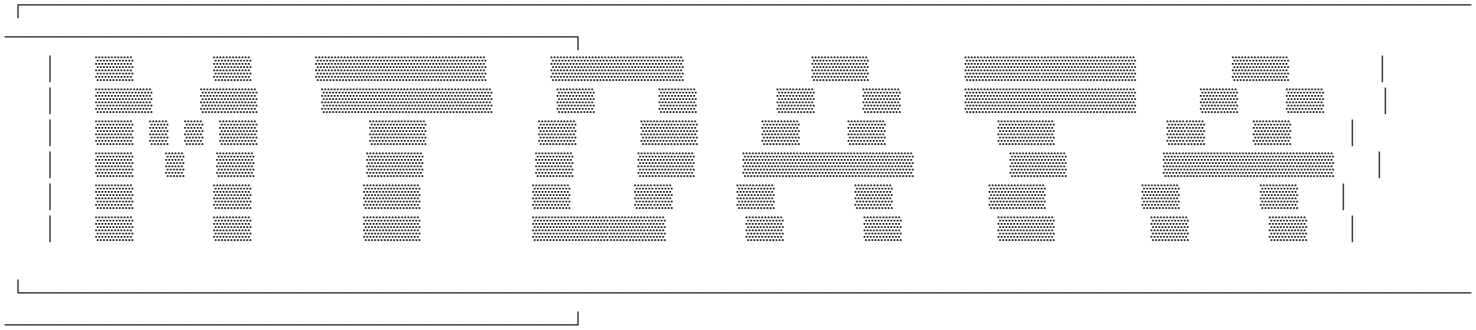

- THERMODYNAMICS AND PROCESS MODELLING GROUP -
- NPL MATERIALS CENTRE -
- NATIONAL PHYSICAL LABORATORY -

Authorised for use by Dr H K D H Bhadeshia
at University of Cambridge
under the terms and conditions of NPL 79/199-3

VERSION 4.73 FOR LNX RH 7.3
2002-11-15

```
 ******************************
 * USING DEFAULT MTCONFIG FILE *
 ******************************
17 of 18 DATABASES ARE AVAILABLE

WHICH MODULE ? multiphase
MULTIPHASE OPTION ? define data 'bearing.mpi' !
Date and time of run  8-NOV-2009  12:25:46
* DATAFILE = /numerobis/users/hkdb/bearing.mpi -  CREATED 11:11:03  8-NOV-2009
* SYSTEM = Fe,C,Si,Mn,Ni,Mo,Cr,
* NUMBER OF PHASES  =    5
* NUMBER OF SPECIES =   42
*
                       ******************************
                       * UNASSESSED OR INCORRECT DATA *
                       ******************************
                    ************************************
                    * WARNING/ERRORS HAVE BEEN DETECTED *
                    ************************************

     5 Warnings: UNASSESSED DATA -  Missing data for binary(s)

MULTIPHASE OPTION ? set w=100 !
MULTIPHASE OPTION ? w(2)=1.04 w(3)=0.25 w(4)=0.35 w(5)=0.125 w(6)=0.05 w(7)=1.45 !
W(2)  KEYWORD NOT RECOGNISED
MULTIPHASE OPTION ? lis sys co !

NUMBER    COMPONENT               STATUS      AMOUNT     DELTA    REF.P
   1      Fe                      NORMAL     undefined
   2      C                       NORMAL     undefined
   3      Si                      NORMAL     undefined
   4      Mn                      NORMAL     undefined
   5      Ni                      NORMAL     undefined
   6      Mo                      NORMAL     undefined
   7      Cr                      NORMAL     undefined

MULTIPHASE OPTION ? lis sys ph !
```

```
 NUMBER    PHASE                    STATUS      MODEL
    1      BCC_A2                   ABSENT      SUBLATTICE
    2      CEMENTITE                ABSENT      SUBLATTICE
    3      FCC_A1                   ABSENT      SUBLATTICE
    4      M23C6                    ABSENT      SUBLATTICE
    5      M6C                      ABSENT      SUBLATTICE


 MULTIPHASE OPTION ? li sys co !

 NUMBER    COMPONENT                STATUS      AMOUNT     DELTA    REF.P
    1      Fe                       NORMAL     undefined
    2      C                        NORMAL     undefined
    3      Si                       NORMAL     undefined
    4      Mn                       NORMAL     undefined
    5      Ni                       NORMAL     undefined
    6      Mo                       NORMAL     undefined
    7      Cr                       NORMAL     undefined

 MULTIPHASE OPTION ? li sys p !

 NUMBER    PHASE                    STATUS      MODEL
    1      BCC_A2                   ABSENT      SUBLATTICE
    2      CEMENTITE                ABSENT      SUBLATTICE
    3      FCC_A1                   ABSENT      SUBLATTICE
    4      M23C6                    ABSENT      SUBLATTICE
    5      M6C                      ABSENT      SUBLATTICE

 MULTIPHASE OPTION ? cl normal p(*) !
 MULTIPHASE OPTION ? set w=100 !
 MULTIPHASE OPTION ? set w(2)=1.04 w(3)=0.25 w(4)=0.35 w(5)=0.125 w(6)=0.05 w(7)=1.45 !
 MULTIPHASE OPTION ? step temp 673 1573 10 !


 MULTIPHASE OPTION ? compute pr br pr w !
 NUMBER OF STEPS =  91

     673.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   673.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.313062E+04 1.602401E-02 1.732143E+03 9.673500E+01
C                            3.146213E+03 1.754632E+00 8.658730E+01 1.040000E+00
Si                          -1.608712E+05 3.268563E-13 8.901390E+00 2.500000E-01
Mn                          -6.313527E+04 1.258646E-05 6.370818E+00 3.500000E-01
Ni                          -5.444337E+04 5.949835E-05 2.129835E+00 1.250000E-01
Mo                          -8.159193E+04 4.649784E-07 5.211591E-01 5.000000E-02
Cr                          -5.035465E+04 1.235496E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                               Fe              C               Si
 8.4492E+01 BCC_A2            0.9951974       0.0000014       0.0029589
 1.5234E+01 CEMENTITE         0.8189556       0.0673694       0.0000000
 2.7383E-01 M23C6             0.6304876       0.0495832       0.0000000

                               Mn              Ni              Mo
 8.4492E+01 BCC_A2            0.0002042       0.0013744       0.0000004
 1.5234E+01 CEMENTITE         0.0218354       0.0004730       0.0000065
 2.7383E-01 M23C6             0.0003764       0.0060828       0.1821073
```

```
                                  Cr
 8.4492E+01 BCC_A2              0.0002633
 1.5234E+01 CEMENTITE           0.0913601
 2.7383E-01 M23C6               0.1313628

Gibbs Energy = -4.3189826797E+07 J   System Enthalpy =  2.0807151039E+07 J
     683.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   683.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.363948E+04 1.556466E-02 1.732143E+03 9.673500E+01
C                            2.633287E+03 1.589952E+00 8.658730E+01 1.040000E+00
Si                          -1.614344E+05 4.509124E-13 8.901390E+00 2.500000E-01
Mn                          -6.394785E+04 1.286780E-05 6.370818E+00 3.500000E-01
Ni                          -5.558434E+04 5.611961E-05 2.129835E+00 1.250000E-01
Mo                          -8.165794E+04 5.689865E-07 5.211591E-01 5.000000E-02
Cr                          -5.095671E+04 1.267706E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                  Fe             C              Si
 8.4492E+01 BCC_A2              0.9951455      0.0000017      0.0029589
 1.5233E+01 CEMENTITE           0.8192197      0.0673684      0.0000000
 2.7506E-01 M23C6               0.6327134      0.0496012      0.0000000

                                  Mn             Ni             Mo
 8.4492E+01 BCC_A2              0.0002244      0.0013752      0.0000006
 1.5233E+01 CEMENTITE           0.0217247      0.0004719      0.0000086
 2.7506E-01 M23C6               0.0003909      0.0058711      0.1811312

                                  Cr
 8.4492E+01 BCC_A2              0.0002938
 1.5233E+01 CEMENTITE           0.0912068
 2.7506E-01 M23C6               0.1302921

Gibbs Energy = -4.4145380596E+07 J   System Enthalpy =  2.1434741768E+07 J
     693.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   693.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.415338E+04 1.511795E-02 1.732143E+03 9.673500E+01
C                            2.118873E+03 1.444459E+00 8.658730E+01 1.040000E+00
Si                          -1.619999E+05 6.160563E-13 8.901390E+00 2.500000E-01
Mn                          -6.476833E+04 1.312901E-05 6.370818E+00 3.500000E-01
Ni                          -5.673093E+04 5.297036E-05 2.129835E+00 1.250000E-01
Mo                          -8.172617E+04 6.919474E-07 5.211591E-01 5.000000E-02
Cr                          -5.156404E+04 1.298602E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                  Fe             C              Si
 8.4492E+01 BCC_A2              0.9950896      0.0000020      0.0029589
 1.5232E+01 CEMENTITE           0.8195046      0.0673674      0.0000000
 2.7631E-01 M23C6               0.6349524      0.0496204      0.0000000

                                  Mn             Ni             Mo
 8.4492E+01 BCC_A2              0.0002460      0.0013760      0.0000008
```

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 1.5232E+01 CEMENTITE          0.0216064       0.0004707       0.0000111
 2.7631E-01 M23C6              0.0004056       0.0056704       0.1801068

                                Cr
 8.4492E+01 BCC_A2             0.0003267
 1.5232E+01 CEMENTITE          0.0910398
 2.7631E-01 M23C6              0.1292445

Gibbs Energy = -4.5110164010E+07 J   System Enthalpy =  2.2067923555E+07 J
     703.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   703.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.467285E+04 1.468224E-02 1.732143E+03 9.673500E+01
C                            1.603168E+03 1.315577E+00 8.658730E+01 1.040000E+00
Si                          -1.625741E+05 8.329981E-13 8.901390E+00 2.500000E-01
Mn                          -6.559787E+04 1.336715E-05 6.370818E+00 3.500000E-01
Ni                          -5.788398E+04 5.002486E-05 2.129835E+00 1.250000E-01
Mo                          -8.179856E+04 8.362142E-07 5.211591E-01 5.000000E-02
Cr                          -5.217742E+04 1.327964E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 8.4492E+01 BCC_A2             0.9950297       0.0000025       0.0029589
 1.5230E+01 CEMENTITE          0.8198107       0.0673663       0.0000000
 2.7756E-01 M23C6              0.6372102       0.0496407       0.0000000

                                Mn              Ni              Mo
 8.4492E+01 BCC_A2             0.0002690       0.0013768       0.0000010
 1.5230E+01 CEMENTITE          0.0214805       0.0004693       0.0000144
 2.7756E-01 M23C6              0.0004204       0.0054796       0.1790332

                                Cr
 8.4492E+01 BCC_A2             0.0003621
 1.5230E+01 CEMENTITE          0.0908587
 2.7756E-01 M23C6              0.1282160

Gibbs Energy = -4.6084125617E+07 J   System Enthalpy =  2.2706848803E+07 J
     713.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   713.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.519703E+04 1.425946E-02 1.732143E+03 9.673500E+01
C                            1.085854E+03 1.201014E+00 8.658730E+01 1.040000E+00
Si                          -1.631528E+05 1.116007E-12 8.901390E+00 2.500000E-01
Mn                          -6.643565E+04 1.358385E-05 6.370818E+00 3.500000E-01
Ni                          -5.904262E+04 4.727430E-05 2.129835E+00 1.250000E-01
Mo                          -8.187502E+04 1.004517E-06 5.211591E-01 5.000000E-02
Cr                          -5.279617E+04 1.355909E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 8.4492E+01 BCC_A2             0.9949656       0.0000029       0.0029589
 1.5229E+01 CEMENTITE          0.8201384       0.0673650       0.0000000
 2.7880E-01 M23C6              0.6394915       0.0496621       0.0000000
```

		Mn	Ni	Mo
8.4492E+01	BCC_A2	0.0002934	0.0013776	0.0000014
1.5229E+01	CEMENTITE	0.0213468	0.0004680	0.0000184
2.7880E-01	M23C6	0.0004351	0.0052981	0.1779098

		Cr
8.4492E+01	BCC_A2	0.0004003
1.5229E+01	CEMENTITE	0.0906634
2.7880E-01	M23C6	0.1272034

Gibbs Energy = -4.7067217679E+07 J System Enthalpy = 2.3351677447E+07 J
     723.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   723.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-2.572622E+04	1.384850E-02	1.732143E+03	9.673500E+01
C		5.675801E+02	1.099018E+00	8.658730E+01	1.040000E+00
Si		-1.637360E+05	1.482000E-12	8.901390E+00	2.500000E-01
Mn		-6.728225E+04	1.377768E-05	6.370818E+00	3.500000E-01
Ni		-6.020714E+04	4.470121E-05	2.129835E+00	1.250000E-01
Mo		-8.195507E+04	1.199872E-06	5.211591E-01	5.000000E-02
Cr		-5.342062E+04	1.382336E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4492E+01	BCC_A2	0.9948971	0.0000035	0.0029588
1.5228E+01	CEMENTITE	0.8204879	0.0673637	0.0000000
2.7999E-01	M23C6	0.6418008	0.0496847	0.0000000

		Mn	Ni	Mo
8.4492E+01	BCC_A2	0.0003192	0.0013784	0.0000019
1.5228E+01	CEMENTITE	0.0212050	0.0004665	0.0000235
2.7999E-01	M23C6	0.0004499	0.0051252	0.1767360

		Cr
8.4492E+01	BCC_A2	0.0004411
1.5228E+01	CEMENTITE	0.0904534
2.7999E-01	M23C6	0.1262033

Gibbs Energy = -4.8059396094E+07 J System Enthalpy = 2.4002577461E+07 J
     733.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   733.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-2.626057E+04	1.344871E-02	1.732143E+03	9.673500E+01
C		4.829878E+01	1.007956E+00	8.658730E+01	1.040000E+00
Si		-1.643248E+05	1.951054E-12	8.901390E+00	2.500000E-01
Mn		-6.813799E+04	1.394796E-05	6.370818E+00	3.500000E-01
Ni		-6.137762E+04	4.229145E-05	2.129835E+00	1.250000E-01
Mo		-8.203930E+04	1.425306E-06	5.211591E-01	5.000000E-02
Cr		-5.405094E+04	1.407179E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si

