"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 42953-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6015873 SOURCE CODE: UR/0275/65/000/012/B046/B046

AUTHOR: Katayev, Yu. G.; Otmakhov, I. I.

27

TITLE: Investigation of methods of protecting semiconductive germanium triodes

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 12B340

REF SOURCE: Dokl. Nauchno-tekhn. konferentsii, posvyashch. Dnyu radio. Tomsk, Tomskiy un-t, 1964, 7-11

TOPIC TAGS: germanium triode, semiconducting material, semiconducting film, protective coating

ABSTRACT: An investigation was made of methods of protecting the surface of semiconductive triodes (ST) with the aim of stabilizing their parameters by forming high-molecular material films on their surfaces. The selection of materials is determined by the requirements of the creation of an optimal and a stable surface charge. The film should have low electroconductivity, high hydrophobic property, satisfactory adhesion, and the necessary thermal and mechanical properties. Use was made of supplementary processing of industrial lacs by means of diffusion of low-molecular materials from a gaseous or liquid phase and diffusion of albumin

Card 1/2 UDC: 621.382.002.76:546.289

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 42953-66

ACC NR: AR6015873

from solutions, followed by shifting them to an insoluble state. Results of tests of ST with various films are presented. [Translation of abstract] Bibliography of 5 titles. I. M.

SUB CODE: 09,11

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 64290-65 EWT(m)/EWP(j)/T/EWP(t)/EWP(b) IJP(c) JD/GS/RM

ACCESSION NR: AT5020462 UR/0000/64/000/000/0170/0176

AUTHOR: Katayev, G. A.; Otmakhov, I. I.; Presnov, V. A. (Professor)

TITLE: Stabilization of the parameters in germanium p-n junctions without casings

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, 170-176

TOPIC TAGS: protective coating, pn junction, germanium semiconductor, lacquer/ V1 lacquer, K-44 lacquer

ABSTRACT: In order to create stable semiconductor devices without casings, a method for treating semiconductor materials must be developed which guarantees a constant surface potential. There are two basic treatments for stabilization of semiconductor surfaces: 1. Passivation of the surface by inorganic films. 2. The creation of high-molecular films on the surface. The authors propose a complex coating. Lacquers were subjected to the following additional treatment: 1. Diffusion of low-molecular substances of the hydrophobic type from the gaseous (vapor) phase. This type of treatment was used on films of K-44 organosilicon lacquer,

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L 64290-65

ACCESSION NR: AT5020462

nitroglyptal enamel and other coatings using elemental arsenic and its sulfide. 2. Diffusion of low-molecular hydrophobic substances from the liquid phase (from solution). This type of treatment was used on a film of glycol-3-nitrophthalic resin, using a complex compound--lead ditysonate from a chloroform solution. 3. Diffusion of protein substances from solutions with subsequent conversion to the insoluble state. This method was used to treat a film of nitroglyptal enamel with gelatin precipitated by formalin. In addition to these treatments, the effect of lead dioxide on the protective properties of K-44 organosilicon lacquer was studied. The experimental results are tabulated. V1 lacquer gave the best results. Orig. art. has: 3 tables.

ASSOCIATION: none

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

NO REF SOV: 008 OTHER: 014

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 42297-66 EWT(1) GG

ACC NR: AP5022796

SOURCE CODE: UR/0141/65/008/004/0725/0737

AUTHOR: Gurevich, G. L.; Otmakhov, Yu. A.; Rozenblyum, Ye. A.

ORG: none

TITLE: Electromagnetic beam propagation in gyrotropic media

SOURCE: IVUZ. Radiofizika, v. 8, no. 4, 1965, 725-737

TOPIC TAGS: electromagnetic beam, wave propagation, ferrite, electromagnetic wave diffraction, approximate solution

ABSTRACT: The problem of the propagation of electromagnetic beams in an infinite gyrotropic medium is solved with consideration of spatial dispersion. Specific examples of electromagnetic beam propagation in a ferrite with and without absorption are examined. The author examines the case where the ratio of the wavelength to the characteristic dimensions of the field is small but not equal to zero. It is shown that in this case it is possible to obtain results in a form analogous to the Fresnel formula in the diffraction theory. In some cases this permits the direct use of the results of this theory. The approximation used by the authors is called quasi-optic and the solutions obtained in this approximation are called beams, as for isotropic media. Although the examination pertains to ferrites, the results can easily be ex-

Card 1/2

UDC: 621.371:538.245

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 42297-66
ACC NR: AP5022796

tended to any gyrotropic medium and to the case of active linear media with tensor parameters. The authors thank V. I. Talanov for his interest in the work. Orig. art. has: 6 figures and 45 formulas.

SUB CODE: 12, 20/ SUBM DATE: 10Oct64/ ORIG REF: 006/ OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTMAKHOVA, I.P.

Flow of a rarified gas through a diffusor (Compression tube). Vest.Mosk.un.Ser.mat.,mekh.,astron.,fiz.,khim. no.6:51-57 '59. (MIRA 13:10)

1. Kafedra aerodinamiki i gazovoy dinamiki Moskovskogo universiteta. (Aerodynamics)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

S/055/60/000/005/008/010
C111/C222

10 7000

AUTHOR: Otmakhova, I.P

TITLE: The Flow of a Rarefied Gas Through a Curved Pipe

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya I, matematika, mekhanika, 1960, No.5, pp.57-67

TEXT: The author considers the stationary flow of a rarefied gas through a pipe composed by two circular-cylindrical straight pieces of pipe where the axes of the two pieces deviate from eachother by an angle of $\alpha < \frac{\pi}{4}$.

Since the gas is rarefied the solution is given according to the theory of free molecular flows. The temperature is constant. The molecules are reflected diffusely at the walls of the pipe. The pressure at the outflow is assumed to be zero The consumption of gas in the circular-cylindrical straight pieces of the pipe is known (Ref 1) The difficulty consists in the determination of the consumption of gas at the break. The molecules are subdivided in five groups according to the kind in which they pass the break (without colliding with the walls, with a reflection at the wall, etc.) The probabilities of the single cases are calculated (everaged over the cross sections); then the total probability of the passing through the break results from the single probabilities by addition, multiplication and

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S/055/60/000/005/008/010
C111/C222

The Flow of a Rarefied Gas Through a Curved Pipe

integration The appearing integral equations which characterize the connections between the single groups of molecules are solved approximately. The results were compared with the experimental data of Klose (Ref.6) and Oatley (Ref.7) and showed a satisfactory agreement
There are 6 figures, 3 tables and 7 references: 3 Soviet, 2 English and 2 German

ASSOCIATION: Kafedra aeromekhaniki i gazovoy dinamiki (Chair of Aeromechanics and Gas Dynamics)

SUBMITTED: October 30, 1959

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTMAKHOVA, I.P.

Resistance of a semisphere moving with constant velocity in a rarefied gas. Vest.Mosk.un.Ser.mat.,mekh.,astron.,fiz.,khim. 13 no.4:17-26 '58. (MIRA 12:4)

1. Kafedra aeromekhaniki i gazovoy dinamiki Moskovskogo universiteta. (Aerodynamics)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

33760

S/055/62/000/001/007/007
D299/D307

11 7430

AUTHOR: Otmakhova, I. I.

