Derivation of the equation for thermal adsorption by the chromatographic method. N. M. Turkel'taub, V. P. Shvartsman, V. V. Naumova, and A. A. Zhukhovitskii.

method is ... the equation from ...

[illegible]

heats of adsorption and the adsorption isotherms of butane calcd. for 4 temps. agreed well with results obtained by the

KOBETS, A.V. [Kobets', A.V.]; NAUMOVA, V.V.

Effect of repeatedly administered soporifis on the higher nervous activity of dogs. Fiziol.zhur. 6 no.1:29-35 Ja-F '60.
(MIRA 13:5)

1. Khar'kovskiy meditsinskiy institut, kafedra psikhiatrii.
(NARCOTICS) (CONDITIONED RESPONSE)

S/032/63/029/001/002/022
B101/B186

AUTHORS: Zhukhovitskiy, A. A., Turkel'taub, N. M., Kancheyeva, O. A., Naumova, V. V., and Ryabchuk, L. N.

TITLE: Stepwise chromatography

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 1, 1963, 14 - 18

TEXT: A simplified form of chromatography is suggested for industrial analyses. Horizontal steps are obtained instead of peaks by introducing in the column large amounts of the mixture to be separated. Complete separation of the substances is not necessary as the height of the steps is such that the components and their concentrations can be determined with the same accuracy as on the basis of the peaks in complete separation. The conditions for the formation of steps are derived from the equation for the separation coefficient and from the dependence of the concentration on diffusion, the Henry coefficient, and the Kramp function. A column twice as long as that used in detection chromatography is needed, and the Henry coefficient must be much greater than unity. Complete separation of the steps is not necessary, however, for mixtures

S/032/63/029/001/002/022
B101/B186

Stepwise chromatography

having only 2-3 components. Examples are given for the separation of hydrocarbon mixtures on brick powder impregnated with vaseline oil or hexadecane, or on Al_2O_3. Columns of 300-340 cm length or a capillary of 93 m length wetted with hexadecane were used. There are 5 figures.

ASSOCIATION: Institut yadernoy geofiziki i geokhimii (Institute of Nuclear Geophysics and Geochemistry)

Card 2/2

ANISIMOV, Sergey Borisovich; VINETS, Yakov Meyerovich; NAUMOVA, Ye.A., red.

[Cyaniding in low-concentration compounds with potassium ferrocyanide] TSianirovanie v malokontsentrirovannykh sostavakh s zheltoi krovianoi sol'iu. Leningrad, 196[illegible]. 17 p. (MIRA 18:3)

SHASHIN, Mark Yakovlevich, doktor tekhn. nauk, prof.; NAUMOVA, Ye.A., red.

[Evaluating the scattering of the values for the structural stability of machine parts] Otsenka rasseivaniia znachenii konstruktivnoi prochnosti detalei mashin. Leningrad, 1965. 23 p. (MIRA 18:7)

SHASHIN, Maria Yakovlevich, doktor tekhn. nauk; NAUMOVA, Ye.A., red.

[Effect of a hardened layer on increasing the durability of machine parts] Vliianie uprochnennogo sloia na povyshenie dolgovechnosti detalei mashin. Leningrad, 1964. 33 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Peredovoi nauchno-tekhnicheskii opyt. Seriia: Metallovedenie i termicheskaia obrabotka, no.2) (MIRA 17:7)

BELOUSOV, Nikolay Nikolayevich, kand. tekhn. nauk; MIKHEYEVA, Yekaterina Nikolayevna, inzh.; SARAFANOVA, Mariya Nikolayevna, inzh.; NAUMOVA, Ye.A., red.

[Heat treatment of new foundry aluminum alloys] Termicheskaia obrabotka novykh liteinykh aliuminievykh splavov. Leningrad, 1964. 34 p. (MIRA 18:1)

BELOUSOV, Nikolay Nikolayevich, kand. tekhn.nauk; MIKHEYEVA, Yekaterina Nikolayevna, inzh.; SARAFANOVA, Mariya Nikolayevna, inzh.; NAUMOVA, Ye.A., red.

[New aluminum foundry alloys] Novye liteinye aliuminevye splavy. Leningrad, 1964. 35 p. (MIRA 18:3)

DURNEV, Vasiliy Dmitriyevich; NAUMOVA, Ye.A., red.

[Mechanical properties of electrical steels] Mekhanicheskie svoistva elektrotekhnicheskikh stalei. Leningrad, 1965. 22 p. (MIRA 18:7)

RAKHSHTADT, Aleksandr Grigor'yevich; NAUMOVA, Ye.A., red.

[Modern methods of hardening alloys used in the manufacture of springs] Sovremennye metody uprochneniia pruzhinnykh splavov. Leningrad, 1965. 38 p. (MIRA 19:1)

NAUMOVA, Ye.A., red.

[Increasing the reliability of springs] Povyshenie nadezhnosti pruzhin; sbornik. Leningrad, 1965. 47 p. (MIRA 19:1)

SOKOLOV, V.Ye.; NAUMOVA, Ye.A.

Biology of the sand marmot. Izv. AN Turk. SSR.Ser. biol. nauk no.2:87-89 '62. (MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet.

NAUMOVA, Ye.I.

Ecological and morphological characteristics of the digestive tract of sand marmot Spermophilopsis leptodactylus Licht. Vest. Mosk. un. Ser. 6. Biol., pochv. 20 no.3:19-25 My-Je '65. (MIRA 18:7)

1. Kafedra zoologii pozvonochnykh Moskovskogo universiteta.

NAUMOVA, Ye. K.

Lab. Chair of Microbiol., Kazan State Med., Inst. (-1944-)

"Microbes-antagonists of diphtheritic bacilli."

Zhur Mikrobiol., Epidemcil, i Immunobiol., No. 6, 1944

USSR/Microbiology - General Microbiology. F

Abs Jour : Ref Zhur Biol., No 1, 1959, 655

Author : Naumova, E.K.
Inst : -
Title : Comparative Evaluation of Nutrient Media with Sodium Tellurite for Cultivation of Diphtheria Bacteria

Orig Pub : Labor. delo, 1958, No 1, 43-44

Abstract : No abstract.

Card 1/1

NAUMOVA, Ya.K., dotsent

Practical value of some methods for the laboratory diagnosis of diphtheria. Kaz.med.zhur. 40 no.3:44-48 My-Je '59.
(MIRA 12:11)

1. Iz kafedry mikrobiologii (zav. - dotsent Z.Kh.Karimova) Kazanskogo meditsinskogo instituta.
(DIPHTHERIA--BACTERIOLOGY)

NAUMOVA, Ye.K.

Method of staining diphtheria bacteria. Lab. delo 6 no.4:46 Jl-Ag '60. (MIRA 13:12)

1. Kafedra mikrobiologii Kazanskogo meditsinskogo instituta.
(STAINS AND STAINING (MICROSCOPY) (DIPHTHERIA)

STAROSEL'SKAYA, K.B.; BERIM, M.G.; NAUMOVA, Ye.K.; NEFEDOVA, M.G.

Action of some organic phosphorus compounds on microorganisms.
Zhur.mikrobiol., epid. i immun. 32 no.11:87-91 N '61.
(MIRA 14:11)

1. Iz Kazanskogo gosudarstvennogo meditsinskogo instituta.
(PHOSPHORUS ORGANIC COMPOUNDS—PHYSIOLOGICAL EFFECT)
(BACTERIA, PATHOGENIC)

NAUMOVA, Ye.F., dots.; SHAMSUTDINOV, N.S., assistant; FEDOROVA,S.A.; RYABOVA,N.I.; OSANOVA, V.P.; KOKSINA,K.D. (Kazan')

Fighting diphtheria in the country; abstract. Kaz.med.zhur. no.1:113 Ja-F'61 (MIRA 16:11)

BREZGUNOV, V.S.; LIPIN, V.N.; MATROSOVA, V.R.; NAUMOVA, Ye.K.

Comparative evaluation of the bactericidal properties of aquargen and antibiotics in pure microbial cultures and their associations. Nauch. trudy Kaz. gos. med. inst. 14:121-122 '64. (MIRA 18:9)

1. Kafedra mikrobiologii (zav. - dotsent Z.Kh.Karimova) i kafedra obshchey khimii (zav. - dotsent Ye.M.Kozyrev) Kazanskogo meditsinskogo instituta.

GOR'KOVA, S.A.; DUNAYEV, V.G.; MATROSOVA, V.R.; NAUMOVA, Ye.K.; STUDENTSOVA, I.A.

Comparative characteristics of the biological and antimicrobial effect of armin and its chlorinated analogue. Nauch. trudy Kaz. gos. med. inst. 14:151-152 '64. (MIRA 18:9)

1. Kafedra mikrobiologii (zav. - dotsent Z.Kh.Karimova), kafedra farmakologii (zav. - dotsent T.V.Raspopova) Kazanskogo meditsinskogo instituta i kafedra organicheskoy khimii (zav. - prof. A.I.Razumov) Kazanskogo khimiko-tekhnologicheskogo instituta.

KONOVALOVA, N.G.; NAUMOVA, Ye.K.; RZHEVSKAYA, G.F.; TIMEYEVA, S.M.

Bactericidal effect of organophosphorus preparations and antibiotics on staphylococci of the genitals. Nauch. trudy Kaz. gos. med. inst. 14:207-208 '64. (MIRA 18:9)

1. Kafedra mikrobiologii (zav. - dotsent Z.Kh.Karimova) i kafedra farmakologii (zav. - dotsent T.V.Raspopova) Kazanskogo meditsinskogo instituta.

