quality of products, as the reaction time would be shorter and the thruput or capacity of a given plant would be considerably increased. This would in effect, result in a reduction in cost of the fatty material prepared by the oxidation of paraffin wax.

This particular paper covers some work on efforts to oxidize paraffin wax for very short periods of time in the order of one minute while using temperatures in the range of 200 to 500°C. The experimenters claim that the optimum temperature range is 300 to 400°C and report a relatively rapid oxidation at those temperatures showing neutralization number or acid number values in the range of 20 for the one minute of contact time. It is further claimed that the amount of hydroxy acids formed is essentially nil. The data in the table on page 1359 indicate the presence of no hydroxy acids, however, it also shows that the hydroxyl number is relatively high (140 to 150). Although the method of analysis for hydroxy acids is not shown there would be some question as to whether or not their analysis is correct if they have a high hydroxyl number yet claim the practical absence of hydroxy acids.

This type of oxidation, that is using the relatively short contact time at an increased temperature, should lend itself to some form of a continuous process.

Although not mentioned in the particular paper, most of the oxidation procedures which have been in commercial use in Germany and in other locations, have been batch processes. In general, there would be certain economic advantages if the oxidation procedure could be conducted on a continuous basis. The German literature reports a number of efforts to develop a continuous process, however, the continuous processes have usually resulted in a degradation of product quality.

The fact that this work was apparently done at the Odessa Technological Institute of the Food and Refrigeration Industry may indicate that the Soviet Union is concerned in this particular work with the problem of preparing edible fats from the oxidation of paraffin. This would be a continuation or further work on the type of process that was operated in Germany during World War II. The fact that considerable emphasis is placed on the absence of hydroxy acids which would be very undesirable in any type of edible fatty material, further indicates that these investigators were interested in the utilization of the oxidates for edible fats. Since the preparation of the edible fats type of oxidized material was conducted in Germany at relatively low temperatures in the order of 100°C, in order to obtain a light colored product with as few undesirable side reactions as possible and with as low a yield of hydroxy acids as possible, it appears that what the investigators here may have in mind is the operation of the process at a higher temperature with a much shorter contact time and thereby reducing the cost of the preparation of the fatty materials. The work covered by this paper is considered to be relatively preliminary in nature in that very little information on

the nature of the oxidates is given with regard to their physical and chemical properties. Further, it is to be expected that at the low neutralization numbers reported on in this paper, that is in the order of 2 to 20 or 30, that only a small amount of hydroxy acids would be formed in the low temperature process also. A commercial operation involving oxidation to only 20 neutralization number would not normally be attractive due to the small amount of paraffin converted to acids. However, if this oxidation were continued and, in fact, re-cycled through this apparatus, so that contact time was increased sufficiently to raise the neutralization number to a value of, for example, 80 to 100, it would be expected that the amount of hydroxy acids would increase even at low temperatures oxidations. In using the high temperatures involved here, there is a possibility that the rate at which the hydroxy acids increase with regard to neutralization number might be greater than at the lower temperatures. It is interesting to note here, however, that the Soviet Union apparently is continuing to work with some vigor on various phases of oxidation work and attempting to improve the existing oxidation procedures as well as developing various utilizations for the oxidates.

III

BYKOVETS, A. I.

8

Reactivity of petroselinic and petroselaidic acids and their esters. A. K. Plisov and A. I. Bykovets (Odessa Technol. Inst. Food & Refrig. Ind.). *Zhur. Obshchei Khim.* 23, 613–15(1953); cf. *C.A.* 48, 573c.—Petroselinic acid and its Me, Pr, and $PhCH_2$ esters undergo oxidation with aq. $KMnO_4$ at 26–55° and hydrogenation over Pt-Ba; O_2 at 23° significantly more rapidly than do petroselaidic acid and its corresponding esters. The rate of hydrolysis of the petroselinic acid esters by alc. KOH, however, is smaller than that of the corresponding petroselaidates. These results indicate that petroselinic acid is a cis isomer, while petroselaidic acid is the trans isomer. The esters were prepd. from the ROH and the desired acid in the presence of H_2SO_4. *Alkyl petroselinates:* *Me*, b_{1-2} 158–60°; *Pr*, b_{1-4} 198–200°; *$PhCH_2$*, b_1 218°, d_{20} 0.9315, n_D^{20} 1.4825. *Petroselaidates:* *Me*, b_{1-2} 104–5°; *Pr*, b_2 200°; *$PhCH_2$*, b_{1-2} 229°, d_0 0.9372, n_D^{20} 1.4812.

G. M. Kosolapoff

MF
11-8-54

USSR

Reactivity of petroselinic and petroselaidic acids and their esters. A. K. Plisov and A. I. Rybovets. *J. Gen. Chem. U.S.S.R.* 23, 937-9(1953)(Engl. translation).—See *C.A.* 48, 5961h.

H. L. H.

BYKOVETS, A. I.

USSR/Chemistry

Card 1/1

Authors : Plisov, A. K.; and Bykovets, A. I.

Title : Configuration and properties of unsaturated acids and their derivatives. Part.2.- Properties of cinnamic acids and their esters.

Periodical : Zhur. Ob. Khim. 24, Ed. 5, 852 - 856, May 1954

Abstract : The synthesis of propyl ether of cis-cinnamic acid is described. A difference was established in the relative rate of hydrogenation of cis- and trans-cinnamic acids. Cis-cinnamic acid attracts hydrogen with greater ease. Oxidation of cinnamic acids and their esters takes place at different rates. Cis-cinnamic acid and its ester oxidizes faster than trans-cinnamic acid and its ester; the esters oxidize slower than the corresponding acids. The configuration of the cis-form of cinnamic acids is elucidated. Three references. Graphs.

Institution: The Institute of Food Industry, Odessa, Ukr-SSR

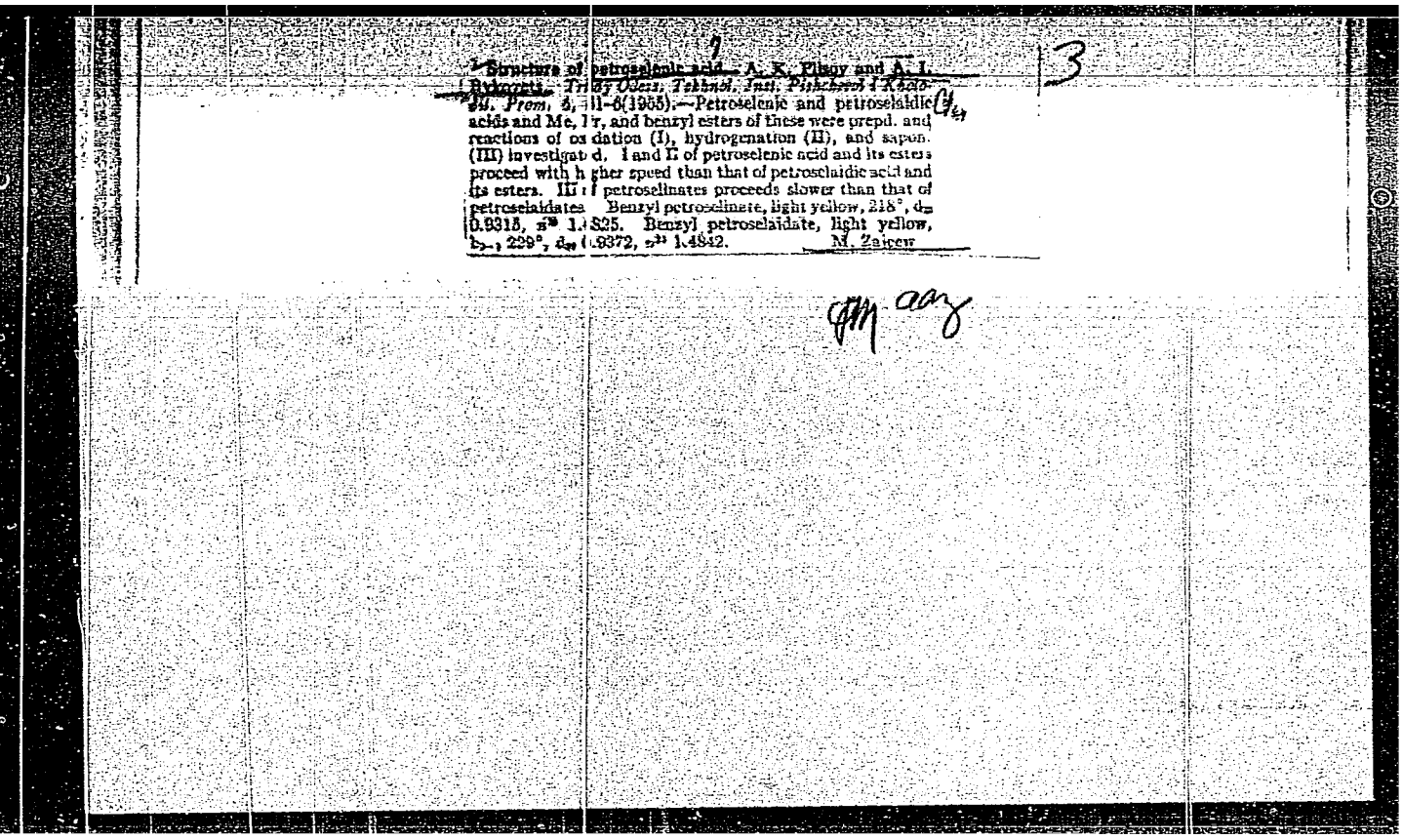
Submitted : November 27, 1953

BYKOVETS, A.I.

PLISOV, A.K.; BYKOVETS, A.I.

