"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

22524

S/080/61/034/001/005/020
A057/A129

Reduction of U_3O_8 by Hydrogen

reduction rate, but are otherwise similar to those at 200 torr hydrogen pressure. The rate curve for the reduction at 600°C and 400 torr hydrogen pressure (Fig.3) is unique starting with maximum rate and decreasing continuously until zero. The following values of apparent activation energy were calculated:

hydrogen pressure in torr	200		50	
degree of reduction in %	10	40	15	40
activation energy in kcal/mole	21.4	20.6	17.4	15.2

In the discussion the authors point out that there is no unique opinion about the nature of solid solutions in the uranium - oxygen system (see R. Rundle et al.,Ref.11: J.Am.Chem.Soc., 70,99-105 (1948) and H. Hering and P. Perio, Ref.12: Bull.Soc.Chim.France, 351-357 (1952) which consider $UO_{2.52}$ as lower limit of the phase $UO_{2.6+x}$, while F. Grønvold, and H. Haraldsen, Ref.8: Nature, 162,69 (1948) and H.R. Hoekstra and S. Siegel, Ref.13: Reports of the 1st International Conference of the Peaceful Use of Atomic Energy, Geneve (1955) suggest $UO_{2.56}$ as limit) as well as concerning the limit of solubility of oxygen in UO_2 forming non-stoichiometric UO_{2+x} [see D. Vaughan, R. Willardson, Ref.14: Preprint Nucl. Energy a.Sci.Conf.s.a., 13,15 (1958)]. Corresponding to A.A. Baykov's principle of sequence of chemical reactions [Ref. 15: Metallurg, 3,5 (1956)] the present authors consider the following scheme

Card 3/8

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

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22524
S/080/61/034/001/005/020
A057/A129

Reduction of U_3O_8 by Hydrogen

of phase transition valuable for $T \geqslant 500^{\circ}C$:

$$U_3O_8 \longrightarrow UO_{2.6\pm x} \longrightarrow U_4O_9 \longrightarrow UO_{2+x} \longrightarrow UO_2 \quad \text{(where } x = 0.16 - 0.14\text{)}$$

The first step occurs under kinetic conditions and is controlled by the surface reaction between adsorbed hydrogen and the oxygen of the oxide. During reduction the crystal lattice is disordered and new active centers formed (by chain mechanism), which increase the surface reaction rate. Simultaneously oxygen concentration in the surface layer of the oxide decreases and inhibits the surface reaction. The beginning of the reduction is controlled by the formation of active centers, thus reduction rate increases with degree of reduction. Herewith the increase in the reduction rate (Fig.2) at the beginning can be explained, while at hydrogen pressures of 200 torr (Fig.1) this step is so fast that it cannot be observed experimentally. When both above-mentioned factors are in equilibrium the reduction process has a constant rate. The continuous decrease in reaction rate at the end of the reduction stage of the phase $UO_{2.6\pm x}$ (successive transition into the phase $UO_{2.6-x_{max}}$) can be explained by the fact that the number of newly formed active centers is limited, while the concentration of oxygen in the condensed phase decrease with the progress of the reduction process. In literature $UO_{2.6\pm x}$ is considered to be the lower phase limit and in the present experiments the reduction rate

Card 4/8

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22524
S/080/61/034/001/005/020
A057/A129

Reduction of U_3O_8 by Hydrogen

stopped to decrease with the oxide $UO_{2.45}$. This difference can be explained by the fact that the reduction process did not occur in single zones. The second horizontal part of the rate curves in Fig.1-3 corresponds to the phase transition of $UO_{2.6-x_{max.}} \rightarrow U_4O_9$. If formation of U_4O_9 is due to a well-regulated, and formation of $UO_{2.6-x_{max.}}$ to a non-regulated introduction of oxygen into the cubic lattice of uranium oxide (see Ref.13) there should be no great change in the crystal lattice, and oxygen evolution should occur successively. This is the reason that in this step the reduction rate decreases continuously with the progress of the process. Apparently this step occurs under diffusion conditions, controlled by the diffusion of oxygen towards the place where the reaction occurs. There are 3 figures and 16 references: 9 Soviet-bloc and 7 non-Soviet-bloc.

SUBMITTED: May 10, 1960

Card 5/8

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

VLASOV, V.G.; SHALAGINOV, V.N.; BESSONOV, A.F.; STREKALOVSKIY, V.N.

Change of the design of a glass pressure regulator. Trudy Ural. politekh.inst.no.121:102-103 '62.

(MIRA 16:5)

(Pressure regulators)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKALOVSKIY, V.N.; BESSONOV, A.F.; ZHUKOVSKIY, V.M.; NEUYMIN, A.D.

Electric properties of uranium oxides. Trudy Inst. elektrokhim. UFAN SSSR no.3:155-159 '62. (MIRA 16:6)

(Uranium oxides—Electric properties)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKALOVSKIY, V.N.; BUROV, G.V.; PAL'GUYEV, S.F.; VOLCHENKOVA, Z.S.; SAMARINA, V.A.

Relation between electrical and structural properties in the CeO_2 - SrO system. Trudy Inst. elektrokhim. UFAN SSSR no.3: 165-169 '62. (MIRA 16:6)

(Cerium oxides) (Strontium oxide)
(Solutions, Solid—Electric properties)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKALOVSKIY, V.N.; BUROV, G.V.; SAMARINA, V.A.; PAL'GUYEV, S.F.; VOLCHENKOVA, Z.S.

Interaction between CeO_2 and MgO in the solid state. Trudy Inst. elektrokhim. UFAN SSSR no.3:171-177 '62. (MIRA 16:6)

(Cerium oxides) (Magnesium oxide)
(Solutions, Solid)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

ACCESSION NR: AT4008735 S/2631/63/000/004/0083/0090

AUTHOR: Neuymin, A. D.; Pal'guyev, S. F.; Strekalovskiy, V. N.; Burov, G. V.

TITLE: Investigation of the structural components and electrical conductivity and its nature in the systems ZrO_2-CaO-NiO and ZrO_2-CaO-Fe_2O_3

SOURCE: AN SSSR. Ural'skiy filial. Institut elektrokhimii, Trudy*, no. 4, 1963. Elektrokhimiya rasplavlenny*kh solevy*kh i tverdy*kh elektrolitov, 83-90

TOPIC TAGS: refractory oxide, electric ceramic, zirconium dioxide, calcium oxide, nickel oxides, NiO, iron oxides, Fe sub 2 O sub 3, ternary oxide mixture, ZrO sub 2-CaO-NiO system, ZrO sub 2-CaO-Fe sub 2 O sub 3 system, metal oxide system, electrolytic cell, solid electrolyte

ABSTRACT: Maintaining the relation Zr_2O:CaO = 85:15, the structure and electrical conductivity have been studied in a series of oxide mixtures of the above systems. X-ray examinations combined with phase chemical analysis were applied in the study of the structure and a "Ural 1" computer was used to calculate the interplane distances and lattice parameters. The conductivity was measured with an alternating current bridge at a frequency of 3000 cps. Its nature was studied by the emf method. The procedures are given in detail in Trudy* Instituta Elektrokhimii UFAN SSSR, no. 1, 1960, 111; no 2, 1961;

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

ACCESSION NR: AT4008735

no. 3, 1962, 133 and in DAN SSSR, 1960, 134, 1138. It was found that NiO is only slightly soluble in mixtures of ZrO_2-CaO and solid solutions form when Fe_2O_3 is added. Iron ions place themselves partly in the intersections, and partly in the interspaces of the cubic lattice of a solid solution. The conductivity of the mixture decreases monotonously and remains practically of a purely ionic nature as the Ni content increases up to 30 mol /% in a wide temperature range. Fe_2O_3-additions up to 6 mol % cause no noticeable decrease in conductivity and do not affect its nature. Greater Fe_2O_3-additions enhance the electron component of conductivity. Orig. art. has: 5 figures, 2 tables and 4 formulas.

