

BAYKOVSKIY, V.M. (Moskva)

Accumulation of error in telemechanical systems during information transmission using an increment technique. Avtom. i telem. 25 no.8:1203-1209 Ag '64.

(MIRA 17:10)

BAYKOV, U.M.

Quality requirements imposed upon the waters injected in the Shkapovo field. Nefteprom. delo no. 3:6-9 '64. (MIRA 17:5)

1. Uf'mskiy neftyanoy nauchno-issledovatel'skiy institut.

BAYKOV, U.M.; YEFEROVA, L.V.

Schematic diagram of the purification of the waste waters of the Arlan oil field for injection. Neftprom. delo no.12:15-17 '64.
(MIRA 18.3)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut i neftepromyslovoye upravleniye "Arlanofi".

LANDA, V.A.; KANTOR, M.M.; BAYKOV, V.A.

X-ray diffraction control of the quality of surface grinding
and sharpening of a tool made of high-speed steel. Zav. lab.
30 no.6:731-732 '64 (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy instrumental'nyy in-
stitut i zavod "Frezer".

BAYKOV, V.F., inzh.

Changing the diagram for switching-on the current of the MTP-75
machine. Star.proizv. no.6:39 Je '61. (MIRA 14:6)
(Electric welding—Equipment and supplies)

VASILEVSKIY, K.P.; BAYKOV, V.I.

Infrared spectrum of lithium fluoride vapors. Opt.1 spektr. 11
no.1:41-45 J1 '61. (MIRA 14:10)
(Lithium fluoride--Spectra) (Infrared rays)

BAYKOV, V. N. Cand Tech Sci

Dissertation: "Torsion in the Constructions
of Reinforced Concrete."

27/11/50

All-Union Correspondence Polytechnical Inst,
Ministry of Higher Education, USSR.

80 Vecheryaya Moskva
Sum 71

Авторы: В. Н. Байков
BAYKOV, V.N., kand. tekhn. nauk.

Using precast reinforced concrete in constructing industrial installations. *Bul. stroi. tekhn.* 14 no.9:1-6 S '57. (MIRA 10:12)

1. Moskovskiy institut inzhenerov gorodskogo stroitel'stva [MIIGS] Mosgorispolkoma.

(Precast concrete construction)

BAYKOV, V.N., dots.

Designing prestressed bent reinforced concrete elements for crack
resistance. Bet.1 shel.-bet. no.7:330-331 J1 '60. (MIRA 13:7)
(Strains and stresses)

24.4200

S/124/62/000/003/043/052
D237/D302

AUTHOR: Baykov, V.N.

TITLE: Stress calculations for sloping, convex shells of constant double curvature with a rectangular plane

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 3, 1962, 12 - 13
abstract 3V72 (Stroit. mekhan. i raschet soorush.
1961, no. 3, 7 - 12)

TEXT: It is proposed that during the calculation of tangential stresses in computing sloping shells of constant double curvature with a rectangular plane by the method of V.Z. Vlasov, utilizing expansion of known and unknown functions into double trigonometric series (Obshchaya teoriya obolochek i yeye prilozheniya v tekhnika (General Theory of Shells and its Technical Application), M. -L., Gostekhteorizdat, 1949), some intermediate functions, obtained from the expressions for the stresses in question by double (or n-tuple) integration with respect to corresponding coordinates in order to improve the convergence of the series, should be determined in advance. With values of these functions fixed at some points,
Card 1/2

VB

Stress calculations for sloping ...

S/124/62/000/003/043/052
D237/D302

the subsequent numerical differentiation with variation in these functions in the corresponding directions taken into account, leads, for some chosen fixed values of these functions, to determination of the sought stresses from few terms of the series. An example is given, and necessary formulas quoted. In Eq. (1) a misprint occurs: The coefficient $12(1 - \gamma^2)/h^2$ of the term $\nabla^2 k \nabla^2 k F$ is separated from the latter by a minus sign. 5 references. [Abstractor's note: Complete translation].

Card 2/2

JB

MURASHEV, Vasilii Ivanovich, doktor tekhn. nauk, prof.[deceased];
SIGALOV, Emmanuil Yevseyevich, kand. tekhn. nauk, dots.; ~~BAYKOV,~~
Vitaliy Nikolayevich, kand. tekhn.nauk, dots. ~~Priznal uchastiye~~
~~MILOVANOV, A.F.;~~ kand. tekhn. nauk; PASTERNAK, P.L., doktor tekhn.
nauk, prof., red.; TREPENENKOV, R.I., kand. tekhn. nauk, dots.,
nauchnyy red.; BEGAK, B.A., red. izd-va; MOCHALINA, Z.S., tekhn.red.
[Reinforced concrete elements]Zhelezobetonnye konstruksii; obshchii
kurs. Pod red. P.L.Pasternaka. Moskva, Gosstroizdat, 1962. 658 p.
(MIRA 15:10)

(Precast concrete)

L 26774-66

ACC NR: AP6017467

SOURCE CODE: UR/0097/65/000/007/0049/0049

AUTHOR: Baykov, V. N. (Organization committee chairman)

ORG: none

TITLE: Inter-republic conference on the usage of pre-stressed reinforced concrete constructions for industrial buildings

SOURCE: Beton i zhelezobeton, no. 7, 1965, 49

TOPIC TAGS: reinforced concrete, construction, civil engineering conference

ABSTRACT: The reinforced Concrete Constructions Section of the Central Administration of the Construction Industry Scientific and Technical Organization, together with the Kuybyshev Oblast Administration of the Scientific and Technical Organization, is planning a three-day inter-republic conference in October 1965, on the theme "Pre-stressed reinforced concrete constructions for industrial buildings." The task of the conference will be to clarify the opinion of the scientific and technical society on the state and prospects for development of pre-stressed concrete constructions for industrial buildings. The reports are to combine the experience of planning, research and production organizations in the construction, production and installation of parts made of this material. The conference's organization committee invites workers in the field to take part in the conference. [JPRS]

SUB CODE: 13 / SUBM DATE: none

Card 1/1 *la*

S/148/60/000/007/005/015
A161/A029

AUTHORS: Osadchiy, V.Ya.; Fomenko, Yu.Ye.; Yeriklintsev, V.V.; Baykov, V.P.

TITLE: Metal Pressure on the Piercing Mill Rolls

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallur-
giya, 1960, Nr 7, pp 103-110

TEXT: An experimental investigation at Nikopol'skiy Yuzhnotrubnyy zavod (Nikopol' Tube Works) is described. The purpose was to study the dynamics of the process, which is important for full utilization of the power and mechanical strength of rolling mills as well as for establishing an optimum rolling process technology. The "400" installation of the plant used for experiments consists of two continuous heating furnaces; two piercing mills (with 960-860 mm diameter rolls and 2,350 kw motor); one reheating furnace before the spreading mill; an automatic spreading mill; two rolling-over mills; one sizing mill, and a cooler with a straightening machine. Both piercing mills are operating only when rolling large-diameter and thin-walled tubes otherwise the piercing mill Nr 2 operates alone. It produces billets in a single piercing. Metal pressure on the

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Metal Pressure on the Piercing Mill Rolls

S/148/60/000/007/005/015
A161/A029

piercing mill rolls was measured with dynamometers placed between the screwdowns and the work roll bolster (Figure 1), in especially prepared casings (Figure 2). Pressure oscillograms are shown (Figure 3) and "decoded" (in Table 1). No sufficiently accurate theoretical or experimental data are yet available on the dependance of specific metal pressure on the basic piercing process parameters, and data obtained by experience are usually being employed in calculations of the piercing mill parts and technology. In the described investigation, mean pressure was determined by dividing the experimentally determined full metal pressure on the rolls by the contact area between the metal and the rolls:

$$p = \frac{P}{S} \text{ kg/mm}^2.$$

A.I. Tselikov's method /Ref 3/ was used for determining the contact area, taking into account the ovality of the billet. The mean specific pressures are given in a table (Table 2). It was stated that for alloy steel the mean specific pressure is 10-14 kg/mm², and for carbon steel it reaches 7.5-12 kg/mm², which matches the data obtained in other investigations /Refs 1, 4 and 5/. The following conclusions were drawn: 1) In the two piercing mills studied the pressure was 33-92 ton, which is not high for this type of mills. In rolling

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Metal Pressure on the Piercing Mill Rolls

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A161/A029

stainless and alloy steel the pressure is higher than in rolling carbon steel, provided that axial slip has no dominating effect as is the case in rolling 168x8 mm tubes of X 5B ϕ (Kh5VF) and 168x10 mm tubes of X 5 (Kh5) steel tubes. When rolling tubes of equal diameter but different wall thickness, the pressure curve has a maximum. 2) The pressure on the inlet side screwdown is higher than on the outlet side screwdown: by 2-3 times in the piercing mill Nr 1, and 2-4 times in the Nr 2. Load on the outlet side bearings being much lower, their rated life time may be increased 2-3 times. 3) Only slip (lag) of metal was observed in the deformation zone, lead was absent. The axial slip coefficient was between 0.48 and 0.90. There are 8 figures and 5 Soviet references. ✓

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: June 24, 1959

Card 3/3

Рыков, Г. 5

Sovremennaya vengerskaya literatūra (Contemporary Hungarian Literature)
Moskva, Izd-vo Inaniya, 1953
31 v.

