```
Microsoft Windows XP [Verze 6.0.6002]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Users\Terezka\Documents\Perple X clear>build
Perple X version 6.7.0, source updated July 2, 2014.
NO is the default (blank) answer to all Y/N prompts
Enter a name for this project (the name will be used as the
root for all output file names) [default = my project]:
Al2SiO5
The problem definition file will be named: Al2SiO5.dat
Enter thermodynamic data file name [default = hp02ver.dat]:
hp04ver.dat
Enter the computational option file name [default = perplex option.dat]:
See: www.perplex.ethz.ch/perplex options.html
Reading computational options from: perplex option.dat
The current data base components are:
NA2O MGO AL2O3 SIO2 K2O CAO TIO2 MNO FEO NIO ZRO2 CL2
O2 H2O CO2
Transform them (Y/N)?
Enter new component name, < 6 characters, left justified:
Enter old component to be replaced with als:
Enter other components (< 11) in als 1 per line, <enter> to finish:
SIO2
Enter stoichiometric coefficients of:
 AL2O3 SIO2
in als (in above order):
als = 1.00 \text{ AL}2O3 \ 1.00 \text{ SIO}2
Is this correct (Y/N)?
The current data base components are:
NA2O MGO als SIO2 K2O CAO TIO2 MNO FEO NIO ZRO2 CL2
O2 H2O CO2
```

Transform them (Y/N)?

Calculations with a saturated FLUID (Y/N)?

n

Calculations with saturated components (Y/N)?

n

Use chemical potentials, activities or fugacities as independent variables (Y/N)?

n

Select thermodynamic components from the set:

NA2O MGO als SIO2 K2O CAO TIO2 MNO FEO NIO ZRO2 CL2 O2 H2O CO2

Enter names, 1 per line, press <enter> to finish: als

Specify computational mode:

- 1 Unconstrained minimization
- 2 Constrained minimization on a 2d grid [default]
- 3 Constrained minimization on a 1d grid
- 4 Output pseudocompound data
- 5 Phase fractionation calculations

Use unconstrained minimization for Schreinemakers projections or phase diagrams with > 2 independent variables. Use constrained minimization for phase diagrams or phase diagram sections with < 3 independent variables.

The data base has P(bar) and T(K) as default independent potentials. Make one dependent on the other, e.g., as along a geothermal gradient (y/n)?

Select x-axis variable:

```
1 - P(bar)
```

$$2 - T(K)$$

2

Enter minimum and maximum values, respectively, for: T(K) 473 1273

Enter minimum and maximum values, respectively, for: P(bar) 500 9500

For gridded minimization, grid resolution is determined by the number of levels (grid_levels) and the resolution at the lowest level in the X- and Y-directions (x_nodes and y_nodes) these parameters are currently set for the exploratory and autorefine cycles as follows:

```
stage
         grid levels xnodes ynodes effective resolution
exploratory
               1
                      40
                           40
                                  40 x 40 nodes
auto-refine
              4
                     60
                           60
                                 473 x 473 nodes
To change these options edit or create the file perplex option.dat
See: www.perplex.ethz.ch/perplex options.html#grid parameters
Specify component amounts by weight (Y/N)?
Enter molar amounts of the components:
for the bulk composition of interest:
Output a print file (Y/N)?
Summary of valid make definitions:
      als
sil8L
      1.60
Exclude pure and/or endmember phases (Y/N)?
n
Include solution phases (Y/N)?
Enter the solution model file name [default = solution model.dat]:
**warning ver025** 0 endmembers for Opx(HP) The solution will not be considered.
**warning ver025** 0 endmembers for Bio(TCC) The solution will not be considered.
**warning ver025** 0 endmembers for TiBio(WPH) The solution will not be considered.
**warning ver025** 0 endmembers for Opx(HP11) The solution will not be considered.
**warning ver025** 0 endmembers for CrOpx(HP) The solution will not be considered.
**warning ver025** 0 endmembers for Si-vapor The solution will not be considered.
**warning ver025** 0 endmembers for Gt(MPF) The solution will not be considered.
**warning ver025** 0 endmembers for oAmph(DP) The solution will not be considered.
**warning ver025** 0 endmembers for Omph(GHP) The solution will not be considered.
**warning ver025** 0 endmembers for cAmph(DP) The solution will not be considered.
**warning ver025** 0 endmembers for Chl(HP) The solution will not be considered.
**warning ver025** 0 endmembers for Chl(LWV) The solution will not be considered.
```

warning ver025 0 endmembers for O(SG) The solution will not be considered. **warning ver025** 1 endmembers for melt(HP) The solution will not be considered.

