Nabokov, V.N.

Experimental application of Diazinon and Chlorophose against flies which are resistant to chlorinated hydrocarbons. V. A. Nabokov, M. A. Laryukhin, and A. V. Nikoforova. *Med. Parazitol. i Parazitar. Bolezni* 25, 260–8 (1956).—Diazinon (ester of thiophosphoric acid) and Chlorophose (ester of phosphonic acid) are very effective against flies which are resistant to DDT and BHC. Adequate doses of Diazinon also destroy mosquitoes and bedbugs. The manuf. of Diazinon is more difficult than that of Chlorophose, which is also considerably less toxic. Crude Chlorophose is ineffective. Aq. emulsions of Chlorophose leave no stains on buildings when sprayed, and no side-effects were noticed when individuals using the spray neglected to take the necessary precautions to protect their eyes and respiratory organs.

A. S. Mirkin

Inst. Malacia, Med. Parasitology & Helminthology, M.W. Health USSR

NABOKOV, V.A.; POPOV, S.D.; LAYUKHIN, M.A.; KHARLAMOVA, T.A.

The helicopter and prospects for use in the control of arthropod vectors of human disease [with summary in English]. Med.paraz. i paraz.bol. 26 no.1:5-11 Ja-F '57. (MLRA 10:6)

1. Iz sektora profilaktiki infektsiy Instituta malyarii, meditsinskoy parazitologii i gel'mitologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G.Sergiyev, zav. sektorom prof. V.A.Nabokov)

(ARTHROPODS, prev. and control
insecticide spraying with helicopter)
(INSECTICIDES
spraying with helicopter)

NABOKOV V A

USSR/Zooparasitology - Ticks and Insects Vectors of Disease Agents. G

Abs Jour : Ref Zhur Biol., No 1, 1959, 1046

Author : Nabokov, V.A.
Inst :
Title : Mechanical Means of Controlling Blood-Sucking Diptera in the USSR

Orig Pub : Med. parazitol. i parazitarn. bolezni, 1957, 26, No 6, 658-666

Abstract : The development of mechanical methods of insect control of premises with preparations of DDT and hexachlorocyclohexane is elaborated: sprayers of the mechanical Nabok and Formakov types and self-acting Czechoslovakian "Autofchomen", saturation of the air with "Avtomix" by means of a low-clearance compressor of the NK-I type; aerosol insecticide of the NIMMI type, electric aerosol generators of the Shevyakov model (DAS-16), aerosol bombs NBK (D-20 and VM). Mechanical methods of

Card 1/2

USSR/Zooparasitology - Ticks and Insects Vectors of Disease Agents. G

Abs Jour : Ref Zhur Biol., No 1, 1958, 1046

extermination of arthropods on large surfaces in nat re are: loaded pneumatic sprayer, use of gasoline propeller in a boat for spraying of larvacides, Komarov's disinfecting equipment (DUK), GAZ-51 placed in an automobile for disinfection of buildings and above-water installations, automobile sprayers of the Pats model, motor duster 'Serna-3" for tick control in the taiga and "Serna-4" with manual gear; aviation dusters and aviation sprayers of different kinds; aerosol generator AT-L6, and bombs of the NBK type (G-17). -- A.P. Adrianov

Card 2/2

- 38 -

NABOKOV, Valeriyan Aleksandrovich, prof.; OSIPOVA, L.S., red.; BUL'DYAYEV, N.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)

NABOKOV, V.A., prof.

Our enemies in the taiga. Zdorov'e 4 no.3:9-11 Mr '58.
(MIRA 11:3)

(RUSSIA, ASIATIC--TICKS AS CARRIERS OF DISEASE)

NABOKOV, V.A., prof.

Winged clouds. Zdorov'e 4 no.5:14-15 My '58. (MIRA 11:4)
(INSECTS, INJURIOUS AND BENEFICIAL)

NABOKOV, V.A., prof.

Tick-borne encephalitis. Med.sestra 17 no.8:39-40 Ag '58 (MIRA 11:8)
(ENCEPHALITIS)

NABOKOV, V.A., prof. (Moskva)

Insecticidal fumes and mists. Fel'd. i akush. 23 no.10:51 O'58
(MIRA 11:11)

(INSECTICIDES)
(AEROSOLS)

NABOKOV, V.A., LARYUKHIN, M.A., TARABUKHIN, I.A., CHUMAK, N.F., CHIGIRIK, Ye.D.

Three years of experience in the control of sectors of tick-borne encephalitis in Kemerovo Province (1955-1957). Med. paraz. i paraz. bol. 27 no.2:199-207 Mr-Ap '58 (MIRA 11:5)

1. Iz sektora profilaktiki infektsiy Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. sektorom - prof. V.A. Nabokov) i iz Kemerovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach G.N. Naydich).

(ENCEPHALITIS, epidemiology
tick-borne encephalitis, control of vectors (Rus))
(TICKS,
control in prev. of tick-borne encephalitis (Rus))

NABOKOV, V.A.

Sound recordings in health education. Med. paraz. i paraz. bol. 27 no.4: 489-490 Jl-Ag '58. (MIRA 12:4)

1. Iz Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev).
(HEALTH EDUCATION,
sound recordings in (Rus))

SERGIYEV, P.G.; NABOKOV, V.A.; LARYUKHIN, M.A.; SVIRIDENKO, M.A.

A knapsack sprayer developed by P.G. Sergiev and V.M. Nabokov ("Serna-4"). Med.paraz. i paraz.bol. 27 no.6:693-695 N-D '58. (MIRA 12:2)

1. Iz sektora profilaktiki infektsiy Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. sektorom - prof. V.A. Nabokov).

(INSECTICIDES,
portable sprayer (Rus))

NABOKOV, V.A.

Aerochemical method for the control of arthropods injurious to human health; on the 30th anniversary of the application of the aerochemical method in the U.S.S.R. Med. paraz. i paraz.bol. 28 no.6:685-687 N-D '59. (MIRA 13:12)

(INSECTS, INJURIOUS AND BENEFICIAL)

17(12) SOV/16-59-6-9/46

AUTHORS: Nabokov, V.A. and Batayev, P.S.

TITLE: Present State of the Study of Mosquito Repellents

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, 30 Nr 6, pp 44-48 (USSR)

ABSTRACT: The authors review the history and theory of mosquito repellents and criticize the present empirical method of evaluating their properties. They point out that a repellent must be subjected to rigorous laboratory tests, followed by tests in natural conditions and, for final approval, under practical working conditions. There are several criteria for evaluating the efficacy of repellents. The authors consider that the most correct criterion is that based on the decrease in the number of bites caused by the use of the repellent. The contributions of Western scientists to the study of mosquito repellents are widely quoted. The chief remaining tasks are: synthesis and testing of new Soviet and foreign repellents, the connection between the chemical structure and the preventive properties of the repellent, the mechanism of repellent action and means of extending its effective action, the development of repellents with a wide range of action on various groups of Arthropoda,

Card 1/2

NABOKOV, V.A.; MITROFANOV, A.M.; SVIRIDENKO, M.A.

Modernized disinfecting apparatus of the LSD type and results of testing it. Med.paraz.i paraz.bol. no.3:318-322 '61. (MIRA 14:9)

1. Iz otdela entomotoksikologii i dezinsektsii Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. otdelom - prof. V.A. Nabokov).
(DISINFECTION AND DISINFECTANTS—EQUIPMENT AND SUPPLIES)

NABOKOV, V.A., prof. (Moskva)

Winged enemies; mosquitoes and the fight against them. Med. sestra 20 no.7:44-45 Jl '61. (MIRA 14:10)
(MOSQUITOES--EXTERMINATION)

NABOKOV, V.A., prof. (Moskva)

Significance of and control measures for bloodsucking diptera. Fel'd. i akush. 26 no.7:43-48 Jl '61. (MIRA 14:7)
(INSECTS, INJURIOUS AND BENEFICIAL)

NABOKOV, V.A., prof. (Moskva)

Mechanized pest control. Fel'd. i akush. 26 no.9:49-54 S '61.
(MIRA 14:10)

(PESTS--EXTERMINATION)

NABOKOV, V.A.; MITROFANOV, A.M.

Modern exposimeters and their comparative evaluation in the evaluation of insecticide toxicity. Med.paraz.i paraz.bol. 30 no.2:204-207 Mr-Ap '61. (MIRA 14:4)

1. Iz otdela entomotoksikologii i dezinsektsii Instituta meditsinskoy parasitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. otdelom - prof. V.A. Nabokov).
(INSECTICIDES)

NABOKOV, Vaerian Aleksandrovich, prof.; SKORBILINA, T.N., red.; MATVEYEVA, M.M., tekhn. red.

[Small but dangerous enemies] Malen'kie, no opasnye vragi. Moskva, Medgiz, 1962. 25 p. (MIRA 15:6)
(DIPTERA) (INSECTS, INJURIOUS AND BENEFICIAL)

NABOKOV, V.A., prof.

Verdict against midges. Zdorov'e 8 no.5:12-13 My '62. (MIRA 15:5)
(DIPTERA--EXTERMINATION)

NABOKOV, V. A., prof.

Unselfish aid. Zdorov'e 8 no.11:11 N '62. (MIRA 15:10)

(MALARIA--PREVENTION)

NABOKOV, V.A., prof.; NEYMAN, M.I., red.

