MAKOVSKAYA, Ye.I. [Makovs'ka, IE.I.]; SEREBRYANAYA, S.G. [Serebriana, S.H.]

Some morphological and histochemical changes observable in DDT poisoning. Fiziol. zhur. [Ukr.] 7 no.2:251-258 Mr-Ap '61. (MIRA 14:4)

1. Kiev Research Institute for Labor Hygiene and Occupational Diseases and the Ukrainian Research Institute for Alimentation.
(DDT (INSECTICIDE)—TOXICOLOGY)

MEDVED', L.I., doktor med. nauk, red.; BURKATSKAYA, Ye.N., kand.med. nauk, red.; VOYTENKO, G.A., kand. med. nauk, red.; KAGAN, Yu.S., red.; KRIVOGLAZ, B.A., prof., red.; KUNDIYEV, Yu.I., kand. med. nauk, red.; MAKOVSKAYA, Ye.I., doktor med. nauk, red.; SEREBRYANAYA, S.G., dots., red.; SPYNU, Ye.I., kand. med. nauk, red.; TOSTANOVSKAYA, A.A., kand. med. nauk, red.; TROTSENKO, M.A., kand. khim. nauk, red.; NOVIKOV, Yu.V., red.; CHULKOV, I.F., tekhn. red.

[Hygiene and toxicology of new pesticides and clinical aspects of poisoning; reports of the Second All-Union Scientific Conference of the Committee for the Study and Reglementation of Poisonous Chemicals of the Main State Sanitary Inspection of the U.S.S.R.] Gigiena i toksikologiia novykh pestitsidov i klinika otravlenii; doklady 2-i Vsesoiuznoi nauchnoi konferentsii Komiteta po izucheniiu i reglamentatsii iadokhimikatov Glavnoi gosudarstvennoi sanitarnoi inspektsii SSSR. Pod obshchei red. L.I.Medvedia. Moskva, Medgiz, 1962. 478 p. (MIRA 16:4)

1. Vsesoyuznaya nauchnaya konferentsiya po gigiyene i toksikologii insektofungitsidov, 2d, 1962.

(Continued on next card)

MEDVED', L.I.---(continued). Card 2.

2. Predsedatel' Komiteta gosudarstvennoy sanitarnoy inspektsii SSSR po izucheniyu i reglamentatsii yadokhimikatov (for Medved'). 3. Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny truda i profzabolevaniy (for Burkatskaya, Voytenko, Spynu, Kagan, Trotsenko). 4. Ukrainskiy nauchno-issledovatel'skiy institut pitaniya (for Serebryanaya).

(PESTICIDES--TOXICOLOGY)

MINAOVSKAYA, E. I.

PAGE

Khimiya i Primeneniye Fosfororganicheskikh Soyedineniy (Chemistry and Application of Organophosphorus Compounds) A. Ye. Arbuzov, Ed. publ. by Kazan' Affil, Acad. Sci. USSR, Moscow, 1962 632pp.

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of Organophosphorus Compounds.

MAKOVSKAYA, Ye.I., doktor med.nauk (Kiyev)

Changes in the central nervous system in DDT poisoning. Vrach. delo no.3:117-121 Mr '64. (MIRA 17:4)

1. Institut gigiyeny truda i professional'nykh zabolevaniy.

L 27706-66 EWT(1)/EWT(m)/EWA(d)/EWP(t)/ETI IJP(c) JD/RO

ACC NR: AP6018406 (N) SOURCE CODE: UR/0399/66/000/002/0092/0097

AUTHOR: Krasnyuk, Ya. P. (Candidate of medical sciences); Makovskaya, Ye. I. (Doctor of medical sciences) 36 B

ORG: Kiev Institute of Labor Hygiene and Occupational Diseases (Kiyevskiy institut gigiyeny truda i profzabolevaniy)

TITLE: Clinico-morphological characteristics of certain endocrine disorders following the action of chlorine-organic insecticides

SOURCE: Sovetskaya meditsina, no. 2, 1966, 92-97

TOPIC TAGS: insecticide, endocrinology, endocrine system disease, chlorinated organic compound, thyroid gland, toxicology

ABSTRACT: The endocrine system is highly sensitive to chlorine-organic insecticides; functions of endocrine glands are disturbed early before clinical manifestations of intoxication appear. Most frequently, the action of chlorine-organic insecticides leads to a decrease in the function of the cortical layer of adrenals and an increase in the functional activity of the thyroid gland. The concept of functional endocrine disorders in persons having contact with chlorine-organic insecticides agrees with experimental data on the development of dystrophic and necrobiotic changes in the adrenal cortex, and also with data on morphological changes in the thyroid gland, pointing predominantly to a heightening of its function. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 007 / OTH REF: 002

UDC: 616.43-008.1-02:615.778.3

Card 1/1 BLS

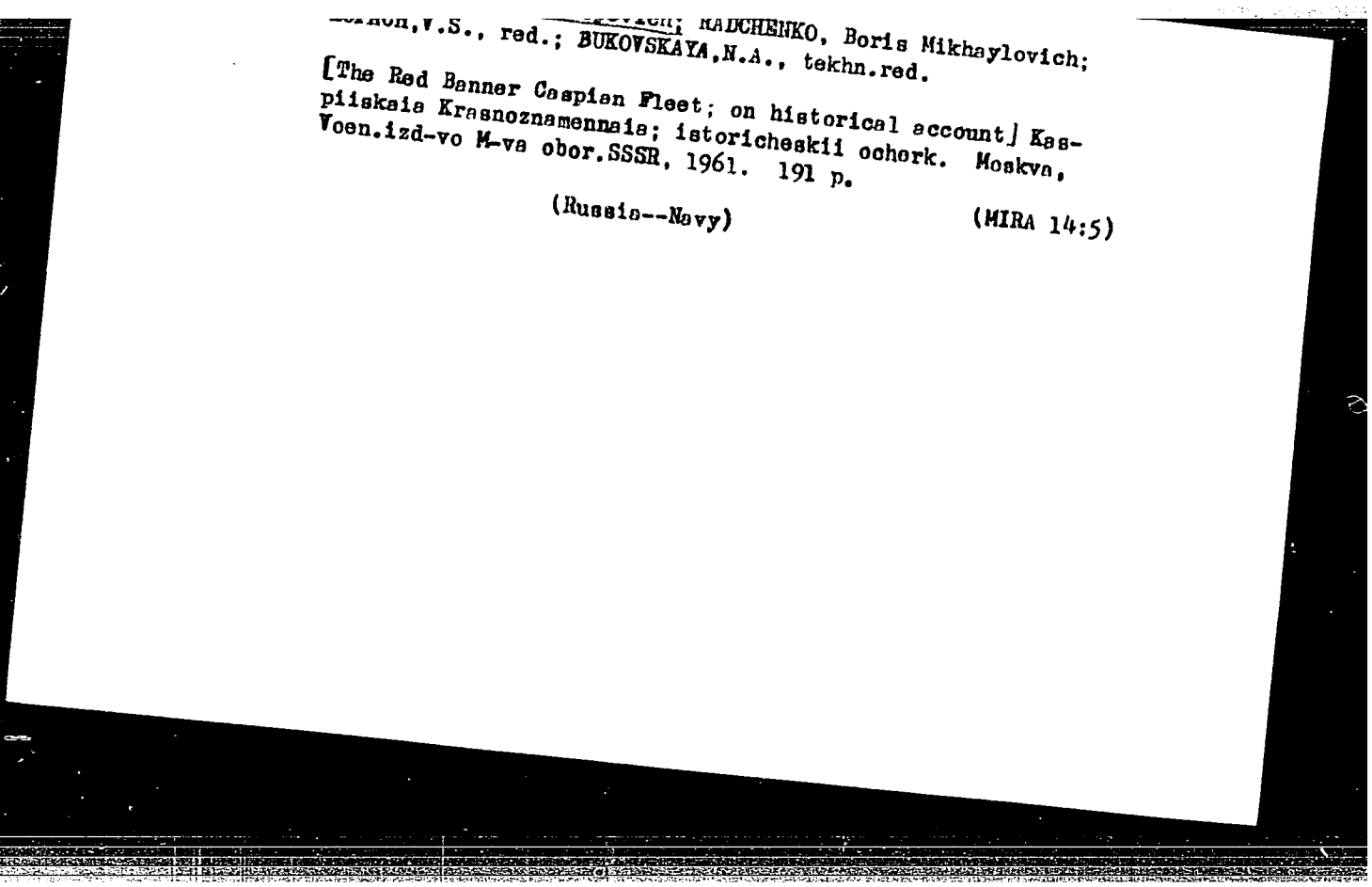
MAKOVSKIY, A. (Moskva)

Ions tell about the "health" of alloys. Izobr.i rats. no.11:12 N '62. (MIRA 15:12)
(Materials, Effect of radiation on) (Alloys—Testing)

MAKOVSKIY, A., mladshiy nauchnyy sotrudnik

At variance with the concrete needs of marine transportation("The problem of codifying Soviet maritime law" by V.F. Meshera. Reviewed by A. Makovskii). Mor. flot 18 no. 6:30-31 Je '58. (MIRA 11:7)

1. Vsesoyuznyy institut yuridicheskikh nauk
(Maritime law)



[illegible], V.S., red.; [illegible] KALICHENKO, Boris Mikhaylovich; BUKOVSKAYA, N.A., tekhn.red.

