LAVRUKHINA, A.K.; KOURZHIM, V.; PILATOVA, L.V.

Determination of actinium in natural objects from the daughter product Fr^{223}. Radiokhimiia 1 no.2:204-207 '59. (MIRA 12:8)

(Actinium--Analysis) (Francium--Isotopes)

S/048/62/026/001/013/018
B125/B102

AUTHORS: Malysheva, T. V., Moskaleva, L. P., Chernov, G. M., Filateva, L. V.

TITLE: Study of neutron-deficient tantalum isotopes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 1, 1962, 125 - 126

TEXT: The authors studied the neutron-deficient tantalum isotopes that are formed in the spallation of gold by 660-Mev protons. 0.3 to 0.5 mg of metallic gold were irradiated for 30 - 60 min by the inner beam of the synchrocyclotron of the OIYaI and, after dissolution in aqua regia, extracted with ether. Tantalum was separated on an isotope carrier in the radiochemically pure form. Hafnium, the daughter, was separated from tantalum by 5 precipitations. The forming radioactive isotopes of tantalum and hafnium were identified from their γ-spectra by means of a scintillation γ-spectrometer with a 100-channel pulse analyzer (consisting of a ФЭУ-С (FEU-S)-photomultiplier with NaI crystal) and from the energy of β-radiation. Ta^{175} was observed in the spallation products of gold

Card 1/3

S/048/62/026/001/013/018
B125/B102

Study of neutron-deficient tantalum...

by measuring the activity in the hafnium specimens during three months. The decay curves indicate the existence of a component Hf^{175} with half life of 70 days. Three months after hafnium had been separated from tantalum 340- and 230-kev γ-lines of Hf^{175} (half life 10 ± 1hr) were observed. Hf^{173} with a half life of 24.5 hr detected in the daughter emits the 120- and 300-kev γ-lines. The tantalum activity consists of 4 main components with the half lives 1.2, 4, 12, and 53 hr. The existence of Ta^{173} in the spallation products of gold is confirmed by the half lives 4 and 12 hr. The papers (Ref. 4) published after the present experiments had been completed confirm the existence and the half life of the isotope Ta^{173} discovered by the author. There are 4 figures and 4 references: 1 Soviet and 3 non-Soviet. The three references to English-language publications read as follows: Ref. 1: Strominger D., Hollander J. M., Seaborg G. T., Revs. Mod. Phys., 30, 585, (1958); Ref. 2: Mihelich J. W., Harmatz B., Handley T. H., Phys. Rev., 114, 1082 (1959); Ref. 4: Faler K. T., Rasmussen J. O., Phys. Rev., 118, 265 (1960).

Card 2/3

Study of neutron-deficient tantalum... S/048/62/026/001/013/018
B125/B102

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences USSR)

V

Card 3/3

MALYSHEVA, T.V.; MOSKALEVA, L.P.; CHERNOV, G.M.; FILATOVA, L.V.

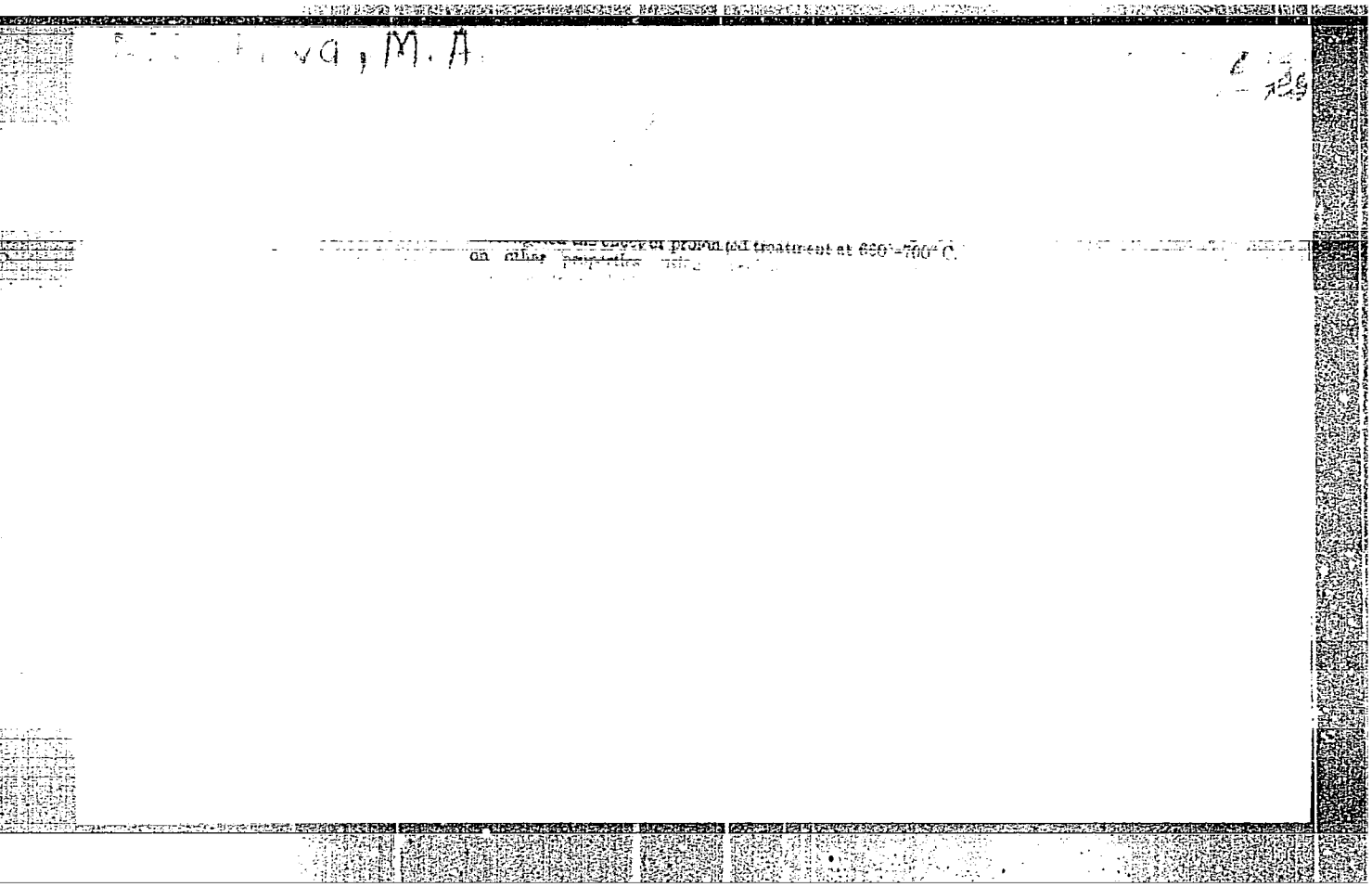
Study of neutron-deficient tantalum isotopes. Izv. AN SSSR. Ser. fiz. 26 no.1:125-126 Ja '62. (MIRA 15:2)

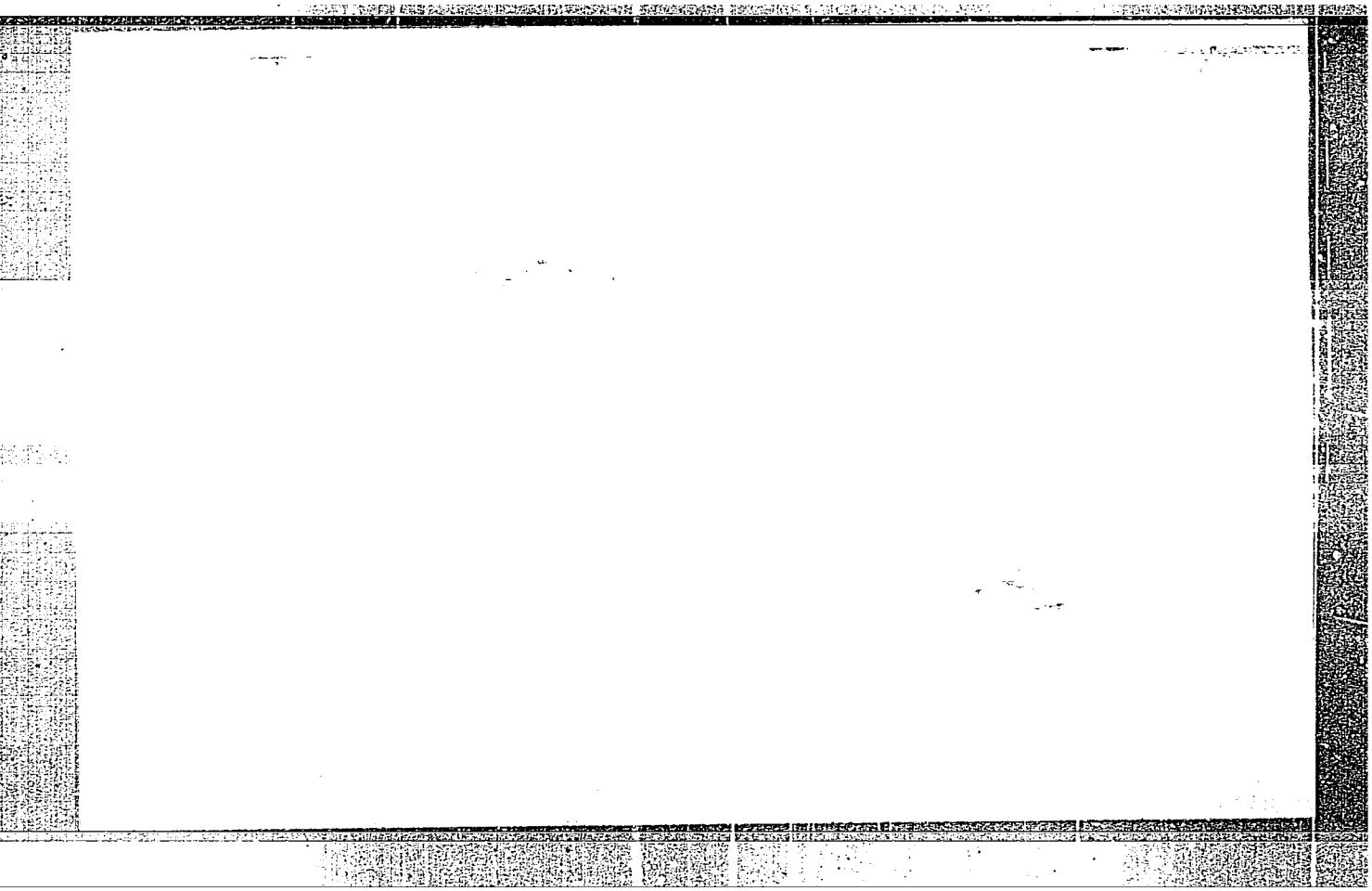
1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR.
(Tantalum—Isotopes)

FILATOVA, M.

Amateur movie makers in action. Starsh.-serzh. no.7:17 Jl '62. (MIRA 16:6)

(Amateur motion pictures) (Soldiers--Recreation)





APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413020018-2"

SOV/124-58-5-6125

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 156 (USSR)

AUTHOR: Filatova, M.A.

TITLE: Investigation of EI531-type Industrial Steel (Issledovaniye promyshlennoy stali EI531)

PERIODICAL: V sb.: Ispytaniya i svoystva zharoprochn. materialov. Moscow, Mashgiz, 1957, pp 130-139

ABSTRACT: Causes of crack formation in the first industrial batch of EI531-type of steel piping.

Reviewer's name not given

1. Steel--Analysis 2. Steel--Fracture
3. Pipes--Production

Card 1/1

137-1957-12-24141

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 179 (USSR)

AUTHORS: Slepak, E. S., Filatova, M. A.

TITLE: The Weld-joining of Steam Superheater Pipes Made of Different Steels (Svarnoye soyedineniye trub paroperegrevateley iz raznorodnykh staley)

PERIODICAL: V sb.: Ispytaniya i svoystva zharoprochn. materialov. Moscow, Mashgiz, 1957, 140-148

ABSTRACT: An investigation was made of the contact welding of 32 x 5.5 mm pipes made of austenitic steels EI 448 and EI 257 (OKh14N14 with 0.45 percent Mo and 1.6 percent W) to pipes of pearlitic steel 15 K_h M and EI 531 of the following chemical composition (in percent): C 0.08, Cr 2.46, Nb 1.26, Mo 0.5, V 0.36. A high-quality welded connection (WC) was obtained under the following conditions: An induction in the secondary circuit of 6.0-6.5 V, a heating time of 1.5-2 sec., an adjustment length for austenitic steel of 15 mm and for pearlitic steel of 40-45 mm, an allowance for flashing off of 6-6.5 mm, an average rate of fusion of 3-3.3 mm/sec, an allowance for the set of 5-5.5 mm, a setting with the current of 1.5-2 mm, a speed of set of 30 mm/sec, a pressure of set of

Card 1/3

137-1957-12-24141

Weld-joining of Steam Superheater Pipes Made of Different Steels

12-14 kg/mm^2. The quality of the WC was judged by mechanical tests for impact and bending at room temperature and by metallographic examination. The WC of pipes made of EI 448 and 15 KhM steels had an a_k of 14.4 kgm/cm^2 and a fold angle of 180°. The junction of the WC has a sharp boundary, and at temperatures > 700° and an exposure time of 10 hrs., a decarbonized zone appx. 0.5 mm wide appears in 15KhM steel and continues to grow to 1.5-2 mm if the exposure is kept up, while the a_k falls to 1.5-3 kgm/cm^2. The welding of EI 448 and EI 531 steels (the C in this type of steel is tied into carbides) produced a questionable WC; the sharp boundary between the steels does not disappear with heating up to 700-750° and an exposure of up to 50 hrs, but the WC becomes brittle and the a_k goes down to 3 kgm/cm^2. WC samples made of EI 257 and 15 KhM steels had an σ_b of 57 kg/mm^2, a fold angle of 180° and a_k of 13 kgm/cm^2. A boiler steam superheater was welded together out of such steels. WC's made of pipes of EI 257 and EI 531 steel were investigated at room temperature and at working temperatures of 400, 450, 500, 550, and 600°. The mechanical properties of the WC's were compared to the mechanical properties of the EI 531 steel. In testing the WC's the minimal

Card 2/3

137-1957-12-24141

The Weld-joining of Steam Superheater Pipes Made of Different Steels

value of a_k was 2 kgm/cm^2 at 20° and 12 kgm/cm^2 at 600° and the fold angle was 180°. The greatest a_k (of 12 kgm/cm^2) was obtained after 30 min of annealing at 700°. In the tensile test failure occured as for the EI 531 steel; the δ_5, ψ, and a_k of the WC are somewhat lower than in the basic EI 531 metal. The endurance of the WC is higher than for the EI 531 steel. The a_k of the WC increases at room temperature as a result of aging (long exposure at 600-700°) from 2 to 10 kgm/cm^2. A test of the WC for scale resistance demonstrated that the EI 531 steels belong to the group with lower resistance; the contact welding does not impair the corrosion properties of the EI 531 steel.

