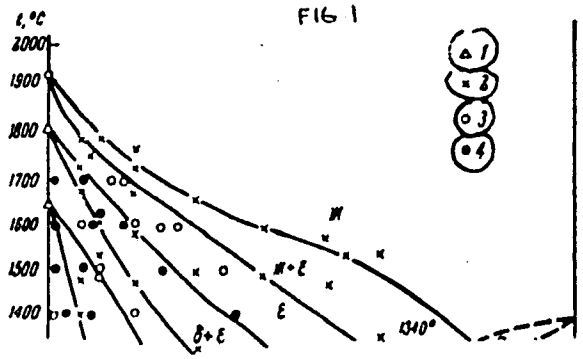
Polymorphous conversion of ...

khimii, 5, 2640 (1960). Ref. 5: A. T. Grigor'yev, Ye Yuy Pu, Ye. M. Sokolovskaya. Zh. neorgan. khimii, 5, 2642 (1960). Ref. 6: A. T. Grigor'yev, Ye. M. Sokolovskaya, A. T. Nefedov, M. V. Maksimova. Vesten. MGU (in the press)). There are 2 figures, 1 table, and 14 references: 8 Soviet-bloc and 6 non-Soviet-bloc. The four most recent references to English-language publications read as follows: Ref. 7. M. Hansen, K. Anderko, Constitution of binary alloys, 1958; Ref. 8. D. S. Bloom, N. J. Grant, J. Metals, 3, 1009 (1951); Ref. 9: D. S. Bloom, J. W. Putman, N. J. Grant, J. Metals, 4, no. 6 (1952); Ref. 10: C. Stern, N. J. Grant, J. Metals, 7, 127 (1955).

SUBMITTED: December 8, 1960

FIG 1



Card 3/4

24729

S/078/61/006/007/006/014
B107/B207

18 9200
18 1230

AUTHORS: Grigor'yev, A. T., Yeh Yü-p'u, Sokolovskaya, Ye. M.

TITLE: Study of the solid-state transitions in the part of the system chromium - cobalt which is rich in cobalt

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 7, 1961, 1616-1621

TEXT: The system chromium - cobalt was studied in the part containing up to 50% cobalt; the part of the system which is rich in chromium was already previously investigated and the results were published (Ref. 3: A. T. Grigor'yev, Yeh Yü-p'u, Ye. M. Sokolovskaya. Zh.neorgan.khimii., v. 5, no. 11, (1960)). This study supersedes and corrects a previous paper (Ref. 2: A. T. Grigor'yev, N. M. Gruzdeva. Izv. Sektora fiz.-khim. analiza, 24, 124 (1954)). The specimens were produced by melting together the pure elements at 900°C; subsequently, temperature was reduced to 400°C in the course of over two months, cooling to room temperature was carried out in the furnace. The following studies were carried out on the specimens: differential thermal analysis, studies of

Card 1/4

microstructure, hardness, resistivity and its temperature coefficient. The Table lists the results of measurement. As shown on Fig. 2, the region investigated contains three hitherto unknown intermetallic compounds: Co_3Cr (a_1-phase), Co_2Cr (a_2-phase), and Co_3Cr_2 (a_3-phase). They are due to phenomena of arrangement in the mixed crystals at 620°C (Co_3Cr), 640°C (Co_2Cr), and 625°C (Co_3Cr_2). Three eutectoids of approximately 28 at% Cr (605°C), 35 at% Cr (615°C) and 42 at% Cr (610°C) are found between the intermetallic compounds. There are 7 figures, 1 table, and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to English-language publication reads as follows: M. Hansen, K. Anderko. Constitution of Binary Alloys, 1958.

SUBMITTED: July 1, 1960

S/078/61/006/008/008/018
B121/B203

18.7500

25509

AUTHORS: Grigor'yev, A. T., and Kuprina, V. V.

TITLE: Transformation "order - disorder" in alloys of iron with cobalt and palladium

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 8, 1961, 1891-1901

TEXT: Phase transformations in alloys of iron with cobalt and palladium at temperatures below 1000°C were studied by physicochemical methods (differential-thermal analysis, hardness determination, microstructure, electrical resistivity, and its temperature coefficient). The differential-thermal analysis was conducted with a ПК-52 (PK-52) Kurnakov pyrometer. The alloys were studied on their sections Pd_3Fe-Co; Pd_3Fe-FeCo; PdFe-Co; PdFe-FeCo; FeCo-Pd. The mixture $\alpha + \gamma$ appeared in the polymorphous transformation $\alpha \rightleftarrows \gamma$. A large area of the section Pd_3Fe-Co is covered by the solid γ-solution. The hardness of ordered alloys of this section is greater than that of disordered alloys, which confirms the heterogeneous character of these alloys. In the section Pd_3Fe-FeCO, the ternary solid solution is

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transformed as follows: (1) Polymorphous $\alpha \rightleftarrows \gamma$ transformation in alloys with 52 at% palladium, (2) transformation of the solid α-solution into ordered α_1-phase, and (3) decomposition of solid γ-solution with subsequent formation of a γ_1-phase. Alloys richer in palladium decompose while forming the ordered phase γ_2. The hardness of alloys changes with changing hardening temperature. In the section PdFe-CO, wide areas of ternary solid γ-solutions form only at higher temperatures. With a decrease in temperature in alloys containing up to 80 at% Co, a polymorphous $\alpha \rightleftarrows \gamma$ transformation proceeds while forming two ordered phases, α_1 and γ_1. The chemical compound PdFe comprises a wide range in the ternary system. Between 1 and 50 at% of Pd, the chemical compound PdFe forms in the two-phase range $\alpha + \gamma$, and the phases $\alpha + \gamma_1$ and $\alpha + \gamma + \gamma_1$ form by reaction of these phases. In alloys containing more than 50 at% of Pd, the ordering process is accompanied by the formation of a broad heterogeneous $(\gamma + \gamma_1)$-phase. Two stable phases, $(\alpha + \alpha_1)$ and $\gamma + \gamma_1$, appear on the section PdFe-FeCo.

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The phase diagram for the systems iron - palladium and iron - cobalt and the projection of the phase boundaries at room temperature in the three-component system were plotted on the basis of the present study and the papers Ref. 1(V. V. Kuprina, A. T. Grigor'yev, Zh. neorgan. khimii, 4, 1606, (1959)) and Ref. 14 (V. V. Kuprina, A. T. Grigor'yev, Zh. neorgan. khimii 3, 2736 (1958)). Fig. 5 shows this diagram. There are 5 figures, 2 tables, and 14 references: 4 Soviet-bloc and 10 non-Soviet-bloc.

SUBMITTED: July 1, 1960

Card 3/3

GRIGOR'YEV, A.T.; SOKOLOVSKAYA, Ye.M.

Transformation in the solid state occurring in chromium and alloys based on it. Vest.Mosk.Un.Ser.2: khim. 16 no.6:3-15 N-D '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet. Kafedra obshchey khimii.
(Chromium) (Chromium alloys)

GRIGOR'YEV, A.T. (Moskva)

M.V.Lomonosov and his views on physics. Fiz.v shkole 21 no.4:11-15 Jl-Ag '61. (MIRA 14:10)
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Physics--Philosophy)

GRIGOR'YEV, A.T.; KUPRINA, V.V.

