"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.A.; CHERVYAKOVA, V.V.

The nature of transformations in β-brass. Vest. AN Kazakh.SSR 21 no.2:31-38 F '65. (MIRA 18:3)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.A., doktor tekhn. nauk

The diffusion mechanism of plasticity. Vest. AN Kazakh. SSR 21 no.9:10-15 S '65. (MIRA 18:9)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 10300-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AT7003050 SOURCE CODE: UR/2817/66/015/000/0028/0031

AUTHOR: Dzhangusinov, Ye. A.; Ayukhozhin, E. S.; Presnyakov, A. A.

ORG: none

TITLE: Certain features of variation in electric resistance of copper-gold alloys approximating the CuAu composition

SOURCE: AN KazSSR. Institut metallurgii i obogashcheniya. Trudy, v. 15, 1966, 28-31

TOPIC TAGS: copper alloy, gold alloy, electric resistance

ABSTRACT: Experimental data on ordering of a CuAu alloy is given. Electrical resistance was measured by the compensation method with the use of a potentiometric device housing a PPTN-1 potentiometer and an M21 galvanometer. Wires made of an alloy of copper and gold having a composition close to CuAu and a diameter of 1 mm underwent investigation. The specimen was annealed at temperatures of 100, 200, 300, 400, 500 and 600°, and electrical resistance determined as a function of the tempering temperature after quenching from 600°. After each heat treatment the electrical resistance was measured with an accuracy up to 0.05%.

The initial stage of ordering of the CuAu alloy associated with the conversion of one structural form (CuAu I) into another (CuAu II), promotes the appearances of two minima on the electrical resistance curve in the region of 275-300 and 300-330°. The emergence of a new structural form associated with the terminal stage of ordering leads to an anomalous variation in electrical resistance in the 450-500° region. The presence of transformations in the 400-500° region confirms literature data. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 11 / SUBM DATE: none / ORIG REF: 005 / OTH REF: 008

Card 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 04177-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AT6027303 (A) SOURCE CODE: UR/2817/66/015/000/0120/0125

AUTHOR: Presnyakov, A. A.; Chernysheva, Yu. P.

ORG: none

37
B+1

TITLE: The influence of aluminum concentration on the strength properties of aluminum bronze

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut metallurgii i obogashcheniya. Trudy, vol. 15, 1966. Prevrashcheniya v splavakh tsvetnykh metallov v tverdom sostoyanii (Transformations in nonferrous metal alloys in a solid state), 120-125

TOPIC TAGS: aluminum bronze, mechanical strength, temperature dependence, microhardness, metallographic examination, solid solution, phase boundary, ordered alloy, plasticity

ABSTRACT: The effect of aluminum concentration on the strength properties of aluminum bronze was studied in order to clarify a previously observed anomaly in plasticity occuring in the 5-6 wt % range. Strength, microhardness, and microhardness distribution were given as functions of aluminum content and temperature, the latter ranging from 20 to 900°C and the former from 0 to 10%. Microstructures showed precipitation of a second phase even at 8.2% Al. With increase in aluminum content, the microhardnes at 20°C rose linearly up to about 4% Al, while peaks occured near the stoichiometric composition Cu_9Al (5-6 wt %) in all three conditions: cast, deformed, and homogenized.

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 04177-67

ACC NR: AT6027303

A second peak, near 7% Al, was caused by the phase transformation $\beta \rightarrow \alpha + \gamma$; thus the solubility limit of aluminum in copper is about 7.0%. The scatter in microhardness, given as a function of concentration, also exhibited these anomalies in the same concentration ranges. For 5.6 and 2.33% Al, the microhardness remained constant as a function of quenching temperature up to about 250°C; however, a maximum occured near 300°C for 5.6% Al and near 550°C for 2.23% Al. The strength displayed maxima at 5.6% Al and minima at 7.11% Al when measured at 20, 275, 375, and 475°C. Beginning at 8% Al the strength increased sharply. At 500°C and above the strength anomaly was absent. Thus up to 500°C the maxima were associated with solid solution ordering based on Cu_9Al, while the strength minima were related to the eutectoid transformation $\alpha + \gamma \rightarrow \beta$. The strength was also given as a function of temperature for 7 different compositions ranging from 0.76% to 7.6% Al. With rise in concentration, the strength increased at the lower temperatures (below 500°C). For 5.8% Al, the strength was constant in the range 100-325°C, and dropped sharply in the 325-350°C range. For 6.2% Al, a maximum in strength occured at 300°C. The anomalous changes in strength in the 100--300°C range were caused by the transition to the unordered state. The sharpest change occured for 5.8% Al. Anomalies also occured in alloys, lying near the solid solubility boundary; in alloys with 8.0 and 8.2% Al a horizontal portion was observed in the 250-450°C range. Orig. art. has: 6 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 006

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.G.; BABAT, G.I., redaktor.

[Galvanizing bath for alternating current] Gal'vanicheskaia vanna na peremennom toke. Moskva, Gos. energ. izd-vo, 1953. 15 p. (MLRA 7:3)
(Galvanizing)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.

USSR/ Electricity - Batteries

Card 1/1 Pub. 89 - 25/30

Authors : Presnyakov, A.

Title : Gaseous elements and storage batteries

Periodical : Radio 6, 51 - 52, Jun 1955

Abstract : The search for cheap portable electric energy sources brought up the problem of utilizing gaseous elements (gaseous galvanic elements or atomic gases) in the manufacture of storage batteries. The advantages and disadvantages of such electric power sources are discussed. The effect of daylight and temperature on the performance of gas batteries is explained and the charging and discharge characteristics of the battery are described. Drawing.

Institution : .....

Submitted : .....

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.G. (g. Moskva)

A gas bettery. Fiz. v shkole 15 no.3:43-44 My-Je '55.
(Electric batteries) (MLRA 8:6)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, Aleksandr Griger'yevich; KAPUSTIN, I.I., redaktor; VORONIN, K.P., tekhnicheskiy redaktor.

[Gas batteries] Gasovyi akkumuliator. Moskva, Ges. energ. izd-vo, 1956. 19 p. (MLRA 9:6)

(Electric batteries)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, Aleksandr Grigor'yevich; KUZOVNIKOV, A.A., red.; LARIONOV, G.Ye., tekhn. red.

[Search for the new; an inventor's notebook] Poiski novogo; zapiski izobretatelia. Moskva, Gos. energ. izd-vo, 1958. 61 p. (MIRA 11:7)
(Inventions)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PHASE I BOOK EXPLOITATION SOV/4780

Presnyakov, Aleksandr Grigor'yevich

Dorogoy iskaniy; zapiski izobretatelya (On the Path to Invention; Notes of an Inventor) Moscow, Gosenergoizdat, 1959. 63 p. 4,650 copies printed.

Ed.: L.B. Pirozhnikov; Tech. Ed.: P.M. Asanov.

PURPOSE: This booklet is intended for the general reader.

COVERAGE: The booklet describes in popular form various inventions of the author ranging from the internal combustion or gas turbine which he developed thirty years ago to his present proposals concerning thermochemical and solar turbines and installations for extracting nitrogen from the air. I.I. Artobolevskiy, Academician, wrote the Preface. There are no references.

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, Aleksandr Grigor'yevich; CHERNOV, Ye., red.; PAVLOVA, S., tekhn.red.

[Conquered molecule] Pokorennaia molekula. Moskva, Mosk.rabochii, 1960. 55 p. (MIRA 13:7)
(Synthetic products) (Silicon organic compounds)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

BORIN, A.B.; PRESNYAKOV, A.G.; LIVANOV, A.K., red.; PROZOROVA, L.Ye., tekhn. red.

[Club of young inventors] Klub molodykh izobretatelei; sbornik. Moskva, Izd-vo "Molodaia gvardiia," 1962. 415 p. (MIRA 16:7)

(Technological innovations)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PHASE I BOOK EXPLOITATION SOV/6504

Presnyakov, Aleksandr Aleksandrovich

Fizicheskaya prioroda anomaliy plastichnosti u metallicheskikh splavov (Physical Nature of Anomalies in Ductility of Metal Alloys) Alma-Ata, Izd-vo AN KazSSR, 1963. 63 p. 1100 copies printed.

SPONSORING AGENCY: Akademiya nauk Kazakhskoy SSR. Institut metallurgii i obogashcheniya.

Resp. Ed.: I. G. Grinman, Ed.: D. M. Glazyrina; Tech. Ed.: A. G. Khudyakov.

PURPOSE: This booklet is intended for engineering personnel of nonferrous metal-working plants, scientific research workers, and students concerned with problems of metal science.

COVERAGE: This booklet explains the concepts of the diffusion nature of ductility drop and superductility on the basis of investigations of ductility anomalies in brass, bronze, and aluminum alloys. No personalities are mentioned. There are 62 references: 46 Soviet, 9 German, and 7 English.

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

Physical Nature of Anomalies (Cont.) SOV/6504

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Conclusion 60

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AVAILABLE: Library of Congress

SUBJECT: Metals and Metallurgy

3/30/64
DV/fmr/gm

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, Aleksandr Grigor'yevich; PIROZHNIKOV, L.B., red.; ~~SHIROKOVA, M.M.,~~ tekhn. red.

[How an idea was born and carried out; an inventor's notes] Rozhdenie i voplosheenie zamysla; zapiski izobretatelia. Moskva, Gosenergoizdat, 1962. 110 p. (MIRA 15:9)
(Electric apparatus and appliances)
(Inventions)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, Aleksandr Grigor'yevich; PIROZHNIKOV, L.B., red.; SHIROKOVA, M.M., tekhn. red.

[How an idea was born and carried out; an inventor's notes] Rozhdenie i voploshchenie zamysla; zapiski izobretatelia. Moskva, Gosenergoizdat, 1962. 110 p. (MIRA 15:9)
(Electric apparatus and appliances)
(Inventions)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

FRESNYAKOV, D.F.

Significance of a remote electrode in the chest leads of the electrocardiogram. Klin.med. 38 no.1:115-120 Ja '60. (MIRA 13:10)

(ELECTROCARDIOGRAPHY)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, D.F., doktor med.nauk (Moskva)

Origin and significance of unipolar limb leads. Klin.med. 37 no.7:103-109 Jl '59. (MIRA 12:10)

1. Iz kafedry vnutrennikh bolezney (zav. - prof.I.A.Chernogorov) Moskovskogo meditsinskogo stomatologicheskogo instituta (dir. - dotsent G.N.Beletskiy).
(ELECTROCARDIOGRAPHY)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, D.F., doktor med. nauk

Origin and clinical significance of unipolar thoracic leads in electrocardiography with coupled electrodes. Terap. arkh. 30 no.3:66-70 Mr '58. (MIRA 11:4)

1. Iz kafedry vnutrennikh bolezney (zav.-prof. I.A. Chernogorov) Moskovskogo meditsinskogo stomatologicheskogo instituta.
(ELECTROCARDIOGRAPHY,
thoracic leads in ECG with coupled electrodes (Rus)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV D. F.

118

Determination of protein in blood plasma by the sugar-scale refractometer. D. F. Presnyakov (Moscow Stomatol. Inst.). *Vrachebnoe Delo* 26, 230-2(1946). -- A conversion scale is given and examples for explanation of the use of a sugar-scale refractometer for protein determ. which ordinarily require the expensive Pulfrich instrument.

G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, D.F.

Some problems concerning the nomenclature of vectorcardiographic leads. Kardiologiia 4 no.3:80-82 My-Je '64. (MIRA 18:4)

1. Kafedra vnutrennikh bolezney Moskovskogo meditsinskogo stomatologicheskogo instituta.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, D.F., prof.

Organization of the control of cardiovascular diseases (with results of the Fifth Conference of the Ministers of Public Health of the Socialist Countries). Sov. med. 25 no.3:144-146 Mr '61. (MIRA 14:3)

(CARDIOVASCULAR DISEASES--CONGRESSES)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

Name: PREGNYAKOV, Dmitriy Fedorovich

Dissertation: Multiple deviations of electrocardiagrams (on the mutual relation of deviations)

Degree: Doc Med Sci

Affiliation: Moscow Medical Stomatological Inst

Defense Date, Place: 30 Nov 56, Council of the Department of Clinical Medicine, Acad Med Sci

Certification Date: 11 May 57

Source: BMVO 15/57

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, D.F.

Clinical significance of the electrocardiogram in hypertension; modifications of the ventricular complex in standard leads. Klin. med.,Moskva 18 no.11:47-53 Nov 50. (CIML 20:5)

1. Of the Clinic for Internal Diseases of Moscow Stomatological Institute, Moscow.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNIAKOV, D. F.

Clinical importance of the electrocardiogram in high blood pressure; changes of the ventricular complex in thoracic leads CR_1 and CR_6. Ter. arkh. 22:3, May-June 50. p. 38-46

1. Of the Clinic for Internal Diseases, Moscow Stomatological Institute.

CLML 19, 5, Nov., 1950

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

[illegible]V, [illegible]

[illegible] changes in
myocardial [illegible] and [illegible] importance. Kar-
diologiia [illegible] (M[illegible])

1. [illegible] ([illegible])
[illegible]

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

The Kira-Kira phlogopite deposit in Eastern Transbaikalia. E. Presnyakov. *Trans. Geol. Prospecting Service* (U. S. S. R.) **50**, 761-4(1931); *Neues Jahrb. Mineral. Geol.* **1933**, Referate II, 469-70. The radioactivities of several granites were detd.; they seldom reached a value equivalent to 2% U_3O_8. The radioactivity of phlogopite ran from 0.033 to 0.18% U_3O_8. J. F. S.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, E. A.

On the Seismic Conditions in the Eastern Zabayxal'. Trudy Vost. Sib. Gos. Universiteta, No 1, Irkutsk, 1932.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, I.I.

Unusual case of fibroma of the thoracic wall. Khirurgiia 36 no.1:104-105 Ja '60. (MIRA 13:10)
(CHEST—TUMORS)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

ANTIPIN, G.V., mashinist elektrovoza, Geroy Sotsialisticheskogo Truda; [illegible], I.I., elektromonter; PRESNYAKOV, I.R., Geroy Sotsialisticheskogo Truda; DENISKIN, [illegible], mashinist-instruktor; [illegible], N.I., tokar'-ratsionalizator; KAZACHEK, I.K.; CHEN HUA-DIN [Ch'eng Hua-ting]; U FYN [Wu Fêng]; LYU I [Liu I]; YAN CHAO [Yang Ch'ao]; TIKHMENEV, B.N., doktor tekhn.nauk; [illegible], [illegible], inzh. (g.Parizh); [illegible], [illegible]A., inzh.; PIVOVAROV, G.I.

A feat which will live forever. Elek. i tepl. tiaga 5 no.5:1-3 My '61. (MIRA 14:7)

1. Depo Krasnoyarsk (for Antipin). 2. Gusskaya distantsiya kontaktnoy seti (for Belikov). 3. Master avtomatnogo tsekha depo Liski (for Presnyakov). 4. Lokomotivnoye depo Orenburg, rukovoditel' kolonny teplovozov imeni XXII s"yezda partii (for Deniskin). 5. Instrumental'nyy tsekh kommunisticheskogo truda lokomotivnogo depo Kuybyshev (for Manonin). 6. Literaturnyy sotrudnik gazety "Kuybyshevskiy zheleznodorozhnik" (for Kazachek). 7. Moskovskiy institut inzhenerov transporta (for Chen Hua-din, U Fyn, Lyu I, Yan Chao). 8. Rukovoditel' laboratorii peremennogo toka Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta Ministerstva putey soobshcheniya (for Tikhmenev). 8. Nachal'nik depo Leningrad-Baltiyskiy (for Pivovarov).

(Astronautics)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

KRIVOPUST, V.I.; PRESNYAKOV, I.R., Geroy Sotsialisticheskogo Truda; MEZENTSEV, V.A.; POPOD'KO, Ye.T.

On the road of technical progress. Elek.i tepl.tiaga 3 no.12: 3-9 D '59. (MIRA 13:4)

1. Nachal'nik depo Liski Yugo-Vostochnoy dorogi (for Krivopust). 2. Master avtomatnogo tsekha depo Liski Yugo-Vostochnoy dorogi (for Presnyakov). 3. Master tsekha toplivnoy apparatury depo Liski Yugo-Vostochnoy dorogi (for Mezentsev). 4. Master tsekha bol'shogo periodicheskogo remonta Yugo-Vostochnoy dorogi (for Popod'ko).

(Liski--Railroads--Repair shops)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, L.B.

Improving the use of working time in the enterprises of the Central Chernozem Economic Council. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 18 no.2:61-64 F '65. (MIRA 18:5)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, L.B.

In the economic laboratories of the Central Chernozem Economic Council. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh. inform. 18 no.4:69-71 Ap '65. (MIRA 18:6)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

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PRESNYAKOV, I.B.

Improving the system of production management. Biul.tekh.-ekon.inform. Gos.nauch.-issl.inst.nauch.i tekh.inform. 18 no.5:62-64 My '65. (MIRA 18:6)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, L.B.

Economic efficiency of the introduction of new equipment in the enterprises of the Central Chernozem Economic Council. Biul. tekh.-ekon.inform. 18 no.6:60-64 Je '65. (MIRA 18:7)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, L.B.

Work of the technical and economic council of the Central Chernozem Economic Council. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.12:87-88 '63. (MIRA 17:3)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, L.B.

Further introduction of multiple part machining in the enterprises of the Central Chernozem Economic Council. Biul.tekh.-ekon.inform. Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.8:79-80 '63. (MIRA 16:10)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

FRE. NYAKOV, L.B.

Improving the quality and increasing the reliability and life of articles manufactured by the enterprises of the Central Chernozem Economic Council. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.3:83-84 '64. (MIRA 17:9)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

39489

24.6200

S/056/62/043/002/023/053
B104/B108

AUTHORS: Vaynshteyn, L., Presnyakov, L., Sobel'man, I.

TITLE: Excitation of atoms by heavy particles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 2(8), 1962, 516-524

TEXT: In semi-classical two-level approximation, the collision of atoms with heavy particles (atoms, ions, etc.) and their excitation can be described by the system of equations

$$i\dot{a}_0 = V_0(t)\,a_0 + V(t)\,e^{-i\omega t}\,a_1, \qquad i\dot{a}_1 = V_1(t)\,a_1 + V(t)\,e^{i\omega t}\,a_0; \qquad (1)$$

$$|a_0(-\infty)| = 1, \qquad |a_1(-\infty)| = 0, \qquad |a_0(t)|^2 + |a_1(t)|^2 = 1, \qquad (2)$$

As the function V(t) has a phase factor $e^{i\gamma}$, it is possible to substitute $a_0 \rightarrow a_0 e^{i\gamma/2}$, $a_1 \rightarrow a_1 e^{i\gamma/2}$, and $V \rightarrow |V|$. According to N. G. de Breyn (Asimptoticheskiye metody v analize - Asymptotic methods in analysis, IIL, 1961), (1) has an asymptotic solution which furnishes the equation

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

$$\Omega(t) = \mathrm{Re}\,\frac{1}{v}\int_0^{vt} dx\left\{\alpha - \left(V^2 + \frac{v^2}{2}\left[\frac{V'}{V} + i\frac{\alpha}{v}\right]' - \frac{v^2}{4}\left[\frac{V'}{V} + i\frac{\alpha}{v}\right]^2\right)^{1/2} - \right.$$
$$\left. - \left(V^2 + \frac{v^2}{2}\left[\frac{V'}{V} - i\frac{\alpha}{v}\right]' - \frac{v^2}{4}\left[\frac{V'}{V} - i\frac{\alpha}{v}\right]^2\right)^{1/2}\right\}. \qquad (11)$$

for the correction $\Omega(t)$ to the phase difference between $a_1(t)$ and $a_2(t)$, which is due to the potential $V(t)$. With the aid of Eq. (11) one obtains

$$|a_1(\infty)| = \left|\sin\int_{-\infty}^{\infty} V(t)\cos\left(\int_0^t \sqrt{\alpha^2(\tau) + 4V^2(\tau)}\,d\tau\right)dt\right| \equiv |\sin J|. \qquad (13)$$

wherefrom

$$w = \left|\int_{-\infty}^{\infty} V(t)\cos\left(\int_0^t \sqrt{\alpha^2(\tau) + 4V^2(\tau)}\,d\tau\right)dt\right|^2. \qquad (15)$$

is found for the transition probability of the nucleus into excited states.

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B104/B108

When the optically allowed transitions are excited (charge-dipole interaction), the effective transition cross section is obtained as

$$\sigma = 2\pi \int_0^\infty \omega\rho \, d\rho = 2\pi \left(\frac{\lambda}{v}\right) e^{-2\sqrt{2\beta}} I(\beta), \qquad (27)$$

$$I(\beta) = \int_0^\infty \sin^2\left(\frac{\pi}{x}\right) \exp\{-2[\sqrt{2\beta + \beta^2 x^2} - \sqrt{2\beta}]\} x \, dx. \qquad (28)$$

The calculations are made without successive approximation, and the transition energy ΔE may have any value. There are 2 figures.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: February 13, 1962

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

VAYNSHTEYN, L.; PRESNYAKOV, L.; SOBEL'MAN, I.

Model for calculating the effective cross section of atomic excitation. Zhur. eksp. i teor. fiz. 45 no.6:2015-2021 D '63. (MIRA 17:2)

1. Fizicheskiy institut imeni Lebedeva AN SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

ACCESSION NR: AP4042387 S/0056/64/047/001/0181/0187

AUTHORS: Poluektov, I.; Presnyakov, L.; Sobel'man, I.

TITLE: Collisions accompanied by charge exchange

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 1, 1964, 181-187

TOPIC TAGS: particle collision, charge exchange, Hermite matrix, hydrogen, helium

ABSTRACT: Pointing out that earlier difficulties with this problem were due to the use of non-Hermitian functions leading to non-normalized transition probabilities, the authors present a new formulation of the charge-exchange problem, which leads to a system of equations with a Hermitian matrix. An approximate method for integrating this system is developed, analogous to that previously proposed by two of the authors (L. A. Vaynshteyn, L. P. Presnyakov, I. I. Sobel'man, ZhETF v. 43, 518, 1962) for the excitation of atoms. A

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

ACCESSION NR: AP4042387

general approximate formula is obtained for the charge-exchange probability, which contains as limiting cases several of the results obtained earlier by Bates and McCarrol (Adv. in Physics v. 11, 39, 1962) and Yu. N. Demkov (ZhETF v. 45, 195, 1963). The approximate formula is applicable for arbitrary velocity of the colliding particles, and the cross section for the charge exchange $H^+ + He(1s^2) \rightarrow H(1s) + He^+$ with the aid of this formula yielded good results, within the accuracy that can be expected under the assumptions made. "We are grateful to L. A. Vaynshteyn for a discussion and to I. L. Beygman and A. V. Vinogradov for help with the calculations." Orig. art. has: 1 figure and 33 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences, SSSR)

SUBMITTED: 26Dec63

ENCL: 00

SUB CODE: NP

NR REF SOV: 005

OTHER: 004

2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 22143-65 EWT(m)/EWP(b)/ ASDM-3/ASMP-2 JD/JG

ACCESSION NR: AP5001856 S/0056/64/047/006/2306/2312

AUTHOR: Vaynshteyn, L.; Opykhtin, V.; Presnyakov, L.

