"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

GELYUTA, Yevgeniy Zakharovich, prepod.; NURMUKHAMEDOV, Yunus Kaderbayevich, prepod. Prinimal uchastiye KOVALEV, I.A., dots.; RODIONOV, L.Ye., dots.

[Mining engineering] Gornoe delo. Moskva, Nedra, 1965. 590 p. (MIRA 18:9)

1. Vsesoyuznyy zaochnyy politekhnicheskiy institut.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, Grigoriy Arkad'yevich, prof., doktor tekhn. nauk. Prinimali uchastiye: TRAYNIS, V.V., kand. tekhn. nauk; [illegible] K.G., dots., kand. tekhn. nauk; [illegible], B.A., kand. tekhn. nauk; MUCHNIK, V.S., prof., doktor tekhn. nauk, retsenzent; NOVOZHILOV, M.A., prof., doktor tekhn. nauk, retsenzent; IVANOV, A.Ye., stv. red.; NURMUKHAMEDOVA, V.F., red.; KHOLIN, N.D., prof., red.

[Technology and planning of the hydraulic mechanization of mining operations] Tekhnologiia i proektirovanie gidromekhanizatsii gornykh rabot. Moskva, Nedra, [illegible]. 578 p. (MIRA 18:[illegible])

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

AUTHORS: Shigorin, D. N., Shcheglova, N. A., Nurmukhametov, R. N., Dokunikhin, N. S.

SOV/2o-12o-6-21/59

TITLE: The Effects of the Position and of the Nature of the Substituent on the Fluorescence Spectra of Anthraquinone Derivatives in Frozen Solutions (Vliyaniye polozheniya i prirody zamestitelya na spektry fluorestsentsii proizvodnykh antrakhinona v zamorozhennykh rastvorakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 12o, Nr 6, pp. 1242 - 1245 (USSR)

ABSTRACT: First a survey of previous papers and of the present state of the problem under review is given. This is a study of the fluorescence of much diluted solutions ($C = 10^{-4}$ to 10^{-5} mol/l) of anthraquinone and of its derivatives at 77°K. n-heptane, n-hexane and n-octane served as a solvent. The spectra were excites by a group of mercury lines. A fine structure of the oscillations was found in the fluorescence spectra of anthraquinone, of its β-derivatives (β-Cl-anthraquinone, β-methyl anthraquinone, β-amino anthraquinone) and of anthrone. The spectrum exhibited by anthraquinone in different solvents remains

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

The Effects of the Position and of the Nature of the Substituent on the Fluorescence Spectra of Anthraquinone Derivatives in Frozen Solutions SOV/20-120-6-21/59

the same. It has 24 - 28 lines and shows a complicated structure. The spectrum of anthraquinone apparently is divided into several parts by the most intensive electron oscillation bands. The shape of the spectrum is repeated in each of these parts. These principal bands are divided into several components. When hexane is used instead of octane the number of components and the nature of the splitting-up is changed, the position of the bands and the distances between them are maintained. The principal form of the spectrum is maintained in the spectra of all compounds with a fine structure. It exhibits a three times repeated picture in the ranges between the intensive bands. The spectra of the α derivatives of anthraquinone are markedly shifted towards red as compared to the spectra reviewed above. They appear in the form of rather washed-out bands. The spectrum of β-oxy anthraquinone also consists of washed-out bands and is shifted towards red. The evidence advanced substantiates the hypotheses concerning the influence of the position of the substituent and of its nature upon the fluorescence spectra of the molecules under consideration.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

The Effects of the Position and of the Nature of the Substituent on the Fluorescence Spectra of Anthraquinone Derivatives in Frozen Solutions SOV/20-120-6-21/59

There are 2 figures, 1 table, and 7 references, which are Soviet.

PRESENTED: March 27, 1958, by A. N. Terenin, Member, Academy of Sciences, USSR

SUBMITTED: March 21, 1958

1. Anthracene solutions--Fluorescence 2. Anthracenes--Spectra
3. Anthracenes--Structural analysis

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R. N.

SHIGORIN, D. N.; SHCHEGLOVA, N. A.; and NURMUKHAMETOV, R. N.

"Fluorescence Spectra of Anthraquinone and its Derivatives in Proton Solutions."

report presented at the 4th International Meeting of Molecular Spectroscopy, Bologna, Italy, 7-12 Sept 1959.

Institute of Physical Chemistry, the University, Moscow.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

24(7) SOV/48-23-1-8/36

AUTHORS: Shigorin, D. N., Shcheglova, N. A., Nurmukhametov, R. N.

TITLE: Influence of the Position and Nature of the Substituent Upon the Fluorescence Spectrum of Anthraquinone Derivatives in Frozen Solutions (Vliyaniye polozheniya i prirody zamestitelya na spektry fluorestsentsii proizvodnykh antrakhinona v zamorozhennykh rastvorakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 1, pp 37 - 39 (USSR)

ABSTRACT: In the present paper the authors studied the fluorescence spectra of strongly dilute solutions of anthraquinone and its derivatives at 77°K. n-hexane, n-heptane and n-octane were used as solvents. The spectrum investigations were carried out according to the method described by Shpol'skiy (Ref 1). The oscillation microstructures of the fluorescence spectra of anthraquinone and its β-derivatives: β-chloro, β-methyl and β-amino anthraquinone were considered. The anthraquinone spectrum covers a few intense principal bands which reappear in each spectrum. Each band is split into several components. On the transition from hexane to octane, the number of components and way of distribution vary,

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

Influence of the Position and Nature of the Substituent Upon the Fluorescence Spectrum of Anthraquinone Derivatives in Frozen Solutions SOV/48-23-1-8/36

whereas the position of the bands is maintained. It was observed that all spectra tend toward equalizing the intensity of the components of the central bands during the shift toward the long-wave range. The components of the intense bands correspond to the completely symmetrical C=O oscillation in the ground state of electrons. The nature of distribution of the electron-vibration level is connected with the orientation of fluorescent molecules in the crystal lattice of the solvent and has hitherto been investigated insufficiently. The α-derivatives of anthraquinone yield different spectra. Within the red range they are shifted to a large extent and their bands are indistinct. The authors investigated the spectra of α-oxy anthraquinone, α-chloro anthraquinone, 1,5-dioxy anthraquinone, 1,8-dioxy anthraquinone, 1,4-dioxy-anthraquinone and β-oxy anthraquinone. The latter β-derivative belongs also to this group because of its hydrogen bond that is produced in weak concentrations. This hydrogen bond renders the spectra of the α-derivatives of anthra-

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

Influence of the Position and Nature of the Substituent Upon the Fluorescence Spectrum of Anthraquinone Derivatives in Frozen Solutions SOV/48-23-1-[illegible]/36

quinone indistinct. It always occurs in such cases where an interaction between the substituents OH or NH_2 and the C=O group is possible. The data obtained on the fluorescence of frozen solutions of anthraquinone and its derivatives are parallel to those mentioned by Karyakin and Terenin (Ref 3) on the investigations of fluorescence extinction by oxygen as well as to the changes in the electronic and infrared absorption spectra of anthraquinone derivatives. There are 4 figures, 1 table and 4 Soviet references.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R.N.; POPOVA, Ye.G.; DOKUNIKHIN, N.S.

Luminescence of solutions and powders of chrysene at 77° K. Opt. i spektr. 9 no.5:593-600 N '60. (MIRA 13:11)
(Chrysene—Spectra)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

S/048/60/024/006/019/030/XX
B013/B067

AUTHORS: Nurmukhametov, R. N., Shigorin, D. N., and Dokunikhin, N. S.

TITLE: Luminescence of Solutions of Thioindigo and Its Two Derivatives at 77°K

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 6, pp. 728-729

TEXT: A method of producing luminescence spectra and a long-wave absorption line with a distinct structure (Ref. 1), developed by E. V. Shpol'skiy and his collaborators with aromatic hydrocarbons was extended by the authors to compounds with heteroatoms. Data are presented on the study of the spectra of thioindigo, 5.5'-dimethylthioindigo, and 6.6'-diethoxythioindigo which have a certain solubility in n-hydrocarbons. The solutions of these compounds frozen at 77°K yielded spectra with a distinct vibrational structure which, in the series of the solvents - from hexane to nonane - gradually became blurred. An absorption spectrum was obtained also for thioindigo in n-hexane. The relatively simple spectrum must be ascribed to the transition of the π-electron in the >C=C< group.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

Luminescence of Solutions of Thioindigo and Its Two Derivatives at 77°K

S/048/60/024/006/019/030/XX
B013/B067

Although the thioindigo molecule contains four heteroatoms, the long-wave absorption and emission spectra are caused by the $\pi \rightarrow \pi^*$-transition and not, as usual, by $n \rightarrow \pi^*$. The alcoholic solution which does not luminesce at all at room temperature, has a blurred emission spectrum at 77°K. Regarding its position, it is in agreement with the spectra of the n-hydrocarbon solutions. The similar behavior of alcoholic and neutral solutions indicates that the deactivation of molecules in alcohol is not only determined by H-bridges. A detailed description and analysis of spectra influenced by media with different intermolecular hydrogen bonds are given in Ref. 8. 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 8 references: 4 Soviet, 1 German, and 1 US.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imeni L. Ya. Karpov)

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R.N.; SHIGORIN, D.N.; DOKUNIKHIN, N.S.