Study of chromium-molybdenum-nickel alloys in the region of a solid solution on a chromium base. Zhur.neorg.khim. 7 no.4: 942-945 Ap '62. (MIRA 15:4)
(Chromium-molybdenum-nickel alloys)

18 1152

33282
S/078/62/007/002/018/019
B127/B110

AUTHORS: Grigor'yev, A. T., Sokolovskaya, Ye. M., Bogatyrev, I. L

TITLE: Physicochemical study of phase transformations in Co-Mn alloys

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 2, 1962, 441-444

TEXT: Transformations of Co - Mn alloys in solid state were studied by the thermal differential analysis of hardness (ПК-52 (PK-52) pyrometer), measurement of the electrical resistance and its temperature coefficient, tests of microstructure and microhardness. At 30 atom% Mn, a transformation in the melt caused by a ε-α-transition of Co, was observed, with Mn lowering the temperature of transformation. A two-phase region, $\alpha+\beta$, $\beta+\gamma$ due to Mn polymorphy, was found in the part rich in Mn. Another transformation was found in the center part of the diagram caused by formation of CoMn occurring in two polymorphous modifications: γ_1 at low temperatures up to 515°C and γ_2 at high temperatures up to 805°C. Hardness tests showed a minimum at 50 atom% which corresponds to CoMn. Minima occurring at 25 and 75 atom% Mn indicate the possibility of Co_3Mn and

Card 1/2

Physicochemical study of phase...

$CoMn_3$ formations. This, however, requires further studies. F. Gal'perin is mentioned. There are 4 figures, 1 table, and 4 references: 3 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: M. Hansen, K. Anderko, Constitution of binary alloys, 1958.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, Kafedra obshchey khimii (Moscow State University imeni M. V. Lomonosov, Department of General Chemistry)

SUBMITTED: July 11, 1961

Fig. 2. Phase diagram Mn - Co (A. T. Grigor'ev et al.) (1) Thermal analysis; (2) electrical resistance; (3) one phase; (4) two phases.

Fig. 4. Hardness of tempered Co - Mn alloys. Abscissa: atom% Mn.

S/078/62/007/004/016/016
B107/B110

AUTHORS: Grigor'yev, A. T., Kuprina, V. V.

TITLE: Study of the alloys of chromium with molybdenum and nickel in the field of mixed crystal on chromium basis

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 4, 1962, 942 - 945

TEXT: One part of a section through the system Cr - Mo - Ni, starting from the chromium corner down to 60% of Cr, ratio Ni:Mo = 1:3, temperature range 1200 - 1900°C was studied. Electrolytic chromium (99.98%), electrolytic nickel (99.98%), and molybdenum (99.95%) were used as initial materials. The specimens were heated in an arc furnace in argon atmosphere and also quenched in argon atmosphere. Examination of the microstructure of the samples yielded the following results (Fig. 1): four solid phases corresponding to the various chromium modifications were observed. Two-phase regions take their origin from the transition points of chromium (950°, 1350°, 1650°, 1830°C). There are 2 figures, 1 table, and 4 Soviet references.

SUBMITTED: October 2, 1961
Card 1/2

S/078/62/007/005/009/014
B101/B110

AUTHORS: Grigor'yev, A. T., Sokolovskaya, Ye. M., Pyatigorskaya, L.I., Maksimova, M. V.

TITLE: Solid-state conversions in alloys of the system chromium-iron

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 5, 1962, 1105-1109

TEXT: 60 alloys of electrolytic chromium and iron (up to 80 at% Fe) were investigated by plotting the differential heating curves, contact-free thermal high-temperature analysis, determining hardness and microhardness after 1000 hr tempering and subsequent hardening (1800-400°C in oil, 1300-300°C in H_2O). The phase diagram Cr-Fe was plotted on the basis of these data (Fig. 3). The existence of the five chromium modifications α-ε was confirmed. There are 4 figures and 2 tables. The most important English-language references are: P. O. Williams, H. W. Paxton, J. British Iron and Steel, Inst., 185, 358 (1958); P. O. Williams, Trans. Metallurg. Soc., ASME, 212, 497 (1958).

Card 1/3

S/078/62/007/005/009/014
B101/B110

Solid-state conversions in...

SUBMITTED: June 23, 1961

Fig. 3. Phase diagram of the system chromium-iron on the basis of the authors' results. (1) Polymorphous conversions; (2) thermal analysis; (3) electrical resistance; (4) one phase; (5) two phases.

Legend: Am.% Fe = at% Fe.

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Solid-state conversions in...

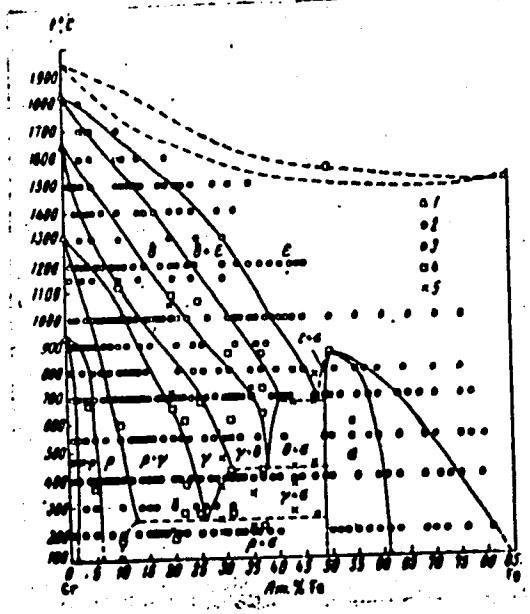

Fig. 3

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37170
S/078/62/007/005/010/014
B101/B110

18.1280
AUTHORS: Grigor'yev, A. T., Panteleymonov, L. A., Kuprina, V. V., Goldobina, G. V.

TITLE: Investigation of alloys of the system palladium-gold-nickel

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 5, 1962, 1110-1116

TEXT: The system Pd-Au-Ni was studied on 77 alloys with palladium concentrations between 10 and 90 % rising by 10 % each. Thermal analysis of the liquid state, differential analysis of the tempered alloys (500 hr in vacuo at 900°C), investigation of the microstructure, and determination of the Brinell hardness, of the resistivity at 25 and 100°C, and of its temperature coefficients were carried out. Results: (1) At constant Pd content, the liquidus and solidus curves suggest the existence of a continuous series of solid solutions. The melting-point curves show a flat minimum in the range of medium concentrations. (2) At a Pd content below 20 %, the ternary solid solution decomposes, and a mechanical mixture forms within a wide range, which consists of solid solution on the basis of gold and solid solution on the basis of nickel. (3) Hardness and

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Investigation of alloys of...

resistivity increase in the range of the mechanical mixture almost linearly with the concentration of Au, show a break at the phase boundary, and - in the range of the ternary solid solution - maxima at medium Au concentrations. (4) The curves for the temperature coefficient of the resistivity are countercurrent to those for hardness and resistivity. There are 6 figures and 2 tables.

SUBMITTED: June 27, 1961

Card 2/2

GRIGOR'YEV, A.T., SOKOLOVSKAYA, Ye.M.; BOGATYREV, I.L.