[The Red Banner Caspian Fleet; an historical account] Kaspiiskaia Krasnoznamennaia; istoricheskii ocherk. Moskva, Voen.izd-vo M-va obor.SSSR, 1961. 191 p.

(Russia--Navy) (MIRA 14:5)

Makovskiy, A. F.

USSR/ Physics / Photography FD-1046

Card 1/1 : Pub. 153 - 17/23

Authors : Borin, A. V.; Makovskiy, A. F.; Odintsov, M. G.; Ivleva, S. A.; Avvakumov, V. I.

Title : Photographic material with constant value of the coefficient of contrast in the visible part of the spectrum.

Periodical : Zhur. tekh. fiz., 24, 1499-1502, Aug 1954

Abstract : Notes that photographic materials with constant coefficient of contrast independent of wave length are needed in solving a number of problems of spectral analysis and ostrophysics. Investigates the possibility of obtaining such materials. Concludes that the absolute magnitude of contrast varies but the character of the dependence of the contrast coefficient, gamma, on wave length remains unchanged. Eight references, 4 USSR (e.g. A. V. Borin, D. Ya. Martynov, T. I. Smolko, 1952; A. V. Barin, Z. I. Gratsianskaya, 1948).

Institution : --

Submitted : 1 November 1953

VINOKUROV, I.Ya., inzh.; MAKOVSKIY, A.T., inzh.

Improvement of manipulator design for structural and rail mills.
Stal' 23 no.3:234-236 Mr '63. (MIRA 16:5)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat.
(Rolling mills--Equipment and supplies)

MAKOVSKIY, A.L., nauchnyy sotrudnik

The extent of liability of shipping companies for delayed or nondelivery of sea vessels for loading. Inform.sbor.TSNIIMF no.34:43-53 '58. (MIRA 14:3)

1. Sotrudnik-korrespondent TSentral'nogo nauchno-issledovatel'skogo instituta morskogo flota, Vsesoyuznyy institut yuridicheskikh nauk. (Shipping)

MAKOVSKIY, B.A., GLAZKOV, M.M.; SOLOV'YEV, I.V., red.; VINOGRADOVA, N.M., red. izd-va.; YERMAKOVA, T.T., tekhn. red.

[Volga River basin and its water transportation] Volzhskii bassein i ego rechnoi transport. Moskva, Izd-vo "Rechnoi transport," 1958. 130 p. (MIRA 11:11)
(Volga Valley--Inland water transportation)

MAKOVSKIY, Boris Abramovich; KUZ'MINA, N.G., red.; KOSHELEVA, S.M., tekhn. red.

[Seas made by man] Moria, sozdannye chelovekom. Moskva, Gos. izd-vo geogr. lit-ry, 1958. 133 p. (MIRA 11:5)
(Reservoirs)

MAKOVSKIY, D. P.

Roslavl' [by] D. P. Makovskiy, V. S. Orlov [et al] Smolensk, Smolgiz, 1952.
202 p. Illus. (Goroda Smolenshchiny)
Bibliography: p. 201-[203]

SO: 727N/5
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MAKOVSKIY, D.P.; POKROVSKIY, Vladimir Sergeyevich, otv.red.

[Developing commodity and monetary relations in agriculture of the Russian state in the 16th century] Razvitie tovarno-denezhnykh otnoshenii v sel'skom khoziaistve russkogo gosudarstva v XVI veke. Smolensk, Smolenskii pedagog.inst., 1960. 237 p. (MIRA 14:4)

(Agriculture--Economic aspects)

MAKOVSKIY, Daniil Pavlovich, prof.; USACHEV, N.N., otv. red.; NOVOSELOVA, L., red.

[Development of commodity and monetary relations in the agriculture of the Russian state in the 16th century] Razvitie tovarno-denezhnykh otnoshenii v sel'skom khoziaistve Russkogo gosudarstva v XVI veke. Smolensk, Smolenskii gos. pedagog. in-t in. Karla Marksa, 1963. 558 p. (MIRA 17:6)

MAKOVSKIY, E.E.

Automatic water-operated gate. Trudy Inst. vod. khoz. i energ. AN Kir. SSR no.4:121-131 '57. (MIRA 10:12)
(Sluice gates)

MAKOVSKIY, E.E.

Coefficients of differential equations for some regulation objects of canals. Trudy Inst. vod. khoz. i energ. AN Kir. SSR no.6:155-174 '59. (MIRA 13:9)

(Irrigation canals and flumes)
(Differential equations)

MAKOVSKIY, E.E.

Transient processes in controlled objects in water channels. Izv. AN Kir. SSR. Ser. est. i tekh. nauk 1 no. 4:113-134 '59. (MIRA 14:4)

(Hydraulic engineering) (Automatic control)

MAKOVSKIY, E.E.

Automatic control of the water flow to channels fed by a common head race. Izv. AN Kir. SSR. Ser. est. i tekh. nauk 1 no. 4:83-112 '59. (MIRA 14:4)
(Hydraulic structures) (Automatic control)

MAKOVSKIY, E. E. Cand Tech Sci -- (diss) "Automatic regulation of water discharge in canals with the aid of the flow energy," Taskent, 1960, 24 pp, 150 cop. (Institute of Water Problems and Hydrotechnics; and Institute of Power Engineering and Automation, AS Uzbek SSR) (KL, 42-60, 114)

MAKOVSKIY, E.E.

Characteristics of certain objects under automatic control with distributed parameters. Izv.AN Kir.SSR.Ser.est.i tekh. nauk 3 no.6:5-34 '61. (MIRA 15:11)
(Automatic control) (Irrigation canals and flumes)

MAKOVSKIY, E.E.

Determining the pressure loss of a stream of water due to a barrier represented by a plane with an arbitrary angle of inclination. Izv.AN Kir.SSR.Ser.est.i tekh.nauk 3 no.6:101-109 '61. (MIRA 15:11)

(Hydraulic servomechanisms)

MAKOVSKIY, E.E.

Some problems concerning the dynamics of control objects with distributed parameters. Izv. AN Kir. SSR. Ser. est. i tekh. nauk 4 no.8:99-108 '62. (MIRA 16:6)
(Automatic control)

MAKOVSKIY, E.E., otv. red.

[Automating the equipment for irrigation systems] Avtomatizatsiia ob"ektov irrigatsionnykh sistem. Frunze, Izd-vo "Ilim," 1964. 93 p. (MIRA 17:12)

1. Akademiya nauk Kirgizskoy SSR, Frunze. Institut avtomatiki.

KUROTCHENKO, V.I.; MAKOVSKIY, E.E. [Makovskiy, E.E.]

Automation and telemechanization of irrigation systems.
Khidrotekh i melior 9 no.10:305-306 '64.

KUROTCHENKO, V.I.; MAKOVSKIY, E.E.

Automation and remote control in irrigation systems. Vest. AN SSSR 34 no.12:22-23 D '64 (MIRA 18:1)

1. Institut avtomatiki AN Kirgizskoy SSR.

MAKOVSKIY, E.E., otv. red.

