S/0057/64/034/007/1285/1292

ACCESSION NR: AP4042005

AUTHOR: Zashkvara, V.V.; Korsunskiy, M.I.

TITLE: Experimental investigation of the electron optical properties of an electrostatic analyzer with a linear distribution of potential on the deflecting electrodes

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.7, 1964, 1285-1292

TOPIC TAGS: electron optics, electrostatic analyzer

ABSTRACT: An electrostatic analyzer of the type discussed earlier (V.V.Zashkvara and M.I.Korsunskiy,ZhTF 32,840-847,1962) was constructed and tested. In this type of analyzer the potential on each cylindrical deflector falls linearly from a maximum on the central arc to a minimum at each edge. With such an instrument it is possible separately to adjust the first order electron optical properties (focus and dispersion) and the second order properties (aberrations) by altering the potential distribution on the deflectors. The analyzer employed 180° deflection by cylindrical electrode surfaces of 9.1 and 10.9 cm radius. Each deflector consisted of a stack of 17 plates, 0.4 mm thick and of suitable shape, separated by 1 mm glass insulators. The plates of each deflector were connected together in pairs (the two

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ACCESSION NR: AP4042005

outermost, the two next outermost, etc.) and fed from a stabilized power supply through a voltage divider. An 0.1 mm diameter hot tungsten wire served as the object for the electron optical experiments. The electrons were accelerated to 1000 eV by a 6 mm diameter 25 mm long cylindrical electrode with an 0.5 mm slot. This electron source was placed 35 cm from the entrance to the analyzer, and the angular beam divergence was limited to 3×10^{-3} in the horizontal plane and 3×10^{-2} in the vertical plane. The image was photographed at 4 cm from the analyzer. By properly adjusting the potential distribution on the deflectors, it was possible to achieve a dispersion greater by a factor 8.3 than that which would be obtained with a similar analyzer employing equipotential deflection electrodes. This increase in dispersion was accompanied by some deterioration of the image, but the resolving power was increased by a factor 3.3. Orig.art.has: 26 formulas, 4 figures and 1 table.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im.V.I.Lenina (Khar'kov Polytechnic Institute)

SUBMITTED: 15Jun63 ENCL: 00

SUB CODE: EC, NP NR REF SOV: 002 OTHER: 000

Card 2/2

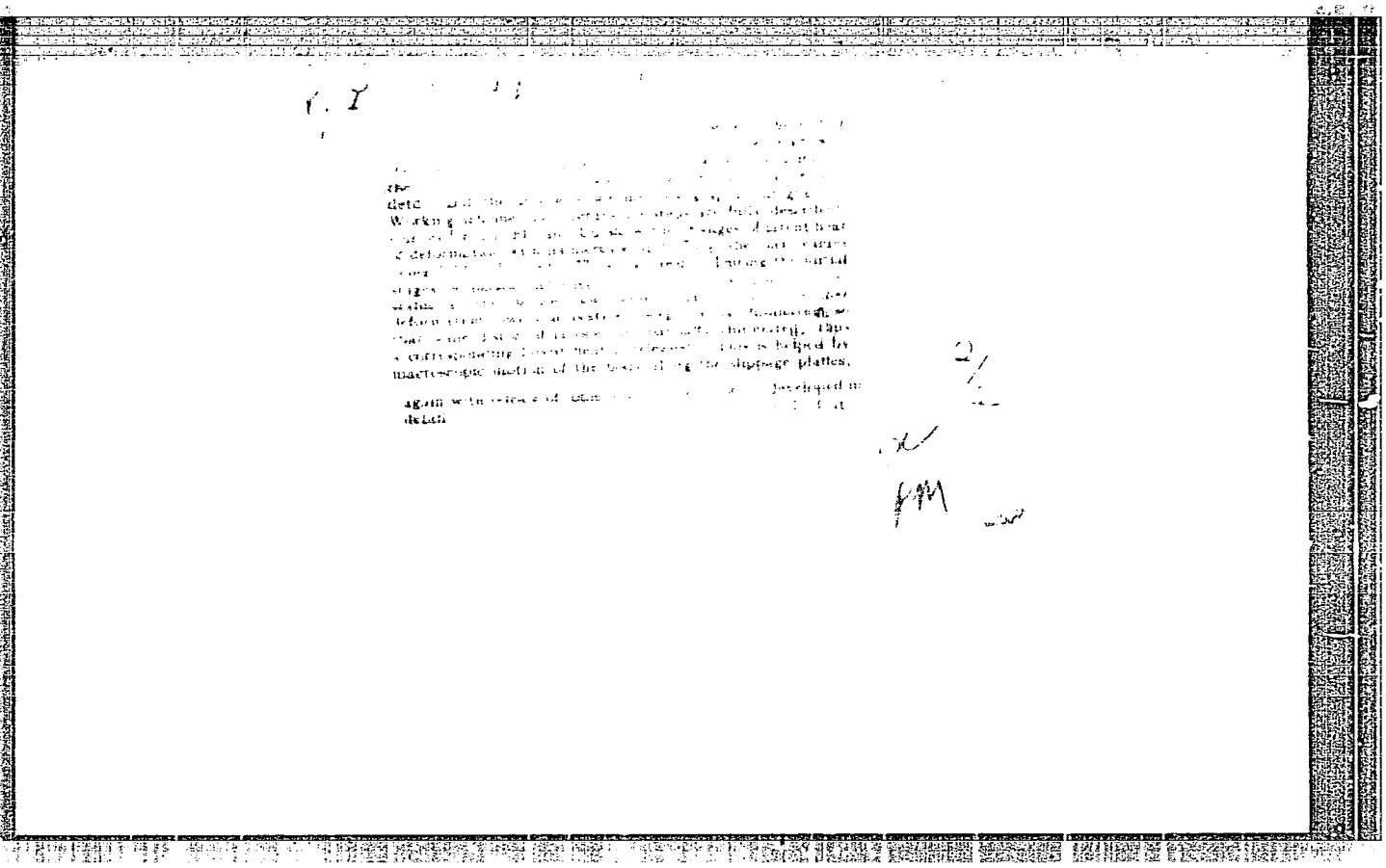
ZASHKVARA, V.V.; KORSUNSKIY, M.I.

Electrostatic analyzer with a linearly distributed potential on deflecting electrodes. Zhur.tekh.fiz. 32 no.7:840-847 Jl '62. (MIRA 15:8)

1. Khar'kovskiy politekhnicheskiy institut.
(Electric apparatus and appliances)

ZASHKVARA

Energy absorption during low temperature deformation of metals. [illegible] Khotkevich, E. P. Czaikovskii, and V. V. Zashkvara (A. M. Gor'kii State Univ., Khar'kov). [illegible] deformed specimen [illegible] with a fully annealed standard [illegible] [illegible] bridge [illegible] was [illegible] cooled [illegible] which released the latent [illegible] annealing of the deformed [illegible] was slightly increased over heat of deformation; thus its temp. [illegible] that of the annealed standard when the current was passed. The difference was expressed as $\Delta W = I_0 I(4R_x + 2R + \ldots)$ [illegible] where [illegible] and R_x are current and resistance in the specimen branch of the bridge, I and R those in the [illegible] of the circuit. Latent [illegible] heat [illegible] where I and I_0 are [illegible] temp. [illegible] of the [illegible] [illegible] of the [illegible]



L 10216-65 EWT(1)

ACC NR: AP5028471 SOURCE CODE: UR/0286/65/000/020/0044/0044

44,55 44,55

AUTHORS: Zashkvara, V. V.; Korsunskiy, M. I.; Kosmachev, O. S.

30

B

ORG: none

TITLE: Analyzer of charged particles by their kinetic energies. Class 21, No. 175584

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 44

21,44,55

TOPIC TAGS: particle detector, particle physics, kinetic energy

ABSTRACT: This Author Certificate presents an analyzer of charged particles by their kinetic energies. The analyzer contains two electrodes and a receiver (see Fig. 1). To increase the sensitivity, the electrodes have the form of two coaxial cylinders. The outer cylinder carries a charge of the same sign as the charge of the particles. The internal cylinder has two annular slits located between the source of the particles and the receiver. The source and the receiver, in turn,

Card 1/2

UDC: 621.384.83

L 10216-66
ACC NR: AP5028471

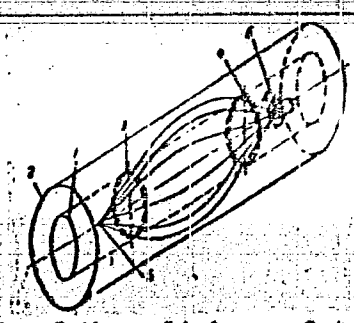


Fig. 1. 1 and 2 - Electrodes; 3 and 4 - slits; 5 - particle source; 6 - receiver.

are placed on the axis of the cylinders. Orig. art. has: 1 figure.

SUB CODE: 20, 14/ SUBM DATE: 31Aug64

Card 2/2

ACC NR: AT6004888 SOURCE CODE: UR/0057/66/036/001/0132/0138

AUTHOR: Zashkvara, V.V.; Korsunskiy, M.I.; Kosmachev, O.S.

ORG: none

TITLE: Focusing characteristics of an electrostatic mirror with a cylindrical field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 132-138

TOPIC TAGS: electron optics, mass spectrometry, electrostatic field, electrode potential, charged particle, ion energy

ABSTRACT: The authors discuss focusing of charged particles by the electrostatic field between two coaxial cylindrical electrodes. The ions are assumed to originate in a point source on the common axis of the electrodes and to enter and leave the inter-electrode region through circular slots in the inner electrode. Charged particles with a certain energy, depending on their charge and mass, the potential difference between the electrodes, the radii of the electrodes, the distance between the slots in the inner electrode, and the position of the source, will be brought to a focus on the axis. It is proposed to employ such a system of electrodes to record the energy spectrum of charged particles by keeping fixed the positions of the source and detector and varying the potential on the electrodes. The focusing conditions are derived. It is shown that not only first order, but also second order focusing occurs if the angle between the initial trajectory and the axis is 42° 20'. The authors also calculated the second

Card 1/2

UDC: 537.533.3

ACC NR: AP5004888

order aberrations and the effect of finite source size, but in the present paper they only discuss the results and do not present the calculations. The energy resolution can be improved by employing multiple focusing with suitable irises in the intermediate image planes to eliminate oblique trajectories. The linear dispersion in energy of the cylindrical capacitor is approximately equal to that of a 180° spherical analyzer of equal size. The quality of focusing is adequate for analysis of ion beams with an angular divergence of 360° in the radial plane and several degrees in the axial plane. Orig. art. has: 17 formulas, 2 figures, and 1 table.

