

Thermo-Calc version Q on WinNT
 Copyright (1993,2000) Foundation for Computational Thermodynamics,
 Stockholm, Sweden
 Double precision version linked at Wed Jun 16 11:50:47

SYS:GO TAB
 TAB:?

BACK	LIST_SUBSTANCES	SWITCH_DATABASE
ENTER_FUNCTION	MACRO_FILE_OPEN	TABULATE_DERIVATIVES
ENTER_REACTION	PAICH	TABULATE_REACTION
EXIT	SET_ENERGY_UNIT	TABULATE_SUBSTANCE
GOTO_MODULE	SET_INTERACTIVE	
HELP	SET_PLOT_FORMAT	

TAB:ENTER-REACTION
 Reaction:NI+0.5O2=NI0;
 THERMODYNAMIC DATABASE module running on PC/WINDOWS NT
 Current database: SGTE Substance database v.3

UA DEFINED
 UA DEFINED
 REINITIATING GES5
 NI 02 NI101
 NI DEFINED
 ELEMENTS
 SPECIES
 PHASES
 PARAMETERS ...
 FUNCTIONS

List of references for assessed data

NI1<G> I.C.R.A.S Class: 1
 Data provided by I.C.R.A.S. October 1996
 NI101<G> I.C.R.A.S Class: 4
 Data provided by ICRAS. October 1996. Error in version 1997.
 S298 corrected to 1bar
 O2<G> I.C.R.A.S. Class: 1
 OXYGEN <DIATOMIC 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

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/:

OUTPUT FROM THERMO-CALC
 2005.10.24 10.18.10

Reaction: NI+.5O2=NI101
 NI stable as NI_S
 O2 stable as GAS
 NI101 stable as NI101_S

T (K)	Delta-Cp (Joule/K)	Delta-H (Joule)	Delta-S (Joule/K)	Delta-G (Joule)
298.15	3.88803E+00	-2.39700E+05	-9.42955E+01	-2.11586E+05
300.00	4.01335E+00	-2.39693E+05	-9.42711E+01	-2.11411E+05
400.00	9.95358E+00	-2.38988E+05	-9.22846E+01	-2.02074E+05
500.00	1.87456E+01	-2.37619E+05	-8.92640E+01	-1.92987E+05
600.00	1.45226E+00	-2.36698E+05	-8.75248E+01	-1.84183E+05
700.00	5.84049E+00	-2.36350E+05	-8.70042E+01	-1.75447E+05
800.00	6.00279E+00	-2.35752E+05	-8.62052E+01	-1.66788E+05
900.00	5.77902E+00	-2.35161E+05	-8.55095E+01	-1.58203E+05
1000.00	5.46677E+00	-2.34599E+05	-8.49161E+01	-1.49682E+05
1100.00	5.09985E+00	-2.34070E+05	-8.44120E+01	-1.41217E+05
1200.00	4.70104E+00	-2.33580E+05	-8.39852E+01	-1.32797E+05
1300.00	4.28197E+00	-2.33130E+05	-8.36253E+01	-1.24417E+05
1400.00	3.84938E+00	-2.32724E+05	-8.33237E+01	-1.16070E+05
1500.00	3.40745E+00	-2.32361E+05	-8.30732E+01	-1.07751E+05
1600.00	2.95890E+00	-2.32042E+05	-8.28676E+01	-9.94543E+04
1700.00	2.50560E+00	-2.31769E+05	-8.27018E+01	-9.11761E+04
1730.	----	NI becomes NI_L ,delta-H = 17480.40		
1800.00	-1.51263E+00	-2.49302E+05	-9.28445E+01	-8.21818E+04
1900.00	-1.00750E+00	-2.49428E+05	-9.29128E+01	-7.28937E+04
2000.00	-5.03129E-01	-2.49503E+05	-9.29516E+01	-6.36002E+04

TAB: