

PUSHKAREV, I.F., inzh.; STREKOPYTOV, V.V., inzh.; KOVRIZHKIN, N.P., inzh.;
KURBATOV, A.I., ~~proyemshchik~~; KHATSKELEVICH, M.N., inzh.

Answering readers' queries. Elek.i tepl.tiaga 6 no.4:36-37
Ap '62. (MIRA 15:5)

1. Lokomotivnoye depo Leningrad-Baltiyskiy (for Kurbatov).
(Locomotives)

KURBATOV, A.I., dotsent

X-ray diagnosis of osteonecrosis in patients with burns. Vest.
rent. i rad. 40 no.5:45-49 S-0 '65.

(MIRA 18:12)

1. Klinika termicheskikh porazheniy (nachal'nik - prof. T.Ya.
Ar'yev) i kafedra rentgenologii i radiologii (nachal'nik -
prof. V.S. Vakhtel') Voenno-meditsinskoy ordena Lenina akademii
imeni S.M. Kirova, Leningrad.

KURBATOV, A.I., kand. med. nauk (Leningrad, P-22, Bol'shoy prospekt, 105, kv. 38)

Tomographic studies in gunshot osteomyelitis. Vest. khir. 92 no.6: 52-58 Je '64. (MIRA 18:5)

1. Iz kafedry rentgenologii i radiologii (nachal'nik - prof. V.S. Vakhtel') i kafedry voyenno-polevoy khirurgii (nachal'nik - prof. A.N. Berkutov) Voenno-meditsinskoy ordena Lenina akademii imeni Kirova, Leningrad.

ZHUKOVA, A.P., rukovoditel'; POPOV, I.A., rukovoditel'; RYKOVA, Z.L., rukovoditel'; ARKHIPOV, M.A., starshiy nauchnyy sotrudnik; DZHIMSHLEYSHVILI, Sh.P., starshiy nauchnyy sotrudnik; DMITRIYEV, G.V., starshiy nauchnyy sotrudnik; ZHURAVKOV, M.V., starshiy nauchnyy sotrudnik; ISTOMIN, P.S., starshiy nauchnyy sotrudnik; KURBATOV, A.K., starshiy nauchnyy sotrudnik; METLINA, T.I., starshiy nauchnyy sotrudnik; PUGINA, N.I., starshiy nauchnyy sotrudnik; BOYKOV, M.A., otvetstvennyy red.; BBL'KE, G.V., otvetstvennyy red.; KLEYMENOV, F.N., otvetstvennyy red.; SMOLDYREV, A.Ye., otvetstvennyy red.; SHARAYEV, A.N., otvetstvennyy red.; BUTAZOV, V.V., tekhn.red.; SABBITOV, A., tekhn.red.

[Progressive practices and new equipment] Peredovoi opyt i novaya tekhnika. Moskva, Ugletekhizdat, 1957. 386 p. (MIRA 11:4)

1. Russia (1923- U.S.S.R.) Ministerstvo ugol'noy promyshlennosti. Tsentral'nyy institut tekhnicheskoy informatsii. 2. Tsentral'nyy institut tekhnicheskoy informatsii Ministerstva ugol'noy promyshlennosti SSSR (for Zhukova, Popov, Rykova, Arkhipov, Dzhimshleyshvili, Dmitriyev, Zhurakov, Istomin, Kurbatov, Metlina, Pugina)
(Coal mines and mining)

KAZAKOV, N.I., gornyy tekhnik; YUNOVICH, M.I., gornyy inzh.;
KUDRYAVTSEV, Yu.I., gornyy inzh.; SMOLDYREV, A.Ye.,
kand.tekhn.nauk; MARKOV, Yu.A., gornyy inzh.; KURBATOV, A.K.,
gornyy inzh.

Study of the operation of a hydraulic hoist in the "Belkina-
Ventilyatsionnaya" Mine. Gor. zhur. no.6:43-47 Je '62.
(MIRA 15:11)

1. Leninogorskoye shakhtostroyupravleniye (for Kazakov).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnoy metallurgii, Ust'-Kamenogorsk (for Yunovich, Kudryavtsev).
3. Institut gornogo dela im. Skochinskogo, Moskva (for Smoldyrev, Markov, Kurbatov).
(Leninogorsk region (East Kazakhstan Province)—Mine hoisting)

KURBATOV, A. K.; SMOLDYREV, A. Ye.

Study of hydraulic transportation of Krivoy Rog iron ores.
Gov. zhur. no.11:51-54 N '62. (MIRA 15:10)

1. Institut gornogo dela imeni Skochinskogo.

(Krivoy Rog Basin--Hydraulic conveying)

SPIVAKOVSKIY, Aleksandr Onisimovich; MUCHNIK, Vladimir Semenovich, doktor tekhn. nauk; YUFIN, Andrey Pavlovich, doktor tekhn. nauk; SMOLDYREV, Anatoliy Yevtikheyevich, kand. tekhn. nauk; OFENGENDEN, Naum Yefimovich, kand. tekhn. nauk; BORISENKO, Lev Dmitriyevich, kand. tekhn. nauk; TRAYNIS, Viulen Vladimirovich, kand. tekhn. nauk; Primalni uchastiye: KURBATOV, A.K., inzh.; MARKOV, Yu.A., inzh.; KORSHUNOV, A.P., inzh.; EKBER, B.Ya., otv. red.; KOVAL', I.V., red.izd-va; IL'INSKAYA, G.M., tekhn. red.

[Hydraulic and pneumatic transportation in mining enterprises] Gidravlicheskiy i pnevmaticheskii transport na gornykh predpriyatiyakh. Moskva, Gosgortekhzdat, 1962. 250 p. (MIRA 16:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Spivakovskiy).
 2. Institut gornogo dela im. A.A.Skochinskogo (for Smoldyrev).
 3. Vsesoyuznyy nauchno-issledovatel'skiy i projektno-konstruktorskiy institut po gidrodobyche uglya (for Muchnik).
 4. Donetskii nauchno-issledovatel'skiy ugol'nyy institut (for Ofengenden).
 5. Moskovskiy inzhenerno-stroitel'nyy institut im. V.V.Kuybysheva (for Yufin).
- (Pneumatic conveying) (Hydraulic conveying)

KURBATOV, A.K. (Moskva); MARNOV, Yu.A. (Moskva); SIKHAYEV, A.Ye. (Moskva)

Movement of solid particles in rising fluid flows. Izv. AN SSSR
Mekh. i mashinostr. no.6:146-148 N-D '64.

(HIRA 18:2)

KURBATOV, A.P., inzh.

Protection of the slopes of earth dams. Elek. sta. 35 no.2:
85-86 F '64. (MIRA 17:6)

BARSKIY, Igor' Borisovich, kand.tekhn.nauk, dotsent; LOMOVSKIY, Viktor Aleksandrovich, kand.tekhn.nauk, dotsent; KURBATOV, A.P., inzh., retsenzent; MINDEL', Ye.M., kand.tekhn.nauk, retsenzent; MIRONOV, A.P., kand.tekhn.nauk, retsenzent; IVANOV, V.V., kand.tekhn.nauk, red.; FAL'KO, O.S., red.isd-va; TIKHANOV, A.Ye., tekhn.red.

[Tractors] Traktory. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit. lit-ry, 1960. 295 p. (MIRA 14:1)

1. Lyuberetskiy tekhnikum sel'skokhozyaystvennogo mashinostroyeniya (for Kurbatov).

(Tractors)

KURBATOV, Aleksandr Pavlovich; TSIPERSON, A.L., red.; BRODSKIY, M.P.,
t6khn. red.

[Mechanized fermentation of cabbage] Mekhanizatsiia kvasheniia
kapusty. Moskva, Gostorgizdat, 1961. 44 p. (MIRA 15:10)
(Sauerkraut)

Styrikovich, M. A., Margulova, T. Kh., and Kurbatov, A. V., "Nomograms of the Moscow Power Engineering Institute to Determine the Heat Output Efficiency by Radiation of Carbon Dioxide and Water Vapor." Kotloturbostroyeniye, No 5, 1949.

KURBATOV, A. V.

KURBATOV, A. V. -- "Some Mechanisms of Nonpressure Bubbling and Their Role in Steam Separation Processes." Sub 14 Mar 52, Moscow Order of Lenin Power Engineering Institute V. I. Molotov. (Dissertation for the Degree of Candidate in Technical Sciences).

SO: Vechernaya Moskva, January-December 1952

KURBATOV, A. V.

Steam Boilers

Question of reviewing G. N. Kruzhilin's theory. Critical loan as the upper limit of applicability of this theory. Izv. AN SSSR Otd. tekhn. nauk no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASS.

KURBATOV, A.V., kandidat tekhnicheskikh nauk.

Bubbling and the problem of critical loads in steam separation.
Trudy MEI no.11:82-108 '53. (MLRA 7:11)
(Steam)

3(4)

AUTHOR:

Kurbatov, A. V.

