YUZHUK, V.L.

Pipe-laying machine for assembling large-diameter reinforced concrete pipes. Stroi. truboprov. 5 no.3:31 Mr '60. (MIRA 13:9)
(United States-- Aqueducts)

YUZHUK, V.L.

Comparative analysis of gamma- and x-ray flaw detection. Mont. i spets. rab. v. stroi. 22 no.12:28-29 D '60. (MIRA 13:11)

1. Proyektno-konstruktorskaya Mekhanomontazhproyekt.
(X rays--Industrial applications)
(Gamma rays--Industrial applications)
(Metals--Defects)

YUZHUK, V.L.

Assembling reactors in limited areas. Mont. i spets. rab. v stroi. 23 no.3:28-29 Mr '61. (MIRA 14:3)

1. Proyektno-konstruktorskaya kontora Mekhanomontazhproyekt. (New York (City)--Nuclear reactors)

YUZHUK, V.L.

Releiving stresses without using heat-treating furnaces. Mont. i spets. rab. v stroi. 23 no.5:30-31 My '61 (MIRA 30:31)

1. Mekhanomontazhnoye.
(England--Tanks)

YUZHUK, V.I.

Centralized lubrication of skip hoist cables (from "Iron and Steel," February 1962). Mont. i spets. rab. v stroi. 25 no.3:28-29 Mr '63. (MIRA 16:2)

(Great Britain--Lubrication and lubricants)
(Great Britain--Hoisting machinery)

YUZIK, S. I.

YUZIK, S. I.- "Investigation of Technology of Installation of Water-tube Boilers on Ships." Min of Higher Education USSR, Leningrad Shipbuilding Inst, Leningrad, 1955 (Dissertations for Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

YUZIK, S.I., kandidat tekhnicheskikh nauk.

Reasons for enlargening tolerances for the installation of marine boilers. Sudostroenie 22 no.7:28-31 Jl '56. (MLRA 9:10)

(Boilers, Marine)

YUZIK, S.I., kandidat tekhnicheskikh nauk.

Boiler installation on movable bed frames. Sudostroenie 22 no.11:31-34 N '56. (MLRA 10:2)

(Boilers, Marine)

YUZIK, S.I., kand.tekhn.nauk

Mounting boilers on temporary carriages. Sudostroenie 24 no.4:41-44 Ap '58. (MIRA 11:4)

(Boilers, Marine)

YUZIK, S.I., kand.tekhn.nauk; LEYV, G.Yu.Ya., insh.

Improving the installation of heat exchanger units. Sudostroenie 25 no.2:39-41 F '59. (MIRA 12:4)
(Heat exchangers)
(Marine engineering)

L 27285-66 EWP(k)/EWT(d)/EWT(m)/EWP(h)/EWP(l)/EWP(v)/EWP(t) IJP(c) JD/HW
ACC NR: AP6009900 (A) SOURCE CODE: UR/0413/66/000/004/0092/0092

AUTHORS: Yuzik, S. I.; Skryl', I. A.; Ovsyankin, A. N. 46 B

ORG: none

TITLE: Device for testing the hermeticity of specimens having rolled joints. Class 42, No. 179054 14 18

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 92

TOPIC TAGS: pipe, roll forging, metal joining

ABSTRACT: This Author Certificate presents a device for testing the hermeticity of specimens having rolled joints, e.g., in the form of a flange with a rolled-in pipe. The device consists of a hydraulic loading device and a testing chamber. To exclude an axial build-up of pressure on the pipe section and to increase the accuracy of measurement, the flange is fastened by a screw press to the end of the experimental chamber, the lower part of which is equipped with a packing of the chevron type, situated on the outer surface of the pipe. To prevent the influence of press deformation on the hermeticity of the specimen-experimental chamber joint, use is made of a hydraulic press deformation compensator (see Fig. 1).

Card 1/2 UDC: 620.169.29-762.4

L 27239-66
ACC NR: AP6009900

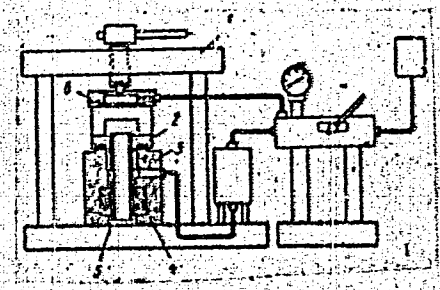


Fig. 1. 1 - screw press; 2 - specimen; 3 - test chamber; 4 - packing; 5 - pipe; 6 - compensator for press deformation.

Orig. art. has: 1 figure.

SUB CODE: 11/ SUBM DATE: 02Aug63

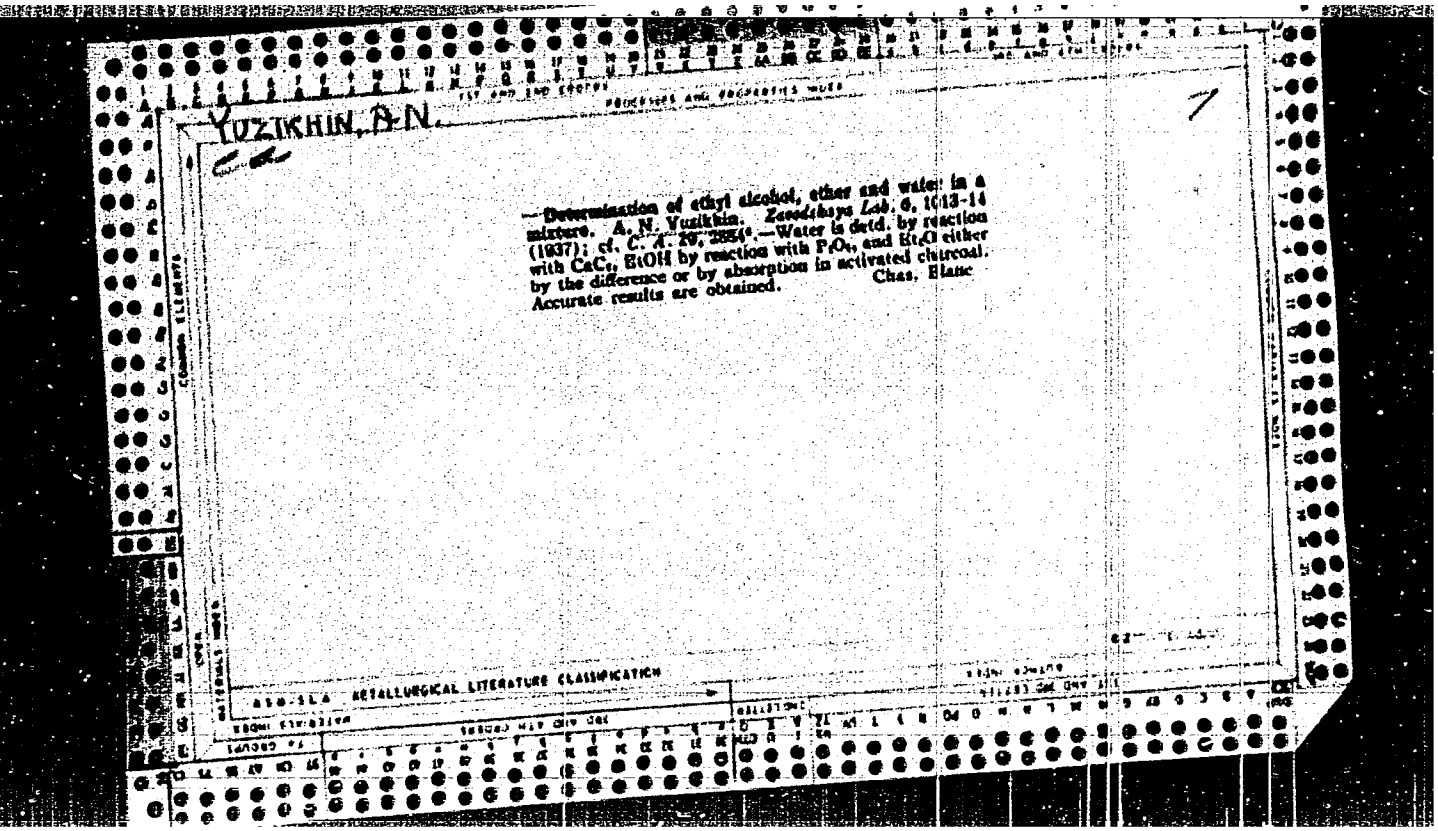
Card 2/2 cc

YUZIKEYEV, K.

PORTNOV, Ya., kandidat tekhnicheskikh nauk; YUZIKEYEV, K., inzhener.

Using sewing machines. Muk.-elev.prom. 20 no.6:25-26 Je '54.
(MLRA 7:8)

1. Sverdlovskiy mukomol'no-elevatornyy tekhnikum (Portnov) 2.Mel'nitsa No.3 Sverdlovskogo tresta Glavmuki (Yuzikeyev).
(Sewing machines)


YUZIKHIN, A.N.

—Determination of ethyl alcohol, ether and water in a mixture. A. N. Yuzikhin. *Zavodskaya Lab.* 6, 1013-14 (1937); cf. *C. A.* 29, 2854⁶.—Water is detd. by reaction with CaC_2, EtOH by reaction with P_2O_5, and Et$_2$O either by the difference or by absorption in activated charcoal. Accurate results are obtained. Chas. Blanc

BLINOV, O.S.; BELEN'KIY, Ye.L.; BRAUSEVICH, S.T.; DOROKHOV, B.A.; ZIGMUND, F.R.; ITSIKOV, G.B.; LEVER, A.A.; LESHCH-BORISOVSKIY, A.I.; MURTUZALIYEV, S.A.; PIIR, A.I.; YUZIKHIN, Ye.Ye.; YAKIMOV, I.D.; SHCHELKUNOV, V.V., retsenzent; GONCHAROV, A.F., otv. red.; KORCHUNOV, N.G., otv. red.; NIKOL'SKIY, B.V., otv. red.; POSTREMOV, G.A. [deceased]; SLUTSKER, M.Z., red. izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Lumbering; land transportation of timber] Lesozagotovki; sukhoputnyi transport lesa. Spravochnik. Moskva, Goslesbumizdat, 1962. 504 p. (MIRA 16:7)
(Lumber--Transportation)

YUZIN, A.

