2

Radiation grafting of ...

S/844/62/000/000/080/129
D4..3/D307

rene took place on direct contact of fibers with pure styrene and with a solution of styrene in methanol. Grafting with methylmethacrylate took place by conditioning the fibers in the presence of substances which dissolve polymethylmethacrylate, i.e. acetone and acetoacetic ester. The extent of grafting was increased with increase of dosage up to defined limits, after which it is sharply retarded. Methylmethacrylate grafted to viscose produced material which could be dyed with basic dyestuffs and by grafting styrene and methylmethacrylate to the various fibers it was found that their dynamometric properties were improved. It was also found that copolymerization of fibrous materials with styrene and methylmethacrylate with up to 50 - 80% grafting, took place within the fiber. There are 5 figures.

ASSOCIATION: Institut yadernoy fiziki AN UzbSSSR (Institute of Nuclear Physics, AS UzSSR)

Card 2/2

ARIF V, U.A., akademik; KLEYN, G.A.; OKUN', G.S.; PASHINSKIY, S.Z.; OSIPOVA, L.Kh.; FAYERMAN, V.T.

Vacuum investigation of deformations of natural silk irradiated by gamma rays. Izv.AN Uz.SSR.Ser.fiz.-mat.nauk no.3:32-37 '60. (MIRA 13:8)

1. Institut yadernoy fiziki AN UzSSR i Uzbekskiy nauchno-issledovatel'skiy institut shelkovoy promyshlennosti. 2. AN UzSSR (for Arifov).

(Gamma rays)
(Silk)
(Materials, Effect of radiation on)

RUBIN OV, Emmanu[illegible] [illegible], doktor tekhn. nauk; OSIPOVA, Lyudmila Khaimovna, NIKITIN, I[illegible] [illegible]il'yevich; GORYA[illegible], [illegible].I., retsenzent; [illegible]

[illegible] on [illegible] Av[illegible] [illegible].
[illegible], [illegible].

L 48596-65 EWG(j)/EWP(1)/EWI(m)/EWP(j)/EEC(t)/T/EWP(t)/EWP(b)/EED(b)-3/
EWA(h)/EWA(1) Pe-4/Peb/PL-4 IJP(c) JD/RM

ACCESSION NR: AP5012029 UR/0377/65/000/001/0039/0043

AUTHOR: Kleyn, G. A.; Osipova, L. Kh.; Sultanova, M. G.; Alimova, R. I.

TITLE: Improving the properties of polymer films by infrared irradiation

SOURCE: Geliotekhnika, no. 1, 1965, 39-43

TOPIC TAGS: infrared radiation, polyamide, polyethylene, solar generator, polymer

ABSTRACT: Infrared radiation has been shown to improve the mechanical properties of polyamide and polyethylene films without changing their appearance and optical properties, and to increase somewhat their subsequent resistance to sunlight. Films of polyamide (type PK-4, 0.07 mm thick) and polyethylene (0.2 mm thick) were irradiated with infrared light at a mean temperature of 80° C for 50 to 250 hr. Their tensile strength, elongation, fatigue life, transmission coefficient, and morphology were determined and compared with those of control specimens.

It was found that infrared irradiation promoted macromolecular ordering in the films and effectively improved their mechanical properties. For

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ACCESSION NR: AP5012029

example, 50-hr irradiation of the polyamide film increased tensile strength by 63%, fatigue life by 119%, and elongation by 25.3%. The transmission coefficient in the range 410—635 mμ changed insignificantly after irradiation for 150 hr. X-ray patterns showed that no changes occurred in microstructure. Similar but less marked improvements were obtained for the polyethylene film. The degree of order (orientation) of this film increased. The resistance to the detrimental effect of sunlight increased for both films. This work was done in connection with the recent use of polymeric films in various types of solar generators. Orig. art. has 5 figures and 3 graphs.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UzSSR (Physico-Technical Institute AN UzSSR)

SUBMITTED: 28Oct64 ENCL: 00 SUB CODE: OC, OP

NO REF SOV: 002 OTHER: 003 ATD PRESS: 3241-F

Card 2/2

AID P - 3971

Subject : USSR/Chemistry

Card 1/1 Pub. 78 - 16/27

Authors : Butkov, N. A. and L. M. Osipova

Title : Condensing properties of catalysts.

Periodical : Neft. khoz., v. 33, #12, 64-67, D 1955

Abstract : The author presents a laboratory method for determining the activity of catalysts in respect to the reaction of condensation. Tables, charts, 5 references, 1935-1952.

Institution : None

Submitted : No date

BUTKOV, N.A., prof.; VOLKOV, A.S., inzhener-kapitan 1-go ranga; KRIPOVA, L.M., inzh.; PONCHUL, A.F., kand.tekhn.nauk

Protection of cylinder bushings and internal combustion engine blocks against corrosion. Mor. sbor. 46 no.7:73-78 Jl '63. (MIRA 16:11)

Osipova, L. M.

62

The condensing capacity of catalysts. N. A. Buzdov and L. M. Osipova. *Neftyanoe Khoz.* 33, No. 12, 64-7(1955).—A method was developed for the detn. of the condensing capacity of catalysts, based on measuring the extent of anthracene condensation by sealing a weighed sample of anthracene with the powd. catalysts in a glass tube and keeping it in an air bath for a definite time and at a fixed temp., rotating the tube with the sample. The unreacted anthracene in the sample was sublimed on a sand bath at 210-230°. The results are shown in a table, as percent of the converted anthracene. The catalysts tested were $ZnCl_2$ (anhyd. and in water soln.), $AlCl_3$, $AlCl_3.6H_2O$, $FeCl_3.6H_2O$, petroleum coke, a spherical catalyst, Houdry catalysts, various Russian Al silicate catalysts, and a bauxite. W. M. Sternberg

PHASE I BOOK EXPLOITATION SOV/6521

Osipova, L. N., and S. A. Tumarkin

Tablitsy dlya rascheta toroobraznykh obolochek (Tables for the Design of Toroidal Shells) Moscow, AN SSSR VTs, 1963. 91 p. 2200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Vychislitel'nyy tsentr.
Resp. Ed.: V. A. Ditkin, Professor; Ed.: I. A. Orlova;
Tech. Ed.: A. I. Korkina.

PURPOSE: The book is intended for designers and structural analysts concerned with designing shell constructions for strength and stability.

COVERAGE: Tables are composed for an asymptotic solution of differential equations of toroidal shells under symmetrical loading (see the article by S. A. Tumarkin in Prikladnaya matematika i mekhanika, v. 23, no. 6, 1959). The tables of generalized Airy functions by L. N. Nosova and S. A. Tumarkin,

Card 1/4

published by the Vychislitel'nyy tsentr AN SSSR, 1961, are also used. The tables were computed on the "Strela" high-speed electronic computer; they contribute largely to the simplification of shell design since the asymptotic method offers formulas for maximal stresses, displacements, and other quantities. The tabulated functions and their derivatives are explained and plotted in diagrams. The arrangement and utilization of the tables are discussed and illustrated by examples. The derivation of design formulas is briefly outlined and the general solution of the differential equation of the shell is given by a simple sum, each term of which is a tabulated function. Sample analyses of toroidal shells are presented and some results are given in tabular and graphic form. The authors thank M. A. Rudis, N. N. Perevezentseva, K. S. Il'in, T. V. Firsova, T. V. Mazurova, and V. I. Pasynkova. There are 14 references: 10 Soviet and 4 English.

TABLE OF CONTENTS [Abridged]:

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Tables for Design (Cont.) SOV/6521

Appendix 1. Tables of Generalized Airy Functions $\zeta_n(is)$ and Their Derivatives With Respect to s, $0 \leq s \leq 6$; $n = 0;1$ 85

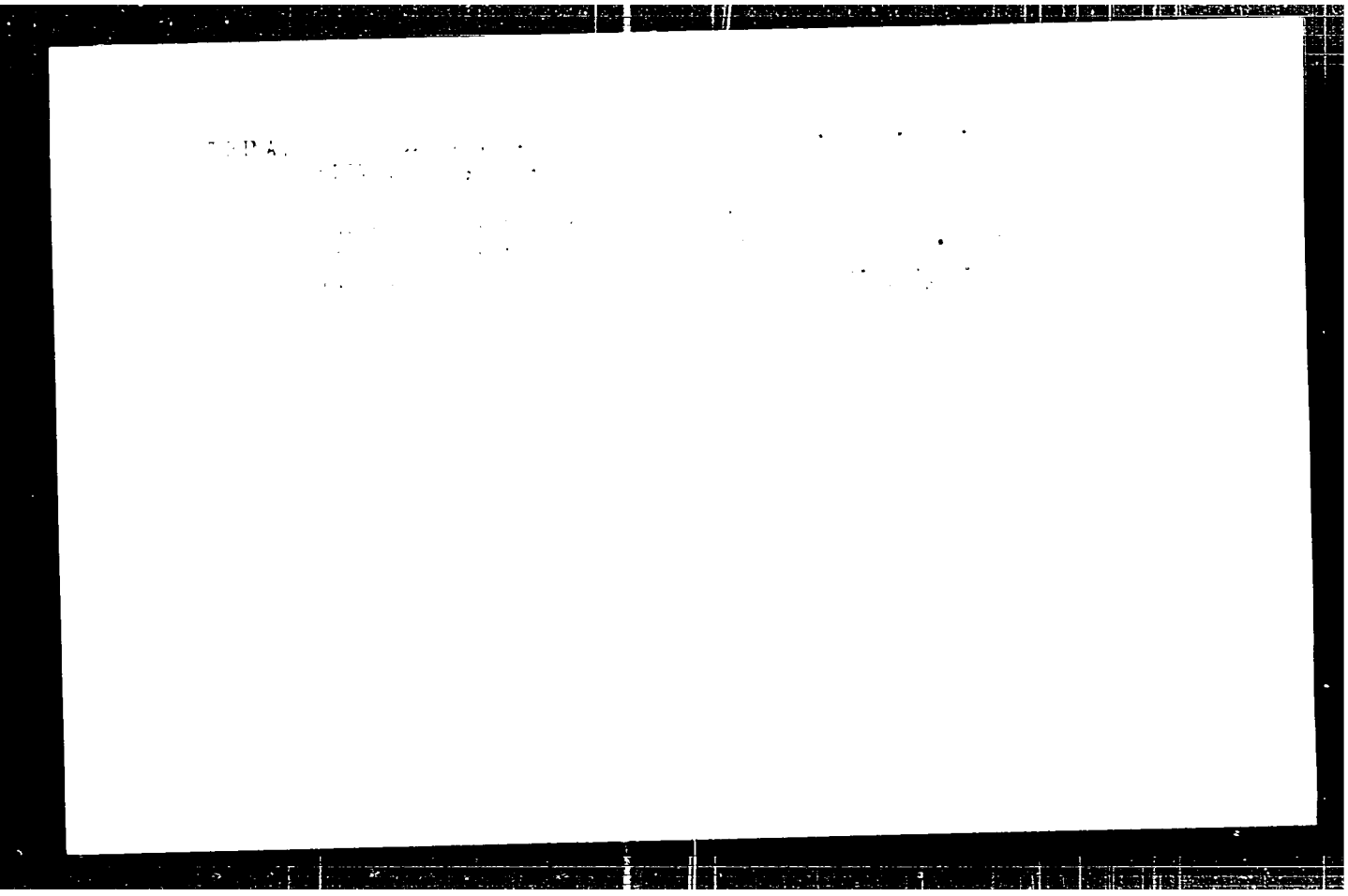
Appendix 2. Tables of Airy Functions $h_k(is)$ and Their Derivatives With Respect to s. $0 \leq s \leq 6$; $k = 1;2$ 89

AVAILABLE: Library of Congress

SUBJECT: Structural Mechanics

Card 4/4

IS/zp/eb
5/18/64



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

24(7), 5(3)
AUTHORS: Bazhulin, P.A. and Osipova, L.P.

