ROGINSKAYA, B S

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

Abs Jour : Ref Zhur - Khimiya, No 4, 1957, 12051

Author : Gol'dinov A.L., Roginskaya B.S.
Title : Method for the Determination of Small Amounts of Calcium in Brine

Orig Pub : Zavod. laboratoriya, 1956, 22, No 7, 801-802

Abstract : The brine (100 ml) is passed through a column filled with cathionite in the Na-form, at a rate of 2.5 ml/minute. The column is washed with water, 50-60 ml, at a rate of 5 ml/minute, filtrate and washings are discarded. To eluate the Ca, 30 ml HCl (1:9) are passed through the column at a rate of 1.5-2 ml/minute, followed by 70 ml water at a rate of 5 ml/minute. Acid solution and washings are neutralized, to litmus, with caustic soda, 2 ml 2 N solution of NaOH are added, and titration is carried out with 0.01 N solution of Complexon III, in the presence of murexide, until color of the solution changes from

Card 1/2

GOL'DINOV, A.L.; ROGINSKAYA, B.S.

Method for determining small amounts of calcium in brine. Zav.lab. 22 no.7:801-802 '56. (MLRA 9:12)
(Brines) (Calcium--Analysis)

BAMDAS, A.M., doktor tekhn.nauk; SHAPIRO, S.V., kand.tekhn.nauk; BLINOV, I.V., inzh.; ROGINSKAYA, [illegible]E., inzh.

Large static ferromagnetic frequency trippler for an electric welding systems. Trudy GPI 19 no.3:43-49 '63. (MIRA 17:10)

ROGINSKAYA, E.I.

Treatment of tuberculosis with artificial penumothorax and antibacterial preparations. Probl.tub. 36 no.6:39-41 '58 (MIRA 11:10)

1. Iz dispansernogo sektora (zav. prof. M.I. Oyfenbakh) Instituta tuberkuleza AMN SSSR (dir. Z.A. Lebedeva).
(PNEUMOTHORAX, ARTIFICIAL,
adjuvant bacteriostatics (Rus))

ROGINSKAYA, I.S.

Dimorphism of sperms in some species of mollusks of the genus Coryphella Gray (Gastropoda, Nudibranchia). Dokl. AN SSSR 152 no.5: 1256-1259 O '63. (MIRA 16:12)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR. Predstavleno akademikom K.I.Skryabinym.

ROGINSKAYA, I.S.

Cytology of spermatogenesis in tetraploid male silkworms. Report No.2: Cytometric study. TSitologiia. 6 no.3:298-304 My-Je '64.(MIRA 18:9)

1. Laboratoriya eksperimental'noy embriologii Instituta morfologii zhivotnykh AN SSSR, Moskva.

ROGINSKAYA, I.S.

Spermatogenesis in tetraploid males of the mulberry silkworm
Report No.1: Cytological research. TSitologiia 6 no.1:72-76 Ja-F '64.
(MIRA 17:9)

1. Laboratoriya eksperimental'noy embriologii Instituta morfologii zhivotnykh AN SSSR, Moskva.

ROGINSKAYA, I.S.

A large nudibranchiate Coryphella fusca O'Donoghue, a predator of the small nudibranchiates Coryphella rufibranchialis Johnston and Cuthona sp. Zool. zhur. 43 no.11: 1717-1719 '64. (MIRA 18:11)

1. Institut morfologii zhivotnykh AN SSSR, Moskva.

ROGINSKAYA, I.S.

Nudibranchiata of the White Sea in the region of the White Sea Biological Station of the Moscow State University. Trudy Belomor.biol.sta.MGU 1:88-108 '62. (MIRA 16:1)

1. Kafedra zoologii bespozvonochnykh Moskovskogo gosudarstvennogo universiteta.

(White Sea--Nudibranchiata)

ROGINSKAYA, I.S.

Spawn of Nudibranchiata of the White Sea. Trudy Belomor.biol. sta.MGU 1:201-214 '62. (MIRA 16:1)

1. Kafedra zoologii bespozvonochnykh Moskovskogo gosudarstvennogo universiteta.
(White Sea--Nudibranchiata) (Molluscs--Eggs)

ASTAUROV, B.L.; GOLYSHEVA, M.D.; ROGINSKAYA, I.S.

Chromosome complex of the Ussuri geographical race of the wild silkworm Bombyx mandarina m. in connection with problems on the origin of the domesticated silk worm Bombyx mori. TSitologiia 1 no.3:327-332 My-Je '59. (MIRA 12:10)

1. Laboratoriya eksperimental'noy embriologii Instituta morfologii zhivotnykh AN SSSR, Moskva.
(KHASAN DISTRICT (MARITIME TERRITORY)--SILKWORMS)

ROGINSKAYA, I.S.

Biology of the reproduction and development of Cuthona pustulata (Gastropoda, Nudibranchia). Dokl. AN SSSR 146 no.2:488-491 S '62. (MIRA 15:9)

1. Institut morfologii zhivotnykh im. A.N. Severtsova AN SSSR. Predstavleno akademikom L.S. Shtern.
(Gastropoda)

ROGINSKIY, I.Yu.

Rheostat transducer. Geofiz. prib. no.19:102-108 '64.
(MIRA 18:9)

BLINOV, I.V.; ROGINSKAYA, I.E.

Static ferromagnetic pulse generato s. Trudy GPI 19 no.3:85-87 '63.
(MIRA 17:10)

ACC NR: AM6030979 SOURCE CODE: UR/0196/66/000/002/2036/2036

AUTHOR: [illegible], L. M.; Shapiro, S. V.; Ilinov, I. V.; Yemel'yanov, V. P.; Zakharov, N. V.; Kuznetsov, Yu. I.; Reginskaya, L. E.

TITLE: Single-stage static ferromagnetic frequency multipliers with ratios 8 and 9

SOURCE: Ref. zh. Elektrotekhn i energ, Abs. 2I205

REF SOURCE: Tr. Gor'kovsk. politekh. in-ta, v. 20, no. 6, 1965, 5-11

TOPIC TAGS: frequency multiplication, frequency octupler, ferromagnetic material

ABSTRACT: Two single-stage static ferromagnetic frequency multipliers with a magnetic bias produced by intermediate-frequency currents are described. The frequency octupler has 8 saturated cores. Its primary windings supplied by a 3-phase system are connected in a zigzag circuit in such a way that the core fluxes form a symmetrical 6-phase system. In addition, the octupler has secondary (output) windings, and also magnetization and self-magnetization windings fed at frequencies 2 and 4 times the supply frequency. The latter windings are connected to capacitors. The 9-ratio multiplier has 9 cores. In addition to the primary, secondary, and self-magnetization windings, this multiplier has a self-magnetization winding operating at a triple-supply frequency. Characteristics of experimental models of 2-kva and 900-va multipliers, respectively, are presented. The 2-kva octupler has an efficiency of 65%, weight, 60 kg; the 9-ratio multiplier, 70%, 40 kg. Both have a near-sinusoid output voltage wave; they have a fairly hard external characteristic: the no-load to full-load voltage regulation is 20%. Engineering design methods are given. Six figures. Bib. of 9 titles. S. Shapiro

Card 1/1 SUB CODE: 09 UDC:621.314.263.001.24

ACC NR: AR6028422 SOURCE CODE: UR/0196/66/000/005/I034/I034

AUTHOR: Bamdas, A. M.; Shapiro, S. V.; Yemol'yanov, V. P.; Yevstigneyeva, T. A.; Blinov, I. V.; Davydova, L. N.; Zakharov, N. V.; Makhin, Yu. I.; Roginskaya, L. E.; Frolov, V. T.

TITLE: Development work on static frequency changers in the Gor'kiy Polytechnic Institue im. A. A. Zhdanov

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 5I205

REF SOURCE: Sb. Vses. nauchno-tekhn. konferentsiya po primeneniyu vysokoskorostn. mashin s elektroprivodom povyshen. chastoty toka v nar. kh-ve. Ordzhonikidze, 1945, 47-51

TOPIC TAGS: frequency changer, frequency converter, frequency conversion

ABSTRACT: The Laboratory has developed static ferromagnetic quadruplers, octuplers, and nonuplers with self-magnetization by flux intermediate harmonics, with single- and 3-phase output; also, a 1.5-ratio frequency changer has been developed. Their principal characteristics, power and weight data are reported. Specifically, the weight of active material varies from 36 to 29 kg/kva for capacities 1--6 kva; efficiency, 70--60%. With an input voltage variation of 90-110%, the quadrupler voltage varies only by ± 5--8%. The output voltage of a negative-feedback-type octupler varies only by ± 2% with a load current varying from zero to 130% its

Card 1/2 UDC: 621.314.26

ACC NR: AR6028422

nominal value. The octupler output voltage can be regulated within ± 15% by controlling its magnetization current. The efficiency of the 1.5-ratio frequency changer is 60--70%. It is capable of stable operation despite input voltage and load variations within ± 50% of their nominal values. Four figures. Bibliography of 4 titles. S. Shapiro [Translation of abstract]

SUB CODE: 09

Card 2/2

L 55348-65 EWT(1)/EWA(h) Peb GS

ACCESSION NR: AT5014628 UR/0000/65/000/000/0138/0143
681.142.324

14
13
B+1

AUTHOR: Bamdas, A. M.; Shapiro, S. V.; Blinov, I. V.; Roginskaya, L. E.

TITLE: Static, ferromagnetic pulse shapers 15

SOURCE: Vsesoyuznoye soveshchaniye po magnitnym elementam avtomatiki i vychislitel'noy tekhniki. 9th, Yerevan, 1963. Magnitnyye analogovyye elementy (Magnetic analog elements); doklady soveshchaniya. Moscow, Izd-vo Nauka, 1965, 138-143

TOPIC TAGS: static pulse shaper, single phase input, three phase input, ferromagnetic pulse shaper

ABSTRACT: Three types of static, ferromagnetic pulse shapers (see Fig. 1 and 2 of the Enclosure) have been developed at the research laboratory of the department of [illegible] of the Gor'kovskiy politekhnicheskiy in-

construction in considerable detail.

Orig. art. has: 8 formulas and 5 figures.

Card 1/2

L 55348-65

ACCESSION NR: AT5014628

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnic Institute)

SUBMITTED: 28Dec64 ENCL: 0.3 SUB CODE: DP, EE

NO REF SOV: 001 OTHER: 000

Card 2/5

DANIEL'-BEK, S.; KURFIRST, S.; ROGINSKAYA, N.