TITLE: Excitation of alkali metal atoms

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 6, 1964, 2306-2312

TOPIC TAGS: Alkali metal, excitation cross section, resonance level, inelastic collision, optical electron

ABSTRACT: A model developed previously by the author (with L. Presnyakov and I. Sobel'man, ZhETF v. 45, 2015, 1963) for use in calculating the cross sections for inelastic collisions when the repulsion between the external and optical electrons is most prominent, is extended to the case of excitation of an arbitrary atom by electron impact. The Born approximation with close coupling was also used. An electronic computer was used for all calculations. The radial functions of the optical electron were determined semi-empirically taking accout of exchange, as in earlier work by the author (Optika i spektroskopiya v. 3, 313, 1957; Izv. AN

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 22143-65

ACCESSION NR: AP5001856

SSSR, seriya fiz. v. 22, 671, 1958), and are similar to the Hartree-Fock functions. For nonresonance levels, the excitation at the threshold proceeds mainly via an intermediate level. The excitation cross section is explained satisfactorily by the model $E > 3\Delta E$, and for all values of E in the case of a resonance level. To obtain more accurate data it would be necessary to have absolute measurement data on the cross sections for a larger number of lines. Orig. art. has: 1 figure, 11 formulas, and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences SSSR).

SUBMITTED: 24Jun64 ENCL: 00

SUB CODE: NP NR REF SOV: 010 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 11014-65 EWT(1)/EWT(m)/EPF(c)/EPA(w)-2/EEC(t)/T/EWP(t)/EWP(b)/EWA(m)-2
Pr-4/Pab-10 IJP(c)/AEDC(a)/AS(mp)-2/SSD(a)/ASD(a)-5/ESD(t) WW/JD
ACCESSION NR: AP4046434 S/0056/64/047/003/1134/1135

AUTHOR: Presnyakov, L. P.

TITLE: Ionization of atoms by electron impact

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 3, 1964, 1134-1135

TOPIC TAGS: ionization, ionized atom, electron impact, excitation cross section, ionization cross section

ABSTRACT: A method developed by the author (with L. Vaynshteyn and I. Sobel'man, ZhETF v. 45, 2015, 196.) for calculating the cross sections for the excitation of atoms, is applied to the calculation of the ionization of atoms by electrons. The effective cross sections for the ionization of H and Na atoms in the ground state are calculated in accordance with this method by using the solutions of the Hartree-Fock equation as the wave functions for the initial

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 11014-65
ACCESSION NR: AP4046434

5

and final states of the optical electron of the sodium atom, without allowance for the influence of the optical electron on the core. The results are in good agreement with the experimental data, although the agreement for sodium could be obtained only by some normalization. Although the results differ from experiment at very high energies, and the reason for this discrepancy is not yet clear, the difference between the absolute values of the cross sections normalized by the Born approximation is slight. "The author thanks L. A. Vaynshteyn for discussing the work and I. L. Beygman and V. V. Opy*khtin for help with the numerical calculations." Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 15Apr64 ENCL: 00

SUB CODE: NP NR REF SOV: 001 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, L.P.; SOBEL'MAN, I.I.

Propagation of electromagnetic waves in a medium with a variable refractive index. Izv.vys.ucheb.zav.: radiofiz. 8 no.[illegible] '65. (MIRA 18:[illegible])

1. Fizicheskiy institut im. P.N.Lebedeva AN SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

L 53014-65 EWT(d)/EWT(1)/EPF(c)/EEC(k)-2/EPF(n)-2/EWG(v)/EEC-4/EPR/EEC(t) Pn-4/Pr-4/Pg-4/Pt-7/Pu-4/Pl-4 LJP(c) WW/WS-4

ACCESSION NR: AP5010677 UR/0141/65/008/001/0057/0063

62
60
B

AUTHOR: ~~Tresnyakov, L. P.;~~ Sobel'man, I. I.

TITLE: Propagation of electromagnetic waves in a medium with inhomogeneous refractive index

SOURCE: IVUZ. Radiofizika, v. 8, no. 1, 1965, 57-63

TOPIC TAGS: electromagnetic wave propagation, refractive index, inhomogeneous material, reflection coefficient

ABSTRACT: An approximate method of integrating a system of linear differential equations with variable coefficients, developed by the authors previously to solve problems involving excitation of atoms by heavy particles (with L. Vaynshteyn, ZhETF v. 43, 518, 1962) is applied in this paper with slight modification to study the propagation of electromagnetic waves in a medium with a variable real refractive index, and to calculate the coefficient of reflection from a layer with an arbitrary real refractive index. An expression is derived for the absolute value of the coefficient of reflection. This expression goes over into the result given by geometrical optics in the case of long wavelengths and into the results given

Card 1/2

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L 53014-65

ACCESSION NR: AP5010677

2

by the Born approximation in the case of small wavelengths. In the case when there is an abrupt jump in the refractive index (i.e., when geometrical optics is not applicable), the same expression yields the Fresnel reflection. Several examples, involving transmission through an optical system, abrupt and gradual transitions between media, and above-the-barrier reflection are considered. The method can be employed also for oblique incidence and modified for propagation of electromagnetic waves in a waveguide. "We thank V. L. Ginzburg who called our attention to the possibility of employing the method of the earlier paper to the propagation of electromagnetic waves." Orig. art. has: 2 figures, 26 formulas, and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute AN SSSR)

SUBMITTED: 27Jan64 ENCL: 00 SUB CODE: EM, OP

NR REF SOV: 004 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, M., mayor

The enemy did not pass. Voen. vest. 43 no.2:16-18 F '64.
(MIRA 17:1)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

GOLUBOVICH, Vasiliy Seliverstovich, podpolkovnik; PRESNYAKOV, Mikhail Vladimirovich, mayor; ALEKSEYEV, M.A., podpolkovnik, red.; SLEPTSOVA, Ye.N., tekhn.red.

[Platoon action at night; a collection of examples of battles in the Great Patriotic War]. Deistviia vzvoda noch'iu; sbornik boevykh primerov po opytu Velikoi Otechestvennoi voiny. Moskva, Voen.izd-vo M-va obor. SSSR, 1957. 166 p. (MIRA 11:3)

(Night fighting (Military science))
(Infantry drill and tactics)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

22

CA

PROCESSES AND PROPERTIES INDEX

The eight-shell-still coking battery in Grozny. A. P. Aref'ev and P. A. Presnyakov. *Groznenskii Neftyanik* 5, No. 1-2, 40 (1938).—Details of construction and operation of coking stills are reviewed. A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

65

88897

16.6500
16.2600

S/044/60/000/007/054/058
C111/C222

AUTHOR: Presnyakov, P.D.

TITLE: Graphical method for finding the parabolic region of an experimental curve

PERIODICAL: Referativnyy zhurnal. Matematika, no.7, 1960,227. Abstract no.8317. Nauchno-tekhn.inform.byul. Leningr. politekhn.in-t, 1959, no.3, 81-83

TEXT: For the projection of devices with nonlinear characteristics it often is necessary to determine that course of operation for which the real characteristic is little different from a quadratic one. The author proposes a method for the determination of the corresponding region of the given characteristic; the method is based on the following property of the parabola. If a straight line is laid parallel to the directrix having the distance d = const from it (the author calls it a fictive directrix), if a number of points of parabolas are connected with the focus by straight lines, and if these straight lines in the direction to the focus straight lines are marked off which are equal to the distances of the points from the fictive directrix, then the endpoints of these lines lie on a circle of the radius d with the

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

88897

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C111/C222

Graphical method for finding....

center in the focus. If the fictive directrix coincides with the real one then d = 0 and the endpoints of all lines lie in the focus. Considering this, in an arbitrary distance from the axis of abscissas of the given characteristic there is laid a fictive directrix being parallel to it. In the neighborhood of the conjectural focus some points of the characteristic are chosen and around them, as centers, circles are drawn the radii of which are equal to the distances of the points from the fictive directrix. If the envelope of a number of circular arcs is a circular arc then its center must coincide with the approximating parabola. It can be found with the usual geometric construction. In the neighborhood of the conjectural course of the directrices the envelope of the same circles can be an interval of a straight line parallel to the axis. It is considered as the directrix of the parabolic region of the characteristic bounded by the ordinates of the endpoints of the interval.