SOV/51-6-5-14/34

TITLE: The Difference Between Energies of Rotational Isomers in Liquid and Gaseous 1,2-fluorochloroethane (Raznost' energiy povorotnykh izomerov v zhidkom i gazoobraznom 1,2-ftorkhloretane)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 5, pp 625-630 (USSR)

ABSTRACT: The paper reports work on the problem of existence and configurations of the stable forms of 1,2-fluorochloroethane (FH_2C-CH_2Cl). The differences between the energies of geometrical isomers in gaseous and liquid phases were also determined. For this purpose the Raman and infrared absorption spectra of 1,2-fluorochloroethane were studied. The Raman spectrum was obtained photographically using a spectrograph ISP-51. The measured frequencies of the Raman lines (146-3046 cm^{-1}), their intensities and the degrees of depolarization are given in Table 1 cols 1, 2 and 3 respectively. The iron spectrum was used as a standard. The intensities were estimated visually on a ten-point scale ranging from "very strong" to "very weak". The degree of depolarization of the lines was determined photographically. Instead of the 18 frequencies expected for a non-linear 8-atom molecule (Ref 1) the authors recorded 23 Raman line frequencies (Table 1). This higher number of vibrational frequencies is due to the existence of two

Card 1/3

isomeric forms of the 1,2-fluorochloroethane molecule. The existence of the two isomeric forms can be confirmed by changes in the spectrum occurring on lowering of temperature. When temperature is lowered, the proportion of the less stable isomer decreases and in the solid phase only the stable form should exist. Unfortunately, the Raman spectra of crystalline 1,2-fluorochloroethane could not be obtained because of a strong background. Consequently the studies were continued by turning to the infrared spectra. A two-beam spectrometer IKS-2 was used to obtain the infrared spectrum between 600 and 1500 cm^{-1}. The effect of temperature on the infrared band intensities could be seen in the measured frequencies of the gaseous (col 4 of Table 1), liquid (col 5) and crystalline (col 6) states. Fig 1 shows the form of the infrared absorption curves in gas (a) and in liquid (б). Fig 2a shows the absorption spectrum of liquid 1,2-fluorochloroethane in the region 850-700 cm^{-1} at +25 and -50°C. Fig 2 b shows the absorption spectrum of the crystal in the region 850-700 cm^{-1} at -185°C. Table 1 and Fig 2 show that the infrared absorption bands at 759 and 1252 cm^{-1}, which are present in the liquid and gaseous phases, have disappeared from the solid 1,2-fluorochloroethane. This confirms that there are two isomers in the gaseous and

The Difference Between Energies of Rotational Isomers in Liquid and Gaseous 1,2-Fluorochloroethane

liquid form and one isomer in the solid state. The trans-isomer is more stable in the gaseous phase while the cis-form is stable in the solid and liquid phases. The difference between the energies of the two geometrical isomers in the liquid form was found to be 470 ± 60 cal/mole and the same difference in the gaseous phase was 60 ± 40 cal/mole. These values were deduced from the integral optical densities of the absorption bands of 1,2-fluorochloroethane. Similar values were obtained from the optical densities at the band maxima. Acknowledgments are made to A.M. Prokhorov and I.A. Mukhtarov for their advice. There are 2 figures, 2 tables and 13 references, 7 of which are Soviet, 1 translation from English into Russian and 3 English.

SUBMITTED: June 9, 1958

ZUBOV, V.G.; OSIPOVA, L.P.

Intensity and line width of the Raman effect in α-quartz.
Kristallografiia 6 no.3:418-425 My-Je '61. (MIRA 14:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Quartz crystals—Spectra)
(Raman effect)

ZUBOV, V.G.; OSIPOVA, L.P.; FIRSOVA, M.M.

Effect of constant voltage on the intensity and width of Raman spectrum lines of α-quartz. Kristallografiia 6 no.5:777-778 S-O '61. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Raman effect) (Quartz)

S/070/62/007/004/012/016
E021/E435

AUTHORS: Zubov, V.G., Osipova, L.P.

TITLE: Intensity and width of lines of combination scattering in synthetic quartz

PERIODICAL: Kristallografiya, v.7, no.4, 1962, 630-631

TEXT: Low pressure mercury lamps with a very low background were used. This resulted in a considerable decrease of the parasitic scattering and enabled measurements on the lines 128, 206, 266, 357, 466, 696, 795-805, 1061, 1081 and 1159 cm^{-1}; these were carried out on a ДФС-4 (DFS-4) spectrometer. The intensity of the lines 206, 266, 357, 466 and 696 cm^{-1} on the spectra of synthetic and natural quartz agreed; the total intensity of the band 1061-1081 cm^{-1} was greater in synthetic than in natural quartz. The intensity of the doublet 795-805 cm^{-1} was somewhat less in synthetic than in natural quartz. The intensity and the width of the line 128 cm^{-1} were both greater for synthetic than for natural quartz. The synthetic quartz possessed a layer structure, which might explain the appearance of a weak line with

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S/020/62/144/004/010/024
B125/B108

AUTHORS: Zotov, V. D., and Galpova, L. P.

TITLE: The Raman scattering in α-quartz irradiated by fast neutrons

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 4, 1962, 767-769

TEXT: The spectrum of the Raman scattering on a quartz single crystal was investigated. Irradiation of the crystal by fast neutrons diminished the density of the sample from 2.65 to 2.49 g/cm^3. The sample retained a residual β-activity, turned light-violet, and began to absorb ~50 % of the incident light of 5800 - 4000 Å. The intense fluorescence with its maximum at 5750 Å decreased monotonically. Owing to the intense background, only the brightest peaks of the spectrum could be determined with an ИСП-51 (ISP-51) spectrograph. The very reliable photoelectric method, however, gave the whole (continuous) spectrum of the Raman scattering up to 150 cm^{-1} (Fig.1). Many of the peaks are caused by the very diffuse lines of the non-irradiated quartz. New peaks at 540, 930, 1050, 1350 cm^{-1} were found. The diffuse maxima of the irradiated quartz spectra are 20 - 30 times less intense than

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S/070/63/008/002/003/017
E039/E435

AUTHORS: Zhdanov, G.S., Zubov, V.G., Kolontsova, Ye.V., Osipova, L.P., Telegina, I.V.

TITLE: Radiation effects in α-quartz

PERIODICAL: Kristallografiya, v.8, no.2, 1963, 207-212

TEXT: A comparison of the Raman spectra of α-quartz before and after exposure to neutrons is carried out. The structural characteristics are obtained by the Laue method and the anomalous X-ray scattering method. The investigated sample is cut from a block of optical quality Brazilian quartz in the form of a cube 30 x 30 x 30 mm with the edges parallel to the principle axes and is subjected to a fast neutron flux of 7×10^{19} n/cm^2. This produces a change in density of the quartz from 2.65 to 2.49 g/cm^3. The sample acquires an insignificant γ activity, a smoky violet color and the ability to fluoresce (max λ = 5750 Å). The main features of the spectrum of the irradiated α-quartz are: a) the spectrum is continuous up to 1500 cm^{-1}; b) it contains a number of blurred wide maxima; c) in the region 700 to 1500 cm^{-1} the scattering is very similar in character to that of molten

Card 1/2

Radiation effects in α-quartz

quartz; d) the intensity of scattering in the irradiated quartz depends on the orientation of the crystal. The X-ray analysis shows that the third order symmetry C_3 is changed to sixth order C_6 by the irradiation and there is a significant change in the distribution of diffuse scattering. As a result of neutron irradiation, the structure of α-quartz is thought to change in the following manner: 1) Initially, defects develop which lead to a weakening and breaking of the Si-O bond and hence to the possibility of rearrangement in the Si-O tetrahedrons. 2) At a definite stage of the exposure the α-quartz becomes unstable and there is a transition to the more symmetrical high temperature modification. This remains stable at room temperature. 3) There is a complete loss of orientation in parts of the crystal. There are 4 figures.

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

SUBMITTED: July 10, 1962

Card 2/2

ACCESSION NR: AP4036721 S/0020/64/156/002/0300/0301

AUTHOR: Zubov, V. G.; Osipova, L. P.

TITLE: Regularities in spectrum changes of Raman effect in alpha-quartz caused by irradiation with fast neutrons.

SOURCE: AN SSSR. Doklady*, v. 156, no. 2, 1964, 300-301

TOPIC TAGS: fast neutron irradiation, quartz Raman spectrum, alpha-quartz, beta quartz, irradiated quartz Raman spectrum, Raman spectrum

ABSTRACT: The authors have recorded the Raman spectra in alpha-quartz irradiated by neutron fluxes of 4.5 and 7 x 10^{19} n/cm^2, respectively. It was found that irradiation causes a gradual decrease of maxima corresponding to Raman lines of a nonirradiated quartz and an increase of their widths. The maxima are shifted toward smaller frequencies; the continuous spectrum is increasing. The Raman spectra of the specimen irradiated with 7 x 10^{19} n/cm^2 approaches that of beta-quartz. Heating has a similar effect. It seems that the end result of neutron irradiation is the creation of regions of amorphous quartz. Orig. art. has: 1 figure and 1 table.

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ZHDANOV, G.S.; ZUBOV, V.G.; KOLONTSOVA, Ye.V.; OSIPOVA, L.P.; TELEGINA, I.V.

Radiation effects in α-quartz. Kristallografiia 8 no.2:207-212 Mr-Ap '63. (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

L 26753-66 EWT(l)/EWP(e)/EWT(m) WH

ACC NR: AP6011470 SOURCE CODE: UR/0070/66/011/002/0279/0283

AUTHOR: Kiselev, D. F.; Osipova, L. P.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvenny universitet)

TITLE: Measurement of the polarization of the Raman scattering lines of α quartz

SOURCE: Kristallografiya, v. 11, no. 2, 1966, 279-283

TOPIC TAGS: quartz, Raman scattering, light polarization, line intensity, depolarization

ABSTRACT: The purpose of the investigation was to obtain experimentally quantitative data on the true values of the degree of depolarization in the form of a Raman-scattering tensor for all the lines belonging to class E. The procedure employed was described in an earlier paper (Kristallografiya, v. 11, 1965). The fundamental lines of class E were recorded photoelectrically and the absolute values of the Raman-scattering tensor components and the true values of the degree of depolarization for all fundamental orientations of the crystal were determined for the measured lines. To be able to reduce the values of the tensor components and their squares to a single scale, the entire spectrum of the α quartz was plotted under rigorously fixed conditions -- constant slit width, constant photomultiplier voltage, constant amplifier gain, constant scanning rate, and constant advance of the chart. Once all the components were obtained with a single scale, it was easy to obtain the true intensities of all the Raman lines at different crystal orientations. It is concluded on the

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UDC: 548.0: 535.5

Card 2/2

L 30954-66 EWP(e)/EWT(m) WH
ACC NR: AP6018768 SOURCE CODE: UR/0070/66/011/003/0401/0409

AUTHOR: Kiselev, D. F.; Osipova, L. P.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Polarization measurements in the spectrum of combined dispersion alpha-quartz /5

SOURCE: Kristallografiya, v. 11, no. 3, 1966, 401-409

TOPIC TAGS: polarographic analysis, spectrum analysis, quartz

ABSTRACT: A photoelectric method was used to measure the polarization of the principal lines of Class A in the spectrum of combination dispersed α-quartz. Formulas are derived which, from the observed intensities of the combined lines, taken with different irradiation geometries, make it possible to calculate the true values of the intensities of the polarized components of the dispersed light, the degree of depolarization, and the components of the tensor of the combination dispersion. On a relative scale, determinations were made of the components of the tensor of the combination dispersion for the 206, 357, and 466 cm^{-1} lines of α-quartz. Experimental results are

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UDC: 548.0:537.375

L 36954-66
ACC NR: AP6018768

exhibited in tabular form. "In conclusion, the authors consider it their duty to express their deep indebtedness to Professor Y. G. Zubov for his constant interest and his direction of the work. The authors also express their thanks to Ye. G. Yefimova for her aid in obtaining the experimental results." Orig. art. has: 2 figures and 9 tables.