The TGK-10 thermo-electric generator. Radio no.9:13-14 S '56.
(Electric generators) (MLRA 9:11)

AID P - 5016

Subject : USSR/Electronics

Card 1/1 Pub. 89 - 1/14

Authors : Daniel'-Bek, V., S. Kurfirst, and N. Roginskaya

Title : Thermoelectrogenerator TGK-10

Periodical : Radio, #9, 13-14, S 1956

Abstract : The authors describe the starting of small-serial production of thermoelectrogenerators of the TGK-10 type, with 10-12 watt capacity, and destined for feeding radiocenters of the KRU-2 type in small collective farms. The authors describe the thermoelectrogenerators in detail. Three drawings.

Institution : None

Submitted : No date

USSR/ Electricity- Thermo-electric generators

Card 1/1 Pub. 89 - 12/27

Authors : Daniel-Bek, V.; Voronir, A.; and Roginskaya, N.

Title : The TGK-3 thermo-electric generator

Periodical : Radio 2, 24-26, Feb 1954

Abstract : A brief, simple theory on thermocouples is presented. The construction and arrangement of thermocouple batteries into the TGK-3 type generator can be seen from the pictures and diagrams given in the article. Batteries of this type are especially useful in rural districts where the so-called electrofication has not yet taken place, since heat required for them can be simply obtained from a kerosene lamp. The batteries have a moderate efficiency coefficient and a sufficiently long life. Diagrams; drawings.

Institution: .....

Submitted: .....

DANIYEL'-BEK, V.; VORONIN, A.; ROGINSKAYA, N.

TGK-3 thermoelectric generator. Radio no.2:24-26 F '54.
(MLRA 7:2)

(Electric power production) (Thermocouples)

ACCESSION NR: AR4042155 S/0196/64/000/005/A013/A013

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 5A96

AUTHOR: Daniyel'-Bek, V. S.; Roginskaya, N. S

TITLE: Some new types of thermopiles and thermoelectric generators of increased power

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy°p. 51, 1963, 93

TOPIC TAGS: thermopile, thermoelectric generator

TRANSLATION: A brief description is given and the characteristics of improved technology of manufacture of thermopiles and new types of thermoelectric generators of increased power are presented: TGK-18 (18w) and TGK-36 (36 w) - for rural radio installation, and also TGG-16 (16 w) - for feeding the cathode shield of main gas lines. The technical and economic prospects of wider application of thermelectric current sources are considered.

SUB CODE: EE ENCL: 00

Card 1/1

L 2126-65 EWT(l)/EWG(k)/EWT(m)/T/EWP(q)/EWP(b) Pz-6 IJP(c)/AFETR/ /
ASD(a)-5/AS(mp)-2/ASD(m)-3/RAEM(t) JD/AT
ACCESSION NR: AR4044247 S/0196/64/000/006/A014/A014

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 6A105

AUTHOR: Daniyel'-Bek, V. S.; Roginskaya, N. S.

TITLE: Thermoelements on a base of intermetallic compounds for thermoelectric current sources

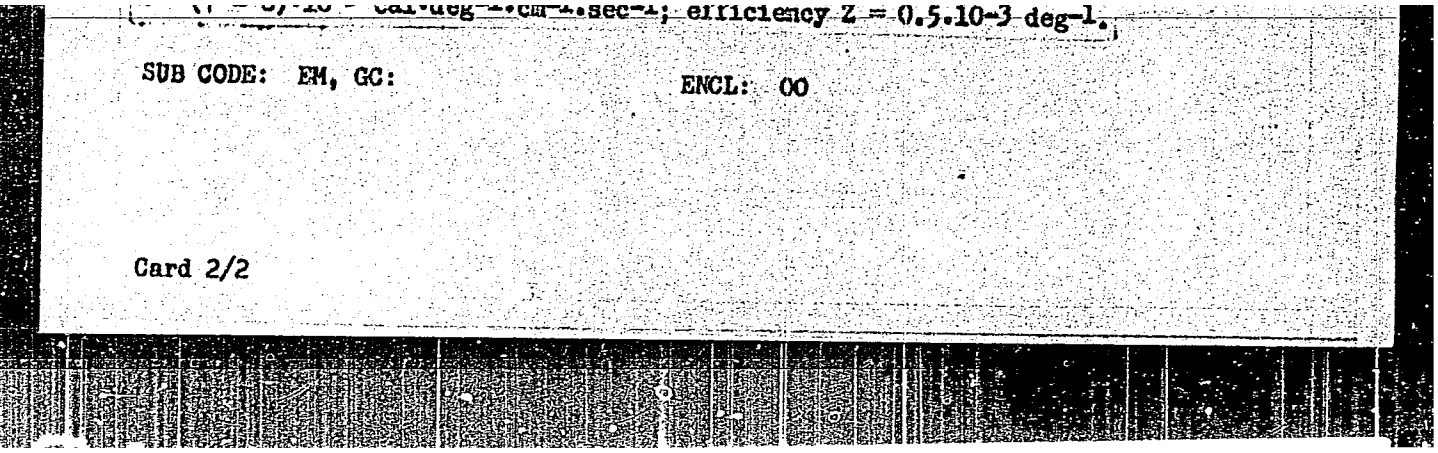
CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy*p. 51, 1963, 85-92

TOPIC TAGS: thermoelement, intermetallic compound, thermoelectric current, electric conductivity, thermoelectrode, cermet electrode, specific heat conductivity, electrode property

TRANSLATION: There are presented the results of the development of thermoelements on a base of intermetallic compounds. As the base was used the pair ZnSb-constantan. There is investigated the influence of impurities on the properties of ZnSb. There are given the curves of the temperature dependence of the specific electrical conductivity σ of thermoelectrodes made from ZnSb without additions and with

Card 1/2

additions of Cu and Pb. There is selected the alloy ZnSb with additions of several hundredths of a percent of Cu and several percents of Pb. Normal temperature conditions of operation of the thermoelements: temperature of hot joints $\leqslant$400-420° C, of cold joints ~100° C. There is shown the influence of temperature, of pressing on the electrode properties. Under ordinary temperature conditions the efficiency of the thermoelements is close to 3.5-4%, the period of service attains 4000-4500 r. There are given the technological investigations of CoSb - a more effective negative thermoelectrode than constantan. By industrial technology are prepared pressed cermet electrodes with following characteristics: coefficient of thermoelectromotive force α = 150-170 [illegible]



[illegible] cal·deg⁻²·cm⁻²·sec⁻¹; efficiency Z = 0.5·10⁻³ deg⁻¹.

SUB CODE: EM, GC: ENCL: 00

Card 2/2

DANIEL'-BEK, Vladimir Sergeyevich; ROGINSKAYA, Noemi Solomonovna; LYUB-SKIY, G.S., otv. red.; RYAZANTSEVA, M.M., red., red.; SLUTSKIN, A.A., tekhn. red.

[Thermoelectric generators] Termoelektrogeneratory. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1961. 51 p. (MIRA 14:11)

(Thermoelectric generators)

LEVINSON, M. M.; ROGINSKAYA, P.A.

Ultraviolet Rays-Therapeutic Use

"Cold quarz" irradiation of tonsils in scarlet fever. Pediatriya no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

KIBIREV, B.I.; ROGINSKAYA, R., otv. za vyp.

[Maintenance of a motor vehicle; educational manual for the study of the topic No.10 "Maintenance of trailers."] Tekhnicheskoe obsluzhivanie avtomobilia; uchebno-metodicheskoe posobie po izucheniiu temy No.10 "Tekhnicheskoe obsluzhivanie pritsepov." Gor'kii, Zaochnyi avtomobil'no-dorozhnyi tekhnikum, 1963. 17 p. (MIRA 16:9)
(Truck trailers--Maintenance and repair)

YEGOROV, N.G.; ROGINSKAYA, R.D.

Detecting SiO_2 in the presence of a large amount of **fluorine.**
Trudy NIIAsbesttsementa no.12:97-99 '61. (MIRA 16:8)
(Silica) (Fluorine)

YEGOROV, N.G.; ROGINSKAYA, R.D.

Detection of fluorine by the cation method. Trudy NIIAsbesttsementa no.12:94-96 '61. (MIRA 16:8)
(Fluorine)

ROGINSKAYA, R.M.

Characteristics of the outcomes of and defective states in infectious lesions of the central nervous system associated with mental disorders. Vop.psikh.i nevr. no.7:150-159 '61. (MIRA 15:8)

1. Iz psikhiatricheskoy bol'nitsy imeni Kashchenko (glavnyy vrach - I.T.Viktorov, nauchnyy rukovoditel' - prof. Ye.S.Averbukh).
(PSYCHOSES) (NERVOUS SYSTEM--DISEASES)

ROGINSKAYA, Ts. A.

"On Chronic Tonsillitis in Brucellosis"
Sov. Zdravookhr. Kirgizii, No 3, pp 34-37, 1953

The differentiation between tonsillogenic and brucellar tonsillitis is often very difficult. Of the 281 patients operated on for chronic tonsillitis 113 showed positive serological reaction for brucellosis. Only 31 of the cases were doubtful; 13 of them had reported at the brucellosis station. The tonsillectomy was successful in all patients. Pain decreased or completely disappeared. Temperature returned to normal. After 1-8 months all patients except one had greatly improved although the serological reactions remained positive. Tonsillitis therefore has a good effect on the clinical course of brucellosis. There is great significance in the elimination of recurrent angina which always aggravates the disease. (RZhBiol, No 7, 1954)

SO: Sum, No. 606, 5 Aug. 55

ROGINSKAYA, TS.A., dotsent; MAYERCHIK, A.A., kand.med.nauk; OSMANBEKOVA, V.Yu., assistent; VOLYNKIN, Ya.G., assistent

In memory of Professor Abram L'vovich Brudnyi. Vop.otorin. 21 no.6:118-119 N-D '59. (MIRA 13:4)
(OBITUARIES)

ROGINSKAYA, TS.A.

