"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

On the Method of Analyzing the Productivity of Glass Industry

SOV/72-59-11-12/18

the general work input per final-production unit is drawn up. In this way, it becomes possible to compare the productivity of domestic glassworks with that of foreign glass factories. The table gives, as an example, the data obtained in two works in which production is organized along different lines. By means of an analysis of the productivity of individual works it is possible to take measuresfor the rationalization of working processes. There is 1 table.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKINA, N.I.; PLYUSNIN, V.G.

Preparation of isoparaffin hydrocarbons by the alkylation of 2-methyl propane by olefins. Trudy Inst. met. UFAN SSSR no.4: 133-143 '58. (MIRA 12:10)
(Alkylation) (Propane)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKINA, N. I.

Akademiya nauk SSSR. Ural'skiy filial. Institut metallurgii

Trudy, Vyp. 4 (Transactions of the Institute of Metallurgy, Ural Branch, Academy of Sciences, USSR; No. 4) Sverdlovsk, 1958. 157 p. Errata slip inserted. 1,000 copies printed.

Editorial Board: S.A. Vatolin (Resp. Ed.), Candidate of Technical Sciences; A.S. Mikulinskiy, Professor, Doctor; V.Ye. Miller, Professor; P.A. Pazdnikov, Candidate of Technical Sciences; and S.S. Liszyak, Candidate of Technical Sciences; Ed.: M.S. Burzovskaya.

PURPOSE: This book is intended for ferrous and nonferrous metallurgists.

COVERAGE: The book presents results of investigations of theoretical problems in metallurgy and chemistry and gives information on the efficient use of raw materials in ferrous and nonferrous metallurgy and on the development of new production processes in the metallurgical and chemical industries. The articles were written by junior members and experienced specialists of the scientific staff of the Institutes of Metallurgy, Chemistry, and Electrochemistry, Ural Branch, Academy of Sciences, USSR.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

ACC NR: AM6010602

Monograph

UR/

Plyusnin, V. G.; Plotkina, N. I.; Chertkova, S. I.; Lysenko, A. P.; Geyn, N. V.; Varfolomeyev, D. F.

Processing of tars obtained in the pyrolysis of petroleum hydrocarbons (Pererabotka smoly piroliza neftyanykh uglevodorodov) [Sverdlovsk] Sredne-Ural'skoye knizhnoye izd-vo. 1965. 114 p. illus., biblio. Errata slip inserted. 1,200 copies printed. Series note: Akademiya nauk SSSR. Ural'skiy filial. Institut khimii. Trudy, vyp. 8

TOPIC TAGS: petroleum ~~refinery~~ product, aromatic hydrocarbon, pyrolysis ~~tars, hydrocarbon~~, alkene, polymerization, petroleum refining, hydrocarbon, hydrocarbon resin, benzene, toluene, petroleum residue,

PURPOSE AND COVERAGE: This issue describes the development of a process for the refining of residue tars obtained from the pyrolysis of petroleum hydrocarbons in order to utilize this waste product as an additional source of aromatic hydrocarbons and other commercial products (from the conversion of the remaining unsaturated compounds). It was determined that unsaturated compounds contained in pyrolytic tars can be converted into solid polymeric resins which separate easily from aromatic hydrocarbons.

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ACC NR: AM6010602

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Card 2/2 SUB CODE: 11,07/ SUBM DATE: 23Jul65/ ORIG REF: 049/ OTH REF: 010

PLOTKINA, N.I.; PLYUSNIN, V.G.

Alkylation of isobutane by olefins in the presence of hydrogen fluoride. Trudy Inst khim. UFAN SSSR no. 4:59-71 '60 (MIRA 16:6)
(Propane) (Olefins) (Alkylation)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKINA, N. I.: Master Tech Sci (diss) -- "The alkylation of isobutane by olefins in the presence of hydrogen fluoride". Sverdlovsk, 1958. 14 pp (Acad Sci USSR, Ural Affiliate), 150 copies (KL, No 13, 1959, 107)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKINA, N.I.; PLYUSNIN, V.G.

Alkylation of isobutane by olefins in the presence of hydrogen fluoride. Izv.Sib.otd.AN SSSR no.11:17-27 '58. (MIRA 12:2)

1. Ural'skiy filial AN SSSR.
(Butane) (Alkylation)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKINA, N. I.

PLOTKINA, N. I. -- "Alkylation of Isobutane with Olefins in the Presence of Hydrogen Fluoride." Min Higher Education USSR, Ural Polytechnical Inst imeni S. M. Kirov, Sverdlovsk, 1956. (Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No 44, October 1956

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKINA, N. P.

Aufarbeitung der bei der pyrolyse von kohlenwasser-Stoffgasen Anfallenden Teere

Report presented at Petroleum Conference Budapest, 10-13 Apr. 1962

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

RUBTSOVA, L.K.; ANTONOVA, L.N.; D'YACHENKO, G.M.; GRACHEVA, N.M.; SYSOYEVA, L.A.; PROKHOROVA, I.I.; PLOTKINA, N.S.

Experience in the clinical use of novobiocin. Antibiotiki 10 no.10:930-934 O '65. (MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov; Klinika infektsionnykh zabolevaniy II Moskovskogo meditsinskogo instituta i Institut klinicheskoy i eksperimental'noy khirurgii. Submitted Jan. 14, 1965.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

L 10794-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 ASD(m)-3/AS(mp)-2 RM
ACCESSION NR: AP4032566 S/0190/64/006/004/0662/0665

AUTHORS: Arbuzova, I. A.; Plotkina, S. A.

TITLE: Cyclic polymerization of diallylmaleate

SOURCE: Vy*sokomolek. soyedin., v. 6, no. 4, 1964, 662-665

TOPIC TAGS: diallylmaleate, cyclic polymerization, polydiallylmaleate, lactone unit, linear polymer, cyclization, polymonoallylmaleate, allylic bond, maleic bond, intermolecular interaction, intramolecular interaction

ABSTRACT: The present investigation is a continuation of earlier work by the authors on bulk polymerization of monoallyl esters of maleic and citraconic acids in the presence of benzoyl peroxide (Vy*sokomolek. soyed., 4, 844, 1962), which revealed the formation of linear polymers containing cyclic units, as a result of intermolecular and intramolecular interaction of double bonds. In the present study samples of diallylmaleate were subjected to bulk polymerization in sealed ampules for 2 hours at 80C in the presence of benzoyl peroxide. A polydiallylmaleate with a 33-33.4% total unsaturation, corresponding to one double bond per polymer unit, was produced, with the allyl alcohol groups constituting 31-31.4%. The following formula is suggested for the polymer:

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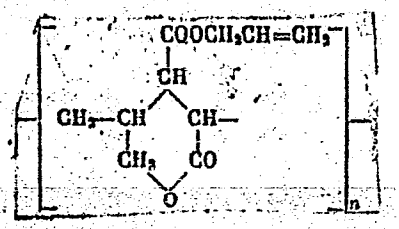
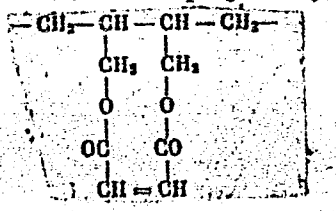
ACCESSION NR: AP4032566



Since analysis also revealed the presence in the polymer of 2% unsaturated maleic bonds, another structural pattern for the polydiallylmaleate was suggested:



When an aliquot of the polydiallylmaleate was saponified for 3-4 hours with 0.5 normal sodium hydroxide and neutralized with hydrochloric acid, a precipitate was obtained, which proved to have the structure

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

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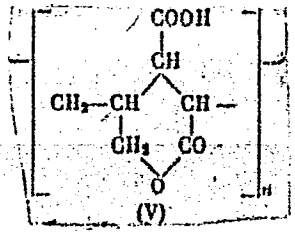

(V)

corresponding to the structure of polymonoallylmaleate. It is thus evident that the linear polymer of diallylmaleate consists of lactone units containing unsaturated groups, the cyclization having taken place as the result of interaction of the maleic and allylic double bonds. Orig. art. has: 3 formulas.