SUB CODE: 20/ SUBM DATE: 03Mar65/ ORIG REF: 004/ OTH REF: 015

Card 2/2

OSIPOVA, L S

11H

Action of optical isomers of acriquine on Paramecium caudatum in various salt compositions of the medium L. S. Osipova (Moscow State Univ. *Byull. Eksptl. Biol. Med.* 12, 290-1(1941). Solns. (0.01-0.2%) of acriquine optical isomers in 0.05% solns. of NaCl, KCl, $CaCl_2$ and $MgCl_2$ were studied for killing power against *P. caudatum*. In the presence of NaCl, KCl, and $MgCl_2$ both optical isomers had equiv. toxicity. In $CaCl_2$ soln., however, the *l* isomer is more toxic than the *d* isomer, with the greatest difference at 0.01% acriquine concn. when the toxicity ratio was 16.5; higher concns. gave ratios of 1.11-4.75. G. M. Kosolapoff

SERGIYEV, P.G., prof., red.; BEKLEMISHEV, V.N., prof., red.; DERBENEVA-UKHOVA, V.P., prof., red.; DETINOVA, T.S., doktor biol. nauk, red.; LANGE, A.B., kand. biol. nauk, red.; OSIPOVA, L.S., red.

[Problems of general zoology and medical parasitology]Voprosy obshchei zoologii i meditsinskoy parazitologii. Moskva, Medgiz, 1962. 610 p. (MIRA 16:1)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Sergiyev). 2. Kafedra zoologii Moskovskogo gosudarstvennogo universiteta (for Beklemishev, Lange). 3. Institut meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I.Martsinovskogo (for Derbeneva-Ukhova, Detinova).
(ZOOLOGY) (PARASITOLOGY)
(BEKLEMISHEV, VLADIMIR NIKOLAEVICH, 189(-)

LINEVA, V. A.; OSIPOVA, L. S.; TAMARINA, N. A.

Method for determining the resistance of the housefly Musca domestica L. to insecticides. Report No. 1. Med. paraz. i paraz. bol. no.4: 465-470 '61. (MIRA 14:12)

1. Iz Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye. I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P. G. Sergiyev) i Moskovskogo ordena Lenina gosudarstvennogo universiteta imeni M. V. Lomonosova.

(FLIES—EXTERMINATION) (INSECTICIDES)

BABOKOV, Valeriyan Aleksandrovich, prof.; OSIPOVA, L.S., red.; BUL'DYAYEV, B.A., tekhn. red.

[Contact insecticides, their properties and use in medical disinfection] Kontaktnye insektitsidy, ikh svoistva i primenenie v meditsinskoi dezinfektsii. Moskva, Gos. izd-vo med. lit-ry, 1958. 245 p. (MIRA 11:12)
(INSECTICIDES)

PEREDEL'SKIY, A.A.; OSIPOVA, L.S.; YEFIMOV, V.N.

Working out electrotechnical methods for controlling sugar beet weevils. Biofizika 1 no.5:472-479 '56. (MLRA 9:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(WEEVLS) (BEET PESTS)
(ELECTRICITY IN AGRICULTURE)

TOPCHIYEV, A.V., akademik; OSIPOVA, L.V.; PANTALOVA, Ye.L.

Polymerization of allylcyclopentane in the presence of the catalytic system $TiCl_4$ + $Al(iso\text{-}C_4H_9)_3$. Dokl. AN SSSR 147 no.5:1098-1101 D '62. (MIRA 16:2)

1. Institut neftekhimicheskogo sintesa AN SSSR.
(Cyclopentane) (Polymerization) (Catalysts)

L 13348-63 EWP(j)/EPF(c)/EWT(m)/BDS ASD Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3002773 S/0204/63/003/003/0330/0335

AUTHOR: Topchiyev, A. V.; Pantalova, Ye. L.; Osipova, L. V. 66 64

TITLE: Polymerization of some allylcyclanes and allylcyclenes in the presence of Ti, Cl sub 4 plus Al (iso-C sub 4 H sub 9) sub 3

SOURCE: Neftekhimiya, v. 3, no. 3, 1963, 330-335

TOPIC TAGS: naphthenic ring, allylcyclohexane, allylcyclopentane, cyclohexane, allylcyclopentane polymerization, polymerization

ABSTRACT: The object of this study is to explain the effect of the naphthenic ring on the reaction ability of a monomer, and on the properties of a polymer. For this purpose the polymerization of 1-allylcyclohexene-1, 1-allylcyclopentene-1, allylcyclohexane and allylcyclopentane in the presence of Ti Cl sub 4 plus Al (iso-C sub 4 H sub 9) sub 3 were studied. It was found that, in the presence of the Ti Cl sub 4 plus Al (iso - Cl sub 4 H sub 9) sub 3 catalyst, the replacement of cyclopentane rings with cyclohexane rings during the polymerization of allylcyclopentane and allylcyclohexane monomers, essentially does not affect the course of the reaction. Both monomers form crystalline

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L 13348-63

ACCESSION NR: AP3002773

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polymers of regular structures. It was shown, that the introduction of the double bond into the cyclopentane and cyclohexane ring in the 1-position in relation of the side chain sharply lowers the inclination of monomers towards polymerization in the indicated catalytic system. The polymerization of 1-allylcyclopentane-1 and 1-allylcyclohexane-1 in the same system resulted in the formation of a mixture of liquid polymers of an irregular structure with a predominant content of trimers. The trimer formation is also possible if 1-allylcyclopentane-1 is left standing for a long period of time. Orig. art. has: 2 tables.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR im. A. V. Topchiyeva (Institute of Petrochemical Synthesis, AN SSSR)

SUBMITTED: 15Oct62 DATE ACQ: 23Jul63 ENCL: 00

SUB CODE: OC NO REF SOV: 004 OTHER: 005

Card 2/2

USSR

Oxidation of hydrocarbons with oxygen. Oxidation of isopropylcyclohexane. M. S. Eventova, P. P. Borisov, and L. V. Osipova. *Vestnik Moskov. Univ.* 9, No. 6, *Ser. Fiz.-Mat. i Estestven. Nauk* No. 4, 91–8(1954).—Hydrogenation of iso-PrPh over Raney Ni at 160° gave isopropylcyclohexane, b_{760} 153.3–4°, n_D^{20} 1.4419, d_{20} 0.8000. This was oxidized at atm. pressure with O [for app. cf. B. and Zal'tsman, *Uchenye Zapiski Moskov. Gosudarst. Univ.* 151, 85(1951)] 3 hrs. at 140° with circulation of O through the substrate at 61./hr.; under these conditions 12.4% conversion occurred. The reaction products included: traces of paraffin gases, CO_2, gaseous aldehyde, AcOH, $(CH_2)_4(CO_2H)_2$, Me_2CO, cyclohexanone, cyclohexanol, $Me_2(C_6H_{11})COH$, and $Me_2C(OH)CO(CH_2)_4CO_2H$, b. 141° (semicarbazone, m. 153–4°). Similar oxidation of cyclohexanol gave 12.1% conversion and yielded cyclohexanone and $(CH_2)_4(CO_2H)_2$. Cyclohexanone gave but 5% conversion, yielding $(CH_2)_4(CO_2H)_2$. The results of the oxidation expts. are explainable by formation of hydroperoxides at the tertiary C atom and at the $CMe_2(OH)$ group, followed by decompn. of the hydroperoxides to the products listed above. The results indicate that the tertiary C atom in the side chain is attacked first. The amt. of O taken up by isopropylcyclohexane rises with time since the oxidation process is catalyzed by the resulting hydroperoxide. O. M. Kosolapoff

PAUSHKIN, Ya.M.; OSIPOVA, L.V.

Boron fluoride compounds with free radicals and with hydrocarbon chlorides. Dokl. AN SSSR 103 no.3:439-442 Jl'55. (MLRA 8:11)

1. Institut nefti Akademii nauk SSSR. Predstavleno akademikom A.V.Topchiyevym

(Boron fluoride) (Hydrocarbons)

OSIPOVA, L. V.

Synthesis of acetonitrile from pentane and ammonia. Ya. M. Panshkin and L. V. Osipova (Petroleum Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 111, 117–20 (1950); cf. U.S. 2,450,638 and 2,450,641 (*C.A.* 43, 3439*de*). —*n*-Pentane with NH_3 over 90:10 Al_2O_3-MoO_3 catalyst yields 43.8% MeCN, best at 520° with space velocity of pentane 0.18 and molar ratio of pentane to NH_3 1:2. The products include acetylphloroglucinol, some EtCN, CO, H, O, N, and alkanes and alkenes. O. M. Kissolapoff

OSIPOVA, L.V.

Synthesis of nitriles from alcohols and ammonia on oxide catalysts. Ya. M. Paushkin, L. V. Osipova, and V. Khersbkovits. *Doklady Akad. Nauk S.S.S.R.* 113, 812-5 (1957); cf. U.S. 2,365,721, *C.A.* 39, 4610⁹; Brit. 586,470 (*C.A.* 41, 6894d).—Passage of EtOH or iso-AmOH at space velocity 0.13 over a catalyst of 10% MoO_3 90% Al_2O_3 along with NH_3 yields nitriles. MeCN begins to form at 320° and reaches a max. yield of 22.0% on EtOH at 457°. At temps. under 400° EtOH reaction gave some pyridine. The mole ratio of EtOH to NH_3 was 1:2. The reaction with iso-AmOH studied from 310° to 510° gave iso-BuCN with best yield of 18%. With increase of temp. the reaction tends to yield more and more low mol. wt. nitriles. G. M. K.

PAUSHKIN, Ya.M.; OSIPOVA, L.V.

Manufacture of acetonitrile from paraffin hydrocarbons and ammonia in the presence of oxide catalysts. Khim. i tekh. topl. i masel no.11:33-39 N '57. (MIRA 11:1)

1. Institut nefti AN SSSR.
(Acetonitrile) (Paraffins) (Ammonia)

PAUSHKIN, Ya.M.; OSIPOVA, L.V.