TITLE: The drag to which a plate is subjected in a tube through which a rarefied gas flows

PERIODICAL: Moskva. Universitet. Vestnik. Seriya I. Matematika. Mekhanika, no. 1, 1962, 68-77

TEXT: Free molecule flow is considered under constant temperature; it is assumed that after colliding with the wall, the molecules are diffusely reflected. Clausing's concept (Ref. 1: Ann. d. Phys., 12, 961, 1932) of gas-flow probability W through a tube, is used. Fig. 1 shows a tube of radius R, in which a plate of area S is placed. The drag experienced by the plate is the result of its interaction with the moving molecules. The number of molecules hitting the surface of part I of the tube increases as a result of the molecules reflected by the plate, and decreases in proportion to those molecules of Part II which are prevented by the plate to pass

Card 1/4

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[illegible]

The [illegible] which [illegible]

through. Analogous considerations apply to Part II. Denoting by $n(\xi)$ the density of the molecules which hit the tube wall, [illegible] tains (after computations) the formulas for the number of [illegible] N_1 and N_2 which hit the plate from the left (respectively right) viz.:

$$N_1 = n_1 s_1 w_{s1} C L_1 + \int_0^{L_1} 2\pi R\left[n_1 \xi + A_1 N_1 - N_2\right] w_{rs} \xi L_1 \frac{\xi}{S} d\xi$$

$$N_2 = \int_0^{L_2} 2\pi R\left[n_2 \xi + A_2 N_1 - N_2\right] w_{rs} \xi L_2 \frac{\xi}{S} d\xi$$

Card [illegible]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

33700

S/055/62/000/007/007/007
D 99/D207

The drag [illegible] which [illegible]

where

$$A = \frac{[\ \ W_1 R L_1]R}{2L_1 S} \qquad A_2 = \frac{[\ \ W_2 R L_2]R}{2L_2 S}$$

If the function ξ [illegible] N_1 and N_2 are determined by solving a system of algebraic equations. Having found N_1 and N_2 it is possible to calculate the drag imparted to the plate by the free molecule flow. The function $n(\xi)$ satisfies an integral equation which yields after simplification:

$$\frac{n(x)}{n_1} = w_{r2}(0)\,x + \int_0^L w_{r2}(\xi)\,x\,\frac{n(\xi)}{n_1}\,d\xi$$

[illegible]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

The [illegible]

where $w_{[illegible]}$ and $w_{[illegible]}$ are (respectively) the probabilities [illegible] from a tube [illegible] tube-section and from the section to another [illegible] the probabilities were adopted from Ref. [illegible] Op. [illegible]. The [illegible] tained results are compared with experiment (Ref. [illegible] Vyeda Ry [illegible] Sugiura Yoshikazu. A flowmeter in vacuum technique. J. Phys. S[illegible] Japan [illegible] no. [illegible] 1963). The calculated and experimental results were found to be in entirely satisfactory agreement. There are [illegible] figure, [illegible] tables and [illegible] references [illegible] Soviet-bloc and [illegible] Soviet-bloc. The reference to the English-language publication reads as follows: Vyeda Ry [illegible] Sugiura Yoshikazu. A flowmeter in vacuum technique. J. Phys. S[illegible] Japan [illegible] no. [illegible] 1963.

ASSOCIATION: Kafedra aeromekhaniki i gazovoy dinamiki. Department of Aeromechanics and Gasdynamics.

SUBMITTED: May [illegible]

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

10(6)

AUTHOR: Otmakhova, I.I. SOV/55-58-4-2/3

TITLE: The Resistance of a Hemisphere Moving With a Constant Velocity in a Diluted Gas (Soprotivleniye polusfery, dvizhushcheyesya s postoyannoy skorost'yu v razrezhennom gaze)

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii. 1958, Nr 4, pp 17-26 (USSR)

ABSTRACT: The author considers a hemisphere-shaped hollow shell moving in the diluted gas with constant velocity in the direction of the axis of symmetry with the arch towards ahead. According to the kinetic gas theory of Maxwell the coefficient of resistance is determined. There results a very complicated explicit expression, the graphical representation of which, however, shows a very simple hyperbolic course of the type $(x-a)(y-b)=1$. The author thanks S.G.Popov for giving the problem and G.I. Petrov for advices.
There are 7 references, 5 of which are Soviet, and 2 American.

ASSOCIATION: Kafedra aeromekhaniki i gazovoy dinamiki (Chair of Aerodynamics and Gas Dynamics)

SUBMITTED: January 10, 1958

Card 1/1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTMAKHOVA, I.P.

Drag on a plate placed in a rarefied gas flowing through a tube
Vest. Mosk. un. Ser. 1: Mat., mekh. 17 no.1:68-73 Ja-F '62.
(MIRA 15:1)

1. Kafedra aeromekhaniki i gazovoy dinamiki Moskovskoro universiteta
(Drag (Aerodynamics)) (Gas flow)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTMAKHOVA, I.P.

Flow of rarefied gas through a curved pipe. Vest. Mosk. un. Ser. 1: Mat., mekh. 15 no.5:57-67 S-O '60. (MIRA 13:11)

1. Kafedra aeromekhaniki i gazovoy dinamiki Moskovskogo universiteta.
(Gases) (Aerodynamics)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 45450-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6022724 (A) SOURCE CODE: UR/0183/66/000/002/0014/0016

AUTHOR: Pleshakov, M. G.; Tikhonova, T. I.; Gribova, T. A.; Yegidis, F. M.; Otmakhova, V. M.

ORG: [Pleshakov, Tikhonova, Gribova] VNIISV; [Yegidis, Otmakhova] NIIkhimpolimer

TITLE: Thermostabilization of polypropylene

SOURCE: Khimicheskiye volokna, no. 2, 1966, 14-16

TOPIC TAGS: polymer chemistry, high temperature research, synthetic material, thermal stability, polypropylene

ABSTRACT: The use of synergistic mixtures made of sulfur compounds and phenol derivatives to strengthen polyolefines against destruction caused by heat and oxidation is most effective. The authors, in 1965, showed that thiourea markedly increased the oxidation inhibitory effect of 2,2-bis-(4-oxyphenyl)-propane. Thiourea is a common product and here its synergistic effect is investigated on other phenol type antioxidants. Inhibitors used are listed and their effect in various combinations was tested on polypropylene of 1.2 viscosity. This polymer was oxidized at high temperature (200°C and 140°C) under an O_2 pressure of 200 mm Hg. The induction was considered finished when the O_2 pressure dropped 3 mm Hg. The stabilizer's value was judged by the viscosity changes of the polymer after 5 hours of heating at 140°C. The effect of various possible concentrations and mixtures of the antioxidants on the oxidation kinetics of polypropylene is charted. The best effect was obtained with a 1:1 mixture

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L 45450-66
ACC NR: AP6022724

of a 1% thiourea and 1% antioxidant. The viscosity of the polymer remained virtually unchanged after heating when these mixtures were used. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11, 07 / SUBM DATE: 13 Jan 65 / OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

NIKONOV, B.P.; OTMAKHOVA, N.G. (Fryazino)

Vaporization of chalcotenides of alkaline earth metals. Zhur. fiz. khim. 35 no.7:1494-1498 Jl '61. (MIRA 14:7)
(Chalcogenides) (Alkaline earth metals)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

N.G. CTVAKHOVA

"Improvement of the Technology for Coating Sintered Cathodes" from Annotations of Works Completed in 1955 at the State Union Sci. Res. Iust; Min. of Radio Engineering Ind.

Sc: B-3,080,964

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

26340
S/076/61/035/007/010/019
B127/B208

15 2620

AUTHORS: Nikonov, B. P., and Otmakhova, N. G.

TITLE: Evaporation of chalcogenides of alkaline earth metals

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 7, 1961, 1544-1548

TEXT: The authors studied the evaporation rate of chalcogenides of alkaline earth metals, used for manufacture of thermionic emitters working at high temperatures. The effusion method was used for this study. The evaporation rate was calculated by the following formula:

$$\varphi_{1,2} = \frac{1}{2}\left\{1 + \left(\frac{d_2}{d_1}\right)^2 + 4\left(\frac{h}{d_1}\right)^2 - \sqrt{\left[1 + \left(\frac{d_2}{d_1}\right)^2 + 4\left(\frac{h}{d_1}\right)^2\right]^2 - 4\left(\frac{d_2}{d_1}\right)^2}\right\} \quad \text{or}$$

$\varphi_{12} = d_2^2/(d_2^2 + 4h^2)$, when $d_1 \ll d_2$. d_1 is the diameter of the effusion hole, d_2 the diameter of the diaphragm and h the distance between the two.