Physicochemical study of phase transformations in alloys of cobalt with manganese. Zhur.neorg.khim. 7 no.2:441-444 F '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, kafedra obshchey khimii.
(Cobalt-manganese alloys) (Phase rule and equilibrium)

GRIGOR'YEV, A.T.; SOKOLOVSKAYA, Ye.M.; PYATIGORSKAYA, L.I.; MAKSIMOVA, M.V.

Solid-state conversions in alloys of the chromium - iron system.
Zhur.neorg.khim. 7 no.5:1105-1109 My '62. (MIRA 15:7)
(Chromium-iron alloys)

GRIGOR'YEV, A.T.; PANTELEYMONOV, L.A.; KUPRINA, V.V.; GOLDOBINA, G.V.; RUDNITSKIY, M.A.

Alloys of the system palladium - gold - nickel. Zhur.neorg.khim. 7 no.5:1110-1116 My '62. (MIRA 15:7)
(Palladium-gold-nickel alloys)

S/078/62/007/011/005/005
B101/B186

AUTHORS: Sokolovskaya, Ye. M., Grigor'yev, A. T., Smirnova, Ye. M.

TITLE: Solid-state conversions in alloys of the copper-manganese system which are rich in manganese

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 11, 1962, 2636-2638

TEXT: Copper-manganese alloys containing 0.5-31 atom% Mn were investigated by thermal analysis. Their hardness was determined, their microstructure was examined after 690 hr annealing in an argon atmosphere and after quenching from 550, 450, 700 or 800°C in a mixture of acetone with dry ice, their electrical resistances were measured at high temperature and they were subjected to x-ray analysis. The heating curves show thermal effects which indicate ordering of the solid γ-solution at 16.3 atom% Mn (Cu_5Mn) and 400°C, also at 25 atom% Mn (Cu_3Mn) and 450°C. The hardness curves are smooth for quenching temperatures of 800-700°C but irregular for 400-350°C, with minima corresponding to Cu_5Mn and Cu_3Mn. The formation of these compounds in the solid phase was manifest also in the curves of electrical

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Solid-state conversions in alloys...

resistance and of its temperature coefficient. X-ray patterns for alloys of Cu_5Mn or Cu_3Mn type composition showed no superstructure lines. There are 4 figures.

SUBMITTED: April 25, 1962

Card 2/2

S/659/62/008/000/005/028
I048/I248

AUTHORS: Grigor'yev, A.T., Sokolovskaya, Ye.M., Sokolova, I.G., and Maksimova, M.V.

TITLE: Polymorphous transformations in chromium, and structure of the chromium-based solid solution in the system chromium-iron-molybdenum

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zhatoprochnym splavam. v.8. 1962. 42-46

TEXT: An isoplet through the Cr-Mo-Fe system radiating from the Cr corner and representing a fixed 3:1 (st:wt) Fe:Mo ratio was constructed on the basis of microstructural and x-ray analysis data for 33 different alloys. The total Fe+Mo content of the alloys studied did not exceed 45%; the alloy specimens were prepared in a W-arc furnace in argon atmosphere using Ti as the getter, and tempered at 1400-1700°C before the tests. The solidus temperatures were 1750, 1715, 1640, 1620, and 1620°C for the alloys containing 96, 86, 76, 62, and 58% Cr respectively. Three homogenous regions

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S/659/62/008/000/005/028
I048/I248

Polymorphous transformations...

representing solid solutions based on the ε, δ, and γ modifications of Cr were found to exist, together with the $\varepsilon+\delta$ and $\gamma+\varepsilon$ two-phase regions; the $\varepsilon+\delta$ region is associated with the $\varepsilon \rightleftarrows \delta$ transformation at 1830°C, while the $\gamma+\varepsilon$ is associated with the $\gamma \rightleftarrows \delta$ transformation at 1650°. The simple ε phase occupies the region beneath the solidus curve, while the γ phase occupies the Cr-rich corner at temperatures below 1600°. An x-ray analysis of the 90% Cr alloy quenched from 1500°C showed that the ε -modification possesses a b.c.c. lattice with a=2.878 kX. There are 4 figures and 1 table.

Card 2/2

SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; SMIRNOVA, Ye.M.

Solid state transformations in alloys of the system copper-manganese rich in copper. Zhur.neorg.khim. 7 no.11:2636-2638 N '62. (MIRA 15:12)
(Copper-manganese alloys)

S/078/62/007/012/021/022
B144/B180

AUTHORS: Sokolovskaya, Ye. M., Grigor'yev, A. T., Altunin, Yu. F.

TITLE: Solid-state transitions in iron - manganese alloys

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 12, 1962, 2809-2811

TEXT: The Fe - Mn system was investigated to discover whether there is formation of intermetallic compounds as observed in the Fe - Co and Fe - Ni systems. The studies included differential thermal and x-ray analyses, determinations of hardness, microhardness, microstructure, resistivity and its temperature coefficient, and temperature dependence. In the region of 25 - 55 at% Mn the differential curves showed two breaks at 700 - 800°C and at 150 - 250°C. These have not hitherto been described and are due to solid-state transitions. This was also evident from two maxima in the region of the solid γ-solution, indicating the formation of the intermetallic compounds FeMn and Fe_2Mn. The occurrence of FeMn with an Mn content of ~50 at% was confirmed by the hardness and resistivity, measurements etc. The exact nature of the low-temperature transition at

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Solid-state transitions in iron - ... S/078/62/007/012/021/022
B144/B180

~32 at% Mn remains to be elucidated. It is possible that Fe_2Mn forms as well as FeMn. There are 5 figures.

SUBMITTED: April 26, 1962

Card 2/2

S/078/63/008/001/013/026
B101/B186

AUTHORS: Grigor'yev, A. T., Pozharskaya, G. V.

TITLE: Investigation of alloys of the system palladium-iron-copper

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 141-145

TEXT: Polythermal cross sections through the system Pd - Fe - Cu with palladium content of 10-80 at-% and the radial section Pd - Cu : Fe = 1:1 were investigated. It was found that the ranges of ternary solid γ solution of Cu and Pd in Fe, and solid ε solution of Fe and Pd in Cu, become progressively wider with increasing Pd concentration at solidus as well as at room temperature, combining respectively at 33 or 38 at-%. Owing to the change in the solubilities of Cu and Fe in Pd, the range of ternary solid solutions becomes progressively narrower with decreasing temperature. Above 40 at-% Pd, continuous solid solutions are formed. For alloys with Pd $\leq$ 30 at-%, the crystallization ranges of the solid γ and ε solution as well as the three-phase range liq + γ + ε were determined. The thermographic effect at 735°C corresponds to the eutectoidal decomposition of the alloy and the appearance of the α + γ and ε + α + γ phase. The effect at

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665°C corresponds to the magnetic conversion. Furthermore, a thermal effect was found at 1070°C, the cause of which is assumed to be the formation of the chemical compound Pd_2FeCu, which exists in two modifications whereby the conversion $\sigma_2 \rightleftharpoons \sigma_1$ at 650°C shows itself also as a thermal effect. Microscopic investigation of the alloys confirmed the thermographic results. There are 4 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 6, 1962

GRIGOR'YEV, A.T.; KUTKINA, V.V.

