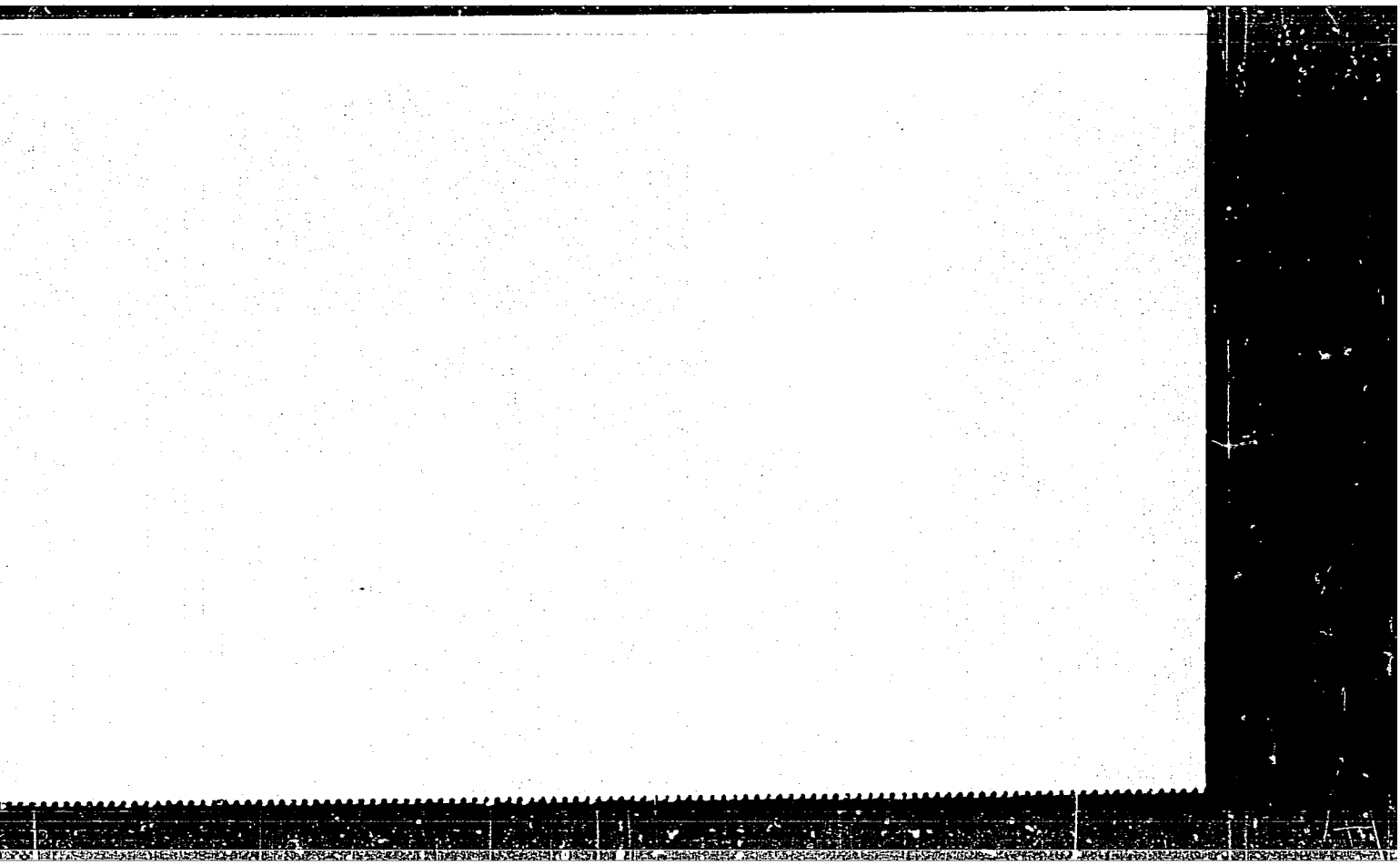
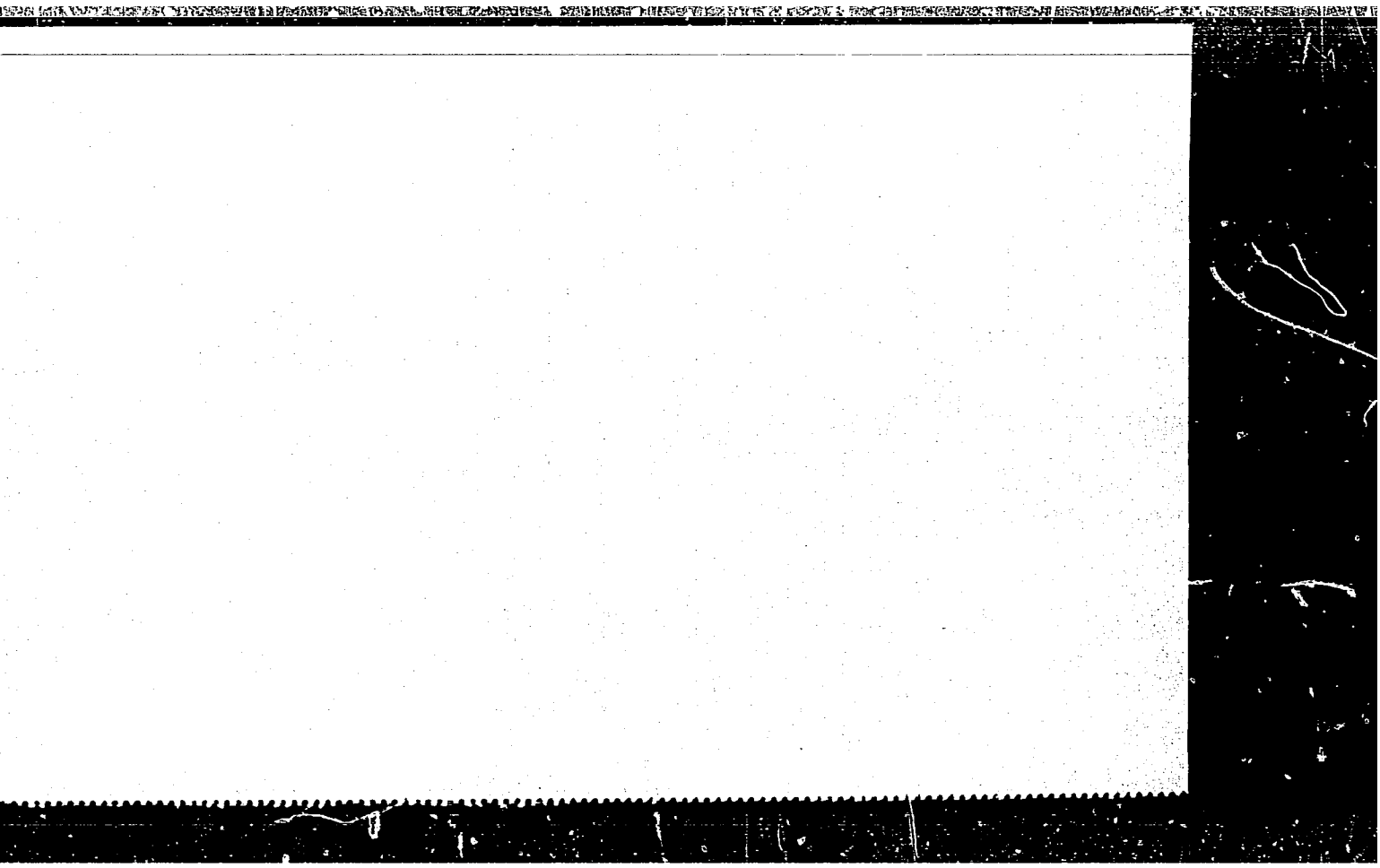
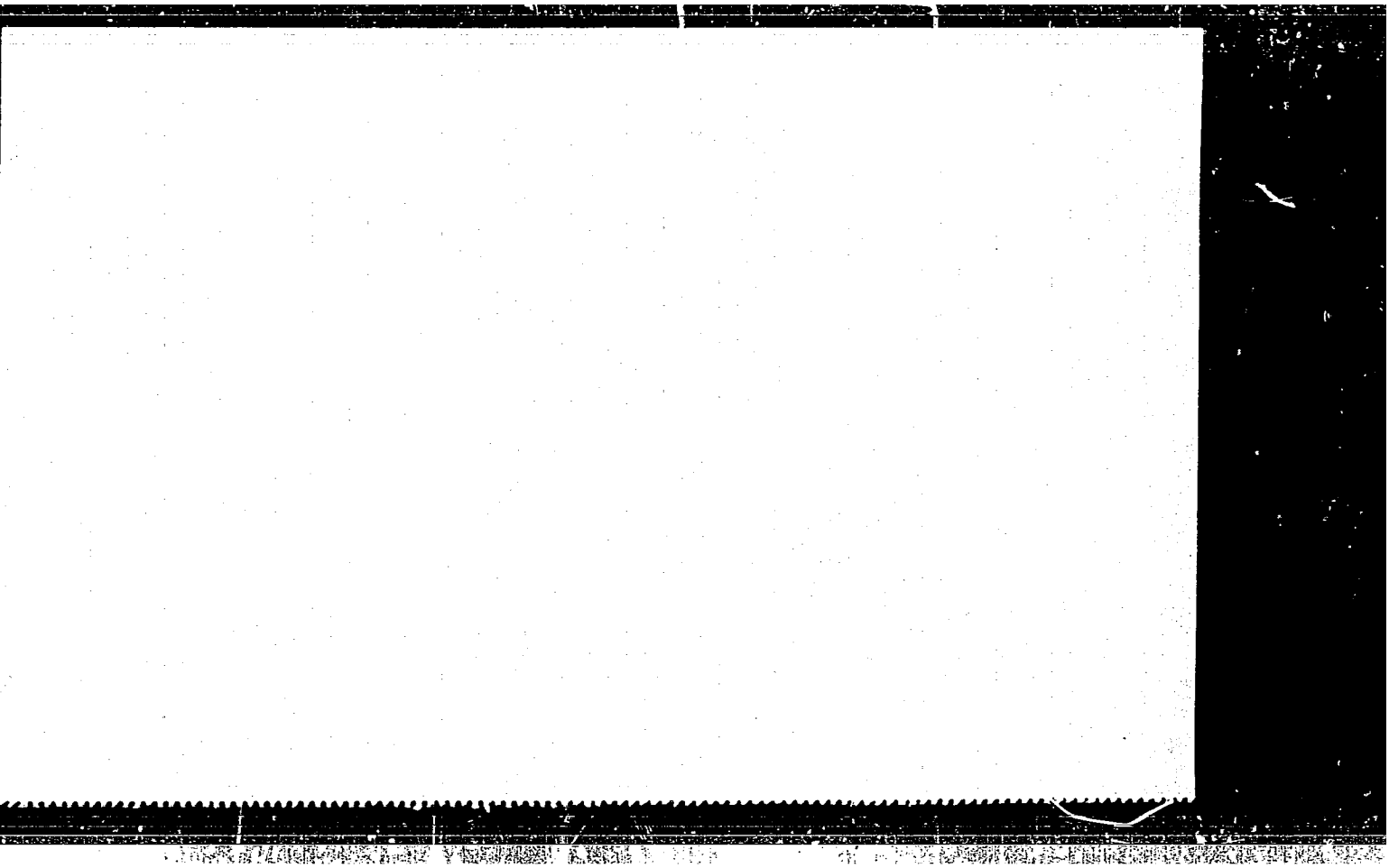


APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000101410001-3"