Configuration and properties of unsaturated acids. Part 3. Reactivity of β- [α-furyl]-acrylic acids and their esters. Zhur.ob. 25 no.6:1194-1199 Je '55. (MLRA 8:12)

1. Odesskiy institut pishchevoy i kholodil'noy promyshlennosti
(Furanacrylic acid)



Structure of petroselenic acid. A. K. Plisov and A. I. Rykovets. *Trudy Odes. Tekhnol. Inst. Pishchevoi i Kholodil. Prom.* 5, 111–6(1955).—Petroselenic and petroselaidic acids and Me, Pr, and benzyl esters of these were prepd. and reactions of oxidation (I), hydrogenation (II), and saponn. (III) investigated. I and II of petroselenic acid and its esters proceed with higher speed than that of petroselaidic acid and its esters. III of petroselinates proceeds slower than that of petroselaidates. Benzyl petroselinate, light yellow, 218°, d_4 0.9315, n^{20} 1.4825. Benzyl petroselaidate, light yellow, b_{2-3} 229°, d_{20} 0.9372, n^{20} 1.4842. M. Zaitsev

AUTHORS: Plisov, A. K., Bykovets, A. I. SOV/156-58-3-35/52

TITLE: The Thiocyanation of Oleic and Elaidic Acids and Their Esters (Rodanirovaniye oleinovoy i elaidinovoy kislot i ikh efirov)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp. 540-541 (USSR)

ABSTRACT: Thiocyanate solutions are used for the quantitative analysis of fatty acid mixtures. It was found that the rate of thiocyanation of oleic and elaidic acid is different. The thiocyanate number was determined by means of the titration method, and the deposition in percentage of thiocyanate was calculated. The experimental results showed that the cis-form of the fatty acids is more quickly thiocyanated than the trans form, and that the free acids can be thiocyanated more slowly than the corresponding esters. Quantitatively the thiocyanation reaction of the cis and trans forms of elaidic acid and its esters resembles the hydration reaction of these compounds. There are 1 table and 5 references, 4 of which are Soviet.

Card 1/2

SOV/156-58-3-35/52

The Thiocyanation of Oleic and Elaidic Acids and Their Esters

ASSOCIATION: Kafedra organicheskoy khimii Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti
(Chair of Organic Chemistry at the Odessa Technological Institute of Food and Refrigeration Industry)

SUBMITTED: November 25, 1957

Card 2/2

PLISOV, A.K., BOGATSKIY, A.V.; BYKOVETS, A.I.; BOGATSKAYA, Z.D.

Synthesis of new sulfamide coupounds. Trudy OTIPiKhP 9 no.2:97-100 '59. (MIRA 13:9)

(Sulfamide)

BYKOVTSEV, G.I. (Voronezh)

"On limit equlibrium of anisotropic plates and shells of revolution".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964.

PROTS, A.L., inzh.; VOYEVODIN, G.V., inzh.; BYKOVNYY, Ya.I., inzh.; MAVRITSYN, A.M., inzh.; PETROSYAN, G.I., inzh.; SHCHEKOLKIN, V.I.

Performance of the transformer neutral lines in strip mines. Prom. energ. 18 no.5:32-37 My '63. (MIRA 16:6)

1. Yurkovskiy ugol'nyy razrez, g. Vatutino (for Prots). 2. Trest po sbytu energoproduktsii Upravleniya energeticheskoy promyshlennosti soveta narodnogo khozyaystva Permskogo ekonomicheskogo administrativnogo rayona (for Voyevodin). 3. Upravleniye nerudnykh iskopayemykh Ministerstva avtomobil'nogo transporta i shossevnykh dorog UkrSSR (for Bykovnyy). 4. Korkinskiy trest ugol'nykh predpriyatiy (for Mavritsyn). 5. Gosgortekhinspektsiya Armyanskoy SSR (for Petrosyan). 6. Zhigulevskiy kombinat stroymaterialov (for Shchekolkin).
(Strip mining—Electric equipment)
(Electric power distribution)

BYKOVOY, Zh.

Soviet gold prospectors. Znan. sila 36 no. 4:9-11 Ap '61.
(MIRA 14:4)
(Gold mines and mining)

ACC NR: AP6025587 SOURCE CODE: UR/0413/66/000/013/0020/0020

INVENTOR: Knunyants, I. L.; Bykhovskaya, E. G.; Frosin, V. N.; Sizov, Yu. A.

ORG: none

TITLE: Method of preparation of 2-(N-alkoxy-N-alkyl)aminoethyle mercaptans. Class 12, No. 183204. [announced by Miliatry Academy for Chemical Protection (Voyennaya akademiya khimicheskoy zashchity)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 20

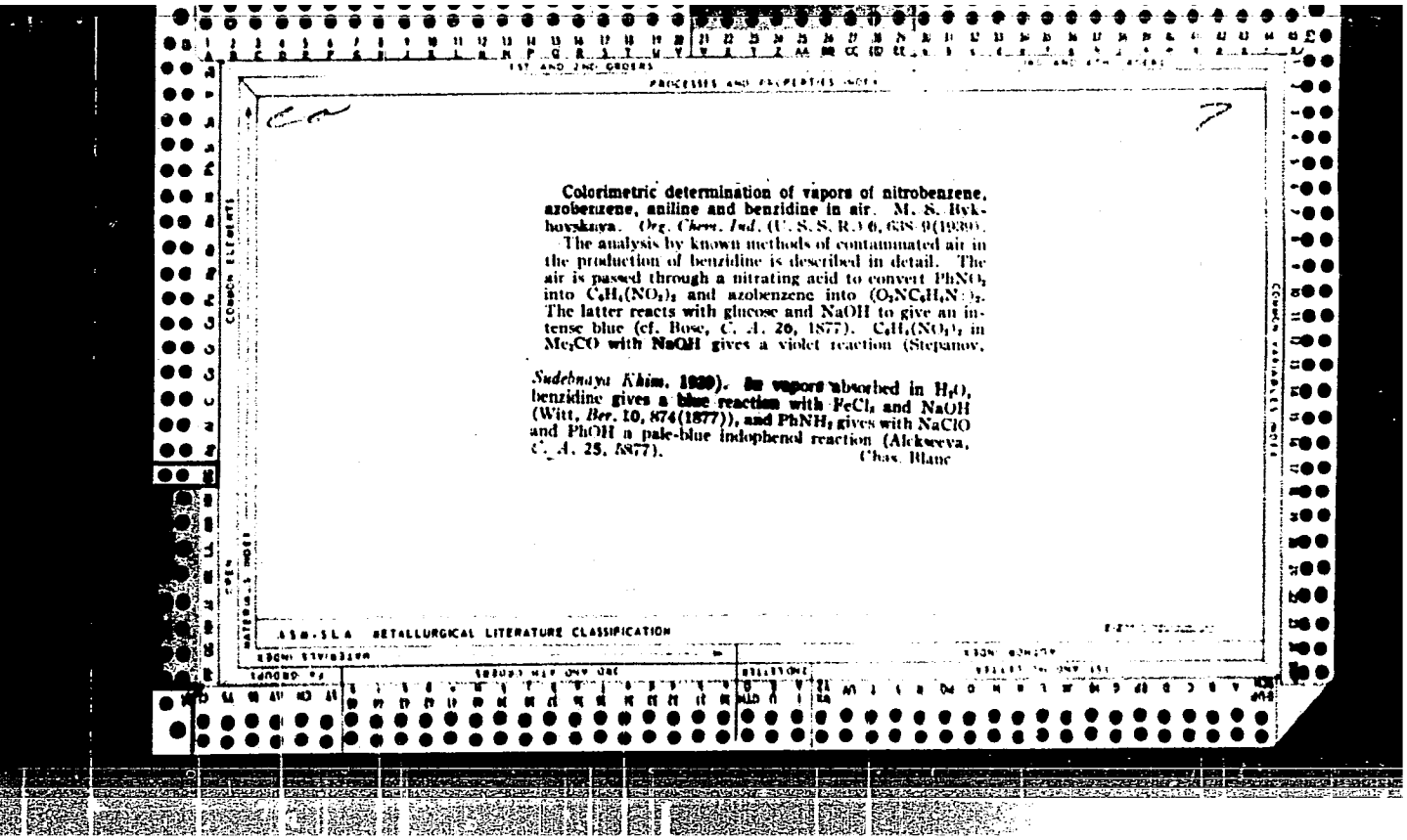
TOPIC TAGS: alkoxyalkylaminoethyl mercaptan, ethylene sulfide, dialkylhydroxylamine, mercaptan, sulfide, hydroxylamine

ABSTRACT:

In the proposed method, 2-(N-alkoxy-N-alkyl)aminoethyl mercaptans are obtained by the reaction of ethylene sulfide with N,O-dialkylhydroxylamine at 90—100°C in an organic solvent. [W.A. 50; CBE No. 10]