[Abstracter's note: The above text is a full translation of the original Soviet abstract.]

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

NOVITSKIY, P.V.; PRESNYAKOV, P.D.; FETISOV, M.M.

Designing piezoelectric accelerometers with minimum side sensitivity. Priborostroenie no.1:15-17 Ja '60. (MIRA 13:5)

(Accelerometers)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, P. D.

The following is among dissertations of the Leningrad Polytechnic Institute imeni Kalinin:

"Theoretical and Experimental Investigation of Basic Elements and Error in a New Telemeasuring System." 12 April 1954. An investigation was made of the problems relating to the application of the zero method in ac frequency telemeasuring systems and the characteristics of the basic elements and error in the new telemeasuring system. The basic units of distant frequency telemeasuring system are developed.

SO: M-1048, 28 Mar 56

[illegible]

from Elektrichestvo, [illegible] pp 71-75

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

BUZANOV, I.F.; SAMBUROV, V.I.; YEMETS, G.M.; ORLOVSKIY, N.I.; NEGOVSKIY, N.A.; FEDOROV, A.I.; GREKOV, M.A.; KURBATOV, S.T.; MEL'NICHUK, A.N.; TONKAL', Ye.A.; GORNAYA, V.Ya.; ROZHDESTVENSKIY, I.G.; SIDOROV, A.A.; KUDARENKO, F.F.; BROVKINA, Ye.A.; GELLER, I.A.; DOBROTVORTSEVA, A.V.; VARSHAVSKIY, B.Ya.; KUTSURUBA, N.V.; KUZ'MICH, S.I.; PRESNYAKOV, P.V.; USHAKOV, A.F.; SHEVCHENKO, V.N.; KHUCHUA, K.N.; PETRUKHA, Ye.I.; POZHAR, Z.A.; SHAPOVALOV, P.T.; AREF'YEV, T.I.; GRIGOR'YEVA, A.I., red.; BALLOD, A.I., tekhn. red.

[Sugar beets] Sakharnaia svekla. Moskva, Sel'khozizdat, 1963. 487 p. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly. 2. Nauchnyye sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta sakharnoy svekly (for all except Grigor'yeva, Ballod).
(Sugar beets)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY : USSR
CATEGORY : Cultivated Plants. Industrial. Oleiferous. Sugar. M
ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11058

AUTHOR : Presnyakov, P. V.
INST. : -
TITLE : The Irrigation of Sugar Beets and Beet Transplants.

ORIG. PUB. : V sb.: Vopr. agrotekhn. sakharn. svekly v Kirg SSR. Frunze, 1958, 77-85.
ABSTRACT : The studies of beets were conducted at Frunze experimental base under field conditions chiefly from 1932 to 1940. The optimum soil moisture content for beets was found to be in the amount of about 75% of the full field capacity. The total consumption of water by a beet field having a beet crop of 600-700 centners/ha reaches 7000-7500 m^3/ha of which about 3000 m^3/ha are expended by the evaporation from the soil surface. The expenditure of water for 1 g of dry matter comprises 327-376 m^3. The maximum evaporation takes place in July

CARD: 1/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

ABS. JOUR. : [illegible] 1959, No. [illegible]

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : [illegible]

CARD: 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY :
CATEGORY :

ABS. JOUR. : [illegible], No. [illegible] 1959, [illegible]

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : [illegible] the [illegible] of water are necessary. The [illegible] the groundwater table at a [illegible] The [illegible] the groundwater level and the meteorological conditions of the year. The irrigation rate is the same [illegible] beets. The greatest moisture requirement is in the period of stooling to the flowering of the transplants. [illegible] furrow water applications have an advantage over the

CARD: [illegible]

-115-

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No. 11058

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : irrigation by flooding. Still more promising is the irrigation by sprinkling, with the daytime sprinkling being more effective. -- N. I. Orlovskiy

CARD: 4/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY : USSR
CATEGORY : Cultivated Plants. Industrial. Oleiferous. Sugar.
ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11056

AUTHOR : Prosyakov, P. V.
INST. : -
TITLE : Direct Method of Growing Beet Seeds (Cultivation of Beet Seed Plants Without Transplanting).

ORIG. PUB. : V sb.: Vopr. agrotekhn. sakhara. svekly v KirgSSR. Frunze, 1958, 134-143.

ABSTRACT : With the direct method of seed growing, the beet roots winter in the soil where they undergo vernalization, and in spring, with the undisturbed root system they begin to grow early and produce seeds 5-10 days earlier than the usual transplants. The wintering beets tolerate frosts down to minus 26°. Of the seven years (1941-1947) with the cultivation of the beets by the direct method, the beets were killed by frost in Frunze Oblast' only in the winter of 1944/55 when the temperature would reach to minus 28.4° in the presence of an insufficient snow

CARD: 1/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No. 11056

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : cover. For the purpose of increasing xeromorphism and the frost resistance, the beets are not thinned out in the year of the sowing and they are grown under "Spartan conditions" with respect to moisture and fertilizing with N. The sowing is done at the beginning of August. However, in addition to this, the pre-sowing and the auxiliary-nutrition wettings are necessary and also the observance of the control measures against the cutworm caterpillar. The spring sowings also produced positive results; specifically, the sowings under the cover of bar-

CARD: 2/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY :
CATEGORY :

APS. JOUR. : Referat., Zh. 1959, No. 11956

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : ley or wheat the yield of which comprised 20-25 cent-ners/ha. The yield and the quality of the seeds grown by either the direct or the usual method are of equal value in actual practice. The yield and the sugar content of the industrial beets from both kinds of seeds are close to each other. The amount of the beet-seed stalks does not increase with the direct method of seed growing. -- N. I. Orlovskiy

CARD: 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

ANIKIN, A.G.; DUGACHEVA, G.M.; PRESNYAKOVA, V.M.

Purification of trioxane by zone melting. Zhur.fiz.khim. 37 no.10:2363-2364 O '63. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

KAZANTSEV, I.G.; KUZNETSOV, A.F.; PRESNYAKOV, V.M.; MOLONOV, G.D.; KUZEMA, I.D.; CHERNYSHEV, I.S.; OLESHKEVICH, T.I.; KISSEL', N.N.; ANTOKHIN, N.T.; ROYANOV, V.V.