Transmitter-receiver set for 144 to 146 megacycles. Radio no.4:37-40 Ap '60. (MIRA 13:8)

(Radio, Shortwave)

YUZIN, S.

Admiral of the sea and the ocean. Znan. sila 31 no.9:18-21. (MIRA 9:10)
S '56.
(Columbus, Christopher, 1451-1506)

YUZINGER, P.

MAYR, Ernst, 1904- ; LINSLI, E.; YUZINGER, R.; BEL'GOVSKIY, M.L. [translator]; OMPTNER, V.G., red.

[Methods and principles of systematic zoology. Translated from the English] Metody i printsipy zoologicheskoi sistematiki. Perevod s angliiskogo M.L.Bel'govskogo. Pod red. i s predisl. V.G.Geptnera. Moskva, Izd-vo inostrannoi lit-ry, 1956. 352 p. (MIRA 11:6)
(Zoology--Classification)

SKIPETROV, P.A.; SOKOLOVSKIY, T.Ya.; PERENKOV, A.P.; ROMANOV, B.V.; FEDOROV, V.P.; MARINKO, I.L., dotsent; AGANBEGYAN, A.G.; YUZIRA, V.Yu., red.; YERMAKOV, M.S., tekhn.red.

[Increasing labor productivity is the main factor in expanding agricultural production under the seven-year plan] Povyshenie proizvoditel'nosti truda - glavnoe uslovie rosta sel'skokhoziaistvennogo proizvodstva v semiletke. Moskva, Izd-vo Mosk.univ., 1960. 134 p. (MIRA 14:1)

1. Moscow. Universitet.
(Agriculture--Labor productivity)

L 6536-66 EWT(1)/FS(v)-3 DD

ACC NR: AP5027168 SOURCE CODE: PO/0056/65/016/005/0727/0737

AUTHOR: Jezkiewicz, S. — Yuzkevich, S. (Professor, Doctor, Director); Pukhalik, M. — Pukhalik, M. (Professor, Doctor, Director); Cygan, Z. — Tsygan, Z.; Drozdz, M. — Drozhdzh, M.; Gregorczyk, J. — Gregorchik, Ya.; Grzesik, J. — Gzhesik, Ya.; Krzoska, K. — Kshoska, K.; Lewandowska-Tolarz, A. — Levandovska-Tolarzh, A.; Stanosek, J. — Stanosek, Ya.; Zak, T. — Zhak, T.

ORG: Institute of Physiological Chemistry, Silesia AM, Zabrze-Rokitnica (Zaklad Chemii Fizjologicznej Sl. AM); Institute of Medical Physics, Silesia AM, Zabreze-Rokitnica (Zaklad Fizyki Lekarskiej Sl. AM)

TITLE: Investigation of the effect of sonic and ultrasonic fields on biochemical processes. IX. Effect on some blood components in men working under noisy conditions

SOURCE: Acta physiologica polonica, v. 16, no. 5, 1965, 727-737

TOPIC TAGS: human physiology, working condition, man, medical experiment, biologic vibration effect, sound, ultrasonic field, acoustic biologic effect

ABSTRACT: The levels of blood glucose, pyruvic acid, ascorbic acid, proteins, protein fractions, nonprotein nitrogen, phospholipid phosphorus, and the activities of aminotransferase and aldolase were determined in 80 persons to study the effect of noisy working conditions on the workingman. The test subjects were employed in a large industrial establishment

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UDC 612.015.3

L 6536-66

ACC NR: AP5027168

and exposed to vibration and noise. All were in relatively good health. The control group consisted of workers in the same factory, but not exposed to a noisy environment. The results showed the following: a decrease in blood sugar, phospholipid phosphorus, and ascorbic acid; an increase in protein, albumin, and nonprotein nitrogen. The gamma globulin, however, showed a decrease. There was a slight increase in aspartic aminotransferase and alanine aminotransferase, and a slight decrease in aldolases. The results of determinations of other components studied, different from those in guinea pigs, are discussed. Orig. art. has: 9 tables.

SUB CODE: PH, LS / SUBM DATE: 09Nov64 / ORIG REF: 000 / OTH REF: 021

EW

Card 2/2

Yuz'ko, M. I.

18(6) PHASE I BOOK EXPLOITATION SOV/3199

Akademiya nauk SSSR. Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova

Analiz blagorodnykh metallov (Analysis of Noble Metals) Moscow, 1959. 193 p. Errata slip inserted. 2,700 copies printed.

Resp. Ed.: N. K. Pshenitsyn, USSR Academy of Sciences, Corresponding Member; and O. Ye. Zvyagintsev, Doctor of Chemical Sciences; Eds. of Publishing Houses: T. G . Levi, and D. N. Trifonov; Tech. Ed.: I. N. Guseva.

PURPOSE: This collection of articles is for scientists engaged in the study and analysis of the noble metals.

COVERAGE: This is a collection of articles on the analysis of the noble metals. It includes studies carried out by the Institute of General and Inorganic Chemistry im. N. S. Kurnakov (AN SSSR), as well as reports presented by scientific research organizations and by industrial enterprises at the Third and Fourth Conference on Noble Metals held in 1954 and 1957, respectively. The studies and reports describe new organic reagents for gravimetric determination of platinum metals, and physicochemical methods of analysis (spectrophotometric, polarographic and potentiometric). Special attention is given to spectral analysis for the determination of admixtures in alloys of platinum metals, silver, and gold, as well as in refined noble metals. The collection also includes analytical methods, tables and charts for materials containing metals of the platinum group, as well as a review of the literature on the analysis of platinum metals published in the last five years. No personalities are mentioned. References follow each chapter.

1/5

GINZBURG, S.I.; YUZ'KO, M.I.

Determination of microgram quantities of iridium by the kinetic method. Zhur. anal. khim. 21 no. 1:79-82 '66 (MIRA 19:1)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR, Moskva.

GINZBURG, S.I.; YUZ'KO, M.I.

Catalytic properties of titanium compounds in aqueous solutions. (MIRA 18:6)
Zhur.neorg.khim. 10 no.4:823-828 Ap '65.

GINZBURG, S.I.; YUZ'KO, M.I.; SAL'SKAYA, L.O.

Complex iridium trisulfates. Zhur.neorg.khim. 8 no.4:839-846 Ap '63. (MIRA 16:3)

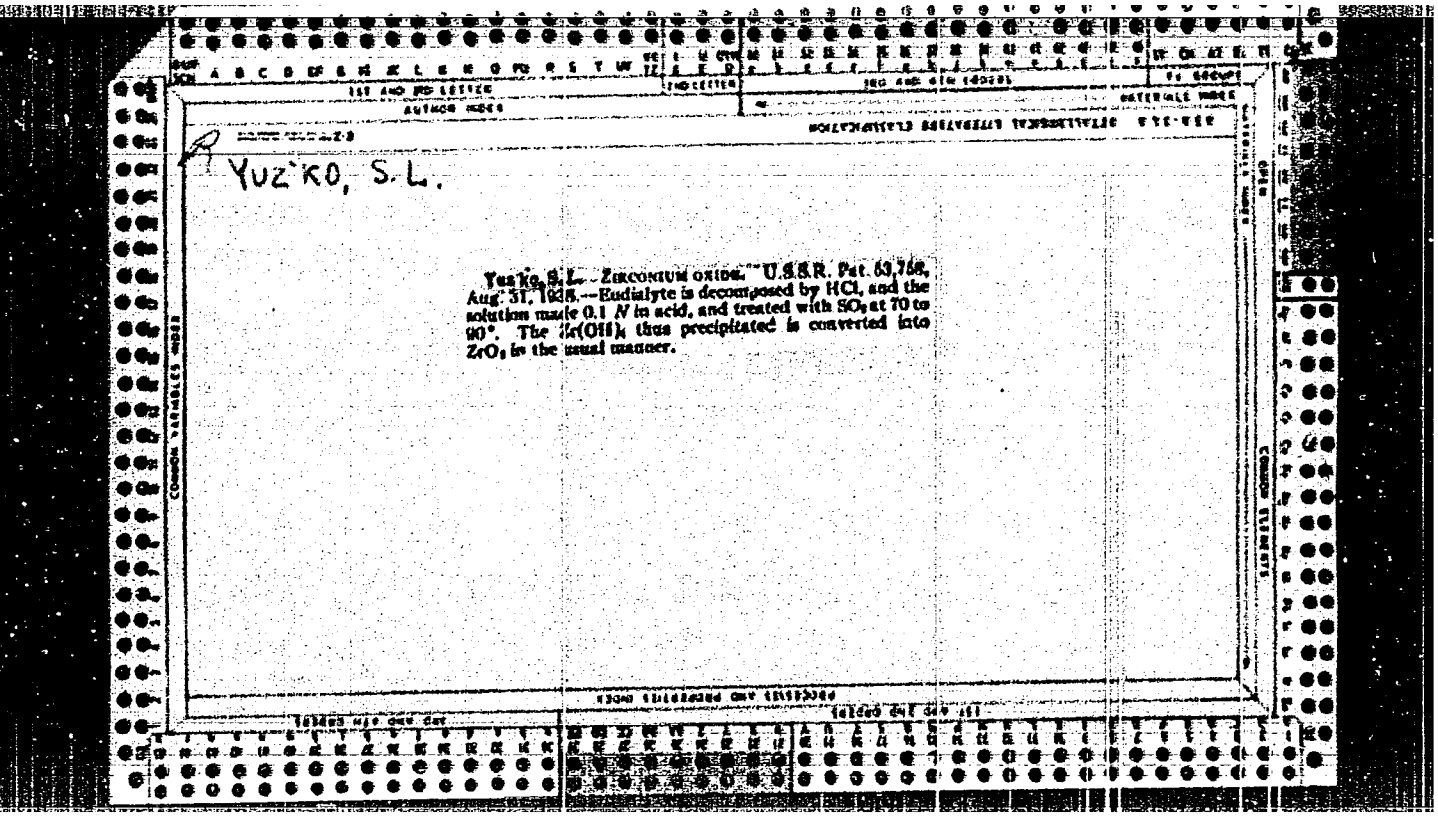
1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR.