SUB CODE: 07/ SUBM DATE: 20Sep65/

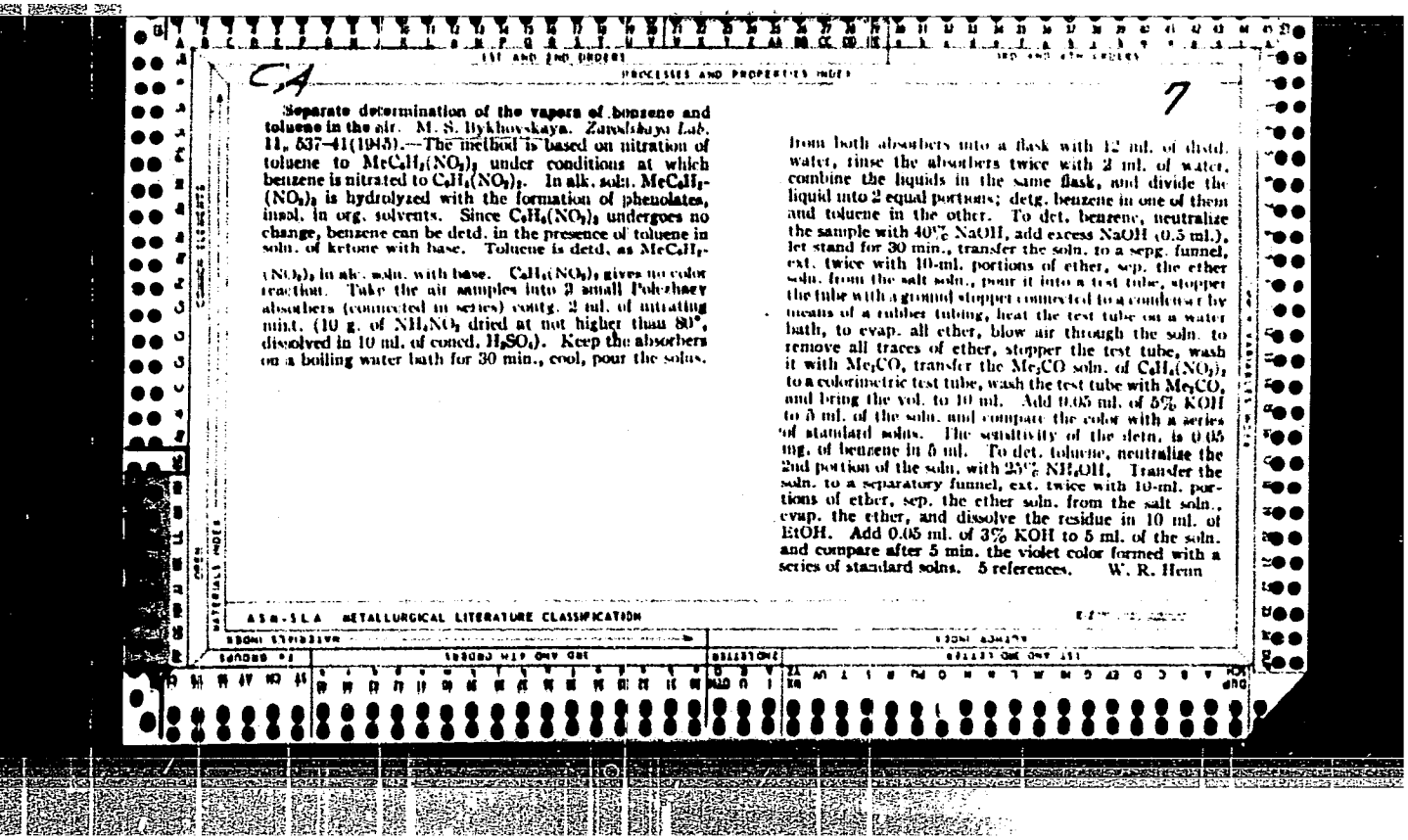
Card 1/1 UDC: 547.269.1'233.07



Colorimetric determination of vapors of nitrobenzene, azobenzene, aniline and benzidine in air. M. S. Ryk-hovskaya. *Org. Chem. Ind.* (U. S. S. R.) 6, 638-9(1939).

The analysis by known methods of contaminated air in the production of benzidine is described in detail. The air is passed through a nitrating acid to convert $PhNO_2$ into $C_6H_4(NO_2)_2$ and azobenzene into $(O_2NC_6H_4N:)_2$. The latter reacts with glucose and NaOH to give an intense blue (cf. Bose, *C. A.* **26**, 1877). $C_6H_4(NO_2)_2$ in Me_2CO with NaOH gives a violet reaction (Stepanov, *Sudebnaya Khim.* 1930). Its vapors absorbed in H_2O, benzidine gives a blue reaction with $FeCl_3$ and NaOH (Witt, *Ber.* **10**, 874(1877)), and $PhNH_2$ gives with NaClO and PhOH a pale-blue indophenol reaction (Alekseeva, *C. A.* **25**, 1877).

Chas. Blanc



C.A.

PROCESSES AND PROPERTIES INDEX

7

Separate determination of the vapors of benzene and toluene in the air. M. S. Bykhovskaya. *Zavodskaya Lab.* 11, 637–41(1945).—The method is based on nitration of toluene to $MeC_6H_2(NO_2)_3$ under conditions at which benzene is nitrated to $C_6H_4(NO_2)_2$. In alk. soln. $MeC_6H_2(NO_2)_3$ is hydrolyzed with the formation of phenolates, insol. in org. solvents. Since $C_6H_4(NO_2)_2$ undergoes no change, benzene can be detd. in the presence of toluene in soln. of ketone with base. Toluene is detd. as $MeC_6H_2(NO_2)_3$ in alc. soln. with base. $C_6H_4(NO_2)_2$ gives no color reaction. Take the air samples into 2 small Polezhaev absorbers (connected in series) contg. 2 ml. of nitrating mixt. (10 g. of NH_4NO_3 dried at not higher than 80°, dissolved in 10 ml. of concd. H_2SO_4). Keep the absorbers on a boiling water bath for 30 min., cool, pour the solns. from both absorbers into a flask with 12 ml. of distd. water, rinse the absorbers twice with 2 ml. of water, combine the liquids in the same flask, and divide the liquid into 2 equal portions; detg. benzene in one of them and toluene in the other. To det. benzene, neutralize the sample with 40% NaOH, add excess NaOH (0.5 ml.), let stand for 30 min., transfer the soln. to a sepg. funnel, ext. twice with 10-ml. portions of ether, sep. the ether soln. from the salt soln., pour it into a test tube, stopper the tube with a ground stopper connected to a condenser by means of a rubber tubing, heat the test tube on a water bath, to evap. all ether, blow air through the soln. to remove all traces of ether, stopper the test tube, wash it with Me_2CO, transfer the Me_2CO soln. of $C_6H_4(NO_2)_2$ to a colorimetric test tube, wash the test tube with Me_2CO, and bring the vol. to 10 ml. Add 0.05 ml. of 5% KOH to 5 ml. of the soln. and compare the color with a series of standard solns. The sensitivity of the detn. is 0.05 mg. of benzene in 5 ml. To det. toluene, neutralize the 2nd portion of the soln. with 25% NH_4OH. Transfer the soln. to a separatory funnel, ext. twice with 10-ml. portions of ether, sep. the ether soln. from the salt soln., evap. the ether, and dissolve the residue in 10 ml. of EtOH. Add 0.05 ml. of 3% KOH to 5 ml. of the soln. and compare after 5 min. the violet color formed with a series of standard solns. 5 references. W. R. Heun

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BYKHOVSKAYA, M. S.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Analytical Chemistry

Determination of benzene vapors in the atmosphere. M. S. Bykhovskaya. *Khim. Prom.* 1947, 208–9.—The method is based on nitration, extn. of the dinitrate formed with acetone, and colorimetric estn. The air is bubbled through a 10% NH_4OH soln. in concd. H_2SO_4 at the rate of 10–15 l./hr. The soln. is poured into satd. NaOAc and neutralized with 25% NH_4OH until alk. to phenolphthalein. The dinitrobenzene is extd. with acetone and its concn. estd. colorimetrically against prepd. standards. I. B.

8-31-54

USSR/Medicine-Industry and Occupation, Oct 48
Hygiene
Medicine-Tetraethyl Lead, Poisoning

"Determination of Tetraethyl Lead in Organic Substrate," M. S. Bykhovskaya, Inst of Labor Hygiene and Occupational Diseases, Acad Med Sci USSR 3½ pp

"Gig i San" No 10

Used methods described for studies on circulation of tetraethyl lead in the organism. Made analyses of blood, spinal fluid, brain, and liver of animals poisoned by tetraethyl lead. Method of extraction of Pb with a subsequent determination with silver nitrate is of special interest, since isolation of the tetraethyl lead molecule is possible without its disintegration. Includes two tables on determination of tetraethyl lead.

49/19762

PA 49/19762

USSR/Medicine-Industry and Occupation, Oct 48
Hygiene (Contd)

49/19762

BYKHOVSKAYA, M. S.

CA

7

Determination of nickel in the air. M. S. Bykhovskaya (Ministry Health, Moscow). *Gigiena i Sanit.* 1951, No. 11, 28-33.—For the colorimetric, dimethylglyoxime method of detg. Ni in air samples it is recommended that absorbent cotton, glass wool, or filter paper be used for collection of samples. Fe, Cu, and Co if present in more than 20 γ/10 ml. give too high results, but the soly. of the Ni dimethylglyoxime in $CHCl_3$ permits ready sepn. from much Fe and Cu; Co is not sepd., and may interfere. The color is more stable in aq. solns. than in aq. HNO_3 solns. In KOH or NaOH solns. the color takes 20-3 min. to develop but then is more stable than that secured in NH_4OH soln., when the above bases were used to neutralize the original 20% HNO_3. Oxidation can be effected with 3% $(NH_4)_2S_2O_8$ or 1% iodine in alc. contg. Rochelle salt. G. M. Kosolapoff

BYKHOVSKAYA, M. S.

