

Ni - Pb

10

PbNiF<sub>3</sub>

Syono Y. u gp.

1968

Techn. Rept. I.S.S.P.

A, N337, 23pp., ill.

научн.организации.

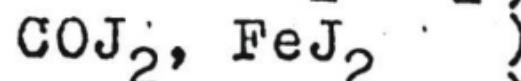
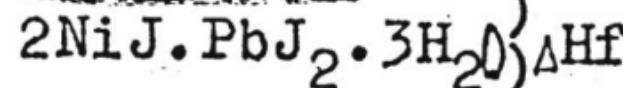
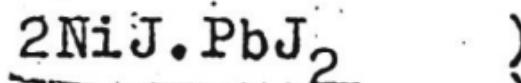
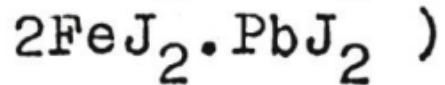
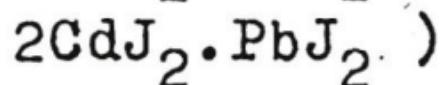
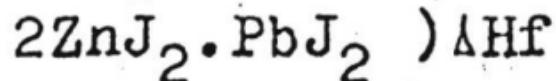
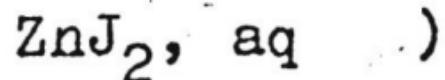
(Cer. Ba.UnO<sub>3</sub>) I

V 852

1897

Mosnier

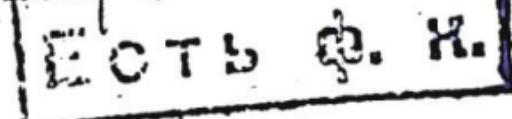
Ann.chim.phys., 1897, 12, 374



W, M

11/18

F



$\text{MnJ}_2 \cdot \text{PbJ}_2$ ,  $\text{MnJ}_2$ ,  $\text{PbJ}_2 \cdot 3\text{H}_2\text{O}$ ,  $\text{CrJ}_2$ ,

$2\text{CrJ}_2 \cdot \text{PbJ}_2$ ,  $2\text{CrJ}_2 \cdot \text{PbJ}_2 \cdot 3\text{H}_2\text{O}$  (AHf)

IV M<sub>2</sub>PbF<sub>6</sub>, M<sub>2</sub>=Mg, Zn, Cd, Hg, Ni

1969

cr. str.

VI 7023

IX Homann R., Hoppe R.

Z. anorg. und allgem. Chem., 1969, 368,

NS-6, 271-278

Neue Hexafluoroplumbate (IV). MgPbF<sub>6</sub>,  
ZnPbF<sub>6</sub>, CdPbF<sub>6</sub>, HgPbF<sub>6</sub> und NiPbF<sub>6</sub>.

PZ, 85 551(1970). ML II

B97-VI-6709

1969

Ni Pb Se  
~~= 3 - 2~~

48117g Lead selenide-nickel system. Myuller, N. N.;  
 Sotnikova, L. I. (Giprotsvetmetobrabotka, Moscow, USSR).

Izv. Akad. Nauk SSSR, Neorg. Mater. 1969, 5(11), 1899-902  
 (Russ). The polythermal PbSe-Ni section of the ternary Pb-  
 Se-Ni system was constructed. The formation by a peritectic  
 reaction of the ternary compd. Ni<sub>3</sub>Pb<sub>2</sub>Se<sub>2</sub> m. 700° was estab-  
 lished. The unit cell parameters for this compd. were detd.  
 The formation of the eutectic between this compd. and PbSe  
 contg. 20 wt. % Ni and having a m.p. of 670° was established.  
 X-ray, microhardness, and DTA analyses were used for the  
 study.

S. A. Mersol

11

Tm

Pb

C.A. 1970

72.10

30411.8755  
TE, Ph

Ni - Pb  
42530

L1973

Candland C.T., Vanfleet H.B.

Effect of pressure on the interstitial diffusion of nickel in lead to 50 kbar.

"Phys. Rev. B: Solid State", 1973, 7, N 2,  
575-580

(англ.)

0851 ник

839 841

ВИНИТИ

*Ni<sub>3</sub>Pb<sub>2</sub>S<sub>2</sub>*

B9-XVI-3342

1976

85: 184994m Reaction of lead(II) sulfide with nickel. Zar-  
garova, M. I.; Kakhramanov, K. Sh.; Roshal, R. M.; Guseinov,  
G. G. (Spets. Konstr. Byuro, Inst. Fiz., Baku, USSR). *Izv.  
Akad. Nauk SSSR, Neorg. Mater.* 1976, 12(9), 1557-9 (Russ).  
The quasi-binary system PbS-Ni was examd., and the phase  
diagram constructed. A complex chem. interaction was obsd. in  
this system with the formation according to a peritectic reaction  
of Ni<sub>3</sub>Pb<sub>2</sub>S<sub>2</sub> (chem. analog of Ni<sub>3</sub>Pb<sub>2</sub>Se<sub>2</sub>). Close phys. properties  
of the Ni<sub>3</sub>Pb<sub>2</sub>S<sub>2</sub> and Ni<sub>3</sub>Pb<sub>2</sub>Se<sub>2</sub> are noted, and also a semimetallic  
charcter of their elec. parameters. A thermal effect and a sharp  
discontinuity in elec. properties were detected at 550 ± 10°,  
which is attributed to a structural transformation of Ni<sub>3</sub>Pb<sub>2</sub>S<sub>2</sub> in  
the solid state.