[Taiga sickness; tick-borne encephalitis] Taezhnaia bolezn'; kleshchevoi entsefalit. Moskva, Izd-vo "Meditsina," 1964. 18 p. (MIRA 17:5)

NABOKOV, V.A.; USPYENSKY, I.V.

The development of aerial-spraying techniques for destroying ticks in foci of tick-borne encephalitis. J. hyg. epidem. (Praha) 8 no.3:387-394 '64.

1.Martsinovsky Institute of Medical Parasitology and Tropical Medicine, Ministry of Health, Moscow, U.S.S.R.

NABOKOV, V.A.; SADOVNIKOV, A.I.; USPENSKIY, I.V.

Use of a granulated type DDT preparation in the control of the vectors of tick-borne encephalitis. Med. paraz. i paraz. bol. 32 no.4:476-480 Jl-Ag '63. (MIRA 17:8)

1. Iz otdela entomotoksikologii i dezinsektsii (zav. - prof. V.A. Nabokov) Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. - prof. P.G. Sergiyev) i Gosudarstvennogo nauchno-issledovatel'skogo instituta Grazhdanskogo vozdushnogo flota (nachal'nik - general-leytenant inzhenerno-tekhnicheskoy sluzhby N.A. Zakharov).

NABOKOV, V.A.; [illegible]OVNIKOV, A.I.; USPENSKIY, I.V. [illegible]; LARYUKHIN, M.A.; KRIVTSOVA, Ye.N.; YERSHOVA, T.S. [illegible]; KISH, O.N.

Use of a helicopter for spraying foci of tick encephalitis in forests. Med. parazit. i parazit. bol. 33 no.1:64-68 Ja-F '64 (MIRA 18:1)

1. Otdeleniye toksikologii i bor'by s khlenistonogimi (zav. - prof. V.A. Nabokov) Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I.Martsinovskogo (direktor - prof. P.G. Sergiyev) i Gosudarstvennyy nauchno-issledovatel'skiy institut Grazhdanskogo Vozdushnogo Flota, Moskva. 2. Institut meditsinskoy parazitologii imeni Ye.I. Martsinovskogo (for Laryukhin, Krivtsova, Yershova). 3. Gosudarstvennyy nauchno-issledovatel'skiy institut Grazhdanskogo Vozdushnogo Flota (for Kish, Orlova).

NABOKOV, V.A.; TURICH, M.L.; MITROFANOV, A.M.; USPENSKIY, I.V.

Use of sorptive powdered desiccants in the control of arthropods; a preliminary report. Med. paraz. i paraz. bol. 33 no.5:515-518 S-O '64. (MIRA 18:4)

1. Institut meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I.Martsinovskogo Ministerstva zdravookhraneniya SSSR, Moskva.

NABOKOV, V.S.; PALEOLOG, Ye.N.; TOMASHOV, N.D.

Adsorption method for determining the porosity of protective films on metals. Zhur. fiz. khim. 30 no.12:2705-2712 D'56.
(MLRA 10:4)

1. Akademiya nauk SSSR, Institut fizicheskoy khimii, Moskva.
(Adsorption) (Films (Chemistry))

SOV/81-59-10-35511

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 30, (USSR)

AUTHORS: Nabokov, V.S., Paleolog, Ye.N., Tomashov, N.D.

TITLE: A New Method for Determining the Porosity and the Structure of Oxide Films on Metals

PERIODICAL: Tr. In-ta fiz. khimii. AS USSR, 1957, Nr 6, pp 39-49

ABSTRACT: An adsorption method has been developed for determining the structure of protective films on metals. The method is used for determining the porosity of protective films on Al obtained by anodic oxidation. It has been shown that with an increase in the time of anodic oxidation (from 5 to 120 min) the real surface of the film increases, in which case the diameter of the pores, the total volume of the pores and consequently the percentage of the porosity of the film increases. The number of pores in the process of anodic oxidation does not change. The method is applicable to the study of the mechanism of the growth of protective films on metals.

M.S.

Card 1/1

Adsorption method of determining the porosity of protective films on metals. V. S. Nabokov, E. N. Paleolog, and N. D. Tomashov (Inst. Phys. Chem., Acad. Sci. U.S.S.R., Moscow). *Zhur. Fiz. Khim.* 30, 2705-12(1957).—Al was anodized for *t* min. in 20% H_2SO_4 at 1 amp./sq. dm. and 20°, isopentane (I) was ad- and desorbed on it at −72°, the mass *m* of the oxide film was detd. by dissoln., and the amt. (millimole/g.) adsorbed by the film was calcd.; the adsorption by unoxidized Al was negligible. From the adsorption isotherms it was found that, for *t* = 5, 14, 20, and 60 min., resp., and the thickness δ of the film of 1.0, 2.6, 4.7, and 12 μ the specific area *S* was 25, 30, 30, and 47 sq. m./g., the pore vol., *V*, was 46, 62, 85, and 178 cc./kg., and the most frequent pore radius, *r*, was 30, 35, 38, and 40 A, while the no. of pores remained at 51 × 10^{10}/sq. cm. Boiling the anodized Al in distd. H_2O lowered *S* and *V* to, e.g., 1.5 sq. m./g. and 0 cc./g. Anodizing of a Mg alloy (contg. about 8% Al and small amts. of Zn and Mn) in NaOH 300, Na_2SiO_3 20, PhOH 3 g./l. at 80° and 2.5 amp./sq. dm. gave, for *t* = 5, 30, and 60 min., resp., δ of 3.4, 15, and 17; *S* of [illegible], and 39; *V* of 33, 23, and 17; and *r* of [illegible], and 40. Thus, continuous anodizing increased *V* and *r* on Al and decreased them on Mg.

I. J. Bikerman

SOV/137-58-10-21393D

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 10, p 133 (USSR)

AUTHOR: Nabokov, V. S.

TITLE: Investigation of the Structure of Protective Films on Metals by the Adsorption Method (Issledovaniye stroyeniya zashchitnykh plenok na metallakh adsorbtsionnym metodom)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Chemical Sciences presented to the In-t fiz. khimii AN SSSR (Institute of Physical Chemistry, Academy of Sciences, USSR), Moscow, 1958

ASSOCIATION: In-t fiz. khimii AN SSSR (Institute of Physical Chemistry, Academy of Sciences, USSR), Moscow

1. Metals--Adsorptive properties 2. Thin films--Structural analysis
3. Metals--Coatings

Card 1/1

30V/137-59-7-16036

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 7, p 255 (USSR)

AUTHORS: Nabokov, V.S., Paleolog, Ye.N., Tomashov, N.D.

TITLE: Determining the Structure of Protective Films on Metals by the Sorption Method

PERIODICAL: V sb.: Metody issled. struktury vysokodispersn. i poristykh tel. Moscow, AN SSSR, 1958, pp 137 - 145. Diskus. pp 151 - 16[illegible]

ABSTRACT: A new adsorption method is described and a diagram is given of an installation for determining the structure of protective films on metals, their weight, thickness and porosity. A method is described of investigating anode films on Al. Isopentane was used as an adsorption substance. Experiments were carried out at a temperature of -72°C, maintained with an accuracy of ± 0.005°C with the use of a special cryostat. An anodized cylindrical specimen of 5 mm in diameter and 22 mm height was carefully washed, held in an exsiccator for 24 hours and was then charged into the installation to take adsorption isotherms. Removal of the film from the specimen surface was carried out in a special solution (20 g CrO_3, 35 g H_3PO_4 per 1 liter H_2O). The specimen was

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SOV/137-59-7-16036

Determining the Structure of Protective Films on Metals by the Sorption Method

weighed on microscales prior and after removal of the film. The weighing accuracy was ~1%. On the basis of data obtained the true surface and thickness of the film were computed as well as the general volume of pores, their quantity and distribution over effective radii. The effect of various factors determining the structure of the protective film on Al was investigated. The results obtained confirmed the electrochemical mechanism in the development of anode films on Al in H_2SO_4 solutions and indicated that it took place directly in the solid phase. 20 bibliographical titles.

Z.F.

Card 2/2

PHASE I BOOK EXPLOITATION SOV/4271

Akademiya nauk SSSR. Institut fizicheskoy khimii

Issledovaniya po korrozii metallov. [Vyp.] 5: Korroziya metody i pribory dlya korrozionnykh ispytaniy (Investigations on Corrosion of Metals [No. 5]: New Methods and Instruments for Corrosion Testing) Moscow, Izd-vo AN SSSR, 1959. 176 p. (Series: Its: Trudy, vyp. 7) Errata slip inserted. 3,000 copies printed.

Resp. Ed.: M. D. Tomashov, Doctor of Chemistry, Professor; Ed. of Publishing House: E. G. Yegorova; Tech. Ed: G. A. Astaf'yeva and Ya. V. Zelenina; Editorial Board: M. D. Tomashov, A. V. Bykhovskiy, Candidate of Chemistry, and F. V. Shchigolev, Candidate of Chemistry.

PURPOSE: This collection of articles is intended for scientific workers at research institutes and technical personnel of plant laboratories.

COVERAGE: The articles included in this collection deal basically with methods of corrosion investigation which have not yet been published in Soviet periodical literature but are of definite interest for studying corrosion processes. A wide range of problems is covered. In addition to the methods discussed, the articles provide some experimental data which make possible full utilization of each individual method. No personalities are mentioned. References accompany each article.

