"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

67831

SOV/180-59-6-7/31

Characteristic Features of the Kinetics of Deformation and Rupture of Copper-Nickel Alloy Stressed in Tension at Elevated Temperatures

brittle fracture with very little evidence of deformation by slip. Thus, it was shown that rupture of the 75% Ni - 25% Cu alloy, subjected to tensile stress at temperatures below 650 °C, is characterized by transcrystalline fracture, formation of a neck, and stress hardening of the material in the region of fracture; at temperatures above 700 °C, the fracture is intercrystalline and strain-hardening does not occur. The 650-700 °C temperature interval is a transition range within which the strength of the alloy at the grain boundaries and in the interior of the grains is approximately equal; this is the range of so-called "equi-cohesive" temperatures. The transition from one type of fracture to the other is associated with a change in the mechanism of plastic deformation; this can be inferred from the metallographic data reproduced in Fig 3 and from the results of experiments in which specimens of the investigated alloys were tested isothermally at 500-800 °C. The microstructure on the

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67831
SOV/180-59-6-7/31

Characteristic Features of the Kinetics of Deformation and Rupture of Copper-Nickel Alloy Stressed in Tension at Elevated Temperatures

surface of the deformation region of the specimen tested at 500 °C under $\sigma = 24.6$ kg/mm^2, is illustrated in Fig 4, showing the structure (a) before applying the load, (b) one hour after application of the load (elongation $\varepsilon = 6.6\%$), (в) 3 hrs after application of the load ($\varepsilon = 7.2\%$), and (г) 5 hrs after application of the load ($\varepsilon = 8.6\%$, 43 min before rupture); the elongation (%)/time (h) relationship for this specimen is illustrated by curve 1 in Fig 6. The microstructure on the surface of the deformation zone of the specimen tested at 800 °C under $\sigma = 3.2$ kg/mm^2, is illustrated in Fig 5, showing the structure (a) before application of the load, (б) 1 hr after application of the load ($\varepsilon = 0.2\%$), (в) 3 hrs after application of the load ($\varepsilon = 0.7\%$), and (г) 5 hrs 10 min after application of the load ($\varepsilon = 3.6\%$, 33 min before rupture); the elongation/time relationship for this specimen is illustrated by curve 2 in Fig 6. In the case of the specimen tested at 500 °C, slip bands appeared

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SOV/180-59-6-7/31

Characteristic Features of the Kinetics of Deformation and Rupture of Copper-Nickel Alloy Stressed in Tension at Elevated Temperatures

immediately after the application of the load, deformation by slip progressing gradually with time; the total elongation of the specimen after 5 hrs 43 min was 22.4%: formation of isolated, intercrystalline cracks took place, but in general, deformation occurred mainly in the interior of the grains. In the case of the specimen tested at 800 °C (Fig 5), formation and growth of intercrystalline cracks, perpendicular to the direction of the applied stress, was observed, with no evidence of deformation by slip; the total elongation after 4 hrs 41 min was only 11%. The experimental data obtained by the present author show that below the equi-cohesive temperature, deformation of the investigated alloy takes place by slip in the interior of the grains, while above this temperature the intergranular deformation plays the predominant part. This change of mechanism of the plastic deformation is indicated by the effect of temperature on the variation of plasticity and hardness of the alloy in the region

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67831
SOV/180-59-6-7/31

Characteristic Features of the Kinetics of Deformation and Rupture of Copper-Nickel Alloy Stressed in Tension at Elevated Temperatures

of fracture, and also by the fact that the slope of the hardness/temperature curve changes at approximately 650-700 °C.
There are 6 figures, 1 table and 10 references, of which 5 are Soviet and 5 English.

ASSOCIATION: Institut mashinovedeniya Akademii nauk SSSR (Institute of the Science of Machines, Academy of Sciences of the USSR).

Card 9/9

SUBMITTED: July 3, 1959

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

LOZINSKIY, M.G. (Moskva); PERTSOVSKIY, N.Z. (Moskva)

Characteristics of nickel deformation at various temperatures and rates of extension. Izv.AN SSSR. Otd.tekh.nauk. Met.i topl. no.4:90-102 Jl-Ag '62. (MIRA 15:8)

1. Institut mashinovedeniya Gosudarstvennogo komiteta Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu.
(Nickel--Testing) (Deformations (Mechanics))

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

LOZINSKIY, M.G. (Moskva); PAMISOVSKIY, N.Z. (Moskva)

Kinetics and the mechanism of metal deformation during high-temperature heating with various rates of tensile testing. Izv. AN SSSR. Otd. tekhn. nauk. Met. i topl. no.1:96-107 Ja-F '61. (MIRA 14:2)

1. Institut mashinovedeniya AN SSSR.
(Metal--Metallography) (Deformations (Mechanics))
(Metals at high temperatures)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

40723

18.8200

S/180/62/000/004/003/009
E193/E383

AUTHORS: Lozinskiy, M.G. and Pertsovskiy, N.Z. (Moscow)

TITLE: Specific features of deformation of nickel at various temperatures and strain-rates

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, no. 4, 1962, 90 - 102

TEXT: The object of the present investigation was to study the effect of temperature and strain-rate on the deformation-induced structural changes in Ni. To this end, tensile tests were conducted on 99.3% pure Ni (containing 0.39% Co, 0.06% C, 0.17% Fe, 0.04% Cu, 0.05% Si, 0.002% S and traces of Mn and P) at temperatures ranging from 20 - 1 000 °C and at strain rates of 0.5-0.6, 6-8 and 600-800% per hour, the total elongation attained in any one experiment not exceeding 20%. The structural changes were studied by hot-stage metallography, entailing the use of a cine-camera, and by metallographic examination of extended specimens at room temperature. Stress/strain diagrams were constructed for specimens extended at various temperatures

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and the temperature-dependence of the stress required to provide a strain of 20% was determined. In addition, the temperature-dependence of hardness of Ni was studied and the microhardness was measured in various zones of extended test pieces. The effect of various factors studied on the stress/strain relationship is demonstrated in Fig. 1, where the stress (σ, kg/mm^2) is plotted against elongation (ε, %) of Ni specimens extended at strain rates of 0.5 - 0.6% per hour (graph a) and 600 - 800% per hour (graph b) at temperatures indicated by each curve. The results of metallographic examination can be summarized as follows: 1) metallographic studies of the surface of extended specimens showed that deformation of Ni at 20 - 400 °C at slow (0.5 - 8% per hour) rates of strain is reflected in the formation of microrelief in the interior of the grains, where evidence of cross-slip can also be observed. The deformation, as revealed by slip bands, is not uniformly distributed. The formation of sub-boundaries at 400 °C can be just observed and there is some evidence of relative movement of the grains. 2) The formation of intragranular microrelief at 600 - 900 °C (at the same strain rates) is much less

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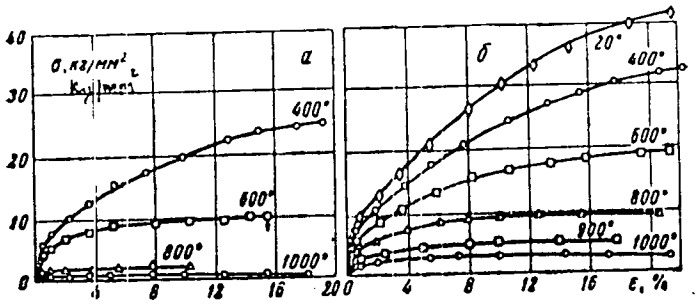
E193/E383

Specific features of ....

ASSOCIATION: Institut mashinovedeniya Goskomiteta SM SSSR po avtomatizatsii i mashinostroyeniyu (Institute of Machine Science of the State Committee of SM SSSR for Automation and Machine-building)

SUBMITTED: February 1, 1962

Fig. 1:



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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

LOZINSKIY, M.G. (Moskva); PERTSOVSKIY, N.Z. (Moskva)

Microscopic investigation of palladium deformation in the process of stretching at high temperatures. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.2:136-144 Mr-Ap '62. (MIRA 15:4)

1. Institut mashinovedeniya AN SSSR.
(Palladium--Metallography) (Deformations (Mechanics))
(Metals at high temperatures)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

LOZINSKIY, M.G. (Moskva); PERTSOVSKIY, N.Z. (Moskva)

Main types of deformation microreliefs occurring at high temperatures in polycrystalline metals with a face-centered cubic lattice. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.1:105-126 Ja-F '62. (MIRA 15:2)

(Crystal lattices)
(Metallography)
(Metals, Effect of temperature on)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, N.Z.