ASSOCIATION: Institut elektrokhimii, Ural'skiy filial AN SSSR (Electrochemical Institute, Urals Branch, AN SSSR)

SUBMITTED: 00 DATE ACQ: 25Jan64 ENCL: 00

SUB CODE: GC,SS NO REF SOV: 011 OTHER: 013

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

S/080/62/035/003/017/024
D202/D302

AUTHORS: Bessonov, A. F., Vlasov, V. G. and Strekalovskiy, V. N.

TITLE: Cyclic oxidation-reduction of uranium oxides

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 3, 1962, 657-660

TEXT: The subject of this study was the elucidation of the following questions: 1) Which phases are formed during the oxidation and reduction processes of active uranium dioxide and urano-uranium oxide? 2) Can the tetragonal phase be obtained at temperatures below 400 - 500°C? 3) The oxidation kinetics of active uranium dioxide, unstable at room temperature. The work is a repetition of investigations previously published by Western scientists. The authors state that their results are in good agreement with those given in Western literature. The following phases were found during the cyclic oxidation and reduction of uranium oxides in the temperature range from 20 to 500°C: UO_2, $UO_{2\pm x}$, $UO_{2.25}$, $UO_{2.36\pm x}$, $UO_{2.6\pm x}$, $UO_{2.67}$. The tetragonal phase does exist as a stable one

Card 1/2

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

at some definite temperature range between 500°C and room temperature. There are 3 figures and 8 references: 1 Soviet-bloc and 7 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: R. W. Willardson, I. Moody and H. Goering, J. Inorg. Nuclear Chem., 6, 19-38, 1958; O. Runnols, Nucleonics, 17, 104-111, 1959; A. Arrot and I. Goldman, Phys. Rev., 108, 948, 1957; P. Blackburn, I. Weissbart and E. Gulbransen, J. Phys. Chem., 62, 8, 12, 1958.

SUBMITTED: January 16, 1961

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKALOVSKIY, V.N.; NEUYMIN, A.D.; BENSONOV, A.F.

Electric conductivity of higher uranium oxides in a hydrogen stream. Zhur. fiz. khim. 36 no.6:1355-1358 Je'62 (MIRA 17:7)

1. Institut elektrokhimii Ural'skogo filiala AN SSSR.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

TKACHENKO, Ye.V.; NEYMIN, A.D.; VLASOV, V.G.; STREKALOVSKIY, V.N.

Studing the electric conductivity of the system UO_3 - C.
Izv. vys. ucheb. zav.; tsvet. met. 6 no.4:118-122 '63.
(MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut.
(Uranium oxides--Electric properties)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

TKACHENKO, Ye.V.; NEUYMIN, A.D.; VLASOV, V.G.; STREKALOVSKIY, V.N.

Temperature dependence of the electric conductiivity of higher uranium oxides. Fiz. met. i metalloved. 16 no.2:193-197 Ag '63. (MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut im. S.M. Kirova i Institut elektrokhimii Ural'skogo filiala AN SSSR.
(Uranium oxides—Electric properties)
(Metals, Effect of temperature on)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 13267-65 EWG(j)/EWT(m)/EPF(c)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4 ASD(m)-3
JD/JG/JXT(CZ)

ACCESSION NR: AT4048681 S/2631/64/000/005/0163/0166

AUTHOR: Strekalovskiy, V. N.; Burov, G. V.; Samarina, V. A.; Volchenkova, Z. S.

TITLE: Structural components of the hafnium oxide-calcium oxide system

SOURCE: AN SSSR. Ural'skiy filial. Institut elektrokhimii. Trudy*, no. 5, 1964. Elektrokhimiya rasplavlenny*kh solevy*kh i tverdy*kh elektrolitov (Electrochemistry of fused salt and solid electrolytes), 163-166

TOPIC TAGS: hafnium oxide, calcium oxide, oxide ceramic, hafnium oxide calcium oxide system, calcium hafnate, phase analysis

ABSTRACT: Experimental data on the phase composition of products of the high-temperature reaction between HfO_2 and CaO have been obtained to supplement the literature data. Compacted mixtures of HfO_2 with 0—85 mol.% CaO were sintered under various conditions, and the products were analyzed by the x-ray diffraction method in an RKD chamber

Card 1/2

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 13267-65

ACCESSION NR: AT4048681

and by chemical methods, including separate analysis of HCl soluble and insoluble fractions. Analysis of products of the sintering of equimolar mixtures successively at 1200 and 1500C produced evidence of the existence of an unknown X-phase, differing from the previously detected common calcium hafnate in chemical composition and in the parameters of the unit cell (rhombic). The new X-phase is believed to be a modification of calcium hafnate. Another new hexagonal Y-phase was identified in the sintered mixture of HfO_2 with 85 mol% CaO. The formula Ca_7HfO_9 was tentatively assigned to the Y-phase. The known solid solution with a fluorite structure was detected in samples containing 5—25 mol% CaO; the lattice constant of the solid solution was found to fluctuate in the 5.095—5.105 kX range, without direct correlation with CaO content. Orig. art. has: 2 tables and 1 figure.

ASSOCIATION: none

SUBMITTED:: 00 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 004 OTHER: 001 ATD PRESS: 3128

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 20980-65 EWT(m) ASD(a)-5 ES

ACCESSION NR: AP5003752 S/0078/64/009/010/2496/2496

AUTHOR: Strekalovskiy, V. N.; Beketov, A. R.; Vlasov, V. G.

B

TITLE: Nature of the oxide $UO_{2.9}$

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 10, 1964, 2496

TOPIC TAGS: uranium compound, inorganic oxide, crystal structure

Abstract: It is known that uranium trioxide has five crystalline modifications and can also be amorphous. In general, $UO_{2.9}$ can be either an independent phase, or a member of a series of solid solutions. Using vacuum pycnometry, the authors measured the densities of samples obtained from the dissociation of the α-and γ-forms of uranium trioxide in the range of compositions UO_3—U_3O_8. An X-ray analysis of the samples was also performed. The latter analysis showed that the end products of the dissociation in both cases is uranous-uranic oxide, which has a rhombic structure. The difference lies in the fact that in the dissociation of γ-UO_3, the investigated samples in the UO_3 - $UO_{2.76}$ region consisted of two phases, whereas in the case of α-UO_3, the samples obtained always had one phase and either the hexagonal structure of UO_3 or, beginning with the oxide of the composition $UO_{2.88}$, an orthorhombic structure characteristic

Card 1/2

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 20980-65
ACCESSION NR: AP5003752

of uranous-uranic oxide.

On density-composition curves, the point characteristic of the compositions $UO_{2.92}$ - $UO_{2.88}$ was observed only when the initial compound was the α-form of uranium trioxide. The specificity of this composition is not manifested in the dissociation of γ-UO_3. This indicates that the beginning of the formation of solid solutions with an ortho-rhombic structure depends on the modification of the initial UO_3 preparation. The latter was an oxide of the composition $UO_{2.88}$ in the case of α-UO_3 and $UO_{2.76}$ in the case of γ-UO_3. In earlier studies, which noted the specificity of the composition $UO_{2.9}$, the initial preparations were the amorphous and the α-form of uranium trioxide.

Thus, in the uranium - oxygen system, in the UO_3 - $UO_{2.67}$ region, there may exist a certain transition region $UO_{2.9}$ — $UO_{2.76}$ in the form of solid solutions with a structure close to that of uranous-uranic oxide. Orig. art. has 1 graph.

ASSOCIATION: none

SUBMITTED: 19Feb64 ENCL: 00 SUB CODE: IC, SS

NO REF SOV: 005 OTHER: 005 JPRS

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 10880-66 EWP(e)/EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/WW/JG/WH

ACC NR: AT5028247 SOURCE CODE: UR/2631/65/000/006/0123/0130

AUTHOR: Strekalovskiy, V. N.; Bessonov, A. F.; Ust'yantsev, V. M.; Burov, G. V.