[Hydraulic systems of automation in irrigation] Gidravlicheskie sistemy avtomatizatsii irrigatsionnykh ob"ektov. Frunze, Izd-vo "Ilim," 1965. 68 p. (MIRA 18:3)

1. Akademiya nauk Kirgizskoy SSR, Frunze. Institut avtomatiki.

MAKOVSKIY, F A

USSR/Optics - Physical Optics. K-5

Abs Jour : Referat Zhur - Fizika. No 3, 1957, 7777

Author : Makovskiy, F.A.
Inst :
Title : Glass Interference Polarizer with Small Light Losses

Orig Pub : Zh. tekhn. fiziki, 1954, 24, No 10, 1859-1863

Abstract : A glass interference polarizer was made in the form of a cube, glued together from two glass prisms (K-8 glass, index of refraction 1.51) with a coating consisting of 14 alternating layers of SiO_2 and TiO_2 dielectrics (indices of refraction of 1.45 and 2.2 respectively) and one layer of balsamine glue (n = 1.51). To use both components of the polarized light passing through the prism and reflected from its boundaries, a plane-parallel "half wave" plate and a mirror with outer coating were placed in the path of the reflected beam of light at an angle of 45°. The degree of polarization of the transmitted light is 99%, of the reflected light is 94%. The total light losses do not exceed 11%.

Card 1/1 - 58 -

USSR/Physics - Interference light filters FD-3037

Card 1/1 Pub. 153 - 6/23

Author : Makovskiy, F. A.

Title : Multi-layer interference light-filters

Periodical : Zhur. tekh. fiz., 25, February 1955, 217-220

Abstract : As described by B. Gimmel'farb (Priroda, No 1, 1951) and V. Yur'-yev (Uspekhi fiz. nauk, 41, 118, 1950), a new type of interference light-filters has been developed by means of which one can distinguish comparatively sharp pass bands in any given visible region of the spectrum and in certain cases can replace the monochromator. The author describes a variant that overcomes some of the deficiencies. He investigates the coefficient of light passage as a function of wavelength for various numbers of light filters (3 to 15) and for various angles of incidence of the light beam. The author thanks F. P. Pchel'nikov for the preparation of the filters. Three references: e.g. N. Speranskiy and G. Rautian, ibid., 22, 62, 1952.

Submitted : November 1, 1953

MAKOVSKIY, F. A.

AUTHORS: Makovskiy, F. A., Usachev, Ye. P. 57-12-14/19

TITLE: Effects of the Surface Treatment on the Properties of Copper Oxide Rectifiers (Vliyaniye poverkhnostnoy obrabotky na svoystva mednozakisnykh vypryamiteley).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1957, Vol. 27, Nr 12, pp. 2786-2788 (USSR)

ABSTRACT: In this paper the influence of the surface treatment of cuprous oxide previous to the application of the silver electrode is investigated. 7 mm plates from technical copper-oxide rectifiers were used as samples. The influence of the following types of surface treatment was investigated: Corrosion by acids, grinding sand blasting, polishing and bombardment by ions. The lowest transition resistance was obtained at a corrosion by acids and after grinding the surface of the cuprous oxide. It appeared, that grinding causes an increase, corrosion, however, a decrease of the d.c. value in comparison to the original value. The magnitude of the reverse current hardly modifies. According to the curves recorded in the experiments the increase of the d.c. value after grinding amounted to

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about 30 %, and the reduction after corrosion by acids to about 20 %. This latter fact is explained by the circumstance, that the copper-oxide rectifiers undergo an additional treatment in a sodium-chlorate solution technical production process after corrosion by a nitric acid solution. It is assumed, that the increase of the d.c. value may be caused by a reduction of the thickness of the cuprous oxide layer by the grinding process. The experiments showed, that the magnitude of the d.c. is essentially dependent upon the type of treatment of the surface of the cuprous oxide previous to the application of the top electrode. An analysis to that respect (previous to the application of the silver electrode) shows, that grinding leads to an increase of the d.c.-value and of the coefficient of rectification, whereas the corrosion by a 30 % solution of HNO_3 and by other acids (H_2SO_4, HNO_3 and aqua regia)

leads to a reduction of both quantities. The authors are of the opinion, that this is caused by the mosaic-like structure of the surface after grinding and the different orientation of the separate crystals, whereas a thin "chemical" layer

Effects of the Surface Treatment on the Properties of Copper Oxide Rectifiers 57-12-14/19

with a lack of oxygen is produced by the process of corroding the surface of the cuprous oxide by acids. The removal of this layer by grinding leads to an increase of the d.c. value by a factor of 1'5 to 2. The formation of the chemical layer is probably connected with a partial disturbation of the oxygen balance at the surface of the cuprous oxide. This is also confirmed by the fact, that a corrosion in a more powerful oxydating substance (H_2O_2) will not lead to formation of the chemical layer. There are 2 figures.

ASSOCIATION: Physico-Technical Institute of the Kazan' Branch AS USSR (Fiziko-tekhnicheskiy institut Kazanskogo filiala AN SSSR)

SUBMITTED: May 16, 1957

AVAILABLE: Library of Congress

Card 3/3

AUTHORS: Makovskiy, F. A., Usachev, Ye. P. 57-28-4-20/39

TITLE: The Influence of the Material of the Upper Electrode Upon the Electric Properties of Cuprous Oxide Rectifiers (Vliyaniye materiala verkhnego elektroda na elektricheskiye svoystva mednozakisnykh vypryamiteley)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 4, pp. 788-789 (USSR)

ABSTRACT: The authors investigated 7 mm-platelets, a semiproduct of technical cuprous oxide rectifiers without the upper electrode. The conditions for the surface-treatment of the cuprous oxide before the application of the upper electrode were the same in all investigated samples. The upper electrodes of different metals were applied onto all investigated samples under equal conditions by means of evaporation of the respective metal in a $\sim 10^{-5}$ mm torr-vacuum. In addition to this mercury-electrodes and electrodes of a Pb-Bi-Cd-alloy and of colloidal graphite were used. The measurement of the values of the direct and the backward

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current took place at room temperature. Comparatively pure metals were used as electrodes. The results of the investigations showed that the value of the direct current in 7 mm-cuprous oxide platelets with upper electrodes of different metals decreases in the following order: Au, Ag, Pb-Bi-Cd-alloy, Hg, C, Zn, Cd, Bi, Te, Sn, Ge, Cu, Al, Sb, Pb, Cr, Tl. The value of the backward current remains unchanged and thus does not depend on the material of the upper electrode. The obtained results on the modification of the direct current in dependence on the material of the upper electrode, with the taking into account of the homogeneity of the state of the surface of cuprous oxide in all samples, are by the authors' opinion to be ascribed to the contact-resistance at the boundary of cuprous oxide with the upper electrode. There are 3 references, all of which are Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Kazanskogo filiala AN SSSR (Physical-Technical Institute of the Kazan' Branch, AS USSR)

SUBMITTED: December 16, 1957

BR

ACCESSION NR: AR4036332 S/0275/64/000/003/B022/B022

SOURCE: Referativny*y zhurnal. Elektronika i yeye primeniye, Abs. 3B140

AUTHOR: Makovskiy, F. A.; Usachev, Ye. P.

TITLE: Rectifying properties of a cuprous-oxide bismuth system

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy*p. 51, 1963, 25-31

TOPIC TAGS: cuprous oxide bismuth rectifier, voltage current characteristic, temperature characteristic, rectification coefficient

TRANSLATION: The rectifying properties of a cuprous-oxide and dismuth system are described. The voltage-current and the temperature characteristics of samples with a rectification coefficient 10^3 are determined. Rectifiers are the cuprous-oxide and bismuth type have a higher limit of working temperature (110C) than ordinary rectifiers made of cuprous oxide. Bibliography, 4 titles. L. V.

DATE ACQ: 10Apr64 SUB CODE: EE ENCL: 00

Card 1/1

L 61285-65 EWT(1)/EWT(m)/EWP(t)/EWP(b)/EWA(h) IJP(c) JD/GS

ACCESSION NR: AT5020472 UR/0000/64/000/000/0262/0275

AUTHOR: Makovskiy, F. A.; Usachev, Ye. P.