(T<sub>tr</sub>)

C.A. 1976. 85 N24.

№ 3 РБ Зд  
БР-XVI-3342 1976

2 Б861. Взаимодействие PbS с Ni. Заргарова М. И., Каҳраманов К. Ш., Рошаль Р. М., Гусейнов Г. Г. «Изв. АН СССР. Неорганические материалы», 1976, 12, № 9, 1557—1559

Показана квазибинарность системы PbS—Ni и построена диаграмма состояния. Выявлено сложное хим. взаимодействие в этой системе с образованием по перитектич. р-ции соединения  $Ni_3Pb_2S_2$  — хим. аналога  $Ni_3Pb_2Se_2$ . Отмечена близость физ. св-в сульфоплюмбата и селеноплюмбата Ni, а также полуметаллич. характер их электрофиз. параметров. Обнаружен термич. эффект и резкий скачок электрич. св-в при  $550 \pm 10^\circ$ , объясняющиеся структурными превращениями  $Ni_3Pb_2S_2$  в тв. состоянии.

Резюме

Х 1977 N2

*Ni-Pb*

*1986*

22 Б3064. Термодинамические свойства свинца в растворах Ni—Pb. Thermodynamische Eigenschaften des Bleis in Ni—Pb-Lösungen. Pömlanek T. «Z. Metallk.», 1986, 77, № 6, 388—392 (нем., рез. англ.)

Методом равновесного насыщения в вакууме с использованием в кач-ве станд. р-ра Cu—Pb измерены коэф. активности Pb в жидк. р-рах Ni—Pb для  $x_{\text{Pb}} < 0,10$  при т-рах 1430, 1480 и 1510° С. Результаты описаны ур-нием  $\ln \gamma_{\text{Pb}} = (7245 \pm 3,13)/T (1635 \pm 0,071) + [(42906 \pm 1853)/T + (18,54 \pm 0,80)] \cdot x_{\text{Pb}}$ . С использованием лит. данных рассчитаны коэф. активности Pb и Ni в тв. р-рах Pb—Ni и вычислен состав монотектич. точки  $x_{\text{Pb}} = 0,105$ .

В. Ф. Байбуз

*термод. сл-ва  
Pb в тв-рах  
Ni-Pb.*

*X. 1986, 19, № 22*

Ni-Pb

1987

108: 117032b. The Ni-Pb (nickel-lead) system. Nash, P. (Metall. Coll. Eng., Illinois Inst. Technol., Chicago, IL 60616 USA). In *Alloy Phase Diagrams* 1987, 8(3), 264-8 (Eng). The Ni-Pb diagram was assessed. Crystal structures and lattice parameters for Ni, Pb, and metastable NiPb and activity coeffs. for Ni in liq. Pb given. Extensive Ni-Pb liquidus data was included.

pass. guard.

C.A.1988, 108, N14

1999

F: Ni-Pb-Sn

P: 1

131:173327 Thermodynamic modeling of the nickel-lead-tin system. Ghosh, G (Department of Materials Science and Engineering, Robert R. McCormick Sch Engineering and Applied Science, Northwestern University, Evanston, IL 60 3108, USA). Metall. Mater. Trans. A, 30A(6), 1481-1494 (English) 1999 A set of self-consistent thermodn. model parameters is presented to describe the phase equil. in the Ni-Pb and Ni-Sn systems. Sublattice descriptions are used for thermodn.

modeling of the  $\eta$ -Ni<sub>3</sub>Sn,  $\lambda$ -Ni<sub>3</sub>Sn<sub>2</sub>,  $\lambda$ -Ni<sub>3</sub>Sn<sub>2</sub>, and Ni<sub>3</sub>Sn<sub>4</sub> phases. A three-sublattice and sublattice model are used to describe the molar Gibbs energies of  $\eta$ -N and  $\lambda$ -Ni<sub>3</sub>Sn<sub>2</sub>, resp., and also to describe the second-order phase transition from  $\eta$ -Ni<sub>3</sub>Sn<sub>2</sub> to  $\lambda$ -Ni<sub>3</sub>Sn<sub>2</sub>. In a majority of the cases the agreement between the exptl. data and calcd. values was satisfactory. The exptl. Ni-Pb-Sn ternary phase diagram is not known, several isothermal sections are calcd. based on thermodyn. principles.

Ni-Pb

2001

134: 153192z Thermodynamic assessment of the Cu-Ni-Pb system. Wang, Cui Ping; Liu, Xing Jun; Ohnuma, Ikuo; Kainuma, Ryo-suke; Ishida, Kiyohito. (Department of materials Science, Graduate School of Engineering, Tohoku University, Sendai, Japan 980-8579). *CALPHAD: Comput. Coupling Phase Diagrams Thermochem.* 2000 (Pub. 2001), 24(2), 149-167 (Eng), Elsevier Science Ltd. A thermodn. assessment of the binary systems Ni-Pb, Cu-Pb and the ternary system Cu-Ni-Pb was carried out by the CALPHAD method. The Gibbs free energies of both the liq. and solid soln. phases were described by sub-regular soln. models. A set of parameters describing the Gibbs energies of the different phases in this ternary system was optimized using exptl. phase diagram and thermodn. information. Good agreement between the calcd. phase diagrams and exptl. data was obtained in the binary Ni-Pb, Cu-Pb and ternary Cu-Ni-Pb systems.

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C.A.2001, 134, N1