```
 8.4493E+01 BCC_A2              0.9948240       0.0000042       0.0029588
 1.5226E+01 CEMENTITE           0.8208595       0.0673623       0.0000000
 2.8112E-01 M23C6               0.6441424       0.0497084       0.0000000

                                 Mn              Ni              Mo
 8.4493E+01 BCC_A2              0.0003466       0.0013791       0.0000025
 1.5226E+01 CEMENTITE           0.0210550       0.0004650       0.0000297
 2.8112E-01 M23C6               0.0004647       0.0049603       0.1755113

                                 Cr
 8.4493E+01 BCC_A2              0.0004848
 1.5226E+01 CEMENTITE           0.0902286
 2.8112E-01 M23C6               0.1252129

Gibbs Energy = -4.9060620366E+07 J   System Enthalpy =  2.4659725794E+07 J
     743.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   743.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.680008E+04 1.305988E-02 1.732143E+03 9.673500E+01
C                           -4.715406E+02 9.265107E-01 8.658730E+01 1.040000E+00
Si                          -1.649198E+05 2.547101E-12 8.901390E+00 2.500000E-01
Mn                          -6.900313E+04 1.409420E-05 6.370818E+00 3.500000E-01
Ni                          -6.255415E+04 4.003205E-05 2.129835E+00 1.250000E-01
Mo                          -8.212809E+04 1.684026E-06 5.211591E-01 5.000000E-02
Cr                          -5.468734E+04 1.430371E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                 Fe              C               Si
 8.4493E+01 BCC_A2              0.9947463       0.0000050       0.0029588
 1.5225E+01 CEMENTITE           0.8212532       0.0673607       0.0000000
 2.8214E-01 M23C6               0.6465198       0.0497333       0.0000000

                                 Mn              Ni              Mo
 8.4493E+01 BCC_A2              0.0003754       0.0013799       0.0000032
 1.5225E+01 CEMENTITE           0.0208966       0.0004634       0.0000373
 2.8214E-01 M23C6               0.0004793       0.0048027       0.1742352

                                 Cr
 8.4493E+01 BCC_A2              0.0005314
 1.5225E+01 CEMENTITE           0.0899887
 2.8214E-01 M23C6               0.1242296

Gibbs Energy = -5.0070853585E+07 J   System Enthalpy =  2.5323309115E+07 J
     753.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   753.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.734430E+04 1.268262E-02 1.732143E+03 9.673500E+01
C                           -9.918280E+02 8.534929E-01 8.658730E+01 1.040000E+00
Si                          -1.655198E+05 3.299066E-12 8.901390E+00 2.500000E-01
Mn                          -6.987775E+04 1.421650E-05 6.370818E+00 3.500000E-01
Ni                          -6.373657E+04 3.791300E-05 2.129835E+00 1.250000E-01
Mo                          -8.222109E+04 1.979579E-06 5.211591E-01 5.000000E-02
Cr                          -5.532933E+04 1.452019E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02
```

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4494E+01	BCC_A2	0.9946638	0.0000059	0.0029588
1.5223E+01	CEMENTITE	0.8216692	0.0673590	0.0000000
2.8301E-01	M23C6	0.6489364	0.0497593	0.0000000

		Mn	Ni	Mo
8.4494E+01	BCC_A2	0.0004058	0.0013806	0.0000042
1.5223E+01	CEMENTITE	0.0207296	0.0004618	0.0000466
2.8301E-01	M23C6	0.0004938	0.0046521	0.1729074

		Cr
8.4494E+01	BCC_A2	0.0005809
1.5223E+01	CEMENTITE	0.0897338
2.8301E-01	M23C6	0.1232509

Gibbs Energy = -5.1090062412E+07 J System Enthalpy = 2.5993524522E+07 J
     763.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   763.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-2.789356E+04	1.231593E-02	1.732143E+03	9.673500E+01
C		-1.512722E+03	7.878479E-01	8.658730E+01	1.040000E+00
Si		-1.661252E+05	4.240648E-12	8.901390E+00	2.500000E-01
Mn		-7.076200E+04	1.431487E-05	6.370818E+00	3.500000E-01
Ni		-6.492482E+04	3.592425E-05	2.129835E+00	1.250000E-01
Mo		-8.231791E+04	2.315767E-06	5.211591E-01	5.000000E-02
Cr		-5.597817E+04	1.471825E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4495E+01	BCC_A2	0.9945763	0.0000069	0.0029588
1.5222E+01	CEMENTITE	0.8221072	0.0673571	0.0000000
2.8367E-01	M23C6	0.6513953	0.0497865	0.0000000

		Mn	Ni	Mo
8.4495E+01	BCC_A2	0.0004377	0.0013814	0.0000055
1.5222E+01	CEMENTITE	0.0205540	0.0004601	0.0000579
2.8367E-01	M23C6	0.0005082	0.0045078	0.1715275

		Cr
8.4495E+01	BCC_A2	0.0006334
1.5222E+01	CEMENTITE	0.0894636
2.8367E-01	M23C6	0.1222746

Gibbs Energy = -5.2118217090E+07 J System Enthalpy = 2.6670580869E+07 J
     773.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   773.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-2.844773E+04	1.195979E-02	1.732143E+03	9.673500E+01
C		-2.033610E+03	7.287598E-01	8.658730E+01	1.040000E+00
Si		-1.667357E+05	5.411287E-12	8.901390E+00	2.500000E-01
Mn		-7.165640E+04	1.438858E-05	6.370818E+00	3.500000E-01
Ni		-6.611909E+04	3.405544E-05	2.129835E+00	1.250000E-01

```
Mo                          -8.242167E+04 2.695164E-06 5.211591E-01 5.000000E-02
Cr                          -5.663194E+04 1.490233E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 8.4496E+01 BCC_A2              0.9944837       0.0000081       0.0029587
 1.5220E+01 CEMENTITE           0.8225671       0.0673552       0.0000000
 2.8407E-01 M23C6               0.6538991       0.0498148       0.0000000

                                Mn              Ni              Mo
 8.4496E+01 BCC_A2              0.0004713       0.0013821       0.0000070
 1.5220E+01 CEMENTITE           0.0203696       0.0004584       0.0000715
 2.8407E-01 M23C6               0.0005223       0.0043695       0.1700954

                                Cr
 8.4496E+01 BCC_A2              0.0006891
 1.5220E+01 CEMENTITE           0.0891783
 2.8407E-01 M23C6               0.1212989

Gibbs Energy = -5.3155291462E+07 J   System Enthalpy =  2.7354699687E+07 J
     783.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   783.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.900685E+04 1.161384E-02 1.732143E+03 9.673500E+01
C                           -2.554342E+03 6.754634E-01 8.658730E+01 1.040000E+00
Si                          -1.673516E+05 6.856537E-12 8.901390E+00 2.500000E-01
Mn                          -7.256111E+04 1.443793E-05 6.370818E+00 3.500000E-01
Ni                          -6.731938E+04 3.229807E-05 2.129835E+00 1.250000E-01
Mo                          -8.252945E+04 3.122657E-06 5.211591E-01 5.000000E-02
Cr                          -5.729231E+04 1.506866E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 8.4497E+01 BCC_A2              0.9943859       0.0000094       0.0029587
 1.5219E+01 CEMENTITE           0.8230484       0.0673530       0.0000000
 2.8412E-01 M23C6               0.6564498       0.0498443       0.0000000

                                Mn              Ni              Mo
 8.4497E+01 BCC_A2              0.0005064       0.0013829       0.0000090
 1.5219E+01 CEMENTITE           0.0201763       0.0004566       0.0000879
 2.8412E-01 M23C6               0.0005362       0.0042368       0.1686108

                                Cr
 8.4497E+01 BCC_A2              0.0007478
 1.5219E+01 CEMENTITE           0.0888778
 2.8412E-01 M23C6               0.1203221

Gibbs Energy = -5.4201263001E+07 J   System Enthalpy =  2.8046116632E+07 J
     793.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   793.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -2.957103E+04 1.127756E-02 1.732143E+03 9.673500E+01
C                           -3.074586E+03 6.273114E-01 8.658730E+01 1.040000E+00
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Si                          -1.679743E+05 8.627249E-12 8.901390E+00 2.500000E-01
Mn                          -7.347656E+04 1.446258E-05 6.370818E+00 3.500000E-01
Ni                          -6.852581E+04 3.064378E-05 2.129835E+00 1.250000E-01
Mo                          -8.264206E+04 3.601910E-06 5.211591E-01 5.000000E-02
Cr                          -5.795983E+04 1.521605E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 8.4499E+01 BCC_A2             0.9942826       0.0000110       0.0029586
 1.5218E+01 CEMENTITE          0.8235509       0.0673507       0.0000000
 2.8374E-01 M23C6              0.6590496       0.0498749       0.0000000

                                Mn              Ni              Mo
 8.4499E+01 BCC_A2             0.0005431       0.0013836       0.0000114
 1.5218E+01 CEMENTITE          0.0199739       0.0004548       0.0001074
 2.8374E-01 M23C6              0.0005498       0.0041093       0.1670738

                                Cr
 8.4499E+01 BCC_A2             0.0008098
 1.5218E+01 CEMENTITE          0.0885624
 2.8374E-01 M23C6              0.1193426

Gibbs Energy = -5.5256112863E+07 J   System Enthalpy =  2.8745082509E+07 J
     803.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   803.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -3.014021E+04 1.095086E-02 1.732143E+03 9.673500E+01
C                           -3.594412E+03 5.837026E-01 8.658730E+01 1.040000E+00
Si                          -1.686017E+05 1.078560E-11 8.901390E+00 2.500000E-01
Mn                          -7.440279E+04 1.446332E-05 6.370818E+00 3.500000E-01
Ni                          -6.973819E+04 2.908638E-05 2.129835E+00 1.250000E-01
Mo                          -8.275821E+04 4.137777E-06 5.211591E-01 5.000000E-02
Cr                          -5.863471E+04 1.534426E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 8.4501E+01 BCC_A2             0.9941737       0.0000127       0.0029586
 1.5217E+01 CEMENTITE          0.8240737       0.0673482       0.0000000
 2.8281E-01 M23C6              0.6616999       0.0499067       0.0000000

                                Mn              Ni              Mo
 8.4501E+01 BCC_A2             0.0005813       0.0013844       0.0000143
 1.5217E+01 CEMENTITE          0.0197624       0.0004529       0.0001305
 2.8281E-01 M23C6              0.0005630       0.0039867       0.1654844

                                Cr
 8.4501E+01 BCC_A2             0.0008749
 1.5217E+01 CEMENTITE          0.0882323
 2.8281E-01 M23C6              0.1183593