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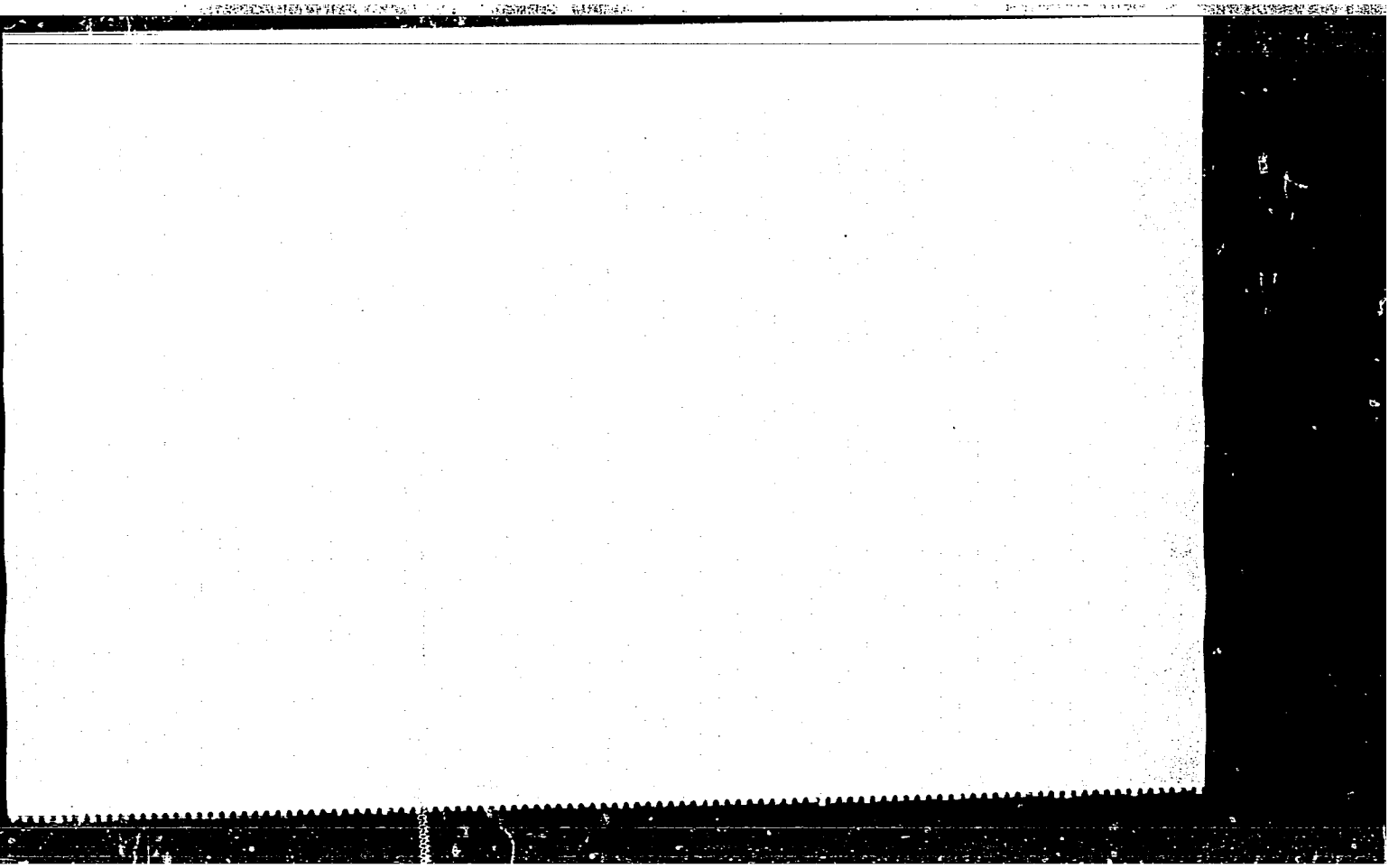

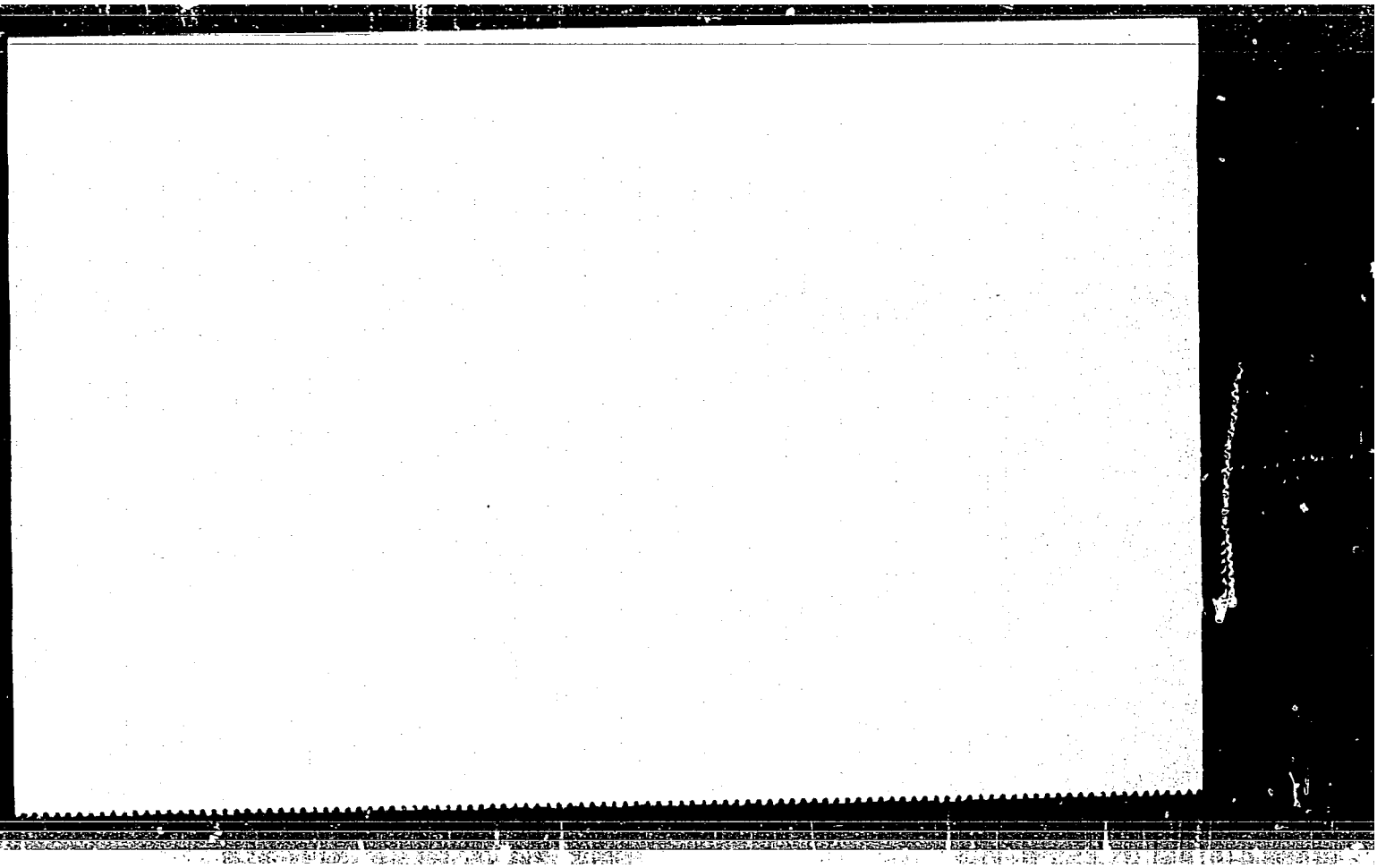

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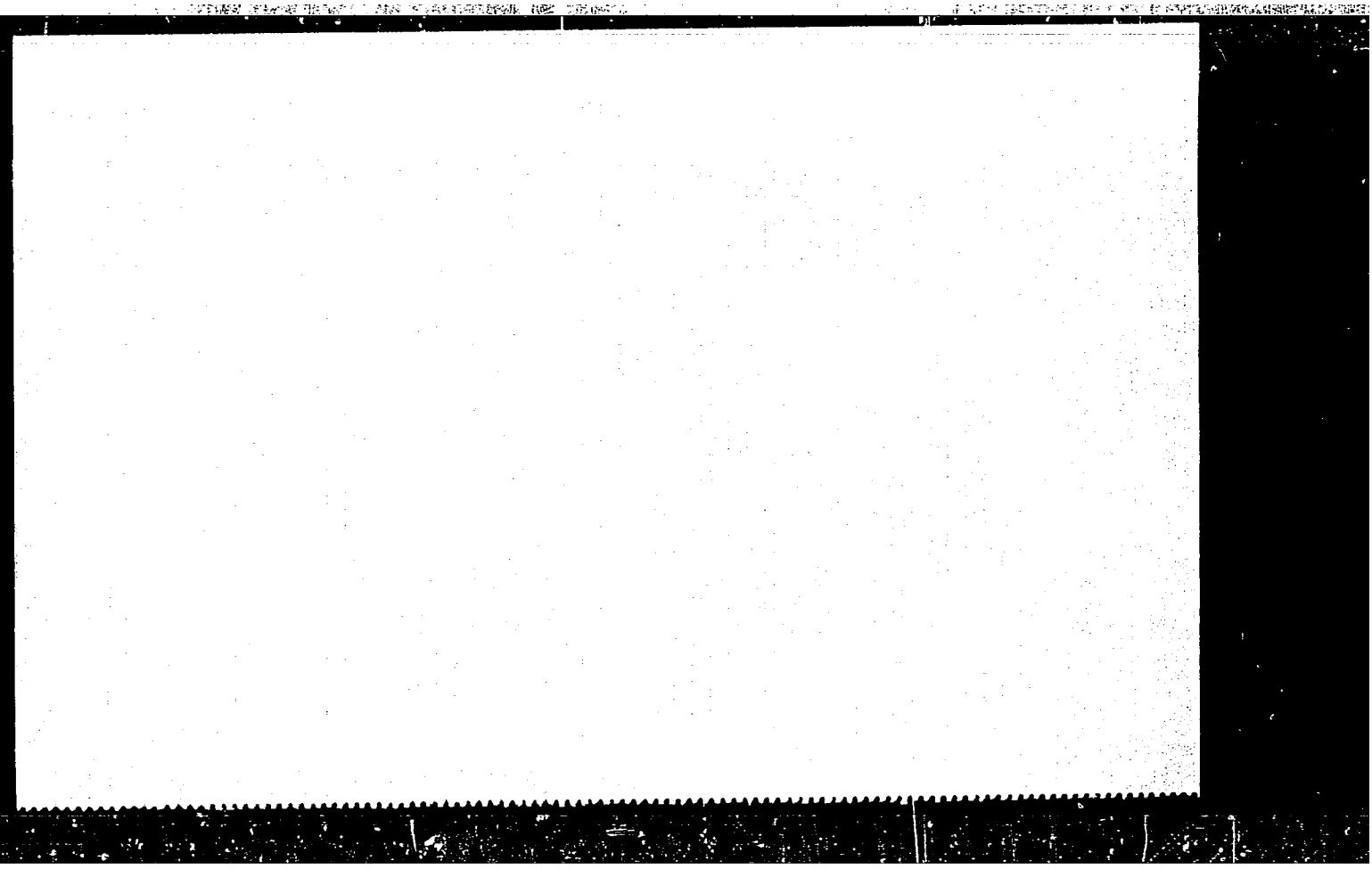

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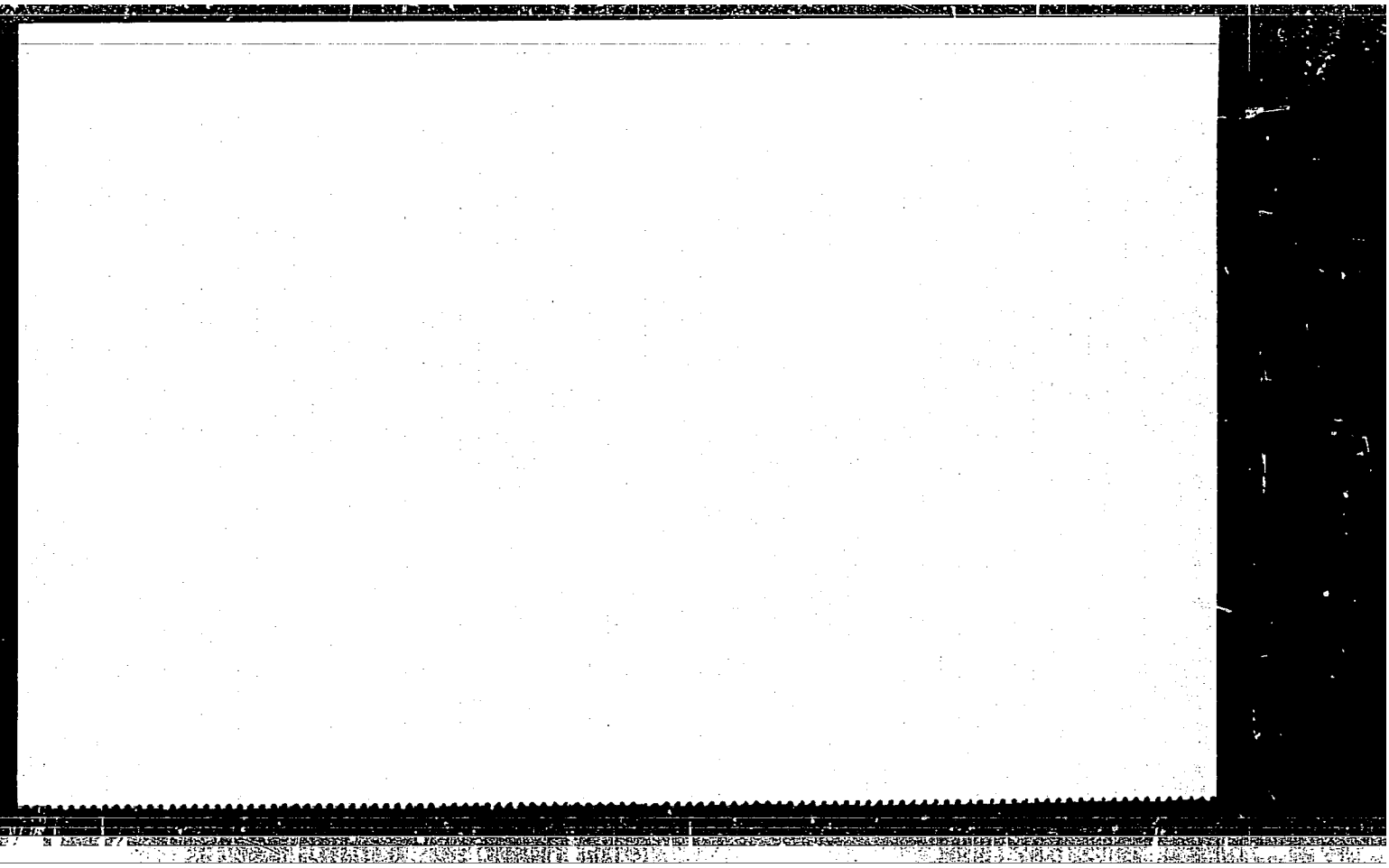