Alloys of chromium with iron and cobalt. Zhur. neorg. khim. 8 no.10:2351-2354 O '63. (MIRA 16:10)

(Chromium-iron-cobalt alloys)

GRIGOR'YEV, A.T.; KUPRINA, V.V.; BERNARD, V.B.

Chromium-iron-cobalt alloy in the region of a chromium-based solid solution. Vest. Mosk. un. Ser. 2: Khim. 18 no.5:41-43 S-O '63. (MIRA 16:11)

1. Kafedra obshchey khimii Moskovskogo universiteta.

GRIGOR'YEV, A.T.; KUPRINA, V.V.

Alloys of chromium with iron and nickel. Zhur. neorg. khim. 8 no.11:2563-2565 N '63. (MIRA 17:1)

GRIGOR'YEV, A.T.; POZHARSKAYA, G.V.

Properties of palladium-iron-copper alloys. Zhur. neorg. khim. 8 no.12:2694-2699 D '63. (MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

L 24484-65 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b) Pu-4 IJP(c)/SSD/AFWL/...
ASD(f)-2/ASD(a)-5/ASD(m)-3/AFETR/ RAEM(c) JD/JG

ACCESSION NR: AP4029188 S/0078/64/009/004/0883/0889

AUTHOR: Nefedov, A. P.; Sokolovskaya, Ye. M.; Grigor'yev, A. T.; Sokolova, I.G.; Nedumov, N. A.

TITLE: Solid-state phase transformations in vanadium tantalum alloys

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 4, 1964, 883-889

TOPIC TAGS: vanadium tantalum system, system phase diagram, vanadium tantalum alloy, solid solution, crystal structure, alloy property, alloy phase, vanadium, vanadium base alloy, vanadium containing alloy, tantalum, tantalum base alloy, tantalum containing alloy

ABSTRACT: The V-Ta system was studied in view of incomplete and contradictory state of the literature. Some 39 alloys containing 0-100% tantalum were subjected to microscopic, thermal and x-ray diffraction analyses, and determinations of hardness, microhardness, specific electric resistance and of the temperature coefficient of electric resistance were made. The phase diagram (Fig. 1) shows that at temperatures above 1500C the alloys of the V-Ta system form a

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L 24484-65

ACCESSION NR: AP4029188

continuous series of solid solutions. At 1300 ± 10C V_2Ta intermetallic compound is formed; at 900C its area of homogeneity extends from 32-39 at% Ta. At 900C the two-phase area (alpha + V_2Ta, V_2Ta + beta) extends from 9-52 at%; at 1250C this area is reduced to 15-45 at% Ta. The curves of the composition dependence of hardness and specific electric resistance and its temperature coefficient show a smooth change within the regions of solid solutions and breaks at 34 at.% Ta corresponding to the region of V_2Ta. X-ray diffraction patterns show the alloy with 34 at.% Ta to consist of one crystalline phase having a tetragonal lattice, with parameters a = 5.041 A, c = 6.702, and z = 4. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 18Jul63 ENCL: 01 SUB CODE: MM, SS

NO REF SOV: 004 OTHER: 006

Card 2/3

GRIGOR'YEV, A.T.; KUPRINA, V.V.; BERNARD, V.B.

Chromium alloys with iron and cobalt in the region of chromium based solid solution. Vest. Mosk. un. Ser. 2 Khim. 19 no.2: 37-40 Mr-Ap'64 (MIRA 17:6)

1. Kafedra obshchey khimii Moskovskogo universiteta.

L 58702-65 EWT(m)/EWP(w)/EPF(n)-2/EWA(d)/T/EWP(t)/EWP(b)/EWA(c) Pu-4
IJP(c) JD/JG

ACCESSION NR: AP5016587 UR/0363/65/001/005/0715/0720
546.881 + 546.883 + 546.882 + 546.881 + 546.883 + 546.77.541.123.3

AUTHOR: Nefedov, A. P.; Sokolovskaya, Ye. M.; Grigor'yev, A. T.; Sikolova, I. G.

TITLE: Phase diagram of the ternary systems V - Ta - Nb and V - Ta - Mo

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 5, 1965, 715-520

TOPIC TAGS: tantalum alloy, vanadium alloy, niobium alloy, molybdenum alloy, tantalum compound, vanadium compound, phase diagram

ABSTRACT: This study was carried out by means of microscopic analysis, high-temperature noncontact thermal analysis, hardness and microhardness measurements, x-ray analysis, and determination of the temperatures of the start of fusion. In each ternary system, alloys were prepared in two sections: in a section with a constant content of 10 at. % Nb (or Mo) and in a radial section with a constant ratio (at. %) V:Ta = 2:1. A total of 68 alloys was prepared by fusion in an arc furnace in argon. Data obtained for the alloys in the cast, homogenized, and quenched state were used to plot phase diagrams for the two ternary systems. The components were found to form a continuous series of solid solutions which, as the temperature was lowered toward compositions adjoining the

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L 58702-65

ACCESSION NR: AP5016587

binary system V - Ta, underwent transormations due to the formation of an ordered phase based on the binary compound TaV_2. X-ray analysis showed that in the V - Ta - Nb system the crystal lattice and cell constants of the ternary ordered phase are the same as those of the binary Laves phase TaV_2: a = 5.058 A, c = 8.250 A, c/a = 1.631, z = 4. In the V - Ta - Mo system, the ordered phase, while retaining the crystal structure of TaV_2, has slightly larger c and a constants. Thus, for the alloy with the radial section at 5 at. % Mo, a = 5.090 A, c = 8.322 A, c/a = 1.635. Orl . art. has: 7 figures.

ASSOCIATION: Khimicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Chemistry Department, Moscow State University)

SUBMITTED: 28Jan65 ENCL: 00 SUB CODE: IC, MM

NO REF SOV: 003 OTHER: 002

dm

Card 2/2

L 7932-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG

ACC NR: AP5027907 SOURCE CODE: UR/0189/65/000/005/0042/0047

AUTHOR: Nefedov, A. P.; Sokoloyskaya, Ye. M.; Grigor'yev, A. T.; Chechernikov, V. I.; Sokolova, I. G.; Guzey, L. S.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Solid-state phase transformations in vanadium-tantalum alloys

SOURCE: Moscow, Universitet. Vestnik. Seriya II. Khimiya, no. 5, 1965, 42-47

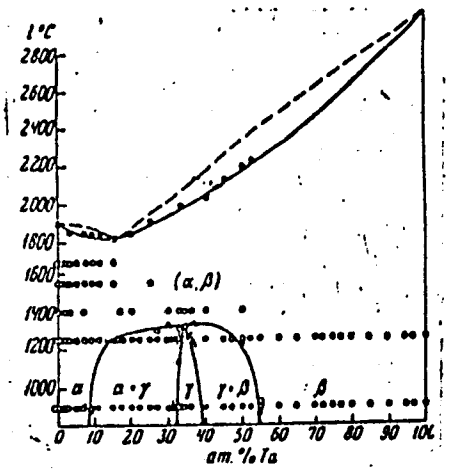
TOPIC TAGS: phase transition, vanadium alloy, tantalum alloy, vanadium compound, tantalum compound

ABSTRACT: The paper is devoted to the determination of the nature of the intermediate phase of TaV_2 and boundaries of its existence in V-Ta system. The magnetic susceptibility was measured as a function of composition and temperature. The temperatures of the start of fusion (solidus temperatures) were determined. Data were obtained on the differential thermal analysis of alloys of the V-Ta system, and on the microstructure, hardness, and crystal structure. The results were used to plot a phase diagram of the system (see Fig. 1).