SCV/6-52-4-15/20

TITLE:

The First Brigades of Communist Work in the Moscow Aerogeodetic Service (Pervyye brigady kommunisticheskogo truda v Moskovskom aerogeodesicheskoy predpriyatii)

PERIODICAL:

Geodeziya i kartografiya, 1959, Nr 4, pp 54-59 (USSR)

ABSTRACT:

In honor of the 21st Party Congress of the Communist Party of the USSR, the youth brigades started competitions for the right of calling themselves Communist Brigades. Such competitions in the MGP are described here. At first, the Brigade of Regina Khoroshcho bound themselves on November 29, 1958. It was composed of the women draftsmen-cartographers Valentina Yagorova, Marina Kalacheva, Praskov'ya Nikolayeva, Lyudmila Kabankova, Galina Aleksandrova, Zoya Videnkina and Raisa Shirina. This Brigade has attained great success, but was overtaken by the stronger and more experienced Brigade of Kudinova. Brigades of other departments entered the competition; the Brigade of Aleksandra Goncharova consisting of Inessa Kachnova, Zinaida Zablava, Margarita Kuznetsova and Ira Belinskaya; the Brigade of the Communist and Front Soldier

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SOV/6-52-4-15/20

The First Brigades of Communist Work in the Moscow Aerogeodetic Service

Mikhail Svidetelev in which Konstantin Grachev and Lyudmila Kir'yanova are also working. The Brigade of Svidetelev also bound themselves to take part in the circle of present politics, and in visits to museums, exhibitions, lectures on music and representing art. This obligation was signed by Engineer Valentina Abrosimova, Engineer Valentina Kabezhkina, Chief Topographer Lidiya Ageyeva, Chief Photogrammetrists Konstantin Grachev and Olga Kiryushina, Topographers Praskov'ya Rubovtseva, Lyudmila Vorontsova, Nina Smirnova, Lyudmila Kir'yanova and Brigadier Mikhail Svidetelev. Among the field squads, the following Brigades entered the competition: the Brigade of Vasilii Potapov (Topographer of the 17th Squad, Communist and Best Worker) and the Brigade of Dmitriy Snetkov, Chief Technician of the 17th Squad and Best Worker (received the Honorary Diploma for Successful Work in 1958). There is 1 figure.

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3 (4)

AUTHOR:

Kurbatov, A. V.

SOV/6-59-11-3/21

TITLE:

The First Results in the Competition for the Title of
Brigades and Shock Workers of the Communist Labor in the
Moscow Aerogeodetic Enterprise

PERIODICAL:

Geodeziya i kartografiya, 1959, Nr 11, pp 9-12 (USSR)

ABSTRACT:

In the competitions of the MAGP (Moscow Aerogeodetic Enterprise) the brigades of M. A. Svidetelev and of N. I. Yeliseyeva rank first. These brigades control the stereographs SD (constructed in 1959), examine the accuracy of radiogeodetic results and compile local nets with stereoprojectors on photographs of high-mountain ranges. The following members belong to the N. I. Yeliseyeva brigade: Engineer Z.I. Morozova, Technician A. I. Petrushina, Members of the M. A. Svidetelev brigade are Engineer Lida Klinkova, Trade-Union Organizer Engineer A. I. Naumova, Topographer Aleksey Abramov. The following persons and brigades respectively, distinguished themselves in the field work: Topographer Vasilii Potapov, Topographer Dmitriy Snetkov, the brigade of Topographer Ivan Pashek (team Nr 94), Topographer P. L. Bogachev, leading

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The First Results in the Competition for the Title of Brigades and Shock Workers of the Communist Labor in the Moscow Aero-geodetic Enterprise SOV/6-59-11-3/21

his brigade, Chief Topographer V. K. Zolotukhin with his brigade, the brigades of Yu. N. Potapov, N. A. Bronovitskiy with his brigade. In the team Nr 17, 11 brigades led by Members of the Communist Party take part in the competition: the brigade of K. D. Semenov, the brigade of V. A. Potapov, the brigade of M. B. Kaplunov, the brigade of N. S. Prusakov, the group of V. S. Kleyner consisting of 8 brigades (26 persons). Members of the brigade of N. S. Prusakov are Topographer Nikolay Kombarov, Foreman Petr Silayev and the workers Mikhail Lazar', Eduard Yankovskiy, Leonid Strashkevich. Group leader V. G. Starodubkin congratulated the brigade of N. S. Prusakov for having been awarded the title of "Brigade of Communist Labor". The brigade of M. B. Kaplunov was also awarded this title. Topographer V. S. Bagrinovtsev, did not meet requirements in producing qualified work.

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KURBATOV, A.V.

Conferences of the brigades and shock workers of communist labor
at the Moscow Aerogeodetic Enterprise. Geod. i kart. no.7:
10-14 J1 '61. (MIRA 14:7)
(Aerial photogrammetry)

KURBATOV, B. A.

25493

O Gruppye Holodrommi Odnoi Algebra ichkol'funttsii, Matem. Sbornik, Novaya, T. XXV,
VII. 1. 1949, S. 91-94

SO: LETOIS' No. 34

5(4)

SOV/20-122-1-25/44

AUTHORS: Vilesov, F. I., Kurbatov, B. L., Terenin, A. N., Academician

TITLE: A Mass-Spectrometric Investigation of the Photoionization and of the Photodissociation of the Vapors of Amines (Mass-spektrometricheskoye issledovaniye fotoionizatsii i fotodissotsiatsii parov aminov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 94-96 (USSR) 20

ABSTRACT: For a detailed investigation of these processes, the authors prepared a mass spectrometer of the 90 degree type, the radius of the central ion trajectory of which was 126 mm. The following gaseous amines were investigated: ammonia NH_3 , hydrazine $\text{NH}_2\text{-NH}_2$, benzylamine $\text{C}_6\text{H}_5\text{-CH}_2\text{-NH}_2$, aniline $\text{C}_6\text{H}_5\text{-NH}_2$. The mass spectra found by irradiation of these compounds are given in a diagram. Only an elementary photoionization of the molecules according to the scheme $\text{AB} + h\nu \rightarrow \text{AB}^+ + e$ was observed. This result confirms the following assumption, expressed in one of the authors' previous papers. The photoionization current is caused only by the

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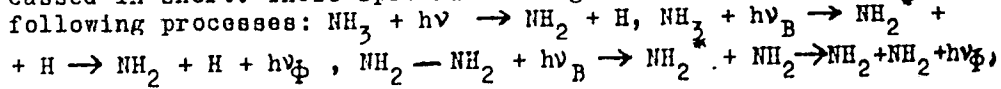
SOV/20-122-1-25/44

A Mass-Spectrometric Investigation of the Photoionization and of the Photo-dissociation of the Vapors of Amines

elementary photoionization of the molecules and the ionization processes with a decomposition of the type

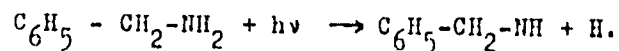
$AB + h\nu \rightarrow A^+ + B^-$ or $AB + h\nu \rightarrow A^+ + B + e$ are not probable (less than 1 % of the main process). If vapors of aniline and benzylamine are irradiated by electrons of $\sim 11,5$ eV, more complicated mass spectra are observed; they are caused by the decay of the molecules into ions. Therefore the application of a photon beam (even if it is not monochromatic) is more advantageous for the mass-spectrometric analyses of complicated organic compounds and their mixtures than the application of an electron beam. The use of monochromatic light permits an additional analysis with respect to the thresholds of the photoionization and the identification of various isomers. Carrying out of the measurements is discussed. The spectra for the vapors of ammonia, hydrazine, aniline and benzylamine are given in a diagram and are discussed in short. These spectra are arguments in favor of the following processes: $NH_3 + h\nu \rightarrow NH_2 + H$, $NH_3 + h\nu_B \rightarrow NH_2 +$

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SOV/20-122-1-25/44

A Mass-Spectrometric Investigation of the Photoionization and of the Photo-dissociation of the Vapors of Amines



$\text{C}_6\text{H}_5 - \text{CH}_2 - \text{NH}_2 + h\nu \rightarrow \text{C}_6\text{H}_5 - \text{CH}_2 + \text{NH}_2$. The meaning of ν_B and ν_ϕ was, apparently, given in a previous paper. No photo-dissociation of aniline vapors into any kind of radicals was observed. There are 3 figures and 3 references, all of which are Soviet.