Luminescence of thioindigo solutions at low temperatures. Zhur. fiz.khim. 34 no.9:2055-2059 S '60. (MIRA 13:9)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.
(Thioindigo)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R.N.; SHIGORIN, D.N.; KOZLOV, Yu.I.; PUCHKOV, V.A.

Effect of the hydrogen bond on the luminescence of hydroxy- and amino azo compounds. Opt. i spektr. 11 no.5:606-612 N '61. (MIRA 14:10)

(Azo compounds--Spectra)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R.N. (Moskva); SHIGORIN, D.N. (Moskva)

Nature of the luminescence spectra of anthraquinone and its β-derivatives in frozen solutions. Zhur. fiz. khim. 35 no.1: 72-79 Ja '61. (MIRA 14:2)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova.
(Anthraquinone—Spectra)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

SHIGORIN, D.N.; NURMUKHAMETOV, R.N.; KOZLOV, Yu.I.

Luminescence of indigo solutions at 77°K. Opt.i spektr. 12 no.5:659-661 My '62. (MIRA 15:5)
(Indigo) (Luminescence)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

S/051/62/013/005/009/017
E039/E420

AUTHORS: Nurmukhametov, R.N., Gobov, G.V.

TITLE: The luminescence spectra of fluorene

PERIODICAL: Optika i spektroskopiya, v.13, no.5, 1962, 676-682

TEXT: Data in the literature on the luminescence of fluorene and the nature of its impurities is contradictory, hence the luminescent spectra of fluorene, anthracene and carbazole in solution with n-heptane and n-octane were investigated by Shpol'skiy's method and also in the crystalline form at 77°K. These spectra possess fine structure and it is possible to identify both the substance and its impurities. The samples used were purified by a number of different physical methods; multiple sublimation, recrystallization and zone melting. A СВДШ-250 (SVDSh-250) lamp was used as a source of exciting light together with a Bausch and Lomb monochromator for investigating the effect of excitation by different wavelengths. Absorption spectra were obtained using a Xenon lamp with a continuous spectrum in the range 2400 to 4500 Å. Details of the vibration analysis of the luminescent and absorption spectra are

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

S/051/62/013/005/009/017
E039/E420

The luminescence spectra ...

given and presented in tables. The presence of anthracene as an impurity in the fluorene is shown from the spectral analysis. There are 1 figure and 3 tables.

SUBMITTED: September 16, 1961

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R.N.; KOZLOV, Yu.I.; SHIGORIN, D.N.; PUCHKOV, V.A.

Luminescence spectra of azomethine compounds. Dokl. AN SSSR 143 no.5:1145-1148 Ap '62. (MIRA 15:4)

1. Predstavleno akademikom A.N.Tereninym.
(Schiff bases—Spectra)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 14959-63 EPR/EWP(j)/EPF(c)/EWT(1)/EWT(m)/BDS/EEC(b)-2 AFFTC/ASD
Ps-4/Pc-4/Pr-4/Pi-4 GG/RM/WW

ACCESSION NR: AP3000315 S/0048/63/027/005/0634/0637

AUTHOR: Piskunov, A. K.; Nurmukhametov, R. N.; Shigorin, D. N.; Muromtsev, V. I.; Ozerova, G. A.

TITLE: Study of photoexcited triplet states in polyatomic molecules by the EPR and phosphorescence methods

SOURCE: Izvestiya AN SSSR. Seriya fizicheskaya, v. 27, no. 5, 1963, 634-637

TOPIC TAGS: electron paramagnetic resonance method, phosphorescence method, triplet state EPR signal, hydrocarbon, hetero-atomic substance, photoexcited molecule, higher-order symmetry, benzophenone

ABSTRACT: By using the electron paramagnetic resonance and phosphorescence methods, the lifetime of phosphorescence and the spectra of several hydrocarbons and hetero-atomic substances have been investigated at 77K in solutions of hexane, isopropyl and ethyl alcohol, isopentane, and in solid matrices of polystyrene and methyl methacrylate. It was found that: 1) All the substances and matrices investigated exhibit the presence of EPR signals of triplet states for the transitions $\Delta M = \pm 2$. 2) The frozen solutions of photoexcited molecules in a carefully purefied ethyl alcohol give the strongest signals. 3) The weak dependence

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L 14959-63
ACCESSION NR: AP3000315

4

of the signal shapes and widths on the molecular structures is the result of orientation anisotropy present in the aromatic molecules. 4) The interdependence between H_1, the intensity of a magnetic field at a point of maximum absorption line slope, and D_1, the magnitude of a triplet level splitting, can be expressed by a simple analytic formula for the molecules possessing the axes of third- or higher-order symmetry and a single triplet level doubly degenerated. 5) Changes in molecular concentration of 10^{-4}—10^{-2} do not modify the signal intensities, whereas the phosphorescence spectra become more and more diffuse. 6) Evaluation gives 0.1 cm^{-1} as the approximate magnitude of triplet-level splitting in a zero field. 7) The solutions in ethyl alcohol of many substances exhibit decreases up to 50% in signal intensity after being irradiated by light for five minutes; however, all the matrix solutions investigated indicated the presence of radicals whose signal intensities grew with the duration of exposure to light. 8) Signal intensities of radicals formed by the filtered light irradiation of solutions of luminophors in alcohol increase; this phenomenon is singularly connected with a decrease in signal intensity of triplet states. 9) When irradiated with unfiltered light, two-component systems of ethyl alcohol and polymethylmethacrylate, and naphthalene, phenanthrene, and N-ethyl-acridone exhibit considerable increases in EPR signal intensities (300 to 400%). The increases are a function of benzophenone concentration.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R.N.; SHIGORIN, D.N.; KOZLOV, Yu.I.

Luminescence spectra of solutions of indigo and some of its derivatives at 77°K. Izv. AN SSSR Ser. fiz. 27 no.5:686-689 My '63. (MIRA 16:6)

(Indigo—Spectra)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 9862-63 EWP(j)/EPF(c)/EWT(m)/BDS--ASD/ESD-3--Pc-4/Pr-4--RM/WW/MAY/JFW
ACCESSION NR: AP3001352 S/0048/63/027/006/0748/0753

AUTHOR: Nagornaya, L. L.; Nurmukhametov, R. N.; Malkes, L. Ya.; Shubina, L. V.

TITLE: Luminescence of naphthyl and anthryl derivatives of ethylene [Report of the Eleventh Conference on Luminescence held in Minsk from 10 to 15 September 1962]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v. 27, no. 6, 1963, 748-753

TOPIC TAGS: ethylene derivative scintillators, arylethylenes, fluorescence quenching by UV

ABSTRACT: Some aryl derivatives of ethylene are known to be efficient luminophors and are used for the preparation of crystal and plastic scintillators. Increase of the pi-electron system conjugated with the ethylene grouping has been reported to increase the luminescence efficiency. Accordingly, the authors investigated the effect of alpha-naphthyl and 9-anthryl radicals on the luminescence of arylethylenes and made an attempt to elucidate the nature of the photochemical processes involved. There were obtained the luminescence spectra at 20°C and

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ACCESSION NR: AP3001352

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77°K of crystalline powders and different solutions of 1,2-di(alpha-naphthyl)ethylene, 1-phenyl-2(9-anthryl)ethylene, 1-(alpha-naphthyl)-2-(9-anthryl)ethylene and two stereoisomers of dianthrylethylene. Also the influence of UV irradiation on the stability and optical characteristics of the specimens was studied. The spectra are described and in part reporudced in the figures. The absorption and fluorescence spectra of the first compound in heptane and polystyrene at 20°C are reminiscent of the spectra of stilbene, but shifted somewhat to the red side. The fluorescence of the compounds decreases with time under UV irradiation. It is hypothesized that the decrease is connected with trans-cis isomeric photo-transformation. The relatively low scintillation yield of the investigated arylethylenes in solutions is explained by enhancement of nonradiative processes owing to occurrence of hindered rotations and the associated process of photostereoisomerization. In the solid phase these processes are inhibited and the fluorescence yields and scintillation efficiencies increase accordingly. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: none

