

ACCESSION NR: AP4042475

EPR signal in the dark; the signal was a singlet with a g-factor close to that of a free electron; different pigments displayed small variations in signal width. This observation led to the conclusion that the presence of the unpaired electrons producing the signal is the result of the system of conjugated double bonds of the porphyrin ring, and not the presence or absence of such structural elements as a phytol group, a cyclopentanone ring, or side radicals. In addition, the effect of light on the EPR signal was studied for all the pigments and the effect of temperature and oxygen for chlorophyll a + b only. It was found that all solid pigments produced an increased signal in vacuum which attained its maximum in about 5—10 min. In air the signal (for chlorophyll a + b) increased more than in vacuum. Experiments with films and solutions of chlorophyll a + b indicated that the degree of the pigment aggregation has a significant effect on the signal. The effect of light on phthalocyanin and Mg-phthalocyanin was somewhat different, resulting in an initial increase, then a subsequent decrease of the signal. The temperature dependence of the chlorophyll a + b signal has a maximum at approximately 40C. The nature of the photoinduced signal was not investigated more closely; it is believed that this signal is caused by unpaired

Card 2/3

ACCESSION NR: AP4042475

electrons which arise as a result of an interaction of the excited molecules of chlorophyll with oxygen molecules. It is concluded that the unpaired electrons are dislocated in the conjugated double-bond system or in "active centers" and defects of the crystal lattice of the pigments. The study is considered qualitative, and an evaluation of the quantum yield of the formation of unpaired electrons is suggested. Orig. art. has: 6 figures.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moscow (Biophysics Institute, AN SSSR); Institut biokhimii im. A. N. Bakha, AN SSSR, Moscow (Biochemistry Institute, AN SSSR)

SUBMITTED: 10Jun62

ATD PRESS: 3073

ENCL: 00

SUB CODE: OC, EM

NO REF SOV: 003

OTHER: 001

Card 3/3

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L 10413-65  
APPROVED FOR RELEASE: 06/13/2000  
AP4045301

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ASSOCIATION: ... .. AN 9558 Moscow 11 111

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RIKHIREVA, G.T.; KRASNOVSKIY, A.A.; KAYUSHIN, L.P.

Biophysics: Relation between the state of chlorophyll and  
electron paramagnetic resonance spectra in plant leaves.  
Dokl. AN SSSR 156 no.6:1451-1454 Je '64. (MIRA 17:8)

1, Institut biologicheskoy fiziki AN SSSR i Institut biokhimi  
imeni A.N. Bakha AN SSSR. 2. Chlen-korrespondent AN SSSR (for  
Krasnovskiy).

light state

ABSTRACT: A study was conducted on the effect of chlorophyll under stress

Frozen samples were investigated

assumed that the pigment produced free radicals as a result of

Card 1/1



RIKHIREVA, G.T.; UMRIKHINA, A.V.; KAYUSHIN, L.P.; KRASNOVSKIY, A.A.

Formation of triplet and radical states of porphyrin and its derivatives.  
Dokl. AN SSSR 163 no.2:491-494 J1 '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR i Institut biokhimii im.  
A.N.Bakha AN SSSR. 2. Chlen-korrespondent AN SSSR (for Krasnovskiy).

L 09460-67 EWT(1)/EWT(m)/EWP(j) RM  
ACC NR: AP5024665

SOURCE CODE: UR/0070/66/011/004/0526/0535

AUTHOR: Vaynshtoy, B. K.; Kayushina, R. L.

ORG: Institute of Crystallography AN SSSR (Institut kristallografii AN SSSR)

TITLE: Distribution of intensities of x-ray reflections and the information contained in them

SOURCE: Kristallografiya, v. 11, no. 4, 1966, 526-535

TOPIC TAGS: x-ray crystallography, crystal structure analysis, atomic structure, crystal symmetry, statistic distribution, organic crystal

ABSTRACT: The authors derive on the basis of the known expressions for the mean value of the intensity for a given angle and the known Wilson formulas for the statistical distribution of the observed intensities of x-ray patterns as a function of the number and species of atoms in each cell, in the presence and absence of a symmetry center. The comparison of the calculated distributions with the experimental ones for a number of structures has shown satisfactory agreement. The choice of the minimum number of reflections, such as to contain the largest information concerning on the structure, using in particular the method of nonlocal

Card 1/2

UDC: 548.734

L 09460-67  
ACC NR: AP6024665

search, is described and is shown to yield a preliminary model of the structure. The measure of the information is taken to be the sum of the intensities of the reflections used to determine the structure (as a fraction of the total sum of the intensities). The calculated distribution of the observed intensities can be used to determine beforehand the fraction of information contained in a limited number of strongest reflections (exceeding a certain value). Calculations made for organic structures have shown that 15 -- 20% of the strongest reflections contain up to 70% of the information, which is more than sufficient for determining the preliminary model of the structure. The corresponding formulas were calculated for a number of organic structures by means of an electronic computer (L-proline L-oxypoline, DL-serine, phenanthrene, and l<sub>a</sub>-naphthoquinone. Orig. art. has: 7 figures, 3 tables, and 19 formulas.

SUB CODE: 20/      SUBM DATE: 22Feb66/      ORIG REF: 005/      OTH REF: 015

Card 2/2 LC

SOMINSKIY, D.S., kandidat tekhnicheskikh nauk; KAYUSHINA, R.L.

Preparation of highly dispersed dyes and determination of  
their garmularity. Khim.nauka i prom. 1 no.2:205-208 '56.

(MLRA 9:9)

(Dyes and dycing)

KAYUSHINA, R.L.

Determination of the unit cell of  $\epsilon$ -proline by electron  
diffraction. Kristallografiia 5 no. 6:944-945 N-D '60.  
(MIRA 13:12)

1. Institut kristallografii AN SSSR.  
(Proline crystals)

VAYNSHTEYN, B.K.; GEL'FAND, I.M.; KAYUSHINA, R.L.; FEDOROV, Yu.G.

Use of the R-factor minimalization method in determining  
crystal structures. Dokl. AN SSSR 153 no.1:93-96 N '63.  
(MIRA 17:1)

1. Chleny-korrespondenty AN SSSR (for Vaynshteyn, Gel'fand).

KAYUSHNIKOV, P. Ya.

RUSSIAN BOOK REFINANCEMENT 807/1058

Book, Russkoye tekhnicheskoye propozitsiya in. P.S. Descriptions  
Sovremennye sploy i tekhnicheskaya derzhavits (Contemporary Alloys and Their  
Heat Treatment) Moscow, Mashin, 1958. 289 p. 13,000 copies printed.  
Additional Financing Agency: Otdelstvo po razvitiyevu politicheskikh i  
nauchnykh nauki SSSR.  
M. (Title page): Ye. A. Geller, Doctor of Technical Sciences; M. (Inside book):  
V.V. Kozlovskiy, Engineer; Trub. M.; B.I. Kozlov, Managing M. for  
Literature on Metal Working and Tool Making; N.D. Kravtsov, Engineer.

PURPOSE: The book is intended for engineering and technical personnel of heat-  
treatment shops and test laboratories of machine-building plants.  
CONTENT: This collection of 25 articles, compiled by 35 authors, aims to acquaint  
the reader with modern practices in the heat treatment of steels. The authors  
are primarily concerned with the development of various types of structural,  
tool, and heat-resistant steels and with the use of their alloying elements.  
Material-handling equipment is described at some length. The treatment of  
alloys, particularly those of titanium, also comes within the scope of the  
articles. The book is thoroughly illustrated, and a good deal of the material  
is given in graphical form, among other things, with lists of heat treat-  
ment specifications together with fully mechanized tool structures and the  
optimum proportions of different alloying elements. There are numerous tables  
and drawings. Bibliographic listings placed at the end of chapters are  
predominantly Soviet. The articles comprising this collection are reports  
delivered at a conference held in the Scientific and Technical Propaganda  
House named P.S. Deshchinskiy in Moscow.