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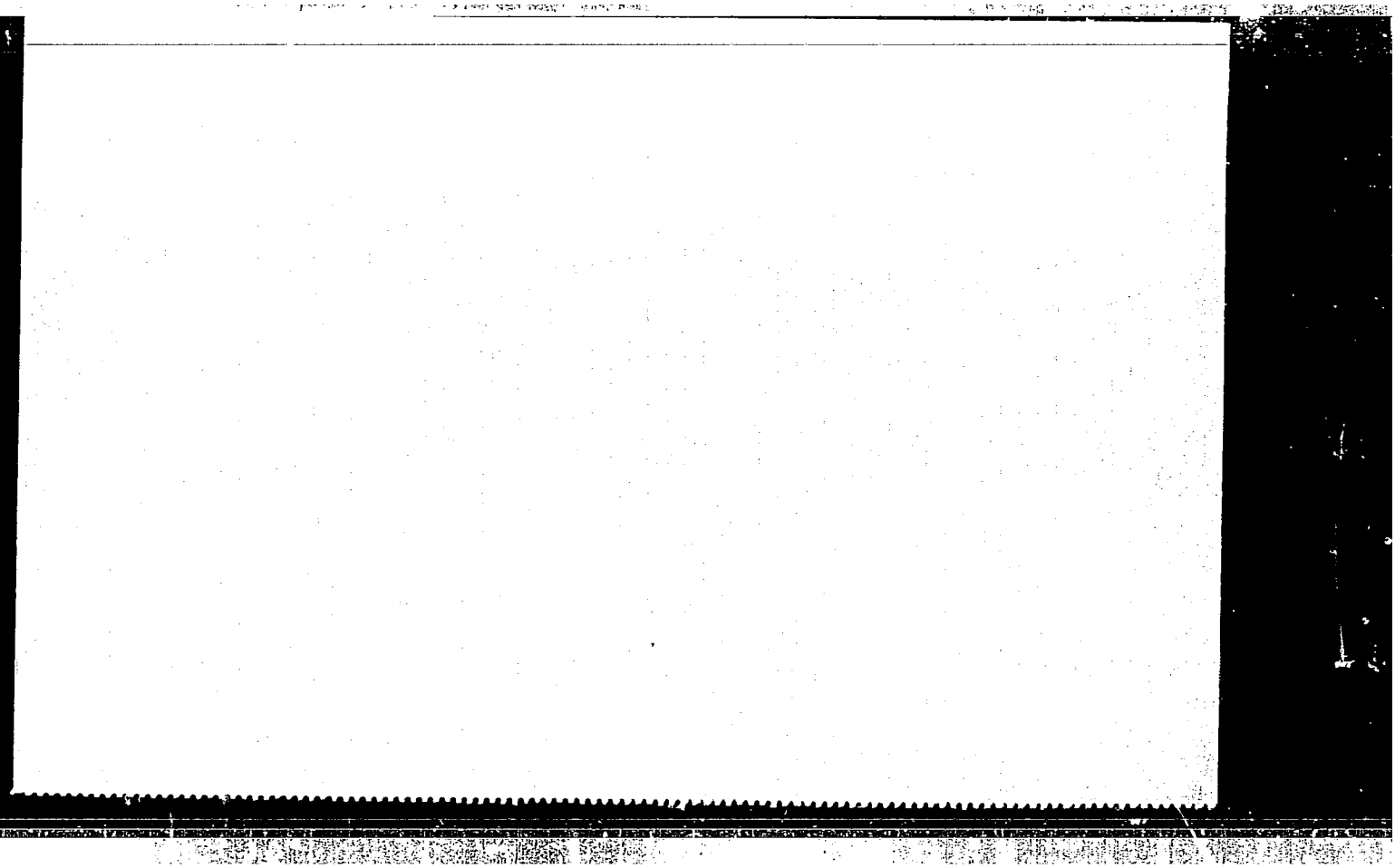

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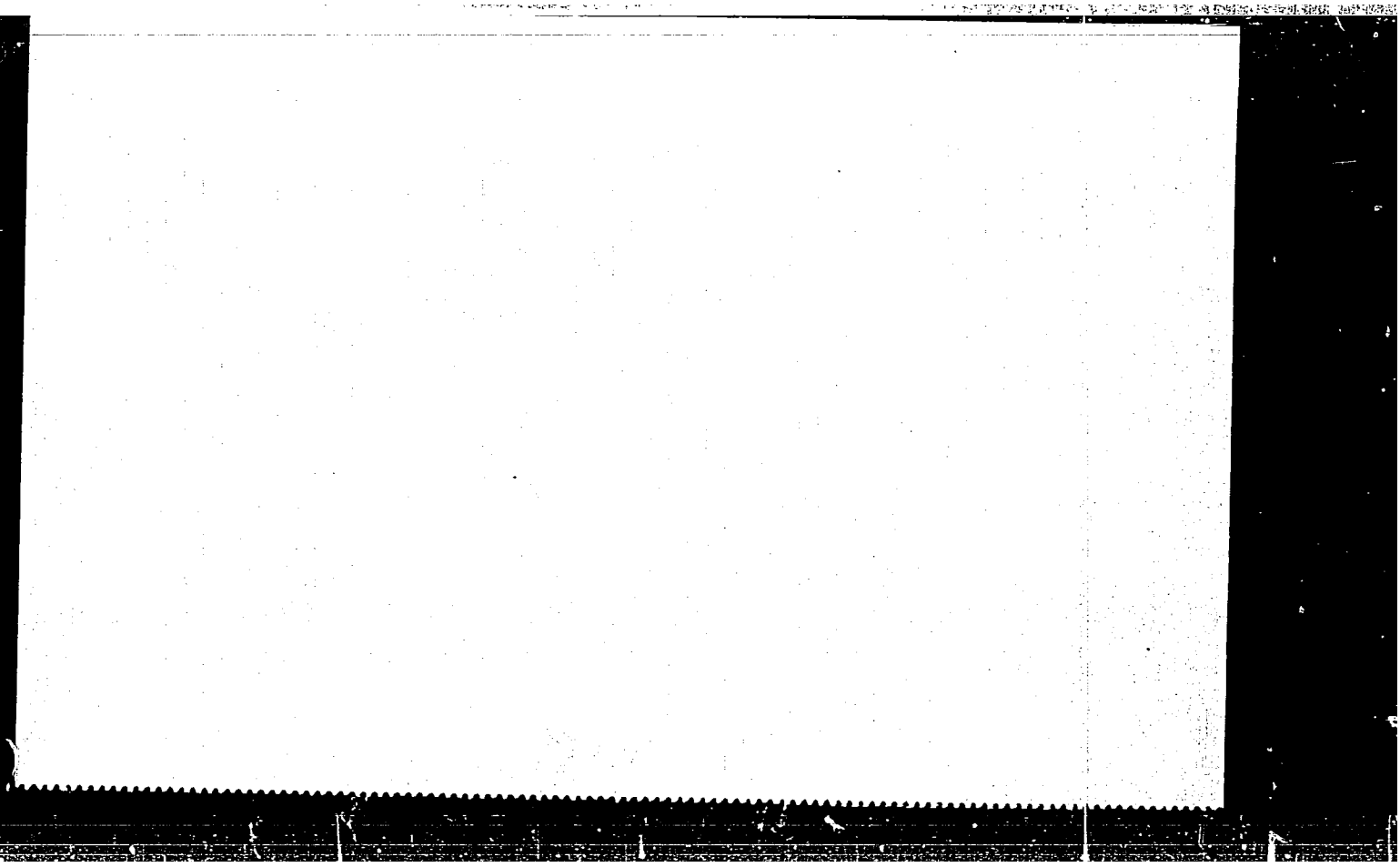
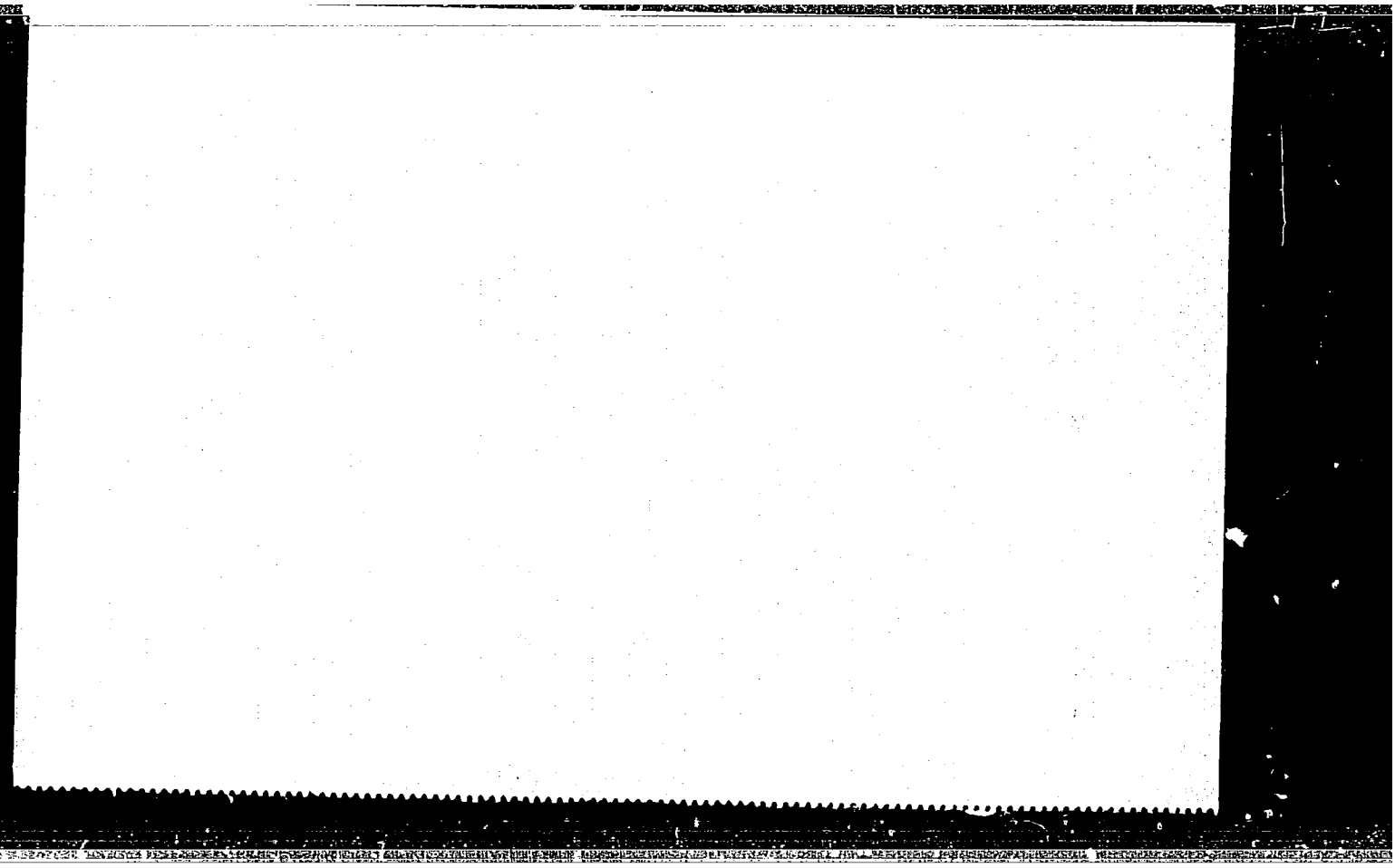




APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000101410001-3"

Andreyeva, F. I.

PEREVODCHIKOV, I.N.; TER-ZAKHAROVA, R.I.; ANDREYEVA, F.I.; TARSHINA, Ye.I.