The determination of lead, copper, zinc, and cadmium by polarographic methods in sanitary-hygienic investigations. M. S. Bykhovskaya and M. I. Poletaev. *Novosti Med.* 1952, No. 26, 39–43.—Polarographic methods are applicable to the detn. of small quantities of Pb in the air by use of a supporting electrolyte contg. 5% soln. of HNO_3, 30% $AcONH_4$, and 1% AcONa in 1% AcOH in which case Zn and Cu do not interfere with the polarographic estn. of Pb. For the differential detn. of Pb, Zn, and Cu it is recommended that a 30% soln. of $AcONH_4$ at pH 6.6–7.0 be used as the supporting electrolyte. For the detn. of Pb in washings from the hands of other parts of the body and from work cloths a 5% soln. of AcOH is recommended. Small quantities of Zn, Cu, and Cd can be detd. easily in an ammoniacal soln. of NH_4Cl, in which detns. can be made for each metal in the presence of all. P. S. Levine

BYKHOVSKAYA, M.S.;POLETAYEV, M.I.

Polarographic method in sanitary and hygienic investigations. Gig. sanit., Moskva no.12:47-50 Dec 1952. (CLML 23:4)

1. Of the Institute of Labor Hygiene and Occupational Diseases of the Academy of Medical Sciences USSR.

BYKHOVSKAYA, Mariya Solomonovna; GINZBURG, Slava L'vovna; KHALIZOVA, Ol'ga Dmitriyevna; ROZANOV, L.S., redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor.

[Practical guide to industrial sanitation chemistry] Prakticheskoe rukovodstvo po promyshlenno-sanitarnoi khimii. I. [Organic compounds] Organicheskie soedineniia. Pod red. O.D.Khalizovoi. Moskva, Gos. izd-vo med. lit-ry, 1954. 356 p. (MIRA 8:1)
(Industrial hygiene) (Chemistry, Organic)

BYKHOVSKAYA, M.S.

USSR/Analytical Chemistry - Analysis of Inorganic Substances G-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4749

Author : Bykhovskaya, M.S., Babina, M.D.
Title : Determination of the Content of Lead, Zinc and Thallium in the Air, by the Spectrographic Method.

Orig Pub : Gigiyena i sanitariya, 1956, No 7, 26-30

Abstract : The work was carried out with an ISP-22 quartz spectrograph using a slit width of 0.015 mm; darkening of the lines was measured with a MF-22 microphotometer; quantitative determinations were carried out by the method of three standards. On excitation of the spectra in a carbon arc, of direct or alternating current, sensitivity of the method was of 0.01 mg Pb in the gas cloud of the arc, or of 0.03 mg in the sample, and of 0.01 and 0.03 mg Zn or of 0.003 and 0.01 mg Tl, respectively. On an excitation of the spectrum in a condenser spark the sensitivity of the determination is considerably lower.

Card 1/2 - 28 -

USSR/Analytical Chemistry - Analysis of Inorganic Substances G-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4749

Spectrographic determination of Pb is interfered with by Sn, Cu and Zn, and sensitivity of Pb determination is not higher than the nephelometric determination as $PbCrO_4$. Zn can be determined in the presence of 5-fold excess of Cu, but sensitivity of the method is lower than that of the chemical method. The conditions of determination of Pb, Tl (0.01 mg) and Zn are described.

Iz Instituta gigiyeny truda i professional'nykh zabolevaniy AMN SSSR.

Card 2/2 - 29 -

SOV/137-58-8-18136

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 275 (USSR)

AUTHOR: Bykhovskaya, M. S.

TITLE: Comparative Evaluation of Some Methods of Determination of Beryllium and its Compounds Applicable to the Analysis of Air (Sravnitel'naya otsenka nekotorykh metodov opredeleniya berilliya i yego soyedineniy primenitel'no k analizu vozdukha)

PERIODICAL: Gigiyena truda i prof. zabolevaniya, 1957, Nr 6, pp 49-53

ABSTRACT: A review of colorimetric, fluorescent, and spectrographic methods of determination of the amounts of Be in various substances. The use of trilon B for the elimination of the effect of the interfering cations and the separation of impurities with the aid of paper-chromatography separation was investigated. The most sensitive of the methods is the fluorescent one with morin, which forms an intracomplex compound with a yellowish-green fluorescence under ultraviolet rays. Sulfates, chlorides, and nitrates decrease the intensity of the fluorescences. The minimum determinable amount of Be is 0.01 γ in aqueus solutions and 0.05 γ in solutions of neutralized acids. Of the colorimetric methods the best

Card 1/2

Comparative Evaluation of Some Methods (cont.)

is the one with beryllon P. The minimum determinable amount of Be is 0.5 γ. The spectrographic method of determination of Be has possibilities. The paper chromatography separation method can be used as a semiquantitative one for the determination of Be in the presence of Ca, Mg, Fe, Mn, and Al.

K. K.

1. Metals—Analysis 2. Beryllium—Determination

PHASE I BOOK EXPLOITATION SOV/3589

Sbornik radiokhimicheskikh i dozimetricheskikh metodik (Collection of Radio-Chemical and Dosimetric Methods) Moscow, Medgiz, 1959. 459 p. Errata slip inserted. 9,000 copies printed.

Eds. (Title page): N.G. Gusev, U.Ya. Margulis, A.N. Marey, N.Yu. Tarasenko, Yu.M. Shtukkenberg; Ed. (Inside book): V.I. Labaznov; Tech. Ed.: A.I. Zakharova.

PURPOSE: This collection of articles is intended for physicists, sanitation and public health doctors, chemists and other specialists working in radioactive dosimetry.

COVERAGE: This work discusses the following subjects: (1) principles of organizing sanitation and dosimetric control in institutions where work is carried on with radioactive substances; (2) radio-chemical and chemical methods for determining certain radioactive substances in samples of air, water, soil and foodstuffs; (3) physical methods of measuring contamination of the air by radioactive gases and aerosols, and methods for determining the level of contamination of working surfaces, clothes and leather coverings; (4) methods of measuring external streams of x- and gamma-radiation, and methods of individual dosimetric monitoring; (5) Absolute and relative methods of measuring the activity of solid and liquid radioactive sources. There are four appendixes dealing with methods of calculating the total dosage from sources of ionizing radiation, units of activity, and doses from natural (background) radioactivity in the calcium of foodstuffs. Sanitary regulations observed during transportation, storage, and handling of radioactive substances are discussed, as well as the permissible level of ionizing radiation. The editors thank Yu.V. Sivintsev and D.P. Shirshov. References appear at the end of each chapter.

15

Bykhovskaya, M.S.

PHASE I BOOK EXPLOITATION SOV/5332

Bykhovskaya, Mariya Solomonovna, Slava L'vovna Ginzburg, and Ol'ga Dmitriyevna Khalizova

Metody opredeleniya vrednykh veshchestv v vozdukhe i drugikh sredakh; prakticheskoye rukovodstvo (Methods of Identifying Harmful Substances in the Air and Other Media; Practical Handbook) pt. 1. Moscow, Medgiz, 1960. 311 p. 6,000 copies printed.

Ed. (Title page): O.D.Khalizova; Ed.: M.D.Babina; Tech.Ed.: A.I. Zakharova.

PURPOSE: This handbook is intended for industrial hygiene and sanitation inspection personnel, specialists working in the field of industrial hygiene chemistry at research institutes, factory laboratories, epidemic control station laboratories, etc.

COVERAGE: The book, which was recommended for publication by the Redaktsionno-izdatel'skiy Sovet Akademii meditsinskikh nauk SSSR

Card 1/28

Methods of Identifying (Cont.) SOV/5332

(Editing and Publishing Council of the Academy of Medical Sciences of the USSR) is published in two parts. Part I, the present work, is entitled Neorganicheskiye i metallorganicheskiye soyedineniya (Inorganic and Organometallic Compounds), and Part II is entitled Organicheskiye soyedineniya (Organic Compounds). Both parts of the book discuss analysis methods for the great majority of substances which are important industrial air contaminants whether as gases, vapors, or dust. The most up-to-date methods of physical and chemical analysis in their application to the chemistry of industrial hygiene, the electrophotometric, the chromatographic, the luminescence, the polarographic and other methods are dealt with. Considerable attention is given to rapid analysis methods. The handbook does not, in the opinion of Professor A.A.Letavet, Member of the Academy of Medical Sciences USSR, who wrote the preface, give due attention to continuous analysis methods which feature the graphic registration of concentrations, nor is due place given to the design and manufacture of equipment and apparatus for the analysis methods discussed. References accompany each chapter.

Card 2/28

BYKHOVSKAYA, M.S.; VORONTSOVA, Ye.I.

Determination of renacite-4 in the air of production shops. Khim. prom. no.8:685-686 D '60. (MIRA 13:12)

1. Institut gigiyeny truda i profzabolevaniy AMN SSSR.
(Rubber industry--Hygienic aspects)
(Benzenethiol)

BYKHOVSKAYA, M.S. (Moskva)

Third All-Union Conference on problems of industrial and sanitary chemistry. Gig. truda i prof. zab. 4 no.11:61 N '60. (MIRA 15:3)

1. Institut gigiyeny truda i professional'nykh zabolevaniy AMN SSSR.

(CHEMISTRY, TECHNICAL--CONGRESSES)
(SANITARY CHEMISTRY--CONGRESSES)

BYKHOVSKAYA, M.S. (Moskva)

Determination of beryllium in biological media. Gig.truda i prof. zab. no.11:55-57 '61. (MIRA 14:11)

1. Institut gigiyeny truda i profzabolevaniy AMN SSSR.
(BERYLLIUM—ANALYSIS)

BYKHOVSKAYA, M.S. (Moskva)

Determination of zirconium and its compounds in the air of industrial plants. Gig. truda i prof.zab. 5 no.6:54-57 Je '61. (MIRA 15:3)

1. Institut gigiyeny truda i professional'nykh zabolevaniy AMN SSSR.

(AIR--ANALYSIS)
(ZIRCONIUM--ANALYSIS)

BYKHOVSKAYA, M.S.; ORLOVA, I.A.