(Iridium compounds)

YUZ'KO, S., kand. tekhn. nauk; ROZENKRANTS, I., kand. tekhn. nauk; MAMONTOVA, O., kand. khim. nauk; PATLYAKEVICH, D., inzh.; KISLITSIN, S.; KISLITSIN, Ye.; BUKHARSKIY, G.; RYZHKOV, P., izobretatel'; SOLOVSKIY, B., inzh.-mekhanik

Helping crops. NTO 6 no.6:9-12 Je '64. (MIRA 17:8)

1. Uchenyy sekretar' soveta Nauchno-tekhnicheskikh obshchestv Ul'yanovskogo oblastnogo ob"yedineniya "Sel'khoztekhnika." (for Bukharskiy).



YUZ'KO, S. L.

Yuz'ko, S. L. – ZIRCONIUM OXIDE." U.S.S.R. Pat. 63,756, Aug. 31, 1938.—Eudialyte is decomposed by HCl, and the solution made 0.1 *N* in acid, and treated with SO_2 at 70 to 90°. The $Zr(OH)_4$ thus precipitated is converted into ZrO_2 in the usual manner.

YUZ'KO, S. I. - Doc Tech Sci (diss) -- "Obtaining sulfur and matte from pyrites by means of zonal roasting and fusion (Problems of the radical improvement of the production of sulfuric acid and certain pyrometallurgical processes)". Sverdlovsk, 1959. 36 pp (Min Higher Educ USSR, Ural Polytech Inst im S. M. Kirov), 150 copies (KL, No 10, 1959, 125)

GINZBURG, S.I.; YUZ'KO, M.I.; CHALISOVA, N.N.

Use of cuprous chloride in the analysis of platinum metals. Zhur. anal. khim. 18 no.2:222-228 F '63.

(MIRA 17:10)

1. Kurnakov Institute of General and Inorganic Chemistry, Academy of Sciences, U.S.S.R., Moscow.

VILKOVA, N.A., aspirantka; KOZLENKO, V.N., fitopatolog (Brazhnoye, Krasnoyarskogo kraya); GULYARENKO, F.N.; RAZVYAZKINA, G.M.; KAPKOVA, Ye.A.; BELYANCHIKOVA, Yu.V.; DZHUMABAYEV, P., aspirant; RASSADINA, Ye.G., aspirant; NIKITINA, M.D., mladshiy nauchnyy sotrudnik; LOGINOVA, K.M., kand.sel'skokhoz.nauk; YUZ'KO, G.L.; PETROVA, N.A.

Brief information. Zashch. rast. ot vred. i bol. 8 no.9:53-57 S '63. (MIRA 16:10)

1. Vsesoyuznyy institut zashchity rasteniy (for Vilkova, Rassadina). 2. Zaveduyushchiy Lisetskim sortouchastkom, selo Krekhovtsy, Ivanovo-Frankovskoy oblasti (for Gulyarenko). 3. Laboratoriya mikologii Vsesoyuznogo instituta zashchity rasteniy (for Dzhumabayev). 4. Chitinskaya sel'skokhozyaystvennaya opytnaya stantsiya (for Nikitina). 5. Pushkinskaya baza Vsesoyuznogo instituta zashchity rasteniy (for Loginova). 6. Ul'yanovskaya sel'skokhozyaystvennaya opytnaya stantsiya, pochtovoye otdeleniye Isheyevka (for Petrova).

YUZKOV, M.I. [IUz'kiv, M.I.]

Yew of the Knyazhedvorskaya wood lot in Transcarpathia.
Mat.pro okhor.pryr.na Ukr. no.1:27-41 '58. (MIRA 13:3)
(Kolomyya region--Yew)

YUZOV, A. (st.Belaya)

Blocking network. Radio no.10:46 O '61. (MIRA 14:10)
(Television)

TYLKIN, M.A.; MEL'NICHENKO, G.P.; ZASPITSKIY, N.A.; KHUDENKO, M.A.; YUZVA, A.B.

Investigating service temperature conditions and the heat resistance of rolls on transverse-spiral rolling mills. Izv. vys. ucheb. zav.; chern. met. 7 no.11:124-130 '64. (MIRA 17:12)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz i Dneprovskiy metallurgicheskiy zavod.

KOPYLOV, N.I.; NOVOSELOV, S.S. ; YUZVAK, L.A.; KASHAYEV, A.A.

Some properties of chemical compounds in the system Cu_2S-Na_2S.
Zhur. neorg. khim. 9 no.6:1403-1405 Je '63 (MIRA 17:8)

MAMAYEV, V.Ye.; YUZVAK, L.A.

Quantitative determination of rutile and anatase by means of the URS-50I X-ray diffractometer. Shor.trud. VNIITSVETMET no.9:174-176 '65. (MIRA 18:11)

YUZVENKO, Yu. A.

"Investigation of the Automatic Arc Welding Buildup of Dies." Cand Tech Sci, Kiev Order of Lenin Polytechnic Inst, Min Higher Education USSR, Kiev, 1955. (KL, No 15, Apr 55).

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific andTechnical Dissertations Defended at USSR Higher Educational Institutions (16).

YUZVENKO, Yu.A.

YUZVENKO, Yu.A.

Building up metal dies by automatic arc weld deposition. Visnyk AN URSR 26 no.7:45-46 Jl '55. (MLRA 8:10)
(Dies (Metalworking)) (Electric welding)

YUZVENKO, YU.A. (Cand. Tech. Sci.)

"Ceramic Fluxes for Automatic and Semiautomatic Surfacing of Dies," p. 121 in book Reports of the Interuniversity Conference on Welding, 1956. Moscow, Mashgiz, 1958, 266pp.

YUZVENKO, Yu. A.

18(5,7), 25(5)

AUTHOR: None Given SOV/125-59-5-13/16

TITLE: Scientific-Technical Conference on Questions of Welding Engineering

PERIODICAL: Avtomaticheskaya svarka, 1959, Vol 12, Nr 5 (74) pp 95-96 (USSR)

ABSTRACT: The scientific-technical conference on question of welding engineering convened in Khar'kov from March 11-13, 1959. The following organizations convened in the conference: The Scientific-Technical State Committee of the Council of Ministers of the UkrSSR, the Khar'kov Sovnarkhoz, the Institute of Electric Welding imeni Ye.O. Patona of the Academy of Sciences of the UkrSSR, the Kiyev and Khar'kov oblast administrative NTO of the machine industry. After the introduction of the Chairman of GNTK UkrSSR, G.P. Kostenko, the conference heard the report of Academician AS UkrSSR, B.Ye. Paton "On the Reintroduction and production of Welding Engineering". After that, the following reports were heard at the conference: Member of Gos Plan UkrSSR

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D.I. Polyakov on establishing materials and engineering bases in the republic for the development of welding. Vice Chairman of Sovnarkhoz V.N. Yakovlev on the introduction of welding engineering in the enterprises of the Dnepropetrovsk economic administrative area. Chief of Technical Administration of the Khar'kov Sovnarkhoz I.I. Kusubov on the introduction of progressive welding engineering in the enterprises of the Sovnarkhoz. Comrade Ratnikov on successes of the Zaporozh'ye Metal Construction Factory in introducing welding engineering. Candidate of Technical Sciences I.I. Frumin (Institute of Electric Welding imeni Ye.O.Paton) on new works on automatic welding. Chief of Welding Department of the Novo-Kramatorskiy Machine Factory V.K. Yaremenko on the use of "electric Slag" welding in heavy machine building. Candidate of Technical Sciences Yu. A. Yuzvenko spoke on ceramic flux for welding. Chief of Welding Department of Khar'kov Turbine Factory, S.I. German on the use of radioelectric welding in carbon dioxide. Candi-

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date of Technical Sciences P.I. Sevbo on new equipment for welding, worked out by the Institute of Electric Welding imeni Ye.O. Paton. Candidate of Technical Sciences V.K. Lebedev (Institute of Electric Welding imeni Ye.O. Paton) on new works on point-welding. Engineer [illegible] on new welding equipment, worked out by VNIIESO. Vice Director of the Institute of VNII Avtogen, Candidate of Technical Sciences I.A. Antonov on recent achievements in the gas flame treatment of metals. Candidate of Technical Sciences N.F. Kazakov (Chair of Technology of Metals at Moscow Institute of the Meat and Milk Production) on a new method of vacuum diffusion welding.

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18(5),28(1)

SOV/135-59-6-2/20

AUTHOR: Khrenov, K. K., Member, Academy of Sciences (Ukraine), Poznyak, L. A., Candidate of Technical Sciences, Yuzvenko, Yu. A., Candidate of Technical Sciences, Samotryasov, M. S., Candidate of Technical Sciences

TITLE: Features of Modification of Seam Welds by Titanium in the Automatic Welding of Medium Steel

PERIODICAL: Svarochnoye Proizvodstvo, 1959, Nr 6, pp 6-8 (USSR)

ABSTRACT: In welding high carbon-content steels, hot cracks and tempering structures are formed around the welding zone. The difficulties are increased if metal is heated before welding. It is shown in [Ref 1 and 2] that in metal containing more than 0.16-0.20% C-hydrate heat-fissures are formed. [Ref 4 and 5] represent the experiment of introducing fluxes of titanium and aluminum into the welding tub by electrode-wires. In [Ref 5] there is shown the experiment of removing the heat-fissures in cast steel with a high percentage of C-hydrate (0.50-2.0%) by introducing titanium by powdery-electrodes. The experiment was successful.