SUB CODE: 20/ SUBM DATE: 03May65/ ORIG REF: 002 OTH REF: 000

Card 2/2 pda

SOSNOVSKIY, Yu.S., inzh.; MALYUGIN, V.D., inzh.; ZASHLYAPIN, Ye.D., inzh.

Remote control of ore-crushing and dressing plant. Mekh.i avtom. proizv. 14 no.12:11-13 D '60. (MIRA 13:12)
(Ore dressing) (Remote control)

ZASIAD'KO, A.F.

ZASIAD'KO, A.F. Ugol'naia promyshlennost' zapadnykh raionov SSSR v poslevoennoi stalinskoi piatiletke; stenogr. publ. lektsii, prochitannoi v Moskve. Moskva, /Pravda/, 1948. 28 p.

DLC: HD9555.R8Z3

SO: LC, Soviet Geography, Part I, 1951, Uncl.

ZASIAD'KO, A.F.

ZASIAD'KO, A.F. Ocherednye zadachi ugol'noi promyshlennosti SSSR. (Planovoe khoziaistvo, 1950, no. 2., p. 16-19.)

DLC: HC331.P52

SO: LC, Soviet Geography, Part I, 1951, Uncl.

ZASIMAVA, Dzina.

In an important post. Rab.i sial. 32 no.2:7-8 F '56. (MLRA 9:5)
(Collective farms)

OVSIYENKO, D.Ye.; ZASIMCHUK, I.K.

Effect of mosaic structure on zinc diffusion in single aluminum crystals. Fiz. met. i metalloved. 10 no.5:743-749 N '60.
(MIRA 14:1)

1. Institut metallofiziki AN USSR.
(Aluminum crystals) (Diffusion)

S/126/60/010/005/017/030
E021/E406

AUTHORS: Ovsiyenko, D.Ye. and Zasimchuk, I.K.

TITLE: The Effect of the Degree of Polygonization on the Diffusion of Zinc in an Aluminium Single Crystal

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.5, pp.743-749

TEXT: The investigations were carried out on flat single crystals of 99.995% aluminium, grown from the melt. Different degrees of mosaic structure were obtained by changes in the rate of movement of the furnace from 0.5 to 6 mm/min with a temperature gradient of 20°/cm. In all the samples the (200) plane was parallel to the surface. The dimensions of the crystallites and the maximum misorientation between them were determined by X-ray crystallography. Zinc was precipitated on an electropolished surface of the aluminium using a zinc sulphate / sulphuric acid / sodium fluoride bath with a current density of 0.05 A/cm^2 and a voltage of 4 V. The samples were heated at various temperatures in argon. Layers 5 to 10 microns thick were then removed electrolytically and the activity of the zinc in each layer determined. Thus the diffusion of zinc could be followed.

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S/126/60/010/005/017/030
E021/E406

The Effect of the Degree of Polygonization on the Diffusion of Zinc in an Aluminium Single Crystal

The results showed that the mosaic structure had a marked effect on the character and the rate of diffusion. In the more perfect crystals with crystallites of about 10^{-2} cm and angle of misorientation 15 to 20', the zinc obeyed the laws of volume diffusion in the region 327 to 375°C. The temperature relationship was

$$D = 1.4\, e^{\frac{-30800}{RT}}$$

In the less perfect crystals with crystallites of about 10^{-3} cm and angle of misorientation 30 to 50', the boundaries between the crystallites played an important role in diffusion. This was shown by a change in the character of the fall in specific activity with depth, by an increase in depth of penetration and by an increase in the effective coefficient of diffusion.

Acknowledgments are expressed to S.D.Gertsriken and M.P.Pryanishnikov for participating in and evaluation of the work.

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S/126/60/010/005/017/030
E021/E406

The Effect of the Degree of Polygonization on the Diffusion of Zinc in an Aluminium Single Crystal

There are 5 figures, 1 Table and 15 references: 8 Soviet and 7 Non-Soviet.

ASSOCIATION: Institut metallofiziki AN USSR
(Institute of Physics of Metals AS UkrSSR)

SUBMITTED: March 3, 1960 (initially)
June 7, 1960 (after revision)

Card 3/3

L 33000-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6015088 SOURCE CODE: UR/0020/66/168/001/0080/0082

AUTHOR: Zasimchuk, I. K.; Ovsiyenko, D. Ye.

ORG: Institute of Physics of Metals, Academy of Sciences UkrSSR (Institut metallofiziki Akademii nauk UkrSSR)

TITLE: Effect of cadmium impurity concentration on the substructure of zinc single crystals

SOURCE: AN SSSR. Doklady, v. 168, no. 1, 1966, 80-82

TOPIC TAGS: cadmium, crystal structure, zinc, single crystal, crystal impurity, metal grain structure, crystal dislocation

ABSTRACT: Various highly sensitive methods are used to study the effect of impurity concentration on the dislocation structure of single crystals. The work was done on zinc single crystals with cadmium concentrations of $1 \cdot 10^{-3}$, $2 \cdot 10^{-4}$, $3 \cdot 10^{-2}$ and $2 \cdot 10$ at.%. The substructure of the crystals was studied by x-ray diffraction topography of the crystal surface and by taking reflection curves using the double-crystal spectrometer principle while rotating the specimen. The crystals with the two highest cadmium concentrations were studied by dislocation etching. The experimental results show considerable variations in dislocation structure as the impurity concentration is changed. Photomicrographs show that the subgrains are stretched out along the axis of

Card 1/3 UDC: 548.4

growth. The orientation of the subgranular boundaries in the specimens with the two lowest concentrations of cadmium tends to deviate with equal probability toward both sides from the axis of growth, while the subgranular boundaries in crystals with concentrations of 0.03 and 0.2 at.% Cd follow the axis of growth very closely. The average diameter of the subgrain decreases from approximately 1 mm for the lowest cadmium concentration to approximately 0.13 mm for the highest impurity concentration. The purest specimens show a fine structure in the form of small dark spots, streaks and lines lying in rows or randomly distributed. The results of experiments on deformation of the single crystals suggest that this structure is due to dislocations for which the Burgers vector has a component normal to plane (1013). Topograms for the purest zinc specimens show a dislocation density of 10^5-$5 \cdot 10^5$ lines/cm^2. Isolated dislocations are usually not observed in zinc single crystals with cadmium impurities, although specimens with a concentration of 0.2 at.% Cd show a block structure within the subgrains with elements measuring 40-100 μ, and a disorientation of less than 1' between adjacent elements. This type of structure is much less pronounced in crystals with 0.03 at.% Cd. No banded structure was observed in highly pure specimens, which may be due to insufficient dislocation density or to the high mobility of the subgranular boundaries at temperatures close to the melting point. An impurity (cellular) structure is formed with an increase in cadmium concentration to 0.03 at.%, which changes the direction of the boundaries in the dislocation substructure and reduces the size of the structure while simultaneously preventing the formation of subgranular boundaries with high disorientation. A further increase in cadmium concentration to

.2 at.% not only further reduces the size of the substructure, but increases disorientation between adjacent elements, which indicates an increase in the number of islocations in the crystal. The dislocation density increases from $(0.6\text{-}1)\cdot10^6$ to $3\text{-}6)\cdot10^6$ lines/cm^2 with an increase in cadmium concentration from $2\cdot10^{-4}$ to $2\cdot10^{-1}$ t.%. Orig. art. has: 4 figures.

UB CODE: 20/ SUBM DATE: 05Aug65/ ORIG REF: 004/ OTH REF: 006

VOYTSEKHOVSKIY, R.V.; ZASIMCHUK, T.K.

Interferometric determination of water-soluble low molecular fractions in capron. Zav.lab. 28 no.10:1206-1207 '62. (MIRA15:10)

1. Institut khimii polimerov i monomerov AN UkrSSR.
(Nylon)

18(7) SOV/21-59-1-11/26

AUTHORS: Zasimchuk, Ye.E. and Larikov, L.N.

TITLE: The Linear Rate of the Growth of Recrystallization Centers in Heavily Deformed Nickel and Iron. (Lineynaya skorost'rosta tsentrov rekristallizatsii v sil'no deformirovannykh nikele i zheleze)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1959, Nr 1, pp 42-45 (USSR)

ABSTRACT: It has been demonstrated in the work of L.N. Larikov [1] that the time τ until the appearance of the first recrystallized grains (size L) in heavily-deformed metals is basically determined by the linear speed (G) of the growth of the recrystallization centers, and can be expressed by the equation $\tau = \frac{L}{2G}$. The authors of this paper have established the way of determining the temperature-dependence of G by measuring τ and L in several temperatures, in the here-

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The Linear Rate of the Growth of Recrystallization Centers in Heavily Deformed Nickel and Iron.

SOV/21-59-1-11/26

described radiometallographic experiments with iron and nickel deformed by compression to 80%. The data includes the pre-exponential factor G_0 and the activation energy Q_G of the process for electrolytic nickel (99.99%) forged at 1000° C, the same nickel remelted in a vacuum, armco iron (99.88%) and electrolytic iron (99.97%) refined by annealing in H_2 current in 1200° C and subsequently remelted and soaked in a vacuum for 12 hours. The results show that slight impurities lead to a perceptible change of G_0 and a considerable increase of Q_G. In the case of very pure, vacuum-remelted nickel, the Q_G value approaches the activation energy of boundary diffusion. There are 2 graphs, 1 table, and 5 references, 3 of which are Soviet, 1 German

SOV/21-59-1-11/26

The Linear Rate of the Growth of Recrystallization Centers in Heavily Deformed Nickel and Iron.

and 1 English.

