

Pz - Pb

VIII 2255 1934

Tm ( PrSn<sub>3</sub>, PrPb<sub>3</sub> )

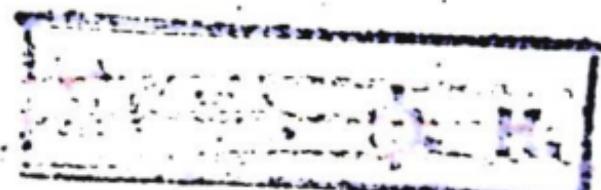
Rossi A., Chianese E.,

Gazz. chim. ital., 1934, 64, 832-4

The crystalline structure of the phases:

PrSn<sub>3</sub> and PrPb<sub>3</sub>

CA, 1935, 2417



5

PER 6 DICE

$M_2 X$ ,  $M X_3$ ,  $M_2 X_3$   
 $M = \text{Pr}, \text{Ce}, \text{La}$ .       $X = \text{Sn}$ ,      ( $T_{\mu}$ )

$M' Y$ ,  $M' Y_2$ ,  $M' Y_3$

$M' = \text{Pr}, \text{La}, \text{Ce}$

$\text{Pr Pb}$ ,  $\text{Pr Pb}_3$ ,  $\text{Pr}_2 \text{Pb}$ ,  $\text{Pr Cu}_2$ ,  $\text{Pr Cu}_6$ ,  $\text{Pr Al}_2$ ,  $\text{G}$ ,  $\text{La}$ ,  
 $\text{Pr Tl}$ ,  $\text{Pr Tl}_3$ ,  $\text{Ce}_2 \text{Pb}$ ,  $\text{Ce Pb}_3$ ,  $\text{Ce Tl}$ ,  $\text{Ce Tl}_3$ ,  $\text{Ce Cu}_2$ ,  
 $\text{Ce Cu}_6$ ,  $\text{Ce Al}_2$ ,  $\text{La Pb}$ ,  $\text{La Pb}_3$ ,  $\text{La}_2 \text{Pb}$ ,  $\text{La Tl}$ ,  $\text{La Tl}_3$ ,  
 $\text{La Cu}_2$ ,  $\text{La Cu}_6$ ,  $\text{La Al}_2$       ( $T_{\mu}$ )

Rolla R., Tandelli A., Canneti G., Vogel R.,  
*Z. Metallkunde*, 1943, 35, 29-42      5

Pr<sub>3</sub>InC; Pr<sub>3</sub>PEC; Dy<sub>3</sub>TEC, Fz<sub>3</sub>, Tl; 1966

?

cr. syn.

Klaschke H., Nowotny H., Benešovský F.

Monatsh. Chem., 1966, 97, N 3,

716-717

Perovskite-Carbide mit Selte-  
nen Erdmetallen (Kurze Mitt.)

PX,

1967

N 125 G51

(Φ) me

TR<sub>3</sub>MC

M = In, Ga, Te, Sn u Pb.

1986.

VIII

Kp. emp.

Haschke H., Nowotny H., Benešovský F.

Monatsh. Chem., 1986, 97, N 5, 1469-1471 (recen.).

Perowskit-Carbide mit S.E.-Metallen. (Kurze Mitt.)

met, 1984, 18 B643.

(P) Me

$\text{La}_5\text{Pb}_3$ ,  $\text{Ce}_5\text{Pb}_3$ ,  $\text{Pr}_5\text{Pb}_3$ ,  $\text{Nd}_5\text{Pb}_3$ , 1966  
 $\text{Gd}_5\text{Pb}_3$ ,  $\text{Hf}_5\text{Pb}_3$ ,  $\text{Dy}_5\text{Pb}_3$ ,  $\text{Ho}_5\text{Pb}_3$ ,  
 $\text{Er}_5\text{Pb}_3$ ,  $\text{Tb}_5\text{Pb}_3$ ,  $\text{Lu}_5\text{Pb}_3$ . VIII 4047  
(specie: cusp-pa)

*Paleonotus* A, *Forchino* M.L.  
Atti. Accad. naz. Lincei. <sup>Rend.</sup> Cl. sci.  
fis., mat e natura,