Contemporary Alloys and Their Heat Treatment	807/1058
Zverev, G.G.: Heat-treatment of Cutting Tools in an Atmosphere of Steam	105
Kryzhanovskiy, P. Ya.: Refinement of Steel in Quenching and Tempering	104
Koshkin, B.M.: Refinement of Steel in Heat Treatment	207
Dimantov, P.Z.: Heat-resistant Steels and Alloys Employed in the Construction of Gas Turbines	215
Verebyayev, Y.G.: Changes in the Surface Layer of a Heat-resistant Alloy During Heat-treatment and Heat-treatment in an Oxidizing Medium	242
Shaykov, A.A.: Rational Method of Obtaining Controlled Atmospheres From Gaseous Hydrocarbons	254
Asselger, A.B.: Modern Automated Heat Treating Equipment	265
Count 1/ 6	

S/129/63/000/003, 007/009  
E193/E383

AUTHOR: Kayushnikov, P.Ya.

TITLE: Distortionless hardening

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,  
no. 3, 1963, 28 - 33

TEXT: Means of avoiding distortion of steel parts during hardening are discussed with particular reference to case-hardened components in which complex distortion most frequently occurs. The methods used by the author (Author's Certificate no. 103248) are all based on the application of jigs and fixtures. When these are used, the effect of quenching on the shape and dimensions of the heat-treated part depends on the following factors: 1) shape and dimensions of the jigs; 2) the order in which the jigs are applied during heat-treatment; 3) the manner in which the volume and dimensional changes of the part at various stages of the heat-treatment are utilized; 4) degree of compression of the parts in the press after jigging and preheating of the jigs controlling the outside contour of the path; 5) uniformity of cooling of the part during quenching. The use  
Card 1/3



## Distortionless hardening

S/129/63/000/003/007/009  
E193/E383

the method is demonstrated by a detailed description of several case histories such as that relating to heat-treatment of the steel 0X43M (OKhN3M) shells, 200 mm outside diameter. The shells are made to very close tolerances and, although the thinness of the bottom renders the shells particularly prone to distortion, they are quenched in almost the finished form, so that the distortion due to hardening must not exceed 0.05 mm. This objective could not be attained by use of an external or internal jig only, so that both external and internal jiggling was used by the present author, the external shape and dimensions of the shell being fixed by a die and the internal by a plug, the gap between the shell and either jig being 0.05 mm on the radius. Since a hot (800 °C) shell could not be inserted in a cold die, the latter was preheated to 650-675 °C. Both parts were preheated in a reducing atmosphere to avoid scaling. After cooling in air to the quenching temperature the shell was inserted in the preheated die, a cold plug was placed inside the shell and the whole assembly was then quenched in oil. The shell, fitting very tightly between the jigs after the harding treatment, was readily removed after tempering

Card 2/3

Distortionless hardening

S/129/63/000/003/007/009  
E193/E383

at 360 °C, followed by cooling in oil. Shells heat-treated in this manner retained their initial shape and their hardness was HRC 45-47. A distortionless hardening of the following parts is described in the remainder of the paper: steel XБГ (KhVG) shells, 200 mm long; steel У9А (U9A) spring rings, 366 mm in diameter; various cylindrical, case-hardened parts; case-hardened gears; large (500 kg) case-hardened steel 18ХНВА (18KhNVA) rings.

Card 3/3

KAYUSHNIKOV, Petr Yakovlevich; FIRGER, I.V., red.

[Technological equipment for hardening without deformation] Tekhnologicheskaja osnastka dlia bezdeformatsionnoi zakalki. Leningrad, 1964. 10 p. (Leningradskii dom nauchno-tekhniceskoi propagandy. Obmen peredovym opytom. Seria: Metallovedenie i termicheskaia obrabotka, no.1)  
(MIRA 17:7)



KAYUTENKO, I.A.  
SHIKHIYEV, I.A.; KAYUTENKO, I.A.

Studies in the field of synthesis and transformations of unsaturated organosilicon compounds. Report No.5: Synthesis of mixed diacetylene organosilicon glycols. Izv. AN SSSR. Otd. khim. nauk no.8:991-993 Ag '57. (MIRA 11:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Glycols) (Silicon organic compounds)

62-58-3-20/30

**AUTHORS:** Shikhiyev, I. A. Kayutenko, L. A. , Lukevits, E.

**TITLE:** Investigations in the Domain of the Synthesis and Reactions of Unsaturated Organosilicon Compounds (Issledovaniya v oblasti sinteza i prevrashcheniy nepredel'nykh kremneorganicheskikh soyedineniy) Communication 9: The Synthesis of Mixed Organosilicon Glycols of the Diacetylene Series (Soobshcheniye 9: Sintez smeshannykh kremneorganicheskikh glikoley diatsetilennovogo ryada)

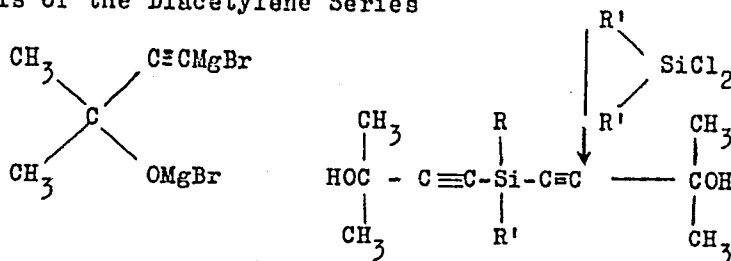
**PERIODICAL:** Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 3, pp. 363 -364 (USSR)

**ABSTRACT:** The present paper belongs to those investigations dealing with the development of the chemistry of ternary acetylene alcohols containing silicon in their composition. The authors describe two representatives of the mixed diacetylene glycols which were synthesized according to the following scheme:

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62-58-3-20/30

Investigations in the Domain of the Synthesis and Reactions of Unsaturated Organosilicon Compounds. Communication 9: The Synthesis of Mixed Organosilicon Glycols of the Diacetylene Series



(R is equal to CH<sub>3</sub>, R' = C<sub>2</sub>H<sub>5</sub>; C<sub>3</sub>H<sub>7</sub>)

According to this method another synthesis was also performed which led to the production of a corresponding organosilicon diacetylene glycol. See table. In a similar manner a method for the production of organosilicon alcohols was worked out. There are 1 table and 7 references, 7 of which are Soviet.

Card 2/3

62-58-3-20/30

Investigations in the Domain of the Synthesis and Reactions of Unsaturated  
Organosilicon Compounds. Communication 9: The Synthesis of Mixed Organo-  
silicon Glycols of the Diacetylene Series

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii  
nauk SSSR  
(Institute for Organic Chemistry imeni N. D. Zelinskiy,  
AS USSR)

SUBMITTED: October 10, 1957

Card 3/3



SHIKHIYEV, I.A.; SHOSTAKOVSKIY, M.F.; KAYUTBNEO, L.A.

Investigations in the synthesis and conversion of unsaturated silicon organic compounds. Dokl. AN Azerb.SSR 14 no.9:687-689 '58. (MIRA 11:10)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo i Institut nefi AN AzerSSR. Predstavleno akademikom AN AzerSSR Yu.G.Mamedaliyevym.

(Silicon organic compounds)

SHIKHIYEV, I.A.; SHOSTAKOVSKIY, M.F.; KAYUTENKO, L.A.

Investigations in the field of the synthesis and transformation of unsaturated silicon organic compounds. Dokl.AN Azerb.SSR 15 no.1:21-23 '59. (MIRA 12:3)

1. Institut organicheskoy khimii AN SSSR i Institut nefti AN AzerSSR. Predstavleno akademikom AN AzerSSR Yu.G.Mamedaliyevym. (Silicon organic compounds)

5(3)

SOV/79-29-7-7/83

AUTHORS:

Shikhiyev, I. A., Shostakovskiy, M. F., Kayutenko, L. A.