TITLE: High-temperature rectifiers based on titanium dioxide

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 262-275

TOPIC TAGS: titanium dioxide, semiconducting material, semiconductor diode, semiconductor research, high temperature material

ABSTRACT: The authors study flat-contact diodes made from commercial titanium. These rectifiers are more efficient than the ordinary point-contact diodes. The basic advantage of titanium rectifiers is their ability to operate in a wide temperature range (from -60 to +200°C). A change is observed in some sections of the silver electrode in these rectifiers from *n*- to *p*-type thermoelectromotive force. On the basis of this phenomenon, a hypothesis is made on the formation of a *p-n* junction in the surface layer of titanium dioxide where rectification of electric current takes place. The rectifying properties of titanium diodes depend to

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L 64285-65

ACCESSION NR: AT5020472

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a great extent on the quality of the titanium dioxide surface, where the upper electrode is applied. Secondary oxidation of the titanium dioxide semiconductor surface creates a very thin layer of titanium dioxide which is close to the stoichiometric composition with high dielectric properties. This film increases the total resistance and creates more favorable conditions for reverse currents than for forward currents. Artificial application of a titanium dioxide film from a titanium ester of orthotitanic acid can be used to vary the thickness of the film, and thus the values of the forward and reverse currents. A gold electrode sintered into the titanium dioxide makes a more reliable contact than silver. Pulse conditions eliminate the thermal effect in titanium rectifiers. The best titanium diodes produced by the authors withstand reverse voltages of several tens of volts. This is equivalent to 3-4 series-connected selenium rectifiers. Commercial titanium can be used to produce diodes with satisfactory characteristics. It should be expected that the use of titanium of higher purity will produce rectifiers with better electric properties. Orig. art. has: 11 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut Kazanskogo filiala AN SSSR (Physico-technical Institute, Kazan Affiliate, AN SSSR)

SUBMITTED: 060ct64 ENCL: 00 SUB CODE: EC

NO REF SOV: 002 OTHER: 010

Card 2/2

L 64257-65 EWT(l)/EWT(m)/EWP(t)/EWP(b)/EWA(h) IJP(c) JD/GS

ACCESSION NR: AT5020473 UR/0000/64/000/000/0276/0283

AUTHOR: Makovskiy, F. A.; Usachev, Ye. P.; Kichatova, V. V.

TITLE: Effect of humidity on the electrical properties of titanium dioxide rectifiers

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fiziki poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 276-283

TOPIC TAGS: titanium dioxide, semiconducting material, semiconductor diode, atmospheric humidity, electric property, semiconductor research

ABSTRACT: The authors study the effect of the ambient medium on the electrical properties of rectifiers based on titanium dioxide. Forward and reverse currents were measured in diodes made from commercial titanium as a function of changes in the ambient atmosphere at room temperature. For the reverse current studies, the specimen was first dried in a vacuum and then exposed to water vapor or the vapor of some other liquid. It was found that moisture reduces the reverse current in the diode and that the process is reversible. Water is adsorbed on the surface in

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ACCESSION NR: AT5020473

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a shorter time than that required to remove the moisture. Tests with dry ethyl alcohol and hydrogen peroxide gave the same type of results. A theoretical explanation is given for the experimental results. Experiments on measurements of forward currents showed that forward currents in rectifiers anodized in NaOH increase after exposure to water. This effect is also reversible. Subsequent experiments showed that the reverse current increases with humidity after anodizing the semiconductor surface. Measurements of the barrier layer capacitance in titanium rectifiers showed that the thickness of the barrier layer depends on the relative humidity of the ambient atmosphere. The thickness of the barrier layer decreases with a reduction in relative humidity. This phenomenon is observed in diode specimens where the reverse currents decrease with an increase in moisture content. Orig. art. has: 5 figures, 3 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut Kazanskiy filial AN SSSR (Physicotechnical Institute, Kazan Affiliate, AN SSSR) 44

SUBMITTED: 06Oct64 ENCL: 00 SUB CODE: EC, SS

NO REF SOV: 003 OTHER: 006

Card 2/2

L 24791-65 EWT(m)/EWP(b)/EWP(t) IJP(c) JD
ACCESSION NR: AP5003475 S/0181/65/007/001/0333/0334

27
25
B

AUTHOR: Makovskiy, F. A.

TITLE: Optical properties of titanium dioxide alloyed with iron

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 333-334

TOPIC TAGS: titanium dioxide, iron alloying, ultraviolet radiation, electron paramagnetic resonance, optical property, magnetic susceptibility

ABSTRACT: The samples of titanium dioxide with iron additive were prepared by two methods, one in the form of an annealed powder, the other in the form of a mixture of iron-salt and organic titanium-salt solutions. The investigations have shown that the most sensitive mixtures were those having approximately one iron ion per 450 titanium ions. Such a mixture turns blue when exposed to ultraviolet for 1--2 minutes, and becomes discolored in darkness after 4--5

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ACCESSION NR: AP5003475

hours at room temperature. Measurements of the spectral light sensitivity in transmitted and reflected light disclosed two absorption band at 410 and 500 nm. The 410 nm band was observed earlier by others. The 500 nm band is reversible, being observed when the samples are illuminated and disappearing in darkness. Samples of titanium dioxide with 0.19 mol.% produced an electron paramagnetic resonance signal at 9324 Mc at room temperature. The molar magnetic susceptibility of such a sample is 0.01412×10^{-6} in darkness, and 0.03745×10^{-6} when illuminated, as compared with 2.9572×10^{-6} of the pure titanium dioxide. It is concluded on the basis of the tests that oxygen vacancies are formed in titanium dioxides with iron added, and the conduction electrons which become associated in the F-centers produce the blue coloring. The coloring induced by ultraviolet or sunlight is due to the transition of the titanium and the iron from the tetravalent states to the trivalent state. "The authors thank F. I. Akhmedova for measuring the magnetic susceptibility of the titanium dioxide." Orig. art. has: 1 formula.

Card 2/3

L 24791-65
ACCESSION NR: AP5003475

ASSOCIATION: Kazanskiy fiziko-tekhnicheskiy institut AN SSSR
(Kazan Physicotechnical Institute AN SSSR)

SUBMITTED: 23Jul64 ENCL: 00 SUB CODE: SS, OP

NR REF SOV: 001 OTHER: 003

Card 3/3

MAKOVSKIY, F.A.

Optical properties of titanium dioxide doped with iron. Fiz. tver. tela 7 no.1:333-334 Ja '65.
(MIRA 18:3)

1. Kazanskiy fiziko-tekhnicheskiy institut AN SSSR.

MAKOVETSKIY, G.I.; SIROTA, N.N.

Electroconductivity and thermo-e.m.f. of manganese selenide. (MIRA 18:10)
Dokl. AN BSSR 9 no.1:15-17 Ja '65.

1. Institut fiziki tverdogo tela i poluprovodnikov AN BSSR.

BUNDIN, Aleksandr Tikhonovich; KLYUCHNIKOV, S.I., inzh., retsenzent; MAKOVSKIY, G.M., inzh., red.; SOBOLEVA, G.N., red.izd-va; CHERNOVA, Z.I., tekhn.red.

[Specialized forging] Spetsializirovannoe proizvodstvo pokovok. Moskva, Mashgiz, 1962. 242 p. (MIRA 15:5)
(Forging)

TERENT'YEV, V.I., kand. tekhn.nauk, otv. red.; MAKOVSKIY, G.M., red.; ZUDINA, V.I., tekhn. red.

[Mining and dressing iron ores of the Kursk Magnetic Anomaly] Razrabotka i obogashchenie zheleznykh rud KMA; sbornik statei. Moskva, Izd-vo AN SSSR 1963. 138 p. (MIRA 17:1)

1. Akademiya nauk SSSR. Nauchno-issledovatel'skiy institut po problemam KMA.

TERENT'YEV, V.I., kand. tekhn. nauk, otv. red.; MAKOVSKIY, G.M., red.; PEVZNER, G.Ye., red.izd-va; GUS'KOVA, O.M., tekhn. red.

[Geology, mineralogy and engineering geology of the Kursk Magnetic Anomaly] Geologiia, mineralogiia i inzhenernaia geologii KMA. Moskva, Izd-vo AN SSSR, 1963. 140 p. (MIRA 17:2)

1. Gubkin. Institut po problemam KMA.

YEFIMOV, F.T.; FROLOV, N.G.; MAKOVSKIY, G.M., inzh., red.; GORDEYEVA, L.P., tekhn. red.

[Metal shot and sand; production and use] Metallicheskie drob' i pesok; proizvodstvo i primenenie. Moskva, Mashgiz, 1963. 142 p. (MIRA 16:7)
(Shot) (Sand, Foundry)

KOSTENKO, Ye.P.; SAKHNIN, A.V., inzh., retsenzent; MAKOVSKIY, G.M., inzh., red.;

[Operation of piston compressors] Ekspluatatsiia porshnevykh kompressorov. Moskva, Izd-vo "Mashinostroenie," 1964. 105 p. (MIRA 17:6)

BIYEV, I.I.; MORGOLIN, I.A., retsenzent; MAKOVSKIY, G.K., inzh., red.

[Mechanization of part painting] Mekhanizatsiia pri okraske detalei. Moskva, Mashinostroenie, 1964. 77 p. (MIRA 17:9)

MAGAZINER, V.V.; TYNYANOV , V.N.; FIL'KIN, I.N.; MAKOVSKIY, G.M., inzn., retsenzent; ZLOTNIKOV,S.L., red.

