,l)	Potassium fluoride (KF)	5	298.15	3000
537	F1K1(g)	Potassium fluoride (KF)	4	298.15	6000
536	F1K1(l)	Potassium fluoride (KF)	2	298.15	3000
240	F1Li1(cr)	Lithium fluoride (LiF)	5	298.15	2500
1651	F1Li1(cr,l)	Lithium fluoride (LiF)	5	298.15	3000
242	F1Li1(g)	Lithium fluoride (LiF)	4	298.15	6000
241	F1Li1(l)	Lithium fluoride (LiF)	2	298.15	3000
243	F1Li1O1(g)	Lithium hypofluorite (LiOF)	4	298.15	6000
244	F1Mg1(g)	Magnesium fluoride (MgF)	5	298.15	6000
1303	F1Mg1+(g)	Magnesium fluoride, ion (MgF <sup>+</sup> )	4	298.15	6000
1487	F1Mo1(g)	Molybdenum fluoride (MoF)	5	298.15	6000
245	F1N1(g)	Fluoroimidogen (NF)	4	298.15	6000
246	F1N1O1(g)	Nitrosyl fluoride (ONF)	5	298.15	6000
612	F1N1O2(g)	Nitryl fluoride (NO <sub>2</sub> F)	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
762	F1N1O3(g)	Fluorine nitrate (FONO <sub>2</sub> )	5	298.15	6000
247	F1Na1(cr)	Sodium fluoride (NaF)	5	298.15	3000
1652	F1Na1(cr,l)	Sodium fluoride (NaF)	5	298.15	3500
249	F1Na1(g)	Sodium fluoride (NaF)	2	298.15	6000
248	F1Na1(l)	Sodium fluoride (NaF)	5	298.15	3500
250	F1O1(g)	Oxygen fluoride (OF)	5	298.15	6000
799	F1O1Ti1(g)	Titanium fluoride oxide (OTiF)	4	298.15	6000
938	F1O2(g)	Oxygen fluoride (O <sub>2</sub> F)	4	298.15	6000
251	F1P1(g)	Phosphorus fluoride (PF)	5	298.15	6000
1386	F1P1-(g)	Phosphorus fluoride, ion (PF <sup>-</sup> )	5	298.15	6000
1385	F1P1+(g)	Phosphorus fluoride, ion (PF <sup>+</sup> )	5	298.15	6000
252	F1P1S1(g)	Thiophosphoryl fluoride (PSF)	4	298.15	6000
613	F1Pb1(g)	Lead fluoride (PbF)	5	298.15	6000
1313	F1S1(g)	Sulfur fluoride (SF)	5	298.15	6000
1330	F1S1-(g)	Sulfur fluoride, ion (SF <sup>-</sup> )	5	298.15	6000
1314	F1S1+(g)	Sulfur fluoride, ion (SF <sup>+</sup> )	5	298.15	6000
253	F1Si1(g)	Fluorosilylidyne (SiF)	5	298.15	6000
1170	F1Sr1(g)	Strontium fluoride (SrF)	5	298.15	6000
1171	F1Sr1+(g)	Strontium fluoride, ion (SrF <sup>+</sup> )	5	298.15	6000
447	F1Ti1(g)	Titanium fluoride (TiF)	5	298.15	6000
711	F1W1(g)	Tungsten fluoride (WF)	5	298.15	6000
459	F1Zr1(g)	Zirconium fluoride (ZrF)	5	298.15	6000
254	F2(ref)	Fluorine (F <sub>2</sub> )	5	298.15	6000
575	F2Fe1(cr)	Iron fluoride (FeF <sub>2</sub> )	5	298.15	2000
1653	F2Fe1(cr,l)	Iron fluoride (FeF <sub>2</sub> )	5	298.15	3000
228	F2Fe1(g)	Iron fluoride (FeF <sub>2</sub> )	5	298.15	6000
214	F2Fe1(l)	Iron fluoride (FeF <sub>2</sub> )	2	298.15	3000
661	F2H1K1(cr)	Potassium fluoride (K(HF <sub>2</sub> ))	2	298.15	2000
1654	F2H1K1(cr,l)	Potassium fluoride (K(HF <sub>2</sub> ))	4	298.15	2000
662	F2H1K1(l)	Potassium fluoride (K(HF <sub>2</sub> ))	2	298.15	2000
1387	F2H2(g)	Hydrogen fluoride ((HF) <sub>2</sub> )	5	298.15	6000
255	F2H2Si1(g)	Difluorosilane (SiH <sub>2</sub> F <sub>2</sub> )	5	298.15	6000
614	F2Hg1(cr)	Mercury fluoride (HgF <sub>2</sub> )	2	298.15	2000
1655	F2Hg1(cr,l)	Mercury fluoride (HgF <sub>2</sub> )	5	298.15	2000
538	F2Hg1(g)	Mercury fluoride (HgF <sub>2</sub> )	5	298.15	6000
615	F2Hg1(l)	Mercury fluoride (HgF <sub>2</sub> )	2	298.15	2000
616	F2Hg2(cr)	Mercury fluoride (Hg <sub>2</sub> F <sub>2</sub> )	5	298.15	1500
1070	F2K1-(g)	Potassium fluoride, ion (KF <sub>2</sub> <sup>-</sup> )	4	298.15	6000
539	F2K2(g)	Potassium fluoride ((KF) <sub>2</sub> )	4	298.15	6000
1071	F2Li1-(g)	Lithium fluoride, ion (LiF <sub>2</sub> <sup>-</sup> )	5	298.15	6000
256	F2Li2(g)	Lithium fluoride ((LiF) <sub>2</sub> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
257	F2Mg1(cr)	Magnesium fluoride (MgF <sub>2</sub> )	5	298.15	2000
1656	F2Mg1(cr,l)	Magnesium fluoride (MgF <sub>2</sub> )	5	298.15	3000
259	F2Mg1(g)	Magnesium fluoride (MgF <sub>2</sub> )	5	298.15	6000
258	F2Mg1(l)	Magnesium fluoride (MgF <sub>2</sub> )	5	298.15	3000
1304	F2Mg1+(g)	Magnesium fluoride, ion (MgF <sub>2</sub> <sup>+</sup> )	5	298.15	6000
1488	F2Mo1(g)	Molybdenum fluoride (MoF <sub>2</sub> )	4	298.15	6000
740	F2N1(g)	Difluoroamidogen (NF <sub>2</sub> )	4	298.15	6000
866	F2N2(g)_01	Nitrogen fluoride, cis (FNNF)	5	298.15	6000
867	F2N2(g)_02	Nitrogen fluoride, trans (FNNF)	5	298.15	6000
1072	F2Na1-(g)	Sodium fluoride, ion (NaF <sub>2</sub> <sup>-</sup> )	4	298.15	6000
816	F2Na2(g)	Sodium fluoride ((NaF) <sub>2</sub> )	5	298.15	6000
260	F2O1(g)	Oxygen fluoride (OF <sub>2</sub> )	5	298.15	6000
261	F2O1S1(g)	Thionyl fluoride (OSF <sub>2</sub> )	5	298.15	6000
800	F2O1Si1(g)	Difluorooxosilane (OSiF <sub>2</sub> )	5	298.15	6000
801	F2O1Ti1(g)	Titanium fluoride oxide (OTiF <sub>2</sub> )	5	298.15	6000
262	F2O2S1(g)	Sulfuryl fluoride (SO <sub>2</sub> F <sub>2</sub> )	5	298.15	6000
263	F2P1(g)	Phosphorus fluoride (PF <sub>2</sub> )	5	298.15	6000
1389	F2P1-(g)	Phosphorus fluoride, ion (PF <sub>2</sub> <sup>-</sup> )	5	298.15	6000
1388	F2P1+(g)	Phosphorus fluoride, ion (PF <sub>2</sub> <sup>+</sup> )	5	298.15	6000
617	F2Pb1(cr)_01	Lead fluoride, alpha (PbF <sub>2</sub> )	4	298.15	1000
1227	F2Pb1(cr)_02	Lead fluoride, beta (PbF <sub>2</sub> )	5	298.15	1500
1657	F2Pb1(cr,l)	Lead fluoride (PbF <sub>2</sub> )	6	298.15	1500
619	F2Pb1(g)	Lead fluoride (PbF <sub>2</sub> )	4	298.15	6000
618	F2Pb1(l)	Lead fluoride (PbF <sub>2</sub> )	3	298.15	1500
1315	F2S1(g)	Sulfur fluoride (SF <sub>2</sub> )	5	298.15	6000
1332	F2S1-(g)	Sulfur fluoride, ion (SF <sub>2</sub> <sup>-</sup> )	5	298.15	6000
1331	F2S1+(g)	Sulfur fluoride, ion (SF <sub>2</sub> <sup>+</sup> )	5	298.15	6000
1316	F2S2(g)_01	Difluorodisulfane (FSSF)	5	298.15	6000
1317	F2S2(g)_02	Thiothionyl fluoride (SSF <sub>2</sub> )	5	298.15	6000
264	F2Si1(g)	Difluorosilylene (SiF <sub>2</sub> )	5	298.15	6000
1172	F2Sr1(cr)	Strontium fluoride (SrF <sub>2</sub> )	8	298.15	2500
1658	F2Sr1(cr,l)	Strontium fluoride (SrF <sub>2</sub> )	8	298.15	3500
1174	F2Sr1(g)	Strontium fluoride (SrF <sub>2</sub> )	4	298.15	6000
1173	F2Sr1(l)	Strontium fluoride (SrF <sub>2</sub> )	5	298.15	3500
267	F2Ti1(g)	Titanium fluoride (TiF <sub>2</sub> )	5	298.15	6000
268	F2Zr1(cr)	Zirconium fluoride (ZrF <sub>2</sub> )	5	298.15	2000
1659	F2Zr1(cr,l)	Zirconium fluoride (ZrF <sub>2</sub> )	5	298.15	3000
270	F2Zr1(g)	Zirconium fluoride (ZrF <sub>2</sub> )	5	298.15	6000
269	F2Zr1(l)	Zirconium fluoride (ZrF <sub>2</sub> )	4	298.15	3000
233	F3Fe1(cr)	Iron fluoride (FeF <sub>3</sub> )	4	298.15	2000
265	F3Fe1(g)	Iron fluoride (FeF <sub>3</sub> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
271	F3H1Si1(g)	Trifluorosilane (SiHF <sub>3</sub> )	5	298.15	6000
1390	F3H3(g)	Hydrogen fluoride (H <sub>3</sub> F <sub>3</sub> )	5	298.15	6000
272	F3Li3(g)	Lithium fluoride ((LiF) <sub>3</sub> )	5	298.15	6000
1489	F3Mo1(g)	Molybdenum fluoride (MoF <sub>3</sub> )	5	298.15	6000
273	F3N1(g)	Nitrogen fluoride (NF <sub>3</sub> )	5	298.15	6000
1097	F3N1O1(g)	Nitrogen fluoride oxide (NF <sub>3</sub> O)	5	298.15	6000
763	F3O1P1(g)	Phosphoryl fluoride (POF <sub>3</sub> )	5	298.15	6000
274	F3P1(g)	Phosphorus fluoride (PF <sub>3</sub> )	5	298.15	6000
764	F3P1S1(g)	Thiophosphoryl fluoride (PSF <sub>3</sub> )	5	298.15	6000
1318	F3S1(g)	Sulfur fluoride (SF <sub>3</sub> )	5	298.15	6000
1334	F3S1-(g)	Sulfur fluoride, ion (SF <sub>3</sub> <sup>-</sup> )	5	298.15	6000
1333	F3S1+(g)	Sulfur fluoride, ion (SF <sub>3</sub> <sup>+</sup> )	5	298.15	6000
802	F3Si1(g)	Trifluorosilyl (SiF <sub>3</sub> )	5	298.15	6000
275	F3Ti1(cr)	Titanium fluoride (TiF <sub>3</sub> )	5	298.15	2000
277	F3Ti1(g)	Titanium fluoride (TiF <sub>3</sub> )	5	298.15	6000
278	F3Zr1(cr)	Zirconium fluoride (ZrF <sub>3</sub> )	5	298.15	1500
280	F3Zr1(g)	Zirconium fluoride (ZrF <sub>3</sub> )	5	298.15	6000
1391	F4H4(g)	Hydrogen fluoride (H <sub>4</sub> F <sub>4</sub> )	5	298.15	6000
817	F4Mg2(g)	Magnesium fluoride ((MgF <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
1490	F4Mo1(g)	Molybdenum fluoride (MoF <sub>4</sub> )	5	298.15	6000
1098	F4Mo1O1(g)	Molybdenum fluoride oxide (MoF <sub>4</sub> O)	5	298.15	6000
809	F4N2(g)	Tetrafluorohydrazine (N <sub>2</sub> F <sub>4</sub> )	5	298.15	6000
663	F4O1W1(cr)	Tungsten fluoride oxide (WF <sub>4</sub> O)	4	298.15	1000
1660	F4O1W1(cr,l)	Tungsten fluoride oxide (WF <sub>4</sub> O)	3	298.15	1000
665	F4O1W1(g)	Tungsten fluoride oxide (WF <sub>4</sub> O)	5	298.15	6000
664	F4O1W1(l)	Tungsten fluoride oxide (WF <sub>4</sub> O)	2	298.15	1000
666	F4Pb1(g)	Lead fluoride (PbF <sub>4</sub> )	5	298.15	6000
266	F4S1(g)	Sulfur fluoride (SF <sub>4</sub> )	5	298.15	6000
1336	F4S1-(g)	Sulfur fluoride, ion (SF <sub>4</sub> <sup>-</sup> )	5	298.15	6000
1335	F4S1+(g)	Sulfur fluoride, ion (SF <sub>4</sub> <sup>+</sup> )	5	298.15	6000
281	F4Si1(g)	Tetrafluorosilane (SiF <sub>4</sub> )	5	298.15	6000
282	F4Ti1(cr)	Titanium fluoride (TiF <sub>4</sub> )	5	298.15	1500
283	F4Ti1(g)	Titanium fluoride (TiF <sub>4</sub> )	5	298.15	6000
284	F4Zr1(cr)	Zirconium fluoride (ZrF <sub>4</sub> )	5	298.15	1400
286	F4Zr1(g)	Zirconium fluoride (ZrF <sub>4</sub> )	5	298.15	6000
1392	F5H5(g)	Hydrogen fluoride (H <sub>5</sub> F <sub>5</sub> )	5	298.15	6000
620	F5I1(g)	Iodine fluoride (IF <sub>5</sub> )	5	298.15	6000
1491	F5Mo1(g)	Molybdenum fluoride (MoF <sub>5</sub> )	5	298.15	6000
780	F5P1(g)	Phosphorus fluoride (PF <sub>5</sub> )	5	298.15	6000
1319	F5S1(g)	Sulfur fluoride (SF <sub>5</sub> )	5	298.15	6000
1338	F5S1-(g)	Sulfur fluoride, ion (SF <sub>5</sub> <sup>-</sup> )	5	298.15	6000



JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1337	F5S1+(g)	Sulfur fluoride, ion (SF <sub>5</sub> <sup>+</sup> )	5	298.15	6000
1393	F6H6(g)	Hydrogen fluoride (H <sub>6</sub> F <sub>6</sub> )	5	298.15	6000
1100	F6Mo1(g)	Molybdenum fluoride (MoF <sub>6</sub> )	5	298.15	6000
1099	F6Mo1(l)	Molybdenum fluoride (MoF <sub>6</sub> )	2	298.15	1000
287	F6S1(g)	Sulfur fluoride (SF <sub>6</sub> )	5	298.15	6000
1394	F6S1-(g)	Sulfur fluoride, ion (SF <sub>6</sub> <sup>-</sup> )	5	298.15	6000
713	F6W1(g)	Tungsten fluoride (WF <sub>6</sub> )	5	298.15	6000
712	F6W1(l)	Tungsten fluoride (WF <sub>6</sub> )	2	298.15	1000
1395	F7H7(g)	Hydrogen fluoride (H <sub>7</sub> F <sub>7</sub> )	5	298.15	6000
621	F7I1(g)	Iodine fluoride (IF <sub>7</sub> )	5	298.15	6000
1409	Fe0.877S1(cr)	Iron sulfide, pyrrhotite (Fe <sub>0.877</sub> S)	5	298.15	1800
857	Fe0.947O1(cr)	Iron oxide, wustite (Fe <sub>0.947</sub> O)	5	298.15	2500
836	Fe1(cr)_01	Iron, alpha delta (Fe)	7	298.15	2200
1449	Fe1(cr)_02	Iron, gamma (Fe)	2	298.15	2200
1771	Fe1(cr,l)	Iron (Fe)	8	298.15	4000
833	Fe1(g)	Iron (Fe)	5	298.15	6000
1451	Fe1-(g)	Iron, ion (Fe <sup>-</sup> )	5	298.15	6000
837	Fe1(l)	Iron (Fe)	2	298.15	4000
1450	Fe1+(g)	Iron, ion (Fe <sup>+</sup> )	5	298.15	6000
916	Fe1H2O2(cr)	Iron hydroxide (Fe(OH) <sub>2</sub> )	5	298.15	1500
917	Fe1H2O2(g)	Iron hydroxide (Fe(OH) <sub>2</sub> )	5	298.15	6000
918	Fe1H3O3(cr)	Iron hydroxide (Fe(OH) <sub>3</sub> )	5	298.15	1500
939	Fe1I2(cr)	Iron iodide (FeI <sub>2</sub> )	5	298.15	1500
1661	Fe1I2(cr,l)	Iron iodide (FeI <sub>2</sub> )	3	298.15	2000
941	Fe1I2(g)	Iron iodide (FeI <sub>2</sub> )	5	298.15	6000
940	Fe1I2(l)	Iron iodide (FeI <sub>2</sub> )	2	298.15	2000
858	Fe1O1(cr)	Iron oxide (FeO)	5	298.15	2000
1662	Fe1O1(cr,l)	Iron oxide (FeO)	5	298.15	5000
860	Fe1O1(g)	Iron oxide (FeO)	5	298.15	6000
859	Fe1O1(l)	Iron oxide (FeO)	2	298.15	5000
919	Fe1O4S1(cr)	Iron sulfate (FeSO <sub>4</sub> )	5	298.15	2000
1410	Fe1S1(cr)	Iron sulfide, troilite (FeS)	6	298.15	1900
1663	Fe1S1(cr,l)	Iron sulfide, troilite (FeS)	7	298.15	3800
1412	Fe1S1(g)	Iron sulfide (FeS)	5	298.15	6000
1411	Fe1S1(l)	Iron sulfide (FeS)	5	298.15	3800
1414	Fe1S2(cr)_01	Iron sulfide, marcasite (FeS <sub>2</sub> )	5	298.15	1400
1413	Fe1S2(cr)_02	Iron sulfide, pyrite (FeS <sub>2</sub> )	5	298.15	1400
942	Fe2I4(g)	Iron iodide ((FeI <sub>2</sub> ) <sub>2</sub> )	5	298.15	6000
920	Fe2O12S3(cr)	Iron sulfate (Fe <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> )	5	298.15	2000
861	Fe2O3(cr)	Iron oxide, hematite (Fe <sub>2</sub> O <sub>3</sub> )	5	298.15	2500
862	Fe3O4(cr)	Iron oxide, magnetite (Fe <sub>3</sub> O <sub>4</sub> )	4	298.15	3000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1746	Ga1(cr)	Gallium (Ga)	2	298.15	500
1772	Ga1(cr,l)	Gallium (Ga)	5	298.15	3000
1763	Ga1(g)	Gallium (Ga)	5	298.15	6000
1764	Ga1-(g)	Gallium, ion (Ga <sup>-</sup> )	5	298.15	6000
1747	Ga1(l)	Gallium (Ga)	4	298.15	3000
1556	Ga1+(g)	Gallium, ion (Ga <sup>+</sup> )	5	298.15	6000
288	H1(g)	Hydrogen (H)	2	298.15	6000
276	H1-(g)	Hydrogen, ion (H <sup>-</sup> )	2	298.15	6000
921	H1+(g)	Hydrogen, ion (H <sup>+</sup> )	2	298.15	6000
1420	H10O8S1(cr,l)	Sulfuric acid, tetrahydrate (H <sub>2</sub> SO <sub>4</sub> *4H <sub>2</sub> O)	3	298.15	1000
1421	H15O10.5S1(cr,l)	Sulfuric acid, hemihexahydrate (H <sub>2</sub> SO <sub>4</sub> *6.5H <sub>2</sub> O)	3	298.15	1000
781	H1Hg1(g)	Mercury hydride (HgH)	5	298.15	6000
481	H1I1(g)	Hydrogen iodide (HI)	5	298.15	6000
1339	H1I3Si1(g)	Triiodosilane (SiHI <sub>3</sub> )	5	298.15	6000
765	H1K1(cr)	Potassium hydride (KH)	5	298.15	1500
766	H1K1(g)	Potassium hydride (KH)	5	298.15	6000
540	H1K1O1(cr)	Potassium hydroxide (KOH)	3	298.15	1500
1664	H1K1O1(cr,l)	Potassium hydroxide (KOH)	4	298.15	2000
622	H1K1O1(g)	Potassium hydroxide (KOH)	5	298.15	6000
541	H1K1O1(l)	Potassium hydroxide (KOH)	2	298.15	2000
1141	H1K1O1+(g)	Potassium hydroxide, ion (KOH <sup>+</sup> )	5	298.15	6000
714	H1Li1(cr)	Lithium hydride (LiH)	2	298.15	1500
1665	H1Li1(cr,l)	Lithium hydride (LiH)	5	298.15	2000
289	H1Li1(g)	Lithium hydride (LiH)	5	298.15	6000
715	H1Li1(l)	Lithium hydride (LiH)	2	298.15	2000
290	H1Li1O1(cr)	Lithium hydroxide (LiOH)	4	298.15	1500
1666	H1Li1O1(cr,l)	Lithium hydroxide (LiOH)	4	298.15	2500
292	H1Li1O1(g)	Lithium hydroxide (LiOH)	5	298.15	6000
291	H1Li1O1(l)	Lithium hydroxide (LiOH)	2	298.15	2500
1142	H1Li1O1+(g)	Lithium hydroxide, ion (LiOH <sup>+</sup> )	5	298.15	6000
293	H1Mg1(g)	Magnesium hydride (MgH)	5	298.15	6000
294	H1Mg1O1(g)	Magnesium hydroxide (MgOH)	5	298.15	6000
1045	H1Mg1O1+(g)	Magnesium hydroxide, ion (MgOH <sup>+</sup> )	5	298.15	6000
295	H1N1(g)	Imidogen (NH)	5	298.15	6000
767	H1N1O1(g)	Nitrosyl hydride (HNO)	5	298.15	6000
782	H1N1O2(g)_01	Nitrous acid, cis (HONO)	5	298.15	6000
783	H1N1O2(g)_02	Nitrous acid, trans (HONO)	5	298.15	6000
784	H1N1O3(g)	Nitric acid (HONO <sub>2</sub> )	5	298.15	6000
768	H1Na1(cr)	Sodium hydride (NaH)	5	298.15	1500
296	H1Na1(g)	Sodium hydride (NaH)	5	298.15	6000
297	H1Na1O1(cr)	Sodium hydroxide (NaOH)	3	298.15	1500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1667	H1Na1O1(cr,l)	Sodium hydroxide (NaOH)	4	298.15	2500
299	H1Na1O1(g)	Sodium hydroxide (NaOH)	5	298.15	6000
298	H1Na1O1(l)	Sodium hydroxide (NaOH)	4	298.15	2500
1143	H1Na1O1+(g)	Sodium hydroxide, ion (NaOH <sup>+</sup> )	5	298.15	6000
300	H1O1(g)	Hydroxyl (OH)	5	298.15	6000
885	H1O1-(g)	Hydroxyl, ion (OH <sup>-</sup> )	5	298.15	6000
884	H1O1+(g)	Hydroxyl, ion (OH <sup>+</sup> )	5	298.15	6000
1293	H1O1Sr1(g)	Strontium hydroxide (SrOH)	5	298.15	6000
1305	H1O1Sr1+(g)	Strontium hydroxide, ion (SrOH <sup>+</sup> )	5	298.15	6000
810	H1O2(g)	Hydroperoxo (HOO)	5	298.15	6000
301	H1P1(g)	Phosphinidene (PH)	5	298.15	6000
623	H1Pb1(g)	Lead hydride (PbH)	5	298.15	6000
302	H1S1(g)	Mercapto (HS)	5	298.15	6000
303	H1Si1(g)	Silylidyne (SiH)	5	298.15	6000
1144	H1Si1+(g)	Silylidyne, ion (SiH <sup>+</sup> )	5	298.15	6000
785	H1Zr1(g)	Zirconium hydride (ZrH)	5	298.15	6000
1416	H2-(g)	Hydrogen, ion (H <sub>2</sub> <sup>-</sup> )	5	298.15	6000
304	H2(ref)	Hydrogen (H <sub>2</sub> )	5	298.15	6000
1415	H2+(g)	Hydrogen, ion (H <sub>2</sub> <sup>+</sup> )	5	298.15	6000
1340	H2I2Si1(g)	Diiodosilane (SiH <sub>2</sub> I <sub>2</sub> )	5	298.15	6000
667	H2K2O2(g)	Potassium hydroxide ((KOH) <sub>2</sub> )	5	298.15	6000
305	H2Li2O2(g)	Lithium hydroxide ((LiOH) <sub>2</sub> )	5	298.15	6000
306	H2Mg1(cr)	Magnesium hydride (MgH <sub>2</sub> )	5	298.15	2000
307	H2Mg1O2(cr)	Magnesium hydroxide (Mg(OH) <sub>2</sub> )	4	298.15	1000
980	H2Mg1O2(g)	Magnesium hydroxide (Mg(OH) <sub>2</sub> )	5	298.15	6000
1101	H2Mo1O4(g)	Molybdic acid (O <sub>2</sub> Mo(OH) <sub>2</sub> )	5	298.15	6000
308	H2N1(g)	Amidogen (NH <sub>2</sub> )	5	298.15	6000
868	H2N2(g)	Diazene, cis (HNNH)	5	298.15	6000
886	H2Na2O2(g)	Sodium hydroxide ((NaOH) <sub>2</sub> )	5	298.15	6000
1511	H2O1(fl)_01	Water, 500 bar (H <sub>2</sub> O)	5	298.15	1800
1512	H2O1(fl)_02	Water, 5000 bar (H <sub>2</sub> O)	5	298.15	1800
309	H2O1(g)	Water (H <sub>2</sub> O)	5	298.15	6000
1507	H2O1(l)	Water (H <sub>2</sub> O)	3	298.15	500
1508	H2O1(l,g)_01	Water, 1 bar (H <sub>2</sub> O)	5	298.15	1800
1509	H2O1(l,g)_02	Water, 10 bar (H <sub>2</sub> O)	5	298.15	1800
1510	H2O1(l,g)_03	Water, 100 bar (H <sub>2</sub> O)	5	298.15	1800
310	H2O2(g)	Hydrogen peroxide (HOOH)	5	298.15	1500
1306	H2O2Sr1(cr)	Strontium hydroxide (Sr(OH) <sub>2</sub> )	2	298.15	1000
1668	H2O2Sr1(cr,l)	Strontium hydroxide (Sr(OH) <sub>2</sub> )	5	298.15	2000
1308	H2O2Sr1(g)	Strontium hydroxide (Sr(OH) <sub>2</sub> )	5	298.15	6000
1307	H2O2Sr1(l)	Strontium hydroxide (Sr(OH) <sub>2</sub> )	2	298.15	2000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
311	H2O4S1(cr,l)	Sulfuric acid (O <sub>2</sub> S(OH) <sub>2</sub> )	3	298.15	1000
955	H2O4S1(g)	Sulfuric acid (O <sub>2</sub> S(OH) <sub>2</sub> )	5	298.15	6000
741	H2O4W1(cr)	Tungstic acid (O <sub>2</sub> W(OH) <sub>2</sub> )	4	298.15	1000
742	H2O4W1(g)	Tungstic acid (O <sub>2</sub> W(OH) <sub>2</sub> )	5	298.15	6000
312	H2P1(g)	Phosphino (PH <sub>2</sub> )	5	298.15	6000
313	H2S1(g)	Hydrogen sulfide (H <sub>2</sub> S)	5	298.15	6000
786	H2Ti1(cr)	Titanium hydride (TiH <sub>2</sub> )	5	298.15	2000
1341	H3I1Si1(g)	Iodosilane (SiH <sub>3</sub> I)	5	298.15	6000
314	H3N1(g)	Ammonia (NH <sub>3</sub> )	5	298.15	6000
922	H3O1+(g)	Hydronium, ion (H <sub>3</sub> O <sup>+</sup> )	5	298.15	6000
315	H3O4P1(cr)	Phosphoric acid (H <sub>3</sub> PO <sub>4</sub> )	2	298.15	1000
1669	H3O4P1(cr,l)	Phosphoric acid (H <sub>3</sub> PO <sub>4</sub> )	3	298.15	1000
316	H3O4P1(l)	Phosphoric acid (H <sub>3</sub> PO <sub>4</sub> )	2	298.15	1000
317	H3P1(g)	Phosphine (PH <sub>3</sub> )	5	298.15	6000
624	H4I1N1(cr)	Ammonium iodide (NH <sub>4</sub> I)	5	298.15	2000
318	H4N2(g)	Hydrazine (N <sub>2</sub> H <sub>4</sub> )	5	298.15	6000
869	H4N2(l)	Hydrazine (N <sub>2</sub> H <sub>4</sub> )	2	298.15	800
1417	H4O5S1(cr,l)	Sulfuric acid, monohydrate (H <sub>2</sub> SO <sub>4</sub> *H <sub>2</sub> O)	3	298.15	1000
319	H4Si1(g)	Silane (SiH <sub>4</sub> )	5	298.15	6000
1418	H6O6S1(cr,l)	Sulfuric acid, dihydrate (H <sub>2</sub> SO <sub>4</sub> * <sub>2</sub> H <sub>2</sub> O)	3	298.15	1000
1419	H8O7S1(cr,l)	Sulfuric acid, trihydrate (H <sub>2</sub> SO <sub>4</sub> * <sub>3</sub> H <sub>2</sub> O)	3	298.15	1000
1359	He1(ref)	Helium (He)	2	298.15	6000
1360	He1+(g)	Helium, ion (He <sup>+</sup> )	2	298.15	6000
1514	Hf1(cr)_01	Hafnium, alpha (Hf)	5	298.15	2500
1515	Hf1(cr)_02	Hafnium, beta (Hf)	2	298.15	3000
1773	Hf1(cr,l)	Hafnium (Hf)	5	298.15	5500
1517	Hf1(g)	Hafnium (Hf)	5	298.15	6000
1519	Hf1-(g)	Hafnium, ion (Hf <sup>-</sup> )	2	298.15	6000
1516	Hf1(l)	Hafnium (Hf)	3	298.15	5500
1518	Hf1+(g)	Hafnium, ion (Hf <sup>+</sup> )	5	298.15	6000
543	Hg1(cr,l)	Mercury (Hg)	5	298.15	2000
544	Hg1(g)	Mercury (Hg)	5	298.15	6000
1561	Hg1+(g)	Mercury, ion (Hg <sup>+</sup> )	2	298.15	6000
545	Hg1I1(g)	Mercury iodide (HgI)	5	298.15	6000
625	Hg1I2(cr)	Mercury iodide (HgI <sub>2</sub> )	2	298.15	1500
1670	Hg1I2(cr,l)	Mercury iodide (HgI <sub>2</sub> )	4	298.15	1500
627	Hg1I2(g)	Mercury iodide (HgI <sub>2</sub> )	4	298.15	6000
626	Hg1I2(l)	Mercury iodide (HgI <sub>2</sub> )	2	298.15	1500
668	Hg1O1(cr)	Mercury oxide (HgO)	4	298.15	1000
981	Hg1O1(g)	Mercury oxide (HgO)	4	298.15	6000
628	Hg2I2(cr)	Mercury iodide (Hg <sub>2</sub> I <sub>2</sub> )	5	298.15	1500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1671	Hg2I2(cr,l)	Mercury iodide (Hg <sub>2</sub> I <sub>2</sub> )	4	298.15	1500
629	Hg2I2(l)	Mercury iodide (Hg <sub>2</sub> I <sub>2</sub> )	2	298.15	1500
482	I1(g)	Iodine (I)	5	298.15	6000
1737	I1-(g)	Iodine, ion (I <sup>-</sup> )	2	298.15	6000
1736	I1+(g)	Iodine, ion (I <sup>+</sup> )	5	298.15	6000
546	IK1(cr)	Potassium iodide (KI)	5	298.15	2000
1672	IK1(cr,l)	Potassium iodide (KI)	5	298.15	2500
548	IK1(g)	Potassium iodide (KI)	3	298.15	6000
547	IK1(l)	Potassium iodide (KI)	2	298.15	2500
483	ILi1(cr)	Lithium iodide (LiI)	5	298.15	2500
1673	ILi1(cr,l)	Lithium iodide (LiI)	4	298.15	2500
485	ILi1(g)	Lithium iodide (LiI)	4	298.15	6000
484	ILi1(l)	Lithium iodide (LiI)	2	298.15	2500
1285	IMg1(g)	Magnesium iodide (MgI)	5	298.15	6000
1476	IMo1(g)	Molybdenum iodide (MoI)	5	298.15	6000
630	IIN1O1(g)	Nitrosyl iodide (ONI)	5	298.15	6000
803	INa1(cr)	Sodium iodide (NaI)	2	298.15	2000
1674	INa1(cr,l)	Sodium iodide (NaI)	5	298.15	3000
804	INa1(l)	Sodium iodide (NaI)	2	298.15	3000
631	IPb1(g)	Lead iodide (PbI)	5	298.15	6000
1342	ISi1(g)	Iodosilylydyne (SiI)	5	298.15	6000
1264	ISr1(g)	Strontium iodide (SrI)	5	298.15	6000
818	ITi1(g)	Titanium iodide (TiI)	5	298.15	6000
826	IZr1(g)	Zirconium iodide (ZrI)	5	298.15	6000
1761	I2(cr)	Iodine (I <sub>2</sub> )	2	298.15	700
1774	I2(cr,l)	Iodine (I <sub>2</sub> )	2	298.15	1000
488	I2(g)	Iodine (I <sub>2</sub> )	5	298.15	6000
487	I2(l)	Iodine (I <sub>2</sub> )	2	298.15	1000
549	I2K2(g)	Potassium iodide ((KI) <sub>2</sub> )	2	298.15	6000
489	I2Li2(g)	Lithium iodide ((LiI) <sub>2</sub> )	2	298.15	6000
1286	I2Mg1(cr)	Magnesium iodide (MgI <sub>2</sub> )	5	298.15	1500
1675	I2Mg1(cr,l)	Magnesium iodide (MgI <sub>2</sub> )	5	298.15	2000
1288	I2Mg1(g)	Magnesium iodide (MgI <sub>2</sub> )	3	298.15	6000
1287	I2Mg1(l)	Magnesium iodide (MgI <sub>2</sub> )	2	298.15	2000
1477	I2Mo1(cr)	Molybdenum iodide, alpha (MoI <sub>2</sub> )	2	298.15	1500
1478	I2Mo1(g)	Molybdenum iodide (MoI <sub>2</sub> )	5	298.15	6000
632	I2Pb1(cr)	Lead iodide (PbI <sub>2</sub> )	4	298.15	1000
1676	I2Pb1(cr,l)	Lead iodide (PbI <sub>2</sub> )	4	298.15	1500
634	I2Pb1(g)	Lead iodide (PbI <sub>2</sub> )	2	298.15	6000
633	I2Pb1(l)	Lead iodide (PbI <sub>2</sub> )	2	298.15	1500
1343	I2Si1(g)	Diiodosilylene (SiI <sub>2</sub> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1265	I2Sr1(cr)	Strontium iodide (SrI <sub>2</sub> )	2	298.15	1500
1677	I2Sr1(cr,l)	Strontium iodide (SrI <sub>2</sub> )	5	298.15	2600
1267	I2Sr1(g)	Strontium iodide (SrI <sub>2</sub> )	5	298.15	6000
1266	I2Sr1(l)	Strontium iodide (SrI <sub>2</sub> )	2	298.15	2600
551	I2Ti1(cr)	Titanium iodide (TiI <sub>2</sub> )	2	298.15	2000
552	I2Ti1(g)	Titanium iodide (TiI <sub>2</sub> )	5	298.15	6000
669	I2Zr1(cr)	Zirconium iodide (ZrI <sub>2</sub> )	5	298.15	1500
1678	I2Zr1(cr,l)	Zirconium iodide (ZrI <sub>2</sub> )	5	298.15	2000
671	I2Zr1(g)	Zirconium iodide (ZrI <sub>2</sub> )	4	298.15	6000
670	I2Zr1(l)	Zirconium iodide (ZrI <sub>2</sub> )	2	298.15	2000
1479	I3Mo1(cr)	Molybdenum iodide (MoI <sub>3</sub> )	2	298.15	1000
1480	I3Mo1(g)	Molybdenum iodide (MoI <sub>3</sub> )	5	298.15	6000
1439	I3Si1(g)	Triiodosilyl (SiI <sub>3</sub> )	4	298.15	6000
553	I3Ti1(cr)	Titanium iodide (TiI <sub>3</sub> )	2	298.15	1500
819	I3Ti1(g)	Titanium iodide (TiI <sub>3</sub> )	5	298.15	6000
672	I3Zr1(cr)	Zirconium iodide (ZrI <sub>3</sub> )	5	298.15	2000
820	I3Zr1(g)	Zirconium iodide (ZrI <sub>3</sub> )	4	298.15	6000
1481	I4Mo1(cr)	Molybdenum iodide (MoI <sub>4</sub> )	2	298.15	600
1482	I4Mo1(g)	Molybdenum iodide (MoI <sub>4</sub> )	5	298.15	6000
674	I4Pb1(g)	Lead iodide (PbI <sub>4</sub> )	3	298.15	6000
1320	I4Si1(cr)	Tetraiodosilane (SiI <sub>4</sub> )	2	298.15	500
1679	I4Si1(cr,l)	Tetraiodosilane (SiI <sub>4</sub> )	2	298.15	700
1322	I4Si1(g)	Tetraiodosilane (SiI <sub>4</sub> )	4	298.15	6000
1321	I4Si1(l)	Tetraiodosilane (SiI <sub>4</sub> )	2	298.15	700
554	I4Ti1(cr)	Titanium iodide (TiI <sub>4</sub> )	2	298.15	1500
1680	I4Ti1(cr,l)	Titanium iodide (TiI <sub>4</sub> )	4	298.15	1500
556	I4Ti1(g)	Titanium iodide (TiI <sub>4</sub> )	4	298.15	6000
555	I4Ti1(l)	Titanium iodide (TiI <sub>4</sub> )	2	298.15	1500
635	I4Zr1(cr)	Zirconium iodide (ZrI <sub>4</sub> )	2	298.15	1000
637	I4Zr1(g)	Zirconium iodide (ZrI <sub>4</sub> )	4	298.15	6000
1760	K1(cr)	Potassium (K)	2	298.15	400
1775	K1(cr,l)	Potassium (K)	5	298.15	1500
559	K1(g)	Potassium (K)	5	298.15	6000
1796	K1-(g)	Potassium, ion (K <sup>-</sup> )	2	298.15	6000
558	K1(l)	Potassium (K)	5	298.15	1500
841	K1+(g)	Potassium, ion (K <sup>+</sup> )	2	298.15	6000
743	K1O1(g)	Potassium oxide (KO)	5	298.15	6000
1003	K1O1-(g)	Potassium oxide, ion (KO <sup>-</sup> )	4	298.15	6000
675	K1O2(cr)	Potassium superoxide (KO <sub>2</sub> )	5	298.15	1500
560	K2(g)	Potassium (K <sub>2</sub> )	5	298.15	6000
787	K2O1(cr)	Potassium oxide (K <sub>2</sub> O)	4	298.15	2000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
788	K2O2(cr)	Potassium peroxide (K <sub>2</sub> O <sub>2</sub> )	5	298.15	2000
1153	K2O3Si1(cr)	Potassium silicate (K <sub>2</sub> SiO <sub>3</sub> )	5	298.15	2200
1682	K2O3Si1(cr,l)	Potassium silicate (K <sub>2</sub> SiO <sub>3</sub> )	5	298.15	3000
1154	K2O3Si1(l)	Potassium silicate (K <sub>2</sub> SiO <sub>3</sub> )	3	298.15	3000
1145	K2O4S1(cr)_01	Potassium sulfate, alpha (K <sub>2</sub> SO <sub>4</sub> )	5	298.15	1200
1458	K2O4S1(cr)_02	Potassium sulfate, beta (K <sub>2</sub> SO <sub>4</sub> )	5	298.15	1500
1459	K2O4S1(cr,l)	Potassium sulfate (K <sub>2</sub> SO <sub>4</sub> )	5	298.15	3000
1460	K2O4S1(g)	Potassium sulfate (K <sub>2</sub> SO <sub>4</sub> )	5	298.15	6000
1146	K2O4S1(l)	Potassium sulfate (K <sub>2</sub> SO <sub>4</sub> )	3	298.15	3000
1452	K2S1(cr)	Potassium sulfide (K <sub>2</sub> S)	5	298.15	2000
1683	K2S1(cr,l)	Potassium sulfide (K <sub>2</sub> S)	5	298.15	3000
1453	K2S1(l)	Potassium sulfide (K <sub>2</sub> S)	3	298.15	3000
1361	Kr1(ref)	Krypton (Kr)	2	298.15	6000
1362	Kr1+(g)	Krypton, ion (Kr <sup>+</sup> )	5	298.15	6000
321	Li1(cr)	Lithium (Li)	4	298.15	1000
1776	Li1(cr,l)	Lithium (Li)	5	298.15	2200
323	Li1(g)	Lithium (Li)	5	298.15	6000
1765	Li1-(g)	Lithium, ion (Li <sup>-</sup> )	2	298.15	6000
322	Li1(l)	Lithium (Li)	3	298.15	2200
839	Li1+(g)	Lithium, ion (Li <sup>+</sup> )	2	298.15	6000
324	Li1N1(g)	Lithium nitride (LiN)	5	298.15	6000
943	Li1N1O1(g)	Lithium oxynitride (LiON)	5	298.15	6000
448	Li1Na1O1(g)	Lithium sodium oxide (LiONa)	5	298.15	6000
325	Li1O1(g)	Lithium oxide (LiO)	4	298.15	6000
1004	Li1O1-(g)	Lithium oxide, ion (LiO <sup>-</sup> )	4	298.15	6000
326	Li2(g)	Lithium (Li <sub>2</sub> )	5	298.15	6000
327	Li2O1(cr)	Lithium oxide (Li <sub>2</sub> O)	5	298.15	3000
1684	Li2O1(cr,l)	Lithium oxide (Li <sub>2</sub> O)	5	298.15	4000
329	Li2O1(g)	Lithium oxide (Li <sub>2</sub> O)	5	298.15	6000
328	Li2O1(l)	Lithium oxide (Li <sub>2</sub> O)	3	298.15	4000
789	Li2O2(cr)	Lithium peroxide (Li <sub>2</sub> O <sub>2</sub> )	4	298.15	2000
811	Li2O2(g)	Lithium oxide ((LiO) <sub>2</sub> )	4	298.15	6000
490	Li2O3Si1(cr)	Lithium silicate (Li <sub>2</sub> SiO <sub>3</sub> )	5	298.15	2500
1685	Li2O3Si1(cr,l)	Lithium silicate (Li <sub>2</sub> SiO <sub>3</sub> )	5	298.15	4000
491	Li2O3Si1(l)	Lithium silicate (Li <sub>2</sub> SiO <sub>3</sub> )	4	298.15	4000
449	Li2O3Ti1(cr)	Lithium titanium oxide (Li <sub>2</sub> TiO <sub>3</sub> )	4	298.15	3000
1686	Li2O3Ti1(cr,l)	Lithium titanium oxide (Li <sub>2</sub> TiO <sub>3</sub> )	5	298.15	4000
450	Li2O3Ti1(l)	Lithium titanium oxide (Li <sub>2</sub> TiO <sub>3</sub> )	4	298.15	4000
1492	Li2O4S1(cr)_01	Lithium sulfate, alpha (Li <sub>2</sub> SO <sub>4</sub> )	3	298.15	1200
1493	Li2O4S1(cr)_02	Lithium sulfate, beta (Li <sub>2</sub> SO <sub>4</sub> )	4	298.15	2000
1495	Li2O4S1(cr,l)	Lithium sulfate (Li <sub>2</sub> SO <sub>4</sub> )	5	298.15	3000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1496	Li2O4S1(g)	Lithium sulfate (Li2SO4)	5	298.15	6000
1494	Li2O4S1(l)	Lithium sulfate (Li2SO4)	3	298.15	3000
982	Li2O5Si2(cr)	Lithium silicate (Li2Si2O5)	5	298.15	2500
1687	Li2O5Si2(cr,l)	Lithium silicate (Li2Si2O5)	5	298.15	3000
983	Li2O5Si2(l)	Lithium silicate (Li2Si2O5)	4	298.15	3000
330	Li3N1(cr)	Lithium nitride (Li3N)	5	298.15	1300
332	Mg1(cr)	Magnesium (Mg)	5	298.15	2000
1777	Mg1(cr,l)	Magnesium (Mg)	5	298.15	2000
334	Mg1(g)	Magnesium (Mg)	5	298.15	6000
333	Mg1(l)	Magnesium (Mg)	2	298.15	2000
1005	Mg1+(g)	Magnesium, ion (Mg <sup>+</sup> )	5	298.15	6000
812	Mg1N1(g)	Magnesium nitride (MgN)	4	298.15	6000
335	Mg1O1(cr)	Magnesium oxide (MgO)	5	298.15	4000
1688	Mg1O1(cr,l)	Magnesium oxide (MgO)	5	298.15	5000
336	Mg1O1(g)	Magnesium oxide (MgO)	5	298.15	6000
871	Mg1O1(l)	Magnesium oxide (MgO)	5	298.15	5000
337	Mg1O3Si1(cr)	Magnesium silicate (MgSiO3)	5	298.15	2500
1689	Mg1O3Si1(cr,l)	Magnesium silicate (MgSiO3)	5	298.15	3000
338	Mg1O3Si1(l)	Magnesium silicate (MgSiO3)	3	298.15	3000
451	Mg1O3Ti1(cr)	Magnesium titanium oxide (MgTiO3)	5	298.15	3000
1690	Mg1O3Ti1(cr,l)	Magnesium titanium oxide (MgTiO3)	5	298.15	4000
984	Mg1O3Ti1(l)	Magnesium titanium oxide (MgTiO3)	5	298.15	4000
339	Mg1O4S1(cr)	Magnesium sulfate (MgSO4)	5	298.15	2500
1691	Mg1O4S1(cr,l)	Magnesium sulfate (MgSO4)	5	298.15	2500
340	Mg1O4S1(l)	Magnesium sulfate (MgSO4)	5	298.15	2500
790	Mg1O4W1(cr)	Magnesium tungsten oxide (MgWO4)	5	298.15	2000
452	Mg1O5Ti2(cr)	Magnesium titanium oxide (MgTi2O5)	5	298.15	3000
1692	Mg1O5Ti2(cr,l)	Magnesium titanium oxide (MgTi2O5)	5	298.15	4000
453	Mg1O5Ti2(l)	Magnesium titanium oxide (MgTi2O5)	4	298.15	4000
341	Mg1S1(cr)	Magnesium sulfide (MgS)	5	298.15	3000
342	Mg1S1(g)	Magnesium sulfide (MgS)	5	298.15	6000
1289	Mg2(g)	Magnesium (Mg2)	5	298.15	6000
343	Mg2O4Si1(cr)	Magnesium silicate (Mg2SiO4)	5	298.15	3000
1693	Mg2O4Si1(cr,l)	Magnesium silicate (Mg2SiO4)	5	298.15	4000
344	Mg2O4Si1(l)	Magnesium silicate (Mg2SiO4)	4	298.15	4000
454	Mg2O4Ti1(cr)	Magnesium titanium oxide (Mg2TiO4)	5	298.15	3000
1694	Mg2O4Ti1(cr,l)	Magnesium titanium oxide (Mg2TiO4)	5	298.15	4000
455	Mg2O4Ti1(l)	Magnesium titanium oxide (Mg2TiO4)	5	298.15	4000
345	Mg2Si1(cr)	Magnesium silicide (Mg2Si)	5	298.15	2500
1695	Mg2Si1(cr,l)	Magnesium silicide (Mg2Si)	5	298.15	4000
346	Mg2Si1(l)	Magnesium silicide (Mg2Si)	2	298.15	4000



JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
347	Mg <sub>3</sub> N <sub>2</sub> (cr)	Magnesium nitride (Mg <sub>3</sub> N <sub>2</sub> )	3	298.15	2500
348	Mg <sub>3</sub> O <sub>8</sub> P <sub>2</sub> (cr)	Magnesium phosphate (Mg <sub>3</sub> P <sub>2</sub> O <sub>8</sub> )	5	298.15	3000
1696	Mg <sub>3</sub> O <sub>8</sub> P <sub>2</sub> (cr,l)	Magnesium phosphate (Mg <sub>3</sub> P <sub>2</sub> O <sub>8</sub> )	5	298.15	4500
349	Mg <sub>3</sub> O <sub>8</sub> P <sub>2</sub> (l)	Magnesium phosphate (Mg <sub>3</sub> P <sub>2</sub> O <sub>8</sub> )	4	298.15	4500
1748	Mn1(cr)	Manganese (Mn)	5	298.15	1900
1778	Mn1(cr,l)	Manganese (Mn)	5	298.15	3000
1758	Mn1(g)	Manganese (Mn)	5	298.15	6000
1616	Mn1(l)	Manganese (Mn)	2	298.15	3000
1743	Mn1+(g)	Manganese, ion (Mn <sup>+</sup> )	5	298.15	6000
957	Mo1(cr)	Molybdenum (Mo)	5	298.15	3300
1779	Mo1(cr,l)	Molybdenum (Mo)	5	298.15	6000
959	Mo1(g)	Molybdenum (Mo)	5	298.15	6000
1454	Mo1-(g)	Molybdenum, ion (Mo <sup>-</sup> )	2	298.15	6000
958	Mo1(l)	Molybdenum (Mo)	4	298.15	6000
960	Mo1+(g)	Molybdenum, ion (Mo <sup>+</sup> )	5	298.15	6000
985	Mo1O1(g)	Molybdenum oxide (MoO)	3	298.15	6000
986	Mo1O2(cr)	Molybdenum oxide (MoO <sub>2</sub> )	5	298.15	3000
1046	Mo1O2(g)	Molybdenum oxide (MoO <sub>2</sub> )	5	298.15	6000
1484	Mo1O2.750(cr)	Molybdenum oxide (MoO <sub>2.750</sub> )	5	298.15	1500
1485	Mo1O2.875(cr)	Molybdenum oxide (MoO <sub>2.875</sub> )	5	298.15	1500
1486	Mo1O2.889(cr)	Molybdenum oxide (MoO <sub>2.889</sub> )	5	298.15	1500
987	Mo1O3(cr)	Molybdenum oxide (MoO <sub>3</sub> )	5	298.15	1500
1483	Mo1O3(cr,l)	Molybdenum oxide (MoO <sub>3</sub> )	5	298.15	2000
1047	Mo1O3(g)	Molybdenum oxide (MoO <sub>3</sub> )	5	298.15	6000
988	Mo1O3(l)	Molybdenum oxide (MoO <sub>3</sub> )	3	298.15	2000
1461	Mo1S2(cr)	Molybdenum sulfide (MoS <sub>2</sub> )	3	298.15	2400
1462	Mo2S3(cr)	Molybdenum sulfide (Mo <sub>2</sub> S <sub>3</sub> )	3	298.15	2400
1464	Mo2S3(cr,l)	Molybdenum sulfide (Mo <sub>2</sub> S <sub>3</sub> )	5	298.15	3500
1463	Mo2S3(l)	Molybdenum sulfide (Mo <sub>2</sub> S <sub>3</sub> )	4	298.15	3500
1228	N0.465V1(cr)	Vanadium nitride (VN <sub>0.465</sub> )	5	298.15	3500
350	N1(g)	Nitrogen (N)	5	298.15	6000
1364	N1-(g)	Nitrogen, ion (N <sup>-</sup> )	4	298.15	6000
1363	N1+(g)	Nitrogen, ion (N <sup>+</sup> )	5	298.15	6000
351	N1O1(g)	Nitrogen oxide (NO)	5	298.15	6000
923	N1O1+(g)	Nitrogen oxide, ion (NO <sup>+</sup> )	5	298.15	6000
352	N1O2(g)	Nitrogen oxide (NO <sub>2</sub> )	4	298.15	6000
870	N1O2-(g)	Nitrogen oxide, ion (ONO <sup>-</sup> )	5	298.15	6000
829	N1O3(g)	Nitrogen oxide (NO <sub>3</sub> )	5	298.15	6000
353	N1P1(g)	Phosphorus nitride (PN)	5	298.15	6000
354	N1S1(g)	Nitrogen sulfide (NS)	5	298.15	6000
355	N1Si1(g)	Silicon nitride (SiN)	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
973	N1Si2(g)	Silicon nitride (Si <sub>2</sub> N)	5	298.15	6000
356	N1Ti1(cr)	Titanium nitride (TiN)	4	298.15	4500
1697	N1Ti1(cr,l)	Titanium nitride (TiN)	5	298.15	4500
357	N1Ti1(l)	Titanium nitride (TiN)	5	298.15	4500
1229	N1V1(cr)	Vanadium nitride (VN)	5	298.15	3500
1230	N1V1(g)	Vanadium nitride (VN)	5	298.15	6000
358	N1Zr1(cr)	Zirconium nitride (ZrN)	4	298.15	4000
1698	N1Zr1(cr,l)	Zirconium nitride (ZrN)	5	298.15	6000
791	N1Zr1(g)	Zirconium nitride (ZrN)	5	298.15	6000
359	N1Zr1(l)	Zirconium nitride (ZrN)	5	298.15	6000
1423	N2-(g)	Nitrogen, ion (N <sub>2</sub> <sup>-</sup> )	5	298.15	6000
360	N2(ref)	Nitrogen (N <sub>2</sub> )	5	298.15	6000
1422	N2+(g)	Nitrogen, ion (N <sub>2</sub> <sup>+</sup> )	5	298.15	6000
361	N2O1(g)	Nitrogen oxide (N <sub>2</sub> O)	5	298.15	6000
1115	N2O1+(g)	Nitrogen oxide, ion (N <sub>2</sub> O <sup>+</sup> )	4	298.15	6000
362	N2O3(g)	Nitrogen oxide (N <sub>2</sub> O <sub>3</sub> )	5	298.15	6000
456	N2O4(cr)	Nitrogen oxide (N <sub>2</sub> O <sub>4</sub> )	2	298.15	500
1699	N2O4(cr,l)	Nitrogen oxide (N <sub>2</sub> O <sub>4</sub> )	2	298.15	500
363	N2O4(g)	Nitrogen oxide (N <sub>2</sub> O <sub>4</sub> )	5	298.15	6000
457	N2O4(l)	Nitrogen oxide (N <sub>2</sub> O <sub>4</sub> )	2	298.15	500
364	N2O5(g)	Nitrogen oxide (N <sub>2</sub> O <sub>5</sub> )	5	298.15	6000
1116	N3(g)	Azide (N <sub>3</sub> )	5	298.15	6000
365	N4Si3(cr)	Silicon nitride, alpha (Si <sub>3</sub> N <sub>4</sub> )	5	298.15	3000
366	N5P3(cr)	Phosphorus nitride (P <sub>3</sub> N <sub>5</sub> )	5	298.15	1500
368	Na1(cr)	Sodium (Na)	4	298.15	1000
1780	Na1(cr,l)	Sodium (Na)	4	298.15	1600
370	Na1(g)	Sodium (Na)	5	298.15	6000
1795	Na1-(g)	Sodium, ion (Na <sup>-</sup> )	2	298.15	6000
369	Na1(l)	Sodium (Na)	5	298.15	1600
840	Na1+(g)	Sodium, ion (Na <sup>+</sup> )	2	298.15	6000
371	Na1O1(g)	Sodium oxide (NaO)	4	298.15	6000
1006	Na1O1-(g)	Sodium oxide, ion (NaO <sup>-</sup> )	4	298.15	6000
792	Na1O2(cr)	Sodium superoxide (NaO <sub>2</sub> )	5	298.15	2000
372	Na2(g)	Sodium (Na <sub>2</sub> )	5	298.15	6000
373	Na2O1(cr)	Sodium oxide (Na <sub>2</sub> O)	4	298.15	2000
1700	Na2O1(cr,l)	Sodium oxide (Na <sub>2</sub> O)	5	298.15	3000
374	Na2O1(l)	Sodium oxide (Na <sub>2</sub> O)	2	298.15	3000
793	Na2O2(cr)	Sodium peroxide (Na <sub>2</sub> O <sub>2</sub> )	3	298.15	2500
375	Na2O3Si1(cr)	Sodium silicate (Na <sub>2</sub> SiO <sub>3</sub> )	5	298.15	2500
1701	Na2O3Si1(cr,l)	Sodium silicate (Na <sub>2</sub> SiO <sub>3</sub> )	5	298.15	2500
376	Na2O3Si1(l)	Sodium silicate (Na <sub>2</sub> SiO <sub>3</sub> )	3	298.15	2500

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
964	Na2O4S1(cr)_01	Sodium sulfate, delta (Na <sub>2</sub> SO <sub>4</sub> )	5	298.15	1500
963	Na2O4S1(cr)_02	Sodium sulfate, I (Na <sub>2</sub> SO <sub>4</sub> )	3	298.15	1500
962	Na2O4S1(cr)_03	Sodium sulfate, III (Na <sub>2</sub> SO <sub>4</sub> )	3	298.15	1000
1465	Na2O4S1(cr)_04	Sodium sulfate, IV (Na <sub>2</sub> SO <sub>4</sub> )	3	298.15	1000
961	Na2O4S1(cr)_05	Sodium sulfate, V (Na <sub>2</sub> SO <sub>4</sub> )	3	298.15	1000
1466	Na2O4S1(cr,l)	Sodium sulfate (Na <sub>2</sub> SO <sub>4</sub> )	5	298.15	3000
1467	Na2O4S1(g)	Sodium sulfate (Na <sub>2</sub> SO <sub>4</sub> )	5	298.15	6000
965	Na2O4S1(l)	Sodium sulfate (Na <sub>2</sub> SO <sub>4</sub> )	3	298.15	3000
989	Na2O4W1(cr)	Sodium tungsten oxide (Na <sub>2</sub> WO <sub>4</sub> )	5	298.15	1500
377	Na2O5Si2(cr)	Sodium silicate (Na <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> )	5	298.15	2000
1702	Na2O5Si2(cr,l)	Sodium silicate (Na <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> )	6	298.15	2500
378	Na2O5Si2(l)	Sodium silicate (Na <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> )	4	298.15	2500
379	Na2S1(cr)	Sodium sulfide (Na <sub>2</sub> S)	6	298.15	2000
1703	Na2S1(cr,l)	Sodium sulfide (Na <sub>2</sub> S)	5	298.15	3000
380	Na2S1(l)	Sodium sulfide (Na <sub>2</sub> S)	4	298.15	3000
1728	Na2S2(cr)	Sodium sulfide, beta (Na <sub>2</sub> S <sub>2</sub> )	2	298.15	1000
1730	Na2S2(cr,l)	Sodium sulfide (Na <sub>2</sub> S <sub>2</sub> )	3	298.15	1500
1729	Na2S2(l)	Sodium sulfide (Na <sub>2</sub> S <sub>2</sub> )	2	298.15	1500
1176	Nb1(cr)	Niobium (Nb)	5	298.15	3200
1781	Nb1(cr,l)	Niobium (Nb)	7	298.15	6000
1178	Nb1(g)	Niobium (Nb)	5	298.15	6000
1546	Nb1-(g)	Niobium, ion (Nb <sup>-</sup> )	5	298.15	6000
1177	Nb1(l)	Niobium (Nb)	4	298.15	6000
1563	Nb1+(g)	Niobium, ion (Nb <sup>+</sup> )	5	298.15	6000
1231	Nb1O1(cr)	Niobium oxide (NbO)	2	298.15	2800
1704	Nb1O1(cr,l)	Niobium oxide (NbO)	5	298.15	3000
1233	Nb1O1(g)	Niobium oxide (NbO)	5	298.15	6000
1232	Nb1O1(l)	Niobium oxide (NbO)	4	298.15	3000
1234	Nb1O2(cr)	Niobium oxide (NbO <sub>2</sub> )	5	298.15	2800
1705	Nb1O2(cr,l)	Niobium oxide (NbO <sub>2</sub> )	5	298.15	3000
1236	Nb1O2(g)	Niobium oxide (NbO <sub>2</sub> )	5	298.15	6000
1235	Nb1O2(l)	Niobium oxide (NbO <sub>2</sub> )	4	298.15	3000
1179	Nb2O5(cr)	Niobium oxide (Nb <sub>2</sub> O <sub>5</sub> )	5	298.15	2300
1706	Nb2O5(cr,l)	Niobium oxide (Nb <sub>2</sub> O <sub>5</sub> )	5	298.15	5000
1180	Nb2O5(l)	Niobium oxide (Nb <sub>2</sub> O <sub>5</sub> )	4	298.15	5000
1365	Ne1(ref)	Neon (Ne)	2	298.15	6000
1366	Ne1+(g)	Neon, ion (Ne <sup>+</sup> )	5	298.15	6000
1345	Ni1(cr)	Nickel (Ni)	7	298.15	2500
1782	Ni1(cr,l)	Nickel (Ni)	6	298.15	3600
1347	Ni1(g)	Nickel (Ni)	5	298.15	6000
1551	Ni1-(g)	Nickel, ion (Ni <sup>-</sup> )	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1346	Ni(l)	Nickel (Ni)	4	298.15	3600
1560	Ni1+(g)	Nickel, ion (Ni <sup>+</sup> )	5	298.15	6000
1348	Ni1S1(cr)	Nickel sulfide (NiS)	3	298.15	1700
1707	Ni1S1(cr,l)	Nickel sulfide (NiS)	5	298.15	3400
1350	Ni1S1(g)	Nickel sulfide (NiS)	5	298.15	6000
1349	Ni1S1(l)	Nickel sulfide (NiS)	4	298.15	3400
1367	Ni1S2(cr)	Nickel sulfide (NiS <sub>2</sub> )	2	298.15	1800
1708	Ni1S2(cr,l)	Nickel sulfide (NiS <sub>2</sub> )	2	298.15	1800
1368	Ni1S2(l)	Nickel sulfide (NiS <sub>2</sub> )	2	298.15	1800
1351	Ni3S2(cr)	Nickel sulfide (Ni <sub>3</sub> S <sub>2</sub> )	2	298.15	1600
1709	Ni3S2(cr,l)	Nickel sulfide (Ni <sub>3</sub> S <sub>2</sub> )	5	298.15	3800
1352	Ni3S2(l)	Nickel sulfide (Ni <sub>3</sub> S <sub>2</sub> )	3	298.15	3800
1369	Ni3S4(cr)	Nickel sulfide (Ni <sub>3</sub> S <sub>4</sub> )	2	298.15	1100
381	O1(g)	Oxygen (O)	5	298.15	6000
863	O1-(g)	Oxygen, ion (O <sup>-</sup> )	5	298.15	6000
1372	O1+(g)	Oxygen, ion (O <sup>+</sup> )	5	298.15	6000
408	O10P4(cr)	Phosphorus oxide ((P <sub>2</sub> O <sub>5</sub> ) <sub>2</sub> )	5	298.15	1500
409	O10P4(g)	Phosphorus oxide ((P <sub>2</sub> O <sub>5</sub> ) <sub>2</sub> )	5	298.15	6000
769	O12W4(g)	Tungsten oxide ((WO <sub>3</sub> ) <sub>4</sub> )	5	298.15	6000
382	O1P1(g)	Phosphorus oxide (PO)	5	298.15	6000
638	O1Pb1(cr)_01	Lead oxide, red (PbO)	4	298.15	1400
639	O1Pb1(cr)_02	Lead oxide, yellow (PbO)	2	298.15	1500
1710	O1Pb1(cr,l)	Lead oxide (PbO)	5	298.15	2500
641	O1Pb1(g)	Lead oxide (PbO)	5	298.15	6000
640	O1Pb1(l)	Lead oxide (PbO)	2	298.15	2500
383	O1S1(g)	Sulfur oxide (SO)	5	298.15	6000
279	O1S2(g)	Sulfur oxide (SSO)	5	298.15	6000
384	O1Si1(g)	Silicon oxide (SiO)	5	298.15	6000
1181	O1Sr1(cr)	Strontium oxide (SrO)	3	298.15	3600
1711	O1Sr1(cr,l)	Strontium oxide (SrO)	5	298.15	5000
1212	O1Sr1(g)	Strontium oxide (SrO)	5	298.15	6000
1182	O1Sr1(l)	Strontium oxide (SrO)	5	298.15	5000
1237	O1Ta1(g)	Tantalum oxide (TaO)	5	298.15	6000
385	O1Ti1(cr)_01	Titanium oxide, alpha (TiO)	5	298.15	2500
974	O1Ti1(cr)_02	Titanium oxide, beta (TiO)	5	298.15	2500
1712	O1Ti1(cr,l)	Titanium oxide (TiO)	5	298.15	4500
387	O1Ti1(g)	Titanium oxide (TiO)	5	298.15	6000
386	O1Ti1(l)	Titanium oxide (TiO)	4	298.15	4500
1238	O1V1(cr)	Vanadium oxide (VO)	3	298.15	2600
1713	O1V1(cr,l)	Vanadium oxide (VO)	5	298.15	3500
1240	O1V1(g)	Vanadium oxide (VO)	5	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1239	O1V1(l)	Vanadium oxide (VO)	4	298.15	3500
676	O1W1(g)	Tungsten oxide (WO)	5	298.15	6000
388	O1Zr1(g)	Zirconium oxide (ZrO)	5	298.15	6000
944	O2-(g)	Oxygen, ion (O <sub>2</sub> <sup>-</sup> )	5	298.15	6000
389	O2(ref)	Oxygen (O <sub>2</sub> )	5	298.15	6000
945	O2.72W1(cr)	Tungsten oxide (WO <sub>2.72</sub> )	5	298.15	3000
946	O2.90W1(cr)	Tungsten oxide (WO <sub>2.90</sub> )	5	298.15	3000
947	O2.96W1(cr)	Tungsten oxide (WO <sub>2.96</sub> )	5	298.15	3000
1424	O2+(g)	Oxygen, ion (O <sub>2</sub> <sup>+</sup> )	5	298.15	6000
390	O2P1(g)	Phosphorus oxide (PO <sub>2</sub> )	5	298.15	6000
642	O2Pb1(cr)	Lead oxide (PbO <sub>2</sub> )	5	298.15	1200
391	O2S1(g)	Sulfur dioxide (SO <sub>2</sub> )	5	298.15	6000
991	O2Si1(cr)_01	Silicon oxide, cristobalite, high (SiO <sub>2</sub> )	2	298.15	3000
990	O2Si1(cr)_02	Silicon oxide, cristobalite, low (SiO <sub>2</sub> )	3	298.15	1000
392	O2Si1(cr)_03	Silicon oxide, quartz (SiO <sub>2</sub> )	3	298.15	2000
1714	O2Si1(cr,l)	Silicon oxide (SiO <sub>2</sub> )	5	298.15	4500
394	O2Si1(g)	Silicon oxide (SiO <sub>2</sub> )	4	298.15	6000
393	O2Si1(l)	Silicon oxide (SiO <sub>2</sub> )	5	298.15	4500
1241	O2Ta1(g)	Tantalum oxide (TaO <sub>2</sub> )	5	298.15	6000
395	O2Ti1(cr)_01	Titanium oxide, anatase (TiO <sub>2</sub> )	5	298.15	2000
396	O2Ti1(cr)_02	Titanium oxide, rutile (TiO <sub>2</sub> )	5	298.15	2500
1715	O2Ti1(cr,l)	Titanium oxide (TiO <sub>2</sub> )	5	298.15	4000
398	O2Ti1(g)	Titanium oxide (TiO <sub>2</sub> )	5	298.15	6000
397	O2Ti1(l)	Titanium oxide (TiO <sub>2</sub> )	5	298.15	4000
1242	O2V1(g)	Vanadium oxide (VO <sub>2</sub> )	5	298.15	6000
677	O2W1(cr)	Tungsten oxide (WO <sub>2</sub> )	5	298.15	3000
678	O2W1(g)	Tungsten oxide (WO <sub>2</sub> )	5	298.15	6000
399	O2Zr1(cr)	Zirconium oxide (ZrO <sub>2</sub> )	5	298.15	3500
1716	O2Zr1(cr,l)	Zirconium oxide (ZrO <sub>2</sub> )	5	298.15	5000
401	O2Zr1(g)	Zirconium oxide (ZrO <sub>2</sub> )	5	298.15	6000
400	O2Zr1(l)	Zirconium oxide (ZrO <sub>2</sub> )	3	298.15	5000
402	O3(g)	Ozone (O <sub>3</sub> )	5	298.15	6000
864	O3Pb1Si1(cr)	Lead silicate (PbSiO <sub>3</sub> )	5	298.15	2000
403	O3S1(g)	Sulfur trioxide (SO <sub>3</sub> )	5	298.15	6000
404	O3Ti2(cr)	Titanium oxide (Ti <sub>2</sub> O <sub>3</sub> )	2	298.15	3000
1717	O3Ti2(cr,l)	Titanium oxide (Ti <sub>2</sub> O <sub>3</sub> )	5	298.15	3500
405	O3Ti2(l)	Titanium oxide (Ti <sub>2</sub> O <sub>3</sub> )	5	298.15	3500
1243	O3V2(cr)	Vanadium oxide (V <sub>2</sub> O <sub>3</sub> )	5	298.15	2800
1718	O3V2(cr,l)	Vanadium oxide (V <sub>2</sub> O <sub>3</sub> )	5	298.15	4000
1244	O3V2(l)	Vanadium oxide (V <sub>2</sub> O <sub>3</sub> )	5	298.15	4000
679	O3W1(cr)	Tungsten oxide (WO <sub>3</sub> )	5	298.15	3000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1719	O3W1(cr,l)	Tungsten oxide (WO <sub>3</sub> )	5	298.15	3000
681	O3W1(g)	Tungsten oxide (WO <sub>3</sub> )	5	298.15	6000
680	O3W1(l)	Tungsten oxide (WO <sub>3</sub> )	4	298.15	3000
865	O4Pb2Si1(cr)	Lead silicate (Pb <sub>2</sub> SiO <sub>4</sub> )	5	298.15	2000
643	O4Pb3(cr)	Lead oxide (Pb <sub>3</sub> O <sub>4</sub> )	5	298.15	1500
1520	O4S1Zn1(cr)	Zinc sulfate (ZnSO <sub>4</sub> )	4	298.15	2000
492	O4Si1Zr1(cr)	Zirconium silicate (ZrSiO <sub>4</sub> )	5	298.15	3000
1197	O4V2(cr)	Vanadium oxide (V <sub>2</sub> O <sub>4</sub> )	4	298.15	2200
1720	O4V2(cr,l)	Vanadium oxide (V <sub>2</sub> O <sub>4</sub> )	5	298.15	3000
1198	O4V2(l)	Vanadium oxide (V <sub>2</sub> O <sub>4</sub> )	5	298.15	3000
1183	O5Ta2(cr)	Tantalum oxide (Ta <sub>2</sub> O <sub>5</sub> )	5	298.15	2800
1721	O5Ta2(cr,l)	Tantalum oxide (Ta <sub>2</sub> O <sub>5</sub> )	5	298.15	5000
1184	O5Ta2(l)	Tantalum oxide (Ta <sub>2</sub> O <sub>5</sub> )	5	298.15	5000
406	O5Ti3(cr)_01	Titanium oxide, alpha (Ti <sub>3</sub> O <sub>5</sub> )	5	298.15	1500
975	O5Ti3(cr)_02	Titanium oxide, beta (Ti <sub>3</sub> O <sub>5</sub> )	2	298.15	2500
1722	O5Ti3(cr,l)	Titanium oxide (Ti <sub>3</sub> O <sub>5</sub> )	5	298.15	4000
976	O5Ti3(l)	Titanium oxide (Ti <sub>3</sub> O <sub>5</sub> )	2	298.15	4000
1199	O5V2(cr)	Vanadium oxide (V <sub>2</sub> O <sub>5</sub> )	5	298.15	1500
1723	O5V2(cr,l)	Vanadium oxide (V <sub>2</sub> O <sub>5</sub> )	5	298.15	3000
1200	O5V2(l)	Vanadium oxide (V <sub>2</sub> O <sub>5</sub> )	2	298.15	3000
407	O6P4(g)	Phosphorus oxide ((P <sub>2</sub> O <sub>3</sub> ) <sub>2</sub> )	5	298.15	6000
948	O6W2(g)	Tungsten oxide ((WO <sub>3</sub> ) <sub>2</sub> )	4	298.15	6000
1245	O7Ti4(cr)	Titanium oxide (Ti <sub>4</sub> O <sub>7</sub> )	5	298.15	2400
1724	O7Ti4(cr,l)	Titanium oxide (Ti <sub>4</sub> O <sub>7</sub> )	5	298.15	4000
1246	O7Ti4(l)	Titanium oxide (Ti <sub>4</sub> O <sub>7</sub> )	5	298.15	4000
949	O8W3(g)	Tungsten oxide (W <sub>3</sub> O <sub>8</sub> )	5	298.15	6000
682	O9W3(g)	Tungsten oxide ((WO <sub>3</sub> ) <sub>3</sub> )	5	298.15	6000
1732	P1(cr)_01	Phosphorus, black (P)	3	298.15	1000
1731	P1(cr)_02	Phosphorus, red, IV (P)	4	298.15	1000
411	P1(cr)_03	Phosphorus, red, V (P)	4	298.15	1000
412	P1(cr)_04	Phosphorus, white (P)	4	298.15	1000
1783	P1(cr,l)	Phosphorus (P)	4	298.15	2000
414	P1(g)	Phosphorus (P)	5	298.15	6000
1739	P1-(g)	Phosphorus, ion (P <sup>-</sup> )	5	298.15	6000
413	P1(l)	Phosphorus (P)	2	298.15	2000
1738	P1+(g)	Phosphorus, ion (P <sup>+</sup> )	5	298.15	6000
415	P1S1(g)	Phosphorus sulfide (PS)	5	298.15	6000
416	P2(g)	Phosphorus (P <sub>2</sub> )	4	298.15	6000
417	P4(g)	Phosphorus (P <sub>4</sub> )	4	298.15	6000
418	P4S3(cr)	Phosphorus sulfide (P <sub>4</sub> S <sub>3</sub> )	2	298.15	2000
1725	P4S3(cr,l)	Phosphorus sulfide (P <sub>4</sub> S <sub>3</sub> )	2	298.15	3000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
420	P4S3(g)	Phosphorus sulfide (P <sub>4</sub> S <sub>3</sub> )	2	298.15	6000
419	P4S3(l)	Phosphorus sulfide (P <sub>4</sub> S <sub>3</sub> )	2	298.15	3000
645	Pb1(cr)	Lead (Pb)	3	298.15	1500
1784	Pb1(cr,l)	Lead (Pb)	5	298.15	3000
647	Pb1(g)	Lead (Pb)	5	298.15	6000
1751	Pb1-(g)	Lead, ion (Pb <sup>-</sup> )	2	298.15	6000
646	Pb1(l)	Lead (Pb)	4	298.15	3000
1557	Pb1+(g)	Lead, ion (Pb <sup>+</sup> )	5	298.15	6000
1201	Pb1S1(cr)	Lead sulfide (PbS)	4	298.15	1800
1726	Pb1S1(cr,l)	Lead sulfide (PbS)	5	298.15	2000
1203	Pb1S1(g)	Lead sulfide (PbS)	5	298.15	6000
1202	Pb1S1(l)	Lead sulfide (PbS)	4	298.15	2000
648	Pb2(g)	Lead (Pb <sub>2</sub> )	4	298.15	6000
1740	Rb1(cr)	Rubidium (Rb)	2	298.15	600
1750	Rb1(cr,l)	Rubidium (Rb)	5	298.15	1600
1753	Rb1(g)	Rubidium (Rb)	5	298.15	6000
1755	Rb1-(g)	Rubidium, ion (Rb <sup>-</sup> )	2	298.15	6000
1741	Rb1(l)	Rubidium (Rb)	5	298.15	1600
1553	Rb1+(g)	Rubidium, ion (Rb <sup>+</sup> )	2	298.15	6000
1754	Rb2(g)	Rubidium (Rb <sub>2</sub> )	5	298.15	6000
1756	Rn1(ref)	Radon (Rn)	2	298.15	6000
1558	Rn1+(g)	Radon, ion (Rn <sup>+</sup> )	4	298.15	6000
1440	S1(cr)_01	Sulfur, monoclinic (S)	2	298.15	800
422	S1(cr)_02	Sulfur, orthorhombic (S)	3	298.15	800
1785	S1(cr,l)	Sulfur (S)	7	298.15	1500
424	S1(g)	Sulfur (S)	5	298.15	6000
1426	S1-(g)	Sulfur, ion (S <sup>-</sup> )	5	298.15	6000
423	S1(l)	Sulfur (S)	5	298.15	1500
1425	S1+(g)	Sulfur, ion (S <sup>+</sup> )	5	298.15	6000
425	S1Si1(g)	Silicon sulfide (SiS)	5	298.15	6000
1427	S1Sr1(cr)	Strontium sulfide (SrS)	5	298.15	3000
1428	S1Sr1(g)	Strontium sulfide (SrS)	5	298.15	6000
426	S2(g)	Sulfur (S <sub>2</sub> )	5	298.15	6000
427	S2Si1(cr)	Silicon sulfide (SiS <sub>2</sub> )	5	298.15	2000
1727	S2Si1(cr,l)	Silicon sulfide (SiS <sub>2</sub> )	5	298.15	2000
428	S2Si1(l)	Silicon sulfide (SiS <sub>2</sub> )	4	298.15	2000
1429	S3(g)	Sulfur (S <sub>3</sub> )	4	298.15	6000
1430	S4(g)	Sulfur (S <sub>4</sub> )	5	298.15	6000
1431	S5(g)	Sulfur (S <sub>5</sub> )	2	298.15	6000
1432	S6(g)	Sulfur (S <sub>6</sub> )	2	298.15	6000
1433	S7(g)	Sulfur (S <sub>7</sub> )	2	298.15	6000

JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
429	S8(g)	Sulfur (S <sub>8</sub> )	4	298.15	6000
431	Si1(cr)	Silicon (Si)	4	298.15	2500
1787	Si1(cr,l)	Silicon (Si)	5	298.15	4500
433	Si1(g)	Silicon (Si)	5	298.15	6000
1742	Si1-(g)	Silicon, ion (Si <sup>-</sup> )	5	298.15	6000
432	Si1(l)	Silicon (Si)	2	298.15	4500
1147	Si1+(g)	Silicon, ion (Si <sup>+</sup> )	5	298.15	6000
434	Si2(g)	Silicon (Si <sub>2</sub> )	5	298.15	6000
435	Si3(g)	Silicon (Si <sub>3</sub> )	5	298.15	6000
1118	Sr1(cr)_01	Strontium, alpha (Sr)	5	298.15	1500
1586	Sr1(cr)_02	Strontium, beta (Sr)	2	298.15	1500
1788	Sr1(cr,l)	Strontium (Sr)	5	298.15	3000
1120	Sr1(g)	Strontium (Sr)	5	298.15	6000
1119	Sr1(l)	Strontium (Sr)	2	298.15	3000
1554	Sr1+(g)	Strontium, ion (Sr <sup>+</sup> )	5	298.15	6000
1186	Ta1(cr)	Tantalum (Ta)	5	298.15	3800
1789	Ta1(cr,l)	Tantalum (Ta)	6	298.15	6000
1188	Ta1(g)	Tantalum (Ta)	5	298.15	6000
1547	Ta1-(g)	Tantalum, ion (Ta <sup>-</sup> )	5	298.15	6000
1187	Ta1(l)	Tantalum (Ta)	5	298.15	6000
1564	Ta1+(g)	Tantalum, ion (Ta <sup>+</sup> )	5	298.15	6000
437	Ti1(cr)_01	Titanium, alpha (Ti)	5	298.15	1700
950	Ti1(cr)_02	Titanium, beta (Ti)	5	298.15	2500
1790	Ti1(cr,l)	Titanium (Ti)	5	298.15	4500
439	Ti1(g)	Titanium (Ti)	5	298.15	6000
1528	Ti1-(g)	Titanium, ion (Ti <sup>-</sup> )	5	298.15	6000
438	Ti1(l)	Titanium (Ti)	4	298.15	4500
1007	Ti1+(g)	Titanium, ion (Ti <sup>+</sup> )	5	298.15	6000
1205	V1(cr)	Vanadium (V)	5	298.15	2700
1791	V1(cr,l)	Vanadium (V)	5	298.15	4500
1207	V1(g)	Vanadium (V)	5	298.15	6000
1545	V1-(g)	Vanadium, ion (V <sup>-</sup> )	5	298.15	6000
1206	V1(l)	Vanadium (V)	5	298.15	4500
1562	V1+(g)	Vanadium, ion (V <sup>+</sup> )	5	298.15	6000
562	W1(cr)	Tungsten (W)	5	298.15	4800
1792	W1(cr,l)	Tungsten (W)	7	298.15	6000
564	W1(g)	Tungsten (W)	5	298.15	6000
1549	W1-(g)	Tungsten, ion (W <sup>-</sup> )	2	298.15	6000
563	W1(l)	Tungsten (W)	5	298.15	6000
966	W1+(g)	Tungsten, ion (W <sup>+</sup> )	5	298.15	6000
1370	Xe1(ref)	Xenon (Xe)	2	298.15	6000



JCODE	Formula	Species Name	Number of Intervals	Lower Temperature (K)	Upper Temperature (K)
1371	Xe1+(g)	Xenon, ion (Xe <sup>+</sup> )	5	298.15	6000
1498	Zn1(cr)	Zinc (Zn)	2	298.15	1000
1793	Zn1(cr,l)	Zinc (Zn)	3	298.15	2000
1500	Zn1(g)	Zinc (Zn)	5	298.15	6000
1502	Zn1-(g)	Zinc, ion (Zn <sup>-</sup> )	2	298.15	6000
1499	Zn1(l)	Zinc (Zn)	2	298.15	2000
1501	Zn1+(g)	Zinc, ion (Zn <sup>+</sup> )	2	298.15	6000
441	Zr1(cr)_01	Zirconium, alpha (Zr)	5	298.15	1700
1008	Zr1(cr)_02	Zirconium, beta (Zr)	5	298.15	2600
1794	Zr1(cr,l)	Zirconium (Zr)	5	298.15	5500
443	Zr1(g)	Zirconium (Zr)	5	298.15	6000
1529	Zr1-(g)	Zirconium, ion (Zr <sup>-</sup> )	5	298.15	6000
442	Zr1(l)	Zirconium (Zr)	5	298.15	5500
1009	Zr1+(g)	Zirconium, ion (Zr <sup>+</sup> )	5	298.15	6000

## Appendix B

### Species by Element Cross Reference

This appendix presents a cross reference of species by element. Forty-seven elements and the corresponding species are included in the species database and listed here.

#### Key:

(cr) = crystal

(cr, l) = crystal and liquid

(fl) = fluid

(g) = gas

(l) = liquid

(l, g) = liquid and gas

(ref) = reference

#### Element 1 - Hydrogen

Al1H1(g)	Al1H1O1(g)_01	Al1H1O1(g)_02	Al1H1O1-(g)	Al1H1O1+(g)
Al1H1O2(g)	Al1H4Li1(cr)	B10H14(cr)	B10H14(cr,l)	B10H14*
B10H14(g)	B10H14(l)	B1Br2H1(g)	B1Cl2H1(g)	B1F2H1(g)
B1F2H1O1(g)	B1H1(g)	B1H1O1(g)	B1H1O1-(g)	B1H1O1+(g)
B1H1O2(cr)	B1H1O2(g)	B1H1S1(g)	B1H1S1+(g)	B1H2(g)
B1H2O2(g)	B1H3(g)	B1H3O3(cr)	B1H3O3(g)	B1H4K1(cr)
B1H4Li1(cr)	B1H4Na1(cr)	B2H4O4(cr)	B2H4O4(g)	B2H6(g)
B3F1H2O3(g)	B3F2H1O3(g)	B3H3O3(cr)	B3H3O3(g)	B3H3O6(g)
B3H6N3(g)	B5H9(g)	B5H9(l)	Ba1H1O1(g)	Ba1H1O1+(g)
Ba1H2O2(cr)	Ba1H2O2(cr,l)	Ba1H2O2*	Ba1H2O2(g)	Ba1H2O2(l)
Be1H1(g)	Be1H1+(g)	Be1H1O1(g)	Be1H1O1+(g)	Be1H2(g)
Be1H2O2(cr)_01	Be1H2O2(cr)_02	Be1H2O2(g)	Br1H1(g)	Br1H3Si1(g)
Br1H4N1(cr)	Br2H2Si1(g)	Br3H1Si1(g)	C1H1(g)	C1H1+(g)
C1H1Cl1(g)	C1H1Cl1F2(g)	C1H1Cl2F1(g)	C1H1Cl3(g)	C1H1F1(g)
C1H1F1O1(g)	C1H1F3(g)	C1H1N1(g)	C1H1N1O1(g)	C1H1O1(g)
C1H1O1+(g)	C1H1P1(g)	C1H2(g)	C1H2Cl1F1(g)	C1H2Cl2(g)
C1H2F2(g)	C1H2O1(g)	C1H3(g)	C1H3Cl1(g)	C1H3Cl3Si1(g)
C1H3F1(g)	C1H3F3Si1(g)	C1H4(g)	C2H1(g)	C2H1Cl1(g)
C2H1F1(g)	C2H2(g)	C2H4(g)	C2H4O1(g)	C4H12Si1(g)
Ca1H1O1(g)	Ca1H1O1+(g)	Ca1H2O2(cr)	Ca1H2O2(g)	Cl1H1(g)
Cl1H1O1(g)	Cl1H3Si1(g)	Cl1H4N1(cr)	Cl1H4N1O4(cr)	Cl2H2Si1(g)
Cl3H1Si1(g)	Cs1H1O1(cr)	Cs1H1O1(cr,l)	Cs1H1O1*	Cs1H1O1(g)
Cs1H1O1(l)	Cs1H1O1+(g)	Cs2H2O2(g)	Cu1H2O2(cr)	D1H1(g)
D1H1-(g)	D1H1+(g)	D1H1O1(g)	F1H1(g)	F1H1O1(g)
F1H1O3S1(g)	F1H3Si1(g)	F2H1K1(cr)	F2H1K1(cr,l)	F2H1K1*
F2H1K1(l)	F2H2(g)	F2H2Si1(g)	F3H1Si1(g)	F3H3(g)
F4H4(g)	F5H5(g)	F6H6(g)	F7H7(g)	Fe1H2O2(cr)
Fe1H2O2(g)	Fe1H3O3(cr)	H1(g)	H1-(g)	H1+(g)
H10O8S1(cr,l)	H10O8S1*	H15O10.5S1(cr,l)	H15O10.5S1*	H1Hg1(g)
H1I1(g)	H1I3Si1(g)	H1K1(cr)	H1K1(g)	H1K1O1(cr)

H1K1O1(cr,l)	H1K1O1*	H1K1O1(g)	H1K1O1(l)	H1K1O1+(g)
H1Li1(cr)	H1Li1(cr,l)	H1Li1*	H1Li1(g)	H1Li1(l)
H1Li1O1(cr)	H1Li1O1(cr,l)	H1Li1O1*	H1Li1O1(g)	H1Li1O1(l)
H1Li1O1+(g)	H1Mg1(g)	H1Mg1O1(g)	H1Mg1O1+(g)	H1N1(g)
H1N1O1(g)	H1N1O2(g)_01	H1N1O2(g)_02	H1N1O3(g)	H1Na1(cr)
H1Na1(g)	H1Na1O1(cr)	H1Na1O1(cr,l)	H1Na1O1*	H1Na1O1(g)
H1Na1O1(l)	H1Na1O1+(g)	H1O1(g)	H1O1-(g)	H1O1+(g)
H1O1Sr1(g)	H1O1Sr1+(g)	H1O2(g)	H1P1(g)	H1Pb1(g)
H1S1(g)	H1Si1(g)	H1Si1+(g)	H1Zr1(g)	H2-(g)
H2(ref)	H2+(g)	H2I2Si1(g)	H2K2O2(g)	H2Li2O2(g)
H2Mg1(cr)	H2Mg1O2(cr)	H2Mg1O2(g)	H2Mo1O4(g)	H2N1(g)
H2N2(g)	H2Na2O2(g)	H2O1(fl)_01	H2O1(fl)_02	H2O1(g)
H2O1(l)	H2O1(l,g)_01	H2O1(l,g)_02	H2O1(l,g)_03	H2O2(g)
H2O2Sr1(cr)	H2O2Sr1(cr,l)	H2O2Sr1*	H2O2Sr1(g)	H2O2Sr1(l)
H2O4S1(cr,l)	H2O4S1*	H2O4S1(g)	H2O4W1(cr)	H2O4W1(g)
H2P1(g)	H2S1(g)	H2Ti1(cr)	H3I1Si1(g)	H3N1(g)
H3O1+(g)	H3O4P1(cr)	H3O4P1(cr,l)	H3O4P1*	H3O4P1(l)
H3P1(g)	H4I1N1(cr)	H4N2(g)	H4N2(l)	H4O5S1(cr,l)
H4O5S1*	H4Si1(g)	H6O6S1(cr,l)	H6O6S1*	H8O7S1(cr,l)
H8O7S1*				

## Element 2 - Helium

He1(ref)	He1+(g)
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## Element 3 - Lithium

Al1F4Li1(g)	Al1F6Li3(cr)	Al1F6Li3(cr,l)	Al1F6Li3*	Al1F6Li3(l)
Al1H4Li1(cr)	Al1Li1O2(cr)	Al1Li1O2(cr,l)	Al1Li1O2*	Al1Li1O2(l)
B1H4Li1(cr)	B1Li1O2(cr)	B1Li1O2(cr,l)	B1Li1O2*	B1Li1O2(g)
B1Li1O2(l)	B4Li2O7(cr)	B4Li2O7(cr,l)	B4Li2O7*	B4Li2O7(l)
B6Li2O10(cr)	B8Li2O13(cr)	Be1F3Li1(cr)	Be1F3Li1(cr,l)	Be1F3Li1*
Be1F3Li1(g)	Be1F3Li1(l)	Be1F4Li2(cr)	Be1F4Li2(cr,l)	Be1F4Li2*
Be1F4Li2(l)	Br1Li1(cr)	Br1Li1(cr,l)	Br1Li1*	Br1Li1(g)
Br1Li1(l)	Br2Li2(g)	C1Li2O3(cr)	C1Li2O3(cr,l)	C1Li2O3*
C1Li2O3(l)	C2Li2(cr)	C11F1Li2(g)	C11Li1(cr)	C11Li1(cr,l)
C11Li1*	C11Li1(g)	C11Li1(l)	C11Li1O1(g)	C11Li1O4(cr)
C11Li1O4(cr,l)	C11Li1O4*	C11Li1O4(l)	C12Li2(g)	C13Li3(g)
F1Li1(cr)	F1Li1(cr,l)	F1Li1*	F1Li1(g)	F1Li1(l)
F1Li1O1(g)	F2Li1-(g)	F2Li2(g)	F3Li3(g)	H1Li1(cr)
H1Li1(cr,l)	H1Li1*	H1Li1(g)	H1Li1(l)	H1Li1O1(cr)
H1Li1O1(cr,l)	H1Li1O1*	H1Li1O1(g)	H1Li1O1(l)	H1Li1O1+(g)
H2Li2O2(g)	I1Li1(cr)	I1Li1(cr,l)	I1Li1*	I1Li1(g)
I1Li1(l)	I2Li2(g)	Li1(cr)	Li1(cr,l)	Li1*
Li1(g)	Li1-(g)	Li1(l)	Li1+(g)	Li1N1(g)
Li1N1O1(g)	Li1Na1O1(g)	Li1O1(g)	Li1O1-(g)	Li2(g)
Li2O1(cr)	Li2O1(cr,l)	Li2O1*	Li2O1(g)	Li2O1(l)
Li2O2(cr)	Li2O2(g)	Li2O3Si1(cr)	Li2O3Si1(cr,l)	Li2O3Si1*
Li2O3Si1(l)	Li2O3Ti1(cr)	Li2O3Ti1(cr,l)	Li2O3Ti1*	Li2O3Ti1(l)
Li2O4S1(cr)_01	Li2O4S1(cr)_02	Li2O4S1(cr,l)	Li2O4S1*	Li2O4S1(g)
Li2O4S1(l)	Li2O5Si2(cr)	Li2O5Si2(cr,l)	Li2O5Si2*	Li2O5Si2(l)

Li3N1(cr)

#### Element 4 - Beryllium

Al2Be1O4(cr)	Al2Be1O4(cr,l)	Al2Be1O4*	Al2Be1O4(l)	Al6Be1O10(cr)
Al6Be1O10(cr,l)	Al6Be1O10*	Al6Be1O10(l)	B1Be1O2(g)	B2Be1O4(g)
B2Be3O6(cr)	Be1(cr)	Be1(cr,l)	Be1*	Be1(g)
Be1(l)	Be1+(g)	Be1Br1(g)	Be1Br2(cr)	Be1Br2(g)
Be1Cl1(g)	Be1Cl1+(g)	Be1Cl1F1(g)	Be1Cl2(cr)_01	Be1Cl2(cr)_02
Be1Cl2(cr,l)	Be1Cl2*	Be1Cl2(g)	Be1Cl2(l)	Be1F1(g)
Be1F2(cr)	Be1F2(cr,l)	Be1F2*	Be1F2(g)	Be1F2(l)
Be1F3Li1(cr)	Be1F3Li1(cr,l)	Be1F3Li1*	Be1F3Li1(g)	Be1F3Li1(l)
Be1F4Li2(cr)	Be1F4Li2(cr,l)	Be1F4Li2*	Be1F4Li2(l)	Be1H1(g)
Be1H1+(g)	Be1H1O1(g)	Be1H1O1+(g)	Be1H2(g)	Be1H2O2(cr)_01
Be1H2O2(cr)_02	Be1H2O2(g)	Be1I1(g)	Be1I2(cr)	Be1I2(cr,l)
Be1I2*	Be1I2(g)	Be1I2(l)	Be1N1(g)	Be1O1(cr)_01
Be1O1(cr)_02	Be1O1(cr,l)	Be1O1*	Be1O1(g)	Be1O1(l)
Be1O4S1(cr)_01	Be1O4S1(cr)_02	Be1O4S1(cr)_03	Be1O4W1(cr)	Be1S1(cr)
Be1S1(g)	Be2(g)	Be2Cl4(g)	Be2F2O1(g)	Be2O1(g)
Be2O2(g)	Be2O4Si1(cr)	Be3N2(cr)	Be3N2(cr,l)	Be3N2*
Be3N2(l)	Be3O3(g)	Be4O4(g)	Be5O5(g)	Be6O6(g)
C1Be2(cr)	C1Be2(cr,l)	C1Be2*	C1Be2(l)	C2Be1(g)

#### Element 5 - Boron

Al1B1O2(g)	B1(cr)	B1(cr,l)	B1*	B1(g)
B1-(g)	B1(l)	B1+(g)	B10H14(cr)	B10H14(cr,l)
B10H14*	B10H14(g)	B10H14(l)	B10O17Pb2(cr)	B1Be1O2(g)
B1Br1(g)	B1Br1Cl1(g)	B1Br1Cl2(g)	B1Br1F1(g)	B1Br1F2(g)
B1Br1O1(g)	B1Br2(g)	B1Br2Cl1(g)	B1Br2F1(g)	B1Br2H1(g)
B1Br3(g)	B1Br3(l)	B1Cl1(g)	B1Cl1+(g)	B1Cl1F1(g)
B1Cl1F2(g)	B1Cl1O1(g)	B1Cl2(g)	B1Cl2-(g)	B1Cl2+(g)
B1Cl2F1(g)	B1Cl2H1(g)	B1Cl3(g)	B1F1(g)	B1F1O1(g)
B1F2(g)	B1F2-(g)	B1F2+(g)	B1F2H1(g)	B1F2H1O1(g)
B1F2O1(g)	B1F3(g)	B1F4K1(cr)	B1F4K1(cr,l)	B1F4K1*
B1F4K1(g)	B1F4K1(l)	B1H1(g)	B1H1O1(g)	B1H1O1-(g)
B1H1O1+(g)	B1H1O2(cr)	B1H1O2(g)	B1H1S1(g)	B1H1S1+(g)
B1H2(g)	B1H2O2(g)	B1H3(g)	B1H3O3(cr)	B1H3O3(g)
B1H4K1(cr)	B1H4Li1(cr)	B1H4Na1(cr)	B1I1(g)	B1I2(g)
B1I3(g)	B1K1O2(cr)	B1K1O2(cr,l)	B1K1O2*	B1K1O2(g)
B1K1O2(l)	B1Li1O2(cr)	B1Li1O2(cr,l)	B1Li1O2*	B1Li1O2(g)
B1Li1O2(l)	B1N1(cr)	B1N1(g)	B1Na1O2(cr)	B1Na1O2(cr,l)
B1Na1O2*	B1Na1O2(g)	B1Na1O2(l)	B1O1(g)	B1O2(g)
B1O2-(g)	B1S1(g)	B1Ti1(cr)	B2(g)	B2Be1O4(g)
B2Be3O6(cr)	B2Cl4(g)	B2F4(g)	B2F4O1(g)	B2H4O4(cr)
B2H4O4(g)	B2H6(g)	B2Mg1(cr)	B2O1(g)	B2O2(g)
B2O3(cr)	B2O3(cr,l)	B2O3*	B2O3(g)	B2O3(l)
B2O4Pb1(cr)	B2Ti1(cr)	B2Ti1(cr,l)	B2Ti1*	B2Ti1(l)
B2Zr1(cr)	B2Zr1(cr,l)	B2Zr1*	B2Zr1(l)	B3Cl3O3(g)
B3F1H2O3(g)	B3F2H1O3(g)	B3F3O3(cr)	B3F3O3(g)	B3H3O3(cr)
B3H3O3(g)	B3H3O6(g)	B3H6N3(g)	B4K2O7(cr)	B4K2O7(cr,l)

B4K2O7*	B4K2O7(l)	B4Li2O7(cr)	B4Li2O7(cr,l)	B4Li2O7*
B4Li2O7(l)	B4Mg1(cr)	B4Na2O7(cr)	B4Na2O7(cr,l)	B4Na2O7*
B4Na2O7(l)	B4O7Pb1(cr)	B5H9(g)	B5H9(l)	B6K2O10(cr)
B6Li2O10(cr)	B6Na2O10(cr)	B6O10Pb1(cr)	B8K2O13(cr)	B8K2O13(cr,l)
B8K2O13*	B8K2O13(l)	B8Li2O13(cr)	C1B1(g)	C1B4(cr)
C1B4(cr,l)	C1B4*	C1B4(l)		

### Element 6 - Carbon

C0.98Nb1(cr)	C1(g)	C1-(g)	C1(ref)	C1+(g)
C1Al1(g)	C1B1(g)	C1B4(cr)	C1B4(cr,l)	C1B4*
C1B4(l)	C1Be2(cr)	C1Be2(cr,l)	C1Be2*	C1Be2(l)
C1Br1(g)	C1Br1F3(g)	C1Br1N1(g)	C1Br4(g)	C1Cl1(g)
C1Cl1F1O1(g)	C1Cl1F3(g)	C1Cl1N1(g)	C1Cl1O1(g)	C1Cl2(g)
C1Cl2F2(g)	C1Cl2O1(g)	C1Cl3(g)	C1Cl3F1(g)	C1Cl4(g)
C1Cu1N1(cr)	C1F1(g)	C1F1+(g)	C1F1N1(g)	C1F1O1(g)
C1F2(g)	C1F2+(g)	C1F2O1(g)	C1F3(g)	C1F3+(g)
C1F3I1(g)	C1F4(g)	C1F4O1(g)	C1F8S1(g)	C1H1(g)
C1H1+(g)	C1H1Cl1(g)	C1H1Cl1F2(g)	C1H1Cl2F1(g)	C1H1Cl3(g)
C1H1F1(g)	C1H1F1O1(g)	C1H1F3(g)	C1H1N1(g)	C1H1N1O1(g)
C1H1O1(g)	C1H1O1+(g)	C1H1P1(g)	C1H2(g)	C1H2Cl1F1(g)
C1H2Cl2(g)	C1H2F2(g)	C1H2O1(g)	C1H3(g)	C1H3Cl1(g)
C1H3Cl3Si1(g)	C1H3F1(g)	C1H3F3Si1(g)	C1H4(g)	C1I1N1(g)
C1K1N1(cr)	C1K1N1(cr,l)	C1K1N1*	C1K1N1(g)	C1K1N1(l)
C1K2O3(cr)	C1K2O3(cr,l)	C1K2O3*	C1K2O3(l)	C1Li2O3(cr)
C1Li2O3(cr,l)	C1Li2O3*	C1Li2O3(l)	C1Mg1O3(cr)	C1N1(g)
C1N1-(g)	C1N1+(g)	C1N1Na1(cr)	C1N1Na1(cr,l)	C1N1Na1*
C1N1Na1(g)	C1N1Na1(l)	C1N1O1(g)	C1N2(g)_01	C1N2(g)_02
C1Na2O3(cr)	C1Na2O3(cr,l)	C1Na2O3*	C1Na2O3(l)	C1O1(g)
C1O1S1(g)	C1O2(g)	C1O2-(g)	C1P1(g)	C1S1(g)
C1S2(g)	C1Si1(cr)_01	C1Si1(cr)_02	C1Si1(g)	C1Si2(g)
C1Ta1(cr)	C1Ta1(cr,l)	C1Ta1*	C1Ta1(l)	C1Ti1(cr)
C1Ti1(cr,l)	C1Ti1*	C1Ti1(l)	C1Zr1(cr)	C1Zr1(cr,l)
C1Zr1*	C1Zr1(l)	C2(g)	C2-(g)	C2Be1(g)
C2Cl2(g)	C2Cl4(g)	C2Cl6(g)	C2Cr3(cr)	C2F2(g)
C2F3N1(g)	C2F4(g)	C2F6(g)	C2H1(g)	C2H1Cl1(g)
C2H1F1(g)	C2H2(g)	C2H4(g)	C2H4O1(g)	C2K2N2(g)
C2Li2(cr)	C2Mg1(cr)	C2N1(g)	C2N2(g)	C2N2Na2(g)
C2O1(g)	C2Si1(g)	C3(g)	C3Al4(cr)	C3Cr7(cr)
C3Mg2(cr)	C3O2(g)	C4(g)	C4H12Si1(g)	C4N2(g)
C4Ni1O4(g)	C4Ni1O4(l)	C5(g)	C5Fe1O5(g)	C5Fe1O5(l)
C6Cr23(cr)				

### Element 7 - Nitrogen

Al1N1(cr)	Al1N1(g)	B1N1(cr)	B1N1(g)	B3H6N3(g)
Be1N1(g)	Be3N2(cr)	Be3N2(cr,l)	Be3N2*	Be3N2(l)
Br1H4N1(cr)	Br1N1(g)	Br1N1O1(g)	C1Br1N1(g)	C1Cl1N1(g)
C1Cu1N1(cr)	C1F1N1(g)	C1H1N1(g)	C1H1N1O1(g)	C1I1N1(g)
C1K1N1(cr)	C1K1N1(cr,l)	C1K1N1*	C1K1N1(g)	C1K1N1(l)
C1N1(g)	C1N1-(g)	C1N1+(g)	C1N1Na1(cr)	C1N1Na1(cr,l)

C1N1Na1*	C1N1Na1(g)	C1N1Na1(l)	C1N1O1(g)	C1N2(g)_01
C1N2(g)_02	C2F3N1(g)	C2K2N2(g)	C2N1(g)	C2N2(g)
C2N2Na2(g)	C4N2(g)	C11H4N1(cr)	C11H4N1O4(cr)	C11N1O1(g)
C11N1O2(g)	Cr1N1(cr)	Cr1N1(g)	Cr2N1(cr)	D1N1(g)
D2N1(g)	D2N2(g)	D3N1(g)	F1N1(g)	F1N1O1(g)
F1N1O2(g)	F1N1O3(g)	F2N1(g)	F2N2(g)_01	F2N2(g)_02
F3N1(g)	F3N1O1(g)	F4N2(g)	H1N1(g)	H1N1O1(g)
H1N1O2(g)_01	H1N1O2(g)_02	H1N1O3(g)	H2N1(g)	H2N2(g)
H3N1(g)	H41N1(cr)	H4N2(g)	H4N2(l)	I1N1O1(g)
Li1N1(g)	Li1N1O1(g)	Li3N1(cr)	Mg1N1(g)	Mg3N2(cr)
N0.465V1(cr)	N1(g)	N1-(g)	N1+(g)	N1O1(g)
N1O1+(g)	N1O2(g)	N1O2-(g)	N1O3(g)	N1P1(g)
N1S1(g)	N1Si1(g)	N1Si2(g)	N1Ti1(cr)	N1Ti1(cr,l)
N1Ti1*	N1Ti1(l)	N1V1(cr)	N1V1(g)	N1Zr1(cr)
N1Zr1(cr,l)	N1Zr1*	N1Zr1(g)	N1Zr1(l)	N2-(g)
N2(ref)	N2+(g)	N2O1(g)	N2O1+(g)	N2O3(g)
N2O4(cr)	N2O4(cr,l)	N2O4*	N2O4(g)	N2O4(l)
N2O5(g)	N3(g)	N4Si3(cr)	N5P3(cr)	

### Element 8 - Oxygen

Al1B1O2(g)	Al1Cl1O1(cr)	Al1Cl1O1(g)	Al1F1O1(g)	Al1F2O1(g)
Al1F2O1-(g)	Al1H1O1(g)_01	Al1H1O1(g)_02	Al1H1O1-(g)	Al1H1O1+(g)
Al1H1O2(g)	Al1Li1O2(cr)	Al1Li1O2(cr,l)	Al1Li1O2*	Al1Li1O2(l)
Al1Na1O2(cr)	Al1O1(g)	Al1O1-(g)	Al1O1+(g)	Al1O2(g)
Al1O2-(g)	Al2Be1O4(cr)	Al2Be1O4(cr,l)	Al2Be1O4*	Al2Be1O4(l)
Al2Mg1O4(cr)	Al2Mg1O4(cr,l)	Al2Mg1O4*	Al2Mg1O4(l)	Al2O1(g)
Al2O1+(g)	Al2O2(g)	Al2O2+(g)	Al2O3(cr)_01	Al2O3(cr)_02
Al2O3(cr)_03	Al2O3(cr)_04	Al2O3(cr,l)	Al2O3*	Al2O3(l)
Al2O5Si1(cr)_01	Al2O5Si1(cr)_02	Al2O5Si1(cr)_03	Al6Be1O10(cr)	Al6Be1O10(cr,l)
Al6Be1O10*	Al6Be1O10(l)	Al6O13Si2(cr)	B10O17Pb2(cr)	B1Be1O2(g)
B1Br1O1(g)	B1Cl1O1(g)	B1F1O1(g)	B1F2H1O1(g)	B1F2O1(g)
B1H1O1(g)	B1H1O1-(g)	B1H1O1+(g)	B1H1O2(cr)	B1H1O2(g)
B1H2O2(g)	B1H3O3(cr)	B1H3O3(g)	B1K1O2(cr)	B1K1O2(cr,l)
B1K1O2*	B1K1O2(g)	B1K1O2(l)	B1Li1O2(cr)	B1Li1O2(cr,l)
B1Li1O2*	B1Li1O2(g)	B1Li1O2(l)	B1Na1O2(cr)	B1Na1O2(cr,l)
B1Na1O2*	B1Na1O2(g)	B1Na1O2(l)	B1O1(g)	B1O2(g)
B1O2-(g)	B2Be1O4(g)	B2Be3O6(cr)	B2F4O1(g)	B2H4O4(cr)
B2H4O4(g)	B2O1(g)	B2O2(g)	B2O3(cr)	B2O3(cr,l)
B2O3*	B2O3(g)	B2O3(l)	B2O4Pb1(cr)	B3Cl3O3(g)
B3F1H2O3(g)	B3F2H1O3(g)	B3F3O3(cr)	B3F3O3(g)	B3H3O3(cr)
B3H3O3(g)	B3H3O6(g)	B4K2O7(cr)	B4K2O7(cr,l)	B4K2O7*
B4K2O7(l)	B4Li2O7(cr)	B4Li2O7(cr,l)	B4Li2O7*	B4Li2O7(l)
B4Na2O7(cr)	B4Na2O7(cr,l)	B4Na2O7*	B4Na2O7(l)	B4O7Pb1(cr)
B6K2O10(cr)	B6Li2O10(cr)	B6Na2O10(cr)	B6O10Pb1(cr)	B8K2O13(cr)
B8K2O13(cr,l)	B8K2O13*	B8K2O13(l)	B8Li2O13(cr)	Ba1H1O1(g)
Ba1H1O1+(g)	Ba1H2O2(cr)	Ba1H2O2(cr,l)	Ba1H2O2*	Ba1H2O2(g)
Ba1H2O2(l)	Ba1O1(cr)	Ba1O1(cr,l)	Ba1O1*	Ba1O1(g)
Ba1O1(l)	Be1H1O1(g)	Be1H1O1+(g)	Be1H2O2(cr)_01	Be1H2O2(cr)_02
Be1H2O2(g)	Be1O1(cr)_01	Be1O1(cr)_02	Be1O1(cr,l)	Be1O1*
Be1O1(g)	Be1O1(l)	Be1O4S1(cr)_01	Be1O4S1(cr)_02	Be1O4S1(cr)_03

Be1O4W1(cr)	Be2F2O1(g)	Be2O1(g)	Be2O2(g)	Be2O4Si1(cr)
Be3O3(g)	Be4O4(g)	Be5O5(g)	Be6O6(g)	Br1N1O1(g)
Br3O1P1(g)	C1Cl1F1O1(g)	C1Cl1O1(g)	C1Cl2O1(g)	C1F1O1(g)
C1F2O1(g)	C1F4O1(g)	C1H1F1O1(g)	C1H1N1O1(g)	C1H1O1(g)
C1H1O1+(g)	C1H2O1(g)	C1K2O3(cr)	C1K2O3(cr,l)	C1K2O3*
C1K2O3(l)	C1Li2O3(cr)	C1Li2O3(cr,l)	C1Li2O3*	C1Li2O3(l)
C1Mg1O3(cr)	C1N1O1(g)	C1Na2O3(cr)	C1Na2O3(cr,l)	C1Na2O3*
C1Na2O3(l)	C1O1(g)	C1O1S1(g)	C1O2(g)	C1O2-(g)
C2H4O1(g)	C2O1(g)	C3O2(g)	C4Ni1O4(g)	C4Ni1O4(l)
C5Fe1O5(g)	C5Fe1O5(l)	Ca1H1O1(g)	Ca1H1O1+(g)	Ca1H2O2(cr)
Ca1H2O2(g)	Ca1O1(cr)	Ca1O1(cr,l)	Ca1O1*	Ca1O1(g)
Ca1O1(l)	Cl1D1O1(g)	Cl1F1O2S1(g)	Cl1F1O3(g)	Cl1F2O1P1(g)
Cl1H1O1(g)	Cl1H4N1O4(cr)	Cl1K1O4(cr)	Cl1Li1O1(g)	Cl1Li1O4(cr)
Cl1Li1O4(cr,l)	Cl1Li1O4*	Cl1Li1O4(l)	Cl1N1O1(g)	Cl1N1O2(g)
Cl1Na1O4(cr)	Cl1O1(g)	Cl1O1Ti1(g)	Cl1O2(g)	Cl2F1O1P1(g)
Cl2Mo1O2(g)	Cl2O1(g)	Cl2O1Ti1(g)	Cl2O2S1(g)	Cl2O2W1(cr)
Cl2O2W1(g)	Cl3O1P1(g)	Cl4O1W1(cr)	Cl4O1W1(cr,l)	Cl4O1W1*
Cl4O1W1(g)	Cl4O1W1(l)	Co1O1(cr)	Co1O4S1(cr)	Co3O4(cr)
Cr1O1(g)	Cr1O2(g)	Cr1O3(g)	Cr2O3(cr)	Cr2O3(cr,l)
Cr2O3*	Cr2O3(l)	Cs1H1O1(cr)	Cs1H1O1(cr,l)	Cs1H1O1*
Cs1H1O1(g)	Cs1H1O1(l)	Cs1H1O1+(g)	Cs1O1(g)	Cs2H2O2(g)
Cs2O1(g)	Cs2O4S1(cr)_01	Cs2O4S1(cr)_02	Cs2O4S1(cr,l)	Cs2O4S1*
Cs2O4S1(g)	Cs2O4S1(l)	Cu1H2O2(cr)	Cu1O1(cr)	Cu1O1(g)
Cu1O4S1(cr)	Cu2O1(cr)	Cu2O1(cr,l)	Cu2O1*	Cu2O1(l)
Cu2O5S1(cr)	D1H1O1(g)	D1O1(g)	D2O1(g)	F1H1O1(g)
F1H1O3S1(g)	F1Li1O1(g)	F1N1O1(g)	F1N1O2(g)	F1N1O3(g)
F1O1(g)	F1O1Ti1(g)	F1O2(g)	F2O1(g)	F2O1S1(g)
F2O1Si1(g)	F2O1Ti1(g)	F2O2S1(g)	F3N1O1(g)	F3O1P1(g)
F4Mo1O1(g)	F4O1W1(cr)	F4O1W1(cr,l)	F4O1W1*	F4O1W1(g)
F4O1W1(l)	Fe0.947O1(cr)	Fe1H2O2(cr)	Fe1H2O2(g)	Fe1H3O3(cr)
Fe1O1(cr)	Fe1O1(cr,l)	Fe1O1*	Fe1O1(g)	Fe1O1(l)
Fe1O4S1(cr)	Fe2O12S3(cr)	Fe2O3(cr)	Fe3O4(cr)	H1O08S1(cr,l)
H1O08S1*	H15O10.5S1(cr,l)	H15O10.5S1*	H1K1O1(cr)	H1K1O1(cr,l)
H1K1O1*	H1K1O1(g)	H1K1O1(l)	H1K1O1+(g)	H1Li1O1(cr)
H1Li1O1(cr,l)	H1Li1O1*	H1Li1O1(g)	H1Li1O1(l)	H1Li1O1+(g)
H1Mg1O1(g)	H1Mg1O1+(g)	H1N1O1(g)	H1N1O2(g)_01	H1N1O2(g)_02
H1N1O3(g)	H1Na1O1(cr)	H1Na1O1(cr,l)	H1Na1O1*	H1Na1O1(g)
H1Na1O1(l)	H1Na1O1+(g)	H1O1(g)	H1O1-(g)	H1O1+(g)
H1O1Sr1(g)	H1O1Sr1+(g)	H1O2(g)	H2K2O2(g)	H2Li2O2(g)
H2Mg1O2(cr)	H2Mg1O2(g)	H2Mo1O4(g)	H2Na2O2(g)	H2O1(fl)_01
H2O1(fl)_02	H2O1(g)	H2O1(l)	H2O1(l,g)_01	H2O1(l,g)_02
H2O1(l,g)_03	H2O2(g)	H2O2Sr1(cr)	H2O2Sr1(cr,l)	H2O2Sr1*
H2O2Sr1(g)	H2O2Sr1(l)	H2O4S1(cr,l)	H2O4S1*	H2O4S1(g)
H2O4W1(cr)	H2O4W1(g)	H3O1+(g)	H3O4P1(cr)	H3O4P1(cr,l)
H3O4P1*	H3O4P1(l)	H4O5S1(cr,l)	H4O5S1*	H6O6S1(cr,l)
H6O6S1*	H8O7S1(cr,l)	H8O7S1*	Hg1O1(cr)	Hg1O1(g)
I1N1O1(g)	K1O1(g)	K1O1-(g)	K1O2(cr)	K2O1(cr)
K2O2(cr)	K2O3Si1(cr)	K2O3Si1(cr,l)	K2O3Si1*	K2O3Si1(l)
K2O4S1(cr)_01	K2O4S1(cr)_02	K2O4S1(cr,l)	K2O4S1*	K2O4S1(g)
K2O4S1(l)	Li1N1O1(g)	Li1Na1O1(g)	Li1O1(g)	Li1O1-(g)
Li2O1(cr)	Li2O1(cr,l)	Li2O1*	Li2O1(g)	Li2O1(l)

Li2O2(cr)	Li2O2(g)	Li2O3Si1(cr)	Li2O3Si1(cr,l)	Li2O3Si1*
Li2O3Si1(l)	Li2O3Ti1(cr)	Li2O3Ti1(cr,l)	Li2O3Ti1*	Li2O3Ti1(l)
Li2O4S1(cr)_01	Li2O4S1(cr)_02	Li2O4S1(cr,l)	Li2O4S1*	Li2O4S1(g)
Li2O4S1(l)	Li2O5Si2(cr)	Li2O5Si2(cr,l)	Li2O5Si2*	Li2O5Si2(l)
Mg1O1(cr)	Mg1O1(cr,l)	Mg1O1*	Mg1O1(g)	Mg1O1(l)
Mg1O3Si1(cr)	Mg1O3Si1(cr,l)	Mg1O3Si1*	Mg1O3Si1(l)	Mg1O3Ti1(cr)
Mg1O3Ti1(cr,l)	Mg1O3Ti1*	Mg1O3Ti1(l)	Mg1O4S1(cr)	Mg1O4S1(cr,l)
Mg1O4S1*	Mg1O4S1(l)	Mg1O4W1(cr)	Mg1O5Ti2(cr)	Mg1O5Ti2(cr,l)
Mg1O5Ti2*	Mg1O5Ti2(l)	Mg2O4Si1(cr)	Mg2O4Si1(cr,l)	Mg2O4Si1*
Mg2O4Si1(l)	Mg2O4Ti1(cr)	Mg2O4Ti1(cr,l)	Mg2O4Ti1*	Mg2O4Ti1(l)
Mg3O8P2(cr)	Mg3O8P2(cr,l)	Mg3O8P2*	Mg3O8P2(l)	Mo1O1(g)
Mo1O2(cr)	Mo1O2(g)	Mo1O2.750(cr)	Mo1O2.875(cr)	Mo1O2.889(cr)
Mo1O3(cr)	Mo1O3(cr,l)	Mo1O3*	Mo1O3(g)	Mo1O3(l)
N1O1(g)	N1O1+(g)	N1O2(g)	N1O2-(g)	N1O3(g)
N2O1(g)	N2O1+(g)	N2O3(g)	N2O4(cr)	N2O4(cr,l)
N2O4*	N2O4(g)	N2O4(l)	N2O5(g)	Na1O1(g)
Na1O1-(g)	Na1O2(cr)	Na2O1(cr)	Na2O1(cr,l)	Na2O1*
Na2O1(l)	Na2O2(cr)	Na2O3Si1(cr)	Na2O3Si1(cr,l)	Na2O3Si1*
Na2O3Si1(l)	Na2O4S1(cr)_01	Na2O4S1(cr)_02	Na2O4S1(cr)_03	Na2O4S1(cr)_04
Na2O4S1(cr)_05	Na2O4S1(cr,l)	Na2O4S1*	Na2O4S1(g)	Na2O4S1(l)
Na2O4W1(cr)	Na2O5Si2(cr)	Na2O5Si2(cr,l)	Na2O5Si2*	Na2O5Si2(l)
Nb1O1(cr)	Nb1O1(cr,l)	Nb1O1*	Nb1O1(g)	Nb1O1(l)
Nb1O2(cr)	Nb1O2(cr,l)	Nb1O2*	Nb1O2(g)	Nb1O2(l)
Nb2O5(cr)	Nb2O5(cr,l)	Nb2O5*	Nb2O5(l)	O1(g)
O1-(g)	O1+(g)	O10P4(cr)	O10P4(g)	O12W4(g)
O1P1(g)	O1Pb1(cr)_01	O1Pb1(cr)_02	O1Pb1(cr,l)	O1Pb1*
O1Pb1(g)	O1Pb1(l)	O1S1(g)	O1S2(g)	O1Si1(g)
O1Sr1(cr)	O1Sr1(cr,l)	O1Sr1*	O1Sr1(g)	O1Sr1(l)
O1Ta1(g)	O1Ti1(cr)_01	O1Ti1(cr)_02	O1Ti1(cr,l)	O1Ti1*
O1Ti1(g)	O1Ti1(l)	O1V1(cr)	O1V1(cr,l)	O1V1*
O1V1(g)	O1V1(l)	O1W1(g)	O1Zr1(g)	O2-(g)
O2(ref)	O2.72W1(cr)	O2.90W1(cr)	O2.96W1(cr)	O2+(g)
O2P1(g)	O2Pb1(cr)	O2S1(g)	O2Si1(cr)_01	O2Si1(cr)_02
O2Si1(cr)_03	O2Si1(cr,l)	O2Si1*	O2Si1(g)	O2Si1(l)
O2Ta1(g)	O2Ti1(cr)_01	O2Ti1(cr)_02	O2Ti1(cr,l)	O2Ti1*
O2Ti1(g)	O2Ti1(l)	O2V1(g)	O2W1(cr)	O2W1(g)
O2Zr1(cr)	O2Zr1(cr,l)	O2Zr1*	O2Zr1(g)	O2Zr1(l)
O3(g)	O3Pb1Si1(cr)	O3S1(g)	O3Ti2(cr)	O3Ti2(cr,l)
O3Ti2*	O3Ti2(l)	O3V2(cr)	O3V2(cr,l)	O3V2*
O3V2(l)	O3W1(cr)	O3W1(cr,l)	O3W1*	O3W1(g)
O3W1(l)	O4Pb2Si1(cr)	O4Pb3(cr)	O4S1Zn1(cr)	O4Si1Zr1(cr)
O4V2(cr)	O4V2(cr,l)	O4V2*	O4V2(l)	O5Ta2(cr)
O5Ta2(cr,l)	O5Ta2*	O5Ta2(l)	O5Ti3(cr)_01	O5Ti3(cr)_02
O5Ti3(cr,l)	O5Ti3*	O5Ti3(l)	O5V2(cr)	O5V2(cr,l)
O5V2*	O5V2(l)	O6P4(g)	O6W2(g)	O7Ti4(cr)
O7Ti4(cr,l)	O7Ti4*	O7Ti4(l)	O8W3(g)	O9W3(g)



## Element 9 - Fluorine

Al1Cl1F1(g)	Al1Cl1F1+(g)	Al1Cl1F2(g)	Al1Cl2F1(g)	Al1F1(g)
Al1F1+(g)	Al1F1O1(g)	Al1F2(g)	Al1F2-(g)	Al1F2+(g)
Al1F2O1(g)	Al1F2O1-(g)	Al1F3(cr)	Al1F3(cr,l)	Al1F3*
Al1F3(g)	Al1F3(l)	Al1F4-(g)	Al1F4Li1(g)	Al1F4Na1(g)
Al1F6K3(cr)	Al1F6Li3(cr)	Al1F6Li3(cr,l)	Al1F6Li3*	Al1F6Li3(l)
Al1F6Na3(cr)_01	Al1F6Na3(cr)_02	Al1F6Na3(cr,l)	Al1F6Na3*	Al1F6Na3(l)
Al2F6(g)	Al3F14Na5(cr)	Al3F14Na5(cr,l)	Al3F14Na5*	Al3F14Na5(l)
B1Br1F1(g)	B1Br1F2(g)	B1Br2F1(g)	B1Cl1F1(g)	B1Cl1F2(g)
B1Cl2F1(g)	B1F1(g)	B1F1O1(g)	B1F2(g)	B1F2-(g)
B1F2+(g)	B1F2H1(g)	B1F2H1O1(g)	B1F2O1(g)	B1F3(g)
B1F4K1(cr)	B1F4K1(cr,l)	B1F4K1*	B1F4K1(g)	B1F4K1(l)
B2F4(g)	B2F4O1(g)	B3F1H2O3(g)	B3F2H1O3(g)	B3F3O3(cr)
B3F3O3(g)	Ba1F1(g)	Ba1F1+(g)	Ba1F2(cr)	Ba1F2(cr,l)
Ba1F2*	Ba1F2(g)	Ba1F2(l)	Be1Cl1F1(g)	Be1F1(g)
Be1F2(cr)	Be1F2(cr,l)	Be1F2*	Be1F2(g)	Be1F2(l)
Be1F3Li1(cr)	Be1F3Li1(cr,l)	Be1F3Li1*	Be1F3Li1(g)	Be1F3Li1(l)
Be1F4Li2(cr)	Be1F4Li2(cr,l)	Be1F4Li2*	Be1F4Li2(l)	Be2F2O1(g)
Br1F1(g)	Br1F3(g)	Br1F5(g)	Br1F5S1(g)	C1Br1F3(g)
C1Cl1F1O1(g)	C1Cl1F3(g)	C1Cl2F2(g)	C1Cl3F1(g)	C1F1(g)
C1F1+(g)	C1F1N1(g)	C1F1O1(g)	C1F2(g)	C1F2+(g)
C1F2O1(g)	C1F3(g)	C1F3+(g)	C1F3I1(g)	C1F4(g)
C1F4O1(g)	C1F8S1(g)	C1H1Cl1F2(g)	C1H1Cl2F1(g)	C1H1F1(g)
C1H1F1O1(g)	C1H1F3(g)	C1H2Cl1F1(g)	C1H2F2(g)	C1H3F1(g)
C1H3F3Si1(g)	C2F2(g)	C2F3N1(g)	C2F4(g)	C2F6(g)
C2H1F1(g)	Ca1F1(g)	Ca1F2(cr)	Ca1F2(cr,l)	Ca1F2*
Ca1F2(g)	Ca1F2(l)	Cl1F1(g)	Cl1F1Li2(g)	Cl1F1Mg1(g)
Cl1F1O2S1(g)	Cl1F1O3(g)	Cl1F2O1P1(g)	Cl1F3(g)	Cl1F3Si1(g)
Cl1F5(g)	Cl1F5S1(g)	Cl2F1O1P1(g)	Cl3F1Si1(g)	Co1F2(cr)
Co1F2(cr,l)	Co1F2*	Co1F2(g)	Co1F2(l)	Co1F3(cr)
Cs1F1(cr)	Cs1F1(cr,l)	Cs1F1*	Cs1F1(g)	Cs1F1(l)
Cs2F2(g)	Cu1F1(cr)	Cu1F1(g)	Cu1F2(cr)	Cu1F2(cr,l)
Cu1F2*	Cu1F2(g)	Cu1F2(l)	D1F1(g)	F1(g)
F1-(g)	F1+(g)	F10Mo2(g)	F10S2(g)	F15Mo3(g)
F1Fe1(g)	F1H1(g)	F1H1O1(g)	F1H1O3S1(g)	F1H3Si1(g)
F1Hg1(g)	F1I1(g)	F1K1(cr)	F1K1(cr,l)	F1K1*
F1K1(g)	F1K1(l)	F1Li1(cr)	F1Li1(cr,l)	F1Li1*
F1Li1(g)	F1Li1(l)	F1Li1O1(g)	F1Mg1(g)	F1Mg1+(g)
F1Mo1(g)	F1N1(g)	F1N1O1(g)	F1N1O2(g)	F1N1O3(g)
F1Na1(cr)	F1Na1(cr,l)	F1Na1*	F1Na1(g)	F1Na1(l)
F1O1(g)	F1O1Ti1(g)	F1O2(g)	F1P1(g)	F1P1-(g)
F1P1+(g)	F1P1S1(g)	F1Pb1(g)	F1S1(g)	F1S1-(g)
F1S1+(g)	F1Si1(g)	F1Sr1(g)	F1Sr1+(g)	F1Ti1(g)
F1W1(g)	F1Zr1(g)	F2(ref)	F2Fe1(cr)	F2Fe1(cr,l)
F2Fe1*	F2Fe1(g)	F2Fe1(l)	F2H1K1(cr)	F2H1K1(cr,l)
F2H1K1*	F2H1K1(l)	F2H2(g)	F2H2Si1(g)	F2Hg1(cr)
F2Hg1(cr,l)	F2Hg1*	F2Hg1(g)	F2Hg1(l)	F2Hg2(cr)
F2K1-(g)	F2K2(g)	F2Li1-(g)	F2Li2(g)	F2Mg1(cr)
F2Mg1(cr,l)	F2Mg1*	F2Mg1(g)	F2Mg1(l)	F2Mg1+(g)
F2Mo1(g)	F2N1(g)	F2N2(g)_01	F2N2(g)_02	F2Na1-(g)

F2Na2(g)	F2O1(g)	F2O1S1(g)	F2O1Si1(g)	F2O1Ti1(g)
F2O2S1(g)	F2P1(g)	F2P1-(g)	F2P1+(g)	F2Pb1(cr)_01
F2Pb1(cr)_02	F2Pb1(cr,l)	F2Pb1*	F2Pb1(g)	F2Pb1(l)
F2S1(g)	F2S1-(g)	F2S1+(g)	F2S2(g)_01	F2S2(g)_02
F2Si1(g)	F2Sr1(cr)	F2Sr1(cr,l)	F2Sr1*	F2Sr1(g)
F2Sr1(l)	F2Ti1(g)	F2Zr1(cr)	F2Zr1(cr,l)	F2Zr1*
F2Zr1(g)	F2Zr1(l)	F3Fe1(cr)	F3Fe1(g)	F3H1Si1(g)
F3H3(g)	F3Li3(g)	F3Mo1(g)	F3N1(g)	F3N1O1(g)
F3O1P1(g)	F3P1(g)	F3P1S1(g)	F3S1(g)	F3S1-(g)
F3S1+(g)	F3Si1(g)	F3Ti1(cr)	F3Ti1(g)	F3Zr1(cr)
F3Zr1(g)	F4H4(g)	F4Mg2(g)	F4Mo1(g)	F4Mo1O1(g)
F4N2(g)	F4O1W1(cr)	F4O1W1(cr,l)	F4O1W1*	F4O1W1(g)
F4O1W1(l)	F4Pb1(g)	F4S1(g)	F4S1-(g)	F4S1+(g)
F4Si1(g)	F4Ti1(cr)	F4Ti1(g)	F4Zr1(cr)	F4Zr1(g)
F5H5(g)	F5I1(g)	F5Mo1(g)	F5P1(g)	F5S1(g)
F5S1-(g)	F5S1+(g)	F6H6(g)	F6Mo1(g)	F6Mo1(l)
F6S1(g)	F6S1-(g)	F6W1(g)	F6W1(l)	F7H7(g)
F7I1(g)				

### Element 10 - Neon

Ne1(ref)	Ne1+(g)
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### Element 11 - Sodium

Al1Cl4Na1(cr)	Al1Cl6Na3(cr)	Al1F4Na1(g)	Al1F6Na3(cr)_01	Al1F6Na3(cr)_02
Al1F6Na3(cr,l)	Al1F6Na3*	Al1F6Na3(l)	Al1Na1O2(cr)	Al3F14Na5(cr)
Al3F14Na5(cr,l)	Al3F14Na5*	Al3F14Na5(l)	B1H4Na1(cr)	B1Na1O2(cr)
B1Na1O2(cr,l)	B1Na1O2*	B1Na1O2(g)	B1Na1O2(l)	B4Na2O7(cr)
B4Na2O7(cr,l)	B4Na2O7*	B4Na2O7(l)	B6Na2O10(cr)	Br1Na1(cr)
Br1Na1(cr,l)	Br1Na1*	Br1Na1(g)	Br1Na1(l)	Br2Na2(g)
C1N1Na1(cr)	C1N1Na1(cr,l)	C1N1Na1*	C1N1Na1(g)	C1N1Na1(l)
C1Na2O3(cr)	C1Na2O3(cr,l)	C1Na2O3*	C1Na2O3(l)	C2N2Na2(g)
Cl1Na1(cr)	Cl1Na1(cr,l)	Cl1Na1*	Cl1Na1(g)	Cl1Na1(l)
Cl1Na1O4(cr)	Cl2Na2(g)	F1Na1(cr)	F1Na1(cr,l)	F1Na1*
F1Na1(g)	F1Na1(l)	F2Na1-(g)	F2Na2(g)	H1Na1(cr)
H1Na1(g)	H1Na1O1(cr)	H1Na1O1(cr,l)	H1Na1O1*	H1Na1O1(g)
H1Na1O1(l)	H1Na1O1+(g)	H2Na2O2(g)	I1Na1(cr)	I1Na1(cr,l)
I1Na1*	I1Na1(l)	Li1Na1O1(g)	Na1(cr)	Na1(cr,l)
Na1*	Na1(g)	Na1-(g)	Na1(l)	Na1+(g)
Na1O1(g)	Na1O1-(g)	Na1O2(cr)	Na2(g)	Na2O1(cr)
Na2O1(cr,l)	Na2O1*	Na2O1(l)	Na2O2(cr)	Na2O3Si1(cr)
Na2O3Si1(cr,l)	Na2O3Si1*	Na2O3Si1(l)	Na2O4S1(cr)_01	Na2O4S1(cr)_02
Na2O4S1(cr)_03	Na2O4S1(cr)_04	Na2O4S1(cr)_05	Na2O4S1(cr,l)	Na2O4S1*
Na2O4S1(g)	Na2O4S1(l)	Na2O4W1(cr)	Na2O5Si2(cr)	Na2O5Si2(cr,l)
Na2O5Si2*	Na2O5Si2(l)	Na2S1(cr)	Na2S1(cr,l)	Na2S1*
Na2S1(l)	Na2S2(cr)	Na2S2(cr,l)	Na2S2*	Na2S2(l)

## Element 12 - Magnesium

Al2Mg1O4(cr)	Al2Mg1O4(cr,l)	Al2Mg1O4*	Al2Mg1O4(l)	B2Mg1(cr)
B4Mg1(cr)	Br1Mg1(g)	Br2Mg1(cr)	Br2Mg1(cr,l)	Br2Mg1*
Br2Mg1(g)	Br2Mg1(l)	Br2Mg1+(g)	Br4Mg2(g)	C1Mg1O3(cr)
C2Mg1(cr)	C3Mg2(cr)	C11F1Mg1(g)	C11Mg1(g)	C11Mg1+(g)
Cl2Mg1(cr)	Cl2Mg1(cr,l)	Cl2Mg1*	Cl2Mg1(g)	Cl2Mg1(l)
Cl4Mg2(g)	F1Mg1(g)	F1Mg1+(g)	F2Mg1(cr)	F2Mg1(cr,l)
F2Mg1*	F2Mg1(g)	F2Mg1(l)	F2Mg1+(g)	F4Mg2(g)
H1Mg1(g)	H1Mg1O1(g)	H1Mg1O1+(g)	H2Mg1(cr)	H2Mg1O2(cr)
H2Mg1O2(g)	I1Mg1(g)	I2Mg1(cr)	I2Mg1(cr,l)	I2Mg1*
I2Mg1(g)	I2Mg1(l)	Mg1(cr)	Mg1(cr,l)	Mg1*
Mg1(g)	Mg1(l)	Mg1+(g)	Mg1N1(g)	Mg1O1(cr)
Mg1O1(cr,l)	Mg1O1*	Mg1O1(g)	Mg1O1(l)	Mg1O3Si1(cr)
Mg1O3Si1(cr,l)	Mg1O3Si1*	Mg1O3Si1(l)	Mg1O3Ti1(cr)	Mg1O3Ti1(cr,l)
Mg1O3Ti1*	Mg1O3Ti1(l)	Mg1O4S1(cr)	Mg1O4S1(cr,l)	Mg1O4S1*
Mg1O4S1(l)	Mg1O4W1(cr)	Mg1O5Ti2(cr)	Mg1O5Ti2(cr,l)	Mg1O5Ti2*
Mg1O5Ti2(l)	Mg1S1(cr)	Mg1S1(g)	Mg2(g)	Mg2O4Si1(cr)
Mg2O4Si1(cr,l)	Mg2O4Si1*	Mg2O4Si1(l)	Mg2O4Ti1(cr)	Mg2O4Ti1(cr,l)
Mg2O4Ti1*	Mg2O4Ti1(l)	Mg2Si1(cr)	Mg2Si1(cr,l)	Mg2Si1*
Mg2Si1(l)	Mg3N2(cr)	Mg3O8P2(cr)	Mg3O8P2(cr,l)	Mg3O8P2*
Mg3O8P2(l)				

## Element 13 - Aluminum

Al1(cr)	Al1(cr,l)	Al1*	Al1(g)	Al1-(g)
Al1(l)	Al1+(g)	Al1B1O2(g)	Al1Br1(g)	Al1Br3(cr)
Al1Br3(cr,l)	Al1Br3*	Al1Br3(g)	Al1Br3(l)	Al1Cl1(g)
Al1Cl1+(g)	Al1Cl1F1(g)	Al1Cl1F1+(g)	Al1Cl1F2(g)	Al1Cl1O1(cr)
Al1Cl1O1(g)	Al1Cl2(g)	Al1Cl2-(g)	Al1Cl2+(g)	Al1Cl2F1(g)
Al1Cl3(cr)	Al1Cl3(cr,l)	Al1Cl3*	Al1Cl3(g)	Al1Cl3(l)
Al1Cl4K1(cr)	Al1Cl4Na1(cr)	Al1Cl6K3(cr)	Al1Cl6Na3(cr)	Al1F1(g)
Al1F1+(g)	Al1F1O1(g)	Al1F2(g)	Al1F2-(g)	Al1F2+(g)
Al1F2O1(g)	Al1F2O1-(g)	Al1F3(cr)	Al1F3(cr,l)	Al1F3*
Al1F3(g)	Al1F3(l)	Al1F4-(g)	Al1F4Li1(g)	Al1F4Na1(g)
Al1F6K3(cr)	Al1F6Li3(cr)	Al1F6Li3(cr,l)	Al1F6Li3*	Al1F6Li3(l)
Al1F6Na3(cr)_01	Al1F6Na3(cr)_02	Al1F6Na3(cr,l)	Al1F6Na3*	Al1F6Na3(l)
Al1H1(g)	Al1H1O1(g)_01	Al1H1O1(g)_02	Al1H1O1-(g)	Al1H1O1+(g)
Al1H1O2(g)	Al1H4Li1(cr)	Al1I1(g)	Al1I3(cr)	Al1I3(cr,l)
Al1I3*	Al1I3(g)	Al1I3(l)	Al1Li1O2(cr)	Al1Li1O2(cr,l)
Al1Li1O2*	Al1Li1O2(l)	Al1N1(cr)	Al1N1(g)	Al1Na1O2(cr)
Al1O1(g)	Al1O1-(g)	Al1O1+(g)	Al1O2(g)	Al1O2-(g)
Al1S1(g)	Al2(g)	Al2Be1O4(cr)	Al2Be1O4(cr,l)	Al2Be1O4*
Al2Be1O4(l)	Al2Br6(g)	Al2Cl6(g)	Al2Cl9K3(cr)	Al2F6(g)
Al2I6(g)	Al2Mg1O4(cr)	Al2Mg1O4(cr,l)	Al2Mg1O4*	Al2Mg1O4(l)
Al2O1(g)	Al2O1+(g)	Al2O2(g)	Al2O2+(g)	Al2O3(cr)_01
Al2O3(cr)_02	Al2O3(cr)_03	Al2O3(cr)_04	Al2O3(cr,l)	Al2O3*
Al2O3(l)	Al2O5Si1(cr)_01	Al2O5Si1(cr)_02	Al2O5Si1(cr)_03	Al2S3(cr)
Al3F14Na5(cr)	Al3F14Na5(cr,l)	Al3F14Na5*	Al3F14Na5(l)	Al6Be1O10(cr)
Al6Be1O10(cr,l)	Al6Be1O10*	Al6Be1O10(l)	Al6O13Si2(cr)	C1Al1(g)
C3Al4(cr)				

## Element 14 - Silicon

Al2O5Si1(cr)_01	Al2O5Si1(cr)_02	Al2O5Si1(cr)_03	Al6O13Si2(cr)	Be2O4Si1(cr)
Br1H3Si1(g)	Br1Si1(g)	Br2H2Si1(g)	Br2Si1(g)	Br3H1Si1(g)
Br3Si1(g)	Br4Si1(g)	Br4Si1(l)	C1H3Cl3Si1(g)	C1H3F3Si1(g)
C1Si1(cr)_01	C1Si1(cr)_02	C1Si1(g)	C1Si2(g)	C2Si1(g)
C4H12Si1(g)	C11F3Si1(g)	C11H3Si1(g)	C11Si1(g)	C12H2Si1(g)
Cl2Si1(g)	Cl3F1Si1(g)	Cl3H1Si1(g)	Cl3Si1(g)	Cl4Si1(g)
F1H3Si1(g)	F1Si1(g)	F2H2Si1(g)	F2O1Si1(g)	F2Si1(g)
F3H1Si1(g)	F3Si1(g)	F4Si1(g)	H1I3Si1(g)	H1Si1(g)
H1Si1+(g)	H2I2Si1(g)	H3I1Si1(g)	H4Si1(g)	I1Si1(g)
I2Si1(g)	I3Si1(g)	I4Si1(cr)	I4Si1(cr,l)	I4Si1*
I4Si1(g)	I4Si1(l)	K2O3Si1(cr)	K2O3Si1(cr,l)	K2O3Si1*
K2O3Si1(l)	Li2O3Si1(cr)	Li2O3Si1(cr,l)	Li2O3Si1*	Li2O3Si1(l)
Li2O5Si2(cr)	Li2O5Si2(cr,l)	Li2O5Si2*	Li2O5Si2(l)	Mg1O3Si1(cr)
Mg1O3Si1(cr,l)	Mg1O3Si1*	Mg1O3Si1(l)	Mg2O4Si1(cr)	Mg2O4Si1(cr,l)
Mg2O4Si1*	Mg2O4Si1(l)	Mg2Si1(cr)	Mg2Si1(cr,l)	Mg2Si1*
Mg2Si1(l)	N1Si1(g)	N1Si2(g)	N4Si3(cr)	Na2O3Si1(cr)
Na2O3Si1(cr,l)	Na2O3Si1*	Na2O3Si1(l)	Na2O5Si2(cr)	Na2O5Si2(cr,l)
Na2O5Si2*	Na2O5Si2(l)	O1Si1(g)	O2Si1(cr)_01	O2Si1(cr)_02
O2Si1(cr)_03	O2Si1(cr,l)	O2Si1*	O2Si1(g)	O2Si1(l)
O3Pb1Si1(cr)	O4Pb2Si1(cr)	O4Si1Zr1(cr)	S1Si1(g)	S2Si1(cr)
S2Si1(cr,l)	S2Si1*	S2Si1(l)	Si1(cr)	Si1(cr,l)
Si1*	Si1(g)	Si1-(g)	Si1(l)	Si1+(g)
Si2(g)	Si3(g)			

## Element 15 - Phosphorus

Br1P1(g)	Br3O1P1(g)	Br3P1(g)	Br3P1S1(g)	C1H1P1(g)
C1P1(g)	Cl1F2O1P1(g)	Cl1P1(g)	Cl2F1O1P1(g)	Cl3O1P1(g)
Cl3P1(g)	Cl3P1S1(g)	Cl5P1(g)	F1P1(g)	F1P1-(g)
F1P1+(g)	F1P1S1(g)	F2P1(g)	F2P1-(g)	F2P1+(g)
F3O1P1(g)	F3P1(g)	F3P1S1(g)	F5P1(g)	H1P1(g)
H2P1(g)	H3O4P1(cr)	H3O4P1(cr,l)	H3O4P1*	H3O4P1(l)
H3P1(g)	Mg3O8P2(cr)	Mg3O8P2(cr,l)	Mg3O8P2*	Mg3O8P2(l)
N1P1(g)	N5P3(cr)	O10P4(cr)	O10P4(g)	O1P1(g)
O2P1(g)	O6P4(g)	P1(cr)_01	P1(cr)_02	P1(cr)_03
P1(cr)_04	P1(cr,l)	P1*	P1(g)	P1-(g)
P1(l)	P1+(g)	P1S1(g)	P2(g)	P4(g)
P4S3(cr)	P4S3(cr,l)	P4S3*	P4S3(g)	P4S3(l)

## Element 16 - Sulfur

Al1S1(g)	Al2S3(cr)	B1H1S1(g)	B1H1S1+(g)	B1S1(g)
Ba1S1(cr)	Ba1S1(g)	Be1O4S1(cr)_01	Be1O4S1(cr)_02	Be1O4S1(cr)_03
Be1S1(cr)	Be1S1(g)	Br1F5S1(g)	Br3P1S1(g)	C1F8S1(g)
C1O1S1(g)	C1S1(g)	C1S2(g)	Ca1S1(cr)	Ca1S1(g)
Cl1F1O2S1(g)	Cl1F5S1(g)	Cl1S1(g)	Cl1S1+(g)	Cl1S2(g)
Cl2O2S1(g)	Cl2S1(g)	Cl2S1(l)	Cl2S1+(g)	Cl2S2(g)
Cl2S2(l)	Cl3P1S1(g)	Co1O4S1(cr)	Cs2O4S1(cr)_01	Cs2O4S1(cr)_02
Cs2O4S1(cr,l)	Cs2O4S1*	Cs2O4S1(g)	Cs2O4S1(l)	Cu1O4S1(cr)

Cu2O5S1(cr)	D1S1(g)	D2S1(g)	F10S2(g)	F1H1O3S1(g)
F1P1S1(g)	F1S1(g)	F1S1-(g)	F1S1+(g)	F2O1S1(g)
F2O2S1(g)	F2S1(g)	F2S1-(g)	F2S1+(g)	F2S2(g)_01
F2S2(g)_02	F3P1S1(g)	F3S1(g)	F3S1-(g)	F3S1+(g)
F4S1(g)	F4S1-(g)	F4S1+(g)	F5S1(g)	F5S1-(g)
F5S1+(g)	F6S1(g)	F6S1-(g)	Fe0.877S1(cr)	Fe1O4S1(cr)
Fe1S1(cr)	Fe1S1(cr,l)	Fe1S1*	Fe1S1(g)	Fe1S1(l)
Fe1S2(cr)_01	Fe1S2(cr)_02	Fe2O12S3(cr)	H10O8S1(cr,l)	H10O8S1*
H15O10.5S1(cr,l)	H15O10.5S1*	H1S1(g)	H2O4S1(cr,l)	H2O4S1*
H2O4S1(g)	H2S1(g)	H4O5S1(cr,l)	H4O5S1*	H6O6S1(cr,l)
H6O6S1*	H8O7S1(cr,l)	H8O7S1*	K2O4S1(cr)_01	K2O4S1(cr)_02
K2O4S1(cr,l)	K2O4S1*	K2O4S1(g)	K2O4S1(l)	K2S1(cr)
K2S1(cr,l)	K2S1*	K2S1(l)	Li2O4S1(cr)_01	Li2O4S1(cr)_02
Li2O4S1(cr,l)	Li2O4S1*	Li2O4S1(g)	Li2O4S1(l)	Mg1O4S1(cr)
Mg1O4S1(cr,l)	Mg1O4S1*	Mg1O4S1(l)	Mg1S1(cr)	Mg1S1(g)
Mo1S2(cr)	Mo2S3(cr)	Mo2S3(cr,l)	Mo2S3*	Mo2S3(l)
N1S1(g)	Na2O4S1(cr)_01	Na2O4S1(cr)_02	Na2O4S1(cr)_03	Na2O4S1(cr)_04
Na2O4S1(cr)_05	Na2O4S1(cr,l)	Na2O4S1*	Na2O4S1(g)	Na2O4S1(l)
Na2S1(cr)	Na2S1(cr,l)	Na2S1*	Na2S1(l)	Na2S2(cr)
Na2S2(cr,l)	Na2S2*	Na2S2(l)	Ni1S1(cr)	Ni1S1(cr,l)
Ni1S1*	Ni1S1(g)	Ni1S1(l)	Ni1S2(cr)	Ni1S2(cr,l)
Ni1S2*	Ni1S2(l)	Ni3S2(cr)	Ni3S2(cr,l)	Ni3S2*
Ni3S2(l)	Ni3S4(cr)	O1S1(g)	O1S2(g)	O2S1(g)
O3S1(g)	O4S1Zn1(cr)	P1S1(g)	P4S3(cr)	P4S3(cr,l)
P4S3*	P4S3(g)	P4S3(l)	Pb1S1(cr)	Pb1S1(cr,l)
Pb1S1*	Pb1S1(g)	Pb1S1(l)	S1(cr)_01	S1(cr)_02
S1(cr,l)	S1*	S1(g)	S1-(g)	S1(l)
S1+(g)	S1Si1(g)	S1Sr1(cr)	S1Sr1(g)	S2(g)
S2Si1(cr)	S2Si1(cr,l)	S2Si1*	S2Si1(l)	S3(g)
S4(g)	S5(g)	S6(g)	S7(g)	S8(g)

### Element 17 - Chlorine

Al1Cl1(g)	Al1Cl1+(g)	Al1Cl1F1(g)	Al1Cl1F1+(g)	Al1Cl1F2(g)
Al1Cl1O1(cr)	Al1Cl1O1(g)	Al1Cl2(g)	Al1Cl2-(g)	Al1Cl2+(g)
Al1Cl2F1(g)	Al1Cl3(cr)	Al1Cl3(cr,l)	Al1Cl3*	Al1Cl3(g)
Al1Cl3(l)	Al1Cl4K1(cr)	Al1Cl4Na1(cr)	Al1Cl6K3(cr)	Al1Cl6Na3(cr)
Al2Cl6(g)	Al2Cl9K3(cr)	B1Br1Cl1(g)	B1Br1Cl2(g)	B1Br2Cl1(g)
B1Cl1(g)	B1Cl1+(g)	B1Cl1F1(g)	B1Cl1F2(g)	B1Cl1O1(g)
B1Cl2(g)	B1Cl2-(g)	B1Cl2+(g)	B1Cl2F1(g)	B1Cl2H1(g)
B1Cl3(g)	B2Cl4(g)	B3Cl3O3(g)	Ba1Cl1(g)	Ba1Cl2(cr)
Ba1Cl2(cr,l)	Ba1Cl2*	Ba1Cl2(g)	Ba1Cl2(l)	Be1Cl1(g)
Be1Cl1+(g)	Be1Cl1F1(g)	Be1Cl2(cr)_01	Be1Cl2(cr)_02	Be1Cl2(cr,l)
Be1Cl2*	Be1Cl2(g)	Be1Cl2(l)	Be2Cl4(g)	Br1Cl1(g)
C1Cl1(g)	C1Cl1F1O1(g)	C1Cl1F3(g)	C1Cl1N1(g)	C1Cl1O1(g)
C1Cl2(g)	C1Cl2F2(g)	C1Cl2O1(g)	C1Cl3(g)	C1Cl3F1(g)
C1Cl4(g)	C1H1Cl1(g)	C1H1Cl1F2(g)	C1H1Cl2F1(g)	C1H1Cl3(g)
C1H2Cl1F1(g)	C1H2Cl2(g)	C1H3Cl1(g)	C1H3Cl3Si1(g)	C2Cl2(g)
C2Cl4(g)	C2Cl6(g)	C2H1Cl1(g)	Ca1Cl1(g)	Ca1Cl2(cr)
Ca1Cl2(cr,l)	Ca1Cl2*	Ca1Cl2(g)	Ca1Cl2(l)	Cl1(g)
Cl1-(g)	Cl1+(g)	Cl10W2(g)	Cl1Co1(g)	Cl1Cs1(cr)

Cl1Cs1(cr,l)	Cl1Cs1*	Cl1Cs1(g)	Cl1Cs1(l)	Cl1Cu1(cr)
Cl1Cu1(cr,l)	Cl1Cu1*	Cl1Cu1(g)	Cl1Cu1(l)	Cl1D1(g)
Cl1D1O1(g)	Cl1F1(g)	Cl1F1Li2(g)	Cl1F1Mg1(g)	Cl1F1O2S1(g)
Cl1F1O3(g)	Cl1F2O1P1(g)	Cl1F3(g)	Cl1F3Si1(g)	Cl1F5(g)
Cl1F5S1(g)	Cl1Fe1(g)	Cl1H1(g)	Cl1H1O1(g)	Cl1H3Si1(g)
Cl1H4N1(cr)	Cl1H4N1O4(cr)	Cl1Hg1(g)	Cl1I1(cr)	Cl1I1(cr,l)
Cl1I1*	Cl1I1(g)	Cl1I1(l)	Cl1K1(cr)	Cl1K1(cr,l)
Cl1K1*	Cl1K1(g)	Cl1K1(l)	Cl1K1O4(cr)	Cl1Li1(cr)
Cl1Li1(cr,l)	Cl1Li1*	Cl1Li1(g)	Cl1Li1(l)	Cl1Li1O1(g)
Cl1Li1O4(cr)	Cl1Li1O4(cr,l)	Cl1Li1O4*	Cl1Li1O4(l)	Cl1Mg1(g)
Cl1Mg1+(g)	Cl1N1O1(g)	Cl1N1O2(g)	Cl1Na1(cr)	Cl1Na1(cr,l)
Cl1Na1*	Cl1Na1(g)	Cl1Na1(l)	Cl1Na1O4(cr)	Cl1Ni1(g)
Cl1O1(g)	Cl1O1Ti1(g)	Cl1O2(g)	Cl1P1(g)	Cl1Pb1(g)
Cl1Pb1+(g)	Cl1S1(g)	Cl1S1+(g)	Cl1S2(g)	Cl1Si1(g)
Cl1Sr1(g)	Cl1Ti1(g)	Cl1W1(g)	Cl1Zr1(g)	Cl2(ref)
Cl2Co1(cr)	Cl2Co1(cr,l)	Cl2Co1*	Cl2Co1(g)	Cl2Co1(l)
Cl2Cs2(g)	Cl2Cu1(cr)	Cl2F1O1P1(g)	Cl2Fe1(cr)	Cl2Fe1(cr,l)
Cl2Fe1*	Cl2Fe1(g)	Cl2Fe1(l)	Cl2H2Si1(g)	Cl2Hg1(cr)
Cl2Hg1(cr,l)	Cl2Hg1*	Cl2Hg1(g)	Cl2Hg1(l)	Cl2Hg2(cr)
Cl2K2(g)	Cl2Li2(g)	Cl2Mg1(cr)	Cl2Mg1(cr,l)	Cl2Mg1*
Cl2Mg1(g)	Cl2Mg1(l)	Cl2Mo1O2(g)	Cl2Na2(g)	Cl2Ni1(cr)
Cl2Ni1(cr,l)	Cl2Ni1*	Cl2Ni1(g)	Cl2Ni1(l)	Cl2O1(g)
Cl2O1Ti1(g)	Cl2O2S1(g)	Cl2O2W1(cr)	Cl2O2W1(g)	Cl2Pb1(cr)
Cl2Pb1(cr,l)	Cl2Pb1*	Cl2Pb1(g)	Cl2Pb1(l)	Cl2Pb1+(g)
Cl2S1(g)	Cl2S1(l)	Cl2S1+(g)	Cl2S2(g)	Cl2S2(l)
Cl2Si1(g)	Cl2Sr1(cr)	Cl2Sr1(cr,l)	Cl2Sr1*	Cl2Sr1(g)
Cl2Sr1(l)	Cl2Ti1(cr)	Cl2Ti1(g)	Cl2W1(cr)	Cl2W1(g)
Cl2Zr1(cr)	Cl2Zr1(cr,l)	Cl2Zr1*	Cl2Zr1(g)	Cl2Zr1(l)
Cl3Co1(g)	Cl3Cu3(g)	Cl3F1Si1(g)	Cl3Fe1(cr)	Cl3Fe1(cr,l)
Cl3Fe1*	Cl3Fe1(g)	Cl3Fe1(l)	Cl3H1Si1(g)	Cl3Li3(g)
Cl3O1P1(g)	Cl3P1(g)	Cl3P1S1(g)	Cl3Si1(g)	Cl3Ti1(cr)
Cl3Ti1(g)	Cl3Zr1(cr)	Cl3Zr1(g)	Cl4Co2(g)	Cl4Fe2(g)
Cl4Mg2(g)	Cl4Mo1(cr)	Cl4Mo1(cr,l)	Cl4Mo1*	Cl4Mo1(g)
Cl4Mo1(l)	Cl4O1W1(cr)	Cl4O1W1(cr,l)	Cl4O1W1*	Cl4O1W1(g)
Cl4O1W1(l)	Cl4Pb1(g)	Cl4Si1(g)	Cl4Ti1(cr)	Cl4Ti1(cr,l)
Cl4Ti1*	Cl4Ti1(g)	Cl4Ti1(l)	Cl4W1(cr)	Cl4W1(g)
Cl4Zr1(cr)	Cl4Zr1(g)	Cl5Mo1(cr)	Cl5Mo1(cr,l)	Cl5Mo1*
Cl5Mo1(g)	Cl5Mo1(l)	Cl5Nb1(cr)	Cl5Nb1(cr,l)	Cl5Nb1*
Cl5Nb1(g)	Cl5Nb1(l)	Cl5P1(g)	Cl5Ta1(cr)	Cl5Ta1(cr,l)
Cl5Ta1*	Cl5Ta1(g)	Cl5Ta1(l)	Cl5W1(cr)	Cl5W1(cr,l)
Cl5W1*	Cl5W1(g)	Cl5W1(l)	Cl6Fe2(g)	Cl6Mo1(cr)
Cl6Mo1(g)	Cl6W1(cr)_01	Cl6W1(cr)_02	Cl6W1(cr,l)	Cl6W1*
Cl6W1(g)	Cl6W1(l)			

### Element 18 - Argon

Ar1(ref)      Ar1+(g)

## Element 19 - Potassium

Al1Cl4K1(cr)	Al1Cl6K3(cr)	Al1F6K3(cr)	Al2Cl9K3(cr)	B1F4K1(cr)
B1F4K1(cr,l)	B1F4K1*	B1F4K1(g)	B1F4K1(l)	B1H4K1(cr)
B1K1O2(cr)	B1K1O2(cr,l)	B1K1O2*	B1K1O2(g)	B1K1O2(l)
B4K2O7(cr)	B4K2O7(cr,l)	B4K2O7*	B4K2O7(l)	B6K2O10(cr)
B8K2O13(cr)	B8K2O13(cr,l)	B8K2O13*	B8K2O13(l)	Br1K1(cr)
Br1K1(cr,l)	Br1K1*	Br1K1(g)	Br1K1(l)	Br2K2(g)
C1K1N1(cr)	C1K1N1(cr,l)	C1K1N1*	C1K1N1(g)	C1K1N1(l)
C1K2O3(cr)	C1K2O3(cr,l)	C1K2O3*	C1K2O3(l)	C2K2N2(g)
Cl1K1(cr)	Cl1K1(cr,l)	Cl1K1*	Cl1K1(g)	Cl1K1(l)
Cl1K1O4(cr)	Cl2K2(g)	F1K1(cr)	F1K1(cr,l)	F1K1*
F1K1(g)	F1K1(l)	F2H1K1(cr)	F2H1K1(cr,l)	F2H1K1*
F2H1K1(l)	F2K1-(g)	F2K2(g)	H1K1(cr)	H1K1(g)
H1K1O1(cr)	H1K1O1(cr,l)	H1K1O1*	H1K1O1(g)	H1K1O1(l)
H1K1O1+(g)	H2K2O2(g)	I1K1(cr)	I1K1(cr,l)	I1K1*
I1K1(g)	I1K1(l)	I2K2(g)	K1(cr)	K1(cr,l)
K1*	K1(g)	K1-(g)	K1(l)	K1+(g)
K1O1(g)	K1O1-(g)	K1O2(cr)	K2(g)	K2O1(cr)
K2O2(cr)	K2O3Si1(cr)	K2O3Si1(cr,l)	K2O3Si1*	K2O3Si1(l)
K2O4S1(cr)_01	K2O4S1(cr)_02	K2O4S1(cr,l)	K2O4S1*	K2O4S1(g)
K2O4S1(l)	K2S1(cr)	K2S1(cr,l)	K2S1*	K2S1(l)

## Element 20 - Calcium

Br1Ca1(g)	Br2Ca1(cr)	Br2Ca1(cr,l)	Br2Ca1*	Br2Ca1(g)
Br2Ca1(l)	Ca1(cr)_01	Ca1(cr)_02	Ca1(cr,l)	Ca1*
Ca1(g)	Ca1(l)	Ca1+(g)	Ca1Cl1(g)	Ca1Cl2(cr)
Ca1Cl2(cr,l)	Ca1Cl2*	Ca1Cl2(g)	Ca1Cl2(l)	Ca1F1(g)
Ca1F2(cr)	Ca1F2(cr,l)	Ca1F2*	Ca1F2(g)	Ca1F2(l)
Ca1H1O1(g)	Ca1H1O1+(g)	Ca1H2O2(cr)	Ca1H2O2(g)	Ca1I1(g)
Ca1I2(cr)	Ca1I2(cr,l)	Ca1I2*	Ca1I2(g)	Ca1I2(l)
Ca1O1(cr)	Ca1O1(cr,l)	Ca1O1*	Ca1O1(g)	Ca1O1(l)
Ca1S1(cr)	Ca1S1(g)	Ca2(g)		

## Element 22 - Titanium

B1Ti1(cr)	B2Ti1(cr)	B2Ti1(cr,l)	B2Ti1*	B2Ti1(l)
Br1Ti1(g)	Br2Ti1(cr)	Br2Ti1(g)	Br3Ti1(cr)	Br3Ti1(g)
Br4Ti1(cr)	Br4Ti1(cr,l)	Br4Ti1*	Br4Ti1(g)	Br4Ti1(l)
Cl1Ti1(cr)	Cl1Ti1(cr,l)	Cl1Ti1*	Cl1Ti1(l)	Cl1O1Ti1(g)
Cl1Ti1(g)	Cl2O1Ti1(g)	Cl2Ti1(cr)	Cl2Ti1(g)	Cl3Ti1(cr)
Cl3Ti1(g)	Cl4Ti1(cr)	Cl4Ti1(cr,l)	Cl4Ti1*	Cl4Ti1(g)
Cl4Ti1(l)	F1O1Ti1(g)	F1Ti1(g)	F2O1Ti1(g)	F2Ti1(g)
F3Ti1(cr)	F3Ti1(g)	F4Ti1(cr)	F4Ti1(g)	H2Ti1(cr)
I1Ti1(g)	I2Ti1(cr)	I2Ti1(g)	I3Ti1(cr)	I3Ti1(g)
I4Ti1(cr)	I4Ti1(cr,l)	I4Ti1*	I4Ti1(g)	I4Ti1(l)
Li2O3Ti1(cr)	Li2O3Ti1(cr,l)	Li2O3Ti1*	Li2O3Ti1(l)	Mg1O3Ti1(cr)
Mg1O3Ti1(cr,l)	Mg1O3Ti1*	Mg1O3Ti1(l)	Mg1O5Ti2(cr)	Mg1O5Ti2(cr,l)
Mg1O5Ti2*	Mg1O5Ti2(l)	Mg2O4Ti1(cr)	Mg2O4Ti1(cr,l)	Mg2O4Ti1*
Mg2O4Ti1(l)	N1Ti1(cr)	N1Ti1(cr,l)	N1Ti1*	N1Ti1(l)

O1Ti1(cr)_01	O1Ti1(cr)_02	O1Ti1(cr,l)	O1Ti1*	O1Ti1(g)
O1Ti1(l)	O2Ti1(cr)_01	O2Ti1(cr)_02	O2Ti1(cr,l)	O2Ti1*
O2Ti1(g)	O2Ti1(l)	O3Ti2(cr)	O3Ti2(cr,l)	O3Ti2*
O3Ti2(l)	O5Ti3(cr)_01	O5Ti3(cr)_02	O5Ti3(cr,l)	O5Ti3*
O5Ti3(l)	O7Ti4(cr)	O7Ti4(cr,l)	O7Ti4*	O7Ti4(l)
Ti1(cr)_01	Ti1(cr)_02	Ti1(cr,l)	Ti1*	Ti1(g)
Ti1-(g)	Ti1(l)	Ti1+(g)		

### Element 23 - Vanadium

N0.465V1(cr)	N1V1(cr)	N1V1(g)	O1V1(cr)	O1V1(cr,l)
O1V1*	O1V1(g)	O1V1(l)	O2V1(g)	O3V2(cr)
O3V2(cr,l)	O3V2*	O3V2(l)	O4V2(cr)	O4V2(cr,l)
O4V2*	O4V2(l)	O5V2(cr)	O5V2(cr,l)	O5V2*
O5V2(l)	V1(cr)	V1(cr,l)	V1*	V1(g)
V1-(g)	V1(l)	V1+(g)		

### Element 24 - Chromium

C2Cr3(cr)	C3Cr7(cr)	C6Cr23(cr)	Cr1(cr)	Cr1(cr,l)
Cr1*	Cr1(g)	Cr1-(g)	Cr1(l)	Cr1+(g)
Cr1N1(cr)	Cr1N1(g)	Cr1O1(g)	Cr1O2(g)	Cr1O3(g)
Cr2N1(cr)	Cr2O3(cr)	Cr2O3(cr,l)	Cr2O3*	Cr2O3(l)

### Element 25 - Manganese

Mn1(cr)	Mn1(cr,l)	Mn1*	Mn1(g)	Mn1(l)
Mn1+(g)				

### Element 26 - Iron

Br2Fe1(cr)	Br2Fe1(cr,l)	Br2Fe1*	Br2Fe1(g)	Br2Fe1(l)
Br4Fe2(g)	C5Fe1O5(g)	C5Fe1O5(l)	Cl1Fe1(g)	Cl2Fe1(cr)
Cl2Fe1(cr,l)	Cl2Fe1*	Cl2Fe1(g)	Cl2Fe1(l)	Cl3Fe1(cr)
Cl3Fe1(cr,l)	Cl3Fe1*	Cl3Fe1(g)	Cl3Fe1(l)	Cl4Fe2(g)
Cl6Fe2(g)	F1Fe1(g)	F2Fe1(cr)	F2Fe1(cr,l)	F2Fe1*
F2Fe1(g)	F2Fe1(l)	F3Fe1(cr)	F3Fe1(g)	Fe0.877S1(cr)
Fe0.947O1(cr)	Fe1(cr)_01	Fe1(cr)_02	Fe1(cr,l)	Fe1*
Fe1(g)	Fe1-(g)	Fe1(l)	Fe1+(g)	Fe1H2O2(cr)
Fe1H2O2(g)	Fe1H3O3(cr)	Fe1I2(cr)	Fe1I2(cr,l)	Fe1I2*
Fe1I2(g)	Fe1I2(l)	Fe1O1(cr)	Fe1O1(cr,l)	Fe1O1*
Fe1O1(g)	Fe1O1(l)	Fe1O4S1(cr)	Fe1S1(cr)	Fe1S1(cr,l)
Fe1S1*	Fe1S1(g)	Fe1S1(l)	Fe1S2(cr)_01	Fe1S2(cr)_02
Fe2I4(g)	Fe2O12S3(cr)	Fe2O3(cr)	Fe3O4(cr)	

### Element 27 - Cobalt

Cl1Co1(g)	Cl2Co1(cr)	Cl2Co1(cr,l)	Cl2Co1*	Cl2Co1(g)
Cl2Co1(l)	Cl3Co1(g)	Cl4Co2(g)	Co1(cr)	Co1(cr,l)
Co1*	Co1(g)	Co1-(g)	Co1(l)	Co1+(g)
Co1F2(cr)	Co1F2(cr,l)	Co1F2*	Co1F2(g)	Co1F2(l)



Co1F3(cr)      Co1O1(cr)      Co1O4S1(cr)      Co3O4(cr)

**Element 28 - Nickel**

C4Ni1O4(g)	C4Ni1O4(l)	Cl1Ni1(g)	Cl2Ni1(cr)	Cl2Ni1(cr,l)
Cl2Ni1*	Cl2Ni1(g)	Cl2Ni1(l)	Ni1(cr)	Ni1(cr,l)
Ni1*	Ni1(g)	Ni1-(g)	Ni1(l)	Ni1+(g)
Ni1S1(cr)	Ni1S1(cr,l)	Ni1S1*	Ni1S1(g)	Ni1S1(l)
Ni1S2(cr)	Ni1S2(cr,l)	Ni1S2*	Ni1S2(l)	Ni3S2(cr)
Ni3S2(cr,l)	Ni3S2*	Ni3S2(l)	Ni3S4(cr)	

**Element 29 - Copper**

C1Cu1N1(cr)	Cl1Cu1(cr)	Cl1Cu1(cr,l)	Cl1Cu1*	Cl1Cu1(g)
Cl1Cu1(l)	Cl2Cu1(cr)	Cl3Cu3(g)	Cu1(cr)	Cu1(cr,l)
Cu1*	Cu1(g)	Cu1-(g)	Cu1(l)	Cu1+(g)
Cu1F1(cr)	Cu1F1(g)	Cu1F2(cr)	Cu1F2(cr,l)	Cu1F2*
Cu1F2(g)	Cu1F2(l)	Cu1H2O2(cr)	Cu1O1(cr)	Cu1O1(g)
Cu1O4S1(cr)	Cu2(g)	Cu2O1(cr)	Cu2O1(cr,l)	Cu2O1*
Cu2O1(l)	Cu2O5S1(cr)			

**Element 30 - Zinc**

O4S1Zn1(cr)	Zn1(cr)	Zn1(cr,l)	Zn1*	Zn1(g)
Zn1-(g)	Zn1(l)	Zn1+(g)		

**Element 31 - Gallium**

Ga1(cr)	Ga1(cr,l)	Ga1*	Ga1(g)	Ga1-(g)
Ga1(l)	Ga1+(g)			

**Element 35 - Bromine**

AllBr1(g)	AllBr3(cr)	AllBr3(cr,l)	AllBr3*	AllBr3(g)
AllBr3(l)	Al2Br6(g)	B1Br1(g)	B1Br1Cl1(g)	B1Br1Cl2(g)
B1Br1F1(g)	B1Br1F2(g)	B1Br1O1(g)	B1Br2(g)	B1Br2Cl1(g)
B1Br2F1(g)	B1Br2H1(g)	B1Br3(g)	B1Br3(l)	Ba1Br1(g)
Ba1Br2(cr)	Ba1Br2(cr,l)	Ba1Br2*	Ba1Br2(g)	Ba1Br2(l)
Be1Br1(g)	Be1Br2(cr)	Be1Br2(g)	Br1(g)	Br1-(g)
Br1+(g)	Br1Ca1(g)	Br1Cl1(g)	Br1F1(g)	Br1F3(g)
Br1F5(g)	Br1F5S1(g)	Br1H1(g)	Br1H3Si1(g)	Br1H4N1(cr)
Br1Hg1(g)	Br1I1(g)	Br1K1(cr)	Br1K1(cr,l)	Br1K1*
Br1K1(g)	Br1K1(l)	Br1Li1(cr)	Br1Li1(cr,l)	Br1Li1*
Br1Li1(g)	Br1Li1(l)	Br1Mg1(g)	Br1Mo1(g)	Br1N1(g)
Br1N1O1(g)	Br1Na1(cr)	Br1Na1(cr,l)	Br1Na1*	Br1Na1(g)
Br1Na1(l)	Br1P1(g)	Br1Pb1(g)	Br1Si1(g)	Br1Sr1(g)
Br1Ti1(g)	Br1W1(g)	Br1Zr1(g)	Br2(cr,l)	Br2*
Br2(g)	Br2Ca1(cr)	Br2Ca1(cr,l)	Br2Ca1*	Br2Ca1(g)
Br2Ca1(l)	Br2Fe1(cr)	Br2Fe1(cr,l)	Br2Fe1*	Br2Fe1(g)
Br2Fe1(l)	Br2H2Si1(g)	Br2Hg1(cr)	Br2Hg1(cr,l)	Br2Hg1*
Br2Hg1(g)	Br2Hg1(l)	Br2Hg2(cr)	Br2K2(g)	Br2Li2(g)

Br2Mg1(cr)	Br2Mg1(cr,l)	Br2Mg1*	Br2Mg1(g)	Br2Mg1(l)
Br2Mg1+(g)	Br2Mo1(cr)	Br2Mo1(g)	Br2Na2(g)	Br2Pb1(cr)
Br2Pb1(cr,l)	Br2Pb1*	Br2Pb1(g)	Br2Pb1(l)	Br2Si1(g)
Br2Sr1(cr)	Br2Sr1(cr,l)	Br2Sr1*	Br2Sr1(g)	Br2Sr1(l)
Br2Ti1(cr)	Br2Ti1(g)	Br2Zr1(cr)	Br2Zr1(cr,l)	Br2Zr1*
Br2Zr1(g)	Br2Zr1(l)	Br3H1Si1(g)	Br3Mo1(cr)	Br3Mo1(g)
Br3O1P1(g)	Br3P1(g)	Br3P1S1(g)	Br3Si1(g)	Br3Ti1(cr)
Br3Ti1(g)	Br3Zr1(cr)	Br3Zr1(g)	Br4Fe2(g)	Br4Mg2(g)
Br4Mo1(cr)	Br4Mo1(g)	Br4Pb1(g)	Br4Si1(g)	Br4Si1(l)
Br4Ti1(cr)	Br4Ti1(cr,l)	Br4Ti1*	Br4Ti1(g)	Br4Ti1(l)
Br4Zr1(cr)	Br4Zr1(g)	Br5Nb1(cr)	Br5Nb1(cr,l)	Br5Nb1*
Br5Nb1(g)	Br5Nb1(l)	Br5W1(cr)	Br5W1(cr,l)	Br5W1*
Br5W1(g)	Br5W1(l)	Br6W1(cr)	Br6W1(g)	C1Br1(g)
C1Br1F3(g)	C1Br1N1(g)	C1Br4(g)		

### Element 36 - Krypton

Kr1(ref)	Kr1+(g)
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### Element 37 - Rubidium

Rb1(cr)	Rb1(cr,l)	Rb1*	Rb1(g)	Rb1-(g)
Rb1(l)	Rb1+(g)	Rb2(g)		

### Element 38 - Strontium

Br1Sr1(g)	Br2Sr1(cr)	Br2Sr1(cr,l)	Br2Sr1*	Br2Sr1(g)
Br2Sr1(l)	Cl1Sr1(g)	Cl2Sr1(cr)	Cl2Sr1(cr,l)	Cl2Sr1*
Cl2Sr1(g)	Cl2Sr1(l)	F1Sr1(g)	F1Sr1+(g)	F2Sr1(cr)
F2Sr1(cr,l)	F2Sr1*	F2Sr1(g)	F2Sr1(l)	H1O1Sr1(g)
H1O1Sr1+(g)	H2O2Sr1(cr)	H2O2Sr1(cr,l)	H2O2Sr1*	H2O2Sr1(g)
H2O2Sr1(l)	I1Sr1(g)	I2Sr1(cr)	I2Sr1(cr,l)	I2Sr1*
I2Sr1(g)	I2Sr1(l)	O1Sr1(cr)	O1Sr1(cr,l)	O1Sr1*
O1Sr1(g)	O1Sr1(l)	S1Sr1(cr)	S1Sr1(g)	Sr1(cr)_01
Sr1(cr)_02	Sr1(cr,l)	Sr1*	Sr1(g)	Sr1(l)
Sr1+(g)				

### Element 40 - Zirconium

B2Zr1(cr)	B2Zr1(cr,l)	B2Zr1*	B2Zr1(l)	Br1Zr1(g)
Br2Zr1(cr)	Br2Zr1(cr,l)	Br2Zr1*	Br2Zr1(g)	Br2Zr1(l)
Br3Zr1(cr)	Br3Zr1(g)	Br4Zr1(cr)	Br4Zr1(g)	C1Zr1(cr)
C1Zr1(cr,l)	C1Zr1*	C1Zr1(l)	Cl1Zr1(g)	Cl2Zr1(cr)
Cl2Zr1(cr,l)	Cl2Zr1*	Cl2Zr1(g)	Cl2Zr1(l)	Cl3Zr1(cr)
Cl3Zr1(g)	Cl4Zr1(cr)	Cl4Zr1(g)	F1Zr1(g)	F2Zr1(cr)
F2Zr1(cr,l)	F2Zr1*	F2Zr1(g)	F2Zr1(l)	F3Zr1(cr)
F3Zr1(g)	F4Zr1(cr)	F4Zr1(g)	H1Zr1(g)	I1Zr1(g)
I2Zr1(cr)	I2Zr1(cr,l)	I2Zr1*	I2Zr1(g)	I2Zr1(l)
I3Zr1(cr)	I3Zr1(g)	I4Zr1(cr)	I4Zr1(g)	N1Zr1(cr)
N1Zr1(cr,l)	N1Zr1*	N1Zr1(g)	N1Zr1(l)	O1Zr1(g)
O2Zr1(cr)	O2Zr1(cr,l)	O2Zr1*	O2Zr1(g)	O2Zr1(l)

O4Si1Zr1(cr)	Zr1(cr)_01	Zr1(cr)_02	Zr1(cr,l)	Zr1*
Zr1(g)	Zr1-(g)	Zr1(l)	Zr1+(g)	

### Element 41 - Niobium

Br5Nb1(cr)	Br5Nb1(cr,l)	Br5Nb1*	Br5Nb1(g)	Br5Nb1(l)
C0.98Nb1(cr)	Cl5Nb1(cr)	Cl5Nb1(cr,l)	Cl5Nb1*	Cl5Nb1(g)
Cl5Nb1(l)	Nb1(cr)	Nb1(cr,l)	Nb1*	Nb1(g)
Nb1-(g)	Nb1(l)	Nb1+(g)	Nb1O1(cr)	Nb1O1(cr,l)
Nb1O1*	Nb1O1(g)	Nb1O1(l)	Nb1O2(cr)	Nb1O2(cr,l)
Nb1O2*	Nb1O2(g)	Nb1O2(l)	Nb2O5(cr)	Nb2O5(cr,l)
Nb2O5*	Nb2O5(l)			

### Element 42 - Molybdenum

Br1Mo1(g)	Br2Mo1(cr)	Br2Mo1(g)	Br3Mo1(cr)	Br3Mo1(g)
Br4Mo1(cr)	Br4Mo1(g)	Cl2Mo1O2(g)	Cl4Mo1(cr)	Cl4Mo1(cr,l)
Cl4Mo1*	Cl4Mo1(g)	Cl4Mo1(l)	Cl5Mo1(cr)	Cl5Mo1(cr,l)
Cl5Mo1*	Cl5Mo1(g)	Cl5Mo1(l)	Cl6Mo1(cr)	Cl6Mo1(g)
F10Mo2(g)	F15Mo3(g)	F1Mo1(g)	F2Mo1(g)	F3Mo1(g)
F4Mo1(g)	F4Mo1O1(g)	F5Mo1(g)	F6Mo1(g)	F6Mo1(l)
H2Mo1O4(g)	I1Mo1(g)	I2Mo1(cr)	I2Mo1(g)	I3Mo1(cr)
I3Mo1(g)	I4Mo1(cr)	I4Mo1(g)	Mo1(cr)	Mo1(cr,l)
Mo1*	Mo1(g)	Mo1-(g)	Mo1(l)	Mo1+(g)
Mo1O1(g)	Mo1O2(cr)	Mo1O2(g)	Mo1O2.750(cr)	Mo1O2.875(cr)
Mo1O2.889(cr)	Mo1O3(cr)	Mo1O3(cr,l)	Mo1O3*	Mo1O3(g)
Mo1O3(l)	Mo1S2(cr)	Mo2S3(cr)	Mo2S3(cr,l)	Mo2S3*
Mo2S3(l)				

### Element 53 - Iodine

Al1I1(g)	Al1I3(cr)	Al1I3(cr,l)	Al1I3*	Al1I3(g)
Al1I3(l)	Al2I6(g)	B1I1(g)	B1I2(g)	B1I3(g)
Ba1I1(g)	Ba1I2(cr)	Ba1I2(cr,l)	Ba1I2*	Ba1I2(g)
Ba1I2(l)	Be1I1(g)	Be1I2(cr)	Be1I2(cr,l)	Be1I2*
Be1I2(g)	Be1I2(l)	Br1I1(g)	C1F3I1(g)	C1I1N1(g)
Ca1I1(g)	Ca1I2(cr)	Ca1I2(cr,l)	Ca1I2*	Ca1I2(g)
Ca1I2(l)	Cl1I1(cr)	Cl1I1(cr,l)	Cl1I1*	Cl1I1(g)
Cl1I1(l)	F1I1(g)	F5I1(g)	F7I1(g)	Fe1I2(cr)
Fe1I2(cr,l)	Fe1I2*	Fe1I2(g)	Fe1I2(l)	Fe2I4(g)
H1I1(g)	H1I3Si1(g)	H2I2Si1(g)	H3I1Si1(g)	H4I1N1(cr)
Hg1I1(g)	Hg1I2(cr)	Hg1I2(cr,l)	Hg1I2*	Hg1I2(g)
Hg1I2(l)	Hg2I2(cr)	Hg2I2(cr,l)	Hg2I2*	Hg2I2(l)
I1(g)	I1-(g)	I1+(g)	I1K1(cr)	I1K1(cr,l)
I1K1*	I1K1(g)	I1K1(l)	I1Li1(cr)	I1Li1(cr,l)
I1Li1*	I1Li1(g)	I1Li1(l)	I1Mg1(g)	I1Mo1(g)
I1N1O1(g)	I1Na1(cr)	I1Na1(cr,l)	I1Na1*	I1Na1(l)
I1Pb1(g)	I1Si1(g)	I1Sr1(g)	I1Ti1(g)	I1Zr1(g)
I2(cr)	I2(cr,l)	I2*	I2(g)	I2(l)
I2K2(g)	I2Li2(g)	I2Mg1(cr)	I2Mg1(cr,l)	I2Mg1*
I2Mg1(g)	I2Mg1(l)	I2Mo1(cr)	I2Mo1(g)	I2Pb1(cr)

I2Pb1(cr,l)	I2Pb1*	I2Pb1(g)	I2Pb1(l)	I2Si1(g)
I2Sr1(cr)	I2Sr1(cr,l)	I2Sr1*	I2Sr1(g)	I2Sr1(l)
I2Ti1(cr)	I2Ti1(g)	I2Zr1(cr)	I2Zr1(cr,l)	I2Zr1*
I2Zr1(g)	I2Zr1(l)	I3Mo1(cr)	I3Mo1(g)	I3Si1(g)
I3Ti1(cr)	I3Ti1(g)	I3Zr1(cr)	I3Zr1(g)	I4Mo1(cr)
I4Mo1(g)	I4Pb1(g)	I4Si1(cr)	I4Si1(cr,l)	I4Si1*
I4Si1(g)	I4Si1(l)	I4Ti1(cr)	I4Ti1(cr,l)	I4Ti1*
I4Ti1(g)	I4Ti1(l)	I4Zr1(cr)	I4Zr1(g)	

**Element 54 - Xenon**

Xe1(ref)	Xe1+(g)
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**Element 55 - Caesium**

Cl1Cs1(cr)	Cl1Cs1(cr,l)	Cl1Cs1*	Cl1Cs1(g)	Cl1Cs1(l)
Cl2Cs2(g)	Cs1(cr)	Cs1(cr,l)	Cs1*	Cs1(g)
Cs1-(g)	Cs1(l)	Cs1+(g)	Cs1F1(cr)	Cs1F1(cr,l)
Cs1F1*	Cs1F1(g)	Cs1F1(l)	Cs1H1O1(cr)	Cs1H1O1(cr,l)
Cs1H1O1*	Cs1H1O1(g)	Cs1H1O1(l)	Cs1H1O1+(g)	Cs1O1(g)
Cs2(g)	Cs2F2(g)	Cs2H2O2(g)	Cs2O1(g)	Cs2O4S1(cr)_01
Cs2O4S1(cr)_02	Cs2O4S1(cr,l)	Cs2O4S1*	Cs2O4S1(g)	Cs2O4S1(l)

**Element 56 - Barium**

Ba1(cr)	Ba1(cr,l)	Ba1*	Ba1(g)	Ba1(l)
Ba1+(g)	Ba1Br1(g)	Ba1Br2(cr)	Ba1Br2(cr,l)	Ba1Br2*
Ba1Br2(g)	Ba1Br2(l)	Ba1Cl1(g)	Ba1Cl2(cr)	Ba1Cl2(cr,l)
Ba1Cl2*	Ba1Cl2(g)	Ba1Cl2(l)	Ba1F1(g)	Ba1F1+(g)
Ba1F2(cr)	Ba1F2(cr,l)	Ba1F2*	Ba1F2(g)	Ba1F2(l)
Ba1H1O1(g)	Ba1H1O1+(g)	Ba1H2O2(cr)	Ba1H2O2(cr,l)	Ba1H2O2*
Ba1H2O2(g)	Ba1H2O2(l)	Ba1I1(g)	Ba1I2(cr)	Ba1I2(cr,l)
Ba1I2*	Ba1I2(g)	Ba1I2(l)	Ba1O1(cr)	Ba1O1(cr,l)
Ba1O1*	Ba1O1(g)	Ba1O1(l)	Ba1S1(cr)	Ba1S1(g)

**Element 72 - Hafnium**

Hf1(cr)_01	Hf1(cr)_02	Hf1(cr,l)	Hf1*	Hf1(g)
Hf1-(g)	Hf1(l)	Hf1+(g)		

**Element 73 - Tantalum**

C1Ta1(cr)	C1Ta1(cr,l)	C1Ta1*	C1Ta1(l)	Cl5Ta1(cr)
Cl5Ta1(cr,l)	Cl5Ta1*	Cl5Ta1(g)	Cl5Ta1(l)	O1Ta1(g)
O2Ta1(g)	O5Ta2(cr)	O5Ta2(cr,l)	O5Ta2*	O5Ta2(l)
Ta1(cr)	Ta1(cr,l)	Ta1*	Ta1(g)	Ta1-(g)
Ta1(l)	Ta1+(g)			

**Element 74 - Tungsten**

Be1O4W1(cr)	Br1W1(g)	Br5W1(cr)	Br5W1(cr,l)	Br5W1*
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Br5W1(g)	Br5W1(l)	Br6W1(cr)	Br6W1(g)	Cl10W2(g)
Cl1W1(g)	Cl2O2W1(cr)	Cl2O2W1(g)	Cl2W1(cr)	Cl2W1(g)
Cl4O1W1(cr)	Cl4O1W1(cr,l)	Cl4O1W1*	Cl4O1W1(g)	Cl4O1W1(l)
Cl4W1(cr)	Cl4W1(g)	Cl5W1(cr)	Cl5W1(cr,l)	Cl5W1*
Cl5W1(g)	Cl5W1(l)	Cl6W1(cr)_01	Cl6W1(cr)_02	Cl6W1(cr,l)
Cl6W1*	Cl6W1(g)	Cl6W1(l)	F1W1(g)	F4O1W1(cr)
F4O1W1(cr,l)	F4O1W1*	F4O1W1(g)	F4O1W1(l)	F6W1(g)
F6W1(l)	H2O4W1(cr)	H2O4W1(g)	Mg1O4W1(cr)	Na2O4W1(cr)
O12W4(g)	O1W1(g)	O2.72W1(cr)	O2.90W1(cr)	O2.96W1(cr)
O2W1(cr)	O2W1(g)	O3W1(cr)	O3W1(cr,l)	O3W1*
O3W1(g)	O3W1(l)	O6W2(g)	O8W3(g)	O9W3(g)
W1(cr)	W1(cr,l)	W1*	W1(g)	W1-(g)
W1(l)	W1+(g)			

### Element 80 - Mercury

Br1Hg1(g)	Br2Hg1(cr)	Br2Hg1(cr,l)	Br2Hg1*	Br2Hg1(g)
Br2Hg1(l)	Br2Hg2(cr)	Cl1Hg1(g)	Cl2Hg1(cr)	Cl2Hg1(cr,l)
Cl2Hg1*	Cl2Hg1(g)	Cl2Hg1(l)	Cl2Hg2(cr)	F1Hg1(g)
F2Hg1(cr)	F2Hg1(cr,l)	F2Hg1*	F2Hg1(g)	F2Hg1(l)
F2Hg2(cr)	H1Hg1(g)	Hg1(cr,l)	Hg1*	Hg1(g)
Hg1+(g)	Hg1l1(g)	Hg1l2(cr)	Hg1l2(cr,l)	Hg1l2*
Hg1l2(g)	Hg1l2(l)	Hg1O1(cr)	Hg1O1(g)	Hg2l2(cr)
Hg2l2(cr,l)	Hg2l2*	Hg2l2(l)		

### Element 82 - Lead

B10O17Pb2(cr)	B2O4Pb1(cr)	B4O7Pb1(cr)	B6O10Pb1(cr)	Br1Pb1(g)
Br2Pb1(cr)	Br2Pb1(cr,l)	Br2Pb1*	Br2Pb1(g)	Br2Pb1(l)
Br4Pb1(g)	Cl1Pb1(g)	Cl1Pb1+(g)	Cl2Pb1(cr)	Cl2Pb1(cr,l)
Cl2Pb1*	Cl2Pb1(g)	Cl2Pb1(l)	Cl2Pb1+(g)	Cl4Pb1(g)
F1Pb1(g)	F2Pb1(cr)_01	F2Pb1(cr)_02	F2Pb1(cr,l)	F2Pb1*
F2Pb1(g)	F2Pb1(l)	F4Pb1(g)	H1Pb1(g)	I1Pb1(g)
I2Pb1(cr)	I2Pb1(cr,l)	I2Pb1*	I2Pb1(g)	I2Pb1(l)
I4Pb1(g)	O1Pb1(cr)_01	O1Pb1(cr)_02	O1Pb1(cr,l)	O1Pb1*
O1Pb1(g)	O1Pb1(l)	O2Pb1(cr)	O3Pb1Si1(cr)	O4Pb2Si1(cr)
O4Pb3(cr)	Pb1(cr)	Pb1(cr,l)	Pb1*	Pb1(g)
Pb1-(g)	Pb1(l)	Pb1+(g)	Pb1S1(cr)	Pb1S1(cr,l)
Pb1S1*	Pb1S1(g)	Pb1S1(l)	Pb2(g)	

### Element 86 - Radon

Rn1(ref)	Rn1+(g)
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### Element 99 - Electron

Al1-(g)	Al1+(g)	Al1Cl1+(g)	Al1Cl1F1+(g)	Al1Cl2-(g)
Al1Cl2+(g)	Al1F1+(g)	Al1F2-(g)	Al1F2+(g)	Al1F2O1-(g)
Al1F4-(g)	Al1H1O1-(g)	Al1H1O1+(g)	Al1O1-(g)	Al1O1+(g)
Al1O2-(g)	Al2O1+(g)	Al2O2+(g)	Ar1+(g)	B1-(g)
B1+(g)	B1Cl1+(g)	B1Cl2-(g)	B1Cl2+(g)	B1F2-(g)

B1F2+(g)	B1H1O1-(g)	B1H1O1+(g)	B1H1S1+(g)	B1O2-(g)
Ba1+(g)	Ba1F1+(g)	Ba1H1O1+(g)	Be1+(g)	Be1Cl1+(g)
Be1H1+(g)	Be1H1O1+(g)	Br1-(g)	Br1+(g)	Br2Mg1+(g)
C1-(g)	C1+(g)	C1F1+(g)	C1F2+(g)	C1F3+(g)
C1H1+(g)	C1H1O1+(g)	C1N1-(g)	C1N1+(g)	C1O2-(g)
C2-(g)	Ca1+(g)	Ca1H1O1+(g)	Cl1-(g)	Cl1+(g)
Cl1Mg1+(g)	Cl1Pb1+(g)	Cl1S1+(g)	Cl2Pb1+(g)	Cl2S1+(g)
Co1-(g)	Co1+(g)	Cr1-(g)	Cr1+(g)	Cs1-(g)
Cs1+(g)	Cs1H1O1+(g)	Cu1-(g)	Cu1+(g)	D1-(g)
D1+(g)	D1H1-(g)	D1H1+(g)	D2-(g)	D2+(g)
e1-(ref)	F1-(g)	F1+(g)	F1Mg1+(g)	F1P1-(g)
F1P1+(g)	F1S1-(g)	F1S1+(g)	F1Sr1+(g)	F2K1-(g)
F2Li1-(g)	F2Mg1+(g)	F2Na1-(g)	F2P1-(g)	F2P1+(g)
F2S1-(g)	F2S1+(g)	F3S1-(g)	F3S1+(g)	F4S1-(g)
F4S1+(g)	F5S1-(g)	F5S1+(g)	F6S1-(g)	Fe1-(g)
Fe1+(g)	Gal-(g)	Gal+(g)	H1-(g)	H1+(g)
H1K1O1+(g)	H1Li1O1+(g)	H1Mg1O1+(g)	H1Na1O1+(g)	H1O1-(g)
H1O1+(g)	H1O1Sr1+(g)	H1Si1+(g)	H2-(g)	H2+(g)
H3O1+(g)	He1+(g)	Hf1-(g)	Hf1+(g)	Hg1+(g)
I1-(g)	I1+(g)	K1-(g)	K1+(g)	K1O1-(g)
Kr1+(g)	Li1-(g)	Li1+(g)	Li1O1-(g)	Mg1+(g)
Mn1+(g)	Mo1-(g)	Mo1+(g)	N1-(g)	N1+(g)
N1O1+(g)	N1O2-(g)	N2-(g)	N2+(g)	N2O1+(g)
Na1-(g)	Na1+(g)	Na1O1-(g)	Nb1-(g)	Nb1+(g)
Ne1+(g)	Ni1-(g)	Ni1+(g)	O1-(g)	O1+(g)
O2-(g)	O2+(g)	P1-(g)	P1+(g)	Pb1-(g)
Pb1+(g)	Rb1-(g)	Rb1+(g)	Rn1+(g)	S1-(g)
S1+(g)	Si1-(g)	Si1+(g)	Sr1+(g)	Ta1-(g)
Ta1+(g)	Ti1-(g)	Ti1+(g)	V1-(g)	V1+(g)
W1-(g)	W1+(g)	Xe1+(g)	Zn1-(g)	Zn1+(g)
Zr1-(g)	Zr1+(g)			

### Element 201 - Deuterium

Cl1D1(g)	Cl1D1O1(g)	D1(g)	D1-(g)	D1+(g)
D1F1(g)	D1H1(g)	D1H1-(g)	D1H1+(g)	D1H1O1(g)
D1N1(g)	D1O1(g)	D1S1(g)	D2-(g)	D2(ref)
D2+(g)	D2N1(g)	D2N2(g)	D2O1(g)	D2S1(g)
D3N1(g)				

## Appendix C Data Format

Data fits in the Aerotherm format developed here consist of a variable number of lines composed of up to 88 alpha-numeric characters. Each fit contains information on the chemical species (composition and molecular mass) and between one and eight temperature intervals providing coefficients for the determination of specific heat, enthalpy, and entropy.