Studying the peculiarities of metal deformation kinetics during high temperature heating and stretching. Issl. po zharopr. splav. 7:250-262 '61. (MIRA 14:11)
(Metals at high temperatures) (Deformations (Mechanics))

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

S/180/61/000/001/007/015
E021/E406

AUTHORS: Lozinskiy, M.G. and Pertsovskiy, N.Z. (Moscow)

TITLE: Kinetics and Mechanism of Deformation of Metals at High Temperatures and Different Strain Rates

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1961, No.1, pp.96-107

TEXT: Direct observation by microscope or taking of photos of changes in the microstructure of metals and alloys during testing in a wide range of temperatures was not possible until 1960, when a new machine ИМАШ-5С (IMASh-5S) was designed by the present authors and constructed at the Institut mashinovedeniya AN SSSR (Institute of Science of Machines AS USSR). The technical characteristics of the new machine are described and results obtained on the machine on nickel are given. The machine enables tests to be carried out in a vacuum up to 1200°C with a controlled strain rate. Indentations are made on the surface of the specimens with a diamond pyramid to ensure that examination of the same part is carried out each time. Microphotographs of the surface are taken at various intervals during testing. The elongation of the specimen is measured to ± 0.005 mm. The machine

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was used to study the effect of temperature and rate of deformation on samples of commercially pure nickel (99.85% Ni with 0.02 C, 0.06 Si, 0.03 Cu, 0.005 S and 0.002% P). Specimens were heated at 1150°C for 3 hours to give a mean grain diameter of 0.15 to 0.18 mm and a hardness of 65 to 70 kg/mm^2. The samples were tested at 600 and 1000°C with strain rates of 0.5 and 2.8 x 10^2 mm/h. The results are shown in Fig.4. A decrease in rate of deformation results in a marked decrease in the strengthening effect occurring during plastic deformation at a given temperature. Specimens tested at 2.8 x 10^2 mm/hour at both temperatures fractured after a large degree of deformation with a transcrystalline fracture and formation of necking. Specimens tested at 0.5 mm/hour and 1000°C gave a ductile fracture with preliminary formation of necking in spite of the fact that many intercrystalline cracks appeared in the process of deformation. At 0.5 mm/hour rate and 600°C, brittle fracture occurred without any substantial local deformation. Fig.5 - 8 show series of microphotographs taken during testing. An increase in the rate of deformation from 0.5 to 2.8 x 10^2 mm/hour at 600°C results in intensification of the processes of slip in the grains as shown by the slip lines. Increasing the rate from 0.5 to

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2.8×10^2 mm/hour at 1000°C results in a change in the mechanism of deformation. With a rate of 2.8×10^2 mm/hour, intensive slip first occurs and with greater deformation recrystallization occurs. At 0.5 mm/hour, no slip lines are seen, migration of grain boundaries occurs, a substructure is formed and intercrystalline cracks are seen. There are 8 figures, 2 tables and 17 references: 10 Soviet and 7 non-Soviet.

ASSOCIATION: Institut mashinovedeniya AN SSSR
(Institute of Science of Machines AS USSR)

SUBMITTED: July 21, 1960

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

Fig.4. Strain curves for nickel samples at different temperatures and rates of deformation σ, kg/mm^2 vs ε,%. 1 - t = 600°C, v = 2.8 x 10^2 mm/h; 2 - t = 600°, v = 0.5 mm/h; 3 - t = 1000°, v = 2.8 x 10^2 mm/h; 4 - t = 1000°, v = 0.5 mm/h.

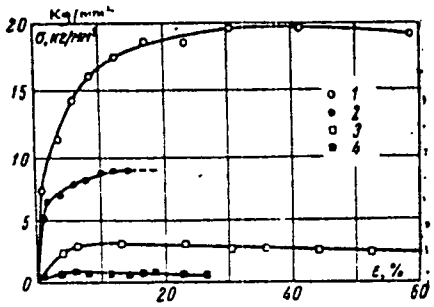

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Fig.5. Series of microphotographs of a nickel surface in the deformation zone at 600°C and 2.8 x 10^2 mm/h (x124)
a - before loading, б - ε = 3.6%, в - ε = 8.5%, г - ε = 17.3%, д - ε = 23.4%. е - ε = 30.4%, ж - ε = 41.3%, з - ε = 58.7%.

Fig. 5a 5b

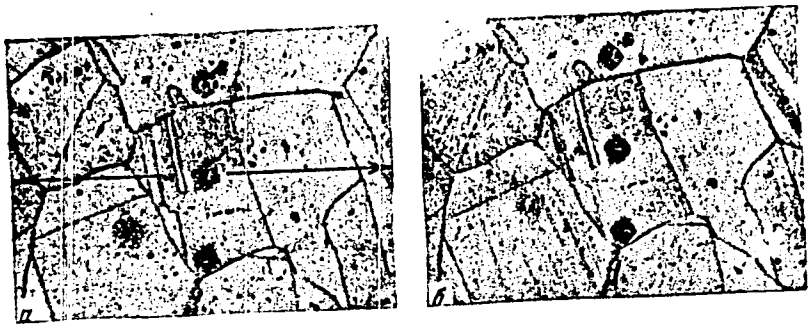

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Fig. 5B 5a 5b 5e

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Kinetics and Mechanism of ... S/180/61/000/001/007/015
E021/E406

Fig. 53

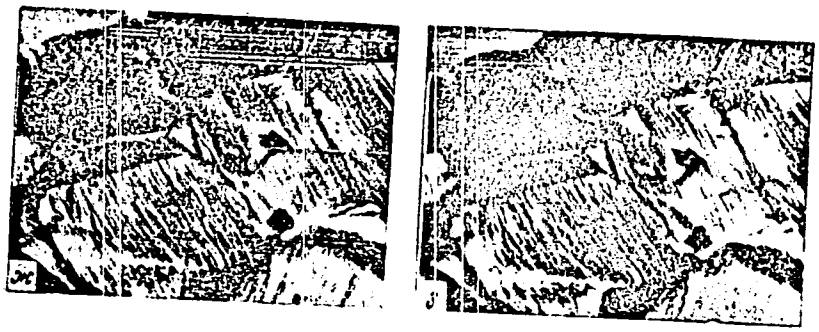

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Fig.6. Microphotographs of a nickel surface in the deformation zone at 1000°C and 0.5 mm/h. (Abstractor's note: this should be 600°C) (x124). a - before loading, б - ε = 3.8%, в - ε = 5.9%, г - ε = 10.2%, д - ε = 14.3%, е - ε = 20.8%.

Fig. 6a. b.

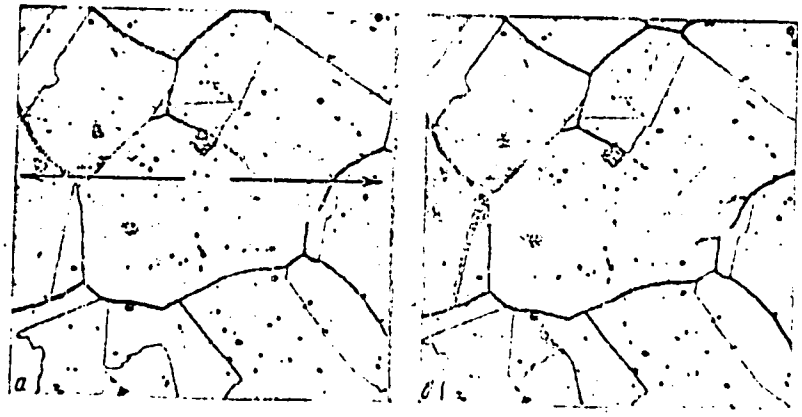

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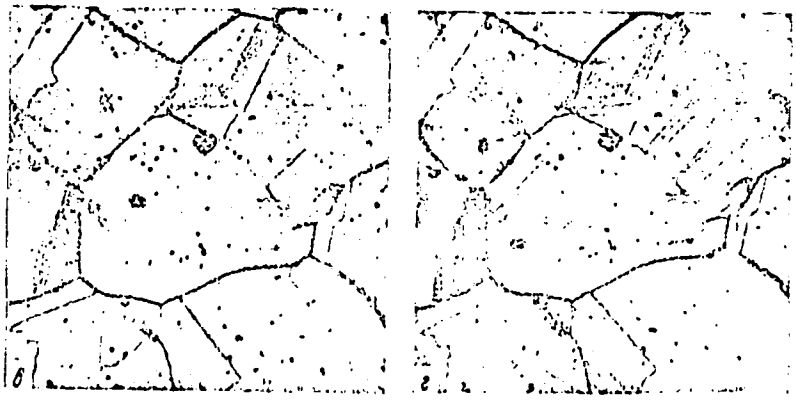
Fig 6B 2



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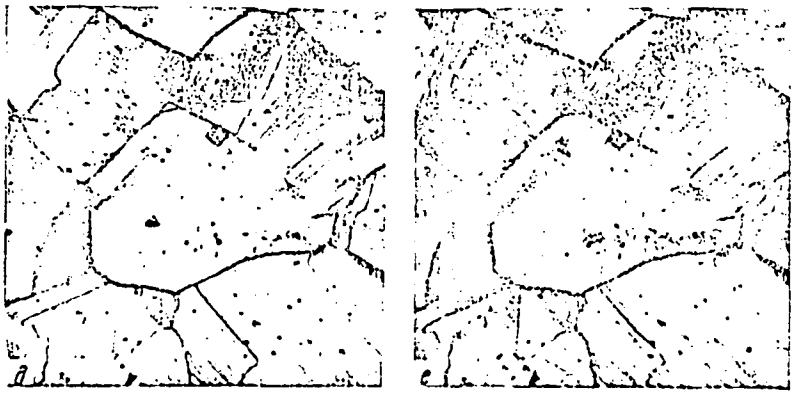
Kinetics and Mechanism of ...