Card 1/2 UDC: 536.7

L 7932-66

ACC NR: AP5027907



It is found that in the region of the stoichiometric composition where the ratio of the components (at. %) V : Ta= 2 : 1, prolonged stepwise annealing (lasting over 1600 hr) induces transformations which may be regarded as a process of ordering with the formation of the intermetallic compound TaV_2. X-ray analysis showed that TaV_2 has a hexagonal structure similar to that of an $MgZn_2$-type Laves phase, and lattice parameters $a = 5.058 \pm 0.005$ Å; $c = 8.250 \pm 0.005$ Å; $c/a = 1.631$, with four formula units per unit cell. Orig. art. has: 7 figures and 3 tables.

Fig. 1. Phase diagram of the V-Ta system based on data of this study

SUB CODE: MM,SS / SUBM DATE: 07Jan65 / ORIG REF: 005 / OTH REF: 002

Card 2/2

NEFEDOV, A.P.; SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; SOKOLOVA, I.G.

Phase diagrams of the ternary systems V - Ta - Nb and V -Ta - Mo.
Izv. AN SSSR. Neorg. mat. 1 no.5:715-720 My '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.

GRIGOR'YEV, A.T.; SOKOLOVSKAYA, Ye.M.; NEFEDOV, A.P.; SOKOLOVA, I.G.

Effect of molybdenum on transformations in the solid state in alloys of the W - Ta system. Vest. Mosk. un. Ser. 2:Khim. 20 no.4:44-49 Jl-Ag '65. (MIRA 18:10)

1. Kafedra obshchey khimii Moskovskogo gosudarstvennogo universiteta.

NEFEDOV, A.P.; SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; CHECHERNIKOV, V.I.; SOKOLOVA, I.G.; GUZEY, L.S.

Phase transitions in the solid state in alloys of vanadium with tantalum. Vest. Mosk. un. Ser. 2:Khim. 20 no. 5:42-47 S-O '65. (MIRA 18:12)

1. Kafedra obshchey khimii Moskovskogo gosudarstvennogo universiteta. Submitted Jan. 7, 1965.

L 16328-66 EWT(m)/T/EWT(t)/ETI IJP(c) JD/JG

ACC NR: AP6019776 SOURCE CODE: UR/0370/66/000/003/0183/0192

AUTHOR: Grigor'yev, A. T. (Moscow); Sokolovskaya, Ye. M. (Moscow); Nefedov, A. P. (Moscow); Sokolova, I. G. (Moscow)

ORG: none

TITLE: Effect of niobium on solid-state transformations in alloys of the vanadium-tantalum system

SOURCE: AN SSSR. Izvestiya. Metally, no. 3, 1966, 183-192

TOPIC TAGS: vanadium alloy, tantalum alloy, niobium containing alloy, alloy phase diagram

ABSTRACT: In this paper, which continues their study of the V-Ta system, the authors attempted to determine the nature of the influence of niobium (which, like vanadium and tantalum, is an element of group V) on solid state transformations in alloys of this system, in the region of the metallic compound TaV_2. Both annealed (ordered) and quenched (from 1000, 1150, 1250, and 1400°C) alloys were investigated by physico-chemical techniques (microscopic and high-temperature contactless thermal analyses, hardness and microhardness measurements, determination of temperatures of starting fusion). On the basis of the data obtained, phase diagrams of the V-Ta-Nb system in a radial section with a constant ratio (at. %) V:Ta = 2:1 and in two polythermal sections (with 10 and 5 at. % Nb) were plotted, and the distribution of the phase regions was established in the ternary system at various temperatures. According to

Card 1/2 UDC: 669.017.13

L 46328-65

ACC NR: AP6019776

x-ray data, the crystal structure and lattice constants of the ternary ordered phase do not differ from those of the metallic compound TaV_2. Authors express their appreciation to L. S. Guseу for assistance in carrying out the thermal analysis. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 16Sep64/ ORIG REF: 005/ OTH REF: 003

Card 2/2 fv

GRIGOR'YEV, A.V.; KOZLOV, V.M.; FLORINSKIY, I.B.; SHEVCHENKO, N.S.

Automatic control of the uniformity of the heating of the coke cake. Koks i khim. no.12:14-19 '63. (MIRA 17:1)

1. Magnitogorskiy metallurgicheskiy kombinat.

Deceased

GRIGOR'YEV, A.V. [deceased]

Development of capillaries in post-traumatic regeneration of skeletal muscle tissue in mammals. Biul. eksp. biol. i med. 56 no.8:89-93 Ag '63. (MIRA 17:7)

1. Iz kafedry obshchey biologii (zav. - prof. G.M. Litver) I Leningradskogo meditsinskogo instituta imeni I.P. Pavlova. Predstavlena deystvitel'nym chlenom AMN SSSR A.V. Lebedinskim.

ORIGOR'YEV, A.V.; ZALUTSKAYA, T.L.; PECHEREY, L.Ye.; SMIRNOV, A.I.

Errors of coaxial calorimeter-type power measuring device due to unequivalent heat losses. Trudy inst. Kom. stand., mer i izm. prib. no.53:10-20 '61. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I.Mendeleyeva.

(Microwaves) (Electric measurements)

GRIGOR'YEV, A.V. (Orenburg, Sovetskaya ul., d.2); AKOPYAN, T.A. (Orenburg, Nizhegorodskaya, d.8, kv. 3)

Comparative study of the results of radium and radiocobalt therapy in cancer of the lower lip. Vop.onk. 5 no.3:373-375 '59. (MIRA 12:12)

1. Iz kafedry rentgenologii i radiologii Orenburgskogo meditsinskogo instituta (zav. - doktor med.nauk A.V. Grigor'yeva) i Orenburgskogo oblastnogo onkologicheskogo dispansera (glavn. vrach - B.A. Soloveychik).
(LIPS, neoplasms,
ther., radiocobalt & radium, comparison (Rus))
(COBALT, radioactive,
ther. of cancer of lip, comparison with radium (Rus))
(RADIUM, ther. use,
cancer of lip, comparison with radiocobalt (Rus))