Separate determination of manganese, chromium, and iron in the air by polarography. Zav.lab. 27 no.5:540-542 '61. (MIRA 14:5)

1. Institut gigiyeny truda i profzabolevaniy Akademii meditsinskikh nauk SSSR.

(Manganese--Analysis) (Chromium--Analysis)
(Iron--Analysis)

BYKHOVSKAYA, M.S., red.; PIMENOVA, Z.M., red.; KHALIZOVA, O.D., otv. red.; BERDNIKOV, A.I., red.; PARAKHINA, N.L., tekhn. red.

[New developments in the field of chemical analysis in sanitary engineering]Novoe v oblasti sanitarno-khimicheskogo analiza; raboty po promyshlenno-sanitarnoi khimii. Moskva, Medgiz, 1962. 263 p. (MIRA 16:1)
(CHEMISTRY, ANALYTICAL) (SANITARY ENGINEERING)

BYKHOVSKAYA, M. S.

PHASE I BOOK EXPLOITATION SOV/6076

Peregud, Yeva Abramovna, Mariya Solomonovna Bykhovskaya, and Yelena Vladimirovna Gernet

Bystryye metody opredeleniya vrednykh veshchestv v vozdukhe (Rapid Methods for Detecting [the Presence of] Harmful Substances in the Air). Moscow, Goskhimizdat, 1962. 272 p. Errata slip inserted. 10,000 copies printed.

Ed. (Title page): I. M. Korenman, Doctor of Chemical Sciences, Professor; Ed.: L. N. Oderberg; Tech. Ed.: V. V. Kogan.

PURPOSE: This book is intended for chemists in scientific research institutes, factory laboratories, sanitary-epidemiological stations, and poison-gas treatment stations.

COVERAGE: The book deals with rapid methods for the detection of harmful substances in the atmosphere in factories, wells, tanks, chemical apparatus, and ventilation ducts. A detailed description is given of apparatus for collecting

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samples, sampling techniques and procedures, and reagents for toxic concentrations of ammonia, nitrogen oxides, hydrogen sulfide, carbon disulfide, sulfur dioxide, etc. The use of pencil indicators for rapid indication and quantitative determination of poison gases in the air is listed as a new technique. The introduction notes that the Vsesoyuznyy nauchno-issledovatel'skiy institut okhrany truda (All-Union Scientific Research Institute of Industrial Hygiene) in Leningrad aided in the development of the linear-colorometric method for the determination of toxic concentrations in the air. Ye. D. Filyanskaya, T. N. Kozlyayeva, and I. G. Vorokhobin also contributed to the development of the linear-colorometric method and designed some of the equipment used. Individual chapters are accompanied by references.

TABLE OF CONTENTS: [Abridged]

BYKHOVSKAYA, M.S.

Determination of manganese cyclopentadienyltricarbonyl in the air. Trudy Kom.anal.khim. 13:115-123 '63. (MIRA 16:5)

1. Institut gigiyeny trudy a professional'nykh zabolevaniy AMN SSSR.

(Air--Analysis) (Manganese organic compounds)

L 12779-63 EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/APGC Pc-4/Pr-4 RM/MAY/BW/WW/MN

ACCESSION NR: AP3001523 S/0032/63/029/006/0667/0668

AUTHOR: By*khovskaya, M. S.

TITLE: Determination of cyclopentadienyltricarbonyl-manganese vapors in the air

SOURCE: Zavodskaya laboratoriya, v. 29, no. 6, 1963, 667-668

TOPIC TAGS: cyclopentadienyltricarbonyl-manganese, anti-knock substance, adsorption, silica gel

ABSTRACT: Due to the effective anti-knock properties of cyclopentadienyltricarbonyl-manganese (CPTM) for internal combustion engines (as well as its 50 times lower toxicity as compared with tetraethyl lead), it was deemed desirable to work out a method for the determination of its vapors in the air. To this end 20-200 liters of air were absorbed by 2 grams of granular silica gel, followed by treatment with concentrated nitric and sulfuric acids with heating. After dilution with water, the anti-knock substance was extracted by ethanol, the solution subjected for 10 minutes to ultraviolet irradiation, the alcohol evaporated, and the residue oxidized by sulfuric acid with potessium periodate. The resulting substance was subjected either to photometric determination at a wave length of 520 Millimicrons or to polarographic evaluation, starting with -0.35 volt. The accuracy of the method is 20%.

Card 1/2 Institute of Labor Hygiene and Professional Diseases, Academy of Med. Sciences

ZEFIROV, N.S.; YUR'YEV, Yu.K.; PRIKAZCHIKOVA, I.P.; BYKHOVSKAYA, M.Sh.

3,6-Endoxo-cyclohexanes and -cyclohexenes. Part 12: Stereochemistry of nucleophilic addition on a C=C bond in the systems of 3,6-endoxo-cyclohexene and 3,6-endoxo-cyclohexadiene. Zhur.ob.khim. 33 no.7:2153-2158 Jl '63. (MIRA 16:8)
(Cyclohexene) (Cyclohexadiene) (Stereochemistry)

L 25618-65 EPF(c)/EWT(m)/T Pr-4 DJ

ACCESSION NR: AR4041479 S/0081/64/000/013/P033/P034

SOURCE: Ref. zh. Khimiya, Abs. 13P243

AUTHOR: Ramayya, K. S.; Sil's, R. Kh.; Krivoruchenko, N. T.; Bykovskaya, G. A.

TITLE: Resin formation and increase in viscosity of motor oils during their oxidation

CITED SOURCE: Tr. Tsentr. n.-i. avtomob. i avtomotorn. in-ta, vy p. 60, 1963, 59-66

TOPIC TAGS: motor oil, lubricating oil, oil viscosity, oil oxidation, resin formation, precipitate formation, oil additive, thiophosphate additive

TRANSLATION: Oils were oxidized in the DK-2 device by the NAMI method at 200C for periods up to 70 hours. The oxidized oil was diluted with petroleum ether and the precipitate formed was filtered off. From part of the filtrate, the resins were isolated by adsorption on silica gel, while from the remainder of the filtrate, an oil was obtained which contained resins but did not contain precipitate. From the viscosity (v_r) of the oxidized oil which contained resins but did not contain precipitate and the viscosity (v_o) of the same oil following

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L 25618-65

ACCESSION NR: AR4048479

removal of the resins, the authors calculated the specific viscosity as the ratio $(v_r - v_o)/v_o$. The content of precipitate and resin and the specific viscosity in the oxidized motor mineral oils AS-6, AS-9.5 and DS-11, without additives and with various additives, were then determined. The results showed that the specific viscosity is a useful index of the accumulation of resins in the oil during oxidation. The addition of thiophosphate additives (AN-22, V-353, DF-11, DF-1, Orobis-267, Monto-493) to the oil increased the precipitate formation, and in most cases also decreased the specific viscosity. Detergent additives containing Ca and Ba decreased resin formation in the oils. A. Ravikovich

SUB CODE: FP, MT ENCL: 00

Card 2/2

VOLODARSKIY, N.I.; BYKOVSKAYA, I.P.

Effect of varying soil moisture on tobacco crop in connection with the developmental period. Dokl.AN SSSR 95 no.1:187-190 Mr '54.
(MLRA 7:3)

1. Kubanskiy sel'skokhozyaystvennyy institut Krasnodar.
(Tobacco) (Soil moisture)

BYKOVSKAYA, I. P.

"Effect of Water-Supply Conditions on the Growth and Yield of Tobacco." Cand Agr Sci, Kuban Agricultural Inst, Min Higher Education USSR, Krasnodar, 1955. (KL, No 11, Mar 55)

SO: Sum No. 670, 29 Sep 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

Country : USSR
CATEGORY : M-7

ABS. JOUR. : RZBiol., No. 19 1958, No. 87183

AUTHOR : Voloduevskiy, N.I.; Bykovskaya, I.P.; *
INST. : Academy of Sciences USSR
TITLE : Dynamics of Growth Processes and Crop Development of Tobacco Under Different Conditions of Water Supplying to the Plants.
ORIG. PUB. : Sb: Biol. osnovy oroshayem. zemled. Moscow, AN SSSR, 1957, 290-299

ABSTRACT : Experimental growing and field trials carried out in 1952-1954 at the Kuban Agricultural Institute have shown that during the first phase of growing (seedlings period and period of vernalization) the plants can withstand more or less prolonged drought without impairment of synthetic activities and ultimate yield. Moderate amount of moisture, during this period, elicits in the young plants adaptative reactions which bring about considerable enhancement of synthetic activity after their change-over to copious supply of water. The second phase of growth (the light-stage coinciding with the period of intensive growth) requires an ample supply of water. During this period inadequate humidification results in sharp lowering

CARD: 1/2

* Sautich, Z.M.

COUNTRY : USSR
CATEGORY : M-7

ABS. JOUR. : RZBiol., No. 19, 1958, No. 87183

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : of yield. During the next following period (beginning of flowering), when the formation of leaves of middle and lower tiers is essentially completed, water supply conditions no longer exercise a substantial influence on the yield of leaves. On the basis of the secured data there has been developed, for the areas of irrigated tobacco crops, a system of watering of tobacco during the seedlings- and field periods, in accordance with which moderate irrigation is provided at the beginning of growth, and a copious supply of water -- up to the start of flowering, which is then followed by moderate irrigation up to the harvesting of the leaves.-- L. A. Lomakina.

CARD: 2/2

ACCESSION NR: AT4026438 S/3082/63/000/008/0027/0033

AUTHOR: By*kovskaya, K. E.; Novskaya, A. I.; Trostnikov, M. V.