TITLE:

Investigations in the Field of the Synthesis and the Transformations of Unsaturated Organo-silicon Compounds (Issledovaniya v oblasti sinteza i prevrashcheniy nepredel'nykh kremneorganicheskikh soyedineniy).  
II. Synthesis of the Silicon Hydrocarbons of the Vinyl Acetylene Series (II. Sintez kremneuglevodorodov vinilatsetilenovogo ryada)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2137-2139 (USSR)

ABSTRACT:

The synthesis of acetylene alcohols (Ref 1), their hydrogenation and dehydration (Refs 2, 3) as well as the affiliation of various compounds to the triple bond (Refs 1, 4, 5) is of high theoretical and practical interest. Similar conversions of the organo-silicon acetylene alcohols were carried out for a comparative investigation of their properties. Earlier, the authors elaborated the synthesis of mono- (Ref 6), bi- (Ref 7), and trivalent (Ref 8)  $\gamma$ -silicon and  $\gamma$ -germanium substituted (Ref 9) acetylene alcohols. In the present paper the dehydration conditions of some  $\gamma$ -silicon substituted ditertiary acetylene glycols as well as the catalytic hydrogenation of the

Card 1/3

Investigations in the Field of the Synthesis and the SOV/79-29-7-7/83  
Transformations of Unsaturated Organo-silicon Compounds. II. Synthesis of the  
Silicon Hydrocarbons of the Vinyl Acetylene Series

silicon hydrocarbons obtained were investigated according to the  
afore mentioned scheme. Thus, the synthesis of vinyl acetylene  
silicon hydrocarbons was elaborated by the dehydration of the  
corresponding ditertiary  $\gamma$ -silicon substituted acetylene  
glycols in the presence of  $\text{KHSO}_4$ . The following compounds were  
obtained and characterized: bis-(2-methyl-butene-1-in-3)-ethyl  
silane; bis-(2-methyl butene-1-in-3)-diethyl silane;  
bis-(2-methyl butene-1-in-3)-dimethyl silane; bis-(2-methyl  
butene-1-in-3)-methylethyl silane, and bis-(2-methyl butene-1-  
in-3)-methyl propyl silane. By catalytic hydrogenation of  
bis-(2-methyl butene-1-in-3)-diethyl silane the corresponding  
saturated silicon hydrocarbon, diethyl diisocamyl silane, was

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Investigations in the Field of the Synthesis and the SOV/79-29-7-7/83  
Transformations of Unsaturated Organo-silicon Compounds. II. Synthesis of the  
Silicon Hydrocarbons of the Vinyl Acetylene Series

synthesized. The silicon hydrocarbons synthesized are more  
exactly characterized in the table. There are 2 tables and  
9 references, 8 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR i Institut  
neftekhimicheskikh protsessov Akademii nauk Azerbaydzhanskoy SSR  
(Institute of Organic Chemistry of the Academy of Sciences USSR  
and Institute of Petrochemical Processes of the Academy of  
Sciences of the Azerbaydzhanskaya SSR)

SUBMITTED: July 3, 1958

Card 3/3

80066

S/020/60/132/01/40/064  
B011/B126

5.3700(B)

AUTHORS: Shostakovskiy, M. F., Gracheva, Ye. P., Kayutenko, L. A.TITLE: Synthesis and Conversions of Trialkylsilylethynylvinylalkyl Ethers

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 1, pp. 153-156

TEXT: The object of the authors' work is to study the interaction of ethynylvinylalkyl ethers with trialkylchlorosilanes. The ethers mentioned in the title were synthesized via the organomagnesium derivative, which was produced, not in tetrahydrofuran (as in Refs. 13, 14), but in sulfuric ether (2), (3). Both these reactions take place under mild conditions. The trialkylsilylethynylvinylbutyl ethers that were obtained remind one, because of their chemical properties, of the ethynylvinylalkyl ethers which contain no silicon. Both are easily hydrolyzed with 2%  $H_2SO_4$ . The former have also, however, some peculiarities. The hydrolysis performed to detect their structure has shown that a splitting of the Si-C bond takes place (see scheme). The butin-1-al-4 that is produced by this reaction is isomerized to tetrolaldehyde. Unlike the silicon-free ethynylvinylalkyl ethers, trialkylsilylethynylvinyl ethers are not hydrogenated via  $PtO_2 \cdot H_2O$  or via Pd precipitated on calcium sulfate. Their hydrogenation succeeds only via a mixture

Card 1/2

80066

Synthesis and Conversions of Trialkylsilylethynylvinyl- S/020/60/132/01/40/064  
alkyl Ethers B011/B126

of 2% Pd/CaCO<sub>3</sub> and 5% Pt/C. Trimethylsilylbutoxy-4-butadiene-1,3 was obtained by a gradual hydrogenation. The latter is condensable with maleic anhydride and forms the adduct (A), from which butylalcohol and trimethylsilanol are split off. Under the conditions of the reaction the latter gives hexamethyldisiloxane. The authors have established that the adduct is a phthalanhydride. The silicon-rich ethynylvinylbutyl ether cannot be converted either by heating with butanol without a catalyst or in the presence of from 1-2% of basic or acid catalyst into trimethylsilylbutin-1-al-4-acetal. There are 1 table and 17 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk  
SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the  
Academy of Sciences, USSR)

PRESENTED: January 8, 1960, by B. A. Kazanskiy, Academician

SUBMITTED: December 24, 1959

Card 2/2

20941

S/062/61/000/003/008/013  
B117/B208

15.8116

2209, 1372

AUTHORS: Shostakovskiy, M. F., Khomutov, A. M., Baykova, R. I., and Kayutenko, L. A.

TITLE: Studies in the field of chemical conversions of unsaturated and high-polymer compounds. Report 17. Synthesis of polymers and copolymers of bis-(methyl-2-buten-1-yne-3)alkylsilanes

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, no. 3, 1961, 488-491

TEXT: The authors report on the study of polymerization and copolymerization of: bis-(methyl-2-buten-1-yne-3)diethyl silane, bis-(methyl-2-buten-1-yne-3)dimethyl silane, and bis-(methyl-2-buten-1-yne-3)methyl-propyl silane. Freshly distilled monomers were used. Copolymerization was carried out continuously for 100 hr at  $60^{\circ} \pm 1^{\circ}\text{C}$ . Azoisobutyric acid dinitrile was used as an initiator in a quantity of 0.2 % of the total weight of the monomer. Control experiments for investigating the polymerization of initial monomers were carried out under the same conditions.

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Studies in the field of chemical...

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S/062/61/000/003/008/013  
B117/B208

Bis-(methyl-2-buten-1-yne-2)diethyl silane readily polymerizes at room temperature on the air and in the presence of initiators. The polymers are transparent, hard, and three-dimensional substances. They remain unchanged when heated to 400°C. During copolymerization with methyl methacrylate, polymers of different composition are formed, according to the concentration of the initial monomers in the reaction medium. The copolymer yields were found to decrease with increasing content of bis-(methyl-2-buten-1-yne-3)diethyl silane in the reaction medium from 10 to 25 mole%. They change little later on. The number of silane links in the copolymer increases as its concentration in the reaction medium rises. The resultant copolymers are hard, light yellow substances with high dielectric properties:  $\rho_v = 10^{17}-10^{18}$  ohm·cm. Bis-(methyl-2-buten-1-yne-3)diethyl silane was used for "cross-linking" in the polymerization of methacrylic acid and styrene. For comparison, the copolymerization of methyl methacrylate with bis-(methyl-2-buten-1-yne-3)dimethyl silane and bis-(methyl-2-buten-1-yne-3)methyl-propyl silane was studied at equal molar ratios. It was found that those copolymers have the highest yields and the highest content of silane links, which contain links of bis-(methyl-2-buten-1-yne-3)diethyl silane. There are 1 figure, 5 tables, and 6

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20941

S/062/61/000/003/008/013  
B117/B208

Studies in the field of chemical...

references: 3 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii  
nauk SSSR (Institute of Organic Chemistry imeni  
N. D. Zelinskiy, Academy of Sciences USSR)

SUBMITTED: November 19, 1959

X

Card 3/3

KULIKOVSKIY, Anton Vikent'yevich; KAZACHENOK, V., red.; KALECHITS, G.,  
tekh.red.