Gibbs Energy = -5.6319825948E+07 J   System Enthalpy =  2.9451865524E+07 J
     813.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   813.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm
```

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.071436E+04	1.063348E-02	1.732143E+03	9.673500E+01
C		-4.113104E+03	5.441803E-01	8.658730E+01	1.040000E+00
Si		-1.692354E+05	1.339767E-11	8.901390E+00	2.500000E-01
Mn		-7.534059E+04	1.443929E-05	6.370818E+00	3.500000E-01
Ni		-7.095699E+04	2.761732E-05	2.129835E+00	1.250000E-01
Mo		-8.288680E+04	4.728460E-06	5.211591E-01	5.000000E-02
Cr		-5.931219E+04	1.546437E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4503E+01	BCC_A2	0.9940591	0.0000147	0.0029585
1.5216E+01	CEMENTITE	0.8246163	0.0673455	0.0000000
2.8122E-01	M23C6	0.6644020	0.0499395	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4503E+01	BCC_A2	0.0006212	0.0013852	0.0000180
1.5216E+01	CEMENTITE	0.0195417	0.0004510	0.0001579
2.8122E-01	M23C6	0.0005759	0.0038686	0.1638427

Mass/kg	Phase	Cr
8.4503E+01	BCC_A2	0.0009433
1.5216E+01	CEMENTITE	0.0878877
2.8122E-01	M23C6	0.1173713

Gibbs Energy = -5.7392390986E+07 J System Enthalpy = 3.0166752417E+07 J
     823.000
*** MULTIPHASE - Stage 1* Results ***

Temperature = 823.0000 K

Fixed pressure = 1.013250E+05 Pa, 1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.129348E+04	1.032518E-02	1.732143E+03	9.673500E+01
C		-4.631544E+03	5.082178E-01	8.658730E+01	1.040000E+00
Si		-1.698746E+05	1.654143E-11	8.901390E+00	2.500000E-01
Mn		-7.628978E+04	1.439190E-05	6.370818E+00	3.500000E-01
Ni		-7.218179E+04	2.623251E-05	2.129835E+00	1.250000E-01
Mo		-8.301423E+04	5.386882E-06	5.211591E-01	5.000000E-02
Cr		-5.999906E+04	1.556114E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4506E+01	BCC_A2	0.9939385	0.0000170	0.0029584
1.5215E+01	CEMENTITE	0.8251776	0.0673425	0.0000000
2.7882E-01	M23C6	0.6671567	0.0499735	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4506E+01	BCC_A2	0.0006627	0.0013860	0.0000225
1.5215E+01	CEMENTITE	0.0193117	0.0004490	0.0001901
2.7882E-01	M23C6	0.0005883	0.0037549	0.1621489

Mass/kg	Phase	Cr
8.4506E+01	BCC_A2	0.0010150
1.5215E+01	CEMENTITE	0.0875290
2.7882E-01	M23C6	0.1163777

Gibbs Energy = -5.8473800634E+07 J System Enthalpy = 3.0890050513E+07 J
     833.000
*** MULTIPHASE - Stage 1* Results ***

Temperature = 833.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.187734E+04	1.002604E-02	1.732143E+03	9.673500E+01
C		-5.147967E+03	4.755502E-01	8.658730E+01	1.040000E+00
Si		-1.705203E+05	2.030083E-11	8.901390E+00	2.500000E-01
Mn		-7.725099E+04	1.432093E-05	6.370818E+00	3.500000E-01
Ni		-7.341285E+04	2.492541E-05	2.129835E+00	1.250000E-01
Mo		-8.314867E+04	6.111631E-06	5.211591E-01	5.000000E-02
Cr		-6.069351E+04	1.563901E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4509E+01	BCC_A2	0.9938118	0.0000195	0.0029582
1.5215E+01	CEMENTITE	0.8257567	0.0673394	0.0000000
2.7543E-01	M23C6	0.6699644	0.0500086	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4509E+01	BCC_A2	0.0007058	0.0013868	0.0000279
1.5215E+01	CEMENTITE	0.0190723	0.0004470	0.0002278
2.7543E-01	M23C6	0.0006003	0.0036452	0.1604035

Mass/kg	Phase	Cr
8.4509E+01	BCC_A2	0.0010900
1.5215E+01	CEMENTITE	0.0871567
2.7543E-01	M23C6	0.1153780

Gibbs Energy = -5.9564051601E+07 J   System Enthalpy = 3.1622090032E+07 J
     843.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   843.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.246625E+04	9.735338E-03	1.732143E+03	9.673500E+01
C		-5.664402E+03	4.456836E-01	8.658730E+01	1.040000E+00
Si		-1.711711E+05	2.477561E-11	8.901390E+00	2.500000E-01
Mn		-7.822420E+04	1.422761E-05	6.370818E+00	3.500000E-01
Ni		-7.464995E+04	2.369173E-05	2.129835E+00	1.250000E-01
Mo		-8.329129E+04	6.905080E-06	5.211591E-01	5.000000E-02
Cr		-6.139221E+04	1.570591E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4514E+01	BCC_A2	0.9936787	0.0000224	0.0029581
1.5216E+01	CEMENTITE	0.8263524	0.0673360	0.0000000
2.7086E-01	M23C6	0.6728254	0.0500449	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4514E+01	BCC_A2	0.0007505	0.0013876	0.0000344
1.5216E+01	CEMENTITE	0.0188235	0.0004450	0.0002718
2.7086E-01	M23C6	0.0006117	0.0035393	0.1586066

Mass/kg	Phase	Cr
8.4514E+01	BCC_A2	0.0011684
1.5216E+01	CEMENTITE	0.0867713
2.7086E-01	M23C6	0.1143721

Gibbs Energy = -6.0663144788E+07 J   System Enthalpy = 3.2363226724E+07 J
     853.000

*** MULTIPHASE - Stage 1* Results ***

Temperature =   853.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.306046E+04	9.452521E-03	1.732143E+03	9.673500E+01
C		-6.176706E+03	4.185722E-01	8.658730E+01	1.040000E+00
Si		-1.718293E+05	3.006481E-11	8.901390E+00	2.500000E-01
Mn		-7.921087E+04	1.411025E-05	6.370818E+00	3.500000E-01
Ni		-7.589411E+04	2.252351E-05	2.129835E+00	1.250000E-01
Mo		-8.343958E+04	7.773025E-06	5.211591E-01	5.000000E-02
Cr		-6.209940E+04	1.575263E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4518E+01	BCC_A2	0.9935391	0.0000256	0.0029579
1.5217E+01	CEMENTITE	0.8269633	0.0673323	0.0000000
2.6487E-01	M23C6	0.6757395	0.0500822	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4518E+01	BCC_A2	0.0007967	0.0013885	0.0000422
1.5217E+01	CEMENTITE	0.0185652	0.0004429	0.0003229
2.6487E-01	M23C6	0.0006226	0.0034370	0.1567591

Mass/kg	Phase	Cr
8.4518E+01	BCC_A2	0.0012501
1.5217E+01	CEMENTITE	0.0863735
2.6487E-01	M23C6	0.1133596

Gibbs Energy = -6.1771085450E+07 J   System Enthalpy = 3.3113843399E+07 J
     863.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   863.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.365902E+04	9.178641E-03	1.732143E+03	9.673500E+01
C		-6.691785E+03	3.935300E-01	8.658730E+01	1.040000E+00
Si		-1.724921E+05	3.629646E-11	8.901390E+00	2.500000E-01
Mn		-8.020947E+04	1.397330E-05	6.370818E+00	3.500000E-01
Ni		-7.714344E+04	2.142255E-05	2.129835E+00	1.250000E-01
Mo		-8.359535E+04	8.717009E-06	5.211591E-01	5.000000E-02
Cr		-6.281086E+04	1.578901E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4524E+01	BCC_A2	0.9933926	0.0000292	0.0029577
1.5219E+01	CEMENTITE	0.8275878	0.0673283	0.0000000
2.5720E-01	M23C6	0.6787062	0.0501206	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4524E+01	BCC_A2	0.0008445	0.0013893	0.0000515
1.5219E+01	CEMENTITE	0.0182973	0.0004408	0.0003820
2.5720E-01	M23C6	0.0006329	0.0033381	0.1548615

Mass/kg	Phase	Cr
8.4524E+01	BCC_A2	0.0013352
1.5219E+01	CEMENTITE	0.0859638
2.5720E-01	M23C6	0.1123408

Gibbs Energy = -6.2887883391E+07 J System Enthalpy = 3.3874354125E+07 J
     873.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   873.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.426335E+04	8.911599E-03	1.732143E+03	9.673500E+01
C		-7.200992E+03	3.708091E-01	8.658730E+01	1.040000E+00
Si		-1.731627E+05	4.358464E-11	8.901390E+00	2.500000E-01
Mn		-8.122270E+04	1.381289E-05	6.370818E+00	3.500000E-01
Ni		-7.840041E+04	2.037735E-05	2.129835E+00	1.250000E-01
Mo		-8.375653E+04	9.742734E-06	5.211591E-01	5.000000E-02
Cr		-6.353113E+04	1.580544E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4531E+01	BCC_A2	0.9932390	0.0000332	0.0029575
1.5222E+01	CEMENTITE	0.8282244	0.0673240	0.0000000
2.4755E-01	M23C6	0.6817245	0.0501600	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4531E+01	BCC_A2	0.0008938	0.0013903	0.0000627
1.5222E+01	CEMENTITE	0.0180197	0.0004386	0.0004500
2.4755E-01	M23C6	0.0006425	0.0032424	0.1529148

Mass/kg	Phase	Cr
8.4531E+01	BCC_A2	0.0014236
1.5222E+01	CEMENTITE	0.0855432
2.4755E-01	M23C6	0.1113158

Gibbs Energy = -6.4013553173E+07 J System Enthalpy = 3.4645206398E+07 J
     883.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   883.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.487229E+04	8.652691E-03	1.732143E+03	9.673500E+01
C		-7.709598E+03	3.498996E-01	8.658730E+01	1.040000E+00
Si		-1.738390E+05	5.207882E-11	8.901390E+00	2.500000E-01
Mn		-8.224951E+04	1.363267E-05	6.370818E+00	3.500000E-01
Ni		-7.966342E+04	1.938918E-05	2.129835E+00	1.250000E-01
Mo		-8.392514E+04	1.085075E-05	5.211591E-01	5.000000E-02
Cr		-6.425785E+04	1.580762E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4539E+01	BCC_A2	0.9930780	0.0000377	0.0029572
1.5226E+01	CEMENTITE	0.8288713	0.0673194	0.0000000
2.3557E-01	M23C6	0.6847933	0.0502005	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4539E+01	BCC_A2	0.0009446	0.0013912	0.0000758
1.5226E+01	CEMENTITE	0.0177325	0.0004365	0.0005280
2.3557E-01	M23C6	0.0006515	0.0031497	0.1509197

Mass/kg	Phase	Cr

```
 8.4539E+01 BCC_A2             0.0015155
 1.5226E+01 CEMENTITE          0.0851124
 2.3557E-01 M23C6              0.1102853

Gibbs Energy = -6.5148114366E+07 J   System Enthalpy =  3.5426886002E+07 J
     893.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   893.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -3.548642E+04 8.400971E-03 1.732143E+03 9.673500E+01
C                           -8.215502E+03 3.307190E-01 8.658730E+01 1.040000E+00
Si                          -1.745222E+05 6.192350E-11 8.901390E+00 2.500000E-01
Mn                          -8.329094E+04 1.343226E-05 6.370818E+00 3.500000E-01
Ni                          -8.093324E+04 1.845252E-05 2.129835E+00 1.250000E-01
Mo                          -8.410129E+04 1.204344E-05 5.211591E-01 5.000000E-02
Cr                          -6.499106E+04 1.579594E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 8.4548E+01 BCC_A2             0.9929092       0.0000427       0.0029569
 1.5231E+01 CEMENTITE          0.8295264       0.0673144       0.0000000
 2.2085E-01 M23C6              0.6879109       0.0502420       0.0000000

                                Mn              Ni              Mo
 8.4548E+01 BCC_A2             0.0009969       0.0013922       0.0000913
 1.5231E+01 CEMENTITE          0.0174355       0.0004342       0.0006171
 2.2085E-01 M23C6              0.0006598       0.0030600       0.1488776

                                Cr
 8.4548E+01 BCC_A2             0.0016108
 1.5231E+01 CEMENTITE          0.0846724
 2.2085E-01 M23C6              0.1092498

Gibbs Energy = -6.6291591822E+07 J   System Enthalpy =  3.6219919122E+07 J
     903.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   903.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -3.610554E+04 8.156495E-03 1.732143E+03 9.673500E+01
C                           -8.719277E+03 3.130692E-01 8.658730E+01 1.040000E+00
Si                          -1.752121E+05 7.328189E-11 8.901390E+00 2.500000E-01
Mn                          -8.434743E+04 1.321264E-05 6.370818E+00 3.500000E-01
Ni                          -8.220973E+04 1.756480E-05 2.129835E+00 1.250000E-01
Mo                          -8.428429E+04 1.332421E-05 5.211591E-01 5.000000E-02
Cr                          -6.573115E+04 1.577007E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 8.4558E+01 BCC_A2             0.9927322       0.0000482       0.0029565
 1.5239E+01 CEMENTITE          0.8301876       0.0673090       0.0000000
 2.0295E-01 M23C6              0.6910754       0.0502845       0.0000000

                                Mn              Ni              Mo
 8.4558E+01 BCC_A2             0.0010507       0.0013933       0.0001095
 1.5239E+01 CEMENTITE          0.0171286       0.0004320       0.0007185
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 2.0295E-01 M23C6              0.0006673       0.0029729       0.1467896

                                Cr
 8.4558E+01 BCC_A2             0.0017095
 1.5239E+01 CEMENTITE          0.0842243
 2.0295E-01 M23C6              0.1082103