Investigations on Corrosion (Cont.) SOV/4271

[redacted], Ya.M. Paleolog and M. D. Tomashov. Absorption Method for Determining the Porosity of Electroplating Coatings 159

Tyukina, M.F., F.F. Zalimskiy, and M.D. Tomashov. Electron-Microscope Investigation of the Microstructure of Anodic Oxidation Films on Aluminum 165

AVAILABLE: Library of Congress

Card 6/6

VK/pw/mcl
9-30-60

NABOKOV, Yu. S. Cand Med Sci -- (diss.) "Biological ~~characteristics~~ properties of variants of dysentery bacilli Flexner and Zonne[] resistant to antibiotics." Kiev, 1957. 11 pp. 21 cm. (Second Kiev Med Inst im I. V. Stalin). 250 copies. (KL, 43-57, 117)

NABOKOV, Yu. S.

"**Biological Properties of Antibiotic-Resistant Variants of** Flexner and Sonne's Dysentery Bacteria," by Yu. S. Nabokov, State Control Institute imeni Tarasevich, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, Vol 28, No 1, Jan 57, pp 20-23

This article describes experiments undertaken to study type specificity of antibiotic-resistant forms of dysentery bacilli, their antigenic structure, and their immunological peculiarities. Strains obtained in vitro and resistant to synthomycin, levomycetin, streptomycin, and biomycin, and synthomycin-resistant strains obtained from children with dysentery were investigated. Twenty-four strains (16 of Flexner's bacillus, type W, and 8 of Sonne's bacillus) were obtained for the investigations from the Department of Live Cultures, Institute imeni Tarasevich [State Scientific Control Institute of Vaccines and Sera imeni Tarasevich].

Dysentery bacteria were found to be highly sensitive to the antibiotics tested. The article mentions bactericstatic doses of each antibiotic. The method of culturing on liquid cultures containing increasing doses of antibiotics was used to study antibiotic-resistant variants of dysentery bacteria. Seedings were kept in a thermostat at 37°C for 18-20 hours.

Sum. 1345

NABOKOV, YU. S.

Microscopic study did not reveal changes in the morphology of the variants obtained. Enzymatic properties of original and resistant cultures were studied. The degree of virulence of the cultures obtained was determined and found to be somewhat lower than that of the original cultures. Diagnostic agglutinating serum obtained from the Leningrad Institute imeni Pasteur was used to study serological properties of the antibiotic-resistant variants.

Vaccines were prepared from initial and antibiotic-adapted strains. Immunogenicity of the vaccines was tested on white mice, which were immunized twice subcutaneously with an interval of one week between vaccinations. Flexner's bacillus was injected in a dose of 250 million microorganisms per inoculation; and Sonne's bacillus, 100 million microorganisms per inoculation. On the 10th day after vaccination, the mice were infected intraperitoneally with one Dcl of an 18- to 40-hour culture in agar (Roginskaya method, 1943) and observed for 3 days. Mice immunized with vaccine prepared from the original dysentery strain Sonne No 714 and from the biomycin-resistant variant were protected to the same extent from death due to infection with one Dcl of strain Sonne No 5063,

SUM. 1345

NABOKOV, Y.S.

both sensitive and resistant to synthomycin. Analogous data were obtained in studies of immunogenic properties of streptomycin-, levomycetin-, and biomycin-resistant strains Flexner No 170 and 26 and Sonne No 714 and 5063.

The article presents the following conclusions based on the results of these experiments:

"1. On culturing dysentery bacilli (Flexner and Sonne) on nutrient media containing increasing doses of synthomycin, levomycetin, streptomycin, and biomycin, antibiotic-resistant cultures which were transmitted by heredity to the next generation were obtained.

"2. Adaptation of Flexner and Sonne's bacilli occurred most rapidly to streptomycin, and most slowly, to biomycin.

"3. No changes in the morphological, serological, enzymatic, and virulent properties were observed in the studied variants of Flexner and Sonne's dysentery bacteria which were resistant to streptomycin, synthomycin, levomycetin, and biomycin.

"4. Synthomycin-resistant dysentery bacteria isolated from children did not differ from sensitive museum cultures with regard to their basic properties.

"5. Vaccines prepared from strains both sensitive and resistant to antibiotics were found to be effective against both sensitive and resistant dysentery bacteria." (U)

54M.1345

SINYUSHINA, M.N.; NABOKOV, Yu.S.; SAMSONOVA, M.N.; VOLKOV, V.A., red.; GUDENINA, T.Ye., tekhn. red.

[Laboratory manual in microbiology; for students of the correspondence section of the Department of Pharmacy] Rukovodstvo k prakticheskim zaniatiiam po mikrobiologii; dlia studentov zaochnogo otdeleniia farmatsevticheskogo fakul'teta. Moskva, Pervyi Mosk. med. in-t, 1960. 66 p. (MIRA 14:6)
(MICROBIOLOGY—STUDY AND TEACHING)

BUL'VAROVA, Z.I.; BRYAKOVA, I.I.; NABOKOV, Yu.S.; POLYAKOV, N.G.

Quality of water used for injections. Apt. delo 9 no.3:50 57 My-Je '60. (MIRA 14:3)
(WATER, DISTILLED) (INJECTIONS)

MITEREV, G.A.; LOGINOVA, R.A.; NOVIKOVA, I.M.; NABOKOV, Yu.S.; SAMSONOVA, M.N.

Hygienic conditions in pharmacies. Apt.delo 12 no.3:48-54 My-Je '62. (MIRA 16:1)

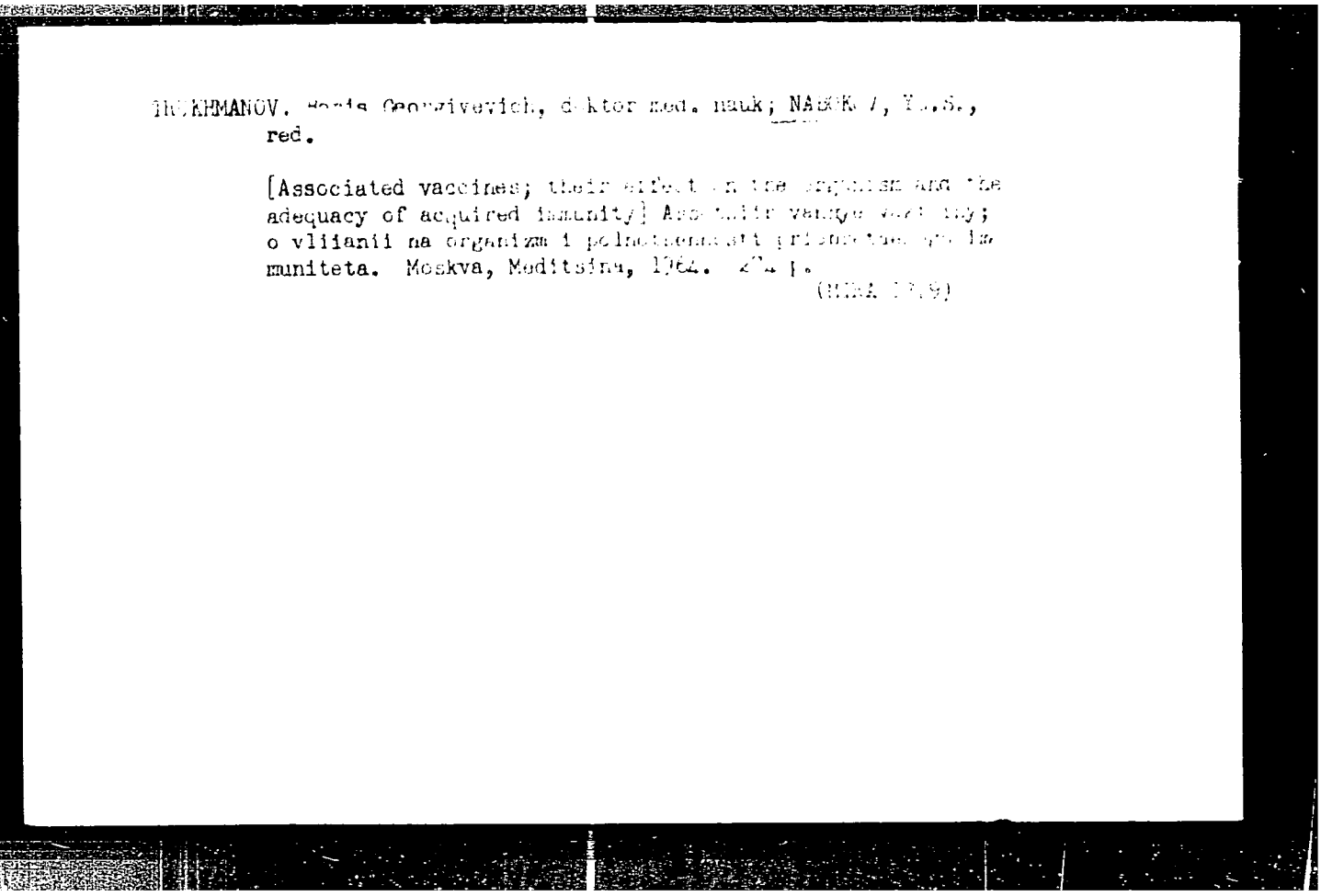
1. I Moskovskiy ordena Lenina meditsinskiy institut imeni I.M. Sechenova.

(PHARMACY--HYGIENIC ASPECTS)

BUL'VAROVA, Z.I.; OVCHINNIKOVA, A.A.; SAMSONOVA, M.N.; NABOKOV, Yu.S.