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Features of Modification of Seam Welds by Titanium in the Automatic Welding of Medium Steel

However, the result was no modification, but an alloy. The author discusses the influence of titanium into the welding tub by electrode-wires and ceramic fluxes. Two series of investigations have been accomplished: 1) The introduction of various quantities of titanium by Sv-0.8 electrodes in welding with AN-348A and AN-20 fluxes; 2) Introduction of titanium by Sv-0.8 electrodes according to GOST 2246-54 of 5 mm diameter, into welding tub with KS-1 ceramic fluxes [Ref 6]. Table 1 and 2 show the chemical structure of seam metal and the presence of fissures. In Photograph 1 the initial structure of the seams is shown. In Photograph 2 the structure of the seams under influence of ceramic fluxes is shown. Table 3 and 4 represent the results of toughness investigations. According to these, modification may be applied: 1) If the melted metal contains small hard parts which can form the center of crystallization after cooling; 2) If a small quantity of admixture which concentrates at the surface when crystallizing and hinders growing,

Features of Modification of Seam Welds by Titanium in the Automatic Welding of Medium Steel

is introduced into the casting. V. I. Danilov [Ref 10] has discussed the admixture for heating metals. V. M. Maltsev [Ref 13] has been experimenting with the same problem. The author suggests the application of ceramic fluxes containing a modifier for seam-welding with 0.008-0.018% titanium. About 0.5% titanium should be introduced into the weld by electrode-wires. There are 2 photographs, 4 tables, 1 graph and 13 references, 11 of which are Soviet, 1 Japanese and 1 American.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Politechnical Institute)

18(5), 28(1) SOV/125-59-10-2/16

AUTHOR: Yuzvenko, Yu.A., Candidate of Technical Sciences

TITLE: Unfused Alloy Fluxes for Automatic and Semi-Automatic Welding

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 10, pp 9-18 (USSR)

ABSTRACT: The article describes the composition and properties of unfused alloy (ceramic) fluxes for durable welding, carried out on steels of Type Kh12T, R18, R9 and 3Kh2V8 by means of welding wire Types Sv-08 and Sv-08A, based on work conducted in the laboratory of the faculty of welding at the Kiyev Polytechnic Institute. The composition of such fluxes can be divided into 3 sections: 1) the scoriaceous part, usually made up of a base of marble, titanium dioxide, quartz and fluoric spar. The marble reduces the amount of hydrogen in the welded metal by the formation of carbon dioxide on heating, and the other component substances are included to reduce the melting point and the viscosity of the slag. Figs 1a and 1b show the initial structure of high-chrome welding with the use of high- and low-silicon slag respectively; 2) the deoxidizing part of the flux, usually consisting of ferroalloys and containing acti-

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ve reducing agents (aluminum, titanium, silicon), which is an essential factor in ensuring good welds and the absence of pores. The amount of titanium and aluminum depends on the marble content and the concentration of carbon in the welded steel; 3) the alloying part of the flux, which usually consists of the appropriate ferroalloys and graphite. Table 1 contains data concerning the chemical composition of ceramic fluxes for welding, to which liquid glass (electrode sedium silicate, GOST 4419-48, Class A) is added as a binding agent (17-18% of the total weight of the charge); Table 2 gives the composition of the fluxes, the alloying and reducing parts varying according to the composition of the ferroalloy. The chemical composition of the welded metal is given in Table 3, and then the author goes on to enumerate the purpose of each flux. Figs 2 and 3 give graphs showing the relation between the current and the arc-voltage and the relative flux consumption (the ralation between the weight of the welding flux and that of the electrode wire), which indicates that

Unfused Alloy Fluxes for Automatic and Semi-Automatic Welding

an increase in the welding current, with the voltage constant, is accompanied by a decline in the relative flux consumption; conversely, an increase in the voltage, with the welding current constant, leads to a stepping-up of the relative flux consumption. The chemical composition of the welded metal can therefore only be obtained at a given relation between voltage and current. Permissible variations in the welding parameters, which do not cause any great change in the chemical composition of the welded steel, are then discussed. Fig 4 gives graphs illustrating the change in the contents of chrome depending on the arc-voltage and the composition of the scoriaceous part of the alloy fluxes, and details and figures are given in the text. The best conditions of welding are given in Fig 5, which shows that, with welding currents of over 450 amps, welding must be carried out with 3mm diameter wire, while currents of up to 350 amps require 2mm wire. Mention is made that the chemical composition of the welded metal is best kept

Unfused Alloy Fluxes for Automatic and Semi-Automatic Welding

constant by the use of automatic and semi-automatic welders with a constant-speed supply of electrode wire. Figs 6 and 7 indicate that seams welded by ceramic fluxes are not as deeply cut into the main metal as in the case of fused fluxes. There are 5 graphs, 3 tables, 3 photographs, and 8 Soviet references.

ASSOCIATION: Kiyevskiy ordena Lenina politekhnicheskiy Institut (Kiyev Order of Lenin Polytechnic Institute)

SUBMITTED: April 1, 1959

S/125/60/000/05/13/015

AUTHOR: Yuzvenko, Yu. A.

TITLE: All-Union Conference on Problems of Mechanized Plating in Nonferrous Metal Works

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 5, pp. 92-93

TEXT: Upon recommendation of Koordinatsionnyy sovet po svarke (Coordination Council for Welding) a conference was convened for February 11-13, 1960 at the Institut elektrosvarki im. Ye. O. Patona (Electric Welding Institute imeni Ye. O. Paton). Delegates from works engaged in rolling and pressing of nonferrous metals, from Stalinskiy (Stalino), Moscow and Leningrad Sovnarkhozes, from GNTK SSSR (GNTK of the USSR), from the Leningrad and Urals polytechnical institutes and others took part. Director of the Electric Welding Institute imeni Ye. O. Paton, Academician of AN USSR (AS UkrSSR) B. Ye. Paton, opened the conference with a general review of the present level of techniques in wear-resistant plating and outlined the purpose of the conference. Candidate of Technical Sciences I. I. Frumin (IES) read a report on "Mechanical Plating of Wearing Parts and Tools", and N. A. Mal'tsev, Chief of the

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S/125/60/000/05/13/015

All-Union Conference on Problems of Mechanized Plating in Nonferrous Metal Works.

Welding Department in the "Tsvetmet" works in Artemovsk, read one on "Experience with Practical Application of Plating for Pressing Tools and Machine Parts". The techniques discussed were: weld-plating under flux with band electrodes; welding pipes by radio-frequency currents; welding by electron ray in a chamber with controlled atmosphere; welding by electroslag remelting. It was stated that, though mechanical plating has made good progress in iron works, it is not yet sufficiently used in non-ferrous metal works, for surfacing hot rolling mill rolls, crane wheels, etc., as it is already practiced at 38 metallurgical works in the USSR. Many works do not yet use the process, developed by the Electric Welding Institute for restoring press tools, by fusing powder wire in carbon dioxide medium. The "Tsvetment" works in Artemovsk saved over 1 million rubles and 46 tons of tungsten and nickel alloy steel in 1959 by using mechanical plating for parts and pressing tools. Extensive application of electroslag remelting of tool steel, including scrap is becoming important; it reduces carbide nonuniformity of steel and its saturation with gas and contamination with slag inclusions. The conference recommended organizing

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B/125/60/000/05/13/015

All-Union Conference on Problems of Mechanized Plating in Nonferrous Metal Works

demonstration teams of mechanical plating at a number of nonferrous metal works. Basic directions for research were given. The necessity of new plating materials was noted.

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1.2300 2708, 1573

S/125/60/000/009/014/017
A161/A130

AUTHOR: Yuzvenko, Yu.A.

TITLE: Powder-Metal Tape Electrode

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 9, pp. 86-87

TEXT: Institut elektrosvarki im. Ye.O. Patona (Electric Welding Institute im. Ye.O. Paton) has proposed a new method for manufacturing electrode band for surfacing wear resistant alloys with high carbon content, chrome and other alloy element contents. The electrode consists of a shell from a mild cold-rolled steel band filled with mixed graphite, ferroalloys, and other powdered components. The electrode tape consists of separate 12-14 mm wide sections prepared on a special machine resembling the machine for press-rolling of alkaline storage battery plates (the machine is not further described). Then several sections are passed through corrugating rolls. A drum behind the rolls winds up the tape into coils. The process is continuous and highly productive - one machine produces 3 to 3.5 tons electrode tape per shift. The shell is made of 0.2-0.3 mm steel band, and the corruga-

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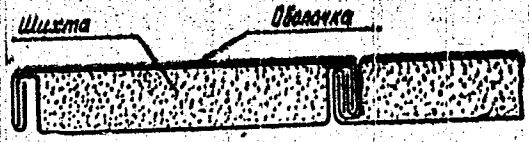
S/125/60/000/009/014/017
A161/A130

Powder-Metal Tape Electrode

tions increase its flexibility and hold the powder. Wide tape can be separated into several thicknesses. Much tape of this kind has been produced for coating alloys with up to 5% C, 30% Cr and 6% Mn. There are 3 figures.

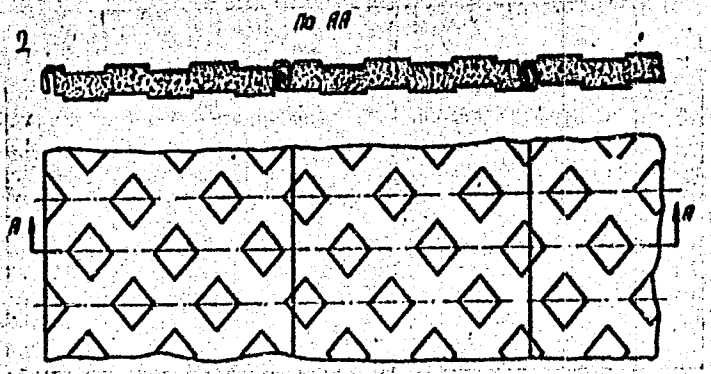
Figure 1:
Sections before corrugation.



Card 2/3

Powder-Metal Tape Electrode

Figure 2: Ready powder tape.



Card 3/3

KHRENOV, Konstantin Konstantinovich; KUSHNEREV, Daniil Matveyevich. Prinimali uchastiye: IUZVENKO, Iu.A., kand.tekhn.nauk; BAGRYANSKIY, K.V., kand.tekhn.nauk, dotsent. NOVIK, A., red.; GORKAVENKO, L., tekhn.red.

[Ceramic fluxes for automatic welding and hard facing] Keramicheskie fliusy dlia avtomaticheskoi svarki i naplavki. Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1961. 262 p. (MIRA 14:12)

1. Zhdanovskiy metallurgicheskiy institut (for Bagryanskiy).
(Flux (Metallurgy)) (Electric welding)

FRUMIN, Isidor Il'ich; LEYNACHUK, Yevgeniy Ivanovich; YUZVENKO, Yuriy Arsen'yevich; NERODENKO, Mikhail Minovich; BOBROVA, T.L., red.; KOZLOVSKAYA, M.D., tekhn. red.; PERSON, M.N., tekhn. red.