The Aerotherm format is defined in table C-1.

Table C-1. Aerotherm thermochemical data format.

Line	Column	Format	Data	Unit	
1	1-3	I3	Number of atoms (atomic number given in following field) in a molecule of this species	—	
	7-9				
	13-15				
	19-21				
	25-27				
	31-33				
	37-39				
	4-6				
	10-12				
	16-18				
	22-24				
	28-30				
	34-36				
	40-42				
2...	43-70	A28	Source of thermochemical data	—	
	71-72	I2	Number of temperature intervals	—	
	73-87	A15	Name designation of species	—	
	1-54	6E9.6	Array of real thermodynamic constants for each temperature interval and each species	$h_f^0$	heat of formation at 298.15 K, cal/mol
				$\Delta h_{3,000K}$	enthalpy change from 298.15 K to 3000 K, cal/mol-K
$a_0$				specific heat curve fit constant 1, cal/mol-K	
$a_1$				specific heat curve fit constant 2, cal/mol-K <sup>2</sup>	
$a_2$				specific heat curve fit constant 3, cal-K/mol	
		$s_{3,000K}$	entropy at 3000 K,		

The constants are thus used to compute the thermodynamic properties according to:

$$C_p = a_0 + a_1 T + a_2 \frac{1}{T^2}$$

$$h = a_0(T - 3,000 K) + \frac{1}{2} a_1(T^2 - (3,000 K)^2) - a_2 \left( \frac{1}{T} - \frac{1}{3,000 K} \right) + \Delta h_{3,000K} + h_f^0$$

$$s = a_0 \ln(T/3000 K) + a_1(T - 3,000 K) - \frac{1}{2} a_2 \left( \frac{1}{T^2} - \frac{1}{(3,000 K)^2} \right) + s_{3,000K}$$

To	55-60	F6.0	$T_L$	Lower limit of temperature interval	K
Number of temperature intervals	61-66	F6.0	$T_U$	Upper limit of temperature interval	K
	67	I1	Phase specification = 1, Gas = 2, Solid = 3, Liquid		—
	68	I1	Phase index This field begins at 1 and is incremented each time there is a change in phase. At each phase transition, the thermodynamic properties can be discontinuous. A phase transition can occur even though there is no change in material state.		—
	69-72		Unused		
	73-88	A16	Species name		

These data are repeated for each chemical species in the database.

Example data for a single species are shown in figure C-1. These data are for the gas state ionic species aluminum chloride fluoride ion  $AlClF_2^+$  consisting of five temperature intervals covering 298.15 to 6000 K. The species composition is represented by one atom of element 13 (aluminum), one atom of element 17 (chlorine) and one element of atom 9 (fluorine). The positive ion is represented by a negative value of one for the electron (element 99). Note that the coefficients are stored in compressed scientific notation format consisting of the signed, six-digit mantissa and signed, single-digit exponent. There is no "E" separator. There is an implied decimal point at the beginning of the mantissa, so the value of the mantissa should be interpreted as being less than 1 but greater than or equal to 0.1.

Chemical Composition	Data Source	Number of Temperature Intervals	Chemical Formula
1 13 1 17 1 9 -1 99	JANNAF 1998		5Al1Cl1F1+ (g)
660000+5 482840+5 125033+2 331235-2-849286+5 993928+2298.15		400.11	Al1Cl1F1+ (g)
660000+5 417128+5 138682+2 105916-2-159103+6 960569+2		400. 597.11	Al1Cl1F1+ (g)
660000+5 395819+5 146779+2 145104-3-253192+6 950408+2		597. 996.11	Al1Cl1F1+ (g)
660000+5 393934+5 148886+2 426724-5-323048+6 949596+2		996. 3002.11	Al1Cl1F1+ (g)
660000+5 393934+5 149003+2 511591-6-326717+6 949596+2		3002. 6000.11	Al1Cl1F1+ (g)

Labels in Figure C-1:  
 - Brackets under the first row of data identify "Chemical Composition", "Data Source", and "Chemical Formula".  
 - A bracket under the first four columns of the data rows identifies "Fitting Coefficients".  
 - A bracket under the last two columns of the data rows identifies "Temperature".  
 - Arrows point from "Number of Temperature Intervals" to the temperature values and from "Phase Designation State Designation" to the chemical formula.

Figure C-1. Aerotherm data format example for aluminum chloride fluoride ion  $AlClF_2^+$ .



## Appendix D

### Description of Coefficient Optimization Fitting Technique

The goal of the fitting process is to minimize the difference between the specific heat values from the tabular data and the values calculated from the fitting equations. The specific heat data for a single fit is divided into several temperature intervals that vary in number from two to eight. The minimum number of intervals used was two, even for species exhibiting constant and linear relationships over the full data range. A higher number of intervals was employed for species with complex behavior such as species exhibiting several phase change points with discontinuities in properties or regions not well represented by the polynomial in equation (1). The specific heat-temperature fits were performed by a least squares minimization technique subjected to constraints such that for intervals covering one phase, the specific heat function was continuous at the intersection point of intervals. At intervals where a phase change occurred, the specific heat was discontinuous and no constraint was applied.

This problem is an example of optimization with constraints, the solution of which employs Lagrange multipliers (ref. D-1). The optimization consists of finding the coefficients of the specific heat polynomial for each interval subject to an equality constraint at the intersection of each interval. If there are  $n$  intervals and  $p$  phase change points, then there are  $n - p - 1$  constraints.

The general problem can be stated in terms of a Lagrangian  $\mathcal{L}$  that requires the minimization of individual interval fitting functions  $f_i$  with constraints  $g_i$  at the interval intersection points, both of which are functions of the fitting coefficients  $a_{0,1}, a_{1,1}, a_{2,1} \dots a_{0,n}, a_{1,n}, a_{2,n}$  in the  $n$  intervals, as shown in equation (D-1).

$$\begin{aligned} \mathcal{L}(a_{0,1}, a_{1,1}, a_{2,1} \dots a_{0,n}, a_{1,n}, a_{2,n}, \lambda_1 \dots \lambda_{n-1}) \\ = \sum_{i=1}^n f_i(a_{0,i}, a_{1,i}, a_{2,i}) \\ - \sum_{i=1}^{n-1} \lambda_i g_i(a_{0,i}, a_{1,i}, a_{2,i}, a_{0,i+1}, a_{1,i+1}, a_{2,i+1}) \end{aligned} \quad (\text{D-1})$$

The scalar quantities  $\lambda_i$  are the Lagrange multipliers.

The function to be minimized for a single interval  $i$  can be represented as shown in equation (D-2).

$$f_i(a_{0,i}, a_{1,i}, a_{2,i}) = \sum_{j=1}^{m_i} (Cp_i(T_{j,i}) - \overline{Cp}_i(T_{j,i}))^2 \quad (\text{D-2})$$

The quantity  $Cp_i(T_{j,i})$  is the calculated specific heat and  $\overline{Cp}_i(T_{j,i})$  is the tabular specific heat for temperature  $T_{j,i}$  at point  $j$  in interval  $i$  containing  $m_i$  temperature-specific heat data points, respectively. For interval points where no phase change occurred and the specific heat was continuous, the specific heat value on each side of the interval was constrained to be equal.

At these points, the temperature at the last point in interval  $i$ ,  $T_{m_i,i}$ , is equal to the first point in interval  $i + 1$ ,  $T_{1,i+1}$ , and the constraint becomes as shown in equation (D-3).

$$g(a_{0,i}, a_{1,i}, a_{2,i}, a_{0,i+1}, a_{1,i+1}, a_{2,i+1}, \Delta Cp_i) = Cp_i(T_{m_i,i}) - Cp_{i+1}(T_{1,i+1}) = 0 \quad (\text{D-3})$$

Using the definition for the specific heat fit presented in equation (1) yields equation (D-4):

$$C_p(T) = a_0 + a_1T + a_2\frac{1}{T^2} \quad (\text{D-4})$$

then equation (D-3) becomes equation (D-5):

$$\begin{aligned} g(a_{0,i}, a_{1,i}, a_{2,i}, a_{0,i+1}, a_{1,i+1}, a_{2,i+1}) & \quad (\text{D-5}) \\ &= a_{0,i} + a_{1,i}T_{i,m_i} + a_{2,i}\frac{1}{T_{i,m_i}^2} \\ &\quad - \left( a_{0,i+1} + a_{1,i+1}T_{i+1,i} + a_{2,i+1}\frac{1}{T_{i+1,i}^2} \right) = 0 \end{aligned}$$

or, in matrix notation, equation (D-6):

$$g(a_{0,i}, a_{1,i}, a_{2,i}, a_{0,i+1}, a_{1,i+1}, a_{2,i+1}) = [\bar{D}_i \quad -\bar{D}_i] \cdot \begin{bmatrix} \bar{A}_i \\ \bar{A}_{i+1} \end{bmatrix} \quad (\text{D-6})$$

where, equation (D-7):

$$\bar{A}_i = \begin{bmatrix} a_{0,i} \\ a_{1,i} \\ a_{2,i} \end{bmatrix} \quad (\text{D-7})$$

and equation (D-8).

$$\bar{D}_i = \begin{bmatrix} 1 & T_{m,i} & \frac{1}{T_{m,i}^2} \end{bmatrix} \quad (\text{D-8})$$

If point  $i$  is a phase change point, then no constraint is applied and  $\bar{D}_i$  is undefined.

Reference D-1 accords that the solution to the constrained optimization problem in equation (D-1) can be determined by solving equation (D-9) and equation (D-10):

$$\nabla \mathcal{L}(a_{0,1}, a_{1,1}, a_{2,1} \dots a_{0,n}, a_{1,n}, a_{2,n}, \lambda_1, \dots \lambda_{n-1}) = 0 \quad (\text{D-9})$$

$$\sum_{i=1}^n \nabla f_i(a_{0,i}, a_{1,i}, a_{2,i}) - \sum_{i=1}^{n-p-1} \nabla \lambda_i g_i(a_{0,i}, a_{1,i}, a_{2,i}, a_{0,i+1}, a_{1,i+1}, a_{2,i+1}) = 0 \quad (\text{D-10})$$

Taking the derivative of the  $i$ th term of the first summation in equation (D-2) with respect to the individual coefficients  $a_{0,i}$  through  $a_{2,i}$  results in the set of linear equations for interval  $i$  shown in equation (D-11):

$$\nabla f_i(a_{0,i}, a_{1,i}, a_{2,i}) = 2 \cdot \begin{bmatrix} m_i & \sum_{j=1}^{m_i} T_{j,i} & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}^2} \\ \sum_{j=1}^{m_i} T_{j,i} & \sum_{j=1}^{m_i} T_{j,i}^2 & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}} \\ \sum_{j=1}^{m_i} \frac{1}{T_{j,i}^2} & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}} & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}^4} \end{bmatrix} \cdot \begin{bmatrix} a_{0,i} \\ a_{1,i} \\ a_{2,i} \end{bmatrix} - 2 \cdot \begin{bmatrix} \sum_{j=1}^{m_i} \bar{c}p_i(T_{j,i}) \\ \sum_{j=1}^{m_i} \bar{c}p_i(T_{j,i}) \cdot T_{j,i} \\ \sum_{j=1}^{m_i} \bar{c}p_i(T_{j,i}) \cdot \frac{1}{T_{j,i}^2} \end{bmatrix} \quad (\text{D-11})$$

or, in compact matrix notation, equation (D-12):

$$\nabla f_i(a_{0,i}, a_{1,i}, a_{2,i}) = 2\bar{\bar{B}}_i \cdot \bar{A}_i - 2\bar{C}_i \quad (\text{D-12})$$

where, equation (D-13) and equation (D-14):

$$\bar{\bar{B}}_i = \begin{bmatrix} m_i & \sum_{j=1}^{m_i} T_{j,i} & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}^2} \\ \sum_{j=1}^{m_i} T_{j,i} & \sum_{j=1}^{m_i} T_{j,i}^2 & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}} \\ \sum_{j=1}^{m_i} \frac{1}{T_{j,i}^2} & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}} & \sum_{j=1}^{m_i} \frac{1}{T_{j,i}^4} \end{bmatrix} \quad (\text{D-13})$$

$$\bar{A}_i = \begin{bmatrix} a_{0,i} \\ a_{1,i} \\ a_{2,i} \end{bmatrix} \quad (\text{D-14})$$





## Appendix E

### Summary of Data Fits

This appendix provides a summary of all the data fits. Fits are provided for all the JANAF data tables except for the non-gas reference species. Combined fits of the crystal and liquid states are also given (denoted with an asterisk (“\*”) after the species formula. The combined fits are in the format needed for condensed species compatibility with Aerotherm codes such as ACE and BLIMP.

1 13	JANAF 1998					4All (cr)
000000+0	224773+5	581510+1	154805-2	-435787+5	241235+2298.15	500.21 All (cr)
000000+0	275833+5	432061+1	352073-2	834569+5	266245+2	500. 707.21 All (cr)
000000+0	322262+5	186593+1	583329-2	493185+6	287664+2	707. 934.21 All (cr)
000000+0	360294+5	-178048+1	842963-2	155871+7	304270+2	934. 1200.21 All (cr)
1 13	JANAF 1998					4All (cr, l)
000000+0	224771+5	581513+1	154797-2	-435803+5	241234+2298.15	500.21 All (cr, l)
000000+0	275637+5	432747+1	351261-2	827562+5	266151+2	500. 700.21 All (cr, l)
000000+0	321385+5	192446+1	578416-2	481090+6	287269+2	700.933.4521 All (cr, l)
000000+0	225401+5	758867+1	000000+0	207476-6	258798+2933.45	3000.32 All (cr, l)
1 13	JANAF 1998					6All (g)
788000+5	134647+5	496429+1	277472-5	130855+5	508447+2298.15	1084.11 All (g)
788000+5	134604+5	496458+1	132762-5	145895+5	508428+2	1084. 2941.11 All (g)
788000+5	134604+5	472673+1	552443-4	700328+6	508428+2	2941. 3716.11 All (g)
788000+5	134509+5	385498+1	211629-3	471335+7	508398+2	3716. 4434.11 All (g)
788000+5	133235+5	216870+1	464500-3	158227+8	508013+2	4434. 5022.11 All (g)
788000+5	129282+5	396394-2	751938-3	340122+8	506855+2	5022. 6000.11 All (g)
1 13 1 99	JANAF 1998					5All- (g)
671104+5	156599+5	457701+1	725883-3	196321+5	527969+2298.15	1000.11 All- (g)
671104+5	146711+5	560342+1	186685-4	-299557+6	523682+2	1000. 1341.11 All- (g)
671104+5	144518+5	608563+1	-235205-3	-554505+6	522786+2	1341. 2432.11 All- (g)
671104+5	144561+5	557859+1	-960726-4	443154+6	522801+2	2432. 3598.11 All- (g)
671104+5	144535+5	518556+1	-231675-4	213537+7	522793+2	3598. 6000.11 All- (g)
1 13	JANAF 1998					4All (l)
252438+4	222781+5	585142+1	148234-2	-450905+5	267160+2298.15	400.31 All (l)
252438+4	235412+5	555538+1	193317-2	-265765+5	273485+2	400. 525.31 All (l)
252438+4	278374+5	421665+1	363331-2	963952+5	294392+2	525. 720.31 All (l)
252438+4	200157+5	758867+1	000000+0	875199-7	258799+2	720. 3000.32 All (l)
1 13 -1 99	JANAF 1998					5All+ (g)
218144+6	134228+5	496782+1	983995-7	146011+2	472827+2298.15	3309.11 All+ (g)
218144+6	134227+5	483805+1	262410-4	473760+6	472826+2	3309. 4091.11 All+ (g)
218144+6	134043+5	431785+1	111012-3	337591+7	472770+2	4091. 4740.11 All+ (g)
218144+6	132824+5	333133+1	249744-3	107662+8	472407+2	4740. 5340.11 All+ (g)
218144+6	129040+5	191365+1	426696-3	242469+8	471315+2	5340. 6000.11 All+ (g)
1 13 1 5 2 8	JANAF 1998					5AllB1O2 (g)
-129400+6	722230+5	114117+2	938501-2	-140730+6	115322+3298.15	411.11 AllB1O2 (g)
-129400+6	589745+5	142502+2	479678-2	-301671+6	108618+3	411. 612.11 AllB1O2 (g)
-129400+6	518232+5	171675+2	163419-2	-669377+6	105233+3	612. 972.11 AllB1O2 (g)
-129400+6	499203+5	191840+2	256928-3	-130977+7	104409+3	972. 1710.11 AllB1O2 (g)
-129400+6	498322+5	198298+2	628987-5	-194494+7	104375+3	1710. 6000.11 AllB1O2 (g)
1 13 1 35	JANAF 1998					5AllBr1 (g)
379995+4	250333+5	880050+1	304891-3	-340399+5	781960+2298.15	481.11 AllBr1 (g)
379995+4	245429+5	893328+1	120828-3	-442766+5	779538+2	481. 2670.11 AllBr1 (g)
379995+4	245441+5	807085+1	336022-3	200788+7	779543+2	2670. 3542.11 AllBr1 (g)
379995+4	245320+5	567378+1	786756-3	120516+8	779504+2	3542. 4434.11 AllBr1 (g)
379995+4	243339+5	302268+1	118482-2	294723+8	778905+2	4434. 6000.11 AllBr1 (g)
1 13 3 35	JANAF 1998					5AllBr3 (cr)
-122200+6	189170+6	159706+2	328779-1	-155274+6	167911+3298.15	435.21 AllBr3 (cr)
-122200+6	777336+5	307907+2	-104102-2	-167647+6	109495+3	435. 700.21 AllBr3 (cr)
-122200+6	804138+5	295803+2	200054-3	-262328+3	110750+3	700. 1000.21 AllBr3 (cr)
-122200+6	804229+5	295654+2	208740-3	596358+4	110754+3	1000. 1200.21 AllBr3 (cr)
-122200+6	804126+5	295814+2	199285-3	-666905+3	110749+3	1200. 1500.21 AllBr3 (cr)

1 13 3 35	JANAF 1998				2Al1Br3 (cr, l)		
-122200+6	306000+6	-272731+1	699766-1	524695+6	228764+3298.15	370.621	Al1Br3 (cr, l)
-122200+6	830649+5	298674+2	000000+0	132218-7	118309+3	370.6	Al1Br3 (cr, l)
1 13 3 35	JANAF 1998				5Al1Br3 (g)		
-980999+5	574513+5	188014+2	156869-2	-111474+6	130518+3298.15	397.11	Al1Br3 (g)
-980999+5	540812+5	194858+2	421354-3	-147543+6	128803+3	397. 561.11	Al1Br3 (g)
-980999+5	532644+5	197576+2	895770-4	-174528+6	128408+3	561. 800.11	Al1Br3 (g)
-980999+5	531185+5	198534+2	860150-5	-194378+6	128342+3	800. 1466.11	Al1Br3 (g)
-980999+5	531127+5	198714+2	835571-7	-206132+6	128340+3	1466. 6000.11	Al1Br3 (g)
1 13 3 35	JANAF 1998				2Al1Br3 (l)		
-119833+6	806971+5	298674+2	000000+0	-630578-8	118307+3298.15	1000.31	Al1Br3 (l)
-119833+6	806971+5	298674+2	000000+0	-379734-5	118307+3	1000. 1500.31	Al1Br3 (l)
1 13 1 17	JANAF 1998				5Al1Cl1 (g)		
-123000+5	253815+5	864978+1	482120-3	-453488+5	754773+2298.15	508.11	Al1Cl1 (g)
-123000+5	244434+5	892769+1	118021-3	-693334+5	750184+2	508. 2794.11	Al1Cl1 (g)
-123000+5	244437+5	803004+1	332123-3	226827+7	750185+2	2794. 3668.11	Al1Cl1 (g)
-123000+5	244227+5	572861+1	750075-3	126063+8	750118+2	3668. 4558.11	Al1Cl1 (g)
-123000+5	241823+5	314748+1	112711-2	305275+8	749397+2	4558. 6000.11	Al1Cl1 (g)
1 13 1 17 -1 99	JANAF 1998				5Al1Cl1+ (g)		
206000+6	265497+5	831036+1	950555-3	-459732+5	769668+2298.15	442.11	Al1Cl1+ (g)
206000+6	243491+5	883302+1	161872-3	-799791+5	758651+2	442. 1554.11	Al1Cl1+ (g)
206000+6	246865+5	726894+1	832553-3	118025+7	759970+2	1554. 3146.11	Al1Cl1+ (g)
206000+6	246868+5	101123+2	230009-3	-819981+7	759971+2	3146. 4093.11	Al1Cl1+ (g)
206000+6	247830+5	128012+2	-207567-3	-232424+8	760268+2	4093. 6000.11	Al1Cl1+ (g)
1 13 1 17 1 9	JANAF 1998				5Al1Cl1F1 (g)		
-117000+6	433155+5	120484+2	248333-2	-999840+5	101557+3298.15	444.11	Al1Cl1F1 (g)
-117000+6	375842+5	134239+2	421981-3	-190711+6	986911+2	444. 732.11	Al1Cl1F1 (g)
-117000+6	367944+5	138728+2	144598-4	-271430+6	983293+2	732. 2826.11	Al1Cl1F1 (g)
-117000+6	367946+5	132126+2	170255-3	148507+7	983293+2	2826. 3892.11	Al1Cl1F1 (g)
-117000+6	367740+5	122006+2	343537-3	659841+7	983229+2	3892. 6000.11	Al1Cl1F1 (g)
1 13 1 17 1 9 -1 99	JANAF 1998				5Al1Cl1F1+ (g)		
660000+5	482840+5	125033+2	331235-2	-849286+5	993928+2298.15	400.11	Al1Cl1F1+ (g)
660000+5	417128+5	138682+2	105916-2	-159103+6	960569+2	400. 597.11	Al1Cl1F1+ (g)
660000+5	395819+5	146779+2	145104-3	-253192+6	950408+2	597. 996.11	Al1Cl1F1+ (g)
660000+5	393934+5	148886+2	426724-5	-323048+6	949596+2	996. 3002.11	Al1Cl1F1+ (g)
660000+5	393934+5	149003+2	511591-6	-326717+6	949596+2	3002. 6000.11	Al1Cl1F1+ (g)
1 13 1 17 2 9	JANAF 1998				5Al1Cl1F2 (g)		
-238800+6	685049+5	153895+2	613807-2	-140253+6	122493+3298.15	400.11	Al1Cl1F2 (g)
-238800+6	571792+5	177228+2	226464-2	-265682+6	116738+3	400. 553.11	Al1Cl1F2 (g)
-238800+6	530429+5	191181+2	575545-3	-406745+6	114742+3	553. 800.11	Al1Cl1F2 (g)
-238800+6	521417+5	197259+2	684409-4	-536069+6	114336+3	800. 1387.11	Al1Cl1F2 (g)
-238800+6	520945+5	198666+2	852954-6	-626389+6	114317+3	1387. 6000.11	Al1Cl1F2 (g)
1 13 1 17 1 8	JANAF 1998				5Al1Cl1O1 (cr)		
-189600+6	400770+5	186678+2	-205686-2	-396025+6	483369+2298.15	426.21	Al1Cl1O1 (cr)
-189600+6	540867+5	178475+2	166269-2	-534715+6	559354+2	426. 700.21	Al1Cl1O1 (cr)
-189600+6	521067+5	192420+2	518449-3	-825532+6	550524+2	700. 1259.21	Al1Cl1O1 (cr)
-189600+6	515181+5	201622+2	-262346-4	-119719+7	548066+2	1259. 2066.21	Al1Cl1O1 (cr)
-189600+6	514657+5	201799+2	-816615-4	-783633+6	547869+2	2066. 3000.21	Al1Cl1O1 (cr)
1 13 1 17 1 8	JANAF 1998				5Al1Cl1O1 (g)		
-832000+5	492510+5	121633+2	375740-2	-117105+6	970518+2298.15	400.11	Al1Cl1O1 (g)
-832000+5	424609+5	135549+2	143899-2	-191386+6	935999+2	400. 544.11	Al1Cl1O1 (g)
-832000+5	398218+5	144192+2	373998-3	-275704+6	923222+2	544. 800.11	Al1Cl1O1 (g)
-832000+5	392273+5	148140+2	421612-4	-358454+6	920539+2	800. 1396.11	Al1Cl1O1 (g)
-832000+5	391983+5	149008+2	508375-6	-414288+6	920423+2	1396. 6000.11	Al1Cl1O1 (g)
1 13 2 17	JANAF 1998				5Al1Cl2 (g)		
-670000+5	400588+5	130721+2	112817-2	-949465+5	101847+3298.15	459.11	Al1Cl2 (g)
-670000+5	372273+5	137872+2	915800-4	-145355+6	100438+3	459. 1015.11	Al1Cl2 (g)
-670000+5	370875+5	138834+2	110129-4	-160259+6	100376+3	1015. 2782.11	Al1Cl2 (g)
-670000+5	370878+5	132467+2	163569-3	148303+7	100376+3	2782. 3868.11	Al1Cl2 (g)
-670000+5	370682+5	122075+2	342614-3	666995+7	100370+3	3868. 6000.11	Al1Cl2 (g)

1 13 2 17 1 99	JANAF 1998	5A11C12- (g)
-115000+6 386183+5 134593+2 568786-3-930074+5 100370+3298.15 512.11		A11C12- (g)
-115000+6 371817+5 138914+2 794691-5-131019+6 996680+2 512. 2749.11		A11C12- (g)
-115000+6 371821+5 132730+2 157997-3 142564+7 996681+2 2749. 3578.11		A11C12- (g)
-115000+6 371740+5 119283+2 408524-3 716478+7 996655+2 3578. 4429.11		A11C12- (g)
-115000+6 370748+5 105785+2 611617-3 159985+8 996355+2 4429. 6000.11		A11C12- (g)
1 13 2 17 -1 99	JANAF 1998	5A11C12+ (g)
115000+6 452290+5 134767+2 203453-2-820609+5 100244+3298.15 400.11		A11C12+ (g)
115000+6 410262+5 143386+2 599238-3-128112+6 981079+2 400. 572.11		A11C12+ (g)
115000+6 398687+5 147435+2 119506-3-170814+6 975512+2 572. 814.11		A11C12+ (g)
115000+6 396868+5 148740+2 137849-4-200245+6 974697+2 814. 1414.11		A11C12+ (g)
115000+6 396777+5 149028+2 177460-6-219406+6 974661+2 1414. 6000.11		A11C12+ (g)
1 13 2 17 1 9	JANAF 1998	5A11C12F1 (g)
-189000+6 645554+5 166680+2 447517-2-138500+6 124203+3298.15 400.11		A11C12F1 (g)
-189000+6 565526+5 182857+2 175450-2-223214+6 120129+3 400. 520.11		A11C12F1 (g)
-189000+6 531980+5 193281+2 428425-3-318621+6 118496+3 520. 800.11		A11C12F1 (g)
-189000+6 524973+5 197818+2 423357-4-411304+6 118179+3 800. 1409.11		A11C12F1 (g)
-189000+6 524681+5 198689+2 481517-6-467060+6 118168+3 1409. 6000.11		A11C12F1 (g)
1 13 3 17	JANAF 1998	2A11C13 (cr)
-168650+6 135493+6 155218+2 209977-1-142270+3 118688+3298.15 664.21		A11C13 (cr)
-168650+6 135499+6 155201+2 209999-1-711161+2 118691+3 664. 1500.21		A11C13 (cr)
1 13 3 17	JANAF 1998	2A11C13 (cr, l)
-168650+6 135488+6 155228+2 209959-1-181992+3 118685+3298.15 465.721		A11C13 (cr, l)
-168650+6 884230+5 300000+2 000000+0-372756-7 110589+3 465.7 1500.32		A11C13 (cr, l)
1 13 3 17	JANAF 1998	5A11C13 (g)
-139720+6 604411+5 179347+2 278539-2-141049+6 123287+3298.15 402.11		A11C13 (g)
-139720+6 544150+5 191810+2 721889-3-208407+6 120226+3 402. 600.11		A11C13 (g)
-139720+6 529782+5 197098+2 113749-3-267406+6 119539+3 600. 901.11		A11C13 (g)
-139720+6 528161+5 198452+2 113699-4-302470+6 119467+3 901. 1554.11		A11C13 (g)
-139720+6 528102+5 198709+2 161835-6-322364+6 119465+3 1554. 6000.11		A11C13 (g)
1 13 3 17	JANAF 1998	2A11C13 (l)
-161282+6 810555+5 300000+2 000000+0 669728-8 110589+3298.15 1000.31		A11C13 (l)
-161282+6 810555+5 300000+2 000000+0 460425-5 110589+3 1000. 1500.31		A11C13 (l)
1 13 4 17 1 19	JANAF 1998	3A11C14K1 (cr)
-286000+6 178363+6 310533+2 211993-1 239374+4 175986+3298.15 600.21		A11C14K1 (cr)
-286000+6 143928+6 445554+2 622919-2-162482+7 159619+3 600. 800.21		A11C14K1 (cr)
-286000+6 126719+6 540487+2-253599-2-321271+7 151731+3 800. 1000.21		A11C14K1 (cr)
1 13 4 17 1 11	JANAF 1998	3A11C14Na1 (cr)
-273000+6 173182+6 322258+2 193880-1-900584+5 171284+3298.15 600.21		A11C14Na1 (cr)
-273000+6 129425+6 491349+2 483697-3-209398+7 150456+3 600. 800.21		A11C14Na1 (cr)
-273000+6 118641+6 592377+2-681490-2-482291+7 145772+3 800. 1000.21		A11C14Na1 (cr)
1 13 6 17 3 19	JANAF 1998	5A11C16K3 (cr)
-500000+6 102225+6 772474+2-232472-1-962386+6 200176+3298.15 400.21		A11C16K3 (cr)
-500000+6 233934+6 566125+2 183770-1-324745+6 268779+3 400. 720.21		A11C16K3 (cr)
-500000+6 216852+6 662170+2 961011-2-203150+7 260946+3 720. 1000.21		A11C16K3 (cr)
-500000+6 211768+6 743480+2 483222-2-538464+7 258833+3 1000. 1506.21		A11C16K3 (cr)
-500000+6 209775+6 814388+2 158264-2-103674+8 258043+3 1506. 2000.21		A11C16K3 (cr)
1 13 6 17 3 11	JANAF 1998	5A11C16Na3 (cr)
-473000+6 838367+5 787399+2-282096-1-106510+7 182643+3298.15 410.21		A11C16Na3 (cr)
-473000+6 225332+6 563556+2 166407-1-393425+6 256216+3 410. 700.21		A11C16Na3 (cr)
-473000+6 210364+6 647579+2 896290-2-187709+7 249353+3 700. 1046.21		A11C16Na3 (cr)
-473000+6 208240+6 678639+2 708755-2-312918+7 248459+3 1046. 1387.21		A11C16Na3 (cr)
-473000+6 206036+6 768306+2 310120-2-974232+7 247595+3 1387. 2000.21		A11C16Na3 (cr)
1 13 1 9	JANAF 1998	5A11F1 (g)
-635000+5 280030+5 764458+1 168028-2-457042+5 733325+2298.15 488.11		A11F1 (g)
-635000+5 244679+5 862388+1 342259-3-123422+6 715910+2 488. 802.11		A11F1 (g)
-635000+5 240440+5 891163+1 102914-3-185035+6 714001+2 802. 3305.11		A11F1 (g)
-635000+5 240426+5 752083+1 383175-3 488912+7 713996+2 3305. 4480.11		A11F1 (g)
-635000+5 237898+5 440708+1 845965-3 257713+8 713234+2 4480. 6000.11		A11F1 (g)
1 13 1 9 -1 99	JANAF 1998	5A11F1+ (g)
165400+6 293679+5 711395+1 229876-2-315178+5 750305+2298.15 568.11		A11F1+ (g)
165400+6 266662+5 737731+1 150878-2 282810+5 736369+2 568. 1693.11		A11F1+ (g)
165400+6 260690+5 114343+2-902816-4-384060+7 734080+2 1693. 2539.11		A11F1+ (g)
165400+6 260458+5 121975+2-360568-3-433625+7 733999+2 2539. 3944.11		A11F1+ (g)
165400+6 259886+5 977007+1 499448-4 823760+7 733821+2 3944. 6000.11		A11F1+ (g)



1 13 1 9 1 8	JANAF 1998				4A11F101 (g)
-139000+6 510543+5 111849+2 476156-2-126127+6 946797+2298.15 438.11					A11F101 (g)
-139000+6 414010+5 134620+2 131002-2-272945+6 898438+2 438. 664.11					A11F101 (g)
-139000+6 389578+5 146207+2 153853-3-445362+6 887045+2 664. 1194.11					A11F101 (g)
-139000+6 388098+5 148951+2 146553-5-577198+6 886432+2 1194. 6000.11					A11F101 (g)
1 13 2 9	JANAF 1998				4A11F2 (g)
-166000+6 467148+5 108433+2 397366-2-950535+5 983630+2298.15 448.11					A11F2 (g)
-166000+6 379405+5 129796+2 802150-3-238652+6 939819+2 448. 732.11					A11F2 (g)
-166000+6 364440+5 138287+2 307223-4-391034+6 932962+2 732. 3320.11					A11F2 (g)
-166000+6 364425+5 124159+2 314272-3 480568+7 932957+2 3320. 6000.11					A11F2 (g)
1 13 2 9 1 99	JANAF 1998				5A11F2- (g)
-217000+6 455711+5 112648+2 346828-2-105222+6 969190+2298.15 451.11					A11F2- (g)
-217000+6 375351+5 132438+2 552142-3-240234+6 929113+2 451. 773.11					A11F2- (g)
-217000+6 365464+5 138711+2 130401-4-366063+6 924631+2 773. 3306.11					A11F2- (g)
-217000+6 391313+5 146644+2 129826+2 192297-3 286763+7 924628+2 3306. 4428.11					A11F2- (g)
-217000+6 364287+5 113868+2 432490-3 133026+8 924275+2 4428. 6000.11					A11F2- (g)
1 13 2 9 -1 99	JANAF 1998				4A11F2+ (g)
220000+5 498087+5 115922+2 421409-2-952225+5 947868+2298.15 442.11					A11F2+ (g)
220000+5 412358+5 136394+2 113596-2-229378+6 904977+2 442. 675.11					A11F2+ (g)
220000+5 391313+5 146644+2 127667-3-386316+6 895189+2 675. 1219.11					A11F2+ (g)
220000+5 390131+5 148965+2 123663-5-502096+6 894701+2 1219. 6000.11					A11F2+ (g)
1 13 2 9 1 8	JANAF 1998				5A11F201 (g)
-265000+6 682160+5 150167+2 630963-2-155465+6 120784+3298.15 436.11					A11F201 (g)
-265000+6 551454+5 180786+2 164713-2-351098+6 114231+3 436. 664.11					A11F201 (g)
-265000+6 520210+5 195525+2 172318-3-569155+6 112774+3 664. 2034.11					A11F201 (g)
-265000+6 520964+5 190278+2 389341-3-224670+6 112802+3 2034. 3860.11					A11F201 (g)
-265000+6 521305+5 208715+2 712033-4-939813+7 112813+3 3860. 6000.11					A11F201 (g)
1 13 2 9 1 8 1 99	JANAF 1998				5A11F201- (g)
-313000+6 714612+5 143249+2 744762-2-141009+6 120469+3298.15 408.11					A11F201- (g)
-313000+6 574051+5 172924+2 260280-2-305931+6 113346+3 408. 603.11					A11F201- (g)
-313000+6 525155+5 191220+2 518779-3-514276+6 111011+3 603. 900.11					A11F201- (g)
-313000+6 517936+5 197295+2 610547-4-672645+6 110692+3 900. 1497.11					A11F201- (g)
-313000+6 517606+5 198658+2 950190-6-776508+6 110679+3 1497. 6000.11					A11F201- (g)
1 13 3 9	JANAF 1998				4A11F3 (cr)
-361000+6 941327+5 186667+2 100305-1-328938+6 842564+2298.15 400.21					A11F3 (cr)
-361000+6 902727+5 182684+2 933860-2-220919+6 819863+2 400. 600.21					A11F3 (cr)
-361000+6 196044+6-238275+2 556172-1 493741+7 132182+3 600. 728.21					A11F3 (cr)
-361000+6 689432+5 220686+2 220925-2-184250+6 714684+2 728. 3000.22					A11F3 (cr)
1 13 3 9	JANAF 1998				5A11F3 (cr, l)
-361000+6 941327+5 186667+2 100305-1-328938+6 842564+2298.15 400.21					A11F3 (cr, l)
-361000+6 902727+5 182684+2 933860-2-220919+6 819863+2 400. 600.21					A11F3 (cr, l)
-361000+6 196044+6-238275+2 556172-1 493741+7 132182+3 600. 728.21					A11F3 (cr, l)
-361000+6 689377+5 220924+2 219762-2-194225+6 714668+2 728. 2523.22					A11F3 (cr, l)
-361000+6 933271+5 300000+2 000000+0-309061-4 811066+2 2523. 4000.33					A11F3 (cr, l)
1 13 3 9	JANAF 1998				5A11F3 (g)
-289035+6 720580+5 141137+2 770666-2-136594+6 118751+3298.15 409.11					A11F3 (g)
-289035+6 575944+5 171731+2 271829-2-307075+6 111423+3 409. 600.11					A11F3 (g)
-289035+6 524754+5 190975+2 532322-3-527686+6 108980+3 600. 911.11					A11F3 (g)
-289035+6 517389+5 197280+2 608152-4-694459+6 108655+3 911. 1548.11					A11F3 (g)
-289035+6 517076+5 198658+2 946001-6-802655+6 108642+3 1548. 6000.11					A11F3 (g)
1 13 3 9	JANAF 1998				5A11F3 (l)
-340048+6 647876+5 232024+2 473721-3-416343+4 776220+2298.15 494.31					A11F3 (l)
-340048+6 631542+5 237873+2-210914-3-643635+5 768413+2 494. 789.31					A11F3 (l)
-340048+6 695506+5 219502+2 230654-2-157213+6 798843+2 789. 1004.31					A11F3 (l)
-340048+6 693590+5 221222+2 218024-2-202724+6 798004+2 1004. 1850.31					A11F3 (l)
-340048+6 723803+5 300000+2 000000+0 814024-5 811199+2 1850. 4000.32					A11F3 (l)
1 13 4 9 1 99	JANAF 1998				5A11F4- (g)
-476000+6 897064+5 200156+2 816577-2-250233+6 137301+3298.15 392.11					A11F4- (g)
-476000+6 746026+5 230869+2 302145-2-412299+6 129616+3 392. 529.11					A11F4- (g)
-476000+6 688333+5 249097+2 726016-3-582583+6 126813+3 529. 800.11					A11F4- (g)
-476000+6 676507+5 256787+2 729368-4-740372+6 126278+3 800. 1399.11					A11F4- (g)
-476000+6 675998+5 258280+2 870110-6-835346+6 126257+3 1399. 6000.11					A11F4- (g)

1 13 4 9 1 3	JANAF 1998					5Al1F4Li1 (g)
-443000+6	104710+6	254228+2	832900-2	-360642+6	157199+3298.15	378.11 Al1F4Li1 (g)
-443000+6	907052+5	285966+2	338497-2	-547098+6	150168+3	378. 560.11 Al1F4Li1 (g)
-443000+6	844371+5	307226+2	819704-3	-763306+6	147145+3	560. 800.11 Al1F4Li1 (g)
-443000+6	831542+5	315872+2	980508-4	-947158+6	146566+3	800. 1400.11 Al1F4Li1 (g)
-443000+6	830855+5	317876+2	118817-5	-107417+7	146539+3	1400. 6000.11 Al1F4Li1 (g)
1 13 4 9 1 11	JANAF 1998					5Al1F4Na1 (g)
-440000+6	107360+6	254150+2	887807-2	-285980+6	163478+3298.15	400.11 Al1F4Na1 (g)
-440000+6	905141+5	288659+2	312697-2	-470056+6	154913+3	400. 549.11 Al1F4Na1 (g)
-440000+6	847155+5	307923+2	773594-3	-661253+6	152110+3	549. 800.11 Al1F4Na1 (g)
-440000+6	834951+5	315984+2	942106-4	-829322+6	151559+3	800. 1320.11 Al1F4Na1 (g)
-440000+6	834264+5	317877+2	119721-5	-945236+6	151531+3	1320. 6000.11 Al1F4Na1 (g)
1 13 6 9 3 19	JANAF 1998					5Al1F6K3 (cr)
-795000+6	106785+6	734945+2	-197349-1	-127656+7	177252+3298.15	400.21 Al1F6K3 (cr)
-795000+6	242522+6	508083+2	239096-1	-440008+6	247585+3	400. 704.21 Al1F6K3 (cr)
-795000+6	208804+6	718462+2	565795-2	-449851+7	232306+3	704. 1073.21 Al1F6K3 (cr)
-795000+6	204532+6	801228+2	109995-2	-839676+7	230556+3	1073. 1656.21 Al1F6K3 (cr)
-795000+6	203090+6	908544+2	-305901-2	-189393+8	230007+3	1656. 2000.21 Al1F6K3 (cr)
1 13 6 9 3 3	JANAF 1998					5Al1F6Li3 (cr)
-808700+6	247325+6	493510+2	261096-1	-776779+6	225065+3298.15	503.21 Al1F6Li3 (cr)
-808700+6	228306+6	548798+2	187806-1	-124290+7	215743+3	503. 748.21 Al1F6Li3 (cr)
-808700+6	240826+6	479878+2	250102-1	258038+4	221911+3	748. 848.22 Al1F6Li3 (cr)
-808700+6	241118+6	479904+2	250070-1	265531+4	222262+3	848. 978.23 Al1F6Li3 (cr)
-808700+6	241208+6	479998+2	250001-1	153276+3	222359+3	978. 1600.24 Al1F6Li3 (cr)
1 13 6 9 3 3	JANAF 1998					6Al1F6Li3 (cr, l)
-808700+6	247325+6	493510+2	261096-1	-776779+6	225065+3298.15	503.21 Al1F6Li3 (cr, l)
-808700+6	228306+6	548798+2	187806-1	-124290+7	215743+3	503. 748.21 Al1F6Li3 (cr, l)
-808700+6	240826+6	479878+2	250102-1	258038+4	221911+3	748. 848.22 Al1F6Li3 (cr, l)
-808700+6	241118+6	479904+2	250070-1	265531+4	222262+3	848. 978.23 Al1F6Li3 (cr, l)
-808700+6	241240+6	479621+2	250248-1	130616+5	222373+3	978. 1058.24 Al1F6Li3 (cr, l)
-808700+6	237096+6	860000+2	000000+0	344776-5	232885+3	1058. 3000.35 Al1F6Li3 (cr, l)
1 13 6 9 3 3	JANAF 1998					5Al1F6Li3 (l)
-792935+6	247424+6	493338+2	261417-1	-776107+6	238968+3298.15	497.31 Al1F6Li3 (l)
-792935+6	229509+6	544351+2	192916-1	-119523+7	230168+3	497. 700.31 Al1F6Li3 (l)
-792935+6	221332+6	860000+2	000000+0	102394-4	232887+3	700. 1000.32 Al1F6Li3 (l)
-792935+6	221332+6	860000+2	000000+0	120973-4	232887+3	1000. 1500.32 Al1F6Li3 (l)
-792935+6	221332+6	860000+2	000000+0	220620-4	232887+3	1500. 3000.32 Al1F6Li3 (l)
1 13 6 9 3 11	JANAF 1998					3Al1F6Na3 (cr)_01
-792760+6	232286+6	514198+2	213278-1	-552805+6	230257+3298.15	400.21 Al1F6Na3 (cr)_01
-792760+6	278842+6	380297+2	392494-1	442635+6	252929+3	400. 600.21 Al1F6Na3 (cr)_01
-792760+6	263658+6	431839+2	330291-1	-692759+5	245613+3	600. 1200.21 Al1F6Na3 (cr)_01
1 13 6 9 3 11	JANAF 1998					3Al1F6Na3 (cr)_02
-786038+6	253400+6	294827+2	386613-1	491681+6	243352+3298.15	567.21 Al1F6Na3 (cr)_02
-786038+6	253970+6	291861+2	389444-1	535401+6	243613+3	567. 800.21 Al1F6Na3 (cr)_02
-786038+6	253427+6	294244+2	386946-1	510835+6	243360+3	800. 1500.21 Al1F6Na3 (cr)_02
1 13 6 9 3 11	JANAF 1998					4Al1F6Na3 (cr, l)
-792760+6	206665+6	557951+2	130394-1	-722414+6	217020+3298.15	500.21 Al1F6Na3 (cr, l)
-792760+6	263791+6	431304+2	330819-1	-615580+5	245719+3	500. 836.21 Al1F6Na3 (cr, l)
-792760+6	260195+6	294169+2	387019-1	509968+6	243439+3	836. 1285.22 Al1F6Na3 (cr, l)
-792760+6	255731+6	945301+2	000000+0	-457997-5	252613+3	1285. 3000.33 Al1F6Na3 (cr, l)
1 13 6 9 3 11	JANAF 1998					3Al1F6Na3 (l)
-775925+6	206660+6	557960+2	130376-1	-722450+6	228392+3298.15	501.31 Al1F6Na3 (l)
-775925+6	263397+6	433041+2	329014-1	-848771+5	256909+3	501. 790.31 Al1F6Na3 (l)
-775925+6	238896+6	945301+2	000000+0	393233-6	252612+3	790. 3000.32 Al1F6Na3 (l)
1 13 1 1	JANAF 1998					5Al1H1 (g)
620000+5	286497+5	587933+1	284727-2	259791+5	662860+2298.15	494.11 Al1H1 (g)
620000+5	261596+5	666860+1	185488-2	-469963+5	650774+2	494. 733.11 Al1H1 (g)
620000+5	239464+5	792872+1	712008-3	-273939+6	640636+2	733. 1091.11 Al1H1 (g)
620000+5	234078+5	869599+1	244747-3	-580423+6	638360+2	1091. 1849.11 Al1H1 (g)
620000+5	233873+5	892557+1	162358-3	-844528+6	638284+2	1849. 6000.11 Al1H1 (g)
1 13 1 1 1 8	JANAF 1998					5Al1H1O1 (g)_01
800000+4	646867+5	509659+1	114425-1	-219315+5	939819+2298.15	420.11 Al1H1O1 (g)_01
800000+4	485998+5	864724+1	581704-2	-231486+6	858669+2	420. 600.11 Al1H1O1 (g)_01
800000+4	391521+5	123057+2	173174-2	-666107+6	813707+2	600. 900.11 Al1H1O1 (g)_01
800000+4	368183+5	143098+2	235166-3	-119843+7	803418+2	900. 1295.11 Al1H1O1 (g)_01
800000+4	367349+5	148624+2	668413-5	-162890+7	803120+2	1295. 6000.11 Al1H1O1 (g)_01

1 13 1 1 1 8	JANAF 1998	5A11H101(g)_02
-430000+5 524717+5 504270+1 871980-2-148013+4 868956+2298.15 486.11		A11H101(g)_02
-430000+5 385270+5 891235+1 343845-2-309224+6 800273+2 486. 800.11		A11H101(g)_02
-430000+5 350147+5 113147+2 144739-2-827331+6 784464+2 800. 1371.11		A11H101(g)_02
-430000+5 342342+5 135899+2 347589-3-226969+7 781329+2 1371. 2339.11		A11H101(g)_02
-430000+5 342195+5 147390+2 219893-4-438967+7 781277+2 2339. 6000.11		A11H101(g)_02
1 13 1 1 1 8 1 99	JANAF 1998	5A11H101-(g)
-550000+5 436413+5 760360+1 520989-2-382230+5 887083+2298.15 469.11		A11H101-(g)
-550000+5 345796+5 998290+1 184625-2-214578+6 842192+2 469. 928.11		A11H101-(g)
-550000+5 333677+5 111497+2 101688-2-556629+6 836903+2 928. 1511.11		A11H101-(g)
-550000+5 329532+5 128938+2 251380-3-189780+7 835274+2 1511. 2498.11		A11H101-(g)
-550000+5 329486+5 137709+2 181837-4-373557+7 835258+2 2498. 6000.11		A11H101-(g)
1 13 1 1 1 8 -1 99	JANAF 1998	5A11H101+(g)
130000+6 532355+5 599345+1 834188-2-415678+5 907773+2298.15 459.11		A11H101+(g)
130000+6 382321+5 981192+1 283417-2-313438+6 833206+2 459. 771.11		A11H101+(g)
130000+6 354826+5 115876+2 132125-2-675580+6 820764+2 771. 1376.11		A11H101+(g)
130000+6 347889+5 136482+2 330409-3-199562+7 817981+2 1376. 2351.11		A11H101+(g)
130000+6 347756+5 147443+2 212499-4-403657+7 817934+2 2351. 6000.11		A11H101+(g)
1 13 1 1 2 8	JANAF 1998	5A11H102(g)
-110000+6 664634+5 109233+2 837994-2-128102+6 107922+3298.15 460.11		A11H102(g)
-110000+6 517640+5 146703+2 298084-2-395441+6 100618+3 460. 787.11		A11H102(g)
-110000+6 488204+5 166296+2 133569-2-807070+6 992893+2 787. 1350.11		A11H102(g)
-110000+6 480657+5 187102+2 313836-3-208477+7 989851+2 1350. 2301.11		A11H102(g)
-110000+6 480496+5 197336+2 185806-4-390645+7 989793+2 2301. 6000.11		A11H102(g)
1 13 4 1 1 3	JANAF 1998	5A11H4Li1(cr)
-280000+5-195920+6 691457+2-844977-1-207146+7-591947+2298.15 404.21		A11H4Li1(cr)
-280000+5 888623+5 236854+2 596066-2-616361+6 888661+2 404. 703.21		A11H4Li1(cr)
-280000+5 766881+5 292163+2 307881-3-138587+7 831713+2 703. 1184.21		A11H4Li1(cr)
-280000+5 771810+5 278979+2 966156-3-630254+6 833685+2 1184. 1557.21		A11H4Li1(cr)
-280000+5 772515+5 277423+2 105025-2-570388+6 833968+2 1557. 2000.21		A11H4Li1(cr)
1 13 1 53	JANAF 1998	5A11I1(g)
162400+5 249336+5 885559+1 243730-3-261102+5 801653+2298.15 450.11		A11I1(g)
162400+5 246058+5 893511+1 125418-3-314311+5 800016+2 450. 2468.11		A11I1(g)
162400+5 246115+5 808754+1 354208-3 169180+7 800036+2 2468. 3280.11		A11I1(g)
162400+5 246097+5 568144+1 843031-3 103282+8 800030+2 3280. 4100.11		A11I1(g)
162400+5 245099+5 298097+1 128108-2 255320+8 799722+2 4100. 6000.11		A11I1(g)
1 13 3 53	JANAF 1998	5A11I3(cr)
-724001+5 162754+6 140983+2 279054-1 108752+6 155422+3298.15 445.21		A11I3(cr)
-724001+5 966584+5 274093+2 544489-2-547914+6 121815+3 445. 600.21		A11I3(cr)
-724001+5 800601+5 334905+2-156757-2-122247+7 113873+3 600. 1000.21		A11I3(cr)
-724001+5 818832+5 318743+2-374161-3-799655+6 114672+3 1000. 1200.21		A11I3(cr)
-724001+5 827610+5 298708+2 668912-3 282961+6 115029+3 1200. 1500.21		A11I3(cr)
1 13 3 53	JANAF 1998	2A11I3(cr,1)
-724001+5 146751+6 168308+2 227285-1 283144+4 147153+3298.15464.1521		A11I3(cr,1)
-724001+5 815750+5 290000+2 000000+0-183776-7 120407+3464.15 1500.32		A11I3(cr,1)
1 13 3 53	JANAF 1998	5A11I3(g)
-462000+5 561310+5 191663+2 103902-2-936407+5 135807+3298.15 400.11		A11I3(g)
-462000+5 539431+5 196086+2 295214-3-116804+6 134693+3 400. 537.11		A11I3(g)
-462000+5 533504+5 197978+2 583957-4-134711+6 134405+3 537. 800.11		A11I3(g)
-462000+5 532545+5 198609+2 516661-5-147797+6 134362+3 800. 1371.11		A11I3(g)
-462000+5 532510+5 198715+2 701612-7-154624+6 134360+3 1371. 6000.11		A11I3(g)
1 13 3 53	JANAF 1998	2A11I3(1)
-691788+5 783537+5 290000+2 000000+0 276720-7 120408+3298.15 1000.31		A11I3(1)
-691788+5 783537+5 290000+2 000000+0 631374-6 120408+3 1000. 2000.31		A11I3(1)
1 13 1 3 2 8	JANAF 1998	5A11Li102(cr)
-284100+6 845913+5 197151+2 737478-2-508005+6 753560+2298.15 401.21		A11Li102(cr)
-284100+6 707737+5 220734+2 290600-2-599078+6 682095+2 401. 781.21		A11Li102(cr)
-284100+6 707621+5 220803+2 289989-2-600346+6 682042+2 781. 1460.21		A11Li102(cr)
-284100+6 707732+5 220168+2 292607-2-546500+6 682085+2 1460. 1900.21		A11Li102(cr)
-284100+6 707667+5 219562+2 293919-2-417954+6 682059+2 1900. 2200.21		A11Li102(cr)
1 13 1 3 2 8	JANAF 1998	5A11Li102(cr,1)
-284100+6 846495+5 197053+2 739352-2-507631+6 753862+2298.15 400.21		A11Li102(cr,1)
-284100+6 707571+5 220808+2 289838-2-600022+6 682016+2 400. 830.21		A11Li102(cr,1)
-284100+6 707461+5 220979+2 288804-2-605894+6 681972+2 830. 1100.21		A11Li102(cr,1)
-284100+6 707642+5 220729+2 290342-2-596111+6 682049+2 1100. 1973.21		A11Li102(cr,1)
-284100+6 925945+5 300000+2 000000+0-735661-5 792323+2 1973. 4000.32		A11Li102(cr,1)

1 13 1 3 2 8	JANAF 1998			2A11Li1O2 (l)
-264756+6	707676+5	220778+2	290159-2-599682+6 778699+2298.15	1450.31 A11Li1O2 (l)
-264756+6	732539+5	300000+2	000000+0-446489-6 792416+2 1450. 4000.32	A11Li1O2 (l)
1 13 1 7	JANAF 1998			5A11N1 (cr)
-760000+5	432929+5	814447+1	492364-2-215100+6 357228+2298.15	463.21 A11N1 (cr)
-760000+5	341774+5	106790+2	146808-2-415443+6 312359+2 463. 700.21	A11N1 (cr)
-760000+5	320533+5	117719+2	423780-3-592771+6 302534+2 700. 1035.21	A11N1 (cr)
-760000+5	316211+5	122724+2	938492-4-763126+6 300677+2 1035. 1588.21	A11N1 (cr)
-760000+5	315817+5	124607+2	136954-4-916949+6 300524+2 1588. 3000.21	A11N1 (cr)
1 13 1 7	JANAF 1998			5A11N1 (g)
125000+6	285454+5	768175+1	177719-2-423370+5 769007+2298.15	446.11 A11N1 (g)
125000+6	247605+5	859647+1	412614-3-103229+6 750093+2 446. 739.11	A11N1 (g)
125000+6	242117+5	891421+1	126857-3-161423+6 747584+2 739. 2640.11	A11N1 (g)
125000+6	242124+5	854464+1	220225-3 696345+6 747586+2 2640. 3554.11	A11N1 (g)
125000+6	242095+5	799263+1	323786-3 301983+7 747577+2 3554. 6000.11	A11N1 (g)
1 13 1 11 2 8	JANAF 1998			5A11Na1O2 (cr)
-270840+6	842885+5	187708+2	774466-2-309217+6 793662+2298.15	499.21 A11Na1O2 (cr)
-270840+6	825941+5	191909+2	712798-2-337197+6 785228+2 499. 740.21	A11Na1O2 (cr)
-270840+6	733409+5	202175+2	423536-2-192196+4 741290+2 740. 1852.22	A11Na1O2 (cr)
-270840+6	726498+5	284147+2	132058-2-960231+7 738706+2 1852. 2485.22	A11Na1O2 (cr)
-270840+6	725889+5	358134+2	-709020-3-241456+8 738492+2 2485. 3000.22	A11Na1O2 (cr)
1 13 1 8	JANAF 1998			5A11O1 (g)
160000+5	271370+5	744572+1	160854-2-487193+5 734345+2298.15	742.11 A11O1 (g)
160000+5	277209+5	634178+1	225417-2 295313+6 736435+2 742. 1736.11	A11O1 (g)
160000+5	268850+5	128799+2	-251279-3-630055+7 733252+2 1736. 2645.11	A11O1 (g)
160000+5	268605+5	134322+2	-525466-3-509123+7 733167+2 2645. 4074.11	A11O1 (g)
160000+5	266783+5	798540+1	366715-3 249850+8 732604+2 4074. 6000.11	A11O1 (g)
1 13 1 8 1 99	JANAF 1998			5A11O1- (g)
-643939+5	297093+5	711608+1	237342-2-304955+5 735081+2298.15	462.11 A11O1- (g)
-643939+5	246605+5	840538+1	517812-3-122706+6 709997+2 462. 785.11	A11O1- (g)
-643939+5	239035+5	890070+1	984630-4-225079+6 706576+2 785. 3289.11	A11O1- (g)
-643939+5	239023+5	745837+1	390628-3 498243+7 706572+2 3289. 4421.11	A11O1- (g)
-643939+5	236875+5	450569+1	835392-3 242614+8 705922+2 4421. 6000.11	A11O1- (g)
1 13 1 8 -1 99	JANAF 1998			5A11O1+ (g)
237331+6	286445+5	786407+1	168718-2-398259+5 776712+2298.15	511.11 A11O1+ (g)
237331+6	259067+5	868281+1	620777-3-111325+6 763332+2 511. 820.11	A11O1+ (g)
237331+6	247973+5	947431+1	-222483-4-288984+6 758358+2 820. 2064.11	A11O1+ (g)
237331+6	248204+5	895343+1	146016-3 450498+6 758442+2 2064. 3851.11	A11O1+ (g)
237331+6	248319+5	917090+1	114287-3-962601+6 758478+2 3851. 6000.11	A11O1+ (g)
1 13 2 8	JANAF 1998			5A11O2 (g)
-205999+5	494303+5	117821+2	401300-2-938121+5 976854+2298.15	447.11 A11O2 (g)
-205999+5	407848+5	138799+2	891746-3-234190+6 933671+2 447. 717.11	A11O2 (g)
-205999+5	391222+5	147857+2	515254-4-390148+6 926023+2 717. 2478.11	A11O2 (g)
-205999+5	391286+5	137898+2	319510-3 164733+7 926046+2 2478. 4251.11	A11O2 (g)
-205999+5	392181+5	145613+2	215196-3-428122+7 926315+2 4251. 6000.11	A11O2 (g)
1 13 2 8 1 99	JANAF 1998			5A11O2- (g)
-116924+6	534232+5	104667+2	569175-2-715160+5 953077+2298.15	410.11 A11O2- (g)
-116924+6	436925+5	125454+2	232498-2-188915+6 903823+2 410. 602.11	A11O2- (g)
-116924+6	394893+5	141358+2	525186-3-372611+6 883774+2 602. 900.11	A11O2- (g)
-116924+6	387663+5	147558+2	619354-4-537092+6 880587+2 900. 1565.11	A11O2- (g)
-116924+6	387354+5	148974+2	101310-5-650520+6 880466+2 1565. 6000.11	A11O2- (g)
1 13 1 16	JANAF 1998			5A11S1 (g)
570000+5	260346+5	835014+1	816530-3-544003+5 762705+2298.15	713.11 A11S1 (g)
570000+5	292409+5	663138+1	242422-2 236628+6 777477+2 713. 1079.11	A11S1 (g)
570000+5	289328+5	794352+1	181833-2-529889+6 776390+2 1079. 1611.11	A11S1 (g)
570000+5	277200+5	145613+2	-915105-3-627657+7 771690+2 1611. 3446.11	A11S1 (g)
570000+5	277049+5	906831+1	149576-3 153849+8 771642+2 3446. 6000.11	A11S1 (g)
2 13	JANAF 1998			5A12 (g)
116400+6	296339+5	104721+2	385043-3-124360+6 803145+2298.15	543.11 A12 (g)
116400+6	244671+5	113246+2	-128905-2-107702+6 776857+2 543. 969.11	A12 (g)
116400+6	263383+5	938352+1	483215-4 498094+6 784972+2 969. 1614.11	A12 (g)
116400+6	265224+5	838491+1	461327-3 136301+7 785686+2 1614. 3244.11	A12 (g)
116400+6	265238+5	855481+1	441112-3 265124+6 785691+2 3244. 6000.11	A12 (g)

2 13 1 4 4 8	JANAF 1998	6Al2Be1O4 (cr)
-549900+6 150496+6 300867+2 161179-1-863453+6 124047+3298.15 499.21		Al2Be1O4 (cr)
-549900+6 119372+6 390511+2 416599-2-161057+7 108776+3 499. 1244.21		Al2Be1O4 (cr)
-549900+6 121750+6 302467+2 821759-2 421476+7 109699+3 1244. 1634.21		Al2Be1O4 (cr)
-549900+6 130899+6-225595+2 297610-1 512173+8 113234+3 1634. 1905.21		Al2Be1O4 (cr)
-549900+6 139958+6-140168+3 709573-1 193221+9 116610+3 1905. 2146.21		Al2Be1O4 (cr)
-549900+6 140983+6-200829+3 887515-1 296724+9 116972+3 2146. 2400.21		Al2Be1O4 (cr)
2 13 1 4 4 8	JANAF 1998	6Al2Be1O4 (cr, l)
-549900+6 150495+6 300868+2 161176-1-863460+6 124046+3298.15 499.21		Al2Be1O4 (cr, l)
-549900+6 119371+6 390515+2 416563-2-161063+7 108776+3 499. 1244.21		Al2Be1O4 (cr, l)
-549900+6 121740+6 302737+2 820457-2 419787+7 109695+3 1244. 1633.21		Al2Be1O4 (cr, l)
-549900+6 130876+6-223596+2 296852-1 510126+8 113225+3 1633. 1901.21		Al2Be1O4 (cr, l)
-549900+6 139913+6-139356+3 706862-1 192146+9 116594+3 1901. 2146.21		Al2Be1O4 (cr, l)
-549900+6 169041+6 588932+2 000000+0 237089-5 131390+3 2146. 4000.32		Al2Be1O4 (cr, l)
2 13 1 4 4 8	JANAF 1998	5Al2Be1O4 (l)
-517171+6 199064+6 217928+2 318299-1-541935+6 163508+3298.15 400.31		Al2Be1O4 (l)
-517171+6 129048+6 354636+2 828113-2-122213+7 127738+3 400. 600.31		Al2Be1O4 (l)
-517171+6 119604+6 390365+2 423744-2-163496+7 123234+3 600. 1050.31		Al2Be1O4 (l)
-517171+6 118562+6 394470+2 375387-2-152770+7 122764+3 1050. 1450.31		Al2Be1O4 (l)
-517171+6 136301+6 588932+2 000000+0 921382-5 131363+3 1450. 4000.32		Al2Be1O4 (l)
2 13 6 35	JANAF 1998	5Al2Br6 (g)
-224000+6 123700+6 420893+2 240713-2-246287+6 233069+3298.15 397.11		Al2Br6 (g)
-224000+6 118567+6 431237+2 663700-3-300222+6 230455+3 397. 543.11		Al2Br6 (g)
-224000+6 117251+6 435448+2 137505-3-340144+6 229816+3 543. 800.11		Al2Br6 (g)
-224000+6 117026+6 436886+2 144142-4-369118+6 229715+3 800. 1235.11		Al2Br6 (g)
-224000+6 117015+6 437172+2 169730-6-385980+6 229710+3 1235. 6000.11		Al2Br6 (g)
2 13 6 17	JANAF 1998	5Al2Cl6 (g)
-309690+6 129887+6 403293+2 492676-2-340525+6 218040+3298.15 400.11		Al2Cl6 (g)
-309690+6 119814+6 423681+2 150117-2-447491+6 212913+3 400. 539.11		Al2Cl6 (g)
-309690+6 116873+6 433045+2 327274-3-535729+6 211484+3 539. 800.11		Al2Cl6 (g)
-309690+6 116338+6 436487+2 335681-4-605659+6 211242+3 800. 1315.11		Al2Cl6 (g)
-309690+6 116313+6 437158+2 387766-6-646161+6 211232+3 1315. 6000.11		Al2Cl6 (g)
2 13 9 17 3 19	JANAF 1998	5Al2Cl9K3 (cr)
-683600+6 964809+5 113382+3-459508-1-169622+7 240174+3298.15 408.21		Al2Cl9K3 (cr)
-683600+6 309396+6 797245+2 215180-1-675778+6 350912+3 408. 787.21		Al2Cl9K3 (cr)
-683600+6 318256+6 657781+2 299892-1 383293+7 354386+3 787. 1000.21		Al2Cl9K3 (cr)
-683600+6 331832+6 503174+2 402463-1 903656+7 360227+3 1000. 1230.21		Al2Cl9K3 (cr)
-683600+6 342654+6 285893+2 520014-1 200344+8 364685+3 1230. 1500.21		Al2Cl9K3 (cr)
2 13 6 9	JANAF 1998	5Al2F6 (g)
-629450+6 158515+6 314667+2 167815-1-421780+6 208181+3298.15 399.11		Al2F6 (g)
-629450+6 128580+6 375924+2 656553-2-748067+6 192960+3 399. 536.11		Al2F6 (g)
-629450+6 116542+6 414873+2 173087-2-112256+7 187125+3 536. 800.11		Al2F6 (g)
-629450+6 113777+6 433009+2 197300-3-149809+7 185876+3 800. 1361.11		Al2F6 (g)
-629450+6 113638+6 437029+2 245271-5-175153+7 185820+3 1361. 6000.11		Al2F6 (g)
2 13 6 53	JANAF 1998	5Al2I6 (g)
-117000+6 121018+6 428380+2 131272-2-189508+6 244146+3298.15 396.11		Al2I6 (g)
-117000+6 118281+6 433834+2 386316-3-217500+6 242750+3 396. 520.11		Al2I6 (g)
-117000+6 117486+6 436252+2 746348-4-239070+6 242362+3 520. 800.11		Al2I6 (g)
-117000+6 117359+6 437086+2 407097-5-256279+6 242304+3 800. 1700.11		Al2I6 (g)
-117000+6 117357+6 437180+2 397946-7-263667+6 242304+3 1700. 6000.11		Al2I6 (g)
2 13 1 12 4 8	JANAF 1998	4Al2Mg1O4 (cr)
-549500+6 308097+6 460992+1 661461-1 305848+6 212261+3298.15 400.21		Al2Mg1O4 (cr)
-549500+6 129948+6 350823+2 849747-2-880216+6 120133+3 400. 704.21		Al2Mg1O4 (cr)
-549500+6 129954+6 350804+2 849974-2-880100+6 120136+3 704. 2408.21		Al2Mg1O4 (cr)
-549500+6 129954+6 350762+2 850117-2-875311+6 120136+3 2408. 2800.21		Al2Mg1O4 (cr)
2 13 1 12 4 8	JANAF 1998	4Al2Mg1O4 (cr, l)
-549500+6 308097+6 460992+1 661461-1 305848+6 212261+3298.15 400.21		Al2Mg1O4 (cr, l)
-549500+6 129948+6 350823+2 849743-2-880218+6 120133+3 400. 704.21		Al2Mg1O4 (cr, l)
-549500+6 129954+6 350805+2 849973-2-880109+6 120136+3 704. 2408.21		Al2Mg1O4 (cr, l)
-549500+6 172732+6 525000+2 000000+0 978676-4 138063+3 2408. 4000.32		Al2Mg1O4 (cr, l)
2 13 1 12 4 8	JANAF 1998	4Al2Mg1O4 (l)
-503472+6 308099+6 460957+1 661469-1 305858+6 231331+3298.15 400.31		Al2Mg1O4 (l)
-503472+6 129954+6 350802+2 849999-2-880043+6 139204+3 400. 1120.31		Al2Mg1O4 (l)
-503472+6 129957+6 350717+2 850410-2-875134+6 139205+3 1120. 1750.31		Al2Mg1O4 (l)
-503472+6 126704+6 525000+2 000000+0 138983-4 138063+3 1750. 4000.32		Al2Mg1O4 (l)

2 13 1 8	JANAF 1998				5A1201 (g)
-347000+5 468077+5 124402+2 301627-2-804357+5 967057+2298.15 473.11					Al201 (g)
-347000+5 401717+5 142000+2 544183-3-212564+6 934217+2 473. 824.11					Al201 (g)
-347000+5 392672+5 148560+2 153644-4-362052+6 930168+2 824. 3389.11					Al201 (g)
-347000+5 392658+5 141136+2 161468-3 247775+7 930164+2 3389. 4583.11					Al201 (g)
-347000+5 391212+5 126124+2 379791-3 129928+8 929730+2 4583. 6000.11					Al201 (g)
2 13 1 8 -1 99	JANAF 1998				5A1201+ (g)
155936+6 482863+5 124457+2 333839-2-709864+5 996318+2298.15 400.11					Al201+ (g)
155936+6 425193+5 136251+2 137061-2-133761+6 966994+2 400. 535.11					Al201+ (g)
155936+6 400126+5 144327+2 365615-3-211002+6 954837+2 535. 800.11					Al201+ (g)
155936+6 394277+5 148169+2 409529-4-290668+6 952194+2 800. 1384.11					Al201+ (g)
155936+6 393992+5 149007+2 505000-6-344093+6 952080+2 1384. 6000.11					Al201+ (g)
2 13 2 8	JANAF 1998				5A1202 (g)
-943000+5 634891+5 171044+2 401286-2-199890+6 116349+3298.15 396.11					Al202 (g)
-943000+5 557339+5 186545+2 138562-2-279829+6 112396+3 396. 510.11					Al202 (g)
-943000+5 529759+5 194922+2 304947-3-354356+6 111050+3 510. 800.11					Al202 (g)
-943000+5 524664+5 198134+2 279736-4-418100+6 110819+3 800. 1357.11					Al202 (g)
-943000+5 524462+5 198700+2 304742-6-453261+6 110811+3 1357. 6000.11					Al202 (g)
2 13 2 8 -1 99	JANAF 1998				5A1202+ (g)
135615+6 614871+5 176666+2 321682-2-191389+6 117627+3298.15 397.11					Al202+ (g)
135615+6 551840+5 189260+2 108179-2-256285+6 114415+3 397. 515.11					Al202+ (g)
135615+6 530034+5 195881+2 227479-3-315197+6 113351+3 515. 800.11					Al202+ (g)
135615+6 526242+5 198288+2 206236-4-363337+6 113179+3 800. 1347.11					Al202+ (g)
135615+6 526093+5 198704+2 240380-6-389083+6 113173+3 1347. 6000.11					Al202+ (g)
2 13 3 8	JANAF 1998				5A1203 (cr)_01
-400500+6 105293+6 226264+2 103223-1-606477+6 889284+2298.15 489.21					Al203 (cr)_01
-400500+6 847756+5 283346+2 254438-2-106193+7 788255+2 489. 1284.21					Al203 (cr)_01
-400500+6 835822+5 310920+2 111717-2-258682+7 783387+2 1284. 1839.21					Al203 (cr)_01
-400500+6 836393+5 288192+2 183592-2 629645+6 783577+2 1839. 2561.21					Al203 (cr)_01
-400500+6 836596+5 232682+2 328071-2 127687+8 783648+2 2561. 3000.21					Al203 (cr)_01
2 13 3 8	JANAF 1998				5A1203 (cr)_02
-398300+6 108471+6 233015+2 106384-1-624511+6 911632+2298.15 489.21					Al203 (cr)_02
-398300+6 873198+5 291841+2 262117-2-109369+7 807479+2 489. 1283.21					Al203 (cr)_02
-398300+6 860912+5 320176+2 115376-2-265893+7 802467+2 1283. 1837.21					Al203 (cr)_02
-398300+6 861484+5 297034+2 188534-2 615610+6 802657+2 1837. 2561.21					Al203 (cr)_02
-398300+6 861695+5 239556+2 338162-2 131810+8 802730+2 2561. 3000.21					Al203 (cr)_02
2 13 3 8	JANAF 1998				5A1203 (cr)_03
-396000+6 110345+6 236721+2 108409-1-634277+6 929116+2298.15 488.21					Al203 (cr)_03
-396000+6 887890+5 296486+2 267963-2-110908+7 822935+2 488. 1245.21					Al203 (cr)_03
-396000+6 876535+5 320316+2 140861-2-234997+7 818273+2 1245. 1756.21					Al203 (cr)_03
-396000+6 875635+5 305625+2 180620-2 269498+5 817885+2 1756. 2517.21					Al203 (cr)_03
-396000+6 875919+5 248426+2 332093-2 121109+8 817984+2 2517. 3000.21					Al203 (cr)_03
2 13 3 8	JANAF 1998				5A1203 (cr)_04
-397300+6 107632+6 231196+2 105573-1-619605+6 912511+2298.15 489.21					Al203 (cr)_04
-397300+6 866417+5 289573+2 260091-2-108520+7 809148+2 489. 1283.21					Al203 (cr)_04
-397300+6 854224+5 317686+2 114490-2-263792+7 804174+2 1283. 1837.21					Al203 (cr)_04
-397300+6 854791+5 294794+2 186861-2 600963+6 804362+2 1837. 2559.21					Al203 (cr)_04
-397300+6 855002+5 238015+2 334765-2 129972+8 804435+2 2559. 3000.21					Al203 (cr)_04
2 13 3 8	JANAF 1998				5A1203 (cr, l)
-400500+6 105309+6 226237+2 103275-1-606370+6 889367+2298.15 488.21					Al203 (cr, l)
-400500+6 847805+5 283313+2 254714-2-106142+7 788277+2 488. 1269.21					Al203 (cr, l)
-400500+6 835909+5 310482+2 113582-2-255243+7 783421+2 1269. 1816.21					Al203 (cr, l)
-400500+6 836246+5 292639+2 169569-2-210824+5 783525+2 1816. 2327.21					Al203 (cr, l)
-400500+6 118401+6 460000+2 000000+0 295986-4 928732+2 2327. 4000.32					Al203 (cr, l)
2 13 3 8	JANAF 1998				5A1203 (l)
-387325+6 127806+6 187819+2 176055-1-457442+6 104468+3298.15 400.31					Al203 (l)
-387325+6 906850+5 262378+2 501083-2-844324+6 855568+2 400. 600.31					Al203 (l)
-387325+6 847137+5 284039+2 249841-2-108142+7 826970+2 600. 1080.31					Al203 (l)
-387325+6 843407+5 290413+2 213365-2-136549+7 825420+2 1080. 1350.31					Al203 (l)
-387325+6 105222+6 460000+2 000000+0 000000+0 928618+2 1350. 4000.32					Al203 (l)
2 13 5 8 1 14	JANAF 1998				4A1205Si1 (cr)_01
-619520+6 249394+6 207295+2 436693-1-392049+6 185944+3298.15 423.21					Al205Si1 (cr)_01
-619520+6 135995+6 415463+2 620477-2-128120+7 127743+3 423. 710.21					Al205Si1 (cr)_01
-619520+6 134565+6 422051+2 553639-2-137407+7 127075+3 710. 1000.21					Al205Si1 (cr)_01
-619520+6 134684+6 423137+2 552886-2-147513+7 127134+3 1000. 3000.21					Al205Si1 (cr)_01

2 13 5 8 1 14	JANAF 1998	4Al2O5Si1(cr)_02
-620060+6 190546+6 302119+2 249617-1-761304+6 152987+3298.15 462.21		Al2O5Si1(cr)_02
-620060+6 131451+6 452374+2 327552-2-182991+7 123614+3 462. 853.21		Al2O5Si1(cr)_02
-620060+6 137773+6 411596+2 675723-2-102385+7 126470+3 853. 1200.21		Al2O5Si1(cr)_02
-620060+6 136130+6 426151+2 565463-2-121448+7 125763+3 1200. 3000.21		Al2O5Si1(cr)_02
2 13 5 8 1 14	JANAF 1998	3Al2O5Si1(cr)_03
-618810+6 171197+6 327108+2 191429-1-819261+6 145668+3298.15 523.21		Al2O5Si1(cr)_03
-618810+6 135999+6 409886+2 654381-2-128109+7 128101+3 523. 1100.21		Al2O5Si1(cr)_03
-618810+6 136533+6 408221+2 677857-2-139209+7 128340+3 1100. 3000.21		Al2O5Si1(cr)_03
2 13 3 16	JANAF 1998	3Al2S3(cr)
-155600+6 940851+5 281591+2 430190-2-385366+6 102417+3298.15 874.21		Al2S3(cr)
-155600+6 906747+5 311193+2 210154-2-117750+7 100915+3 874. 1193.21		Al2S3(cr)
-155600+6 880968+5 358134+2-521080-3-340540+7 998459+2 1193. 1500.21		Al2S3(cr)
3 13 14 9 5 11	JANAF 1998	5Al3F14Na5(cr)
-181200+7 421088+6 121385+3 220739-1-173042+7 445824+3298.15 549.21		Al3F14Na5(cr)
-181200+7 418418+6 121052+3 215857-1-154918+7 444352+3 549. 800.21		Al3F14Na5(cr)
-181200+7 417777+6 120872+3 214913-1-138568+7 444025+3 800. 1009.21		Al3F14Na5(cr)
-181200+7 423724+6 115098+3 255863-1 286214+6 446614+3 1009. 1200.21		Al3F14Na5(cr)
-181200+7 422990+6 115997+3 250012-1 170689+4 446303+3 1200. 1500.21		Al3F14Na5(cr)
3 13 14 9 5 11	JANAF 1998	5Al3F14Na5(cr,l)
-181200+7 421088+6 121385+3 220737-1-173042+7 445823+3298.15 549.21		Al3F14Na5(cr,l)
-181200+7 418416+6 121052+3 215850-1-154927+7 444351+3 549. 800.21		Al3F14Na5(cr,l)
-181200+7 417757+6 120891+3 214771-1-139103+7 444016+3 800. 1010.21		Al3F14Na5(cr,l)
-181200+7 610296+6 232760+3 000000+0 173835-3 577826+3 1010. 1200.32		Al3F14Na5(cr,l)
-181200+7 610296+6 232760+3 000000+0-739225-5 577826+3 1200. 3000.32		Al3F14Na5(cr,l)
3 13 14 9 5 11	JANAF 1998	3Al3F14Na5(l)
-179192+7 416238+6 122340+3 204346-1-177239+7 454976+3298.15 650.31		Al3F14Na5(l)
-179192+7 590222+6 232760+3 000000+0-126210-3 577830+3 650. 807.32		Al3F14Na5(l)
-179192+7 590222+6 232760+3 000000+0 300802-6 577830+3 807. 3000.32		Al3F14Na5(l)
6 13 1 4 10 8	JANAF 1998	5Al6Be1O10(cr)
-134420+7 351247+6 776702+2 331929-1-215143+7 298981+3298.15 490.21		Al6Be1O10(cr)
-134420+7 292853+6 941441+2 109414-1-348895+7 270269+3 490. 1150.21		Al6Be1O10(cr)
-134420+7 292621+6 886490+2 129384-1 741216+6 270059+3 1150. 1650.21		Al6Be1O10(cr)
-134420+7 298036+6 543044+2 266715-1 325536+8 272141+3 1650. 2186.21		Al6Be1O10(cr)
-134420+7 299007+6 112059+2 395556-1 103916+9 272489+3 2186. 3000.21		Al6Be1O10(cr)
6 13 1 4 10 8	JANAF 1998	5Al6Be1O10(cr,l)
-134420+7 351225+6 776740+2 331858-1-215158+7 298970+3298.15 490.21		Al6Be1O10(cr,l)
-134420+7 292840+6 941510+2 109349-1-348991+7 270263+3 490. 1150.21		Al6Be1O10(cr,l)
-134420+7 292536+6 888631+2 128300-1 621115+6 270025+3 1150. 1650.21		Al6Be1O10(cr,l)
-134420+7 297871+6 561069+2 260164-1 305648+8 272079+3 1650. 2186.21		Al6Be1O10(cr,l)
-134420+7 400197+6 136000+3 000000+0 540967-4 318607+3 2186. 4000.32		Al6Be1O10(cr,l)
6 13 1 4 10 8	JANAF 1998	4Al6Be1O10(l)
-126657+7 347378+6 783296+2 319418-1-217694+7 330287+3298.15 450.31		Al6Be1O10(l)
-126657+7 295560+6 928877+2 122163-1-332746+7 304828+3 450. 830.31		Al6Be1O10(l)
-126657+7 289047+6 977080+2 836680-2-444708+7 301918+3 830. 1400.31		Al6Be1O10(l)
-126657+7 322557+6 136000+3 000000+0 778080-5 318603+3 1400. 4000.32		Al6Be1O10(l)
6 13 13 8 2 14	JANAF 1998	5Al6O13Si2(cr)
-162983+7 460397+6 847551+2 533122-1-203061+7 394113+3298.15 481.21		Al6O13Si2(cr)
-162983+7 363735+6 110938+3 170259-1-405021+7 346383+3 481. 725.21		Al6O13Si2(cr)
-162983+7 339629+6 124315+3 473361-2-639745+7 335314+3 725. 1157.21		Al6O13Si2(cr)
-162983+7 341756+6 124448+3 539070-2-759229+7 336272+3 1157. 2020.21		Al6O13Si2(cr)
-162983+7 342537+6 109153+3 104289-1 132910+8 336558+3 2020. 3000.21		Al6O13Si2(cr)
1 18	JANAF 1998	2Ar1(ref)
000000+0 134227+5 496797+1 000000+0-105622-7 484526+2298.15 3000.11		Ar1(ref)
000000+0 134227+5 496797+1 000000+0-892115-5 484526+2 3000. 6000.11		Ar1(ref)
1 18 -1 99	JANAF 1998	5Ar1+(g)
364909+6 175018+5 468716+1 108565-2 231772+3 535015+2298.15 576.11		Ar1+(g)
364909+6 140855+5 593288+1-354635-3-137826+6 518656+2 576. 1422.11		Ar1+(g)
364909+6 142302+5 546517+1-134888-3 176062+6 519234+2 1422. 2065.11		Ar1+(g)
364909+6 142438+5 516087+1-364715-4 607042+6 519283+2 2065. 3135.11		Ar1+(g)
364909+6 142438+5 501503+1-541506-5 108349+7 519283+2 3135. 6000.11		Ar1+(g)

1 5	JANAF 1998					5B1 (cr)	
000000+0	369667+5	969844+0	774325-2-510321+5	242704+2298.15	380.21	B1 (cr)	
000000+0	215856+5	403982+1	253470-2-208533+6	164306+2	380. 540.21	B1 (cr)	
000000+0	182084+5	512641+1	118137-2-312281+6	147925+2	540. 800.21	B1 (cr)	
000000+0	175000+5	558149+1	792583-3-404476+6	144718+2	800. 1155.21	B1 (cr)	
000000+0	174349+5	572072+1	718539-3-476132+6	144452+2	1155. 2800.21	B1 (cr)	
1 5	JANAF 1998					6B1 (cr, l)	
000000+0	234080+5	304291+1	349163-2-122719+6	171702+2298.15	365.21	B1 (cr, l)	
000000+0	210856+5	415993+1	235465-2-216246+6	161814+2	365. 572.21	B1 (cr, l)	
000000+0	180832+5	519316+1	111860-2-322975+6	147354+2	572. 800.21	B1 (cr, l)	
000000+0	175103+5	557358+1	798818-3-402717+6	144768+2	800. 1200.21	B1 (cr, l)	
000000+0	174359+5	571374+1	721391-3-470750+6	144460+2	1200. 2350.21	B1 (cr, l)	
000000+0	294436+5	758843+1	000000+0-167197-5	195577+2	2350. 4500.32	B1 (cr, l)	
1 5	JANAF 1998					4B1 (g)	
133843+6	134236+5	496758+1	265764-6	250910+3	481168+2298.15	3042.11	B1 (g)
133843+6	134236+5	478363+1	405689-4	567915+6	481168+2	3042. 4013.11	B1 (g)
133843+6	134057+5	416453+1	143400-3	389251+7	481113+2	4013. 4937.11	B1 (g)
133843+6	132429+5	317137+1	277457-3	119682+8	480634+2	4937. 6000.11	B1 (g)
1 5 1 99	JANAF 1998					3B1- (g)	
125964+6	134312+5	496640+1	278012-5	108574+3	489270+2298.15	500.11	B1- (g)
125964+6	134090+5	497304+1	-586390-5-471374+3	489161+2	500. 700.11	B1- (g)	
125964+6	134228+5	496797+1	000000+0-942334-7	489227+2	700. 6000.11	B1- (g)	
1 5	JANAF 1998					5B1 (l)	
116938+5	366186+5	102307+1	763410-2-528730+5	290406+2298.15	383.31	B1 (l)	
116938+5	208638+5	421491+1	227400-2-219940+6	210229+2	383. 581.31	B1 (l)	
116938+5	178508+5	531111+1	100493-2-341081+6	195798+2	581. 900.31	B1 (l)	
116938+5	174506+5	565770+1	747087-3-433850+6	194035+2	900. 1750.31	B1 (l)	
116938+5	177494+5	758843+1	000000+0	712655-6	195571+2	1750. 4500.32	B1 (l)
1 5 -1 99	JANAF 1998					5B1+ (g)	
326653+6	134228+5	496785+1	798428-7	116626+2	445561+2298.15	3237.11	B1+ (g)
326653+6	134227+5	485742+1	228237-4	385719+6	445561+2	3237. 4054.11	B1+ (g)
326653+6	134054+5	431946+1	111280-3	333335+7	445507+2	4054. 4733.11	B1+ (g)
326653+6	132777+5	327476+1	258410-3	111366+8	445127+2	4733. 5355.11	B1+ (g)
326653+6	128912+5	185027+1	435715-3	247582+8	444013+2	5355. 6000.11	B1+ (g)
10 5 14 1	JANAF 1998					5B10H14 (cr)	
-690010+4	-234803+6	182742+3	-158478+0	-742721+7	-543934+1298.15	469.21	B10H14 (cr)
-690010+4	409775+6	614566+2	564277-1	-291929+7	323408+3	469. 700.21	B10H14 (cr)
-690010+4	354727+6	830448+2	324247-1	-526447+7	297355+3	700. 930.21	B10H14 (cr)
-690010+4	318373+6	117551+3	775031-2	-152619+8	281468+3	930. 1201.21	B10H14 (cr)
-690010+4	290645+6	169078+3	-208423-1	-400525+8	269985+3	1201. 1500.21	B10H14 (cr)
10 5 14 1	JANAF 1998					6B10H14 (cr, l)	
-690010+4	118780+7	-455437+2	293597+0	897792+6	735306+3298.15	371.9321	B10H14 (cr, l)
-690010+4	-421563+6	258301+3	-243427+0	-133967+8	-784659+2371.93	500.32	B10H14 (cr, l)
-690010+4	459614+6	613383+2	665363-1	-290162+7	363941+3	500. 700.32	B10H14 (cr, l)
-690010+4	388047+6	954125+2	325998-1	-795778+7	330596+3	700. 990.32	B10H14 (cr, l)
-690010+4	341007+6	144995+3	-134062-2	-236209+8	310226+3	990. 1220.32	B10H14 (cr, l)
-690010+4	309049+6	207555+3	-354659-1	-547696+8	297039+3	1220. 1500.32	B10H14 (cr, l)
10 5 14 1	JANAF 1998					5B10H14 (g)	
113000+5	578940+6	172803+2	120071+0	-904606+6	443415+3298.15	450.11	B10H14 (g)
113000+5	414483+6	582247+2	601643-1	-373681+7	361493+3	450. 695.11	B10H14 (g)
113000+5	335091+6	994070+2	209794-1	-104744+8	324799+3	695. 1094.11	B10H14 (g)
113000+5	315441+6	127946+3	372187-2	-220350+8	316508+3	1094. 1891.11	B10H14 (g)
113000+5	314661+6	138243+3	124202-3	-345291+8	316217+3	1891. 6000.11	B10H14 (g)
10 5 14 1	JANAF 1998					5B10H14 (l)	
-170483+4	105645+7	-232773+2	251148+0	111145+6	681593+3298.15	397.31	B10H14 (l)
-170483+4	668357+6	-111769+2	154188+0	427088+7	466643+3	397. 600.31	B10H14 (l)
-170483+4	390327+6	903262+2	368974-1	-693546+7	333567+3	600. 928.31	B10H14 (l)
-170483+4	341305+6	136660+3	370579-2	-203112+8	312136+3	928. 1209.31	B10H14 (l)
-170483+4	304269+6	205531+3	-345040-1	-534561+8	296797+3	1209. 1500.31	B10H14 (l)
10 5 17 8 2 82	JANAF 1998					5B10017Pb2 (cr)	
-169400+7	806564+6	777640+2	135128+0	-185835+7	618586+3298.15	556.21	B10017Pb2 (cr)
-169400+7	660420+6	127990+3	749987-1	-704986+7	548181+3	556. 816.21	B10017Pb2 (cr)
-169400+7	564197+6	196040+3	194852-1	-221988+8	505004+3	816. 1108.21	B10017Pb2 (cr)
-169400+7	512331+6	265632+3	-238657-1	-486662+8	482992+3	1108. 1501.21	B10017Pb2 (cr)
-169400+7	531955+6	196179+3	800766-2	218363+5	490776+3	1501. 2000.21	B10017Pb2 (cr)



1 5 1 4 2 8	JANAF 1998	5B1Be1O2 (g)
-115200+6 762544+5 100761+2 110882-1-123774+6 115938+3298.15 411.11		B1Be1O2 (g)
-115200+6 602456+5 135045+2 554481-2-318044+6 107837+3 411. 606.11		B1Be1O2 (g)
-115200+6 517443+5 169108+2 181442-2-738761+6 103805+3 606. 959.11		B1Be1O2 (g)
-115200+6 495881+5 191257+2 282181-3-142437+7 102869+3 959. 1689.11		B1Be1O2 (g)
-115200+6 494866+5 198271+2 672177-5-209809+7 102830+3 1689. 6000.11		B1Be1O2 (g)
1 5 1 35	JANAF 1998	3B1Br1 (g)
560000+5 276021+5 793971+1 141198-2-466460+5 756356+2298.15 460.11		B1Br1 (g)
560000+5 244171+5 874657+1 244675-3-103757+6 740518+2 460. 853.11		B1Br1 (g)
560000+5 241724+5 893862+1 953652-4-150825+6 739430+2 853. 6000.11		B1Br1 (g)
1 5 1 35 1 17	JANAF 1998	3B1Br1Cl1 (g)
-250000+4 449601+5 112447+2 333494-2-928627+5 103509+3298.15 477.11		B1Br1Cl1 (g)
-250000+4 371592+5 133417+2 414666-3-253038+6 996543+2 477. 895.11		B1Br1Cl1 (g)
-250000+4 365221+5 138983+2 215157-5-403144+6 993738+2 895. 6000.11		B1Br1Cl1 (g)
1 5 1 35 2 17	JANAF 1998	3B1Br1Cl2 (g)
-805000+5 646110+5 157516+2 506234-2-166484+6 123279+3298.15 483.11		B1Br1Cl2 (g)
-805000+5 529251+5 189582+2 654707-3-417904+6 117516+3 483. 909.11		B1Br1Cl2 (g)
-805000+5 519412+5 198516+2 361451-5-667073+6 117084+3 909. 6000.11		B1Br1Cl2 (g)
1 5 1 35 1 9	JANAF 1998	4B1Br1F1 (g)
-575000+5 495894+5 944651+1 544135-2-588768+5 102068+3298.15 450.11		B1Br1F1 (g)
-575000+5 391481+5 120079+2 165744-2-232750+6 968587+2 450. 692.11		B1Br1F1 (g)
-575000+5 361711+5 135236+2 201096-3-475979+6 954803+2 692. 1247.11		B1Br1F1 (g)
-575000+5 359941+5 138974+2 212318-5-671416+6 954076+2 1247. 6000.11		B1Br1F1 (g)
1 5 1 35 2 9	JANAF 1998	5B1Br1F2 (g)
-196000+6 696454+5 126094+2 807691-2-135879+6 118600+3298.15 488.11		B1Br1F2 (g)
-196000+6 561622+5 161718+2 306051-2-401257+6 111926+3 488. 700.11		B1Br1F2 (g)
-196000+6 515336+5 185137+2 802819-3-774429+6 109781+3 700. 1013.11		B1Br1F2 (g)
-196000+6 506393+5 195756+2 109874-3-114379+7 109398+3 1013. 1751.11		B1Br1F2 (g)
-196000+6 506033+5 198558+2 240486-5-142580+7 109384+3 1751. 6000.11		B1Br1F2 (g)
1 5 1 35 1 8	JANAF 1998	4B1Br1O1 (g)
-600000+5 439562+5 113464+2 304951-2-951111+5 933670+2298.15 592.11		B1Br1O1 (g)
-600000+5 396005+5 130192+2 117269-2-291961+6 912924+2 592. 944.11		B1Br1O1 (g)
-600000+5 381782+5 144249+2 184503-3-713349+6 906730+2 944. 1663.11		B1Br1O1 (g)
-600000+5 381074+5 148764+2 415173-5-113264+7 906458+2 1663. 6000.11		B1Br1O1 (g)
1 5 2 35	JANAF 1998	4B1Br2 (g)
150000+5 465597+5 112639+2 367200-2-776322+5 105894+3298.15 400.11		B1Br2 (g)
150000+5 391471+5 128054+2 112931-2-161545+6 102132+3 400. 597.11		B1Br2 (g)
150000+5 368213+5 137059+2 123678-3-268501+6 101025+3 597. 1079.11		B1Br2 (g)
150000+5 366768+5 139051+2 891218-6-346190+6 100964+3 1079. 6000.11		B1Br2 (g)
1 5 2 35 1 17	JANAF 1998	4B1Br2Cl1 (g)
-650000+5 678229+5 154830+2 592167-2-130500+6 127927+3298.15 408.11		B1Br2Cl1 (g)
-650000+5 564010+5 178964+2 198368-2-264790+6 122138+3 408. 602.11		B1Br2Cl1 (g)
-650000+5 523855+5 194805+2 233476-3-457023+6 120231+3 602. 1093.11		B1Br2Cl1 (g)
-650000+5 521190+5 198615+2 177603-5-609576+6 120119+3 1093. 6000.11		B1Br2Cl1 (g)
1 5 2 35 1 9	JANAF 1998	4B1Br2F1 (g)
-123000+6 671930+5 144772+2 639155-2-132491+6 124020+3298.15 453.11		B1Br2F1 (g)
-123000+6 554094+5 173976+2 210601-2-333394+6 118147+3 453. 701.11		B1Br2F1 (g)
-123000+6 517179+5 193274+2 277243-3-651756+6 116442+3 701. 1273.11		B1Br2F1 (g)
-123000+6 514844+5 198526+2 314751-5-937436+6 116347+3 1273. 6000.11		B1Br2F1 (g)
1 5 2 35 1 1	JANAF 1998	5B1Br2H1 (g)
-250000+5 668721+5 118850+2 789287-2-134582+6 117842+3298.15 444.11		B1Br2H1 (g)
-250000+5 543015+5 149131+2 336587-2-335284+6 111559+3 444. 723.11		B1Br2H1 (g)
-250000+5 503724+5 171131+2 135350-2-724761+6 109756+3 723. 1172.11		B1Br2H1 (g)
-250000+5 492651+5 190521+2 255800-3-162102+7 109296+3 1172. 2023.11		B1Br2H1 (g)
-250000+5 492279+5 198009+2 100239-4-265063+7 109282+3 2023. 6000.11		B1Br2H1 (g)
1 5 3 35	JANAF 1998	4B1Br3 (g)
-488000+5 665470+5 160059+2 531370-2-123826+6 128106+3298.15 400.11		B1Br3 (g)
-488000+5 560245+5 181978+2 170230-2-243400+6 122766+3 400. 599.11		B1Br3 (g)
-488000+5 525329+5 195576+2 188839-3-406007+6 121105+3 599. 1086.11		B1Br3 (g)
-488000+5 523149+5 198637+2 140350-5-527004+6 121013+3 1086. 6000.11		B1Br3 (g)
1 5 3 35	JANAF 1998	2B1Br3 (l)
-570000+5 826764+5 305999+2 000000+0-603519-8 125348+3298.15 600.31		B1Br3 (l)
-570000+5 826764+5 305999+2 000000+0-111816-6 125348+3 600. 1000.31		B1Br3 (l)

1 5 1 17	JANAF 1998				4B1C11 (g)
338000+5 305905+5 710983+1 257302-2-276039+5 741538+2298.15 408.11					B1C11 (g)
338000+5 257924+5 812289+1 919159-3-839172+5 717221+2 408. 601.11					B1C11 (g)
338000+5 241174+5 878106+1 190317-3-163429+6 709262+2 601. 1089.11					B1C11 (g)
338000+5 240067+5 893791+1 945909-4-225809+6 708793+2 1089. 6000.11					B1C11 (g)
1 5 1 17 -1 99	JANAF 1998				5B1C11+ (g)
295000+6 292274+5 732810+1 214037-2-359228+5 748492+2298.15 461.11					B1C11+ (g)
295000+6 245688+5 851318+1 430506-3-120260+6 725337+2 461. 802.11					B1C11+ (g)
295000+6 239779+5 891805+1 952132-4-207712+6 722678+2 802. 3498.11					B1C11+ (g)
295000+6 239759+5 840277+1 193460-3 189212+7 722671+2 3498. 4603.11					B1C11+ (g)
295000+6 238826+5 746653+1 329021-3 850795+7 722392+2 4603. 6000.11					B1C11+ (g)
1 5 1 17 1 9	JANAF 1998				5B1C11F1 (g)
-750000+5 519171+5 871690+1 639369-2-404153+5 100402+3298.15 417.11					B1C11F1 (g)
-750000+5 419154+5 109004+2 290870-2-167399+6 953506+2 417. 600.11					B1C11F1 (g)
-750000+5 368396+5 128423+2 725116-3-394823+6 929321+2 600. 891.11					B1C11F1 (g)
-750000+5 358528+5 136917+2 914509-4-620975+6 924971+2 891. 1544.11					B1C11F1 (g)
-750000+5 358068+5 139005+2 151951-5-787655+6 924791+2 1544. 6000.11					B1C11F1 (g)
1 5 1 17 2 9	JANAF 1998				5B1C11F2 (g)
-211600+6 747000+5 114219+2 992151-2-121158+6 118162+3298.15 421.11					B1C11F2 (g)
-211600+6 606299+5 145265+2 500171-2-304327+6 111064+3 421. 600.11					B1C11F2 (g)
-211600+6 523384+5 177491+2 141073-2-688810+6 107120+3 600. 908.11					B1C11F2 (g)
-211600+6 504675+5 194190+2 184680-3-114769+7 106298+3 908. 1599.11					B1C11F2 (g)
-211600+6 503820+5 198504+2 328637-5-150926+7 106264+3 1599. 6000.11					B1C11F2 (g)
1 5 1 17 1 8	JANAF 1998				5B1C11O1 (g)
-755999+5 458230+5 106987+2 386226-2-965706+5 913161+2298.15 493.11					B1C11O1 (g)
-755999+5 413475+5 119651+2 215497-2-199792+6 891162+2 493. 734.11					B1C11O1 (g)
-755999+5 386100+5 135312+2 737967-3-483213+6 878629+2 734. 1102.11					B1C11O1 (g)
-755999+5 379057+5 145608+2 116871-3-902361+6 875659+2 1102. 1874.11					B1C11O1 (g)
-755999+5 378791+5 148806+2 339306-5-127880+7 875559+2 1874. 6000.11					B1C11O1 (g)
1 5 2 17	JANAF 1998				5B1C12 (g)
-190000+5 464758+5 113069+2 363894-2-950555+5 100553+3298.15 408.11					B1C12 (g)
-190000+5 387806+5 129313+2 986642-3-185331+6 966527+2 408. 614.11					B1C12 (g)
-190000+5 367263+5 137705+2 776107-4-291266+6 956803+2 614. 1787.11					B1C12 (g)
-190000+5 368099+5 130205+2 357615-3 505655+6 957120+2 1787. 3728.11					B1C12 (g)
-190000+5 368243+5 142536+2 137305-3-521644+7 957165+2 3728. 6000.11					B1C12 (g)
1 5 2 17 -1 99	JANAF 1998				5B1C12- (g)
-350000+5 437823+5 115608+2 289351-2-114299+6 974818+2298.15 505.11					B1C12- (g)
-350000+5 367031+5 136437+2 153058-3-292559+6 940161+2 505. 1935.11					B1C12- (g)
-350000+5 368837+5 110408+2 104987-2 295569+7 940832+2 1935. 3723.11					B1C12- (g)
-350000+5 369313+5 152730+2 291961-3-165943+8 940982+2 3723. 4632.11					B1C12- (g)
-350000+5 374068+5 198160+2-361580-3-491164+8 942403+2 4632. 6000.11					B1C12- (g)
1 5 2 17 1 99	JANAF 1998				5B1C12+ (g)
161100+6 462499+5 129571+2 258748-2-949504+5 979678+2298.15 438.11					B1C12+ (g)
161100+6 405055+5 143087+2 535318-3-181814+6 950894+2 438. 698.11					B1C12+ (g)
161100+6 394757+5 148404+2 281876-4-268382+6 946131+2 698. 2448.11					B1C12+ (g)
161100+6 394811+5 141354+2 220187-3 113952+7 946150+2 2448. 3946.11					B1C12+ (g)
161100+6 395065+5 142387+2 216871-3-264764+6 946228+2 3946. 6000.11					B1C12+ (g)
1 5 2 17 1 9	JANAF 1998				5B1C12F1 (g)
-154000+6 729734+5 129473+2 861115-2-124335+6 121196+3298.15 400.11					B1C12F1 (g)
-154000+6 594390+5 158046+2 394605-2-282936+6 114337+3 400. 588.11					B1C12F1 (g)
-154000+6 525033+5 184241+2 978585-3-585365+6 111028+3 588. 894.11					B1C12F1 (g)
-154000+6 511789+5 195711+2 125314-3-892339+6 110444+3 894. 1549.11					B1C12F1 (g)
-154000+6 511168+5 198579+2 216324-5-112298+7 110420+3 1549. 6000.11					B1C12F1 (g)
1 5 2 17 1 1	JANAF 1998				5B1C12H1 (g)
-593000+5 707756+5 104360+2 964367-2-128731+6 113526+3298.15 444.11					B1C12H1 (g)
-593000+5 550624+5 142170+2 398707-2-378987+6 105670+3 444. 704.11					B1C12H1 (g)
-593000+5 501215+5 168395+2 152142-2-818432+6 103392+3 704. 1144.11					B1C12H1 (g)
-593000+5 488197+5 189671+2 287931-3-175611+7 102847+3 1144. 1984.11					B1C12H1 (g)
-593000+5 487725+5 197954+2 108739-4-285294+7 102830+3 1984. 6000.11					B1C12H1 (g)
1 5 3 17	JANAF 1998				5B1C13 (g)
-963100+5 710803+5 142433+2 740892-2-136967+6 121465+3298.15 410.11					B1C13 (g)
-963100+5 576482+5 170981+2 276917-2-297083+6 114663+3 410. 600.11					B1C13 (g)
-963100+5 525305+5 190265+2 581605-3-518807+6 112221+3 600. 900.11					B1C13 (g)
-963100+5 517243+5 197119+2 675337-4-699186+6 111865+3 900. 1535.11					B1C13 (g)
-963100+5 516896+5 198650+2 106927-5-819646+6 111851+3 1535. 6000.11					B1C13 (g)

1 5 1 9	JANAF 1998	5B1F1 (g)
-277000+5 303998+5 589655+1 323450-2 187921+5 703470+2298.15 450.11		B1F1 (g)
-277000+5 271542+5 669650+1 205637-2-358402+5 687286+2 450. 615.11		B1F1 (g)
-277000+5 242007+5 790604+1 747983-3-188975+6 673309+2 615. 916.11		B1F1 (g)
-277000+5 233324+5 870252+1 170055-3-413091+6 669503+2 916. 1589.11		B1F1 (g)
-277000+5 232884+5 893019+1 748854-4-606105+6 669332+2 1589. 6000.11		B1F1 (g)
1 5 1 9 1 8	JANAF 1998	5B1F1O1 (g)
-144000+6 501610+5 891148+1 590692-2-778163+5 898039+2298.15 466.11		B1F1O1 (g)
-144000+6 425779+5 108787+2 310422-2-221390+6 860425+2 466. 700.11		B1F1O1 (g)
-144000+6 383293+5 130915+2 100323-2-585022+6 840797+2 700. 1072.11		B1F1O1 (g)
-144000+6 373201+5 144597+2 154590-3-111183+7 836515+2 1072. 1833.11		B1F1O1 (g)
-144000+6 372810+5 148747+2 428257-5-158056+7 836368+2 1833. 6000.11		B1F1O1 (g)
1 5 2 9	JANAF 1998	5B1F2 (g)
-141000+6 502678+5 851118+1 616053-2-584946+5 950152+2298.15 492.11		B1F2 (g)
-141000+6 377324+5 120561+2 137959-2-347213+6 888532+2 492. 839.11		B1F2 (g)
-141000+6 355507+5 137099+2 733450-4-739878+6 878804+2 839. 2723.11		B1F2 (g)
-141000+6 355514+5 129759+2 253542-3 106422+7 878807+2 2723. 4813.11		B1F2 (g)
-141000+6 356691+5 138266+2 135808-3-551521+7 879155+2 4813. 6000.11		B1F2 (g)
1 5 2 9 1 99	JANAF 1998	5B1F2- (g)
-191700+6 506969+5 828080+1 638967-2-483584+5 936252+2298.15 486.11		B1F2- (g)
-191700+6 383107+5 117120+2 170158-2-320637+6 875233+2 486. 793.11		B1F2- (g)
-191700+6 355278+5 135705+2 143572-3-712420+6 862679+2 793. 2391.11		B1F2- (g)
-191700+6 355507+5 113988+2 749402-3 342198+7 862760+2 2391. 4558.11		B1F2- (g)
-191700+6 359099+5 152823+2 181622-3-234947+8 863838+2 4558. 6000.11		B1F2- (g)
1 5 2 9 1 99	JANAF 1998	5B1F2+ (g)
770999+5 508106+5 974234+1 554499-2-720915+5 908586+2298.15 467.11		B1F2+ (g)
770999+5 422344+5 119762+2 237068-2-235982+6 866065+2 467. 708.11		B1F2+ (g)
770999+5 384722+5 139836+2 488495-3-574223+6 848724+2 708. 1181.11		B1F2+ (g)
770999+5 380106+5 148065+2 254449-4-959211+6 846807+2 1181. 3896.11		B1F2+ (g)
770999+5 379968+5 141303+2 141210-3 245866+7 846764+2 3896. 6000.11		B1F2+ (g)
1 5 2 9 1 1	JANAF 1998	5B1F2H1 (g)
-175400+6 762165+5 671152+1 130653-1-431341+5 108854+3298.15 457.11		B1F2H1 (g)
-175400+6 576158+5 114121+2 625412-2-374757+6 996025+2 457. 700.11		B1F2H1 (g)
-175400+6 493382+5 157168+2 216369-2-108103+7 957776+2 700. 1108.11		B1F2H1 (g)
-175400+6 473581+5 186735+2 393680-3-230326+7 949439+2 1108. 1922.11		B1F2H1 (g)
-175400+6 472816+5 197758+2 138000-4-367739+7 949155+2 1922. 6000.11		B1F2H1 (g)
1 5 2 9 1 1 8	JANAF 1998	5B1F2H1O1 (g)
-259000+6 990893+5 847102+1 171732-1-104016+6 129686+3298.15 458.11		B1F2H1O1 (g)
-259000+6 726298+5 151859+2 746979-2-580337+6 116531+3 458. 700.11		B1F2H1O1 (g)
-259000+6 624121+5 205215+2 241066-2-145950+7 111812+3 700. 1208.11		B1F2H1O1 (g)
-259000+6 606543+5 239112+2 552533-3-313038+7 111086+3 1208. 2160.11		B1F2H1O1 (g)
-259000+6 606049+5 256126+2 302733-4-580546+7 111068+3 2160. 6000.11		B1F2H1O1 (g)
1 5 2 9 1 8	JANAF 1998	5B1F2O1 (g)
-200000+6 826768+5 947302+1 128910-1-117300+6 120037+3298.15 414.11		B1F2O1 (g)
-200000+6 619702+5 139479+2 569977-2-374003+6 109568+3 414. 600.11		B1F2O1 (g)
-200000+6 516142+5 179923+2 120542-2-859200+6 104644+3 600. 970.11		B1F2O1 (g)
-200000+6 500526+5 196305+2 819417-4-137519+7 103968+3 970. 3043.11		B1F2O1 (g)
-200000+6 500526+5 183183+2 369504-3 267239+7 103968+3 3043. 6000.11		B1F2O1 (g)
1 5 3 9	JANAF 1998	5B1F3 (g)
-271420+6 772364+5 982543+1 114480-1-105133+6 113796+3298.15 424.11		B1F3 (g)
-271420+6 620649+5 132112+2 612328-2-307945+6 106152+3 424. 600.11		B1F3 (g)
-271420+6 522612+5 170470+2 186524-2-769078+6 101491+3 600. 905.11		B1F3 (g)
-271420+6 498130+5 192384+2 258240-3-137278+7 100415+3 905. 1586.11		B1F3 (g)
-271420+6 496932+5 198409+2 474925-5-187705+7 100369+3 1586. 6000.11		B1F3 (g)
1 5 4 9 1 19	JANAF 1998	3B1F4K1 (cr)
-451000+6 215337+6 156768+2 388168-1 998604+4 173127+3298.15 556.21		B1F4K1 (cr)
-451000+6 125061+6 276515+2 105387-1-468563+4 130220+3 556. 843.22		B1F4K1 (cr)
-451000+6 125109+6 276264+2 105625-1-113439+4 130242+3 843. 1500.22		B1F4K1 (cr)
1 5 4 9 1 19	JANAF 1998	3B1F4K1 (cr, 1)
-451000+6 215337+6 156768+2 388168-1 998604+4 173127+3298.15 556.21		B1F4K1 (cr, 1)
-451000+6 125061+6 276513+2 105389-1-465742+4 130220+3 556. 843.22		B1F4K1 (cr, 1)
-451000+6 112116+6 399419+2 000000+0 253037-5 128099+3 843. 1500.33		B1F4K1 (cr, 1)

1 5 4 9 1 19	JANAF 1998	5B1F4K1 (g)
-371000+6 118409+6 193422+2 150006-1-227363+6 159274+3298.15 400.11		B1F4K1 (g)
-371000+6 964596+5 239996+2 742259-2-487565+6 148157+3 400. 591.11		B1F4K1 (g)
-371000+6 838039+5 288284+2 198447-2-105160+7 142125+3 591. 899.11		B1F4K1 (g)
-371000+6 811550+5 311534+2 264889-3-168128+7 140960+3 899. 1561.11		B1F4K1 (g)
-371000+6 810271+5 317646+2 469997-5-218087+7 140910+3 1561. 6000.11		B1F4K1 (g)
1 5 4 9 1 19	JANAF 1998	2B1F4K1 (l)
-446801+6 107917+6 399419+2 000000+0 418181-8 128098+3298.15 800.31		B1F4K1 (l)
-446801+6 107917+6 399419+2 000000+0 544830-6 128098+3 800. 1500.31		B1F4K1 (l)
1 5 1 1	JANAF 1998	5B1H1 (g)
105800+6 241090+5 618897+1 163997-2 265954+5 599147+2298.15 639.11		B1H1 (g)
105800+6 238922+5 663251+1 137807-2-861727+5 598505+2 639. 1016.11		B1H1 (g)
105800+6 228362+5 787076+1 566049-3-512746+6 593972+2 1016. 1484.11		B1H1 (g)
105800+6 226367+5 864369+1 219738-3-108313+7 593184+2 1484. 2391.11		B1H1 (g)
105800+6 226341+5 890937+1 145977-3-159376+7 593175+2 2391. 6000.11		B1H1 (g)
1 5 1 1 1 8	JANAF 1998	5B1H1O1 (g)
-474001+5 439016+5 763316+1 527162-2-695194+5 798796+2298.15 591.11		B1H1O1 (g)
-474001+5 381642+5 984928+1 279335-2-331991+6 771485+2 591. 980.11		B1H1O1 (g)
-474001+5 354490+5 128035+2 797162-3-129046+7 759758+2 980. 1600.11		B1H1O1 (g)
-474001+5 351236+5 145241+2 814740-4-276376+7 758495+2 1600. 4387.11		B1H1O1 (g)
-474001+5 348966+5 111865+2 588294-3 186811+8 757807+2 4387. 6000.11		B1H1O1 (g)
1 5 1 1 1 8 1 99	JANAF 1998	5B1H1O1- (g)
-584300+5 467870+5 632480+1 665956-2 870616+4 868861+2298.15 583.11		B1H1O1- (g)
-584300+5 366958+5 101223+2 234866-2-427779+6 820698+2 583. 947.11		B1H1O1- (g)
-584300+5 339545+5 128709+2 428034-3-126160+7 808775+2 947. 3068.11		B1H1O1- (g)
-584300+5 339546+5 141451+2 152377-3-529537+7 808775+2 3068. 4114.11		B1H1O1- (g)
-584300+5 340128+5 156744+2-949266-4-139580+8 808954+2 4114. 6000.11		B1H1O1- (g)
1 5 1 1 1 8 -1 99	JANAF 1998	5B1H1O1+ (g)
283830+6 487442+5 682442+1 683555-2-498197+5 852033+2298.15 502.11		B1H1O1+ (g)
283830+6 404603+5 925842+1 363044-2-257733+6 811474+2 502. 827.11		B1H1O1+ (g)
283830+6 365695+5 121329+2 133285-2-924165+6 794086+2 827. 1402.11		B1H1O1+ (g)
283830+6 359369+5 141477+2 382486-3-226534+7 791559+2 1402. 2407.11		B1H1O1+ (g)
283830+6 359216+5 158071+2-755789-4-549146+7 791505+2 2407. 6000.11		B1H1O1+ (g)
1 5 1 1 2 8	JANAF 1998	5B1H1O2 (cr)
-191870+6 701877+5 123866+2 835294-2-164157+6 619519+2298.15 498.21		B1H1O2 (cr)
-191870+6 114572+6-173672+1 260675-1 115062+7 834893+2 498. 700.21		B1H1O2 (cr)
-191870+6 642829+5 230629+2 183162-2-268829+7 601334+2 700. 1000.21		B1H1O2 (cr)
-191870+6 596822+5 230902+2 440459-3-132449+7 579872+2 1000. 1213.21		B1H1O2 (cr)
-191870+6 576485+5 270225+2-171318-2-326653+7 571473+2 1213. 1500.21		B1H1O2 (cr)
1 5 1 1 2 8	JANAF 1998	5B1H1O2 (g)
-134000+6 646417+5 776631+1 983525-2-540318+5 101475+3298.15 500.11		B1H1O2 (g)
-134000+6 518950+5 114961+2 491118-2-370961+6 952311+2 500. 812.11		B1H1O2 (g)
-134000+6 468339+5 150959+2 198240-2-117643+7 929613+2 812. 1339.11		B1H1O2 (g)
-134000+6 456886+5 181848+2 455658-3-304946+7 924990+2 1339. 2294.11		B1H1O2 (g)
-134000+6 456650+5 196670+2 275173-4-568081+7 924906+2 2294. 6000.11		B1H1O2 (g)
1 5 1 1 1 16	JANAF 1998	5B1H1S1 (g)
120000+5 479107+5 811056+1 589990-2-960425+5 854827+2298.15 502.11		B1H1S1 (g)
120000+5 385027+5 108866+2 225398-2-334391+6 808785+2 502. 989.11		B1H1S1 (g)
120000+5 361057+5 135547+2 467635-3-121600+7 798451+2 989. 2049.11		B1H1S1 (g)
120000+5 359778+5 140884+2 197693-3-113486+7 797970+2 2049. 4133.11		B1H1S1 (g)
120000+5 357083+5 729468+1 129196-2 376600+8 797142+2 4133. 6000.11		B1H1S1 (g)
1 5 1 1 1 16 -1 99	JANAF 1998	5B1H1S1+ (g)
269950+6 486082+5 851714+1 579399-2-725700+5 887482+2298.15 463.11		B1H1S1+ (g)
269950+6 401553+5 106940+2 267792-2-229953+6 845523+2 463. 804.11		B1H1S1+ (g)
269950+6 371466+5 127753+2 962228-3-683634+6 831994+2 804. 1306.11		B1H1S1+ (g)
269950+6 364889+5 143867+2 142921-3-160700+7 829322+2 1306. 2640.11		B1H1S1+ (g)
269950+6 364839+5 144142+2 108669-3-116883+7 829305+2 2640. 6000.11		B1H1S1+ (g)
1 5 2 1	JANAF 1998	5B1H2 (g)
480000+5 427732+5 717371+1 528717-2-550647+5 735824+2298.15 508.11		B1H2 (g)
480000+5 391140+5 828146+1 385516-2-153202+6 717964+2 508. 876.11		B1H2 (g)
480000+5 354729+5 113241+2 155550-2-942207+6 701872+2 876. 1330.11		B1H2 (g)
480000+5 345165+5 138404+2 302865-3-244615+7 698005+2 1330. 2203.11		B1H2 (g)
480000+5 344934+5 147997+2 143020-4-401669+7 697922+2 2203. 6000.11		B1H2 (g)

1 5 2 1 2 8	JANAF 1998	5B1H2O2 (g)
-114000+6 935586+5 915298+1 155294-1-120340+6 120613+3298.15 453.11		B1H2O2 (g)
-114000+6 716120+5 146371+2 752465-2-501612+6 109685+3 453. 720.11		B1H2O2 (g)
-114000+6 628557+5 195413+2 303932-2-136980+7 105668+3 720. 1175.11		B1H2O2 (g)
-114000+6 604302+5 238666+2 605651-3-339349+7 104660+3 1175. 2038.11		B1H2O2 (g)
-114000+6 603479+5 256529+2 253891-4-590072+7 104630+3 2038. 6000.11		B1H2O2 (g)
1 5 3 1	JANAF 1998	5B1H3 (g)
255000+5 535341+5 556309+1 860974-2 471272+5 812459+2298.15 770.11		B1H3 (g)
255000+5 466020+5 990791+1 485344-2-814043+6 780998+2 770. 1100.11		B1H3 (g)
255000+5 431106+5 149908+2 178256-2-287699+7 766269+2 1100. 1592.11		B1H3 (g)
255000+5 424611+5 183916+2 364839-3-577579+7 763747+2 1592. 2523.11		B1H3 (g)
255000+5 424555+5 196889+2 238898-4-855808+7 763728+2 2523. 6000.11		B1H3 (g)
1 5 3 1 3 8	JANAF 1998	5B1H3O3 (cr)
-261470+6 156877+6 160041+2 257603-1-377308+6 125659+3298.15 487.21		B1H3O3 (cr)
-261470+6 140244+6 214747+2 190306-1-897468+6 117626+3 487. 701.21		B1H3O3 (cr)
-261470+6 123757+6 303835+2 107310-1-241630+7 110036+3 701. 1000.21		B1H3O3 (cr)
-261470+6 117622+6 375769+2 601327-2-489199+7 107403+3 1000. 1230.21		B1H3O3 (cr)
-261470+6 111859+6 491681+2-253948-3-107658+8 105030+3 1230. 1500.21		B1H3O3 (cr)
1 5 3 1 3 8	JANAF 1998	5B1H3O3 (g)
-237160+6 119081+6 112414+2 200057-1-141826+6 149754+3298.15 474.11		B1H3O3 (g)
-237160+6 902572+5 189809+2 921979-2-732031+6 135508+3 474. 800.11		B1H3O3 (g)
-237160+6 812971+5 251839+2 410812-2-208479+7 131480+3 800. 1312.11		B1H3O3 (g)
-237160+6 787723+5 315239+2 908166-3-577132+7 130456+3 1312. 2231.11		B1H3O3 (g)
-237160+6 787107+5 344184+2 486061-4-106332+8 130434+3 2231. 6000.11		B1H3O3 (g)
1 5 4 1 1 19	JANAF 1998	5B1H4K1 (cr)
-542299+5 582801+5 270732+2-315315-2-270969+6 779572+2298.15 575.21		B1H4K1 (cr)
-542299+5 427344+5 523528+2-191581-1-558635+7 731640+2 575. 815.21		B1H4K1 (cr)
-542299+5 771628+5 330300+2-146622-2-232906+7 889107+2 815. 1100.21		B1H4K1 (cr)
-542299+5 795324+5 298789+2 503112-3-113747+7 899172+2 1100. 1549.21		B1H4K1 (cr)
-542299+5 796077+5 301146+2 461024-3-154651+7 899494+2 1549. 2000.21		B1H4K1 (cr)
1 5 4 1 1 3	JANAF 1998	5B1H4Li1 (cr)
-455220+5 111804+6 161509+2 153577-1-862148+5 964231+2298.15 600.21		B1H4Li1 (cr)
-455220+5 696931+5 322789+2-276647-2-197747+7 763603+2 600. 975.21		B1H4Li1 (cr)
-455220+5 761967+5 269269+2 131838-2-675822+6 792292+2 975. 1200.21		B1H4Li1 (cr)
-455220+5 758248+5 269864+2 116884-2-503062+6 790649+2 1200. 1600.21		B1H4Li1 (cr)
-455220+5 756309+5 279973+2 746973-3-136306+7 789896+2 1600. 2000.21		B1H4Li1 (cr)
1 5 4 1 1 11	JANAF 1998	5B1H4Na1 (cr)
-458499+5 114571+6 168232+2 155605-1-705488+5 104722+3298.15 627.21		B1H4Na1 (cr)
-458499+5 890134+5 285917+2 362608-2-175534+7 927753+2 627. 1000.21		B1H4Na1 (cr)
-458499+5 811047+5 379366+2-248449-2-498964+7 893831+2 1000. 1261.21		B1H4Na1 (cr)
-458499+5 817460+5 342716+2-926676-3-228554+7 896157+2 1261. 1695.21		B1H4Na1 (cr)
-458499+5 825990+5 284186+2 137554-2 331886+7 899425+2 1695. 2000.21		B1H4Na1 (cr)
1 5 1 53	JANAF 1998	5B1I1 (g)
730000+5 276220+5 810491+1 131332-2-423135+5 776276+2298.15 396.11		B1I1 (g)
730000+5 253000+5 856832+1 527066-3-661572+5 764438+2 396. 515.11		B1I1 (g)
730000+5 244573+5 882637+1 195848-3-893564+5 760330+2 515. 800.11		B1I1 (g)
730000+5 243024+5 892705+1 110321-3-110002+6 759630+2 800. 1560.11		B1I1 (g)
730000+5 242984+5 894191+1 103556-3-120488+6 759614+2 1560. 6000.11		B1I1 (g)
1 5 2 53	JANAF 1998	5B1I2 (g)
580000+5 451366+5 117149+2 308090-2-802348+5 108885+3298.15 404.11		B1I2 (g)
580000+5 387535+5 130438+2 890586-3-152704+6 105645+3 404. 600.11		B1I2 (g)
580000+5 369342+5 137395+2 108061-3-234145+6 104778+3 600. 1079.11		B1I2 (g)
580000+5 367993+5 138880+2 796342-5-281344+6 104720+3 1079. 1999.11		B1I2 (g)
580000+5 367973+5 139093+2 154748-6-303878+6 104719+3 1999. 6000.11		B1I2 (g)
1 5 3 53	JANAF 1998	5B1I3 (g)
170000+5 630401+5 171539+2 382956-2-122456+6 132589+3298.15 404.11		B1I3 (g)
170000+5 550713+5 188098+2 109674-2-212533+6 128544+3 404. 600.11		B1I3 (g)
170000+5 528358+5 196557+2 139514-3-310277+6 127478+3 600. 998.11		B1I3 (g)
170000+5 526535+5 198581+2 384939-5-377028+6 127399+3 998. 3002.11		B1I3 (g)
170000+5 526535+5 198688+2 441784-6-381193+6 127399+3 3002. 6000.11		B1I3 (g)
1 5 1 19 2 8	JANAF 1998	5B1K1O2 (cr)
-237800+6 966846+5 142372+2 131960-1-191294+6 865747+2298.15 497.21		B1K1O2 (cr)
-237800+6 807466+5 187824+2 709835-2-565430+6 787469+2 497. 726.21		B1K1O2 (cr)
-237800+6 740790+5 225038+2 368880-2-122221+7 756870+2 726. 1000.21		B1K1O2 (cr)
-237800+6 652069+5 324897+2-296720-2-455215+7 718657+2 1000. 1220.21		B1K1O2 (cr)
-237800+6 697285+5 232790+2 199309-2 149936+6 737260+2 1220. 2000.21		B1K1O2 (cr)

1 5 1 19 2 8	JANAF 1998	5B1K1O2 (cr,1)
-237800+6 966846+5 142372+2 131961-1-191294+6 865747+2298.15 497.21		B1K1O2 (cr,1)
-237800+6 807476+5 187820+2 709876-2-565393+6 787473+2 497. 726.21		B1K1O2 (cr,1)
-237800+6 740838+5 225004+2 369157-2-122149+7 756892+2 726. 1000.21		B1K1O2 (cr,1)
-237800+6 654938+5 321038+2-272675-2-440650+7 719873+2 1000. 1220.21		B1K1O2 (cr,1)
-237800+6 905333+5 350000+2 000000+0-180916-4 868298+2 1220. 2000.32		B1K1O2 (cr,1)
1 5 1 19 2 8	JANAF 1998	4B1K1O2 (g)
-161100+6 636416+5 135292+2 615544-2-111930+6 118300+3298.15 504.11		B1K1O2 (g)
-161100+6 539221+5 163901+2 239235-2-356879+6 113542+3 504. 844.11		B1K1O2 (g)
-161100+6 505966+5 189393+2 389186-3-968436+6 112060+3 844. 1534.11		B1K1O2 (g)
-161100+6 503998+5 198219+2 773566-5-166837+7 111983+3 1534. 6000.11		B1K1O2 (g)
1 5 1 19 2 8	JANAF 1998	4B1K1O2 (l)
-234400+6 964092+5 142842+2 131070-1-193117+6 884577+2298.15 494.31		B1K1O2 (l)
-234400+6 793997+5 192941+2 651948-2-621579+6 801325+2 494. 812.31		B1K1O2 (l)
-234400+6 871341+5 350000+2 000000+0-806705-5 868302+2 812. 1220.32		B1K1O2 (l)
-234400+6 871341+5 350000+2 000000+0-156810-4 868302+2 1220. 2000.32		B1K1O2 (l)
1 5 1 3 2 8	JANAF 1998	5B1Li1O2 (cr)
-243600+6 887059+5 141496+2 115189-1-280501+6 745924+2298.15 500.21		B1Li1O2 (cr)
-243600+6 925231+5 131213+2 129492-1-202201+6 764778+2 500. 703.21		B1Li1O2 (cr)
-243600+6 930126+5 128646+2 131920-1-159741+6 767039+2 703. 1117.21		B1Li1O2 (cr)
-243600+6 930581+5 128309+2 132196-1-156108+6 767237+2 1117. 1301.21		B1Li1O2 (cr)
-243600+6 930885+5 127599+2 132562-1-116612+6 767361+2 1301. 2000.21		B1Li1O2 (cr)
1 5 1 3 2 8	JANAF 1998	5B1Li1O2 (cr,1)
-243600+6 887059+5 141496+2 115189-1-280501+6 745924+2298.15 500.21		B1Li1O2 (cr,1)
-243600+6 925233+5 131212+2 129493-1-202192+6 764780+2 500. 703.21		B1Li1O2 (cr,1)
-243600+6 930132+5 128641+2 131924-1-159634+6 767041+2 703. 1117.21		B1Li1O2 (cr,1)
-243600+6 907703+5 344909+2 000000+0-155033-3 805182+2 1117. 1300.32		B1Li1O2 (cr,1)
-243600+6 907703+5 344909+2 000000+0-168102-5 805182+2 1300. 3000.32		B1Li1O2 (cr,1)
1 5 1 3 2 8	JANAF 1998	5B1Li1O2 (g)
-154600+6 655690+5 130292+2 690001-2-124956+6 113664+3298.15 457.11		B1Li1O2 (g)
-154600+6 560922+5 154122+2 343591-2-292001+6 108948+3 457. 700.11		B1Li1O2 (g)
-154600+6 513668+5 178607+2 110486-2-692214+6 106763+3 700. 1078.11		B1Li1O2 (g)
-154600+6 502678+5 193735+2 171846-3-128138+7 106298+3 1078. 1851.11		B1Li1O2 (g)
-154600+6 502262+5 198384+2 489361-5-181552+7 106282+3 1851. 6000.11		B1Li1O2 (g)
1 5 1 3 2 8	JANAF 1998	3B1Li1O2 (l)
-239068+6 921388+5 135651+2 126285-1-257901+6 796688+2298.15 400.31		B1Li1O2 (l)
-239068+6 921358+5 132869+2 127742-1-222725+6 795952+2 400. 745.31		B1Li1O2 (l)
-239068+6 862366+5 344909+2 000000+0 323278-6 805144+2 745. 3000.32		B1Li1O2 (l)
1 5 1 7	JANAF 1998	5B1N1 (cr)
-599699+5 508581+5 320360+1 955265-2-119143+6 360788+2298.15 486.21		B1N1 (cr)
-599699+5 345467+5 769856+1 339079-2-473504+6 280389+2 486. 966.21		B1N1 (cr)
-599699+5 293465+5 130912+2-325180-3-215605+7 257836+2 966. 1543.21		B1N1 (cr)
-599699+5 290342+5 121435+2-158759-3-510965+6 256500+2 1543. 1801.21		B1N1 (cr)
-599699+5 290728+5 117001+2-118438-7-117836+3 256645+2 1801. 3500.21		B1N1 (cr)
1 5 1 7	JANAF 1998	5B1N1 (g)
114000+6 292570+5 592656+1 295871-2 204128+5 725194+2298.15 529.11		B1N1 (g)
114000+6 250650+5 725586+1 128843-2-104317+6 704830+2 529. 815.11		B1N1 (g)
114000+6 233637+5 845805+1 307342-3-371733+6 697196+2 815. 2451.11		B1N1 (g)
114000+6 233652+5 883658+1 215272-3-129007+7 697201+2 2451. 3411.11		B1N1 (g)
114000+6 233664+5 937425+1 110260-3-337830+7 697205+2 3411. 6000.11		B1N1 (g)
1 5 1 11 2 8	JANAF 1998	5B1Na1O2 (cr)
-233200+6 945369+5 140755+2 128110-1-189797+6 836297+2298.15 400.21		B1Na1O2 (cr)
-233200+6 816102+5 176412+2 791506-2-446957+6 772952+2 400. 794.21		B1Na1O2 (cr)
-233200+6 738580+5 216029+2 410480-2-103730+7 737207+2 794. 1000.21		B1Na1O2 (cr)
-233200+6 648595+5 315448+2-257148-2-430286+7 698390+2 1000. 1201.21		B1Na1O2 (cr)
-233200+6 689194+5 229981+2 198608-2 129621+6 715042+2 1201. 2000.21		B1Na1O2 (cr)
1 5 1 11 2 8	JANAF 1998	5B1Na1O2 (cr,1)
-233200+6 957926+5 138921+2 132001-1-183820+6 842905+2298.15 519.21		B1Na1O2 (cr,1)
-233200+6 769768+5 197044+2 577916-2-712001+6 751257+2 519. 910.21		B1Na1O2 (cr,1)
-233200+6 661013+5 295133+2-139022-2-343215+7 703517+2 910. 1240.21		B1Na1O2 (cr,1)
-233200+6 905688+5 350000+2 000000+0-274353-3 850231+2 1240. 1401.32		B1Na1O2 (cr,1)
-233200+6 905688+5 350000+2 000000+0-203520-4 850231+2 1401. 2500.32		B1Na1O2 (cr,1)

1 5 1 11 2 8	JANAF 1998						5B1Na1O2 (g)
-155000+6	650286+5	132335+2	664841-2	-115473+6	116501+3298.15	459.11	B1Na1O2 (g)
-155000+6	560812+5	154998+2	336944-2	-275842+6	112052+3	459. 700.11	B1Na1O2 (g)
-155000+6	514521+5	179002+2	108508-2	-668483+6	109912+3	700. 1077.11	B1Na1O2 (g)
-155000+6	503694+5	193862+2	167586-3	-124606+7	109453+3	1077. 1850.11	B1Na1O2 (g)
-155000+6	503287+5	198395+2	472999-5	-176612+7	109438+3	1850. 6000.11	B1Na1O2 (g)
1 5 1 11 2 8	JANAF 1998						3B1Na1O2 (l)
-229450+6	958869+5	138654+2	132364-1	-182381+6	865866+2298.15	483.31	B1Na1O2 (l)
-229450+6	783841+5	190773+2	642851-2	-631144+6	780329+2	483. 826.31	B1Na1O2 (l)
-229450+6	868186+5	350000+2	000000+0	-463736-6	850215+2	826. 2500.32	B1Na1O2 (l)
1 5 1 8	JANAF 1998						5B1O1 (g)
000000+0	262677+5	600360+1	223632-2	274072+5	686606+2298.15	717.11	B1O1 (g)
000000+0	232561+5	764450+1	714306-3	-255143+6	672753+2	717. 1176.11	B1O1 (g)
000000+0	226486+5	871563+1	109311-3	-752540+6	670227+2	1176. 2648.11	B1O1 (g)
000000+0	226455+5	837366+1	174020-3	443843+6	670217+2	2648. 4127.11	B1O1 (g)
000000+0	225923+5	700211+1	395446-3	823994+7	670053+2	4127. 6000.11	B1O1 (g)
1 5 2 8	JANAF 1998						5B1O2 (g)
-680000+5	560771+5	874741+1	731679-2	-521202+5	945751+2298.15	422.11	B1O2 (g)
-680000+5	453366+5	111407+2	354908-2	-195187+6	891624+2	422. 605.11	B1O2 (g)
-680000+5	390752+5	136368+2	807581-3	-501730+6	861914+2	605. 974.11	B1O2 (g)
-680000+5	380370+5	147373+2	560821-4	-851302+6	857420+2	974. 3112.11	B1O2 (g)
-680000+5	380370+5	137090+2	276377-3	246750+7	857419+2	3112. 6000.11	B1O2 (g)
1 5 2 8 1 99	JANAF 1998						5B1O2- (g)
-166000+6	495240+5	842251+1	606078-2	-783049+5	869653+2298.15	458.11	B1O2- (g)
-166000+6	422521+5	102590+2	339857-2	-207770+6	833482+2	458. 702.11	B1O2- (g)
-166000+6	380993+5	124385+2	133743-2	-568766+6	814311+2	702. 1059.11	B1O2- (g)
-166000+6	368311+5	141074+2	290624-3	-119724+7	808918+2	1059. 1703.11	B1O2- (g)
-166000+6	367334+5	148032+2	189769-4	-187340+7	808544+2	1703. 6000.11	B1O2- (g)
1 5 1 16	JANAF 1998						5B1S1 (g)
580999+5	303993+5	631293+1	299613-2	-221908+4	743023+2298.15	492.11	B1S1 (g)
580999+5	248132+5	788441+1	869767-3	-129377+6	715549+2	492. 796.11	B1S1 (g)
580999+5	234912+5	877179+1	127674-3	-317354+6	709588+2	796. 2460.11	B1S1 (g)
580999+5	235013+5	734910+1	513063-3	255492+7	709623+2	2460. 4061.11	B1S1 (g)
580999+5	235856+5	815525+1	408514-3	-373788+7	709879+2	4061. 6000.11	B1S1 (g)
1 5 1 22	JANAF 1998						4B1Ti1 (cr)
-383000+5	414569+5	114100+2	269447-2	-455683+6	393852+2298.15	471.21	B1Ti1 (cr)
-383000+5	308920+5	141860+2	-122820-2	-661660+6	341519+2	471. 835.21	B1Ti1 (cr)
-383000+5	327498+5	133712+2	-369993-3	-593150+6	350131+2	835. 1100.21	B1Ti1 (cr)
-383000+5	334054+5	121221+2	319973-3	-127928+3	352829+2	1100. 4000.21	B1Ti1 (cr)
2 5	JANAF 1998						5B2 (g)
198300+6	420251+5	624006+1	567119-2	-340832+5	778100+2298.15	482.11	B2 (g)
198300+6	241679+5	111151+2	-105147-2	-413861+6	689997+2	482. 1063.11	B2 (g)
198300+6	251122+5	975644+1	-226809-3	130803+6	693982+2	1063. 1600.11	B2 (g)
198300+6	252542+5	902319+1	798572-4	751815+6	694534+2	1600. 2459.11	B2 (g)
198300+6	252579+5	851567+1	217614-3	177238+7	694547+2	2459. 6000.11	B2 (g)
2 5 1 4 4 8	JANAF 1998						5B2Be1O4 (g)
-323000+6	147015+6	176546+2	224354-1	-214506+6	178260+3298.15	419.11	B2Be1O4 (g)
-323000+6	117666+6	241303+2	121735-1	-596517+6	163455+3	419. 602.11	B2Be1O4 (g)
-323000+6	987449+5	316198+2	391438-2	-150887+7	154470+3	602. 926.11	B2Be1O4 (g)
-323000+6	938368+5	362585+2	591335-3	-284784+7	152325+3	926. 1622.11	B2Be1O4 (g)
-323000+6	935892+5	376743+2	125163-4	-410281+7	152229+3	1622. 6000.11	B2Be1O4 (g)
2 5 3 4 6 8	JANAF 1998						5B2Be3O6 (cr)
-741960+6	299099+6	246412+2	526051-1	-616604+6	219588+3298.15	500.21	B2Be3O6 (cr)
-741960+6	260092+6	361339+2	374969-1	-160127+7	200495+3	500. 736.21	B2Be3O6 (cr)
-741960+6	184767+6	794735+2	-160230-2	-948974+7	166030+3	736. 1131.21	B2Be3O6 (cr)
-741960+6	187625+6	714100+2	239548-2	-495899+7	167155+3	1131. 1631.21	B2Be3O6 (cr)
-741960+6	188862+6	682164+2	404758-2	-363139+7	167646+3	1631. 3000.21	B2Be3O6 (cr)
2 5 4 17	JANAF 1998						5B2C14 (g)
-116900+6	101833+6	233302+2	890798-2	-295279+6	162054+3298.15	537.11	B2C14 (g)
-116900+6	847127+5	276564+2	262789-2	-570320+6	153567+3	537. 800.11	B2C14 (g)
-116900+6	797439+5	305911+2	128507-4	-110964+7	151302+3	800. 1190.11	B2C14 (g)
-116900+6	799146+5	309194+2	-510526-4	-146682+7	151383+3	1190. 2050.11	B2C14 (g)
-116900+6	799335+5	307951+2	163181-5	-139856+7	151390+3	2050. 6000.11	B2C14 (g)

2 5 4 9	JANAF 1998				5B2F4 (g)			
-342200+6	122022+6	150149+2	184097-1-189132+6	159444+3298.15	420.11	B2F4 (g)		
-342200+6	965315+5	206545+2	948884-2-523039+6	146588+3	420.	600.11	B2F4 (g)	
-342200+6	808766+5	267333+2	271151-2-124750+7	139140+3	600.	903.11	B2F4 (g)	
-342200+6	772771+5	299108+2	367277-3-211235+7	137557+3	903.	1559.11	B2F4 (g)	
-342200+6	771004+5	307590+2	654080-5-280705+7	137488+3	1559.	6000.11	B2F4 (g)	
2 5 4 9 1 8	JANAF 1998				5B2F401 (g)			
-453650+6	147703+6	137797+2	248931-1-145795+6	178903+3298.15	430.11	B2F401 (g)		
-453650+6	118298+6	205337+2	144734-1-566174+6	164132+3	430.	605.11	B2F401 (g)	
-453650+6	962464+5	293503+2	480610-2-165248+7	153671+3	605.	915.11	B2F401 (g)	
-453650+6	900997+5	350012+2	709734-3-324548+7	150978+3	915.	1591.11	B2F401 (g)	
-453650+6	897821+5	366719+2	139488-4-467248+7	150854+3	1591.	6000.11	B2F401 (g)	
2 5 4 1 4 8	JANAF 1998				5B2H404 (cr)			
-337100+6	226267+6	224856+2	375034-1-524312+6	180323+3298.15	500.21	B2H404 (cr)		
-337100+6	200006+6	308127+2	270371-1-129780+7	167573+3	500.	700.21	B2H404 (cr)	
-337100+6	174761+6	447502+2	141945-1-372214+7	155979+3	700.	900.21	B2H404 (cr)	
-337100+6	172330+6	480478+2	121312-1-488909+7	154961+3	900.	1100.21	B2H404 (cr)	
-337100+6	161609+6	650928+2	214892-2-122272+8	150471+3	1100.	1500.21	B2H404 (cr)	
2 5 4 1 4 8	JANAF 1998				5B2H404 (g)			
-307000+6	193916+6	193187+2	320583-1-370138+6	212528+3298.15	463.11	B2H404 (g)		
-307000+6	143008+6	325200+2	132456-1-133288+7	187276+3	463.	781.11	B2H404 (g)	
-307000+6	129397+6	415048+2	567100-2-320486+7	181129+3	781.	1299.11	B2H404 (g)	
-307000+6	125839+6	501663+2	125858-2-814864+7	179683+3	1299.	2219.11	B2H404 (g)	
-307000+6	125749+6	541571+2	668384-4-147779+8	179651+3	2219.	6000.11	B2H404 (g)	
2 5 6 1	JANAF 1998				5B2H6 (g)			
979995+4	157167+6	576246+1	318635-1-123076+6	154412+3298.15	500.11	B2H6 (g)		
979995+4	121114+6	163491+2	179173-1-102648+7	136759+3	500.	791.11	B2H6 (g)	
979995+4	101047+6	298177+2	665364-2-387898+7	127711+3	791.	1206.11	B2H6 (g)	
979995+4	959402+5	397061+2	124010-2-876540+7	125602+3	1206.	2035.11	B2H6 (g)	
979995+4	957713+5	433747+2	483998-4-139147+8	125540+3	2035.	6000.11	B2H6 (g)	
2 5 1 12	JANAF 1998				5B2Mg1 (cr)			
-219799+5	147957+6	-353588+1	350799-1	400646+6	974484+2298.15	406.21	B2Mg1 (cr)	
-219799+5	546786+5	121045+2	505475-2-168063+6	491505+2	406.	700.21	B2Mg1 (cr)	
-219799+5	584706+5	997302+1	700112-2	208760+6	508888+2	700.	900.21	B2Mg1 (cr)
-219799+5	554904+5	122710+2	519886-2-338804+6	495633+2	900.	1375.21	B2Mg1 (cr)	
-219799+5	549197+5	161362+2	362894-2-356518+7	493536+2	1375.	2000.21	B2Mg1 (cr)	
2 5 1 8	JANAF 1998				5B2O1 (g)			
230000+5	476482+5	758383+1	610891-2-201244+5	883086+2298.15	508.11	B2O1 (g)		
230000+5	388520+5	102023+2	268869-2-247475+6	840076+2	508.	800.11	B2O1 (g)	
230000+5	352498+5	125218+2	709451-3-718580+6	823772+2	800.	1167.11	B2O1 (g)	
230000+5	346381+5	135808+2	107598-3-120424+7	821226+2	1167.	1951.11	B2O1 (g)	
230000+5	346185+5	138871+2	334395-5-159603+7	821153+2	1951.	6000.11	B2O1 (g)	
2 5 2 8	JANAF 1998				5B2O2 (g)			
-109000+6	618603+5	137109+2	567266-2-152067+6	104091+3298.15	591.11	B2O2 (g)		
-109000+6	556612+5	160891+2	300273-2-431599+6	101138+3	591.	875.11	B2O2 (g)	
-109000+6	523934+5	187953+2	949155-3-112782+7	996927+2	875.	1292.11	B2O2 (g)	
-109000+6	517425+5	203294+2	159982-3-198659+7	994276+2	1292.	2123.11	B2O2 (g)	
-109000+6	517256+5	208204+2	629368-5-272877+7	994215+2	2123.	6000.11	B2O2 (g)	
2 5 3 8	JANAF 1998				5B2O3 (cr)			
-304000+6	121149+6	128813+2	196065-1-335026+6	937430+2298.15	488.21	B2O3 (cr)		
-304000+6	977088+5	193586+2	107426-1-847441+6	821927+2	488.	705.21	B2O3 (cr)	
-304000+6	905950+5	230769+2	721870-2-146077+7	789071+2	705.	900.21	B2O3 (cr)	
-304000+6	884523+5	251329+2	575469-2-205886+7	779721+2	900.	1201.21	B2O3 (cr)	
-304000+6	876371+5	265454+2	495199-2-270572+7	776329+2	1201.	1500.21	B2O3 (cr)	
2 5 3 8	JANAF 1998				5B2O3 (cr, 1)			
-304000+6	121109+6	128881+2	195936-1-335291+6	937224+2298.15	488.21	B2O3 (cr, 1)		
-304000+6	975454+5	194185+2	106735-1-853820+6	821147+2	488.	723.21	B2O3 (cr, 1)	
-304000+6	853248+5	310000+2	000000+0	660995-5	830177+2	723.	900.32	B2O3 (cr, 1)
-304000+6	853248+5	310000+2	000000+0	-126217-4	830177+2	900.	1201.32	B2O3 (cr, 1)
-304000+6	853248+5	310000+2	000000+0	-270238-5	830177+2	1201.	3000.32	B2O3 (cr, 1)
2 5 3 8	JANAF 1998				5B2O3 (g)			
-199800+6	823256+5	152867+2	933340-2-186087+6	127271+3298.15	500.11	B2O3 (g)		
-199800+6	711580+5	185698+2	501162-2-466646+6	121803+3	500.	783.11	B2O3 (g)	
-199800+6	650330+5	225634+2	162478-2-128924+7	119034+3	783.	1188.11	B2O3 (g)	
-199800+6	636976+5	249919+2	267408-3-244077+7	118480+3	1188.	1999.11	B2O3 (g)	
-199800+6	636553+5	257688+2	919620-5-348271+7	118464+3	1999.	6000.11	B2O3 (g)	



2 5 3 8	JANAF 1998				5B2O3 (l)		
-299560+6	144418+6	841010+1	274078-1-139712+6	111439+3298.15	400.31	B2O3 (l)	
-299560+6	603946+6	-105695+3	194796+0	740427+7	339894+3	400. 600.31	B2O3 (l)
-299560+6	117697+6	106241+2	188087-1	354264+7	995834+2	600. 723.31	B2O3 (l)
-299560+6	806511+5	310000+2	000000+0	124845-5	825583+2	723. 1511.31	B2O3 (l)
-299560+6	806511+5	310000+2	000000+0	650800-5	825583+2	1511. 3000.31	B2O3 (l)
2 5 4 8 1 82	JANAF 1998				5B2O4Pb1 (cr)		
-372000+6	205640+6	195326+2	345650-1-377453+6	167584+3298.15	490.21	B2O4Pb1 (cr)	
-372000+6	166938+6	302945+2	198959-1-123559+7	148525+3	490. 700.21	B2O4Pb1 (cr)	
-372000+6	144168+6	422662+2	858470-2-322193+7	138015+3	700. 901.21	B2O4Pb1 (cr)	
-372000+6	131892+6	547871+2	-111613-3-702563+7	132691+3	901. 1226.21	B2O4Pb1 (cr)	
-372000+6	134417+6	458111+2	406427-2-122929+7	133673+3	1226. 2000.21	B2O4Pb1 (cr)	
2 5 1 22	JANAF 1998				5B2Ti1 (cr)		
-668000+5	724440+5	111817+2	968892-2-310137+6	570749+2298.15	450.21	B2Ti1 (cr)	
-668000+5	555690+5	152851+2	359208-2-585496+6	486479+2	450. 700.21	B2Ti1 (cr)	
-668000+5	575444+5	140856+2	464651-2-359428+6	495457+2	700. 1300.21	B2Ti1 (cr)	
-668000+5	557467+5	186197+2	236073-2-300011+7	488169+2	1300. 2140.21	B2Ti1 (cr)	
-668000+5	554635+5	188707+2	197623-2-381497+6	487114+2	2140. 4000.21	B2Ti1 (cr)	
2 5 1 22	JANAF 1998				5B2Ti1 (cr, l)		
-668000+5	812183+5	968345+1	125274-1-252060+6	616083+2298.15	453.21	B2Ti1 (cr, l)	
-668000+5	571773+5	145149+2	436089-2-484361+6	493888+2	453. 1415.21	B2Ti1 (cr, l)	
-668000+5	556824+5	192148+2	213617-2-359171+7	487912+2	1415. 2151.21	B2Ti1 (cr, l)	
-668000+5	554642+5	191246+2	191222-2-945397+6	487100+2	2151. 3193.21	B2Ti1 (cr, l)	
-668000+5	792610+5	260000+2	000000+0-712799-4	561608+2	3193. 6000.32	B2Ti1 (cr, l)	
2 5 1 22	JANAF 1998				5B2Ti1 (l)		
-449400+5	697234+5	116464+2	880873-2-328156+6	623328+2298.15	500.31	B2Ti1 (l)	
-449400+5	547230+5	156132+2	322525-2-621924+6	549104+2	500. 800.31	B2Ti1 (l)	
-449400+5	571676+5	145830+2	433197-2-529224+6	560508+2	800. 1401.31	B2Ti1 (l)	
-449400+5	556907+5	191290+2	216756-2-350022+7	554596+2	1401. 2100.31	B2Ti1 (l)	
-449400+5	574001+5	260000+2	000000+0-612748-5	561619+2	2100. 6000.32	B2Ti1 (l)	
2 5 1 40	JANAF 1998				5B2Zr1 (cr)		
-770999+5	563788+5	142758+2	423830-2-356334+6	510165+2298.15	500.21	B2Zr1 (cr)	
-770999+5	495755+5	160295+2	172869-2-481051+6	476421+2	500. 916.21	B2Zr1 (cr)	
-770999+5	502898+5	148084+2	243833-2-186129+4	479313+2	916. 1688.21	B2Zr1 (cr)	
-770999+5	502910+5	148056+2	243985-2-127068+4	479317+2	1688. 3289.21	B2Zr1 (cr)	
-770999+5	502909+5	147977+2	244134-2	313072+5	479317+2	3289. 4000.21	B2Zr1 (cr)
2 5 1 40	JANAF 1998				5B2Zr1 (cr, l)		
-770999+5	563784+5	142759+2	423818-2-356337+6	510163+2298.15	500.21	B2Zr1 (cr, l)	
-770999+5	495733+5	160305+2	172766-2-481165+6	476411+2	500. 917.21	B2Zr1 (cr, l)	
-770999+5	502909+5	148050+2	243997-2	342634+2	479317+2	917. 2000.21	B2Zr1 (cr, l)
-770999+5	502910+5	148056+2	243985-2-122166+4	479318+2	2000. 3323.21	B2Zr1 (cr, l)	
-770999+5	751356+5	230000+2	000000+0	863334-5	554053+2	3323. 5000.32	B2Zr1 (cr, l)
2 5 1 40	JANAF 1998				5B2Zr1 (l)		
-537361+5	563963+5	142728+2	424397-2-356218+6	579092+2298.15	500.31	B2Zr1 (l)	
-537361+5	497171+5	159717+2	179152-2-474382+6	545923+2	500. 880.31	B2Zr1 (l)	
-537361+5	498134+5	154072+2	205571-2-217284+6	546118+2	880. 1100.31	B2Zr1 (l)	
-537361+5	502910+5	148053+2	243987-2-284892+3	548154+2	1100. 2200.31	B2Zr1 (l)	
-537361+5	517718+5	230000+2	000000+0	724294-5	554051+2	2200. 5000.32	B2Zr1 (l)
3 5 3 17 3 8	JANAF 1998				5B3C13O3 (g)		
-390000+6	201640+6	268849+2	292035-1-369628+6	230281+3298.15	400.11	B3C13O3 (g)	
-390000+6	152701+6	371687+2	123602-1-937057+6	205467+3	400. 584.11	B3C13O3 (g)	
-390000+6	130390+6	455018+2	285910-2-188671+7	194810+3	584. 885.11	B3C13O3 (g)	
-390000+6	126458+6	488369+2	355250-3-276334+7	193075+3	885. 1530.11	B3C13O3 (g)	
-390000+6	126276+6	496420+2	584956-5-339663+7	193003+3	1530. 6000.11	B3C13O3 (g)	
3 5 1 9 2 1 3 8	JANAF 1998				5B3F1H2O3 (g)		
-382000+6	196323+6	155758+2	348101-1-284030+6	203653+3298.15	450.11	B3F1H2O3 (g)	
-382000+6	147672+6	277219+2	170705-1-112712+7	179425+3	450. 690.11	B3F1H2O3 (g)	
-382000+6	123816+6	398534+2	540682-2-307125+7	168378+3	690. 1066.11	B3F1H2O3 (g)	
-382000+6	118419+6	471572+2	873499-3-587956+7	166088+3	1066. 1833.11	B3F1H2O3 (g)	
-382000+6	118202+6	495064+2	253380-4-854900+7	166007+3	1833. 6000.11	B3F1H2O3 (g)	
3 5 2 9 1 1 3 8	JANAF 1998				5B3F2H1O3 (g)		
-475000+6	204412+6	174652+2	354862-1-293699+6	213171+3298.15	421.11	B3F2H1O3 (g)	
-475000+6	160300+6	272826+2	200201-1-879693+6	190942+3	421. 602.11	B3F2H1O3 (g)	
-475000+6	129540+6	394712+2	658524-2-236584+7	176334+3	602. 917.11	B3F2H1O3 (g)	
-475000+6	121172+6	472103+2	989520-3-455872+7	172669+3	917. 1598.11	B3F2H1O3 (g)	
-475000+6	120737+6	495492+2	199651-4-657487+7	172500+3	1598. 6000.11	B3F2H1O3 (g)	