MATROSOVA, V.R.; NAUMOVA, Yu.K.; PUSENKOVA, I.V.

Pharmacological and microbiological characteristics of three new groups of organophosphorus preparations. Nauch. trudy Kaz. gos. med. inst. 14:229-230 '64. (MIRA 18:9)

1. Kafedra mikrobiologii (zav. - dotsent Z.Kh.Karimova) i kafedra farmakologii (zav. - dotsent T.V.Raspopova) Kazanskogo meditsinskogo instituta.

COUNTRY : USSR
CATEGORY : Farm Animals. Q
: Cattle.

ABS. JOUR. : RZhBiol., No. 6, 1959, No. 25829

AUTHOR : Gumenyuk, I. G.; Naumova, Ye. M.
INST. : Penza Institute of Agriculture.
TITLE : The Influence of Milking and Feeding Frequencies upon the Cows' Milk Production and Physiological Condition.
ORIG. PUB. : Sb. tr. Penzensk. s.-kh. in-ta, 1958, vyp. 2, 318-324
ABSTRACT : One group of cows was kept on a 4-interval daily regimen (control), and the other on a 2-interval feeding and milking regimen (experimental). Within the time span of the experiment (from 10 May to 5 August), the milk yields increased in 60 percent of the cows of the experimental group and decreased in 7 percent. There was no difference in pulse and respiration rates, Hb and erythrocyte contents. The bibliography consists of 11 titles. -- F. M. Kazantsev

CARD: 1/1

NAUMOVA, Ye.S.

Accelerated method of preparing adsorbed agglutinating dysentery sera. Trudy TomNIIVS 11:284-287 '60. (MIRA 16:2)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(SHIGELLA) (SERUM)

KHOMULLO, M.I.; NAUMOVA, Ye.S.; BYSTRITSKAYA, T.I.

Etiological picture of bacterial dysentery in the City of Tomsk. Trudy Tom NIIVS 12:132-135 '60 (MIRA 16:11)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

*

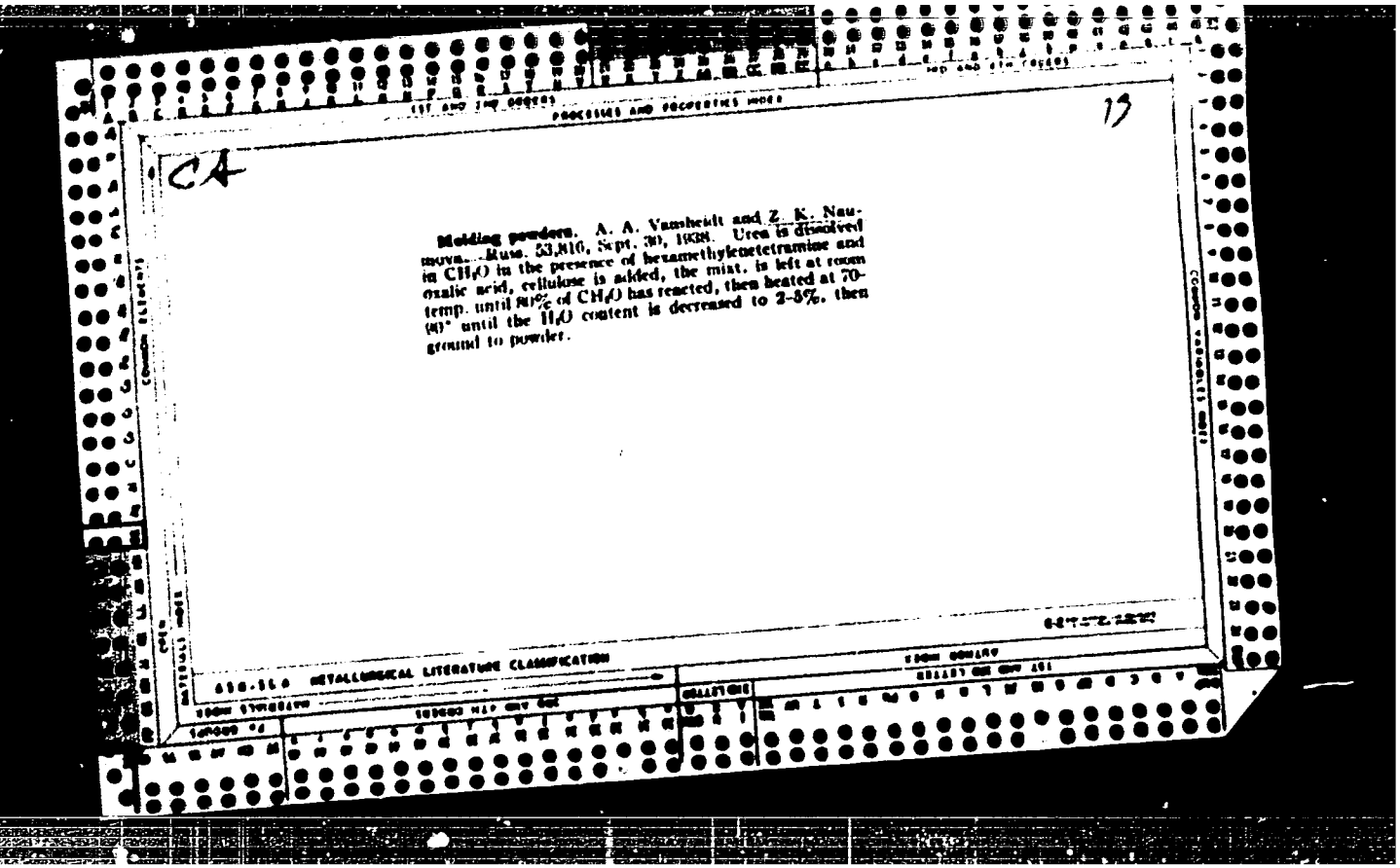
NAUMOVA, Ye.V.; KONDRAT'YEV, I.F.

Measuring traverse legs by the parallactic-alignment method. Geod. i kart. no.1:28-31 Ja '64. (MIRA 18:1)

BUKATY, B.B., inzh.; DENISOV, N.I., inzh.; NAGRODSKIY, I.A., kand. tekhn.nauk; POZHITKOVA, Ye.I., nauchnyy sotrudnik; NAUMOVA, Z.I., nauchnyy sotrudnik

Preparation of viscose pulp of low ash content. Bum. prom. 34 no.11: 13-14 N '59. (MIRA 13:3)

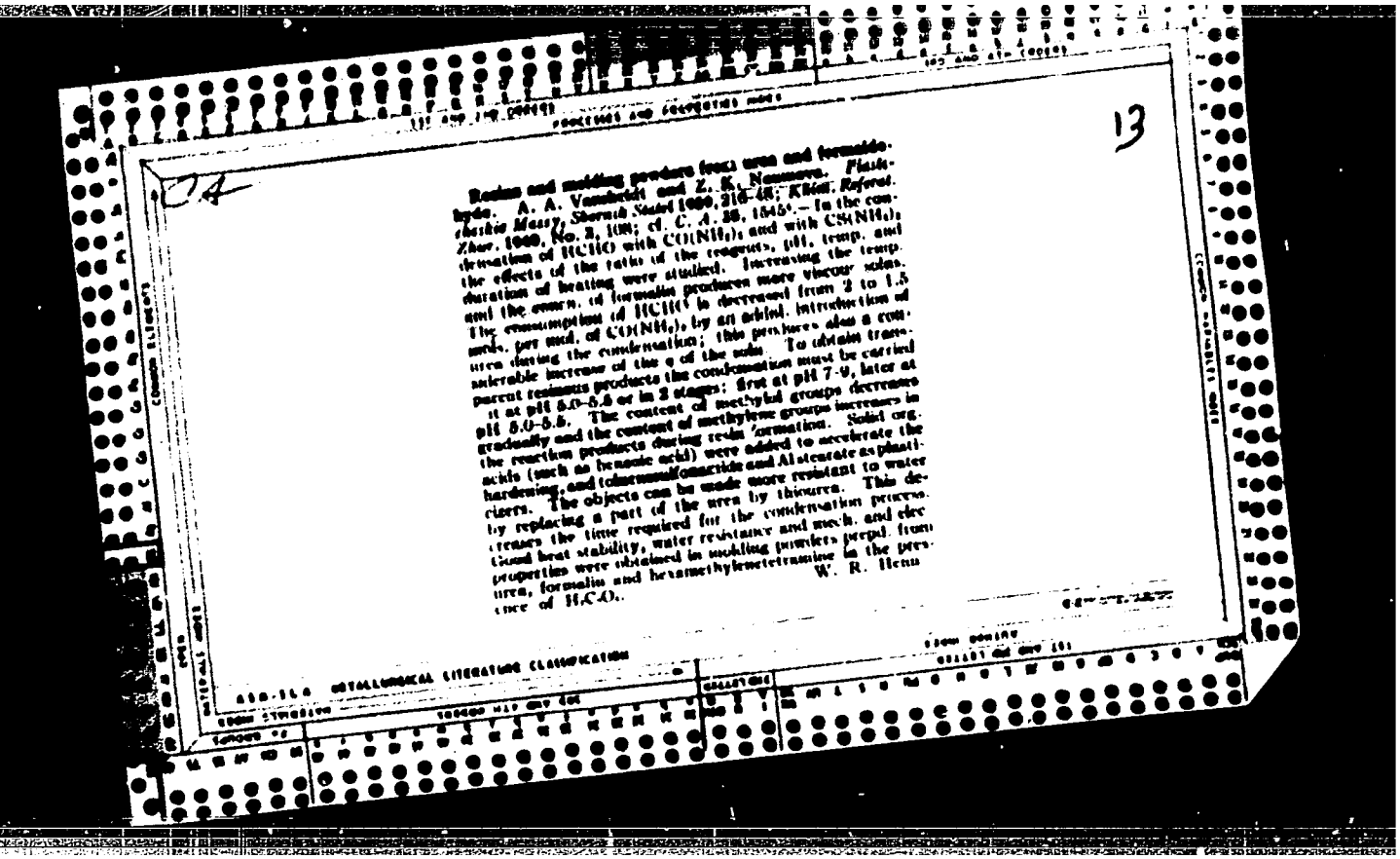
1.Priozerskiy tsellyuloznyy zavod (Bukaty, Denisov). 2. TSentral'nyy nauchno-issledovatel'skiy institut tsellyuloznoy i bumazhnoy promyshlennosti (for Nagordskiy, Pozhitkova, Naumova).
(Priozersk--Woodpulp)