Study of the microbial pollution and pyrogenicity of distilled water and solutions for injections. Apt. delo 12 no.4:24-30 Jl-Ag '63. (MIRA 17:2)

1. TSentral'nyy aptechnyy nauchno-issledovatel'skiy institut i farmatsevticheskiy fakul'tet 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.



IN'KHMANOV, Boris Georgiyevich, doktor med. nauk; NAUKA, Y.u.S., red.

[Associated vaccines; their effect on the organism and the adequacy of acquired immunity] Assotsiirovannye vaktsiny; o vliianii na organizm i polnotsennost' priobretennogo im muniteta. Moskva, Meditsina, 1964. 274 p.

(MIRA 17:9)

BUL'VAROVA, Z.I.; NIKITINA, L.I.; SAMSONOVA, M.N.; NABOKOV, Yu.S.

Study of the regimen of sterilizing oils, vaseline and lanolin with steam under pressure. Apt. delo 12 no.2:28-35 Mr-Ap '63. (MIRA 17:7)

1. Laboratoriya tekhnologii lekarstvennykh form i galenovykh preparatov TSentral'nogo aptechnogo nauchno-issledovatel'skogo instituta i Kafedra mikrobiologii farmatsevticheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

BUL'VAROVA, Z.I., starshiy nauchnyy sotrudnik, kand.farmatsevticheskikh nauk; OVCHINNIKOVA, A.A., mladshiy nauchnyy sotrudnik; NABOKOV, Yu.S., kand.med.nauk; assistent; SAMSONOVA, M.N., kand.med.nauk, assistent

Study of the technological process of preparing injection solutions in pharmacies. Sbor. nauch. trud. TSANII 3:53-64 '62. (MIRA 16:11)

1. Laboratoriya tekhnologii lekarstvennykh form galenovykh preparatov TSentral'nogo aptechnogo nauchno issledovatel'skogo instituta (for Bul'varova). 2. Laboratoriya biologicheskogo i khimicheskogo analiza TSentral'nogo aptechnogo nauchno-issledovatel'skogo instituta (for Ovchinnikov). 3. Kafedra mikrobiologii farmatsevticheskogo fakul'teta 1-go Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova (for Nabokob, Samsonova).

TROITSKIY, V.L.[deceased]; KAULEN, D.R.; TUMANYAN, M.A.; FRIDENSHTEYN, A.Ya.; CHAKHAVA, G.V.; NABOKOV, Yu.S., red.

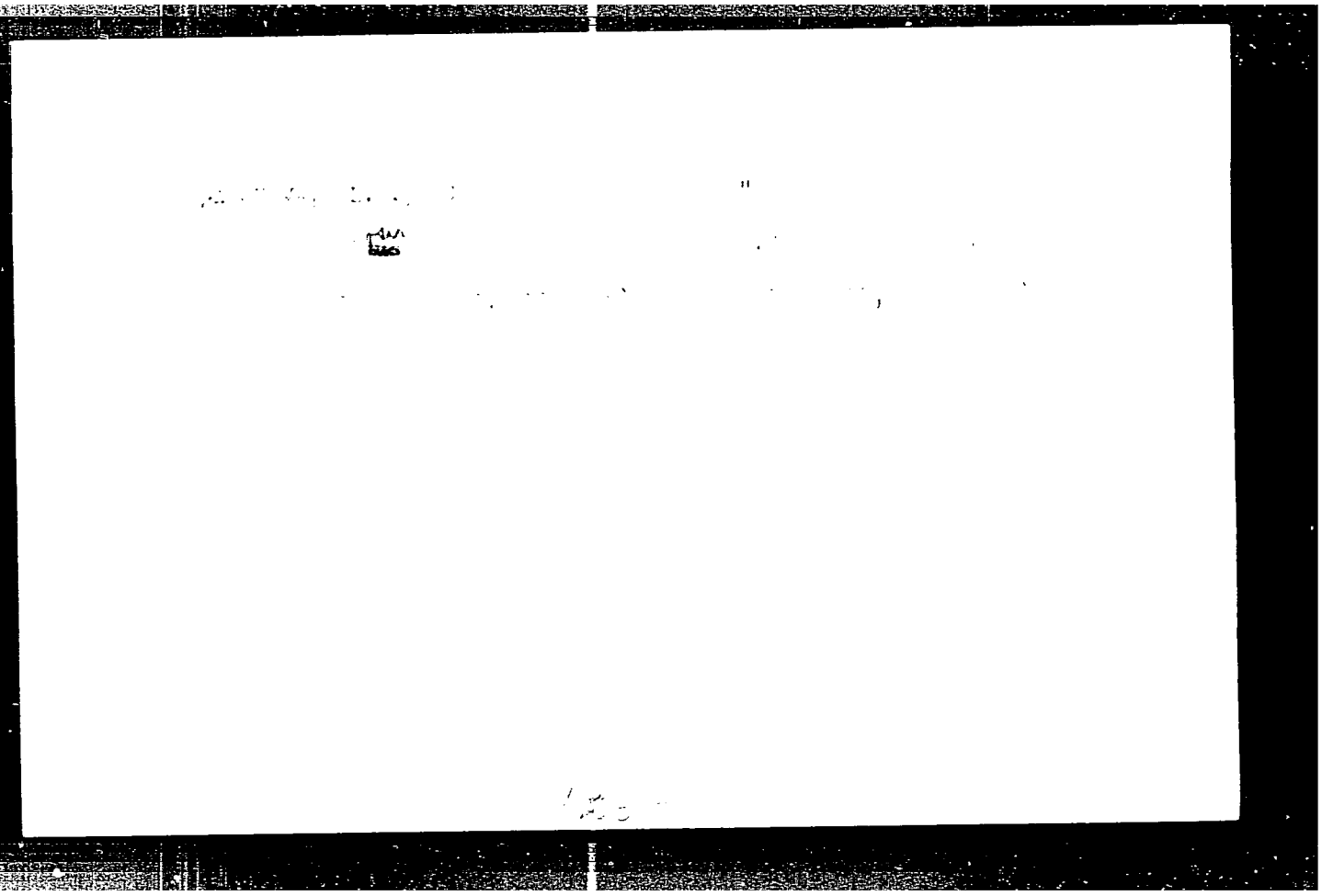
[Radiation immunology] Radiatsionnaia immunologiia. Moskva, Meditsina, 1965. [illegible] p. (MIRA 18:8)

1. Akademiya meditsinskikh nauk SSSR, Moscow.

MYASNIKOV, Yu.A.; NABOKOVA, A.V.

Erysipeloid morbidity in Tula. Zhur. mikrobiol., epid. i immun. 33. no.12:31-36 D '62. (MIRA 16:5)

1. Iz Tul'skoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(TULA PROVINCE—ERYSIPELOTHRIX RHUSIOPATHIAE INFECTIONS IN MAN)



NABOKOVA, L.S.

Material on the organization of tuberculosis prevention among young children. Ped., akush. i gin. 19 no.2:39-41 '57. (MIRA 13:1)

1. Khersonskaya detskaya ob"yedinennaya bol'nitsa (glavnyy vrach - B.B. Medvednik).
(TUBERCULOSIS--PREVENTION)

NABOKOVA, L.S., vrach

Material for the organization of antituberculotic work among young children [with summary in French]. Probl.tub. 35 no.2: 6-10 '57. (MLRA 10:6)

1. Iz Khersonskoy detskoy ob"yedinennoy bol'nitsy (glavnyy vrach B.B.Medvednik)
(TUBERCULOSIS, in inf. & child prev. (Rus))

NABOKOVA, L.S., kand.med.nauk

Results of observations of children infected with tuberculosis early in childhood. Ped., akush. i gin. 20 no.6:11-13 '58. (MIRA 13:1)

1. Khersonskaya oblastnaya bol'nitsa (glavnyy vrach - A.F. Maksin).
(TUBERCULOSIS)

NABOKOVA, L.S., kand.med. nauk; L'VOVA, Ye.I. [L'vova, IE.I.].

Extended observation of children with a history of tuberculous meningitis. Pediat. akush. ginek. no.3:21-24 '63 (MIRA 17:1)

1. Detskoye tuberkuleznoye otdeleniye Khersonskoy oblastnoy bol'nitsy (glavnyy vrach N.A.Kachurovs'kyi [Kachurovs'kyi, N.A.]).

TSINTSERLING, A.V.; POLONSKAYA, Ye.V.; TARASOVA, A.P.; LYUBAVIN, A.R.; NABOKOVA, Ye.R.; MASLENNIKOVA, L.K.; MAYOROVA, L.P. (Leningrad)

Pathological anatomy of adenovirus lesions of the lungs in children. Arkh. pat. 27 no.10:21-28 '65. (MIRA 18:10)

1. Institut detskikh infektsiy i Institut imeni Pastera, Detskaya bol'nitsa imeni N.F.Filatova, Detskaya bol'nitsa imeni Simbalina i 1-ya detskaya bol'nitsa Oktyabr'skogo rayona, Leningrad.

VINOGRADOV, V.M.; RAZUMOVSKIY, V.V.; SEROVA, L.V.; TARZIMANOV, P.F.; KOZHEVNIKOV, O.V.; PICHUGIN, B.M.; PROKOP'EV, I.V.; FEDOROV, B.A.; KOSHEVATAYEVSKIY, V.S.; IVANOVA, A.S.; SNIGIREV, V.G., YASHCHENKO, G.I.; VORONKOVA, Ye.A.; ZAMYATINA, A.A.; SERGEYEV, N.A.; KURNPOV, A.I.; POPOV, B.L.; FINOGENOV, V.P., NABOROV, V.B.; CHENCHIKOVSKIY, S.F.; IVANOV, Ye.A.; AIKHIMOV, V.S., red.; VINOGRADOV, V.M., red.; SMIRNOV, A.M., red.; KAKHOVSKAYA, O.G., red. izd-va; HUDCHENKO, A.M., red. izd-va; LEKANOVA, I.S., tekhn. red.