ASSOCIATION: Institut vy*sokomolekulyarny*kh soyedineniy AN SSSR (Institute of High-Molecular Compounds, AN SSSR)

SUBMITTED: 24Apr63 ENCL: 00

SUB CODE: GC, OC NO REF SOV: 003 OTHER: 002

Card 3/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

79-28-5-33/69

AUTHORS: Arbuzova, I. A., Ushakov, S. N., Plotkina, S. A., Yefremova, V. N., Ulezlo, I. K.

TITLE: On the Conversion Reactions of Methylolmetacrylamide (O reaktsiyakh prevrashcheniya metilolmetakrilamida)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5, pp. 1266 - 1269 (USSR)

ABSTRACT: In carrying out one of the experiments for the synthesis of methylolmetacrylamide according to Feuer, Lynch (Fayer i Linch) (Reference 1) the authors separated, besides this compound, also a product with the melting point 80,5 - 81,5°C which, until now, has not been identified as dimetacrylamidodimethylether. Many experiments to isolate this product from the mixture of final products of the above synthesis did not succeed, which also was the reason for investigating the conversion reaction of methylolmetacrylamide more in detail. The experiments to realize the dimetacrylamidodimethylether by conversion of the methylolmetacrylamide with benzoylchloride

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On the Conversion Reactions of Methylolmetacrylamide 79-28-5-33/69

in alkaline medium according to Zigeuner (Tsigeyner)(Reference 3) did not succeed. Being of the opinion that the ether would have to form as a final product in the synthesis of methylenedimetacrylamide in the presence of acidous catalysts the behaviour of methylolmetacrylamide in the presence of acidous catalysts was investigated. On heating of the latter with a small amount of hydrochloric acid it could be converted into the dimetacrylamidodimethylether. In the case of increased concentration this ether was converted to the already known methylenedimetacrylamide (see reaction scheme). According to the data by Feuer and Lynch, the methylolmetacrylamide polymerizes on heating in the presence of mineral acids and boron chloride (BCl_3) with formation of unmeltable and insoluable polymers, which fact indicates a three-dimensional structure. The experiments carried out by the authors showed that the methylolmetacrylamide also polymerizes on the action of peroxide stimulaters, in which case polymers of a line or three-dimensional structure can be obtained, depending on the prevailing conditions. In the case of irradiation of this amide with ultraviolet light

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On the Conversion Reactions of Methylolmetacrylamide 79-28-5-33/69

a solid unmeltable polymer results from it. In the masspolymerization in the presence of benzoylperoxide a vitreous polymer forms which is insoluble in water and usual organic solvents. There are 6 references, none of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute for High-Molecular Compounds, AS USSR)

SUBMITTED: April 29, 1957

Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

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S/190/62/004/006/009/026
B101/B110

AUTHORS: Arbuzova, I. A., Plotkina, S. A., Sokolova, O. V.

TITLE: Synthesis of linear polymers of the monoallyl esters of unsaturated acids by cyclic polymerization

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 843-847

TEXT: With a view to the production of new, thermally stable substances the bulk polymerization of monoallyl maleinate (I) and monoallyl citraconate (II) with benzoyl peroxide (BP) as a catalyst was investigated. Results: (1) In the case of (I), the conversion increased with increasing content of BP (4.86% conversion with 0.5% BP, 40.0% conversion with 2% BP), while the intrinsic viscosity dropped (0.187 with 0.5% BP, 0.148 with 2% BP). (2) The conversion of (I) increased with increasing temperature, whilst more and more of the insoluble polymer with three-dimensional network was formed: thus 19% of insoluble polymer was obtained at 60°C with 48% conversion, 86% of it at 80°C with 80% conversion. To obtain linear polymers, soluble in organic solvents, work was done also at 60°C

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and with up to 40% conversion. (3) The polymerization of (II) did not yield insoluble polymers, even at 100-130°C. (4) The intrinsic viscosity, the molecular weight, the percentage of insaturation of alcohol and acid radicals, and the percentage of cyclization were determined for the polymers. In this order, the values for the polymer of (I) are: 0.148; 15,000; 22.3; 14.7; 63; for the polymer of (II): 0.24, 47,800; 22.3; 13.7; 64. The polymerization occurs mainly under the action of acyl radicals. There are 2 figures and 4 tables. The most important English-language references are: G. B. Butler, R. J. Angelo, J. Amer. Chem. Soc., 79, 3128, 1957; T. Holt, W. Simpson, Proc. Roy. Soc., London, 238, 1213, 154, 1956.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-molecular Compounds AS USSR)

SUBMITTED: April 6, 1961

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKINA, S.A.

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 845

Author: Arbuzova, I. A., Medvedeva, L. I., and Plotkina, S. A.

Institution: None

Title: On the Synthesis of Chlorophenyl Ethers of Methacrylic Acid

Original Periodical: Zh. obshch. khimii, 1956, Vol 26, No 4, 1127-1130

Abstract: Chloro-substituted phenylic ethers of methacrylic acid have been synthesized, having the general formula CH_2CCH_3COOAr (I), where Ar can be 2-ClC_6H_4 (Ia), 4-ClC_6H_4 (Ib), 2,4-$Cl_2C_6H_3$ (Ic), 2,4,6-$Cl_3C_6H_2$ (Id), Cl_5C_6H (Ie) by a reaction analogous to that of ArOH (II) with $CH_2 = CCH_3COCl$ (III) or to the action of $SOCl_2$ on a mixture of ArOH and III. On heating in the presence of benzoyl peroxide, I gives transparent vitreous polymers. Procedure: to 25.7 gms of 2-ClC_6H_4OH 23 gms of II are added slowly at 45°, following by heating to 70-80° for 2.5 hours and distillation in a stream of N_2; Ia is obtained in yields of 89%, bp 98-99°/3 mm, n_D^{20} 1.5268, d_4^{20} 1.1739. The

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USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 845

Abstract: reaction with fused $4\text{-}ClC_6H_4OH$ is carried out in a similar manner (the reaction product is dissolved in ether and washed with 4% NaOH); the yield of Ib is 73.5%, bp 113-114°/6 mm, 93-94°/2 mm (distillation in the presence of Cu_2Cl_2), n_D^{20} 1.5292, d_4^{20} 1.1823. Similarly from $2,4\text{-}Cl_2C_6H_3OH$ (IV) and II, Ic is produced (heating for 3 hours at 90-92°, followed by distillation with Cu_2Cl_2); the yield is 82.7%, bp 133-133.5°/10 mm, mp 55-56° (from alcohol-benzene solution), $n_D^{56.5}$ 1.5239, $d_4^{56.5}$ 1.249. When 200.9 gms $SOCl_2$ are gradually added to 192.75 gms of $4\text{-}Cl_6H_4OH$ and 146 gms of III and heated (~2.5 hours at 70°) until evolution of HCl is completed, followed by extraction with ether and washing with 10% Na_2CO_3, Ib is obtained in yields of 80%; after distillation in a stream of CO_2 with $CuCl_2$, the yield of 53%. When 54.4 gms of $SOCl_2$ are added to 81.5 gms IV and 45 gms of III and allowed to stand for 50 hours at 20°, followed by heating for 2 hours at 70°, after which the mixture is poured into 4% NaOH and the precipitate dissolved in ether, Ic is obtained after distillation of the ether; the yield is 77%. When 41.8 gms of $SOCl_2$ are added to 67.2 gms of $2,4,6\text{-}Cl_3C_6H_2OH$ (V) and 34.4 gms III at 35-40° and heated for 10 hours at 40-60°, Id is obtained in yields

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 845

Abstract: of 61.6%, mp 61-61.5° (from alcohol). When 23 gms of II are gradually added to 40 gms of V in 126.5 gms of pyridine and heated for 3 hours at 90°, after which the mixture is poured into dilute HCl and the precipitate dissolved in ether and washed with NaOH, Id is obtained in yields of 74% after distillation of the ether. Analogously, Ie is obtained from 80 gms C_6Cl_5OH in 73.5 gms pyridine and 47 gms II (2 hours at 70°); the yield of crude product is 75.7%, mp 91-91.5° (from alcohol-benzene).