[The most economical types of livestock buildings] Naibolee ekonomichnye tipy zhivotnovodcheskikh pomeshchenii. Minsk, Gos.izd-vo BSSR. Red.sel'khoz.lit-ry, 1960. 122 p.

(Farm buildings)

(MIRA 14:6)

SHOSTAKOVSKIY, M.F.; KHOMUTOV, A.M.; BAYKOVA, R.I.; KAYUTENKO, L.A.

Chemical conversions of unsaturated and high molecular weight compounds.  
Report No.17: Synthesis of polymers and copolymers of bis(2-methyl-1-  
buten-3-yne)alkylsilanes. Izv.AN SSSR Otd.khim.nauk no.3:488-491  
Mr '61. (MIRA 14:4)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.  
(Silane) (Polymers)

KAYUTENKO, L. A.

Dissertation defended for the degree of Candidate of Chemical Sciences  
at the Institute of Hetrochemical Synthesis: in 1962:

"Synthesis and Conversions of Several Unsaturated Silicon Compounds  
of the Acetylene Series."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-115

KULAYEVA, O.N.; CHERNYSHEV, Ye.A.; KAYUTENKO, L.A.; DOLGAYA, M.Ye.;  
VOROB'YEVA, I.P.; POPOVA, E.A.; KLYACHKO, N.L.

Synthesis and test of the physiological activity of some compounds  
of the kinin series. Fiziol. rast. 12 no.5:902-908 S-0 '65.

(MIRA 19:1)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR, Moskva  
i Institut organicheskoy khimii imeni Zelinskogo AN SSSR, Moskva.

DEMIN, G.V.; KAYVANOV, L.S.; SAKHANSKIY, N.A.; STERNIN, I.M.; YUKHTANOV,  
D.M., kandidat tekhnicheskikh nauk, redaktor; PETROVA, N.S.,  
tekhnicheskiy redaktor

[High-speed smelting in a reverberatory furnace; experience of  
skilled workman A.A. IARUSOV] Skorostnaya plavka v otrazhatel'nykh  
pechakh; opyt mastera A.A. IARUSOVA. Moskva, Gos. nauchno-tekhn.  
izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1952. 68 p.  
[Microfilm] (MIRA 9:12)

1. Russia (1923- U.S.S.R.) Ministerstvo tsvetnoy metallurgii.  
Tekhnicheskoye upravleniye. Tsentral'nyy institut informatsii.
2. Zamestitel' direktora instituta Gintsvetment (for Yukhtanov)  
(Smelting furnaces)

THE JOURNAL OF THE



SHAMBERG, V.; KURILIN, N.; ~~YAYE~~, V.; POTAPOV, Kh.

Publication of economic literature in 1959. Vop.ekon. no.2:  
134-141 F '59. (MIRA 12:5)

(Bibliography--Economics)

POLYANSKIY, F.Ya., prof.; SHEMYAKIN, I.N., prof.; GLUKHAREV, L.I.,  
dots.; ROMANCHENKO, L.N., kand. ekon. nauk; KAYYE, V.A.,  
kand. ekon. nauk; MOTUS, P.P., kand. ekon. nauk; TYUSHEV,  
V.A., kand. ekon. nauk; ROMANCHENKO, L.N., kand. ekon. nauk;  
AVDAKOVA, Yu.K., kand. ekon. nauk, dots., red.; SPERANSKAYA, L.,  
red.; VOSKRESENSKAYA, T., red.; NEZNANOV, V., mladshiy red.;  
NOGINA, N., tekhn. red.

[Economic history of capitalist countries] Ekonomicheskaya isto-  
riya kapitalisticheskikh stran; kurs lektzii. Moskva, Sotsekgiz,  
1962. 634 p. (MIRA 16:2)

(Economic history)

Y  
KAZAROV

Zheleznye dorogi v Vostochnoi Azii. [The railroads in Eastern Asia]. (Novyi Vostok, 1925, no. 8-9, p. 117).

DLC: JN13.N9 Slav.

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.

MICHKAREVA, V.I., inzh.; SPEKTOR, M.D., kand. tekhn. nauk; KAYZER, A.A., inzh.  
PLAKHOTSKIY, I.A., inzh.; PUKHAREVA, L.A., inzh.

Porous unkilned fillers for lightweight concrete from pulverized  
ash of electric power plants. Stroi. mat. 10 no.11:34-35 N '64.  
(MIRA 18:1)

KAYZER, A.O.; BRONEVSKIY, V.A.

New equipment for multihole drilling. Razved. i okh. nedr 27  
no.8:17-23 Ag '61. (MIRA 16:7)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo  
syr'ya Ministerstva geologii i okhrany nedr KazSSR.  
(Boring machinery)

KAYZER, L. E.

"The Effect of Enzymic Compounds of Mushroom Mold on Fruit Tissue in the Processing Prior to Squeezing." Cand. Tech Sci, Kiev Technological Inst of the Food Industry imeni A. I. Mikoyan, Min Higher Education USSR, Kiev, 1955. (KL, No 18, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

KAYZER, T.R.

Science enters space. Mir nauki 5 no.4:9-15 '61. (MIRA 15:2)

1. Sheffildskiy universitet, Angliya.  
(Cosmic physics)

KHUSID, S.Ye., inzh.; ZARZHITSKIY, Yu.A., inzh.; KULAKOV, A.M., inzh.;  
KARPOV, A.A., inzh.; KROLENKO, N.A., inzh.; Primalni uchastiye:  
ALIMOV, B.V.; LEONT'YEV, A.I.; BOLOBORODOV, N.M.; KARAGANOV, G.G.;  
GUR'YANOV, V.N.; OSOKIN, G.F.; KAYZER, V.G.; SOROKOLETOV, A.M.;  
ZLOBIN, V.K.; VIKTOROVA, T.Ye.; SEMENOV, V.A.; VODENNIKOV, V.F.;  
SANAYEV, I.K.

Operating a four-zone holding furnace on natural gas with auto-  
matic control. Stal' 25 no.5:464-468 My '65.

(MIRA 18:6)



KAYZERMAN, M.M., mayor meditsinskoy sluzhby; ZAVRAZHIN, M.K., podpolkovnik meditsinskoy sluzhby; KNYAZEV, S.V., podpolkovnik meditsinskoy sluzhby; KOBYAKOV, N.I., podpolkovnik meditsinskoy sluzhby; DOKUCHAYEV, G.M., podpolkovnik meditsinskoy sluzhby; PLETNEV, N.N., polkovnik meditsinskoy sluzhby; KHOROSHCHEV, V.D., podpolkovnik meditsinskoy sluzhby; GORBACHIK, Ye.D., podpolkovnik meditsinskoy sluzhby; DRUKER, Yu.S.; NAZAROV, K.M.; KOMOGOROV, P.R., polkovnik meditsinskoy sluzhby; KLIMENKO, A.V., podpolkovnik meditsinskoy sluzhby; RYAKHOVSKIY, I.Ye., podpolkovnik meditsinskoy sluzhby; IVAN'KOVICH, F.A.; GUBIN, S.V.; kapitan meditsinskoy sluzhby; ZOTOV, I.G., kapitan meditsinskoy sluzhby; LEONOVA, Ye.I.; BUNTOVSKIY, P.A., mayor meditsinskoy sluzhby; GERASIMOV, A.N., podpolkovnik meditsinskoy sluzhby; GUR'YEV, I.A., kapitan meditsinskoy sluzhby; KOLDOBSKIY, S.Z., mayor meditsinskoy sluzhby

Abstracts. Voen. med. zhur. no.10:74-79 0 '65.

(MIRA 18:11)

KAYZHANOVSKIY, B. N.