[Foreign commerce of the U.S.S.R. with capitalist countries] Vneshniaia torgovlia SSSR s kapitalisticheskimi stranami. Moskva, Vneshtorgizdat, 1957. 232 p. (MIRA 11:7)

1. Moscow. Nauchno-issledovatel'skiy kon"yunkturnyy institut. (Russia--Commerce)

NABOROV, V.

Normalization of trade relations between the U.S.S.R. and the U.S.A. will benefit both countries. Vnesh. torg. 29 no.12:6-11 '59. (MIRA 12:12)

(Russia--Commerce--United States)
(United States--Commerce--Russia)

NABOROV, V.

Basic problems of United States foreign trade. Vnesh. torg. 42 no.2:27-34 '62. (MIRA 15:2)
(United States—Commerce)

KOSTYUKHIN, D.; NABOROV, V.

Crisis of the United States trade policy. Vnesh. torg. 42 no.9:6-14 '62. (MIRA 15:9)
(United States—Commercial policy)

NABOROV, V.

Vitally important problems. Vnesh. torg. 43 no.9:16-18 '63.
(MIRA 16:10)

IVASHOV, P.V., NABOESHCHIKOV, V.I.

[illegible]ontinental Mesozoic sediments [illegible]
of the Russian Platform. Sov. [illegible] Vol.
(MIRA [illegible])

1. Dal'nevostochnyy geologicheskiy [illegible]
filiala Sibirskogo otdeleniya [illegible].

NABORSHCHIKOV, V.A., KROPACHEV, A.M.

Composition of iron ores in the Blazov syncline. Geol. rud. mestorozh. 6 no.2:116-118 Mr-Ap '64. (MIRA 17:6)

1. Permskiy politekhnicheskiy institut, kafedra geologii.

NABOTOVA, K. A.

Supv., Chemical Lab., Factory Small Capacity Automobiles, -c1945-.

"Progressive Norms in Analytical Work," Zavod. Lab., 14, No. 8, 1948.

L 41074-65 EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EPR/EWP(j) Pc-4/Pr-4/Ps-4/Pu-4
ACCESSION NR: AT5007904 S/0000/64/000/000/0125/0129 RM/GS

42
B+1

AUTHOR: Mikhaylov, L. Ye.; Naboychenko, K. V.

TITLE: Investigation of critical heat loads during surface boiling of monoisopropylbiphenyl in an annular gap

SOURCE: Moscow. Institut atomnoy energii. Issledovaniya po primeneniyu organicheskikh teplonositeley-zamedliteley v energeticheskikh reaktorakh (Research on the use of organic heat-transfer agents and moderators in power reactors). Moscow, Atomizdat, 1964, 125-129

19

TOPIC TAGS: organic cooled reactor, thermal reactor, power reactor, thermodynamic analysis, critical heat load, coolant surface boiling, heat transfer agent, isopropylbiphenyl

ABSTRACT: The boiling crisis of the organic transfer agent monoisopropylbiphenyl during forced flow in an annular channel was investigated experimentally. All the elements of the closed-circulation loop were made of 1Kh18N9T stainless steel. The tests were carried out at pressures of 2, 5, and 9 atm, liquid velocities of 2, 4, and 8 m/sec, and a liquid temperature of 100 - 300C. In addition to the flow of fluid, the authors measured its temperature and the consumption of electric current for heating. The results of these investigations were compared graphically with

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ACCESSION NR: AT5007904

those obtained previously during forced motion of a liquid in a tube, and were found to be comparable. The experimental points approximated curves drawn on the basis of the empirical formula

$$\frac{q_{cr}}{W_k P_c} = 3 \cdot 10^{-4} \left(1 - \frac{P}{P_c}\right)\left(1 + 6{,}7\,\frac{\Delta i}{r}\right)\left[1 + 0{,}8\left(10^{4}\,\frac{W}{W_k}\right)^{0{,}8}\right],$$

where q_{cr} is the critical heat load, P & P_c are the pressure and critical pressure, W & W_k are the velocity of the liquid and the speed of sound in the liquid, r is the latent heat of evaporation, and Δi is the underheating to saturation.

ASSOCIATION: None

SUBMITTED: 01Aug64 ENCL: 00 SUB CODE: TD, NP

NO REF SOV: 002 OTHER: 000

Card 2/2

L 39739-66 EWT(l)/EWT(m)/EPF(n)-2/ETC(f)/EWG(m) IJP(c) RM/WW/GS/GD-2
ACC NR: AT6005822 SOURCE CODE: UR/0000/65/000/000/0143/0150

AUTHORS: Mikhaylov, L. Ye.; Naboychenko, K. V.; Kiryutin, A.A.

ORG: none

TITLE: Experimental results on the boiling crisis in forced motion of acetone, benzene, and monoisopropyl diphenyl

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Nekotoryye voprosy fiziki i tekhniki yadernykh reaktorov (Some problems in the physics and engineering of nuclear reactors). Moscow, Atomizdat, 1965, 143-150

TOPIC TAGS: boiling, heat transfer, acetone, benzene, organic cooled nuclear reactor, nucleate boiling, liquid flow, forced flow

ABSTRACT: The authors describe the results of experiments carried out at MIFI to determine the critical densities of heat flux under forced motion of the liquids in question through an annular channel. The purpose of the experiments was to check on theoretical relations derived by one of the authors (Mikhaylov, Prikl. mekh. i tekhn. fizika no. 3, 130, 1963) and to proceed to an investigation of the mixture

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L 39739-66
ACC NR: AT6005822

of monoisopropyl diphenyl and benzene on the basis of the experimental data for benzene and monoisopropyl diphenyl separately, since the critical heat flux for a mixture turns out to be higher for each of the pure liquids. The apparatus used was a closed circulating loop driven by a glandless centrifugal pump with screened drive, designed for pressure up to 100 bar and temperature up to 400C and delivery up to 5 m^3/hr. The liquid flows through an annular channel between a heating element and a glass tube, with inside and outside measuring 6/10 mm in diameter and 22 mm in length. The fuel element was made of stainless steel and was heated with direct current. The transition from nucleate to film boiling (boiling crisis) was observed through a window and was also recorded automatically by measuring the change in the resistance of the fuel element. Two methods were used to reach critical thermal load, one using gradual heating of the fuel element itself, and the other using auxiliary heaters. The tests were made at various pressures and velocities, which were maintained constant during each experiment. The results are presented in the form of tables. The experimental values are about 10 -- 30% higher

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ACC NR: AT6005822

for benzene and 10 -- 15% higher for acetone than the theoretical values, the discrepancy increasing with the pressure. There are no comparable published data. The experiments with monoisopropyl diphenyl were compared with the data of L. S. Sterman and V. D. Mikhaylov (Teploenergetika no. 2, 82, 1963) and are found to be in good agreement with them. Orig. art. has: 3 tables.

SUB CODE: 20,18/SUBM DATE: 05Jun65/ ORIG REF: 004/ OTH REF: 001

Card 4/5 3/3

L 23200-66 EWT(m)/EWP(j)/ETC(m)-6 RM/WW/JW

ACC NR: AP6005894 (N) SOURCE CODE: UR/0096/65/000/011/0081/0086

AUTHOR: Nebovchenko, K. V. (Engineer, Dissertator); Kiryutin, A. A. (Engineer); Gribov, B. S.

ORG: Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

TITLE: Investigation of critical heat fluxes in the forced motion of a monoisopropyldiphenyl-benzene mixture

SOURCE: Teploenergetika, no. 11, 1965, 81-86

TOPIC TAGS: benzene, boiling, heat flux, fluid flow

ABSTRACT: In the experiments, the boiling crisis was observed on the outer surface of a heat-evolving element made in the form of a stainless steel tube with a diameter of 6 mm and a length of 80 mm placed coaxially in a glass tube with a diameter of 10 mm. The flow rate of the liquid through the annular channel was measured with a double diaphragm. For each concentration, a series of experiments was made to determine the critical heat flux at pressures of 2.94, 4.96, 8.82, and 16.37 bars and velocities of 4 and 8 m/sec, for heating from 25 to 125°C. Liquid samples were taken before and after each series. In all, more than

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L 23200-66
ACC NR: AP6005894 O

1000 measurements were made for weight concentrations of benzene in the mixture equal to 1.5, 2.5, 3.9, 6.5, 10.5, 13.4, 25.0, 38.0, 48.0, 77.0, 89.0, 94.5, 97, and 99.5, for the above listed pressures and velocities, and with heating to the saturation temperature in the interval from 25 to 125°C. The dependence of the critical heat load on the composition of the mixture is illustrated in a series of curves. The article continues to develop mathematically a dimensionless formula for determination of the critical heat flux. This relationship is said to fit the experimental data for the mixture with an accuracy of 30%. Orig. art. has: 18 formulas and 7 figures.

SUB CODE: 07, 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 006

Card 2/2

NAPOYCHENKO, S.S.; CHICHMAREV, O.K., SMIRNOV, V.I.