KELDYSH, M.V., akademik; FEDOROV, Ye.K., akademik; ARTSIMOVICH, L.A., akademik; SISAKYAN, N.M., akademik; GORSKIY, I.I.; BARTOSH, P.L.; FOK, V.A.; LANDAU, L.D.; LIFSHITS, Ye.M.; SHAL'NIKOV, A.I.; SHUBNIKOV, I.M.; ALEKSEYEVSKIY, N.Ye.; VAYNSHTEYN, L.A.; PALLADIN, A.V., akademik; SATPAYEV, K.I., akademik; AMBARTSUMYAN, V.A., akademik; KUPREVICH, V.F.; MUSKHELISHVILI, N.I., akademik; BARAFEYEV, K.K.; MUSTEL', E.R.; MASEVICH, A.G., doktor fiz.-matem.nauk; FRON, A.M.; MARTYNOV, D.Ya., prof.; GAIDOR'YEV, A.A., akademik; MARKOV, K.K., prof.; GOLOVKOVA, A.G., prof.; PILATOVA, L.G., prof.; FEYVE, Ya.V.; SEMIKHATOV, B.N., prof.; TIKHOV, A.G.; RYCHAGOV, G.I.; BARSKAYA, V.F.; VLASOVA, A.A.; BARANOVA, Ye.P.; KIBARDINA, L.A.; ISACHENKO, A.F.; IL'INA, Yu.P.; DANILOV, A.I., prof.; PLAUDE, K.K.; NECHAYEVA, T.N., prof.; CHEPEK, L., doktor; SZANTO, Ladislav, akademik; BELACHIK, Yozef; FAN KLOK V'YEN; EYGENSON, M.S., prof. (L'vov); STARKOV, N.; ABRAMOVICH, Yu.; VOSKRESENSKIY, V.; KROPACHEV, A.; REZVOY, D., prof., (L'vov); KONDRAT'YEV, V.N., akademik; LEBEDINSKIY, V.I., kand.geol.-mineral.-nauk; YANSHIN, A.L., akademik

"Priroda" is 50 years old. Priroda 51 no.1:3-16 Ja '62.
(MIRA 15:1)

1. Prezident AN SSSR (for Keldysh). 2. Glavnyy uchenyy sekretar' Prezidiuma AN SSSR (for Fedorov). 3. Akademik-sekretar' Otdeleniya fiziko-matem.nauk AN SSSR (for Artsimovich). 4. Akademik-sekretar' Otdeleniya biologicheskikh nauk AN SSSR (for Sisakyan). 5. Chlen-korrespondent AN SSSR, zamestitel' akademika-sekretarya Otdeleniya

(Continued on next card)

GRIGOR'YEV, A.V.

Lower Mesozoic history of the Pamir-Alay tectonic zone. Trudy VAGT no.4:47-58 '58. (MIRA 12:6)
(Pamir-Alay--Geology)

BELYAYEVSKIY, N.A.; GRIGOR'YEV, A.V.; IVANOV, Yu.A.

Problems of and trends in geological mapping in the U.S.S.R..
Sov.geol. 2 no.12:3-11 D '59. (MIRA 13:5)

1. Ministerstva geologii i okhrany nedr SSSR.
(Geology--Maps)

GRIGOR'YEV, A.V.

Results of the session on the coordination in minerallogical (metallogenetic) research. Sov. geol. 3 no.6:147-148 Je '60. (MIRA 13:11)

1. Ministerstva geologii i okhrany nedr SSSR.
(Mineralogy)

VERESHCHAGIN, V.N.; IVANOV, Yu.A.; BELYAYEVSKIY, N.A., glav. red.; ALEYNER, A.Z., red.; GRIGOR'YEV, A.V., red.; ZAYTSEV, I.K., red.; KLIMOV, P.I., red.; KRASNOV, I.I., red.; LANKIN, A.A., red.; MUZYLEV, S.A., red.; OGNEV, V.N., red.; TROSTNIKOVA, N.Ya., red. izd-va; IYERUSALIMSKAYA, Ye.S., tekhn. red.

[Instruction for compiling and preparing for publication a geological map at a scale of 1:50,000; supplement to the instruction for organizing and conducting geological surveys at a scale of 1:50,000 and 1:25,000] Instruktsiia po sostavleniiu i podgotovke k izdaniiu geologicheskoi karty masshtaba 1:50 000; dopolnenie k instruktsii po organizatsii i proizvodstvu geologos"emochnykh rabot masshtaba 1:50 000 i 1:25 000. Moskva, Gosgeoltekhizdat, 1962. 41 p. (MIRA 15:6)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedr. (Geology--Maps)

BELYAYEVSKIY, N.A.; GRIGOR'YEV, A.V.; FEDYUK, V.I.

Regional studies of the subsurface geology of closed and partly closed territories. Sov.geol. 5 no.3:23-39 Mr '62. (MIRA 15:4)

1. Ministerstvo geologii i okhrany nedr SSSR.
(Geology, Structural) (Prospecting)

GRIGOR'YEV, A.V. [Hryhor'iev, O.V.]

Late Cenozoic red beds in the northern Azov Sea region. Dop. AN URSR no.1:105-111 '64. (MIRA 17:4)

1. Institut geologicheskikh nauk AN UkrSSR. Predstavleno akademikom AN UkrSSR V.G. Bondarchukom [Bondarchuk, V.H.].

BERRI, L.Ya., doktor ekon. nauk, prof.; MAKSIMOV, I.S.; BRAGINSKIY, B.I., doktor ekon. nauk; GRIGOR'YEV, A.Ye., doktor ekon. nauk, prof.; ITIN, L.I., doktor ekon. nauk, prof.; LOKSHIN, E.Yu., prof.; KAMENITSER, S.Ye., doktor ekon. nauk, prof.; OBLOMSKIY, Ya.A., kand. ekon. nauk, dots.; SHASS, M.Ye., doktor ekon.nauk, prof.; STEPANOV, A.Ya.; ULITSKIY, L.I., prof., doktor ekon. nauk; PODGORNOVA, V., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of socialist industry] Ekonomika sotsialisticheskoi promyshlennosti; uchebnik. 3., dop. i perer. izd. Pod red.L.I. Itina. Moskva, Gospolitizdat, 1963. 646 p. (MIRA 16:8)

1. Moscow. Gosudarstvennyy ekonomicheskiy institut. 2. Zaveduyushchiy kafedroy ekonomiki promyshlennosti Moskovskogo instituta narodnogo khozyaystva im.G.V.Plekhanova (for Itin).
(Russia--Industry)

RUMYANTSEV, A.F.; YEFIMOV, A.N.; TEPLOV, G.V.; LOKSHIN, E.Yu.; KARPENKO, A.P.; GRIGOR'YEV, A.Ye.; FILIPPOV, V.F.; PERESLEGIN, V.I.; TYAGAY, Ye., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of industrial enterprises] Ekonomika promyshlennykh predpriiatii; uchebnik. 3. izd., perer. Moskva, Gospolitizdat, 1963. 574 p. (MIRA 16:10)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola.

(Industrial management)

GRIGOR'YEV, Andrey Yevgen'yevich; PETRUSHEV, I.M., red.; GERASIMOVA, Ye.S., tekhn.red.; PONOMAREVA, A.A., tekhn.red.

[Economics of labor] Ekonomika truda. Moskva, Gosplanizdat, 1959. 375 p. (MIRA 12:8)
(Labor and laboring classes)

RUMYANTSEV, A.F.; YEFIMOV, A.N.; TEPLOV, G.V.; LOKSHIN, E.Yu.; KARPENKO, A.P.; GRIGOR'YEV, A.Ye.; FILIPPOV, V.F.; PERESLEGIN, V.I., Prinimal uchastiye VOLODARSKIY, L.M.; TYAGAY, Ye., red.; POPOVA, T., tekhn.red.