ASSOCIATION: Fizicheskiy institut Leningradskogo gosudarstvennogo universiteta im. A. A. Zhdanova (Physics Institute of Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: May 30, 1958

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KULIKOV, D. L.

report to be submitted for the IZMIRI 21st Conference and 19th Intl. Congress of Pure and Applied Chemistry, Moscow, U.S.S.R., 5-12 August 1961

- COBURN, C. V., Academy of Sciences USSR, Kiev - "The catalytic activity of the electrochemical kinetics in fused salts" (Section A.3, 6, 2 - Session I, 11 Aug 61, afternoon)
- CHURCH, L. V., Academy of Sciences USSR, Moscow - "The calculation of thermodynamic functions of gases in a wide temperature range" (Section A.3, 6, 11), Session II - 9 Aug 61, afternoon)
- FRANCO, V. A., Physico-Chemical Institute Lenin I. S., Karlov, Moscow - "Trituration phenomena in crystalline polymers" (Section 3, 1 - 7 Aug 61, afternoon)
- FRANCO, V. A., Moscow State University Lenin K. V., Moscow - "The influence of surface heterogeneity and adsorption on the rate of reaction in the absorption properties of solid surfaces" (Joint Session, Sections A.2 and 3.1 - 9 Aug 61, afternoon)
- FRANCO, V. A., Institute of Chemical Physics, Academy of Sciences USSR, Moscow - "The EPR radical" (Section A.1, Session I - 11 Aug 61, morning) (Also, Section A.1, Chairman, Session I - 9 Aug 61, morning)
- FRANCO, V. I., Institute of Geochemistry and Analytical Chemistry Lenin V. I. Vernadsky, Academy of Sciences USSR - "A novelty in the use of organic coprecipitants for concentration of small amounts of the elements" (To be presented in Russian) (Section C.2 - 11 Aug 61, morning)
- FRANCO, A. E., ZAVENY, E. I., and FRANKOVA, L. P., Institute of Geochemistry and Analytical Chemistry Lenin V. I. Vernadsky, Academy of Sciences USSR - "The data on radiolchemical investigations of the process of radiolysis of organic compounds by high energy protons" (To be presented in Russian) (Section C.2 - 11 Aug 61, morning)
- FRANCO, A. E., Institute of Chemical Physics, Academy of Sciences USSR - "The determination of rate constants of decomposition processes from flame velocities as a function of temperature, pressure, and molecular transfer coefficients" (Section A.3, 6, 2) - 7 Aug 61, afternoon)
- FRANCO, S. (Probably MURPHY, S.) and GRADY, Y. T., Moscow State University Lenin M. V. Lomonosov - "Study of the thermodynamic properties of the system iron-iron" (Section A.3, 6, 11), Session II (A) - 11 Aug 61, morning)
- FRANCO, G. M., KILBY, A. M., MALDEN, V. P., and SMITH, J., Moscow State University Lenin M. V. Lomonosov - "Mission of complex ions in multiphase reactions" (Joint Session, Sections A.2 and 3.1, 9 Aug 61, morning)
- FRANCO, S., Institute of Chemical Physics, Academy of Sciences USSR, Moscow - "The study of the reaction of the active groups and related problems of energy transfer" (To be presented in Russian) (Plenary Lecture - Saturday, 12 Aug 61, 10:00 AM)
- FRANCO, Y. A., Academy of Sciences USSR, Kiev - "The active agents and the intermolecular complexes in the hydrolytic reactions of halogenation of the organic compounds" (Section A.1, Session II - 11 Aug 61, morning)
- FRANCO, M. V., Electrochemistry Institute, Sverdlovsk - "The equilibrium between the titanium subgroup metals and the salt salts" (Section 3, 1 - 7 Aug 61, afternoon)
- FRANCO, Y. L., Institute of Chemical Physics, Academy of Sciences USSR - "The study of ions and molecules in the gas phase" (Section A.1, Session I - 9 Aug 61, afternoon)
- FRANCO, M. V., Lomonosov State University Lenin A. A. Zhukov - (Section A.1, Chairman, Session 9 Aug 61, afternoon)
- FRANCO, A. I., Institute of Chemical Physics, Academy of Sciences USSR, Sverdlovsk - "The study of the photoassociation and photoionization of molecules by vacuum ultraviolet radiation" (Section A.1, Session I - 9 Aug 61 - afternoon)
- FRANCO, S. P., Scientific Research Physico-Chemical Institute Lenin I. S., Karlov - "On the dissociation of molecules on electron impact and the early stages of radiation-chemical processes" (Section A.1, Session 2 - 9 Aug 61, afternoon)
- FRANCO, S. P., and MURPHY, V. I., Institute of Geochemistry and Analytical Chemistry Lenin V. I. Vernadsky, Moscow - "The study of the mechanism of the use for spectral analysis of alloys" (Section C.1 - 5 Aug 61, morning)
- FRANCO, A. I., Institute of Chemical Physics, Academy of Sciences USSR - "The study of nuclear reactions in iron meteorites under the action of high energy protons" (Section A.4 - 9 Aug 61, afternoon)
- FRANCO, M. V., and ALDARIN, I. P., Institute of Geochemistry and Analytical Chemistry Lenin V. I. Vernadsky, Academy of Sciences USSR - "The determination of trace impurities in some materials for semiconductor technique by radioactivation analysis" (To be presented in Russian) (Section C.1 - 9 Aug 61, afternoon)
- FRANCO, Boris V., Institute of Physical-Chemical Chemistry, Minsk - "The effect of donor and acceptor substituents on the decomposition rate of malic" (Section A.2 - 9 Aug 61, afternoon)

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S/O20/61/138/006/010/019
B104/B214

11.4600

AUTHORS: Vilesov, F. I., Kurbatov, B. L., and Terenin, A. N.,
Academician

TITLE: Energy distribution of electrons in the photoionization
of aromatic amines in the gaseous phase

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 156, no. 6, 1961
1329 - 1332

TEXT: The energy distribution of ions was investigated by the authors with the apparatus shown in Fig. 1. The necessary ultraviolet radiation was obtained by a vacuum monochromator. The electron current in this apparatus could reach the value 10^{-13} - 10^{-12} a and was amplified by a dynamoelectric amplifier. The intensity of light was measured by a fluorescent screen of sodium salicylate and a photomultiplier. The results are shown in Figs. 2 and 3. The energy distributions of the electrons were measured on photoionization of benzene and methyl aniline for one intensity of light. The corresponding curves for aniline and
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A

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B104/B214

Energy distribution of electrons...

dimethyl aniline largely coincide with the curve for methyl aniline. If the energy difference between the ionizing photons and the ionization potential of the molecules under investigation is small there appears only one maximum in this curve. As the energy of the quantum is increased this maximum is displaced toward the side of higher energy. On further increase of the photon energy new maxima appear in the region of smaller energies which are also displaced toward the side of higher energy as the photon energy is increased. The first group of slow electrons is observed in the case of benzene when the photon energy is 1.5 ± 0.1 ev above the ionization potential of the benzene molecules. For aniline, methyl aniline, and dimethyl aniline these values are: 1.2, 1.2, 1.1, ev, respectively. For these three compounds third groups of slow electrons are observed at the corresponding values of 2.4, 2.3, and 2.2 ev on further increase of the photon energy. When the photon energy lies 2.8 ev above the ionization energy of dimethyl aniline a fourth group of electrons is observed. The appearance of the new electron groups is explained with the help of the following processes: 1) ionization of the molecular ions by excitation to electron and vibrational levels; 2) dissipative ionization according to one of the schemes

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25334

S/020/61/138/006/010/019
B104/B214

Energy distribution of electrons...

$AB + h\nu \longrightarrow A^+ + B + e$ or $AB + h\nu \longrightarrow A^+ + B^-$; 3) emission of strongly bound electrons. Since no data are available at present on the electron levels of isolated ions of aromatic compounds the results obtained here cannot be fully explained. The results confirm, however, the assumption of the excitation of ions produced by the photoeffect in pigment films to the upper electron levels. There are 3 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: March 20, 1961

Card 3/6

KURBATOV, B.L.; VILESOV, F.I.; TERENCEV, A.N., akademik

Electron distribution by kinetic energies in the photoionization
of methyl derivatives of benzene. Dokl. AN SSSR 140 no.4:707-800
O '61. (MIRA 14:9)

1. Fizicheskiy institut Leningradskogo gosudarstvennogo
universiteta im. A.A.Zhdanova.
(Benzene) (Photoelectricity)

VILESOV, F.I.; KURBATOV, B.L.

Photoionization of esters and metal carbonyls in the gaseous phase.
Dokl. AN SSSR 140 no.6:1364-1367 0 '61. (MIRA 14:11)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.
Predstavleno akademikom A.N.Tereninym.
(Ionization of gases) (Carbonyl compounds) (Esters)

32427

S/020/61/141/006/010/021
B104/B112

24,2600 (1043, 1114, 1138)

AUTHORS: Kurbatov, B. L., and Vilesov, F. I.