S/180/61/000/001/007/015
E021/E406

Fig 6d e



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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

Fig.7. Microphotographs of a nickel surface in the deformation zone at 1000°C and 2.8×10^2 mm/h.

а - before loading, б - ε = 6.2%, в - ε = 13.2%, г - ε = 23.2%, д - ε = 30.5%, е - ε = 44.2%, ж - ε = 52.4%, з - ε = 69.0%

Fig 7a 7b

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Fig. 7B

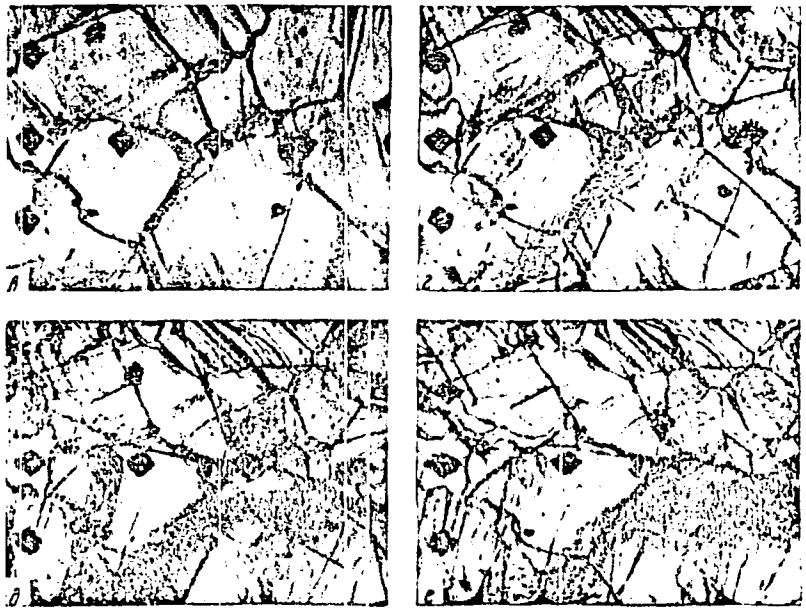

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Fig. 7 ж 3

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Fig.8. Microphotographs of a nickel surface in the deformation zone at 1000°C and 0.5 mm/h.

a - before loading, б - ε = 3.6%, в - ε = 8.0%,
г - ε = 14.3%, д - ε = 22.7%, е - ε = 26.6%.

Fig. 8a 8b

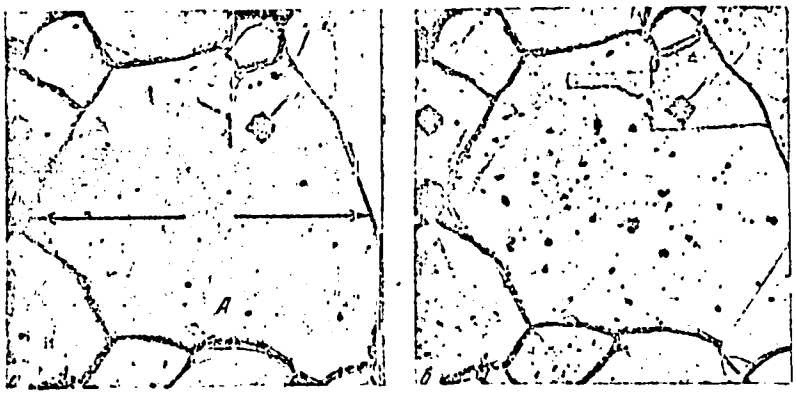

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Fig. 8B 2

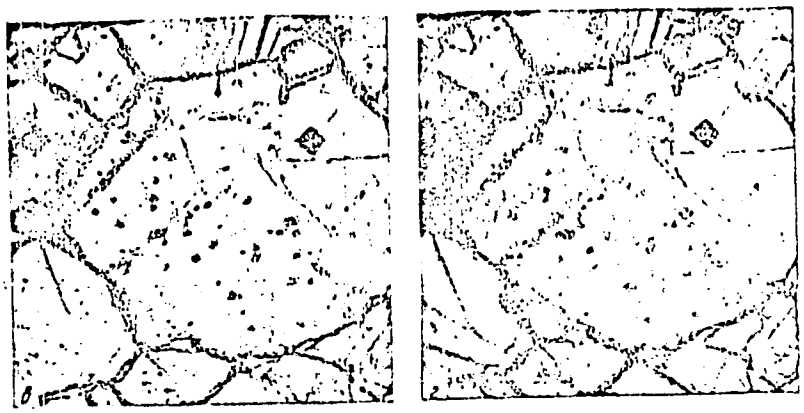

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Fig
8d
8e

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S/180/62/000/002/016/018
E193/E383

18.1280

AUTHORS: Lozinskiy, M.G. and Pertsovskiy, N.Z. (Moscow)

TITLE: Microstructural study of deformation of palladium stressed in tension at elevated temperatures

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no. 2, 1962, 136 - 144

TEXT: In continuation of their earlier work (Ref. 7 - Izv. AN SSSR, OTN, Metallurgiya i toplivo, no. 1, 1961), the authors studied the process of deformation and fracture of palladium in creep at 400 and 600 °C. Experiments were carried out on 99.8% pure Pd test pieces, preliminarily annealed for 1.5 hours at 1 300 °C with an average grain size of 1.25 mm and hardness of 42 - 44 kg/mm^2. The creep tests were conducted in vacuum under stresses ranging from 2.5 to 7.0 kg/mm^2. In addition to the determination of creep curves, photomicrographs of the surface of the test pieces were taken at regular intervals without interrupting the test; on the completion of each test a

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E193/E383

Microstructural study ....

supplementary metallographic test was carried out and hardness measurements were taken. The results of creep tests are given in a table. The results of the metallographic examination indicated that under the experimental conditions employed, slip in the interior of the grains was the predominant mechanism of deformation. Slip lines (straight and wavy), formed as a result of both uniform "translation" slip and transverse slip, were observed. On raising the test temperature from 400 to 600 °C both the thickness of and the distance between the slip bands increased. Movement of the grains relative to each other was observed at the higher test temperature, as well as formation and propagation of intercrystalline cracks. There are 6 figures and 1 table.

ASSOCIATION: Institut mashinovedeniya AN SSSR (Institute of Science of Machines of the AS USSR)

SUBMITTED: March 15, 1961

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

Microstructural study S/180/62/000/002/016/018
E193/E383

Table key: Results of study of palladium specimens tested for creep in vacuum

1 - No. of test; 2 - temperature, °C;
3 - $\sigma_{нач}$, kg/mm^2 (initial applied stress)
4 - $\tau_{исп}$, hrs (test duration); 5 - elongation on the gauge length 6 mm, %; 6 - rate of steady creep, %/hour; 7 - H_V, kg/mm^2 (hardness);
8 - in the deformation region; 9 - on the head of the test piece.

* Results of hardness measurements in the centre of the "hot" zone (for deformed specimens) at a distance of 3 mm from the plane of fracture (for fractured specimens)
** The test piece did not break.

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34541
S/659/61/007/000/029/044
D217/D303

18.8100

AUTHOR: Pertsovskiy, N.Z.