1966, 40, n°, 1040-1044

PK, 1967, 197353

M

$\text{La Pb}_3$ ,  $\text{Ce Pb}_3$ ,  $\text{Pr Pb}_3$ ,  $\text{Nb Pb}_3$ , | 1973

$\text{Sm Pb}_3$ ,  $\text{Eu Pb}_3$ ,  $\text{Gd Pb}_3$ ,  $\text{Tb Pb}_3$ ,  $\text{Dy Pb}_3$

$\text{Ho Pb}_3$ ,  $\text{Er Pb}_3$ ,  $\text{Tm Pb}_3$ ,  $\text{Yb Pb}_3$  ( $\Delta H_f^\circ$ ,  $T_m$ ,  $\Delta H_m$ )

Pelengong Jl., Cipatik; S. VIII 5759

Thermochim. Acta, 1973, 6, NS, 455-460

Dynamic differential calorimetry of  
intermetallic compounds. II. Heats of formation,  
heats and entropies of fusion of rare earths-  
lead (REPb<sub>3</sub>)

PHL Vol. 1, 1978 An [ ] CP  
16754

XVIII-341

1974

La<sub>2</sub>Sn<sub>3</sub>, Ce<sub>2</sub>Sn<sub>3</sub>, Pr<sub>2</sub>Sn<sub>3</sub>, Nd<sub>2</sub>Sn<sub>3</sub>, Sm<sub>2</sub>Sn<sub>3</sub>,  
Eu<sub>2</sub>Sn<sub>3</sub>, Gd<sub>2</sub>Sn<sub>3</sub>, Yb<sub>2</sub>Sn<sub>3</sub>, La<sub>2</sub>In<sub>3</sub>, Ce<sub>2</sub>In<sub>3</sub>,  
Pr<sub>2</sub>In<sub>3</sub>, La<sub>2</sub>Pb<sub>3</sub>, Ce<sub>2</sub>Pb<sub>3</sub>, Pr<sub>2</sub>Pb<sub>3</sub>, Nd<sub>2</sub>Pb<sub>3</sub>, Sm<sub>2</sub>Pb<sub>3</sub>,  
Eu<sub>2</sub>Pb<sub>3</sub>, Gd<sub>2</sub>Pb<sub>3</sub>, Tb<sub>2</sub>Pb<sub>3</sub>, Dy<sub>2</sub>Pb<sub>3</sub>, Ho<sub>2</sub>Pb<sub>3</sub>, Er<sub>2</sub>Pb<sub>3</sub>,  
Tm<sub>2</sub>Pb<sub>3</sub>, Yb<sub>2</sub>Pb<sub>3</sub>, La<sub>2</sub>Tl<sub>3</sub>, Ce<sub>2</sub>Tl<sub>3</sub>, Pr<sub>2</sub>Tl<sub>3</sub>, Nd<sub>2</sub>Tl<sub>3</sub>, Sm<sub>2</sub>Tl<sub>3</sub>,  
Gd<sub>2</sub>Tl<sub>3</sub>, Tb<sub>2</sub>Tl<sub>3</sub>, Dy<sub>2</sub>Tl<sub>3</sub>, Yb<sub>2</sub>Tl<sub>3</sub>/0.4f, Tm, 0.1mm)  
Palen-zona A, Ciratici S. Perito QPK  
Palen-zona 250L3. New-York-London 1974  
743-756

$\text{Pr}_5\text{Pb}_3$

1976

84: 141353p The praseodymium-lead system. McMasters, O. D.; Gschneidner, K. A., Jr. (Dep. Metall., Iowa State Uta, Ames, Iowa). *J. Less-Common Met.* 1976, 45(2), 275 & 1 (Eng). X-ray diffraction, DTA, and metallog. methods, were used to establish the praseodymium-lead phase diagram. Eutectic reactions occur at 9.3 at.% Pb and 824°, at 55.5 at.% Pb and 1145°, at 62.5 at.% Pb and 1085° and at >99.5 at.% Pb