Syphilis treated by reinforced therapy. Vest.vener. no.2:15-17 Mr-Ap '50. (CLML 19:3)

1. Of the Skin-Venereological Clinic, Astrakhan' Medical Institute (Head -- Prof. N.N.Perevodchikov).

S/129/62/000/002/005/014
E073/E335

AUTHORS: Dolinskaya, L.A., Rizol', A.I., Candidates of Technical Sciences and Nekrasova, S.Z., Andreyeva, F.M., Engineers

TITLE: Recrystallization of cold-drawn stainless steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1962, 34 - 36

TEXT: The influence of long-duration holding at temperatures of the beginning and end of recrystallization was studied for the stainless steel 1Х18Н9Т (1Kh18N9T), using pipe specimens with 30% deformation during the last pass. These were heated at a rate of 600 - 800 °C per minute to various temperatures between 600 and 1 200 °C in steps of 50 °C. The specimens were heated without holding at the final temperature and with holding times of 10 minutes and 3 hours, respectively. The temperatures were measured by chromel-alumel thermocouples, fitted into one of the specimens and recorded by means of a high-speed potentiometer. The changes in the microstructure, hardness, mechanical properties at 350 °C, content of combined Ti, number of

Card 1/2

Recrystallization of ....

interference points on the X-ray diffraction patterns and type II stresses as a function of the temperature, heating and holding time were studied. New grains appeared on heating the specimens to 750 °C and holding for 3 hours. In the case of 10-minute holding times the new grains appeared at 800 °C and if the holding time was reduced to zero new grains formed only at 975 °C. The temperature interval of recrystallization narrows very considerably during the first ten minutes of holding time: in the case of zero holding time, the recrystallization temperature range is 975 - 1 050 °C; the respective values for a 10-minute holding time are 800 - 940 °C and for a 3-hour holding time they are 750 - 850 °C. There are 5 figures.

ASSOCIATION: Ukrainskiy NITI

Card 2/2

ANDREYEVA, G., mladshiy nauchnyy sotrudnik

Pine flat bug control. Zashch. rast. ot vred. i bol. 10 no.7:24 '65.
(MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lesovodstva i mekhanizatsii lesnogo khozyaystva.

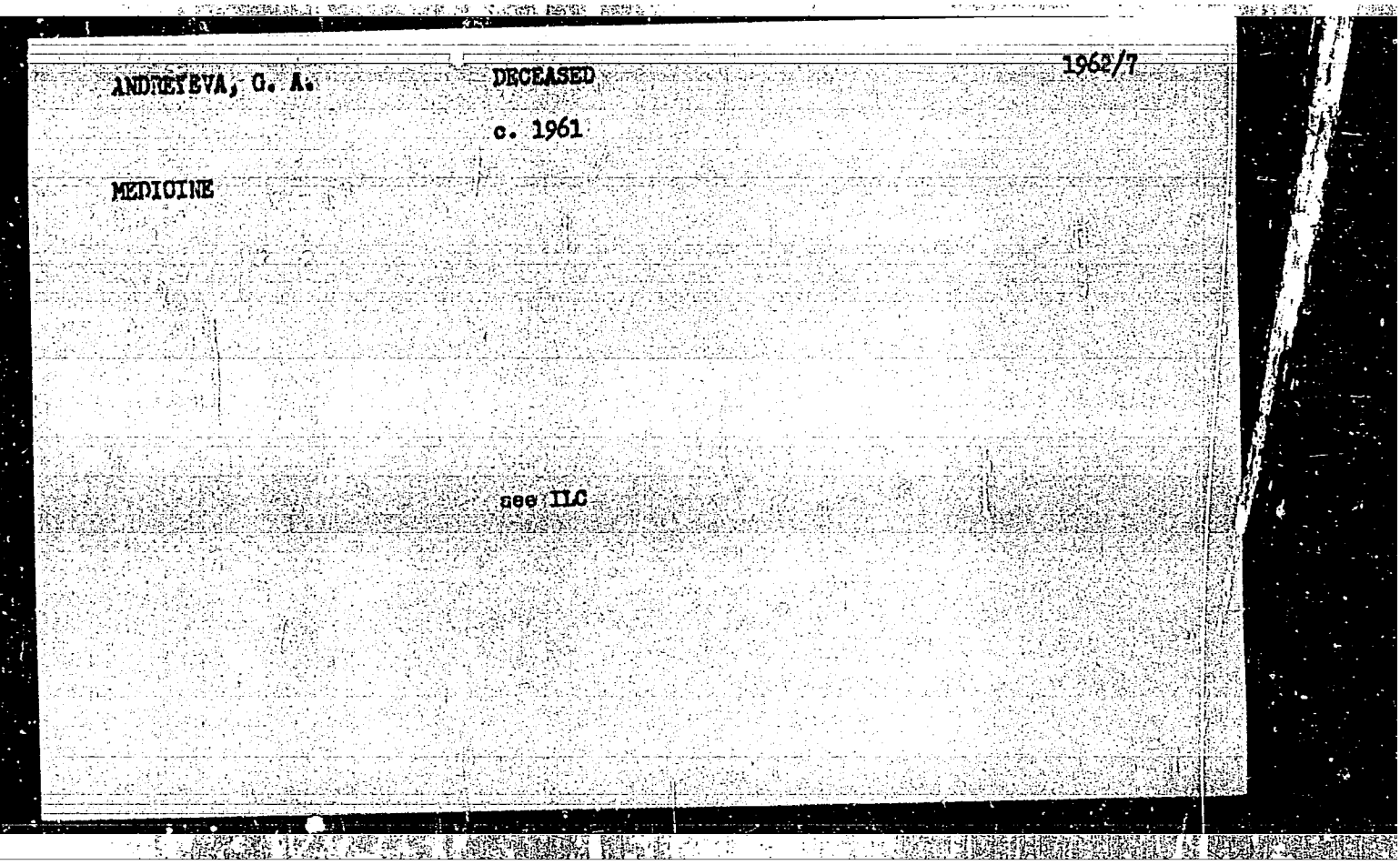
ANDREYEVA, G.; PISKUN, N.

Work of the Gorno-Altai consolidated children's hospital. Vop. okh. mat. i det. 5:62-68 S-O '60. (MIRA 13:10)
(GORNO-ALTAI AUTONOMOUS PROVINCE—CHILDREN—HOSPITALS)

ANDREYEVA, G. A., Cand Biol Sci -- (diss) "Grain and Migratory ~~Perambulatory~~ Chinch Bugs in the Steppe of the USSR." (Khar'kov), 1958. 16 pp (Ministry of Agric USSR. Khar'kov Order of Labor Red Banner Agric Inst im V. V. Dokuchayev), 100 copies (KL 40-58, 113)

UKSSR

will clarify the latter



ANDREYEVA, O. A. DECEASED 1962/7

c. 1961

MEDICINE

see ILC

ANDREYEVA, G. A., kand. biolog. nauk

What the experiments of the Corn Institute tell. Zashch. rast. ot vred. i bol. 5 no.5:30-31 My '60. (MIRA 16:1)

(Corn(Maize)—Diseases and pests)
(Wireworms—Extermination)

CHENAKAL, V.L.; ANDREYEVA, G.A.; PAVLOVA, G.Ye.; SOKOLOVA, N.V.; TOPCHIYEV, A.V., red.; FIGUROVSKIY, N.A., red.; SHCHERBAKOVA, G.A., red. izd-va; VINOGRADOVA, N.F., tekhn. red.

[Chemicle of the life and works of M.V.Lomonosov] Letopis' zhizni i tvorchestva M.V.Lomonosova. Pod red.A.V.Topchieva, N.A.Figurovskogo i V.L.Chenakala. Moskva, Izd-vo Akad. nauk SSSR, 1961. 435 p. (MIRA 14:11)

1. Akademiya nauk SSSR. Institut istorii yestestvoznaniya i tekhniki. (Bibliography—Lomonosov, Mikhail Vasil'evich, 1711-1765)

MITSENGENDLER, S.P.; ANDREYEVA, G.A.; SOKOLOVA, K.I.; KOROTKOV, A.A.

Synthesis of graft copolymers by the action of polymeric organometallic compounds on polar polymers and a study of their properties. Part 1: Synthesis of graft copolymers of styrene and methyl methacrylate. Vysokom.soed. 4 no.9:1366-1374 S '62. (MIRA 15:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Styrene)
(Methacrylic acid) (Polymerization)

ANDREYEVA, G.A.

Effect of antimony selenide and telluride on the absorption and photoconductivity of amorphous selenium films. Vest. LGU 17 no.16:145-147 '62. (MIRA 15:9)
(Antimony selenide) (Antimony telluride)
(Photoconductivity)

34243
S/181/62/004/002/037/051
B102/B138

9,4177 (1051)

AUTHOR: Andreyeva, G. A.

TITLE: Absorption and photoconductivity of activated layers of amorphous selenium

PERIODICAL: Fizika tverdogo tela, v. 4, no. 2, 1962, 538-541

TEXT: The true and effective resistivities of selenium were measured and the influence of impurities on photoconductivity was studied. The specimens were produced from Se or Se+Te alloys, Bi_2Se_3 or Bi_2Te_3 condensed on to metal or quartz backings of 20 or 75°C. The specimens on metal backings were measured by electro-photography; for those on quartz backings, a compensation circuit was used with a Compton electrometer as zero instrument. The photoconductivity spectrum was determined with the same circuit, using a ДМ-2М (DM-2M) monochromator and with direct current and constant illumination. Absorption was measured with an СФ-2М (SF-2M) recording spectrophotometer. The layer thickness was determined with a microscope and an interferometer. True resistivity was 10^{12} ohm.cm, and maximum effective resistivity in the blocking direction was of the order

Card 1/3

Absorption and photoconductivity of ...

of 10^{15} ohm cm. log $\Delta\sigma$ was plotted as a function of λ for pure and contaminated Se layers on quartz, it is of interest that pure Se, deposited on a 75° backing has almost the same spectral distribution of photoconductivity as Se+1%Bi_2Se_3 at 20°; a minimum at ~500 mμ and a maximum at 680 mμ. This maximum is caused by monoclinic n-type Se. The layers on metal have higher sensitivity than those on quartz. An addition of Te causes a shift of the self-absorption edge, and so does Bi_2Te_3, but without raising the sensitivity. X-ray analysis, carried out by L. A. Smirnov revealed Bi_2Se_3 in the Se+Bi Te alloy. Bi_2Se_3 reduces photoconductivity. Professor M. S. Kosman is thanked for discussions. There are 4 figures and 10 references: 3 Soviet and 7 non-Soviet. The four most recent references to English-language publications read as follows: T. Moss. Photoconductivity in the Elements, London, 1952. M. A. Cilleo. J. Chem. Phys., 19, 10, 1951. P. Keck. J. Opt. Soc. Am., 41, 53, 1951. P. Keck. J. Opt. Soc. Am., 42, 4, 1952.

Card 2/3

34243
S/181/62/004/002/037/051
Absorption and photoconductivity of ... B102/B138

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A. I. Gertsena (Leningrad State Pedagogical Institute imeni A. I. Gertsen)

SUBMITTED: July 15, 1961 (initially) and September 25, 1961 (after revision)

IX

Card 3/3

4111?
S/054/62/000/003/010/010
B101/3186

9.4177
26.2212

AUTHOR: Andreyeva, G. A.

TITLE: Effect of antimony selenide or telluride on absorption and photoconductivity of amorphous selenium layers

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 3, 1962, 145 - 147

TEXT: To extend the photosensitivity of selenium beyond 600 mμ, selenium and Sb_2Se_3 or Sb_2Te_3 were evaporated from separate vessels, or melts of Se and 1-10% by weight of Sb_2Se_3 or Sb_2Te_3 were evaporated onto quartz bases, these being either at room temperature or heated to 75°C. Separate evaporation of the components lowered the resistance of the resulting layers as compared with that of pure Se layer, but it had no effect on photosensitivity. An extension of photosensitivity into the longwave spectral range was observed in the case of the evaporated melts. Sb_2Se_3 or Sb_2Te_3 formed a second microcrystalline phase in amorphous Se. An

Card 1/2

Effect of antimony selenide...

absorption maximum appeared at 680 mμ during evaporation onto the hot bases. Since the evaporation was performed at a temperature high above the boiling point of selenium, dissociation occurred when Sb_2Te_3 was used, forming Sb_2Se_3 and free Te. Traces of Sb_2Se_3 were discovered by x-ray analysis. The dark resistance of layers containing Sb_2Se_3 or Sb_2Te_3 decreased with increasing admixture concentration; it was about $(2.5\text{-}7)\cdot10^{11}$ ohm·cm. The activation of Se by Sb_2Se_3 or Sb_2Te_3 has additive character, and is based on photoinjection of holes into the amorphous selenium. There are 2 figures.

SUBMITTED: February 20, 1962

Card 2/2

5.3300

75691
SOV/80-32-10-40/51

AUTHORS: Lishanskiy, I. S., Korotkov, A. A., Andreyeva, G. A., Zak, A. G.

TITLE: Brief Communications. Concerning the Dehydration of n-Pentanol Over Aluminum Oxide

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 10, pp 2344-2346 (USSR)

ABSTRACT: Dehydration of aliphatic alcohols over Al_2O_3 leads to the formation of isomeric olefins. Dehydration of n-pentanol can give 5 possible isomeric pentenes with a boiling range between 20 and 38°. Isolation of pentene-1 is very difficult. Attempts were made to prepare pentene-1 by dehydration of n-pentanol accompanied by the least isomerization. Two catalysts were used: a catalyst which was used for the dehydration of isopropyl alcohol at 360° and afterwards regenerated with air at 450° for 2 hr, and a freshly prepared catalyst. The activity of both catalysts was the same with respect to the total hydrocarbon yield. Pentene-1 content in the mixture

Card 1/2

of pentenes changes with the amount of alcohol passed over the catalyst, and has a maximum 39.2% (minimum 7.5%). The observed phenomenon may be explained by assuming the existence on alumina of active centers of different spatial specificity. Chromatographic analysis was done by Dement'yeva, M. I., in the laboratory LenNII. There is 1 figure; 1 table; and 4 references, 2 Soviet, 2 U.S. The 2 U.S. references are: Oblad and others, Ind. Eng. Ch., 39, 1462 (1947); Pines, H., Haad, W., J. Org. Chem., 23, 2, 328 (1958).