TITLE: Study of the nature of deformation kinetics of metals on heating to high temperatures and on straining

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam, v. 7, 1961, 250 - 263

TEXT: The work was carried out under the supervision of M.G Lozinskiy. Platinum and palladium specimens were annealed in vacuo at 1300°C for 1.5 hours. This produced a coarse-grained polyhedral structure with a small number of twins. The average linear size of Pt grains was found to be 0.55 mm, and that of Pd. 1,25 mm, the respective hardnesses being 42 - 46 kg/mm^2 and 42 - 44 kg/mm^2. The microstructure of the specimens was shown up by soaking in vacuum (1150 - 1200°C for Pt and at 1000 - 1500°C for Pd), causing selective evaporation and formation of microsteps on their polished surface. Attempts to expose the microstructure by chemical etching were unsuccessful. It was found that the temperature at which a chan-

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ge in the mechanism of deformation occurs is not a physical [illegible] but is determined largely by the speed of plastic flow. A change in the mechanism of deformation is usually observed in a very wide temperature interval. The existence of a transition temperature range, determined by the relationship between the grain boundary and grain body resistance to deformation, was established. In this temperature range both the 'low temperature' and the 'high temperature' mechanisms of deformation operate simultaneously, the temperature of testing and rate of deformation determining which of these two mechanisms predominates. At identical speeds of plastic flow, the temperatures range at which transition from the 'low temperature' to the 'high temperature' mechanism of deformation occurs in the case of the above platinum group metals can be established on the basis of microstructural inspection. The following characteristics of deformation at high temperatures have been established: (1) Transition from 'low temperature' to 'high temperature' deformation occurs at approximately 700 - 900°C for Pt and at 600 - 800°C for Pd at a uniform creep rate of approximately 0.5 % per hour; (2) the 'low temperature' mechanism of deformation is characterized by the

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L 9962-65 EWT(m)/EWP(b) Pad JD/HW/MLK

ACCESSION NR: AT4046869 S/0000/64/000/000/0358/0366

AUTHOR: Lozinskiy, M. G., Pertsovskiy, N. Z., Ferenets, V. Ya.

TITLE: Evaluation of the importance of various deformation processes in the elongation of nickel at high temperatures

B

SOURCE: AN SSSR. Nauchny*y sovet po probleme zharoprochny*kh splavov. Issledovaniya staley i splavov (Studies on steels and alloys). Moscow, Izd-vo Nauka, 1964, 358-366

TOPIC TAGS: nickel, high temperature stretching, nickel elongation, nickel deformation, grain slippage, nickel structure, nickel crystallization, tensile stress

ABSTRACT: The importance of different deformation processes may be evaluated by quantitative metallography. The present article includes data on the total elongation of nickel samples when tested on the IMASh-5S machine at 400-1000°C and at rates from 0.5 to 800%/hr. The flat 5x2 mm nickel samples were 99.3% pure and had passed metallographic tests. The grain size variation was calculated by the Rachinger equations. Elongation was measured on a PMT-3 table with 130X magnification. The quantity and size of intercrystalline fractures was also measured. The main variations in nickel grain shape and size for different testing conditions are shown in Figures 1 and 2 of the Enclosure. An

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L 9962-65
ACCESSION NR: AT4046869

increase in the rate of elongation to 600-800 %/hr causes marked disintegration of the structure. By comparing the curves in Fig. 2, it may be seen that when the grains are further from the surface, with elongation rates of 0.5 to 8 %/hr, the grains become larger, while at 600-800 %/hr, the structure disintegrates. Sliding along the grain boundaries was determined on the nickel samples under tension at 400 and 800C and a rate of 0.5-0.6 %/hr. On the basis of the data obtained it is concluded that at a rate of 0.5-0.6 %/hr the highest quantity of cracks per unit sample length, the maximum average crack width in the direction of tension and the largest fraction of total elongation occur at 800C. Further away from the surface, these deformations drop sharply. The total length of separate cracks was also calculated, being equal to 0.25 mm at 400-600C and reaching 0.4-0.6 mm at 800-900C. The test data obtained show that nickel deformation at temperatures above 600C is accompanied by recrystallization. The recrystallization process varies for different deformation rates, grain growth increasing as the rate drops. It is noted that nickel recrystallization is higher than for aluminum as polygonization proceeds under these conditions for aluminum. The laws of variation of grain shape and size were also determined for different nickel sections under tension at 400-1000C and various deformation rates from 0.5 to 800 %/hr. It is proven that the sharp enlargement of grain boundaries at low deformation rates and at 800C limits the development of integranular deformation in nickel. Grain slippage is observed at these rates, as well as lack of recrystallization.

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L 9962-65

ACCESSION NR: AT4044869

D

The difference in deformation processes at the surface and inside the nickel is explained by prior recrystallization in the inner layers and by unequal distribution of intergranular cracks in the material. | Orig. art. has: 4 figures, 4 equations and 1 table.

ASSOCIATION: None

SUBMITTED: 16Jun64 ENCL: 02 SUB CODE: MM

NO REF SOV: 012 OTHER: 010

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L 9962-65

ACCESSION NR: AT4046869

ENCLOSURE: 01

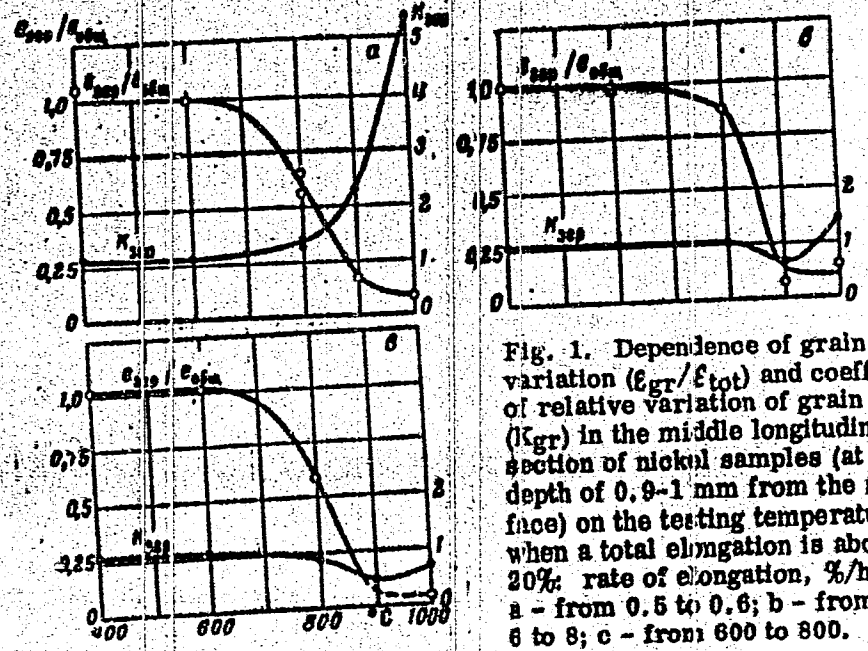

Fig. 1. Dependence of grain size variation ($\varepsilon_{gr}/\varepsilon_{tot}$) and coefficient of relative variation of grain size (K_{gr}) in the middle longitudinal section of nickel samples (at a depth of 0.9-1 mm from the surface) on the testing temperature when a total elongation is about 20%: rate of elongation, %/hr: a - from 0.5 to 0.6; b - from 6 to 8; c - from 600 to 800.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

L 9962-65

ACCESSION NR: AT4046869

ENCLOSURE: 02

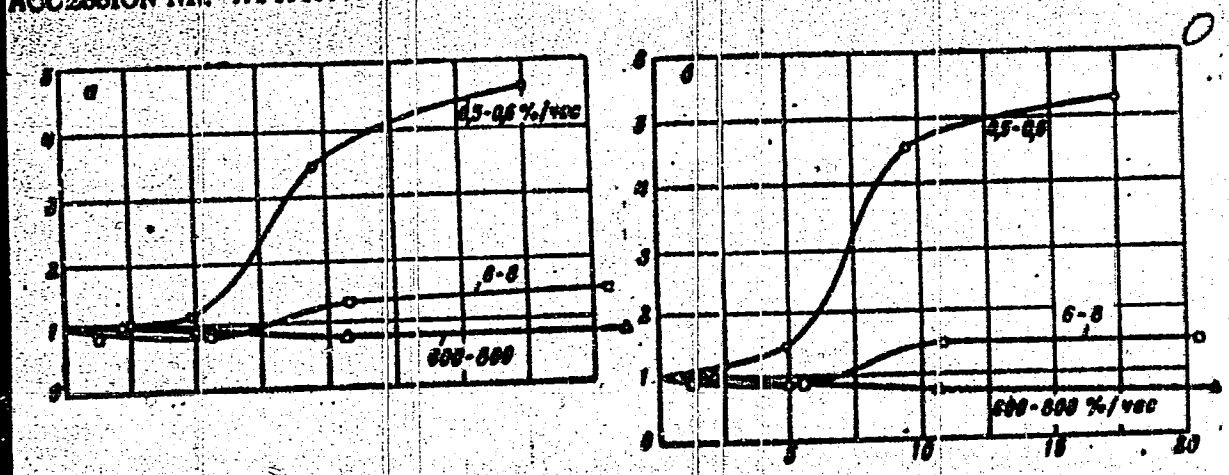

Fig. 2. Variation of relative grain size in nickel samples during the deformation process at 1000C at different rates of elongation: a - at a depth of 0.05-0.08 mm from the surface; b - in the middle longitudinal section of the samples (at a depth of 0.9-1 mm).