[Operation of single-crank single-acting presses] Eksploatatsiia odnokrivoshipnykh pressov prostogo deistviia. Moskva, Mashinostroenie, 1964. 124 p. (MIRA 17:7)

MATRONIN, S.V.; LISICHKIN, V.Ye.; MEL'NIKOV, N.I.; RUMYANTSEV, V.A., dots., retsenzent; MAKOVSKIY, G.M., inzh., red.;

[Testing compressing machines] Ispytanie kompressornykh mashin. Moskva, Izd-vo "Mashinostroenie," 1964. 182 p. (MIRA 17:7)

YENENKO, G.M., inzh.; STEPANOV, Ye.M., kand. tekhn. nauk; FILIMONOV, Yu.P., kand. tekhn. nauk; [illegible]OV, M.A., kand. tekhn. nauk, retsenzent; M[illegible]V, G.M., inzh., red.

[Industrial furnaces] Promyshlennye pechi. Moskva, Mashinostroenie, 1964. 359 p. (MIRA 18:1)

NATANZON, Ye.I.; TEL'NOV, G.M.; LANKIN, P.A., kand. tekhn. nauk, retsenzent; MAKOVSKIY, G.M., inzh., red.

[Electric induction heating and electr : upsetting] Elektronagrev metodom soprotivleniia i elektrovysadka. Izd.2., dop. i perer. Moskva, Mashinostroenie, 1964. 132 p. (MIRA 17.12)

KALACHEV, A.; MAKOVSKIY, I., inzh.

In exchange for traffic safety corners. Za bezop.dvizh. 5 no.11:12-13 N '62. (MIRA 15:12)

1. Nachal'nik otdela bezopasnosti dvizheniya Glavnogo upravleniya avtomobil'nogo transporta Moskovskogo gorodskogo soveta deputatov trudyashchikhsya (for Kalachev). 2. Otdel bezopasnosti dvicheniya Glavnogo upravleniya avtomobil'nogo transporta Moskovskogo gorodskogo soveta deputatov trudyashchikhsya (for Makovskiy).
(Moscow—Traffic safety—Study and teaching)

MAKOVSKIY, I.S.

[Acoustic reflexes in a dog following removal of the temporal lobes] Zvukovye refleksy pri udalenii visochnykh oblastei bol'shikh polusharii u sobak. Moskva, Akademii meditsinskikh nauk SSSR, 1953. 86 p. (MLRA 8:11)

(REFLEXES)

MAKOVSKIY, L.L.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1384
AUTHOR GUBANOW, A.I., MAKOWSKIJ, L.L.
TITLE On the Article by K.B.TOLPYGO and I.G.SASLAWSKAJA on "Bipolar Diffusion in Semiconductors in the Case of Strong Currents"
PERIODICAL Žurn.techn.fis, 26, fasc. 9, 2126-2127 (1956)
Issued: 10 / 1956 reviewed: 10 / 1956

On the occasion of the solution of the system of differential equations in the work by K.B.TOLPYGO and I.G.SASLAWSKAJA(Žurn.techn.fis, 25, 955 (1955) the method of successive approximation was incorrectly used. The authors investigated the system of equations (11a), (11b), (11w') and (11g'). They attempt to find the solution of (16) by exploiting the smallness of the parameter A which takes the recombination of the electrons and holes into account. The function $\xi(\theta)$, however, must necessarily appear in the following form according to the equation (11g'):

$$\xi(\theta) = \frac{\xi^{-1}(\theta)}{A} + \xi_0(\theta) + A\,\xi_1(\theta) + \ldots \qquad (a)$$

Let us now investigate the equation (11a). By inserting the unknown functions which are expressed in series according to A-powers, we obtain:

$$\frac{1}{\lambda}\left[\frac{dN_0(\xi)}{d\xi} + A\,\frac{dN_1(\xi)}{d\xi} + \ldots\right] = \theta + N_0 y_0 + A(N_0 y_1 + y_0 N_1) +$$

It should be noted that on the occasion of approximation towards zero, the

Žurn.techn.fis, 26, fasc.9, 2126-2127 (1956) CARD 2 / 2 PA - 1384

equation obtained in the special case coincides with the initial equation By dividing the equation (11a) by the equation (11g'), as was done by the authors (the parameter b is neglected in this equation), we obtain the equation (15a).

In order to prove that such an operation contributes absolutely nothing towards solving the task we represent both parts of the equation (11g') in form of a series with respect to the powers A:

$$\frac{1}{A}\frac{d\xi_{-1}}{d\theta} + \frac{d\xi_{o}}{d\theta} + A\frac{d\xi}{d\theta} + \ldots = \frac{\lambda}{A}\left[\frac{1}{N_o z_o} + A(\ldots) + \ldots\right], \quad (b)$$

where $\frac{d\xi_{-1}}{d\theta} = \frac{\lambda}{N_o z_o}$ etc.

It is clear that, by multiplying both parts of the equation (11a) by one and the same series, the equation (11a) is again obtained by approximation towards zero. The error committed by the authors consists in having failed to consider the fact that the quantity on the left side of the equation (15a) is proportional to the parameter A as follows from the equation (11g'), and from physical deliberations. Actually, θ is the relative density of the electron current which, in the flat case and with lacking recombination (with A=0) is constant. Therefore θ is proportinal to A in first approximation. In view of the fact that the results obtained by K.B.TOLPYGO and I.G.SASLAWSKAJA are based upon an incorrect solution of equations they are of doubtful value.

INSTITUTION:

MAKOVSKIY, L.L

AUTHOR: Makovskiy, L. L. 57-1-8/30

TITLE: The Calculation of the Dependence of the Current Amplification Coefficient on the Emitter Current in Germanium Triodes for the Injection and Extraction at High Temperatures (Raschet zavisimosti koeffitsiyenta usileniya po toku ot toka emittera v germaniyevykh splavnykh triodakh dlya rezhimov in"yektsii i ekstraktsii pri vysokikh temperaturakh).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 1, pp. 52-54 (USSR)

ABSTRACT: The theoretic interpretation of the experimental results of ref.1 based on ref. 2 is given here. In ref. 1 the author experimentally showed that with germanium triodes the current amplification coefficient α_{cb} at room temperature as well as at high temperature (of the order of 90oC) shows a different dependence on the emitter current. The author here assumes that ... the dependence of the basis can be regarded to be ... . At this temperature the recombination theorem is regarded ... mono-molecular (ref. 3) and the surface recombination is taken into account according to ref. 2. Under these circumstances the equation for the current amplification coefficient is put down. The volume recombination is neglected as ... electron current in the basis. The equation obt... integra-

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The Calculation of the Dependence of the Current Amplification Coefficient on the Emitter Current in Germanium Triodes for the Injection and Extraction at High Temperatures. 57-1-8/30

ted under the condition $\Delta p(0) = -p_o$ (at the collector). p_o = = the concentration of holes in the basis if current is lacking. Then the current of the surface recombination is taken into account and finally the equation (analogous process as in ref. 2) for the current amplification coefficient α_{cb} is obtained. The equation obtained this way (7) passes over into formula (17) of ref. 2 at $p_o = 0$. Equation (7) is valid for positive as well as for negative emitter currents (Δ can also be negativ). Then three different working conditions for the triode are investigated. 1. Room temperature. As emitter the transition with the smaller surface is taken. This is the known case investigated in ref.2.- Room temperature. The transition with the greater surface is taken as emitter. Here the surface recombination at the collector must be taken into account. According to ref.4 the current of the surface recombination (at emitter and collector) is proportional to the concentration of holes at the emitter. Thus the problem reduces to the formula (17) of ref. 2 with another effective surface of the recombination. 3.- High temperature. In this case α_{cb} depends on p_o according to (7). The maximum for α_{cb} which is determined by the ratio between the 1st and 2nd member in equation (7) shifts with a rise of temperature to the

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The Calculation of the Dependence of the Current Amplification Coefficient on the Emitter Current in Germanium Triodes for the Injection and Extraction at High Temperatures. 57-1-8/30

left and can reach into the range of negative emitter curents. Formula (7) was deduced from the solution of a one dimensional equation and therefore does not explain why the maximum of α_{cb} within the range of negative curents develops only when the transition with a greater surface as emitter is connected. For the explanation of this fact a two-dimensional equation must be solved which takes into account the field. Yet the calculation of the dependence of α_{cb} on the emitter current showed satisfactory coincidence between theory and experiment when the triode was connected at 90°C; this was done according to formula (7). The work was discussed with A. I. Gubanov and V. I. Stafeyev . There are 1 figure, 4 references, 1 of which is Slavic.

