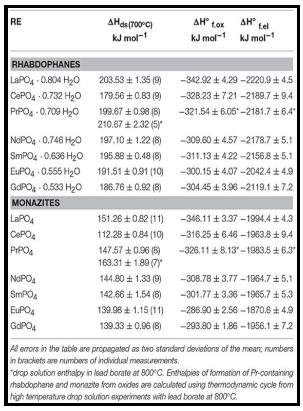
Thermodynamics of Rare-Earth Compounds.

s.n - Thermodynamic properties of actinides and rare earth fission products in liquid cadmium



RE	$\Delta H_{ds(700°C)}$ kJ mol^{-1}	$\Delta H°_{f,ox}$ kJ mol^{-1}	$\Delta H°_{f,el}$ kJ mol^{-1}
RHABDOPHANES			
$LaPO_4 \cdot 0.804\ H_2O$	203.53 ± 1.35 (9)	−342.92 ± 4.29	−2220.9 ± 4.5
$CePO_4 \cdot 0.732\ H_2O$	179.56 ± 0.83 (9)	−328.23 ± 7.21	−2189.7 ± 9.4
$PrPO_4 \cdot 0.709\ H_2O$	199.67 ± 0.98 (6) 210.67 ± 2.32 (5)*	−321.54 ± 6.05*	−2181.7 ± 6.4*
$NdPO_4 \cdot 0.746\ H_2O$	197.10 ± 1.22 (8)	−309.60 ± 4.57	−2178.7 ± 5.1
$SmPO_4 \cdot 0.636\ H_2O$	195.88 ± 0.48 (8)	−311.13 ± 4.22	−2156.8 ± 5.1
$EuPO_4 \cdot 0.555\ H_2O$	191.51 ± 0.91 (10)	−300.15 ± 4.07	−2042.4 ± 4.9
$GdPO_4 \cdot 0.533\ H_2O$	186.76 ± 0.92 (8)	−304.45 ± 3.96	−2119.1 ± 7.2
MONAZITES			
$LaPO_4$	151.26 ± 0.82 (11)	−346.11 ± 3.37	−1994.4 ± 4.3
$CePO_4$	112.28 ± 0.84 (10)	−316.25 ± 6.46	−1963.8 ± 9.4
$PrPO_4$	147.57 ± 0.96 (6) 163.31 ± 1.89 (7)*	−326.11 ± 8.13*	−1983.5 ± 6.3*
$NdPO_4$	144.80 ± 1.33 (9)	−308.78 ± 3.77	−1964.7 ± 5.1
$SmPO_4$	142.66 ± 1.54 (8)	−301.77 ± 3.36	−1965.7 ± 5.3
$EuPO_4$	139.98 ± 1.15 (11)	−286.90 ± 2.56	−1870.6 ± 4.9
$GdPO_4$	139.33 ± 0.96 (8)	−293.80 ± 1.86	−1956.1 ± 7.2

All errors in the table are propagated as two standard deviations of the mean; numbers in brackets are numbers of individual measurements.
drop solution enthalpy in lead borate at 800°C. Enthalpies of formation of Pr-containing rhabdophane and monazite from oxides are calculated using thermodynamic cycle from high temperature drop solution experiments with lead borate at 800°C.

Description: -
-Thermodynamics of Rare-Earth Compounds.
-
Report of investigations (United States. Bureau of Mines) --
5468Thermodynamics of Rare-Earth Compounds.
Notes: 1
This edition was published in 1959

Filesize: 43.63 MB

Tags: #Thermodynamics #of #rare #earth #metal #interaction #with #copper

Phase diagrams and thermodynamic properties of rare earth

Gschneidner Jr KA, Calderwood FW 1988 The Cd—Gd cadmium—gadolinium system.

Frontiers

Considering possible differences in synthesis procedures among these studies and error in temperature determination, reported differences as high as ±10°C are not surprising.

Thermodynamics and Kinetics of Hydrogen Absorption in Rare Earth

Pr 2Ni 7 and ErNi 3 were included in this study for comparison. The dehydrated rhabdophanes are energetically less stable than the initial fully hydrated forms. Since 1960, the International Union of Pure and Applied Chemistry IUPAC has made available to chemists everywhere a large amount of important chemical information published in the journal Pure and Applied Chemistry.

Phase diagrams and thermodynamics of rare

Thermodynamic properties of Nd—Bi and Nd—Sn alloys were determined via electromotive force emf measurements at 725—1075 K.

Thermodynamics and Kinetics of Hydrogen Absorption in Rare Earth

Bayanov: An electromotive force study of the thermodynamic properties of neodymium tristannide and its solutions in liquid tin. Previous studies report similar values ranging from 0.

Related Books

- Partnership for Advancing Technology in Housing - year 2000 progress assessment of the PATH program
- Successful project management
- Contradicciones del modernismo - productividad poética y situación sociológica
- Anniversary tribute to Samuel Shugert Adams, A.M., M.D. - on his seventieth birthday, July 12th 1923
- Creative thinking and arts-based learning - preschool through fourth grade