CA

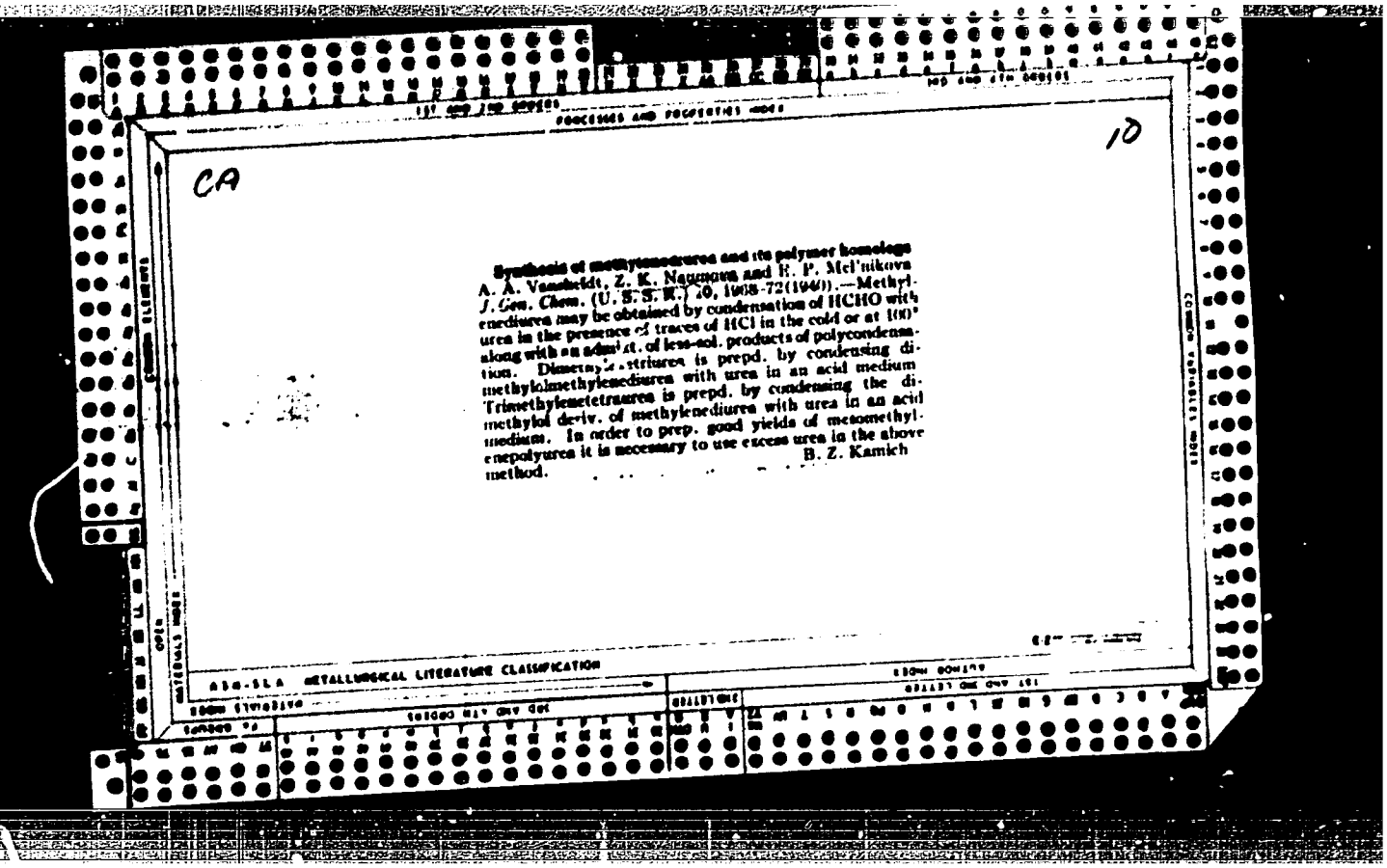
13

Molding powders. A. A. Vambelt and Z. K. Nauruva. Minn. 53,810, Sept. 30, 1938. Urea is dissolved in CH_2O in the presence of hexamethylenetetramine and oxalic acid, cellulose is added, the mixt. is left at room temp. until 80% of CH_2O has reacted, then heated at 70-80° until the H_2O content is decreased to 2-5%, then ground to powder.



Resins and molding products from urea and formaldehyde. A. A. Vansheidt and Z. K. Nazarova. *Plasticheskie Massy, Sbornik Statei* 1949, 216–48; *Khim. Referat. Zhur.* 1949, No. 2, 108; cf. *C. A.* 38, 1845⁶.—In the condensation of HCHO with $CO(NH_2)_2$ and with $CS(NH_2)_2$ the effects of the ratio of the reagents, pH, temp., and duration of heating were studied. Increasing the temp. and the concn. of formalin produces more viscous solns. The consumption of HCHO is decreased from 2 to 1.5 mols. per mol. of $CO(NH_2)_2$ by an added. Introduction of urea during the condensation; this produces also a considerable increase of the q. of the soln. To obtain transparent resinous products the condensation must be carried at pH 5.0–5.5 or in 2 stages: first at pH 7–9, later at pH 5.0–5.5. The content of methylene groups decreases gradually and the content of methylene groups increases in the reaction products during resin formation. Solid org. acids (such as benzoic acid) were added to accelerate the hardening, and tolumenulfonamide and Al stearate as plasticizers. The objects can be made more resistant to water by replacing a part of the urea by thiourea. This decreases the time required for the condensation process. Good heat stability, water resistance and mech. and elec properties were obtained in molding powders prepd. from urea, formalin and hexamethylenetetramine in the presence of H_2CO_3.