V. B.

1. Flash welding-Applications
2. Steel-Flash welding
3. Steam pipes-Flash welding

Card 3/3

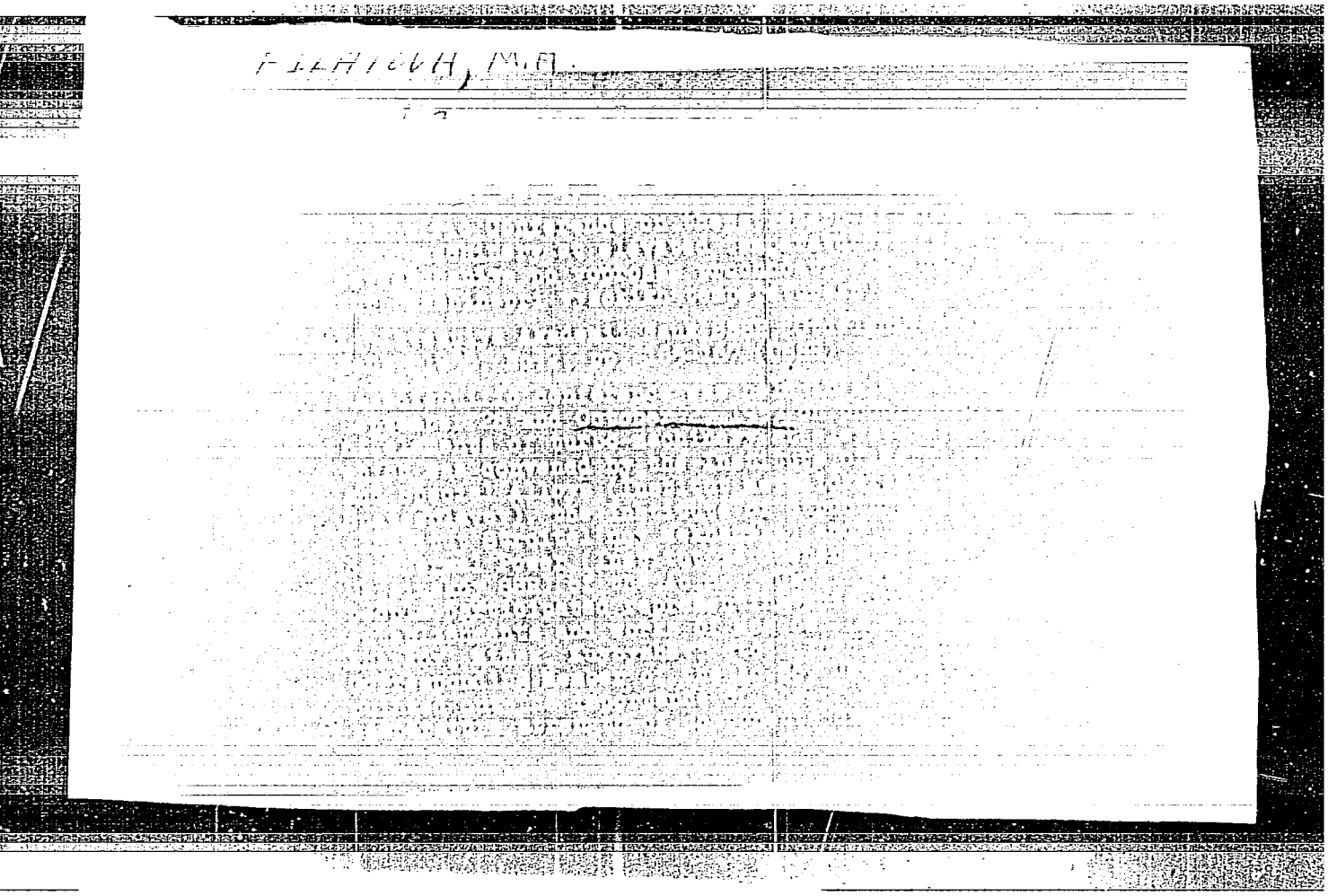
FILATOVA, M.A., inzhener.

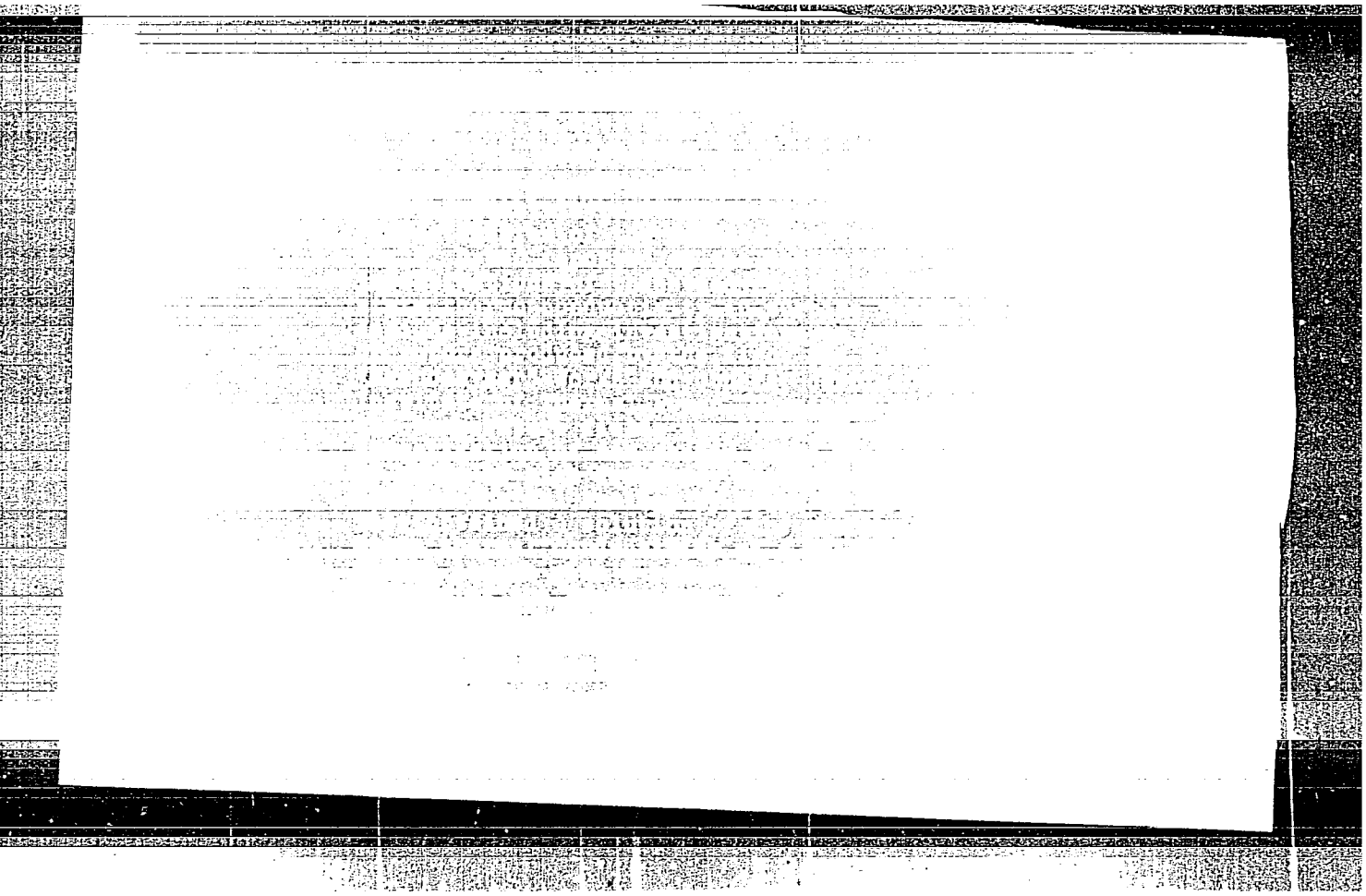
Investigating commercial MI531 steel. [Trudy] TSNIITMASH no.79:130-139 '57. (MLRA 10:6)
(Steel--Metallography)

FILATOVA, M. A.

SLEPAK, B.S., kandidat tekhnicheskikh nauk; FILATOVA, M.A., inzhener.

Welded joints in superheater tubes made of heterogenous steel.
[Trudy] TSNIITMASH no.79:140-1[illegible] '57. (MLRA 10:6)
(Superheaters--Welding) (Welding--Testing)





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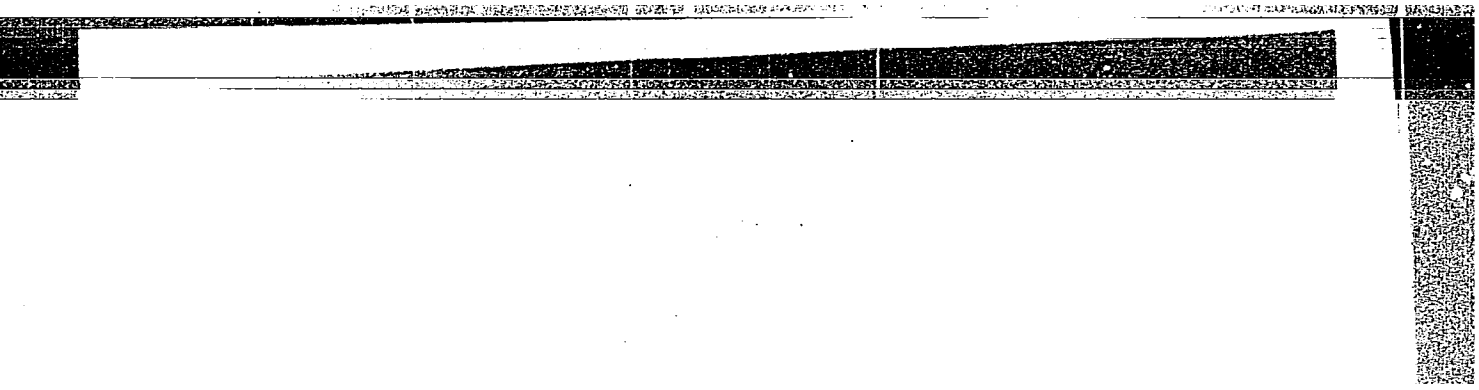

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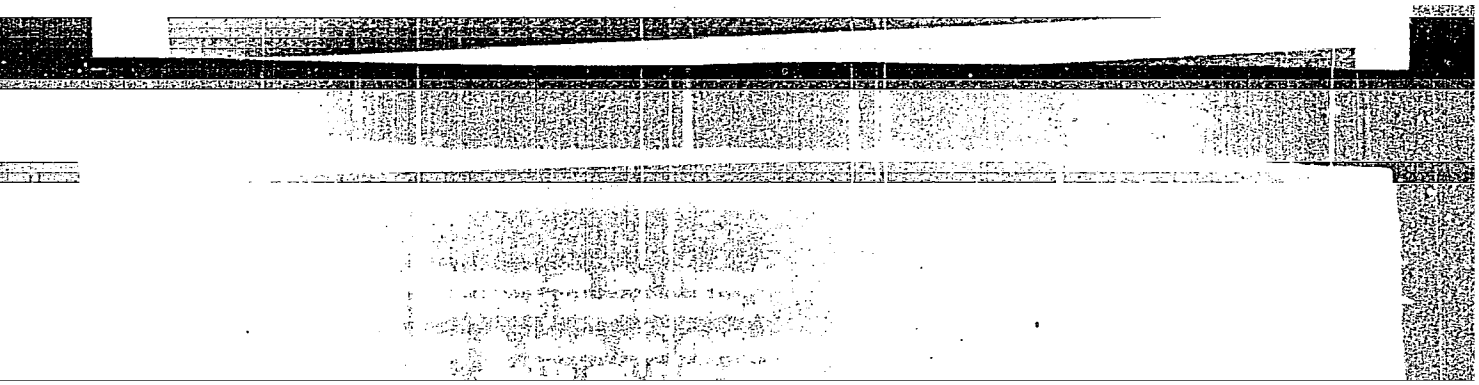

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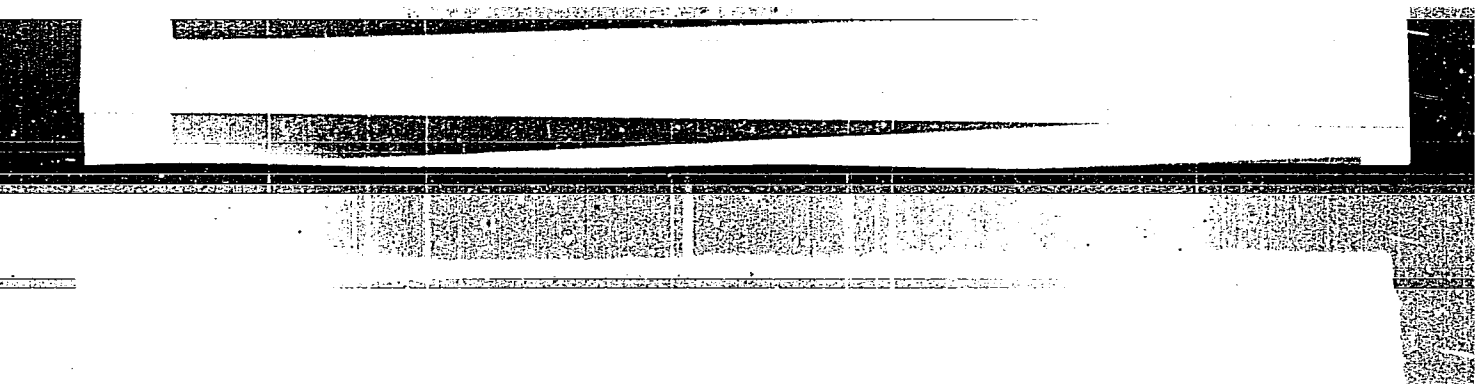