ASSOCIATION: Institut metallofiziki AN UkrSSR (Institute of the Physics of Metals of the AS UkrSSR)

PRESENTED: August 11, 1958, By G.V. Kurdyumov, Academician.

Card 3/3

18(7)

SOV/48-23-5-16/31

AUTHORS: Zasimchuk, Ye. E., Kurdyumov, G. V., Larikov, L. N.

TITLE: The Influence of Alloy Elements on the Kinetics of Recrystallization of the Alloys With Nickel Basis (Vliyaniye legiruyushchikh elementov na kinetiku rekristallizatsii splavov na nikelevoy osnove)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 5, pp 615-619 (USSR)

ABSTRACT: The introduction to the present paper contains a table accurately describing the analyses of 27 alloys. Each of these alloys was converted to the monophase condition by thermal treatment and subsequently deformed at room temperature up to 80%. The samples were then annealed from 5 minutes to 10 hours in the temperature range of 280-900°C, and the state of recrystallization was investigated. The time was measured after which the primary center of recrystallization attained the magnitude of 10^{-3} cm at a given temperature. The results obtained from various measurements of the alloys in question are summarized in four diagrams; the logarithm of time τ, elapsing until the appearance and growing of the first recrystallization centers up to a magnitude of 10^{-3}cm,

Card 1/2

The Influence of Alloy Elements on the Kinetics of Recrystallization of the Alloys With Nickel Basis

is plotted on the ordinate, and the value $T^{-1}.10^3$ is plotted on the abscissa, with T equalling the absolute annealing temperature. It holds $\tau = Ae^{\frac{}{RT}}$, i.e. the measuring values of each individual alloy lie on a straight line, each alloy possessing its own characteristics. The energy activating recrystallization is determined from the velocity at which recrystallization takes place. These values are summarized in table 2 and are indicated in kcal/g-atom. Two further diagrams (Figs 5, 6) show the values of the activating energy, of the diffusion coefficient and of the modulus of elasticity of nickel alloys with chromium and molybdenum. Finally, conclusions are drawn from the results concerning the mobility of the atoms in the metal lattice, the concentration ratios in the boundaries of the growing recrystallization centers, and concerning the dependence of the surface tension on concentration. There are 6 figures, 2 tables, and 11 references, 9 of which are Soviet.

ASSOCIATION: Institut metallofiziki Akademii nauk USSR (Institute of Metal Physics of the Academy of Sciences, UkrSSR)

ZASIMCHUK, Ye.E. [Zasymchuk, IE.E.]; LARIKOV, L.N.

Kinetics of the growth and coagulation of phases formed during aging in a nickel - titanium alloy. Ukr. fiz. zhur. 6 no.4: 514-521 Jl-Ag '61. (MIRA 14:9)

1. Institut metallofiziki AN USSR, g. Kiyev.
(Nickel-titanium alloys)
(Phase rule and equilibrium)

S/180/62/000/003/010/016
E111/E152

AUTHORS: Zasimchuk, Ye.E., Kurdyumov, G.V., and Larikov, L.N. (Kiyev)

TITLE: Influence of aluminium and titanium on the linear rate of growth of recrystallization nuclei in deformed nickel and nichrome

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no.3, 1962, 85-87

TEXT: The effect of 0-16.6 % at. Al and 0-12.5 % at. Ti, present separately, on the linear rate of growth of recrystallization nuclei in 80% deformed nickel and nichrome specimens, was studied. Recrystallization annealing was effected at 200-800 °C with holding time of 5 minutes to 10 hours. The measure of recrystallization rate was the time required for the formation and growth of the first nuclei to a certain size. This time was determined by the X-ray method using Cr radiation (Ref.5: Zasimchuk, Ye.E., Larikov, L.N. DAN URSR, no.1, 1959, 42).

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The rate of growth was found to follow the usual exponential law. The term, characterising the temperature dependence of the rate, rises from 48 ± 2 kcal/g.atom for pure nickel to 82 ± 3 when 1 % at. Al, and to 88 ± 3 when 1 % at. Ti are added. Further additions of Al or Ti have no effect. The mechanism causing the lowering of the linear rate of growth of the recrystallization centres on passing into the two-phase region was attributed to the effect of the precipitation of the dispersed particles of the second phase and was studied by one of the authors (Ref.12: Larikov, L.N. Izd. AN USSR, no.11, 1960, 61).
There are 2 figures and 1 table.

SUBMITTED: March 28, 1961

Card 2/2

S/601/62/000/015/006/010
AC04/A127

AUTHORS: Zasimchuk, Ye.E., Larikov, L.N.

TITLE: Investigating the temperature and concentration dependence of the effect of chromium and molybdenum on the growth rate of recrystallization nuclei in nickel

SOURCE: Akademiya nauk Ukrayins'koyi RSR. Instytut metalofyzyky. Sbornik nauchnykh rabot. no. 15. Kiev, 1962. Voprosy fiziki metallov i metallovedeniya, 147 - 151

TEXT: The results of the present work of investigating binary nickel alloys with chromium and molybdenum, containing up to 28 atomic % Cr and up to 20.6 atomic % Mo were presented at the VI Vsesoyuznoye soveshchaniye po primeneniyu rentgenovskikh luchey k issledovaniyu materialov (VI All-Union Conference on the Application of x-rays in the Testing of Materials) convened at Leningrad from June 23 to 28, 1958. Most of the alloys tested belonged to the range of homogeneous solid solutions. Only alloys containing 17.3 atomic % and 20.6 atomic % Mo had a biphase structure in the annealed state. The measure of the recrystallization

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Investigating the temperature and concentration ....

rate at a given temperature T was time τ, necessary for the origination and growth of the first recrystallization nuclei up to dimension L. The results of the present investigation show that, within the tested temperature and annealing--time range, all alloys are subject to the ordinary exponential function:

$$G = G_0 e^{-\frac{Q_G}{RT}}. \quad (2)$$

The values of constants in this equation expressing the temperature dependence of the linear growth rate of the recrystallization nuclei for the alloys tested are given in a table. The authors emphasize the strong effect of small additions of chromium and molybdenum on the temperature dependence of magnitude G. With higher Cr and Mo-contents only comparatively insignificant changes are observed both in the growth rate of the recrystallization nuclei and in its temperature dependence. There are 2 figures and 2 tables.

SUBMITTED: May 6, 1961

ZASIMCHUK, Ye. E.

S/021/62/000/006/008/013
D251/D308

AUTHORS: Larikov, L.N., and Zasymchuk, Ye.E.

TITLE: Investigating the kinetic of primary recrystallization in iron and nickel of high-degree purity

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 6, 1962, 771 - 773

TEXT: The authors have previously shown that the presence of even quite small impurities has a considerable effect on the kinetics of primary recrystallization especially on the linear velocity of the growth of the recrystallization centers in highly deformed iron and nickel. In the present work a study is made of the temperature dependence of the linear velocity of the growth of the recrystallization centers in carbonyl nickel and iron of high purity (99.99 %). The principal impurities in the iron were C, Mn and Si and also traces of Ni, Mo, and Cu. The principal impurities in the carbonyl nickel were C, Fe, S, Cu, Si. The metals were remelted in a vacuum and deformed by 80 % compression at room temperatures. The annealing was carried out in the temperature range 240 - 370°C from 25

Card 1/2

Investigating the kinetic of ...

min. to 10 hours. The velocity of recrystallization is measured by the time of appearance of the first center of recrystallization of dimension L, using the X-ray method (DAN URSR, 42 /1959/). The approximate relationship $\tau \quad L/2G$ is introduced from Larikov's work (UFZh, v. 3, 665 /1958/). The experimental results are well described by

$$G = 3.5 \times 10^{11} \exp\left(\frac{47 \pm 1}{RT}\right) \text{cm.sec}^{-1}$$

for carbonyl nickel and

$$G = 1.6 \times 10^{10} \exp\left(-\frac{49 \pm 1}{RT}\right) \text{cm.sec}^{-1}$$

for iron. Thus the rate of growth of the centers of recrystallization is approximately 20 times greater in carbonyl nickel than in iron for the same nominal degree of purity. It followed that the rate for carbonyl nickel is about 4 times greater than that for electrolytic nickel under the same conditions. There is 1 figure.

ASSOCIATION: Instytut metalofizyky AN URSR (Institute of Metal Physics of the AS UkrSSR)
PRESENTED BY: H.V. Kurdyumov,,Member of the AS UkrSSR
SUBMITTED: November 21, 1961

DUBOVITSKAYA, N.V. [Dubovyts'ka, N.V.]; ZASIMCHUK, Ye.E. [Zasymchu, O.E.]; LARIKOV, L.N.; PETROV, Yu.N. [Petrov, IU.M.]

A method for an X-ray diffraction study of the kinetics of growth of recrystallization centers. Ukr. fiz. zhur. 7 no.10: 1134-1136 O '62. (MIRA 16:1)

1. Institut metallofiziki AN UkrSSR, Kiyev.
(X-ray crystallography)

LARIKOV, L.N.; ZASIMCHUK, Ye.E. [Zasymchuk, O.E.]

Effect of molybdenum and tantalum additives on the rate of grain growth in nickel. Ukr.fiz.zhur. 7 no.11:1237-1241 N '62.
(MIRA 15:12)

1. Institut metallofiziki AN UkrSSR, Kiyev.
(Nickel--Metallurgy) (Crystallization)

LARIKOV, L.N.; ZASIMCHUK, Ya.E.; SHKIROV, V.S.

Effect of small additions of carbon on the kinetics of recovery and recrystallization of alpha-iron. Fiz. met. i metalloved. 14 no.2: 218-222 Ag '62. (MIRA 15:12)

1. Institut metallofiziki AN UkrSSSR.
(Annealing of metals) (Iorn—Metallography)

ZASIMUCHUK, Ye.E.; LARIKOV, L.N.

Investigating the temperature and concentration dependence of the effect of chromium and molybdenum on the growth rate of recrystallization centers in nickel. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.15: 147-151 '62. (MIRA 15:12)
(Nickel--Metallography) (Crystallization)

ACCESSION NR: AT4013948 S/2659/63/010/000/0190/0193

AUTHOR: Larikov, L. N.; Zasimchuk, Ye. E.