TITLE: Kinetic energy distribution of electrons in the external photoelectric effect of pigment layers

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 6, 1961, 1343-1346

TEXT: The external photoelectric effect of organic semiconductors with an equipment described in previous studies was investigated (V. I. Vilesov, A. N. Terenin, DAN, 133, no. 5 (1960); DAN 134, 71 (1960)) When carrying out the experiments, a pigment layer was either evaporated on the inner electrode from an alcohol solution or deposited by vacuum sublimation if the pigment did not disintegrate at temperatures of approximately 250-300°C. The authors infer from some considerations on photoelectric work function, position of the Fermi levels, of forbidden band width, and of electron affinity that various metastable defects may arise from far-ultraviolet irradiation, which may considerably disturb thermodynamical and electrical equilibrium. It is not possible to estimate the resulting electric field. Fermi levels and photoelectric work function of the
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32127

S/O20/61/141/006/010/021
B104/E112

Kinetic energy distribution ...

collector may show a considerable error. Distribution curves for malachite, crystal violet, indigo red, and indigo blue agree with the curves shown in Fig. 1. It is characteristic of this group that with a quantum energy exceeding the maximum photoelectric work function by 2.2-3 ev the maximum energy distribution of electrons is shifted to the range of lower electron energies. This may be explained by (1) photon-induced emission of strongly bound electrons, (2) by emission of weakly bound electrons with simultaneous excitation of the positive ion to one of its electron levels, or (3) discrete energy loss of electrons occurs when they move towards the surface. Fig. 2 shows the energy distribution of electrons in the photo-emissive effect of alizarin blue. Quinoline blue, phenosafranine, rhodamine B, and pinacryptole yellow have similar distribution curves. The authors conclude that in these pigments a higher energy amount is transferred to vibrational degrees of freedom than in the group mentioned first. It is characteristic of all pigments investigated that the maximum of energy distribution of electrons is only slightly shifted (by 0.3-0.5 ev) if the energy of γ -quanta is increased to 4-5 ev. This was explained in previous papers by the transfer of part of the quantum energy to the excitation of electron and vibrational levels of the

+

Card 2/A₃

32127

S/020/61/141/CCS/C1C/021
B104/B112

Kinetic energy distribution ...

absorbing molecule. To prove this statement, the authors investigated the energy distribution of electrons in photoionization of vapors of 6 Zh rhodamine. It can be observed that also in ionization of a free molecule a considerable portion of quantum energy is consumed for the excitation of electron and vibrational levels. The authors thank Academician A. N. Terenin for interest and valuable discussions. There are 3 figures, 1 table, and 9 references: 7 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: H. Philipp, E. A. Taft, L. Apker, Phys. Rev., 120, 49 (1961); L. Apker, E. Taft, J. Dickey, J. Opt. Soc. Am., 43, 78 (1953); J. Opt. Soc. Am., 43, 81 (1953). +

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University imeni A. A. Zhdanov)

PRESENTED: June 12, 1961, by A. N. Terenin, Academician

SUBMITTED: June 5, 1961

Fig. 1. Energy distribution of electrons in the external photocffect for different quantum energies. Legend: (1) 6.85 ev; (2) 7.13 ev; (3) 7.60 ev; (4) 10.10 ev.

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L 18139-63

EWP(j)/EPF(c)/EWT(l)/EWT(m)/BDS/ES(w)-2 AFFTC/ASD/IJP(C)/SSD

Pc-4/Pz-4/Pab-4 RM/WW/JW
ACCESSION NR: AP3004507

S/0048/83/027/008/1088/1093

80
75

AUTHOR: Vilesov, F.I.; Kurbatov, B.L.

TITLE: Energy spectra of electrons detached in photoionization of molecules ⁷Report presented at the Second All-Union Conference on the Physics of Electronic and Atomic Collisions held in Uzhgorod 2-9 Oct 1962/

SOURCE: AN SSSR, Izvestiya, ser.fiz.,v.27, no.8, 1963, 1088-1093

TOPIC TAGS: photoionization, electron energy, electron detachment, aniline, naphthalene, benzene, toluene, xylene, mesitylene, durene

ABSTRACT: Although the adiabatic ionization potentials of most atoms and many molecules have been determined by a spectroscopic method (W.C.Price, Chem.Rev.,41, 257, 1947) and the method of photoionization (K.Watanabe, J.Chem.Phys.,26, 542, 1957 and K.Watanabe and others, J.Quant.Spectr.Rad.Trans.,2, 369, 1962), it is not known how the excess energy of the photon (over and above the ionization potential) is divided between the positive ion and the detached electron. Accordingly, the purpose of the present work was to determine this by investigating the energy distribution of the detached electrons by the retarding field technique. The radiation from a high voltage hydrogen discharge tube was monochromatized by a one-meter monochromator;

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ACCESSION NR: AP3004507

4

its intensity was measured by means of a fluorescent screen viewed by an FEU-19 photomultiplier. The ionization cell, consisting of three coaxial copper cylinders, is diagramed in Fig.1 of the Enclosure. The inner thick-walled cylinder 2 formed the ionization chamber proper; this electrode was provided with a set of 0.5 mm wide slits normal to the cylinder axis. Measures were taken to insure homogeneity of the electric field. The set-up had provision for simultaneous measurement of the incoming UV flux and the photoionization current as a function of the wavelength. In the present experiments there were obtained current-voltage (retarding potential) curves for aniline, methylaniline, dimethylaniline, naphthalene, benzene, toluene, ortho-, para- and meta-xylenes, mesitylene, and durene (the family of C-V curves for naphthalene is shown in the figure). The experimental points were obtained at photon energy intervals of 0.3-0.5 eV up to 11.7 eV, the cut-off energy of the lithium fluoride window. From these curves there were deduced the energy spectra of the electrons (the curves for aniline, naphthalene and meta-xylene are reproduced). The behavior of the different compounds is discussed briefly; the photon energies corresponding to the appearance of slow electrons are noted. It is inferred that the photoionization mechanism probably involves ejection of more strongly bound valence electrons (rather than ejection of the most weakly bound electron and excitation of one of the valence electrons). Orig.art.has: 5 figures.

Card 2/A

L 18139-63

ACCESSION NR: AP3004507

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos.
universiteta im.A.A.Zhdanova (Scientific Research Institute of Physics, Leningrad
State University)

SUBMITTED: OO

DATE ACQ: 26Aug63

ENCL: 01

SUB CODE: PH

NO REF SOV: 004

OTHER: 005

Card 3/4

KURBATOV, B.M.

USSR/Human and Animal Physiology - Nervous System.

V-12

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4474

Author : B.M. Kurbatov

Inst : ~~Institute of the Higher Nervous Activity, Academy of Sciences USSR~~

Title : Study of the Dynamic Transmission of a Conditioned Connection from one Cortical Signalling System into Another.

Orig Pub : Ser. Patofiziol. 1956, 2, 76-87

Abstract : The effect of the word "bell" and of indifferent words was tested at various degrees of the fixation of a conditioned reaction to a bell in children of 4 to 16 years of age. In the older age group the positive reaction to the name of the stimulus was revealed when the conditioned connection was fixed in up to five combinations,

Card 1/2

USSR/Human and Animal Physiology - Nervous System.

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4474

while it took up to 10-20 combinations for children in the younger age group with frequent diffused generalization of the reaction. Dynamic transmission of the conditioned connection from direct stimulus to verbal stimulus occurred more often than vice versa (a more rapid specialization of the reaction of the second signalling system).

Card 2/2

KURBATOV, B.M.

Some conditions for detecting dynamic transmission in children.
Trudy Inst. vys. nerv. deiat. Ser. patofiziol. 8:5-9 '61.

(MIRA 15:2)

(CONDITIONED RESPONSE) (NERVOUS SYSTEM)

KURBATOV, B.M.

Further study of the interaction of the signal systems in school
children. Trudy Inst. vys. nerv. diet. Ser. patofiziol. 8:10-19
'61. (MIRA 15:2)
(CONDITIONED RESPONSE) (NERVOUS SYSTEM)

KURBATOV, B.N.; NADEZHKIN, I.I.

Studying the density of surface deposits during gravity prospecting.
Vop. razved. geofiz. no.3:138-142 '64.

(MIRA 18:2)

KAMENEV, H.G., inzh.; KURBATOV, B.P., inzh.

Using precast reinforced concrete for strengthening upper
slopes of dams. Gidr. 1 mel. 11 no.1:46-51 Ja '59. (MIRA 12:1)
(Precast concrete construction) (Dams)

L 4268-66 EWT(l)/EWT(m)/EWP(i)/T/EWP(t)/EWP(b) IJP(c) JD/GG
ACCESSION NR: AP5024565 UR/0070/65/010/005/0756/0767
548.5:539.23

38
32
B

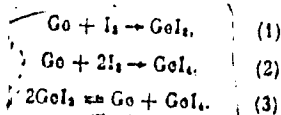
44.65 44.55 44.55
AUTHOR: Kurbatov, B. S.; Rakova, Ye. V.; Kurov, G. A.

TITLE: Some aspects of the preparation of germanium films by the sandwich method in a closed system

SOURCE: Kristallografiya, v. 10, no. 5, 1965, 756-757

TOPIC TAGS: single crystal growing, germanium single crystal, epitaxial growing

21.44.5
ABSTRACT: The paper describes a device for preparing epitaxial germanium films in a closed system (see Fig. 1 of the Enclosure) over a relatively wide temperature range. The quick-response heaters make it easy to switch from one set of conditions to another; this is particularly important for obtaining junction layers between film and substrate. The source and substrate used were single-crystal n-type germanium wafers, and the iodide process was carried out by evaporating iodine; the process consists of the reactions



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L 4268-66

ACCESSION NR: AF5024565

6

The growth of an epitaxial layer of germanium was observed on the substrate. On the wafer of the source, reaction (3) is displaced toward the formation of diiodide, and on the substrate, toward its disproportionation. The technique differs from growing in a hydrogen stream in that the growth rates are higher (up to 7 μ /min). I. I. Kryzhanovskiy participated in the work." Orig. art. has: 2 figures. 4/55

ORIGINATION: Institut kristallografi (Institute of Crystallography) 4.55

DATE: 25Apr65

ENCL: 1

SUBJECT: SS

CLASS: 000

OTHER: 04

Card 2/3

L 1268-66
ACCESSION NR: AP5024565

ENCLOSURE: 01

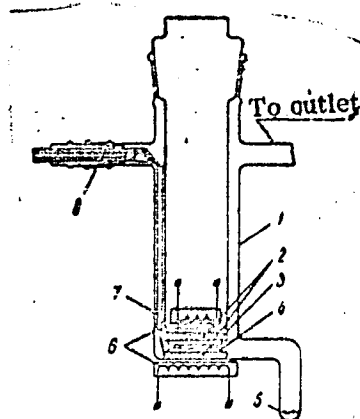


Figure 1. Epitaxial germanium film preparation device. 1 - quartz reactor; 2 - graphite supports for stabilizing the temperature; 3 - germanium wafer source; 4 - germanium wafer substrate; 5 - iodine; 6 - heaters; 7 - thermocouple; 8 - thermocouple leads.