B. T. R,  
Vol. 3 No. 4  
Apr. 1954  
Electrical Engineering

4  
②  
4779° Selection of Procedures, Protection and Control  
Related to the Starting of Synchronous Motors  
Silencer Applied on Excitation. (Russian) B. A. Kayzhanovskii  
Energeticheskii Biulleten, 1953, no. 9, Sept. p. 1-7  
Discusses synchronous motors with their starting characteristics. Diagrams. 6 ref.

6-3-54 j

KAZ, B. L.

Kaz, B. L. - "On tetanus treated by introducing antitetanus serum into the cisterna cerebellomedullaris of the brain", Vracheb. delo, 1949, No. 5, paragraphs 57-58.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

*KAZ, M.L.*  
USSR/Physical Chem. Crystals

B-5

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22143

Author : M. L. Kaz

Inst : Not given

Title : The influence of non-activating ions  $\text{Ca}^{2+}$  on the thermic luminescence of x-rayed phosphors NaCl-Ag.

Orig Pub : Optika i spektroskopiya, 1956, 1, No 2, 198-203

Abstract : This is a study of thermoluminescence (TL) of x-rayed crystals of NaCl, NaCl with addition of  $\text{Ca}^{2+}$  and  $\text{Sr}^{2+}$ , and NaCl-Ag with the same additions at temperatures of 5-6°. The curve of TL for NaCl has 2 peaks at 62° and at 165° caused by M and F-centers. In the presence of  $\text{Ca}^{2+}$  and  $\text{Sr}^{2+}$ , there is a supplementary peak at 127-128°. In NaCl- $\text{CaCl}_2$  this peak is more intensive than that of the F-centers. In NaCl-Ag there appears a new intensive peak at 32° caused by Ag, and the peaks of M and F-centers are weakened. Additions of  $\text{Ca}^{2+}$  and  $\text{Sr}^{2+}$  do not change substantially the spectra of luminosity and of stimulation of the phosphor NaCl-Ag, but they create supplementary peaks at 112-114°, caused by Z-centers. With the increase in the concentration of  $\text{Sr}^{2+}$ , the intensity of the Ag-peak

Card 1/2

-56-

DROZDOV, B.V.; MALYSHEV, M.F.; Primala uchastiye KAZABRODSKAYA, G.V.

Decomposition of  $\beta$ - $2\text{CaO}\cdot\text{SiO}_2$  with sodium alkali solutions of sodium aluminate. Zhur.prikl.khim. 33 no.10:2357-2359 0 '60.  
(MIRA 14:5)

1. Leningradskiy tekhnologicheskii institut tsellyulezno-bumazhnoy promyshlennosti i Vsesoyuznyy alyuminiyevo-magniyevyy institut.  
(Calcium silicate) (Sodium aluminate)

MALYSHEV, M.F.; KAZABRODSKAYA, G.V.

Role of sodium ferrite in leaching of aluminate sinters. Zhur.  
prikl.khim. 34 no.11:2407-2413 N '61. (MIRA '15:1)  
(Aluminates) (Sodium ferrate)

SOLOMENTSEV, N.I., kand.tekhn.nauk; KAZACHEK, A.A., inzh.

Unit for continuous vulcanization of conveyor and flat transmission  
belts. Khim. mashinostr. no. 6:40-41 N-D '62. (MIRA 17:9)

KAZACHEK, G.

Producing and laying mosaic parquets. Gor.i sel'.stroj, no.4:22-24  
Ap '57. (MLRA 10:5)

1.Zamestitel'ministra gorodskogo i sel'skogo stroitel'stva  
Belorusskoy SSR.

(Parquet floors)



KAZACHEK, G.A., glavnyy redaktor; ROGOVIN, Ya.A., redaktor; MOROGOVSKIY, B.M., inzhener, redaktor; TRUKHANOVA, A., tekhnicheskiy redaktor.

[Handbook for master-builders] Spravochnik mastera-stroitel'ia. Izd. 2-o, perer. Minsk, Gos. izd-vo BSSR, R<sub>ed.</sub> nauchno-tekhn. lit-ry, 1953. 976 p. [Microfilm] (MIRA 8:2)

1. White Russia. Ministerstvo zhilishchno-grazhdanskogo stroitel'stva. (Building)

KAZACHUK, G.A., redaktor; ROGOVIN, Ya.A., redaktor.

[Manual for master builders] Spravochnik мастера-stroitelia. Izd.  
3-o. Minsk, Gos.izd-vo BSSR, 1955. 1036 p. (MIRA 9:6)

1. White Russia. Ministerstvo gorodskogo i sel'skogo stroitel'stva.  
(Building--Handbooks, manuals, etc.)

*Kazachek, G.A.*

MOROGOVSKIY, B.M., inzh., retsenzent; ZHIZHEL', I.M., inzh., red.;  
~~KAZACHEK, G.A., inzh., red.;~~ ROGOVIN, Ya.A., inzh., red.;  
~~TRUKHANOVA, A., tekhn.red.~~

[Handbook for the construction industry] Spravochnoe posobie  
dlia proizvoditel'ia stroitel'nykh rabot. Minak, Gos.izd-vo BSSR,  
1957. 522 p. (MIRA 11:1)

1. White Russia. Glavnoye stroitel'noye upravleniye.  
(Building)

ZHIZHEL', I.M., inzh., red.; KAZACHKK, G.A., inzh., red.; ROGOVIN,  
Ya.A., inzh., red.; MOROGOVSEIY, B.M., inzh., retsenzent-  
konsul'tant; TRUKHANOVA, A., tekhn.red.

[Handbook for the construction industry] Spravochnoe posobie  
dlia proizvoditel'ia stroitel'nykh rabot. Izd.2. Minsk, Gos.  
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(MIRA 13:1)

1. White Russia. Ministerstvo stroitel'stva.  
(Building)

KAZACHEK, G. A.

ATAYEV, S.S., kand.tekhn.nauk; ZALOGO, V.F., inzh.; KOROBCHKIN, M.A.,  
inzh.; PEVZNER, E.D., kand.tekhn.nauk; ROGOVIN, Ya.A., inzh.;  
RAKUT', B.A., inzh.; RUBIN, V.I., inzh.; TIRKEL'TAUB, I.D.,  
inzh.; FROLOV, N.P., kand.tekhn.nauk; YANKOVSKIY, I.P., inzh.;  
MOROGOVSKIY, V.M., inzh., retsenzent; ZHIZHEL', I.M., inzh.,  
red.; KAZACHEK, G.A., red.; GOLUBTSOVA, P., red.; STEPANOVA,  
N., tekhn.red.

[Builder's handbook] Spravochnik мастера-строителя. Izd.4.,  
perer. i dop. Minsk, Gos.izd-vo BSSR. Red.nauchno-tekhn.  
lit-ry, 1959. 659 p. (MIRA 13:1)

1. White Russia. Ministerstvo gorodskogo i sel'skogo stroitel'-  
stva.

(Building)

ANTIPIN, G.V., mashinist elektrovoza, Geroy Sotsialisticheskogo Truda;  
 BELIKOV, I.I., elektromonter; PRESNYAKOV, I.R., Geroy  
 Sotsialisticheskogo Truda; DENISKIN, A.I., mashinist-instruktor;  
 MANONIN, N.I., tokar'-ratsionalizator; KAZACHEK, I.K.;  
 CHEN KHUA-DIN [Ch'eng Hua-ting]; U FYU [Wu Fêng]; LYU I [Liu I];  
 YAN CHAO [Yang Ch'ao]; TIKHMENEV, B.N., doktor tekhn.nauk;  
 ZABUDIN, B.V., inzh. (g.Parizh); RAKOV, K.A., inzh.;  
 PIVOVAROV, G.I.