374/6
887
.83

ROMANOVA, Zinaida Ivanovna; DANILEVICH, M.V., doktor ekon. nauk,
otv. red.; BAYKOV, V.S., red.,

[Problems of economic integration in Latin America] Problemy
ekonomicheskoi integratsii v Latinskoj Amerike. Moskva,
Nauka, 1965. 249 p. (MIRA 18:5)

BAYKOV, V. S.

"Gas Content Determination in Steel and Ferroalloys."

paper presented at Second Symposium on the Application of Vacuum Metallurgy.

1-6 July 1958, Moscow

BAYKOV, V.S.

Determining the hydrogen content in steel. Vop.proisv.stali
no.5:71-79 '58. (MIRA 12:5)
(Steel--Hydrogen content) (Vacuum apparatus)

BAYKOV, V.S.

Hydrogen content in steel and slags during electric smelting.
Vop.proizv.stali no.5:80-87 '58. (MIRA 12:5)
(Steel--Hydrogen content) (Slag--Analysis) (Electrometallurgy)

SOV/137-59-2-2656

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 55 (USSR)

AUTHOR: Baykov, V. S.

TITLE: Investigation of the Technology of Structural-steel Smelting in Electric-arc Furnaces With the Use of Oxygen (Issledovaniye po tekhnologii vyplavki konstruksionnykh staley v elektrodugovykh pechakh s primeneniym kisloroda)

PERIODICAL: V sb.: Vopr. proiz-va stali. Nr 5. Kiyev, AN UkrSSR. 1958, pp 88-91

ABSTRACT: The investigation was carried out on 40-ton electric-arc furnaces during the production of 18KhGT, 30KhGT, ShKh15, U10A, and other grades of steel with the purpose of accelerating dephosphorization and decarbonization of the metal. Upon the melting of the charge the slag was not drawn off and O₂ was blown through the bath for 15 - 20 min until the needed [C] was obtained. The following results were attained in the experimental smeltings: The effervescence period was shortened to 15 - 20 min, O₂ and electric-energy consumption, as well as the loss of Fe in burning, were reduced. The author points out the inexpediency of adding Fe ore during the process of fusion because it

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SOV/137-59-2-2656

Investigation of the Technology of Structural-steel Smelting in Electric (cont.)

increases the amount of slag and introduces additional amounts of C into the charge,
and thus increases the amount of harmful impurities in the mixture.

A. Sh.

Card 2/2

BAYKOV, V.S.; PAVLINSKIY, I.N.

Usovershenstvovanie metodiki opredeleniya
vodoroda v zhidkoy stali.

report submitted for the 5th Physical Chemical Conference on
Steel Production.

MOSCOW 30 JUN 1959

BAYKOV, V.S., Cand Tech Sci--(disc) "Development of new instruments for the determination of gases in metals and the study of the behavior of hydrogen in the process of the electrosmelting of steel." Dnepropetrovsk, 1958. 13 pp ~~in (Acad Sci UkrSSR: Inst of Ferrous Metallurgy),~~
~~Dnepropetrovsk, 1958. 13 pp in (Acad Sci UkrSSR: Inst of Ferrous Metallurgy),~~
120 copies (M, 43-58, 103)

BAIKOV, S.

TABLE I BOOK EXTRACTS SOV/SLS

Abundant work on the extraction of ferro-chromium-iron oxides from steel
Primeneniye vuzmova v metalurgii (Use of vacuum in Metallurgy) Moscow, Izdat-
se GSSR, 1960. 324 p. Series also numbered. 4,500 copies printed.

Spetsialnyy Agenty, Abundant work on the extraction of ferro-chromium-iron oxides from steel.
Emenitsyn po ferro-chromium-iron oxides from steel.
Karp, M. I. A. M. Karp, Corresponding Member, Academy of Sciences USSR; M. of
Publishing Science G. M. Karpovskiy; Tech. M. I. S. O. Karpovskiy.

PROCES: This collection of articles is intended for technical personnel interested
of its present results and developments of vacuum steelmaking practice and equip-
ment.

CONTRACT: The book contains information on steel making in vacuum, impurities per-
centage and vacuum are discussed, reduction processes in vacuum, and degassing of
steel and alloys. The furnishing of apparatus and equipment, especially
vacuum furnaces and vacuum boiler pumps is also analyzed. Personalities are
mentioned in connection with some of the articles and will appear in the table
of contents. Three articles have been translated from English. Some of the
titles are:

Karp, M. I. (Imperial People's Republic). The Mechanism of Degassing of Molten
Steel in Vacuum 257

Krasnitskiy, B. F., I. B. Piletskiy, and V. I. Shklyarskiy. On the Problem of
Vacuum Melting of Metals 264

PART V. APPARATUS AND EQUIPMENT

Popov, A. A. Investigation of Molten Iron in Vacuum or in the Inert-Gas
Atmosphere 279

Harner, E. J., and E. F. Danner. Investigation of Individual Subassemblies
of Vacuum Electric Furnaces 290

Mikhailov, A. B., A. P. Baklanov, and S. O. Polubinskiy. Highly Productive
Continuous Vacuum Furnaces 298

Yerikhin, A. B. A New Series of Highly Productive Vapor-Stream Pumps
(G. O. Krasnitskiy and V. I. Zolotarev participated in the work) 310

Krasnitskiy, V. I. Highly Productive Mechanical Booster (Boots) Pumps 316

Kaykov, V. S. Determination of Gas Content in Steel and Ferroalloys 320

Cheremisin, Ya. S. Hot Melting of Metals in Vacuum 326

AVIARMS Library of Congress

BAYKOV, V.S.; PAVLINSKIY, I.N.

Determination of hydrogen in steel. Vop.proizv.stali no.7:
63-73 '60. (MIRA 13:8)
(Steel--Hydrogen content)

S/137/62/000/003/183/191
A154/A101

AUTHORS: Baykov, V. S.; Pavlinskiy, I. N.

TITLE: Examination of methods for determining hydrogen in steel

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 5, abstract 3 K 20
(Sb. "Fiz.-khim. osnovy proiz-va stali". Moscow, AN SSSR, 1961,
279 - 286)

TEXT: When determining the H content in steel by the vacuum-heating method, other gases, mainly water vapors and Co, are also extracted. A diagram of equipment for full analysis of the gases is given. It was found that the total content of H and water vapors in the extracted gases varies from 80 to 96 %, the amount of water vapors in the examined gases was up to 0.9 ml per 100 g of steel. The CO content of the extracted gases hardly depends on the C content of the steel. Adsorption of moisture on the analytical equipment introduces a considerable error into the analysis for H, therefore moisture absorbers with a low vapor pressure must be used. For determining H for industrial purposes, it may be recommended to use a moistureless prevacuum heating device and to take

Card 1/2

L 42808-66 EWT(1)/ENP(m)/EWT(m)/I WN/JW/WE/GD

ACC NR: AT6028563

SOURCE CODE: UR/0000/66/000/000/0235/0249

AUTHOR: Baykov, V. S.; Vasil'yev, Yu. N.

ORG: none

TITLE: The feasibility of increasing the effectiveness of the gas ejector stage

SOURCE: Lopatochnyye mashiny i struynnye apparaty (Vane machinery and jet apparatus), sbornik statey, no. 1, Moscow, Izd-vo Mashinostroyeniye, 1966, 235-249

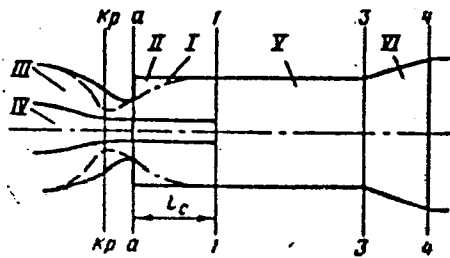
TOPIC TAGS: combustion gas dynamics, gas ejector, flow field, nozzle flow, flow analysis, **GAS JET**ABSTRACT: Two new types of gas ejectors are considered and described. One has sudden expansion of a high-pressure gas jet (see Fig. 1), and the other has a

Fig. 1. Ejector with sudden expansion of a high-pressure gas jet

I - Jet boundary; II - stagnation region;
III - high-pressure nozzle; IV - low-pressure nozzle; V - mixing chamber; VI - diffuser.

Card 1/3

UDC: 629.13.03:621.176.001.5

ACC NR: AT6028563

divergent high-pressure gas nozzle (see Fig. 2). The computations of the two

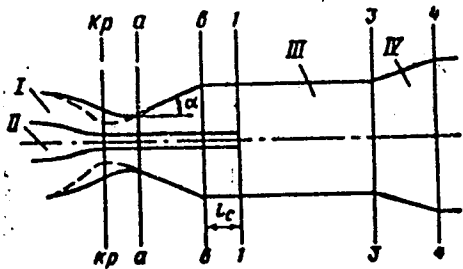


Fig. 2. Ejector with divergent high-pressure nozzle

I - High-pressure nozzle; II - low-pressure nozzle; III - mixing chamber; IV - diffuser.

gas-flow patterns in the initial section of the mixing chamber (presented graphically) were made by the method of characteristics, in order to determine the limiting values of the compression ratio and pressure drop in both ejectors. A comparative study of the results presented in graphs for a conventional ejector and both ejectors described here shows the advantages of the ejector with sudden expansion of a high-pressure jet over a conventional type, and of the ejector with a divergent high-pressure nozzle over the former. The limiting values of the compression ratio ϵ

Cont 2/3

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ACC NR: AT6028563

versus the pressure drop σ for both ejectors are give in Fig 3. Orig.