ORG: Institute of Electrochemistry, Ural Branch, Academy of Sciences SSR (Akademiya nauk SSR, Ural'skiy filial, Institut Elektrokhimii)

TITLE: High-temperature x-ray diffraction study of oxide ceramics

SOURCE: An SSSR. Ural'skiy filial. Institut elektrokhimii. Trudy, no. 6, 1965. Elektrokhimiya rasplavlennykh solevykh i tverdykh electrolitov (Electrochemistry of fused salts and solid electrolytes), 123-130

TOPIC TAGS: x ray diffraction analysis, oxide ceramic, cerium compound, strontium compound, zirconium compound, yttrium compound, neodymium compound

ABSTRACT: A description is given of high-temperature attachments for x-ray diffraction studies with photo- and ionization recording of the diffraction pattern (at temperatures between 20 and 1500C). Examples of high-temperature x-ray analyses are given for sintered oxide materials: CeO_2, CeO_2-SrO, ZrO_2-Y_2O_3, ZrO_2-Nd_2O_3, ZrO_2-CaO. The transitions occurring in ZrO_2-Nd_2O_3 and ZrO_2-Y_2O_3 on heating and cooling are determined. The x-ray coefficients of thermal expansion of these samples are found to be lower than the dilatometric ones. It is postulated that the difference in the change of the lattice constant of CeO_2 as

Card 1/2

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L 10880-66

ACC NR: AT5028247

studied in air and vacuum is due to the formation of a solid solution of Ce_2O_3 in CeO_2 in a vacuum. Orig. art. has: 8 figures and 1 table.

SUB CODE: 07, 11/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 011

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 10860-66 EWT(m)/EWP(t)/EWP(b) IJP(c) ES/JD/WW/JG

ACC NR: AT5028248 SOURCE CODE: UR/2631/65/000/006/0131/0136

AUTHOR: Strekalovskiy, V. N.; Beketov, A. R.; Vlasov, V. G.

ORG: Institute of Electrochemistry, Ural Branch, Academy of Sciences SSR (Akademiya nauk SSSR, Ural'skiy filial, Institut elektrokhimii)

TITLE: Study of the density and structure of uranium oxides in the range of the compositions UO_3-U_3O_8

SOURCE: An SSSR. Ural'skiy filial. Institut elektrokhimii. Trudy, no. 6, 1965. Elektrokhimiya rasplavlennykh solevykh i tverdykh elektrolitov (Electrochemistry of fused salts and solid electrolytes), 131-136

TOPIC TAGS: cyrstal defect, solid solution, uranium compound, x-ray diffraction analysis

ABSTRACT: The density and structure of samples produced by the dissociation of α and γ forms of UO_3 in a vacuum are studied. The density is determined by vacuum pycnometry, and the x-ray phase analysis is carried out with a URS-70 unit. Comparison of data of both sets of measurements show that the density depends on the structure of the products formed in the UO_3-$UO_{2.67}$ system. The unit cell parameters of the solid solutions with a hexagonal structure in the range of α-UO_3-$UO_{2.9}$ and with an orthorhombic structure in the range of $UO_{2.2}$-$UO_{2.67}$ are calculated. It is shown that the latter is a defect solid solution, and

Card 1/2

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L 10860-66

ACC NR: AT5028248

that the defects are characteristic of both the oxygen and uranium sublattices. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07, 11, 20/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 007

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 10879-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JD

ACC NR: AT5028249 SOURCE CODE: UR/2631/65/000/006/0137/0143

AUTHOR: Strekalovskiy, V. N.; Burov, G. V.; Ozeryanaya, I. N.

ORG. Institute of Electrochemistry, Ural Branch, Academy of Sciences SSSR (Akademiya nauk SSSR, Ural'skiy filial, Institut elektrokhimii)

TITLE: X-ray diffraction study of the corrosion products of certain alloys in carbonate melts

SOURCE: An SSSR. Ural'skiy filial. Institut elektrokhimii. Trudy, no. 6, 1965. Elektrokhimiya rasplavlennykh solevykh i tverdykh elektrolitov (Electrochemistry of fused salts and solid electrolytes), 137-143

TOPIC TAGS: corrosion, nickel base alloy, steel, solid solution, x-ray diffraction analysis

ABSTRACT: An x-ray diffraction study is made of the corrosion products of KhN77TYuR and KhN60Yu nickel-base alloys and Kh18N9 steel in the eutectics Li_2CO_3-Na_2CO_3-K_2CO_3 and Li_2CO_3-Na_2CO_3 at 600—800C. The analysis is made with ionization and photorecording or the diffraction patterns in copper- and chromium-filtered radiation. The formation of the following products is established: in KhN77TYuR, solid solutions with the structure of the original alloy, but with a changed parameter of the solid solution of Li_2O in NiO; in

Card 1/2

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 10879-66

ACC NR: AT5028249

KhN60Yu, films with a spinel structure which may include all the main components of the alloy; in Kh18N9 steel, also spinels, $FeCr_2O_4$ or $NiFe_2O_4$, which probably decompose on prolonged holding. Orig. art. has: 4 figures and 1 table.

SUB CODE: 07, 11/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 006

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 2288-66 EWP(e)/EWT(m)/EWP(w)/EPF(c)/EPF(n)-2/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD/WW/JG

ACCESSION NR: AP5022271 UR/0363/65/001/007/1171/1176

541.123.3

59
58
B

AUTHOR: Volchenkova, Z. S.; Strekalovskiy, V. N.; Pal'guyev, S. F.

TITLE: Structure, electric conductivity, and nature of conductance in the ternary system ($0.75CeO_2$ - $0.25ZrO_2$) - CaO

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1171-1176

TOPIC TAGS: electric conductivity, cerium compound, zirconium compound, calcium oxide

ABSTRACT: The structure and electric conductivity were investigated in the system ($0.75CeO_2$ - $0.25ZrO_2$) - CaO over a wide range of compositions (from 0 to 100 mole % CaO) and temperatures (500-1000C). The samples were prepared by sintering powder mixtures for 2 hr at 1350C. X-ray phase analysis showed the presence of two phases: solid solution of CaO in ($0.75CeO_2$ - $0.25ZrO_2$) with a fluorite-type structure, and CaO (at high contents of the latter). Electric conductivity isotherms at 500, 600, 700, 800, 900, and 1000C were plotted. The change in the temperature coefficients of conductivity and the percent shrinkage

Card 1/2

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L 2288-66
ACCESSION NR: AP5022271

of the samples during sintering as a function of composition were determined. It is found that as the amount of calcium oxide added increases, the unit cell constant of the solid solution changes. This phenomenon is correlated with the data on the total electrical conductivity and data obtained earlier from a determination of the transference numbers of ions and electrons. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: Institut elektrokhimii Ural'skogo filiala Akademii nauk SSSR (Institute of Electrochemistry, Ural Branch, Academy of Sciences SSSR)

SUBMITTED: 10Apr65 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 009 OTHER: 005

Card 2/2

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 12056-66 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) JD/WW/JG

ACC NR: AP6001304 SOURCE CODE: UR/0363/65/001/008/1372/1375

AUTHOR: Strekalovskiy, V. N.; Volchenkova, Z. S.; Samarina, V. A.

ORG: Institute of Electrochemistry, Ural Branch, Academy of Sciences SSSR (Institut elektrokhimii Ural'skogo filiala Akademii nauk SSSR)

TITLE: Contribution to the study of phase components in the ZrO_2-$PrO_{1.83}$ system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 8, 1965, 1372-1375

TOPIC TAGS: zirconium compound, praseodymium compound

ABSTRACT: The structural components of the ZrO_2-$PrO_{1.83}$ system were studied in samples obtained by sintering powder mixtures of the two oxides. The phase composition of the products was studied by x-ray diffraction and chemical analyses. In all samples, a phase with a fluorite structure was present. In mixtures of equimolar composition, another phase designated by X was also present. The reaction products behave differently toward hydrochloric acid: the solubility is low in the region adjacent to the original ZrO_2, and high (almost complete) as $PrO_{1.83}$ is approached. The boundary of zero solubility is the equimolar composition. The chemical compound X was insoluble in HCl. In comparing the x-ray and chemical analyses, the authors found it difficult to arrive at a general interpretation of the data: on the one hand,

Card 1/2 UDC: 546.831'656

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L 12056-66
ACC NR: AP6001304

broad regions of solid solutions with a fluorite-type structure were observed, the nature of the formation of which varies; on the other hand, the character of the distribution of the reacting oxides is apparently related to the presence of a large number of phases in the reaction products. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 07, 11 / SUBM DATE: 13Jul64 / ORIG REF: 004 / OTH REF: 004

oxide 27

Card 2/2

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

(A) L 11005-66 EWP(e)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG/WH

ACC NR: AP5028735 SOURCE CODE: UR/0363/65/001/011/2026/2030

AUTHOR: Semin, Ye. G.; Dmitriyev, I. A.; Strekalovskiy, V. N.; Vykovskiy, V. S.