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

L 8944-65 EWT(m)/EWP(q)/EWP(b) JD/JG

ACCESSION NR: AT4043509 S/3107/64/000/003/0091/0103

AUTHOR: Loginskiy, M. G. (Doctor of technical sciences); Pertsovskiy, N. Z. (Candidate of technical sciences)

TITLE: Use of microstructural analysis to study palladium deformation during creep testing in vacuum

SOURCE: Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promy*shlennosti. Sektsiya metallovedeniya i termicheskoy obrabotki. Metallovedeniye i termicheskaya obrabotka, no. 3, 1964, 91-103

TOPIC TAGS: palladium deformation, palladium creep test, palladium microstructure, palladium property, palladium creep, palladium

ABSTRACT: Specimens of 99.82% pure palladium 3x3x50 mm, which had been vacuum annealed at 1300C for 1.5 hr to an average grain size of 1.25 mm, were subjected to creep testing in vacuum at 400--1000C under an initial stress of 4.42--68.6 Mn/m^2 (0.45--7.0 kg/mm^2) at a steady creep rate of 0.5--1.0%/hr. The results showed that at 400--600C the mechanism of palladium creep is characterized by intragranular slip; the slip bands become wider, and the space between them increases as the test temperature increases. Above 600C the creep gradually

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L 8944-65

ACCESSION NR: AT4043509 2

changes from intragranular to intergranular. At 1000C displacement of grains, migration of grain boundaries, and formation of intercrystalline cracks and subboundaries are observed. Orig. art. has: 7 figures and 1 table.

ASSOCIATION: Nauchno tekhnicheskoy obshchestvo mashinostroitel'noy promyshlennosti (Scientific Technical Society of Machine Construction Industry)

SUBMITTED: 00 ATD PRESS: 3107 ENCL: 00

SUB CODE: MM NO REF SOV: 009 OTHER: 014

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, N.Z.

USSR/Engineering - Welding, Pipes Jun 51

"Phenomena of Seam Strengthening in Fabrication of Electrically Welded Pipes," N. Z. Pertsovskiy, Engr

"Avtogen Delo" No 6, pp 21-23

Investigation revealed that the zone of seam in electrically welded pipes made of low-carbon steel less than 0.2%C has sharply increased hardness and very low plasticity. These phenomena are explained by summary effect of cold working in the process of shaping, partial quenching with

200T37

USSR/Engineering - Welding, Pipes Jun 51
(Contd)

water used for cooling and high int stresses caused by welding. Heat treatment equalizes hardness along cross section of pipe and reinstates initial plasticity.

200T37

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A

210-K. **Phenomenon of Strengthening of Welds in the Production of Electrically Welded Tubes.** (In Russian) N. Z. Pertsovskii *Avtogennoe Delo*, v. 22, June 1951, p. 21-23

Experimental tubes were prepared from two types of low-carbon strip steel by electric arc welding. Mechanical properties of the strip and of the finished tubes were determined. Heat treatments for producing uniform properties in the tube were established. Data are charted. (K1, Q general, J general, CN)

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Metals welding [illegible]

B.I.R.

5214 Phenomenon of Strengthening of Welds in the Production of Electrically Welded Tubes [illegible] N. Z. Pertsovskii [illegible] Experimental tubes were prepared from two [illegible] carbon strip steel by electric arc welding. Mechanical properties of the strip and of the finished tubes were determined. Heat treatments for producing uniform properties in the tube were established. Data are charted.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

MILYUTIN, Ye.R., assistent; PERTSOVSKIY, R.A.; ROGOVENKO, S.S., dotsent

Helicopter-carried system for obtaining the radiation pattern of real antennas. Vest. sviazi 22 no.5:9 My '62. (MIRA 15:5)

1. Kafedra rasprostraneniya radiovoln i antenn Leningradskogo elektrotekhnicheskogo instituta (for Milyutin). 2. Vedushchiy starshiy inzh. NIO Leningradskogo elektrotekhnicheskogo instituta svyazi (for Pertsovskiy). 3. Kafedra elektricheskikh izmereniy Leningradskogo elektrotekhnicheskogo instituta svyazi (for Rogovenko).

(Antennas (Electronics))

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FERTSOVSKIY, S.L. (Novosibirsk)

Automatic control of the heating of circuit breaker tanks. Energetik. 13 no.7:22-23 Jl '65. (MIRA 18:8)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, S.L.

Signaling by means of SK-type starters the nonconformity of the control switch with the disconnecting switch. Energetik 12 no.11:39-40 N '64 (MIRA 18:2)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, V.N.

Chromite paste for mold and core coatings. Sbor.st.UZTM no.4:48-55 '58. (MIRA 11:12)

(Chromite) (Molding (Founding))

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

BRAYNIN, S.A., inzh.; SERGEYEVA, A.A., inzh.; PERTSOVSKIY, V.N., inzh.

Automatic control of the preparation of mixes. Mekh. i avtom. proizv. 19 no.8:1-5 Ag '65. (MIRA 18:9)

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25(1) PHASE I BOOK EXPLOITATION SOV/1370

Ural'skiy zavod tyazhelogo mashinostroyeniya, Sverdlovsk

Proizvodstvo krupnykh otlivok (Making of Large Castings) Moscow, Mashgiz, 1958. 108 p. (Series: Its: Sbornik statey, vyp. 4) 5,500 copies printed.

Ed.: Fetisov, I.M., Engineer. Exec. Ed. (Siberian Division, Mashgiz): Kaletina, A.V., Engineer; Tech. Ed.: Dugina, N.A.

PURPOSE: The book is prepared by the Plant organization of NTOmashprom (Scientific and Technical Society of Machine Building Industry) and is intended for engineering and scientific workers.

COVERAGE: The book was prepared for the 25th Anniversary of the Uralmashzavod (Ural Heavy Heavy Machinery Building plant imeni S. Ordzhonikidze). The stages of founding development in the plant and the plant's progress and achievements in this field are described.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

Making of Large Castings SOV/1370

The book includes articles on the most interesting research work concerning improvement of the quality of castings and economy of labor. The results of an investigation of the causes of cracks in castings weighing up to 80 tons are presented; the nature of stone-like fractures and methods for combating them are described; experience in hardening molds and cores is analyzed. Also described is oxygen heating-up of cast iron in the spout of a cupola furnace. No personalities are mentioned. There are no references.

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Making of large Castings SOV/1370

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AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, A.

USSR / General and Specialized Zoology. Insects. P
Insect and Mite Pests.

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 44899

Authors : Peredel'skiy, A. A.; Rumyantsev, P. D.; Bibergal', A. V.; Rodionova, L. Z.; Pertsovskiy, Ye. S.

Inst : Not Given

Title : The Use of Ionizing Radiations for the Control of Insect Pests of Stored Grain.

Orig Pub : Biofizika, 1957, 2, No. 2, 209-214.

Abstract : Laboratory radiation with a 3,000 r dose led to a complete or almost complete destruction of the eggs and larvae of the rice weevil even before they changed into beetles. Then 24-29 day larvae pronumphs and pupae were subjected to radiation at 5,000, 8,000 and 12,000 r doses

Card 1/2

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a part of them continued their development into the image stage, but the beetles died afterward. Radiation of any phase of development with 5,000, 8,000 and 12,000 r doses sterilized almost all the beetles. A quantitatively small progeny was obtained from irradiated houng and old beetles; only in cases where the great grandparents were irradiated with 5,000 r dose did one obtain a few individuals of the second generation. The use of 3,000 r radiation was recommended for planning production type radiators for the disinfection of trade grains on the conveyors of state grain storehouses; this dose secured the complete sterilization of the weevils and, possibly, also of all other insects which damage grain and flour. -- A. P. Adrianov.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

BIBERGAL', A.V.; PERTSOVSKIY, Ye.S.

Selecting the type of irradiator (operating on fission products) grain disinfection. Biofizika 1 no.8:696-707 '56. (MLRA 9:12)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva, Institut zerna Ministerstva zagotovok SSSR, Moskva.
(GRAIN--DISINFECTION) (FISSION PRODUCTS)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, Ye.S., nauchnyy sotrudnik.