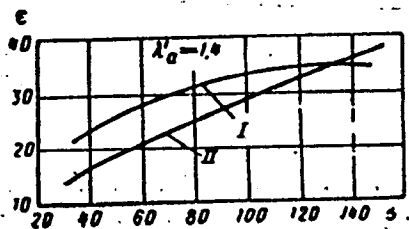


Fig. 3. Limiting values of pressure ratio versus pressure drop

I - Ejector with a divergent nozzle; II - Ejector with sudden expansion.

art. has: 17 figures and 9 formulas.

[AB]

SUB CODE:21 , 20/ SUBM DATE: 06Apr66/ATD PRESS:15066

Card 3/3 LC

GRECHEV, M.A., kand. ekon. nauk; KLEMET, O.G., kand.ekon. nauk;
TARASOV, K.S., kand. ekon. nauk; DANILEVICH, M.V.,
doktor ekon. nauk; YURLOV, A.F., kand.ekon. nauk;
ONUFRIYEV, Yu.G.; ROMANOVA, Z.I., kand. ekon. nauk;
SHEREMET'YEV, I.K., kand. ekon. nauk; SHUL'GOVSKIY,
A.F., kand. istor. nauk; KALININ, A.I., kand. iurid. nauk;
AVARINA, V.Ya., doktor ekon. nauk, red.; BAYKOV, V.S., red.;
KOVALEV, A.P., red.izd-va; KASHINA, P.S., tekhn. red.

[Economic problems of Latin American countries] Ekonomi-
cheskie problemy stran Latinskoi Ameriki. Moskva, Izd-vo
AN SSSR, 1963. 511 p. (MIRA 17:1)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezh-
dunarodnykh otnosheniy.

1950

BAYKOV, V.T.; BOLKHOVITINOV, V.F., prof., retsenzent; TRAPEZIN, I.I., dots., retsenzent; ROMASHEVSKIY, A.Yu., otv. red.; YERMAKOV, M.M., tekhn. red.

[Structural mechanics for airplanes] Stroitel'naia mekhanika samoleta. Moskva, MAI. Pt.1. [Statically determinate rod systems] Sticheski opredelime sterzhnevye sistemy. 1950. 228 p. (MIRA 15:1)

(Structures, Theory of)
(Airplanes—Design and construction)

BAYKOV, V.F., kandidat tekhnicheskikh nauk [deceased]; LOPOVOK, B.N.,
kandidat tekhnicheskikh nauk; TRAPEZIN, I.I., kandidat tekhnicheskikh
nauk.

Bending of oblique-angled plates. Trudy MAI no.69:3-10 '56.
(MIRA 10:1)
(Elastic plates and shells) (Flexure)

BRAUN, E.D. (Moskva); CHICHINADZE, A.V. (Moskva); SMIRNOVA, R.G. (Moskva);
BAYKOV, V.V. (Moskva)

Simulation of the braking process on the IM-58 friction machine.
Mashinovedenie no.2:105-115 '65.

(MIRA 18:8)

KONSTANTINOV, B.P.; BAYKOV, Yu.M.; RYSKIN, G.Ya.

Flotation method for measuring compression coefficients of solids
and liquids. Fis. tver. tela 1 no.6:963-969 Je '59.
(MIRA 12:10)

Leningradskiy fiziko-tehnicheskii institut AN SSSR.
(Compressibility)

S/081/62/000/006/069/117
B149/B108

AUTHORS: Obolentsev, R. D., Timofeyev, V. D., Ratovskaya, A. A.,
Baykova, A. Ya., Rafikova, L. G., Gavrilova, L. D.

TITLE: Group-composition of organic sulfur compounds in petroleum
from the Bashkirskaya ASSR

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 527, abstract
6M135 (Sb. "Khimiya seraorgan. soyedineniy, soderzhashchikha-
ya. v neftyakh i nefteproduktakh. v. 4", M., Gostoptekhiz-
dat., 1961, 103 - 112)

TEXT: The total sulfur, sulfide and elemental sulfur content of crude petroleum from various deposits were determined, the former by double combustion, the two latter by anode polarography with solid electrodes. In addition, the distribution of organic sulfur compounds according to fractions with onset of boiling at 120, 120 - 200, 200 - 250, and 250-300°C from a series of petroleums was studied. The sulfide sulfur in the fractions was determined by the iodine complex method, the mercaptan sulfur by the Grimms method. Elemental sulfur was found in only one of
Card 1/2

ACCESSION NR: AT4040448

S/2933/64/006/000/0014/0025

AUTHOR: Obolentsev, R. D.; Baykova, A. Ya.; Rafikova, L. G.; Timofeyev, V. D.

TITLE: Group composition of sulfur organic compounds in crudes from the Ural-Volga oil bearing region

SOURCE: AN SSSR. Bashkirskiy filial. Khimiya seraorganicheskikh soyedineniy, soderzhashchikhsya v neft'yakh i nefteproduktakh, v. 6, 1964, 14-25

TOPIC TAGS: Bashkir crude, Tatar crude, crude sulfur content, sulfide sulfur content, mercaptan sulfur content, elemental sulfur content, sulfur organic compound thermostability, sulfur organic compound, petroleum analysis

ABSTRACT: Double combustion, anode polarography on solid electrodes and polarography on a dropping mercury electrode were used to analyze, respectively, the contents of total sulfur, sulfide sulfur, mercaptan sulfur and elemental sulfur, in 155 samples of crudes from various Bashkir and Tatar deposits. Fractions to 120, 120-200, 200-250 and 250-300C were distilled on a TSIATIM-58 assembly, temperature in the column being maintained either above or 20-30C below the upper thermostability levels of the respective sulfur organic compound. Results are presented in several tables and indicate total sulfur ranging from 0.72 to 4.93%.

Card 1/2

ACCESSION NR: AT4040448

Sulfide sulfur ranged from 15 to 40% of total sulfur, mercaptan sulfur from 0.1 to 15.1%, while elemental sulfur was found only in crudes from the Sakmaro-Artinsk levels of the Ishimbay deposits. Distillates contained mainly sulfide sulfur (30-90% of total S). Mercaptan S was present primarily in distillates (to 200C) from four levels and ranged from 8.8 to 72.79% of total S. Elemental S was absent or present in small amounts (0.01 - 8.9% of total S). It is concluded that the thermostability of sulfur organic compounds contained in crudes depends on the age of the crude and the composition of the oil bearing formations. Orig. art. has: 7 tables and 3 graphs.

ASSOCIATION: Institut organicheskoy khimii, Bashkisskiy filial AN SSSR
(Institute of Organic Chemistry, Bashkir Branch, AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: FP

NO REF SOV: 007

OTHER: 006

Card 2/2

L 11243-66

EWI(m)/I WE

ACC NR: AP6001880

SOURCE CODE: UR/0065/65/000/012/0022/0024

AUTHOR: Obolentsev, R. D.; Baykova, A. Ya.

2/B

ORG: IOKh Bashgosuniversiteta

11

TITLE: Group composition of organosulfur compounds present in crude oil from the Markov field

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 12, 1965, 22-24

TOPIC TAGS: crude petroleum, organic sulfur compound

ABSTRACT: The composition of organosulfur compounds present in crude oil from the Markov field in the Irkutsk amphitheater has been determined. Total sulfide, mercaptan, and elemental sulfur was determined in four fractions in the boiling range from the initial boiling point to 300C. The data, presented in tabular form in the original article, indicate that mercaptan sulfur is the principal constituent (51.7-77% mercaptans/total organosulfur compounds). This suggests that Markov crude is a good source of mercaptans as well as petroleum products and therefore should be refined by alkali treatment rather than hydrofining. Orig. art. has: 2 tables.

[SM]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 003/ ATD PRESS: 4/73

Card 1/1 HW

UDC: 661.719.665.5(571.53)

PROCESSING AND PROPERTIES INDEX

14

БАЙКОВА, Л. П.

Deformations and Stresses in Intermittent Welding. N. O. Okerblom and I. P. Baikova. (Avtogennoe Delo, 1948, No. 12, pp. 16-20). [In Russian]. The results of a theoretical investigation of the deformation and stresses produced during the welding of short seams are applied to the conditions of intermittent arc-welding with welding currents of 150 amp., voltages of 20, and welding speeds of 0.12cm./sec. Calculated 600° isotherms are drawn and the variations in size and shape of the zones at higher temperatures are considered. The effects of the relative dimensions of bead, strip, and interbead interval on deformation and stress for the case of intermittent bead-welding along the edge of a strip are examined, and the significance of fluctuating temperature conditions is discussed for various methods of depositing the seam.—S. N.