TITLE: Kinetics of the collective recrystallization of pure nickel and of nickel with tantalum and molybdenum admixtures

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya po zharoprochny*m splavam, v. 10, 1963, 190-193

TOPIC TAGS: metal recrystallization, alloy recrystallization, nickel, tantalum, molybdenum, nickel alloy, tantalum containing alloy, molybdenum containing alloy

ABSTRACT: Under uniform annealing conditions, the grains of metals with admixtures are generally smaller than in pure metals. However, quantitative data on the influence of admixtures on the rate of grain growth are still limited. The authors have investigated the influence of small admixtures (1%) of tantalum and molybdenum on the collective recrystallization kinetics of pure nickel. It was found that in pure nickel U = 34 Cal/g · atom, while for nickel with molybdenum U = 40 Cal/g · atom and for nickel with tantalum U = 66 Cal/g · atom. For pure nickel, U is near the activation energy of nickel self-diffusion (26 Cal/g · atom), and the grain size distribution is as shown in the Enclosure.

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ACCESSION NR: AT4013948

ENCLOSURE: 01

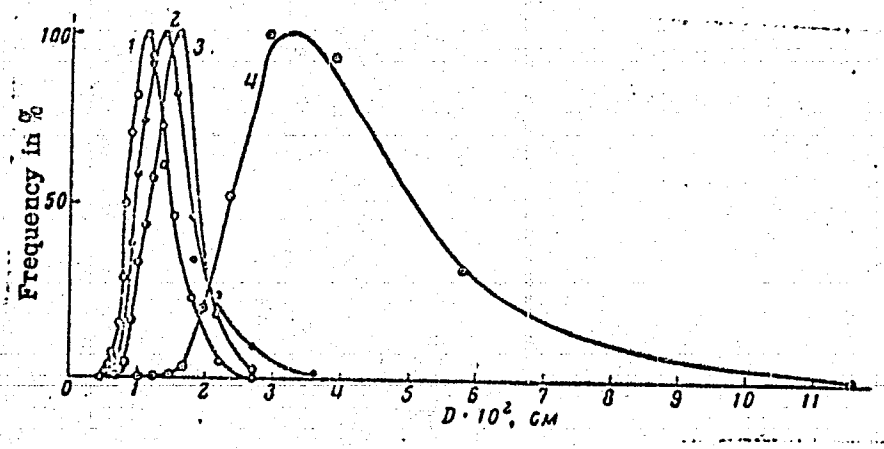

Fig. 1. Distribution of grain size in pure Ni at 610°C.

Duration of annealing: 1-2 min.; 2-30 min.; 3-2 hrs.; 4-7 hrs.

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ACCESSION NR: AT4013948

Molybdenum admixtures significantly delay the growth rate of nickel grains, while tantalum has an even greater effect on this process. Both of these metals (molybdenum and tantalum) influence grain growth in the same way. Orig. art. has: 3 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute AN SSSR)

SUBMITTED: 00 DATE ACQ: 13Mar64 ENCL: 01

SUBCODE: ML NO REF SOV: 004 OTHER: 005

Card 2/3

LARIKOV, L.N.; ZASIMCHUK, Ye.E.

Experimental methods of studying the kinetics of recrystallization in metals. Sbor.nauch.trud. Inst. metallofiz. AN URSR no.19:219-231 '64. (MIRA 18:5)

L 32609-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/HW/JG/GD

ACC NR: AT6010587 SOURCE CODE: UR/0000/65/000/000/0118/0126

60
B+1

AUTHOR: Larikov, L. N.; Zasimchuk, Ye. E.; Semenenko, M. N.

ORG: Institute of Metal Physics, AN UkrSSR (Institut metallofiziki AN UkrSSR)

TITLE: Recrystallization kinetics in highly deformed nickel and niobium single crystals

SOURCE: AN UkrSSR. Fazovyye prevrashcheniya v metallakh i splavakh (Phase transformations in metals and alloys). Kiev, Naukova dumka, 1965, 118-126

TOPIC TAGS: niobium, nickel, metal recrystallization, ~~metal~~ crystal deformation, single crystal

ABSTRACT: Recrystallization kinetics were studied in a nickel single crystal 80% deformed by rolling in the <100> plane and in a niobium single crystal 90% deformed by rolling in a plane close to <102>. In the case of nickel, recrystallization anneals were carried out at 288, 313, and 334C during 20 min to 6 hr. The rate of formation of recrystallization centers N was determined by differentiating the dependence $N + f(\tau)$, where N is the number of recrystallization grains per unit area of the polished specimen. The dependence of the maximum size of recrystallized grains on the annealing time and the temperature dependence of the growth rate G of the grains were determined. The recrystallization anneals of the niobium crystal were carried out at 965, 1005, and 1040C. In niobium, the recrystallization centers etch to the same extent as the single-crystal matrix. The parameters governing the generation of recrystallization centers were measured. The growth of these centers is

Card 1/2

L 32609-66

ACC NR: AT6010587

characterized by the presence of a short incubation period, as in the nickel single crystal. Orig. art. has: 12 figures and 1 table.

SUB CODE: 20, 11 / SUBM DATE: 29Sep64 / ORIG REF: 005 / OTH REF: 002

Card 2/2

L 24447-66 EWT(m)/EWP(w)/T/EWP(t) IJP(c) JD/HW/JT/GS
ACC NR: AT6010582 (N) SOURCE CODE: UR/0000/65/000/000/0161/0165

AUTHOR: Larikov, L. N.; Mirkin, [illegible] L.; Zasimchuk, Ye. E.; Volkova, T. I.

ORG: Institute of Physics of Metals, AN UkrSSR (Institut metallofiziki AN UkrSSR); TsNIITMASh, State Planning Committee, SSSR (TsNIITMASh pri Gosplane SSSR)

TITLE: Investigation of the effect which charge purity and melting conditions have [illegible] temperature strength [illegible] growth of recrystallization [illegible] deformed nickel- and iron-based alloys

SOURCE: AN UkrSSR. Mekhanizm plasticheskoy deformatsii metallov. (Mechanism of the plastic deformation of metals). Kiev, Naukova dumka, 1965, 161-165

TOPIC TAGS: nickel base alloy, iron base alloy, refractory alloy, metal recrystallization, high temperature strength

ABSTRACT: The authors study the effect of purification (by melting in a vacuum and [illegible] charge materials refined by vacuum remelting) on the rate of growth of recrystallization centers and the refractory properties of multicomponent alloys. The [illegible] were complex austenite alloys based on iron (0.05% C, 15% Cr, 12% Ni, 6% [illegible]

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ACC NR: AT6010582

and 3% Mo) and nickel (0.05% C, 13% Cr, 6% Mo, 6% W, 6% Co) containing no titanium or aluminum, i.e. the quantity of excess hardening phases was at a minimum. The alloys were melted and teemed under various conditions: 1. in air from commercially pure metals (1N and 1Zh where N indicates a nickel-based alloy and Zh indicates an iron-based alloy); 2. in a deep vacuum ($1 \cdot 10^{-4}$ mm Hg) from commercially pure metals (2N and 2Zh); 3. in a deep vacuum from metals previously remelted in a vacuum (3N and 3Zh). Specimens measuring 5×5×10 mm were cut from the ingots and annealed for 8 hours at 1150°C and then deformed to 80% by uniaxial compression at room tempera- [illegible] The specimens were then subjected to recrystallization annealing with holding [illegible] annealing was held constant to within [illegible]. A surface layer of the [illegible] of a millimeter was removed by etching in aqua regia (nickel alloys) or in an alco- [illegible] acid (iron alloys). The rate of growth of the crystal-

L 24447-66
ACC NR: AT6010582

throughout the entire range of temperatures and annealing times studied, although a tendency for acceleration of recrystallization processes was observed in more highly deformed alloys. Empirical formulas are given for determining the rate of growth in recrystallization centers for nickel and iron alloys. Orig. art. has: 1 figure, 3 formulas.

SUB CODE: 11/ SUBM DATE: 16Sep64/ ORIG REF: 006/ OTH REF: 005

Card 3/3 dda

ACC NR: AT6034433 (A) SOURCE CODE: UR/0000/66/000/000/0024/0027

AUTHOR: Larikov, L. N.; Zasimchuk, Ye. E.; Kutikhina, Zh. Ya.; Semenenko, N. M.

ORG: none

TITLE: Mechanism of softening of refractory metals

SOURCE: AN SSSR. Institut metallurgii. Svoystva i primeneniye zharoprochnykh splavov (Properties and application of heat resistant alloys). Moscow, Izd-vo Nauka, 1966, 24-27

TOPIC TAGS: metal softening, refractory metal, electron radiation

ABSTRACT: The article gives the results of a study of the kinetics and mechanism of the softening of deformed single crystals of rhenium, tungsten, and molybdenum. The single crystals, obtained by the electron radiation method, were deformed by rolling along the slip planes. Rhenium and molybdenum were rolled at room temperature, and tungsten at a temperature of approximately 200°C. Rhenium and tungsten were annealed at temperatures of 2100 ± 20° and 1600 ± 10° (W), and molybdenum at 1070 ± 5°C. The softening of the crystals during annealing was estimated by the change in the microhardness. Based on the experimental data, a figure shows the dependence of the microhardness of rhenium, tungsten and molybdenum on the duration of isothermal annealing. The difference in the behavior of rhenium and the other refractory metals

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ACC NR: AT6034433

cannot be connected with differences in the melting points, since the melting point of rhenium is intermediate between the melting points of molybdenum and tungsten. The mechanism of the softening of deformed crystals is determined to a significant degree by the type of their crystal lattice. In the softening of metals with a densely packed lattice, recrystallization plays a large role. Metals with a body-centered cubic lattice are weakened to a large degree before recrystallization and, under particular recrystallization conditions do not recrystallize at all. It is shown that impurities and alloying elements exert an influence not only on the rate, but also on the role of the different physical processes in the softening of metals and alloys. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: 10Jun66/ ORIG REF: 012/ OTH REF: 002

Card 2/2

ACC NR: AP7005754 (N) SOURCE CODE: UR/0126/67/023/001/0101/0105

AUTHOR: Belyakova, M. N.; Borimskaya, S. T.; Zasimchuk, Ye. E.; Larikov, L. N.