Manufacture of very thick plate from capped steel. Izv. vys. ucheb. zav.; chern. met. 6 no.6:49-50 '63. (MIRA 16:8)

1. Zhdanovskiy metallurgicheskiy institut i zavod im. Il'icha.
(Steel ingots) (Rolling (Metalwork)--Quality control)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

ANIK N. A.G.; DUGACHEVA G.M., PRESNYAKOVA, V.M. BYKOVA, [illegible]

Zone melting of methyl methacrylate. Zhur. [illegible] Khim. 36 no.9:2074-2075 S '62. [illegible]

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PASSHYAKOV, V.K., Cand Tech Sci -- (diss) "Study of non-silicide steel with ~~a higher~~ increased content of manganese." Dnepropetrovsk, 1959. 16 pp (Min of Higher Education UkSSR. Dnepropetrovsk, Order of Labor Red Banner Metallurgical Inst im I.V. Stalin). 150 copies (KL,38-59, 117)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

9(6)

AUTHORS: Novitskiy, P. V., Candidate of Technical Sciences, Presnyakov, P. D., Engineer, Fetisov, M. M., Engineer

SOV/119-60-1-6/14

TITLE: The Construction of Piezoelectric Accelerometers With Minimum Lateral Sensitivity

PERIODICAL: Priborostroyeniye, 1960, Nr 1, pp 15 - 17 (USSR)

ABSTRACT: A piezoelectric transducer (Fig 1) is theoretically not sensitive to oscillations perpendicular to a symmetry axis, i. e. for oscillations in the direction a_b (Fig 1) it gives no signals. A lateral sensitivity, however, exists due to several causes. As such causes the following are mentioned: Wrong mounting of the accelerometers to the surface of the workpiece, wrong fitting of the piezoelement into the accelerometer, or deformation of the piezoelectric element by the mass 1 (Fig 1). A decrease of the lateral sensitivity of the accelerometer, which is caused by the aforementioned deformation, by fixing the mass 1, was found to be impossible. It was found useful to introduce the piezoelectric element

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The Construction of Piezoelectric Accelerometers With Minimum Lateral Sensitivity SOV/119-60-1-6/14

into the mass 1 according to figure 2a or by the method shown in 2b. As a further means of reducing lateral sensitivity, the authors mention the use of a double-transducer (Fig 3), in which the lateral sensitivity of the two transducers is compensated. A detailed description is given of the transducer developed by E. I. Radion together with the author, which is shown in section in figure 4. This construction makes it possible to adjust the accelerator, so that lateral sensitivity is reduced to a minimum. On the basis of this accelerometer a three-component accelerometer was developed, which does not exhibit the unfavorable properties of similar constructions, as e. g. great weight and unfavorable resonance properties. This accelerometer is shown in figure 6. In this construction the two crystals which are intended to measure lateral acceleration in each case consist of two crystals and are connected in such a manner that the e.m.f. generated by them is mutually compensated. Complete compensation of lateral

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The Construction of Piezoelectric Accelerometers With Minimum Lateral Sensitivity SOV/119-60-1-6/14

sensitivity is effected by means of a differential condenser connected to the amplifier input. There are 6 figures and 3 Soviet references.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

ARUTYUNOV, Valentin Osipovich; PRESNYAKOV, P.D., redaktor; ZABRODINA, A.A., tekhnicheskiy redaktor; MEDVEDEV, L.Ya., tekhnicheskiy redaktor

[Design and construction of electric meters] Raschet i konstruirovanie elektroizmeritel'nykh priborov. Izd. 2-oe, perer. Moskva, Gos. energ. izd-vo, 1956. 552 p. (MIRA 10:1)
(Electric meters)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

USSR/Cultivated Plants. Commercial. Oil-Bearing. Sugars.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20419.

Author : F.V. Presnyakov
Inst : Not given.
Title : The Efficiency of the Various Varieties of Fertilizer Used on Sugar Beets in the Meadow-Land Zone of Chuyskaya Valley. (Effektivnost' otdel'nykh vidov udobreniy pod sakharnuyu svekly v lugovoy zone Chuyskoy doliny)

Orig Pub: Tr. kirg. opytno-selekts. st. po sakharnoy svekle. 1956, vyp. 1, 26-35.

Abstract: Tests made at the Frunzenskiy testing-selection site in 1930-1946 have established that in the meadowland zone of Chuyskaya Valley P and N have paramount importance in the lightly saliferous, somewhat alkaline and non-saline sierozems. However, even the potash fertilizers

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

USSR/Cultivated Plants. Commercial. Oil-Bearing. Sugars.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20419.

yield a noteworthy boost to the harvest and increase the saccharinity. Organic fertilizers used jointly with minerals give a higher yield and permit the mineral fertilizer dosage to be reduced. The beet saccharinity is maintained at a high level with the timely application of moderate doses of fertilizer and is lowered with excessive dosages.

Card : 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY : USSR
CATEGORY : Cultivated Plants. Industrial, Oleiferous, Sugar. M

ABS. JOUR. : RZhBiol., No. 23 1958 No. 104785

AUTHOR : Preenyakov, P. V.
INST. : Kirgiz Scientific Research Institute of Agriculture
TITLE : The Influence of Predecessors on the Yield of Crops in Beet Crop Rotation.

ORIG. PUB. : Byul. Kirg. n.-i. in-ta zemled., 1957, 1, 11-13

ABSTRACT : At Kirgiz Sugar Beet Experiment and Breeding Station, an experiment was initiated in 1949 on the study of the principles of laying out beet crop rotations with perennial grasses, without grasses, with different intensity of beet cultivation and with different alternation of crops. Inclusion of alfalfa and alfalfa-cereal grass mixtures in the beet crop rotation, increased the fertility of the soil and the yields of the succeeding crops. The yield of winter wheat on the bed of grasses was higher by 3.8 (grain) and 19.2 centners/ha (straw); the yield of sugar beets grown on the turned bed - 31.3 (roots), 4.65 (sugar)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

COUNTRY :
CATEGORY : M

ABS. JOUR. : RZhBiol., No. 195,8,No. 104785

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : and 48.2 centners/ha (tops); the yield of spring following on the third crop - higher by 1.2 (grain) and 1.7 centners/ha (straw). The yield of alfalfa hay and alfalfa-cereal grass mixture comprised 131.7-136.8 centners/ha for 3 years (calculated for each year) and surpassed by 2-3 times the yield of the hay of vetch-oat mixture. On the other hand, repeated succession in the crop rotation of beets on beets was unfavorably reflected in the yield of the second beet crop and of the crops following it. -- T. I. Kurelin

CARD: 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur -Biol., No 7, 1958, 29945

Author : Presnyakov, P.V.
Inst : -
Title : The Effect of Fertilization on Increased Productivity of Sugar Beet Varieties.

Orig Pub : Tr. Kirg. opyt.-selekts. st. po sakharnoy svekle, 1956, vyp. 1, 67-74.

Abstract : The results of field tests made for a number of years at the Frunzen Experimental Selection Point have shown that NPK in the sierozem soil of Chuyskaya Valley, and especially with strengthened dosages of P, increased the yields and enhanced the seed qualities of the maternal beet, having increased the outputs of seed transplants and commercial beets in the stock.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, P.V

USSR/Cultivated Plants - Technical, Oil, and Sugar Plants. M-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10915

Author : Presnyakov, P.V.
Inst : -
Title : An Experiment in Sowing Sugar Beet for Seed Without Transplanting.

Orig Pub : Sakharnaya prom-st',1956, No 6, 47-50

Abstract : When sugar beet is grown without transplantation it is not dug up in autumn and remains in the ground all winter. Six years of experiments at the Frunze Point, Kirgizskaya SSR, have shown that the seed yield from beets which were not transplanted was almost as high in the majority of cases as when the beets were transplanted. The best time for summer sowing without transplantation is, in the Chuyskaya valley, the first ten days of August. Tests of the frost resistance and productivity of untransplanted crops planted on the ordinary autumn sowing dates, both by themselves and under spring grain

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USSR/Cultivated Plants - Technical, Oil, and Sugar Plants. M-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10915

covers, have demonstrated that untransplanted beet sown in autumn, both with and without a cover crop, hibernated satisfactorily and in seed productivity not only did not fall behind beet sown in summer, or which was transplanted, but even exceeded it. The yield and sugar content both of beets frown from the seed of untransplanted crops and of beets grown with transplantation, were near one another in all experiments, and a single reproduction of beet seed by the untransplanted method did not cause any increase in the ability to blossom.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.A.