A feat which will live forever. Elek. i tepl. tiaga 5 no.5:1-  
 3 iy '61. (MIRA 14:7)

1. Depo Krasnoyarsk (for Antipin). 2. Omskaya distantziya kontaktnoy seti (for Belikov). 3. Master avtomatnogo tselha depo Liski (for Presnyakov). 4. Lokomotivnoye depo Orenburg, rukovoditel' kolonny teplovozov imeni XXII "yezda partii (for Deniskin). 5. Instrumental'nyy tsekh kommunisticheskogo truda lokomotivnogo depo Kuybyshev (for Manonin). 6. Literaturnyy sotrudnik gazety "Kuybyshevskiy zheleznodorozhnik" (for Kazachek). 7. Moskovskiy institut inzhenerov transporta (for Chen Hua-din, U Fyn, Iyu I, Yan Chao). 8. Rukovoditel' laboratorii peremennogo toka Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta Ministerstva putey soobshcheniya (for Tikhmenev). 8. Nachal'nik depo Leningrad-Baltiyskiy (for Pivovarov).

(Astronautics)

PRITULA, Yu.A.; ABRIKOSOV, I.Kh.; AVROV, P.Ya.; ~~KAZACHENKO, A.A.~~; KILIGINA,  
N.I.; KULIKOV, F.S.; MEL'NIKOV, A.M.; TATARINOV, A.G.;  
TROYEPOL'SKIY, V.I.; TSYPLENKOV, G.G.; SHPIL'MAN, A.I.;  
DAYEV, G.A., vedushchiy red.; LINDTROP, N.T., red.;  
YASHCHURZHINSKAYA, A.B., tekhn.red.

[Volga-Ural oil-bearing region; oil potential] Volgo-Uralskaya  
neftenosnaya oblast'; neftenosnost'. Leningrad, Gostoptekhzdat,  
1957. 175 p. (Leningrad, Vsesoiuznyi neftianoi nauchno-issledovatel'skii  
geologorazvedochnyi institut. Trudy, no.104). (MIRA 16:8)  
(Volga-Ural region--Petroleum geology)

KAZACHENKO, A.I.

Boris Dmitrievich Grekov; obituary. Sov.etn. no.4:146-147. '53.

(MLRA 6:12)

(Grekov, Boris Dmitrievich, 1882-1953)



KAZACHENKO, A.S. (Moscow).

On the choice of problems on physics. Fiz. v shkole 13 no.4:32-37 J1-Ag  
'53. (MLRA 6:6)

(Physics--Problems, exercises, etc.)

KAZACHENKO, A.S. (Moscow)

"Problems and experiments in physics." V.A.Ziber. Reviewed  
by A.S.Kazachenko. *Fiz. v shkole* 14 no.3:78-79 My-Je '54.  
(MLRA 7:7)  
(Physics--Problems, exercises, etc.) (Ziber, V.A.)

KAZACHENKO, B.I.

Running in DT-54 tractors. Trakt. i sel'khozmasb. no.7:11-15 J1 '59.  
(MIRA 12:15)

1. Stalingradskiy sel'khoznyaystvennyy institut.  
(Tractors)

KAZACHENKO, B. I., Cand Tech Sci --"Establishing <sup>method of</sup> efficient <sup>rates</sup> ~~exploitation~~ <sup>operation</sup> rolling of ~~the type~~ DT-54 tractors." Chelyabinsk, 1961. (Min of Agri RSFSR, Chelyabinsk Inst of Mechanization and Electrification of Agri) (KL, 8-61, 243)

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DOROGOVY, A.I., pechved, kandidat sel'skokhozyaystvennykh nauk;  
MOISEYCHENKOV, G.I., inzhener-gidrotekhnik; SHTOL'TS, S.K., lesoved;  
MALYSHEV, A.M., agronom, kandidat sel'skokhozyaystvennykh nauk;  
KAZACHENKO, B.V., agronom [deceased]; RADZHUYEY, A.P., krayeved;  
PONOMAREVA, A.A., entomolog; ANUFRIYEV, P., redaktor; BANNIKOV, P.,  
redaktor; GORENSHTEYN, G., tekhnicheskiy redaktor.

[Nature in Penza Province] Priroda Pensenskoj oblasti. Penza,  
Penzenskoe kn-vo, 1955. 458 p. (MIRA 9:6)  
(Penza Province--Natural history)

ACC NR: AP6031751 (N) SOURCE CODE: UR/0078/66/011/007/1631/1636

AUTHOR: Kazachenko, D. V.; Kovalenko, K. N. 2-1  
B

ORG: Rostov-on-Don State University (Rostovskiy-na-Donu gosudarstvennyy universitot)

TITLE: Thorium glycolates

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 7, 1966, 1631-1636

TOPIC TAGS: thorium compound, glycolic acid, CHEMICAL REACTION

ABSTRACT: The paper continues the study of the interaction of thorium nitrate and certain organic acids, and presents data on the systems  $\text{Th}(\text{NO}_3)_4\text{-CH}_2\text{OHCOONa-H}_2\text{O}$  and  $\text{Th}(\text{NO}_3)_4\text{-CH}_2\text{OHCOONa-NaOH-H}_2\text{O}$  at 25°C. The electric conductivity, pH and thorium concentration in the liquid phases of the systems were measured, and the precipitates were analyzed. It is shown that in the first system, an exchange reaction forms thorium tetrakisglycolate  $\text{Th}(\text{CH}_2\text{OHCOO})_4 \cdot 2\text{H}_2\text{O}$ , and in the second system, up to a 1:4 molar ratio of the components, basic thorium diglycolate  $\text{ThO}(\text{CH}_2\text{OHCOO})_2 \cdot 2\text{H}_2\text{O}$  is formed; when sodium glycolate and sodium hydroxide are present in greater excess, the hydrolysis is more extensive. The reaction of thorium nitrate with glycolic acid was studied in acetone solution, and it was found that a basic thorium triglycolate with partly nitrated glycolate groups ( $\text{CH}_2\text{ONOC}_2\text{COO}^-$ ) was formed. Orig. art. has: 6 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 20Nov64/ ORIG REF: 009/ OTH REF: 010

Card 1/1 eqk

UDC: 546.841.4:541.49+547.472.2

KOVALENKO, K.N.; MINKIN, V.I.; NAZAROVA, Z.N.; KAZACHENKO, D.V.

Dipole moments of some derivatives of furfurole. Zhur.ob.  
khim. 32 no.2:549-553 F '62. (MIRA 15:2)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.  
(Furaldehyde--Dipole moments)

KOVALENKO, K.N.; KAZACHENKO, D.V.; IVANOVA, Ye.M.

Thorium salicylates. Zhur.neorg.khim. 7 no.10:2340-2344 0 '62.  
(MIRA 15:10)  
(Thorium salicylate)



KOVALENKO, K.N.; KAZACHENKO, D.V.; SAMSONOVA, O.N.

Thorium subacetate. Zhur.neorg.khim. 8 no.4:797-801 Ap '63.  
(MIRA 16:3)

(Thorium acetates)

KOVALENKO, K.N.; KAZACHENKO, D.V.; SAMSONOVA, O.N.

Properties of thorium acetate. Zhur. neorg. khim. 8 no.10:2222-  
2225 0 '63. (MIRA 16:10)

(Thorium acetate) (Thermal analysis)

KOVALENKO, K.N.; KAZACHENKO, D.V.

Reaction of thorium nitrate with meta and para-hydroxybenzoic acid anions in aqueous solutions. Zhur.neorg.khim. 10 no.4:927-933 Ap '65. (MIRA 18:6)

1. Rostovskiy-na-Donu gosudarstvennyy universitet, kafedra fizicheskoy khimii.

Kazachenko, L.P.

STEPANOV, B.I.; KAZACHENKO, L.P.

Contours of absorption bands of complex molecules. Izv. AN BSSR  
no.3:53-67 My-Je '55. (MIRA 8:12)

1. Deystvitel'nyy ohlen Akademii nauk BSSR.  
(Photochemistry)

AUTHORS: Kazachenko, L.P. and Stepanov, B. I.

51-3-9/24

TITLE: Mirror symmetry and the shape of absorption and luminescent bands of complex molecules. (Zerkal'naya simmetriya i kontur polos pogloshcheniya i ispuskaniya slozhnykh molekul).