3 5 3 9 3 8	JANAF 1998	5B3F303 (cr)
-586500+6 242697+6 170810+2 441272-1-211077+5 210544+3298.15 450.21		B3F303 (cr)
-586500+6 193167+6 297581+2 259074-1-927953+6 185944+3 450. 700.21		B3F303 (cr)
-586500+6 167658+6 431519+2 132437-1-314729+7 174169+3 700. 921.21		B3F303 (cr)
-586500+6 147383+6 619448+2-331382-3-848286+7 165290+3 921. 1207.21		B3F303 (cr)
-586500+6 139300+6 772140+2-875858-2-159093+8 161946+3 1207. 1500.21		B3F303 (cr)
3 5 3 9 3 8	JANAF 1998	5B3F303 (g)
-565300+6 206108+6 207825+2 338606-1-301504+6 219611+3298.15 420.11		B3F303 (g)
-565300+6 158530+6 313034+2 172127-1-923993+6 195615+3 420. 600.11		B3F303 (g)
-565300+6 130025+6 423651+2 487534-2-224134+7 182052+3 600. 904.11		B3F303 (g)
-565300+6 123553+6 480784+2 660568-3-379659+7 179206+3 904. 1555.11		B3F303 (g)
-565300+6 123235+6 496030+2 118375-4-504395+7 179082+3 1555. 6000.11		B3F303 (g)
3 5 3 1 3 8	JANAF 1998	5B3H303 (cr)
-301700+6 249119+6 852313+1 507530-1-139558+5 196727+3298.15 579.21		B3H303 (cr)
-301700+6 169723+6 379908+2 170323-1-334740+7 158779+3 579. 942.21		B3H303 (cr)
-301700+6 143754+6 545859+2 270415-2-609644+7 147119+3 942. 1200.21		B3H303 (cr)
-301700+6 140899+6 543461+2 181387-2-421274+7 145846+3 1200. 1590.21		B3H303 (cr)
-301700+6 139240+6 628248+2-174020-2-113616+8 145201+3 1590. 2000.21		B3H303 (cr)
3 5 3 1 3 8	JANAF 1998	5B3H303 (g)
-291000+6 194481+6 125920+2 361571-1-212063+6 195323+3298.15 457.11		B3H303 (g)
-291000+6 145280+6 250564+2 181249-1-109417+7 170859+3 457. 700.11		B3H303 (g)
-291000+6 121661+6 373925+2 642915-2-312723+7 159950+3 700. 1103.11		B3H303 (g)
-291000+6 115734+6 461635+2 116152-2-672934+7 157453+3 1103. 1912.11		B3H303 (g)
-291000+6 115502+6 494024+2 399037-4-107301+8 157366+3 1912. 6000.11		B3H303 (g)
3 5 3 1 6 8	JANAF 1998	5B3H306 (g)
-543000+6 257609+6 282811+2 411348-1-688711+6 255643+3298.15 444.11		B3H306 (g)
-543000+6 182334+6 464739+2 139953-1-189969+7 218029+3 444. 696.11		B3H306 (g)
-543000+6 164340+6 558448+2 509733-2-343912+7 209715+3 696. 1258.11		B3H306 (g)
-543000+6 160984+6 631940+2 122966-2-736981+7 208342+3 1258. 2208.11		B3H306 (g)
-543000+6 160892+6 670587+2 688800-4-137157+8 208309+3 2208. 6000.11		B3H306 (g)
3 5 6 1 3 7	JANAF 1998	5B3H6N3 (g)
-121900+6 254869+6 129908+2 496034-1-410865+6 230706+3298.15 452.11		B3H6N3 (g)
-121900+6 186872+6 300157+2 247852-1-159728+7 196854+3 452. 714.11		B3H6N3 (g)
-121900+6 158136+6 460148+2 101078-1-441107+7 183665+3 714. 1191.11		B3H6N3 (g)
-121900+6 150439+6 603582+2 215550-2-113222+8 180478+3 1191. 2084.11		B3H6N3 (g)
-121900+6 150191+6 668338+2 101645-3-208568+8 180387+3 2084. 6000.11		B3H6N3 (g)
4 5 2 19 7 8	JANAF 1998	5B4K207 (cr)
-796900+6 273560+6 400973+2 377209-1-941722+6 239047+3298.15 438.21		B4K207 (cr)
-796900+6 195554+6 635028+2 724718-2-287127+7 201087+3 438. 794.21		B4K207 (cr)
-796900+6 201106+6 574175+2 113919-1-110959+7 203441+3 794. 1000.21		B4K207 (cr)
-796900+6 190462+6 690020+2 356482-2-486706+7 198843+3 1000. 1224.21		B4K207 (cr)
-796900+6 184331+6 811290+2-302755-2-109465+8 196316+3 1224. 1500.21		B4K207 (cr)
4 5 2 19 7 8	JANAF 1998	6B4K207 (cr, 1)
-796900+6 273879+6 400429+2 378241-1-939611+6 239212+3298.15 439.21		B4K207 (cr, 1)
-796900+6 194985+6 637161+2 700411-2-289442+7 200816+3 439. 800.21		B4K207 (cr, 1)
-796900+6 197911+6 600977+2 936595-2-178793+7 202032+3 800. 1088.21		B4K207 (cr, 1)
-796900+6 320316+6 100055+3 158844-1-935917+7 275194+3 1088. 1468.32		B4K207 (cr, 1)
-796900+6 313008+6 116341+3 724969-2-171399+8 272233+3 1468. 1803.32		B4K207 (cr, 1)
-796900+6 310802+6 137504+3-555698-3-401868+8 271400+3 1803. 3000.32		B4K207 (cr, 1)
4 5 2 19 7 8	JANAF 1998	5B4K207 (l)
-786100+6 272913+6 401867+2 375234-1-944434+6 245578+3298.15 400.31		B4K207 (l)
-786100+6 209500+6 581068+2 132802-1-226008+7 214614+3 400. 676.31		B4K207 (l)
-786100+6 366638+6 631472+2 475953-1-326639+7 300829+3 676. 946.32		B4K207 (l)
-786100+6 306240+6 105549+3 127015-1-116719+8 273865+3 946. 1550.32		B4K207 (l)
-786100+6 300010+6 134895+3 165300-3-354928+8 271432+3 1550. 3000.32		B4K207 (l)
4 5 2 3 7 8	JANAF 1998	5B4Li207 (cr)
-803600+6 350884+6 151974+2 690570-1 707050+6 262807+3298.15 504.21		B4Li207 (cr)
-803600+6 245300+6 457980+2 284165-1-186303+7 211037+3 504. 855.21		B4Li207 (cr)
-803600+6 261756+6 249913+2 418078-1 497728+7 217942+3 855. 1186.21		B4Li207 (cr)
-803600+6 398060+6-276104+3 200171+0 164313+9 273574+3 1186. 1300.21		B4Li207 (cr)
-803600+6 247934+6 404494+2 314586-1-291440+4 211996+3 1300. 2000.21		B4Li207 (cr)

4 5 2 3 7 8	JANAF 1998	6B4Li2O7 (cr, l)
-803600+6 351684+6 150582+2 693173-1 712541+6 263219+3298.15 500.21		B4Li2O7 (cr, l)
-803600+6 253976+6 425453+2 321238-1-151004+7 215164+3 500. 700.21		B4Li2O7 (cr, l)
-803600+6 232680+6 525960+2 220656-1-298489+7 205234+3 700. 930.21		B4Li2O7 (cr, l)
-803600+6 259534+6 270537+2 403142-1 442815+7 216967+3 930. 1190.21		B4Li2O7 (cr, l)
-803600+6 296366+6 105816+3 554904-2-896309+6 249488+3 1190. 1756.32		B4Li2O7 (cr, l)
-803600+6 297209+6 988214+2 819910-2 632149+7 249808+3 1756. 3000.32		B4Li2O7 (cr, l)
4 5 2 3 7 8	JANAF 1998	3B4Li2O7 (l)
-792953+6 323243+6 264438+2 565128-1 193578+3 255180+3298.15756.1231		B4Li2O7 (l)
-792953+6 286462+6 104307+3 635947-2-146715+6 249831+3756.12 1529.32		B4Li2O7 (l)
-792953+6 286582+6 993267+2 805884-2 542284+7 249856+3 1529. 3000.32		B4Li2O7 (l)
4 5 1 12	JANAF 1998	5B4Mg1 (cr)
-250999+5-403295+5 384056+2-316071-1-108205+7 965585+1298.15 420.21		B4Mg1 (cr)
-250999+5 898198+5 187840+2 916325-2-641404+6 774897+2 420. 765.21		B4Mg1 (cr)
-250999+5 801981+5 286582+2 225256-2-332612+7 733926+2 765. 1208.21		B4Mg1 (cr)
-250999+5 817327+5 345829+2 594120-3-904833+7 741673+2 1208. 1601.21		B4Mg1 (cr)
-250999+5 827618+5 256069+2 399737-2-695328+4 745531+2 1601. 2000.21		B4Mg1 (cr)
4 5 2 11 7 8	JANAF 1998	5B4Na2O7 (cr)
-783160+6 191062+6 531976+2 113424-1-106163+7 192843+3298.15 518.21		B4Na2O7 (cr)
-783160+6 210288+6 510319+2 170553-1-127457+7 202834+3 518. 955.21		B4Na2O7 (cr)
-783160+6 203306+6 594499+2 115861-1-418842+7 199850+3 955. 1165.21		B4Na2O7 (cr)
-783160+6 200341+6 661570+2 807841-2-774506+7 198645+3 1165. 1500.21		B4Na2O7 (cr)
-783160+6 208024+6 464170+2 180730-1 293791+7 201734+3 1500. 2000.21		B4Na2O7 (cr)
4 5 2 11 7 8	JANAF 1998	5B4Na2O7 (cr, l)
-783160+6 190961+6 532159+2 113091-1-106237+7 192792+3298.15 500.21		B4Na2O7 (cr, l)
-783160+6 217592+6 479354+2 203409-1-871221+6 206281+3 500. 700.21		B4Na2O7 (cr, l)
-783160+6 215326+6 475639+2 199256-1-546719+6 205098+3 700. 900.21		B4Na2O7 (cr, l)
-783160+6 208064+6 535955+2 153542-1-209979+7 201888+3 900.1015.621		B4Na2O7 (cr, l)
-783160+6 271279+6 106330+3 000000+0-406659-5 247532+31015.6 3000.32		B4Na2O7 (cr, l)
4 5 2 11 7 8	JANAF 1998	3B4Na2O7 (l)
-778360+6 358855+6 303908+2 623642-1-371992+6 283112+3298.15 400.31		B4Na2O7 (l)
-778360+6 301853+6 397891+2 441038-1-707061+6 253543+3 400.743.0131		B4Na2O7 (l)
-778360+6 266459+6 106330+3 000000+0-175014-5 247470+3743.01 3000.32		B4Na2O7 (l)
4 5 7 8 1 82	JANAF 1998	5B4O7Pb1 (cr)
-683000+6 328305+6 319008+2 548247-1-715311+6 257696+3298.15 456.21		B4O7Pb1 (cr)
-683000+6 274635+6 516471+2 320106-1-265810+7 232293+3 456. 733.21		B4O7Pb1 (cr)
-683000+6 241120+6 682986+2 157923-1-521740+7 216752+3 733. 1005.21		B4O7Pb1 (cr)
-683000+6 219869+6 925158+2-269905-3-133731+8 207608+3 1005. 1649.21		B4O7Pb1 (cr)
-683000+6 219008+6 956985+2-172964-2-154819+8 207270+3 1649. 2000.21		B4O7Pb1 (cr)
5 5 9 1	JANAF 1998	5B5H9 (g)
175000+5 321471+6 552576+1 690222-1-328109+6 263217+3298.15 461.11		B5H9 (g)
175000+5 239121+6 268593+2 386009-1-188148+7 222365+3 461. 700.11		B5H9 (g)
175000+5 189795+6 528874+2 140546-1-621593+7 199605+3 700. 1096.11		B5H9 (g)
175000+5 176644+6 720386+2 248525-2-139891+8 194058+3 1096. 1891.11		B5H9 (g)
175000+5 176123+6 789151+2 826676-4-223323+8 193864+3 1891. 6000.11		B5H9 (g)
5 5 9 1	JANAF 1998	5B5H9 (l)
102400+5-238237+5 828668+2-537460-1-273095+7 749538+2298.15 473.31		B5H9 (l)
102400+5 484706+6-509274+2 135154+0 721255+7 326820+3 473. 700.31		B5H9 (l)
102400+5 208139+6 510391+2 175136-1-240026+7 195362+3 700. 961.31		B5H9 (l)
102400+5 183755+6 657018+2 440598-2-430855+7 184401+3 961. 1215.31		B5H9 (l)
102400+5 178529+6 760584+2-122124-2-950417+7 182246+3 1215. 2000.31		B5H9 (l)
6 5 2 19 10 8	JANAF 1998	5B6K2O10 (cr)
-110744+7 361020+6 480321+2 519560-1-823558+5 310814+3298.15 492.21		B6K2O10 (cr)
-110744+7 353704+6 500824+2 491753-1-247495+6 307215+3 492. 700.21		B6K2O10 (cr)
-110744+7 348901+6 535015+2 463829-1-965077+6 305075+3 700. 900.21		B6K2O10 (cr)
-110744+7 245651+6 151827+3-238518-1-294075+8 259987+3 900. 1200.21		B6K2O10 (cr)
-110744+7 279413+6 955250+2 857902-2-437333+7 274075+3 1200. 2000.21		B6K2O10 (cr)
6 5 2 3 10 8	JANAF 1998	5B6Li2O10 (cr)
-111374+7 354742+6 594265+2 437255-1-212303+6 299160+3298.15 500.21		B6Li2O10 (cr)
-111374+7 301714+6 748026+2 233107-1-150448+7 273160+3 500. 700.21		B6Li2O10 (cr)
-111374+7 284347+6 837501+2 147670-1-295824+7 265128+3 700. 983.21		B6Li2O10 (cr)
-111374+7 280531+6 832628+2 138301-1-159748+7 263323+3 983. 1470.21		B6Li2O10 (cr)
-111374+7 278884+6 894262+2 110439-1-606557+7 262672+3 1470. 2000.21		B6Li2O10 (cr)

6 5 2 11 10 8	JANAF 1998	5B6Na2O10 (cr)
-109476+7 406223+6 459260+2 637281-1-597960+6 330386+3298.15 432.21		B6Na2O10 (cr)
-109476+7 415107+6 503219+2 635446-1-140356+7 336320+3 432. 700.21		B6Na2O10 (cr)
-109476+7 357769+6 810160+2 348124-1-658853+7 309902+3 700. 922.21		B6Na2O10 (cr)
-109476+7 305828+6 131081+3-757990-3-212690+8 287236+3 922. 1440.21		B6Na2O10 (cr)
-109476+7 303651+6 130999+3-164276-2-184557+8 286317+3 1440. 2000.21		B6Na2O10 (cr)
6 5 10 8 1 82	JANAF 1998	5B6O10Pb1 (cr)
-100300+7 748772+6-503738+1 170542+0 834729+6 502398+3298.15 400.21		B6O10Pb1 (cr)
-100300+7 474953+6 465287+2 794459-1-158568+7 362019+3 400. 692.21		B6O10Pb1 (cr)
-100300+7 336219+6 117075+3 116181-1-128912+8 297771+3 692. 900.21		B6O10Pb1 (cr)
-100300+7 303202+6 148220+3-107176-1-218359+8 283340+3 900. 1373.21		B6O10Pb1 (cr)
-100300+7 308957+6 125468+3-528514-3-531938+7 285598+3 1373. 2000.21		B6O10Pb1 (cr)
8 5 2 19 13 8	JANAF 1998	5B8K2O13 (cr)
-142092+7 520476+6 532451+2 846289-1-149875+6 420951+3298.15 500.21		B8K2O13 (cr)
-142092+7 514841+6 573515+2 812233-1-750764+6 418626+3 500. 700.21		B8K2O13 (cr)
-142092+7 413406+6 104397+3 336912-1-749968+7 371256+3 700. 990.21		B8K2O13 (cr)
-142092+7 387038+6 119505+3 197604-1-879008+7 359418+3 990. 1412.21		B8K2O13 (cr)
-142092+7 373405+6 163301+3-848647-3-380897+8 353975+3 1412. 2000.21		B8K2O13 (cr)
8 5 2 19 13 8	JANAF 1998	5B8K2O13 (cr, l)
-142092+7 520244+6 532895+2 845512-1-151773+6 420832+3298.15 577.21		B8K2O13 (cr, l)
-142092+7 418597+6 100988+3 365783-1-681652+7 373588+3 577. 944.21		B8K2O13 (cr, l)
-142092+7 345091+6 172763+3-141343-1-281161+8 341544+3 944. 1130.21		B8K2O13 (cr, l)
-142092+7 423569+6 158100+3 000000+0 233451-2 394794+3 1130. 1300.32		B8K2O13 (cr, l)
-142092+7 423569+6 158100+3 000000+0 175898-4 394794+3 1300. 3000.32		B8K2O13 (cr, l)
8 5 2 19 13 8	JANAF 1998	5B8K2O13 (l)
-140357+7 703468+6 464768+2 130189+0-717609+6 532516+3298.15 400.31		B8K2O13 (l)
-140357+7 175494+6 173629+3-600538-1-888651+7 269012+3 400. 673.31		B8K2O13 (l)
-140357+7 406241+6 158100+3 000000+0 281853-3 394863+3 673. 801.32		B8K2O13 (l)
-140357+7 406241+6 158100+3 000000+0 825656-5 394863+3 801. 1200.32		B8K2O13 (l)
-140357+7 406241+6 158100+3 000000+0 726868-5 394863+3 1200. 3000.32		B8K2O13 (l)
8 5 2 3 13 8	JANAF 1998	5B8Li2O13 (cr)
-141357+7 705407+6 427033+2 132695+0-397037+6 518302+3298.15 402.21		B8Li2O13 (cr)
-141357+7 365976+6 104362+3 209566-1-310232+7 343716+3 402. 728.21		B8Li2O13 (cr)
-141357+7 347647+6 116143+3 108877-1-546138+7 335428+3 728. 1088.21		B8Li2O13 (cr)
-141357+7 352034+6 108689+3 151591-1-213881+7 337253+3 1088. 1523.21		B8Li2O13 (cr)
-141357+7 350636+6 114670+3 125446-1-677445+7 336704+3 1523. 2000.21		B8Li2O13 (cr)
1 56	JANAF 1998	5Ba1 (cr)
000000+0 779367+5-261947+0 175457-1 155191+6 625972+2298.15 350.21		Ba1 (cr)
000000+0 142652+6-110458+2 383187-1 585565+6 962101+2 350.582.5321		Ba1 (cr)
000000+0 802147+5-397402+1 201389-1 909536+3 630226+2582.53768.1322		Ba1 (cr)
000000+0 252383+5 933700+1 000000+0 202825-5 362094+2768.13 1000.23		Ba1 (cr)
000000+0 252383+5 933700+1 000000+0 206470-5 362094+2 1000. 1500.24		Ba1 (cr)
1 56	JANAF 1998	8Ba1 (cr, l)
000000+0 138321+6-989000+1 366993-1 505286+6 940681+2298.15582.5321		Ba1 (cr, l)
000000+0 802129+5-397402+1 201389-1 909536+3 630151+2582.53768.1322		Ba1 (cr, l)
000000+0 252365+5 933700+1 000000+0 202825-5 362019+2768.13 1000.23		Ba1 (cr, l)
000000+0 262128+5 911675+1-396750-3 163342+7 378073+2 1000. 1362.34		Ba1 (cr, l)
000000+0 280660+5 369587+1 222134-2 507461+7 385514+2 1362. 1812.34		Ba1 (cr, l)
000000+0 289584+5-513234+1 545963-2 147947+8 388877+2 1812. 2270.34		Ba1 (cr, l)
000000+0 291406+5-164146+2 872435-2 347432+8 389525+2 2270. 2823.34		Ba1 (cr, l)
000000+0 291432+5-335524+2 127460-1 808422+8 389534+2 2823. 3500.34		Ba1 (cr, l)
1 56	JANAF 1998	5Ba1 (g)
428000+5 135424+5 493369+1 462684-4 201852+4 521904+2298.15 1100.11		Ba1 (g)
428000+5 157923+5 169328+1 201171-2 130691+7 531403+2 1100. 1493.11		Ba1 (g)
428000+5 184099+5-834460+1 652082-2 867567+7 541744+2 1493. 2645.11		Ba1 (g)
428000+5 183460+5 308647+2-330569-2-837993+8 541525+2 2645. 4351.11		Ba1 (g)
428000+5 171221+5 956190+1-862037-5 479105+8 537798+2 4351. 6000.11		Ba1 (g)
1 56	JANAF 1998	5Ba1 (l)
119144+4 138235+6-987325+1 366704-1 504542+6 949454+2298.15 580.31		Ba1 (l)
119144+4 212608+5 132343+2-316984-2 278493+6 361822+2 580. 1000.32		Ba1 (l)
119144+4 260670+5 715154+1 698253-3 252750+7 382354+2 1000. 1696.33		Ba1 (l)
119144+4 278361+5-546093+1 562115-2 147903+8 389118+2 1696. 2372.33		Ba1 (l)
119144+4 279424+5-259407+2 111192-1 566419+8 389484+2 2372. 3500.33		Ba1 (l)

1 56 -1 99	JANAF 1998					5Ba1+(g)
164466+6 142047+5 480185+1 270841-3 795835+4 539032+2298.15 795.11						Ba1+(g)
164466+6 194406+5 130277+1 320322-2 746058+6 562652+2 795. 1568.11						Ba1+(g)
164466+6 180313+5 804917+1 332230-3-477276+7 557153+2 1568. 2085.11						Ba1+(g)
164466+6 176626+5 129737+2-140993-2-103900+8 555790+2 2085. 3518.11						Ba1+(g)
164466+6 176341+5 587056+1-578891-4 186534+8 555699+2 3518. 6000.11						Ba1+(g)
1 56 1 35	JANAF 1998					5Ba1Br1(g)
-264309+5 247078+5 893129+1 137245-3-114857+5 855270+2298.15 1689.11						Ba1Br1(g)
-264309+5 248808+5 775813+1 599816-3 110644+7 855933+2 1689. 2405.11						Ba1Br1(g)
-264309+5 249042+5 533068+1 127217-2 579396+7 856015+2 2405. 3557.11						Ba1Br1(g)
-264309+5 249279+5 619105+1 114742-2 522894+6 856090+2 3557. 4779.11						Ba1Br1(g)
-264309+5 255993+5 112576+2 441873-3-381826+8 858080+2 4779. 6000.11						Ba1Br1(g)
1 56 2 35	JANAF 1998					2Ba1Br2(cr)
-181100+6 685882+5 168677+2 516533-2-899575+2 883991+2298.15 740.21						Ba1Br2(cr)
-181100+6 685949+5 168667+2 516757-2-423696+3 884025+2 740. 1500.21						Ba1Br2(cr)
1 56 2 35	JANAF 1998					5Ba1Br2(cr,1)
-181100+6 700944+5 166097+2 565308-2 994814+4 891771+2298.15 400.21						Ba1Br2(cr,1)
-181100+6 685725+5 168729+2 515904-2-557719+3 883908+2 400. 709.21						Ba1Br2(cr,1)
-181100+6 685989+5 168639+2 516998-2 102634+3 884034+2 709. 1130.21						Ba1Br2(cr,1)
-181100+6 715994+5 250600+2 000000+0 159253-3 934975+2 1130. 1300.32						Ba1Br2(cr,1)
-181100+6 715994+5 250600+2 000000+0-303459-5 934975+2 1300. 3000.32						Ba1Br2(cr,1)
1 56 2 35	JANAF 1998					5Ba1Br2(g)
-101500+6 376221+5 138804+2 426293-4-233651+5 113762+3298.15 438.11						Ba1Br2(g)
-101500+6 375122+5 139061+2 344675-5-250004+5 113706+3 438. 900.11						Ba1Br2(g)
-101500+6 375057+5 139102+2-110546-6-257588+5 113704+3 900. 1308.11						Ba1Br2(g)
-101500+6 375062+5 139102+2 479788-7-261271+5 113704+3 1308. 3100.11						Ba1Br2(g)
-101500+6 375062+5 139096+2 113946-6-218138+5 113704+3 3100. 6000.11						Ba1Br2(g)
1 56 2 35	JANAF 1998					2Ba1Br2(l)
-174520+6 685944+5 168662+2 516757-2-150033+2 940370+2298.15 800.31						Ba1Br2(l)
-174520+6 650202+5 250600+2 000000+0-552006-6 934985+2 800. 3000.32						Ba1Br2(l)
1 56 1 17	JANAF 1998					5Ba1Cl1(g)
-340000+5 246968+5 892045+1 149035-3-228269+5 826618+2298.15 1398.11						Ba1Cl1(g)
-340000+5 250239+5 791950+1 626392-3 629171+6 827928+2 1398. 1960.11						Ba1Cl1(g)
-340000+5 251443+5 604163+1 126564-2 302994+7 828374+2 1960. 3479.11						Ba1Cl1(g)
-340000+5 251567+5 943849+1 615802-3-107205+8 828414+2 3479. 4478.11						Ba1Cl1(g)
-340000+5 254951+5 135914+2-115567-5-385977+8 829433+2 4478. 6000.11						Ba1Cl1(g)
1 56 2 17	JANAF 1998					5Ba1Cl2(cr)
-205200+6 615730+5 173977+2 329471-2-373565+5 784180+2298.15 462.21						Ba1Cl2(cr)
-205200+6 671959+5 153646+2 566572-2 162799+6 810898+2 462. 770.21						Ba1Cl2(cr)
-205200+6 739603+5 106737+2 952991-2 117991+7 841286+2 770. 1000.21						Ba1Cl2(cr)
-205200+6 107534+6-288158+2 353979-1 148014+8 985350+2 1000. 1198.21						Ba1Cl2(cr)
-205200+6 755291+5 295999+2 000000+0-586383-5 874090+2 1198. 3000.22						Ba1Cl2(cr)
1 56 2 17	JANAF 1998					5Ba1Cl2(cr,1)
-205200+6 610714+5 174320+2 316092-2-366865+5 781393+2298.15 614.21						Ba1Cl2(cr,1)
-205200+6 705975+5 135202+2 738594-2 460039+6 826459+2 614. 999.21						Ba1Cl2(cr,1)
-205200+6 106893+6-277752+2 347927-1 143482+8 982644+2 999. 1198.21						Ba1Cl2(cr,1)
-205200+6 755284+5 295999+2 118521-9 106766+0 874064+2 1198. 1235.22						Ba1Cl2(cr,1)
-205200+6 729965+5 260000+2 000000+0-223307-5 873062+2 1235. 3000.33						Ba1Cl2(cr,1)
1 56 2 17	JANAF 1998					5Ba1Cl2(g)
-119200+6 378468+5 138134+2 143979-3-385658+5 109893+3298.15 405.11						Ba1Cl2(g)
-119200+6 375066+5 138843+2 271932-4-424359+5 109720+3 405. 615.11						Ba1Cl2(g)
-119200+6 374492+5 139063+2 249630-5-450031+5 109693+3 615. 1000.11						Ba1Cl2(g)
-119200+6 374462+5 139101+2 894010-7-464020+5 109692+3 1000. 2500.11						Ba1Cl2(g)
-119200+6 374462+5 139104+2-111655-7-465900+5 109692+3 2500. 6000.11						Ba1Cl2(g)
1 56 2 17	JANAF 1998					4Ba1Cl2(l)
-198964+6 556339+5 184119+2 137341-2-766692+5 800942+2298.15 400.31						Ba1Cl2(l)
-198964+6 628322+5 168794+2 386130-2 930184+4 837388+2 400. 634.31						Ba1Cl2(l)
-198964+6 673761+5 152809+2 575149-2 170157+6 859175+2 634.800.0131						Ba1Cl2(l)
-198964+6 667609+5 260000+2 000000+0-903427-6 873088+2800.01 3000.32						Ba1Cl2(l)
1 56 1 9	JANAF 1998					5Ba1F1(g)
-770000+5 255996+5 861187+1 551726-3-419184+5 799638+2298.15 453.11						Ba1F1(g)
-770000+5 244316+5 889993+1 127662-3-616100+5 793814+2 453. 1624.11						Ba1F1(g)
-770000+5 246273+5 780600+1 577070-3 898636+6 794571+2 1624. 2284.11						Ba1F1(g)
-770000+5 246654+5 572461+1 118608-2 450031+7 794707+2 2284. 4365.11						Ba1F1(g)
-770000+5 249945+5 106962+2 428772-3-272414+8 795705+2 4365. 6000.11						Ba1F1(g)

1 56 1 9 -1 99	JANAF 1998	5Ba1F1+(g)
359001+5 246939+5 871326+1 298583-3-590490+5 776802+2298.15 964.11		Ba1F1+(g)
359001+5 254538+5 739845+1 105539-2 484815+6 779909+2 964. 1525.11		Ba1F1+(g)
359001+5 266810+5 221132+1 332955-2 448266+7 784729+2 1525. 2822.11		Ba1F1+(g)
359001+5 266779+5 188959+2-600156-3-400734+8 784719+2 2822. 3948.11		Ba1F1+(g)
359001+5 264245+5 226795+2-144987-2-467587+8 783954+2 3948. 6000.11		Ba1F1+(g)
1 56 2 9	JANAF 1998	8Ba1F2 (cr)
-288900+6 542855+5 188009+2 891959-3-160868+6 679605+2298.15 400.21		Ba1F2 (cr)
-288900+6 634701+5 170940+2 393562-2-825556+5 726751+2 400. 682.21		Ba1F2 (cr)
-288900+6 852142+5 587140+1 146428-1 174086+7 827287+2 682. 900.21		Ba1F2 (cr)
-288900+6 136465+6-407271+2 485858-1 147412+8 105208+3 900. 1100.21		Ba1F2 (cr)
-288900+6 222510+7-340587+4 201045+1 147532+1 978900+3 1100. 1240.21		Ba1F2 (cr)
-288900+6 341380+6-900654+3 430501+0 634541+9 184851+3 1240. 1480.22		Ba1F2 (cr)
-288900+6 671233+5 257299+2 000000+0-149260-1 758833+2 1480. 1600.23		Ba1F2 (cr)
-288900+6 671233+5 257299+2 000000+0-163525-3 758833+2 1600. 2000.23		Ba1F2 (cr)
1 56 2 9	JANAF 1998	7Ba1F2 (cr, l)
-288900+6 628221+5 173106+2 367158-2-101788+6 723588+2298.15 697.21		Ba1F2 (cr, l)
-288900+6 856545+5 557435+1 148919-1 180050+7 829213+2 697. 900.21		Ba1F2 (cr, l)
-288900+6 136489+6-407602+2 486068-1 147533+8 105213+3 900. 1100.21		Ba1F2 (cr, l)
-288900+6 222510+7-340587+4 201045+1 147532+1 978893+3 1100. 1240.21		Ba1F2 (cr, l)
-288900+6 341378+6-900654+3 430501+0 634541+9 184845+3 1240. 1480.22		Ba1F2 (cr, l)
-288900+6 671211+5 257299+2 000000+0 177960-2 758770+2 1480. 1641.23		Ba1F2 (cr, l)
-288900+6 701615+5 238590+2 000000+0-359563-6 781503+2 1641. 3500.34		Ba1F2 (cr, l)
1 56 2 9	JANAF 1998	5Ba1F2 (g)
-192100+6 392807+5 134253+2 722456-3-699558+5 104544+3298.15 397.11		Ba1F2 (g)
-192100+6 377391+5 137341+2 199835-3-859309+5 103758+3 397. 529.11		Ba1F2 (g)
-192100+6 373342+5 138608+2 393422-4-976199+5 103561+3 529. 800.11		Ba1F2 (g)
-192100+6 372691+5 139031+2 339172-5-106318+6 103532+3 800. 1378.11		Ba1F2 (g)
-192100+6 372667+5 139101+2 301653-7-110823+6 103531+3 1378. 6000.11		Ba1F2 (g)
1 56 2 9	JANAF 1998	5Ba1F2 (l)
-279946+6 533401+5 189556+2 589880-3-166636+6 734103+2298.15 400.31		Ba1F2 (l)
-279946+6 605628+5 178949+2 283518-2-140616+6 771907+2 400. 600.31		Ba1F2 (l)
-279946+6 799483+5 951954+1 116313-1 974534+6 863087+2 600. 900.31		Ba1F2 (l)
-279946+6 136176+6-403567+2 483508-1 146058+8 111027+3 900. 1100.31		Ba1F2 (l)
-279946+6 614505+5 238590+2 000000+0-428567-6 783642+2 1100. 3500.32		Ba1F2 (l)
1 56 1 1 1 8	JANAF 1998	5Ba1H1O1 (g)
-541205+5 371218+5 121372+2 105434-2-122068+6 906076+2298.15 528.11		Ba1H1O1 (g)
-541205+5 370948+5 119576+2 113637-2-840635+5 905643+2 528. 1548.11		Ba1H1O1 (g)
-541205+5 368269+5 121447+2 949895-3 159182+6 904546+2 1548. 2957.11		Ba1H1O1 (g)
-541205+5 368271+5 129727+2 835687-3-412760+7 904547+2 2957. 4356.11		Ba1H1O1 (g)
-541205+5 372184+5 190467+2-925083-4-426610+8 905735+2 4356. 6000.11		Ba1H1O1 (g)
1 56 1 1 1 8 -1 99	JANAF 1998	5Ba1H1O1+(g)
647459+5 370720+5 121564+2 103076-2-120983+6 892492+2298.15 545.11		Ba1H1O1+(g)
647459+5 371607+5 119089+2 117338-2-705540+5 892593+2 545. 1296.11		Ba1H1O1+(g)
647459+5 366250+5 131758+2 522328-3-781204+6 890411+2 1296. 1891.11		Ba1H1O1+(g)
647459+5 365360+5 142983+2 127289-3-212410+7 890079+2 1891. 2916.11		Ba1H1O1+(g)
647459+5 365360+5 148002+2 127514-4-355141+7 890079+2 2916. 6000.11		Ba1H1O1+(g)
1 56 2 1 2 8	JANAF 1998	4Ba1H2O2 (cr)
-226170+6 184223+6 124398+2 336946-1 160373+6 146251+3298.15 400.21		Ba1H2O2 (cr)
-226170+6 929398+5 281310+2 411489-2-457120+6 990650+2 400. 600.21		Ba1H2O2 (cr)
-226170+6 106462+6 235757+2 963775-2-101414+5 105584+3 600. 800.21		Ba1H2O2 (cr)
-226170+6 106596+6 235027+2 970555-2 183712+4 105646+3 800. 1000.21		Ba1H2O2 (cr)
1 56 2 1 2 8	JANAF 1998	5Ba1H2O2 (cr, l)
-226170+6 186637+6 120277+2 344754-1 176344+6 147498+3298.15 424.21		Ba1H2O2 (cr, l)
-226170+6 106788+6 234468+2 977774-2 604196+4 105756+3 424.681.1521		Ba1H2O2 (cr, l)
-226170+6 928253+5 337000+2 000000+0-264035-5 104151+3681.15 1031.32		Ba1H2O2 (cr, l)
-226170+6 928253+5 337000+2 000000+0-134694-4 104151+3 1031. 1776.32		Ba1H2O2 (cr, l)
-226170+6 928253+5 337000+2 000000+0-214518-2 104151+3 1776. 2000.32		Ba1H2O2 (cr, l)
1 56 2 1 2 8	JANAF 1998	5Ba1H2O2 (g)
-149752+6 628026+5 205394+2 179767-2-232231+6 126249+3298.15 551.11		Ba1H2O2 (g)
-149752+6 636585+5 198546+2 234031-2-115088+6 126604+3 551. 1297.11		Ba1H2O2 (g)
-149752+6 625949+5 223762+2 104543-2-153180+7 126171+3 1297. 1888.11		Ba1H2O2 (g)
-149752+6 624161+5 246136+2 257028-3-420108+7 126104+3 1888. 2908.11		Ba1H2O2 (g)
-149752+6 624161+5 256246+2 257122-4-706275+7 126104+3 2908. 6000.11		Ba1H2O2 (g)

1 56 2 1 2 8	JANAF 1998	2Ba1H2O2 (l)
-223261+6 971339+5 273105+2 552159-2-416058+6 105138+3298.15450.0131		Ba1H2O2 (l)
-223261+6 899249+5 337000+2 000000+0-683180-7 104184+3450.01 2000.32		Ba1H2O2 (l)
1 56 1 53	JANAF 1998	5Ba1I1 (g)
-101379+5 247473+5 894027+1 138008-3-757506+4 875653+2298.15 2080.11		Ba1I1 (g)
-101379+5 247621+5 858271+1 252530-3 508786+6 875707+2 2080. 2810.11		Ba1I1 (g)
-101379+5 247624+5 753062+1 501995-3 328102+7 875708+2 2810. 3566.11		Ba1I1 (g)
-101379+5 247551+5 626704+1 738083-3 864345+7 875685+2 3566. 4755.11		Ba1I1 (g)
-101379+5 248532+5 657575+1 703993-3 532849+7 875970+2 4755. 6000.11		Ba1I1 (g)
1 56 2 53	JANAF 1998	2Ba1I2 (cr)
-144700+6 674874+5 170967+2 477936-2-436329+2 918552+2298.15 990.21		Ba1I2 (cr)
-144700+6 672257+5 177570+2 443615-2-314179+6 917546+2 990. 1500.21		Ba1I2 (cr)
1 56 2 53	JANAF 1998	2Ba1I2 (cr, l)
-144700+6 674882+5 170965+2 477965-2-315587+2 918556+2298.15 984.21		Ba1I2 (cr, l)
-144700+6 745992+5 270000+2 000000+0-308757-6 997025+2 984. 2800.32		Ba1I2 (cr, l)
1 56 2 53	JANAF 1998	3Ba1I2 (g)
-724001+5 375680+5 139004+2 127426-4-151335+5 115224+3298.15 506.11		Ba1I2 (g)
-724001+5 375354+5 139099+2 189239-6-159375+5 115208+3 506. 2100.11		Ba1I2 (g)
-724001+5 375353+5 139102+2 243552-7-156330+5 115208+3 2100. 6000.11		Ba1I2 (g)
1 56 2 53	JANAF 1998	2Ba1I2 (l)
-140030+6 673841+5 171223+2 474159-2-136421+4 962329+2298.15699.9931		Ba1I2 (l)
-140030+6 699290+5 270000+2 000000+0 205507-6 997035+2699.99 2800.32		Ba1I2 (l)
1 56 1 8	JANAF 1998	5Ba1O1 (cr)
-131000+6 511085+5 978383+1 554611-2-122184+5 547302+2298.15 400.21		Ba1O1 (cr)
-131000+6 409193+5 117253+2 214436-2-105141+6 495123+2 400. 600.21		Ba1O1 (cr)
-131000+6 397874+5 121635+2 165498-2-157174+6 489736+2 600. 917.21		Ba1O1 (cr)
-131000+6 396448+5 122908+2 156150-2-192204+6 489110+2 917. 1320.21		Ba1O1 (cr)
-131000+6 396337+5 123285+2 154397-2-217428+6 489066+2 1320. 3000.21		Ba1O1 (cr)
1 56 1 8	JANAF 1998	5Ba1O1 (cr, l)
-131000+6 438693+5 110200+2 320421-2-601376+5 509900+2298.15 465.21		Ba1O1 (cr, l)
-131000+6 402495+5 119523+2 186982-2-127547+6 491931+2 465. 701.21		Ba1O1 (cr, l)
-131000+6 397112+5 122173+2 161059-2-168479+6 489431+2 701. 1064.21		Ba1O1 (cr, l)
-131000+6 396358+5 123179+2 154780-2-206797+6 489111+2 1064. 2286.21		Ba1O1 (cr, l)
-131000+6 533655+5 160000+2 000000+0 712134-5 549391+2 2286. 5000.32		Ba1O1 (cr, l)
1 56 1 8	JANAF 1998	5Ba1O1 (g)
-295999+5 247800+5 851857+1 443765-3-705634+5 767229+2298.15 957.11		Ba1O1 (g)
-295999+5 242305+5 844507+1 312927-3 111429+6 764608+2 957. 2146.11		Ba1O1 (g)
-295999+5 245237+5-556888+0 311277-2 138974+8 765670+2 2146. 3055.11		Ba1O1 (g)
-295999+5 245252+5-863918+1 522080-2 292246+8 765675+2 3055. 4448.11		Ba1O1 (g)
-295999+5 291746+5 500550+2-352865-2-362049+9 779697+2 4448. 6000.11		Ba1O1 (g)
1 56 1 8	JANAF 1998	5Ba1O1 (l)
-117502+6 511085+5 978383+1 554611-2-122184+5 605820+2298.15 400.31		Ba1O1 (l)
-117502+6 409191+5 117253+2 214429-2-105144+6 553641+2 400. 600.31		Ba1O1 (l)
-117502+6 397850+5 121647+2 165384-2-157358+6 548244+2 600. 917.31		Ba1O1 (l)
-117502+6 396438+5 122930+2 156033-2-193182+6 547624+2 917. 1600.31		Ba1O1 (l)
-117502+6 398657+5 160000+2 000000+0 140933-5 549352+2 1600. 5000.32		Ba1O1 (l)
1 56 1 16	JANAF 1998	5Ba1S1 (cr)
-110800+6 449760+5 109054+2 349013-2-129350+5 532726+2298.15 560.21		Ba1S1 (cr)
-110800+6 405785+5 119581+2 190342-2-644198+5 510887+2 560. 800.21		Ba1S1 (cr)
-110800+6 415026+5 110131+2 256334-2 202511+6 514852+2 800. 1003.21		Ba1S1 (cr)
-110800+6 402856+5 120388+2 178778-2-468072+5 509501+2 1003. 1601.21		Ba1S1 (cr)
-110800+6 403164+5 119649+2 182683-2-176437+5 509624+2 1601. 3000.21		Ba1S1 (cr)
1 56 1 16	JANAF 1998	5Ba1S1 (g)
903011+4 244453+5 887593+1 129553-3-375333+5 800865+2298.15 1597.11		Ba1S1 (g)
903011+4 254446+5 364829+1 230932-2 441688+7 804746+2 1597. 2173.11		Ba1S1 (g)
903011+4 257811+5-810547+1 591122-2 229591+8 805960+2 2173. 3320.11		Ba1S1 (g)
903011+4 258059+5 146046+2 134990-2-604413+8 806041+2 3320. 3893.11		Ba1S1 (g)
903011+4 264403+5 455699+2-394933-2-217080+9 808021+2 3893. 6000.11		Ba1S1 (g)
1 4	JANAF 1998	6Be1 (cr)
000000+0 202422+5 499491+1 160821-2-138630+6 173614+2298.15 518.21		Be1 (cr)
000000+0 206326+5 487436+1 176215-2-127681+6 175516+2 518. 803.21		Be1 (cr)
000000+0 209654+5 464683+1 195078-2-786368+5 177014+2 803. 1134.21		Be1 (cr)
000000+0 212007+5 427630+1 216840-2 804969+5 178000+2 1134. 1527.21		Be1 (cr)
000000+0 198447+5 717017+1 000000+0-115717-2 176196+2 1527. 1665.22		Be1 (cr)
000000+0 198447+5 717017+1 000000+0-176968-3 176196+2 1665. 2000.22		Be1 (cr)

1 4	JANAF 1998					6Be1 (cr, l)	
000000+0	202422+5	499491+1	160821-2	-138630+6	173614+2298.15	518.21	Be1 (cr, l)
000000+0	206326+5	487436+1	176215-2	-127681+6	175516+2	518. 803.21	Be1 (cr, l)
000000+0	209654+5	464683+1	195078-2	-786368+5	177014+2	803. 1134.21	Be1 (cr, l)
000000+0	212007+5	427630+1	216840-2	804969+5	178000+2	1134. 1527.21	Be1 (cr, l)
000000+0	198447+5	717017+1	-115846-9	-212784+0	176196+2	1527. 1560.22	Be1 (cr, l)
000000+0	218473+5	607886+1	513865-3	206662+2	188556+2	1560. 3500.33	Be1 (cr, l)
1 4	JANAF 1998					5Be1 (g)	
774379+5	134241+5	496701+1	853136-6	784722+2	440145+2298.15	2158.11	Be1 (g)
774379+5	134368+5	455661+1	127647-3	637025+6	440191+2	2158. 2763.11	Be1 (g)
774379+5	134376+5	305676+1	489511-3	445426+7	440194+2	2763. 3318.11	Be1 (g)
774379+5	134350+5	631224+0	977333-3	133380+8	440185+2	3318. 3920.11	Be1 (g)
774379+5	133712+5	-231394+1	147899-2	283769+8	439986+2	3920. 6000.11	Be1 (g)
1 4	JANAF 1998					5Be1 (l)	
370650+4	201900+5	500417+1	159114-2	-139005+6	197483+2298.15	430.31	Be1 (l)
370650+4	204405+5	494394+1	168130-2	-135037+6	198735+2	430. 633.31	Be1 (l)
370650+4	207667+5	480237+1	182956-2	-115918+6	200270+2	633. 904.31	Be1 (l)
370650+4	210142+5	458806+1	198899-2	-585599+5	201360+2	904. 1150.31	Be1 (l)
370650+4	181409+5	607877+1	513889-3	156570+3	188553+2	1150. 3500.32	Be1 (l)
1 4 -1 99	JANAF 1998					5Be1+ (g)	
291403+6	134228+5	496785+1	865126-7	114489+2	453914+2298.15	2992.11	Be1+ (g)
291403+6	134228+5	488123+1	193880-4	258448+6	453914+2	2992. 3798.11	Be1+ (g)
291403+6	134176+5	453049+1	809445-4	194540+7	453898+2	3798. 4506.11	Be1+ (g)
291403+6	133649+5	390546+1	173411-3	617631+7	453739+2	4506. 5204.11	Be1+ (g)
291403+6	131882+5	313285+1	272375-3	131526+8	453226+2	5204. 6000.11	Be1+ (g)
1 4 1 35	JANAF 1998					5Be1Br1 (g)	
287070+5	281201+5	781127+1	160457-2	-443744+5	767174+2298.15	447.11	Be1Br1 (g)
287070+5	246660+5	864894+1	357771-3	-100393+6	749920+2	447. 747.11	Be1Br1 (g)
287070+5	242039+5	892155+1	114916-3	-151277+6	747811+2	747. 3294.11	Be1Br1 (g)
287070+5	242032+5	809058+1	282977-3	285833+7	747809+2	3294. 4471.11	Be1Br1 (g)
287070+5	240605+5	629986+1	549757-3	148112+8	747378+2	4471. 6000.11	Be1Br1 (g)
1 4 2 35	JANAF 1998					5Be1Br2 (cr)	
-850000+5	780841+5	132304+2	951929-2	-252639+5	801251+2298.15	495.21	Be1Br2 (cr)
-850000+5	585926+5	180678+2	242356-2	-349921+6	704219+2	495. 700.21	Be1Br2 (cr)
-850000+5	567344+5	189839+2	152817-2	-491676+6	695588+2	700. 990.21	Be1Br2 (cr)
-850000+5	583127+5	171255+2	274519-2	148887+6	702359+2	990. 1260.21	Be1Br2 (cr)
-850000+5	583037+5	163311+2	302979-2	840758+6	702214+2	1260. 1500.21	Be1Br2 (cr)
1 4 2 35	JANAF 1998					5Be1Br2 (g)	
-548000+5	476771+5	123834+2	322769-2	-536381+5	102452+3298.15	414.11	Be1Br2 (g)
-548000+5	421558+5	135754+2	131080-2	-121928+6	996604+2	414. 600.11	Be1Br2 (g)
-548000+5	397834+5	144762+2	293451-3	-226466+6	985291+2	600. 900.11	Be1Br2 (g)
-548000+5	393787+5	148202+2	354041-4	-317013+6	983505+2	900. 1533.11	Be1Br2 (g)
-548000+5	393604+5	149003+2	563305-6	-379785+6	983434+2	1533. 6000.11	Be1Br2 (g)
1 4 1 17	JANAF 1998					5Be1Cl1 (g)	
145000+5	292295+5	732790+1	214097-2	-359440+5	744879+2298.15	461.11	Be1Cl1 (g)
145000+5	245769+5	851184+1	433111-3	-120234+6	721755+2	461. 801.11	Be1Cl1 (g)
145000+5	239830+5	891788+1	965031-4	-207759+6	719082+2	801. 3496.11	Be1Cl1 (g)
145000+5	239810+5	840236+1	194856-3	189053+7	719075+2	3496. 4596.11	Be1Cl1 (g)
145000+5	238889+5	746711+1	330480-3	847943+7	718799+2	4596. 6000.11	Be1Cl1 (g)
1 4 1 17 -1 99	JANAF 1998					5Be1Cl1+ (g)	
234000+6	274803+5	796807+1	136905-2	-490068+5	726938+2298.15	559.11	Be1Cl1+ (g)
234000+6	246997+5	859822+1	383046-3	-736863+5	713076+2	559. 1548.11	Be1Cl1+ (g)
234000+6	257165+5	393132+1	238887-2	366907+7	717053+2	1548. 2947.11	Be1Cl1+ (g)
234000+6	257164+5	121422+2	526014-3	-199626+8	717052+2	2947. 3613.11	Be1Cl1+ (g)
234000+6	257750+5	204676+2	-101072-2	-561630+8	717239+2	3613. 6000.11	Be1Cl1+ (g)
1 4 1 17 1 9	JANAF 1998					5Be1Cl1F1 (g)	
-137000+6	487407+5	113606+2	409681-2	-686551+5	958010+2298.15	426.11	Be1Cl1F1 (g)
-137000+6	431837+5	126117+2	214077-2	-144481+6	930035+2	426. 600.11	Be1Cl1F1 (g)
-137000+6	396659+5	139828+2	615384-3	-308616+6	913305+2	600. 904.11	Be1Cl1F1 (g)
-137000+6	388452+5	147076+2	807398-4	-505963+6	909696+2	904. 1569.11	Be1Cl1F1 (g)
-137000+6	388067+5	148947+2	142796-5	-660036+6	909546+2	1569. 6000.11	Be1Cl1F1 (g)



1 4 2 17	JANAF 1998	5Be1Cl2(cr)_01
-117335+6 917737+5 130092+2 127885-1-117523+6 836934+2298.15 400.21		Be1Cl2(cr)_01
-117335+6 534752+5 206933+2-201217-3-515635+6 641808+2 400. 600.21		Be1Cl2(cr)_01
-117335+6 538897+5 201581+2 156416-3-400239+6 643317+2 600. 801.21		Be1Cl2(cr)_01
-117335+6 549344+5 198052+2 591480-3-397383+6 648244+2 801. 1207.21		Be1Cl2(cr)_01
-117335+6 537678+5 218007+2-547843-3-130108+7 643385+2 1207. 1500.21		Be1Cl2(cr)_01
1 4 2 17	JANAF 1998	5Be1Cl2(cr)_02
-118600+6 528263+5 175616+2 139113-2-271694+6 609111+2298.15 400.21		Be1Cl2(cr)_02
-118600+6 617114+5 163670+2 409516-2-253621+6 655901+2 400. 600.21		Be1Cl2(cr)_02
-118600+6 562520+5 186058+2 167509-2-536836+6 630075+2 600. 960.21		Be1Cl2(cr)_02
-118600+6 535297+5 210916+2-133150-3-122796+7 618146+2 960. 1260.21		Be1Cl2(cr)_02
-118600+6 527366+5 228446+2-105307-2-217090+7 614901+2 1260. 1500.21		Be1Cl2(cr)_02
1 4 2 17	JANAF 1998	5Be1Cl2(cr,l)
-117335+6 709586+5 165635+2 605484-2-255301+6 729388+2298.15 457.21		Be1Cl2(cr,l)
-117335+6 506500+5 216481+2-135741-2-609750+6 628281+2 457. 688.21		Be1Cl2(cr,l)
-117335+6 762343+5 290201+2 000000+0 722030-3 804411+2 688. 800.32		Be1Cl2(cr,l)
-117335+6 762343+5 290201+2 000000+0 215532-5 804411+2 800. 1186.32		Be1Cl2(cr,l)
-117335+6 762343+5 290201+2 000000+0-124254-5 804411+2 1186. 2000.32		Be1Cl2(cr,l)
1 4 2 17	JANAF 1998	5Be1Cl2(g)
-860999+5 484696+5 119410+2 367964-2-622597+5 974229+2298.15 416.11		Be1Cl2(g)
-860999+5 426025+5 132170+2 163788-2-136079+6 944587+2 416. 600.11		Be1Cl2(g)
-860999+5 397157+5 143213+2 395988-3-265412+6 930831+2 600. 894.11		Be1Cl2(g)
-860999+5 391759+5 147870+2 489800-4-389645+6 928453+2 894. 1544.11		Be1Cl2(g)
-860999+5 391513+5 148987+2 809271-6-478639+6 928356+2 1544. 6000.11		Be1Cl2(g)
1 4 2 17	JANAF 1998	2Be1Cl2(l)
-117427+6 673932+5 150741+2 610352-2-175272+6 693726+2298.15 460.131		Be1Cl2(l)
-117427+6 763172+5 290201+2 000000+0-431279-7 804221+2 460.1 2000.32		Be1Cl2(l)
1 4 1 9	JANAF 1998	5Be1F1(g)
-405999+5 307839+5 610304+1 320335-2 718834+4 719350+2298.15 473.11		Be1F1(g)
-405999+5 257278+5 744340+1 132006-2-933912+5 694328+2 473. 706.11		Be1F1(g)
-405999+5 236925+5 852030+1 305945-3-273298+6 684939+2 706. 1180.11		Be1F1(g)
-405999+5 234754+5 890573+1 887333-4-453084+6 684037+2 1180. 4335.11		Be1F1(g)
-405999+5 234315+5 818672+1 199294-3 405204+7 683903+2 4335. 6000.11		Be1F1(g)
1 4 2 9	JANAF 1998	2Be1F2(cr)
-245400+6 166455+6-216187+1 384842-1 273882+6 113264+3298.15 500.21		Be1F2(cr)
-245400+6 663869+5 113200+2 799995-2 696999+1 607827+2 500. 1300.22		Be1F2(cr)
1 4 2 9	JANAF 1998	5Be1F2(cr,l)
-245400+6 166455+6-216187+1 384842-1 273882+6 113264+3298.15 500.21		Be1F2(cr,l)
-245400+6 663868+5 113198+2 800001-2 493292+2 607827+2 500. 825.22		Be1F2(cr,l)
-245400+6 685701+5 140719+2 692391-2-526834+6 630155+2 825. 1000.33		Be1F2(cr,l)
-245400+6 688314+5 138170+2 710423-2-452336+6 631293+2 1000. 1364.33		Be1F2(cr,l)
-245400+6 688109+5 138605+2 708103-2-474286+6 631210+2 1364. 2000.33		Be1F2(cr,l)
1 4 2 9	JANAF 1998	5Be1F2(g)
-190250+6 484178+5 107047+2 443250-2-840829+5 905835+2298.15 468.11		Be1F2(g)
-190250+6 419588+5 123861+2 204235-2-207340+6 873809+2 468. 700.11		Be1F2(g)
-190250+6 389469+5 139155+2 570791-3-451997+6 859859+2 700. 1036.11		Be1F2(g)
-190250+6 383343+5 146765+2 828237-4-726235+6 857242+2 1036. 1762.11		Be1F2(g)
-190250+6 383090+5 148907+2 196559-5-948879+6 857146+2 1762. 6000.11		Be1F2(g)
1 4 2 9	JANAF 1998	5Be1F2(l)
-244275+6 741484+5 118605+2 961849-2-249100+6 663047+2298.15 471.31		Be1F2(l)
-244275+6 685282+5 133461+2 752724-2-360172+6 635225+2 471. 783.31		Be1F2(l)
-244275+6 705238+5 116222+2 881589-2 781448+5 643969+2 783. 900.31		Be1F2(l)
-244275+6 677191+5 138049+2 711143-2-447321+6 631503+2 900. 1264.31		Be1F2(l)
-244275+6 676903+5 138634+2 707990-2-477135+6 631385+2 1264. 2000.31		Be1F2(l)
1 4 3 9 1 3	JANAF 1998	2Be1F3Li1(cr)
-394800+6 168791+6 129999+2 300001-1 618736+1 132400+3298.15 720.21		Be1F3Li1(cr)
-394800+6 168791+6 130000+2 300000-1 842363+1 132400+3 720. 1200.21		Be1F3Li1(cr)
1 4 3 9 1 3	JANAF 1998	2Be1F3Li1(cr,l)
-394800+6 168791+6 129999+2 300001-1 693003+1 132400+3298.15 650.21		Be1F3Li1(cr,l)
-394800+6 105378+6 380000+2 000000+0 911535-7 110134+3 650. 2000.32		Be1F3Li1(cr,l)
1 4 3 9 1 3	JANAF 1998	5Be1F3Li1(g)
-212000+6 110111+6 122022+2 174834-1-250261+6 137904+3298.15 408.11		Be1F3Li1(g)
-212000+6 795413+5 186680+2 694042-2-610537+6 122415+3 408. 600.11		Be1F3Li1(g)
-212000+6 673233+5 233013+2 170384-2-114741+7 116588+3 600. 900.11		Be1F3Li1(g)
-212000+6 650306+5 252906+2 225108-3-168076+7 115578+3 900. 1556.11		Be1F3Li1(g)
-212000+6 649204+5 258078+2 396005-5-209998+7 115535+3 1556. 6000.11		Be1F3Li1(g)

1 4 3 9 1 3	JANAF 1998	2Be1F3Li1(l)
-390613+6 168946+6 129733+2 300505-1 104125+4 137842+3298.15 400.31		Be1F3Li1(l)
-390613+6 101191+6 380000+2 000000+0-598670-7 110134+3 400. 2000.32		Be1F3Li1(l)
1 4 4 9 2 3	JANAF 1998	2Be1F4Li2(cr)
-543400+6 217457+6 216933+2 356506-1 459110+3 177620+3298.15 863.21		Be1F4Li2(cr)
-543400+6 217440+6 216671+2 356572-1 157785+5 177611+3 863. 1500.21		Be1F4Li2(cr)
1 4 4 9 2 3	JANAF 1998	2Be1F4Li2(cr,l)
-543400+6 217460+6 216924+2 356518-1 510069+3 177622+3298.15 732.221		Be1F4Li2(cr,l)
-543400+6 153698+6 554699+2 000000+0-127619-5 158768+3 732.2 2500.32		Be1F4Li2(cr,l)
1 4 4 9 2 3	JANAF 1998	2Be1F4Li2(l)
-535628+6 217151+6 217577+2 355450-1-252031+4 187221+3298.15 500.31		Be1F4Li2(l)
-535628+6 145926+6 554699+2 000000+0-276131-6 158768+3 500. 2500.32		Be1F4Li2(l)
1 4 1 1	JANAF 1998	5Be1H1(g)
767679+5 260114+5 599822+1 218024-2 300889+5 621421+2298.15 663.11		Be1H1(g)
767679+5 240708+5 708003+1 118728-2-156060+6 612532+2 663. 993.11		Be1H1(g)
767679+5 231136+5 814043+1 475975-3-505185+6 608404+2 993. 1428.11		Be1H1(g)
767679+5 229384+5 872581+1 203400-3-905169+6 607706+2 1428. 2294.11		Be1H1(g)
767679+5 229352+5 892074+1 146971-3-124974+7 607695+2 2294. 6000.11		Be1H1(g)
1 4 1 1 -1 99	JANAF 1998	5Be1H1+(g)
276400+6 252293+5 603395+1 198197-2 316741+5 602233+2298.15 838.11		Be1H1+(g)
276400+6 231679+5 757135+1 758521-3-327977+6 593028+2 838. 1292.11		Be1H1+(g)
276400+6 227360+5 858398+1 236746-3-893023+6 591268+2 1292. 2908.11		Be1H1+(g)
276400+6 227360+5 733966+1 522207-3 260960+7 591268+2 2908. 3946.11		Be1H1+(g)
276400+6 227387+5 636044+1 703635-3 670952+7 591275+2 3946. 6000.11		Be1H1+(g)
1 4 1 1 1 8	JANAF 1998	5Be1H1O1(g)
-274001+5 446766+5 879074+1 475996-2-936512+5 827030+2298.15 488.11		Be1H1O1(g)
-274001+5 367858+5 110029+2 176011-2-271845+6 788205+2 488. 1055.11		Be1H1O1(g)
-274001+5 355973+5 125723+2 777019-3-864170+6 783153+2 1055. 1744.11		Be1H1O1(g)
-274001+5 353888+5 142662+2 132598-3-259793+7 782361+2 1744. 3449.11		Be1H1O1(g)
-274001+5 353786+5 140567+2 144401-3-590000+6 782328+2 3449. 6000.11		Be1H1O1(g)
1 4 1 1 1 8 -1 99	JANAF 1998	5Be1H1O1+(g)
181629+6 449006+5 878121+1 481467-2-916679+5 814835+2298.15 479.11		Be1H1O1+(g)
181629+6 369348+5 109460+2 182075-2-259321+6 775514+2 479. 979.11		Be1H1O1+(g)
181629+6 357548+5 122327+2 952101-3-677443+6 770418+2 979. 1570.11		Be1H1O1+(g)
181629+6 354097+5 139359+2 232418-3-209074+7 769074+2 1570. 2568.11		Be1H1O1+(g)
181629+6 354070+5 147656+2 178385-4-392810+7 769065+2 2568. 6000.11		Be1H1O1+(g)
1 4 2 1	JANAF 1998	5Be1H2(g)
300000+5 546899+5 346229+1 101283-1 689532+5 770920+2298.15 528.11		Be1H2(g)
300000+5 426026+5 732320+1 529839-2-296458+6 712249+2 528. 800.11		Be1H2(g)
300000+5 359323+5 117303+2 158465-2-121556+7 682128+2 800. 1183.11		Be1H2(g)
300000+5 346214+5 141019+2 256764-3-233612+7 676689+2 1183. 1978.11		Be1H2(g)
300000+5 345791+5 148431+2 867139-5-331640+7 676533+2 1978. 6000.11		Be1H2(g)
1 4 2 1 2 8	JANAF 1998	2Be1H2O2(cr)_01
-215800+6 984321+5 192558+2 108244-1-603562+6 831420+2298.15 460.21		Be1H2O2(cr)_01
-215800+6 794684+5 240597+2 387442-2-943581+6 737123+2 460. 1000.21		Be1H2O2(cr)_01
1 4 2 1 2 8	JANAF 1998	2Be1H2O2(cr)_02
-216500+6 984321+5 192558+2 108244-1-603562+6 823420+2298.15 460.21		Be1H2O2(cr)_02
-216500+6 794684+5 240597+2 387442-2-943581+6 729124+2 460. 1000.21		Be1H2O2(cr)_02
1 4 2 1 2 8	JANAF 1998	5Be1H2O2(g)
-161700+6 784780+5 158236+2 820583-2-276978+6 113055+3298.15 464.11		Be1H2O2(g)
-161700+6 655503+5 191714+2 343081-2-520731+6 106642+3 464. 1013.11		Be1H2O2(g)
-161700+6 634847+5 216306+2 182765-2-137778+7 105756+3 1013. 1595.11		Be1H2O2(g)
-161700+6 628553+5 249488+2 446504-3-421491+7 105512+3 1595. 2593.11		Be1H2O2(g)
-161700+6 628510+5 265554+2 349075-4-784165+7 105510+3 2593. 6000.11		Be1H2O2(g)
1 4 1 53	JANAF 1998	5Be1I1(g)
406353+5 272143+5 816324+1 118895-2-459886+5 784925+2298.15 432.11		Be1I1(g)
406353+5 247384+5 873289+1 311111-3-815261+5 772489+2 432. 696.11		Be1I1(g)
406353+5 243627+5 892588+1 126526-3-112784+6 770751+2 696. 2993.11		Be1I1(g)
406353+5 243627+5 830778+1 264123-3 173508+7 770751+2 2993. 4118.11		Be1I1(g)
406353+5 243190+5 716248+1 449338-3 822288+7 770616+2 4118. 6000.11		Be1I1(g)
1 4 2 53	JANAF 1998	4Be1I2(cr)
-450999+5 731632+5 176215+2 591004-2-258218+6 840139+2298.15 462.21		Be1I2(cr)
-450999+5 527912+5 228036+2-156702-2-626984+6 738885+2 462. 727.21		Be1I2(cr)
-450999+5 578111+5 205682+2 745619-3-334108+6 762373+2 727. 1122.21		Be1I2(cr)
-450999+5 565061+5 225585+2-436804-3-116955+7 756888+2 1122. 1500.21		Be1I2(cr)

1 4 2 53	JANAF 1998				3Be1I2 (cr, l)
-450999+5 713429+5 179326+2 532103-2-270288+6 830736+2298.15 532.21					Be1I2 (cr, l)
-450999+5 561070+5 212997+2-289765-4-417720+6 754417+2 532. 753.21					Be1I2 (cr, l)
-450999+5 744532+5 270000+2 000000+0 973629-6 903715+2 753. 1500.32					Be1I2 (cr, l)
1 4 2 53	JANAF 1998				5Be1I2 (g)
-153000+5 468236+5 128826+2 273113-2-503441+5 106492+3298.15 400.11					Be1I2 (g)
-153000+5 419151+5 138986+2 104994-2-105296+6 103999+3 400. 559.11					Be1I2 (g)
-153000+5 400154+5 145465+2 270731-3-171646+6 103083+3 559. 801.11					Be1I2 (g)
-153000+5 395964+5 148327+2 333805-4-233301+6 102894+3 801. 1391.11					Be1I2 (g)
-153000+5 395733+5 149012+2 431123-6-277228+6 102885+3 1391. 6000.11					Be1I2 (g)
1 4 2 53	JANAF 1998				2Be1I2 (l)
-426331+5 944047+5 139943+2 127817-1-117614+6 970203+2298.15 400.31					Be1I2 (l)
-426331+5 719793+5 270000+2 000000+0-247114-7 903542+2 400. 1500.32					Be1I2 (l)
1 4 1 7	JANAF 1998				5Be1N1 (g)
101981+6 316982+5 612220+1 339846-2 495146+4 732151+2298.15 431.11					Be1N1 (g)
101981+6 270902+5 717432+1 176886-2-600207+5 708987+2 431. 600.11					Be1N1 (g)
101981+6 243046+5 825961+1 561179-3-189866+6 695739+2 600. 903.11					Be1N1 (g)
101981+6 236886+5 879931+1 161693-3-335789+6 693028+2 903. 1554.11					Be1N1 (g)
101981+6 236599+5 893552+1 103606-3-446752+6 692916+2 1554. 6000.11					Be1N1 (g)
1 4 1 8	JANAF 1998				5Be1O1 (cr)_01
-145400+6 476683+5 703532+1 660705-2-257624+6 359506+2298.15 468.21					Be1O1 (cr)_01
-145400+6 358306+5 101965+2 218605-2-496837+6 300970+2 468. 700.21					Be1O1 (cr)_01
-145400+6 339625+5 111604+2 126635-2-653703+6 292331+2 700. 1025.21					Be1O1 (cr)_01
-145400+6 336416+5 115540+2 101271-2-794061+6 290958+2 1025. 1831.21					Be1O1 (cr)_01
-145400+6 336251+5 116728+2 966183-3-906537+6 290895+2 1831. 3500.21					Be1O1 (cr)_01
1 4 1 8	JANAF 1998				5Be1O1 (cr)_02
-143800+6 477457+5 702211+1 663211-2-257114+6 366648+2298.15 477.21					Be1O1 (cr)_02
-143800+6 358298+5 101970+2 218559-2-496914+6 307709+2 477. 700.21					Be1O1 (cr)_02
-143800+6 339839+5 111456+2 127856-2-650624+6 299169+2 700. 1010.21					Be1O1 (cr)_02
-143800+6 336493+5 115340+2 102287-2-783335+6 297732+2 1010. 1625.21					Be1O1 (cr)_02
-143800+6 336251+5 116724+2 966309-3-906057+6 297638+2 1625. 3500.21					Be1O1 (cr)_02
1 4 1 8	JANAF 1998				5Be1O1 (cr, l)
-145400+6 472078+5 711400+1 645808-2-260677+6 357127+2298.15 490.21					Be1O1 (cr, l)
-145400+6 348106+5 105960+2 174184-2-541833+6 296142+2 490. 868.21					Be1O1 (cr, l)
-145400+6 336328+5 115571+2 100768-2-785854+6 290926+2 868. 2373.21					Be1O1 (cr, l)
-145400+6 352249+5 116366+2 976026-3-835003+6 297642+2 2373.2821.222					Be1O1 (cr, l)
-145400+6 549464+5 190000+2 000000+0-535310-4 367457+22821.2 5000.33					Be1O1 (cr, l)
1 4 1 8	JANAF 1998				5Be1O1 (g)
325999+5 264286+5 660739+1 193384-2-131976+5 676137+2298.15 941.11					Be1O1 (g)
325999+5 267869+5 426082+1 299901-2 117710+7 676922+2 941. 1658.11					Be1O1 (g)
325999+5 278300+5 374189+1 371357-2-653218+6 681122+2 1658. 2497.11					Be1O1 (g)
325999+5 277000+5 278453+2-270265-2-510453+8 680669+2 2497. 4289.11					Be1O1 (g)
325999+5 268867+5 127741+2-352893-3 408062+8 678189+2 4289. 6000.11					Be1O1 (g)
1 4 1 8	JANAF 1998				5Be1O1 (l)
-129710+6 476546+5 703770+1 660260-2-257719+6 412401+2298.15 485.31					Be1O1 (l)
-129710+6 357636+5 102200+2 215823-2-499244+6 353614+2 485. 704.31					Be1O1 (l)
-129710+6 338756+5 112286+2 121311-2-669363+6 344913+2 704. 1169.31					Be1O1 (l)
-129710+6 336373+5 115695+2 100548-2-803525+6 343908+2 1169. 1900.31					Be1O1 (l)
-129710+6 392561+5 190000+2 000000+0-703973-5 367453+2 1900. 5000.32					Be1O1 (l)
1 4 4 8 1 16	JANAF 1998				5Be1O4S1 (cr)_01
-287000+6 137695+6 202770+2 189362-1-483776+6 113919+3298.15 591.21					Be1O4S1 (cr)_01
-287000+6 167424+6 976526+1 313130-1 632892+6 128194+3 591. 996.21					Be1O4S1 (cr)_01
-287000+6 115789+6 609165+2-463378-2-145928+8 105729+3 996. 1678.21					Be1O4S1 (cr)_01
-287000+6 116451+6 526336+2-166952-2-527617+7 105972+3 1678. 1900.21					Be1O4S1 (cr)_01
-287000+6 116872+6 480004+2-121083-6-611213+3 106130+3 1900. 2300.21					Be1O4S1 (cr)_01
1 4 4 8 1 16	JANAF 1998				5Be1O4S1 (cr)_02
-286734+6 137695+6 202770+2 189362-1-483776+6 114227+3298.15 591.21					Be1O4S1 (cr)_02
-286734+6 167424+6 976526+1 313130-1 632892+6 128502+3 591. 996.21					Be1O4S1 (cr)_02
-286734+6 115789+6 609165+2-463378-2-145928+8 106037+3 996. 1678.21					Be1O4S1 (cr)_02
-286734+6 116451+6 526336+2-166952-2-527617+7 106280+3 1678. 1900.21					Be1O4S1 (cr)_02
-286734+6 116872+6 480004+2-121083-6-611213+3 106438+3 1900. 2300.21					Be1O4S1 (cr)_02

1 4 4 8 1 16	JANAF 1998	5Be104S1 (cr)_03
-282061+6 137721+6 202722+2 189446-1-483577+6 119384+3298.15 540.21		Be104S1 (cr)_03
-282061+6 167416+6 977021+1 313089-1 631886+6 133642+3 540. 996.21		Be104S1 (cr)_03
-282061+6 115786+6 609213+2-463637-2-145951+8 111179+3 996. 1500.21		Be104S1 (cr)_03
-282061+6 115205+6 635993+2-578698-2-167374+8 110953+3 1500. 1737.21		Be104S1 (cr)_03
-282061+6 116871+6 480028+2-891204-6-399303+4 111581+3 1737. 2300.21		Be104S1 (cr)_03
1 4 4 8 1 74	JANAF 1998	5Be104W1 (cr)
-361700+6 130940+6 235648+2 153936-1-435480+6 114692+3298.15 555.21		Be104W1 (cr)
-361700+6 118861+6 255794+2 114636-1-384183+6 108563+3 555. 856.21		Be104W1 (cr)
-361700+6 116432+6 270656+2 101597-1-655370+6 107461+3 856. 1114.21		Be104W1 (cr)
-361700+6 116198+6 269380+2 101333-1-460434+6 107352+3 1114. 1500.21		Be104W1 (cr)
-361700+6 116433+6 267039+2 103158-1-549690+6 107449+3 1500. 2000.21		Be104W1 (cr)
1 4 1 16	JANAF 1998	5Be1S1 (cr)
-560000+5 511148+5 963943+1 582179-2-287626+6 452329+2298.15 523.21		Be1S1 (cr)
-560000+5 409511+5 122416+2 207895-2-463956+6 401948+2 523. 923.21		Be1S1 (cr)
-560000+5 397055+5 132427+2 130830-2-710840+6 396430+2 923. 1298.21		Be1S1 (cr)
-560000+5 379195+5 175256+2-883443-3-313364+7 389164+2 1298. 1500.21		Be1S1 (cr)
-560000+5 390717+5 133008+2 103690-2-109011+6 393726+2 1500. 3000.21		Be1S1 (cr)
1 4 1 16	JANAF 1998	5Be1S1 (g)
630000+5 260923+5 765233+1 125663-2-602998+5 709608+2298.15 1055.11		Be1S1 (g)
630000+5 316168+5 570179+0 574319-2 255401+7 733149+2 1055. 1922.11		Be1S1 (g)
630000+5 301833+5 207522+2-123594-2-224482+8 727823+2 1922. 2651.11		Be1S1 (g)
630000+5 301152+5 241602+2-246129-2-235693+8 727587+2 2651. 3818.11		Be1S1 (g)
630000+5 299091+5 106008+2-853462-4 418530+8 726940+2 3818. 6000.11		Be1S1 (g)
2 4	JANAF 1998	5Be2 (g)
152285+6 140772+5 476441+1 164413-3 156236+6 616213+2298.15 556.11		Be2 (g)
152285+6 138775+5 486660+1 659140-4 141577+6 615299+2 556. 889.11		Be2 (g)
152285+6 137963+5 493556+1 141892-4 123414+6 614941+2 889. 1365.11		Be2 (g)
152285+6 137873+5 496099+1 176958-5 107633+6 614905+2 1365. 2435.11		Be2 (g)
152285+6 137872+5 496700+1 122590-6 957606+5 614904+2 2435. 6000.11		Be2 (g)
2 4 4 17	JANAF 1998	5Be2C14 (g)
-179000+6 971977+5 284128+2 472085-2-199747+6 168390+3298.15 400.11		Be2C14 (g)
-179000+6 884197+5 301996+2 173014-2-294229+6 163924+3 400. 536.11		Be2C14 (g)
-179000+6 851749+5 312437+2 429819-3-393957+6 162350+3 536. 800.11		Be2C14 (g)
-179000+6 844847+5 316954+2 474315-4-487271+6 162038+3 800. 1353.11		Be2C14 (g)
-179000+6 844507+5 317915+2 575302-6-547136+6 162025+3 1353. 6000.11		Be2C14 (g)
2 4 2 9 1 8	JANAF 1998	5Be2F201 (g)
-287900+6 927108+5 165989+2 108407-1-145005+6 138221+3298.15 418.11		Be2F201 (g)
-287900+6 773756+5 199664+2 548702-2-342388+6 130481+3 418. 600.11		Be2F201 (g)
-287900+6 682975+5 234857+2 155963-2-761033+6 126162+3 600. 905.11		Be2F201 (g)
-287900+6 662341+5 253180+2 211333-3-126237+7 125255+3 905. 1572.11		Be2F201 (g)
-287900+6 661343+5 258087+2 380742-5-166880+7 125216+3 1572. 6000.11		Be2F201 (g)
2 4 1 8	JANAF 1998	5Be2O1 (g)
-150000+5 531940+5 856432+1 679382-2-714200+5 904840+2298.15 464.11		Be2O1 (g)
-150000+5 429852+5 111994+2 302745-2-262484+6 854176+2 464. 700.11		Be2O1 (g)
-150000+5 384852+5 134619+2 839013-3-620510+6 833314+2 700. 1027.11		Be2O1 (g)
-150000+5 375744+5 145682+2 123493-3-101224+7 829416+2 1027. 1741.11		Be2O1 (g)
-150000+5 375350+5 148845+2 289532-5-133462+7 829267+2 1741. 6000.11		Be2O1 (g)
2 4 2 8	JANAF 1998	5Be2O2 (g)
-980000+5 825589+5 917349+1 130432-1-112976+6 114945+3298.15 413.11		Be2O2 (g)
-980000+5 623693+5 135346+2 603261-2-362989+6 104738+3 413. 600.11		Be2O2 (g)
-980000+5 520758+5 174845+2 159877-2-827225+6 998346+2 600. 897.11		Be2O2 (g)
-980000+5 499396+5 193558+2 213576-3-133315+7 988945+2 897. 1556.11		Be2O2 (g)
-980000+5 498357+5 198473+2 380518-5-173286+7 988539+2 1556. 6000.11		Be2O2 (g)
2 4 4 8 1 14	JANAF 1998	5Be2O4Si1 (cr)
-506029+6 155832+6 260819+2 197089-1-811768+6 124289+3298.15 619.21		Be2O4Si1 (cr)
-506029+6 116992+6 422978+2 235690-2-290955+7 105945+3 619. 921.21		Be2O4Si1 (cr)
-506029+6 113057+6 439096+2 563048-3-287532+7 104138+3 921. 1547.21		Be2O4Si1 (cr)
-506029+6 113968+6 404325+2 212890-2-351168+6 104497+3 1547. 1973.21		Be2O4Si1 (cr)
-506029+6 113931+6 403612+2 211965-2-273714+4 104483+3 1973. 3000.21		Be2O4Si1 (cr)

3 4 2 7	JANAF 1998				6Be3N2 (cr)		
-140600+6	123078+6	167884+2	178498-1-599941+6	918040+2298.15	485.21	Be3N2 (cr)	
-140600+6	908140+5	256618+2	567041-2-129770+7	758976+2	485. 718.21	Be3N2 (cr)	
-140600+6	814730+5	307801+2	936657-3-218411+7	716033+2	718. 1073.21	Be3N2 (cr)	
-140600+6	787116+5	345360+2	-139017-2-363394+7	704321+2	1073. 1771.21	Be3N2 (cr)	
-140600+6	792429+5	309331+2	339014-4-243944+6	706355+2	1771. 2417.21	Be3N2 (cr)	
-140600+6	792414+5	311164+2	-163612-4-604746+6	706349+2	2417. 3000.21	Be3N2 (cr)	
3 4 2 7	JANAF 1998				6Be3N2 (cr, l)		
-140600+6	123078+6	167884+2	178498-1-599941+6	918040+2298.15	485.21	Be3N2 (cr, l)	
-140600+6	908140+5	256618+2	567041-2-129770+7	758976+2	485. 718.21	Be3N2 (cr, l)	
-140600+6	814730+5	307801+2	936658-3-218411+7	716033+2	718. 1073.21	Be3N2 (cr, l)	
-140600+6	787116+5	345360+2	-139017-2-363394+7	704321+2	1073. 1771.21	Be3N2 (cr, l)	
-140600+6	792425+5	309369+2	325249-4-248221+6	706353+2	1771. 2473.21	Be3N2 (cr, l)	
-140600+6	110673+6	320000+2	000000+0	682982-4	833250+2 2473. 4000.32	Be3N2 (cr, l)	
3 4 2 7	JANAF 1998				2Be3N2 (l)		
-116391+6	864592+5	320000+2	000000+0	474667-7	833111+2298.15	2000.31	Be3N2 (l)
-116391+6	864592+5	320000+2	000000+0	193129-4	833111+2	2000. 4000.31	Be3N2 (l)
3 4 3 8	JANAF 1998				5Be3O3 (g)		
-252000+6	138278+6	854158+1	259220-1-982539+5	154514+3298.15	429.11	Be3O3 (g)	
-252000+6	106092+6	159140+2	145275-1-555444+6	138340+3	429. 601.11	Be3O3 (g)	
-252000+6	831138+5	249764+2	451301-2-165482+7	127425+3	601. 902.11	Be3O3 (g)	
-252000+6	771841+5	302503+2	634811-3-309961+7	124819+3	902. 1562.11	Be3O3 (g)	
-252000+6	768817+5	317198+2	115778-4-430989+7	124701+3	1562. 6000.11	Be3O3 (g)	
4 4 4 8	JANAF 1998				5Be4O4 (g)		
-380000+6	206909+6	131691+2	386534-1-296096+6	205482+3298.15	400.11	Be4O4 (g)	
-380000+6	144043+6	264157+2	169979-1-102961+7	173617+3	400. 584.11	Be4O4 (g)	
-380000+6	113657+6	377975+2	404249-2-233100+7	159107+3	584. 884.11	Be4O4 (g)	
-380000+6	108118+6	425044+2	511377-3-356998+7	156663+3	884. 1527.11	Be4O4 (g)	
-380000+6	107855+6	436633+2	851288-5-448173+7	156560+3	1527. 6000.11	Be4O4 (g)	
5 4 5 8	JANAF 1998				5Be5O5 (g)		
-505000+6	262356+6	169483+2	488921-1-422668+6	246114+3298.15	400.11	Be5O5 (g)	
-505000+6	183172+6	336430+2	216102-1-134778+7	205980+3	400. 584.11	Be5O5 (g)	
-505000+6	144551+6	481113+2	514288-2-300236+7	187538+3	584. 884.11	Be5O5 (g)	
-505000+6	137502+6	540984+2	650490-3-457761+7	184427+3	884. 1526.11	Be5O5 (g)	
-505000+6	137168+6	555717+2	108105-4-573548+7	184296+3	1526. 6000.11	Be5O5 (g)	
6 4 6 8	JANAF 1998				5Be6O6 (g)		
-636000+6	321635+6	200042+2	604530-1-584332+6	288264+3298.15	410.11	Be6O6 (g)	
-636000+6	219721+6	418000+2	251789-1-181707+7	236684+3	410. 600.11	Be6O6 (g)	
-636000+6	174815+6	588512+2	592175-2-379596+7	215271+3	600. 900.11	Be6O6 (g)	
-636000+6	166746+6	657913+2	742939-3-564209+7	211715+3	900. 1540.11	Be6O6 (g)	
-636000+6	166371+6	674844+2	124052-4-698946+7	211568+3	1540. 6000.11	Be6O6 (g)	
1 35	JANAF 1998				5Br1 (g)		
267352+5	136972+5	491931+1	897642-4	197949+4	534150+2298.15	596.11	Br1 (g)
267352+5	147352+5	451903+1	537820-3	493088+5	539092+2	596. 1220.11	Br1 (g)
267352+5	143643+5	524251+1	142708-3	-310060+6	537561+2	1220. 1668.11	Br1 (g)
267352+5	142513+5	596225+1	-144757-3	-978488+6	537127+2	1668. 3605.11	Br1 (g)
267352+5	142478+5	544418+1	-488665-4	126181+7	537116+2	3605. 6000.11	Br1 (g)
1 35 1 99	JANAF 1998				2Br1- (g)		
-523442+5	134227+5	496797+1	000000+0	-105622-7	505190+2298.15	3000.11	Br1- (g)
-523442+5	134227+5	496797+1	000000+0	-892115-5	505190+2	3000. 6000.11	Br1- (g)
1 35 -1 99	JANAF 1998				5Br1+ (g)		
300452+6	146847+5	473939+1	415379-3	953505+4	543648+2298.15	737.11	Br1+ (g)
300452+6	154867+5	468180+1	651154-3	-535648+5	547630+2	737. 1273.11	Br1+ (g)
300452+6	148310+5	614315+1	-113687-3	-843915+6	544949+2	1273. 2360.11	Br1+ (g)
300452+6	148340+5	559540+1	338482-4	267596+6	544959+2	2360. 4272.11	Br1+ (g)
300452+6	148604+5	608757+1	-429382-4	-272792+7	545039+2	4272. 6000.11	Br1+ (g)
1 35 1 20	JANAF 1998				5Br1Ca1 (g)		
-118059+5	246469+5	892965+1	133402-3	-245059+5	812574+2298.15	1937.11	Br1Ca1 (g)
-118059+5	246941+5	824590+1	368757-3	830461+6	812749+2	1937. 2592.11	Br1Ca1 (g)
-118059+5	246985+5	669229+1	768101-3	431402+7	812765+2	2592. 3304.11	Br1Ca1 (g)
-118059+5	246971+5	517173+1	107477-2	985233+7	812760+2	3304. 5071.11	Br1Ca1 (g)
-118059+5	250526+5	699645+1	834917-3	-579391+7	813799+2	5071. 6000.11	Br1Ca1 (g)

1 35 1 17	JANAF 1998				5Br1Cl1 (g)
350000+4 257891+5 860923+1 592962-3-376346+5 786047+2298.15	391.11	Br1Cl1 (g)			
350000+4 247828+5 880927+1 252633-3-478731+5 780915+2	391. 533.11	Br1Cl1 (g)			
350000+4 244671+5 890595+1 128526-3-565472+5 779376+2	533. 800.11	Br1Cl1 (g)			
350000+4 244198+5 893763+1 102012-3-632498+5 779163+2	800. 1488.11	Br1Cl1 (g)			
350000+4 244184+5 894215+1 998879-4-662537+5 779157+2	1488. 6000.11	Br1Cl1 (g)			
1 35 1 9	JANAF 1998				5Br1F1 (g)
-139730+5 286924+5 781628+1 172731-2-404295+5 771860+2298.15	394.11	Br1F1 (g)			
-139730+5 256658+5 842839+1 698215-3-725087+5 756453+2	394. 525.11	Br1F1 (g)			
-139730+5 245667+5 877169+1 262878-3-104137+6 751106+2	525. 800.11	Br1F1 (g)			
-139730+5 243432+5 891599+1 139893-3-133522+6 750094+2	800. 1467.11	Br1F1 (g)			
-139730+5 243350+5 894138+1 127821-3-150037+6 750061+2	1467. 6000.11	Br1F1 (g)			
1 35 3 9	JANAF 1998				5Br1F3 (g)
-610870+5 640939+5 169075+2 427032-2-203387+6 119299+3298.15	397.11	Br1F3 (g)			
-610870+5 552933+5 187026+2 126996-2-298576+6 114823+3	397. 553.11	Br1F3 (g)			
-610870+5 528561+5 195097+2 282049-3-378323+6 113644+3	553. 800.11	Br1F3 (g)			
-610870+5 524013+5 198107+2 286108-4-441219+6 113439+3	800. 1439.11	Br1F3 (g)			
-610870+5 523818+5 198699+2 313923-6-479389+6 113431+3	1439. 6000.11	Br1F3 (g)			
1 35 5 9	JANAF 1998				5Br1F5 (g)
-102466+6 105404+6 262416+2 800863-2-390606+6 157384+3298.15	400.11	Br1F5 (g)			
-102466+6 892460+5 295173+2 251053-2-562838+6 149161+3	400. 543.11	Br1F5 (g)			
-102466+6 844009+5 310722+2 570896-3-710757+6 146810+3	543. 800.11	Br1F5 (g)			
-102466+6 834734+5 316644+2 635001-4-829933+6 146390+3	800. 1212.11	Br1F5 (g)			
-102466+6 834261+5 317899+2 846045-6-902807+6 146371+3	1212. 6000.11	Br1F5 (g)			
1 35 5 9 1 16	JANAF 1998				5Br1F5S1 (g)
-232510+6 142069+6 259413+2 164723-1-467831+6 181510+3298.15	400.11	Br1F5S1 (g)			
-232510+6 110405+6 324371+2 565754-2-815020+6 165415+3	400. 554.11	Br1F5S1 (g)			
-232510+6 999010+5 359616+2 137732-2-116898+7 160342+3	554. 800.11	Br1F5S1 (g)			
-232510+6 977331+5 374145+2 161380-3-147628+7 159364+3	800. 1375.11	Br1F5S1 (g)			
-232510+6 976200+5 377443+2 197387-5-168542+7 159319+3	1375. 6000.11	Br1F5S1 (g)			
1 35 1 1	JANAF 1998				5Br1H1 (g)
-871009+4 223654+5 640502+1 112191-2 202593+5 653958+2298.15	635.11	Br1H1 (g)			
-871009+4 233698+5 635054+1 139978-2-289194+5 659101+2	635. 1059.11	Br1H1 (g)			
-871009+4 223680+5 766408+1 574753-3-522185+6 654840+2	1059. 1548.11	Br1H1 (g)			
-871009+4 221742+5 855982+1 190367-3-124278+7 654082+2	1548. 2475.11	Br1H1 (g)			
-871009+4 221721+5 889606+1 100187-3-193526+7 654075+2	2475. 6000.11	Br1H1 (g)			
1 35 3 1 1 14	JANAF 1998				5Br1H3Si1 (g)
-187000+5 868857+5 105925+2 131914-1-168429+6 121864+3298.15	492.11	Br1H3Si1 (g)			
-187000+5 713218+5 150135+2 724558-2-530485+6 114216+3	492. 788.11	Br1H3Si1 (g)			
-187000+5 629485+5 205555+2 257957-2-168860+7 110436+3	788. 1200.11	Br1H3Si1 (g)			
-187000+5 608906+5 243917+2 453016-3-353817+7 109584+3	1200. 2018.11	Br1H3Si1 (g)			
-187000+5 608232+5 257181+2 163386-4-535081+7 109559+3	2018. 6000.11	Br1H3Si1 (g)			
1 35 4 1 1 7	JANAF 1998				5Br1H4N1 (cr)
-649001+5 355725+5 279611+2-872116-2-369670+6 659037+2298.15	411.21	Br1H4N1 (cr)			
-649001+5 163730+6 499326+1 335288-1-229389+6 131915+3	411. 600.22	Br1H4N1 (cr)			
-649001+5 130996+6 166774+2 198464-1-148028+7 116214+3	600. 900.22	Br1H4N1 (cr)			
-649001+5 118966+6 267767+2 122286-1-410734+7 110900+3	900. 1200.22	Br1H4N1 (cr)			
-649001+5 116085+6 316277+2 944381-2-628058+7 109699+3	1200. 1500.22	Br1H4N1 (cr)			
1 35 1 80	JANAF 1998				5Br1Hg1 (g)
249001+5 253980+5 892706+1 294234-3-107958+5 862184+2298.15	401.11	Br1Hg1 (g)			
249001+5 253328+5 894046+1 271957-3-115139+5 861853+2	401. 789.11	Br1Hg1 (g)			
249001+5 253286+5 894480+1 268938-3-127310+5 861835+2	789. 1085.11	Br1Hg1 (g)			
249001+5 253307+5 894188+1 270728-3-115777+5 861843+2	1085. 2300.11	Br1Hg1 (g)			
249001+5 253306+5 894229+1 270542-3-115198+5 861843+2	2300. 6000.11	Br1Hg1 (g)			
1 35 1 53	JANAF 1998				5Br1I1 (g)
977008+4 247728+5 891657+1 167103-3-208615+5 827865+2298.15	1550.11	Br1I1 (g)			
977008+4 252682+5 664628+1 114326-2 179844+7 829803+2	1550. 2162.11	Br1I1 (g)			
977008+4 254224+5 155861+1 271244-2 972177+7 830360+2	2162. 3583.11	Br1I1 (g)			
977008+4 254960+5 132187+2 546234-3-403283+8 830594+2	3583. 4406.11	Br1I1 (g)			
977008+4 264313+5 263564+2-143788-2-125661+9 833424+2	4406. 6000.11	Br1I1 (g)			
1 35 1 19	JANAF 1998				5Br1K1 (cr)
-941200+5 464225+5 114755+2 346032-2-625410+2 587731+2298.15	538.21	Br1K1 (cr)			
-941200+5 570315+5 696729+1 824880-2 559139+6 637499+2	538. 800.21	Br1K1 (cr)			
-941200+5 720126+5-311394+1 166693-1 269985+7 705035+2	800. 1005.21	Br1K1 (cr)			
-941200+5 505261+5 246705+2-887720-3-754149+7 613622+2	1005. 1260.21	Br1K1 (cr)			
-941200+5 524095+5 191953+2 177223-2-416991+7 621153+2	1260. 1500.21	Br1K1 (cr)			

1 35 1 19	JANAF 1998	5Br1K1 (cr, l)
-941200+5 126171+6-214296+1 292594-1 527862+6 999766+2298.15 400.21		Br1K1 (cr, l)
-941200+5 415321+5 126710+2 169319-2-781355+5 562931+2 400. 600.21		Br1K1 (cr, l)
-941200+5 570353+5 695545+1 825995-2 561049+6 637067+2 600. 800.21		Br1K1 (cr, l)
-941200+5 721831+5-326385+1 167854-1 273639+7 705339+2 800. 1007.21		Br1K1 (cr, l)
-941200+5 492423+5 167000+2 000000+0-243475-6 637343+2 1007. 2500.32		Br1K1 (cr, l)
1 35 1 19	JANAF 1998	5Br1K1 (g)
-430399+5 250120+5 892488+1 211473-3-145230+5 809484+2298.15 493.11		Br1K1 (g)
-430399+5 249530+5 894147+1 189006-3-158644+5 809194+2 493. 1500.11		Br1K1 (g)
-430399+5 249525+5 894264+1 188410-3-164795+5 809192+2 1500. 2300.11		Br1K1 (g)
-430399+5 249526+5 894270+1 188464-3-174475+5 809192+2 2300. 3400.11		Br1K1 (g)
-430399+5 249526+5 894196+1 188588-3-137553+5 809192+2 3400. 6000.11		Br1K1 (g)
1 35 1 19	JANAF 1998	2Br1K1 (l)
-899837+5 451210+5 167000+2 000000+0-289168-7 637812+2298.15 1500.31		Br1K1 (l)
-899837+5 451210+5 167000+2 000000+0-921368-5 637812+2 1500. 2500.31		Br1K1 (l)
1 35 1 3	JANAF 1998	5Br1Lil (cr)
-838700+5 254689+5 144966+2-295865-2-170899+6 422237+2298.15 400.21		Br1Lil (cr)
-838700+5 574370+5 851382+1 765703-2 106937+6 586226+2 400. 600.21		Br1Lil (cr)
-838700+5 747327+5 204012+1 150293-1 845047+6 668813+2 600. 801.21		Br1Lil (cr)
-838700+5 480193+5 200320+2 767656-5-297859+7 548397+2 801. 1320.21		Br1Lil (cr)
-838700+5 469989+5 210797+2-748424-3-306504+7 544096+2 1320. 2000.21		Br1Lil (cr)
1 35 1 3	JANAF 1998	4Br1Lil (cr, l)
-838700+5 254689+5 144966+2-295865-2-170899+6 422237+2298.15 400.21		Br1Lil (cr, l)
-838700+5 573725+5 852970+1 763360-2 105895+6 585905+2 400. 600.21		Br1Lil (cr, l)
-838700+5 731475+5 283108+1 142597-1 726162+6 661486+2 600. 823.21		Br1Lil (cr, l)
-838700+5 451858+5 155999+2 000000+0 173536-6 562525+2 823. 2000.32		Br1Lil (cr, l)
1 35 1 3	JANAF 1998	5Br1Lil (g)
-368000+5 272749+5 825515+1 114466-2-428274+5 755070+2298.15 402.11		Br1Lil (g)
-368000+5 251177+5 870031+1 406498-3-668122+5 744111+2 402. 600.11		Br1Lil (g)
-368000+5 246079+5 888700+1 191161-3-875085+5 741672+2 600. 903.11		Br1Lil (g)
-368000+5 245531+5 893395+1 156076-3-999578+5 741431+2 903. 1575.11		Br1Lil (g)
-368000+5 245515+5 894207+1 152634-3-106654+6 741424+2 1575. 6000.11		Br1Lil (g)
1 35 1 3	JANAF 1998	2Br1Lil (l)
-808380+5 421486+5 155999+2 000000+0 000000+0 562372+2298.15 1200.31		Br1Lil (l)
-808380+5 421486+5 155999+2 000000+0-208196-6 562372+2 1200. 2000.31		Br1Lil (l)
1 35 1 12	JANAF 1998	5Br1Mgl (g)
-844694+4 249721+5 881376+1 282978-3-338216+5 794425+2298.15 497.11		Br1Mgl (g)
-844694+4 245424+5 893663+1 118422-3-439690+5 792315+2 497. 2907.11		Br1Mgl (g)
-844694+4 245425+5 853663+1 210115-3 108377+7 792315+2 2907. 3814.11		Br1Mgl (g)
-844694+4 245252+5 744739+1 400410-3 637075+7 792261+2 3814. 4723.11		Br1Mgl (g)
-844694+4 243681+5 614877+1 583583-3 160407+8 791794+2 4723. 6000.11		Br1Mgl (g)
1 35 1 42	JANAF 1998	5Br1Mol (g)
109300+6 245146+5 890931+1 116795-3-256394+5 851337+2298.15 1655.11		Br1Mol (g)
109300+6 249969+5 594948+1 130847-2 267946+7 853195+2 1655. 2295.11		Br1Mol (g)
109300+6 251137+5-931345+0 330735-2 147588+8 853611+2 2295. 3703.11		Br1Mol (g)
109300+6 252807+5 147596+2 486499-3-571668+8 854139+2 3703. 4488.11		Br1Mol (g)
109300+6 267336+5 323425+2-212112-2-175600+9 858514+2 4488. 6000.11		Br1Mol (g)
1 35 1 7	JANAF 1998	5Br1N1 (g)
718829+5 289877+5 770412+1 186048-2-387807+5 788532+2298.15 400.11		Br1N1 (g)
718829+5 255059+5 841543+1 672853-3-765818+5 770826+2 400. 556.11		Br1N1 (g)
718829+5 244475+5 877339+1 240186-3-112876+6 765718+2 556. 800.11		Br1N1 (g)
718829+5 242443+5 890735+1 127194-3-140753+6 764801+2 800. 1313.11		Br1N1 (g)
718829+5 242316+5 894108+1 110433-3-160974+6 764749+2 1313. 6000.11		Br1N1 (g)
1 35 1 7 1 8	JANAF 1998	5Br1N1O1 (g)
196300+5 412126+5 104867+2 292009-2-435099+5 972065+2298.15 549.11		Br1N1O1 (g)
196300+5 380772+5 115446+2 163962-2-150492+6 956932+2 549. 800.11		Br1N1O1 (g)
196300+5 360647+5 128977+2 508965-3-437553+6 947859+2 800. 1184.11		Br1N1O1 (g)
196300+5 356392+5 136615+2 801401-4-796648+6 946092+2 1184. 1981.11		Br1N1O1 (g)
196300+5 356256+5 138925+2 254778-5-109963+7 946042+2 1981. 6000.11		Br1N1O1 (g)
1 35 1 11	JANAF 1998	5Br1Nal (cr)
-863800+5 423880+5 122785+2 210530-2-552974+5 544785+2298.15 564.21		Br1Nal (cr)
-863800+5 446970+5 116007+2 299928-2-638187+2 556071+2 564. 999.21		Br1Nal (cr)
-863800+5 447251+5 115688+2 302045-2 106286+5 556192+2 999. 1100.21		Br1Nal (cr)
-863800+5 446991+5 115983+2 300082-2 113108+4 556081+2 1100. 1459.21		Br1Nal (cr)
-863800+5 450533+5 100110+2 368846-2 124423+7 557465+2 1459. 2000.21		Br1Nal (cr)

1 35 1 11	JANAF 1998					4Br1NaI (cr, l)
-863800+5	423875+5	122786+2	210513-2-553015+5	544783+2298.15	564.21	Br1NaI (cr, l)
-863800+5	446958+5	116013+2	299870-2-155556+3	556066+2	564. 879.21	Br1NaI (cr, l)
-863800+5	446928+5	116051+2	299625-2-143946+4	556053+2	879. 1020.21	Br1NaI (cr, l)
-863800+5	455333+5	149001+2	000000+0	115563-6	593456+2 1020. 2500.32	Br1NaI (cr, l)
1 35 1 11	JANAF 1998					5Br1NaI (g)
-344001+5	253337+5	884401+1	338744-3-234340+5	788298+2298.15	385.11	Br1NaI (g)
-344001+5	249701+5	891436+1	216813-3-269035+5	786439+2	385. 569.11	Br1NaI (g)
-344001+5	249047+5	893767+1	189481-3-294153+5	786125+2	569. 959.11	Br1NaI (g)
-344001+5	249002+5	894216+1	186339-3-307754+5	786105+2	959. 3800.11	Br1NaI (g)
-344001+5	249001+5	894139+1	186409-3-234833+5	786105+2	3800. 6000.11	Br1NaI (g)
1 35 1 11	JANAF 1998					2Br1NaI (l)
-811049+5	402578+5	149001+2	000000+0	951351-8	593443+2298.15 1200.31	Br1NaI (l)
-811049+5	402578+5	149001+2	000000+0	171886-6	593443+2 1200. 2500.31	Br1NaI (l)
1 35 1 15	JANAF 1998					5Br1P1 (g)
388626+5	254326+5	871249+1	448120-3-343810+5	806694+2298.15	400.11	Br1P1 (g)
388626+5	246696+5	886991+1	187061-3-428603+5	802818+2	400. 582.11	Br1P1 (g)
388626+5	245054+5	893080+1	117338-3-497414+5	802033+2	582. 1011.11	Br1P1 (g)
388626+5	244960+5	894168+1	110168-3-534540+5	801993+2	1011. 2736.11	Br1P1 (g)
388626+5	244960+5	894202+1	110019-3-529796+5	801993+2	2736. 6000.11	Br1P1 (g)
1 35 1 82	JANAF 1998					5Br1Pb1 (g)
169510+5	247184+5	893276+1	139988-3-133380+5	860236+2298.15	1050.11	Br1Pb1 (g)
169510+5	249593+5	862579+1	334890-3	994664+5	861263+2 1050. 1447.11	Br1Pb1 (g)
169510+5	251345+5	801934+1	614642-3	521680+6	861959+2 1447. 2669.11	Br1Pb1 (g)
169510+5	251328+5	919703+1	320871-3-228221+7	861954+2	2669. 3623.11	Br1Pb1 (g)
169510+5	251403+5	101764+2	140984-3-658243+7	861977+2	3623. 6000.11	Br1Pb1 (g)
1 35 1 14	JANAF 1998					5Br1Si1 (g)
562440+5	220886+5	997716+1	-106843-2-356757+5	790577+2298.15	514.11	Br1Si1 (g)
562440+5	248263+5	915281+1	741944-6	369239+5	803948+2 514. 990.11	Br1Si1 (g)
562440+5	250248+5	893463+1	147564-3	108303+6	804804+2 990. 2890.11	Br1Si1 (g)
562440+5	250249+5	806024+1	348980-3	254960+7	804805+2 2890. 4110.11	Br1Si1 (g)
562440+5	249605+5	634791+1	626276-3	122227+8	804606+2 4110. 6000.11	Br1Si1 (g)
1 35 1 38	JANAF 1998					5Br1Sr1 (g)
-213000+5	246845+5	893591+1	131460-3-147956+5	839156+2298.15	1750.11	Br1Sr1 (g)
-213000+5	247558+5	835973+1	350885-3	573751+6	839427+2 1750. 2358.11	Br1Sr1 (g)
-213000+5	247740+5	689448+1	764994-3	329147+7	839491+2 2358. 3014.11	Br1Sr1 (g)
-213000+5	247740+5	537583+1	110098-2	788791+7	839491+2 3014. 4852.11	Br1Sr1 (g)
-213000+5	251279+5	779088+1	769503-3-111036+8	840537+2	4852. 6000.11	Br1Sr1 (g)
1 35 1 22	JANAF 1998					5Br1Ti1 (g)
508000+5	351999+5	890284+1	253612-2-509963+5	892977+2298.15	486.11	Br1Ti1 (g)
508000+5	278511+5	109292+2	-240611-3-210869+6	856757+2	486. 1115.11	Br1Ti1 (g)
508000+5	283934+5	101200+2	243917-3	123470+6	859040+2 1115. 2398.11	Br1Ti1 (g)
508000+5	283862+5	108392+2	440461-4-125592+7	859015+2	2398. 4662.11	Br1Ti1 (g)
508000+5	283323+5	103453+2	114699-3	231925+7	858854+2 4662. 6000.11	Br1Ti1 (g)
1 35 1 74	JANAF 1998					5Br1W1 (g)
140100+6	246070+5	887813+1	157977-3-278792+5	859000+2298.15	805.11	Br1W1 (g)
140100+6	251669+5	849415+1	475798-3	551496+5	861519+2 805. 2413.11	Br1W1 (g)
140100+6	251836+5	670667+1	969687-3	352386+7	861578+2 2413. 4011.11	Br1W1 (g)
140100+6	252818+5	101247+2	401808-3-148204+8	861882+2	4011. 4857.11	Br1W1 (g)
140100+6	259121+5	144039+2	-185094-3-485225+8	863744+2	4857. 6000.11	Br1W1 (g)
1 35 1 40	JANAF 1998					5Br1Zr1 (g)
720000+5	257180+5	870348+1	508487-3-208928+5	847953+2298.15	524.11	Br1Zr1 (g)
720000+5	282047+5	798378+1	146530-2	390557+5	860145+2 524. 1085.11	Br1Zr1 (g)
720000+5	271210+5	949577+1	537429-3-555726+6	855557+2	1085. 1559.11	Br1Zr1 (g)
720000+5	268078+5	109695+2	-922854-4-175163+7	854334+2	1559. 3301.11	Br1Zr1 (g)
720000+5	268070+5	101201+2	792939-4	133251+7	854332+2 3301. 6000.11	Br1Zr1 (g)
2 35	JANAF 1998					2Br2 (cr, l)
000000+0	115001+6	775683+1	208592-1	365397+6	112680+3298.15 332.531	Br2 (cr, l)
000000+0	486276+5	179976+2	000000+0	-145826-6	779330+2 332.5 500.31	Br2 (cr, l)
2 35	JANAF 1998					5Br2 (g)
738767+4	247401+5	888273+1	185627-3-287240+5	794742+2298.15	765.11	Br2 (g)
738767+4	247310+5	883568+1	203998-3-941222+4	794664+2	765. 1528.11	Br2 (g)
738767+4	249622+5	792633+1	609986-3	665334+6	795575+2 1528. 2844.11	Br2 (g)
738767+4	249615+5	126949+2	-506724-3-122165+8	795573+2	2844. 4049.11	Br2 (g)
738767+4	248607+5	133161+2	-668178-3-116826+8	795270+2	4049. 6000.11	Br2 (g)



2 35 1 20	JANAF 1998				5Br2Ca1 (cr)
-163300+6 545271+5 191438+2 714833-3-126349+6 764265+2298.15 488.21					Br2Ca1 (cr)
-163300+6 602798+5 173196+2 300821-2 415634+5 792177+2 488. 700.21					Br2Ca1 (cr)
-163300+6 721246+5 116501+2 863856-2 888409+6 847338+2 700. 1013.21					Br2Ca1 (cr)
-163300+6 754770+5 878421+1 107926-1 159011+7 862054+2 1013. 1281.21					Br2Ca1 (cr)
-163300+6 741519+5 124115+2 900456-2-603525+6 856719+2 1281. 1500.21					Br2Ca1 (cr)
2 35 1 20	JANAF 1998				5Br2Ca1 (cr, l)
-163300+6 504970+5 198320+2-588920-3-153027+6 743442+2298.15 400.21					Br2Ca1 (cr, l)
-163300+6 561358+5 187228+2 131195-2-972043+5 772228+2 400. 600.21					Br2Ca1 (cr, l)
-163300+6 700544+5 128908+2 754113-2 656800+6 837920+2 600. 800.21					Br2Ca1 (cr, l)
-163300+6 722980+5 114974+2 875159-2 928828+6 848107+2 800. 1015.21					Br2Ca1 (cr, l)
-163300+6 745411+5 270000+2 000000+0-789055-6 906874+2 1015. 2500.32					Br2Ca1 (cr, l)
2 35 1 20	JANAF 1998				5Br2Ca1 (g)
-920000+5 405189+5 148014+2 143222-3-365677+5 109558+3298.15 442.11					Br2Ca1 (g)
-920000+5 401586+5 148872+2 140227-4-421562+5 109377+3 442. 778.11					Br2Ca1 (g)
-920000+5 401333+5 149033+2 174222-6-454175+5 109366+3 778. 3040.11					Br2Ca1 (g)
-920000+5 401333+5 149005+2 659160-6-331005+5 109366+3 3040. 4100.11					Br2Ca1 (g)
-920000+5 401331+5 149029+2 131154-6-363620+5 109366+3 4100. 6000.11					Br2Ca1 (g)
2 35 1 20	JANAF 1998				3Br2Ca1 (l)
-158458+6 541891+5 192016+2 605495-3-128586+6 805915+2298.15 500.31					Br2Ca1 (l)
-158458+6 602879+5 173167+2 301160-2 418541+5 835610+2 500. 700.31					Br2Ca1 (l)
-158458+6 696992+5 270000+2 000000+0-225594-7 906859+2 700. 2500.32					Br2Ca1 (l)
2 35 1 26	JANAF 1998				2Br2Fe1 (cr)
-595000+5 712123+5 175936+2 531416-2-184651+3 885967+2298.15 650.21					Br2Fe1 (cr)
-595000+5 713304+5 175876+2 532138-2 920285+3 887594+2 650. 1500.22					Br2Fe1 (cr)
2 35 1 26	JANAF 1998				4Br2Fe1 (cr, l)
-595000+5 706567+5 176879+2 513472-2-381817+4 883094+2298.15 432.21					Br2Fe1 (cr, l)
-595000+5 710868+5 176384+2 526167-2-479692+4 885367+2 432. 650.21					Br2Fe1 (cr, l)
-595000+5 713439+5 175784+2 532903-2 275593+4 887655+2 650. 964.22					Br2Fe1 (cr, l)
-595000+5 779657+5 255000+2 000000+0-793907-6 993556+2 964. 2000.33					Br2Fe1 (cr, l)
2 35 1 26	JANAF 1998				5Br2Fe1 (g)
-990010+4 405774+5 147996+2 153674-3-309683+5 115016+3298.15 731.11					Br2Fe1 (g)
-990010+4 422312+5 138677+2 100333-2 135123+6 115774+3 731. 1573.11					Br2Fe1 (g)
-990010+4 418521+5 157178+2 219524-3-139212+7 115627+3 1573. 2144.11					Br2Fe1 (g)
-990010+4 417946+5 174957+2-333004-3-411890+7 115606+3 2144. 4101.11					Br2Fe1 (g)
-990010+4 417524+5 163236+2-142387-3 244656+7 115593+3 4101. 6000.11					Br2Fe1 (g)
2 35 1 26	JANAF 1998				2Br2Fe1 (l)
-504314+5 688972+5 255000+2 000000+0-188729-7 993555+2298.15 800.31					Br2Fe1 (l)
-504314+5 688972+5 255000+2 000000+0-275218-6 993555+2 800. 2000.31					Br2Fe1 (l)
2 35 2 1 1 14	JANAF 1998				5Br2H2Si1 (g)
-455000+5 843138+5 149257+2 100077-1-199627+6 134465+3298.15 450.11					Br2H2Si1 (g)
-455000+5 721849+5 179103+2 560747-2-403037+6 128416+3 450. 719.11					Br2H2Si1 (g)
-455000+5 655142+5 215796+2 222054-2-104103+7 125350+3 719. 1114.11					Br2H2Si1 (g)
-455000+5 634896+5 246490+2 393109-3-232377+7 124499+3 1114. 1912.11					Br2H2Si1 (g)
-455000+5 634099+5 257444+2 128443-4-367015+7 124469+3 1912. 6000.11					Br2H2Si1 (g)
2 35 1 80	JANAF 1998				2Br2Hg1 (cr)
-405000+5 734907+5 160512+2 676484-2-607620+4 960083+2298.15 500.21					Br2Hg1 (cr)
-405000+5 741801+5 159228+2 699453-2-267691+4 963590+2 500. 1500.21					Br2Hg1 (cr)
2 35 1 80	JANAF 1998				3Br2Hg1 (cr, l)
-405000+5 749066+5 158094+2 722290-2 329726+4 967399+2298.15 400.21					Br2Hg1 (cr, l)
-405000+5 482562+5 222586+2-239623-2-412957+6 834471+2 400. 514.21					Br2Hg1 (cr, l)
-405000+5 689920+5 244001+2 000000+0-148386-6 102267+3 514. 1500.32					Br2Hg1 (cr, l)
2 35 1 80	JANAF 1998				5Br2Hg1 (g)
-204240+5 402376+5 148485+2 543461-4-407521+5 110711+3298.15 368.11					Br2Hg1 (g)
-204240+5 401896+5 148766+2 282131-4-432471+5 110692+3 368. 610.11					Br2Hg1 (g)
-204240+5 401290+5 149011+2 151065-5-462994+5 110663+3 610. 1200.11					Br2Hg1 (g)
-204240+5 401276+5 149041+2-444213-7-479037+5 110662+3 1200. 3200.11					Br2Hg1 (g)
-204240+5 401276+5 149046+2-107508-6-516883+5 110662+3 3200. 6000.11					Br2Hg1 (g)
2 35 1 80	JANAF 1998				2Br2Hg1 (l)
-374345+5 659254+5 244001+2 000000+0-253123-7 102264+3298.15 800.31					Br2Hg1 (l)
-374345+5 659254+5 244001+2 000000+0-405458-6 102264+3 800. 1500.31					Br2Hg1 (l)

2 35 2 80	JANAF 1998				5Br2Hg2 (cr)
-488000+5 101542+6 230236+2 886872-2-593605+5 129070+3298.15 400.21					Br2Hg2 (cr)
-488000+5 857802+5 260372+2 360111-2-204408+6 121002+3 400. 600.21					Br2Hg2 (cr)
-488000+5 826341+5 271054+2 231213-2-310564+6 119486+3 600. 800.21					Br2Hg2 (cr)
-488000+5 813021+5 278958+2 160951-2-456693+6 118879+3 800. 1200.21					Br2Hg2 (cr)
-488000+5 834659+5 225954+2 431467-2 250146+7 119754+3 1200. 1500.21					Br2Hg2 (cr)
2 35 2 19	JANAF 1998				5Br2K2 (g)
-129200+6 528198+5 199860+2-242569-3-326527+5 135201+3298.15 356.11					Br2K2 (g)
-129200+6 536077+5 198690+2 262521-5-288910+5 135614+3 356. 800.11					Br2K2 (g)
-129200+6 536025+5 198714+2 203300-6-291751+5 135612+3 800. 2089.11					Br2K2 (g)
-129200+6 536024+5 198764+2-128837-5-374686+5 135612+3 2089. 2779.11					Br2K2 (g)
-129200+6 536025+5 198722+2-435613-7-317670+5 135612+3 2779. 6000.11					Br2K2 (g)
2 35 2 3	JANAF 1998				5Br2Li2 (g)
-119700+6 558812+5 192139+2 985267-3-139622+6 121394+3298.15 389.11					Br2Li2 (g)
-119700+6 538145+5 196240+2 286713-3-160562+6 120340+3 389. 514.11					Br2Li2 (g)
-119700+6 532263+5 198021+2 565182-4-176346+6 120053+3 514. 800.11					Br2Li2 (g)
-119700+6 531315+5 198614+2 517989-5-188031+6 120010+3 800. 1281.11					Br2Li2 (g)
-119700+6 531274+5 198715+2 769446-7-193816+6 120008+3 1281. 6000.11					Br2Li2 (g)
2 35 1 12	JANAF 1998				5Br2Mg1 (cr)
-125300+6-329745+5 342982+2-276835-1-760797+6 281532+2298.15 400.21					Br2Mg1 (cr)
-125300+6 585691+5 188758+2 181566-2-181148+6 755554+2 400. 600.21					Br2Mg1 (cr)
-125300+6 636759+5 169353+2 400627-2 442612+5 779903+2 600. 806.21					Br2Mg1 (cr)
-125300+6 663980+5 150620+2 555432-2 450633+6 792149+2 806. 1157.21					Br2Mg1 (cr)
-125300+6 659016+5 163653+2 489880-2-278668+6 790166+2 1157. 1500.21					Br2Mg1 (cr)
2 35 1 12	JANAF 1998				5Br2Mg1 (cr, l)
-125300+6-328622+5 342829+2-276492-1-760339+6 282128+2298.15 400.21					Br2Mg1 (cr, l)
-125300+6 602148+5 184250+2 243720-2-148611+6 763631+2 400. 700.21					Br2Mg1 (cr, l)
-125300+6 653670+5 159223+2 490290-2 231983+6 787593+2 700. 984.21					Br2Mg1 (cr, l)
-125300+6 732196+5 250000+2 000000+0 554027-2 884402+2 984. 1106.32					Br2Mg1 (cr, l)
-125300+6 732196+5 250000+2 000000+0 468268-4 884402+2 1106. 2000.32					Br2Mg1 (cr, l)
2 35 1 12	JANAF 1998				5Br2Mg1 (g)
-724001+5 419637+5 144248+2 707455-3-536497+5 106840+3298.15 393.11					Br2Mg1 (g)
-724001+5 405288+5 147103+2 222068-3-682753+5 106108+3 393. 515.11					Br2Mg1 (g)
-724001+5 400762+5 148483+2 444288-4-806333+5 105887+3 515. 800.11					Br2Mg1 (g)
-724001+5 400020+5 148959+2 374086-5-902406+5 105854+3 800. 1451.11					Br2Mg1 (g)
-724001+5 399995+5 149037+2 328885-7-954070+5 105853+3 1451. 6000.11					Br2Mg1 (g)
2 35 1 12	JANAF 1998				3Br2Mg1 (l)
-117210+6-328673+5 342836+2-276508-1-760360+6 361805+2298.15 400.31					Br2Mg1 (l)
-117210+6 601400+5 184455+2 240893-2-150091+6 842968+2 400. 700.31					Br2Mg1 (l)
-117210+6 651297+5 250000+2 000000+0 282332-6 884397+2 700. 2000.32					Br2Mg1 (l)
2 35 1 12 -1 99	JANAF 1998				5Br2Mg1+ (g)
174800+6 413814+5 145683+2 485922-3-479531+5 111551+3298.15 411.11					Br2Mg1+ (g)
174800+6 402474+5 148099+2 938514-4-615580+5 110977+3 411. 639.11					Br2Mg1+ (g)
174800+6 400475+5 148974+2 266171-5-734800+5 110883+3 639. 3159.11					Br2Mg1+ (g)
174800+6 400474+5 145324+2 796788-4 114083+7 110883+3 3159. 4349.11					Br2Mg1+ (g)
174800+6 399987+5 137558+2 198721-3 603868+7 110868+3 4349. 6000.11					Br2Mg1+ (g)
2 35 1 42	JANAF 1998				2Br2Mo1 (cr)
-485000+5 593592+5 185092+2 210403-2-814558+4 781730+2298.15 400.21					Br2Mo1 (cr)
-485000+5 605829+5 183000+2 250000-2-175403-7 788058+2 400. 1800.21					Br2Mo1 (cr)
2 35 1 42	JANAF 1998				5Br2Mo1 (g)
400000+5 395009+5 183753+2-220690-2-103729+6 112569+3298.15 859.11					Br2Mo1 (g)
400000+5 419696+5 162651+2-627488-3 452209+6 113657+3 859. 1315.11					Br2Mo1 (g)
400000+5 424771+5 150119+2 818050-5 117382+7 113863+3 1315. 1945.11					Br2Mo1 (g)
400000+5 425660+5 136979+2 459116-3 282672+7 113896+3 1945. 4011.11					Br2Mo1 (g)
400000+5 426462+5 164792+2-281252-5-121110+8 113921+3 4011. 6000.11					Br2Mo1 (g)
2 35 2 11	JANAF 1998				5Br2Na2 (g)
-116240+6 537681+5 198006+2 101659-3-605793+5 129027+3298.15 434.11					Br2Na2 (g)
-116240+6 535106+5 198601+2 102157-4-643202+5 128898+3 434. 754.11					Br2Na2 (g)
-116240+6 534916+5 198715+2 123651-6-664838+5 128889+3 754. 3200.11					Br2Na2 (g)
-116240+6 534916+5 198509+2 405046-5 155781+5 128889+3 3200. 3738.11					Br2Na2 (g)
-116240+6 534915+5 198711+2 100308-6-595390+5 128889+3 3738. 6000.11					Br2Na2 (g)
2 35 1 82	JANAF 1998				4Br2Pb1 (cr)
-663000+5 622408+5 184435+2 280071-2-230190+5 885313+2298.15 400.21					Br2Pb1 (cr)
-663000+5 898075+5 137673+2 117007-1 155573+6 102797+3 400. 600.21					Br2Pb1 (cr)
-663000+5 864235+5 150666+2 102427-1 277220+4 101185+3 600. 800.21					Br2Pb1 (cr)
-663000+5 863984+5 150815+2 102294-1-338002-4 101174+3 800. 1000.21					Br2Pb1 (cr)

2 35 1 82	JANAF 1998					3Br2Pb1 (cr, l)
-663000+5 624897+5 184010+2 288123-2-213732+5 886599+2298.15 411.21						Br2Pb1 (cr, l)
-663000+5 884290+5 142341+2 111368-1 109350+6 102130+3 411. 644.21						Br2Pb1 (cr, l)
-663000+5 740244+5 268000+2 000000+0-142396-6 101204+3 644. 2000.32						Br2Pb1 (cr, l)
2 35 1 82	JANAF 1998					5Br2Pb1 (g)
-249500+5 376194+5 138794+2 441856-4-256804+5 113110+3298.15 465.11						Br2Pb1 (g)
-249500+5 375212+5 139001+2 103368-4-267422+5 113060+3 465. 700.11						Br2Pb1 (g)
-249500+5 374990+5 139099+2 153135-6-280755+5 113050+3 700. 3000.11						Br2Pb1 (g)
-249500+5 374990+5 137952+2 245272-4 346409+6 113050+3 3000. 3252.11						Br2Pb1 (g)
-249500+5 374990+5 139099+2 543484-7-253300+5 113050+3 3252. 6000.11						Br2Pb1 (g)
2 35 1 82	JANAF 1998					2Br2Pb1 (l)
-639130+5 637470+5 181866+2 328779-2-130482+5 923570+2298.15 400.31						Br2Pb1 (l)
-639130+5 716379+5 268000+2 000000+0-356285-7 101204+3 400. 2000.32						Br2Pb1 (l)
2 35 1 14	JANAF 1998					5Br2Si1 (g)
-125000+5 383720+5 135784+2 431778-3-789555+5 105001+3298.15 494.11						Br2Si1 (g)
-125000+5 372638+5 138922+2 888554-5-104562+6 104456+3 494. 2441.11						Br2Si1 (g)
-125000+5 372697+5 131579+2 209439-3 135375+7 104458+3 2441. 3286.11						Br2Si1 (g)
-125000+5 372685+5 116514+2 515079-3 677668+7 104458+3 3286. 4455.11						Br2Si1 (g)
-125000+5 373258+5 115814+2 540461-3 592032+7 104474+3 4455. 6000.11						Br2Si1 (g)
2 35 1 38	JANAF 1998					5Br2Sr1 (cr)
-171600+6 611875+5 180583+2 281415-2-470310+5 833166+2298.15 400.21						Br2Sr1 (cr)
-171600+6 661515+5 170212+2 451947-2 976694+4 858350+2 400. 600.21						Br2Sr1 (cr)
-171600+6 752175+5 135138+2 843818-2 425995+6 901500+2 600. 800.21						Br2Sr1 (cr)
-171600+6 870870+5 557956+1 150866-1 209992+7 955041+2 800. 918.21						Br2Sr1 (cr)
-171600+6 725272+5 275000+2 000000+0 452307-6 921049+2 918. 1500.22						Br2Sr1 (cr)
2 35 1 38	JANAF 1998					5Br2Sr1 (cr, l)
-171600+6 651710+5 173413+2 412321-2-178049+5 853608+2298.15 625.21						Br2Sr1 (cr, l)
-171600+6 795182+5 113083+2 105532-1 769039+6 921318+2 625. 918.21						Br2Sr1 (cr, l)
-171600+6 725275+5 275000+2 168065-8 662887+0 921032+2 918. 930.22						Br2Sr1 (cr, l)
-171600+6 756059+5 278181+2 000000+0 896638-4 950778+2 930. 1100.33						Br2Sr1 (cr, l)
-171600+6 756059+5 278181+2 000000+0-619495-6 950778+2 1100. 3000.33						Br2Sr1 (cr, l)
2 35 1 38	JANAF 1998					5Br2Sr1 (g)
-973000+5 403259+5 148603+2 588781-4-287520+5 111579+3298.15 472.11						Br2Sr1 (g)
-973000+5 401727+5 149007+2 197687-5-317510+5 111504+3 472. 1368.11						Br2Sr1 (g)
-973000+5 401705+5 149031+2 259565-6-319096+5 111503+3 1368. 3139.11						Br2Sr1 (g)
-973000+5 401705+5 148988+2 910448-6-997111+4 111503+3 3139. 4300.11						Br2Sr1 (g)
-973000+5 401704+5 149036+2 255582-7-287666+5 111503+3 4300. 6000.11						Br2Sr1 (g)
2 35 1 38	JANAF 1998					2Br2Sr1 (l)
-168522+6 648212+5 174123+2 400380-2-210129+5 879101+2298.15 600.31						Br2Sr1 (l)
-168522+6 725267+5 278181+2 000000+0-127770-6 950765+2 600. 3000.32						Br2Sr1 (l)
2 35 1 22	JANAF 1998					2Br2Ti1 (cr)
-969001+5 608128+5 179905+2 273935-2-326631+2 748371+2298.15 801.21						Br2Ti1 (cr)
-969001+5 608139+5 179909+2 273947-2-372319+3 748377+2 801. 1500.21						Br2Ti1 (cr)
2 35 1 22	JANAF 1998					5Br2Ti1 (g)
-428000+5 403020+5 148310+2 824677-4-452344+5 107964+3298.15 1043.11						Br2Ti1 (g)
-428000+5 414100+5 134421+2 969934-3 458718+6 108437+3 1043. 1755.11						Br2Ti1 (g)
-428000+5 414539+5 141830+2 768456-3-734103+6 108456+3 1755. 2568.11						Br2Ti1 (g)
-428000+5 414464+5 163942+2 194945-3-560383+7 108453+3 2568. 4744.11						Br2Ti1 (g)
-428000+5 415925+5 175587+2 315372-4-143646+8 108496+3 4744. 6000.11						Br2Ti1 (g)
2 35 1 40	JANAF 1998					2Br2Zr1 (cr)
-967000+5 660018+5 199100+2 273993-2 710867+1 810707+2298.15 900.21						Br2Zr1 (cr)
-967000+5 660024+5 199095+2 274030-2 212684+3 810709+2 900. 1500.22						Br2Zr1 (cr)
2 35 1 40	JANAF 1998					2Br2Zr1 (cr, l)
-967000+5 660018+5 199100+2 273993-2 710867+1 810707+2298.15 900.21						Br2Zr1 (cr, l)
-967000+5 736458+5 217500+2 000000+0 145449-5 941987+2 900. 2000.32						Br2Zr1 (cr, l)
2 35 1 40	JANAF 1998					5Br2Zr1 (g)
-417000+5 403133+5 148529+2 631780-4-325981+5 109966+3298.15 1033.11						Br2Zr1 (g)
-417000+5 414508+5 134637+2 959816-3 461417+6 110453+3 1033. 1752.11						Br2Zr1 (g)
-417000+5 415012+5 141814+2 768964-3-715052+6 110475+3 1752. 2568.11						Br2Zr1 (g)
-417000+5 414936+5 163941+2 194978-3-558659+7 110472+3 2568. 4743.11						Br2Zr1 (g)
-417000+5 416396+5 175584+2 315677-4-143442+8 110515+3 4743. 6000.11						Br2Zr1 (g)
2 35 1 40	JANAF 1998					2Br2Zr1 (l)
-818196+5 587652+5 217500+2 000000+0 384725-7 941986+2298.15 1000.31						Br2Zr1 (l)
-818196+5 587652+5 217500+2 000000+0 159818-5 941986+2 1000. 2000.31						Br2Zr1 (l)

3 35 1 1 1 14	JANAF 1998	5Br3H1Si1 (g)
-724001+5 794505+5 196456+2 605326-2-198531+6 143766+3298.15 442.11		Br3H1Si1 (g)
-724001+5 708018+5 217134+2 294668-2-334238+6 139440+3 442. 712.11		Br3H1Si1 (g)
-724001+5 672098+5 236488+2 114111-2-663680+6 137786+3 712. 1117.11		Br3H1Si1 (g)
-724001+5 661663+5 252306+2 199342-3-132471+7 137347+3 1117. 1923.11		Br3H1Si1 (g)
-724001+5 661267+5 257880+2 655463-5-201500+7 137332+3 1923. 6000.11		Br3H1Si1 (g)
3 35 1 42	JANAF 1998	2Br3Mo1 (cr)
-678000+5 823541+5 238767+2 399764-2 102574+5 107684+3298.15 401.21		Br3Mo1 (cr)
-678000+5 808168+5 241399+2 350004-2 208135+2 106889+3 401. 1500.21		Br3Mo1 (cr)
3 35 1 42	JANAF 1998	5Br3Mo1 (g)
-200000+4 547396+5 196154+2 424350-3-493376+5 135758+3298.15 744.11		Br3Mo1 (g)
-200000+4 559845+5 193472+2 870883-3-847503+5 136361+3 744. 1451.11		Br3Mo1 (g)
-200000+4 555864+5 198547+2 530244-3-112545+6 136197+3 1451. 3121.11		Br3Mo1 (g)
-200000+4 555866+5 225155+2-382431-4-874890+7 136197+3 3121. 3940.11		Br3Mo1 (g)
-200000+4 556398+5 247893+2-422968-3-205145+8 136214+3 3940. 6000.11		Br3Mo1 (g)
3 35 1 8 1 15	JANAF 1998	5Br3O1P1 (g)
-970416+5 791035+5 219839+2 453494-2-165288+6 148064+3298.15 452.11		Br3O1P1 (g)
-970416+5 709378+5 240029+2 156759-2-303751+6 143993+3 452. 700.11		Br3O1P1 (g)
-970416+5 684155+5 252352+2 357258-3-492462+6 142821+3 700. 1016.11		Br3O1P1 (g)
-970416+5 680117+5 257065+2 476096-4-654241+6 142647+3 1016. 1721.11		Br3O1P1 (g)
-970416+5 679954+5 258267+2 101373-5-772739+6 142641+3 1721. 6000.11		Br3O1P1 (g)
3 35 1 15	JANAF 1998	5Br3P1 (g)
-349001+5 559925+5 191955+2 100647-2-117641+6 129586+3298.15 397.11		Br3P1 (g)
-349001+5 538673+5 196213+2 285998-3-139670+6 128503+3 397. 524.11		Br3P1 (g)
-349001+5 532858+5 198018+2 562090-4-156170+6 128220+3 524. 800.11		Br3P1 (g)
-349001+5 531931+5 198595+2 614999-5-167471+6 128178+3 800. 1329.11		Br3P1 (g)
-349001+5 531882+5 198714+2 929292-7-174159+6 128176+3 1329. 6000.11		Br3P1 (g)
3 35 1 15 1 16	JANAF 1998	5Br3P1S1 (g)
-671730+5 769706+5 237445+2 299393-2-173129+6 151027+3298.15 399.11		Br3P1S1 (g)
-671730+5 709114+5 249791+2 928855-3-238507+6 147945+3 399. 548.11		Br3P1S1 (g)
-671730+5 691290+5 255653+2 208344-3-295984+6 147083+3 548. 800.11		Br3P1S1 (g)
-671730+5 687946+5 257872+2 217765-4-342441+6 146932+3 800. 1393.11		Br3P1S1 (g)
-671730+5 687795+5 258319+2 252050-6-371100+6 146926+3 1393. 6000.11		Br3P1S1 (g)
3 35 1 14	JANAF 1998	5Br3Si1 (g)
-482060+5 573334+5 188213+2 154238-2-129503+6 130950+3298.15 385.11		Br3Si1 (g)
-482060+5 542605+5 194373+2 500404-3-161349+6 129384+3 385. 513.11		Br3Si1 (g)
-482060+5 532404+5 197464+2 101113-3-188769+6 128887+3 513. 800.11		Br3Si1 (g)
-482060+5 530713+5 198522+2 953946-5-209598+6 128810+3 800. 1353.11		Br3Si1 (g)
-482060+5 530643+5 198714+2 740657-7-221418+6 128807+3 1353. 6000.11		Br3Si1 (g)
3 35 1 22	JANAF 1998	5Br3Ti1 (cr)
-131500+6 103740+6 209472+2 105683-1 186667+5 119191+3298.15 400.21		Br3Ti1 (cr)
-131500+6 167621+6 100189+2 312408-1 444138+6 152226+3 400. 700.21		Br3Ti1 (cr)
-131500+6 715803+5 627701+2-174940-1-868787+7 108093+3 700. 906.21		Br3Ti1 (cr)
-131500+6 113126+6 328936+2 673741-2-218451+7 126662+3 906. 1207.21		Br3Ti1 (cr)
-131500+6 110230+6 385180+2 366144-2-496960+7 125466+3 1207. 1500.21		Br3Ti1 (cr)
3 35 1 22	JANAF 1998	5Br3Ti1 (g)
-895999+5 587025+5 205562+2 820716-3-163549+6 134558+3298.15 400.11		Br3Ti1 (g)
-895999+5 543018+5 214579+2-681758-3-211672+6 132321+3 400. 849.11		Br3Ti1 (g)
-895999+5 552386+5 207379+2-116667-3-385054+5 132738+3 849. 1691.11		Br3Ti1 (g)
-895999+5 552699+5 205260+2-330966-4 163346+6 132750+3 1691. 3245.11		Br3Ti1 (g)
-895999+5 552702+5 206418+2-534342-4-360451+6 132750+3 3245. 6000.11		Br3Ti1 (g)
3 35 1 40	JANAF 1998	5Br3Zr1 (cr)
-152000+6 654734+5 258704+2-882681-3-162781+6 975593+2298.15 480.21		Br3Zr1 (cr)
-152000+6 670173+5 258871+2-522722-3-206429+6 984046+2 480. 754.21		Br3Zr1 (cr)
-152000+6 674065+5 266361+2-752350-3-533830+6 986535+2 754. 1000.21		Br3Zr1 (cr)
-152000+6 685940+5 251589+2 194756-3-375801+4 991605+2 1000. 1301.21		Br3Zr1 (cr)
-152000+6 684548+5 252815+2 993662-4-120826+4 991014+2 1301. 2000.21		Br3Zr1 (cr)
3 35 1 40	JANAF 1998	5Br3Zr1 (g)
-103000+6 536325+5 197820+2 909341-4-730505+5 134296+3298.15 367.11		Br3Zr1 (g)
-103000+6 535745+5 198195+2 573759-4-764485+5 134274+3 367. 567.11		Br3Zr1 (g)
-103000+6 534487+5 198642+2 494835-5-812341+5 134213+3 567. 1153.11		Br3Zr1 (g)
-103000+6 534424+5 198706+2 469883-6-828802+5 134211+3 1153. 2500.11		Br3Zr1 (g)
-103000+6 534424+5 198718+2 123470-7-836704+5 134211+3 2500. 6000.11		Br3Zr1 (g)

4 35 2 26	JANAF 1998				5Br4Fe2 (g)
-605000+5 861903+5 316977+2 153606-3-451682+5 196651+3298.15 757.11	Br4Fe2 (g)				
-605000+5 880868+5 305535+2 116160-2 173237+6 197515+3 757. 1669.11	Br4Fe2 (g)				
-605000+5 877267+5 328492+2 244759-3-195916+7 197377+3 1669. 2255.11	Br4Fe2 (g)				
-605000+5 876806+5 351204+2-426555-3-581053+7 197360+3 2255. 4185.11	Br4Fe2 (g)				
-605000+5 876131+5 335874+2-182263-3 313318+7 197339+3 4185. 6000.11	Br4Fe2 (g)				
4 35 2 12	JANAF 1998				5Br4Mg2 (g)
-183500+6 857840+5 317406+2 614602-4-821431+5 183229+3298.15 371.11	Br4Mg2 (g)				
-183500+6 857000+5 317703+2 261107-4-844216+5 183190+3 371. 612.11	Br4Mg2 (g)				
-183500+6 856440+5 317917+2 203069-5-869190+5 183163+3 612. 1232.11	Br4Mg2 (g)				
-183500+6 856417+5 317948+2 658275-7-880659+5 183162+3 1232. 3700.11	Br4Mg2 (g)				
-183500+6 856417+5 317944+2 850466-7-833967+5 183162+3 3700. 6000.11	Br4Mg2 (g)				
4 35 1 42	JANAF 1998				3Br4Mo1 (cr)
-727000+5 986408+5 312229+2 322849-2-343037+5 130618+3298.15 504.21	Br4Mo1 (cr)				
-727000+5 101317+6 310981+2 393378-2-928795+5 132044+3 504. 800.21	Br4Mo1 (cr)				
-727000+5 100107+6 319117+2 325392-2-265489+6 131499+3 800. 1000.21	Br4Mo1 (cr)				
4 35 1 42	JANAF 1998				5Br4Mo1 (g)
-409001+5 701651+5 256275+2 274753-3-995589+5 159447+3298.15 540.11	Br4Mo1 (g)				
-409001+5 694709+5 258017+2 206665-4-110341+6 159102+3 540. 1941.11	Br4Mo1 (g)				
-409001+5 695708+5 243329+2 525168-3 173404+7 159139+3 1941. 2696.11	Br4Mo1 (g)				
-409001+5 695744+5 212685+2 128333-2 915073+7 159141+3 2696. 4645.11	Br4Mo1 (g)				
-409001+5 703526+5 285429+2 239932-3-432324+8 159373+3 4645. 6000.11	Br4Mo1 (g)				
4 35 1 82	JANAF 1998				5Br4Pb1 (g)
-109073+6 700732+5 257145+2 179695-3-676281+5 161316+3298.15 397.11	Br4Pb1 (g)				
-109073+6 696433+5 258018+2 333626-4-722207+5 161097+3 397. 612.11	Br4Pb1 (g)				
-109073+6 695725+5 258292+2 274569-5-754661+5 161064+3 612. 1031.11	Br4Pb1 (g)				
-109073+6 695688+5 258329+2 177694-6-765949+5 161062+3 1031. 2200.11	Br4Pb1 (g)				
-109073+6 695689+5 258337+2-337343-7-781954+5 161062+3 2200. 6000.11	Br4Pb1 (g)				
4 35 1 14	JANAF 1998				5Br4Si1 (g)
-993000+5 749987+5 243578+2 217173-2-161775+6 151848+3298.15 393.11	Br4Si1 (g)				
-993000+5 706583+5 252225+2 702872-3-206166+6 149635+3 393. 516.11	Br4Si1 (g)				
-993000+5 692242+5 256567+2 141637-3-244664+6 148935+3 516. 800.11	Br4Si1 (g)				
-993000+5 689883+5 258070+2 126992-4-274859+6 148828+3 800. 1359.11	Br4Si1 (g)				
-993000+5 689791+5 258325+2 162450-6-290497+6 148824+3 1359. 6000.11	Br4Si1 (g)				
4 35 1 14	JANAF 1998				2Br4Si1 (l)
-109300+6 945648+5 350000+2 000000+0 160335-6 147307+3298.15 500.31	Br4Si1 (l)				
-109300+6 945647+5 350000+2 000000+0-625422-6 147307+3 500. 800.31	Br4Si1 (l)				
4 35 1 22	JANAF 1998				2Br4Ti1 (cr)
-147700+6 277304+6 132289+2 540909-1 184350+6 235942+3298.15 311.421	Br4Ti1 (cr)				
-147700+6 863852+5 319739+2 000000+0 475705-6 132036+3 311.4 1500.21	Br4Ti1 (cr)				
4 35 1 22	JANAF 1998				3Br4Ti1 (cr, l)
-147700+6 277304+6 132289+2 540909-1 184350+6 235942+3298.15 311.421	Br4Ti1 (cr, l)				
-147700+6 101096+6 363000+2 000000+0 875960-7 151726+3 311.4 711.32	Br4Ti1 (cr, l)				
-147700+6 101096+6 363000+2 000000+0 811217-5 151726+3 711. 1000.32	Br4Ti1 (cr, l)				
4 35 1 22	JANAF 1998				5Br4Ti1 (g)
-131500+6 719778+5 251877+2 965464-3-124908+6 155307+3298.15 390.11	Br4Ti1 (g)				
-131500+6 699864+5 255823+2 292692-3-145011+6 154291+3 390. 508.11	Br4Ti1 (g)				
-131500+6 693797+5 257634+2 565121-4-160797+6 153995+3 508. 800.11	Br4Ti1 (g)				
-131500+6 692831+5 258260+2 328123-5-173567+6 153951+3 800. 1527.11	Br4Ti1 (g)				
-131500+6 692813+5 258334+2 930463-8-179232+6 153950+3 1527. 6000.11	Br4Ti1 (g)				
4 35 1 22	JANAF 1998				2Br4Ti1 (l)
-144681+6 980770+5 363000+2 000000+0 354523-7 151726+3298.15 600.31	Br4Ti1 (l)				
-144681+6 980770+5 363000+2 000000+0-883769-6 151726+3 600. 1000.31	Br4Ti1 (l)				
4 35 1 40	JANAF 1998				4Br4Zr1 (cr)
-181800+6 956007+5 306799+2 295663-2-153988+6 131666+3298.15 400.21	Br4Zr1 (cr)				
-181800+6 933167+5 308872+2 231403-2-146039+6 130437+3 400. 600.21	Br4Zr1 (cr)				
-181800+6 922956+5 312867+2 187056-2-194054+6 129952+3 600. 800.21	Br4Zr1 (cr)				
-181800+6 940446+5 302497+2 279275-2-255993+4 130749+3 800. 1000.21	Br4Zr1 (cr)				
4 35 1 40	JANAF 1998				5Br4Zr1 (g)
-154100+6 708692+5 254932+2 513475-3-984775+5 158735+3298.15 394.11	Br4Zr1 (g)				
-154100+6 698534+5 256903+2 172500-3-108216+6 158216+3 394. 501.11	Br4Zr1 (g)				
-154100+6 694772+5 257988+2 279811-4-117270+6 158032+3 501. 800.11	Br4Zr1 (g)				
-154100+6 694305+5 258287+2 238869-5-123302+6 158010+3 800. 1316.11	Br4Zr1 (g)				
-154100+6 694286+5 258333+2 271396-7-125990+6 158010+3 1316. 6000.11	Br4Zr1 (g)				

5 35 1 41	JANAF 1998						2Br5Nb1 (cr)
-132900+6	955101+5	353499+2	000000+0	244164-7	143465+3298.15	500.21	Br5Nb1 (cr)
-132900+6	955101+5	353499+2	000000+0	107580-5	143465+3	500. 800.21	Br5Nb1 (cr)
5 35 1 41	JANAF 1998						4Br5Nb1 (cr, l)
-132900+6	955101+5	353499+2	000000+0	152151-3	143465+3298.15	400.21	Br5Nb1 (cr, l)
-132900+6	955101+5	353499+2	000000+0	123012-4	143465+3	400. 527.21	Br5Nb1 (cr, l)
-132900+6	547945+5	659168+2	-280139-1	797797+5	138378+3	527. 700.32	Br5Nb1 (cr, l)
-132900+6	335602+5	745058+2	-373917-1	-912259+6	128352+3	700. 900.32	Br5Nb1 (cr, l)
5 35 1 41	JANAF 1998						5Br5Nb1 (g)
-106020+6	872807+5	313474+2	669195-3	-131452+6	180799+3298.15	392.11	Br5Nb1 (g)
-106020+6	858619+5	316314+2	188338-3	-146126+6	180076+3	392. 522.11	Br5Nb1 (g)
-106020+6	854808+5	317472+2	390323-4	-156421+6	179890+3	522. 800.11	Br5Nb1 (g)
-106020+6	854138+5	317892+2	272533-5	-164710+6	179860+3	800. 1430.11	Br5Nb1 (g)
-106020+6	854120+5	317949+2	208103-7	-168541+6	179859+3	1430. 6000.11	Br5Nb1 (g)
5 35 1 41	JANAF 1998						4Br5Nb1 (l)
-130276+6	955101+5	353499+2	000000+0	106967-2	147104+3298.15	350.31	Br5Nb1 (l)
-130276+6	834332+5	608449+2	-179430-1	225673+4	154338+3	350. 527.32	Br5Nb1 (l)
-130276+6	497404+5	670200+2	-291431-1	-734503+5	137248+3	527. 700.32	Br5Nb1 (l)
-130276+6	309415+5	745058+2	-373917-1	-912259+6	128361+3	700. 900.32	Br5Nb1 (l)
5 35 1 74	JANAF 1998						4Br5W1 (cr)
-745000+5	187767+6	300371+2	239287-1	-138460+4	198993+3298.15	499.21	Br5W1 (cr)
-745000+5	156139+6	407848+2	109637-1	-106668+7	183766+3	499. 600.21	Br5W1 (cr)
-745000+5	188005+6	299943+2	240054-1	924229+3	199123+3	600. 800.21	Br5W1 (cr)
-745000+5	188005+6	299905+2	240070-1	255993+4	199123+3	800. 1000.21	Br5W1 (cr)
5 35 1 74	JANAF 1998						2Br5W1 (cr, l)
-745000+5	190934+6	294423+2	249831-1	237469+5	200608+3298.15	559.21	Br5W1 (cr, l)
-745000+5	120794+6	435000+2	000000+0	453642-6	170543+3	559. 1000.32	Br5W1 (cr, l)
5 35 1 74	JANAF 1998						5Br5W1 (g)
-475999+5	857032+5	317058+2	888661-4	-118196+6	183037+3298.15	1146.11	Br5W1 (g)
-475999+5	862464+5	308262+2	600471-3	266995+6	183264+3	1146. 2418.11	Br5W1 (g)
-475999+5	862362+5	319627+2	287228-3	-194921+7	183261+3	2418. 3206.11	Br5W1 (g)
-475999+5	862366+5	333166+2	572125-5	-658951+7	183261+3	3206. 4175.11	Br5W1 (g)
-475999+5	862829+5	343859+2	-164979-3	-128052+8	183275+3	4175. 6000.11	Br5W1 (g)
5 35 1 74	JANAF 1998						2Br5W1 (l)
-712378+5	117530+6	435000+2	000000+0	-198863-7	170542+3298.15	600.31	Br5W1 (l)
-712378+5	117530+6	435000+2	000000+0	-441454-6	170542+3	600. 1000.31	Br5W1 (l)
6 35 1 74	JANAF 1998						2Br6W1 (cr)
-820000+5	212031+6	355996+2	260004-1	344801+2	227441+3298.15	700.21	Br6W1 (cr)
-820000+5	212024+6	356044+2	259965-1	-945021+3	227438+3	700. 1000.21	Br6W1 (cr)
6 35 1 74	JANAF 1998						5Br6W1 (g)
-580999+5	102523+6	375318+2	338426-3	-129315+6	202188+3298.15	397.11	Br6W1 (g)
-580999+5	101740+6	376902+2	722072-4	-137621+6	201790+3	397. 571.11	Br6W1 (g)
-580999+5	101586+6	377453+2	777917-5	-143603+6	201716+3	571. 902.11	Br6W1 (g)
-580999+5	101575+6	377550+2	640432-6	-146185+6	201711+3	902. 2100.11	Br6W1 (g)
-580999+5	101575+6	377564+2	422440-7	-146996+6	201711+3	2100. 6000.11	Br6W1 (g)
1 6 1 41	JANAF 1998						5C0.98Nb1 (cr)
-332000+5	406386+5	100177+2	318517-2	-205082+6	389494+2298.15	535.21	C0.98Nb1 (cr)
-332000+5	359808+5	113449+2	140293-2	-312039+6	366635+2	535. 800.21	C0.98Nb1 (cr)
-332000+5	353565+5	117127+2	107477-2	-379429+6	363788+2	800. 1111.21	C0.98Nb1 (cr)
-332000+5	353805+5	116950+2	108930-2	-377419+6	363893+2	1111. 1923.21	C0.98Nb1 (cr)
-332000+5	354053+5	113820+2	119943-2	-309013+4	363985+2	1923. 3000.21	C0.98Nb1 (cr)
1 6	JANAF 1998						5C1 (g)
171288+6	134314+5	496614+1	221926-5	122976+4	492392+2298.15	1275.11	C1 (g)
171288+6	135111+5	478799+1	953839-4	977342+5	492718+2	1275. 1795.11	C1 (g)
171288+6	135491+5	443813+1	225379-3	473141+6	492861+2	1795. 3222.11	C1 (g)
171288+6	135493+5	501317+1	106474-3	-151926+7	492862+2	3222. 4210.11	C1 (g)
171288+6	135778+5	561752+1	108549-4	-509590+7	492949+2	4210. 6000.11	C1 (g)
1 6 1 99	JANAF 1998						5C1- (g)
140603+6	134423+5	496188+1	784799-5	375526+3	476346+2298.15	1211.11	C1- (g)
140603+6	137944+5	429315+1	376259-3	326799+6	477802+2	1211. 1688.11	C1- (g)
140603+6	140180+5	280341+1	965765-3	173622+7	478660+2	1688. 3017.11	C1- (g)
140603+6	140180+5	624312+1	207414-3	-874743+7	478660+2	3017. 3945.11	C1- (g)
140603+6	141047+5	980054+1	-392433-3	-272834+8	478929+2	3945. 6000.11	C1- (g)

1	6				JANAF 1998		5C1 (ref)
000000+0	291302+5	508202+0	625008-2-299383+5	192653+2298.15	462.21		C1 (ref)
000000+0	188445+5	317284+1	245037-2-223995+6	141628+2	462. 700.21		C1 (ref)
000000+0	151993+5	497470+1	691677-3-503679+6	124702+2	700. 1031.21		C1 (ref)
000000+0	146920+5	561216+1	284726-3-735282+6	122537+2	1031. 2000.21		C1 (ref)
000000+0	146817+5	573247+1	241556-3-871184+6	122499+2	2000. 6000.21		C1 (ref)
1	6	-1	99		JANAF 1998		5C1+ (g)
432465+6	134378+5	496642+1	155267-5	408333+4	484322+2298.15	500.11	C1+ (g)
432465+6	134344+5	496776+1	782820-7	393235+4	484306+2	500. 3187.11	C1+ (g)
432465+6	134344+5	495351+1	274268-5	624854+5	484306+2	3187. 4533.11	C1+ (g)
432465+6	134249+5	484588+1	185738-4	799517+6	484278+2	4533. 5332.11	C1+ (g)
432465+6	133742+5	465397+1	425687-4	261815+7	484131+2	5332. 6000.11	C1+ (g)
1	6	1	13		JANAF 1998		5C1A11 (g)
164800+6	296376+5	746692+1	214789-2-353867+5	762250+2298.15	406.11		C1A11 (g)
164800+6	255478+5	832356+1	741763-3-824891+5	741506+2	406. 604.11		C1A11 (g)
164800+6	243225+5	877872+1	221119-3-133817+6	735652+2	604. 900.11		C1A11 (g)
164800+6	241608+5	891861+1	116981-3-171211+6	734939+2	900. 1798.11		C1A11 (g)
164800+6	241572+5	894127+1	107829-3-191268+6	734925+2	1798. 6000.11		C1A11 (g)
1	6	1	5		JANAF 1998		5C1B1 (g)
198000+6	303972+5	601115+1	316859-2	126269+5	723294+2298.15	484.11	C1B1 (g)
198000+6	258393+5	726059+1	145011-2-852196+5	700817+2	484. 700.11		C1B1 (g)
198000+6	238210+5	829452+1	459848-3-252183+6	691476+2	700. 1026.11		C1B1 (g)
198000+6	234050+5	879528+1	134840-3-428302+6	689695+2	1026. 1731.11		C1B1 (g)
198000+6	233872+5	893405+1	815813-4-567859+6	689627+2	1731. 6000.11		C1B1 (g)
1	6	4	5		JANAF 1998		5C1B4 (cr)
-149799+5	108657+6	174465+2	143426-1-789425+6	811300+2298.15	541.21		C1B4 (cr)
-149799+5	792077+5	247963+2	358267-2-123685+7	665218+2	541. 875.21		C1B4 (cr)
-149799+5	830070+5	229625+2	541760-2-106206+7	682658+2	875. 1200.21		C1B4 (cr)
-149799+5	829851+5	229887+2	540037-2-107012+7	682566+2	1200. 2531.21		C1B4 (cr)
-149799+5	829860+5	225116+2	552182-2	172948+5	682569+2	2531. 3200.21	C1B4 (cr)
1	6	4	5		JANAF 1998		5C1B4 (cr, l)
-149799+5	157824+6	903436+1	302572-1-462748+6	106527+3298.15	400.21		C1B4 (cr, l)
-149799+5	807917+5	244891+2	413047-2-126339+7	672793+2	400. 741.21		C1B4 (cr, l)
-149799+5	861510+5	198057+2	762625-2-114143+6	696098+2	741. 1001.21		C1B4 (cr, l)
-149799+5	829761+5	229905+2	539977-2-107220+7	682300+2	1001. 2743.21		C1B4 (cr, l)
-149799+5	106469+6	325000+2	000000+0	100373-3	768196+2	2743. 4500.32	C1B4 (cr, l)
1	6	4	5		JANAF 1998		5C1B4 (l)
124008+5	157811+6	903612+1	302533-1-462800+6	116618+3298.15	400.31		C1B4 (l)
124008+5	806808+5	245207+2	408794-2-126575+7	773234+2	400. 713.31		C1B4 (l)
124008+5	839675+5	216754+2	622553-2-594090+6	787470+2	713. 1207.31		C1B4 (l)
124008+5	830113+5	228162+2	547449-2-935365+6	783408+2	1207. 1750.31		C1B4 (l)
124008+5	790864+5	325000+2	000000+0	766943-6	768180+2	1750. 4500.32	C1B4 (l)
1	6	2	4		JANAF 1998		6C1Be2 (cr)
-217000+5	356795+5	123487+2	652883-3-196559+6	330797+2298.15	592.21		C1Be2 (cr)
-217000+5	293883+5	285369+2	-864119-2-394168+7	318358+2	592. 800.21		C1Be2 (cr)
-217000+5	650895+5	728145+1	102216-1	410466+4	481028+2	800. 1221.21	C1Be2 (cr)
-217000+5	519836+5	286232+2	-218750-2-922464+7	426296+2	1221. 1830.21		C1Be2 (cr)
-217000+5	523642+5	223153+2	-427037-4-124430+7	427692+2	1830. 2400.21		C1Be2 (cr)
-217000+5	523906+5	218309+2	135218-3-898704+6	427786+2	2400. 3500.22		C1Be2 (cr)
1	6	2	4		JANAF 1998		5C1Be2 (cr, l)
-217000+5	356811+5	123484+2	653423-3-196546+6	330805+2298.15	592.21		C1Be2 (cr, l)
-217000+5	294283+5	285185+2	-862246-2-393908+7	318545+2	592. 805.21		C1Be2 (cr, l)
-217000+5	648077+5	762210+1	100004-1-112514+6	479819+2	805. 1251.21		C1Be2 (cr, l)
-217000+5	521915+5	271711+2	-160328-2-798877+7	427072+2	1251. 2400.21		C1Be2 (cr, l)
-217000+5	703519+5	220000+2	000000+0-768680-4	502649+2	2400. 3500.32		C1Be2 (cr, l)
1	6	2	4		JANAF 1998		5C1Be2 (l)
-379852+4	359994+5	122873+2	760127-3-193918+6	406872+2298.15	590.31		C1Be2 (l)
-379852+4	466879+5	199057+2	-243521-3-263976+7	472806+2	590. 956.31		C1Be2 (l)
-379852+4	531664+5	252573+2	-528375-3-728188+7	505367+2	956. 1600.31		C1Be2 (l)
-379852+4	524315+5	220000+2	000000+0	413863-5	502466+2	1600. 2400.32	C1Be2 (l)
-379852+4	524315+5	220000+2	000000+0-768680-4	502466+2	2400. 3500.33		C1Be2 (l)

1 6 1 35	JANAF 1998				5C1Br1 (g)
122000+6 236343+5 938509+1-346417-3-593588+5 761717+2298.15 595.11					C1Br1 (g)
122000+6 244764+5 906093+1 167857-4-211051+5 765727+2 595. 1050.11					C1Br1 (g)
122000+6 245639+5 894909+1 877393-4 200570+5 766100+2 1050. 3377.11					C1Br1 (g)
122000+6 245638+5 884318+1 108621-3 423647+6 766099+2 3377. 4677.11					C1Br1 (g)
122000+6 245159+5 841767+1 169247-3 352903+7 765957+2 4677. 6000.11					C1Br1 (g)
1 6 1 35 3 9	JANAF 1998				5C1Br1F3 (g)
-155100+6 103336+6 141460+2 147332-1-175033+6 142648+3298.15 400.11					C1Br1F3 (g)
-155100+6 796028+5 191518+2 655511-2-452565+6 130619+3 400. 586.11					C1Br1F3 (g)
-155100+6 678953+5 235491+2 155779-2-956968+6 125030+3 586. 888.11					C1Br1F3 (g)
-155100+6 657631+5 253690+2 195159-3-143791+7 124090+3 888. 1535.11					C1Br1F3 (g)
-155100+6 656638+5 258127+2 321261-5-178918+7 124051+3 1535. 6000.11					C1Br1F3 (g)
1 6 1 35 1 7	JANAF 1998				5C1Br1N1 (g)
445000+5 424469+5 115125+2 260749-2-913263+5 924501+2298.15 696.11					C1Br1N1 (g)
445000+5 402425+5 126438+2 152500-2-274405+6 914302+2 696. 1002.11					C1Br1N1 (g)
445000+5 391065+5 139354+2 667593-3-708552+6 909413+2 1002. 1468.11					C1Br1N1 (g)
445000+5 389142+5 146495+2 344158-3-122430+7 908652+2 1468. 2367.11					C1Br1N1 (g)
445000+5 389116+5 148795+2 279651-3-165753+7 908643+2 2367. 6000.11					C1Br1N1 (g)
1 6 4 35	JANAF 1998				5C1Br4 (g)
120000+5 818684+5 223631+2 493659-2-181602+6 149518+3298.15 395.11					C1Br4 (g)
120000+5 724056+5 242828+2 171598-2-282631+6 144703+3 395. 530.11					C1Br4 (g)
120000+5 691022+5 253246+2 402605-3-379738+6 143097+3 530. 800.11					C1Br4 (g)
120000+5 684412+5 257503+2 393285-4-466242+6 142798+3 800. 1369.11					C1Br4 (g)
120000+5 684135+5 258307+2 445718-6-517032+6 142787+3 1369. 6000.11					C1Br4 (g)
1 6 1 17	JANAF 1998				5C1C11 (g)
120000+6 294999+5 724138+1 224190-2-179256+5 763106+2298.15 459.11					C1C11 (g)
120000+6 247603+5 843952+1 506160-3-102502+6 739533+2 459. 775.11					C1C11 (g)
120000+6 240372+5 890042+1 110949-3-195365+6 736257+2 775. 2812.11					C1C11 (g)
120000+6 240373+5 841494+1 226077-3 108363+7 736257+2 2812. 3860.11					C1C11 (g)
120000+6 240259+5 779613+1 332900-3 415994+7 736222+2 3860. 6000.11					C1C11 (g)
1 6 1 17 1 9 1 8	JANAF 1998				5C1C11F1O1 (g)
-102000+6 735300+5 110808+2 987414-2-133563+6 117699+3298.15 413.11					C1C11F1O1 (g)
-102000+6 599862+5 140023+2 517337-2-300724+6 110850+3 413. 605.11					C1C11F1O1 (g)
-102000+6 520327+5 171726+2 169115-2-690013+6 107076+3 605. 942.11					C1C11F1O1 (g)
-102000+6 499619+5 192093+2 256453-3-129809+7 106174+3 942. 1654.11					C1C11F1O1 (g)
-102000+6 498617+5 198345+2 565343-5-187352+7 106136+3 1654. 6000.11					C1C11F1O1 (g)
1 6 1 17 3 9	JANAF 1998				5C1C11F3 (g)
-169200+6 105178+6 135148+2 155410-1-192249+6 140296+3298.15 400.11					C1C11F3 (g)
-169200+6 800474+5 188145+2 688191-2-486022+6 127559+3 400. 586.11					C1C11F3 (g)
-169200+6 677582+5 234325+2 163520-2-101603+7 121693+3 586. 889.11					C1C11F3 (g)
-169200+6 655236+5 253458+2 204629-3-152303+7 120707+3 889. 1537.11					C1C11F3 (g)
-169200+6 654198+5 258115+2 340893-5-189268+7 120667+3 1537. 6000.11					C1C11F3 (g)
1 6 1 17 1 7	JANAF 1998				5C1C11N1 (g)
329699+5 428933+5 111541+2 293614-2-107769+6 895441+2298.15 721.11					C1C11N1 (g)
329699+5 392701+5 131590+2 109117-2-458490+6 878800+2 721. 1313.11					C1C11N1 (g)
329699+5 386132+5 148047+2 259994-3-141414+7 876135+2 1313. 1719.11					C1C11N1 (g)
329699+5 386706+5 147928+2 296283-3-156330+7 876364+2 1719. 2778.11					C1C11N1 (g)
329699+5 386706+5 148828+2 274743-3-179612+7 876364+2 2778. 6000.11					C1C11N1 (g)
1 6 1 17 1 8	JANAF 1998				5C1C11O1 (g)
-150000+5 405933+5 104888+2 278329-2-486353+5 950064+2298.15 596.11					C1C11O1 (g)
-150000+5 373564+5 117438+2 138286-2-197951+6 934661+2 596. 874.11					C1C11O1 (g)
-150000+5 358076+5 130171+2 413468-3-523416+6 927806+2 874. 1287.11					C1C11O1 (g)
-150000+5 355183+5 136882+2 665709-4-895550+6 926627+2 1287. 2120.11					C1C11O1 (g)
-150000+5 355112+5 138924+2 249769-5-120252+7 926601+2 2120. 6000.11					C1C11O1 (g)
1 6 2 17	JANAF 1998				5C1C12 (g)
570000+5 443759+5 115346+2 304904-2-123771+6 975725+2298.15 537.11					C1C12 (g)
570000+5 429516+5 114121+2 276339-2-442160+5 967917+2 537. 1299.11					C1C12 (g)
570000+5 402457+5 178772+2-548812-3-369343+7 956905+2 1299. 2049.11					C1C12 (g)
570000+5 400528+5 179714+2-755627-3-230950+7 956177+2 2049. 3254.11					C1C12 (g)
570000+5 400509+5 144598+2-349731-4 100425+8 956171+2 3254. 6000.11					C1C12 (g)
1 6 2 17 2 9	JANAF 1998				5C1C12F2 (g)
-117500+6 992352+5 159126+2 127684-1-214722+6 141931+3298.15 411.11					C1C12F2 (g)
-117500+6 771438+5 206326+2 512456-2-481348+6 130749+3 411. 600.11					C1C12F2 (g)
-117500+6 678823+5 241392+2 115778-2-886874+6 126332+3 600. 891.11					C1C12F2 (g)
-117500+6 662933+5 254989+2 140851-3-124704+7 125631+3 891. 1536.11					C1C12F2 (g)
-117500+6 662212+5 258185+2 232335-5-149905+7 125603+3 1536. 6000.11					C1C12F2 (g)



1 6 2 17 1 8	JANAF 1998					5C1C12O1 (g)
-525999+5 655071+5 137064+2 650271-2-165081+6 116098+3298.15 452.11						C1C12O1 (g)
-525999+5 557636+5 161161+2 296171-2-330400+6 111241+3 452. 700.11						C1C12O1 (g)
-525999+5 515389+5 182741+2 891752-3-677842+6 109285+3 700. 1065.11						C1C12O1 (g)
-525999+5 506297+5 194877+2 134626-3-113971+7 108899+3 1065. 1824.11						C1C12O1 (g)
-525999+5 505947+5 198471+2 362514-5-154070+7 108886+3 1824. 6000.11						C1C12O1 (g)
1 6 3 17	JANAF 1998					5C1C13 (g)
190000+5 696015+5 149496+2 665969-2-153198+6 122574+3298.15 407.11						C1C13 (g)
190000+5 568295+5 176383+2 226146-2-302055+6 116099+3 407. 600.11						C1C13 (g)
190000+5 525459+5 192414+2 435717-3-484793+6 114054+3 600. 900.11						C1C13 (g)
190000+5 519389+5 197558+2 493373-4-619774+6 113786+3 900. 1525.11						C1C13 (g)
190000+5 519131+5 198671+2 751237-6-706281+6 113776+3 1525. 6000.11						C1C13 (g)
1 6 3 17 1 9	JANAF 1998					5C1C13F1 (g)
-690000+5 944153+5 180843+2 103768-1-225077+6 142538+3298.15 400.11						C1C13F1 (g)
-690000+5 753482+5 220555+2 383309-2-441681+6 132861+3 400. 578.11						C1C13F1 (g)
-690000+5 681798+5 246833+2 804300-3-734725+6 129430+3 578. 871.11						C1C13F1 (g)
-690000+5 670459+5 256086+2 975282-4-969657+6 128928+3 871. 1500.11						C1C13F1 (g)
-690000+5 669913+5 258239+2 150704-5-112996+7 128907+3 1500. 6000.11						C1C13F1 (g)
1 6 4 17	JANAF 1998					5C1C14 (g)
-229400+5 884008+5 203637+2 765555-2-241221+6 140376+3298.15 400.11						C1C14 (g)
-229400+5 742565+5 232389+2 283858-2-392963+6 133179+3 400. 531.11						C1C14 (g)
-229400+5 688908+5 249425+2 699659-3-553057+6 130573+3 531. 800.11						C1C14 (g)
-229400+5 677522+5 256826+2 709892-4-704892+6 130058+3 800. 1396.11						C1C14 (g)
-229400+5 677028+5 258282+2 842833-6-797727+6 130038+3 1396. 6000.11						C1C14 (g)
1 6 1 29 1 7	JANAF 1998					4C1Cu1N1 (cr)
227000+5-726720+6 149576+3-250167+0-536951+7-338969+3298.15 400.21						C1Cu1N1 (cr)
227000+5 625769+5 148141+2 511802-2-145806+6 692732+2 400. 600.21						C1Cu1N1 (cr)
227000+5 615489+5 152159+2 467171-2-194054+6 687845+2 600. 800.21						C1Cu1N1 (cr)
227000+5 608443+5 157506+2 424940-2-319991+6 684706+2 800. 1000.21						C1Cu1N1 (cr)
1 6 1 9	JANAF 1998					5C1F1 (g)
610000+5 306201+5 605713+1 318867-2 156526+5 735770+2298.15 478.11						C1F1 (g)
610000+5 258229+5 734893+1 139169-2-832449+5 712068+2 478. 703.11						C1F1 (g)
610000+5 237538+5 843267+1 365734-3-262389+6 702514+2 703. 1123.11						C1F1 (g)
610000+5 234624+5 887955+1 100755-3-450690+6 701289+2 1123. 3807.11						C1F1 (g)
610000+5 234513+5 816283+1 226172-3 301688+7 701254+2 3807. 6000.11						C1F1 (g)
1 6 1 9 -1 99	JANAF 1998					5C1F1+ (g)
274717+6 300884+5 600778+1 310078-2 134593+5 704585+2298.15 506.11						C1F1+ (g)
274717+6 251633+5 746046+1 119242-2-111245+6 680480+2 506. 800.11						C1F1+ (g)
274717+6 235279+5 851086+1 295013-3-324026+6 673077+2 800. 1239.11						C1F1+ (g)
274717+6 233441+5 888867+1 921559-4-518173+6 672321+2 1239. 4327.11						C1F1+ (g)
274717+6 232499+5 732639+1 332715-3 924361+7 672035+2 4327. 6000.11						C1F1+ (g)
1 6 1 9 1 7	JANAF 1998					5C1F1N1 (g)
859990+4 455223+5 962316+1 443170-2-740532+5 876255+2298.15 500.11						C1F1N1 (g)
859990+4 405894+5 110648+2 252698-2-196371+6 852089+2 500. 799.11						C1F1N1 (g)
859990+4 377276+5 130055+2 911985-3-611518+6 839198+2 799. 1219.11						C1F1N1 (g)
859990+4 370246+5 143836+2 160580-3-129832+7 836297+2 1219. 2052.11						C1F1N1 (g)
859990+4 370032+5 148609+2 605962-5-197266+7 836219+2 2052. 6000.11						C1F1N1 (g)
1 6 1 9 1 8	JANAF 1998					5C1F1O1 (g)
-410000+5 476880+5 800292+1 587731-2-401619+5 934946+2298.15 468.11						C1F1O1 (g)
-410000+5 400054+5 100075+2 303199-2-187550+6 896862+2 468. 700.11						C1F1O1 (g)
-410000+5 358031+5 121915+2 955986-3-545675+6 877443+2 700. 1068.11						C1F1O1 (g)
-410000+5 348343+5 134945+2 145384-3-104444+7 873331+2 1068. 1826.11						C1F1O1 (g)
-410000+5 347969+5 138833+2 396025-5-147975+7 873190+2 1826. 6000.11						C1F1O1 (g)
1 6 2 9	JANAF 1998					5C1F2 (g)
-435000+5 522315+5 783464+1 700912-2-549762+5 942541+2298.15 481.11						C1F2 (g)
-435000+5 382998+5 116409+2 176282-2-351755+6 873811+2 481. 795.11						C1F2 (g)
-435000+5 353867+5 135997+2 126066-3-767402+6 860677+2 795. 2549.11						C1F2 (g)
-435000+5 353956+5 113843+2 705675-3 402751+7 860708+2 2549. 4774.11						C1F2 (g)
-435000+5 358169+5 146303+2 252331-3-206248+8 861958+2 4774. 6000.11						C1F2 (g)
1 6 2 9 -1 99	JANAF 1998					5C1F2+ (g)
225094+6 509484+5 776889+1 675530-2-465412+5 948822+2298.15 498.11						C1F2+ (g)
225094+6 379300+5 115201+2 175530-2-359316+6 884953+2 498. 838.11						C1F2+ (g)
225094+6 352090+5 135777+2 128283-3-846796+6 872818+2 838. 2157.11						C1F2+ (g)
225094+6 351936+5 130296+2 260355-3 377969+6 872759+2 2157. 4742.11						C1F2+ (g)
225094+6 353319+5 141425+2 103951-3-797165+7 873170+2 4742. 6000.11						C1F2+ (g)