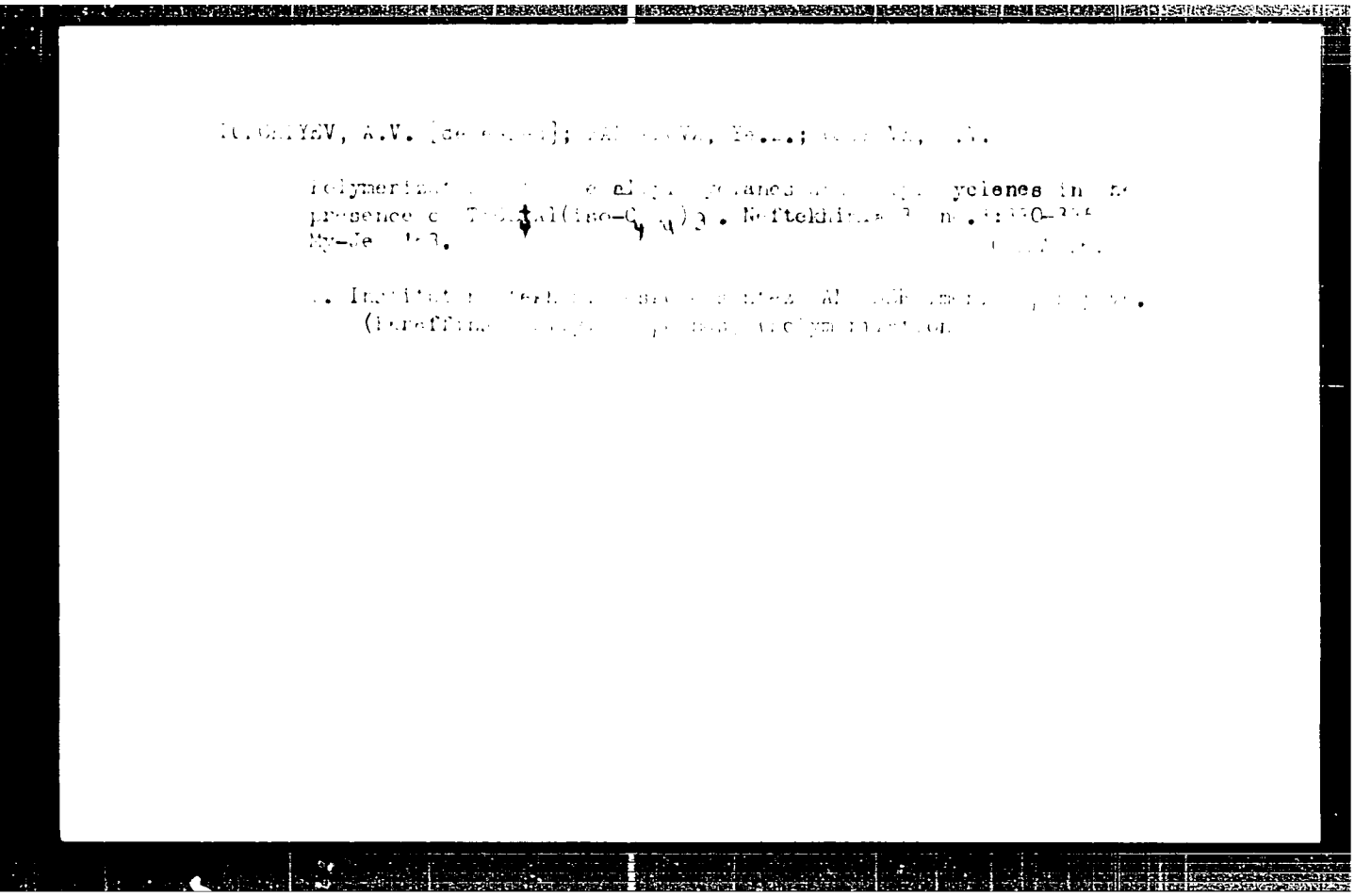
Production of acetonitrile by the reaction of paraffin hydrocarbons with ammonia in the presence of oxide catalysts. Trudy Inst.nefti 12:304-320 '58. (MIRA 12:3)
(Acetonitrile) (Paraffins) (Ammonia)

TOPCHIYEV, A. V., akademik; FANTALOVA, Ye. L.; OSIPOVA, L. V.

Polymerization of allylcyclohexane in the presence of the catalytic system $TiCl_4$ $Al(iso\text{-}C_4H_9)_3$. Dokl. AN SSSR 147 no.4:857-859 D '62. (MIRA 16:1)

1. Institut neftekhimicheskogo sinteza AN SSSR.

(Cyclohexane) (Polymerization) (Catalysts)



S/020/62/147/004/020/027
B101/B186

AUTHORS: Topchiyev, A. V., Academician, Fantalova, Ye. L., Osipova, L. V.

TITLE: Polymerization of allyl cyclohexane in the presence of the catalyst system $TiCl_4$ + $Al(iso\text{-}C_4H_9)_3$

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 4, 1962, 857-859

TEXT: Allyl cyclohexane synthesized from cyclohexyl magnesium bromide and allyl bromide, was polymerized either in ampoule or under atmospheric pressure in an N_2 atmosphere at 70°C together with $TiCl_4$ + $Al(i\text{-}C_4H_9)_3$. n-heptane was used as solvent. Results: (1) The yield of the reaction in ampoule was high (up to 73.5%) only after a reaction time of more than 20 hrs. After 5 hrs, the change in the Al : Ti ratio did not affect the low yield. After a long reaction time, the yield was influenced by the catalyst concentration. Example: At a molar ratio of Al : Ti = 1 : 1, the yield was 0% at a catalyst concentration of 0.8 mmoles per 10 mmoles monomer, and 37% at 1.6 mmoles catalyst per 10 mmoles monomer. (2) The

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Polymerization of allyl cyclohexane ... S/020/62/147/004/020/027
B101/B186

The synthesis of polyallyl cyclohexane which forms films and fibers, will also be of practical interest. There are 1 figure and 2 tables. The English-language reference is: T.W. Campbell, A.C. Haven, J.Appl.Polym. Sci.,1,73 (1959).

ASSOCIATION: Institut neftekhimicheskogo sinteza Akademii nauk SSSR (Institute of Petrochemical Synthesis of the Academy of Sciences USSR)

SUBMITTED: August 24, 1962

Card 3/3

OSIPOVA, L. V. Cand Chem Sci -- (diss) "Interrelation of paraffin hydrocarbons and ammonia on oxide catalyzers." Mos, 1958. 16 pp (Acad Sci USSR. Inst of Petroleum), 100 copies [redacted] (KL, 11-58, 113)

5(3)

AUTHORS: Paushkin, Ya. M., Osipova, L. V. SOV/...
(Moscow)

TITLE: Properties, Production and Use of Acetonitrile (Svoystva, polucheniye i primeneniye atsetonitrila)

PERIODICAL: Uspekhi khimii, 1959, Vol 28, Nr 3, pp ...-2... (USSR)

ABSTRACT: Gases of thermal and catalytic cracking as well as paraffin-hydrocarbons with a low octane number are increasingly used as chemical raw materials. The industrial production of acetonitrile is only delayed because there are at present no cheap and simple methods available for its production. In the present paper only those properties of acetonitrile are listed which are in some relation with its practical use. Also its physical properties are of interest: it is a colorless liquid with a melting point of ... 72°, boiling point ..., ... 0.7857 (Ref 1) 0.78... (Ref 2) and n_D^{20} 1.3441 (Ref ...). It has a high dipole moment, ... D (Ref 3) and a high dielectric constant: 35.8 (Refs 4,5). The latter might be the cause of its considerable dissolving effect. Acetonitrile is frequently used as solvent, as component in azeotropic distillation and

Card 1/4

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

Properties, Production and Use of Acetonitrile

as chemical raw material. Presently mainly the interaction of oxygen-containing compounds, primarily acetic acid and ammonia, is used for its production in industry. Instead of acetic acid ethyl ether may be also used. On the interaction of aldehydes and ketone with ammonia in the presence of fluorine-containing catalysts alkyl pyridines are obtained (Ref 170). Primary alcohols with ammonia in the presence of zinc sulfide (Ref 1[illegible]), aluminomolybdenum (Refs 1[illegible], 1[illegible]) and some other catalysts yield the corresponding nitriles. At temperature increase the yield in the corresponding nitriles is reduced and the yield in acetonitrile increases owing to the cracking of highest nitriles. Promising is the synthesis of acetonitrile from olefin-hydrocarbons and ammonia. Table [illegible]. Until quite recently the communications on the reaction of paraffin-hydrocarbons with ammonia were confined to some patents (Table 2). As can be seen from them, in the interaction of alkylnaphthene hydrocarbons with ammonia both acetonitrile and aromatic nitriles are formed. The authors thoroughly investigated the reaction of n-butane, n-pentane, i-pentane, n-hexane, n-heptane and n-octane with ammonia in the presence of oxide catalysts in a system with continuous

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flow at atmospheric pressure (Refs 1 ... 4). It was found that the yield in acetonitrile depends on temperature, volume rate of the supply of initial hydrocarbon and the molecular ratio of the reagents. Most promising for industrial purposes is the aluminum molybdenum catalyst by means of which high yields in acetonitrile were obtained at lowest temperatures (Table 3). It is possible to synthesize successfully ... nitriles from ammonia and a cheap raw material such as ... molecular paraffin-hydrocarbons. At present, the ... regarding the reaction mechanism of olefin- and ... hydrocarbons with ammonia are rather at variance. According to the authors' opinion the addition of ammonia to the double olefin bond takes place in consequence of a chain reaction under participation of free radicals in contradiction with the formula by Markovnikov. The investigation of the ... tion of isoamyl alcohol with ammonia also suggests an addition of ammonia to the double bond in contradiction with the formula by Markovnikov. Corresponding highest nitriles are formed there which are the principal products of reaction at low temperatures. At high temperatures they decompose and form acetonitrile (Ref 26). In the reaction of acetic acid and