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 9892-63 EWP(j)/BDS/EWT(m)/ES(v)--AFFTC/ASD--Pc-4/Pe-4--RM/MAY

ACCESSION NR: AP3000426 S/0076/63/037/005/1143/1147

65

AUTHOR: Nurmukhametov, R. N.; Bondareva, L. V. 15 15 64

TITLE: Luminescence spectra of diketonic vat dyes in dacron and in solutions

SOURCE: AN SSSR. Zhurnal fizicheskoy khimii, v. 37, no. 5, 1963, 1143-1147

TOPIC TAGS: luminescence, diketonic vat dyes, dacron, fluorescence, violanthrole, dimethoxyviolanthrole, isoviolanthrole, dichlorisoviolanthrole, dibenzpyrenquinone

ABSTRACT: Luminescence and fluorescence spectra of vat dyes (violanthrole, dimethoxyviolanthrole, isoviolanthrole, and dibenzpyrenquinone) were examined at 293 and 77K. The electronic transition responsible for the long wave absorption and fluorescnece in molecules of these dyes is interpreted as the pi to pi* transition. The dye is imbedded mono-molecularly in the dacron fiber; there is a significiant shift in the fluorescence absorption in transition from

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L 9892-63
ACCESSION NR: AP3000426

inert medium to dacron. In solutions in which H-bonds are formed between dye molecules and the solvent the appearance of wide longer wave absorption of luminescnece and quenching of flucrescence is observed. Orig. art. has: 1 table, 3 figures, 5 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Institute of Physical Chemistry)

SUBMITTED: 29Jun62 DATE ACQ: 19Jun63 ENCL: 00

SUB CODE: 00 NR REF SOV: 004 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 8750-65 EWG(j)/EPA(s)-2/EWT(m)/EPF(c)/EPR/EWP(j)/T/EWA(h)/EWA(1) Pc-4/Pr-4/Ps-4/Pt-10/Peb ASD(m)-3/RAEM(1)/ASD(p)-3/ESD(t) RM/WW

ACCESSION NR: AP4043779 S/0190/64/006/008/1411/1414

8

AUTHOR: Nurmukhametov, R. N.; Bondareva, L. V.; Shigorin, D. N.; Tokareva, L. G.; Mikhaylov, N. V.

TITLE: Application of the luminescence method to determine the state of stabilizing additives in polymers

15

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 8, 1964, 1411-1414

TOPIC TAGS: di-β-naphthyl-n-phenelenediamine, di-β-naphthyl-n-phenelenediamine antioxidant, antioxidant, polypropylene fiber, polyamide fiber, di-β-naphthyl-n-phenelenediamine luminescence spectra, polymer additive, photooxidation inhibitor, polymer stabilizer, synthetic fiber

ABSTRACT: A study is made of the absorption and luminescence spectra of N,N'-di-2-naphthyl-p-phenylenediamine (I) used as a stabilizing additive possessing a light- and heat-protective action on polypropylene and polyamide fibers. From identifications of the luminescence spectra of solutions and fibers containing the addi-

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L 8750-65

ACCESSION NR: AP4043779

tive it was concluded that a solid molecular solution is formed with the addition of I to the polymer. The fibers and solutions containing I were subjected to heat treatment and to gamma and ultraviolet irradiation. The consumption of I in the polymers was determined by recording the intensity of the initial fluorescence band. Solutions of I had absorption bands in the near UV region. The primary protective effect of I is related to its function as a filter absorbing the UV section of the light. The photochemical inhibiting effect according to Semenov is based on the termination of the reaction caused by free radicals. With the absorption of light and gamma quanta, and also with heat treatment, a molecule of I gives up an electron easily and various positive ions and ion radicals are formed. As a result of these treatments colored products are formed from I. It is assumed that the primary photochemical act in I was the photoionization, which apparently proceeds through the triplet state. From the ease with which the photooxidation of molecules of I occurred, it can be concluded that I is a strong antioxidant capable of inhibiting photooxidation processes in polymers. It can be seen from the observed similarity in the change of

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L 8750-65

ACCESSION NR: AP4043779

2

fluorescence in fibers with stabilizing additives during UV or gamma irradiation and during heating in nitrogen, that there is a far-reaching analogy in the mechanism of photochemical and thermal destruction of polymers. Orig. art. has: 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 15Aug63 ATD PRESS: 3113 ENCL: 00

SUB CODE: OC, GC NO REF SOV: 012 OTHER: 002

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 12908-65 EWT(m)/EPF(c)/T/EWP(j) Pc-4/Pr-4 RPL/AFWL/APGC(b)/AS(mp)-2/ASD(a)-5/BSD/ESD(gs)/ESD(t) RM/JW

ACCESSION NR: AP4047177 S/0051/64/017/004/0558/0564

AUTHORS: Krasovitskiy, B. M.; Smelyakova, V. B.; Nurmukhametov, R. N.

TITLE: Absorption and fluorescence spectra of certain azomethine derivatives of benzidine and its 2,2' and 3,3' dichlorosubstitutes

SOURCE: Optika i spektroskopiya, v. 17, no. 4, 1964, 558-564

TOPIC TAGS: absorption spectrum, fluorescence spectrum, benzidine

ABSTRACT: For comparison with similar tests on salicylal aniline and its derivatives (DAN SSSR v. 143, 1145, 1962; ZhFKh v. 37, 2432, 1963), the authors investigated the absorption spectra of the condensation products of aniline, ortho-, meta-chloranilines, benzidine, and its 2,2' and 2,2' dichloroderivatives with salicylic and 2-oxy-1-naphthoic aldehydes in dimethylformamide, and the fluorescence spectra of frozen solutions (77K) of these substances in the same solvent. The doubling of the salicylal aniline molecule causes

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 12908-65
ACCESSION NR: AP4047177

a bathochromic shift of the absorption and fluorescence bands, evidencing appreciable conjugation between the two halves of the disalicylal benzidine molecule. Disalicylal benzidine and its 3,3' dichloroderivative differ very little in their absorption spectra; their fluorescence spectra are also of like character, but the fluorescence intensity of the latter is much larger than that of the former. At the same time, the absorption and fluorescence bands of 2,2' dichloroderivative of disalicylal benzidine are less intense, owing to the spatial difficulties in the grouping of the biphenyl, and are shifted towards the short-wave end of the spectrum compared with the disalicylal-benzidine and disalicylal-3,3'-dichlorobenzidine. The rules characteristic of the derivative of salicylic aldehyde hold true also for the absorption and fluorescence spectra of the products of condensation of the foregoing amines with 2-oxy-1-naphthaldehyde. Plots of the various spectra and of the time variation of the fluorescence intensity are presented. The azomethine derivatives of the diamines of the benzidine series are

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 12908-65
ACCESSION NR: AP4047177

shown to be more immune to radiation and exhibit stronger light absorption and fluorescence than their "halves" with shorter chains of conjugated double bonds. A table of the melting temperatures, analyses, and yields of the various substances is presented. Orig. art. has: 10 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 23Sep63 ENCL: 00

SUB CODE: OP NR REF SOV: 004 OTHER: 007

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

KRASOVITSKIY, B.M.; BOLOTIN, B.M. NURMUKHAMETOV, R.N.

Azomethine bases. Part 1: Structure and absorption spectra of salicylalanilines. Zhur. ob. khim. 34 no.11:3786-3791 N '64 (MIRA 18:1)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

G.D.V, G.V.; NURMUKHAMETOV, R.N.; NAGORNAYA, L.I.

Electronic and vibrational spectra of some arylethylenes at 77°K. Zhur. fiz. khim. 38 no.5:1142-1147 My '64. (MIRA 18:12)

1. Fiziko-khimicheskiy institut imeni Karpova. Submitted May 3, 1963.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, R.N.; TIMOFEYUK, G.N.; CHAPLINA, I.M.; NAGORNAYA, L.L.

Spectroscopic study of dianthrylethylenes. Zhur. fiz. khim. 38 no.10:2465-2469 O '64. (MIRA 18:2)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 21173-65 EWG(j)/EWT(m)/EPF(c)/EWP(j)/EWA(h)/EWA(1) Pc-4/Pr-4/Peb RPL/ASD(a)-5/AFWL/SSD(c)/BSD/AS(mp)-2/APGC(b)/ESD(ga) RM
ACCESSION NR: AP5003030 S/0051/65/018/001/0109/0114

AUTHOR: Nurmukhametov, R. N.; Nagornaya, L. L.