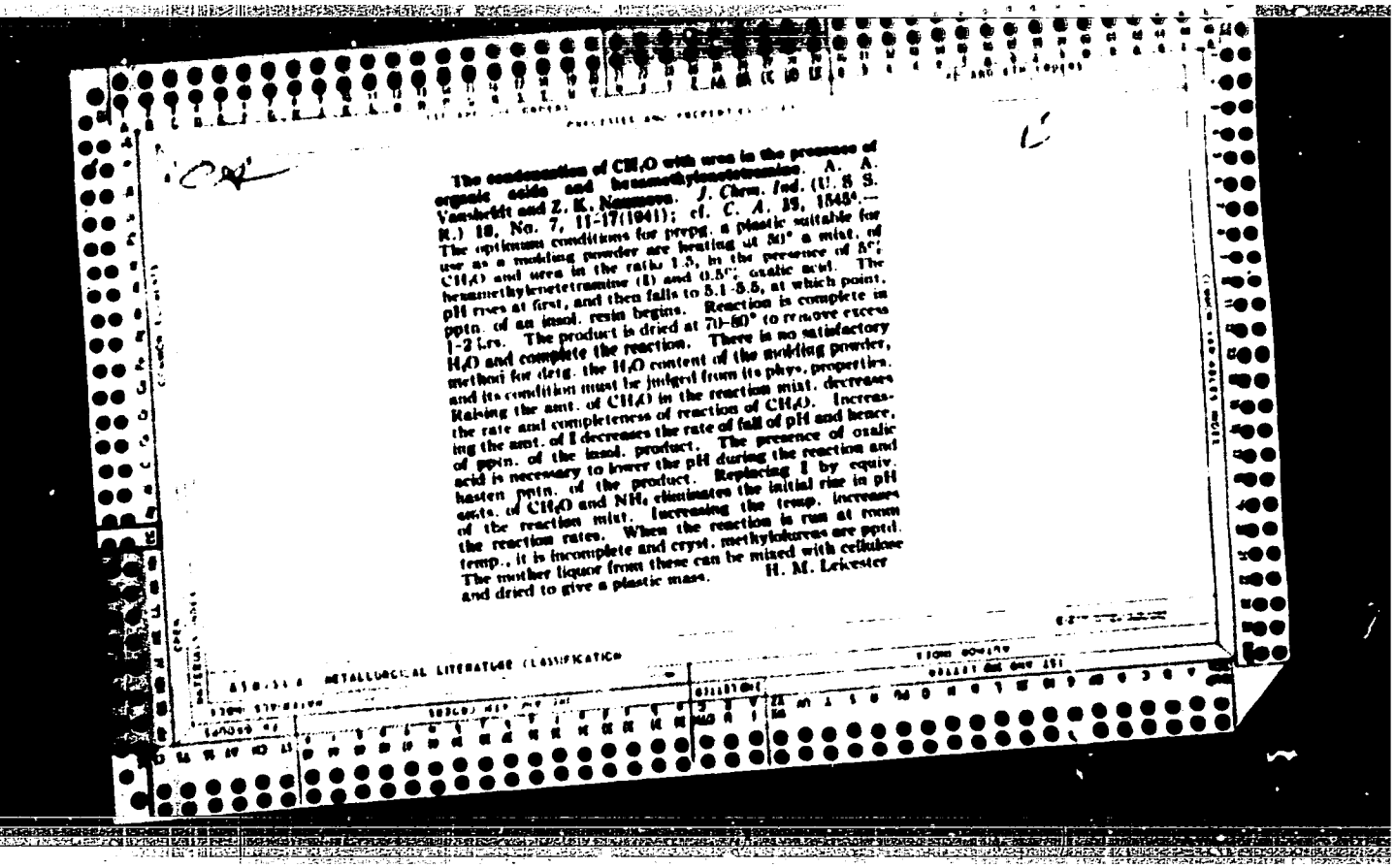
W. R. Henn



CA

10

Synthesis of methylenecarbamides and its polymer homologs
A. A. Vansheidt, Z. K. Nagmova and E. P. Mel'nikova
J. Gen. Chem. (U. S. S. R.) 20, 1068-72(1949).—Methylenediurea may be obtained by condensation of HCHO with urea in the presence of traces of HCl in the cold or at 100° along with an admixt. of less-sol. products of polycondensation. Dimethylenetriurea is prepd. by condensing dimethylolmethylenediurea with urea in an acid medium. Trimethylenetetraurea is prepd. by condensing the dimethylol deriv. of methylenediurea with urea in an acid medium. In order to prep. good yields of mesomethylenepolyurea it is necessary to use excess urea in the above method.
B. Z. Kamich



The condensation of CH_2O with urea in the presence of organic acids and hexamethylenetetramine. A. A. Vansheidt and Z. K. Nazarova. *J. Chem. Ind.* (U. S. S. R.) 18, No. 7, 11-17(1941); cf. *C. A.* 35, 1545⁶.—The optimum conditions for prepg. a plastic suitable for use as a molding powder are heating at 80° a mixt. of CH_2O and urea in the ratio 1:3, in the presence of 5% hexamethylenetetramine (I) and 0.5% oxalic acid. The pH rises at first, and then falls to 5.1-5.5, at which point, pptn. of an insol. resin begins. Reaction is complete in 1-2 hrs. The product is dried at 70-80° to remove excess H_2O and complete the reaction. There is no satisfactory method for detg. the H_2O content of the molding powder, and its condition must be judged from its phys. properties. Raising the amt. of CH_2O in the reaction mixt. decreases the rate and completeness of reaction of CH_2O. Increasing the amt. of I decreases the rate of fall of pH and hence, of pptn. of the insol. product. The presence of oxalic acid is necessary to lower the pH during the reaction and hasten pptn. of the product. Replacing I by equiv. amts. of CH_2O and NH_3 eliminates the initial rise in pH of the reaction mixt. Increasing the temp. increases the reaction rates. When the reaction is run at room temp., it is incomplete and cryst. methylolureas are pptd. The mother liquor from these can be mixed with cellulose and dried to give a plastic mass. H. M. Leicester

Preparation of melamine formaldehyde resins and plastic masses made thereof. A. A. Vansheidt, Z. K. Sung-mura, and N. I. Sorokina. *Zhur. Priklad. Khim.* (J. Applied Chem.) 20, 163-70(1947); cf. C.A. 37, 2497[1]. Melamine (one part), recrystd. from hot H_2O, and 3 parts 30-36%. CH_2O were heated at various temps.: 95°; of the CH_2O reacted in 70 min. at 80°, in 25 min. at 70°, and in 2 min. at 90°. Samples taken after 3, 5, and 7 min. (at 90°) remained transparent on cooling; after 10 min. the cooled sample whitened with the sepn. of a resin; after 15-min. heating the clouding took place while still warm. On condensing at 70°, samples remained clear after 40-min. heating; at 80° the samples remained cloudy after 2-hr heating. At low temp. methylols are formed which do not readily in 2 hrs. at 50°, causing cloudiness by crystg. out on cooling. At higher temp. the condensation and polymerization are more rapid, forming at first hydrophilic, remaining in soln. on cooling; further heating, reducing the methylols, increases polymerization, with a greater degree of sepn. of the resins on cooling. Samples of the soln. were mixed with sulfite cellulose and other fillers, dried at 60-80° to 4% H_2O, powd., and the flow was detd. in a Raschig compression mold at 145° and 200 kg./sq. cm. Samples made with 30% CH_2O (neutralized to methyl red) at 90-95°, with addn. of H_2O after 4 min. turned cloudy, and had a flow of 130 mm., after 15 min., cloudy, sepn. into 2 layers, flow 15, at 70-75°, 15 min., cloudy, flow 74-170; CH_2O (0.034-0.08% acidity) at 96-7°, after 7 min., sepn., flow 20; at 85°, after 10 min. cloudy, flow 60; at 70-75°, after 25 min., cloudy, flow 66. To obtain a product with a satisfactory flow the reaction should be stopped at the moment when a sample placed on glass begins to cloud on the addn. of several drops H_2O. When the sepn. of the methylols is too great, there will be delayed hardening and too much flow. When reaction has reached the point of sepn. into layers, the mass will not readily mix with cellulose and will have too little flow. The best conditions were found to be, 70-75° for 25-30 min. with a pH (CH_2O) of 4.5-8; NaOH (2% of the melamine) delayed the reaction, but $(CH_2)_6N_4$ accelerated it; addn. of 0.3% oxalic acid reduced the flow from 180 to 157 after 80 min.; 1% of acid reduced the flow to 64 mm. in 30 min. The use of tech. melamine gave a cloudy mass. The samples resembled the urea-CH_2O resins, but were superior in water and heat resistance and other physico-mech. properties. Boris Gutoff

USSR/Chemistry - Resinous Products, Aminoplasts — Jun 48

Chemistry - Formaldehyde

"Action of Water on Aminoplasts," A. A. Vansheydt, Z. K. Naumova, Leningrad Sci Res Inst of Plastics, 11 pp

"Zhur Priklad Khimii" Vol XXI, No 6

PA 10/49T27

When aminoplast products are treated with hot water, formaldehyde is obtained, quantity depending on conditions of pressing. Formaldehyde also produced, although in considerably smaller quantity, when methenecarbamide is heated in water. Phenomena can

10/49T27

USSR/Chemistry - Resinous Products, Aminoplasts (Contd) — Jun 48

be explained by detachment of formaldehyde from methene groups in resin molecules and by fact that aminoplasts undergo slow hydrolysis when heated with water. Submitted 17 May 47.

10/49T27

NAUMOVA, Z. K.

PHASE I BOOK EXPLOITATION SOV/5082

Chegodayev, D.D., Z.K. Naumova, and Ts.S. Dunayevskaya

Ftoroplasty (Fluoroethylenes) 2d enl ed. Leningrad, Goskhimizdat, 1960. 190 p. Errata slip inserted. 15,000 copies printed.

Ed. (Title page): L.V. Chereshkevich; Ed.: Ye. I. Shur; Tech. Ed.: Ye. Ya. Erlikh.

PURPOSE: This book is intended for technical and scientific personnel and designers in the chemical, refrigeration, food, pharmaceutical, electrical and electronic industries.

COVERAGE: The book deals with the development and application of fluoroethylenes in the Soviet Union. It contains data on the properties of fluoroethylenes and on methods of processing them. The material is based on research carried out at the NIIPM - Moskovskiy nauchno-issledovatel'skiy institut plasticheskikh mass (Moscow Scientific Research Institute of Plastics), where special methods for the fabrication of bellows, valves, and pipes are currently being developed.

Card 1/5

NAGRODSKIY, I.A.; NAUMOVA, Z.N.

Lowering the general and harmful tar content of woodpulp by means of surface active substances. Bum. prom. 34 no.4:5-7 Ap '59. (MIRA 12:7)

1.TSentral'nyy nauchno-issledovatel'skiy institut tsellyulosnoy i bumazhnoy promyshlennosti.
(Woodpulp) (Surface active agents) (Wood tar)

NAUMOVA, Z.M.; NAGRODSKIY, I.A.

Manufacture of woodpulp with a low iron content. Bum.prom. 38 no.2:15-17 F '63. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut bumazhnoy promyshlennosti.

(Woodpulp industry)

NAUMOVA, Z.V.

The photolibrary and the permanent exhibition of publications of the Komarov Botanical Institute of the Academy of Sciences of the U.S.S.R. Bot.zhur. 42 no.2:331 F '57. (MLRA 10:30
(Moscow--Botany--Exhibitions)

NAUMOVA, Zinaida Vasil'yevna; LEBEDEV, D.V., otv. red.; VINOGRADOVA, N.F., tekhn. red.

[Annotated bibliographic index to the "Izvestiia S.-Peterburgskogo botanicheskogo sada" and to the "Izvestiia Botanicheskogo sada Akademii nauk SSSR," 1901-1932] Annotirovannyi bibliograficheskii spravochnik k "Izvestiiam S.-Peterburgskogo botanicheskogo sada" - "Izvestiiam Botanicheskogo sada Akademii nauk SSSR," (1901-1932 gg.) Moskva, Izd-vo "Nauka," 1964. 237 p. (MIRA 17:4)

ZHARINOVA, T.V.; NAUMOVA, Z.V.