[Principles of the technology of mechanized hard facing] Osnovy tekhnologii mekhanizirovannoi naplavki. Moskva, Vses.uchebno-pedagog.izd-vo Proftekhizdat, 1961. 303 p. (MIRA 15:1)
(Hard facing)

S/125/61/000/005/016/016
A161/A127

AUTHOR: Yuzvenko, Yu. A.

TITLE: A conference of the welders of the Gor'kiy oblast'

PERIODICAL: Avtomaticheskaya svarka, no. 5, 1961, 95 - 96

TEXT: A conference was convened in January 1961 in Gor'kiy to discuss the problems of further development and application of welding techniques. About 400 delegates were present from the industry of the Gor'kiy oblast', Institut elektrosvarki im. Ye. O. Patona AN USSR (Electric Welding Institute im. Ye. O. Paton AS UkrSSR), Institut metallurgii AN SSSR (Institute of Metallurgy AS USSR), VNIIAvtogen, and other organizations. B. Ye. Paton, Academician of the AS UkrSSR, reported on the present state and development of welding in the USSR, outlined the expected development for the coming 20 years, and mentioned the progress of plants in the Gor'kiy Economic Rayon (GAZ, "Krasnoye Sormovo" and other) in the application of new techniques and automatic welding lines. T. I. Lapin, Deputy Chairman of Gor'kiy Sovnarkhoz, reported on the present state of welding techniques and the prospects in the industry of the Sovnarkhoz, and described the success achieved in welding at the Gor'kiy Automobile Plant and the Pavlovo Bus Plant, the "Dvigatel'

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S/125/61/000/005/016/016
A161/A127

A conference of the welders of the Gor'kiy oblast'

revolyutsii" Plant and the "Krasnoye Sormovo" Plant. The Gor'kiy Automobile Plant has started producing welded axles for new trucks from stamped elements, which will considerably reduce the consumption of metal. The "Dvigatel' revolyutsii" Plant is replacing castings by welded structures, e.g. the base frame for a Diesel engine is produced by welding rolled and cast components, and the weight is reduced by 1,400 kg (from 3,300 kg). The total volume of welding increased by 38% during two years. B. I. Medovar, Candidate of Technical Sciences (Electric Welding Institute im. Ye. O. Paton) informed on new work on machine welding and electro-slag; remelting, new welding wire and flux grades for refractory steels and alloys, electro-slag welding of large ring elements, new techniques for welding bimetal sheets, and a new method of producing multilayer rolled stock from welded and hard-faced billets. S. I. Rusakov, Assistant Chief Production Engineer of the Gor'kiy Automobile Plant reported on the "Application and Prospective Development of Welding at the Gor'kiy Automobile Plant". The plant produces 236,000 welded structures annually, and welding is mechanized to 94.5%. An assembly and welding line for the floor of "Volga" automobile body includes three automatic multispot resistance welding machines welding 200 - 240 spots each; CO_2-welding with semiautomatic A-547-P (A-547-R) welders has improved the quality of work, reduced warpage, doubled and trebled the productivity. A new rear axle design is used for new trucks -

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A conference of the welders of the Gor'kiy oblast'

consisting of stampings welded together; the Electric Welding Institute has developed the technology. Tubeless tyres can be used for passenger cars due to a new method of joining the wheel discs to the rim - by spot welding. Overall automation and mechanization has resulted in a 1.5 times higher output. Engineer O. K. Nazarenko told in his report on "Electron-Beam Welding and its Prospective Development" what the Electric Welding Institute im. Ye. O. Paton is doing in this field, and on industrial electron-beam welding guns developed by the Institute. V. P. Ryabinkin, Assistant Chief Production Engineer of "Krasnoye Sormovo" described the welding work at the plant including hydrofoil ships, tankers, sea and RR ferry boats; ship elements produced by welding of stampings and castings. The plant has started using electro-slag welding for steel structures and argon-arc welding for aluminum alloys. A welded hydrofoil Diesel ship for 300 passengers is under construction. The use of TC-32 (TS-32) welders and single-pass welding with forced forming of the rear side of welds had raised the plant productivity by a factor of 1.5 - 1.7. The mechanical hard-facing of rolls has reduced the roll consumption by 50%. The plant has remote-controlled МДФКС(MDFKS) gas cutting automatics. Yu. A. Yuzvenko, Candidate of Technical Sciences, reported on a high-productive hard-facing method developed at the Electric Welding Institute im. Ye. O. Paton, with the use of band electrodes, and on a method of producing wear-resistant bimetals consisting in rol-

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S/125/61/000/005/016/016
A161/A127

A conference of the welders of the Gor'kiy oblast'

ling billets preliminarily coated or welded by the electro-slag method. Engineer N. K. Makarov spoke on the use of electric welding and hard-facing for the facilities of the Gor'kiy railroad. Rails are being welded into 25 m lengths and more with a РРСКМ (RRSKM) resistance welding machine. Worn rail ends are being hard-faced. V. A. Petrunichev, Candidate of Technical Sciences, of Institut metallurgii AN SSSR (Institute of Metallurgy AS USSR) spoke of the high effect of plasma arc in his report on "Cutting and Welding Metals by Plasma Arc". N. F. Kazakov, Candidate of Technical Sciences, reported on "Diffusion Vacuum Welding of Metals and Alloys" and mentioned high mechanical strength of welds produced in bimetallic elements and alloys. He described the СДВУ-1 (SDVU-1) and СДВУ-2 (SDVU-2) units for welding tips of high-speed steel, carbides and cermets to tool shanks. The following reports have been also heard: V. A. Kuznetsov, of Institut metallurgii AN SSSR (Institute of Metallurgy AS USSR) - "Ultrasonic welding"; Engineer V. A. Kolchanov - "Advanced Welding Methods at the 'Teplokhod' Plant"; Engineer V. N. Gurashov (PTNII) - "Physical Inspection Methods for Welded Joints; Engineer V. V. Yevseyev - "Development of Welding at the Crushing Equipment Plant"; Engineer I. Ye. Yermakov - "Welding at a Shipbuilding Plant"; Engineer I. F. Terekhov of Kulebakskiy metallurgicheskiy zavod (Kulebaki Metallurgical Plant) - "Hard-Facing of Rolling

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A161/A127

A conference of the welders of the Gor'kiy oblast'

Mill Rolls"; Engineer A. N. Tigashin, of the "Dvigatel' revolyutsii" Plant, - "Introducing Automatic Welding"; Engineer A. A. Fedotov, of "Dvigatel' revolyutsii" Plant - "Hard-facing of Cutting Tools"; Engineer A. I. Maykopar, of "Promtekhmontazh" Trust no. 8, - "The Use and Prospective Development of Welding at the No. 8 Trust". Welding films were demonstrated and an exhibition was organized. Consultation was given. Ways for a further propagation of welding were indicated in the Conference decisions. [Abstracter's note: Essentially complete translation]

Card 5/5

24782
S/125/61/000/008/010/014
D040/D113

1.2300

AUTHORS: Yuzvenko, Yu.A., and Kirilyuk, G.A.

TITLE: Mechanized open arc surfacing

PERIODICAL: Avtomaticheskaya svarka, no. 8, 1961, 83

TEXT: When surfacing in shielding gases, difficulties are encountered in protecting the gas nozzle from drops of the liquid electrode metal. In this connection, a delay in the surfacing process for the cleaning of the nozzle is highly undesirable. Consequently, investigations were conducted at the Institut elektrosvarki im. Ye.O. Patona (Electric Welding Institute im. Ye.O. Paton) on the composition of a powder wire for the open arc surfacing of alloyed metal without a flux or shielding gas. The chemical composition of the metal deposited by the powder wire was as follows: 0.50-0.55%C, 4.0-5.5% Cr, 3.0-4.5% W, 0.3-0.6% V, 0.5-1.0% Mn, 0.15% Ti, 0.5% Si, and 0.4% S. Surfacing is conducted using d.c. with reversed polarity. Good formation and sound coating metal is obtained using the following system: 200-500 amp, 23-26 v welding current and 15-50 m/hr wire feed. The wire composition includes alloys, slag and gas-shielding components, and elements

Card 1/2

24782
S/125/61/000/008/010/014
D040/D113

Mechanized open arc surfacing

which combine nitrogen with stable nitrides. [Abstracter's note: The elements are not specified]. This powder wire may be used for surfacing machine parts which operate at increased temperatures (rolling mill steel rolls with complex and deep grooves, pressure bearings for hydraulic presses, etc). A method has been developed for calculating the powder wire composition for surfacing 3Kh2V8 (3Kh2V8) steel, sormite No. 2, high-speed steel and other alloys containing up to 30% alloy elements. [Abstracter's note: Essentially complete translation].

Card 2/2

YUZVENKO, Yu.A.

Mechanized built-up welding with electrode strip of the roller bearings of a DT-54 tractor. Avtom. svar. 14 no.2:90-91 F '61. (MIRA 14:1)

(Electric welding—Equipment and supplies)
(Tractors—Maintenance and repair)

YUZVENKO, Yu.A.

Makes and sizes of welding strip to be used for built-up welding under flux. Avtom.svar. 14 no.9:92-93 S '61. (MIRA 14:8)
(Electrodes)

YUZVENKO, Yu.A.; GUMENYUK, Yu.P.

Mechanized hard facing of streetcar rail heads. Avtom.svar. 15 no.5:68-72 My '62. (MIRA 15:4)

1. Ordnea Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O.Patona AN USSR.
(Hard facing--Equipment and supplies)
(Electric railroads--Rails)

MOZOK, V. M.; YUZVENKO, Yu. A.; SHEKHTER, S. Ya.

Mechanized hard facing of coke-grinder rollers. Avtom. svar. 16 no.3:62-64 Mr '63. (MIRA 16:4)

1. Institut elektrosvarki imeni Ye. O. Patona AN UkrSSSR (for Mozok, Yuzvenko). 2. Kommunarskiy metallurgicheskiy zavod (for Shekhter).

