Fe - Si - C

Fe-Si(сил.)+C

Вр 7007-VII | 1952

Richard B. Small
Duncan M. Wilson.

„Transactions of the A.S.M."

44, 1952, 1220-1230

1965

Fe-C-Si

сплав

Активность C

10 Б766. Термодинамическое исследование системы Fe—C—Si. Scimar R. Thermodynamic study of the iron-carbon-silicon system. «Rev. C. N. R. M.», 1965, № 3, 29—37 (англ.; рез. нем., франц.)

По литературным эксперим. данным произведено термодинамич. исследование влияния кремния на активность углерода в системе Fe—C. Получено ур-ние т-рной зависимости параметра взаимодействия $\varepsilon_C^{Si} = (18750/T) - 0{,}28$ и коэф. активности $\ln \gamma_C^{Si} = [(18750/T) - 0{,}28]N_{Si} + 1/2[(41275/T) - 4{,}95]N_{Si}^2$. Для 1500° построены кривые изоактивностей C и Si в системе Fe—C—Si. Составлены диаграммы зависимости коэф. активности кремния от конц-ии углерода. А. Грановская

X · 1967 · 10

Fe_8Si_2C Spinat P. 1972

atl

C. r. Acad. Sci Ser. C 1972,

Teerie 274(12), 1159-62

C. A. 1972. 76. 26

I, $Cu_4Mn_8Si_2C$

Fe-C-Si

(диаграмма)

1974

121489p More precise construction of the metastable equilibrium diagram for iron–carbon–silicon alloys. Malinochka, Ya. N.; Koval'chuk, G. Z.; Slin'ko, L. A. (Inst. Chern. Metall., Dnepropetrovsk, USSR). *Metallofizika* 1974, 56, 91–5 (Russ). The Fe–C–Si phase diagram was redetd. at 740–1200° and the positions of the invariant and monovariant points were refined. Temps. at which the 4 phases austenite, cementite, ferrite, and silicocarbide are in equil. were detd. as a function of C and Si concns. Austenite is stable >820° (5% Si) or >740° (3/4% Si). Ferrite is stable at lower temps. and %C. Cementite and silicocarbide are stable at lower temps. or higher %C.

M. Braunovic

C.A. 1975, 83 N 14

Fe Si C

1978

Ahrenius Björn

Hardenability Concepts

payobue

rabneobecus

Hfpl. Steel, Proc. Symp.

1977, (Pub 1978) 28-81

cu. FeCr C-I

$Fe_xB_ySi_zC_z$ 1980

(Curie)

93: 105931c Preparation and properties of iron-boron-silicon-carbon amorphous alloys. Luborsky, Fred E.; Walter, John L. (Gen. Electr. Corp. Res. and Dev. Cent., Schenectady, NY 12301 USA). *IEEE Trans. Magn.* 1980, MAG-16(4), 572-4 (Eng). The crystn. temps., magnetic properties, and d. of amorphous alloys of $Fe_xB_ySi_zC_z$ are reported for $72 < x < 88$, $12 < y < 28$, and $0 < 2z < 12$. The peak value of $4\pi M_s$ is 17 kG in the as-cast state and occurs in the region of $Fe_{82}B_{13}Si_{2.5}C_{2.5}$. The crystn. temps., Curie temps., satn. magnetization, and d. all appear to be av. values of the ternary Fe-B-Si and Fe-B-C properties.

C.A. 1980. 93 n 10

Fe-C-Si

1980

94: 72441h Thermodynamic evaluation of the system iron-carbon-silicon within the ranges of steel and cast iron melts. Schmid, Rainer (Clausthal-Zellerfeld, Fed. Rep. Ger.). *Giessereiforschung* 1980, 32(4), 147-51 (Ger). A method is described for complete description and consistent evaluation of the thermodn. data and the phase diagrams of alloy systems, and the method is applied to the Fe-C-Si system. Explicit equations were derived for the concn. and temp. dependences of the activity coeffs. of all components, as well as the integral and partial enthalpies and excess entropies of soln. in Fe-C-Si melts at ≤22 at. % C and ≤35 at.% Si. The equations are formally valid, however, over the whole range of concns. in the system.

gazobas Graz/r.

C.A. 1981 94 NO

Расчёт равновесий в системе Si-O-C-N-H-Fe.

1981

Badrak S. A., et al.

Poroshk. Metall. (Kiev) 1981, (9), 66-72.

Расчёты равновесных составов системы C–Si–Fe–O (продукты сгорания углей)

1983

Салуйлова Л.Н.,

Автореферат диссертации на соискание ученой степени к.х.н.,

Москва, 1983.

Fe-Si-C-расплавы

1989

(ΔHf)

111: 241493d Heats of formation of iron-silicon-carbon melts. Vitusevich, V. T.; Biletskii, A. K.; Shumikhin, V. S. (Inst. Probl. Lit'ya, Kiev, USSR). *Rasplavy* 1989, (3), 5-8 (Russ). Partial and integral heats of formation of the alloys in the system Fe-Si-C were detd. calorimetrically as functions of compn. over the entire concn. range of the homogeneous phases at 1680 ± 10 K. A method for fitting the exptl. data was developed.

C.A. 1989, 111, N 26