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ThermoCalc
SYS:go Tab
TAB:e-r
Reaction:NI+PBO=NI0+PB;
THERMODYNAMIC DATABASE module running on PC/WINDOWS NT
Current database: SGTE Substance database v.3

UA DEFINED
UA DEFINED
REINITIATING GES5 .....
O1PB1          NI          PB
NI101 DEFINED
ELEMENTS .....
SPECIES .....
PHASES .....
PARAMETERS ...
FUNCTIONS ....

List of references for assessed data

NI1<G> T.C.R.A.S Class: 1
  Data provided by T.C.R.A.S. October 1996
NI101<G> T.C.R.A.S Class: 4
  Data provided by ICRAS. October 1996. Error in version 1997.
  S298 corrected to 1bar
O1PB1<G> T.C.R.A.S. Class: 1
  LEAD MONOXIDE <GAS>
PB1<G> T.C.R.A.S. Class: 1
  LEAD <GAS>
NI101 S.G.T.E.
  Data recommended by J. Agren (B. Bergman and J. Agren,
  J. Amer. Ceram. Soc. 68, 8, 444-450 (1985). Enthalpy of
  formation from ICRAS (October 1996).
NI1 S.G.T.E. **
  Data from SGTE Unary DB
O1PB1 T.C.R.A.S. Class: 3
  LEAD MONOXIDE
PB1 JANAF THERMOCHEMICAL TABLES SGTE **
  LEAD
  PUBLISHED BY JANAF AT 3/62.MPT FROM NBS BULLETIN -- U.D. 31/10/85
O1PB1<YELLOW> T.C.R.A.S. Class: 3
  LEAD MONOXIDE <YELLOW>

The list of references can be obtained in the Gibbs Energy System also
by the command LIST_DATA and option R

-OK-
Pressure /100000/:
Low temperature limit /298.15/:
High temperature limit /2000/:
Step in temperature /100/:

Output file /SCREEN/:

          O U T P U T   F R O M   T H E R M O - C A L C
          2005.10.24                               11.17. 2

Reaction: O1PB1+NI=PB+NI101
O1PB1 stable as O1PB1_S
NI stable as NI_S
PB stable as PB_S
NI101 stable as NI101_S

*****
  T      Delta-Cp      Delta-H      Delta-S      Delta-G
  (K)    (Joule/K)    (Joule)    (Joule/K)    (Joule)
*****
298.15  -9.94012E-01  -2.11000E+04  5.23800E+00  -2.26617E+04
300.00  -8.94443E-01  -2.11017E+04  5.23216E+00  -2.26714E+04
400.00  3.97005E+00  -2.09459E+04  5.64755E+00  -2.32049E+04
500.00  1.19783E+01  -2.02153E+04  7.24601E+00  -2.38383E+04
600.00  -6.01318E+00  -2.00065E+04  7.68909E+00  -2.46200E+04
602.    ---- PB becomes PB_L ,delta-H = 4773.90
645.    ---- O1PB1 becomes YELLOW ,delta-H = 338.42
700.00  -1.02616E+00  -1.58826E+04  1.46165E+01  -2.61142E+04
800.00  -2.24919E+00  -1.60399E+04  1.44084E+01  -2.75666E+04
900.00  -3.88501E+00  -1.63450E+04  1.40509E+01  -2.89908E+04
1000.00 -5.65813E+00  -1.68213E+04  1.35507E+01  -3.03720E+04
1100.00 -7.50287E+00  -1.74789E+04  1.29253E+01  -3.16968E+04
1164.    ---- O1PB1 becomes O1PB1_L ,delta-H = 25893.94
1200.00 -1.37048E+01  -4.43811E+04  -1.02186E+01  -3.21187E+04
1300.00 -1.40822E+01  -4.57712E+04  -1.13311E+01  -3.10408E+04
1400.00 -1.43828E+01  -4.71950E+04  -1.23861E+01  -2.98544E+04
1500.00 -1.46291E+01  -4.86460E+04  -1.33871E+01  -2.85653E+04
1600.00 -1.48369E+01  -5.01195E+04  -1.43380E+01  -2.71787E+04
1700.00 -1.50175E+01  -5.16124E+04  -1.52430E+01  -2.56993E+04
1730.    ---- NI becomes NI_L ,delta-H = 17480.40
1800.00 -1.87407E+01  -7.08829E+04  -2.63791E+01  -2.34005E+04
1900.00 -1.79254E+01  -7.27163E+04  -2.73706E+01  -2.07122E+04
2000.00 -1.71013E+01  -7.44677E+04  -2.82691E+01  -1.79295E+04
TAB:

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