Card 1/6

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

Evaporation of chalcogenides...

The bottom of the effusion chamber was covered with [illegible] mm alkaline earth sulfate, -carbonate, or -selenite which contained radioactive Ba^{-140} or Sr^{-89}. A stream of pure dry hydrogen was passed through the effusion chamber at a pressure of 760 mm Hg and a temperature of [illegible]°C, in which the sulfates and selenites were reduced to the corresponding sulfides and selenides. Barium sulfate was roasted at 950-1000°C for [illegible] min, barium and strontium selenites, however, at 600-620°C for [illegible]-40 min. The hydrogen was then evacuated, and the apparatus was kept for two hours at a temperature of 450°C. The evaporator was dehydrogenated at [illegible] BaO, 700-1300°C (BaS), and 600-900°C (BaSe, SrSe) within 30-40 min with an extraction time of 2-3 min at the same temperatures. The substances were evaporated at 1100-1600°K with several hours. The presence of [illegible] on the parts of the apparatus was not observed during its evaporation, which was however the case with BaS, BaSe and SrSe. Results of measurements for the evaporation rate of BaO the authors found log w(g cm^2.sec) = [illegible] - [illegible] T and for the vapor pressure, log p(mm Hg) = [illegible] - [illegible] T. Fig. 2 shows the evaporation rate as a function of temperature, Table [illegible] presents various

Card 2/6

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

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B127/B208

Evaporation of chalcogenides...

results. Table 2 gives the calculated results, according to which all compounds studied except BaO evaporate under dissociation into the atoms. There are 2 figures, 2 tables, and 20 references: 6 Soviet-bloc and 14 non-Soviet-bloc. The three most recent references to English-language publications read as follows: Ref. 8: R. I. Ackermann et. al.: J. Chem. Phys., 25, 1089, 1956; Ref. 16: P. W. Bickel et. al.: J. Chem. Phys. 22, 1793, 1954; Ref. 17: M. G. Inghram et. al.: J. Chem. Phys., 23, 2159, 1955.

SUBMITTED: October 16, 1959

Card 3/6

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

GENKIN, G.M.; OTMAKHOV, Yu.A.; ROZENBLYUM, Ye.A.

Theory of spin waves in antiferromagnetics. Fiz. tver. tela 5 no.10:2968-2977 O '63. (MIRA 16:11)

1. Gor'kovskiy gosudarstvennyy universitet im. N.I. Lobachevsk go.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

S/075/63/018/003/002/006
E073/E436

AUTHORS: Katayev, G.A., ~~Otmakhova, Z.I.~~

TITLE: A spectrographic method for the determination of microimpurities in gallium arsenide after preliminary enrichment

PERIODICAL: Zhurnal analiticheskoy khimii, v.18, no.3, 1963, 339-341

TEXT: A method of determining microadmixtures of magnesium, copper, aluminium, bismuth, manganese, lead, cobalt, nickel and zinc in gallium arsenide was developed. It consists of extraction of gallium from 6 N HCl with isobutylacetate repeated 3 times, followed by the separation of As on cationite column КУ-2 (KU-2) which retains the impurities. These are eluted with 3 N HCl, the eluate concentrated by evaporation and examined by emission spectroscopy. The spectroscopic procedure employed can be used for the analytical control of high purity gallium arsenide. There are 1 figure and 2 tables.

ASSOCIATION: Tomskiy gosudarstvennyy universitet im. V.V.Kuybysheva (Tomsk State University imeni V.V.Kuybyshev)

SUBMITTED: June 5, 1962

Card 1/1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

VAGIN, S.B.; KARTSEV, A.A.; OTMAN, M.S.; SHUGRIN, V.P.

Some recent data on the hydrogeology and tectonics of the YeyskBerezanskaya gas producing area. Dokl. AN SSSR 139 no.5: 1205-1207 Aug '61. (MIRA 14:8)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. I.M. Gubkina. Predstavleno akademikom D.I. Shcherbakovym.

(Krasnodar Territory—Geology, Structural)
(Water, Underground)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

[illegible] A, A...
[illegible] A. [illegible], ZhFKh, [illegible], [illegible]

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

Synthetic tanning material. S. S. Vasserman and N. V. Otmennikov. Russ. 51,598, Sept. 30, 1937. The sulfonation product of a mixt. of crude anthracene and naphthalene is condensed with S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

Ca

Tanning S. S. Vasserman and P. V. [illegible]. Russ. 30,509, Sept. 30, 1934. Addn. to Russ. 11,157. Tanning is carried out with sulfonation products of anthracene with or without naphthalene sulfonation products which were previously condensed with S, Na_2S or Na_2SO_4.

19

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

STEKOL'NIKOV, Il'ya Samuilovich; BORISOV, Vladimir Nikolayevich; SMIRNOV, Il'ya Grigor'yevich; OTOCHEVA, M.A., redaktor izdatel'stva; KONYASHINA, A.D., tekhnicheskiy redaktor.

[Lightning Protection of buildings and equipment in agricultural localities] Grozozashchita zdanii i sooruzhenii v sel'skoi mestnosti. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1956. 86 p.

(MLRA 10:4)

(Lightning protection)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

DUBINSKIY, V.G., inzhener. OTOCHEVA, M.A., redaktor. KONYASHINA, A. tekhnicheskiy redaktor.

[How to build simple bridges] Kak postroit' prostelshii most. Moskva Izd-vo Ministerr va kommunal'nogo khozialstva RSFSR, 1954. 74 p [Microfilm] (MLRA 8:2)

(Bridge construction)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

GEZENTSVEY, L.B.; GORELYSHEV, N.V., redaktor; OTOCHEVA, M.A., redaktor; KONYASHINA, A., tekhnicheskiy redaktor. [redacted]

[Asphalt concrete paving for roads] Dorozhnye asfal'tobetonnye pokrytiia. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1954. 200 p. (MLRA 8:5)

(Pavements, Asphalt) (Road construction)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

GROZOVSKIY, T.S.; NADEZHDIN, B.N.; KLENNIKOV, V.M., redaktor; OTOCHEVA, M.A., redaktor; KONYASHINA, A.D., tekhnicheskiy redaktor.

The "Moskvich" automobile; driving, servicing and repair] Avtomobil' "Moskvich"; upravlenie, obsluzhivanie, remont. Izd. 2-e, perer. i dop. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1954. 258 p. (MLRA 8:4)
(Automobiles)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

VASIL'YEV, Vladimir Semenovich; MIHAYEV-TSIKANOVSKIY, Viktor Aleksandrovich; PEREPELITSYN, V.A., redaktor; OTOCHEVA, M.A., redaktor; KONYASHINA, tekhnicheskiy redaktor.

[Washing machines in common use] Stiral'nye mashiny v bytu. Moskva, Izd-vo Ministerstva kommunal'nogo khozyaistva RSFSR, 1955. 38 p. (Washing machines) (MLRA 9:5)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

GUREVICH,L.V.; YAMPOL'SKAYA,T.G.; MURZAYEVA,L.B.; KHRUNOV,N.P., redaktor; OTOCHEVA,M.A., redaktor; PETROVSKAYA,Ye., tekhnicheskiy redaktor

[Road traffic signs] Dorozhnye signal'nye znaki. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1955. 46 p.
(Traffic regulations) (MLRA 9:2)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

GIBSHMAN, Ye.Ye., professor; SLOBODCHIKOV, A.Ya., kandidat tekhnicheskikh nauk; PUSHTORSKIY, Ye.I., redaktor; OTOCHEVA, M.A., redaktor; PETROVSKAYA, Ye., tekhnicheskiy redaktor.

[Planning city bridges] Planirovka mostov v gorodakh. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1955. 111p.
(Bridges--Design) (MLRA 8:6)

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

KATAYEV, [illegible].A.; OTMAKHOVA, Z.I.