Card 3/3

DP

KURBATOV, D.A., inzh.

Cruising sail yacht of 24.5-ton displacement. Sudostroenie
26 no.6:33-37 Je '60. (MIRA 13:7)
(Yacht building)

KURBATOV, D.A., inzh.

Modern measurements of cruising and racing yachts. Sudostroenie
28 no.11:45-51 N '62. (MIRA 15:12)

(Yacht building)

KRYUCHKOV, Yuriy Semenovich; LAPIN, Viktor Ivanovich; KURBATOV, D.A.,
inzh., retsenzent; PAVLOV, A.I., kand. tekhn. nauk, retsenzent;
OSKOL'SKIY, A.A., nauchnyy red.; LISOK, E.I., red.;
CHISTYAKOVA, R.K., tekhn. red.

[Sail catamarans] Parusnye katamarany. Leningrad, Sudpromgiz,
1963. 300 p. (MIRA 16:5)
(Boatbuilding) (Catamarans)

KURBATOV, D.A., Inzh.

Out-of-town session of the section of small craft building.
Sudostroenie 30 no.10:76-77 0 '64.

(MIRA 17:12)

Курсовые работы

ARBUZOV, N.T., kand.tekhn.nauk; GROMOV, V.L., kand.tekhn.nauk; KIRBATOV,
D.I., kand.tekhn.nauk; MOROZOV, N.V., kand.tekhn.nauk; PITYUGIN,
A.I., kand.tekhn.nauk; SHEREMITSIS, A.A., kand.tekhn.nauk; SHCHEPETOV,
A.N., red.; KORSACK, Yu.Ye., red.; MATUSEVICH, S.M., tekhn.red.

[Manual of civil engineering] Spravochnik po grazhdanskomu stroitel'-
stvu. Izd. 3-e, perer. i dop. Kiev. Gos.izd-vo tekhn. lit-ry USSR.
Vol.2. 1958. 560 p. (MIRA 11:7)
(Civil engineering)

ARBUZOV, N.T., kand.tekhn.nauk; GROMOV, V.L., kand.tekhn.nauk; GORSKIY, B.Z.,
kand.tekhn.nauk; KALISHCHUK, A.L., kand.tekhn.nauk; KUHITSKIY, L.P.,
kand.tekhn.nauk; KURBATOV, D.I., kand.tekhn.nauk; MOROZOV, N.V., kand.
tekhn.nauk; PILYUGIN, A.I., kand.tekhn.nauk; PRIMAK, N.S., kand.tekhn.
nauk; SEMENTSOV, S.A., kand.tekhn.nauk; ULITSKIY, I.I., kand.tekhn.
nauk; KHUTORYANSKIY, M.S., kand.tekhn.nauk; SHERENTSIIS, A.A., kand.
tekhn.nauk; PINSKIY, Ye.A., inzh.; KARSAK, Yu.Ye., red.; PATSALYUK,
P.M., tekhn.red.

[Civil engineering handbook] Spravochnik po grazhdanskomu stroitel'-
stvu. Izd. 3-e, perer. i dop. Kiev, Gos. izd-vo tekhn. lit-ry USSR
Vol. 1. 1958. 867 p. (MIRA 11:5)

(Civil engineering--Handbooks, manuals, etc.)

ARBUZOV, N.T., kand.tekhn.nauk; GROMOV, V.I., kand.tekhn.nauk; GORSKIY,
B.Z., kand.tekhn.nauk; KALISHCHUK, A.L., kand.tekhn.nauk; KUHITSKIY,
L.P., kand.tekhn.nauk; KURBATOV, D.I., kand.tekhn.nauk; MOROZOV, N.V.,
kand.tekhn.nauk; PILYUGIN, A.I., kand.tekhn.nauk; PRIMAK, N.S.,
kand.tekhn.nauk; SEMENTSOV, S.A., kand.tekhn.nauk; ULITSKIY, I.I.,
kand.tekhn.nauk; KHUFORYANSKIY, M.S., kand.tekhn.nauk; SHERENTSIY,
A.A., kand.tekhn.nauk; PINSKIY, Ye.A., inzh.; KORSAK, Yu.Ye., red.;
MATUSEVICH, S.M., tekhn.red.

[Manual on civil engineering] Spravochnik po grazhdanskomu stroi-
tel'stvu. Izd.4., ispr. Kiev, Gos.izd-vo tekhn.lit-ry. Vol.1.
1959. 867 p. Vol.2. 1959. 560 p. (MIRA 12:8)
(Civil engineering)

1. KUREBATOV. D. ENG.
2. USSR (600)
4. Building Materials
7. Straw house. Sel'. Stroi. 3 no.3 1947.

9. Monthly List of Russian Accessions. Library of Congress. March 1953. Unclassified.

KURBATOV, D.I.; NIKOLAYEV, V.I.; KIRSANOVA, M.K.; OSMOLOVSKIY, M.S.,
redaktor.

[Fireproof construction] Ognestroikoe stroitel'stvo. D.I.Kurbatov,
V.I.Nikolaev, M.K.Kirsanova i dr. Pod obshch. red. M.S.Osmolovskogo.
Moskva, Gos. izd. lit. po stroitel'stru i arkhitekture, 1953. 143 p.
(MLRA 7:11D)

KURBATOV, Dmitriy Ivanovich; OSMOLOVSKIY, M.S., redaktor; GORSHKOV, A.P., redaktor; MEDVEDEV, L.Ya., tekhnicheskii redaktor.

[Farm building construction elements made of local materials in new land reclamation districts] Konstruktsii sel'skikh zdaniy iz mestnykh materialov v raionakh osvoeniya tselinnykh zemel'. Pod obshchey red. M.S. Osmolovskogo. Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1954. 52 p.

(MLRA 8:3)

(Building materials)(Farm buildings)

KURBATOV, D.I.

[Farm building construction elements made of local materials in areas reclaiming new lands] Konstruktsii sel'skikh zdaniy iz mestnykh materialov v raionakh osvoeniya tselinnykh zemel'. Moskva, Gos. izd. lit. po stroitel'-vu i arkhitekt.-re, 1954. 55 p.
(MLRA 7:12D)

~~KURBATOV, Dmitriy Ivanovich; OSMOLOVSKIY, M.S., redaktor; KOTIK, B.A.,
redaktor izdatel'stva; BCROVNIK, N.K., tekhnicheskiy redaktor~~

[Fireproof structures in rural building] Ognestoihie konstruktсии
v sel'skom stroitel'stve. Pod red. M.S.Osmolovskogo. Moskva, Gos.
izd-vo lit-ry po stroit. i arkhit., 1957. 84 p. (MIRA 10:8)
(Building, Fireproof)

KURBATOV, D.I., inzh.

More about precast reinforced concrete granaries. Nov.tekh. 1 pered.
op. v stroi. 19 no.12:17-18 D '57. (MIRA 11:1)
(Granaries)

KURBATOV, D.I.; SKORYNINA, I.S.

Polarographic behavior of tungsten, niobium, titanium, and iron present together in pyrophosphoric acid solutions. Zhur.anal. khim. 17 no.6, 11-717 S '62. (MIRA 16:1)

1. Institut khimii Ural'skogo filiala AN SSSR, Sverdlovsk.
(Metals—Analysis) (Polarography)

EGROZOV, Nikolay Viktorovich, doktor tekhn. nauk; ARBUZOV, Nikolay Terent'yevich, kand. tekhn. nauk; GROMOV, Vasiliy Lukich, kand. tekhn. nauk [deceased]; KALISHUK, Aleksandr Luk'yanovich, kand. tekhn. nauk; KURBATOV, Dmitriy Ivanovich, kand. tekhn. nauk; Pilyugin, Mikhail Semenovich, kand. tekhn. nauk; KHUTORYANSKIY, Aleksandr Abramovich, kand. tekhn. nauk; SHERENTSIY, Aleksandr Abramovich, kand. tekhn. nauk; LAVRIK, Gennadiy Ivanovich, arkh. MALERA, Georgiy Il'ich, inzh.; PINSKIY, Ye'im Aronovich, inzh.; SHKLYAR, Aleksandr Samoylovich, inzh.; BERGER, K.V., red.; VISHNEVYY, V.V., red.; ISHCHEENKO, N.S., red.