METALLURGICAL LITERATURE CLASSIFICATION

7

BAIKOVA, I. P.

Certain Simplifications of the Theoretical Determination of Deformation and Stresses. (In Russian.)
I. P. Baikova. *Actogenoe Delo* (Welding), Feb. 1950.
 p. 4-8.

A simplified method of determining residual deformations and stresses caused by the heat of welding or torch or arc cutting was developed for materials in which structural transformations occur in the temperature range corresponding to the metal's plastic state. Theoretical concepts are graphically interpreted.

jc

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM STANISLAVO COLON M19 QW JPT CALLETONI 011137 QW QW 111

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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BAIKOVA, I. I. and OKERBIOM, N. O.

Gazovaia vyrezka tochnykh detalei. (Vestn. Mash, 1951, no. 5, p. 54-59)
Includes bibliography.

Gas cutting of precision parts.

DLC: TN4V4

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

Barkov 1-1

1951, I. ...

"Regular Diffraction in the Field of a Point Charge in the Presence
of a Slit on the Surface of a Plate." Cand. Tech. Sci., Leningrad Polytechnic
Inst, Leningrad, 1951. (RNDI/MSI, Ser. 51)

Survey of Scientific and Technical Dissertations Presented at USSR
Higher Educational Institutions (10)

SO: Ser. No. 421, 5 May 55

SOV/137-57-11-21634

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 140 (USSR)

AUTHORS: Okerblom, N.O., Baykova, I.P.

TITLE: The Effect of the Shape and Depth of Penetration of Parent Metal on the Magnitude of Angular and Transverse Deformations (Vliyaniye formy i glubiny proplavleniya osnovnogo metalla na velichinu uglovykh i poperechnykh deformatsiy)

PERIODICAL: V sb.: Probl. dugovoy i kontakt. elektrosvarki. Kiyev-Moscow, Mashgiz, 1956, pp 39-52

ABSTRACT: Theoretical and experimental methods were employed in order to determine how the depth and shape of the zone of penetration (ZP) in a metal sheet affect the magnitude of angular (AD) and transverse deformations (TD) during bead welding. The following was established: a) The magnitude of AD is a function of the ratio of width and depth of the ZP to the thickness of the metal; b) the AD vary depending on the contours of the ZP; the latter considerably affects the magnitude of the AD when the ratio between depth of penetration and thickness of the metal approaches unity; c) regardless of the contour of the ZP, maximum values of AD are observed in the case of incomplete

Card 1/2

SOV/137-57-11-21634

The Effect of the Shape and Depth of Penetration of Parent Metal (cont.)

penetration; d) as the amount of energy per unit length is increased, the AD increase initially and then become smaller again; e) the TD become greater as the ratio of depth of penetration to the thickness of the metal and the linear energy is increased; f) when the values of the penetration-depth/metal-thickness ratio are sufficiently large, the variations in TD are directly proportional to that ratio; g) the shape of the ZP influences the magnitude of TD only at small penetration depths and limited quantities of energy per unit length. In the case of short beads, the angular and transverse deformations may be evaluated approximately without taking into account the deformations resulting from heating and cooling of the parent metal. In order to evaluate the angular and transverse deformations present in welded joints of considerable length, time differences connected with the deposition of the bead weld must be taken into account.

V.S.

Card 2/2

15118A...
123-1-549

Translation from: Referativnyy Zhurnal, Mashinostroyeniye, 1957,
Nr 1, p.87 (USSR)

AUTHOR: Baykova, I.P.

TITLE: Formation and Development of Angular and Transverse
Deformations in Welding. (Obrazovaniye i razvitiye
uglovykh i poperechnykh deformatsiy pri svarke)

PERIODICAL: Trudy Leningradsk.Politekhnich. In-ta, 1956, Nr 183,
pp. 78-93.

ABSTRACT: Results of the experimental investigation in formation
and development of angular and transverse deformations,
which appear during bead welding on the surface of
sheet metal. The results of investigation are compiled
in charts and tables.

Ye. B.G.

Card 1/1

Baykova, I. P.

135-8-4/19

SUBJECT: USSR/Welding

AUTHOR: Baykova, I.P., Candidate of Technical Sciences.

TITLE: Welding Deformations in Seams Welded in Separate Sections (Svarochnyye deformatsii pri vypolnenii shva otdel'nymi uchastkami).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, #8, pp 11-14 (USSR)

ABSTRACT: The experimental investigation described has been carried out with the purpose of confirming the assumption that welding deformation caused by long seams can be reduced by welding seams intermittently with subsequent welding of the remaining gaps, instead of welding the entire seam in one continuous pass. The technology of the experiments is described in detail. The conclusions were that splitting a long seam into separate short sections has no practical effect on angular deformation. Replacing a long continuous seam by an intermittent seam of same length reduces angular deformation which decreases with increasing intervals between the short seams and with decreas-

Card 1/2

SOV/137-58-8-17060

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 123 (USSR)

AUTHOR: Baykova, I.P.

TITLE: ~~Certain Peculiarities in Deformation of Beams Caused by Superimposition of Transverse Welded Seams (Nekotoryye osobennosti deformirovaniya balok ot nalozheniya poperechnykh shvov)~~

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1957, Nr 189, pp 34-42

ABSTRACT: Bending deformation of welded I beams (IB) was investigated after transverse welding seams were superimposed on the beams in a direction from the neutral axis of the IB toward the flange. 2.3 m long IB, made of steel St 3 employed in construction of welded bridges, consisting of 12x200 mm flanges and a 10x250 mm web, were employed. The degree of lengthwise bending deformation of the IB was measured by means of 7 gages mounted in jigs and distributed along the flanges of the beam. 17 bead welds, produced with UONI-13/45 electrodes 6 mm in diameter, were deposited in three groups as follows (the distance between the seams being 120 mm: The first group, composed of three seams, was deposited in the center

Card 1/2

SOV/137-58-8-17060

Certain Peculiarities in Deformation of Beams (cont.)

of the beam; the second group consisted of six seams, three each on either side of the first group; group three consisted of eight seams evenly divided on both sides of group Nr two. The line of deflection and the sag were determined by computation at the center of the distance between reference points. The measured and calculated values of the deflection agree closely. The shape of the experimental lines of deflection differs from that of the lines obtained by calculation; this is attributable to the fact that transverse deformations occur throughout the length of the IB. It is shown that the bending deformation of the flanges of the IB is a sum of the over-all deformation and the local deformations (brought about by a reduction in length of the transverse bead welds); the actual line of deflections of the IB is determined only by the bending deformations of the IB caused by the introduction of the transverse bead welds along its length.

V.B.

1. Beams--Welding
2. Beams--Deformation
3. Welds--Stresses

Card 2/2

BAYKOVA, I. P. (Cand. Tech. Sci.) (Docent)

"Calculation Techniques in Designing Manufacturing Processes for Producing Welded Structures," p. 112 in book Reports of the Interuniversity Conference on Welding, 1956. Moscow, Mashgiz, 1958, 266pp.

BAYKOVA, I. P.

135-58-6-10/19

AUTHORS: Okerblom, N.O., Doctor of Technical Sciences, Professor; Pryanishnikov, V.P., Candidate of Technical Sciences; and Baykova, I.P., Candidate of Technical Sciences, Dotsent.

TITLE: Welding of Quartz Glass (Svarka kvartsevogo stekla)

PERIODICAL: Svarochnoye Proizvodstvo, 1958, Nr 6, pp 30-33 (USSR)

ABSTRACT: The article contains general information on the behaviour of quartz glass during oxy-acetylene welding. Stresses caused by welding are computed and stress diagrams are shown. An industrial welding oven, with gas-electric pre-heating for cylindrical objects measuring up to 800 mm in diameter and 1,500 mm high, is described and illustrated. Welding technology is recommended. It is said that the residual welding stresses in glass can be estimated by the general welding stress and strain theory for steel [by N.O. Okerblom, Ref. 2] and the heat propagation theory of N.N. Rykalin [Ref. 3] with adjustments according to the physical properties of quartz glass. There are 5 figures and 4 Soviet references.

AVAILABLE: Library of Congress
Card 1/1

BAYKOVA, I P

SOV/135-58-12-1/20

AUTHORS: Okerblom, N.O., Doctor of Technical Sciences, Professor,
~~Baykova, I.P., Candidate of Technical Sciences~~

TITLE: Some Measures to Prevent Deformation in Crane Bridge Welding,
and Their Effectiveness (Nekotoryye mery predotvrashcheniya
deformatsiy pri svarke kranovykh mostov i ikh effektivnost')

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 12, pp 1-5 (USSR)

ABSTRACT: For the purpose of determining the causes of deformation
during various stages of welded crane bridge construction,
computations and measurements of deformations were compared and
the obtained results were used to carry out theoretical analyses
on the development of such deformations. Engineers N.M. Krivenko
and S.G. Sadoyan from the PTO Plant imeni S.M. Kirov participated
in the organization and performance of the measurements. On the
basis of the analyses performed some variants of crane building
technology were developed, eliminating the existing deficiencies.
Information is given on some general theories which can be applied
to the construction of different welded structures, and are
demonstrated on the example of crane bridge production. The effect
of the frame

Card 1/2

SOV/135-58-12-1/20

Some Measures to Prevent Deformation in Crane Bridge Welding, and Their Effectiveness

rigidity on deformations caused by welding is analysed. In developing the technology of assembly and welding of complicated structures the use of reverse bend and the rigidity of the frame must be adapted according to the technological conclusions obtained.