[illegible] arsenic. Zav. [illegible] 30 [illegible] 1964. [illegible]

1. Tomskiy [illegible] universitet.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOFU, S.; MITU, D.; IONESCU, M.

Records and achievements are desired by sport aviators. p. 6.

(ARIPILE PATRIEI. Vol. 3, No. 4, April 1957. Bucuresti, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. VOL. 6, No. 10, October 1957. Uncl.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOK, Stanislaw, mgr

Problems connected with the utilization of the irrigated territories of Tiszantul in Hungary. Gosp wodna 22 no.11:512-515 N '62.

1. Instytut Geografii, Uniwersytet, Warszawa.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOK, Stanislaw

"Australia; a study of warm environments and their effect on British settlement," by G. Taylor. Reviewed by Stanislaw Otok. Przegl geogr 34 no.1:218-220 '62.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

KOLBUSZ, F.; OTOLINSKI, E.

Some problems connected with the development of agriculture in Bulgaria. Postepy nauk roln 8 no.6:133-142 '61.

1. Wyzsza Szkola Rolnicza, Krakow.

(Bulgaria--Agriculture)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

11A

11A

Inositolphosphoric acid compounds. S. Otolski. Wydawnictwa Polskiego Towarzystwa Chemicznego No. 2, 1 [illegible] (1931). Chem. Zentr. 1932, II, [illegible]. A review, including both practical and analytical considerations. M. G. Moore

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOLSKI, S.

Beta -(N^1-ethyl-N^2-diethylethylenediamine)-ethyl-p-aminobenzoate dihydrochloride. Acta Poloniae pharm. 10 no.1:9-14 1953. (CIML 24:3)

1. Prepared for posthumous publication by Prof. Biniecki, M.D.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

ITULSKI, STEFAN,

POL.

2-LV-2thyl-2-diethylamino'ethylamino'ethyl p-amino-benzoate dihydrochloride. Stefan Gralski. Acta Polon. Pharm. 10, 9-11(1953)(French [illegible]). The synthesis of the title compd. on semiplant scale is described in detail. The starting material is 2-diethylaminoethanol, and the synthesis is carried out in 9 steps. The compd. exhibits remarkable local anesthetic properties; as such its effect is superior to that of procaine. Specifications for product quality are given. Edward A. Ackermann

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PROCESSES AND PROPERTIES INDEX

CA

10

Inositolphosphoric acid compounds. S. Otobda. *Przemysl Chem.* 28, 510-31(1934), cf. C. A. 28, 6426[9]. Review. The prepn. of inositolphosphates from various vegetable products is described in detail. B. C. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

Ca

10

Inositolphosphoric acid compounds. II. Compounds of iron inositol phosphate with salts of hydroxy acids. S. Otolski. *Roczniki Chem.* 14, 78 [illegible]; cf. C. A. 23, 2337[illegible]. -Na lactate, malonate and citrate form sol compds. with Fe^{III} inositol phosphate. B. C. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

Inositolphosphoric compounds. Compounds of ferric inositolphosphate with ammonia and amines. S. Otolski. *Roczniki Chem.* 12, 621-30(1932). cf. C. A. 27, 5763. Amines react in aq. soln. with $C_6H_6O_{24}P_6Fe_4$ to yield compds. with NH_3, NH_2Et, $NHEt_2$ (6 mols., 8 H_2O), NMe_3, piperidine (6 mols., 12 H_2O), $(NH_2CH_2)_2$ and piperazine (4 mols., 12 H_2O). NH_2Ph, C_6H_5N, quinoline, 2-aminopyridine and hexamethylenetetramine do not yield compds. B. C. A.

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

RC

A-4

Biological properties of organic guaiacolsulphonates. S. Otolani. (Arch. Chem. Farm., 1937, 3, 260—269).—The mono-, di-, and tri-ethylamine, ethylenediamine, and piperazine salts of guaiacolsulphonic acid are less toxic than, and as active therapeutically as, the K salt; they may be administered orally. The physiological action of the piperidine, ephedrine, and *O*-methyltyramine salts does not differ from that of other salts of these bases.

R. T.

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PROCESSES AND PROPERTIES INDEX

B-II-2

BC

inositolphosphoric acid compounds. S. Otolski (Przemysl Chem., 1954, 33, 519—531).—A review. The prep. of inositolphosphates from various vegetable products is described in detail. R. T.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

CA

17

History of the Polish pharmaceutical industry S Otolski *Przemysl Chem* 4, 117-20(1948) — A review The types and quantities of drugs produced in Poland during the period 1922-39 are given Frank Gonet

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

PROCESSES AND PROPERTIES INDEX

ca

10

Composition of inositolphosphates. III. Compounds of iron inositolphosphate with ammonium, potassium and sodium citrates, malates and lactates. S. Otolski. *Roczniki Chem.* 15, 99-104(1935); cf. C. A. 28, 2337[1], 6420[1]. The method of prepn. consists in the addn. of a 20% iron inositolphosphate paste to a boiling 33% salt soln. of the hydroxy acid. The mixt. is filtered, washed and the filtrate crystallized at 35°. NH_4 citrate yields $C_6H_6O_{10}P_6Fe_4 \cdot 3C(OH)(CO_2NH_4)(CH_2CO_2NH_4)_2 \cdot 15H_2O$. K citrate, $C_6H_6O_{10}P_6Fe_4 \cdot 5C(OH)(CO_2K)(CH_2CO_2K)_2 \cdot 10H_2O$; NH_4 malate, $C_6H_6O_{10}P_6Fe_4 \cdot 6CH_2(CO_2NH_4)CH(OH)CO_2NH_4 \cdot 19H_2O$; K malate, $C_6H_6O_{10}P_6Fe_4 \cdot 8CH_2(CO_2K)CH(OH)CO_2K \cdot 17H_2O$. The lactates form indefinite complexes and the ratio to the Fe complex is much higher than that of the citrates and malates. The NH_4 and K complexes are insol. in alc., Et_2O and acetone but sol. in concd. HCl. Aq. solns. decompose in the light, forming black toxic ppts., sol. in the proper hydroxy acid salts.

J. F. Matejczyk

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

BC

2-1

Inositolphosphoric acid compounds. III. Compounds of ferric inositolphosphate with the sodium and potassium salts of certain hydroxy-acids. 2. OTOLAKI (Rocz. Chem., 1935, 15, 99–104).—Fe_6 inositolphosphate yields a 1 : 3-*compound* ($+15H_2O$) with $(NH_4)_3$ citrate, a 1 : 5-*compound* ($+10H_2O$) with K_3 citrate, a 1 : 6-*compound* ($+10H_2O$) with $(NH_4)_3$ malate, and a 1 : 8-*compound* ($+16H_2O$) with K_3 malate. The salts are readily sol. in H_2O.

R T

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BC

A 3

Inositolphosphoric acid compounds. IV. Bismuth inositolphosphate. V. Copper and copper ethylenediamine inositolphosphates. VI. Manganese inositolphosphate. S. Cuolaki (Arch. Chem. Farm., 1937, 3, 231—234, 255—257, 259—259). —IV. The Bi_3 salt of inositolphosphoric acid is described.

V. The product obtained when $Cu(OAc)_2$ is added to MgCa inositolphosphate in 5% AcOH is $C_6H_{20}O_{20}P_6Cu_6$ (I), and not $C_6H_6O_{20}P_6Cu_6 \cdot 2H_2O$, as stated by Anderson (A., 1912, I, 676). (I) gives a sol. additive compound, $C_6H_{20}O_{20}P_6Cu_6 \cdot 8(CH_3 \cdot NH_2)_2$, with $(CH_3 \cdot NH_2)_2$.