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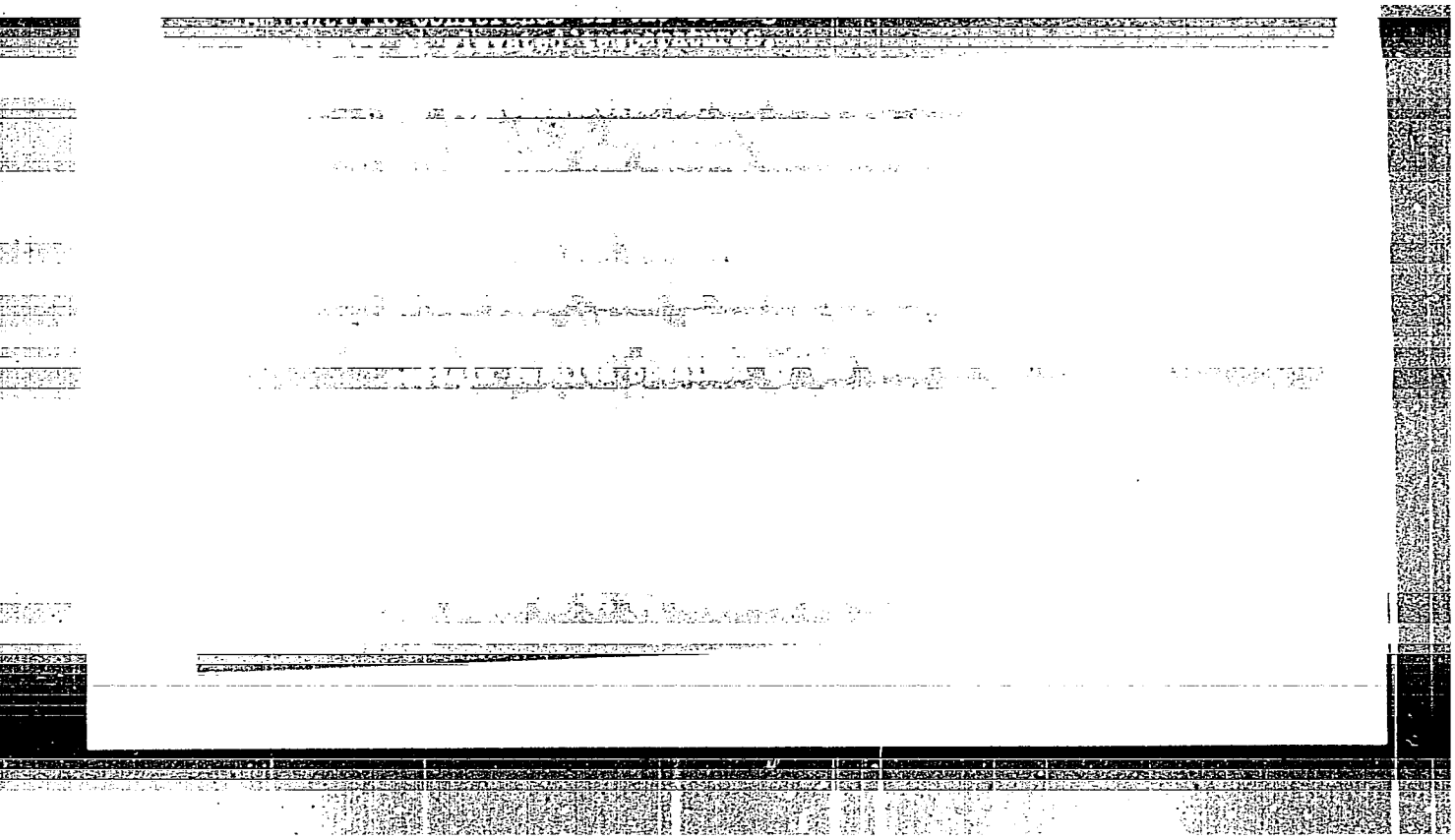

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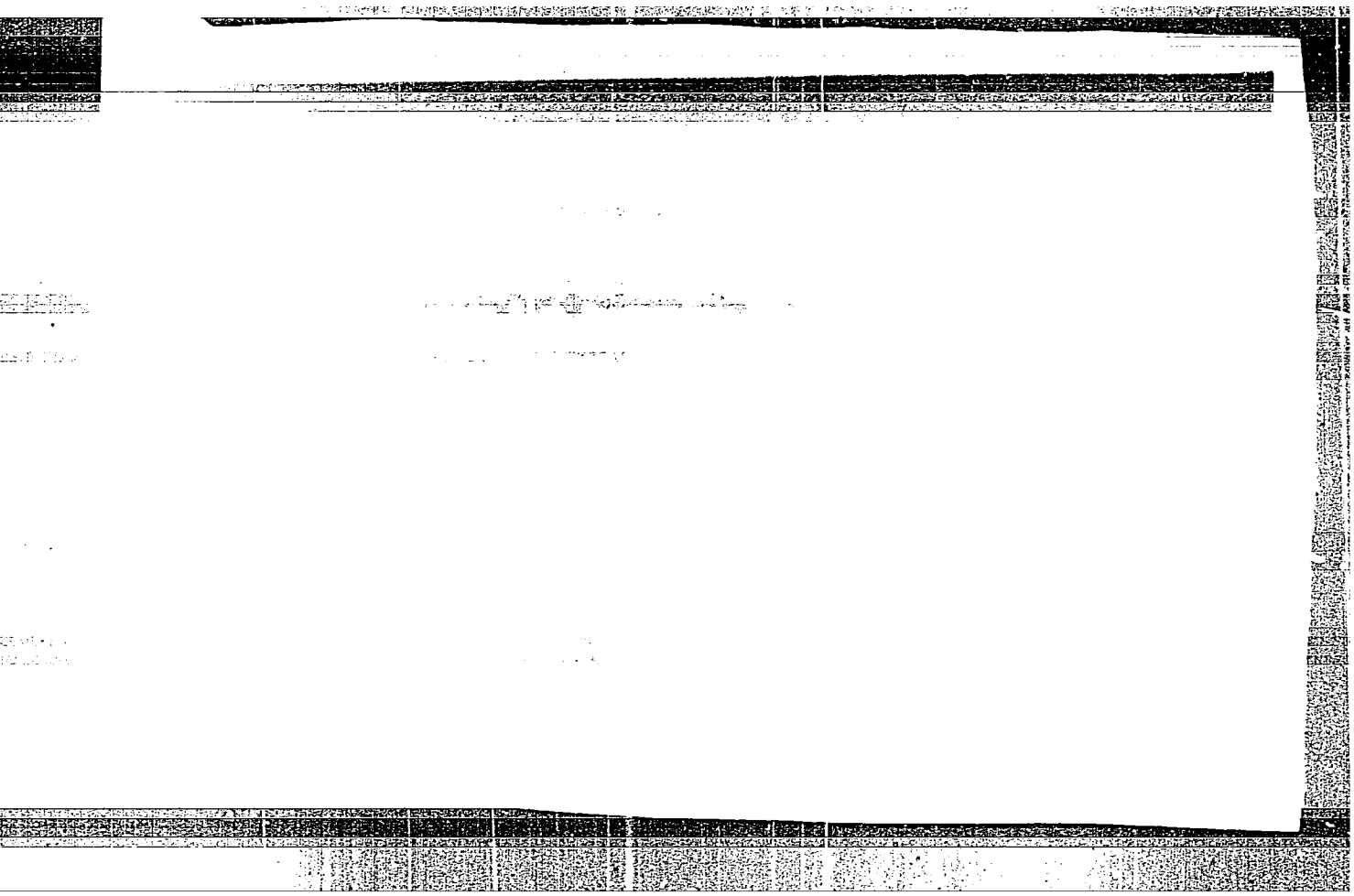

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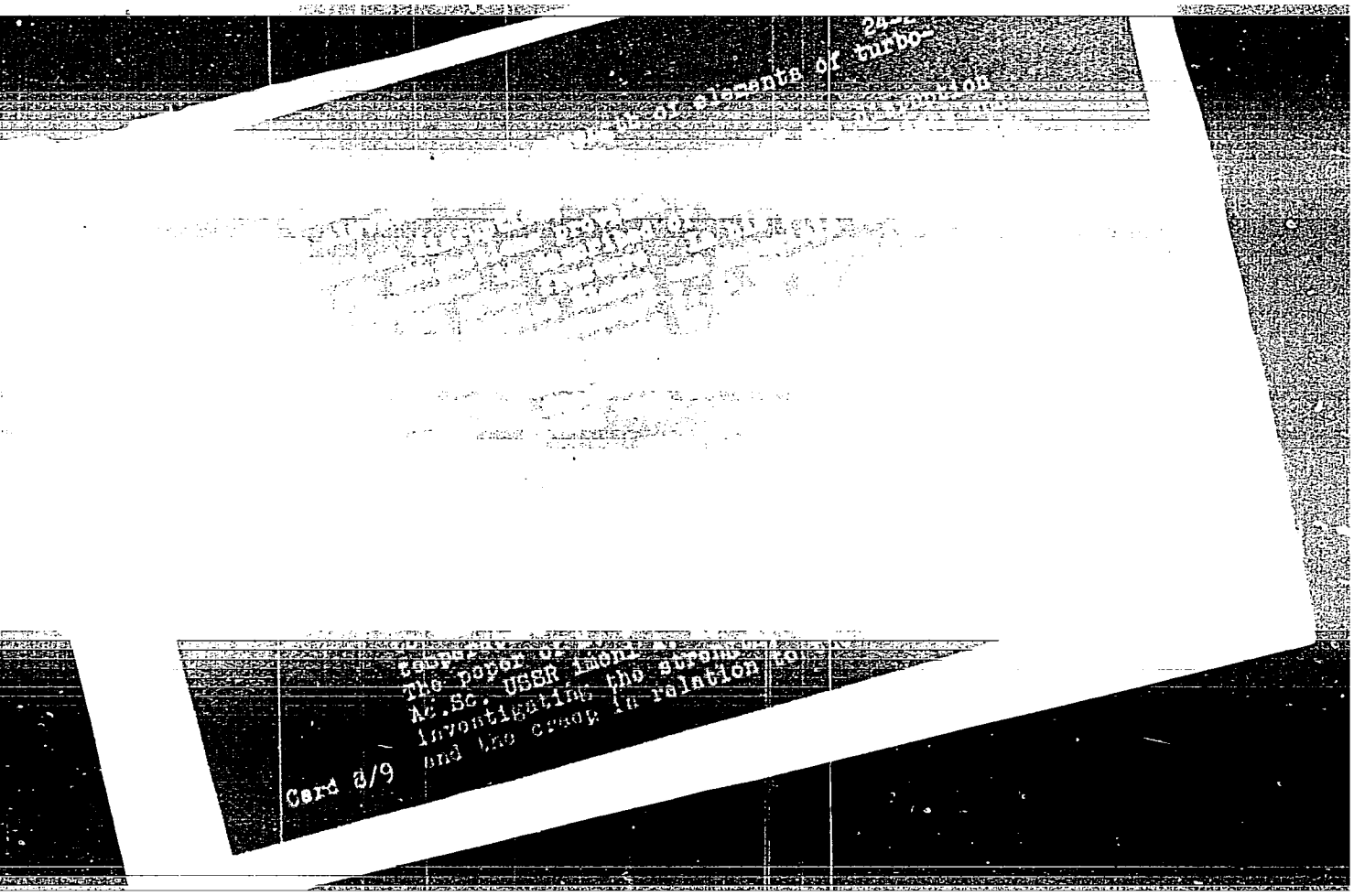
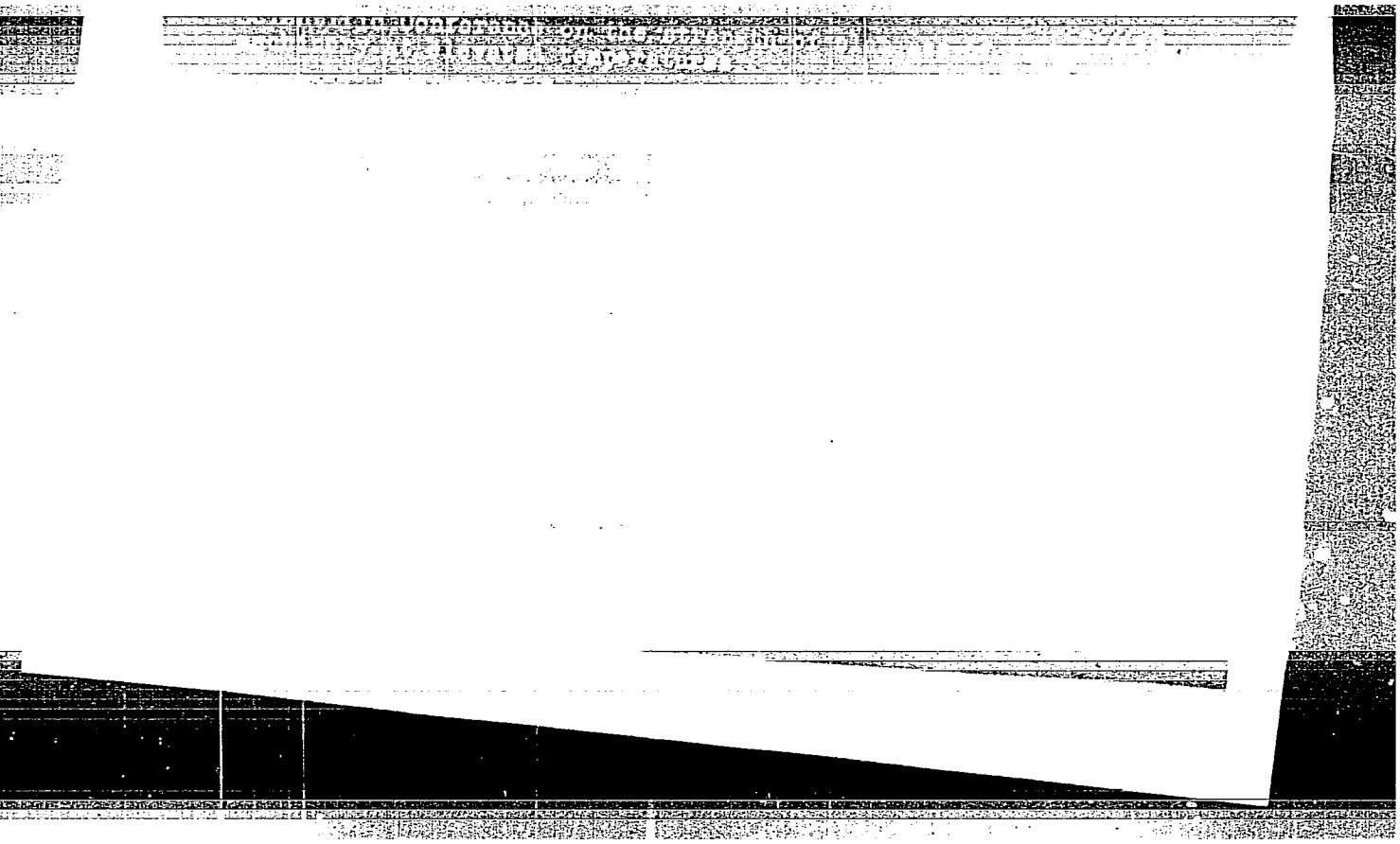




APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413020018-2"

PHASE I BOOK EXPLOITATION SOV/3559

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, t. 5 (Investigations of Heat-Resistant Alloys, Vol 5) Moscow, Izd-vo AN SSSR, 1959. 425 p. Errata slip inserted. 2,000 copies printed.