ORG: Institute of Metal Physics, AN UkrSSR (Institut metallofiziki AN UkrSSR

TITLE: Kinetics of primary, cumulative and secondary recrystallization in molybdenum foil

SOURCE: Fizika metallov i metallovedeniye, v. 23, no. 1, 1967, 101-105

TOPIC TAGS: metal recrystallization, metal deformation, molybdenum, x ray diffraction analysis, crystal orientation / SRS type scintillation counter

ABSTRACT: The investigation was performed on Mo foil containing ~0.5% Ti and subjected to prior 80% deformation by rolling. The pole figure of the foil in deformed state (Fig. 1) was subjected to x-ray diffraction analysis, with hard radiation being recorded by means of a SRS type scintillation counter. Structure of the foil was examined with the aid of electropolishing in a mixture of methyl alcohol and sulfuric acid in the presence of a current density of 6 a/cm^2 with subsequent etching of the surface with a solution consisting of 1 part HNO_3 + +1 part HCl. The texture of the deformed foil is chiefly described by the orientation (100) [011] as well as (112) [110] with rotation through 4-6° with respect to the direction of rolling

UDC: 669.28:548.5

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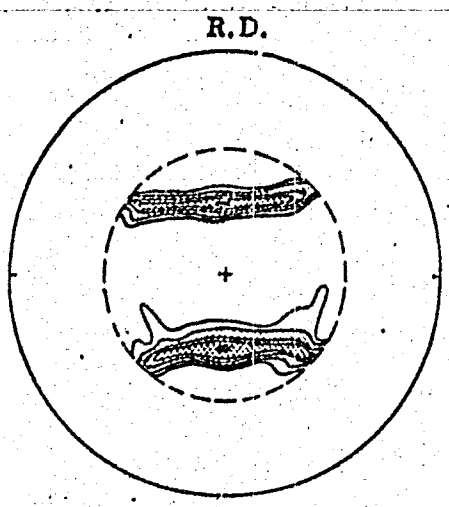


Fig. 1. Pole figure of molybdenum foil in deformed condition

about the axis perpendicular to the rolling plane. The temperature dependence of the growth rate of nuclei of primary recrystallization was investigated at 1050-1150°C. Subsequent annealing of the recrystallized foil at >2000°C led to its cumulative recrystallization -- gradual en-

largement of grains. The texture of primary recrystallization is described by the same orientations as the texture of deformation (Fig. 2) and is obtained from the texture of deformation by

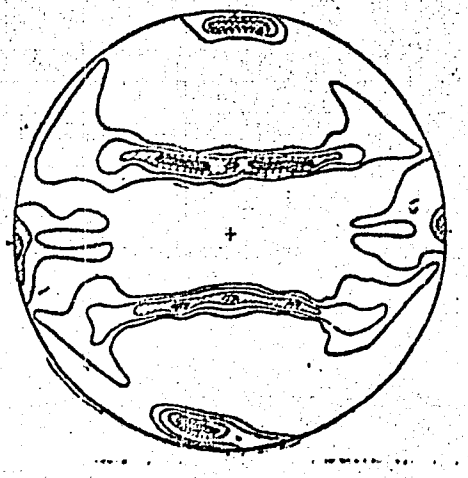


Fig. 2. Pole figure of molybdenum foil in recrystallized condition

rotation through 12-15° relative to the direction of rolling about the axis perpendicular to the plane of the foil. The kinetics of the formation and growth of anomalous grains in the foil

ACC NR: AP7005754

greatly resembles the kinetics of formation and growth of nuclei of primary recrystallization in polycrystalline material. The texture of secondary recrystallization is described by the orientation (100) [001] or (110) [001] depending on the annealing atmosphere. The shape of the anomalous grains arising on annealing of molybdenum foil is evidently associated with the original metallographic texture of the deformed foil and with the characteristic distribution of impurities along the boundaries of the extended grains, such that grain growth in the direction perpendicular to the direction of rolling is impeded. In thicker specimens which had not been subjected to prior deformation by rolling the shape of anomalous grains was equiaxial. Orig. art. has: 7 figures, 4 formulas.

SUB CODE: 20, 11/ SUBM DATE: 20Apr66/ ORIG REF: 008/ OTH REF: 008

Card 4/4

ZASIMENKO, A.A.; KOLESNICHENKO, S.G.; POLUKHIN, V.A.

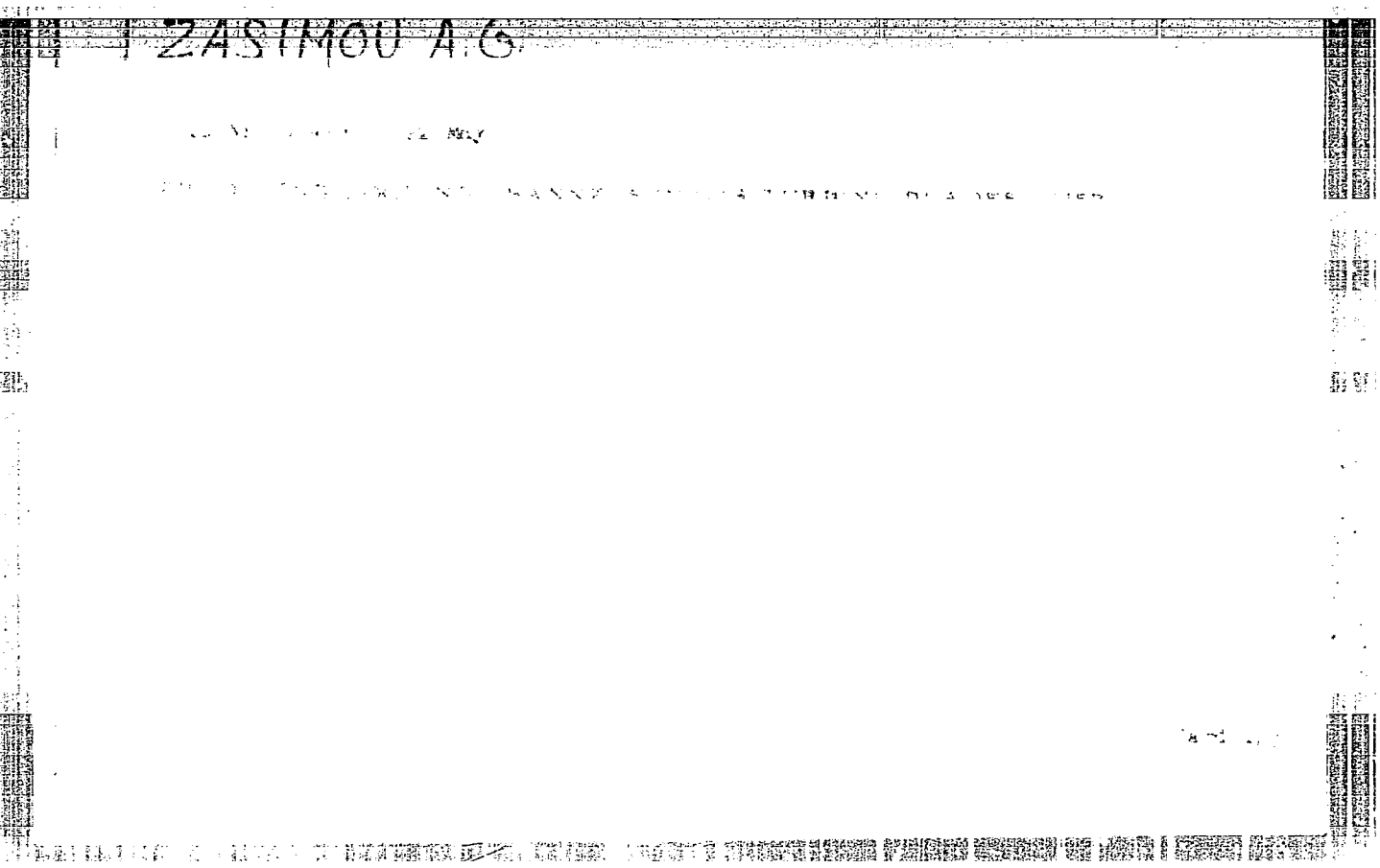
Combined type of wind and wave unit. Gidrotekhnika no.2:129-132 '62. (MIRA 16:5)

