

ACCESSION NR: AP4033704

S/0148/64/000/004/0124/0128

AUTHOR: Grdina, Yu. V.; Sofroshenkov, A. F.; Koval', L. A.

TITLE: Resistance of Combined Coatings During Hydroabrasive Wear

SOURCE: IVUZ. Chernaya metallurgiya, no. 4, 1964, 124-128

TOPIC TAGS: diffusion layer, heat treatment, hydroabrasive wear, calorization, titanization, chrome plating, siliconizing

ABSTRACT: In an earlier paper the authors investigated the properties of diffusion layers produced by combining chemical treatment with heat treatment, and they continue their research by reporting additional test results. Sleeves, checkers and segments were exposed to hydroabrasive wear. The treatment consisted of calorizing (950-1000 C) for 12 hrs, titanizing (1080 C) for 10 hrs., siliconizing (1080-1100 C) for 11 hrs. and chromizing (1150 C) for 8 hrs. All parts were ground, degreased and nitrided at 500-550-520 C for 70 hrs. The authors found that wear resistance depended not only on microhardness but also on microstructure, brittleness of the layer and test conditions in which pulp- and coal lines as well as hot steel runners were simulated. Although the method

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appears somewhat complicated, it is recommended for many parts exposed to hydroabrasive wear. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Sibirskiy metallurgicheskiy institut (Siberian Metallurgical Institute)

SUBMITTED: 08Jun63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: MM

NO REF SOV: 001

OTHER: 000

Card 2/2

GRDINA, Yu.V.; KREPYSHEVA, L. B.

Top boundary temperature of flake occurrence in steel. Izv.  
vys. ucheb. zav.; chern. met. 7 no.6:125-129 '64. (MIRA 17:7)

1. Sibirskiy metallurgicheskiy institut.

GRDINA, Yu.V.; GLIKMAN, Ye.E.

Mechanism of the effect of aluminum and phosphorous on the tendency to brittle failure in high phosphorous steel. Izv. vys. ucheb. zav.; Chern. met. 7 no.12:06-111 '64 (MIRA 18:1)

1. Sibirskiy metallurgicheskiy institut.

L 3437-66 EWT(m)/EWP(i)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/JG/GS

ACCESSION NR: AT5024874

UR/0000/65/000/000/0082/0088

42  
37  
BT-1

AUTHOR: Grdina, Yu. V.; Gordeyeva, L. T.

TITLE: Diffusion coating of steel from a gaseous medium during induction heating with high-frequency currents

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Diffuzionnyye pokrytiya na metallakh (Diffusion coatings on metals). Kiev, Naukova dumka, 1965, 82-88

TOPIC TAGS: induction furnace, steel, metal coating, chloride, compound, diffusion coating

ABSTRACT: The diffusion coating of armco iron, carbon steel (0.64% C) and 38KhMA steel during their induction heating was investigated. Cr, Al, Si, W, Mo, B, as well as Ti with subsequent boronizing were used as the impregnating materials. The experimental setup is shown in Fig. 1 of the Enclosure. The specimens were heated in an airtight tube through which chlorides of the coating metals were passed. Gaseous chlorine was produced by interacting conc. H<sub>2</sub>SO<sub>4</sub> with KMnO<sub>4</sub>, purified and dried, and admitted to the furnace containing a boat with the metal powder. The chlorides forming as a result of the high-frequency current heating of the metals in a stream of chlorine then were passed around the specimen and

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thereupon eliminated from the setup via a NaOH flask where the chlorine was absorbed. This setup was employed to perform the siliconizing, galvanizing, chromizing, tungstenizing, molybdenizing, boronizing, and titanizing of the specimens, with subsequent determination of the microhardness of the case layer and base metal in each case. The gaseous chlorides formed at 600-650°C for Al and at 940-960°C for the other metals. Heating of the specimen was by the intermittent method with an overall exposure of 8-30 sec at 1000-1100°C (and in isolated cases, higher). The temperature of formation of the chlorides in the furnace was measured with a chromel-alumel thermocouple and the heating temperature of the specimens, with an OPPIR-09 optical pyrometer. The specimens were cooled in the atmosphere of chlorine and chlorides. It was thus possible to definitely establish the feasibility of the diffusion coating of iron and steels with Al, Si, Mo, Cr, W, Ti, and B from a gaseous medium -- chlorides of these metals -- on induction heating with high frequency currents. A comparison of case depths showed that the rate of coating of steel with metals from gaseous media on heating with high-frequency currents is several hundred times as high as on heating in a conventional furnace with the microhardness of the diffusion layer remaining within the normal limits. Orig. art. has: 6 figures

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L 3437-66  
ACCESSION NR: AT5024874

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: MM, IE

NR REF SOV: 001

OTHER: 000

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Card

L 3437-66

ACCESSION NR: AT5924874

ENCLOSURE: 01

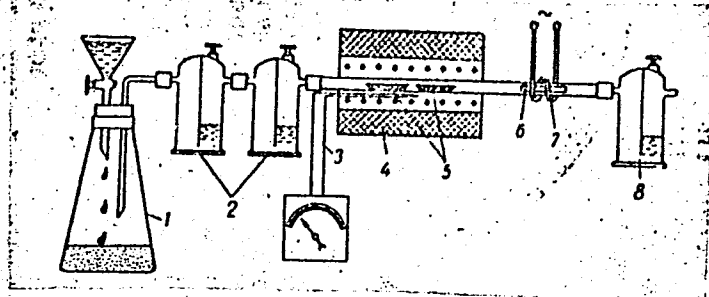


Fig. 1. Diagram of setup for diffusion coating

1 - flask with  $KMnO_4$  and  $HCl$ ; 2 - driers; 3 - thermocouple with galvanometer; 4 - furnace; 5 - boat with metal; 6 - specimen; 7 - inductor; 8 - flask with  $NaOH$

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4/4 DP



I 7656-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/GS

ACC NR: AT5024875

SOURCE CODE: UR/0000/65/000/000/0109/0115

AUTHOR: Grdina, Yu. V.; Gordeyeva, L. T.; Timonina, L. T.

ORG: Institute of Metalworking Problems, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

70  
69  
B+1

TITLE: Case hardening of titanium by carburizing and nitriding with high-frequency heating

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Diffuzionnyye pokrytiya na metallakh (Diffusion coatings on metals). Kiev, Naukova dumka, 1965, 109-115

TOPIC TAGS: hardening, case hardening, titanium case hardening, titanium carburizing, titanium nitriding, titanium carbonitriding

ABSTRACT: Case hardening of titanium and VT-4 and VT-6 titanium alloy by carburizing or nitriding has been investigated. Cylindrical specimens 3 mm in diameter and 200 mm long, and disks 40 mm in diameter and 10 mm thick were carburized by painting a silvery graphite paste, hf heating up to 850-1100C, and holding for 10-30 min in a helium atmosphere. A case 0.25 mm deep was obtained in 15 min on specimens 3 mm in diameter; its microhardness was 1780 HV50, dropping to 400 HV50 at a depth of 0.4 mm. The disk specimens were tested for wear resistance in dry friction at 220 rpm and a load of 750 n. Disks carburized for 15 min showed no wear after 4-hr tests. Disks carburized for a shorter or longer time had much lower wear resistance. Nitriding produced similar results. The specimens were nitrided for 6, 10, 15, or 20 min at 850-1100C in a nitrogen-