Gibbs Energy = -6.7444015983E+07 J   System Enthalpy =  3.7024878237E+07 J
     913.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   913.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -3.672980E+04 7.918888E-03 1.732143E+03 9.673500E+01
C                           -9.220213E+03 2.968285E-01 8.658730E+01 1.040000E+00
Si                          -1.759088E+05 8.632662E-11 8.901390E+00 2.500000E-01
Mn                          -8.541958E+04 1.297450E-05 6.370818E+00 3.500000E-01
Ni                          -8.349308E+04 1.672272E-05 2.129835E+00 1.250000E-01
Mo                          -8.447564E+04 1.469243E-05 5.211591E-01 5.000000E-02
Cr                          -6.647762E+04 1.573158E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 8.4570E+01 BCC_A2             0.9925467       0.0000544       0.0029561
 1.5248E+01 CEMENTITE          0.8308527       0.0673032       0.0000000
 1.8133E-01 M23C6              0.6942844       0.0503279       0.0000000

                                Mn              Ni              Mo
 8.4570E+01 BCC_A2             0.0011059       0.0013944       0.0001308
 1.5248E+01 CEMENTITE          0.0168119       0.0004297       0.0008335
 1.8133E-01 M23C6              0.0006740       0.0028885       0.1446572

                                Cr
 8.4570E+01 BCC_A2             0.0018117
 1.5248E+01 CEMENTITE          0.0837690
 1.8133E-01 M23C6              0.1071679

Gibbs Energy = -6.8605423234E+07 J   System Enthalpy =  3.7842386488E+07 J
     923.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   923.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -3.735914E+04 7.688039E-03 1.732143E+03 9.673500E+01
C                           -9.718238E+03 2.818623E-01 8.658730E+01 1.040000E+00
Si                          -1.766127E+05 1.012374E-10 8.901390E+00 2.500000E-01
Mn                          -8.650802E+04 1.271864E-05 6.370818E+00 3.500000E-01
Ni                          -8.478339E+04 1.592352E-05 2.129835E+00 1.250000E-01
Mo                          -8.467234E+04 1.615562E-05 5.211591E-01 5.000000E-02
Cr                          -6.723224E+04 1.567736E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 8.4584E+01 BCC_A2             0.9923521       0.0000613       0.0029556
 1.5261E+01 CEMENTITE          0.8315192       0.0672969       0.0000000
 1.5540E-01 M23C6              0.6975355       0.0503723       0.0000000
```

		Mn	Ni	Mo
8.4584E+01	BCC_A2	0.0011624	0.0013956	0.0001555
1.5261E+01	CEMENTITE	0.0164852	0.0004273	0.0009635
1.5540E-01	M23C6	0.0006799	0.0028066	0.1424822

		Cr
8.4584E+01	BCC_A2	0.0019175
1.5261E+01	CEMENTITE	0.0833079
1.5540E-01	M23C6	0.1061235

Gibbs Energy = -6.9775856286E+07 J System Enthalpy = 3.8673123108E+07 J
     933.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   933.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.799392E+04	7.463424E-03	1.732143E+03	9.673500E+01
C		-1.021312E+04	2.680561E-01	8.658730E+01	1.040000E+00
Si		-1.773244E+05	1.182014E-10	8.901390E+00	2.500000E-01
Mn		-8.761374E+04	1.244541E-05	6.370818E+00	3.500000E-01
Ni		-8.608107E+04	1.516401E-05	2.129835E+00	1.250000E-01
Mo		-8.488167E+04	1.769954E-05	5.211591E-01	5.000000E-02
Cr		-6.799046E+04	1.561722E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4600E+01	BCC_A2	0.9921479	0.0000689	0.0029551
1.5275E+01	CEMENTITE	0.8321846	0.0672902	0.0000000
1.2450E-01	M23C6	0.7008254	0.0504176	0.0000000

		Mn	Ni	Mo
8.4600E+01	BCC_A2	0.0012203	0.0013968	0.0001842
1.5275E+01	CEMENTITE	0.0161484	0.0004249	0.0011098
1.2450E-01	M23C6	0.0006849	0.0027271	0.1402663

		Cr
8.4600E+01	BCC_A2	0.0020268
1.5275E+01	CEMENTITE	0.0828421
1.2450E-01	M23C6	0.1050788

Gibbs Energy = -7.0955364615E+07 J System Enthalpy = 3.9517829503E+07 J
     943.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   943.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-3.863366E+04	7.245344E-03	1.732143E+03	9.673500E+01
C		-1.070487E+04	2.553001E-01	8.658730E+01	1.040000E+00
Si		-1.780432E+05	1.374307E-10	8.901390E+00	2.500000E-01
Mn		-8.873697E+04	1.215647E-05	6.370818E+00	3.500000E-01
Ni		-8.738583E+04	1.444268E-05	2.129835E+00	1.250000E-01
Mo		-8.509628E+04	1.934049E-05	5.211591E-01	5.000000E-02
Cr		-6.875717E+04	1.554176E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4618E+01	BCC_A2	0.9919335	0.0000774	0.0029544

```
 1.5294E+01 CEMENTITE          0.8328461       0.0672829       0.0000000
 8.7846E-02 M23C6              0.7041506       0.0504638       0.0000000

                                Mn              Ni              Mo
 8.4618E+01 BCC_A2             0.0012795       0.0013981       0.0002173
 1.5294E+01 CEMENTITE          0.0158016       0.0004225       0.0012740
 8.7846E-02 M23C6              0.0006889       0.0026498       0.1380118

                                Cr
 8.4618E+01 BCC_A2             0.0021397
 1.5294E+01 CEMENTITE          0.0823729
 8.7846E-02 M23C6              0.1040351

Gibbs Energy = -7.2144004948E+07 J   System Enthalpy =  4.0377316244E+07 J
     953.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   953.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -3.927886E+04 7.033165E-03 1.732143E+03 9.673500E+01
C                           -1.119419E+04 2.434746E-01 8.658730E+01 1.040000E+00
Si                          -1.787700E+05 1.591226E-10 8.901390E+00 2.500000E-01
Mn                          -8.987859E+04 1.185256E-05 6.370818E+00 3.500000E-01
Ni                          -8.869776E+04 1.375727E-05 2.129835E+00 1.250000E-01
Mo                          -8.532078E+04 2.106796E-05 5.211591E-01 5.000000E-02
Cr                          -6.952878E+04 1.545866E-04 2.788676E+01 1.450000E+00
Total                                                   1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 8.4639E+01 BCC_A2             0.9917083       0.0000867       0.0029537
 1.5316E+01 CEMENTITE          0.8335010       0.0672750       0.0000000
 4.4578E-02 M23C6              0.7075075       0.0505107       0.0000000

                                Mn              Ni              Mo
 8.4639E+01 BCC_A2             0.0013400       0.0013995       0.0002555
 1.5316E+01 CEMENTITE          0.0154446       0.0004200       0.0014577
 4.4578E-02 M23C6              0.0006920       0.0025747       0.1357209

                                Cr
 8.4639E+01 BCC_A2             0.0022563
 1.5316E+01 CEMENTITE          0.0819017
 4.4578E-02 M23C6              0.1029942

Gibbs Energy = -7.3341841802E+07 J   System Enthalpy =  4.1252470667E+07 J
     963.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   963.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -3.992930E+04 6.826942E-03 1.732143E+03 9.673500E+01
C                           -1.167697E+04 2.326155E-01 8.658729E+01 1.040000E+00
Si                          -1.795055E+05 1.834775E-10 8.901390E+00 2.500000E-01
Mn                          -9.103912E+04 1.153504E-05 6.370818E+00 3.500000E-01
Ni                          -9.001969E+04 1.310126E-05 2.129835E+00 1.250000E-01
Mo                          -8.568390E+04 2.251580E-05 5.211589E-01 4.999999E-02
Cr                          -7.031132E+04 1.535675E-04 2.788676E+01 1.450000E+00
Total                                                   1.864540E+03 1.000000E+02
```

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4661E+01	BCC_A2	0.9914769	0.0000970	0.0029529
1.5339E+01	CEMENTITE	0.8341820	0.0672673	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4661E+01	BCC_A2	0.0014019	0.0014008	0.0002943
1.5339E+01	CEMENTITE	0.0150806	0.0004174	0.0016354

Mass/kg	Phase	Cr
8.4661E+01	BCC_A2	0.0023762
1.5339E+01	CEMENTITE	0.0814173

Gibbs Energy = -7.4548947511E+07 J System Enthalpy = 4.2143301815E+07 J
     973.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   973.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-4.058455E+04	6.626889E-03	1.732143E+03	9.673500E+01
C		-1.215160E+04	2.226736E-01	8.658730E+01	1.040000E+00
Si		-1.802499E+05	2.107114E-10	8.901390E+00	2.500000E-01
Mn		-9.220708E+04	1.122199E-05	6.370818E+00	3.500000E-01
Ni		-9.135315E+04	1.247128E-05	2.129835E+00	1.250000E-01
Mo		-8.706843E+04	2.118004E-05	5.211591E-01	5.000000E-02
Cr		-7.111283E+04	1.522183E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4675E+01	BCC_A2	0.9912774	0.0001084	0.0029525
1.5325E+01	CEMENTITE	0.8351434	0.0672645	0.0000000

Mass/kg	Phase	Mn	Ni	Mo
8.4675E+01	BCC_A2	0.0014670	0.0014012	0.0002982
1.5325E+01	CEMENTITE	0.0147329	0.0004145	0.0016151

Mass/kg	Phase	Cr
8.4675E+01	BCC_A2	0.0024954
1.5325E+01	CEMENTITE	0.0808295

Gibbs Energy = -7.5765349880E+07 J System Enthalpy = 4.3043869052E+07 J
     983.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   983.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-4.124554E+04	6.432064E-03	1.732143E+03	9.673500E+01
C		-1.261993E+04	2.135104E-01	8.658730E+01	1.040000E+00
Si		-1.810027E+05	2.410604E-10	8.901390E+00	2.500000E-01
Mn		-9.339407E+04	1.089814E-05	6.370818E+00	3.500000E-01
Ni		-9.269592E+04	1.186998E-05	2.129835E+00	1.250000E-01
Mo		-8.846411E+04	1.992113E-05	5.211591E-01	5.000000E-02
Cr		-7.192077E+04	1.507896E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
8.4690E+01	BCC_A2	0.9910723	0.0001209	0.0029519

```
 1.5310E+01 CEMENTITE          0.8361230       0.0672618       0.0000000

                                Mn              Ni              Mo
 8.4690E+01 BCC_A2             0.0015338       0.0014016       0.0003020
 1.5310E+01 CEMENTITE          0.0143769       0.0004115       0.0015953

                                Cr
 8.4690E+01 BCC_A2             0.0026175
 1.5310E+01 CEMENTITE          0.0802316

Gibbs Energy = -7.6991098006E+07 J   System Enthalpy =  4.3962202171E+07 J
     993.000
*** MULTIPHASE - Stage 1* Results ***

Temperature =   993.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.191162E+04 6.242870E-03 1.732143E+03 9.673500E+01
C                           -1.308436E+04 2.049947E-01 8.658730E+01 1.040000E+00
Si                          -1.817670E+05 2.746484E-10 8.901390E+00 2.500000E-01
Mn                          -9.460382E+04 1.056074E-05 6.370818E+00 3.500000E-01
Ni                          -9.404948E+04 1.129414E-05 2.129835E+00 1.250000E-01
Mo                          -8.986022E+04 1.875921E-05 5.211591E-01 5.000000E-02
Cr                          -7.274235E+04 1.491561E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 8.4707E+01 BCC_A2             0.9908616       0.0001347       0.0029513
 1.5293E+01 CEMENTITE          0.8371203       0.0672589       0.0000000

                                Mn              Ni              Mo
 8.4707E+01 BCC_A2             0.0016021       0.0014019       0.0003058
 1.5293E+01 CEMENTITE          0.0140124       0.0004084       0.0015758

                                Cr
 8.4707E+01 BCC_A2             0.0027425
 1.5293E+01 CEMENTITE          0.0796242

Gibbs Energy = -7.8226283428E+07 J   System Enthalpy =  4.4899479885E+07 J
     1003.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1003.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.262869E+04 6.025897E-03 1.732143E+03 9.673500E+01
C                           -1.353376E+04 1.973337E-01 8.658730E+01 1.040000E+00
Si                          -1.825321E+05 3.120764E-10 8.901390E+00 2.500000E-01
Mn                          -9.583054E+04 1.021938E-05 6.370818E+00 3.500000E-01
Ni                          -9.539588E+04 1.076614E-05 2.129835E+00 1.250000E-01
Mo                          -9.112186E+04 1.797375E-05 5.211590E-01 5.000000E-02
Cr                          -7.367945E+04 1.455420E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 8.4726E+01 BCC_A2             0.9906450       0.0001500       0.0029507
 1.5274E+01 CEMENTITE          0.8381349       0.0672560       0.0000000