There are 3 graphs, 2 diagrams and 2 Soviet references.

ASSOCIATION: Leningradskiy politekhnicheskii institut imeni M.I. Kalinina
(The Leningrad Polytechnical Institute imeni M.I. Kalinin)

Card 2/2

BAYKOVA, I.P.; KRIVENKO, N.M.; SADOYAN, S.G.

Investigating the cause of disturbance in basic geometrical dimensions of welded gantry cranes and selecting an efficient technological process for their construction. Trudy LPI no.199: 98-122 '58. (MIRA 12:9)
(Cranes, derricks, etc.--Welding)

VILL', Vadim Ivanovich; ALEKSEYEV, A.A., prof., retsenezent; BAYKOVA,
I.P., dotsent, kand.tekhn.nauk, red.; BORODULINA, I.A., red.
izd-va; DLUGOKANSKAYA, Ye.A., tekhn.red.

[Friction welding of metals] Svarka metallov treniem. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 85 p.
(MIRA 12:12)

(Metals--Welding)

(Friction)

18(5,7)

SOV/125-59-9-8/16

AUTHOR:

Baykova, I.P., Candidate of
Technical Sciences

TITLE:

G.B. Talypov "Approximate Theory of Welding
Deformations and Stresses"

PERIODICAL:

Avtomaticeskaya svarka, 1959, Nr 9, pp 60-63 (USSR)

ABSTRACT:

The author attacks the book written by G.B. Talypov and maintains that it can not withstand any criticism, is devoid of contents and has a number of great errors. The book contains, says the author, commonplaces that are already well known; in some cases, Talypov advances such theories which are fundamentally wrong. He avoids mention of the works of N.O. Okerblom on research of welding deformations which were published in the early thirties and reported, in 1932, at the Ob- last' Conference of Welders IONITO. Finally, the author states that Talypov is trying to minimize the merits of Soviet scientists by maintaining that the fundamental works on welding deformations and stresses are published abroad, and that in the Soviet Union

ard 1/2

SOV/125-59-9-8/16

G.B. Talypov " Approximate Theory of Welding Deformations and Stresses"

only standard conclusions were utilized. Leningrad University has made an error by publishing such a book, the present author says. There are 20 references, 19 of which are Soviet and 1 English.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute)

SUBMITTED: May 22, 1959

Card 2/2

BAYKOVA, I.P.

Reply to the author. Avtom. svar. 13 no. 10:50-51 0'60.

(MIRA 13:10)

(Electric welding)

(Deformations (Mechanics))

AM4007946

BOOK EXPLOITATION

S/

Okerblom, Nikolay Oskarovich; Demyantsevich, Vladimir Petrovich;
Baykova, Iranda Petrovna

Designing the production of welded structures; calculation methods
(Proyektirovaniye tekhnologii izgotovleniya svarny*kh konstruktsiy;
raschetny*ye metody*) Leningrad, Sudpromgiz, 1963. 602 p. illus.,
biblio. 3800 copies printed.

TOPIC TAGS: welded structure, welded structure manufacture, ship
structure, ship structure welding, low alloy steel welding, low
carbon steel welding, hardenable steel welding, austenitic steel
welding, welding stress, welding deformation

PURPOSE AND COVERAGE: This book is intended for engineering personnel
of designing and manufacturing organizations concerned with the
planning of technological processes in making welded structures.
It may also serve as a textbook for students specializing in weld-
ing at schools of higher education. The book reviews methods of
engineering calculations related to planning processes for the
manufacture of welded structures. Methods are suggested for

Card 1/6

AM4007946

selecting methods and conditions for automatic and semiautomatic submerged-arc welding and manual welding and for determining the deformations and stresses induced by welding. The sequence of assembling and welding operations, the allowances for subsequent machining, and problems connected with the reduction of labor consumption and the cost of welded structures as well as with improving their dimensional accuracy and fabricability are discussed.

TABLE OF CONTENTS [Abridged]:

Author's Preface -- 3

Ch. I. Importance of the technological process in the fabrication of welded structures -- 5

Ch. II. Calculation methods for determining conditions for welding low-carbon steels -- 21

Card 2/6

BAYKOVA, I.P.

Using reverse bending for the prevention of residual warpage
deformation during welding. Trudy LPI no.229:47-55 '63.
(MIRA 17:9)

BAYKOVA, K., inzh.

Contacts between school and life are getting closer. Rech.transp
21 no.4:13-16 Ap '62. (MIRA 15:4)
(Inland water transportation—Employees)
(Technical education)

TETERYATNIKOV, Mikhail Stepanovich; BAYKOVA, K.G., inzh., retsenzent;
BELOGLAZOV, V.I., kapitan, retsenzent; ZAVARUYEV, V.V., inzh.,
red.; LOBANOV, Ye.M., red. izd-va; YERMAKOVA, T.T., tekhn. red.

[Ship accounting] Sudovaya otchetnost'. Moskva, Izd-vo "Rechnoy
transport," 1961. 131 p. (MIRA 14:7)
(Inland water transportation—Accounting)

SHAPOSHNIKOV, V.N., akademik; KOSHELEVA, N.A.; KOLESNIKOVA, I.G.;
BAYKOVA, L.A.

Effect of the sources of carbon on the biosynthesis of α -keto-
glutaric acid in cultures of *Pseudomonas fluorescens*. Dokl.
AN SSSR 157 no.1:180-182 J1 '64 (MIRA 17:8)

KOSHELEVA, N.A.; NETTE, I.T.; BAYKOVA, L.A.

Keto acid biosynthesis in mycobacterial cultures on media with normal paraffins. Prikl. biokhim. i mikrobiol. 1 no. 6: 617-622 N-D '65. (MIRA 18:12)

1. Institut mikrobiologii AN SSSR. Submitted June 22, 1965.

L 1656-66 EWT(m)/ENP(e)/ENP(i)/ENP(b) WH

ACCESSION NR: AP5019427

UR/0020/65/163/003/0617/0620

AUTHOR: Baykova, L. G.⁴⁴; Vitman, F. F.⁴⁴; Pugachev, G. S.⁴⁴; Pukh, V. P.⁴⁴

27
25
B

TITLE: The high-strength state of glass^{6,44}

SOURCE: AN SSSR. Doklady, v. 163, no. 3, 1965, 617-620

TOPIC TAGS: glass property, high strength glass, hardening

ABSTRACT: The authors examine the reasons for the spread in individual strength values for glass hardened by various thermal and chemical methods. It is assumed that the high strength observed in certain specimens from a single batch of glass is not an accident, and that this high strength would show up in the majority of the glass specimens if it were not for strong suppressing side factors. These suppressing effects are attributed chiefly to atmospheric humidity and to possible damage of the glass during installation in the testing equipment. To test this hypothesis, experiments are conducted in which the glass is protected from harmful factors from the moment hardening is started. Strength measurements show that these precautions raised the minimum strength level noticeably in the scatter zone. However, it was found that weakening influences were not completely eliminated.

Card 1/2

L 1656-66

ACCESSION NR: AP5019427

2

Samples were then selected which were free from visible surface defects. This precaution further narrowed the scatter region and consequently increased the average strength of the batch of glass samples tested. Similar tests conducted with various types of glass hardened by various methods show analogous results. These experiments indicate that super-high-strength glass can be produced by finding practical ways to eliminate the weakening factors. It is recommended that further research should be done to determine just what these harmful factors are. Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tehnicheskii institut im. A. F. Ioffe Akademii nauk SSSR
(Physicotechnical Institute, Academy of Sciences SSSR)