Ed. of Publishing House: V.A. Klimov; Tech. Ed.: I.F. Kuz'min; Editorial Board: I.P. Bardin, Academician, G.V. Kurdyumov, Academician, N.V. Ageyev, Corresponding Member, USSR Academy of Sciences (Resp. Ed.), I.A. Oding, I.M. Pavlov, and I.F. Zudin, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgical engineers, research workers in metallurgy, and may also be of interest to students of advanced courses in metallurgy.

COVERAGE: This book, consisting of a number of papers, deals with the properties of heat-resisting metals and alloys. Each of the papers is devoted to the study of the factors which affect the properties and behavior of metals. The effects of various elements such as Cr, Mo, and W on the heat-resisting properties of various alloys are studied. Deformability and workability of certain metals as related to the thermal conditions are the object of another study described. The problems of hydrogen embrittlement, diffusion and the deposition of ceramic coatings on metal surfaces by means of electrophoresis are examined. One paper describes the apparatus and methods used for growing monocrystals of metals. Boron-base metals are critically examined and evaluated. Results are given of studies of interatomic bonds and the behavior of atoms in metal. Tests of turbine and compressor blades are described. No personalities are mentioned. References accompany most of the articles.

Card 2/2

TSEYTLIN, V.Z., kand.tekhn.nauk; FILATOVA, M.A., inzh.; RYABCHENKOV, A.V., doktor khim.nauk prof.; MAKSIMOV, [illegible], inzh.

Investigating the properties of the pilot-plant produced EI765 alloy used for manufacturing gas turbin parts. [Trudy] TSNIITMASH 100:192-217 '59. (MIRA 13:7)
(Heat-resistant alloys)
(Gas turbines)

FILATOVA, M.A.; NEKRASOVA, R.P.; BEN'KOVSKIY, V.G.

Problem in locating spots where "dry" salts and water emulsions are forming. Khim.i tekh.topl.i masel 5 no.12:28-31 D '60.
(MIRA 13:12)

1. Institut khimii nefti i prirodnykh soley AN KazSSR.
(Petroleum--Desalting)

FILATOVA, M.A.; NEKRASOVA, R.P.; BEN'KOVSKIY, V.G.

Organic chlorides in petroleum fractions. Neftekhimia 1 no.3:350-352 My-Je '61. (MIRA 16:11)

1. Institut khimii nefti i prirodnykh soley AN KazSSR.

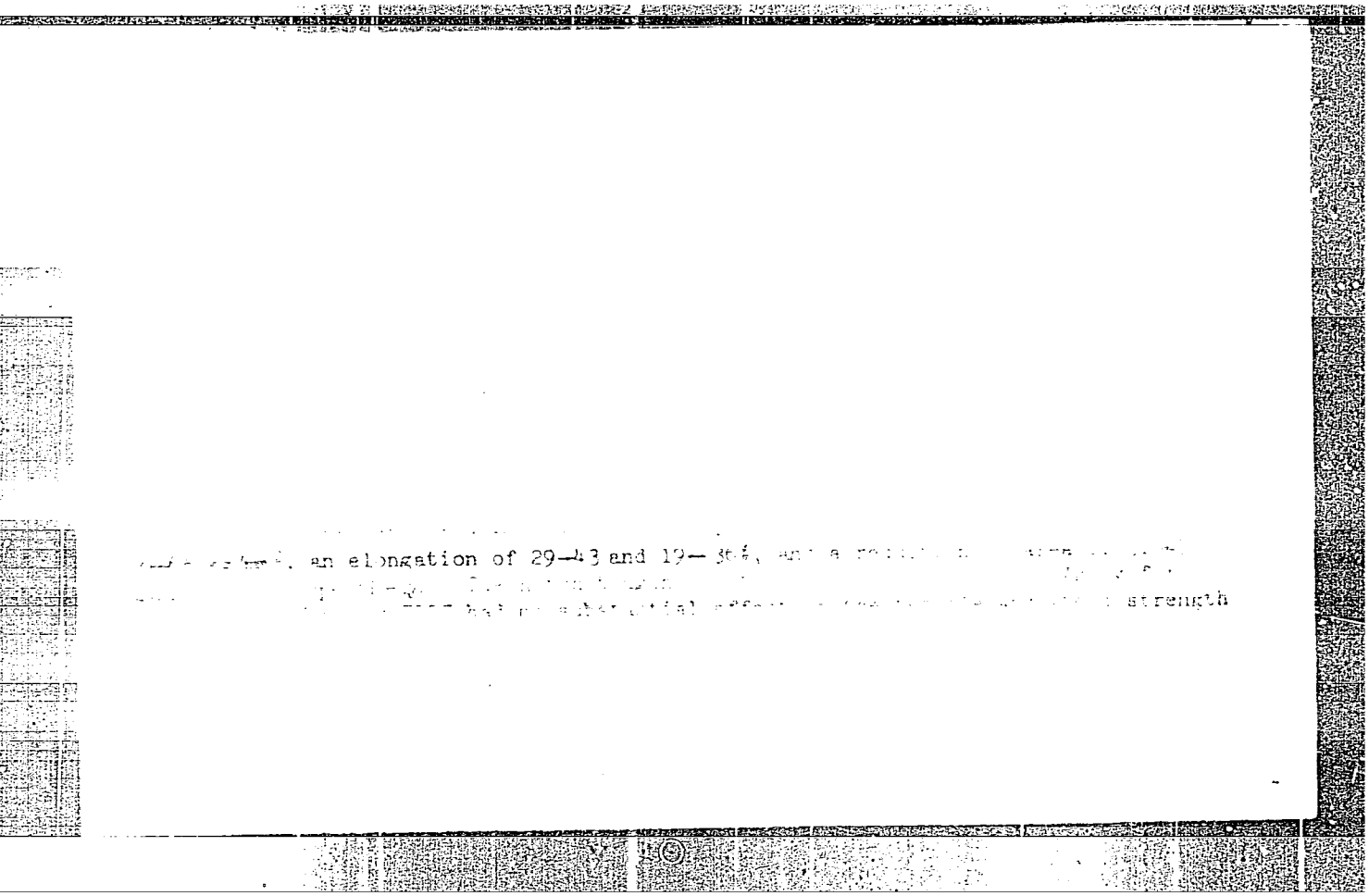
FILATOVA, M.A.; NIKITINA, S.A.; TAUBMAN, A.B.; REBINDER, P.A., akademik

Demulsifying effect of surface active agents and the structural and mechanical properties of their adsorption layers. Dokl. AN SSSR 140 no.4:874-876 O '61. (MIRA 14:9)

1. Institut fizicheskoy khimii AN SSSR.
(Surface active agents) (Emulsions)

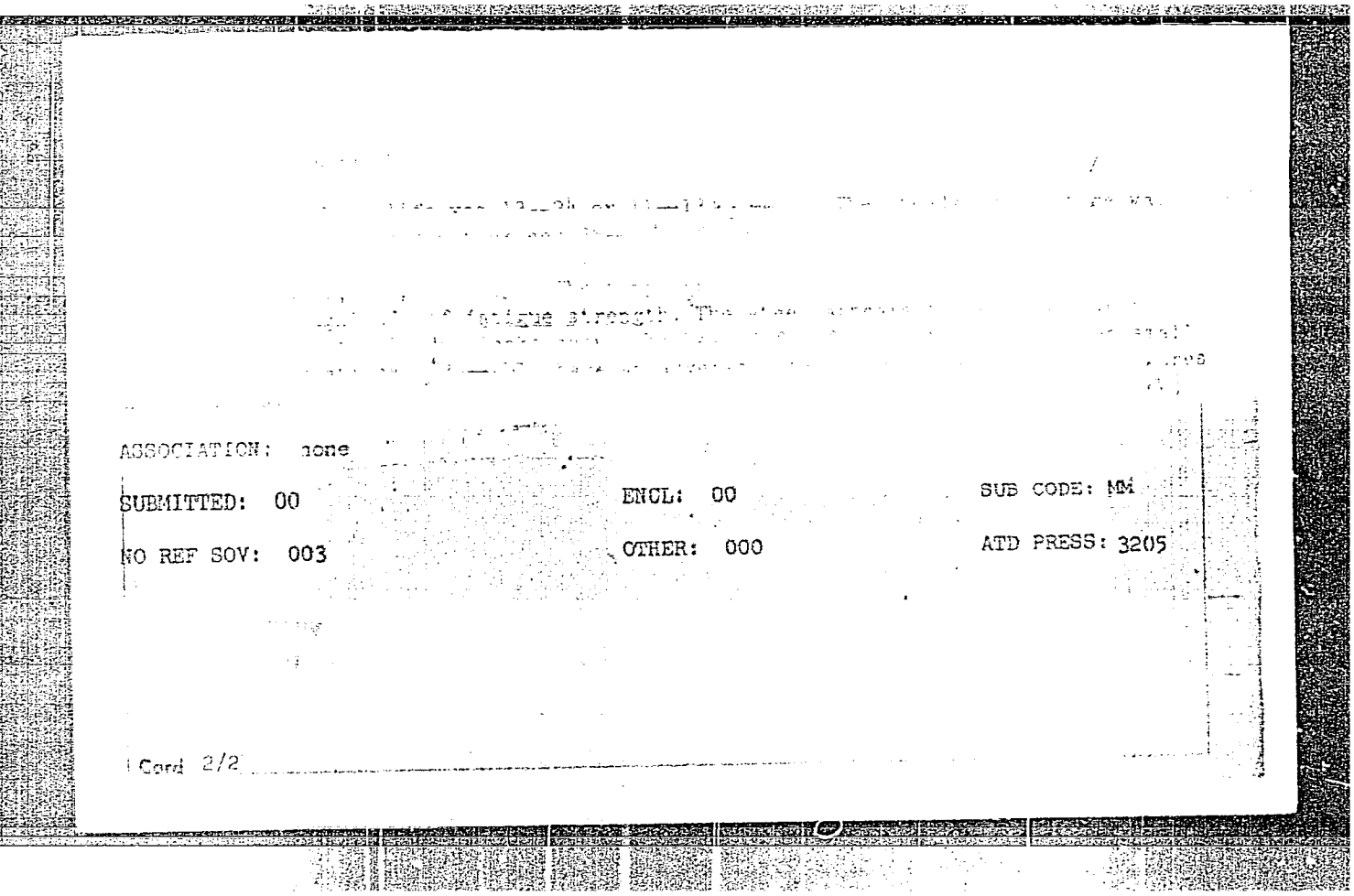
SHERGILOV, N.V.; MARDANENKO, V.P.; FILATOVA, M.A.; BEN'KOVSKIY, V.G.

Overalkalinity of kerosine-gas oil distillates. Khim. i tekh. topl. i masel 7 no.10:36-41 0'62 (MIRA 17:7)



an elongation of 29—43 and 19—

strength



ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 003 OTHER: 000 ATD PRESS: 3205

Card 2/2

L 01045-66 EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b) IJP(c)
[illegible]/JD/HW/EM/MJW(CL)
ACCESSION NR: AP5018873 UR/0096/65/000/008/0050/0052
546.3-19:621.438.004.12

AUTHOR: Filatova, M. A. (Engineer); Kuz'mina, G. T. (Engineer)

TITLE: EI765L cast heat-resistant alloy

SOURCE: Teploenergetika, no. 8, 1965, 50-52

TOPIC TAGS: nickel base alloy, cast alloy, heat resistant alloy, alloy heat resistance, alloy property/EI765L alloy

ABSTRACT: EI765L alloy, a cast modification of EI765 heat-resistant nickel-base alloy, has been developed. Annealed at 1150C for 3 hr, oil quenched, aged at 800C for 20 hr and air cooled, the alloy has a tensile strength of 72.5—76.1 kg/mm^2 and an elongation of 8—12.7% at 20C, and 64.6—66.6 kg/mm^2 and 10.1—19.2%, respectively, at 750C. The 10,000 hr rupture strength at 750C is 20 kg/mm^2, which exceeds considerably that of cast austenitic steels E787L and TsZh11R and that of nickel alloys TsZh6, TsZh16 and EI607 AL. No signs of embrittlement were observed after 6500 hr at 750C under a stress of 22 kg/mm^2. The alloy fatigue strength at 750C is 28 kg/mm^2 (N = 10^8 cycles), which is roughly the same as that of the wrought materials used for gas-turbine blades. Prolonged holding at high temperature increases the

Card 1/2

L 01045-66

ACCESSION NR: AP5018873 6

content of the strengthening γ-phase. After aging at 800C for 5000 hr, hardness and notch toughness remained at the original level: 270 kg/mm^2 and 1.5 kgm/cm^2, respectively. The fluidity of the alloy is close to that of 30L steel, and the resistance to hot cracking is higher. Thus, EI765 cast alloy can be used for parts operating for a long time at temperatures up to 750C. Orig. art. has: 2 figures and 2 tables. [ND]

ASSOCIATION: TsNIITMASh 44,55

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 000 ATD PRESS: 4068

Card 2/2 OP

PILATOVA, M.A., inzh.; KUZ'MINA, O.T., inzh.

Heat-resistant E1765L foundry alloy. Teploenergetika 12 no.8: 50-52 Ag '65. (MIRA 18:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya.