[redacted]

Introduce atomic energy into the food industry. Nauka i zhizn' 23 no.8:17-20 Ag '56. (MLRA 9:9)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zerna.
(Radiation sterilization)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, Ye.S.

MAMBISH, I.Ye., kand.tekhn.nauk; PERTSOVSKIY, Ye.S., nauchnyy sotrudnik; RYBKINA, A.A., nauchnyy sotrudnik; TARASEVICH, B.V., nauchnyy sotrudnik; ZIBEL', B.Ya., byvshiy nauchnyy sotrudnik, kand.tekhn.nauk; ANTUSEVICH, F.P.; RYABEN'KAYA, N.K., inzh.; MELESHKO, L.N.; GEL'MAN, D.Ya., red.; CHERNYSHEVA, V.A., red.; GOLUBKOVA, L.A., tekhn.red.

[A method for accelerated determination of moisture in newly harvested wheat and rye] Metod uskorennogo opredeleniia vlazhnosti syrogo zerna pshenitsy i rzhi. Izd. 2-oe, dop. Moskva, Izd-vo tekhn.i ekon. lit-ry po voprosam mukomol'no-krupianoi, kombikormovoi promyshl. i elevatorno-skladskogo khoziaistva, 1957. 66 p. (MIRA 11:2)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki. 2. Opytnaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta zerna i produktov yego pererabotki pri Biyskom elevatore (for Zibel'). 3. Starshiy inspektor punkta Gosudarstvennoy khlebnoy inspektsii v Biyske (for Antusevich). 4. Zaveduyushchiy laboratoriey Biyskogo elevatora (for Ryaben'kaya) 5. Zamestitel' zaveduyushcego laboratoriey Biyskogo elevatora (for Meleshko).

(Wheat--Analysis) (Rye--Analysis)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PEREDEL'SKIY, A.A.; RUMYANTSEV, P.D.; BIBERGAL', A.V.; RODIONOVA, L.Z.; PERTSOVSKIY, Ye.S.

Use of ionizing radiations in controlling insect pests of stored grain [with summary in English]. Biofizika 2 no.2:209-214 '57. (MLRA 10:6)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva, i Vsesoyuznyy nauchno-issledovatel'skiy institut zerna, Moskva.
(X RAYS--INDUSTRIAL APPLICATION)
(GRAIN--DISEASES AND PESTS) (WEEVILS)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

AUTHOR BIBERGAL A.V., MARGULIS U.Ya., PERTSOVSIY E.S., PA - 2727

TITLE Use of Strong Radiation Sources for the Sterilization of Grain. (Izpol'zovaniye moshchnykh istochnikov izlucheniya dlya obezzaryazheniya zerna /Russian/).

PERIODICAL Atomnaia Energiia, 1957, Vol 2, Nr 4, pp 376-384, (U.S.S.R.)

ABSTRACT The authors of the paper under review describe an experimental arrangement for the sterilization of grain with the aid of the γ-radiation of Co^{60}. The radiation device has the shape of a hollow cylinder to the generatrix of which there are attached twenty radioactive bars of a total activity of 100,000 g equivalent radium. This device has water protection. The grain is automatically exposed to radiation. The operational capacity of the device amounts to 1.85 tons per hour. For the construction of industrial plants for the radioactive sterilization of grain the use of Co^{60} is uneconomical because of the high costs involved. Much more favorable is the utilization of fission products of uranium which are obtained from atomic industry. Because of the low specific activity of the fission products the selection of the most economical configuration of the radiation device is the most important problem. According to the computations, cellular (meshed) radiation devices are most favorable. The paper under review discusses three types of such cellular radiation devices, namely cylindrical, bar-shaped, and slot-shaped devices. According to the author of the paper, slot-shaped devices can be used most economically because they yield the highest outpout per unit volume of the device. The ouput of such a radiation device amounts to 31 tons per hour at a total activity of 3.72.10^6 Curie. The relatively low

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, YA. S.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, Ye. S.

PHASE I BOOK EXPLOITATION SOV/1297

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke, Moscow, 1957

Polucheniye izotopov. Moshchnyye gamma-ustanovki. Radiometriya i dozimetriya; trudy konferentsii... (Isotope Production. High-energy Gamma-Radiation Facilities. Radiometry and Dosimetry; Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science) Moscow, Izd-vo AN SSSR, 1958. 293 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR; Glavnoye upravleniye po ispol'zovaniyu atomnoy energii SSSR.

Editorial Board: Prolov, Yu.S. (Resp. Ed.), Zhavorunkov, N.M. (Deputy Resp. Ed.), Aglintsev, K.K., Alekseyev, B.A., Bochkarev, V.V., Leshchinskiy, N.I., Malkov, T.P., Sinitsyn, V.I., and Popova, O.L. (Secretary); Tech. Ed.: Novichkov, N.D.

PURPOSE: This collection is published for scientists, technologists, persons engaged in medicine or medical research, and others concerned with the production and/or use of radioactive and stable isotopes and radiation.

COVERAGE: Thirty-eight reports are included in this collection under three main subject divisions: 1) production of isotopes 2) high-energy gamma-radiation facilities, and 3) radiometry and dosimetry.

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

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SOSEDOV, N.I., kand.biol.nauk; VAKAR, A.B., kand.khim.nauk; PERTSOVSKIY, Ye.S., nauchnyy sotrudnik; DROZDOVA, Z.B., nauchnyy sotrudnik; TPLCHINSKAYA, Ye.S., nauchnyy sotrudnik

Effect of ionizing radiations on the biochemical properties of wheat. [Trudy] VNIIZ no.35:3-27 '58. (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.
(Radiation--Physiological effect) (Wheat)

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PERTSEVSKIY, Ye. S.

[illegible]

PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii. Tashkent, 1959.

Transactions of the Tashkent Conference on the Peaceful [illegible] of Atomic Energy) v. 2. Tashkent, Izd-vo AN UZSSR, 1960. [illegible] p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. M. Abdurasulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulin, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikrashev; A. Ye. Kiy, [illegible] Ivanov, Candidate of Physics and Mathematics; A. [illegible], Candidate of Medical Sciences; D. [illegible], Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences SSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

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Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Bibakhanova.

PURPOSE: The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

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instruments used, such as automatic regulators, flowmeters, level gages, and high-sensitivity [illegible]-relays, are described. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION IN ENGINEERING AND GEOLOGY

Lobanov, Ye. M. [Institut yadernoy fiziki UzSSR - Institute of Nuclear Physics AS UzSSR]. Application of Radioactive Isotopes and Nuclear Radiation in Uzbekistan 7

Takbar, I. M., and V. A. Yanushkevskiy [Institut fiziki AN LatvSSR - Institute of Physics AS Latvian SSR]. Problems of the Typification of Automatic-Control Apparatus Based on the Use of Radioactive Isotopes 9

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Transactions of the Tashkent (Cont.) SOV/5410

Portnovskiy, Ye. S., and N. D. Lerman [Vsesoyuznyy nauchno-issledovatel'skiy institut zerna - All-Union Scientific Research Institute of Grain]. Gamma-Ray Level Gages for Flour Mills and Combined Fodder Plants. 262

Abramson, I. G., and L. Z. Nagorman [Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsementnoy promyshlennosti i nauchno-issledovatel'skiy i eksperimental'nym rabotam v oblasti proizvodstva tsementa - State Institute for the Design and Planning of Establishments of the Cement Industry and Scientific Research and Experimental Work in the Field of Cement Production]. A Possible Continuous Remote Control of Slime Level in Slime Pits by Means of a Gamma-Relay System 266

Lempuskaya, D. I., R. A. Rezvanov, and V. I. Drynkin [Institute of Geology and Production of Mineral Fuels AS USSR]. Application of Neutron Activation Analysis in Geology 269

Lopovok, T. A. [Institute of Geology and Production of Mineral Fuels AS USSR]. Neutron Breeder for Activation Analysis

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSOVSKIY, Yevgeniy Solomonovich; [illegible], [illegible] Stepanovich; RASHINSKIY, V.V., prof., retsenzent; KARL'SHUV, A.V., kand. tekhn.nauk, retsenzent; YE[illegible]KHINA, N.V., rec.

[Use of atomic energy in the food industry] Primenenie atomnoi energii v pishchevoi promyshlennosti. Moskva, Pishchevaia promyshlennost', [illegible]. [illegible] p.
([illegible])

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

AM5015050 BOOK EXPLOITATION UR/

Pertsovskiy, Yevgeniy Solomonovich; Shubin, Anatoliy Stepanovich

Application of atomic energy in the food industry (Primeneniye atomnoy energii v pishchevoy promyshlennosti) Moscow, Izd-vo "Pishchevaya Promyshlennost'", 1964. 398 p. illus., biblio., append. 1400 copies printed. Reviewers: Prof. V. V. Rachinskiy, Cand. of Tech. Sciences A. V. Kardashev; Editor: N. V. Yermokhina; Technical editor: A. M. Satarova; Proofreaders: N. A. Yastrebova, G. M. Ivanova.