ORG: Ural Polytechnic Institute im. S. M. Kirov, Sverdlovsk (Ural'skiy politekhnicheskiy institut)

TITLE: Catalyzed crystallization of a beryl melt

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 11, 1965, 2026-2030

TOPIC TAGS: beryllium compound, catalyzed crystallization, titanium dioxide, manganese compound, aluminum oxide, aluminum compound, silicate, x ray diffraction analysis, thermal effect, melting

ABSTRACT: The crystallization of a quenched beryl melt catalyzed with titanium and manganese dioxides was studied. X-ray diffraction analyses were carried out with the URS-50IM diffractometer. It was shown that the crystallization occurs throughout the volume of the substance. The presence of manganese promotes the formation of phenakite in the course of the melting and quenching of the melt. Manganese and titanium dioxides have different effects on the course of the crystallization, the final mineral composition, and the intermediate metastable phases formed during the thermal treatment of the quenched beryl melt. In the case of titanium dioxide, the final phases formed by the crystallization of the beryl melt are β-cristobalite, chryso-

UDC: 546.45+553.83+661.862.65+546.711:717+546.851+161.6:162.2

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L 11005-66

ACC NR: AP5028735

3

beryl, phenakite, corundum, mullite, and γ-Al_2O_3 (low-temperature modification). In the case of manganese dioxide, the final phases are β-cristobalite, chrysoberyl, phenakite, mullite, and γ-Al_2O_3 (low-temperature modification). Orig. art. has: 2 figures.

SUB CODE: 11,07/ SUBM DATE: 23Jun65/ ORIG REF: 008/ OTH REF: 003

Beryllium

27

HW

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

BEKETOV, A.R.; TREKALOVSKIY, V.N.; VLASOV, V.G.

Studying the structure of solid solutions of uranium oxides in the region α-UO_3 - U_3O_8. Zhur. strukt. khim. 6 no.1:75-78 Ja-F '65. (MIRA 18:12)

1. Ural'skiy politekhnicheskiy institut. Submitted February 24, 1964.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

BEKETOV, A.R.; VLASOV, V.G.; STREKALOVSKIY, V.N.

Phase transitions during the dissociation of β and γ-forms of uranium trioxide. Zhur.neorg.khim. 10 no.4:737-740 Ap '65. (MIRA 18:6)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

[illegible], [illegible]; STREKALOVSKIY, V.N.; [illegible]; [illegible], V.K.

Uranium dioxide oxidation studied by the high-temperature methods of electric conductivity, X-ray diffraction, and continuous weighing. Zhur.fiz.khim. 39 no.7:1708-1711 Jl '65.

(MIRA 18:8)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKALOVSKIY, V.N.; BESSONOV, A.F.; UST'YANTSEV, V.M.; BURCV, G.V.

High temperature X-ray diffraction study of oxide ceramics. Trudy Inst. elektrokhim. UFAN SSSR no.6:123-130 '65.
(MIRA 18:11)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

L 14214-66 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP6003642 SOURCE CODE: UR/0078/65/010/010/2384/2386

AUTHOR: Sanatina, V. N.; Strekalovskiy, V. N.; Krulov, Ye. I. 42

ORG: none B

TITLE: Transition metal orthoniobates with rutile structure

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 10, 1965, 2384-2386

TOPIC TAGS: niobium compound, titanium compound, vanadium compound, chromium compound, iron compound, manganese compound, magnetic susceptibility, paramagnetism, niobate, magnetic moment

ABSTRACT: The compounds $TiNbO_4$, $VNbO_4$, $CrNbO_4$, $MnNbO_4$, and $FeNbO_4$ were synthesized from Nb_2O_5 and the corresponding oxide. In each case x-ray analysis confirmed the presence of phases with unit cell parameters characteristic of orthiniobates. Small amounts of free Nb_2O_5 and Ti_2O_3 and Fe_2O_3 were shown to be present on diffractograms of $TiNbO_4$ and $FeNbO_4$. The magnetic susceptibility of the synthesized compounds was measured by the Gouy method at 78, 195, and 295°K at a magnetic field strength of 1200 Oe. within the temperature range studied, the temperature dependence of the molar susceptibility obeys the Curie-Weiss law $\chi_M = C/T-\theta$ with negative values of θ°K, and the effective magnetic

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L 14214-65

ACC NR: AP6003642

moments of trivalent ions: Ti(d^1), V(d^2), Cr(d^3), Mn(d^4), and Fe(d^5) with a spin-free electron configuration. The normal paramagnetism of orthoniobates of trivalent metals is interpreted in terms of their crystal structure. The similarity of the ionic radii of the trivalent A ions (paramagnetic transition metal ions) and pentavalent niobium and their small size create favorable conditions for a statistical distribution of A^{III} and Nb^{V} in the octahedral vacancies of the close-packed oxygen lattice. The short-range order in the arrangement of the paramagnetic A^{III} ions and diamagnetic Nb^{V} ions is maintained by electrostatic forces, so that the A^{III} ions are seldom the closest neighbors to one another, and for this reason normal paramagnetism is manifested here. Orig. art. has: 1 figure, 2 tables.

SUB CODE: 07/ SUBM DATE: 18Aug64/ ORIG REF: 002/ OTH REF: 004

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Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

PEREL'MAN, B.; YATSKEVICH, N.; STREKALOVSKIY, Ye.

Semiautomatic deposition of bronze on a steel base. Mor.flot 25 no.1:32 Ja '65. (MIRA 18:2)

1. Starshiy tekhnolog tekhnicheskogo otdela sudoremontnogo zavoda v Sovetskoy gavani (for Perel'man). 2. Nachal'nik laboratorii sudoremontnogo zavoda v Sovetskoy gavani (for Yatskevich). 3. Nachal'nik tekhnologo-kal'kulyatsionnogo byuro sudoremontnogo zavoda v Sovetskoy gavani (for Strekalovskiy).

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKAVIN, A.

In the old Latvia. Pozh.delo 4 no.11:22-23 N '58.
(MIRA 11:12)

(Latvia--Fire prevention)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKHNIN, G.F.

KUDRIAVTSEV-SKAYF, S.; STREKHNIN, G.F., redaktor; SLEPTSOVA, Ye.N., tekhnicheskiy redaktor.

[Radio, the child of the Russian navy] Radio-detishche russkogo flota. Moskva, Voenno-morskoe izd-vo voenno-morskogo Ministerstva Soiuza SSR, 1951. 95 p. (MLRA 8:11)
(Radio--History)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKHNIN, Yu.F.; LUPACH, V.S., redaktor; ZUDINA, M.P., tekhnicheskiy redaktor.

[Across six borders; sketches of the battles of the Danube Flotilla during 1944 and 1945] Cherez shest' granits; ocherki o boiakh Dunaiskoi flotilii v 1944-1945 godakh. Moskva, Voen.izd-vo Ministerstva obor. SSSR, 1955. 154 p. (MIRA 9:4)
(World War, 1939-1945--Naval operations, Russian)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKHNIN, Yuriy Fedorovich; TATARINOV, M.Ye., redaktor; KARYAKINA, M.S., tekhnicheskiy redaktor

[Armored cutters go into action] Bronekatera idut v boi. Moskva, Izd-vo DOSAAF, 1957. 110 p. (MLRA 10:10)
(World War, 1939-1945--Naval operations)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

KOTEL'NIKOV, Boris Borisovich; STREKHNIN, Yu.F., red.; BOGINA, A.V., red.; SOLOMONIK, R.L., tekhn.red.