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

ARBUZOVA, I.A.; MEDVEDEVA, L.I.; PLOTKINA, S.A.

Synthesis of chlorophenyl methacrylates. Zhur.ob.khim. 26 no.4: 1127-1130 Ap '56. (MLRA 9:8)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR. (Methacrylic acid)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

ARBUZOVA, I.A.; PLOTKINA, S.A.; YFREMOVA, V.N.

Synthesis of alkylidene and arylidene glycol acrylates and methacrylates. Zhur.ob.khim. 26 no.4:1124-1127 Ap '56. (MLRA 9:8)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR.
(Acrylic acid) (Methacrylic acid)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

Plotkina, S. Ya.

SOV/129-58-9-14/16

AUTHOR: Yermakov, S. S., Candidate of Technical Science

TITLE: Book Review (Retsenziya)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 9, pp 55-57 (USSR)

ABSTRACT: The book "Manufacture of Iron Powder" by G.V.Samsonov and S.Ya.Plotkina, Metallurgizdat, 1957 is reviewed by S. S. Yermakov

1. Iron powders--Production

Card 1/1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Georgian crude oils (Caucasus). A. Plotko. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1931, No. 9-10, 100-3.—Lab. distn analyses are given. V. K.

COMMON ELEMENTS

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ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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B-I-3

Effect of temperature on formation of fatty acids in oxidation of paraffin wax. I. Gutt and A. Plotko (Azerbaid. Neft. Chem., 1939, No. 9, 108—116).—Increase in the velocity of the air blown through the heated wax or in the time of oxidation does not affect the yield of acids, but decreases that of acids soluble in light petroleum and increases that of hydroxy-acids; the mol. wt. of the products is decreased. The optimal temperature is 150°, the yield of hydroxy-acids being controlled by the time. Oxidation of the unsaponifiable residue does not yield hydroxy-acids.

Chemical Abstracts.

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BC

B-I-3

New type of Surakhani crude oil. L. Gukhman and A. [illegible] (Azerbaid. Neft. Chos., 1930, No. 9, 102—108).—Characteristics of a monoparaffinic crude oil which has a low asphalt content are recorded.

CHEMICAL ABSTRACTS.

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CA

Benzine, ligroin, kerosene and gas-oil fractions of Baku crude oils. A. Proiko. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1932, No. 6, 16-33. Distn analyses of various crude oils are given.

V. Kalichevsky

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1ST AND 2ND ORDERS

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PROCESSES AND PROPERTIES INDEX

A new type of Surakhanui crude oil. L. GUKHMAN AND A. PLOTKO. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1930, No. 9, 102-3.—A nonparaffinic crude oil (unusual for Surakhanui) of the following compn. was obtained from the first well drilled into the sixth layer: sp. gr., 0.8812-0.8839; excise resins, 11.2-12%; fraction boiling below 150°, 0.44-1.02% of 0.7564-0.7665 sp. gr.; 150-300°, 39.7-40.6% of 0.8368-0.8437 sp. gr.; and 31-37° Abel-Pensky flash; fuel oil, 57.1-59.4% of 0.9071-0.9144 sp. gr., 5.08-5.97 E_{50} viscosity, 158-174° Brenken flash, 15.6-19% excise resins; cold test below, −20°. The crude oil contained gas oil 8.9, spindle oil 5.9, machine oil 10.0, cylinder oil 5.9 and residues 18.7%. It is very low in asphalt and requires only small quantities of reagents to produce high-grade com. products. About 30% of oils suitable for automobiles was obtained.

A. A. BOPHILINGK

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Effect of temperature on formation of fatty acids in oxidation of paraffin wax. I
HUTT AND A. PLOTKO. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1936, No. 9, 108
6.—Increase in velocity of the air blown through heated paraffin wax has almost no effect on the total amt. of acids formed, but decreases the yield of acids sol. in petr ether, increases the yield of oxy acids and decreases the mol. wt. of the oxidation products. Similar effects are produced by increasing the time of oxidation to over 30 hrs. at 150°. Increase in temp. increases the velocity of oxidation and the yield of acids insol. in petr. ether. At 125° oxidation is rather slow, the yield of oxy acids diminishes and the mol. wt. of the oxidized products decreases in comparison with higher-temp. runs. At 175° the reaction velocity is high but a considerable amt. of oxy acids is formed, the color of the products is poor and the loss is high. Expts. show that 150° is the best temp. for oxidation of paraffin wax to fatty acids as the yield and the mol. wt. of the acids formed are relatively high. Some oxy acids are, however, produced, but their yield can be controlled by discontinuing oxidation of the wax at the proper time. Oxidation of the unsaponifiable residue from the oxidized paraffin wax for 13 hrs. at 150° failed to yield oxy acids. High oxidation temps. have an unfavorable effect on the color of the acid formed.

V. KALICHEVSKY

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Effect of temperature on formation of fatty acids in oxidation of paraffin wax. I. GUTT AND A. PLOTKO. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1930, No. 9, 108-16.—Increase in velocity of the air blown through heated paraffin wax has almost no effect on the total amt. of acids formed, but decreases the yield of acids sol. in petr. ether, increases the yield of oxy acids and decreases the mol. wt. of the oxidation products. Similar effects are produced by increasing the time of oxidation to over 30 hrs. at 150°. Increase in temp. increases the velocity of oxidation and the yield of acids insol. in petr. ether. At 125° oxidation is rather slow, the yield of oxy acids diminishes and the mol. wt. of the oxidized products decreases in comparison with higher-temp. runs. At 175° the reaction velocity is high but a considerable amt. of oxy acids is formed, the color of the products is poor and the loss is high. Expts. show that 150° is the best temp. for oxidation of paraffin wax to fatty acids as the yield and the mol. wt. of the acids formed are relatively high. Some oxy acids are, however, produced, but their yield can be controlled by discontinuing oxidation of the wax at the proper time. Oxidation of the unsaponifiable residue from the oxidized paraffin wax for 13 hrs. at 150° failed to yield oxy acids. High oxidation temps. have an unfavorable effect on the color of the acid formed.

V. KALICHEVSKY

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

CA

22

Gasoline losses during the pumping of crude oil from the well to the refinery. A. M. Plotko. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1936, No. 10, 47-52.—Various cases of losses of gasoline caused by deficient equipment are discussed.
A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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22

Kala crude oil. A. M. Plotko. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1953, No. 9, 3-5.—The av. characteristics and compn. of Kala crude oil from horizons C 3 and C 5 and of its distn. products are given. This crude oil is high in naphthenes. A. A. B.

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22

Lok-Batan crude oil. A. M. Plotko. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1939, No. 9, 5-13.—Lok-Batan crude oil is in many respects quite similar to Bibi-Eibat crude oil. The crude oil and its distillates are compared with other oils and diagrams and tables are presented.

A. A. Hochtlingh

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Raw material for the preparation of lubricating oil. A. M. Plotko. *Trudy Pervoi Vsesoyuz. Nauch.-Tekh. Konferentsii po Proizvodstvu i Potrebleniyu Smazochnykh Masel* **1936**, 47-104.—A discussion of the quality and quantity of U. S. S. R. crude oils as to their content of lubricating oil fraction. The compns. of petroleum from 9 fields are tabulated. According to "Azneft", the tentative amt. of petroleum suitable for the prepn. of lubricating oil in the U. S. S. R. is 9,953,000 t. (for 1935) distributed as follows: Lok-Batan, Bibi-Eibat (heavy), Puta (heavy), Nefte-Chalin and Surakhan (heavy) 5,894,000, Balakhany (heavy) 2,800,000, Binagady-, Sulu-Tepe and Svyatoi Island 1,250,000 t. The yield and quality of the oil distillates are tabulated. Cf. C. A. 30, 7492[illegible]. A. A. P.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKO, G., kand. tekhn. nauk

Automation of navigation in river transportation. Rech. transp. 24 no.8:46-48 '65. (MIRA 18:9)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKO, G., inzhener-sudoveditel'.