                                Mn              Ni              Mo
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```
 8.4726E+01 BCC_A2             0.0016720       0.0014023       0.0003095
 1.5274E+01 CEMENTITE          0.0136395       0.0004052       0.0015566

                                Cr
 8.4726E+01 BCC_A2             0.0028705
 1.5274E+01 CEMENTITE          0.0790078

Gibbs Energy = -7.9471008310E+07 J   System Enthalpy =  4.5857002279E+07 J
     1013.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1013.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.327314E+04 5.870929E-03 1.732143E+03 9.673500E+01
C                           -1.441040E+04 1.806992E-01 8.658730E+01 1.040000E+00
Si                          -1.808470E+05 4.731378E-10 8.901390E+00 2.500000E-01
Mn                          -1.007126E+05 6.411425E-06 6.370818E+00 3.500000E-01
Ni                          -1.024158E+05 5.237636E-06 2.129835E+00 1.250000E-01
Mo                          -9.064847E+04 2.117837E-05 5.211591E-01 5.000000E-02
Cr                          -7.250255E+04 1.826209E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 2.6031E+01 BCC_A2             0.9900084       0.0001588       0.0038355
 9.2329E+00 CEMENTITE          0.8241479       0.0673372       0.0000000
 6.4736E+01 FCC_A1             0.9786630       0.0063975       0.0023195

                                Mn              Ni              Mo
 2.6031E+01 BCC_A2             0.0011491       0.0007015       0.0003910
 9.2329E+00 CEMENTITE          0.0084509       0.0002027       0.0018393
 6.4736E+01 FCC_A1             0.0037392       0.0016199       0.0003528

                                Cr
 2.6031E+01 BCC_A2             0.0037557
 9.2329E+00 CEMENTITE          0.0980220
 6.4736E+01 FCC_A1             0.0069081

Gibbs Energy = -8.0742847177E+07 J   System Enthalpy =  5.1402451338E+07 J
     1023.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1023.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.399932E+04 5.668133E-03 1.732143E+03 9.673500E+01
C                           -1.508056E+04 1.698253E-01 8.658730E+01 1.040000E+00
Si                          -1.800601E+05 6.402028E-10 8.901390E+00 2.500000E-01
Mn                          -1.031450E+05 5.414079E-06 6.370818E+00 3.500000E-01
Ni                          -1.053214E+05 4.191777E-06 2.129835E+00 1.250000E-01
Mo                          -9.105036E+04 2.244207E-05 5.211591E-01 5.000000E-02
Cr                          -7.231806E+04 2.030088E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 6.4806E+00 CEMENTITE          0.8140058       0.0673883       0.0000000
 9.3519E+01 FCC_A1             0.9779762       0.0064509       0.0026732

                                Mn              Ni              Mo
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 6.4806E+00 CEMENTITE          0.0071083       0.0001681       0.0019713
 9.3519E+01 FCC_A1             0.0032500       0.0013250       0.0003980

                                Cr
 6.4806E+00 CEMENTITE          0.1093582
 9.3519E+01 FCC_A1             0.0079267

Gibbs Energy = -8.2067089932E+07 J   System Enthalpy =  5.4086039952E+07 J
     1033.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1033.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.472827E+04 5.474305E-03 1.732143E+03 9.673500E+01
C                           -1.544026E+04 1.656793E-01 8.658730E+01 1.040000E+00
Si                          -1.806938E+05 7.299219E-10 8.901390E+00 2.500000E-01
Mn                          -1.043302E+05 5.303639E-06 6.370818E+00 3.500000E-01
Ni                          -1.065563E+05 4.092737E-06 2.129835E+00 1.250000E-01
Mo                          -9.247924E+04 2.107736E-05 5.211591E-01 5.000000E-02
Cr                          -7.309025E+04 2.014719E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 6.1342E+00 CEMENTITE          0.8139413       0.0673897       0.0000000
 9.3866E+01 FCC_A1             0.9773754       0.0066757       0.0026634

                                Mn              Ni              Mo
 6.1342E+00 CEMENTITE          0.0070412       0.0001718       0.0019452
 9.3866E+01 FCC_A1             0.0032686       0.0013205       0.0004056

                                Cr
 6.1342E+00 CEMENTITE          0.1095108
 9.3866E+01 FCC_A1             0.0082909

Gibbs Energy = -8.3401304304E+07 J   System Enthalpy =  5.4762811338E+07 J
     1043.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1043.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.546368E+04 5.286695E-03 1.732143E+03 9.673500E+01
C                           -1.580052E+04 1.617007E-01 8.658730E+01 1.040000E+00
Si                          -1.813310E+05 8.297778E-10 8.901390E+00 2.500000E-01
Mn                          -1.055197E+05 5.194973E-06 6.370818E+00 3.500000E-01
Ni                          -1.077944E+05 3.996384E-06 2.129835E+00 1.250000E-01
Mo                          -9.391123E+04 1.981237E-05 5.211591E-01 5.000000E-02
Cr                          -7.386351E+04 1.999510E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 5.7789E+00 CEMENTITE          0.8138925       0.0673910       0.0000000
 9.4221E+01 FCC_A1             0.9767620       0.0069046       0.0026533

                                Mn              Ni              Mo
 5.7789E+00 CEMENTITE          0.0069759       0.0001754       0.0019193
 9.4221E+01 FCC_A1             0.0032868       0.0013159       0.0004130
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                                Cr
 5.7789E+00 CEMENTITE          0.1096458
 9.4221E+01 FCC_A1             0.0086644

Gibbs Energy = -8.4742087293E+07 J   System Enthalpy =  5.5443110493E+07 J
     1053.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1053.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.620149E+04 5.107490E-03 1.732143E+03 9.673500E+01
C                           -1.616092E+04 1.578879E-01 8.658730E+01 1.040000E+00
Si                          -1.819653E+05 9.413202E-10 8.901390E+00 2.500000E-01
Mn                          -1.067135E+05 5.088037E-06 6.370818E+00 3.500000E-01
Ni                          -1.090359E+05 3.902579E-06 2.129835E+00 1.250000E-01
Mo                          -9.535162E+04 1.862731E-05 5.211591E-01 5.000000E-02
Cr                          -7.464361E+04 1.983154E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                               Fe              C               Si
 5.4143E+00 CEMENTITE          0.8138599       0.0673922       0.0000000
 9.4586E+01 FCC_A1             0.9761361       0.0071377       0.0026431

                               Mn              Ni              Mo
 5.4143E+00 CEMENTITE          0.0069125       0.0001791       0.0018935
 9.4586E+01 FCC_A1             0.0033047       0.0013113       0.0004202

                               Cr
 5.4143E+00 CEMENTITE          0.1097628
 9.4586E+01 FCC_A1             0.0090470

Gibbs Energy = -8.6089409914E+07 J   System Enthalpy =  5.6126981501E+07 J
     1063.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1063.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -4.694170E+04 4.936228E-03 1.732143E+03 9.673500E+01
C                           -1.652021E+04 1.542538E-01 8.658730E+01 1.040000E+00
Si                          -1.826025E+05 1.064986E-09 8.901390E+00 2.500000E-01
Mn                          -1.079125E+05 4.982361E-06 6.370818E+00 3.500000E-01
Ni                          -1.102815E+05 3.810871E-06 2.129835E+00 1.250000E-01
Mo                          -9.680019E+04 1.751726E-05 5.211591E-01 5.000000E-02
Cr                          -7.543053E+04 1.965717E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                               Fe              C               Si
 5.0402E+00 CEMENTITE          0.8138434       0.0673933       0.0000000
 9.4960E+01 FCC_A1             0.9754977       0.0073750       0.0026327

                               Mn              Ni              Mo
 5.0402E+00 CEMENTITE          0.0068509       0.0001828       0.0018680
 9.4960E+01 FCC_A1             0.0033221       0.0013066       0.0004274