SUBMITTED: 27Nov64

ENCL: 00

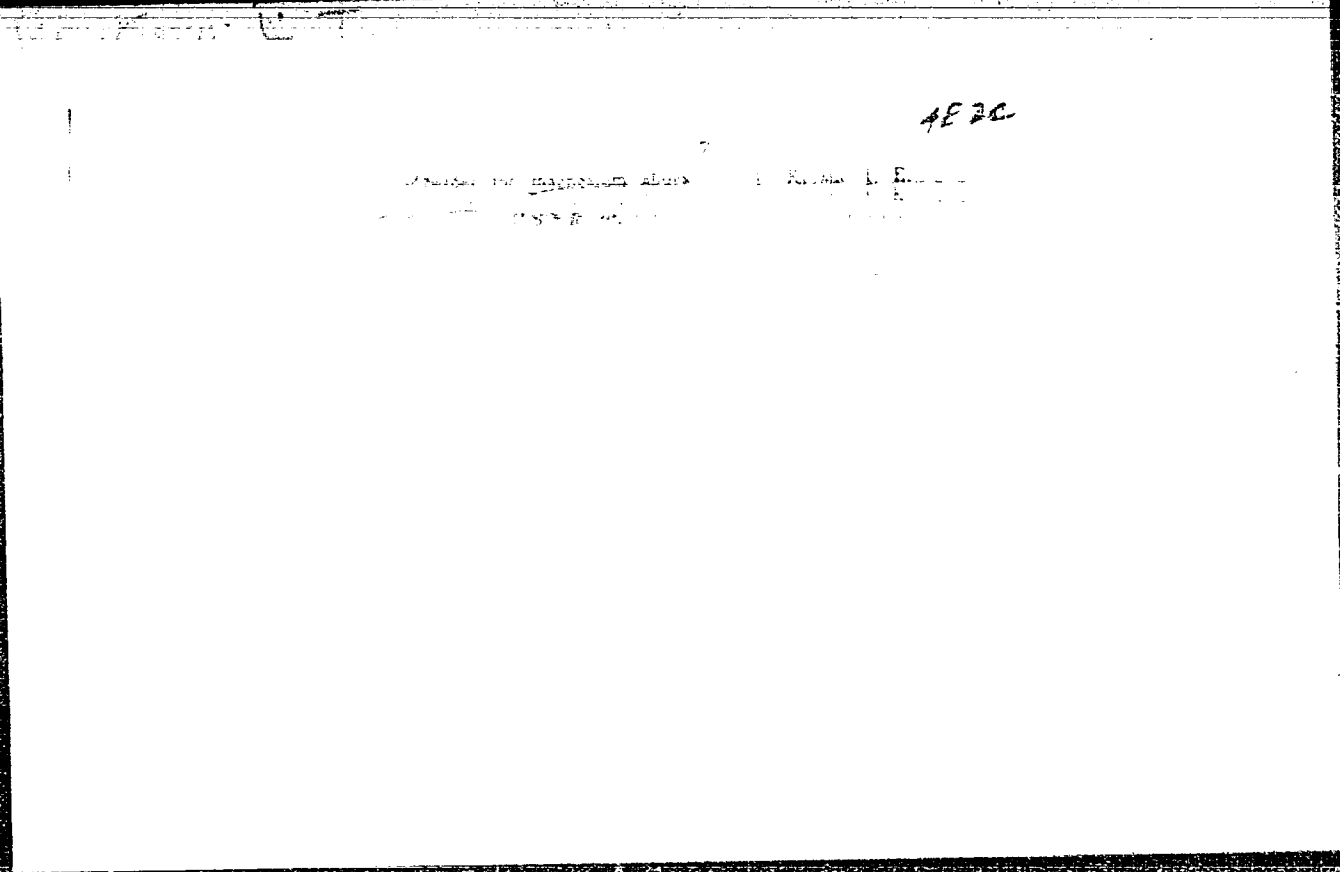
SUB CODE: NT

NO REF SOV: 017

OTHER: 001

Card 2/2

PP



BAKROVA, I. T.

SECRET

CHERNOVA, O.A.; BAYKOVA, O.Ya.

A new genus of may flies (Ephemeroptera, Behningiidae).
Ent. oboz. 39 no.2:410-416 '60. (MIRA 13:9)

1. Kafedra entomologii Moskovskogo gosudarstvennogo universi-
teta, Moskva i Tikhookeanskiy institut rybnogo khozyaystva i
okeanografii, Khabarovsk.
(Ussuri Valley--May flies)

S/724/61/000/000/017/020

AUTHORS: Al'tman, M. B., Stromskaya, N. P., Baykova, L. T., Korol'kova, L. M.

TITLE: The refining of cast Al alloys with trichloride of Boron.

SOURCE: Liteynnye alyuminiyevyye splavy; svoystva, tekhnologiya plavki, i t'ya i termicheskoy obrabotki. Sbornik statey. Ed. by I. N. Fridlyander and M. B. Al'tman. Moscow, Oborongiz, 1961, 144-149.

TEXT: The paper describes an experimental investigation of the refining of cast Al alloys by means of BCl_3 for the purpose of eliminating gaseous and solid nonmetallic inclusions comprising primarily H and oxides of Al and of other metals participating in an Al alloy. The investigation endeavors to obviate the shortcoming of $ZnCl_2$, $MnCl_2$, and $AlCl_3$, heretofore employed for this purpose, namely, the introduction by them of quantities of water which, as is known, constitutes the primary source of gaseous porosity of Al alloys. BCl_3 with its low temperature of vaporization ($18^\circ C$) appeared to be suitable. The Al alloys tested comprised the Al-Si system (alloy AL4), the Al-Cu system (alloys AL10-V and AL1), and the Al-Mg system (alloy AL8). The refining procedure of each of these alloys is described in detail. In summary, the BCl_3 refining of the four alloys produced a favorable effect on the density and the mechanical properties of the castings (tensile strength, Card 1/2

The refining of cast Al alloys with trichloride...

S/724/61/000/000/017/020

elongation, and H_B summarized in half-page table). Parts cast out of AL4, AL10-V, and AL8 alloys refined by means of BCl_3 exceeded ordinary parts by 1 to 2 scale grades in porosity; parts with a rough weight of 80 kg cast out of AL1 alloy refined with BCl_3 were equivalent in density and mechanical properties to similar castings cast in autoclave. The method of BCl_3 refining is recommended for the improvement of castings of alloys AL4, AL10V, AL1, and AL8 and, in some instances, to replace the casting of parts in the autoclave requiring a density of 2 to 3 on the conventional scale. There are 2 figures and 1 table; no references.

Card 2/2

S/724/61/000/000/018/020

AUTHORS: Al'tman, M. B., Baykova, L. T., Krysin, B. T., Korol'kova, L. M., Smirneva, T. I., Kitari, G. G., Shitov, M. I., Sharuda, V. F., Tyukin, I. T., Syromyatnikova, M. A.

TITLE: Vacuum refining of Aluminum alloys.

SOURCE: Liteynnye alyuminiyevyye splavy; svoystva, tekhnologiya plavki, lit'ya i termicheskoy obrabotki. Sbornik statey. Ed. by I. N. Fridlyander and M. B. Al'tman. Moscow, Oborongiz, 1961, 150-156.

TEXT: The paper describes the development of a method for the vacuum refining of Al alloys with the use of a flux, and the construction and development of a vacuum equipment for the refining of Al alloys capable of refining a melt of up to 300 kg. The refining method developed was intended to remove the various gaseous and solid nonmetallic impurities which enter into an Al alloy in the course of its smelting and to avoid, also, the difficulties encountered with method used heretofore, which consisted in the toxicity of the Cl and the chlorous and fluorous salts used to date. The basic concepts of the new method are the following: The impurities encountered in Al melts consist of H and oxides, primarily Al oxides. The H carries a positive charge (H^{1+}), whereas the Al oxides are charged negatively (O^{2-}).

Card 1/2

Vacuum refining of Aluminum alloys.

S/724/61/000/000/018/020

Hence, the H is readily adsorbed on the particles of Al oxide. If the H can be induced by the application of a vacuum to migrate to the surface of the melt, it is postulated that the solid nonmetallic impurities should be entrained thereby and become susceptible to capture by adsorption by a suitable flux placed on the surface of the melt. The rate of progress of such a process should be controllable simply by altering the power applied to the vacuum pump. The investigation was made on AA4 (AL4) and AA9 (AL9) Al alloys. The relationship between the weight of a melt and the vacuuming time was explored experimentally. While the test results indicated that the Mg content remained constant regardless of the vacuuming time, the porosity of the alloy was appreciably reduced in vacuuming tests lasting from 2 to 6 minutes. The addition of a suitable flux, as defined above, improved the degassing, with a subsequent further reduction in porosity and improvement in the mechanical properties of the alloy by 10-15%; this improvement eliminates the need for crystallization of cast parts in an autoclave in many instances. Typical vacuum-refining times at 780-790°C, in the presence of 0.2% of a suitable flux, are: For a metal weight of 50-100 kg, 3 min; 100-150 kg, 5 min; 150-250 kg, 7-9 min. The improvements obtained by the vacuum-refining procedure with the adsorbing flux are illustrated by tables of mechanical properties and photographs of the macrostructure of complex cast parts. There are 6 figures and 5 tables; no references. The participation of A. P. Shulepin, I. S. Kuznetsov, D. S. Chervyakov, and A. I. Komendat in the investigation is acknowledged.

Card 2/2

22571

S/190/61/003/005/014/014
B110/B230

15 8202 2209, 1436, 1474

AUTHORS: Yerusalimskiy, B. L., Merkur'yeva, A. V., Baykova, N. P.