ASSOCIATION: Leningrad Physical-Technical Institute AS USSR (Leningradskiy fiziko-tekhnicheskiy institut AN SSSR).

SUBMITTED: June 18, 1957

AVAILABLE: Library of Congress

Card 3/3

SOV/[illegible]-28-9-[illegible]

AUTHORS: Rywkin, S. M., Strokan, N. B., Makovskiy, L. L.

TITLE: On Problems of the Kinetics of Photovoltaic Cells With Electron-Hole Junctions (K voprosu o kinetike ventil'nykh fotoelementov s elektronno-dyrochnym perekhodom)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Vol. 28, Nr 9, pp. 1871-1882 (USSR)

ABSTRACT: This is a study of the kinetics of the photovoltaic cell operating [illegible] rectifier. No limitations are imposed on the ratio of [illegible] and of R_0C (where C denotes the capacity of the n-p junction at zero voltage, and R_0 its resistance) and of arbitrary loads R. The downward-sloping branch of the relaxation curve is investigated. In the first section qualitative considerations bearing on the kinetics of a few special cases are presented. In section 2 this is investigated as to its quantitative aspects. In section 3 the experimental equipment is described and in section 4 the theoretical results are compared with those from experiments. The downward-sloping branch of the relaxation curve is computed assuming different conditions. [illegible] the conditions assumed in reference 3 [illegible]

Card [illegible]

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031610019-9"

[illegible] small capacitive currents) are not satisfied. [illegible] however, is sufficiently high, a section [illegible] laxation curve is still determined only by relaxation. This section supplies the data for the determination of the life of the non-equilibrium carriers. These conclusions were substantiated by experiments. From the slope of the rectilinear [illegible] oscillograms it was found, that the levels [illegible] are removed by $\simeq$ 0,23 eV from the bound[illegible] of the permitted zone. There are 10 figures and 8 references, 7 of which are Soviet.

ASSOCIATION: [illegible] Fiziko-tekhnicheskiy institut, AN SSSR (Leningrad [illegible] Institute, AS USSR)

SUBMITTED: [illegible]

S/058/62/000/005/118/119
A061/A101

9.4160

AUTHORS: Ryvkin, S. M., Strokan, N. B., Makovskiy, L. L.

TITLE: The kinetics of photoelectric cells with n-p junctions

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 31, abstract 5-3-62y (V sb. "Fotoelektr. i optich. yavleniya v poluprovodnikakh", Kiyev, AN USSR, 1959, 360 - 366)

TEXT: The kinetics of ЛЭТИ (LETI) photodiodes was considered with lighted n-region and taking only the hole current into account. The relaxation of the rectifier element emf of the open photodiode circuit is shown to be determined by the lifetime, τ, of nonequilibrium holes if the inequality $\tau \gg R_0C$ is satisfied. C is the total capacity of the junction and assembly, and R_0 is the resistance of the n-p junction at zero voltage. The similarity between the curves of rise and drop of the photo-emf depends on the intensity of light considerably. At an increase of the latter, this similarity is disturbed. The inequality $\tau \gg R_0C$ can be disturbed by a decrease of temperature, in the case of a high capacity C, and in dependence of the type of photodiode. The general case of

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The kinetics of photoelectric cells with n-p junctions

photodiode connection at a load R_1 is examined quantitatively. The curves describing the approximate solution of the system of equations of the relaxation process in limit cases of emf drop are analyzed. The results obtained with both accurate and approximate formulas for the emf agree well with experimental data. Provisional information is presented for the kinetics of LETI germanium photodiodes of a sensitivity from 1 to 4 a/lumen, a dark current of 700 to 500 μa, an admissible voltage limit of ~ 5 v, and a lag of 10^{-5} sec. There is 1 reference.

V. Shch.

[Abstracter's note: Complete translation]

Card 2/2

MAKOVSKIY, M.

Improve accounting for State Bank operations. Den.i kred. 17 no.5:60-61 My '59. (MIRA 12:10)
(Kirov Province--Banks and banking--Accounting)

MAKOVSKIY, M.V. [Makouski, M.U.]

Method of determining the level cycle of ground water during water balance calculations of irrigated peat soils. Vestsi AN BSSR. Ser. fiz.-tekh. nav. no.3:118-125 '64. (MIRA 18:2

BRAND, V.Yu.; MAKOVSKIY, N.D.

Equipment of ore dressing and sintering plants. Trudy Mekhanobr. no. 122:355-430 '59. (MIRA 14:4)
(Ore dressing--Equipment and supplies)
(Sintering--Equipment and supplies)

MAKOVSKIY, N.D.; STULOVA, I.L.

New trends in the field of crushing and grinding. TSvet. met. 33 no.10:92-94 O '60. (MIRA 13:10)
(United States--Ore dressing)

SASON, N.S.; Prinimali uchastiye: BRAND, V.Yu.; MAKOVSKIY, N.D.; OLEVSKIY, V.A.; SAFRAY, V.A.; PRISHCHENKO, V.I.

Dimensional lines of crushing and grinding equipment. Obog. rud 6 no.2:31-33 '61. (MIRA 14:8)

(Crushing machinery)

MAKOVSKIY, N.D.; REYNER, A.G.

Dimensional series of flotation machines. Obog. rud 7 no.4:37-38 '62. (MIRA 16:4)

(Flotation—Equipment and supplies)

MAKOVSKIY, M.I.

On the problem of the origin of split waves in roentgenokymography [with summary in English]. Vest.rent. i rad. 32 no.2:40-43 Mr-Ap '57. (MLRA 10:8)

1. Iz sanatoriya No.1 Primorskogo kurorta USSR (glavnyy vrach O.M. Ginzburg)

(KYMOGRAPHY,
roentgenokymography, origin of split waves (Rus))

25622 MARKOVSKIY, N. V.

Novoe oporudovaniye dlya ochistki zagotovok i detaley mashin.
Vestnik Mashinostroeniya, 1948, No. 7, s. 46-50.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

MAKOVSKIY, N. V. (Engr)

MAKOVSKIY, N. V. (Engr) --"Basic Problems and Means of Introducing Automatization Into the Woodworking Industry." Sub 23 Dec 52, Moscow Forestry Engineering Inst. (Dissertation for the Degree of Candidate in Technical Sciences).

SO: Vechernaya Moskva, January - December 1952

MAKOVSKIY, Nikolay Vasil'yevich, kandidat tekhnicheskikh nauk; MARDANYAN, M.Ye., inzhener, retsenzent; MANZHOS, F.M., doktor tekhnicheskikh nauk, redaktor; UVAROVA, A.F., tekhnicheskiy redaktor

[Automatization of technical processes in woodworking] Avtomatizatsiia tekhnologicheskikh protsessov v derevoobrabatyvaiushchem proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 277 p. (MIRA 10:1)
(Automatic control)
(Woodworking industries)

MAKOVSKIY, N.V., kandidat tekhnicheskikh nauk.

Technological diagrams and productivity of woodcutting machines.
Der.prom.5 no.9:8-11 S '56. (MIRA 9:10)

1.Nauchno-issledovatel'skiy institut derevoobrabatyvayushchego mashinostroyeniya.
(Woodworking machinery)

MAKOVSKIY, [illegible] kandidat tekhnicheskikh nauk.

Technological diagrams and the performance of woodcutting machines. Der. prom. 5 no.10:10-12 O '56. (MLRA 9:11)

1. Nauchno-issledovatel'skiy institut derevoobrabatyvayushchego mashinostroyeniya.
(Woodworking machinery)

MAKOVSKIY, N.V.

Automatically controlled production line for the manufacture of barrels from hard fiber materials. Trudy NIItary no.2:88-95 '58. (MIRA 13:12)

(Barrels) (Assembly-line methods)

MAKOVSKIY, Nikolay Vasil'yevich; BYSTROV, G.P., doktor tekhn.nauk, retsenzent; BAKST, A.S., kand.tekhn.nauk, retsenzent; KAPUSTIN, I.I., doktor tekhn.nauk, prof., red.; GOSPODARSKAYA, T.N., red.izd-va; PARAKHINA, N.L., tekhn. red.