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**warning ver025** 0 endmembers for pMELTS(G) The solution will not be considered.
**warning ver025** 0 endmembers for mMELTS(G) The solution will not be considered.
**warning ver025** 0 endmembers for MELTS(GS) The solution will not be considered.
**warning ver025** 0 endmembers for Ep(HP)
                                               The solution will not be considered.
**warning ver025** 0 endmembers for Pheng(HP) The solution will not be considered.
**warning ver025** 0 endmembers for Sapp(HP) The solution will not be considered.
**warning ver025** 0 endmembers for Sapp(KWP) The solution will not be considered.
**warning ver025** 0 endmembers for Osm(HP)
                                                 The solution will not be considered.
**warning ver025** 0 endmembers for GaHcSp
                                                The solution will not be considered.
**warning ver025** 0 endmembers for F
                                             The solution will not be considered.
**warning ver025** 0 endmembers for F(salt)
                                              The solution will not be considered.
**warning ver025** 0 endmembers for T
                                             The solution will not be considered.
**warning ver025** 0 endmembers for Scap
                                              The solution will not be considered.
**warning ver025** 0 endmembers for St(HP)
                                               The solution will not be considered.
**warning ver025** 0 endmembers for Ctd(HP)
                                                The solution will not be considered.
**warning ver025** 0 endmembers for Carp
                                              The solution will not be considered.
**warning ver025** 0 endmembers for hCrd
                                              The solution will not be considered.
**warning ver025** 0 endmembers for Sud(Livi) The solution will not be considered.
**warning ver025** 0 endmembers for Sud
                                              The solution will not be considered.
**warning ver025** 0 endmembers for Cumm
                                                The solution will not be considered.
**warning ver025** 0 endmembers for Anth
                                              The solution will not be considered.
**warning ver025** 0 endmembers for A
                                             The solution will not be considered.
**warning ver025** 0 endmembers for Gl
                                             The solution will not be considered.
**warning ver025** 0 endmembers for Tr
                                             The solution will not be considered.
**warning ver025** 0 endmembers for GlTrTsPg The solution will not be considered.
**warning ver025** 0 endmembers for Amph(DHP) The solution will not be considered.
**warning ver025** 0 endmembers for Amph(DPW) The solution will not be considered.
**warning ver025** 0 endmembers for feldspar The solution will not be considered.
**warning ver025** 0 endmembers for feldspar B The solution will not be considered.
**warning ver025** 0 endmembers for Pl(h)
                                              The solution will not be considered.
**warning ver025** 0 endmembers for Kf
                                             The solution will not be considered.
**warning ver025** 0 endmembers for San
                                              The solution will not be considered.
**warning ver025** 0 endmembers for San(TH)
                                                The solution will not be considered.
**warning ver025** 0 endmembers for GCOHF
                                                 The solution will not be considered.
**warning ver025** 0 endmembers for MaPa
                                               The solution will not be considered.
**warning ver025** 0 endmembers for Mica(CF)
                                                The solution will not be considered.
**warning ver025** 0 endmembers for Mica(CHA1) The solution will not be considered.
**warning ver025** 0 endmembers for Mica(CHA) The solution will not be considered.
**warning ver025** 0 endmembers for Mica+(CHA) The solution will not be considered.
**warning ver025** 0 endmembers for O(HP)
                                               The solution will not be considered.
**warning ver025** 0 endmembers for Cpx(l)
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**warning ver025** 0 endmembers for Cpx(h)
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**warning ver025** 0 endmembers for Mont
                                               The solution will not be considered.
**warning ver025** 0 endmembers for Do(HP)
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**warning ver025** 0 endmembers for M(HP)
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**warning ver025** 0 endmembers for Do(AE)
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**warning ver025** 0 endmembers for Cc(AE)
                                                The solution will not be considered.
**warning ver025** 0 endmembers for MF
                                              The solution will not be considered.
**warning ver025** 0 endmembers for Sp(JR)
                                               The solution will not be considered.
**warning ver025** 0 endmembers for Sp(GS)
                                               The solution will not be considered.
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**warning ver025** 0 endmembers for Sp(HP)
                                               The solution will not be considered.
**warning ver025** 0 endmembers for Mt(W)
                                               The solution will not be considered.
**warning ver025** 0 endmembers for IlHm(A)
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**warning ver025** 0 endmembers for IIGkPy
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**warning ver025** 0 endmembers for MtUl(A)
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**warning ver025** 0 endmembers for Neph(FB) The solution will not be considered.
**warning ver025** 0 endmembers for GrPyAlSp(B The solution will not be considered.
**warning ver025** 0 endmembers for Gt(GCT)
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                                               The solution will not be considered.
**warning ver025** 0 endmembers for Gt(HP)
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**warning ver025** 0 endmembers for casmelt