ASSOCIATION: Institute of High-Molecular Compounds, Academy of Sciences USSR (Institut vysokomolekulyarnykh soyedineniy AN SSSR)

SUBMITTED: January 29, 1959

S/190/62/004/009/009/014
B101/B144

AUTHORS: Mitsengendler, S. P., Andreyeva, G. A., Sokolova, K. I., Korotkov, A. A.

TITLE: Synthesis of graft copolymers by the action of polymeric organometallic compounds on polar polymers, and study of their properties. I. Synthesis of graft copolymers of styrene and methyl methacrylate

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 9, 1962, 1366-1374

TEXT: The interaction of polystyrene lithium (PS^-) with polymethyl methacrylate (PMMA) was studied. The decomposition of PS^- by moisture and oxygen was eliminated by treating it in vacuo or in a nitrogen atmosphere, and through the presence of methyl lithium or calcium hydride. PMMA dissolved in toluene was cooled to -50 - -70°C and mixed with PS^- cooled to -78°C. The resulting graft copolymer was extracted successively with ether, acetonitrile and benzene. The ratio $>C=O/PS^-$ was determined from the oxygen content of the graft copolymer or by IR-spectroscopy. Results: (1) All fractions differed from a mechanical mixture of the

Card 1/3

components by birefringence. A graft copolymer was obtained with 100% yield. (2) The molecular weight and the ratio of components affect the reaction course: (a) An increasing molecular weight of PMMA reduces the selectivity and renders grafting of PS* onto the macromolecule of PMMA uniform. If the molecular weight of PMMA is increased from $70 \cdot 10^3$ to $500 \cdot 10^3$, and if the ratio >C=O/PS* equals 10, the amount of PMMA consumed for ether fraction decreases from 31 to 3.6%, and the yield of ether fraction from 74 to 18.6%; (b) an increasing molecular weight of PS* increases the selectivity and reduces the uniformity of grafting. If the molecular weight of PS* increases from $5 \cdot 10^3$ to $50 \cdot 10^3$, the PMMA consumption for ether fraction rises from 3.1 to 53% and the yield of this fraction from 20.5 to 95.5%; (c) if the molecular weights of PMMA and PS* are constant, the yield of ether fraction increases as the concentration of PS* is increased, or as the ratio >C=O/PS* is decreased. Conclusions: The occurrence of grafting is not statistical but mainly on that PMMA macromolecule where the reaction has already started. As soon as grafting of the first PS* chains sets in, the coiled PMMA molecules begin to stretch and thereby to facilitate further grafting. High molecular

Card 2/3

weight or concentration of PS support this effect. By suitably choosing the molecular weight and the ratio of the components it is possible to synthesize copolymers with the desired composition and branching. There are 4 figures and 3 tables.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-molecular Compounds AS USSR)

SUBMITTED: May 29, 1961

Card 3/3

ANDREYEVA, G.A.

[Recommendations for controlling the principal pests and diseases of corn] Rekomendatsii po bor'be s osnovnymi vrediteliami i boleznlami kukuruzy. Moskva, Izd-vo sel'-khoz.lit-ry, zhurnalov i plakatov, 1963. 26 p. (MIRA 16:11)

(Corn (Maize))--Diseases and pests)

S/125/61/000/009/009/014
D040/D113

AUTHORS: Andreyeva, G.F., Voskan'yan, B.Kh., Yelagin, V.M., Kuznetsa, I.I., Rad'ko, E.P. (Moscow)

TITLE: Automatic ASG-NITI welders

PERIODICAL: Avtomaticheskaya svarka, no.9, 1961, 51-59

TEXT: Design and operation is described of an АСГ-НИТИ (ASG-NITI) welder developed by the Nauchno-issledovatel'skiy tekhnologicheskiy institut (Scientific Research Institute of Technology) and demonstrated in 1960 at the VDNKh exhibition. It is designed for argon-arc welding large sheet structures of nonmagnetic or low-magnetic metal (aluminum and titanium alloys, stainless steel), with tungsten electrode and with or without filler wire. Its tracing system moves the welding head along the joint with ± 0.25 mm accuracy when the joint deviates not more than 10 mm per meter from straight line, and maintains the arc length (by voltage), with voltage control accuracy of 0.25 v. The welder is provided with TV, remote controlled, can weld circular seams. Manual control is also provided. The АСГ-2 (ASG-2) welding head, illustrated with a block diagram and a close-up view photo-

Card 1/3

Automatic ASG-NITI welders

S/125/61/000/009/009/014
D040/D113

graph, may be used on any analogous automatic welders. The new tracing principle suggested by T.B.Shcherbanenko and D.A.Mikhaylov, requires no especially prepared line traced parallel to the joint, as required by all other automatic machines with photoelectric tracing systems. The tracing element is an inductive pickup (Fig.3) with two coils on one magnetic circuit. The coils are supplied with alternating current and produce alternating magnetic field that causes eddy currents in metal edges being joined. The article gives detailed engineering information and includes the circuit diagram of the tracing system and four photographs. There are 7 figures.

SUBMITTED: April 1, 1961

Card 2/3

PLOTNIKOVA, T.P., inzh.; ANDREYEVA, G.G., inzh.

Quality of electrolytically tin plated sheet steel and its use in the canning industry. Sbor. trud. TSNIICHM no.28:173-177 '62. (MIRA 15:11)

(Tin plate) (Canning industry)

AN[illegible]A, G.G.

[illegible] nickel strip [illegible] trud. TSNIICHM [illegible] 63 (MIRA 17:4)

ANDREYEVA, G.M.

"Creation of New Type Intelligence and Leadership in the Development of Soviet Society."

Report presented at the 5th World Congress of Sociology, Washington, D.C., 2-8 Sep 62.

ANDREYEVA, G.M.

"Different Ways of Industrialization."

Report presented at the 5th World Congress of Sociology, Washington, D.C., 2-8 Sep 62.

5.1310

S/081/60/000/017/010/016
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 17, p. 345, # 70238

AUTHORS: Fedot'yev, N.P., Vyacheslavov, P.M., Kruglova, Ye.G., Andreyeva, G.P.

TITLE: Electrochemical Deposition of Co-W Alloy and Its Properties

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1959, No. 53, pp. 82-97

TEXT: The authors studied the effect of the electrolyte composition and electrolysis conditions on the composition and properties of the Co-W alloy. For the deposition of the Co-W alloy (35% W) an electrolyte of the following composition is recommended (in g/l): W 12, Co 4, $(NH_4)_2SO_4$ 250-300, NH_4OH (25% solution) 30-40, NaOH 11; D = 8-12 amp/dm^2; temperature: 50-60°C; Pt or W anodes. When the W/Co ratio in the electrolyte is increased up to 7, the W content in the alloy increases considerably; if the ratio is raised to 11 - the W content increases slowly, and, subsequently, does not change. The current efficiency of the alloy drops abruptly (from 75 to 15%) with a higher W/Co ratio, increased from 1 to 7, and subsequently changes insignificantly. At a total content

Card 1/3

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S/081/60/000/017/010/016
A006/A001

Electrochemical Deposition of Co-W Alloy and Its Properties

of the metals as high as 48 g/l, the maximum content of W in the alloy is 55% and decreases down to 40% at a total amount of metals equal to 10 g/l. A higher concentration of $(NH_4)_2SO_4$, raised from 10 to 150 g/l, increases the W content in the alloy from 7 to 26%. A further increase of $(NH_4)_2SO_4$ has only a slight effect on the composition of the alloy but improves its quality. Current efficiency passes through a maximum depending on the concentration of $(NH_4)_2SO_4$. Additions of NH_4OH do not considerably affect the composition of the alloy, but at a higher concentration of NH_4OH the quality of the deposit is deteriorated and the current efficiency decreases. At a higher D the W content in the alloy increases. Maximum current efficiency is attained at $D_{cathode}$ = 10 amp/dm^2. At an elevation of temperature the W content in the alloy increases (0.6% per each 5°C), current efficiency increases considerably (by 25% per each 5°C) and the luster of the deposit becomes brighter. The sign and order of magnitude of the internal stresses of the deposits are the same as for Cr-deposits. Microhardness of the deposits decreases with higher D_{cath}, increases with higher temperature and concentration of $(NH_4)_2SO_4$ and increases twice after heat treatment at 600°C for one hour.

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Card 2/3

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A006/A001

Electrochemical Deposition of Co-W Alloy and Its Properties.

Microhardness of the deposits is 500-700 mg/mm^2. The alloy is sufficiently acid and corrosion resistant in SO_2 and NO_2 atmosphere. Best protective properties in 3% NaCl solution are shown by an alloy containing 35% W (Thickness 5 - 10μ).

Z. Solov'yeva

Translator's note: This is the full translation of the original Russian abstract.

Card 3/3

5.1310,5.2200

75669
SOV/80-32-10-18/51

AUTHORS: Fedot'yev, N. P., Vyacheslavov, P. M., Kruglova, Ye. G., Andreyeva, G. P.

TITLE: The Technique of Electrochemical Deposition of Cobalt-Tungsten Alloy and Its Properties

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 10, pp 2235-2242 (USSR)

ABSTRACT: The authors' studies showed that the electroplating with Co-W alloys proceeded much better in an electrolyte composed of W, Co, $(NH_4)_2SO_4$, and 25% solution of NH_4OH than in electrolytes based on citric acid and potassium sodium tartrate recommended by other investigators. The composition of the deposit depended chiefly on the ratio of the concentration of component metals in the electrolyte. The tungsten content in the deposit increased with increasing W/Co ratio, and the yield based on current decreased. The tungsten content in the deposit increased with increasing concentration of $(NH_4)SO_4$ and

Card 1/3

the quality of the deposit improved. The value of the NH_4OH concentration did not affect the composition but only the quality of the deposit, which became darker and finally black at a concentration of 140 g/l. The same effect was shown by NaOH. It was also found that the tungsten content in the deposit increased with increasing current density. The optimal conditions for depositing Co-W alloy with 35% W content are: electrolyte composition, W 12 g/l; Co 4 g/l; $(NH_4)_2SO_4$ 250 to 300 g/l; 25% NH_4OH solution 30 to 40 g/l; NaOH 10 g/l; current density 8 to 12 amp/dm^2; temperature 50 to 60°; anodes: platinum or tungsten. The hardness of the deposit can be increased almost twofold by a heat treatment at 600° for 1 hr. The hardness was thus raised from 500-700 kg/mm^2 to a maximum of about 1,000 kg/mm^2. Abrasion resistance of Co-W deposit on nickel was considerably higher than that of silver deposit on nickel. A very high abrasion resistance was shown by Co-W

The Technique of Electrochemical Deposition of Cobalt-Tungsten Alloy and Its Properties

75669
SOV/80-32-10-18/51

deposit (65% Co and 35% W) on a surface of identical composition. The investigated Co-W deposits showed a considerably higher resistance than cobalt and nickel to the corrosive action of 1:1 concentration of sulfuric, nitric, and hydrochloric acid as well as to NO_2 and SO_2.

The deposit containing 35% W resisted well the corrosive action of 3% NaCl solution at room temperature, and it dissolved at a very low rate (0.1 g/m^2 per 24 hrs).

There are 2 tables; 12 figures; and 6 references, 1 U.S., 1 British, 4 Soviet. The U.S. and British references are: J. Research Nat. Bur. Stand., Oct. (1947); The Engineer, 185, 4805 (1948).

SUBMITTED: September 19, 1958

Card 3/3

87664

5.1310 1087, 1018, 1208

S/137/60/000/010/040/040
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 10, p. 315, # 24982

AUTHORS: Fedot'yev, N.P., Vyacheslavov, P.M., Kruglova, Ye.G., Andreyeva, G.P.

TITLE: Electrochemical Deposition of Co-Tungsten Alloy and its Properties

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1959, No. 53, pp. 82-97

TEXT: It is shown that the composition of the Co-tungsten deposit depends to a high degree on the metal concentration ratio in the electrolyte, since a higher tungsten/cobalt ratio causes a higher tungsten content in the deposit, although current efficiency decreases. At a concentration of $(NH_4)_2SO_4$ raised from 10 to 150 g/liter in the electrolyte, the tungsten content in the deposit increases from 7 to 26%. The current efficiency changes along the curve with a maximum at a concentration as high as 150 g/liter and furthermore drops. A higher $D_{cathode}$ increases the tungsten amount in the deposit; however, the quality of the deposit deteriorates; the luster disappears, and roughness appears. At a

Card 1/2

87664
S/137/60/000/010/040/040
A006/A001

Electrochemical Deposition of Co-Tungsten Alloy and its Properties

higher electrolyte temperature a gradual increase of the tungsten percentage in the alloy takes place. The current efficiency increases noticeably. It is established that the dispersing capacity of the electrolyte for the deposition of the cobalt-tungsten alloy exceeds by 10 - 15% that of the Ni-electrolyte. The authors studied the dependence of microhardness of the deposited cobalt-tungsten alloy on various factors of electrolysis. Investigations of the wear resistance of cobalt-tungsten alloy coatings in pair with Ni and in pair with the same alloy showed that it was higher in the latter case than during wearing in pair with Ni. It was stated that the cobalt-tungsten deposit was sufficiently corrosion-resistant in SO_2 and NO_2 atmosphere. The composition of the electrolyte for the deposition of an alloy with 35% tungsten is given.