On Captain P.Vasilevskii's article. Mor.flot 16 no.6:14-15 Je '56. (MIRA 9:9)

1.TSentral'nyy nauchno-issledovatel'skiy institut ekonomiki i ekspluatatsii vodnogo transporta.
(Collisions at sea--Prevention)(Aids to navigation)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKO, G., kand. tekhn. nauk

Use of radar when maneuvering ships by sight. Rech. transp. 23 no.1:44-46 Ja '64. (MIRA 18:11)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

BUKHANOVSKIY, Igor' Lavrent'yevich; Prinimal uchastiye PLOTKO, G.F., kand. tekhn. nauk; BLAGOVESHCHENSKIY, V.P., kand. tekhn. nauk, retsenzent; MESHKOV, O.I., red.

[Radar methods in navigation] Radiolokatsionnye metody sudovozhdeniia. Moskva, Transport, 1964. 247 p. (MIRA 18:1)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKO, G.F.

PLOTKO, G.F., inzh.

Piloting ships along river routes by means of the "Stvor" radar system. Rech.transp. 16 no.12:13-15 D '57. (MIRA 11:1)
(Radar in navigation)
(Inland navigation)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKO, G.F.

BUKHANOVSKIY, Igor' Lavrent'yevich; PLOTKO, G.F., redaktor; ALEKSEYEV, A.I., redaktor izdatel'stva; TIKHONOVA, Ye.A., tekhnicheskiy redaktor

[Plotting a ship's course; concise manual on navigation] Schislenie puti sudna; kratkoe rukovodstvo po shturmanskoi slushbe. Izd.2-oe, perer. i dop. Moskva, Izd-vo "Morskoi transport," 1956. 94 p. (MIRA 10:7)
(Navigation)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKO, G. F., CAND TECH SCI, "METHODS OF UTILIZING COASTAL RADAR STATIONS FOR ~~CONDUCTING~~ piloting SHIPS THROUGH ~~CHANNELS~~ waterways OF LIMITED ~~WATERS~~ width." LENINGRAD, 1961. (LENINGRAD HIGHER ENGINEERING NAVAL SCHOOL IM ADMIRAL S. O. MAKAROV). (KL, 3-61, 219).

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKO, G.

BUKHANOVSKIY, Igor' Lavrent'yevich; [redacted] redaktor; ALEKSEYEV, A.I., redaktor izdatel'stva; TIKHONOVA, Ye.A., tekhnicheskiy redaktor

[Reckoning the course of a ship; a concise manual on piloting] Schislenie puti sudna; kratkoe rukovodstvo po shturmanskoi sluzhbe. Izd. 2-oe, perer. i dop. Moskva, Izd-vo "Morskoi transport," 1956. 94 p. (MIRA 10:6)
(Navigation)

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PLOTKO, V. M.

L 13218-65 EWT(m)/EWP(t)/EWP(b) DIAAP/IJP(c)/AFWL JD/DM
ACCESSION NR: AP4047420 S/0089/64/017/004/0310/0312

AUTHORS: Flerov, G. N.; Oganesyan, Yu. Ts.; Lobanov, Yu. V.; Kuznetsov, V. I.; Druin, V. A.; Perelyagin, V. P.; Gavrilov, K. A.; Tret'yakova, S. P.; Plotko, V. M.

TITLE: Synthesis and physical identification of the isotope of the 104th element with mass number 260

SOURCE: Atomnaya energiya, v. 17, no. 4, 1964, 310-312

TOPIC TAGS: transuranium element, half life, spontaneous fission

ABSTRACT: In view of the fact that earlier estimates yielded a wide range of values for the half-life of the isotope 104^{260}, whereas experiments have shown that the element 102^{256} experiences spontaneous fission with a half-life of 1500 seconds, the authors developed a procedure for indicating the spontaneous fission, for use in searches

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ACCESSION NR: AP4047420

4

for the 104th elements. The experiments were made with the internal beam of a 300-cm heavy-ion cyclotron. The target was Pu^{242} and Ne^{22} ions were used for bombardment, so that the investigated reaction was $Pu^{242}(Ne^{22}, 4n)104^{260}$. The equipment consisted essentially of a variable-speed belt conveyor to transport the reaction products from the target to the detectors. The fragment detectors were silicate and phosphate glasses. The distribution of the tracks over the detectors yields information on the lifetime of the nuclei synthesized in the reactions. The results of the experiments yielded a half-life of 0.3 ± 0.1 sec for the 104 element with mass number 260 under spontaneous fission. The correctness of the results was checked by examining the form of the excitation function, the cross sections at the maximum, and the lack of an effect in control experiments with other particles and other targets. "The authors thank A. F. Linev, A. N. Filipson, I. A. Shelayev, and the cyclotron crew for reliable operation of the cyclotron, S. M. Polikanov and Ye. D.

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L 13218-65
ACCESSION NR: AP4047420

4

Donets for a discussion of the experimental results, and OyYaI director Professor D. I. Blokhintsev and the State Committee on the Use of Atomic Energy in the USSR for support of the work." Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 29Aug64 ENCL: 00

SUB CODE: NP, IC NR REF SOV: 008 OTHER: 005

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MIZGALSKI, Witold; PLOTKOWIAK, Jan

Polarographic study on the effect of brewer's yeast (lower fermentation) on the decomposition of hydrogen peroxide. Acta physiol pol 12 no.6:905-910 '61.

1. Zaklad Chemii Fizycznej Akademii Medycznej w Poznaniu. Kierownik: doc., dr. W. Mizgalski. Adres autorow: Zaklad Chemii Fizycznej Akademii Fizycznej w Poznaniu, ul. Grunwaldzka 6.

(Polarograph and polarography) (Yeast)
(Hydrogen peroxide)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

MIZGALSKI, Witold; PLOTKOWIAK, Jan

Polarographic studies on the effect of baker's yeasts (bottom fermentation) on the decomposition of hydrogen peroxide. Acta physiol. polon. 12 no.6:905-910 '61.

1. Z Zakladu Chemii Fizycznej Akademii Medycznej w Poznaniu Kierownik: doc. dr W. Mizgalski.
(YEAST DRIED) (HYDROGEN PEROXIDE chem)
(CHEMISTRY ANALYTICAL)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKOWIAK, Jerzy

The incidence of Trichuris trichiura in Szczecin and some problems connected with its control. Wiad. parazyt. 11 no.1: 31-36 '65

1. Zaklad Biologii Pomorskiej Akademii Medycznej i Woj. Stacja Sanitarno-Epidemiologiczna, Szczecin.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

CIESLINSKA, Krystyna, PLOTKOWIAK, Jerzy; KOSMIDER, Kazimierz

A case of infestation with Opisthorchis felinus. Pol. tyg. lek. 20 no.12:447-448 22 Mr '65

1. Z I Kliniki Chorob Wewnetrznych Pomorskiej Akademii Medycznej w Szczecinie (Kierownik: doc. dr. med. Karol Gregorczyk) i z Zakladu Biologii Pomorskiej Akademii Medycznej w Szczecinie (Kireownik: prof. dr. Stanisalw Zajaczek).

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTKOWIAK, Jerzy; ZOLNOWSKI, Zenobiusz

A case of infection caused by the rat tapeworm Hymenolepis diminuta. Pediat. pol. 39 no.1:65-68 Ja'64

1. Z Zakladu Biologii PAM w Szczecinie; kierownik: prof. dr. S.Zajaczek.

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PLOTKOWIAK, Jerzy

Some problems related to tapeworm infections in the Szczecin Region. Wiad. parazyt. 9 no.6:547-552 '63

1. Pracownia Parazytologiczna Wojewodzkiej Stacji Sanitarno-Epidemiologicznej, Szczecin.

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PLOTKOWIAK, Jerzy

The frequency of Trichinella spiralis in the autopsy material of the Szczecin Region. Wiad. parazyt. 9 no.5:487-491 '63

1. Zaklad Biologii Pomorskiej Akademii Medycznej, Szczecin.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

ADAMANIS, Franciszek; PAWELCZYK, Ewaryst; PLOTKOWIAKOWA, Zyta

Analysis of products of the decompositions of drugs. Pt. 3.
Farmacja Pol 18 no.21:513-515 10 N '62.