VI. $MnSO_4$ and aq. inositolphosphoric acid yield the insol. salt $C_6H_6O_{20}P_6Mn_6$. R. T.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

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BC

A-3

Inositolphosphoric acid compounds II. Compounds of iron inositol phosphate with salts of hydroxy-acids. S. Otolski (Roczn. Chem., 1934, 14, 78—[illegible]).—Na lactate, malonate, and citrate form soft compounds with Fe^{III} inositol phosphate.
R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

BC

A-3

PROCESSES AND PROPERTIES INDEX

Inositolphosphoric compounds. Compounds of ferric inositolphosphate with ammonia and amines. S. Ogilski (Rom. Chem., 1932, 12, 621—630).—Amines react in aq. solution with $C_6H_6O_6$, P_6Fe_4 to yield compounds with: NH_3, NH_2Et, $NHEt_2$ (6 mols., $8H_2O$), NMe_3, piperidine (6 mols., $12H_2O$), $(NH_2CH_2)_2$, and piperazine (4 mols., $12H_2O$). NH_3Ph, C_3H_3N, quinoline, 2-aminopyridine, and hexamethylenetetramine do not yield compounds. R. T.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

PROCESSES AND PROPERTIES INDEX

Action of iodine and of hydrogen iodide on piperazine. S. Otolski (Roz. Chem., 1959, 30, [illegible]).—Piperazine, when heated in aqueous solution with iodine, yields a hydriodide, m. p. 245°, the same product being obtained by treating with hydriodic acid, in the presence of excess of which a dihydriodide, decomp. [illegible], is obtained. NN-Di-iodopiperazine is produced by the action of iodine in alkaline solution; this derivative when added to aqueous piperazine is converted into the above hydriodide and an iodate: $6C_4H_{10}N_2+3I_2+3H_2O=5C_4H_{10}N_2HI+C_4H_{10}N_2HIO_3$. K. Trusskowski.

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1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

Ca

Chemical properties of piperazine. Action of iodine and hydrogen iodide on piperazine. S. Otolski. *Roczniki Chem.* 10, 259-71 (271 German) (1930). In the reaction which takes place between I and piperazine in the presence of H_2O at room temp. *N,N-diiodopiperazine*, $C_4H_8N_2I_2$ (light yellow crystals, decompg. at 110.5°) is formed and also HI which reacts with an excess of piperazine at 70-80°, giving *piperazine monoiodo hydrate*, $C_4H_{11}N_2I$ (color needles, sol. in H_2O, insol. in Et_2O, m. 245° (decompn.)). Also piperazine diiodohydrate has been prepd. by the action of HI (1.98); it is decompd. at 250°. In one of the runs 1 mol. I was pulverized with 1 mols. of piperazine and 75 cc. H_2O added. After concg. the soln. on a water bath and addn. of EtOH the fractional crystn. gave 3 fractions (11.65 g., 3.75 g. and 2.85 g.), the last being colored yellow. I and N detn. showed the substance to be a product having the compn. $C_4H_{11}N_2I$ (*iodimine*, m. 253.5° and decompg. on further heating). J. K.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOPKOV, G.M., inzh.; PAVLOV, S.A., doktor. nauk, prof.

Use of hydrophilic polymers for obtaining the face layer of artificial leather with a protein fibrous base. Izv. vys. ucheb. zav.; tekh. leg. prom. no.4:26-33 '63. (MIRA 16:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi i plenochnykh materialov.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOPKOV, G.M., inzh.; PAVLOV, S.A., doktor tekhn. nauk, prof.

Use of hydrophilic polymers for producing the face layer of artificial leather with a protein fiber base. Report No.1: Increasing the elasticity of films with an AK 60.40 polyamide base by means of the addition of methylol polyamide and salts of trivalent chromium. Izv. vys. ucheb. zav.; tekh. leg. prom. no.2:40-47 '63. (MIRA 16:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi i plenochnyh materialov.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOPKOV, G.M., inzh.; PAVLOV, [illegible], doktor tekhn. nauk, prof.

Use of hydrophilic polymers for the production of the grain layer of artificial leather with a protein fibrous base. Izv. vys. ucheb. zav.; tekh. leg. prom. no.5 [illegible]-43 '63. (MIRA [illegible])

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlenn[illegible]. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi i plenochnykh materialov.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOPKOV, P.[illegible].; GERASIMOV, Ya.I.; YEVSEYEV, A.[illegible].

Thermodynamic properties of platinum-lead alloys.
Dokl. AN SSSR 141 no.1:154-156 N '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Gerasimov).
(Platinum-lead alloys)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

ACC NR: AP7002406 SOURCE CODE: UR/0363/66/002/0[illegible]/2234/2236

AUTHOR: Vishnyakov, B. A.; Osipov, K. A.; Otopkov, P. P.

ORG: Institute of Metallurgy im. A. A. Baykov, Academy of Sciences, SSSR (Institut metallurgii Akademii nauk SSSR)

TITLE: Study of the deposition of tin and silicon films from their organic compounds under the influence of an electron beam

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 12, 1966, 2234-2236

TOPIC TAGS: tin, silicon, metal deposition, electron beam, silane, organotin compound

ABSTRACT: A recently developed method of depositing thin films by decomposing organic compounds subjected to electron bombardment was tested on tetraethyltin and tetrapropyltin (for depositing tin) and triethylvinylsilane (for depositing silicon), and the factors affecting the growth rate of the silicon film were studied. The decomposition of triethylvinylsilane molecules was studied in particular detail. It was found that the growth rate of the silicon film during 5 hr changed linearly with time. At substrate temperatures of 135-200°C, the growth rate also varied linearly with changing current density of the electron beam. The growth rate decreased with rising substrate temperature and was independent of the electron energy. A linear relationship was ob-

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ACC NR: AP7002406

served between the vapor pressure in the chamber and the growth rate of the film. The electric resistance of silicon films obtained under various conditions was measured. Orig. art. has: 2 figures, 1 table and 4 formulas.

SUB CODE: 07,11/ SUBM DATE: 16Nov65/ OTH REF: 005

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

CTCPKOV, F.F.; GERASIMOV, Ya.I.; YEVSEYEV, A.M.

Investigation of the thermodynamic properties of cerium-lead, praseodymium-lead, and neodymium-lead. Dokl. AN SSSR 139 no.3: 616-617 Jl '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Gerasimov).
(Cerium-lead alloys) (Praseodymium-lead alloys)
(Neodymium-lead alloys)

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54800 also 1555

S/020/61/141/[illegible]
B119/B108

AUTHORS: Otopkov, P. P., Gerasimov, Ya. I., Corresp. Member AS USSR, and Yevseyev, A. M.

TITLE: Examination of the thermodynamical properties of platinum lead alloys

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. [illegible], 1961, [illegible]

TEXT: The authors determined the activity of Pt in Pt-Pb alloys of different compositions by measuring the Pb vapor pressure (Knudsen's effusion method). Method and equipment are described in a previous paper (G. F. Voronin, A. M. Yevseyev, ZhFKh, 35, 224 [illegible]). The object of this work was to compute ΔH and ΔS of these alloys. The atomic concentration N_{Pt} of Pt in the alloys was varied from [illegible] to [illegible]. The evaporation rate of Pb which was proportional to vapor pressure, was measured in the temperature range of 700-870°C. From the data obtained the activities of Pb were computed in the temperature range of 700-790°C. At N_{Pb} = [illegible] the activity a_1 of Pb is [illegible] both at 700 and 790°C. At N_{Pb} = [illegible]

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S/[illegible]

Examination of the thermodynamical [illegible]

a_i is [illegible] at [illegible]C, and [illegible] at [illegible]C. In addition, the partial formation enthalpies and entropies of the alloys in question were determined, and the integrals of these quantities were found [illegible] integration. The error limit is [illegible]% in the determination of the [illegible] of Pb, ~20% in the determination of the enthalpy, and [illegible]% in the determination of the entropy. The thermodynamic functions for the [illegible] systems in question are listed in Table [illegible]. There are [illegible] figures [illegible] and 2 references: [illegible] Soviet and [illegible] non-Soviet. The reference to the English-language publication reads as follows: M. Hansen, K. Anderko, Constitution of Binary Alloys, [illegible]

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 21, [illegible]

Card 2/[illegible]