[Manual on civil engineering] Spravochnik po grazhdanskomu stroitel'stvu. Izd.5., perer. i dop. Kiev, Budivel'nyk, 1965. 2 v. (MIRA 18:2)

KURBATOV, D. I.

USSR/Physical Chemistry. Thermodynamics, Thermochemistry, B-8
Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14702

Author : D. I. Kurbatov, N. V. Demenev
Inst : -
Title : Solubility of Niobium Hydroxide in Mineral Acids

Orig Pub: Zh. prikl. khimii, 1956, 29, No 6, 944-945

Abstract: The solubility of $Nb_2O_5 \cdot nH_2O$ (I) was studied in following mineral acids and at following concentrations: H_2SO_4 - 68 to 900 g per lit at 20 and 65°; HNO_3 - 140 to 800 g per lit at 20°; and HCl - 66 to 450 g per lit at 20°. The amount of dissolved I was determined in the form of Nb_2O_5 by the gravimetric method, as well as using radioactive Nb^{95} . The solubility of I rises together with the rise of the acid concentration; the greatest solubility is observed in H_2SO_4 solutions.

Card 1/1

KURBATOV, D.I.

USSR/Inorganic Chemistry - Complex Compounds.

C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30286

Author : Kurbatov, D.I., Demenev, M.V.

Inst :

Title : Conditions of Formation of Phosphoric Acid Salts of Niobium in Sulfuric Acid Solutions.

Orig Pub : Zh. prikl. khimii, 1956, 29, No 11, 1747-1749.

Abst : Phosphoric acid salts of Nb are precipitated quantitatively by 5 M NaH_2PO_4 at room temperature from solutions containing less than 15.0 gram equivalent per liter H_2SO_4 (I). With a higher concentration of I incomplete precipitation of Nb takes place, and with an acidity greater than 20 gram equivalent per liter no precipitate is formed. Completeness of precipitation was checked by means of Nb^{5+} . The Nb-phosphate precipitate was allowed to settle for 10-12 hours, filtered and washed with a mixture of acetone and water. Nb-phosphate obtained from

Card 1/2

USSR/*Inorganic Chemistry - Complex Compounds.*

C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30286

solutions containing from 15 to 9.7 gram equivalent I per liter, after calcination at 1000° had the composition $Nb_2O_5 \cdot P_2O_5$, while that obtained from solutions having a lower content of I had the composition $2Nb_2O_5 \cdot P_2O_5$. Excess precipitating agent does not affect the composition of the precipitate.

Card 2/2

KURBATOV, D.I.; KAZARINOVA, N.F.

1- (2-thiodiazelylase) -2-naphthol ($P_T \approx 7.3$), a new acid-base indicator. Izv. Sib. otd. AN SSSR no.8:94-97 '58. (MIRA 11:10)

1.Ural'skiy filial AN SSSR.
(Indicators and test papers) (Naphthol)

KURBATOV, D.I.

Polarographic properties of titanium in phosphoric acid solutions.
Izv. Sib. otd. AN SSSR no.10:35-39 '58. (MIRA 11:12)

1. Ural'skiy filial AN SSSR.
(Titanium) (Polarography)

KURBATOV, D.I.

Polarographic behavior of niobium in pyrophosphoric acid in the presence of titanium and iron. Izv.Sib.otd.AN SSSR no.5:81-85 '59.
(MIRA 12:10)

1. Ural'skiy filial Akademii nauk SSSR.
(Niobium--Analysis) (Polarography)

5(2),5(4)

AUTHOR:

Kurbatov, G. I.

SC/73-11-1-127.

TITLE:

Polarographic Properties of Niobium in Phosphoric Acid Solutions
(Polarograficheskiye svoystva niobiya v fosforovoye kislote
rastvorakh)

JOURNAL:

Zhurnal analiticheskoy khimii, 1973, Vol 14, No 1, pp 61-66
(USSR)

ABSTRACT:

The polarographic properties of pentavalent niobium on a mercury-drop cathode in mineral acid solutions have not as yet been thoroughly investigated. In the present paper solutions of niobium were investigated in ortho-phosphoric acid. G. M. Voykes, a student of the Kazanskogo gos. universiteta, V. I. Ul'yanova-Lenina (Kazan' State University) and V. I. Ul'yanov -Lenin) contributed to the experimental work. A concentrated phosphoric acid (density 1.75) was employed, as phosphates of niobium are soluble in concentrated mineral acids (ref 12). The niobium solutions were prepared from spectrochemically pure Nb_2O_5 . The polarographic measurements were carried out on a polarograph - 5 of the Kologorovskaya Factory. The instrument employed is very accurately described.

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Polarographic Properties of Niobium in
Phosphoric Acid Solutions

SCV/75-14-1-12/32

An external anode, namely a saturated calomel electrode, was employed. Hydrogen was flown through the device for 15 - 20 minutes before plotting the curves. In the course of determination the temperature was kept at a steady 25° . Results showed that the limit current (height of the wave) rises in a straight line with an increase of niobium concentration in the solution from 0.5 to 50 m mol/l. This fact and the appearance of a clearly marked wave permits the quantitative polarographic determination of niobium in the solution. The solutions of niobium in phosphoric acid remain stable for months and furnish well reproducible polarograms. The reduction process of niobium takes place in one stage. The half-wave potential rises with an increase of niobium concentration from 0.5 to 50 m mol/l from 0.600 to 0.680 V (with respect to a saturated calomel electrode). It was found that the reduction of Nb(V) in phosphoric acid solution is irreversible. The influence of dilution of the concentrated phosphoric acid was investigated. An addition of 15% water does not influence the niobium half-wave potential. On further addition of water the niobium wave is covered by that of

Card 2/3

Polarographic Properties of Niobium in
Phosphoric Acid Solutions

SOV/75-14-1-12/32

hydrogen. An addition of gelatin (0.01 - 0.1%) does not influence the wave height. It was found that phosphoric acid possesses great advantages as a medium for the niobium polarographic determination, as compared to nitric and sulfuric acid. There are 5 figures, 1 table, and 14 references, 8 of which are Soviet.

ASSOCIATION: Ural'skiy filial Akademii nauk SSSR, Sverdlovsk
(Ural Branch of the Academy of Sciences, USSR, Sverdlovsk)

SUBMITTED: November 10, 1957

Card 3, 2

KURBATOV, D. I., RUSAKOVA, M. S.

Polarigraphic behavior of indium in the presence of large amounts of cadmium in pyrophosphoric acid solutions which contain chlorine. *Izv. Sib. otd. AN SSSR no. 7:67-72 '60. (MIRA 13:8)*

1. Ural'skiy filial AN SSSR.
(Indium) (Cadmium)

S/075/61/016/001/007/019
B013/B055

AUTHOR: Kurbatov, D. I.

TITLE: Polarographic Determination of Niobium, Titanium, and Iron
in Metallic Tantalum and Tantalum Oxide

PERIODICAL: Zhurnal analiticheskoy khimii, 1961, Vol. 16, No. 1, pp. 36-38

TEXT: The present publication discusses a method for the polarographic determination of small quantities of iron, titanium, and niobium contained in tantalum and its compounds. Polarographic analysis was carried out in a CFM-8 (SGM-8) polarograph produced by the plant "Geologorazvedka". A dropping mercury cathode was used for the electrolysis ($m^{2/3} \tau^{1/6} = 0.94 \text{ mg}^{2/3} \text{ sec}^{1/2}$). The galvanometer was sensitive to $0.03 \mu\text{a}$ per 1 mm of scale deflection. An internal mercury anode was used. Measurements were carried out at 25°C . The polarographic behavior of small amounts of trivalent iron and tetravalent titanium in the presence of tantalum was studied using pyro-phosphoric acid at various concentrations as a background. The curve has the most suitable shape at a volume ratio

Card 1/3

✓

Polarographic Determination of Niobium,
Titanium, and Iron in Metallic Tantalum
and Tantalum Oxide

S/075/61/016/001/007/019
B013/B055

of $H_4P_2O_7 : H_2O = 2 : 1$. Small quantities of iron, tantalum, and niobium (0.01 - 1.0%) in the presence of large amounts of tantalum (99%) give well defined polarograms (Fig. 1) with a background of pyrophosphoric acid (specific weight 1.9). The limiting currents are directly proportional to the concentrations of the elements in question (Fig. 2). Reduction at the dropping mercury electrode takes place in the following order: iron (III), titanium (IV), niobium. The presence of tantalum has no effect on the value of the diffusion current of the elements to be reduced. This makes the simultaneous determination of iron, titanium, and niobium from one polarogram possible. In order to increase the sensitivity of the method, the authors recommend the use of large weighed samples and a more sensitive instrument, such as a differential- or an oscilloscopic polarograph. The results of the polarographic determination of the niobium, titanium, and iron content in tantalum and tantalum oxide are listed in a table. They are very satisfactory since the relative error is $\pm 3 - 5\%$. I. S. Skorynina collaborated in the experiments. There are 2 figures, 1 table, and 9 Soviet references. ✓

Card 2/3

Polarographic Determination of Niobium,
Titanium, and Iron in Metallic Tantalum
and Tantalum Oxide

S/075/61/016/001/007/019
B013/B055

ASSOCIATION: Institut khimii Ural'skogo filiala AN SSSR, Sverdlovsk
(Institute of Chemistry of the Ural Branch of the Academy of
Sciences USSR, Sverdlovsk)

SUBMITTED: July 27, 1959

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1

Card 3/3

S/137/63/000/001/018/019
A006/A101

AUTHOR: Kurbatov, D. I.