(Hard facing) (Crushing machinery)

FRUMIN, Isidor Il'ich; YUZVENKO, Yuriy Arsen'yevich; LEYNACHUK, Yevgeniy Ivanovich; CHEKANOV, A.N., nauchn. red.; GORYUNOVA, L.K., red.; IONOV, V.N., red.

[Technology of mechanized metal deposition] Tekhnologiia mekhanizirovannoi naplavki. Moskva, Vysshaia shkola, 1964. 303 p. (MIRA 18:1)

SHIMANOVSKIY, V.P.; YUZVENKO, Yu.A.

Mechanized hard facing of support rollers of the DT-54 tractor with a ribbon electrode. Avtom. svar. 17 no.10:69-74 O '64. (MIRA 18:1)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR.

YUZVENKO, Yu.A., kand. tekhn. nauk; VOLKOV, P.V., inzh.

Mechanized deposition for hard facing under flux of the stellite I alloy. Avtom. svar. 17 no.11:51-56 N '64 (MIRA 18:1)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR.

L 35812-66 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI IJP(c) JD/HM

ACC NR: AP6015250 (A) SOURCE CODE: UR/0125/66/000/005/0068/0069

AUTHOR: Yuzvenko, Yu. A.; Shimanovskiy, V. P.; Mel'nik, A. V.; Dmitriyev, V. G. 46 B

ORG: [Yuzvenko, Shimanovskiy, Mel'nik] Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR); [Dmitriyev] Combine for the Extraction and Processing of the Ores of the Kursk Magnetic Anomaly (Kombinat po dobychyye i pererabotke rud Kurskoy magnitnoy anomalii)

TITLE: Prolonging the service life of the teeth of excavator buckets by building them up with powdered-metal electrode wire

SOURCE: Avtomaticheskaya svarka, no 5, 1966, pp 68-69

TOPIC TAGS: powder metal, wire, manganese steel, excavating machinery, welding electrode, metal surfacing/PP-U25Kh17T-O welding electrode, G13L steel, EKG-4 excavating machinery

ABSTRACT: The service life of bucket teeth of G13L steel ranges from 3 to 20 days depending on operating conditions and the hardness of the rock being excavated. These teeth weigh ~120 kg each, and are mounted on the buckets of EKG-4 excavators. In this connection, the authors experimented with various patterns of the beading of

UDC: 621.791.92:621.879.4

Card 1/3

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ACC NR: AP6015250

the worn tips of these teeth (Fig. 1), on using PP-U25Kh17T-O powdered-metal electrode

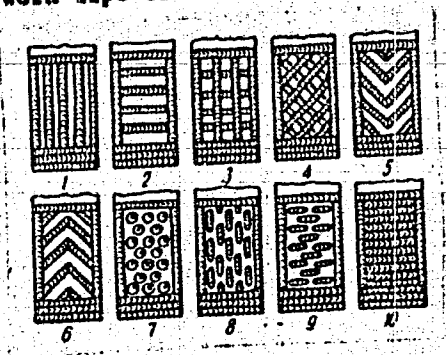

Fig. 1. Alignment of beads during build-up of teeth:

1-10 - ordinal numbers of bead-alignment patterns

wire 3 mm thick as well as a welding current of 240-260 a and a welding voltage of 24-26 v. The width and depth of the beads in every case were 12-15 and 10-12 mm, respectively. Four of the five teeth on each experimental bucket were thus built-up, the fifth having been left alone for purposes of comparison. Following operating trials (excavation operations) the wear on the teeth was compared. Findings: in all cases, except the bead alignment pattern 3 (Fig. 1) this build-up method is superior to the previously employed solid, continuous build-up method. The best results were

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ACC NR: AP6015250

produced by beading patterns 7, 8 and 9; the service life of the teeth was nearly tripled. Fig. 2 shows the teeth demounted from a bucket following their operating tests: the center tooth had not been built-up. Tests of built-up excavator-bucket

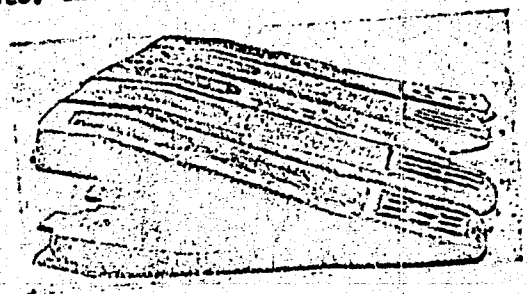


Fig. 2. Teeth after tests. Center tooth not built-up (G13L steel)

teeth used to excavate extremely hard quartzite rocks at the Yuzhnoy Southern Mining and Concentrating Combine have confirmed the effectiveness of this method. The simplicity of this method, based on unshielded welding with a powdered-metal electrode, should be particularly emphasized, since it does not require the use of shielding gases and fluxes. All this warrants recommending the widespread introduction of this method at enterprises of the ore-mining and building materials industries. Orig. art. has: 2 figures, 1 table.

SUB CODE: 11, 13/ SUBM DATE: 13Dec65/

Card 3/3

YUZVINSKAYA, P. I.

Electrical Engineering Abst.
Vol. 57 No. 676
Apr. 1954
Electrical Engineering

3

1533. Some properties of thin sheets of p... — I. I. RAKHIS AND P. I. YUZVINSKAYA. *Elektrichestvo*, 1953, *No.* 10, 63–7. [In Russian.]

To get high permeability and low d.c.-current losses in h.f. fields very thin sheets of Mo permalloy are used. Decrease of thickness results in a larger number of grains per unit of section and a higher magnetic hardness. Optimum magnetic properties were obtained by annealing at 1150°C. ... of magnetic hysteresis loops using ... galvanometer with d.c. and dynamic test, with a c.r.o. ferrometer at frequencies of 15–124 kc/s show that for each frequency corresponds an optimum thickness of permalloy. Bridge measurements ... for ... 4 Mc/s indicate that the fall of permeability ... demagnetizing effect of eddy currents.

I. ŁUKASZEWICZ.

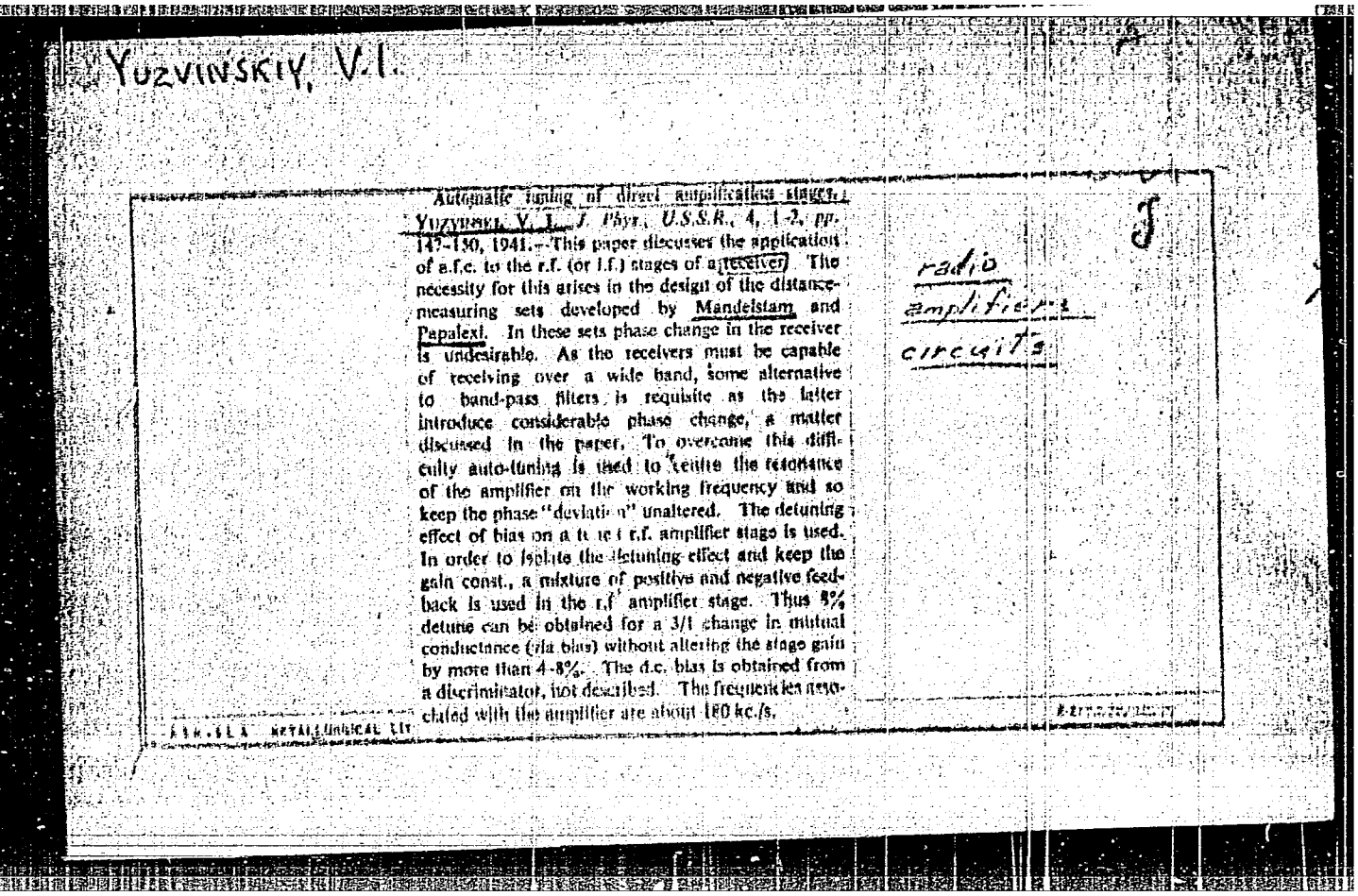
YUZVINSKIY, S.A.

Metric characteristics of automorphisms of locally compact commutative groups. Sib. mat. zhur. 6 no.1:244-247 Ja-F '65. (MIRA 18:4)

YUZVINSKIY, S.A.

