

Тс — интерметаллиды
(сплавы Тс с металлами)

Re Al₁₂, Re Al₆, Te Al₆ (критер. сф. 1962)
d'Alte da Veiga L.M. VII 4468

Philos. Mag., 1962, 4, 179, 1247-48

"The Al-Re and Al-Te systems:
the new phases Re Al₆ and Te Al₆."

ЕСТЬ Ф. Н.

РХ, 1963, 3 Т. 16 А

М.

1963

Al-Fe

L. M. d'Alfe da Veiga

Phil Mag 8(P1) 1247-5 (1963)

Poloidal quadrupole

Al-Re u Al-Fe

u Al-Re

VII 3150

1964

$\text{TcZn}_6, \text{Zn}_{15}\text{Tc}_{18}$

/ Крист.-стр-па , T_m /

Chasanov M.G., Johnson I., Schablaske R.V.
J. Less-Common met^alas, 1964, N 2, 7 ,
127-132

" The system zine-technetium-99 "

PX, 1965, 9B426

Б, А, М

ЕСТЬ Ф. К.

3370-VI

1964

TeZn_6 , (kp, Gf) Te (p)

Veleckis E., Johnson I.

J. Phys. Chem., 1964, 68, N 5, 1257-58

Decomposition pressure of TeZn_6 .

PJK, 1966, 75630

Be., M.

~~CONFIDENTIAL~~

Bp - 3370 - VI

1964

TcZn₆

Pgue.

 ΔG_f°

✓ Decomposition pressure of TcZn₆. Ewald Veleckis and Irving Johnson (Argonne Natl. Lab., Argonne, Ill.). *J. Phys. Chem.* 68(5), 1257-8 (1964). A table of decompn. pressures and standard free energies of formation of TcZn₆ is presented for 470 to 570°. The data follow: $\log P_{mm} = 9.853 - 8242T^{-1}$ (± 0.024 , standard deviation). The free energy values follow: ΔG_f° (cal./g.-atom) = $-7823 + 6.43T$ (± 75 , standard deviation). Extrapolation of this equation indicates that $\Delta G_f^\circ = 0$ at 944°. The partial molal excess free energy of Tc in satd. solns. is -3.2 kcal./g.-atom of Tc indicating a moderate neg. deviation from ideal soln. behavior. The low soly. of Tc in liquid Zn (6×10^{-3} atom % at 500°) is therefore due to the great stability of TcZn₆ ($\Delta G_f^\circ = -20.0$ kcal./mole at 500°) rather than a large pos. deviation from ideality.

J. F. Shultz

C. I. 1964 G1 N3 25424

TcZn₆

ΔH

BQ - 3370 - VI

1964

23488

DECOMPOSITION PRESSURE OF TcZn₆.
Ewald Veleckis and Irving Johnson (Argonne National
Lab., Ill.). J. Phys. Chem., 68: 1257-8 (May 1964).

The free energy of formation of TcZn₆ was determined from the measurement of the vapor pressures of zinc in equilibrium $\text{TcZn}_6(\text{s}) = \text{Tc}(\text{s}) + 6\text{Zn}(\text{g})$ by the Knudsen effusion method. Data are tabulated. (P.C.H.)

NSA. 1946 18. 114

1979

Tc-Fe
(cmab)

(Tc)

90: 214264w Superconducting and magnetic properties of dilute technetium-(iron) alloys. Takabatake, Toshiro; Mazaki, Hiromasa (Inst. Chem. Res., Kyoto Univ., Kyoto, Japan). *Bull. Inst. Chem. Res., Kyoto Univ.* 1979, 57(1), 45-54 (Eng). The superconducting transition temp. T_0 , the upper crit. field H_{c2} , and the hyperfine field were measured for dil. Tc-Fe alloys. The samples prepd. by electrodeposition and redn. have an almost dirty limit structure. The linear decrease in $\ln T_0$ with respect to the impurity concn. is consistent with the theor. prediction for the localized spin fluctuation system. Obsd. curves of $H_{c2}(T)$ and the small neg. value of the satn. hyperfine field indicate that Fe impurities in Tc do not have well defined magnetic moments, and that there exist localized spin fluctuations in the Tc-Fe system. This conclusion is not consistent with the previous results found for arc-melted Tc-Fe alloys.



C.A. 1979.90.11216

Tc - coagulation

1983

Newberg J. E.

Annu. Rep. Proc. Chem.,

Sect. A: Inorg. Chem.

1983, 79 (1982), 173-225.

(en: Ti-coag.; I)

одзор
сб-б

Tc-интер.успешно. [83NIE/BOE] 1983

Niessen A.R., de Boer F.R., Boom, R.,
de Châtel, P.F., Mattens, W.C.M.

" Model predications for the
enthalpy of formation of transition
metal alloys " CALPHAD 7 (1983) 51-70

Ni - Tc

1985

106: 163215v The nickel-technetium system. Nash, P. (Metall. Mater. Eng. Dep., Illinois Inst. Technol., Chicago, IL 60616 USA). *Bull. Alloy Phase Diagrams* 1985, 6(2), 124-5, 201-2 (Eng). The evaluated phase diagram is presented. The crystal structure of the system is given. The exact compn. of the alloys studied by J. B. Darby et al. (1963) are not known; the alloys contg. 75 and 50 at.% Tc were single-phase solid solns. (Tc) and those with 33.4 and 25 at.% Tc were two-phase (Ni + Tc). Solubilities were detd. The superconducting transition temp. of Tc as function of Ni content is known.

(phase diagram)

C. A. 1987, 106, N 20.

$Ti_{0,85}Ru_{0,15}$
Cp 298

[2000 LAA/KON]

2000

van der Laan, R.R., Koning R.J.M.

"The heat capacity of
 $Ti_{0,85}Ru_{0,15}$ alloy".

J. Alloys. Compd., 2000, 297, 104-108.