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**warning ver025** 0 endmembers for A-phase
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**warning ver025** 0 endmembers for Chum
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**warning ver025** 0 endmembers for Atg(PN)
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**warning ver025** 0 endmembers for B
                                             The solution will not be considered.
**warning ver025** 0 endmembers for P
                                             The solution will not be considered.
**warning ver025** 0 endmembers for Toop-Melt The solution will not be considered.
**warning ver025** 0 endmembers for OrFsp(C1) The solution will not be considered.
**warning ver025** 0 endmembers for AbFsp(C1) The solution will not be considered.
**warning ver025** 0 endmembers for Pl(I1,HP) The solution will not be considered.
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**warning ver025** 0 endmembers for Fsp(DD)
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**warning ver025** 0 endmembers for oCcM(HP) The solution will not be considered.
**warning ver025** 0 endmembers for Tour(V)
                                               The solution will not be considered.
**warning ver025** 0 endmembers for DoDo
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**warning ver025** 0 endmembers for Wus(fab) The solution will not be considered.
**warning ver025** 0 endmembers for Aki(fab)
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**warning ver025** 0 endmembers for Pv(fab)
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**warning ver025** 0 endmembers for Ppv(og)
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**warning ver025** 0 endmembers for O(stx)
                                              The solution will not be considered.
**warning ver025** 0 endmembers for Wad(stx) The solution will not be considered.
**warning ver025** 0 endmembers for Ring(stx) The solution will not be considered.
**warning ver025** 0 endmembers for Sp(stx)
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**warning ver025** 0 endmembers for Gt(stx)
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**warning ver025** 0 endmembers for C2/c(stx) The solution will not be considered.
**warning ver025** 0 endmembers for Opx(stx) The solution will not be considered.
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**warning ver025** 0 endmembers for Cpx(stx7) The solution will not be considered.
**warning ver025** 0 endmembers for o-Amph
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**warning ver025** 0 endmembers for Omph(HP) The solution will not be considered.
**warning ver025** 0 endmembers for Cpx(HP) The solution will not be considered.
                                              The solution will not be considered.
**warning ver025** 0 endmembers for CrSp
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**warning ver025** 0 endmembers for Ca-Amph(D) The solution will not be considered.
**warning ver025** 0 endmembers for Na-Amph(D) The solution will not be considered.
**warning ver025** 0 endmembers for Wus(stx7) The solution will not be considered.
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**warning ver025** 0 endmembers for O(stx7) The solution will not be considered.
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**warning ver025** 0 endmembers for Wad(stx7) The solution will not be considered.
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**warning ver025** 0 endmembers for Ilm(WPH) The solution will not be considered.
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                                               The solution will not be considered.
**warning ver025** 0 endmembers for Stlp(M)
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**warning ver025** 0 endmembers for Sud(M)
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**warning ver025** 0 endmembers for GlTrTsMr The solution will not be considered.
**warning ver025** 0 endmembers for Carb(M)
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**warning ver025** 0 endmembers for TiBio(HP) The solution will not be considered.
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**warning ver025** 0 endmembers for FeSi(BCC) The solution will not be considered.
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**warning ver025** 0 endmembers for oFeSi(bcc) The solution will not be considered.
**warning ver025** 0 endmembers for FeSi_liq The solution will not be considered.
**warning ver025** 0 endmembers for ZrRu
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**warning ver025** 0 endmembers for ZrGt(KP) The solution will not be considered.
**warning ver025** 0 endmembers for odCcMS(EF) The solution will not be considered.
**warning ver025** 0 endmembers for Si-Fluid The solution will not be considered.
**warning ver025** 0 endmembers for FeSiC-BCC The solution will not be considered.
**warning ver025** 0 endmembers for FeSiC-FCC The solution will not be considered.
**warning ver025** 0 endmembers for Maj
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**warning ver025** 0 endmembers for Wad
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**warning ver025** 0 endmembers for Ring
                                              The solution will not be considered.
**warning ver025** 0 endmembers for Wus
                                              The solution will not be considered.
**warning ver025** 0 endmembers for Aki
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**warning ver025** 0 endmembers for Pv
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```

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**warning ver025** 0 endmembers for FeSiC_liq The solution will not be considered.

**warning ver025** 0 endmembers for Sapp(TP) The solution will not be considered.

**warning ver025** 0 endmembers for CcM(EF) The solution will not be considered.

**warning ver025** 0 endmembers for LIQ(EF) The solution will not be considered.

**warning ver025** 0 endmembers for Opx(W) The solution will not be considered.

**warning ver025** 0 endmembers for Chl(W) The solution will not be considered.

**warning ver025** 0 endmembers for Chl(W) The solution will not be considered.

The solution will not be considered.

The solution will not be considered.

The solution will not be considered.
```

The solution model file contains no relevant models.

Enter calculation title: Al2SiO5

C:\Users\Terezka\Documents\Perple_X clear>