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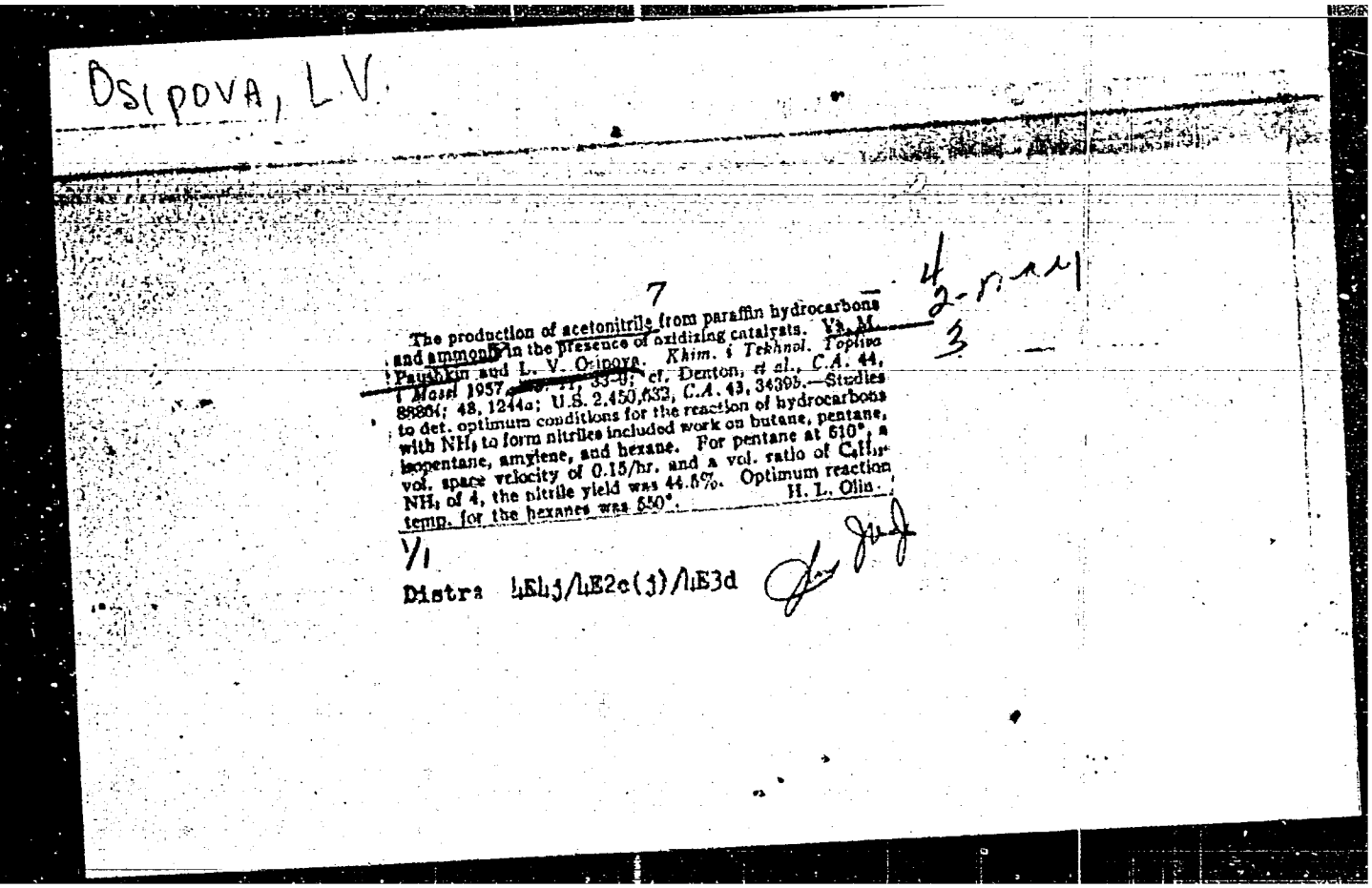
Properties, Producti[illegible]n and [illegible] acetonitrile S[illegible]V [illegible]

hydrocar[illegible] with a[illegible] acetonitrile is se[illegible] form of an a[illegible] mixture with water. Th[illegible] w[illegible] eliminat[illegible] from acetonitrile in several ways: by means of combined dist[illegible] refrigeration and [illegible] liquid layer (Ref [illegible] by saturation of the azeotr[illegible] with carbon[illegible]c anhydride and ammonia and subsequent separation of the upper layer (Ref [illegible]), by means of passage of the azeo- tro[illegible]ic mixture over the activated aluminum oxide at [illegible] pressure (Ref [illegible] [illegible]istillation at low pres[illegible] If cheap and simple [illegible] for the producti[illegible] of a[illegible] are found it will play a leading part in organic synthesis due to its manif[illegible] possibilities of transformation. There are 3 tables and 2[illegible] references, 2[illegible] of which are [illegible]

Card 4/4



OSIPOVA, L.V.

7

The production of acetonitrils from paraffin hydrocarbons and ammonia in the presence of oxidizing catalysts. Va. M. Paushkin and L. V. Osipova. *Khim. i Tekhnol. Topliva i Masel* 1957, [illegible] 33-9; cf. Denton, *et al.*, *C.A.* 44, 8580d; 48, 1244a; U.S. 2,450,632, *C.A.* 43, 34395.—Studies to det. optimum conditions for the reaction of hydrocarbons with NH_3 to form nitriles included work on butane, pentane, isopentane, amylene, and hexane. For pentane at 610°, a vol. space velocity of 0.15/hr. and a vol. ratio of C_5H_{12}:NH_3 of 4, the nitrile yield was 44.6%. Optimum reaction temp. for the hexanes was 550°. H. L. Olin.

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1/1

Distr: 4E4j/4E2c(j)/4E3d

OSIPOVA, L. V.

Distr: 4E4j/4E3d

2524. PRODUCTION OF ACETONITRILE FROM PARAFFIN HYDROCARBONS AND AMMONIA IN THE PRESENCE OF OXIDE CATALYSTS. Paushkin, Ya. M., and Osipova, L. V. (Khim. Tekhnol. Topliva Masel (Chem. Technol. Fuel & Lub., Moscow), Nov. 1957, 33-39). Experiments are recorded with n-butane, various pentane fractions, n-hexane and n-heptane. Aluminium-tungsten catalysts, promoted with molybdenum oxide were used. (L).

OSIPOVA, L.V.

1\. Synthesis of acetonitrile from pentane and ammonia. Ya. M. Paushkin and L. V. Osipova (*Dokl. Akad. Nauk SSSR*, 1956, 111, 117—120).—Investigation is reported into the reaction of direct synthesis of acetonitrile from *n*-pentane and ammonia at atm. pressure and temp. of 450—600° on an industrial alumina–molybdena catalyst (10% molybdenum oxide and 90% aluminium oxide). It is suggested that the reaction proceeds according to the following equations: $C_5H_{12} + NH_3 \rightarrow CH_3CN + 3CH_4$; $C_5H_{12} + 2NH_3 \rightarrow 2CH_3CN + CH_4 + 4H_2 + C$ (*sic*). In the experiments the molar ratio of the reagents, the space velocity and temp. were varied. Max. output of acetonitrile was 43·8% obtained at 520° with a space velocity of *n*-pentane of 0·15 l. on 1 l. of catalyst per hour and a molar ratio of pentane to ammonia of 1 : 2.

P. Collins MT

5

4E2j

4E2c

2 may

PAUSHKIN, Ya.M.; OSIPOVA, L.V.; KHERSHKOVITS, N.

Synthesis of nitriles from alcohols and ammonia on oxide catalysts. Dokl. AN SSSR 113 no.4:832-835 Ap '57. (MLRA 10:6)

1. Institut nefti Akademii nauk SSSR. Predstavleno akademikom A.V. Topchiyevym.

(Acetonitrile) (Nitriles)

YEVSTIGNEYEV, R., nauchnyy sotrudnik,; OSIPOVA, K., nauchnyy sotrudnik

Improvement of the system of material incentives in Czechoslovak industry. Sots. trud no. 7:17-22 Jl '58. (MIRA 11:8)

1. Institut ekonomiki AN SSSR (for Yevstigneyev). 2. Ekonomicheskiy institut Chekhoslovatskoy AN (for Osipova).
(Czechoslovakia--Industries)
(Czechoslovakia--Wages)

OSIPOVA, M. kand. yuridich. nauk; KHINOY, S., kand. yuridich. nauk

A book on the legal regulation of state commerce law "Legal regulation of state commerce in the U.S.S.R." Reviewed by M. Osipova, S. Khinoi. Sov. torg. 33 no.8:34-35 Ag '59. (MIRA 12:11)
(Trade regulation)

OSIPOVA, N.

Contracts for internal deliveries. Prom. koop. 13 no.4:8 Ap '59.
(MIRA 12:6)

1.Glavnyy arbitr Rospromsoveta.
(Delivery of goods (Law))

5(3)

AUTHORS: Nesmeyanov, A. N., Borisov, A. Ye., SOV/62-5[illegible]
Novikova, N. V., Osipova, M. A.

TITLE: Synthesis of Organo-Tin Compounds From Organomercurials and Stannous Salts in Inert Solvents (Sintez elovoorganicheskikh soyedineniy iz rtutnoorganicheskikh soyedineniy i soley dvuvalentnogo olova v inertnykh rastvoritelyakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 2, pp 263-266 (USSR)

ABSTRACT: In the present paper the interaction of organomercurials with stannous salts in an inert solvent not containing any mobile hydrogen atom was investigated. It was proved that in this connection no side reaction takes place in which $(RO)_2SnX_2$ is formed such as with the application of alcohols and acetone as solvent. From the reaction of dipropenyl mercury with stannous bromide dipropenyl tin was obtained. In the case of diisopropenyl mercury, diisopropenyl tin dibromide, tetraisopropenyl tin and isopropenyl mercury bromide were precipitated. The reaction of diphenyl mercury, di-p- and di-o-toluene mercury, di-α-naphthyl mercury and

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Synthesis of Organo-Tin Compounds From Organo-mercurials and Stannous Salts in Inert Solvents

SOV/ [illegible]

diethyl mercury with stannous chloride as well as diphenyl-mercury with stannous bromide yielded normal reaction products. There are 3 Soviet references.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-Organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: May 24, 1957

Card 2/2

NESMEYANOV, A.N.; BORISOV, A.Ye.; SAVEL'YEVA, I.S.; OSIPOVA, M.A.

Products of the addition of mercury salts to disubstituted acetylenes. Izv. AN SSSR. Otd.khim.nauk no.7:1249-1252 Jl 61. (MIRA 14:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Acetylene) (Mercury salts)

BORISOV, A.Ye.; OSIPOVA, M.A.

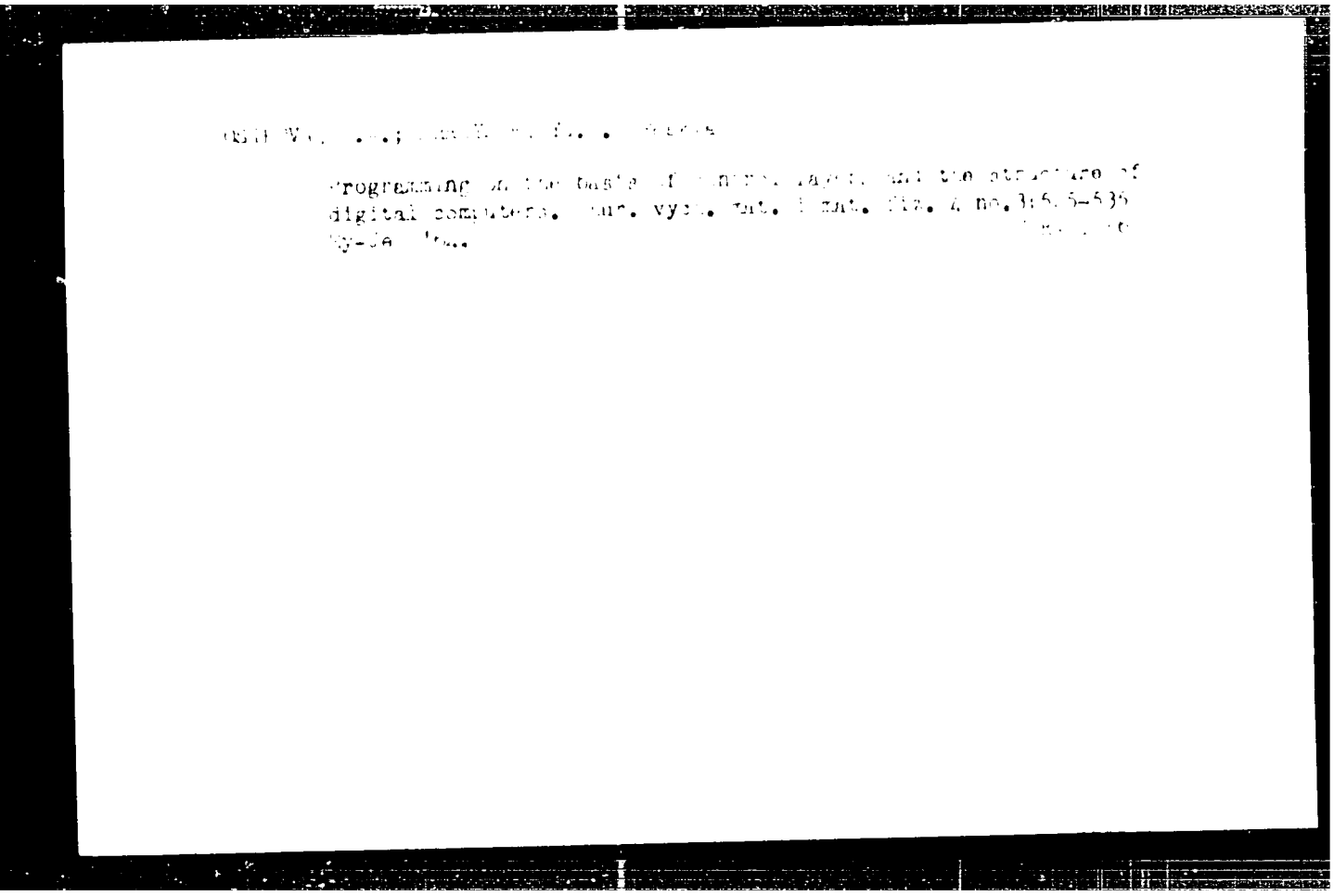
Reaction of asymmetric organomercury compounds with thallium trichloride. Izv.AN SSSR,Otd.khim.nauk no.6:1039-1042 Je '61. (MIRA 14:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Mercury organic compounds) (Thallium chlorides)

BORISOV, A.Ye.; OSIPOVA, M.A.; NESMEYANOV, A.N.