Thermodynamic analysis of processes of the nitrolysis of metals from solution. Izv. vys. ucheb. zav., tsvet. met. no.4:48-53 '65. (MIRA 18:9)

1. Kafedra metallurgii tyazhelykh tsvetnykh metallov Tomskogo politekhnicheskogo instituta.

NABOYKIN, A.A., general-mayor artillerii

Expand and improve research in schools of higher learning. Vest. protivovozd.obor. no.3:64-68 Mr '61. (MIRA 14:7)
(Military education)

NABOYKIN, YU. V.
USSR/Chemistry

Card 1/1

Authors : Klimov A. P., and Naboykin, Yu. V.

Title : On the K. P. Medvedev theory of a single-electron bond

Periodical : Zhur. Fiz. Khim. 28, Ed. 554-555, March 1954

Abstract : Discussed are the inaccuracies of the K. P. Medvedev book entitled "Means of developing the A. M. Butlerov structural theory and the method of representing the structure of molecules". The entire material in this report shows the necessity of revising the K. P. Medvedev theory in two major points; 1) he must show a more stricter basis for the hypothesis about the existence of single-electron bonds in many chemical compounds and 2) the introduced hypothesis must coincide with actually observed facts in order to eliminate the inconsistencies of the theory. Three USSR. references. Graphs.

Institution : The V. I. Lenin Polytechnical Institute, Kharkov, Ukr-SSR

Submitted : June 19, 1953

NABOYKIN, Yu. V.

NABOYKIN, Yu. V.: "On the dependence between structure and light-resistance of insoluble azo dyes". Khar'kov, 1955. Min Higher Education Ukrainian SSR. Khar'kov Polytechnic Inst imeni V. I. Lenin. (Dissertaions for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

KILIMOV, A.P.; NABOYKIN, Yu. V.; VOLKOVA, A.M.

Colorimetric method of determining thallium in sodium cidide.
Trudy IREA no.22:124-127 '58. (MIRA 14:6)
(Thallium—Analysis)
(Sodium iodide)

SOV/51-5-6-15/19

AUTHORS: Bogunets, N.P., Baturicheva, Z.B. and Naboykin, Yu.V.

TITLE: Infrared Absorption Spectra of Certain Pyrazole Derivatives in the 2.5-4.5 μ Region (Infrakrasnyye spektry pogloshcheniya nekotorykh proizvodnykh pirazola v oblasti 2.5-4.5 μ)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 6, pp 707-708 (USSR)

ABSTRACT: Pyrazole and its methyl derivatives with free imino hydrogen are associated by formation of an intermolecular hydrogen bond of the >N-H...N< type. This is confirmed by the infrared absorption spectra of these compounds (Refs 1, 2). The ultraviolet absorption spectra of pyrazole and its methyl derivatives do not show the effect of formation of this hydrogen bond (Ref 3). The present paper deals with the infrared absorption spectra of the following ethoxy-derivatives of pyrazole with free imino nitrogen: 3-methyl-5-ethoxypyrazole (substance I in a table on p 708) and 3,4-dimethyl-5-ethoxypyrazole (II), as well as the infrared spectra of 1,3-dimethyl-5-ethoxypyrazole (III) in which imino hydrogen is replaced by a methyl group. The spectra were measured in the region of valence vibrations of the NH group using an IKS-11 infrared spectrometer with a LiF prism. The absorption spectra were obtained both for crystals in the form of thin layers on NaCl plates

Infrared Absorption Spectra of Certain Pyrazole Derivatives in the 2.5-4.5 μ Region

and for solutions in carbon tetrachloride. The results are given in the table on p 708. Cols 1 and 2 give the frequencies for a solution and a crystal sample of compound I, cols 3 and 4 give the frequencies of a solution and a crystal sample of compound II and col 5 gives the frequencies of a solution of compound III. The 2.9 μ band appears in solutions of I and II, which contain the NH group. The 3.14, 3.21 and 3.25 μ bands were observed in crystalline samples and not-to-dilute solutions of compounds I and II. These three bands are due to antisymmetrical vibrations of nitrogen atoms bound with hydrogen in a six-member ring of the double molecule. The remaining bands appear in all the three compounds and are due to valence vibrations of the CH_1CH_2 (original in error?) and CH_3 groups. The results should suggest that dimerization in these three compounds occurs by formation of intermolecular hydrogen bonds of the same type as in the methyl derivatives of pyrazole (Refs 1, 2). There are 1 table, 1 figure and 3 references, 1 of which is Soviet, 1 Italian and 1 German.

SUBMITTED: June 16, 1958

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PHASE I BOOK EXPLOITATION SOV/3910

Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov

Veshchestva vysokoy chistoty i reaktivy; sbornik statey (High Purity Substances and Reagents; Collection of Articles) Moscow, Goskhimizdat, 1959. 136 p. (Series: Its: Trudy, vyp. 23) Errata slip inserted. 1,700 copies printed.

Sponsoring Agency: USSR. Sovet Ministrov. Gosudarstvennyy komitet po khimii.

Ed.: Yu.V. Lyande; Tech. Ed.: Ye.G. Shpak; Editorial Board of Series: V.G. Brudz', V.M. Dziomko, R.P. Lastovskiy (Resp. Ed.), A.M. Lukin, G.E. Mal'kiel', S.I. Mikhaylov, G.A. Pevtsov (Deputy Resp. Ed.), and I.G. Shafran.

PURPOSE: This book is intended for personnel of chemical research and industrial chemical laboratories.

COVERAGE: The book contains 36 articles by affiliates of the Scientific Research Institute for Chemical Reagents (IREA) treating methods which may be adopted by different branches of industry in producing, analyzing, and studying inorganic and organic substances of high purity. Figures, tables, and references accompany each article. No personalities are mentioned.

TABLE OF CONTENTS:

SOV/51-6-3-13/28

AUTHORS: Naboykin, Yu.V., Pavlova, Ye.N. and Zadorozhnyy, B.A.

TITLE: Some Peculiarities of Luminescence of Ortho-Disubstituted Aromatic Hydrocarbons. I The Absorption and Fluorescence Spectra of Anilides of Salicylic and Ortho-methoxybenzoic Acids (Osobennosti lyuminestsentsii orto-dizameshchennykh aromaticheskikh uglevodorodov. I Spektry pogloshcheniya i spektry fluorestsentsii anilidov salitsilovoy i orto-metoksibenzoynoy kislot)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 3, pp 366-371, (USSR)

ABSTRACT: The absorption spectra in the ultraviolet region were obtained using a spectrophotometer SF-4. The absorption spectra in the infrared region were recorded using a spectrometer IKS-11 with a LiF prism. The fluorescence spectra were obtained using a monochromator UM-2 and a photomultiplier FEU-17. Fluorescence was excited using a PRK-4 lamp. The substances studied were prepared by condensation of salicylic or ortho-methoxybenzoic acid with aniline. Ortho-methoxybenzoic anilide was also obtained by methylation of salicylic anilide. The

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Some Peculiarities of Luminescence of Ortho-Disubstituted Aromatic Hydrocarbons. I.

anilides prepared in these two ways had the same properties. The structural formulae of the two anilides show that formation of an intramolecular hydrogen bond is possible in the salicylic acid anilide, but not in the ortho-methoxybenzoic anilide. The absorption spectra of the two anilides dissolved in ethanol (curves 1) and heptane (curves 3) are shown in Figs.1-2. Fig.3 shows how the absorption spectrum of the salicylic anilide depends on the concentration of NaOH in the ethanol solution. Fig.4 shows the fluorescence spectra of the salicylic anilide dissolved in ethanol (curve 1), heptane (curve 2) and polystyrene (curve 3). From the results obtained the authors conclude that the long-wavelength fluorescence of salicylic acid anilide is due to intramolecular hydrogen bonds in this substance, the presence of which was predicted from its structural formula. The short-wavelength fluorescence of the same anilide in alcohols is related to ionisation of molecules and depends on the pH of the solution (Fig.5).

24(7), 5(3) SOV/51-6-4-15/29

AUTHORS: Naboykin, Yu. V., Zadorozhnyy, B.A. and Pavlova, Ye. N.

TITLE: Some Peculiarities of Luminescence of Ortho-Disubstituted Aromatic Hydrocarbons. (Osobennosti lyuminestsentsii orto-dizameshchennykh aromaticheskikh uglevodorodov). II. Fluorescence of the Methyl Esters of 2,3-oxynaphthoic and 2,3-methoxynaphthoic acids. (II. Fluorestsentsiya metilovogo efira 2,3-oksinaftoynoy i 2,3-metoksinaftoynoy kislot)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 4, pp 492-495 (USSR)

ABSTRACT: The structural formula of the methyl ester of 2,3-oxynaphthoic acid (I) suggests that an intramolecular hydrogen bond is possible. In the methyl ester of 2,3-methoxynaphthoic acid (II) such a bond is not possible. Bergman et al (Ref 1) used the electronic absorption spectra of I and similar compounds to show that there is an intramolecular hydrogen bond in I. To check Bergman's work the present authors obtained fluorescence spectra of I and II. The experimental technique and the apparatus were described in an earlier paper (Ref 4). A photomultiplier FEU-22 was used to record fluorescence spectra in the red region. Both esters were prepared by synthesis from 2,3-oxynaphthoic acid employing the usual method. Figs 2 and 3 show the fluorescence spectra of I in ethanol, benzene and in ethanol-alkaline solvents. Fig 5 shows the fluorescence spectrum of I in crystal form.