["Potemkin" of the Baltic fleet; a historical narrative] Baltiiskii "Potemkin"; istoricheskoe povestvovanie. Moskva, Voen. izd-vo M-va obor. SSSR, 1957. 124 p. (MIRA 11:5)
(Kniaz' Potemkin Tavricheskii (Armored cruiser))

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

DZHAVADOV, R.B.; STREKHOVA, N.S.; NAFLAFOVA, F.K.

Inoculating the smallpox virus into developing chick embryos. Vop. virus. 7 no.2:247 Mr-Ap '62. (MIRA 15:5)

1. Respublikanskiy nauchno-issledovatel'skiy institut epidemiologii, mikrobiologii i gigiyeny, Baku.
(SMALLPOX)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKIS, A. M. In Latvian

STREKIS, A.M. -- "Temperature Stresses in Complex Steam Pipes." Latvian State U, 1952 In Latvian (Dissertation for the Degree of Candidate of Technical Sciences)

SO: Izvestiya Ak. Nauk Latviyskoy SSR. No. 9, Sept., 1955

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKIS, A. M. (Riga)

"Forced Oscillations of Systems With One Degree of Freedom in the Presence of Damping and Arbitrary Disturbing Force".
Voprosy Dinamich Dinamiki i Prochnosti, No 2, pp 109-142, 1954.

Forced unsteady oscillations of a linear system with resistance for assigned initial conditions are considered; the disturbing force is assumed to be in the form of an arbitrary periodic piecewise continuous function of time.

The solution for several intervals of time in which the disturbing force is continuous is considered. The arbitrary constants in this solution are expressed through the initial conditions of motion in the whole and through the discontinuities of the particular integrals and their first derivatives on the entire preceding interval of time.

Next, formulas are derived for the case of a periodic disturbing force both for portions where the disturbing force equals zero and for portions where the disturbing force differs from zero and in continuous. These formulas are convenient for the disturbing force of any period and for any number of regions within that period.

Increasing the number of periods of action of the disturbing force to infinity, the author makes the transition to formulas for steady-state vibrations. Resonance for the case of steady oscillations is considered.

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Continued:

The formulas obtained are applied to two particular forms of periodic disturbing force: (1) law od the rectangle, and)2) instanteous periodic impulses. A numerical example for the case of sign variable periodic disturbing force presented by straight line segments in the presence of discontinuities is considered in detail. (RZhMekh, No 10, 1955)

SO: Sum No 884, 9 Apr 1956

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

SOV/124-57 7 7529

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 10 (USSR)

AUTHOR: Strekis, A. M.

TITLE: The Forced Vibrations of a System Having One Degree of Freedom and Being Acted Upon by an Arbitrary Perturbation Force in the Presence of Dry Friction (Vynuzhdennyye kolebaniya sistemy s odnoy stepen'yu svobody pri nalichii sukhogo treniya i pri proizvol'noy vozmushchayushchey sile)

PERIODICAL: V sb.: Vopr. dinamiki i dinam. prochnosti. Nr 4, Riga AN LatvSSR, 1956, pp 95-121

ABSTRACT: The author investigates the equation

$$\ddot{y} + k^2 y = F(t) \pm R_0,$$

wherein $F(t)$ is the reduced theoretical perturbation force and R_0 is the known value of the reduced force of dry friction. For a stationary process the method of adjusting the initial conditions is used to evolve for the general case a system of equations capable of determining the moments in time at which the velocity passes through zero and the

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SOV/124-57-7-7529

The Forced Vibrations of a System Having One Degree of Freedom (cont.)

force of friction changes sign. By way of example cases are examined wherein the perturbation force follows a rectangular law with and without a change of sign, and other cases wherein the impulses are instantaneous.

Ye. N. Miroslavlev

Card 2/2

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

SEMENOV, A.A.

BORKHSENIUS, N.S.; PAVLOVSKIY, Ye.N., akademik, redaktor; BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S., redaktor; [redacted] redaktor; SHTAKEL'BERG, A.A., redaktor izdaniya; KRUGLIKOVA, N.A., tekhnicheskiy redaktor.

[Suborder Coccoidea. Family Coccidae] Podotr. chervetsy i shchitovki (Coccoidea). Semeistvo podushechnitsy i lozhnoshchitovki (Coccidae). Moskva, Izd-vo Akademii nauk SSSR. 1957. 493 p. (Fauna SSSR, no.66. Nasekomye khobotnye, vol.9) (MLRA 10:5)
(Scale insects)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOPYTOV, A.A.

ANDROSOV, P.I., doktor meditsinskikh nauk; POTEKHINA, L.A., inzhener; SAVCHENKO, Ye.D. kandidat meditsinskikh nauk; STREKOPYTOV, A.A., laureat Stalinskoy premii; TULYAKOVA, L.S., vrach; SHEYNBER, S.A., doktor tekhnicheskikh nauk.

A new technique for suturing bronchial stumps. Khirurgiia no.8:66-70 Ag. '55. (MIRA 9:2)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov (dir.-kandidat meditsinskikh nauk M.G. Anan'yev) Ministerstva zdravookhraneniya SSSR.

(BRONCHI, surg.
suturing of stump with tantalum braces, technic)

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[illegible]

Equipment at present used in an unsurgery and experimental clinical data on the utilization of equipment and instruments of [illegible] 34

[illegible] Instrumenty [illegible] (New [illegible] Equipment and Instruments and Experience in Their Use) NO. 1, [illegible], 19[illegible] collection of Papers of the Scientific Research Inst. for Experimental Surgical Equipment and Instruments.

[illegible]

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

GESELEVICH, A.M., prof.; MIKAYELYAN, A.L.; STREKOPYTOV, A.A.

An apparatus for mechanical suture of auricular appendix. Khirurgiia 33 no.8:123-126 Ag '57. (MIRA 11:4)

1. Iz nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov Ministerstva zdravo-okhraneniya SSSR (dir. M.G.Aman'yev) i Instituta grudnoy khirurgii Akademii meditsinskikh nauk SSSR (dir. A.N.Bakulev)
(SURGER, OPERATIVE, appar. and instruments
appar. for mechanical suture of auric. appendix)
(CARDIOLOGY, appar. and instruments
same)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

GESELEVICH, A.M. (Moskva, Leninskiy prosp., d.13,kv.65); GARIN, N.D.; GORKIN, N.S.; STREKOPYTOV, A.A.

Apparatus for suturing the pulmonary root; small type (UKL-40). Grud. khir. 1 no.3:118-122 My-Je '59. (MIRA 15:3)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov Ministerstva zdravookhraneniya SSSR (dir. M.G. Anan'yev).
(SURGICAL INSTRUMENTS AND APPARATUS)
(SUTURES)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

80202

S/129/60/000/04/016/020
E073/E535

18.9000

AUTHORS: Kolomyshchev, P. T., Candidate of Technical Sciences and Strekopytov, S. A., Engineer

TITLE: Application of High Frequency Heating for Detecting Structures of Various Alloys

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, No 4, pp 56-58 + 1 plate (USSR)

ABSTRACT: The influence of the structure of a number of alloys was investigated by thermal coloration using high frequency heating of the specimens. Prior to heating the cylindrical specimen was ground and polished and then placed on a porcelain base into the centre of the inductor. After the current is switched on for 5 to 10 secs, the polished surface is covered by a thin oxide film. The heating was effected in an inductor of 70 mm diameter using a tube oscillator of 60 kW operating at a frequency of 300 kc/sec. The heating duration was 5 to 7 secs and in some cases 10 secs. Fig 1 (plate) shows the thus revealed microstructure

Card 1/3

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

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E073/E535

Application of High Frequency Heating for Detecting Structures of Various Alloys

containing 0.2% C, 21% Cr, 11% Ni and 2.5% W. Fig 2 shows the structure of a binary alloy of cobalt with 7% boron; the alloy was homogenized at 1000°C for 48 hours. The structure consists of the borides Co_3B and Co_2B which are of very similar composition but in spite of that the thermal coloration enabled distinguishing one from the other. Fig 3 shows the microstructure of alloys of chromium with 8.5 and 10.5% boron. Fig 4 shows the microstructure of an alloy of the system Ni-Cr-B containing 5.5% B and 20% Cr. In the case of titanium alloys ordinary etching does not reveal the structure satisfactorily but high frequency thermal acceleration does reveal it; greater contrast is obtained if prior to heating electrolytic etching is applied for 5 to 10 secs in a bath consisting of 7 ml HF + 27 ml HNO_3 + 66 ml H_2O. The specimen is a cathode and a 1 mm platinum wire can be used as an

Card 2/3

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

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E073/E535

Application of High Frequency Heating for Detecting Structures of Various Alloys

anode, the current density being 0.005 A/cm^2. Fig 5 (plate) shows microstructure photographs of titanium alloys made in this way. The authors recommend using the method of thermal coloration for investigating the microstructures of heterogeneous alloys. Investigation of the microhardness of boride phases in the system Cr-B revealed that the microhardness of borides for B contents up to 29% remains unchanged.
There are 5 figures and 7 Soviet references.