                               Cr
 5.0402E+00 CEMENTITE          0.1098616
 9.4960E+01 FCC_A1             0.0094385
```

Gibbs Energy = -8.7443244260E+07 J System Enthalpy = 5.6814481102E+07 J
     1073.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1073.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-4.768782E+04	4.770577E-03	1.732143E+03	9.673500E+01
C		-1.688105E+04	1.507424E-01	8.658730E+01	1.040000E+00
Si		-1.832375E+05	1.202414E-09	8.901390E+00	2.500000E-01
Mn		-1.091145E+05	4.879062E-06	6.370818E+00	3.500000E-01
Ni		-1.115295E+05	3.722021E-06	2.129835E+00	1.250000E-01
Mo		-9.825185E+04	1.648652E-05	5.211591E-01	5.000000E-02
Cr		-7.621914E+04	1.948386E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
4.6563E+00	CEMENTITE	0.8138435	0.0673944	0.0000000
9.5344E+01	FCC_A1	0.9748468	0.0076165	0.0026221

Mass/kg	Phase	Mn	Ni	Mo
4.6563E+00	CEMENTITE	0.0067910	0.0001865	0.0018428
9.5344E+01	FCC_A1	0.0033393	0.0013019	0.0004344

Mass/kg	Phase	Cr
4.6563E+00	CEMENTITE	0.1099418
9.5344E+01	FCC_A1	0.0098389

Gibbs Energy = -8.8803563487E+07 J System Enthalpy = 5.7505669354E+07 J
     1083.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1083.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-4.843641E+04	4.612128E-03	1.732143E+03	9.673500E+01
C		-1.724030E+04	1.473998E-01	8.658730E+01	1.040000E+00
Si		-1.838752E+05	1.354123E-09	8.901390E+00	2.500000E-01
Mn		-1.103219E+05	4.776977E-06	6.370818E+00	3.500000E-01
Ni		-1.127818E+05	3.635056E-06	2.129835E+00	1.250000E-01
Mo		-9.970899E+04	1.552437E-05	5.211591E-01	5.000000E-02
Cr		-7.701765E+04	1.929400E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
4.2625E+00	CEMENTITE	0.8138601	0.0673953	0.0000000
9.5738E+01	FCC_A1	0.9741837	0.0078624	0.0026113

Mass/kg	Phase	Mn	Ni	Mo
4.2625E+00	CEMENTITE	0.0067329	0.0001902	0.0018177
9.5738E+01	FCC_A1	0.0033561	0.0012972	0.0004413

Mass/kg	Phase	Cr
4.2625E+00	CEMENTITE	0.1100037
9.5738E+01	FCC_A1	0.0102479

Gibbs Energy = -9.0170341815E+07 J System Enthalpy = 5.8200606588E+07 J
     1093.00

*** MULTIPHASE - Stage 1* Results ***

Temperature = 1093.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-4.919006E+04	4.459217E-03	1.732143E+03	9.673500E+01
C		-1.760228E+04	1.441469E-01	8.658730E+01	1.040000E+00
Si		-1.845087E+05	1.522385E-09	8.901390E+00	2.500000E-01
Mn		-1.115310E+05	4.677914E-06	6.370818E+00	3.500000E-01
Ni		-1.140350E+05	3.551283E-06	2.129835E+00	1.250000E-01
Mo		-1.011720E+05	1.462498E-05	5.211591E-01	5.000000E-02
Cr		-7.781072E+04	1.912086E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
3.8583E+00	CEMENTITE	0.8138933	0.0673961	0.0000000
9.6142E+01	FCC_A1	0.9735085	0.0081127	0.0026003

Mass/kg	Phase	Mass fraction of component within phase		
		Mn	Ni	Mo
3.8583E+00	CEMENTITE	0.0066765	0.0001939	0.0017930
9.6142E+01	FCC_A1	0.0033725	0.0012924	0.0004481

Mass/kg	Phase	Mass fraction of component within phase
		Cr
3.8583E+00	CEMENTITE	0.1100472
9.6142E+01	FCC_A1	0.0106655

Gibbs Energy = -9.1543554509E+07 J   System Enthalpy = 5.8899356343E+07 J
     1103.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1103.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-4.994437E+04	4.313700E-03	1.732143E+03	9.673500E+01
C		-1.795916E+04	1.411016E-01	8.658730E+01	1.040000E+00
Si		-1.851468E+05	1.707048E-09	8.901390E+00	2.500000E-01
Mn		-1.127482E+05	4.578604E-06	6.370818E+00	3.500000E-01
Ni		-1.152956E+05	3.468138E-06	2.129835E+00	1.250000E-01
Mo		-1.026535E+05	1.376487E-05	5.211591E-01	5.000000E-02
Cr		-7.861985E+04	1.891921E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
3.4436E+00	CEMENTITE	0.8139430	0.0673969	0.0000000
9.6556E+01	FCC_A1	0.9728211	0.0083673	0.0025892

Mass/kg	Phase	Mass fraction of component within phase		
		Mn	Ni	Mo
3.4436E+00	CEMENTITE	0.0066218	0.0001976	0.0017684
9.6556E+01	FCC_A1	0.0033887	0.0012875	0.0004548

Mass/kg	Phase	Mass fraction of component within phase
		Cr
3.4436E+00	CEMENTITE	0.1100721
9.6556E+01	FCC_A1	0.0110915

Gibbs Energy = -9.2923177883E+07 J   System Enthalpy = 5.9601985293E+07 J
     1113.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1113.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-5.070419E+04	4.172937E-03	1.732143E+03	9.673500E+01
C		-1.831783E+04	1.381467E-01	8.658730E+01	1.040000E+00
Si		-1.857834E+05	1.910489E-09	8.901390E+00	2.500000E-01
Mn		-1.139676E+05	4.482046E-06	6.370818E+00	3.500000E-01
Ni		-1.165577E+05	3.387832E-06	2.129835E+00	1.250000E-01
Mo		-1.041335E+05	1.297162E-05	5.211591E-01	5.000000E-02
Cr		-7.943004E+04	1.872111E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
3.0179E+00	CEMENTITE	0.8140093	0.0673975	0.0000001
9.6982E+01	FCC_A1	0.9721217	0.0086263	0.0025778

Mass/kg	Phase	Mn	Ni	Mo
3.0179E+00	CEMENTITE	0.0065688	0.0002014	0.0017442
9.6982E+01	FCC_A1	0.0034045	0.0012826	0.0004613

Mass/kg	Phase	Cr
3.0179E+00	CEMENTITE	0.1100788
9.6982E+01	FCC_A1	0.0115257

Gibbs Energy = -9.4309189296E+07 J   System Enthalpy = 6.0308562293E+07 J
     1123.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1123.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-5.146732E+04	4.037720E-03	1.732143E+03	9.673500E+01
C		-1.867553E+04	1.353188E-01	8.658730E+01	1.040000E+00
Si		-1.864197E+05	2.133967E-09	8.901390E+00	2.500000E-01
Mn		-1.151915E+05	4.387113E-06	6.370818E+00	3.500000E-01
Ni		-1.178235E+05	3.309450E-06	2.129835E+00	1.250000E-01
Mo		-1.056211E+05	1.222694E-05	5.211591E-01	5.000000E-02
Cr		-8.024654E+04	1.851604E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
2.5811E+00	CEMENTITE	0.8140920	0.0673981	0.0000001
9.7419E+01	FCC_A1	0.9714106	0.0088898	0.0025662

Mass/kg	Phase	Mn	Ni	Mo
2.5811E+00	CEMENTITE	0.0065174	0.0002051	0.0017202
9.7419E+01	FCC_A1	0.0034201	0.0012777	0.0004677

Mass/kg	Phase	Cr
2.5811E+00	CEMENTITE	0.1100672
9.7419E+01	FCC_A1	0.0119680

Gibbs Energy = -9.5701567147E+07 J   System Enthalpy = 6.1019159886E+07 J
     1133.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1133.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-5.223411E+04	3.907638E-03	1.732143E+03	9.673500E+01
C		-1.903317E+04	1.325980E-01	8.658730E+01	1.040000E+00
Si		-1.870561E+05	2.378917E-09	8.901390E+00	2.500000E-01
Mn		-1.164189E+05	4.294187E-06	6.370818E+00	3.500000E-01
Ni		-1.190922E+05	3.233219E-06	2.129835E+00	1.250000E-01
Mo		-1.071147E+05	1.152979E-05	5.211591E-01	5.000000E-02
Cr		-8.106607E+04	1.831088E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
2.1327E+00	CEMENTITE	0.8141912	0.0673985	0.0000001
9.7867E+01	FCC_A1	0.9706877	0.0091579	0.0025545

Mass/kg	Phase	Mn	Ni	Mo
2.1327E+00	CEMENTITE	0.0064676	0.0002089	0.0016966
9.7867E+01	FCC_A1	0.0034353	0.0012727	0.0004739

Mass/kg	Phase	Cr
2.1327E+00	CEMENTITE	0.1100372
9.7867E+01	FCC_A1	0.0124180

Gibbs Energy = -9.7100290878E+07 J System Enthalpy = 6.1733853788E+07 J
     1143.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1143.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-5.300321E+04	3.782994E-03	1.732143E+03	9.673500E+01
C		-1.938923E+04	1.299997E-01	8.658730E+01	1.040000E+00
Si		-1.876933E+05	2.646734E-09	8.901390E+00	2.500000E-01
Mn		-1.176510E+05	4.202756E-06	6.370818E+00	3.500000E-01
Ni		-1.203650E+05	3.158696E-06	2.129835E+00	1.250000E-01
Mo		-1.086147E+05	1.087617E-05	5.211591E-01	5.000000E-02
Cr		-8.189549E+04	1.809270E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.6725E+00	CEMENTITE	0.8143064	0.0673989	0.0000001
9.8327E+01	FCC_A1	0.9699532	0.0094305	0.0025425

Mass/kg	Phase	Mn	Ni	Mo
1.6725E+00	CEMENTITE	0.0064194	0.0002127	0.0016732
9.8327E+01	FCC_A1	0.0034503	0.0012676	0.0004800

Mass/kg	Phase	Cr
1.6725E+00	CEMENTITE	0.1099895
9.8327E+01	FCC_A1	0.0128758

Gibbs Energy = -9.8505340977E+07 J System Enthalpy = 6.2452722343E+07 J
     1153.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1153.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-5.377610E+04	3.662940E-03	1.732143E+03	9.673500E+01
C		-1.974466E+04	1.275045E-01	8.658730E+01	1.040000E+00

Si	-1.883300E+05	2.939384E-09	8.901390E+00	2.500000E-01
Mn	-1.188869E+05	4.113142E-06	6.370818E+00	3.500000E-01
Ni	-1.216410E+05	3.086079E-06	2.129835E+00	1.250000E-01
Mo	-1.101219E+05	1.026239E-05	5.211591E-01	5.000000E-02
Cr	-8.272911E+04	1.787300E-04	2.788676E+01	1.450000E+00
Total			1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.2001E+00	CEMENTITE	0.8144375	0.0673991	0.0000001
9.8800E+01	FCC_A1	0.9692073	0.0097077	0.0025304

Mass/kg	Phase	Mn	Ni	Mo
1.2001E+00	CEMENTITE	0.0063727	0.0002165	0.0016501
9.8800E+01	FCC_A1	0.0034651	0.0012626	0.0004860

Mass/kg	Phase	Cr
1.2001E+00	CEMENTITE	0.1099242
9.8800E+01	FCC_A1	0.0133409

Gibbs Energy = -9.9916698979E+07 J System Enthalpy = 6.3175848654E+07 J
     1163.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1163.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-5.455451E+04	3.546636E-03	1.732143E+03	9.673500E+01
C		-2.009993E+04	1.251009E-01	8.658730E+01	1.040000E+00
Si		-1.889663E+05	3.258630E-09	8.901390E+00	2.500000E-01
Mn		-1.201261E+05	4.025585E-06	6.370818E+00	3.500000E-01
Ni		-1.229198E+05	3.015485E-06	2.129835E+00	1.250000E-01
Mo		-1.116325E+05	9.689442E-06	5.211591E-01	5.000000E-02
Cr		-8.356542E+04	1.765476E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
7.1503E-01	CEMENTITE	0.8145844	0.0673993	0.0000001
9.9285E+01	FCC_A1	0.9684502	0.0099895	0.0025180

Mass/kg	Phase	Mn	Ni	Mo
7.1503E-01	CEMENTITE	0.0063276	0.0002203	0.0016273
9.9285E+01	FCC_A1	0.0034796	0.0012574	0.0004919

Mass/kg	Phase	Cr
7.1503E-01	CEMENTITE	0.1098411
9.9285E+01	FCC_A1	0.0138134

Gibbs Energy = -1.0133434748E+08 J System Enthalpy = 6.3903319797E+07 J
     1173.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1173.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-5.533498E+04	3.435189E-03	1.732143E+03	9.673500E+01
C		-2.045390E+04	1.227988E-01	8.658730E+01	1.040000E+00
Si		-1.896028E+05	3.606185E-09	8.901390E+00	2.500000E-01
Mn		-1.213694E+05	3.939665E-06	6.370818E+00	3.500000E-01
Ni		-1.242022E+05	2.946568E-06	2.129835E+00	1.250000E-01

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Mo                          -1.131509E+05 9.150075E-06 5.211591E-01 5.000000E-02
Cr                          -8.440859E+04 1.743058E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 2.1702E-01 CEMENTITE          0.8147470       0.0673993       0.0000001
 9.9783E+01 FCC_A1             0.9676819       0.0102760       0.0025054

                                Mn              Ni              Mo
 2.1702E-01 CEMENTITE          0.0062839       0.0002241       0.0016047
 9.9783E+01 FCC_A1             0.0034939       0.0012522       0.0004976

                                Cr
 2.1702E-01 CEMENTITE          0.1097409
 9.9783E+01 FCC_A1             0.0142929

Gibbs Energy = -1.0275827012E+08 J   System Enthalpy =  6.4635225536E+07 J
     1183.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1183.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -5.610822E+04 3.331489E-03 1.732143E+03 9.673500E+01
C                           -2.099235E+04 1.183366E-01 8.658730E+01 1.040000E+00
Si                          -1.903035E+05 3.958027E-09 8.901390E+00 2.500000E-01
Mn                          -1.226102E+05 3.857980E-06 6.370818E+00 3.500000E-01
Ni                          -1.254916E+05 2.878295E-06 2.129835E+00 1.250000E-01
Mo                          -1.146589E+05 8.658367E-06 5.211591E-01 5.000000E-02
Cr                          -8.535442E+04 1.703424E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.0418829230E+08 J   System Enthalpy =  6.5305845585E+07 J
     1193.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1193.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -5.688083E+04 3.232785E-03 1.732143E+03 9.673500E+01
C                           -2.166950E+04 1.125228E-01 8.658730E+01 1.040000E+00
Si                          -1.910552E+05 4.315148E-09 8.901390E+00 2.500000E-01
Mn                          -1.238498E+05 3.779755E-06 6.370818E+00 3.500000E-01
Ni                          -1.267887E+05 2.810536E-06 2.129835E+00 1.250000E-01
Mo                          -1.161624E+05 8.204346E-06 5.211590E-01 5.000000E-02
Cr                          -8.637738E+04 1.652435E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
```

```
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.0562366819E+08 J   System Enthalpy =  6.5929518335E+07 J
     1203.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1203.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -5.764683E+04 3.140651E-03 1.732143E+03 9.673500E+01
C                           -2.235340E+04 1.070120E-01 8.658730E+01 1.040000E+00
Si                          -1.918002E+05 4.700956E-09 8.901390E+00 2.500000E-01
Mn                          -1.250869E+05 3.705315E-06 6.370818E+00 3.500000E-01
Ni                          -1.280795E+05 2.747191E-06 2.129835E+00 1.250000E-01
Mo                          -1.176263E+05 7.811955E-06 5.211591E-01 5.000000E-02
Cr                          -8.741068E+04 1.602125E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.0706427853E+08 J   System Enthalpy =  6.6554775989E+07 J
     1213.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1213.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -5.842191E+04 3.049850E-03 1.732143E+03 9.673500E+01
C                           -2.303624E+04 1.018662E-01 8.658730E+01 1.040000E+00
Si                          -1.925532E+05 5.109946E-09 8.901390E+00 2.500000E-01
Mn                          -1.263314E+05 3.630871E-06 6.370818E+00 3.500000E-01
Ni                          -1.293789E+05 2.683993E-06 2.129835E+00 1.250000E-01
Mo                          -1.191191E+05 7.423001E-06 5.211591E-01 5.000000E-02
Cr                          -8.844184E+04 1.554469E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase              Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.0851009298E+08 J   System Enthalpy =  6.7181618754E+07 J
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     1223.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1223.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -5.919668E+04 2.963184E-03 1.732143E+03 9.673500E+01
C                           -2.372138E+04 9.702407E-02 8.658730E+01 1.040000E+00
Si                          -1.933072E+05 5.546352E-09 8.901390E+00 2.500000E-01
Mn                          -1.275779E+05 3.558381E-06 6.370818E+00 3.500000E-01
Ni                          -1.306799E+05 2.622825E-06 2.129835E+00 1.250000E-01
Mo                          -1.206130E+05 7.058594E-06 5.211591E-01 5.000000E-02
Cr                          -8.947507E+04 1.508668E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.0996108172E+08 J   System Enthalpy =  6.7810046879E+07 J
     1233.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1233.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -5.997609E+04 2.879024E-03 1.732143E+03 9.673500E+01
C                           -2.440893E+04 9.246332E-02 8.658730E+01 1.040000E+00
Si                          -1.940630E+05 6.011023E-09 8.901390E+00 2.500000E-01
Mn                          -1.288272E+05 3.487562E-06 6.370818E+00 3.500000E-01
Ni                          -1.319832E+05 2.563445E-06 2.129835E+00 1.250000E-01
Mo                          -1.221091E+05 6.716087E-06 5.211591E-01 5.000000E-02
Cr                          -9.050752E+04 1.465038E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.1141721539E+08 J   System Enthalpy =  6.8440060632E+07 J
     1243.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1243.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -6.075787E+04 2.797912E-03 1.732143E+03 9.673500E+01
```