24-58-3-17/38

AUTHORS: Presnyakov, A.A. and Chervyakova, V.V. (Alma-Ata)

TITLE: The Phenomenon of "Super-Plasticity" in the System Aluminium-Copper (Yavleniye "sverkhplastichnosti" v sistemo alyuminiy-med')

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 3, pp 120-121 (USSR)

ABSTRACT: According to Bochvar and Sviderskaya (Ref.1) an alloy in the "superplastic state" is characterised by a particularly low value of the resistance to deformation and an unusually high plasticity compared to other alloys and pure components of the investigated system. As far as the authors are aware, the effect of "super-plasticity" was detected only in the system Al-Zn during dilatometric investigation of the hardened alloy of eutectoidal composition. A. A. Bochvar (Ref.2) attributes this phenomenon to a new mechanism of plastic deformation caused by a particular structural state of the alloy and considerable changes with temperature of the solubility of zinc in aluminium. On the basis of the results of Shishokin et alii (Ref.3), relating to the anomalous change of the temperature coefficient of the hardness of low melting point eutectic alloys, a considerable deviation from the additivity rule can be anticipated when investigating such

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24-58-3-17/38

The Phenomenon of "Super-Plasticity" in the System Aluminium-Copper.

alloys. Indeed, during systematic investigation of the plasticity as a function of the temperature of aluminium alloys containing various grades of copper, the effect of "super plasticity" was detected for the eutectic alloy (33.1% Cu). For preparing the experimental alloys, commercially pure aluminium Grade A-1 was used and cathodic MO copper; the alloys were prepared in a laboratory resistance furnace and were cast into a graphite mould. From the thus produced lengths, specimens with an active part of 5 mm dia, 20 mm length, were machined. The specimens were tested in static and dynamic tension. The temperature measurements during the investigations were effected by chromel-alumel thermocouples, the hot joint of which was fixed on to the specimen, screened by an aluminium foil for reducing the errors in determining the temperature caused by the differences between the optical properties of the specimen and the hot joint of the thermocouple. The specimen was held at the test temperature for 15 min prior to fracturing. As a measure of the plasticity, the magnitude of the total relative contraction $\psi\%$, was chosen; for comparing the plasticity of

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The Phenomenon of "Super-plasticity" in the System Aluminium-Copper.

the specimens which showed "super plasticity" properties, it proved more convenient to apply the magnitude of the full relative elongation δ%. The plasticity of the alloys was determined at various temperatures, T°C, at steps of 50°C from room temperature to the fusion temperature. After 500°C the eutectic alloy was investigated at 515, 525, 535 and 540°C. The results of these investigations, i.e. the breaking strength σ_B, kg/mm^2 are entered in the table, p.121 (T°C; specimen number; ψ%; δ%, σ_B: kg/mm^2). For static tension in the as-cast state, the eutectic alloy had a brittle fracture up to 400°C with a high strength value (σ_B from 21-22 kg/mm^2). For 400°C a sharp transition into the plastic state was observed (ψ = 40%). Further increase in the test temperature has revealed extremely high plasticity indices and a sharp drop in strength. At 500°C, ψ reached 100%, δ being 160%; thereby the strength until the effect of "super-plasticity" occurred amounted to 4.7 kg/mm^2. Following that, the strength dropped sharply to zero and further stretching of the specimen proceeded at a load which could not be measured with the applied equipment. As can be seen from the table, the effect of "super-plasticity"

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SA-94-3-17/38

The Phenomenon of "Super Plasticity" in the System Aluminium-Copper.

was also observed at high temperatures. For comparison with the plasticity of the eutectoidal alloy, Fig.1 gives curves characterising the change in the plasticity with temperature with pure aluminium and of alloys containing 2.6 and 6.28% Cu. It can be seen therefrom, and also from the plasticity isotherms corresponding to 500°C and given in Fig.2 (curve 1, alloys as cast; curve 2, homogenized alloys), that other alloys of this system did not show this particular state under similar conditions. Investigation of the eutectic alloy in the homogenized state has not shown any "super-plasticity" characteristics. The revealed "super-plasticity" phenomenon in the Al-Cu system of the cast eutectic alloy in the neighbourhood of the solidus temperature is probably associated with a partial hardening of the alloys during casting, with a particular structural state of the eutectic and with temperature caused changes of the solubility of Cu and Al in the solid state which takes place in the Al angle of the Al-Cu diagram. (This is a complete translation except for references). There are 2 figures, 1 table and 3 Soviet references.

SUBMITTED: June 21, 1957.

Card 4/4

1. Aluminum copper alloys--Plasticity

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

SOV/126-6-5-19/43

AUTHORS: Presnyakov, A. A., and Sakharova, N. S.

TITLE: Study of Microhardness of Certain Cast Alloys Based on Zinc and Tin (Izucheniye mikrotverdosti nekotorykh litykh splavov na osnove tsinka i olova)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1958, Vol 6, Nr 5, pp 886-892 (USSR)

ABSTRACT: The authors measured the microhardness of cast alloys based on zinc and tin (Zn-Al, Zn-Cu, Sn-Sb, Sn-Pb, Sn-Zn) and of Cu-Ni alloys which contained some carbon. Samples were polished and etched. The following etchants were used: 5% alcohol solution of HCl - for zinc alloys; a 50-50% mixture of HNO_3 and glacial CH_3COOH - for Cu-Ni alloys; a mixture consisting of one part of HNO_3, one part of CH_3COOH and eight parts of glycerine - for Sn-Pb and Sn-Zn alloys; a very dilute alcohol solution of HNO_3 - for Sn-Sb alloys. After etching, microhardness of the alloys was measured by means of a PMT-3 instrument with the following loads: 20 g for Cu-Ni alloys, 10 g for Zn alloys, 5 g for Sn alloys. 200 indentations were made on each sample. Microhardness

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SOV/126-6-5-19/43

Study of Microhardness of Certain Cast Alloys Based on Zinc and Tin

(H_μ) was found to be related to various properties of alloys, e.g. dendritic non-uniformity can be expressed as a function of the scatter of microhardness (the difference between the maximum and the minimum values H_μ). It was found that dendritic non-uniformity increases with the amount of the second component of the Zn and Sn alloys, i.e.with the amount of Al, Cu, Ni, Pb, Zn and Sb. This is shown in Table 1, where the second column gives the amount of the second component, while the third, fourth and fifth colums give the scatter of H_μ in cast, quenched and annealed alloys respectively. Homogenization of zinc alloys (360°C for 250 hours)and of tin alloys(160°C for 100 hours) or plastic deformation by 50% with subsequent annealing, failed to remove completly the non-uniformity of cast samples. Homogenization of Zn-Al alloys produced very large grains, with occasional monocrystalline cross sections. The scatter of H_μ across monocrystalline surfaces was found to be the same as in polycrystals. Non-uniformity

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...y of Microhardness of Certain Cast Alloys Based on Zinc and

after deformation and annealing, or after homogenization, was found to be greater in alloys with larger amounts of the second component. The data on uniformity of alloys deduced from microhardness measurements were confirmed by microscopic observations (Tables 2,3). Fi... and 2 show that at certain concentrations of the ... component in Zn-Cu and Sn-Zn alloys both ... H_{μ} min curves have a "plateau"; this plate... is the region of saturation of the solid sol... . Values of H_{μ} may be used also to find the effect ... second component on the mechanical strength of alloy...). The incr... se in mechanical strength is ... value of $H_{\mu s}-H_{\mu p}$, where $H_{\mu p}$ is microh... metal an... $H_{\mu s}$ is microhardness of a saturated solid solution. Aluminium and copper have the same effect ... zinc: they increase H_{μ} from 50 kg/mm^2 for pure zinc to 80 kg/mm^2 for saturated solid solutions. Tin is strengthened by additions of lead, zinc and antimony (H_{μ} is increased from 15 to 19, 24 and 29 kg/mm^2

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Study of Microhardness of Certain Cast Alloys Based on Zinc and Tin

respectively). Microhardness can be used also as a rough substitute for chemical analysis: an accidental addition of copper to one of the alloys was found to produce a different pattern of microhardness.
There are 2 figures, 4 tables and 7 Soviet references.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN Kazakhskoy SSR (Physico-Technical Institute, Ac.Sc. of the Kazakh SSR)

SUBMITTED: January 18, 1957

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.A.