N.I.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

S/080/62/035/007/007/013
D214/D307

AUTHORS: Fedot'yev, N.P., Vyacheslavov, P.M. and Andreyeva, G.P.

TITLE: Structure and properties of electrodeposited Sn-Cd alloys

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 7, 1962, 1537-1542

TEXT: The structure and some properties of electrodeposited Sn-Cd alloys were determined and compared with those of the same alloys obtained by fusion. X-ray studies of 14 samples of the alloy, containing from 2.4 to 99% Cd, showed the lattice parameters to be close to the values obtained for the equivalent alloys prepared from melts. The Sn-Cd alloys, deposited from a KCN solution, crystallize in accordance with the phase diagram and contain Cd/Sn eutectics. Measurements of the potentials of the alloys in a 1N$CdSO_4$ solution against a standard calomel electrode also showed the alloys to behave as a eutectiferous mixture of Sn and Cd crystals. The micro-

Card 1/2

hardness increases linearly from 13.2 to 35.8 kg/mm^2 and the specific resistance decreases linearly from 0.154 to 0.114 Ω mm/m as the Cd content increases. The resistivities of the electrodeposited alloys were about 25% higher than those of the equivalent alloys prepared from their melts. An increase in the Cd content causes the cathodic polarization to increase; the polarization curves for the simultaneous deposition of both metals lie in the more positive region than that in which curves for the deposition of the separate components are situated. There are 5 figures and 1 table.

SUBMITTED: September 22, 1961

Card 2/2

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; ANDREYEVA, G.P.

Structure and properties of the electrodeposited alloy Sn-Cd.
Zhur.prikl.khim. 35 no.7:1537-1542 Jl '62. (MIRA 15:8)
(Tin-cadmium alloys)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; ANDREYEVA, G.P.

Structure and properties of the electrodeposits of zinc-cadmium alloys. Zhur.prikl.khim. 36 no.3:572-578 My '63. (MIRA 16:5)

1. Kafedra elektrokhimii Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.

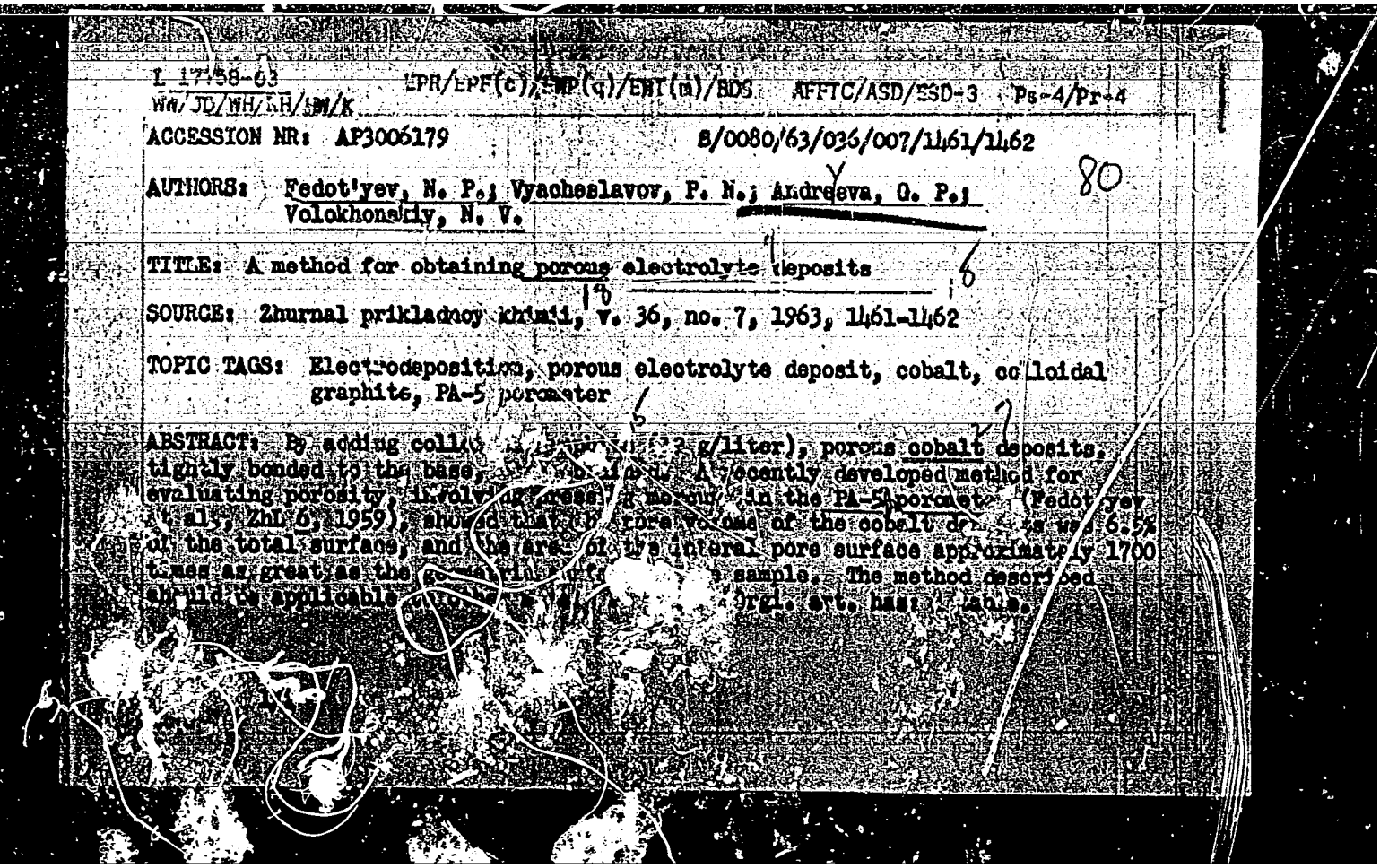
(Zinc-cadmium alloys) (Electroplating)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; ANDREYEVA, G.P.

Structure and properties of the electrodeposited zinc-tin alloy.
Zhur.prikl.khim. 36 no.3:671-673 My '63. (MIRA 16:5)
(Zinc-tin alloys) (Electroplating)

ANDREYEVA, G.P.; FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; PAL'MSKAYA, I.Ya.

Structure and physicochemical properties of electrolytic brass.
Zhur. prikl. khim. 36 no.6:1283-1290 Je '63. (MIRA 16:8)
(Brass)



L 17458-63 EPR/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD/ESD-3 Ps-4/Pr-4
WW/JD/WH/LH/JM/K

ACCESSION NR: AP3006179 S/0080/63/036/007/1461/1462

AUTHORS: Fedot'yev, N. P.; Vyacheslavov, P. N.; Andreeva, O. P.; Volokhonskiy, N. V.

TITLE: A method for obtaining porous electrolyte deposits

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 7, 1963, 1461-1462

TOPIC TAGS: Electrodeposition, porous electrolyte deposit, cobalt, colloidal graphite, PA-5 porometer

ABSTRACT: By adding colloidal graphite (3 g/liter), porous cobalt deposits, tightly bonded to the base, were obtained. A recently developed method for evaluating porosity, i.e., by forcing mercury in the PA-5 porometer (Fedot'yev et al., ZhL 6, 1959), showed that the true volume of the cobalt deposit was 6.5% of the total surface, and the area of the lateral pore surface approximately 1700 times as great as the geometric surface of the sample. The method described should be applicable [illegible] Orig. art. has: 1 table.

ANDREYEVA, O.P.; FEDOTAYEV, N.P.; VYACHESLAVOV, P.M.

Structure and physicochemical properties of a copper-nickel electrolytic alloy. Zhur. prikl. khim. 36 no.9:1932-1936 D '63. (MIRA 17:1)

ACCESSION NR: AP4041796 S/0080/64/037/007/1469/1477

AUTHOR: Andreyeva, G. P.; Fedot'yev, N. P.; Vyacheslavov, P. M.

TITLE: Physicochemical properties and structure of Au-Cu electrolytic alloy

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 7, 1964, 1469-1477

TOPIC TAGS: gold copper alloy, electrolytic gold copper alloy, gold copper alloy electrodeposition, gold copper alloy structure, gold copper alloy property

ABSTRACT: An experimental study of the properties of an electrolytically deposited Au-Cu alloy has shown that electrolysis in a cyanide electrolyte containing 5.5—0.2 g/ℓ Au, 0.2—5.5 g/ℓ Cu, and 5.5 g/ℓ KCN at a temperature of approx 60C and a current density of 0.15 amp/dm^3 produces in 1 hr satisfactory deposits 6—8μ thick. The deposit consists of a solid solution with a crystal lattice of gold. The fresh deposits have a phase composition differing greatly from that of the Au-Cu metallurgical alloy. Depending on the gold content and the current density it may have, instead of a single phase, two

Card 1/2

ACCESSION NR: AP4041796

or even three phases, i.e., solid solutions of different composition, Au Cu_3 and Au Cu intermetallic compounds, and very finely dispersed copper particles. However, as a result of natural or artificial aging, the phase structure of the alloy changes and becomes rather similar to that of the metallurgical Au-Cu alloy. The resistivity of electrodeposited alloys is roughly of the same magnitude and has the same composition dependence as those of metallurgical alloys. The microhardness of electrolytic alloys is much higher than that of metallurgical alloys, although in both types of alloys the composition dependence of microhardness follows the same pattern. Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 08Apr63 ATD PRESS: 3074 ENCL: 00

SUB CODE: MM NO REF SOV: 006 OTHER: 002

Card 2/2

L 46849-66 EWT(m)/EWP(e)/T/EWP(t)/ETI IJP(c) DS/JD/WW/JG/GD/WH

ACC NR: AT6024973 (N) SOURCE CODE: UR/0000/65/000/000/0194/0197

AUTHOR: Andreyeva, G. P.; Fedot'yev, N. P.; Vyacheslavov, P. M. 39 B+1

ORG: none

TITLE: Electrodeposition and properties of silver-palladium alloys

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Zashchitnyye metallicheskiye i oksidnyye pokrytiya, korroziya metallov i issledovaniya v oblasti elektrokhimii (Protective metallic and oxide coatings, corrosion of metals, and studies in electrochemistry). Moscow, Nauka, 1965, 194-197

TOPIC TAGS: silver alloy, palladium alloy, electrodeposition

ABSTRACT: The conditions of electrodeposition of Ag-Pd alloys from an electrolyte having LiCl as its main component and some physicochemical properties of these alloys were studied. LiCl and HCl concentrations were found to have a considerable influence on the quality of the deposits. The strongest influence on the composition of the alloys was exerted by the Ag:Pd ratio in the electrolyte. A study of the anodic process showed that carbon and graphite electrodes were best suited for the electrolysis of LiCl solutions. A study of the cathodic process showed that the net polarization curve of deposition of an Ag-Pd alloy is located at more positive potentials than the net polarization curves of deposition of the pure components. X-ray analysis and microhardness and electrical resistance measurements revealed the formation of solid solutions. In deposits containing over 70% Pd, a texture was observed which had an

Card 1/2

L 46843-66
ACC NR: AT6024973 0

appreciable effect on the microhardness. Orig. art. has: 6 figures and 1 table.

SUB CODE: 11,13/07/SUBM DATE: 18Feb64/ ORIG REF: 004/ OTH REF: 002

Card 2/2 blg

ACCESSION NR: AP4019487

stability of $6BaO.Nb_2O_5$ were determined: it melts without decompostion at 1930 ± 20degrees and decomposes readily on storage in air or contact with water. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 19Jun63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: CH NO REF SOV: 011 OTHER: 019

Card 2/2

ZHILIN, M.G., professor; BELKOREY, M.A.; ANDREYEVA, G.V.

Sanitary-hygienic requirements in field camps. Gig. i san. 21 no.4: 44-45 Ap '56. (MLRA 9:7)

1. Iz Chkalovskogo meditsinskogo instituta i oblastnoy sanitarno-epidemiologicheskoy stantsii.
(AGRICULTURE,
hyg. aspects of field camps (Rus))

ANDREYEVA, G.V.

Use of luminescence analysis for detecting coli bacillus in water.
Lab. delo 3 no.2:39-41 Mr-Ap '57 (MLRA 10:5)

1. Iz laboratorii sanitarnoy bakteriologii Instituta obshchey i kommunal'noy gigiyeny AMN SSSR, Moskva.
(FLUORESCENCE MICROSCOPY) (ESCHERICHIA COLI) (WATER--BACTERIOLOGY)

ANDREYEVA, G. K.