Chronic purulent inflammation of the middle ear. Sov. zdrav. Kir. no.1:51-55 Ja-F '62. (MIRA 15:4)

1. Iz kafedry bolezney ukha, nosa i gorla (zav. - dotsent Yu.D. Vasilenko) Kirgizskogo gosudarstvennogo meditsinskogo instituta.
(EAR--DISEASES)

ROGINSKAYA, TS.A., dotsent

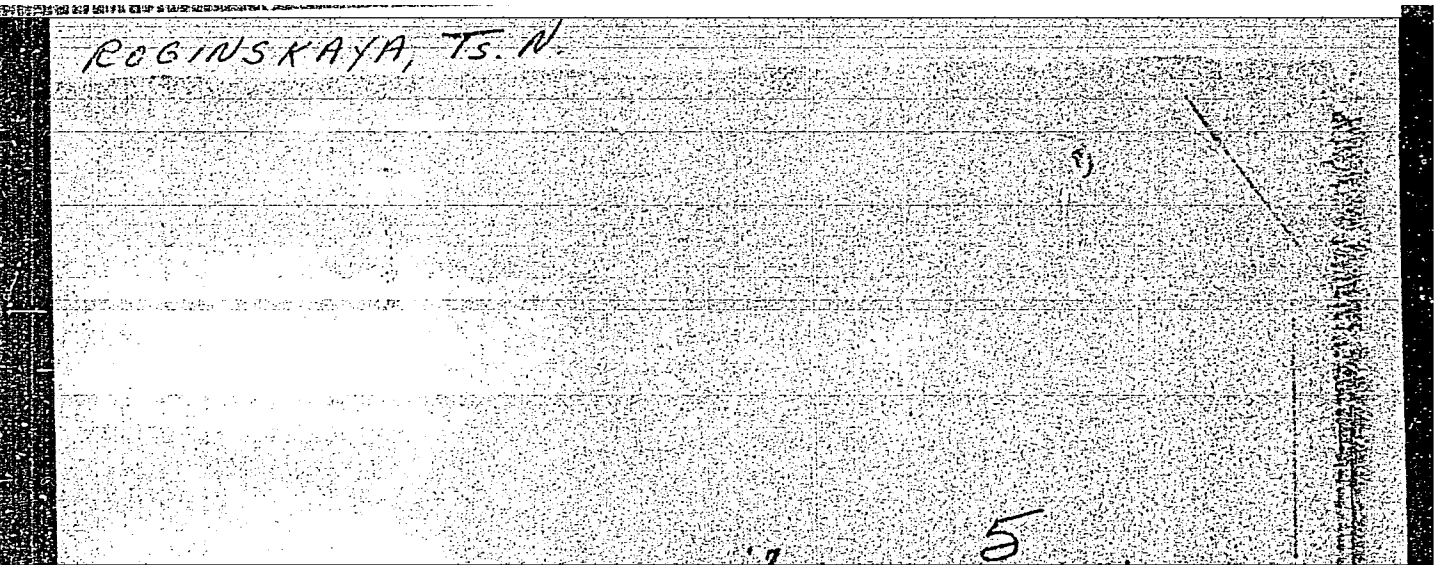
Anaphylactic shock on the administration of penicillin. Zhur.ush., nos.i gorl.bol. 22 no.2:69-71 Mr-Ap '62. (MIRA 15:11)

1.Iz kafedry bolezney ukha, gorla i nosa (zav. - dotsent Yu.D. Vasilenko) Kirgizskogo meditsinskogo instituta.
(PENICILLIN--TOXICOLOGY) (ANAPHYLAXIS)

ROGINSKAYA, TS.N.;SVETOZARSKIY, S.V.;FINKEL'SHTEYN, A.I.;ZIL'BERMAN, Ye.N.

Molecular structure of unsaturated ketones--bimolecular products of cyclohexanone condensation. Zhur. ob. khim. 28 no. 8:2229-2233 Ag '58. (MIRA 11:10)

(Cyclohexanone)
(Condensation products(Chemistry))
(Molecular structure)



SOV/[illegible]-1-[illegible]

AUTHORS: [illegible], [illegible], Roginskaya, Ts.[illegible] and [illegible]

TITLE: On Purifying Adipo-Nitryl (Ob ochistke adiponitrila)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Nr [illegible], pp 227-230 (USSR)

ABSTRACT: Adiponitryl is an intermediate product in the industrial synthesis of the adipic hexamethylenediamine which is used in the production of polyamide resins. The usual methods employed in this synthesis do not ensure the wanted purity of the adiponitryl. In the present notice the authors suggest, on the basis of chemical analyses and studying the ultraviolet spectrum of the adiponitryl, a new method of its purifying. They show that by treating adiponitryl with sulfuric acid and its subsequent flushing with ammonium bisulfite solution it is possible to obtain the pure and stable (in storing)product which practically does not absorb ultraviolet rays in the range from 220 to 400 mμ wavelength.

Card 1/2

On Polymerizing Adipo-Nitryl.

SOV/80-59-1-40/44

There are 4 graphs and 15 references, 4 of which are Soviet, 4 American, 5 German, 2 French and 1 English.

SUBMITTED: May 16, 1957

Card 2/

ROGINSKAYA, TS.N.; FINKEL'SHTEYN, A.I.; MUSHKIN, Yu.I.

Infrared spectra of the products of interaction of isocyanates with hydrogen chloride. Zhur.ob.khim. 33 no.12:3928-3932 D '63. (MIRA 17:3)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza.

5(3) SOV/75-14-3-20/29

AUTHORS: Roginskaya, Ts. N., Finkel'shteyn, A. I.

TITLE: A Simplified Spectrophotometric Method for Determining Organic Compounds by Absorption in Near Infrared Region (Uproshchennyy spektrofotometricheskiy metod opredeleniya organicheskikh soyedineniy po pogloshcheniyu v blizhney infrakrasnoy oblasti)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 3, pp 360-361 (USSR)

ABSTRACT: The method described is useful for determining mixtures of Chlorex (bis-β-chloroethyl ether) and dichloro-ethane, cyclohexanol, and cyclohexanone as well as of water in isopropyl alcohol. The error limits are (for Chlorex) at a maximum of 7%, which is admissible for industrial analyses. Figure 1 shows a scheme of the spectrophotometer. Silver sulfide photoelements FESS-U10 were used as receivers. As light filter the complex salt of copper sulfate with mono-ethanol amine was used. The determination was carried out on the basis of calibration curves (Fig 3). There are 3 figures, 2 tables, and 5 references, 3 of which are Soviet.

Card 1/2

KULIKOVA, A.Ye.; ZIL'BERMAN, Ye.N.; ROGINSKAYA, TS.N.; SMIRNOVA, M.M.

Purification of adiponitrile. Zhur.prikl.khim. 32 no.1:227-230 Ja '59. (MIRA 12:4)

(Adiponitrile)

ROGINSKAYA, Ts. N.

Spectra and spectrophotometric analysis of chlorinated organic compounds. I. Determination of chlorex in mixtures with dichloroethane. Ts. N. Roginskaya and A. I. Pinkel'shtein. *Zhur. Anal. Khim.* 11, 602-5(1956).—

Chlorex in $C_2H_4Cl_2$ had a max. absorption at 267.5 mμ; at this wave length $C_2H_4Cl_2$ had no noticeable absorption. Thus, chlorex in $C_2H_4Cl_2$ was readily detd. at this wave length

AUTHORS: Roginskaya, Ts. N., Svetozarskiy, S. V., Finkel'shteyn, A. I., Zil'berman, Ye. N. SOV/79-28-8-47/66

TITLE: Concerning the Question of the Molecular Structure of the Unsaturated Ketones Which Are the Bimolecular Condensation Product of Cyclohexanone (K voprosu o molekulyarnom stroyenii nenasyshchennykh ketonov-bimolekulyarnykh produktov kondensatsii tsiklogeksanona)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2229 - 2233 (USSR)

ABSTRACT: On the basis of investigations on the chemical properties of the ketone $C_{12}H_{18}O$(I) the structure (A) (Refs 6,9-11) or structure (B)(Refs 9,10,12-12) may be assigned to it, or it may be considered as a mixture of the two isomers (Refs 15,16). Those supporting structure (B) (Refs 10,14) base their arguments on the chemical reactions of the ketone and cite the rule of Dikman-Kon(Dikman,Kon), according to which the semicyclic double bond in the cyclohexane ring is less stable than the endocyclic double bond. The question of the structure of this ketone was more

Card 1/3

disputed by the discovery of a new unsaturated ketone $C_{12}H_{18}O$(II), by Reese (Rize)(Ref 12) in 1942. According to his reactions there could be not doubt that α,β double bonds were present. In contrast to (I) this compound is a solid, relatively less stable, and on warming changes to the liquid ketone (I). The spectra of these two ketones, (I) and (II), had not previously been investigated. The authors investigated the optical properties of (I) and (II) in order to establish their molecular structures. The combined spectra obtained are given in the table, while the infra-red absorption spectra appear in figures 1 and 2 and the ultra-violet spectra appear in figures 3 and 4. It was shown that both compounds are different forms of the α,β-unsaturated ketone 2-cyclohexylide cyclohexane. Figures 1-4 illustrate the spectral analytical results; figure 5 shows the structure of the two stereoisomers of 2-cyclohexylide cyclohexane. There are 5 figures, 1 table, and 20 references, 2 of which are Soviet.

Concerning the Question of the Molecular Structure of the Unsaturated Ketones Which Are the Bimolecular Condensation Product of Cyclohexanone

SOV/79-28-8-47/66

SUBMITTED: May 22, 1957

Card 3/3

5 (3)

AUTHORS: Finkel'shteyn, A. I., Roginskaya, Ts. N., Balabanova, P. N., Malachevskaya, F. L., Fisher, A. M., Machin, G. P.

SOV/32-25-8-12/44

TITLE: Spectrophotometric Analysis Methods of Organic Compounds in Chemical Industry

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 932 - 934 (USSR)

ABSTRACT: The article contains descriptions of spectrophotometric analysis methods (SA) for the analysis of hexachlorane with simultaneous determination of the three α-, γ-, and δ-isomers as well as for the determination of chlorobenzene in sewage water, the analysis of ammeline and ammelide mixtures, the determination of cyclohexanol and cyclohexanone in cyclohexane, etc. As the spectra of the investigated substances do not differ very much from that of the basic substance a modified measuring scheme (Figure) of the photocolorimeter was applied to make measuring at low optical densities easier. A copper-monoethanol amine-complex compound (Ref 1) serves as light filter; its maximum perviousness is at 1.25 μ. The used photoelement was FESS-U10, the spectrometers IKS-12 and SF-4. For the determination of chlorobenzene