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L 7656-66

ACC NR: AT5024875

filled chamber under pressure of a 40—50 mm of water column. The thickest case (up to 30  $\mu$ ) was obtained by holding for 20 min. The case had a microhardness of up to 2000 dan/mm<sup>2</sup>. No wear was observed after a 4-hr wear-resistance test. The nitrided case was found to be much more oxidation resistant than titanium alloys. The weight loss of nitrided alloy specimens at 1000C in air was 75% lower than that of the initial alloy. Orig. art. has: 7 figures. [AZ]

SUB CODE: MM/ SUBM DATE: 06Aug65/ ORIG REF: 007/ OTH REF: 001/ ATD PRESS:

4141

Card

L 52704-65 EWP(e)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b) Pf-4  
IJP(e) MJW/AD

ACCESSION NR: AP5013161

UR/0129/65/000/005/0050/0052  
669.295:669.3

AUTHOR: Grdina, Yu. V.; Gordeyeva, L. T.; Timonina, L. G.; Romashova, T. A. 39

TITLE: Diffusion impregnation of titanium alloys with copper 35  
B

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1965, 50-52

TOPIC TAGS: titanium alloy, alloy impregnation, copper impregnated alloy, impregnated layer property/VT3 titanium alloy, VT5 titanium alloy

ABSTRACT: A method of impregnation with copper of VT3 [U.S. RS140] and VT5 titanium [4.0—5.0% Al, 1.0—2.0% Mn] alloys by pack cementation is described. Rolls 10 mm in diameter and rods with 3-mm diameter or cross section were descaled, packed in a mixture of 30—40% copper chips, 5—6% copper powder, 50—60% crushed refractory clay, and 1% ammonium chloride, and held for 1—3 hr at 750—950C. A copper-impregnated layer 0.1—0.4 mm thick with a maximum microhardness of 1500 was obtained by this method. By a modified method, holding paste-coated specimens at 950C for 3 hr in an argon atmosphere, a copper-impregnated layer 0.3 mm thick with a microhardness of 1500 was obtained. The layer consisted of  $TiCu_3$ ,  $Ti_2Cu$ ,  $Ti_3Cu$  and  $\alpha$ -Ti phases. 16

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L 52704-65

ACCESSION NR: AP5013161

In wear-resistance tests under a load of 75 kg under conditions of dry friction, the copper-impregnated rolls exhibited no weight loss, whereas the untreated rolls paired with hardened U12A tool steel lost up to 2.5 g per roll. Orig. art. has: 4 figures. [MS]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 000

ATD PRESS: 4012

Card <sup>SR</sup> 2/2

GRDINA, Yu.V.; TOV, G.M.; GONCHAROVA, S.G.

Electron microscopy of the G13 steel. Izv.vys.ucheb.zav.; chern.met.  
8 no.6:131-136 '65. (MIRA 18:8)

1. Sibirskiy metallurgicheskiy institut.

GEDINA, Ya.V.; KOTOV, A.V.

Artificial reproduction of the defect of contact fatigue in specimens cut out of rail heads. Izv.vyslucheb.zav.; Chern.met. 8  
no.6:148-150 '65. (MIRA 18:8)

1. Sibirskiy metallurgicheskiy institut.

GRDINA, Yu.V.; GLIKMAN, Ye.E.; TOV, G.M.

Brittleness of high-silicon ferritic steel during tempering. Izv.vys.  
ucheb.zav.; Chern.met. 8 no.8:108-113 '65.

(MIRA 18:8)

1. Sibirskiy metallurgicheskii institut.

GRDINA, Yu.V.; GORDIN, O.V.

Dependence of impact toughness in rail steel on the finishing  
temperature. Izv.vys.ucheb.zav.; chern.met. 8 no.8:114-117 '65.  
(MIRA 18:8)

1. Sibirskiy metallurgicheskiy institut.



L 12999-66 EWP(m)/EWP(w)/T/EWP(t)/EWP(b)/EWA(c) JD/JW

ACC NR: AP6001684

SOURCE CODE: UR/0148/65/000/012/0101/0107

AUTHOR: Grdina, Yu. V.; Glikman, Ye. E.; Piguzov, Yu. V.

52

ORG: Siberian Metallurgical Institute (Sibirskiy metallurgicheskiy institut);  
Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

48

TITLE: Study of reversible temper brittleness of steel

B

SOURCE: IVUZ. Chernaya metallurgiya, no. 12, 1965, 101-107

TOPIC TAGS: ~~reversible temper brittleness~~, brittleness, steel, internal friction, phosphorus, metal grain structure

ABSTRACT: The discovery (M. G. Lozinskiy, A. Ye. Fedorovskiy, Izvestiya AN SSSR, OTN, 6, 1958, and others) of the relationship between internal friction and the processes of the embrittlement of technically pure steels during tempering (450-550°C) still leaves unclarified the mechanism of the phenomenon of reversible temper brittleness (TB). In this connection, the authors investigated internal friction in five steels with distinct proneness to temper brittleness, by mounting wire specimens (diameter 0.8 mm, length 100 mm) in a relaxation oscillator. Internal friction was measured over a temperature range from room temperature to 600°C at a frequency of 1.1 cps, whereupon isothermal embrittlement was carried out in the oscillator's furnace for 8-12 hr; after cooling to room temperature the internal friction of the embrittled specimens

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UDC: 669.011.7

L 12999-66

ACC NR: AP6001684

4  
was determined over the 20-600°C range. A definite correlation was established between proneness to TB and the variation in internal friction. In the phosphorus-free steel for which tempering at 530°C leads to a rise in the threshold of cold brittleness and intensification of the etchability of boundaries in picric acid, the internal friction background increases, whereas in the phosphorus-containing steels (0.032-0.05% P) the internal friction background decreases: this change may be attributed to the enrichment of grain boundaries with P, an enrichment that is of adsorptional nature. The other alloy elements in the steels (Mn, Ni, Si) do not affect TB: brittleness develops even in pure carbon steel if it contains a sufficient amount of P. On high-temperature tempering (650°C), the grain boundaries are mainly enriched with C, while P then gets distributed uniformly throughout the grain volume. Low-temperature tempering, on the other hand, causes the grain boundaries to be enriched with P, which leads to some decrease in the internal friction background level: this may be associated with the displacement of part of C atoms from the boundary zones into the grain interior owing to the intensified adsorption of P. The attendant increase in the number of dislocation points leads to a decrease in the internal friction background level. After such tempering the steel assumes a brittle state with enhanced proneness to intergranular fracture, which is associated with the decrease in the surface energy of grain boundaries owing to the adsorption of P and the concomitant facilitation of the formation and development of intercrystalline cracks. Reheating to 650°C again restricts the intercrystalline adsorption of P and increases the concentration of C in

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I 12999-66

ACC NR: AP6001684

the solid solution at the grain boundaries. As a result, following rapid cooling, brittleness is eliminated: this, in the authors' opinion, accounts for the well-known fact of the reversibility of TB. Orig. art. has: 1 table and 4 figures.

SUB CODE: 11, 20/ SUBM DATE: 07Jul65/ ORIG REF: 012/ OTH REF: 005

jrn

Card 3/3

L 13000-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) JD/HW

ACC NR: AP6001686

SOURCE CODE: UR/0148/65/000/012/0112/0113

AUTHOR: Grdina, Yu. V.; Tarasko, D. I.; Druzhinin, V. V.