Metric properties of endomorphisms of compact groups. Izv. AN SSSR Ser. mat. 29 no. 6:1295-1328 '65 (MIRA 19:1)

1. Submitted December 22, 1964.



YUZVINSKIY, V.I.

Automatic tuning of direct amplification stages. Yuzvinskiy, V. I. *J. Phys., U.S.S.R.*, 4, 1-2, pp. 147-150, 1941.—This paper discusses the application of a.f.c. to the r.f. (or i.f.) stages of a receiver. The necessity for this arises in the design of the distance-measuring sets developed by Mandelstam and Papalexi. In these sets phase change in the receiver is undesirable. As the receivers must be capable of receiving over a wide band, some alternative to band-pass filters is requisite as the latter introduce considerable phase change, a matter discussed in the paper. To overcome this difficulty auto-tuning is used to retain the resonance of the amplifier on the working frequency and so keep the phase "deviation" unaltered. The detuning effect of bias on a tuned r.f. amplifier stage is used. In order to isolate the detuning effect and keep the gain const., a mixture of positive and negative feedback is used in the r.f. amplifier stage. Thus 8% detune can be obtained for a 3/1 change in mutual conductance (via bias) without altering the stage gain by more than 4-8%. The d.c. bias is obtained from a discriminator, not described. The frequencies associated with the amplifier are about 180 kc./s.

5

radio amplifier circuits

39251

S/141/62/005/002/013/025
E192/E382

6.4400

AUTHOR: Yuzvinskiy, V.I.

TITLE: Noise figure of the receiver with a single-tuned prametric amplifier at the input

PERIODICAL: Izvestiya vysshikh uchebnykh zavedoniy, Radiofizika, v. 5, no. 2, 1962, 319 - 327

TEXT: A receiver preceded by a HF parametric amplifier operating synchronously, or in the two-channel regime, is analyzed, the following two cases being considered: a) the signal generator and the load are connected to the amplifier via an ideal ferrite circulator; b) the generator and the load are connected separately through two ferrite isolators or without them. The equivalent circuit of the single-tuned parametric amplifier is represented in Fig. 1, where the load and the signal-generator are connected through ideal transformers. The noise figure of the receiver with such an amplifier is expressed by (I.Sie and S. Weisbaum, IRE Nat.Conv.Rec., 3, 141, 1959):

Card 1/4

4

Noise figure of ....

$$F = F_1 + \frac{F_2 - 1 - t_H}{K^2} \qquad (2)$$

4

where F_i is the noise figure of the amplifier,
K^2 is the power amplification of the system,
F_2 is the noise figure of the receiver without the amplifier, and
t_H is the relative electrical temperature of the amplifier load.

It is shown that in the case of the synchronously operating amplifier the noise figure is expressed by:

$$F = 1 + t_K x + t_H y + n(1 + x + y)^2/y \qquad (12)$$

where:

$$x = G_K/G_c, \quad y = G_H/G_c$$

Card 2/4

Noise figure of ....

and $n = (F_2 - 1 - t_H)(1 - \alpha)^2/4(1 + \alpha)$

where α is defined by:

$$\alpha = (\omega C_1/2G)^2 \qquad (4),$$

G_K is the conductance of the tuned circuit, G_c is the conductance of the generator and load (when separated by the circulator) and $G = G_K + G_c + G_H$ (G_H being the conductance of the load). It is found that the noise figure has a minimum value F_m which is dependenct on n, t_H and t_K. In the case of the two-channel operation of the amplifier, the signal frequency ω_1 is not equal to half the pump frequency ω_o. Again, an expression for the noise figure is derived and the results are illustrated in two graphs. Comparison of the minimum noise figures for the synchronous and two-channel operation of the amplifier shows that the former is vastly

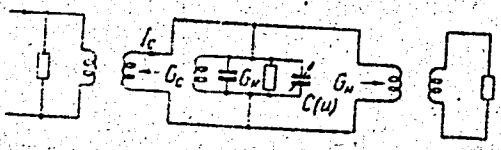
4

superior to the latter. Thus, it is seen that F for the second case cannot be lower than two, while for the synchronous amplifier it is approaching unity. There are 5 figures.

4

SUBMITTED: September 8, 1962

Fig. 1:



41424
S/142/62/005/004/002/010
E192/E382

9,2572

AUTHOR: Yuzvinskiy, V.I.

TITLE: Minimum noise figure of a receiver with a double-tuned parametric amplifier at the input

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v. 5, no. 4, 1962, 440 - 447

TEXT: The paper was read an an All-Union session devoted to Radio Day, in Moscow, June, 1961. The parametric amplifier employed at the input of the receiver is of the type illustrated in Fig. 1. The load and the signal-generator are connected to the amplifier through ideal transformers. The following three cases of the amplifier are considered: a) the generator and the load are connected through a ferrite circulator; in this case, $G_{H1} = G_{H2} = 0$; b) the generator and the load are connected into the signal circuit through two ferrite isolators, or without them; in this case, $G_{H2} = 0$; c) the generator and the load are connected into different circuits through two ferrite isolators, or without them; now, $G_{H1} = 0$.

Card 1/4

Minimum noise figure....

The problem consists of choosing the parameters of the amplifier so that the noise figure of the receiver defined by:

$$F = F_1 + \frac{F_2 - 1 - t_H}{K^2} \qquad (3)$$

is a minimum. In Eq. (3) F_1 is the noise figure of the parametric amplifier, including the noise of its load, K^2 is the gain of the amplifier at the resonant frequency, F_2 is the noise figure of the receiver without the amplifier and t_H is the relative electrical temperature of the input of the receiver. For the case a), the noise figure of the system is expressed by:

$$F = 1 + \frac{4}{[1+\alpha-(1-\alpha)x]^2}\left[t_K x + t_K \frac{(1+x)}{Z} + n(1+x)^2\right] \qquad (7)$$

where:

$$n = \frac{1}{4}(F_2 - 1 - t_H)(1-\alpha)^2 \qquad (8)$$

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Minimum noise figure ....

and

$$x = G_{K_1}/G_c \ , \quad Z = \omega_2/\alpha\omega_1 \qquad (6)$$

where t_K is the relative temperature of the circuits, including the diode and α is defined by:

$$\alpha = \omega_1\omega_2 C_1^2/4G_1G_2 \qquad (2)$$

in which C_1 is the amplitude of the diode capacitance variations, while G_1 and G_2 are the conductances of the tuned circuits. Eq. (7) has a minimum at x_m, which corresponds to Z_m. Thus, for known values of n, α and t_K, it is possible to determine the optimum values of x_m and Z_m at which F is a minimum. Expressions similar to Eq. (7) are determined for the cases b) and c) and it is shown that these functions exhibit minimum values. The operation of the

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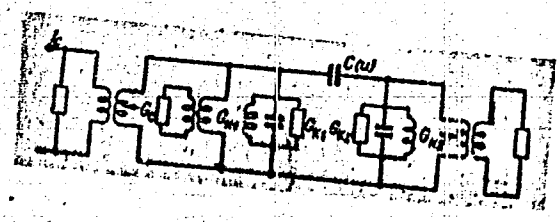
Minimum noise figure S/142/62/005/004/002/010
E192/E382

parametric amplifier depends on the operating conditions of the parametric diode and it is shown that there exists an optimum value of the biasing voltage E of the diode which produces a minimum value C_m of the parametric capacitance variation for each given pump power P_H. This minimum slowly decreases with increasing P_H. There are 7 figures.

ASSOCIATION: Kafedra teoreticheskikh osnov radiotekhniki Voyennoy Krasnoznamennoy Akademii svyazi (Department of Theoretical Principles of Radio-engineering of the Order of the Red Banner Military Academy of Communications)

SUBMITTED: July 11, 1961

Fig. 1:



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S/131/60/000/04/02/015
B015/B008

AUTHORS: Yuzvuk, D.I., Saparov, V.V.

TITLE: Semidry Method for the Manufacture of Chamotte Products From Clay Types of the Troitsko-Baynovskaya Deposit

PERIODICAL: Ogneupory, 1960, No. 4, pp. 153-157

TEXT: In the paper under review the authors describe the introduction of the semidry pressing method at the Bogdanovichskiy ogneuporнyy zavod (Bogdanovich Works for Refractories) which was started there in 1958. The production scheme of the Vsesoyuznyy institut ogneuporov (All-Union Institute of Refractories) (Fig. 1) had to be altered in the course of the erection of the plant and its starting up. The clay types of the Troitsko-Baynovskaya deposit show an inconstancy of their physico-chemical quality indices (Table 1). Insert bricks for checker chambers with a porosity of 22% and ladle bricks with a porosity of 21% should be manufactured from these clay types according to the semidry method. The composition of the charges can be seen from table 2. No dense products, however, could be obtained when using these charges. The firing temperatures had

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Semidry Method for the Manufacture of Chamotte Products From Clay Types of the Troitsko-Baynovskaya Deposit

S/131/60/000/04/02/015
B015/B008

to be increased and the inserting of the briquettes into the kiln had to be altered upon a proposal by I.M. Novikov (Fig. 2). Since the required porosity of the products, however, could not be warranted in this way, firing was carried out in an annular kiln, the inserting being done in accordance with the scheme in Fig. 3. The authors state that the manufacturing technique of laile- and insert bricks must be perfected still further for the purpose of increasing their density. There are 5 figures and 2 tables.

ASSOCIATION: Bogdanovichskiy ogneupornyy zavod (Bogdanovich Works for Refractories)

Card 2/2

YUZVUK, D.I.; SAPAROV, V.V.; KHOMUTININA, A.D.

Ladle brick with chrome-alumina slag. Ogneupory 27 no.9:389-391 '62. (MIRA 15:8)

1. Bogdanovichskiy ogneupornyy zavod.
(Firebrick)

SHVARTSMAN, I.Sh.; MIKHALEVA, Z.I.; TURCHANINOV, V.S.; PAPAKIN, Kh.M.; KOVALENKO, I.D.; YUZVUK, D.I.; SAPAROV, V.V.