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

OTOPKOV, P.P.; YEVSEYEV, A.M. (Moscow)

Heat of formation and physical properties of semiconducting intermetallic compounds. Zhur. fiz. khim. 34 no.4:815-818 Ap '60. (MIRA 14:5)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Heat of formation) (Semiconductors)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

S/076/60/034/04/19/042
B010/B009

AUTHORS: Otopkov, P. P., Yevseyev, A. M. (Moscow)

TITLE: Formation Heat and Physical Properties of Intermetallic Semiconductor Compounds

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 4, pp. 815 - 818

TEXT: With regard to the width of the forbidden band ΔE_0 of semiconductors only one rule exists, according to which ΔE_0 decreases in a number of semiconductors as the atomic weight of the variable component increases. Some references in connection with the change of ΔE_0 have also been made by B. F. Ormont (Ref. 4) and N. A. Goryunova (Refs. 5,6). To find a more distinct dependence of ΔE_0 upon the properties of a solid the authors in the present case start from the assumption made by A. F. Ioffe (Ref. 7) as well as the fact that the properties of the semiconductor must depend on the nature of the forces acting between the atoms. Since a connection between the atomizing energy and ΔE_0 is apparent, values for ΔE_0 of intermetallic semiconductors found in various publications were compared to calculated values of the atomic formation energy of these compounds found in papers by Cottrell (Ref. 8) and Kubaschevski (Ref. 10). An empirical dependence of ΔE_0

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Formation Heat and Physical Properties of Intermetallic Semiconductor Compounds

S/076/60/034/04/19/042
B010/B009

upon the atomizing energy was found to exist. At the same time, an optimum curve was observed. On the basis of this rule the ΔE_0 of Ca_3Sb_2 was found by the determination of the absorption coefficient with the aid of an ISP-51 spectrograph and the dependence observed was confirmed to exist. Thus the energetic characteristics of semiconductors depend in the first place on the arrangement of atoms and are closely related to the type of chemical bond, which may be characterized by the atomizing energy. There are 4 figures and 10 references, 8 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 30, 1958

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions. B-8

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7117.

Author : M.B. Bubushyan.
Inst : Yerevan Polytechnical Institute.
Title : On the Isobar Course Character of Liquids in the Enthalpy-Temperature Diagram and on Some Questions Connected with It.

Orig Pub: Sb. nauchn. tr. Erevensk. politekhn. in-t, 1957, No 14, 73-84.

Abstract: The author emphasizes that the inversion of the Joule-Thomson effect should be taken into consideration at the plotting of a thermodynamic diagram in the liquidus region. Thus, at low temperatures, the isoenthalps of a liquid should rise towards the border curve in the T - S diagram, and their direction becomes the opposite above the inversion region.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

NIKOL'SKAYA, A.V.; OTOPKOV, P.P.; GERASIMOV, Ye.I.

Investigation of the thermodynamic properties of binary metallic systems by the electromotive force method. Part 2: The system cadmium-copper [with summary in English]. Zhur. fiz. khim. 31 no.5:1007-1012 My '57. (MIRA 10:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Cadmium-copper alloys)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

Otopkov, P.P.

8

1-4E2c

1-4E3d

1-4E4j

The investigation of thermodynamic properties of binary metallic systems by electromotive force method. II. The cadmium-copper system. A. V. Nikol'skaya, P. P. Otopkov, and Ya. I. Gerasimov (M. V. Lomonosov State Univ., Moscow). Zhur. Fiz. Khim. 31, 1007-12(1957); cf. C.A. 48, 11159h.—The method used in the investigation was the same as in the earlier report. The e.m.f. of the concn. cells $Cd|CdCl_2|(Cd_xCu_{1-x})$ was detd. at 575-650° in 25° intervals in 20 alloys with 94.8-46.0 at. % Cd. The only impurity in Cd found spectroscopically was traces of Mg; only alloys with less than 55 at. % Cu were tested, because alloys contg. more Cu became heterogeneous, and no satisfactory results were obtained with the method used. The system deviated in a pos. direction from the ideal soln. laws. The partial heats of soln. of Cd had small neg. values; the excess entropy had rather high neg. values. W. M. Sternberg.

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S [illegible]
B[illegible] B[illegible]

181240

AUTHORS [illegible] Gerasimov, Ya. I. [illegible] Corresponding Member AS USSR and Yeremeyev, A. M.

TITLE: Study of thermodynamic properties of cerium lead, praseodymium-lead, and neodymium lead alloys

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 3, 1961, 616-617

TEXT: The authors determined the activity of lead in its alloys with cerium, praseodymium, and neodymium. They applied the method of measuring the pressure of the saturated vapor. They studied alloys with [illegible] concentrations that corresponded to heterogeneous ranges from [illegible] 0.75, from 0.75 to [illegible], from [illegible] to [illegible], and from [illegible] atomic portions of lead. [illegible] were examined in each range. The authors note that the phase diagrams for the systems Ce-Pb and Pr-Pb [illegible] [illegible] Y [illegible] K [illegible]

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Study of thermodynamic properties [illegible]

diagram for the system [illegible] were detected [illegible] earlier described [illegible] 2245 (1959). The [illegible] from spectrally [illegible] activity a_1 [illegible] chemical potential [illegible] formula: $\Delta\mu_1 = RT \ln a_1$. The evaporation rate of lead from the alloys (which is proportional to the vapor pressure) was measured between [illegible] and 900°C; a_1 for lead was calculated [illegible] Table [illegible]. According to known formulas the authors further determined the partial enthalpies and entropies of alloy formation, and the integral enthalpies and entropies of the alloy formation by graphical integration of the Dyugem-Margules equation. The latter enthalpies of all three systems were found to be only slightly different. It is concluded therefrom that the interactions of the three rare earths studied with lead belong to the same type. The negative sign of the entropies of alloy formation is related to the sign of the formation enthalpies, i.e., to a strengthening of interatomic bonds

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

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B103/B208

Study of thermodynamic properties...

in the alloys. The error in the determination of a_i of lead was 1 %, that in the calculation of the enthalpy of alloy formation, 20 %, and of the entropy, 25 %. The authors' opinion is that their results confirmed the existence of 3 intermetallic compounds in the system Nd—Pb, of one compound CePb, and of a heterogeneous range which correspond with the phase diagram in the system La—Pb. There are 1 figure, 3 tables, and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication is given in the body of the abstract.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: March 20, 1961

Card 3/4

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 1856-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5022091

UR/0138/65/000/008/0012/0016
678.048:541.124

AUTHOR: Zuyev, Yu. S.; Koshelev, F. F.; Otopkova, M. A.; Mikhaleva, S. B.

TITLE: Effect of antiozonants on the ozonization of rubbers at different temperatures

SOURCE: Kauchuk i rezina, no. 8, 1965, 12-16

TOPIC TAGS: vulcanizate, ozonization, antiozonant, natural rubber, isoprene rubber

ABSTRACT: The effect of temperature on the ozonization of rubbers in the presence of antiozonants has been studied to clarify the mechanism of action of antiozonants and for technical purposes. Experiments were conducted at 16 to 46C with stressed and unstressed unfilled vulcanizates of natural (pale crepe) and nonstabilized isoprene (SKI-3) rubbers. N-phenyl-N'-isopropyl-p-phenylenediamine (4010NA) and N,N'-diphenyl-p-phenylenediamine (DPPDA) were used as the antiozonants. The ozone concentration during the experiments was maintained at 1—1.5 x 10^{-3} vol%; stressed rubbers were subjected to a deformation approaching the critical value of 20%. The experiment consisted of the determination of ozone-consumption and crack-growth kinetics. Investigation of the respective kinetic curves showed that the 4010NA antiozonant slows down ozone crack growth in natural and isoprene rubber by reacting

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both with ozone and the polymer; the effectiveness of the 4010NA antiozonant is partly due to promotion of the catalytic decomposition of ozone. Increasing the ozonization temperature of vulcanizates in the vicinity of critical deformations usually increases the ozone consumption but slows down the destruction and increases the life of vulcanizates. In the initial stages, the ozonization process of unstressed natural and isoprene rubbers does not differ from that of stressed rubbers in respect to the values of the activation energy, but has a much slower rate. In the absence of antiozonants, ozonization of SKI-3 proceeds somewhat faster than that of natural rubber due to the presence of traces of SKI-3 polymerization catalysts. This difference disappears in the presence of an antiozonant. The results of the study indicate that ozone cracking cannot be attributed to chemical processes alone, and that the physical conditions of the process must also be taken into account. Orig. art. has: 4 figures. [BO]

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry)

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, GC

NO REF SOV: 011 OTHER: 003 ATD PRESS: 4087

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

GLUPUSHKIN, P.M.; MASLENNIKOVA, A.A.; OTOPKOVA, M.A.; SIDOROV, A.I.