PERIODICAL: "Optika i Spektroskopiya" (Optics and Spectroscopy), 1957, Vol.2, No.3, pp.339-349 (U.S.S.R.)

ABSTRACT: V. L. Levshin (Zh. Fiz. Khimii, Vol.2, p.641, 1931) discovered mirror symmetry between the absorption and luminescence bands of complex molecules. Study of this symmetry yields information on the vibrational excited and ground levels as well as on the electronic transitions. D. I. Blokhintsev (Zh. Eksper. Teor. Fiz., Vol.9, p.459, 1939) showed that this symmetry can be studied correctly only when  $\chi/\nu_a$  ( $\chi$  = the absorption coefficient,  $\nu_a$  = the absorption frequency) and  $W_l/\nu_l^4$  ( $W$  = the luminescent radiated power,  $\nu_l$  = the luminescence frequency) are plotted as ordinates against frequency. The authors apply Blokhintsev's analysis to a series of phthalimide vapours and solutions. They show, inter alia, that B.S. Neporent et al. (Doklady Akad. Nauk SSSR, Vol.92, p.927, 1953) and V.P. Klochkov (Zhurn. Fiz. Khimii, Vol.39, p.1432, 1955) are wrong in assigning mirror

Card 1/2

Belorussian State University. (Belorusskiy Gos. Universitet).

AVAILABLE:

KAZACHENKO, L. P.

AUTHOR: KAZACHENKO, L.P., STEPANOV, B.I., Member of the Academy of Science of the White Russian SSR. PA - 2334

TITLE: On the Outline of Absorption and Luminescence Bands in the Spectra of Complex Molecules. (O konture polos pogloshcheniya i luministsentsii slozhnykh molekul, Russian).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 112, Nr 6, pp 1027 - 1029, (U.S.S.R.)

Received: 4 / 1957 Reviewed: 5 / 1957

ABSTRACT: In the present work a general relation is derived which connects the value of the absorption coefficient or of the amount of emission for the frequencies  $\nu > \nu_{el}$  with the values of the same quantities for the frequencies  $\nu < \nu_{el}$ . These results can be applied only in the case of such molecules in the case of which the mirror symmetry of the absorption and luminescence spectra discovered by LEVSHIN are observed. The derivation is followed up step by step and finally the following formula is obtained:

$$\ln(\mathcal{K}_{\nu_{el} - \Delta\nu} / (\nu_{el} - \Delta\nu)) = (\ln(\mathcal{K}_{\nu_{el} + \Delta\nu} / (\nu_{el} + \Delta\nu))) e^{-h \Delta\nu / RT}$$

An analogous dependence is obtained for the edge of the luminescence band. The expressions given here are of a very general nature and can be incorrect only in the case of such molecules, as show derivations from the mirror symmetry of the absorption and luminescence spectra. They can also not be applied in those

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BELORUSSIAN STATE UNIV.

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PA 2334

On the Outline of Absorption and Luminescence Bands in the Spectra of complex molecules.

cases in which no equilibrium-like distribution on the oscillation levels can occur after the molecules have remained in the excited electronic state.

For the purpose of examining the relations derived here the authors used experimental data concerning the spectra of the phtalimides which are here given in a table. The same table contains the results of the computations for the absorption of a 3-aminophtalimide-solution. According to this comparison the formula mentioned above agrees well with the experiment. The same formula can be transformed so as to be better suited for comparison with the experiment:

$$\ln(\mathcal{K}_{\nu_{el} + \Delta\nu} / (\nu_{el} + \Delta\nu)) - \ln(\mathcal{K}_{\nu_{el} - \Delta\nu} / (\nu_{el} - \Delta\nu)) = h \Delta\nu / kT$$

A diagram illustrates the values of  $\ln(\mathcal{K}_\nu / \nu)$  as functions of  $\nu/kT$  for the absorption spectrum of a solution of 3-aminophtalimide in benzol. The here given diagram is suited for determination of  $\nu_{el}$  from a single absorption band without measuring the luminescence spectrum. Analogous computations and constructions for some phtalimides showed that the formula given first is always satisfied either rigorously or by approximation. The best results were obtained for the case of absorption, less good results in the case of luminescence. Noticeable changes of mirror symmetry cause no con-

Card 2/3

PA - 2332

Energy of Ionization by Electrons in Germanium Crystals.

plained by the fact that in the second case a considerable part of the charge carrier pairs occurs under the effect of relatively fast  $\sigma$ -electrons. (1 illustration)

ASSOCIATION: Not given.

PRESENTED BY: Member of the Academy D.V.SKOBEL'TSYN.

SUBMITTED: 24.10.1956

AVAILABLE: Library of Congress.

Card 3/3

**KAZACHENKO, L.P.**

Connection between the absorption and the luminescence spectra of  
complex molecules. Uch. zap. BGU no.41:159-163 '58.

(MIRA 12:3)

(Spectrum, Molecular)



KAZACHENKO, L.P.; STEPANOV, B.I.

Contour of absorption and luminescence bands of complex molecules.  
Dokl. AN BSSR 3 no.5:190-193 My '59. (MIRA 12:10)  
(Spectrum, Molecular)

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S/051/62/012/001/018/020  
E032/E514

24.3500 (1137, 1138, 1144)

AUTHORS: Stepanov, B.I. and Kazachenko, L.P.

TITLE: Application of the method of moments to the  
description of spectral bands of complex systems

PERIODICAL: Optika i spektroskopiya, v.12, no.1, 1962, 131-133

TEXT: It is pointed out that the most rational way of  
analysing experimental distribution curves  $\rho(\nu)$ , which describe  
the spectral band profiles, is to use the method of moments.  
The method of moments has been discussed by M. Lax (Ref.7: J.Chem.  
Phys., 20, 1752, 1952), K. K. Rebane and his collaborators  
(Ref.8: Opt.spektr., 9, 557, 1960) and S. I. Kubarev (Ref.9: DAN  
SSSR, 130, 1067, 1960; Izv.AN SSSR, ser.fiz., 24,775,1960; Opt.i  
spektr., 9, 3, 1960). The present authors give a brief summary  
of the published accounts of this method and apply it to an  
example borrowed from the paper by N. A. Borisevich (Ref.11: Izv.  
AN BSSR No.3, 44, 1961) which is concerned with the luminescence  
of 3-aminophthalamide vapour. It is shown that by calculating  
the moments for the bands one can very simply describe the

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33649

Application of the method ...

S/051/62/012/001/018/020  
E032/E514

dependence of the band profile on the frequency of the excited light. It is pointed out that the full advantages of this method will be realised when the experimental determination of the first and second moments will be carried out to an accuracy of at least 1%. An accuracy of 5 to 10% is required in the third moment. Acknowledgments are expressed to K. K. Rebane for valuable advice and to N. A. Borisevich and V. V. Gruzinskiy for supplying experimental data. There are 1 figure, 1 table and 12 references: 10 Soviet-bloc and 2 non-Soviet-bloc. The English-language references read as follows: Ref.1: F.E.Williams, H.Eyring, J.Chem. Phys., 15, 289, 1947; F.E.Williams, M.H.Hebb, Phys.Rev., 85, 154, 1952; F.E.Williams, J.Chem.Phys., 19, 457, 1951; J.Phys.Chem., 57, 780, 1953; C.Klick, Phys.Rev., 85, 154, 1952; Ref.7: quoted in text. X

SUBMITTED: July 6, 1961

Card 2/2

L 18067-63

EWT(1)/BDS

AFFTC/ASD/SSD

ACCESSION NR: AP3003177

S/0250/63/007/006/0378/0381 54

52

AUTHOR: Kazachenko, L. P.