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Some Peculiarities of Luminescence of Ortho-Disubstituted Aromatic Hydrocarbons. II. Fluorescence of the Methyl Esters of 2,3-oxynaphthoic and 2,3-methoxynaphthoic acids

Fig 6 gives the fluorescence spectra of II in benzene and ethanol. The appearance of three fluorescence bands in the spectra of the methyl ester of 2,3-oxynaphthoic acid confirms the presence of an intramolecular hydrogen bond in that substance. The methyl ester of 2,3-methoxynaphthoic acid has only one fluorescence band, which is hardly affected by the solvent used; this substance has no intramolecular hydrogen bond. The energy of the intramolecular hydrogen bond in I was estimated from its infrared absorption spectrum in the region of valence vibrations of the hydroxyl group (Fig 7). The OH valence vibration at 3280 cm^{-1} is seen to be displaced towards longer wavelengths compared with the valence vibrations of free hydroxyl. Using Shigorin's data (Ref 5) the intramolecular hydrogen bond energy was estimated to be 5.0 kcal/mole There are 7 figures and 6 references, 2 of which are Soviet, 3 German and 1 English.

SUBMITTED: February 6, 1958

SPENDIAROV, M.M.; DOBROKHOTOVA, V.K.; PAVLOVA, Ye.N.; NABOYKIN, Yu.V.; ALEKSANDROV, B.S.

Zone refining of anthracene. Trudy IREA no.23:3-10 '59. (MIRA 13:7)

(Anthracene)

24(7) SOV/48-23-1-2/36

AUTHORS: Naboykin, Yu. V., Zadorozhnyy, B. A., Pavlova, Ye.N.

TITLE: On Some Particular Features of the Luminescence of Ortho-oxy-substituted Aromatic Hydrocarbons (O nekotorykh osobennostyakh lyuminestsentsii orto-oksizameshchennykh aromaticheskikh uglevodorodov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 1, pp 9-14 (USSR)

ABSTRACT: The dependence of the luminescence properties of organic molecules on their chemical structure is known. The influence exercised by hydrogen bonds upon the luminescence of organic substances has hitherto not yet been clarified or is still known very insufficiently. Mataga (Refs 3,4) found that fluorescence bands are shifted towards the long-wave range of the spectrum due to the production of intermolecular hydrogen bonds. In the present paper the absorption and luminescence spectra in various solvents were investigated with double-substituted derivatives of benzene and naphthalene. Hydrogen bonds were found in part of these substances. In the other part such bonds could not be produced. The data and the

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SOV/48-23-1-2/[illegible]

On Some Particular Features of the Luminescence of Ortho-oxy-[illegible] Aromatic Hydrocarbons

value calculated for the energy of the hydrogen bond are given in a table. The absorption and fluorescence spectrum of salicylic acid anilide in heptane and sodium ethanolate as well as that of 1-oxy-2-acetyl naphthalene in heptane and a concentrated alcoholic KOH solution are presented in figures. The former shows a distinct shift of the luminescence spectrum from the long-wave to the short-wave range during the transition from the neutral to the basic medium. A shift occurs also in the latter, to which an opposite one corresponds in the absorption spectrum. It indicates that it depends in a high degree on the pH-value of the solvent. If there is no free OH group contained in the substance, no shift takes place in the spectra by changing the solvent. Substances containing a carboxylic acid tend towards dimerization whereby a weak hydrogen bond is formed. For that reason, a shift of the fluorescence bands - which otherwise corresponds to the crystalline form - towards the long-wave range takes place in the weakly acid medium of a concentrated solution. This confirms the presence of a hydrogen bond. The authors tried to explain hypothetically the mechanism of the formation of a fluorescent

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On Some Particular Features of the Luminescence of Ortho-oxy-substituted Aromatic Hydrocarbons

band shift towards the long-wave range. The excited molecule produces a hydrogen bond which is continuously destroyed and restored during the radiation. Thus, the energy of radiated quanta is reduced and the fluorescence bands are shifted towards the long-wave range of the spectrum. D. N. Shigorin offered a discussion on this lecture which was delivered on the occasion of the 6th Congress on Luminescence. D. N. Shigorin illustrated from the view of the electronic theory how the spectrum is influenced by the hydrogen bond.
There are 2 figures, 1 table, and 8 references, 3 of which are Soviet.

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S/051/60/008/005/010/027
E201/E491

AUTHORS: Naboykin, Yu.V., Zadorozhnyy, B.A. and Pavlova, Ye.N.

TITLE: Characteristics of Luminescence of Ortho-Disubstituted Aromatic Hydrocarbons. III. Fluorescence and Absorption Spectra of Some Carboxylic Acids

PERIODICAL: Optika i spektroskopiya, 1960, Vol.8, No.5, pp.657-662

TEXT: Fluorescence of substances with internal hydrogen bonds, formed by a hydroxyl group attached directly to an aromatic ring were dealt with in Parts I and II (Ref.1 and 2). The present paper deals with the effect of ionization, of internal hydrogen-bonds and of dimer formation on the electronic absorption spectra and on fluorescence of some substituted carboxylic acids. The experimental procedure and the apparatus used were the same as those described in Part I (Ref.1). Special attention was paid to the purity of substances. Some of the results obtained are presented in Fig.1 to 3 and a table on p.659. Fig.1 and 2 show respectively the absorption and fluorescence spectra of solutions of 2,3-oxynaphthoic acid (Fig.1a and 2a), 2,3-methoxynaphthoic acid (Fig.1b and 2b) and 1,4-oxynaphthoic acid (Fig.1B and 2B). The fluorescence spectra of solutions of ortho-methoxybenzoic acid are given in Fig.2B. Fig.3 shows the fluorescence yield of

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Characteristics of Luminescence of Ortho-Disubstituted Aromatic Hydrocarbons. III. Fluorescence and Absorption Spectra of Some Carboxylic Acids

2,3-oxynaphthoic acid solutions in ethyl alcohol as a function of the solution concentration. The table on p.659 lists the wavelengths of the fluorescence maxima of 2,3-oxynaphthoic acid solutions in methyl alcohol at pH values from 3 to ≥ 8. Differences were found between the fluorescence of 2,3- and 1,4-derivatives of naphthalene. Variations of the fluorescence-band parameters were found to be related to the structure of the compounds studied. For example in acids which can form internal hydrogen bonds, fluorescence bands with large Stokes displacements were observed. It was found also that dimerization of acids by means of hydrogen "bridges" displaces fluorescence bands towards longer wavelengths. There are 3 figures, 1 table and 6 references: 4 Soviet (1 a translation from English into Russian), 1 English and 1 German.

SUBMITTED: August 12, 1959

Card 2/2

S/048/60/024/006/024/030/XX
B013/B067

24.3500

AUTHORS: Naboykin, Yu. V., Dobrokhotova, V. K., and Uglanova, V. V.

TITLE: Organic Compound Single Crystals, Their Luminescence and Scintillation Properties

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 6, pp. 744-748

TEXT: The authors attempted to estimate the effect of some factors on the energy transfer and, consequently, also on the scintillation properties of organic single crystals containing admixtures. They studied single crystals bred by Stokbarger's method from carefully purified naphthalene and diphenyl. The admixtures chosen were aromatic hydrocarbons and their derivatives. The light yield of the scintillations was determined from the photocurrent of an ФЭУ-29 (FEU-29) photomultiplier with respect to a calibrated single crystal of stilbene. The luminescence spectra were measured by an СФ-4 (SF-4) spectrophotometer having a special attachment and combined with an ФЭУ-18 (FEU-18) photomultiplier (Ref. 6). Fig. 1 shows the relative light yield as a function of the admixture concentration.

Organic Compound Single Crystals, Their Luminescence and Scintillation Properties

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into this subject are being continued. The authors thank L. Ya. Malkes for making available some samples, as well as A. M. Ratner and I. O. Kulik for a discussion of the results. A. F. Prikhot'ko and A. I. Kitaygorodskiy are mentioned. The present paper was read at the Eighth Conference on Luminescence (Molecular Luminescence and Luminescence Analysis) which took place in Minsk from October 19 to 24, 1959. There are 3 figures, 1 table, and 6 references: 5 Soviet.

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85234

S/048/60/024/006/027/030/XX
B013/B067

24.3500

AUTHORS: Zadorozhnyy, B. A. and Naboykin, Yu. V.