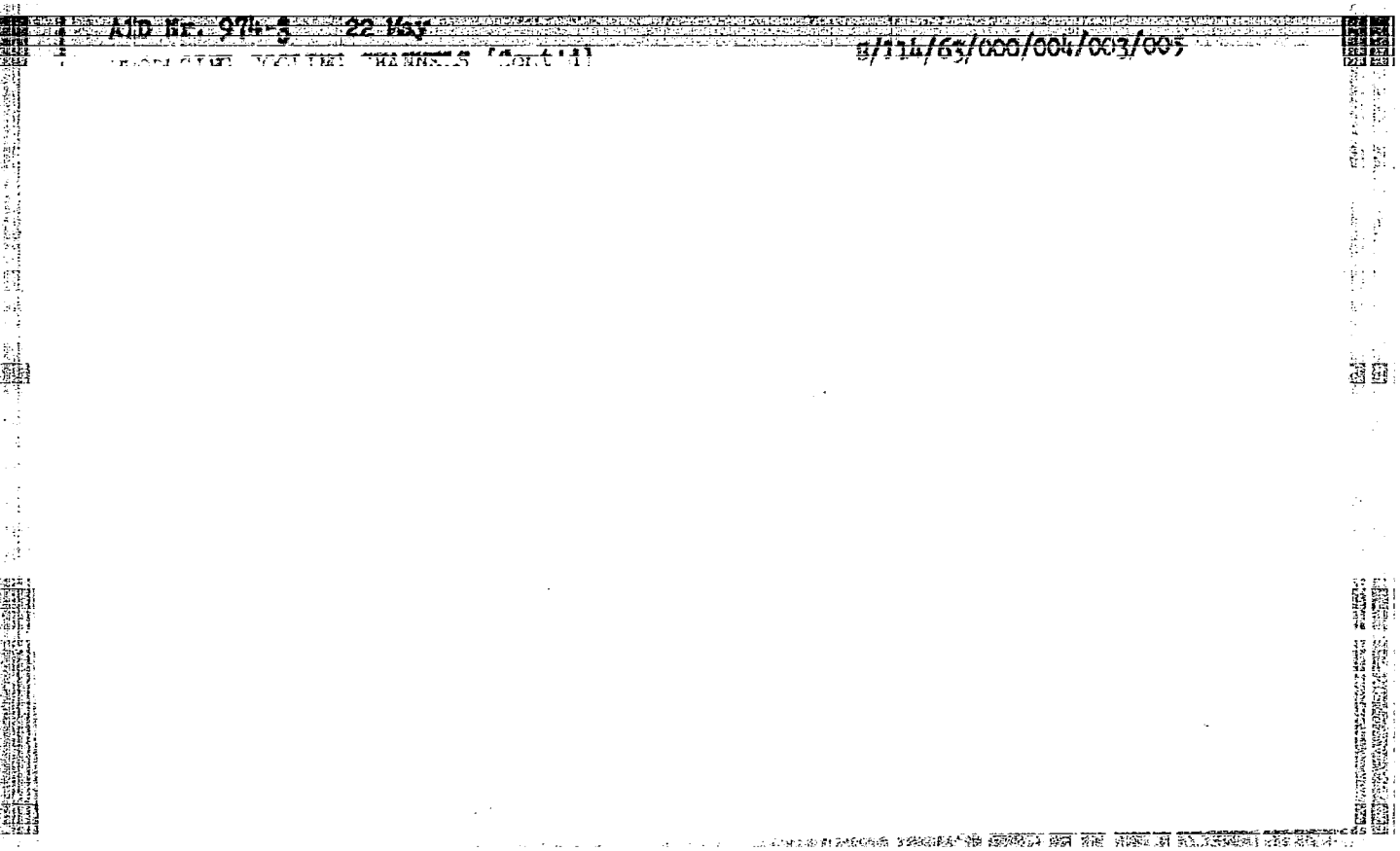
(Waves)

IVANOV, V.L., kand.tekhn.nauk; ZASIMOV, A.G., inzh.; STANISHEVSKIY, I.M., insh.

Method for obtaining grooves in the moving blade of a gas turbine with internal liquid cooling. Energomashinostroenie 9 no.4:31-34 Ap '63. (MIRA 16:5)

(Gas turbines)





AID Nr. 974-3 22 May

ZASIMOV, Nikolay, F., starshiy slesar'; KULAGIN, N.K.; SHILIN, A.A.; KISELEV, V.N.; LYSYKH, M.I.

Working day of seven hours. Elek.i tepl.tiaga 14 no.3:29 Mr '60 (MIRA 13:7)

1. Dizel'-agregatnaya brigada zagotovitel'nogo tsekha depo Likhobory Moskovskoy dorogi.
(Nishniye Likhobory--Railroad workers)
(Hours of labor)

SHIPILOV, I.Ya.; ZASIMOV, N.F.

Public control of the quality of locomotive repair. Zhel. dor. transp. 47 no.8:47-49 Ag '65. (MIRA 18:9)

1. Zamestitel' nachal'nika lokomotivnoy sluzhby Moskovskoy dorogi (for Shipilov). 2. Predsedatel' soveta inspektorov lokomotivnogo depo Likhobory (for Zasimov).

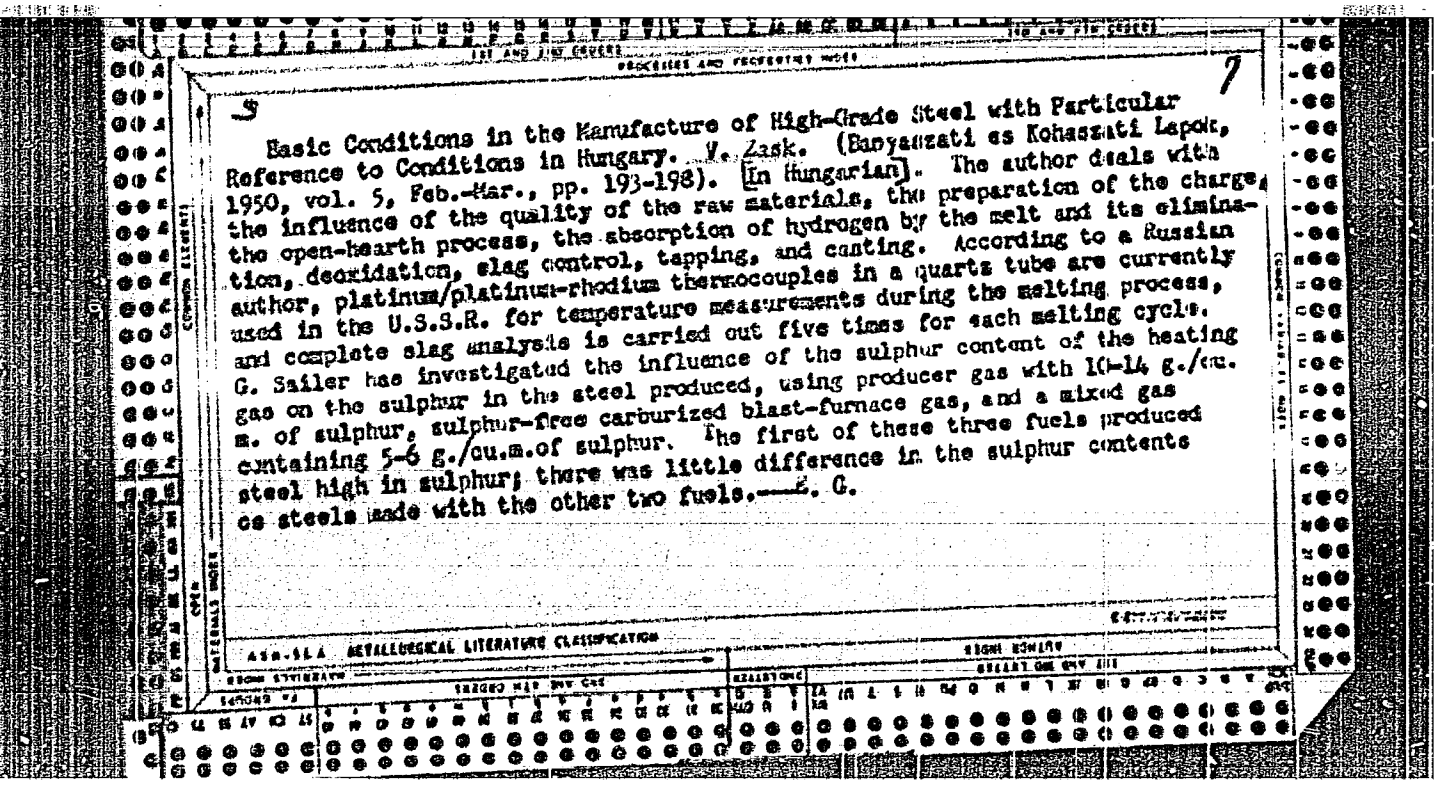
ZASIMOVICH, V.Yu.

Poltavian series along the right bank of the middle Dnieper.
Sbor.nauch.rab.Kiev.un. no.1:3-7 '63.
(MIRA 18:11)

ZAYTSEV, I.F.; DUBROV, N.S.; TSAREVSKIY, A.P.; ZASIMOVICH, Yu.P.; MAMCHITS, G.I.

Automation of the process for determining the moisture of the charge. Koks i khim. no.8:16-17 '62. (MIRA 17:2)

1. Ukrainskiy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut po obogashcheniyu i briketirovaniyu ugley (for Zaytsev, Dubrov, TSarevskiy). 2. Kommunarskiy koksokhimicheskiy zavod (for Zasimovich, Mamchits).



Basic Conditions in the Manufacture of High-Grade Steel with Particular Reference to Conditions in Hungary. V. Zask. (Banyaszati es Kohaszati Lapok, 1950, vol. 5, Feb.-Mar., pp. 193-198). [In Hungarian]. The author deals with the influence of the quality of the raw materials, the preparation of the charge, the open-hearth process, the absorption of hydrogen by the melt and its elimination, deoxidation, slag control, tapping, and casting. According to a Russian author, platinum/platinum-rhodium thermocouples in a quartz tube are currently used in the U.S.S.R. for temperature measurements during the melting process, and complete slag analysis is carried out five times for each melting cycle. G. Sailer has investigated the influence of the sulphur content of the heating gas on the sulphur in the steel produced, using producer gas with 10-14 g./cu. m. of sulphur, sulphur-free carburized blast-furnace gas, and a mixed gas containing 5-6 g./cu.m.of sulphur. The first of these three fuels produced steel high in sulphur; there was little difference in the sulphur contents of steels made with the other two fuels.—E. C.

ZASK, V.

ZASK, V. New trends in puddling and the possibility of their introduction in Hungary. p. 490

Vol. 10, No. 11, Nov. 1955
KOHASZATI LAPOK
TECHNOLOGH
Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

ZASKAL'KOV, B.V. (Khar'kov)

Water erosion control. Priroda 53 no.5:113-114 '64.
(MIRA 17:5)

MELIK-STEPANOV, Yu.G.; SOKHIN, Yu.M.; ZASKEVICH, M.V.

Practice of treating sands of deluvial and eluvial placer deposits. Nauch.soob.IAFAN SSSR no.4:86-93 '60. (MIRA 14:12)
(Yakutia--Ore dressing)

ZASKIND, L.N.