Alkenyl compounds of bismuth. Izv.AN SSSR.Ser.khim. no.8:1507-1509 Ag '63. (MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Bismuth organic compounds)



L 47092-66 EWT(1)/T/P(1) IJP(c) BC
ACC NR: AP6030985 SOURCE CODE: UR/0378/66/000/004/0038/0051

AUTHOR: Osipova, M. A.

ORG: none

TITLE: The source language for a certain general-purpose digital computer

SOURCE: Kibernetika, no. 4, 1966, 38-51

TOPIC TAGS: computer language

ABSTRACT: The syntax of a so-called A-language which is reported to be 2—3 times more efficient than a language based on the three-address system is described. The language uses the Lukasiewicz parenthesis-free notation, a variable instruction format, and syllabic command representation. The basic features of this language are 1) the use of two syllable types differing in length, 2) application of Boolean variables, 3) precise division between computing and control operations, and 4) use of address expansion. The language is represented by digits, the letters from the Latin and Russian alphabets, and operational symbols. There are 32 operators whose functions are given. They operate on real numbers, whole numbers, and vectors by manipulating algebraic variables, Boolean variables, numerical constants, and Boolean

Card 1/2

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ACC NR: AP6030985

constants. Examples of algebraic and Boolean formulas, general assignment statements, "FOR," "GO TO," and other transfer-of-control statements are given. Utilization restrictions due to machine characteristics are also outlined. Orig. art. has: 8 formulas and 1 table. [BD]

SUB CODE: 09/ SUBM DATE: 01Jun65/ ORIG REF: 001/ OTH REF: 002

Card 2/2 mt

KHODZHAYEV, G.; OSIPOVA, M.I.; CHERNOV, M.F.; MAT'YAKUBOV, D.; KHALIKOV, R.; SAMSONOVA, L.M.

Petroleum of the Andizhan field. Uzb. khim. zhur. no.1:88-93 '60. (MIRA 14:4)

(Andizhan—Petroleum)

OSIPOVA, M.I.

Studying radicals and powers with fractional exponents in the eighth grade of the secondary school. Uch. zap. MGPI 116: [illegible] '58. (MIRA 12:9)

(Algebra--Study and teaching)

KHODZHAYEV, G.Kh.; DMITRIYEV, P.P.; OSIPOVA, M.I.; CHERNOV, M.F.; BRAUDE, A.N.; MAT'YAKUBOV, D.; SAMATOV, A.; SAMSONOVA, L.M.

Petroleum from Khartum fields. Uzb.khim.zhur. no.1:71-77 '59. (MIRA 12:6)

1. Institut khimii AN UzSSR.
(Fergana--Petroleum--Analysis)

OSIPOVA, M.I. (Murom).

Powers and roots in grade 8. Mat. v shkole no.3:18-26 My-Je '57.
(Algebra--Study and teaching) (MLRA 10:6)

MAYERGOYZ, D.M. (Kiyev); ZAZOYEV, A.G. (Yelabuga); OSIPOVA, M.I. (Murom)

Discussion of A.N.Barsukov's book "Algebra." Part 2. Mat.v shkole no.4:70-81 Jl-Ag '59. (MIRA 12:11)
(Algebra) (Barsukov, A.N.)

OSIPOVA, M. I.

4382. OSIPOVA, M. I. -- Khozyaystvennyye dogovory po snabzheniyu i sbytu v promyslovoy kooperatsii. M., kolz, (1954). 120 s. 22 sm. 10,000 ekz. 4r. 10k--(55-175)p 334.4 + 347.454.3

SO: Knizhnaya Letopis', Vol. 1, 1955

BAYEVSKIY, R.M.; OSIPOVA, M.M.

Selection of leads and the analysis of electrocardiograms of dogs. (MIRA 15:12)
Probl.kosm.biol. 1:422-426 '62.
(ELECTROCARDIOGRAPHY) (SPACE MEDICINE)

OSIPOVA M M

ACCESSION NR: AT4042680 S/0000/63/000/000/0182/0185

AUTHOR: Znarov, S. G., Il'in, Ye. A.; Kovalenko, Ye. A.; Kalinichenko, I. R.; Karpova, L. I.; Mikerova, N. S.; Osipova, M. M.; Simonov, Ye. Ye.

TITLE: The study of the prolonged effects on man of an atmosphere with an increased CO_2 content

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 182-185

TOPIC TAGS: carbon dioxide effect, man, pressure chamber, acidosis, hypodynamia, fatigue

ABSTRACT: Two experiments were performed in which human subjects were kept in pressure chambers with a capacity of 7 cubic meters at an air temperature of 20± 2°C and a relative humidity of 40 to 60%. Oxygen content varied from 19 to 22%. In the first experiment, the CO_2 level was maintained at 1% and in the second experiment at 2%. Two subjects were used in each experiment; each experiment lasted thirty days. Examination of the physiological indices indicates that the

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ACCESSION NR: AT4042680

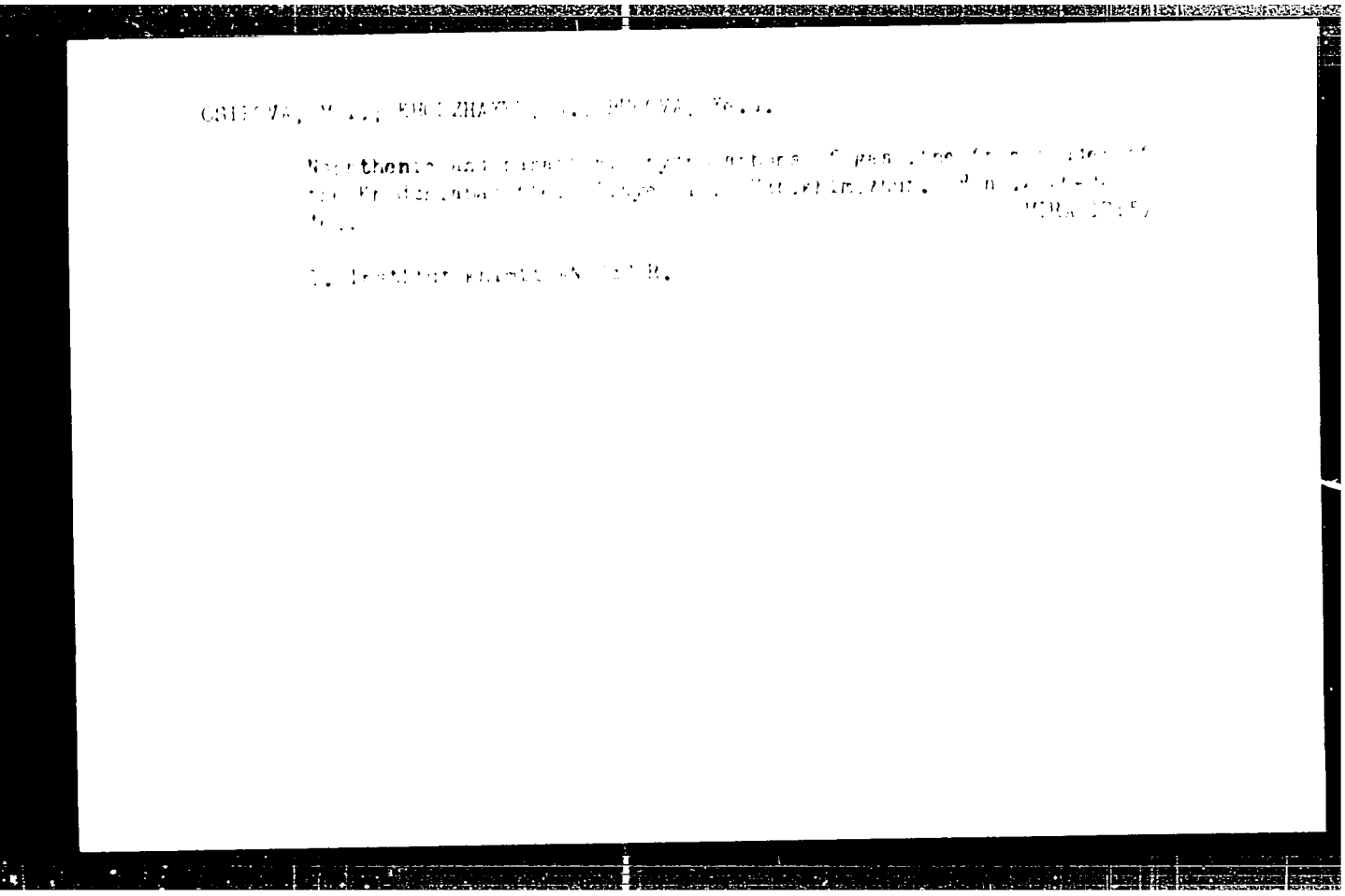
presence of men in an atmosphere of limited capacity with an increased CO_2 content leads to acidosis, hypodynamia, and fatigue. The intensity of acidosis increases with an increase of CO_2 content from 1% to 2% and increases with the duration of time spent in the chamber. Subjects who remained in the test chamber for thirty days with a CO_2 content equal to 1% maintained their work capacity on a sufficiently high level. When exposed to physical loads, subjects who had spent thirty days in an atmosphere of 2% CO_2 manifested a sharp decrease in work capacity and a significant strain on the functions of the organism. However, the functional changes observed were completely reversible.

ASSOCIATION: none

SUBMITTED: 27Sep63 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 000

Card 2/2



AGAD[illegible]ANYAN, N.A., [illegible]AROV, S.G.; FALIN[illegible]HENKO, I.K.; KA[illegible]OVA, [illegible].I.;
KAPLAN, Ye.Ya.; KUZNETSOV, A.G.; [illegible], M.M.; [illegible]N, A.K.;
SERGIYENKO, A.V.

Effect of various rates of decompression on the human body.
Voen. med. zhur. no.1[illegible]:49-53 [illegible] '65. (MIRA 18:[illegible])

ACC NR: AT6036466 SOURCE CODE: UR/0000/66/000/000/0010/0011

AUTHOR: Agadzhanyan, N.A.; Kalinichenko, I. R.; Puznetsov, A. G.; Lapikhova, I. I.; Nikulina, G. A.; Osipova, M. M.; Reutova, M. B.; Sergiyenko, A. V.; Shevchenko, Yu. V.