1. Zaklad Chemii Farmaceutycznej, Akademia Medyczna, Poznan.
Kierownik: prof. dr F.Adamanis.

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DAMANIS, Franciszek, prof. dr.; PAWELCZYK, Ewaryst; PLOTKOWIAKOWA, Zyta

Analysis of decomposition products of medicinal drugs. I. A method of qualitative evaluation of medicinal drugs of the Hydergin (Sandoz) type. Farmacja Polska 18 no.8:180-183 Ap '62.

1. Zaklad Chemii Farmaceutycznej, Akademia Medyczna, Poznan. Kierownik: prof. dr. F. Adamis

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POLAND

Franciszek ADAMANIS, Ewaryst PAWELCZYK and Zyta PLOTKOWIAKOWA, Department of Pharmaceutical Chemistry (Zakład Chemii Farmaceutycznej) Head (Kierownik) Prof Dr F. ADAMANIS, College of Medicine (Akademia Medyczna) Poznan.

"Analysis of Decomposition Products of Drugs. Part 3. Quantitative Analysis of Degree of Decomposition of Cydergine-type Drugs."

Warsaw, Farmacja Polska, Vol 18, No 21, 10 Nov 1962; pp 513-515.

Abstract: Chromatographic and colorimetric studies with Polish, Hungarian, Swiss and Czech preparations. [Two tables, structural formulae: 2 Polish and 11 Western references.]

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PŁOTKOWIAKOWA Z.

(9)

Warsaw, Farmacja Polska, Vol 18, No 8, 25 April 1962. 14

1. "Analysis of Drug Decomposition Products. I. Method for Qualitative Analysis of "Hydergin"-type Drugs," Franciszek ADAMANIS, Dwaryst PAWELCZYK, and Zyta PŁOTKOWIAKOWA of the Pharmaceutical Chemistry Research Office (Zakład Chemii Farmaceutycznej) of the Medical Academy (Akademia Medyczna) at Poznan (Chair Director: Prof. Dr. F. ADAMANIS); pp 180-183.

2. "Corynebacterium diphtheriae Culture Injection, as Applied to Diphtheria Antigen Production," Isabela BUSZAK, Magister, of the Plant for the Production of Sera and Vaccines (Wytwornia Surowic i Szczepionek) in Krakow (Director: Dr. (Vet. med) Z. MOSZCZENSKI, Scientific adviser: Prof. Z. PRZYBYLKIEWICZ, MD); pp 183-185.

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— 1/1 —

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

ADAMANIS, F.; PAWELCZYK, E.; PLOTKOWIAKOWA, Z.

On the chromatography of hydrogenated ergot alkaloids of the ergotoxine group. Bull soc. amis sci Poznan [Med] Ser. C no.10: 95-104 '61.

(ERGOT ALKALOIDS chem)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNI, K.

USSR/Finance 4901. Nov 1947
Military Production 4403.0300, 4404.0100, 4408.

"Finances and the Development of Socialist National Economy," Prof K. Plotni, 8½ pp

"Sov Finansy" Vol VIII, No 11

General historical discussion of position of finance, tax reform, stabilization of ruble, etc., in industrial development. Table showing budgetary expenditures in financing national economy. Fragmentary data on industrial production: 1,300 enterprises were moved east during war and industrial military production during first half of 1945 in East was 5.6 times as great as in first half of 1941. Military

IC 17G73

USSR/Finance 4901. (Contd) Nov 1947

production in USSR increased considerably during war years: aircraft production, 4 times; ammunition, 4 times; tanks, 7-8 times; armament, 6-7 times; and mortar weapons, 8 times. Quotation from Stalin's speech of 9 Feb 1946 with regard to production capacity goals.

17G73

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

KOZIOROWSKI, Czeslaw; PLOTNICKI, Bazyli

A quantitative method for the determination of properdin by means of estimating its proteins. Przegl. epidem. 16 no.4:461-465 '62.

1. Z I Kliniki Pediatrycznej AM we Wroclawiu Kierownik: prof. dr H. Hirszfeldowa i z Klinika Chorob Zakaznych Wieku Dziecieego AM we Wroclawiu Kierownik: prof. dr T. Nowakowski.
(PROPERDIN) (PROTEINS) (IMMUNOELECTROPHORESIS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

POLAND

KOZIOROWSKI, Czeslaw and PLOTNICKI, Bazyli; First Pediatric Clinic (I Klinika Pediatryczna), AM /Akademia Medyczna -- Medical School/ in Wroclaw, Director: Prof Dr H. HIRSZFELDOWA and the Children's Clinic of Infectious Diseases (Klinika Chorob Zakaznych Wieku Dziecicego), AM in Wroclaw, Director: Prof Dr T. NOWAKOWSKI.

''A Quantitative Method of Properdin Determination by Estimating Its Protein Content''

Warsaw, Przeglad Epidemiologiczny, Vol XVI, No 4, 1962
pp 461-465

Abstract: /Authors' English summary modified/ The common methods of properdin determination used to be very complex and technically difficult. The authors propose a modification based on properdin adsorption by inulin and the estimation of the protein content of the properdin-inulin complex using the tanin turbidimetric micro-technique. This modification is easy and quick and might be introduced at any clinical laboratory as a routine technique. 1 table; 1 illustration; 14 references, mainly Western.

1/1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNICKI, C.

PLOTNICKI, C. The IMUZ-SP-1 sprinkler. p. 541. Vol. 16, no. 12, Dec. 1956. GOSPODARKA WODNA. Warszawa, Poland.

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL 6 NO 4 APRIL 1957

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIK, L.G., aspirant

Venous stasis of the hip stump and its prevention.
Protez. i protezostr. no.10:87-93 '64.
(MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut protezirovaniya i protezostroyeniya.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIK, L.G., aspirant

Knee joint of hip prosthesis with a device for the utilization of friction forces. Protez. i protezostr. no.10:131-134 '64. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut protezirovaniya i protezostroyeniya.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

KRETOVA, O., pisatel'; BULAVIN, M., pisatel'; GLUKHOV, A., kand.ekon.nauk; MITROSHIN, S., kand.istoricheskikh nauk; PLOTNIKOV, A., vrach; MOREV, M., zhurnalist; PRUDKOVSKIY, P.N., red.; VOROTNIKOVA, R.V., red.; SKRADZSKAYA, P.G., tekhn.red.

[From impoverishment to prosperity; past and present conditions of the villages of Novo-Zhivotinnoye and Mokhovatka, Berezov District, Voronezh Province] Ot oskudeniia k protsvetaniiu; proshloe i nastoiashchee sel Novo-Zhivotinnogo i Mokhovatki Berezovskogo raiona Voronezhskoi oblasti. Voronezhskoe knizhnoe izd-vo, 1958. 77 p. (MIRA 12:3)

1. Zaveduyushchiy Novo-Zhivotinnovskoy uchastkovoy bol'nitsey (for Plotnikov).

(Voronezh Province--Villages)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A., kandidat ekonomicheskikh nauk.

Organization of the administration of industry and construction in Kazakhstan. Vop.ekon. no.4:144-148 Ap '57. (MLRA 10:5)

1.Institut ekonomiki AN Kazakhskoy SSR.
(Kazakhstan--Industries)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

P'YANOV, S. (Yaroslav'); PLOTNIKOV, A. (Kuybyshev)

Letters to the editor. Voen. znan. 38 no.9:22 S '62. (MIRA 15:9)

1. Zamestitel' predsedatelya Yaroslavskogo oblastnogo komiteta Dobrovol'nogo obshchesta sodeystviya armii, aviatsii i flotu (for P'yanov). 2. Zamestitel' predsedatelya Kuybyshevskogo oblastnogo komiteta Dobrovol'nogo obshchestva sedeystviya armii, aviatsii i flotu (for Plotnikov).

(Yaroslavl' Province—Military education)
(Kuybyshev Province—Military education)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A., kand.tekhn.nauk; GORBUNOV, V., inzh.