Card 1/2

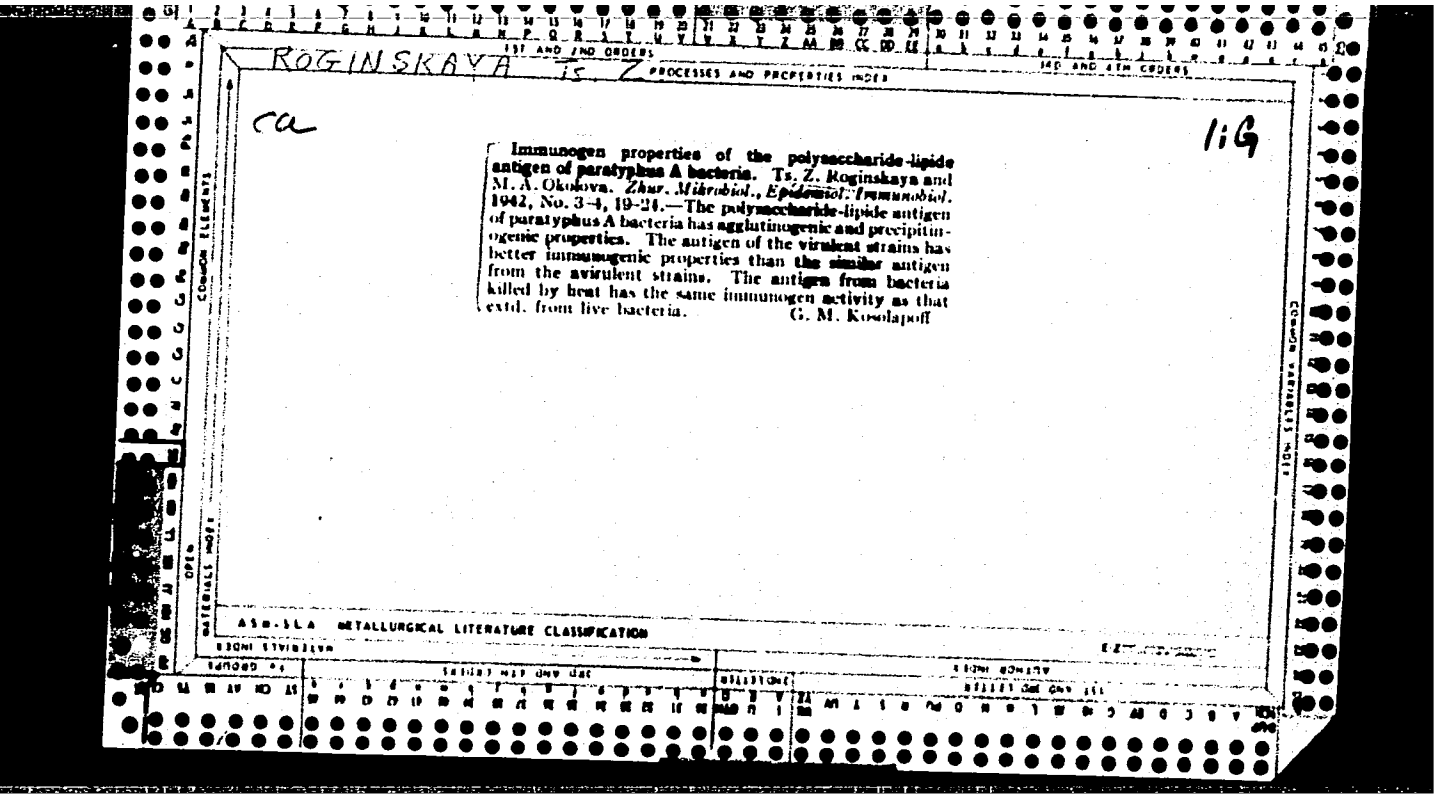
in the waste water of the perchloro vinyl resin production the "method of heterochromatic extrapolation" (Ref 3) was applied. As examples of determination of two components they describe the determination of diethyl chloride and ethyl chloride in carbon tetrachloride (Table 1), the determination of cyclohexanol and cyclohexanone in cyclohexane and 2,4- and 2,6-toluylene diamine (Table 2). For the determination of ammeline and ammelide (Ref 5) according to a wave length (1250 mμ) the acidity of the medium is changed instead of the wave-length. The determination of 3 components is shown in the determination of hexachlorane isomers (Table 3) and the determination of 4, 5, and 6 components at the analysis of 1,1- and 1,2-diethyl chlorides, 1,1,2-trichloroethane and 1,1-, 1,2-, and 1, 1,2, 2-tetrachloroethane in carbon tetrachloride, and they also investigated a mixture of p-, m-, and o-xylol and ethyl benzene (Table 4). There are 1 figure, 4 tables, and 5 Soviet references.

ROGINSKAYA, TS.N.; FINKEL'SHTEYN, A.I.

Spectra and spectrophotometric analysis of chlorinated organic compounds. Part 1. Determination of chlorex in mixtures with dichloroethane. Zhur.anal.khim. 11 no.5:602-605 S-O '56. (MLRA 10:1)
(Ether--Spectra) (Ethane--Spectra)

ROGINSKAYA, Ts. N.

2236. Spectra and spectrophotometric analysis of chlorinated organic compounds. I. Determination of chlorex [di-(2-chloroethyl) ether] in mixtures with dichloroethane. Ts. N. Roginskaya and A. I. Finkel'shtein. *Zhur. Anal. Khim.*, 1956, 11 (5), 602–605.—In the u.v., soln. of di-(2-chloroethyl) ether (I) in dichloroethane (II) show a max. absorption at 267·5 mμ but II shows no absorption. This can be used to determine I, but the method is unsuitable for the analysis of samples containing resin and rubber. In the i.r., an absorption band at 8·50 μ can be used for determining I in the presence of II, resins and dissolved rubber. The method is sensitive to 0·3% and the error is ±5·5% of the content. Raman spectra excited by Hg 4358 Å can also be used for determining I in similar mixtures. — G. S. Smith.

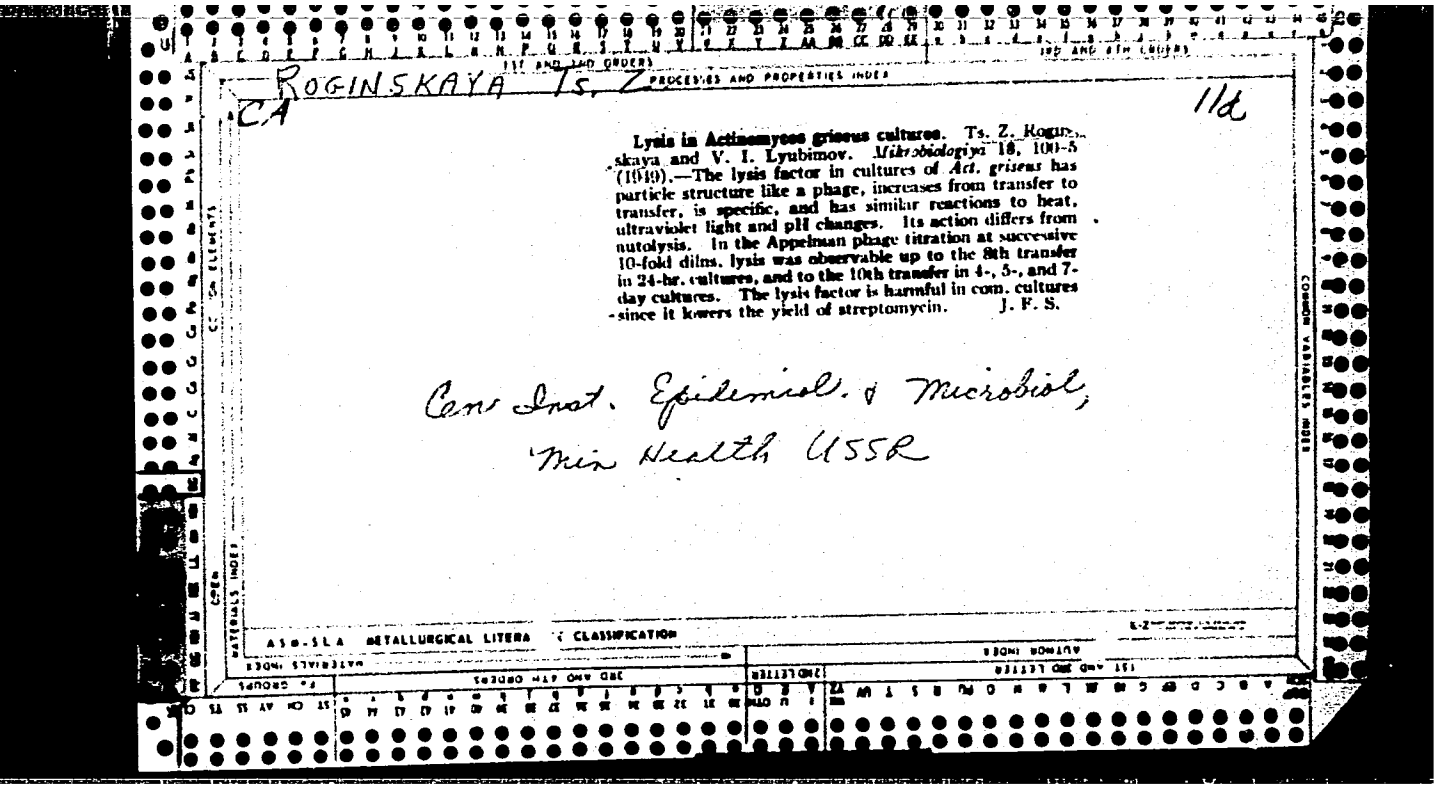


ROGINSKAYA T.Z

ca

1;G

Immunogen properties of the polysaccharide-lipide antigen of paratyphus A bacteria. Ts. Z. Roginskaya and M. A. Okunova. *Zhur. Mikrobiol., Epidemiol. Immunobiol.* 1942, No. 3-4, 19-24.—The polysaccharide-lipide antigen of paratyphus A bacteria has agglutinogenic and precipitinogenic properties. The antigen of the virulent strains has better immunogenic properties than the similar antigen from the avirulent strains. The antigen from bacteria killed by heat has the same immunogen activity as that extd. from live bacteria. G. M. Kosolapoff



ROGINSKAYA Ts. Z

CA

11d

Lysis in Actinomyces griseus cultures. Ts. Z. Roginskaya and V. I. Lyubimov. *Mikrobiologiya* 18, 100-5 (1949).—The lysis factor in cultures of *Act. griseus* has particle structure like a phage, increases from transfer to transfer, is specific, and has similar reactions to heat, ultraviolet light and pH changes. Its action differs from autolysis. In the Appelman phage titration at successive 10-fold dilns. lysis was observable up to the 8th transfer in 24-hr. cultures, and to the 10th transfer in 4-, 5-, and 7-day cultures. The lysis factor is harmful in com. cultures since it lowers the yield of streptomycin. J. F. S.

Cen Inst. Epidemiol. & Microbiol,
Min Health USSR

ROGINSKAYA, Ts.Z.; PLANEL'YES, Kh.Kh., professor, zaveduyushchiy; TIMAKOV, V.D., professor, direktor.