ORG: Siberian Metallurgical Institute (Sibirskiy metallurgicheskiy institut) 47

TITLE: High-temperature thermomechanical treatment of rail steel 46

SOURCE: IVUZ. Chernaya metallurgiya, no. 12, 1965, 112-113 B

TOPIC TAGS: rail steel, austenitic steel, <sup>metal</sup>heat treatment, cold working, tensile strength, plasticity, <sup>hardness</sup>hardness, <sup>metal grain structure</sup>metal grain structure, <sup>fabricated structural metal</sup>fabricated structural metal

ABSTRACT: Thermomechanical treatment markedly improves the strength of metal while preserving or even improving its plastic properties. It is most effective for alloy steels with an 0.4-0.5% C content. But industry employs a broad variety of steels containing more than 0.5% C. Hence the authors investigated the possibility of applying high-temperature thermomechanical treatment (HTMO) to rail steels containing 0.62-0.67% C. Billets measuring 20x30x200 mm were heated in an electric compartment-type furnace and deformed in a two-high rolling mill (one passage) at the rate of 5.7 m/sec and spray-cooled. After tempering at 200 or 400°C they were processed into specimens for tensile and impact tests. Findings: maximum hardness ( $H_B = 470-480$ ) and tensile strength ( $\sigma_B = 180-190$ ) are obtained in the case of HTMO with subsequent tempering at 200°C. In certain regimes of HTMO the area of fracture of the specimens fractured

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UDC: 669.14:621.78

L 13000-66

ACC NR: AP6001686

in the impact testing machine is extremely fine-grained; this is also revealed by microstructural examination. Apparently, the high tensile strength and hardness, combined with satisfactory plasticity and impact strength, are attributable to the fine-grained structure of the steel following TMO. Thus, HTMO can be used to toughen rail steel. It markedly enhances its strength while preserving its plasticity at the level characteristic of oil-quenched steel and nearly doubling its impact strength. These initial findings point to the need of expanding research in this field. Orig. art. has: 1 table, 2 figures.

SUB CODE: 11, 13 / SUBM DATE: 21Sep64/ ORIG REF: 005/ OTH REF: 002

jrn

Cord 2/2

L 21268-66 EWT(m)/ETC(f)/EPF(n)-2/EWG(m)/I/EWP(t)/EWP(k) IJP(c) JD/HW/JG/WB  
ACC NR: AP6007928 SOURCE CODE: UR/0148/66/000/002/0119/0121

AUTHOR: Grdina, Yu. V.; Tarasko, D. I.; Dadochkin, N. V.; Gordin, O. V.

ORG: Siberian Metallurgical Institute (Sibirskiy metallurgicheskiy institut)

87  
86  
B

TITLE: Rapid oxidation-free heating of metals for rolling

SOURCE: IVUZ. Chernaya metallurgiya, no. 2, 1966, 119-121

TOPIC TAGS: steel, refractory metal, molybdenum, tungsten, niobium, steel heating, refractory metal heating, oxidation free heating, metal oxidation, oxidation prevention / 60S2 steel, 45G steel, steel 5

ABSTRACT: In a search for an effective and inexpensive method of heating steels and refractory metals for forging, rolling, and extrusion, molten glass has been tested as a heating medium. Specimens of steels 60S2, 45G, St5, and molybdenum, tungsten, and niobium were heated up to 1100-1350C in molten glass (71.88% SiO<sub>2</sub>, 1.11% Al<sub>2</sub>O<sub>3</sub>, 1.5% Fe<sub>2</sub>O<sub>3</sub>, 7.32% CaO, 2.27% MgO, 14.15% K<sub>2</sub>O + Na<sub>2</sub>O) for 5 min to 3 hr. No sign of oxidation was observed on any specimen. On the other hand, 60S2 steel conventionally heated to 1150C was extensively oxidized after holding 20 min. This type of steel, badly affected by decarbonization in conventional heating, showed no sign of decarbonization when

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UDC: 669.046-947

L 21268-66

ACC NR: AP6007928

heated in molten glass. The molten glass forms a compact, gas-tight film on the metal surface which also protects the metal against oxidation outside the bath, such as in hot rolling with 5-20% reduction, in forging, or in extrusion. In rapidly cooled carbon steels, the protective film cracks and a slight oxidation (temper colors) is observed. Refractory metals, however, are not oxidized at the temperatures at which the temper colors are formed. Orig. art. has: 1 figure. [ND]

SUB CODE: 13/ SUBM DATE: 02Feb65/ ATD PRESS: 4221

Card 2/2 dda

L 20788-66 EWT(m)/T/EWP(t) IJP(c) JD/JG

ACC NR: AP6005560

SOURCE CODE: UR/0148/65/000/010/0101/0105

AUTHOR: Grdina, Yu. V.; Lykhin, I. D.ORG: Siberian Metallurgical Institute (Sibirskiy metallurgicheskiy institut)TITLE: Structure of vanadium-carbon alloys

SOURCE: IVUZ. Chernaya metallurgiya, no. 10, 1965, 101-105

TOPIC TAGS: vanadium containing alloy, carbide, ternary alloy, phase composition, chemical composition

ABSTRACT: To fill the gap in the existing knowledge of the phase composition of Fe-V-C ternary alloys, it is primarily necessary to investigate the composition and structure of the carbide phase of the V-C system. So far there has not been much agreement on the chemical composition of the carbides in the V-C system but at any rate it is now generally admitted that two types of carbides form in this system: with hexagonal ( $V_2C$ ) and cubic face-centered lattice (VC). But the boundaries of homogeneity of the carbide phases have not previously been conclusively determined. In this connection, the authors investigated alloys made of pure V (99.825%) and spectrally pure graphite. One part of the alloy was investigated in "natural" state while the other was vacuum-annealed ( $10^{-3}$  mm Hg) in quartz tubes at 1000, 750 and 550°C for 100 hr, with subsequent metallographic and radiographic examination of the

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UDC: 669.292:669.784:620.183



L 20788-66

ACC NR: AP6005560

specimens and electrolytic precipitation of the carbide residue. It was thus established that the homogeneous region for the carbide  $V_2C$  with hexagonal lattice extends from 9.6 to 10.45% C (wt.), while for the carbide VC with cubic lattice it extends from 12.5 to 17.8% C (wt.). A comparison of the findings with the conflicting data available in the published literature shows that the lower boundary of stability of the vanadium carbide VC with cubic lattice cannot as yet be conclusively established owing to the diversity of investigating techniques employed by various researchers. On the other hand, the findings on the upper level of concentration of C in the carbides VC, specifying it at from 16.6 to 17.8%, are generally in close agreement. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 11, 13, 20/ SUMM DATE: 09Apr65/ ORIG REF: 004/ OTH REF: 006

Card

2/2

I 24743-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t) IJP(c) JD/JH

ACC NR: AP6007927

SOURCE CODE: UR/0148/66/000/002/0115/0118

30  
B

AUTHORS: Grdina, Yu. V.; Glikman, Ye. E.