TITLE: High-speed polarographic methods of determining niobium, titanium and iron in the presence of tantalum against the background of phosphoric acids

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1963, 10 - 11, abstract 1K57 (In collection: "Teoriya i praktika polyarogr. analiza", Kishinev, "Shtiintsa", 1962, 248 - 252)

TEXT: It is shown that Fe and Ti in pyrophosphoric solutions of different concentrations are reduced on a Hg-drop cathode and yield distinct polarograms. A strong dilution of $H_4P_2O_7$ entails higher oscillation; therefore the $H_4P_2O_7$ concentration should not be below 12 - 13 mole/liter. Nb yields distinct polarograms on a $H_4P_2O_7$ background if its concentration is 18 - 20 mole/liter (specific weight 1.90), with a 0.8 v half-wave potential (internal anode). If $H_4P_2O_7$ is diluted, the Nb wave flows together with the H_2 wave. In $H_4P_2O_7$ solutions the O_2 wave and maxima do not appear. Ta exerts no effect upon the polarographic

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High-speed polarographic methods of...

S/137/63/000/001/018/019

A006/A101

behavior of the indicated elements. A high-speed method is proposed for the polarographic determination of Fe, Ti, Nb in Ta metal and Ta₂O₅ on a single polarogram. An amount of 1 - 2 g of the sample is dissociated in 40% HF, by adding HNO₃ in case of Ta metal. After dissolving, H₄P₂O₇ is added and the substance is heated until the liberation of water, nitric acid and HF vapors is fully completed. The solution obtained is poured into a 50-ml or 100-ml retort, H₄P₂O₇ is brought to the mark (specific weight 1.90), the mixture is stirred and polarographed. There are 10 references.

N. Gertseva

[Abstracter's note: Complete translation]

Card 2/2

S/075/62/017/006/004/004
I032/I232

AUTHORS: Kurbatov, D.I., Skorynina, I.S.

TITLE: Polarographic behavior of tungsten, niobium, titanium and iron when present together in pyrophosphoric acid solutions.

PERIODICAL: Zhurnal analiticheskoy khimii, v.17; no.6, 1962, 711-717

TEXT: The polarographic behavior of tungsten in $H_4P_2O_7$ was studied at different concentrations of the acid. It was found that in 18 N $H_4P_2O_7$ tungsten is reversibly reduced and gives one clearly defined wave. The value of the limiting current is a linear function of the tungsten concentration. When the $H_4P_2O_7$ concentration is decreased, the half-wave potential of tungsten is shifted considerably towards more negative potentials. The most favourable conditions

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S/075/62/017/006/004/004
I032/I232

Polarographic behavior of tungsten...

for the determination of niobium are 17 N to 18 N $H_4P_2O_7$. The optimum conditions for the polarographic determination of tungsten in the presence of niobium have been found. The determination of tungsten in the presence of titanium is carried out in 10 N $H_4P_2O_7$. The conditions for the determination of tungsten, niobium, titanium and iron when present together are defined. There are 5 figures and 5 tables. The English language reference reads: Kawahata, Masao, Mochizuki, Heichi, Kajiyama Rokuro; Japan Analyst 8, 125 (1959).

ASSOCIATION: Institut Khimii Ural'skogo Filiala, AN SSSR,
Sverdlovsk (Institute of Chemistry, Academy of
Sciences of the USSR, Ural Branch, Sverdlovsk)

SUBMITTED: June 19, 1961

Card 2/2

KURBATOV, D.I.; SKORYNINA, I.S.

Polarographic determination of niobium in steels and ferro-
alloys with phosphoric acids as the support. Zav. lab. 28
no.9:1061-1062 '62. (MIRA 16:6)

1. Institut khimii Ural'skogo filiala AN SSSR.
(Niobium—Analysis) (Polarography)

ACCESSION NR: AT4042101

S/2768/63/000/007/0171/0174

AUTHOR: Kurbatov, D. I.

TITLE: Polarographic method for the determination of iron and titanium admixtures in metallic niobium and niobium oxide

SOURCE: AN SSSR. Ural'skiy filial. Institut khimii. Trudy*, no. 7, 1963. Khimiya i tekhnologiya redkikh metallov (Chemistry and technology of rare metals), 171-174

TOPIC TAGS: polarography, quantitative analysis, iron determination, titanium determination, niobium analysis, reduction potential, pyrophosphoric acid

ABSTRACT: The following procedure is proposed for the rapid determination of small amounts of titanium and iron in the presence of niobium: A 1-2 g sample of metallic niobium is dissolved in 40% hydrofluoric acid with the addition of nitric acid; 20 N pyrophosphoric acid is added to the solution until effervescence ceases; the cooled solution is diluted with water and dilute acid to 100 ml in a calibrated flask, and an aliquot part of the solution is polarographed on a SGM-8 polarograph with an accuracy of $\pm 3-5\%$ using a mercury anode. The method is based on the observation that the reduction potential for iron and titanium is appreciably more positive than that for niobium, which permits successful use of

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ACCESSION NR: AT4042101

pyrophosphoric acid as the reducing agent. Results of an extensive investigation of the polarography of titanium and iron in the presence of pyrophosphoric acid, and the diagrams of the maximum iron and titanium current versus their content in Nb_2O_5 are presented in the article. "I. S. Skorynina also took part in the study." Orig. art. has: 3 figures.

ASSOCIATION: Institute khimii, Ural'skiy filial AN SSSR (Chemical Institute, Urals Branch of the AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: IC, MM

NO REF SOV: 005

OTHER: 003

Card 2/2

KURBATOV, G.

Power of progressive practices. Sov.profsoiuzy 5 no.6:37-38
Je '57. (MLMA 10:7)

1. Zamestitel' predsedatelya savkoma.
(Socialist competition)

FRIDRIKHCEN, V.K., inzh.; SOKOLOVA, Z.N., inzh.; Prinsipalni uchastiye;
SOKOLOV, Ye.V., inzh.; BULAT, S.J., inzh.; TANIN, R.V., inzh.;
KURBATOV, G.A., tekhnik; BURKOVA, T.D., tekhnik; LADYKA, M.A.,
laborant

Rolls on a semicontinuous hot rolling strip mill. Stal' 22
no.9:817-821 S '62. (MIRA 15:11)
(Rolls (Iron mills))

Card 1/2

SECRET

YAKUTOVICH, M. V.; MEYERSON, G. A.; IGNATYEV, B. G.; KURBATOV, G. P.; et al

"Uranium Prepared by Powder Metallurgy Techniques."

report submitted for 2nd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,
31 Aug-9 Sep 64.

KURBATOV, G.V., inzh.

Using tubular electrodes for hard facing machine parts under
repair. Stroil. i dor. mach. 6 no.9:40 S '61. (AREA 14:10)
(Machinery--maintenance and repair)
(Hard facing)

KURBATOV, G.V.

Using P.N.L'vov's method for making tubular electrodes.
Mashinostroitel' no.12:26 D '61. (MIRA 14:12)
(Electrodes)

KURBATOV, I.

Pumping Machinery

Volga-Don pumps, Tekh, molod., 20, no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 195~~7~~, Uncl.
2

KURBATOV, I.

Tractor-farming brigades and the lowering of production costs. Nauka
i perod. op. v sel'khoz. 18 no.2:28-30 F '58. (MIRA 11:3)

1. Direktor Belgorodskoy oblastnoy opytnoy stantsii.
(Belgorod Province--Agriculture--Economic aspects)

KURBATOV, I.

Collective farm mixed brigade. MTS 18 no.8:15-17 Ag '58. (MIRA 11:9)

1. Belgorodskaya opytnaya sel'skokhozyaystvennaya stantsiya.
(Collective farms)

KURBATOV, I.; VORONIN, I.

Crews of machine operators take care of several crops. Nauka i
pered. op v sel'khoz 9 no.5:9-11 My '59. (MIRA 12:8)

1. Direktor Belgorodskoy sel'skokhozyaystvennoy opytnoy stantsii
(for Kurbatov). 2. Zaveduyushchiy otdelom ekonomiki i organizatsii
Belgorodskoy sel'skokhozyaystvennoy opytnoy stantsii (for Voronin).
(Farm management)

SVETLOV, A.I., red.-sostavitel'. Prinimali uchastiye: GOLOVANOV, S.I.;
GONOHOVSKIY, P.A.; DOBRYNIN, M.I.; YERMILOV, Ye.M.; KORNYEV, S.G.;
KULAKOVA, A.K.; KURBATOV, I.A.; LYKOV, V.N.; MARTYNOV, B.F.;
MILOSERDOV, S.S.; PRSHKOV, V.P.; SOKHRANSKIY, A.V.; SMUROV, A.Ya.;
TOPALOV, V.S.; SHAPOVALOV, P.F.; POPOV, V.N., tekhn.red.