TITLE: Connection between spectra and structure of molecules of luminors used in scintillators

SOURCE: Optika i spektroskopiya, v. 18, no. 1, 1965, 109-114

TOPIC TAGS: absorption spectrum, fluorescence spectrum, organic luminor, plastic scintillator

ABSTRACT: To be able to interpret the nature of absorption and luminescence bands, and to determine the general features in the spectra of aryl ethylenes, oxazoles, and oxadiazoles, which are used as luminors in plastic scintillators, the authors measured at room temperature the absorption spectra of heptane solutions and the fluorescence spectra in heptane and polystyrene, for which fluorescence absorption spectra were described by one of the authors elsewhere (Nagornaya with L. Ya. Malkes and L. V. Shubina, Opt. i spektr. v. 12, 644, 1962). The results show that the luminescence spectra in polystyrene are shifted on the average by

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 21173-65
ACCESSION NR: AP5003030

5--10 nm towards the longer wavelengths as compared with the bands in the heptane solutions. The distinguishing features of the various spectra are discussed in light with results obtained by others in similar investigations. A general feature of all the spectra is the predominance of the π -- π^* band and the possible presence of n -- π^* band. The nature of the long-wave shift of the bands is briefly discussed. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 22Oct63 ENCL: 00 SUB CODE: OP

NR REF SOV: 009 OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 34878-65 EPF(c)/EPA(s)-2/EWP(j)/EWA(c)/EWT(1)/EWT(m) Pc-4/Pr-4 IJP(c) RM

ACCESSION NR: AP5005035 S/0051/65/018/002/0227/0235

AUTHOR: Nurmukhametov, R. N.; Gobov, G. V.

TITLE: Influence of the hetero-atom on the luminescence of compounds containing a biphenyl nucleus

SOURCE: Optika i spektroskopiya, v. 18, no. 2, 1965, 225-235

TOPIC TAGS: luminescence, heteroatom, diphenyl compound, luminescence spectrum, vibrational analysis, phosphorescence, conversion probability

ABSTRACT: The authors investigated the luminescence spectra of solutions of fluorine, diphenylene oxide, diphenylene sulfide, carbazole, diphenylamine, and diphenyl sulfide at 77K. To obtain spectra with maximum structure, the Shpol'skiy method was used (E. V. Shpol'skiy, Usp. fiz. nauk, v. 71, 215, 1960) for the first four compounds in hexane and in heptane. The luminescence was excited in different sections of the spectrum by a DRSh-250 lamp used in conjunction with a monochromator, and also in conjunction with filters for the mercury lines. The absorption spectra were taken in the light of a DKSSh-1000 lamp and photographed with ISP-28 and Hilger spectrographs. The results have disclosed an appreciable

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 34878-65

ACCESSION NR: AP5005035

similarity between the vibrational structure of these spectra, especially the phosphorescence spectrum. A vibrational analysis has been made and the fundamental frequencies have been assigned to different types of vibrations. The nature of the electronic transitions is analyzed, and the influence of the hetero-atom on the electronic levels and on the frequencies of some vibrations which are active in the emission spectra is traced. It is shown that the interaction between the hetero-atom and the biphenyl nucleus leads to spectral changes of the same character as are observed for the corresponding series of mono-substitutes of benzene and diphenyl compounds. When C is replaced by O, S, and N, a successive decrease of the difference in energy between the S^*_1 and T levels is observed in all three series of compounds. The introduction of the N atom, and especially of the S atom, greatly increases the probability of $S^*_1 \rightarrow T$ conversion. Orig. art. has: 2 figures and 5 tables.

ASSOCIATION: None

SUBMITTED: 14Oct63 ENCL: 00 SUB CODE: OP, OC

NR REF SOV: 006 OTHER: 011

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 63957-65 EWT(1)/EWT(m)/EPF(c)/EWP(j)/T/EWA(c) IJP(c)/RPL JW/RM

ACCESSION NR: AP5020955 UR/0073/65/031/008/0828/0834
547.97

AUTHOR: Krasovitskiy, B. M.; Mal'tseva, N. I.; Nurmukhametov, R. N.

TITLE: Investigation of azomethine bases. II. The effect of conjugation on color and fluorescence of bisazomethine derivatives of some aromatic diamines

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 31, no. 8, 1965, 828-834

TOPIC TAGS: azomethine, conjugation, fluorescence, spectroscopy, hydrogen bond, aromatic diamine, restricted rotation

ABSTRACT: The purpose of this work was to investigate the optical properties of a number of bis-azomethines with continuous or interrupted chains of conjugation between the nitrogen atoms. The compounds under investigation were obtained by condensation of benzidine, p-phenylenediamine, 4,4"-diamino-p-terphenyl and similar diamines with benzaldehyde, salicylaldehyde, α-naphthaldehyde, and β-hydroxy-α-naphthaldehyde in dimethylformamide. It was found that inter-

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 63957-65

ACCESSION NR: AP5020955

4

ruption of the chain of conjugation, e.g., by one or more methylene groups separating two benzene rings, results in a hypsochromic shift in absorption and fluorescence spectra. Introduction of additional benzene rings between the nitrogen atoms produced no noticeable changes, as compared to the parent compounds, except in the case of β-hydroxy-α-naphthaldehyde derivatives of diamines, when a hypsochromic shift is observed. Some spectrophotometric evidence was found that there exists some hydrogen bonding in salicylal derivatives; their fluorescence spectra may be determined by the restricted rotation of the benzene rings. The relatively high stability of β-hydroxy-α-naphthaldehyde derivatives may be explained by the prevalence of the keto form, making proton transfer less probable. Compounds prepared for the first time are tabulated together with their yields, melting points, and nitrogen content. Orig. art. has: 5 figures and 1 table. [VS]

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov (All-Union Scientific Research Institute of Monocrystals); Fiziko-khimicheskiy institut im. Karpova (Physical Chemistry Institute)

Card 2/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 63957-65

ACCESSION NR: AP5020955

SUBMITTED: 13Apr64 ENCL: 00 SUB CODE: OC,OP

NO REF SOV: 006 OTHER: 007 ATD PRESS 4071

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 35912-66 EWT(m)/EWP(j) RM

ACC NR: AP6014893 SOURCE CODE: UR/0076/65/039/012/2951/2957

AUTHOR: Nurmukhametov, R. N.; Chepigo, O. S.; Shvayka, O. P.

ORG: Moscow Physico-chemico Scientific Research Institute im. L. Ya. Karpov (Moskovskiy nauchno-issledovatel'skiy fiziko-khimicheskiy institut)

TITLE: The structural luminescence and absorption spectra of solutions of aryloxydiazoles and some aryl ethylenes at 77°K

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 12, 1965, 2951-2957

TOPIC TAGS: absorption spectrum, luminescence spectrum, ethylene

ABSTRACT: The spectra were taken by the Shpol'skiy method in n-hydrocarbons and methyl cylohexane at 77°K on a Hilger spectrometer. The average concentration of the solutions was approximately 10^{-4} moles/liter. The spectra obtained are exhibited in a number of figures. It was established that a majority of the compounds studied exhibited only fluorescence, while phosphorescence was absent. The structure of the spectra has a periodic form. The article interprets other vibrational frequences by analogy with known interpretations of the spectra of aryl ethylenes. In compounds with the general structure

Card 1/2 UDC: 543.42

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 35912-66

ACC NR: AP6014893

R_1--X--R_2 (where R_1 and R_2 are aryl nuclei and the X group is either ethylene or oxydiazole) there is observed an identical nature of the π- bond, which presupposes an identical mechanism for the formation of the vibrationsl structure of the bands of these compounds. Orig. art. has: 2 figures and 2 tables.

SUB CODE: 07, 20/ SUBM DATE: 01Aug64/ ORIG REF: 011/ OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 36442-66 EWP(j)/EWT(1)/EWT(m) IJP(c) RM

ACC NR: AP6018075 SOURCE CODE: UR/0076/66/040/005/1154/1157

51

B

AUTHOR: Nurmukhametov, R. N.; Plotnikov, V. G.; Shigorin, D. N.