Card 3/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

VEVIOROVSKIY, I.V., dotsent, kand.tekhn.nauk; STREKOPYTOV, V.V., inzhener-aspirant

Possibilities of using alkaline batteries for diesel locomotives. Sbor. LIIZHT no.168:169-177 '60. (MIRA 13:10)
(Diesel locomotives) (Storage batteries)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

RYMASHEVSKIY, D.A., inzh.; SOBOLEV, V.M., inzh.; KOVRIZHKIN, N.P., inzh.; PUSHKAREV, I.F., inzh.; STREKOPYTOV, V.V., inzh.

Answering readers' queries. Elek.i tepl.tiaga 6 no.5:41 My '61. (MIRA 15:6)

(Electric locomotives) (Diesel locomotives)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOPYTOV, V.V., inzh.

Method for calculating the power losses of internal combustion engines. Trudy LIIZHT no.175:112-122 '61. (MIRA 15:12)
(Gas and oil engines)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOPYTOV, V.V., inzh.

Study of the start process of the engine of a diesel locomotive. Trudy LIIZHT no.175:123-137 '61. (MIRA 15:12)
(Diesel locomotives)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOPYTOV, Viktor Vasil'yevich; KURBATOV, Anton Ivanovich; YELSUKOV, V.A., inzh., retsenzent; NOVIKOV, A.V., inzh., red.; GROMOV, Yu.V., tekhn. red.

[Electric drive of the VME1 diesel locomotive] Elektricheskaia peredacha teplovoza VME1. Moskva, Transzheldorizdat, 1962. 54 p. (MIRA 15:6)
(Diesel locomotives—Electric driving)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

PUSHKAREV, I.F., inzh.; STREKOPYTOV, V.V., inzh.; KOVRIZHKIN, N.P., inzh.; KURBATOV, A.I., proyemshchik; KHATSKELEVICH, M.N., inzh.

Answering readers' queries. Elek.i tepl.tiaga 6 no.4:36-37 Ap '62. (MIRA 15:5)

1. Lokomotivnoye depo Leningrad-Baltiyskiy (for Kurbatov).
(Locomotives)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

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VEVIOROVSKIY, I.V., dotsent (Leningrad); STREKOPYTOV, V.V., inzh.;(Leningrad); LAMEDMAN, E.M., inzh. (Leningrad); TOMASHEVSKIY, F.F., inzh. (Leningrad)

Use of alkaline storage batteries for diesel locomotives. Zhel.dor. transp.44 no.3:65-66 Mr '62. (MIRA 15:3)
(Diesel locomotives—Equipment and supplies)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOPYTOVA, V.A., inzh.; CHERNYAYEVA, I.V., red.; OVECHKIN, L.I., tekhn. red.

[Blue flame; from experience in the use of electric welding at the Tyumen' Shipbuilding Plant] Goluboi ogon'; iz opyta primeneniia elektrosvarki na Tiumenskom sudostroitel'nom zavode. Tiumen', Tiumenskoe knizhnoe izd-vo, 1962. 14 p. (MIRA 16:4)

(Ships—Welding)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

SKVORTSOV, A.I.; STREKOTIN, B.I.

Organization of pyoderma control on state farms and at the machine tractor stations in Stalingrad Province. Vest.ven. i derm. no.2: 16-20 Mr-Ap '55. (MLRA 8:5)

1. Iz Stalingradskogo oblastnogo kozhno-venerologicheskogo dispansera (glavnyy vrach zasluzhennyy RSFSR A.I. Skvortsov, konsul'tant prof. M.T. Bril').

(PYODERMA, prevention and control, in Russia in rural workers)
(RURAL CONDITIONS, prev. of pyoderma in Russia in rural workers)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOV, I.S.

On the accomplished and the unsolved. Put' i put.khoz. no.9:2-4 S '57. (MIRA 10:10)

1. Nachal'nik Zabaykal'skoy dorogi.
(Transbaikalia--Railroads)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOVA, V.Yu.

1. KAZ'MINA, N. A., STREKOVA, V. YU.

2. USSR (600)

4. Tree Planting

7. Experiment in using mineral fertilizers in growing tree seedlings. Biul. Glav. bot. sada No. 13, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Uncl.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOVA, V.Yu.

Viscosity of the protoplasm in leaves of some thermophilic plants rendered cold resistant by subjection to variable temperatures. Fiziol. rast. 7 no.4:428-434 '60. (MIRA 13:9)

1. Department of Botany, N.K.Krupskaya Moscow State Pedagogical Institute, Moscow.

(Plants--Frost resistance)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREKOVA, V. Yu.

Histochemical study of some processes occuring during the hardening of corn seed by variable temperatures. Fiziol. rast. 8 no.2:226-232 '61. (MIRA 14:3)

1. Department of Botany, N.K. Krupskaya Moscow Region Pedagogical Institute, Moscow.
(Seeds) (Plants, Effect of temperature on) (Plants—Hardiness)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

(A) L 3989-66

ACC NR: AP5024603 UR/0326/65/012/005/0920/0929
581.14.03

AUTHOR: Strekova, V. Yu.; Tarakanova, G. A.; Prudnikova, V. P.; Novitskiy, Yu. I. 03

TITLE: Some physiological and cytological changes in growing seeds in a constant magnetic field

SOURCE: Fiziologiya rasteniy, v. 12, no. 5, 1965, 920-929

TOPIC TAGS: magnetic field, biological effect, plant physiology, plant respiration, plant metabolism, plant development

ABSTRACT: A study has been made of the effect of a stationary magnetic field produced by ring magnets on the oxygen consumption and growth-zone cytology of three-day-old sprouts grown in the dark. The field strength at seed level was 58, 62, and 100 oe. "Vyatka" rye, "Nemchinovskaya" lupine, horse beans, and "Nerosimiya" cucumbers were tested. The seeds were grown in 0.7% agar in a circle around the south magnetic pole of the field. At a field strength of 58 and 62 oe, the growth of sprouts was accelerated. A field of 100 oe did not appreciably affect the growth of rye. The greatest effect of the field was observed when temperature conditions were optimum for the given type of plant. Fields of 58 and 62 oe inhibited the absorption of oxygen by sprouts; the greatest inhibiting effect was observed when the seeds were swelling. A magnetic field slightly lowered the dry mass of sprouts per unit length but did not affect its expenditure relative to controls. The RNA content in the growth zone

Card 1/2

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L 3989-66

ACC NR: AP5024603

of the stems and roots of maize and lupine increased in a magnetic field, but the DNA content remained relatively constant. The mitotic coefficient in the embryonic zone of lupine and rye roots increased in a 62-oe field, mostly during early mitotic phases. The size of cells in the root-elongation zone of lupine and rye increased approximately 18% in a magnetic field. Orig. art. has: 10 tables and 1 figure. [CD]

ASSOCIATION: Institut fiziologii rasteniy im. K. A. Timiryazeva Akademii nauk SSSR, Moscow (Institute of Plant Physiology, Academy of Sciences, SSSR)

SUBMITTED: 07Dec64 ENCL: 00 SUB CODE: LS

NO REF SOV: 018 OTHER: 023 ATD PRESS: 4120

Card 2/2

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STREKOZOV, I.