ORG: Siberian Metallurgical Institute (Sibirskiy metallurgicheskiy institut)

TITLE: The relation between dislocation blocking by impurities within and on the boundaries of crystal grains and the critical temperature of brittleness

18

SOURCE: IVUZ. Chernaya metallurgiya, no. 2, 1966, 115-118

TOPIC TAGS: metal test, crystal dislocation phenomena, carbon steel, aluminum, carbon, phosphorus, brittleness, crystal impurity

ABSTRACT: This investigation was conducted to study the relationship between impurities dislocations and the critical temperature of brittleness in several low carbon steels. All alloys were deoxidized with 0.1% aluminum, hence the principal blocking impurity was carbon. The specimens were quenched at 650--530C and were subsequently cooled in water. The experimental results are presented in terms of the constant  $K_y$

$$K_y = \sigma_D l^{1/2}$$

which is assumed to be a measure of the tension required to unblock a dislocation on the grain boundaries. Here,  $\sigma_D$  is the tension necessary for the removal of a dislocation from the impurity atmosphere, and  $l$  is the distance between the grain

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UDC: 669.011.7

L 24743-66

ACC NR: AP6007927

boundary and the nearest dislocation source. The values of  $K_y$  were derived from tension curve diagrams by an extrapolation procedure described by S. N. Polyakov and A. S. Kudlay (Izvestiya AN SSSR, Metallurgiya i gornoye delo, 1964, No. 6). The experimental results are presented in graphs and tables. It is concluded that the reversible quenching brittleness is due to enrichment of the grain boundaries by phosphorus, an explanation proposed by Yu. V. Grdina, Ye. E. Glikman, and Yu. V. Piguzov (Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1965, No. 12). Orig. art. has: 1 table, 2 graphs, and 3 equations.

SUB CODE: 11/ SUBM DATE: 25Jul65/ ORIG REF: 005/ OTH REF: 006

Card

2/2

MQS

(-ADP.V.C., 11)

YUGOSLAVIA / Chemical Technology. Chemical Products and Their Application. Industrial Organic Synthesis. H

Abs Jour: Rof Zhur-Khimiya, No 9, 1959, 32353.

Author : Grdinic, M., Brihta, I.

Inst : ~~Not given.~~

Title : The Investigation of the Process of Acetone Derivation from Ethyl Alcohol and Acetylene.

Orig Pub: Kemija u industriji, 1957, 6, No 6, 157-163.

Abstract: It is indicated that the highest degree of conversion (DC) of  $C_2H_5OH$  (I), mixed with water vapor (II), into acetone (III) takes place in the presence of the catalyzer (C)  $ZnO / Fe_2O_3$  (100:6 mols), in comparison with previously studied C ( $CaCO_3 / Fe_2O_3$  in Fe shavings;  $Fe_2O_3$ ;

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GRDINIC, M.

A contribution to the knowledge of the reaction products  
of acidic amides with phosphorus pentachlorides. Bul sc Youg  
8 no.3/4:84-85 Je-Ag'63.

1. Institut "R.Boskovic", Zagreb.

GRDINOVA M.

CZECHOSLOVAKIA/Microbiology - General Microbiology.

F-1

Abs Jour : Ref Zhur - Biologiya, No 7, 1957, 26266

Author : Kotskova-Kratokhvalova, A., Gebauerova, A., Grdinova, M.

Inst :

Title : The Production of Volatile Arsenic Compounds by Fungi.

Orig Pub : Ceska mykol., 1956, 10. No 2, 77-87

Abst : It was found that certain fungi (Cladosporium and Trichoderma) will grow in a medium with a high arsenic concentration, without producing volatile compounds, whereas others, for whom arsenic is a poison, produce trimethylarsine (I; the more active fungi are those of the species Scopulariopsis brevicaulis and one strain of Aspergillus fumigatus). I accumulates in mycelium in the form of oxides that are soluble in water with difficulty. Glucose stimulates the production of I.

Card 1/1

GEYNAL, Ya. [Heinal, J.]; GRDLICHKA, Z. [Hrdlicka, Z.]; VRUBEL', I.

Protective effect of chlortetracycline on the vitality of exsanguinated tissues and organs. Antibiotiki 5 no.6:25-30 N-D '60.

(MIRA 14:3)

1. Institut klinicheskoy i eksperimental'noy khirurgii. Praga-Krch.  
(AUREOMYCIN) (HEMORRHAGE)

GRDY, I.

LANDA, V.; GRDY, I.; NOVAK, K.; SKUGRAVY, V.

Results of research on cockchafer control in Czechoslovakia  
[with summary in English]. Zool. zhur. 37 no.3:394-402 Mr '58.  
(MIRA 11:4)

1. Entomologicheskaya laboratoriya Chekhoslovatskoy AN, Praga.  
(Czechoslovakia--Cockchafers)





ACCESSION NR: AT4030796

S/0000/63/000/000/0110/0118

AUTHOR: Tavadze, F.N.; Bayramashvili, I.A.; Khantadze, B.V.; Grdzelishvili, V.A.

TITLE: The influence of boron on the surface tension of nickel

SOURCE: AN UkrSSR. Institut metallokeramiki i spetsial'nykh splavov. Poverkhnostnyye yavleniya v rasplavakh i protsessakh poroshkovoy metallurgii (surface phenomena in liquid metals and processes in powder metallurgy). Kiev, Izd-vo AN UkrSSR, 1963, 110-118

TOPIC TAGS: surface tension, boron, nickel, beryllium oxide, aluminum oxide, nickel based alloy, boron containing alloy, hydrogen, helium

ABSTRACT: The authors investigation was conducted by the lying-drop method on an instrument designed and constructed especially for this purpose. The fundamental diagram of the instrument is presented in a figure. The drop was magnified four times. The surface tension of the metal was determined on a flat support of aluminum oxide and beryllium oxide. Special experiments were performed to study the effect of the materials of the heater and the support, as well as the medium (hydrogen, helium), on the surface tension of nickel and its alloys with boron. The

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ACCESSION NR: AT4030796

results of the investigation were presented in micro-photographs, tables, and figures. The values of the surface tension of nickel in a hydrogen and helium atmosphere were practically identical. Boron, an inactive element in relation to nickel, did not effect the value of its surface tension and the grain size. The calculation of the generalized moment and the static generalized moment of nickel and boron atoms confirmed the inactivity of boron in nickel-boron alloy systems. Orig. art. has: 10 figures and 2 tables.

ASSOCIATION: Institut metallurgii AN GruzSSR, Tiflis  
AN Georgian SSR)

(Institute of Metallurgy

SUBMITTED: 23Nov63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 006

OTHER: 003

Card 2/2

GRDZELOV, L.I.

Prospects for finding oil and gas in the Adriatic geosyncline.  
Sov.geol. 5 no.1:160-164 Ja '62. (MIRA 15:2)

1. Ministerstvo geologii i okhrany neдр SSSR.  
(Adriatic Sea region--Petroleum geology)  
(Adriatic Sea region--Gas, Natural--Geology)

POGOSYAN, S.A.; GRDZELYAN, G.P., otvetstvennyy redaktor; TATEVOSYAN, S.A.  
redaktor Izdatel'stva; KAPLANYAN, M.A., tekhnicheskiy redaktor

[The nature of seed bearers of old varieties of ungrafted grape-  
vines and their hybrids] O prirode semennykh rastenii starodav-  
nykh sortov kornesobstvennogo vinograda i ikh gibridov. Erevan,  
Izd-vo Akademii nauk Armianskoi SSR, 1955. 197 p. (MIRA 9:9)  
(Grapes)

GRDZELYAN, G.P.

VERMISHYAN, A.M.; kand.sel'skokhoz.nauk; DILANYAN, G.Kh.; SANAGYAN,  
M.B.; KAZARYAN, Ye.S., kand.sel'skokhoz.nauk, otv.red.;  
ARABATYAN, A.G., saslush.deyatel' nauki, red.; GRDZELYAN, G.P.,  
dotsent, red.; POGOSYAN, S.A., doktor biolog.nauk; DALIYELYAN,  
G., red.izd-va; ATOYAN, S., red.izd-va; KUZANYAN, M., red.izd-va;  
KHACHATRYAN, S., tekhn.red.