ORG: Physico-Chemical Institute im. L. Ya. Karpov (Fiziko-khimicheskoy institut)

TITLE: Nature of the electronically excited states and luminescence of molecules

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 5, 1966, 1154-1157

TOPIC TAGS: luminescence, UV spectrum, molecular structure, molecular spectroscopy, phosphorescence, excited state, absorption band

ABSTRACT: Electronically excited states and luminescence of hydrocarbon molecules containing C = O, C = S, C = N, N = N, and N = O groups and conjugated double bonds were studied. The UV spectra of several molecules were analyzed and various absorption and phosphoroscence bands were assigned to the following four basic types of singlet and triplet excitations: S_{π,π^*}, T_{π,π^*}, S_{n,π^*}, T_{n,π^*}. In general, the electronic excitations and luminescence were attributed to electron transitions of the π,π^* and n,π^* types. It is postulated that the singlet and triplet π,π^* and n,π^* excitations are characteristic of molecular structure. Orig. art. has: 2 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 21Sep65/ ORIG REF: 018/ OTH REF: 010

UDC: 541.6+543.42

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURMUKHAMETOV, V. (Kazan')

Path of great possibilities. Sov. profsoiuzy 20 no.2:14-17 Ja'64. (MIRA 17:2)

1. Predsedatel' byuro Tatarskogo oblastnogo soveta professional'nykh soyuzov po rabote professional'nykh organizatsiy v sel'skom khozyaystve.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

CHISTOSERDOV, B.P.; ZENINSKIY, A.M.; KOROLEVA, M.P.; NURMUKHAMETOVA, I.Z.

Methodology for determining labor productivity in the petroleum industry. Khim. i tekh. topl. i masel 10 no.10:34-38 O '65. (MIRA 18:10)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke nefti.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

FAL'KOVSKIY, V.B.; NURMUKHAMEDOVA, R.A.; GLAZOVA, T.I.; YELEPINA, L.T.; L'VOV, S.V.

Preparation of carboxylic acids by one-stage oxidation of polymethylbenzenes in bubble columns. Izv.vys.ucheb.zav.; khim. i khim. tekh. 7 no. 1:122-126 '64. (MIRA 17:5)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.Lomonosova, kafedra tekhnologii osnovnogo organicheskogo sinteza.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

PAUZNER, L.Ye.; NURMUKHAMEDOVA, T.

Comparative data on the ecology of some ephemeral gramineous plants and cultivated wheat. Bot. zhur. 50 no.12:1715-1720 D '65. (MIRA 19:2)

1. Institut botaniki AN Uzbekskoy SSR, Tashkent.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

CZECHOSLOVAKIA

NURNBERG, H.W., WOLFF, G.

Central Laboratory for Chemical Analysis, Nuclear Research Station Julich, Federal Republic of Germany (Zentrallabor fur chemische Analyse, Kernforschungsanlage Julich, Bundesrepublik Deutschland) - (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 12, December 1965, pp 3997-4015

"Studies of the adsorption of the mercury drop electrode. Part 1: Adsorption of some pyridine compounds."

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G. A.

PA 26/49T35

USSR/Engineering
Excavating Machinery
Soils, Frozen

Sep 48

"Protecting the Surface Soil in Winter to Permit Excavating and Hydromechanical Work," G. A. Nurok, Cand Tech Sci, VUGI, 4 pp

"Stroitel' Prom" No 9

Various measures taken to prevent surface soil from freezing during winter, particularly where hydromechanical work is in progress. Gives formula for estimating depth to which freezing occurs. Used artificially induced ice and snow covers to blanket work sites to prevent deep freezing.

[redacted]

26/49T35

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK G. A.

PA 21/49T44

USSR/Engineering Oct 48
Pipe Lines
Pumping Stations

"The Utilization of Hydraulic Transportation at Low Temperatures," G. A. Nurok, Cand Tech Sci, 2 pp

"Mekh Trud i Tyazh Rabot" No 10

Treats subject under following: operation without heating pipe lines, heating pipe lines, operation of earth-pumping stations, hydraulic transport of supercooled material under pit conditions, avoidance of breakdowns due to frozen pipe lines, technical and economic results, and conclusions. 21/49T44

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G. A.

PA 63/49T108

USSR/Mining
Mining Equipment
Mine Transport

Dec 48

"Equipment for Hydromechanization and Hydraulic Stacking," G. A. Nurok, Cand Tech Sci, All-Union Sci Res Coal Inst, 6 pp

"Gor Zhur" No 12

Describes equipment used for changing solid soil and topographic features into mud (nozzles, fixed and [redacted]), equipment used for hydrotransport (pipe lines, troughs, conduits, etc.), equipment for dressing raw material from its source to the [redacted]

63/49T108

USSR/Mining (Contd) Dec 48

mill or storage place, and trends recommended for future development of hydraulic (mining) equipment.

63/49T108

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A.

27095. BUVHNEV, V.K., NUROK, G.A., VOL'KENAU, A.V.-Razrabotka moshchnykh krutopadayushchikh plastov sistemoy VUGI s primeneniyem gidrozakladki. Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1949, No. 8, s. 5-8

So: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

F

A

4592. WORKING THICK, STEEPLY-INCLINED COAL SEAMS IN KUZBASS BY THE VUGI SYSTEM. Buchnev, V.K., Nurok, G.A. and Vol'konau, A.V. (Ugol (Coal), 1949, (9), 7-12). (L).

COMMON ELEMENTS

COMMON VARIABLES INDEX

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

AUTHOR INDEX

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

A

F

66. HYDRAULIC STOWING IN KUZBASS. Kurek, G. A. and Sudakovich, L. S. (Ugol (Coal), Oct. 1951, 25-29). (L).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A.

[Silt pits in the coal industry] Zailovochnye kar'ery v ugol'noi promyshlennosti. Moskva, Ugletekhizdat, 1953. 222 p. (MLRA 7:6)
(Silt) (Mine fires) (Coal mines and mining--Safety measures)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

1. NUROK, G. A.

2. USSR (600)

4. Hydraulic Engineering

7. Improving hydraulic packing in the Kuznetsk Basin, Mekh. trud. rab. 7 No. 1, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK G.A.

NUROK, G.A.; SEREDA, B.K.; SUDAKOVICH, L.S.

Problem of the technology of filling-in work in mines. Ugol' 29 no.8:44-46 Ag '54. (MLRA 7:8)

1. Moskovskiy gornyy institut im. I.V.Stalina (for Nurok). 2. Institut Unipromed' (for Sereda). 3. Kuzbassperetstrest (for Sudakovich).
(Coal mines and mining)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

Name: NUROK, Grigoriy Arkad'yevich

Dissertation: Basic Problems of the Technology of the Hydro-Mechanization of Mining Operations under Quarry Conditions of Stratified Deposits of Useful Minerals

Degree: Doc Tech Sci

Affiliation: [Not indicated]

Defense Date, Place: 23 Feb 56, Council of Moscow Mining Inst imeni Stalin

Certification Date: 1 Dec 56

Souece: BMVO 6/57

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A.

AVERSHIN, S.G., prof., dokt.tekhn.nauk; ANAN'IN, G.P., dotsent, kand.tekhn. nauk; BARANOV, A.I., dotsent, inzh.; BEHLIN, A.Ye., inzh.; BOCHKAREV, V.G., kand.tekhn.nauk; BUTKEVICH, R.V., kand.tekhn.nauk; VESELOVSKIY, V.S., prof.,doktor tekhn.nauk; VESKOV, M.I., kand. tekhn.nauk; VOL'KENAU, A.V., kand.tekhn.nauk; GAMKAVI, S.M., kand.tekhn.nauk; GORBACHEV, T.F.; DAVIDYANTS, V.T., kand.tekhn.nauk; DMITRIYEV, M.F., kand.tekhn.nauk; DOBROVOL'SKIY, V.V., kand.tekhn.nauk; DUKALOV, M.F., kand.tekhn.nauk; ZAYTSEV, N.A.; ZARANKIN, P.S., inzh.; ZVYAGIN, P.Z., dotsent, kand.tekhn.nauk; IL'SHTEYN, A.M., kand.tekhn. nauk; KILYACHKOV, A.P., dotsent, kand.tekhn.nauk; KIRICHENKO, I.P., inzh.; KHUPENNIKOV, G.A., kand.tekhn.nauk; KUZNETSOV, S.T., kand. tekhn.nauk; KUCHERSKIY, L.V., kand.tekhn.nauk; LINDENAU, N.I., inzh.; LIPKOVICH, dotsent, kand.tekhn.nauk; LOKSHIN, B.S., kand.tekhn.nauk; MURATOV, M.L., dotsent, kand.tekhn.nauk; MUCHNIK, V.S., prof., doktor tekhn.nauk; NAYDYSH, A.M., dotsent, kand.tekhn.nauk; NEKRASOVSKIY, Ya.E., prof., doktor tekhn.nauk; NEKHAYEV, G.A., inzh.; NUROK, G.A., prof., doktor tekhn.nauk; OVINOV, M.I., inzh.; PORTNOV, A.A., inzh.; PROSKURIN, V.V., dotsent, kand.tekhn.nauk; RUDNEV, B.A., inzh.; SAPITSKIY, K.F., kand.tekhn.nauk; SELETSKIY, R.A., dotsent, kand.tekhn.nauk; SEMENOV, A.P., kand.tekhn.nauk; SKAFA, P.V., inzh.; SOMIN, S.D., prof.; SUDOPLATOV, A.P., prof., doktor tekhn.nauk; TIMOSHEVICH, V.A., inzh.; FURMAN, A.A., inzh.; CHINAKAL, N.A.; SHAKHMEYSTER, L.G., dotsent, kand.tekhn.nauk; TERPIGOREV, A.M., glavnyy red.; LOZNEVA, A.A., red.; NAUMKIN, I.F., red.; OSTROVSKIY, S.B., red.; PANOV, A.D., red.; STUGAREV, A.S., red.; SHELKOV, A.A.,

(Continued on next card)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

AVERSHIN, S.G.---(continued) Card 2.
red.; ARKHANGEL'SKIY, A.S., kand.tekhn.nauk, red.; BEZNIKOV, G.A., inzh., red.; ALESHIN, M.I., red.izd-va; KACHALKINA, Z.I., red. izd-va; PROZOROVSKAYA, V.L., tekhn.red.; NADEINSKAYA, A.A., tekhn.red.