C	-2.509790E+04	8.817319E-02	8.658730E+01	1.040000E+00
Si	-1.948218E+05	6.504339E-09	8.901390E+00	2.500000E-01
Mn	-1.300803E+05	3.417962E-06	6.370818E+00	3.500000E-01
Ni	-1.332900E+05	2.505486E-06	2.129835E+00	1.250000E-01
Mo	-1.236058E+05	6.395004E-06	5.211591E-01	5.000000E-02
Cr	-9.154840E+04	1.422181E-04	2.788676E+01	1.450000E+00
Total			1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.1287846513E+08 J System Enthalpy = 6.9071660359E+07 J
     1253.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1253.0000 K

Fixed pressure = 1.013250E+05 Pa, 1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-6.154358E+04	2.719299E-03	1.732143E+03	9.673500E+01
C		-2.578787E+04	8.413777E-02	8.658730E+01	1.040000E+00
Si		-1.955838E+05	7.027093E-09	8.901390E+00	2.500000E-01
Mn		-1.313377E+05	3.349472E-06	6.370818E+00	3.500000E-01
Ni		-1.346005E+05	2.448839E-06	2.129835E+00	1.250000E-01
Mo		-1.251083E+05	6.090560E-06	5.211591E-01	5.000000E-02
Cr		-9.259185E+04	1.380891E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.1434480255E+08 J System Enthalpy = 6.9704846437E+07 J
     1263.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1263.0000 K

Fixed pressure = 1.013250E+05 Pa, 1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-6.232886E+04	2.644193E-03	1.732143E+03	9.673500E+01
C		-2.648254E+04	8.031070E-02	8.658730E+01	1.040000E+00
Si		-1.963435E+05	7.584172E-09	8.901390E+00	2.500000E-01
Mn		-1.325938E+05	3.283795E-06	6.370818E+00	3.500000E-01
Ni		-1.359094E+05	2.394722E-06	2.129835E+00	1.250000E-01
Mo		-1.266012E+05	5.810450E-06	5.211591E-01	5.000000E-02
Cr		-9.363427E+04	1.341559E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase

```
                                  Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                  Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                  Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.1581619969E+08 J   System Enthalpy =  7.0339619263E+07 J
     1273.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1273.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -6.311953E+04 2.570987E-03 1.732143E+03 9.673500E+01
C                           -2.717707E+04 7.671479E-02 8.658730E+01 1.040000E+00
Si                          -1.971082E+05 8.171876E-09 8.901390E+00 2.500000E-01
Mn                          -1.338558E+05 3.218643E-06 6.370818E+00 3.500000E-01
Ni                          -1.372237E+05 2.341433E-06 2.129835E+00 1.250000E-01
Mo                          -1.281039E+05 5.542195E-06 5.211591E-01 5.000000E-02
Cr                          -9.468081E+04 1.303430E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                  Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                  Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                  Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.1729262907E+08 J   System Enthalpy =  7.0975979291E+07 J
     1283.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1283.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -6.391279E+04 2.500294E-03 1.732143E+03 9.673500E+01
C                           -2.787193E+04 7.333002E-02 8.658730E+01 1.040000E+00
Si                          -1.978786E+05 8.790113E-09 8.901390E+00 2.500000E-01
Mn                          -1.351245E+05 3.153772E-06 6.370818E+00 3.500000E-01
Ni                          -1.385443E+05 2.288775E-06 2.129835E+00 1.250000E-01
Mo                          -1.296214E+05 5.282874E-06 5.211591E-01 5.000000E-02
Cr                          -9.573452E+04 1.266103E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                  Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                  Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                  Cr
 1.0000E+02 FCC_A1              0.0145000
```

Gibbs Energy = -1.1877406362E+08 J System Enthalpy = 7.1613927011E+07 J
     1293.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1293.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-6.470684E+04	2.432415E-03	1.732143E+03	9.673500E+01
C		-2.857023E+04	7.012103E-02	8.658730E+01	1.040000E+00
Si		-1.986449E+05	9.448049E-09	8.901390E+00	2.500000E-01
Mn		-1.363901E+05	3.092079E-06	6.370818E+00	3.500000E-01
Ni		-1.398614E+05	2.238825E-06	2.129835E+00	1.250000E-01
Mo		-1.311291E+05	5.044032E-06	5.211591E-01	5.000000E-02
Cr		-9.677566E+04	1.231838E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.2026047670E+08 J System Enthalpy = 7.2253462938E+07 J
     1303.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1303.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-6.550692E+04	2.366061E-03	1.732143E+03	9.673500E+01
C		-2.926933E+04	6.709365E-02	8.658730E+01	1.040000E+00
Si		-1.994209E+05	1.013488E-08	8.901390E+00	2.500000E-01
Mn		-1.376663E+05	3.029519E-06	6.370818E+00	3.500000E-01
Ni		-1.411887E+05	2.188631E-06	2.129835E+00	1.250000E-01
Mo		-1.326475E+05	4.814650E-06	5.211591E-01	5.000000E-02
Cr		-9.784491E+04	1.195898E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.2175184210E+08 J System Enthalpy = 7.2894587625E+07 J
     1313.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1313.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg

```
Fe                          -6.630758E+04 2.302365E-03 1.732143E+03 9.673500E+01
C                           -2.997120E+04 6.422379E-02 8.658730E+01 1.040000E+00
Si                          -2.001941E+05 1.086295E-08 8.901390E+00 2.500000E-01
Mn                          -1.389406E+05 2.969687E-06 6.370818E+00 3.500000E-01
Ni                          -1.425136E+05 2.140772E-06 2.129835E+00 1.250000E-01
Mo                          -1.341592E+05 4.601746E-06 5.211591E-01 5.000000E-02
Cr                          -9.890373E+04 1.162640E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.2324813401E+08 J   System Enthalpy =  7.3537301667E+07 J
     1323.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1323.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -6.711309E+04 2.240321E-03 1.732143E+03 9.673500E+01
C                           -3.067345E+04 6.151518E-02 8.658730E+01 1.040000E+00
Si                          -2.009727E+05 1.162527E-08 8.901390E+00 2.500000E-01
Mn                          -1.402214E+05 2.910196E-06 6.370818E+00 3.500000E-01
Ni                          -1.438447E+05 2.093502E-06 2.129835E+00 1.250000E-01
Mo                          -1.356839E+05 4.396125E-06 5.211591E-01 5.000000E-02
Cr                          -9.996836E+04 1.130192E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.2474932701E+08 J   System Enthalpy =  7.4181605667E+07 J
     1333.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1333.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -6.791754E+04 2.181050E-03 1.732143E+03 9.673500E+01
C                           -3.137969E+04 5.893774E-02 8.658730E+01 1.040000E+00
Si                          -2.017480E+05 1.243218E-08 8.901390E+00 2.500000E-01
Mn                          -1.414998E+05 2.853375E-06 6.370818E+00 3.500000E-01
Ni                          -1.451729E+05 2.048479E-06 2.129835E+00 1.250000E-01
Mo                          -1.371951E+05 4.207661E-06 5.211591E-01 5.000000E-02
Cr                          -1.010303E+05 1.099384E-04 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02
```

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.2625539607E+08 J System Enthalpy = 7.4827500299E+07 J
     1343.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1343.0000 K

Fixed pressure = 1.013250E+05 Pa, 1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-6.872642E+04	2.123352E-03	1.732143E+03	9.673500E+01
C		-3.208677E+04	5.650005E-02	8.658730E+01	1.040000E+00
Si		-2.025308E+05	1.327286E-08	8.901390E+00	2.500000E-01
Mn		-1.427867E+05	2.796358E-06	6.370818E+00	3.500000E-01
Ni		-1.465092E+05	2.003625E-06	2.129835E+00	1.250000E-01
Mo		-1.387276E+05	4.022210E-06	5.211591E-01	5.000000E-02
Cr		-1.021005E+05	1.069064E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.2776631655E+08 J System Enthalpy = 7.5474986226E+07 J
     1353.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1353.0000 K

Fixed pressure = 1.013250E+05 Pa, 1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-6.953776E+04	2.067548E-03	1.732143E+03	9.673500E+01
C		-3.279531E+04	5.418996E-02	8.658730E+01	1.040000E+00
Si		-2.033108E+05	1.416029E-08	8.901390E+00	2.500000E-01
Mn		-1.440717E+05	2.741763E-06	6.370818E+00	3.500000E-01
Ni		-1.478431E+05	1.960799E-06	2.129835E+00	1.250000E-01
Mo		-1.402428E+05	3.853447E-06	5.211591E-01	5.000000E-02
Cr		-1.031684E+05	1.040225E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.2928206418E+08 J System Enthalpy = 7.6124064163E+07 J
     1363.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1363.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.035351E+04	2.013216E-03	1.732143E+03	9.673500E+01
C		-3.350552E+04	5.199851E-02	8.658730E+01	1.040000E+00
Si		-2.040954E+05	1.508663E-08	8.901390E+00	2.500000E-01
Mn		-1.453623E+05	2.687700E-06	6.370818E+00	3.500000E-01
Ni		-1.491822E+05	1.918630E-06	2.129835E+00	1.250000E-01
Mo		-1.417665E+05	3.691298E-06	5.211591E-01	5.000000E-02
Cr		-1.042435E+05	1.011924E-04	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.3080261504E+08 J System Enthalpy = 7.6774734850E+07 J
     1373.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1373.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.116952E+04	1.961026E-03	1.732143E+03	9.673500E+01
C		-3.421821E+04	4.991481E-02	8.658730E+01	1.040000E+00
Si		-2.048796E+05	1.605911E-08	8.901390E+00	2.500000E-01
Mn		-1.466535E+05	2.635307E-06	6.370818E+00	3.500000E-01
Ni		-1.505216E+05	1.877916E-06	2.129835E+00	1.250000E-01
Mo		-1.432985E+05	3.535629E-06	5.211591E-01	5.000000E-02
Cr		-1.053069E+05	9.857962E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.3232794560E+08 J System Enthalpy = 7.7426999049E+07 J
     1383.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1383.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.198838E+04	1.910440E-03	1.732143E+03	9.673500E+01
C		-3.493096E+04	4.794278E-02	8.658730E+01	1.040000E+00
Si		-2.056701E+05	1.706967E-08	8.901390E+00	2.500000E-01
Mn		-1.479518E+05	2.583068E-06	6.370818E+00	3.500000E-01
Ni		-1.518677E+05	1.837563E-06	2.129835E+00	1.250000E-01
Mo		-1.448268E+05	3.389705E-06	5.211591E-01	5.000000E-02
Cr		-1.063978E+05	9.584169E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.3385803263E+08 J System Enthalpy = 7.8080857535E+07 J
     1393.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1393.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.281379E+04	1.860806E-03	1.732143E+03	9.673500E+01
C		-3.564332E+04	4.607682E-02	8.658730E+01	1.040000E+00
Si		-2.064709E+05	1.811170E-08	8.901390E+00	2.500000E-01
Mn		-1.492615E+05	2.530118E-06	6.370818E+00	3.500000E-01
Ni		-1.532247E+05	1.796944E-06	2.129835E+00	1.250000E-01
Mo		-1.463845E+05	3.243542E-06	5.211591E-01	5.000000E-02
Cr		-1.075000E+05	9.312616E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.3539285329E+08 J System Enthalpy = 7.8736311146E+07 J
     1403.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1403.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.363440E+04	1.813889E-03	1.732143E+03	9.673500E+01
C		-3.636265E+04	4.428209E-02	8.658730E+01	1.040000E+00
Si		-2.072553E+05	1.922823E-08	8.901390E+00	2.500000E-01
Mn		-1.505557E+05	2.482282E-06	6.370818E+00	3.500000E-01
Ni		-1.545658E+05	1.760182E-06	2.129835E+00	1.250000E-01
Mo		-1.479026E+05	3.116193E-06	5.211591E-01	5.000000E-02
Cr		-1.085671E+05	9.079757E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.3693238504E+08 J System Enthalpy = 7.9393360689E+07 J
     1413.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1413.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.446167E+04	1.767791E-03	1.732143E+03	9.673500E+01
C		-3.708262E+04	4.257889E-02	8.658730E+01	1.040000E+00
Si		-2.080471E+05	2.038338E-08	8.901390E+00	2.500000E-01
Mn		-1.518583E+05	2.434267E-06	6.370818E+00	3.500000E-01
Ni		-1.559148E+05	1.723504E-06	2.129835E+00	1.250000E-01
Mo		-1.494320E+05	2.992674E-06	5.211591E-01	5.000000E-02
Cr		-1.096501E+05	8.843966E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.3847660568E+08 J System Enthalpy = 8.0052007047E+07 J
     1423.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1423.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.529159E+04	1.723101E-03	1.732143E+03	9.673500E+01
C		-3.780161E+04	4.096717E-02	8.658730E+01	1.040000E+00
Si		-2.088475E+05	2.157457E-08	8.901390E+00	2.500000E-01
Mn		-1.531704E+05	2.385915E-06	6.370818E+00	3.500000E-01
Ni		-1.572730E+05	1.686789E-06	2.129835E+00	1.250000E-01
Mo		-1.509782E+05	2.871584E-06	5.211591E-01	5.000000E-02
Cr		-1.107512E+05	8.604220E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		

```
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.4002549334E+08 J   System Enthalpy =  8.0712251119E+07 J
     1433.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1433.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -7.612516E+04 1.679627E-03 1.732143E+03 9.673500E+01
C                           -3.852412E+04 3.942605E-02 8.658730E+01 1.040000E+00
Si                          -2.096447E+05 2.282351E-08 8.901390E+00 2.500000E-01
Mn                          -1.544802E+05 2.339629E-06 6.370818E+00 3.500000E-01
Ni                          -1.586285E+05 1.651727E-06 2.129835E+00 1.250000E-01
Mo                          -1.525145E+05 2.759292E-06 5.211591E-01 5.000000E-02
Cr                          -1.118419E+05 8.381550E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.4157902644E+08 J   System Enthalpy =  8.1374093774E+07 J
     1443.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1443.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -7.695803E+04 1.637926E-03 1.732143E+03 9.673500E+01
C                           -3.924574E+04 3.796587E-02 8.658730E+01 1.040000E+00
Si                          -2.104459E+05 2.411771E-08 8.901390E+00 2.500000E-01
Mn                          -1.557950E+05 2.293902E-06 6.370818E+00 3.500000E-01
Ni                          -1.599886E+05 1.617242E-06 2.129835E+00 1.250000E-01
Mo                          -1.540604E+05 2.650713E-06 5.211591E-01 5.000000E-02
Cr                          -1.129391E+05 8.163201E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.4313718372E+08 J   System Enthalpy =  8.2037535964E+07 J
     1453.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1453.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm
```