L 05706-67 EWT(m)/EWP(k)/EWT(d)/EWT(m)/T/EWP(l)/EWP(w)/EWP(f)/EWP(v)/[illegible]

ACC NR: AP6029621 (N) SOURCE CODE: UR/0114/66/000/008/0026/0029

IJP(c) EM/WW/WE/JD/WB

AUTHOR: Filatova, M. A. (Engineer); Kuz'mina, G. T. (Engineer)

ORG: none

TITLE: Changes in the structure and properties of EI765, EI893 and EI827 alloy blades operating in an experimental gas turbine

SOURCE: Energomashinostroyeniye, no. 8, 1966, 26-29

TOPIC TAGS: alloy, oxidation resistance, heat resistant alloy, nickel chromium alloy, aluminum containing alloy, titanium containing alloy/EI765 ~~nickel chromium~~ alloy, EI893 ~~nickel chromium~~ alloy, EI827 ~~nickel chromium~~ alloy

ABSTRACT: The performance of EI765, EI893 and EI827 alloy blades has been tested for up to 3000 hr at 750—800C in an experimental gas turbine using diesel fuel containing 0.3—0.6% sulfur. It was found that during the test, an oxide film up to 1 mm thick and consisting of $NiO\cdot Cr_2O_3$ spinel and chromium oxide formed on the surface of the blades. The oxide layer tightly adhered to the metal in all the blades tested, without peeling or cracking, except for one EI827 alloy blade in which a crack in the oxide layer was observed after 1220-hr run at 750C. Due to the outward diffusion of alloying elements from the metal, the content of chromium, aluminum and titanium in the metal surface dropped sharply, in some cases more than 50%, bringing about a softening of the surface layer, with a microhardness drop from the initial

Card 1/2 UDC: 62-226.2.621.438.001.42

L 05708-67

ACC NR: AP6029621

425—500 kg/mm^2 to 300—350 kg/mm^2 after 700—1000 hr of operation at 800C. The diffusion took place mainly at the beginning of the test, and the duration of exposure at 750—800C had little or no effect on the chemical composition of the metal surface layer. After 2000-hr operation at 750C, the strength of EI765 and EI827 alloys decreased insignificantly, but the elongation dropped by about 30%. After 1500 hr operation at 800C, the mechanical properties of the alloys decreased by about 60%. The most heat-resistant EI827 alloy was found to be less oxidation-resistant than EI893 and EI765 alloys and the oxide film of the former alloy was 4—5 times thicker than that of the latter alloys. Such deep penetration of the oxide layer into the body of the blade may result in a premature failure, particularly in turbines which have to stop frequently, such as transport and peak gas turbines. In order to improve the service life of gas-turbine blades, the problem of their oxidation-resistance should be studied further. Orig. art. has: 5 figures and 3 tables. [TD]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5069

Card 2/2

S/590/62/105/000/013/015
I031/I242

AUTHORS: Tseytlin, V.Z., Candidate of Technical Sciences and Filatova, M.A., Eng.

TITLE: Effect of varying content of aluminum and titanium on some properties of Ni-Cr-Al-Ti alloys

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya. Trudy. v.105, 1962, 190-196

TEXT: Aluminum is the chief element, beside nickel, which influences the formation of a hardening intermetallic α' phase. Its presence favors an increase in the number of crystals and thus retards their coagulation. Titanium dissolves in large

Card 1/2

S/590/62/105/000/013/015
I031/I242

Effect of varying content of ...

amounts of aluminum, and in nickel it forms the intermetallic phase Ni_3Ti. Twelve Ni-Cr-Al-Ti alloys with Al content varying from 2 to 4% and Ti- from 0 to 1.5% were tested. The hardness and short-term tensile properties improved with the increase of the Al content from 2 to 4%, while the Ti content remains under 1%. At the same time a loss in ductility and impact strength was observed. An increase of Al content from 2 to 4% improved the relaxation characteristic, while no effect of Ti contained in an alloy with 3-4% Al could be observed. An increase in Al and Ti content generally improves the stress-rupture behavior. The effect of Al is much more marked, as the strenthening is due to the development of the phase $Ni_3(Al,Ti)$ which is affected by the concentration of aluminum. There are 6 figures and 3 tables.

Card 2/2

S/590/62/105/000/014/015
I031/I242

AUTHORS: Filatova, M.A., Eng. and Berezhkovskiy, D.I., Eng.

TITLE: Properties of large forgings for fastenings made of the alloy ЭИ 765 (EI 765)

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya. Trudy. v.105, 1962, 197-208

TEXT: Selection of a suitable steel for bolting material in high-pressure power equipment is a difficult task. At present, a high-temperature Ni-Ci alloy of EI765 type, with high relaxation and stress-rupture resistance, is temporarily used for fatenings in steam turbines at working temperatures of 565-600°C. Samples,

Card 1/3

S/590/62/105/000/014/015
I031/I242

Properties of large forgings...

175 mm and 250 mm in diameter and up to 2 m long, were forged and heat-treated. Before heat-treatment the specimens showed a fine-grain, homogeneous microstructure with areas of positive segregation. The outer surface of heat-treated specimens revealed recrystallized coarse grains. The presence of twins and numerous slip planes indicates the cold-work deformation in these areas. A spectrum analysis showed that the zone of segregation is caused by localized concentration of titanium (1.45%). Mechanical properties were checked on longitudinal specimens. The short-term strength and ductility of large forgings were satisfactory, though less so than those of small forgings. The behavior of the steel was not affected by the diameter of forgings. The stress-rupture strength, though 5 Kg/mm^2 less than that of the small diamter forgings, was

Card 2/3

S/590/62/105/000/014/015
I031/I242

Properties of large forgings...

52 kg/mm^2 at 565°C for 100 000 hrs. The presence of a notch apparently has little effect on the stress-rupture strength of the tested forgings. There are 9 figures and 5 tables.

Card 3/3

S/590/62/105/000/015/015
I031/I242

AUTHORS: Tseytlin, V.Z., Candidate of Technical Sciences, Filatova, M.A., Eng. and Smirnova, V.A., Eng.

TITLE: Long-term (up to 17 000 hrs) testing of the heat resistance of the alloy ЭИ 765 (EI765)

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya. Trudy. v.105, 1962, 209-216

TEXT: The results of a stress-rupture test carried out for 17 000 hrs at 700°C and for 10 000 hrs at 750°C coincide, on the whole, with the results obtained by extrapolation in previous investigations. The specimens, machined from an electric-arc melt, yielded somewhat higher results than predicted, while in-

Card 1/2

Long-term (up to 17 000 hrs) testing...

duction-fused-specimens fell short of the extrapolated results. Metallographic inspection of ruptured specimens revealed intergranular fractures. Side surface of specimens tested for 10 000 hrs at 850°C were depleted of the main α'-phase elements, Al and Ti. A microscopic inspection revealed a considerable amount of precipitations, mainly titanium carbonitrides, located at the grain boundaries. At magnification of x 7500, the particles of the α'-phase were also seen. At 800°C, after 10 000 hrs, α'-phase particles may be seen at a magnification of x 1500, and at 850°C at a magnification of x 500. The time factor plays a decisive role in the growth of α'-phase particles, especially at their dissolution temperature. The structured changes in the EI765 alloy consist of the growth of α'-phase particle and fluctuations in their quantity. No new phases were found, hence the great stability of the EI765 alloy. There are 5 figures and 4 tables.

Card 2/2

BEN'KOVSKIY, V.G.; GAFAROVA, N.A.; DZHANAKHMETOVA, Zh.K.; FAKHRUTDINOVA, D.I.; FILATOVA, M.A.

Obtaining surface-active agents from petroleum products. Trudy Inst. nefti AN Kazakh.SSR 4:179-186 '61. (MIRA 16:4)
(Petroleum products) (Surface-active agents)

SHVACHKIN, Yu.P.; FILATOVA, M.P.; SYRTSOVA, L.A.

Synthesis of the pyr[illegible]ine analog of m-tyrosine. Vest.Mosk.un.-Ser.2:Khim. 18 no.2:55-57 Mr-Ap '63. (MIRA 16:5)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
(Pyrimidinealanine) (Tyrosine)

SHVACHKIN, Yu.P.; SYRTSOVA, L.A.; FILATOVA, M.P.

Potential antimetabolites. Part 6: Synthesis of [illegible]-(4-hydroxy-2-pyrimidinyl)-alanine. Zhur. ob. khim. 33 no.8:2487-2493 Ag '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.

FILATOVA, M.P., starshiy nauchnyy sotrudnik

Peculiarities of the maintenance of residential buildings erected on sagging soils. Sbor.nauch.trud.RNII AKKH no.2:155-161 '63. (MIRA 18:10)

FILATOVA, M.P.

Basic problems of the maintenance of residential houses on sagging ground. Nauch. trudy AKKH no.31:53-59 '64.
(MIRA 18:9)

BAYSTRYUCHENKO, L.V.; FILATOVA, M.V., KOCHETOV, V.V., redaktor; TIMOKHINA, V.I., redaktor; BARSUKOVA, Yu.V., tekhnicheskiy redaktor

[Paints and patterns for toys] Okraska i rospis' igrushek. Sost. L.V.Baistriuchenko i M.V.Filatova. Pod obshchei red. V.V.Kochetova. Moskva, Vses. kooperativnoe izd-vo, 1956. 94 p. (MIRA 9:8)

1. Nauchno-issledovatel'skiy institut igrushki.
(Painting, Industrial) (Toys)

SEREBRYAKOVA, Z.G.

15(4) SOV/63-4-1-21/31

AUTHOR: Serebryakova, Z.G.

TITLE: Conference on the Application of Textile-Auxiliary Substances in the Industry of Chemical Fibers (Soveshchaniye o primenenii tekstil'no-vspomogatel'nykh veshchestv v promyshlennosti khimicheskikh volokon)

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 1, pp 130-131 (USSR)

ABSTRACT: The section for artificial fibers of the All-Union Chemical Society imeni D.I. Mendeleyev organized a conference in Moscow on the application of textile-auxiliary substances in the industry of chemical fibers. It was attended by more than 200 representatives of plants, scientific research institutes, the State Plan Commission of the USSR, the Scientific Technical State Committee, the State Committee for Chemistry, the National Economic Councils, and by scientists of the German Democratic Republic. The conference heard the following reports: Z.G. Serebryakova (VNIIV) on the characteristic of different textile-auxiliary substances and the fields of their application in the industry of artificial and synthetic fibers; K.G. Mizuch (NIOPiK)

Card 1/3

on investigations on the development of the assortment of textile-auxiliary substances; A.Yu. Rabinovich on the synthesis of surface-active substances and the detergents made from them; P.M. Panov (Chemical Plant imeni Baturin) on the perspectives of producing textile-auxiliary substances at the Chemical Plant imeni Baturin; D.Ts. Kanter (VNIIV) on the application of auxiliary substances in the dying of chemical fibers by means of introducing the dyes into the spinning solutions; Ye.F. Filinkovskaya (VNIIV) on the study of the effect of textile-auxiliary substances on the physical-mechanical properties of rayon; V.M. Rybakova (TsNIKhB) on the effect of different emulsions of textile-auxiliary substances on the processing of artificial and synthetic staple fiber in cotton-spinning equipment; M.V. Filatova (TsNIIsherst) on the protective methods against static electricity during processing of wool and artificial fibers in wool-spinning equipment; P.A. Polonik (TsNIIshelk) on the relation between the electrifiability of different fibers and the tensions arising during their processing; Engineer G. Tille (German Democratic Republic) on the application of textile-auxiliary substances in the production of artificial and synthetic

Card 2/3

fibers. During the discussion it was learned that the industry of artificial fibers has not the necessary assortment of textile-auxiliary substances which is due to a lack of production capacities, of theoretical investigations and of the experimental base for synthesizing and testing auxiliary substances. The exchange of information is also insufficient.
The following associations are mentioned in the article: Vsesoyuznoye khimicheskoye obshchestvo imeni D.I. Mendeleyeva (All-Union Chemical Society imeni D.I. Mendeleyev). Gosplan SSSR (State Plan Commission of the USSR). Gosudarstvennyy komitet po khimii (State Committee for Chemistry). VNIIV. NIOPiK. VNIIZh. Khimicheskiy zavod imeni Baturina (Chemical Plant imeni Baturin). TsNIKhB. TsNIIsherst (Central Scientific Research Institute of Wool). TsNIIshelk (Central Scientific Research Institute of Silk). CNTK.

Card 3/3

FILATOVA, M.V., inzh.

Development of the technology for the production of nonwoven fabrics by means of fiber bonding. Nauch.-issl.trudy TSNIISherstI no.16:91-96 '61. (MIRA 16:11)

AVIROM, S.M., kand. tekhn.nauk, nauchn. sotr.; GLOTSER, L.[illegible], kand. tekhn.nauk, nauchn. sotr.; CORELIK, S.A., kand. tekhn. nauk, nauchn. sotr.; LEYTES, L.G., kand. tekhn. nauk, nauchn. sotr.; PLATONOVA, Ye.I., nauchn. sotr.; [illegible], kand. tekhn. nauk, nauchn. sotr.; Priymali uchastiye:ZOTOV, V.A., nauchn. sotr.; FILATOVA, M.V., nauchn. sotr.; NIKITIN, G.N., nauchn. sotr.; ROMASHOV, A.I.; GODINER, F.Ye., red.

[Recovery and use of secondary wool in consumers' goods] Poluchenie i primenenie vtorichnoi shersti v izdeliiakh narodnogo potrebleniia. [By] S.M.Avirom i dr. Moskva, Izd-vo "Legkaia industriia," 1964. 260 p. (MIRA 17:5)

1. Nachal'nik pryadil'nogo tsekha Pushkinskoy fabriki No.13 (for Romashov).

FILATOVA, N.A.

Temperature dependence of the mechanical properties of porous iron. Porosh.met. 2 no.1:34-36 Ja-F '62. (MIRA 15:8)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
(Metal powders--Thermal properties)

FILATOVA, N.A.; SLEPTSOVA, N.P.; VOYDENOV, I.I.