[Mining; an encyclopedic handbook] Gornoe delo; entsiklopedicheskii spravochnik. Glav. red. A.M. Terpigorev. Chleny glav.red.: F.A. Barabanov i dr. Vol.5 [Underground coal mining] Razrabotka ugol'nykh mestorozhdenii podzemnym sposobom. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po ugol'noi promyshl. 1958. 447 p. (MIRA 12:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Gorbachev, Chinakal).
2. Chlen-korrespondent Akademii nauk USSR (for Zaytsev).
(Coal mines and mining)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, Grigoriy Arkad'yevich, prof., doktor tekhn.nauk; Prinimali uchastiye: TRAYNIS, V.V., kand.tekhn.nauk; MARKUS, M.N., gornyy inzh.; KHOLIN, N.D., prof., retsenzent; OGURTSOV, A.I., dotsent, retsenzent; IVANOV, A.Ye., otv.red.; ZHUKOV, V.V., red.izd-va; PROZOROVSKAYA, V.L., tekhn.red.

[Introducing hydraulic mining machinery] Gidromekhanizatsiia gornykh rabot. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. 1959. 391 p. (MIRA 12:11)
(Hydraulic mining--Equipment and supplies)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

HUROK, G.A., doktor tekhn.nauk

Bench height in mining [illegible] of hydraulic giants. Nauch.dokl. vys.shkoly; gor.delo [illegible]: [illegible] '59. (MIRA 12:7)

1. Predstavlena kafedr[illegible] [illegible]ykh rabot Moskovsko[illegible] [illegible] institute im. I.V. Stalina.
(Hydraulic mining) (Strip mining)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A.

10(4) SOV/98-59-7-21/22

AUTHOR: Rozincer, S.T., Chairman

TITLE: Conference on Scientific Research in the Field of Hydromechanics

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 7, pp 62-65 (USSR)

ABSTRACT: The article is a chronicle of the above-named conference, which was held in Moscow from April 15-17, 1959, on the initiative of the coordinatory commission for hydromechanization in the Council for Hydraulic Affairs of the Academy of Sciences of the USSR. The All-Union MSES Hydromechanization Trust, the Mining Institute of the Academy of Sciences of the USSR and the Moscow oblast board of the Technological Department of the construction industry also participated in the organization of the conference, which was attended by more than 400 representatives of 149 organizations, including the Office of State Construction of the USSR, ministries, national economic councils, institutes of the Academy of Sciences of the USSR and the union republics, the ASiA of the USSR and the Ukrainian SSR, the Academies of Agricultural Science and the GNTK of the union republics, and official scientific and research institutes. The conference was opened by Academician A.M. Terpigorev, and at the plenary session papers were read by the following: Prof. A.P. Yufin, Doctor of Technical Sciences: "The State of Scientific Research Work in the Field of Hydromechanization"; Engineer V.A. Platanov: "The Construction of Alluvial Dams and the Work of Scientific Organizations"; Engineer M.A. Gorin: "The Present State of and the Outlook for Design and Research Work in the Field of Equipment for Hydromechanization"; Engineer S.B. Fogel'son: "Certain Problems of the Economy of the Hydromechanization of Earth Works"; Prof. G.A. Nurok, Doctor of Technical Sciences: "The Present State of and the Outlook for the Development of the Hydromechanization of Opencast Coalmining"; Engineer B.M. Shkundin: "Means of Perfecting Hydromechanization in the Non-Metallic Mineral Industry." The remainder of the conference was divided into 3 sessions: on technology, equipment and transport. At the session dealing with technology papers were read by the following: Prof. N.N. Maslov, Doctor of Technical Sciences: "Certain Problems in the Planning of Alluvial Dams"; P.L. Ivanov, Candidate of Technical Sciences (Institute of Mechanics of the Academy of Sciences of the USSR): "Peculiar Features of the Dilution and Compression of Sand Foundations"; P.D. Lobasov, Candidate of Technical Sciences (VNIIGS): "Piecemeal Alluvial Construction"; V.A. Melentyev, Candidate of Technical Sciences (B.E. Vedeneyev VNIIG) and V.P. Spiridin, Candidate of Technical Sciences (Institute of Mechanics of the Academy of Sciences of the USSR): "The Consolidation and Compression of the Foundations of the Key Parts of Earth Dams"; N.P. Kolpashnikov (GISI): "Research on Alluvial Construction by Means of Cohesive Foundations"; M.P. Kuzminov, Candidate of Technical Sciences: "The Hydraulic Construction of Earthworks by Means of Loess Foundations"; B.A. Volnin (V.V. Kuybyshev MISI): "The Alluvial Construction of the Sary-Yazynak dam on the Murgab River by Means of Fine-Grained Sand"; I.Ya. Rusinov, Candidate of Technical Sciences (A.P. Nozhaisky VVIA): "Research into the Morphological Peculiarities of Sand Foundations"; Engineer I.A. Shneyer (SAOGIDEP) and N.I. Yakovlev (VNIIGiM): "Formulae for the Determination of the Angle of Inclination of Earth Foundations"; N.V. Zolatarev, Candidate of Technical Sciences: "A Method of Calculating the Thawing Rate of Frozen Foundations on the Upper Slope of Sand Dams when Constructed in Winter"; D.L. Melamut, Candidate of Technical Sciences (VNIIGiM), and Engineer K.P. Kopiyevskiy (GNTK of the Moldavian SSR): "Problems of Spanning Rivers Without the Use of Bankets";

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NUROK, Grigoriy Arkad'yevich, prof., doktor tekhn. nauk. Prinimali uchastiye: TRAYNIS, V.V., kand. tekhn. nauk; KUCHENKO, K.G., dots., kand. tekhn. nauk; TEODOROVICH, B.A., kand. tekhn. nauk; MUCHNIK, V.S., prof., doktor tekhn. nauk, retsenzent; NOVOZHILOV, M.G., prof., doktor tekhn. nauk, retsenzent; IVANOV, A.Ye., otv. red.; NURMUKHAMEDOVA, V.F., red.; KHOLIN, N.B., prof., red.

[Technology and planning of the hydraulic mechanization of mining operations] Tekhnologiia i proektirovanie gidromekhanizatsii gornykh rabot. Moskva, Nedra, 1965. 578 p. (MIRA 18:3)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A., doktor tekhn.nauk

Investigating the process of hydraulic coal mining from open pits. Nauch. trudy MGI no.26:25-42 '59. (MIRA 13:11)
(Strip mining) (Hydraulic mining)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A.; BRITAREV, V.A.

Hydraulic open-pit mining. Ugol' 34 no.10:16-19 O '59. (MIRA 13:2)

1.Moskovskiy gornyy institut im. I.V. Stalina.
(Hydraulic mining) (Coal preparation)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A., prof., doktor tekhn.nauk; ANTONOV, V.A., gornyy inzh.

Ways of improving hydraulic rock fracturing. Gor. zhur. no.11:28-31 N '61. (MIRA 15:2)

1. Moskovskiy gornyy institut.
(Hydraulic mining)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

MEL'NIKOV, N.V.; NUROK, G.A., prof., doktor tekhn.nauk

Basic problems in the development of hydraulic equipment mechanization in strip mining. Ugol' 36 no.11:23-25 N '61. (MIRA 14:11)

1. Chlen-korrespondent AN SSSR (for Mel'nikov).
(Strip mining--Hydraulic equipment)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A., doktor tekhn. nauk; KASHPAR, L.N., gornyy inzh.; MEDOVSHCHIKOV, R.S., gornyy inzh.