TITLE: Polymerization of chloroprene under the influence of organo-metallic compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 5, 1961, 798

TEXT: Data published on the polymerization of chloroprene by methods other than initiation by free radicals disclose nothing about polymerization in the presence of conventional organometallic compounds. The present authors found the polymerization of chloroprene under the influence of organolithium and organomagnesium compounds to be possible. Butyl lithium and the system $[C_4H_9MgI + (C_4H_9)_2Mg]$ were used as initiators of polymerization. This system, formed in the course of the organomagnesium synthesis in hydrocarbon, has already been applied together with other organomagnesium compounds for the polymerization of isoprene. Under the influence of the system butyl magnesium iodide - dibutyl magnesium the polymerization of chloroprene takes place at a considerable rate between 40 and 60°C. At a concentration of the initiator of 0.012 to 0.025 and of the

Card 1/2

X

22571

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B110/B230

Polymerization of...

monomer of 2.5 moles/l, conversion amounts to ~5 per cent per hour at 60°C at the beginning of the reaction. Applying butyl lithium and a concentration of the initiator of 0.008 and of the monomer of 4.0 moles/l, conversion is 2 per cent per hour at 35°C at the beginning of the reaction. Polymers obtained in hexane under the conditions described are soluble in benzene to a limited extent (~50 per cent). Temperature of vitrification varies from -46 to -50°C for the individual specimens. [Abstracter's note: Essentially complete translation]. There are 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc. X

SUBMITTED: January 28, 1961

Card 2/2

ZHEGALOV, I.S.; LEVKIN, A.D.; MARKOVICH, I.M.; BAYKOVA, N.Ya.; SHEV-
CHENKO, S.I.; ZHUK, Ya.M., kand. tekhn. nauk, red.; KRYUKOV, V.L.,
red.; ANTONOVA, N.M., tekhn. red.

[Harvesting grain in two and three stages] Dvukh- i trekhfaznaia
uborka zernovykh kul'tur. Moskva, Sel'khozgiz, 1961. 92 p.

(MIRA 14:9)

1. Sotrudniki laboratorii mekhanizatsii uborki, oshistki, sushki
i khraneniya zerna Vsesoyuznogo nauchno-issledovatel'skogo instituta
mekhanizatsii sel'skogo khozyaystva (for all except Zhuk, Kryukov,
Antonova).

(Grain--Harvesting)

BAYKOVA, O.Ya.

A new species of the genus *Ephemerella* Walsh. (Ephemeroptera,
Ephemerellidae) from the mountain affluents of the Amur basin.
Izv. TINRO 48:202-205 '62. (MIRA 16:4)

(Amur Valley mayflies)

BAYKOVA, R.A., student V kursa; TSKHOVREKOVA, Z.L., student V kursa

Lesions of the oral mucosa in exudative erythema multiforme.
Vest.derm.i ven. 34 no.10:80 '60. (MIRA 13:11)

1. Iz kafedry kozhnykh i venericheskikh bolezney (sav. - prof.
B.M. Pashkov) Moskovskogo meditsinskogo stomatologicheskogo insti-
tuta (dir. - dotsent G.N. Beletskiy).
(ERYTHEMA) (MOUTH—DISEASES)

77081
SOV/62-59-12-25/43

5.3400

AUTHORS:

Shostakovskiy, M. F., Gladyshevskaya, V. A., Baykova, R. I.

TITLE:

Viscosity Constant for Vinyl Ether Polymers

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk 1959, Nr 12, pp 2204-2207 (USSR)

ABSTRACT:

Staudinger's equation $\eta_{sp}/c = K_m M$ allows one to determine the viscosity constant only in the molecular weight range from 500 to 50,000. High-molecular-weight compounds consisting of a mixture of polymeric homologs give on fractionation narrow polymer fractions but not individual polymers, and this influences the value of K_m obtained with this equation for polymers above 50,000 molecular weight. The authors suggested therefore a method for determining the viscosity of poly(vinyl alkyl ethers) based on the study of low-molecular (di-, tri-, tetramer, etc.) compounds obtained in the multistep synthesis previously described (this journal, 1955, p 140; *ibid.*, p 344) such as, -1,1,3-triethoxybutane-1,1,3,5-tetra-

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Viscosity Constant for Vinyl Ether Polymers

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SOV/62-59-12-25/43

which was governed in all cases by a definite rule, and as evidenced by the coinciding values of the viscosity constants for the individual alkoxy compounds and fractions of a given vinyl alkyl ether. The only deviation was observed in triethoxybutane (dimer) and tetraethoxyhexane (trimer) caused probably by the influence of the terminal group. The mechanism of vinyl ether polymerization, and the influence of the chemical structure of the polymers alkoxy groups on the viscosity constant K_m is discussed. Generally speaking, the constant increases with increasing radical size of the alkoxy group. There are 9 tables; and 8 references, 1 U.S., 1 Swiss, 6 Soviet. The U.S. reference is: R. Fordlyce, H. Hibbert, J. Amer. Chem. Soc., 61, 1912 (1939). Abstracter's Note: Staudinger's equation appears in the article also in the form: $\eta_{sp}/c = K_m M$.

ASSOCIATION:

N. D. Zelinskiy Institute of Organic Chemistry,
Academy of Sciences, USSR (Institut organicheskoy khimii
imeni N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED:

April 15, 1958

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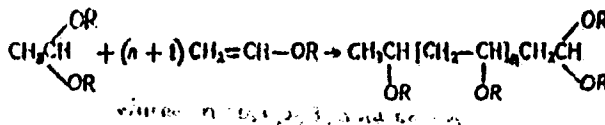
78083
SOV/62-60-1-29/37

AUTHORS: Shostakovskiy, M. F., Gladyshevskiy, V. A., Baykova, R. I.

TITLE: Brief Communications. Stepwise Synthesis of Poly(Vinyl Isopropyl Ether)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, Nr 1, pp 138-139 (USSR)

ABSTRACT: Stepwise polymerization of vinyl isopropyl ether was studied. The reaction proceeds as follows:



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where n = 0, 1, 2, 3, etc. 1,1,3-Triisopropoxybutane (I) (25%), bp 77.5-78° (4 mm), d_4^{20} 0.8600, was obtained at

Brief Communications. Stepwise Synthesis
of Poly(Vinyl Isopropyl Ether)

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45° from diisopropyl acetal and vinyl isopropyl ether in the presence of 5% alcoholic FeCl_3 . 1,1,3,5-Tetra-isopropoxyhexane (II) (15%), bp 115° (2 mm), n_D^{20} 1.4220, d_4^{20} 0.8787, was obtained under the same conditions as I, from I and vinyl isopropyl ether. 1,1,3,5,7-Pentaisopropoxyoctane (III) (12%), bp 167-168° (1 mm), n_D^{20} 1.4300, d_4^{20} 0.8940, was also obtained under the same conditions as I, from II and vinyl isopropyl ether. The above polyethers were hydrolyzed with NaOH. The extent of hydrolysis was 98.7-99%. There are 1 table; and 4 Soviet references.

ASSOCIATION: N. D. Zelinskiy Institute of Organic Chemistry, Academy of Sciences, USSR (Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: June 19, 1959
Card 2/2

20941

15.8116

2209, 1372

S/062/61/000/003/008/013
B117/B208

AUTHORS: Shostakovskiy, M. F., Khomutov, A. M., Baykova, R. I., and Kayutenko, L. A.

TITLE: Studies in the field of chemical conversions of unsaturated and high-polymer compounds. Report 17. Synthesis of polymers and copolymers of bis-(methyl-2-buten-1-yne-3)alkylsilanes

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, no. 3, 1961, 488-491

TEXT: The authors report on the study of polymerization and copolymerization of: bis-(methyl-2-buten-1-yne-3)diethyl silane, bis-(methyl-2-buten-1-yne-3)dimethyl silane, and bis-(methyl-2-buten-1-yne-3)methyl-propyl silane. Freshly distilled monomers were used. Copolymerization was carried out continuously for 100 hr at $60^{\circ} \pm 1^{\circ}\text{C}$. Azoisobutyric acid dinitrile was used as an initiator in a quantity of 0.2 % of the total weight of the monomer. Control experiments for investigating the polymerization of initial monomers were carried out under the same conditions.

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Bis-(methyl-2-buten-1-yne-2)diethyl silane readily polymerizes at room temperature on the air and in the presence of initiators. The polymers are transparent, hard, and three-dimensional substances. They remain unchanged when heated to 400°C. During copolymerization with methyl methacrylate, polymers of different composition are formed, according to the concentration of the initial monomers in the reaction medium. The copolymer yields were found to decrease with increasing content of bis-(methyl-2-buten-1-yne-3)diethyl silane in the reaction medium from 10 to 25 mole%. They change little later on. The number of silane links in the copolymer increases as its concentration in the reaction medium rises. The resultant copolymers are hard, light yellow substances with high dielectric properties: $\rho_v = 10^{17}-10^{18}$ ohm-cm. Bis-(methyl-2-buten-1-yne-3)diethyl silane was used for "cross-linking" in the polymerization of methacrylic acid and styrene. For comparison, the copolymerization of methyl methacrylate with bis-(methyl-2-buten-1-yne-3)dimethyl silane and bis-(methyl-2-buten-1-yne-3)methyl-propyl silane was studied at equal molar ratios. It was found that those copolymers have the highest yields and the highest content of silane links, which contain links of bis-(methyl-2-buten-1-yne-3)diethyl silane. There are 1 figure, 5 tables, and 6

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Studies in the field of chemical...