[Fruits of Armenia] Plody Armenii. Erevan, Armianskoe gos.izd-vo.  
Vol.1. [Stone fruit; local varieties] Kostochkovyye porody; mestnye  
sorta. 1958. 243 p. (MIRA 12:7)  
(Armenia--Fruit)

GRDZELYAN, P.A.; KARAPETYAN, M.M.; STEPANYAN, N.P.; TOROSYAN, A.S.

Features in calculating yearly losses of electric energy to  
the corona of mountain transmission lines. Izv.AN Arm.SSR.  
Ser.tekh.nauk 12 no.6:3-14 '59. (MIRA 13:6)

1. Institut elektrotehniki AN Armyanskoy SSR.  
(Electric lines) (Corona (Electricity))

GRDZELYAN, R.A.; DZHANDZHUGAZOV, N.G.; KARAPETYAN, M.M.; TOROSYAN, A.S.

Measuring circuits for investigating power losses in corona discharges. *Izv. AN Arm. SSR. Ser. tekh. nauk* 10 no. 1: 19-29 '57.  
(MIRA 10:10)

1. Laboratoriya elektrotehniki AN Armyanskoy SSR.  
(Electronic measurements) (Corona (Electricity))



GRDZELYAN, R.; SOKHAKYAN, R.

Transfer of 110 kv. electric power transmission lines to  
154 kv. Prom.Arm. 5 no.8:49-54 Ag '62. (MIRA 15:8)

1. Armyanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta elektromekhaniki.  
(Armenia--Electric networks)

L 00881-66 EWP(i)/EPF(n)-2/EWA(d)/EWP(t)/EWP(z)/EWP(b) JD/WR/JG

ACCESSION NR: AP4047857

<sup>RU</sup> 0017/64/000/009/0381/0386

AUTHOR: <sup>44,55</sup> Frantiu, I. (Engineer); <sup>44,55</sup> Laiu, N. (Engineer); <sup>44,55</sup> Greavu, N. (Engineer) <sup>26</sup>  
<sup>36</sup>  
<sup>B</sup>

TITLE: Experiments on the cladding of carbon steel plates with stainless steel

SOURCE: Metalurgia, no. 9, 1964, 381-386

TOPIC TAGS: stainless steel, carbon steel, steel plate, steel cladding, compound ingot, electroslag melting

ABSTRACT: This article describes some aspects and variations of the K.M.K. cladding process, used primarily in the Soviet Union and based on the hot rolling of compound ingots. The purpose of the investigation was to establish optimum conditions for this procedure, using the existing Rumanian installations which - up to the time of publication - did not correspond to modern requirements. The results obtained during the year 1963 are reported in this paper. In the compound ingot procedure, the basic carbon steel is first forged. A package formed by two stainless steel plates, necessary for the cladding, are then introduced into its center. The two plates are kept together by welding their edges and are separated by an inert layer deposited between them. A schematic diagram of the ingot mold is given. The compound ingot thus obtained is passed through the rolling mill, under normal conditions, until twice the thickness of the intended

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ACCESSION NR: AP4047857

final product is achieved. This results in a package formed by two strips or plates, with their edges welded all around. The welded edges are cut, and the two sheets are detached at the level of the separation layer. In this manner, each ingot results in 2 sheets or plates of carbon steel, clad on one side with stainless steel. However, these trials, carried out according to the specifications of the K.M.K. method, did not give the expected results. Two modified trials carried out with two series of seven ingots weighing approximately 800 kg each, and 4 ingots of over 2000 kg each, respectively, are described in detail and 3 schematic diagrams are given. These methods brought about the establishment of a good separation layer. A formula for calculating the cladding coefficient ( $K_i$ ) is given. A  $K_i$  of over 100 is needed for a perfectly successful result. The  $K_i$  in the various methods used for the processing of the 800-kg ingots varied from ~ 30 to 60-100. The results obtained with the 2000-kg ingots were less satisfactory. In both cases, the specific quantity ( $g/m^2$ ) to be deposited on the surfaces was a function of the type of the inert materials and the size of the cladded surface, besides depending on the welding obtained during rolling. The procedure of electroslag melting involves the deposition, on a carbon steel brick, of a stainless steel layer obtained by the automatic melting of steel electrodes in a slag bath. The bath of molten metal is then used for the formation of an alloy, through the addition of alloying elements in granulated form. The steps of this procedure are described in detail, and several diagrams are given.

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L OORC -66

ACCESSION NR: AP4047857

36

This procedure makes possible the rolling of a 20 mm thick compound brick, and its cladding up to a proportion of 15%, without any special difficulties. However, it also necessitates important modifications. Finally, the authors comment on the advantages and disadvantages of each method. "The following persons collaborated in these experiments: Eng. A. Ieremia and Eng. I. Tomă of the Combinatul siderurgic Resita (Resita Steel Works), T. Petrescu of I.C.T.C.M., Eng. G. Avram of the Uzina "Republica" ("Republic" Plant) in Bucharest, and Eng. C. Savici and S. Iorga of the Uzina de tabla (Sheet Metal Works) in Galati." Orig. art. has: 12 figures and 2 formulas.

ASSOCIATION: [Frantiu, Lăiu] Institutul de cercetari metalurgice (Institute of Metallurgical Research); [Greavu] Institutul de cercetari tehnologice pentru constructii de masini (Institute for Technological Research on Machine Building)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 001

OTHER: 002

Card

3/3

GREAVU, V., ing.; FREDU, Gh., ing.

Possibilities of using radioactive isotopes in the textile industry. Ind text Rum 12 no.6:225-226 Je '61.

GREBCHUK, M.P.

DERYUGIN, P.S., mostovoy master (st. Ulan-Yde); RUKSHA, G.P.; FILATENKO, O.S.,  
brigadir puti (st. Chad Kazanskoy dorogi); GREBCHUK, M.P., dorozhnyy  
master (st. Korosten'); ROSNOVSKIY, G.F. (st. Krasne L'vovskoy dorogi);  
ROSNOVSKIY, G.F. (st. Krasne L'vovskoy dorogi); KONDRASHOV, A.I.,  
brigadir puti (st. Gryazi-Voronezhskiy Yugo-Vostochnoy dorogi).

Letters to the editor. Put' i put. khoz. no.2:38-39 P '59.  
(MIRA 12:3)

1. Nachal'nik otдела puti i sooruzheniy g. Leningrad (for Ruksha).
  2. Zamestitel' nauchal'nika distantzii puti (st. Krasne L'vovskoy dorogi (for Rosnovskiy).
- (Railroads--Track)

KLARE, G.[Klare, H.]; GREBE, A.[Grobe, A.]; MARON, R.; MANN, G.;  
YAOST, H.[Jost, H.]; KASPERSON, G.[Casperson, G.]

Formation of fiber from modified and nonmodified viscose in  
precipitation baths containing zinc sulfate. 16th Report on  
the formation mechanism of viscose monofilaments. Khim. volok.  
no.6:14-21 '62. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut khimicheskikh volokon  
AN, Berlin, Teltov-Zeyekhev, Germanskaya Demokraticeskaya  
Respublika.

(Viscose) (Textile fibers, Synthetic)

GREBE, A., doktor nauk; REYNISH, G., doktor nauk; TSIMMERMAN, G., doktor nauk;  
GREBE, F., doktor nauk; UL'BRIKHT, I., doktor nauk; SHIFFNER, R.,  
doktor nauk; FILIPP, B., doktor nauk; RUSHER, Kh., doktor nauk;  
GASPERSON, G., doktor nauk; KLARE, G., doktor nauk; YAKOPYAN, V.