TITLE: Recurrence of natural synoptic periods in Siberia and the Far East

SOURCE: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby*. Sbornik rabot po regional'noy sinoptike (Collection of works on regional forecasting), no. 8, 1963, 27-33

TOPIC TAGS: meteorology, natural synoptic period, weather forecasting, long-range weather forecasting

ABSTRACT: V. G. Shishkov (Meteorologiya i Gidrologiya, No. 4, 1957) studied synoptic macroprocesses in the area from the west coast of North America to the Yenisei, defined the recurrence of synoptic macroprocesses associated with quasi-periodic waves in the atmosphere, and on this basis proposed a method for weather forecasting one month in advance. Two prognostic schemes were proposed. No investigations had previously been made to improve the method for preparing monthly weather forecasts for the territory of the second natural synoptic period; this has now been done, and an investigation has been made of the applicability of Shishkov's prognostic schemes to the territory of the second natural synoptic period, specifically, Siberia and the Soviet Far East. The study was based on daily synoptic charts and

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ACCESSION NR: AT4026438

pressure pattern charts of the northern hemisphere for 0300 hours Moscow time for the period from December 1956 through August 1958. During this period there were 115 natural synoptic periods. A study was made of synoptic processes for 45, 75, 90 and 150 days before each of the initial natural synoptic periods from the eastern regions of the Atlantic and 45, 75, 90 and 150 days after the initial periods in the territory of the second natural synoptic period. It was found that in long-range weather forecasting it is possible to use Shishkov's scheme 1, 1a with considerable success, while scheme 2, 2a gives unsatisfactory results. Full comprehension of this analysis requires familiarity with Shiskov's paper cited above and its further development (Trudy TsIPa, No. 71, 1958). Orig. art. has: 1 table.

ASSOCIATION: Glavnoye upravleniye gidrometeorologicheskoy sluzhby* (Main Administration of the Hydrometeorological Service)

SUBMITTED: 00 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: AS NO REF SOV: 004 OTHER: 000

Card 2/2

CHAZOV, Ye.I.; USHKALOV, A.F.; KLEMBOVSKIY, A.I.; Prinimala uchastiye BYKOVSKAYA, K.N. (Moskva)

Early arterial changes in experimental atherosclerosis in monkeys. Arkh. pat. 25 no.11:29-37 '63. (MIRA 17:12)

1. Iz patologoanatomicheskoy laboratorii (zav. - doktor med. nauk, prof. A.M.Vikhert) Instituta terapii (dir. - deystvitel'nyy chlen AMN SSSR prof. A.L.Myasnikov) AMN SSSR.

BYKOVSKAYA, K.N.; VIKHERT, A.M. (Moskva)

Experimental glomerulonephritis induced by cavelti's method. Arkh. pat. 27 no.1:23-31 '65. (MIRA 18:4)

1. Institut terapii (dir. - deystvitel'nyy chlen AMN SSSR prof. A.L.Myasnikov) AMN SSSR.

BYKOVSKAYA, L.

USSR/Electricity
Arcs
Oscillations

Jul/Aug 46

"Spontaneous Electrical Oscillations in Low-Pressure Arc Discharge," B. Granovskiy, L. Bykovskaya, All-Union Electrotech Inst, 9 pp

"Journal of Physics USSR" Vol X, No 4

Study of four modes of spontaneous oscillations of current and voltage in a low-pressure mercury-arc discharge arising in a circuit, lacking both capacitance and inductanc random voltage oscillations with an anchored cathode spot; regular oscillations of low radio frequencies; and acoustic frequencies. Discussed possible mechanism of their generation. Receive, 16 Nov 1945.

PA 54T49

BYKOVSKAYA, L. I.

BYKOVSKAYA, L. I. "The activity of vitamin B_1 in combination with other prophylactic agents on the constrictive activity of the uterus", Trudy Smol. gos. med. in-ta, Vol. II, 1948, p. 220-29.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

BYKOVSKAYA, L. I.

BYKOVSKAYA, L. I. "A case of malignant myoma of the hepatic region", Trudy Sol. Gos. med. in-ta, Vol. II, 1948, p. 340-43.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

BYKOVSKAYA, L.I., kand.med.nauk

Estrogen metabolism in women with fibromyoma of the uterus. Akush. i gin. 35 no.5:86-94 S-O '59. (MIRA 13:2)

1. Iz akushersko-ginekologicheskoy kliniki Smolenskogo meditsinskogo instituta (zaveduyushchiy kafedroy - prof. S.M. Kleyn) i endokrinologicheskoy laboratorii (zaveduyushchiy - doktor biolog.nauk Ye.A. Kakushkina) Instituta akusherstva i ginekologii Ministerstva zdravookhraneniya RSFSR.

(ESTROGENS, metabolism)
(UTERUS, neoplasms)
(LEIOMYOMA, metabolism)

BYKOVSKAYA, L.I., dotsent

Clinical and anatomical analysis of uterine fibromyomas in relation to age. Trudy SMI 17:51-61 '63.

(MIRA 18:1)

1. Iz kafedry akusherstva i ginekologii (zav. - dotsent K.K. Komeshko) Smolenskogo gosudarstvennogo meditsinskogo instituta i endokrinologicheskoy laboratorii instituta akusherstva i ginekologii Ministerstva zdravookhraneniya RSFSR (zav. laboratoriyey prof. Ye.A. Kakushina).

BYKOVSKAYA, Ye.V.; POLEVAYA, N.I.; PODGORNAYA, N.S.

Absolute chronology of Mesozoic and Cenozoic volcanic and intrusive formations in the Olga-Tetyukhe area. Sov.geol. 3 no.5:107-114 My '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Tetyukhe region (Maritime Territory)—Geology, Stratigraphic)

BYKOVSKAYA, Ye.V.; POLEVAYA, N.I.

Absolute age of volcanic formations in the Badzhal and Burein Ranges. Izv. AN SSSR. Ser. geol. 25 no.10:86-91 O '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad.

(Badzhal Range--Volcanoes)
(Burein Range--Volcanoes)

BYKOVSKAYA, Ye.V.

Petrochemical characteristics of Mesozoic and Cenozoic volcanic rocks on the eastern slope of the southern Sikhote-Alin' Range. Zap.Vses.min.ob-va 89 no.2:195-207 '60. (MIRA 13:7)
(Sikhote-Alin' Range—Rocks, Igneous)

BYKOVSKAYA, Ye.V.; ROTMAN, V.K.

Geological position of ignimbrites in different volcanic zones of the Far East. Trudy Lab. vulk. no.20:151-156 '61.(MIRA 14:11)

1. Vsesoyuznyy geologorazvedochnyy nauchno-issledovatel'skiy institut Ministerstva geologii i okhrany nedr SSSR.
(Soviet Far East--Volcanic ash, tuff, etc.)

BYKOVSKAYA, Ye. V., Cand Geol-Min Sci, "The stratigraphy and petrology of the upper Mesozoic and Cenozoic volcanogenic formations of [redacted] Ol'ga-Tetyukhinskiy Rayon." Leningrad, 1960. (Min of Higher and Sec Spec Ed RSFSR, Leningrad Orders of Lenin and Labor Red Banner Mining Inst im G. V. Plekhanov). (KL, 2-61, 201).

BYKOVSKAYA, Ye.V.

Isolation of the coastal area of the development of volcanic rocks of the Sikhote-Alin' Range into an independent structural zone. Trudy VSEGEI 73:49-56 '62. (MIRA 15:9)
(Sikhote-Alin' Range—Geology, Structural)
(Rocks, Igneous)

Bykovskaya, Yu. I.

Investigation of the structure and properties of some heteropoly molybdenum and tungsten compounds with radioactive indicators. V. I. Spitsyn and Yu. I. Bykovskaya (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 104, 258–60(1955); *C.A.* 49, 15591i.—Mo^{99}, W^{185}, and P^{32} were used in the study of the W and Mo compds., $Na_2H_4[P(Mo_2O_7)_4].18H_2O$, $Na_2H_4[P(W_2O_7)_4].16H_2O$, $H_8[Si(Mo_2O_7)_4].7H_2O$, and $Na_3(PW_9O_{34}).20H_2O$. The rate of exchange of MoO_3 between the active $Na_2Mo^*O_4$ and the inactive $Na_2H_4[P(Mo_2O_7)_4].18\ H_2O$, at a pH 1.2–11.0 (obtained by acidifying with HNO_3) was measured in time intervals of 15 min. to 24 hrs. It is almost instantaneous at low pH values, and slower at lower acidity. The rate of exchange of inner-sphere constituents was studied with the luteo $Na_3(PW^*_9O_{34}).20H_2O$ and the inactive silicomolybdic acid in an acid soln., and of the active luteo phosphotungstic acid with inactive Na_4WO_4. W. M. S.

BYKOVSKAYA, Yu. I.

5(2); 21(5) PHASE I BOOK EXPLOITATION SOV/1900

Akademiya nauk SSSR. Komissiya po analiticheskoy khimii

Primeneniye radioaktivnykh izotopov v analiticheskoy khimii (Use of Radioactive Isotopes in Analytical Chemistry) Moscow Izd-vo Ak SSSR, 1958. 366 p. (Series: Its: Trudy, t. 9 (12)) Errata slip inserted. 3,000 copies printed.

Resp. Ed.: I.P. Alimarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.M. Yermakov; Tech. Ed.: Z.V. Polyakova.

PURPOSE: The book is intended for chemists and chemical engineers concerned with work in analytical chemistry.