Compounding a formula for heat-resistant rubbers for use in the insulation of electric cable cores in a continuous vulcanization assembly. Kauch.i rez. 19 no.10:18-23 O '60. (MIRA 13:10)
(Electric cables) (Rubber coatings)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

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15.9120
15.9300

S/138/60/000/010/003/008
A051/A029

AUTHORS: Glupushkin, P.M., Maslennikova, A.A., Otopkova, M.A., Sidorov, A.I.

TITLE: Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

PERIODICAL: Kauchuk i Rezina, 1960, No. 10, pp. 18-23

TEXT: The authors describe the АНВ(ANV)-continuous vulcanization unit used in the USSR to vulcanize the insulation of current-conducting cores (Fig.1). The vulcanization is completed in one technological stage by the following principle: from the drum fixed on the energy source (1) the current conductor reaches the head of the worm press (2) where the rubber insulation is applied. The design of the rectangular head of the worm press assures a minimum accumulation of the rubber mixture, in order to avoid its scorching. The concentricity of the rubber casing is accomplished by a hard centering of the mandrel's and matrix's position. The insulated conductor, from the head of the worm press directly reaches the vulcanization chamber (4). The vulcanization chamber is joined to the head of the worm press by means of an input or correcting device (3) made in the form of a telescope tube having a horizontal transmission. In stopping or fixing the unit of continuous vulcanization during its functioning

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A/051/A029

Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

the correcting device opens; during the work the device is fixed to the head of the worm press by means of a bayonet catch. The vulcanization chamber is a sectional pipe 60-75 m long. The vulcanization of the rubber casing takes place with the cable passing in the tube at a rate of 150-200 m/min. The vulcanization medium is saturated vapor with a pressure of 15-18 atm. In order to avoid condensation of the water vapor, the vulcanization chamber has an external heater in the form of a vapor sleeve or an induction heater. In order to prevent the vapor from entering from the vulcanization chamber into the cooling pipe, several rubber linings and a metal diaphragm are placed in the middle lock (5). The vulcanized cable is cooled with water in the pipe (6) under pressure of 6-8 atm to avoid the formation of pores in the insulation. At the end of the cooling pipe an exit lock is included (7). After the reversing wheel the cable passes through an open cooling vat 10-15 m long, a blowing device (9), traction device (11), an apparatus of dry testing (12), a compensator (13) and ends up at the double receiver (14). The units are usually supplied with two sources of energy in order to insulate two current-conductors simultaneously. A special device (10) is added to the unit for checking and regulating the thickness of the rubber casing. The insulating rubbers vulcaniz-

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A051/A029

Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

ed in the ANV unit must possess in addition to the usual physico-mechanical and electrical properties according to ГОСТ-2068-54 (GOST-2068-54), the following specifications: 1) good spraying properties insuring the required speed for sheathing the cable and forming a smooth surface of the casing, 2) the composition of the insulating rubber must insure the formation of a vulcanizate under conditions of a 12-25 sec duration of vulcanization and 180-200°C, having optimum characteristics without scorching of the rubber mixture at the temperature of its production and spraying; 3) the insulating casing must be sufficiently stable to deformations due to compression at temperatures of up to 200°C, in order to avoid the formation of dents and compression marks; 4) colored insulating rubber is used to differentiate between the different cores in the cable during repair and thus the colored rubber intended for sheathing the cores in the ANV unit must contain heat-resistant dyes. The composition of the insulating rubber used in the ANV unit must have a vulcanizing group which would insure a high rate of vulcanization of the rubber mixture at a temperature of the saturated vapor of 180-200°C without affecting the dielectric properties of the rubber and without causing corrosion of

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A051/A029

Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

the non-tinplated copper conductor, both in the vulcanization process and during the working of the cables. It is pointed out that sulfur as the vulcanizing agent in the rubber previously used in the USSR even in quantities of 0.2 weight parts to 100 weight parts of rubber causes a noticeable corrosion of the copper conductor and lowers the heat-resistance of the rubber. Rubber with a low sulfur content has a more rapid drop of the relative elongation during heat aging than rubber containing thiuram as the vulcanizing agent (Fig. 2). In developing a composition of the rubber, the main properties taken into account were the technological properties of the mixture, the rate of vulcanization and the quality of the obtained vulcanizate. The ТСШ-35 (TSSh-35) rubber grade (35% raw rubber including 50% natural rubber and 50% СКБ-РД (SKB-RD) was used as the base of the non-sulfurous rubber composition containing thiuram as the vulcanizing agent. It was established that with 6.0 weight parts of thiuram to 100 weight parts of the rubber the required rate of vulcanization can be achieved for the insulating of conductors in the ANV unit. However, this rubber had poor thermal aging resistance and did not

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A051/A029

Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

comply with the GOST-2068-54 standard as to its heat resistance. Nitro-compounds diazo-compounds, quinones and their derivatives, dithiomorpholine, triethanolamine, dithiocarbamates were tested as accelerators, whereby the dithiocarbamates proved to be the most suitable for the conditions of the ANV unit, particularly zimate (the zinc salt of dimethyldithiocarbamine acid). This accelerator increases the rate of vulcanization of thiuram rubber at 203°C and is safe in respect to scorching. Rubbers with zimate have good heat resistance and in their dielectric properties do not fall behind insulation rubbers used in the cable-manufacturing industry. The presence of glycerol also increased the rate of vulcanization, but affected the dielectric properties of the rubber due to its hydrophilic nature. Various condensation resins were tested in the composition and it was found that the greatest effect was obtained from phenol-formaldehyde resins, which not only accelerate the vulcanization of the rubber but increase its heat resistance. The greater activity of the latter is thus explained by the presence of hydroxyl groups which have an activating effect on thiuram. The combined use of 1% phenol-formaldehyde resin and 8% gliftal'-1350 in the rubber lowers the fatigue of the rubber

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A051/A029

Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

containing thiuram. Resin No. 18 was chosen as the most easily obtainable and odorless resin. In the final composition zimate, phenol-formaldehyde resin No. 18, gliftal' resin No. 1350 and glycerol were used. A number of compositions of heat-resistant rubber were developed on this base not containing sulfur and to be used as insulating material for current-conductors in units of continuous vulcanization. An evaluation method was developed based on the deformation determination for temperatures of 150-200°C. There are 7 graphs, 1 diagram and 6 English references.

ASSOCIATION: Nauchno-issledovatel'skiy institut kabel'noy promyshlennosti (Scientific Research Institute of the Cable Industry).