1 6 2 9 1 8	JANAF 1998					5C1F2O1 (g)	
-152700+6	789915+5	874112+1	124989-1-104381+6	115219+3298.15	415.11	C1F2O1 (g)	
-152700+6	620238+5	124268+2	659638-2-317268+6	106646+3	415. 603.11	C1F2O1 (g)	
-152700+6	518194+5	164779+2	213645-2-812439+6	101802+3	603. 936.11	C1F2O1 (g)	
-152700+6	491870+5	190338+2	326272-3-156722+7	100654+3	936. 1642.11	C1F2O1 (g)	
-152700+6	490568+5	198245+2	719317-5-228641+7	100603+3	1642. 6000.11	C1F2O1 (g)	
1 6 3 9	JANAF 1998					5C1F3 (g)	
-112400+6	825785+5	912405+1	130684-1-993653+5	119151+3298.15	416.11	C1F3 (g)	
-112400+6	627083+5	134606+2	614552-2-351443+6	109115+3	416. 600.11	C1F3 (g)	
-112400+6	521195+5	175269+2	158299-2-829803+6	104072+3	600. 896.11	C1F3 (g)	
-112400+6	499822+5	193828+2	203875-3-132773+7	103131+3	896. 1549.11	C1F3 (g)	
-112400+6	498809+5	198496+2	345225-5-170284+7	103091+3	1549. 6000.11	C1F3 (g)	
1 6 3 9 -1 99	JANAF 1998					5C1F3+ (g)	
100623+6	803872+5	920253+1	125262-1-953480+5	115368+3298.15	418.11	C1F3+ (g)	
100623+6	627167+5	130881+2	635460-2-323509+6	106451+3	418. 600.11	C1F3+ (g)	
100623+6	521738+5	171763+2	179305-2-809945+6	101434+3	600. 907.11	C1F3+ (g)	
100623+6	497988+5	192829+2	242090-3-138575+7	100390+3	907. 1564.11	C1F3+ (g)	
100623+6	496835+5	198437+2	434651-5-184791+7	100345+3	1564. 6000.11	C1F3+ (g)	
1 6 3 9 1 53	JANAF 1998					5C1F3I1 (g)	
-140800+6	102492+6	145321+2	143018-1-163732+6	144780+3298.15	400.11	C1F3I1 (g)	
-140800+6	792883+5	194217+2	630872-2-434506+6	133019+3	400. 585.11	C1F3I1 (g)	
-140800+6	679694+5	236652+2	148101-2-920237+6	127614+3	585. 887.11	C1F3I1 (g)	
-140800+6	659386+5	253947+2	184821-3-137631+7	126718+3	887. 1532.11	C1F3I1 (g)	
-140800+6	658438+5	258140+2	301888-5-170681+7	126681+3	1532. 6000.11	C1F3I1 (g)	
1 6 4 9	JANAF 1998					5C1F4 (g)	
-223040+6	108813+6	113763+2	176466-1-181926+6	135385+3298.15	415.11	C1F4 (g)	
-223040+6	816098+5	172822+2	818510-2-522817+6	121639+3	415. 600.11	C1F4 (g)	
-223040+6	675453+5	226770+2	212793-2-115661+7	114939+3	600. 895.11	C1F4 (g)	
-223040+6	646773+5	251688+2	276770-3-182543+7	113676+3	895. 1547.11	C1F4 (g)	
-223040+6	645402+5	258027+2	476494-5-233551+7	113622+3	1547. 6000.11	C1F4 (g)	
1 6 4 9 1 8	JANAF 1998					5C1F4O1 (g)	
-182800+6	112049+6	174767+2	147250-1-257877+6	155760+3298.15	468.11	C1F4O1 (g)	
-182800+6	834412+5	261060+2	353808-2-100119+7	141811+3	468. 784.11	C1F4O1 (g)	
-182800+6	781829+5	295308+2	632111-3-170593+7	139433+3	784. 1304.11	C1F4O1 (g)	
-182800+6	776747+5	307662+2	246850-5-241052+7	139226+3	1304. 3181.11	C1F4O1 (g)	
-182800+6	776749+5	308003+2	-204687-7-267483+7	139227+3	3181. 6000.11	C1F4O1 (g)	
1 6 8 9 1 16	JANAF 1998					5C1F8S1 (g)	
-410385+6	219855+6	308133+2	310689-1-604828+6	242504+3298.15	408.11	C1F8S1 (g)	
-410385+6	164404+6	425561+2	119370-1-126020+7	214410+3	408. 600.11	C1F8S1 (g)	
-410385+6	142742+6	507380+2	266848-2-220368+7	204076+3	600. 900.11	C1F8S1 (g)	
-410385+6	139085+6	538690+2	327205-3-303301+7	202463+3	900. 1538.11	C1F8S1 (g)	
-410385+6	138918+6	546132+2	535646-5-362238+7	202398+3	1538. 6000.11	C1F8S1 (g)	
1 6 1 1	JANAF 1998					5C1H1 (g)	
142000+6	209475+5	665228+1	660042-3	109916+5	609246+2298.15	512.11	C1H1 (g)
142000+6	248587+5	548425+1	218268-2	112819+6	628364+2	512. 1257.11	C1H1 (g)
142000+6	237021+5	798069+1	862918-3-121047+7	623624+2	1257. 1846.11	C1H1 (g)	
142000+6	234643+5	105892+2	-767850-4-418820+7	622732+2	1846. 3915.11	C1H1 (g)	
142000+6	234304+5	901786+1	190991-3	382796+7	622626+2	3915. 6000.11	C1H1 (g)
1 6 1 1 -1 99	JANAF 1998					5C1H1+ (g)	
388800+6	216405+5	651737+1	893599-3	165668+5	585579+2298.15	633.11	C1H1+ (g)
388800+6	232314+5	619267+1	144519-2	676509+4	593467+2	633. 1102.11	C1H1+ (g)
388800+6	222870+5	756753+1	614570-3-551265+6	589483+2	1102. 1643.11	C1H1+ (g)	
388800+6	221232+5	853963+1	220356-3-142699+7	588851+2	1643. 3830.11	C1H1+ (g)	
388800+6	221015+5	724811+1	444951-3	489999+7	588783+2	3830. 6000.11	C1H1+ (g)
1 6 1 1 1 17	JANAF 1998					5C1H1C11 (g)	
800000+5	470291+5	706663+1	627951-2-140756+5	893223+2298.15	888.11	C1H1C11 (g)	
800000+5	401378+5	129175+2	188851-2-155303+7	862810+2	888. 1187.11	C1H1C11 (g)	
800000+5	370332+5	184981+2	-124293-2-417881+7	849920+2	1187. 2080.11	C1H1C11 (g)	
800000+5	371455+5	158219+2	-384196-3-328072+6	850330+2	2080. 2772.11	C1H1C11 (g)	
800000+5	371463+5	142449+2	-472029-5	370652+7	850333+2	2772. 6000.11	C1H1C11 (g)
1 6 1 1 1 17 2 9	JANAF 1998					5C1H1C11F2 (g)	
-115100+6	972913+5	109108+2	153299-1-162739+6	132830+3298.15	450.11	C1H1C11F2 (g)	
-115100+6	725939+5	169875+2	637042-2-576831+6	120512+3	450. 700.11	C1H1C11F2 (g)	
-115100+6	640721+5	214144+2	216149-2-130234+7	116574+3	700. 1160.11	C1H1C11F2 (g)	
-115100+6	622901+5	244474+2	427635-3-267717+7	115831+3	1160. 2036.11	C1H1C11F2 (g)	
-115100+6	622309+5	257041+2	181854-4-443101+7	115810+3	2036. 6000.11	C1H1C11F2 (g)	

1 6 1 1 2 17 1 9	JANAF 1998	5C1H1C12F1 (g)
-677000+5 945331+5 121656+2 139450-1-155362+6 134964+3298.15 450.11		C1H1C12F1 (g)
-677000+5 720217+5 176973+2 578214-2-531698+6 123735+3 450. 700.11		C1H1C12F1 (g)
-677000+5 644171+5 216668+2 201755-2-118549+7 120222+3 700. 1171.11		C1H1C12F1 (g)
-677000+5 627853+5 245144+2 403580-3-249863+7 119543+3 1171. 2053.11		C1H1C12F1 (g)
-677000+5 627323+5 257088+2 174776-4-419185+7 119524+3 2053. 6000.11		C1H1C12F1 (g)
1 6 1 1 3 17	JANAF 1998	5C1H1C13 (g)
-246599+5 906101+5 140929+2 119123-1-179580+6 134351+3298.15 448.11		C1H1C13 (g)
-246599+5 707127+5 189462+2 471575-2-506585+6 124418+3 448. 706.11		C1H1C13 (g)
-246599+5 648358+5 220801+2 177637-2-103429+7 121709+3 706. 1193.11		C1H1C13 (g)
-246599+5 634627+5 246114+2 367974-3-224557+7 121140+3 1193. 2085.11		C1H1C13 (g)
-246599+5 634190+5 257147+2 165638-4-385646+7 121124+3 2085. 6000.11		C1H1C13 (g)
1 6 1 1 1 9	JANAF 1998	5C1H1F1 (g)
300000+5 427259+5 654439+1 561806-2 408683+4 836667+2298.15 584.11		C1H1F1 (g)
300000+5 350777+5 943110+1 234668-2-328858+6 800175+2 584. 1144.11		C1H1F1 (g)
300000+5 334419+5 109508+2 123308-2-650527+6 793107+2 1144. 3147.11		C1H1F1 (g)
300000+5 334424+5 157307+2 219164-3-163876+8 793109+2 3147. 4088.11		C1H1F1 (g)
300000+5 335935+5 200399+2-483471-3-404007+8 793575+2 4088. 6000.11		C1H1F1 (g)
1 6 1 1 1 9 1 8	JANAF 1998	5C1H1F1O1 (g)
-900000+5 708728+5 653199+1 119725-1-396340+5 106102+3298.15 492.11		C1H1F1O1 (g)
-900000+5 541954+5 112619+2 560501-2-426224+6 979059+2 492. 785.11		C1H1F1O1 (g)
-900000+5 477407+5 155235+2 201266-2-131463+7 949910+2 785. 1236.11		C1H1F1O1 (g)
-900000+5 462844+5 185474+2 394255-3-287830+7 943926+2 1236. 2107.11		C1H1F1O1 (g)
-900000+5 462417+5 197455+2 175835-4-467346+7 943771+2 2107. 6000.11		C1H1F1O1 (g)
1 6 1 1 3 9	JANAF 1998	5C1H1F3 (g)
-166600+6 102755+6 783860+1 183766-1-997207+5 129226+3298.15 456.11		C1H1F3 (g)
-166600+6 744597+5 149612+2 802954-2-599682+6 115147+3 456. 700.11		C1H1F3 (g)
-166600+6 634412+5 206478+2 260446-2-152529+7 110052+3 700. 1131.11		C1H1F3 (g)
-166600+6 611855+5 242354+2 504534-3-307638+7 109107+3 1131. 1991.11		C1H1F3 (g)
-166600+6 611054+5 256894+2 203903-4-501920+7 109077+3 1991. 6000.11		C1H1F3 (g)
1 6 1 1 1 7	JANAF 1998	5C1H1N1 (g)
323000+5 396450+5 836709+1 388176-2-850796+5 775437+2298.15 700.11		C1H1N1 (g)
323000+5 367046+5 993355+1 241176-2-348436+6 761883+2 700. 1140.11		C1H1N1 (g)
323000+5 350639+5 126122+2 858232-3-152792+7 755022+2 1140. 1815.11		C1H1N1 (g)
323000+5 348826+5 144588+2 184326-3-358190+7 754340+2 1815. 3328.11		C1H1N1 (g)
323000+5 348840+5 154571+2-146998-4-730290+7 754344+2 3328. 6000.11		C1H1N1 (g)
1 6 1 1 1 7 1 8	JANAF 1998	5C1H1N1O1 (g)
-243000+5 604444+5 973714+1 773874-2-113957+6 996668+2298.15 494.11		C1H1N1O1 (g)
-243000+5 507538+5 125088+2 402713-2-342905+6 949088+2 494. 876.11		C1H1N1O1 (g)
-243000+5 471379+5 155373+2 174052-2-112976+7 933111+2 876. 1403.11		C1H1N1O1 (g)
-243000+5 462345+5 183997+2 388448-3-303021+7 929501+2 1403. 2354.11		C1H1N1O1 (g)
-243000+5 462190+5 196941+2 236835-4-544460+7 929447+2 2354. 6000.11		C1H1N1O1 (g)
1 6 1 1 1 8	JANAF 1998	5C1H1O1 (g)
104001+5 424587+5 632115+1 568101-2 224545+5 837346+2298.15 605.11		C1H1O1 (g)
104001+5 366933+5 862337+1 315485-2-260810+6 809994+2 605. 909.11		C1H1O1 (g)
104001+5 334396+5 115616+2 100843-2-107644+7 795713+2 909. 1400.11		C1H1O1 (g)
104001+5 329067+5 132042+2 226672-3-215091+7 793580+2 1400. 2811.11		C1H1O1 (g)
104001+5 329066+5 137317+2 101981-3-354933+7 793580+2 2811. 6000.11		C1H1O1 (g)
1 6 1 1 1 8 -1 99	JANAF 1998	5C1H1O1+ (g)
199100+6 402518+5 826583+1 407523-2-790032+5 782463+2298.15 600.11		C1H1O1+ (g)
199100+6 373862+5 941760+1 281605-2-221658+6 768877+2 600. 988.11		C1H1O1+ (g)
199100+6 351436+5 119003+2 115021-2-103852+7 759205+2 988. 1499.11		C1H1O1+ (g)
199100+6 346392+5 139454+2 244313-3-258271+7 757219+2 1499. 2441.11		C1H1O1+ (g)
199100+6 346329+5 147874+2 153517-4-426952+7 757197+2 2441. 6000.11		C1H1O1+ (g)
1 6 1 1 1 15	JANAF 1998	5C1H1P1 (g)
358270+5 442507+5 872074+1 471851-2-110896+6 836402+2298.15 569.11		C1H1P1 (g)
358270+5 377229+5 110979+2 196796-2-373820+6 805142+2 569. 1191.11		C1H1P1 (g)
358270+5 363931+5 135609+2 599657-3-155588+7 799633+2 1191. 2452.11		C1H1P1 (g)
358270+5 363575+5 134596+2 535263-3 233805+4 799506+2 2452. 4257.11		C1H1P1 (g)
358270+5 359720+5 614354+1 167896-2 443531+8 798329+2 4257. 6000.11		C1H1P1 (g)
1 6 2 1	JANAF 1998	5C1H2 (g)
923499+5 362204+5 704950+1 385001-2 655546+4 730388+2298.15 944.11		C1H2 (g)
923499+5 334206+5 978081+1 191942-2-803337+6 718181+2 944. 1305.11		C1H2 (g)
923499+5 323356+5 124154+2 576257-3-230508+7 713771+2 1305. 1896.11		C1H2 (g)
923499+5 322418+5 136352+2 149078-3-377840+7 713421+2 1896. 3232.11		C1H2 (g)
923499+5 322421+5 143801+2-414255-5-638648+7 713422+2 3232. 6000.11		C1H2 (g)

1 6 2 1 1 17 1 9	JANAF 1998	5C1H2C11F1 (g)
-625999+5 931389+5 701057+1 166981-1-668296+5 124101+3298.15 483.11		C1H2C11F1 (g)
-625999+5 688910+5 137180+2 752526-2-598017+6 112154+3 483. 794.11		C1H2C11F1 (g)
-625999+5 607466+5 192341+2 293206-2-177634+7 108485+3 794. 1278.11		C1H2C11F1 (g)
-625999+5 588000+5 237323+2 603882-3-426358+7 107691+3 1278. 2174.11		C1H2C11F1 (g)
-625999+5 587490+5 256178+2 296304-4-727457+7 107673+3 2174. 6000.11		C1H2C11F1 (g)
1 6 2 1 2 17	JANAF 1998	5C1H2C12 (g)
-228301+5 902373+5 895442+1 148973-1-109851+6 124888+3298.15 473.11		C1H2C12 (g)
-228301+5 683571+5 148148+2 671704-2-555318+6 114071+3 473. 796.11		C1H2C12 (g)
-228301+5 613446+5 195869+2 275234-2-157936+7 110913+3 796. 1288.11		C1H2C12 (g)
-228301+5 595502+5 238213+2 574747-3-395122+7 110182+3 1288. 2188.11		C1H2C12 (g)
-228301+5 595039+5 256247+2 286161-4-686408+7 110166+3 2188. 6000.11		C1H2C12 (g)
1 6 2 1 2 9	JANAF 1998	5C1H2F2 (g)
-107710+6 961061+5 484333+1 186428-1-145041+5 120407+3298.15 493.11		C1H2F2 (g)
-107710+6 697974+5 123308+2 858498-2-629162+6 107483+3 493. 790.11		C1H2F2 (g)
-107710+6 601902+5 187822+2 319086-2-199601+7 103152+3 790. 1257.11		C1H2F2 (g)
-107710+6 579877+5 236260+2 645087-3-459309+7 102250+3 1257. 2138.11		C1H2F2 (g)
-107710+6 579261+5 256140+2 303293-4-767251+7 102228+3 2138. 6000.11		C1H2F2 (g)
1 6 2 1 1 8	JANAF 1998	5C1H2O1 (g)
-277000+5 654585+5 413996+1 121387-1 622968+5 950063+2298.15 521.11		C1H2O1 (g)
-277000+5 538278+5 778175+1 752739-2-274096+6 893493+2 521. 808.11		C1H2O1 (g)
-277000+5 459413+5 133480+2 298217-2-151046+7 858098+2 808. 1253.11		C1H2O1 (g)
-277000+5 438538+5 178962+2 584763-3-393493+7 849550+2 1253. 2114.11		C1H2O1 (g)
-277000+5 437933+5 196841+2 260855-4-664683+7 849331+2 2114. 6000.11		C1H2O1 (g)
1 6 3 1	JANAF 1998	5C1H3 (g)
348200+5 515994+5 727796+1 717803-2-154363+5 824927+2298.15 600.11		C1H3 (g)
348200+5 475497+5 891157+1 539574-2-218561+6 805736+2 600. 1008.11		C1H3 (g)
348200+5 436662+5 134569+2 241271-2-178170+7 789063+2 1008. 1513.11		C1H3 (g)
348200+5 426636+5 177367+2 540823-3-509560+7 785127+2 1513. 2444.11		C1H3 (g)
348200+5 426505+5 195964+2 368862-4-884694+7 785081+2 2444. 6000.11		C1H3 (g)
1 6 3 1 1 17	JANAF 1998	5C1H3C11 (g)
-200000+5 866649+5 507997+1 163846-1-208341+5 111870+3298.15 492.11		C1H3C11 (g)
-200000+5 669712+5 106827+2 885677-2-480513+6 102195+3 492. 817.11		C1H3C11 (g)
-200000+5 585748+5 167840+2 394221-2-187296+7 984373+2 817. 1300.11		C1H3C11 (g)
-200000+5 560769+5 228438+2 851909-3-532468+7 974219+2 1300. 2200.11		C1H3C11 (g)
-200000+5 560091+5 255186+2 431596-4-965910+7 973975+2 2200. 6000.11		C1H3C11 (g)
1 6 3 1 3 17 1 14	JANAF 1998	4C1H3C13Si1 (g)
-126400+6 131379+6 227376+2 158795-1-267140+6 177812+3298.15 500.11		C1H3C13Si1 (g)
-126400+6 112208+6 282594+2 851774-2-727371+6 168407+3 500. 785.11		C1H3C13Si1 (g)
-126400+6 105528+6 326241+2 481991-2-162821+7 165387+3 785. 1085.11		C1H3C13Si1 (g)
-126400+6 102456+6 369214+2 218524-2-332185+7 164087+3 1085. 1500.11		C1H3C13Si1 (g)
1 6 3 1 1 9	JANAF 1998	5C1H3F1 (g)
-560000+5 893832+5 291935+1 182548-1 530640+5 109592+3298.15 500.11		C1H3F1 (g)
-560000+5 681138+5 916965+1 100250-1-480786+6 991785+2 500. 809.11		C1H3F1 (g)
-560000+5 580303+5 163468+2 418751-2-208731+7 946566+2 809. 1285.11		C1H3F1 (g)
-560000+5 552985+5 227989+2 870305-3-570264+7 935442+2 1285. 2173.11		C1H3F1 (g)
-560000+5 552264+5 255215+2 428495-4-100682+8 935182+2 2173. 6000.11		C1H3F1 (g)
1 6 3 1 3 9 1 14	JANAF 1998	4C1H3F3Si1 (g)
-294625+6 142358+6 184073+2 209657-1-261414+6 172759+3298.15 488.11		C1H3F3Si1 (g)
-294625+6 114508+6 261250+2 104232-1-874157+6 159039+3 488. 719.11		C1H3F3Si1 (g)
-294625+6 105752+6 309126+2 599047-2-170154+7 155013+3 719. 1007.11		C1H3F3Si1 (g)
-294625+6 101582+6 357074+2 282180-2-332802+7 153220+3 1007. 1500.11		C1H3F3Si1 (g)
1 6 4 1	JANAF 1998	5C1H4 (g)
-178951+5 776207+5 293365+1 155859-1 829571+5 938348+2298.15 556.11		C1H4 (g)
-178951+5 641042+5 773728+1 994763-2-432912+6 873461+2 556. 900.11		C1H4 (g)
-178951+5 554187+5 155374+2 423572-2-258699+7 835322+2 900. 1386.11		C1H4 (g)
-178951+5 531261+5 225504+2 890864-3-715343+7 826142+2 1386. 2291.11		C1H4 (g)
-178951+5 530806+5 254699+2 490271-4-123539+8 825980+2 2291. 6000.11		C1H4 (g)
1 6 1 53 1 7	JANAF 1998	5C1I1N1 (g)
540000+5 409460+5 117632+2 210597-2-726909+5 939232+2298.15 726.11		C1I1N1 (g)
540000+5 390474+5 128170+2 113772-2-257645+6 930515+2 726. 1012.11		C1I1N1 (g)
540000+5 380499+5 139770+2 374520-3-654627+6 926230+2 1012. 1467.11		C1I1N1 (g)
540000+5 378654+5 146571+2 659418-4-114395+7 925500+2 1467. 2359.11		C1I1N1 (g)
540000+5 378627+5 148789+2 335093-5-155709+7 925490+2 2359. 6000.11		C1I1N1 (g)

1 6 1 19 1 7	JANAF 1998	2C1K1N1 (cr)
-271200+5 472920+5 150569+2 146107-2 333660+5 694364+2298.15 400.21		C1K1N1 (cr)
-271200+5 431409+5 158114+2 943401-4 110442+3 673012+2 400. 2000.21		C1K1N1 (cr)
1 6 1 19 1 7	JANAF 1998	4C1K1N1 (cr, l)
-271200+5 472991+5 150559+2 146323-2 333949+5 694402+2298.15 400.21		C1K1N1 (cr, l)
-271200+5 431305+5 158136+2 907552-4-297500+1 672960+2 400. 600.21		C1K1N1 (cr, l)
-271200+5 431483+5 158075+2 980872-4 626220+3 673045+2 600. 895.21		C1K1N1 (cr, l)
-271200+5 508610+5 180000+2 000000+0 489114-6 736603+2 895. 3000.22		C1K1N1 (cr, l)
1 6 1 19 1 7	JANAF 1998	5C1K1N1 (g)
190000+5 408116+5 119434+2 193917-2-323568+5 931109+2298.15 786.11		C1K1N1 (g)
190000+5 388663+5 132071+2 865567-3-291726+6 922310+2 786. 1098.11		C1K1N1 (g)
190000+5 381882+5 141823+2 273751-3-684045+6 919447+2 1098. 1565.11		C1K1N1 (g)
190000+5 380781+5 147097+2 493592-4-111567+7 919017+2 1565. 2476.11		C1K1N1 (g)
190000+5 380770+5 148829+2 277485-5-147042+7 919014+2 2476. 6000.11		C1K1N1 (g)
1 6 1 19 1 7	JANAF 1998	2C1K1N1 (l)
-248920+5 486333+5 180000+2 000000+0 731766-8 736614+2298.15 1600.31		C1K1N1 (l)
-248920+5 486333+5 180000+2 000000+0 368901-7 736614+2 1600. 3000.31		C1K1N1 (l)
1 6 2 19 3 8	JANAF 1998	5C1K2O3 (cr)
-274900+6 181153+6 194849+2 288872-1-663575+5 159835+3298.15 400.21		C1K2O3 (cr)
-274900+6 160152+6 238302+2 216950-1-301310+6 149170+3 400. 630.21		C1K2O3 (cr)
-274900+6 160851+6 230502+2 222364-1-127096+6 149445+3 630. 1006.21		C1K2O3 (cr)
-274900+6 161030+6 227331+2 224169-1 100109+5 149519+3 1006. 1203.21		C1K2O3 (cr)
-274900+6 161011+6 227559+2 224016-1 356022+4 149511+3 1203. 2000.21		C1K2O3 (cr)
1 6 2 19 3 8	JANAF 1998	5C1K2O3 (cr, l)
-274900+6 171096+6 212021+2 256339-1-132925+6 154639+3298.15 468.21		C1K2O3 (cr, l)
-274900+6 157383+6 247666+2 205618-1-393726+6 147838+3 468. 708.21		C1K2O3 (cr, l)
-274900+6 160773+6 231094+2 221893-1-140601+6 149414+3 708. 1174.21		C1K2O3 (cr, l)
-274900+6 131988+6 500000+2 000000+0 333468-2 139790+3 1174. 1300.32		C1K2O3 (cr, l)
-274900+6 131988+6 500000+2 000000+0 832400-5 139790+3 1300. 2500.32		C1K2O3 (cr, l)
1 6 2 19 3 8	JANAF 1998	3C1K2O3 (l)
-270222+6 170123+6 213710+2 253176-1-139574+6 157688+3298.15 594.31		C1K2O3 (l)
-270222+6 351780+6-633061+2 110713+0 118399+8 242327+3 594. 800.31		C1K2O3 (l)
-270222+6 127419+6 500000+2 000000+0 912216-6 139928+3 800. 2500.32		C1K2O3 (l)
1 6 2 3 3 8	JANAF 1998	5C1Li2O3 (cr)
-290640+6 213362+6 933165+1 421613-1 982840+5 157557+3298.15 486.21		C1Li2O3 (cr)
-290640+6 283404+6-998020+1 686259-1 162176+7 192079+3 486.623.1521		C1Li2O3 (cr)
-290640+6 272791+6-169956+1 620379-1 446123-3 187651+3623.15683.1522		C1Li2O3 (cr)
-290640+6 213735+6-284277+1 483309-1 136327+7 156370+3683.15 993.23		C1Li2O3 (cr)
-290640+6 130055+6 667056+2-456585-2-154212+8 119523+3 993. 2000.23		C1Li2O3 (cr)
1 6 2 3 3 8	JANAF 1998	5C1Li2O3 (cr, l)
-290640+6 213362+6 933165+1 421613-1 982840+5 157557+3298.15 486.21		C1Li2O3 (cr, l)
-290640+6 283404+6-998020+1 686259-1 162176+7 192079+3 486.623.1521		C1Li2O3 (cr, l)
-290640+6 272791+6-169956+1 620379-1 446123-3 187651+3623.15683.1522		C1Li2O3 (cr, l)
-290640+6 209282+6 562994-2 458874-1 808133+6 154360+3683.15993.1523		C1Li2O3 (cr, l)
-290640+6 124507+6 443200+2 000000+0 510316-6 121668+3993.15 2000.34		C1Li2O3 (cr, l)
1 6 2 3 3 8	JANAF 1998	5C1Li2O3 (l)
-280852+6 213362+6 933165+1 421613-1 982840+5 167212+3298.15 486.31		C1Li2O3 (l)
-280852+6 283404+6-998020+1 686259-1 162176+7 201734+3 486.623.1531		C1Li2O3 (l)
-280852+6 272791+6-169956+1 620379-1 446123-3 197305+3623.15683.1532		C1Li2O3 (l)
-280852+6 114717+6 443200+2 000000+0 609692-5 121666+3683.15 993.33		C1Li2O3 (l)
-280852+6 114717+6 443200+2 000000+0 144807-5 121666+3 993. 2000.33		C1Li2O3 (l)
1 6 1 12 3 8	JANAF 1998	4C1Mg1O3 (cr)
-265700+6 133131+6 142875+2 213631-1-217105+6 105237+3298.15 400.21		C1Mg1O3 (cr)
-265700+6 122561+6 160878+2 179467-1-286497+6 997687+2 400. 600.21		C1Mg1O3 (cr)
-265700+6 101661+6 235431+2 921308-2-108393+7 897435+2 600. 800.21		C1Mg1O3 (cr)
-265700+6 913655+5 315378+2 296241-2-300024+7 851685+2 800. 1000.21		C1Mg1O3 (cr)
1 6 1 7	JANAF 1998	5C1N1 (g)
104000+6 253494+5 603864+1 200758-2 294673+5 679356+2298.15 787.11		C1N1 (g)
104000+6 230850+5 752326+1 751893-3-277985+6 669123+2 787. 1462.11		C1N1 (g)
104000+6 232488+5 657018+1 114382-2 534434+6 669749+2 1462. 2796.11		C1N1 (g)
104000+6 232477+5 995646+1 337584-3-831547+7 669745+2 2796. 3661.11		C1N1 (g)
104000+6 232780+5 133259+2-275032-3-234160+8 669841+2 3661. 6000.11		C1N1 (g)

1 6 1 7 1 99	JANAF 1998	5C1N1-	(g)
145000+5 245556+5 607684+1 180497-2 313725+5 658947+2298.15 854.11		C1N1-	(g)
145000+5 228220+5 741609+1 756311-3-292218+6 651231+2 854. 1189.11		C1N1-	(g)
145000+5 223351+5 829246+1 264757-3-704903+6 649210+2 1189. 1673.11		C1N1-	(g)
145000+5 222633+5 875853+1 793106-4-114103+7 648934+2 1673. 2594.11		C1N1-	(g)
145000+5 222628+5 891972+1 379731-4-150413+7 648932+2 2594. 6000.11		C1N1-	(g)
1 6 1 7 -1 99	JANAF 1998	5C1N1+	(g)
430870+6 304340+5 574325+1 332990-2 264967+5 733908+2298.15 500.11		C1N1+	(g)
430870+6 259746+5 712525+1 156865-2-988479+5 712202+2 500. 777.11		C1N1+	(g)
430870+6 239021+5 844612+1 436011-3-364981+6 702811+2 777. 2307.11		C1N1+	(g)
430870+6 238872+5 940190+1 160448-3-206839+7 702758+2 2307. 3384.11		C1N1+	(g)
430870+6 238890+5 103360+2-232782-4-564595+7 702764+2 3384. 6000.11		C1N1+	(g)
1 6 1 7 1 11	JANAF 1998	4C1N1Na1	(cr)
-216800+5 124808+6 267842+1 260273-1 531288+6 107779+3298.15 400.21		C1N1Na1	(cr)
-216800+5 451210+5 163078+2 241398-3 889990+3 665693+2 400. 1023.21		C1N1Na1	(cr)
-216800+5 451414+5 163191+2 243111-3-127608+5 665791+2 1023. 1505.21		C1N1Na1	(cr)
-216800+5 451343+5 163479+2 230360-3-346645+5 665763+2 1505. 2000.21		C1N1Na1	(cr)
1 6 1 7 1 11	JANAF 1998	5C1N1Na1	(cr, l)
-216800+5 124811+6 267801+1 260282-1 531300+6 107781+3298.15 400.21		C1N1Na1	(cr, l)
-216800+5 451259+5 163060+2 243448-3 104293+4 665716+2 400. 835.21		C1N1Na1	(cr, l)
-216800+5 520467+5 190000+2 000000+0-397483-4 720043+2 835. 1000.22		C1N1Na1	(cr, l)
-216800+5 520467+5 190000+2 000000+0 467641-6 720043+2 1000. 1749.22		C1N1Na1	(cr, l)
-216800+5 520467+5 190000+2 000000+0 810979-5 720043+2 1749. 3000.22		C1N1Na1	(cr, l)
1 6 1 7 1 11	JANAF 1998	5C1N1Na1	(g)
225301+5 407594+5 119130+2 195414-2-445050+5 906762+2298.15 784.11		C1N1Na1	(g)
225301+5 388166+5 131697+2 884273-3-301380+6 897971+2 784. 1097.11		C1N1Na1	(g)
225301+5 381249+5 141620+2 281505-3-699810+6 895050+2 1097. 1564.11		C1N1Na1	(g)
225301+5 380115+5 147035+2 509677-4-114244+7 894608+2 1564. 2473.11		C1N1Na1	(g)
225301+5 380104+5 148822+2 285868-5-150776+7 894604+2 2473. 6000.11		C1N1Na1	(g)
1 6 1 7 1 11	JANAF 1998	2C1N1Na1	(l)
-201716+5 453198+5 162558+2 310783-3 481144+4 683942+2298.15 600.31		C1N1Na1	(l)
-201716+5 505570+5 190000+2 000000+0-989898-7 720586+2 600. 3000.32		C1N1Na1	(l)
1 6 1 7 1 8	JANAF 1998	5C1N1O1	(g)
380999+5 499463+5 836474+1 617576-2-564205+5 911665+2298.15 507.11		C1N1O1	(g)
380999+5 413529+5 109146+2 283849-2-276942+6 869633+2 507. 800.11		C1N1O1	(g)
380999+5 374185+5 135806+2 619079-3-846820+6 851908+2 800. 1331.11		C1N1O1	(g)
380999+5 369723+5 147408+2 394989-4-153552+7 850102+2 1331. 4099.11		C1N1O1	(g)
380999+5 369472+5 140345+2 154537-3 240876+7 850025+2 4099. 6000.11		C1N1O1	(g)
1 6 2 7	JANAF 1998	5C1N2	(g)_01
139700+6 429567+5 965619+1 382742-2-616178+5 876472+2298.15 507.11		C1N2	(g)_01
139700+6 390226+5 108248+2 229895-2-162815+6 857231+2 507. 891.11		C1N2	(g)_01
139700+6 369099+5 126465+2 941102-3-648535+6 847921+2 891. 1383.11		C1N2	(g)_01
139700+6 363845+5 142135+2 188452-3-165477+7 845813+2 1383. 2296.11		C1N2	(g)_01
139700+6 363744+5 148302+2 995127-5-274530+7 845777+2 2296. 6000.11		C1N2	(g)_01
1 6 2 7	JANAF 1998	5C1N2	(g)_02
113000+6 527784+5 875055+1 657709-2-559032+5 916997+2298.15 479.11		C1N2	(g)_02
113000+6 424178+5 115626+2 268489-2-273350+6 865849+2 479. 720.11		C1N2	(g)_02
113000+6 381575+5 139169+2 516924-3-684629+6 846279+2 720. 1205.11		C1N2	(g)_02
113000+6 376837+5 148177+2 207929-4-112455+7 844320+2 1205. 4269.11		C1N2	(g)_02
113000+6 376298+5 137988+2 180005-3 505745+7 844155+2 4269. 6000.11		C1N2	(g)_02
1 6 2 11 3 8	JANAF 1998	5C1Na2O3	(cr)
-270260+6 197833+6 157717+2 348148-1 336616+5 163838+3298.15 400.21		C1Na2O3	(cr)
-270260+6 286242+6-333643+1 655214-1 112573+7 208526+3 400.723.1521		C1Na2O3	(cr)
-270260+6 174069+6 109895+2 315280-1 293498+6 150989+3723.15 1125.22		C1Na2O3	(cr)
-270260+6 125845+6 667078+2-537469-2-176820+8 130344+3 1125. 1517.22		C1Na2O3	(cr)
-270260+6 130117+6 525486+2 124963-2-822337+7 132043+3 1517. 2000.22		C1Na2O3	(cr)
1 6 2 11 3 8	JANAF 1998	5C1Na2O3	(cr, l)
-270260+6 237207+6 902212+1 475665-1 296240+6 184171+3298.15 536.21		C1Na2O3	(cr, l)
-270260+6 286585+6-307822+1 654936-1 101203+7 208709+3 536.723.1521		C1Na2O3	(cr, l)
-270260+6 174013+6 110282+2 314980-1 284321+6 150949+3723.151123.222		C1Na2O3	(cr, l)
-270260+6 123393+6 453000+2 000000+0 203433-3 131719+31123.2 1309.33		C1Na2O3	(cr, l)
-270260+6 123393+6 453000+2 000000+0 397187-5 131719+3 1309. 2500.33		C1Na2O3	(cr, l)

1 6 2 11 3 8	JANAF 1998					4C1Na2O3 (l)	
-264941+6	197093+6	158984+2	345750-1	287261+5	167668+3298.15	400.31	C1Na2O3 (l)
-264941+6	286250+6	-333885+1	655246-1	112592+7	212744+3	400.723.1531	C1Na2O3 (l)
-264941+6	118084+6	453000+2	000000+0	-175758-4	131741+3723.15	901.32	C1Na2O3 (l)
-264941+6	118084+6	453000+2	000000+0	231351-9	131741+3	901. 2500.32	C1Na2O3 (l)
1 6 1 8	JANAF 1998					5C1O1 (g)	
-264166+5	249247+5	605084+1	190387-2	309299+5	665003+2298.15	772.11	C1O1 (g)
-264166+5	231001+5	728735+1	874281-3	-232298+6	656786+2	772. 1102.11	C1O1 (g)
-264166+5	224803+5	818681+1	330243-3	-596528+6	654170+2	1102. 1509.11	C1O1 (g)
-264166+5	223635+5	866804+1	117924-3	-962783+6	653711+2	1509. 2141.11	C1O1 (g)
-264166+5	223572+5	886062+1	579917-4	-125737+7	653688+2	2141. 6000.11	C1O1 (g)
1 6 1 8 1 16	JANAF 1998					5C1O1S1 (g)	
-330801+5	473354+5	973130+1	479786-2	-110658+6	901372+2298.15	500.11	C1O1S1 (g)
-330801+5	414586+5	114448+2	253067-2	-255643+6	872575+2	500. 784.11	C1O1S1 (g)
-330801+5	386036+5	133054+2	952419-3	-638718+6	859666+2	784. 1185.11	C1O1S1 (g)
-330801+5	379496+5	144829+2	292057-3	-119332+7	856951+2	1185. 1981.11	C1O1S1 (g)
-330801+5	379273+5	148700+2	162338-3	-170402+7	856869+2	1981. 6000.11	C1O1S1 (g)
1 6 2 8	JANAF 1998					5C1O2 (g)	
-940540+5	479632+5	798799+1	597487-2	-796230+5	852143+2298.15	533.11	C1O2 (g)
-940540+5	400610+5	105564+2	279552-2	-327870+6	813856+2	533. 889.11	C1O2 (g)
-940540+5	368473+5	133321+2	728080-3	-106895+7	799695+2	889. 1508.11	C1O2 (g)
-940540+5	365343+5	146456+2	151157-3	-207760+7	798464+2	1508. 4257.11	C1O2 (g)
-940540+5	364436+5	138015+2	267869-3	421648+7	798191+2	4257. 6000.11	C1O2 (g)
1 6 2 8 1 99	JANAF 1998					5C1O2- (g)	
-105500+6	505430+5	654464+1	737507-2	980874+2	925270+2298.15	487.11	C1O2- (g)
-105500+6	407359+5	926935+1	365915-2	-216927+6	876973+2	487. 703.11	C1O2- (g)
-105500+6	355952+5	119713+2	110588-2	-665153+6	853243+2	703. 1047.11	C1O2- (g)
-105500+6	344313+5	134594+2	162188-3	-121341+7	848283+2	1047. 1777.11	C1O2- (g)
-105500+6	343842+5	138831+2	403317-5	-166371+7	848104+2	1777. 6000.11	C1O2- (g)
1 6 1 15	JANAF 1998					5C1P1 (g)	
107527+6	312590+5	605382+1	333873-2	881584+4	747068+2298.15	436.11	C1P1 (g)
107527+6	269373+5	706107+1	179978-2	-551078+5	725390+2	436. 603.11	C1P1 (g)
107527+6	240975+5	818253+1	561434-3	-191362+6	711902+2	603. 902.11	C1P1 (g)
107527+6	234190+5	878107+1	119731-3	-354189+6	708918+2	902. 1567.11	C1P1 (g)
107527+6	233874+5	893471+1	545650-4	-480707+6	708795+2	1567. 6000.11	C1P1 (g)
1 6 1 16	JANAF 1998					5C1S1 (g)	
670000+5	299832+5	618014+1	297860-2	465732+4	726397+2298.15	519.11	C1S1 (g)
670000+5	243629+5	791000+1	765098-3	-151854+6	699011+2	519. 907.11	C1S1 (g)
670000+5	233161+5	884982+1	768133-4	-411438+6	694414+2	907. 3546.11	C1S1 (g)
670000+5	233043+5	654184+1	510606-3	926752+7	694376+2	3546. 4694.11	C1S1 (g)
670000+5	226679+5	105848+1	128846-2	496355+8	692481+2	4694. 6000.11	C1S1 (g)
1 6 2 16	JANAF 1998					5C1S2 (g)	
279500+5	484334+5	107385+2	442753-2	-101815+6	930400+2298.15	507.11	C1S2 (g)
279500+5	415079+5	127829+2	174329-2	-277494+6	896508+2	507. 800.11	C1S2 (g)
279500+5	392669+5	142365+2	507300-3	-575023+6	886371+2	800. 1232.11	C1S2 (g)
279500+5	389840+5	148109+2	197693-3	-867819+6	885207+2	1232. 2383.11	C1S2 (g)
279500+5	389824+5	149600+2	156185-3	-115300+7	885201+2	2383. 6000.11	C1S2 (g)
1 6 1 14	JANAF 1998					5C1Si1 (cr) _01	
-170999+5	510913+5	620618+1	783276-2	-190719+6	383695+2298.15	400.21	C1Si1 (cr) _01
-170999+5	361610+5	938780+1	267092-2	-369420+6	308108+2	400. 805.21	C1Si1 (cr) _01
-170999+5	331777+5	110728+2	113400-2	-659587+6	294462+2	805. 1200.21	C1Si1 (cr) _01
-170999+5	326237+5	120966+2	564821-3	-115034+7	292166+2	1200. 2000.21	C1Si1 (cr) _01
-170999+5	325912+5	127584+2	347920-3	-206226+7	292047+2	2000. 4000.21	C1Si1 (cr) _01
1 6 1 14	JANAF 1998					5C1Si1 (cr) _02	
-175000+5	518689+5	604811+1	809721-2	-181998+6	387975+2298.15	400.21	C1Si1 (cr) _02
-175000+5	375972+5	900547+1	320724-2	-342218+6	315505+2	400. 661.21	C1Si1 (cr) _02
-175000+5	333045+5	110169+2	118720-2	-637644+6	295465+2	661. 1113.21	C1Si1 (cr) _02
-175000+5	324676+5	122918+2	429411-3	-117222+7	291946+2	1113. 1987.21	C1Si1 (cr) _02
-175000+5	324232+5	130766+2	167130-3	-221285+7	291783+2	1987. 4000.21	C1Si1 (cr) _02
1 6 1 14	JANAF 1998					5C1Si1 (g)	
172000+6	154498+5	151657+2	-546580-2	-388131+6	689773+2298.15	534.11	C1Si1 (g)
172000+6	218962+5	112355+2	-197006-2	200272+6	718135+2	534. 800.11	C1Si1 (g)
172000+6	265269+5	816360+1	613511-3	843511+6	739038+2	800. 1682.11	C1Si1 (g)
172000+6	263552+5	930921+1	160282-3	-240843+6	738380+2	1682. 2606.11	C1Si1 (g)
172000+6	263536+5	994512+1	-222152-5	-168348+7	738374+2	2606. 6000.11	C1Si1 (g)

1 6 2 14	JANAF 1998	5C1Si2 (g)
128000+6 447649+5 113496+2 322381-2-873889+5 923088+2298.15 639.11		C1Si2 (g)
128000+6 386701+5 140389+2 433068-3-457342+6 894464+2 639. 1928.11		C1Si2 (g)
128000+6 389696+5 984413+1 188484-2 473113+7 895577+2 1928. 3496.11		C1Si2 (g)
128000+6 390020+5 180799+2 315406-3-288671+8 895681+2 3496. 4366.11		C1Si2 (g)
128000+6 395629+5 266566+2-992964-3-834676+8 897382+2 4366. 6000.11		C1Si2 (g)
1 6 1 73	JANAF 1998	5C1Tal (cr)
-344400+5 396593+5 979187+1 307887-2-170491+6 401037+2298.15 457.21		C1Tal (cr)
-344400+5 358805+5 107418+2 169771-2-237062+6 382233+2 457. 1228.21		C1Tal (cr)
-344400+5 360097+5 106400+2 178030-2-236449+6 382788+2 1228. 1500.21		C1Tal (cr)
-344400+5 359930+5 106137+2 178163-2-181710+6 382717+2 1500. 4487.21		C1Tal (cr)
-344400+5 360157+5 108568+2 174616-2-187322+7 382785+2 4487. 4700.21		C1Tal (cr)
1 6 1 73	JANAF 1998	5C1Tal (cr,l)
-344400+5 396584+5 979201+1 307860-2-170497+6 401033+2298.15 457.21		C1Tal (cr,l)
-344400+5 358804+5 107419+2 169766-2-237071+6 382232+2 457. 1228.21		C1Tal (cr,l)
-344400+5 360032+5 106558+2 177223-2-245426+6 382762+2 1228. 1501.21		C1Tal (cr,l)
-344400+5 359929+5 106137+2 178164-2-182418+6 382716+2 1501. 4273.21		C1Tal (cr,l)
-344400+5 623657+5 160000+2 000000+0 537345-3 444800+2 4273. 6000.32		C1Tal (cr,l)
1 6 1 73	JANAF 1998	5C1Tal (l)
-811544+4 396531+5 979293+1 307689-2-170533+6 462923+2298.15 461.31		C1Tal (l)
-811544+4 358800+5 107421+2 169746-2-237104+6 444147+2 461. 1211.31		C1Tal (l)
-811544+4 360257+5 105853+2 180567-2-199368+6 444769+2 1211. 1501.31		C1Tal (l)
-811544+4 359931+5 106112+2 178255-2-179575+6 444634+2 1501. 2800.31		C1Tal (l)
-811544+4 360413+5 160000+2 000000+0 157961-4 444802+2 2800. 6000.32		C1Tal (l)
1 6 1 22	JANAF 1998	5C1Til (cr)
-440000+5 496765+5 857210+1 609056-2-205546+6 408929+2298.15 523.21		C1Til (cr)
-440000+5 330780+5 124714+2 151285-3-422459+6 326081+2 523. 891.21		C1Til (cr)
-440000+5 356536+5 102666+2 179996-2 161686+6 337439+2 891. 1292.21		C1Til (cr)
-440000+5 362761+5 880382+1 255315-2 979014+6 339975+2 1292. 2000.21		C1Til (cr)
-440000+5 363139+5 809680+1 278757-2 193174+7 340114+2 2000. 4000.21		C1Til (cr)
1 6 1 22	JANAF 1998	6C1Til (cr,l)
-440000+5 776289+5 379863+1 151334-1-204968+5 553350+2298.15 400.21		C1Til (cr,l)
-440000+5 325643+5 127982+2-129097-3-483635+6 323643+2 400. 895.21		C1Til (cr,l)
-440000+5 358524+5 999723+1 196994-2 255202+6 338150+2 895. 1503.21		C1Til (cr,l)
-440000+5 362700+5 882019+1 254803-2 951335+6 339823+2 1503. 2000.21		C1Til (cr,l)
-440000+5 363099+5 815849+1 277127-2 181225+7 339970+2 2000. 3290.21		C1Til (cr,l)
-440000+5 539066+5 150000+2 000000+0-337615-4 393534+2 3290. 6000.32		C1Til (cr,l)
1 6 1 22	JANAF 1998	5C1Til (l)
-258924+5 496463+5 857761+1 608060-2-205774+6 464157+2298.15 525.31		C1Til (l)
-258924+5 331830+5 124124+2 205237-3-412548+6 381945+2 525. 917.31		C1Til (l)
-258924+5 357103+5 101897+2 184781-2 189892+6 393063+2 917. 1318.31		C1Til (l)
-258924+5 362867+5 873049+1 258254-2 104255+7 395399+2 1318. 2200.31		C1Til (l)
-258924+5 358042+5 150000+2 000000+0 158933-5 393686+2 2200. 4500.32		C1Til (l)
1 6 1 40	JANAF 1998	5C1Zr1 (cr)
-470000+5 337784+6-400376+2 989091-1 174283+7 192470+3298.15 400.21		C1Zr1 (cr)
-470000+5 376658+5 117054+2 157673-2-306773+6 373718+2 400. 770.21		C1Zr1 (cr)
-470000+5 373090+5 108479+2 185968-2 724746+5 371354+2 770. 1108.21		C1Zr1 (cr)
-470000+5 355544+5 120393+2 839062-3-177862+4 363649+2 1108. 1953.21		C1Zr1 (cr)
-470000+5 355548+5 120371+2 839988-3-367874+3 363650+2 1953. 5000.21		C1Zr1 (cr)
1 6 1 40	JANAF 1998	5C1Zr1 (cr,l)
-470000+5 445802+5 100320+2 405647-2-198139+6 409819+2298.15 483.21		C1Zr1 (cr,l)
-470000+5 357930+5 124375+2 745027-3-386191+6 366477+2 483. 1152.21		C1Zr1 (cr,l)
-470000+5 356238+5 120367+2 840096-3 323890+3 365640+2 1152. 2804.21		C1Zr1 (cr,l)
-470000+5 356237+5 120338+2 840661-3 110667+5 365640+2 2804. 3805.21		C1Zr1 (cr,l)
-470000+5 545393+5 150000+2 000000+0-954266-4 415292+2 3805. 6000.32		C1Zr1 (cr,l)
1 6 1 40	JANAF 1998	5C1Zr1 (l)
-284123+5 453726+5 982873+1 434787-2-183834+6 462210+2298.15 484.31		C1Zr1 (l)
-284123+5 357936+5 124396+2 743765-3-386821+6 414941+2 484. 1141.31		C1Zr1 (l)
-284123+5 355203+5 122990+2 707157-3-149414+6 413681+2 1141. 1401.31		C1Zr1 (l)
-284123+5 356254+5 120387+2 839448-3-210213+4 414107+2 1401. 2500.31		C1Zr1 (l)
-284123+5 359520+5 150000+2 000000+0-113166-4 415310+2 2500. 6000.32		C1Zr1 (l)



2 6	JANAF 1998					5C2 (g)	
200224+6-546774+4	133559+2	-931015-2	-236915+5	531765+2298.15	406.11	C2 (g)	
200224+6	259819+5	677681+1	149818-2	337452+6	691304+2	406. 887.11	C2 (g)
200224+6	247366+5	783861+1	702827-3	571100+5	685810+2	887. 1965.11	C2 (g)
200224+6	246784+5	878375+1	382957-3	-116534+7	685595+2	1965. 4074.11	C2 (g)
200224+6	246583+5	816904+1	483859-3	221458+7	685533+2	4074. 6000.11	C2 (g)
2 6 1 99	JANAF 1998					5C2- (g)	
106000+6	268382+5	601439+1	236015-2	239911+5	673579+2298.15	691.11	C2- (g)
106000+6	234116+5	775164+1	687229-3	-253549+6	657706+2	691. 1351.11	C2- (g)
106000+6	234561+5	708476+1	938330-3	344461+6	657832+2	1351. 2873.11	C2- (g)
106000+6	234559+5	995856+1	272494-3	-758654+7	657832+2	2873. 3875.11	C2- (g)
106000+6	235109+5	127643+2	-209377-3	-216792+8	658004+2	3875. 6000.11	C2- (g)
2 6 1 4	JANAF 1998					5C2Bel (g)	
135000+6	463945+5	869447+1	516256-2	-326864+5	860707+2298.15	578.11	C2Bel (g)
135000+6	407665+5	107706+2	277835-2	-265911+6	833791+2	578. 814.11	C2Bel (g)
135000+6	375505+5	130469+2	922159-3	-772989+6	819361+2	814. 1197.11	C2Bel (g)
135000+6	367980+5	144409+2	147771-3	-144224+7	816244+2	1197. 1993.11	C2Bel (g)
135000+6	367742+5	148694+2	491532-5	-201347+7	816156+2	1993. 6000.11	C2Bel (g)
2 6 2 17	JANAF 1998					5C2C12 (g)	
500999+5	615611+5	159255+2	425124-2	-135307+6	112491+3298.15	495.11	C2C12 (g)
500999+5	565888+5	173413+2	234994-2	-251625+6	110048+3	495. 795.11	C2C12 (g)
500999+5	538747+5	191600+2	827809-3	-636240+6	108824+3	795. 1211.11	C2C12 (g)
500999+5	532234+5	204081+2	142217-3	-124909+7	108555+3	1211. 2042.11	C2C12 (g)
500999+5	532036+5	208287+2	520047-5	-183597+7	108548+3	2042. 6000.11	C2C12 (g)
2 6 4 17	JANAF 1998					5C2C14 (g)	
-296989+4	112878+6	216048+2	123814-1	-218780+6	164168+3298.15	413.11	C2C14 (g)
-296989+4	936019+5	257509+2	569724-2	-455114+6	154418+3	413. 600.11	C2C14 (g)
-296989+4	840964+5	293962+2	160388-2	-883252+6	149890+3	600. 889.11	C2C14 (g)
-296989+4	820018+5	311838+2	265354-3	-135560+7	148966+3	889. 1459.11	C2C14 (g)
-296989+4	818470+5	317426+2	104300-4	-175330+7	148905+3	1459. 6000.11	C2C14 (g)
2 6 6 17	JANAF 1998					5C2C16 (g)	
-320801+5	138871+6	358826+2	974539-2	-496532+6	201479+3298.15	503.11	C2C16 (g)
-320801+5	117166+6	422094+2	137287-2	-103176+7	190844+3	503. 984.11	C2C16 (g)
-320801+5	114594+6	450113+2	-519492-3	-194171+7	189733+3	984. 2474.11	C2C16 (g)
-320801+5	114610+6	438814+2	-189912-3	-164711+5	189738+3	2474. 3469.11	C2C16 (g)
-320801+5	114608+6	431380+2	-469204-4	295932+7	189738+3	3469. 6000.11	C2C16 (g)
2 6 3 24	JANAF 1998					5C2Cr3 (cr)	
-204001+5	149147+6	215456+2	206484-1	-352806+6	123987+3298.15	400.21	C2Cr3 (cr)
-204001+5	961781+5	326311+2	244182-2	-961264+6	971185+2	400. 600.21	C2Cr3 (cr)
-204001+5	102258+6	301845+2	511478-2	-657859+6	100001+3	600. 822.21	C2Cr3 (cr)
-204001+5	105782+6	276757+2	715504-2	-958669+5	101581+3	822. 1175.21	C2Cr3 (cr)
-204001+5	106659+6	261478+2	802136-2	608134+6	101946+3	1175. 2500.21	C2Cr3 (cr)
2 6 2 9	JANAF 1998					5C2F2 (g)	
500000+4	724275+5	123155+2	886902-2	-120316+6	110032+3298.15	463.11	C2F2 (g)
500000+4	597177+5	155763+2	419002-2	-354936+6	103720+3	463. 700.11	C2F2 (g)
500000+4	537031+5	186556+2	123990-2	-851920+6	100937+3	700. 1059.11	C2F2 (g)
500000+4	524287+5	203333+2	187757-3	-148381+7	100395+3	1059. 1810.11	C2F2 (g)
500000+4	523783+5	208314+2	500501-5	-203209+7	100376+3	1810. 6000.11	C2F2 (g)
2 6 3 9 1 7	JANAF 1998					5C2F3N1 (g)	
-118400+6	117031+6	166190+2	163571-1	-248495+6	152505+3298.15	450.11	C2F3N1 (g)
-118400+6	911894+5	229687+2	698676-2	-680449+6	139614+3	450. 682.11	C2F3N1 (g)
-118400+6	810879+5	280021+2	209519-2	-146993+7	134927+3	682. 1064.11	C2F3N1 (g)
-118400+6	789772+5	308287+2	333841-3	-254829+7	134031+3	1064. 1842.11	C2F3N1 (g)
-118400+6	788951+5	317283+2	974454-5	-357498+7	134000+3	1842. 6000.11	C2F3N1 (g)
2 6 4 9	JANAF 1998					5C2F4 (g)	
-157400+6	119375+6	164233+2	169692-1	-200365+6	154329+3298.15	423.11	C2F4 (g)
-157400+6	980851+5	211852+2	949153-2	-486437+6	143604+3	423. 603.11	C2F4 (g)
-157400+6	834146+5	270092+2	307972-2	-119828+7	136640+3	603. 921.11	C2F4 (g)
-157400+6	795103+5	306469+2	457814-3	-223560+7	134931+3	921. 1608.11	C2F4 (g)
-157400+6	793121+5	317339+2	932494-5	-318169+7	134854+3	1608. 6000.11	C2F4 (g)
2 6 6 9	JANAF 1998					5C2F6 (g)	
-321200+6	191106+6	191237+2	314805-1	-273588+6	207052+3298.15	400.11	C2F6 (g)
-321200+6	132257+6	313853+2	112815-1	-942715+6	177187+3	400. 602.11	C2F6 (g)
-321200+6	110598+6	399093+2	185063-2	-197434+7	166896+3	602. 976.11	C2F6 (g)
-321200+6	108119+6	425592+2	472341-4	-282188+7	165824+3	976. 2817.11	C2F6 (g)
-321200+6	108119+6	429213+2	-380194-4	-378971+7	165824+3	2817. 6000.11	C2F6 (g)

2 6 1 1	JANAF 1998				5C2H1 (g)	
114000+6	402213+5	862129+1	385389-2-805391+5	794228+2298.15	655.11 C2H1 (g)	
114000+6	369713+5	101467+2	232325-2-304859+6	779058+2	655.1085.11 C2H1 (g)	
114000+6	356178+5	120761+2	114856-2-107572+7	773339+2	1085.2518.11 C2H1 (g)	
114000+6	356048+5	149413+2	393698-3-719063+7	773294+2	2518.3536.11 C2H1 (g)	
114000+6	356238+5	187112+2	-315402-3-229769+8	773355+2	3536.6000.11 C2H1 (g)	
2 6 1 1 1 17	JANAF 1998				5C2H1C11 (g)	
510999+5	587917+5	134248+2	517408-2-176622+6	101803+3298.15	482.11 C2H1C11 (g)	
510999+5	535810+5	148605+2	320575-2-289760+6	992347+2	482.905.11 C2H1C11 (g)	
510999+5	508824+5	172824+2	143176-2-958438+6	980496+2	905.1423.11 C2H1C11 (g)	
510999+5	501574+5	196851+2	310593-3-259305+7	977607+2	1423.2367.11 C2H1C11 (g)	
510999+5	501456+5	207258+2	186053-4-455150+7	977565+2	2367.6000.11 C2H1C11 (g)	
2 6 1 1 1 9	JANAF 1998				5C2H1F1 (g)	
300000+5	598241+5	125226+2	594108-2-159235+6	994072+2298.15	489.11 C2H1F1 (g)	
300000+5	534805+5	143077+2	352609-2-303709+6	962873+2	489.901.11 C2H1F1 (g)	
300000+5	504699+5	169823+2	155834-2-103565+7	949640+2	901.1416.11 C2H1F1 (g)	
300000+5	496716+5	195854+2	338329-3-279109+7	946456+2	1416.2356.11 C2H1F1 (g)	
300000+5	496580+5	207143+2	201880-4-489679+7	946408+2	2356.6000.11 C2H1F1 (g)	
2 6 2 1	JANAF 1998				5C2H2 (g)	
541900+5	572482+5	104941+2	660111-2-171135+6	891146+2298.15	501.11 C2H2 (g)	
541900+5	521963+5	119731+2	464919-2-296898+6	866402+2	501.975.11 C2H2 (g)	
541900+5	491592+5	152409+2	243108-2-134755+7	853271+2	975.1496.11 C2H2 (g)	
541900+5	482733+5	188298+2	841023-3-405582+7	849783+2	1496.2406.11 C2H2 (g)	
541900+5	482578+5	205801+2	359345-3-747935+7	849729+2	2406.6000.11 C2H2 (g)	
2 6 4 1	JANAF 1998				5C2H4 (g)	
125399+5	109024+6	409124+1	220129-1-364446+5	121113+3298.15	484.11 C2H4 (g)	
125399+5	819251+5	116398+2	117353-1-639448+6	107772+3	484.809.11 C2H4 (g)	
125399+5	708695+5	195829+2	530294-2-243234+7	102819+3	809.1298.11 C2H4 (g)	
125399+5	675266+5	277461+2	114810-2-709968+7	101460+3	1298.2196.11 C2H4 (g)	
125399+5	674389+5	313659+2	587162-4-130189+8	101429+3	2196.6000.11 C2H4 (g)	
2 6 4 1 1 8	JANAF 1998				5C2H4O1 (g)	
-125801+5	145917+6	281152+1	310827-1-564215+5	148213+3298.15	453.11 C2H4O1 (g)	
-125801+5	104003+6	133835+2	157448-1-800073+6	127363+3	453.715.11 C2H4O1 (g)	
-125801+5	866645+5	231366+2	684400-2-253263+7	119413+3	715.1193.11 C2H4O1 (g)	
-125801+5	815037+5	328445+2	147844-2-723899+7	117277+3	1193.2071.11 C2H4O1 (g)	
-125801+5	813282+5	372730+2	674702-4-137003+8	117213+3	2071.6000.11 C2H4O1 (g)	
2 6 2 19 2 7	JANAF 1998				5C2K2N2 (g)	
-200000+4	867740+5	259795+2	376624-2-660442+5	158943+3298.15	765.11 C2K2N2 (g)	
-200000+4	830880+5	284514+2	169754-2-586491+6	157281+3	765.1104.11 C2K2N2 (g)	
-200000+4	817726+5	303650+2	541134-3-136273+7	156726+3	1104.1570.11 C2K2N2 (g)	
-200000+4	815571+5	314105+2	975449-4-222333+7	156642+3	1570.2478.11 C2K2N2 (g)	
-200000+4	815549+5	317527+2	559197-5-292516+7	156641+3	2478.6000.11 C2K2N2 (g)	
2 6 2 3	JANAF 1998				5C2Li2 (cr)	
-142000+5	820215+5	230588+2	487262-2-658851+6	767334+2298.15	400.21 C2Li2 (cr)	
-142000+5	747326+5	242487+2	254386-2-700196+6	729493+2	400.600.21 C2Li2 (cr)	
-142000+5	741785+5	244958+2	228877-2-734041+6	726896+2	600.800.21 C2Li2 (cr)	
-142000+5	742557+5	245541+2	228425-2-769037+6	727313+2	800.1097.21 C2Li2 (cr)	
-142000+5	744866+5	243324+2	244328-2-712150+6	728313+2	1097.2000.21 C2Li2 (cr)	
2 6 1 12	JANAF 1998				5C2Mg1 (cr)	
210000+5	597652+5	156494+2	413123-2-305891+6	585893+2298.15	400.21 C2Mg1 (cr)	
210000+5	516441+5	170368+2	150412-2-359749+6	543890+2	400.600.21 C2Mg1 (cr)	
210000+5	519503+5	169291+2	163138-2-348451+6	545361+2	600.800.21 C2Mg1 (cr)	
210000+5	516145+5	171326+2	145238-2-387053+6	543833+2	800.1100.21 C2Mg1 (cr)	
210000+5	517508+5	170348+2	153359-2-376757+6	544431+2	1100.2500.21 C2Mg1 (cr)	
2 6 1 7	JANAF 1998				5C2N1 (g)	
133000+6	529306+5	100490+2	583755-2-760876+5	937107+2298.15	450.11 C2N1 (g)	
133000+6	421774+5	126839+2	194219-2-254687+6	883452+2	450.679.11 C2N1 (g)	
133000+6	387747+5	143524+2	306824-3-511985+6	867637+2	679.1138.11 C2N1 (g)	
133000+6	384599+5	148618+2	104566-4-734903+6	866320+2	1138.4252.11 C2N1 (g)	
133000+6	384297+5	142722+2	102934-3	281592+7	866228+2	4252.6000.11 C2N1 (g)
2 6 2 7	JANAF 1998				5C2N2 (g)	
738700+5	598374+5	134645+2	535547-2-133465+6	102522+3298.15	603.11 C2N2 (g)	
738700+5	551683+5	153205+2	331366-2-360637+6	100306+3	603.900.11 C2N2 (g)	
738700+5	518567+5	182274+2	116382-2-114799+7	988488+2	900.1333.11 C2N2 (g)	
738700+5	511239+5	201435+2	208159-3-228928+7	985523+2	1333.2190.11 C2N2 (g)	
738700+5	511067+5	207995+2	908121-5-334445+7	985461+2	2190.6000.11 C2N2 (g)	

2 6 2 7 2 11	JANAF 1998					5C2N2Na2 (g)
-209990+4 866355+5 259045+2 381416-2-115440+6 152403+3298.15 779.11						C2N2Na2 (g)
-209990+4 828890+5 283984+2 172004-2-638920+6 150713+3 779. 1105.11						C2N2Na2 (g)
-209990+4 815628+5 303345+2 551552-3-142631+7 150153+3 1105. 1573.11						C2N2Na2 (g)
-209990+4 813444+5 314033+2 990240-4-230957+7 150068+3 1573. 2487.11						C2N2Na2 (g)
-209990+4 813423+5 317518+2 570183-5-302970+7 150067+3 2487. 6000.11						C2N2Na2 (g)
2 6 1 8	JANAF 1998					5C2O1 (g)
685000+5 462718+5 971807+1 453933-2-696010+5 899917+2298.15 586.11						C2O1 (g)
685000+5 404937+5 119149+2 206022-2-325103+6 872368+2 586. 1054.11						C2O1 (g)
685000+5 388941+5 140196+2 739982-3-111736+7 865566+2 1054. 1741.11						C2O1 (g)
685000+5 386075+5 163191+2-136859-3-346021+7 864476+2 1741. 3247.11						C2O1 (g)
685000+5 386043+5 160876+2-121238-3-155474+7 864466+2 3247. 6000.11						C2O1 (g)
2 6 1 14	JANAF 1998					5C2Si1 (g)
147000+6 447115+5 108241+2 353068-2-876105+5 905956+2298.15 674.11						C2Si1 (g)
147000+6 382268+5 139857+2 422416-3-572153+6 875801+2 674. 2107.11						C2Si1 (g)
147000+6 383881+5 974720+1 176576-2 567873+7 876388+2 2107. 3751.11						C2Si1 (g)
147000+6 384848+5 173751+2 411045-3-301489+8 876693+2 3751. 4619.11						C2Si1 (g)
147000+6 393637+5 259266+2-822090-3-910733+8 879321+2 4619. 6000.11						C2Si1 (g)
3 6	JANAF 1998					5C3 (g)
196000+6 372364+5 665742+1 425433-2 972242+5 840835+2298.15 686.11						C3 (g)
196000+6 324022+5 908259+1 190592-2-285917+6 818418+2 686. 1089.11						C3 (g)
196000+6 310490+5 110145+2 730374-3-105877+7 812701+2 1089. 1864.11						C3 (g)
196000+6 309568+5 121148+2 339567-3-235103+7 812356+2 1864. 3304.11						C3 (g)
196000+6 309579+5 130359+2 154646-3-573545+7 812359+2 3304. 6000.11						C3 (g)
3 6 4 13	JANAF 1998					5C3Al4 (cr)
-515500+5 170262+6 282677+2 214792-1-600892+6 141215+3298.15 400.21						C3Al4 (cr)
-515500+5 129951+6 358643+2 806560-2-957873+6 120550+3 400. 616.21						C3Al4 (cr)
-515500+5 119649+6 401070+2 349063-2-149841+7 115678+3 616. 1001.21						C3Al4 (cr)
-515500+5 117021+6 430071+2 154202-2-244985+7 114544+3 1001. 1659.21						C3Al4 (cr)
-515500+5 116629+6 454321+2 567683-3-467529+7 114393+3 1659. 3000.21						C3Al4 (cr)
3 6 7 24	JANAF 1998					5C3Cr7 (cr)
-384001+5 264013+6 487293+2 301629-1-674823+6 238278+3298.15 400.21						C3Cr7 (cr)
-384001+5 204994+6 603148+2 102801-1-125600+7 208143+3 400. 645.21						C3Cr7 (cr)
-384001+5 218336+6 543484+2 164262-1-423088+6 214401+3 645. 1001.21						C3Cr7 (cr)
-384001+5 221670+6 509120+2 188010-1 638223+6 215847+3 1001. 1524.21						C3Cr7 (cr)
-384001+5 222046+6 498132+2 193357-1 129781+7 215997+3 1524. 2500.21						C3Cr7 (cr)
3 6 2 12	JANAF 1998					5C3Mg2 (cr)
190000+5 778137+5 298131+2-171188-3-653561+6 887294+2298.15 404.21						C3Mg2 (cr)
190000+5 863671+5 283529+2 259556-2-597658+6 931522+2 404. 753.21						C3Mg2 (cr)
190000+5 865603+5 281298+2 274553-2-535201+6 932325+2 753. 1046.21						C3Mg2 (cr)
190000+5 863150+5 282433+2 262525-2-521698+6 931224+2 1046. 1576.21						C3Mg2 (cr)
190000+5 862696+5 283539+2 256744-2-570345+6 931043+2 1576. 2500.21						C3Mg2 (cr)
3 6 2 8	JANAF 1998					5C3O2 (g)
-223800+5 845893+5 150347+2 998892-2-178237+6 126664+3298.15 505.11						C3O2 (g)
-223800+5 736064+5 182731+2 573389-2-456112+6 121289+3 505. 800.11						C3O2 (g)
-223800+5 669167+5 227644+2 197830-2-140770+7 118272+3 800. 1205.11						C3O2 (g)
-223800+5 653531+5 257325+2 342835-3-285589+7 117626+3 1205. 2023.11						C3O2 (g)
-223800+5 653030+5 267388+2 125056-4-423923+7 117607+3 2023. 6000.11						C3O2 (g)
4 6	JANAF 1998					5C4 (g)
232000+6 710438+5 110787+2 933972-2-166463+6 104430+3298.15 460.11						C4 (g)
232000+6 596519+5 139865+2 515347-2-374284+6 987697+2 460. 704.11						C4 (g)
232000+6 529051+5 175573+2 179127-2-970915+6 956575+2 704. 1087.11						C4 (g)
232000+6 511657+5 200158+2 289779-3-194728+7 949220+2 1087. 1866.11						C4 (g)
232000+6 510989+5 208063+2 860254-5-287314+7 948970+2 1866. 6000.11						C4 (g)
4 6 12 1 1 14	JANAF 1998					5C4H12Si1 (g)
-685000+5 359497+6 923542+1 749928-1 135602+6 310997+3298.15 400.11						C4H12Si1 (g)
-685000+5 267260+6 277711+2 436932-1-826934+6 264011+3 400. 600.11						C4H12Si1 (g)
-685000+5 235864+6 398897+2 301357-1-226118+7 249065+3 600. 800.11						C4H12Si1 (g)
-685000+5 214839+6 550557+2 178759-1-569043+7 239651+3 800. 1142.11						C4H12Si1 (g)
-685000+5 202648+6 748357+2 637918-2-143641+8 234550+3 1142. 1500.11						C4H12Si1 (g)
4 6 2 7	JANAF 1998					5C4N2 (g)
127500+6 979771+5 200738+2 996905-2-224071+6 141345+3298.15 516.11						C4N2 (g)
127500+6 893448+5 227192+2 657494-2-462134+6 137137+3 516. 804.11						C4N2 (g)
127500+6 820623+5 277305+2 243359-2-154918+7 133861+3 804. 1217.11						C4N2 (g)
127500+6 801838+5 314030+2 429466-3-337610+7 133086+3 1217. 2043.11						C4N2 (g)
127500+6 801249+5 326748+2 160537-4-515900+7 133064+3 2043. 6000.11						C4N2 (g)

4 6 1 28 4 8	JANAF 1998	5C4Ni104 (g)
-143780+6 139523+6 367840+2 924121-2-343078+6 207266+3298.15 684.11		C4Ni104 (g)
-143780+6 130276+6 413884+2 476480-2-106479+7 202975+3 684. 973.11		C4Ni104 (g)
-143780+6 125958+6 459569+2 164260-2-251385+7 201105+3 973. 1390.11		C4Ni104 (g)
-143780+6 125089+6 485833+2 385729-3-421289+7 200757+3 1390. 2196.11		C4Ni104 (g)
-143780+6 125065+6 495210+2 101572-3-572530+7 200748+3 2196. 6000.11		C4Ni104 (g)
4 6 1 28 4 8	JANAF 1998	2C4Ni104 (l)
-151000+6 192963+6 423530+2 175647-1 897817+5 222117+3298.15 400.31		C4Ni104 (l)
-151000+6 179476+6 446599+2 132003-1-997371-6 215142+3 400. 700.31		C4Ni104 (l)
5 6	JANAF 1998	5C5 (g)
234000+6 919095+5 138377+2 124134-1-260406+6 121844+3298.15 457.11		C5 (g)
234000+6 766325+5 176959+2 682058-2-532376+6 114245+3 457. 703.11		C5 (g)
234000+6 677366+5 223986+2 238986-2-131715+7 110141+3 703. 1089.11		C5 (g)
234000+6 654282+5 256805+2 389762-3-262617+7 109165+3 1089. 1871.11		C5 (g)
234000+6 653396+5 267466+2 116908-4-388177+7 109132+3 1871. 6000.11		C5 (g)
5 6 1 26 5 8	JANAF 1998	5C5Fe105 (g)
-173960+6 179910+6 429230+2 147434-1-579923+6 240670+3298.15 591.11		C5Fe105 (g)
-173960+6 163979+6 490200+2 788899-2-129456+7 233079+3 591. 880.11		C5Fe105 (g)
-173960+6 155707+6 559440+2 265977-2-309297+7 229424+3 880. 1294.11		C5Fe105 (g)
-173960+6 153977+6 600355+2 557310-3-538844+7 228720+3 1294. 2095.11		C5Fe105 (g)
-173960+6 153924+6 614028+2 123324-3-739924+7 228700+3 2095. 6000.11		C5Fe105 (g)
5 6 1 26 5 8	JANAF 1998	2C5Fe105 (l)
-183100+6 150968+6 558760+2 000000+0-628004-3 209568+3298.15 407.31		C5Fe105 (l)
-183100+6 150968+6 558760+2 000000+0-619540-4 209568+3 407. 700.31		C5Fe105 (l)
6 6 23 24	JANAF 1998	5C6Cr23 (cr)
-785000+5 715672+6 155317+3 679764-1-226563+7 675918+3298.15 460.21		C6Cr23 (cr)
-785000+5 580203+6 190481+3 178960-1-483181+7 608731+3 460. 700.21		C6Cr23 (cr)
-785000+5 655502+6 153339+3 541895-1 919484+6 643701+3 700. 1000.21		C6Cr23 (cr)
-785000+5 668086+6 139485+3 635060-1 545682+7 649131+3 1000. 1508.21		C6Cr23 (cr)
-785000+5 669709+6 134352+3 659398-1 878370+7 649778+3 1508. 2000.21		C6Cr23 (cr)
1 20	JANAF 1998	4Ca1 (cr)_01
000000+0 307582+5 452149+1 413476-2 394527+5 317701+2298.15 400.21		Ca1 (cr)_01
000000+0 342614+5 393370+1 526237-2 613320+5 335847+2 400. 660.21		Ca1 (cr)_01
000000+0 366969+5 276491+1 642124-2 237286+6 347189+2 660. 800.21		Ca1 (cr)_01
000000+0 345173+5 405409+1 527334-2-693998+2 337253+2 800. 1100.21		Ca1 (cr)_01
1 20	JANAF 1998	5Ca1 (cr)_02
252390+3 307017+5 454007+1 411118-2 389224+5 321005+2298.15 402.21		Ca1 (cr)_02
252390+3 298681+5 502617+1 366079-2-103726+5 317576+2 402. 600.21		Ca1 (cr)_02
252390+3 653136+5-120443+2 205806-1 248031+7 482123+2 600. 716.21		Ca1 (cr)_02
252390+3 395860+5 136664+1 785211-2 277260+6 363278+2 716. 1000.21		Ca1 (cr)_02
252390+3 398272+5 699724+0 819124-2 605048+6 364190+2 1000. 1500.21		Ca1 (cr)_02
1 20	JANAF 1998	5Ca1 (cr,l)
000000+0 183532+5 641865+1 244649-3-261715+5 252742+2298.15 361.21		Ca1 (cr,l)
000000+0 343502+5 390844+1 529634-2 633003+5 336286+2 361. 716.21		Ca1 (cr,l)
000000+0 396399+5 150046+1 773972-2 249838+6 362414+2 716. 1115.22		Ca1 (cr,l)
000000+0 244627+5 836520+1 000000+0 420316-5 301904+2 1115. 1300.33		Ca1 (cr,l)
000000+0 244627+5 836520+1 000000+0-169996-6 301904+2 1300. 2500.33		Ca1 (cr,l)
1 20	JANAF 1998	5Ca1 (g)
424952+5 134399+5 495962+1 851304-5 618963+3 484696+2298.15 1738.11		Ca1 (g)
424952+5 136544+5 329173+1 648344-3 167967+7 485512+2 1738. 2310.11		Ca1 (g)
424952+5 137412+5-206899+1 219891-2 111721+8 485821+2 2310. 2883.11		Ca1 (g)
424952+5 137419+5-108636+2 424115-2 353325+8 485823+2 2883. 4598.11		Ca1 (g)
424952+5 165414+5 161801+2 345645-3-157736+9 494194+2 4598. 6000.11		Ca1 (g)
1 20	JANAF 1998	2Ca1 (l)
186138+4 226015+5 836520+1 000000+0 713168-9 301905+2298.15 1300.31		Ca1 (l)
186138+4 226015+5 836520+1 000000+0-186300-6 301905+2 1300. 2500.31		Ca1 (l)
1 20 -1 99	JANAF 1998	5Ca1+ (g)
184949+6 134427+5 495890+1 953284-5 658374+3 498483+2298.15 1677.11		Ca1+ (g)
184949+6 136596+5 353972+1 573287-3 133304+7 499316+2 1677. 2353.11		Ca1+ (g)
184949+6 136976+5 566284+0 141556-2 682288+7 499450+2 2353. 3919.11		Ca1+ (g)
184949+6 138061+5 544291+1 586783-3-181905+8 499788+2 3919. 4786.11		Ca1+ (g)
184949+6 146546+5 117742+2-293466-3-667155+8 502303+2 4786. 6000.11		Ca1+ (g)

1 20 1 17	JANAF 1998					5Ca1Cl1 (g)
-250000+5	249879+5	881077+1	287868-3-331348+5	786431+2298.15	547.11	Ca1Cl1 (g)
-250000+5	245451+5	892015+1	126572-3-394647+5	784234+2	547. 2118.11	Ca1Cl1 (g)
-250000+5	245859+5	777814+1	485730-3	167109+7	784382+2 2118. 2990.11	Ca1Cl1 (g)
-250000+5	245859+5	564500+1	960788-3	804281+7	784382+2 2990. 4451.11	Ca1Cl1 (g)
-250000+5	247338+5	638316+1	872163-3	123397+7	784820+2 4451. 6000.11	Ca1Cl1 (g)
1 20 2 17	JANAF 1998					5Ca1Cl2 (cr)
-190200+6	554470+5	181045+2	153518-2-102153+6	703784+2298.15	400.21	Ca1Cl2 (cr)
-190200+6	543569+5	182716+2	119257-2-106971+6	698097+2	400. 600.21	Ca1Cl2 (cr)
-190200+6	639629+5	144960+2	537295-2	349298+6	743743+2 600. 800.21	Ca1Cl2 (cr)
-190200+6	713944+5	979082+1	942141-2	128778+7	777429+2 800. 1000.21	Ca1Cl2 (cr)
-190200+6	682686+5	135001+2	699994-2-324073+2	764026+2	1000. 2000.21	Ca1Cl2 (cr)
1 20 2 17	JANAF 1998					5Ca1Cl2 (cr, l)
-190200+6	542292+5	183098+2	114269-2-110009+6	697482+2298.15	600.21	Ca1Cl2 (cr, l)
-190200+6	639559+5	145004+2	536905-2	348470+6	743718+2 600. 805.21	Ca1Cl2 (cr, l)
-190200+6	713162+5	986951+1	936637-2	126415+7	777096+2 805. 1045.21	Ca1Cl2 (cr, l)
-190200+6	689296+5	245060+2	000000+0	136454-3	808535+2 1045. 1237.32	Ca1Cl2 (cr, l)
-190200+6	689296+5	245060+2	000000+0	584421-5	808535+2 1237. 3000.32	Ca1Cl2 (cr, l)
1 20 2 17	JANAF 1998					5Ca1Cl2 (g)
-112700+6	411346+5	146417+2	388355-3-514298+5	103916+3298.15	400.11	Ca1Cl2 (g)
-112700+6	402360+5	148266+2	811414-4-613539+5	103459+3	400. 587.11	Ca1Cl2 (g)
-112700+6	400682+5	148896+2	954089-5-685737+5	103379+3	587. 965.11	Ca1Cl2 (g)
-112700+6	400552+5	149030+2	247026-6-727558+5	103374+3	965. 3142.11	Ca1Cl2 (g)
-112700+6	400552+5	149042+2	-446416-7-748998+5	103374+3	3142. 6000.11	Ca1Cl2 (g)
1 20 2 17	JANAF 1998					3Ca1Cl2 (l)
-185013+6	554835+5	180982+2	154697-2-101912+6	750019+2298.15	478.31	Ca1Cl2 (l)
-185013+6	593904+5	165675+2	325247-2	615654+5	768403+2 478. 700.31	Ca1Cl2 (l)
-185013+6	637422+5	245060+2	000000+0	308765-6	808530+2 700. 3000.32	Ca1Cl2 (l)
1 20 1 9	JANAF 1998					5Ca1F1 (g)
-650000+5	260614+5	838201+1	801084-3-512560+5	760919+2298.15	504.11	Ca1F1 (g)
-650000+5	242879+5	890106+1	115924-3-953849+5	752232+2	504. 2221.11	Ca1F1 (g)
-650000+5	243125+5	785832+1	428883-3	161956+7	752320+2 2221. 3058.11	Ca1F1 (g)
-650000+5	243125+5	603271+1	826617-3	731772+7	752320+2 3058. 4353.11	Ca1F1 (g)
-650000+5	243929+5	620695+1	819371-3	461369+7	752559+2 4353. 6000.11	Ca1F1 (g)
1 20 2 9	JANAF 1998					5Ca1F2 (cr)
-293000+6	500127+5	194255+2-379153-3-259141+6	587705+2298.15	475.21		Ca1F2 (cr)
-293000+6	703156+5	140920+2	715852-2	136407+6	688278+2 475. 720.21	Ca1F2 (cr)
-293000+6	727880+5	128438+2	836347-2	333703+6	699731+2 720. 1000.21	Ca1F2 (cr)
-293000+6	732487+5	123532+2	869794-2	489884+6	701724+2 1000. 1424.21	Ca1F2 (cr)
-293000+6	738093+5	258101+2	249997-2-874552+2	711388+2	1424. 2700.22	Ca1F2 (cr)
1 20 2 9	JANAF 1998					5Ca1F2 (cr, l)
-293000+6	504156+5	193567+2-248785-3-256473+6	589787+2298.15	477.21		Ca1F2 (cr, l)
-293000+6	709643+5	138511+2	743457-2	162331+6	691368+2 477. 759.21	Ca1F2 (cr, l)
-293000+6	731726+5	124981+2	861742-2	424541+6	701412+2 759. 1424.21	Ca1F2 (cr, l)
-293000+6	738101+5	258080+2	250089-2	138461+4	711392+2 1424. 1691.22	Ca1F2 (cr, l)
-293000+6	707075+5	238800+2	000000+0-266674-5	709586+2	1691. 4000.33	Ca1F2 (cr, l)
1 20 2 9	JANAF 1998					4Ca1F2 (g)
-187500+6	415610+5	127919+2	163270-2-911844+5	988503+2298.15	400.11	Ca1F2 (g)
-187500+6	379395+5	135332+2	396646-3-130688+6	970089+2	400. 588.11	Ca1F2 (g)
-187500+6	370991+5	138499+2	374306-4-167157+6	966079+2	588. 1057.11	Ca1F2 (g)
-187500+6	370537+5	139090+2	233609-6-189198+6	965886+2	1057. 6000.11	Ca1F2 (g)
1 20 2 9	JANAF 1998					5Ca1F2 (l)
-283477+6	221507+5	241833+2-939255-2-443576+6	501115+2298.15	400.31		Ca1F2 (l)
-283477+6	658330+5	156108+2	532227-2-137202+5	724167+2	400. 600.31	Ca1F2 (l)
-283477+6	718871+5	133798+2	788617-2	235637+6	753119+2 600. 800.31	Ca1F2 (l)
-283477+6	729135+5	127341+2	844350-2	363510+6	757774+2 800. 1000.31	Ca1F2 (l)
-283477+6	611890+5	238800+2	000000+0-900673-6	709739+2	1000. 4000.32	Ca1F2 (l)
1 20 1 1 1 8	JANAF 1998					5Ca1H1O1 (g)
-463377+5	392873+5	115457+2	190360-2-128744+6	873351+2298.15	475.11	Ca1H1O1 (g)
-463377+5	369369+5	119428+2	114255-2-136774+6	861279+2	475. 1388.11	Ca1H1O1 (g)
-463377+5	364144+5	135059+2	392446-3-114239+7	859184+2	1388. 2906.11	Ca1H1O1 (g)
-463377+5	364145+5	121548+2	702700-3	265348+7	859184+2 2906. 4790.11	Ca1H1O1 (g)
-463377+5	367801+5	148889+2	322444-3-182876+8	860268+2	4790. 6000.11	Ca1H1O1 (g)

1 20 1 1 1 8 -1 99	JANAF 1998	5Ca1H1O1+(g)
882132+5 391399+5 115938+2 184059-2-127652+6 859519+2298.15 479.11		Ca1H1O1+(g)
882132+5 369825+5 119263+2 115796-2-128925+6 848384+2 479. 1323.11		Ca1H1O1+(g)
882132+5 364619+5 132401+2 495842-3-895296+6 846273+2 1323. 1919.11		Ca1H1O1+(g)
882132+5 363838+5 143168+2 122316-3-222062+7 845983+2 1919. 2940.11		Ca1H1O1+(g)
882132+5 363838+5 148019+2 125066-4-362284+7 845983+2 2940. 6000.11		Ca1H1O1+(g)
1 20 2 1 2 8	JANAF 1998	2Ca1H2O2(cr)
-235680+6 790856+5 253679+2 268367-2-467394+6 831465+2298.15 637.21		Ca1H2O2(cr)
-235680+6 816760+5 259324+2 307079-2-796516+6 845487+2 637. 1000.21		Ca1H2O2(cr)
1 20 2 1 2 8	JANAF 1998	5Ca1H2O2(g)
-145976+6 665688+5 195117+2 328578-2-261139+6 120706+3298.15 482.11		Ca1H2O2(g)
-145976+6 632676+5 199077+2 229788-2-242525+6 118982+3 482. 1330.11		Ca1H2O2(g)
-145976+6 622436+5 225335+2 980804-3-178866+7 118567+3 1330. 1924.11		Ca1H2O2(g)
-145976+6 620915+5 246676+2 242411-3-442954+7 118511+3 1924. 2945.11		Ca1H2O2(g)
-145976+6 620915+5 256306+2 248315-4-722432+7 118511+3 2945. 6000.11		Ca1H2O2(g)
1 20 1 53	JANAF 1998	5Ca1I1(g)
-120578+4 244315+5 893497+1 772614-4-177867+5 831660+2298.15 1808.11		Ca1I1(g)
-120578+4 244861+5 840880+1 271216-3 555899+6 831866+2 1808. 2400.11		Ca1I1(g)
-120578+4 244995+5 705909+1 645944-3 314997+7 831913+2 2400. 3022.11		Ca1I1(g)
-120578+4 244995+5 547151+1 996496-3 797385+7 831913+2 3022. 4811.11		Ca1I1(g)
-120578+4 249739+5 889776+1 522354-3-185315+8 833317+2 4811. 6000.11		Ca1I1(g)
1 20 2 53	JANAF 1998	2Ca1I2(cr)
-128300+6 670071+5 170521+2 469936-2-114250+4 867845+2298.15 800.21		Ca1I2(cr)
-128300+6 670409+5 170477+2 471041-2-394242+4 868009+2 800. 1500.21		Ca1I2(cr)
1 20 2 53	JANAF 1998	5Ca1I2(cr, l)
-128300+6 675625+5 169407+2 488822-2 383275+4 870652+2298.15 500.21		Ca1I2(cr, l)
-128300+6 670355+5 170379+2 471313-2 141938+4 867970+2 500. 880.21		Ca1I2(cr, l)
-128300+6 676503+5 164159+2 514692-2 187515+6 870635+2 880. 1052.21		Ca1I2(cr, l)
-128300+6 733591+5 247000+2 000000+0 299662-3 951499+2 1052. 1203.32		Ca1I2(cr, l)
-128300+6 733591+5 247000+2 000000+0 210217-5 951499+2 1203. 2500.32		Ca1I2(cr, l)
1 20 2 53	JANAF 1998	5Ca1I2(g)
-617000+5 405143+5 148113+2 133013-3-318865+5 112642+3298.15 425.11		Ca1I2(g)
-617000+5 401838+5 148855+2 168064-4-363556+5 112476+3 425. 713.11		Ca1I2(g)
-617000+5 401507+5 149032+2 235661-6-393582+5 112461+3 713. 3214.11		Ca1I2(g)
-617000+5 401507+5 148925+2 210902-5 878533+4 112461+3 3214. 4000.11		Ca1I2(g)
-617000+5 401505+5 149032+2 783932-7-329957+5 112461+3 4000. 6000.11		Ca1I2(g)
1 20 2 53	JANAF 1998	3Ca1I2(l)
-119543+6 675822+5 169373+2 489458-2 396283+4 951191+2298.15 497.31		Ca1I2(l)
-119543+6 670171+5 170458+2 470476-2 478689+3 948321+2 497. 700.31		Ca1I2(l)
-119543+6 646026+5 247000+2 000000+0 443969-7 951498+2 700. 2500.32		Ca1I2(l)
1 20 1 8	JANAF 1998	5Ca1O1(cr)
-151790+6 351303+5 121433+2 657842-3-202015+6 378214+2298.15 400.21		Ca1O1(cr)
-151790+6 367156+5 119380+2 113622-2-199772+6 386583+2 400. 603.21		Ca1O1(cr)
-151790+6 363655+5 120737+2 984742-3-215918+6 384917+2 603. 1040.21		Ca1O1(cr)
-151790+6 363340+5 121138+2 959254-3-230653+6 384782+2 1040. 3200.21		Ca1O1(cr)
-151790+6 363338+5 120170+2 977792-3 154471+6 384782+2 3200. 3600.22		Ca1O1(cr)
1 20 1 8	JANAF 1998	5Ca1O1(cr, l)
-151790+6 375781+5 117253+2 144970-2-185811+6 390861+2298.15 500.21		Ca1O1(cr, l)
-151790+6 364308+5 120368+2 101863-2-209793+6 385198+2 500. 815.21		Ca1O1(cr, l)
-151790+6 363354+5 121047+2 963395-3-225020+6 384771+2 815. 1929.21		Ca1O1(cr, l)
-151790+6 363333+5 121134+2 959241-3-227576+6 384763+2 1929. 3200.21		Ca1O1(cr, l)
-151790+6 553460+5 150000+2 000000+0-100369-3 444177+2 3200. 4500.32		Ca1O1(cr, l)
1 20 1 8	JANAF 1998	5Ca1O1(g)
105000+5 250976+5 839697+1 590543-3-731312+5 730624+2298.15 1183.11		Ca1O1(g)
105000+5 293144+5 932279+0 480088-2 340300+7 748151+2 1183. 1762.11		Ca1O1(g)
105000+5 297927+5 374302+1 422623-2-217977+7 750105+2 1762. 2450.11		Ca1O1(g)
105000+5 295909+5 314868+2-330408-2-579699+8 749398+2 2450. 4028.11		Ca1O1(g)
105000+5 290364+5 124627+2-147406-3 443918+8 747681+2 4028. 6000.11		Ca1O1(g)
1 20 1 8	JANAF 1998	5Ca1O1(l)
-133206+6 375910+5 117231+2 145388-2-185726+6 448549+2298.15 493.31		Ca1O1(l)
-133206+6 364249+5 120393+2 101600-2-210090+6 442793+2 493. 837.31		Ca1O1(l)
-133206+6 363346+5 121067+2 962342-3-225882+6 442389+2 837. 2100.31		Ca1O1(l)
-133206+6 367622+5 150000+2 000000+0 519811-5 444178+2 2100. 3200.32		Ca1O1(l)
-133206+6 367622+5 150000+2 000000+0-100369-3 444178+2 3200. 4500.33		Ca1O1(l)

1 20 1 16	JANAF 1998				5Ca1S1 (cr)
-113100+6 396567+5 111491+2 216746-2-409450+5 448968+2298.15 530.21					Ca1S1 (cr)
-113100+6 364912+5 121526+2 906293-3-135085+6 433590+2 530. 958.21					Ca1S1 (cr)
-113100+6 360301+5 128207+2 499576-3-390569+6 431661+2 958. 1300.21					Ca1S1 (cr)
-113100+6 355134+5 142002+2-184677-3-121867+7 429575+2 1300. 1535.21					Ca1S1 (cr)
-113100+6 363677+5 122183+2 861816-3-333739+6 433011+2 1535. 3000.21					Ca1S1 (cr)
1 20 1 16	JANAF 1998				5Ca1S1 (g)
295399+5 254392+5 859180+1 525098-3-378024+5 766087+2298.15 1001.11					Ca1S1 (g)
295399+5 333263+5-296739+0 644665-2 292919+7 800054+2 1001. 1938.11					Ca1S1 (g)
295399+5 315001+5 265410+2-277245-2-307650+8 793279+2 1938. 2747.11					Ca1S1 (g)
295399+5 314662+5 235036+2-243150-2-149122+8 793163+2 2747. 3807.11					Ca1S1 (g)
295399+5 312639+5 964672+1 390865-5 515434+8 792527+2 3807. 6000.11					Ca1S1 (g)
2 20	JANAF 1998				5Ca2 (g)
816532+5-458867+4 100639+2-718219-2 730591+5 656791+2298.15 441.11					Ca2 (g)
816532+5 126202+5 603377+1-104416-2 330415+6 743065+2 441. 692.11					Ca2 (g)
816532+5 147918+5 496120+1 310520-5 496998+6 753150+2 692. 2534.11					Ca2 (g)
816532+5 147953+5 421895+1 198902-3 207722+7 753162+2 2534. 3583.11					Ca2 (g)
816532+5 147858+5 267515+1 486155-3 868327+7 753132+2 3583. 6000.11					Ca2 (g)
1 17	JANAF 1998				5Cl1 (g)
289919+5 164815+5 529167+1 503642-3-197864+5 529228+2298.15 404.11					Cl1 (g)
289919+5 132419+5 596438+1-607094-3-563423+5 512781+2 404. 855.11					Cl1 (g)
289919+5 138874+5 546192+1-215018-3 659139+5 515652+2 855. 1328.11					Cl1 (g)
289919+5 140248+5 511270+1-393865-4 270450+6 516209+2 1328. 2276.11					Cl1 (g)
289919+5 140272+5 498694+1-248096-5 486821+6 516218+2 2276. 6000.11					Cl1 (g)
1 17 1 99	JANAF 1998				2Cl1- (g)
-559163+5 134227+5 496797+1 000000+0-105622-7 480967+2298.15 3000.11					Cl1- (g)
-559163+5 134227+5 496797+1 000000+0-892115-5 480967+2 3000. 6000.11					Cl1- (g)
1 17 -1 99	JANAF 1998				5Cl1+ (g)
329541+6 124406+5 640540+1-105557-2-538435+5 516574+2298.15 734.11					Cl1+ (g)
329541+6 138486+5 560737+1-330137-3 892327+5 523026+2 734. 1149.11					Cl1+ (g)
329541+6 141809+5 506951+1-172548-4 324695+6 524416+2 1149. 1839.11					Cl1+ (g)
329541+6 142343+5 450916+1 186203-3 954385+6 524617+2 1839. 3943.11					Cl1+ (g)
329541+6 142571+5 546484+1 247613-4-400697+7 524688+2 3943. 6000.11					Cl1+ (g)
10 17 2 74	JANAF 1998				4Cl10W2 (g)
-207600+6 188800+6 657038+2 274541-2-315797+6 327878+3298.15 399.11					Cl10W2 (g)
-207600+6 182579+6 669756+2 622891-3-383449+6 324714+3 399. 587.11					Cl10W2 (g)
-207600+6 181246+6 674775+2 534955-4-441213+6 324078+3 587. 1066.11					Cl10W2 (g)
-207600+6 181182+6 675626+2 336202-6-473498+6 324051+3 1066. 6000.11					Cl10W2 (g)
1 17 1 27	JANAF 1998				5Cl1Co1 (g)
460999+5 243246+5 888425+1 103461-3-464369+5 792252+2298.15 1749.11					Cl1Co1 (g)
460999+5 244539+5 784817+1 498611-3 100882+7 792743+2 1749. 2504.11					Cl1Co1 (g)
460999+5 244673+5 536863+1 115868-2 619231+7 792790+2 2504. 3228.11					Cl1Co1 (g)
460999+5 244658+5 170070+1 191662-2 189185+8 792785+2 3228. 4951.11					Cl1Co1 (g)
460999+5 260152+5 109144+2 677661-3-565699+8 797339+2 4951. 6000.11					Cl1Co1 (g)
1 17 1 55	JANAF 1998				4Cl1Cs1 (cr)
-105840+6 613123+5 956023+1 792675-2 542563+5 679745+2298.15 403.21					Cl1Cs1 (cr)
-105840+6 530058+5 109888+2 523449-2-153954+4 636817+2 403. 743.21					Cl1Cs1 (cr)
-105840+6 442470+5 142627+2 119855-2-173948+4 603531+2 743. 1579.22					Cl1Cs1 (cr)
-105840+6 442280+5 146718+2 105651-2-462546+6 603470+2 1579. 2000.22					Cl1Cs1 (cr)
1 17 1 55	JANAF 1998				5Cl1Cs1 (cr, l)
-105840+6 613123+5 956023+1 792675-2 542563+5 679745+2298.15 403.21					Cl1Cs1 (cr, l)
-105840+6 530058+5 109888+2 523449-2-153954+4 636817+2 403. 743.21					Cl1Cs1 (cr, l)
-105840+6 440594+5 143925+2 109145-2-293873+5 602689+2 743. 918.22					Cl1Cs1 (cr, l)
-105840+6 519819+5 185000+2 000000+0-162744-4 670157+2 918. 1101.33					Cl1Cs1 (cr, l)
-105840+6 519819+5 185000+2 000000+0-475666-6 670157+2 1101. 3000.33					Cl1Cs1 (cr, l)
1 17 1 55	JANAF 1998				5Cl1Cs1 (g)
-574001+5 250251+5 892102+1 216172-3-136726+5 822806+2298.15 481.11					Cl1Cs1 (g)
-574001+5 249579+5 893488+1 193122-3-143131+5 822465+2 481. 700.11					Cl1Cs1 (g)
-574001+5 249414+5 894206+1 185623-3-152582+5 822388+2 700. 2788.11					Cl1Cs1 (g)
-574001+5 249414+5 893785+1 186426-3 326711+2 822388+2 2788. 3818.11					Cl1Cs1 (g)
-574001+5 249413+5 894211+1 185553-3-134757+5 822388+2 3818. 6000.11					Cl1Cs1 (g)
1 17 1 55	JANAF 1998				2Cl1Cs1 (l)
-103840+6 499842+5 185000+2 000000+0-433626-8 670211+2298.15 1600.31					Cl1Cs1 (l)
-103840+6 499842+5 185000+2 000000+0-168917-5 670211+2 1600. 3000.31					Cl1Cs1 (l)

1 17 1 29	JANAF 1998					5Cl1Cu1 (cr)		
-330000+5	380999+5	168150+2	-135560-2	-427663+6	535777+2298.15	400.21	Cl1Cu1 (cr)	
-330000+5	422294+5	152520+2	431599-3	-291950+6	554915+2	400.	600.21	Cl1Cu1 (cr)
-330000+5	430486+5	151776+2	670203-3	-316708+6	559114+2	600.	896.21	Cl1Cu1 (cr)
-330000+5	430757+5	152374+2	652922-3	-352276+6	559271+2	896.	1216.21	Cl1Cu1 (cr)
-330000+5	430878+5	153782+2	605270-3	-474803+6	559346+2	1216.	1500.21	Cl1Cu1 (cr)
1 17 1 29	JANAF 1998					5Cl1Cu1 (cr,1)		
-330000+5	308501+5	180531+2	-370095-2	-475656+6	498319+2298.15	529.21	Cl1Cu1 (cr,1)	
-330000+5	427302+5	153196+2	523057-3	-336037+6	557676+2	529.	703.21	Cl1Cu1 (cr,1)
-330000+5	448793+5	160000+2	000000+0	940471-5	593525+2	703.	900.32	Cl1Cu1 (cr,1)
-330000+5	448793+5	160000+2	000000+0	175875-5	593525+2	900.	1766.32	Cl1Cu1 (cr,1)
-330000+5	448793+5	160000+2	000000+0	207585-4	593525+2	1766.	3000.32	Cl1Cu1 (cr,1)
1 17 1 29	JANAF 1998					4Cl1Cu1 (g)		
217701+5	255563+5	868221+1	495175-3	-357645+5	778516+2298.15	400.11	Cl1Cu1 (g)	
217701+5	246888+5	886005+1	198964-3	-452604+5	774107+2	400.	587.11	Cl1Cu1 (g)
217701+5	245021+5	893033+1	119186-3	-533402+5	773215+2	587.	1082.11	Cl1Cu1 (g)
217701+5	244935+5	894218+1	111899-3	-579870+5	773179+2	1082.	6000.11	Cl1Cu1 (g)
1 17 1 29	JANAF 1998					2Cl1Cu1 (l)		
-313523+5	432296+5	160000+2	000000+0	162385-7	593476+2298.15	1600.31	Cl1Cu1 (l)	
-313523+5	432296+5	160000+2	000000+0	434240-5	593476+2	1600.	3000.31	Cl1Cu1 (l)
1 17 1201	JANAF 1998					5Cl1D1 (g)		
-223100+5	253333+5	602516+1	201101-2	311430+5	655576+2298.15	788.11	Cl1D1 (g)	
-223100+5	233496+5	731852+1	914137-3	-235260+6	646607+2	788.	1100.11	Cl1D1 (g)
-223100+5	227044+5	824758+1	350601-3	-609355+6	643883+2	1100.	1564.11	Cl1D1 (g)
-223100+5	225985+5	875406+1	135016-3	-102350+7	643470+2	1564.	2468.11	Cl1D1 (g)
-223100+5	225974+5	892123+1	899940-4	-136491+7	643466+2	2468.	6000.11	Cl1D1 (g)
1 17 1201 1 8	JANAF 1998					5Cl1D1O1 (g)		
-187000+5	425504+5	865684+1	434519-2	-660007+5	887532+2298.15	466.11	Cl1D1O1 (g)	
-187000+5	367292+5	101745+2	218990-2	-177458+6	858673+2	466.	866.11	Cl1D1O1 (g)
-187000+5	345516+5	119449+2	835319-3	-625432+6	849025+2	866.	1385.11	Cl1D1O1 (g)
-187000+5	340609+5	134087+2	132307-3	-156558+7	847057+2	1385.	3564.11	Cl1D1O1 (g)
-187000+5	340493+5	113555+2	516192-3	713569+7	847020+2	3564.	6000.11	Cl1D1O1 (g)
1 17 1 9	JANAF 1998					5Cl1F1 (g)		
-120201+5	277177+5	774590+1	155652-2	-482414+5	738826+2298.15	513.11	Cl1F1 (g)	
-120201+5	241866+5	880181+1	181151-3	-140443+6	721568+2	513.	2329.11	Cl1F1 (g)
-120201+5	243094+5	186584+0	264495-2	154653+8	722004+2	2329.	3138.11	Cl1F1 (g)
-120201+5	243075+5	-214751+2	724891-2	865060+8	721998+2	3138.	4858.11	Cl1F1 (g)
-120201+5	338522+5	424964+2	-150809-2	-419246+9	750174+2	4858.	6000.11	Cl1F1 (g)
1 17 1 9 2 3	JANAF 1998					5Cl1F1Li2 (g)		
-180200+6	609528+5	167146+2	371357-2	-249484+6	111271+3298.15	529.11	Cl1F1Li2 (g)	
-180200+6	520833+5	195334+2	176508-3	-514694+6	106964+3	529.	1465.11	Cl1F1Li2 (g)
-180200+6	519357+5	198638+2	169825-5	-674085+6	106904+3	1465.	3470.11	Cl1F1Li2 (g)
-180200+6	519362+5	199068+2	-563174-5	-884932+6	106904+3	3470.	4379.11	Cl1F1Li2 (g)
-180200+6	519397+5	199067+2	-466443-5	-964650+6	106905+3	4379.	6000.11	Cl1F1Li2 (g)
1 17 1 9 1 12	JANAF 1998					5Cl1F1Mg1 (g)		
-136000+6	433338+5	122298+2	237038-2	-895812+5	963108+2298.15	391.11	Cl1F1Mg1 (g)	
-136000+6	386200+5	132046+2	756248-3	-142126+6	939170+2	391.	559.11	Cl1F1Mg1 (g)
-136000+6	371957+5	136836+2	175339-3	-190322+6	932293+2	559.	800.11	Cl1F1Mg1 (g)
-136000+6	369177+5	138673+2	205191-4	-228681+6	931038+2	800.	1345.11	Cl1F1Mg1 (g)
-136000+6	369029+5	139090+2	212791-6	-254554+6	930979+2	1345.	6000.11	Cl1F1Mg1 (g)
1 17 1 9 2 8 1 16	JANAF 1998					5Cl1F1O2S1 (g)		
-133000+6	957827+5	158595+2	120208-1	-207429+6	140296+3298.15	414.11	Cl1F1O2S1 (g)	
-133000+6	776191+5	197886+2	571076-2	-433122+6	131114+3	414.	600.11	Cl1F1O2S1 (g)
-133000+6	680031+5	234916+2	156252-2	-870162+6	126535+3	600.	901.11	Cl1F1O2S1 (g)
-133000+6	659248+5	253236+2	210103-3	-136819+7	125621+3	901.	1564.11	Cl1F1O2S1 (g)
-133000+6	658240+5	258093+2	372582-5	-176664+7	125581+3	1564.	6000.11	Cl1F1O2S1 (g)
1 17 1 9 3 8	JANAF 1998					5Cl1F1O3 (g)		
-511998+4	104276+6	132574+2	155069-1	-210198+6	137987+3298.15	413.11	Cl1F1O3 (g)	
-511998+4	797572+5	185435+2	699829-2	-512456+6	125588+3	413.	600.11	Cl1F1O3 (g)
-511998+4	676525+5	231771+2	178960-2	-105550+7	119821+3	600.	896.11	Cl1F1O3 (g)
-511998+4	652414+5	252771+2	231207-3	-162043+7	118760+3	896.	1551.11	Cl1F1O3 (g)
-511998+4	651276+5	258078+2	396343-5	-204914+7	118715+3	1551.	6000.11	Cl1F1O3 (g)



1 17 2 9 1 8 1 15	JANAF 1998	5C11F201P1 (g)
-232000+6 103605+6 143444+2 146915-1-202032+6 143766+3298.15 400.11		C11F201P1 (g)
-232000+6 789635+5 195184+2 621282-2-487236+6 131271+3 400. 584.11		C11F201P1 (g)
-232000+6 678121+5 236910+2 146043-2-963763+6 125946+3 584. 888.11		C11F201P1 (g)
-232000+6 658135+5 253963+2 183400-3-141430+7 125064+3 888. 1537.11		C11F201P1 (g)
-232000+6 657205+5 258137+2 306798-5-174546+7 125028+3 1537. 6000.11		C11F201P1 (g)
1 17 3 9	JANAF 1998	5C11F3 (g)
-379699+5 661007+5 161411+2 519408-2-216104+6 117374+3298.15 384.11		C11F3 (g)
-379699+5 560678+5 182550+2 173758-2-332090+6 112291+3 384. 555.11		C11F3 (g)
-379699+5 527766+5 193559+2 398171-3-442209+6 110701+3 555. 800.11		C11F3 (g)
-379699+5 521398+5 197854+2 397828-4-533611+6 110414+3 800. 1464.11		C11F3 (g)
-379699+5 521138+5 198690+2 459329-6-589331+6 110403+3 1464. 6000.11		C11F3 (g)
1 17 3 9 1 14	JANAF 1998	5C11F3Si1 (g)
-315000+6 935523+5 185150+2 992013-2-222514+6 142060+3298.15 407.11		C11F3Si1 (g)
-315000+6 744471+5 225347+2 334215-2-444892+6 132374+3 407. 600.11		C11F3Si1 (g)
-315000+6 681166+5 249028+2 644412-3-714705+6 129351+3 600. 900.11		C11F3Si1 (g)
-315000+6 672167+5 256619+2 730684-4-913038+6 128954+3 900. 1521.11		C11F3Si1 (g)
-315000+6 671780+5 258262+2 113173-5-103998+7 128939+3 1521. 6000.11		C11F3Si1 (g)
1 17 5 9	JANAF 1998	5C11F5 (g)
-570000+5 109389+6 250494+2 964459-2-418047+6 155806+3298.15 400.11		C11F5 (g)
-570000+5 896441+5 290864+2 290803-2-632829+6 145765+3 400. 561.11		C11F5 (g)
-570000+5 841088+5 309543+2 647288-3-821535+6 143094+3 561. 800.11		C11F5 (g)
-570000+5 830824+5 316444+2 706226-4-967961+6 142631+3 800. 1422.11		C11F5 (g)
-570000+5 830339+5 317899+2 830588-6-106150+7 142612+3 1422. 6000.11		C11F5 (g)
1 17 5 9 1 16	JANAF 1998	5C11F5S1 (g)
-248300+6 143391+6 254344+2 170963-1-497351+6 178583+3298.15 404.11		C11F5S1 (g)
-248300+6 108893+6 326277+2 525270-2-890452+6 161077+3 404. 600.11		C11F5S1 (g)
-248300+6 987639+5 363931+2 947421-3-131605+7 156237+3 600. 900.11		C11F5S1 (g)
-248300+6 974353+5 375093+2 105735-3-160662+7 155650+3 900. 1515.11		C11F5S1 (g)
-248300+6 973788+5 377465+2 158214-5-178869+7 155628+3 1515. 6000.11		C11F5S1 (g)
1 17 1 26	JANAF 1998	5C11Fe1 (g)
600000+5 266281+5 953513+1 222429-3-415326+5 839194+2298.15 535.11		C11Fe1 (g)
600000+5 254489+5 964085+1-115598-3-200305+5 833048+2 535. 930.11		C11Fe1 (g)
600000+5 259497+5 929020+1 172976-3 511321+5 835286+2 930. 1534.11		C11Fe1 (g)
600000+5 258445+5 975127+1-273870-4-310587+6 834874+2 1534. 3488.11		C11Fe1 (g)
600000+5 258429+5 932635+1 538143-4 141318+7 834869+2 3488. 6000.11		C11Fe1 (g)
1 17 1 1	JANAF 1998	5C11H1 (g)
-220631+5 202467+5 674997+1 446071-3 722026+4 614738+2298.15 492.11		C11H1 (g)
-220631+5 231307+5 594241+1 154199-2 721818+5 628930+2 492. 1052.11		C11H1 (g)
-220631+5 220997+5 727263+1 701361-3-421267+6 624539+2 1052. 1566.11		C11H1 (g)
-220631+5 218658+5 840997+1 219084-3-135830+7 623627+2 1566. 2516.11		C11H1 (g)
-220631+5 218636+5 887292+1 969563-4-234378+7 623619+2 2516. 6000.11		C11H1 (g)
1 17 1 1 1 8	JANAF 1998	5C11H1O1 (g)
-178000+5 414449+5 806727+1 443885-2-427898+5 868800+2298.15 487.11		C11H1O1 (g)
-178000+5 344444+5 100142+2 178535-2-198065+6 834327+2 487. 1009.11		C11H1O1 (g)
-178000+5 332729+5 113874+2 884689-3-670885+6 829299+2 1009. 1619.11		C11H1O1 (g)
-178000+5 329775+5 130421+2 205191-3-212461+7 828156+2 1619. 3689.11		C11H1O1 (g)
-178000+5 329598+5 112414+2 530595-3 604479+7 828100+2 3689. 6000.11		C11H1O1 (g)
1 17 3 1 1 14	JANAF 1998	5C11H3Si1 (g)
-339001+5 907690+5 960895+1 146517-1-157078+6 120804+3298.15 453.11		C11H3Si1 (g)
-339001+5 741702+5 137597+2 859599-2-445911+6 112539+3 453. 712.11		C11H3Si1 (g)
-339001+5 639114+5 193462+2 341267-2-140705+7 107820+3 712. 1104.11		C11H3Si1 (g)
-339001+5 607566+5 240287+2 603405-3-333415+7 106491+3 1104. 1895.11		C11H3Si1 (g)
-339001+5 606295+5 256991+2 194215-4-535861+7 106444+3 1895. 6000.11		C11H3Si1 (g)
1 17 4 1 1 7	JANAF 1998	5C11H4N1 (cr)
-751800+5 134052+6 198744+2 183155-1-414339+6 115736+3298.15 457.721		C11H4N1 (cr)
-751800+5 142958+6 827061+1 266608-1 103868+5 118179+3 457.7 877.22		C11H4N1 (cr)
-751800+5 115816+6 304379+2 973486-2-562215+7 106159+3 877. 1100.22		C11H4N1 (cr)
-751800+5 806537+5 878649+2-235912-1-307517+8 914680+2 1100. 1300.22		C11H4N1 (cr)
-751800+5 956825+5 922633+2-195904-1-469750+8 980491+2 1300. 1500.22		C11H4N1 (cr)
1 17 4 1 1 7 4 8	JANAF 1998	5C11H4N1O4 (cr)
-706900+5 259490+6 161579+2 484408-1 868025+3 212210+3298.15513.1521		C11H4N1O4 (cr)
-706900+5 266714+6 181405+2 484374-1 625973+4 220194+3513.15 800.22		C11H4N1O4 (cr)
-706900+5 263704+6 207930+2 464730-1-685538+6 218876+3 800. 1030.22		C11H4N1O4 (cr)
-706900+5 229728+6 713686+2 161017-1-211537+8 204604+3 1030. 1300.22		C11H4N1O4 (cr)
-706900+5 216331+6 103369+3-293926-3-392129+8 199151+3 1300. 1500.22		C11H4N1O4 (cr)

1 17 1 80	JANAF 1998	4C11Hg1 (g)
187500+5 251692+5 888140+1 278941-3-231178+5 832466+2298.15 442.11		C11Hg1 (g)
187500+5 249601+5 893115+1 203956-3-263618+5 831419+2 442. 774.11		C11Hg1 (g)
187500+5 249414+5 894165+1 194345-3-281955+5 831333+2 774. 2300.11		C11Hg1 (g)
187500+5 249413+5 894189+1 194154-3-271452+5 831333+2 2300. 6000.11		C11Hg1 (g)
1 17 1 53	JANAF 1998	4C11I1 (cr)
-846606+4-293910+5 280827+2-231444-1-710071+6 217543+2298.15 400.21		C11I1 (cr)
-846606+4 666136+5 118693+2 781293-2-972025+5 714562+2 400. 600.21		C11I1 (cr)
-846606+4 604298+5 142925+2 512533-2-389033+6 685169+2 600. 800.21		C11I1 (cr)
-846606+4 556673+5 175230+2 243731-2-108029+7 663715+2 800. 1000.21		C11I1 (cr)
1 17 1 53	JANAF 1998	4C11I1 (cr, l)
-846606+4 159393+8-215571+4 484090+1 645009+8 848498+4298.15300.5321		C11I1 (cr, l)
-846606+4 403573+5 255672+2-714836-2 126739+6 729606+2300.53 500.32		C11I1 (cr, l)
-846606+4 325020+5 275000+2-100000-1-155501-6 690482+2 500. 800.32		C11I1 (cr, l)
-846606+4 325020+5 275000+2-100000-1 158414-4 690482+2 800. 1000.32		C11I1 (cr, l)
1 17 1 53	JANAF 1998	4C11I1 (g)
418403+4 252668+5 875024+1 386965-3-328404+5 802087+2298.15 386.11		C11I1 (g)
418403+4 246403+5 888095+1 171829-3-399436+5 798909+2 386. 584.11		C11I1 (g)
418403+4 244993+5 893360+1 111785-3-459396+5 798236+2 584. 1080.11		C11I1 (g)
418403+4 244931+5 894218+1 106493-3-492851+5 798209+2 1080. 6000.11		C11I1 (g)
1 17 1 53	JANAF 1998	4C11I1 (l)
-571917+4 120888+9-164787+5 367912+2 491933+9 641310+5298.15300.5331		C11I1 (l)
-571917+4 337245+5 263173+2-845339-2 941740+5 709874+2300.53 600.31		C11I1 (l)
-571917+4 299955+5 273577+2-987368-2 264102+5 691628+2 600. 800.31		C11I1 (l)
-571917+4 297563+5 275000+2-100000-1 155187-4 690538+2 800. 1000.31		C11I1 (l)
1 17 1 19	JANAF 1998	5C11K1 (cr)
-104370+6 468609+5 113095+2 366803-2-128143+5 556810+2298.15 560.21		C11K1 (cr)
-104370+6 528195+5 883067+1 632887-2 297259+6 584901+2 560. 800.21		C11K1 (cr)
-104370+6 716706+5-421801+1 170825-1 314258+7 669656+2 800. 1010.21		C11K1 (cr)
-104370+6 537871+5 195805+2 220345-2-580442+7 593766+2 1010. 1267.21		C11K1 (cr)
-104370+6 485264+5 312048+2-389675-2-120576+8 572244+2 1267. 1500.21		C11K1 (cr)
1 17 1 19	JANAF 1998	5C11K1 (cr, l)
-104370+6 425524+5 120570+2 226768-2-422444+5 534594+2298.15 400.21		C11K1 (cr, l)
-104370+6 466350+5 113294+2 360422-2-113655+5 555631+2 400. 600.21		C11K1 (cr, l)
-104370+6 541286+5 815662+1 697360-2 403048+6 590958+2 600. 829.21		C11K1 (cr, l)
-104370+6 750043+5-717223+1 192606-1 393750+7 684308+2 829. 1044.21		C11K1 (cr, l)
-104370+6 510863+5 175901+2 000000+0-509857-6 613250+2 1044. 2000.32		C11K1 (cr, l)
1 17 1 19	JANAF 1998	4C11K1 (g)
-513100+5 251130+5 888515+1 262888-3-214086+5 782218+2298.15 431.11		C11K1 (g)
-513100+5 249026+5 893337+1 188395-3-244016+5 781161+2 431. 836.11		C11K1 (g)
-513100+5 248888+5 894201+1 180893-3-260581+5 781099+2 836. 3100.11		C11K1 (g)
-513100+5 248888+5 894278+1 180744-3-289760+5 781099+2 3100. 6000.11		C11K1 (g)
1 17 1 19	JANAF 1998	2C11K1 (l)
-100810+6 475258+5 175901+2 000000+0 341630-8 613230+2298.15 1200.31		C11K1 (l)
-100810+6 475258+5 175901+2 000000+0 126107-5 613230+2 1200. 2000.31		C11K1 (l)
1 17 1 19 4 8	JANAF 1998	5C11K1O4 (cr)
-102800+6-140276+7 299207+3-488609+0-113062+8-656213+3298.15 400.21		C11K1O4 (cr)
-102800+6 161188+6 314365+2 176184-1-861428+6 152505+3 400. 572.721		C11K1O4 (cr)
-102800+6 154584+6 340399+2 139363-1-103733+7 153365+3 572.7 945.22		C11K1O4 (cr)
-102800+6 146950+6 388415+2 975440-2-179615+7 149936+3 945. 1200.22		C11K1O4 (cr)
-102800+6 144726+6 431685+2 738930-2-394006+7 149018+3 1200. 1500.22		C11K1O4 (cr)
1 17 1 3	JANAF 1998	5C11Lil (cr)
-975779+5 460940+5 111454+2 363186-2-666043+5 493471+2298.15 410.21		C11Lil (cr)
-975779+5 502102+5 103740+2 499956-2-311853+5 514575+2 410. 720.21		C11Lil (cr)
-975779+5 500774+5 104554+2 492835-2-468373+5 513971+2 720. 1183.21		C11Lil (cr)
-975779+5 499970+5 107024+2 480907-2-194976+6 513655+2 1183. 1500.21		C11Lil (cr)
-975779+5 500757+5 104331+2 493381-2-100565+5 513968+2 1500. 2000.21		C11Lil (cr)
1 17 1 3	JANAF 1998	4C11Lil (cr, l)
-975779+5 491906+5 106166+2 463364-2-461033+5 509470+2298.15 513.21		C11Lil (cr, l)
-975779+5 501616+5 103981+2 497616-2-348369+5 514337+2 513. 883.21		C11Lil (cr, l)
-975779+5 402727+5 175648+2-227914-2-104121+5 502218+2 883. 1607.32		C11Lil (cr, l)
-975779+5 402810+5 177255+2-232672-2-227957+6 502258+2 1607. 2000.32		C11Lil (cr, l)

1 17 1 3	JANAF 1998	5Cl1Li1 (g)
-467780+5 283190+5 794435+1 156650-2-414048+5 732062+2298.15 397.11		Cl1Li1 (g)
-467780+5 255645+5 849901+1 631207-3-703022+5 718034+2 397. 525.11		Cl1Li1 (g)
-467780+5 246051+5 879817+1 251456-3-978065+5 713365+2 525. 800.11		Cl1Li1 (g)
-467780+5 244152+5 892107+1 146836-3-122899+6 712506+2 800. 1483.11		Cl1Li1 (g)
-467780+5 244090+5 894170+1 137200-3-136834+6 712481+2 1483. 6000.11		Cl1Li1 (g)
1 17 1 3	JANAF 1998	3Cl1Li1 (l)
-933927+5 490278+5 106478+2 457907-2-474461+5 554375+2298.15 588.31		Cl1Li1 (l)
-933927+5 360966+5 175453+2-226845-2-194696+4 502250+2 588. 1636.32		Cl1Li1 (l)
-933927+5 360929+5 177547+2-233711-2-261685+6 502242+2 1636. 2000.32		Cl1Li1 (l)
1 17 1 3 1 8	JANAF 1998	5Cl1Li1O1 (g)
-340010+4 509877+5 939411+1 579859-2-760513+5 981912+2298.15 410.11		Cl1Li1O1 (g)
-340010+4 410093+5 115226+2 234780-2-196018+6 931396+2 410. 600.11		Cl1Li1O1 (g)
-340010+4 367979+5 131151+2 544977-3-379895+6 911306+2 600. 879.11		Cl1Li1O1 (g)
-340010+4 360492+5 137472+2 694090-4-545311+6 908001+2 879. 1516.11		Cl1Li1O1 (g)
-340010+4 360125+5 139030+2 114504-5-665635+6 907857+2 1516. 6000.11		Cl1Li1O1 (g)
1 17 1 3 4 8	JANAF 1998	5Cl1Li1O4 (cr)
-910000+5 301940+6 396037+1 652642-1 149435+6 216310+3298.15 428.21		Cl1Li1O4 (cr)
-910000+5 160185+6 234490+2 218125-1-138407+5 142065+3 428. 600.21		Cl1Li1O4 (cr)
-910000+5 132486+6 330108+2 103896-1-988744+6 128739+3 600. 950.21		Cl1Li1O4 (cr)
-910000+5 127747+6 349138+2 823192-2-856302+6 126570+3 950. 1208.21		Cl1Li1O4 (cr)
-910000+5 128611+6 338201+2 893404-2-497986+6 126936+3 1208. 1500.21		Cl1Li1O4 (cr)
1 17 1 3 4 8	JANAF 1998	3Cl1Li1O4 (cr, l)
-910000+5 135131+6 324543+2 112960-1-955469+6 130129+3298.15 509.21		Cl1Li1O4 (cr, l)
-910000+5 109380+6 385000+2 000000+0 603735-6 128258+3 509. 704.32		Cl1Li1O4 (cr, l)
-910000+5 109380+6 385000+2 000000+0-156593-7 128258+3 704. 1500.32		Cl1Li1O4 (cr, l)
1 17 1 3 4 8	JANAF 1998	2Cl1Li1O4 (l)
-856489+5 104021+6 385000+2 000000+0-351820-7 128231+3298.15 800.31		Cl1Li1O4 (l)
-856489+5 104021+6 385000+2 000000+0-265283-6 128231+3 800. 1500.31		Cl1Li1O4 (l)
1 17 1 12	JANAF 1998	4Cl1Mg1 (g)
-104001+5 260064+5 856298+1 670702-3-390193+5 771257+2298.15 399.11		Cl1Mg1 (g)
-104001+5 247601+5 881732+1 245743-3-525172+5 764918+2 399. 583.11		Cl1Mg1 (g)
-104001+5 244746+5 892353+1 124371-3-645661+5 763554+2 583. 1059.11		Cl1Mg1 (g)
-104001+5 244606+5 894188+1 112847-3-714588+5 763495+2 1059. 6000.11		Cl1Mg1 (g)
1 17 1 12 -1 99	JANAF 1998	5Cl1Mg1+ (g)
156000+6 248991+5 883774+1 255774-3-393085+5 754765+2298.15 1256.11		Cl1Mg1+ (g)
156000+6 265802+5 525556+1 215720-2 184424+7 761660+2 1256. 1955.11		Cl1Mg1+ (g)
156000+6 268736+5 529364+1 237947-2 379533+5 762786+2 1955. 2865.11		Cl1Mg1+ (g)
156000+6 268726+5 185063+2-685573-3-363353+8 762783+2 2865. 4050.11		Cl1Mg1+ (g)
156000+6 266182+5 187409+2-852572-3-290898+8 762016+2 4050. 6000.11		Cl1Mg1+ (g)
1 17 1 7 1 8	JANAF 1998	5Cl1N1O1 (g)
123599+5 425748+5 102583+2 337140-2-539477+5 950094+2298.15 536.11		Cl1N1O1 (g)
123599+5 390193+5 114113+2 194215-2-165129+6 932863+2 536. 800.11		Cl1N1O1 (g)
123599+5 369100+5 128173+2 762414-3-460952+6 923346+2 800. 1196.11		Cl1N1O1 (g)
123599+5 365027+5 135635+2 346364-3-816510+6 921657+2 1196. 3645.11		Cl1N1O1 (g)
123599+5 364974+5 129453+2 459205-3 193276+7 921640+2 3645. 6000.11		Cl1N1O1 (g)
1 17 1 7 2 8	JANAF 1998	5Cl1N1O2 (g)
290010+4 733051+5 109675+2 987417-2-106685+6 116434+3298.15 422.11		Cl1N1O2 (g)
290010+4 608713+5 137389+2 551208-2-272409+6 110168+3 422. 603.11		Cl1N1O2 (g)
290010+4 523194+5 171269+2 177776-2-685560+6 106108+3 603. 918.11		Cl1N1O2 (g)
290010+4 500473+5 192240+2 260127-3-127879+7 105112+3 918. 1599.11		Cl1N1O2 (g)
290010+4 499322+5 198382+2 515616-5-180671+7 105068+3 1599. 6000.11		Cl1N1O2 (g)
1 17 1 11	JANAF 1998	5Cl1Na1 (cr)
-982600+5 456255+5 112504+2 343002-2-178944+5 523782+2298.15 600.21		Cl1Na1 (cr)
-982600+5 531127+5 826138+1 671033-2 349603+6 559303+2 600. 800.21		Cl1Na1 (cr)
-982600+5 586092+5 460000+1 978348-2 111943+7 584105+2 800. 1042.21		Cl1Na1 (cr)
-982600+5 577674+5 687437+1 862963-2-445667+5 580849+2 1042. 1207.21		Cl1Na1 (cr)
-982600+5 474744+5 262960+2-209321-2-948370+7 538266+2 1207. 1500.21		Cl1Na1 (cr)
1 17 1 11	JANAF 1998	5Cl1Na1 (cr, l)
-982600+5 457632+5 112222+2 347716-2-166187+5 524476+2298.15 630.21		Cl1Na1 (cr, l)
-982600+5 550889+5 722674+1 769142-2 515422+6 568406+2 630. 900.21		Cl1Na1 (cr, l)
-982600+5 606484+5 258867+1 111998-1 171468+7 592976+2 900.1073.821		Cl1Na1 (cr, l)
-982600+5 508987+5 719750+1 406117-2 614805+7 582261+21073.8 1447.32		Cl1Na1 (cr, l)
-982600+5 483498+5 159059+2 303394-4 126805+6 572123+2 1447. 2500.32		Cl1Na1 (cr, l)

1 17 1 11	JANAF 1998						4Cl1Na1 (g)
-433599+5	254302+5	877974+1	404432-3	-308796+5	760868+2298.15	404.11	Cl1Na1 (g)
-433599+5	248824+5	889376+1	216461-3	-370952+5	758088+2	404. 601.11	Cl1Na1 (g)
-433599+5	247730+5	893658+1	168948-3	-422463+5	757568+2	601. 1252.11	Cl1Na1 (g)
-433599+5	247695+5	894212+1	165696-3	-445445+5	757553+2	1252. 6000.11	Cl1Na1 (g)
1 17 1 11	JANAF 1998						5Cl1Na1 (l)
-922378+5	456255+5	112504+2	343002-2	-178944+5	578610+2298.15	600.31	Cl1Na1 (l)
-922378+5	531135+5	826103+1	671068-2	349652+6	614135+2	600. 800.31	Cl1Na1 (l)
-922378+5	295359+5	273677+2	-859710-2	-142384+7	517037+2	800. 1123.32	Cl1Na1 (l)
-922378+5	441072+5	920577+1	305733-2	497512+7	579145+2	1123. 1485.32	Cl1Na1 (l)
-922378+5	423224+5	159804+2	624333-5	270202+5	572090+2	1485. 2500.32	Cl1Na1 (l)
1 17 1 11 4 8	JANAF 1998						5Cl1Na1O4 (cr)
-914799+5	305759+6	550018+1	651887-1	147892+6	223652+3298.15	400.21	Cl1Na1O4 (cr)
-914799+5	142896+6	335502+2	123853-1	-960697+6	139479+3	400. 581.21	Cl1Na1O4 (cr)
-914799+5	153340+6	305033+2	156002-1	-562736+6	148566+3	581. 754.22	Cl1Na1O4 (cr)
-914799+5	140146+6	369018+2	928016-2	-149124+7	142443+3	754. 1208.22	Cl1Na1O4 (cr)
-914799+5	138301+6	403340+2	737610-2	-314339+7	141679+3	1208. 1500.22	Cl1Na1O4 (cr)
1 17 1 28	JANAF 1998						5Cl1Ni1 (g)
435000+5	311857+5	821947+1	203652-2	-317336+5	844778+2298.15	543.11	Cl1Ni1 (g)
435000+5	259145+5	995763+1	-964647-4	-202734+6	819276+2	543. 1440.11	Cl1Ni1 (g)
435000+5	268565+5	673641+1	139418-2	202576+7	823022+2	1440. 2892.11	Cl1Ni1 (g)
435000+5	268563+5	109961+2	411971-3	-984326+7	823022+2	2892. 3711.11	Cl1Ni1 (g)
435000+5	268956+5	146076+2	-236311-3	-264482+8	823146+2	3711. 6000.11	Cl1Ni1 (g)
1 17 1 8	JANAF 1998						5Cl1O1 (g)
241919+5	309892+5	700853+1	272213-2	-249465+5	775410+2298.15	400.11	Cl1O1 (g)
241919+5	261453+5	801620+1	106038-2	-798214+5	750823+2	400. 574.11	Cl1O1 (g)
241919+5	243508+5	866572+1	306156-3	-151183+6	742224+2	574. 862.11	Cl1O1 (g)
241919+5	240696+5	889027+1	132966-3	-207111+6	740976+2	862. 1485.11	Cl1O1 (g)
241919+5	240569+5	894007+1	110693-3	-243978+6	740926+2	1485. 6000.11	Cl1O1 (g)
1 17 1 8 1 22	JANAF 1998						5Cl1O1Ti1 (g)
-583800+5	484953+5	123871+2	343700-2	-948044+5	100347+3298.15	406.11	Cl1O1Ti1 (g)
-583800+5	417835+5	137942+2	112872-2	-172277+6	969434+2	406. 600.11	Cl1O1Ti1 (g)
-583800+5	396330+5	145957+2	213736-3	-263160+6	959162+2	600. 900.11	Cl1O1Ti1 (g)
-583800+5	393336+5	148486+2	234857-4	-329331+6	957840+2	900. 1528.11	Cl1O1Ti1 (g)
-583800+5	393213+5	149015+2	373883-6	-370551+6	957792+2	1528. 6000.11	Cl1O1Ti1 (g)
1 17 2 8	JANAF 1998						5Cl1O2 (g)
250000+5	492198+5	937051+1	542186-2	-845305+5	972657+2298.15	494.11	Cl1O2 (g)
250000+5	386316+5	123671+2	138241-2	-328844+6	920613+2	494. 850.11	Cl1O2 (g)
250000+5	367807+5	133613+2	448217-3	-473403+6	912145+2	850. 1500.11	Cl1O2 (g)
250000+5	366054+5	135730+2	299728-3	-448551+6	911426+2	1500. 1905.11	Cl1O2 (g)
250000+5	365691+5	139070+2	174946-3	-798239+6	911289+2	1905. 6000.11	Cl1O2 (g)
1 17 1 15	JANAF 1998						5Cl1P1 (g)
308317+5	260509+5	853235+1	699522-3	-394021+5	781981+2298.15	399.11	Cl1P1 (g)
308317+5	246927+5	880944+1	236461-3	-541008+5	775073+2	399. 570.11	Cl1P1 (g)
308317+5	244138+5	890929+1	119767-3	-649307+5	773735+2	570. 825.11	Cl1P1 (g)
308317+5	243771+5	893590+1	983129-4	-709948+5	773571+2	825. 1419.11	Cl1P1 (g)
308317+5	243752+5	894217+1	953717-4	-752284+5	773563+2	1419. 6000.11	Cl1P1 (g)
1 17 1 82	JANAF 1998						5Cl1Pb1 (g)
359990+4	246579+5	891204+1	147809-3	-263715+5	828512+2298.15	1167.11	Cl1Pb1 (g)
359990+4	249624+5	839340+1	444212-3	208871+6	829781+2	1167. 1744.11	Cl1Pb1 (g)
359990+4	250413+5	808909+1	584312-3	391295+6	830088+2	1744. 2685.11	Cl1Pb1 (g)
359990+4	250399+5	924997+1	296384-3	-240443+7	830084+2	2685. 3555.11	Cl1Pb1 (g)
359990+4	250450+5	101805+2	122107-3	-633490+7	830100+2	3555. 6000.11	Cl1Pb1 (g)
1 17 1 82 -1 99	JANAF 1998						5Cl1Pb1+ (g)
178200+6	248283+5	889079+1	196176-3	-223128+5	818883+2298.15	473.11	Cl1Pb1+ (g)
178200+6	246433+5	893954+1	127430-3	-259436+5	817967+2	473. 3122.11	Cl1Pb1+ (g)
178200+6	246433+5	847626+1	226309-3	148071+7	817967+2	3122. 4047.11	Cl1Pb1+ (g)
178200+6	245965+5	700277+1	468882-3	953546+7	817822+2	4047. 4919.11	Cl1Pb1+ (g)
178200+6	242690+5	496039+1	745497-3	260307+8	816858+2	4919. 6000.11	Cl1Pb1+ (g)
1 17 1 16	JANAF 1998						5Cl1S1 (g)
373960+5	225016+5	967526+1	-788705-3	-415248+5	766714+2298.15	493.11	Cl1S1 (g)
373960+5	244399+5	912898+1	-503588-4	277862+4	776246+2	493. 886.11	Cl1S1 (g)
373960+5	246523+5	894952+1	846096-4	497826+5	777184+2	886. 2947.11	Cl1S1 (g)
373960+5	246523+5	869079+1	143090-3	800022+6	777184+2	2947. 4187.11	Cl1S1 (g)
373960+5	246252+5	808280+1	239823-3	435835+7	777100+2	4187. 6000.11	Cl1S1 (g)

1 17 1 16 -1 99	JANAF 1998	5Cl1S1+(g)
253833+6 263414+5 837407+1 865099-3-458908+5 779461+2298.15 442.11		Cl1S1+(g)
253833+6 244454+5 882448+1 185563-3-752066+5 769970+2 442. 1184.11		Cl1S1+(g)
253833+6 247624+5 825974+1 503422-3 188897+6 771287+2 1184. 2405.11		Cl1S1+(g)
253833+6 247546+5 906690+1 279690-3-136751+7 771259+2 2405. 3345.11		Cl1S1+(g)
253833+6 247534+5 955899+1 171911-3-283962+7 771256+2 3345. 6000.11		Cl1S1+(g)
1 17 2 16	JANAF 1998	5Cl1S2(g)
187761+5 410039+5 128635+2 147016-2-999124+5 102803+3298.15 425.11		Cl1S2(g)
187761+5 375350+5 136425+2 250207-3-146952+6 101056+3 425. 682.11		Cl1S2(g)
187761+5 370323+5 138917+2 733605-5-185846+6 100823+3 682. 3098.11		Cl1S2(g)
187761+5 370323+5 131499+2 166948-3 218776+7 100823+3 3098. 4276.11		Cl1S2(g)
187761+5 369515+5 116597+2 399171-3 112788+8 100798+3 4276. 6000.11		Cl1S2(g)
1 17 1 14	JANAF 1998	5Cl1Si1(g)
474001+5 250241+5 873259+1 337932-3-250762+5 777522+2298.15 555.11		Cl1Si1(g)
474001+5 244386+5 893302+1 974239-4-456963+5 774701+2 555. 2837.11		Cl1Si1(g)
474001+5 244387+5 861583+1 171951-3 805465+6 774701+2 2837. 3775.11		Cl1Si1(g)
474001+5 244283+5 786389+1 304676-3 438099+7 774668+2 3775. 4747.11		Cl1Si1(g)
474001+5 243083+5 690711+1 438953-3 115778+8 774312+2 4747. 6000.11		Cl1Si1(g)
1 17 1 38	JANAF 1998	4Cl1Sr1(g)
-295999+5 246408+5 892250+1 137838-3-266927+5 810949+2298.15 2005.11		Cl1Sr1(g)
-295999+5 247109+5 762963+1 567297-3 170917+7 811207+2 2005. 2885.11		Cl1Sr1(g)
-295999+5 247110+5 542949+1 107509-2 782809+7 811208+2 2885. 5009.11		Cl1Sr1(g)
-295999+5 251152+5 769728+1 772838-3-110852+8 812393+2 5009. 6000.11		Cl1Sr1(g)
1 17 1 22	JANAF 1998	5Cl1Ti1(g)
369001+5 353923+5 881415+1 264002-2-612384+5 866791+2298.15 485.11		Cl1Ti1(g)
369001+5 277429+5 109187+2-247959-3-226819+6 829082+2 485. 1118.11		Cl1Ti1(g)
369001+5 282750+5 101185+2 229868-3 105695+6 831321+2 1118. 2396.11		Cl1Ti1(g)
369001+5 282677+5 108390+2 294901-4-127455+7 831295+2 2396. 4666.11		Cl1Ti1(g)
369001+5 282131+5 103416+2 100596-3 233299+7 831132+2 4666. 6000.11		Cl1Ti1(g)
1 17 1 74	JANAF 1998	5Cl1W1(g)
132300+6 246954+5 877760+1 251649-3-468683+5 832526+2298.15 976.11		Cl1W1(g)
132300+6 250491+5 849716+1 469530-3 177030+5 834090+2 976. 2410.11		Cl1W1(g)
132300+6 250660+5 670916+1 964091-3 347995+7 834149+2 2410. 4013.11		Cl1W1(g)
132300+6 251649+5 101330+2 395459-3-149090+8 834456+2 4013. 4859.11		Cl1W1(g)
132300+6 257970+5 144127+2-191261-3-486441+8 836323+2 4859. 6000.11		Cl1W1(g)
1 17 1 40	JANAF 1998	5Cl1Zr1(g)
490999+5 265199+5 847289+1 835511-3-315490+5 823988+2298.15 638.11		Cl1Zr1(g)
490999+5 279759+5 807669+1 138703-2-135016+5 831094+2 638. 1110.11		Cl1Zr1(g)
490999+5 269778+5 955897+1 497933-3-623870+6 826889+2 1110. 1570.11		Cl1Zr1(g)
490999+5 266866+5 109717+2-101407-3-178678+7 825754+2 1570. 3296.11		Cl1Zr1(g)
490999+5 266858+5 101216+2 705389-4 129162+7 825752+2 3296. 6000.11		Cl1Zr1(g)
2 17	JANAF 1998	5Cl2(ref)
000000+0 254705+5 854255+1 572587-3-534398+5 742632+2298.15 615.11		Cl2(ref)
000000+0 244443+5 885387+1 169515-3-774303+5 737649+2 615. 1837.11		Cl2(ref)
000000+0 245427+5 782043+1 544576-3 108495+7 738018+2 1837. 3197.11		Cl2(ref)
000000+0 245438+5 118985+2-305660-3-128142+8 738022+2 3197. 3934.11		Cl2(ref)
000000+0 246498+5 164841+2-108242-2-364895+8 738352+2 3934. 6000.11		Cl2(ref)
2 17 1 27	JANAF 1998	5Cl2Co1(cr)
-747000+5 588289+5 198234+2 126948-2-128171+6 745990+2298.15 400.21		Cl2Co1(cr)
-747000+5 596200+5 195619+2 159191-2-106962+6 749755+2 400. 600.21		Cl2Co1(cr)
-747000+5 569410+5 213530+2 745491-4-424028+6 737938+2 600. 860.21		Cl2Co1(cr)
-747000+5 584288+5 207354+2 749218-3-396377+6 744831+2 860. 1218.21		Cl2Co1(cr)
-747000+5 588497+5 199616+2 118022-2-271674+5 746575+2 1218. 1500.21		Cl2Co1(cr)
2 17 1 27	JANAF 1998	5Cl2Co1(cr,1)
-747000+5 588289+5 198234+2 126948-2-128171+6 745990+2298.15 400.21		Cl2Co1(cr,1)
-747000+5 596179+5 195624+2 159114-2-106997+6 749744+2 400. 600.21		Cl2Co1(cr,1)
-747000+5 568851+5 213805+2 475808-4-428122+6 737679+2 600. 860.21		Cl2Co1(cr,1)
-747000+5 583366+5 208386+2 680109-3-429621+6 744435+2 860. 1013.21		Cl2Co1(cr,1)
-747000+5 722915+5 237000+2 000000+0-300308-5 869471+2 1013. 2000.32		Cl2Co1(cr,1)
2 17 1 27	JANAF 1998	5Cl2Co1(g)
-224001+5 429471+5 142656+2 100726-2-279234+5 106819+3298.15 924.11		Cl2Co1(g)
-224001+5 415343+5 155790+2 597101-4-401784+6 106200+3 924. 1451.11		Cl2Co1(g)
-224001+5 413207+5 158848+2-134397-3-452559+6 106113+3 1451. 2431.11		Cl2Co1(g)
-224001+5 413289+5 149122+2 132357-3 146267+7 106116+3 2431. 4722.11		Cl2Co1(g)
-224001+5 414056+5 155506+2 422247-4-328134+7 106138+3 4722. 6000.11		Cl2Co1(g)

2 17 1 27	JANAF 1998						3Cl2Co1 (l)
-648934+5	587214+5	198417+2	123472-2	-128882+6	840452+2298.15	483.31	Cl2Co1 (l)
-648934+5	646972+5	178429+2	366969-2	630459+5	869242+2	483. 700.31	Cl2Co1 (l)
-648934+5	624850+5	237000+2	000000+0	-155182-6	869468+2	700. 2000.32	Cl2Co1 (l)
2 17 2 55	JANAF 1998						4Cl2Cs2 (g)
-157700+6	536452+5	198564+2	206074-4	-316149+5	137343+3298.15	485.11	Cl2Cs2 (g)
-157700+6	535918+5	198710+2	469868-6	-327629+5	137316+3	485. 1600.11	Cl2Cs2 (g)
-157700+6	535915+5	198715+2	125110-6	-326830+5	137316+3	1600. 3000.11	Cl2Cs2 (g)
-157700+6	535915+5	198715+2	569952-7	-308969+5	137316+3	3000. 6000.11	Cl2Cs2 (g)
2 17 1 29	JANAF 1998						5Cl2Cu1 (cr)
-492000+5	612133+5	170826+2	343583-2	-827492+5	740951+2298.15	500.21	Cl2Cu1 (cr)
-492000+5	556328+5	185175+2	137908-2	-184365+6	713265+2	500. 801.21	Cl2Cu1 (cr)
-492000+5	552077+5	187073+2	118200-2	-204855+6	711289+2	801. 1100.21	Cl2Cu1 (cr)
-492000+5	552378+5	186417+2	121683-2	-171883+6	711411+2	1100. 1300.21	Cl2Cu1 (cr)
-492000+5	551034+5	189582+2	105398-2	-348974+6	710864+2	1300. 1500.21	Cl2Cu1 (cr)
2 17 1 9 1 8 1 15	JANAF 1998						4Cl2F1O1P1 (g)
-183000+6	869303+5	191889+2	803278-2	-233625+6	141252+3298.15	449.11	Cl2F1O1P1 (g)
-183000+6	715916+5	229410+2	247955-2	-487383+6	133597+3	449. 698.11	Cl2F1O1P1 (g)
-183000+6	672088+5	252108+2	318053-3	-858160+6	131571+3	698. 1269.11	Cl2F1O1P1 (g)
-183000+6	669391+5	258114+2	361286-5	-118285+7	131460+3	1269. 6000.11	Cl2F1O1P1 (g)
2 17 1 26	JANAF 1998						5Cl2Fe1 (cr)
-817000+5	655125+5	178791+2	390505-2	-639862+5	796632+2298.15	416.21	Cl2Fe1 (cr)
-817000+5	604153+5	188391+2	220870-2	-108000+6	770518+2	416. 822.21	Cl2Fe1 (cr)
-817000+5	585505+5	200698+2	117082-2	-363075+6	762100+2	822. 1000.21	Cl2Fe1 (cr)
-817000+5	570180+5	217445+2	411967-4	-908153+6	755483+2	1000. 1407.21	Cl2Fe1 (cr)
-817000+5	567611+5	224365+2	-301343-3	-132406+7	754447+2	1407. 2000.21	Cl2Fe1 (cr)
2 17 1 26	JANAF 1998						5Cl2Fe1 (cr, l)
-817000+5	618599+5	185026+2	272354-2	-881504+5	777760+2298.15	500.21	Cl2Fe1 (cr, l)
-817000+5	604220+5	188353+2	221208-2	-107396+6	770561+2	500. 800.21	Cl2Fe1 (cr, l)
-817000+5	585676+5	200689+2	117597-2	-366412+6	762192+2	800. 950.21	Cl2Fe1 (cr, l)
-817000+5	732695+5	244199+2	000000+0	-164573-4	898153+2	950. 1128.32	Cl2Fe1 (cr, l)
-817000+5	732695+5	244199+2	000000+0	-268644-5	898153+2	1128. 2000.32	Cl2Fe1 (cr, l)
2 17 1 26	JANAF 1998						5Cl2Fe1 (g)
-337000+5	408099+5	145871+2	370363-3	-835758+5	105718+3298.15	761.11	Cl2Fe1 (g)
-337000+5	418870+5	138293+2	990625-3	819301+5	106201+3	761. 1606.11	Cl2Fe1 (g)
-337000+5	415459+5	156546+2	233400-3	-148943+7	106068+3	1606. 2208.11	Cl2Fe1 (g)
-337000+5	415001+5	174959+2	-322306-3	-448438+7	106052+3	2208. 4205.11	Cl2Fe1 (g)
-337000+5	414490+5	163853+2	-146123-3	205481+7	106036+3	4205. 6000.11	Cl2Fe1 (g)
2 17 1 26	JANAF 1998						2Cl2Fe1 (l)
-744111+5	659790+5	244199+2	000000+0	874477-8	898112+2298.15	1100.31	Cl2Fe1 (l)
-744111+5	659790+5	244199+2	000000+0	863803-7	898112+2	1100. 2000.31	Cl2Fe1 (l)
2 17 2 1 1 14	JANAF 1998						5Cl2H2Si1 (g)
-765999+5	873405+5	138971+2	113210-1	-214660+6	129982+3298.15	448.11	Cl2H2Si1 (g)
-765999+5	724708+5	175259+2	594192-2	-459314+6	122559+3	448. 711.11	Cl2H2Si1 (g)
-765999+5	652748+5	214112+2	232114-2	-112203+7	119246+3	711. 1108.11	Cl2H2Si1 (g)
-765999+5	631358+5	246035+2	409731-3	-244114+7	118346+3	1108. 1905.11	Cl2H2Si1 (g)
-765999+5	630510+5	257413+2	133107-4	-382962+7	118314+3	1905. 6000.11	Cl2H2Si1 (g)
2 17 1 80	JANAF 1998						5Cl2Hg1 (cr)
-550000+5	629328+5	174178+2	361252-2	-739073+5	840975+2298.15	509.21	Cl2Hg1 (cr)
-550000+5	631927+5	182793+2	324625-2	-248803+6	843855+2	509. 810.21	Cl2Hg1 (cr)
-550000+5	645716+5	178545+2	380351-2	-266267+6	850374+2	810. 1100.21	Cl2Hg1 (cr)
-550000+5	637250+5	189844+2	309835-2	-694834+6	846779+2	1100. 1300.21	Cl2Hg1 (cr)
-550000+5	640760+5	178340+2	363934-2	606912+5	848172+2	1300. 1500.21	Cl2Hg1 (cr)
2 17 1 80	JANAF 1998						3Cl2Hg1 (cr, l)
-550000+5	658340+5	168771+2	457612-2	-512100+5	855791+2298.15	550.21	Cl2Hg1 (cr, l)
-550000+5	690809+5	244001+2	000000+0	601482-5	956482+2	550. 703.32	Cl2Hg1 (cr, l)
-550000+5	690809+5	244001+2	000000+0	849457-7	956482+2	703. 1500.32	Cl2Hg1 (cr, l)
2 17 1 80	JANAF 1998						4Cl2Hg1 (g)
-349651+5	417136+5	144801+2	628343-3	-692428+5	105174+3298.15	399.11	Cl2Hg1 (g)
-349651+5	402836+5	147718+2	140841-3	-847056+5	104447+3	399. 583.11	Cl2Hg1 (g)
-349651+5	399811+5	148842+2	123167-4	-974436+5	104303+3	583. 1051.11	Cl2Hg1 (g)
-349651+5	399661+5	149035+2	811676-7	-104566+6	104296+3	1051. 6000.11	Cl2Hg1 (g)
2 17 1 80	JANAF 1998						2Cl2Hg1 (l)
-509613+5	659254+5	244001+2	000000+0	108576-7	956437+2298.15	800.31	Cl2Hg1 (l)
-509613+5	659254+5	244001+2	000000+0	-270502-6	956437+2	800. 1500.31	Cl2Hg1 (l)

2 17 2 80	JANAF 1998	5Cl2Hg2 (cr)
-633191+5 913588+5 231070+2 653363-2-608706+5 116680+3298.15 509.21		Cl2Hg2 (cr)
-633191+5 860875+5 245537+2 454498-2-173434+6 114081+3 509. 805.21		Cl2Hg2 (cr)
-633191+5 835330+5 262304+2 312750-2-520542+6 112927+3 805. 1100.21		Cl2Hg2 (cr)
-633191+5 818081+5 286514+2 164503-2-147673+7 112197+3 1100. 1300.21		Cl2Hg2 (cr)
-633191+5 809102+5 307777+2 552742-3-267041+7 111832+3 1300. 1500.21		Cl2Hg2 (cr)
2 17 2 19	JANAF 1998	5Cl2K2 (g)
-147620+6 539804+5 197848+2 148045-3-445975+5 130140+3298.15 370.11		Cl2K2 (g)
-147620+6 536414+5 198409+2 393924-4-467848+5 129964+3 370. 500.11		Cl2K2 (g)
-147620+6 535445+5 198683+2 245200-5-490070+5 129917+3 500. 1079.11		Cl2K2 (g)
-147620+6 535411+5 198719+2 203541-9-500821+5 129915+3 1079. 2709.11		Cl2K2 (g)
-147620+6 535411+5 198723+2-586672-7-520490+5 129915+3 2709. 6000.11		Cl2K2 (g)
2 17 2 3	JANAF 1998	5Cl2Li2 (g)
-143056+6 573715+5 187986+2 159869-2-179608+6 115712+3298.15 392.11		Cl2Li2 (g)
-143056+6 540765+5 194539+2 484221-3-213170+6 114031+3 392. 514.11		Cl2Li2 (g)
-143056+6 530834+5 197529+2 964036-4-239499+6 113546+3 514. 800.11		Cl2Li2 (g)
-143056+6 529212+5 198538+2 877233-5-259249+6 113473+3 800. 1365.11		Cl2Li2 (g)
-143056+6 529146+5 198714+2 731089-7-269904+6 113470+3 1365. 6000.11		Cl2Li2 (g)
2 17 1 12	JANAF 1998	5Cl2Mg1 (cr)
-153350+6 583749+5 182605+2 213916-2-163358+6 684512+2298.15 653.21		Cl2Mg1 (cr)
-153350+6 603225+5 172467+2 310269-2 651314+3 693499+2 653. 992.21		Cl2Mg1 (cr)
-153350+6 598162+5 178053+2 272738-2-182676+6 691315+2 992. 1303.21		Cl2Mg1 (cr)
-153350+6 595986+5 183290+2 245969-2-479525+6 690430+2 1303. 1629.21		Cl2Mg1 (cr)
-153350+6 594725+5 190492+2 216520-2-111773+7 689943+2 1629. 2000.21		Cl2Mg1 (cr)
2 17 1 12	JANAF 1998	5Cl2Mg1 (cr, l)
-153350+6 583760+5 182603+2 213952-2-163348+6 684517+2298.15 653.21		Cl2Mg1 (cr, l)
-153350+6 603284+5 172430+2 310592-2 135552+4 693526+2 653. 987.21		Cl2Mg1 (cr, l)
-153350+6 677395+5 220000+2 000000+0-157502-2 788238+2 987. 1100.32		Cl2Mg1 (cr, l)
-153350+6 677395+5 220000+2 000000+0-400834-6 788238+2 1100. 2027.32		Cl2Mg1 (cr, l)
-153350+6 677395+5 220000+2 000000+0-151101-4 788238+2 2027. 2500.32		Cl2Mg1 (cr, l)
2 17 1 12	JANAF 1998	4Cl2Mg1 (g)
-938000+5 432854+5 140439+2 124501-2-683390+5 101592+3298.15 400.11		Cl2Mg1 (g)
-938000+5 405593+5 146036+2 313703-3-982791+5 100207+3 400. 592.11		Cl2Mg1 (g)
-938000+5 398971+5 148559+2 293140-4-127712+6 998911+2 592. 1072.11		Cl2Mg1 (g)
-938000+5 398624+5 149028+2 195526-6-145715+6 998763+2 1072. 6000.11		Cl2Mg1 (g)
2 17 1 12	JANAF 1998	3Cl2Mg1 (l)
-143780+6 584220+5 182515+2 215493-2-162969+6 779997+2298.15 500.31		Cl2Mg1 (l)
-143780+6 196953+6-286652+2 588608-1 447797+7 144725+3 500. 660.31		Cl2Mg1 (l)
-143780+6 581649+5 220000+2 000000+0 000000+0 788147+2 660. 2500.32		Cl2Mg1 (l)
2 17 1 42 2 8	JANAF 1998	4Cl2Mo1O2 (g)
-151300+6 845237+5 206203+2 660017-2-197495+6 145047+3298.15 443.11		Cl2Mo1O2 (g)
-151300+6 711681+5 238208+2 179906-2-408191+6 138368+3 443. 678.11		Cl2Mo1O2 (g)
-151300+6 678551+5 254454+2 206753-3-658728+6 136828+3 678. 1219.11		Cl2Mo1O2 (g)
-151300+6 676639+5 258212+2 202882-5-846374+6 136749+3 1219. 6000.11		Cl2Mo1O2 (g)
2 17 2 11	JANAF 1998	5Cl2Na2 (g)
-135300+6 541939+5 196886+2 280854-3-837438+5 123503+3298.15 381.11		Cl2Na2 (g)
-135300+6 536037+5 198013+2 836901-4-892004+5 123201+3 381. 513.11		Cl2Na2 (g)
-135300+6 534198+5 198565+2 119491-4-940507+5 123111+3 513. 841.11		Cl2Na2 (g)
-135300+6 534000+5 198715+2 106504-6-975836+5 123102+3 841. 4459.11		Cl2Na2 (g)
-135300+6 533992+5 198685+2 424314-6-670921+5 123102+3 4459. 6000.11		Cl2Na2 (g)
2 17 1 28	JANAF 1998	5Cl2Ni1 (cr)
-728800+5 535968+5 195339+2 335461-3-223662+6 682202+2298.15 648.21		Cl2Ni1 (cr)
-728800+5 646132+5 126662+2 631404-2 103334+7 731842+2 648. 935.21		Cl2Ni1 (cr)
-728800+5 796661+5-172421+1 165730-1 522816+7 797584+2 935. 1200.21		Cl2Ni1 (cr)
-728800+5 913356+5-233892+2 285989-1 156449+8 845919+2 1200. 1504.21		Cl2Ni1 (cr)
-728800+5 987397+5-525270+2 416026-1 373159+8 875123+2 1504. 1800.21		Cl2Ni1 (cr)
2 17 1 28	JANAF 1998	5Cl2Ni1 (cr, l)
-728800+5 594449+5 184095+2 229700-2-175210+6 711939+2298.15 547.21		Cl2Ni1 (cr, l)
-728800+5 577703+5 168899+2 263150-2 224737+6 700742+2 547. 836.21		Cl2Ni1 (cr, l)
-728800+5 740409+5 477164+1 122812-1 305605+7 773404+2 836. 1113.21		Cl2Ni1 (cr, l)
-728800+5 855094+5-108752+2 219671-1 908445+7 822013+2 1113. 1304.21		Cl2Ni1 (cr, l)
-728800+5 793002+5 241840+2 000000+0-680981-5 861332+2 1304. 1800.22		Cl2Ni1 (cr, l)

2 17 1 28	JANAF 1998				5Cl2Ni1 (g)			
-176699+5	464031+5	144732+2	170450-2-979006+5	107773+3298.15	460.11	Cl2Ni1 (g)		
-176699+5	436212+5	151788+2	684487-3-147936+6	106389+3	460.	816.11	Cl2Ni1 (g)	
-176699+5	422869+5	161214+2	-848632-4-357531+6	105791+3	816.	2169.11	Cl2Ni1 (g)	
-176699+5	423023+5	155977+2	761643-4	462990+6	105796+3	2169.	4364.11	Cl2Ni1 (g)
-176699+5	423407+5	161907+2	-144038-4-330257+7	105808+3	4364.	6000.11	Cl2Ni1 (g)	
2 17 1 28	JANAF 1998				5Cl2Ni1 (l)			
-558119+5	830436+5	143831+2	992938-2-192543+5	962111+2298.15	400.31	Cl2Ni1 (l)		
-558119+5	482591+5	211220+2	-174212-2-350509+6	784268+2	400.	688.31	Cl2Ni1 (l)	
-558119+5	626656+5	139023+2	525290-2	788871+6	851080+2	688.	880.31	Cl2Ni1 (l)
-558119+5	622252+5	241840+2	000000+0-295921-5	861163+2	880.	1319.32	Cl2Ni1 (l)	
-558119+5	622252+5	241840+2	000000+0-112849-4	861163+2	1319.	1800.32	Cl2Ni1 (l)	
2 17 1 8	JANAF 1998				4Cl2O1 (g)			
210000+5	454155+5	116607+2	319342-2-105456+6	989804+2298.15	403.11	Cl2O1 (g)		
210000+5	386581+5	130636+2	876755-3-181660+6	955497+2	403.	600.11	Cl2O1 (g)	
210000+5	368266+5	137651+2	884327-4-263951+6	946772+2	600.	1075.11	Cl2O1 (g)	
210000+5	367222+5	139069+2	590378-6-318605+6	946329+2	1075.	6000.11	Cl2O1 (g)	
2 17 1 8 1 22	JANAF 1998				4Cl2O1Ti1 (g)			
-130390+6	615114+5	175121+2	326389-2-114544+6	125307+3298.15	400.11	Cl2O1Ti1 (g)		
-130390+6	549572+5	188731+2	101671-2-188482+6	121980+3	400.	598.11	Cl2O1Ti1 (g)	
-130390+6	528698+5	196848+2	112430-3-285401+6	120987+3	598.	1087.11	Cl2O1Ti1 (g)	
-130390+6	527399+5	198671+2	820804-6-357417+6	120932+3	1087.	6000.11	Cl2O1Ti1 (g)	
2 17 2 8 1 16	JANAF 1998				5Cl2O2S1 (g)			
-848000+5	908614+5	175989+2	984798-2-187510+6	140523+3298.15	400.11	Cl2O2S1 (g)		
-848000+5	766790+5	206092+2	495100-2-355748+6	133340+3	400.	592.11	Cl2O2S1 (g)	
-848000+5	683343+5	237961+2	136388-2-728407+6	129363+3	592.	900.11	Cl2O2S1 (g)	
-848000+5	665129+5	253847+2	185710-3-115625+7	128561+3	900.	1562.11	Cl2O2S1 (g)	
-848000+5	664226+5	258123+2	326436-5-150433+7	128526+3	1562.	6000.11	Cl2O2S1 (g)	
2 17 2 8 1 74	JANAF 1998				4Cl2O2W1 (cr)			
-186500+6	159791+6	173083+2	253626-1	745896+4	156528+3298.15	400.21	Cl2O2W1 (cr)	
-186500+6	152648+6	189824+2	228129-1-972043+5	152951+3	400.	600.21	Cl2O2W1 (cr)	
-186500+6	111486+6	361997+2	440540-2-231941+7	133520+3	600.	800.21	Cl2O2W1 (cr)	
-186500+6	996045+5	448373+2	-255199-2-428532+7	128204+3	800.	1000.21	Cl2O2W1 (cr)	
2 17 2 8 1 74	JANAF 1998				5Cl2O2W1 (g)			
-160500+6	862646+5	204819+2	704590-2-154862+6	150027+3298.15	409.11	Cl2O2W1 (g)		
-160500+6	735141+5	231870+2	264414-2-306212+6	143568+3	409.	600.11	Cl2O2W1 (g)	
-160500+6	686203+5	250288+2	553318-3-517655+6	141233+3	600.	900.11	Cl2O2W1 (g)	
-160500+6	678533+5	256832+2	632545-4-690467+6	140894+3	900.	1539.11	Cl2O2W1 (g)	
-160500+6	678210+5	258269+2	101404-5-803987+6	140882+3	1539.	6000.11	Cl2O2W1 (g)	
2 17 1 82	JANAF 1998				2Cl2Pb1 (cr)			
-859001+5	434678+5	217943+2	-331648-2-211973+6	726768+2298.15	400.21	Cl2Pb1 (cr)		
-859001+5	750646+5	163767+2	691499-2	181606+2	890135+2	400.	1500.21	Cl2Pb1 (cr)
2 17 1 82	JANAF 1998				5Cl2Pb1 (cr, l)			
-859001+5	434724+5	217936+2	-331506-2-211954+6	726793+2298.15	400.21	Cl2Pb1 (cr, l)		
-859001+5	750722+5	163741+2	691816-2	251660+3	890171+2	400.	774.21	Cl2Pb1 (cr, l)
-859001+5	741171+5	266501+2	000000+0	351083-3	942962+2	774.	905.32	Cl2Pb1 (cr, l)
-859001+5	741171+5	266501+2	000000+0	126525-4	942962+2	905.	1425.32	Cl2Pb1 (cr, l)
-859001+5	741171+5	266501+2	000000+0-441972-5	942962+2	1425.	2000.32	Cl2Pb1 (cr, l)	
2 17 1 82	JANAF 1998				5Cl2Pb1 (g)			
-415999+5	378926+5	137606+2	198159-3-560484+5	107781+3298.15	486.11	Cl2Pb1 (g)		
-415999+5	373787+5	139023+2	396623-5-672376+5	107528+3	486.	2531.11	Cl2Pb1 (g)	
-415999+5	373810+5	133969+2	137081-3	101203+7	107528+3	2531.	3354.11	Cl2Pb1 (g)
-415999+5	373791+5	120854+2	397692-3	593291+7	107528+3	3354.	4210.11	Cl2Pb1 (g)
-415999+5	373145+5	107076+2	615811-3	140775+8	107508+3	4210.	6000.11	Cl2Pb1 (g)
2 17 1 82	JANAF 1998				2Cl2Pb1 (l)			
-822780+5	747063+5	164600+2	678920-2-519329+4	929793+2298.15	500.31	Cl2Pb1 (l)		
-822780+5	704875+5	266501+2	000000+0	122312-6	942747+2	500.	2000.32	Cl2Pb1 (l)
2 17 1 82 -1 99	JANAF 1998				5Cl2Pb1+ (g)			
195100+6	379010+5	137503+2	208414-3-592057+5	108093+3298.15	496.11	Cl2Pb1+ (g)		
195100+6	373649+5	139032+2	330120-5-717877+5	107829+3	496.	2367.11	Cl2Pb1+ (g)	
195100+6	373670+5	137262+2	531775-4	258561+6	107830+3	2367.	3038.11	Cl2Pb1+ (g)
195100+6	373670+5	133593+2	133703-3	138687+7	107830+3	3038.	3756.11	Cl2Pb1+ (g)
195100+6	373618+5	129471+2	206886-3	332467+7	107828+3	3756.	6000.11	Cl2Pb1+ (g)



2 17 1 16	JANAF 1998						5Cl2S1 (g)
-420005+4 409452+5 128711+2 145340-2-101407+6 100363+3298.15 428.11							Cl2S1 (g)
-420005+4 374848+5 136570+2 231822-3-149597+6 986227+2 428. 702.11							Cl2S1 (g)
-420005+4 370268+5 138968+2 475930-5-189208+6 984112+2 702. 3325.11							Cl2S1 (g)
-420005+4 370263+5 134256+2 992543-4 154692+7 984111+2 3325. 4490.11							Cl2S1 (g)
-420005+4 369474+5 124627+2 242207-3 801917+7 983873+2 4490. 6000.11							Cl2S1 (g)
2 17 1 16	JANAF 1998						2Cl2S1 (l)
-119001+5 587652+5 217500+2 000000+0 685043-7 941159+2298.15 500.31							Cl2S1 (l)
-119001+5 587652+5 217500+2 000000+0 308806-7 941159+2 500. 800.31							Cl2S1 (l)
2 17 1 16 -1 99	JANAF 1998						5Cl2S1+ (g)
215460+6 407415+5 128962+2 139338-2-102794+6 101612+3298.15 442.11							Cl2S1+ (g)
215460+6 373534+5 137024+2 178364-3-155379+6 999164+2 442. 826.11							Cl2S1+ (g)
215460+6 370283+5 138807+2 130024-4-183803+6 997676+2 826. 2718.11							Cl2S1+ (g)
215460+6 370292+5 128436+2 267334-3 237121+7 997679+2 2718. 3781.11							Cl2S1+ (g)
215460+6 370036+5 110265+2 587556-3 110385+8 997598+2 3781. 6000.11							Cl2S1+ (g)
2 17 2 16	JANAF 1998						4Cl2S2 (g)
-400000+4 563483+5 190409+2 122165-2-178960+6 124445+3298.15 441.11							Cl2S2 (g)
-400000+4 552423+5 195350+2 706066-3-230827+6 123943+3 441. 800.11							Cl2S2 (g)
-400000+4 536821+5 205991+2-177066-3-459719+6 123240+3 800. 1093.11							Cl2S2 (g)
-400000+4 530955+5 214333+2-685358-3-792504+6 122992+3 1093. 1500.11							Cl2S2 (g)
2 17 2 16	JANAF 1998						2Cl2S2 (l)
-139001+5 802612+5 297060+2 000000+0 172371-7 122084+3298.15 600.31							Cl2S2 (l)
-139001+5 802612+5 297060+2 000000+0-805065-6 122084+3 600. 1000.31							Cl2S2 (l)
2 17 1 14	JANAF 1998						5Cl2Si1 (g)
-403000+5 395832+5 131513+2 981158-3-106368+6 996360+2298.15 491.11							Cl2Si1 (g)
-403000+5 370928+5 138506+2 338360-4-162819+6 984109+2 491. 1556.11							Cl2Si1 (g)
-403000+5 370633+5 138097+2 333327-4-617722+5 983985+2 1556. 3131.11							Cl2Si1 (g)
-403000+5 370632+5 123907+2 335345-3 457861+7 983985+2 3131. 4217.11							Cl2Si1 (g)
-403000+5 369536+5 100967+2 697771-3 181941+8 983650+2 4217. 6000.11							Cl2Si1 (g)
2 17 1 38	JANAF 1998						4Cl2Srl (cr)
-198100+6 708947+5 168116+2 574460-2-407135+5 815484+2298.15 480.21							Cl2Srl (cr)
-198100+6 845757+5 114413+2 117210-1 535659+6 879863+2 480. 779.21							Cl2Srl (cr)
-198100+6 128115+6-165757+2 356334-1 623340+7 107697+3 779. 1000.21							Cl2Srl (cr)
-198100+6 748134+5 294001+2 000000+0-211576-5 856051+2 1000. 2000.22							Cl2Srl (cr)
2 17 1 38	JANAF 1998						4Cl2Srl (cr, l)
-198100+6 709141+5 166265+2 585137-2-263031+5 814899+2298.15 707.21							Cl2Srl (cr, l)
-198100+6 120345+6-961169+1 305193-1 437136+7 104285+3 707. 1000.21							Cl2Srl (cr, l)
-198100+6 748127+5 294001+2 000000+0-468039-3 855984+2 1000. 1147.22							Cl2Srl (cr, l)
-198100+6 705365+5 250000+2 000000+0 277739-5 847479+2 1147. 3000.33							Cl2Srl (cr, l)
2 17 1 38	JANAF 1998						4Cl2Srl (g)
-113100+6 379824+5 137739+2 202629-3-447825+5 107679+3298.15 399.11							Cl2Srl (g)
-113100+6 375267+5 138667+2 473182-4-496987+5 107448+3 399. 576.11							Cl2Srl (g)
-113100+6 374235+5 139043+2 384001-5-538507+5 107398+3 576. 1100.11							Cl2Srl (g)
-113100+6 374187+5 139102+2 200814-7-559779+5 107396+3 1100. 6000.11							Cl2Srl (g)
2 17 1 38	JANAF 1998						3Cl2Srl (l)
-192484+6 675124+5 173573+2 466802-2-606382+5 848105+2298.15 661.31							Cl2Srl (l)
-192484+6 825667+5 133221+2 103553-1 599059+5 921406+2 661.800.0131							Cl2Srl (l)
-192484+6 649177+5 250000+2 000000+0 472493-6 847507+2800.01 3000.32							Cl2Srl (l)
2 17 1 22	JANAF 1998						2Cl2Til (cr)
-123200+6 730975+5 146244+2 754884-2-164508+5 749445+2298.15 484.21							Cl2Til (cr)
-123200+6 633624+5 160199+2 452007-2 483750+2 699042+2 484. 2000.21							Cl2Til (cr)
2 17 1 22	JANAF 1998						5Cl2Til (g)
-567000+5 402643+5 147423+2 160426-3-933052+5 100449+3298.15 1110.11							Cl2Til (g)
-567000+5 413087+5 131984+2 108801-2 540291+6 100889+3 1110. 1961.11							Cl2Til (g)
-567000+5 412663+5 147013+2 619685-3-170743+7 100874+3 1961. 2671.11							Cl2Til (g)
-567000+5 412638+5 164271+2 189194-3-581615+7 100873+3 2671. 4828.11							Cl2Til (g)
-567000+5 414377+5 176567+2 195496-4-153872+8 100924+3 4828. 6000.11							Cl2Til (g)
2 17 1 74	JANAF 1998						2Cl2W1 (cr)
-615000+5 693585+5 170375+2 523511-2 165149+3 846811+2298.15 1047.21							Cl2W1 (cr)
-615000+5 693491+5 170428+2 523010-2 804580+2 846769+2 1047. 2000.21							Cl2W1 (cr)
2 17 1 74	JANAF 1998						5Cl2W1 (g)
-300000+4 406294+5 146608+2 280828-3-772162+5 108103+3298.15 942.11							Cl2W1 (g)
-300000+4 427172+5 126290+2 171845-2 524038+6 109014+3 942. 1968.11							Cl2W1 (g)
-300000+4 424618+5 167482+2 323238-3-479535+7 108919+3 1968. 2584.11							Cl2W1 (g)
-300000+4 424491+5 209234+2-753158-3-141013+8 108915+3 2584. 4440.11							Cl2W1 (g)
-300000+4 422441+5 181659+2-338855-3 399535+7 108853+3 4440. 6000.11							Cl2W1 (g)