Use of ceramic metal plates in instrument manufacture. Porosh. met. 2 no.4:100-104 Jl-Ag '62. (MIRA 15:8)

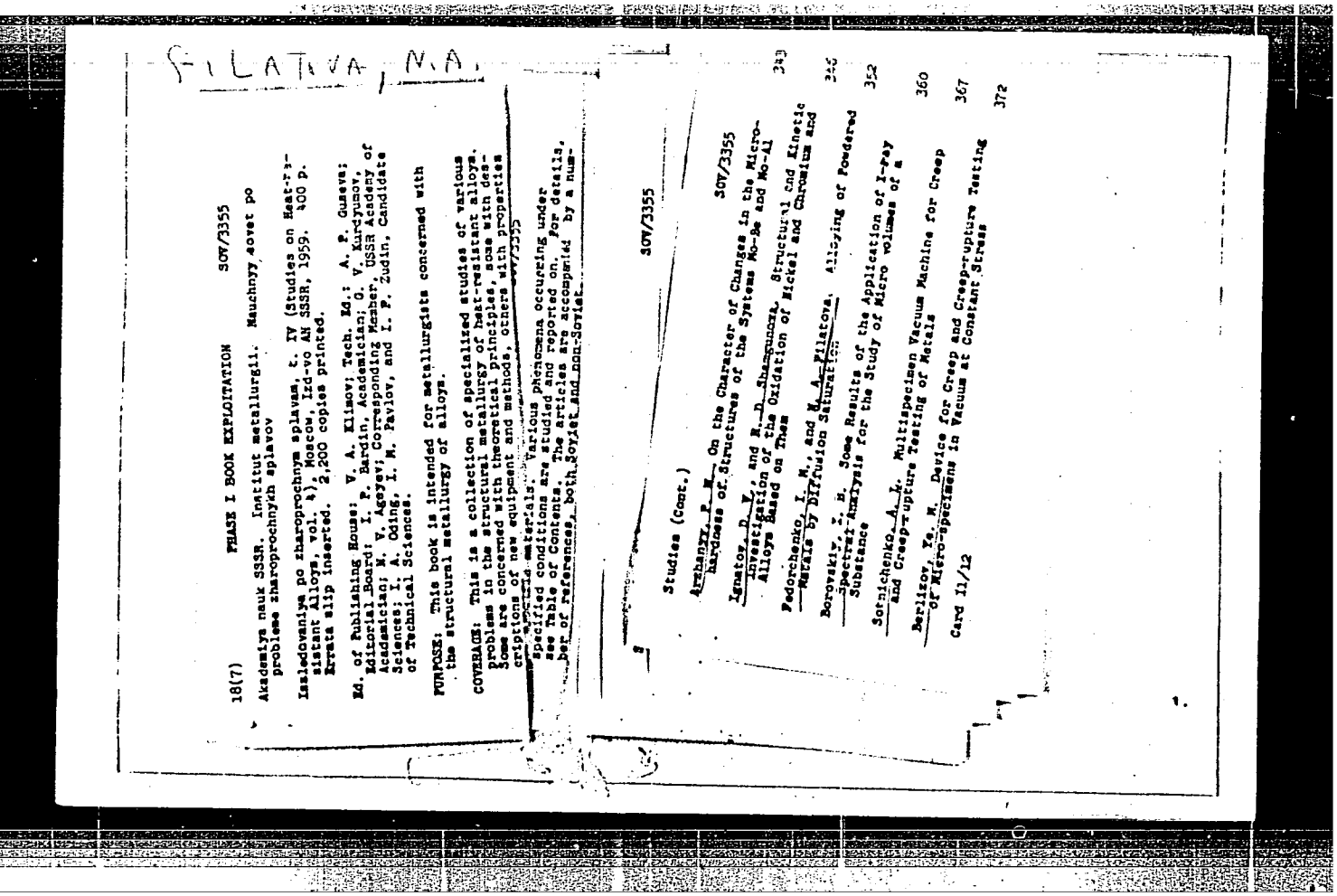
1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
(Instrument manufacture) (Ceramic metals)

FEDORCHENKO, I.M., akademik; DRAYGOR, D.A. [Draihor, D.A.]; FILATOVA, N.A. [Filatova, N.O.]; KHIMICH, G.S. [Khimich, H.S.]; AFANAS'YEV, V.F. [Afanas'iev, V.F.]

Investigating the wear of ceramic metal materials in various gaseous media. Dop. AN URSR no.9:1168-1172 '64.

(MIRA 17:11)

1. Institut problem materialovedeniya AN UkrSSR. 2. AN UkrSSR (for Fedorchenko).



FILATOVA, N.A.

18(7) PHASE I BOOK EXPLOITATION SOV/3355

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po problem zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, t. IV (Studies on Heat-Resistant Alloys, vol. 4), Moscow, Izd-vo AN SSSR, 1959. 400 p. Errata slip inserted. 2,200 copies printed.

Ed. of Publishing House: V. A. Klimov; Tech. Ed.: A. P. Gusev; Editorial Board: I. P. Bardin, Academician; G. V. Kurdyumov, Academician; N. V. Ageyev, Corresponding Member, USSR Academy of Sciences; I. A. Oding; I. N. Pavlov, and I. P. Zudin, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgists concerned with the structural metallurgy of alloys.

COVERAGE: This is a collection of specialized studies of various problems in the structural metallurgy of heat-resistant alloys. Some are concerned with theoretical principles, some with descriptions of new equipment and methods, others with properties of specific materials. Various phenomena occurring under specified conditions are studied and reported on. For details, see Table of Contents. The articles are accompanied by a number of References, both Soviet and non-Soviet.

SOV/3355

Studies (Cont.)

Arkharov, P. M. On the Character of Changes in the Hardness of Structures of the Systems Mo-Be and Mo-Al 339

SOV/3355

Ignatov, D. V., and N. D. Shamgunova. Investigation of the Oxidation of Structural and Kinetic Alloys Based on Them 343

Fedorchenko, I. M., and N. A. Filatova. Structural and Chromium and Metals by Diffusion Saturation 346

Borovskiy, I. B. Some Results of the Application of X-ray Spectral Analysis for the Study of Micro volumes of a Substance 352

Sorokhtenko, A. K. Multispecimen Vacuum Machine for Creep and Creep-rupture Testing of Metals 360

Berlisov, Yu. M. Device for Creep and Creep-rupture Testing of Micro-specimens in Vacuum at Constant Stress 367

Card 11/12 372

Comparative study of the properties of iron powders. I. M. Fedorchenko, N. A. Pilatova, and [illegible]. *Voprosy Poroshkovoi [illegible] Metallov, Akad. Nauk Ukr. S.S.R.* 1956, No. 3, 81–[illegible].—The powders prepd. by grinding (I), by reduction with [illegible]

[illegible] Si 0.017, [illegible] S 0.023%, P [illegible]; II contains [illegible] total Fe, FeO [illegible], C 0.05%, Mn 0.[illegible], Si 0.051%, S 0.00[illegible], and P 0.011%; I contains 98.0% total Fe, FeO 1.[illegible], C 0.08%, Mn 0.43%, Si 0.05%, S 0.0[illegible]%, and P 0.01[illegible]%. The bulk d. (g./cc.) are, resp.: I 2.5, II 1.7, III 2.2. When 100 g. of powder were placed in a 60° cone glass funnel with 10 × 3 mm. stem, the respective flow rates (g./sec.) were: I 25, II 8.9, III 27. The microhardness (kg./sq. mm.) were, resp.: I, 146.06, II 114.0, III 165.45. I had the least specific surface (0.247 sq. m./g.); II had 0.360 sq. m./g.; III had 0.441 sq. m./g. II had the highest porosity when compressed (in the range 0.75–10.0 metric tons/sq. cm.), I the least. III showed the greatest shrinkage when briquets were sintered. Other phys. properties of briquetted specimens were studied (e.g., hardness, compressibility). Mixts. of I and II were regarded as good in over-all phys. properties. C. H. K.

FEDORCHENKO, I.M.; FILATOVA, N.A.

Investigating the effect of technological factors on the pressability of iron powders. *Vop. por. met. i prochn. mat.* no. 4:105-119 '59. (MIRA 14:2)
(Powder metallurgy)

36436

S/137/62/000/003/072/191
A006/A101

15.2400

AUTHORS: Fedorchenko, I.M. Filatova, N.A., Sleptsova, N.P., Dmitrieva, M.A., Yermolin, Yu.N., Voynitskiy, A.I., Kiselev, V.P.

TITLE: Refining of molten sodium with the aid of cermet filters

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 44 abstract 3G305 ("Poroshk. metallurgiya", 1961, no. 4, 98 - 102, English summary)

TEXT: For the refining of molten Na from oxide compounds, cermet filters were used made of reduced Fe-powder (a mixture of АПЖМ(APZhM) grade fractions). The filters of about 40% porosity were manufactured in the form of beakers 32 and 24 mm in diameter, and 75 mm high. The blanks pressed under 2 t/cm^2 pressure were sintered in converted gas atmosphere at 1200°C for 2 h. The hydraulic characteristics of Fe-filters are given (gas and oil permeability); the degree of refining of the filters was 5 μ. As a result of using cermet filters the Na purity was raised and the quality of Ti, obtained by the method of sodium-thermal reduction, was improved. The filters have been reliably operating for over one year. The efficiency of the filters is about 0.12 kg/cm^2 · hour at a pressure

Card 1/2

S/598/61/000/005/008/010
D040/D113

AUTHORS: Berengard, A.S., Kozhemyakin, V.A., and Filatova, N.A.

TITLE: Obtaining titanium and zirconium tetrachloride when processing titanium-zirconium concentrate

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego splavy, no. 5, Moscow, 1961. Metallurgiya i khimiya titana, 101-107

TEXT: The results of described experiments proved that $TiCl_4$ and $ZrCl_4$ can be obtained separately in chlorination of Ti-Zr ore concentrates, which means that the finishing stages of the Ti-Zr ore concentration process can be cut considerably. Details of the experimental techniques and technological recommendations are included. Concentrated ore used contained 8-11% leucoxenized ilmenite, 11-31% rutile, and 76-47% Zr. It was produced by gravity concentration of sands and separation of magnetic ilmenite fraction. Cakes of it were prepared with petroleum coke and sulfite-cellulose liquor (standard foundry mold binder), and chlorinated in standard laboratory

Card 1/3

Obtaining titanium and zirconium ...

chlorinator units of transparent quartz by standard chlorine preliminarily purified from humidity by blowing through sulfuric acid. The effect of temperature, quantity of reducing agent, and mesh of coke was studied. A filter of NaCl was employed in the system and proved effective, i.e. it retained up to 93.5% zirconium chlorides. The obtained $TiCl_4$ was sufficiently pure for obtaining metallic titanium after separation of vanadium and rectification. Low Cr content permitted using $TiCl_4$ for producing pigment TiO_2. The Zr content in $TiCl_4$ did not exceed 0.01%, and $ZrCl_4$ contained only 1-2% iron and aluminum, and hundredth fractions of 1% Ti. After separation of Fe and Al, the obtained $ZrCl_4$ was suitable for obtaining metal or oxide. The following process conditions were stated as being the best: 95% ore concentrate has to be of 200 mesh and 95% petroleum coke of 100 mesh; carbon content in cakes must be 21-23%; the chlorination temperature 900°C; 100% Ti and 94% Zr can be extracted under optimum conditions. The temperature of the salt filter has to be 500-550°C if the processed concentrates contain mainly Zr and 2-3% Fe and Al, and 400-450°C if Fe and

Card 2/3

Obtaining titanium and zirconium ...

Al content is 3-6%. The salt filter temperature can be lowered by 100°C by using an equimolecular mixture of sodium and potassium chlorides for the filter packing. The article includes an illustration of the suggested apparatus. There are 5 figures.

Card 3/3

S/226/62/000/001/005/014
1003/1201

18.8200

Author: Filatova, N. A.

Title: TEMPERATURE DEPENDENCE OF THE MECHANICAL PROPERTIES OF POROUS IRON.

Periodical: *Poroshkovaya metallurgiya*, no. 1(7), 1962, 34–36

Text The variation of strength and plasticity of porous iron with temperature for the range from room temperature to 400°C is shown to be analogous to that of plain poreless iron; this is very apparent for samples with a low porosity (3–30% for ultimate strength and 3–19% for elongation). With a higher porosity the strength and plasticity decrease steadily. There are 1 figure, 1 diagram and 1 table.

/B

Association Institut metallokeramiki i special'nykh splavov AN UkrSSR (Institute of Powder Metallurgy and Special Alloys AS UkrSSR)

Submitted: June 16, 1961

Card 1/1

S/137/62/000/006/073/163
A052/A101

AUTHORS: Fedorchenko, I. M., Filatova, N. A.

TITLE: Investigation of the effect of technological factors on the pressability of iron powders

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 33, abstract 6G253 (In collection: "Vopr. poroshk. metallurgii i prochnosti materialov". Kiyev, AN UkrSSR, no. 7, 1959, 105 - 119)

TEXT: The effect of the following technological factors on the pressability of iron powder was studied: methods of prepration and of the sieve analysis of the powder, temperature conditions of the preliminary processing of the powder, annealing atmosphere of the powder, the state of the working surface of the die, burnishing operations of the investigated powders. The porosity of the samples was determined depending on the change in the listed technological factors and the working pressure (1 - 10 t/cm^2). It is shown that for a fine reduced (by converted gas or hard carbon) and a coarse vortex powder, the working pressure is lower (to produce an equal density) than for a coarse reduced, fine electrolytic

Card 1/2

Investigation of the...

and vortex powder. A preliminary annealing of a vortex and electrolytic powder leads to the removal of cold hardening and to an improved pressability; optimum annealing conditions: temperature 750 - 800°C, 2 hours, shielding atmosphere. The state of the working surface of the die affects essentially the pressability of powders. Minimum pressure is required when pressing powders in dies with a brilliant-polished surface and using lubrication. Electrolytic chromium plating of the die surface, while increasing its life, leads to an increased working pressure. The burnishing of a reduced powder changes the bulk weight, sieve composition, the form of particles and, consequently, the pressability of the powder. Depending on its technology (with or without balls, different time) burnishing can both increase and decrease (due to cold hardening) the pressability of powders. In the latter case a subsequent annealing of the powder is necessary. There are 9 references.

A. Epik

[Abstracter's note: Complete translation]

Card 2/2

39928

S/226/62/000/003/006/014
I003/I103

1.1600

AUTHOR: Fedorchenko, I.M. and Filatova N.A.

TITLE: Filtration properties of highly porous materials made of non-spherical iron powder particles

PERIODICAL: Poroshkovaya metallurgiya, no. 3, 1962, 49–54

TEXT: This article furnishes data on the filtering capacity of iron powders produced in the Soviet Union, on which there is little information in the literature. Though the filtering is lower than that of other iron powders, the preparation of filters from iron scale powder is of interest because of the high porosity that can be produced and also because of its availability and low cost. It is shown that when powders are obtained by reducing iron scale filters with a filtration capacity similar to that of filters made from iron powder with spherical particles can be produced by selecting the optimum porosity of the powder material and the optimum filter plate. There are 5 figures and 1 table.

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov AN USSR (Institute of Powder Metallurgy and Special Alloys AS UkrSSR)

SUBMITTED: January 4, 1962

Card 1/1

S/828/62/000/000/005/017
E039/E420

AUTHORS: Kozhemyakin, V.A., Filatova, N.A., Belyayev, A.I.