Test microbe for determining the activity of streptomycin by the diffusion method. Zhur.mikrobiol.epid.i immun. no.8:12-16 Ag '53. (MLRA 6:11)

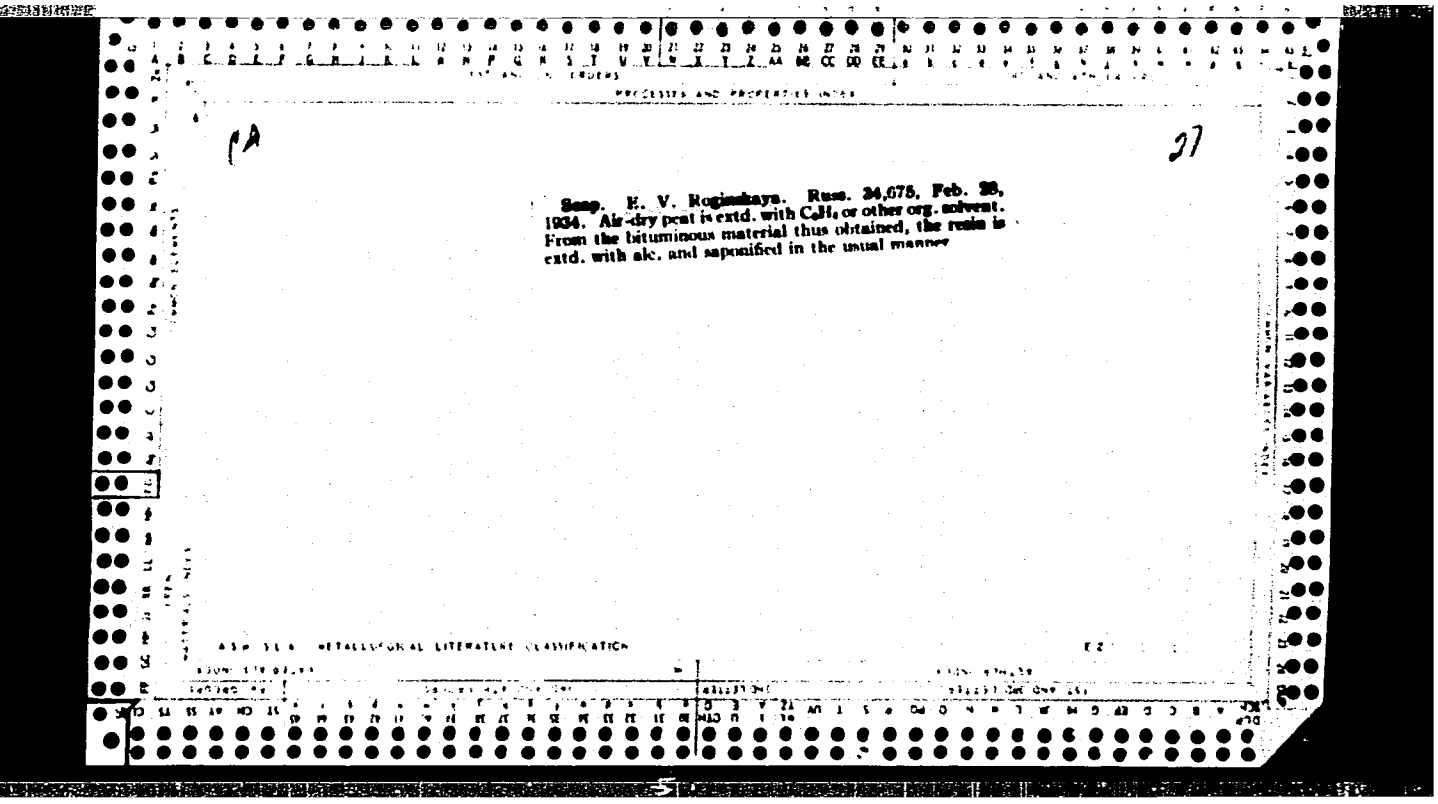
1. Otdel eksperimental'noy khimioterapii Instituta epidemiologii i mikrobiologii im. pochetnogo akademika N.F.Gamaleia Akademii meditsinskikh nauk SSSR (for Planel'yes). 2. Institut epidemiologii i mikrobiologii im. pochetnogo akademika N.F.Gamaley Akademii meditsinskikh nauk SSSR (for Timakov).

(Streptomycin)

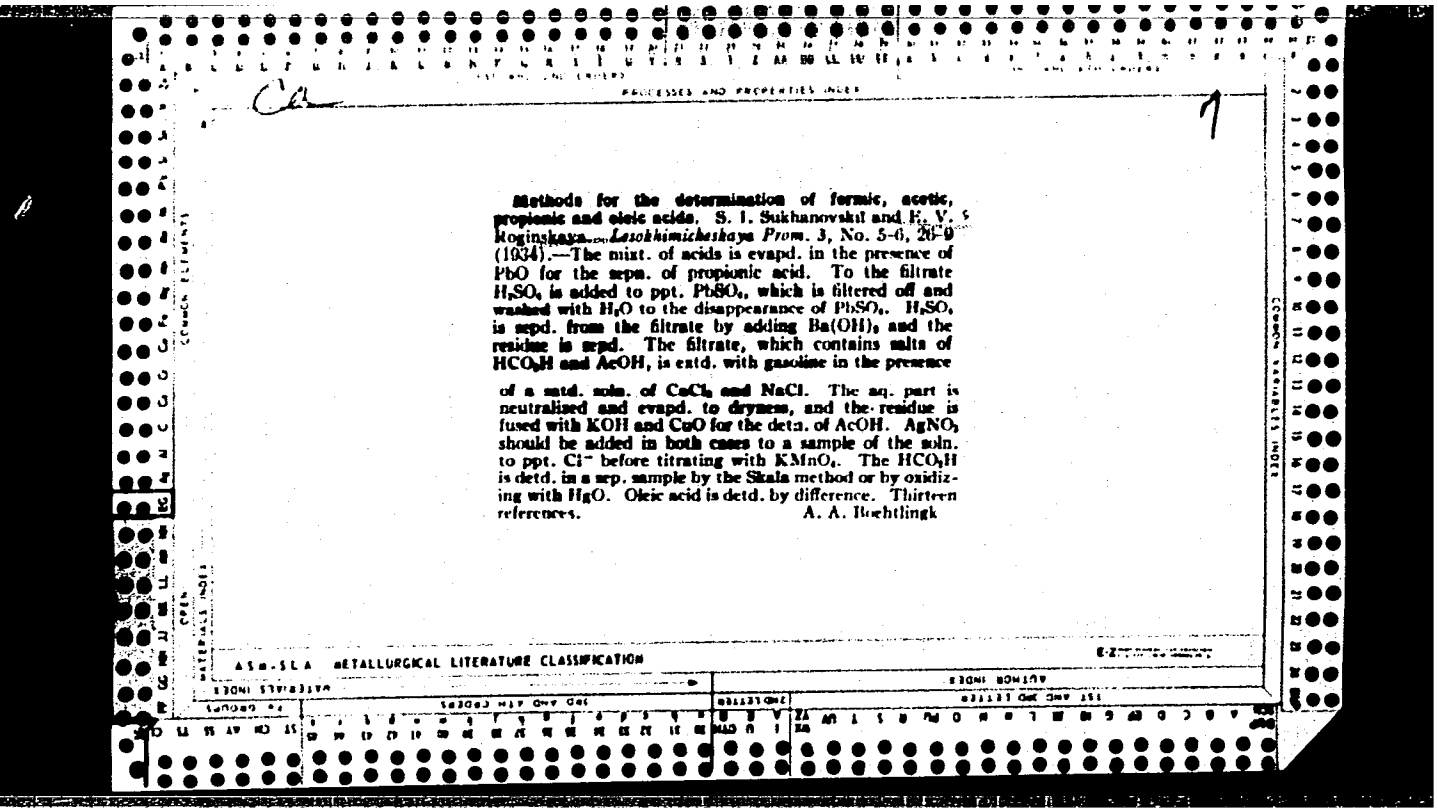
NEKRASOV , K.D., doktor tekhn. nauk, prof., red.; AL'TSHULER, B.A., kand. tekhn. nauk, red.; MEL'NIKOV , F.I., kand. tekhn. nauk, red.; MILOVANOV, A.F., kand. tekhn. nauk, red.; MILONOV, V.M., kand. tekhn. nauk, red.; SALMANOV, G.D., kand. tekhn. nauk, red.; SASSA, V.S., kand. tekhn. nauk, red.; TARASOVA, A.P., kand. tekhn. nauk, red.; ROGINSKAYA, V.M., kand. tekhn. nauk, red.; TESLENKO, M.K., kand. tekhn. nauk, red.; KUZNETSOVA, M.N., red. izd-va; MOCHALINA, Z.S., tekhn. red.

[Fireproof concrete and reinforced concrete in construction] Zharoupornye beton i zhelezobeton v stroitel'stve; trudy. Moskva, Gos. izd-vo lit-ry po stroit., arkhit.i stroit. materialam, 1962. 301 p. (MIRA 15:5)