TOPIC TAGS: atomic energy, food industry, nuclear radiation, nuclear reactor, radiation detection, radiation protection, radiometry, radioactive indicator

PURPOSE AND COVERAGE: This book has been authorized by the Ministry of Higher and Secondary Special Education of the R.S.F.S.R. as a textbook for vuzes in the food industry. Basic concepts concerning nuclear radiation and methods of recording it are outlined. Instruments for measuring radiation intensity, dosage and methods of protection against radiation, nuclear reactors, and the application of radioactive indicators in the food industry are described. The application of high-power radiation sources and the utilization of radiation for the control of industrial processes in the food industry are analyzed in detail. Soviet scien-

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tists I. A. Kurchatov, A. F. Joffe, M. A. Leontovich, L. D. Landau, I. Ye. Tamm, V. I. Veksler, and A. I. Alikhanov are noted as having contributed greatly to the development of the science of atomic energy and of methods for its peaceful application.

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PERTSOVSKIY, Ye.S.; BERLIN, I.Z.; RODNEVICH, B.N.; FREYMAN, I. .; LETNEV, B.Ya., red.

[Protection of cereal products from weapons of mass destruction] Zashchita khleboproduktov ot oruzhia massovogo porazheniia. Moskva, Kolos, 1964. 133 p. (MIRA 18:3)

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VOLKOV, I.N., red.

[Use of electronic technics in the flour milling and g[illegible] elevator industries] Primenenie elektronnoi tekhniki v mukomol'no-elevatornoi promyshlennosti. Moskva, TsiNT Goskomzaga, 1963. 111 p. (Nis 17:9)

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PERTSULENKO, V.A.; LAGUTINA, Ye.V., red.; MATVEYEVA, M.M., tekhn. red.

[Bee venom in some diseases of the joints] Pchelinyi iad pri nekotorykh zabolevaniiakh sustavov. Moskva, Medgiz, 1961. 29 p. (MIRA 14:11)
(VENOM) (ARTHRITIS)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTSULENKO, V.A.

[Ailments of the heart and blood vessels] O zabolavaniiakh serdtsa i sosudov. Moskva, Medgiz. 1954. 39 p. (MLRA 7:11)
(Cardiovascular system--Diseases)

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TARANOV, G.F., kand.biol.nauk; ZAYTSEV, G.P., doktor med. nauk; PONYALIN, V.T., doktor med. nauk; PERTSULENKO, V.A., kand. med. nauk; NEVEROVA, N.V.; VINOGRADOVA, T.V., doktor bil. nauk; KOSTOGLODOV, V.F.; KIVALKINA, V.N., kand. biol. nauk; SOKOLOVA, G.S., red.; SAYTANIDI, L.D., tekhn. red.

[The bee and human health]Pchela i zdorov'e cheloveka. Moskva, Izd-vo M-va sel'khoz. RSFSR, 1962. 190 p. (MIRA 15:10)

(BEES) (MATERIA MEDICA, ANIMAL)

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PERTSULENKO, V.A.

Bee venom in treating infectious nonspecific (rheumatoid) arthritis. Sov.med. 25 no.6:94-101 Je '61. (MIRA 15:1)

1. Iz Taganskoy polikliniki Upravleniya khozraschetnymy lechebnymi uchrezhdeniyami Moskovskogo gorodskogo otdela zdravookhraneniya (glavnyy vrach G.A.Valasik).
(ARTHRITIS RHEUMATOID) (BEE VENOM--THERAPEUTIC USE)

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PERTSULENKO, Vladimir Aleksandrovich; LAGUTINA, Ye.V., red.; GABERLAND, M.I., tekhn.red.

[Diseases of the heart and blood vessels] O zabolevaniiakh serdtsa i sosudov. Moskva, Gos.izd-vo med.lit-ry, 1960. 54 p. (MIRA 13:10)

(CARDIOVASCULAR SYSTEM---DISEASES)

USSR
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Abs Jour : Ref Zhur - Biologiya, No 22, 1958, No 99548

Author : Pertushevskiy, G.K.
Inst : All-Union Scientific Research Institute of Lake and River *
Title : On the Parasites of Sprats (Salaka).

Orig Pub : Izv.vses.n.-i.in-ta oz.i rechn.rybn. kh-va, 1957, 42, 332

Abstract : No abstract

* Fish Economy

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTYNSKI, Jerzy

Evaluation of some signs of extrauterine pregnancy. Ginek. pol. 34 no.6:707-712 '63.

1. I Kliniki i Katedry Poloznictwa i Ginekologii WAM w Lodzi. Kierownik: doc.dr. med. J.Pertynski.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTYNSKI, Jerzy (Lodz, Gen. Swierczewskiego 25.)

Observations & results of substitute implants of hormonal preparations. Gin. polska 29 no.4:421-431 July-Aug 58.

1. Ze Szpitala Polozniczo-Ginekologicznego im. dr M. Madurowicza w Lodzi. Dyrektor: doc. dr med. J. Pertynski.

(GYNECOLOGICAL DISEASES, ther.
hormonal implants (Pol))
(HORMONES, ther. use
gyn. dis., implantation (Pol))

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTYNSKI, Jerzy

Formation of the vagina from the sigmoid. Gin. polska 32 no.4:469-475 '61.

1. Ze Szpitala im dr M. Madurowicza w Lodzi Dyrektor: doc. dr J. Pertynski

(VAGINA surg)
(SIGMOID transpl)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTYNSKI, Jerzy

Ovarian pregnancy with acute inflammatory states of the reproductive organs and the gastrointestinal tract. Gin. polska 28 no.5:599-607 Sept-Oct 56.

1. Ze Szpitala Polozniczo-Ginekologicznego im. dra Madurowicza w Lodz, ul. Swiercsewskiego 25.

(PREGNANCY, ECTOPIC, complications
ovarian, with inflamm. of genitalia & gastrointestinal tract (Pol))
(GYNECOLOGICAL DISEASES, complications
inflamm. with gastrointestinal inflamm. in ovarian pregn. (Pol))
(GASTROINTESTINAL DISEASES, complications
inflamm. with gyn. inflamm. in ovarian pregn. (Pol))

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PETRYNSKI, Jerzy

Two cases of malignant ovarian neoplasms with symptoms of Meigs' syndrome. Polski tygod.lek. 10 no.19:624-627 9 May '55.

1. Ze Szpitala Polozniczo-Ginekologicznego im. dr M. Madurowicza w Lodzi; dyrektor i ordynator dr Jerzy Petrynski) Lodz, ul. Swierczewskiego 25.

(OVARIES, neoplasms,
Meigs' synd.)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTYNSKI, Jerzy (Lodz, Gen. Swierczewskiego 24/26)

Uterine cysts. Gin. polska 25 no.4:425-430 Oct-Dec 54.

1. Ze Szpitala Poloznicze-Ginekologicznego im. dr. M.Madurowicza w Lodzi. Dyrektor: dr J.Pertynski.
(UTERUS, cysts,)
(CYSTS,
uterus)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTYNSKI, Jerzy

Psychosomatic disorders in gynecology and obstetrics. Gin.polska 31 no.2:213-224 Mr-Ap '60.

1. Ze Szpitala Ginekologiczno-Polozniczego im.dr M.Madurowicza w Lodzi. Dyrektor: doc.dr med. J. Pertynski.
(GYNECOLOGY psychol.)
(OBSTETRICS psychol.)
(PSYCHOSOMATIC MEDICINE)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTYŃSKI, Jerzy.

Brenner tumor and Walthard's islet. Gin. polska 27 no.1:77-84 1955.

1. Ze Szpitala Polozniczo-Ginekologicznego im. dr M.Madurowicza w Lodzi. Dyrektor: dr J.Pertyński. Lodz, Swierczewskiego.
(BRENNER TUMOR,
relation to Walthard's islets (Pol))
(OVARIES, neoplasms,
Brenner tumor, relation to Walthard's islets (Pol))

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERTZHAK, G. I.