TITLE: The separation of zirconium and hafnium tetrachlorides

SOURCE: Razdeleniye blizkikh po svoystvam redkikh metallov. Mezhvuz. konfer. po metodam razdel. blizkikh po svoyst. red. metallov. Moscow, Metallurgizdat, 1962, 63-70

TEXT: The change in isobaric potential of reactions in the separation of Zr and Hf by selective reduction of $ZrCl_4$ is determined. As a result of these thermodynamic calculations the feasibility of such a method of separation is demonstrated. The reduction is accomplished in an evacuated ampule by means of powdered Zr or Al. The HfO_2 in the initial chloride is 0.8 to 1.3%; temperature of reduction 350 to 450°C for 4 to 13 hours; initial residual pressure 1×10^{-2} mm Hg and weight chloride 7 to 14 g. Graphs are presented showing the dependence of x_6, the HfO_2 content in the unreduced $ZrCl_4$, and x_5, the HfO_2 content in the purified $ZrCl_4$. Both curves are near logarithmic. For a value of B = 90% x_5 is ~8% and x_6 ~0.3%. Plotting log B against $1/x_6$ and $1/x_5$ gives two straight lines, with

Card 1/2

The separation of ...

ranges of 0.06 to 0.2% and 4 to 25% respectively, which can be represented by the following equations

$$\log B = 2.015 - \frac{0.50}{x_6}$$

$$\log B = 1.958 - \frac{0.0053}{x_6}$$

The experiments show that separation coefficients of greater than 100 can be obtained under optimum conditions. There are 5 figures and 1 table.

Card 2/2

KOZHEMYAKIN, V.A.; BERENGARD, A.S.; FILATOVA, N.A., Prinimali uchastiye: KHAZANOVA, T.I.; KARASEV, Yu.V.

Purification of titanium tetrachloride from zirconium iron and aluminum chlorides in the chlorination process of titanium-zirconium concentrates. TSvet.met. 34 no.9:70-74 S '61. (MIRA 14:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut redkikh metallov.
(Nonferrous metals--Metallurgy) (Chlorination)

FEDORCHENKO, I.M.; FILATOVA, N.A.; SLEPTSOVA, N.P.; DMITRIYEVA, M.A.; YERMOLIN, Yu.N.; VOYNITSKIY, A.I.; KISELEV, V.P.

Purification of sodium melts in ceramic metal filters. Poroshk. met. no.4:98-102 Jl-Ag '61. (MIRA 16:5)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
(Metal powder products) (Filters and filtration)

L 12887-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/HW-2/JG
ACCESSION NR: AP3001953 S/0226/63/000/003/0052/0062

AUTHOR: Fedorchenko, I. M.; Filatova, N. A.; Dmitriyeva, N. A.; Sleptsova, N. P

TITLE: Manufacture and properties of sintered filters 64 63

SOURCE: Poroshkovaya metallurgiya, no. 3, 1963, 52-62

TOPIC TAGS: sintered filter, spherical metallic powder, inert filler, Fe, Ni, Cu, bronze, phosphorus, strength, permeability, porosity particle size

ABSTRACT: The authors investigated the method of producing sintered filters by melting metallic powder mixed with an inert filler. This mixture was heated to 373-423K above the melting temperature of the metal. Spherical powders of iron, nickel, copper and bronze were prepared by this method. Carbon black was used as a filler in processing iron powder; calcium carbonate was used with nickel powder. The best temperature for melting nickel was 1823K; for bronze, 1223K; and for copper, 1473K. Activated sintering improves the strength of products and preserves their permeability. The strength of the filters was also increased by adding ammonium phosphate, cuprous chloride and tin to the metallic powders, and became much higher than that of filters made of paper, carton, or fabric. Permeability and filtration ability of sintered filters are

Card 1/2

L 12687-63
ACCESSION NR:AP3001953

determined by the shape and size of the particles from which the filters are made. Filters with 35-40% porosity are most effective. The change of particle size from 45 to 250-450 Microns raises the permeability up to 10 times. The described method for obtaining spherical powders is recommended as equal to the method of metal pulverization. Sintered filters of various permeabilities, particle sizes, porosities, and thicknesses may be selected for different working requirements. Orig. art. has: 13 figures and 1 table.

ASSOCIATION: Institut metallokeramiki i spetsial'ny*kh splavov AN USSR (Institute of Metal-Ceramics and Special Alloys, Academy of Sciences AN UkrSSR)

SUBMITTED: 11Sep62	DATE ACQ: 11Jul63	ENCL: 00
SUB CODE: ML	NO REF SOV: 007	OTHER: 003

Cord 2/2

L 20963-66 EWP(e)/EWT(m)/EWP(k)/EWP(t) IJP(c) JD
ACCESSION NR: AP5013253 UR/0226/65/000/005/0063/0070

AUTHOR: Storozhevskiy, I.M.; Filatova, N.A.

TITLE: Investigation of the laws of change in tensile strength of some copper-based sintered materials

SOURCE: Poroshkovaya metallurgiya, no. 5, 1965, 63-70

TOPIC TAGS: tensile strength, powder metallurgy

ABSTRACT: Experimental data are presented on the tensile strength of porous copper-based sintered materials in the low-temperature region. In the investigated materials the strength rises by 38-60 percent over that observed at room temperature as the temperature falls from 293 to 78°K. With a fall in the testing temperature the ultimate strength varies according to a linear law, and with a decrease in porosity there is a marked dependence on the temperature. With low porosity values the ultimate strength at room temperature decreases by a linear law. The dependence is preserved at low temperatures. With a fall in temperature there is a sharper dependence of the strength on the porosity. Orig. art. has: 7 figures.

Card 1/2

L 20963-66

ACCESSION NR: AP5013253

ASSOCIATION: Institut problem materialovedeniya AN UkrSSR (Institute of Problems in the Science of Materials)

SUBMITTED: 23Jul64 ENCL: 00 SUB CODE: MM

NO REF SOV: 008 003

Card 2/2 MJ 5

(N) L 12166-66 EWP(e)/EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD/WW/JG/DJ/WH

ACC NR: AP5028373 SOURCE CODE: UR/0369/65/001/005/0567/0570

AUTHOR: Fedorchenko, I. M.; Filatova, N. A.; Pushkarev, V. V.

ORG: Institute of Problems in Metal Studies, AN UkrSSR, Kiev (Institut problem materialovedeniya AN UkrSSR)

TITLE: Antifriction properties of iron-base cermets

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 5, 1965, 567-570

TOPIC TAGS: antifriction material, cermet, iron alloy, metal ceramic material, sulfide, metal physical property

ABSTRACT: The authors studied the properties of several new cermets based on iron and compared the properties with those of BK babbitt. The test compositions of the materials were prepared from a reduced iron powder (PZh1M1 GOST 9849-61) with various additives by sintering in a hydrogen atmosphere at temperatures from 1050 to 1200C. The main conclusion is that the introduction of sulfides into iron-base metal-ceramic materials is an effective means of improving their antifriction properties. The introduction of zinc sulfides makes it possible to reduce the friction coefficient of iron-base cermet antifriction materials to 0.006 and to increase the setting pressure limit to 100 dan/cm^2. Orig. art. has:

Card 1/2

2

L 12166-66

ACC NR: AP5028373

1 figure and 1 table.

SUB CODE: 11 / SUBM DATE: 15Oct65 / ORIG REF: 004

HW

Card 2/2

FEDORCHENKO, I.M.; FILATOVA, N.A.; PUSHKAREV, V.V.

Antifriction properties of iron-base ceramic metal materials.
Fiz.-khim. mekh. mat. 1 no.5:567-570 '65. (MIRA 19:1)

1. Institut problem materialovedeniya AN UkrSSR, Kiyev. Submitted Oct. 15, 1965.

ACC NR: AP6017105 (N) SOURCE CODE: UR/0226/66/000/001/0062/0068

AUTHORS: Storozhevskiy, I. M.; Filatova, N. A.

ORG: Institute for Problems of Materials Behavior, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Investigation of changes in the impact viscosity (resilience) of some sintered materials at low temperatures

SOURCE: Poroshkovaya metallurgiya, no. 1, 1966, 62-68

TOPIC TAGS: metal powder, powder alloy, powder metal compaction, ~~powder metal sintering~~ solid viscosity, sintered metal

ABSTRACT: The effect of temperature and degree of porosity on the resiliency and microstructure of Cu-Ni, Fe-Ni, Cu-Sn, and Sn-C sinters was investigated. The investigation supplements the results of I. M. Storozhevskiy and N. A. Filatova (Poroshkovaya metallurgiya, No. 6, 1965). The experimental procedure followed is described by I. G. Dondik (Mekhanicheskiye ispytaniya metallov, Izd-vo AN UkrSSR, K., 1962). The experimental results are summarized in graphs and tables (see Fig. 1). The temperature dependence of the resiliency of the sintered materials investigated was similar in nature to that observed on cast materials. It was also found that the minimum in the resilience-temperature curve becomes less pronounced with increase in porosity of the sinter. It is concluded that the upper brittleness boundary for

Card 1/2

ACC NR: AP6017105

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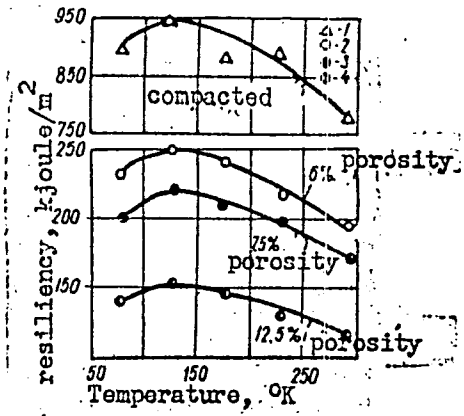

Fig. 1. Temperature dependence of impact viscosity (resilience) of copper-nickel material. 1 - cast material (R. E. Lismer. J. Inst. Metals, January, vol. 89, Pt. 5, 1961, pp. 145—161); 2, 3, 4 - metal sintered material.

Fe-Ni, bronze, and bronze-graphite containing 3% graphite lies at about 230K, and for Cu-Ni at approximately 123K, whereas the sinter composed of bronze + 5% boron nitride remains brittle over the whole temperature range investigated. Orig. art. has: 1 table and 4 graphs.

SUB CODE: 11/ SUBM DATE: 25Apr65/ ORIG REF: 010/ OTH REF: 005

Card 2/2 gd

L 44363-66 EWT(m)/EWP(k)/EWP(e)/EWP(t)/ETI IJP(c) HW/JD

ACC NR: AP6007289 SOURCE CODE: UR/0226/66/000/002/0063/0068

AUTHOR: Storozhevskiy, I. M.; Filatova, N. A. 48 B

ORG: Institute for the Study of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Bending strength of iron- and copper-base powdered-metal materials in the low-temperature region

SOURCE: Poroshkovaya metallurgiya, no. 2, 1966, 63-68

TOPIC TAGS: tensile testing machine, powder alloy, bending strength, porosity, temperature dependence / GM-250 (East German) tensile testing machine

ABSTRACT: This is a continuation of a previous investigation (I. M. Storozhevskiy, N. A. Filatova. Poroshkovaya metallurgiya, no. 5, 1965) with the difference that it deals with testing copper- and iron-base powdered-metal materials in order to confirm the universality of the previous finding that the dependence of strength on porosity becomes more distinct with decreasing test temperature. To this end, mixtures of the powders of Fe, Cu and Ni were sintered and, in order to obtain varying porosities, compression-molded under various pres-

Card 1/2

L 44363-66

ACC NR: AP6007289

sures. Fe specimens were sintered in a hydrogen atmosphere for 2 hr at 1473°K, while Fe + +10% Ni and Cu + 10% Ni alloys were sintered in a hydrogen atmosphere for 8 hr at 1473 and 1273°K, respectively. After this, the specimens were tested in a GM-250 (East German) tensile testing machine at 78, 175, 230 and 293°K. Findings: when the temperature is reduced from 293 to 78°K the strength of the investigated materials increases by 145-330% compared with their strength at room temperature. Low temperatures affect more sharply the materials with low porosity. The curvilinear dependence of strength on temperature for low porosities (10-12%) gets gradually transformed into a linear dependence with increase in porosity (to 40-50%). The sharper temperature dependence of strength for materials with low porosities is apparently a general rule that applies to various plastic materials prepared by methods of powder metallurgy. In this connection, the authors propose a method of predicting the effect of porosity on strength at various temperatures with the aid of the dimensionless coordinates σ and η, where σ is the ratio of the investigated property of a material at a given test temperature and porosity to the same property at the same porosity but at a test temperature taken as the base temperature (e.g. room temperature (293°K)), and η is porosity. Orig. art. has: 6 figures.

SUB CODE: 11, 13, 20/ SUBM DATE: 26Aug65/ ORIG REF: 006/ OTH REF: 002/

Card 2/2 hs

L 46003-66 EWT(m)/EWP(e)/T/EWP(t)/ETI IJP(c) JD/WW/HW/JG/WH

ACC NR: AP6025940 SOURCE CODE: UR/0226/66/000/007/0069/0072

AUTHOR: Storozhevskiy, I. M.; Filatova, N. A. 69 B

ORG: Institute of Problems in the Science of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Strength and ductility of cermet materials at low temperatures

SOURCE: Poroshkovaya metallurgiya, no. 7, 1966, 69-72

TOPIC TAGS: cermet, ductility, fatigue strength, fatigue test, porosity, iron nickel alloy, bronze, mechanical property, LOW TEMPERATURE EFFECT

ABSTRACT: This is a continuation of previous studies by the authors and others. Tensile strength and relative contraction and elongation after destruction were studied as functions of porosity on iron-nickel, bronze and graphitized bronze cermet specimens at 78, 175, 230 and 293°K. 4-5 specimens were used for each test stage and the results were averaged. It is shown that strength is a curvilinear function of porosity throughout the experimental temperature range, with a more pronounced dependence at low temperatures. Ductility is also a nonlinear function of porosity at all temperatures. This relationship is not as strong for iron-nickel and graphitized bronze as it is for bronze. Ductility as a function of porosity for bronze increases as temperature is reduced to 230°K. Any further reduction in temperature past this

Card 1/2

Card 2/2 ULR

ACC NR: AP6034196 SOURCE CODE: UR/0369/66/002/005/0552/0555

AUTHOR: Fedorchenko, I. M.; Filatova, N. A.; Klimenko, A. V.; Afanas'yev, V. P.; Polushko, A. P.

ORG: Institute of the Science of Materials, AN UkrSSR, Kiev (Institut problem materialovedeniya AN UkrSSR)

TITLE: Antifriction properties of iron based powder metallurgy products in dry friction

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 5, 1966, 552-555

TOPIC TAGS: dry friction, antifriction material, powder metallurgy, ~~product~~, iron base alloy, iron powder, friction coefficient

ABSTRACT: A study has been made of the antifriction properties of iron based powder metallurgy products in dry friction. The antifriction materials were prepared from PZh1M1 reduced iron powder with such additives as PM2 reduced copper powder zinc sulfide powder and/or KLS graphite powder (GOST's 5279-62, 4960-4[illegible] 3657-54, and 5279-61, respectively). The other member of the friction couple was a steel roller (steels 45 or 40X, or 1X18N9T nitrided steel). The experiments were conducted on the MI-1M friction machine at a constant speed of 0.9 m/sec. Addition of copper powder or zinc sulfide to the iron-graphite-base increased the load at the onset of seizure from 5 to 50—60 kg/cm^2, stabilized the friction process, and lowered the friction coefficient by 500—600%. Study of the friction surface with a UV microscope showed that the increase of wear resistance and the lowering of the friction

Card 1/2

ACC NR: AP6034196

coefficient on addition of ZnS is due to the formation of a prote: ive sulfide film. However, an increase of ZnS content over 10% adversely affected th mechanical properties of the powder metallurgy products. An iron-based mate· al with added 1.5% graphite, 2% copper and 8 to 10% zinc sulfide is recommended or operations in dry friction with 45 steel. Orig. art. has: 6 figures and 1 tab .