Helminths of the graylag (Anser anser) of Kustanay Province. Trudy Inst. zool. AN Kazakh. SSR 19:117-120 '63. (MIRA 16:9)
(Kustanay Province--Worms, Intestinal and parasitic)
(Kustanay Province--Parasites--Geese)

CHEBOTAREV, R.S., akademik; ZASKIND, L.N., kand.med.nauk; SERAYA, V.G.; PAVLOVA, L.F. (Kiyev)

Agents of zoonoses occuring in Kiev and surrounding areas. Vrach. delo no.12:1305 D '59. (MIRA 13:5)

1. Akademiya sel'skokhozyaystvennykh nauk BSSR (for Chebotarev).
(KIEV PROVINCE--PARASITES--DOMESTIC ANIMALS)

SHEVTSOV, Aleksandr Alekseyevich; ZASKIND, Lyubov' Nisonovna; PALIMPSESTOV, M.A., prof., otv.red.; PASHCHINSKAYA, O.N., red.; TROFIMENKO, A.S., tekhred.

[Helminths and helminthiases of domestic water fowl] Gel'minty i gel'mintozy domashnikh vodoplavaiushchikh ptits. Khar'kov, Izd-vo Khar'kovskogo gos.univ. im. A.M.Gor'kogo, 1960. 444 p. (MIRA 13:7)

(Worms, Intestinal and parasitic) (Parasites--Ducks) (Parasites--Geese)

PALIMPSESTOV, Mikhail Aleksandrovich[Palimpsestov, M.O.], prof., doktor veter. nauk; CHEBOTAREV, Roman Semenovich [Chebotar'ov, R.S.], akademik; SHEVTSOV, Aleksandr Alekseyevich [Shevtsov, O.O.], dots., kand. veter. nauk; ZASKIND, Lyubov' Naumovna, kand. veter. nauk; VENKOVA, G.I. [Vienkova, H.I.], red.; KALASHNIKOVA, O.G.[Kalashnykova, O.H.], tekhn. red.

[Veterinary parasitology] Veterynarna parazytologiia. Kyiv, Derzhsil'hospvydav, URSR, 1962. 421 p. (MIRA 16:5)

1. Akademiya nauk Belorusskoy SSR (for Chebotarev).
(Veterinary parasitology)

SHEVTSOV, A.A.; ZASKIND, L.N.; SERAYA, V.G.

Study of the parasitological situation in Skvira District, Kiev Province. Trudy Ukr. resp. nauch. ob-va paraz. no.2: 124-136 '63 (MIRA 17:3)

CHEBOTAREV, R.S., akademik; ZASKIND, L.N., kand.veterin.nauk;
KUBENKO, A.I., veterin.vrach

Study of echinochasmosis of swine. Trudy NIVI 1:201-203 '60.
(MIRA 15:10)

1. Akademiya sel'skokhozyaystvennykh nauk Belorusskoy SSR.
(Parasites—Swine) (Trematoda)

ZASKO, F. A.

PHASE I BOOK EXPLOITATION SOV/5078

Akademiya nauk URSR, Kiyev. Instytut elektrozvaryuvannya

Vnedreniye novykh sposobov svarki v promyshlennost'; sbornik statey. vyp. 3. (Introduction of New Welding Methods in Industry; Collection of Articles. v. 3) Kiyev, Gos. izd-vo tekhn. lit-ry UkrSSR, 1960. 207 p. 5,000 copies printed.

Sponsoring Agency: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni akademika Ye. O. Patona Akademii nauk Ukrainskoy SSR.

Ed.: M. Pisarenko; Tech. Ed.: S. Matusevich.

PURPOSE: This collection of articles is intended for personnel in the welding industry.

COVERAGE: The articles deal with the combined experiences of the Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton) and several industrial enterprises in solving scientific and engineering problems in welding technology. Problems in the application of new methods of mechanized welding and electroslag welding in industry are discussed. This is the third collection of articles published under the same title. The Foreword was written by B. Ye. Paton, Academician of the Academy of Sciences Ukrainian SSR and Lenin prize winner. There are no references.

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ZASKO, F.A.

25(1) PHASE I BOOK EXPLOITATION SOV/3421

Akademiya nauk URSR, Kiyev, Institut elektrosvarki imeni akademika Ye.O. Patona

Vnedreniye novykh sposobov svarki v promyshlennost', vyp. 2 (Introduction of New Welding Methods in Industry; Collection of Articles, No. 2) Kiyev, Gos. izd-vo tekhn. lit-ry Ukrainskoy SSR, 1959. 194 p. Errata slip inserted. 3,000 copies printed.

Ed.: V. Garkusha; Tech. Ed.: S. Matusevich.

PURPOSE: This book is intended for workers in the welding industry.

COVERAGE: The book contains a discussion of welding techniques and problems by groups of scientists and welders. Much attention is given to problems in the application of new methods of mechanized welding and electro-slag welding. This is the second collection of articles under the same title prepared and published by the Institut elektrosvarki imeni Ye.O. Patona (Institute of Electric Welding imeni Ye.O. Paton). The preface is written by B.Ye. Paton, Academician of the Ukrainian Academy of Sciences and Winner of the Lenin Prize. There are no references.

Iakra, A. A. [Engineer], Yu. A. Sterenbogen [Candidate of Technical Sciences], V. M. Khrundzhe [Engineer; Institut elektrosvarki imeni Ye.O. Patona (Electric Welding Institute imeni Ye.O. Paton)], D. P. Antonets [Engineer, Zhdanovskiy zavod imeni Il'icha (Plant imeni Il'ich in Zhdanov), V. I. Rabinovich [Engineer; Barnaul'skiy kotel'nyy zavod (Barnaul Boiler Plant)], and V. V. Chernykh [Engineer; Novo-Kramatorskiy mashinostroitel'nyy zavod (New Kramatorsk Machinery Plant)]. Electro-slag Welding of Steel-plate Constructions 17

Tsana, A. S. [Senior Engineer], A. M. Makara [Candidate of Technical Sciences], and L. V. Novikov [Senior Engineer; Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton)]. Making Bodies for Chemical Equipment by Electro-slag Welding of Medium-alloyed Steel Forgings 32

Medovar, B. I. [Candidate of Technical Sciences], A. N. Safonnikov [Engineer; Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton)], and I. N. Gerasimenko [Head of Welding Department; Podol'skiy mashinostroitel'nyy zavod imeni S. O. Ordzhonikidze (Podol'sk Machinery Plant imeni S. O. Ordzhonikidze)]. Electro-slag Welding of Large Flanges of 1Kh18N9T Austenitic Steel 51

Gurevich, S. M. [Candidate of Technical Sciences], V. P. Didkovskiy [Engineer; S. D. Zagrebenyuk [Engineer; Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton)], P. S. Sinas pol'skiy [Head of Welding Office], and V. P. Zheyrey [Technologist of a welding shop]. Electro-slag Automatic Arc Welding of Medium and Large Thickness of Titanium 64

Pokhodnya, I. K. [Candidate of Technical Sciences], V. F. Subbotovskiy [Senior Engineer], I. I. Frumin [Candidate of Technical Sciences; Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton)], L. A. Volkova [Shop Foreman; Dnepropetrovskiy metallurgicheskiy zavod imeni G. I. Petrovskogo (Dnepropetrovsk Metallurgical Plant imeni G. I. Petrovskiy)], V. P. Gorelov [Shop Superintendent; Alchevskiy metallurgicheskiy zavod imeni K. Ye. Voroshilova (Alchevsk Metallurgical Plant imeni K. Ye. Voroshilov)], and N. A. Trubenko, [Chief Mechanic, Magnitogorskiy metallurgicheskiy kombinat (Magnitogorsk Metallurgical Combine)]. Introduction of Automatic Hard-surfacing in the Metallurgical Industry 74

Lashkevich, R. I., [Candidate of Technical Sciences], S. L. Mandel'berg [Candidate of Technical Sciences; Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institut imeni Ye. O. Paton)] Z. O. Knyazhinskiy [Candidate of Technical Sciences; Ukrainskiy nauchno-issledovatel'skiy trubnyy institut (Ukrainian Scientific and Research Institute of Pipes)], and S. A. Prikho [Chief Engineer; Chelyabinskiy trubo-prokatnyy zavod (Chelyabinsk Pipe-rolling Plant)]. New Technique in Straight-seam Welding of Large-diameter Oil and Gas Pipes 95

Gorbunov, G. V. [Engineer; Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton)]. F. A. Zasko, [Chief Engineer; Svarochno-montazhnyy trest (Welding and Assembling Trust)], and A. R. Yurrshov [Chief of the Department of Gas Pipeline Construction; Glavgaz SSSR (Main Administration of the Gas Industry of the USSR)]. Mechanized Methods of Welding in Pipeline Construction 108

Mayevskiy, G. V. [Candidate of Technical Sciences, winner of Lenin Prize; Institut elektrosvarki imeni Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton)], V. Ya. Mayevskiy [Chief Engineer; Ukrglavneftesbyt (Ukrainian Main Administration for Petroleum Marketing)], and Ye. F. Martinsan [Head of Construction and Assembly Administration No. 70; Trest 7, Ministerstvo stroitel'stva RSFSR (RSFSR Ministry of Construction, Trust 7)]. Introduction of the Method for Weldments in the Petroleum Industry 118

3/4

VORNOVITSKIY, I.N., inzh.; ZASKO, F.A., inzh.; MAZEL', A.G., kand.tekhn. nauk

VSTS-1 gas-protecting electrodes for rapid welding of pipelines without using backing rings. Stroi. truboprov. 6 no. 1:28-30 Ja '61. (MIRA 14:2)
(Pipelines--Welding) (Electrodes)

ZASKO, F.A., inzh.

Conference on welding. Stroi. truboprov. 5 no.7:27-29 Jl '60.
(MIRA 13:9)
(Pipelines--Welding)

ZASKO, F.A., inzh.; KOGAN, G.Ye., inzh.

Automatic welding of main trunck pipelines. Svar. proizv. no.2:12-15 F '59. (MIRA 12:1)

1. Svarochno-montazhnyy trest Glavgaza SSSR.
(Pipelines--Welding) (Electric welding)

KORTUNOV, Aleksey Kirillovich; ZHDANOVICH, Georgiy Vyacheslavovich; GORODETSKIY, Vladimir Ivanovich; ZASKO, Feodosiy Afanas'yevich; KLIMUSHIN, Aleksandr Mikhaylovich; SOLYANIK, G.Ya., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Gas pipeline in Canada; construction and exploitation] Gazovaia magistral' Kanady; stroitel'stvo i ekspluatatsiia. Pod red. A.K. Kortunova. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 258 p. (MIRA 13:5)
(Canada--Gas, Natural--Pipelines)

VORNOVITSKIY, I.N., inzh.; MAZEL', A.G., kand. tekhn. nauk; ZASKO, F.A., inzh.; BLAGOVESHCHENSKAYA, V.V., inzh.