2	17	1	40	JANAF 1998	5Cl2Zr1 (cr)		
-103000+6	607805+5	175772+2	305095-2-100692+6	745642+2298.15	596.21	Cl2Zr1 (cr)	
-103000+6	591669+5	184588+2	223072-2-240183+6	738285+2	596. 800.21	Cl2Zr1 (cr)	
-103000+6	608841+5	175180+2	310252-2-844752+5	746160+2	800. 1000.21	Cl2Zr1 (cr)	
-103000+6	581166+5	188516+2	173884-2-542015+5	733671+2	1000. 1300.22	Cl2Zr1 (cr)	
-103000+6	558620+5	229207+2	-550292-3-190174+7	724344+2	1300. 1500.22	Cl2Zr1 (cr)	
2	17	1	40	JANAF 1998	4Cl2Zr1 (cr, l)		
-103000+6	335999+5	222200+2	-574274-2-280712+6	605214+2298.15	400.21	Cl2Zr1 (cr, l)	
-103000+6	614156+5	174090+2	328630-2-888172+5	748923+2	400. 701.21	Cl2Zr1 (cr, l)	
-103000+6	610920+5	173371+2	323553-2-359918+5	747218+2	701. 1000.21	Cl2Zr1 (cr, l)	
-103000+6	633998+5	217500+2	000000+0	197911-5	795147+2	1000. 2000.32	Cl2Zr1 (cr, l)
2	17	1	40	JANAF 1998	5Cl2Zr1 (g)		
-445000+5	403113+5	147122+2	185413-3-877449+5	103876+3298.15	1127.11	Cl2Zr1 (g)	
-445000+5	413250+5	131477+2	111095-2	574579+6	104302+3	1127. 2167.11	Cl2Zr1 (g)
-445000+5	412679+5	150766+2	517598-3-244552+7	104281+3	2167. 2749.11	Cl2Zr1 (g)	
-445000+5	412670+5	164434+2	186389-3-589389+7	104281+3	2749. 4865.11	Cl2Zr1 (g)	
-445000+5	414538+5	176994+2	143669-4-158129+8	104336+3	4865. 6000.11	Cl2Zr1 (g)	
2	17	1	40	JANAF 1998	2Cl2Zr1 (l)		
-983733+5	587652+5	217500+2	000000+0	301705-7	794923+2298.15	1000.31	Cl2Zr1 (l)
-983733+5	587652+5	217500+2	000000+0	197911-5	794923+2	1000. 2000.32	Cl2Zr1 (l)
3	17	1	27	JANAF 1998	5Cl3Co1 (g)		
-390999+5	535830+5	211457+2	-631604-3-243435+6	125610+3298.15	539.11	Cl3Co1 (g)	
-390999+5	532913+5	208148+2	-540194-3-161624+6	125403+3	539. 897.11	Cl3Co1 (g)	
-390999+5	544435+5	198170+2	202140-3	105483+6	125911+3	897. 2094.11	Cl3Co1 (g)
-390999+5	544227+5	203452+2	340480-4-667085+6	125903+3	2094. 3188.11	Cl3Co1 (g)	
-390999+5	544228+5	208385+2	-691004-4-233870+7	125903+3	3188. 6000.11	Cl3Co1 (g)	
3	17	3	29	JANAF 1998	4Cl3Cu3 (g)		
-618000+5	875744+5	312580+2	804196-3-153337+6	176119+3298.15	398.11	Cl3Cu3 (g)	
-618000+5	857001+5	316390+2	165881-3-173447+6	175166+3	398. 586.11	Cl3Cu3 (g)	
-618000+5	853438+5	317727+2	138776-4-188756+6	174996+3	586. 1061.11	Cl3Cu3 (g)	
-618000+5	853270+5	317947+2	685041-7-197012+6	174989+3	1061. 6000.11	Cl3Cu3 (g)	
3	17	1	9 1 14	JANAF 1998	4Cl3F1Si1 (g)		
-201000+6	809395+5	223954+2	472246-2-202136+6	143632+3298.15	406.11	Cl3F1Si1 (g)	
-201000+6	714874+5	243765+2	147207-2-311167+6	138838+3	406. 601.11	Cl3F1Si1 (g)	
-201000+6	684879+5	255529+2	167942-3-452999+6	137413+3	601. 1090.11	Cl3F1Si1 (g)	
-201000+6	682951+5	258260+2	126730-5-561631+6	137331+3	1090. 6000.11	Cl3F1Si1 (g)	
3	17	1	26	JANAF 1998	5Cl3Fe1 (cr)		
-954601+5	193922+6	829949+1	382861-1	301862+6	158305+3298.15	500.21	Cl3Fe1 (cr)
-954601+5	213302+6	-128365+2	535055-1	368344+7	165058+3	500. 600.21	Cl3Fe1 (cr)
-954601+5	823019+5	368304+2	-263562-2-207018+7	102584+3	600. 900.21	Cl3Fe1 (cr)	
-954601+5	812530+5	362535+2	-269256-2-156137+7	102056+3	900. 1121.21	Cl3Fe1 (cr)	
-954601+5	844814+5	322176+2	-106125-3-133206+6	103432+3	1121. 1500.21	Cl3Fe1 (cr)	
3	17	1	26	JANAF 1998	3Cl3Fe1 (cr, l)		
-954601+5	123605+6	217197+2	147560-1-272915+6	122514+3298.15	577.21	Cl3Fe1 (cr, l)	
-954601+5	952506+5	320000+2	000000+0	458621-5	121953+3	577. 700.32	Cl3Fe1 (cr, l)
-954601+5	952506+5	320000+2	000000+0	597526-6	121953+3	700. 1500.32	Cl3Fe1 (cr, l)
3	17	1	26	JANAF 1998	4Cl3Fe1 (g)		
-605000+5	547435+5	195268+2	512315-3-985318+5	128159+3298.15	400.11	Cl3Fe1 (g)	
-605000+5	535606+5	197699+2	108091-3-111557+6	127558+3	400. 588.11	Cl3Fe1 (g)	
-605000+5	533296+5	198570+2	931406-5-121596+6	127448+3	588. 1050.11	Cl3Fe1 (g)	
-605000+5	533182+5	198716+2	580636-7-126965+6	127443+3	1050. 6000.11	Cl3Fe1 (g)	
3	17	1	26	JANAF 1998	2Cl3Fe1 (l)		
-867149+5	864592+5	320000+2	000000+0	218300-7	121839+3298.15	800.31	Cl3Fe1 (l)
-867149+5	864592+5	320000+2	000000+0	123099-5	121839+3	800. 1500.31	Cl3Fe1 (l)
3	17	1	1 1 14	JANAF 1998	5Cl3H1Si1 (g)		
-118600+6	835381+5	183145+2	780043-2-231820+6	137023+3298.15	439.11	Cl3H1Si1 (g)	
-118600+6	711254+5	212488+2	335900-2-421553+6	130806+3	439. 700.11	Cl3H1Si1 (g)	
-118600+6	668387+5	234848+2	123763-2-789570+6	128826+3	700. 1107.11	Cl3H1Si1 (g)	
-118600+6	656881+5	251852+2	215886-3-148724+7	128341+3	1107. 1909.11	Cl3H1Si1 (g)	
-118600+6	656435+5	257848+2	702637-5-221923+7	128324+3	1909. 6000.11	Cl3H1Si1 (g)	
3	17	3	3	JANAF 1998	4Cl3Li3 (g)		
-240134+6	108248+6	254153+2	910943-2-333561+6	161652+3298.15	400.11	Cl3Li3 (g)	
-240134+6	888095+5	294264+2	245798-2-549638+6	151777+3	400. 593.11	Cl3Li3 (g)	
-240134+6	836608+5	313971+2	242592-3-780688+6	149324+3	593. 1071.11	Cl3Li3 (g)	
-240134+6	833740+5	317854+2	164967-5-930051+6	149202+3	1071. 6000.11	Cl3Li3 (g)	

3 17 1 8 1 15	JANAF 1998					5Cl3O1P1 (g)
-133800+6 843117+5 206211+2 655561-2-202716+6 141952+3298.15 410.11						Cl3O1P1 (g)
-133800+6 734138+5 229403+2 278967-2-333015+6 136433+3 410. 600.11						Cl3O1P1 (g)
-133800+6 685473+5 247968+2 698638-3-549714+6 134114+3 600. 897.11						Cl3O1P1 (g)
-133800+6 676060+5 256155+2 907243-4-769652+6 133700+3 897. 1552.11						Cl3O1P1 (g)
-133800+6 675611+5 258234+2 156443-5-937085+6 133682+3 1552. 6000.11						Cl3O1P1 (g)
3 17 1 15	JANAF 1998					4Cl3P1 (g)
-690000+5 593866+5 182535+2 237139-2-164668+6 122101+3298.15 400.11						Cl3P1 (g)
-690000+5 540790+5 193406+2 559543-3-222645+6 119402+3 400. 587.11						Cl3P1 (g)
-690000+5 528924+5 197873+2 525310-4-274033+6 118836+3 587. 1053.11						Cl3P1 (g)
-690000+5 528284+5 198699+2 354384-6-304646+6 118809+3 1053. 6000.11						Cl3P1 (g)
3 17 1 15 1 16	JANAF 1998					4Cl3P1S1 (g)
-910000+5 806354+5 226917+2 449159-2-227337+6 143861+3298.15 400.11						Cl3P1S1 (g)
-910000+5 710143+5 246771+2 119942-2-334305+6 138974+3 400. 593.11						Cl3P1S1 (g)
-910000+5 685030+5 256384+2 118856-3-447008+6 137777+3 593. 1073.11						Cl3P1S1 (g)
-910000+5 683627+5 258287+2 814687-6-520338+6 137718+3 1073. 6000.11						Cl3P1S1 (g)
3 17 1 14	JANAF 1998					4Cl3Si1 (g)
-933000+5 606878+5 178777+2 289019-2-163042+6 124199+3298.15 401.11						Cl3Si1 (g)
-933000+5 543243+5 191891+2 713647-3-233574+6 120966+3 401. 600.11						Cl3Si1 (g)
-933000+5 528215+5 197598+2 691759-4-299811+6 120249+3 600. 1062.11						Cl3Si1 (g)
-933000+5 527381+5 198692+2 462507-6-340947+6 120214+3 1062. 6000.11						Cl3Si1 (g)
3 17 1 22	JANAF 1998					4Cl3Ti1 (cr)
-172500+6 761386+5 223059+2 357113-2-132211+5 944753+2298.15 572.21						Cl3Ti1 (cr)
-172500+6 736635+5 228179+2 271610-2-207397+5 932368+2 572. 876.21						Cl3Ti1 (cr)
-172500+6 734399+5 229249+2 260851-2-305028+5 931341+2 876. 1228.21						Cl3Ti1 (cr)
-172500+6 733851+5 230339+2 254936-2-853842+5 931115+2 1228. 1500.21						Cl3Ti1 (cr)
3 17 1 22	JANAF 1998					5Cl3Ti1 (g)
-128900+6 623518+5 193118+2 244608-2-239857+6 125573+3298.15 428.11						Cl3Ti1 (g)
-128900+6 541586+5 211732+2-446527-3-354033+6 121453+3 428. 917.11						Cl3Ti1 (g)
-128900+6 546899+5 206900+2-946559-4-219104+6 121686+3 917. 1827.11						Cl3Ti1 (g)
-128900+6 547076+5 205097+2-288149-4-185754+5 121692+3 1827. 3624.11						Cl3Ti1 (g)
-128900+6 547087+5 206485+2-543546-4-626349+6 121693+3 3624. 6000.11						Cl3Ti1 (g)
3 17 1 40	JANAF 1998					5Cl3Zr1 (cr)
-170700+6 710071+5 249092+2 964798-3-196181+6 938738+2298.15 400.21						Cl3Zr1 (cr)
-170700+6 778516+5 237579+2 316943-2-153066+6 974184+2 400. 700.21						Cl3Zr1 (cr)
-170700+6 777089+5 239244+2 305699-2-196055+6 973605+2 700. 1000.21						Cl3Zr1 (cr)
-170700+6 758192+5 252673+2 195293-2-434920+6 965216+2 1000. 1521.21						Cl3Zr1 (cr)
-170700+6 747662+5 297247+2-610505-6-387298+7 961079+2 1521. 2000.21						Cl3Zr1 (cr)
3 17 1 40	JANAF 1998					5Cl3Zr1 (g)
-125300+6 617866+5 185631+2 268266-2-106188+6 130593+3298.15 593.11						Cl3Zr1 (g)
-125300+6 567475+5 204964+2 512255-3-333465+6 128192+3 593. 945.11						Cl3Zr1 (g)
-125300+6 556089+5 216172+2-276955-3-668364+6 127696+3 945. 2307.11						Cl3Zr1 (g)
-125300+6 556193+5 209738+2-908924-4 471399+6 127700+3 2307. 3185.11						Cl3Zr1 (g)
-125300+6 556193+5 206841+2-301893-4 144985+7 127700+3 3185. 6000.11						Cl3Zr1 (g)
4 17 2 27	JANAF 1998					5Cl4Co2 (g)
-838000+5 883527+5 311837+2 981295-3-904506+5 181766+3298.15 947.11						Cl4Co2 (g)
-838000+5 869123+5 326017+2-171491-4-514178+6 181138+3 947. 1545.11						Cl4Co2 (g)
-838000+5 867822+5 326971+2-109029-3-403081+6 181085+3 1545. 2476.11						Cl4Co2 (g)
-838000+5 867881+5 317954+2 133767-3 143936+7 181087+3 2476. 4688.11						Cl4Co2 (g)
-838000+5 868595+5 324222+2 446471-4-315249+7 181108+3 4688. 6000.11						Cl4Co2 (g)
4 17 2 26	JANAF 1998					5Cl4Fe2 (g)
-103100+6 862147+5 315155+2 331211-3-136136+6 183892+3298.15 781.11						Cl4Fe2 (g)
-103100+6 873781+5 307223+2 989721-3 339965+5 184415+3 781. 1608.11						Cl4Fe2 (g)
-103100+6 870371+5 325557+2 229928-3-154760+7 184283+3 1608. 2211.11						Cl4Fe2 (g)
-103100+6 869919+5 343881+2-322508-3-453422+7 184267+3 2211. 4204.11						Cl4Fe2 (g)
-103100+6 869407+5 332748+2-145903-3 202026+7 184251+3 4204. 6000.11						Cl4Fe2 (g)
4 17 2 12	JANAF 1998					4Cl4Mg2 (g)
-228100+6 888068+5 309231+2 128616-2-156725+6 174097+3298.15 400.11						Cl4Mg2 (g)
-228100+6 858938+5 315187+2 292321-3-188402+6 172616+3 400. 586.11						Cl4Mg2 (g)
-228100+6 852716+5 317518+2 269955-4-215088+6 172319+3 586. 1051.11						Cl4Mg2 (g)
-228100+6 852385+5 317942+2 140744-6-230695+6 172305+3 1051. 6000.11						Cl4Mg2 (g)

4 17 1 42	JANAF 1998						5Cl4Mol (cr)
-114000+6	131488+6	270173+2	131243-1	516765+4	151365+3298.15	516.21	Cl4Mol (cr)
-114000+6	131176+6	270847+2	130157-1	214297+4	151209+3	516. 700.21	Cl4Mol (cr)
-114000+6	127744+6	299964+2	108074-1	667157+6	149721+3	700. 900.21	Cl4Mol (cr)
-114000+6	118468+6	362341+2	557893-2	-190809+7	145554+3	900. 1230.21	Cl4Mol (cr)
-114000+6	115968+6	366599+2	454636-2	-630859+6	144458+3	1230. 1500.21	Cl4Mol (cr)
4 17 1 42	JANAF 1998						3Cl4Mol (cr,l)
-114000+6	131327+6	270482+2	130704-1	383981+4	151284+3298.15	590.21	Cl4Mol (cr,l)
-114000+6	979443+5	350000+2	000000+0	-407700-3	139490+3	590. 700.32	Cl4Mol (cr,l)
-114000+6	979443+5	350000+2	000000+0	-552389-6	139490+3	700. 1500.32	Cl4Mol (cr,l)
4 17 1 42	JANAF 1998						5Cl4Mol (g)
-920000+5	719932+5	250361+2	109152-2	-170103+6	148674+3298.15	458.11	Cl4Mol (g)
-920000+5	691807+5	257421+2	640254-4	-219502+6	147274+3	458. 1539.11	Cl4Mol (g)
-920000+5	693595+5	249489+2	407741-3	406358+6	147344+3	1539. 3075.11	Cl4Mol (g)
-920000+5	693595+5	261820+2	140406-3	-347974+7	147344+3	3075. 4016.11	Cl4Mol (g)
-920000+5	693915+5	272790+2	-416596-4	-938097+7	147354+3	4016. 6000.11	Cl4Mol (g)
4 17 1 42	JANAF 1998						2Cl4Mol (l)
-110621+6	945647+5	350000+2	000000+0	593626-8	139489+3298.15	800.31	Cl4Mol (l)
-110621+6	945647+5	350000+2	000000+0	-178234-5	139489+3	800. 1500.31	Cl4Mol (l)
4 17 1 8 1 74	JANAF 1998						3Cl4O1W1 (cr)
-160400+6	185707+6	274962+2	250061-1	189929+3	172346+3298.15	564.21	Cl4O1W1 (cr)
-160400+6	130095+6	481073+2	139848-2	-232073+7	145766+3	564. 800.21	Cl4O1W1 (cr)
-160400+6	132006+6	444793+2	349104-2	-107022+7	146482+3	800. 1000.21	Cl4O1W1 (cr)
4 17 1 8 1 74	JANAF 1998						3Cl4O1W1 (cr,l)
-160400+6	185689+6	274998+2	249999-1	380714+2	172337+3298.15	484.21	Cl4O1W1 (cr,l)
-160400+6	127220+6	435000+2	000000+0	945772-4	161035+3	484. 600.32	Cl4O1W1 (cr,l)
-160400+6	127220+6	435000+2	000000+0	208618-6	161035+3	600. 1000.32	Cl4O1W1 (cr,l)
4 17 1 8 1 74	JANAF 1998						5Cl4O1W1 (g)
-137068+6	105035+6	255930+2	821568-2	-237828+6	170059+3298.15	408.11	Cl4O1W1 (g)
-137068+6	899427+5	287844+2	301086-2	-415597+6	162412+3	408. 600.11	Cl4O1W1 (g)
-137068+6	843538+5	308880+2	623028-3	-657103+6	159744+3	600. 900.11	Cl4O1W1 (g)
-137068+6	834922+5	316235+2	723443-4	-851440+6	159364+3	900. 1536.11	Cl4O1W1 (g)
-137068+6	834550+5	317875+2	117022-5	-980467+6	159350+3	1536. 6000.11	Cl4O1W1 (g)
4 17 1 8 1 74	JANAF 1998						2Cl4O1W1 (l)
-150711+6	117530+6	435000+2	000000+0	241211-7	161035+3298.15	600.31	Cl4O1W1 (l)
-150711+6	117530+6	435000+2	000000+0	-360556-6	161035+3	600. 1000.31	Cl4O1W1 (l)
4 17 1 82	JANAF 1998						5Cl4Pb1 (g)
-132027+6	717692+5	252406+2	890953-3	-131354+6	151143+3298.15	390.11	Cl4Pb1 (g)
-132027+6	698869+5	256130+2	255333-3	-150289+6	150183+3	390. 524.11	Cl4Pb1 (g)
-132027+6	693603+5	257727+2	491045-4	-164460+6	149926+3	524. 800.11	Cl4Pb1 (g)
-132027+6	692776+5	258249+2	411458-5	-174865+6	149888+3	800. 1409.11	Cl4Pb1 (g)
-132027+6	692746+5	258332+2	393417-7	-179971+6	149887+3	1409. 6000.11	Cl4Pb1 (g)
4 17 1 14	JANAF 1998						5Cl4Si1 (g)
-158400+6	806529+5	227236+2	447178-2	-220844+6	142387+3298.15	402.11	Cl4Si1 (g)
-158400+6	709880+5	247192+2	116404-2	-328450+6	137478+3	402. 600.11	Cl4Si1 (g)
-158400+6	687727+5	255212+2	232663-3	-416009+6	136417+3	600. 800.11	Cl4Si1 (g)
-158400+6	684231+5	257671+2	315491-4	-470421+6	136260+3	800. 1400.11	Cl4Si1 (g)
-158400+6	684007+5	258313+2	351967-6	-510557+6	136251+3	1400. 6000.11	Cl4Si1 (g)
4 17 1 22	JANAF 1998						2Cl4Ti1 (cr)
-194796+6	168420+6	241358+2	231698-1	-846556+4	168247+3298.15	400.31	Cl4Ti1 (cr)
-194796+6	138929+6	275609+2	144788-1	-261722+3	152577+3	400. 500.31	Cl4Ti1 (cr)
4 17 1 22	JANAF 1998						3Cl4Ti1 (cr,l)
-192200+6	104000+6	336942+2	290066-2	129604+5	138743+3298.15	406.31	Cl4Ti1 (cr,l)
-192200+6	101721+6	340617+2	217482-2	955916+3	137559+3	406. 792.31	Cl4Ti1 (cr,l)
-192200+6	101746+6	340438+2	218920-2	505828+4	137570+3	792. 1000.31	Cl4Ti1 (cr,l)
4 17 1 22	JANAF 1998						4Cl4Ti1 (g)
-182400+6	756942+5	241548+2	246402-2	-181121+6	146211+3298.15	400.11	Cl4Ti1 (g)
-182400+6	701581+5	252883+2	574368-3	-241544+6	143396+3	400. 588.11	Cl4Ti1 (g)
-182400+6	689377+5	257486+2	525139-4	-294607+6	142814+3	588. 1058.11	Cl4Ti1 (g)
-182400+6	688742+5	258316+2	323727-6	-325650+6	142787+3	1058. 6000.11	Cl4Ti1 (g)
4 17 1 22	JANAF 1998						2Cl4Ti1 (l)
-192200+6	104089+6	336790+2	292948-2	135491+5	138789+3298.15	407.31	Cl4Ti1 (l)
-192200+6	101727+6	340591+2	217756-2	128401+4	137562+3	407. 1000.31	Cl4Ti1 (l)

4 17 1 74	JANAF 1998				3Cl4W1 (cr)		
-105900+6	131390+6	271212+2	130432-1-621009+3	145254+3298.15	880.21	Cl4W1 (cr)	
-105900+6	117629+6	378605+2	467131-2-261196+7	139136+3	880. 1136.21	Cl4W1 (cr)	
-105900+6	114615+6	407297+2	259570-2-327179+7	137834+3	1136. 2000.21	Cl4W1 (cr)	
4 17 1 74	JANAF 1998				5Cl4W1 (g)		
-803000+5	716902+5	251422+2	952131-3-159768+6	150356+3298.15	455.11	Cl4W1 (g)	
-803000+5	692262+5	257546+2	551458-4-202047+6	149128+3	455. 1594.11	Cl4W1 (g)	
-803000+5	693821+5	249499+2	391654-3	479584+6	149188+3	1594. 3195.11	Cl4W1 (g)
-803000+5	693824+5	261452+2	142260-3-358797+7	149189+3	3195. 4150.11	Cl4W1 (g)	
-803000+5	694260+5	272142+2	-294361-4-972733+7	149202+3	4150. 6000.11	Cl4W1 (g)	
4 17 1 40	JANAF 1998				2Cl4Zr1 (cr)		
-234350+6	950513+5	298897+2	334423-2-200822+6	120286+3298.15	700.21	Cl4Zr1 (cr)	
-234350+6	948627+5	300713+2	321309-2-244800+6	120206+3	700. 1000.21	Cl4Zr1 (cr)	
4 17 1 40	JANAF 1998				4Cl4Zr1 (g)		
-207930+6	733056+5	248121+2	151413-2-158700+6	148353+3298.15	399.11	Cl4Zr1 (g)	
-207930+6	698408+5	255200+2	332326-3-196314+6	146591+3	399. 585.11	Cl4Zr1 (g)	
-207930+6	691316+5	257854+2	300596-4-226632+6	146252+3	585. 1049.11	Cl4Zr1 (g)	
-207930+6	690947+5	258324+2	174911-6-243932+6	146236+3	1049. 6000.11	Cl4Zr1 (g)	
5 17 1 42	JANAF 1998				2Cl5Mol (cr)		
-126000+6	197707+6	295624+2	264628-1-238303+5	196618+3298.15	579.21	Cl5Mol (cr)	
-126000+6	141970+6	511166+2	237304-2-257376+7	170094+3	579. 1000.21	Cl5Mol (cr)	
5 17 1 42	JANAF 1998				3Cl5Mol (cr, l)		
-126000+6	197505+6	295982+2	263965-1-252625+5	196514+3298.15	467.21	Cl5Mol (cr, l)	
-126000+6	117558+6	420000+2	000000+0	787325-5	162412+3	467. 600.32	Cl5Mol (cr, l)
-126000+6	117558+6	420000+2	000000+0-470366-6	162412+3	600. 1200.32	Cl5Mol (cr, l)	
5 17 1 42	JANAF 1998				5Cl5Mol (g)		
-107000+6	890001+5	307052+2	151212-2-231111+6	168734+3298.15	444.11	Cl5Mol (g)	
-107000+6	852123+5	316137+2	150055-3-290992+6	166840+3	444. 1163.11	Cl5Mol (g)	
-107000+6	856708+5	308406+2	593477-3	572282+5	167031+3	1163. 2560.11	Cl5Mol (g)
-107000+6	856649+5	324729+2	168652-3-351300+7	167029+3	2560. 3734.11	Cl5Mol (g)	
-107000+6	856856+5	342225+2	-143593-3-116516+8	167035+3	3734. 6000.11	Cl5Mol (g)	
5 17 1 42	JANAF 1998				2Cl5Mol (l)		
-121920+6	113478+6	420000+2	000000+0-126393-6	162410+3298.15	700.31	Cl5Mol (l)	
-121920+6	113478+6	420000+2	000000+0-190308-5	162410+3	700. 1200.31	Cl5Mol (l)	
5 17 1 41	JANAF 1998				2Cl5Nb1 (cr)		
-190600+6	955101+5	353499+2	000000+0	206491-3	132775+3298.15	400.21	Cl5Nb1 (cr)
-190600+6	955101+5	353499+2	000000+0	412049-6	132775+3	400. 700.21	Cl5Nb1 (cr)
5 17 1 41	JANAF 1998				3Cl5Nb1 (cr, l)		
-190600+6	955101+5	353499+2	000000+0	480101-6	132775+3298.15	478.921	Cl5Nb1 (cr, l)
-190600+6	508307+5	700780+2	-317557-1-610033+6	132049+3	478.9	600.32	Cl5Nb1 (cr, l)
-190600+6	294646+5	788123+2	-412140-1-171137+7	121938+3	600. 800.32	Cl5Nb1 (cr, l)	
5 17 1 41	JANAF 1998				4Cl5Nb1 (g)		
-168100+6	912852+5	302323+2	230385-2-219399+6	171361+3298.15	400.11	Cl5Nb1 (g)	
-168100+6	860834+5	312953+2	529346-3-275920+6	168716+3	400. 585.11	Cl5Nb1 (g)	
-168100+6	849545+5	317174+2	483825-4-324086+6	168176+3	585. 1051.11	Cl5Nb1 (g)	
-168100+6	848952+5	317933+2	304330-6-352081+6	168151+3	1051. 6000.11	Cl5Nb1 (g)	
5 17 1 41	JANAF 1998				3Cl5Nb1 (l)		
-184836+6	955101+5	353499+2	000000+0	106967-2	143988+3298.15	350.31	Cl5Nb1 (l)
-184836+6	559184+5	667266+2	-274734-1-313912+6	137330+3	350. 575.32	Cl5Nb1 (l)	
-184836+6	257202+5	777113+2	-401917-1-152788+7	122867+3	575. 800.32	Cl5Nb1 (l)	
5 17 1 15	JANAF 1998				4Cl5P1 (g)		
-860860+5	957737+5	289558+2	414446-2-306637+6	163383+3298.15	400.11	Cl5P1 (g)	
-860860+5	865460+5	308491+2	992626-3-407857+6	158692+3	400. 590.11	Cl5P1 (g)	
-860860+5	844430+5	316463+2	914458-4-500287+6	157689+3	590. 1064.11	Cl5P1 (g)	
-860860+5	843335+5	317916+2	592794-6-555285+6	157643+3	1064. 6000.11	Cl5P1 (g)	
5 17 1 73	JANAF 1998				2Cl5Tal (cr)		
-205300+6	955101+5	353499+2	000000+0	631083-4	134615+3298.15	400.21	Cl5Tal (cr)
-205300+6	955101+5	353499+2	000000+0	129362-6	134615+3	400. 700.21	Cl5Tal (cr)
5 17 1 73	JANAF 1998				3Cl5Tal (cr, l)		
-205300+6	955101+5	353499+2	000000+0	193722-6	134615+3298.15	489.721	Cl5Tal (cr, l)
-205300+6	482820+5	709824+2	-328489-1-699476+6	132474+3	489.7	600.32	Cl5Tal (cr, l)
-205300+6	295872+5	788123+2	-412140-1-171137+7	123651+3	600. 800.32	Cl5Tal (cr, l)	

5 17 1 73	JANAF 1998					4Cl5Tal (g)
-182800+6	903738+5	304801+2	194164-2	-208521+6	173133+3298.15	400.11 Cl5Tal (g)
-182800+6	859618+5	313836+2	435578-3	-256695+6	170890+3	400. 587.11 Cl5Tal (g)
-182800+6	850300+5	317342+2	375438-4	-296992+6	170445+3	587. 1062.11 Cl5Tal (g)
-182800+6	849848+5	317937+2	235378-6	-319418+6	170426+3	1062. 6000.11 Cl5Tal (g)
5 17 1 73	JANAF 1998					3Cl5Tal (l)
-199414+6	955101+5	353499+2	000000+0	106967-2	145701+3298.15	350.31 Cl5Tal (l)
-199414+6	558032+5	667654+2	-275208-1	-317026+6	138988+3	350. 575.32 Cl5Tal (l)
-199414+6	258245+5	776546+2	-401390-1	-151843+7	124628+3	575. 800.32 Cl5Tal (l)
5 17 1 74	JANAF 1998					5Cl5W1 (cr)
-122600+6	193209+6	303630+2	249884-1	-544591+5	189313+3298.15	460.21 Cl5W1 (cr)
-122600+6	180104+6	353627+2	193285-1	-561481+6	183142+3	460. 600.21 Cl5W1 (cr)
-122600+6	149766+6	470163+2	625488-2	-193289+7	168692+3	600. 803.21 Cl5W1 (cr)
-122600+6	140516+6	523799+2	142961-2	-289295+7	164469+3	803. 1207.21 Cl5W1 (cr)
-122600+6	136995+6	573642+2	-162557-2	-478205+7	162986+3	1207. 1500.21 Cl5W1 (cr)
5 17 1 74	JANAF 1998					3Cl5W1 (cr, l)
-122600+6	201350+6	289723+2	276224-1	-533776+3	193519+3298.15	526.21 Cl5W1 (cr, l)
-122600+6	121730+6	435000+2	000000+0	530319-5	159824+3	526. 753.32 Cl5W1 (cr, l)
-122600+6	121730+6	435000+2	000000+0	283342-5	159824+3	753. 1500.32 Cl5W1 (cr, l)
5 17 1 74	JANAF 1998					5Cl5W1 (g)
-985999+5	887327+5	307935+2	139085-2	-219742+6	170566+3298.15	443.11 Cl5W1 (g)
-985999+5	852582+5	316242+2	142838-3	-274258+6	168828+3	443. 1158.11 Cl5W1 (g)
-985999+5	857267+5	308435+2	592393-3	745459+5	169023+3	1158. 2566.11 Cl5W1 (g)
-985999+5	857209+5	324852+2	166082-3	-353232+7	169021+3	2566. 3739.11 Cl5W1 (g)
-985999+5	857419+5	342235+2	-143703-3	-116409+8	169028+3	3739. 6000.11 Cl5W1 (g)
5 17 1 74	JANAF 1998					2Cl5W1 (l)
-118400+6	117530+6	435000+2	000000+0	126924-6	159824+3298.15	800.31 Cl5W1 (l)
-118400+6	117530+6	435000+2	000000+0	171929-5	159824+3	800. 1500.31 Cl5W1 (l)
6 17 2 26	JANAF 1998					4Cl6Fe2 (g)
-156400+6	119496+6	432387+2	716832-3	-172994+6	229107+3298.15	400.11 Cl6Fe2 (g)
-156400+6	117821+6	435810+2	145507-3	-191199+6	228255+3	400. 586.11 Cl6Fe2 (g)
-156400+6	117511+6	436973+2	132757-4	-204502+6	228107+3	586. 1036.11 Cl6Fe2 (g)
-156400+6	117495+6	437178+2	666668-7	-211859+6	228100+3	1036. 6000.11 Cl6Fe2 (g)
6 17 1 42	JANAF 1998					5Cl6Mo1 (cr)
-125000+6	187509+6	422811+2	167693-1	-478198+6	201262+3298.15	455.21 Cl6Mo1 (cr)
-125000+6	137217+6	672704+2	-792821-2	-332519+7	178821+3	455. 770.21 Cl6Mo1 (cr)
-125000+6	144559+6	608314+2	-314042-2	-169327+7	182026+3	770. 1000.21 Cl6Mo1 (cr)
-125000+6	150554+6	550651+2	964531-3	-319767+5	184640+3	1000. 1260.21 Cl6Mo1 (cr)
-125000+6	148772+6	590773+2	-112871-2	-221437+7	183912+3	1260. 1500.21 Cl6Mo1 (cr)
6 17 1 42	JANAF 1998					5Cl6Mo1 (g)
-105000+6	105557+6	366770+2	161365-2	-241035+6	187970+3298.15	392.11 Cl6Mo1 (g)
-105000+6	102174+6	373503+2	469075-3	-275548+6	186245+3	392. 517.11 Cl6Mo1 (g)
-105000+6	101210+6	376433+2	912869-4	-301679+6	185774+3	517. 800.11 Cl6Mo1 (g)
-105000+6	101056+6	377417+2	699593-5	-321445+6	185705+3	800. 1400.11 Cl6Mo1 (g)
-105000+6	101051+6	377562+2	771268-7	-330893+6	185703+3	1400. 6000.11 Cl6Mo1 (g)
6 17 1 74	JANAF 1998					4Cl6W1 (cr)_01
-141900+6	259275+6	300005+2	399992-1	-270088+2	234336+3298.15	450.21 Cl6W1 (cr)_01
-141900+6	196843+6	469203+2	163145-1	-126805+7	205201+3	450. 562.22 Cl6W1 (cr)_01
-141900+6	137766+6	675397+2	-814562-2	-343879+7	176786+3	562. 800.22 Cl6W1 (cr)_01
-141900+6	141570+6	644581+2	-578072-2	-267737+7	178468+3	800. 1000.22 Cl6W1 (cr)_01
6 17 1 74	JANAF 1998					2Cl6W1 (cr)_02
-136921+6	121583+6	450000+2	000000+0	580989-7	170961+3298.15	800.21 Cl6W1 (cr)_02
-136921+6	121583+6	450000+2	000000+0	128836-5	170961+3	800. 1500.21 Cl6W1 (cr)_02
6 17 1 74	JANAF 1998					4Cl6W1 (cr, l)
-141900+6	259275+6	300005+2	399992-1	-270088+2	234336+3298.15	450.21 Cl6W1 (cr, l)
-141900+6	260167+6	300293+2	399589-1	-219026+4	236505+3	450. 503.22 Cl6W1 (cr, l)
-141900+6	126563+6	450000+2	000000+0	519741-3	170961+3	503. 555.23 Cl6W1 (cr, l)
-141900+6	135498+6	480000+2	000000+0	312503-6	178906+3	555. 1500.34 Cl6W1 (cr, l)
6 17 1 74	JANAF 1998					4Cl6W1 (g)
-118000+6	105386+6	367085+2	155977-2	-246333+6	187751+3298.15	399.11 Cl6W1 (g)
-118000+6	101797+6	374418+2	335346-3	-285298+6	185925+3	399. 584.11 Cl6W1 (g)
-118000+6	101076+6	377107+2	285188-4	-315891+6	185581+3	584. 1056.11 Cl6W1 (g)
-118000+6	101041+6	377556+2	176234-6	-332639+6	185566+3	1056. 6000.11 Cl6W1 (g)

6 17 1 74	JANAF 1998						2C16W1 (1)
-136091+6	129689+6	480000+2	000000+0	203471-7	178906+3298.15	800.31	C16W1 (1)
-136091+6	129689+6	480000+2	000000+0	805307-6	178906+3	800. 1500.31	C16W1 (1)
1 27	JANAF 1998						8Co1 (cr)
000000+0	310865+5	467357+1	414179-2	173079+4	291765+2298.15	471.21	Co1 (cr)
000000+0	278313+5	540861+1	299420-2	-414215+5	275403+2	471. 700.121	Co1 (cr)
000000+0	361577+5	124472+1	702046-2	564441+6	314798+2	700.1 969.22	Co1 (cr)
000000+0	425508+5	-555993+1	116597-1	273274+7	342463+2	969. 1200.22	Co1 (cr)
000000+0	602904+5	-337554+2	281860-1	147768+8	416712+2	1200. 1394.22	Co1 (cr)
000000+0	125564+6	-426293+3	190057+0	339092+9	662113+2	1394. 1500.23	Co1 (cr)
000000+0	276675+5	-166546+2	100015-1	250929+8	277345+2	1500. 1768.23	Co1 (cr)
000000+0	240997+5	770159+1	390760-3	207310+7	263694+2	1768. 2500.23	Co1 (cr)
1 27	JANAF 1998						8Co1 (cr, l)
000000+0	310865+5	467357+1	414179-2	173079+4	291765+2298.15	471.21	Co1 (cr, l)
000000+0	278313+5	540861+1	299420-2	-414215+5	275403+2	471. 700.121	Co1 (cr, l)
000000+0	361577+5	124472+1	702046-2	564441+6	314798+2	700.1 969.22	Co1 (cr, l)
000000+0	425508+5	-555993+1	116597-1	273274+7	342463+2	969. 1200.22	Co1 (cr, l)
000000+0	602904+5	-337554+2	281860-1	147768+8	416712+2	1200. 1394.22	Co1 (cr, l)
000000+0	125192+6	-424861+3	189414+0	338040+9	660645+2	1394. 1500.23	Co1 (cr, l)
000000+0	280861+5	-187706+2	108927-1	268475+8	278970+2	1500. 1768.23	Co1 (cr, l)
000000+0	287782+5	967997+1	000000+0	281364-5	289069+2	1768. 4000.34	Co1 (cr, l)
1 27	JANAF 1998						5Co1 (g)
101978+6	206383+5	564299+1	124098-2	-455280+5	590074+2298.15	546.11	Co1 (g)
101978+6	171635+5	621078+1	117428-3	-319126+5	572397+2	546. 1654.11	Co1 (g)
101978+6	169715+5	667996+1	-132127-3	-186246+6	571635+2	1654. 2868.11	Co1 (g)
101978+6	169717+5	432953+1	414070-3	626201+7	571636+2	2868. 4015.11	Co1 (g)
101978+6	168856+5	139334+1	901023-3	220770+8	571369+2	4015. 6000.11	Co1 (g)
1 27 1 99	JANAF 1998						5Co1- (g)
852412+5	208552+5	526785+1	150772-2	-315940+5	586753+2298.15	455.11	Co1- (g)
852412+5	136720+5	705575+1	-110864-2	-155282+6	550969+2	455. 1002.11	Co1- (g)
852412+5	146169+5	599037+1	-399024-3	200476+6	555038+2	1002. 1501.11	Co1- (g)
852412+5	147996+5	526503+1	-760447-4	742439+6	555758+2	1501. 2445.11	Co1- (g)
852412+5	148017+5	500425+1	-473282-5	125907+7	555766+2	2445. 6000.11	Co1- (g)
1 27	JANAF 1998						6Co1 (l)
430306+4	306413+5	474308+1	400126-2	-543883+3	315577+2298.15	406.31	Co1 (l)
430306+4	278046+5	543402+1	297522-2	-457694+5	301434+2	406. 652.31	Co1 (l)
430306+4	370325+5	307912+0	769060-2	826408+6	343684+2	652. 900.31	Co1 (l)
430306+4	395218+5	-197581+1	934776-2	146816+7	354593+2	900. 1100.31	Co1 (l)
430306+4	248374+5	906667+1	407123-3	677909+4	290284+2	1100. 1499.32	Co1 (l)
430306+4	243810+5	968000+1	-744616-8	-730778+2	288417+2	1499. 4000.32	Co1 (l)
1 27 -1 99	JANAF 1998						6Co1+ (g)
284799+6	186140+5	567427+1	772360-3	-524075+5	574951+2298.15	1257.11	Co1+ (g)
284799+6	241530+5	-607990+1	701965-2	611189+7	597675+2	1257. 1599.11	Co1+ (g)
284799+6	332094+5	-527877+2	265582-1	456546+8	632869+2	1599. 2381.11	Co1+ (g)
284799+6	310402+5	154200+3	-311516-1	-348809+9	625220+2	2381. 3365.11	Co1+ (g)
284799+6	308285+5	283899+1	-101934-2	216966+9	624534+2	3365. 4252.11	Co1+ (g)
284799+6	312996+5	-133748+2	195621-2	281361+9	625864+2	4252. 6000.11	Co1+ (g)
1 27 2 9	JANAF 1998						3Co1F2 (cr)
-160500+6	553243+5	198119+2	615864-3	-313996+6	652611+2298.15	801.21	Co1F2 (cr)
-160500+6	553323+5	198104+2	618654-3	-314460+6	652649+2	801. 1400.21	Co1F2 (cr)
-160500+6	553308+5	198206+2	614550-3	-323025+6	652644+2	1400. 2000.22	Co1F2 (cr)
1 27 2 9	JANAF 1998						5Co1F2 (cr, l)
-160500+6	963806+5	128008+2	138977-1	-422074+5	864735+2298.15	400.21	Co1F2 (cr, l)
-160500+6	553255+5	198076+2	620628-3	-313559+6	652381+2	400. 1001.21	Co1F2 (cr, l)
-160500+6	553288+5	197988+2	625156-3	-309214+6	652393+2	1001. 1400.21	Co1F2 (cr, l)
-160500+6	756258+5	250000+2	000000+0	187315-3	783062+2	1400. 1600.32	Co1F2 (cr, l)
-160500+6	756258+5	250000+2	000000+0	749302-5	783062+2	1600. 3000.32	Co1F2 (cr, l)
1 27 2 9	JANAF 1998						5Co1F2 (g)
-852000+5	420458+5	124648+2	192628-2	-711381+5	100014+3298.15	436.11	Co1F2 (g)
-852000+5	382919+5	133395+2	589628-3	-126631+6	981313+2	436. 1271.11	Co1F2 (g)
-852000+5	380024+5	139828+2	252658-3	-473857+6	980129+2	1271. 1890.11	Co1F2 (g)
-852000+5	379502+5	146370+2	221462-4	-125459+7	979934+2	1890. 2832.11	Co1F2 (g)
-852000+5	379501+5	151717+2	-103693-3	-268513+7	979933+2	2832. 6000.11	Co1F2 (g)

1 27 2 9	JANAF 1998				2Co1F2 (l)
-152412+6 675463+5 250000+2 000000+0 178623-7 783306+2298.15 1400.31					Co1F2 (l)
-152412+6 675462+5 250000+2 000000+0 377491-5 783306+2 1400. 3000.32					Co1F2 (l)
1 27 3 9	JANAF 1998				5Co1F3 (cr)
-188900+6 634131+5 254576+2-101505-2-280369+6 770717+2298.15 500.21					Co1F3 (cr)
-188900+6 701179+5 228461+2 189987-2 815264+4 802408+2 500. 770.21					Co1F3 (cr)
-188900+6 728156+5 209454+2 345410-2 425485+6 814507+2 770. 1000.21					Co1F3 (cr)
-188900+6 727850+5 210701+2 339505-2 359835+6 814404+2 1000. 1200.21					Co1F3 (cr)
-188900+6 729783+5 210195+2 348005-2 285789+6 815254+2 1200. 2000.21					Co1F3 (cr)
1 27 1 8	JANAF 1998				5Co1O1 (cr)
-568200+5 599535+5 735352+1 880435-2 283763+6 550116+2298.15 519.21					Co1O1 (cr)
-568200+5 379980+5 119717+2 121699-2 100506+6 439598+2 519. 800.21					Co1O1 (cr)
-568200+5 412995+5 970997+1 309009-2 588986+6 454456+2 800. 1087.21					Co1O1 (cr)
-568200+5 423292+5 826060+1 397663-2 116287+7 458812+2 1087. 1500.21					Co1O1 (cr)
-568200+5 424920+5 744965+1 431932-2 183092+7 459444+2 1500. 3000.21					Co1O1 (cr)
1 27 4 8 1 16	JANAF 1998				5Co1O4S1 (cr)
-212300+6 110204+6 294692+2 728391-2-619635+6 112321+3298.15 432.21					Co1O4S1 (cr)
-212300+6 115096+6 331972+2 650623-2-125266+7 115887+3 432. 718.21					Co1O4S1 (cr)
-212300+6 100540+6 410828+2-829579-3-260258+7 109188+3 718. 964.21					Co1O4S1 (cr)
-212300+6 107319+6 363735+2 290516-2-148619+7 112513+3 964. 1297.22					Co1O4S1 (cr)
-212300+6 107142+6 365841+2 276445-2-153354+7 112439+3 1297. 2000.22					Co1O4S1 (cr)
3 27 4 8	JANAF 1998				5Co3O4 (cr)
-217500+6 167703+6 292883+2 202349-1-525489+6 146680+3298.15 427.21					Co3O4 (cr)
-217500+6 185206+6 203311+2 289990-1 425345+6 154322+3 427. 700.21					Co3O4 (cr)
-217500+6 193292+6 162450+2 329408-1 107553+7 158069+3 700. 1000.21					Co3O4 (cr)
-217500+6 194528+6 149953+2 338116-1 145434+7 158606+3 1000. 1204.21					Co3O4 (cr)
-217500+6 194801+6 144787+2 340966-1 170580+7 158719+3 1204. 1500.21					Co3O4 (cr)
1 24	JANAF 1998				5Cr1 (cr)
000000+0 376808+4 813762+1-400809-2-119272+6 129392+2298.15 311.521					Cr1 (cr)
000000+0 254794+5 522175+1 257609-2-355112+5 244641+2 311.5 550.22					Cr1 (cr)
000000+0 236472+5 540961+1 203776-2-277326+4 235162+2 550. 805.22					Cr1 (cr)
000000+0 293371+5 151811+1 526310-2 836484+6 260774+2 805. 1200.22					Cr1 (cr)
000000+0 298463+5 720023+0 573331-2 117321+7 262907+2 1200. 2800.22					Cr1 (cr)
1 24	JANAF 1998				5Cr1 (cr,l)
000000+0 376808+4 813762+1-400809-2-119272+6 129392+2298.15 311.521					Cr1 (cr,l)
000000+0 242110+5 547257+1 214728-2-472872+5 238193+2 311.5 658.22					Cr1 (cr,l)
000000+0 274966+5 307990+1 408878-2 435538+6 252670+2 658. 936.22					Cr1 (cr,l)
000000+0 298300+5 824637+0 568914-2 109903+7 262851+2 936. 2130.22					Cr1 (cr,l)
000000+0 293455+5 940010+1 000000+0-516461-6 265130+2 2130. 3500.33					Cr1 (cr,l)
1 24	JANAF 1998				5Cr1 (g)
950000+5 136277+5 490735+1 803069-4 363579+4 532024+2298.15 1164.11					Cr1 (g)
950000+5 153607+5 196655+1 176317-2 133408+7 539249+2 1164. 2076.11					Cr1 (g)
950000+5 153968+5 513249+1 913255-3-470617+7 539400+2 2076. 3807.11					Cr1 (g)
950000+5 152151+5-686188+1 301567-2 531288+8 538830+2 3807. 5311.11					Cr1 (g)
950000+5 124230+5-239670+2 529679-2 193883+9 530566+2 5311. 6000.11					Cr1 (g)
1 24 1 99	JANAF 1998				2Cr1- (g)
781606+5 134227+5 496797+1 000000+0-105622-7 527989+2298.15 3000.11					Cr1- (g)
781606+5 134227+5 496797+1 000000+0-892115-5 527989+2 3000. 6000.11					Cr1- (g)
1 24	JANAF 1998				5Cr1 (l)
623040+4 274882+5 485976+1 323593-2-198702+5 285056+2298.15 410.31					Cr1 (l)
623040+4 231284+5 578956+1 172830-2-722623+5 262984+2 410. 666.31					Cr1 (l)
623040+4 267360+5 356798+1 367120-2 339184+6 279304+2 666. 900.31					Cr1 (l)
623040+4 296853+5 107276+1 554682-2 992988+6 292323+2 900. 1350.31					Cr1 (l)
623040+4 231147+5 940010+1 000000+0-171032-5 265123+2 1350. 3500.32					Cr1 (l)
1 24 -1 99	JANAF 1998				5Cr1+ (g)
252505+6 134448+5 495940+1 974623-5 585947+3 528085+2298.15 1476.11					Cr1+ (g)
252505+6 137796+5 369865+1 578706-3 917684+6 529409+2 1476. 2040.11					Cr1+ (g)
252505+6 139360+5 416369+0 164970-2 548484+7 529982+2 2040. 2670.11					Cr1+ (g)
252505+6 139411+5-309142+1 252488-2 138332+8 530000+2 2670. 4642.11					Cr1+ (g)
252505+6 136033+5-382033+1 258237-2 237900+8 529016+2 4642. 6000.11					Cr1+ (g)
1 24 1 7	JANAF 1998				5Cr1N1 (cr)
-280000+5-178875+5 189686+2-154007-1-171837+6 102399+2298.15 402.21					Cr1N1 (cr)
-280000+5 368069+5 112203+2 145436-2-146672+5 389335+2 402. 798.21					Cr1N1 (cr)
-280000+5 370872+5 111010+2 158173-2-343525+4 390642+2 798. 1646.21					Cr1N1 (cr)
-280000+5 372769+5 979007+1 209712-2 124993+7 391368+2 1646. 2000.21					Cr1N1 (cr)
-280000+5 371436+5 911088+1 217691-2 332832+7 390855+2 2000. 2500.21					Cr1N1 (cr)



1 24 1 7	JANAF 1998		5Cr1N1 (g)
120700+6 292148+5 695367+1 235884-2-274545+5 773521+2298.15 517.11			Cr1N1 (g)
120700+6 239823+5 855581+1 302209-3-171487+6 748011+2 517. 1244.11			Cr1N1 (g)
120700+6 237396+5 860997+1 196393-3-515901+5 746951+2 1244. 2540.11			Cr1N1 (g)
120700+6 237477+5 666903+1 705549-3 412701+7 746979+2 2540. 4768.11			Cr1N1 (g)
120700+6 241210+5 957638+1 298868-3-178859+8 748087+2 4768. 6000.11			Cr1N1 (g)
1 24 1 8	JANAF 1998		5Cr1O1 (g)
450000+5 299174+5 708910+1 243571-2-293636+5 799448+2298.15 452.11			Cr1O1 (g)
450000+5 249018+5 832610+1 614683-3-113924+6 774438+2 452. 733.11			Cr1O1 (g)
450000+5 239403+5 887293+1 118449-3-212294+6 770034+2 733. 2550.11			Cr1O1 (g)
450000+5 239431+5 816574+1 303298-3 132113+7 770043+2 2550. 4144.11			Cr1O1 (g)
450000+5 239879+5 845474+1 270284-3-129233+7 770178+2 4144. 6000.11			Cr1O1 (g)
1 24 2 8	JANAF 1998		4Cr1O2 (g)
-180000+5 502549+5 931592+1 566836-2-566077+5 100832+3298.15 449.11			Cr1O2 (g)
-180000+5 391989+5 120175+2 166716-2-239058+6 953138+2 449. 686.11			Cr1O2 (g)
-180000+5 361723+5 135363+2 196659-3-479078+6 939104+2 686. 1234.11			Cr1O2 (g)
-180000+5 359953+5 138982+2 199958-5-664481+6 938376+2 1234. 6000.11			Cr1O2 (g)
1 24 3 8	JANAF 1998		5Cr1O3 (g)
-700000+5 786007+5 121015+2 104122-1-161458+6 118764+3298.15 400.11			Cr1O3 (g)
-700000+5 602793+5 158924+2 413759-2-366427+6 109460+3 400. 555.11			Cr1O3 (g)
-700000+5 528994+5 184036+2 111337-2-622948+6 105901+3 555. 800.11			Cr1O3 (g)
-700000+5 511736+5 195730+2 139849-3-872902+6 105123+3 800. 1396.11			Cr1O3 (g)
-700000+5 510775+5 198609+2 175110-5-105831+7 105085+3 1396. 6000.11			Cr1O3 (g)
2 24 1 7	JANAF 1998		5Cr2N1 (cr)
-300000+5 996356+5 116799+2 153069-1-404988+5 835976+2298.15 414.21			Cr2N1 (cr)
-300000+5 700724+5 149944+2 664611-2 596141+4 678981+2 414. 700.21			Cr2N1 (cr)
-300000+5 699112+5 150374+2 658500-2 583998+4 678200+2 700. 1670.21			Cr2N1 (cr)
-300000+5 678889+5 305519+2 608930-3-154291+8 670504+2 1670. 1901.21			Cr2N1 (cr)
-300000+5 693469+5 199355+2 479527-2-582300+7 676030+2 1901. 2500.21			Cr2N1 (cr)
2 24 3 8	JANAF 1998		5Cr2O3 (cr)
-271200+6 384862+7-446078+3 112590+1 123704+8 210040+4298.15 305.21			Cr2O3 (cr)
-271200+6 232099+6-704528+1 550700-1 191156+7 162542+3 305. 500.22			Cr2O3 (cr)
-271200+6 859254+5 285279+2 220181-2-373204+6 896677+2 500. 1120.22			Cr2O3 (cr)
-271200+6 859357+5 284961+2 221727-2-355077+6 896717+2 1120. 1707.22			Cr2O3 (cr)
-271200+6 860664+5 301975+2 175986-2-303752+7 897284+2 1707. 3000.22			Cr2O3 (cr)
2 24 3 8	JANAF 1998		5Cr2O3 (cr, l)
-271200+6 384862+7-446078+3 112590+1 123704+8 210040+4298.15 305.21			Cr2O3 (cr, l)
-271200+6 232094+6-704444+1 550684-1 191153+7 162540+3 305. 500.22			Cr2O3 (cr, l)
-271200+6 859216+5 285302+2 219973-2-373543+6 896660+2 500. 1765.22			Cr2O3 (cr, l)
-271200+6 860340+5 317876+2 126979-2-540810+7 897171+2 1765. 2603.22			Cr2O3 (cr, l)
-271200+6 118165+6 375000+2 000000+0-130213-3 102032+3 2603. 4500.33			Cr2O3 (cr, l)
2 24 3 8	JANAF 1998		5Cr2O3 (l)
-243399+6 120878+6 232536+2 132017-1-255083+6 117954+3298.15 418.31			Cr2O3 (l)
-243399+6 857153+5 285280+2 220193-2-373284+6 996158+2 418. 901.31			Cr2O3 (l)
-243399+6 857444+5 284891+2 222639-2-359582+6 996280+2 901. 1200.31			Cr2O3 (l)
-243399+6 857154+5 285134+2 220745-2-361786+6 996155+2 1200. 1800.31			Cr2O3 (l)
-243399+6 902223+5 375000+2 000000+0 138980-5 101593+3 1800. 4500.32			Cr2O3 (l)
1 55	JANAF 1998		4Cs1 (cr)
000000+0 912841+4 126147+2-540182-2-293464+6 332458+2298.15 400.21			Cs1 (cr)
000000+0 208892+5 103695+2-147315-2-185673+6 392674+2 400. 600.21			Cs1 (cr)
000000+0 237941+5 926897+1-228637-3-582936+5 406528+2 600. 800.21			Cs1 (cr)
000000+0 240308+5 917986+1-126100-3-537585+5 407639+2 800. 1000.21			Cs1 (cr)
1 55	JANAF 1998		4Cs1 (cr, l)
000000+0 454882+6-474630+2 129885+0 146076+7 269833+3298.15301.5521			Cs1 (cr, l)
000000+0 183888+5 757721+1-600949-3 314730+5 380505+2301.55 400.32			Cs1 (cr, l)
000000+0 209065+5 714764+1 213225-3 480985+5 393528+2 400. 1200.32			Cs1 (cr, l)
000000+0 209153+5 714572+1 216952-3 444151+5 393567+2 1200. 1500.32			Cs1 (cr, l)
1 55	JANAF 1998		6Cs1 (g)
182839+5 134610+5 495196+1 175461-4 112410+4 534296+2298.15 1540.11			Cs1 (g)
182839+5 138986+5 298722+1 866416-3 156042+7 536009+2 1540. 2189.11			Cs1 (g)
182839+5 140346+5-222130+1 244645-2 994505+7 536499+2 2189. 2887.11			Cs1 (g)
182839+5 140347+5-731651+1 361518-2 242900+8 536499+2 2887. 4180.11			Cs1 (g)
182839+5 205886+5 121622+3-165991-1-752223+9 556527+2 4180. 4502.11			Cs1 (g)
182839+5 168442+5 243555+2-122314-2-183840+9 544840+2 4502. 6000.11			Cs1 (g)

1 55 1 99	JANAF 1998				2Cs1-(g)
592686+4 134227+5 496797+1 000000+0-105622-7 520355+2298.15 3000.11					Cs1-(g)
592686+4 134227+5 496797+1 000000+0-892115-5 520355+2 3000. 6000.11					Cs1-(g)
1 55	JANAF 1998				3Cs1(l)
498805+3 178643+5 757906+1-607881-3 315339+5 380365+2298.15 400.31					Cs1(l)
498805+3 195207+5 736530+1-108477-3 337736+5 389112+2 400. 500.31					Cs1(l)
498805+3 204139+5 714427+1 216403-3 484214+5 393558+2 500. 1500.31					Cs1(l)
1 55 -1 99	JANAF 1998				2Cs1+(g)
109561+6 134227+5 496797+1 000000+0-105622-7 520355+2298.15 3000.11					Cs1+(g)
109561+6 134227+5 496797+1 000000+0-892115-5 520355+2 3000. 6000.11					Cs1+(g)
1 55 1 9	JANAF 1998				4Cs1F1(cr)
-132570+6 489922+5 111771+2 421887-2-135704+4 582966+2298.15 922.21					Cs1F1(cr)
-132570+6 460653+5 139131+2 224963-2-783722+6 570157+2 922. 1100.21					Cs1F1(cr)
-132570+6 420290+5 192643+2-109862-2-280216+7 553010+2 1100. 1301.21					Cs1F1(cr)
-132570+6 424069+5 181092+2-545996-3-206390+7 554519+2 1301. 2000.21					Cs1F1(cr)
1 55 1 9	JANAF 1998				5Cs1F1(cr,l)
-132570+6 494508+5 110766+2 437948-2 344586+4 585252+2298.15 564.21					Cs1F1(cr,l)
-132570+6 488649+5 112322+2 416060-2-677549+4 582365+2 564. 976.21					Cs1F1(cr,l)
-132570+6 504095+5 177000+2 000000+0 152084-2 623990+2 976. 1107.32					Cs1F1(cr,l)
-132570+6 504095+5 177000+2 000000+0 249292-4 623990+2 1107. 1804.32					Cs1F1(cr,l)
-132570+6 504095+5 177000+2 000000+0-895585-8 623990+2 1804. 3000.32					Cs1F1(cr,l)
1 55 1 9	JANAF 1998				4Cs1F1(g)
-852000+5 253039+5 878544+1 371635-3-294108+5 792270+2298.15 392.11					Cs1F1(g)
-852000+5 247647+5 889276+1 189212-3-349149+5 789521+2 392. 567.11					Cs1F1(g)
-852000+5 246491+5 893377+1 141008-3-393108+5 788965+2 567. 982.11					Cs1F1(g)
-852000+5 246413+5 894217+1 135315-3-420220+5 788932+2 982. 6000.11					Cs1F1(g)
1 55 1 9	JANAF 1998				2Cs1F1(l)
-129983+6 478229+5 177000+2 000000+0 760105-9 623995+2298.15 1600.31					Cs1F1(l)
-129983+6 478229+5 177000+2 000000+0-232742-6 623995+2 1600. 3000.31					Cs1F1(l)
1 55 1 1 1 8	JANAF 1998				3Cs1H1O1(cr)
-995999+5 921258+5 129482+2 128587-1-499072+5 879586+2298.15 410.21					Cs1H1O1(cr)
-995999+5 115876+6 977926+1 200016-1 141101-4 101054+3 410. 493.22					Cs1H1O1(cr)
-995999+5 553731+5 200000+2 000000+0 114011-6 723082+2 493. 1000.23					Cs1H1O1(cr)
1 55 1 1 1 8	JANAF 1998				5Cs1H1O1(cr,l)
-995999+5 921258+5 129482+2 128587-1-499072+5 879586+2298.15 410.21					Cs1H1O1(cr,l)
-995999+5 115876+6 977926+1 200016-1 141101-4 101054+3 410. 493.22					Cs1H1O1(cr,l)
-995999+5 553731+5 200000+2 000000+0 203631-4 723082+2 493. 588.23					Cs1H1O1(cr,l)
-995999+5 552570+5 195000+2 000000+0 272911-6 733471+2 588. 1605.34					Cs1H1O1(cr,l)
-995999+5 552570+5 195000+2 000000+0 192909-4 733471+2 1605. 2000.34					Cs1H1O1(cr,l)
1 55 1 1 1 8	JANAF 1998				5Cs1H1O1(g)
-620000+5 357174+5 126378+2 405498-3-777535+5 907077+2298.15 612.11					Cs1H1O1(g)
-620000+5 374534+5 119360+2 117025-2 982750+4 915302+2 612. 1292.11					Cs1H1O1(g)
-620000+5 369111+5 132056+2 515748-3-698018+6 913092+2 1292. 1884.11					Cs1H1O1(g)
-620000+5 368213+5 143108+2 125299-3-200961+7 912757+2 1884. 2903.11					Cs1H1O1(g)
-620000+5 368213+5 148030+2 124422-4-339723+7 912757+2 2903. 6000.11					Cs1H1O1(g)
1 55 1 1 1 8	JANAF 1998				2Cs1H1O1(l)
-970292+5 526861+5 195000+2 000000+0 221007-7 733463+2298.15 1100.31					Cs1H1O1(l)
-970292+5 526861+5 195000+2 000000+0 284052-5 733463+2 1100. 2000.31					Cs1H1O1(l)
1 55 1 1 1 8 -1 99	JANAF 1998				5Cs1H1O1+(g)
105492+6 356345+5 126898+2 346354-3-644409+5 940661+2298.15 608.11					Cs1H1O1+(g)
105492+6 375339+5 119300+2 117922-2 292286+5 949671+2 608. 1262.11					Cs1H1O1+(g)
105492+6 370087+5 130685+2 578181-3-575843+6 947519+2 1262. 1777.11					Cs1H1O1+(g)
105492+6 368867+5 141429+2 175616-3-170983+7 947057+2 1777. 2586.11					Cs1H1O1+(g)
105492+6 368850+5 147039+2 311589-4-296281+7 947051+2 2586. 6000.11					Cs1H1O1+(g)
1 55 1 8	JANAF 1998				5Cs1O1(g)
150000+5 250903+5 888604+1 257441-3-216629+5 821406+2298.15 433.11					Cs1O1(g)
150000+5 248882+5 893275+1 185665-3-245941+5 820391+2 433. 751.11					Cs1O1(g)
150000+5 248727+5 894208+1 177434-3-263698+5 820320+2 751. 2800.11					Cs1O1(g)
150000+5 248727+5 895782+1 174053-3-755383+5 820320+2 2800. 3410.11					Cs1O1(g)
150000+5 248728+5 894289+1 177291-3-303864+5 820321+2 3410. 6000.11					Cs1O1(g)
2 55	JANAF 1998				5Cs2(g)
256611+5 207229+5 103383+2-157368-2-655072+5 872648+2298.15 741.11					Cs2(g)
256611+5 166569+5 100637+2-251779-2 469395+6 852055+2 741. 1326.11					Cs2(g)
256611+5 186846+5 504855+1 249987-4 335891+7 860287+2 1326. 2296.11					Cs2(g)
256611+5 187634+5 626130+0 131567-2 110505+8 860568+2 2296. 4424.11					Cs2(g)
256611+5 194425+5 981241+1-654373-4-491578+8 862620+2 4424. 6000.11					Cs2(g)

2 55 2 9	JANAF 1998				5Cs2F2 (g)
-212740+6 537961+5 197879+2 118550-3-648564+5 129825+3298.15 440.11					Cs2F2 (g)
-212740+6 534955+5 198587+2 110853-4-694251+5 129674+3 440. 838.11					Cs2F2 (g)
-212740+6 534755+5 198713+2 228850-6-718185+5 129665+3 838. 2500.11					Cs2F2 (g)
-212740+6 534754+5 198682+2 816156-6-617657+5 129665+3 2500. 3603.11					Cs2F2 (g)
-212740+6 534753+5 198713+2 878967-7-677101+5 129665+3 3603. 6000.11					Cs2F2 (g)
2 55 2 1 2 8	JANAF 1998				5Cs2H2O2 (g)
-164400+6 989832+5 167138+2 121129-1-478413+5 157244+3298.15 500.11					Cs2H2O2 (g)
-164400+6 800519+5 222160+2 481825-2-511567+6 147964+3 500. 890.11					Cs2H2O2 (g)
-164400+6 761696+5 255835+2 231470-2-141401+7 146254+3 890. 1490.11					Cs2H2O2 (g)
-164400+6 751825+5 294999+2 570480-3-433906+7 145865+3 1490. 2484.11					Cs2H2O2 (g)
-164400+6 751710+5 314797+2 411362-4-844198+7 145861+3 2484. 6000.11					Cs2H2O2 (g)
2 55 1 8	JANAF 1998				4Cs2O1 (g)
-220000+5 379387+5 137692+2 200878-3-525437+5 108039+3298.15 434.11					Cs2O1 (g)
-220000+5 374292+5 138870+2 199379-4-599454+5 107783+3 434. 764.11					Cs2O1 (g)
-220000+5 373924+5 139098+2 145155-6-643801+5 107766+3 764. 3930.11					Cs2O1 (g)
-220000+5 373922+5 139089+2 179444-6-535367+5 107766+3 3930. 6000.11					Cs2O1 (g)
2 55 4 8 1 16	JANAF 1998				3Cs2O4S1 (cr)_01
-337034+6 162232+6 128770+2 283210-1 415252+6 171859+3298.15 480.21					Cs2O4S1 (cr)_01
-337034+6 216710+6-229738+1 489830-1 162638+7 198679+3 480. 700.21					Cs2O4S1 (cr)_01
-337034+6 190870+6 941052+1 370002-1-413822+3 186588+3 700. 1500.21					Cs2O4S1 (cr)_01
2 55 4 8 1 16	JANAF 1998				3Cs2O4S1 (cr)_02
-344800+6 190194+6 270391+2 264488-1-233382+6 183228+3298.15 600.21					Cs2O4S1 (cr)_02
-344800+6 288887+6-115203+2 692877-1 439478+7 230153+3 600. 800.21					Cs2O4S1 (cr)_02
-344800+6 228625+6 180739+2 401805-1 357427+6 202304+3 800. 1200.21					Cs2O4S1 (cr)_02
2 55 4 8 1 16	JANAF 1998				5Cs2O4S1 (cr, l)
-344800+6 187929+6 274256+2 257162-1-248351+6 182058+3298.15 500.21					Cs2O4S1 (cr, l)
-344800+6 243930+6 975534+1 479915-1 138479+7 209261+3 500. 940.21					Cs2O4S1 (cr, l)
-344800+6 198716+6 930176+1 370687-1 389070+5 186642+3 940. 1278.22					Cs2O4S1 (cr, l)
-344800+6 139741+6 494001+2 000000+0 116116-1 163691+3 1278. 1400.33					Cs2O4S1 (cr, l)
-344800+6 139741+6 494001+2 000000+0 236815-5 163691+3 1400. 3000.33					Cs2O4S1 (cr, l)
2 55 4 8 1 16	JANAF 1998				5Cs2O4S1 (g)
-268300+6 143945+6 237459+2 180779-1-251542+6 199392+3298.15 411.11					Cs2O4S1 (g)
-268300+6 112522+6 304554+2 720743-2-630233+6 183486+3 411. 600.11					Cs2O4S1 (g)
-268300+6 994522+5 354014+2 161074-2-120188+7 177252+3 600. 900.11					Cs2O4S1 (g)
-268300+6 972390+5 372944+2 194650-3-170292+7 176276+3 900. 1536.11					Cs2O4S1 (g)
-268300+6 971394+5 377363+2 316273-5-205144+7 176237+3 1536. 6000.11					Cs2O4S1 (g)
2 55 4 8 1 16	JANAF 1998				4Cs2O4S1 (l)
-334641+6 194025+6 263847+2 276880-1-208000+6 193469+3298.15 492.31					Cs2O4S1 (l)
-334641+6 243931+6 884373+1 484427-1 156624+7 217376+3 492. 700.31					Cs2O4S1 (l)
-334641+6 501414+6-138005+3 181565+0 278611+8 335221+3 700. 880.31					Cs2O4S1 (l)
-334641+6 129598+6 494001+2 000000+0 811675-6 163705+3 880. 3000.32					Cs2O4S1 (l)
1 29	JANAF 1998				5Cu1 (cr)
000000+0 200267+5 580329+1 991113-3-227960+5 238757+2298.15 450.21					Cu1 (cr)
000000+0 208181+5 551513+1 132613-2 502754+4 242505+2 450. 774.21					Cu1 (cr)
000000+0 227793+5 389012+1 256289-2 405063+6 251136+2 774. 1126.21					Cu1 (cr)
000000+0 302613+5-766777+1 939815-2 530084+7 282556+2 1126. 1376.21					Cu1 (cr)
000000+0 271611+5 929010+0 518281-2 604876+4 270064+2 1376. 2000.21					Cu1 (cr)
1 29	JANAF 1998				5Cu1 (cr, l)
000000+0 200984+5 579100+1 101433-2-223145+5 239128+2298.15 474.21					Cu1 (cr, l)
000000+0 210829+5 537383+1 146016-2 239358+5 243695+2 474. 1052.21					Cu1 (cr, l)
000000+0 287441+5-447295+1 769195-2 366602+7 276336+2 1052. 1358.21					Cu1 (cr, l)
000000+0 231196+5 784990+1 000000+0-855212-3 262923+2 1358. 1500.32					Cu1 (cr, l)
000000+0 231196+5 784990+1 000000+0-235950-5 262923+2 1500. 4000.32					Cu1 (cr, l)
1 29	JANAF 1998				5Cu1 (g)
806883+5 134497+5 495797+1 116686-4 670042+3 512258+2298.15 1422.11					Cu1 (g)
806883+5 138402+5 368217+1 609302-3 862013+6 513815+2 1422. 1998.11					Cu1 (g)
806883+5 139912+5 977476+0 151148-2 446336+7 514371+2 1998. 3309.11					Cu1 (g)
806883+5 139956+5 531102+1 638943-3-113730+8 514385+2 3309. 4035.11					Cu1 (g)
806883+5 141479+5 102523+2-176699-3-382401+8 514857+2 4035. 6000.11					Cu1 (g)
1 29 1 99	JANAF 1998				2Cu1- (g)
508891+5 134227+5 496797+1 000000+0-105622-7 498362+2298.15 3000.11					Cu1- (g)
508891+5 134227+5 496797+1 000000+0-892115-5 498362+2 3000. 6000.11					Cu1- (g)

1 29				JANAF 1998			5Cu1 (l)
283389+4	198100+5	583780+1	922421-3-240728+5	257837+2298.15	453.31		Cu1 (l)
283389+4	207315+5	554554+1	129025-2 170833+4	262295+2	453. 700.31		Cu1 (l)
283389+4	213318+5	510160+1	164679-2 969450+5	264953+2	700. 900.31		Cu1 (l)
283389+4	202842+5	784990+1	000000+0-904918-5	262915+2	900. 1140.32		Cu1 (l)
283389+4	202842+5	784990+1	000000+0-876923-6	262915+2	1140. 4000.32		Cu1 (l)
1 29 -1 99				JANAF 1998			5Cu1+(g)
260343+6	134227+5	496797+1	000000+0-106511-8	645774+2298.15	1671.11		Cu1+(g)
260343+6	134227+5	496797+1	000000+0-573985-6	645774+2	1671. 2900.11		Cu1+(g)
260343+6	134227+5	496797+1	000000+0-141512-3	645774+2	2900. 3200.11		Cu1+(g)
260343+6	134227+5	483374+1	275326-4 472347+6	645773+2	3200. 3400.11		Cu1+(g)
260343+6	134226+5	495804+1	192218-5 419904+5	645773+2	3400. 6000.11		Cu1+(g)
1 29 1 9				JANAF 1998			5Cu1F1 (cr)
-670000+5	519900+5	117286+2	459844-2-620639+5	546573+2298.15	504.21		Cu1F1 (cr)
-670000+5	431533+5	143117+2	118612-2-281343+6	503283+2	504. 845.21		Cu1F1 (cr)
-670000+5	411707+5	155127+2	127797-3-500362+6	494282+2	845. 1100.21		Cu1F1 (cr)
-670000+5	405603+5	163821+2-401702-3-847579+6	491702+2	1100. 1476.21			Cu1F1 (cr)
-670000+5	407256+5	153993+2	287203-6 825460+3	492334+2	1476. 2000.21		Cu1F1 (cr)
1 29 1 9				JANAF 1998			5Cu1F1 (g)
-300000+4	263804+5	828953+1	929577-3-524545+5	754655+2298.15	510.11		Cu1F1 (g)
-300000+4	243530+5	889524+1	140175-3-105286+6	744746+2	510. 2365.11		Cu1F1 (g)
-300000+4	243705+5	743850+1	550702-3 261216+7	744808+2	2365. 3241.11		Cu1F1 (g)
-300000+4	243692+5	484798+1	108316-2 116961+8	744803+2	3241. 5111.11		Cu1F1 (g)
-300000+4	250258+5	807203+1	662349-3-163398+8	746719+2	5111. 6000.11		Cu1F1 (g)
1 29 2 9				JANAF 1998			5Cu1F2 (cr)
-128800+6	823760+5	140387+2	100580-1-121921+6	774198+2298.15	524.21		Cu1F2 (cr)
-128800+6	623718+5	199239+2	231378-2-623628+6	676283+2	524. 943.21		Cu1F2 (cr)
-128800+6	595591+5	226719+2	372650-3-143950+7	664022+2	943. 1255.21		Cu1F2 (cr)
-128800+6	584051+5	251303+2-932417-3-273196+7	659289+2	1255. 1700.21			Cu1F2 (cr)
-128800+6	586603+5	226020+2-717024-6-247958+4	660246+2	1700. 2000.21			Cu1F2 (cr)
1 29 2 9				JANAF 1998			5Cu1F2 (cr, l)
-128800+6	823770+5	140385+2	100583-1-121913+6	774203+2298.15	527.21		Cu1F2 (cr, l)
-128800+6	624177+5	198960+2	233835-2-618796+6	676491+2	527. 855.21		Cu1F2 (cr, l)
-128800+6	604724+5	215882+2	108122-2-107004+7	667931+2	855. 1109.21		Cu1F2 (cr, l)
-128800+6	746408+5	240000+2	000000+0 742593-4	794267+2	1109. 1300.32		Cu1F2 (cr, l)
-128800+6	746408+5	240000+2	000000+0 574074-5	794267+2	1300. 2500.32		Cu1F2 (cr, l)
1 29 2 9				JANAF 1998			5Cu1F2 (g)
-638000+5	431404+5	119013+2	253722-2-105858+6	975519+2298.15	486.11		Cu1F2 (g)
-638000+5	369743+5	136074+2	204412-3-241044+6	945139+2	486. 1486.11		Cu1F2 (g)
-638000+5	373783+5	120565+2	900905-3 898188+6	946735+2	1486. 3012.11		Cu1F2 (g)
-638000+5	373783+5	148957+2	273159-3-770643+7	946735+2	3012. 4097.11		Cu1F2 (g)
-638000+5	374895+5	179659+2-225865-3-249236+8	947078+2	4097. 6000.11			Cu1F2 (g)
1 29 2 9				JANAF 1998			3Cu1F2 (l)
-116600+6	824038+5	140338+2	100670-1-121736+6	882211+2298.15	525.31		Cu1F2 (l)
-116600+6	625532+5	198490+2	239447-2-614311+6	785010+2	525. 740.31		Cu1F2 (l)
-116600+6	624403+5	240000+2	000000+0 220478-6	794265+2	740. 2500.32		Cu1F2 (l)
1 29 2 1 2 8				JANAF 1998			5Cu1H2O2 (cr)
-107640+6	987879+5	196721+2	102415-1 179302+4	989993+2298.15	500.21		Cu1H2O2 (cr)
-107640+6	962042+5	205362+2	918933-2-827217+5	977530+2	500. 700.21		Cu1H2O2 (cr)
-107640+6	787971+5	296897+2	541529-3-160173+7	897183+2	700. 945.21		Cu1H2O2 (cr)
-107640+6	764402+5	314865+2-878157-3-200823+7	886715+2	945. 1260.21			Cu1H2O2 (cr)
-107640+6	768470+5	292205+2	889015-4-345173+6	888198+2	1260. 1500.21		Cu1H2O2 (cr)
1 29 1 8				JANAF 1998			2Cu1O1 (cr)
-373000+5	387519+5	116107+2	177993-2-181734+6	407836+2298.15	833.21		Cu1O1 (cr)
-373000+5	387399+5	116124+2	177591-2-180597+6	407778+2	833. 2000.21		Cu1O1 (cr)
1 29 1 8				JANAF 1998			5Cu1O1 (g)
732000+5	255196+5	864573+1	500762-3-235130+5	772317+2298.15	499.11		Cu1O1 (g)
732000+5	245995+5	890981+1	147897-3-454259+5	767801+2	499. 2298.11		Cu1O1 (g)
732000+5	246206+5	763720+1	516732-3 219904+7	767876+2	2298. 3225.11		Cu1O1 (g)
732000+5	246195+5	506930+1	104690-2 111240+8	767872+2	3225. 4747.11		Cu1O1 (g)
732000+5	249835+5	685961+1	817590-3-468984+7	768939+2	4747. 6000.11		Cu1O1 (g)
1 29 4 8 1 16				JANAF 1998			4Cu1O4S1 (cr)
-184030+6	106270+6	286206+2	692082-2-627036+6	107398+3298.15	431.21		Cu1O4S1 (cr)
-184030+6	112704+6	320073+2	668149-2-123701+7	111746+3	431. 749.21		Cu1O4S1 (cr)
-184030+6	103790+6	356426+2	271829-2-161111+7	107557+3	749. 1100.21		Cu1O4S1 (cr)
-184030+6	103811+6	356427+2	272506-2-162025+7	107566+3	1100. 2000.21		Cu1O4S1 (cr)

2 29				JANAF 1998			5Cu2 (g)
116000+6	250154+5	890075+1	230612-3-200500+5	788078+2298.15	464.11		Cu2 (g)
116000+6	248650+5	893923+1	175292-3-228070+5	787330+2	464.2350.11		Cu2 (g)
116000+6	248686+5	866190+1	253922-3	488257+6	787343+2	2350.	Cu2 (g)
116000+6	248685+5	789752+1	417015-3	297570+7	787343+2	3123.3918.11	Cu2 (g)
116000+6	248505+5	707597+1	556780-3	718112+7	787286+2	3918.6000.11	Cu2 (g)
2 29 1 8				JANAF 1998			3Cu2O1 (cr)
-408000+5	596259+5	155834+2	404359-2-163687+6	680666+2298.15	880.21		Cu2O1 (cr)
-408000+5	647034+5	101477+2	775150-2	151883+7	702537+2	880.1100.21	Cu2O1 (cr)
-408000+5	678634+5	637520+1	102125-1	280800+7	716057+2	1100.2000.21	Cu2O1 (cr)
2 29 1 8				JANAF 1998			5Cu2O1 (cr, l)
-408000+5	596123+5	155865+2	403873-2-163842+6	680598+2298.15	688.21		Cu2O1 (cr, l)
-408000+5	587971+5	160547+2	361564-2-247689+6	676872+2	688.960.21		Cu2O1 (cr, l)
-408000+5	683014+5	562018+1	106424-1	315192+7	717880+2	960.1217.21	Cu2O1 (cr, l)
-408000+5	678636+5	636730+1	102154-1	281505+7	716057+2	1217.1516.721	Cu2O1 (cr, l)
-408000+5	741827+5	238800+2	000000+0-231491-4	781489+21516.7	2000.32		Cu2O1 (cr, l)
2 29 1 8				JANAF 1998			4Cu2O1 (l)
-267674+5	596699+5	155762+2	405763-2-163437+6	770753+2298.15	480.31		Cu2O1 (l)
-267674+5	596562+5	155698+2	405761-2-161951+6	770666+2	480.799.31		Cu2O1 (l)
-267674+5	589556+5	158731+2	373697-2-192015+6	767402+2	799.1000.31		Cu2O1 (l)
-267674+5	601496+5	238800+2	000000+0	943679-6	781482+2	1000.2000.32	Cu2O1 (l)
2 29 5 8 1 16				JANAF 1998			4Cu2O5S1 (cr)
-221700+6	187742+6	334544+2	222348-1-567878+6	171751+3298.15	498.21		Cu2O5S1 (cr)
-221700+6	152618+6	435182+2	877313-2-140113+7	154508+3	498.735.21		Cu2O5S1 (cr)
-221700+6	152633+6	429883+2	901432-2-121063+7	154475+3	735.1160.21		Cu2O5S1 (cr)
-221700+6	151008+6	476328+2	672673-2-388960+7	153833+3	1160.1500.21		Cu2O5S1 (cr)
1201				JANAF 1998			2D1 (g)
529924+5	134227+5	496797+1	000000+0-105622-7	409251+2298.15	3000.11		D1 (g)
529924+5	134227+5	496797+1	000000+0-892115-5	409251+2	3000.6000.11		D1 (g)
1201 1 99				JANAF 1998			2D1- (g)
341188+5	134227+5	496797+1	000000+0-105622-7	395484+2298.15	3000.11		D1- (g)
341188+5	134227+5	496797+1	000000+0-892115-5	395484+2	3000.6000.11		D1- (g)
1201 -1 99				JANAF 1998			2D1+ (g)
368146+6	134227+5	496797+1	000000+0-105622-7	395468+2298.15	3000.11		D1+ (g)
368146+6	134227+5	496797+1	000000+0-892115-5	395468+2	3000.6000.11		D1+ (g)
1201 1 9				JANAF 1998			5D1F1 (g)
-658499+5	202184+5	675392+1	437404-3	711297+4	597383+2298.15	523.11	D1F1 (g)
-658499+5	230488+5	596320+1	151236-2	696197+5	611305+2	523.1069.11	D1F1 (g)
-658499+5	220440+5	731445+1	671701-3-447576+6	607040+2	1069.1592.11		D1F1 (g)
-658499+5	218303+5	842740+1	207170-3-139399+7	606210+2	1592.2551.11		D1F1 (g)
-658499+5	218287+5	887461+1	907840-4-237217+7	606204+2	2551.6000.11		D1F1 (g)
1201 1 1				JANAF 1998			5D1H1 (g)
764818+2	198037+5	683213+1	298200-3	520184+4	509521+2298.15	606.11	D1H1 (g)
764818+2	221244+5	590933+1	131316-2	118210+6	520535+2	606.1324.11	D1H1 (g)
764818+2	216445+5	712974+1	699513-3-596891+6	518590+2	1324.1920.11		D1H1 (g)
764818+2	215751+5	809488+1	365178-3-178839+7	518332+2	1920.4835.11		D1H1 (g)
764818+2	219481+5	107091+2	496115-5-221869+8	519435+2	4835.6000.11		D1H1 (g)
1201 1 1 1 99				JANAF 1998			5D1H1- (g)
562820+5	306573+5	593995+1	326658-2	178827+5	587523+2298.15	514.11	D1H1- (g)
562820+5	261846+5	729242+1	151702-2-101851+6	565689+2	514.800.11		D1H1- (g)
562820+5	245039+5	836180+1	599141-3-316299+6	558074+2	800.1143.11		D1H1- (g)
562820+5	242344+5	880225+1	343781-3-510395+6	556947+2	1143.1900.11		D1H1- (g)
562820+5	242242+5	893252+1	298059-3-667067+6	556910+2	1900.6000.11		D1H1- (g)
1201 1 1 -1 99				JANAF 1998			5D1H1+ (g)
357742+6	270923+5	592531+1	246632-2	311998+5	576692+2298.15	700.11	D1H1+ (g)
357742+6	248427+5	708906+1	135745-2-158695+6	566292+2	700.1054.11		D1H1+ (g)
357742+6	239261+5	806624+1	690526-3-463357+6	562333+2	1054.2996.11		D1H1+ (g)
357742+6	239261+5	125901+2	-316747-3-139818+8	562333+2	2996.3680.11		D1H1+ (g)
357742+6	239810+5	182384+2	-133846-2-395548+8	562507+2	3680.6000.11		D1H1+ (g)
1201 1 1 1 8				JANAF 1998			5D1H1O1 (g)
-586451+5	344711+5	667216+1	367213-2	273393+5	731364+2298.15	892.11	D1H1O1 (g)
-586451+5	324250+5	844041+1	235540-2-445064+6	722348+2	892.1302.11		D1H1O1 (g)
-586451+5	313317+5	110993+2	100047-2-196193+7	717905+2	1302.1905.11		D1H1O1 (g)
-586451+5	311868+5	1130477+2	321758-3-434063+7	717365+2	1905.3004.11		D1H1O1 (g)
-586451+5	311868+5	139641+2	119298-3-712172+7	717365+2	3004.6000.11		D1H1O1 (g)

1201	1	7	JANAF 1998				5D1N1 (g)
897000+5	237073+5	623036+1	152547-2	254893+5	633719+2298.15	637.11	D1N1 (g)
897000+5	237526+5	656495+1	138028-2	727478+5	634317+2	637. 1018.11	D1N1 (g)
897000+5	226948+5	781366+1	563548-3	505187+6	629779+2	1018. 1486.11	D1N1 (g)
897000+5	224876+5	862090+1	202398-3	-110265+7	628961+2	1486. 2394.11	D1N1 (g)
897000+5	224848+5	890650+1	123174-3	-165253+7	628951+2	2394. 6000.11	D1N1 (g)
1201	1	8	JANAF 1998				5D1O1 (g)
874809+4	210608+5	666392+1	667461-3	271403+5	626415+2298.15	533.11	D1O1 (g)
874809+4	237160+5	601399+1	163095-2	658869+5	639615+2	533. 975.11	D1O1 (g)
874809+4	225276+5	727438+1	770405-3	-334674+6	634471+2	975. 1404.11	D1O1 (g)
874809+4	221893+5	833630+1	267528-3	-103619+7	633118+2	1404. 2147.11	D1O1 (g)
874809+4	221736+5	883240+1	113740-3	-180101+7	633061+2	2147. 6000.11	D1O1 (g)
1201	1	16	JANAF 1998				5D1S1 (g)
330999+5	232383+5	706610+1	904276-3	389804+5	671040+2298.15	543.11	D1S1 (g)
330999+5	245328+5	709500+1	120501-2	-176884+5	677993+2	543. 951.11	D1S1 (g)
330999+5	232961+5	833312+1	339308-3	-392873+6	672614+2	951. 1553.11	D1S1 (g)
330999+5	231825+5	886390+1	112136-3	-822123+6	672170+2	1553. 4479.11	D1S1 (g)
330999+5	231387+5	831499+1	193898-3	284304+7	672038+2	4479. 6000.11	D1S1 (g)
2201	1	99	JANAF 1998				5D2- (g)
562536+5	325963+5	610892+1	360779-2	538296+4	616804+2298.15	428.11	D2- (g)
562536+5	279760+5	715675+1	197752-2	-587450+5	593563+2	428. 600.11	D2- (g)
562536+5	251719+5	824737+1	762702-3	-188970+6	580224+2	600. 900.11	D2- (g)
562536+5	245434+5	879323+1	357138-3	-335453+6	577456+2	900. 1550.11	D2- (g)
562536+5	245130+5	893513+1	296392-3	-450160+6	577337+2	1550. 6000.11	D2- (g)
2201			JANAF 1998				5D2 (ref)
000000+0	214873+5	653216+1	849656-3	174577+5	520942+2298.15	715.11	D2 (ref)
000000+0	228571+5	621503+1	134816-2	-263622+4	527600+2	715. 1189.11	D2 (ref)
000000+0	221917+5	741428+1	675823-3	-567899+6	524838+2	1189. 1690.11	D2 (ref)
000000+0	220589+5	831064+1	322072-3	-142049+7	524329+2	1690. 4911.11	D2 (ref)
000000+0	224849+5	110138+2	-449858-4	-231390+8	525584+2	4911. 6000.11	D2 (ref)
2201	-1	99	JANAF 1998				5D2+ (g)
358166+6	289931+5	596167+1	287800-2	206796+5	590896+2298.15	619.11	D2+ (g)
358166+6	249408+5	764057+1	107371-2	-194674+6	571743+2	619. 1151.11	D2+ (g)
358166+6	242995+5	817110+1	661298-3	-268647+6	568962+2	1151. 2982.11	D2+ (g)
358166+6	242995+5	125564+2	-319178-3	-132653+8	568962+2	2982. 3652.11	D2+ (g)
358166+6	243475+5	181022+2	-132977-2	-380060+8	569114+2	3652. 6000.11	D2+ (g)
2201	1	7	JANAF 1998				5D2N1 (g)
443000+5	398588+5	647860+1	500177-2	228127+5	773992+2298.15	704.11	D2N1 (g)
443000+5	351596+5	895109+1	266660-2	-387825+6	752303+2	704. 1034.11	D2N1 (g)
443000+5	328864+5	117407+2	869446-3	-138358+7	742582+2	1034. 3193.11	D2N1 (g)
443000+5	328872+5	149755+2	193993-3	-123746+8	742585+2	3193. 4155.11	D2N1 (g)
443000+5	330158+5	180758+2	-303117-3	-302401+8	742980+2	4155. 6000.11	D2N1 (g)
2201	2	7	JANAF 1998				5D2N2 (g)
495000+5	696968+5	588894+1	120817-1	-148441+5	996896+2298.15	504.11	D2N2 (g)
495000+5	553381+5	101258+2	651725-2	-378691+6	926624+2	504. 800.11	D2N2 (g)
495000+5	477300+5	152114+2	225578-2	-145162+7	892305+2	800. 1205.11	D2N2 (g)
495000+5	459650+5	185821+2	402143-3	-310257+7	885009+2	1205. 2025.11	D2N2 (g)
495000+5	459075+5	197653+2	150819-4	-474040+7	884799+2	2025. 6000.11	D2N2 (g)
2201	1	8	JANAF 1998				5D2O1 (g)
-595609+5	368390+5	672207+1	417862-2	195149+5	742964+2298.15	839.11	D2O1 (g)
-595609+5	338758+5	895009+1	241222-2	-505614+6	729742+2	839. 1200.11	D2O1 (g)
-595609+5	324186+5	116728+2	904070-3	-182026+7	723709+2	1200. 1764.11	D2O1 (g)
-595609+5	322220+5	133640+2	267631-3	-358923+7	722964+2	1764. 2886.11	D2O1 (g)
-595609+5	322219+5	140472+2	110564-3	-550407+7	722964+2	2886. 6000.11	D2O1 (g)
2201	1	16	JANAF 1998				5D2S1 (g)
-571009+4	438120+5	672695+1	574753-2	937989+4	825401+2298.15	590.11	D2S1 (g)
-571009+4	386278+5	869909+1	352272-2	-220194+6	800685+2	590. 800.11	D2S1 (g)
-571009+4	347810+5	115442+2	124900-2	-876941+6	783503+2	800. 1278.11	D2S1 (g)
-571009+4	340167+5	132803+2	345717-3	-182703+7	780383+2	1278. 2150.11	D2S1 (g)
-571009+4	339992+5	138539+2	168667-3	-271864+7	780319+2	2150. 6000.11	D2S1 (g)
3201	1	7	JANAF 1998				5D3N1 (g)
-140000+5	596821+5	682653+1	928330-2	-411718+5	893282+2298.15	645.11	D3N1 (g)
-140000+5	495426+5	114840+2	455499-2	-710028+6	845854+2	645. 1100.11	D3N1 (g)
-140000+5	454624+5	174941+2	939288-3	-316972+7	828658+2	1100. 2010.11	D3N1 (g)
-140000+5	452965+5	207683+2	-138215-3	-764793+7	828049+2	2010. 4244.11	D3N1 (g)
-140000+5	448467+5	188082+2	512167-4	131761+8	826703+2	4244. 6000.11	D3N1 (g)

1 99	JANAF 1998					2e1-(ref)	
000000+0	134227+5	496797+1	000000+0-109373-7	164579+2298.15	3100.11	e1-(ref)	
000000+0	134227+5	496797+1	000000+0-103710-4	164579+2	3100. 6000.11	e1-(ref)	
1 9	JANAF 1998					4F1(g)	
189747+5	113099+5	577591+1-960960-3-469015+4	486288+2298.15	455.11		F1(g)	
189747+5	131435+5	532152+1-294120-3	265659+5	495426+2	455. 713.11	F1(g)	
189747+5	136544+5	504820+1-381936-4	727502+5	497780+2	713. 1348.11	F1(g)	
189747+5	136827+5	497255+1-710529-6	118405+6	497895+2	1348. 6000.11	F1(g)	
1 9 1 99	JANAF 1998					2F1-(g)	
-609653+5	134227+5	496797+1	000000+0-105622-7	462373+2298.15	3000.11	F1-(g)	
-609653+5	134227+5	496797+1	000000+0-892115-5	462373+2	3000. 6000.11	F1-(g)	
1 9 -1 99	JANAF 1998					5F1+(g)	
422282+6	109501+5	588789+1-111649-2	546963+4	492354+2298.15	480.11	F1+(g)	
422282+6	134328+5	522013+1-186906-3	565152+5	504622+2	480. 855.11	F1+(g)	
422282+6	137304+5	498974+1-667619-5	112292+6	505946+2	855. 2415.11	F1+(g)	
422282+6	137319+5	482098+1	399500-4	439808+6	505952+2	2415. 3617.11	F1+(g)
422282+6	137291+5	443392+1	111285-3	212798+7	505943+2	3617. 6000.11	F1+(g)
10 9 2 42	JANAF 1998					5F10Mo2(g)	
-644800+6	235269+6	521830+2	216349-1-700741+6	302049+3298.15	391.11	F10Mo2(g)	
-644800+6	193187+6	608463+2	724560-2-116505+7	280667+3	391. 550.11	F10Mo2(g)	
-644800+6	179525+6	653587+2	171358-2-160967+7	274059+3	550. 800.11	F10Mo2(g)	
-644800+6	176798+6	671457+2	201638-3-197922+7	272826+3	800. 1279.11	F10Mo2(g)	
-644800+6	176650+6	675487+2	256185-5-222200+7	272766+3	1279. 6000.11	F10Mo2(g)	
10 9 2 16	JANAF 1998					5F10S2(g)	
-493400+6	237896+6	475611+2	253291-1-114610+7	266706+3298.15	483.11	F10S2(g)	
-493400+6	182135+6	627752+2	434118-2-233049+7	239193+3	483. 738.11	F10S2(g)	
-493400+6	172923+6	680795+2-442455-3-329667+7	234978+3	738. 1571.11		F10S2(g)	
-493400+6	172961+6	670810+2-987525-4-216501+7	234989+3	1571. 3271.11		F10S2(g)	
-493400+6	172961+6	666228+2-529714-5-532977+6	234989+3	3271. 6000.11		F10S2(g)	
15 9 3 42	JANAF 1998					5F15Mo3(g)	
-971700+6	360144+6	799680+2	330506-1-105151+7	436983+3298.15	400.11	F15Mo3(g)	
-971700+6	295737+6	931010+2	110949-1-174763+7	404223+3	400. 546.11	F15Mo3(g)	
-971700+6	274722+6	999699+2	262075-2-241601+7	394047+3	546. 800.11	F15Mo3(g)	
-971700+6	270504+6	102747+3	276477-3-299333+7	392142+3	800. 1395.11	F15Mo3(g)	
-971700+6	270311+6	103314+3	326924-5-335337+7	392064+3	1395. 6000.11	F15Mo3(g)	
1 9 1 26	JANAF 1998					4F1Fe1(g)	
114001+5	278728+5	799392+1	143668-2-419706+5	795198+2298.15	400.11	F1Fe1(g)	
114001+5	249728+5	859018+1	445510-3-739375+5	780461+2	400. 591.11	F1Fe1(g)	
114001+5	242035+5	888311+1	115231-3-108072+6	776794+2	591. 1069.11	F1Fe1(g)	
114001+5	241605+5	894095+1	792457-4-130214+6	776611+2	1069. 6000.11	F1Fe1(g)	
1 9 1 1	JANAF 1998					5F1H1(g)	
-651401+5	194009+5	686557+1	188417-3	385435+4	578898+2298.15	649.11	F1H1(g)
-651401+5	214645+5	593845+1	114105-2	133946+6	588573+2	649. 1436.11	F1H1(g)
-651401+5	211015+5	716994+1	569976-3-714453+6	587129+2	1436. 2059.11	F1H1(g)	
-651401+5	210535+5	826132+1	217619-3-226558+7	586953+2	2059. 3101.11	F1H1(g)	
-651401+5	210536+5	880152+1	101898-3-400951+7	586953+2	3101. 6000.11	F1H1(g)	
1 9 1 1 1 8	JANAF 1998					5F1H1O1(g)	
-235000+5	426922+5	726836+1	518812-2-204402+5	848583+2298.15	491.11	F1H1O1(g)	
-235000+5	348073+5	949318+1	218336-2-201126+6	809814+2	491. 911.11	F1H1O1(g)	
-235000+5	331672+5	109945+2	109301-2-622745+6	802624+2	911. 1490.11	F1H1O1(g)	
-235000+5	326975+5	128598+2	262472-3-201646+7	800772+2	1490. 2475.11	F1H1O1(g)	
-235000+5	326919+5	137694+2	184275-4-388868+7	800753+2	2475. 6000.11	F1H1O1(g)	
1 9 1 1 3 8 1 16	JANAF 1998					5F1H1O3S1(g)	
-180000+6	114775+6	159642+2	162497-1-251452+6	150384+3298.15	450.11	F1H1O3S1(g)	
-180000+6	872513+5	227292+2	626855-2-711838+6	136655+3	450. 700.11	F1H1O3S1(g)	
-180000+6	787589+5	271326+2	207786-2-143212+7	132730+3	700. 1232.11	F1H1O3S1(g)	
-180000+6	773062+5	300893+2	485288-3-294169+7	132132+3	1232. 2186.11	F1H1O3S1(g)	
-180000+6	772663+5	315991+2	267540-4-536669+7	132117+3	2186. 6000.11	F1H1O3S1(g)	
1 9 3 1 1 14	JANAF 1998					5F1H3Si1(g)	
-900000+5	963157+5	762021+1	170826-1-127649+6	119990+3298.15	451.11	F1H3Si1(g)	
-900000+5	751880+5	128695+2	939197-2-489875+6	109464+3	451. 705.11	F1H3Si1(g)	
-900000+5	635844+5	190661+2	358436-2-153474+7	104116+3	705. 1099.11	F1H3Si1(g)	
-900000+5	602288+5	239723+2	624841-3-353200+7	102701+3	1099. 1887.11	F1H3Si1(g)	
-900000+5	600945+5	256962+2	198733-4-560545+7	102651+3	1887. 6000.11	F1H3Si1(g)	

1 9 1 80	JANAF 1998				4FlHg1 (g)
700048+3 265695+5 848420+1 845816-3-404197+5 809846+2298.15 399.11					FlHg1 (g)
700048+3 250690+5 879105+1 333844-3-567495+5 802217+2 399. 585.11					FlHg1 (g)
700048+3 247313+5 891763+1 189821-3-712366+5 800604+2 585. 1045.11					FlHg1 (g)
700048+3 247123+5 894171+1 174502-3-800515+5 800523+2 1045. 6000.11					FlHg1 (g)
1 9 1 53	JANAF 1998				4FlI1 (g)
-226479+5 280840+5 808000+1 143273-2-432045+5 787352+2298.15 405.11					FlI1 (g)
-226479+5 254266+5 863349+1 520725-3-734069+5 773865+2 405. 600.11					FlI1 (g)
-226479+5 247592+5 889033+1 232878-3-103695+6 770687+2 600. 1073.11					FlI1 (g)
-226479+5 247217+5 894108+1 201401-3-123233+6 770528+2 1073. 6000.11					FlI1 (g)
1 9 1 19	JANAF 1998				5FlK1 (cr)
-135900+6 474601+5 105774+2 424596-2-121225+5 517304+2298.15 444.21					FlK1 (cr)
-135900+6 461578+5 105336+2 396088-2 214649+5 510014+2 444. 778.21					FlK1 (cr)
-135900+6 520978+5 601546+1 752866-2 107614+7 536437+2 778. 1074.21					FlK1 (cr)
-135900+6 411184+5 257565+2-359040-2-792002+7 491070+2 1074. 1500.21					FlK1 (cr)
-135900+6 424085+5 206033+2-129932-2-405776+7 496155+2 1500. 2000.21					FlK1 (cr)
1 9 1 19	JANAF 1998				5FlK1 (cr, l)
-135900+6 445969+5 110640+2 332102-2-308923+5 502502+2298.15 586.21					FlK1 (cr, l)
-135900+6 462814+5 104271+2 404207-2 427209+5 510538+2 586. 898.21					FlK1 (cr, l)
-135900+6 568973+5 120418+1 108940-1 251830+7 557293+2 898. 1131.21					FlK1 (cr, l)
-135900+6 498511+5 172000+2 000000+0 550547-4 558753+2 1131. 1302.32					FlK1 (cr, l)
-135900+6 498511+5 172000+2 000000+0-721753-6 558753+2 1302. 3000.32					FlK1 (cr, l)
1 9 1 19	JANAF 1998				4FlK1 (g)
-780999+5 259355+5 864785+1 601436-3-362281+5 755245+2298.15 397.11					FlK1 (g)
-780999+5 249279+5 885231+1 258490-3-469949+5 750118+2 397. 596.11					FlK1 (g)
-780999+5 247252+5 893060+1 170935-3-562695+5 749153+2 596. 1105.11					FlK1 (g)
-780999+5 247175+5 894203+1 164052-3-609376+5 749120+2 1105. 6000.11					FlK1 (g)
1 9 1 19	JANAF 1998				2FlK1 (l)
-132521+6 464719+5 172000+2 000000+0-217587-7 558759+2298.15 1600.31					FlK1 (l)
-132521+6 464719+5 172000+2 000000+0-503774-5 558759+2 1600. 3000.31					FlK1 (l)
1 9 1 3	JANAF 1998				5FlLil (cr)
-147450+6 421642+5 110061+2 290231-2-166870+6 408458+2298.15 541.21					FlLil (cr)
-147450+6 459588+5 100681+2 428433-2-111149+6 427295+2 541. 1021.21					FlLil (cr)
-147450+6 442743+5 124589+2 282412-2-104934+7 420188+2 1021. 1522.21					FlLil (cr)
-147450+6 435862+5 154041+2 153681-2-333314+7 417486+2 1522. 1981.21					FlLil (cr)
-147450+6 433392+5 196140+2 122450-3-885881+7 416575+2 1981. 2500.21					FlLil (cr)
1 9 1 3	JANAF 1998				5FlLil (cr, l)
-147450+6 421812+5 110030+2 290795-2-166738+6 408545+2298.15 535.21					FlLil (cr, l)
-147450+6 460921+5 999583+1 435170-2-995533+5 427906+2 535. 900.21					FlLil (cr, l)
-147450+6 464557+5 954525+1 464250-2 534238+5 429447+2 900.1121.321					FlLil (cr, l)
-147450+6 458139+5 153401+2 000000+0-100534-3 456811+21121.3 1303.32					FlLil (cr, l)
-147450+6 458139+5 153401+2 000000+0-120277-5 456811+2 1303. 3000.32					FlLil (cr, l)
1 9 1 3	JANAF 1998				4FlLil (g)
-814500+5 304241+5 700346+1 259962-2-267887+5 708854+2298.15 443.11					FlLil (g)
-814500+5 254254+5 819953+1 803589-3-105374+6 683850+2 443. 675.11					FlLil (g)
-814500+5 241907+5 880003+1 212469-3-197176+6 678107+2 675. 1212.11					FlLil (g)
-814500+5 241197+5 893787+1 137048-3-265386+6 677813+2 1212. 6000.11					FlLil (g)
1 9 1 3	JANAF 1998				2FlLil (l)
-143081+6 414467+5 153401+2 000000+0 104666-7 456850+2298.15 1600.31					FlLil (l)
-143081+6 414467+5 153401+2 000000+0 486186-5 456850+2 1600. 3000.31					FlLil (l)
1 9 1 3 1 8	JANAF 1998				4FlLilO1 (g)
-220000+5 517803+5 951763+1 591002-2-884978+5 962236+2298.15 409.11					FlLilO1 (g)
-220000+5 404270+5 119226+2 199254-2-222779+6 904718+2 409. 602.11					FlLilO1 (g)
-220000+5 364028+5 135125+2 237374-3-416044+6 885606+2 602. 1092.11					FlLilO1 (g)
-220000+5 361317+5 138997+2 181272-5-571026+6 884461+2 1092. 6000.11					FlLilO1 (g)
1 9 1 12	JANAF 1998				5FlMg1 (g)
-565999+5 281917+5 779271+1 163167-2-440496+5 749692+2298.15 450.11					FlMg1 (g)
-565999+5 246374+5 865930+1 346348-3-102410+6 731948+2 450. 771.11					FlMg1 (g)
-565999+5 242127+5 892596+1 115992-3-155343+6 730021+2 771. 3442.11					FlMg1 (g)
-565999+5 242112+5 841557+1 214827-3 186101+7 730016+2 3442. 4592.11					FlMg1 (g)
-565999+5 241031+5 731311+1 374794-3 961854+7 729692+2 4592. 6000.11					FlMg1 (g)
1 9 1 12 -1 99	JANAF 1998				4FlMg1+ (g)
122440+6 492254+5 431319+1 837178-2 896846+5 845159+2298.15 856.11					FlMg1+ (g)
122440+6 276215+5 210150+2-470180-2-394830+7 749007+2 856. 1580.11					FlMg1+ (g)
122440+6 295006+5 116854+2-765002-3 381415+7 756324+2 1580. 2235.11					FlMg1+ (g)
122440+6 295836+5 804421+1 323900-3 984591+7 756623+2 2235. 6000.11					FlMg1+ (g)



1 9 1 42	JANAF 1998				5F1Mol (g)
675999+5 272578+5 796328+1 132191-2-488885+5 805493+2298.15 557.11					F1Mol (g)
675999+5 242519+5 871056+1 224089-3-910185+5 790601+2 557. 1933.11					F1Mol (g)
675999+5 247173+5 197005+1 254480-2 833315+7 792328+2 1933. 3049.11					F1Mol (g)
675999+5 247184+5 582626+1 198071-2-115266+8 792332+2 3049. 4227.11					F1Mol (g)
675999+5 259537+5 306181+2-191841-2-160010+9 796107+2 4227. 6000.11					F1Mol (g)
1 9 1 7	JANAF 1998				4F1N1 (g)
595000+5 311253+5 639615+1 311143-2-638879+4 745643+2298.15 458.11					F1N1 (g)
595000+5 256389+5 777456+1 110654-2-102916+6 718339+2 458. 700.11					F1N1 (g)
595000+5 238703+5 869091+1 234109-3-252685+6 710163+2 700. 1264.11					F1N1 (g)
595000+5 237595+5 893344+1 106472-3-382410+6 709710+2 1264. 6000.11					F1N1 (g)
1 9 1 7 1 8	JANAF 1998				5F1N1O1 (g)
-157000+5 445411+5 928927+1 440725-2-641613+5 922641+2298.15 473.11					F1N1O1 (g)
-157000+5 392782+5 106871+2 244560-2-169307+6 896600+2 473. 709.11					F1N1O1 (g)
-157000+5 360201+5 124263+2 815237-3-462528+6 881583+2 709. 1079.11					F1N1O1 (g)
-157000+5 352114+5 135444+2 126782-3-899411+6 878158+2 1079. 1843.11					F1N1O1 (g)
-157000+5 351801+5 138862+2 353186-5-128871+7 878040+2 1843. 6000.11					F1N1O1 (g)
1 9 1 7 2 8	JANAF 1998				5F1N1O2 (g)
-260000+5 734214+5 103031+2 103190-1-130105+6 113119+3298.15 457.11					F1N1O2 (g)
-260000+5 575152+5 143093+2 450134-2-411535+6 105204+3 457. 700.11					F1N1O2 (g)
-260000+5 508721+5 176565+2 126749-2-942421+6 102125+3 700. 1039.11					F1N1O2 (g)
-260000+5 495302+5 193452+2 190069-3-155693+7 101553+3 1039. 1772.11					F1N1O2 (g)
-260000+5 494740+5 198399+2 474574-5-207921+7 101531+3 1772. 6000.11					F1N1O2 (g)
1 9 1 7 3 8	JANAF 1998				5F1N1O3 (g)
250000+4 102513+6 127959+2 153562-1-158818+6 140135+3298.15 414.11					F1N1O3 (g)
250000+4 801422+5 176397+2 758216-2-437396+6 128827+3 414. 600.11					F1N1O3 (g)
250000+4 677539+5 224459+2 222098-2-100963+7 122933+3 600. 910.11					F1N1O3 (g)
250000+4 648672+5 250527+2 316685-3-173326+7 121666+3 910. 1584.11					F1N1O3 (g)
250000+4 647223+5 257938+2 608635-5-235844+7 121609+3 1584. 6000.11					F1N1O3 (g)
1 9 1 11	JANAF 1998				5F1Na1 (cr)
-137520+6 407193+5 114802+2 223449-2-841933+5 443134+2298.15 592.21					F1Na1 (cr)
-137520+6 466244+5 921577+1 477732-2 181831+6 471265+2 592. 898.21					F1Na1 (cr)
-137520+6 509417+5 544826+1 757082-2 119704+7 490271+2 898. 1314.21					F1Na1 (cr)
-137520+6 395528+5 335694+2-669378-2-149940+8 444028+2 1314. 1703.21					F1Na1 (cr)
-137520+6 422841+5 170008+2-208984-6-147865+4 454547+2 1703. 3000.21					F1Na1 (cr)
1 9 1 11	JANAF 1998				5F1Na1 (cr, l)
-137520+6 407269+5 114787+2 223706-2-841260+5 443173+2298.15 593.21					F1Na1 (cr, l)
-137520+6 466688+5 919291+1 479918-2 185385+6 471469+2 593. 900.21					F1Na1 (cr, l)
-137520+6 511012+5 524714+1 769962-2 126704+7 490948+2 900. 1269.21					F1Na1 (cr, l)
-137520+6 484659+5 152982+2-216977-4 242204+7 509518+2 1269. 2200.32					F1Na1 (cr, l)
-137520+6 484729+5 152514+2-146280-6 241949+7 509544+2 2200. 3500.32					F1Na1 (cr, l)
1 9 1 11	JANAF 1998				2F1Na1 (g)
-694199+5 255169+5 860952+1 542051-3-529255+5 730311+2298.15 577.11					F1Na1 (g)
-694199+5 246241+5 893824+1 164129-3-897687+5 726040+2 577. 6000.11					F1Na1 (g)
1 9 1 11	JANAF 1998				5F1Na1 (l)
-130546+6 368649+5 121598+2 975724-3-111364+6 476485+2298.15 400.31					F1Na1 (l)
-130546+6 420297+5 111008+2 273943-2-548073+5 502740+2 400. 623.31					F1Na1 (l)
-130546+6 467700+5 911106+1 486222-2 204169+6 525116+2 623. 900.31					F1Na1 (l)
-130546+6 414977+5 152504+2-267964-5 246290+7 509557+2 900. 2540.32					F1Na1 (l)
-130546+6 414986+5 152445+2 165198-5 243032+7 509560+2 2540. 3500.32					F1Na1 (l)
1 9 1 8	JANAF 1998				5F1O1 (g)
260000+5 321387+5 640114+1 333617-2-684535+4 755199+2298.15 416.11					F1O1 (g)
260000+5 268824+5 754334+1 150744-2-728577+5 728640+2 416. 603.11					F1O1 (g)
260000+5 243104+5 855951+1 385645-3-196387+6 716425+2 603. 1018.11					F1O1 (g)
260000+5 240120+5 891267+1 154889-3-318930+6 715145+2 1018. 4067.11					F1O1 (g)
260000+5 239952+5 840701+1 237750-3 247087+7 715093+2 4067. 6000.11					F1O1 (g)
1 9 1 8 1 22	JANAF 1998				4F1O1Ti1 (g)
-103540+6 520435+5 113312+2 488181-2-106854+6 986406+2298.15 407.11					F1O1Ti1 (g)
-103540+6 424438+5 133495+2 157732-2-218409+6 937734+2 407. 600.11					F1O1Ti1 (g)
-103540+6 392188+5 146047+2 179773-3-368399+6 922394+2 600. 1089.11					F1O1Ti1 (g)
-103540+6 390112+5 148962+2 131221-5-483635+6 921516+2 1089. 6000.11					F1O1Ti1 (g)
1 9 2 8	JANAF 1998				4F1O2 (g)
300000+4 444307+5 101759+2 384422-2-633142+5 954313+2298.15 502.11					F1O2 (g)
300000+4 380771+5 120250+2 139481-2-219436+6 923174+2 502. 802.11					F1O2 (g)
300000+4 359640+5 134690+2 197555-3-530580+6 913662+2 802. 1441.11					F1O2 (g)
300000+4 358424+5 138907+2 309154-5-824457+6 913179+2 1441. 6000.11					F1O2 (g)

1 9 1 15	JANAF 1998				5F1P1 (g)		
-124880+5	285697+5	743284+1	193217-2-402768+5	758993+2298.15	492.11	F1P1 (g)	
-124880+5	242456+5	864943+1	286133-3-138733+6	737726+2	492.1458.11	F1P1 (g)	
-124880+5	243948+5	835614+1	448928-3-198359+5	738334+2	1458.2539.11	F1P1 (g)	
-124880+5	243907+5	932208+1	195477-3-209836+7	738320+2	2539.4620.11	F1P1 (g)	
-124880+5	241947+5	740980+1	471332-3	115157+8	737734+2	4620.6000.11	F1P1 (g)
1 9 1 15 1 99	JANAF 1998				5F1P1- (g)		
-392079+5	262136+5	829411+1	868226-3-212682+5	751788+2298.15	474.11	F1P1- (g)	
-392079+5	245058+5	874663+1	232221-3-552058+5	743336+2	474.812.11	F1P1- (g)	
-392079+5	242484+5	892699+1	844305-4-949961+5	742180+2	812.3198.11	F1P1- (g)	
-392079+5	242483+5	860561+1	151418-3	100083+7	742179+2	3198.4319.11	F1P1- (g)
-392079+5	242159+5	805901+1	235751-3	440279+7	742081+2	4319.6000.11	F1P1- (g)
1 9 1 15 -1 99	JANAF 1998				5F1P1+ (g)		
215468+6	282198+5	735012+1	187162-2	720834+4	755862+2298.15	469.11	F1P1+ (g)
215468+6	251276+5	815701+1	726378-3-521306+5	740534+2	469.700.11	F1P1+ (g)	
215468+6	239880+5	874328+1	166108-3-147234+6	735262+2	700.1177.11	F1P1+ (g)	
215468+6	238826+5	892797+1	615742-4-232644+6	734824+2	1177.4454.11	F1P1+ (g)	
215468+6	238578+5	860666+1	109645-3	189419+7	734749+2	4454.6000.11	F1P1+ (g)
1 9 1 15 1 16	JANAF 1998				4F1P1S1 (g)		
-411730+5	501193+5	100489+2	521428-2-873712+5	103152+3298.15	408.11	F1P1S1 (g)	
-411730+5	400381+5	121789+2	173864-2-205877+6	980433+2	408.602.11	F1P1S1 (g)	
-411730+5	365202+5	135660+2	205613-3-374124+6	963723+2	602.1091.11	F1P1S1 (g)	
-411730+5	362851+5	139012+2	156243-5-508072+6	962729+2	1091.6000.11	F1P1S1 (g)	
1 9 1 82	JANAF 1998				5F1Pb1 (g)		
-191840+5	256454+5	856529+1	593231-3-463253+5	808351+2298.15	535.11	F1Pb1 (g)	
-191840+5	245086+5	884028+1	182309-3-621109+5	802696+2	535.1331.11	F1Pb1 (g)	
-191840+5	248146+5	805082+1	577564-3	404482+6	803935+2	1331.2654.11	F1Pb1 (g)
-191840+5	248126+5	923116+1	281104-3-236745+7	803928+2	2654.3495.11	F1Pb1 (g)	
-191840+5	248164+5	102005+2	963684-4-632090+7	803940+2	3495.6000.11	F1Pb1 (g)	
1 9 1 16	JANAF 1998				5F1S1 (g)		
309990+4	253941+5	862762+1	490074-3-331023+5	748748+2298.15	450.11	F1S1 (g)	
309990+4	244746+5	885165+1	157635-3-481754+5	744157+2	450.754.11	F1S1 (g)	
309990+4	243367+5	893417+1	846369-4-637960+5	743529+2	754.3133.11	F1S1 (g)	
309990+4	243367+5	864771+1	145559-3	874471+6	743529+2	3133.4287.11	F1S1 (g)
309990+4	243052+5	808159+1	233551-3	434620+7	743433+2	4287.6000.11	F1S1 (g)
1 9 1 16 1 99	JANAF 1998				5F1S1- (g)		
-445961+5	264850+5	828623+1	955326-3-528466+5	737234+2298.15	514.11	F1S1- (g)	
-445961+5	244648+5	889755+1	164871-3-107013+6	727373+2	514.2488.11	F1S1- (g)	
-445961+5	244747+5	722985+1	611508-3	333757+7	727408+2	2488.3378.11	F1S1- (g)
-445961+5	244690+5	411506+1	122557-2	152107+8	727389+2	3378.4845.11	F1S1- (g)
-445961+5	249537+5	634567+1	941327-3-482381+7	728804+2	4845.6000.11	F1S1- (g)	
1 9 1 16 -1 99	JANAF 1998				5F1S1+ (g)		
237070+6	283647+5	749034+1	185250-2-420378+5	759114+2298.15	500.11	F1S1+ (g)	
237070+6	241628+5	870473+1	236852-3-143681+6	738506+2	500.1511.11	F1S1+ (g)	
237070+6	242930+5	825046+1	446207-3	171229+6	739022+2	1511.2625.11	F1S1+ (g)
237070+6	242915+5	893645+1	272179-3-140781+7	739017+2	2625.3440.11	F1S1+ (g)	
237070+6	242934+5	964650+1	134661-3-421230+7	739024+2	3440.6000.11	F1S1+ (g)	
1 9 1 14	JANAF 1998				5F1Si1 (g)		
-479995+4	290904+5	736222+1	207531-2-158450+5	764546+2298.15	462.11	F1Si1 (g)	
-479995+4	246320+5	849943+1	437371-3-970556+5	742393+2	462.793.11	F1Si1 (g)	
-479995+4	240143+5	891190+1	915716-4-183992+6	739606+2	793.3332.11	F1Si1 (g)	
-479995+4	240136+5	830167+1	213663-3	207434+7	739604+2	3332.4554.11	F1Si1 (g)
-479995+4	238941+5	700320+1	403628-3	110621+8	739245+2	4554.6000.11	F1Si1 (g)
1 9 1 38	JANAF 1998				5F1Sr1 (g)		
-704001+5	256588+5	857528+1	589455-3-452386+5	784549+2298.15	476.11	F1Sr1 (g)	
-704001+5	244131+5	890756+1	124418-3-703702+5	778388+2	476.2072.11	F1Sr1 (g)	
-704001+5	244642+5	770581+1	510716-3	165264+7	778575+2	2072.2938.11	F1Sr1 (g)
-704001+5	244642+5	562704+1	981847-3	764825+7	778575+2	2938.4452.11	F1Sr1 (g)
-704001+5	246234+5	650029+1	873175-3-705886+5	779046+2	4452.6000.11	F1Sr1 (g)	
1 9 1 38 -1 99	JANAF 1998				5F1Sr1+ (g)		
470999+5	247556+5	868393+1	331703-3-612544+5	762297+2298.15	969.11	F1Sr1+ (g)	
470999+5	250958+5	768513+1	836448-3	417336+6	763543+2	969.1679.11	F1Sr1+ (g)
470999+5	259029+5	238550+1	294000-2	540076+7	766641+2	1679.2960.11	F1Sr1+ (g)
470999+5	259028+5	127066+2	616004-3-247575+8	766641+2	2960.3658.11	F1Sr1+ (g)	
470999+5	260040+5	242123+2-147882-2-761786+8	766962+2	3658.6000.11	F1Sr1+ (g)		

1 9 1 22	JANAF 1998	5F1Ti1 (g)
-160000+5 366634+5 833521+1 322562-2-758252+5 842290+2298.15 481.11		F1Ti1 (g)
-160000+5 274830+5 108358+2-227667-3-270072+6 796985+2 481. 1047.11		F1Ti1 (g)
-160000+5 279181+5 101176+2 188674-3 393865+5 798796+2 1047. 2397.11		F1Ti1 (g)
-160000+5 279108+5 108393+2-119184-4-134435+7 798770+2 2397. 4654.11		F1Ti1 (g)
-160000+5 278582+5 103508+2 580703-4 217984+7 798613+2 4654. 6000.11		F1Ti1 (g)
1 9 1 74	JANAF 1998	5F1W1 (g)
923000+5 366681+5 800321+1 343067-2-797544+5 873006+2298.15 501.11		F1W1 (g)
923000+5 253145+5 113034+2-944300-3-357955+6 817354+2 501. 1284.11		F1W1 (g)
923000+5 258822+5 100187+2-275074-3 343501+6 819673+2 1284. 1864.11		F1W1 (g)
923000+5 259474+5 928208+1-110606-4 119294+7 819917+2 1864. 2858.11		F1W1 (g)
923000+5 259474+5 899421+1 561620-4 197502+7 819917+2 2858. 6000.11		F1W1 (g)
1 9 1 40	JANAF 1998	5F1Zr1 (g)
198000+5 281619+5 805847+1 146448-2-450088+5 805395+2298.15 750.11		F1Zr1 (g)
198000+5 282132+5 828853+1 137575-2-136985+6 805821+2 750. 1169.11		F1Zr1 (g)
198000+5 273874+5 970863+1 566786-3-785302+6 802381+2 1169. 1597.11		F1Zr1 (g)
198000+5 271442+5 109767+2 377024-4-186441+7 801437+2 1597. 3285.11		F1Zr1 (g)
198000+5 271436+5 101235+2 210735-3 120836+7 801434+2 3285. 6000.11		F1Zr1 (g)
2 9	JANAF 1998	5F2 (ref)
000000+0 289642+5 727762+1 211336-2-381033+5 707417+2298.15 518.11		F2 (ref)
000000+0 245679+5 863257+1 381018-3-160885+6 685999+2 518. 1516.11		F2 (ref)
000000+0 243121+5 972896+1-980176-4-101164+7 684995+2 1516. 2118.11		F2 (ref)
000000+0 242086+5 127121+2-103293-2-551110+7 684619+2 2118. 4061.11		F2 (ref)
000000+0 240878+5 887084+1-400075-3 154543+8 684246+2 4061. 6000.11		F2 (ref)
2 9 1 26	JANAF 1998	5F2Fe1 (cr)
-168700+6 653226+5 155710+2 527065-2-766804+5 705533+2298.15 499.21		F2Fe1 (cr)
-168700+6 567613+5 180314+2 198573-2-281170+6 663519+2 499. 799.21		F2Fe1 (cr)
-168700+6 533787+5 203171+2 803810-4-768426+6 648275+2 799. 1260.21		F2Fe1 (cr)
-168700+6 534284+5 198336+2 273399-3-386976+6 648429+2 1260. 1668.21		F2Fe1 (cr)
-168700+6 532594+5 209068+2-155515-3-138229+7 647780+2 1668. 2000.21		F2Fe1 (cr)
2 9 1 26	JANAF 1998	5F2Fe1 (cr, l)
-168700+6 653307+5 155696+2 527327-2-766268+5 705575+2298.15 500.21		F2Fe1 (cr, l)
-168700+6 566906+5 180581+2 195541-2-284013+6 663183+2 500. 813.21		F2Fe1 (cr, l)
-168700+6 532403+5 204674+2-218693-4-813968+6 647683+2 813. 1373.21		F2Fe1 (cr, l)
-168700+6 709734+5 235000+2 000000+0 466296-2 763761+2 1373. 1500.32		F2Fe1 (cr, l)
-168700+6 709734+5 235000+2 000000+0 296528-5 763761+2 1500. 3000.32		F2Fe1 (cr, l)
2 9 1 26	JANAF 1998	5F2Fe1 (g)
-930999+5 589753+5 136989+2 504257-2-167057+6 107681+3298.15 401.11		F2Fe1 (g)
-930999+5 383448+5 179461+2-201146-2-395148+6 971979+2 401. 820.11		F2Fe1 (g)
-930999+5 420291+5 153214+2 122348-3 193176+6 988500+2 820. 1893.11		F2Fe1 (g)
-930999+5 419669+5 161037+2-153067-3-741867+6 988268+2 1893. 3948.11		F2Fe1 (g)
-930999+5 419547+5 155930+2-668036-4 190918+7 988230+2 3948. 6000.11		F2Fe1 (g)
2 9 1 26	JANAF 1998	2F2Fe1 (l)
-161221+6 634935+5 235000+2 000000+0-465854-8 763730+2298.15 1600.31		F2Fe1 (l)
-161221+6 634935+5 235000+2 000000+0-645614-6 763730+2 1600. 3000.31		F2Fe1 (l)
2 9 1 1 19	JANAF 1998	2F2H1K1 (cr)
-222570+6 130557+6 115403+2 222917-1 180935+5 111893+3298.15469.8521		F2H1K1 (cr)
-222570+6 667781+5 239601+2 000000+0-303859-7 841858+2469.85 2000.22		F2H1K1 (cr)
2 9 1 1 19	JANAF 1998	4F2H1K1 (cr, l)
-222570+6 130557+6 115403+2 222917-1 180935+5 111893+3298.15469.8521		F2H1K1 (cr, l)
-222570+6 667781+5 239601+2 000000+0 112445-2 841858+2469.85511.9522		F2H1K1 (cr, l)
-222570+6 709475+5 250000+2 000000+0 361177-5 891146+2511.95 735.33		F2H1K1 (cr, l)
-222570+6 709475+5 250000+2 000000+0 655064-6 891146+2 735. 2000.33		F2H1K1 (cr, l)
2 9 1 1 19	JANAF 1998	2F2H1K1 (l)
-219066+6 115111+7-132077+3 335404+0 448611+7 657991+3298.15 314.31		F2H1K1 (l)
-219066+6 674432+5 250000+2 000000+0 172323-7 891139+2 314. 2000.32		F2H1K1 (l)
2 9 2 1	JANAF 1998	5F2H2 (g)
-136870+6 587571+5 930888+1 759377-2-756428+5 986481+2298.15 484.11		F2H2 (g)
-136870+6 472485+5 124876+2 324255-2-326930+6 929769+2 484. 1020.11		F2H2 (g)
-136870+6 453673+5 147759+2 176325-2-113783+7 921719+2 1020. 1608.11		F2H2 (g)
-136870+6 447879+5 179728+2 446019-3-392733+7 919475+2 1608. 2615.11		F2H2 (g)
-136870+6 447844+5 195875+2 363578-4-764339+7 919463+2 2615. 6000.11		F2H2 (g)

2 9 2 1 1 14	JANAF 1998				5F2H2Si1 (g)
-189000+6 971590+5 102868+2 156887-1-177529+6 127774+3298.15 448.11					F2H2Si1 (g)
-189000+6 740931+5 159167+2 734428-2-557177+6 116260+3 448. 700.11					F2H2Si1 (g)
-189000+6 645648+5 208866+2 262904-2-137511+7 111859+3 700. 1097.11					F2H2Si1 (g)
-189000+6 620853+5 244836+2 453110-3-283114+7 110812+3 1097. 1891.11					F2H2Si1 (g)
-189000+6 619881+5 257339+2 143921-4-433578+7 110776+3 1891. 6000.11					F2H2Si1 (g)
2 9 1 80	JANAF 1998				2F2Hg1 (cr)
-101000+6 665879+5 164002+2 499985-2 457506+1 791730+2298.15 918.21					F2Hg1 (cr)
-101000+6 665883+5 164004+2 499988-2-189701+3 791732+2 918. 2000.21					F2Hg1 (cr)
2 9 1 80	JANAF 1998				5F2Hg1 (cr, l)
-101000+6 671092+5 163110+2 516857-2 346768+4 794423+2298.15 400.21					F2Hg1 (cr, l)
-101000+6 665882+5 164001+2 500000-2-224080-7 791729+2 400. 800.21					F2Hg1 (cr, l)
-101000+6 665229+5 164506+2 496042-2-120710+5 791439+2 800. 918.21					F2Hg1 (cr, l)
-101000+6 683511+5 244001+2 000000+0-589151-5 842274+2 918. 1491.32					F2Hg1 (cr, l)
-101000+6 683511+5 244001+2 000000+0-939394-4 842274+2 1491. 2000.32					F2Hg1 (cr, l)
2 9 1 80	JANAF 1998				5F2Hg1 (g)
-701850+5 461775+5 132449+2 239623-2-942999+5 101449+3298.15 392.11					F2Hg1 (g)
-701850+5 414863+5 141888+2 803735-3-143414+6 990597+2 392. 523.11					F2Hg1 (g)
-701850+5 399045+5 146795+2 178831-3-188253+6 982896+2 523. 800.11					F2Hg1 (g)
-701850+5 396101+5 148660+2 184395-4-225431+6 981561+2 800. 1342.11					F2Hg1 (g)
-701850+5 395962+5 149027+2 208935-6-247483+6 981505+2 1342. 6000.11					F2Hg1 (g)
2 9 1 80	JANAF 1998				2F2Hg1 (l)
-967727+5 665896+5 163998+2 500046-2 259791+2 834595+2298.15 613.31					F2Hg1 (l)
-967727+5 641238+5 244001+2 000000+0 126828-6 842279+2 613. 2000.32					F2Hg1 (l)
2 9 2 80	JANAF 1998				5F2Hg2 (cr)
-116000+6 950190+5 221025+2 795152-2-420899+5 110679+3298.15 495.21					F2Hg2 (cr)
-116000+6 880342+5 240965+2 527819-2-206427+6 107249+3 495. 741.21					F2Hg2 (cr)
-116000+6 833252+5 263722+2 302741-2-540167+6 105061+3 741. 1000.21					F2Hg2 (cr)
-116000+6 814219+5 285459+2 158691-2-127342+7 104243+3 1000. 1233.21					F2Hg2 (cr)
-116000+6 799126+5 315865+2-562401-4-281584+7 103621+3 1233. 1500.21					F2Hg2 (cr)
2 9 1 19 1 99	JANAF 1998				4F2K1- (g)
-166000+6 424818+5 142642+2 940065-3-815701+5 975802+2298.15 400.11					F2K1- (g)
-166000+6 403637+5 146977+2 217169-3-104664+6 965032+2 400. 590.11					F2K1- (g)
-166000+6 399014+5 148729+2 190681-4-124979+6 962827+2 590. 1065.11					F2K1- (g)
-166000+6 398785+5 149032+2 127115-6-136451+6 962730+2 1065. 6000.11					F2K1- (g)
2 9 2 3	JANAF 1998				4F2K2 (g)
-206200+6 541638+5 196815+2 281702-3-886841+5 122152+3298.15 405.11					F2K2 (g)
-206200+6 535064+5 198187+2 559626-4-961879+5 121819+3 405. 600.11					F2K2 (g)
-206200+6 533867+5 198647+2 434933-5-101609+6 121762+3 600. 1082.11					F2K2 (g)
-206200+6 533816+5 198717+2 300926-7-104343+6 121760+3 1082. 6000.11					F2K2 (g)
2 9 1 3 1 99	JANAF 1998				5F2Li1- (g)
-170000+6 489025+5 111952+2 425133-2-951461+5 916577+2298.15 460.11					F2Li1- (g)
-170000+6 416397+5 130208+2 159687-2-223052+6 880434+2 460. 712.11					F2Li1- (g)
-170000+6 391918+5 142000+2 429603-3-399521+6 869044+2 712. 1000.11					F2Li1- (g)
-170000+6 386149+5 148381+2 126329-5-609325+6 866556+2 1000. 1288.11					F2Li1- (g)
-170000+6 386685+5 148905+2 215027-5-698175+6 866796+2 1288. 6000.11					F2Li1- (g)
2 9 2 3	JANAF 1998				5F2Li2 (g)
-225330+6 671464+5 160807+2 547714-2-233397+6 112412+3298.15 399.11					F2Li2 (g)
-225330+6 560926+5 183211+2 171616-2-351159+6 106787+3 399. 540.11					F2Li2 (g)
-225330+6 527516+5 193890+2 380802-3-452285+6 105165+3 540. 800.11					F2Li2 (g)
-225330+6 521239+5 198004+2 327413-4-537408+6 104881+3 800. 1496.11					F2Li2 (g)
-225330+6 521029+5 198695+2 381258-6-583666+6 104873+3 1496. 6000.11					F2Li2 (g)
2 9 1 12	JANAF 1998				5F2Mg1 (cr)
-268700+6 631351+5 160057+2 462553-2-238093+6 618093+2298.15 471.21					F2Mg1 (cr)
-268700+6 545041+5 182943+2 141040-2-409869+6 575380+2 471. 720.21					F2Mg1 (cr)
-268700+6 534542+5 188706+2 877897-3-509826+6 570554+2 720. 1229.21					F2Mg1 (cr)
-268700+6 533899+5 189129+2 839853-3-503152+6 570276+2 1229. 1500.21					F2Mg1 (cr)
-268700+6 533451+5 190545+2 772743-3-595363+6 570098+2 1500. 2000.21					F2Mg1 (cr)
2 9 1 12	JANAF 1998				5F2Mg1 (cr, l)
-268700+6 631820+5 159977+2 464071-2-237783+6 618335+2298.15 473.21					F2Mg1 (cr, l)
-268700+6 545709+5 182704+2 143839-2-407368+6 575700+2 473. 703.21					F2Mg1 (cr, l)
-268700+6 535280+5 188121+2 923315-3-496133+6 570880+2 703. 1017.21					F2Mg1 (cr, l)
-268700+6 533658+5 189902+2 803400-3-554195+6 570180+2 1017. 1536.21					F2Mg1 (cr, l)
-268700+6 703164+5 226869+2 000000+0-522022-5 675373+2 1536. 3000.32					F2Mg1 (cr, l)

2 9 1 12	JANAF 1998				5F2Mg1 (g)
-173700+6 458550+5 113978+2 343351-2-789019+5 964331+2298.15 406.11					F2Mg1 (g)
-173700+6 391456+5 128045+2 112601-2-156357+6 930303+2 406. 600.11					F2Mg1 (g)
-173700+6 370875+5 135585+2 256560-3-239973+6 920455+2 600. 800.11					F2Mg1 (g)
-173700+6 367123+5 138309+2 369785-4-301930+6 918776+2 800. 1407.11					F2Mg1 (g)
-173700+6 366872+5 139075+2 449281-6-351712+6 918676+2 1407. 6000.11					F2Mg1 (g)
2 9 1 12	JANAF 1998				5F2Mg1 (l)
-256299+6 869454+5 119398+2 123282-1-804802+5 819296+2298.15 400.31					F2Mg1 (l)
-256299+6 565716+5 175924+2 225867-2-340448+6 663403+2 400. 600.31					F2Mg1 (l)
-256299+6 539769+5 185375+2 116510-2-444477+6 650982+2 600. 800.31					F2Mg1 (l)
-256299+6 534452+5 188812+2 872391-3-514546+6 648576+2 800. 1000.31					F2Mg1 (l)
-256299+6 579101+5 226869+2 000000+0-391306-6 675225+2 1000. 3000.32					F2Mg1 (l)
2 9 1 12 -1 99	JANAF 1998				5F2Mg1+ (g)
141487+6 460721+5 129732+2 254556-2-106452+6 979091+2298.15 447.11					F2Mg1+ (g)
141487+6 402269+5 143921+2 434994-3-201447+6 949896+2 447. 748.11					F2Mg1+ (g)
141487+6 394290+5 148655+2 144639-4-290324+6 946256+2 748. 2797.11					F2Mg1+ (g)
141487+6 394292+5 143306+2 142010-3 110349+7 946257+2 2797. 3810.11					F2Mg1+ (g)
141487+6 394175+5 135739+2 274402-3 476589+7 946220+2 3810. 6000.11					F2Mg1+ (g)
2 9 1 42	JANAF 1998				4F2Mo1 (g)
-389001+5 402315+5 148160+2 115880-3-104397+6 989055+2298.15 425.11					F2Mo1 (g)
-389001+5 399290+5 148580+2 229474-4-104860+6 987471+2 425. 1133.11					F2Mo1 (g)
-389001+5 399088+5 148897+2 428081-5-118410+6 987386+2 1133. 2041.11					F2Mo1 (g)
-389001+5 399082+5 149020+2 267352-6-135470+6 987384+2 2041. 6000.11					F2Mo1 (g)
2 9 1 7	JANAF 1998				4F2N1 (g)
100999+5 519488+5 878011+1 638846-2-787571+5 968066+2298.15 446.11					F2N1 (g)
100999+5 393112+5 118436+2 182747-2-283491+6 904937+2 446. 683.11					F2N1 (g)
100999+5 359807+5 135035+2 214550-3-543922+6 889483+2 683. 1229.11					F2N1 (g)
100999+5 357865+5 138972+2 216365-5-744424+6 888684+2 1229. 6000.11					F2N1 (g)
2 9 2 7	JANAF 1998				5F2N2 (g)_01
164001+5 822310+5 965493+1 126914-1-133209+6 117909+3298.15 400.11					F2N2 (g)_01
164001+5 619140+5 139259+2 569803-2-368990+6 107608+3 400. 589.11					F2N2 (g)_01
164001+5 520682+5 176583+2 147892-2-801717+6 102913+3 589. 899.11					F2N2 (g)_01
164001+5 500960+5 193900+2 198377-3-127086+7 102045+3 899. 1564.11					F2N2 (g)_01
164001+5 500011+5 198488+2 355550-5-164784+7 102008+3 1564. 6000.11					F2N2 (g)_01
2 9 2 7	JANAF 1998				5F2N2 (g)_02
194001+5 765075+5 107520+2 107218-1-104040+6 115964+3298.15 400.11					F2N2 (g)_02
194001+5 613722+5 139605+2 549794-2-283066+6 108297+3 400. 594.11					F2N2 (g)_02
194001+5 523245+5 174426+2 159583-2-693877+6 103989+3 594. 908.11					F2N2 (g)_02
194001+5 502457+5 193102+2 228477-3-121001+7 103076+3 908. 1580.11					F2N2 (g)_02
194001+5 501402+5 198435+2 436191-5-165743+7 103035+3 1580. 6000.11					F2N2 (g)_02
2 9 1 11 1 99	JANAF 1998				4F2Na1- (g)
-160000+6 446888+5 136256+2 183119-2-942230+5 957672+2298.15 403.11					F2Na1- (g)
-160000+6 407475+5 144416+2 481158-3-138386+6 937657+2 403. 600.11					F2Na1- (g)
-160000+6 397388+5 148253+2 482561-4-183009+6 932848+2 600. 1068.11					F2Na1- (g)
-160000+6 396811+5 149021+2 327937-6-212148+6 932603+2 1068. 6000.11					F2Na1- (g)
2 9 2 11	JANAF 1998				5F2Na2 (g)
-202300+6 588087+5 184091+2 216390-2-189160+6 115952+3298.15 393.11					F2Na2 (g)
-202300+6 543472+5 193020+2 651885-3-235290+6 113678+3 393. 518.11					F2Na2 (g)
-202300+6 530285+5 197055+2 133703-3-271531+6 113035+3 518. 800.11					F2Na2 (g)
-202300+6 528045+5 198477+2 115405-4-299964+6 112933+3 800. 1363.11					F2Na2 (g)
-202300+6 527962+5 198711+2 132928-6-314587+6 112930+3 1363. 6000.11					F2Na2 (g)
2 9 1 8	JANAF 1998				5F2O1 (g)
585994+4 520435+5 950258+1 597457-2-831244+5 967362+2298.15 400.11					F2O1 (g)
585994+4 416593+5 116317+2 242854-2-196834+6 914575+2 400. 537.11					F2O1 (g)
585994+4 372433+5 130688+2 650941-3-335987+6 893181+2 537. 800.11					F2O1 (g)
585994+4 362043+5 137556+2 723307-4-479287+6 888489+2 800. 1396.11					F2O1 (g)
585994+4 361548+5 139048+2 876154-6-575729+6 888291+2 1396. 6000.11					F2O1 (g)
2 9 1 8 1 16	JANAF 1998				5F2O1S1 (g)
-130000+6 746854+5 126559+2 919318-2-155465+6 119880+3298.15 400.11					F2O1S1 (g)
-130000+6 592757+5 158878+2 389289-2-333356+6 112066+3 400. 586.11					F2O1S1 (g)
-130000+6 523501+5 184906+2 935964-3-632111+6 108760+3 586. 892.11					F2O1S1 (g)
-130000+6 510792+5 195855+2 119531-3-923830+6 108199+3 892. 1546.11					F2O1S1 (g)
-130000+6 510195+5 198586+2 206044-5-114265+7 108176+3 1546. 6000.11					F2O1S1 (g)

2 9 1 8 1 14	JANAF 1998				5F201Si1 (g)
-231000+6 780014+5 112476+2 107843-1-145039+6 119101+3298.15 400.11					F201Si1 (g)
-231000+6 606129+5 149051+2 479785-2-347107+6 110286+3 400. 588.11					F201Si1 (g)
-231000+6 522420+5 180664+2 121652-2-712021+6 106292+3 588. 894.11					F201Si1 (g)
-231000+6 506023+5 194879+2 159464-3-109282+7 105570+3 894. 1552.11					F201Si1 (g)
-231000+6 505239+5 198539+2 277885-5-138876+7 105539+3 1552. 6000.11					F201Si1 (g)
2 9 1 8 1 22	JANAF 1998				5F201Ti1 (g)
-221050+6 693699+5 152471+2 645405-2-192667+6 119581+3298.15 399.11					F201Ti1 (g)
-221050+6 576278+5 176281+2 245829-2-317908+6 113605+3 399. 527.11					F201Ti1 (g)
-221050+6 529851+5 190917+2 612701-3-454251+6 111348+3 527. 800.11					F201Ti1 (g)
-221050+6 519901+5 197353+2 647374-4-585618+6 110898+3 800. 1373.11					F201Ti1 (g)
-221050+6 519442+5 198670+2 794549-6-668320+6 110879+3 1373. 6000.11					F201Ti1 (g)
2 9 2 8 1 16	JANAF 1998				5F202S1 (g)
-181300+6 102079+6 136940+2 147488-1-209764+6 138058+3298.15 413.11					F202S1 (g)
-181300+6 793256+5 185977+2 685371-2-490008+6 126552+3 413. 600.11					F202S1 (g)
-181300+6 677235+5 230588+2 185184-2-101562+7 121026+3 600. 901.11					F202S1 (g)
-181300+6 652590+5 252295+2 248844-3-160527+7 119942+3 901. 1563.11					F202S1 (g)
-181300+6 651396+5 258046+2 444605-5-207717+7 119896+3 1563. 6000.11					F202S1 (g)
2 9 1 15	JANAF 1998				5F2P1 (g)
-116696+6 473935+5 105392+2 431467-2-101301+6 982480+2298.15 458.11					F2P1 (g)
-116696+6 375632+5 130206+2 716459-3-276121+6 933582+2 458. 796.11					F2P1 (g)
-116696+6 363177+5 138613+2 152729-4-455163+6 927968+2 796. 3453.11					F2P1 (g)
-116696+6 363153+5 130499+2 172087-3 276287+7 927961+2 3453. 4549.11					F2P1 (g)
-116696+6 361931+5 117029+2 369514-3 120525+8 927594+2 4549. 6000.11					F2P1 (g)
2 9 1 15 1 99	JANAF 1998				5F2P1- (g)
-152767+6 502379+5 101108+2 520141-2-844907+5 984118+2298.15 398.11					F2P1- (g)
-152767+6 407508+5 120656+2 195664-2-189575+6 935916+2 398. 550.11					F2P1- (g)
-152767+6 371680+5 132584+2 501333-3-308249+6 918599+2 550. 800.11					F2P1- (g)
-152767+6 363764+5 137865+2 583419-4-419466+6 915028+2 800. 1400.11					F2P1- (g)
-152767+6 363355+5 139057+2 742343-6-495046+6 914864+2 1400. 6000.11					F2P1- (g)
2 9 1 15 -1 99	JANAF 1998				5F2P1+ (g)
112876+6 475606+5 104734+2 439063-2-992148+5 969749+2298.15 458.11					F2P1+ (g)
112876+6 376154+5 129817+2 751444-3-275739+6 920274+2 458. 789.11					F2P1+ (g)
112876+6 363024+5 138528+2 188482-4-458214+6 914347+2 789. 3268.11					F2P1+ (g)
112876+6 363018+5 128419+2 225269-3 313427+7 914345+2 3268. 4373.11					F2P1+ (g)
112876+6 361932+5 111945+2 476340-3 136410+8 914016+2 4373. 6000.11					F2P1+ (g)
2 9 1 82	JANAF 1998				4F2Pb1 (cr)_01
-161800+6 366180+5 218797+2-485882-2-280985+6 628225+2298.15 400.21					F2Pb1 (cr)_01
-161800+6 645647+5 181268+2 364390-2-224707+6 775407+2 400. 583.21					F2Pb1 (cr)_01
-161800+6 789679+5 134525+2 943884-2 215749+6 845131+2 583. 700.21					F2Pb1 (cr)_01
-161800+6 755422+5 150045+2 785032-2 129793+3 829101+2 700. 1000.21					F2Pb1 (cr)_01
2 9 1 82	JANAF 1998				5F2Pb1 (cr)_02
-161565+6 900068+5 124709+2 125452-1 137915+6 907975+2298.15 450.21					F2Pb1 (cr)_02
-161565+6 203519+6-180298+2 550431-1 244169+7 146864+3 450. 600.21					F2Pb1 (cr)_02
-161565+6-991789+6 592343+3-532066+0-904770+8-403732+3 600. 800.21					F2Pb1 (cr)_02
-161565+6 160684+6-759754+2 690909-1 294545+8 122493+3 800. 1000.21					F2Pb1 (cr)_02
-161565+6 617747+5 225700+2 000000+0-281420-5 794834+2 1000. 1500.21					F2Pb1 (cr)_02
2 9 1 82	JANAF 1998				6F2Pb1 (cr, l)
-161800+6 366180+5 218797+2-485882-2-280985+6 628225+2298.15 400.21					F2Pb1 (cr, l)
-161800+6 645647+5 181268+2 364390-2-224707+6 775407+2 400. 583.21					F2Pb1 (cr, l)
-161800+6 115778+7-381419+3 464694+0 447778+8 601672+3 583. 700.22					F2Pb1 (cr, l)
-161800+6 259370+6-152535+3 129068+0 477442+8 165687+3 700. 900.22					F2Pb1 (cr, l)
-161800+6 614213+5 225700+2 000000+0-235982-4 786459+2 900. 1103.22					F2Pb1 (cr, l)
-161800+6 716375+5 260999+2 000000+0-819925-5 853691+2 1103. 1500.33					F2Pb1 (cr, l)
2 9 1 82	JANAF 1998				4F2Pb1 (g)
-104000+6 418371+5 127098+2 174612-2-936293+5 103469+3298.15 401.11					F2Pb1 (g)
-104000+6 379696+5 135058+2 423848-3-136361+6 101504+3 401. 600.11					F2Pb1 (g)
-104000+6 370733+5 138458+2 396324-4-175783+6 101077+3 600. 1068.11					F2Pb1 (g)
-104000+6 370259+5 139089+2 238713-6-199740+6 101056+3 1068. 6000.11					F2Pb1 (g)
2 9 1 82	JANAF 1998				3F2Pb1 (l)
-157820+6 805080+4 264652+2-139674-1-404542+6 524038+2298.15 400.31					F2Pb1 (l)
-157820+6 732248+5 155497+2 700048-2-225063-6 861682+2 400. 700.31					F2Pb1 (l)
-157820+6 677032+5 260999+2 000000+0 233136-6 854206+2 700. 1500.32					F2Pb1 (l)

2 9 1 16	JANAF 1998					5F2S1 (g)	
-709001+5	501160+5	101680+2	514044-2-860726+5	984513+2298.15	400.11	F2S1 (g)	
-709001+5	408353+5	120692+2	197209-2-187490+6	937330+2	400. 539.11	F2S1 (g)	
-709001+5	371977+5	132574+2	505671-3-303061+6	919714+2	539. 800.11	F2S1 (g)	
-709001+5	363909+5	137907+2	564114-4-414323+6	916072+2	800. 1400.11	F2S1 (g)	
-709001+5	363514+5	139059+2	716648-6-487304+6	915913+2	1400. 6000.11	F2S1 (g)	
2 9 1 16 1 99	JANAF 1998					5F2S1- (g)	
-952261+5	421254+5	126143+2	187663-2-105296+6	975023+2298.15	402.11	F2S1- (g)	
-952261+5	380187+5	134613+2	471657-3-150901+6	954160+2	402. 600.11	F2S1- (g)	
-952261+5	371200+5	137843+2	949606-4-185795+6	949851+2	600. 800.11	F2S1- (g)	
-952261+5	369754+5	138840+2	126390-4-207483+6	949201+2	800. 1376.11	F2S1- (g)	
-952261+5	369662+5	139094+2	160785-6-222996+6	949164+2	1376. 6000.11	F2S1- (g)	
2 9 1 16 -1 99	JANAF 1998					5F2S1+ (g)	
167875+6	471259+5	106575+2	418446-2-103697+6	982919+2298.15	457.11	F2S1+ (g)	
167875+6	375475+5	130636+2	684450-3-272149+6	935249+2	457. 792.11	F2S1+ (g)	
167875+6	363528+5	138638+2	145758-4-441272+6	929861+2	792. 3438.11	F2S1+ (g)	
167875+6	363507+5	130657+2	169486-3	269708+7	929854+2	3438. 4539.11	F2S1+ (g)
167875+6	362296+5	117084+2	368848-3	120176+8	929490+2	4539. 6000.11	F2S1+ (g)
2 9 2 16	JANAF 1998					5F2S2 (g)_01	
-804099+5	662722+5	162706+2	512907-2-179225+6	120686+3298.15	400.11	F2S2 (g)_01	
-804099+5	564407+5	182594+2	178598-2-283471+6	115681+3	400. 533.11	F2S2 (g)_01	
-804099+5	529854+5	193487+2	412365-3-384950+6	114002+3	533. 800.11	F2S2 (g)_01	
-804099+5	523104+5	197880+2	394527-4-475164+6	113697+3	800. 1400.11	F2S2 (g)_01	
-804099+5	522830+5	198690+2	460347-6-526929+6	113686+3	1400. 6000.11	F2S2 (g)_01	
2 9 2 16	JANAF 1998					5F2S2 (g)_02	
-959400+5	690403+5	154027+2	628713-2-194677+6	121425+3298.15	404.11	F2S2 (g)_02	
-959400+5	559684+5	181218+2	180278-2-342791+6	114790+3	404. 600.11	F2S2 (g)_02	
-959400+5	522761+5	195291+2	216902-3-506856+6	113030+3	600. 1025.11	F2S2 (g)_02	
-959400+5	520013+5	198548+2	422441-5-619985+6	112912+3	1025. 4367.11	F2S2 (g)_02	
-959400+5	519797+5	195411+2	517704-4	140139+7	112906+3	4367. 6000.11	F2S2 (g)_02
2 9 1 14	JANAF 1998					5F2S1i (g)	
-140500+6	476998+5	103904+2	447043-2-966381+5	968271+2298.15	460.11	F2S1i (g)	
-140500+6	375892+5	129615+2	759976-3-279517+6	918017+2	460. 799.11	F2S1i (g)	
-140500+6	362755+5	138559+2	171017-4-471543+6	912101+2	799. 3404.11	F2S1i (g)	
-140500+6	362736+5	129250+2	199584-3	311723+7	912095+2	3404. 4500.11	F2S1i (g)
-140500+6	361458+5	113927+2	426567-3	134625+8	911710+2	4500. 6000.11	F2S1i (g)
2 9 1 38	JANAF 1998					8F2Srl (cr)	
-290900+6	557329+5	185802+2	137822-2-201492+6	651268+2298.15	664.21	F2Srl (cr)	
-290900+6	626769+5	145088+2	502373-2	526304+6	682877+2	664. 900.21	F2Srl (cr)
-290900+6	838393+5-856614+0	174244-1	393221+7	777428+2	900. 1100.21	F2Srl (cr)	
-290900+6	140904+6-867600+2	687035-1	396229+8	101751+3	1100. 1300.21	F2Srl (cr)	
-290900+6	115745+7-272357+4	138729+1	159889+1	513019+3	1300. 1421.21	F2Srl (cr)	
-290900+6	859376+5	395000+2	000000+0	946296-1	801080+2	1421. 1484.22	F2Srl (cr)
-290900+6	138598+6-494032+3	201946+0	514237+9	989031+2	1484. 1682.23	F2Srl (cr)	
-290900+6	639246+5-141283+2	105990-1	670684+8	702078+2	1682. 2500.23	F2Srl (cr)	
2 9 1 38	JANAF 1998					8F2Srl (cr, l)	
-290900+6	557329+5	185802+2	137822-2-201492+6	651268+2298.15	664.21	F2Srl (cr, l)	
-290900+6	626769+5	145088+2	502373-2	526304+6	682877+2	664. 900.21	F2Srl (cr, l)
-290900+6	838393+5-856614+0	174244-1	393221+7	777428+2	900. 1100.21	F2Srl (cr, l)	
-290900+6	140904+6-867600+2	687035-1	396229+8	101751+3	1100. 1300.21	F2Srl (cr, l)	
-290900+6	115745+7-272357+4	138729+1	159889+1	513019+3	1300. 1421.21	F2Srl (cr, l)	
-290900+6	859376+5	395000+2	000000+0-986707-1	801080+2	1421. 1484.22	F2Srl (cr, l)	
-290900+6	117452+6-389321+3	157632+0	428275+9	906857+2	1484. 1750.23	F2Srl (cr, l)	
-290900+6	708469+5	236730+2	000000+0	401826-6	741714+2	1750. 3500.34	F2Srl (cr, l)
2 9 1 38	JANAF 1998					4F2Srl (g)	
-183100+6	398924+5	132525+2	969945-3-779311+5	102479+3298.15	400.11	F2Srl (g)	
-183100+6	376903+5	137035+2	218201-3-101990+6	101359+3	400. 588.11	F2Srl (g)	
-183100+6	372256+5	138790+2	194148-4-122230+6	101138+3	588. 1059.11	F2Srl (g)	
-183100+6	372021+5	139096+2	121715-6-133720+6	101128+3	1059. 6000.11	F2Srl (g)	
2 9 1 38	JANAF 1998					5F2Srl (l)	
-280125+6	576805+5	182072+2	203068-2-185558+6	726475+2298.15	544.31	F2Srl (l)	
-280125+6	574739+5	175965+2	227921-2-448236+5	724450+2	544. 800.31	F2Srl (l)	
-280125+6	882473+5-525442+1	205076-1	524681+7	861843+2	800. 1000.31	F2Srl (l)	
-280125+6	105271+6-282882+2	348281-1	139601+8	933927+2	1000. 1200.31	F2Srl (l)	
-280125+6	601705+5	236730+2	000000+0	179048-5	742420+2	1200. 3500.32	F2Srl (l)

2 9 1 22	JANAF 1998					5F2Ti1 (g)	
-164500+6	442134+5	136113+2	175960-2-133213+6	965229+2298.15	444.11	F2Ti1 (g)	
-164500+6	399674+5	146308+2	232197-3-200507+6	943998+2	444. 1108.11	F2Ti1 (g)	
-164500+6	409142+5	132400+2	106977-2	367698+6	947990+2	1108. 2361.11	F2Ti1 (g)
-164500+6	408780+5	162338+2	225487-3-520913+7	947862+2	2361. 4252.11	F2Ti1 (g)	
-164500+6	409265+5	171398+2	841163-4-107211+8	948010+2	4252. 6000.11	F2Ti1 (g)	
2 9 1 40	JANAF 1998					5F2Zr1 (cr)	
-230000+6	677837+5	144866+2	646819-2-583138+5	685974+2298.15	642.31	F2Zr1 (cr)	
-230000+6	602452+5	169604+2	341438-2-269865+6	649658+2	642. 963.31	F2Zr1 (cr)	
-230000+6	572986+5	192686+2	161226-2-801056+6	636608+2	963. 1369.31	F2Zr1 (cr)	
-230000+6	555715+5	228360+2-310053-3-255485+7	629538+2	1369. 1800.31		F2Zr1 (cr)	
-230000+6	553101+5	233116+2-619223-3-229271+7	628517+2	1800. 2000.31		F2Zr1 (cr)	
2 9 1 40	JANAF 1998					5F2Zr1 (cr,l)	
-230000+6	679593+5	144513+2	652789-2-567427+5	686862+2298.15	581.21	F2Zr1 (cr,l)	
-230000+6	587730+5	178642+2	262470-2-443284+6	642959+2	581. 861.21	F2Zr1 (cr,l)	
-230000+6	565693+5	202694+2	993998-3-118546+7	633508+2	861. 1175.21	F2Zr1 (cr,l)	
-230000+6	692046+5	240000+2	000000+0-181788-2	730567+2	1175. 1300.32	F2Zr1 (cr,l)	
-230000+6	692046+5	240000+2	000000+0	242039-6	730567+2	1300. 3000.32	F2Zr1 (cr,l)
2 9 1 40	JANAF 1998					5F2Zr1 (g)	
-133400+6	424466+5	123132+2	213972-2-117704+6	101270+3298.15	452.11	F2Zr1 (g)	
-133400+6	372940+5	135832+2	269395-3-204438+6	987008+2	452. 1117.11	F2Zr1 (g)	
-133400+6	381890+5	122379+2	107284-2	354339+6	990775+2	1117. 2357.11	F2Zr1 (g)
-133400+6	381522+5	152329+2	227005-3-520914+7	990645+2	2357. 4219.11	F2Zr1 (g)	
-133400+6	381968+5	161226+2	871699-4-105441+8	990781+2	4219. 6000.11	F2Zr1 (g)	
2 9 1 40	JANAF 1998					4F2Zr1 (l)	
-223937+6	666758+5	146441+2	612729-2-631962+5	741157+2298.15	400.31	F2Zr1 (l)	
-223937+6	660905+5	149826+2	581243-2-972043+5	738747+2	400. 600.31	F2Zr1 (l)	
-223937+6	581358+5	182131+2	230120-2-501769+6	701077+2	600. 800.31	F2Zr1 (l)	
-223937+6	617079+5	240000+2	000000+0	471037-7	730580+2	800. 3000.32	F2Zr1 (l)
3 9 1 26	JANAF 1998					4F3Fe1 (cr)	
-249000+6	296036+6	560171+1	632077-1-239753+6	205875+3298.15	367.21	F3Fe1 (cr)	
-249000+6	632782+6-118068+3	207492+0	929678+7	360819+3	367. 500.22	F3Fe1 (cr)	
-249000+6	715608+5	211246+2	320231-2	347217+5	814860+2	500. 802.22	F3Fe1 (cr)
-249000+6	711578+5	213376+2	300108-2	153272+4	813007+2	802. 2000.22	F3Fe1 (cr)
3 9 1 26	JANAF 1998					5F3Fe1 (g)	
-196200+6	683084+5	155675+2	599271-2-150115+6	123985+3298.15	396.11	F3Fe1 (g)	
-196200+6	570492+5	178729+2	214950-2-272979+6	118261+3	396. 543.11	F3Fe1 (g)	
-196200+6	530431+5	191863+2	532146-3-401302+6	116321+3	543. 800.11	F3Fe1 (g)	
-196200+6	521910+5	197487+2	579531-4-518467+6	115937+3	800. 1394.11	F3Fe1 (g)	
-196200+6	521506+5	198675+2	715814-6-594117+6	115920+3	1394. 6000.11	F3Fe1 (g)	
3 9 1 1 14	JANAF 1998					5F3H1Si1 (g)	
-287000+6	966404+5	133888+2	137099-1-205002+6	133055+3298.15	443.11	F3H1Si1 (g)	
-287000+6	733217+5	189966+2	531704-2-575861+6	121396+3	443. 681.11	F3H1Si1 (g)	
-287000+6	657733+5	227558+2	166268-2-116513+7	117894+3	681. 1081.11	F3H1Si1 (g)	
-287000+6	641563+5	250145+2	277181-3-205436+7	117209+3	1081. 1877.11	F3H1Si1 (g)	
-287000+6	640943+5	257738+2	865817-5-295355+7	117186+3	1877. 6000.11	F3H1Si1 (g)	
3 9 3 1	JANAF 1998					5F3H3 (g)	
-210110+6	947419+5	175005+2	108080-1-230876+6	137237+3298.15	448.11	F3H3 (g)	
-210110+6	799747+5	211172+2	545941-2-475846+6	129869+3	448. 937.11	F3H3 (g)	
-210110+6	758590+5	251443+2	261646-2-167278+7	128075+3	937. 1448.11	F3H3 (g)	
-210110+6	746035+5	296221+2	567102-3-483943+7	127577+3	1448. 2386.11	F3H3 (g)	
-210110+6	745840+5	315385+2	341084-4-850933+7	127570+3	2386. 6000.11	F3H3 (g)	
3 9 3 3	JANAF 1998					5F3Li3 (g)	
-362620+6	106884+6	257599+2	859881-2-340121+6	156811+3298.15	398.11	F3Li3 (g)	
-362620+6	900260+5	291858+2	285804-2-520872+6	148233+3	398. 540.11	F3Li3 (g)	
-362620+6	845540+5	309467+2	665110-3-689043+6	145579+3	540. 800.11	F3Li3 (g)	
-362620+6	834752+5	316509+2	682134-4-834133+6	145091+3	800. 1364.11	F3Li3 (g)	
-362620+6	834271+5	317900+2	819630-6-921842+6	145072+3	1364. 6000.11	F3Li3 (g)	
3 9 1 42	JANAF 1998					5F3Mo1 (g)	
-145100+6	628824+5	170542+2	390319-2-194079+6	119551+3298.15	424.11	F3Mo1 (g)	
-145100+6	554887+5	187116+2	130437-2-293957+6	115827+3	424. 1087.11	F3Mo1 (g)	
-145100+6	544792+5	201255+2	437943-3-851686+6	115400+3	1087. 2555.11	F3Mo1 (g)	
-145100+6	544928+5	212987+2	199393-3-453187+7	115405+3	2555. 3702.11	F3Mo1 (g)	
-145100+6	545278+5	246628+2-406247-3-199092+8	115416+3	3702. 6000.11		F3Mo1 (g)	



3 9 1 7	JANAF 1998					5F3N1 (g)
-315700+5	817491+5	111511+2	116992-1-167498+6	118722+3298.15	400.11	F3N1 (g)
-315700+5	602896+5	156217+2	433392-2-411411+6	107831+3	400. 574.11	F3N1 (g)
-315700+5	521990+5	185604+2	928542-3-73563+6	103956+3	574. 857.11	F3N1 (g)
-315700+5	508685+5	196161+2	111908-3-996970+6	103365+3	857. 1476.11	F3N1 (g)
-315700+5	508044+5	198614+2	164483-5-117688+7	103340+3	1476. 6000.11	F3N1 (g)
3 9 1 7 1 8	JANAF 1998					5F3N1O1 (g)
-390000+5	984994+5	151812+2	130736-1-254289+6	135491+3298.15	408.11	F3N1O1 (g)
-390000+5	772422+5	196793+2	574127-2-505079+6	124721+3	408. 600.11	F3N1O1 (g)
-390000+5	676873+5	233541+2	162162-2-938142+6	120170+3	600. 911.11	F3N1O1 (g)
-390000+5	655842+5	252595+2	231634-3-146860+7	119248+3	911. 1593.11	F3N1O1 (g)
-390000+5	654799+5	258041+2	449426-5-193237+7	119207+3	1593. 6000.11	F3N1O1 (g)
3 9 1 8 1 15	JANAF 1998					5F3O1P1 (g)
-299773+6	102527+6	143603+2	144367-1-197182+6	139251+3298.15	400.11	F3O1P1 (g)
-299773+6	790977+5	192909+2	636915-2-469766+6	127374+3	400. 587.11	F3O1P1 (g)
-299773+6	678313+5	235355+2	155388-2-958381+6	121997+3	587. 893.11	F3O1P1 (g)
-299773+6	657265+5	253554+2	199019-3-144476+7	121070+3	893. 1549.11	F3O1P1 (g)
-299773+6	656280+5	258115+2	340001-5-181211+7	121031+3	1549. 6000.11	F3O1P1 (g)
3 9 1 15	JANAF 1998					5F3P1 (g)
-229073+6	757015+5	131967+2	910137-2-167426+6	119364+3298.15	398.11	F3P1 (g)
-229073+6	599206+5	164225+2	371762-2-338981+6	111339+3	398. 530.11	F3P1 (g)
-229073+6	530906+5	186053+2	987916-3-545731+6	108024+3	530. 800.11	F3P1 (g)
-229073+6	515017+5	196395+2	110056-3-758184+6	107306+3	800. 1360.11	F3P1 (g)
-229073+6	514238+5	198634+2	136162-5-898929+6	107274+3	1360. 6000.11	F3P1 (g)
3 9 1 15 1 16	JANAF 1998					5F3P1S1 (g)
-241173+6	983223+5	168422+2	120113-1-231665+6	141278+3298.15	407.11	F3P1S1 (g)
-241173+6	758055+5	215998+2	424819-2-496372+6	129868+3	407. 600.11	F3P1S1 (g)
-241173+6	674219+5	248456+2	623314-3-881890+6	125878+3	600. 1082.11	F3P1S1 (g)
-241173+6	666761+5	256062+2	931688-4-110087+7	125555+3	1082. 1598.11	F3P1S1 (g)
-241173+6	666329+5	258246+2	136129-5-128390+7	125538+3	1598. 6000.11	F3P1S1 (g)
3 9 1 16	JANAF 1998					5F3S1 (g)
-120227+6	687563+5	154221+2	621362-2-197619+6	119665+3298.15	404.11	F3S1 (g)
-120227+6	560481+5	180696+2	185191-2-342134+6	113215+3	404. 600.11	F3S1 (g)
-120227+6	523785+5	194447+2	286982-3-499152+6	111463+3	600. 936.11	F3S1 (g)
-120227+6	519795+5	198333+2	121309-4-614147+6	111289+3	936. 3720.11	F3S1 (g)
-120227+6	519719+5	191543+2	133789-3 251931+7	111287+3	3720. 6000.11	F3S1 (g)
3 9 1 16 1 99	JANAF 1998					5F3S1- (g)
-185563+6	689718+5	153882+2	628170-2-196409+6	118349+3298.15	400.11	F3S1- (g)
-185563+6	564842+5	179596+2	201161-2-334539+6	112004+3	400. 572.11	F3S1- (g)
-185563+6	527304+5	192608+2	461660-3-470202+6	110197+3	572. 800.11	F3S1- (g)
-185563+6	520175+5	197524+2	558073-4-577042+6	109877+3	800. 1413.11	F3S1- (g)
-185563+6	519795+5	198677+2	662190-6-651788+6	109861+3	1413. 6000.11	F3S1- (g)
3 9 1 16 -1 99	JANAF 1998					5F3S1+ (g)
940700+5	779336+5	123078+2	101421-1-168433+6	119140+3298.15	407.11	F3S1+ (g)
940700+5	588293+5	163404+2	355754-2-392512+6	109458+3	407. 600.11	F3S1+ (g)
940700+5	519005+5	189836+2	580441-3-701002+6	106155+3	600. 966.11	F3S1+ (g)
940700+5	511261+5	197886+2	262933-4-952628+6	105820+3	966. 3447.11	F3S1+ (g)
940700+5	511237+5	190091+2	176607-3 215246+7	105819+3	3447. 6000.11	F3S1+ (g)
3 9 1 14	JANAF 1998					5F3Si1 (g)
-259400+6	717580+5	136237+2	794897-2-155014+6	119532+3298.15	381.11	F3Si1 (g)
-259400+6	594940+5	163698+2	363742-2-315179+6	113364+3	381. 555.11	F3Si1 (g)
-259400+6	530143+5	185799+2	979594-3-541584+6	110240+3	555. 800.11	F3Si1 (g)
-259400+6	515145+5	195870+2	137510-3-755014+6	109564+3	800. 1327.11	F3Si1 (g)
-259400+6	514110+5	198562+2	304488-5-914760+6	109522+3	1327. 6000.11	F3Si1 (g)
3 9 1 22	JANAF 1998					5F3Ti1 (cr)
-343100+6	915435+5	174855+2	984773-2 140087+6	887573+2298.15	514.21	F3Ti1 (cr)
-343100+6	823184+5	190858+2	682967-2 127131+6	840538+2	514. 894.21	F3Ti1 (cr)
-343100+6	839019+5	177143+2	784999-2 494310+6	847514+2	894. 1191.21	F3Ti1 (cr)
-343100+6	849216+5	158553+2	888817-2 137730+7	851743+2	1191. 1500.21	F3Ti1 (cr)
-343100+6	776305+5	268130+2	199514-2-135044+5	821983+2	1500. 2000.21	F3Ti1 (cr)
3 9 1 22	JANAF 1998					5F3Ti1 (g)
-284100+6	682432+5	170831+2	513452-2-261501+6	121487+3298.15	458.11	F3Ti1 (g)
-284100+6	539316+5	206869+2	-995192-4-514608+6	114366+3	458. 1500.11	F3Ti1 (g)
-284100+6	539544+5	206214+2	-675473-4-475230+6	114375+3	1500. 2024.11	F3Ti1 (g)
-284100+6	539615+5	204991+2	-264528-4-314755+6	114378+3	2024. 3544.11	F3Ti1 (g)
-284100+6	539623+5	206451+2	-539048-4-926229+6	114378+3	3544. 6000.11	F3Ti1 (g)

3 9 1 40	JANAF 1998				5F3Zr1 (cr)	
-335000+6	840356+5	210141+2	628894-2-252308+6	851034+2298.15	549.21	F3Zr1 (cr)
-335000+6	754743+5	231991+2	313602-2-389152+6	808669+2	549. 800.21	F3Zr1 (cr)
-335000+6	724652+5	245505+2	173751-2-538014+6	794684+2	800. 1000.21	F3Zr1 (cr)
-335000+6	672459+5	298704+2	-195626-2-216419+7	772026+2	1000. 1207.21	F3Zr1 (cr)
-335000+6	695709+5	261953+2	202911-3-606719+6	781759+2	1207. 1500.21	F3Zr1 (cr)
3 9 1 40	JANAF 1998				5F3Zr1 (g)	
-264200+6	681326+5	165218+2	538837-2-170534+6	124802+3298.15	483.11	F3Zr1 (g)
-264200+6	584286+5	191841+2	172853-2-379232+6	120017+3	483. 756.11	F3Zr1 (g)
-264200+6	550964+5	212081+2	-486136-4-768161+6	118500+3	756. 1435.11	F3Zr1 (g)
-264200+6	548848+5	214683+2	-225538-3-780984+6	118412+3	1435. 2628.11	F3Zr1 (g)
-264200+6	548865+5	207187+2	-352532-4 942087+6	118413+3	2628. 6000.11	F3Zr1 (g)
4 9 4 1	JANAF 1998				5F4H4 (g)	
-282940+6	129850+6	246669+2	143957-1-310079+6	177555+3298.15	449.11	F4H4 (g)
-282940+6	110198+6	294852+2	727506-2-636904+6	167750+3	449. 938.11	F4H4 (g)
-282940+6	104714+6	348604+2	348318-2-223686+7	165360+3	938. 1449.11	F4H4 (g)
-282940+6	103045+6	408219+2	755886-3-645620+7	164698+3	1449. 2386.11	F4H4 (g)
-282940+6	103019+6	433760+2	455020-4-113473+8	164689+3	2386. 6000.11	F4H4 (g)
4 9 2 12	JANAF 1998				5F4Mg2 (g)	
-410700+6	999088+5	277399+2	583006-2-336505+6	158445+3298.15	402.11	F4Mg2 (g)
-410700+6	873025+5	303411+2	151655-2-476635+6	152041+3	402. 600.11	F4Mg2 (g)
-410700+6	842836+5	314544+2	237683-3-601191+6	150597+3	600. 901.11	F4Mg2 (g)
-410700+6	839478+5	317381+2	243049-4-675418+6	150449+3	901. 1533.11	F4Mg2 (g)
-410700+6	839350+5	317927+2	374078-6-717561+6	150444+3	1533. 6000.11	F4Mg2 (g)
4 9 1 42	JANAF 1998				5F4Mo1 (g)	
-226500+6	818729+5	213950+2	556357-2-238960+6	141690+3298.15	491.11	F4Mo1 (g)
-226500+6	683164+5	252144+2	400372-3-548574+6	135023+3	491. 1244.11	F4Mo1 (g)
-226500+6	679113+5	252294+2	251253-3-284781+6	134845+3	1244. 2528.11	F4Mo1 (g)
-226500+6	679290+5	214154+2	125717-2 783818+7	134851+3	2528. 4694.11	F4Mo1 (g)
-226500+6	687808+5	288110+2	206952-3-464930+8	135105+3	4694. 6000.11	F4Mo1 (g)
4 9 1 42 1 8	JANAF 1998				5F4Mo1O1 (g)	
-300000+6	114686+6	231566+2	119142-1-318974+6	162870+3298.15	398.11	F4Mo1O1 (g)
-300000+6	931634+5	275452+2	457724-2-551590+6	151923+3	398. 533.11	F4Mo1O1 (g)
-300000+6	847110+5	302610+2	119196-2-810529+6	147823+3	533. 800.11	F4Mo1O1 (g)
-300000+6	827998+5	315152+2	131594-3-107032+7	146959+3	800. 1383.11	F4Mo1O1 (g)
-300000+6	827082+5	317849+2	162606-5-124231+7	146922+3	1383. 6000.11	F4Mo1O1 (g)
4 9 2 7	JANAF 1998				5F4N2 (g)	
-200000+4	135377+6	161979+2	207706-1-308492+6	163758+3298.15	408.11	F4N2 (g)
-200000+4	968407+5	243436+2	748272-2-761975+6	144231+3	408. 600.11	F4N2 (g)
-200000+4	828691+5	295911+2	151873-2-136286+7	137562+3	600. 900.11	F4N2 (g)
-200000+4	807611+5	313798+2	175922-3-183282+7	136631+3	900. 1527.11	F4N2 (g)
-200000+4	806695+5	317773+2	276406-5-214308+7	136595+3	1527. 6000.11	F4N2 (g)
4 9 1 8 1 74	JANAF 1998				4F4O1W1 (cr)	
-336259+6	232302+6	199928+2	400137-1 271585+3	196271+3298.15	400.21	F4O1W1 (cr)
-336259+6	171243+6	341521+2	182999-1-875539+6	165657+3	400. 600.21	F4O1W1 (cr)
-336259+6	131742+6	479930+2	191221-2-231849+7	146678+3	600. 800.21	F4O1W1 (cr)
-336259+6	119855+6	566287+2	-504598-2-428276+7	141359+3	800. 1000.21	F4O1W1 (cr)
4 9 1 8 1 74	JANAF 1998				3F4O1W1 (cr, l)	
-336259+6	231878+6	200619+2	398784-1-229031+4	196051+3298.15	379.21	F4O1W1 (cr, l)
-336259+6	117926+6	435000+2	000000+0-436881-6	143193+3	379. 576.32	F4O1W1 (cr, l)
-336259+6	117926+6	435000+2	000000+0-631963-6	143193+3	576. 1000.32	F4O1W1 (cr, l)
4 9 1 8 1 74	JANAF 1998				5F4O1W1 (g)	
-319460+6	115891+6	227844+2	124094-1-317864+6	164332+3298.15	400.11	F4O1W1 (g)
-319460+6	925335+5	275868+2	442623-2-575331+6	152462+3	400. 555.11	F4O1W1 (g)
-319460+6	844407+5	303277+2	111618-2-853719+6	148558+3	555. 800.11	F4O1W1 (g)
-319460+6	827012+5	315059+2	135154-3-110546+7	147774+3	800. 1404.11	F4O1W1 (g)
-319460+6	826087+5	317846+2	166717-5-128544+7	147737+3	1404. 6000.11	F4O1W1 (g)
4 9 1 8 1 74	JANAF 1998				2F4O1W1 (l)	
-335864+6	117530+6	435000+2	000000+0 497060-7	143193+3298.15	600.31	F4O1W1 (l)
-335864+6	117530+6	435000+2	000000+0-333991-6	143193+3	600. 1000.31	F4O1W1 (l)
4 9 1 82	JANAF 1998				5F4Pb1 (g)	
-270900+6	794398+5	230155+2	402231-2-220561+6	142483+3298.15	380.11	F4Pb1 (g)
-270900+6	719010+5	245615+2	144746-2-302514+6	138652+3	380. 516.11	F4Pb1 (g)
-270900+6	690080+5	254435+2	312232-3-381401+6	137241+3	516. 800.11	F4Pb1 (g)
-270900+6	684900+5	257712+2	301554-4-446705+6	137007+3	800. 1339.11	F4Pb1 (g)
-270900+6	684675+5	258313+2	359226-6-482862+6	136997+3	1339. 6000.11	F4Pb1 (g)