Results of the use of the pneumoperitoneum in a surgical clinic.
Trudy TSIU 66:233-244 '64. (MIRA 18:5)

AUTHORS: Morgulis, N.D. and Naumovets, K.G. SOV/109-4-6-26/27

TITLE: The Problem of Converting the Thermal Energy Into Electrical Energy by Employing Thermal Electron Emission (Letter to the Editor) (K voprosu o preobrazovanii teplovoy energii v elektricheskuyu putem ispol'zovaniya termoelektronnoy emissii) (Pis'mo v redaktsiyu)

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 6, pp 1065 - 1066 (USSR)

ABSTRACT: The authors commenced the investigation of this problem in 1949 and some of the results obtained were published in a number of articles (N. Morgulis and P, Marchuk - Ref 2). Similar work has been done in America and the results were published at a later date in a number of papers (K. Hernquist et al. - Ref 1). The authors point out that another type of energy conversion by thermoelectronic means is also possible. This method was studied experimentally by employing a special tube provided with an L-cathode fitted with a tungsten plug having a diameter of 3 mm; the tube had an anode with a

Card1/3

The Problem of Converting the Thermal Energy Into Electrical Energy by Employing Thermal Electron Emission (Letter to the Editor)

protective ring and the distance between the electrodes was 2 mm. A drop of caesium was introduced into the tube and its vapour pressure was kept constant at a temperature t by means of a thermostat. When a negative potential was applied to the anode, a large ion current was observed. When the electrodes were shorted, a large electron current I_e was obtained; the magnitude of I_e could be controlled by the vapour pressure and the cathode temperature T. It was found that at $t = 180\ ^{\circ}C$ and $T \simeq 1\ 300\ ^{\circ}C$, the ion current at -90 V was 20 mA/cm^2; the short-circuit current was $I_e = 2.0\ A/cm^2$; the optimum useful power was 0.6 W/cm^2 and the efficiency was about 5%. It is thought that the performance of this type of energy-converting device could be improved further.

SOV/109-4-6-26/27

The Problem of Converting the Thermal Energy Into Electrical Energy by Employing Thermal Electron Emission (Letter to the Editor)

ASSOCIATION: Institut fiziki AN USSR, Kiyev (Institute of Physics of the Ac.Sc., Ukrainian SSR, Kiyev)

SUBMITTED: February 9, 1959

Card 3/3

61367
S/181/60/002/03/26/028
B006/B017

24.2700

AUTHORS: Morgulis, N. D., Naumovets, A. G.

TITLE: Utilization of Thermoelectric Emission for Direct Conversion of Thermal Into Electric Energy

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 3, pp. 537-542

TEXT: In the introduction, the authors refer to the great importance of direct conversion of thermal into electric energy, and mention a monograph by A. F. Ioffe in which "vacuum thermocouples" were suggested. Some theoretical results of a previous paper (Ref. 2) are also dealt with in detail, and the results of a number of publications are discussed, above all, with respect to the investigation results obtained with tungsten L-cathodes. For verifying the various results, test tubes were produced with plane tungsten L-cathodes and small anodes (electrode spacing: $\approx$2mm); a drop of metallic cesium was introduced into the tubes so that the cesium vapor pressure p depended on the temperature of the thermostat which contained the test tube. The cathode temperature T was measured with an

Card 1/3

Utilization of Thermoelectric Emission for Direct Conversion of Thermal Into Electric Energy

S/181/60/002/03/26/028
B006/B017

optical micropyrometer, from which the cathode output was determined. A negative voltage V of 50 - 100 v was applied to the anode, and a relatively high ionic current I_p was observed, which steeply rose with increasing p and increasing T. $|I_p|$ was considerably higher than would have corresponded to the 3/2-law. The compensation effect of the ionic space charge due to the thermal electrons of the L-cathode was investigated. Fig. 1 shows the brightness temperature T_{br} as a function of I_p (Curve I), and Fig. 2 shows T_{br} as a function of the short-circuited electron current I_{e0}. An investigation of the dependence of I_p on I_{e0} showed that I_p may be set equal to I_{e0}/k, with $k = \frac{1}{2}\sqrt{\frac{M}{m}}$ (Curve II); the actual value of I_p corresponds to a $k' < \frac{1}{2}\sqrt{\frac{M}{m}}$ and lies between the two Curves I and II. Fig. 1 shows the ratio $\alpha = I_p/I_{p0}$, and Fig. 2 analogous $\beta = I_{e0}/I_0$, computed from the Richardson formula. Fig. 3 shows the static characteristics, i.e., the function $I_{e0}(V)$ with small V for the brightness temperature 1,280°C. Fig. 4 shows the load characteristics, i.e., the

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resistance dependences of the output $W_R = I_e^2R$ on $V_R = I_eR$ and I_e are shown. Fig. 5 shows $W_R(T_{br})$. Finally, Fig. 6 gives the curves analogous to Fig. 4 for special parameters ($T_{br} \simeq 1,300°C$ $I_{e0} \simeq 2.0$ a/cm^2, output $\simeq 0.6$ w/cm^2, $\eta \simeq 5\%$). The cathode area in the experiments was 0.07 cm^2. These results are compared with those of Ref. 3, where higher efficiencies were obtained. The experimental results of the present paper indicate a new possibility of obtaining high I_{e0} and η at relatively low cathode temperatures. In conclusion, the authors thank V. A. Morozovskiy for having supplied the test tubes. There are 6 figures and 11 references: 7 Soviet and 4 English.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Physics Institute of the AS UkrSSR, Kiyev)

SUBMITTED: May 4, 1959

NAUMOVETS, A.G.

82159
S/048/60/024/06/04/017
B019/B067

5.4400
5.4300

AUTHORS: Morgulis, N. D., Naumovets, A. G.

TITLE: Formation Kinetics and Some Properties of Oxygen Films Adsorbed on Tungsten

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 6, pp. 647- 656

TEXT: This is the reproduction of a lecture delivered at the 9th All-Union Conference on Cathode Electronics from October 21 to 23, 1959 in Moscow. This paper is devoted to calculation problems of oxygen adsorption on tungsten. In the introduction, these processes are discussed in general, and formula (1) for the rate of formation of a film adsorbed on the surface is given. Furthermore, the test tube shown in Fig. 1 is discussed with which the surface potential of a tungsten band contained in the tube can be measured. This tube is equipped with an Alpert manometer by means of which the pressure jumps in the ionization can be measured. In this part of the paper, B. A. Chuykov, Ya. M. Kucherov, V. K. Medvedev, and Yu. S. Vedula are mentioned. The second part of the paper deals with

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Formation Kinetics and Some Properties of Oxygen Films Adsorbed on Tungsten

S/048/60/024/06/04/017
B019/B067

the adsorption kinetics of oxygen films on tungsten. In Fig. 3 the dependence of the contact potential on the period of adsorption with different oxygen pressures is graphically represented. From this diagram the authors obtain the coefficient for the oxygen condensation ($\gamma \approx 0.05$) by formula (6), and they point to its low value compared with other results. In the discussion of this result it is pointed out that this problem has not yet been theoretically dealt with, and in conclusion it is stated that on the basis of the results obtained here it is difficult to determine the coefficient of oxygen condensation. In the comprehensive discussion of the properties of the adsorbed oxygen the dependence of the contact potential on the period of adsorption and the temperature (Figs. 6, 7), the dependence of the jumps on the temperature for pure CO and pure O_2, and the dependence of the jumps on the adsorption period with various pressures (Fig. 11) are dealt with. The existence of a second adsorption phase of O_2 which could not be proved here is discussed. Furthermore, the effect is pointed out in which apparently the film of CO molecules is replaced by O_2 molecules. The authors thank Yu. G. Ptushinskiy for assistance given in the performance of the work.

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Formation Kinetics and Some Properties of Oxygen Films Adsorbed on Tungsten

S/048/60/024/06/04/017
B019/B067

There are 11 figures and 12 references: 7 Soviet, 1 British, 3 American, and 1 German.

ASSOCIATION: Institut fiziki Akademii nauk USSR
(Physics Institute of the Academy of Sciences, UkrSSR)

Card 3/3

30336

S/185/61/006/005/014/019
D274/D303

26.2312

AUTHOR: Naumovets', A.H.

TITLE: Autodesorption of residual gases from tungsten surface, observed by means of an autoionic projector

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 5, 1961, 703 - 705

TEXT: The autodesorption of residual gases from a tungsten surface was observed by means of Müller's autoionic projector (Ref. 1: Zs. f. Naturf., 11a, 88, 1956). The tungsten surface was mounted on a holder which was filled with liquid nitrogen; afterwards the nitrogen was solidified (by means of a vacuum). The experimental lamp was filled with helium to a pressure of approximately $1 \cdot 10^{-3}$ mm Hg. Before the helium was let in, the surface was heated in a vacuum of approximately $1 \cdot 10^{-7}$ mm Hg., so as to smooth it. Gradual increase of voltage was accompanied by the appearance, on the projector screen, of autoionic pictures, whereby a large number of bright spots was observed. A picture of such spots, radomly distributed on

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Autodesorption of residual gases ...

the surface, is shown. The fact that these spots appear as entities and are not divided into parts, leads to the conclusion that these are adsorbed atoms. The picture has also dark parts which correspond to {011} - and {112} - planes. Other pictures were obtained by increasing the voltage to values, at which the autodesorption continued, and then reducing it to values which ensured the stability of the attained state. With continued autodesorption, the adsorbed particles are mainly found in the region of the lines which connect the {010} - and the {001} -plane through the {011} -plane. With a further increase in voltage, auto-evaporation of several layers of the tungsten itself takes place. The corresponding picture showed that the adsorbed particles still remained on the surface, while the tungsten started evaporating. Oxygen was used in the investigation; this was due to the strong bond between oxygen and tungsten. The tungsten surface was heated in a vacuum in a flow of oxygen and then expose at room temperature for several minutes. Then the O_2 was evacuated. From the pictures obtained, the conclusion was reached that the bright spots were due to the adsorbed oxygen. Effects, similar to the just described, have to be taken into account when

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30336

S/185/61/006/005/014/019
D274/D303

Autodesorption of residual gases ...

autodesorption is used for obtaining clean tungsten surfaces. There are 3 figures and 5 non-Soviet-bloc references. The references to the English-language publications read as follows: E.W. Müller, Acta Metallurgica, 6, 620, 1958; E.W. Müller, Phys. Rev., 102, 618, 1956; G. Ehrlich, F. Hudda, J. Chem. Phys., 33, 1253, 1960.