Molybdenum-fuchsin-sulfite medium for detecting and identifying coli bacteria in analyzing water, milk, and milk products. Lab.delo 4 no.5:33-35 S-O '58 (MIRA 11:11)

1. Iz Stalingradskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny.
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA)
(INTESTINES--BACTERIOLOGY)

ANDREYEVA, G. V., [illegible], L. N., KLYUCHAREV, G. G., PAYER, G. A., POPOVA, T. I., KERASHEVA, S. I., IGNATOVICH, Z. A., KALINOV, A. S., KUCHENKO, M. G., PERTSOVSKAYA, M. I., TALAYEVA, YU. G., VLADOVETS, V. V.

"Modern problems of sanitary bacteriology in the solution of problems of communal hygiene."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

ANDREYEVA, G.V.; NIKIFOROVA, L.L.

State All-Union Standard 5216-50-1955 for the sanitary-bacteriological analysis of water. Gig i san. 24 no.5:61-62 My '59. (MIRA 12:7)

1. Iz Stalingradskogo nauchno-issledovatel'skogo instituta epidemiologii mikrobiologii i gigiyeny.
(WATER, microbiology,
determ., standard form in Russia (Rus))

ANDREYEVA, G.V.

Molybdenum medium for the detection and identification of Enterobacteriaceae. Zhur.mikrobiol.epid. i immun. 30 no.2:70-74 F '59. (MIRA 12:3)

1. Iz Instituta obshchey i kommunal'noy gigiyeny AMN SSSR.

(BACTERIA,
Enterobacteriaceae, detection & identification with molybdenum medium (Rus))
(MOLYBDENUM,
detection & identification of Enterobacteriaceae with molybdenum medium (Rus))

ANDREYEVA, G.V.

Differentiation and identification of the Enterobacteriaceae by means of biophemical examination methods. Zhur. mikrobiol. epid. i immun. 31 no. 5:113 My '60. (MIRA 13:10)

1. Iz Stalingradskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(INTESTINES—MICROBIOLOGY)

ANDREYEVA, G. V.; POLYAKOVA, Z. N.

Indicator method for detection and identification of diphtheria cultures. Zhur. mikrobiol., epid. i immun. 32 no.8:12-15 Ag '61. (MIRA 15:7)

1. Iz Gorodskoy sanitarno-epidemiologicheskoy stantsii, Stalingrad.

(CORYNEBACTERIUM DIPHTHERIAE)

SHUL'MAN, N.K.; ANDREYEVA, I.A.; PALENKO, I.A.; KOSITSYN, I.Ye.; TIL'BA, A.P.; BARANCHEYEV, L.M.; MOSKALENKO, A.V., red.; GOLOVIN, A.A., tekhn.red.

[Nature in Amur Province] Priroda Amurskoi oblasti. Blagoveshchensk, Amurskoe knizhnoe izd-vo, 1959. 308 p. (MIRA 13:4)

1. Amurskiy otdel Vsesoyuznogo geograficheskogo obshchestva (for all, except Moskalenko, Golovin).
(Amur Province--Geography)

11(7) SOV/136-59-1-14/24

AUTHORS: Tayts, Ye. M., Andreyeva, I. A.

TITLE: On a Procedure for the Coking of Lignites (O sposobe koksovaniya burykh ugley)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 169 - 172 (USSR)

ABSTRACT: The procedures hitherto in customary use for the briquetting of powdered, dried lignite at high pressure (up to 1800 kg/cm^2) and with subsequent heating to 950° in a vertical chamber furnace are not always successful as pressure and temperature do not act simultaneously. Non-caking coals and lignite yield brittle coke briquets. An attempt was made to produce coke briquets in an electrically heated mold. When a certain temperature (400-450°) had been reached, pressure was applied (300-500 kg/cm^2), which was but only allowed to act for a short time, not more than for a few minutes. Afterwards the briquets were coked in muffle furnace, and the coke was tested with regard to compactness. Coal analysis data and test results of the cokes are listed in tables. The dependence on temperature and pressure of the

Card 1/2

compactness is graphically represented. Thermo-briquetting yields considerably better results than do the separate actions of pressure and temperature. A coke is obtained which is equal to the ordinary metallurgical coke. This is explained by the fact that the action of pressure at the instance of a thermal reaction (splitting-off of side radicals, formation of aromatic C-lattices) results in new bonds at the contacts increased in number by the action of pressure. There are 2 figures, 1 table, and 3 references, 2 of which are Soviet.

ASSOCIATION: Kafedra obogashcheniya poleznykh iskopayemykh Moskovskogo gornogo instituta im. I. V. Stalina (Chair of the Concentration of Minerals of the Moscow Mining Institute imeni I. V. Stalin)

SUBMITTED: October 1, 1958

5(2)

AUTHORS: Tayts, Ye. M., Andreyeva, I. A. SOV/153-2-3-27/29

TITLE: On the Process of the Formation of Coke From Lignite Briquets

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 3, pp 454-459 (USSR)

ABSTRACT: For their investigations the authors used lignites of different types. Coals from Kushmurunskoye and Eginsayskoye deposits of the Ubaganskiy basin were investigated more accurately. The coke briquets were produced under a pressure of 2000 kg/cm^2 and had a diameter of 45 mm. The humidity content of the coal was 10-12%.

Prior to coking, the briquets were dried for 90 minutes at 150°. Temperature was then increased to 950° at a rate of 3° per minute. In the heating process the solidity of the briquets changes considerably. One of the most important factors causing this change is the solidification of the coal material (change of the cohesive powers). In heating up to a certain temperature the hardness of the coal is increased (Ref 2). For this reason the forming coke briquets are more solid than the initial briquets. Moreover, also the forces of interaction between the grains at the contact surfaces (change of the adhesive power) change. This change depends on the character of

Card 1/3

the chemical transformations during heating and it is closely connected with the shrinkage of the coal particles. Distinction must be made between the shrinkage of the individual grains (λ) and the shrinkage of the entire briquet (λ'). The solidity of the coke briquet at otherwise equal conditions is the higher the higher the ratio $\frac{\lambda'}{\lambda}$. Figure 1 shows the connection between the solidity of the coke briquet and the shrinkage of the volume for a series of coal samples. In this connection the more solid coke is obtained the more finely lignite was crushed. Table 1 shows the connection between the degree of the crushing of coal, the solidity and the one-dimensional shrinkage for various coke briquets. Also pressure exercises a considerable influence on the shrinkage of the coke briquets. This connection is shown by table 2. Shrinkage does not only depend on the coal properties but also to an important degree on the method of heating. Rapid heating accelerates the shrinkage of the individual grain (λ). By this fact the contact between the grains is disturbed and the solidity decreases due to a decrease in the shrinkage of the total briquet (λ'). The quality of coke may be improved by

carrying out the coking in two steps in order to warrant a constant contact between the individual particles. The entire complex of problems is discussed in detail in this paper. There are 2 figures, 2 tables, and 9 references, 7 of which are Soviet.

ASSOCIATION: Institut goryuchikh iskopayemykh AN SSSR i Moskovskiy gornyy institut - Kafedra obogashcheniya poleznykh iskopayemykh (Institute of Combustible Minerals of the AS USSR and Moscow Institute of Mining, Chair for the Enrichment of Minerals)

SUBMITTED: July 25, 1958

KOCHANOVA, L.A.; ANDREYEVA, I.A.; SHCHUKIN, Ye.D.; LIKHTMAN, V.I.

Regularities in brittle fracture of pure and alloyed monocrystals of zinc. Inzh.-fiz. zhur. no.7:45-52 Jl '59. (MIRA 12:10)

1.Institut fizicheskoy khimii AN SSSR, g.Moskva.
(Zinc crystals--Testing)

5(4)

AUTHORS: Kochanova, L. A., Andreyeva, I. A., Shchukin, Ye. D.

SOV/20-126-6-44/67

TITLE: On the Brittle Rupture of Pure and Alloyed Zinc Single Crystals (O khrupkom razryve chistykh i legirovannykh monokristallov tsinka)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1304-1307 (USSR)

ABSTRACT: In the papers (Refs 1-4) the authors investigated the rupture of pure zinc single crystals along the cleavage face (0001) and found that the product of normal and cleavage tensions is constant - $\gamma_0\tau_0$ = const = K^2. The results are given for technical zinc and for zinc alloyed up to 0.5 % with Cd and compared with the results obtained for pure zinc (Table 1). Figure 1 shows the values of rupture tension for pure zinc at -196° C and various angles between crystal axis and face (0001) as well as the effect of a mercury film upon the strength at +20° C. Table 1 shows that K increases with increasing amount of additions. Figure 2 shows the values of rupture tension τ for amalgamated and non amalgamated pure

zinc single crystal in dependence on the crystallographic shear a. The characteristic break of the deformation curve at a_0 (flow limit) as well as the increase in strength for $a < a_0$ connected with the latter are due to the increase of the incomplete shears (dislocation accumulation). a_0 decreases with increasing amount of alloy components. Table 1 gives the degree of inhomogeneity $f = a_0/a_0'$ (a_0' refers to pure zinc). As shown by figures 3 and 4, the experimental results are in good agreement with those obtained by A. Deruyttière and G. B. Greenough (Ref 5). $p_c\tau_c = K^2$ holds for both amalgamated and not amalgamated zinc single crystals of varying purity. The values for K are reduced by 50 % as a result of the reduction of the free surface activity σ. The authors thank V. I. Likhtman for his advice. There are 4 figures, 1 table, and 13 references, 12 of which are Soviet.

On the Brittle Rupture of Pure and Alloyed Zinc Single Crystals SOV/20-126-6-44/67

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

PRESENTED: February 17, 1959, by P. A. Rebinder, Academician

SUBMITTED: February 10, 1959

Card 3/3

TAYTS, Ye.M.; ANDREYEVA, I.A.

Production of coke from coals of lower stage metamorphism. Koks i khim. no.12:22-25 '60. (MIRA 13:12)

1. Institut goryuchikh iskopayemykh AN SSSR.
(Coke)

18.8200 4016 1496 1413

28094
S/181/61/003/009/028/039
B104/B102

AUTHORS: Bryukhanova, L. S., Andreyeva, I. A., and Likhtman, V. I.

TITLE: Rupture strength of metals and the effect of surface-active metal melts on it

PERIODICAL: Fizika tverdogo tela, v. 3, no. 9, 1961, 2774-2778

TEXT: The temperature and time dependences of the strength of amalgamated zinc and gallium-coated cadmium has been investigated. The wire samples were zinc crystals, polycrystalline zinc, and cadmium. Their diameter was 1 mm and their length 10 mm. A contact method was employed to coat the zinc samples with a thin Hg film (5 μ) in a mercury-nitrate solution. The cadmium samples were electrolytically coated with a gallium film. A relation between the lifetime and the angle χ, between the basal plane and the sample axis was clearly established for differently oriented zinc single crystals. The values for logτ (τ denotes the lifetime in sec) for every χ and different loads are located on straight lines. According to S. N. Zhurkov, the activation energy U of the destruction is given by $U = U_0 - \gamma P$, where γ denotes a structure factor and P the load. Test results furnish

Card 1/3

Rupture strength of metals and ...

U_o = 35 kcal/mole. This value agrees with those of other authors. Tests of zinc single crystals with $\chi \approx 50^o$ at 20 and 50°C show that for different loads the time elapsing till the sample ruptures is considerably diminished by the Hg film (from several days to seconds). The same results have been obtained for amalgamated polycrystalline zinc and gallium-coated polycrystalline cadmium samples. It was found that the empirical relation $\tau = \tau_o \exp\left(\frac{U_o - \gamma P}{kT}\right)$ cannot be used to estimate U_o and γ for Zn and Cd samples coated with Hg or Ga films. The effect of the films is not connected with a thermal activation but is the result of adsorption of surface-active atoms. The presence of surface-active substances will not affect the length of the destruction process as long as the normal component of stress is small. However, if this component reaches a value corresponding to the tensile strength of the metal, the surface cracks will grow rapidly and cause the sample to rupture. The rate of growth of these cracks is related to the rate of surface migration of the surface-active substance. It is not connected with any thermal activation of the destruction process. There are 6 figures and 10 references: 9 Soviet and 1 non-Soviet. The reference to English-language publications reads as

Card 2/3

TAYTS, Ye.M.; OKLADNIKOV, V.P.; RAVICH, B.M.; ANDREYEVA, I.A.

Metallurgical and smokeless fuel from gas coals and weakly coking coals. Khim.i tekh.top.i masel 6 no.3:31-36 Mr '61. (MIRA 14:3)

1. Institut goryuchikh iskopayemykh im. G.M. Krzhizhanovskogo AN SSSR, Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSR i Moskovskiy gornyy institut im. V.I. Stalina.
(Fuel) (Coal—Carbonization)

YEFASHKIN, G.V.; ANDREYEVA, I.A.

Methods for evaluating the mechanical strength of a briquetted fuel. Zav.lab. 27 no.9:1149-1150 '61. (MIRA 14:9)

1. Moskovskiy gornyy institut imeni I.V. Stalina.
(Briquets (Fuel))—Testing)

25761 S/020/61/139/002/011/017
B104/B205

18.8200 also 1327, 2808

AUTHORS: Likhtman, V. I., Bryukhanova, L. S., and Andreyeva, I. A.