Turbocompressor unit of 480000 Mkcal/hr refrigerating capacity [with summary in English]. Khol.tekh. 37 no.2:13-17 My-Ap'60. (MIRA 13:10)

(Refrigeration and refrigerating machinery) (Air compressors)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

LARIN, A.; PLOTNIKOV, A.

Letters to the editor. Voen. znan. 37 no.12:20 D '61. (MIRA 14:11)

1. Predsedatel' Kominternovskogo raykoma Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, g. Voronezh (for Larin).
2. Starshiy instruktor oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu, g. Kuybyshev (for Plotnikov).
(Voronezh--Military education)
(Kuybyshev--Military education)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A. A.

CA

12

Quantity of protein in commercial wheat and barley from northern Caucasia. A. A. Plotnikov. *Severo Kavkazskii Zernovoi Inst. (North Caucasian Grain Inst.), Collection of Sci. Papers* No. 1, 130-41(1933).—The protein content of a large no. of varieties of wheat and barley in different parts of the Caucasus is recorded.

J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A. A.

PROCESSES AND PROPERTIES INDEX

The technical working up of the berries of the black mulberry tree. A. Plotnikov. *Konzervnaya Prom.* 1936, No. 4, 41; *Chem. Zentr.* 1936, II, 3000. The berries contain 82.0% H_2O, 17.1% dry substance, the d. of the juice is 1.07; the sugar content 12.7% (invert sugar 11.6%), acetic acid 1.1%) and total acidity 1.24. A series of studies on the use of the berries for the manuf. of *marmalade* and *wine* are reported. M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

USSR / Soil Science. Physical and Chemical Properties of Soil. J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48619

Author : Plotnikov, A. A.
Inst : Ivanovo Agricultural Institute
Title : Harvest of Grass Mixtures and Their Influence on Structure and Soil Fertility in Field Grass Cropping

Orig Pub : Sb. nauchn. tr. Ivanovsk. s.-kh. in-ta, 1956, vyp. 14, 3-15

Abstract : On turf-podzolic, dusty-argillaceous soils of Ivanovskaya Oblast', a red clover and timothy grass mixture yielded a hay crop in the amount of 37-117 centners/hectare. The introduction of meadow fescue grass into this grass mixture boosted the hay crop to 181 centners/hectare,

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A.A.

Role of various plants of a grassland crop rotation in changing the group composition of soil aggregates. Pochvovedenie no.8:54-62 Ag '61. (MIRA 14:11)

1. Ivanovskiy sel'skokhozyaystvennyy institut.
(Soil physics)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A.A., dotsent

Structure of loamy turf-Podzolic soils under a crop rotation system. Sbor.nauch.trud. Ivan.sel'khoz.inst. no.16:15-31 '58. (MIRA 13:11)

1. Kafedra zemledeliya i agrokhimii Ivanovskogo sel'skokhozyaystvennogo instituta.
(Podzol) (Rotation of crops)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A. A.

Dynamics of water-stable soil structure under grassland crop rotation. Pochvovedenie no.10:88-92 '60. (MIRA 13:10)

1. Ivanovskiy sel'skokhozyaystvennyy institut.
(Soil moisture)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

USSR / Soil Science. Physical and Chemical Properties of Soil. J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48618

Author : Plotnikov, A. A.; Makarova, V. V.
Inst : Ivanovo Agricultural Institute
Title : Dynamics of Soil Structure and Humus in Grass Crop Rotation Using a Layer Under Spring Wheat, Winter Rye, and Potatoes

Orig Pub : Sb. nauchn. tr. Ivanovsk. s.-kh. in-ta, 1956, vyp 14, 16-21

Abstract : In experiments on turf-podzolic soils in Ivanovskaya Oblast' towards the end of crop rotation, an increase of 0.24% in humus content, and an increase of from 13 to 30% in water-stable aggregates was observed in the soils. The structural composition of the soil was

Card 1/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A.A.; MAKAROVA, V.V.

Efficient utilization of sod in grassland crop rotations on turf-Podzolic soils[with German summary in insert]. Pochvovedenie no.4:80-86 Ap '56. (MLRA 9:9)

1.Ivanovskiy sel'skokhozyaystvennyy institut.
(Podzol) (Rotation of crops)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

L00837-66

ACCESSION NR: AP5016081 UR/0302/65/000/002/0017/0019
681.142.642

AUTHOR: Afanas'yev, V. A.; Kazais, E. B.; Plotnikov, A. D.

TITLE: Specialized arithmetic unit

SOURCE: Avtomatika i priborostroyeniye, no. 2, 1965, 17-19

TOPIC TAGS: arithmetic unit

ABSTRACT: The development of a specialized few-digit arithmetic unit based on three-cycle ferrite-diode logical elements is briefly reported. The use of a table of binary logarithm-antilogarithms has simplified the logical circuit of the unit and has accelerated the multiplication, division, and evolution operations. The unit performs addition and subtraction of numbers, yields logarithms, and can add, subtract, and shift the logarithms. The number code has 17 binary digits; the mantissa significant part has 11 digits; order, 4 digits; order sign and mantissa sign, 1 digit each. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: DP, EC

Card 1/1 NO REF SOV: 001 OTHER: 001

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

VAVILOV, V.S.; PLOTNIKOV, A.F.; ZAKHVATKIN, G.V.

Infrared absorption of silicon having high specific resistance and containing radiation defects. Fiz. tver. tela 1 no.6:976-979 Je '59. (MIRA 12:10)

1. Fizicheskiy institut im. P.N. Lebedeva Akademii nauk SSSR, Moskva.
(Silicon--Optical properties)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

PLOTNIKOV, A. F., and VAVILOV, Viktor. S.

"Spectra and Kinetics of Photoconductivity in P-type Silicon Irradiated by Neutrons."

Report to be submitted for the Intl. Conference on Photoconductivity, IUPAP, Cornell University, Ithaca, N. Y., 21-24 Aug 1961.

Physics Inst. im. P. N. Lebedev.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

23124
S/181/61/003/005/029/042
B108/B209

9,4177

AUTHORS: Rzhanov, A. V. and Plotnikov, A. F.

TITLE: The surface levels in germanium according to data on the photoconductivity in the infrared range of the spectrum

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1557-1560

TEXT: The authors measured the photoconductivity of Ge samples which were illuminated with intermittent light from an ИКС-12 (IKS-12) spectrometer. The amplified circuit equipped with phase detector had a sensitivity of the order of 0.1 μv. The 20 · 5 · 0.4 mm^3 large p-type samples had a resistivity of 25-30 ohm.cm; measurements were performed in a cryostat with an NaCl window at a temperature of the samples of about 80°K. The vacuum was of the order of 10^{-4} mm Hg. The results of measurements taken in a range between the edge of the principal absorption band and 3.4μ are shown in the accompanying figure. The results agree with those of other studies insofar as the concentration of the surface levels and, accordingly, the photoconductivity increases with the temperature of preheating up to 500°K, but

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

23124
S/181/61/003/005/029/042
B108/B209

The surface levels in germanium ...

decreases (at energies of the light quanta less than 0.5 ev) when previously heated to 600°K. The effect of preheating and of elemental oxygen leads to an increase in the concentration of surface levels of one and the same type. The results obtained prove the existence of discrete surface levels near the middle of the forbidden band. The rise of photoconductivity at quantum energies of 0.38-0.4 ev corresponds to an electron transition from a surface level about 0.04 ev below the middle of the forbidden band to the conduction band. The subsequent decrease in photoconductivity may be explained by an electron transition from the valence band to a surface level about 0.06 ev above the forbidden band. The holes arising therefrom undergo quick recombination with the electrons in the conduction band. Thus, a negative photoconductivity must correspond to this process if it takes place. In order that both phenomena appear together, the Fermi level has to be 0.02-0.04 ev above the middle of the forbidden band. The decrease in photoconductivity may also be related to a decrease in the absorption coefficient. Finally, the monotonic rise in photoconductivity at energies above 0.42 ev is evidently due to a system of continuous surface levels. Preheating at 600°K changes not only the concentration but also the character of energy distribution of these levels. The authors thank

Card 2/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

23124
S/181/61/003/005/029/042
B108/B209

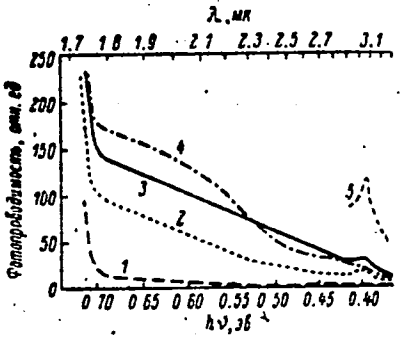
The surface levels in germanium ...