Calculating machine made in a technical school. Tekh.mol. 29 no.4: 18 Ap '61. (MIRA 14:5)

(Calculating machines)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

Strelau, J. (Warshava)

Effect of the quality of unconditioned stimuli on the diagnosis of the types of higher nervous activity in the conditioned response methods Vop. psikhol. 10 no.6:37-44 N-D '64.

(MIRA 18:2)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

Strelba, F.

Thermal economy at bone glue plants. p. 64.

(Vol. 5, no. 2, Feb. 1955.)
(Resolution adopted at the meeting of active workers of the chemical industry, February 5, 1955, in Prague. p. 45.)
(Excerpts from an address delivered by J. Pucik, Minister of the Chemical Industry. p. 47.)

CHEMICKY PRUMYSL

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 9, Sept. 1955, Uncl.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

[illegible]

[illegible], [illegible], and A. I. STREL'NITSKAYA.

Teoriia ram iz tonkostennykh sterzhei. Moskva, Gostekhizdat, 1948.
19[illegible] p., tables, diagrs.

Title tr.: Theory of frames composed of thin-walled rods.

TG260. G58

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

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STRELBITSKAYA, A. I.

STRELBITSKAYA, A. I.

Gomburov, B. N. and Strel'bitskaya, A. I. "Calculation of frames from thin-flanged shapes by the method of deformations" Sbornik trudov (Kiyevsk. inzh.-stroit. in-t), Issue [illegible], 1948, p. 16-40

SO: [illegible], 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITSKAYA, A. I.

Strel'bitskaya, A. I. - "Certain dependencies among the strength factors in the limiting stages of a thin-walled profile", Sbornik trudov In-ta stroit. mekhaniki (Akad. nauk Ukr. SSR), Vol. X, 1948, (In index: 1949), p. 90-97.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal'nykh Statey, No. 23, 1949).

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITSKAYA, A. I.

Critical state of thin-walled I-beams under combined stresses.
Sbor. trud. Inst. stroi. mekh. AN URSR no.15:93-101 '51.(MIRA 11:4)
(Girders)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITSKAYA, A.L.

449. Strel'bitskaya, A. L. Experimental investigation of the torsion of thin-walled beams beyond the elastic limit (in Russian), *Inzhener. Sbornik, Akad. Nauk SSSR* 13, 47-64, 1952.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

1. STRAL'BITSKAYA, A. I.

2. USSR (600)

4. Torsion

7. Deformations of a thin-walled cantilever under constrained torsion, Sbor. trud. Inst. stroi. mekh. AN URSR, No. 16, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITSKAYA, A.I.

Oblique bending of metal beams beyond the elastic limit. Sbor. trud.Inst.stroi.mekh.AN URSR no.18:41-51 '53. (MLRA 9:8)
(Girders) (Eleasticity)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITS'KA, O.I.

Formulas for the bimoment in the elasta plastic state of an I-beam. Dop.AN URSR no.6:435-438 '54. (MLRA 9:9)

1.Institut budivel'noi mekhaniki AN URSR. Predstaviv diysniy chlen AN URSR F.P.Belyankin.
(Strength of materials) (Girders)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITS'KA, O.I.

The limited state of single contour frames subjected to vertical eccentric loading on the span piece. Dop. AN URSR no.5: 435-439 '55. (MLRA 9:3)

1. Institut budivel'noi mekhaniki AN URSR. Predstaviv diysniy chlen AN URSR F.P. Belyankin.
(Structural frames)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITS'KA, O.I. (Kiiv)

Supporting power of thin-walled rods subjected to composite stresses. Prykl.mekh. 2 no.3:306-317 '56. (MLRA 9:10)
(Elastic rods and wires)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITSKAYA, A.I.

Limit load of one-contour frames subjected to the force of a perpendicular plane of a frame. Dop.AN URSR no.4:344-348 '56. (MIRA 9:12)

1. Institut budivel'noi mekhaniki Akademii nauk URSR. Predstavleno akademikom Akademii nauk USSR F.P. Belyanskinym.
(Structural frames)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

SOV/124-57-4-4735

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 123 (USSR)

AUTHOR: Strel'bitskaya, A. I.

TITLE: An Investigation of the Operating Conditions of a Thin-walled Channel Section Stressed Beyond Its Elastic Limit (Issledovaniye raboty tonkostennogo shvellernogo profilya za predelom uprugosti)

PERIODICAL: Sb. tr. In-ta stroit. mekhan. AN UkrSSR, 1956, Nr 21, pp 14-26

ABSTRACT: An investigation of the limiting state of a rod having a channel-shaped cross section subjected to flexure combined with torsion. An idealized stress-strain diagram is utilized together with an energy criterion for the initiation of yielding and a hypothesis on the absence of distortion in the plane of a transverse section. The term "limiting state" refers to the propagation of yielding throughout the entire section; the absolute magnitude of normal and tangential stresses at any point on the cross section is assumed to be constant and equal to σ and τ, respectively. The effects of the strain on the magnitude of the internal forces are neglected. The center of flexure and the center of torsion are located (these points do not coincide beyond the elastic limit). Expressions are set up for the bending moment M_x, the

Card 1/3

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transverse force Q_y, the bimoment B, the torque H, and the flexural-torsional moment M_ω; in addition to σ, τ, and the dimensions of the section, these expressions also contain the quantities u, μ, and η which define the points on the section where the stresses undergo an abrupt change in sign. By adding to these equations the condition for the appearance of yielding and by eliminating the quantities σ, τ, u, μ, η, the author obtains an expression which links the values of M_x, Q_y, B, H, and M_ω in the critical cross section; the author recommends this expression for application in practical design calculations. It is not pointed out in the article that only the upper limit of the carrying capacity can be evaluated by the method proposed, since the rod under investigation is considered in its undeformed state. Furthermore, if all members in the recommended expression except Q_y be assumed to be equal to zero, then

$$Q_y = \tau_T h \delta_c \sqrt{1 + \frac{b}{h} \left(\frac{\delta_n}{\delta_c}\right)^2}$$

where h and δ_c represent the height and the width of the web, b and δ_n the width and the thickness of the flange, and τ_T the yield point in shear. The correct expression should have the following form: $Q_y = \tau_T h \delta_c$. The inaccuracy is

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SOV/124-57-4-4735

An Investigation of the Operating Conditions of a Thin-walled Channel (cont.)

attributed to the arbitrariness of the assumption regarding the constancy of τ throughout the entire section.

B. M. Broude

Card 3/3

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITS'KA, O.I.

STREL'BITS'KA, O.I. (Kiiv)

Center of flexure of a bar having thin-walled profile beyond the elastic limit. [In Ukrainian with summaries in Russian and English] Prykl.mekh.3 no.3:295-305 '57. (MIRA 10:12)

1. Institut budivel'noy mekhaniki AN URSR.
(Flexure)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITSKAYA, A. I.

21-6-3/22

AUTHOR: Strel'bitskaya, A.I. (Ukr. spelling: Strel'bytska, O.I.)

TITLE: Determination of the Ultimate Load of Beams in Bending with Torsion (Opredeleniye predel'noy nagruzki balok pri izgibe s krucheniyem)

PERIODICAL: Dopovidi Akademii Nauk Ukrains'koi RSR, L957, No 6, pp 543-547 (USSR)

ABSTRACT: The author considers the ultimate state of I-beams and channel beams caused by the joint effect of bending and torsion, and proposes formulas for determination of the magnitude of the ultimate load. Some formulas have been derived which take into account both normal and tangential stresses. Other formulas, for the six cases of single-span beams loaded with a concentrated load or a uniformly distributed load (shown in the Table), consider normal stresses alone. For these cases formulas have been derived for the ultimate load with bending alone when there is no torsion, and then with torsion alone when there is no bending.
The paper contains one table and 6 Slavic references.

Card 1/2

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PHASE I BOOK EXPLOITATION

14(10)

Strel'bitskaya, Aleksandra Ivanovna

Issledovaniye prochnosti tonkostennykh sterzhney za predelom uprugosti (Investigations of the Strength of Thin-walled Rods Beyond the Elastic Limit) Kiyev, Izd-vo AN USSR, 1958. 294 p. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut stroitel'noy mekhaniki.