[City on the TSna] Gorod na TSne. Tambov, Tambovskoe knizhnoe
izd-vo, 1960. 174 p. (MIRA 14:4)
(Tambov--Guidebooks)

KALIBERDA, V.M., kand. sel'skokhoz. nauk; SULIMOVSKIY, I.G., kand. sel'skokhoz. nauk; BUKHAN'KO, Ye.P.; LOGVINENKO, V.A., agronom; KOVALENKO, A.P.; PODGORNYY, P.I., prof. zasluzhennyy deyatel' nauki Ukrainskoy SSR; FEDOTOV, V.A., aspirant; KURBATOV, I.D., agronom; KOZEYEV, V.I.; SHCHETININ, A.I.; KORCHAGIN, V.A., kand. sel'skokhoz. nauk; SOGURENKO, V.P.; KOSTROV, K.A., kand. sel'skokhoz. nauk; DULYA, F.M.; SHERSTNEV, N.F., aspirant

Crops preceding winter crops in various zones. Zemledelie 27 no.7:
26-45 J1 '65. (MIRA 18:7)

1. Ukrainskaya sel'skokhozyaystvennaya akademiya (for Kaliberda).
2. Odesskiy sel'skokhozyaystvennyy institut (for Sulimovskiy).
3. Odesskaya oblastnaya sel'skokhozyaystvennaya opyt'naya stantsiya (for Bukhan'ko).
4. Kolkhoz imeni Kirova, Mar'inskogo rayona Donetskoy oblasti (for Logvinenko).
5. Donetskaya oblastnaya sel'skokhozyaystvennaya opyt'naya stantsiya (for Kovalenko).
6. Voronezhskiy sel'skokhozyaystvennyy institut (for Fedotov).
7. Alekseyevskoye rayonnoye proizvodstvennoye upravleniye sel'skogo khozyaystva, Belgorodskoy oblasti (for Kurbatov).
8. Bezenchukskaya sel'skokhozyaystvennaya opyt'naya stantsiya (for Korchagin).
9. Direktor Bykovskoy opyt'noy stantsii bakhchevodstva (for Sogurenko).
10. Mordovskaya sel'skokhozyaystvennaya opyt'naya stantsiya (for Kostrov).
11. Direktor sovkhoza "Khleborobnyy", Smolenskogo rayona, Altayskogo kraya (for Dulya).
12. Altayskiy sel'skokhozyaystvennyy institut (for Sherstnev).

KURBATOV, I.D.

Use technology in conformity with field conditions.
Zemledelie 26 no.6:12-16 Je '64. (MIRA 17:6)

1. Nachal'nik Alekseyevskogo proizvodstvennogo upravleniya
Belgorodskoy oblasti.

KURBATOV, Il'ya Dmitriyevich; OSADCHIY, P.G., red.; GONCHAROVA, Ye.A.,
tekhn. red.

[Green light to over-all mechanization] Kompleksnoi mekhanizatsii -
shirokuiu dorogu. Belgorod, Belgorodskoe knizhnoe izd-vo, 1960. 114 p.
(MIRA 14:9)

(Farm mechanization)

KATRICH, Aleksey Trofimovich; KURBATOV, Il'ya Dmitriyevich;
SERGEYEVA, V.S., red.

[Business accounting practice within individual production
units of a collective farm] Praktika vnutrikolkhoznogo
khozrascheta. Moskva, Kolos, 1965. 189 p.
(MLA 18:9)

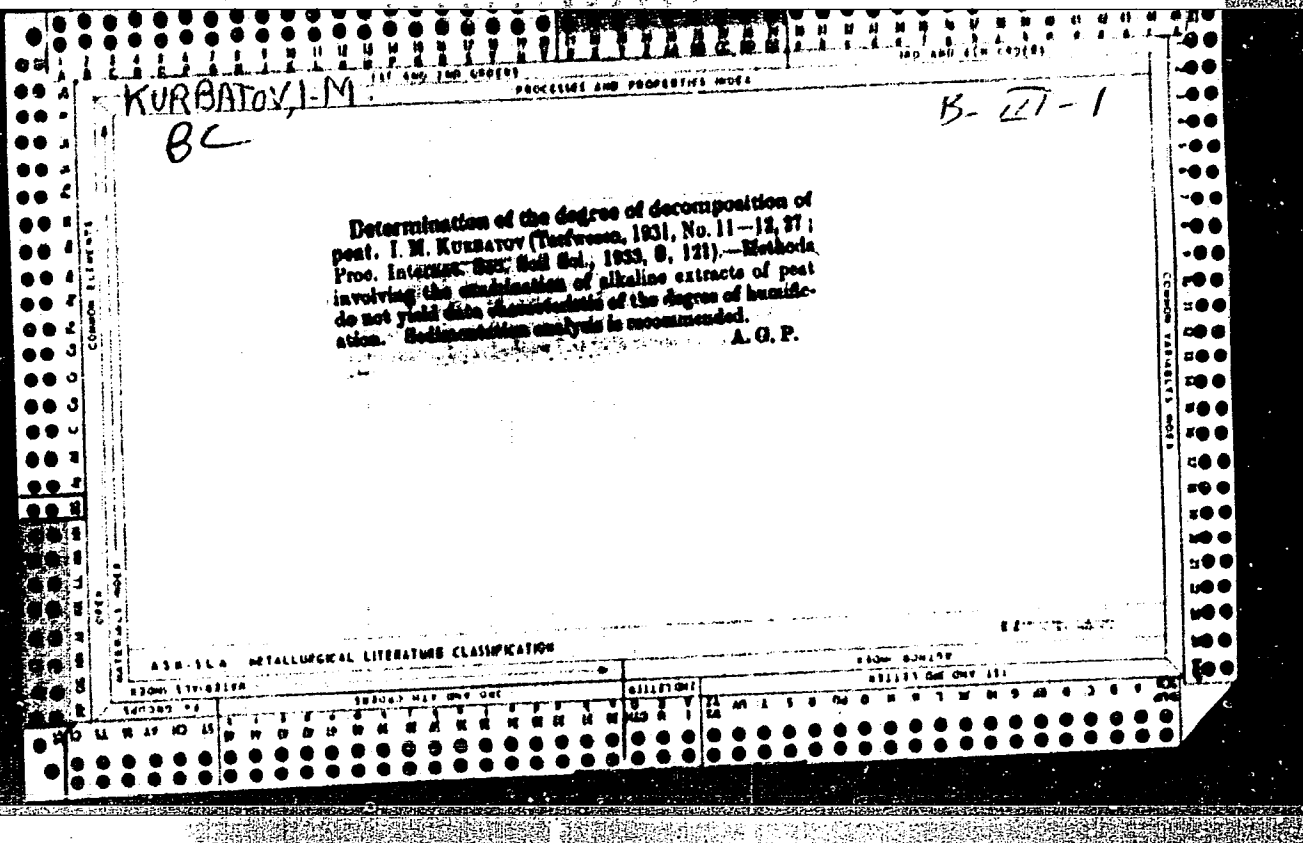
1. КУБРАТОВ, И. И.
2. USSR (600)
4. Machine-Shop Practices
7. Operating experience of a mechanic of the automatic machine shop. Avt. trakt. prom. no. 2 1953

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

KURBATOV, I. N.

"On the question of genesis of peat and peat humic acids."

Report submitted for the 2nd International Peat Congress, Leningrad,
15-22 Aug 63.



KURBATOV, I. M.

BC

B-III-1

Distribution and forms of nitrogen in highmoor peat. I. M. KURBATOV (Torfvesen, 1931, No. 3, 39; Proc. Internat. Soc. Soil Sci., 1933, 8, 104).—The N content of these peats is closely related to the micro-org. population. Of the total N, approx. 80% is protein-N and approx. 30% is residual N (after hydrolysis with H_2SO_4). NH_4 -N and H_2O -sol. N are absent. Proteolytic enzymes become inactivated in peat. A. G. P.

ASB-512 METALLURGICAL LITERATURE CLASSIFICATION

1930-1939

181000 HLT ONY 881

01111011

1940-1949

011111 ONY 411

1950-1959

181000 HLT ONY 881

01111011

1960-1969

011111 ONY 411

1970-1979

181000 HLT ONY 881

01111011

1980-1989

011111 ONY 411

1990-1999

181000 HLT ONY 881

01111011

2000-2009

011111 ONY 411

2010-2019

181000 HLT ONY 881

01111011

2020-2029

011111 ONY 411

2030-2039

181000 HLT ONY 881

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2040-2049

011111 ONY 411

2050-2059

181000 HLT ONY 881

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2060-2069

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2070-2079

181000 HLT ONY 881

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2080-2089

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2090-2099

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2100-2109

011111 ONY 411

2110-2119

181000 HLT ONY 881

01111011

2120-2129

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2130-2139

181000 HLT ONY 881

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2140-2149

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2160-2169

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2990-2999

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01111011

KURBATOV, I.H.

"Origin and Composition of the Organic Matter in Peat." Thesis for degree of Dr.
Biological Sci. Sub 14 14 Dec 49, Moscow Order of Lenin State U imeni M.V. Lomonosov

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and
Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.