COVERAGE: The book is a collection of the principal papers presented in Moscow at the Second Conference on the Use of Radioactive Isotopes. The problems discussed at the Conference included coprecipitation, aging, and solubility of precipitates, determination of the instability constants

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of complex compounds, separation of rare earth metals, and ion-exchange chromatography. No personalities are mentioned. There are 351 references, 175 of which are Soviet, 33 German, 19 French, 8 Swedish, 2 Hungarian, and 2 Czech.

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BYKOVSKAYA, Yu. I, GRIZIK, A. A., and MARUNINA, N. I.

"Use and methodology of radioactive indicators."

report presented at The Use of Radioactive Isotopes in Analytical Chemistry, Conference in Moscow, 2-4 Dec 1957
Vestnik Ak Nauk SSSR, 1958, No. 2, (author Rodin, S. S.)

BYKOVSKAYA, Yu.I.

Determination of tungsten and niobium in high alloys. Trudy kom. anal.khim. 9:323-328 '58. (MIRA 11:11)
(Tungsten--Analysis) (Niobium--Analysis)

BYKOVSKAYA, Yu.I.

Determination of niobium when large quantities of titanium are present. Trudy kom.anal.khim. 9:329-332 '58. (MIRA 11:11)
(Niobium—Analysis)

S/137/62/000/003/188/191
A154/A101

AUTHORS: Ponomarev, A. I.; Bykovskaya, Yu. I.

TITLE: A new method for determining small amounts of carbon

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 12, abstract 3 K 65 ("Tr. In-ta metallurgii, AN SSSR", 1961, vyp. 8, 237 - 241)

TEXT: A method was developed for determining small amounts of C, completed by colorimetry. Use was made of the possibility of determining C from the amount of U reacting with $BaCO_3$ with formation of a complex salt difficultly soluble in water. To carry out the determination a device was designed in which $BaCO_3$ is obtained by absorption of CO_2, formed in ignition of C in the sample, by a $Ba(OH)_2$ solution in a cylindrical funnel with a porous filtering plate. 5 ml of a UO_2Cl_2 solution is added to the $BaCo_3$. The resulting precipitate of barium-uranium complex salt is dissolved in HCl. The solution is transferred to a 50-ml retort and brought up to the mark. Colorimetry of U is carried out by arsenazo. A specific volume of the examined solution is put into a 10-ml calibrated cylinder, a 25 % solution of urotropine is added until Congo paper turns red, a 0.005 %

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S/137/62/000/003/188/191
A154/A101

A new method for determining small amounts of carbon

solution of arsenazo is poured in and the volume of solution brought up to 5 ml. The intensity of coloring of the obtained solution is compared with a scale of standard solutions of U. If the amount of U which has reacted with the $BaCO_3$ is known, then the C content of the sample can be found from a calibration curve. The sensitivity of the method is 10γ of C.

L. Vorob'yeva

[Abstracter's note: Complete translation]

Card 2/2

PONOMAREV, A.I.; BYKOVSKAYA, Yu.I.

New type of absorption vessel for the volumetric barite method of carbon determination. Trudy Inst. met. no.8:242-244 '61. (MIRA 14:10)

(Microchemistry) (Carbon)

BYKOVSKAYA, Yu.I.

Quantitative isolation of tungsten. Trudy Inst.met. no.10:239-243 '62. (MIRA 15:8)

(Tungsten) (Hydrolysis)

BYKOVSKAYA, Yu.I.

Trilonometric indirect method of determining tungsten. Trudy Inst. met. no.10:244-245 '62. (MIRA 15:8)
(Solutions (Chemistry)—Analysis) (Tungsten—Analysis)

BYKOVSKAYA, Yu.I.

Potentiometric determination of small amounts of carbon. Zhur.-anal.khim. 17 no.5:607-610 Ag '62. (MIRA 16:3)

1. A.A.Baikov Institute of Metallurgy, Moscow.
(Carbon--Analysis) (Potentiometric analysis)

BYKOVSKAYA, Yu.I.

Methods of determining small quantities of carbon. Trudy Inst. met. no.12:268-275 '63. (MIRA 16:6)

(Metals—Analysis)
(Carbon—Analysis)

L 58716-65 EWT(m)/EPF(n)-2/EPR/EWP(t)/EWP(b)/EWA(h) Ps-4/Peb/Pu-4 IJP(c)
JD/WW/JG

AM5016875 BOOK EXPLOITATION UR/
669:543/545+543.42

Ponomarev, A. I., ed.

Chemical and spectrum analysis in metallurgy; a practical handbook (Khimicheskiy i spektral'nyy analiz v metallurgii; prakticheskoye rukovodstvo) Moscow, Izd-vo "Nauka", 1965. 382 p. illus., tables, index. (At head of title Akademiya nauk SSSR. Gosudarstvennyy komitet po chernoy i tsvetnoy metallurgii pri Gosplane SSSR. Institut metallurgii im. A. A. Baykova) Errata slip inserted. 3000 copies printed.

TOPIC TAGS: analysis, chemical analysis, physicochemical analysis, spectral analysis, slag analysis, steel analysis, iron analysis, alloy analysis, pure metal analysis, element determination, rare earth element determination, impurity determination

PURPOSE AND COVERAGE: This book is intended for specialists and workers at scientific-research and plant laboratories. The book describes chemical, physicochemical and spectral methods of analyzing slags, steels, irons, various alloys, and some pure

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AM5016875

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metals. The determination of rare and rare-earth elements is outlined. Part I of the book deals with the analysis of slags and the determination of basic elements and usual impurities, and describes methods of determining rare-earth elements. Part II deals with the analysis of cast irons and steels and describes, the determination of usual components and tungsten and molybdenum in the presence of niobium, as well as the determination of tantalum, niobium and cerium. Part III includes analysis of metallic chromium, niobium, titanium, nickel, and their alloys. Methods of determining cerium, indium, and gallium in metals and alloys are discussed along with the determination of rare-earth elements by applying the chromatographic method. Part IV deals with spectral analysis including photographic and other various methods. The following members of the Institute of Metallurgy participated in the work: A. A. Astanina, V. S. Nagibin, Ye. N. Kunenkova, Yu. I. Bykovskaya, L. I. Veselago, I. A. Golubeva, N. S. Gertseva, A. S. Slavinskiy, A. N. Shteynberg, M. V. Mistina, and L. L. Lapchinskaya.

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AM5016875

TABLE OF CONTENT [Abridged]:

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AM5U16875

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AM5016875

SUB CODE: MM SUBMITTED: 19Jan65 NO REF SOV: 133

OTHER: 015 DATE ACC: 03Jun65

Card 5/5 ddp

L 3438-66 EWT(m)/EWP(t)/EWP(b) JD/GS

ACCESSION NR: AT5023102 UR/0000/65/000/000/0285/0289

40
B+1

AUTHOR: Bykovskaya, Yu. I.

55

TITLE: Determining the lower degrees of the oxidation of niobium in the electrolysis products during the production of pure niobium

55 27

SOURCE: Problemy bol'shoy metallurgii i fizicheskoy khimii novykh splavov (Problems of large-scale metallurgy and physical chemistry of new alloys); k 100-letiyu so dnya rozhdeniya akademika M. A. Pavlova. Moscow, Izd-vo Nauka, 1965, 285-289

TOPIC TAGS: niobium, valence band, high purity metal, titrimetry

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ABSTRACT: The object of this investigation was to determine the quantitative aspects of the partial reduction of Nb occurring in the process of the production of pure Nb by electrolysis and to develop a fast and reliable method of determining the reduced Nb. The handling of solutions containing Nb with the lower degrees of oxidation involves considerable difficulties, since, owing to the sufficiently negative potential of the system Nb^{3+}/Nb^{5+}, E = -0.37 v, niobium is very readily oxidized in air, changing into compounds with higher valences. It

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follows hence that work with Nb compounds with lower valences requires a rigorously inert atmosphere or indirect methods of Nb^{3+} determination, e.g. through interaction of Nb^{3+} with Fe^{3+} so as to form Fe^{2+} which is sufficiently stable in air and may be titrated by means of an appropriate oxidizing agent without resorting to an inert-gas atmosphere. Back-titration also is possible, e.g. through the reaction of the oxidation of Nb^{3+} by ammonium vanadate (NH_4VO_3) with subsequent titration of the excess NH_4VO_3. Proceeding from these premises, three different methods of determining reduced niobium (Nb_2O_3) are proposed. The first method is based on the reaction $Nb^{3+} + Fe^{3+} \rightarrow Fe^{2+} + Nb^{5+}$, i.e. on the interaction between reduced Nb and trivalent Fe and subsequent oxidation of the resulting divalent Fe by a $K_2Cr_2O_7$ solution. The second method is based on the reaction $Nb^{3+} + V^{5+} \rightarrow Nb^{5+} + V^{4+}$, i.e. on the interaction between the reduced Nb and pentavalent vanadium (NH_4VO_3) and subsequent titration of the excess NH_4VO_3 with a 0.5 N solution of Mohr's salt. Finally, the third method consists in the direct determination of reduced Nb, i.e. its direct titration by some oxidizing agent, e.g. iron alums, within a tightly sealed system and in the presence of a strong current of inert gas (CO_2). It is shown that the behavior of the reduced Nb is the same whatever the medium (H_2SO_4, H_3PO_4, HCl) used to decompose the specimens, clearly

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307920008-2"

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because the reduced Nb in the specimens analyzed is present in only one valent state, namely, in the form of Nb^{3+}, since this is the most stable form. Orig. art. has: 4 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, GC

NR REF SOV: 000 OTHER: 000

Card 3/3

BYKHOVSKIY, A. [Bykhovs'kyi, A.], kand.fiz.-matem.nauk; RAVIKOVICH, S., kand.fiz.-matem.nauk

Eye and colors. Nauka i zhyttia 12 no.9:25-26 S '62. (MIRA 16:1)

(Color sense)

BYKOVSKIY, A. D.