ASSOCIATION: Instytut fizyky AN URSR m. Kyyiv (Institute of Physics, AS UKrSSR, Kyyiv)

SUBMITTED: June 29, 1961

Card 3/3

S/195/62/003/002/003/003
E039/E420

AUTHORS: Medvedev, V.K., Naumovets, A.G.

TITLE: Papers on adsorption at the Tenth All-Union Conference on cathode electronics

PERIODICAL: Kinetika i kataliz, v.3, no.2, 1962, 299-300

TEXT: The conference was held at Tashkent, November 23 - 30, 1961. The papers reviewed are as follows: V.A.Simonov (NIVI) - interaction processes of charged and neutral particles with solid surfaces and the problem of obtaining pure high temperature plasma. V.N.Ageyev, V.I.Agishev, Yu.I.Belyakov, N.I.Ionov and Yu.K.Ustinov of Fiziko-tekhnicheskiy institut im. A.F.Ioffe AN SSSR (Physicotechnical Institute imeni A.F.Ioffe, AS USSR) investigated the interactions of residual gases with tungsten at pressures of 10^{-8} mm Hg, and the pumping of oil diffusion and titanium absorption pumps. Yu.G.Ptushinskiy and B.A.Chaykova of Institut fiziki AN UkrSSR (Physics Institute AS UkrSSR) made a mass spectrometric investigation of the adsorption of oxygen and hydrogen on tungsten. V.M.Gavrilyuk and V.K.Medvedev (Physics Institute AS UkrSSR) investigated the adsorption of Ba and CO on

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the (113) section of single crystal tungsten. N.D.Morgulis and R.I.Marchenko of Kiyevskiy gosuniversitet (Kiyev State University) investigated the effect of partial adsorption and desorption of mixed residual gases in anultrahigh vacuum on the surface of single crystals of Ge and Si. D.A.Gorodetskiy and A.M.Kornev (Kiyev State University) studied surfaces, covered with films of adsorbed gases, with the aid of slow electron diffraction. Yu.S.Vedula and V.M.Gavrilyu. (Physics Institute AS UkrSSR) considered the question of different adsorption properties of tungsten surfaces, cleaned by passing a current and by electron bombardment. Yu.G.Ptushinskiy and O.A.Panchenko (Physics Institute AS UkrSSR) examined electron interaction with adsorption of xygen on thin films of Ni and Au. S.Z.Roginskiy and V.A.Shishkin of Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AS USSR) investigated the form and behaviour of molecules in autoelectronic emission and its dependence on surface conditions, temperature, pressure and electric field.
Other papers discussing the same problem were presented by A.P.Komarov, V.P.Savchenko (Physicotechnical Institute imeni

S/195/62/003/002/003/003
E039/E420

Papers on adsorption ...

A.F.Ioffe AS USSR) and A.A.Komarov (Physics Institute AS USSR). A.P.Komar and V.N.Shrednik (Physicotechnical Institute imeni A.F.Ioffe AS USSR) and A.G.Naumovets (Physics Institute AS UkrSSR) presented papers on the use of autoionic emission. A.G.Naumovets examined autodesorption of adsorbed atoms of oxygen on tungsten surfaces. Finally, O.V.Mitrofanov (Institute of Chemical Physics AS USSR) investigated the activity of sections of single crystal tungsten with relation to oxygen by an etching method.

SUBMITTED: December 26, 1961

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NAUMOVETS, A.G.

Desorption of potassium from tungsten in an electric field. Fiz. tver. tela 5 no.8:2294-2302 Ag '63. (MIRA 16:9)

1. Institut fiziki AN UkrSSR, Kiyev.
(Desorption) (Potassium) (Tungsten)

S/185/63/008/001/010/021
D234/D308

AUTHOR: Naumovets', A. G.

TITLE: Desorption of BaO molecules from tungsten in a strong electric field

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 1, 1963, 65-71

TEXT: The desorption was investigated at 80 - 1200°K, by Müller's method, and Müller's experiments on desorption of Ba were also repeated at the same temperatures. The temperature dependence of the desorbing field is established. The probability of dissociation of BaO molecules during desorption is found to be less than about 10^{-2}. Theoretical discussion leads to the conclusion that BaO is desorbed in the form of singly charged ions below 400°K, and in the form of doubly charged ions at 500 - 1100°K. There are 5 figures.

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L/185/63/008/001/010/024
D234/D308

Desorption of BaO ...

ASSOCIATION: Instytut fizyky AN URSR (Institute of Physics of the AS UkrSSR), Kiev

SUBMITTED: July 16, 1962

Card 2/2

ACCESSION NR: AP4041713 S/0181/64/006/007/2088/2093

AUTHOR: Naumovets, A. G.

TITLE: Growth of lithium crystals from a film condensed on tungsten in an electric field

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 2088-2093

TOPIC TAGS: field emission cathode, field emission atomic structure, field emission microscope, crystal growth, lithium, thin film

ABSTRACT: This is a continuation of earlier work by the author (FTT v. 5, 2294 and 2792, 1963) on the effect of the electric field near the surface of a sharp point on film adsorption. Whereas in the previous research the film was of less than monatomic thickness, in the present investigation the author observed the growth of lithium crystals measuring ~10^{-5} cm on film several monatomic layers thick, condensed on tungsten, in an electric field ~10^{7} V/cm. The

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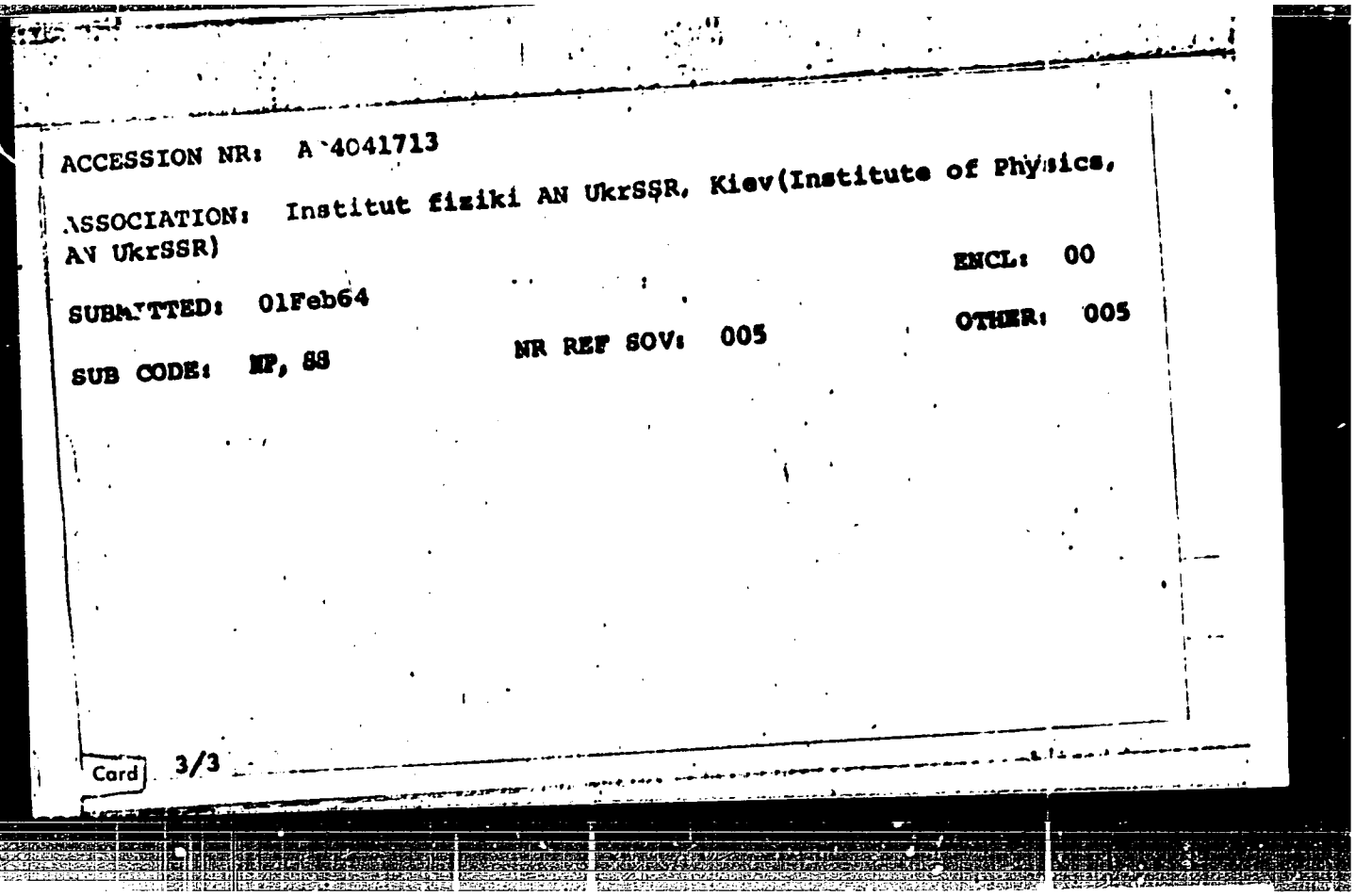
ACCESSION NR: AP4041713

experiments were made in a Mueller field-emission projector equipped with a lithium source obtained by reducing lithium oxide. The lithium was evaporated at 1100K. As in the earlier investigations, fields of both polarities were applied. The results have shown that the behavior of the thicker layers differs radically from that of the monatomic layer, and that the character of the effect of the electric field is governed by the concentration of the lithium atoms in the layer. The thicker film acquires metallic properties and its surface atoms behave like those on bulk metal, whereas in thin layers the adsorbed atoms are bound to the substrate by adsorption forces and are differently sensitive to fields of opposite polarities. It is concluded that these results can be used to produce single crystals of low-melting-point metals for electron-microscopic research. "The author is grateful to corresponding-member of AN UkrSSR N. D. Morgulis for very useful remarks and to V. G. Medvedev for help in preparing the lamps." Orig. art. has: 2 figures and 1 formula.