TITLE: Long-time strength of metals

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 2, 1961, 359 - 362

TEXT: The effect of surface-active metallic melts on the mechanical properties of high-melting metals has been studied in the authors' laboratory. It could be shown on single crystals of Zn, Cd, and Sn that the sudden loss in strength and plasticity occurring under the action of a thin film of a melt on a single crystal being stretched at a constant rate, is related neither with the grain boundaries, nor with the dissolution of the high-melting metal in the melt, nor with a chemical reaction between the metal and the basic metal, which leads to an intermetallic compound. The mechanism of this effect consists in a considerable adsorptive decrease of the surface energy of the high-melting metal (Rebinder effect) both on the external surface and on the two surfaces of the crack. S. N. Zhurkov et al. (ZhTF, 23, 1677 (1953); DAN, 101, 237

Card 1/4

is reached. This corresponds to the discontinuity on the curve $\log\tau = f(P)$ which, in turn, corresponds to the transition from the destruction mechanism based on thermally activated processes to a mechanism based on an increase in the surface energy, which is brought about by the active melt. The second mechanism occurs not before a certain stress is attained. This corresponds to the braking strength of the metal which is reduced in the presence of the active melt. The authors thank Ye. D. Shchukin and L. A. Kochanova for discussions. There are 4 figures and 10 references: 9 Soviet-bloc and 1 non-Soviet-bloc. The reference to English-language publications reads as follows: K. H. Mann, et al. J. Phys. Chem., 64, 251 (1960).

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences USSR)

PRESENTED: March 15, 1961, by P. A. Rebinder, Academician

SUBMITTED: March 6, 1961

YARKHO, N.A.; RAVICH, B.M.; ANDREYEVA, I.A.

Production of coke from gas coals. Koks i khim. no.3:11-12 '62.
(MIRA 15:3)

1. Moskovskiy gornyy institut.
(Coke)

YEFASHKIN, G.V.; ANDREYEVA, I.A.

Selection of optimal parameters in thermal coal briquetting.
Khim.i tekh.topl.i masel 7 no.4:38-40 Ap '62. (MIRA 15:4)

1. Moskovskiy gornyy institut.
(Briquets (Fuel))

TAYTS, Ye.M.; ANDREYEVA, I.A.

Strength of brown-coal coke. Trudy IGI 20:208-214 '63.
(MIRA 17:8)

1. Otvetstvennyy redaktor zhurnala "Trudy Instituta goryuchikh iskopayemykh" (for Tayts).

TAITS, Ye.M.; BRONOVETS, T.M.; [illegible]EVA, I.A.

Obtaining plastic and binding materials from fossil coals. Khim.i tekh.topl.i masel 8 no.2:24-27 F '63. (MIRA 16:10)

L 62534-65 EPF(c)/EWT(m)/EWP(i)/EWP(b)/EWA(d)/EWP(t) IJP(c) JD/JG/WB

ACCESSION NR: AP5012648 UR/0369/65/001/002/0134/0138 33 29 8

AUTHOR: Bryukhanova, L. S.; Andreyeva, I. A.; Likhtman, V. I.

TITLE: Reduction in surface tension of solid metals when atoms from melts of surface-active metals are absorbed on their surfaces

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 2, 1965, 134-138

TOPIC TAGS: surface tension, adsorption, thin film, surface active agent

ABSTRACT: The surface tension of solid zinc was measured during adsorption of various quantities of gallium. The surface tension of zinc covered with a thin lead film (2 μ thick) was also measured. The "zero" creep method developed by Tamman and Udin was used (G. Tamman, W. Boehme, *Ann. Phys.*, 1932, 12, 820; H. Udin, A. Shaler, I. [illegible]uff, *Journ. of Metals*, 1949, 1, [illegible]). The method is based on the fact that the specimen expands at temperatures close to the melting point when it is loaded above a certain limiting value P_0, while contraction due to surface tension is observed at loads below P_0. Thus the zero creep load P_0 exactly balances the surface tension forces. Thus for foil we have the condition $P_0 = a\sigma$ where a is the width of the foil and σ is surface tension. The results of a preliminary study of creep for zinc foil coated

Card 1/4

L 62534-65

ACCESSION NR: AP5012648 4

with a gallium film 10^{-5} mm thick are shown in fig. 1 of the Enclosure. This shows that experiments of 1 and 3 hours duration yield identical results, while in longer experiments the results are distorted by the tendency of the foil to shrink even under extremely high loads. Measurements of surface tension are shown in fig. 2 of the Enclosure for pure zinc and for zinc foil covered with various quantities of gallium. Graphs are also given for surface tension and absorption as functions of the concentration of gallium in zinc, and for the relationship between elongation of zinc foil coated with lead (0.2 μ) and load at 380°C. "The authors are deeply grateful to Professor A. A. Zhukhovitskiy, Doctor of physical and mathematical sciences Ye. D. Shchukin and Candidate of chemical sciences L. A. Kochanova for valuable comments during discussion of the results of the work." Orig. art. has: 4 figures, 1 table.

ASSOCIATION: Institut fizicheskoy khimii AN SSSR, Moscow (Institute of Physical Chemistry, AN SSSR)

SUBMITTED: 15Oct64 ENCL: 02 SUB CODE: SS, MM

NO REF SOV: 005 OTHER: 002

Card 2/4

L 62534-65

ACCESSION NR: AP5012648

ENCLOSURE: 01

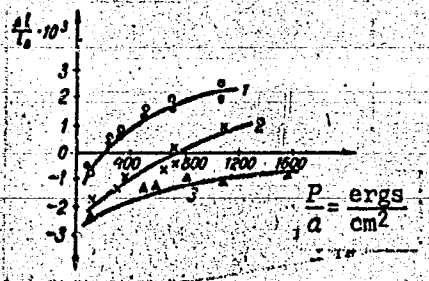


Fig. 1. Relationship between relative elongation of zinc foil coated with gallium (0.1 μ) and load at 380°C.
1-- C --1 hr; 1● --3 hrs;
2--×--5 hrs; 3-- ▲ --8 hrs.

Card 3/4

L 62534-65

ACCESSION NR: AP5012648

ENCLOSURE: 02

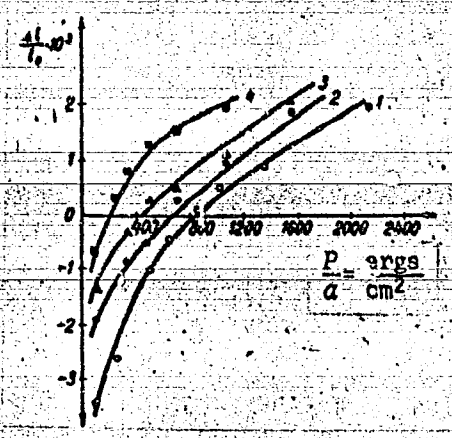


Fig. 2. Relative elongation of zinc foil coated with gallium layers of various thicknesses as a function of loading at 380°C and 3 hours isothermal holding. 1--zinc foil without coating; 2--~0.005 μ; 3--~0.02 μ; 4--~0.1μ

Card 4/4

LIKHTMAN, V.I.; BENTUKHANOVA, L.S.; ANDREYEVA, I.A.; REBINDER, P.A., akademik

Decrease of the surface tension of solid metals when atoms of surface-active metallic melts are adsorbed on their surface. Dokl. AN SSSR 160 no.4:867-870 F '65. (MIRA 18:2)

1. Institut fizicheskoy khimii AN SSSR.

TAYTS, Yefim Moiseyevich; RAVICH, Boris Mikhaylovich; ANDREYEVA, Irina Aleksandrovna

[Coke and iron coke prepared by the briquetting process] Koks i zhelezokoks na osnove briketirovaniia. Moskva, Metallurgiia, 1965. 172 p. (MIRA 18:7)

AGROSKIN, A.A., prof.; LAVICH, A.F., kand. tekhn. nauk; NAZAREVA, L.A., inzh.

Ways of preparing coke from coal of the Vorgashor deposit by preliminary briquetting. Izv. vys. ucheb. zav.; gor. zhur. 8 no.7:194-196 '65. (MIRA 18:9)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti (for Agroskin). 2. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki (for Lavich, Andreyeva). Rekomendovana kafedroy energetiki Vsesoyuznogo zaochnogo instituta pishchevoy promyshlennosti.

ACC NR: AR6035407 SOURCE CODE: UR/0137/66/000/009/A007/A007

AUTHOR: Likhtman, V. I.; Bryukhanova, L. S.; Andreyeva, I. A.

TITLE: Measurement of surface tension of hard metals in the presence of adsorption layers of surface-active metallic alloys

SOURCE: Ref. zh. Metallurgiya, Abs. 9A41

REF. SOURCE: Sb. Poverkhnostn. yavleniya v rasplavakh i voznikayushchikh iz nikh tverd. fazakh. Nal'chik, 1965, 438-442

TOPIC TAGS: surface tension, alloy, adsorption, surface active coating, metal surface

ABSTRACT: The author determined experimentally the surface tension σ of solid Zn which adsorbed different amounts of Ga on its surface. σ was determined by the Tamman "zero" creep method. A foil of Zn 7×10^{-3} cm thick was used; the Fa film (5×10^{-7} -- 1×10^{-5} cm) was deposited electorlytically. σ experiences maximum reduction when the Ga film thickness is 0.1 μ. A tentative estimate of the depth of the diffusion penetration of Ga and Zn makes it possible to propose that the maximum reduction of σ corresponds to a monomolecular layer of Ga on the surface of Zn. 3 illustrations. Bibliography, 7 titles. (From RZh Khim.) [Translation of abstract]

SUB CODE: 20, 11

Card 1/1 UDC: 669.132.61

ANDREYEVA, I. B.

"An Investigation of the Stresses in the Cylinders of Hydraulic Presses." Cand Tech Sci, Moscow Machine Tool and Tool Inst imeni I. V. Stalin, 29 Dec 54. (VM, 21 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

ANDREYEVA, I.B., kand.tekhn.nauk

Investigating parameters of support rings for hydraulic press cylinders. Sbor. MOSSTANKIN no.4:124-138 '58. (MIRA 12:4)
(Hydraulic presses)

AUTHORS: Andreyeva, I.B. and Udintsev, G.B. SOV-11-58-10-1/12

TITLE: The Structure of the Bottom of the Sea of Japan According to Data Obtained by the "Vityaz'" Expedition (Stroyeniye dna Yaponskogo morya po dannym issledovaniy ekspeditsii na "Vityaze")

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1958, Nr 10, pp 3 - 20 (USSR)

ABSTRACT: The seismo-accustic method of sea-bottom study was applied on a large scale by USSR for the first time in 1954 by the Institut Okeanologii AN SSSR (The Institute of Oceanology of the AS USSR) in the north-western part of the Pacific Ocean and in 1957 - for the study of the bottom of the Sea of Japan. The research ship "Vityaz'" was especially built for this kind of research. Her equipment and instruments were devised by the Akusticheskiy Institut AN SSSR (the Institute of Acoustics of the AS USSR). The authors describe the results of these studies which were largely based on methods developed abroad /Ref. 9-23/, such as the study of reflected and refracted sound-waves produced by explosive charges dropped to the sea bottom. This way three strata were discovered on the bottom of the western

Card 1/2

The Structure of the Bottom of the Sea of Japan According to Data Obtained by the "Vityaz'" Expedition

part of the basin of the Sea of Japan. The first is a superficial sedimentary stratum 1 to 1.5 km thick. The second is an underlying basaltic stratum, 6.5 to 7.5 km thick. The third is composed of ultrabasalts . It was also found that the primary complex-tectonic relief of the Sea of Japan basin was covered by a thick smooth, sedimentary layer. There are 3 tables, 1 map, 4 diagrams, 7 graphs and 23 references, 8 of which are Soviet, 12 US, 1 Japanese and 2 English.

SUBMITTED: April 7, 1958

ASSOCIATION: Institut okeanologii AN SSSR (The Institute of Oceanology of the AS USSR)

1. Oceanography--Japan 2. Ocean bottom--Analysis 3. Seismic waves--Applications 4. Sonar--Applications

AUTHORS: Sysoyev, N. N., Udintsev, G. B., Andreyeva, I. B. 20-119-3-52/65

TITLE: The Results of Seismic-Acoustic Exploration of the Bottom of the Japan Sea (Rezul'taty seysmo-akusticheskikh issledovaniy dna Yaponskogo morya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 3, pp. 575-578 (USSR)

ABSTRACT: The two institutes mentioned below carried out the mentioned investigations on the ship "Vityaz" in 1957. The mentioned method contributed already (Refs. 1-3) to the collection of important material from various oceans. In the course of earlier works (Ref. 4) the main features of the tectonics of the Yaponskogo sea and the distribution of the ground deposits could be found out roughly. Therefore, it was of interest to continue these works. The seismic-acoustic investigations were carried out along 2 cross sections in vertical position to each other (Fig. 1). The working method corresponded in general to ref. 1. Explosions

Card 1/4