4 9 1 16	JANAF 1998					5F4S1 (g)
-182400+6	944928+5	185106+2	101636-1-266259+6	140305+3298.15	397.11	F4S1 (g)
-182400+6	760599+5	222606+2	388444-2-464414+6	130927+3	397. 530.11	F4S1 (g)
-182400+6	687940+5	245745+2	984565-3-682658+6	127399+3	530. 800.11	F4S1 (g)
-182400+6	672015+5	256130+2	103889-3-896354+6	126679+3	800. 1381.11	F4S1 (g)
-182400+6	671289+5	258255+2	127367-5-103150+7	126650+3	1381. 6000.11	F4S1 (g)
4 9 1 16 1 99	JANAF 1998					5F4S1- (g)
-212109+6	793385+5	230701+2	399442-2-261827+6	137371+3298.15	406.11	F4S1- (g)
-212109+6	702259+5	249797+2	860968-3-366896+6	132750+3	406. 627.11	F4S1- (g)
-212109+6	683916+5	257571+2	360620-4-469155+6	131885+3	627. 2394.11	F4S1- (g)
-212109+6	684000+5	249470+2	261716-3 107763+7	131887+3	2394. 4710.11	F4S1- (g)
-212109+6	685280+5	260334+2	107920-3-695464+7	131926+3	4710. 6000.11	F4S1- (g)
4 9 1 16 -1 99	JANAF 1998					5F4S1+ (g)
994369+5	908621+5	196058+2	868366-2-264971+6	141717+3298.15	405.11	F4S1+ (g)
994369+5	731219+5	233058+2	259273-2-467242+6	132714+3	405. 600.11	F4S1+ (g)
994369+5	679183+5	252756+2	364186-3-694982+6	130232+3	600. 976.11	F4S1+ (g)
994369+5	674331+5	257920+2	120803-4-859628+6	130023+3	976. 3857.11	F4S1+ (g)
994369+5	674217+5	251638+2	120672-3 225596+7	130019+3	3857. 6000.11	F4S1+ (g)
4 9 1 14	JANAF 1998					5F4Si1 (g)
-385980+6	999809+5	158886+2	129343-1-191126+6	138121+3298.15	410.11	F4Si1 (g)
-385980+6	771705+5	207512+2	504746-2-464957+6	126572+3	410. 600.11	F4Si1 (g)
-385980+6	679203+5	242451+2	108954-2-867826+6	122159+3	600. 900.11	F4Si1 (g)
-385980+6	664177+5	255264+2	129754-3-120603+7	121496+3	900. 1531.11	F4Si1 (g)
-385980+6	663507+5	258201+2	208994-5-143627+7	121470+3	1531. 6000.11	F4Si1 (g)
4 9 1 22	JANAF 1998					5F4Ti1 (cr)
-394200+6	122138+6	284830+2	103978-1-379489+6	123757+3298.15	486.21	F4Ti1 (cr)
-394200+6	106161+6	328619+2	437431-2-722319+6	115877+3	486. 720.21	F4Ti1 (cr)
-394200+6	101979+6	349586+2	234256-2-105089+7	113938+3	720. 1037.21	F4Ti1 (cr)
-394200+6	100525+6	362465+2	138885-2-137238+7	113303+3	1037. 1300.21	F4Ti1 (cr)
-394200+6	100051+6	372525+2	853618-3-189667+7	113108+3	1300. 1500.21	F4Ti1 (cr)
4 9 1 22	JANAF 1998					5F4Ti1 (g)
-370800+6	895070+5	201059+2	802567-2-190376+6	142287+3298.15	397.11	F4Ti1 (g)
-370800+6	749006+5	230648+2	305677-2-345803+6	134853+3	397. 524.11	F4Ti1 (g)
-370800+6	690704+5	248878+2	746446-3-513971+6	132017+3	524. 800.11	F4Ti1 (g)
-370800+6	678486+5	256757+2	746367-4-674235+6	131464+3	800. 1374.11	F4Ti1 (g)
-370800+6	677960+5	258279+2	895859-6-770345+6	131443+3	1374. 6000.11	F4Ti1 (g)
4 9 1 40	JANAF 1998					5F4Zr1 (cr)
-456800+6	104245+6	259109+2	789565-2-311910+6	104442+3298.15	490.21	F4Zr1 (cr)
-456800+6	901275+5	298558+2	253521-2-628423+6	974938+2	490. 770.21	F4Zr1 (cr)
-456800+6	943162+5	279625+2	448244-2-394862+6	994453+2	770. 1000.21	F4Zr1 (cr)
-456800+6	939969+5	282640+2	426604-2-479974+6	993059+2	1000. 1200.21	F4Zr1 (cr)
-456800+6	952584+5	261381+2	548604-2 473132+6	998320+2	1200. 1400.21	F4Zr1 (cr)
4 9 1 40	JANAF 1998					5F4Zr1 (g)
-400000+6	850956+5	214633+2	623012-2-216366+6	141522+3298.15	400.11	F4Zr1 (g)
-400000+6	721401+5	241242+2	180359-2-358814+6	134937+3	400. 572.11	F4Zr1 (g)
-400000+6	685641+5	254019+2	308636-3-497089+6	133221+3	572. 875.11	F4Zr1 (g)
-400000+6	681144+5	257594+2	323364-4-585706+6	133021+3	875. 1494.11	F4Zr1 (g)
-400000+6	680961+5	258306+2	448871-6-638273+6	133014+3	1494. 6000.11	F4Zr1 (g)
5 9 5 1	JANAF 1998					5F5H5 (g)
-356050+6	165016+6	318231+2	180021-1-388875+6	217539+3298.15	449.11	F5H5 (g)
-356050+6	140429+6	378492+2	909451-2-797436+6	205271+3	449. 938.11	F5H5 (g)
-356050+6	133569+6	445749+2	435056-2-279981+7	202282+3	938. 1450.11	F5H5 (g)
-356050+6	131486+6	520288+2	942153-3-808071+7	201456+3	1450. 2388.11	F5H5 (g)
-356050+6	131454+6	552144+2	567382-4-141895+8	201444+3	2388. 6000.11	F5H5 (g)
5 9 1 53	JANAF 1998					5F5I1 (g)
-200840+6	105546+6	261991+2	804319-2-356428+6	160194+3298.15	393.11	F5I1 (g)
-200840+6	901264+5	292979+2	281062-2-517428+6	152339+3	393. 517.11	F5I1 (g)
-200840+6	846031+5	309985+2	635031-3-671334+6	149648+3	517. 800.11	F5I1 (g)
-200840+6	835510+5	316693+2	598256-4-806153+6	149172+3	800. 1374.11	F5I1 (g)
-200840+6	835082+5	317907+2	694018-6-882011+6	149154+3	1374. 6000.11	F5I1 (g)
5 9 1 42	JANAF 1998					5F5Mo1 (g)
-296700+6	110057+6	261035+2	912918-2-379511+6	165885+3298.15	456.11	F5Mo1 (g)
-296700+6	840986+5	326066+2	-347210-3-833200+6	152962+3	456. 1148.11	F5Mo1 (g)
-296700+6	846161+5	315550+2	220854-3-306795+6	153174+3	1148. 2555.11	F5Mo1 (g)
-296700+6	846134+5	322968+2	275354-4-192487+7	153173+3	2555. 3952.11	F5Mo1 (g)
-296700+6	845975+5	321590+2	431848-4-738599+6	153168+3	3952. 6000.11	F5Mo1 (g)

5 9 1 15	JANAF 1998					5F5P1 (g)	
-381073+6	128358+6	186868+2	176991-1-327905+6	161007+3298.15	400.11	F5P1 (g)	
-381073+6	953765+5	255387+2	638933-2-700385+6	144264+3	400. 574.11	F5P1 (g)	
-381073+6	833937+5	298907+2	134594-2-118048+7	138524+3	574. 859.11	F5P1 (g)	
-381073+6	814687+5	314265+2	160844-3-156253+7	137670+3	859. 1480.11	F5P1 (g)	
-381073+6	813772+5	317799+2	237302-5-182287+7	137634+3	1480. 6000.11	F5P1 (g)	
5 9 1 16	JANAF 1998					5F5S1 (g)	
-217124+6	116209+6	226926+2	126243-1-447439+6	156821+3298.15	413.11	F5S1 (g)	
-217124+6	887291+5	286370+2	307783-2-788867+6	142929+3	413. 637.11	F5S1 (g)	
-217124+6	824474+5	314001+2	205572-3-116763+7	139978+3	637. 2053.11	F5S1 (g)	
-217124+6	825062+5	308376+2	419244-3-645692+6	140000+3	2053. 3852.11	F5S1 (g)	
-217124+6	825254+5	318929+2	236913-3-588255+7	140006+3	3852. 6000.11	F5S1 (g)	
5 9 1 16 1 99	JANAF 1998					5F5S1- (g)	
-303228+6	103930+6	264789+2	753783-2-396441+6	154689+3298.15	382.11	F5S1- (g)	
-303228+6	897954+5	293768+2	271076-2-550238+6	147506+3	382. 523.11	F5S1- (g)	
-303228+6	844863+5	310217+2	614483-3-700276+6	144921+3	523. 800.11	F5S1- (g)	
-303228+6	834727+5	316701+2	593922-4-831067+6	144462+3	800. 1368.11	F5S1- (g)	
-303228+6	834304+5	317909+2	666014-6-906790+6	144445+3	1368. 6000.11	F5S1- (g)	
5 9 1 16 -1 99	JANAF 1998					5F5S1+ (g)	
412629+5	117245+6	225873+2	129167-1-441533+6	155823+3298.15	407.11	F5S1+ (g)	
412629+5	895836+5	284207+2	338577-2-765266+6	141802+3	407. 618.11	F5S1+ (g)	
412629+5	825435+5	313345+2	252561-3-113858+7	138474+3	618. 2053.11	F5S1+ (g)	
412629+5	826159+5	309568+2	427037-3-105636+7	138502+3	2053. 3750.11	F5S1+ (g)	
412629+5	826391+5	327837+2	102633-3-963992+7	138509+3	3750. 6000.11	F5S1+ (g)	
6 9 6 1	JANAF 1998					5F6H6 (g)	
-432040+6	200127+6	389892+2	215906-1-468077+6	257196+3298.15	449.11	F6H6 (g)	
-432040+6	170650+6	462176+2	109096-1-958510+6	242489+3	449. 939.11	F6H6 (g)	
-432040+6	162422+6	542939+2	521572-2-336538+7	238903+3	939. 1450.11	F6H6 (g)	
-432040+6	159927+6	632311+2	112999-2-970007+7	237914+3	1450. 2389.11	F6H6 (g)	
-432040+6	159889+6	670527+2	679990-4-170311+8	237900+3	2389. 6000.11	F6H6 (g)	
6 9 1 42	JANAF 1998					5F6Mo1 (g)	
-372290+6	130726+6	294411+2	117398-1-372970+6	181410+3298.15	398.11	F6Mo1 (g)	
-372290+6	108779+6	338871+2	427370-2-606529+6	170240+3	398. 527.11	F6Mo1 (g)	
-372290+6	100588+6	364628+2	102073-2-845779+6	166257+3	527. 800.11	F6Mo1 (g)	
-372290+6	989175+5	375429+2	100826-3-106603+7	165501+3	800. 1393.11	F6Mo1 (g)	
-372290+6	988470+5	377492+2	117759-5-119702+7	165473+3	1393. 6000.11	F6Mo1 (g)	
6 9 1 42	JANAF 1998					2F6Mo1 (l)	
-378981+6	261395+6	281865+2	415749-1-688246+1	239474+3298.15	600.31	F6Mo1 (l)	
-378981+6	261395+6	281864+2	415750-1-124330+1	239474+3	600. 1000.31	F6Mo1 (l)	
6 9 1 16	JANAF 1998					5F6S1 (g)	
-291700+6	153021+6	225269+2	210223-1-499786+6	175678+3298.15	394.11	F6S1 (g)	
-291700+6	115530+6	301626+2	824667-2-903726+6	156606+3	394. 528.11	F6S1 (g)	
-291700+6	100188+6	350289+2	213325-2-136048+7	149154+3	528. 800.11	F6S1 (g)	
-291700+6	967411+5	372691+2	230235-3-181991+7	147595+3	800. 1374.11	F6S1 (g)	
-291700+6	965792+5	377390+2	282983-5-211713+7	147530+3	1374. 6000.11	F6S1 (g)	
6 9 1 16 1 99	JANAF 1998					5F6S1- (g)	
-320716+6	149019+6	238072+2	193515-1-505058+6	176797+3298.15	393.11	F6S1- (g)	
-320716+6	114439+6	308282+2	757926-2-874886+6	159200+3	393. 524.11	F6S1- (g)	
-320716+6	100193+6	353068+2	192217-2-129067+7	152274+3	524. 800.11	F6S1- (g)	
-320716+6	970752+5	373248+2	204482-3-170271+7	150863+3	800. 1367.11	F6S1- (g)	
-320716+6	969306+5	377411+2	248891-5-196481+7	150805+3	1367. 6000.11	F6S1- (g)	
6 9 1 74	JANAF 1998					5F6W1 (g)	
-411500+6	130606+6	294869+2	117051-1-402624+6	178967+3298.15	397.11	F6W1 (g)	
-411500+6	108810+6	338896+2	429693-2-632997+6	167870+3	397. 523.11	F6W1 (g)	
-411500+6	100524+6	364695+2	101903-2-869756+6	163837+3	523. 800.11	F6W1 (g)	
-411500+6	988542+5	375397+2	103758-3-108603+7	163081+3	800. 1352.11	F6W1 (g)	
-411500+6	987790+5	377490+2	122395-5-121528+7	163051+3	1352. 6000.11	F6W1 (g)	
6 9 1 74	JANAF 1998					2F6W1 (l)	
-417870+6	109425+6	405000+2	000000+0	114388-7	153069+3298.15	600.31	F6W1 (l)
-417870+6	109425+6	405000+2	000000+0-605832-6	153069+3	600. 1000.31	F6W1 (l)	
7 9 7 1	JANAF 1998					5F7H7 (g)	
-502520+6	235280+6	461475+2	251928-1-546952+6	296642+3298.15	449.11	F7H7 (g)	
-502520+6	200877+6	545837+2	127271-1-111930+7	279478+3	449. 939.11	F7H7 (g)	
-502520+6	191275+6	640120+2	608103-2-392999+7	275294+3	939. 1451.11	F7H7 (g)	
-502520+6	188368+6	744378+2	131642-2-113247+8	274141+3	1451. 2389.11	F7H7 (g)	
-502520+6	188324+6	788903+2	793712-4-198700+8	274125+3	2389. 6000.11	F7H7 (g)	

7	9	1	53		JANAF 1998		5F7I1(g)
-229700+6	147931+6	350390+2	123509-1-585641+6	194092+3298.15	385.11		F7I1(g)
-229700+6	124699+6	397580+2	444055-2-833683+6	182272+3	385. 520.11		F7I1(g)
-229700+6	116021+6	424396+2	101738-2-107747+7	178045+3	520. 800.11		F7I1(g)
-229700+6	114341+6	435108+2	989549-4-129280+7	177284+3	800. 1363.11		F7I1(g)
-229700+6	114270+6	437112+2	112724-5-141732+7	177255+3	1363. 6000.11		F7I1(g)
1	26	1	16		JANAF 1998		5Fe0.877S1(cr)
-252000+5	872759+5	729397+1	151584-1	974936+4	723815+2298.15	598.21	Fe0.877S1(cr)
-252000+5	335444+5	114607+2	126524-3	846877+6	442777+2	598. 1000.22	Fe0.877S1(cr)
-252000+5	549747+5	-131081+1	116642-1	208067+7	538706+2	1000. 1240.22	Fe0.877S1(cr)
-252000+5	648147+5	-267745+2	244356-1	168833+8	578422+2	1240. 1600.22	Fe0.877S1(cr)
-252000+5	702188+5	-607967+2	380788-1	480979+8	599184+2	1600. 1800.22	Fe0.877S1(cr)
1	26	1	8		JANAF 1998		5Fe0.947O1(cr)
-636401+5	402054+5	116624+2	199714-2-672349+5	457112+2298.15	862.21		Fe0.947O1(cr)
-636401+5	402102+5	116628+2	199830-2-682897+5	457136+2	862. 1583.21		Fe0.947O1(cr)
-636401+5	386957+5	195386+2	-129023-2-675914+7	451253+2	1583. 1800.21		Fe0.947O1(cr)
-636401+5	389527+5	172767+2	-442592-3-437408+7	452226+2	1800. 2207.21		Fe0.947O1(cr)
-636401+5	389884+5	166620+2	-230758-3-365671+7	452357+2	2207. 2500.21		Fe0.947O1(cr)
1	26				JANAF 1998		7Fe1(cr)_01
000000+0	359203+5	441130+1	538810-2-175800+4	312626+2298.15	385.21		Fe1(cr)_01
000000+0	429432+5	281069+1	787171-2	937615+5	347879+2	385. 500.21	Fe1(cr)_01
000000+0	527930+5	-195896+1	126205-1	692575+6	392782+2	500. 900.21	Fe1(cr)_01
000000+0	108972+7	-101379+4	728130+0	298666+9	491016+3	900. 1042.21	Fe1(cr)_01
000000+0	708023+6	-110678+4	647210+0	491183+9	312199+3	1042. 1184.22	Fe1(cr)_01
000000+0	402376+5	-329582+2	207975-1	255612+8	327726+2	1184. 1424.22	Fe1(cr)_01
000000+0	278185+5	561746+1	247468-2	246526+6	278046+2	1424. 2200.22	Fe1(cr)_01
1	26				JANAF 1998		2Fe1(cr)_02
186138+4	243926+5	573006+1	199994-2-393957+1	271284+2298.15	1100.21		Fe1(cr)_02
186138+4	243927+5	573029+1	199988-2-203859+3	271284+2	1100. 2200.21		Fe1(cr)_02
1	26				JANAF 1998		8Fe1(cr,l)
000000+0	367437+5	423822+1	567252-2	611453+4	316753+2298.15	500.21	Fe1(cr,l)
000000+0	396272+5	326842+1	684945-2	101449+6	330654+2	500. 700.21	Fe1(cr,l)
000000+0	689176+5	-127376+2	216753-1	285915+7	465322+2	700. 900.21	Fe1(cr,l)
000000+0	109209+7	-101660+4	729968+0	299643+9	492034+3	900. 1042.21	Fe1(cr,l)
000000+0	708037+6	-110680+4	647225+0	491192+9	312207+3	1042. 1184.22	Fe1(cr,l)
000000+0	262251+5	573229+1	199889-2-134847+4	270907+2	1184. 1665.23		Fe1(cr,l)
000000+0	278148+5	575532+1	242882-2	739985+5	278079+2	1665. 1809.24	Fe1(cr,l)
000000+0	303894+5	110000+2	000000+0-145473-5	293853+2	1809. 4000.35		Fe1(cr,l)
1	26				JANAF 1998		5Fe1(g)
993000+5	956741+4	720225+1	-219555-2-362811+5	536057+2298.15	602.11		Fe1(g)
993000+5	141449+5	541512+1	-209242-3	178034+6	557824+2	602. 1132.11	Fe1(g)
993000+5	152931+5	363096+1	843694-3	936935+6	562643+2	1132. 3678.11	Fe1(g)
993000+5	152666+5	841008+0	134912-2	135311+8	562559+2	3678. 4949.11	Fe1(g)
993000+5	142292+5	-526753+1	216928-2	637307+8	559511+2	4949. 6000.11	Fe1(g)
1	26	1	99		JANAF 1998		5Fe1-(g)
940100+5	109841+5	741646+1	-198105-2-752773+5	543934+2298.15	641.11		Fe1-(g)
940100+5	134053+5	635495+1	-875603-3	697313+5	555313+2	641. 900.11	Fe1-(g)
940100+5	143742+5	551567+1	-251280-3	294412+6	559581+2	900. 1309.11	Fe1-(g)
940100+5	145464+5	509897+1	-386091-4	531417+6	560281+2	1309. 2159.11	Fe1-(g)
940100+5	145501+5	497927+1	-155148-5	716444+6	560295+2	2159. 6000.11	Fe1-(g)
1	26				JANAF 1998		2Fe1(l)
296248+4	365122+5	428958+1	559112-2	361592+4	333387+2298.15	1200.31	Fe1(l)
296248+4	274548+5	110000+2	000000+0	795451-6	294223+2	1200. 4000.32	Fe1(l)
1	26	-1	99		JANAF 1998		5Fe1+(g)
282300+6	139081+5	676536+1	-966182-3-218580+5	563262+2298.15	563.11		Fe1+(g)
282300+6	158279+5	663787+1	-434317-3-763631+5	573261+2	563. 1661.11		Fe1+(g)
282300+6	160238+5	541720+1	555862-4	104637+7	574015+2	1661. 2540.11	Fe1+(g)
282300+6	160283+5	436852+1	330804-3	330198+7	574030+2	2540. 3564.11	Fe1+(g)
282300+6	160208+5	303296+1	580509-3	896219+7	574006+2	3564. 6000.11	Fe1+(g)
1	26	2	1	2	8		JANAF 1998
-137200+6	111845+6	186337+2	137752-1	408242+5	101467+3298.15	400.21	5Fe1H2O2(cr)
-137200+6	996578+5	209638+2	970224-2-713235+5	952279+2	400. 690.21		Fe1H2O2(cr)
-137200+6	833958+5	290425+2	183861-2-133432+7	876798+2	690. 900.21		Fe1H2O2(cr)
-137200+6	769638+5	347365+2	-235700-2-288785+7	848517+2	900. 1260.21		Fe1H2O2(cr)
-137200+6	788816+5	301018+2	107569-4-266171+6	856310+2	1260. 1500.21		Fe1H2O2(cr)

1 26 2 1 2 8	JANAF 1998	5Fe1H2O2 (g)
-790000+5 696868+5 203195+2 357795-2-382435+6 122084+3298.15 899.11		Fe1H2O2 (g)
-790000+5 668155+5 228286+2 171866-2-105934+7 120820+3 899. 1203.11		Fe1H2O2 (g)
-790000+5 655687+5 251640+2 426135-3-218889+7 120304+3 1203. 1638.11		Fe1H2O2 (g)
-790000+5 653516+5 264363+2-912106-4-332905+7 120220+3 1638. 3587.11		Fe1H2O2 (g)
-790000+5 653495+5 260890+2-266405-4-184032+7 120219+3 3587. 6000.11		Fe1H2O2 (g)
1 26 3 1 3 8	JANAF 1998	5Fe1H3O3 (cr)
-199000+6 111796+6 288489+2 801551-2-616814+6 109827+3298.15 400.21		Fe1H3O3 (cr)
-199000+6 157954+6 201259+2 233880-1-204958+6 133484+3 400. 600.21		Fe1H3O3 (cr)
-199000+6 120983+6 325235+2 831476-2-141231+7 115651+3 600. 1006.21		Fe1H3O3 (cr)
-199000+6 109487+6 432622+2 568419-3-439362+7 110631+3 1006. 1300.21		Fe1H3O3 (cr)
-199000+6 107393+6 472096+2-161773-2-626179+7 109767+3 1300. 1500.21		Fe1H3O3 (cr)
1 26 2 53	JANAF 1998	5Fe1I2 (cr)
-250000+5 562716+5 198107+2 615981-3 450431+3 874053+2298.15 479.21		Fe1I2 (cr)
-250000+5 561504+5 198340+2 575331-3-420002+3 873436+2 479. 650.21		Fe1I2 (cr)
-250000+5 159549+6-386080+1 375696-1 183755+6 138557+3 650. 895.22		Fe1I2 (cr)
-250000+5 544186+5 852891+2-293730-1-232352+8 921562+2 895. 1155.22		Fe1I2 (cr)
-250000+5 839980+5 361823+2-105834-2-135264+7 104510+3 1155. 1500.22		Fe1I2 (cr)
1 26 2 53	JANAF 1998	3Fe1I2 (cr, l)
-250000+5 561662+5 198305+2 580918-3-385054+3 873515+2298.15 650.21		Fe1I2 (cr, l)
-250000+5 158778+6-341872+1 371694-1 106068+6 138205+3 650. 860.22		Fe1I2 (cr, l)
-250000+5 809686+5 270000+2 000000+0 509914-6 109044+3 860. 2000.33		Fe1I2 (cr, l)
1 26 2 53	JANAF 1998	5Fe1I2 (g)
210000+5 406518+5 147945+2 170501-3-265710+5 117999+3298.15 692.11		Fe1I2 (g)
210000+5 424336+5 138922+2 103988-2 117374+6 118825+3 692. 1480.11		Fe1I2 (g)
210000+5 419674+5 156649+2 241894-3-117846+7 118640+3 1480. 2030.11		Fe1I2 (g)
210000+5 418803+5 174149+2-332521-3-358504+7 118608+3 2030. 3996.11		Fe1I2 (g)
210000+5 418477+5 162231+2-133587-3 275267+7 118598+3 3996. 6000.11		Fe1I2 (g)
1 26 2 53	JANAF 1998	2Fe1I2 (l)
-169804+5 729500+5 270000+2 000000+0 359903-7 109046+3298.15 1100.31		Fe1I2 (l)
-169804+5 729500+5 270000+2 000000+0 464861-5 109046+3 1100. 2000.31		Fe1I2 (l)
1 26 1 8	JANAF 1998	5Fe1O1 (cr)
-650201+5 447294+5 112430+2 323770-2-242372+5 490904+2298.15 630.21		Fe1O1 (cr)
-650201+5 422172+5 120535+2 222723-2-932739+5 478774+2 630. 1000.21		Fe1O1 (cr)
-650201+5 415381+5 124538+2 186337-2-129720+6 475732+2 1000. 1245.21		Fe1O1 (cr)
-650201+5 401346+5 160928+2 396839-4-225096+7 470067+2 1245. 1545.21		Fe1O1 (cr)
-650201+5 407938+5 142780+2 942446-3-124828+7 472702+2 1545. 2000.21		Fe1O1 (cr)
1 26 1 8	JANAF 1998	5Fe1O1 (cr, l)
-650201+5 441124+5 113616+2 303073-2-293519+5 487766+2298.15 542.21		Fe1O1 (cr, l)
-650201+5 416821+5 124025+2 193004-2-159865+6 476373+2 542. 1203.21		Fe1O1 (cr, l)
-650201+5 406485+5 145272+2 788747-3-124781+7 472125+2 1203. 1650.21		Fe1O1 (cr, l)
-650201+5 466563+5 163000+2 000000+0 210484-2 508523+2 1650. 1800.32		Fe1O1 (cr, l)
-650201+5 466563+5 163000+2 000000+0 251564-6 508523+2 1800. 5000.32		Fe1O1 (cr, l)
1 26 1 8	JANAF 1998	5Fe1O1 (g)
600000+5 282344+5 741555+1 186836-2-416804+5 797318+2298.15 522.11		Fe1O1 (g)
600000+5 239958+5 873383+1 192256-3-162488+6 776687+2 522. 1734.11		Fe1O1 (g)
600000+5 241083+5 787849+1 521840-3 690952+6 777116+2 1734. 3369.11		Fe1O1 (g)
600000+5 241107+5 927607+1 245607-3-460893+7 777124+2 3369. 4410.11		Fe1O1 (g)
600000+5 242287+5 109316+2-438340-5-153643+8 777481+2 4410. 6000.11		Fe1O1 (g)
1 26 1 8	JANAF 1998	2Fe1O1 (l)
-596396+5 402120+5 116604+2 199978-2-671185+5 499751+2298.15 1100.31		Fe1O1 (l)
-596396+5 412767+5 163000+2 000000+0-639637-6 508544+2 1100. 5000.32		Fe1O1 (l)
1 26 4 8 1 16	JANAF 1998	5Fe1O4S1 (cr)
-222000+6 105462+6 293582+2 630058-2-639752+6 110151+3298.15 400.21		Fe1O4S1 (cr)
-222000+6 128970+6 272885+2 128808-1-729731+6 122813+3 400. 600.21		Fe1O4S1 (cr)
-222000+6 106448+6 357599+2 326101-2-170155+7 112064+3 600. 807.21		Fe1O4S1 (cr)
-222000+6 105043+6 358963+2 282187-2-155962+7 111381+3 807. 1268.21		Fe1O4S1 (cr)
-222000+6 104941+6 359681+2 275909-2-154702+7 111338+3 1268. 2000.21		Fe1O4S1 (cr)
1 26 1 16	JANAF 1998	6Fe1S1 (cr)
-243000+5 659155+6-653129+2 186229+0 194173+7 377602+3298.15 411.21		Fe1S1 (cr)
-243000+5 470417+5 172940+2 000000+0-414334-6 549870+2 411. 598.22		Fe1S1 (cr)
-243000+5 430542+5 101261+2 269574-2 110988+7 515509+2 598. 889.23		Fe1S1 (cr)
-243000+5 572156+5-197324+1 117509-1 431015+7 577971+2 889. 1172.23		Fe1S1 (cr)
-243000+5 663032+5-180958+2 208382-1 118268+8 615736+2 1172. 1463.23		Fe1S1 (cr)
-243000+5 723969+5-420378+2 315302-1 295909+8 639769+2 1463. 1900.23		Fe1S1 (cr)

1 26 1 16	JANAF 1998	7Fe1S1 (cr, l)
-243000+5 659155+6-653129+2 186229+0 194173+7 377602+3298.15 411.21		Fe1S1 (cr, l)
-243000+5 470417+5 172940+2 000000+0-414334-6 549870+2 411. 598.22		Fe1S1 (cr, l)
-243000+5 430381+5 101342+2 268790-2 110868+7 515434+2 598. 889.23		Fe1S1 (cr, l)
-243000+5 570894+5-183656+1 116582-1 426687+7 577428+2 889. 1172.23		Fe1S1 (cr, l)
-243000+5 659007+5-171805+2 203613-1 113326+8 614096+2 1172. 1463.23		Fe1S1 (cr, l)
-243000+5 490012+5 149500+2 000000+0-232587-2 563103+2 1463. 1600.34		Fe1S1 (cr, l)
-243000+5 490012+5 149500+2 000000+0-106374-5 563103+2 1600. 3800.34		Fe1S1 (cr, l)
1 26 1 16	JANAF 1998	5Fe1S1 (g)
886154+5 262684+5 839973+1 833514-3-464026+5 816722+2298.15 454.11		Fe1S1 (g)
886154+5 243988+5 886195+1 154131-3-780993+5 807401+2 454. 1636.11		Fe1S1 (g)
886154+5 245610+5 791810+1 538531-3 764925+6 808028+2 1636. 3432.11		Fe1S1 (g)
886154+5 245648+5 936860+1 256746-3-492905+7 808040+2 3432. 4452.11		Fe1S1 (g)
886154+5 246869+5 109567+2 191219-4-154368+8 808408+2 4452. 6000.11		Fe1S1 (g)
1 26 1 16	JANAF 1998	5Fe1S1 (l)
-164462+5 659155+6-653129+2 186229+0 194173+7 382977+3298.15 411.31		Fe1S1 (l)
-164462+5 470417+5 172940+2 000000+0-414334-6 603620+2 411. 598.32		Fe1S1 (l)
-164462+5 403404+5 114755+2 138027-2 907694+6 556710+2 598. 812.33		Fe1S1 (l)
-164462+5 523364+5 311912+1 824609-2 274157+7 610615+2 812. 1050.33		Fe1S1 (l)
-164462+5 411478+5 149500+2 000000+0 517836-6 563109+2 1050. 3800.34		Fe1S1 (l)
1 26 2 16	JANAF 1998	5Fe1S2 (cr) _01
-400000+5 670444+5 155076+2 578342-2-206262+6 631547+2298.15 452.21		Fe1S2 (cr) _01
-400000+5 663329+5 134624+2 666271-2 130371+6 623294+2 452. 700.21		Fe1S2 (cr) _01
-400000+5 633374+5 136277+2 581542-2 340001+6 608235+2 700. 1000.21		Fe1S2 (cr) _01
-400000+5 620536+5 147158+2 499505-2 722959+5 602591+2 1000. 1200.21		Fe1S2 (cr) _01
-400000+5 619532+5 148805+2 489962-2 263060-3 602172+2 1200. 1400.21		Fe1S2 (cr) _01
1 26 2 16	JANAF 1998	5Fe1S2 (cr) _02
-410000+5 649738+5 157259+2 519269-2-215663+6 617835+2298.15 400.21		Fe1S2 (cr) _02
-410000+5 568243+5 166885+2 278254-2-215435+6 574574+2 400. 630.21		Fe1S2 (cr) _02
-410000+5 618336+5 147418+2 495257-2 145916+5 598393+2 630. 924.21		Fe1S2 (cr) _02
-410000+5 617671+5 147592+2 492630-2 205043+5 598083+2 924. 1200.21		Fe1S2 (cr) _02
-410000+5 617648+5 147305+2 493612-2 447866+5 598068+2 1200. 1400.21		Fe1S2 (cr) _02
2 26 4 53	JANAF 1998	5Fe2I4 (g)
200000+4 862601+5 316995+2 159717-3-327625+5 203303+3298.15 710.11		Fe2I4 (g)
200000+4 882928+5 306178+2 117538-2 149015+6 204240+3 710. 1586.11		Fe2I4 (g)
200000+4 878618+5 327971+2 259613-3-167942+7 204072+3 1586. 2162.11		Fe2I4 (g)
200000+4 877953+5 350021+2-420027-3-511758+7 204048+3 2162. 4102.11		Fe2I4 (g)
200000+4 877403+5 334797+2-172516-3 341527+7 204031+3 4102. 6000.11		Fe2I4 (g)
2 26 12 8 3 16	JANAF 1998	5Fe2O12S3 (cr)
-617350+6 257826+6 806431+2 101945-1-181454+7 277125+3298.15 400.21		Fe2O12S3 (cr)
-617350+6 339318+6 718494+2 338570-1-192195+7 320599+3 400. 600.21		Fe2O12S3 (cr)
-617350+6 273416+6 974912+2 530166-2-498506+7 289251+3 600. 1000.21		Fe2O12S3 (cr)
-617350+6 276187+6 948367+2 719487-2-422378+7 290460+3 1000. 1610.21		Fe2O12S3 (cr)
-617350+6 276250+6 943135+2 739453-2-370058+7 290484+3 1610. 2000.21		Fe2O12S3 (cr)
2 26 3 8	JANAF 1998	5Fe2O3 (cr)
-197300+6 142415+6 245068+2 173975-1-435099+6 122052+3298.15 729.21		Fe2O3 (cr)
-197300+6 144887+6 238212+2 183501-1-439763+6 123241+3 729. 950.21		Fe2O3 (cr)
-197300+6 960344+5 360000+2 000000+0-353343-3 100016+3 950. 1050.22		Fe2O3 (cr)
-197300+6 946118+5 317225+2 175296-2-564358+4 989412+2 1050. 1490.23		Fe2O3 (cr)
-197300+6 939944+5 351647+2 330064-3-294076+7 987036+2 1490. 2500.23		Fe2O3 (cr)
3 26 4 8	JANAF 1998	4Fe3O4 (cr)
-267900+6 279821+6 218663+2 496318-1-131033+6 218572+3298.15 400.21		Fe3O4 (cr)
-267900+6 266255+6 244355+2 451110-1-252767+6 211621+3 400. 600.21		Fe3O4 (cr)
-267900+6 273818+6 218727+2 482072-1 106329+4 215265+3 600. 900.21		Fe3O4 (cr)
-267900+6 131276+6 480000+2 000000+0 245929-6 145486+3 900. 3000.22		Fe3O4 (cr)
1 31	JANAF 1998	2Ga1 (cr)
000000+0 133006+5 790309+1-173731-2-103180+6 227384+2298.15 400.21		Ga1 (cr)
000000+0 251134+5 568407+1 218974-2 533043+3 287959+2 400. 500.21		Ga1 (cr)
1 31	JANAF 1998	5Ga1 (cr, l)
000000+0 225208+5 615148+1 134372-2-286828+5 274337+2298.15302.9221		Ga1 (cr, l)
000000+0 169062+5 623292+1-326523-3 620281+5 280152+2302.92 408.32		Ga1 (cr, l)
000000+0 182910+5 633769+1-573436-4 263070+5 288167+2 408. 706.32		Ga1 (cr, l)
000000+0 185357+5 634861+1 942676-6 350575+3 289416+2 706. 1008.32		Ga1 (cr, l)
000000+0 185343+5 634990+1 202232-8 764554+1 289410+2 1008. 3000.32		Ga1 (cr, l)

1 31	JANAF 1998	5Ga1 (g)
650000+5 857221+4 862584+1-320945-2-143559+6 508200+2298.15 680.11		Ga1 (g)
650000+5 140257+5 596597+1-594994-3 264296+6 533559+2 680. 1106.11		Ga1 (g)
650000+5 146951+5 499967+1-940030-5 654063+6 536384+2 1106. 3059.11		Ga1 (g)
650000+5 146951+5 466936+1 628988-4 167542+7 536384+2 3059. 4526.11		Ga1 (g)
650000+5 145651+5 318159+1 282014-3 118368+8 535994+2 4526. 6000.11		Ga1 (g)
1 31 1 99	JANAF 1998	5Ga1- (g)
570103+5 931316+4 639571+1-183360-2 670757+5 521770+2298.15 512.11		Ga1- (g)
570103+5 147577+5 478090+1 280443-3 206646+6 548401+2 512. 1500.11		Ga1- (g)
570103+5 146011+5 534569+1 226006-4-193898+6 547781+2 1500. 1988.11		Ga1- (g)
570103+5 145867+5 559628+1-613677-4-524544+6 547727+2 1988. 4074.11		Ga1- (g)
570103+5 145822+5 546246+1-394618-4 215214+6 547714+2 4074. 6000.11		Ga1- (g)
1 31	JANAF 1998	4Ga1 (l)
133317+4-295890+4 909028+1-615048-2-382922+5 183182+2298.15 371.31		Ga1 (l)
133317+4 177525+5 609911+1 253015-3 464226+5 292040+2 371. 600.31		Ga1 (l)
133317+4 182494+5 572556+1 554151-3 115855+6 294181+2 600. 800.31		Ga1 (l)
133317+4 172004+5 634990+1 000000+0 222731-7 289402+2 800. 3000.31		Ga1 (l)
1 31 -1 99	JANAF 1998	5Ga1+ (g)
204744+6 134227+5 496797+1 426704-8 769516+0 501125+2298.15 3900.11		Ga1+ (g)
204744+6 134224+5 493763+1 539520-5 141588+6 501124+2 3900. 4735.11		Ga1+ (g)
204744+6 134421+5 502466+1-540549-5-663036+6 501182+2 4735. 5000.11		Ga1+ (g)
204744+6 133803+5 464499+1 458736-4 241877+7 501000+2 5000. 5504.11		Ga1+ (g)
204744+6 132797+5 430886+1 869883-4 574633+7 500711+2 5504. 6000.11		Ga1+ (g)
1 1	JANAF 1998	2H1 (g)
521030+5 134227+5 496797+1 000000+0-105622-7 388615+2298.15 3000.11		H1 (g)
521030+5 134227+5 496797+1 000000+0-892115-5 388615+2 3000. 6000.11		H1 (g)
1 1 1 99	JANAF 1998	2H1- (g)
332294+5 134227+5 496797+1 000000+0-105622-7 374858+2298.15 3000.11		H1- (g)
332294+5 134227+5 496797+1 000000+0-892115-5 374858+2 3000. 6000.11		H1- (g)
1 1 -1 99	JANAF 1998	2H1+ (g)
367172+6 134227+5 496797+1 000000+0-105622-7 374825+2298.15 3000.11		H1+ (g)
367172+6 134227+5 496797+1 000000+0-892115-5 374825+2 3000. 6000.11		H1+ (g)
10 1 8 8 1 16	JANAF 1998	3H1008S1 (cr, l)
-480688+6 490021+6 695662+2 676372-1 232480+6 443727+3298.15 400.21		H1008S1 (cr, l)
-480688+6 460055+6 749511+2 578039-1 227603+3 428298+3 400. 600.21		H1008S1 (cr, l)
-480688+6 460047+6 749529+2 578009-1 217636+3 428294+3 600. 1000.21		H1008S1 (cr, l)
15 1 10 8 1 16	JANAF 1998	3H15010.5S1 (cr, l)
-653265+6 402692+6 140299+3 564495-2-505099+6 476849+3298.15 400.21		H15010.5S1 (cr, l)
-653265+6 478241+6 127358+3 301019-1 163538+3 515914+3 400. 700.21		H15010.5S1 (cr, l)
-653265+6 478238+6 127360+3 301004-1 231725+2 515912+3 700. 1000.21		H15010.5S1 (cr, l)
1 1 1 80	JANAF 1998	5H1Hg1 (g)
570000+5 324350+5 599922+1 363592-2 858155+4 762069+2298.15 473.11		H1Hg1 (g)
570000+5 275719+5 728737+1 182507-2-879838+5 738000+2 473. 700.11		H1Hg1 (g)
570000+5 255417+5 831389+1 835139-3-251430+6 728594+2 700. 1028.11		H1Hg1 (g)
570000+5 251449+5 879899+1 522170-3-424074+6 726896+2 1028. 1761.11		H1Hg1 (g)
570000+5 251295+5 893316+1 471762-3-564876+6 726838+2 1761. 6000.11		H1Hg1 (g)
1 1 1 53	JANAF 1998	5H1I1 (g)
629995+4 247483+5 605527+1 186064-2 323302+5 685373+2298.15 866.11		H1I1 (g)
629995+4 230552+5 740193+1 820054-3-301783+6 677857+2 866. 1202.11		H1I1 (g)
629995+4 225890+5 826673+1 339902-3-717380+6 675926+2 1202. 1682.11		H1I1 (g)
629995+4 225169+5 874724+1 149772-3-117207+7 675649+2 1682. 2611.11		H1I1 (g)
629995+4 225165+5 891760+1 106404-3-156150+7 675648+2 2611. 6000.11		H1I1 (g)
1 1 3 53 1 14	JANAF 1998	5H1I3S11 (g)
-178000+5 769022+5 205370+2 492417-2-174005+6 149354+3298.15 449.11		H1I3S11 (g)
-178000+5 706356+5 220691+2 265583-2-277546+6 146226+3 449. 725.11		H1I3S11 (g)
-178000+5 674736+5 238334+2 103913-2-588842+6 144775+3 725. 1125.11		H1I3S11 (g)
-178000+5 665343+5 252860+2 180426-3-120462+7 144381+3 1125. 1930.11		H1I3S11 (g)
-178000+5 664991+5 257923+2 593001-5-183593+7 144368+3 1930. 6000.11		H1I3S11 (g)
1 1 1 19	JANAF 1998	5H1K1 (cr)
-138193+5 367485+5 117092+2 133090-2-270772+6 411218+2298.15 400.21		H1K1 (cr)
-138193+5 482475+5 102380+2 479107-2-256826+6 471967+2 400. 660.21		H1K1 (cr)
-138193+5 414034+5 134973+2 154611-2-743689+6 440067+2 660. 1000.21		H1K1 (cr)
-138193+5 404641+5 145154+2 857095-3-107270+7 436009+2 1000. 1230.21		H1K1 (cr)
-138193+5 391834+5 170864+2-533882-3-237398+7 430734+2 1230. 1500.21		H1K1 (cr)



1 1 1 19	JANAF 1998				5H1K1 (g)
294001+5 314398+5 674154+1 298108-2-189397+5 708163+2298.15 445.11					H1K1 (g)
294001+5 267304+5 781647+1 131569-2-850477+5 684493+2 445. 600.11					H1K1 (g)
294001+5 248091+5 855903+1 485593-3-173065+6 675348+2 600. 900.11					H1K1 (g)
294001+5 244478+5 886629+1 255151-3-253957+6 673754+2 900. 1528.11					H1K1 (g)
294001+5 244312+5 893880+1 223605-3-310712+6 673689+2 1528. 6000.11					H1K1 (g)
1 1 1 19 1 8	JANAF 1998				3H1K1O1 (cr)
-101510+6 104631+6 997141+1 174158-1 307670+5 891071+2298.15 400.21					H1K1O1 (cr)
-101510+6 124885+6 592696+1 242752-1 238874+6 994313+2 400. 516.21					H1K1O1 (cr)
-101510+6 520118+5 188000+2 000000+0 130140-7 643406+2 516. 1500.22					H1K1O1 (cr)
1 1 1 19 1 8	JANAF 1998				4H1K1O1 (cr, l)
-101510+6 117611+6 775012+1 216173-1 117062+6 958112+2298.15 516.21					H1K1O1 (cr, l)
-101510+6 520104+5 188000+2 000000+0-132434-5 643355+2 516. 679.22					H1K1O1 (cr, l)
-101510+6 565379+5 198630+2 000000+0-271577-6 689489+2 679. 1736.33					H1K1O1 (cr, l)
-101510+6 565379+5 198630+2 000000+0-124122-3 689489+2 1736. 2000.33					H1K1O1 (cr, l)
1 1 1 19 1 8	JANAF 1998				5H1K1O1 (g)
-555999+5 361002+5 124941+2 590434-3-952437+5 863806+2298.15 570.11					H1K1O1 (g)
-555999+5 373688+5 119263+2 117610-2-192286+5 869736+2 570. 1288.11					H1K1O1 (g)
-555999+5 368222+5 131928+2 521164-3-720823+6 867507+2 1288. 1877.11					H1K1O1 (g)
-555999+5 367300+5 143042+2 127099-3-203066+7 867163+2 1877. 2893.11					H1K1O1 (g)
-555999+5 367300+5 148021+2 125654-4-342462+7 867162+2 2893. 6000.11					H1K1O1 (g)
1 1 1 19 1 8	JANAF 1998				2H1K1O1 (l)
-986389+5 536670+5 198630+2 000000+0 450266-7 689512+2298.15 1100.31					H1K1O1 (l)
-986389+5 536670+5 198630+2 000000+0 382488-5 689512+2 1100. 2000.31					H1K1O1 (l)
1 1 1 19 1 8 -1 99	JANAF 1998				5H1K1O1+ (g)
119000+6 358011+5 126060+2 445938-3-811882+5 896614+2298.15 619.11					H1K1O1+ (g)
119000+6 374682+5 119182+2 118682-2 660261+4 904497+2 619. 1254.11					H1K1O1+ (g)
119000+6 369392+5 130434+2 589234-3-584335+6 902327+2 1254. 1766.11					H1K1O1+ (g)
119000+6 368115+5 141317+2 178951-3-171891+7 901842+2 1766. 2577.11					H1K1O1+ (g)
119000+6 368096+5 147034+2 312388-4-298711+7 901836+2 2577. 6000.11					H1K1O1+ (g)
1 1 1 3	JANAF 1998				2H1Lil (cr)
-216599+5 660821+5 369601+1 126373-1-696348+5 470786+2298.15 604.21					H1Lil (cr)
-216599+5 660462+5 370436+1 126245-1-698466+5 470609+2 604. 1500.21					H1Lil (cr)
1 1 1 3	JANAF 1998				5H1Lil (cr, l)
-216599+5 752257+5 213498+1 155951-1-913657+4 518030+2298.15 400.21					H1Lil (cr, l)
-216599+5 660569+5 370154+1 126290-1-699578+5 470609+2 400. 760.21					H1Lil (cr, l)
-216599+5 660518+5 369470+1 126307-1-667385+5 470579+2 760. 961.821					H1Lil (cr, l)
-216599+5 433417+5 149001+2 000000+0 263928-5 397076+2 961.8 1318.32					H1Lil (cr, l)
-216599+5 433417+5 149001+2 000000+0 374076-5 397076+2 1318. 2000.32					H1Lil (cr, l)
1 1 1 3	JANAF 1998				5H1Lil (g)
336099+5 306536+5 597449+1 324714-2 144496+5 634696+2298.15 507.11					H1Lil (g)
336099+5 257699+5 741858+1 135305-2-109907+6 610800+2 507. 800.11					H1Lil (g)
336099+5 241208+5 847166+1 450760-3-321910+6 603330+2 800. 1215.11					H1Lil (g)
336099+5 239120+5 887443+1 229996-3-520510+6 602468+2 1215. 4045.11					H1Lil (g)
336099+5 238774+5 778791+1 408806-3 542274+7 602361+2 4045. 6000.11					H1Lil (g)
1 1 1 3	JANAF 1998				2H1Lil (l)
-185741+5 402578+5 149001+2 000000+0 133246-7 397133+2298.15 1100.31					H1Lil (l)
-185741+5 402578+5 149001+2 000000+0 159148-5 397133+2 1100. 2000.31					H1Lil (l)
1 1 1 3 1 8	JANAF 1998				4H1LilO1 (cr)
-115900+6 920576+5 805433+1 158328-1-819893+5 711512+2298.15 400.21					H1LilO1 (cr)
-115900+6 676922+5 121906+2 796469-2-240235+6 585427+2 400. 600.21					H1LilO1 (cr)
-115900+6 676997+5 121725+2 797517-2-235993+6 585444+2 600. 1032.21					H1LilO1 (cr)
-115900+6 676627+5 121971+2 795415-2-239038+6 585280+2 1032. 1500.21					H1LilO1 (cr)
1 1 1 3 1 8	JANAF 1998				4H1LilO1 (cr, l)
-115900+6 674003+5 122650+2 785602-2-245215+6 584116+2298.15 576.21					H1LilO1 (cr, l)
-115900+6 667879+5 125995+2 754428-2-296633+6 581334+2 576. 744.321					H1LilO1 (cr, l)
-115900+6 587476+5 208141+2 000000+0-200814-4 595218+2 744.3 900.32					H1LilO1 (cr, l)
-115900+6 587476+5 208141+2 000000+0 281307-7 595218+2 900. 2500.32					H1LilO1 (cr, l)
1 1 1 3 1 8	JANAF 1998				5H1LilO1 (g)
-560000+5 378140+5 118992+2 134826-2-113543+6 808054+2298.15 535.11					H1LilO1 (g)
-560000+5 370988+5 118878+2 118033-2-845649+5 804208+2 535. 1294.11					H1LilO1 (g)
-560000+5 365619+5 131542+2 528979-3-793863+6 802022+2 1294. 1888.11					H1LilO1 (g)
-560000+5 364713+5 142845+2 130532-3-214133+7 801684+2 1888. 2907.11					H1LilO1 (g)
-560000+5 364713+5 147975+2 131092-4-359174+7 801684+2 2907. 6000.11					H1LilO1 (g)

1 1 1 3 1 8	JANAF 1998				2H1Li101(l)
-113390+6 562365+5 208141+2 000000+0-290244-8 595197+2298.15 1300.31					H1Li101(l)
-113390+6 562365+5 208141+2 000000+0 107398-5 595197+2 1300. 2500.31					H1Li101(l)
1 1 1 3 1 8 -1 99	JANAF 1998				5H1Li101+(g)
186000+6 373607+5 120669+2 113829-2-103960+6 833141+2298.15 542.11					H1Li101+(g)
186000+6 372775+5 118804+2 120942-2-604747+5 832413+2 542. 1240.11					H1Li101+(g)
186000+6 367320+5 130023+2 607124-3-637277+6 830170+2 1240. 1750.11					H1Li101+(g)
186000+6 365951+5 141159+2 183617-3-177778+7 829650+2 1750. 2566.11					H1Li101+(g)
186000+6 365931+5 147027+2 313301-4-306894+7 829643+2 2566. 6000.11					H1Li101+(g)
1 1 1 12	JANAF 1998				5H1Mg1(g)
404001+5 293872+5 605594+1 291467-2 127588+5 680776+2298.15 579.11					H1Mg1(g)
404001+5 246663+5 780318+1 911984-3-184260+6 658205+2 579. 977.11					H1Mg1(g)
404001+5 237632+5 877366+1 252917-3-495979+6 654300+2 977. 2823.11					H1Mg1(g)
404001+5 237634+5 775520+1 493691-3 220363+7 654301+2 2823. 3820.11					H1Mg1(g)
404001+5 237451+5 662693+1 690390-3 770330+7 654243+2 3820. 6000.11					H1Mg1(g)
1 1 1 12 1 8	JANAF 1998				5H1Mg101(g)
-393774+5 430078+5 106322+2 328517-2-117886+6 868655+2298.15 419.11					H1Mg101(g)
-393774+5 368289+5 118663+2 119204-2-180573+6 837174+2 419. 1322.11					H1Mg101(g)
-393774+5 362583+5 133037+2 467233-3-101807+7 834860+2 1322. 1999.11					H1Mg101(g)
-393774+5 361965+5 144196+2 954662-4-250735+7 834632+2 1999. 4313.11					H1Mg101(g)
-393774+5 361365+5 133881+2 254943-3 388482+7 834450+2 4313. 6000.11					H1Mg101(g)
1 1 1 12 1 8 -1 99	JANAF 1998				5H1Mg101+(g)
139680+6 427109+5 107230+2 316418-2-118931+6 853958+2298.15 424.11					H1Mg101+(g)
139680+6 368468+5 118759+2 118707-2-175483+6 824043+2 424. 1309.11					H1Mg101+(g)
139680+6 363005+5 132051+2 509813-3-934021+6 821823+2 1309. 1907.11					H1Mg101+(g)
139680+6 362171+5 143084+2 124505-3-227436+7 821512+2 1907. 2931.11					H1Mg101+(g)
139680+6 362171+5 148015+2 125520-4-369100+7 821512+2 2931. 6000.11					H1Mg101+(g)
1 1 1 7	JANAF 1998				5H1N1(g)
900000+5 199353+5 679711+1 348511-3 584818+4 599615+2298.15 524.11					H1N1(g)
900000+5 227396+5 592556+1 145713-2 856513+5 613266+2 524. 1120.11					H1N1(g)
900000+5 219815+5 707907+1 771278-3-397740+6 610079+2 1120. 1587.11					H1N1(g)
900000+5 218092+5 795873+1 402439-3-113899+7 609409+2 1587. 3132.11					H1N1(g)
900000+5 218092+5 801788+1 389965-3-133600+7 609409+2 3132. 6000.11					H1N1(g)
1 1 1 7 1 8	JANAF 1998				5H1N101(g)
238000+5 437139+5 625911+1 600173-2 204164+5 835080+2298.15 513.11					H1N101(g)
238000+5 373781+5 817883+1 352147-2-149944+6 804158+2 513. 818.11					H1N101(g)
238000+5 337147+5 108103+2 139040-2-744294+6 787743+2 818. 1281.11					H1N101(g)
238000+5 327801+5 129726+2 271719-3-194094+7 783932+2 1281. 2166.11					H1N101(g)
238000+5 327561+5 138188+2 125990-4-327803+7 783845+2 2166. 6000.11					H1N101(g)
1 1 1 7 2 8	JANAF 1998				5H1N102(g)_01
-183401+5 661171+5 911654+1 937579-2-955712+5 105433+3298.15 486.11					H1N102(g)_01
-183401+5 522093+5 129823+2 410523-2-403626+6 985845+2 486. 800.11					H1N102(g)_01
-183401+5 478856+5 159390+2 165447-2-104114+7 966382+2 800. 1329.11					H1N102(g)_01
-183401+5 469019+5 185044+2 374050-3-256672+7 962402+2 1329. 2274.11					H1N102(g)_01
-183401+5 468803+5 197123+2 215321-4-466763+7 962326+2 2274. 6000.11					H1N102(g)_01
1 1 1 7 2 8	JANAF 1998				5H1N102(g)_02
-188401+5 649357+5 956995+1 884339-2-106947+6 104941+3298.15 485.11					H1N102(g)_02
-188401+5 517102+5 132337+2 383761-2-397670+6 984262+2 485. 805.11					H1N102(g)_02
-188401+5 478058+5 159606+2 159984-2-997423+6 966721+2 805. 1358.11					H1N102(g)_02
-188401+5 469145+5 184723+2 374024-3-255945+7 963134+2 1358. 2320.11					H1N102(g)_02
-188401+5 468971+5 197001+2 229860-4-478449+7 963072+2 2320. 6000.11					H1N102(g)_02
1 1 1 7 3 8	JANAF 1998				5H1N103(g)
-320999+5 955322+5 979455+1 156043-1-151302+6 127576+3298.15 455.11					H1N103(g)
-320999+5 717632+5 157608+2 692121-2-568549+6 115746+3 455. 703.11					H1N103(g)
-320999+5 627528+5 205531+2 242030-2-137318+7 111592+3 703. 1204.11					H1N103(g)
-320999+5 609662+5 239691+2 542450-3-304769+7 110853+3 1204. 2139.11					H1N103(g)
-320999+5 609137+5 256280+2 282906-4-560546+7 110834+3 2139. 6000.11					H1N103(g)
1 1 1 11	JANAF 1998				5H1Na1(cr)
-134900+5 506203+5 869680+1 619874-2-164191+6 454766+2298.15 400.21					H1Na1(cr)
-134900+5 489394+5 967451+1 529155-2-262564+6 447860+2 400. 643.21					H1Na1(cr)
-134900+5 420459+5 129458+2 202798-2-747454+6 415728+2 643. 901.21					H1Na1(cr)
-134900+5 402712+5 144470+2 899427-3-114068+7 407893+2 901. 1207.21					H1Na1(cr)
-134900+5 388505+5 170128+2-538169-3-235081+7 401997+2 1207. 1500.21					H1Na1(cr)

1 1 1 11	JANAF 1998	5H1Na1 (g)
297000+5 317740+5 626168+1 333523-2-145864+4 684594+2298.15 459.11		H1Na1 (g)
297000+5 263661+5 762755+1 135536-2-977626+5 657695+2 459. 700.11		H1Na1 (g)
297000+5 245715+5 850450+1 494130-3-232066+6 649353+2 700. 1001.11		H1Na1 (g)
297000+5 242717+5 884555+1 267792-3-346786+6 648063+2 1001. 1681.11		H1Na1 (g)
297000+5 242582+5 893681+1 231777-3-433593+6 648011+2 1681. 6000.11		H1Na1 (g)
1 1 1 11 1 8	JANAF 1998	3H1Na1O1 (cr)
-101800+6 574019+5 151086+2 384351-2-180141+6 596663+2298.15 400.21		H1Na1O1 (cr)
-101800+6 198253+6-124161+2 512291-1 119113+7 131618+3 400. 572.21		H1Na1O1 (cr)
-101800+6 562065+5 205600+2 000000+0-919270-7 631411+2 572. 1500.22		H1Na1O1 (cr)
1 1 1 11 1 8	JANAF 1998	4H1Na1O1 (cr, l)
-101800+6 168632+6-421226+1 400077-1 581434+6 117010+3298.15 572.21		H1Na1O1 (cr, l)
-101800+6 561895+5 205600+2 000000+0 160406-2 630810+2 572. 596.22		H1Na1O1 (cr, l)
-101800+6 537812+5 213877+2-138489-2 590107+4 637484+2 596. 1735.33		H1Na1O1 (cr, l)
-101800+6 542225+5 179967+2-809122-4 340302+7 639166+2 1735. 2500.33		H1Na1O1 (cr, l)
1 1 1 11 1 8	JANAF 1998	5H1Na1O1 (g)
-472651+5 361651+5 124671+2 622653-3-970907+5 844982+2298.15 568.11		H1Na1O1 (g)
-472651+5 373031+5 119262+2 116331-2-216716+5 850257+2 568. 1301.11		H1Na1O1 (g)
-472651+5 367767+5 131876+2 517637-3-734870+6 848115+2 1301. 1894.11		H1Na1O1 (g)
-472651+5 366895+5 142970+2 127747-3-206571+7 847790+2 1894. 2911.11		H1Na1O1 (g)
-472651+5 366895+5 147995+2 128555-4-348937+7 847790+2 2911. 6000.11		H1Na1O1 (g)
1 1 1 11 1 8	JANAF 1998	4H1Na1O1 (l)
-996362+5 520315+5 213224+2-125457-2 373778+4 639981+2298.15 538.31		H1Na1O1 (l)
-996362+5 516109+5 214048+2-139714-2 208874+4 637860+2 538. 1700.31		H1Na1O1 (l)
-996362+5 519461+5 196272+2-655697-3 149673+7 639157+2 1700. 2013.31		H1Na1O1 (l)
-996362+5 520889+5 169415+2 234019-3 512207+7 639682+2 2013. 2500.31		H1Na1O1 (l)
1 1 1 11 1 8 -1 99	JANAF 1998	5H1Na1O1+ (g)
162000+6 358584+5 125792+2 477177-3-843770+5 878248+2298.15 623.11		H1Na1O1+ (g)
162000+6 374552+5 119128+2 119046-2 180987+4 885789+2 623. 1250.11		H1Na1O1+ (g)
162000+6 369247+5 130301+2 595212-3-581326+6 883612+2 1250. 1759.11		H1Na1O1+ (g)
162000+6 367938+5 141238+2 181352-3-171288+7 883115+2 1759. 2571.11		H1Na1O1+ (g)
162000+6 367919+5 147030+2 312989-4-299137+7 883108+2 2571. 6000.11		H1Na1O1+ (g)
1 1 1 8	JANAF 1998	5H1O1 (g)
931812+4 195927+5 686500+1 220130-3 210954+5 604431+2298.15 593.11		H1O1 (g)
931812+4 220409+5 592776+1 127362-2 130995+6 616095+2 593. 1272.11		H1O1 (g)
931812+4 215340+5 705639+1 682709-3-478984+6 614022+2 1272. 1772.11		H1O1 (g)
931812+4 214139+5 810174+1 290241-3-157765+7 613567+2 1772. 2536.11		H1O1 (g)
931812+4 214113+5 870070+1 132949-3-286436+7 613558+2 2536. 6000.11		H1O1 (g)
1 1 1 8 1 99	JANAF 1998	5H1O1- (g)
-343200+5 195904+5 683840+1 246788-3 478203+4 576766+2298.15 600.11		H1O1- (g)
-343200+5 218883+5 593753+1 124570-2 113333+6 587689+2 600. 1312.11		H1O1- (g)
-343200+5 213791+5 719175+1 609010-3-607713+6 585621+2 1312. 1903.11		H1O1- (g)
-343200+5 212945+5 830828+1 218955-3-196305+7 585306+2 1903. 2930.11		H1O1- (g)
-343200+5 212945+5 882849+1 101031-3-346280+7 585306+2 2930. 6000.11		H1O1- (g)
1 1 1 8 -1 99	JANAF 1998	5H1O1+ (g)
314800+6 202035+5 676301+1 428695-3 687493+4 604692+2298.15 500.11		H1O1+ (g)
314800+6 231129+5 592173+1 154760-2 773337+5 618960+2 500. 1088.11		H1O1+ (g)
314800+6 221724+5 724200+1 739213-3-444406+6 614981+2 1088. 1610.11		H1O1+ (g)
314800+6 219680+5 834565+1 282326-3-139845+7 614189+2 1610. 3781.11		H1O1+ (g)
314800+6 219508+5 713846+1 494869-3 437087+7 614135+2 3781. 6000.11		H1O1+ (g)
1 1 1 8 1 38	JANAF 1998	5H1O1Sr1 (g)
-491200+5 373928+5 120466+2 117251-2-125614+6 891725+2298.15 536.11		H1O1Sr1 (g)
-491200+5 370979+5 119195+2 116334-2-877042+5 889950+2 536. 1333.11		H1O1Sr1 (g)
-491200+5 365797+5 132684+2 489768-3-889056+6 887853+2 1333. 2460.11		H1O1Sr1 (g)
-491200+5 365808+5 121544+2 773851-3 162295+7 887857+2 2460. 4515.11		H1O1Sr1 (g)
-491200+5 369187+5 160701+2 196298-3-250420+8 888873+2 4515. 6000.11		H1O1Sr1 (g)
1 1 1 8 1 38 -1 99	JANAF 1998	5H1O1Sr1+ (g)
766730+5 372595+5 120926+2 111317-2-123420+6 878253+2298.15 542.11		H1O1Sr1+ (g)
766730+5 371378+5 119052+2 117538-2-782638+5 877319+2 542. 1295.11		H1O1Sr1+ (g)
766730+5 366020+5 131689+2 525392-3-785926+6 875136+2 1295. 1884.11		H1O1Sr1+ (g)
766730+5 365113+5 142870+2 130443-3-211350+7 874798+2 1884. 2899.11		H1O1Sr1+ (g)
766730+5 365113+5 147990+2 129320-4-355293+7 874798+2 2899. 6000.11		H1O1Sr1+ (g)

1	1	2	8	JANAF 1998				5H1O2 (g)
500000+3	435800+5	657377+1	579232-2	351700+4	855784+2298.15	509.11	H1O2 (g)	
500000+3	351106+5	911695+1	248825-2	-219656+6	814410+2	509. 951.11	H1O2 (g)	
500000+3	334372+5	108344+2	129967-2	-750641+6	807147+2	951. 1811.11	H1O2 (g)	
500000+3	332081+5	131598+2	450485-3	-333349+7	806284+2	1811. 2841.11	H1O2 (g)	
500000+3	332077+5	157730+2	-160643-3	-104119+8	806283+2	2841. 6000.11	H1O2 (g)	
1	1	1	15	JANAF 1998				5H1P1 (g)
605999+5	246537+5	605897+1	183685-2	328040+5	660355+2298.15	846.11	H1P1 (g)	
605999+5	231924+5	731488+1	898766-3	-298062+6	653919+2	846. 1306.11	H1P1 (g)	
605999+5	229753+5	783985+1	630775-3	-596513+6	653036+2	1306. 2195.11	H1P1 (g)	
605999+5	229559+5	859190+1	402890-3	-180986+7	652967+2	2195. 3046.11	H1P1 (g)	
605999+5	229559+5	952631+1	198476-3	-470252+7	652967+2	3046. 6000.11	H1P1 (g)	
1	1	1	82	JANAF 1998				5H1Pb1 (g)
564500+5	284421+5	610517+1	267294-2	123970+5	741222+2298.15	647.11	H1Pb1 (g)	
564500+5	240255+5	809133+1	633217-3	-266587+6	720518+2	647. 2041.11	H1Pb1 (g)	
564500+5	240402+5	851597+1	526862-3	-113126+7	720576+2	2041. 2852.11	H1Pb1 (g)	
564500+5	240401+5	992684+1	197985-3	-497791+7	720575+2	2852. 3689.11	H1Pb1 (g)	
564500+5	240508+5	109892+2	624110-5	-980891+7	720609+2	3689. 6000.11	H1Pb1 (g)	
1	1	1	16	JANAF 1998				5H1S1 (g)
333000+5	174523+5	779854+1	-824295-3	180564+5	626085+2298.15	456.11	H1S1 (g)	
333000+5	238395+5	620880+1	150210-2	128035+6	657903+2	456. 1048.11	H1S1 (g)	
333000+5	226350+5	774696+1	526238-3	-438099+6	652769+2	1048. 1687.11	H1S1 (g)	
333000+5	224930+5	871496+1	144992-3	-136257+7	652225+2	1687. 3650.11	H1S1 (g)	
333000+5	224810+5	846554+1	176873-3	410031+6	652188+2	3650. 6000.11	H1S1 (g)	
1	1	1	14	JANAF 1998				5H1Si1 (g)
900244+5	260059+5	602984+1	214876-2	464503+5	672924+2298.15	779.11	H1Si1 (g)	
900244+5	234068+5	769997+1	722329-3	-292740+6	661156+2	779. 1273.11	H1Si1 (g)	
900244+5	229564+5	871318+1	193579-3	-843900+6	659315+2	1273. 3291.11	H1Si1 (g)	
900244+5	229556+5	761665+1	415898-3	310800+7	659313+2	3291. 4309.11	H1Si1 (g)	
900244+5	228739+5	621347+1	632843-3	118042+8	659064+2	4309. 6000.11	H1Si1 (g)	
1	1	1	14 -1 99	JANAF 1998				5H1Si1+ (g)
274300+6	254235+5	602083+1	203382-2	312087+5	641871+2298.15	809.11	H1Si1+ (g)	
274300+6	232194+5	754685+1	776399-3	-301771+6	631961+2	809. 1248.11	H1Si1+ (g)	
274300+6	227253+5	858716+1	222087-3	-844604+6	629933+2	1248. 2353.11	H1Si1+ (g)	
274300+6	227133+5	860396+1	195401-3	-589961+6	629890+2	2353. 4017.11	H1Si1+ (g)	
274300+6	226764+5	735132+1	403062-3	616251+7	629776+2	4017. 6000.11	H1Si1+ (g)	
1	1	1	40	JANAF 1998				5H1Zr1 (g)
123400+6	304857+5	596673+1	321370-2	151075+5	741797+2298.15	489.11	H1Zr1 (g)	
123400+6	261556+5	717428+1	157077-2	-815336+5	720481+2	489. 701.11	H1Zr1 (g)	
123400+6	241000+5	824364+1	554800-3	-257044+6	710983+2	701. 1033.11	H1Zr1 (g)	
123400+6	236641+5	877985+1	209684-3	-448806+6	709119+2	1033. 1740.11	H1Zr1 (g)	
123400+6	236450+5	893276+1	151366-3	-604545+6	709047+2	1740. 6000.11	H1Zr1 (g)	
2	1	1	99	JANAF 1998				5H2- (g)
562555+5	290227+5	591898+1	290781-2	247020+5	559896+2298.15	571.11	H2- (g)	
562555+5	259445+5	702750+1	161680-2	-963760+5	545138+2	571. 805.11	H2- (g)	
562555+5	243416+5	813280+1	704261-3	-336600+6	537928+2	805. 1187.11	H2- (g)	
562555+5	240028+5	874615+1	360928-3	-626591+6	536522+2	1187. 1983.11	H2- (g)	
562555+5	239925+5	892741+1	300329-3	-866824+6	536484+2	1983. 6000.11	H2- (g)	
2	1			JANAF 1998				5H2 (ref)
000000+0	188378+5	709907+1	-658142-4	-163977+5	473281+2298.15	640.11	H2 (ref)	
000000+0	214869+5	593784+1	114359-2	142203+6	485731+2	640. 1569.11	H2 (ref)	
000000+0	212244+5	720519+1	605339-3	-898698+6	484707+2	1569. 2266.11	H2 (ref)	
000000+0	212096+5	800205+1	371804-3	-227314+7	484654+2	2266. 4712.11	H2 (ref)	
000000+0	215103+5	105159+2	166855-4	-209346+8	485549+2	4712. 6000.11	H2 (ref)	
2	1	-1	99	JANAF 1998				5H2+ (g)
357235+6	256755+5	598885+1	210772-2	342377+5	537134+2298.15	861.11	H2+ (g)	
357235+6	239420+5	735874+1	104608-2	-303664+6	529434+2	861. 1342.11	H2+ (g)	
357235+6	236330+5	788451+1	742422-3	-516651+6	528156+2	1342. 2962.11	H2+ (g)	
357235+6	236329+5	122786+2	-245711-3	-133890+8	528156+2	2962. 3687.11	H2+ (g)	
357235+6	236939+5	183828+2	-134788-2	-411274+8	528349+2	3687. 6000.11	H2+ (g)	
2	1	2	53 1 14	JANAF 1998				5H2I2S11 (g)
-909990+4	806413+5	159491+2	856355-2	-200692+6	136923+3298.15	485.11	H2I2S11 (g)	
-909990+4	704516+5	187736+2	470596-2	-424986+6	131903+3	485. 789.11	H2I2S11 (g)	
-909990+4	650421+5	223581+2	168967-2	-117494+7	129461+3	789. 1205.11	H2I2S11 (g)	
-909990+4	637079+5	248879+2	295230-3	-240831+7	128910+3	1205. 2030.11	H2I2S11 (g)	
-909990+4	636656+5	257568+2	108385-4	-361007+7	128894+3	2030. 6000.11	H2I2S11 (g)	

2 1 2 19 2 8	JANAF 1998	5H2K2O2 (g)
-156500+6 992590+5 166219+2 122470-1-721797+5 149430+3298.15 499.11		H2K2O2 (g)
-156500+6 800076+5 221861+2 484458-2-537909+6 139989+3 499. 888.11		H2K2O2 (g)
-156500+6 760823+5 255706+2 232174-2-144019+7 138259+3 888. 1488.11		H2K2O2 (g)
-156500+6 750889+5 294935+2 572568-3-436320+7 137867+3 1488. 2482.11		H2K2O2 (g)
-156500+6 750773+5 314793+2 412061-4-847164+7 137863+3 2482. 6000.11		H2K2O2 (g)
2 1 2 3 2 8	JANAF 1998	5H2Li2O2 (g)
-170000+6 104249+6 150855+2 143917-1-209624+6 137002+3298.15 477.11		H2Li2O2 (g)
-170000+6 806840+5 214527+2 555361-2-699121+6 125363+3 477. 805.11		H2Li2O2 (g)
-170000+6 756204+5 250129+2 264117-2-148695+7 123090+3 805. 1409.11		H2Li2O2 (g)
-170000+6 743162+5 292082+2 667669-3-429522+7 122569+3 1409. 2394.11		H2Li2O2 (g)
-170000+6 742943+5 314540+2 450851-4-862467+7 122562+3 2394. 6000.11		H2Li2O2 (g)
2 1 1 12	JANAF 1998	5H2Mg1 (cr)
-182000+5 756680+5 549532+1 137191-1-101280+6 566214+2298.15 500.21		H2Mg1 (cr)
-182000+5 568971+5 104947+2 671447-2-475530+6 473396+2 500. 735.21		H2Mg1 (cr)
-182000+5 468383+5 163020+2 148431-2-153609+7 427386+2 735. 1000.21		H2Mg1 (cr)
-182000+5 453952+5 173565+2 629586-3-173583+7 420989+2 1000. 1457.21		H2Mg1 (cr)
-182000+5 451318+5 164583+2 821094-3-421451+6 419822+2 1457. 2000.21		H2Mg1 (cr)
2 1 1 12 2 8	JANAF 1998	4H2Mg1O2 (cr)
-221000+6 140543+6 140035+2 231998-1-218459+6 108912+3298.15 400.21		H2Mg1O2 (cr)
-221000+6 784692+5 253050+2 275283-2-718102+6 769875+2 400. 600.21		H2Mg1O2 (cr)
-221000+6 795165+5 249535+2 317999-2-683810+6 774927+2 600. 800.21		H2Mg1O2 (cr)
-221000+6 795555+5 249215+2 320442-2-675821+6 775099+2 800. 1000.21		H2Mg1O2 (cr)
2 1 1 12 2 8	JANAF 1998	5H2Mg1O2 (g)
-136800+6 743594+5 174280+2 628331-2-239720+6 119732+3298.15 420.11		H2Mg1O2 (g)
-136800+6 629438+5 197155+2 241225-2-356439+6 113918+3 420. 1295.11		H2Mg1O2 (g)
-136800+6 618179+5 223638+2 104901-2-183703+7 113459+3 1295. 1890.11		H2Mg1O2 (g)
-136800+6 616388+5 246105+2 257654-3-451997+7 113392+3 1890. 2908.11		H2Mg1O2 (g)
-136800+6 616388+5 256242+2 257491-4-738937+7 113392+3 2908. 6000.11		H2Mg1O2 (g)
2 1 1 42 4 8	JANAF 1998	5H2Mo1O4 (g)
-203400+6 124048+6 237284+2 136271-1-257899+6 175135+3298.15 451.11		H2Mo1O4 (g)
-203400+6 100924+6 294439+2 522514-2-649688+6 163607+3 451. 741.11		H2Mo1O4 (g)
-203400+6 948912+5 329914+2 205954-2-130954+7 160852+3 741. 1282.11		H2Mo1O4 (g)
-203400+6 935654+5 360608+2 471816-3-300894+7 160312+3 1282. 2237.11		H2Mo1O4 (g)
-203400+6 935335+5 375595+2 267186-4-552613+7 160300+3 2237. 6000.11		H2Mo1O4 (g)
2 1 1 7	JANAF 1998	5H2N1 (g)
455000+5 338424+5 655416+1 359708-2 354499+5 715582+2298.15 977.11		H2N1 (g)
455000+5 315805+5 897127+1 195187-2-737469+6 705797+2 977. 1421.11		H2N1 (g)
455000+5 310572+5 107254+2 113577-2-193779+7 703713+2 1421. 2834.11		H2N1 (g)
455000+5 310568+5 137718+2 422605-3-101725+8 703712+2 2834. 3898.11		H2N1 (g)
455000+5 311454+5 179467+2-289707-3-314191+8 703988+2 3898. 6000.11		H2N1 (g)
2 1 2 7	JANAF 1998	5H2N2 (g)
509001+5 650507+5 500194+1 115493-1 256832+5 951171+2298.15 502.11		H2N2 (g)
509001+5 515234+5 897771+1 631493-2-314044+6 884942+2 502. 823.11		H2N2 (g)
509001+5 455120+5 133987+2 277374-2-133447+7 858065+2 823. 1312.11		H2N2 (g)
509001+5 438151+5 177013+2 608282-3-385032+7 851188+2 1312. 2221.11		H2N2 (g)
509001+5 437728+5 196360+2 321211-4-708158+7 851036+2 2221. 6000.11		H2N2 (g)
2 1 2 11 2 8	JANAF 1998	5H2Na2O2 (g)
-145200+6 996966+5 164548+2 124717-1-109196+6 144522+3298.15 498.11		H2Na2O2 (g)
-145200+6 799111+5 221497+2 487567-2-583399+6 134814+3 498. 885.11		H2Na2O2 (g)
-145200+6 759363+5 255545+2 233035-2-148588+7 133061+3 885. 1486.11		H2Na2O2 (g)
-145200+6 749354+5 294875+2 574515-3-440914+7 132666+3 1486. 2479.11		H2Na2O2 (g)
-145200+6 749236+5 314786+2 413035-4-852203+7 132662+3 2479. 6000.11		H2Na2O2 (g)
2 1 1 8	JANAF 1998	5H2O1 (fl) _01
-681200+5 917671+5 110574+2 137496-1 208508+6 804972+2298.15 500.31		H2O1 (fl) _01
-681200+5 827393+6-227677+3 309667+0 229025+8 436663+3 500. 700.31		H2O1 (fl) _01
-681200+5-815576+5 443799+2-483011-1 123775+8-897534+0 700. 900.31		H2O1 (fl) _01
-681200+5 725636+5-413070+2 310869-1 239100+8 691308+2 900. 1106.31		H2O1 (fl) _01
-681200+5 413178+5 441447+1 351506-2 528383+7 559547+2 1106. 1800.31		H2O1 (fl) _01
2 1 1 8	JANAF 1998	5H2O1 (fl) _02
-665378+5-448180+6 102427+3-160307+0-353171+7-200316+3298.15 400.31		H2O1 (fl) _02
-665378+5 413592+5 164651+2-720728-3 871385+4 522690+2 400. 654.31		H2O1 (fl) _02
-665378+5 342364+5 221509+2-516287-2-118062+7 491844+2 654. 1160.31		H2O1 (fl) _02
-665378+5 383981+5 153926+2-123577-2 178367+7 509253+2 1160. 1426.31		H2O1 (fl) _02
-665378+5 396947+5 115031+2 630109-3 428229+7 514450+2 1426. 1800.31		H2O1 (fl) _02

2 1 1 8	JANAF 1998	5H2O1 (g)
-577978+5 316267+5 684624+1 292810-2 274492+5 689768+2298.15 660.11		H2O1 (g)
-577978+5 319429+5 684537+1 300869-2 466309+4 691392+2 660. 1170.11		H2O1 (g)
-577978+5 305393+5 957066+1 151708-2-133702+7 685602+2 1170. 1800.11		H2O1 (g)
-577978+5 302451+5 123916+2 476498-3-440801+7 684491+2 1800. 3002.11		H2O1 (g)
-577978+5 302451+5 136547+2 169600-3-748913+7 684491+2 3002. 6000.11		H2O1 (g)
2 1 1 8	JANAF 1998	3H2O1 (l)
-683150+5 632517+5 159060+2 450488-2 675939+5 659898+2298.15 337.31		H2O1 (l)
-683150+5 113368+6 785161+1 204307-1 372803+6 921178+2 337. 441.31		H2O1 (l)
-683150+5 237191+6-214956+2 647753-1 227701+7 154117+3 441. 500.31		H2O1 (l)
2 1 1 8	JANAF 1998	5H2O1 (l,g) _01
-683150+5 885750+5 121324+2 123908-1 194354+6 792899+2298.15372.7831		H2O1 (l,g) _01
-683150+5 499810+5 412120+1 616591-2 327261+6 727502+2372.78 600.12		H2O1 (l,g) _01
-683150+5 426395+5 665339+1 313929-2 694226+5 692180+2 600. 1250.12		H2O1 (l,g) _01
-683150+5 416945+5 766487+1 243486-2-135163+6 688166+2 1250. 1500.12		H2O1 (l,g) _01
-683150+5 409204+5 104405+2 116558-2-209659+7 685097+2 1500. 1800.12		H2O1 (l,g) _01
2 1 1 8	JANAF 1998	5H2O1 (l,g) _02
-683114+5 115603+6 765177+1 210602-1 362235+6 933026+2298.15453.0731		H2O1 (l,g) _02
-683114+5 109394+6-183315+2 315635-1 308738+7 965453+2453.07 600.12		H2O1 (l,g) _02
-683114+5 440631+5 533108+1 409248-2 502570+6 652521+2 600. 1000.12		H2O1 (l,g) _02
-683114+5 419552+5 744766+1 261348-2-135010+6 643360+2 1000. 1300.12		H2O1 (l,g) _02
-683114+5 410109+5 982056+1 141591-2-151414+7 639530+2 1300. 1800.12		H2O1 (l,g) _02
2 1 1 8	JANAF 1998	5H2O1 (l,g) _03
-682758+5 701632+5 152748+2 644270-2 619810+5 697256+2298.15 400.31		H2O1 (l,g) _03
-682758+5 500783+6-862928+2 160480+0 645441+7 285195+3 400.584.1831		H2O1 (l,g) _03
-682758+5 243909+7-112245+4 113390+1 167132+9 117767+4584.18 700.12		H2O1 (l,g) _03
-682758+5 558068+5-826318+1 131027-1 561727+7 654462+2 700. 1050.12		H2O1 (l,g) _03
-682758+5 411469+5 767404+1 231710-2 532133+6 591219+2 1050. 1800.12		H2O1 (l,g) _03
2 1 2 8	JANAF 1998	5H2O2 (g)
-325301+5 673559+5 762655+1 105202-1-407279+5 101465+3298.15 400.11		H2O2 (g)
-325301+5 505029+5 110671+2 477296-2-223390+6 928940+2 400. 600.11		H2O2 (g)
-325301+5 450687+5 128613+2 257080-2-393645+6 902695+2 600. 900.11		H2O2 (g)
-325301+5 444005+5 133255+2 218802-2-490565+6 899700+2 900. 1200.11		H2O2 (g)
-325301+5 437432+5 145177+2 152103-2-105483+7 896973+2 1200. 1500.11		H2O2 (g)
2 1 2 8 1 38	JANAF 1998	2H2O2Sr1 (cr)
-231570+6 164133+6 847917+1 316978-1-262035+4 128405+3298.15 600.21		H2O2Sr1 (cr)
-231570+6 164452+6 838119+1 318237-1 544138+4 128560+3 600. 1000.21		H2O2Sr1 (cr)
2 1 2 8 1 38	JANAF 1998	5H2O2Sr1 (cr,l)
-231570+6 164408+6 842596+1 317903-1-318795+3 128545+3298.15 500.21		H2O2Sr1 (cr,l)
-231570+6 164471+6 836132+1 318376-1 992777+4 128567+3 500.783.1521		H2O2Sr1 (cr,l)
-231570+6 101019+6 377000+2 000000+0-871545-3 103798+3783.15 904.32		H2O2Sr1 (cr,l)
-231570+6 101019+6 377000+2 000000+0-106757-4 103798+3 904. 1461.32		H2O2Sr1 (cr,l)
-231570+6 101019+6 377000+2 000000+0-374530-4 103798+3 1461. 2000.32		H2O2Sr1 (cr,l)
2 1 2 8 1 38	JANAF 1998	5H2O2Sr1 (g)
-142399+6 633668+5 203490+2 204792-2-244198+6 124035+3298.15 545.11		H2O2Sr1 (g)
-142399+6 635779+5 198451+2 234568-2-142741+6 124072+3 545. 1295.11		H2O2Sr1 (g)
-142399+6 625101+5 223685+2 104859-2-155760+7 123637+3 1295. 1886.11		H2O2Sr1 (g)
-142399+6 623299+5 246088+2 258339-3-422490+7 123570+3 1886. 2905.11		H2O2Sr1 (g)
-142399+6 623299+5 256244+2 257437-4-709328+7 123570+3 2905. 6000.11		H2O2Sr1 (g)
2 1 2 8 1 38	JANAF 1998	2H2O2Sr1 (l)
-228801+6 164213+6 846150+1 317260-1-178163+4 131234+3298.15 520.31		H2O2Sr1 (l)
-228801+6 982500+5 377000+2 000000+0-159312-6 103798+3 520. 2000.32		H2O2Sr1 (l)
2 1 4 8 1 16	JANAF 1998	3H2O4S1 (cr,l)
-194548+6 257852+6 193430+2 461411-1 198820+4 206835+3298.15 400.31		H2O4S1 (cr,l)
-194548+6 258757+6 192517+2 464005-1-215240+1 207319+3 400. 700.31		H2O4S1 (cr,l)
-194548+6 258761+6 192476+2 464034-1 103098+4 207321+3 700. 1000.31		H2O4S1 (cr,l)
2 1 4 8 1 16	JANAF 1998	5H2O4S1 (g)
-175700+6 132425+6 173182+2 194056-1-274556+6 162274+3298.15 452.11		H2O4S1 (g)
-175700+6 100004+6 253761+2 760284-2-830871+6 146121+3 452. 721.11		H2O4S1 (g)
-175700+6 913890+5 302158+2 318334-2-169030+7 142170+3 721. 1296.11		H2O4S1 (g)
-175700+6 894374+5 349182+2 780331-3-435767+7 141376+3 1296. 2257.11		H2O4S1 (g)
-175700+6 893895+5 374174+2 458050-4-864386+7 141359+3 2257. 6000.11		H2O4S1 (g)

2 1 4 8 1 74	JANAF 1998				4H2O4W1 (cr)		
-270500+6	199918+6	182218+2	339047-1-125390+6	167577+3298.15	400.21	H2O4W1 (cr)	
-270500+6	170524+6	268696+2	224875-1-778332+6	153313+3	400. 600.21	H2O4W1 (cr)	
-270500+6	102769+6	559980+2	-818729-2-463882+7	121426+3	600. 800.21	H2O4W1 (cr)	
-270500+6	121574+6	489286+2	-459839-4-428276+7	130251+3	800. 1000.21	H2O4W1 (cr)	
2 1 4 8 1 74	JANAF 1998				5H2O4W1 (g)		
-216500+6	122401+6	242537+2	129825-1-322023+6	173383+3298.15	447.11	H2O4W1 (g)	
-216500+6	104171+6	286836+2	639747-2-619017+6	164279+3	447. 714.11	H2O4W1 (g)	
-216500+6	964660+5	328780+2	250520-2-134055+7	160734+3	714. 1129.11	H2O4W1 (g)	
-216500+6	942395+5	363712+2	450679-3-283652+7	159800+3	1129. 1948.11	H2O4W1 (g)	
-216500+6	941569+5	376476+2	156081-4-446377+7	159770+3	1948. 6000.11	H2O4W1 (g)	
2 1 1 15	JANAF 1998				5H2P1 (g)		
300999+5	396595+5	672342+1	481491-2	134906+5	794060+2298.15	700.11	H2P1 (g)
300999+5	353607+5	897077+1	268527-2-357243+6	774207+2	700. 1002.11	H2P1 (g)	
300999+5	330253+5	116369+2	918174-3-125635+7	764159+2	1002. 1456.11	H2P1 (g)	
300999+5	325711+5	132789+2	169358-3-242595+7	762359+2	1456. 2341.11	H2P1 (g)	
300999+5	325638+5	138455+2	871518-5-346998+7	762333+2	2341. 6000.11	H2P1 (g)	
2 1 1 16	JANAF 1998				5H2S1 (g)		
-490010+4	375939+5	658135+1	443038-2	239342+5	764493+2298.15	800.11	H2S1 (g)
-490010+4	344368+5	873379+1	264370-2-438847+6	750278+2	800. 1114.11	H2S1 (g)	
-490010+4	327199+5	113303+2	109642-2-152206+7	743056+2	1114. 1597.11	H2S1 (g)	
-490010+4	323887+5	130854+2	366755-3-302619+7	741771+2	1597. 2493.11	H2S1 (g)	
-490010+4	323848+5	138087+2	174219-3-453868+7	741757+2	2493. 6000.11	H2S1 (g)	
2 1 1 22	JANAF 1998				5H2Ti1 (cr)		
-345000+5	832052+5	335181+1	167110-1-101794+6	594233+2298.15	491.21	H2Ti1 (cr)	
-345000+5	592454+5	101491+2	756199-2-657518+6	476494+2	491. 708.21	H2Ti1 (cr)	
-345000+5	472426+5	165766+2	154659-2-174456+7	421190+2	708. 1000.21	H2Ti1 (cr)	
-345000+5	450030+5	181196+2	257518-3-199845+7	411231+2	1000. 1574.21	H2Ti1 (cr)	
-345000+5	444257+5	213119+2	-105802-2-477750+7	408997+2	1574. 2000.21	H2Ti1 (cr)	
3 1 1 53 1 14	JANAF 1998				5H3I1Si1 (g)		
-500000+3	855523+5	111000+2	125819-1-164732+6	123454+3298.15	496.11	H3I1Si1 (g)	
-500000+3	712066+5	152211+2	707837-2-507042+6	116414+3	496. 792.11	H3I1Si1 (g)	
-500000+3	630590+5	206633+2	251649-2-165441+7	112738+3	792. 1202.11	H3I1Si1 (g)	
-500000+3	610701+5	244248+2	441323-3-348511+7	111915+3	1202. 2020.11	H3I1Si1 (g)	
-500000+3	610055+5	257198+2	160898-4-526435+7	111892+3	2020. 6000.11	H3I1Si1 (g)	
3 1 1 7	JANAF 1998				5H3N1 (g)		
-109699+5	511832+5	612325+1	776968-2	690229+4	812161+2298.15	657.11	H3N1 (g)
-109699+5	450478+5	907120+1	484858-2-437174+6	783592+2	657. 1205.11	H3N1 (g)	
-109699+5	420508+5	149671+2	163732-2-337951+7	771232+2	1205. 2020.11	H3N1 (g)	
-109699+5	418153+5	198711+2	351145-4-101838+8	770368+2	2020. 3954.11	H3N1 (g)	
-109699+5	416210+5	199485+2	-964654-4-325850+7	769778+2	3954. 6000.11	H3N1 (g)	
3 1 1 8 -1 99	JANAF 1998				5H3O1+ (g)		
138900+6	518182+5	567788+1	816987-2	252092+5	812474+2298.15	528.11	H3O1+ (g)
138900+6	437167+5	830608+1	491272-2-228045+6	773215+2	528. 1078.11	H3O1+ (g)	
138900+6	410328+5	121143+2	259006-2-174380+7	761871+2	1078. 1664.11	H3O1+ (g)	
138900+6	402957+5	169660+2	665069-3-630861+7	759042+2	1664. 2669.11	H3O1+ (g)	
138900+6	402928+5	194176+2	576135-4-122228+8	759032+2	2669. 6000.11	H3O1+ (g)	
3 1 4 8 1 15	JANAF 1998				2H3O4P1 (cr)		
-306973+6	408737+6	-703363+1	957709-1	340408+6	270836+3298.15	316.21	H3O4P1 (cr)
-306973+6	332742+6	375932+1	724006-1	108458+3	230716+3	316. 1000.21	H3O4P1 (cr)
3 1 4 8 1 15	JANAF 1998				3H3O4P1 (cr, l)		
-306973+6	410701+6	-730993+1	963736-1	349000+6	271874+3298.15	315.521	H3O4P1 (cr, l)
-306973+6	359508+6	131988+2	720019-1	682984+2	261048+3	315.5 584.32	H3O4P1 (cr, l)
-306973+6	359506+6	131976+2	720020-1	454371+3	261047+3	584. 1000.32	H3O4P1 (cr, l)
3 1 4 8 1 15	JANAF 1998				2H3O4P1 (l)		
-303935+6	356469+6	131989+2	720018-1	600842+2	261048+3298.15	581.31	H3O4P1 (l)
-303935+6	356468+6	131977+2	720019-1	446400+3	261047+3	581. 1000.31	H3O4P1 (l)
3 1 1 15	JANAF 1998				5H3P1 (g)		
546989+4	655448+5	533558+1	114686-1	982862+4	935831+2298.15	513.11	H3P1 (g)
546989+4	550528+5	853363+1	735192-2-276016+6	884656+2	513. 800.11	H3P1 (g)	
546989+4	470272+5	140270+2	280063-2-146153+7	848534+2	800. 1213.11	H3P1 (g)	
546989+4	448797+5	182185+2	512040-3-354420+7	839671+2	1213. 2035.11	H3P1 (g)	
546989+4	448095+5	197332+2	195626-4-566646+7	839414+2	2035. 6000.11	H3P1 (g)	

4 1 1 53 1 7	JANAF 1998	5H4I1N1 (cr)
-483000+5 115482+6 143431+2 172171-1 571939+4 106665+3298.15 805.21		H4I1N1 (cr)
-483000+5 115136+6 147650+2 169407-1-123514+6 106521+3 805. 1100.21		H4I1N1 (cr)
-483000+5 976318+5 433462+2 353089-3-126287+8 992070+2 1100. 1300.21		H4I1N1 (cr)
-483000+5 878912+5 680155+2-120686-1-270293+8 952593+2 1300. 1623.21		H4I1N1 (cr)
-483000+5 807811+5 108412+3-286057-1-627385+8 925101+2 1623. 2000.21		H4I1N1 (cr)
4 1 2 7	JANAF 1998	5H4N2 (g)
227899+5 104484+6 816600+1 185931-1-139615+6 125341+3298.15 468.11		H4N2 (g)
227899+5 769434+5 154527+2 834199-2-684800+6 111708+3 468. 894.11		H4N2 (g)
227899+5 706150+5 210682+2 420829-2-221934+7 108927+3 894. 1425.11		H4N2 (g)
227899+5 685723+5 280328+2 982631-3-702801+7 108114+3 1425. 2370.11		H4N2 (g)
227899+5 685372+5 313330+2 614335-4-133016+8 108102+3 2370. 6000.11		H4N2 (g)
4 1 2 7	JANAF 1998	2H4N2 (l)
120999+5 169477+6 120911+2 305594-1 215206+6 140731+3298.15 400.31		H4N2 (l)
120999+5 143579+6 168597+2 220005-1-784941-7 127425+3 400. 800.31		H4N2 (l)
4 1 5 8 1 16	JANAF 1998	3H4O5S1 (cr, l)
-269508+6 260832+6 411879+2 335635-1 137355+4 236337+3298.15 400.31		H4O5S1 (cr, l)
-269508+6 269087+6 402221+2 360001-1-304258+2 240721+3 400. 776.31		H4O5S1 (cr, l)
-269508+6 269098+6 402118+2 360076-1 262029+4 240726+3 776. 1000.31		H4O5S1 (cr, l)
4 1 1 14	JANAF 1998	5H4Si1 (g)
820005+4 911015+5 598702+1 168634-1-696635+5 107884+3298.15 500.11		H4Si1 (g)
820005+4 723246+5 115046+2 959816-2-540906+6 986910+2 500. 789.11		H4Si1 (g)
820005+4 612144+5 189034+2 338719-2-209617+7 936776+2 789. 1196.11		H4Si1 (g)
820005+4 585168+5 239444+2 595021-3-453009+7 925608+2 1196. 2005.11		H4Si1 (g)
820005+4 584268+5 256818+2 215212-4-689213+7 925277+2 2005. 6000.11		H4Si1 (g)
6 1 6 8 1 16	JANAF 1998	3H6O6S1 (cr, l)
-341085+6 452812+6 392895+2 778033-1 194341+3 366977+3298.15 489.31		H6O6S1 (cr, l)
-341085+6 452803+6 392920+2 778001-1-180609+2 366973+3 489. 800.31		H6O6S1 (cr, l)
-341085+6 452813+6 392829+2 778068-1 238904+4 366977+3 800. 1000.31		H6O6S1 (cr, l)
8 1 7 8 1 16	JANAF 1998	3H8O7S1 (cr, l)
-411186+6 674093+6 182821+2 139214+0 146458+7 509046+3298.15 400.31		H8O7S1 (cr, l)
-411186+6 457068+6 555582+2 689036-1 242794+3 396853+3 400. 672.31		H8O7S1 (cr, l)
-411186+6 457064+6 555568+2 689033-1 994963+3 396851+3 672. 1000.31		H8O7S1 (cr, l)
1 2	JANAF 1998	2He1 (ref)
000000+0 134227+5 496797+1 000000+0-109373-7 415948+2298.15 3100.11		He1 (ref)
000000+0 134227+5 496797+1 000000+0-103710-4 415948+2 3100. 6000.11		He1 (ref)
1 2 -1 99	JANAF 1998	2He1+ (g)
568480+6 134227+5 496797+1 000000+0-105622-7 429717+2298.15 3000.11		He1+ (g)
568480+6 134227+5 496797+1 000000+0-892115-5 429717+2 3000. 6000.11		He1+ (g)
1 72	JANAF 1998	5Hf1 (cr)_01
000000+0 242522+5 564241+1 202808-2-959435+4 288643+2298.15 548.21		Hf1 (cr)_01
000000+0 239961+5 572919+1 192331-2-184138+5 287407+2 548. 1288.21		Hf1 (cr)_01
000000+0 236693+5 585321+1 175885-2 127253+6 285998+2 1288. 1500.21		Hf1 (cr)_01
000000+0 236178+5 603515+1 167533-2-244734+3 285794+2 1500. 1874.21		Hf1 (cr)_01
000000+0 236177+5 602877+1 167713-2 102865+5 285793+2 1874. 2500.21		Hf1 (cr)_01
1 72	JANAF 1998	2Hf1 (cr)_02
446606+4 195151+5 358366+1 220681-2 546664+0 288405+2298.15 2500.21		Hf1 (cr)_02
446606+4 195151+5 358708+1 220602-2-916260+4 288405+2 2500. 3000.22		Hf1 (cr)_02
1 72	JANAF 1998	5Hf1 (cr, l)
000000+0 240464+5 569217+1 195350-2-122328+5 287629+2298.15 1267.21		Hf1 (cr, l)
000000+0 236257+5 599464+1 169232-2 334209+5 285827+2 1267. 1752.21		Hf1 (cr, l)
000000+0 236187+5 601605+1 168160-2 253809+5 285800+2 1752. 2054.21		Hf1 (cr, l)
000000+0 239812+5 359199+1 220437-2-142245+5 288414+2 2054. 2500.22		Hf1 (cr, l)
000000+0 306552+5 900000+1 000000+0 968964-5 315255+2 2500. 5500.33		Hf1 (cr, l)
1 72	JANAF 1998	5Hf1 (g)
147800+6 203661+5 386372+1 220033-2 408096+5 597360+2298.15 745.11		Hf1 (g)
147800+6 196067+5 501025+1 149005-2-301850+6 594418+2 745. 1279.11		Hf1 (g)
147800+6 182573+5 806661+1-101597-3-197145+7 588906+2 1279. 2581.11		Hf1 (g)
147800+6 182684+5 449613+1 820039-3 596738+7 588945+2 2581. 3544.11		Hf1 (g)
147800+6 182536+5 177110+1 133045-2 174738+8 588897+2 3544. 6000.11		Hf1 (g)
1 72 1 99	JANAF 1998	2Hf1- (g)
146319+6 134227+5 496797+1 000000+0-105622-7 556694+2298.15 3000.11		Hf1- (g)
146319+6 134227+5 496797+1 000000+0-892115-5 556694+2 3000. 6000.11		Hf1- (g)



1 72	JANAF 1998						3Hf1 (l)
110442+5	195152+5	358362+1	220685-2	419316+1	314300+2298.15	1820.31	Hf1 (l)
110442+5	196306+5	900000+1	000000+0	216222-4	315328+2	1820. 2500.32	Hf1 (l)
110442+5	196306+5	900000+1	000000+0	968964-5	315328+2	2500. 5500.33	Hf1 (l)
1 72 -1 99	JANAF 1998						5Hf1+(g)
305676+6	134555+5	495408+1	151230-4	981881+3	556836+2298.15	1591.11	Hf1+(g)
305676+6	138722+5	281949+1	909398-3	180275+7	558456+2	1591. 2192.11	Hf1+(g)
305676+6	140316+5	-302017+1	268958-2	111122+8	559031+2	2192. 2994.11	Hf1+(g)
305676+6	140317+5	-346038+1	297941-2	727976+7	559031+2	2994. 4313.11	Hf1+(g)
305676+6	156813+5	229487+2	-106985-2	-159108+9	564041+2	4313. 6000.11	Hf1+(g)
1 80	JANAF 1998						5Hg1 (cr,l)
000000+0	174270+5	636872+1	306596-4	275080+5	331111+2298.15	505.31	Hg1 (cr,l)
000000+0	200858+5	559172+1	105726-2	934494+5	344136+2	505. 726.31	Hg1 (cr,l)
000000+0	195924+5	599689+1	746662-3	-125580+4	341976+2	726. 1117.31	Hg1 (cr,l)
000000+0	195974+5	599287+1	749811-3	-631412+3	341998+2	1117. 1400.31	Hg1 (cr,l)
000000+0	195973+5	598991+1	750777-3	253686+4	341997+2	1400. 2000.31	Hg1 (cr,l)
1 80	JANAF 1998						5Hg1 (g)
146702+5	134227+5	496793+1	251974-7	376695+1	532626+2298.15	3279.11	Hg1 (g)
146702+5	134227+5	492296+1	917038-5	161179+6	532626+2	3279. 4116.11	Hg1 (g)
146702+5	134116+5	462695+1	571089-4	183309+7	532592+2	4116. 4806.11	Hg1 (g)
146702+5	133199+5	395378+1	150481-3	701685+7	532320+2	4806. 5421.11	Hg1 (g)
146702+5	130014+5	285942+1	285048-3	177394+8	531404+2	5421. 6000.11	Hg1 (g)
1 80 -1 99	JANAF 1998						2Hg1+(g)
256841+6	134227+5	496797+1	000000+0	-168949-3	651285+2298.15	3981.11	Hg1+(g)
256841+6	134225+5	496374+1	671184-6	246784+5	651285+2	3981. 6000.11	Hg1+(g)
1 80 1 53	JANAF 1998						5Hg1I1 (g)
319001+5	268325+5	894043+1	604272-3	-513949+4	893206+2298.15	611.11	Hg1I1 (g)
319001+5	268259+5	894210+1	601813-3	-520249+4	893173+2	611. 1483.11	Hg1I1 (g)
319001+5	268258+5	894284+1	601558-3	-599375+4	893173+2	1483. 3057.11	Hg1I1 (g)
319001+5	268258+5	896370+1	597454-3	-836914+5	893173+2	3057. 3600.11	Hg1I1 (g)
319001+5	268259+5	894321+1	601612-3	-120982+5	893173+2	3600. 6000.11	Hg1I1 (g)
1 80 2 53	JANAF 1998						2Hg1I2 (cr)
-252000+5	879732+5	153823+2	104110-1	849540+4	107029+3298.15	402.21	Hg1I2 (cr)
-252000+5	548170+5	201049+2	000000+0	-396291-7	909419+2	402. 1500.22	Hg1I2 (cr)
1 80 2 53	JANAF 1998						4Hg1I2 (cr,l)
-252000+5	879732+5	153823+2	104110-1	849540+4	107029+3298.15	402.21	Hg1I2 (cr,l)
-252000+5	548170+5	201049+2	000000+0	352126-5	909419+2	402. 530.22	Hg1I2 (cr,l)
-252000+5	699591+5	244001+2	000000+0	-153957-6	106940+3	530. 975.33	Hg1I2 (cr,l)
-252000+5	699591+5	244001+2	000000+0	165438-5	106940+3	975. 1500.33	Hg1I2 (cr,l)
1 80 2 53	JANAF 1998						4Hg1I2 (g)
-385492+4	402986+5	148734+2	421075-4	-247580+5	114644+3298.15	452.11	Hg1I2 (g)
-385492+4	401920+5	148997+2	344605-5	-265481+5	114591+3	452. 920.11	Hg1I2 (g)
-385492+4	401861+5	149038+2	123881-7	-274154+5	114588+3	920. 2900.11	Hg1I2 (g)
-385492+4	401861+5	149040+2	153739-8	-281724+5	114588+3	2900. 6000.11	Hg1I2 (g)
1 80 2 53	JANAF 1998						2Hg1I2 (l)
-208621+5	902149+5	150588+2	111032-1	189101+5	116417+3298.15	353.31	Hg1I2 (l)
-208621+5	656212+5	244001+2	000000+0	-186370-7	106941+3	353. 1500.32	Hg1I2 (l)
1 80 1 8	JANAF 1998						4Hg1O1 (cr)
-216991+5	607156+5	827343+1	862893-2	-280082+5	590545+2298.15	400.21	Hg1O1 (cr)
-216991+5	460895+5	112867+2	362675-2	-189990+6	516230+2	400. 600.21	Hg1O1 (cr)
-216991+5	406399+5	134908+2	122561-2	-464806+6	490412+2	600. 800.21	Hg1O1 (cr)
-216991+5	383883+5	151454+2	-100600-3	-844777+6	480349+2	800. 1000.21	Hg1O1 (cr)
1 80 1 8	JANAF 1998						4Hg1O1 (g)
100000+5	285996+5	780244+1	171488-2	-404198+5	795570+2298.15	404.11	Hg1O1 (g)
100000+5	252334+5	850215+1	560352-3	-784956+5	778482+2	404. 600.11	Hg1O1 (g)
100000+5	242893+5	886445+1	153672-3	-121079+6	773985+2	600. 1076.11	Hg1O1 (g)
100000+5	242336+5	894040+1	106658-3	-150453+6	773748+2	1076. 6000.11	Hg1O1 (g)
2 80 2 53	JANAF 1998						5Hg2I2 (cr)
-284620+5	907513+5	249684+2	530327-2	-112047+6	129021+3298.15	478.21	Hg2I2 (cr)
-284620+5	828251+5	271078+2	233161-2	-276331+6	125106+3	478. 801.21	Hg2I2 (cr)
-284620+5	815725+5	277152+2	172992-2	-356802+6	124526+3	801. 1100.21	Hg2I2 (cr)
-284620+5	797486+5	304629+2	901612-4	-149896+7	123759+3	1100. 1300.21	Hg2I2 (cr)
-284620+5	839529+5	212875+2	492576-2	338353+7	125480+3	1300. 1500.21	Hg2I2 (cr)

2 80 2 53	JANAF 1998						4Hg2I2 (cr, l)
-284620+5	160762+6	130130+2	279520-1	351401+6	165193+3298.15	400.21	Hg2I2 (cr, l)
-284620+5	848966+5	263952+2	318864-2	-204894+6	126065+3	400. 563.21	Hg2I2 (cr, l)
-284620+5	929696+5	325999+2	000000+0	247256-4	140532+3	563. 702.32	Hg2I2 (cr, l)
-284620+5	929696+5	325999+2	000000+0	133272-5	140532+3	702. 1500.32	Hg2I2 (cr, l)
2 80 2 53	JANAF 1998						2Hg2I2 (l)
-235574+5	880801+5	325999+2	000000+0	278308-7	140576+3298.15	800.31	Hg2I2 (l)
-235574+5	880801+5	325999+2	000000+0	145586-5	140576+3	800. 1500.31	Hg2I2 (l)
1 53	JANAF 1998						5I1 (g)
255167+5	134295+5	496633+1	245169-5	874793+2	546560+2298.15	925.11	I1 (g)
255167+5	135685+5	483691+1	957643-4	369674+5	547168+2	925. 1296.11	I1 (g)
255167+5	137064+5	451276+1	262667-3	218110+6	547730+2	1296. 2523.11	I1 (g)
255167+5	137028+5	527311+1	619258-4	-139796+7	547718+2	2523. 3501.11	I1 (g)
255167+5	137057+5	598015+1	-725843-4	-429212+7	547727+2	3501. 6000.11	I1 (g)
1 53 1 99	JANAF 1998						2I1- (g)
-465084+5	134227+5	496797+1	000000+0	-105622-7	518979+2298.15	3000.11	I1- (g)
-465084+5	134227+5	496797+1	000000+0	-892115-5	518979+2	3000. 6000.11	I1- (g)
1 53 -1 99	JANAF 1998						5I1+ (g)
268010+6	134394+5	496417+1	590985-5	192892+3	551045+2298.15	852.11	I1+ (g)
268010+6	137316+5	473797+1	182883-3	549404+5	552346+2	852. 1200.11	I1+ (g)
268010+6	140345+5	416781+1	497929-3	331575+6	553599+2	1200. 2646.11	I1+ (g)
268010+6	140323+5	544591+1	176723-3	-266631+7	553591+2	2646. 3860.11	I1+ (g)
268010+6	140626+5	705629+1	-100779-3	-107006+8	553686+2	3860. 6000.11	I1+ (g)
1 53 1 19	JANAF 1998						5I1K1 (cr)
-783700+5	481137+5	110973+2	405047-2	276174+5	621457+2298.15	505.21	I1K1 (cr)
-783700+5	587534+5	798037+1	816241-2	292941+6	673568+2	505. 860.21	I1K1 (cr)
-783700+5	554295+5	117588+2	563873-2	-896417+6	659391+2	860. 1000.21	I1K1 (cr)
-783700+5	447859+5	234048+2	-221273-2	-469090+7	613441+2	1000. 1238.21	I1K1 (cr)
-783700+5	454953+5	201066+2	-757753-3	-239658+7	616095+2	1238. 2000.21	I1K1 (cr)
1 53 1 19	JANAF 1998						5I1K1 (cr, l)
-783700+5	480535+5	111078+2	403089-2	272020+5	621148+2298.15	499.21	I1K1 (cr, l)
-783700+5	581071+5	822341+1	788593-2	266417+6	670494+2	499. 703.21	I1K1 (cr, l)
-783700+5	606711+5	688777+1	915396-2	485951+6	682340+2	703. 954.21	I1K1 (cr, l)
-783700+5	503400+5	173000+2	000000+0	-134623-3	672110+2	954. 1106.32	I1K1 (cr, l)
-783700+5	503400+5	173000+2	000000+0	-246400-5	672110+2	1106. 2500.32	I1K1 (cr, l)
1 53 1 19	JANAF 1998						3I1K1 (g)
-300000+5	249056+5	895204+1	169098-3	-115637+5	827656+2298.15	372.11	I1K1 (g)
-300000+5	250025+5	894061+1	197696-3	-114544+5	828173+2	372. 900.11	I1K1 (g)
-300000+5	249998+5	894232+1	196224-3	-117696+5	828161+2	900. 6000.11	I1K1 (g)
1 53 1 19	JANAF 1998						2I1K1 (l)
-747720+5	467419+5	173000+2	000000+0	-146145-7	672117+2298.15	1300.31	I1K1 (l)
-747720+5	467419+5	173000+2	000000+0	-234939-5	672117+2	1300. 2500.31	I1K1 (l)
1 53 1 3	JANAF 1998						5I1Li1 (cr)
-645500+5	538561+5	107717+2	558311-2	-408678+5	602266+2298.15	639.21	I1Li1 (cr)
-645500+5	576545+5	121733+2	588356-2	-691551+6	623428+2	639. 922.21	I1Li1 (cr)
-645500+5	455771+5	218129+2	-156086-2	-305127+7	569895+2	922. 1200.21	I1Li1 (cr)
-645500+5	465402+5	204665+2	-731889-3	-254485+7	573957+2	1200. 1462.21	I1Li1 (cr)
-645500+5	464719+5	182501+2	-128619-4	-544097+5	573526+2	1462. 2500.21	I1Li1 (cr)
1 53 1 3	JANAF 1998						4I1Li1 (cr, l)
-645500+5	505654+5	114045+2	447933-2	-681418+5	585535+2298.15	566.21	I1Li1 (cr, l)
-645500+5	621943+5	892932+1	852768-2	-924135+4	643677+2	566. 742.21	I1Li1 (cr, l)
-645500+5	436098+5	150999+2	000000+0	-106818-4	584575+2	742. 959.32	I1Li1 (cr, l)
-645500+5	436098+5	150999+2	000000+0	-644843-6	584575+2	959. 2500.32	I1Li1 (cr, l)
1 53 1 3	JANAF 1998						4I1Li1 (g)
-217500+5	265877+5	846891+1	859637-3	-410999+5	771323+2298.15	400.11	I1Li1 (g)
-217500+5	250574+5	878314+1	336799-3	-579161+5	763544+2	400. 587.11	I1Li1 (g)
-217500+5	247024+5	891656+1	185232-3	-732323+5	761850+2	587. 1048.11	I1Li1 (g)
-217500+5	246827+5	894167+1	169305-3	-824773+5	761766+2	1048. 6000.11	I1Li1 (g)
1 53 1 3	JANAF 1998						2I1Li1 (l)
-617469+5	407977+5	150999+2	000000+0	532083-8	584308+2298.15	1300.31	I1Li1 (l)
-617469+5	407977+5	150999+2	000000+0	-248603-6	584308+2	1300. 2500.31	I1Li1 (l)

1 53 1 12	JANAF 1998				5I1Mg1 (g)
588289+4 248969+5 887397+1 224379-3-261517+5 813065+2298.15 491.11					I1Mg1 (g)
588289+4 246645+5 893897+1 136118-3-313746+5 811921+2 491. 2775.11					I1Mg1 (g)
588289+4 246647+5 866241+1 202539-3 678942+6 811922+2 2775. 3665.11					I1Mg1 (g)
588289+4 246579+5 791540+1 338331-3 402806+7 811901+2 3665. 4575.11					I1Mg1 (g)
588289+4 245806+5 710501+1 456340-3 968967+7 811669+2 4575. 6000.11					I1Mg1 (g)
1 53 1 42	JANAF 1998				5I1Mol (g)
119200+6 247483+5 892058+1 152877-3-115640+5 875944+2298.15 1644.11					I1Mol (g)
119200+6 252358+5 601691+1 132944-2 260846+7 877825+2 1644. 2291.11					I1Mol (g)
119200+6 253558+5-921799+0 334857-2 147481+8 878253+2 2291. 3705.11					I1Mol (g)
119200+6 255240+5 147946+2 524160-3-573457+8 878784+2 3705. 4489.11					I1Mol (g)
119200+6 269771+5 323486+2-207858-2-175639+9 883160+2 4489. 6000.11					I1Mol (g)
1 53 1 7 1 8	JANAF 1998				5I1N1O1 (g)
268000+5 406109+5 107399+2 262149-2-287095+5 993217+2298.15 605.11					I1N1O1 (g)
268000+5 373561+5 120306+2 119960-2-186284+6 977765+2 605. 900.11					I1N1O1 (g)
268000+5 360011+5 131769+2 337925-3-486622+6 971784+2 900. 1296.11					I1N1O1 (g)
268000+5 357680+5 137310+2 536209-4-798422+6 970835+2 1296. 2127.11					I1N1O1 (g)
268000+5 357624+5 138960+2 199738-5-104800+7 970814+2 2127. 6000.11					I1N1O1 (g)
1 53 1 11	JANAF 1998				2I1Na1 (cr)
-688000+5 436569+5 119660+2 255689-2-218054+5 579558+2298.15 1264.21					I1Na1 (cr)
-688000+5 434785+5 123560+2 235155-2-230218+6 578827+2 1264. 2000.21					I1Na1 (cr)
1 53 1 11	JANAF 1998				5I1Na1 (cr, l)
-688000+5 426559+5 121625+2 221896-2-304164+5 574483+2298.15 500.21					I1Na1 (cr, l)
-688000+5 435883+5 120097+2 251909-2-297480+5 579262+2 500. 933.21					I1Na1 (cr, l)
-688000+5 462252+5 155000+2 000000+0-358983-4 628562+2 933. 1100.32					I1Na1 (cr, l)
-688000+5 462252+5 155000+2 000000+0 267061-5 628562+2 1100. 2000.32					I1Na1 (cr, l)
-688000+5 462252+5 155000+2 000000+0 342945-4 628562+2 2000. 3000.32					I1Na1 (cr, l)
1 53 1 11	JANAF 1998				2I1Na1 (l)
-636969+5 435208+5 119959+2 250920-2-232287+5 632068+2298.15 600.31					I1Na1 (l)
-636969+5 411219+5 155000+2 000000+0-141699-7 628553+2 600. 3000.32					I1Na1 (l)
1 53 1 82	JANAF 1998				5I1Pb1 (g)
257500+5 246612+5 893695+1 121158-3-824954+4 878327+2298.15 1032.11					I1Pb1 (g)
257500+5 249009+5 864520+1 309700-3 952524+5 879353+2 1032. 1443.11					I1Pb1 (g)
257500+5 250869+5 800772+1 604550-3 536704+6 880093+2 1443. 2746.11					I1Pb1 (g)
257500+5 250863+5 899245+1 365893-3-194695+7 880090+2 2746. 4002.11					I1Pb1 (g)
257500+5 251065+5 968966+1 250113-3-569240+7 880153+2 4002. 6000.11					I1Pb1 (g)
1 53 1 14	JANAF 1998				5I1Si1 (g)
749591+5 221974+5 107338+2-146895-2-856514+5 809824+2298.15 671.11					I1Si1 (g)
749591+5 252273+5 928736+1-308239-4 131113+6 823943+2 671. 1474.11					I1Si1 (g)
749591+5 253554+5 880859+1 185662-3 478043+6 824450+2 1474. 3046.11					I1Si1 (g)
749591+5 253554+5 601036+1 796936-3 916503+7 824450+2 3046. 4247.11					I1Si1 (g)
749591+5 250912+5 936907+0 159105-2 398431+8 823643+2 4247. 6000.11					I1Si1 (g)
1 53 1 38	JANAF 1998				5I1Sr1 (g)
-728824+4 248161+5 893868+1 155897-3-975456+4 860386+2298.15 1647.11					I1Sr1 (g)
-728824+4 248899+5 849685+1 334714-3 389845+6 860670+2 1647. 2196.11					I1Sr1 (g)
-728824+4 249225+5 726180+1 709867-3 237289+7 860788+2 2196. 2771.11					I1Sr1 (g)
-728824+4 249234+5 564844+1 109884-2 648479+7 860790+2 2771. 4638.11					I1Sr1 (g)
-728824+4 253654+5 978532+1 505392-3-232964+8 862111+2 4638. 6000.11					I1Sr1 (g)
1 53 1 22	JANAF 1998				5I1Ti1 (g)
655000+5 352587+5 893392+1 252582-2-441541+5 914299+2298.15 486.11					I1Ti1 (g)
655000+5 280158+5 109328+2-211783-3-202038+6 878605+2 486. 1114.11					I1Ti1 (g)
655000+5 285615+5 101203+2 275117-3 133171+6 880903+2 1114. 2399.11					I1Ti1 (g)
655000+5 285543+5 108398+2 752463-4-124820+7 880877+2 2399. 4661.11					I1Ti1 (g)
655000+5 285005+5 103454+2 146004-3 232825+7 880717+2 4661. 6000.11					I1Ti1 (g)
1 53 1 40	JANAF 1998				5I1Zr1 (g)
141300+6 251704+5 891929+1 250643-3-148779+5 870798+2298.15 443.11					I1Zr1 (g)
141300+6 250850+5 893962+1 220017-3-162059+5 870370+2 443. 1100.11					I1Zr1 (g)
141300+6 250820+5 894198+1 218143-3-165616+5 870357+2 1100. 2900.11					I1Zr1 (g)
141300+6 250820+5 892892+1 220829-3 277934+5 870357+2 2900. 3500.11					I1Zr1 (g)
141300+6 250819+5 894122+1 218170-3-898382+4 870357+2 3500. 6000.11					I1Zr1 (g)
2 53	JANAF 1998				2I2 (cr)
000000+0 232231+6-121031+2 590079-1 668519+6 162969+3298.15 390.21					I2 (cr)
000000+0 168297+6 755272+0 373070-1 320073+2 130403+3 390. 700.21					I2 (cr)
2 53	JANAF 1998				2I2 (cr, l)
000000+0 232233+6-121033+2 590083-1 668525+6 162969+3298.15386.7521					I2 (cr, l)
000000+0 553247+5 192804+2 000000+0-229318-7 804496+2386.75 1000.32					I2 (cr, l)

2 53				JANAF 1998			5I2 (g)
149190+5	250312+5	887478+1	244055-3-114271+5	833646+2298.15	1129.11		I2 (g)
149190+5	269136+5	595854+1	196694-2 122637+7	841550+2 1129.	2138.11		I2 (g)
149190+5	265181+5	179798+2-177644-2-171399+8		840116+2 2138.	3051.11		I2 (g)
149190+5	265174+5	168417+2-169507-2-885683+7		840114+2 3051.	4240.11		I2 (g)
149190+5	261297+5	873688+1-414859-3	392652+8	838928+2 4240.	6000.11		I2 (g)
2 53				JANAF 1998			2I2 (l)
323207+4	520926+5	192804+2	000000+0 143901-7	804499+2298.15	600.31		I2 (l)
323207+4	520926+5	192804+2	000000+0 170773-7	804499+2 600.	1000.31		I2 (l)
2 53 2 19				JANAF 1998			2I2K2 (g)
-100900+6	536427+5	198685+2	389554-5-186301+5	140344+3298.15	491.11		I2K2 (g)
-100900+6	536336+5	198719+2	132176-7-189902+5	140340+3 491.	6000.11		I2K2 (g)
2 53 2 3				JANAF 1998			2I2Li2 (g)
-865000+5	540762+5	195690+2	360765-3-133619+6	124407+3298.15	553.11		I2Li2 (g)
-865000+5	531987+5	198687+2	635733-6-164376+6	123984+3 553.	6000.11		I2Li2 (g)
2 53 1 12				JANAF 1998			5I2Mg1 (cr)
-877000+5	652518+5	177155+2	396302-2-895384+5	821100+2298.15	572.21		I2Mg1 (cr)
-877000+5	619656+5	188551+2	260592-2-208417+6	805285+2 572.	880.21		I2Mg1 (cr)
-877000+5	551907+5	256414+2-214554-2-222571+7	775879+2 880.	1000.21			I2Mg1 (cr)
-877000+5	619880+5	189421+2	257338-2-245294+6	805460+2 1000.	1219.21		I2Mg1 (cr)
-877000+5	616804+5	195526+2	224185-2-551967+6	804192+2 1219.	1500.21		I2Mg1 (cr)
2 53 1 12				JANAF 1998			5I2Mg1 (cr, l)
-877000+5	343988+4	282692+2-160324-1-498588+6	501733+2298.15	408.21			I2Mg1 (cr, l)
-877000+5	626299+5	185654+2	290577-2-169478+6	808711+2 408.	770.21		I2Mg1 (cr, l)
-877000+5	644072+5	171724+2	399174-2 160655+6	816584+2 770.	907.21		I2Mg1 (cr, l)
-877000+5	692529+5	240000+2	000000+0-834600-6	891001+2 907.	1439.32		I2Mg1 (cr, l)
-877000+5	692529+5	240000+2	000000+0-217546-4	891001+2 1439.	2000.32		I2Mg1 (cr, l)
2 53 1 12				JANAF 1998			3I2Mg1 (g)
-383000+5	409601+5	146646+2	331341-3-456351+5	110354+3298.15	446.11		I2Mg1 (g)
-383000+5	401254+5	148658+2	307127-4-589746+5	109937+3 446.	817.11		I2Mg1 (g)
-383000+5	400724+5	149033+2	111711-6-673552+5	109913+3 817.	6000.11		I2Mg1 (g)
2 53 1 12				JANAF 1998			2I2Mg1 (l)
-818002+5	651323+5	177387+2	392283-2-905455+5	882714+2298.15	600.31		I2Mg1 (l)
-818002+5	633334+5	240000+2	000000+0 259482-6	890544+2 600.	2000.32		I2Mg1 (l)
2 53 1 42				JANAF 1998			2I2Mol (cr)
-248401+5	642858+5	188791+2	297994-2-349757+2	874089+2298.15	1300.21		I2Mol (cr)
-248401+5	643277+5	187619+2	303735-2 720583+5	874257+2 1300.	1500.21		I2Mol (cr)
2 53 1 42				JANAF 1998			5I2Mol (g)
615999+5	395290+5	184165+2-224443-2-759735+5	117098+3298.15	905.11			I2Mol (g)
615999+5	422579+5	160045+2-465905-3	581270+6 118298+3	905.	1507.11		I2Mol (g)
615999+5	426486+5	144206+2 235698-3	177714+7 118452+3	1507.	2542.11		I2Mol (g)
615999+5	426643+5	139261+2 413550-3	205083+7 118458+3	2542.	4126.11		I2Mol (g)
615999+5	427682+5	166071+2-193040-4-131860+8	118490+3 4126.	6000.11			I2Mol (g)
2 53 1 82				JANAF 1998			4I2Pb1 (cr)
-419199+5	483326+5	198170+2-111236-2-839973+5	840664+2298.15	400.21			I2Pb1 (cr)
-419199+5	890628+5	110417+2 130196-1	415595+6 104662+3	400.	600.21		I2Pb1 (cr)
-419199+5	107838+6	399670+1 210311-1	122133+7 113625+3	600.	800.21		I2Pb1 (cr)
-419199+5	106691+6	540174+1 201110-1	793174+6 113147+3	800.	1000.21		I2Pb1 (cr)
2 53 1 82				JANAF 1998			4I2Pb1 (cr, l)
-419199+5	644535+5	170641+2 410283-2	227201+5 923956+2298.15	486.21			I2Pb1 (cr, l)
-419199+5	101223+6	692464+1 179965-1	822741+6 110518+3	486.	683.21		I2Pb1 (cr, l)
-419199+5	731879+5	259500+2 000000+0	163386-4 104338+3	683.	867.32		I2Pb1 (cr, l)
-419199+5	731879+5	259500+2 000000+0	115210-5 104338+3	867.	1500.32		I2Pb1 (cr, l)
2 53 1 82				JANAF 1998			2I2Pb1 (g)
-760038+3	375599+5	139054+2 593230-5-121654+5	117961+3298.15	557.11			I2Pb1 (g)
-760038+3	375455+5	139103+2-999804-9-126791+5	117954+3 557.	6000.11			I2Pb1 (g)
2 53 1 82				JANAF 1998			2I2Pb1 (l)
-376862+5	605969+5	177232+2 285491-2-287446+4	961550+2298.15	460.31			I2Pb1 (l)
-376862+5	689534+5	259500+2 000000+0-945801-7	104337+3 460.	1500.32			I2Pb1 (l)
2 53 1 14				JANAF 1998			5I2Si1 (g)
220999+5	380705+5	136972+2 282299-3-645524+5	108715+3298.15	484.11			I2Si1 (g)
220999+5	373393+5	138973+2 678963-5-801857+5	108354+3 484.	2415.11			I2Si1 (g)
220999+5	373458+5	131907+2 201860-3	129331+7 108356+3	2415.	3271.11		I2Si1 (g)
220999+5	373448+5	116661+2 512542-3	673214+7 108356+3	3271.	4451.11		I2Si1 (g)
220999+5	374020+5	115810+2 540532-3	594869+7 108373+3	4451.	6000.11		I2Si1 (g)

2 53 1 38	JANAF 1998				2I2Srl (cr)		
-134200+6	743076+5	166782+2	656395-2-155404+3	942707+2298.15	788.21	I2Srl (cr)	
-134200+6	743185+5	166531+2	657786-2	864739+4	942744+2	788. 1500.21	I2Srl (cr)
2 53 1 38	JANAF 1998				5I2Srl (cr,l)		
-134200+6	745465+5	166283+2	664632-2	214493+4	943907+2298.15	589.21	I2Srl (cr,l)
-134200+6	746243+5	164994+2	672723-2	303277+5	944150+2	589. 811.21	I2Srl (cr,l)
-134200+6	726904+5	263000+2	000000+0-384018-4	982833+2	811. 1001.32		I2Srl (cr,l)
-134200+6	726904+5	263000+2	000000+0-207598-5	982833+2	1001. 2034.32		I2Srl (cr,l)
-134200+6	726904+5	263000+2	000000+0-229641-4	982833+2	2034. 2600.32		I2Srl (cr,l)
2 53 1 38	JANAF 1998				5I2Srl (g)		
-657000+5	403237+5	148754+2	426365-4-189708+5	115483+3298.15	416.11		I2Srl (g)
-657000+5	402133+5	148992+2	431437-5-203363+5	115427+3	416. 800.11		I2Srl (g)
-657000+5	402049+5	149034+2	233957-6-209172+5	115423+3	800. 2460.11		I2Srl (g)
-657000+5	402048+5	149020+2	414919-6-151660+5	115423+3	2460. 3700.11		I2Srl (g)
-657000+5	402048+5	149032+2	109268-6-157890+5	115423+3	3700. 6000.11		I2Srl (g)
2 53 1 38	JANAF 1998				2I2Srl (l)		
-131154+6	745526+5	166272+2	664831-2	218899+4	975774+2298.15499.9931		I2Srl (l)
-131154+6	696446+5	263000+2	000000+0-548328-7	982838+2499.99	2600.32		I2Srl (l)
2 53 1 22	JANAF 1998				2I2Til (cr)		
-635999+5	623801+5	200307+2	185234-2	231178+4	805639+2298.15	400.21	I2Til (cr)
-635999+5	620329+5	200901+2	173996-2	329205-7	803843+2	400. 2000.21	I2Til (cr)
2 53 1 22	JANAF 1998				5I2Til (g)		
-470005+4	403139+5	148473+2	681067-4-346846+5	111603+3298.15	1035.11		I2Til (g)
-470005+4	414442+5	134580+2	962608-3	461894+6	112087+3	1035. 1754.11	I2Til (g)
-470005+4	414925+5	141863+2	767411-3-725684+6	112107+3	1754. 2569.11		I2Til (g)
-470005+4	414849+5	163954+2	194726-3-559522+7	112105+3	2569. 4750.11		I2Til (g)
-470005+4	416337+5	175698+2	301411-4-144537+8	112149+3	4750. 6000.11		I2Til (g)
2 53 1 40	JANAF 1998				5I2Zrl (cr)		
-620000+5	-790363+5	470153+2	-455907-1-970935+6	158612+2298.15	400.21		I2Zrl (cr)
-620000+5	678078+5	219685+2	189055-2-223868+4	918188+2	400. 700.21		I2Zrl (cr)
-620000+5	780252+5	157179+2	736517-2	118404+7	964586+2	700. 900.22	I2Zrl (cr)
-620000+5	703905+5	181944+2	416926-2	150791+7	929108+2	900. 1202.22	I2Zrl (cr)
-620000+5	679187+5	217019+2	202220-2	168865+6	918695+2	1202. 1500.22	I2Zrl (cr)
2 53 1 40	JANAF 1998				5I2Zrl (cr,l)		
-620000+5	-790363+5	470153+2	-455907-1-970935+6	158612+2298.15	400.21		I2Zrl (cr,l)
-620000+5	678078+5	219685+2	189055-2-223868+4	918188+2	400. 700.21		I2Zrl (cr,l)
-620000+5	123948+6	868351+1	208539-1	387795+4	124678+3	700. 1051.32	I2Zrl (cr,l)
-620000+5	124061+6	835104+1	210191-1	179412+6	124721+3	1051. 1434.32	I2Zrl (cr,l)
-620000+5	123908+6	849111+1	209076-1	220054+6	124658+3	1434. 2000.32	I2Zrl (cr,l)
2 53 1 40	JANAF 1998				4I2Zrl (g)		
-159281+5	375742+5	138940+2	210576-4-195659+5	114405+3298.15	404.11		I2Zrl (g)
-159281+5	375232+5	139077+2	193486-5-205447+5	114380+3	404. 981.11		I2Zrl (g)
-159281+5	375203+5	139101+2	107876-6-211007+5	114378+3	981. 2700.11		I2Zrl (g)
-159281+5	375203+5	139104+2	-981645-8-208791+5	114378+3	2700. 6000.11		I2Zrl (g)
2 53 1 40	JANAF 1998				2I2Zrl (l)		
-559845+5	678701+5	219336+2	193135-2	118251+4	100360+3298.15	700.31	I2Zrl (l)
-559845+5	117844+6	872015+1	208194-1-170618+4	124570+3	700. 2000.32		I2Zrl (l)
3 53 1 42	JANAF 1998				2I3Mol (cr)		
-298000+5	848269+5	248392+2	397593-2	258703+2	114791+3298.15	600.21	I3Mol (cr)
-298000+5	848280+5	248349+2	397829-2	108059+4	114791+3	600. 1000.21	I3Mol (cr)
3 53 1 42	JANAF 1998				5I3Mol (g)		
437000+5	547447+5	196471+2	389655-3-247913+5	142696+3298.15	742.11		I3Mol (g)
437000+5	560665+5	193507+2	868758-3-573188+5	143336+3	742. 1452.11		I3Mol (g)
437000+5	556708+5	198533+2	530678-3-820200+5	143173+3	1452. 3119.11		I3Mol (g)
437000+5	556710+5	225056+2	-364065-4-867794+7	143173+3	3119. 3938.11		I3Mol (g)
437000+5	557241+5	247874+2	-422704-3-204718+8	143189+3	3938. 6000.11		I3Mol (g)
3 53 1 14	JANAF 1998				4I3Sil (g)		
844025+4	555276+5	193277+2	809750-3-995720+5	136647+3298.15	399.11		I3Sil (g)
844025+4	536621+5	197080+2	173852-3-119727+6	135699+3	399. 585.11		I3Sil (g)
844025+4	532919+5	198464+2	161224-4-135519+6	135522+3	585. 1034.11		I3Sil (g)
844025+4	532716+5	198713+2	108716-6-144393+6	135513+3	1034. 6000.11		I3Sil (g)
3 53 1 22	JANAF 1998				2I3Til (cr)		
-770000+5	821035+5	273307+2	185234-2	231178+4	114118+3298.15	400.21	I3Til (cr)
-770000+5	817562+5	273901+2	173996-2	000000+0	113938+3	400. 1500.21	I3Til (cr)

3 53 1 22	JANAF 1998				5I3Ti1 (g)
-359001+5 561642+5 210817+2-730729-4-155511+6 138923+3298.15 534.11					I3Ti1 (g)
-359001+5 547070+5 213017+2-534689-3-147963+6 138177+3 534. 912.11					I3Ti1 (g)
-359001+5 553610+5 207133+2-104141-3 148931+5 138464+3 912. 1792.11					I3Ti1 (g)
-359001+5 553830+5 205125+2-294273-4 229614+6 138472+3 1792. 3646.11					I3Ti1 (g)
-359001+5 553841+5 206501+2-545756-4-379914+6 138473+3 3646. 6000.11					I3Ti1 (g)
3 53 1 40	JANAF 1998				5I3Zr1 (cr)
-950000+5 524144+5 288574+2-559209-2-211306+6 992364+2298.15 400.21					I3Zr1 (cr)
-950000+5 717073+5 249036+2 995159-3-279560+3 109044+3 400. 602.21					I3Zr1 (cr)
-950000+5 702951+5 251889+2 508972-3 242498+4 108340+3 602. 936.21					I3Zr1 (cr)
-950000+5 696495+5 254614+2 210452-3 843227+4 108045+3 936. 1301.21					I3Zr1 (cr)
-950000+5 694946+5 256103+2 998407-4 598505+2 107979+3 1301. 2000.21					I3Zr1 (cr)
3 53 1 40	JANAF 1998				4I3Zr1 (g)
-530000+5 538364+5 198013+2 106639-3-459279+5 140794+3298.15 400.11					I3Zr1 (g)
-530000+5 535726+5 198551+2 167122-4-487785+5 140659+3 400. 662.11					I3Zr1 (g)
-530000+5 535372+5 198714+2 133440-6-511547+5 140643+3 662. 3100.11					I3Zr1 (g)
-530000+5 535372+5 198715+2 540084-7-497260+5 140643+3 3100. 6000.11					I3Zr1 (g)
4 53 1 42	JANAF 1998				2I4Mol (cr)
-294001+5 885934+5 327899+2 000000+0-332430-3 139295+3298.15 400.21					I4Mol (cr)
-294001+5 885934+5 327899+2 000000+0-527551-6 139295+3 400. 600.21					I4Mol (cr)
4 53 1 42	JANAF 1998				5I4Mol (g)
298000+5 696087+5 258087+2 177866-4-668121+5 167461+3298.15 1956.11					I4Mol (g)
298000+5 697113+5 242216+2 558734-3 195732+7 167499+3 1956. 2741.11					I4Mol (g)
298000+5 697134+5 211304+2 131043-2 970167+7 167500+3 2741. 4401.11					I4Mol (g)
298000+5 699986+5 252433+2 687313-3-168447+8 167586+3 4401. 5139.11					I4Mol (g)
298000+5 711606+5 307264+2-238207-4-651356+8 167924+3 5139. 6000.11					I4Mol (g)
4 53 1 82	JANAF 1998				3I4Pb1 (g)
-536489+5 697827+5 258071+2 371456-4-363405+5 170895+3298.15 443.11					I4Pb1 (g)
-536489+5 696887+5 258295+2 342862-5-378084+5 170848+3 443. 848.11					I4Pb1 (g)
-536489+5 696823+5 258333+2 330205-7-384718+5 170845+3 848. 6000.11					I4Pb1 (g)
4 53 1 14	JANAF 1998				2I4Si1 (cr)
-453000+5 145092+6 197522+2 205908-1-625322+4 162902+3298.15393.6521					I4Si1 (cr)
-453000+5 146106+6 195759+2 209204-1 965682+3 163426+3393.65 500.21					I4Si1 (cr)
4 53 1 14	JANAF 1998				2I4Si1 (cr,l)
-453000+5 145092+6 197522+2 205908-1-625322+4 162902+3298.15393.6521					I4Si1 (cr,l)
-453000+5 142787+6 352494+2 987057-2 831638+2 178394+3393.65 700.32					I4Si1 (cr,l)
4 53 1 14	JANAF 1998				4I4Si1 (g)
-264001+5 723106+5 250942+2 109555-2-122951+6 159720+3298.15 399.11					I4Si1 (g)
-264001+5 698146+5 256041+2 244152-3-150053+6 158450+3 399. 582.11					I4Si1 (g)
-264001+5 692933+5 257974+2 228642-4-171887+6 158201+3 582. 1034.11					I4Si1 (g)
-264001+5 692645+5 258326+2 144455-6-184479+6 158189+3 1034. 6000.11					I4Si1 (g)
4 53 1 14	JANAF 1998				2I4Si1 (l)
-417311+5 138760+6 353275+2 972267-2-297079+4 178157+3298.15 409.31					I4Si1 (l)
-417311+5 139205+6 352545+2 986488-2-496264+3 178388+3 409. 700.31					I4Si1 (l)
4 53 1 22	JANAF 1998				2I4Ti1 (cr)
-898000+5 233802+6 174051+2 419124-1 110913+5 212318+3298.15 379.21					I4Ti1 (cr)
-898000+5 977163+5 354001+2 000000+0-275630-7 145910+3 379. 1500.22					I4Ti1 (cr)
4 53 1 22	JANAF 1998				4I4Ti1 (cr,l)
-898000+5 233802+6 174051+2 419124-1 110913+5 212318+3298.15 379.21					I4Ti1 (cr,l)
-898000+5 977163+5 354001+2 000000+0-799536-5 145910+3 379. 428.22					I4Ti1 (cr,l)
-898000+5 107600+6 374001+2 000000+0-715933-6 160879+3 428. 617.33					I4Ti1 (cr,l)
-898000+5 107600+6 374001+2 000000+0 248092-6 160879+3 617. 1500.33					I4Ti1 (cr,l)
4 53 1 22	JANAF 1998				4I4Ti1 (g)
-662701+5 702002+5 256754+2 236024-3-736491+5 162987+3298.15 400.11					I4Ti1 (g)
-662701+5 696503+5 257886+2 480185-4-797229+5 162707+3 400. 582.11					I4Ti1 (g)
-662701+5 695473+5 258266+2 433324-5-840116+5 162658+3 582. 947.11					I4Ti1 (g)
-662701+5 695418+5 258333+2 365365-7-863322+5 162656+3 947. 6000.11					I4Ti1 (g)
4 53 1 22	JANAF 1998				2I4Ti1 (l)
-832490+5 101049+6 374001+2 000000+0-418939-7 160880+3298.15 800.31					I4Ti1 (l)
-832490+5 101049+6 374001+2 000000+0 315956-6 160880+3 800. 1500.31					I4Ti1 (l)
4 53 1 40	JANAF 1998				2I4Zr1 (cr)
-116800+6 946011+5 309186+2 255146-2-100812+6 139922+3298.15 668.21					I4Zr1 (cr)
-116800+6 951331+5 304649+2 289608-2-110240+4 140151+3 668. 1000.21					I4Zr1 (cr)

4 53 1 40	JANAF 1998	4I4Zr1 (g)
-865999+5 701873+5 256865+2 221969-3-671520+5 166235+3298.15 397.11		I4Zr1 (g)
-865999+5 696609+5 257932+2 428742-4-727558+5 165967+3 397. 587.11		I4Zr1 (g)
-865999+5 695688+5 258278+2 354673-5-767277+5 165923+3 587. 1053.11		I4Zr1 (g)
-865999+5 695645+5 258334+2 190650-7-787911+5 165921+3 1053. 6000.11		I4Zr1 (g)
1 19	JANAF 1998	2K1 (cr)
000000+0 515598+6-588160+2 150114+0 187649+7 295700+3298.15336.3521		K1 (cr)
000000+0 229789+6-890787+1 571269-1-231359+6 148026+3336.35 400.21		K1 (cr)
1 19	JANAF 1998	5K1 (cr, l)
000000+0 515598+6-588160+2 150114+0 187649+7 295700+3298.15336.3521		K1 (cr, l)
000000+0 172178+5 764437+1-921308-3 395887+5 324665+2336.35 599.32		K1 (cr, l)
000000+0 222484+5 567094+1 126611-2 277533+6 348575+2 599. 907.32		K1 (cr, l)
000000+0 254522+5 302444+1 327712-2 954176+6 362744+2 907. 1227.32		K1 (cr, l)
000000+0 244210+5 498920+1 219578-2-628033+4 358481+2 1227. 1500.32		K1 (cr, l)
1 19	JANAF 1998	5K1 (g)
212715+5 134327+5 496370+1 461931-5 302661+3 497702+2298.15 1544.11		K1 (g)
212715+5 135845+5 428011+1 299776-3 543526+6 498297+2 1544. 2126.11		K1 (g)
212715+5 136530+5 232697+1 912627-3 348246+7 498545+2 2126. 2728.11		K1 (g)
212715+5 136559+5-791874+0 167834-2 111475+8 498555+2 2728. 3548.11		K1 (g)
212715+5 136866+5-401448+1 237732-2 204961+8 498651+2 3548. 6000.11		K1 (g)
1 19 1 99	JANAF 1998	2K1- (g)
822634+4 134227+5 496797+1 000000+0-105622-7 483885+2298.15 3000.11		K1- (g)
822634+4 134227+5 496797+1 000000+0-892115-5 483885+2 3000. 6000.11		K1- (g)
1 19	JANAF 1998	5K1 (l)
542543+3 166981+5 763657+1-910305-3 401105+5 324607+2298.15 602.31		K1 (l)
542543+3 216982+5 567025+1 126613-2 277885+6 348365+2 602. 910.31		K1 (l)
542543+3 247210+5 322861+1 314070-2 887186+6 361757+2 910. 1100.31		K1 (l)
542543+3 243992+5 387653+1 278864-2 571799+6 360440+2 1100. 1300.31		K1 (l)
542543+3 238821+5 495654+1 221122-2 151728+5 358318+2 1300. 1500.31		K1 (l)
1 19 -1 99	JANAF 1998	2K1+ (g)
122851+6 134227+5 496797+1 000000+0-105622-7 483883+2298.15 3000.11		K1+ (g)
122851+6 134227+5 496797+1 000000+0-892115-5 483883+2 3000. 6000.11		K1+ (g)
1 19 1 8	JANAF 1998	5K1O1 (g)
170000+5 256386+5 879919+1 438367-3-293589+5 781999+2298.15 403.11		K1O1 (g)
170000+5 251383+5 890297+1 266896-3-349908+5 779459+2 403. 629.11		K1O1 (g)
170000+5 250523+5 893957+1 228151-3-398279+5 779053+2 629. 1777.11		K1O1 (g)
170000+5 250516+5 894221+1 226894-3-411308+5 779051+2 1777. 5200.11		K1O1 (g)
170000+5 250572+5 896137+1 224559-3-230647+6 779067+2 5200. 6000.11		K1O1 (g)
1 19 1 8 1 99	JANAF 1998	4K1O1- (g)
-330000+5 256484+5 878647+1 449056-3-304847+5 753922+2298.15 400.11		K1O1- (g)
-330000+5 251388+5 889226+1 274341-3-362294+5 751335+2 400. 584.11		K1O1- (g)
-330000+5 250215+5 893597+1 224448-3-411994+5 750775+2 584. 1120.11		K1O1- (g)
-330000+5 250175+5 894225+1 220727-3-438390+5 750757+2 1120. 6000.11		K1O1- (g)
1 19 2 8	JANAF 1998	5K1O2 (cr)
-680000+5 703630+5 199218+2 386552-2-226974+6 844527+2298.15 480.21		K1O2 (cr)
-680000+5 636610+5 218542+2 129047-2-387434+6 811657+2 480. 799.21		K1O2 (cr)
-680000+5 607690+5 239037+2-379992-3-843762+6 798685+2 799. 1000.21		K1O2 (cr)
-680000+5 607374+5 241251+2-478014-3-967113+6 798608+2 1000. 1230.21		K1O2 (cr)
-680000+5 607270+5 244247+2-591435-3-120936+7 798606+2 1230. 1500.21		K1O2 (cr)
2 19	JANAF 1998	5K2 (g)
295609+5 263120+5 908521+1 404219-3-118918+5 816528+2298.15 612.11		K2 (g)
295609+5 168558+5 129140+2-376407-2-490464+6 771729+2 612. 1198.11		K2 (g)
295609+5 190688+5 885962+1-150357-2 144168+7 780904+2 1198. 1616.11		K2 (g)
295609+5 196159+5 591266+1-282832-3 398589+7 783025+2 1616. 2307.11		K2 (g)
295609+5 196327+5 493013+1 275597-5 570857+7 783085+2 2307. 6000.11		K2 (g)
2 19 1 8	JANAF 1998	4K2O1 (cr)
-868000+5 531138+5 261471+2-362940-2-450490+6 705527+2298.15 529.21		K2O1 (cr)
-868000+5 905921+5 172639+2 982428-2 437640+5 892367+2 529. 983.21		K2O1 (cr)
-868000+5 904053+5 173331+2 974094-2 560326+5 891515+2 983. 1449.21		K2O1 (cr)
-868000+5 904675+5 171128+2 984196-2 211344+6 891762+2 1449. 2000.21		K2O1 (cr)
2 19 2 8	JANAF 1998	5K2O2 (cr)
-118500+6 145546+6 154150+2 232211-1 143541+6 126129+3298.15 500.21		K2O2 (cr)
-118500+6 142855+6 113223+2 246216-1 991663+6 123946+3 500. 735.21		K2O2 (cr)
-118500+6 119929+6 206969+2 144288-1-255353+5 113160+3 735. 1132.21		K2O2 (cr)
-118500+6 119672+6 211016+2 141911-1-199212+6 113052+3 1132. 1528.21		K2O2 (cr)
-118500+6 119555+6 216150+2 139680-1-602130+6 113006+3 1528. 2000.21		K2O2 (cr)

2 19 3 8 1 14	JANAF 1998	5K203Si1 (cr)
-370000+6 164756+6 263045+2 212892-1-387256+6 151025+3298.15 525.21		K203Si1 (cr)
-370000+6 130966+6 359425+2 835759-2-117247+7 134437+3 525. 801.21		K203Si1 (cr)
-370000+6 120812+6 426670+2 269750-2-257805+7 129853+3 801. 1100.21		K203Si1 (cr)
-370000+6 114643+6 559985+2-440191-2-925990+7 127349+3 1100. 1300.21		K203Si1 (cr)
-370000+6 122953+6 383298+2 498920-2-320698+5 130756+3 1300. 2200.21		K203Si1 (cr)
2 19 3 8 1 14	JANAF 1998	5K203Si1 (cr,1)
-370000+6 164797+6 262971+2 213026-1-386948+6 151045+3298.15 526.21		K203Si1 (cr,1)
-370000+6 131232+6 358272+2 847845-2-115739+7 134562+3 526. 839.21		K203Si1 (cr,1)
-370000+6 123736+6 397208+2 475496-2-169907+7 131121+3 839. 1249.21		K203Si1 (cr,1)
-370000+6 124583+6 430000+2 000000+0 208847-2 135727+3 1249. 1400.32		K203Si1 (cr,1)
-370000+6 124583+6 430000+2 000000+0 118003-4 135727+3 1400. 3000.32		K203Si1 (cr,1)
2 19 3 8 1 14	JANAF 1998	3K203Si1 (1)
-358339+6 164759+6 263040+2 212902-1-387232+6 160134+3298.15 500.31		K203Si1 (1)
-358339+6 129959+6 363996+2 789041-2-123617+7 143073+3 500. 700.31		K203Si1 (1)
-358339+6 112921+6 430000+2 000000+0 331427-6 135723+3 700. 3000.32		K203Si1 (1)
2 19 4 8 1 16	JANAF 1998	5K204S1 (cr)_01
-343620+6 186195+6 265218+2 258784-1-253479+6 171697+3298.15 400.21		K204S1 (cr)_01
-343620+6 182265+6 273551+2 245219-1-299984+6 169706+3 400. 600.21		K204S1 (cr)_01
-343620+6 196651+6 253114+2 290631-1-545162+6 176989+3 600. 800.21		K204S1 (cr)_01
-343620+6 201622+6 223344+2 316971-1 115409+5 179253+3 800. 1000.21		K204S1 (cr)_01
-343620+6 201563+6 223932+2 316557-1-587867+4 179227+3 1000. 1200.21		K204S1 (cr)_01
2 19 4 8 1 16	JANAF 1998	5K204S1 (cr)_02
-340402+6 160463+6 273147+2 194499-1 737338+3 161574+3298.15 716.21		K204S1 (cr)_02
-340402+6 160365+6 273204+2 194221-1 798645+4 161525+3 716. 900.21		K204S1 (cr)_02
-340402+6 160884+6 267968+2 197872-1 165998+6 161750+3 900. 1100.21		K204S1 (cr)_02
-340402+6 160171+6 276751+2 192218-1-144110+6 161446+3 1100. 1342.21		K204S1 (cr)_02
-340402+6 160102+6 282320+2 189993-1-609497+6 161422+3 1342. 1500.21		K204S1 (cr)_02
2 19 4 8 1 16	JANAF 1998	5K204S1 (cr,1)
-343620+6 185526+6 266360+2 256621-1-257905+6 171351+3298.15 481.21		K204S1 (cr,1)
-343620+6 206514+6 197757+2 341341-1 386496+6 181491+3 481. 857.21		K204S1 (cr,1)
-343620+6 163550+6 274014+2 193781-1-246967+5 161524+3 857. 1342.22		K204S1 (cr,1)
-343620+6 136430+6 481501+2 000000+0 157242-2 152217+3 1342. 1500.33		K204S1 (cr,1)
-343620+6 136430+6 481501+2 000000+0 304388-5 152217+3 1500. 3000.33		K204S1 (cr,1)
2 19 4 8 1 16	JANAF 1998	5K204S1 (g)
-261500+6 145029+6 235836+2 184355-1-275042+6 190214+3298.15 400.11		K204S1 (g)
-261500+6 113202+6 302553+2 749016-2-642011+6 174072+3 400. 582.11		K204S1 (g)
-261500+6 994831+5 353457+2 166423-2-121776+7 167515+3 582. 880.11		K204S1 (g)
-261500+6 971698+5 372814+2 202135-3-172034+7 166493+3 880. 1518.11		K204S1 (g)
-261500+6 970631+5 377358+2 324437-5-207185+7 166451+3 1518. 6000.11		K204S1 (g)
2 19 4 8 1 16	JANAF 1998	3K204S1 (1)
-333095+6 183360+6 270288+2 249487-1-274017+6 178836+3298.15 600.31		K204S1 (1)
-333095+6 196717+6 252722+2 290979-1-537875+6 185615+3 600. 800.31		K204S1 (1)
-333095+6 125912+6 481501+2 000000+0-214950-6 152229+3 800. 3000.32		K204S1 (1)
2 19 1 16	JANAF 1998	5K2S1 (cr)
-900000+5 708547+5 159987+2 620083-2 150269+3 811919+2298.15 585.21		K2S1 (cr)
-900000+5 716812+5 156949+2 655043-2 341363+5 815873+2 585. 800.21		K2S1 (cr)
-900000+5 684794+6-426439+3 364012+0 999792+8 356140+3 800. 1050.21		K2S1 (cr)
-900000+5 128145+7-193198+4 113899+1 862859+9 590396+3 1050. 1200.22		K2S1 (cr)
-900000+5 834298+5 340201+2 000000+0 149061-3 899703+2 1200. 2200.22		K2S1 (cr)
2 19 1 16	JANAF 1998	5K2S1 (cr,1)
-900000+5 708547+5 159987+2 620083-2 150269+3 811919+2298.15 585.21		K2S1 (cr,1)
-900000+5 716812+5 156949+2 655043-2 341363+5 815873+2 585. 800.21		K2S1 (cr,1)
-900000+5 684794+6-426439+3 364012+0 999792+8 356140+3 800. 1050.21		K2S1 (cr,1)
-900000+5 105425+7-159528+4 936721+0 725483+9 494769+3 1050. 1221.22		K2S1 (cr,1)
-900000+5 697067+5 241300+2 000000+0-238264-5 842532+2 1221. 3000.33		K2S1 (cr,1)
2 19 1 16	JANAF 1998	3K2S1 (1)
-828169+5 708613+5 159975+2 620303-2 203610+3 874362+2298.15 600.31		K2S1 (1)
-828169+5 704011+5 162784+2 595510-2-473893+5 872299+2 600.820.0131		K2S1 (1)
-828169+5 627637+5 241300+2 000000+0-291128-6 844644+2820.01 3000.32		K2S1 (1)
1 36	JANAF 1998	2Kr1 (ref)
000000+0 134227+5 496797+1 000000+0-109373-7 506608+2298.15 3100.11		Kr1 (ref)
000000+0 134227+5 496797+1 000000+0-103710-4 506608+2 3100. 6000.11		Kr1 (ref)



1 36 -1 99	JANAF 1998				5Kr1+(g)
324320+6 135050+5 494988+1 288437-4 890175+3 534567+2298.15 835.11					Kr1+(g)
324320+6 140694+5 453177+1 362601-3 981005+5 537088+2 835. 1814.11					Kr1+(g)
324320+6 139892+5 531747+1 739105-4-764090+6 536786+2 1814. 2508.11					Kr1+(g)
324320+6 139857+5 598998+1-104722-3-217617+7 536774+2 2508. 4623.11					Kr1+(g)
324320+6 139574+5 571302+1-647630-4-205099+6 536689+2 4623. 6000.11					Kr1+(g)
1 3	JANAF 1998				4Li1(cr)
000000+0 548150+5 150984+1 113269-1 888065+5 415354+2298.15 422.21					Li1(cr)
000000+0 271246+4 130956+2-693772-2-601819+6 152725+2 422. 600.21					Li1(cr)
000000+0 194599+5 727693+1-132916-4-277883+4 233251+2 600. 800.21					Li1(cr)
000000+0 194851+5 726195+1 000000+0 515004-5 233365+2 800. 1000.21					Li1(cr)
1 3	JANAF 1998				5Li1(cr,1)
000000+0 500386+5 229551+1 979841-2 593014+5 390554+2298.15453.6921					Li1(cr,1)
000000+0 157422+5 788207+1-137488-2 120441+4 226004+2453.69 695.22					Li1(cr,1)
000000+0 191053+5 698966+1-103158-3 534044+4 242306+2 695. 1317.22					Li1(cr,1)
000000+0 189727+5 710761+1-194907-3 103485+5 241745+2 1317. 1749.22					Li1(cr,1)
000000+0 191270+5 676894+1 371869-6 154678+4 242351+2 1749. 2200.22					Li1(cr,1)
1 3	JANAF 1998				5Li1(g)
380736+5 134306+5 496399+1 398376-5 298712+3 446164+2298.15 1785.11					Li1(g)
380736+5 135126+5 422656+1 279169-3 784811+6 446475+2 1785. 2486.11					Li1(g)
380736+5 135233+5 242234+1 762327-3 451206+7 446512+2 2486. 3324.11					Li1(g)
380736+5 135209+5 485277+0 114976-2 116855+8 446504+2 3324. 4600.11					Li1(g)
380736+5 130335+5-435354+1 184937-2 459770+8 445046+2 4600. 6000.11					Li1(g)
1 3 1 99	JANAF 1998				2Li1-(g)
223411+5 134227+5 496797+1 000000+0-105622-7 432361+2298.15 3000.11					Li1-(g)
223411+5 134227+5 496797+1 000000+0-892115-5 432361+2 3000. 6000.11					Li1-(g)
1 3	JANAF 1998				3Li1(l)
568834+3 150975+5 790330+1-140383-2-387145+3 225632+2298.15 694.31					Li1(l)
568834+3 185018+5 702244+1-126975-3-293040+4 242156+2 694. 1438.31					Li1(l)
568834+3 185890+5 618174+1 195655-3 776150+6 242465+2 1438. 2200.31					Li1(l)
1 3 -1 99	JANAF 1998				2Li1+(g)
163891+6 134227+5 496797+1 000000+0-105622-7 432356+2298.15 3000.11					Li1+(g)
163891+6 134227+5 496797+1 000000+0-892115-5 432356+2 3000. 6000.11					Li1+(g)
1 3 1 7	JANAF 1998				5Li1N1(g)
800000+5 292332+5 772723+1 190214-2-396434+5 725045+2298.15 405.11					Li1N1(g)
800000+5 257026+5 846359+1 689951-3-798988+5 707130+2 405. 600.11					Li1N1(g)
800000+5 247436+5 881963+1 282554-3-120077+6 702547+2 600. 900.11					Li1N1(g)
800000+5 246234+5 892000+1 206661-3-146048+6 702015+2 900. 1492.11					Li1N1(g)
800000+5 246180+5 894132+1 197175-3-162000+6 701994+2 1492. 6000.11					Li1N1(g)
1 3 1 7 1 8	JANAF 1998				5Li1N1O1(g)
430000+5 466167+5 995546+1 446601-2-595810+5 933291+2298.15 459.11					Li1N1O1(g)
430000+5 392023+5 118292+2 175099-2-191793+6 896415+2 459. 700.11					Li1N1O1(g)
430000+5 364778+5 131742+2 437315-3-400239+6 883762+2 700. 1013.11					Li1N1O1(g)
430000+5 359872+5 137491+2 601880-4-598197+6 881656+2 1013. 1723.11					Li1N1O1(g)
430000+5 359669+5 139017+2 128433-5-749945+6 881579+2 1723. 6000.11					Li1N1O1(g)
1 3 1 11 1 8	JANAF 1998				5Li1NaO1(g)
-250000+5 522547+5 918323+1 620372-2-655370+5 988675+2298.15 410.11					Li1NaO1(g)
-250000+5 411178+5 115527+2 235549-2-198620+6 932279+2 410. 600.11					Li1NaO1(g)
-250000+5 367659+5 131902+2 496383-3-386545+6 911509+2 600. 886.11					Li1NaO1(g)
-250000+5 360774+5 137725+2 586105-4-539231+6 908470+2 886. 1522.11					Li1NaO1(g)
-250000+5 360465+5 139043+2 945376-6-641129+6 908348+2 1522. 6000.11					Li1NaO1(g)
1 3 1 8	JANAF 1998				4Li1O1(g)
200999+5 297172+5 750977+1 214005-2-358026+5 733163+2298.15 400.11					Li1O1(g)
200999+5 256225+5 835763+1 737386-3-816888+5 712368+2 400. 597.11					Li1O1(g)
200999+5 243860+5 883687+1 202518-3-138688+6 706485+2 597. 1079.11					Li1O1(g)
200999+5 243118+5 893956+1 139303-3-178837+6 706170+2 1079. 6000.11					Li1O1(g)
1 3 1 8 1 99	JANAF 1998				4Li1O1-(g)
-160000+5 297517+5 748741+1 216106-2-353691+5 705222+2298.15 400.11					Li1O1-(g)
-160000+5 256150+5 834553+1 743202-3-819257+5 684219+2 400. 596.11					Li1O1-(g)
-160000+5 243513+5 883439+1 196981-3-139937+6 678204+2 596. 1083.11					Li1O1-(g)
-160000+5 242759+5 893949+1 132471-3-181267+6 677885+2 1083. 6000.11					Li1O1-(g)

2 3	JANAF 1998					5Li2 (g)	
516013+5	260208+5	885173+1	494837-3	-331073+5	686467+2298.15	900.11	Li2 (g)
516013+5	230162+5	116533+2	-152412-2	-830559+6	673320+2	900. 2028.11	Li2 (g)
516013+5	238136+5	-401591+1	363491-2	205834+8	676247+2	2028. 2953.11	Li2 (g)
516013+5	238152+5	-127086+1	351542-2	-276923+6	676253+2	2953. 4004.11	Li2 (g)
516013+5	252868+5	493479+2	-488557-2	-272519+9	680812+2	4004. 6000.11	Li2 (g)
2 3 1 8	JANAF 1998					5Li2O1 (cr)	
-143100+6	657863+5	151293+2	582757-2	-349494+6	577848+2298.15	987.21	Li2O1 (cr)
-143100+6	638012+5	172666+2	437721-2	-103714+7	569266+2	987. 1200.21	Li2O1 (cr)
-143100+6	598159+5	242842+2	411413-3	-428953+7	552696+2	1200. 1735.21	Li2O1 (cr)
-143100+6	600759+5	273624+2	-389426-3	-937286+7	553803+2	1735. 2028.21	Li2O1 (cr)
-143100+6	604867+5	212519+2	171231-2	-177179+7	555323+2	2028. 3000.21	Li2O1 (cr)
2 3 1 8	JANAF 1998					5Li2O1 (cr, l)	
-143100+6	631737+5	156492+2	494153-2	-372548+6	564629+2298.15	536.21	Li2O1 (cr, l)
-143100+6	653579+5	154196+2	558443-2	-405570+6	575958+2	536. 1166.21	Li2O1 (cr, l)
-143100+6	602201+5	230054+2	102017-2	-348346+7	554329+2	1166. 1843.21	Li2O1 (cr, l)
-143100+6	732417+5	240000+2	000000+0	-826381-2	626527+2	1843. 2000.32	Li2O1 (cr, l)
-143100+6	732417+5	240000+2	000000+0	-110481-4	626527+2	2000. 4000.32	Li2O1 (cr, l)
2 3 1 8	JANAF 1998					5Li2O1 (g)	
-399001+5	525537+5	110175+2	515401-2	-588528+5	937664+2298.15	409.11	Li2O1 (g)
-399001+5	430729+5	130292+2	188085-2	-171429+6	889640+2	409. 600.11	Li2O1 (g)
-399001+5	395659+5	143478+2	383142-3	-322646+6	872902+2	600. 900.11	Li2O1 (g)
-399001+5	390344+5	147987+2	446095-4	-441078+6	870556+2	900. 1529.11	Li2O1 (g)
-399001+5	390111+5	148995+2	691888-6	-519618+6	870465+2	1529. 6000.11	Li2O1 (g)
2 3 1 8	JANAF 1998					3Li2O1 (l)	
-132229+6	344156+5	205600+2	-436174-2	-562909+6	457137+2298.15	400.31	Li2O1 (l)
-132229+6	670464+5	146997+2	634425-2	-310449+6	625163+2	400. 600.31	Li2O1 (l)
-132229+6	623739+5	240000+2	000000+0	-130948-6	626723+2	600. 4000.32	Li2O1 (l)
2 3 2 8	JANAF 1998					4Li2O2 (cr)	
-151200+6	980280+5	171080+2	118537-1	-334333+6	831633+2298.15	800.21	Li2O2 (cr)
-151200+6	980823+5	169337+2	119441-1	-269088+6	831792+2	800. 1141.21	Li2O2 (cr)
-151200+6	970532+5	184043+2	110490-1	-854050+6	827447+2	1141. 1572.21	Li2O2 (cr)
-151200+6	967048+5	201732+2	103064-1	-234025+7	826093+2	1572. 2000.21	Li2O2 (cr)
2 3 2 8	JANAF 1998					4Li2O2 (g)	
-580000+5	575271+5	187496+2	165363-2	-165337+6	112192+3298.15	400.11	Li2O2 (g)
-580000+5	537907+5	195131+2	379100-3	-205917+6	110292+3	400. 588.11	Li2O2 (g)
-580000+5	529817+5	198181+2	332181-4	-241064+6	109906+3	588. 1061.11	Li2O2 (g)
-580000+5	529417+5	198707+2	207847-6	-260850+6	109889+3	1061. 6000.11	Li2O2 (g)
2 3 3 8 1 14	JANAF 1998					5Li2O3Si1 (cr)	
-394240+6	105719+6	308434+2	553375-2	-751749+6	101166+3298.15	630.21	Li2O3Si1 (cr)
-394240+6	109855+6	308368+2	657390-2	-100924+7	103311+3	630. 1012.21	Li2O3Si1 (cr)
-394240+6	107377+6	331918+2	488768-2	-167346+7	102230+3	1012. 1435.21	Li2O3Si1 (cr)
-394240+6	107531+6	336004+2	481276-2	-229330+7	102298+3	1435. 1905.21	Li2O3Si1 (cr)
-394240+6	107238+6	374582+2	346437-2	-697160+7	102189+3	1905. 2500.21	Li2O3Si1 (cr)
2 3 3 8 1 14	JANAF 1998					5Li2O3Si1 (cr, l)	
-394240+6	991617+5	321041+2	333431-2	-806079+6	978316+2298.15	518.21	Li2O3Si1 (cr, l)
-394240+6	112820+6	289292+2	820359-2	-630961+6	104657+3	518. 849.21	Li2O3Si1 (cr, l)
-394240+6	107483+6	330508+2	497595-2	-162666+7	102282+3	849. 1474.21	Li2O3Si1 (cr, l)
-394240+6	108363+6	400000+2	000000+0	-131208-1	104456+3	1474. 1600.32	Li2O3Si1 (cr, l)
-394240+6	108363+6	400000+2	000000+0	-978791-5	104456+3	1600. 4000.32	Li2O3Si1 (cr, l)
2 3 3 8 1 14	JANAF 1998					4Li2O3Si1 (l)	
-388440+6	981028+5	322847+2	299188-2	-813068+6	101053+3298.15	486.31	Li2O3Si1 (l)
-388440+6	113998+6	283714+2	876146-2	-551065+6	108975+3	486. 800.31	Li2O3Si1 (l)
-388440+6	109803+6	308812+2	653960-2	-101977+7	107064+3	800. 1000.31	Li2O3Si1 (l)
-388440+6	102562+6	400000+2	000000+0	285980-6	104456+3	1000. 4000.32	Li2O3Si1 (l)
2 3 3 8 1 22	JANAF 1998					4Li2O3Ti1 (cr)	
-399300+6	933455+5	356824+2	-124543-3	-830318+6	993518+2298.15	477.21	Li2O3Ti1 (cr)
-399300+6	105013+6	343752+2	331801-2	-906522+6	105470+3	477. 1065.21	Li2O3Ti1 (cr)
-399300+6	101669+6	377447+2	959855-3	-187966+7	104022+3	1065. 1485.21	Li2O3Ti1 (cr)
-399300+6	117546+6	301997+2	800010-2	479682+3	111556+3	1485. 3000.22	Li2O3Ti1 (cr)
2 3 3 8 1 22	JANAF 1998					5Li2O3Ti1 (cr, l)	
-399300+6	100225+6	345066+2	210163-2	-784703+6	102906+3298.15	529.21	Li2O3Ti1 (cr, l)
-399300+6	104280+6	348823+2	289843-2	-100779+7	105141+3	529. 962.21	Li2O3Ti1 (cr, l)
-399300+6	101432+6	383371+2	659601-3	-221181+7	103924+3	962. 1485.21	Li2O3Ti1 (cr, l)
-399300+6	117546+6	301945+2	800215-2	533982+4	111553+3	1485. 1820.22	Li2O3Ti1 (cr, l)
-399300+6	142129+6	480000+2	000000+0	122027-4	125476+3	1820. 4000.33	Li2O3Ti1 (cr, l)