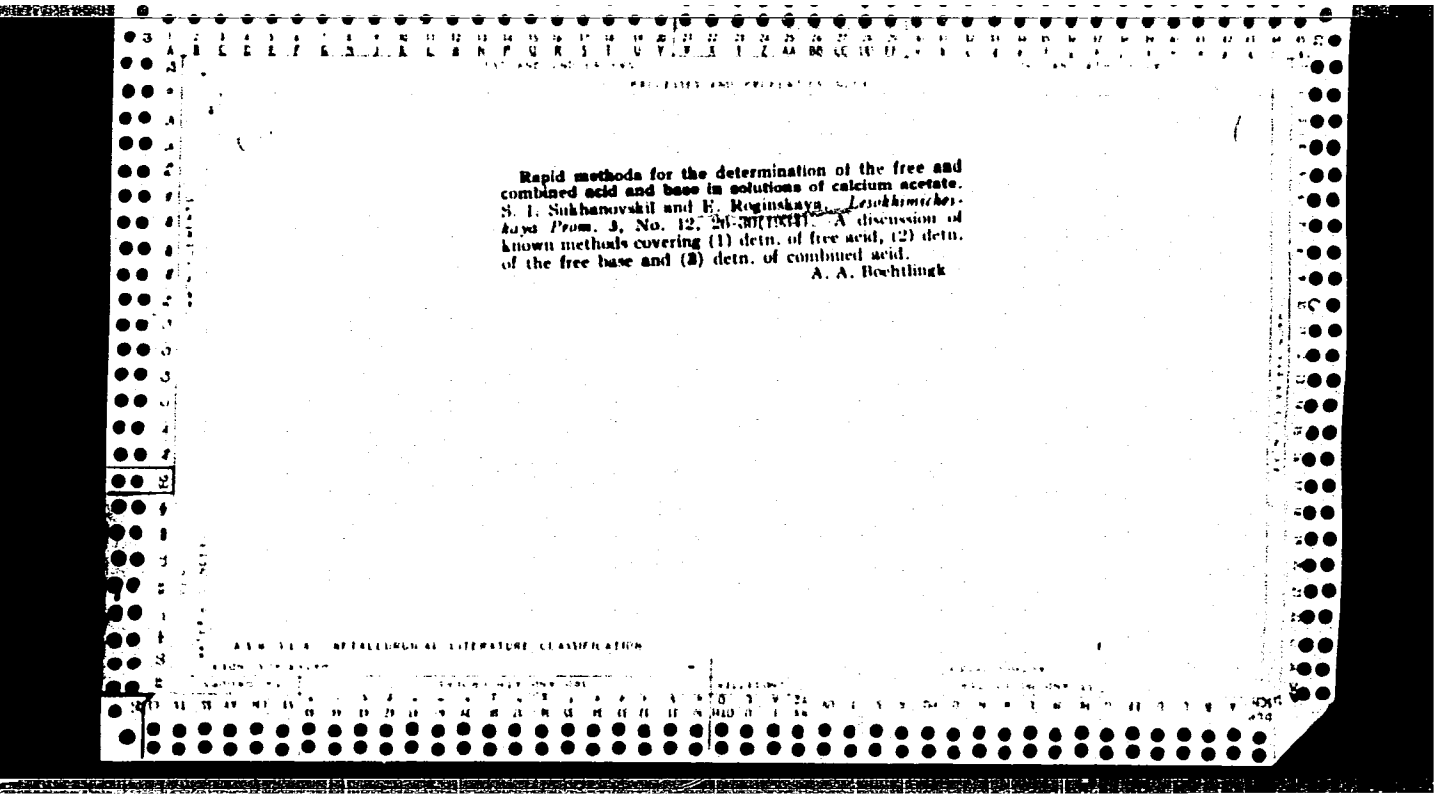
1. Vsesoyuznoye soveshchaniye po voprosam issledovaniya, proyektirovaniya, stroitel'stva i ekspluatatsii teplovykh agregatov iz zharoupornykh betona i zhelezobetona, 1960. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Nekrasov, Al'tshuler, Mel'nikov, Milovanov, Milonov, Salmanov, Sassa, Tarasova).
(Furnaces) (Concrete construction)



Soap. E. V. Roginskaya. Russ. 34,675, Feb. 28, 1934. Air-dry peat is extd. with CCl_4 or other org. solvent. From the bituminous material thus obtained, the resin is extd. with alc. and saponified in the usual manner



Methods for the determination of formic, acetic, propionic and oleic acids. S. I. Sukhanovskii and E. V. Roginskaya. *Lesokhimicheskaya Prom.* 3, No. 5-6, 28-9 (1934).—The mixt. of acids is evapd. in the presence of PbO for the sepn. of propionic acid. To the filtrate H_2SO_4 is added to ppt. $PbSO_4$, which is filtered off and washed with H_2O to the disappearance of $PbSO_4$. H_2SO_4 is sepd. from the filtrate by adding $Ba(OH)_2$ and the residue is sepd. The filtrate, which contains salts of HCO_2H and AcOH, is extd. with gasoline in the presence of a satd. soln. of $CaCl_2$ and NaCl. The aq. part is neutralised and evapd. to dryness, and the residue is fused with KOH and CuO for the detn. of AcOH. $AgNO_3$ should be added in both cases to a sample of the soln. to ppt. Cl^- before titrating with $KMnO_4$. The HCO_2H is detd. in a sep. sample by the Skala method or by oxidizing with HgO. Oleic acid is detd. by difference. Thirteen references. A. A. Boehtlingk



Rapid methods for the determination of the free and combined acid and base in solutions of calcium acetate. S. I. Sukhanovskii and E. Reginskaya. *Leokhimicheskaya Prom.* 3, No. 12, 26-30(1934). A discussion of known methods covering (1) detn. of free acid, (2) detn. of the free base and (3) detn. of combined acid.

A. A. Boehtlingk

PROCESSES AND PROPERTIES INDEX

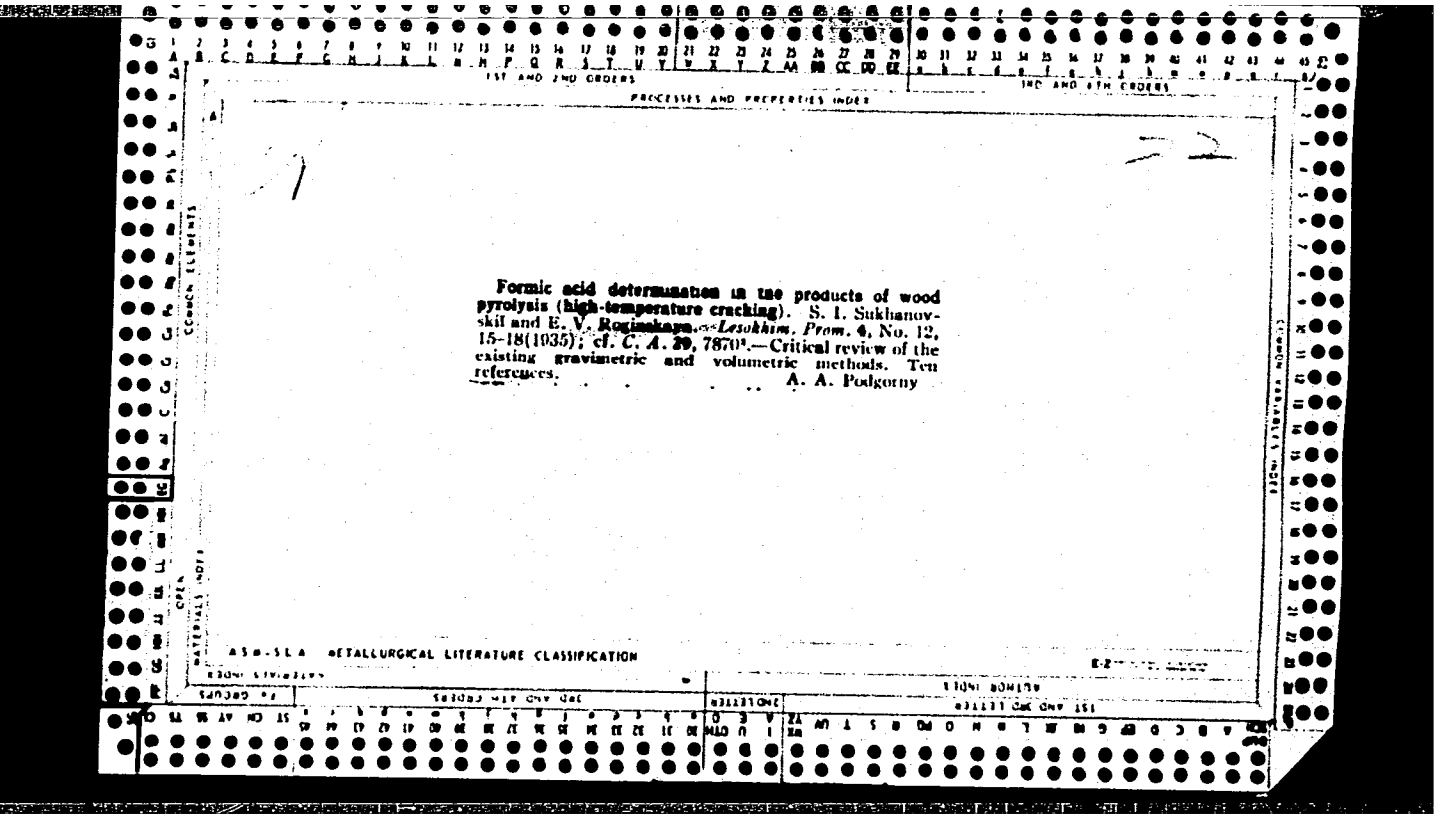
CA

7

New volumetric formic acid determination method. S. I. Sukhanovskii and E. V. Roginskaya. *Lesokhim Prom.* 4, No. 8, 17(1935).—A modification of the Skala method is proposed for production control examns.

A. A. Boehtlingk

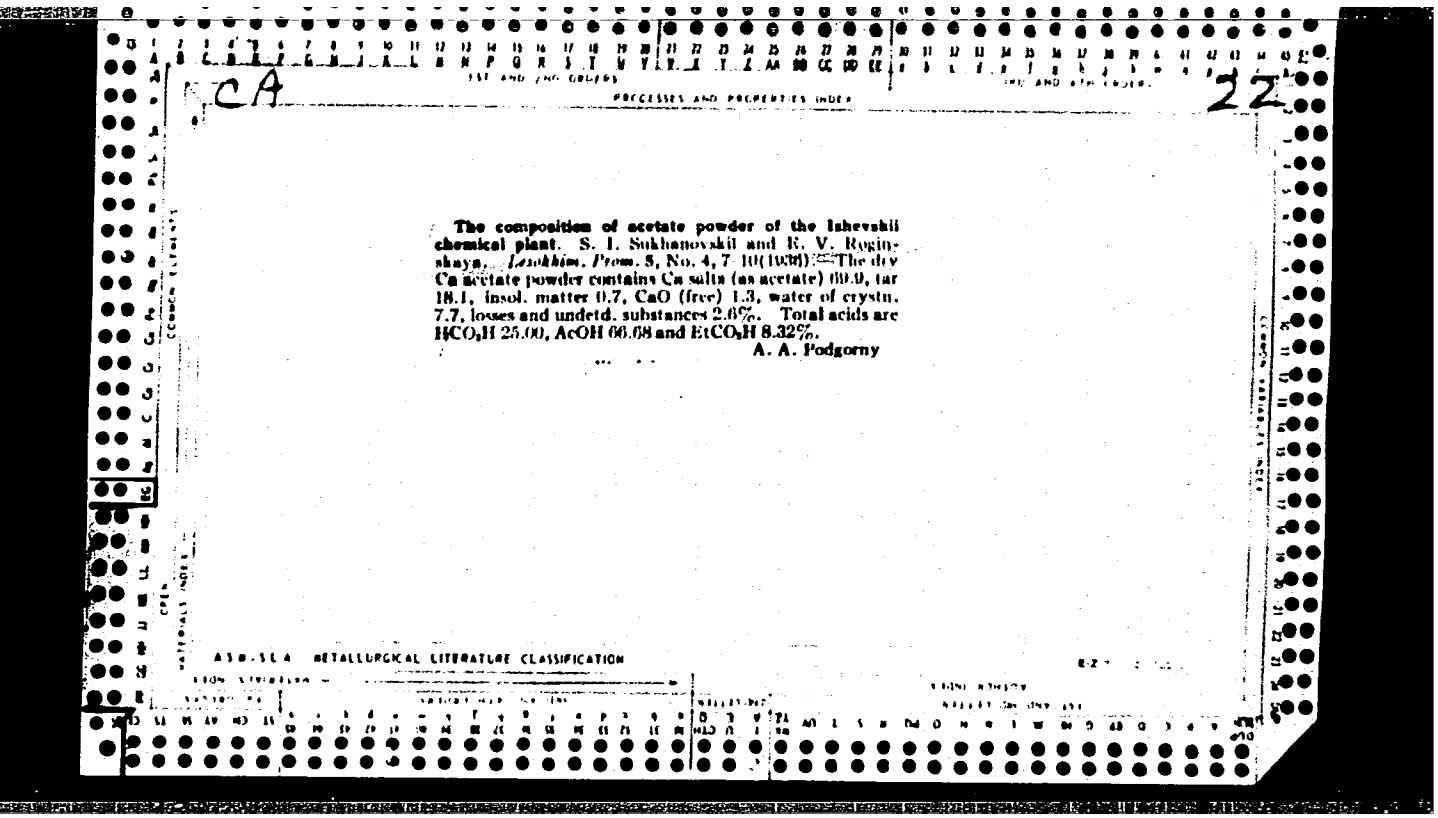
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