Hydraulic rock conveying from excavators and hydraulic spoil disposal in the Lebedinskiy open-pit mine of the Kursk Magnetic Anomaly. Gor. shur. no.10:39-45 O '63. (MIRA 16:11)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUHOK, G.A., prof., doktor tekhn. nauk

Urgent tasks of further developing the theory and technology of hydraulic strip mining. Gor. zhur. no.5:6-10 My '64. (MIRA 17:6)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROK, G.A., prof., doktor tekhn. nauk; GRISHKO, A.P., inzh.

Hydraulic conveying of loose rocks in heavy media in quarries.
Gor. zhur. no.7:23-29 Jl '65. (MIRA 18:8)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROMSKAYA, O.A.

Laboratory diagnosis of Botkin's disease. Zdrav.Belor. 6:37-39 F '60. (MIRA 13:6)

1. Iz kafedry mikrobiologii Luganskogo meditsinskogo instituta (zaveduyushchiy - dotsent F.D. Povelitsa).
(HEPATITIS, INFECTIOUS)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

KRASOVITSKIY, B.M.; MAL'TSEVA, N.I.; NURMUKHAMETOV, R.N.

Study in the series of azomethine bases. Part 2: Effect of conjugation in molecules of bisazomethine derivatives of certain aromatic diamines on their color and fluorescence. Ukr. khim. zhur. 31 no.8:828-834 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov i Fiziko-khimicheskiy institut imeni Karpova, Moskva.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROMSKAYA, O.A.

Diffusion of epidemic hepatitis. Zhur. mikrobiol. epid.i immun. 31 no.2:97 D '60. (MIRA 14:6)

1. Luganskogo meditsinskogo instituta.
(LUGANSK—HEPATITIS, INFECTIOUS)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROMSKAYA, O.A.

Diagnostic value of the aldolase test in infectious hapatitis.
Vrach. delo no.5:86-88 My '61. (MIRA 14:9)

1. Kafedra mikrobiologii (zav. - dotsent F.D.Povelitsa) Luganskogo meditsinskogo instituta.
(HEPATITIS, INFECTIOUS) (ALDOLASE)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROMSKAYA, O.A. (Lugansk)

Activity of some enzymes in the blood serum in Botkin's disease.
Klin. med. 41 no.7:19-22 Jl'63 (MIRA 16:12)

1. Iz Luganskogo gosudarstvennogo meditsinskogo instituta.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

34252
S/181/62/004/002/048/051
B102/B138

26.2420

AUTHORS: Bredov, M. M., and Nuromskiy, A. B.

TITLE: Variation of the surface properties of p-type silicon under bombardment with lithium ions

PERIODICAL: Fizika tverdogo tela, v. 4, no. 2, 1962, 562 - 564

TEXT: Continuing an earlier paper (Bredov et al. FTT, 3, 267, 1961) an attempt was made to produce donor centers in p-type Si by bombarding it with Li ions. Li impurities in Si have a level which id 0.033 ev below the bottom of conduction band. The irradiation energies and doses were determined, at which the concentration of the penetrated Li ions would be higher than that of the displacement defects due to the irradiation. At a certain depth inversion of the sign of conductivity has then to be expected. The experiments were carried out with an apparatus described earlier (Bredov et al. DAN SSSR, 99, 69, 1954); the ion source was described in Ref. 8 (Bredov, ZhTF, 20, 476, 1950); the ion energy was 5 and 10 kev. The single-crystal samples had a resistivity of 14 and 30 ohm·cm and concentrations of 2.10^{15} cm^{-3} and 7.10^{14} cm^{-3}, respectively.

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Variation of the surface...

The variations in direct and reverse currents and rectification factor were measured in dependence on the doses. From the graphs it can be seen that at doses of the order of 10^{14} - 10^{15} cm^{-2} the reverse currents show a sharp rise, and at 10^{15} - 10^{16} cm^{-2} the rectification factors become broken. It may be assumed that at these doses a new p-n junction is formed which is opposite to that which existed before irradiation. The depth was calculated, at which the concentration of penetrated ions was comparable with that of the carriers; 10^{-4} cm was obtained for a specimen with $2 \cdot 10^{15}$ carriers/cm^3 bombarded with 10-kev ions with a dose of 10^{16} cm. It is assumed that the depth of penetration of Li ions is greater than that of K ions. The formation of displacement defects is accompanied by their partial annihilation. These results mean that an n-layer may be formed in the region of the active zone of the probe. This barrier layer is responsible for the valve-type photoeffect observed. There are 2 figures and 8 references: 6 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: W. S. Cussions. Proc. Phys. Soc. B68, 213, 1955; H. Y. Fan, K. Lark-Horovitz. Fast particle irradiation of germanium semiconductor Report Solids, London, p. 234,

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B102/B138

Variation of the surface...

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors AS USSR, Leningrad)

SUBMITTED: October 25, 1961

Card 3/3

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

KUKLES, I.S. (Samarkand); NUROV, T. (Samarkand)

Distinction between a center and a focus. Izv. vys. ucheb. zav.; mat. no.6:98-108 '63 (MIRA 17:8)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NUROVA, V.P.

Effect of sunlight on prolongation of insecticide activity of surfaces treated with DDT. Med. parazit., Moskva no.3:246-248 May-June 1953.
(CIML 25:1)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURSHANOV, V. A.

PA 59/49T96

USSR/Petroleum Jul 48
Drilling
Petroleum Industry

"Drilling Deep Exploratory Wells in the Productive Strata of Neftechala and the Problem of Mud Solutions," V. A. Nurshanov, 3 pp

"Neft Khoz" No 7

Describes Neftechala oil field, bounded by the Kura River and Caspian Sea, consisting of two main fields with widely differing characteristics. Northern field was exceptionally complex in structure and required heavy chemically treated solution to reach productive [redacted]

59/49T96

USSR/Petroleum (Contd) Jul 48

layers. Tabulates data on type of solutions used for each well. Concludes that drilling exploratory wells at 1,650-1,800 meters under complex conditions is no longer difficult, but lists several ways to facilitate operations.

[redacted]

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURSHANOV, V. A.

Subject : USSR/Mining AID P - 488

Card 1/1 Pub. 78 - 2/27

Author : Nurshanov, V. A.

Title : Liquidation of delay in organization and mechanization of derrick rigging work in oil drilling

Periodical : Neft. Khoz., v. 32, #6, 9-12, Ju 1954

Abstract : The author analyses the unsatisfactory work in many oil districts (Tuymazburneft', Kuybyshevneft', Tatneft', etc.). Particular attention is given to the excessive time used for rigging of equipment, time of idling, liquidation of various complications, interruption of technological processes, etc. On the basis of the experience of a specific crew, the author believes that the rational use of machinery, coordinated planning of the work, and the application of scientific methods in prospecting and exploitation will eliminate defects and delays.

Institution : None

Submitted : No date

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

NURSHANOV, V.A.

93-4-1/20

AUTHOR: Nurshanov, V.A., Shumova, Z.I.,

TITLE: Advanced Turbine Drilling Methods Must Find Wider Application (Shire ispol'zovat' peredovoy opyt ekspluatatsii turboburov)

PERIODICAL: Neftyanoye Khozyaystvo, 1957, 35, Nr.4, pp.1-5 (USSR)

ABSTRACT: The use of turbodrilling equipment manufactured by the Uralmashzavod has yielded positive results. Turbodrilling meterage has been up to 5 million meters per annum, constituting 84.7 percent of the total USSR drilling, and 99.8 percent of the drilling operations of the Glavvostokneftedobycha Trust. New types of turbodrills are being used in exploratory drilling. They are able to drill bore holes 8 to 12 inches in diameter, and over. Although operating conditions are becoming more difficult with increasing depths, the management has failed to put the necessary effort into solving the problem of turbodrill operation and repair. An investigation of the Kuybyshevneft', Bashneft', and Chkalovnefterazvedka

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93-4-1/20

Advanced Turbine Drilling Methods Must Find Wider Application. (Contd).

enterprises has revealed that the quality of turbodrill maintenance work is grossly inadequate. As a result, life of the turbodrills is being greatly reduced. A table, which is included in the text, gives data on the life of turbodrills used by different enterprises. For example, turbodrill life at one of the Tuymazaburneft' drilling units was 40 to 60 hours before 1956. Today it is 18 hours, having been shortened by improper operating practices and faulty repair work. In many cases the manufacturing plants deliver equipment with obvious imperfections, while in other cases breaks occur in certain parts as a result of poor heat treatment. Among the plants producing defective parts is the "Borets" plant (affiliated with Glavneftemash) and the Petrov plant (located in Stalingrad). Despite the efforts of the VNIIBurneft', the Sverdlovsk and Leningrad rubber plants have failed to standardize their production of petroleum-resis-

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93-4-1/20

Advanced Turbine Drilling Methods Must Find Wider Application. (Contd).

torque wrenches. Another problem is turbodrill transportation. There are no trucks for this purpose. As a result turbodrills are either dragged along the ground, or transported on equipment designed for the transportation of pipes. Because of poor storage conditions (e.g., at the Kuybyshevneft', the Bashneft'), equipment and parts show premature deterioration, a fact for which one should blame the chief drilling engineers (e.g., Il'in, Trifonov, Mironov) and their co-workers. The log system for turbodrills which was set up in 1952 should be replaced by a new system based on recent findings. The new pay system (based on piece work) which has been introduced by the Tatburneft' Trust, should be wider adopted by repair shops. Turbodrill life can also be extended by the use of proper washing fluids and filtering equipment.