2 3 3 8 1 22	JANAF 1998	4Li2O3Ti1(l)
-374465+6-215993+6 885067+2-100196+0-287806+7-471119+2298.15 409.31		Li2O3Ti1(l)
-374465+6 105137+6 343425+2 334953-2-901824+6 119042+3 409. 1051.31		Li2O3Ti1(l)
-374465+6 103629+6 350304+2 261274-2-806312+6 118366+3 1051. 1214.31		Li2O3Ti1(l)
-374465+6 117356+6 480000+2 000000+0-242037-5 125662+3 1214. 4000.32		Li2O3Ti1(l)
2 3 4 8 1 16	JANAF 1998	3Li2O4S1(cr)_01
-343300+6 242133+6 162336+2 445856-1-126033+6 184475+3298.15 416.21		Li2O4S1(cr)_01
-343300+6 201356+6 209268+2 325738-1-734843+5 162858+3 416. 848.21		Li2O4S1(cr)_01
-343300+6 201711+6 202379+2 329653-1 183192+6 162994+3 848. 1200.21		Li2O4S1(cr)_01
2 3 4 8 1 16	JANAF 1998	4Li2O4S1(cr)_02
-340672+6 133649+6 579344+2-358512-2-228661+7 138536+3298.15 552.21		Li2O4S1(cr)_02
-340672+6 105597+6 700787+2-163470-1-384056+7 125389+3 552. 800.21		Li2O4S1(cr)_02
-340672+6 135481+6 509929+2 466665-5 234322+4 138925+3 800. 1140.21		Li2O4S1(cr)_02
-340672+6 135475+6 509997+2 118449-6 250659+3 138922+3 1140. 3000.21		Li2O4S1(cr)_02
2 3 4 8 1 16	JANAF 1998	5Li2O4S1(cr,l)
-343300+6 179021+6 270112+2 241684-1-543835+6 151867+3298.15 501.21		Li2O4S1(cr,l)
-343300+6 201368+6 209284+2 325731-1-739516+5 162894+3 501. 848.21		Li2O4S1(cr,l)
-343300+6 138077+6 510000+2 000000+0-182920-4 138858+3 848. 1132.22		Li2O4S1(cr,l)
-343300+6 136391+6 490000+2 000000+0-478339-4 138719+3 1132. 1421.33		Li2O4S1(cr,l)
-343300+6 136391+6 490000+2 000000+0-889112-5 138719+3 1421. 3000.33		Li2O4S1(cr,l)
2 3 4 8 1 16	JANAF 1998	5Li2O4S1(g)
-249000+6 147966+6 223812+2 198771-1-353561+6 180539+3298.15 410.11		Li2O4S1(g)
-249000+6 113212+6 297833+2 786408-2-769906+6 162942+3 410. 600.11		Li2O4S1(g)
-249000+6 989720+5 351730+2 176582-2-139294+7 156149+3 600. 900.11		Li2O4S1(g)
-249000+6 965477+5 372462+2 214818-3-194158+7 155080+3 900. 1537.11		Li2O4S1(g)
-249000+6 964379+5 377342+2 347210-5-232703+7 155037+3 1537. 6000.11		Li2O4S1(g)
2 3 4 8 1 16	JANAF 1998	3Li2O4S1(l)
-334440+6 242362+6 162012+2 446557-1-125014+6 194248+3298.15 400.31		Li2O4S1(l)
-334440+6 198012+6 222506+2 311130-1-226186+6 170915+3 400. 680.31		Li2O4S1(l)
-334440+6 127513+6 490000+2 000000+0 308187-6 138669+3 680. 3000.32		Li2O4S1(l)
2 3 5 8 2 14	JANAF 1998	5Li2O5Si2(cr)
-612070+6 170491+6 467849+2 109216-1-151498+7 159087+3298.15 760.21		Li2O5Si2(cr)
-612070+6 166715+6 503496+2 834530-2-244305+7 157459+3 760. 1064.21		Li2O5Si2(cr)
-612070+6 162193+6 565314+2 452274-2-483704+7 155542+3 1064. 1209.21		Li2O5Si2(cr)
-612070+6 166480+6 418782+2 113323-1 455925+7 157299+3 1209. 1558.22		Li2O5Si2(cr)
-612070+6 157806+6 709143+2-225557-2-145351+8 153858+3 1558. 2500.22		Li2O5Si2(cr)
2 3 5 8 2 14	JANAF 1998	5Li2O5Si2(cr,l)
-612070+6 153907+6 500061+2 534101-2-165498+7 150666+3298.15 500.21		Li2O5Si2(cr,l)
-612070+6 170136+6 473294+2 105744-1-163997+7 158983+3 500. 975.21		Li2O5Si2(cr,l)
-612070+6 163817+6 539226+2 604248-2-370722+7 156244+3 975. 1209.21		Li2O5Si2(cr,l)
-612070+6 167970+6 391753+2 128431-1 582832+7 157939+3 1209. 1307.22		Li2O5Si2(cr,l)
-612070+6 166746+6 600000+2 000000+0 385242-5 161956+3 1307. 3000.33		Li2O5Si2(cr,l)
2 3 5 8 2 14	JANAF 1998	4Li2O5Si2(l)
-600638+6 276059+6 291464+2 448578-1-846335+6 222077+3298.15 400.31		Li2O5Si2(l)
-600638+6 187434+6 417159+2 175420-1-110925+7 175575+3 400. 600.31		Li2O5Si2(l)
-600638+6 172244+6 459788+2 117446-1-139165+7 168146+3 600. 800.31		Li2O5Si2(l)
-600638+6 155274+6 600000+2 000000+0 000000+0 161850+3 800. 3000.32		Li2O5Si2(l)
3 3 1 7	JANAF 1998	5Li3N1(cr)
-393301+5 101809+6 179210+2 121976-1-317233+6 875248+2298.15 400.21		Li3N1(cr)
-393301+5 130320+6 127148+2 215971-1-858094+5 102184+3 400. 626.21		Li3N1(cr)
-393301+5 124343+6 152555+2 189056-1-421195+6 993665+2 626. 900.21		Li3N1(cr)
-393301+5 119840+6 190675+2 160409-1-142051+7 973787+2 900. 1100.21		Li3N1(cr)
-393301+5 117541+6 224805+2 139933-1-282496+7 964102+2 1100. 1300.21		Li3N1(cr)
1 12	JANAF 1998	5Mg1(cr)
000000+0 242800+5 551154+1 211917-2-176892+5 261606+2298.15 480.21		Mg1(cr)
000000+0 271042+5 456302+1 327204-2 733509+5 275201+2 480. 862.21		Mg1(cr)
000000+0 302526+5 245847+1 503788-2 506102+6 289380+2 862. 1110.21		Mg1(cr)
000000+0 330454+5-177354+1 755798-2 227379+7 301125+2 1110. 1500.21		Mg1(cr)
000000+0 346649+5-853643+1 105321-1 745280+7 307491+2 1500. 2000.21		Mg1(cr)
1 12	JANAF 1998	5Mg1(cr,l)
000000+0 238970+5 557718+1 199514-2-202619+5 259627+2298.15 500.21		Mg1(cr,l)
000000+0 262606+5 487816+1 291192-2 398949+5 271192+2 500. 705.21		Mg1(cr,l)
000000+0 288514+5 351940+1 419738-2 264804+6 283153+2 705. 923.21		Mg1(cr,l)
000000+0 233002+5 820005+1 000000+0 317715-4 271690+2 923. 1101.32		Mg1(cr,l)
000000+0 233002+5 820005+1 000000+0 235980-5 271690+2 1101. 2000.32		Mg1(cr,l)

1	12				JANAF 1998			5Mg1 (g)
351577+5	134255+5	496577+1	184042-5	184495+3	469724+2298.15	2299.11		Mg1 (g)
351577+5	134385+5	418428+1	228376-3	137801+7	469770+2	2299.	3017.11	Mg1 (g)
351577+5	134385+5	161603+1	795268-3	918723+7	469770+2	3017.	3710.11	Mg1 (g)
351577+5	133985+5	-201273+1	144608-2	259001+8	469644+2	3710.	4522.11	Mg1 (g)
351577+5	131248+5	-508190+1	189688-2	469757+8	468821+2	4522.	6000.11	Mg1 (g)
1	12				JANAF 1998			2Mg1 (l)
114484+4	221553+5	820005+1	000000+0	167115-7	271691+2298.15	1100.31		Mg1 (l)
114484+4	221553+5	820005+1	000000+0	731183-6	271691+2	1100.	2000.31	Mg1 (l)
1	12	-1	99		JANAF 1998			5Mg1+ (g)
212965+6	134227+5	496791+1	430710-7	634947+1	483486+2298.15	3236.11		Mg1+ (g)
212965+6	134227+5	490943+1	120888-4	204158+6	483486+2	3236.	4024.11	Mg1+ (g)
212965+6	134160+5	468250+1	496851-4	142905+7	483465+2	4024.	4730.11	Mg1+ (g)
212965+6	133601+5	422329+1	114407-3	485365+7	483299+2	4730.	5360.11	Mg1+ (g)
212965+6	132145+5	368916+1	180833-3	997020+7	482879+2	5360.	6000.11	Mg1+ (g)
1	12	1	7		JANAF 1998			4Mg1N1 (g)
690000+5	289152+5	771924+1	183547-2	-394111+5	762723+2298.15	404.11		Mg1N1 (g)
690000+5	253573+5	846019+1	614464-3	-798330+5	744666+2	404.	600.11	Mg1N1 (g)
690000+5	243243+5	885708+1	169290-3	-126555+6	739746+2	600.	1083.11	Mg1N1 (g)
690000+5	242643+5	894022+1	118121-3	-159072+6	739492+2	1083.	6000.11	Mg1N1 (g)
1	12	1	8		JANAF 1998			5Mg1O1 (cr)
-143700+6	383789+5	105616+2	235351-2	-212914+6	359924+2298.15	480.21		Mg1O1 (cr)
-143700+6	348109+5	115232+2	101658-2	-286606+6	342297+2	480.	816.21	Mg1O1 (cr)
-143700+6	344826+5	117167+2	843867-3	-321617+6	340801+2	816.	1214.21	Mg1O1 (cr)
-143700+6	344331+5	117807+2	803139-3	-343054+6	340591+2	1214.	1500.21	Mg1O1 (cr)
-143700+6	344293+5	118129+2	790704-3	-373466+6	340577+2	1500.	4000.21	Mg1O1 (cr)
1	12	1	8		JANAF 1998			5Mg1O1 (cr, l)
-143700+6	383706+5	105630+2	235082-2	-212969+6	359881+2298.15	480.21		Mg1O1 (cr, l)
-143700+6	347927+5	115299+2	100885-2	-287327+6	342210+2	480.	793.21	Mg1O1 (cr, l)
-143700+6	344404+5	117654+2	811493-3	-337029+6	340621+2	793.	1599.21	Mg1O1 (cr, l)
-143700+6	344293+5	118176+2	789184-3	-379065+6	340577+2	1599.	3105.21	Mg1O1 (cr, l)
-143700+6	528389+5	160000+2	000000+0	496153-4	399855+2	3105.	5000.32	Mg1O1 (cr, l)
1	12	1	8		JANAF 1998			5Mg1O1 (g)
139001+5	612924+5	270578+1	120307-1	125329+6	903964+2298.15	734.11		Mg1O1 (g)
139001+5	254096+5	230526+2	-646152-2	-352399+7	739545+2	734.	1366.11	Mg1O1 (g)
139001+5	293053+5	121660+2	-113568-2	321496+7	755236+2	1366.	1871.11	Mg1O1 (g)
139001+5	296537+5	819120+1	286710-3	781308+7	756541+2	1871.	4089.11	Mg1O1 (g)
139001+5	296256+5	736610+1	421642-3	123838+8	756454+2	4089.	6000.11	Mg1O1 (g)
1	12	1	8		JANAF 1998			5Mg1O1 (l)
-127297+6	384840+5	105437+2	238749-2	-212219+6	411714+2298.15	473.31		Mg1O1 (l)
-127297+6	349603+5	114666+2	108068-2	-280411+6	394254+2	473.	712.31	Mg1O1 (l)
-127297+6	344983+5	117039+2	853712-3	-318792+6	392117+2	712.	1067.31	Mg1O1 (l)
-127297+6	344315+5	117918+2	798564-3	-351869+6	391833+2	1067.	2100.31	Mg1O1 (l)
-127297+6	364364+5	160000+2	000000+0	497695-5	399859+2	2100.	5000.32	Mg1O1 (l)
1	12	3	8	1	14			5Mg1O3Si1 (cr)
-370200+6	934364+5	220058+2	791486-2	-425386+6	860190+2298.15	700.21		Mg1O3Si1 (cr)
-370200+6	934566+5	219858+2	792912-2	-420502+6	860274+2	700.	903.21	Mg1O3Si1 (cr)
-370200+6	757032+5	287620+2	000000+0	-624985-5	779474+2	903.	1100.22	Mg1O3Si1 (cr)
-370200+6	757032+5	287620+2	000000+0	232419-3	779474+2	1100.	1258.22	Mg1O3Si1 (cr)
-370200+6	769643+5	292620+2	000000+0	-100978-5	786919+2	1258.	2500.23	Mg1O3Si1 (cr)
1	12	3	8	1	14			5Mg1O3Si1 (cr, l)
-370200+6	982373+5	211852+2	946836-2	-393550+6	884991+2298.15	401.21		Mg1O3Si1 (cr, l)
-370200+6	934233+5	220089+2	791040-2	-425533+6	860098+2	401.	903.21	Mg1O3Si1 (cr, l)
-370200+6	757021+5	287620+2	000000+0	-202674-4	779442+2	903.	1258.22	Mg1O3Si1 (cr, l)
-370200+6	769632+5	292620+2	000000+0	-149388-4	786887+2	1258.	1850.23	Mg1O3Si1 (cr, l)
-370200+6	101562+6	350000+2	000000+0	-187484-4	911925+2	1850.	3000.34	Mg1O3Si1 (cr, l)
1	12	3	8	1	14			3Mg1O3Si1 (l)
-357281+6	934369+5	220057+2	791502-2	-425381+6	919339+2298.15	697.31		Mg1O3Si1 (l)
-357281+6	934629+5	219822+2	793242-2	-419849+6	919450+2	697.	900.31	Mg1O3Si1 (l)
-357281+6	886437+5	350000+2	000000+0	-796938-6	911959+2	900.	3000.32	Mg1O3Si1 (l)
1	12	3	8	1	22			5Mg1O3Ti1 (cr)
-375850+6	102400+6	247872+2	827072-2	-470664+6	947730+2298.15	485.21		Mg1O3Ti1 (cr)
-375850+6	912333+5	278492+2	405998-2	-710542+6	892660+2	485.	718.21	Mg1O3Ti1 (cr)
-375850+6	885710+5	292974+2	271554-2	-959495+6	880412+2	718.	1646.21	Mg1O3Ti1 (cr)
-375850+6	889134+5	272399+2	354765-2	904071+6	881732+2	1646.	2283.21	Mg1O3Ti1 (cr)
-375850+6	889809+5	234018+2	466637-2	759677+7	881973+2	2283.	3000.21	Mg1O3Ti1 (cr)

1 12 3 8 1 22	JANAF 1998				5Mg1O3Ti1 (cr, l)	
-375850+6	101629+6	249232+2	801897-2-476104+6	943765+2298.15	511.21	Mg1O3Ti1 (cr, l)
-375850+6	895888+5	285362+2	332293-2-792936+6	884940+2	511. 1036.21	Mg1O3Ti1 (cr, l)
-375850+6	887227+5	288507+2	293330-2-697247+6	881025+2	1036. 1953.21	Mg1O3Ti1 (cr, l)
-375850+6	113468+6	390000+2	000000+0 316074-2	100500+3	1953. 2100.32	Mg1O3Ti1 (cr, l)
-375850+6	113468+6	390000+2	000000+0 261035-4	100500+3	2100. 4000.32	Mg1O3Ti1 (cr, l)
1 12 3 8 1 22	JANAF 1998				5Mg1O3Ti1 (l)	
-357942+6	113248+6	229347+2	117801-1-398848+6	109107+3298.15	400.31	Mg1O3Ti1 (l)
-357942+6	945804+5	266995+2	543838-2-595349+6	996010+2	400. 607.31	Mg1O3Ti1 (l)
-357942+6	891010+5	288800+2	304107-2-862604+6	970006+2	607. 1017.31	Mg1O3Ti1 (l)
-357942+6	885822+5	292402+2	274072-2-919182+6	967704+2	1017. 1300.31	Mg1O3Ti1 (l)
-357942+6	955572+5	390000+2	000000+0-124347-5	100494+3	1300. 4000.32	Mg1O3Ti1 (l)
1 12 4 8 1 16	JANAF 1998				5Mg1O4S1 (cr)	
-301574+6	126549+6	224535+2	150244-1-350605+6	112325+3298.15	600.21	Mg1O4S1 (cr)
-301574+6	118803+6	249171+2	119302-1-569149+6	108573+3	600. 900.21	Mg1O4S1 (cr)
-301574+6	114667+6	286747+2	919213-2-161676+7	106758+3	900. 1127.21	Mg1O4S1 (cr)
-301574+6	106963+6	416731+2	173645-2-745405+7	103546+3	1127. 1400.21	Mg1O4S1 (cr)
-301574+6	106926+6	417658+2	168931-2-750719+7	103531+3	1400. 2500.22	Mg1O4S1 (cr)
1 12 4 8 1 16	JANAF 1998				5Mg1O4S1 (cr, l)	
-301574+6	123756+6	229893+2	140883-1-373658+6	110905+3298.15	509.21	Mg1O4S1 (cr, l)
-301574+6	117536+6	256452+2	112693-1-689988+6	108001+3	509. 1099.21	Mg1O4S1 (cr, l)
-301574+6	107717+6	398406+2	267118-2-642235+7	103857+3	1099. 1400.21	Mg1O4S1 (cr, l)
-301574+6	101316+6	380000+2	000000+0-254463-3	101961+3	1400. 1604.32	Mg1O4S1 (cr, l)
-301574+6	101316+6	380000+2	000000+0-173711-4	101961+3	1604. 2500.32	Mg1O4S1 (cr, l)
1 12 4 8 1 16	JANAF 1998				5Mg1O4S1 (l)	
-297941+6	126576+6	224483+2	150334-1-350381+6	114903+3298.15	600.31	Mg1O4S1 (l)
-297941+6	119972+6	243355+2	124968-1-481861+6	111677+3	600. 800.31	Mg1O4S1 (l)
-297941+6	213312+6	-482216+2	691980-1 169237+8	153148+3	800. 1000.31	Mg1O4S1 (l)
-297941+6	976808+5	380000+2	000000+0 344262-4	101955+3	1000. 1400.32	Mg1O4S1 (l)
-297941+6	976808+5	380000+2	000000+0 287596-5	101955+3	1400. 2500.33	Mg1O4S1 (l)
1 12 4 8 1 74	JANAF 1998				5Mg1O4W1 (cr)	
-362300+6	-230166+5	529269+2	-362943-1-142547+7	403796+2298.15	400.21	Mg1O4W1 (cr)
-362300+6	106224+6	313657+2	524066-2-633918+6	107356+3	400. 632.21	Mg1O4W1 (cr)
-362300+6	115713+6	281122+2	914785-2-320700+6	111916+3	632. 958.21	Mg1O4W1 (cr)
-362300+6	118573+6	268201+2	105106-1-333062+6	113218+3	958. 1603.21	Mg1O4W1 (cr)
-362300+6	118625+6	272763+2	103893-1-100557+7	113241+3	1603. 2000.21	Mg1O4W1 (cr)
1 12 5 8 2 22	JANAF 1998				5Mg1O5Ti2 (cr)	
-599750+6	152403+6	396617+2	106201-1-687011+6	148848+3298.15	498.21	Mg1O5Ti2 (cr)
-599750+6	149381+6	405277+2	946171-2-758721+6	147364+3	498. 784.21	Mg1O5Ti2 (cr)
-599750+6	148625+6	410208+2	904366-2-860355+6	147022+3	784. 1211.21	Mg1O5Ti2 (cr)
-599750+6	148451+6	413566+2	885982-2-102622+7	146950+3	1211. 1921.21	Mg1O5Ti2 (cr)
-599750+6	148437+6	415572+2	879055-2-127580+7	146945+3	1921. 3000.21	Mg1O5Ti2 (cr)
1 12 5 8 2 22	JANAF 1998				5Mg1O5Ti2 (cr, l)	
-599750+6	152183+6	397019+2	105475-1-688674+6	148735+3298.15	522.21	Mg1O5Ti2 (cr, l)
-599750+6	149046+6	406784+2	930643-2-778226+6	147208+3	522. 957.21	Mg1O5Ti2 (cr, l)
-599750+6	148467+6	412731+2	889502-2-962276+6	146957+3	957. 1963.21	Mg1O5Ti2 (cr, l)
-599750+6	182655+6	624001+2	000000+0 316390-1	164594+3	1963. 2100.32	Mg1O5Ti2 (cr, l)
-599750+6	182655+6	624001+2	000000+0 352137-4	164594+3	2100. 4000.32	Mg1O5Ti2 (cr, l)
1 12 5 8 2 22	JANAF 1998				4Mg1O5Ti2 (l)	
-569385+6	152238+6	396899+2	105666-1-688105+6	163623+3298.15	476.31	Mg1O5Ti2 (l)
-569385+6	149360+6	405359+2	945261-2-759631+6	162215+3	476. 799.31	Mg1O5Ti2 (l)
-569385+6	148602+6	410462+2	902648-2-868077+6	161874+3	799. 1300.31	Mg1O5Ti2 (l)
-569385+6	152290+6	624001+2	000000+0-608743-5	164594+3	1300. 4000.32	Mg1O5Ti2 (l)
1 12 1 16	JANAF 1998				5Mg1S1 (cr)	
-826300+5	370551+5	111598+2	159399-2-659363+5	417351+2298.15	637.21	Mg1S1 (cr)
-826300+5	353054+5	113322+2	107344-2-131743+4	408481+2	637. 1379.21	Mg1S1 (cr)
-826300+5	352976+5	108719+2	123021-2 462764+6	408408+2	1379. 1772.21	Mg1S1 (cr)
-826300+5	352411+5	965779+1	156697-2 240141+7	408161+2	1772. 2238.21	Mg1S1 (cr)
-826300+5	351597+5	111187+2	106363-2 726409+6	407864+2	2238. 3000.21	Mg1S1 (cr)
1 12 1 16	JANAF 1998				5Mg1S1 (g)	
347101+5	717032+5	245984+1	145118-1 132038+6	994889+2298.15	629.11	Mg1S1 (g)
347101+5	222376+5	235622+2	-779902-2-266468+7	761777+2	629. 1179.11	Mg1S1 (g)
347101+5	287312+5	122905+2	-139871-2 251419+7	788807+2	1179. 1586.11	Mg1S1 (g)
347101+5	295224+5	835562+1	261073-3 579051+7	791888+2	1586. 4210.11	Mg1S1 (g)
347101+5	295411+5	874044+1	200383-3 349846+7	791945+2	4210. 6000.11	Mg1S1 (g)

2 12	JANAF 1998					5Mg2 (g)	
687440+5	136995+5	493615+1	291543-4	771020+5	692843+2298.15	1971.11	Mg2 (g)
687440+5	142887+5	-480903+1	331764-2	127555+8	695019+2	1971. 2585.11	Mg2 (g)
687440+5	143818+5	-365961+2	114962-1	838916+8	695341+2	2585. 3362.11	Mg2 (g)
687440+5	145655+5	-173727+2	840738-2	-160150+8	695931+2	3362. 4197.11	Mg2 (g)
687440+5	210708+5	121758+3	-136236-1	-838048+9	715848+2	4197. 6000.11	Mg2 (g)
2 12 4 8 1 14	JANAF 1998					5Mg2O4Si1 (cr)	
-520300+6	129573+6	340002+2	896527-2	-739992+6	121339+3298.15	790.21	Mg2O4Si1 (cr)
-520300+6	125450+6	344415+2	766647-2	-375031+6	119330+3	790. 1000.21	Mg2O4Si1 (cr)
-520300+6	121218+6	387216+2	468481-2	-167348+7	117492+3	1000. 1500.21	Mg2O4Si1 (cr)
-520300+6	120971+6	398101+2	421243-2	-252833+7	117395+3	1500. 2518.21	Mg2O4Si1 (cr)
-520300+6	120963+6	399441+2	415357-2	-243825+7	117392+3	2518. 3000.21	Mg2O4Si1 (cr)
2 12 4 8 1 14	JANAF 1998					5Mg2O4Si1 (cr, l)	
-520300+6	137061+6	324264+2	115508-1	-667144+6	125097+3298.15	503.21	Mg2O4Si1 (cr, l)
-520300+6	123997+6	362914+2	648286-2	-100006+7	118705+3	503. 907.21	Mg2O4Si1 (cr, l)
-520300+6	121243+6	386163+2	473352-2	-160740+7	117490+3	907. 1670.21	Mg2O4Si1 (cr, l)
-520300+6	121053+6	387205+2	459892-2	-127120+7	117413+3	1670. 2171.21	Mg2O4Si1 (cr, l)
-520300+6	136879+6	490000+2	000000+0	-206345-4	124820+3	2171. 4000.32	Mg2O4Si1 (cr, l)
2 12 4 8 1 14	JANAF 1998					4Mg2O4Si1 (l)	
-505229+6	134874+6	328422+2	108199-1	-684888+6	130653+3298.15	548.31	Mg2O4Si1 (l)
-505229+6	122839+6	369363+2	588843-2	-110283+7	124849+3	548. 1118.31	Mg2O4Si1 (l)
-505229+6	121610+6	378088+2	515753-2	-117201+7	124310+3	1118. 1400.31	Mg2O4Si1 (l)
-505229+6	121808+6	490000+2	000000+0	350490-5	124821+3	1400. 4000.32	Mg2O4Si1 (l)
2 12 4 8 1 22	JANAF 1998					5Mg2O4Ti1 (cr)	
-517300+6	135011+6	353624+2	930445-2	-658480+6	130626+3298.15	700.21	Mg2O4Ti1 (cr)
-517300+6	133080+6	363843+2	834216-2	-829170+6	129735+3	700. 1171.21	Mg2O4Ti1 (cr)
-517300+6	131964+6	383421+2	723426-2	-173482+7	129271+3	1171. 1707.21	Mg2O4Ti1 (cr)
-517300+6	131519+6	415548+2	598396-2	-487700+7	129101+3	1707. 2303.21	Mg2O4Ti1 (cr)
-517300+6	131444+6	463133+2	460959-2	-133281+8	129074+3	2303. 3000.21	Mg2O4Ti1 (cr)
2 12 4 8 1 22	JANAF 1998					5Mg2O4Ti1 (cr, l)	
-517300+6	135063+6	353510+2	932264-2	-657938+6	130652+3298.15	691.21	Mg2O4Ti1 (cr, l)
-517300+6	133263+6	362396+2	845469-2	-795850+6	129815+3	691. 1085.21	Mg2O4Ti1 (cr, l)
-517300+6	132197+6	377231+2	754362-2	-137858+7	129364+3	1085. 1497.21	Mg2O4Ti1 (cr, l)
-517300+6	131654+6	399886+2	654711-2	-311244+7	129151+3	1497. 2013.21	Mg2O4Ti1 (cr, l)
-517300+6	161387+6	545999+2	000000+0	319522-4	144130+3	2013. 4000.32	Mg2O4Ti1 (cr, l)
2 12 4 8 1 22	JANAF 1998					5Mg2O4Ti1 (l)	
-489084+6	135512+6	352586+2	947651-2	-653728+6	144575+3298.15	540.31	Mg2O4Ti1 (l)
-489084+6	134170+6	356925+2	893780-2	-695443+6	143925+3	540. 812.31	Mg2O4Ti1 (l)
-489084+6	133025+6	364821+2	828594-2	-867050+6	143410+3	812. 1103.31	Mg2O4Ti1 (l)
-489084+6	132296+6	375471+2	764335-2	-130042+7	143102+3	1103. 1400.31	Mg2O4Ti1 (l)
-489084+6	133172+6	545999+2	000000+0	217223-5	144129+3	1400. 4000.32	Mg2O4Ti1 (l)
2 12 1 14	JANAF 1998					5Mg2Si1 (cr)	
-185999+5	627477+5	174951+2	361594-2	-209421+6	684957+2298.15	701.21	Mg2Si1 (cr)
-185999+5	628788+5	173341+2	372294-2	-167123+6	685482+2	701. 1000.21	Mg2Si1 (cr)
-185999+5	624780+5	178209+2	340795-2	-339016+6	683767+2	1000. 1508.21	Mg2Si1 (cr)
-185999+5	620940+5	192787+2	275129-2	-140225+7	682250+2	1508. 2002.21	Mg2Si1 (cr)
-185999+5	619753+5	212695+2	208073-2	-400063+7	681812+2	2002. 2500.21	Mg2Si1 (cr)
2 12 1 14	JANAF 1998					5Mg2Si1 (cr, l)	
-185999+5	762644+5	151774+2	799391-2	-119210+6	754757+2298.15	404.21	Mg2Si1 (cr, l)
-185999+5	625718+5	175439+2	354971-2	-212404+6	684028+2	404. 841.21	Mg2Si1 (cr, l)
-185999+5	626275+5	175699+2	355391-2	-233302+6	684314+2	841. 1375.21	Mg2Si1 (cr, l)
-185999+5	785978+5	225000+2	000000+0	-729226-2	814602+2	1375. 1500.32	Mg2Si1 (cr, l)
-185999+5	785978+5	225000+2	000000+0	-345192-5	814602+2	1500. 4000.32	Mg2Si1 (cr, l)
2 12 1 14	JANAF 1998					2Mg2Si1 (l)	
-795172+3	607916+5	225000+2	000000+0	-279999-7	814579+2298.15	2100.31	Mg2Si1 (l)
-795172+3	607916+5	225000+2	000000+0	-117395-4	814579+2	2100. 4000.31	Mg2Si1 (l)
3 12 2 7	JANAF 1998					3Mg3N2 (cr)	
-110200+6	941403+5	228161+2	729348-2	-663588+3	933794+2298.15	823.21	Mg3N2 (cr)
-110200+6	787786+5	295999+2	000000+0	380428-5	865436+2	823. 1061.22	Mg3N2 (cr)
-110200+6	789223+5	295399+2	000000+0	-555847-6	867263+2	1061. 2500.23	Mg3N2 (cr)
3 12 8 8 2 15	JANAF 1998					5Mg3O8P2 (cr)	
-895100+6	299968+6	444702+2	407067-1	-514656+6	254789+3298.15	900.21	Mg3O8P2 (cr)
-895100+6	206752+6	128841+3	-208698-1	-239661+8	213885+3	900. 1186.21	Mg3O8P2 (cr)
-895100+6	217512+6	141086+3	-217764-1	-396771+8	218892+3	1186. 1554.21	Mg3O8P2 (cr)
-895100+6	226052+6	118258+3	-102895-1	-276577+8	222307+3	1554. 1801.21	Mg3O8P2 (cr)
-895100+6	229362+6	911995+2	155992-6	118041+4	223564+3	1801. 3000.21	Mg3O8P2 (cr)

3 12 8 8 2 15	JANAF 1998	5Mg308P2 (cr, l)
-895100+6 304101+6 433517+2 422712-1-453655+6 256773+3298.15 700.21		Mg308P2 (cr, l)
-895100+6 271934+6 631331+2 249879-1-421834+7 242177+3 700. 1000.21		Mg308P2 (cr, l)
-895100+6 229659+6 102839+3-357717-2-153592+8 223716+3 1000. 1621.21		Mg308P2 (cr, l)
-895100+6 289251+6 113600+3 000000+0 313679-2 255233+3 1621. 1800.32		Mg308P2 (cr, l)
-895100+6 289251+6 113600+3 000000+0 319584-4 255233+3 1800. 4500.32		Mg308P2 (cr, l)
3 12 8 8 2 15	JANAF 1998	4Mg308P2 (l)
-875523+6 303583+6 434440+2 421015-1-457364+6 267698+3298.15 600.31		Mg308P2 (l)
-875523+6 286352+6 525888+2 334733-1-188579+7 259803+3 600. 986.31		Mg308P2 (l)
-875523+6 220444+6 110998+3-963018-2-173523+8 230890+3 986. 1220.31		Mg308P2 (l)
-875523+6 269684+6 113600+3 000000+0 473035-5 255238+3 1220. 4500.32		Mg308P2 (l)
1 25	JANAF 1998	5Mn1 (cr)
000000+0 288223+5 611448+1 280163-2-598956+5 290035+2298.15 623.21		Mn1 (cr)
000000+0 303202+5 573001+1 335735-2-450511+5 297385+2 623. 980.21		Mn1 (cr)
000000+0 259209+5 818319+1 904175-3-820377+5 280535+2 980. 1361.22		Mn1 (cr)
000000+0 244573+5 221389+2-501308-2-929147+7 277839+2 1361. 1412.23		Mn1 (cr)
000000+0 304330+5 816961+1 191663-2-130891+6 303675+2 1412. 1900.24		Mn1 (cr)
1 25	JANAF 1998	5Mn1 (cr, l)
000000+0 300413+5 583791+1 323347-2-459386+5 296095+2298.15 980.21		Mn1 (cr, l)
000000+0 259227+5 818319+1 904175-3-820377+5 280545+2 980. 1361.22		Mn1 (cr, l)
000000+0 244590+5 221389+2-501308-2-929147+7 277849+2 1361. 1412.23		Mn1 (cr, l)
000000+0 278406+5 175724+2-237210-2-680473+7 293411+2 1412. 1519.24		Mn1 (cr, l)
000000+0 311380+5 110000+2 000000+0 137117-5 313750+2 1519. 3000.35		Mn1 (cr, l)
1 25	JANAF 1998	5Mn1 (g)
677000+5 134355+5 496007+1 723033-5 627970+3 529677+2298.15 2061.11		Mn1 (g)
677000+5 135192+5 306682+1 618844-3 268821+7 529982+2 2061. 2812.11		Mn1 (g)
677000+5 135206+5-306385+1 206812-2 189403+8 529987+2 2812. 3588.11		Mn1 (g)
677000+5 134656+5-112226+2 357795-2 542339+8 529812+2 3588. 4886.11		Mn1 (g)
677000+5 192762+5 149745+2 243085-3-182181+9 546755+2 4886. 6000.11		Mn1 (g)
1 25	JANAF 1998	2Mn1 (l)
389316+4 301838+5 579480+1 328983-2-433237+5 324227+2298.15 1125.31		Mn1 (l)
389316+4 272453+5 110000+2 000000+0-170562-6 313744+2 1125. 3000.32		Mn1 (l)
1 25 -1 99	JANAF 1998	5Mn1+ (g)
240675+6 134484+5 495868+1 109869-4 615648+3 532807+2298.15 1408.11		Mn1+ (g)
240675+6 136862+5 420910+1 365539-3 496970+6 533757+2 1408. 2072.11		Mn1+ (g)
240675+6 137636+5 236088+1 958441-3 315757+7 534040+2 2072. 2853.11		Mn1+ (g)
240675+6 137637+5 762802+0 132936-2 755177+7 534040+2 2853. 4233.11		Mn1+ (g)
240675+6 136496+5-142563+1 167179-2 207918+8 533692+2 4233. 6000.11		Mn1+ (g)
1 42	JANAF 1998	5Mo1 (cr)
000000+0 201611+5 579863+1 103201-2-344632+5 228209+2298.15 777.21		Mo1 (cr)
000000+0 211708+5 481328+1 173394-2 231146+6 232554+2 777. 1308.21		Mo1 (cr)
000000+0 221829+5 231477+1 300144-2 166935+7 236663+2 1308. 1890.21		Mo1 (cr)
000000+0 226166+5-311293+1 491403-2 814524+7 238282+2 1890. 2582.21		Mo1 (cr)
000000+0 228936+5-200005+2 102163-1 294595+8 239250+2 2582. 3300.21		Mo1 (cr)
1 42	JANAF 1998	5Mo1 (cr, l)
000000+0 204369+5 569307+1 115310-2-273417+5 229440+2298.15 1256.21		Mo1 (cr, l)
000000+0 224420+5 117189+1 351118-2 243271+7 237630+2 1256. 2355.21		Mo1 (cr, l)
000000+0 228912+5-372659+2 143224-1 744057+8 239218+2 2355. 2896.21		Mo1 (cr, l)
000000+0 310210+5 900000+1 141172-9 180905+1 267318+2 2896. 3000.32		Mo1 (cr, l)
000000+0 310210+5 900000+1 000000+0 299526-4 267318+2 3000. 6000.32		Mo1 (cr, l)
1 42	JANAF 1998	5Mo1 (g)
157500+6 134670+5 495035+1 198098-4 121556+4 549507+2298.15 1518.11		Mo1 (g)
157500+6 139545+5 289058+1 922928-3 158851+7 551422+2 1518. 2169.11		Mo1 (g)
157500+6 141156+5-272607+1 264455-2 104447+8 552003+2 2169. 2866.11		Mo1 (g)
157500+6 141163+5-100943+2 435749-2 306420+8 552006+2 2866. 4610.11		Mo1 (g)
157500+6 153942+5 222622+1 258311-2-573540+8 555826+2 4610. 6000.11		Mo1 (g)
1 42 1 99	JANAF 1998	2Mo1- (g)
138816+6 134227+5 496797+1 000000+0-105622-7 546247+2298.15 3000.11		Mo1- (g)
138816+6 134227+5 496797+1 000000+0-892115-5 546247+2 3000. 6000.11		Mo1- (g)
1 42	JANAF 1998	4Mo1 (l)
993499+4 202990+5 574287+1 109420-2-306435+5 263568+2298.15 1186.31		Mo1 (l)
993499+4 222764+5 215564+1 310090-2 166751+7 271772+2 1186. 2150.31		Mo1 (l)
993499+4 210873+5 900000+1 000000+0-200586-2 267339+2 2150. 2302.32		Mo1 (l)
993499+4 210873+5 900000+1 000000+0 312894-5 267339+2 2302. 6000.32		Mo1 (l)

1 42 -1 99	JANAF 1998	5Mo1+(g)
322696+6 134496+5 495693+1 122152-4 771226+3 546365+2298.15 1550.11		Mo1+(g)
322696+6 138680+5 303639+1 837626-3 154115+7 548001+2 1550. 2110.11		Mo1+(g)
322696+6 140818+5-275830+1 266710-2 101538+8 548778+2 2110. 2698.11		Mo1+(g)
322696+6 140900+5-978151+1 440475-2 271507+8 548806+2 2698. 5300.11		Mo1+(g)
322696+6 166678+5-155053+0 320408-2-645030+8 556243+2 5300. 6000.11		Mo1+(g)
1 42 1 8	JANAF 1998	3Mo1O1(g)
743210+5 244451+5 867442+1 234564-3-122309+5 783497+2298.15 879.11		Mo1O1(g)
743210+5 241903+5 888543+1 744380-4-665148+5 782370+2 879. 1649.11		Mo1O1(g)
743210+5 241815+5 893836+1 530417-4-114529+6 782336+2 1649. 6000.11		Mo1O1(g)
1 42 2 8	JANAF 1998	5Mo1O2(cr)
-140500+6 597781+5 151191+2 443393-2-273753+6 564656+2298.15 672.21		Mo1O2(cr)
-140500+6 627004+5 136880+2 583754-2-534773+5 578240+2 672. 1112.21		Mo1O2(cr)
-140500+6 645457+5 108647+2 751301-2 113382+7 585994+2 1112. 1636.21		Mo1O2(cr)
-140500+6 653526+5 598235+1 948481-2 556752+7 589104+2 1636. 2246.21		Mo1O2(cr)
-140500+6 655030+5-168475+1 117434-1 186546+8 589641+2 2246. 3000.21		Mo1O2(cr)
1 42 2 8	JANAF 1998	5Mo1O2(g)
-198709+4 492436+5 985921+1 512361-2-738143+5 102371+3298.15 446.11		Mo1O2(g)
-198709+4 387741+5 123904+2 134854-2-242397+6 971395+2 446. 692.11		Mo1O2(g)
-198709+4 362557+5 136712+2 117185-3-447689+6 959732+2 692. 2129.11		Mo1O2(g)
-198709+4 363128+5 120191+2 634668-3 204719+7 959940+2 2129. 4387.11		Mo1O2(g)
-198709+4 365025+5 148163+2 209760-3-159116+8 960514+2 4387. 6000.11		Mo1O2(g)
1 42 3 8	JANAF 1998	5Mo1O2.750(cr)
-169315+6 687875+5 188967+2 418335-2-300438+6 699727+2298.15 480.21		Mo1O2.750(cr)
-169315+6 802014+5 157600+2 849076-2-541228+5 756001+2 480. 700.21		Mo1O2.750(cr)
-169315+6 838345+5 138640+2 102891-1 258073+6 772784+2 700. 1000.21		Mo1O2.750(cr)
-169315+6 850440+5 126028+2 111564-1 651951+6 778025+2 1000. 1201.21		Mo1O2.750(cr)
-169315+6 855553+5 116365+2 116897-1 112207+7 780140+2 1201. 1500.21		Mo1O2.750(cr)
1 42 3 8	JANAF 1998	5Mo1O2.875(cr)
-173788+6 703928+5 195045+2 417739-2-303882+6 722760+2298.15 485.21		Mo1O2.875(cr)
-173788+6 834733+5 159156+2 911080-2-225226+5 787263+2 485. 702.21		Mo1O2.875(cr)
-173788+6 874102+5 138580+2 110609-1 316843+6 805446+2 702. 1000.21		Mo1O2.875(cr)
-173788+6 885899+5 126382+2 119028-1 694825+6 810561+2 1000. 1200.21		Mo1O2.875(cr)
-173788+6 890758+5 117396+2 124022-1 112576+7 812574+2 1200. 1500.21		Mo1O2.875(cr)
1 42 3 8	JANAF 1998	5Mo1O2.889(cr)
-174275+6 705831+5 195701+2 418051-2-304183+6 725375+2298.15 484.21		Mo1O2.889(cr)
-174275+6 838416+5 159305+2 918199-2-186595+5 790752+2 484. 702.21		Mo1O2.889(cr)
-174275+6 878060+5 138595+2 111453-1 322744+6 809063+2 702. 1000.21		Mo1O2.889(cr)
-174275+6 890057+5 126100+2 120050-1 712548+6 814263+2 1000. 1200.21		Mo1O2.889(cr)
-174275+6 894670+5 117518+2 124810-1 112576+7 816173+2 1200. 1500.21		Mo1O2.889(cr)
1 42 3 8	JANAF 1998	5Mo1O3(cr)
-178100+6 720199+5 201084+2 417859-2-307158+6 745900+2298.15 484.21		Mo1O3(cr)
-178100+6 867123+5 160827+2 971718-2 790343+4 818362+2 484. 701.21		Mo1O3(cr)
-178100+6 909648+5 138688+2 118197-1 371554+6 838010+2 701. 1001.21		Mo1O3(cr)
-178100+6 919435+5 129597+2 124770-1 623236+6 842287+2 1001. 1200.21		Mo1O3(cr)
-178100+6 925946+5 118469+2 131124-1 112772+7 844999+2 1200. 1500.21		Mo1O3(cr)
1 42 3 8	JANAF 1998	5Mo1O3(cr,l)
-178100+6 720106+5 201099+2 417560-2-307219+6 745852+2298.15 484.21		Mo1O3(cr,l)
-178100+6 866618+5 160999+2 969650-2 619868+4 818119+2 484. 700.21		Mo1O3(cr,l)
-178100+6 904722+5 141920+2 115460-1 306713+6 835790+2 700. 900.21		Mo1O3(cr,l)
-178100+6 921875+5 126942+2 126562-1 710559+6 843341+2 900. 1074.21		Mo1O3(cr,l)
-178100+6 876989+5 303420+2 000000+0 000000+0 886186+2 1074. 2000.32		Mo1O3(cr,l)
1 42 3 8	JANAF 1998	5Mo1O3(g)
-828000+5 754527+5 128792+2 921103-2-127512+6 121739+3298.15 410.11		Mo1O3(g)
-828000+5 587721+5 164273+2 344765-2-326741+6 113292+3 410. 600.11		Mo1O3(g)
-828000+5 523872+5 188280+2 720944-3-601992+6 110244+3 600. 885.11		Mo1O3(g)
-828000+5 513850+5 196718+2 853043-4-822345+6 109801+3 885. 1517.11		Mo1O3(g)
-828000+5 513397+5 198633+2 135427-5-969772+6 109784+3 1517. 6000.11		Mo1O3(g)
1 42 3 8	JANAF 1998	3Mo1O3(l)
-168195+6 721850+5 200802+2 423201-2-306064+6 835603+2298.15 488.31		Mo1O3(l)
-168195+6 872700+5 158755+2 995455-2 302032+5 909869+2 488. 750.31		Mo1O3(l)
-168195+6 777936+5 303420+2 000000+0-350290-6 886188+2 750. 2000.32		Mo1O3(l)



1 42 2 16	JANAF 1998	3Mo1S2 (cr)
-660000+5 535912+5 171307+2 178912-2-220089+6 581141+2298.15 1000.21		Mo1S2 (cr)
-660000+5 536784+5 169378+2 189241-2-130500+6 581486+2 1000. 1391.21		Mo1S2 (cr)
-660000+5 535680+5 171129+2 178761-2-187157+6 581030+2 1391. 2400.21		Mo1S2 (cr)
2 42 3 16	JANAF 1998	3Mo2S3 (cr)
-973000+5 105634+6 263604+2 787944-2-230025+6 108348+3298.15 1000.21		Mo2S3 (cr)
-973000+5 105633+6 263659+2 787683-2-232892+6 108348+3 1000. 1431.21		Mo2S3 (cr)
-973000+5 105636+6 263595+2 788016-2-229677+6 108349+3 1431. 2400.21		Mo2S3 (cr)
2 42 3 16	JANAF 1998	5Mo2S3 (cr, l)
-973000+5 105630+6 263614+2 787784-2-230071+6 108346+3298.15 534.21		Mo2S3 (cr, l)
-973000+5 105635+6 263603+2 787957-2-230026+6 108348+3 534. 1006.21		Mo2S3 (cr, l)
-973000+5 105633+6 263659+2 787679-2-232891+6 108348+3 1006. 1447.21		Mo2S3 (cr, l)
-973000+5 105635+6 263614+2 787945-2-231385+6 108349+3 1447. 2080.21		Mo2S3 (cr, l)
-973000+5 128504+6 375000+2 000000+0-192402-4 120097+3 2080. 3500.32		Mo2S3 (cr, l)
2 42 3 16	JANAF 1998	4Mo2S3 (l)
-646042+5 105634+6 263606+2 787915-2-230036+6 124168+3298.15 781.31		Mo2S3 (l)
-646042+5 105637+6 263584+2 788119-2-229649+6 124170+3 781. 1209.31		Mo2S3 (l)
-646042+5 105635+6 263612+2 787934-2-230464+6 124169+3 1209. 1450.31		Mo2S3 (l)
-646042+5 958085+5 375000+2 000000+0-682315-5 120097+3 1450. 3500.32		Mo2S3 (l)
7 1 23	JANAF 1998	5N0.465V1 (cr)
-315999+5 321213+5 749577+1 274902-2-125661+6 304179+2298.15 400.21		N0.465V1 (cr)
-315999+5 321784+5 748774+1 276658-2-125501+6 304479+2 400. 600.21		N0.465V1 (cr)
-315999+5 321846+5 748100+1 277135-2-124105+6 304504+2 600. 1239.21		N0.465V1 (cr)
-315999+5 322577+5 727587+1 287205-2-741951+3 304796+2 1239. 1508.21		N0.465V1 (cr)
-315999+5 318187+5 933461+1 199096-2-166092+7 303083+2 1508. 3500.21		N0.465V1 (cr)
1 7	JANAF 1998	5N1 (g)
112974+6 134237+5 496740+1 529846-6 456712+2 480837+2298.15 1999.11		N1 (g)
112974+6 134346+5 477061+1 661646-4 262099+6 480877+2 1999. 2597.11		N1 (g)
112974+6 134364+5 414043+1 227946-3 167868+7 480883+2 2597. 3150.11		N1 (g)
112974+6 134363+5 320668+1 425773-3 476053+7 480883+2 3150. 3757.11		N1 (g)
112974+6 134229+5 213964+1 615436-3 976407+7 480841+2 3757. 6000.11		N1 (g)
1 7 1 99	JANAF 1998	4N1- (g)
113179+6 134238+5 497284+1-573804-5 446545+4 496878+2298.15 549.11		N1- (g)
113179+6 134380+5 496805+1 744421-7 494875+4 496947+2 549. 1300.11		N1- (g)
113179+6 134377+5 496764+1 945096-7 558519+4 496946+2 1300. 3605.11		N1- (g)
113179+6 134376+5 496635+1 244194-6 153417+5 496945+2 3605. 6000.11		N1- (g)
1 7 -1 99	JANAF 1998	5N1+ (g)
449840+6 134551+5 496644+1 960658-6 106882+5 496947+2298.15 1677.11		N1+ (g)
449840+6 134650+5 490207+1 265508-4 710135+5 496985+2 1677. 2213.11		N1+ (g)
449840+6 134701+5 469267+1 896391-4 412767+6 497004+2 2213. 2826.11		N1+ (g)
449840+6 134702+5 442434+1 152958-3 112666+7 497004+2 2826. 4661.11		N1+ (g)
449840+6 135188+5 486759+1 895932-4-208655+7 497149+2 4661. 6000.11		N1+ (g)
1 7 1 8	JANAF 1998	5N1O1 (g)
215801+5 263411+5 600083+1 224509-2 412610+5 704964+2298.15 684.11		N1O1 (g)
215801+5 238321+5 724584+1 103251-2-153180+6 693317+2 684. 965.11		N1O1 (g)
215801+5 228767+5 823557+1 350213-3-461711+6 689173+2 965. 1388.11		N1O1 (g)
215801+5 227024+5 875989+1 989701-4-800001+6 688475+2 1388. 2242.11		N1O1 (g)
215801+5 226989+5 892558+1 498398-4-107918+7 688462+2 2242. 6000.11		N1O1 (g)
1 7 1 8 -1 99	JANAF 1998	5N1O1+ (g)
236660+6 233508+5 626330+1 142620-2 244233+5 657992+2298.15 637.11		N1O1+ (g)
236660+6 234215+5 658402+1 129389-2-715159+5 658707+2 637. 1016.11		N1O1+ (g)
236660+6 223639+5 782515+1 480229-3-499330+6 654168+2 1016. 1478.11		N1O1+ (g)
236660+6 221531+5 862840+1 118832-3-108720+7 653335+2 1478. 2379.11		N1O1+ (g)
236660+6 221501+5 890874+1 405145-4-161934+7 653324+2 2379. 6000.11		N1O1+ (g)
1 7 2 8	JANAF 1998	4N1O2 (g)
790989+4 500111+5 681192+1 709933-2-831265+4 922055+2298.15 507.11		N1O2 (g)
790989+4 388744+5 101159+2 277461-2-293989+6 867582+2 507. 804.11		N1O2 (g)
790989+4 347350+5 129788+2 414413-3-917942+6 848970+2 804. 1444.11		N1O2 (g)
790989+4 344837+5 138676+2 672868-5-154372+7 847972+2 1444. 6000.11		N1O2 (g)
1 7 2 8 1 99	JANAF 1998	5N1O2- (g)
-484500+5 523457+5 716584+1 742602-2-339046+5 929416+2298.15 499.11		N1O2- (g)
-484500+5 379812+5 113217+2 190062-2-382176+6 858972+2 499. 841.11		N1O2- (g)
-484500+5 350270+5 135771+2 125009-3-921181+6 845808+2 841. 2145.11		N1O2- (g)
-484500+5 349918+5 132456+2 176373-3 967354+5 845677+2 2145. 3721.11		N1O2- (g)
-484500+5 349636+5 107409+2 624952-3 116655+8 845588+2 3721. 6000.11		N1O2- (g)

1 7 3 8	JANAF 1998				5N1O3 (g)		
170000+5	901537+5	785383+1	155482-1-113144+6	119863+3298.15	400.11	N1O3 (g)	
170000+5	636711+5	134128+2	643677-2-419451+6	106434+3	400. 581.11	N1O3 (g)	
170000+5	519331+5	177690+2	145164-2-912235+6	100823+3	581. 877.11	N1O3 (g)	
170000+5	499175+5	194501+2	179993-3-134743+7	999323+2	877. 1507.11	N1O3 (g)	
170000+5	498214+5	198534+2	288696-5-165726+7	998945+2	1507. 6000.11	N1O3 (g)	
1 7 1 15	JANAF 1998				5N1P1 (g)		
250430+5	301061+5	607437+1	306677-2	989056+4	728022+2298.15	504.11	N1P1 (g)
250430+5	249805+5	756771+1	108996-2-116361+6	702904+2	504. 800.11	N1P1 (g)	
250430+5	235073+5	847994+1	296332-3-293851+6	696213+2	800. 1099.11	N1P1 (g)	
250430+5	232715+5	883323+1	850790-4-440138+6	695221+2	1099. 1837.11	N1P1 (g)	
250430+5	232618+5	893559+1	479956-4-555692+6	695184+2	1837. 6000.11	N1P1 (g)	
1 7 1 16	JANAF 1998				5N1S1 (g)		
630000+5	299755+5	644017+1	280292-2	286563+5	756554+2298.15	477.11	N1S1 (g)
630000+5	256181+5	760535+1	117481-2-597553+5	735009+2	477. 700.11	N1S1 (g)	
630000+5	239026+5	847067+1	339278-3-197174+6	727059+2	700. 1017.11	N1S1 (g)	
630000+5	235907+5	883844+1	986294-4-324423+6	725721+2	1017. 1712.11	N1S1 (g)	
630000+5	235775+5	893665+1	605726-4-421308+6	725670+2	1712. 6000.11	N1S1 (g)	
1 7 1 14	JANAF 1998				5N1Si1 (g)		
890000+5	307465+5	633617+1	306082-2-349372+4	746724+2298.15	477.11	N1Si1 (g)	
890000+5	249922+5	787273+1	911864-3-119875+6	718267+2	477. 1352.11	N1Si1 (g)	
890000+5	253428+5	825012+1	915346-3-818325+6	719810+2	1352. 2232.11	N1Si1 (g)	
890000+5	252477+5	125337+2	-362132-3-795333+7	719469+2	2232. 4356.11	N1Si1 (g)	
890000+5	250982+5	101574+2	199674-5	703926+7	719015+2	4356. 6000.11	N1Si1 (g)
1 7 2 14	JANAF 1998				5N1Si2 (g)		
950000+5	481082+5	120044+2	358738-2-102509+6	981128+2298.15	470.11	N1Si2 (g)	
950000+5	400997+5	141101+2	613200-3-258856+6	941460+2	470. 827.11	N1Si2 (g)	
950000+5	390818+5	148554+2	150195-4-430252+6	936908+2	827. 3374.11	N1Si2 (g)	
950000+5	390810+5	143193+2	121131-3	159653+7	936905+2	3374. 4438.11	N1Si2 (g)
950000+5	390282+5	136090+2	227872-3	625664+7	936746+2	4438. 6000.11	N1Si2 (g)
1 7 1 22	JANAF 1998				4N1Ti1 (cr)		
-807000+5	353423+5	120512+2	831673-3-305798+6	355937+2298.15	555.21	N1Ti1 (cr)	
-807000+5	359235+5	112236+2	137633-2-144000+6	357826+2	555. 945.21	N1Ti1 (cr)	
-807000+5	370993+5	100878+2	218250-2	189974+6	362957+2	945. 1500.21	N1Ti1 (cr)
-807000+5	371891+5	962849+1	237550-2	571985+6	363305+2	1500. 4500.21	N1Ti1 (cr)
1 7 1 22	JANAF 1998				5N1Ti1 (cr,l)		
-807000+5	356687+5	119896+2	940502-3-303187+6	357601+2298.15	542.21	N1Ti1 (cr,l)	
-807000+5	356914+5	113625+2	125312-2-168747+6	356769+2	542. 899.21	N1Ti1 (cr,l)	
-807000+5	370603+5	101611+2	214172-2	156611+6	362792+2	899. 1475.21	N1Ti1 (cr,l)
-807000+5	371903+5	966904+1	236350-2	515400+6	363307+2	1475. 3220.21	N1Ti1 (cr,l)
-807000+5	536464+5	150000+2	000000+0-187669-3	414461+2	3220. 4500.32	N1Ti1 (cr,l)	
1 7 1 22	JANAF 1998				5N1Ti1 (l)		
-635308+5	335320+5	124056+2	220954-3-321309+6	400528+2298.15	737.31	N1Ti1 (l)	
-635308+5	367060+5	106145+2	185279-2-167346+4	415078+2	737. 1159.31	N1Ti1 (l)	
-635308+5	371771+5	983254+1	230370-2	346702+6	417045+2	1159. 2200.31	N1Ti1 (l)
-635308+5	364773+5	150000+2	000000+0	190956-2	414477+2	2200. 2419.32	N1Ti1 (l)
-635308+5	364773+5	150000+2	000000+0	155644-4	414477+2	2419. 4500.32	N1Ti1 (l)
1 7 1 23	JANAF 1998				5N1V1 (cr)		
-519001+5	-234700+5	213068+2	-177703-1-616110+6	665483+1298.15	400.21	N1V1 (cr)	
-519001+5	387597+5	106608+2	236795-2-201596+6	388360+2	400. 1500.21	N1V1 (cr)	
-519001+5	388971+5	100010+2	264895-2	334443+6	388895+2	1500. 1706.21	N1V1 (cr)
-519001+5	387447+5	893653+1	289582-2	220679+7	388257+2	1706. 2001.21	N1V1 (cr)
-519001+5	385490+5	115244+2	198856-2-886064+6	387530+2	2001. 3500.21	N1V1 (cr)	
1 7 1 23	JANAF 1998				5N1V1 (g)		
125000+6	312249+5	707268+1	274637-2-400602+5	792803+2298.15	519.11	N1V1 (g)	
125000+6	245122+5	914191+1	101067-3-227622+6	760100+2	519. 1861.11	N1V1 (g)	
125000+6	246670+5	740666+1	723878-3	176796+7	760680+2	1861. 2950.11	N1V1 (g)
125000+6	246672+5	716898+1	826570-3	119999+7	760681+2	2950. 4466.11	N1V1 (g)
125000+6	250225+5	116242+2	162923-3-285454+8	761752+2	4466. 6000.11	N1V1 (g)	
1 7 1 40	JANAF 1998				4N1Zr1 (cr)		
-873000+5	369560+5	111001+2	167985-2-171998+6	384965+2298.15	1800.21	N1Zr1 (cr)	
-873000+5	368322+5	126327+2	113732-2-197338+7	384504+2	1800. 2100.21	N1Zr1 (cr)	
-873000+5	369044+5	138139+2	883481-3-483183+7	384779+2	2100. 2336.21	N1Zr1 (cr)	
-873000+5	369548+5	111030+2	167950-2-185916+6	384959+2	2336. 4000.21	N1Zr1 (cr)	

1 7 1 40	JANAF 1998	5N1Zr1 (cr, l)
-873000+5 369608+5 110984+2 168189-2-171892+6 384986+2298.15 900.21		N1Zr1 (cr, l)
-873000+5 369563+5 110995+2 168018-2-171504+6 384965+2 900. 2000.21		N1Zr1 (cr, l)
-873000+5 372118+5 411887+1 389364-2 100433+8 385890+2 2000. 2200.21		N1Zr1 (cr, l)
-873000+5 369541+5 111111+2 167731-2-199647+6 384955+2 2200. 3225.21		N1Zr1 (cr, l)
-873000+5 535740+5 140000+2 000000+0-408083-4 436548+2 3225. 6000.32		N1Zr1 (cr, l)
1 7 1 40	JANAF 1998	5N1Zr1 (g)
170500+6 304744+5 712212+1 253962-2-277670+5 789289+2298.15 408.11		N1Zr1 (g)
170500+6 257194+5 812392+1 901745-3-832915+5 765186+2 408. 600.11		N1Zr1 (g)
170500+6 241486+5 871240+1 231938-3-150465+6 757686+2 600. 900.11		N1Zr1 (g)
170500+6 239264+5 890001+1 907645-4-199513+6 756705+2 900. 1526.11		N1Zr1 (g)
170500+6 239170+5 894049+1 731213-4-231072+6 756668+2 1526. 6000.11		N1Zr1 (g)
1 7 1 40	JANAF 1998	5N1Zr1 (l)
-694907+5 369567+5 110995+2 168033-2-171952+6 441087+2298.15 805.31		N1Zr1 (l)
-694907+5 369517+5 111062+2 167612-2-174053+6 441067+2 805. 1378.31		N1Zr1 (l)
-694907+5 369533+5 111172+2 167289-2-186587+6 441075+2 1378. 1934.31		N1Zr1 (l)
-694907+5 367003+5 152593+2 272183-3-554704+7 440140+2 1934. 2150.31		N1Zr1 (l)
-694907+5 357651+5 140000+2 000000+0-152731-5 436550+2 2150. 6000.32		N1Zr1 (l)
2 7 1 99	JANAF 1998	5N2- (g)
355198+5 263264+5 598581+1 225965-2 283698+5 689422+2298.15 681.11		N2- (g)
355198+5 237754+5 724078+1 103175-2-165838+6 677570+2 681. 964.11		N2- (g)
355198+5 228097+5 823984+1 342631-3-476931+6 673381+2 964. 1392.11		N2- (g)
355198+5 226372+5 876381+1 922634-4-816893+6 672690+2 1392. 2251.11		N2- (g)
355198+5 226340+5 892591+1 443914-4-109226+7 672678+2 2251. 6000.11		N2- (g)
2 7	JANAF 1998	5N2 (ref)
000000+0 240874+5 611362+1 167757-2 313874+5 645918+2298.15 845.11		N2 (ref)
000000+0 225815+5 747535+1 682023-3-340261+6 639321+2 845. 1308.11		N2 (ref)
000000+0 221799+5 844956+1 185238-3-895285+6 637689+2 1308. 2018.11		N2 (ref)
000000+0 221595+5 884575+1 545721-4-143488+7 637614+2 2018. 5117.11		N2 (ref)
000000+0 220378+5 825276+1 131877-3 373431+7 637259+2 5117. 6000.11		N2 (ref)
2 7 -1 99	JANAF 1998	5N2+ (g)
360779+6 247930+5 605556+1 187119-2 313098+5 664267+2298.15 830.11		N2+ (g)
360779+6 229800+5 738203+1 806157-3-273521+6 656157+2 830. 1458.11		N2+ (g)
360779+6 231445+5 651784+1 116847-2 440608+6 656791+2 1458. 2775.11		N2+ (g)
360779+6 231429+5 101441+2 298989-3-890355+7 656786+2 2775. 3651.11		N2+ (g)
360779+6 231727+5 136014+2-331291-3-243152+8 656880+2 3651. 6000.11		N2+ (g)
2 7 1 8	JANAF 1998	5N2O1 (g)
196099+5 484279+5 831238+1 587894-2-744304+5 872057+2298.15 500.11		N2O1 (g)
196099+5 410309+5 104692+2 302524-2-256929+6 835811+2 500. 785.11		N2O1 (g)
196099+5 373928+5 128545+2 100778-2-750884+6 819370+2 785. 1195.11		N2O1 (g)
196099+5 365797+5 143587+2 171841-3-147239+7 816002+2 1195. 2012.11		N2O1 (g)
196099+5 365537+5 148606+2 614169-5-215468+7 815906+2 2012. 6000.11		N2O1 (g)
2 7 1 8 -1 99	JANAF 1998	4N2O1+ (g)
318690+6 504788+5 893059+1 595039-2-538338+5 922627+2298.15 503.11		N2O1+ (g)
318690+6 412863+5 116175+2 240074-2-281908+6 877594+2 503. 800.11		N2O1+ (g)
318690+6 378416+5 139019+2 479227-3-760103+6 862045+2 800. 1312.11		N2O1+ (g)
318690+6 374769+5 148012+2 228306-4-127745+7 860564+2 1312. 6000.11		N2O1+ (g)
2 7 3 8	JANAF 1998	5N2O3 (g)
198000+5 859744+5 136560+2 110923-1-114038+6 134580+3298.15 479.11		N2O3 (g)
198000+5 715575+5 175656+2 567801-2-416020+6 127462+3 479. 702.11		N2O3 (g)
198000+5 636695+5 217053+2 176302-2-110168+7 123820+3 702. 1058.11		N2O3 (g)
198000+5 618528+5 240925+2 264855-3-199955+7 123047+3 1058. 1803.11		N2O3 (g)
198000+5 617804+5 247930+2 689882-5-276494+7 123020+3 1803. 6000.11		N2O3 (g)
2 7 4 8	JANAF 1998	2N2O4 (cr)
-837620+4 348956+6 711810+1 740028-1 106239+3 252299+3298.15 400.31		N2O4 (cr)
-837620+4 209696+6 235994+2 328012-1 328450+1 178383+3 400. 500.31		N2O4 (cr)
2 7 4 8	JANAF 1998	2N2O4 (cr, l)
-467591+4 248719+6 212794+2 429193-1-136073+4 215083+3298.15 350.31		N2O4 (cr, l)
-467591+4 248975+6 212402+2 429995-1 136484-6 215217+3 350. 500.31		N2O4 (cr, l)
2 7 4 8	JANAF 1998	5N2O4 (g)
216993+4 117377+6 154994+2 170734-1-189184+6 153582+3298.15 464.11		N2O4 (g)
216993+4 928106+5 218542+2 800299-2-651230+6 141393+3 464. 700.11		N2O4 (g)
216993+4 811342+5 277860+2 229684-2-160059+7 135986+3 700. 1040.11		N2O4 (g)
216993+4 786972+5 308540+2 339701-3-271747+7 134946+3 1040. 1771.11		N2O4 (g)
216993+4 785969+5 317385+2 837660-5-365115+7 134908+3 1771. 6000.11		N2O4 (g)

2 7 4 8	JANAF 1998				2N2O4 (l)		
-467591+4	248719+6	212794+2	429193-1-136073+4	215083+3298.15	350.31	N2O4 (l)	
-467591+4	248975+6	212402+2	429995-1	136484-6	215217+3	350. 500.31	N2O4 (l)
2 7 5 8	JANAF 1998				5N2O5 (g)		
270005+4	132722+6	220656+2	166495-1-357064+6	176741+3298.15	494.11	N2O5 (g)	
270005+4	968301+5	322048+2	296596-2-118178+7	159096+3	494. 798.11	N2O5 (g)	
270005+4	915807+5	357600+2	553403-5-194136+7	156731+3	798. 3116.11	N2O5 (g)	
270005+4	915806+5	356013+2	332310-4-123822+7	156731+3	3116. 3837.11	N2O5 (g)	
270005+4	915798+5	357703+2	899794-6-190066+7	156730+3	3837. 6000.11	N2O5 (g)	
3 7	JANAF 1998				5N3 (g)		
990000+5	510627+5	850303+1	634357-2-580551+5	905488+2298.15	478.11	N3 (g)	
990000+5	428816+5	107123+2	327587-2-227787+6	865079+2	478. 700.11	N3 (g)	
990000+5	384413+5	130049+2	108917-2-601133+6	844547+2	700. 1027.11	N3 (g)	
990000+5	372995+5	143885+2	193414-3-109019+7	839659+2	1027. 1684.11	N3 (g)	
990000+5	372300+5	148572+2	838097-5-153575+7	839392+2	1684. 6000.11	N3 (g)	
4 7 3 14	JANAF 1998				5N4Si3 (cr)		
-178000+6	141137+6	193155+2	200547-1-134169+6	125032+3298.15	655.21	N4Si3 (cr)	
-178000+6	121039+6	286892+2	106170-1-150360+7	115645+3	655. 1087.21	N4Si3 (cr)	
-178000+6	112034+6	413911+2	285364-2-654084+7	111837+3	1087. 1457.21	N4Si3 (cr)	
-178000+6	109261+6	471094+2	-261843-3-904375+7	110709+3	1457. 1993.21	N4Si3 (cr)	
-178000+6	109000+6	439538+2	420629-3-191221+7	110608+3	1993. 3000.21	N4Si3 (cr)	
5 7 3 15	JANAF 1998				5N5P3 (cr)		
-765189+5	224740+6	468794+2	231098-1-161816+7	205661+3298.15	525.21	N5P3 (cr)	
-765189+5	186405+6	591163+2	779568-2-277495+7	187053+3	525. 800.21	N5P3 (cr)	
-765189+5	162613+6	752970+2	-565136-2-624575+7	176338+3	800. 1000.21	N5P3 (cr)	
-765189+5	169921+6	676524+2	-401167-3-385135+7	179504+3	1000. 1230.21	N5P3 (cr)	
-765189+5	165317+6	768969+2	-540240-2-853064+7	177608+3	1230. 1500.21	N5P3 (cr)	
1 11	JANAF 1998				4NaI (cr)		
000000+0	133254+6	-847661+1	347556-1	430838+6	890313+2298.15	378.21	NaI (cr)
000000+0	195180+5	912400+1	-104410-2-150460+6	296218+2	378. 500.21	NaI (cr)	
000000+0	215290+5	799884+1	112426-5	176810+3	305118+2	500. 781.21	NaI (cr)
000000+0	215272+5	799955+1	325352-6	125557+3	305109+2	781. 1000.21	NaI (cr)
1 11	JANAF 1998				4NaI (cr, l)		
000000+0	133790+6	-855974+1	349243-1	433761+6	893115+2298.15370.9821	NaI (cr, l)	
000000+0	167868+5	757449+1	-991590-3	558252+5	289370+2370.98	704.22	NaI (cr, l)
000000+0	217021+5	499675+1	144716-2	482482+6	312064+2	704. 1130.22	NaI (cr, l)
000000+0	232562+5	378542+1	241469-2	633192+6	318836+2	1130. 1600.22	NaI (cr, l)
1 11	JANAF 1998				5NaI (g)		
256453+5	134278+5	496494+1	280706-5	239014+3	481730+2298.15	1986.11	NaI (g)
256453+5	134646+5	431769+1	219327-3	857079+6	481865+2	1986. 2740.11	NaI (g)
256453+5	134660+5	236612+1	694351-3	573707+7	481870+2	2740. 3483.11	NaI (g)
256453+5	134516+5	-132505+1	139781-2	207924+8	481824+2	3483. 4300.11	NaI (g)
256453+5	129049+5	-800845+1	238281-2	660540+8	480173+2	4300. 6000.11	NaI (g)
1 11 1 99	JANAF 1998				2NaI- (g)		
115287+5	134227+5	496797+1	000000+0	-105622-7	468056+2298.15	3000.11	NaI- (g)
115287+5	134227+5	496797+1	000000+0	-892115-5	468056+2	3000. 6000.11	NaI- (g)
1 11	JANAF 1998				5NaI (l)		
575048+3	137643+5	816218+1	-187322-2	190532+5	277189+2298.15	516.31	NaI (l)
575048+3	180549+5	686245+1	-193748-3	134375+6	298130+2	516. 800.31	NaI (l)
575048+3	216555+5	445740+1	182228-2	641400+6	314373+2	800. 1101.31	NaI (l)
575048+3	234127+5	214986+1	327145-2	150450+7	321843+2	1101. 1305.31	NaI (l)
575048+3	224229+5	473213+1	198241-2	-283612+5	317840+2	1305. 1600.31	NaI (l)
1 11 -1 99	JANAF 1998				2NaI+ (g)		
145636+6	134227+5	496797+1	000000+0	-105622-7	468054+2298.15	3000.11	NaI+ (g)
145636+6	134227+5	496797+1	000000+0	-892115-5	468054+2	3000. 6000.11	NaI+ (g)
1 11 1 8	JANAF 1998				4NaI01 (g)		
200000+5	261692+5	862317+1	669756-3	-375689+5	762472+2298.15	397.11	NaI01 (g)
200000+5	251396+5	883163+1	319561-3	-485120+5	757231+2	397. 570.11	NaI01 (g)
200000+5	248810+5	892419+1	211389-3	-585526+5	755991+2	570. 1018.11	NaI01 (g)
200000+5	248661+5	894188+1	199840-3	-647063+5	755927+2	1018. 6000.11	NaI01 (g)
1 11 1 8 1 99	JANAF 1998				4NaI01- (g)		
-290000+5	263195+5	859359+1	721781-3	-380786+5	735332+2298.15	399.11	NaI01- (g)
-290000+5	251478+5	883252+1	322350-3	-507448+5	729372+2	399. 594.11	NaI01- (g)
-290000+5	249002+5	892765+1	215653-3	-619477+5	728193+2	594. 1112.11	NaI01- (g)
-290000+5	248907+5	894199+1	207080-3	-678878+5	728153+2	1112. 6000.11	NaI01- (g)

1 11 2 8	JANAF 1998				5Na1O2 (cr)	
-623000+5	824641+5	142710+2	985219-2	299151+4	872844+2298.15 660.21	Na1O2 (cr)
-623000+5	856102+5	123683+2	115311-1	349132+6	887101+2 660. 945.21	Na1O2 (cr)
-623000+5	816763+5	150617+2	928649-2	-161895+6	869511+2 945. 1207.21	Na1O2 (cr)
-623000+5	822037+5	142576+2	976536-2	167546+6	871723+2 1207. 1500.21	Na1O2 (cr)
-623000+5	823355+5	137117+2	100059-1	583986+6	872242+2 1500. 2000.21	Na1O2 (cr)
2 11	JANAF 1998				5Na2 (g)	
339555+5	269807+5	883266+1	703112-3	-548966+4	772650+2298.15 805.11	Na2 (g)
339555+5	218939+5	125776+2	-229572-2	-867962+6	749916+2 805. 1918.11	Na2 (g)
339555+5	229138+5	-100253+1	244204-2	156611+8	753713+2 1918. 2851.11	Na2 (g)
339555+5	229296+5	-424186+1	367668-2	133800+8	753767+2 2851. 4066.11	Na2 (g)
339555+5	245284+5	419818+2	-386966-2	-243537+9	758699+2 4066. 6000.11	Na2 (g)
2 11 1 8	JANAF 1998				4Na2O1 (cr)	
-999001+5	856640+5	145955+2	104476-1	-106178+6	792696+2298.15 459.21	Na2O1 (cr)
-999001+5	658491+5	206827+2	264064-2	-633679+6	696371+2 459.1023.221	Na2O1 (cr)
-999001+5	649871+5	218409+2	179359-2	-949669+6	694856+21023.21243.222	Na2O1 (cr)
-999001+5	677805+5	219910+2	171891-2	-103850+7	717553+21243.2 2000.23	Na2O1 (cr)
2 11 1 8	JANAF 1998				5Na2O1 (cr, l)	
-999001+5	901488+5	138296+2	118985-1	-764883+5	815868+2298.15 500.21	Na2O1 (cr, l)
-999001+5	658757+5	206634+2	265606-2	-629626+6	696496+2 500.1023.221	Na2O1 (cr, l)
-999001+5	649879+5	218409+2	179359-2	-949669+6	694867+21023.21243.222	Na2O1 (cr, l)
-999001+5	678113+5	218969+2	176369-2	-978185+6	717684+21243.21405.223	Na2O1 (cr, l)
-999001+5	783347+5	250000+2	000000+0	277458-5	796153+21405.2 3000.34	Na2O1 (cr, l)
2 11 1 8	JANAF 1998				2Na2O1 (l)	
-891116+5	675463+5	250000+2	000000+0	238868-7	796139+2298.15 1600.31	Na2O1 (l)
-891116+5	675462+5	250000+2	000000+0	489341-5	796139+2 1600. 3000.31	Na2O1 (l)
2 11 2 8	JANAF 1998				3Na2O2 (cr)	
-122660+6	994550+5	206484+2	993792-2	-202896+6	960513+2298.15 477.21	Na2O2 (cr)
-122660+6	896633+5	232758+2	627476-2	-403131+6	912116+2 477. 785.21	Na2O2 (cr)
-122660+6	736912+5	271501+2	000000+0	-155730-6	845571+2 785. 2500.22	Na2O2 (cr)
2 11 3 8 1 14	JANAF 1998				5Na2O3Si1 (cr)	
-373190+6	284089+5	463152+2	-209054-1	-118615+7	710523+2298.15 415.21	Na2O3Si1 (cr)
-373190+6	126329+6	318428+2	960845-2	-874554+6	122190+3 415. 855.21	Na2O3Si1 (cr)
-373190+6	122037+6	352891+2	695670-2	-173646+7	120286+3 855. 1600.21	Na2O3Si1 (cr)
-373190+6	109649+6	122246+3	-272108-1	-843973+8	115562+3 1600. 1801.21	Na2O3Si1 (cr)
-373190+6	121625+6	374322+2	605392-2	-361712+7	120132+3 1801. 2500.21	Na2O3Si1 (cr)
2 11 3 8 1 14	JANAF 1998				5Na2O3Si1 (cr, l)	
-373190+6	383452+5	446192+2	-176914-1	-112043+7	761864+2298.15 414.21	Na2O3Si1 (cr, l)
-373190+6	127084+6	315328+2	994460-2	-838465+6	122542+3 414. 803.21	Na2O3Si1 (cr, l)
-373190+6	122422+6	347243+2	730051-2	-152728+7	120444+3 803. 1362.21	Na2O3Si1 (cr, l)
-373190+6	121873+6	423800+2	000000+0	-283143-2	123947+3 1362. 1500.32	Na2O3Si1 (cr, l)
-373190+6	121873+6	423800+2	000000+0	-546201-5	123947+3 1500. 2500.32	Na2O3Si1 (cr, l)
2 11 3 8 1 14	JANAF 1998				3Na2O3Si1 (l)	
-361108+6	342469+5	453188+2	-190170-1	-114753+7	828282+2298.15 416.31	Na2O3Si1 (l)
-361108+6	126238+6	318904+2	956340-2	-881225+6	130904+3 416. 900.31	Na2O3Si1 (l)
-361108+6	109790+6	423800+2	000000+0	-171467-5	123945+3 900. 2500.32	Na2O3Si1 (l)
2 11 4 8 1 16	JANAF 1998				5Na2O4S1 (cr)_01	
-329659+6	109357+6	412789+2	-247765-3	-353705+6	131673+3298.15 500.21	Na2O4S1 (cr)_01
-329659+6	166283+6	269027+2	206026-1	634047+6	159961+3 500. 800.21	Na2O4S1 (cr)_01
-329659+6	202909+6	514635+1	399323-1	466132+7	176652+3 800. 1000.21	Na2O4S1 (cr)_01
-329659+6	179661+6	310904+2	225804-1	-393088+7	166632+3 1000. 1201.21	Na2O4S1 (cr)_01
-329659+6	168903+6	531869+2	107072-1	-152347+8	162210+3 1201. 1500.21	Na2O4S1 (cr)_01
2 11 4 8 1 16	JANAF 1998				3Na2O4S1 (cr)_02	
-330043+6	151206+6	337885+2	134253-1	323499+5	152736+3298.15 732.21	Na2O4S1 (cr)_02
-330043+6	155932+6	331603+2	149415-1	-225751+6	155062+3 732. 1175.21	Na2O4S1 (cr)_02
-330043+6	154125+6	368632+2	129488-1	-210542+7	154320+3 1175. 1500.21	Na2O4S1 (cr)_02
2 11 4 8 1 16	JANAF 1998				3Na2O4S1 (cr)_03	
-330988+6	246845+6	189631+2	439749-1	-106878+6	199024+3298.15 453.21	Na2O4S1 (cr)_03
-330988+6	311749+6	923324+1	643254-1	-200362+4	232712+3 453. 700.21	Na2O4S1 (cr)_03
-330988+6	311779+6	923008+1	643345-1	-360039+4	232727+3 700. 1000.21	Na2O4S1 (cr)_03
2 11 4 8 1 16	JANAF 1998				3Na2O4S1 (cr)_04	
-331635+6	189979+6	252466+2	274991-1	-250612+6	167080+3298.15 458.21	Na2O4S1 (cr)_04
-331635+6	183791+6	267943+2	252413-1	-358354+6	163999+3 458. 643.21	Na2O4S1 (cr)_04
-331635+6	181128+6	279909+2	240119-1	-526269+6	162750+3 643. 1000.21	Na2O4S1 (cr)_04

2 11 4 8 1 16	JANAF 1998				3Na2O4S1 (cr)_05
-331696+6 189666+6 253019+2 273969-1-252829+6 166785+3298.15 470.21					Na2O4S1 (cr)_05
-331696+6 183134+6 270171+2 249721-1-379976+6 163549+3 470. 700.21					Na2O4S1 (cr)_05
-331696+6 180980+6 281104+2 239199-1-554746+6 162551+3 700. 1000.21					Na2O4S1 (cr)_05
2 11 4 8 1 16	JANAF 1998				5Na2O4S1 (cr,l)
-331696+6 190041+6 252360+2 275191-1-250201+6 166977+3298.15 458.21					Na2O4S1 (cr,l)
-331696+6 185460+6 263409+2 258540-1-322010+6 164787+3 458. 514.22					Na2O4S1 (cr,l)
-331696+6 159242+6 314153+2 161419-1 287371+6 155786+3 514. 1157.23					Na2O4S1 (cr,l)
-331696+6 131847+6 470920+2 000000+0 149690-3 145808+3 1157. 1301.34					Na2O4S1 (cr,l)
-331696+6 131847+6 470920+2 000000+0 696645-5 145808+3 1301. 3000.34					Na2O4S1 (cr,l)
2 11 4 8 1 16	JANAF 1998				5Na2O4S1 (g)
-247040+6 146851+6 230534+2 191925-1-314073+6 186205+3298.15 400.11					Na2O4S1 (g)
-247040+6 113404+6 300563+2 769451-2-698668+6 169240+3 400. 582.11					Na2O4S1 (g)
-247040+6 992849+5 352948+2 169868-2-129108+7 162491+3 582. 880.11					Na2O4S1 (g)
-247040+6 969248+5 372720+2 205985-3-180503+7 161448+3 880. 1519.11					Na2O4S1 (g)
-247040+6 968162+5 377354+2 331339-5-216375+7 161406+3 1519. 6000.11					Na2O4S1 (g)
2 11 4 8 1 16	JANAF 1998				3Na2O4S1 (l)
-324184+6 150020+6 340523+2 130078-1 196698+5 157175+3298.15 580.31					Na2O4S1 (l)
-324184+6 159647+6 302309+2 172159-1 484132+6 161743+3 580. 800.31					Na2O4S1 (l)
-324184+6 124336+6 470920+2 000000+0-314665-7 145803+3 800. 3000.32					Na2O4S1 (l)
2 11 4 8 1 74	JANAF 1998				5Na2O4W1 (cr)
-369200+6 180010+6 299232+2 224493-1-285158+6 166472+3298.15 600.21					Na2O4W1 (cr)
-369200+6 183162+6 286800+2 238228-1-134306+6 167969+3 600. 860.821					Na2O4W1 (cr)
-369200+6 193656+6 272470+2 252940-1-231935+3 177976+3 860.8 862.22					Na2O4W1 (cr)
-369200+6 192987+6 274939+2 247287-1 186921+6 178331+3 862. 1218.23					Na2O4W1 (cr)
-369200+6 192405+6 295267+2 237785-1-111206+7 178105+3 1218. 1500.23					Na2O4W1 (cr)
2 11 5 8 2 14	JANAF 1998				5Na2O5Si2 (cr)
-590360+6 245027+6 331397+2 352680-1-546165+6 207969+3298.15 493.21					Na2O5Si2 (cr)
-590360+6 177439+6 517080+2 976382-2-200317+7 174645+3 493. 700.21					Na2O5Si2 (cr)
-590360+6 158735+6 612718+2 595172-3-354463+7 165988+3 700. 951.21					Na2O5Si2 (cr)
-590360+6 168684+6 503985+2 790367-2 171202+0 170340+3 951. 980.22					Na2O5Si2 (cr)
-590360+6 176658+6 700000+2 000000+0-397754-5 176458+3 980. 2000.23					Na2O5Si2 (cr)
2 11 5 8 2 14	JANAF 1998				6Na2O5Si2 (cr,l)
-590360+6 245333+6 330874+2 353670-1-544135+6 208127+3298.15 487.21					Na2O5Si2 (cr,l)
-590360+6 177444+6 517058+2 976618-2-200291+7 174648+3 487. 700.21					Na2O5Si2 (cr,l)
-590360+6 158735+6 612717+2 595277-3-354459+7 165989+3 700. 951.21					Na2O5Si2 (cr,l)
-590360+6 168685+6 503985+2 790367-2 171202+0 170340+3 951. 980.22					Na2O5Si2 (cr,l)
-590360+6 176658+6 700000+2 000000+0 968256-3 176458+3 980. 1147.23					Na2O5Si2 (cr,l)
-590360+6 171131+6 624300+2 000000+0 109880-4 176590+3 1147. 2500.34					Na2O5Si2 (cr,l)
2 11 5 8 2 14	JANAF 1998				4Na2O5Si2 (l)
-582812+6 301471+6 235010+2 535278-1-172513+6 243023+3298.15 472.31					Na2O5Si2 (l)
-582812+6 375035+6-127202+2 894072-1 412411+7 276144+3 472. 832.31					Na2O5Si2 (l)
-582812+6 147392+6 638215+2-572112-2 592740+7 169275+3 832. 1100.31					Na2O5Si2 (l)
-582812+6 163618+6 624421+2-428622-5-126520+5 176629+3 1100. 2500.31					Na2O5Si2 (l)
2 11 1 16	JANAF 1998				6Na2S1 (cr)
-875000+5 662962+5 187403+2 351513-2 336659+3 757662+2298.15 897.21					Na2S1 (cr)
-875000+5 278052+6-192361+3 151509+0 630415+8 167806+3 897. 1100.21					Na2S1 (cr)
-875000+5 529527+6-514029+3 355606+0 180608+9 274908+3 1100. 1276.21					Na2S1 (cr)
-875000+5 534993+6-145109+4 695150+0 100089+1 265538+3 1276. 1400.22					Na2S1 (cr)
-875000+5 174097+6-319398+3 159075+0 253767+9 121239+3 1400. 1500.22					Na2S1 (cr)
-875000+5 797270+5 320000+2 000000+0-377445-3 839028+2 1500. 2000.22					Na2S1 (cr)
2 11 1 16	JANAF 1998				5Na2S1 (cr,l)
-875000+5 662349+5 187563+2 349221-2-522400+3 757366+2298.15 573.21					Na2S1 (cr,l)
-875000+5 654040+5 191114+2 311675-2-464739+5 753458+2 573. 1023.21					Na2S1 (cr,l)
-875000+5 527434+6-510225+3 353481+0 178820+9 274037+3 1023. 1276.21					Na2S1 (cr,l)
-875000+5 474377+6-129157+4 615673+0 906133+9 241048+3 1276. 1445.22					Na2S1 (cr,l)
-875000+5 687757+5 220000+2 000000+0-267433-6 797809+2 1445. 3000.33					Na2S1 (cr,l)
2 11 1 16	JANAF 1998				4Na2S1 (l)
-774235+5 661881+5 187651+2 347661-2-895802+3 832232+2298.15 492.31					Na2S1 (l)
-774235+5 662534+5 187503+2 349971-2-448668+2 832560+2 492. 800.31					Na2S1 (l)
-774235+5 705520+5 146792+2 642819-2 110608+7 851203+2 800.970.0131					Na2S1 (l)
-774235+5 587390+5 220000+2 000000+0-370178-6 798105+2970.01 3000.32					Na2S1 (l)
2 11 2 16	JANAF 1998				2Na2S2 (cr)
-949001+5 113862+6 193336+2 138241-1 103746+5 118045+3298.15 400.21					Na2S2 (cr)
-949001+5 112303+6 196002+2 133197-1-886668+1 117239+3 400. 1000.21					Na2S2 (cr)

2 11 2 16	JANAF 1998	3Na2S2 (cr, l)
-949001+5 113859+6 193341+2 138231-1 103543+5 118044+3298.15 401.21		Na2S2 (cr, l)
-949001+5 112307+6 195988+2 133213-1 143170+3 117241+3 401. 753.21		Na2S2 (cr, l)
-949001+5 835793+5 298000+2 000000+0-778903-6 107412+3 753. 1500.32		Na2S2 (cr, l)
2 11 2 16	JANAF 1998	2Na2S2 (l)
-908494+5 112311+6 195984+2 133224-1 107903+3 122440+3298.15 500.31		Na2S2 (l)
-908494+5 795291+5 298000+2 000000+0-103542-7 107413+3 500. 1500.32		Na2S2 (l)
1 41	JANAF 1998	5Nb1 (cr)
000000+0 197109+5 577594+1 930329-3-132306+5 244904+2298.15 1402.21		Nb1 (cr)
000000+0 207324+5 258365+1 244392-2 209044+7 248989+2 1402. 2100.21		Nb1 (cr)
000000+0 209995+5-465712+1 472996-2 128512+8 249960+2 2100. 2468.21		Nb1 (cr)
000000+0 211975+5-344255+2 127611-1 734425+8 250652+2 2468. 2897.21		Nb1 (cr)
000000+0 211984+5-584901+2 182929-1 140909+9 250655+2 2897. 3200.21		Nb1 (cr)
1 41	JANAF 1998	7Nb1 (cr, l)
000000+0 194843+5 582934+1 848984-3-160199+5 243783+2298.15 503.21		Nb1 (cr, l)
000000+0 197271+5 575949+1 942188-3-102082+5 244975+2 503. 1408.21		Nb1 (cr, l)
000000+0 207245+5 261494+1 242949-2 207223+7 248961+2 1408. 2072.21		Nb1 (cr, l)
000000+0 209737+5-336375+1 434634-2 106885+8 249871+2 2072. 2442.21		Nb1 (cr, l)
000000+0 211927+5-317396+2 120800-1 672830+8 250639+2 2442. 2750.21		Nb1 (cr, l)
000000+0 268362+5 800000+1 000000+0 960916-5 271293+2 2750. 5131.32		Nb1 (cr, l)
000000+0 268362+5 800000+1 000000+0-551970-3 271293+2 5131. 6000.32		Nb1 (cr, l)
1 41	JANAF 1998	5Nb1 (g)
175200+6 118265+5 810508+1-224706-2-199702+5 570212+2298.15 590.11		Nb1 (g)
175200+6 155748+5 669676+1-646864-3 141620+6 588105+2 590. 1117.11		Nb1 (g)
175200+6 166422+5 510808+1 305289-3 796818+6 592600+2 1117. 1703.11		Nb1 (g)
175200+6 169979+5 263865+1 127430-2 317266+7 593962+2 1703. 3370.11		Nb1 (g)
175200+6 170046+5 643149+1 525676-3-112502+8 593983+2 3370. 6000.11		Nb1 (g)
1 41 1 99	JANAF 1998	5Nb1- (g)
153197+6 369832+4 801976+1-403938-2 920588+4 521049+2298.15 414.11		Nb1- (g)
153197+6 109374+5 646415+1-152992-2 977650+5 557669+2 414. 600.11		Nb1- (g)
153197+6 137882+5 540116+1-316701-3 218387+6 571286+2 600. 852.11		Nb1- (g)
153197+6 142512+5 504520+1-373501-4 304008+6 573348+2 852. 1374.11		Nb1- (g)
153197+6 142780+5 496861+1-136673-6 352069+6 573456+2 1374. 6000.11		Nb1- (g)
1 41	JANAF 1998	4Nb1 (l)
708580+4 196342+5 579862+1 900289-3-145930+5 270443+2298.15 845.31		Nb1 (l)
708580+4 196754+5 582814+1 899036-3-349161+5 270659+2 845. 1374.31		Nb1 (l)
708580+4 206138+5 318733+1 218839-2 160608+7 274437+2 1374. 1750.31		Nb1 (l)
708580+4 197504+5 800000+1 000000+0 144756-5 271292+2 1750. 6000.32		Nb1 (l)
1 41 -1 99	JANAF 1998	5Nb1+ (g)
335314+6 105779+5 819180+1-256973-2-349397+5 555669+2298.15 541.11		Nb1+ (g)
335314+6 180062+5 605794+1 281482-3 138138+6 592089+2 541. 1544.11		Nb1+ (g)
335314+6 180879+5 485427+1 714897-3 141230+7 592369+2 1544. 3421.11		Nb1+ (g)
335314+6 180823+5 256563+1 116072-2 103475+8 592350+2 3421. 4089.11		Nb1+ (g)
335314+6 179088+5-245777+1 198100-2 382580+8 591815+2 4089. 6000.11		Nb1+ (g)
1 41 1 8	JANAF 1998	2Nb1O1 (cr)
-100300+6 369182+5 102770+2 211914-2-962029+5 399170+2298.15 1400.21		Nb1O1 (cr)
-100300+6 369153+5 102800+2 211694-2-961046+5 399158+2 1400. 2800.21		Nb1O1 (cr)
1 41 1 8	JANAF 1998	5Nb1O1 (cr, l)
-100300+6 369375+5 102758+2 212418-2-962570+5 399277+2298.15 592.21		Nb1O1 (cr, l)
-100300+6 373300+5 100614+2 232379-2-625068+5 401066+2 592. 800.21		Nb1O1 (cr, l)
-100300+6 369159+5 102783+2 211786-2-958964+5 399160+2 800. 2011.21		Nb1O1 (cr, l)
-100300+6 368898+5 109542+2 190261-2-107882+7 399066+2 2011. 2210.21		Nb1O1 (cr, l)
-100300+6 566989+5 150000+2 000000+0 593408-5 489212+2 2210. 3000.32		Nb1O1 (cr, l)
1 41 1 8	JANAF 1998	5Nb1O1 (g)
475000+5 291126+5 698472+1 231770-2-283917+5 793206+2298.15 516.11		Nb1O1 (g)
475000+5 239248+5 856714+1 281638-3-169989+6 767904+2 516. 1244.11		Nb1O1 (g)
475000+5 236889+5 861731+1 179714-3-514060+5 766873+2 1244. 2542.11		Nb1O1 (g)
475000+5 236967+5 676263+1 665905-3 394699+7 766900+2 2542. 4790.11		Nb1O1 (g)
475000+5 240531+5 945213+1 291385-3-166006+8 767957+2 4790. 6000.11		Nb1O1 (g)
1 41 1 8	JANAF 1998	4Nb1O1 (l)
-804835+5 368996+5 102821+2 211209-2-964819+5 488013+2298.15 818.31		Nb1O1 (l)
-804835+5 368704+5 103293+2 208377-2-112571+6 487897+2 818. 1122.31		Nb1O1 (l)
-804835+5 369148+5 102885+2 211374-2-103547+6 488090+2 1122. 1500.31		Nb1O1 (l)
-804835+5 368828+5 150000+2 000000+0-563717-6 489214+2 1500. 3000.32		Nb1O1 (l)

1 41 2 8	JANAF 1998				5Nb102 (cr)
-190000+6	653075+5	135573+2	654339-2-157840+6	611283+2298.15	454.21 Nb102 (cr)
-190000+6	728519+5	114707+2	939818-2 511050+4	648426+2 454.	778.21 Nb102 (cr)
-190000+6	736834+5	109914+2	983035-2 916845+5	652228+2 778.	1090.21 Nb102 (cr)
-190000+6	574593+5	222000+2	000000+0 551565-2	585118+2 1090.	1200.22 Nb102 (cr)
-190000+6	532290+5	198499+2	000000+0 115622-5	563584+2 1200.	2800.23 Nb102 (cr)
1 41 2 8	JANAF 1998				5Nb102 (cr, l)
-190000+6	650005+5	136097+2	644412-2-159865+6	609696+2298.15	500.21 Nb102 (cr, l)
-190000+6	733986+5	112338+2	964763-2 336772+5	650976+2 500.	1090.21 Nb102 (cr, l)
-190000+6	574593+5	222000+2	000000+0 551565-2	585115+2 1090.	1200.22 Nb102 (cr, l)
-190000+6	532290+5	198499+2	000000+0-129548-5	563581+2 1200.	2175.23 Nb102 (cr, l)
-190000+6	774154+5	225000+2	000000+0-442448-4	673253+2 2175.	3000.34 Nb102 (cr, l)
1 41 2 8	JANAF 1998				5Nb102 (g)
-478000+5	517591+5	932458+1	599969-2-550971+5	102635+3298.15	411.11 Nb102 (g)
-478000+5	410512+5	116100+2	229593-2-184009+6	972147+2 411.	600.11 Nb102 (g)
-478000+5	368182+5	132050+2	486545-3-367377+6	951947+2 600.	885.11 Nb102 (g)
-478000+5	361425+5	137753+2	574240-4-516601+6	948963+2 885.	1527.11 Nb102 (g)
-478000+5	361123+5	139046+2	888732-6-616892+6	948845+2 1527.	6000.11 Nb102 (g)
1 41 2 8	JANAF 1998				4Nb102 (l)
-169902+6	644586+5	137027+2	626853-2-163513+6	698506+2298.15	472.31 Nb102 (l)
-169902+6	726240+5	115558+2	930100-2-407965+4	738950+2 472.	700.31 Nb102 (l)
-169902+6	736087+5	110511+2	978423-2 774634+5	743507+2 700.	1000.31 Nb102 (l)
-169902+6	573180+5	225000+2	000000+0-849714-6	673257+2 1000.	3000.32 Nb102 (l)
2 41 5 8	JANAF 1998				5Nb205 (cr)
-454000+6	142438+6	316932+2	129920-1-357197+6	139100+3298.15	537.21 Nb205 (cr)
-454000+6	122759+6	381523+2	504365-2-988972+6	129575+3 537.	800.21 Nb205 (cr)
-454000+6	115718+6	426246+2	120173-2-188421+7	126385+3 800.	1133.21 Nb205 (cr)
-454000+6	114407+6	444659+2	738547-4-260747+7	125831+3 1133.	1543.21 Nb205 (cr)
-454000+6	114195+6	453497+2	-315277-3-328195+7	125747+3 1543.	2300.21 Nb205 (cr)
2 41 5 8	JANAF 1998				5Nb205 (cr, l)
-454000+6	140442+6	320788+2	123216-1-373882+6	138086+3298.15	582.21 Nb205 (cr, l)
-454000+6	119003+6	400615+2	320383-2-128038+7	127843+3 582.	922.21 Nb205 (cr, l)
-454000+6	114412+6	443318+2	123664-3-249626+7	125833+3 922.	1785.21 Nb205 (cr, l)
-454000+6	156024+6	579001+2	000000+0-157898-1	146941+3 1785.	1900.32 Nb205 (cr, l)
-454000+6	156024+6	579001+2	000000+0 932599-5	146941+3 1900.	5000.32 Nb205 (cr, l)
2 41 5 8	JANAF 1998				4Nb205 (l)
-437589+6	135163+6	329240+2	106450-1-404476+6	143509+3298.15	462.31 Nb205 (l)
-437589+6	124922+6	371986+2	603529-2-862279+6	138760+3 462.	745.31 Nb205 (l)
-437589+6	115701+6	425756+2	121703-2-185437+7	134546+3 745.	1200.31 Nb205 (l)
-437589+6	139612+6	579001+2	000000+0-854977-6	146938+3 1200.	5000.32 Nb205 (l)
1 10	JANAF 1998				2Ne1 (ref)
000000+0	134227+5	496797+1	000000+0-109373-7	464167+2298.15	3100.11 Ne1 (ref)
000000+0	134227+5	496797+1	000000+0-103710-4	464167+2 3100.	6000.11 Ne1 (ref)
1 10 -1 99	JANAF 1998				5Ne1+ (g)
498797+6	137694+5	577567+1-389465-3	-332245+5 499075+2298.15	538.11	Ne1+ (g)
498797+6	133911+5	573713+1-462411-3	-107110+5 496993+2 538.	902.11	Ne1+ (g)
498797+6	138801+5	530838+1-145168-3	105313+6 499145+2 902.	1367.11	Ne1+ (g)
498797+6	139673+5	506323+1-254476-4	257581+6 499496+2 1367.	2321.11	Ne1+ (g)
498797+6	139685+5	498036+1-160906-5	405949+6 499501+2 2321.	6000.11	Ne1+ (g)
1 28	JANAF 1998				7Ni1 (cr)
000000+0	539143+5	210244+1	107715-1 797424+5	415402+2298.15	376.21 Ni1 (cr)
000000+0	505674+5	152002+1	103046-1 186899+6	394786+2 376.	500.21 Ni1 (cr)
000000+0	289004+6	-786124+2	107596+0 805863+7	154434+3 500.	631.21 Ni1 (cr)
000000+0	162355+6	-770191+2	750786-1 155938+8	889294+2 631.	804.22 Ni1 (cr)
000000+0	249752+5	467851+1	252604-2 490066+6	263371+2 804.	1797.22 Ni1 (cr)
000000+0	199292+5	950862+2	-280678-1-113923+9	245071+2 1797.	2004.22 Ni1 (cr)
000000+0	259494+5	371923+1	320302-2 133806+7	267360+2 2004.	2500.22 Ni1 (cr)
1 28	JANAF 1998				6Ni1 (cr, l)
000000+0	432826+5	356664+1	752703-2 360909+5	359116+2298.15	497.21 Ni1 (cr, l)
000000+0	285037+6	-771265+2	105903+0 789104+7	152542+3 497.	631.21 Ni1 (cr, l)
000000+0	162441+6	-770598+2	751189-1 155999+8	889708+2 631.	801.22 Ni1 (cr, l)
000000+0	245657+5	524616+1	217501-2 279800+6	261649+2 801.	1114.22 Ni1 (cr, l)
000000+0	250429+5	444583+1	263517-2 636849+6	263639+2 1114.	1728.22 Ni1 (cr, l)
000000+0	272373+5	929995+1	000000+0-409378-5	279911+2 1728.	3600.33 Ni1 (cr, l)



1 28				JANAF 1998			5Ni1 (g)
102800+6	196818+5	517905+1	127542-2	202436+4	589328+2298.15	515.11	Ni1 (g)
102800+6	151341+5	655720+1	-504968-3	-120313+6	567133+2	515. 1693.11	Ni1 (g)
102800+6	153059+5	540069+1	-482775-4	978431+6	567792+2	1693. 3053.11	Ni1 (g)
102800+6	153059+5	372534+1	317734-3	617868+7	567792+2	3053. 4508.11	Ni1 (g)
102800+6	149647+5	-252323+0	904874-3	332239+8	566765+2	4508. 6000.11	Ni1 (g)
1 28 1 99				JANAF 1998			5Ni1- (g)
745134+5	194460+5	444076+1	166644-2	753913+4	564959+2298.15	530.11	Ni1- (g)
745134+5	148015+5	591805+1	-186311-3	-131598+6	542405+2	530. 937.11	Ni1- (g)
745134+5	143437+5	603063+1	-364935-3	-834920+5	540278+2	937. 1637.11	Ni1- (g)
745134+5	144620+5	534887+1	-867058-4	522920+6	540735+2	1637. 2682.11	Ni1- (g)
745134+5	144625+5	503338+1	-809800-5	127579+7	540736+2	2682. 6000.11	Ni1- (g)
1 28				JANAF 1998			4Ni1 (l)
417758+4	241717+5	565120+1	199824-2	-778686+2	283615+2298.15	616.31	Ni1 (l)
417758+4	241778+5	564958+1	200052-2	699173+1	283644+2	616. 996.31	Ni1 (l)
417758+4	241810+5	564217+1	200446-2	346034+4	283657+2	996. 1300.31	Ni1 (l)
417758+4	230715+5	929995+1	000000+0	-119011-5	280161+2	1300. 3600.32	Ni1 (l)
1 28 -1 99				JANAF 1998			5Ni1+ (g)
281788+6	-709511+6	118612+3	-229908+0	-185988+7	-309976+3298.15	409.11	Ni1+ (g)
281788+6	946547+5	-267566+2	344878-1	436817+7	103672+3	409. 600.11	Ni1+ (g)
281788+6	210848+5	837845+0	310108-2	121370+7	685496+2	600. 900.11	Ni1+ (g)
281788+6	162912+5	457750+1	184138-3	311027+6	664194+2	900. 1393.11	Ni1+ (g)
281788+6	161681+5	495672+1	363282-5	630815+5	663701+2	1393. 6000.11	Ni1+ (g)
1 28 1 16				JANAF 1998			3Ni1S1 (cr)
-210000+5	435656+5	115975+2	281604-2	-104612+6	464672+2298.15	438.21	Ni1S1 (cr)
-210000+5	470931+5	113041+2	379931-2	-130959+6	483547+2	438. 652.21	Ni1S1 (cr)
-210000+5	545317+5	826976+1	680012-2	113531+3	532779+2	652. 1700.22	Ni1S1 (cr)
1 28 1 16				JANAF 1998			5Ni1S1 (cr, l)
-210000+5	422873+5	118157+2	240252-2	-113072+6	458067+2298.15	434.21	Ni1S1 (cr, l)
-210000+5	471070+5	112991+2	380512-2	-130418+6	483619+2	434. 652.21	Ni1S1 (cr, l)
-210000+5	545310+5	827076+1	679941-2	-135644+3	532781+2	652. 1249.22	Ni1S1 (cr, l)
-210000+5	540858+5	183499+2	000000+0	910759-3	559690+2	1249. 1400.33	Ni1S1 (cr, l)
-210000+5	540858+5	183499+2	000000+0	126293-5	559690+2	1400. 3400.33	Ni1S1 (cr, l)
1 28 1 16				JANAF 1998			5Ni1S1 (g)
854252+5	333298+5	801142+1	265702-2	-510936+5	856615+2298.15	600.11	Ni1S1 (g)
854252+5	258026+5	109612+2	-614519-3	-406367+6	820837+2	600. 1568.11	Ni1S1 (g)
854252+5	260438+5	982702+1	-129780-3	513472+6	821779+2	1568. 2252.11	Ni1S1 (g)
854252+5	260603+5	904680+1	101710-3	182649+7	821838+2	2252. 3348.11	Ni1S1 (g)
854252+5	260617+5	869258+1	181917-3	278696+7	821842+2	3348. 6000.11	Ni1S1 (g)
1 28 1 16				JANAF 1998			4Ni1S1 (l)
-149316+5	422873+5	118157+2	240252-2	-113072+6	504551+2298.15	434.31	Ni1S1 (l)
-149316+5	471070+5	112991+2	380512-2	-130418+6	530103+2	434. 652.31	Ni1S1 (l)
-149316+5	545265+5	827348+1	679702-2	-637716+3	579245+2	652. 860.32	Ni1S1 (l)
-149316+5	480175+5	183499+2	000000+0	-122053-6	559691+2	860. 3400.33	Ni1S1 (l)
1 28 2 16				JANAF 1998			2Ni1S2 (cr)
-314001+5	637110+5	154008+2	496017-2	259350+2	661588+2298.15	1161.21	Ni1S2 (cr)
-314001+5	637113+5	153989+2	496098-2	133434+4	661588+2	1161. 1800.21	Ni1S2 (cr)
1 28 2 16				JANAF 1998			2Ni1S2 (cr, l)
-314001+5	637109+5	154009+2	496009-2	218415+2	661587+2298.15	1280.21	Ni1S2 (cr, l)
-314001+5	721183+5	217500+2	000000+0	224513-4	753351+2	1280. 1800.32	Ni1S2 (cr, l)
1 28 2 16				JANAF 1998			2Ni1S2 (l)
-159101+5	637108+5	154009+2	496007-2	213538+2	782194+2298.15	960.31	Ni1S2 (l)
-159101+5	566283+5	217500+2	000000+0	188291-5	753352+2	960. 1800.32	Ni1S2 (l)
3 28 2 16				JANAF 1998			2Ni3S2 (cr)
-517000+5	124191+6	270674+2	116035-1	-212259+6	124661+3298.15	829.21	Ni3S2 (cr)
-517000+5	128693+6	450801+2	000000+0	-228149-6	138992+3	829. 1600.22	Ni3S2 (cr)
3 28 2 16				JANAF 1998			5Ni3S2 (cr, l)
-517000+5	124264+6	270493+2	116303-1	-211326+6	124697+3298.15	694.21	Ni3S2 (cr, l)
-517000+5	122821+6	278754+2	108826-1	-359268+6	124037+3	694. 829.21	Ni3S2 (cr, l)
-517000+5	128694+6	450801+2	000000+0	575545-4	138992+3	829. 1062.22	Ni3S2 (cr, l)
-517000+5	134886+6	458401+2	000000+0	-459624-5	144226+3	1062. 2563.33	Ni3S2 (cr, l)
-517000+5	134886+6	458401+2	000000+0	-116160-3	144226+3	2563. 3800.33	Ni3S2 (cr, l)

3 28 2 16	JANAF 1998					3Ni3S2 (l)
-343991+5	124255+6	270511+2	116272-1	-211405+6	144301+3298.15	600.31 Ni3S2 (l)
-343991+5	121918+6	281191+2	105390-1	-360839+6	143209+3	600. 760.31 Ni3S2 (l)
-343991+5	117586+6	458401+2	000000+0	-289923-6	144226+3	760. 3800.32 Ni3S2 (l)
3 28 4 16	JANAF 1998					2Ni3S4 (cr)
-719682+5	231749+6	291530+2	343351-1	246244+2	204646+3298.15	600.21 Ni3S4 (cr)
-719682+5	231746+6	291574+2	343323-1	-952374+3	204645+3	600. 1100.21 Ni3S4 (cr)
1 8	JANAF 1998					5O1 (g)
595538+5	132321+5	506555+1	-114348-3	182998+5	499558+2298.15	551.11 O1 (g)
595538+5	135091+5	497238+1	-137342-5	276864+5	500895+2	551. 1931.11 O1 (g)
595538+5	135213+5	479951+1	583232-4	242439+6	500940+2	1931. 2787.11 O1 (g)
595538+5	135214+5	443197+1	146248-3	119391+7	500941+2	2787. 4816.11 O1 (g)
595538+5	135792+5	484956+1	884468-4	-203515+7	501112+2	4816. 6000.11 O1 (g)
1 8 1 99	JANAF 1998					5O1- (g)
243418+5	128849+5	512648+1	-224348-3	111061+5	489781+2298.15	401.11 O1- (g)
243418+5	133621+5	502833+1	-612285-4	163718+5	492206+2	401. 600.11 O1- (g)
243418+5	134871+5	498107+1	-772054-5	218263+5	492803+2	600. 1077.11 O1- (g)
243418+5	134960+5	496901+1	-242619-6	264733+5	492840+2	1077. 3599.11 O1- (g)
243418+5	134961+5	496847+1	-608955-7	249848+5	492840+2	3599. 6000.11 O1- (g)
1 8 -1 99	JANAF 1998					5O1+ (g)
374949+6	134230+5	496763+1	254054-6	299808+2	484799+2298.15	2705.11 O1+ (g)
374949+6	134232+5	481699+1	373797-4	367483+6	484800+2	2705. 3512.11 O1+ (g)
374949+6	134208+5	426135+1	142839-3	265265+7	484792+2	3512. 4257.11 O1+ (g)
374949+6	133755+5	339032+1	279206-3	791737+7	484654+2	4257. 5025.11 O1+ (g)
374949+6	132053+5	246584+1	401797-3	157061+8	484155+2	5025. 6000.11 O1+ (g)
10 8 4 15	JANAF 1998					5O10P4 (cr)
-719392+6	490255+6	272443+2	937891-1	-409591+6	368704+3298.15	400.21 O10P4 (cr)
-719392+6	434324+6	375523+2	752999-1	-875560+6	339971+3	400. 600.21 O10P4 (cr)
-719392+6	379663+6	589531+2	515523-1	-345036+7	313987+3	600. 840.21 O10P4 (cr)
-719392+6	335800+6	893535+2	265074-1	-100567+8	294275+3	840. 1115.21 O10P4 (cr)
-719392+6	304100+6	129578+3	890383-3	-245547+8	280774+3	1115. 1500.21 O10P4 (cr)
10 8 4 15	JANAF 1998					5O10P4 (g)
-694092+6	334104+6	383862+2	522413-1	-785776+6	321921+3298.15	400.11 O10P4 (g)
-694092+6	247058+6	566529+2	222958-1	-179193+7	277780+3	400. 586.11 O10P4 (g)
-694092+6	207454+6	715310+2	538932-2	-349893+7	258873+3	586. 891.11 O10P4 (g)
-694092+6	200139+6	778312+2	690995-3	-517720+7	255649+3	891. 1544.11 O10P4 (g)
-694092+6	199795+6	794112+2	118234-4	-644374+7	255515+3	1544. 6000.11 O10P4 (g)
12 8 4 74	JANAF 1998					5O12W4 (g)
-670200+6	295313+6	767480+2	202762-1	-791144+6	372208+3298.15	405.11 O12W4 (g)
-670200+6	254703+6	852348+2	632426-2	-125636+7	351605+3	405. 600.11 O12W4 (g)
-670200+6	242513+6	897686+2	114185-2	-176914+7	345781+3	600. 900.11 O12W4 (g)
-670200+6	240909+6	911167+2	125602-3	-212025+7	345072+3	900. 1518.11 O12W4 (g)
-670200+6	240842+6	913986+2	190806-5	-233715+7	345046+3	1518. 6000.11 O12W4 (g)
1 8 1 15	JANAF 1998					5O1P1 (g)
-562811+4	298630+5	642541+1	278588-2	297553+5	757461+2298.15	482.11 O1P1 (g)
-562811+4	254954+5	761415+1	114343-2	-624975+5	735905+2	482. 710.11 O1P1 (g)
-562811+4	237351+5	855501+1	262057-3	-221329+6	727793+2	710. 1163.11 O1P1 (g)
-562811+4	235287+5	890550+1	615266-4	-379951+6	726933+2	1163. 4305.11 O1P1 (g)
-562811+4	234783+5	802888+1	197228-3	503959+7	726779+2	4305. 6000.11 O1P1 (g)
1 8 1 82	JANAF 1998					4O1Pb1 (cr)_01
-524400+5	617898+5	894557+1	847553-2	-473397+5	591392+2298.15	400.21 O1Pb1 (cr)_01
-524400+5	414625+5	129813+2	160361-2	-253245+6	487716+2	400. 600.21 O1Pb1 (cr)_01
-524400+5	441457+5	114343+2	300569-2	792890+3	499857+2	600. 820.21 O1Pb1 (cr)_01
-524400+5	441351+5	114377+2	300139-2	927465+3	499807+2	820. 1400.21 O1Pb1 (cr)_01
1 8 1 82	JANAF 1998					2O1Pb1 (cr)_02
-521181+5	426834+5	107970+2	307924-2	-689256+5	492835+2298.15	700.21 O1Pb1 (cr)_02
-521181+5	426663+5	108037+2	307181-2	-696404+5	492754+2	700. 1500.21 O1Pb1 (cr)_02
1 8 1 82	JANAF 1998					5O1Pb1 (cr, l)
-524400+5	489746+5	111339+2	432980-2	-132171+6	525180+2298.15	554.21 O1Pb1 (cr, l)
-524400+5	441498+5	114347+2	300554-2	699085+3	499959+2	554. 762.21 O1Pb1 (cr, l)
-524400+5	430009+5	107923+2	308010-2	-666684+5	492817+2	762. 1159.22 O1Pb1 (cr, l)
-524400+5	460764+5	155354+2	000000+0	206219-3	534065+2	1159. 1301.33 O1Pb1 (cr, l)
-524400+5	460764+5	155354+2	000000+0	207188-5	534065+2	1301. 2500.33 O1Pb1 (cr, l)

1 8 1 82	JANAF 1998	501Pb1 (g)
168000+5 265472+5 806099+1 110767-2-555017+5 786392+2298.15 547.11		01Pb1 (g)
168000+5 240813+5 888950+1 102314-3-138854+6 774484+2 547. 2634.11		01Pb1 (g)
168000+5 240850+5 710259+1 554674-3 399194+7 774497+2 2634. 3441.11		01Pb1 (g)
168000+5 240725+5 268596+1 140959-2 214550+8 774457+2 3441. 4249.11		01Pb1 (g)
168000+5 238161+5-230335+1 219168-2 515369+8 773674+2 4249. 6000.11		01Pb1 (g)
1 8 1 82	JANAF 1998	201Pb1 (l)
-483387+5 419735+5 155358+2-365892-6-702153+2 534045+2298.15 852.31		01Pb1 (l)
-483387+5 419742+5 155354+2 000000+0 878803-2 534048+2 852. 2500.31		01Pb1 (l)
1 8 1 16	JANAF 1998	501S1 (g)
119670+4 295594+5 655557+1 266754-2-126058+5 752921+2298.15 532.11		01S1 (g)
119670+4 241268+5 829436+1 495045-3-177616+6 726557+2 532. 1760.11		01S1 (g)
119670+4 241428+5 870000+1 380178-3-807896+6 726629+2 1760. 2685.11		01S1 (g)
119670+4 241411+5 100528+2 445514-4-406359+7 726623+2 2685. 4864.11		01S1 (g)
119670+4 233646+5 481285+1 762569-3 372790+8 724330+2 4864. 6000.11		01S1 (g)
1 8 2 16	JANAF 1998	501S2 (g)
-135000+5 500532+5 966741+1 541611-2-656975+5 100381+3298.15 400.11		01S2 (g)
-135000+5 410706+5 115547+2 232474-2-169810+6 958261+2 400. 585.11		01S2 (g)
-135000+5 368778+5 131223+2 538489-3-348686+6 938236+2 585. 889.11		01S2 (g)
-135000+5 361381+5 137538+2 657053-4-515597+6 934973+2 889. 1539.11		01S2 (g)
-135000+5 361048+5 139034+2 107926-5-634313+6 934843+2 1539. 6000.11		01S2 (g)
1 8 1 14	JANAF 1998	501Si1 (g)
-240000+5 300355+5 625828+1 294562-2 714719+3 729540+2298.15 516.11		01Si1 (g)
-240000+5 242904+5 801201+1 690176-3-156355+6 701522+2 516. 918.11		01Si1 (g)
-240000+5 233592+5 887422+1 670489-4-400896+6 697444+2 918. 3664.11		01Si1 (g)
-240000+5 233477+5 755983+1 306417-3 547040+7 697407+2 3664. 4733.11		01Si1 (g)
-240000+5 230318+5 498325+1 669167-3 247284+8 696468+2 4733. 6000.11		01Si1 (g)
1 8 1 38	JANAF 1998	301Sr1 (cr)
-141500+6 407418+5 113156+2 235245-2-103465+6 451748+2298.15 600.21		01Sr1 (cr)
-141500+6 390085+5 119638+2 161385-2-177308+6 443471+2 600. 1101.21		01Sr1 (cr)
-141500+6 389310+5 120756+2 154608-2-222328+6 443144+2 1101. 3600.21		01Sr1 (cr)
1 8 1 38	JANAF 1998	501Sr1 (cr,l)
-141500+6 426598+5 109160+2 301302-2-854709+5 461373+2298.15 473.21		01Sr1 (cr,l)
-141500+6 393598+5 117855+2 178653-2-150221+6 445031+2 473. 727.21		01Sr1 (cr,l)
-141500+6 389583+5 120116+2 158032-2-190472+6 443190+2 727. 1243.21		01Sr1 (cr,l)
-141500+6 389282+5 120758+2 154626-2-224232+6 443067+2 1243. 2938.21		01Sr1 (cr,l)
-141500+6 568884+5 160000+2 000000+0 372236-4 504199+2 2938. 5000.32		01Sr1 (cr,l)
1 8 1 38	JANAF 1998	501Sr1 (g)
-320005+4 249667+5 852527+1 480053-3-682637+5 755588+2298.15 1220.11		01Sr1 (g)
-320005+4 290654+5 542192+0 484178-2 389352+7 772506+2 1220. 1854.11		01Sr1 (g)
-320005+4 294911+5 412152+1 406459-2-345689+7 774217+2 1854. 2550.11		01Sr1 (g)
-320005+4 293820+5 327667+2-340751-2-658245+8 773838+2 2550. 4130.11		01Sr1 (g)
-320005+4 286431+5 132644+2-251874-3 445259+8 771564+2 4130. 6000.11		01Sr1 (g)
1 8 1 38	JANAF 1998	501Sr1 (l)
-123636+6 425880+5 109282+2 298980-2-859465+5 521528+2298.15 486.31		01Sr1 (l)
-123636+6 392936+5 118108+2 175802-2-153008+6 505243+2 486. 785.31		01Sr1 (l)
-123636+6 389468+5 120258+2 157110-2-195083+6 503667+2 785. 1446.31		01Sr1 (l)
-123636+6 389281+5 120772+2 154578-2-225891+6 503592+2 1446. 2000.31		01Sr1 (l)
-123636+6 390241+5 160000+2 000000+0 401763-5 504196+2 2000. 5000.32		01Sr1 (l)
1 8 1 73	JANAF 1998	501Tal (g)
460000+5 277422+5 719358+1 189164-2-404040+5 790962+2298.15 792.11		01Tal (g)
460000+5 259733+5 839635+1 891968-3-298228+6 782996+2 792. 1661.11		01Tal (g)
460000+5 258959+5 678265+1 136147-2 200231+7 782633+2 1661. 3361.11		01Tal (g)
460000+5 259048+5 125243+2 222549-3-196160+8 782662+2 3361. 4211.11		01Tal (g)
460000+5 261405+5 175252+2-568678-3-492117+8 783384+2 4211. 6000.11		01Tal (g)
1 8 1 22	JANAF 1998	501Ti1 (cr)_01
-129700+6 460426+5 992220+1 441887-2-150376+6 423197+2298.15 549.21		01Ti1 (cr)_01
-129700+6 455774+5 100306+2 425261-2-155525+6 420880+2 549. 800.21		01Ti1 (cr)_01
-129700+6 454991+5 100461+2 422478-2-151195+6 420504+2 800. 1294.21		01Ti1 (cr)_01
-129700+6 454616+5 100965+2 419288-2-166526+6 420347+2 1294. 2002.21		01Ti1 (cr)_01
-129700+6 454638+5 986857+1 425990-2 209197+6 420354+2 2002. 2500.21		01Ti1 (cr)_01

1 8 1 22	JANAF 1998				501Ti1 (cr)_02	
-128700+6	460433+5	992206+1	441912-2-150370+6	431107+2298.15	549.21	01Ti1 (cr)_02
-128700+6	455812+5	100289+2	425434-2-155315+6	428804+2	549. 800.21	01Ti1 (cr)_02
-128700+6	455200+5	100260+2	423910-2-145647+6	428501+2	800. 1294.21	01Ti1 (cr)_02
-128700+6	454785+5	100140+2	422812-2-101719+6	428319+2	1294. 1900.21	01Ti1 (cr)_02
-128700+6	454647+5	984698+1	426712-2 233651+6	428264+2	1900. 2500.21	01Ti1 (cr)_02
1 8 1 22	JANAF 1998				501Ti1 (cr,l)	
-129700+6	460293+5	992449+1	441457-2-150465+6	423129+2298.15	504.21	01Ti1 (cr,l)
-129700+6	454321+5	101000+2	418346-2-165466+6	420205+2	504. 939.21	01Ti1 (cr,l)
-129700+6	454432+5	101295+2	417460-2-184117+6	420269+2	939. 1265.21	01Ti1 (cr,l)
-129700+6	464620+5	100865+2	419624-2-154948+6	428252+2	1265. 2023.22	01Ti1 (cr,l)
-129700+6	519680+5	160000+2	000000+0 949910-5	460090+2	2023. 4500.33	01Ti1 (cr,l)
1 8 1 22	JANAF 1998				501Ti1 (g)	
130000+5	305485+5	730406+1	244359-2-243177+5	791056+2298.15	509.11	01Ti1 (g)
130000+5	244933+5	910986+1	875012-4-181464+6	761454+2	509. 1983.11	01Ti1 (g)
130000+5	246027+5	726391+1	708652-3 223376+7	761858+2	1983. 3049.11	01Ti1 (g)
130000+5	246029+5	698244+1	821157-3 166148+7	761859+2	3049. 4495.11	01Ti1 (g)
130000+5	250074+5	118072+2	106922-3-309541+8	763076+2	4495. 6000.11	01Ti1 (g)
1 8 1 22	JANAF 1998				401Ti1 (l)	
-118054+6	458960+5	995027+1	436978-2-151582+6	483090+2298.15	586.31	01Ti1 (l)
-118054+6	454019+5	101167+2	416807-2-168130+6	480706+2	586. 906.31	01Ti1 (l)
-118054+6	454173+5	101558+2	415617-2-191387+6	480797+2	906. 1200.31	01Ti1 (l)
-118054+6	403222+5	160000+2	000000+0 611997-6	460094+2	1200. 4500.32	01Ti1 (l)
1 8 1 23	JANAF 1998				301V1 (cr)	
-103200+6	709090+4	177804+2-893494-2-377070+6	241339+2298.15	407.21		01V1 (cr)
-103200+6	458201+5	106299+2	387626-2-563130+5	440202+2	407. 988.21	01V1 (cr)
-103200+6	452914+5	112225+2	348059-2-253166+6	437924+2	988. 2600.21	01V1 (cr)
1 8 1 23	JANAF 1998				501V1 (cr,l)	
-103200+6	941228+4	173847+2-818434-2-361753+6	253336+2298.15	400.21		01V1 (cr,l)
-103200+6	460947+5	105103+2	400176-2-417588+5	441484+2	400. 796.21	01V1 (cr,l)
-103200+6	454108+5	109897+2	360898-2-147461+6	438413+2	796. 1282.21	01V1 (cr,l)
-103200+6	452956+5	112336+2	347924-2-274843+6	437940+2	1282. 2063.21	01V1 (cr,l)
-103200+6	536136+5	150000+2	000000+0 683765-5	482630+2	2063. 3500.32	01V1 (cr,l)
1 8 1 23	JANAF 1998				501V1 (g)	
305000+5	282007+5	711904+1	203609-2-350202+5	769029+2298.15	569.11	01V1 (g)
305000+5	237562+5	871808+1	172756-3-209461+6	747718+2	569. 2035.11	01V1 (g)
305000+5	238392+5	704183+1	722594-3 209855+7	748023+2	2035. 3151.11	01V1 (g)
305000+5	238407+5	719787+1	731614-3 267034+6	748028+2	3151. 4528.11	01V1 (g)
305000+5	241921+5	111569+2	149752-3-268861+8	749084+2	4528. 6000.11	01V1 (g)
1 8 1 23	JANAF 1998				401V1 (l)	
-886475+5	100205+5	172814+2-798788-2-357768+6	328483+2298.15	401.31		01V1 (l)
-886475+5	460759+5	105188+2	399306-2-428901+5	513394+2	401. 778.31	01V1 (l)
-886475+5	454463+5	109536+2	363426-2-137083+6	510564+2	778. 1200.31	01V1 (l)
-886475+5	390609+5	150000+2	000000+0-218684-6	482624+2	1200. 3500.32	01V1 (l)
1 8 1 74	JANAF 1998				501W1 (g)	
101600+6	282114+5	700212+1	210662-2-309220+5	809804+2298.15	578.11	01W1 (g)
101600+6	236241+5	869600+1	162491-3-221408+6	787867+2	578. 2066.11	01W1 (g)
101600+6	237020+5	693829+1	730464-3 227251+7	788152+2	2066. 3248.11	01W1 (g)
101600+6	237061+5	736310+1	683976-3-616184+6	788165+2	3248. 4573.11	01W1 (g)
101600+6	240784+5	112524+2	117865-3-278129+8	789281+2	4573. 6000.11	01W1 (g)
1 8 1 40	JANAF 1998				501Zr1 (g)	
140000+5	301936+5	683053+1	264963-2-221986+5	771834+2298.15	570.11	01Zr1 (g)
140000+5	364624+5	409886+1	550788-2 335992+6	801237+2	570. 1285.11	01Zr1 (g)
140000+5	297409+5	196614+2-254181-2-828123+7	773826+2	1285. 2486.11		01Zr1 (g)
140000+5	298065+5	929239+1	246298-3 129649+8	774056+2	2486. 3843.11	01Zr1 (g)
140000+5	299212+5	947154+1	303449-3 707550+7	774408+2	3843. 6000.11	01Zr1 (g)
2 8 1 99	JANAF 1998				502- (g)	
-116140+5	319946+5	632051+1	335056-2-366455+4	736922+2298.15	419.11	02- (g)
-116140+5	269172+5	743671+1	157735-2-691887+5	711298+2	419. 600.11	02- (g)
-116140+5	243499+5	841884+1	472942-3-184202+6	699065+2	600. 894.11	02- (g)
-116140+5	238659+5	883714+1	161463-3-295969+6	696933+2	894. 1550.11	02- (g)
-116140+5	238442+5	893760+1	118365-3-376841+6	696848+2	1550. 6000.11	02- (g)

2	8								JANAF 1998		502 (ref)
000000+0	287552+5	591052+1	285402-2	230606+5	704908+2298.15	535.11					O2 (ref)
000000+0	252066+5	705357+1	143136-2	-862559+5	687697+2	535.	844.11				O2 (ref)
000000+0	234262+5	816687+1	466201-3	-299034+6	679632+2	844.	2857.11				O2 (ref)
000000+0	234260+5	920170+1	222273-3	-305740+7	679632+2	2857.	4802.11				O2 (ref)
000000+0	229708+5	586096+1	685639-3	226689+8	678283+2	4802.	6000.11				O2 (ref)
3	8	1	74						JANAF 1998		502.72W1 (cr)
-186700+6	142016+6	618038+1	280185-1	158757+6	107209+3298.15	400.21					O2.72W1 (cr)
-186700+6	699011+5	195896+2	411698-2	-457027+6	701933+2	400.	600.21				O2.72W1 (cr)
-186700+6	639667+5	217363+2	162294-2	-691098+6	673503+2	600.	867.21				O2.72W1 (cr)
-186700+6	666184+5	194922+2	330973-2	-103534+6	685208+2	867.	1420.21				O2.72W1 (cr)
-186700+6	661882+5	198770+2	300086-2	478090+4	683415+2	1420.	3000.21				O2.72W1 (cr)
3	8	1	74						JANAF 1998		502.90W1 (cr)
-196000+6	119457+6	113631+2	199352-1	-219348+5	975105+2298.15	400.21					O2.90W1 (cr)
-196000+6	741662+5	201650+2	472385-2	-456718+6	743616+2	400.	600.21				O2.90W1 (cr)
-196000+6	658058+5	232813+2	116639-2	-810163+6	703678+2	600.	867.21				O2.90W1 (cr)
-196000+6	685029+5	213422+2	273693-2	-376145+6	715754+2	867.	1367.21				O2.90W1 (cr)
-196000+6	685989+5	205460+2	305235-2	306080+6	716092+2	1367.	3000.21				O2.90W1 (cr)
3	8	1	74						JANAF 1998		502.96W1 (cr)
-199560+6	597039+5	220303+2	331768-3	-429285+6	672685+2298.15	400.21					O2.96W1 (cr)
-199560+6	756923+5	203453+2	495301-2	-455456+6	758084+2	400.	600.21				O2.96W1 (cr)
-199560+6	689154+5	225784+2	220888-2	-666622+6	725349+2	600.	867.21				O2.96W1 (cr)
-199560+6	695758+5	215927+2	280927-2	-316977+6	728052+2	867.	1325.21				O2.96W1 (cr)
-199560+6	695551+5	208341+2	306999-2	408335+6	727882+2	1325.	3000.21				O2.96W1 (cr)
2	8	-1	99						JANAF 1998		502+ (g)
279849+6	262819+5	600106+1	224101-2	274872+5	693234+2298.15	720.11					O2+ (g)
279849+6	232647+5	765965+1	709560-3	-260716+6	679368+2	720.	1192.11				O2+ (g)
279849+6	226798+5	873258+1	111574-3	-772415+6	676943+2	1192.	2761.11				O2+ (g)
279849+6	226780+5	853868+1	135794-3	195913+6	676937+2	2761.	4566.11				O2+ (g)
279849+6	224000+5	557699+1	567967-3	208023+8	676103+2	4566.	6000.11				O2+ (g)
2	8	1	15						JANAF 1998		502P1 (g)
-751730+5	539674+5	848238+1	700943-2	-601062+5	987936+2298.15	412.11					O2P1 (g)
-751730+5	417980+5	110892+2	279518-2	-207874+6	926354+2	412.	600.11				O2P1 (g)
-751730+5	366961+5	130193+2	610736-3	-430868+6	902018+2	600.	900.11				O2P1 (g)
-751730+5	358534+5	137395+2	717928-4	-621348+6	898301+2	900.	1542.11				O2P1 (g)
-751730+5	358170+5	139030+2	112651-5	-751162+6	898159+2	1542.	6000.11				O2P1 (g)
2	8	1	82						JANAF 1998		502Pb1 (cr)
-655999+5	710362+5	141452+2	747128-2	-155811+6	691365+2298.15	400.21					O2Pb1 (cr)
-655999+5	583460+5	167442+2	313931-2	-294403+6	626847+2	400.	600.21				O2Pb1 (cr)
-655999+5	545129+5	175909+2	178544-2	-306791+6	607816+2	600.	800.21				O2Pb1 (cr)
-655999+5	507798+5	201262+2	-322934-3	-849896+6	591001+2	800.	1000.21				O2Pb1 (cr)
-655999+5	479692+5	232978+2	-243474-2	-190966+7	578898+2	1000.	1200.21				O2Pb1 (cr)
2	8	1	16						JANAF 1998		502S1 (g)
-709469+5	503615+5	808653+1	642791-2	-420260+5	951011+2298.15	494.11					O2S1 (g)
-709469+5	401013+5	109844+2	251655-2	-277689+6	900568+2	494.	701.11				O2S1 (g)
-709469+5	366910+5	127564+2	832028-3	-568152+6	884808+2	701.	1014.11				O2S1 (g)
-709469+5	359309+5	136472+2	247730-3	-874893+6	881545+2	1014.	1702.11				O2S1 (g)
-709469+5	358962+5	138955+2	150849-3	-111671+7	881413+2	1702.	6000.11				O2S1 (g)
2	8	1	14						JANAF 1998		202Si1 (cr)_01
-216417+6	453778+5	173941+2	307699-3	-989658+6	474418+2298.15	1699.21					O2Si1 (cr)_01
-216417+6	453773+5	173905+2	308548-3	-983347+6	474416+2	1699.	3000.21				O2Si1 (cr)_01
2	8	1	14						JANAF 1998		302Si1 (cr)_02
-217100+6	649181+5	108568+2	813964-2	-225769+6	561725+2298.15	563.21					O2Si1 (cr)_02
-217100+6	464899+5	167507+2	770457-3	-778886+6	472330+2	563.	800.21				O2Si1 (cr)_02
-217100+6	482302+5	155928+2	174288-2	-535728+6	480184+2	800.	1000.21				O2Si1 (cr)_02
2	8	1	14						JANAF 1998		302Si1 (cr)_03
-217700+6	676203+5	108363+2	877434-2	-249007+6	572485+2298.15	673.21					O2Si1 (cr)_03
-217700+6	929789+5	-272241+1	214793-1	201936+7	689260+2	673.	847.21				O2Si1 (cr)_03
-217700+6	486045+5	140793+2	240029-2	387780+3	480081+2	847.	2000.22				O2Si1 (cr)_03
2	8	1	14						JANAF 1998		502Si1 (cr,l)
-217700+6	707686+5	102319+2	982978-2	-222997+6	588497+2298.15	572.21					O2Si1 (cr,l)
-217700+6	831166+5	350250+1	161103-1	803363+6	644581+2	572.	847.21				O2Si1 (cr,l)
-217700+6	486045+5	140804+2	239968-2	-366842+2	480069+2	847.	1696.22				O2Si1 (cr,l)
-217700+6	514632+5	205000+2	-346324-9	-924790+0	496211+2	1696.	1800.33				O2Si1 (cr,l)
-217700+6	514632+5	205000+2	000000+0	-444856-5	496211+2	1800.	4500.33				O2Si1 (cr,l)

2	8	1	14	JANAF 1998	402Si1 (g)			
-730000+5	515866+5	960353+1	580376-2-727190+5	921487+2298.15	488.11	O2Si1 (g)		
-730000+5	410925+5	125326+2	182078-2-307370+6	869830+2	488.	778.11	O2Si1 (g)	
-730000+5	382133+5	143868+2	238791-3-684751+6	856797+2	778.	1397.11	O2Si1 (g)	
-730000+5	380537+5	148825+2	341154-5-101037+7	856159+2	1397.	6000.11	O2Si1 (g)	
2	8	1	14	JANAF 1998	502Si1 (l)			
-215741+6	640583+5	108469+2	796003-2-236626+6	566871+2298.15	497.31	O2Si1 (l)		
-215741+6	504428+5	147321+2	274975-2-556662+6	500004+2	497.	798.31	O2Si1 (l)	
-215741+6	469709+5	170832+2	791838-3-105895+7	484361+2	798.	1500.31	O2Si1 (l)	
-215741+6	636117+5	-156025+2	190830-1	107513+8	551852+2	1500.	1696.31	O2Si1 (l)
-215741+6	495057+5	205000+2	000000+0	796266-5	496201+2	1696.	4500.31	O2Si1 (l)
2	8	1	73	JANAF 1998	502Tal (g)			
-480000+5	494255+5	975041+1	522823-2-706033+5	103213+3298.15	448.11	O2Tal (g)		
-480000+5	387972+5	123344+2	138848-2-243976+6	979051+2	448.	700.11	O2Tal (g)	
-480000+5	362232+5	136641+2	120572-3-460623+6	967150+2	700.	2058.11	O2Tal (g)	
-480000+5	362763+5	124887+2	501409-3	119833+7	967344+2	2058.	4251.11	O2Tal (g)
-480000+5	364157+5	151936+2	775123-4-151196+8	967770+2	4251.	6000.11	O2Tal (g)	
2	8	1	22	JANAF 1998	502Ti1 (cr)_01			
-224360+6	577489+5	157842+2	360963-2-324658+6	563149+2298.15	479.21	O2Ti1 (cr)_01		
-224360+6	495665+5	179911+2	542819-3-493955+6	522728+2	479.	805.21	O2Ti1 (cr)_01	
-224360+6	486471+5	186017+2	295585-4-621888+6	518578+2	805.	1100.21	O2Ti1 (cr)_01	
-224360+6	487638+5	184825+2	112686-3-588268+6	519082+2	1100.	1500.21	O2Ti1 (cr)_01	
-224360+6	486771+5	187447+2	-132274-4-753355+6	518735+2	1500.	2000.21	O2Ti1 (cr)_01	
2	8	1	22	JANAF 1998	502Ti1 (cr)_02			
-225800+6	562549+5	155619+2	339438-2-302858+6	554334+2298.15	573.21	O2Ti1 (cr)_02		
-225800+6	507609+5	169873+2	135695-2-387568+6	527240+2	573.	801.21	O2Ti1 (cr)_02	
-225800+6	493089+5	178101+2	607903-3-530498+6	520599+2	801.	1100.21	O2Ti1 (cr)_02	
-225800+6	495151+5	174528+2	811204-3-368777+6	521455+2	1100.	1321.21	O2Ti1 (cr)_02	
-225800+6	492123+5	179514+2	520232-3-568159+6	520199+2	1321.	2500.21	O2Ti1 (cr)_02	
2	8	1	22	JANAF 1998	502Ti1 (cr,l)			
-225800+6	536540+5	161437+2	247620-2-329978+6	541448+2298.15	600.21	O2Ti1 (cr,l)		
-225800+6	493740+5	177477+2	650902-3-513148+6	521014+2	600.	1297.21	O2Ti1 (cr,l)	
-225800+6	491990+5	180324+2	484375-3-628713+6	520286+2	1297.	1800.21	O2Ti1 (cr,l)	
-225800+6	492381+5	177439+2	596504-3-348100+6	520435+2	1800.	2130.21	O2Ti1 (cr,l)	
-225800+6	693972+5	240000+2	000000+0	319856-4	611982+2	2130.	4000.32	O2Ti1 (cr,l)
2	8	1	22	JANAF 1998	502Ti1 (g)			
-730000+5	489103+5	981609+1	507178-2-691696+5	981318+2298.15	462.11	O2Ti1 (g)		
-730000+5	380229+5	126002+2	106837-2-268636+6	927234+2	462.	769.11	O2Ti1 (g)	
-730000+5	361494+5	137802+2	506152-4-503636+6	918736+2	769.	2709.11	O2Ti1 (g)	
-730000+5	361510+5	121764+2	445458-3	341666+7	918741+2	2709.	4042.11	O2Ti1 (g)
-730000+5	362012+5	117363+2	549891-3	371106+7	918892+2	4042.	6000.11	O2Ti1 (g)
2	8	1	22	JANAF 1998	502Ti1 (l)			
-213684+6	581453+5	152086+2	402280-2-287990+6	616693+2298.15	475.31	O2Ti1 (l)		
-213684+6	503388+5	172695+2	111944-2-441809+6	578042+2	475.	702.31	O2Ti1 (l)	
-213684+6	492955+5	178216+2	599528-3-534035+6	573229+2	702.	1155.31	O2Ti1 (l)	
-213684+6	491989+5	180682+2	474617-3-670498+6	572842+2	1155.	1400.31	O2Ti1 (l)	
-213684+6	572746+5	240000+2	000000+0-878981-6	611795+2	1400.	4000.32	O2Ti1 (l)	
2	8	1	23	JANAF 1998	502V1 (g)			
-555999+5	517591+5	932458+1	599969-2-550971+5	100806+3298.15	411.11	O2V1 (g)		
-555999+5	410512+5	116100+2	229593-2-184009+6	953858+2	411.	600.11	O2V1 (g)	
-555999+5	368182+5	132050+2	486545-3-367377+6	933658+2	600.	885.11	O2V1 (g)	
-555999+5	361425+5	137753+2	574240-4-516601+6	930675+2	885.	1527.11	O2V1 (g)	
-555999+5	361123+5	139046+2	888732-6-616892+6	930556+2	1527.	6000.11	O2V1 (g)	
2	8	1	74	JANAF 1998	502W1 (cr)			
-140940+6	597467+5	152034+2	438271-2-284019+6	574372+2298.15	587.21	O2W1 (cr)		
-140940+6	528632+5	178306+2	142448-2-590943+6	541566+2	587.	1292.21	O2W1 (cr)	
-140940+6	586506+5	974329+1	645269-2	206462+7	565798+2	1292.	1543.21	O2W1 (cr)
-140940+6	580076+5	231580+2	174569-2-125820+8	563787+2	1543.	1932.21	O2W1 (cr)	
-140940+6	581174+5	171376+2	358405-2-336720+7	564152+2	1932.	3000.21	O2W1 (cr)	
2	8	1	74	JANAF 1998	502W1 (g)			
183000+5	484792+5	982673+1	497232-2-746884+5	103916+3298.15	475.11	O2W1 (g)		
183000+5	375723+5	127444+2	896458-3-296170+6	985233+2	475.	827.11	O2W1 (g)	
183000+5	360920+5	138322+2	248136-4-547159+6	978614+2	827.	3297.11	O2W1 (g)	
183000+5	360910+5	127117+2	251693-3	350164+7	978611+2	3297.	4362.11	O2W1 (g)
183000+5	359844+5	110555+2	504819-3	140059+8	978287+2	4362.	6000.11	O2W1 (g)

2	8	1	40	JANAF	1998				502Zr1 (cr)
-262300+6	153862+6	-793325+0	347815-1	342524+6	106086+3298.15	400.21			O2Zr1 (cr)
-262300+6	519656+5	166336+2	180926-2	-335564+6	533909+2	400.	600.21		O2Zr1 (cr)
-262300+6	519793+5	166179+2	182016-2	-332247+6	533961+2	600.	802.21		O2Zr1 (cr)
-262300+6	519406+5	166397+2	180021-2	-336027+6	533784+2	802.	1478.21		O2Zr1 (cr)
-262300+6	491072+5	178000+2	000000+0	370810-5	524788+2	1478.	3500.22		O2Zr1 (cr)
2	8	1	40	JANAF	1998				502Zr1 (cr,l)
-262300+6	153863+6	-793482+0	347818-1	342529+6	106087+3298.15	400.21			O2Zr1 (cr,l)
-262300+6	519386+5	166405+2	179936-2	-336025+6	533775+2	400.	1128.21		O2Zr1 (cr,l)
-262300+6	519265+5	166724+2	178327-2	-353544+6	533727+2	1128.	1478.21		O2Zr1 (cr,l)
-262300+6	491073+5	178000+2	000000+0	246585-5	524789+2	1478.	2950.22		O2Zr1 (cr,l)
-262300+6	700672+5	210000+2	000000+0	-593746-4	595836+2	2950.	5000.33		O2Zr1 (cr,l)
2	8	1	40	JANAF	1998				502Zr1 (g)
-684001+5	499043+5	101419+2	508963-2	-578631+5	102245+3298.15	406.11			O2Zr1 (g)
-684001+5	402192+5	121803+2	175470-2	-170669+6	973353+2	406.	602.11		O2Zr1 (g)
-684001+5	368951+5	134203+2	339779-3	-311357+6	957476+2	602.	900.11		O2Zr1 (g)
-684001+5	364181+5	138234+2	365782-4	-416897+6	955370+2	900.	1560.11		O2Zr1 (g)
-684001+5	363996+5	139070+2	505421-6	-483317+6	955297+2	1560.	6000.11		O2Zr1 (g)
2	8	1	40	JANAF	1998				302Zr1 (l)
-244540+6	519752+5	166286+2	180799-2	-333809+6	592609+2298.15	1478.31			O2Zr1 (l)
-244540+6	491316+5	178000+2	000000+0	-342392-4	583570+2	1478.	2000.32		O2Zr1 (l)
-244540+6	523316+5	210000+2	000000+0	-279837-5	596546+2	2000.	5000.33		O2Zr1 (l)
3	8			JANAF	1998				503 (g)
340999+5	517367+5	830637+1	662932-2	-804918+5	937206+2298.15	485.11			O3 (g)
340999+5	394053+5	116886+2	197900-2	-345543+6	876395+2	485.	706.11		O3 (g)
340999+5	366081+5	131186+2	607891-3	-575843+6	863449+2	706.	1000.11		O3 (g)
340999+5	360565+5	137209+2	201497-3	-771738+6	861067+2	1000.	1606.11		O3 (g)
340999+5	360240+5	139003+2	127549-3	-928133+6	860941+2	1606.	6000.11		O3 (g)
3	8	1	82	1	14	JANAF	1998		503Pb1Si1 (cr)
-273660+6	120270+6	206730+2	146696-1	-313527+6	111891+3298.15	515.21			O3Pb1Si1 (cr)
-273660+6	883048+5	303845+2	214341-2	-117829+7	962951+2	515.	823.21		O3Pb1Si1 (cr)
-273660+6	849050+5	319862+2	527498-3	-136238+7	947233+2	823.	1100.21		O3Pb1Si1 (cr)
-273660+6	853302+5	315210+2	842290-3	-121854+7	949061+2	1100.	1428.21		O3Pb1Si1 (cr)
-273660+6	850388+5	334947+2	474111-4	-292868+7	947975+2	1428.	2000.21		O3Pb1Si1 (cr)
3	8	1	16	JANAF	1998				503S1 (g)
-945901+5	782236+5	966930+1	117573-1	-948777+5	114905+3298.15	423.11			O3S1 (g)
-945901+5	624325+5	131978+2	621281-2	-306582+6	106950+3	423.	600.11		O3S1 (g)
-945901+5	522804+5	171515+2	181223-2	-779379+6	102121+3	600.	902.11		O3S1 (g)
-945901+5	498767+5	192730+2	246922-3	-135675+7	101064+3	902.	1560.11		O3S1 (g)
-945901+5	497579+5	198433+2	440967-5	-182393+7	101018+3	1560.	6000.11		O3S1 (g)
3	8	2	22	JANAF	1998				203Ti2 (cr)
-363500+6	444458+6	-258598+2	114553+0	130089+7	275510+3298.15470.0121				O3Ti2 (cr)
-363500+6	958703+5	352959+2	829518-3	-114455+7	963287+2470.01	3000.22			O3Ti2 (cr)
3	8	2	22	JANAF	1998				503Ti2 (cr,l)
-363500+6	444458+6	-258598+2	114553+0	130089+7	275510+3298.15470.0121				O3Ti2 (cr,l)
-363500+6	970985+5	348648+2	134006-2	-110119+7	969170+2470.01	630.22			O3Ti2 (cr,l)
-363500+6	958769+5	352885+2	834804-3	-114305+7	963305+2	630.	1800.22		O3Ti2 (cr,l)
-363500+6	959168+5	345445+2	108543-2	-194160+6	963449+2	1800.	2115.22		O3Ti2 (cr,l)
-363500+6	121103+6	375000+2	000000+0	-341901-4	108249+3	2115.	3500.33		O3Ti2 (cr,l)
3	8	2	22	JANAF	1998				503Ti2 (l)
-339020+6	958494+5	352356+2	919233-3	-114134+7	107862+3298.15	500.31			O3Ti2 (l)
-339020+6	956572+5	352699+2	855992-3	-114200+7	107764+3	500.	955.31		O3Ti2 (l)
-339020+6	959187+5	348713+2	109475-2	-986460+6	107873+3	955.	1200.31		O3Ti2 (l)
-339020+6	953475+5	358379+2	540869-3	-142122+7	107635+3	1200.	1400.31		O3Ti2 (l)
-339020+6	966445+5	375000+2	000000+0	-500060-5	108320+3	1400.	3500.32		O3Ti2 (l)
3	8	2	23	JANAF	1998				503V2 (cr)
-291300+6	916612+5	305925+2	239622-2	-553366+6	974620+2298.15	548.21			O3V2 (cr)
-291300+6	979827+5	276613+2	536765-2	-162110+6	100394+3	548.	801.21		O3V2 (cr)
-291300+6	101473+6	252882+2	734000-2	346800+6	101966+3	801.	1100.21		O3V2 (cr)
-291300+6	102401+6	239518+2	815070-2	884875+6	102358+3	1100.	1603.21		O3V2 (cr)
-291300+6	102520+6	233098+2	841664-2	143915+7	102404+3	1603.	2800.21		O3V2 (cr)

3 8 2 23	JANAF 1998				503V2 (cr, l)	
-291300+6	916855+5	305879+2	240430-2-553172+6	974744+2298.15	554.21	O3V2 (cr, l)
-291300+6	987362+5	272888+2	573173-2-106387+6	100743+3	554. 860.21	O3V2 (cr, l)
-291300+6	102006+6	247000+2	773620-2 533297+6	102195+3	860. 1292.21	O3V2 (cr, l)
-291300+6	102509+6	235143+2	834635-2 119662+7	102401+3	1292. 2340.21	O3V2 (cr, l)
-291300+6	124919+6	375000+2	000000+0-227660-4	112290+3	2340. 4000.22	O3V2 (cr, l)
3 8 2 23	JANAF 1998				503V2 (l)	
-261246+6	916798+5	305888+2	240250-2-553193+6	110422+3298.15	557.31	O3V2 (l)
-261246+6	990539+5	271242+2	588877-2-807668+5	113840+3	557. 900.31	O3V2 (l)
-261246+6	102133+6	245146+2	784878-2 604154+6	115199+3	900. 1400.31	O3V2 (l)
-261246+6	122779+6-518057+2	425091-1	550839+8	123360+3	1400. 1600.31	O3V2 (l)
-261246+6	948613+5	375000+2	000000+0-779875-5	112287+3	1600. 4000.32	O3V2 (l)
3 8 1 74	JANAF 1998				503W1 (cr)	
-201460+6	912770+5	168793+2	104015-1-222684+6	839769+2298.15	490.21	O3W1 (cr)
-201460+6	690642+5	230348+2	199299-2-711380+6	730347+2	490. 761.21	O3W1 (cr)
-201460+6	724919+5	199904+2	424671-2 584832+5	745265+2	761. 1050.21	O3W1 (cr)
-201460+6	702976+5	191913+2	399156-2 861428+5	735387+2	1050. 2012.22	O3W1 (cr)
-201460+6	703127+5	192765+2	398046-2-168672+6	735445+2	2012. 3000.22	O3W1 (cr)
3 8 1 74	JANAF 1998				503W1 (cr, l)	
-201460+6	912934+5	168765+2	104068-1-222574+6	839853+2298.15	487.21	O3W1 (cr, l)
-201460+6	690986+5	230220+2	200764-2-709996+6	730511+2	487. 760.21	O3W1 (cr, l)
-201460+6	724773+5	200046+2	423663-2 543761+5	745202+2	760. 1050.21	O3W1 (cr, l)
-201460+6	702492+5	193294+2	392305-2 958741+4	735197+2	1050. 1745.22	O3W1 (cr, l)
-201460+6	913900+5	315000+2	000000+0-412671-4	852473+2	1745. 3000.33	O3W1 (cr, l)
3 8 1 74	JANAF 1998				503W1 (g)	
-700000+5	720480+5	137508+2	792430-2-136314+6	120833+3298.15	411.11	O3W1 (g)
-700000+5	581899+5	167109+2	312968-2-303465+6	113818+3	411. 600.11	O3W1 (g)
-700000+5	524840+5	188698+2	686494-3-552923+6	111097+3	600. 890.11	O3W1 (g)
-700000+5	515387+5	196770+2	822377-4-766360+6	110680+3	890. 1536.11	O3W1 (g)
-700000+5	514964+5	198634+2	132132-5-919291+6	110663+3	1536. 6000.11	O3W1 (g)
3 8 1 74	JANAF 1998				403W1 (l)	
-188555+6	912621+5	168816+2	103968-1-222755+6	905648+2298.15	492.31	O3W1 (l)
-188555+6	690712+5	230323+2	199593-2-711109+6	796336+2	492. 765.31	O3W1 (l)
-188555+6	729957+5	195696+2	456529-2 165026+6	813443+2	765. 1000.31	O3W1 (l)
-188555+6	784852+5	315000+2	000000+0 770178-6	852472+2	1000. 3000.32	O3W1 (l)
4 8 2 82	JANAF 1998				504Pb2Si1 (cr)	
-329320+6	171528+6	301080+2	204496-1-309158+6	167696+3298.15	566.21	O4Pb2Si1 (cr)
-329320+6	119522+6	486160+2-125562-2-230270+7	142732+3	566. 900.21		O4Pb2Si1 (cr)
-329320+6	121940+6	480359+2-328377-3-250876+7	143865+3	900. 1215.21		O4Pb2Si1 (cr)
-329320+6	124976+6	461061+2	143534-2-282335+7	145180+3	1215. 1756.21	O4Pb2Si1 (cr)
-329320+6	125733+6	408184+2	350962-2 224986+7	145469+3	1756. 2000.21	O4Pb2Si1 (cr)
4 8 3 82	JANAF 1998				504Pb3 (cr)	
-171770+6	163183+6	400564+2	127461-1-607247+6	174197+3298.15	554.21	O4Pb3 (cr)
-171770+6	151012+6	396079+2	999317-2-151430+4	167659+3	554. 900.21	O4Pb3 (cr)
-171770+6	151022+6	396020+2	999865-2-778765+3	167664+3	900. 1100.21	O4Pb3 (cr)
-171770+6	151024+6	395999+2	100000-1-573807-4	167665+3	1100. 1300.21	O4Pb3 (cr)
-171770+6	151024+6	395999+2	100000-1-822941-4	167665+3	1300. 1500.21	O4Pb3 (cr)
4 8 1 16 1 30	JANAF 1998				404S1Zn1 (cr)	
-234260+6	189252+6	152293+2	333308-1-133066+6	150894+3298.15	400.21	O4S1Zn1 (cr)
-234260+6	176361+6	183912+2	286555-1-339762+6	144475+3	400. 540.21	O4S1Zn1 (cr)
-234260+6	968118+5	311373+2	278502-2 163924+5	105504+3	540. 1013.22	O4S1Zn1 (cr)
-234260+6	976366+5	347000+2	000000+0 307816-5	108629+3	1013. 2000.23	O4S1Zn1 (cr)
4 8 1 14 1 40	JANAF 1998				504Si1Zr1 (cr)	
-483736+6	725239+5	342391+2-391338-2-843778+6	838604+2298.15	423.21		O4Si1Zr1 (cr)
-483736+6	101022+6	335398+2	314492-2-125287+7	995593+2	423. 800.21	O4Si1Zr1 (cr)
-483736+6	960528+5	363419+2	587487-3-173681+7	972854+2	800. 1156.21	O4Si1Zr1 (cr)
-483736+6	938720+5	377065+2-650688-3-164763+7	963320+2	1156. 1506.21		O4Si1Zr1 (cr)
-483736+6	940576+5	359995+2	133515-6 815467+3	963998+2	1506. 3000.21	O4Si1Zr1 (cr)
4 8 2 23	JANAF 1998				404V2 (cr)	
-341100+6	164459+6	253437+2	217994-1-378883+6	140045+3298.15	340.21	O4V2 (cr)
-341100+6	112823+6	347839+2	420404-2-660491+6	118917+3	340. 704.22	O4V2 (cr)
-341100+6	113336+6	347402+2	435620-2-691933+6	119173+3	704. 1700.22	O4V2 (cr)
-341100+6	113332+6	356160+2	408076-2-186980+7	119174+3	1700. 2200.22	O4V2 (cr)



4	8	2	23	JANAF 1998	504V2 (cr, l)		
-341100+6	164459+6	253437+2	217994-1-378883+6	140045+3298.15	340.21	04V2 (cr, l)	
-341100+6	112768+6	347973+2	418406-2-661290+6	118890+3	340. 700.22	04V2 (cr, l)	
-341100+6	113368+6	347044+2	438105-2-683343+6	119186+3	700. 1619.22	04V2 (cr, l)	
-341100+6	114411+6	272749+2	728916-2	644963+7	119584+3	1619. 1818.22	04V2 (cr, l)
-341100+6	147086+6	510000+2	000000+0-757163-5	136968+3	1818. 3000.33	04V2 (cr, l)	
4	8	2	23	JANAF 1998	504V2 (l)		
-318392+6	990054+5	366068+2	507940-3-716322+6	123361+3298.15	420.31	04V2 (l)	
-318392+6	109472+6	352598+2	366647-2-712732+6	128871+3	420. 700.31	04V2 (l)	
-318392+6	110924+6	349886+2	416404-2-750506+6	129585+3	700. 1000.31	04V2 (l)	
-318392+6	110626+6	356355+2	381584-2-104917+7	129466+3	1000. 1200.31	04V2 (l)	
-318392+6	124383+6	510000+2	000000+0	326594-5	136982+3	1200. 3000.32	04V2 (l)
5	8	2	73	JANAF 1998	505Ta2 (cr)		
-489000+6	151541+6	308527+2	154954-1-284257+6	145720+3298.15	572.21	05Ta2 (cr)	
-489000+6	128435+6	387709+2	599898-2-109774+7	134587+3	572. 1000.21	05Ta2 (cr)	
-489000+6	124404+6	396982+2	441857-2-444557+6	132735+3	1000. 1300.21	05Ta2 (cr)	
-489000+6	121940+6	446686+2	172988-2-293745+7	131722+3	1300. 1985.21	05Ta2 (cr)	
-489000+6	121896+6	451636+2	155187-2-349582+7	131706+3	1985. 2800.21	05Ta2 (cr)	
5	8	2	73	JANAF 1998	505Ta2 (cr, l)		
-489000+6	151980+6	307641+2	156448-1-280294+6	145941+3298.15	553.21	05Ta2 (cr, l)	
-489000+6	128120+6	389195+2	584969-2-111780+7	134441+3	553. 978.21	05Ta2 (cr, l)	
-489000+6	122047+6	439493+2	202144-2-234762+7	131763+3	978. 2058.21	05Ta2 (cr, l)	
-489000+6	159525+6	580000+2	000000+0	247370-1	149247+3	2058. 2200.32	05Ta2 (cr, l)
-489000+6	159525+6	580000+2	000000+0	503541-4	149247+3	2200. 5000.32	05Ta2 (cr, l)
5	8	2	73	JANAF 1998	505Ta2 (l)		
-467775+6	151829+6	307929+2	155944-1-281523+6	155410+3298.15	554.31	05Ta2 (l)	
-467775+6	127869+6	390458+2	572724-2-113676+7	143870+3	554. 900.31	05Ta2 (l)	
-467775+6	111322+6	560888+2	-606415-2-634560+7	136701+3	900. 1100.31	05Ta2 (l)	
-467775+6	122201+6	439427+2	208451-2-249478+7	141375+3	1100. 1400.31	05Ta2 (l)	
-467775+6	138305+6	580000+2	000000+0	391203-5	149251+3	1400. 5000.32	05Ta2 (l)
5	8	3	22	JANAF 1998	505Ti3 (cr)_01		
-587750+6	117155+6	555267+2	-637409-2-147955+7	133657+3298.15	541.21	05Ti3 (cr)_01	
-587750+6	146105+6	488911+2	391440-2-116653+7	148107+3	541. 800.21	05Ti3 (cr)_01	
-587750+6	141445+6	527730+2	970588-3-214371+7	146052+3	800. 1000.21	05Ti3 (cr)_01	
-587750+6	143591+6	520696+2	189590-2-236557+7	147032+3	1000. 1200.21	05Ti3 (cr)_01	
-587750+6	144035+6	523109+2	195887-2-282184+7	147233+3	1200. 1500.21	05Ti3 (cr)_01	
5	8	3	22	JANAF 1998	205Ti3 (cr)_02		
-584653+6	156137+6	380001+2	119999-1-458139+1	157827+3298.15	1400.21	05Ti3 (cr)_02	
-584653+6	156137+6	380005+2	119998-1-537138+3	157827+3	1400. 2500.21	05Ti3 (cr)_02	
5	8	3	22	JANAF 1998	505Ti3 (cr, l)		
-587750+6	128786+6	534379+2	-255454-2-139475+7	139626+3298.15	450.21	05Ti3 (cr, l)	
-587750+6	159246+6	380000+2	120000-1	241547+2	157864+3	450. 995.22	05Ti3 (cr, l)
-587750+6	159246+6	380004+2	119998-1-219378+3	157864+3	995. 2050.22	05Ti3 (cr, l)	
-587750+6	196161+6	640000+2	000000+0	457106-3	176364+3	2050. 2257.33	05Ti3 (cr, l)
-587750+6	196161+6	640000+2	000000+0	103061-3	176364+3	2257. 4000.33	05Ti3 (cr, l)
5	8	3	22	JANAF 1998	205Ti3 (l)		
-547098+6	156137+6	380000+2	120000-1-287450+1	175711+3298.15	1400.31	05Ti3 (l)	
-547098+6	155497+6	640000+2	000000+0	413172-5	176327+3	1400. 4000.32	05Ti3 (l)
5	8	2	23	JANAF 1998	505V2 (cr)		
-370600+6	128550+6	392812+2	561977-2-867587+6	132245+3298.15	624.21	05V2 (cr)	
-370600+6	128882+6	387867+2	593547-2-751727+6	132361+3	624. 900.21	05V2 (cr)	
-370600+6	129926+6	368256+2	704864-2	252047+5	132774+3	900. 1100.21	05V2 (cr)
-370600+6	129866+6	368952+2	700270-2	216708+4	132749+3	1100. 1300.21	05V2 (cr)
-370600+6	129864+6	368994+2	700048-2	604370-3	132748+3	1300. 1500.21	05V2 (cr)
5	8	2	23	JANAF 1998	505V2 (cr, l)		
-370600+6	214090+6	245734+2	333478-1-293540+6	176402+3298.15	400.21	05V2 (cr, l)	
-370600+6	123384+6	407935+2	362443-2-986461+6	129677+3	400. 600.21	05V2 (cr, l)	
-370600+6	128290+6	391801+2	560963-2-834434+6	132047+3	600. 800.21	05V2 (cr, l)	
-370600+6	122438+6	437195+2	205881-2-192162+7	129446+3	800. 943.21	05V2 (cr, l)	
-370600+6	134774+6	455999+2	000000+0	402802-6	144713+3	943. 3000.32	05V2 (cr, l)
5	8	2	23	JANAF 1998	205V2 (l)		
-356408+6	128597+6	392717+2	563576-2-867162+6	146946+3298.15	600.31	05V2 (l)	
-356408+6	120595+6	455999+2	000000+0-991100-7	144761+3	600. 3000.32	05V2 (l)	

6 8 4 15	JANAF 1998				506P4 (g)			
-529232+6	221882+6	339556+2	297154-1-748101+6	237100+3298.15	400.11	06P4 (g)		
-529232+6	166629+6	453256+2	108257-1-135836+7	209023+3	400.	555.11	06P4 (g)	
-529232+6	146926+6	520034+2	276463-2-203722+7	199518+3	555.	800.11	06P4 (g)	
-529232+6	142605+6	549465+2	320467-3-266940+7	197572+3	800.	1447.11	06P4 (g)	
-529232+6	142393+6	556163+2	396466-5-311294+7	197487+3	1447.	6000.11	06P4 (g)	
6 8 2 74	JANAF 1998				406W2 (g)			
-278200+6	132055+6	396617+2	586980-2-416522+6	204414+3298.15	402.11	06W2 (g)		
-278200+6	119160+6	423225+2	145754-2-559866+6	197864+3	402.	600.11	06W2 (g)	
-278200+6	116091+6	434898+2	140412-3-695620+6	196400+3	600.	1061.11	06W2 (g)	
-278200+6	115923+6	437128+2	919879-6-780061+6	196329+3	1061.	6000.11	06W2 (g)	
7 8 4 22	JANAF 1998				507Ti4 (cr)			
-813700+6	242985+6	552765+2	217349-1-106095+7	227937+3298.15	474.21	07Ti4 (cr)		
-813700+6	202062+6	661157+2	649693-2-187346+7	207683+3	474.	742.21	07Ti4 (cr)	
-813700+6	197407+6	685034+2	421021-2-225389+7	205530+3	742.	1000.21	07Ti4 (cr)	
-813700+6	196525+6	694848+2	355290-2-257798+7	205150+3	1000.	1501.21	07Ti4 (cr)	
-813700+6	196407+6	698593+2	337554-2-282192+7	205103+3	1501.	2400.21	07Ti4 (cr)	
7 8 4 22	JANAF 1998				507Ti4 (cr, l)			
-813700+6	241839+6	554723+2	213642-1-106854+7	227345+3298.15	483.21	07Ti4 (cr, l)		
-813700+6	200224+6	668180+2	570492-2-195091+7	206810+3	483.	819.21	07Ti4 (cr, l)	
-813700+6	196474+6	695000+2	352849-2-255428+7	205129+3	819.	1950.21	07Ti4 (cr, l)	
-813700+6	261187+6	880000+2	000000+0	360503-1	237279+3	1950.	2100.32	07Ti4 (cr, l)
-813700+6	261187+6	880000+2	000000+0	390354-4	237279+3	2100.	4000.32	07Ti4 (cr, l)
7 8 4 22	JANAF 1998				507Ti4 (l)			
-768651+6	242283+6	553966+2	215076-1-106561+7	249640+3298.15	480.31	07Ti4 (l)		
-768651+6	200943+6	665368+2	601787-2-191926+7	229216+3	480.	801.31	07Ti4 (l)	
-768651+6	197110+6	687383+2	402784-2-230904+7	227465+3	801.	1100.31	07Ti4 (l)	
-768651+6	196399+6	697542+2	340990-2-271581+7	227165+3	1100.	1300.31	07Ti4 (l)	
-768651+6	216138+6	880000+2	000000+0	721411-5	237279+3	1300.	4000.32	07Ti4 (l)
8 8 3 74	JANAF 1998				508W3 (g)			
-408700+6	198704+6	512411+2	138909-1-540729+6	270870+3298.15	379.11	08W3 (g)		
-408700+6	175819+6	561430+2	596324-2-813250+6	259299+3	379.	529.11	08W3 (g)	
-408700+6	164615+6	596886+2	150276-2-114514+7	253855+3	529.	800.11	08W3 (g)	
-408700+6	162175+6	612688+2	158247-3-146810+7	252752+3	800.	1372.11	08W3 (g)	
-408700+6	162063+6	615910+2	191457-5-167092+7	252707+3	1372.	6000.11	08W3 (g)	
9 8 3 74	JANAF 1998				509W3 (g)			
-483600+6	221677+6	557242+2	164037-1-651774+6	289939+3298.15	387.11	09W3 (g)		
-483600+6	192180+6	617814+2	632531-2-974803+6	274948+3	387.	529.11	09W3 (g)	
-483600+6	180237+6	655652+2	156856-2-132951+7	269147+3	529.	800.11	09W3 (g)	
-483600+6	177691+6	672185+2	163539-3-166821+7	267995+3	800.	1379.11	09W3 (g)	
-483600+6	177576+6	675523+2	195499-5-187933+7	267949+3	1379.	6000.11	09W3 (g)	
1 15	JANAF 1998				3P1 (cr)_01			
000000+0	229301+5	558101+1	178664-2-362230+5	273284+2298.15	500.21	P1 (cr)_01		
000000+0	170260+5	633937+1	-952694-5-129273+4	242647+2	500.	700.21	P1 (cr)_01	
000000+0	170465+5	633007+1	000000+0-313517-6	242743+2	700.	1000.21	P1 (cr)_01	
1 15	JANAF 1998				4P1 (cr)_02			
-297299+4	250038+5	466415+1	280872-2-372298+5	236941+2298.15	400.21	P1 (cr)_02		
-297299+4	255837+5	429460+1	313868-2	780641+3	239240+2	400.	600.21	P1 (cr)_02
-297299+4	264928+5	403629+1	348716-2	185018+5	243683+2	600.	800.21	P1 (cr)_02
-297299+4	263172+5	414480+1	339266-2-255993+4	242885+2	800.	1000.21	P1 (cr)_02	
1 15	JANAF 1998				4P1 (cr)_03			
-417304+4	247486+5	468810+1	273811-2-389626+5	234667+2298.15	401.21	P1 (cr)_03		
-417304+4	255663+5	427170+1	314818-2	155320+4	238182+2	401.	600.21	P1 (cr)_03
-417304+4	149347+6	-516567+2	604803-1	775203+7	817360+2	600.	800.21	P1 (cr)_03
-417304+4	983648+5	-675590+2	536550-1	214240+8	556231+2	800.	1000.21	P1 (cr)_03
1 15	JANAF 1998				4P1 (cr)_04			
-307146+4	251788+5	473631+1	280439-2-374454+5	237017+2298.15	400.21	P1 (cr)_04		
-307146+4	257821+5	436014+1	314329-2	105195+4	239431+2	400.	600.21	P1 (cr)_04
-307146+4	267015+5	409371+1	349819-2	203094+5	243917+2	600.	800.21	P1 (cr)_04
-307146+4	265038+5	421387+1	339266-2-255993+4	243018+2	800.	1000.21	P1 (cr)_04	
1 15	JANAF 1998				4P1 (cr, l)			
000000+0	673570+5	-240104+0	151782-1	125253+6	509701+2298.15	317.321	P1 (cr, l)	
000000+0	171474+5	629207+1	000000+0	541566-8	248070+2	317.3	760.22	P1 (cr, l)
000000+0	171474+5	629207+1	000000+0-271040-5	248070+2	760.	1000.22	P1 (cr, l)	
000000+0	171474+5	629207+1	000000+0-352468-6	248070+2	1000.	2000.22	P1 (cr, l)	

1 15	JANAF 1998						5P1 (g)
756190+5	134407+5	496130+1	778259-5	447689+3	504571+2298.15	1426.11	P1 (g)
756190+5	136897+5	414148+1	390993-3	556321+6	505564+2	1426. 2023.11	P1 (g)
756190+5	137776+5	243220+1	954621-3	288522+7	505887+2	2023. 3580.11	P1 (g)
756190+5	137977+5	564645+1	357184-3	-108979+8	505951+2	3580. 4546.11	P1 (g)
756190+5	141702+5	970321+1	-236473-3	-389624+8	507069+2	4546. 6000.11	P1 (g)
1 15 1 99	JANAF 1998						5P1- (g)
570547+5	131284+5	511458+1	-169110-3	208712+5	518632+2298.15	578.11	P1- (g)
570547+5	136412+5	492774+1	470064-4	415589+5	521087+2	578. 1079.11	P1- (g)
570547+5	139726+5	447507+1	326993-3	216845+6	522492+2	1079. 2258.11	P1- (g)
570547+5	139555+5	533434+1	734991-4	-124584+7	522431+2	2258. 3167.11	P1- (g)
570547+5	139556+5	604695+1	-763705-4	-363262+7	522431+2	3167. 6000.11	P1- (g)
1 15	JANAF 1998						2P1 (l)
146989+3	170002+5	629207+1	000000+0	-746510-8	248068+2298.15	1100.31	P1 (l)
146989+3	170002+5	629207+1	000000+0	-626133-6	248068+2	1100. 2000.31	P1 (l)
1 15 -1 99	JANAF 1998						5P1+ (g)
319391+6	108705+5	580927+1	-112561-2	628828+5	506019+2298.15	488.11	P1+ (g)
319391+6	138073+5	500136+1	-168790-4	126431+6	520497+2	488. 1255.11	P1+ (g)
319391+6	140314+5	452915+1	234658-3	372974+6	521417+2	1255. 2374.11	P1+ (g)
319391+6	140373+5	499064+1	127140-3	-789375+6	521438+2	2374. 3638.11	P1+ (g)
319391+6	140448+5	592368+1	-436713-4	-491386+7	521462+2	3638. 6000.11	P1+ (g)
1 15 1 16	JANAF 1998						5P1S1 (g)
331269+5	255788+5	852279+1	589275-3	-245043+5	770916+2298.15	485.11	P1S1 (g)
331269+5	243719+5	885455+1	133765-3	-505766+5	764966+2	485. 1038.11	P1S1 (g)
331269+5	242804+5	891811+1	806113-4	-596075+5	764561+2	1038. 2772.11	P1S1 (g)
331269+5	242806+5	834646+1	218009-3	140633+7	764561+2	2772. 3851.11	P1S1 (g)
331269+5	242641+5	742579+1	377254-3	596534+7	764510+2	3851. 6000.11	P1S1 (g)
2 15	JANAF 1998						4P2 (g)
343339+5	297911+5	735501+1	224846-2	-328234+5	749816+2298.15	400.11	P2 (g)
343339+5	253952+5	826865+1	740829-3	-825171+5	727502+2	400. 598.11	P2 (g)
343339+5	239782+5	881955+1	127062-3	-148269+6	720761+2	598. 1088.11	P2 (g)
343339+5	238934+5	893919+1	539302-4	-195702+6	720402+2	1088. 6000.11	P2 (g)
4 15	JANAF 1998						4P4 (g)
140791+5	619823+5	175201+2	343735-2	-221725+6	115396+3298.15	400.11	P4 (g)
140791+5	543302+5	190883+2	824688-3	-305420+6	111506+3	400. 587.11	P4 (g)
140791+5	525814+5	197472+2	772115-4	-381283+6	110671+3	587. 1056.11	P4 (g)
140791+5	524878+5	198690+2	504485-6	-426755+6	110631+3	1056. 6000.11	P4 (g)
4 15 3 16	JANAF 1998						2P4S3 (cr)
-536919+5	945647+5	350000+2	000000+0	-266036-7	128807+3298.15	1100.21	P4S3 (cr)
-536919+5	945647+5	350000+2	000000+0	-218689-5	128807+3	1100. 2000.21	P4S3 (cr)
4 15 3 16	JANAF 1998						2P4S3 (cr, l)
-536919+5	945648+5	350000+2	000000+0	103182-5	128807+3298.15	440.21	P4S3 (cr, l)
-536919+5	119805+6	440000+2	000000+0	530088-7	151083+3	440. 3000.32	P4S3 (cr, l)
4 15 3 16	JANAF 1998						2P4S3 (g)
-360999+5	999684+5	370000+2	000000+0	102058-8	161705+3298.15	3000.11	P4S3 (g)
-360999+5	999684+5	370000+2	000000+0	-152413-5	161705+3	3000. 6000.11	P4S3 (g)
4 15 3 16	JANAF 1998						2P4S3 (l)
-527686+5	118881+6	440000+2	000000+0	-129408-7	151083+3298.15	1600.31	P4S3 (l)
-527686+5	118881+6	440000+2	000000+0	-212635-5	151083+3	1600. 3000.31	P4S3 (l)
1 82	JANAF 1998						3Pb1 (cr)
000000+0	243981+5	588110+1	191184-2	-331654+4	342091+2298.15	571.21	Pb1 (cr)
000000+0	257108+5	555967+1	238934-2	125871+5	348592+2	571. 800.21	Pb1 (cr)
000000+0	255931+5	562730+1	232820-2	602067+3	348054+2	800. 1500.21	Pb1 (cr)
1 82	JANAF 1998						5Pb1 (cr, l)
000000+0	243146+5	589777+1	188346-2	-403207+4	341670+2298.15	500.21	Pb1 (cr, l)
000000+0	442408+5	-787537+0	100084-1	651675+6	437759+2	500. 600.621	Pb1 (cr, l)
000000+0	186124+5	776411+1	-737963-3	945662+1	327783+2	600.6 1206.32	Pb1 (cr, l)
000000+0	203247+5	515793+1	814990-3	106657+7	334967+2	1206. 1895.32	Pb1 (cr, l)
000000+0	202525+5	607857+1	491535-3	-383425+5	334698+2	1895. 3000.32	Pb1 (cr, l)
1 82	JANAF 1998						5Pb1 (g)
466539+5	134867+5	495131+1	238326-4	925779+3	533902+2298.15	1012.11	Pb1 (g)
466539+5	146044+5	366932+1	871934-3	434871+6	538709+2	1012. 1420.11	Pb1 (g)
466539+5	157143+5	983637-1	255165-2	282585+7	543140+2	1420. 2698.11	Pb1 (g)
466539+5	157022+5	121886+2	-423426-3	-267533+8	543098+2	2698. 3947.11	Pb1 (g)
466539+5	154556+5	129654+2	-717462-3	-207742+8	542349+2	3947. 6000.11	Pb1 (g)