Search and solutions; important research of the German Democratic  
Republic chemists. Priroda 54 no.6:83-88 Je '65.

(MIRA 18:6)

1. Institut iz'cheniya volokna Germanskoy Akademii nauk v Berline,  
g. Tel'tov, Germanskaya Demokraticheskaya Respublika.



GREBE, A., doktor nauk; REYNISH, G., doktor nauk; TSIMMERMAN, G., doktor nauk;  
GREBE, F., doktor nauk; UL'BRIKHT, I., doktor nauk; SHIFFNER, R.,  
doktor nauk; FILIPP, B., doktor nauk; RUSHER, Kh., doktor nauk;  
GASPERSON, G., doktor nauk; KLARE, G., doktor nauk; YAKOPYAN, V.

Search and solutions; important research of the German Democratic  
Republic chemists. Priroda 54 no.6:83-88 Je '65. (MIRA 18:6)

1. Institut izucheniya volokna Germanskoy Akademii nauk v Berline,  
g. Tel'tov, Germanskaya Demokraticeskaya Respublika.

GREBECKI, A.; KINASTOWSKI, W.; KUZNICKI, L.

Some observations on the ecology of larvae of Molanna angustata (Curtis) and their distribution in an environment.

p. 191  
Vol. 2, no. 1, 1954  
POLSKIE ARCHIWUM HYDROBIOLOGII  
Warszawa

SO: Monthly List of East European Accessions (EFAL), LC, Vol. 5, no. 12  
December 1956

GREBECKI, A.

Response of larve of *Molanna angustata* Curt. to light. p. 95.  
Vol. 3, no. 2, 1955 Warszawa

FOLIA BIOLOGICA

SOURCE: East European Accession List (EEAL) Library of Congress  
Vol. 5, no. 8, August 1956

GREBECKI, A.; KINASTOWSKI, W.; KUZNICKI, L.

~~XXXXXXXXXXXXXXXXXXXX~~  
So-called peripheral reaction of *Paramecium caudatum*. *Fol. biol.*  
Warsz. 3 no. 2: 117-125 1955.

1. Zakład Biologii Ogólnej Instytutu im. M. Henckiego PAN.  
Kierownik: Prof. Dr. J. Dąbowski.

(CILIATA,

*Paramecium caudatum*, affinity to peripheral spaces  
in closed areas)

(BEHAVIOR,

affinity of animals including *Paramecium caudatum*  
to peripheral spaces in closed areas)

GREBECKI, A.; KUZNICKI, L.

Relation between Paramecium candatum and the chemism of the environment and a protective reaction of a group against inorganic substances. p. 127, Vol. 3, no. 2, 1955 Warszawa

FOLIA BIOLOGICA

SOURCE: East European Accession List (EEAL) Library of Congress  
Vol. 5, no. 8, August 1956

GREBECKI, A.; KUZNICKI A.

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FOLIA BIOLOGICA

Investigations on protective reaction of individual and aggregate  
In fusoria in solutions of organic substance. p. 159.  
Vol. 3, no. 2, 1955 Warszawa

SOURCE: East European Accession List (EEAL) Library of Congress  
Vol. 5, no. 8, August 1956

GREBECKI, ANDRZEJ

med

Ability of *Paramecium caudatum* to resist changes in chemical media commonly occurring under natural conditions. Andrzej Grebecki and Leszek Kuźnicki (Inst. Exp. Biol. Gen. Biol., Warsaw). *Folia Biol. (Warsaw)* 4, 93-118 (1959)(English summary).--The range of pH within which infusoria can live longer than 24 hrs. is 4.82-9.03 in unbuffered media, and 4.68-9.16 in buffered ones. Resistance of *P. caudatum* to reducing substances is considerably greater than to oxidizing substances. Aggregations have a favorable effect on the survival of infusoria, if the latter are treated with oxidizing substances. Dense aggregations of paramecia gradually increase the pH and decrease the oxidation-reduction potential of the medium. If paramecia are treated with excretory products, or their own condensed medium, aggregation does not influence survival.

Anna H. Kofler

2

GREBECKI, A.

Experimental studies on the selection and adaptability in *Paramecium caudatum*. *Acta biol exper* 21:35-52 '61.

1. Department of Biology, Nencki Institute of Experimental Biology,  
Warsaw.

(CILIATA)



GREBECKI, A.; KUZNICKI, L.

Immobilization of *Paramecium caudatum* in the chloralhydrate solutions. *Bul Ac Pol Biol* 9 no.11:459-462 '61.

1. Department of General Biology, M.Nencki Institute of Experimental Biology, Polish Academy of Science. Presented by J.Dembowski.

GREBECKI, A.

Adsorption of fluorochromes by the Ciliata cytostome. Bul Ac Pol  
biol 10 no.11:483-485 '62.

1. Zaklad Biologii Ogolnej, Instytut Biologii Doswiadczalnej im.  
N.Nenckiego, Polska Akademia Nauk, Warszawa. Presented by  
J.Dambowski.

\*

GREBECKI, Andrzej

Selected problems of the electrophysiology of motion and absorption in protozoans; electric properties of the protozan cell. Kosmos biol 13 no.2:105-123 '64

S/135/60/000/005/001/009  
A115/A029

AUTHORS: Kushnerev, D.M., Candidate of Technical Sciences; Grebel'nik, M.P.,  
Engineer

TITLE: Ceramic Flux for Automatic Welding<sup>18</sup> of 1X18H9T<sup>18</sup> (1Kh18N9T) Stainless  
Steel<sup>16</sup>

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 5, pp. 1 - 4

TEXT: The purpose of this study was to find out a ceramic flux which would secure resistance of weldments to intercrystallite after-welding corrosion; <sup>18</sup> high quality of weldments was sought with d-c or a-c applied, and finally, the possibility of application of standardized Ca-1X18H9T (Sv-1Kh18N9T) wire. The indispensable requirement for the composition of a ceramic flux for welding high-alloyed austenite steel is a minimum of oxidizing elements in the melting pool; this is the only way to obtain high concentrations of chromium and titanium in the seam. In this respect, the most suitable fluxes are composed on fluorine basis. The disadvantage of these fluxes is their low stabilizing capacity suitable for welding with d-c only. The fused metal is slightly oxidized by welding with flux made of CaO, MgO, Al<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>. CaO and MgO should be preferred since ✓

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S/135/60/000/005/001/009  
A115/A029

## Ceramic Flux for Automatic Welding of 1X18H9T (1Kh18N9T) Stainless Steel

lime slags reduce the content of sulfur. In the case of marble, during welding calcium oxide is generated, affecting the health of the welder; attempts to avoid this obstacle failed. Calcination of marble with  $\text{SiO}_2$  and  $\text{Al}_2\text{O}_3$  does not eliminate hydration. Nevertheless, the use of marble electrodes secures high quality seams in weldments of chrome-nickel steels; therefore, many compositions of ceramic flux have been tried out and the following found most suitable for welding steel 1Kh18N9T: marble 57 - 60%, magnesite brick 9 - 10%, alumina 4 - 5%, fluorspar 5 - 6%,  $\text{TiO}_2$  14 - 16%. Good results have been achieved by bringing in- to the flux ferro-silicon. K-8 (K-8) flux is composed as follows: 54 - 58%  $\text{CaCO}_3$ , 8.5 - 11%  $\text{MgO}$ , 14 - 15%  $\text{TiO}_2$ , 4.5 - 5%  $\text{Al}_2\text{O}_3$ , 5.0 - 6%  $\text{CaF}_2$ , 4.0 - 5.0%  $\text{SiO}_2$ , 1.5 - 2.0%  $\text{Na}_2\text{O}$ , 3.6 - 3.9%  $\text{Si}$ , 1.1 - 1.4%  $\text{Fe}$ , 0.1%  $\text{S}$  and  $\text{P}$ . This ceramic flux secures good seams, easy removal of slag crust (Fig. 1) and high resistance against pores and blisters. When welding steel 1Kh18N9T under K-8 flux with Sv-1Kh18N9T and 3M606 (EI606) wires (Table 3), the metal of the seam has two-phase austenite-ferrite structure with only 3 - 5% of ferrite (Fig. 2). The mechanical characteristics of the seam are not inferior to those of the basic metal (Fig. 4). Exposure for a prolonged time to  $750^\circ\text{C}$  did not affect the toughness of the welded seam (Table 5). Ceramic flux K-8 has found widespread appli-

S/135/60/000/005/001/009  
A115/A029

Ceramic Flux for Automatic Welding of 1X18H9T (1Kh18N9T) Stainless Steel

ation in machinery and chemical industries. There are 3 figures, 6 tables and 5 Soviet references.