[Automation of technological processes in woodwork] Avtomatizatsiia tekhnologicheskikh protsessov v derevoobrabotke. Moskva, Goslesbumizdat, 1961. 397 p. (MIRA 14:12)
(Woodworking machinery) (Automatic control)

MAKOVSKIY, N.V., kand.tekhn.nauk

Woodworking machinery with programming control. Der.prom. 10 no.10:8-10 O '61. (MIRA 14:9)

1. Moskovskiy lesotekhnicheskiy institut.
(Woodworking machinery)
(Programming (Electronic computers))

MAKOVSKIY, N.V., kand.tekhn.nauk

Woodworking machinery with program control. Der.prom. 10 no.11:10-13 N '61. (MIRA 14:10)

1. Moskovskiy lesotekhnicheskiy institut.
(Woodworking machinery) (Programming (Electronic computers))

VARAKIN, Yuriy Mikhaylovich; SANEV, Valentin Il'ich, kand. tekhn. nauk, retsenzent; MAKOVSKIY, N.V., doktor tekhn. nauk, retsenzent;

[Fundamentals of the automation of the technological processes of sawmilling production] Osnovy avtomatizatsii tekhnologicheskikh protsessov lesopil'nogo proizvodstva. Moskva, Lesnaia promyshlennost', 1964. 424 p. (MIRA 17:11)

MAKOVSKIY, N.V., kand.tekhn.nauk

Use reflex automation in woodworking. Der. prom. 13 no.2:10-11 F '64. (MIRA 17:3)

MAKOVSKIY, N.V.

Studying the mechanisms of the protective setting of wood-working machines. Der.prom. 13 no.12:7-10 D '64
(MIRA 18:1)

1. Moskovskiy lesotekhnicheskiy institut.

ISAKOV, Afanasiy Ivanovich, kand. tekhn. nauk; MANZHOS, F.M., prof., retsenzent; MAKOVSKIY, N.V., prof., red.

[Automation of the quality control of parts made of wood and wood plastics] Avtomatizatsiia kontrolia kachestva detalei iz drevesiny i drevesnykh plastikov. Moskva, Lesnaia promyshlennost', 1965. 263 p. (MIR 18:6)

MAKOVSKIY, S. A.

3(5) PHASE I BOOK EXPLOITATION SOV/2682

Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut

Voprosy poiskov, razvedki i dobychi nefti i gaza na territorii USSR; doklady na vyyezdnoy sessii uchenykh sovetov VNIGNI i VNII, prokhodivshey v g. L'vove v maye 1957 g. (Problems in the Exploration and Production of Oil and Gas in the Ukrainian SSR; Reports Presented at a Session of the Scientific Councils of the All-Union Petroleum Scientific Research Institute for Geological Survey and the All-Union Scientific Research Institute, in Lvov, May 1957) Moscow, Gostoptekhizdat, 1959. 282 p. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Ministerstvo geologii i okhrany nedr.

Eds.: I. G. Baranov, V. V. Glushko, and A. S. Muromtsev; Executive Eds.: S. M. Tungans, and A. I. Zaretskaya; Tech Ed.: I. G. Fedotova.

PURPOSE: This book is intended for petroleum geologists and Ukrainian area specialists.

COVERAGE: This book contains 27 reports originally read at a meeting of the scientific councils of the VNIGNI (All-Union Petroleum Scientific Research Institute for Geological Survey), the VNII (All-Union Scientific Research Institute), the VNIIgaz, Ukrneft', Ukrgaz, Ukrvostokneftegazrazvedka, Ukrneftegazrazvedka, and Ukrneftegeofizika held in L'vov in May, 1957. The papers deal with the petroleum geology of the Dnepr-Donets depression, the Carpathians, Ciscarpathia, the southwestern fringe of the Russian Platform, and the northern Black Sea area. Particular attention is given to describing the geological features of those regions most likely to bear oil. Other articles discuss oil production techniques and ways of increasing drilling speed in deep wells. No personalities are mentioned. References accompany individual articles.

KOSAREV, N.N.; MAKOVSKIY, S.A.

Removing paraffin from bottom hole areas by electric heat.
Neft.khoz. 37 no.3:56-58 Mr '59. (MIRA 12:5)
(Paraffins) (Electric heating)

OGANOV, K.A.; MAKOVSKIY, S.A.; KOSAREV, N.N.

More about creating a mobile focus of fire in a porous medium of a layer. Neft. khoz. 38 no.4:14-20 Ap '60. (MIRA 14:8)
(Oil fields--Production methods)

VITRIK, S.P.; PALIY, A.M.; MAKOVSKIY, S.A.

New data on the commercial investigation of the Khodnovichi gas field. Neft. i gaz. prom. 3:3-5 Jl-S '65.
(MIRA 18:11)

L 14959-66 EWT(1)/T IJP(c) GW
ACC NR: AP5022455 (A) SOURCE CODE: UR/0209/65/000/009/0068/0073

AUTHOR: Makovskiy, V. (Engineer, Lieutenant colonel, Candidate of technical sciences)

49
B

ORG: none

TITLE: Aerial photographic reconnaissance devices. Features of their operation

SOURCE: Aviatsiya i kosmonavtika, no. 9, 1965, 68-73

TOPIC TAGS: aerial photography, photographic image, photographic intelligence, photographic reconnaissance, aerial photograph

ABSTRACT: The problem of conbating distortion in aerial reconnaissance photographs is discussed. Factors which contribute to the poor quality of the photographs include vibration (especially angular vibration), changes in atmospheric temperature and pressure, fogging of optical parts, faulty processing of exposed negatives, faulty mounting of cameras, failure to compensate for flight speed, faulty adjustment of shock dampers, and failure of automatic exposure controls. Ways of compensating for or eliminating the problems listed above are given. It is recommended that the aerial reconnaissance system be checked by photographing test patterns on the ground. Orig. art. has: 5 figures.

SUB CODE: 14,15/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 000

Card 1/1

PODOL'SKAYA, G.A., inzhener; MAKOVSKIY, V.A., inzhener.

Intensification of steel smelting by oxygen. Metallurg no.6: 17-19 Je '56. (MIRA 9:9)

1. Zavod "Azovstal'".
(Zhdanov--Open hearth furnaces) (Oxygen--Industrial applications)

137-58-4-6528

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 29 (USSR)

AUTHORS: Yemel'yanenko, P.M., Makovskiy, V.A.

TITLE: Measuring the Temperature of the Roof of an Open-hearth Furnace (Izmereniye temperatury svoda martenovskoy pechi)

PERIODICAL: Tr. Donetsk. otd. Nauchno-tekhn. o-va chernoy metallurgii, 1957, Nr 5, pp 55-68

ABSTRACT: Established formulas are used to calculate the errors in measuring the temperature of the roof of an open-hearth furnace (OF) by means of optical and radiation pyrometers (RP). A system of measurement of roof temperature by RP employing sighting through a hole in the front wall of the OF is recommended. In addition, a protective tuyere to assure normal functioning of the RP, an efficiently-designed sighting aperture, and a measuring circuit employing two RP and a single electronic potentiometer with automatic switching of either RP to the potentiometer in accordance with the direction of the flame, and the employment of a time relay connected with the throw-over circuit, are provided.

M. L.

Card 1/1

1. Furnace--Temperature--Measurement 2 Pyrometers--Applications

MAKOVSKIY V.A.

133-6-10/33

AUTHORS: Makovskiy, V.A. and Okinchits, Ch.A. (Engineers).

TITLE: Supply of oxygen into the gas part of an open hearth furnace. (Podacha kisloroda v gazovyy prolet martenovskoy pechi).

PERIODICAL: "Stal'" (Steel), 1957, No.6, pp.513-516 (USSR).

ABSTRACT: In the open hearth melting shop of the Azovstal' Works a practice of injecting oxygen enriched air (40-50% O_2) into the gas parts was established in 1956. The design of the injector (Fig.1) and the method of connecting it (Fig.2) are outlined. The supply of oxygen into the gas parts with injectors in an amount of up to 1000 m^3/hr has a positive influence on the thermal state of the furnace and on the state of some parts, such as gas parts, furnace lining and chequer work (Figs.3 and 4). The mean stability of furnace roof was little changed: without injectors 200 heats - with injectors 207 heats. The possibility of operation with injectors only (without supply of oxygen to bath) was also established. The duration of heat remained approximately the same but the consumption of oxygen decreases by 30-50%. The dependence of the duration of heat on the rate of supply of oxygen for rail and rimming steels is shown in Fig.5. The operation with supplying oxygen

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Supply of oxygen into the gas part of an open hearth furnace. (Cont.) 133-6-10/33

through injectors only is recommended for works with limited availability of oxygen. But even with sufficient supply of oxygen, its supply through injectors only during finishing and pure boiling periods is recommended. As with a supply of oxygen through injectors at a rate of 600-800 m^3/hr the effectiveness of flame improves at a moderate flame temperature which makes operating conditions of refractory lining easier.