Formic acid determination in the products of wood pyrolysis (high-temperature cracking). S. I. Sukhanovskif and E. V. Roginskaya.—*Lesokhim. Prom.* 4, No. 12, 15–18(1935); cf. *C. A.* **29**, 7870⁹.—Critical review of the existing gravimetric and volumetric methods. Ten references. A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

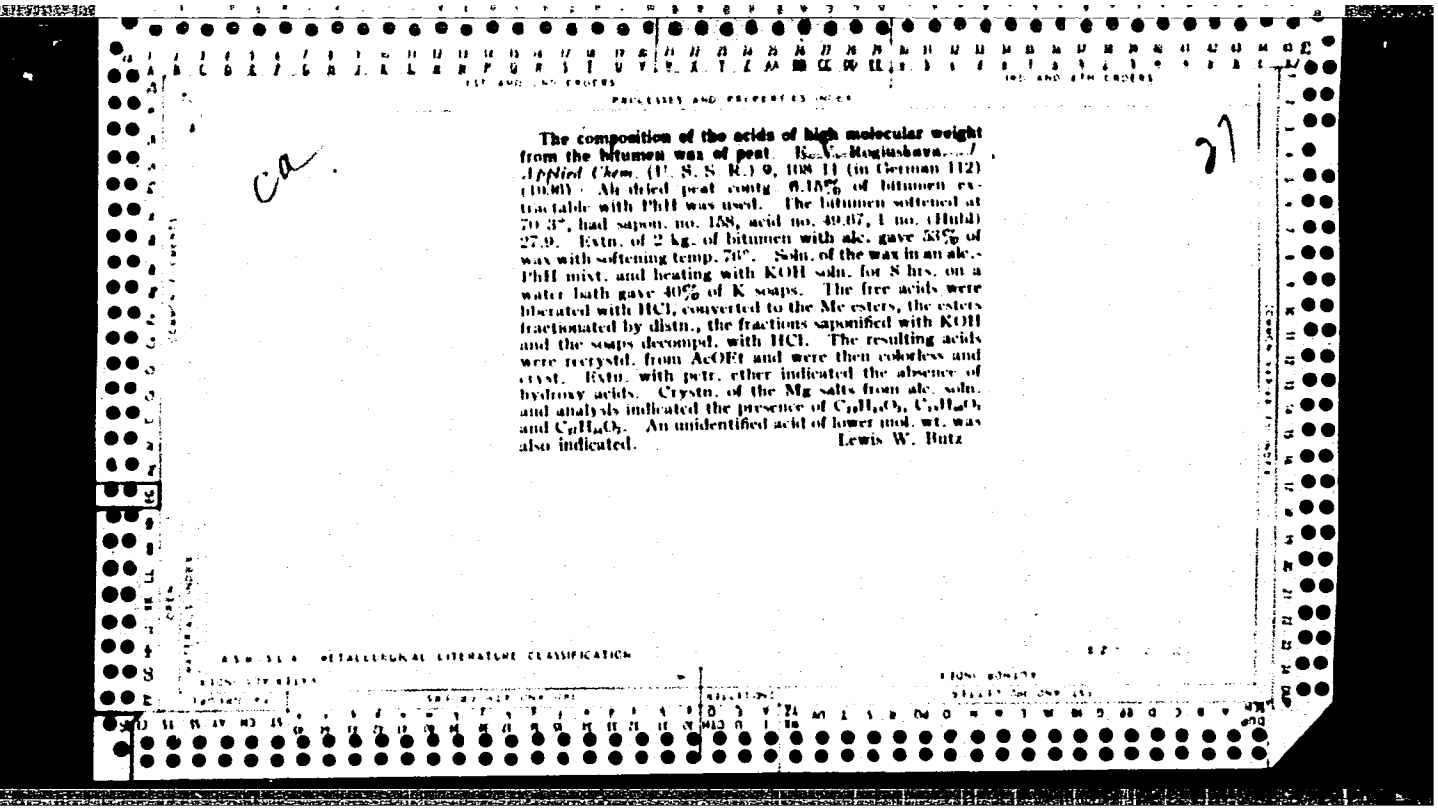
22

PROCESSES AND PROPERTIES INDEX

The composition of acetate powder of the Ishevskii chemical plant. S. I. Sukhanovskii and E. V. Rogin-skaya. *Izvakhim. Prom.* 5, No. 4, 7–10(1938).—The dry Ca acetate powder contains Ca salts (as acetate) 69.9, tar 18.1, insol. matter 0.7, CaO (free) 1.3, water of crystn. 7.7, losses and undetd. substances 2.6%. Total acids are HCO_2H 25.00, AcOH 66.68 and $EtCO_2H$ 8.32%.

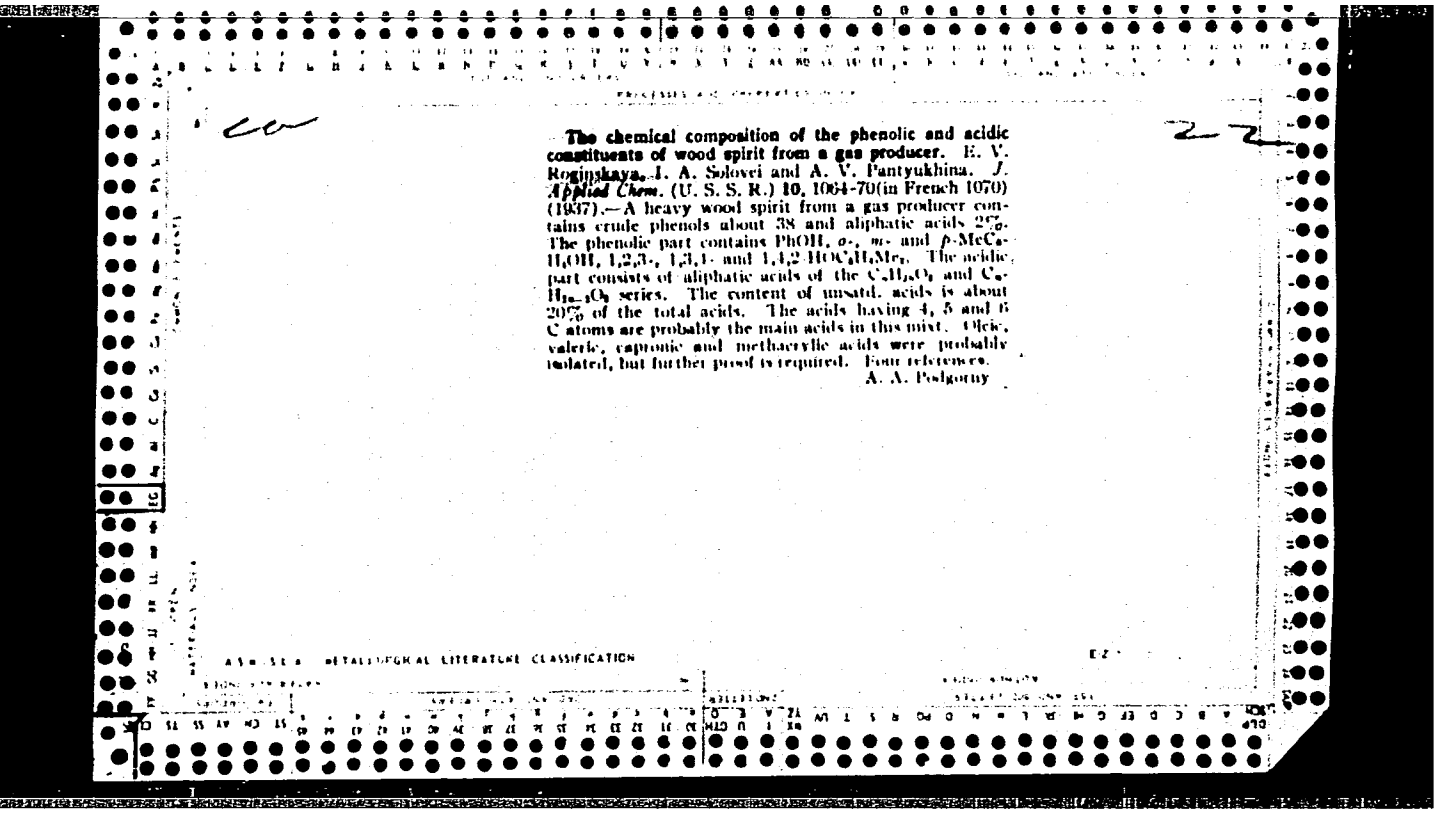
A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