The VSTs-1 cellulose-coated electrodes for the welding of pipelines. Svar. proizv. no.3:18-20 Mr '64. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po stroitel'stvu magistral'nykh truboprovodov (for Vornovitskiy, Mazel'). 2. Gosudarstvennyy proizvodstvennyy komitet po gazovoy promyshlennosti SSSR (for Zasko). 3. Leningradskiy zavod im Zhdanova (for Blagoveshchenskaya).

ZAS'KO, V.N.

Some classes of univalent functions in h-connected domains. Izv. vys.ucheb.zav.; mat. no.1:116-122 '60. (MIRA 13:6)

1. Kiyevskiy politekhnicheskiy institut.
(Functional analysis)

ZASKODNY, Otakar

ZASKODNY, Otakar, MUDr, vedouci lekar pece o zavody OUNZ, Ostrava

Contribution to the article by Dr. Sinkulova on dispensarization in the journal Prakticku lekar No.4 and 5, 1954. Prakt. lek., Praha 34 no.12:286-187 20 June 54.
(PUBLIC HEALTH
Czech. dispensarization serv.)

ROZENTAL', F.A.; BELOGORODSKIY, M.I.; ZASKUL'NIKOV, A.A.

New drying machine unit for nuclear photographic materials.
Trudy NIKFI no.2:188-194 '58. (MIRA 13:5)
(Photography, Particle track)
(Drying apparatus)

ZASKUL'NIKOV, M., inzh.

Expansion of river transportation in the Lena basin. Rech.transp. (MIRA 15:8)
21 no.7:6-9 Jl '62.
(Lena River--Inland water transportation)

ASKURSKI, Jerzy, inz.

Multidrive slat conveyors. Przegl mech 23 no.8:245-248 25 Ap'64.

1. Kierownik pracowni konstrukcyjnej, Centralne Biuro Konstrukcji Urzadzen Budowlanych, Warszawa.

ZASKURSKI, Jerzy, inz.

Testing the stability of forked lift trucks on a tilting platform. Przegl mech 21 no.16:489-494 25 Ag '62.

1. Centralne Biuro Konstrukcji Budowlanych, Warszawa.

ZASKURSKI, Jerzy, inz.

Production development of road vehicles for intrafactory transportation in the Bulgarian People's Republic. Przegl mech 22 no.3:78-80 10 F '63.

1. Centralne Biuro Konsyrukcyjne Urzadzen Budowlanych, Warszawa.

ZASKURSKI, Jerzy, inz.

Selected problems of safe utilizing of fork lift trucks.
Przegl mech 22 no. 23:719-722 10 D '63.

1. Head, Construction Laboratory, Central Design Office of Construction Equipment, Warsaw.

ZASKURSKI, Jerzy, inz.

Transport trucks in loading units. Przegl mech 23 no.9/10: 266-268 25 My '64.

1. Head, Design Laboratory, Central Building Equipment Designing Office, Warsaw.

FRENKEL', P.M.; ZASLAV, M.L.

[Planning of industrial enterprises] Proektirovaniie promyshlennykh predpriiatii. M.L.Zaslav. M, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture, 1952 (MLRA 8:5)
(Factories)

ZASLAV, M. L.

Proyektirovaniye promyshlennykh predpriyatiy (Designing industrial enterprises) Moskva, Gos. Izd-vo Literatury po Stroitel'stvu i Arkhitekture, 1952.
198 p. illus., diagrs., tables.
At head of title: M. L. Zaslav, V. N. Zlatolinskiy, A. E. Levinson, T. G. Petrova, G. N. Ufimtsev, P. M. Frenkel.

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Zaslav, T. P. "Acute appendicitis in children," Trudy VI Vsesoyuz. s'yezda det. vrachey, posvayshch. pamyati prof. Filatova, Moscow, 1948, p. 466-69

SO: U-3264, 10 April 1953, (Letopis 'nykh Stately, No. 3, 1949

ZASLAVNOV, D.I., gornyy inzh.; GOLOD, A.B., gornyy inzh.

Over-all mechanization of stoping operations. Ugol' 35 no.5:9-12 My '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut, g. Shakhty [ShakhtNIUI].
(Donets Basin--Stoping (Mining)
(Coal mining machinery)

ZASLAVNOV, D.I., gornyy inzh.; KARABANOV, M.O., gornyy inzh.; ZHIGUL'SKIY, I.P., gornyy inzh.; GRIGOR'YAN, Kh.M.

Results of testing the BK-2 cutter-loader. Ugol' 38 no.8:41-45 Ag '63. (MIRA 17:11)

1.Shakhtinskiy nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut (for Zaslavnov, Karabanov, Zhigul'skiy). 2. Gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy institut ugol'nogo mashinostroyeniya (for Grigor'yan).

ZASLAVNOV, D.I., gornyy inzh.; GRIGOR'YAN, Kh. M., gornyy inzh.

K-60 cutter-loader. Mekh. trud. rab. 12 no.10:7-9 O '58. (MIRA 11:11)
(Coal mining machinery)

ZASLAVS'KA, I.G.

USSR /Physical Chemistry. Crystals. B-5

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25881

Author : K.B. Tolpigo, I.G. Zaslavs'ka
Title : Spectrum of Eigenoscillations of NaCl Taking Ion Deformation into Consideration.

Orig Pub : Ukr. fiz. zh., 1956, No 1, No 3, 226 -244.

Abstract : The eigenfrequencies and normalized vibration amplitudes of the NaCl lattice were computedon the basis of a lattice with deforming ions.

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ZASLAVNOV, D.I., inzh.; KARABANOV, M.G., inzh.; ZHIGUL'SKIY, I.P., inzh.

Dust control of the working area of a longwall during the operation of the KTST cutter-loader. Bezop.truda v prom. 7 no.2:24-25 F '63. (MIRA 16:2)

1. Shakhtinskiy nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut.

(Mine dusts—Safety measures)

SOV-118-58-10-2/16

AUTHORS: Zaslavnov, D.I. and Grigor'yan, Kh.M., Mining Engineers

TITLE: The Coal Combine K-60 (Ugol'nyy Kombayn K-60)

PERIODICAL: Mekhanizatsiya trudoyëmkikh i tyazhëlykh rabot, 1958, Nr 10, pp 7 - 9 (USSR)

ABSTRACT: The new coal cutting and loading combine K-60 is at present undergoing trials at the mine "Yuzhnaya" nr 1 of the Shakhtantratsit trust. Its use will mechanize the extraction and loading of the coal on the conveyor belt from slanting coal layers, 0.9 to 1.6 m thick. Its productivity is 90-160 tons/h, and its cutting speed - 3,08 m/sec. Some of its parts are taken from the previous "Donbass 1" combine, but it differs in its hydraulic feeder and its powerful electric motor adapted for long continuous operation. The operation of the combine is described in detail. The Lugansk Sovnarkhoz is starting production of a revised version of the LGD-1 combine designed by the Giprouglemash. There are 2 tables, 1 diagram and 1 photo.

1. Coal--Production 2. Coal--Handling

Card 1/1

ZASLAVSKAYA, A.G.

Clinical aspects of acute poisoning with vapors of pyridine bases.
Klin. med. 38 no. 4:122-124 Ap '60. (MIRA 14:1)
(PYRIDINES—TOXICOLOGY)

AFONINA, L.N.; ZASLAVSKAYA, A.G.; NOVIKOV, P.I.

Case of ascariasis with an unusual course. Med. paraz.i paraz.bol. 34 no.4:482-483 Jl-Ag '65.

(MIRA 18:12)

1. Kafedra gospital'noy terapii Donetskogo meditsinskogo instituta i gorodskoy bol'nitsy Nr.32, Donetska. Submitted May 22, 1963.

ACC NR: AR0022460 SOURCE CODE: UR/0169/66/000/003/B043/B043

AUTHOR: Zaslavskaya, F. V.; Navrotskaya, V. S.; Tolmacheva, I. A.; Medvedev, G.A.

TITLE: Aerological patterns of foehns as observed in the Rion Valley OGMI expedition during September-October of 1962

SOURCE: Ref. zh. Geofiz, Abs. 3B278

REF SOURCE: Meteorol., klimatol. i gidrol. Mezhved. nauchn., vyp. 1, 1965, 17-22

TOPIC TAGS: weather forecasting, weather station, meteorologic observation

TRANSLATION: An account is given of the results of investigation of the wind and temperature patterns in the atmosphere, which was conducted by members of this expedition The purpose of the expedition was to investigate the foehn winds on the Surah Pass which rises to 1242 m above sea leval near the Mta-Sabueti station. The investigation lasted from September 19 to October 12. Supplementary data were obtained from Kutaisi Tbilissi and other points in the TransCaucasus. At Kutaisi the easterly wind, having a velocity of 5 m/sec, lowers the relative humidity to 50% in some 80% of the cases. Such wind could be classed as foehn. However, the foehn characteristics are seldom observed and its velocity is usually less than 5 m/sec. The relationship between the temperature and the air humidity on one hand and wind velocity on the other was found to be complex. As the wind velocity increases, the relative humidity decreases and

UDC: 551.555.3(479.2)

Card 1/2

ACC NR: AR6022460

the temperature of the air rises. The foehn effect is sharper at nighttime, when the directions of the foehn and the mountain wind may coincide. In the daytime, a valley wind might develop in the Rio Valley in a direction opposite to that of the foehn. As a result, the velocity of wind from the east is increased and that of the foehn, weakened. On the days of the foehn wind over the Surah range, an inversion or an isotherm may develop. The wind from the east may be felt as far away as 2 km. Occasionally at the Kutaisi Pass, the winds from the east were stronger than at the Surah Pass. N. Davydov.

SUB CODE: 04

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