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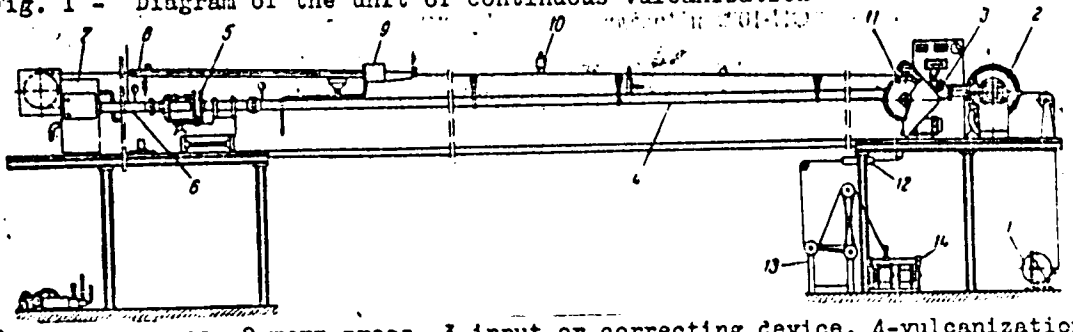
A051/A029

Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

Fig. 1 - Diagram of the unit of continuous vulcanization



1-energy source, 2-worm press, 3-input or correcting device, 4-vulcanization chamber, 5-middle lock, 6-cooling pipe for the vulcanized cable, 7-output lock, 8-open cooling vat, 9-blowing device, 10-instrument for controlling and regulating the thickness of the rubber casing, 11-traction device, 12-dry testing apparatus, 13-compensator, 14-doubled receiver.

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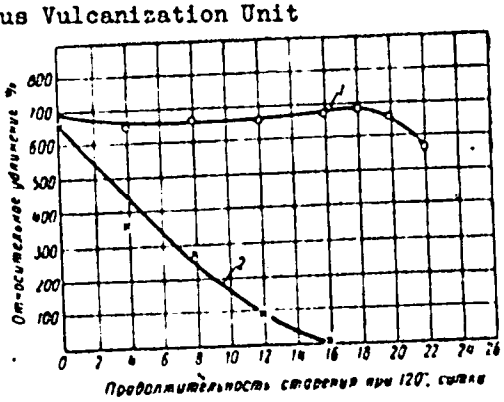
Composition Development of Heat-Resistant Rubbers for Insulating Current-Conducting Cores in a Continuous Vulcanization Unit

Fig. 2

relative elongation, %



Duration period of aging at 120°C, days

Relationship of the relative elongation of the rubber to the heat aging duration at 120°C.

1-thiuram rubber, 2-low-sulfur rubber

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L 59373-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5017846 UR/0286/65/000/011/0079/0079
678.4.048.4:547.496.3

AUTHOR: Koshelev, F. F.; Unkovskiy, B. V.; Gridunov, I. T.; Otopkova, M. A.; Donskaya, M. M.; Ignatova, L. A.

TITLE: Method of increasing the ozone and light-ozone resistance of natural-rubber-based vulcanizates. Class 39, No. 171572

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 79

TOPIC TAGS: natural rubber, stabilizer

ABSTRACT: An Author Certificate has been issued for a stabilizer for improving the ozone and light-and-ozone stability of natural-rubber-based vulcanizates. The stabilizer used is a 1-(2-alkyl-3-oxoalkyl)-3-(alkyl or aryl)-2-thiourea [sic]. [SM]

ASSOCIATION: none

SUBMITTED: 24Dec63 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4047

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238520018-1

L 59382-65 EPF(c)/EWP(j)/EWT(m) Pc-4/Pr-4 RM

ACCESSION NR: AP5017843 UR/0286/65/000/011/0079/0079
678.4.048.9:547.85

AUTHOR: Koshelev, F. F.; Unkovskiy, B. V.; Gridunov, I. T.; Ctopkova, N. A. Donskaya, M. M.; Ignatova, L. A.; Andreyev, L. V.

B+1

TITLE: Method of protecting rubbers. Class 39, No. 171569 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 79

TOPIC TAGS: rubber, rubber stabilizer

ABSTRACT: An Author Certificate has been issued for a noncoloring stabilizer which protects natural rubber against ozone- and light-induced aging. The stabilizer is a 4,4,6-trialkyl-IN-alkyl(aryl, aralkyl)-1, 2, 3, 4-tetrahydropyrimidinethione-2 [sic]. [SM]

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 20Feb64 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4047

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L 1[illegible] [illegible] RM

ACC NR: AR6026774 (A) SOURCE CODE: UR/0081/66/000/[illegible]

AUTHOR: Otopkova, M. A.; Koshelev, F. F.; Donskaya, M. M.; Unkovskiy, B. V.; Koren'kova, O. P.

TITLE: Chemical protection of rubbers from the action of ozone

SOURCE: Ref. zh. Khimiya, Part II, Abs. 85672

REF SOURCE: Sb. Sintez i issled. effektivn. stabilizatorov dlya polimern. materialov. Voronezh, 1964, 125-137

TOPIC TAGS: ozone, antioxidant additive, amine, natural rubber

ABSTRACT: The effect of antiozonants (AO) of the classes of p-phenylenediamine (I), p-anisidine and thiourea on the O_3-resistance of rubbers from NK was studied as a function of the nature of the substituent at the N atom. Particularly effective are N,N'-di-sec-butyl-I and its disulfide derivatives. On the basis of an analysis of the influence of the structure of AO on the effectiveness of their action, it is postulated that the mechanism of protective action of AO is determined by the presence of the N atom in their molecules and by the degree of its basicity, determined by the nature of the substituents. M. Otopkova. [Translation of abstract]

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OTORBAYEV, I.

Geographical research and geographical science in Kirghizistan.
Izv. Vses. geog. obsva [illegible] no. 3:247-250 [illegible] (MIRA [illegible])

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[Osh Province; a brief study of its economic geography] Oshskaia oblast'; kratkii ekonomiko-geograficheskii ocherk. Osh, Ob-vo po rasprostraneniiu polit. i nauchn. znanii Kirgizskoi SSR, 1961. 30 p. (MIRA 17:9)

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Development of the economy and the problems of the economic regionalization of the Kirghiz S.S.R. Izv. Kir. fil. Geog. ob-va SSSR no.3:7-12 '62. (MIRA 15:10)

(Kirghizistan—Economic conditions)
(Kirghizistan—Economic zoning)

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Development of geographical research in Kirghizia during the years of the Soviet regime. Izv. AN Kir. SSR. Ser. est. i tekh. nauk 2 no.10:5-14 '60. (MIRA 17:3)

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OTORBAYEV, K. O

"Dzhalal-Abad Oblast of Kirgiz SSR (Economic and Geographic Features)." Cand Geog Sci, Inst of Geography, Acad Sci USSR, 2 Mar 1954. Dissertation (Vechernyaya Moskva Moscow, 19 Feb 54)

SO: SUM 186, 19 Aug 1954

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OTGRBAYEV, K.O.

Particularities of geographical distribution of population of the Dzhalal-Abad Province of the Kirghiz S.S.R. Izv.AN Kir.SSR no.2: 61-72 '56. (MIRA 9:9)
(Dzhalal-Abad Province--Anthropogeography)

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Academy of Sciences of the Kirghiz S.S.R. as a participant in the work of the International Geophysical Year. Izv. AN Kir.SSR no.4:241-244 '57. (MIRA 10:7)
(Kirghizistan--Geophysics--Research)

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AUTHORS: Kharadze, Ye. K., Member, AS Georgian SSR 30-58-3-8/45
Kebuladze, V. V.
Bukhnikashvili, A. V. } Candidates of Physico-Mathematical Sciences

Otorbayev, K. O. and Babadzhanov, P. I.

TITLE: According to the Plan of the International Geophysical Year (Po planu mezhdunarodnogo geofizicheskogo goda) Investigations by the Scientists of Georgia, the Kirgiz Republic and of Tadzhikistan (Issledovaniya uchenykh Gruzii, Kirgizii i Tadzhikistana)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Nr 3, pp. 56-58 (USSR)

ABSTRACT: The investigations carried out by Georgia are concentrated in the Institute of Geophysics, in the Astrophysical Observatory Abastumani of the AS Georgian SSR, as well as in the institutions of the administration of the Hydrometeorological Service. The coordination of work is carried out by the Presidential Committee of the AS Georgian SSR under the presidency of president N. I. Muskhelishvili. The investigation in the fields of geomagnetic and geoelectric storms, as well as the

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