V. S. Vavilov for his assistance. There are 1 figure and 14 references: 9 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR Moskva (Physics Institute imeni P. N. Lebedev AS USSR, Moscow)

SUBMITTED: November 28, 1960

Fig.: Photoconductivity (ordinate axis; arbitrary units) versus energy of the exciting light quanta (abscissas: hν in ev and λ in μ).



Legend: 1 - before heating, 2 - after heating to 400°K, 3 - 500°K, 4 - 600°K, 5 - after the action of a high-voltage discharge at low pressure.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

27297

S/181/61/003/008/027/034
B109/B202

9.4177
26.2420

AUTHORS: Vavilov, V. S., Plotnikov, A. F.

TITLE: Photoconductivity of neutron-irradiated p-type silicon

PERIODICAL: Fizika tverdogo tela, v. 3, no. 8, 1961, 2455-2457

TEXT: The authors discuss the spectral dependence of photoconductivity and the energy band scheme of p-type silicon with radiation defects. The measurements were made in boron-doped silicon with $5 \cdot 10^{15}$ cm^{-3} oxygen atoms at most and a resistivity of approximately 100 ohm·cm. The fast-neutron flux was approximately 10^{13} n/cm^3. According to the theory of Kinchin - Piz the concentration of displaced atoms was assumed to be 10^{14} cm^{-3}. The hole concentration in the valence band which was determined by electric measurements was found to be $8 \cdot 10^{13}$ cm^{-3} at a temperature of approximately 300°K. The results of the measurements are shown in Fig. 1. (σ - conductivity, $\Delta\sigma$ - conductivity change upon action of light) The "edges", which correspond to a wavelength of 4.1, 3.3, and 2.8 μ are directly related to the minimum energies of photoionization, i.e., to the transitions of electrons from the valence band to the incomplete levels $E_v+0.30$, $E_v + 0.38$ and

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

27297

S/181/61/003/008/027/034
B109/B202

Photoconductivity of neutron- ...

E_v + 0.45 ev. At 100°K the Fermi level was at a distance of 0.2 to 0.3 ev from the valence band. The sharp decline at 3.8 μ is due to light absorption. The energy band schemes by which Fig. 1 can be explained is shown in Fig. 2. The existence of the level E_v + 0.35 is not proved. The value of the level E_c - 0.16 ev which is an efficient electron trap and whose position was determined from the values of photoionization constants approximately agrees with that which had been obtained by G. N. Galkin, N. S. Rytova, V. S. Vavilov (ZhFTT, II, 9, 1960) by another method. The electrons promoted into the conduction band as a result of illumination do not shorten the relaxation time of conductivity due to the large electron-capture cross section of the centers (approximately 10^{-13} cm^2). The concentration in the electron traps in the crystals investigated does not exceed 10^8 cm^{-3}. Nevertheless, it is possible that the centers to which the levels mentioned belong may be combinations of an oxygen atom and of a radiation defect according to the spin resonance method of Uotkins, Korbett, and Uolker. The authors thank V. Antonov, G. N. Galkin, and L. Smirnov for valuable help. There are 2 figures and 4 references: 1 Soviet and 3 non-Soviet.

Card 2/4

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

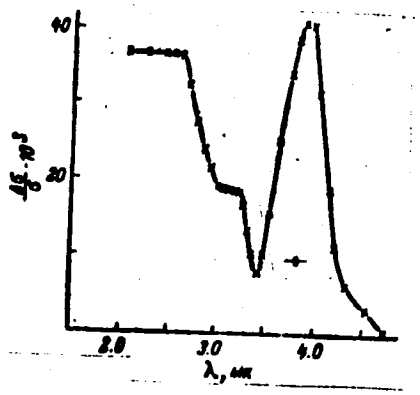
27297

Photoconductivity of neutron- ... S/181/61/003/008/027/034
B109/B202

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva, AN SSSR, Moskva (Physics Institute imeni P. N. Lebedev, AS USSR, Moscow)

SUBMITTED: April 3, 1961

Fig. 1



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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

39169
S/120/62/000/003/042/048
E032/E114

24.3300

AUTHORS: Plotnikov, A.F., Vavilov, V.S., and Kopylovskiy, B.D.

TITLE: An apparatus for studying the spectra and kinetics of photoconductivity in semiconducting crystals

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 183-187

TEXT: The apparatus was designed for studying photoconductivity in single crystals in the infrared part of the spectrum at low temperatures. A block diagram of the apparatus is shown in Fig.1. The infrared radiation is taken from an ИКС-12 (IKS-12) monochromator and is focused on the specimen O by a system of mirrors. The radiation reaching the specimen is partly reflected on to a bolometer Б whose output is fed into an amplifier tuned to 9 c.p.s. This is used to control the incident intensity. The specimen is placed in a conventional metal cryostat and maintained at ~100 °K. Thick germanium and silicon filters Ф are used to reduce scattered radiation. The specimen is connected by short leads to the input stage of an amplifier, which is in the form of a cathode follower with double screening and negligible grid current. The double screening

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ensures low input capacitance. The input stage is connected to a narrow-band amplifier tuned to 9 c.p.s. which is followed by a synchronous detector coupled to the modulator. The sensitivity is 0.5×10^{-8} V/division with an input resistor of 5×10^{13} ohm. The photoconductivity spectrum and the incident spectrum are recorded on a pen recorder chart. Both a.c. and d.c. operation is possible. Amplifier circuit diagrams are reproduced. The apparatus has been used to measure photoconductivity spectra of fast neutron-irradiated silicon crystals. An account of the results is given elsewhere (V.S. Vavilov, A.F. Plotnikov, J.Phys.Chem. Solids, Pergamon Press, 22, 1961, 31). Studies of the kinetics of impurity photoconductivity carried out with this apparatus have led to a determination of the cross-section for carrier capture by levels associated with structural defects which are produced in p-silicon after irradiation by fast neutrons.

There are 6 figures.

ASSOCIATION: Fizicheskiy institut AN SSSR (Physics Institute AS USSR)

Card 2/2

SUBMITTED: October 6, 1961

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

38951
S/181/62/004/007/033/037
B111/B104

26.2420

AUTHORS: Vavilov, V. S., Galkin, G. N., Malovetskaya, V. M., and Plotnikov, A. F.

TITLE: Photo and thermoionization energies of deep level radiation defects in Si

PERIODICAL: Fizika tverdogo tela, v. 4, no. 7, 1962, 1969-1970

TEXT: Experimental results of thermal and photoionization are compared by utilizing a fact recently discovered in the annealing of p-type Si, namely that the difference in stability of two closely adjacent levels of the centers resulting from 1 Mev electron bombardment amounts to E_v + 0.21 ev. Fig. 1 shows that the raising of the level balances the disappearance of charge carriers (holes) on the donor level (E_v + 0.19 ev). This defect is stable even at 200°C. There are 2 figures and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR Moskva (Physics Institute imeni P. N. Lebedev AS USSR Moscow)

Card 1/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001341320003-4

S/181/62/004/007/033/037
B111/B104

Photo and thermoionization energies ...