[Economy of socialist industrial enterprises; textbook] Ekonomika sotsialisticheskikh promyshlennykh predpriiatii; uchebnik. Moskva, Gos.izd-vo polit.lit-ry, 1959. 591 p. (MIRA 13:3)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola. 2. Zamestitel' nachal'nika TSentral'nogo statisticheskogo upravleniya SSSR (for Volodarskiy).
(Industrial management)

BE..I, L.Ya., doktor ekon. nauk, prof.; [illegible], B.I., kand. ekon. nauk, dots.; GE..ACHENKO, ..S., kand. ekon. nauk; GRIGOR'YEV, A.Ya., doktor ekon. nauk, prof.; ITIN, L.I., doktor ekon. nauk, prof.; LOKSHIN, E.Yu., doktor ekon. nauk, prof.; KAMENITSER, S.Ye., doktor ekon. nauk, prof.; OBLOMSKIY, Ya.A., kand. ekon. nauk, dots.; SOKOLOV, B.M., doktor ekon.nauk, prof.; SHASS, M.Ye., doktor ekon.nauk; STEPANOV, A.Ya.; ULITSKIY, L.I., doktor ekon. nauk, prof.; PODGORNOVA, V., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of socialist industry; textbook]Ekonomika sotsialisticheskoi promyshlennosti; uchebnik. Pod red. L.I.Itina, B.S.Gerashchenko. 2., dop. i perer. izd. Moskva, Gospolitizdat, 1961. 775 p. (MIRA 15:10)

1. Moscow. Gosudarstvennyy ekonomicheskiy institut. 2. Zaveduyushchiy kafedroy ekonomiki promyshlennosti Moskovskogo gosudarstvennogo ekonomicheskogo instituta (for Itin).
(Russia--Industries)

RUMYANTSEV, A.F.; YEFIMOV, A.N.; TEPLOV, G.V.; LOKSHIN, E.Yu.; KARPENKO, A.P.; GRIGOR'YEV, A.Ya.; FILIPPOV, V.F.; PERESLEGIN, V.I.; TYAGAY, Ye., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of industrial enterprises; textbook]Ekonomika promyshlennykh predpriiatii; uchebnik. 2., perer. i dop. izd. Moskva, Gospolitizdat, 1962. 574 p. (MIRA 15:9)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola.
(Industrial management)

AKOPOV, R.Ya., kand. ekon. nauk, dots.; BASYUK, T.L., doktor ekon. nauk, prof.; BIRMAN, A.M., doktor ekon. nauk, prof.; GRIGOR'YEV, A.Ye., doktor ekon. nauk, prof.; DOKUKIN, V.I., prof.; IKONNIKOV, V.V., prof.; KONDRASHEV, D.D., doktor ekon. nauk; KURSKIY, A.D., doktor ekon. nauk; LOKSHIN, E.Yu., doktor ekon. nauk, prof.; MALYY, I.G., kand. ekon. nauk, dots.; PERVUSHIN, S.P., kand. ekon. nauk; PLOTNIKOV, K.N., TYAPKIN, N.K., kand. ekon. nauk; FILIMONOV, N.P., kand. ekon. nauk; SHAFIYEV, K.N., doktor ekon. nauk; prof.; BAKOVETSKIY,O., red.; KOKOSHKINA, I., mladshiy red.; MOSKVINA, R., tekhn. red.

[Economics; communist means of production]Politicheskaia ekonomiia; kommunisticheskii sposob proizvodstva. Uchebnik 2., perer. i dop. izd. Moskva, Sotsekgiz, 1963. 599 p. (MIRA 16:5)

1. Chlen-korrespondent Akademii nauk SSSR (for Plotnikov).
(Economics) (Communism)

GRIGOR'YEV, B.

Beacon with a hydraulic rotor. Rech. transp. 22 no.11:59 N '63. (MIRA 16:12)

GRIGOR'YEV, B.A., doktor tekhn.nauk; GRIBANOV, V.P., kand.tekhn.nauk

Evaluating the efficiency of the engine cooling system of automobiles under operating conditions. Avt.prom. 27 no.10:7-9 O '61. (MIRA 14:10)

1. Vsesoyuznyy zaochnyy mashinostroitel'nyy institut.
(Automobiles--Engines--Cooling)

GRIGOR'YEV, B.A.

Combined method for the design of steam power plant with air condensation of steam. Izv.AN SSSR Otd.tekh.nauk no.2:165-182 '47. (MLRA 6:12)

1. Predstavleno akademikom M.V.Kirpichevym. (Steam power plants)

GRIGOR'YEV, B.A.; FOMICHEV, S.N.

Using albedograph fo .etermining optical coefficients of engineering materials. Inzh.-fiz.zhur. no.1:34-40 Ja '58. (MIRA 11:7)

(Materials--Optical properties)

GRIGOR'YEV, B.A.

24-1-11/26

AUTHOR: Grigor'yev, B. A. (Moscow).

TITLE: Certain problems of heating of an unlimited plate by non-steady state radiation fluxes. (Nekotoryye zadachi nagreva neogranichennoy plastiny nestatsionarnymi luchistymi potokami).

PERIODICAL: Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk, 1958, No.1, pp. 86-94 (USSR)

ABSTRACT: The author considers non-steady state radiation fluxes of the impulse type (occurring for instance during atomic explosions), the density of which E at the irradiated surface is expressed by a derivative according to time τ of a power function and an index function. Unilateral heating is considered of an infinite plate of a thickness d by a radiation flux of the above described type for the following conditions: the coefficient of absorption A of the irradiated surface remains constant during the entire irradiation time; the radiation is absorbed at the surface of the plate, i.e. the thickness of the absorbing layer can be disregarded; there is no release of heat from the plate to the outside; the physical parameters of the plate material are equal in all its points and do not change as a result of heating;

Card 1/3

Certain problems of heating of an unlimited plate by non-steady state radiation fluxes.

there are no sources of heat inside and on the surface of the plate; at the beginning of the irradiation the temperature of the entire plate is completely uniform. The problem is one of the unidimensional problems of heat conductivity, which are functions of time, whereby the boundary conditions are of the second type. A sketch of the plate showing the selection of the coordinates is given in Fig.2, p.88; the origin of the coordinate system is located on the side of the plate which is in shadow. At first the author derives a general solution which yields an equation for calculating the temperature at any point of the plane of the infinite plate, Eq.(22), p.91. Following that, the problem is solved for the thermal radiation of a powerful impulse source. In absence of a temperature wave the dimensionless heating increases generally with an increase in the dimensionless time and its maximum value always equals 1. It is stated that the data of Lawson (Ref.2) confirm the formation of temperature waves in materials which are heated by thermal radiation from an impulse source. The derived solutions and the method of

Certain problems of heating of an unlimited plate by non-steady state radiation of fluxes. 24-1-11/26

temperature calculation can be applied for practical purposes if the real conditions approximate adequately the conditions of the problem under consideration. There are 5 figures, 2 tables and 5 references - 4 Russian, 1 English.

SUBMITTED: February 6, 1957.

AVAILABLE: Library of Congress.

Card 3/3

GRIGOR'YEV, B.A.