ORG: none

TITLE: Effect of rapidly increasing hypoxia on the human organism [Paper presented at conference on problems of space medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 10-11

TOPIC TAGS: hypoxia, spirography, electrocardiogram, human physiology

ABSTRACT:

In order to determine the time available for taking countermeasures during a rapid drop in partial oxygen pressure, the resistance of the body to rapidly increasing hypoxia was studied in 28 human subjects by the rebreathing method using a spirograph filled at the start with 8.5 *l* of atmospheric air. The O_2 content of this air decreased as the oxygen was used up. CO_2 was chemically absorbed.

Card 1/3

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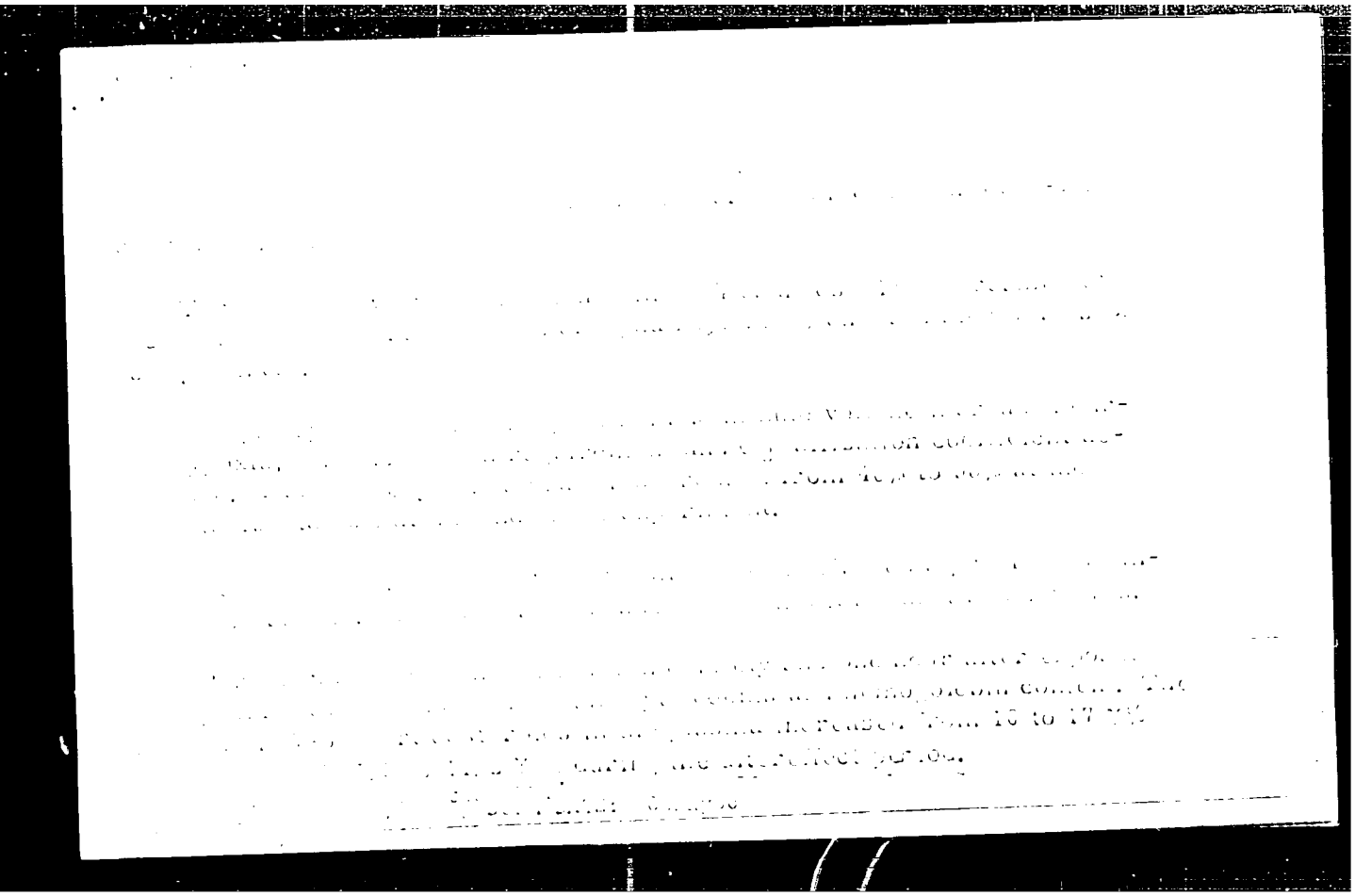
[illegible] brain biocurrents, [illegible] of the cardiovascular and respira[illegible] [illegible] levels, and status of the compo[illegible] [illegible] of the adrenal cortex were made.

[illegible] to breathe the hypoxic mixture [illegible] on the average to 6 min 20 sec [illegible] to an "altitude ceiling" [illegible] blood oxygen [illegible] [illegible] respiratory distress, [illegible] headache, etc.



U.S.S.R. / Human and Animal Physiology. General Prob- T
lems.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 21832.

Author : Osipova L. N.
Inst : Central Institute for Advanced Physicians.
Title : Experiences in Clinical Application of Theories of Functional Liability. Scientific Works of Post-graduate Students and Clinical Interns.

Orig Pub: Centr. In-t usoversh. vrachey, 1957, vyp 4, 134-135.

Abstract: No abstract.

Card 1/1

ARBUZOV, B.A.; ZOROASTROVA, V.M.; OSIPOVA, M.P.

Esters of phosphoric and thiophosphoric acids containing heterocyclic radicals. Report No.4: Reaction of phosphoric and thiophosphoric acid chlorides with α-aminopyridine. Izv. AN SSSR Otd.khim.nauk no.12:2163-2168 D '61. (MIRA 14:11)

1. Khimicheskiy institut im. A.M.Butlerova Kazanskogo gosudarstvennogo universiteta im. V.I.Ul'yanova-Lenina.
(Phosphoric acid) (Phosphorothioic acid) (Pyridine)

USSR/Chemistry - Plastics FD-1549

OSIPOVA, M P

Card 1/1 : Pub. 50-6/25

Author : Chelobov, N. A., Cand Tech Sci; Csipova, M. P.

Title : Determination of the pressure of the plastic in the casting machine

Periodical : Khim. prom., No 8, pp 477-79 (29-31), Dec 1954

Abstract : Describes the technique of measuring pressures by means of membranes and strain gages mounted within the injector and mold of experimental casting machines. Discuss the significance of data obtained in this manner in the case of polystyrene cast at 180°C.

Institution : Scientific Research and Planning Institute of Plastics

Submitted :

POGODAYEV, K.I.; OSIPOVA, M.S.; KUNEYEVA, Z.I.

Effect of ionizing radiation on protein metabolism in the brain. Trudy Inst.vys.nerv.deiat. Ser.fiziol. 4:236-243 '60. (MIRA 13:7)

1. Iz Kabineta biokhimii mozga Instituta vysshey nervnoy deyatel'nosti AN SSSR. Zaveduyushchiy kabinetom - K.I. Pogodayev.
(RADIATION--PHYSIOLOGICAL EFFECT)
(PROTEIN METABOLISM) (BRAIN)

OSIPOVA, M.S.

Some changes in protein metabolism in the brain following gamma ray irradiation (Co^{60}). Trudy Inst.vys.nerv.deiat. Ser. patofiziol. 4:266-270 '58 (MIRA 11:12)

1. Iz kabineta biokhimii mozga (zav. starshiy nauchnyy sotrudnik K.I. Pogodayev) Instituta vysshey nervnoy deyatel'nosti, AN SSSR.
(PROTEIN METABOLISM)
(BRAIN)
(GAMMA RAYS--PHYSIOLOGICAL EFFECT)

OSIPOVA, M. S.

OSIPOVA, M. S., Ml. Nauchn. Sotr. i, LUKINYKH, N. A., Kand. Tekhn. Nauk.

Akademiya Kommonal'nogo Khozyaystva IM. K. D. Pamfilova

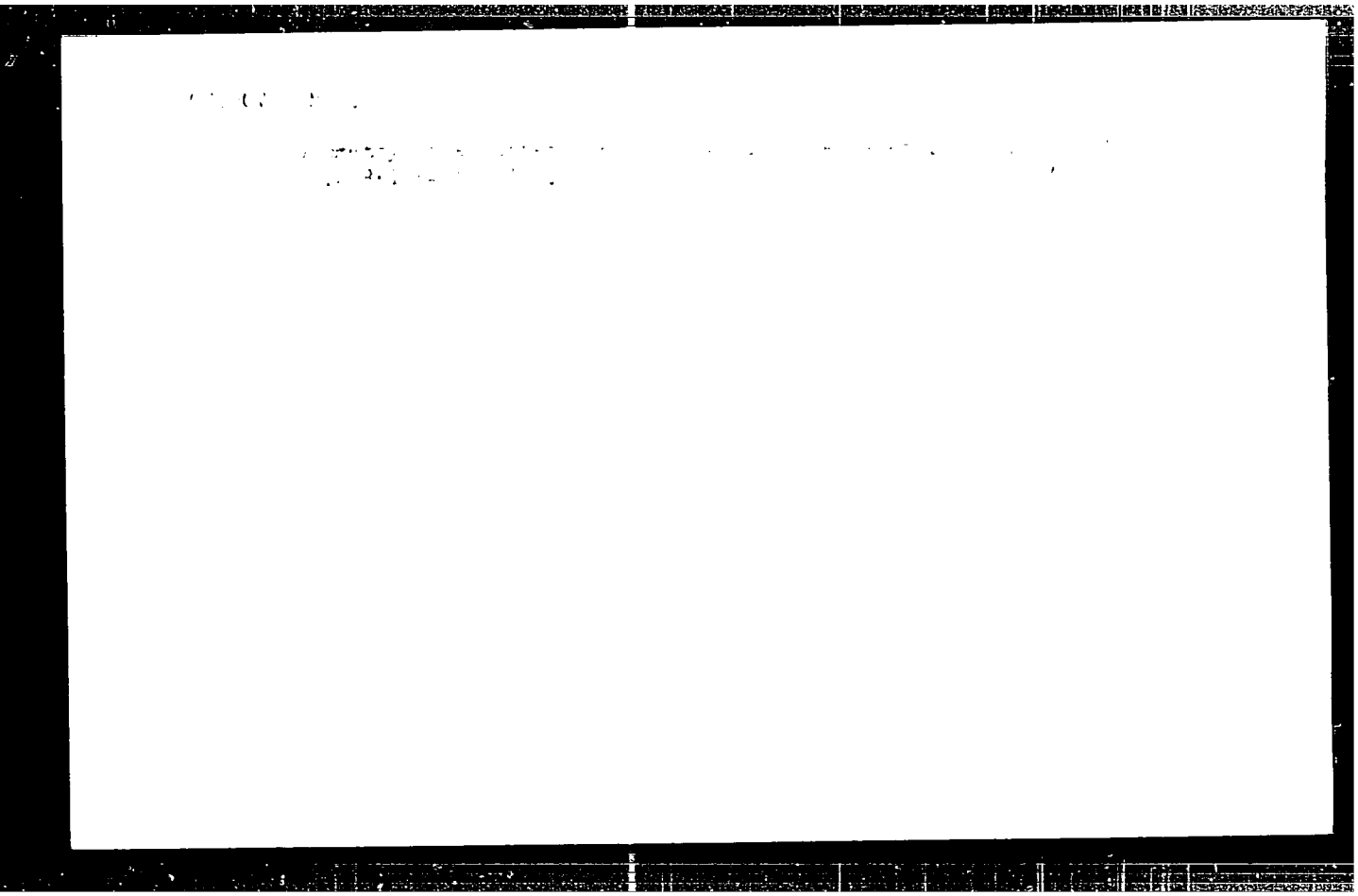
Uplotneniye Aktivnogo Ila Metodom Flotatsii i yego dal'neyshaya obrabotka
Page 56