1 82 1 99	JANAF 1998	2Pb1-(g)
367787+5 134227+5 496797+1 000000+0-105622-7 561139+2298.15 3000.11		Pb1-(g)
367787+5 134227+5 496797+1 000000+0-892115-5 561139+2 3000. 6000.11		Pb1-(g)
1 82	JANAF 1998	4Pb1(l)
102366+4 242484+5 590908+1 186204-2-447044+4 357879+2298.15 400.31		Pb1(l)
102366+4 175933+5 776195+1-735938-3 410471+3 327815+2 400. 1219.32		Pb1(l)
102366+4 192918+5 521656+1 790999-3 101690+7 334942+2 1219. 1925.32		Pb1(l)
102366+4 192293+5 609400+1 487438-3-691808+5 334709+2 1925. 3000.32		Pb1(l)
1 82 -1 99	JANAF 1998	5Pb1+(g)
219167+6 134306+5 496423+1 384908-5 275892+3 547398+2298.15 1738.11		Pb1+(g)
219167+6 135071+5 436757+1 232610-3 601612+6 547689+2 1738. 2451.11		Pb1+(g)
219167+6 135162+5 314856+1 564065-3 304430+7 547721+2 2451. 4084.11		Pb1+(g)
219167+6 135720+5 475592+1 301733-3-589571+7 547894+2 4084. 4929.11		Pb1+(g)
219167+6 139145+5 686020+1 173756-4-229674+8 548901+2 4929. 6000.11		Pb1+(g)
1 82 1 16	JANAF 1998	4Pb1S1(cr)
-235000+5 418707+5 108969+2 278418-2 791027+4 545564+2298.15 459.21		Pb1S1(cr)
-235000+5 405071+5 110548+2 238015-2 137064+5 538397+2 459. 852.21		Pb1S1(cr)
-235000+5 402330+5 111732+2 225403-2 577061+4 537128+2 852. 1472.21		Pb1S1(cr)
-235000+5 399378+5 115589+2 199665-2-902661+4 535915+2 1472. 1800.21		Pb1S1(cr)
1 82 1 16	JANAF 1998	5Pb1S1(cr,l)
-235000+5 418763+5 108959+2 278600-2 794752+4 545593+2298.15 459.21		Pb1S1(cr,l)
-235000+5 405095+5 110538+2 238121-2 138207+5 538408+2 459. 882.21		Pb1S1(cr,l)
-235000+5 406537+5 107040+2 256856-2 157416+6 538937+2 882. 1100.21		Pb1S1(cr,l)
-235000+5 402544+5 111175+2 228189-2 386040+5 537214+2 1100.1386.521		Pb1S1(cr,l)
-235000+5 445421+5 160000+2 000000+0-856491-5 570456+21386.5 2000.32		Pb1S1(cr,l)
1 82 1 16	JANAF 1998	5Pb1S1(g)
315000+5 250945+5 872045+1 370961-3-396317+5 809778+2298.15 574.11		Pb1S1(g)
315000+5 243742+5 887869+1 117632-3-438603+5 806188+2 574. 2103.11		Pb1S1(g)
315000+5 244837+5 597250+1 103755-2 425319+7 806586+2 2103. 3007.11		Pb1S1(g)
315000+5 244837+5 130183+0 233129-2 219035+8 806586+2 3007. 4957.11		Pb1S1(g)
315000+5 263554+5 112821+2 831250-3-694107+8 812087+2 4957. 6000.11		Pb1S1(g)
1 82 1 16	JANAF 1998	4Pb1S1(l)
-200918+5 413803+5 109806+2 262553-2 466389+4 565621+2298.15 473.31		Pb1S1(l)
-200918+5 406661+5 109950+2 244818-2 202077+5 561744+2 473. 700.31		Pb1S1(l)
-200918+5 403593+5 111320+2 230684-2 159122+4 560307+2 700. 900.31		Pb1S1(l)
-200918+5 411344+5 160000+2 000000+0 112050-5 570464+2 900. 2000.32		Pb1S1(l)
2 82	JANAF 1998	4Pb2(g)
795000+5 260409+5 889133+1 465275-3-182894+5 888976+2298.15 402.11		Pb2(g)
795000+5 258450+5 893179+1 398232-3-204718+5 887981+2 402. 668.11		Pb2(g)
795000+5 258238+5 894184+1 388208-3-219672+5 887882+2 668. 2800.11		Pb2(g)
795000+5 258238+5 894226+1 388039-3-215852+5 887882+2 2800. 6000.11		Pb2(g)
1 37	JANAF 1998	2Rb1(cr)
000000+0 976341+5 131567+1 211269-1-174079+5 783727+2298.15 352.21		Rb1(cr)
000000+0 100598+6 846761+0 220649-1-218689+3 799202+2 352. 600.21		Rb1(cr)
1 37	JANAF 1998	5Rb1(cr,l)
000000+0 397511+6-408768+2 113126+0 129537+7 236840+3298.15312.6521		Rb1(cr,l)
000000+0 191189+5 755885+1-429860-3 296980+5 364744+2312.65 687.32		Rb1(cr,l)
000000+0 230296+5 578333+1 138471-2 279326+6 383049+2 687. 1001.32		Rb1(cr,l)
000000+0 254445+5 317860+1 315109-2 111758+7 393486+2 1001. 1330.32		Rb1(cr,l)
000000+0 267727+5 827027-1 474989-2 283252+7 398898+2 1330. 1600.32		Rb1(cr,l)
1 37	JANAF 1998	5Rb1(g)
193356+5 134520+5 495409+1 143002-4 102049+4 521092+2298.15 1717.11		Rb1(g)
193356+5 136776+5 329296+1 658480-3 163743+7 521954+2 1717. 2496.11		Rb1(g)
193356+5 137032+5-129434+1 188193-2 111916+8 522043+2 2496. 3480.11		Rb1(g)
193356+5 137552+5-374296+1 250976-2 143859+8 522207+2 3480. 5477.11		Rb1(g)
193356+5 693143+4-135120+2 343172-2 155959+9 503121+2 5477. 6000.11		Rb1(g)
1 37 1 99	JANAF 1998	2Rb1-(g)
664890+4 134227+5 496797+1 000000+0-105622-7 507196+2298.15 3000.11		Rb1-(g)
664890+4 134227+5 496797+1 000000+0-892115-5 507196+2 3000. 6000.11		Rb1-(g)
1 37	JANAF 1998	5Rb1(l)
521989+3 178402+5 772936+1-696859-3 203571+5 360960+2298.15 583.31		Rb1(l)
521989+3 216500+5 631826+1 919839-3 179617+6 379173+2 583. 906.31		Rb1(l)
521989+3 238646+5 454763+1 228551-2 617404+6 388994+2 906. 1115.31		Rb1(l)
521989+3 254934+5 209664+1 374867-2 163631+7 395847+2 1115. 1400.31		Rb1(l)
521989+3 264315+5-662957+0 507935-2 339372+7 399613+2 1400. 1600.31		Rb1(l)

1 37 -1 99	JANAF 1998	2Rb1+(g)
117144+6 134227+5 496797+1 000000+0-105622-7 507196+2298.15 3000.11		Rb1+(g)
117144+6 134227+5 496797+1 000000+0-892115-5 507196+2 3000. 6000.11		Rb1+(g)
2 37	JANAF 1998	5Rb2(g)
270770+5 249921+5 930247+1-205636-4-166208+5 860896+2298.15 538.11		Rb2(g)
270770+5 147533+5 126274+2-413850-2-337740+6 811282+2 538. 1041.11		Rb2(g)
270770+5 178351+5 881623+1-169056-2 103076+7 824453+2 1041. 1418.11		Rb2(g)
270770+5 187613+5 588789+1-306526-3 297267+7 828154+2 1418. 2061.11		Rb2(g)
270770+5 188058+5 493917+1 240252-5 429806+7 828317+2 2061. 6000.11		Rb2(g)
1 86	JANAF 1998	2Rn1(ref)
000000+0 134227+5 496797+1 000000+0-109373-7 535649+2298.15 3100.11		Rn1(ref)
000000+0 134227+5 496797+1 000000+0-103710-4 535649+2 3100. 6000.11		Rn1(ref)
1 86 -1 99	JANAF 1998	4Rn1+(g)
249348+6 134227+5 496792+1 353253-7 497662+1 563197+2298.15 3083.11		Rn1+(g)
249348+6 134227+5 493886+1 631879-5 920454+5 563197+2 3083. 4077.11		Rn1+(g)
249348+6 134188+5 482227+1 253824-4 738169+6 563185+2 4077. 4938.11		Rn1+(g)
249348+6 133922+5 466017+1 472661-4 205595+7 563107+2 4938. 6000.11		Rn1+(g)
1 16	JANAF 1998	2S1(cr)_01
000000+0 286344+5 469085+1 360263-2-302189+5 280571+2298.15 370.21		S1(cr)_01
000000+0 326112+5 399009+1 489973-2 118023+2 301107+2 370. 800.21		S1(cr)_01
1 16	JANAF 1998	3S1(cr)_02
860421+2 283733+5 491787+1 340893-2-340156+5 282691+2298.15 403.21		S1(cr)_02
860421+2 321817+5 421594+1 466798-2-242173+4 302253+2 403. 600.21		S1(cr)_02
860421+2 322713+5 418479+1 470503-2 791073+3 302683+2 600. 800.21		S1(cr)_02
1 16	JANAF 1998	7S1(cr,l)
000000+0 286426+5 468958+1 360522-2-301748+5 280614+2298.15 368.321		S1(cr,l)
000000+0 323279+5 419197+1 469433-2-453518-3 302535+2 368.3388.3622		S1(cr,l)
000000+0 974370+5-134768+1 225865-1 392258-1 667151+2388.36 400.33		S1(cr,l)
000000+0 567206+6-569417+2 161571+0-812175-4 316060+3 400.432.0233		S1(cr,l)
000000+0 125704+7-326726+3 463641+0 259961+8 637151+3432.02 500.34		S1(cr,l)
000000+0 258248+5 382314+1 287547-2 954499+6 288107+2 500. 700.34		S1(cr,l)
000000+0 216901+5 663457+1 531705-3 380812+6 269579+2 700. 1500.34		S1(cr,l)
1 16	JANAF 1998	5S1(g)
661998+5 113986+5 597304+1-106404-2 423058+3 510035+2298.15 579.11		S1(g)
661998+5 137605+5 511168+1-682517-4 958994+5 521345+2 579. 1343.11		S1(g)
661998+5 139906+5 450443+1 233781-3 459556+6 522275+2 1343. 3073.11		S1(g)
661998+5 139906+5 529209+1 629592-4-202144+7 522275+2 3073. 4102.11		S1(g)
661998+5 140147+5 595144+1-441281-4-572457+7 522349+2 4102. 6000.11		S1(g)
1 16 1 99	JANAF 1998	5S1-(g)
167734+5 110833+5 596661+1-111933-2-166734+5 500486+2298.15 436.11		S1-(g)
167734+5 125843+5 561753+1-585222-3 541706+4 508016+2 436. 612.11		S1-(g)
167734+5 135425+5 523045+1-163252-3 536683+5 512557+2 612. 955.11		S1-(g)
167734+5 137436+5 502904+1-224513-4 114726+6 513432+2 955. 1724.11		S1-(g)
167734+5 137512+5 497292+1-714634-6 170135+6 513461+2 1724. 6000.11		S1-(g)
1 16	JANAF 1998	5S1(l)
443117+3 100922+6-194712+1 238176-1 205643+5 687722+2298.15 388.31		S1(l)
443117+3 288394+7-560161+3 967651+0 289259+8 148671+4 388.432.0231		S1(l)
443117+3 125618+7-326640+3 463502+0 259913+8 636909+3432.02 500.32		S1(l)
443117+3 238077+5 446440+1 218133-2 880344+6 280396+2 500. 814.32		S1(l)
443117+3 207132+5 756399+1 227087-5 185158+4 267052+2 814. 1500.32		S1(l)
1 16 -1 99	JANAF 1998	5S1+(g)
306475+6 134260+5 496647+1 158276-5 108696+3 505530+2298.15 1648.11		S1+(g)
306475+6 134823+5 462922+1 138045-3 305271+6 505747+2 1648. 2201.11		S1+(g)
306475+6 135075+5 365748+1 432596-3 187209+7 505837+2 2201. 2778.11		S1+(g)
306475+6 135081+5 239467+1 736355-3 510539+7 505839+2 2778. 4632.11		S1+(g)
306475+6 138294+5 542554+1 301107-3-166676+8 506799+2 4632. 6000.11		S1+(g)
1 16 1 14	JANAF 1998	5S1Si1(g)
253250+5 284319+5 766658+1 176017-2-412644+5 756894+2298.15 434.11		S1Si1(g)
253250+5 247103+5 852971+1 437129-3-956852+5 738217+2 434. 681.11		S1Si1(g)
253250+5 239525+5 890194+1 726313-4-153197+6 734696+2 681. 3139.11		S1Si1(g)
253250+5 239523+5 675739+1 527508-3 690859+7 734695+2 3139. 4336.11		S1Si1(g)
253250+5 236565+5 199937+1 125761-2 368448+8 733797+2 4336. 6000.11		S1Si1(g)

1 16 1 38	JANAF 1998	5S1Srl (cr)
-112000+6 470048+5 101334+2 439295-2 175176+5 517126+2298.15 510.21		S1Srl (cr)
-112000+6 380147+5 125530+2 102497-2-165073+6 472731+2 510. 900.21		S1Srl (cr)
-112000+6 377335+5 131264+2 706344-3-397235+6 471639+2 900. 1212.21		S1Srl (cr)
-112000+6 382402+5 125763+2 108455-2-262456+6 473799+2 1212. 1765.21		S1Srl (cr)
-112000+6 383236+5 122003+2 124992-2-587317+3 474122+2 1765. 3000.21		S1Srl (cr)
1 16 1 38	JANAF 1998	5S1Srl (g)
258599+5 252240+5 868067+1 416291-3-280322+5 790881+2298.15 1123.11		S1Srl (g)
258599+5 325432+5-254086+1 707048-2 469977+7 821635+2 1123. 2148.11		S1Srl (g)
258599+5 314530+5 315265+2-350318-2-476914+8 817688+2 2148. 2952.11		S1Srl (g)
258599+5 314515+5 279341+2-313421-2-258783+8 817683+2 2952. 3993.11		S1Srl (g)
258599+5 309511+5 876832+1 777627-4 752130+8 816129+2 3993. 6000.11		S1Srl (g)
2 16	JANAF 1998	5S2 (g)
307361+5 274510+5 787593+1 141731-2-475047+5 762551+2298.15 548.11		S2 (g)
307361+5 252130+5 829592+1 666971-3-501490+5 751250+2 548. 1766.11		S2 (g)
307361+5 250538+5 964165+1 158926-3-144899+7 750647+2 1766. 2848.11		S2 (g)
307361+5 250530+5 935894+1 199853-3-101325+6 750644+2 2848. 3942.11		S2 (g)
307361+5 250206+5 798529+1 432116-3 701677+7 750543+2 3942. 6000.11		S2 (g)
2 16 1 14	JANAF 1998	5S2Sil (cr)
-510000+5 657353+5 165897+2 466064-2 485122+5 703645+2298.15 600.21		S2Sil (cr)
-510000+5 665861+5 137284+2 623420-2 738712+6 704561+2 600. 800.21		S2Sil (cr)
-510000+5 598930+5 177121+2 269844-2-537048+3 674064+2 800. 1200.21		S2Sil (cr)
-510000+5 598482+5 178276+2 264026-2-663720+5 673884+2 1200. 1610.21		S2Sil (cr)
-510000+5 598988+5 174715+2 278005-2 273250+6 674077+2 1610. 2000.21		S2Sil (cr)
2 16 1 14	JANAF 1998	5S2Sil (cr, l)
-510000+5 600036+5 176799+2 274475-2 194062+4 674456+2298.15 498.21		S2Sil (cr, l)
-510000+5 418275+5 249021+2-522964-2-804314+6 588824+2 498. 700.21		S2Sil (cr, l)
-510000+5 599018+5 177141+2 269677-2-935448+3 674276+2 700. 1000.21		S2Sil (cr, l)
-510000+5 599051+5 177136+2 269796-2-163500+4 674291+2 1000. 1363.21		S2Sil (cr, l)
-510000+5 588786+5 217500+2 000000+0-667044-5 676646+2 1363. 2000.32		S2Sil (cr, l)
2 16 1 14	JANAF 1998	4S2Sil (l)
-494560+5 600959+5 176641+2 277460-2 255136+4 685339+2298.15 400.31		S2Sil (l)
-494560+5 709092+5 150392+2 668182-2 172474+6 739253+2 400. 600.31		S2Sil (l)
-494560+5 634423+5 152615+2 472406-2 515330+6 700415+2 600. 900.31		S2Sil (l)
-494560+5 573223+5 217500+2 000000+0 127855-5 676435+2 900. 2000.32		S2Sil (l)
3 16	JANAF 1998	4S3 (g)
338100+5 388959+5 128536+2 104070-2-155383+6 960123+2298.15 585.11		S3 (g)
338100+5 388937+5 128540+2 103995-2-155384+6 960112+2 585. 1700.11		S3 (g)
338100+5 388939+5 128563+2 103932-2-158853+6 960113+2 1700. 2600.11		S3 (g)
338100+5 388939+5 128544+2 103993-2-157189+6 960113+2 2600. 6000.11		S3 (g)
4 16	JANAF 1998	5S4 (g)
348401+5 542157+5 190929+2 781396-3-282030+6 118842+3298.15 509.11		S4 (g)
348401+5 542204+5 190921+2 782913-3-282031+6 118844+3 509. 1400.11		S4 (g)
348401+5 542206+5 190932+2 782600-3-283284+6 118844+3 1400. 2848.11		S4 (g)
348401+5 542206+5 190987+2 781668-3-306836+6 118844+3 2848. 3775.11		S4 (g)
348401+5 542207+5 190928+2 782887-3-288322+6 118844+3 3775. 6000.11		S4 (g)
5 16	JANAF 1998	2S5 (g)
261401+5 690420+5 255579+2 253015-3-377099+6 131331+3298.15 3600.11		S5 (g)
261401+5 690419+5 255575+2 253077-3-373878+6 131331+3 3600. 6000.11		S5 (g)
6 16	JANAF 1998	2S6 (g)
243599+5 845300+5 315800+2 120024-3-439999+6 155385+3298.15 3400.11		S6 (g)
243599+5 845300+5 315794+2 120077-3-435554+6 155385+3 3400. 6000.11		S6 (g)
7 16	JANAF 1998	2S7 (g)
271699+5 101376+6 370380+2 612980-3-472298+6 181948+3298.15 3500.11		S7 (g)
271699+5 101376+6 370388+2 612881-3-477769+6 181948+3 3500. 6000.11		S7 (g)
8 16	JANAF 1998	4S8 (g)
240000+5 128995+6 405824+2 462347-2-414800+6 206698+3298.15 400.11		S8 (g)
240000+5 118539+6 427193+2 105656-2-528424+6 201381+3 400. 586.11		S8 (g)
240000+5 116286+6 435649+2 952414-4-625338+6 200305+3 586. 1054.11		S8 (g)
240000+5 116170+6 437147+2 608210-6-680988+6 200256+3 1054. 6000.11		S8 (g)
1 14	JANAF 1998	4S11 (cr)
000000+0 187556+5 541582+1 981319-3-825770+5 191935+2298.15 534.21		S11 (cr)
000000+0 186021+5 545220+1 926202-3-845595+5 191170+2 534. 800.21		S11 (cr)
000000+0 184890+5 556297+1 847551-3-115180+6 190681+2 800. 1213.21		S11 (cr)
000000+0 186494+5 530115+1 999604-3-132913+4 191351+2 1213. 2500.21		S11 (cr)

1 14	JANAF 1998					5Si1 (cr,l)
000000+0	187814+5	541095+1	989920-3-823687+5	192066+2298.15	400.21	Si1 (cr,l)
000000+0	186135+5	545052+1	929866-3-848553+5	191226+2	400. 1052.21	Si1 (cr,l)
000000+0	186496+5	529920+1	100037-2	520484+3	191352+2 1052. 1685.21	Si1 (cr,l)
000000+0	291470+5	650000+1	000000+0-191466-1	256340+2	1685. 1800.32	Si1 (cr,l)
000000+0	291470+5	650000+1	000000+0-436734-5	256340+2	1800. 4500.32	Si1 (cr,l)
1 14	JANAF 1998					5Si1 (g)
107553+6	135606+5	496179+1	133766-4	314346+5	517889+2298.15 941.11	Si1 (g)
107553+6	140524+5	448520+1	351204-3	171957+6	520034+2 941. 2061.11	Si1 (g)
107553+6	140179+5	526026+1	100552-3-925953+6	519908+2	2061. 2771.11	Si1 (g)
107553+6	140176+5	594361+1	-637823-4-267647+7	519907+2	2771. 4883.11	Si1 (g)
107553+6	138591+5	490018+1	786866-4	561531+7	519440+2 4883. 6000.11	Si1 (g)
1 14 1 99	JANAF 1998					5Si1-(g)
738095+5	134828+5	495262+1	222342-4	842619+3	501865+2298.15 987.11	Si1-(g)
738095+5	143882+5	396859+1	687430-3	319861+6	505776+2 987. 1396.11	Si1-(g)
738095+5	150291+5	203050+1	161467-2	157424+7	508344+2 1396. 2538.11	Si1-(g)
738095+5	150097+5	675584+1	377078-3-863115+7	508277+2	2538. 3310.11	Si1-(g)
738095+5	150155+5	122345+2	-724051-3-287241+8	508296+2	3310. 6000.11	Si1-(g)
1 14	JANAF 1998					2Si1 (l)
115846+5	175620+5	650000+1	000000+0-161564-7	256332+2298.15	2300.31	Si1 (l)
115846+5	175620+5	650000+1	000000+0-946882-5	256332+2	2300. 4500.31	Si1 (l)
1 14 -1 99	JANAF 1998					5Si1+(g)
296966+6	110151+5	555710+1	-929983-3	477532+5	496169+2298.15 396.11	Si1+(g)
296966+6	133033+5	509478+1	-152196-3	719519+5	507819+2 396. 567.11	Si1+(g)
296966+6	136708+5	496475+1	814821-6	858633+5	509584+2 567. 3470.11	Si1+(g)
296966+6	136704+5	493007+1	667474-5	258646+6	509583+2 3470. 4964.11	Si1+(g)
296966+6	136288+5	468468+1	396301-4	227417+7	509461+2 4964. 6000.11	Si1+(g)
2 14	JANAF 1998					5Si2 (g)
141000+6	369899+5	709203+1	400457-2-470976+4	820631+2298.15	673.11	Si2 (g)
141000+6	274066+5	117186+2	-567882-3-706420+6	776022+2	673. 1140.11	Si2 (g)
141000+6	270165+5	113103+2	-541354-3-215145+6	774183+2	1140. 1790.11	Si2 (g)
141000+6	272217+5	946004+1	148818-3	175490+7	774959+2 1790. 4278.11	Si2 (g)
141000+6	272096+5	923433+1	184026-3	312916+7	774922+2 4278. 6000.11	Si2 (g)
3 14	JANAF 1998					5Si3 (g)
152000+6	431363+5	139371+2	130033-2-103743+6	991162+2298.15	457.11	Si3 (g)
152000+6	398585+5	147570+2	104388-3-160817+6	974841+2	457. 1597.11	Si3 (g)
152000+6	401794+5	130865+2	801687-3	125940+7	976087+2 1597. 3291.11	Si3 (g)
152000+6	401816+5	157552+2	261191-3-837942+7	976095+2	3291. 4324.11	Si3 (g)
152000+6	403491+5	185475+2	-169022-3-258060+8	976604+2	4324. 6000.11	Si3 (g)
1 38	JANAF 1998					5Sr1 (cr)_01
000000+0	271571+5	550368+1	275292-2	700686+4	334949+2298.15 360.21	Sr1 (cr)_01
000000+0	265248+5	555624+1	257833-2	834060+4	331505+2 360. 803.21	Sr1 (cr)_01
000000+0	268543+5	537520+1	274588-2	383285+5	333016+2 803. 1000.21	Sr1 (cr)_01
000000+0	271017+5	510642+1	292761-2	125373+6	334085+2 1000. 1229.21	Sr1 (cr)_01
000000+0	272533+5	480277+1	309200-2	278845+6	334709+2 1229. 1500.21	Sr1 (cr)_01
1 38	JANAF 1998					2Sr1 (cr)_02
289436+3	214761+5	630033+1	999560-3-181620+2	309117+2298.15	800.21	Sr1 (cr)_02
289436+3	214769+5	630038+1	999772-3-160569+3	309122+2	800. 1500.21	Sr1 (cr)_02
1 38	JANAF 1998					5Sr1 (cr,l)
000000+0	261579+5	564667+1	244504-2	247785+4	329680+2298.15 489.21	Sr1 (cr,l)
000000+0	265982+5	552352+1	261228-2	123681+5	331847+2 489. 820.21	Sr1 (cr,l)
000000+0	217599+5	630615+1	995466-3-164342+4	309095+2	820. 1050.22	Sr1 (cr,l)
000000+0	257013+5	943188+1	000000+0-171482-5	339419+2	1050. 1321.33	Sr1 (cr,l)
000000+0	257013+5	943188+1	000000+0-419033-6	339419+2	1321. 3000.33	Sr1 (cr,l)
1 38	JANAF 1998					5Sr1 (g)
391969+5	134602+5	494883+1	190494-4	144174+4	508090+2298.15 1823.11	Sr1 (g)
391969+5	138380+5	111506+1	141893-2	426122+7	509511+2 1823. 2506.11	Sr1 (g)
391969+5	138940+5	-952384+1	424652-2	265740+8	509707+2 2506. 3475.11	Sr1 (g)
391969+5	140069+5	-407213+1	345262-2-594463+7	510066+2	3475. 4595.11	Sr1 (g)
391969+5	175772+5	303661+2	-150685-2-251911+9	520741+2	4595. 6000.11	Sr1 (g)
1 38	JANAF 1998					2Sr1 (l)
217734+3	254835+5	943188+1	000000+0	400277-8	339417+2298.15 1600.31	Sr1 (l)
217734+3	254835+5	943188+1	000000+0	131256-5	339417+2 1600. 3000.31	Sr1 (l)

1 38 -1 99	JANAF 1998	5Sr1+(g)
172004+6 134333+5 496304+1 511178-5 361336+3 521755+2298.15 1706.11		Sr1+(g)
172004+6 135684+5 400471+1 379564-3 930300+6 522272+2 1706. 2330.11		Sr1+(g)
172004+6 136048+5 148994+1 109973-2 547311+7 522401+2 2330. 3183.11		Sr1+(g)
172004+6 136076+5 100960+1 125556-2 531439+7 522410+2 3183. 4567.11		Sr1+(g)
172004+6 143642+5 883945+1 117360-3-495762+8 524678+2 4567. 6000.11		Sr1+(g)
1 73	JANAF 1998	5Tal (cr)
000000+0 205867+5 573629+1 114381-2-273153+4 262308+2298.15 674.21		Tal (cr)
000000+0 196602+5 560733+1 966831-3 110038+6 257444+2 674. 1364.21		Tal (cr)
000000+0 197183+5 282743+1 196022-2 276110+7 257437+2 1364. 2500.21		Tal (cr)
000000+0 197917+5-146426+2 654767-2 402696+8 257691+2 2500. 3142.21		Tal (cr)
000000+0 197868+5-499770+2 140045-1 157799+9 257675+2 3142. 3800.21		Tal (cr)
1 73	JANAF 1998	6Tal (cr,l)
000000+0 205878+5 573604+1 114422-2-272037+4 262314+2298.15 674.21		Tal (cr,l)
000000+0 196622+5 560560+1 968119-3 110458+6 257453+2 674. 1367.21		Tal (cr,l)
000000+0 197415+5 266452+1 202510-2 290637+7 257524+2 1367. 2246.21		Tal (cr,l)
000000+0 197854+5-496515+1 412361-2 176183+8 257671+2 2246. 2791.21		Tal (cr,l)
000000+0 197915+5-228400+2 838688-2 641698+8 257691+2 2791. 3258.21		Tal (cr,l)
000000+0 285231+5 100000+2 000000+0-343899-4 284485+2 3258. 6000.32		Tal (cr,l)
1 73	JANAF 1998	5Tal (g)
186900+6 236124+5 354184+1 312063-2 459331+5 611068+2298.15 796.11		Tal (g)
186900+6 209085+5 534805+1 160665-2-334923+6 598871+2 796. 1207.11		Tal (g)
186900+6 197650+5 750246+1 416597-3-138096+7 594139+2 1207. 2910.11		Tal (g)
186900+6 197650+5 658704+1 624843-3 123928+7 594139+2 2910. 4694.11		Tal (g)
186900+6 191499+5 135558+1 136562-2 398923+8 592308+2 4694. 6000.11		Tal (g)
1 73 1 99	JANAF 1998	5Tal-(g)
178045+6 371746+5 519478+1 524719-2-794695+5 674228+2298.15 473.11		Tal-(g)
178045+6 129730+5 116208+2-377253-2-562665+6 554476+2 473. 1005.11		Tal-(g)
178045+6 162021+5 796861+1-134291-2 659936+6 568378+2 1005. 1391.11		Tal-(g)
178045+6 169855+5 565189+1-227556-3 214062+7 571522+2 1391. 2048.11		Tal-(g)
178045+6 170195+5 495437+1 768372-6 310495+7 571647+2 2048. 6000.11		Tal-(g)
1 73	JANAF 1998	5Tal (l)
736018+4 202043+5 581512+1 101268-2-640723+4 281640+2298.15 735.31		Tal (l)
736018+4 199106+5 530662+1 116335-2 208471+6 279770+2 735. 1148.31		Tal (l)
736018+4 183992+5 807069+1-379708-3-109973+7 273507+2 1148. 1652.31		Tal (l)
736018+4 196559+5 415883+1 151959-2 101321+7 278468+2 1652. 2150.31		Tal (l)
736018+4 211613+5 100000+2 000000+0 293091-5 284478+2 2150. 6000.32		Tal (l)
1 73 -1 99	JANAF 1998	5Tal+(g)
370256+6 226522+5 588651+1 156514-2-747500+5 612070+2298.15 901.11		Tal+(g)
370256+6 214378+5 699597+1 758643-3-385509+6 606745+2 901. 1227.11		Tal+(g)
370256+6 202635+5 934557+1-513911-3-157213+7 601908+2 1227. 2176.11		Tal+(g)
370256+6 203159+5 752057+1 455454-4 130493+7 602097+2 2176. 3842.11		Tal+(g)
370256+6 203166+5 864686+1-164740-3-339455+7 602100+2 3842. 6000.11		Tal+(g)
1 22	JANAF 1998	5Ti1 (cr)_01
000000+0 222652+5 625049+1 124241-2-524199+5 248474+2298.15 528.21		Ti1 (cr)_01
000000+0 198024+5 703476+1 259516-3-126382+6 236516+2 528. 800.21		Ti1 (cr)_01
000000+0 335080+5-177833+1 778484-2 166103+7 298557+2 800. 1000.21		Ti1 (cr)_01
000000+0 402243+5-979516+1 130065-1 445623+7 327339+2 1000. 1317.21		Ti1 (cr)_01
000000+0 456163+5-235159+2 199045-1 124975+8 349188+2 1317. 1700.21		Ti1 (cr)_01
1 22	JANAF 1998	5Ti1 (cr)_02
163958+4 207761+5 530266+1 144738-2 752203+2 252650+2298.15 1194.21		Ti1 (cr)_02
163958+4 227136+5 179649+1 341034-2 165723+7 260690+2 1194. 1495.21		Ti1 (cr)_02
163958+4 234543+5-113567+1 471692-2 384491+7 263611+2 1495. 1800.21		Ti1 (cr)_02
163958+4 238490+5-501429+1 614143-2 810393+7 265098+2 1800. 2207.21		Ti1 (cr)_02
163958+4 239875+5-965515+1 757160-2 153346+8 265599+2 2207. 2500.21		Ti1 (cr)_02
1 22	JANAF 1998	5Ti1 (cr,l)
000000+0 227007+5 617259+1 138524-2-492331+5 250712+2298.15 450.21		Ti1 (cr,l)
000000+0 207622+5 665758+1 677874-3-829856+5 241060+2 450. 774.21		Ti1 (cr,l)
000000+0 357792+5-377715+1 926478-2 218659+7 308517+2 774. 1166.21		Ti1 (cr,l)
000000+0 249445+5 107722+0 423746-2 266114+7 263063+2 1166. 1939.22		Ti1 (cr,l)
000000+0 286016+5 112899+2 000000+0-372612-5 282282+2 1939. 4500.33		Ti1 (cr,l)



1 22	JANAF 1998	5Ti1 (g)
113200+6 129276+5 529113+1-346567-3 582338+5 546698+2298.15 702.11		Ti1 (g)
113200+6 145515+5 445518+1 452024-3 193924+6 554209+2 702. 1209.11		Ti1 (g)
113200+6 156298+5 242998+1 157187-2 117516+7 558672+2 1209. 3165.11		Ti1 (g)
113200+6 156304+5 524474+1 983618-3-837077+7 558674+2 3165. 4326.11		Ti1 (g)
113200+6 160376+5 117551+2-146017-4-493931+8 559910+2 4326. 6000.11		Ti1 (g)
1 22 1 99	JANAF 1998	5Ti1-(g)
109903+6 127436+5 516000+1-292069-3 342043+5 551974+2298.15 396.11		Ti1-(g)
109903+6 134290+5 502182+1-592369-4 414151+5 555465+2 396. 580.11		Ti1-(g)
109903+6 135617+5 497293+1-305309-5 468991+5 556100+2 580. 1083.11		Ti1-(g)
109903+6 135653+5 496794+1 123999-7 488549+5 556115+2 1083. 4600.11		Ti1-(g)
109903+6 135646+5 496485+1 394797-6 771702+5 556113+2 4600. 6000.11		Ti1-(g)
1 22	JANAF 1998	4Ti1 (l)
326291+4 183424+5 656348+1 136548-3 136442+3 248878+2298.15 774.31		Ti1 (l)
326291+4 212431+5 463406+1 175732-2 404479+6 261966+2 774. 1104.31		Ti1 (l)
326291+4 227813+5 237359+1 311837-2 132818+7 268451+2 1104. 1460.31		Ti1 (l)
326291+4 253364+5 112899+2 000000+0-128294-5 282263+2 1460. 4500.32		Ti1 (l)
1 22 -1 99	JANAF 1998	5Ti1+(g)
272049+6 125049+5 698288+1-140922-2-274590+5 560153+2298.15 798.11		Ti1+(g)
272049+6 151277+5 522159+1 633821-4 345809+6 571979+2 798. 1367.11		Ti1+(g)
272049+6 156137+5 385505+1 730729-3 119470+7 573936+2 1367. 2833.11		Ti1+(g)
272049+6 156133+5 598185+1 230727-3-450603+7 573935+2 2833. 3724.11		Ti1+(g)
272049+6 156368+5 801836+1-133376-3-139445+8 574009+2 3724. 6000.11		Ti1+(g)
1 23	JANAF 1998	5V1 (cr)
000000+0 204927+5 617499+1 884070-3-431195+5 233210+2298.15 712.21		V1 (cr)
000000+0 237191+5 441056+1 251761-2 261728+6 248045+2 712. 1427.21		V1 (cr)
000000+0 245041+5 166545+1 378064-2 218153+7 251163+2 1427. 2048.21		V1 (cr)
000000+0 250834+5-340911+1 575143-2 653683+7 253325+2 2048. 2300.21		V1 (cr)
000000+0 249999+5 893132+0 448469-2-809640+6 253026+2 2300. 2700.21		V1 (cr)
1 23	JANAF 1998	5V1 (cr, l)
000000+0 198325+5 631241+1 656945-3-495788+5 229886+2298.15 595.21		V1 (cr, l)
000000+0 229066+5 511051+1 199172-2 947623+5 244502+2 595. 960.21		V1 (cr, l)
000000+0 241039+5 365715+1 293337-2 601068+6 249617+2 960. 1775.21		V1 (cr, l)
000000+0 250210+5-428229+1 591747-2 892712+7 253093+2 1775. 2190.21		V1 (cr, l)
000000+0 293558+5 110430+2 000000+0 114919-4 273978+2 2190. 4500.32		V1 (cr, l)
1 23	JANAF 1998	5V1 (g)
123200+6 183916+5 488306+1 110585-2 897752+5 583058+2298.15 663.11		V1 (g)
123200+6 156513+5 677675+1-465561-3-284669+6 570870+2 663. 1716.11		V1 (g)
123200+6 160551+5 383170+1 678679-3 260559+7 572412+2 1716. 2557.11		V1 (g)
123200+6 160678+5 395743+0 157345-2 101117+8 572456+2 2557. 4971.11		V1 (g)
123200+6 158415+5-442839+0 167604-2 182316+8 571801+2 4971. 6000.11		V1 (g)
1 23 1 99	JANAF 1998	5V1-(g)
109605+6 126974+5 517449+1-313814-3 380435+5 551268+2298.15 405.11		V1-(g)
109605+6 134849+5 501043+1-435412-4 469997+5 555264+2 405. 644.11		V1-(g)
109605+6 135793+5 496870+1-277469-6 527506+5 555708+2 644. 2883.11		V1-(g)
109605+6 135793+5 500015+1-691861-5-495141+5 555708+2 2883. 3300.11		V1-(g)
109605+6 135793+5 496843+1-609297-7 495316+5 555708+2 3300. 6000.11		V1-(g)
1 23	JANAF 1998	5V1 (l)
413193+4 198257+5 631373+1 654657-3-496368+5 247060+2298.15 593.31		V1 (l)
413193+4 228643+5 513357+1 197028-2 910217+5 261517+2 593. 966.31		V1 (l)
413193+4 243509+5 335014+1 313062-2 709275+6 267877+2 966. 1200.31		V1 (l)
413193+4 242421+5 333345+1 309947-2 787136+6 267391+2 1200. 1450.31		V1 (l)
413193+4 252221+5 110430+2 000000+0 123841-5 273967+2 1450. 4500.32		V1 (l)
1 23 -1 99	JANAF 1998	5V1+(g)
280102+6 183138+5 419691+1 151131-2 796812+5 580186+2298.15 837.11		V1+(g)
280102+6 163356+5 644453+1 677216-5-612705+6 571777+2 837. 1450.11		V1+(g)
280102+6 161034+5 632248+1-501611-4-182530+6 570791+2 1450. 2207.11		V1+(g)
280102+6 161696+5 370876+1 740174-3 405241+7 571030+2 2207. 4126.11		V1+(g)
280102+6 163151+5 742825+1 140220-3-171266+8 571477+2 4126. 6000.11		V1+(g)
1 74	JANAF 1998	5W1 (cr)
000000+0 189767+5 571629+1 801659-3-131414+5 230963+2298.15 536.21		W1 (cr)
000000+0 197546+5 545740+1 111762-2 125822+5 234723+2 536. 1696.21		W1 (cr)
000000+0 198182+5 496640+1 130634-2 504255+6 234965+2 1696. 2598.21		W1 (cr)
000000+0 199410+5-401416+2 128697-1 102196+9 235389+2 2598. 3453.21		W1 (cr)
000000+0 205309+5-337402+2 133186-1 739153+7 237266+2 3453. 4800.21		W1 (cr)

1 74	JANAF 1998					7W1 (cr, l)	
000000+0	193713+5	565963+1	923363-3	-113600+5	233043+2298.15	418.21	W1 (cr, l)
000000+0	197184+5	549037+1	109306-2	582179+4	234570+2	418. 1340.21	W1 (cr, l)
000000+0	198033+5	526313+1	120561-2	143026+6	234913+2	1340. 2585.21	W1 (cr, l)
000000+0	199440+5	-313963+2	107796-1	797327+8	235401+2	2585. 3000.21	W1 (cr, l)
000000+0	199440+5	-387855+2	125858-1	974678+8	235401+2	3000. 3300.21	W1 (cr, l)
000000+0	198329+5	-143709+3	336734-1	482259+9	235040+2	3300. 3680.21	W1 (cr, l)
000000+0	309743+5	850000+1	000000+0	577975-4	265909+2	3680. 6000.32	W1 (cr, l)
1 74	JANAF 1998					5W1 (g)	
203400+6	372746+5	235505+1	689690-2	602979+5	659573+2298.15	531.11	W1 (g)
203400+6	192181+5	808111+1	-297675-3	-477048+6	571862+2	531. 1909.11	W1 (g)
203400+6	197359+5	122837+1	209528-2	784861+7	573790+2	1909. 2853.11	W1 (g)
203400+6	197448+5	132652+1	235712-2	969175+6	573820+2	2853. 4077.11	W1 (g)
203400+6	205554+5	241735+2	-136361-2	-126647+9	576319+2	4077. 6000.11	W1 (g)
1 74 1 99	JANAF 1998					2W1- (g)	
183120+6	134227+5	496797+1	000000+0	-105622-7	565635+2298.15	3000.11	W1- (g)
183120+6	134227+5	496797+1	000000+0	-892115-5	565635+2	3000. 6000.11	W1- (g)
1 74	JANAF 1998					5W1 (l)	
112084+5	190823+5	569431+1	838011-3	-121380+5	262607+2298.15	637.31	W1 (l)
112084+5	196516+5	553886+1	105388-2	-485845+4	265385+2	637. 1038.31	W1 (l)
112084+5	197689+5	541180+1	113996-2	357678+5	265892+2	1038. 1477.31	W1 (l)
112084+5	198043+5	523048+1	121624-2	185540+6	266029+2	1477. 2450.31	W1 (l)
112084+5	197658+5	850000+1	000000+0	-309318-5	265909+2	2450. 6000.32	W1 (l)
1 74 -1 99	JANAF 1998					5W1+ (g)	
389027+6	656448+5	686730+0	142839-1	485578+5	834430+2298.15	465.11	W1+ (g)
389027+6	971858+4	151637+2	-637026-2	-100507+7	556968+2	465. 945.11	W1+ (g)
389027+6	194092+5	576223+1	290536-3	176960+7	599236+2	945. 2267.11	W1+ (g)
389027+6	194353+5	454731+1	651665-3	380600+7	599330+2	2267. 4357.11	W1+ (g)
389027+6	197119+5	882530+1	-181092-5	-233555+8	600169+2	4357. 6000.11	W1+ (g)
1 54	JANAF 1998					2Xe1 (ref)	
000000+0	134227+5	496797+1	000000+0	-109373-7	519992+2298.15	3100.11	Xe1 (ref)
000000+0	134227+5	496797+1	000000+0	-103710-4	519992+2	3100. 6000.11	Xe1 (ref)
1 54 -1 99	JANAF 1998					5Xe1+ (g)	
281203+6	134268+5	496658+1	169342-5	897027+2	547559+2298.15	1311.11	Xe1+ (g)
281203+6	134894+5	481339+1	796009-4	878471+5	547813+2	1311. 1844.11	Xe1+ (g)
281203+6	135187+5	449860+1	193435-3	444463+6	547923+2	1844. 3345.11	Xe1+ (g)
281203+6	135195+5	507929+1	777738-4	-172400+7	547926+2	3345. 4382.11	Xe1+ (g)
281203+6	135646+5	574875+1	-240092-4	-601460+7	548062+2	4382. 6000.11	Xe1+ (g)
1 30	JANAF 1998					2Zn1 (cr)	
000000+0	251492+5	531364+1	242028-2	293504+4	287942+2298.15	454.21	Zn1 (cr)
000000+0	283949+5	450470+1	360302-2	589938+5	304108+2	454. 1000.21	Zn1 (cr)
1 30	JANAF 1998					3Zn1 (cr, l)	
000000+0	240628+5	549399+1	207172-2	-390344+4	282307+2298.15	410.21	Zn1 (cr, l)
000000+0	279530+5	466782+1	341515-2	423848+5	302011+2	410.692.7321	Zn1 (cr, l)
000000+0	216418+5	750000+1	000000+0	300408-7	289571+2692.73	2000.32	Zn1 (cr, l)
1 30	JANAF 1998					5Zn1 (g)	
311711+5	134230+5	496749+1	333256-6	452055+2	499211+2298.15	3111.11	Zn1 (g)
311711+5	134230+5	465405+1	674891-4	101159+7	499211+2	3111. 3928.11	Zn1 (g)
311711+5	133955+5	344105+1	273315-3	725292+7	499125+2	3928. 4635.11	Zn1 (g)
311711+5	131546+5	114750+1	603089-3	236885+8	498405+2	4635. 5305.11	Zn1 (g)
311711+5	123269+5	-206895+1	100707-2	538948+8	496013+2	5305. 6000.11	Zn1 (g)
1 30 1 99	JANAF 1998					2Zn1- (g)	
262596+5	134227+5	496797+1	000000+0	-105622-7	499210+2298.15	3000.11	Zn1- (g)
262596+5	134227+5	496797+1	000000+0	-892115-5	499210+2	3000. 6000.11	Zn1- (g)
1 30	JANAF 1998					2Zn1 (l)	
155808+4	246545+5	539577+1	226155-2	-180161+3	307065+2298.15	440.31	Zn1 (l)
155808+4	200836+5	750000+1	000000+0	-960544-9	289567+2	440. 2000.32	Zn1 (l)
1 30 -1 99	JANAF 1998					2Zn1+ (g)	
247929+6	134227+5	496785+1	607969-7	128325+2	512982+2298.15	4655.11	Zn1+ (g)
247929+6	134112+5	486131+1	153194-4	769555+6	512947+2	4655. 6000.11	Zn1+ (g)
1 40	JANAF 1998					5Zr1 (cr)_01	
000000+0	211560+5	574993+1	126773-2	-925002+4	259389+2298.15	496.21	Zr1 (cr)_01
000000+0	232336+5	524166+1	202041-2	239481+5	269745+2	496. 720.21	Zr1 (cr)_01
000000+0	255588+5	411428+1	313268-2	193233+6	280554+2	720. 1200.21	Zr1 (cr)_01
000000+0	244195+5	629252+1	193524-2	-874263+6	275845+2	1200. 1500.21	Zr1 (cr)_01
000000+0	233063+5	106023+2	389466-5	-405291+7	271450+2	1500. 1700.21	Zr1 (cr)_01

1 40	JANAF 1998	5Zr1 (cr)_02
114962+4 222657+5 553518+1 164067-2 124743+3 275361+2298.15 694.21		Zr1 (cr)_02
114962+4 355142+4 172175+2-849613-2-223821+7 190630+2 694. 900.21		Zr1 (cr)_02
114962+4 208300+5 337657+1 216846-2 119843+7 267250+2 900. 1632.21		Zr1 (cr)_02
114962+4 216509+5-434005+0 380527-2 423290+7 270454+2 1632. 2055.21		Zr1 (cr)_02
114962+4 218890+5-578557+1 553570-2 118155+8 271324+2 2055. 2600.21		Zr1 (cr)_02
1 40	JANAF 1998	5Zr1 (cr,l)
000000+0 221164+5 556893+1 158778-2-146460+4 264291+2298.15 610.21		Zr1 (cr,l)
000000+0 253681+5 425629+1 301926-2 162049+6 279701+2 610. 999.21		Zr1 (cr,l)
000000+0 253166+5 447655+1 291569-2 455026+5 279531+2 999. 1135.21		Zr1 (cr,l)
000000+0 226309+5 130173+1 316216-2 246435+7 269772+2 1135. 2125.22		Zr1 (cr,l)
000000+0 278135+5 100000+2 000000+0 274187-5 294269+2 2125. 5500.33		Zr1 (cr,l)
1 40	JANAF 1998	5Zr1 (g)
145800+6 105549+5 718869+1-194918-2-606283+5 5471113+2298.15 634.11		Zr1 (g)
145800+6 199219+5 315918+1 229138-2 478393+6 591219+2 634. 1418.11		Zr1 (g)
145800+6 185626+5 754551+1 229781-3-246328+7 585794+2 1418. 2742.11		Zr1 (g)
145800+6 185701+5 601959+1 669315-3-519555+5 585819+2 2742. 4223.11		Zr1 (g)
145800+6 188254+5 112188+2-149694-3-310921+8 586600+2 4223. 6000.11		Zr1 (g)
1 40 1 99	JANAF 1998	5Zr1-(g)
135033+6 538296+4 829410+1-380322-2-268133+5 530961+2298.15 473.11		Zr1-(g)
135033+6 118251+5 660199+1-141162-2 986713+5 562874+2 473. 700.11		Zr1-(g)
135033+6 140861+5 548392+1-320596-3 272306+6 573372+2 700. 994.11		Zr1-(g)
135033+6 144643+5 506691+1-403217-4 409062+6 575004+2 994. 1617.11		Zr1-(g)
135033+6 144821+5 497038+1-406848-6 492720+6 575073+2 1617. 6000.11		Zr1-(g)
1 40	JANAF 1998	5Zr1 (l)
415966+4 221175+5 556872+1 158813-2-145494+4 285176+2298.15 611.31		Zr1 (l)
415966+4 253693+5 425551+1 301993-2 162204+6 300586+2 611. 1029.31		Zr1 (l)
415966+4 250860+5 485099+1 269795-2-117509+6 299446+2 1029. 1314.31		Zr1 (l)
415966+4 241262+5 721596+1 149757-2-147750+7 295548+2 1314. 1580.31		Zr1 (l)
415966+4 236524+5 100000+2 000000+0 125725-5 294272+2 1580. 5500.32		Zr1 (l)
1 13	JANAF 1998	4Al1*
000000+0 224771+5 581513+1 154797-2-435803+5 241234+2298.15 500.21		Al1*
000000+0 275637+5 432747+1 351261-2 827562+5 266151+2 500. 700.21		Al1*
000000+0 321385+5 192446+1 578416-2 481090+6 287269+2 700.933.4521		Al1*
252438+4 200157+5 758867+1 000000+0 207476-6 258798+2933.45 3000.32		Al1*
1 13 3 35	JANAF 1998	2Al1Br3*
-122200+6 306000+6-272731+1 699766-1 524695+6 228764+3298.15 370.621		Al1Br3*
-119833+6 806978+5 298674+2 000000+0 132218-7 118309+3 370.6 1500.32		Al1Br3*
1 13 3 17	JANAF 1998	2Al1Cl3*
-168650+6 135488+6 155228+2 209959-1-181992+3 118685+3298.15 465.721		Al1Cl3*
-161282+6 810552+5 300000+2 000000+0-372756-7 110589+3 465.7 1500.32		Al1Cl3*
1 13 3 9	JANAF 1998	5Al1F3*
-361000+6 941327+5 186667+2 100305-1-328938+6 842564+2298.15 400.21		Al1F3*
-361000+6 902727+5 182684+2 933860-2-220919+6 819863+2 400. 600.21		Al1F3*
-361000+6 196044+6-238275+2 556172-1 493741+7 132182+3 600. 728.21		Al1F3*
-361000+6 689377+5 220924+2 219762-2-194225+6 714668+2 728. 2523.22		Al1F3*
-340048+6 723749+5 300000+2 000000+0-309061-4 811066+2 2523. 4000.33		Al1F3*
1 13 6 9 3 3	JANAF 1998	6Al1F6Li3*
-808700+6 247325+6 493510+2 261096-1-776779+6 225065+3298.15 503.21		Al1F6Li3*
-808700+6 228306+6 548798+2 187806-1-124290+7 215743+3 503. 748.21		Al1F6Li3*
-808700+6 240826+6 479878+2 250102-1 258038+4 221911+3 748. 848.22		Al1F6Li3*
-808700+6 241118+6 479904+2 250070-1 265531+4 222262+3 848. 978.23		Al1F6Li3*
-808700+6 241240+6 479621+2 250248-1 130616+5 222373+3 978. 1058.24		Al1F6Li3*
-792935+6 221331+6 860000+2 000000+0 344776-5 232885+3 1058. 3000.35		Al1F6Li3*
1 13 6 9 3 11	JANAF 1998	4Al1F6Na3*
-792760+6 206665+6 557951+2 130394-1-722414+6 217020+3298.15 500.21		Al1F6Na3*
-792760+6 263791+6 431304+2 330819-1-615580+5 245719+3 500. 836.21		Al1F6Na3*
-792760+6 260195+6 294169+2 387019-1 509968+6 243439+3 836. 1285.22		Al1F6Na3*
-775925+6 238896+6 945301+2 000000+0-457997-5 252613+3 1285. 3000.33		Al1F6Na3*
1 13 3 53	JANAF 1998	2Al1I3*
-724001+5 146751+6 168308+2 227285-1 283144+4 147153+3298.15464.1521		Al1I3*
-691788+5 783537+5 290000+2 000000+0-183776-7 120407+3464.15 1500.32		Al1I3*

1 13 1 3 2 8	JANAF 1998	5Al1Li1O2*
-284100+6 846495+5 197053+2 739352-2-507631+6 753862+2298.15 400.21		Al1Li1O2*
-284100+6 707571+5 220808+2 289838-2-600022+6 682016+2 400. 830.21		Al1Li1O2*
-284100+6 707461+5 220979+2 288804-2-605894+6 681972+2 830. 1100.21		Al1Li1O2*
-284100+6 707642+5 220729+2 290342-2-596111+6 682049+2 1100. 1973.21		Al1Li1O2*
-264756+6 732506+5 300000+2 000000+0-735661-5 792323+2 1973. 4000.32		Al1Li1O2*
2 13 1 4 4 8	JANAF 1998	6Al2Be1O4*
-549900+6 150495+6 300868+2 161176-1-863460+6 124046+3298.15 499.21		Al2Be1O4*
-549900+6 119371+6 390515+2 416563-2-161063+7 108776+3 499. 1244.21		Al2Be1O4*
-549900+6 121740+6 302737+2 820457-2 419787+7 109695+3 1244. 1633.21		Al2Be1O4*
-549900+6 130876+6-223596+2 296852-1 510126+8 113225+3 1633. 1901.21		Al2Be1O4*
-549900+6 139913+6-139356+3 706862-1 192146+9 116594+3 1901. 2146.21		Al2Be1O4*
-517171+6 136312+6 588932+2 000000+0 237089-5 131390+3 2146. 4000.32		Al2Be1O4*
2 13 1 12 4 8	JANAF 1998	4Al2Mg1O4*
-549500+6 308097+6 460992+1 661461-1 305848+6 212261+3298.15 400.21		Al2Mg1O4*
-549500+6 129948+6 350823+2 849743-2-880218+6 120133+3 400. 704.21		Al2Mg1O4*
-549500+6 129954+6 350805+2 849973-2-880109+6 120136+3 704. 2408.21		Al2Mg1O4*
-503472+6 126704+6 525000+2 000000+0 978676-4 138063+3 2408. 4000.32		Al2Mg1O4*
2 13 3 8	JANAF 1998	5Al2O3*
-400500+6 105309+6 226237+2 103275-1-606370+6 889367+2298.15 488.21		Al2O3*
-400500+6 847805+5 283313+2 254714-2-106142+7 788277+2 488. 1269.21		Al2O3*
-400500+6 835909+5 310482+2 113582-2-255243+7 783421+2 1269. 1816.21		Al2O3*
-400500+6 836246+5 292639+2 169569-2-210824+5 783525+2 1816. 2327.21		Al2O3*
-387325+6 105225+6 460000+2 000000+0 295986-4 928732+2 2327. 4000.32		Al2O3*
3 13 14 9 5 11	JANAF 1998	5Al3F14Na5*
-181200+7 421088+6 121385+3 220737-1-173042+7 445823+3298.15 549.21		Al3F14Na5*
-181200+7 418416+6 121052+3 215850-1-154927+7 444351+3 549. 800.21		Al3F14Na5*
-181200+7 417757+6 120891+3 214771-1-139103+7 444016+3 800. 1010.21		Al3F14Na5*
-179192+7 590219+6 232760+3 000000+0 173835-3 577826+3 1010. 1200.32		Al3F14Na5*
-179192+7 590219+6 232760+3 000000+0-739225-5 577826+3 1200. 3000.32		Al3F14Na5*
6 13 1 4 10 8	JANAF 1998	5Al6Be1O10*
-134420+7 351225+6 776740+2 331858-1-215158+7 298970+3298.15 490.21		Al6Be1O10*
-134420+7 292840+6 941510+2 109349-1-348991+7 270263+3 490. 1150.21		Al6Be1O10*
-134420+7 292536+6 888631+2 128300-1 621115+6 270025+3 1150. 1650.21		Al6Be1O10*
-134420+7 297871+6 561069+2 260164-1 305648+8 272079+3 1650. 2186.21		Al6Be1O10*
-126657+7 322563+6 136000+3 000000+0 540967-4 318607+3 2186. 4000.32		Al6Be1O10*
1 5	JANAF 1998	6B1*
000000+0 234080+5 304291+1 349163-2-122719+6 171702+2298.15 365.21		B1*
000000+0 210856+5 415993+1 235465-2-216246+6 161814+2 365. 572.21		B1*
000000+0 180832+5 519316+1 111860-2-322975+6 147354+2 572. 800.21		B1*
000000+0 175103+5 557358+1 798818-3-402717+6 144768+2 800. 1200.21		B1*
000000+0 174359+5 571374+1 721391-3-470750+6 144460+2 1200. 2350.21		B1*
116938+5 177497+5 758843+1 000000+0-167197-5 195577+2 2350. 4500.32		B1*
10 5 14 1	JANAF 1998	6B10H14*
-690010+4 118780+7-455437+2 293597+0 897792+6 735306+3298.15371.9321		B10H14*
-170483+4-426758+6 258301+3-243427+0-133967+8-784659+2371.93 500.32		B10H14*
-170483+4 454418+6 613383+2 665363-1-290162+7 363941+3 500. 700.32		B10H14*
-170483+4 382852+6 954125+2 325998-1-795778+7 330596+3 700. 990.32		B10H14*
-170483+4 335812+6 144995+3-134062-2-236209+8 310226+3 990. 1220.32		B10H14*
-170483+4 303853+6 207555+3-354659-1-547696+8 297039+3 1220. 1500.32		B10H14*
1 5 4 9 1 19	JANAF 1998	3B1F4K1*
-451000+6 215337+6 156768+2 388168-1 998604+4 173127+3298.15 556.21		B1F4K1*
-451000+6 125061+6 276513+2 105389-1-465742+4 130220+3 556. 843.22		B1F4K1*
-446801+6 107917+6 399419+2 000000+0 253037-5 128099+3 843. 1500.33		B1F4K1*
1 5 1 19 2 8	JANAF 1998	5B1K1O2*
-237800+6 966846+5 142372+2 131961-1-191294+6 865747+2298.15 497.21		B1K1O2*
-237800+6 804746+5 187820+2 709876-2-565393+6 787473+2 497. 726.21		B1K1O2*
-237800+6 740838+5 225004+2 369157-2-122149+7 756892+2 726. 1000.21		B1K1O2*
-237800+6 654938+5 321038+2-272675-2-440650+7 719873+2 1000. 1220.21		B1K1O2*
-234400+6 871334+5 350000+2 000000+0-180916-4 868298+2 1220. 2000.32		B1K1O2*
1 5 1 3 2 8	JANAF 1998	5B1Li1O2*
-243600+6 887059+5 141496+2 115189-1-280501+6 745924+2298.15 500.21		B1Li1O2*
-243600+6 925233+5 131212+2 129493-1-202192+6 764780+2 500. 703.21		B1Li1O2*
-243600+6 930132+5 128641+2 131924-1-159634+6 767041+2 703. 1117.21		B1Li1O2*
-239068+6 862381+5 344909+2 000000+0-155033-3 805182+2 1117. 1300.32		B1Li1O2*
-239068+6 862381+5 344909+2 000000+0-168102-5 805182+2 1300. 3000.32		B1Li1O2*

1 5 1 11 2 8	JANAF 1998					5B1Na1O2*		
-233200+6	957926+5	138921+2	132001-1	-183820+6	842905+2298.15	519.21	B1Na1O2*	
-233200+6	769768+5	197044+2	577916-2	-712001+6	751257+2	519.	910.21	B1Na1O2*
-233200+6	661013+5	295133+2	-139022-2	-343215+7	703517+2	910.	1240.21	B1Na1O2*
-229450+6	868188+5	350000+2	000000+0	-274353-3	850231+2	1240.	1401.32	B1Na1O2*
-229450+6	868188+5	350000+2	000000+0	-203520-4	850231+2	1401.	2500.32	B1Na1O2*
2 5 3 8	JANAF 1998					5B2O3*		
-304000+6	121109+6	128881+2	195936-1	-335291+6	937224+2298.15	488.21	B2O3*	
-304000+6	975454+5	194185+2	106735-1	-853820+6	821147+2	488.	723.21	B2O3*
-299560+6	808848+5	310000+2	000000+0	660995-5	830177+2	723.	900.32	B2O3*
-299560+6	808848+5	310000+2	000000+0	-126217-4	830177+2	900.	1201.32	B2O3*
-299560+6	808848+5	310000+2	000000+0	-270238-5	830177+2	1201.	3000.32	B2O3*
2 5 1 22	JANAF 1998					5B2Ti1*		
-668000+5	812183+5	968345+1	125274-1	-252060+6	616083+2298.15	453.21	B2Ti1*	
-668000+5	571773+5	145149+2	436089-2	-484361+6	493888+2	453.	1415.21	B2Ti1*
-668000+5	556824+5	192148+2	213617-2	-359171+7	487912+2	1415.	2151.21	B2Ti1*
-668000+5	554642+5	191246+2	191222-2	-945397+6	487100+2	2151.	3193.21	B2Ti1*
-449400+5	574011+5	260000+2	000000+0	-712799-4	561608+2	3193.	6000.32	B2Ti1*
2 5 1 40	JANAF 1998					5B2Zr1*		
-770999+5	563784+5	142759+2	423818-2	-356337+6	510163+2298.15	500.21	B2Zr1*	
-770999+5	495733+5	160305+2	172766-2	-481165+6	476411+2	500.	917.21	B2Zr1*
-770999+5	502909+5	148050+2	243997-2	342634+2	479317+2	917.	2000.21	B2Zr1*
-770999+5	502910+5	148056+2	243985-2	-122166+4	479318+2	2000.	3323.21	B2Zr1*
-537361+5	517719+5	230000+2	000000+0	863334-5	554053+2	3323.	5000.32	B2Zr1*
4 5 2 19 7 8	JANAF 1998					6B4K2O7*		
-796900+6	273879+6	400429+2	378241-1	-939611+6	239212+3298.15	439.21	B4K2O7*	
-796900+6	194985+6	637161+2	700411-2	-289442+7	200816+3	439.	800.21	B4K2O7*
-796900+6	197911+6	600977+2	936595-2	-178793+7	202032+3	800.	1088.21	B4K2O7*
-786100+6	309516+6	100055+3	158844-1	-935917+7	275194+3	1088.	1468.32	B4K2O7*
-786100+6	302208+6	116341+3	724969-2	-171399+8	272233+3	1468.	1803.32	B4K2O7*
-786100+6	300002+6	137504+3	-555698-3	-401868+8	271400+3	1803.	3000.32	B4K2O7*
4 5 2 3 7 8	JANAF 1998					6B4Li2O7*		
-803600+6	351684+6	150582+2	693173-1	712541+6	263219+3298.15	500.21	B4Li2O7*	
-803600+6	253976+6	425453+2	321238-1	-151004+7	215164+3	500.	700.21	B4Li2O7*
-803600+6	232680+6	525960+2	220656-1	-298489+7	205234+3	700.	930.21	B4Li2O7*
-803600+6	259534+6	270537+2	403142-1	442815+7	216967+3	930.	1190.21	B4Li2O7*
-792953+6	285719+6	105816+3	554904-2	-896309+6	249488+3	1190.	1756.32	B4Li2O7*
-792953+6	286562+6	988214+2	819910-2	632149+7	249808+3	1756.	3000.32	B4Li2O7*
4 5 2 11 7 8	JANAF 1998					5B4Na2O7*		
-783160+6	190961+6	532159+2	113091-1	-106237+7	192792+3298.15	500.21	B4Na2O7*	
-783160+6	217592+6	479354+2	203409-1	-871221+6	206281+3	500.	700.21	B4Na2O7*
-783160+6	215326+6	475639+2	199256-1	-546719+6	205098+3	700.	900.21	B4Na2O7*
-783160+6	208064+6	535955+2	153542-1	-209979+7	201888+3	900.	1015.621	B4Na2O7*
-778360+6	266479+6	106330+3	000000+0	-406659-5	247532+31015.6	3000.32	B4Na2O7*	
8 5 2 19 13 8	JANAF 1998					5B8K2O13*		
-142092+7	520244+6	532895+2	845512-1	-151773+6	420832+3298.15	577.21	B8K2O13*	
-142092+7	418597+6	100988+3	365783-1	-681652+7	373588+3	577.	944.21	B8K2O13*
-142092+7	345091+6	172763+3	-141343-1	-281161+8	341544+3	944.	1130.21	B8K2O13*
-140357+7	406219+6	158100+3	000000+0	233451-2	394794+3	1130.	1300.32	B8K2O13*
-140357+7	406219+6	158100+3	000000+0	175898-4	394794+3	1300.	3000.32	B8K2O13*
1 5 6	JANAF 1998					8Ba1*		
000000+0	138321+6	-989000+1	366993-1	505286+6	940681+2298.15582.5321	Ba1*		
000000+0	802129+5	-397402+1	201389-1	909536+3	630151+2582.53768.1322	Ba1*		
000000+0	252365+5	933700+1	000000+0	202825-5	362019+2768.13	1000.23	Ba1*	
119144+4	250214+5	911675+1	-396750-3	163342+7	378073+2	1000.	1362.34	Ba1*
119144+4	268745+5	369587+1	222134-2	507461+7	385514+2	1362.	1812.34	Ba1*
119144+4	277670+5	-513234+1	545963-2	147947+8	388877+2	1812.	2270.34	Ba1*
119144+4	279492+5	-164146+2	872435-2	347432+8	389525+2	2270.	2823.34	Ba1*
119144+4	279518+5	-335524+2	127460-1	808422+8	389534+2	2823.	3500.34	Ba1*
1 5 6 2 3 5	JANAF 1998					5Ba1Br2*		
-181100+6	700944+5	166097+2	565308-2	994814+4	891771+2298.15	400.21	Ba1Br2*	
-181100+6	685725+5	168729+2	515904-2	-557719+3	883908+2	400.	709.21	Ba1Br2*
-181100+6	685989+5	168639+2	516998-2	102634+3	884034+2	709.	1130.21	Ba1Br2*
-174520+6	650198+5	250600+2	000000+0	159253-3	934975+2	1130.	1300.32	Ba1Br2*
-174520+6	650198+5	250600+2	000000+0	-303459-5	934975+2	1300.	3000.32	Ba1Br2*

1 56 2 17	JANAF 1998	5Ba1Cl12*
-205200+6 610714+5 174320+2 316092-2-366865+5 781393+2298.15 614.21		Ba1Cl12*
-205200+6 705975+5 135202+2 738594-2 460039+6 826459+2 614. 999.21		Ba1Cl12*
-205200+6 106893+6-277752+2 347927-1 143482+8 982644+2 999. 1198.21		Ba1Cl12*
-205200+6 755284+5 295999+2 118521-9 106766+0 874064+2 1198. 1235.22		Ba1Cl12*
-198964+6 667609+5 260000+2 000000+0-223307-5 873062+2 1235. 3000.33		Ba1Cl12*
1 56 2 9	JANAF 1998	7Ba1F2*
-288900+6 628221+5 173106+2 367158-2-101788+6 723588+2298.15 697.21		Ba1F2*
-288900+6 856545+5 557435+1 148919-1 180050+7 829213+2 697. 900.21		Ba1F2*
-288900+6 136489+6-407602+2 486068-1 147533+8 105213+3 900. 1100.21		Ba1F2*
-288900+6 222510+7-340587+4 201045+1 147532+1 978893+3 1100. 1240.21		Ba1F2*
-288900+6 341378+6-900654+3 430501+0 634541+9 184845+3 1240. 1480.22		Ba1F2*
-288900+6 671211+5 257299+2 000000+0 177960-2 758770+2 1480. 1641.23		Ba1F2*
-279946+6 612074+5 238590+2 000000+0-359563-6 781503+2 1641. 3500.34		Ba1F2*
1 56 2 1 2 8	JANAF 1998	5Ba1H2O2*
-226170+6 186637+6 120277+2 344754-1 176344+6 147498+3298.15 424.21		Ba1H2O2*
-226170+6 106788+6 234468+2 977774-2 604196+4 105756+3 424.681.1521		Ba1H2O2*
-223261+6 899161+5 337000+2 000000+0-264035-5 104151+3681.15 1031.32		Ba1H2O2*
-223261+6 899161+5 337000+2 000000+0-134694-4 104151+3 1031. 1776.32		Ba1H2O2*
-223261+6 899161+5 337000+2 000000+0-214518-2 104151+3 1776. 2000.32		Ba1H2O2*
1 56 2 53	JANAF 1998	2Ba1I2*
-144700+6 674882+5 170965+2 477965-2-315587+2 918556+2298.15 984.21		Ba1I2*
-140030+6 699288+5 270000+2 000000+0-308757-6 997025+2 984. 2800.32		Ba1I2*
1 56 1 8	JANAF 1998	5Ba1O1*
-131000+6 438693+5 110200+2 320421-2-601376+5 509900+2298.15 465.21		Ba1O1*
-131000+6 402495+5 119523+2 186982-2-127547+6 491931+2 465. 701.21		Ba1O1*
-131000+6 397112+5 122173+2 161059-2-168479+6 489431+2 701. 1064.21		Ba1O1*
-131000+6 396358+5 123179+2 154780-2-206797+6 489111+2 1064. 2286.21		Ba1O1*
-117502+6 398672+5 160000+2 000000+0 712134-5 549391+2 2286. 5000.32		Ba1O1*
1 4	JANAF 1998	6Be1*
000000+0 202422+5 499491+1 160821-2-138630+6 173614+2298.15 518.21		Be1*
000000+0 206326+5 487436+1 176215-2-127681+6 175516+2 518. 803.21		Be1*
000000+0 209654+5 464683+1 195078-2-786368+5 177014+2 803. 1134.21		Be1*
000000+0 212007+5 427630+1 216840-2 804969+5 178000+2 1134. 1527.21		Be1*
000000+0 198447+5 717017+1-115846-9-212784+0 176196+2 1527. 1560.22		Be1*
370650+4 181408+5 607886+1 513865-3 206662+2 188556+2 1560. 3500.33		Be1*
1 4 2 17	JANAF 1998	5Be1Cl12*
-117335+6 709586+5 165635+2 605484-2-255301+6 729388+2298.15 457.21		Be1Cl12*
-117335+6 506500+5 216481+2-135741-2-609750+6 628281+2 457. 688.21		Be1Cl12*
-117427+6 763258+5 290201+2 000000+0 722030-3 804411+2 688. 800.32		Be1Cl12*
-117427+6 763258+5 290201+2 000000+0 215532-5 804411+2 800. 1186.32		Be1Cl12*
-117427+6 763258+5 290201+2 000000+0-124254-5 804411+2 1186. 2000.32		Be1Cl12*
1 4 2 9	JANAF 1998	5Be1F2*
-245400+6 166455+6-216187+1 384842-1 273882+6 113264+3298.15 500.21		Be1F2*
-245400+6 663868+5 113198+2 800001-2 493292+2 607827+2 500. 825.22		Be1F2*
-244275+6 674454+5 140719+2 692391-2-526834+6 630155+2 825. 1000.33		Be1F2*
-244275+6 677067+5 138170+2 710423-2-452336+6 631293+2 1000. 1364.33		Be1F2*
-244275+6 676862+5 138605+2 708103-2-474286+6 631210+2 1364. 2000.33		Be1F2*
1 4 3 9 1 3	JANAF 1998	2Be1F3Li1*
-394800+6 168791+6 129999+2 300001-1 693003+1 132400+3298.15 650.21		Be1F3Li1*
-390613+6 101191+6 380000+2 000000+0 911535-7 110134+3 650. 2000.32		Be1F3Li1*
1 4 4 9 2 3	JANAF 1998	2Be1F4Li2*
-543400+6 217460+6 216924+2 356518-1 510069+3 177622+3298.15 732.221		Be1F4Li2*
-535628+6 145926+6 554699+2 000000+0-127619-5 158768+3 732.2 2500.32		Be1F4Li2*
1 4 2 53	JANAF 1998	3Be1I2*
-450999+5 713429+5 179326+2 532103-2-270288+6 830736+2298.15 532.21		Be1I2*
-450999+5 561070+5 212997+2-289765-4-417720+6 754417+2 532. 753.21		Be1I2*
-426331+5 719864+5 270000+2 000000+0 973629-6 903715+2 753. 1500.32		Be1I2*
1 4 1 8	JANAF 1998	5Be1O1*
-145400+6 472078+5 711400+1 645808-2-260677+6 357127+2298.15 490.21		Be1O1*
-145400+6 348106+5 105960+2 174184-2-541833+6 296142+2 490. 868.21		Be1O1*
-145400+6 336328+5 115571+2 100768-2-785854+6 290926+2 868. 2373.21		Be1O1*
-145400+6 352249+5 116366+2 976026-3-835003+6 297642+2 2373.2821.222		Be1O1*
-129710+6 392559+5 190000+2 000000+0-535310-4 367457+22821.2 5000.33		Be1O1*

3 4 2 7	JANAF 1998				6Be3N2*		
-140600+6	123078+6	167884+2	178498-1-599941+6	918040+2298.15	485.21	Be3N2*	
-140600+6	908140+5	256618+2	567041-2-129770+7	758976+2	485. 718.21	Be3N2*	
-140600+6	814730+5	307801+2	936658-3-218411+7	716033+2	718. 1073.21	Be3N2*	
-140600+6	787116+5	345360+2	-139017-2-363394+7	704321+2	1073. 1771.21	Be3N2*	
-140600+6	792425+5	309369+2	325249-4-248221+6	706353+2	1771. 2473.21	Be3N2*	
-116391+6	864642+5	320000+2	000000+0	682982-4	833250+2	2473. 4000.32	Be3N2*
1 35 1 19	JANAF 1998				5Br1K1*		
-941200+5	126171+6	-214296+1	292594-1	527862+6	999766+2298.15	400.21	Br1K1*
-941200+5	415321+5	126710+2	169319-2	-781355+5	562931+2	400. 600.21	Br1K1*
-941200+5	570353+5	695545+1	825995-2	561049+6	637067+2	600. 800.21	Br1K1*
-941200+5	721831+5	-326385+1	167854-1	273639+7	705339+2	800. 1007.21	Br1K1*
-899837+5	451061+5	167000+2	000000+0	-243475-6	637343+2	1007. 2500.32	Br1K1*
1 35 1 3	JANAF 1998				4Br1Li1*		
-838700+5	254689+5	144966+2	-295865-2	-170899+6	422237+2298.15	400.21	Br1Li1*
-838700+5	573725+5	852970+1	763360-2	105895+6	585905+2	400. 600.21	Br1Li1*
-838700+5	731475+5	283108+1	142597-1	726162+6	661486+2	600. 823.21	Br1Li1*
-808380+5	421537+5	155999+2	000000+0	173536-6	562525+2	823. 2000.32	Br1Li1*
1 35 1 11	JANAF 1998				4Br1Na1*		
-863800+5	423875+5	122786+2	210513-2	-553015+5	544783+2298.15	564.21	Br1Na1*
-863800+5	446958+5	116013+2	299870-2	-155556+3	556066+2	564. 879.21	Br1Na1*
-863800+5	446928+5	116051+2	299625-2	-143946+4	556053+2	879. 1020.21	Br1Na1*
-811049+5	402582+5	149001+2	000000+0	115563-6	593456+2	1020. 2500.32	Br1Na1*
2 35 1 20	JANAF 1998				5Br2Ca1*		
-163300+6	504970+5	198320+2	-588920-3	-153027+6	743442+2298.15	400.21	Br2Ca1*
-163300+6	561358+5	187228+2	131195-2	-972043+5	772228+2	400. 600.21	Br2Ca1*
-163300+6	700544+5	128908+2	754113-2	656800+6	837920+2	600. 800.21	Br2Ca1*
-163300+6	722980+5	114974+2	875159-2	928828+6	848107+2	800. 1015.21	Br2Ca1*
-158458+6	696993+5	270000+2	000000+0	-789055-6	906874+2	1015. 2500.32	Br2Ca1*
2 35 1 26	JANAF 1998				4Br2Fe1*		
-595000+5	706567+5	176879+2	513472-2	-381817+4	883094+2298.15	432.21	Br2Fe1*
-595000+5	710868+5	176384+2	526167-2	-479692+4	885367+2	432. 650.21	Br2Fe1*
-595000+5	713439+5	175784+2	532903-2	275593+4	887655+2	650. 964.22	Br2Fe1*
-504314+5	688971+5	255000+2	000000+0	-793907-6	993556+2	964. 2000.33	Br2Fe1*
2 35 1 80	JANAF 1998				3Br2Hg1*		
-405000+5	749066+5	158094+2	722290-2	329726+4	967399+2298.15	400.21	Br2Hg1*
-405000+5	482562+5	222586+2	-239623-2	-412957+6	834471+2	400. 514.21	Br2Hg1*
-374345+5	659265+5	244001+2	000000+0	-148386-6	102267+3	514. 1500.32	Br2Hg1*
2 35 1 12	JANAF 1998				5Br2Mg1*		
-125300+6	-328622+5	342829+2	-276492-1	-760339+6	282128+2298.15	400.21	Br2Mg1*
-125300+6	602148+5	184250+2	243720-2	-148611+6	763631+2	400. 700.21	Br2Mg1*
-125300+6	653670+5	159223+2	490290-2	231983+6	787593+2	700. 984.21	Br2Mg1*
-117210+6	651300+5	250000+2	000000+0	554027-2	884402+2	984. 1106.32	Br2Mg1*
-117210+6	651300+5	250000+2	000000+0	468268-4	884402+2	1106. 2000.32	Br2Mg1*
2 35 1 82	JANAF 1998				3Br2Pb1*		
-663000+5	624897+5	184010+2	288123-2	-213732+5	886599+2298.15	411.21	Br2Pb1*
-663000+5	884290+5	142341+2	111368-1	109350+6	102130+3	411. 644.21	Br2Pb1*
-639130+5	716375+5	268000+2	000000+0	-142396-6	101204+3	644. 2000.32	Br2Pb1*
2 35 1 38	JANAF 1998				5Br2Sr1*		
-171600+6	651710+5	173413+2	412321-2	-178049+5	853608+2298.15	625.21	Br2Sr1*
-171600+6	795182+5	113083+2	105532-1	769039+6	921318+2	625. 918.21	Br2Sr1*
-171600+6	725275+5	275000+2	168065-8	662887+0	921032+2	918. 930.22	Br2Sr1*
-168522+6	725285+5	278181+2	000000+0	896638-4	950778+2	930. 1100.33	Br2Sr1*
-168522+6	725285+5	278181+2	000000+0	-619495-6	950778+2	1100. 3000.33	Br2Sr1*
2 35 1 40	JANAF 1998				2Br2Zr1*		
-967000+5	660018+5	199100+2	273993-2	710867+1	810707+2298.15	900.21	Br2Zr1*
-818196+5	587653+5	217500+2	000000+0	145449-5	941987+2	900. 2000.32	Br2Zr1*
4 35 1 22	JANAF 1998				3Br4Ti1*		
-147700+6	277304+6	132289+2	540909-1	184350+6	235942+3298.15	311.421	Br4Ti1*
-144681+6	980770+5	363000+2	000000+0	875960-7	151726+3	311.4 711.32	Br4Ti1*
-144681+6	980770+5	363000+2	000000+0	811217-5	151726+3	711. 1000.32	Br4Ti1*

5 35 1 41	JANAF 1998				4Br5Nb1*
-132900+6	955101+5	353499+2	000000+0	152151-3 143465+3298.15	400.21 Br5Nb1*
-132900+6	955101+5	353499+2	000000+0	123012-4 143465+3	400. 527.21 Br5Nb1*
-130276+6	521702+5	659168+2	-280139-1	797797+5 138378+3	527. 700.32 Br5Nb1*
-130276+6	309359+5	745058+2	-373917-1	-912259+6 128352+3	700. 900.32 Br5Nb1*
5 35 1 74	JANAF 1998				2Br5W1*
-745000+5	190934+6	294423+2	249831-1	237469+5 200608+3298.15	559.21 Br5W1*
-712378+5	117531+6	435000+2	000000+0	453642-6 170543+3	559. 1000.32 Br5W1*
1 6 4 5	JANAF 1998				5C1B4*
-149799+5	157824+6	903436+1	302572-1	-462748+6 106527+3298.15	400.21 C1B4*
-149799+5	807917+5	244891+2	413047-2	-126339+7 672793+2	400. 741.21 C1B4*
-149799+5	861510+5	198057+2	762625-2	-114143+6 696098+2	741. 1001.21 C1B4*
-149799+5	829761+5	229905+2	539977-2	-107220+7 682300+2	1001. 2743.21 C1B4*
124008+5	790878+5	325000+2	000000+0	100373-3 768196+2	2743. 4500.32 C1B4*
1 6 2 4	JANAF 1998				5C1Be2*
-217000+5	356811+5	123484+2	653423-3	-196546+6 330805+2298.15	592.21 C1Be2*
-217000+5	294283+5	285185+2	-862246-2	-393908+7 318545+2	592. 805.21 C1Be2*
-217000+5	648077+5	762210+1	100004-1	-112514+6 479819+2	805. 1251.21 C1Be2*
-217000+5	521915+5	271711+2	-160328-2	-798877+7 427072+2	1251. 2400.21 C1Be2*
-379852+4	524504+5	220000+2	000000+0	-768680-4 502649+2	2400. 3500.32 C1Be2*
1 6 1 19 1 7	JANAF 1998				4C1K1N1*
-271200+5	472991+5	150559+2	146323-2	333949+5 694402+2298.15	400.21 C1K1N1*
-271200+5	431305+5	158136+2	907552-4	-297500+1 672960+2	400. 600.21 C1K1N1*
-271200+5	431483+5	158075+2	980872-4	626220+3 673045+2	600. 895.21 C1K1N1*
-248920+5	486329+5	180000+2	000000+0	489114-6 736603+2	895. 3000.22 C1K1N1*
1 6 2 19 3 8	JANAF 1998				5C1K2O3*
-274900+6	171096+6	212021+2	256339-1	-132925+6 154639+3298.15	468.21 C1K2O3*
-274900+6	157383+6	247666+2	205618-1	-393726+6 147838+3	468. 708.21 C1K2O3*
-274900+6	160773+6	231094+2	221893-1	-140601+6 149414+3	708. 1174.21 C1K2O3*
-270222+6	127310+6	500000+2	000000+0	333468-2 139790+3	1174. 1300.32 C1K2O3*
-270222+6	127310+6	500000+2	000000+0	832400-5 139790+3	1300. 2500.32 C1K2O3*
1 6 2 3 3 8	JANAF 1998				5C1Li2O3*
-290640+6	213362+6	933165+1	421613-1	982840+5 157557+3298.15	486.21 C1Li2O3*
-290640+6	283404+6	-998020+1	686259-1	162176+7 192079+3	486.623.1521 C1Li2O3*
-290640+6	272791+6	-169956+1	620379-1	446123-3 187651+3623.15683.1522	C1Li2O3*
-290640+6	209282+6	562994-2	458874-1	808133+6 154360+3683.15993.1523	C1Li2O3*
-280852+6	114718+6	443200+2	000000+0	510316-6 121668+3993.15	2000.34 C1Li2O3*
1 6 1 7 1 11	JANAF 1998				5C1N1Na1*
-216800+5	124811+6	267801+1	260282-1	531300+6 107781+3298.15	400.21 C1N1Na1*
-216800+5	451259+5	163060+2	243448-3	104293+4 665716+2	400. 835.21 C1N1Na1*
-201716+5	505383+5	190000+2	000000+0	-397483-4 720043+2	835. 1000.22 C1N1Na1*
-201716+5	505383+5	190000+2	000000+0	467641-6 720043+2	1000. 1749.22 C1N1Na1*
-201716+5	505383+5	190000+2	000000+0	810979-5 720043+2	1749. 3000.22 C1N1Na1*
1 6 2 11 3 8	JANAF 1998				5C1Na2O3*
-270260+6	237207+6	902212+1	475665-1	296240+6 184171+3298.15	536.21 C1Na2O3*
-270260+6	286585+6	-307822+1	654936-1	101203+7 208709+3	536.723.1521 C1Na2O3*
-270260+6	174013+6	110282+2	314980-1	284321+6 150949+3723.151123.222	C1Na2O3*
-264941+6	118074+6	453000+2	000000+0	203433-3 131719+31123.2	1309.33 C1Na2O3*
-264941+6	118074+6	453000+2	000000+0	397187-5 131719+3	1309. 2500.33 C1Na2O3*
1 6 1 73	JANAF 1998				5C1Ta1*
-344400+5	396584+5	979201+1	307860-2	-170497+6 401033+2298.15	457.21 C1Ta1*
-344400+5	358804+5	107419+2	169766-2	-237071+6 382232+2	457. 1228.21 C1Ta1*
-344400+5	360032+5	106558+2	177223-2	-245426+6 382762+2	1228. 1501.21 C1Ta1*
-344400+5	359929+5	106137+2	178164-2	-182418+6 382716+2	1501. 4273.21 C1Ta1*
-811544+4	360412+5	160000+2	000000+0	537345-3 444800+2	4273. 6000.32 C1Ta1*
1 6 1 22	JANAF 1998				6C1Ti1*
-440000+5	776289+5	379863+1	151334-1	-204968+5 553350+2298.15	400.21 C1Ti1*
-440000+5	325643+5	127982+2	-129097-3	-483635+6 323643+2	400. 895.21 C1Ti1*
-440000+5	358524+5	999723+1	196994-2	255202+6 338150+2	895. 1503.21 C1Ti1*
-440000+5	362700+5	882019+1	254803-2	951335+6 339823+2	1503. 2000.21 C1Ti1*
-440000+5	363099+5	815849+1	277127-2	181225+7 339970+2	2000. 3290.21 C1Ti1*
-258924+5	357991+5	150000+2	000000+0	-337615-4 393534+2	3290. 6000.32 C1Ti1*



1 6 1 40	JANAF 1998	5ClZr1*
-470000+5 445802+5 100320+2 405647-2-198139+6 409819+2298.15 483.21		ClZr1*
-470000+5 357930+5 124375+2 745027-3-386191+6 366477+2 483. 1152.21		ClZr1*
-470000+5 356238+5 120367+2 840096-3 323890+3 365640+2 1152. 2804.21		ClZr1*
-470000+5 356237+5 120338+2 840661-3 110667+5 365640+2 2804. 3805.21		ClZr1*
-284123+5 359516+5 150000+2 000000+0-954266-4 415292+2 3805. 6000.32		ClZr1*
1 20	JANAF 1998	5Ca1*
000000+0 183532+5 641865+1 244649-3-261715+5 252742+2298.15 361.21		Ca1*
000000+0 343502+5 390844+1 529634-2 633003+5 336286+2 361. 716.21		Ca1*
000000+0 396399+5 150046+1 773972-2 249838+6 362414+2 716. 1115.22		Ca1*
186138+4 226013+5 836520+1 000000+0 420316-5 301904+2 1115. 1300.33		Ca1*
186138+4 226013+5 836520+1 000000+0-169996-6 301904+2 1300. 2500.33		Ca1*
1 20 2 17	JANAF 1998	5Ca1Cl2*
-190200+6 542292+5 183098+2 114269-2-110009+6 697482+2298.15 600.21		Ca1Cl2*
-190200+6 639559+5 145004+2 536905-2 348470+6 743718+2 600. 805.21		Ca1Cl2*
-190200+6 713162+5 986951+1 936637-2 126415+7 777096+2 805. 1045.21		Ca1Cl2*
-185013+6 637424+5 245060+2 000000+0 136454-3 808535+2 1045. 1237.32		Ca1Cl2*
-185013+6 637424+5 245060+2 000000+0 584421-5 808535+2 1237. 3000.32		Ca1Cl2*
1 20 2 9	JANAF 1998	5Ca1F2*
-293000+6 504156+5 193567+2-248785-3-256473+6 589787+2298.15 477.21		Ca1F2*
-293000+6 709643+5 138511+2 743457-2 162331+6 691368+2 477. 759.21		Ca1F2*
-293000+6 731726+5 124981+2 861742-2 424541+6 701412+2 759. 1424.21		Ca1F2*
-293000+6 738101+5 258080+2 250089-2 138461+4 711392+2 1424. 1691.22		Ca1F2*
-283477+6 611843+5 238800+2 000000+0-266674-5 709586+2 1691. 4000.33		Ca1F2*
1 20 2 53	JANAF 1998	5Ca1I2*
-128300+6 675625+5 169407+2 488822-2 383275+4 870652+2298.15 500.21		Ca1I2*
-128300+6 670355+5 170379+2 471313-2 141938+4 867970+2 500. 880.21		Ca1I2*
-128300+6 676503+5 164159+2 514692-2 187515+6 870635+2 880. 1052.21		Ca1I2*
-119543+6 646026+5 247000+2 000000+0 299662-3 951499+2 1052. 1203.32		Ca1I2*
-119543+6 646026+5 247000+2 000000+0 210217-5 951499+2 1203. 2500.32		Ca1I2*
1 20 1 8	JANAF 1998	5Ca1O1*
-151790+6 375781+5 117253+2 144970-2-185811+6 390861+2298.15 500.21		Ca1O1*
-151790+6 364308+5 120368+2 101863-2-209793+6 385198+2 500. 815.21		Ca1O1*
-151790+6 363354+5 121047+2 963395-3-225020+6 384771+2 815. 1929.21		Ca1O1*
-151790+6 363333+5 121134+2 959241-3-227576+6 384763+2 1929. 3200.21		Ca1O1*
-133206+6 367623+5 150000+2 000000+0-100369-3 444177+2 3200. 4500.32		Ca1O1*
1 17 1 55	JANAF 1998	5Cl1Cs1*
-105840+6 613123+5 956023+1 792675-2 542563+5 679745+2298.15 403.21		Cl1Cs1*
-105840+6 530058+5 109888+2 523449-2-153954+4 636817+2 403. 743.21		Cl1Cs1*
-105840+6 440594+5 143925+2 109145-2-293873+5 602689+2 743. 918.22		Cl1Cs1*
-103840+6 499821+5 185000+2 000000+0-162744-4 670157+2 918. 1101.33		Cl1Cs1*
-103840+6 499821+5 185000+2 000000+0-475666-6 670157+2 1101. 3000.33		Cl1Cs1*
1 17 1 29	JANAF 1998	5Cl1Cu1*
-330000+5 308501+5 180531+2-370095-2-475656+6 498319+2298.15 529.21		Cl1Cu1*
-330000+5 427302+5 153196+2 523057-3-336037+6 557676+2 529. 703.21		Cl1Cu1*
-313523+5 432316+5 160000+2 000000+0 940471-5 593525+2 703. 900.32		Cl1Cu1*
-313523+5 432316+5 160000+2 000000+0 175875-5 593525+2 900. 1766.32		Cl1Cu1*
-313523+5 432316+5 160000+2 000000+0 207585-4 593525+2 1766. 3000.32		Cl1Cu1*
1 17 1 53	JANAF 1998	4Cl1I1*
-846606+4 159393+8-215571+4 484090+1 645009+8 848498+4298.15300.5321		Cl1I1*
-571917+4 376104+5 255672+2-714836-2 126739+6 729606+2300.53 500.32		Cl1I1*
-571917+4 297552+5 275000+2-100000-1-155501-6 690482+2 500. 800.32		Cl1I1*
-571917+4 297552+5 275000+2-100000-1 158414-4 690482+2 800. 1000.32		Cl1I1*
1 17 1 19	JANAF 1998	5Cl1K1*
-104370+6 425524+5 120570+2 226768-2-422444+5 534594+2298.15 400.21		Cl1K1*
-104370+6 466350+5 113294+2 360422-2-113655+5 555631+2 400. 600.21		Cl1K1*
-104370+6 541286+5 815662+1 697360-2 403048+6 590958+2 600. 829.21		Cl1K1*
-104370+6 750043+5-717223+1 192606-1 393750+7 684308+2 829. 1044.21		Cl1K1*
-100810+6 475268+5 175901+2 000000+0-509857-6 613250+2 1044. 2000.32		Cl1K1*
1 17 1 3	JANAF 1998	4Cl1Li1*
-975779+5 491906+5 106166+2 463364-2-461033+5 509470+2298.15 513.21		Cl1Li1*
-975779+5 501616+5 103981+2 497616-2-348369+5 514337+2 513. 883.21		Cl1Li1*
-933927+5 360874+5 175648+2-227914-2-104121+5 502218+2 883. 1607.32		Cl1Li1*
-933927+5 360958+5 177255+2-232672-2-227957+6 502258+2 1607. 2000.32		Cl1Li1*

1 17 1 3 4 8	JANAF 1998	3Cl1Li1O4*
-910000+5 135131+6 324543+2 112960-1-955469+6 130129+3298.15 509.21		Cl1Li1O4*
-856489+5 104029+6 385000+2 000000+0 603735-6 128258+3 509. 704.32		Cl1Li1O4*
-856489+5 104029+6 385000+2 000000+0-156593-7 128258+3 704. 1500.32		Cl1Li1O4*
1 17 1 11	JANAF 1998	5Cl1Na1*
-982600+5 457632+5 112222+2 347716-2-166187+5 524476+2298.15 630.21		Cl1Na1*
-982600+5 550889+5 722674+1 769142-2 515422+6 568406+2 630. 900.21		Cl1Na1*
-982600+5 606484+5 258867+1 111998-1 171468+7 592976+2 900.1073.821		Cl1Na1*
-922378+5 448764+5 719750+1 406117-2 614805+7 582261+21073.8 1447.32		Cl1Na1*
-922378+5 423275+5 159059+2 303394-4 126805+6 572123+2 1447. 2500.32		Cl1Na1*
2 17 1 27	JANAF 1998	5Cl2Co1*
-747000+5 588289+5 198234+2 126948-2-128171+6 745990+2298.15 400.21		Cl2Co1*
-747000+5 596179+5 195624+2 159114-2-106997+6 749744+2 400. 600.21		Cl2Co1*
-747000+5 568851+5 213805+2 475808-4-428122+6 737679+2 600. 860.21		Cl2Co1*
-747000+5 583366+5 208386+2 680109-3-429621+6 744435+2 860. 1013.21		Cl2Co1*
-648934+5 624848+5 237000+2 000000+0-300308-5 869471+2 1013. 2000.32		Cl2Co1*
2 17 1 26	JANAF 1998	5Cl2Fe1*
-817000+5 618599+5 185026+2 272354-2-881504+5 777760+2298.15 500.21		Cl2Fe1*
-817000+5 604220+5 188353+2 221208-2-107396+6 770561+2 500. 800.21		Cl2Fe1*
-817000+5 585676+5 200689+2 117597-2-366412+6 762192+2 800. 950.21		Cl2Fe1*
-744111+5 659806+5 244199+2 000000+0-164573-4 898153+2 950. 1128.32		Cl2Fe1*
-744111+5 659806+5 244199+2 000000+0-268644-5 898153+2 1128. 2000.32		Cl2Fe1*
2 17 1 80	JANAF 1998	3Cl2Hg1*
-550000+5 658340+5 168771+2 457612-2-512100+5 855791+2298.15 550.21		Cl2Hg1*
-509613+5 650422+5 244001+2 000000+0 601482-5 956482+2 550. 703.32		Cl2Hg1*
-509613+5 650422+5 244001+2 000000+0 849457-7 956482+2 703. 1500.32		Cl2Hg1*
2 17 1 12	JANAF 1998	5Cl2Mg1*
-153350+6 583760+5 182603+2 213952-2-163348+6 684517+2298.15 653.21		Cl2Mg1*
-153350+6 603284+5 172430+2 310592-2 135552+4 693526+2 653. 987.21		Cl2Mg1*
-143780+6 581699+5 220000+2 000000+0-157502-2 788238+2 987. 1100.32		Cl2Mg1*
-143780+6 581699+5 220000+2 000000+0-400834-6 788238+2 1100. 2027.32		Cl2Mg1*
-143780+6 581699+5 220000+2 000000+0-151101-4 788238+2 2027. 2500.32		Cl2Mg1*
2 17 1 28	JANAF 1998	5Cl2Ni1*
-728800+5 594449+5 184095+2 229700-2-175210+6 711939+2298.15 547.21		Cl2Ni1*
-728800+5 577703+5 168899+2 263150-2 224737+6 700742+2 547. 836.21		Cl2Ni1*
-728800+5 740409+5 477164+1 122812-1 305605+7 773404+2 836. 1113.21		Cl2Ni1*
-728800+5 855094+5-108752+2 219671-1 908445+7 822013+2 1113. 1304.21		Cl2Ni1*
-558119+5 622321+5 241840+2 000000+0-680981-5 861332+2 1304. 1800.22		Cl2Ni1*
2 17 1 82	JANAF 1998	5Cl2Pb1*
-859001+5 434724+5 217936+2-331506-2-211954+6 726793+2298.15 400.21		Cl2Pb1*
-859001+5 750722+5 163741+2 691816-2 251660+3 890171+2 400. 774.21		Cl2Pb1*
-822780+5 704950+5 266501+2 000000+0 351083-3 942962+2 774. 905.32		Cl2Pb1*
-822780+5 704950+5 266501+2 000000+0 126525-4 942962+2 905. 1425.32		Cl2Pb1*
-822780+5 704950+5 266501+2 000000+0-441972-5 942962+2 1425. 2000.32		Cl2Pb1*
2 17 1 38	JANAF 1998	4Cl2Sr1*
-198100+6 709141+5 166265+2 585137-2-263031+5 814899+2298.15 707.21		Cl2Sr1*
-198100+6 120345+6-961169+1 305193-1 437136+7 104285+3 707. 1000.21		Cl2Sr1*
-198100+6 748127+5 294001+2 000000+0-468039-3 855984+2 1000. 1147.22		Cl2Sr1*
-192484+6 649201+5 250000+2 000000+0 277739-5 847479+2 1147. 3000.33		Cl2Sr1*
2 17 1 40	JANAF 1998	4Cl2Zr1*
-103000+6 335999+5 222200+2-574274-2-280712+6 605214+2298.15 400.21		Cl2Zr1*
-103000+6 614156+5 174090+2 328630-2-888172+5 748923+2 400. 701.21		Cl2Zr1*
-103000+6 610920+5 173371+2 323553-2-359918+5 747218+2 701. 1000.21		Cl2Zr1*
-983733+5 587732+5 217500+2 000000+0 197911-5 795147+2 1000. 2000.32		Cl2Zr1*
3 17 1 26	JANAF 1998	3Cl3Fe1*
-954601+5 123605+6 217197+2 147560-1-272915+6 122514+3298.15 577.21		Cl3Fe1*
-867149+5 865054+5 320000+2 000000+0 458621-5 121953+3 577. 700.32		Cl3Fe1*
-867149+5 865054+5 320000+2 000000+0 597526-6 121953+3 700. 1500.32		Cl3Fe1*
4 17 1 42	JANAF 1998	3Cl4Mo1*
-114000+6 131327+6 270482+2 130704-1 383981+4 151284+3298.15 590.21		Cl4Mo1*
-110621+6 945650+5 350000+2 000000+0-407700-3 139490+3 590. 700.32		Cl4Mo1*
-110621+6 945650+5 350000+2 000000+0-552389-6 139490+3 700. 1500.32		Cl4Mo1*

4 17 1 8 1 74	JANAF 1998	3C1401W1*
-160400+6 185689+6 274998+2 249999-1 380714+2 172337+3298.15 484.21		C1401W1*
-150711+6 117530+6 435000+2 000000+0 945772-4 161035+3 484. 600.32		C1401W1*
-150711+6 117530+6 435000+2 000000+0 208618-6 161035+3 600. 1000.32		C1401W1*
5 17 1 42	JANAF 1998	3C15Mo1*
-126000+6 197505+6 295982+2 263965-1-252625+5 196514+3298.15 467.21		C15Mo1*
-121920+6 113478+6 420000+2 000000+0 787325-5 162412+3 467. 600.32		C15Mo1*
-121920+6 113478+6 420000+2 000000+0-470366-6 162412+3 600. 1200.32		C15Mo1*
5 17 1 41	JANAF 1998	3C15Nb1*
-190600+6 955101+5 353499+2 000000+0 480101-6 132775+3298.15 478.921		C15Nb1*
-184836+6 450668+5 700780+2-317557-1-610033+6 132049+3 478.9 600.32		C15Nb1*
-184836+6 237007+5 788123+2-412140-1-171137+7 121938+3 600. 800.32		C15Nb1*
5 17 1 73	JANAF 1998	3C15Ta1*
-205300+6 955101+5 353499+2 000000+0 193722-6 134615+3298.15 489.721		C15Ta1*
-199414+6 423958+5 709824+2-328489-1-699476+6 132474+3 489.7 600.32		C15Ta1*
-199414+6 237010+5 788123+2-412140-1-171137+7 123651+3 600. 800.32		C15Ta1*
5 17 1 74	JANAF 1998	3C15W1*
-122600+6 201350+6 289723+2 276224-1-533776+3 193519+3298.15 526.21		C15W1*
-118400+6 117531+6 435000+2 000000+0 530319-5 159824+3 526. 753.32		C15W1*
-118400+6 117531+6 435000+2 000000+0 283342-5 159824+3 753. 1500.32		C15W1*
6 17 1 74	JANAF 1998	4C16W1*
-141900+6 259275+6 300005+2 399992-1-270088+2 234336+3298.15 450.21		C16W1*
-141900+6 260167+6 300293+2 399589-1-219026+4 236505+3 450. 503.22		C16W1*
-141900+6 126563+6 450000+2 000000+0 519741-3 170961+3 503. 555.23		C16W1*
-136091+6 129689+6 480000+2 000000+0 312503-6 178906+3 555. 1500.34		C16W1*
1 27	JANAF 1998	8Co1*
000000+0 310865+5 467357+1 414179-2 173079+4 291765+2298.15 471.21		Co1*
000000+0 278313+5 540861+1 299420-2-414215+5 275403+2 471. 700.121		Co1*
000000+0 361577+5 124472+1 702046-2 564441+6 314798+2 700.1 969.22		Co1*
000000+0 425508+5-555993+1 116597-1 273274+7 342463+2 969. 1200.22		Co1*
000000+0 602904+5-337554+2 281860-1 147768+8 416712+2 1200. 1394.22		Co1*
000000+0 125192+6-424861+3 189414+0 338040+9 660645+2 1394. 1500.23		Co1*
000000+0 280861+5-187706+2 108927-1 268475+8 278970+2 1500. 1768.23		Co1*
430306+4 244752+5 967997+1 000000+0 281364-5 289069+2 1768. 4000.34		Co1*
1 27 2 9	JANAF 1998	5Co1F2*
-160500+6 963806+5 128008+2 138977-1-422074+5 864735+2298.15 400.21		Co1F2*
-160500+6 553255+5 198076+2 620628-3-313559+6 652381+2 400. 1001.21		Co1F2*
-160500+6 553288+5 197988+2 625156-3-309214+6 652393+2 1001. 1400.21		Co1F2*
-152412+6 675376+5 250000+2 000000+0 187315-3 783062+2 1400. 1600.32		Co1F2*
-152412+6 675376+5 250000+2 000000+0 749302-5 783062+2 1600. 3000.32		Co1F2*
1 24	JANAF 1998	5Cr1*
000000+0 376808+4 813762+1-400809-2-119272+6 129392+2298.15 311.521		Cr1*
000000+0 242110+5 547257+1 214728-2-472872+5 238193+2 311.5 658.22		Cr1*
000000+0 274966+5 307990+1 408878-2 435538+6 252670+2 658. 936.22		Cr1*
000000+0 298300+5 824637+0 568914-2 109903+7 262851+2 936. 2130.22		Cr1*
623040+4 231151+5 940010+1 000000+0-516461-6 265130+2 2130. 3500.33		Cr1*
2 24 3 8	JANAF 1998	5Cr2O3*
-271200+6 384862+7-446078+3 112590+1 123704+8 210040+4298.15 305.21		Cr2O3*
-271200+6 232094+6-704444+1 550684-1 191153+7 162540+3 305. 500.22		Cr2O3*
-271200+6 859216+5 285302+2 219973-2-373543+6 896660+2 500. 1765.22		Cr2O3*
-271200+6 860340+5 317876+2 126979-2-540810+7 897171+2 1765. 2603.22		Cr2O3*
-243399+6 903634+5 375000+2 000000+0-130213-3 102032+3 2603. 4500.33		Cr2O3*
1 55	JANAF 1998	4Cs1*
000000+0 454882+6-474630+2 129885+0 146076+7 269833+3298.15301.5521		Cs1*
498805+3 178900+5 757721+1-600949-3 314730+5 380505+2301.55 400.32		Cs1*
498805+3 204077+5 714764+1 213225-3 480985+5 393528+2 400. 1200.32		Cs1*
498805+3 204165+5 714572+1 216952-3 444151+5 393567+2 1200. 1500.32		Cs1*
1 55 1 9	JANAF 1998	5Cs1F1*
-132570+6 494508+5 110766+2 437948-2 344586+4 585252+2298.15 564.21		Cs1F1*
-132570+6 488649+5 112322+2 416060-2-677549+4 582365+2 564. 976.21		Cs1F1*
-129983+6 478225+5 177000+2 000000+0 152084-2 623990+2 976. 1107.32		Cs1F1*
-129983+6 478225+5 177000+2 000000+0 249292-4 623990+2 1107. 1804.32		Cs1F1*
-129983+6 478225+5 177000+2 000000+0-895585-8 623990+2 1804. 3000.32		Cs1F1*

1 55 1 1 1 8	JANAF 1998	5Cs1H1O1*
-995999+5 921258+5 129482+2 128587-1-499072+5 879586+2298.15 410.21		Cs1H1O1*
-995999+5 115876+6 977926+1 200016-1 141101-4 101054+3 410. 493.22		Cs1H1O1*
-995999+5 553731+5 200000+2 000000+0 203631-4 723082+2 493. 588.23		Cs1H1O1*
-970292+5 526862+5 195000+2 000000+0 272911-6 733471+2 588. 1605.34		Cs1H1O1*
-970292+5 526862+5 195000+2 000000+0 192909-4 733471+2 1605. 2000.34		Cs1H1O1*
2 55 4 8 1 16	JANAF 1998	5Cs2O4S1*
-344800+6 187929+6 274256+2 257162-1-248351+6 182058+3298.15 500.21		Cs2O4S1*
-344800+6 243930+6 975534+1 479915-1 138479+7 209261+3 500. 940.21		Cs2O4S1*
-344800+6 198716+6 930176+1 370687-1 389070+5 186642+3 940. 1278.22		Cs2O4S1*
-334641+6 129582+6 494001+2 000000+0 116116-1 163691+3 1278. 1400.33		Cs2O4S1*
-334641+6 129582+6 494001+2 000000+0 236815-5 163691+3 1400. 3000.33		Cs2O4S1*
1 29	JANAF 1998	5Cu1*
000000+0 200984+5 579100+1 101433-2-223145+5 239128+2298.15 474.21		Cu1*
000000+0 210829+5 537383+1 146016-2 239358+5 243695+2 474. 1052.21		Cu1*
000000+0 287441+5-447295+1 769195-2 366602+7 276336+2 1052. 1358.21		Cu1*
283389+4 202857+5 784990+1 000000+0-855212-3 262923+2 1358. 1500.32		Cu1*
283389+4 202857+5 784990+1 000000+0-235950-5 262923+2 1500. 4000.32		Cu1*
1 29 2 9	JANAF 1998	5Cu1F2*
-128800+6 823770+5 140385+2 100583-1-121913+6 774203+2298.15 527.21		Cu1F2*
-128800+6 624177+5 198960+2 233835-2-618796+6 676491+2 527. 855.21		Cu1F2*
-128800+6 604724+5 215882+2 108122-2-107004+7 667931+2 855. 1109.21		Cu1F2*
-116600+6 624407+5 240000+2 000000+0 742593-4 794267+2 1109. 1300.32		Cu1F2*
-116600+6 624407+5 240000+2 000000+0 574074-5 794267+2 1300. 2500.32		Cu1F2*
2 29 1 8	JANAF 1998	5Cu2O1*
-408000+5 596123+5 155865+2 403873-2-163842+6 680598+2298.15 688.21		Cu2O1*
-408000+5 587971+5 160547+2 361564-2-247689+6 676872+2 688. 960.21		Cu2O1*
-408000+5 683014+5 562018+1 106424-1 315192+7 717880+2 960. 1217.21		Cu2O1*
-408000+5 678636+5 636730+1 102154-1 281505+7 716057+2 1217.1516.721		Cu2O1*
-267674+5 601502+5 238800+2 000000+0-231491-4 781489+21516.7 2000.32		Cu2O1*
1 9 1 19	JANAF 1998	5F1K1*
-135900+6 445969+5 110640+2 332102-2-308923+5 502502+2298.15 586.21		F1K1*
-135900+6 462814+5 104271+2 404207-2 427209+5 510538+2 586. 898.21		F1K1*
-135900+6 568973+5 120418+1 108940-1 251830+7 557293+2 898. 1131.21		F1K1*
-132521+6 464718+5 172000+2 000000+0 550547-4 558753+2 1131. 1302.32		F1K1*
-132521+6 464718+5 172000+2 000000+0-721753-6 558753+2 1302. 3000.32		F1K1*
1 9 1 3	JANAF 1998	5F1Li1*
-147450+6 421812+5 110030+2 290795-2-166738+6 408545+2298.15 535.21		F1Li1*
-147450+6 460921+5 999583+1 435170-2-995533+5 427906+2 535. 900.21		F1Li1*
-147450+6 464557+5 954525+1 464250-2 534238+5 429447+2 900.1121.321		F1Li1*
-143081+6 414448+5 153401+2 000000+0-100534-3 456811+21121.3 1303.32		F1Li1*
-143081+6 414448+5 153401+2 000000+0-120277-5 456811+2 1303. 3000.32		F1Li1*
1 9 1 11	JANAF 1998	5F1Na1*
-137520+6 407269+5 114787+2 223706-2-841260+5 443173+2298.15 593.21		F1Na1*
-137520+6 466688+5 919291+1 479918-2 185385+6 471469+2 593. 900.21		F1Na1*
-137520+6 511012+5 524714+1 769962-2 126704+7 490948+2 900. 1269.21		F1Na1*
-130546+6 414917+5 152982+2-216977-4 242204+7 509518+2 1269. 2200.32		F1Na1*
-130546+6 414987+5 152514+2-146280-6 241949+7 509544+2 2200. 3500.32		F1Na1*
2 9 1 26	JANAF 1998	5F2Fe1*
-168700+6 653307+5 155696+2 527327-2-766268+5 705575+2298.15 500.21		F2Fe1*
-168700+6 566906+5 180581+2 195541-2-284013+6 663183+2 500. 813.21		F2Fe1*
-168700+6 532403+5 204674+2-218693-4-813968+6 647683+2 813. 1373.21		F2Fe1*
-161221+6 634945+5 235000+2 000000+0 466296-2 763761+2 1373. 1500.32		F2Fe1*
-161221+6 634945+5 235000+2 000000+0 296528-5 763761+2 1500. 3000.32		F2Fe1*
2 9 1 1 1 19	JANAF 1998	4F2H1K1*
-222570+6 130557+6 115403+2 222917-1 180935+5 111893+3298.15469.8521		F2H1K1*
-222570+6 667781+5 239601+2 000000+0 112445-2 841858+2469.85511.9522		F2H1K1*
-219066+6 674437+5 250000+2 000000+0 361177-5 891146+2511.95 735.33		F2H1K1*
-219066+6 674437+5 250000+2 000000+0 655064-6 891146+2 735. 2000.33		F2H1K1*
2 9 1 80	JANAF 1998	5F2Hg1*
-101000+6 671092+5 163110+2 516857-2 346768+4 794423+2298.15 400.21		F2Hg1*
-101000+6 665882+5 164001+2 500000-2-224080-7 791729+2 400. 800.21		F2Hg1*
-101000+6 665229+5 164506+2 496042-2-127010+5 791439+2 800. 918.21		F2Hg1*
-967727+5 641238+5 244001+2 000000+0-589151-5 842274+2 918. 1491.32		F2Hg1*
-967727+5 641238+5 244001+2 000000+0-939394-4 842274+2 1491. 2000.32		F2Hg1*

2 9 1 12	JANAF 1998	5F2Mg1*
-268700+6 631820+5 159977+2 464071-2-237783+6 618335+2298.15 473.21		F2Mg1*
-268700+6 545709+5 182704+2 143839-2-407368+6 575700+2 473. 703.21		F2Mg1*
-268700+6 535280+5 188121+2 923315-3-496133+6 570880+2 703. 1017.21		F2Mg1*
-268700+6 533658+5 189902+2 803400-3-554195+6 570180+2 1017. 1536.21		F2Mg1*
-256299+6 579156+5 226869+2 000000+0-522022-5 675373+2 1536. 3000.32		F2Mg1*
2 9 1 82	JANAF 1998	6F2Pb1*
-161800+6 366180+5 218797+2-485882-2-280985+6 628225+2298.15 400.21		F2Pb1*
-161800+6 645647+5 181268+2 364390-2-224707+6 775407+2 400. 583.21		F2Pb1*
-161800+6 115778+7-381419+3 464694+0 447778+8 601672+3 583. 700.22		F2Pb1*
-161800+6 259370+6-152535+3 129068+0 477442+8 165687+3 700. 900.22		F2Pb1*
-161800+6 614213+5 225700+2 000000+0-235982-4 786459+2 900. 1103.22		F2Pb1*
-157820+6 676578+5 260999+2 000000+0-819925-5 853691+2 1103. 1500.33		F2Pb1*
2 9 1 38	JANAF 1998	8F2Sr1*
-290900+6 557329+5 185802+2 137822-2-201492+6 651268+2298.15 664.21		F2Sr1*
-290900+6 626769+5 145088+2 502373-2 526304+6 682877+2 664. 900.21		F2Sr1*
-290900+6 838393+5-856614+0 174244-1 393221+7 777428+2 900. 1100.21		F2Sr1*
-290900+6 140904+6-867600+2 687035-1 396229+8 101751+3 1100. 1300.21		F2Sr1*
-290900+6 115745+7-272357+4 138729+1 159889+1 513019+3 1300. 1421.21		F2Sr1*
-290900+6 859376+5 395000+2 000000+0-986707-1 801080+2 1421. 1484.22		F2Sr1*
-290900+6 117452+6-389321+3 157632+0 428275+9 906857+2 1484. 1750.23		F2Sr1*
-280125+6 600718+5 236730+2 000000+0 401826-6 741714+2 1750. 3500.34		F2Sr1*
2 9 1 40	JANAF 1998	5F2Zr1*
-230000+6 679593+5 144513+2 652789-2-567427+5 686862+2298.15 581.21		F2Zr1*
-230000+6 587730+5 178642+2 262470-2-443284+6 642959+2 581. 861.21		F2Zr1*
-230000+6 565693+5 202694+2 993998-3-118546+7 633508+2 861. 1175.21		F2Zr1*
-223937+6 631413+5 240000+2 000000+0-181788-2 730567+2 1175. 1300.32		F2Zr1*
-223937+6 631413+5 240000+2 000000+0 242039-6 730567+2 1300. 3000.32		F2Zr1*
4 9 1 8 1 74	JANAF 1998	3F40lW1*
-336259+6 231878+6 200619+2 398784-1-229031+4 196051+3298.15 379.21		F40lW1*
-335864+6 117530+6 435000+2 000000+0-436881-6 143193+3 379. 576.32		F40lW1*
-335864+6 117530+6 435000+2 000000+0-631963-6 143193+3 576. 1000.32		F40lW1*
1 26	JANAF 1998	8Fe1*
000000+0 367437+5 423822+1 567252-2 611453+4 316753+2298.15 500.21		Fe1*
000000+0 396272+5 326842+1 684945-2 101449+6 330654+2 500. 700.21		Fe1*
000000+0 689176+5-127376+2 216753-1 285915+7 465322+2 700. 900.21		Fe1*
000000+0 109209+7-101660+4 729968+0 299643+9 492034+3 900. 1042.21		Fe1*
000000+0 708037+6-110680+4 647225+0 491192+9 312207+3 1042. 1184.22		Fe1*
000000+0 262251+5 573229+1 199889-2-134847+4 270907+2 1184. 1665.23		Fe1*
000000+0 278148+5 575532+1 242882-2 739985+5 278079+2 1665. 1809.24		Fe1*
296248+4 274269+5 110000+2 000000+0-145473-5 293853+2 1809. 4000.35		Fe1*
1 26 2 53	JANAF 1998	3Fe1I2*
-250000+5 561662+5 198305+2 580918-3-385054+3 873515+2298.15 650.21		Fe1I2*
-250000+5 158778+6-341872+1 371694-1 106068+6 138205+3 650. 860.22		Fe1I2*
-169804+5 729490+5 270000+2 000000+0 509914-6 109044+3 860. 2000.33		Fe1I2*
1 26 1 8	JANAF 1998	5Fe1O1*
-650201+5 441124+5 113616+2 303073-2-293519+5 487766+2298.15 542.21		Fe1O1*
-650201+5 416821+5 124025+2 193004-2-159865+6 476373+2 542. 1203.21		Fe1O1*
-650201+5 406485+5 145272+2 788747-3-124781+7 472125+2 1203. 1650.21		Fe1O1*
-596396+5 412758+5 163000+2 000000+0 210484-2 508523+2 1650. 1800.32		Fe1O1*
-596396+5 412758+5 163000+2 000000+0 251564-6 508523+2 1800. 5000.32		Fe1O1*
1 26 1 16	JANAF 1998	7Fe1S1*
-243000+5 659155+6-653129+2 186229+0 194173+7 377602+3298.15 411.21		Fe1S1*
-243000+5 470417+5 172940+2 000000+0-414334-6 549870+2 411. 598.22		Fe1S1*
-243000+5 430381+5 101342+2 268790-2 110868+7 515434+2 598. 889.23		Fe1S1*
-243000+5 570894+5-183656+1 116582-1 426687+7 577428+2 889. 1172.23		Fe1S1*
-243000+5 659007+5-171805+2 203613-1 113326+8 614096+2 1172. 1463.23		Fe1S1*
-164462+5 411475+5 149500+2 000000+0-232587-2 563103+2 1463. 1600.34		Fe1S1*
-164462+5 411475+5 149500+2 000000+0-106374-5 563103+2 1600. 3800.34		Fe1S1*
1 31	JANAF 1998	5Ga1*
000000+0 225208+5 615148+1 134372-2-286828+5 274337+2298.15302.9221		Ga1*
133317+4 155730+5 623292+1-326523-3 620281+5 280152+2302.92 408.32		Ga1*
133317+4 169578+5 633769+1-573436-4 263070+5 288167+2 408. 706.32		Ga1*
133317+4 172026+5 634861+1 942676-6 350575+3 289416+2 706. 1008.32		Ga1*
133317+4 172011+5 634990+1 202232-8 764554+1 289410+2 1008. 3000.32		Ga1*

1 1 1 19 1 8	JANAF 1998	4H1K1O1*
-101510+6 117611+6 775012+1 216173-1 117062+6 958112+2298.15 516.21		H1K1O1*
-101510+6 520104+5 188000+2 000000+0-132434-5 643355+2 516. 679.22		H1K1O1*
-986389+5 536667+5 198630+2 000000+0-271577-6 689489+2 679. 1736.33		H1K1O1*
-986389+5 536667+5 198630+2 000000+0-124122-3 689489+2 1736. 2000.33		H1K1O1*
1 1 1 3	JANAF 1998	5H1Li1*
-216599+5 752257+5 213498+1 155951-1-913657+4 518030+2298.15 400.21		H1Li1*
-216599+5 660569+5 370154+1 126290-1-699578+5 470609+2 400. 760.21		H1Li1*
-216599+5 660518+5 369470+1 126307-1-667385+5 470579+2 760. 961.821		H1Li1*
-185741+5 402559+5 149001+2 000000+0 263928-5 397076+2 961.8 1318.32		H1Li1*
-185741+5 402559+5 149001+2 000000+0 374076-5 397076+2 1318. 2000.32		H1Li1*
1 1 1 3 1 8	JANAF 1998	4H1Li1O1*
-115900+6 674003+5 122650+2 785602-2-245215+6 584116+2298.15 576.21		H1Li1O1*
-115900+6 667879+5 125995+2 754428-2-296633+6 581334+2 576. 744.321		H1Li1O1*
-113390+6 562371+5 208141+2 000000+0-200814-4 595218+2 744.3 900.32		H1Li1O1*
-113390+6 562371+5 208141+2 000000+0 281307-7 595218+2 900. 2500.32		H1Li1O1*
1 1 1 11 1 8	JANAF 1998	4H1Na1O1*
-101800+6 168632+6-421226+1 400077-1 581434+6 117010+3298.15 572.21		H1Na1O1*
-101800+6 561895+5 205600+2 000000+0 160406-2 630810+2 572. 596.22		H1Na1O1*
-996362+5 516175+5 213877+2-138489-2 590107+4 637484+2 596. 1735.33		H1Na1O1*
-996362+5 520588+5 179967+2-809122-4 340302+7 639166+2 1735. 2500.33		H1Na1O1*
2 1 2 8 1 38	JANAF 1998	5H2O2Sr1*
-231570+6 164408+6 842596+1 317903-1-318795+3 128545+3298.15 500.21		H2O2Sr1*
-231570+6 164471+6 836132+1 318376-1 992777+4 128567+3 500.783.1521		H2O2Sr1*
-228801+6 982499+5 377000+2 000000+0-871545-3 103798+3783.15 904.32		H2O2Sr1*
-228801+6 982499+5 377000+2 000000+0-106757-4 103798+3 904. 1461.32		H2O2Sr1*
-228801+6 982499+5 377000+2 000000+0-374530-4 103798+3 1461. 2000.32		H2O2Sr1*
3 1 4 8 1 15	JANAF 1998	3H3O4P1*
-306973+6 410701+6-730993+1 963736-1 349000+6 271874+3298.15 315.521		H3O4P1*
-303935+6 356470+6 131988+2 720019-1 682984+2 261048+3 315.5 584.32		H3O4P1*
-303935+6 356468+6 131976+2 720020-1 454371+3 261047+3 584. 1000.32		H3O4P1*
1 72	JANAF 1998	5Hf1*
000000+0 240464+5 569217+1 195350-2-122328+5 287629+2298.15 1267.21		Hf1*
000000+0 236257+5 599464+1 169232-2 334209+5 285827+2 1267. 1752.21		Hf1*
000000+0 236187+5 601605+1 168160-2 253809+5 285800+2 1752. 2054.21		Hf1*
000000+0 239812+5 359199+1 220437-2-142245+5 288414+2 2054. 2500.22		Hf1*
110442+5 196109+5 900000+1 000000+0 968964-5 315255+2 2500. 5500.33		Hf1*
1 80 2 53	JANAF 1998	4Hg1I2*
-252000+5 879732+5 153823+2 104110-1 849540+4 107029+3298.15 402.21		Hg1I2*
-252000+5 548170+5 201049+2 000000+0 352126-5 909419+2 402. 530.22		Hg1I2*
-208621+5 656211+5 244001+2 000000+0-153957-6 106940+3 530. 975.33		Hg1I2*
-208621+5 656211+5 244001+2 000000+0 165438-5 106940+3 975. 1500.33		Hg1I2*
2 80 2 53	JANAF 1998	4Hg2I2*
-284620+5 160762+6 130130+2 279520-1 351401+6 165193+3298.15 400.21		Hg2I2*
-284620+5 848966+5 263952+2 318864-2-204894+6 126065+3 400. 563.21		Hg2I2*
-235574+5 880650+5 325999+2 000000+0 247256-4 140532+3 563. 702.32		Hg2I2*
-235574+5 880650+5 325999+2 000000+0 133272-5 140532+3 702. 1500.32		Hg2I2*
1 53 1 19	JANAF 1998	5I1K1*
-783700+5 480535+5 111078+2 403089-2 272020+5 621148+2298.15 499.21		I1K1*
-783700+5 581071+5 822341+1 788593-2 266417+6 670494+2 499. 703.21		I1K1*
-783700+5 606711+5 688777+1 915396-2 485951+6 682340+2 703. 954.21		I1K1*
-747720+5 467420+5 173000+2 000000+0-134623-3 672110+2 954. 1106.32		I1K1*
-747720+5 467420+5 173000+2 000000+0-246400-5 672110+2 1106. 2500.32		I1K1*
1 53 1 3	JANAF 1998	4I1Li1*
-645500+5 505654+5 114045+2 447933-2-681418+5 585535+2298.15 566.21		I1Li1*
-645500+5 621943+5 892932+1 852768-2-924135+4 643677+2 566. 742.21		I1Li1*
-617469+5 408067+5 150999+2 000000+0-106818-4 584575+2 742. 959.32		I1Li1*
-617469+5 408067+5 150999+2 000000+0-644843-6 584575+2 959. 2500.32		I1Li1*
1 53 1 11	JANAF 1998	5I1Na1*
-688000+5 426559+5 121625+2 221896-2-304164+5 574483+2298.15 500.21		I1Na1*
-688000+5 435883+5 120097+2 251909-2-297480+5 579262+2 500. 933.21		I1Na1*
-636969+5 411222+5 155000+2 000000+0-358983-4 628562+2 933. 1100.32		I1Na1*
-636969+5 411222+5 155000+2 000000+0 267061-5 628562+2 1100. 2000.32		I1Na1*
-636969+5 411222+5 155000+2 000000+0 342945-4 628562+2 2000. 3000.32		I1Na1*

2 53				JANAF 1998		2I2*
000000+0	232233+6	-121033+2	590083-1	668525+6	162969+3298.15386.7521	I2*
323207+4	520927+5	192804+2	000000+0	-229318-7	804496+2386.75 1000.32	I2*
2 53 1 12				JANAF 1998		5I2Mg1*
-877000+5	343988+4	282692+2	-160324-1	-498588+6	501733+2298.15 408.21	I2Mg1*
-877000+5	626299+5	185654+2	290577-2	-169478+6	808711+2 408. 770.21	I2Mg1*
-877000+5	644072+5	171724+2	399174-2	160655+6	816584+2 770. 907.21	I2Mg1*
-818002+5	633531+5	240000+2	000000+0	-834600-6	891001+2 907. 1439.32	I2Mg1*
-818002+5	633531+5	240000+2	000000+0	-217546-4	891001+2 1439. 2000.32	I2Mg1*
2 53 1 82				JANAF 1998		4I2Pb1*
-419199+5	644535+5	170641+2	410283-2	227201+5	923956+2298.15 486.21	I2Pb1*
-419199+5	101223+6	692464+1	179965-1	822741+6	110518+3 486. 683.21	I2Pb1*
-376862+5	689542+5	259500+2	000000+0	163386-4	104338+3 683. 867.32	I2Pb1*
-376862+5	689542+5	259500+2	000000+0	115210-5	104338+3 867. 1500.32	I2Pb1*
2 53 1 38				JANAF 1998		5I2Sr1*
-134200+6	745465+5	166283+2	664632-2	214493+4	943907+2298.15 589.21	I2Sr1*
-134200+6	746243+5	164994+2	672723-2	303277+5	944150+2 589. 811.21	I2Sr1*
-131154+6	696442+5	263000+2	000000+0	-384018-4	982833+2 811. 1001.32	I2Sr1*
-131154+6	696442+5	263000+2	000000+0	-207598-5	982833+2 1001. 2034.32	I2Sr1*
-131154+6	696442+5	263000+2	000000+0	-229641-4	982833+2 2034. 2600.32	I2Sr1*
2 53 1 40				JANAF 1998		5I2Zr1*
-620000+5	-790363+5	470153+2	-455907-1	-970935+6	158612+2298.15 400.21	I2Zr1*
-620000+5	678078+5	219685+2	189055-2	-223868+4	918188+2 400. 700.21	I2Zr1*
-559845+5	117933+6	868351+1	208539-1	387795+4	124678+3 700. 1051.32	I2Zr1*
-559845+5	118045+6	835104+1	210191-1	179412+6	124721+3 1051. 1434.32	I2Zr1*
-559845+5	117892+6	849111+1	209076-1	220054+6	124658+3 1434. 2000.32	I2Zr1*
4 53 1 14				JANAF 1998		2I4Si1*
-453000+5	145092+6	197522+2	205908-1	-625322+4	162902+3298.15393.6521	I4Si1*
-417311+5	139218+6	352494+2	987057-2	831638+2	178394+3393.65 700.32	I4Si1*
4 53 1 22				JANAF 1998		4I4Ti1*
-898000+5	233802+6	174051+2	419124-1	110913+5	212318+3298.15 379.21	I4Ti1*
-898000+5	977163+5	354001+2	000000+0	-799536-5	145910+3 379. 428.22	I4Ti1*
-832490+5	101049+6	374001+2	000000+0	-715933-6	160879+3 428. 617.33	I4Ti1*
-832490+5	101049+6	374001+2	000000+0	248092-6	160879+3 617. 1500.33	I4Ti1*
1 19				JANAF 1998		5K1*
000000+0	515598+6	-588160+2	150114+0	187649+7	295700+3298.15336.3521	K1*
542543+3	166752+5	764437+1	-921308-3	395887+5	324665+2336.35 599.32	K1*
542543+3	217059+5	567094+1	126611-2	277533+6	348575+2 599. 907.32	K1*
542543+3	249096+5	302444+1	327712-2	954176+6	362744+2 907. 1227.32	K1*
542543+3	238785+5	498920+1	219578-2	-628033+4	358481+2 1227. 1500.32	K1*
2 19 3 8 1 14				JANAF 1998		5K2O3Si1*
-370000+6	164797+6	262971+2	213026-1	-386948+6	151045+3298.15 526.21	K2O3Si1*
-370000+6	131232+6	358272+2	847845-2	-115739+7	134562+3 526. 839.21	K2O3Si1*
-370000+6	123736+6	397208+2	475496-2	-169907+7	131121+3 839. 1249.21	K2O3Si1*
-358339+6	112922+6	430000+2	000000+0	208847-2	135727+3 1249. 1400.32	K2O3Si1*
-358339+6	112922+6	430000+2	000000+0	118003-4	135727+3 1400. 3000.32	K2O3Si1*
2 19 4 8 1 16				JANAF 1998		5K2O4S1*
-343620+6	185526+6	266360+2	256621-1	-257905+6	171351+3298.15 481.21	K2O4S1*
-343620+6	206514+6	197757+2	341341-1	386496+6	181491+3 481. 857.21	K2O4S1*
-343620+6	163550+6	274014+2	193781-1	-246967+5	161524+3 857. 1342.22	K2O4S1*
-333095+6	125904+6	481501+2	000000+0	157242-2	152217+3 1342. 1500.33	K2O4S1*
-333095+6	125904+6	481501+2	000000+0	304388-5	152217+3 1500. 3000.33	K2O4S1*
2 19 1 16				JANAF 1998		5K2S1*
-900000+5	708547+5	159987+2	620083-2	150269+3	811919+2298.15 585.21	K2S1*
-900000+5	716812+5	156949+2	655043-2	341363+5	815873+2 585. 800.21	K2S1*
-900000+5	684794+6	-426439+3	364012+0	999792+8	356140+3 800. 1050.21	K2S1*
-900000+5	105425+7	-159528+4	936721+0	725483+9	494769+3 1050. 1221.22	K2S1*
-828169+5	625236+5	241300+2	000000+0	-238264-5	842532+2 1221. 3000.33	K2S1*
1 3				JANAF 1998		5Li1*
000000+0	500386+5	229551+1	979841-2	593014+5	390554+2298.15453.6921	Li1*
568834+3	151733+5	788207+1	-137488-2	120441+4	226004+2453.69 695.22	Li1*
568834+3	185365+5	698966+1	-103158-3	534044+4	242306+2 695. 1317.22	Li1*
568834+3	184038+5	710761+1	-194907-3	103485+5	241745+2 1317. 1749.22	Li1*
568834+3	185581+5	676894+1	371869-6	154678+4	242351+2 1749. 2200.22	Li1*

2 3 1 8	JANAF 1998				5Li2O1*	
-143100+6	631737+5	156492+2	494153-2-372548+6	564629+2298.15	536.21	Li2O1*
-143100+6	653579+5	154196+2	558443-2-405570+6	575958+2	536. 1166.21	Li2O1*
-143100+6	602201+5	230054+2	102017-2-348346+7	554329+2	1166. 1843.21	Li2O1*
-132229+6	623710+5	240000+2	000000+0-826381-2	626527+2	1843. 2000.32	Li2O1*
-132229+6	623710+5	240000+2	000000+0-110481-4	626527+2	2000. 4000.32	Li2O1*
2 3 3 8 1 14	JANAF 1998				5Li2O3Si1*	
-394240+6	991617+5	321041+2	333431-2-806079+6	978316+2298.15	518.21	Li2O3Si1*
-394240+6	112820+6	289292+2	820359-2-630961+6	104657+3	518. 849.21	Li2O3Si1*
-394240+6	107483+6	330508+2	497595-2-162666+7	102282+3	849. 1474.21	Li2O3Si1*
-388440+6	102563+6	400000+2	000000+0-131208-1	104456+3	1474. 1600.32	Li2O3Si1*
-388440+6	102563+6	400000+2	000000+0-978791-5	104456+3	1600. 4000.32	Li2O3Si1*
2 3 3 8 1 22	JANAF 1998				5Li2O3Ti1*	
-399300+6	100225+6	345066+2	210163-2-784703+6	102906+3298.15	529.21	Li2O3Ti1*
-399300+6	104280+6	348823+2	289843-2-100779+7	105141+3	529. 962.21	Li2O3Ti1*
-399300+6	101432+6	383371+2	659601-3-221181+7	103924+3	962. 1485.21	Li2O3Ti1*
-399300+6	117546+6	301945+2	800215-2 533982+4	111553+3	1485. 1820.22	Li2O3Ti1*
-374465+6	117293+6	480000+2	000000+0 122027-4	125476+3	1820. 4000.33	Li2O3Ti1*
2 3 4 8 1 16	JANAF 1998				5Li2O4S1*	
-343300+6	179021+6	270112+2	241684-1-543835+6	151867+3298.15	501.21	Li2O4S1*
-343300+6	201368+6	209284+2	325731-1-739516+5	162894+3	501. 848.21	Li2O4S1*
-343300+6	138077+6	510000+2	000000+0-182920-4	138858+3	848. 1132.22	Li2O4S1*
-334440+6	127531+6	490000+2	000000+0-478339-4	138719+3	1132. 1421.33	Li2O4S1*
-334440+6	127531+6	490000+2	000000+0-889112-5	138719+3	1421. 3000.33	Li2O4S1*
2 3 5 8 2 14	JANAF 1998				5Li2O5Si2*	
-612070+6	153907+6	500061+2	534101-2-165498+7	150666+3298.15	500.21	Li2O5Si2*
-612070+6	170136+6	473294+2	105744-1-163997+7	158983+3	500. 975.21	Li2O5Si2*
-612070+6	163817+6	539226+2	604248-2-370722+7	156244+3	975. 1209.21	Li2O5Si2*
-612070+6	167970+6	391753+2	128431-1 582832+7	157939+3	1209. 1307.22	Li2O5Si2*
-600638+6	155313+6	600000+2	000000+0 385242-5	161956+3	1307. 3000.33	Li2O5Si2*
1 12	JANAF 1998				5Mg1*	
000000+0	238970+5	557718+1	199514-2-202619+5	259627+2298.15	500.21	Mg1*
000000+0	262606+5	487816+1	291192-2 398949+5	271192+2	500. 705.21	Mg1*
000000+0	288514+5	351940+1	419738-2 264804+6	283153+2	705. 923.21	Mg1*
114484+4	221554+5	820005+1	000000+0 317715-4	271690+2	923. 1101.32	Mg1*
114484+4	221554+5	820005+1	000000+0 235980-5	271690+2	1101. 2000.32	Mg1*
1 12 1 8	JANAF 1998				5Mg1O1*	
-143700+6	383706+5	105630+2	235082-2-212969+6	359881+2298.15	480.21	Mg1O1*
-143700+6	347927+5	115299+2	100885-2-287327+6	342210+2	480. 793.21	Mg1O1*
-143700+6	344404+5	117654+2	811493-3-337029+6	340621+2	793. 1599.21	Mg1O1*
-143700+6	344293+5	118176+2	789184-3-379065+6	340577+2	1599. 3105.21	Mg1O1*
-127297+6	364355+5	160000+2	000000+0 496153-4	399855+2	3105. 5000.32	Mg1O1*
1 12 3 8 1 14	JANAF 1998				5Mg1O3Si1*	
-370200+6	982373+5	211852+2	946836-2-393550+6	884991+2298.15	401.21	Mg1O3Si1*
-370200+6	934233+5	220089+2	791040-2-425533+6	860098+2	401. 903.21	Mg1O3Si1*
-370200+6	757021+5	287620+2	000000+0-202674-4	779442+2	903. 1258.22	Mg1O3Si1*
-370200+6	769632+5	292620+2	000000+0-149388-4	786887+2	1258. 1850.23	Mg1O3Si1*
-357281+6	886425+5	350000+2	000000+0-187484-4	911925+2	1850. 3000.34	Mg1O3Si1*
1 12 3 8 1 22	JANAF 1998				5Mg1O3Ti1*	
-375850+6	101629+6	249232+2	801897-2-476104+6	943765+2298.15	511.21	Mg1O3Ti1*
-375850+6	895888+5	285362+2	332293-2-792936+6	884940+2	511. 1036.21	Mg1O3Ti1*
-375850+6	887227+5	288507+2	293330-2-697247+6	881025+2	1036. 1953.21	Mg1O3Ti1*
-357942+6	955603+5	390000+2	000000+0 316074-2	100500+3	1953. 2100.32	Mg1O3Ti1*
-357942+6	955603+5	390000+2	000000+0 261035-4	100500+3	2100. 4000.32	Mg1O3Ti1*
1 12 4 8 1 16	JANAF 1998				5Mg1O4S1*	
-301574+6	123756+6	229893+2	140883-1-373658+6	110905+3298.15	509.21	Mg1O4S1*
-301574+6	117536+6	256452+2	112693-1-689988+6	108001+3	509. 1099.21	Mg1O4S1*
-301574+6	107717+6	398406+2	267118-2-642235+7	103857+3	1099. 1400.21	Mg1O4S1*
-297941+6	976832+5	380000+2	000000+0-254463-3	101961+3	1400. 1604.32	Mg1O4S1*
-297941+6	976832+5	380000+2	000000+0-173711-4	101961+3	1604. 2500.32	Mg1O4S1*
1 12 5 8 2 22	JANAF 1998				5Mg1O5Ti2*	
-599750+6	152183+6	397019+2	105475-1-688674+6	148735+3298.15	522.21	Mg1O5Ti2*
-599750+6	149046+6	406784+2	930643-2-778226+6	147208+3	522. 957.21	Mg1O5Ti2*
-599750+6	148467+6	412731+2	889502-2-962276+6	146957+3	957. 1963.21	Mg1O5Ti2*
-569385+6	152290+6	624001+2	000000+0 316390-1	164594+3	1963. 2100.32	Mg1O5Ti2*
-569385+6	152290+6	624001+2	000000+0 352137-4	164594+3	2100. 4000.32	Mg1O5Ti2*



2 12 4 8 1 14	JANAF 1998				5Mg2O4Si1*		
-520300+6	137061+6	324264+2	115508-1-667144+6	125097+3298.15	503.21	Mg2O4Si1*	
-520300+6	123997+6	362914+2	648286-2-100006+7	118705+3	503. 907.21	Mg2O4Si1*	
-520300+6	121243+6	386163+2	473352-2-160740+7	117490+3	907. 1670.21	Mg2O4Si1*	
-520300+6	121053+6	387205+2	459892-2-127120+7	117413+3	1670. 2171.21	Mg2O4Si1*	
-505229+6	121808+6	490000+2	000000+0-206345-4	124820+3	2171. 4000.32	Mg2O4Si1*	
2 12 4 8 1 22	JANAF 1998				5Mg2O4Ti1*		
-517300+6	135063+6	353510+2	932264-2-657938+6	130652+3298.15	691.21	Mg2O4Ti1*	
-517300+6	133263+6	362396+2	845469-2-795850+6	129815+3	691. 1085.21	Mg2O4Ti1*	
-517300+6	132197+6	377231+2	754362-2-137858+7	129364+3	1085. 1497.21	Mg2O4Ti1*	
-517300+6	131654+6	399886+2	654711-2-311244+7	129151+3	1497. 2013.21	Mg2O4Ti1*	
-489084+6	133172+6	545999+2	000000+0	319522-4	144130+3	2013. 4000.32	Mg2O4Ti1*
2 12 1 14	JANAF 1998				5Mg2Si1*		
-185999+5	762644+5	151774+2	799391-2-119210+6	754757+2298.15	404.21	Mg2Si1*	
-185999+5	625718+5	175439+2	354971-2-212404+6	684028+2	404. 841.21	Mg2Si1*	
-185999+5	626275+5	175699+2	355391-2-233302+6	684314+2	841. 1375.21	Mg2Si1*	
-795172+3	607931+5	225000+2	000000+0-729226-2	814602+2	1375. 1500.32	Mg2Si1*	
-795172+3	607931+5	225000+2	000000+0-345192-5	814602+2	1500. 4000.32	Mg2Si1*	
3 12 8 2 15	JANAF 1998				5Mg3O8P2*		
-895100+6	304101+6	433517+2	422712-1-453655+6	256773+3298.15	700.21	Mg3O8P2*	
-895100+6	271934+6	631331+2	249879-1-421834+7	242177+3	700. 1000.21	Mg3O8P2*	
-895100+6	229659+6	102839+3	-357717-2-153592+8	223716+3	1000. 1621.21	Mg3O8P2*	
-875523+6	269675+6	113600+3	000000+0	313679-2	255233+3	1621. 1800.32	Mg3O8P2*
-875523+6	269675+6	113600+3	000000+0	319584-4	255233+3	1800. 4500.32	Mg3O8P2*
1 25	JANAF 1998				5Mn1*		
000000+0	300413+5	583791+1	323347-2-459386+5	296095+2298.15	980.21	Mn1*	
000000+0	259227+5	818319+1	904175-3-820377+5	280545+2	980. 1361.22	Mn1*	
000000+0	244590+5	221389+2	-501308-2-929147+7	277849+2	1361. 1412.23	Mn1*	
000000+0	278406+5	175724+2	-237210-2-680473+7	293411+2	1412. 1519.24	Mn1*	
389316+4	272448+5	110000+2	000000+0	137117-5	313750+2	1519. 3000.35	Mn1*
1 42	JANAF 1998				5Mo1*		
000000+0	204369+5	569307+1	115310-2-273417+5	229440+2298.15	1256.21	Mo1*	
000000+0	224420+5	117189+1	351118-2	243271+7	237630+2	1256. 2355.21	Mo1*
000000+0	228912+5	-372659+2	143224-1	744057+8	239218+2	2355. 2896.21	Mo1*
993499+4	210860+5	900000+1	141172-9	180905+1	267318+2	2896. 3000.32	Mo1*
993499+4	210860+5	900000+1	000000+0	299526-4	267318+2	3000. 6000.32	Mo1*
1 42 3 8	JANAF 1998				5Mo1O3*		
-178100+6	720106+5	201099+2	417560-2-307219+6	745852+2298.15	484.21	Mo1O3*	
-178100+6	866618+5	160999+2	969650-2	619868+4	818119+2	484. 700.21	Mo1O3*
-178100+6	904722+5	141920+2	115460-1	306713+6	835790+2	700. 900.21	Mo1O3*
-178100+6	921875+5	126942+2	126562-1	710559+6	843341+2	900. 1074.21	Mo1O3*
-168195+6	777938+5	303420+2	000000+0	000000+0	886186+2	1074. 2000.32	Mo1O3*
2 42 3 16	JANAF 1998				5Mo2S3*		
-973000+5	105630+6	263614+2	787784-2-230071+6	108346+3298.15	534.21	Mo2S3*	
-973000+5	105635+6	263603+2	787957-2-230026+6	108348+3	534. 1006.21	Mo2S3*	
-973000+5	105633+6	263659+2	787679-2-232891+6	108348+3	1006. 1447.21	Mo2S3*	
-973000+5	105635+6	263614+2	787945-2-231385+6	108349+3	1447. 2080.21	Mo2S3*	
-646042+5	958087+5	375000+2	000000+0-192402-4	120097+3	2080. 3500.32	Mo2S3*	
1 7 1 22	JANAF 1998				5N1Ti1*		
-807000+5	356687+5	119896+2	940502-3-303187+6	357601+2298.15	542.21	N1Ti1*	
-807000+5	356914+5	113625+2	125312-2-168747+6	356769+2	542. 899.21	N1Ti1*	
-807000+5	370603+5	101611+2	214172-2	156611+6	362792+2	899. 1475.21	N1Ti1*
-807000+5	371903+5	966904+1	236350-2	515400+6	363307+2	1475. 3220.21	N1Ti1*
-635308+5	364772+5	150000+2	000000+0-187669-3	414461+2	3220. 4500.32	N1Ti1*	
1 7 1 40	JANAF 1998				5N1Zr1*		
-873000+5	369608+5	110984+2	168189-2-171892+6	384986+2298.15	900.21	N1Zr1*	
-873000+5	369563+5	110995+2	168018-2-171504+6	384965+2	900. 2000.21	N1Zr1*	
-873000+5	372118+5	411887+1	389364-2	100433+8	385890+2	2000. 2200.21	N1Zr1*
-873000+5	369541+5	111111+2	167731-2-199647+6	384955+2	2200. 3225.21	N1Zr1*	
-694907+5	357647+5	140000+2	000000+0-408083-4	436548+2	3225. 6000.32	N1Zr1*	
1 11	JANAF 1998				4Na1*		
000000+0	133790+6	-855974+1	349243-1	433761+6	893115+2298.15	370.9821	Na1*
575048+3	162117+5	757449+1	-991590-3	558252+5	289370+2370.98	704.22	Na1*
575048+3	211271+5	499675+1	144716-2	482482+6	312064+2	704. 1130.22	Na1*
575048+3	226812+5	378542+1	241469-2	633192+6	318836+2	1130. 1600.22	Na1*

2 11 1 8	JANAF 1998					5Na2O1*		
-999001+5	901488+5	138296+2	118985-1-764883+5	815868+2298.15	500.21	Na2O1*		
-999001+5	658757+5	206634+2	265606-2-629626+6	696496+2	500.1023.221	Na2O1*		
-999001+5	649879+5	218409+2	179359-2-949669+6	694867+21023.21243.222		Na2O1*		
-999001+5	678113+5	218969+2	176369-2-978185+6	717684+21243.21405.223		Na2O1*		
-891116+5	675462+5	250000+2	000000+0	277458-5	796153+21405.2	3000.34	Na2O1*	
2 11 3 8 1 14	JANAF 1998					5Na2O3Si1*		
-373190+6	383452+5	446192+2	-176914-1-112043+7	761864+2298.15	414.21	Na2O3Si1*		
-373190+6	127084+6	315328+2	994460-2-838465+6	122542+3	414.	803.21	Na2O3Si1*	
-373190+6	122422+6	347243+2	730051-2-152728+7	120444+3	803.	1362.21	Na2O3Si1*	
-361108+6	109791+6	423800+2	000000+0	-283143-2	123947+3	1362.	1500.32	Na2O3Si1*
-361108+6	109791+6	423800+2	000000+0	-546201-5	123947+3	1500.	2500.32	Na2O3Si1*
2 11 4 8 1 16	JANAF 1998					5Na2O4S1*		
-331696+6	190041+6	252360+2	275191-1-250201+6	166977+3298.15	458.21	Na2O4S1*		
-331696+6	185460+6	263409+2	258540-1-322010+6	164787+3	458.	514.22	Na2O4S1*	
-331696+6	159242+6	314153+2	161419-1	287371+6	155786+3	514.	1157.23	Na2O4S1*
-324184+6	124335+6	470920+2	000000+0	149690-3	145808+3	1157.	1301.34	Na2O4S1*
-324184+6	124335+6	470920+2	000000+0	696645-5	145808+3	1301.	3000.34	Na2O4S1*
2 11 5 8 2 14	JANAF 1998					6Na2O5Si2*		
-590360+6	245333+6	330874+2	353670-1-544135+6	208127+3298.15	487.21	Na2O5Si2*		
-590360+6	177444+6	517058+2	976618-2-200291+7	174648+3	487.	700.21	Na2O5Si2*	
-590360+6	158735+6	612717+2	595277-3-354459+7	165989+3	700.	951.21	Na2O5Si2*	
-590360+6	168685+6	503985+2	790367-2	171202+0	170340+3	951.	980.22	Na2O5Si2*
-590360+6	176658+6	700000+2	000000+0	968256-3	176458+3	980.	1147.23	Na2O5Si2*
-582812+6	163583+6	624300+2	000000+0	109880-4	176590+3	1147.	2500.34	Na2O5Si2*
2 11 1 16	JANAF 1998					5Na2S1*		
-875000+5	662349+5	187563+2	349221-2-522400+3	757366+2298.15	573.21	Na2S1*		
-875000+5	654040+5	191114+2	311675-2-464739+5	753458+2	573.	1023.21	Na2S1*	
-875000+5	527434+6	-510225+3	353481+0	178820+9	274037+3	1023.	1276.21	Na2S1*
-875000+5	474377+6	-129157+4	615673+0	906133+9	241048+3	1276.	1445.22	Na2S1*
-774235+5	586992+5	220000+2	000000+0	-267433-6	797809+2	1445.	3000.33	Na2S1*
2 11 2 16	JANAF 1998					3Na2S2*		
-949001+5	113859+6	193341+2	138231-1	103543+5	118044+3298.15	401.21	Na2S2*	
-949001+5	112307+6	195988+2	133213-1	143170+3	117241+3	401.	753.21	Na2S2*
-908494+5	795286+5	298000+2	000000+0	-778903-6	107412+3	753.	1500.32	Na2S2*
1 41	JANAF 1998					7Nb1*		
000000+0	194843+5	582934+1	848984-3-160199+5	243783+2298.15	503.21	Nb1*		
000000+0	197271+5	575949+1	942188-3-102082+5	244975+2	503.	1408.21	Nb1*	
000000+0	207245+5	261494+1	242949-2	207223+7	248961+2	1408.	2072.21	Nb1*
000000+0	209737+5	-336375+1	434634-2	106885+8	249871+2	2072.	2442.21	Nb1*
000000+0	211927+5	-317396+2	120800-1	672830+8	250639+2	2442.	2750.21	Nb1*
708580+4	197504+5	800000+1	000000+0	960916-5	271293+2	2750.	5131.32	Nb1*
708580+4	197504+5	800000+1	000000+0	-551970-3	271293+2	5131.	6000.32	Nb1*
1 41 1 8	JANAF 1998					5Nb1O1*		
-100300+6	369375+5	102758+2	212418-2-962570+5	399277+2298.15	592.21	Nb1O1*		
-100300+6	373300+5	100614+2	232379-2-625068+5	401066+2	592.	800.21	Nb1O1*	
-100300+6	369159+5	102783+2	211786-2-958964+5	399160+2	800.	2011.21	Nb1O1*	
-100300+6	368898+5	109542+2	190261-2-107882+7	399066+2	2011.	2210.21	Nb1O1*	
-804835+5	368825+5	150000+2	000000+0	593408-5	489212+2	2210.	3000.32	Nb1O1*
1 41 2 8	JANAF 1998					5Nb1O2*		
-190000+6	650005+5	136097+2	644412-2-159865+6	609696+2298.15	500.21	Nb1O2*		
-190000+6	733986+5	112338+2	964763-2	336772+5	650976+2	500.	1090.21	Nb1O2*
-190000+6	574593+5	222000+2	000000+0	551565-2	585115+2	1090.	1200.22	Nb1O2*
-190000+6	532290+5	198499+2	000000+0	-129548-5	563581+2	1200.	2175.23	Nb1O2*
-169902+6	573179+5	225000+2	000000+0	-442448-4	673253+2	2175.	3000.34	Nb1O2*
2 41 5 8	JANAF 1998					5Nb2O5*		
-454000+6	140442+6	320788+2	123216-1-373882+6	138086+3298.15	582.21	Nb2O5*		
-454000+6	119003+6	400615+2	320383-2-128038+7	127843+3	582.	922.21	Nb2O5*	
-454000+6	114412+6	443318+2	123664-3-249626+7	125833+3	922.	1785.21	Nb2O5*	
-437589+6	139614+6	579001+2	000000+0	-157898-1	146941+3	1785.	1900.32	Nb2O5*
-437589+6	139614+6	579001+2	000000+0	932599-5	146941+3	1900.	5000.32	Nb2O5*

1 28	JANAF 1998						6Ni1*
000000+0	432826+5	356664+1	752703-2	360909+5	359116+2298.15	497.21	Ni1*
000000+0	285037+6	-771265+2	105903+0	789104+7	152542+3	497. 631.21	Ni1*
000000+0	162441+6	-770598+2	751189-1	155999+8	889708+2	631. 801.22	Ni1*
000000+0	245657+5	524616+1	217501-2	279800+6	261649+2	801. 1114.22	Ni1*
000000+0	250429+5	444583+1	263517-2	636849+6	263639+2	1114. 1728.22	Ni1*
417758+4	230597+5	929995+1	000000+0	-409378-5	279911+2	1728. 3600.33	Ni1*
1 28 1 16	JANAF 1998						5Ni1S1*
-210000+5	422873+5	118157+2	240252-2	-113072+6	458067+2298.15	434.21	Ni1S1*
-210000+5	471070+5	112991+2	380512-2	-130418+6	483619+2	434. 652.21	Ni1S1*
-210000+5	545310+5	827076+1	679941-2	-135644+3	532781+2	652. 1249.22	Ni1S1*
-149316+5	480175+5	183499+2	000000+0	910759-3	559690+2	1249. 1400.33	Ni1S1*
-149316+5	480175+5	183499+2	000000+0	126293-5	559690+2	1400. 3400.33	Ni1S1*
1 28 2 16	JANAF 1998						2Ni1S2*
-314001+5	637109+5	154009+2	496009-2	218415+2	661587+2298.15	1280.21	Ni1S2*
-159101+5	566283+5	217500+2	000000+0	224513-4	753351+2	1280. 1800.32	Ni1S2*
3 28 2 16	JANAF 1998						5Ni3S2*
-517000+5	124264+6	270493+2	116303-1	-211326+6	124697+3298.15	694.21	Ni3S2*
-517000+5	122821+6	278754+2	108826-1	-359268+6	124037+3	694. 829.21	Ni3S2*
-517000+5	128694+6	450801+2	000000+0	575545-4	138992+3	829. 1062.22	Ni3S2*
-343991+5	117585+6	458401+2	000000+0	-459624-5	144226+3	1062. 2563.33	Ni3S2*
-343991+5	117585+6	458401+2	000000+0	-116160-3	144226+3	2563. 3800.33	Ni3S2*
1 8 1 82	JANAF 1998						501Pb1*
-524400+5	489746+5	111339+2	432980-2	-132171+6	525180+2298.15	554.21	01Pb1*
-524400+5	441498+5	114347+2	300554-2	699085+3	499959+2	554. 762.21	01Pb1*
-524400+5	430009+5	107923+2	308010-2	-666684+5	492817+2	762. 1159.22	01Pb1*
-483387+5	419751+5	155354+2	000000+0	206219-3	534065+2	1159. 1301.33	01Pb1*
-483387+5	419751+5	155354+2	000000+0	207188-5	534065+2	1301. 2500.33	01Pb1*
1 8 1 38	JANAF 1998						501Sr1*
-141500+6	426598+5	109160+2	301302-2	-854709+5	461373+2298.15	473.21	01Sr1*
-141500+6	393598+5	117855+2	178653-2	-150221+6	445031+2	473. 727.21	01Sr1*
-141500+6	389583+5	120116+2	158032-2	-190472+6	443190+2	727. 1243.21	01Sr1*
-141500+6	389282+5	120758+2	154626-2	-224232+6	443067+2	1243. 2938.21	01Sr1*
-123636+6	390242+5	160000+2	000000+0	372236-4	504199+2	2938. 5000.32	01Sr1*
1 8 1 22	JANAF 1998						501Ti1*
-129700+6	460293+5	992449+1	441457-2	-150465+6	423129+2298.15	504.21	01Ti1*
-129700+6	454321+5	101000+2	418346-2	-165466+6	420205+2	504. 939.21	01Ti1*
-129700+6	454432+5	101295+2	417460-2	-184117+6	420269+2	939. 1265.21	01Ti1*
-129700+6	464620+5	100865+2	419624-2	-154948+6	428252+2	1265. 2023.22	01Ti1*
-118054+6	403222+5	160000+2	000000+0	949910-5	460090+2	2023. 4500.33	01Ti1*
1 8 1 23	JANAF 1998						501V1*
-103200+6	941228+4	173847+2	-818434-2	-361753+6	253336+2298.15	400.21	01V1*
-103200+6	460947+5	105103+2	400176-2	-417588+5	441484+2	400. 796.21	01V1*
-103200+6	454108+5	109897+2	360898-2	-147461+6	438413+2	796. 1282.21	01V1*
-103200+6	452956+5	112336+2	347924-2	-274843+6	437940+2	1282. 2063.21	01V1*
-886475+5	390610+5	150000+2	000000+0	683765-5	482630+2	2063. 3500.32	01V1*
2 8 1 14	JANAF 1998						502Si1*
-217700+6	707686+5	102319+2	982978-2	-222997+6	588497+2298.15	572.21	02Si1*
-217700+6	831166+5	350250+1	161103-1	803363+6	644581+2	572. 847.21	02Si1*
-217700+6	486045+5	140804+2	239968-2	-366842+2	480069+2	847. 1696.22	02Si1*
-215741+6	495043+5	205000+2	-346324-9	-924790+0	496211+2	1696. 1800.33	02Si1*
-215741+6	495043+5	205000+2	000000+0	-444856-5	496211+2	1800. 4500.33	02Si1*
2 8 1 22	JANAF 1998						502Ti1*
-225800+6	536540+5	161437+2	247620-2	-329978+6	541448+2298.15	600.21	02Ti1*
-225800+6	493740+5	177477+2	650902-3	-513148+6	521014+2	600. 1297.21	02Ti1*
-225800+6	491990+5	180324+2	484375-3	-628713+6	520286+2	1297. 1800.21	02Ti1*
-225800+6	492381+5	177439+2	596504-3	-348100+6	520435+2	1800. 2130.21	02Ti1*
-213684+6	572815+5	240000+2	000000+0	319856-4	611982+2	2130. 4000.32	02Ti1*
2 8 1 40	JANAF 1998						502Zr1*
-262300+6	153863+6	-793482+0	347818-1	342529+6	106087+3298.15	400.21	02Zr1*
-262300+6	519386+5	166405+2	179936-2	-336025+6	533775+2	400. 1128.21	02Zr1*
-262300+6	519265+5	166724+2	178327-2	-353544+6	533727+2	1128. 1478.21	02Zr1*
-262300+6	491073+5	178000+2	000000+0	246585-5	524789+2	1478. 2950.22	02Zr1*
-244540+6	523072+5	210000+2	000000+0	-593746-4	595836+2	2950. 5000.33	02Zr1*

3 8 2 22	JANAF 1998	503Ti2*
-363500+6 444458+6-258598+2 114553+0 130089+7 275510+3298.15470.0121		03Ti2*
-363500+6 970985+5 348648+2 134006-2-110119+7 969170+2470.01 630.22		03Ti2*
-363500+6 958769+5 352885+2 834804-3-114305+7 963305+2 630. 1800.22		03Ti2*
-363500+6 959168+5 345445+2 108543-2-194160+6 963449+2 1800. 2115.22		03Ti2*
-339020+6 966226+5 375000+2 000000+0-341901-4 108249+3 2115. 3500.33		03Ti2*
3 8 2 23	JANAF 1998	503V2*
-291300+6 916855+5 305879+2 240430-2-553172+6 974744+2298.15 554.21		03V2*
-291300+6 987362+5 272888+2 573173-2-106387+6 100743+3 554. 860.21		03V2*
-291300+6 102006+6 247000+2 773620-2 533297+6 102195+3 860. 1292.21		03V2*
-291300+6 102509+6 235143+2 834635-2 119662+7 102401+3 1292. 2340.21		03V2*
-261246+6 948656+5 375000+2 000000+0-227660-4 112290+3 2340. 4000.22		03V2*
3 8 1 74	JANAF 1998	503W1*
-201460+6 912934+5 168765+2 104068-1-222574+6 839853+2298.15 487.21		03W1*
-201460+6 690986+5 230220+2 200764-2-709996+6 730511+2 487. 760.21		03W1*
-201460+6 724773+5 200046+2 423663-2 543761+5 745202+2 760. 1050.21		03W1*
-201460+6 702492+5 193294+2 392305-2 958741+4 735197+2 1050. 1745.22		03W1*
-188555+6 784852+5 315000+2 000000+0-412671-4 852473+2 1745. 3000.33		03W1*
4 8 2 23	JANAF 1998	504V2*
-341100+6 164459+6 253437+2 217994-1-378883+6 140045+3298.15 340.21		04V2*
-341100+6 112768+6 347973+2 418406-2-661290+6 118890+3 340. 700.22		04V2*
-341100+6 113368+6 347044+2 438105-2-683343+6 119186+3 700. 1619.22		04V2*
-341100+6 114411+6 272749+2 728916-2 644963+7 119584+3 1619. 1818.22		04V2*
-318392+6 124378+6 510000+2 000000+0-757163-5 136968+3 1818. 3000.33		04V2*
5 8 2 73	JANAF 1998	505Ta2*
-489000+6 151980+6 307641+2 156448-1-280294+6 145941+3298.15 553.21		05Ta2*
-489000+6 128120+6 389195+2 584969-2-111780+7 134441+3 553. 978.21		05Ta2*
-489000+6 122047+6 439493+2 202144-2-234762+7 131763+3 978. 2058.21		05Ta2*
-467775+6 138300+6 580000+2 000000+0 247370-1 149247+3 2058. 2200.32		05Ta2*
-467775+6 138300+6 580000+2 000000+0 503541-4 149247+3 2200. 5000.32		05Ta2*
5 8 3 22	JANAF 1998	505Ti3*
-587750+6 128786+6 534379+2-255454-2-139475+7 139626+3298.15 450.21		05Ti3*
-587750+6 159246+6 380000+2 120000-1 241547+2 157864+3 450. 995.22		05Ti3*
-587750+6 159246+6 380004+2 119998-1-219378+3 157864+3 995. 2050.22		05Ti3*
-547098+6 155509+6 640000+2 000000+0 457106-3 176364+3 2050. 2257.33		05Ti3*
-547098+6 155509+6 640000+2 000000+0 103061-3 176364+3 2257. 4000.33		05Ti3*
5 8 2 23	JANAF 1998	505V2*
-370600+6 214090+6 245734+2 333478-1-293540+6 176402+3298.15 400.21		05V2*
-370600+6 123384+6 407935+2 362443-2-986461+6 129677+3 400. 600.21		05V2*
-370600+6 128290+6 391801+2 560963-2-834434+6 132047+3 600. 800.21		05V2*
-370600+6 122438+6 437195+2 205881-2-192162+7 129446+3 800. 943.21		05V2*
-356408+6 120582+6 455999+2 000000+0 402802-6 144713+3 943. 3000.32		05V2*
7 8 4 22	JANAF 1998	507Ti4*
-813700+6 241839+6 554723+2 213642-1-106854+7 227345+3298.15 483.21		07Ti4*
-813700+6 200224+6 668180+2 570492-2-195091+7 206810+3 483. 819.21		07Ti4*
-813700+6 196474+6 695000+2 352849-2-255428+7 205129+3 819. 1950.21		07Ti4*
-768651+6 216138+6 880000+2 000000+0 360503-1 237279+3 1950. 2100.32		07Ti4*
-768651+6 216138+6 880000+2 000000+0 390354-4 237279+3 2100. 4000.32		07Ti4*
1 15	JANAF 1998	4P1*
000000+0 673570+5-240104+0 151782-1 125253+6 509701+2298.15 317.321		P1*
146989+3 170004+5 629207+1 000000+0 541566-8 248070+2 317.3 760.22		P1*
146989+3 170004+5 629207+1 000000+0-271040-5 248070+2 760. 1000.22		P1*
146989+3 170004+5 629207+1 000000+0-352468-6 248070+2 1000. 2000.22		P1*
4 15 3 16	JANAF 1998	2P4S3*
-536919+5 945648+5 350000+2 000000+0 103182-5 128807+3298.15 440.21		P4S3*
-527686+5 118881+6 440000+2 000000+0 530088-7 151083+3 440. 3000.32		P4S3*
1 82	JANAF 1998	5Pb1*
000000+0 243146+5 589777+1 188346-2-403207+4 341670+2298.15 500.21		Pb1*
000000+0 442408+5-787537+0 100084-1 651675+6 437759+2 500. 600.621		Pb1*
102366+4 175887+5 776411+1-737963-3 945662+1 327783+2 600.6 1206.32		Pb1*
102366+4 193010+5 515793+1 814990-3 106657+7 334967+2 1206. 1895.32		Pb1*
102366+4 192288+5 607857+1 491535-3-383425+5 334698+2 1895. 3000.32		Pb1*

1 82 1 16	JANAF 1998	5Pb1S1*
-235000+5 418763+5 108959+2 278600-2 794752+4 545593+2298.15 459.21		Pb1S1*
-235000+5 405095+5 110538+2 238121-2 138207+5 538408+2 459. 882.21		Pb1S1*
-235000+5 406537+5 107040+2 256856-2 157416+6 538937+2 882. 1100.21		Pb1S1*
-235000+5 402544+5 111175+2 228189-2 386040+5 537214+2 1100.1386.521		Pb1S1*
-200918+5 411339+5 160000+2 000000+0-856491-5 570456+21386.5 2000.32		Pb1S1*
1 37	JANAF 1998	5Rb1*
000000+0 397511+6-408768+2 113126+0 129537+7 236840+3298.15312.6521		Rb1*
521989+3 185969+5 755885+1-429860-3 296980+5 364744+2312.65 687.32		Rb1*
521989+3 225076+5 578333+1 138471-2 279326+6 383049+2 687. 1001.32		Rb1*
521989+3 249225+5 317860+1 315109-2 111758+7 393486+2 1001. 1330.32		Rb1*
521989+3 262507+5 827027-1 474989-2 283252+7 398898+2 1330. 1600.32		Rb1*
1 16	JANAF 1998	7S1*
000000+0 286426+5 468958+1 360522-2-301748+5 280614+2298.15 368.321		S1*
000000+0 323279+5 419197+1 469433-2-453518-3 302535+2 368.3388.3622		S1*
443117+3 969938+5-134768+1 225865-1 392258-1 667151+2388.36 400.33		S1*
443117+3 566763+6-569417+2 161571+0-812175-4 316060+3 400.432.0233		S1*
443117+3 125659+7-326726+3 463641+0 259961+8 637151+3432.02 500.34		S1*
443117+3 253817+5 382314+1 287547-2 954499+6 288107+2 500. 700.34		S1*
443117+3 212469+5 663457+1 531705-3 380812+6 269579+2 700. 1500.34		S1*
2 16 1 14	JANAF 1998	5S2Si1*
-510000+5 600036+5 176799+2 274475-2 194062+4 674456+2298.15 498.21		S2Si1*
-510000+5 418275+5 249021+2-522964-2-804314+6 588824+2 498. 700.21		S2Si1*
-510000+5 599018+5 177141+2 269677-2-935448+3 674276+2 700. 1000.21		S2Si1*
-510000+5 599051+5 177136+2 269796-2-163500+4 674291+2 1000. 1363.21		S2Si1*
-494560+5 573347+5 217500+2 000000+0-667044-5 676646+2 1363. 2000.32		S2Si1*
1 14	JANAF 1998	5Si1*
000000+0 187814+5 541095+1 989920-3-823687+5 192066+2298.15 400.21		Si1*
000000+0 186135+5 545052+1 929866-3-848553+5 191226+2 400. 1052.21		Si1*
000000+0 186496+5 529920+1 100037-2 520484+3 191352+2 1052. 1685.21		Si1*
115846+5 175624+5 650000+1 000000+0-191466-1 256340+2 1685. 1800.32		Si1*
115846+5 175624+5 650000+1 000000+0-436734-5 256340+2 1800. 4500.32		Si1*
1 38	JANAF 1998	5Sr1*
000000+0 261579+5 564667+1 244504-2 247785+4 329680+2298.15 489.21		Sr1*
000000+0 265982+5 552352+1 261228-2 123681+5 331847+2 489. 820.21		Sr1*
000000+0 217599+5 630615+1 995466-3-164342+4 309095+2 820. 1050.22		Sr1*
217734+3 254836+5 943188+1 000000+0-171482-5 339419+2 1050. 1321.33		Sr1*
217734+3 254836+5 943188+1 000000+0-419033-6 339419+2 1321. 3000.33		Sr1*
1 73	JANAF 1998	6Ta1*
000000+0 205878+5 573604+1 114422-2-272037+4 262314+2298.15 674.21		Ta1*
000000+0 196622+5 560560+1 968119-3 110458+6 257453+2 674. 1367.21		Ta1*
000000+0 197415+5 266452+1 202510-2 290637+7 257524+2 1367. 2246.21		Ta1*
000000+0 197854+5-496515+1 412361-2 176183+8 257671+2 2246. 2791.21		Ta1*
000000+0 197915+5-228400+2 838688-2 641698+8 257691+2 2791. 3258.21		Ta1*
736018+4 211630+5 100000+2 000000+0-343899-4 284485+2 3258. 6000.32		Ta1*
1 22	JANAF 1998	5Ti1*
000000+0 227007+5 617259+1 138524-2-492331+5 250712+2298.15 450.21		Ti1*
000000+0 207622+5 665758+1 677874-3-829856+5 241060+2 450. 774.21		Ti1*
000000+0 357792+5-377715+1 926478-2 218659+7 308517+2 774. 1166.21		Ti1*
000000+0 249445+5 107722+0 423746-2 266114+7 263063+2 1166. 1939.22		Ti1*
326291+4 253387+5 112899+2 000000+0-372612-5 282282+2 1939. 4500.33		Ti1*
1 23	JANAF 1998	5V1*
000000+0 198325+5 631241+1 656945-3-495788+5 229886+2298.15 595.21		V1*
000000+0 229066+5 511051+1 199172-2 947623+5 244502+2 595. 960.21		V1*
000000+0 241039+5 365715+1 293337-2 601068+6 249617+2 960. 1775.21		V1*
000000+0 250210+5-428229+1 591747-2 892712+7 253093+2 1775. 2190.21		V1*
413193+4 252238+5 110430+2 000000+0 114919-4 273978+2 2190. 4500.32		V1*
1 74	JANAF 1998	7W1*
000000+0 193713+5 565963+1 923363-3-113600+5 233043+2298.15 418.21		W1*
000000+0 197184+5 549037+1 109306-2 582179+4 234570+2 418. 1340.21		W1*
000000+0 198033+5 526313+1 120561-2 143026+6 234913+2 1340. 2585.21		W1*
000000+0 199440+5-313963+2 107796-1 797327+8 235401+2 2585. 3000.21		W1*
000000+0 199440+5-387855+2 125858-1 974678+8 235401+2 3000. 3300.21		W1*
000000+0 198329+5-143709+3 336734-1 482259+9 235040+2 3300. 3680.21		W1*
112084+5 197659+5 850000+1 000000+0 577975-4 265909+2 3680. 6000.32		W1*

1 30				JANAF 1998			3Zn1*
000000+0	240628+5	549399+1	207172-2-390344+4	282307+2298.15	410.21		Zn1*
000000+0	279530+5	466782+1	341515-2 423848+5	302011+2	410.692.7321		Zn1*
155808+4	200837+5	750000+1	000000+0	300408-7	289571+2692.73	2000.32	Zn1*
1 40				JANAF 1998			5Zr1*
000000+0	221164+5	556893+1	158778-2-146460+4	264291+2298.15	610.21		Zr1*
000000+0	253681+5	425629+1	301926-2 162049+6	279701+2	610. 999.21		Zr1*
000000+0	253166+5	447655+1	291569-2 455026+5	279531+2	999. 1135.21		Zr1*
000000+0	226309+5	130173+1	316216-2 246435+7	269772+2	1135. 2125.22		Zr1*
415966+4	236538+5	100000+2	000000+0	274187-5	294269+2	2125. 5500.33	Zr1*