Some problems in the radiant heating of infinite plates[with summary in English]. Insh.-fiz. zhur. no. 9:29-35 S '58. (MIRA 11:10)
(Radiant heating)

6.3000
6.4780

S/051/61/010/001/009/017
E201/E491

AUTHORS: Grigor'yev, B.A., Yershov, A.G. and Uvarov, V.A.

TITLE: Reflection of Radiation by an Infinite Plane Illuminated With a Point Source.
I. Characteristics of the Radiation Field

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.96-103

TEXT: The authors derive theoretically characteristics of the radiation field for perfectly diffuse reflection and for specular (directed) reflection by an infinite plane when scattering in the medium above the plane can be neglected and only directional attenuation of the medium need be allowed for. Fig.1 and 2 show coordinates employed in calculations. The paper is entirely theoretical. There are 2 figures and 9 Soviet references.

SUBMITTED: October 3, 1959

Card 1/1

GRIGOR'YEV, B.A.; YERSHOV, A.G.; UVAROV, V.A.

Reflection of radiation from an unbounded plane surface irradiated by a point emitter. Part 2: Particular cases of importance for practical applications. Opt. i spektr. 10 no.2:198-208 F '61.
(MIRA 14:2)

(Radiation) (Reflection (Optics))

L 16835-63 EWT(1)/BDS AFFTC/ASD/IJP(C)/SSD
ACCESSION NR: AP3003279 S/0286/63/000/003/0058/0058

AUTHOR: Grigor'yev, B. A.

TITLE: Heliostatic Installation. Class F 02j; 46e, 9. No. 152989

SOURCE: Byul. izobreteniy i tovarnykh znakov, no. 3, 1963, 58

TOPIC TAGS: heliostat, louvered shutter

ABSTRACT: 1. Heliostatic installation containing a concentrator for the sun's radiation, made up of long-focus reflectors, each of which is equipped with a guidance mechanism and a device for regulating the radiation; its distinguishing feature is that in order to ensure uniformity of irradiation of the objects under variable conditions, the reflectors have different relative focal distances (the ratio of the focal distance to the maximum linear dimension of the reflector), which increase gradually with increasing angles of inclination of the reflectors to the optical axis of the concentrator.
2. In an installation of type 2 -- use of sectionalized louvered shutters for

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L 16835-63
ACCESSION NR: AP3003279

slow and fast regulation of the illumination with remote program control, so as to ensure gradual or step-wise change in radiation with time in accordance with a specified characteristic. /Abstracter's note: complete translation./
Orig. art. has: 1 figure.

ASSOCIATION: one

SUBMITTED: 1Feb62 DATE ACQ: 23Jul63 ENCL: 01

SUB CODE: CO, GE NO REF SOV: 000 OTHER: 000

Card 2/2

AMBARTSUMOV, A.M.; ZHUKOV, G.V.; GRIGOR'YEV, B.F.; MAKSIMOV, I.S., red.; GERASIMOVA, Ye.S., tekhn. red.

[Standardizing the consumption of materials in production and construction] Normirovanie raskhoda materialov v proizvodstve i stroitel'stve. Moskva, Izd-vo ekon. lit-ry, 1961. 99 p. (MIRA 14:10)

(Materials)

AMBARTSUMOV, A.A.; ZHUKOV, G.V.; GRIGOR'YEV, B.F.; SMIRNOV, Ye.I., red.; PONOMAREVA, A.A., tekhn. red.

[Standardizing the consumption of materials] Normirovanie raskhoda materialov. Pod red. Ambartsumova. Izd.2., dop. Moskva, Ekonomizdat, 1963. 109 p. (MIRA 16:6)
(Materials management)

GRIGOR'YEV, B.F.

Fecundity of Rithropanopeus harrisii (Gould) ssp. tridentatus (Maitland). Gidrobiol. zhur. 1 no.1:68-69 '65.
(MIRA 18:5)

1. Institut gidrobiologii AN UkrSSR, Kiyev.

GRIGOR'YEV, B.F.

Hydrobiological regionalization of the lower reaches of the Southern Bug River as to the composition and population dynamics of the bottom fauna. Gidrobiol.zhur. 1 no.5:20-28 '65. (MIRA 18:11)

1. Institut gidrobiologii AN UkrSSR, Kiyev.

1. GRIGOR'YEV, B.G

2. USSR (600)

4. Shipbuilding

7. Analysis of the curves of vessel's effective tugging power, Mor. flot 12, No. 12, 1952.

9. **Monthly List of Russian Accessions**, Library of Congress, February 1953. Unclassified.

GRIGOR'YEV, B. G.

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Lightweight type of inclinograph. Rech.transp. 17 no.11:51 N '58. (MIRA 11:12)
(Ships--Equipment and supplies)

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1. Ispolnyayushchiy obyazannosti dotsenta kafedry teorii korablya Odesskogo vysshego inzhenernogo morskogo uchilishcha.
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Approximate calculations of the propulsive speed of seagoing vessels. Sudostroenie 26 no 11:13-14 N '60. (MIRA 14:1)
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Loading and unloading bricks in piles. Stroi. mat. 6 no.7:31 Jl '60. (MIRA 13:7)
(Bricks--Transportation) (Loading and unloading)

ACC NR: AP7002611 (A,N) SOURCE CODE: UR/0413/66/000/023/0117/0118

INVENTOR: Grigor'yev, B.P.

ORG: none

TITLE: Method of improving wear and corrosion resistance of metals and alloys by surface treatment with halides. Class 48, No. 189278

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 117-118

TOPIC TAGS: ~~metal chemical treatment,~~ corrosion resistance ~~improvement~~, wear resistance ~~improvement, metal surface treatment~~, METAL SURFACE IMPREGNATION, HALIDE.

ABSTRACT: This Author Certificate introduces a method for improving the wear and corrosion resistance of metals and alloys by surface impregnation with halides. Zinc, lead, and aluminum or their alloys are treated in a solution of iodine in acetone, and copper alloys are treated in a solution of bromine in glycerin. [AZ]

SUB CODE: 11/ SUBM DATE: 20Mar63/ ATD PRESS: 5114

Card 1/1 UDC: 620.197.2:621.785.5

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Call No.: TK7870.G75

BOOK

Author: GRIGOR'YEV, V. S. and GRIGOR'YEV, B. S.
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(see card for GRIGOR'YEV, V. S. for more information)

ASEYEV, Boris Pavlovich; GRIGOR'YEV, B.S., redaktor; MOROZOVA, T.M., tekhnicheskiy redaktor.

[Phase relations in radio communication] Fazovye sootnosheniia v radiotekhnike. Moskva, Gos. izd-vo lit-ty po voprosam sviazi i radio, 1951. 247 p. (MLRA 7:7)
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USSR/Miscellaneous - Historical

Card 1/1 Pub. 133 - 11/16

Authors : Grigor'yev, B. S.

Title : An important document on radio construction

Periodical : Vest. svyazi 5, page 25, May 1955

Abstract : A reference is made to a telephone conversation and a letter written on 26 Jan. 1921, to Lenin, by the director of the Moscow Bureau of Nizhnegorod Radio Laboratory, P. A. Ostryakov, dealing in a series of difficulties and problems encountered in the development of radio-telephone installations.

Institution : .....

Submitted : .....

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