S/062/61/000/003/008/013
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references: 3 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni
N. D. Zelinskiy, Academy of Sciences USSR)

SUBMITTED: November 19, 1959

X

Card 3/3

GONIKBERG, M.G.; BAYKOVA, R.I.; ZHULIN, V.M.

Homolytic copolymerization of vinyl acetate and trichloroethylene
at high pressures. Izv.AN SSSR.Otd.khim.nauk no.7:1164-1169
Jl '62. (MIRA 15:7)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Vinyl acetate) (Ethylene) (Polymerization)

ZHELIN, V.M.; BAYKOVA, R.I.; GONIKBERG, M.G.

Unusual effect of pressure on radical polymerization. Izv. AN SSSR.
Ser. khim. no.6:1133 Je '64.

(MIRA 17:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

ZHULIN, V.M.; GONIKBERG, M.G.; BAYKOVA, R.I.

Radical polymerization of vinyl acetate and its telomerization
with carbon tetrachloride at high pressures. Izv. AN SSSR. Ser.
khim. no.3:432-438 '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

BAIKOVA, R.I.; ZHULIN, V.M.; GONIKBERG, M.G.

Pressure effect on the radical polymerization of acrylonitrile
in dimethylformamide solution. Izv. AN SSSR. Ser. khim. no. 1:154-
156 '66. (MIRA 19:1)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
Submitted May 11, 1965.

L 55989-56 EWP(j)/EWT(m)/T RM/WW

ACC NR: AP6008507

SOURCE CODE: UR/0062/66/000/001/0154/0156

AUTHOR: Baykova, R. I.; Zhulin, V. M.; Gonikberg, M. G.

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, Academy of Sciences, SSSR (Institut organicheskoy khimii Akademii nauk SSSR)

TITLE: Effect of pressure on radical polymerization of acrylonitrile in a solution of dimethylformamide

SOURCE: ANSSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1966, 154-156

TOPIC TAGS: pressure effect, radical polymerization, acrylonitrile

ABSTRACT: The authors, having found that pressure has an unusual effect on heterogeneous radical polymerization of acrylonitrile, e.g., an increase of pressure from atmospheric to 2000 kg/cm² at 50C leads to a decrease of the rate of polymerization and molecular weight of the polymer by a factor of 2.5 and 3.2 respectively, attempted to obtain data on the effect of pressure on homogeneous polymerization of acrylonitrile. This article gives the results of an investigation of polymerization of acrylonitrile in a solution of dimethylformamide initiated by dinitrile of azoisobutyric acid at atmospheric pressure and at 2000 kg/cm². The experiment demonstrated that the rate of homogeneous radical polymerization of acrylonitrile in dimethylformamide at 50C, unlike heterogeneous radical

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UDC: 539.893+542.952+531.1

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ACC NR: AP6008507

polymerization of acrylonitrile, increases with an increase of pressure from atmospheric to 2000 kg/cm² by a factor of 4 and the average molecular weight of the polymer by a factor of 1.5. The authors explain the comparatively small increase of molecular weight at 2000 kg/cm² by the fact that in the studied system an appreciable role is played by the reaction of chain transfer through dimethylformamide and this reaction is accelerated by pressure almost to the same extent as the reaction of chain growth. Orig. art. has: 1 figure and 1 table.

SUB CODE: 07/ SUBM DATE: 11May65/ ORIG REF: 005/ OTH REF: 001

Card 2/2 *BR*

S/123/62/000/006/015/018
A004/A101

AUTHORS: Gulyayev, G. I., Sitkovskiy, I. S., Khabarov, N. D., Baykova, T. P.,
Bratenkova, Ye. V.

TITLE: The practice of pressing converted tubes from the steel grades
EИ 846 (EI846), EИ 847 (EI847), EИ 702 (EI702), X12Ф1 (Kh12F1),
СН2 (SN2) and OX18:9T (OKh18N9T)

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 6, 1962, 25-26,
abstract 6V119 (V sb. "Proiz-vo trub". no. 4, Khar'kov, Metallurg-
izdat, 1961, 5-8)

TEXT: Tests were carried out to press converted tubes from the difficult
to pierce steel grades EI847 and Kh12F1 and EI846, EI702 and SN2 which cannot be
pierced on machines with oblique-positioned rolls. For a comparison, the OKh18N
9T grade steel was used which is well-introduced in tube production. Pressing
was carried out on a 600-ton vertical hydraulic press. The blanks in the form
of turned and drilled sleeves of 83 mm outer diameter and 24 mm wall thickness
were heated in a horizontal induction furnace with electromechanical pusher up
to the following temperatures: EI846 - 1,200°C, EI847 - 1,220 - 1,230°C, EI702 -

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A004/A101

The practice of pressing converted tubes ...

1,150°C, Kh12F1 - 1,160 - 1,170°C, SN 2 - 1,220 - 1,250°C, OKh18N9T - 1,170 - 1,190°C. The heated blanks were wrapped in a 0.27 mm thick glass fabric while the inner surface of the blanks was sprayed with glass powder. The dies, spikes and container bushes were lubricated with a graphite-mineral oil mixture. The pressed tubes of 39.0 - 41.5 x 3.75 - 40 x 1,000 - 1,700 mm size showed a satisfactory quality: The transverse nonuniformity in wall thickness amounted to 0.19 - 0.56 mm, which does not exceed 6.0 - 7.5% of the wall thickness. The pressure gauge readings were recorded, characterizing the pressing stresses which for the different steel grades amounted to 180 - 450 tons. The die service life made of 3X2E8 (3Kh2V8) grade steel was not satisfactory in pressing tubes of the steel grades EI846, EI847, Kh12F1 and EI702. Already after the first pressing, scratches and adhering metal particles showed on the die working surface, while after two subsequent pressings the die had to be cleaned, since considerable lines and scratches would have appeared on the tubes if they had been used furthermore. The life of the spikes from 3Kh2V8 steel was satisfactory. 14 tubes were pressed with one spike. There are 3 figures.

V. Pavlyuchenko

[Abstracter's note: Complete translation]

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L 45449-65 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) Pad IJP(c) MJW/JD/EW/
ACCESSION NR: AT5011340 UR/0000/65/000/000/0055/0362 30/05

AUTHOR: Baykova, T. P.; Lashko, N. F.; Sorokina, K. P.

26
5 + 1

TITLE: Effect of iron on the phase composition, structure, and properties of a heat-resistant nickel-chromium-tungsten alloy

SOURCE: Fazovyy sostav, struktura i svoystva legirovannykh staley i splavov (Phase composition, structure, and properties of alloy steels and alloys). Moscow, Izd-vo Mashinostroyeniye, 1965, 55-62

TOPIC TAGS: alloy phase composition, alloy structure, alloy heat resistance, refractory alloy, iron admixture, nickel alloy, chromium alloy, tungsten alloy, carbide formation, alloy mechanical property

ABSTRACT: Nickel alloys of the type E1868 (av. 25% Cr and 14.5% W plus small amounts of Al, Ti, Fe, Mo, C) were heated for 5 min. at 1200C and cooled in water or air. After aging for 100 hrs. at 800C and cooling in air, differential phase analysis was carried out on anodic deposits. It was found that the introduction of up to 12.3% Fe into alloy E1868 causes the formation of two solid solutions (tungsten-base and chromium-base) after aging at 800C. It is characteristic that in alloys containing iron only a tungsten-base solution was found after quenching in water. Hence, iron decreases the solubility of tungsten and

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ACCESSION NR: AT5011340

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chromium in EI868. The alloy is hardened by several dispersed phases - the carbides $Me_{23}C_6$, W-base and Cr-base solid solutions (at 2.0-3% Fe), and an Fe_2W -base intermetallic phase (at 13.2-17.6% Fe). In alloys containing 20% Fe and over, the δ phase is formed. Alloying EI868 with iron in amounts of 8 - 10% is not recommended, since this Fe content adversely affects the properties of the alloy because of the precipitation of tungsten and chromium, which form solid solutions in appreciable quantities. When EI868 contains 25-32% Fe, a considerable quantity of the δ phase is formed after aging for 100 hrs. at 5000; alloys with such an iron content have a low strength and plasticity. Orig. att. has: 2 figures and 5 tables.

ASSOCIATION: none

SUBMITTED: 17Dec64

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 002

OTHER: 000

Card

2/2

BAYKOVA, Valentina

Moving upward. Znan. ta pratsia no.4:8-9 Ap '60.

(MIRA 14:12)

(Dnepropetrovsk Province—Collective farms)

USSR / Plant Physiology. Mineral Nutrition.

I

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5993.

Author : Baykova, V. M.

Inst : Potrozavodsk University.

Title : The Action of Microquantities of Copper and Manganese on Physiological Processes in Corn.

Orig Pub: Sb. nauchn. rabot, stud. Potrozavodskogo un-ta, 1957, vyp. 4, 96-110.

Abstract: Corn seeds were soaked for 12 hours in 0.01% and 0.1% solutions of $CuSO_4$ and $MnSO_4$, respectively, as well as in distilled water. Dry seeds served as control samples. Sowing was carried out the following day after soaking. Seeds treated with microquantities of copper and manganese, respectively, germinated two days earlier than those soaked in water. Plant development was ac-

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