Card 2/3



ACCESSION NR: A 4041713

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev(Institute of Physics, AN UkrSSR)

SUBMITTED: 01Feb64 ENCL: 00

SUB CODE: NP, 88 NR REF SOV: 005 OTHER: 005

Card 3/3

ACCESSION NR: AP4017403 S/0185/64/009/002/0223/0226

AUTHOR: Naumovets', A. G.

TITLE: Migration of potassium on tungsten in a strong electric field (brief note)

SOURCE: Ukrayins'ky*y fizy*chny*y zhurnal, v. 9, no. 2, 1964, 223-226

TOPIC TAGS: autoelectron microscope, surface migration, potassium migration, surface property, adsorption, desorption, tungsten cathode contaminant, metallic surface, electric field effect, mueller microscope

ABSTRACT: An autoelectron microscope (based on the Mueller design) was used to study the effect of an electric field on the migration of potassium along tungsten for a very small amount of coating (change in work function less than or equal to 0.8 eV). The measurements of the migration were based on the time characteristic of the autoelectronic current from the tungsten needle, the measurements being taken after the adsorbed K layer had been desorbed from the point under the action of the electric field and the diffusion of K from the periphery of the needle to its apex had begun. The thermal energy

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ACCESSION NR: AP4017403

of the migration of adsorbed atoms (adatoms) of K on W was determined from the slope of log t = f (1/T)curves,, t being the time required to reach a specified stage in the diffusion process, and T the temperature. The field due to auto-electrons raised only slightly the migration rate whereas the field due to auto-ions significantly lowered it. A discussion was given of various models of adatom mechanisms to explain the observed effects. "The author is indebted to Member-Correspondent of AN UkSSR H. D. Morgulis for his attention to this work". Orig. art. has 4 figs.

ASSOCIATION: Insty*tut Fizy*ky* AN URSR, Kiev (Institute of Physics, AN URSR)

SUBMITTED: 19Sep63 DATE ACQ: 19Mar64 ENCL: 00

SUB CODE: PH, SD NO REF SOV: 003 OTHER: 003

Card 2/2

AGEYKIN, V.S.; BARINOVSKIY, O.A.; BIBIK, V.F.; GORODETSKIY, D.A.; ISHCHUK, V.A.; KORCHEVOY, Yu.P.; NAUMOVETS, A.G.; PANCHENKO, O.A.

Eleventh Conference on the Physical Principles of Cathode Electronics. Radiotekh. i elektron. 9 no.6:1099-1113 Je '64. (MIRA 17:7)

NAUMOVETS, A.G.

Growth of lithium crystals from a film condensed on tungsten in an electric field. Fiz. tver. tela 6 no.7:2088-2093 Jl '64.
(MIRA 17:10)

1. Institut fiziki AN UkrSSR, Kiyev.

ACC NR: AP6037061 SOURCE CODE: UR/0056/66/051/005/1332/1340

AUTHOR: Gavrilyuk, V. M. (deceased); Naumovets, A. G.; Fedorus, A. G.

ORG: Institute of Physics, Academy of Sciences, Ukrainian SSR (Institut fiziki Akademii nauk Ukrainskoy SSR)

TITLE: Investigation of adsorption of cesium on a tungsten single crystal

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1332-1340

TOPIC TAGS: cesium, tungsten, work function, adsorption, crystal surface, epitaxial growing, single crystal structure

ABSTRACT: The purpose of the investigation was to obtain detailed quantitative data describing adsorption on substrates of known crystal structure, with emphasis on the cesium-tungsten system. To this end, the authors measured the work function for the (110), (112), (100), and (111) faces of a tungsten single crystal, as a function of the concentration of the cesium atoms adsorbed on the surface, by determining the field emission current from the individual faces in a Muller type electron projection tube. The experimental apparatus was similar to that used by the authors earlier for experiments with lithium on tungsten (FTT v. 8, 1821, 1966). The lowest work functions φ of the various faces are in the range 1.35 - 1.55 ev; the concentration in this case is respectively 2.6×10^{14}, 3.2×10^{14}, 3.8×10^{14}, and 4.0×10^{14} at/cm^2 for the (100), (110), (112), and (111) planes respectively (the accuracy is 0.1 ev).

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ACC NR: AP6037061

The effect of the structure and of the work function of the substrate on the shape of the $\varphi(n)$ curve is discussed. The adsorption characteristics of cesium and lithium on tungsten are compared. Whereas in the case of cesium a correlation is observed between $d\varphi/dn$ and φ, no such correlation is observed for lithium. The results also show that the role of the atomic structure of the surface increases markedly at high adsorbed atom concentrations, when two-dimensional epitaxial crystals of the adsorbate are produced. It is concluded that a knowledge of the structure of the films is just as important for a correct understanding of the mechanism of adsorption as a knowledge of the structure of the substrate. Orig. art. has: 4 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 09Jun66/ ORIG REF: 011/ OTH REF: 008

Card 2/2

NAUMOVETS, Andrey Semenovich; SHTEYNBOK, G.Yu., insh., red.; SMIRNOV, B.M., tekhn. red.

[Air humidity transducer with a humidity sensitive membrane] Datchik vlashnosti vozdukha s vlagochuvstvitel'noi plenkoi. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1957. 14 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 34. No.P-57-13/3) (MIRA 16:3)
(Humidity--Measurement) (Transducers)

NAUMOVETS, A. S., Cand Tech Sci -- (diss) "Electronic Tape ~~Pick-Up for~~ Recorder of Atmospheric Humidity and its Physical ~~Basics~~ principles."

Mos, 1958, 8 pp (Min~~istry~~ of Higher Education USSR. Moscow Order of Lenin and Order of ~~Red~~ Labor Red Banner Higher Technical School imeni Bauman). 150 copies. (KL, 34-58, 100)

17

NAUMOVETS, M.M.

Recent development in the erecting of drilling rigs with A-shaped derricks. Neft. khoz. 39 no.3:68-70 Mr '61. (MIRA 16:7)

(Kuybyshev Province—Cranes, derricks, etc.)

GAVRILYUK, V.M.; NAUMOVETZ, A.G.

Surface diffusion of adsorbed atoms in an electric field. Fiz. tver. tela 5 no.10:2792-2798 O '63. (MIRA 16:11)

1. Institut fiziki AN UkrSSR, Kiyev.

MANDIC, Dragutin, dr.; STOJANOVIC, Dragoslav, dr.; FOTIC, Milan, dr.; NAUMOVIC, Dusan, dr.

Our experiences in the treatment of oromaxillary fistulae of dental origin. Lijecn. vjesn. 85 no.3:269-273 '63.

1. Iz Otorinolaringoloskog odeljenja Zeleznicke bolnice Dedinje u Beogradu.

(FISTULA) (TEETH) (MOUTH)
(MAXILLARY SINUS)

MANDIC, Dragutin; NAUNOVIC, Dusan

Bronchoscopic aspects of pulmonary carcinoma. Srpski arh. celok. lek. 91 no.4:385-390 Ap '63.

1. Otorinolaringolosko odeljenje Zeleznicke bolnice Dedunje - Beograd Sef: prim. dr Dragoslav Stojanovic.
(LUNG NEOPLASMS) (BRONCHOSCOPY)

MAUMOVIC, M.; Sibalic, S.; VAJIC, B.

Vitamin A and carotene content in children's blood in the District of Kosovo-Metohija. Glas.hig.inst.,Beogr. 4 no.1-2:51-56 Jan-June '55.

(VITAMIN A, in blood,
in child. in Serbia,Yugosl.,normal content despite subnormal nutrition(Ser))
(CAROTENE, in blood
in child. in Serbia,Yugosl.,normal content despite subnormal nutrition(Ser))
(BLOOD
carotene & vitamin A in child. in Serbia, Yugosl., normal content despite subnormal nutrition(Ser))

YUGOSL VIA

B.S. SIMIC, S. SIBALIC, M. RAUKOVIC, F. PETROVIC and F. TODOROVIC; Federal Health Institute (Savezni zavod za zdravstvenu zastitu), Department of Hygiene of Medical Faculty (Higijenski institut Medicinskog fakulteta), and Health Institute of Peoples' Republic of Serbia (Zavod za zdravstvenu zastitu Narodna Republika Srbija) Belgrade.

"Vitamin A, Carotenoids and Tocopherol in Sera of Persons of Various Ages and Sex."

Belgrade, Higijena, Vol 14, No 3-4, 1962; pp 187-195.

Abstract Presentation and discussion of serum vitamin A, carotenoids and tocopherol values of 1 79 retired men and 10 women, average age over 70; using in diet plant oils or margarine; and B. 159 men and 150 women farmers using hog suet. Differences in general seemed to be not diet-derendent but mainly idiosyncratic. Three tables, 5 diagrams, 7 Yugoslav and 17 Western references.