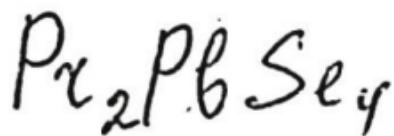
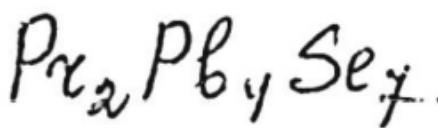
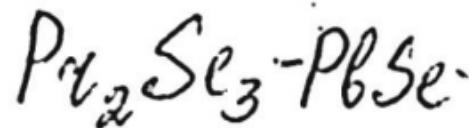
$\text{Pr}_3\text{Pb}_4$

at 325°. The intermetallic compds.  $\text{Pr}_3\text{Pb}$ ,  $\text{Pr}_5\text{Pb}_3$ ,  $\text{Pr}_6\text{Pb}_{10}$  and  $\text{Pr}_2\text{Pb}_3$  decompose peritectically at 860, 1455, 1365 and 1090°, resp.  $\text{Pr}_3\text{Pb}_3$ ,  $\text{Pr}_5\text{Pb}_3$  and  $\text{Pr}_2\text{Pb}_3$  melt congruently at 1495, 1180 and 1120°, resp. The crystal structure data are given for these compds. The solid solv. of lead in praseodymium is 3.5 at.% Pb at 824°. The alloying characteristics of some of the Pr-Pb alloys are compared with those in the La-Pb and Pu-Pb systems.

(Tm)

C.A. 1976 84 n20

1979



91: 199660x Study of the praseodymium-lead-selenium ternary system at the praseodymium selenide-lead selenide ( $\text{Pr}_2\text{Se}_3\text{-PbSe}$ ) section. Nasibov, I. O.; Sultanov, T. I.; Rustamov, A. G.; Rustamov, P. G.; Shafagatova, G. G. (USSR). *Izv. Akad. Nauk SSSR, Neorg. Mater.* 1979, 15(9), 1535-7 (Russ). DTA, d., microhardness, microstructural, and x-ray phase anal. studies of the  $\text{Pr}_2\text{Se}_3\text{-PbSe}$  section show formation of  $\text{Pr}_2\text{PbSe}_4$  congruently in  $\sim 1170^\circ$  with a polymorphic transition  $\alpha$ - to  $\beta\text{-Pr}_2\text{PbSe}_4$  at  $800^\circ$  and with  $\text{Th}_3\text{P}_4$ -type cubic structure ( $a = 8.996 \text{ \AA}$ ). Eutectics occur at 900 and  $950^\circ$  and PbSe contents of  $\sim 8$  and  $\sim 30$  mol %. A peritectic corresponding to  $\text{Pr}_2\text{Pb}_4\text{Se}_7$  occurs at  $\sim 1000^\circ$  and  $\sim 80$  mol % PSe.

nucleophil.  
repellog

G.A. 1979 Q1 N24

*PrPb<sub>3</sub>*

*1982*

9 E613. Структурные и магнитные свойства  $\text{PrPb}_3$  при низких температурах. Low temperature structural and magnetic properties of  $\text{PrPb}_3$ . Niksch M., Assmus W., Lüthi B., Ott H. R., Kjems J. K. «Helv. Phys. Acta», 1982, 55, № 6, 588—698 (англ.)

В интервале  $T$ -р 0,1—220 К измерены упругие константы и тепловое расширение монокристалла  $\text{PrPb}_2$ . Обнаружено, что при 0,37 К на кривых температурных зависимостей исследованных параметров имеются аномалии, которые свидетельствуют о фазовом переходе. Измерения рассеяния нейтронов показывают, что этот переход не имеет магн. природы, а является ян-теллеровским структурным превращением. Полученные результаты обсуждаются на основе модели, учитывающей наряду с энергией кристаллич. поля магнитоупругое взаимодействие.

Р. З. Левитин

*Структур.  
и маcсемы  
cf-fa*

*9P. 1983, 18, № 9*

$\text{PrPb}_2$

1998

( $C_p$ ,  
1.6 - 30K) Yamauchi R. et al.  
J. Alloys and Comp.  
1998, 264, p. 24 - 30  
 $T_{tr}$