SUBMITTED: March 22, 1962

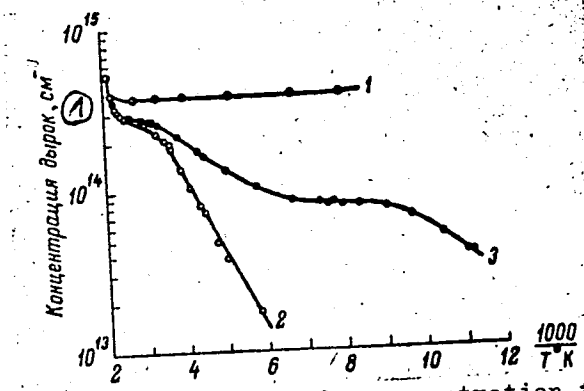

Fig. 1: Temperature dependence of hole concentration for Si specimens with an initial concentration of $3.7 \cdot 10^{14}$ cm^{-3}, bombarded with electrons ($2.2 \cdot 10^{16}$ cm^{-2}). Legend: 1 - before bombardment, 2 - after bombardment, 3 - annealed, (1) hole concentration, cm^{-3}.

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44143

9.4177
24.2600

S/181/62/004/010/030/063
B108/B104

AUTHORS: Paramonova, R. A., and Plotnikov, A. F.

TITLE: Some problems of the kinetics of impurity photoconductivity in copper-doped germanium

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2835-2839

TEXT: The kinetics of impurity photoconductivity was studied to find the cross-section of the trapping of the majority carriers in copper-doped germanium. By calculating the time constant of the exponential attenuation of the photoconductivity, and by determining the concentrations of the recombination centers and of the free carriers in the respective band from the Hall effect, one can calculate the cross-section of the trapping of the majority carriers. This was done for the $\varepsilon_c - 0.26$ ev level ($\sigma_{el} \sim 2 \cdot 10^{-19}$ cm^2) and for the $\varepsilon_v + 0.31$ ev level ($\sigma_{hole} = 1 \cdot 10^{-20}$ cm^2) at 125°K. In n-type germanium a quenching of the impurity photoconductivity at wavelengths ranging from 2.7 to 1.7 μ was discovered (300°K). The sharp decrease of the resistivity in this range is attributed to electrons from

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Some problems of the kinetics... S/181/62/004/010/030/063
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the valency band being lifted to the level $\varepsilon_v + 0.46$ ev. The empty sites are then filled up by electrons from the conduction band. There are 7 figures.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moskva (Physics Institute imeni P. N. Lebedev AS USSR, Moscow)

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44168

S/181/62/004/012/015/052
B104/B102

24.7500

AUTHORS: Vavilov, V.S., Plotnikov, A.F., and Tkachev, V.D.

TITLE: Investigating structural defects in silicon single crystals by reference to the photoconductivity

PERIODICAL: Fizika tverdogo tela, v. 4, no. 12, 1962, 3446-3454

TEXT: The photoconductivity spectra of p- and n-type Si single crystals with different oxygen, boron, and phosphorus concentrations, irradiated by electrons (~1 Mev) from the electrostatic generator of the Laboratoriya fiziki poluprovodnikov (Laboratory of the Physics of Semiconductors) of the FIAN at 100 and 300°K, were investigated with a recording spectrometer designed on the basis of the ИКС-12 (IKS-12) monochromator. The specimens were plates (15·2.5·0.8 mm) with palladium contacts (p-type specimens) or with zinc contacts (n-type specimens). Results: Irradiation leads to the appearance of a large number of discrete levels in the forbidden band. The dependence of the shape of the photoconductivity spectrum on the position of the Fermi level, which is related to the excitation of electrons on the different levels, shows

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that all levels (Fig. 11) can be related to defects. The higher sensitivity of photoelectric measurements as compared with electric measurements made it possible to prove the existence of a series of centers with different ionization energies. In Si single crystals, irradiation by neutrons produces the same defects as by electrons. The radiation defects which determine the photoconductivity spectrum of Si in the range of 2 to 6 μ, are not Frenkel' defects. Irradiations at 100°K showed that at room temperature not only simple Frenkel' defects exist, but also associations of these with other types of defects. This makes it possible to study how such associations are formed and to determine the characteristics of defect diffusion. Electrically active impurities (Cu, Au) with concentrations of 10^{11} to 10^{12} cm^{-3} could be identified by studying photoconductivity spectra. There are 12 figures.

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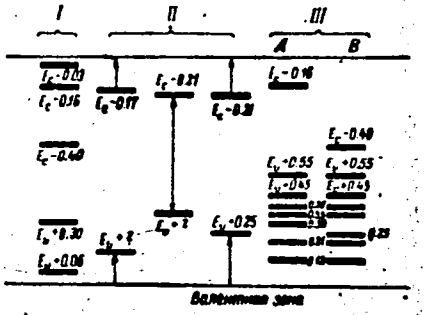
Investigating structural defects ... S/181/62/004/012/015/052
B104/B102

Fig. 11. Levels of defects. Legend: (I) Result of electric measurements; (II) data of optical investigations by H.Fan and A. Ramdas (J.Appl. Phys., 30, 1127, 1959); (III) (A) crystals pulled from a crucible; (B) crystals produced by zone melting in vacuo.



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9.4177
24.2600

44177

S/181/62/004/012/031/052
B125/B102

AUTHORS: Plotnikov, A. F., Tkachev, V. D., and Vavilov, V. S.

TITLE: The photoconductivity spectra of monocrystals related with residual impurities

PERIODICAL: Fizika tverdogo tela, v. 4, no. 12, 1962, 3575-3577

TEXT: The photoconductivity spectra of silicon monocrystals ($\rho \sim 1000$ ohm·cm) were examined at 100°K at constant and alternating excitation (modulating frequency of the light 9 cps). The crystals were either produced by zone melting in vacuo or were grown in quartz crucibles. The measuring apparatus, described by A. F. Plotnikov et al. (PTE ① 3, 1962) recorded variations in the dark conductivity up to 10^{-8}. The λ-dependences of the relative change $\Delta\sigma/\sigma I$ in the photoconductivity of p-type silicon monocrystals of 500 and 75 ohm·cm, have the same step-like form. I is the intensity of the exciting light. The photoconductivity beyond 3.2 μ may be related with the known donor level of gold which lies 0.35 ev above the v-band. This level is due to centers whose concentrations vary between 10^{10} and 10^{11} cm^{-3}. This concentration of monocrystals produced in quartz

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dishes is higher by one order of magnitude than that of silicon produced by vertical zone melting in vacuo. The level at 1.8 μ corresponds to bipolar excitation, the level at 2.2 μ corresponds to the acceptor level lying 0.54 ev below the bottom of the c-band and the level 2.8 μ arises from bipolar excitation by the copper level E_v + 0.49 ev. In the latter case, minority carriers (electrons) are excited by double optical transitions to the conduction band. The level in the region 2.3 μ of the λ-dependence of $\Delta\sigma/\sigma I$ is evidently due to electron excitation from the gold level E_c - 0.54 ev to the conduction band. The broader level below 2 μ might be due to bipolar electron excitation through 2 levels. The shape of the spectral curves of the photoconductivity of p-type silicon monocrystals (doped with gold up to $5 \cdot 10^{15}$ cm^{-3}) confirms the above assumption that the impurity photoconductivity in unalloyed Si crystals is caused by gold atoms. In Si monocrystals produced by zone melting in vacuo without any crucible the gold concentration is found to be 10^{10} - 10^{11} cm^{-3} and the copper concentration 10^{11} - 10^{12} cm^{-3}. In Si monocrystals grown in quartz crucibles or by vertical zone melting the

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residual impurities, copper and gold, produce local centers with deep levels in the forbidden bands. There are 3 figures.

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PLOTNIKOV, A.F.; VAVILOV, V.S.; SMIRNOV, L.S.

Kinetics of photoconductivity in [illegible]-silicon irradiated by neutrons. Fiz.tver.tela 3 no.11:3253-3259 N [illegible] (MIRA 14:10)

1. Fizicheskiy institut im. P.N.Lebedeva AN SSSR, Moskva.
(Semiconductors, Effect of radiation on)

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VAVILOV, V. S.; PLOTNIKOV, A. F.;

"On Defects Introduced into Silicon by Fast Electron and Neutron Irradiation "

Paper was submitted at the International Conference on Crystal Lattice Defects at Kyoto, 7-12 Sep '62

(for Vavilov, V. S.) P. N. Lebedev Inst. of Physics, Leninsky Prospect 53, Moscow

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