TITLE: Application of the method of moments for the characteristic of spectra 21

SOURCE: AN BSSR. Doklady, v. 7, no. 6, 1963, 378-381

TOPIC TAGS: method of moment , spectral line

ABSTRACT: This paper was presented by the Academician of AN BSSR (Academy of Sciences, Byelorussian SSR) B. I. Stepanov. With the aid of Edgeworth series and classical moment-fitting techniques, the author shows how to determine the parameters in a mixture of two normal distributions having the same variance. In particular, he determines some properties of some of the higher moments of this mixture in terms of the original parameters. Then, making use of experimental results (presumably the sample moments) he is able to determine the relevant parameters in the mixture in a problem concerning spectral measurement, the purpose of which is to determine the effect of various physical changes in the position of spectral lines. "In conclusion I express my gratitude to B. I.

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L 18067-63

ACCESSION NR: AP3003177

Stepanov for his help with this work." Orig. art. has: 2 tables, 2 figures, and  
2 formulas. 2

ASSOCIATION: Belorusskiy gosudarstvennyy universitet im. V. I. Lenin (Byelo-  
russian State University)

SUBMITTED: 21Nov62

DATE ACQ: 24Jul63

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 001

Card 2/2

KAZACHENKO, L.F.

Effect of the value of the exciting quantum on the emission spectra of  
vapors of complex molecules. Dokl. AN BSSR 9 no.8:511-513 Ag '65.  
(MIRA 18:10)

I. Belorusskiy gosudarstvennyy universitet imeni V.I.Lenina.

of the Stokes shift and the temperature  
are similar to those derived by other means, and tests for veri-  
fication of their validity are briefly discussed. The formulas

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**APPROVED FOR RELEASE: 06/13/2000**

**CIA-RDP86-00513R000721220018-8"**



MAKASHKOV, P. . . ; KAZACHINSKO, I. V.

Distribution and excretion of radioactive calcium from the organism of healthy and lead-poisoned animals. Izv. AN Kazakh. SSR. Ser. med. nauk no. 1:50-55 '64. (MIRA 1987)

L 24218-65 EWT(m)/EPF(c)/EPF(n)-2/EPR Pr-4/Pa-4/Pu-4 DM

ACCESSION NR: AP5001268

S/0089/64/017/006/0463/0474

(deceased)  
AUTHOR: Kurchatov, I. V.; Feynberg, S. M.; Dollezhal', N. A.; Aleshchenkov, P. I.; Drozdov, F. S.; Yemel'yanov, I. Ya.; Zhirnov, A. D.; Kazachenko, M. A.; Knyazeva, G. D.; Kondrat'yev, F. V.; Lavrenikov, V. D.; Morgunov, N. G.; Petunin, B. V.; Smirnov, V. P.; Talyzin, V. M.; Filippov, A. G.; Chikhladze, I. L.; Chuikov, P. M.; Shevelev, Ya. V.

TITLE: Pulse graphite reactor<sup>14</sup> IGR

SOURCE: Atomnaya energiya, v. 17, no. 6, 1964, 463-474

TOPIC TAGS: pulse graphite reactor, high neutron flux pulse, nuclear reactor

ABSTRACT: The paper is a summary of the SSSR #322a report at the International Conference on Peaceful Uses of Atomic Energy in Geneva, 1964. It represents an elaboration of the description of the pulse graphite reactor IGR given by S. M. Feinberg at the Second International Conference. The pulse reactors are used when a high neutron flux is desirable. The described reactor was in opera-

Cerd 1/2

L 24218-65

ACCESSION NR: AP5001268

tion for several years, and is still working without failure. Orig. art. has: 6 figures

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: NP'

NR REF SOV: 002

OTHER: 001

Card 2/2

KURCHATOV, I.V., [deceased]; FEYNBERG, S.M.; DOLLEZHAL', N.A.;  
ALESHCHENKOV, P.I.; DROZDOV, F.S.; YEMEL'YANOV, I.Ya., ZHIRNOV,  
A.D.; KAZACHENKO, M.A.; KNYAZEVA, G.D.; KONDRAT'YEV, F.V.;  
LAVRENIKOV, V.D.; MORGUNOV, N.G.; PETUNIN, B.V.; SMIRNOV, V.P.;  
TALYZIN, V.M.; FILIPPOV, A.G.; CHIKHLADZE, I.L.; CHULKOV, P.M.;  
SHEVELEV, Ya.V.

Pulse graphite reactor IGR. Atom. energ. 17 no.6:463 D '64  
(MIRA 18:1)

KAZACHENKO, M.S., inzh.

Ultrasonic method of inspecting the strength of concrete at  
the "Dneprostroia" reinforced concrete products plant. Gidr.  
stroil. 32 no.3:22-23 Mr '62. (MIRA 16:7)

(Ultrasonic waves--Industrial applications)  
(Precast concrete--Testing)

KAZACHENKO, M.S., inzh.

Use of an ultrasonic method for determining strength decrease of concrete. Energ. stroi. no.34:16-18 '63. (MIRA 17:1)

1. Moskovskiy filial Vsesoyuznogo instituta po proyektirovaniyu organizatsiy energeticheskogo stroitel'stva.

MASTYUKOVA, Yu.N.; SARAYEVA, N.T.; KAZACHENKO, N.F.; YAROSLAVSKAYA, N.V.;  
RAYKHSHTADT, G.N.; SHVARTSMAN, M.N.

Studies on results of smallpox vaccination. Vop.virus. 6 no.2:  
189-196 Mr-Apr '61. (MIRA 14:6)

1. Moskovskiy institut epidemiologii, mikrobiologii i gigiyeny  
i sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona  
Moskvy.

(SMALLPOX)

KAZACHENKO, N.P.

Determining the location of a metallic "olive" in the digestive tract;  
abstract. N.P. Kazachenko. Khirurgia 34 no.12:94 D '58. (MIRA 12:1)  
(ALIMENTARY CANAL--OBSTRUCTION)



KAZACHENKO, N. P.

EXCERPTA MEDICA Sec 19 Vol 2/4 Rehabilitation Apr 59

871. Prolonged follow-up after interscapulo-thoracic amputation for advanced osteogenic sarcoma of the shoulder girdle (Russian text) KAZACHENKO N. P. Vestn. Khir. 1958, 80/6 (104)

A 63-year-old housewife with a rapidly developing tumour (as big as a child's head) of the left shoulder-girdle complained of constant and strong pain. The patient was subjected, under local anaesthesia, to amputatio interscapulothoracica. No complications in the post-operative period arose. On the 20th day post-operatively, the patient was dismissed. Histopathology: sarcoma fusocellulare. Four years and 8 months later, the patient felt well and had no metastases or recurrence. Conclusion: similar amputations can be satisfactorily accomplished, provided there are no metastases and the general condition of the patient is good, preferably in grown-up individuals.

Stoytscheff - Sofia

KAZACHENKO, N.P.

Drainage of the urinary bladder. Vest.khir. 81 no.12:103-106  
D '58. (MIRA 12:2)

1. Iz khirurgicheskogo otdeleniya (nach. - N.P. Kazachenko)  
N-skogo voyennogo gosпитalya.

(BLADDER

siphon drainage (Rus))

SHUR, Aleksandr Iosifovich; KUSHNIR, Shimon Davidovich; KAZACHENKO,  
P.K., red.; BORUNOV, N.I., tekhn. red.

[Technology of precast concrete and precast reinforced-  
concrete articles] Tekhnologiya sbornykh zhelezobetonnykh  
i betonnykh izdelii. Moskva, Gos. energ. izd-vo, 1961. 215 p.  
(Precast concrete) (MIRA 15:2)

*KAZACHENKO, P.M*

123-1-655

Translation from: Referativnyy Zhurnal, Mashinostroyeniye, 1957,  
Nr 1, p.100 (USSR)

AUTHOR: Kazachenko, P.M.

TITLE: Revolving Back-Center of a Lathe (Vrashchayushchiysya  
tsentr k tokarnomu stanku)

PERIODICAL: Tekhnol. transp. mashinostroyeniya, 1956, Nr 1, pp.54-55.

ABSTRACT: The detailed description and drawing of the revolving  
back-center on taper-roller bearings in a large lathe  
for machining heavy parts are given. This design of  
the back-center is provided with a device for a pre-  
cision adjustment of the radial clearance in the  
bearings.

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S.L.A.