Stoppers and nozzles from Ural Mountain raw materials.
Ogneupory 28 no.12:538-543 '63. (MIRA 16:12)

1. Vostochnyy institut ogneuporov (for Shvartsman, Mikhaleva). 2. Nizhne-Tagil'skiy metallurgicheskiy kombinat im. V.I. Lenina (for Turchaninov, Papakin, Kovalenko). 3. Bogdanovichskiy ogneupornyy zavod (for Yuzvuk, Saparov).

YUZVUK, D.I.; SAPAROV, V.V.; KHOMUTININA, A.D.; KLYUYEV, V.M.

New developments at the Bogdanovich refractories plant. Ogneupory 30 no.5:8-9 '65. (MIRA 18:5)

1. Bogdanovichskiy ogneupornyy zavod.

ACC NR: AP6021570 (A) SOURCE CODE: UR/0131/66/000/003/0005/0008

AUTHOR: Yuzvuk, D. L.; Saparov, V. V.; Khomutinina, A. D.; Klyuyev, V. M.

ORG: Bogdanovich Refractories Plant (Bogdanovichskiy ogneupornyy zavod)

TITLE: Device for prolonged measurement of the temperature of molten steel

SOURCE: Ogneupory, no. 3, 1966, 5-8

TOPIC TAGS: thermocouple, temperature measurement, high temperature instrument, metallurgic research, METALLURGIC FURNACE, MOLTEN METAL

ABSTRACT: On the basis of blueprints drafted at the Bogdanovich Refractories Plant a device for prolonged continuous measurement of the temperature of molten steel in the hearth furnace has been constructed (Fig. 1) on using a water-cooled immersion thermocouple tipped with a specially prepared mixture of ZrO_2 and SiC which does not interact with molten steel at high temperatures and sheathed in protective refractory liners. The ZrO_2 - SiC tip and refractory liners assure normal performance of the thermocouple for 2-3 hr. The device also includes a holder, a bushing, and a steel tube protecting the thermocouple against impact on immersion in the molten bath. The thermocouple is inserted into the open-hearth fur-

Card 1/3 UDC: 666.76:536.532

ACC NR: AP6021670

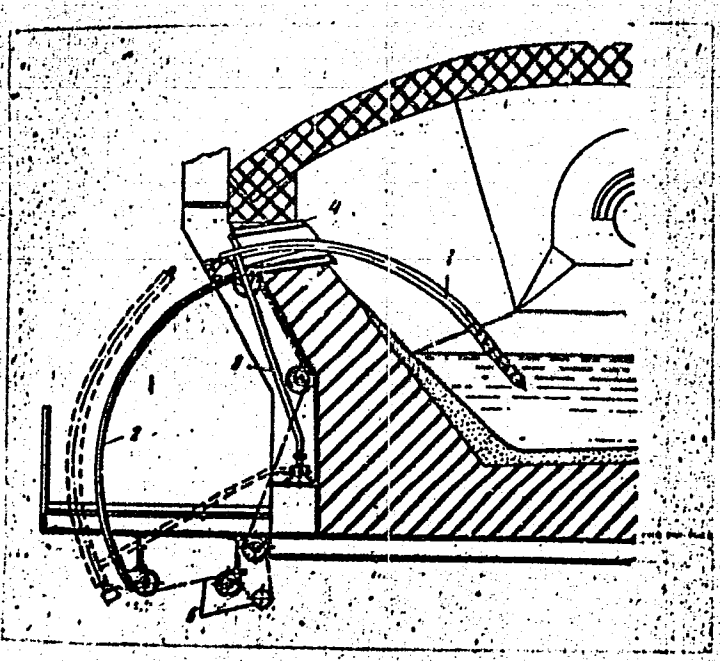

Fig. 1. Stationary device for prolonged continuous measurement of the temperature of molten steel in an open hearth furnace:
1 - thermocouple; 2 - directing arc; 3 - supporting rods; 4 - water-cooled tuyere; 5 - moving mechanism

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ACC NR: AP6021570

nace via a water-cooled tuyere. The temperature of the molten steel is measured by means of W-Mo thermoelectrodes; the thermo-e.m.f. they develop is recorded by means of an EP-120 potentiometer. Operating trials of the device at the Serov and Alapayevsk metallurgical combines, the Serverskiy Tube Plant and the Nizhne-Saldinskiy metallurgical plants were satisfactory. Orig. art. has: 3 figures.

SUB CODE: 13, 11 / SUBM DATE: none/ ORIG REF: 007

Card 3/3

YUZVUK, N. N.

CHULKOV, P.M.; KURCHATOVA, L.N.; YUZVUK, N.N.; VADKOVSKAYA, O.A.

Strontium-90 in soils and vegetables of the vicinity of Moscow [with summary in English]. Pochvovedenie no.4:28-34 Ap '57. (MLRA 10:7)
(Strontium)
(Moscow Province--Minerals in soils)
(Moscow Province--Minerals in plants)

Yuzvuk, N.N.

PHASE I BOOK EXPLOITATION SOV/4963

Metody polucheniya i izmereniya radioaktivnykh preparatov; sbornik statey (Methods for the Production and Measurement of Radioactive Preparations; Collection of Articles) Moscow, Atomizdat, 1960. 307 p. Errata slip inserted. 6,000 copies printed.

General Ed.: Valeriy Viktorovich Bochkarev; Ed.: M.A. Saguro; Tech. Ed.: N.A. Vlasova.

PURPOSE: This collection of articles is intended for scientific and technical personnel working in the production of radioactive isotopes.

COVERAGE: The collection contains original studies on methods of obtaining and measuring radioactive preparations. According to the foreword, the articles contain new data, and are of theoretical or practical interest to the extent that they discuss methods or give process information. In addition to several survey articles the collection contains discussions on the production of radioactive isotopes and inorganic radioactive preparations, including a number of carrier-free isotopes and several colloidal and other therapeutic preparations. Also discussed are methods for preparing a number of tagged organic compounds, problems in the analysis of tagged organic compounds, the absolute and relative measurement of activity, and the radiometric analysis of preparations. New instruments and equipment are described and instructions concerning measurement methods and technique are included. V.I. Levin, Candidate of Chemical Sciences, V.F. Shishkov, Candidate of Technical Sciences, I.N. Bukharov, Candidate of Biological Sciences, and V.I. Khostak, Candidate of Chemical Sciences, are mentioned as having helped directly in the selection and preparation of the material for publication. References accompany each article.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress (QD466.B47)

(13)

(67)

PHASE I BOOK EXPLOITATION SOV/6058

Polikarpov, V. I., V. S. Filonov, O. V. Chubakova, and N. N. Yuzvuk.

Kontrol' germetichnosti teplovydelyayushchikh elementov (Monitoring the Hermiticity of Fuel Elements). Moscow, Gosatomizdat, 1962. 186 p. Errata slip inserted. 2500 copies printed.

Ed.: Ye. I. Panasenkova; Tech. Ed.: Ye. I. Mazel'.

PURPOSE: This book is intended for engineers and technicians specializing in the design and operation of reactors and of systems for monitoring the hermeticity of fuel-element jackets.

COVERAGE: The principles of designing systems for monitoring the hermeticity of fuel-element jackets are presented. Particular attention is given to the physical and chemical phenomena affecting system sensitivity and efficiency.

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The existing or projected non-Soviet systems are surveyed. Formulas and tabulated reference data for the designer's use are included. There are 135 references: 90 Soviet (including 25 translations), 42 English, 2 French, and 1 German.

TABLE OF CONTENTS [Abridged]:

AUTHOR: Brevnova, N. V.; Martemyanov, L. I.; Polikarpov, V. I.; Tsigvuk, N. M.

TITLE: Deposition of [illegible] from Cs sub 2 on various materials

SOURCE: Atomnaya energiya, v. 14, no. 6, 1963, 585-586

TOPIC TAGS: deposition of radiation isotopes, cesium, rubidium, xenon, krypton

ABSTRACT: The deposition coefficients of Cs sup 130 and Rb sup 90 on various pipe materials during the passage of the carbon dioxide containing xenon and krypton [illegible] the experimental channel of a reactor [illegible] the active zone containing uranium, [illegible] filtered, and entered a pipe [illegible] m long. The [illegible] cesium isotopes formed during the decay of xenon and krypton were deposited [illegible] was found to be 1.6 x 10 sup

cussion of the results. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: none

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L 10679-63

ACCESSION NR: AP3002270

SUBMITTED: 21Feb62 DATE ACQ: 12Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 000 OTHER: 001

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Card 2/2

L 19638-63 EPF(c)/EWF(q)/EWT(m)/BDS AFFTC/ASD Pr-4 JD
ACCESSION NR: AP3007063 S/0056/63/045/003/0464/0468

AUTHORS: Zherebin, Ye. A.; Krylov, A. I.; Polikarpov, V. I.; Yuzvuk, N. N.

TITLE: Investigation of the gamma radiation from Cs-140

SOURCE: Zh. eksper. i teoret. fiziki, v. 45, no. 3, 1963, 464-468

TOPIC TAGS: Cs-140, gamma radiation, short-lived fragment, spectral line

ABSTRACT: A method for investigating the gamma rays from the short-lived (half-life 66 sec) fragment Cs^{140} is described, along with the gas loop used to supply the Xe and Kr to the measurement place and to enrich the mixture of the decay product with the investigated fragment product. The Cs^{140} was investigated by a high-speed chemical separation of the cesium. The lines 0.59 ± 0.01, 0.88, 1.14, 1.62, 1.85, 2.06, 2.32, 2.72, 3.15 MeV were observed as a result in

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ACCESSION NR: AP3007063

the gamma rays. "In conclusion, the authors thank Ye. A. Tamonov and O. V. Chubakov for useful discussions and advice, and also A. N. Draskov, A. G. Dudoladov, Ye. A. Gershanov, and A. V. Morozov for directly participating in the experiments." Orig. art. has 6 figures.

ASSOCIATION: None

SUBMITTED: 29Mar63 DATE ACQ: 08Oct63 ENCL: 01

SUB CODE: PH NO REF SOV: 001 OTHER: 002

Card 2/2

YUZVUK, V.N., skreperist

We are improving earthworn operations. Transp. stroi. 11 no.10:6 O '61. (MIRA 14:10)

1. Mekhanizirovannaya kolonna No.60 tresta TSentrostroymekhanizatsiya. (Earthwork)