1/1

SIBALIC, Stanimir; MAUMOVIC, Mihajlo; VAJIC, Bozidar

The normal values of vitamin A and carotene in blood in our country. Srpski arh. celok. lek. 83 no.5-6:638-643 May-June 55.

1. Higijenski institut Narodne Republike Srbije u Beogradu. Direktor: Radomir Geric.
(VITAMIN A, in blood
in Belgrade workers (Ser))
(CAROTENE, in blood
in Belgrade workers (Ser))
(BLOOD
vitamin A & carotene in Belgrade workers (Ser))

SIMIC, Bozidar, S.; NAUMOVIC, Mihajlo

Significance of capillary resistance in the determination of the saturation of an organism with vitamin C. Srpski arh. celok. lek. 84 no.1:27-32 Jan 56.

1. Higijenski institut Medicinskog fakulteta u Beogradu, v.d. upravnika: doc. dr. Miomir Savicevic. Higijenski institut NR Srbije u Beogradu, direktor: dr. Radomir Geric.

(VITAMIN C
saturation, relation to capillary resist. (Ser))
(CAPILLARIES
resist., relation to determ. of vitamin C saturation (Ser))

NAUMOVIC, M.J.

Dynamics of carotin, vitamin A, and vitiamin B in cow milk under the influence of the breed, lactation, season, and nutrition. Bul sc Youg 9 no.5:173 D '64.

1. Institute of Health Protection of Servia, Belgrade. Submitted Maron 24, 1964.

16(1)
AUTHORS: Myshkis, A.D., Naumovich, A.F. SOV/20-124-5-4/62

TITLE: An Improvement of the Method of Recurrence Sequences for the Investigation of Differential Equations With Lagging Argument (Utochneniye metoda vozvratnykh posledovatel'nostey dlya issledovaniya differentsial'nykh uravneniy s zapazdyvayushchim argumentom)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 5, pp 976-979 (USSR)

ABSTRACT: The authors investigate the equation

(1) $y'(x) = -M(x)y(x-\Delta(x))$, $A \leq x < \infty$, $M(x) \geq 0$, $\Delta(x) \geq 0$

$M(x) \leq M_0 < \infty$; $\Delta(x) \leq \Delta_0 < \infty$; $y(x)$ given for

$A - \Delta_0 \leq x \leq A$, all the functions are continuous. The announced improvement consists in the fact that for the estimation of the increments of the solution the axis is not divided into intervals of the length Δ_0 (like in [Ref 1,2], where Δ_0 is the upper bound of the dead times), but into intervals of the length $\Delta_0/(n-1)$, $n = 2,3,\ldots$. Theorem : Let be $y(x) \leq y(A) > 0$ $(A \leq x \leq B)$ and $y(B) = 0$, $B \in (A, \infty)$. Then

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An Improvement of the Method of Recurrence Sequences for the Investigation of Differential Equations With Lagging Argument SOV/20-124-5-4/62

max $y(x)$ is for $A - \Delta_0 \leq x \leq A$ larger than $y(A)$. Theorem: Let be $y(x) \geq 0$, $A - \Delta_0 \leq x \leq A$. Then for $A \leq x < \infty$ the set of zeros of the function $y(x)$ is connected (or empty). Theorem: All the solutions of (1) can be of three different kinds: 1. Different from zero for sufficiently large x (not oscillating) 2. The sign on every interval $[D - \Delta_0, D]$, $A \leq D < \infty$ is alternating (oscillating solution) 3. For all sufficiently large x identically equal to zero. For every solution of first kind there holds for large x: $|y(x)| > C\alpha_1^{-(n-1)x/\Delta_0}$ or $|y(x)| < C\alpha_2^{-(n-1)x/\Delta_0}$; $C = \text{const} > 0$.

Card 2/3

An Improvement of the Method of Recurrence Sequences for the Investigation of Differential Equations With Lagging Argument 307/20-124-5-4/t

There are 3 Soviet references.

PRESENTED: October 6, 1958, by I.G. Petrovskiy, Academician

SUBMITTED: October 3, 1958

Card 3/3

NAUMOVICH, G.S., inzh. (Leningrad)

Designs of suspension crossings to be used in constructing the Gazli-Ural gas pipeline. Stroi. truboprov. 5 no.3:24-25 Mr '60. (MIRA 13:9)

(Gas, Natural-- Pipelines)

NAUMOVICH, Nina Vasil'yevna; FAZEL'SKIY, S.V., redaktor; RYBIN, I.V., [redacted] redaktor

[Loci in space and problems in projection; a manual for teachers] Geometricheskie mesta v prostranstve i zadachi na postroenie; posobie dlia uchitelei. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshchenila RSFSR, 1956. 154 p. (MLRA 10:1)
(Geometry, Solid)

NAUMOVICH, Nina Vasil'yevna; PAZEL'SKIY, S.V., red.; TATURA, G.L., tekhn.red.

[Simplest geometric transformations in space and in constructional problems] Prosteishie geometricheskie preobrazovaniia v prostranstve i zadachi na postroenie. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1959. 131 p. (MIRA 13:2)
(Geometry--Problems, exercises, etc.)

NAUMOVICH, N.V.

16(1) PHASE I BOOK EXPLOITATION SOV/2660

Vsesoyuznyy matematicheskiy s"yezd. 3rd, Moscow, 1956

Trudy. t. 4: Kratkoye soderzhaniye sektsionnykh dokladov. Doklady inostrannykh uchenykh (Transactions of the 3rd All-Union Mathematical Conference in Moscow. vol. 4: Summary of Sectional Reports. Reports of Foreign Scientists) Moscow, Izd-vo AN SSSR, 1959. 247 p. 2,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Matematicheskiy institut.

Tech. Ed.: G.N. Shevchenko; Editorial Board: A.A. Abramov, V.G. Boltyanskiy, A.M. Vasil'yev, B.V. Medvedev, A.D. Myshkis, S.M. Nikol'skiy (Resp. Ed.), A.G. Postnikov, Yu. V. Prokhorov, K.A. Rybnikov, P. L. Ul'yanov, V.A. Uspenskiy, N.G. Chetayev, G. Ye. Shilov, and A.I. Shirshov.

PURPOSE: This book is intended for mathematicians and physicists.

COVERAGE: The book is Volume IV of the Transactions of the Third All-Union Mathematical Conference, held in June and July 1956. The book is divided into two main parts. The first part contains summaries of the papers presented by Soviet scientists at the Conference that were not included in the first two volumes. The second part contains the text of reports submitted to the editor by non-Soviet scientists. In those cases when the non-Soviet scientist did not submit a copy of his paper to the editor, the title of the paper is cited and, if the paper was printed in a previous volume, reference is made to the appropriate volume. The papers, both Soviet and non-Soviet, cover various topics in number theory, algebra, differential and integral equations, function theory, functional analysis, probability theory, topology, mathematical problems of mechanics and physics, computational mathematics, mathematical logic and the foundations of mathematics, and the history of mathematics.

NAUMOVICH, N.Ye., agronom-entomolog; ARKHANGEL'SKIY, Pav. P., agronom-entomolog; MAL'KOVSKIY, N.P., agronom-entomolog; POTAPOV, A.N., agronom-entomolog

Plant Protection Service of Kazakhstan needs to be improved.
Zashch.rast.ot vred. i bol. 3 no.6:26-27 N-D '58. (MIRA 11:12)
(Kazakhstan--Plants, Protection of)

NAUMOVICH, N.Ye.

Solve a series of urgent organizational problems. Zashch.rast. ot vred.i bol. 5 no.7:4-6 Jl '60. (MIRA 16:1)
(Kazakhstan--Plants, Protection of)

MAUKOVICH, S.S., general-mayor artillerii; ZHEREBTSOV, A.A., polkovnik, redaktor; SHIBNIS, N.V., tekhnicheskiy redaktor.

[Determining distances by simple means] Opredelenie rasstoianii prosteishimi sposobami. Moskva, Voennoe izd-vo Ministerstva oborony Soiuza SSR, 1954. 70 p. [Microfilm] (MLRA 8:2)
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YUGOSLAVIA

BUKUROV, Stanislav; GLIDZIC, Vukasin; STEFANOVIC, Branislav; and NAUMOVIC, Dragoslava, First Surgical Clinic of Medical Faculty of the University (I Khirurska Klinika Medicinskog Fakulteta Univerziteta); Head (Upravnik) Prof Dr Ljubomir RASOVIC, Belgrade

"Immediate Humoral Changes During Shock"

Belgrade, Srpski Arhiv za Celokupno Lekarstvo, Vol 94, No 4, Apr 66; pp 307-322

Abstract: [German summary modified] Data obtained during close monitoring of 18 patients before, during and after major operations. Diagnosis, 17-keto and 17-hydroxy steroids, creatinine clearance, serum proteins, blood urea nitrogen, serum potassium sodium and chloride and alkaline reserve. The changes are tabulated and discussed, with suggestions about measures which may speed recovery and prevent drawn-out convalescence. 10 tables, 1 Soviet, 7 Western references. Manuscript received 15 Dec 65.

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(FEMUR, fract.
medial osteosynthesis with three-flanged nail, appar. for insertion (Rus))

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NAUMOVICH, Semen Stepanovich; GUTKOVSKAYA, O., red.; YERMOLENKO, V., tekhn. red.

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An illustrated description is given of a rotary drum dryer in which milled peat is dried by flue gases and exhaust steam on its way to a briquetting plant. (L)

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(Peat) (Combustion, Spontaneous)

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