There are 5 figures and 2 references, both Slavic.

ASSOCIATION: Azovstal' Works. (Zavod "Azovstal'").

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AUTHOR: ..., E.V. and Makovskiy, V.A. (Engineers). 133-6-11/33

TITLE: On the problem of conversion of high phosphorous iron in tilting open hearth furnaces. (K voprosu o peredele vysokofosforistykh chugunov v kachayushchikhsya martenovskikh pechakh).

PERIODICAL: "Stal'" (Steel), 1957, No.6, pp.517-519 (USSR).

ABSTRACT: This article was written in connection with the paper of Prof. K.G.Trubin ("Stal'", 1956, No.9) in which the view was expressed that the Talbot process is the most suitable method of processing high phosphorous iron in tilting open hearth furnaces. On the basis of experience gained in the Azovstal' melting shop where the Talbot method was tested on 350 t. tilting open hearth furnaces, the present authors disagree with the above view. The comparison of operating data on heats carried out by the Talbot method and the usual works practice during the production of rimming and killed steels is given in a table and Figs.1, 2 and 3. The influence of the amount of metal left in the furnace on its output is shown in Fig.4. It is concluded that the melting practice of high phosphorus iron in large tilting furnaces with the application of oxygen is at present the most productive of all other practices. The Talbot process, al-

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On the problem of conversion of high phosphorous iron in tilting open hearth furnaces. (Cont.) 133-6-11/33

though it has some positive features, does not give an increase in the furnace productivity. It is considered that for further improvement in the conversion of high phosphorus iron, a wider application of oxygen supplied to flame and the bath as well as the use of some new more efficient materials (like self-fluxing sinter, lime-ore briquettes) and more rational methods of charging granular materials, speeding up the process of slag formation, are necessary.

There are 4 figures, 1 table and 4 references, all Slavic.

ASSOCIATION: Azovstal' Works. (Zavod "Azovstal'").

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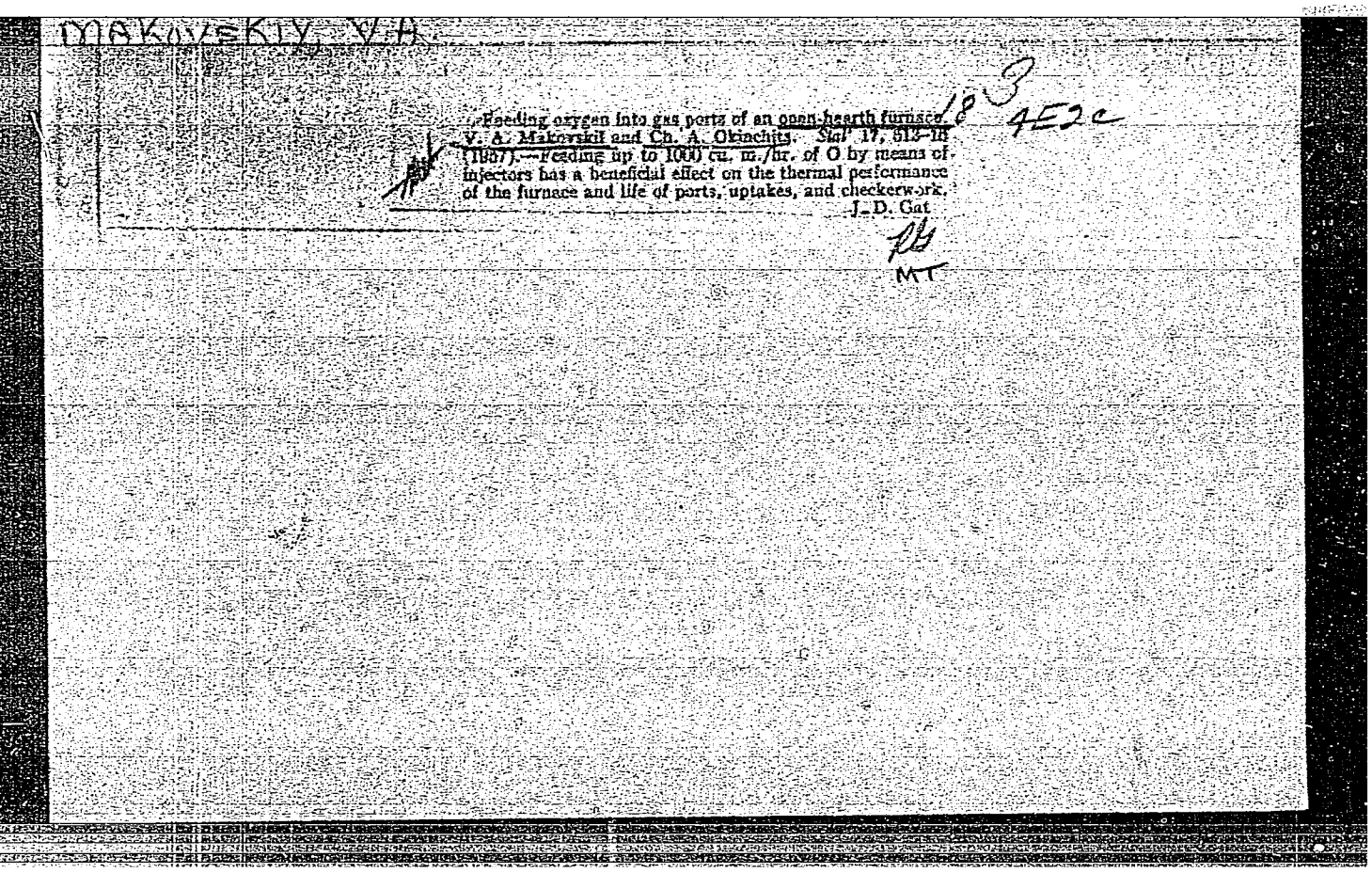

MAKOVSKIY, V.A.

Feeding oxygen into gas ports of an open-hearth furnace. V. A. Makovskiĭ and Ch. A. Obiachits. *Stal'* 17, 513–18 (1957).—Feeding up to 1000 cu. m./hr. of O by means of injectors has a beneficial effect on the thermal performance of the furnace and life of ports, uptakes, and checkerwork.
J. D. Gat

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SOV/137-58-9-18569

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 56 (USSR)

AUTHORS: Kapustin, Ye. A., Makovskiy, V. A., Glinkov, G. M.

TITLE: The Role of Oxygen-enriched Flame in Oxidation Processes of Open-hearth Smelting (Rol' obogashchennogo kislorodom fakela v okislitel'nykh protsessakh martenovskoy plavki)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Chernaya metallurgiya, 1958, Nr 2, pp 84-92

ABSTRACT: An experimental campaign carried out in a 370-ton open hearth furnace of the "Azovstal'" plant has shown that increased consumption of O_2 in the flame increases the oxidation capacity of the furnace, the oxidation capacity being defined as the passage of O_2 into the molten metal per unit of time. It was noted that the boundary of the visible brightly luminuous flame is sharply reduced when O_2 is introduced. Thus, at an O_2 consumption of 2500 m^3/hr, the length of the flame is reduced to one-half of the length of the hearth. Gas samples taken along the length of the hearth revealed that uncombusted components (CO, H_2) are found only within the boundaries of the visible flame. At high rates of fuel

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The Role of Oxygen-enriched Flame (cont.)

combustion and during frequent reversals (8-12 minutes), smaller quantities of combustible constituents are found in the central section of the furnace, and it is for this reason that the gaseous phase attains its maximum oxidizing capacity in this area. The flame exhibits a maximum temperature near the first charge opening and a minimum temperature in the vicinity of the fifth opening (the temperature drop may be as great as 150-250°C). Analyses of the slag have indicated that the greatest content of Fe in the slag is found in the center of the furnace, in the vicinity of the nozzles, where conditions are favorable for the passing of Fe into the slag; this conclusion was fully substantiated by experiment. The thermal balance of the smelting process is very favorably affected when a portion of the oxygen of the ore or of the cinder is replaced by atmospheric oxygen. Thus, every ton of O_2 absorbed from the furnace atmosphere reduces the amount of heat required for preheating and fusion by approximately 5 million kcal.

1. Open hearth furnaces--Performance 2. Fuels--Combustion
3. Oxygen--Performance 4. Slags--Analysis

Yu. N

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