Resp. Ed.: F.P. Belyankin, Academician, USSR Academy of Sciences; Ed. of Publishing House: T.K. Remennik; Tech. Ed.: N.P. Rakhlina.

PURPOSE: This book is intended for design engineers, scientific workers and aspirants.

COVERAGE: The book describes the investigation of elasto-plastic and ultimate conditions of thin-walled bars under torsion and bending stresses and under the simultaneous action of torsion and bending. Methods of analysis are based on assumed theoretical considerations. The advantages of the calculation

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methods presented which assure economy of metal over methods of analysis based on elasticity are shown. Theoretical figures and experimental data are compared. The book consists of works of the author published from 1947-1956. Chapters IV, V, VII, VIII, and IX contain new materials. The book is based on the theories of Soviet scientists; V.Z. Vlasov, A.A. Umanskiy, B.N. Gorbunov, D.V. Bychkov, G.Yu. Dzhanelidze, Ya.G. Panovko, N.I. Karyakin, I.V. Obran, et.al. The author thanks N.D. Zhudin, Head of the Chair of Metal and Wood Construction, KISI, and F.P. Belyakin, Academician, for valuable help and comments in reviewing this book, and Technician, G.I. Yevseyenko for most of the computations in the text, and T.A. Kulik, for his help in editing the book. The book contains numerous graphs, diagrams and tables. The bibliography contains 182 references, 146 Soviet, 13 English, 13 German, 7 French, and 3 others.

TABLE OF CONTENTS:

Preface 5

Ch. I. Brief Survey of the Literature
1. Theoretical investigations 9
2. Experimental work 17

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

STREL'BITSKAYA, A.I. [Strel'byts'ka, O.I.] (Kiyev)

Plastic resistance moments of flanged beams and girders subjected to oblique bending. Prykl. mekh. 4 no.4:453-461 '58. (MIRA 11:12)

1.Institut stroitel'noy mekhaniki AN USSR.
(Girders)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653510013-6

SOV-21-58-9-6/28

AUTHOR: Strel'bitskaya, A.I.

TITLE: Effect of Torsion on the Value of the Limiting Load in Hingeless Frames (Vliyaniye krucheniya na velichinu predel'noy nagruzki v bessharnirnykh ramakh)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 9, pp 937-942 (USSR)

ABSTRACT: Developing further the results of her previous studies, the author considers the effect of eccentrical load application on the value of the limiting load in rectangular hingeless frames made of soft steel. Torsion and bending are considered. The forces act on the collar beam parallel to the frame plane. The author derives formulae for determining the values of limiting loads for various possible cases. The carrying capacity of the frame is investigated in the case of formation of three plastic hinges in the collar beam and in the case of a plastic hinge in the collar beam and two hinges in the upper ends of the uprights. For the first case the value of the limiting uniformly distributed load on the collar beam of the frame is found with the change in the eccentricity of load application from 0 to 10 cm. The frame is built of I-beams with the ratio of the span to the height of the upright

Card 1/2

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being one. The results show a considerable decrease of the limiting load with eccentricity increase which attains 50% at its value e = b = 10 cm. There are 3 diagrams, 1 graph and 6 Soviet references.

ASSOCIATION: Institut stroitel'noy mekhaniki AN UkrSSR (Institute of Construction Mechanics of the AS UkrSSR)

PRESENTED: By Member of the AS UkrSSR, F.P. Belyankin

SUBMITTED: April 8, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Structures--Stresses 2. Structures--Stability 3. Mathematics

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report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

268. L. N. Stavraki (Kuibishev): Strain design and general stability of structures.

269. L. N. Stavrayi (Kuibishev): A general method of solving non-linear problems of structural mechanics.

270. S. D. Stepanov (Moscow): A contribution to the non-linear problem of plate flutter.

271. L. G. Stepanskii, E. P. Unksov (Moscow): On the use of variational principles for the approximate solution of some problems of plastic equilibrium.

272. A. I. Strelbitskaia (Kiev): Experimental investigation of the oblique bending of steel beams beyond the elastic limit.

273. A. S. Stroganov (Moscow): Strength and visco-plastic flow of soils.

274. G. I. Ter-Stepanian (Erevan): The relation between pore pressure and rate of creep of slopes.

275. L. A. Tolokonnikov (Tula): Finite plastic strains of non-linearly deformed bodies.

276. A. D. Tomlenson (Moscow): Piercing of metals by a spherical punch considering contact friction.

277. Ie. L. Yorchinskaia (Moscow): An asymptotic method of designing flexible blades of variable pitch at high speeds of rotation.

278. R. Y. Tormer (Moscow): Application of similarity methods to the analysis of the flow of rubber compounds.

279. A. A. Trapezikov, T. G. Shalopalkina (Moscow): Dependence of the maximum elastic and discontinuous strains of aluminum-naphtenate gels on strain rates.

280. S. A. Tumarkin (Moscow): An asymptotic method for the design of toroidal shells.

281. V. K. Turkin (Moscow): Some problems of soil dynamics.

282. N. V. Tiabin (Kazan): The flow in the boundary layer of an elastic, visco-plastic medium.

283. A. G. Ugodtsikov (Gorkii): Some problems concerning the analysis of stresses in shrink fits.

284. S. V. Uzhik (Moscow): On strength and [illegible] criteria for metals in the presence of [illegible].

285. I. I. Ulitskii (Kiev): Some problems of [illegible].

286. A. A. Umanskii (Moscow): Analogy and model methods in problems of structural mechanics concerning bars and thin-walled structures.

287. M. T. Urazbaev (Tashkent): The problem of seismic strength of fluid supported hydraulic structures.

288. Ia. S. Ufliand (Leningrad): Application of integral transformations to the solution of some problems concerning an elastic wedge.

289. V. S. Fadyeva (Moscow): Deformations of plastic clays in moulding.

290. I. V. Fadeev (Moscow): Elastic-plastic equilibrium of an acute granular wedge.

291. M. L. Feldman (Dnepropetrovsk): Stability and vibrations of orthotropic plates of variable thickness.

292. A. P. Filippov (Kharkov): Extensional vibrations of turbine discs.

293. M. M. Filonenko-Borodich (Moscow): On the possibility of generalizing the Mohr and Huber-Mises-Hencky theories of rupture.

294. N. P. Fleishman (Lvov): Some problems concerning the bending of plates and shells with stiffeners.

295. L. M. Flitman (Moscow): On the impact of a wave on a heavy rigid sphere embedded in an elastic medium.

296. V. A. Florin (Leningrad): Some problems concerning rock formations of hydraulic structures.

297. V. A. Florin (Leningrad): Present state and problems of soil mechanics.

298. V. A. Florin (Leningrad): Flow conditions for saturated sands.

299. N. V. Florina (Leningrad): Experimental study of real and apparent friction in vibrating soils.

300. B. N. Fradlin, S. M. Shakhnovskii (Kiev): On the construction of Green's functions for the equilibrium problem of shallow shells.

301. S. N. Fraifeld (Kharkov): Further development of the initial rheological equation.

302. V. M. Frolov (Moscow): Temperature stresses in cantilever plates and their effect on stiffness.

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STREL'BITSKAYA, A.I. [Strel'byts'ka, O.I.]; BIRYUKOVICH, Yu.L. [Biriukovych, IU.L.]

Testing rolled girders for oblique bending beyond the elastic limit. Dop.AN URSR no.1:22-26 '60. (MIRA 13:6)

1. Institut stroitel'noy mekhaniki AN USSR. Predstavleno akademikom AN USSR F.P.Belyankinym [F.P.Bieliankinym].
(Girders) (Flexure)

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STREL'BITSKAYA, A.I. [Strel'byts'ka, O.I.)

All-Union Congress on Theoretical and Applied Mechanics (January 27-February 3, 1960). Prykl.mekh. 6 no.2: 233-234 '60. (MIRA 13:8)
(Mechanics--Congresses)

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