Physical-chemical properties of oxalates of quadrivalent uranium and thorium. [illegible] Ceinberg and G. I. Pertzhak. *Trudy Radiovoge Inst. im. V. G. Khlopina, Khim. i Tekhnol.* 7, 50-73(1956).—The oxalate of quadrivalent U greatly differs from thorium oxalate in pH value and in elec. cond. of a satd. soln. Uranium oxalate is acidic and the pH of a satd. soln. at 25° is 4.3. Thorium oxalate shows no acidic properties. Uranium oxalate dissoc. as follows: $[U(C_2O_4)_2(H_2O)_n] \rightleftharpoons [U(C_2O_4)_2(H_2O)_{n-1}OH]^- + H^+$ and $[U(C_2O_4)_2(H_2O)_n] \rightleftharpoons [U(C_2O_4)_2(H_2O)_n]^{++} + C_2O_4^{--}$. The latter equil. is approx. 30% of the over-all equil. Thorium oxalate dissoc. only according to $Th(C_2O_4)_2 \rightleftharpoons ThC_2O_4^{++} + C_2O_4^{--}$ and does not react with pyridine. Soly. of uranium oxalate in water at 25° is 5.1×10^{-3} g. of hexahydrate for 1000 g. soln. The mobility of complex ion $[U(C_2O_4)_4]^{4-}$ at 25° is approx. 60 ohm^{-1} cm.^{2}/g. equiv. C. M.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERUANSKIY, Yu.V.; PERUANSKAYA, O.N.

Content of some glycosides of wheat as related [illegible] to stem rust. Agrobiology [illegible] no. [illegible] N-D '65.

[illegible]

1. Dzhambul'skiy nauchno-issledovatel'skiy sel'skokhozyaystvennyy institut, g. Dzhambul.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERUANSKIY, S. S.

Classification of open clusters according to the luminosity function. Astron. zhur. 40 no.1:127-130 J-F '63.
(MIRA 16:1)

1. Kafedra astronomii Kazanskogo gosudarstvennogo universiteta.

(Stars—Clusters)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERUANSKIY, Yu. V., Cand Biol Sci -- (diss) "Comparative Investigation of the Quantitative Content and Qualitative Composition of Albumin and Starch in the kernels of Various Sub-species of Corn." Len, 1957. 17 pp, (All-Union Order of Lenin Acad of Agri Sci im V. I. Lenin, All-Union Inst of Plant Culture), 100 copies. (KL, 7-58, 110)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

COUNTRY : USSR
CATEGORY : Cultivated Plants. M
Grains. Legumes. Tropical Cereals.
ABS. JOUR. : Referat., No. 3, 1959, No. 10936

AUTHOR : Poruanskiy, Yu. V.
INST. : All-Union Academy of Agricultural Sciences imeni Lenin
TITLE : The Qualitative Composition of the Corn Grain Protein and Its Variation During Ripening and Sprouting.

ORIG. PUB. : Dokl. VASKhNIL, 1957, No. 7, 11-15

ABSTRACT : The relationship of different protein fractions in the grain of the corn of different botanical groups and at different stages of ripening was studied. Corn grain contains 8 different proteins three of which (the alcohol soluble fraction) are not rich in the biological respect since they do not contain lysine and have only traces of tryptophan. The content of alcohol-soluble proteins among the varieties of different botanical groups varies from 22 to 52% of the total amount of protein. The high percentage of total protein is connected with the relat-

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

AUTHOR: Beruarskiy, Yu V. SOV-96-58-8-18/21

TITLE: The Diversity of Starch Types in Maize Grain (Mnogoobraziye tipov krakhmala zerna kukuruzy)

PERIODICAL: Priroda, 1958, Nr 8, p 118 (USSR)

ABSTRACT: The maize plant is able to synthetize all 3 types of starch in its grains. The grain of sweet maize contains also a special kind of non-structural starch of the type of water-soluble high-branched amylopektin in addition to the grain or starch. This property may be utilized for several branches of the industry dealing with starch and starch derivatives.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut rastenivovodstva /Leningrad (All-Union Scientific Research Institute of Plant Cultivation /Leningrad)

1. Maize 2. Starch--Synthesis

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERUANSKIY, Yu. V., G. A. LUKOVNIKOVA, V. I. IVANOV, D. I. LISITSIN, M. S. BARDINSKAYA, and M. T. SMIRNOVA-IKONNIKOVA.

"On carbohydrates of plant origin"

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms. Conference in Moscow. January 28 to January 30 1958.

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PERUANSKIY, Yu.V.; PERUANSKAYA, [illegible]N.

Content of some glyc[illegible] of wheat as related [illegible] [illegible]stem rust. [illegible] N-[illegible] '65.

[illegible]

1. Dzhambul'skiy [illegible] sel'skoko[illegible] [illegible] inst[illegible]tut, g. Dzhambul.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERUCKY, J.

"For Further Development and Successes in Socialism", P. 1, (TECHNICKE NOVINY, Vol. 2, No. 10, May 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

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KUZIN, I.L.; PASUMANSKIY, I.M.; PERUGIN, N.N.; CHOCHIA, N.G.

Some methods for determining recent tectonic movements in oil-bearing platform areas. Trudy VNIGRI no.2[illegible]5:192-205 '63. (MIRA 17:3)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

PERUKHIN, F.S.

Introducing the cultivation of tannin-bearing hervaceous plants in the northwestern U.S.S.R. Trudy Bot.inst.Ser. 5 no.7:95-181 :61. (MIRA 14:4)

(Russia, Northwestern--Botany) (Tanning materials)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240130002-8

BRESLER, S.Ye.; SINOCHKIN, Yu.D.; YEGOROV, A.I.; PERUMOV, D.A.

Ion-exchange resins based on zirconium. Radiokhimiia 1 no.5:507-513 '59. (MIRA 13:2)

(Zirconium) (Gums and resins)

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BRESLER, S.Ye.; PERUMOV, D.A.

Mutagenesis on isolated DNA induced by ultraviolet radiation and chemical agents. Dokl. AN SSSR 158 no.4:967-969 O '64. (MIRA 17:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR. Predstavleno akademikom A.N. Tereninym.

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BRESLER, S.Ye.; [illegible]VISKIY, A.S.; [illegible], [illegible]; [illegible]HERNIK, T.P.

Comparative study of the mutagenic effect of ultraviolet radiation on Bacillus subtilis cells and transforming DNA. Genetika no. [illegible] 53-60 N '65. (MIRA [illegible])

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad i Institut molekulyarnoy biologii AN SSSR, Moskva. Submitted February 5, 1965.

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L 55338-65 EWT(m)/EPF(n)-2/EWG(m)/EWT(t)/EWP(b) Pu-4 IJP(c) RWH/JD/
WW/JG/GS/RM

ACCESSION NR: AT5015392 UR/0000/65/000/000/0140/0144
66.074.8 : 546.83.195

AUTHOR: Sinochkin, Yu. D.; Perumov, D. A.

TITLE: Zirconium-base ion exchangers. III. Zirconyl arsenate

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Soosazhdeniye i adsorbtsiya radioaktivnykh elementov (Coprecipitation and adsorption of radioactive elements). Moscow, Izd-vo Nauka, 1965, 140-144

TOPIC TAGS: ion exchange, zirconyl arsenate, calcium magnesium exchange, cesium adsorption

ABSTRACT: A zirconyl arsenate ion exchanger was prepared by rapidly mixing concentrated solutions of zirconyl chloride and potassium arsenate, then washing and drying the gel obtained. The equivalent character of the adsorption was shown by using calcium - magnesium exchange as an example. Proof of the volume character of the adsorption was provided by the absence of changes in capacity when coarse and fine grains of zirconyl arsenate were used. The time required for equilibrium to be established was almost the same as in the case of organic adsorbents. The possibility of a selective separation of cesium from acid solutions containing divalent

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and trivalent ions was checked under static conditions using Cs^{137} for the determination of the distribution of Cs between the solid and the liquid phase. It was found that the adsorption of cesium at low pH values was insensitive to the presence of divalent and trivalent ions in the solution. Owing to individual differences in the dependence of the capacity on the pH for alkali metals, cesium can be concentrated on zirconyl arsenate in the presence of high concentrations of other alkali and polyvalent ions. Selectivity in adsorption is conveniently supplemented by selectivity in desorption. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 23Nov62 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 003 OTHER: 006

Card 2/2

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CA

Raman effect of chloroprene in the course of polymerization. R. D. Perunova. *J. Phys. Chem. U. S. S. R.* 14, 346-8(1940).—The Raman spectrum of 3-chlorobutadiene consists of 3104, 3070, 3000 and 2967 cm⁻¹ due to CH, 1620 and 1574 due to C C, 1408, 1411, 1344, 1[illegible]9 and 1200 due to CH, 1006 due to CC, 722 and 912 due to CCl, and 514, 435 and 242 due to C. Except the CCl frequencies the spectrum is identical with that of isoprene. Polymerization shifts the frequency C C from 1620 to 1626, no detailed observations can be made because of the turbidity of the polymerizing liquid.

R. C. P. A.

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