SUB CODE: 11/ SUBM DATE: 31Mar65/ ORIG REF: 004/ OTH REF: 4/

Card 2/2

FILATOVA, N.D. (g. Kuybyshev (obl.) ul. Nekrasova, d.20, kv. 109)

Veins of the hip joint in human subjects. Arkh.anat.,gist. i embr. 35 no.5:102-105 S-O '58 (MIRA 11:12)

1. Kafedra normal'noy anatomii (zav. - prof. F.P. Markizov) Kuybyshevskogo meditsinskogo instituta.
(HIP, blood supply, venous (Rus))

FILATOVA, N. D., Candidate Med Sci (diss) -- "The veins of the coxofemoral joint of man". Kuybyshev, 1959. 20 pp (Kuybyshev State Med Inst), 220 copies (KL, No 25, 1959, 142)

FILATOVA, N.D. (Kuybyshev (oblastnoy), Nekrasovskaya ul., d.20, kv.109)

Veins of the synovial fold and round ligament of the hip joint of man [with summary in English]. Vest.khir. 82 no.3:51-61 Mr '59. (MIRA 12:4)

1. Iz kafedry anatomii (zav. - prof. F.P. Markizov) Kuybyshevskogo meditsinskogo instituta.

(HIP, blood supply
veins of synovial fold & round ligament (Rus))

BENEDIKTOV, I.A., redaktor; GRITSENKO, A.V., redaktor; IL'IN, M.A., zamestitel' glavnogo redaktora, LAPTEV, I.D., LISKUN, Ye.F.; LOBANOV, P.P., glavnyy redaktor; LYSENKO, T.D.; SKRYABIN, K.I.; STOLETOV, V.N.; PAVLOV, G.I., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SOKOLOV, N.S., professor, nauchnyy redaktor; ANTIPOV-KARATAYEV, I.N., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KARPINSKIY, N.P., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SHESTAKOV, A.G., doktor sel'skokhozyaystvennykh nauk, professor, nauchnyy redaktor; RUBIN, B.A., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KOMARNITSKIY, N.A., dotsent, nauchnyy redaktor; LYSENKO, T.D., akademik, nauchnyy redaktor; POLYAKOV, I.M., professor, nauchnyy redaktor; SHCHEGOLEV, V.N., doktor sel'skokhozyaystvennykh nauk, professor, nauchnyy redaktor; YAKUSHKIN, I.V., akademik, nauchnyy redaktor; LARIN, I.V., professor, doktor biologicheskikh nauk, nauchnyy redaktor; SMELOV, S.P., professor, doktor biologicheskiy nauk, nauchnyy redaktor; EDEL'SHTEYN, V.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SHCHERBACHEV, D.M., professor, doktor meditsinskikh nauk, nauchnyy redaktor; OGOLEVETS, G.S., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; YAKOVLEV, P.N., akademik, naychnyy redaktor; YEKIMOV, V.P., agronom, nauchnyy redaktor [deceased], EYTINGEN, G.P., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; TIMOFEYEV, N.N., professor, nauchnyy redaktor; TUROV, S.I., professor, doktor biologicheskikh nauk; YUDIN, V.M., akademik, nauchnyy redaktor; LISKUN, Ye.F., akademik, nauchnyy redaktor; VITT, V.O., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KALININ, V.I., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor

(Continued on next card)

BENEDIKTOV, I.A.--- (continued) Card 2.

GREBEN', L.K., akademik, nauchnyy redaktor; NIKOLAYEV, A.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; RED'KIN, A.P., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SMETNEV, S.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; POPOV, I.S., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; MANTEYFEL', P.A., professor nauchnyy redaktor; INIKHOV, G.S., professor, doktor khimicheskikh nauk, nauchnyy redaktor; ANFIMOV, A.N., professor, nauchnyy redaktor; GUBIN, A.F., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; POLTEV, V.I., professor, doktor veterinarnykh nauk, nauchnyy redaktor; LINDE, V.V., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; CHERGAS, B.I., professor, doktor biologicheskikh nauk, nauchnyy redaktor; NIKOL'SKIY, G.V., professor, nauchnyy redaktor; AVTOKRATOV, D.M., professor, doktor veterinarnykh nauk, nauchnyy redaktor; IVANOV, S.V., professor, doktor biologicheskikh nauk, nauchnyy redaktor; VIKTOROV, K.P., professor, doktor veterinarnykh nauk, nauchnyy redaktor; KOLYAKOV, Ya.Ye., professor, doktor veterinarnykh nauk, nauchnyy redaktor; ANTIPIN, D.N., professor, doktor veterinarnykh nauk, nauchnyy redaktpr; MARKOV, A.A., professor, doktor veterinarnykh nauk, nauchnyy redaktor; DOMRACHEV, G.V., professor, doktor veterinarnykh nauk, nauchnyy redaktor· OLIVKOV, B...., professor, doktor veterinarnykh nauk nauchnyy redaktor [deceased]; FLEGMATOV, N.A., professor, doktor veterinarnykh nauk, nauchnyy redaktor; BOLTINSKIY, V.N., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; VIL'YAMS, V1.P., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; KRASNOV, V.S., kandidat tekhnicheskikh nauk, nauchnyy redaktor;

(Continued on next card)

BENEDIKTOV,I.A.---(continued) Card 3.

YEVREINOV, M.G., akademik, nauchnyy redaktor; SAZONOV, N.A., doktor tekhnicheskikh nauk, nauchnyy redaktor; NIKANDROV, B.I., inzhener, nauchnyy redaktor; KOSTYAKOV, A.N., akademik, nauchnyy redaktor; CHERKASOV, A.A., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; DAVITAYA, F.F., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; IVANOV, N.N., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; ORLOV, P.M., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor, LOZA, G.M., kandidat ekonomicheskikh nauk, nauchnyy redaktor; CHERNOV, A.V., kontrol'nyy redaktor; ZAVARSKIY, A.I., redaktor; ROSSOSHANSKAYA, V.A., redaktor; FILATOVA, N.I., redaktor; YEMEL'YANOVA, N.I., redaktor; SILIN, V.S., redaktor BRANZBURG, A.Yu., redaktor; MAGNITSKIY, A.V., redaktor terminov; KUDRYAVTSEVA, A.G., redaktor terminov; AKSENOVA, A.P., mladshiy redaktor; MALYAVSKAYA, O.A., mladshiy redaktor; FEDOTOVA, A.F., tekhnicheskiy redaktor

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BENEDIKTOV, I.A.---(continued) Card 4.

[Agricultural encyclopedia] Sel'skokhoziaistvennaia entsikolopediia. Izd.3-e, perer. Moskva, Gos. izd-vo selkhoz. lit-ry. Vol.5. [T-IA.] 1956. 663 p. (MLRA 9:9)
(Agriculture--Dictionaries and encyclopedias)

FILATOVA, N.I.; RUSH, V.A.

Hercynian geosynclinal structures of the Dzungarian Alatau.
Geotektonika no.3:49-60 My-Je '65. (MIRA 18:6)

1. Vsesoyuznyy aerogeologicheskiy trest Gosudarstvennogo komiteta SSSR, Moskva.

GUSHCHIN, [illegible] [illegible]ATOVA, N.I.

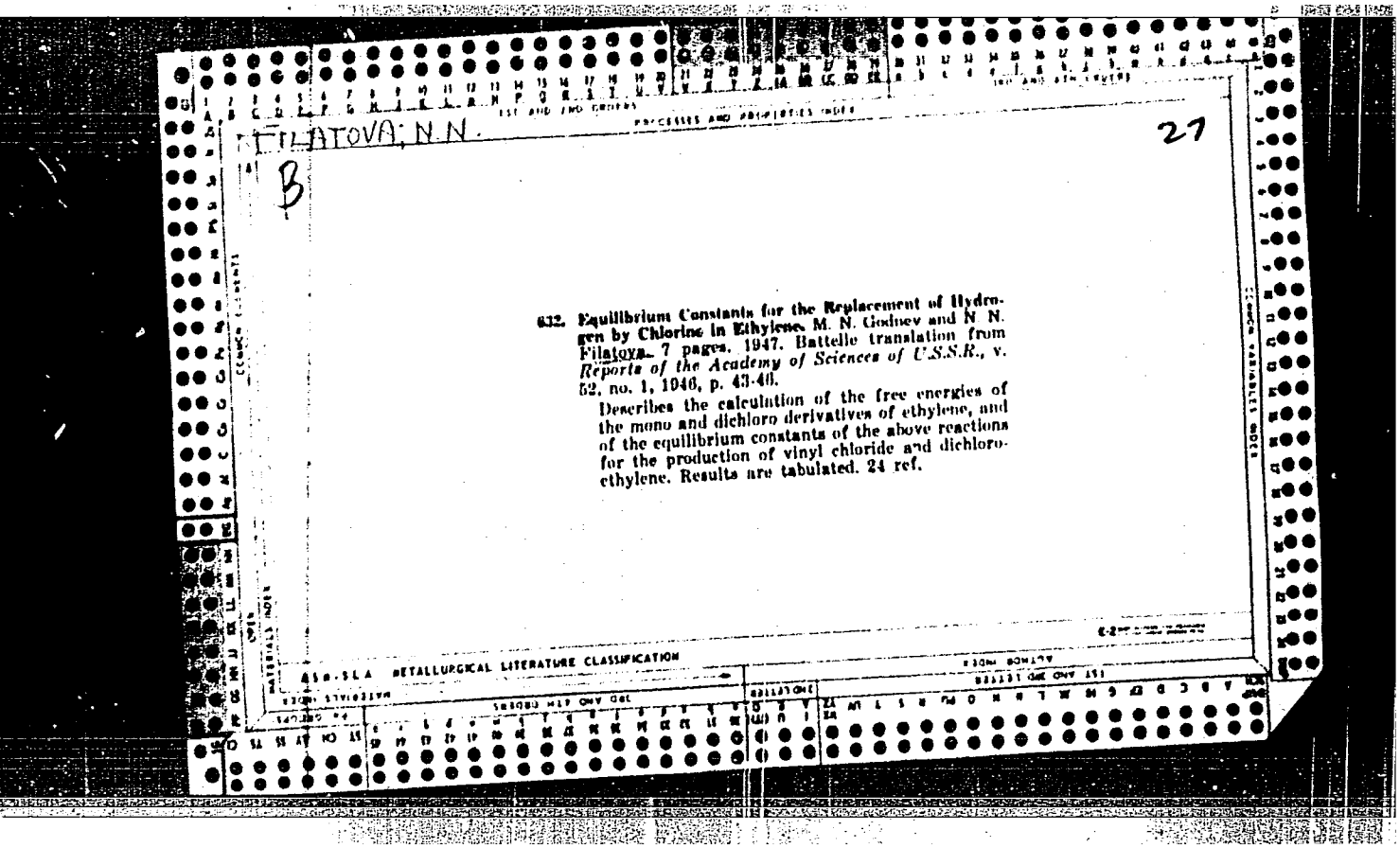
[illegible]tigraphy of Upper Ordovician sediments in the eastern part of the Western Targabatay Range (Kel'dymural basin). Izv. vys. ucheb. zav.; geol. i razv. 8 no.9:28-33 S '65. (MIRA 18:9)

1. Vsesoyuznyy aerogeologicheskiy trest.

FILATOVA, N.K.

Electrochemical gas analyzer EKhG-5 for small concentrations of sulfur dioxide. Khim.prom. no.1:62-66 Ja '61. (MIRA 14:1)

1. Opytno-konstruktorskoye byuro avtomatiki.
(Sulfur dioxide) (Gases--Analysis)



FILATOVA, N. N.

"Catalysis of the Reaction of Forming Dimethly-Phenylallyl Ammonium." Thesis for degree of Cand. Chemical Sci. Sub 8 May 50, Moscow Inst of Fine Chemical Technology imeni M.V. Lomonosov

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

FILAFOVA, N. N.

Hygroscopicity and elongation (in water) of viscose and cuproammonium silk fibers. A.B. Pakshver, S.S. Frolov, and N.N. Fil'ova. Tekstil. Prom. 10, No. 12, 18-20 (1950).

Certain properties of viscose and cuproammonium rayon are detd. by the mol. structure of their fibers which is conditioned by spinning, dyeing, etc. Hygroscopicity and elongation data of these fibers treatedwith aq. soln. of NaOH at 20° are discussed.

Elisabeth Barabash

immediate source clipping

LUKINYKH, N.A.; LIPMAN, B.L.; LUTSENKO, G.N.; ZHDANOVA, T.M.; KAZAROVETS, N.M.; FILATOVA, N.P.

Effect of alkyl sulfonate and alkylaryl sulfonates on the biochemical processes of waste water purification. Nauch. trudy AKKH no.20:124-141 '63. (MIRA 18:12)

BOGDANOVA, Ye. K., dotsent; FILATOVA, N. S.

Novocaine therapy of some skin diseases. Vest. derm. i ven. 36 no.6:63-65 Je '62. (MIRA 15:6)

1. Iz kafedry kozhnykh i venericheskikh bolezney Khabarovskogo meditsinskogo instituta (zav. - dotsent Ye. K. Bogdanova)

(NOVOCAINE) (SKIN--DISEASES)

USSR / Pharmacology, Toxicology. Analeptics. V

Abs Jour: Ref Zhur-Biol., No 18, 1958, 85130.

Author : Filatova, N. S.
Inst : Not given.
Title : Experimental Treatment of Patients with Eczema with Extracts of Ginseng Root.

Orig Pub: In the collection, Materialy k izuch. zhen'shenya i limonnika, No 3, Leningrad, 1958, 129-132.

Abstract: 41 patients with various forms of eczema were treated with a liquid extract of ginseng root prepared as a 20% alcoholic solution, given in doses of 40 drops twice daily for 20-40 days. Topically, a neutral salve treatment was used (20% zinc salve and zinc paste). Recovery was noted in 6 patients, improvement in 18, and aggravation in 17 patients. The MacClure and Aldrig test and the Kavetsky test

Card 1/2