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.779722E+04	1.596977E-03	1.732143E+03	9.673500E+01
C		-3.997295E+04	3.656185E-02	8.658730E+01	1.040000E+00
Si		-2.112470E+05	2.546627E-08	8.901390E+00	2.500000E-01
Mn		-1.571106E+05	2.249531E-06	6.370818E+00	3.500000E-01
Ni		-1.613491E+05	1.583885E-06	2.129835E+00	1.250000E-01
Mo		-1.556121E+05	2.546612E-06	5.211591E-01	5.000000E-02
Cr		-1.140251E+05	7.960785E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.4469994424E+08 J System Enthalpy = 8.2702578621E+07 J
     1463.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1463.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.863558E+04	1.557696E-03	1.732143E+03	9.673500E+01
C		-4.070236E+04	3.522153E-02	8.658730E+01	1.040000E+00
Si		-2.120475E+05	2.687156E-08	8.901390E+00	2.500000E-01
Mn		-1.584266E+05	2.206543E-06	6.370818E+00	3.500000E-01
Ni		-1.627096E+05	1.551664E-06	2.129835E+00	1.250000E-01
Mo		-1.571447E+05	2.451778E-06	5.211591E-01	5.000000E-02
Cr		-1.151263E+05	7.756394E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.4626728732E+08 J System Enthalpy = 8.3369222722E+07 J
     1473.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1473.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-7.946880E+04	1.520535E-03	1.732143E+03	9.673500E+01
C		-4.146374E+04	3.385907E-02	8.658730E+01	1.040000E+00
Si		-2.128408E+05	2.835033E-08	8.901390E+00	2.500000E-01
Mn		-1.597364E+05	2.166046E-06	6.370818E+00	3.500000E-01
Ni		-1.640634E+05	1.521347E-06	2.129835E+00	1.250000E-01
Mo		-1.586830E+05	2.360583E-06	5.211590E-01	5.000000E-02
Cr		-1.162190E+05	7.565148E-05	2.788676E+01	1.450000E+00

```
Total                                                 1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.4783919259E+08 J   System Enthalpy =  8.4037469258E+07 J
     1483.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1483.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -8.032166E+04 1.482379E-03 1.732143E+03 9.673500E+01
C                           -4.216151E+04 3.273505E-02 8.658730E+01 1.040000E+00
Si                          -2.136634E+05 2.981793E-08 8.901390E+00 2.500000E-01
Mn                          -1.610764E+05 2.121612E-06 6.370818E+00 3.500000E-01
Ni                          -1.654471E+05 1.488412E-06 2.129835E+00 1.250000E-01
Mo                          -1.602541E+05 2.267920E-06 5.211591E-01 5.000000E-02
Cr                          -1.173383E+05 7.365151E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.4941563996E+08 J   System Enthalpy =  8.4707319226E+07 J
     1493.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1493.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -8.116860E+04 1.446364E-03 1.732143E+03 9.673500E+01
C                           -4.289375E+04 3.157486E-02 8.658730E+01 1.040000E+00
Si                          -2.144734E+05 3.137227E-08 8.901390E+00 2.500000E-01
Mn                          -1.624047E+05 2.080629E-06 6.370818E+00 3.500000E-01
Ni                          -1.668187E+05 1.458039E-06 2.129835E+00 1.250000E-01
Mo                          -1.618089E+05 2.182926E-06 5.211591E-01 5.000000E-02
Cr                          -1.184472E+05 7.179041E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000
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                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.5099660962E+08 J   System Enthalpy =  8.5378773643E+07 J
     1503.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1503.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -8.201947E+04 1.411241E-03 1.732143E+03 9.673500E+01
C                           -4.363020E+04 3.046017E-02 8.658730E+01 1.040000E+00
Si                          -2.152858E+05 3.297889E-08 8.901390E+00 2.500000E-01
Mn                          -1.637363E+05 2.040414E-06 6.370818E+00 3.500000E-01
Ni                          -1.681932E+05 1.428336E-06 2.129835E+00 1.250000E-01
Mo                          -1.633682E+05 2.101411E-06 5.211591E-01 5.000000E-02
Cr                          -1.195602E+05 6.997763E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.5258208203E+08 J   System Enthalpy =  8.6051833575E+07 J
     1513.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1513.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -8.287036E+04 1.377416E-03 1.732143E+03 9.673500E+01
C                           -4.436393E+04 2.940514E-02 8.658730E+01 1.040000E+00
Si                          -2.160998E+05 3.464031E-08 8.901390E+00 2.500000E-01
Mn                          -1.650706E+05 2.001078E-06 6.370818E+00 3.500000E-01
Ni                          -1.695700E+05 1.399374E-06 2.129835E+00 1.250000E-01
Mo                          -1.649269E+05 2.024078E-06 5.211591E-01 5.000000E-02
Cr                          -1.206757E+05 6.821986E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.5417203791E+08 J   System Enthalpy =  8.6726500046E+07 J
     1523.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1523.0000 K
```

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-8.372411E+04	1.344528E-03	1.732143E+03	9.673500E+01
C		-4.509641E+04	2.840262E-02	8.658730E+01	1.040000E+00
Si		-2.169155E+05	3.635750E-08	8.901390E+00	2.500000E-01
Mn		-1.664074E+05	1.962614E-06	6.370818E+00	3.500000E-01
Ni		-1.709488E+05	1.371140E-06	2.129835E+00	1.250000E-01
Mo		-1.664854E+05	1.950558E-06	5.211591E-01	5.000000E-02
Cr		-1.217912E+05	6.652870E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.5576645833E+08 J   System Enthalpy = 8.7402775237E+07 J
     1533.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1533.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-8.457927E+04	1.312692E-03	1.732143E+03	9.673500E+01
C		-4.584008E+04	2.742259E-02	8.658730E+01	1.040000E+00
Si		-2.177303E+05	3.813818E-08	8.901390E+00	2.500000E-01
Mn		-1.677443E+05	1.925359E-06	6.370818E+00	3.500000E-01
Ni		-1.723274E+05	1.343863E-06	2.129835E+00	1.250000E-01
Mo		-1.680464E+05	1.880271E-06	5.211591E-01	5.000000E-02
Cr		-1.229063E+05	6.490255E-05	2.788676E+01	1.450000E+00
Total				1.864540E+03	1.000000E+02

Mass/kg	Phase	Mass fraction of component within phase		
		Fe	C	Si
1.0000E+02	FCC_A1	0.9673500	0.0104000	0.0025000
		Mn	Ni	Mo
1.0000E+02	FCC_A1	0.0035000	0.0012500	0.0005000
		Cr		
1.0000E+02	FCC_A1	0.0145000		

Gibbs Energy = -1.5736532443E+08 J   System Enthalpy = 8.8080669883E+07 J
     1543.00
*** MULTIPHASE - Stage 1* Results ***

Temperature = 1543.0000 K

Fixed pressure = 1.013250E+05 Pa,   1.000000E+00 atm

Component	Ref.Phase	Chem.Pot.	Activity	Amount/mol	Mass/kg
Fe		-8.543029E+04	1.282423E-03	1.732143E+03	9.673500E+01
C		-4.660772E+04	2.643899E-02	8.658730E+01	1.040000E+00
Si		-2.185354E+05	4.001148E-08	8.901390E+00	2.500000E-01
Mn		-1.690725E+05	1.890566E-06	6.370818E+00	3.500000E-01
Ni		-1.736968E+05	1.318410E-06	2.129835E+00	1.250000E-01
Mo		-1.696052E+05	1.813669E-06	5.211591E-01	5.000000E-02

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Cr                          -1.239994E+05 6.344494E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                 Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                 Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                 Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.5896861785E+08 J   System Enthalpy =  8.8760186186E+07 J
     1553.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1553.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -8.607501E+04 1.273411E-03 1.732143E+03 9.673500E+01
C                           -4.811708E+04 2.407902E-02 8.658730E+01 1.040000E+00
Si                          -2.189601E+05 4.320511E-08 8.901390E+00 2.500000E-01
Mn                          -1.700213E+05 1.912209E-06 6.370818E+00 3.500000E-01
Ni                          -1.746864E+05 1.332382E-06 2.129835E+00 1.250000E-01
Mo                          -1.706190E+05 1.825708E-06 5.211590E-01 5.000000E-02
Cr                          -1.246801E+05 6.405202E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                 Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                 Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000

                                 Cr
 1.0000E+02 FCC_A1              0.0145000

Gibbs Energy = -1.6057632039E+08 J   System Enthalpy =  8.9441323877E+07 J
     1563.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1563.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -8.716605E+04 1.221884E-03 1.732143E+03 9.673500E+01
C                           -4.806197E+04 2.476479E-02 8.658730E+01 1.040000E+00
Si                          -2.201964E+05 4.378617E-08 8.901390E+00 2.500000E-01
Mn                          -1.717826E+05 1.816607E-06 6.370818E+00 3.500000E-01
Ni                          -1.764881E+05 1.264760E-06 2.129835E+00 1.250000E-01
Mo                          -1.727474E+05 1.686618E-06 5.211591E-01 5.000000E-02
Cr                          -1.262896E+05 6.019703E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                 Fe              C               Si
 1.0000E+02 FCC_A1              0.9673500       0.0104000       0.0025000

                                 Mn              Ni              Mo
 1.0000E+02 FCC_A1              0.0035000       0.0012500       0.0005000
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                                  Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.6218841414E+08 J   System Enthalpy =  9.0124082893E+07 J
     1573.00
*** MULTIPHASE - Stage 1* Results ***

Temperature =  1573.0000 K

Fixed pressure =  1.013250E+05 Pa,    1.000000E+00 atm

Component      Ref.Phase     Chem.Pot.    Activity     Amount/mol   Mass/kg
Fe                          -8.803000E+04 1.193603E-03 1.732143E+03 9.673500E+01
C                           -4.880393E+04 2.395565E-02 8.658730E+01 1.040000E+00
Si                          -2.210242E+05 4.577507E-08 8.901390E+00 2.500000E-01
Mn                          -1.731364E+05 1.781563E-06 6.370818E+00 3.500000E-01
Ni                          -1.778819E+05 1.239428E-06 2.129835E+00 1.250000E-01
Mo                          -1.743211E+05 1.627283E-06 5.211591E-01 5.000000E-02
Cr                          -1.274321E+05 5.867701E-05 2.788676E+01 1.450000E+00
Total                                                  1.864540E+03 1.000000E+02

Mass/kg     Phase               Mass fraction of component within phase
                                  Fe              C               Si
 1.0000E+02 FCC_A1             0.9673500       0.0104000       0.0025000

                                  Mn              Ni              Mo
 1.0000E+02 FCC_A1             0.0035000       0.0012500       0.0005000

                                  Cr
 1.0000E+02 FCC_A1             0.0145000

Gibbs Energy = -1.6380488135E+08 J   System Enthalpy =  9.0808463182E+07 J

 MULTIPHASE OPTION ?
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