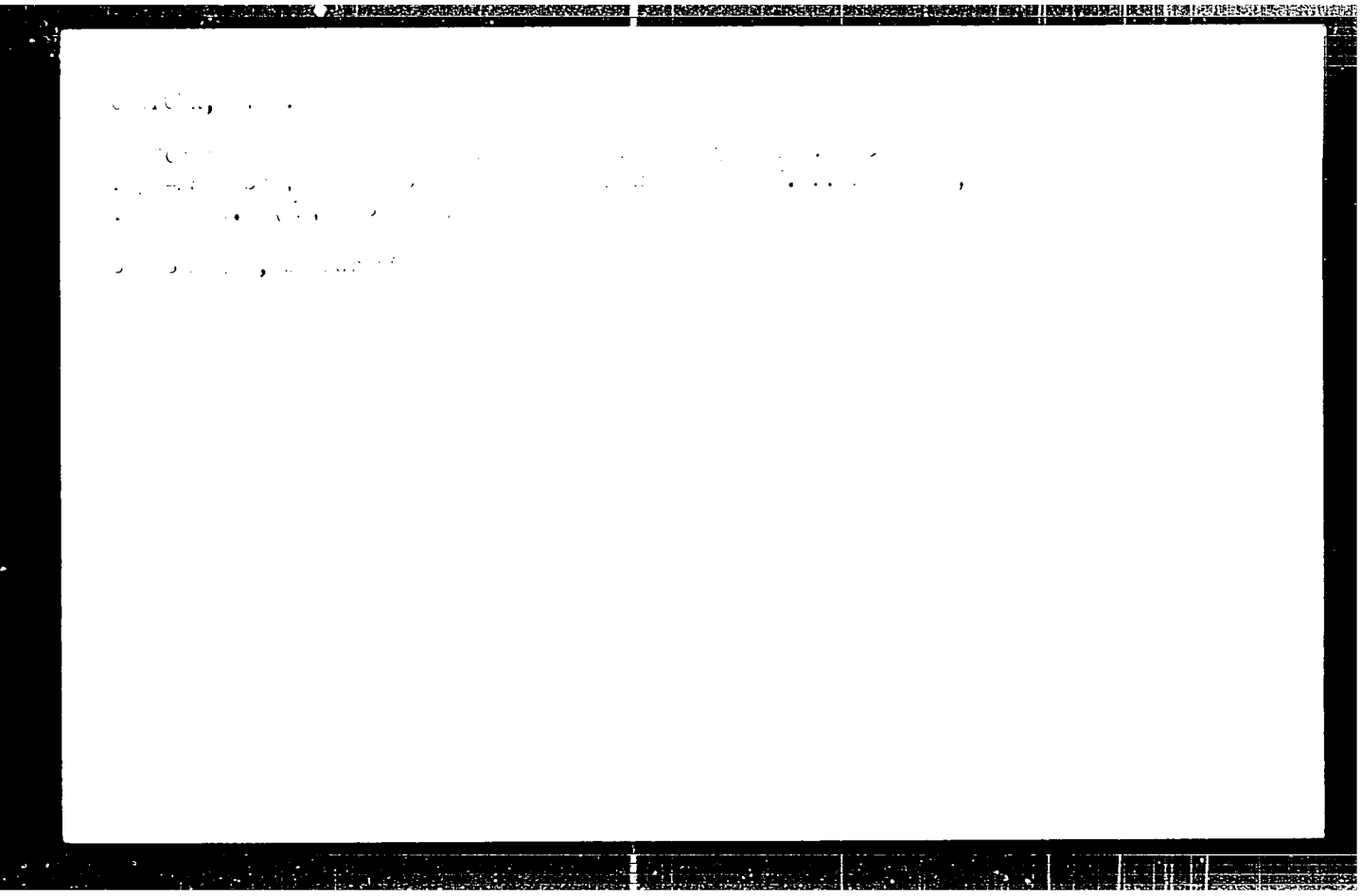
SO: Collection of Articles [illegible] in 1 52. Moscow, 1951

POGODAYEV, K.I.; SAVCHENKO, Z.I.; OSIPOVA, M.S.; TUROVA, N.F.

Protein metabolism in brain tissues during recurrent epileptic seizures. Ukr. biokhim. zhur. 32 no.6:808-822 '60. (MIRA 14:1)

1. Institure of Higher Nervous Activity of the Academy of Sciences of the U.S.S.R., Moscow.
(PROTEIN METABOLISM) (BRAIN)
(CONVULSIONS)





APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

CHOCHIA, N.G.; BELYAKOVA, Ye.Ye.; BOROVSKAYA, I.S.; VOLKOV, A.M.; GRAYZER, M.I.; IL'INA, Ye.V.; KAZAKOV, I.N.; KIRKINSKAYA, V.N.; KISLYAKOV, V.N.; KRASIL'NIKOV, B.N.; MAYMINA, L.G.; OSIPOVA, N.A.; RADYUKEVICH, L.V.; ROMANOV, P.I.; KULIKOV, M.V., red.; DOLMATOV, P.S., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Geology and oil and gas potentials of the Minusinsk lowland] Geologicheskoe stroenie Minusinskikh mezhgornykh vpadin i perspektivy ikh nefte-gazonosnosti. Leningrad, Ges.nauchn. tekhn.izd-vo neft. i gorno-toplivnoi lit-ry Leningr. otd-nie, 1958. 288 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy, no.120) (MIRA 12:5)

(Minusinsk Lowland--Petroleum geology)
(Minusinsk Lowland--Gas, Natural--Geology)

[illegible]VA, [illegible]

[illegible] Cass[illegible]peiae. Per.zvezd, [illegible] no.[illegible]-[illegible] [illegible]. ([illegible]

1. Otdel peremennykh zvezd Moskovskogo otdeleniya Vsesoyuznogo astronomo-geodezicheskogo obshchestva.
(Stars, Variable

LEVIN A.S., GOLOVA E.A.

Mechanism of the polarographic reduction of aromatic sulfonic acids and sulfones. Part 1. Coulometric investigation. Zhur. f. khim. 32 no.7:2084-2091 Jl '62. (MIRA 15:7)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.
(Sulfonic acids) (Reduction, Electrolytic)

KUZIN, M.I., prof.; OSIPOVA, N.A.

Reticulocytic reaction of the blood as an index of hypoxia during surgery under anesthesia and during the postoperative period. Khirurgiia 38 no.10:44-50 O '62. (MIRA 15:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - zasluzhennyy deyatel' nauki prof. N.N. Yelanskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(ERYTHROCYTES)
(ANOXEMIA) (SURGERY, OPERATIVE) (ANESTHESIA)

AUTHORS: Shest A F , ..., N A

TITLE: Sulphone Sulph A ids as By-pr ducts in Sulphonation Pr cesses (Sul f k ... kak ... ...)
sul f ...
V On Some Fa t rs Influencing the Formation f Sulph ne ... A ids
...

PERIODICAL: Zh rnal ... kh ... Nr ...

ABSTRACT: In onne ti n with earlier papers by the auth rs ... further ... interest t find ... factors whi h exert ... on the degree f formation of sulph ne sulph a ids ... the ... f sulphonati n which lead t ... For this purpose benzene was sulphonated. The ... possible rea t ons which lead t the format n f ... of diphenyl sulphone in the sulphonati n f benzene shows ... may be divided into two groups. The first ... which take place in the format n f sulphone ... of diphenyl sulphone as intermediate produ t ... sequent sulphonati n. The second group omprises rea t ... sulphone sulph ... ids f rm directly from benzene sulph ...

Card 1/3

SOV [illegible]

Sulphone Sulpho Acids as By-products in Sulphonation Processes V. On Some Factors Influencing the Formation of Sulphone Sulpho Acids

The reactions of the first group may take place only in the sulphonation of the free carbohydrate; on the other hand, e.g. such a stepwise formation of the diphenyl sulphone sulpho acid by way of diphenyl sulphone is impossible in a sulphonation of benzene and sulpho acid. It was found that diphenyl sulphone sulpho acids may form according to the first type of reaction as well as according to the second one. Thus, it was found that the formation of diphenyl sulphone sulpho acids in sulphonation of benzene with fuming acids take place under the formation of diphenyl sulphone as intermediate product as well as directly from benzene monosulpho acid. The m-benzene disulpho acid practically is not transformed into diphenyl sulphone sulpho acids under the above conditions of sulphonation. The conditions which lead to a minimum formation of diphenyl sulphone sulpho acids were found as well as the delaying influence exerted by sodium sulphate on the formation of diphenyl sulphone sulpho acids in the sulphonation of benzene with fuming acids. There are 7 tables and [illegible] references, 3 of which are Soviet.

Card 2/3

SOV

Sulphone Sulpho Acids as By-products in Sulphonation Processes. Factors Influencing the Formation of Sulphone Sulpho Acids

ASSOCIATION: Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley (Scientific Research Institute of Organic Semiproducts and Dyes)

SUBMITTED: July

Card 1/4

GRINBERG, S.V.; OSIPOVA, N.A.

Underground source of mountain rivers in the northern slope of the Trans-Ili Alatau. Izv. AN Kazakh. SSR. Ser. geol. nauk no.5:89-95 '63. (MIRA 17:1)

1. Upravleniye gidrometeorologicheskoy sluzhby KazSSR, Alma-Ata.

OSIPOVA, N.A.

Stratigraphy, paleogeography, and facies of Devonian sediments of the North Minusinsk Basin in the connection with the evaluation of oil and gas potentials. Trudy VNIGRI no.124:285-340 '58. (MIRA 16:7)

(Minusinsk Basin—Petroleum geology)
(Minusinsk Basin—Gas, Natural—Geology)

SHESTOV, A.P.; OSIPOVA, N.A.; PETUKHOVA, K.K.

Sulfone sulfonic acids as by-products in sulfonation processes. Part 6: Possibility of using the chromatopolarographic method for the quantitative determination of sulfonic acids of naphthalene and dinaphthylsulfone. Zhur.ob.khim. 31 no.6:1780-1787 Je '61. (MIRA 14:6)

1. Nauchno-issledovatel'skiy institut poluproduktov i krasiteley imeni K.Ye.Voroshilova.
(Sulfone) (Naphthalene) (Sulfonic acids)

SHESTOV, A.P.; OSIPOVA, N.A.

Sulfonic acids as side products in sulfonation process of sulfones. Part 4: Possibilities of polarographic determination of sulfonic acids of 4,4'-dimethyl-diphenylsulfone, 4,4'-dichlorodiphenyl-sulfone, 2,2'-dinaphthyl sulfone. Zhur.ob.khim. 27 no.10:2790-2796 O '57. (MIRA 11:4)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley im. K.Ye. Voroshilova.
(Sulfone) (Naphthyl sulfone) (Polarography)