Card 4/4

AVAILABLE: Library of Congress.

burovykh)

PERIODICAL: Neftyanoye Khozyaystvo. 1957, Nr 5, pp 4-6 (USSR)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

93-5-2/19

To Organize a Continuous Supply of Materials and Equipment (Cont.)

above set time limits, payroll, etc. The comparison shows that the Buguruslan supply office is more efficient even though it lacks certain facilities possessed by other enterprises. This is attributed to the initiative of, and proper application of experience by the Buguruslan office. In Table 2 the author compare to the time lost (and its causes) by three different drilling enterprises, two of which were supplied by the Mukhanovo supply base. The author states that the enterprises supplied by the Mukhanovo base are less efficient due to the supply system. The Buguruslan supply office owes its efficiency to a supply system based on strict adherence to a delivery schedule, observed by the drillers and supply personnel. In conclusion the author states that the Ministry of the Petroleum Industry should see to it that the whole supply system, charged with supplying materials to the drilling and production enterprises, is thoroughly reorganized.

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NURSHANOV V A

NURSHANOV, V.A.

Greater attention to combating difficulties in drilling wells in the Ural and Volga regions. Neft. khoz. 35 no.8:8-13 Ag '57. (MIRA 10:11)
(Ural Mountain region--Oil well drilling)

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NURSHANOV, V.A.

Speed up the changeover of derrick assembling to industrial methods. (MIRA 11:1)
Neft. khoz. 35 no.9:8-14 S '57.
(Oil well drilling)

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NURTAKANOV, N.; KIM, O.V.

Industrial testing of the OMKT unit in the Karaganda Basin. (MIRA 18:4)
Nauch. trudy KNIUI no.14:151-158 '64.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

SOTIRIADI, K.A.; NURTAYEV, S.N.

Jurassic carbonate formations in southwestern spurs of the Gissar Range and Bukhara-Karshi area. Trudy GNIGNI no.35:27-35 '61. (MIRA 16:7)

(Gissar Range--Rocks, Carbonate)
(Uzbekistan--Rocks, Carbonate)

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KAPUSTYANSKIY, I. D. (Tashkent); NURTAYEV, S. N. (Tashkent)

Petrified wood. Priroda 52 no.1:24 '63. (MIRA 16:1)

(Kyzyl Kum--Petrified forests)

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NURTAYEV, S.N.

Lithological characteristics of Cretaceous carbonate formations in the southwestern spurs of the Gissar Range. Nauch. trudy TashGU no.256 Geol. nauki no.22:161-164 '64 (MIRA 18:2)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

L 26060-66 EWT(m)/EWP(j) RM

ACC NR: AP5025129 SOURCE CODE: UR/0079/65/035/010/1817/1819

33

AUTHOR: Kamay, Gil'm; Tsivunin, V. S.; Nurtdinov, S. Kh.

B

ORG: None

TITLE: On obtaining dichloro anhydride of Beta, Beta-dimethyl-vinylphosphonic acid and some of its derivatives

SOURCE: Zhurnal obshchey khimii, v. 35, no. 10, 1965, 1817-1819

TOPIC TAGS: organic phosphorus compound, phosphorus chloride, phosphorus, hydrocarbon, antimony, nonmetallic organic derivative, ester, phosphonic acid

ABSTRACT: It was indicated that in the case of decomposition of the phosphorus pentachloride complex with unsaturated hydrocarbons by elementar phosphorus (white) it was possible to obtain acid chlorides of phosphonous acids. The complex $(RPCl_3)^+(AlCl_4)^-$ was reduced by antimony. The product of the reaction of isobutylene with phosphorus pentachloride can be decomposed by antimony. Derivatives are obtained from the latter: diethyl ester of β,β-dimethylvinylphosphonic acid, diethyl ester of β,β-dimethylvinylthiophosphonic, ethyl ester

Card 1/2

UDC: 546.185.131+547.538:547.26'118

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L 26060-66

ACC NR: AP5025129

of ethyl-β,β-dimethylvinylphosphonic and ethyl β,β-dichlorvinyl ester of β,β-dimethylvinylphosphonic acids.

SUB CODE: 07 / SUBM DATE: 16Oct64/ ORIG REF: 003/ OTH REF: 008

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001237620018-1

ACC NR: AP6033178 SOURCE CODE: UR/0079/66/036/010/1827/1830

AUTHOR: Tsivunin, V. S.; Kamay, G. Kh.; Nurtdinov, S. Kh.

ORG: none

TITLE: Reactions of diethylchlorophosphine with derivatives of α,β-unsaturated acids

SOURCE: Zhurnal obshchey khimii, v. 36, no. 10, 1966, 1827-1830

TOPIC TAGS: alkylphosphinylpropionic acid ester, ~~alkylchlorophosphine~~ acrylic acid, methacrylic acid, organic phosphorus compound

ABSTRACT: Diethylchlorophosphine reacts with unsaturated acids (crotonic, acrylic, and methacrylic) and their chlorides in heptane at -15 to -20°C to form the corresponding adducts. Decomposition with alcohols of the adducts from crotonic acid (or its chloride) and diethylchlorophosphine at 60—70°C gave the corresponding esters shown in Table 1.

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ACC NR: AP6033178

Table 1. Esters of β-methyl-β-diethylphosphenyl-propionic acid

Compound no.	R	Yield (in %)	bp (p in mm)	d_4^{20}	n_D^{20}	MR$_D$ Found	MR$_D$ Calc'd	Found % P	Formula	Calc'd % P
I	CH_3	48	144—146° (2)	1.0740	1.4721	53.80	54.04	14.84, 15.85	$C_9H_{19}O_3P$	15.02
II	C_2H_5	41	158—159 (4)	1.0480	1.4698	58.60	58.65	13.49, 13.79	$C_{10}H_{21}O_3P$	14.07
III	C_3H_7	54	163—165 (3)	1.0280	1.4685	63.27	63.27	13.60, 13.75	$C_{11}H_{23}O_3P$	13.22
IV	C_4H_9	54	182—184 (4.5)	1.0160	1.4650	67.51	67.89	12.17, 12.87	$C_{12}H_{25}O_3P$	12.47
V	C_5H_{11}	48	188—190 (5)	1.0120	1.4630	72.44	72.51	11.90, 11.67	$C_{13}H_{27}O_3P$	11.89

Decomposition of the adducts with ethylmercaptan proceeds in two ways:

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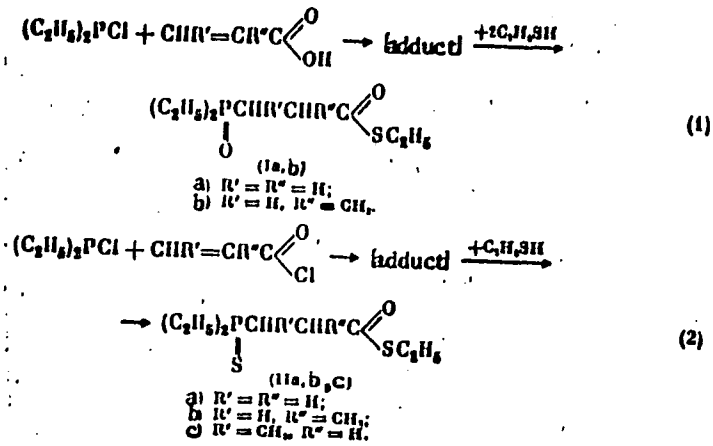
ACC NR: AP6033178



to form Ia and Ib or IIa, IIb, and IIc, which are given in Table 2. Orig. art. has: 2 tables.

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