2(0) PHASE I BOOK EXPLOITATION SOV/2838

Akademiya nauk Kazakhskoy SSR. Institut yadernoy fiziki

Trudy/Labratoriya metallovedeniya i fiziki matallov/, tom 2 (Transactions of the Institute of Nuclear Physics, Kazakh S.S.R. Academy of Sciences /Laboratory for Metallurgical Science and Physics of Metals/, Vol 2) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1959. 169 p. 1,000 copies printed.

Ed.: F. Ya. Osadchiy; Tech. Ed.: P.F. Alferova; Editorial Board: I.G. Grinman, L.I. Dautova, I.G. Dem'yanikov, D.K. Kaipov (Resp. Ed.), S.K. Kalinin, A.A. Presnyakov, and Zh. S. Takibayev.

PURPOSE: This is a collection of articles intended for research scientists, factory laboratory personnel, engineers, technicians, and also students and Aspirants in metallurgy and physics of metals.

COVERAGE: The collection contains research reports which investigate the dependency of alloy properties on their chemical and phase states in a wide range of temperatures down to melting point and set forth much factual material on

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aluminum, copper, nickel, and other alloys. Theoretical ideas on plasticity and superplasticity, which are described as new, and hypotheses on reasons for the lowered plasticity of solid solutions are propounded on the basis of experimental data. No personalities are mentioned. References are given at the end of each article.

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Transactions of the Institute of Nuclear (Cont.) SOV/2332

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343010002-7

PRESNYAKOV, A.A.

25(1) PHASE I BOOK EXPLOITATION SOV/2727

Obrabotka metallov davleniyem; sbornik statey, vyp. 5 (Metal Forming; Collection of Articles, No. 5) Moscow, Metallurgizdat, 1959. 197 p. 3,000 copies printed.

Scientific Ed.: L.Kh. Al'shevskiy, Candidate of Technical Sciences; Ed. of Publishing House: N.A. Valov; Tech. Ed.: A.I. Karasev.

PURPOSE: This collection of articles is intended for technical personnel and scientific workers in the metallurgical and machinery-construction industries.

COVERAGE: This collection of articles deals with problems of rolling and tube manufacture. Results of research done on roll design and new methods of determining basic manufacturing parameters in the production of tubes and other rolled shapes are presented. Methods of analyzing the kinematics of processes in helical piercing mills and rolling mills by means of motion pictures are discussed. Also discussed are several phenomena associated with tube rolling. No personalities are mentioned. References follow several of the articles.

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Tarnovskiy, I.Ya. [Doctor of Technical Sciences], and V.K. Smirnov [Candidate of Technical Sciences], [Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute)]. Roll Shape and Contact Area During the Rolling of Strip of Variable Cross Section 3

The rolling of symmetrical strip of variable cross section, changes in the contact area during rolling, and methods of designing rolls are discussed.

Merekin, B.V. [Engineer, Nizhne-Tagil'skiy metallurgicheskiy kombinat (Nizhniy Tagil Metallurgical Combine)]. Roll Design for Angle Steel of Various Shapes 18

Designs for rolling unequal-angle steel by the flat-and-edging method are discussed. Parameters for passes and templets are presented.

Tarnovskiy, I.Ya., and V.K. Smirnov. Forward Slip During the Rolling of Strip of Variable Cross Section 31

A method of determining forward slip in rolling symmetrical rectangular strip of variable thickness is presented. Formulas for the critical angle and instantaneous forward slip are derived. The reliability of the formulas has been confirmed by experiments.

Presnyakov, A.A. [Fiziko-tekhnicheskiy institut AN KazSSR (Institute of Engineering Physics, Academy of Sciences, Kazakh SSR)]. Possibility of Calculating Allowable

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Drafts, Taking the Index of Plasticity Into Account 47
Data on the relationship between the plastic properties of a metal and the degree of deformation in rolling are summarized. A simple equation for calculating allowable drafts is presented.

Zasukha, P.F. [Engineer, Ural'skiy institut chernykh metallov (Ural Institute of Ferrous Metallurgy)]. Means of Increasing the Productivity of Mechanized Sheet Mills 53
This article deals with the results of an investigation conducted at the Severskiy Zavod (Severskiy Plant). N.S. Smirnov, I.V. Kukanov, E.R. Rimm, and N.P. Shirinkin took part.

Astrov, Ye.I. [Candidate of Technical Sciences], A.I. Chichkanov, N.N. Tikhonov, V.N. Biryukova [Engineers], [Gor'kovskiy metallurgicheskiy zavod (Gor'kiy Metallurgical Plant)]. Rolling Kh17N2 Stainless Steel Into Universal Plates 62
The technique of heating and rolling ingots of Kh17N2 stainless steel in a universal rolling mill is described. Mechanical properties and structures obtained are discussed.

Gel'derman, L. O. [Candidate of Technical Sciences, Nauchno-issledovatel'skiy

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institut (Scientific Research Institute)]. Characteristics of the Macrostructure of Plates in Relation to Rolling Conditions 72

The mechanical properties of rolled open-hearth steel plates in relation to the rolling regime and initial shapes are discussed. Photographs of the macrostructures are presented.

Astrov, Ye. I. [Candidate of Technical Sciences]. Laminated Steels 83

A method of making laminated steel is discussed. Laminated ingots obtained by teeming in molds with distance plates are rolled to a desired thickness. This mehtod is claimed to be the most efficient for mass production.

Chekmarev, A.P. [Academician, Academy of Sciences, UkrSSR], Ya.S. Finkel'shteyn [Candidate of Technical Sciences], and I.M. Ludenskiy [Engineer],[Institute of Ferrous Metallurgy, Academy of Sciences, USSR, and Truboprokatnyy zavod imeni Lenina (Tube-rolling Mill imeni Lenin)]. Means of Intensifying the Piercing Process by Helical Rolling 94

Forces active in steady helical piercing are analyzed. Results of experiments in rolling are presented. Recommendations for intensifying the piercing process are made.

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Plyatskovskiy, O.A. [Candidate of Technical Sciences, Vsesoyuznyy nauchno-issledovatel'skiy trubnyy institut (All-Union Scientific Research Institute for Pipe)]. Investigation of the Kinematics of Processes in Helical Piercing Mills by Motion Picture Filming and Other Methods 114

This article deals with industrial and laboratory tests of a method of investigating kinematic processes in rolling by means of motion pictures. The mechanism of the process is discussed, and experiments on piercing and three-high mills are described. Results are shown in tables and diagrams.

Plyatskovskiy, D.A., N.L. Oslon [Candidate of Technical Sciences], and E.O. Nodev [Engineer], [Novotrubnyy zavod (Novotrubnoye Plant)]. Rolling Medium-diameter Stainless Steel Tubes With Increased Rate of Deformation 129

This article deals with an experimental investigation of the use of stainless steel with a high deformation coefficient in piercing processes. Results show an increase in the rate of production and greater economy of materials.

Vatkin, Ya.L. [Candidate of Technical Sciences]; A.A. Shevchenko [Doctor of Technical Sciences]; and I.D. Kronfel'd, S.V. Rozhnov, and I.A. Chekmarev, [Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk Metallurgical Institute), and All-Union Scientific Research Institute for Pipe]. Investigation

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On the Ductility of Some Zinc-Base Alloys in Cast State

of 130° - 370°C during static tension and of 130° - 180°C during dynamic tension. The first zone of higher ductility of Zn-Al alloys spreads from 75° to 130°C (for static and dynamic tension). The second zone extends from 360° to 380°C during static tension and from 180° - 360°C during dynamic tension. In Zn, σ_b has the highest values within the zones of higher ductility; in the alloys the maxima of σ_b do not coincide with respect to temperature with the maxima of ductility. Transcrystalline brittle breaks take place in the zone of brittleness, while ductile brittle breaks occur in the zone of higher ductility. There are 8 bibliographical titles.

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