TITLE: Luminescence of Systems With Hydrogen Bonds

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 6, pp. 758-762

TEXT: The authors studied the effect of hydrogen bonds on electron spectra. Fig. 1 shows the change of electron spectra during the formation of a hydrogen bond. A relation could be derived herefrom, which was obtained proceeding from the formulas by Pimentel (Ref. 1) and reads as follows: $\Delta\nu^{H} = \Delta\nu + (\omega_0 + \omega_1)$ (5) $\Delta\nu$- Stokes' shift in the absence of a hydrogen bond; $\Delta\nu^{H}$ - Stokes' shift after the formation of the hydrogen bond; ω_0 - Frank - Condon disturbance of the vibrations connected by the hydrogen atom bridge (for the electron ground state); ω_1 - the same for the excited state of the system. In the case of Stokes' excitation, the quantities ω_0 and ω_1 are always positive. Therefore, the following conclusion may be drawn from formula (5): Due to the formation of both inter- and intra-

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Luminescence of Systems With Hydrogen Bonds

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molecular hydrogen bonds, Stokes' excitation always increases. The increase depends on particular values of ω_0 and ω_1 and may widely vary. As a consequence, the increase in Stokes' shift directly indicates the formation of a hydrogen bond in the system. This assumption was experimentally verified in several papers (Refs. 5-8). A table gives characteristic examples. Fig. 2 shows that the hydrogen bond in the electron spectrum appears only when its energy in the excited state W_1 differs from its energy in the ground state W_0; when $W_1 = W_0$, no change takes place. With a sufficiently large difference between W_1 and W_0, a rupture of the hydrogen bond is possible during absorption and emission. As a result, the values of ω_0 and ω_1 which determine the increase of Stokes' shift during the formation of a hydrogen bond, are strongly increased. Although always two bands would be bound to be present in the luminescence spectra of substances with hydrogen bonds, there are cases in which one of the bands is only weakly marked (Ref. 9) or even absent (Ref. 6). In experimental studies of the luminescent properties of a system with hydrogen bonds, the fact that the relatively weak appearance of the hydrogen bond is superposed by stronger effects must be taken into account. These effects may be due to

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completely different reasons, e.g., ionization. The absorption and luminescence spectra of substances with hydrogen bonds showed no mirror symmetry. This problem will be further studied. V. L. Levshin is mentioned. The present paper was read at the Eighth Conference on Luminescence (Molecular Luminescence and Luminescence Analysis) which took place in Minsk from October 19 to 24, 1959. There are 2 figures, 1 table, and 9 references: 4 Soviet, 2 US, 2 Japanese, and 1 German.

Card 3/3

KARPUKHIN, P.O.; NABOYKIN, Yu.V.

Relation between the structure and the light fastness of insuluble azo dyes. Report No. 1. Ukr. khim. zhur. 26 no.6:736-739 '60. (MIRA 14:1)

1. Khar'kovskiy politekhnicheskiy institut im. V.I. Lenina.
(Azo dyes)

21600

39127
S/058/62/000/006/063/136
A061/A101

AUTHORS: Naboykin, Yu. V., Dobrokhotova, V. K., Uglanova, V. V., Soyfer, L. M.

TITLE: The growth of organic single crystals with impurities and study of their optical properties

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 11, abstract 6E87 (In collection: "Rost kristallov. T. 3". Moscow, AN SSSR, 1961, 326 - 331. Discuss., 501 - 502)

TEXT: The scintillation properties of naphthalene and diphenyl single crystals with anthracene and salicylic acid amide impurities, grown by Stokbarger's method, are considered. Crystals 14 mm in diameter and 10 mm high were obtained. The use of some of them in scintillation counters is shown to be practically possible. It has been found that the solubility of the impurity is an important factor in the production of organic mixed single crystals for use in counters. It has been established that in molecular crystals growing from a melt, impurities usually enter the crystal lattice as individual molecules.

[Abstracter's note: Complete translation]

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IFTSOO

S/058/62/000/006/066/136
A061/A101

AUTHORS: Aleksandrov, B. S., Dobrokhotova, V. K., Naboykin, Yu. V., Spendiarov, N. S., Uglanova, V. V.

TITLE: Zone purification of substances for scintillation single crystals

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 12, abstract 6E99 (In collection: "Rost kristallov. T. 3". Moscow, AN SSSR, 1961, 332 - 337. Discuss., 501 - 502)

TEXT: A system of short tubular heaters on a vertical unit was used to perform the zone purification of naphthalene, stilbene, anthracene, and other substances for scintillation single crystals. The effect of purification proved positive in nearly all cases. In particular, the intensity of luminescence in the maximum was enhanced by 1.5 - 2.5 times.

[Abstracter's note: Complete translation]

Card 1/1

S/120/62/000/001/012/061
E039/E520

21 6CCC

AUTHORS: Naboykin, Yu.V., Dobrokhotova, V.K., Uglanova, V.V., Zadorozhnyy, B.A. and Malkes, L.Ya.

TITLE: New organic single crystal scintillators

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1962, 57-59

TEXT: Anthracene is one of the most widely used scintillation crystals because of its high light output. However, there are difficulties associated with the preparation of single crystals of anthracene and it is chemically unstable, hence with long usage the single crystals deteriorate. Stilbene only has about half the light output of anthracene but it is cheap and is therefore widely used. Other crystals such as tolane have a low light yield so that efforts were made to discover new scintillator materials. The effect of small admixtures on the luminescent properties of crystals has been investigated by a number of authors and in this paper is given a summary of all the data on the scintillation efficiency of the single crystals investigated. The light yield compared with stilbene is given and also the optimum concentration of admixture and the maximum in the radiated spectrum. It is shown

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New organic single crystal scintillators S/120/62/000/001/012/061
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that single crystals of naphthalene with 1,2 - di(β-napthyl) ethylene and n-phenyl-stilbene admixtures not only have a high light yield (150% of stilbene) but have a luminescence time no greater than stilbene. They are also cheap and hence should be widely used. Single crystals of diphenyl and diphenylene oxide have the advantage over naphthalene of being stable in air but have a lower light output. The dependence of light output on concentration of admixture is shown graphically. The addition of about 0.1% of 1,2 - di(β-napthyl)-ethylene or 1-(β-napthyl)-2-(n-biphenyl)-ethylene to napthalene produces the maximum increase in sctillation efficiency. The luminescent spectra of these new materials is also presented and it is apparent that the maxima in the spectra coincide with the region of maximum sensitivity of antimony-cesium photocathodes. There are 3 figures and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv
(All Union Scientific Research Institute on Single Crystals, Scintillating Materials and Specially Pure Chemical Materials)

Card 2/2

SUBMITTED: June 19, 1961

S/051/62/012/005/020/021
E036/E118

AUTHORS: Naboykin, Yu.V., Dobrokhotova, V.K., and Uglanova, V.V.

TITLE: The dependence of luminescent output of mixed single crystals on the impurity concentration

PERIODICAL: Optika i spektroskopiya, v.12, no.5, 1962, 649-651

TEXT: The scintillation output from single crystals of naphthalene excited by γ-quanta has been investigated as a function of the concentration of phenyl-diphenylyl-ethylene and of ββ'-dinaphthylethylene. The first of these impurities is hardly soluble (distribution coefficient $K = 10^{-2}$) and the other very soluble ($K > 1$). The maximum impurity concentration was approximately 10^{-4} mole per mole of the naphthalene. It is deduced from the experimental results that the excitons, which transport energy in the crystal, are more easily trapped at centres formed by the less soluble impurities, which distort the surrounding lattice. This is anticipated from the theory. There are 2 figures.

SUBMITTED: November 9, 1961

Card 1/1

NABOYKIN, Yu. V.

AID Nr. 983-7 5 June

TRIPLET LEVELS IN MOLECULAR CRYSTALS (USSR)

Naboykin, Yu. V., S. V. Sidorov, and A. A Avdeyenko. IN: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 4, Apr 1963, 527-529.
S/048/63/027/004/015/026

In connection with the problem of triplet luminescence of organic molecules, of particular importance in its application to quantum generators, an attempt has been made to produce this effect artificially by doping techniques. Naphthalene crystals doped with a small amount (0.05-0.5%) of benzophenone were found to display a linear singlet-triplet absorption spectrum somewhat similar to that of benzophenone. The congruence of the linear spectra of naphthalene and benzophenone indicates that their luminescence is due to local centers. Attempts to discover triplet energy states in crystals of triphenylene, diphenyloxide, acenaphthene, and certain compounds of benzophenone were unsuccessful; naphthalene crystals doped with polar molecules of nitrogen compounds, quinone, and oxygen also gave negative results. To check the validity of the triplet exciton,

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AID Nr. 983-7 5 June

TRIPLET LEVELS IN MOLECULAR CRYSTALS [Cont'd] S/048/63/027/004/015/026

hypothesis, single crystals of pure naphthalene were kept for more than two weeks in a chamber filled with oxygen at a pressure of 150 atm, and their absorption spectra were compared with the same spectra in argon. The results indicated the existence of singlet-triplet absorptions induced by oxygen. Many solutions of aromatic substances displaying easily observable triplet absorptions lose this property after crystallization; however, the nature of this phenomenon is still not understood. [VG]

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L 10154-63 EPF(c)/EWT(m)/BDS--ASD--Pr-4--RM/MAY/WW

ACCESSION NR: AP3000322 S/0048/63/027/005/0690/0692

AUTHOR: Dobrokhotova, V. K.; Kul'chitskiy, V. A.; Koboykin, Yu. V. 61 60

TITLE: Spectra of frozen solutions of two impurities at 77°K [Report, Eleventh Conference on Luminescence held at Minsk 10-15 Sept. 1962]

SOURCE: Izvestiya AN SSSR. Seriya fizicheskaya, v. 27, no. 5, 1963, 690-692

TOPIC TAGS: luminescence, energy migration, spectrum shifters, dianthryl ethylene, liquid scintillators

ABSTRACT: The work was devoted to investigation of the luminescence spectra of frozen solutions containing two impurities between which resonance migration of energy may occur. The basic method of investigating the luminescence of organic molecules in frozen solutions is due to E. V. Shpol'skiy and his co-workers (Uspekhi fiz. nauk, 65, 51, 1959; Ibid., 71, 215, 1960) and allows of observing fine structure in the luminescence spectra of organic molecules. In the present experiments one of the impurities was the inert solvent hexane (instead of the usual toluene); the other was di-(9-anthryl)-1,2-ethylene (DAE). The excitation

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