ASSOCIATION: Institut Electrotekhniki Akademii Nauk Ukrainskoy SSR (Electrotechnical Institute of the AS Ukr SSR)



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ACC NR: AP7004195

alloy Sv-06Kh19N9T filler wire under ceramic flux No. 5 (60% marble, 20% fluorspar, 15% rutile concentrate, 3% ferrosilicon, 2% ferrotitanium TiO), the desired chemical composition of the weld metal can be obtained over a wide range of welding conditions. The second method of alloying the weld metal was also 50% cheaper than the first. In automatic welding of high-alloy stainless steels under ceramic flux, it is advisable to use a standard high-alloy filler wire, and the alloying with flux only for additional alloying and deoxidation of the molten metal bath. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11,13/ SUBM DATE: 24Sep65/ ORIG REF: 003

Card 2/2

GREBEL'NIK, F. G.

Avtomaticheskaia svarka pod slcem fliusa; opyt Gor'kovskogo avtozavoda im. Molotva. Gor'kii, Oblizdat, 1947. 136 p.

Automatic flux welding method; practice of the Gorky Molotov automobile plant.

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.



GREBEL'NIK, P. G.

Grebel'nik, P. G. "On the course of introducing automatic welding into industry in the light of the decision of the Council of Ministers, USSR, of 9 June 1947", Trudy Vsesoyuz. konf-tsi po avtomat. svarke pod flyusom, 3-6 October 1947, Kiev, 1948, p. 11-17.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 11, 1949).

BORT, M.M., kandidat tekhnicheskikh nauk; BYALOTSKIY, L.A., assistant;  
VASIL'YEV, G.V., assistant; GAPCHENKO, M.N., kandidat tekhnicheskikh  
nauk; GREBEL'NIK, P.G., kandidat tekhnicheskikh nauk, otvetstvennyy  
redaktor; TROCHUN, I.P., kandidat tekhnicheskikh nauk; SERDYUK, V.K.,  
vedushchiy redaktor; inzhener; RUDENSKIY, Ya.V., tekhnicheskiy re-  
daktor.

[Electric welder's reference book] Spravochnik elektrosvarshchika.  
Izd. 2-o, perer. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit.  
lit-ry, 1954. 515 p. [Microfilm] (MLRA 8:1)  
(Electric welding)

KHRESNOV, Konstantin Konstantinovich; GRIBEL'NIK, P.G., kand.tekhn.nauk.  
retsensent; FURER, P.Ya., red.; RUDENSKIY, Ya.V., tekhn.red.

[Welding, cutting, and soldering of metals] Svarka, rezka i  
paika metallov. Izd.2., perer. i dop. Kiev, Gos.nauchno-tekhn.  
isd-vo mashinostroit.lit-ry, 1955. 411 p. (MIRA 12:8)  
(Welding) (Metal cutting)

GREBEL'NIK, P.G.

RYABOKON', Nikolay Gavrilovich; GAL'CHINSKIY, Leonid Viktorovich; GREBEL'NIK,  
P.G., kand.tekhn.nauk, retsenzent; LYSENKO, F.K., red.; SOROKA, M.S.,  
red.izdatel'stva.

[Arc welder's manual] Uchebnik elektrosvarshchika. Kiev, Gos.  
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 154 p. (MIRA 10:12)  
(Electric welding)

PHASE I BOOK EXPLOITATION SOV/3947

Elektroshlakovaya svarka (Electroslag Welding) 2d ed., rev. and enl.  
Moscow, Mashgiz, 1959. 406 p. Errata slip inserted. 6,500 copies printed.

Reviewer: I.I. Zaruba, Candidate of Technical Sciences; Ed. (title page):  
B.Ye. Paton, Laureate of the Lenin Prize, Academician, Academy of Sciences USSR;  
Eds. (inside book): P.G. Grebel'nik, Candidate of Technical Sciences, and G.D.  
Tynyanyy; Chief Ed. (Southern Division, Mashgiz): V.K. Serdyuk, Engineer.

**PURPOSE:** This book is intended for technical personnel studying the electroslag-welding process.

**COVERAGE:** The book contains information on the essentials, characteristic features, and advantages of electroslag welding. Thermal and metallurgical characteristics of the processes of electroslag welding and surfacing of steels and other metals are described. Also described are constructions of welding equipment and automatic-control systems for electroslag welding. The following persons participated in writing the book: Candidates of Technical Sciences G.Z. Voloshkevich, S.A. Ostrovskaya, D.A. Dudko, I.K. Pokhodnya, Yu. A. Sterenbogen, G.V. Zhemchuzhnikov, P.I. Sevbo, B.I. Medovar, and D.M. Rabkin; Engineers I.N. Rublevskiy,

Card 1/7

Electroslag Welding

SOV/3947

and I.V. Novikov, O.O. Rozenberg, V.P. Didkovskiy, G.S. Tyagun-Belous; and B.Ye. Paton, Academician, Doctor of Technical Sciences, Laureate of the Lenin Prize. There are 92 references: 86 Soviet, 5 German, and 1 English.

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Ch. I. Electroslag Welding of Metals	7
1. Essentials of electroslag welding	7
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Card 2/7	

PATON, B.Ye., akademik, doktor tekhn.nauk, laureat Leninskoy premii;  
VOLOSHKOVICH, G.Z., kand.tekhn.nauk, laureat Leninskoy premii;  
OSTROVSKAYA, S.A., kand.tekhn.nauk; DUDKO, D.A., kand.tekhn.nauk;  
POKHODNYA, I.K., kand.tekhn.nauk; STERENBOGEN, Yu.A., kand.tekhn.  
nauk; RUBLEVSKIY, I.N., inzh.; ZHEMCHUZHNIKOV, G.V., kand.tekhn.  
nauk; ROZENBERG, O.O., inzh.; SEVBO, P.I., kand.tekhn.nauk; NOVIKOV,  
I.V., inzh.; MEDOVAR, B.I., kand.tekhn.nauk; DIDKOVSKIY, V.P., inzh.;  
RABKIN, D.M., kand.tekhn.nauk; TYAGUN-BELOUS, G.S., inzh.; ZARUBA,  
I.I., kand.tekhn.nauk, retsenzent; GREBEL'NIK, P.G., kand.tekhn.nauk,  
red.; TYNANYI, G.D., red.