Novye metody termicheskoi obrabotki otvalov i lemekhov. Moskva, Mashgiz, 1948. 49(3) p. illus., 18 plates.

Bibliography: p.(51).

(New methods of heat treatment of moldboards and plowshares.)

DLC: TJ1482.B9

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

BYKOVSKIY, A.F.

Rhinocytoscopy in influenza. Vop.virus. 4 no.2:143-145 Mr-Ap '59. (MIRA 12:6)

1. Kafedra mikrobiologii Kurskogo meditsinskogo instituta.
(INFLUENZA, pathol.
nasal cytol. changes (Rus))
(NASAL CAVITY, pathol.
in influenza (Rus))

RAVICH-SHCHERBO, M.I.; BATALIN, V.I.; BYKOVSKIY, A.F.

Use of paper disks in determining penicillin concentration in whole blood. Lab. delo 5 no.1:42-46 Ja-F '59. (MIRA 12:3)

1. Iz kafedry biologicheskoy khimii (zav. - prof. M.I. Ravich-Shcherbo) i kafedry mikrobiologii (zav. - prof. A.M. Brusin) Kurskogo meditsinskogo instituta.
(BLOOD--ANALYSIS AND CHEMISTRY)
(PENICILLIN)

AVAKYAN, A.A.; AL'TSHTEYN, A.D.; KIRILLOVA, F.M.; BYKOVSKIY, A.F.

Means for the improvement of laboratory smallpox diagnosis. Vop. virus. 6 no.2:196-203 Mr-Ap '61. (MIRA 14:6)

1. Laboratoriya morfologii virusov i elektronnoy mikroskopii Instituta po izucheniyu poliomyelita AMN SSSR, Moskva.
(SMALLPOX)

BYKOVSKIY, A.F.; VORONINA, F.V.

Anatomy and ontogeny of the adenovirus-like simian virus IK-11M. Vop. virus. 10 no.2:156-164 Mr-Ap '65. (MIRA 18:10)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamaleya AMN SSSR, Moskva.

BYKOVSKIY, A.F.

Improved method of embedding objects in methacrylate for preparation of ultrathin sections. Vop.virus 6 no.4:500-503 Jl-Ag '61. (MIRA 14:11)

1. Institut po izucheniyu poliomiyelita AMN SSSR, Moskva.
(TISSUE CULTURE)
(BIOLOGICAL SPECIMENS--COLLECTION AND PRESERVATION)

BYKOVSKIY, A.F.; BAZYLEV, P.M.; PROKHOROVA, E.M.

Electron microscopic study of the virus of Aujeszky's disease.
Veterinariia 41 no.12:13-15 D '64. (MIRA 18:9)

1. Institut epidemiologii i mikrobiologii im. Gamalei (for Bykovskiy).
2. Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnykh preparatov (for Bazylev, Prokhorova).

L 18443-63 EPF(c)/EWT(m)/BDS Pr-4 RM/WW S/2912/62/000/000/0079/0082
ACCESSION NR: AT3001898 58 56

AUTHOR: By*khovskiy, A. I.

TITLE: Mechanisms of the growth of naphthalol crystals from a fusion

SOURCE: Kristallizatsiya i fazovyye perekhody*. Minsk, Izd-vo AN BSSR, 1962, 79-82

TOPIC TAGS: crystal, crystallization, crystallography, naphthalol, growth, mechanism

ABSTRACT: The paper reports the author's analysis of experimental data obtained by L. O. Meleshko (IFZh, v.3, 1960, 96) to identify the crystal-growth mechanism that prevails in the growth of naphthalol (NL) crystals from a fusion and, more specifically, the 3 modifications found by Meleshko, namely: (1) Dark crystals; (2) milky-white crystals; (3) crystals with an altered external shape. A plot of $\log v/(\Delta T)^2 = \log A - U_2/RT$ (where v is the linear rate of growth of the crystal (LGR), A is a constant, U_2 is the energy of activation (EA), and T is the temperature and ΔT is taken from $T_o = 93^oC$) versus 1/T adduces a strong argument in favor of a dislocational growth mechanism of crystals of the dark variety of NL from a fusion. The numerical values for the constants were found as follows:

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$A = 3.8 \cdot 10^5$ cm/sec; $U_2 = 17.6$ kcal/g-mol; at supercooling ΔT's in excess of 40° it is found that v decreases more steeply with a lowering in T; this is found to be in accord with the theory of W. B. Hillig and D. Turnbull (J. Chem. Phys., 1956, 914). The results presented here indicate equally convincingly that the milky-white variety of NL crystals grows by the mechanism of two-dimensional nucleation. It would be of great interest to obtain direct experimental data on the mechanism of the crystal growth, for example, by an observation of the various stages of their growth. It would also be of interest to investigate experimentally the kinetics of the transformation of one crystalline form of NL into another. "In conclusion I take this opportunity to express my gratitude to Candidates of Physico-Mathematical Sciences M. A. Krivoglaz and A. A. Chernov for their interest in my work and their discussion of its results." Orig. art. has 1 figure.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 16Apr63 ENCL: 00

SUB CODE: CH, PH, MA. NO REF SOV: 005 OTHER: 003

Card 2/2

SVIRIDENKO, Sergey Kharitonovich; BARAB-TARLE, Matus' Yelevich; MIZHEVSKIY, Lev Leonidovich; RASHKOVICH, Mikhail Pavlovich; SRIBNER, Leonid Andreyevich; SHRAGO, Leonid Konstantinovich; ORLIKOV, M.L., kand. tekhn. nauk, retsenzent; ROMANOV, A.I., inzh., red.; BYKOVSKIY, A.I., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Program control of jig drilling machines]Programmnoe upravlenie koordinatno-sverlil'nymi stankami. Moskva, Mashgiz, 1962. 87 p. (MIRA 15:9)
(Drilling and boring machinery--Numerical control)

PYASIK, Iosif Borisovich; TURPAYEV, A.I., kand. tekhn.nauk, retsenzent; GOLUB, V.M., inzh., red.; BYKOVSKIY, A.I., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Ball-screw mechanisms] Sharikovintovye mekhanizmy. Moskva, Mashgiz, 1962. 122 p. (MIRA 15:3)
(Gearing, Worm) (Ball bearings)

MATSIYEVSKIY, Anatoliy Gavrilovich; ERLIKH, Lazar' Borisovich; Prinimali uchastiye: SLEZINGER, I.N., kand.tekhn.nauk, dots.; MENAKER, L.S., inzh.; RABINOVICH, I.Sh., inzh.; SVIRIDENKO, S.Kh., red.; ORLIKOV, M.L., dots., retsenzent; BYKOVSKIY, A.I., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Efficient organization of machine-tool design] Ratsionalizatsiia raschetov pri konstruirovanii stankov. Pod red. S.Kh.Sviridenko. Moskva, Mashgiz, 1962. 127 p. (MIRA 15:7)
(Machine tools--Design)

DOBROVOL'SKIY, Viktor Afanas'yevich; ZABLONSKIY, Konstantin Ivanovich; MAK, Solomon L'vovich; RADCHIK, Aleksandr Semenovich; ERLIKH, Lazar' Borisovich; PYATNITSKIY, A.A., prof., retsenzent; ACHERKAN, N.S., doktor tekhn. nauk, prof., otv. red.; BYKOVSKIY, A.I., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Machine parts] Detali mashin. Izd. 6., dop. Moskav, Mashgiz, 1962. 601 p. (MIRA 16:5)

(Machinery)

BYKOVSKIY, A. S.

USSR/Geological Prospecting Feb 1947
Coal

"Certain Regularities Observed When Studying Coal and Their Practical Significance," I. A. Khrizman, A. S. Bykovskiy, 4 pp

"CR Acad Sci" Vol LV, No 4. pp. 343-46

While searching for method to check analytical data determining calorific value of coal, authors discovered functional relation between calorific value and combustible mass was specific for each coal deposit. To clarify this relationship authors used materials from Central Laboratory of Bashkir Geological Administration obtained from tests of following brown-coal deposits: Alsheyevskoye, Zilimskoye, Krivlevskoye, Kuyurgazinskoye, Staro-Mikhailovskoye, Surakaiskoye, Talalayevskoye, Ushkatlinskoye, including data from Donets basin, etc. Presents results graphically, Submitted by P. I. Stepanov, 16 Sep 1946.

PA 53T36

BYKOVSKIY, B.M.; SHAPOVALOVA, V.A.

Memory cell for feeding electroluminophor indicators. Avtom.i prib. no.1: 85-86 Ja-Mr '63. (MIRA 16:3)

1. Lisichanskiy filial Instituta avtomatiki Donetskogo soveta narodnogo khozyaystva.
(Magnetic memory (Calculating machines))

PA 193T32

BYKOVSKIY, B. N.

USSR/Engineering - Strength of Materials Oct 51

"Variation of Strength of Real Materials Under Prolonged Load," B. N. Bykovskiy

"Zhur Tekh Fiz" Vol XXI, No 10, pp 1178-1183

It was found that materials like wood or concrete break down under prolonged load at tension below their tensile modulus. Author considers material as plastic viscous body and derives suitable formulas (cf. Ya. I. Frenkel', "Kinetic Theory of Liquids," 1945; A. R. Rzhanitsyn, "Design of Equipment Taking Into Account the Plastic Properties of Materials," 1949). Submitted 6 Jun 50.

193T32

BYKOVSKIY, B. S.

BYKOVSKIY, B. S. "Treating purulent mastitis by burning through", (The Ogaro method), Trudy Smol. gos. med. in-ta, Vol. II, 1946, p. 172-77.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).