[Electric slag welding] Elektroshlakovaya svarka. Izd.2., ispr. 1  
dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959.  
409 p. (MIRA 13:4)

1. AN USSR (for Paton).  
(Electric welding)

BORT, M.M., kand.tekhn.nauk; BYALOTSKIY, L.A., inzh.; VASIL'YEV, G.V., inzh.;  
VOSHCHANOV, K.P., inzh.; GAPCHENKO, M.N., kand.tekhn.nauk; GORPENYUK,  
N.A., kand.tekhn.nauk; GREBEL'NIK, P.G., kand.tekhn.nauk; DYATLOV,  
V.I., kand.tekhn.nauk; TROCHUN, I.P., kand.tekhn.nauk; KHRENOV, K.K.,  
akademik; SOROKA, M.S., red.

[Electric welder's handbook] Spravochnik elektrosvarshchika. Izd.3.,  
perer. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961.  
748 p. (MIRA 14:6)

1. AN USSR (for Khrenov).  
(Electric welding)



GREBEL'SKAYA, E.S., kandidat meditsinskikh nauk

Psychological preventive functions of a physician in the school.  
Pediatriia no.4:61-66 J1-Ag '54. (MLRA 7:10)

1. Iz detskoy psikhiatricheskoy kliniki Instituta psikhiatrii  
Ministerstva zdravookhraneniya RSFSR (rukovoditel' kliniki prof.  
G.E.Sukhareva)

(SCHOOLS,

med. serv. in Russia, psychol. & prev. funct.)

GRABEL'SKAYA, M. M.

USSR/Chemistry - Acetylene

Jan 52

"Solubility of Copper, Silver, and Mercury Acetylides," A. K. Babko, M. M. Grebel'skaya

"Zhur Obshch Khim" Vol XXII, No 1, pp 66-76

Methods for detn of  $C_2H_2$  in control of various production processes involving use of  $C_2H_2$  usually utilize formation of difficultly sol  $C_2Cu_2$ ,  $C_2Hg_2$ ,  $C_2Ag_2$ . Studied equil in satd solns of these acetylides and derived expressions for soly relationships. Studied their soly in acids, order of their solubilities, effect of excess of pptg agent, and their interaction with different reagents. Results

207714

USSR/Chemistry - Acetylene (Contd)

Jan 52

prove feasible use of general theory of ppts for calcn and prediction of practical pptn and soln conditions under consideration of certain sp properties of a series of ppts.

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PA 78T41

USSR/Medicine - Flies  
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Jun 1948

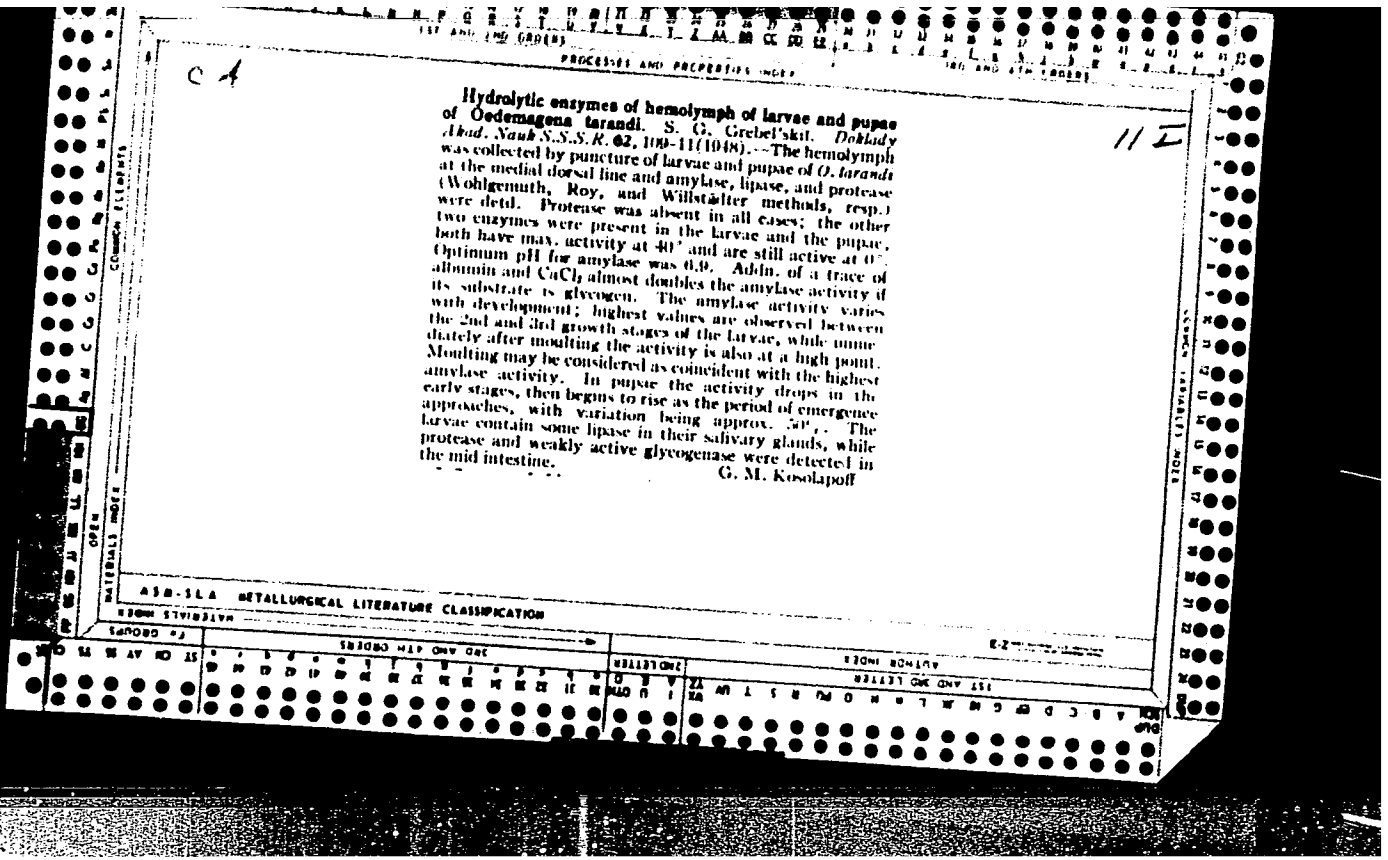
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18/49713

USSR/Electronics (Contd)

Nov/Dec 48

of Moscow and Khar'kov connected with work of the Institute. Lists titles of seven papers presented.

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GREBEN I. I. PROF

PA 22/49T22

USSR/Electricity  
Electrical Equipment  
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Oct 48

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22/49T22

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Nov 51

"Professor A. V. Orlovskiy (His 50th Birthday and 25 Years of Pedagogical and Public Activity, Prof A. D. Nesterenko, Corr Mem, Acad Sci Ukrainian SSR, Prof I. I. Greben', Dr Tech Sci, Docent V. G. Kholmskiy, Cand Tech Sci, K. V. Zubanov, Chief Engr, Kievenergo, Yu. V. Kartshhevskiy, Chief Engr, Glavenergo MKKh, Ukrainian SSR, A. S. Tarasov, Dir, Kiev Heat and Power Sta, A. A. Zayko, Engr

"Elektrichestvo" No 11, p 91

Orlovskiy has been head of the Chair of Central Elec Power stations, Kiev Polytech Inst since 1937

USSR/Electricity - Personalities (Contd)

Nov 51

1937, and Dean of the Elec Engineering Faculty, he is directing work in the Kiev Polytech Inst on the problem of generating reactive power in mercury-converter units. Orlovskiy has trained more than 1,500 elec engineers.

201T68

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