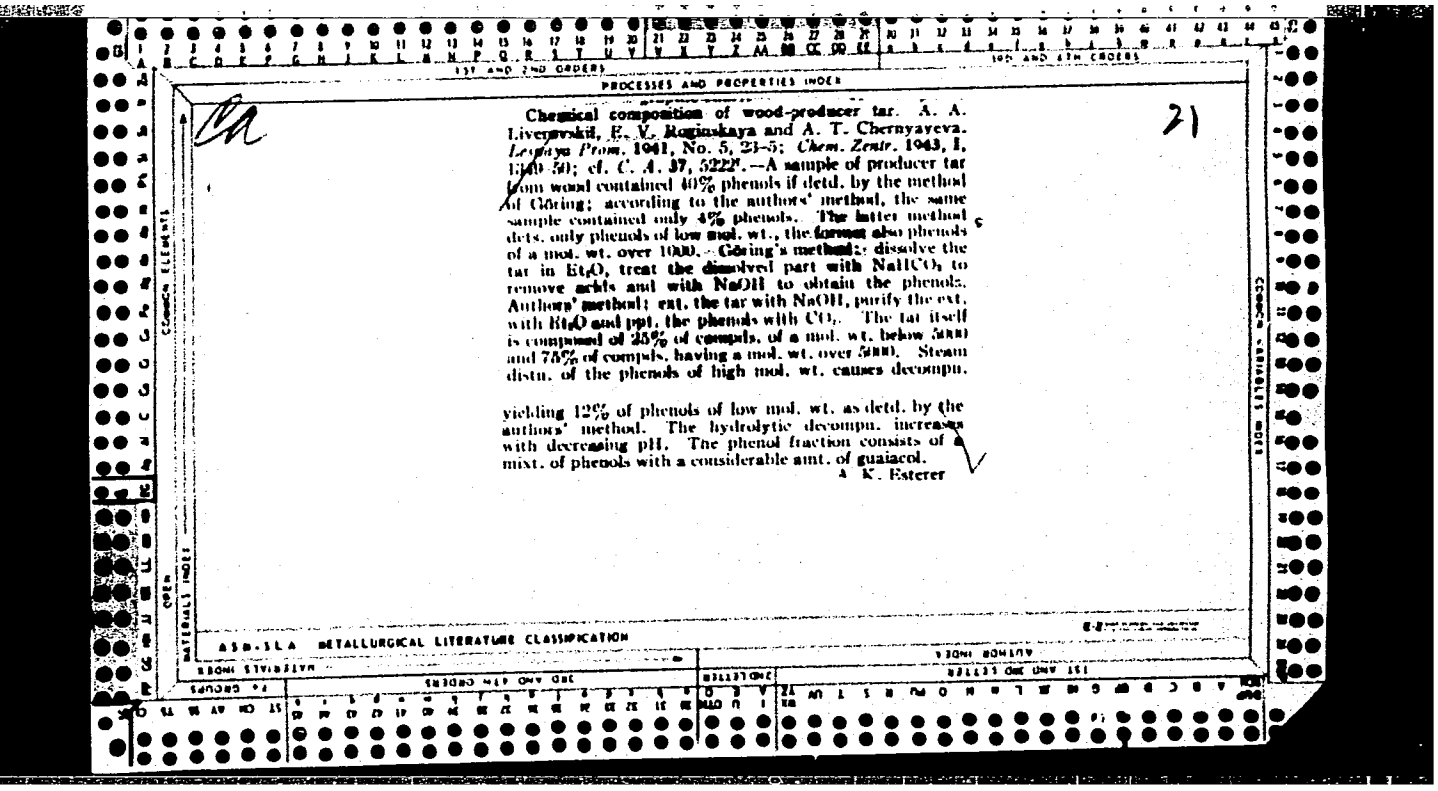
The composition of the acids of high molecular weight from the bitumen wax of peat. B. V. Magnushava.../ *Applied Chem.* (U. S. S. R.) 9, 108 11 (in German 112) (1936). Air dried peat contg. 6.15% of bitumen extractable with PhH was used. The bitumen softened at 70.3°, had saponi. no. 158, acid no. 49.07, I no. (Hubl) 27.9. Extn. of 2 kg. of bitumen with alc. gave 53% of wax with softening temp. 76°. Soln. of the wax in an alc.-PhH mixt. and heating with KOH soln. for 8 hrs. on a water bath gave 40% of K soaps. The free acids were liberated with HCl, converted to the Me esters, the esters fractionated by distn., the fractions saponified with KOH and the soaps decompd. with HCl. The resulting acids were recrystd. from AcOEt and were then colorless and cryst. Extn. with petr. ether indicated the absence of hydroxy acids. Crystn. of the Mg salts from alc. soln. and analysis indicated the presence of $C_{21}H_{42}O_2$, $C_{23}H_{46}O_2$ and $C_{25}H_{50}O_2$. An unidentified acid of lower mol. wt. was also indicated.

Lewis W. Butz



The chemical composition of the phenolic and acidic constituents of wood spirit from a gas producer. E. V. Roginskaya, I. A. Solovei and A. V. Pantyukhina. *J. Applied Chem.* (U. S. S. R.) **10**, 1064-70(in French 1070) (1937).—A heavy wood spirit from a gas producer contains crude phenols about 38 and aliphatic acids 2%. The phenolic part contains PhOH, *o*-, *m*- and *p*-MeC_6H_4OH, 1,2,3-, 1,3,4- and 1,4,2-$HOC_6H_3Me_2$. The acidic part consists of aliphatic acids of the $C_nH_{2n}O_2$ and $C_nH_{2n-2}O_2$ series. The content of unsatd. acids is about 20% of the total acids. The acids having 4, 5 and 6 C atoms are probably the main acids in this mixt. Oleic, valeric, caproic and methacrylic acids were probably isolated, but further proof is required. Four references.

A. A. Polgorny



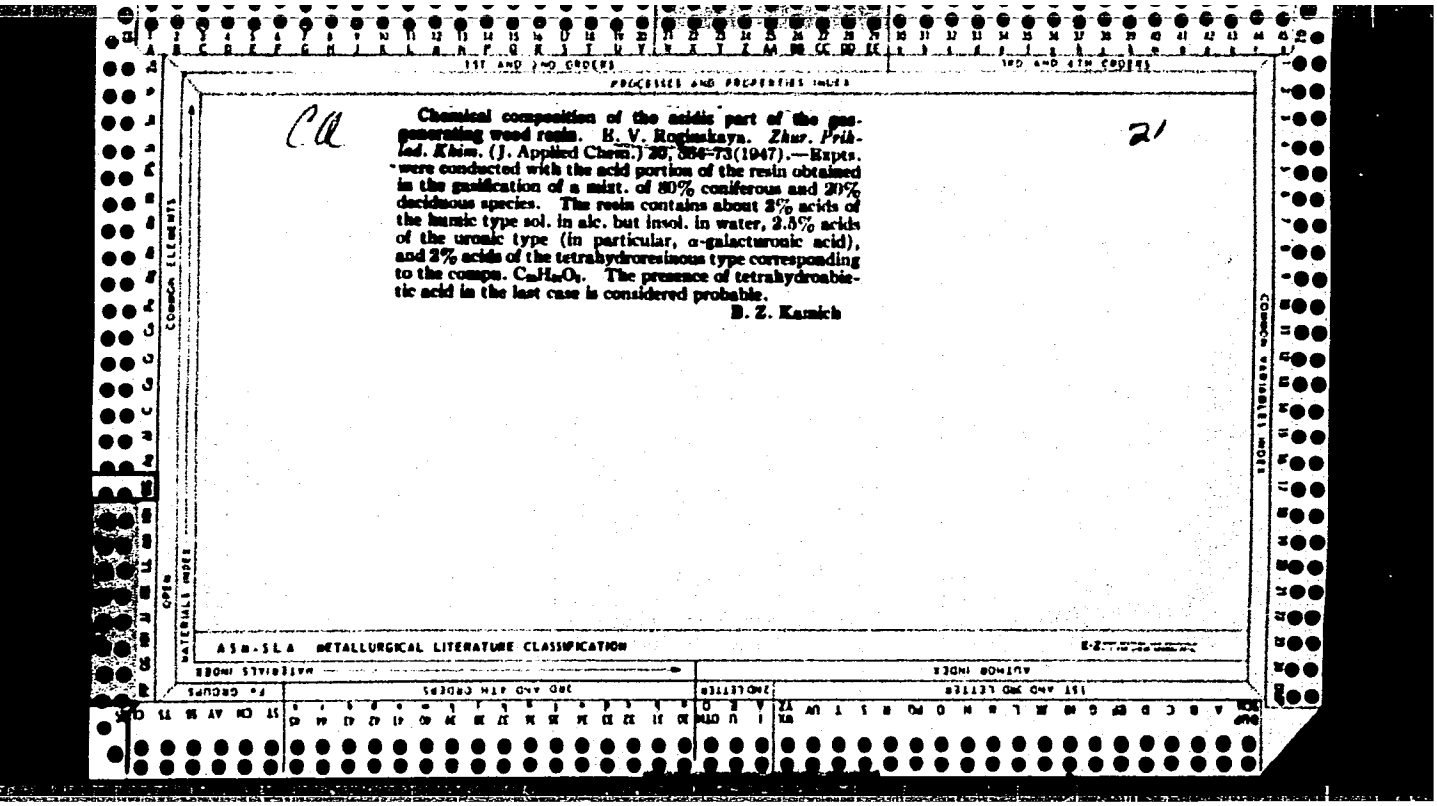
PROCESSES AND PROPERTIES INDEX

Chemical composition of wood-producer tar. A. A. Liverovskii, E. V. Rapinskaya and A. T. Chernyayeva. *Lesnaya Prom.* 1941, No. 5, 23–5; *Chem. Zentr.* 1943, I, 1140–50; cf. C. A. 37, 5222⁸.—A sample of producer tar from wood contained 40% phenols if detd. by the method of Göring; according to the authors' method, the same sample contained only 4% phenols. The latter method dets. only phenols of low mol. wt., the former also phenols of a mol. wt. over 1000. Göring's method: dissolve the tar in Et_2O, treat the dissolved part with $NaHCO_3$ to remove acids and with NaOH to obtain the phenols. Authors' method: ext. the tar with NaOH, purify the ext. with Et_2O and ppt. the phenols with CO_2. The tar itself is composed of 25% of compds. of a mol. wt. below 500 and 75% of compds. having a mol. wt. over 500. Steam distn. of the phenols of high mol. wt. causes decompn. yielding 12% of phenols of low mol. wt. as detd. by the authors' method. The hydrolytic decompn. increases with decreasing pH. The phenol fraction consists of a mixt. of phenols with a considerable amt. of guaiacol.

A. K. Esterer

21

A5b-5La METALLURGICAL LITERATURE CLASSIFICATION



Ca

21

Chemical composition of the acidic part of the gas-generating wood resin. E. V. Roginskaya. *Zhur. Prikl. Khim.* (J. Applied Chem.) 20, 886-73(1947).—Expts. were conducted with the acid portion of the resin obtained in the gasification of a mixt. of 80% coniferous and 20% deciduous species. The resin contains about 2% acids of the humic type sol. in alc. but insol. in water, 2.5% acids of the uronic type (in particular, α-galacturonic acid), and 2% acids of the tetrahydroresinous type corresponding to the compn. $C_{20}H_{34}O_2$. The presence of tetrahydroabietic acid in the last case is considered probable.

B. Z. Kamich

ROGINSKAYA, Ye. Y.

Chemistry, Analytical

Lithium aluminum hydride and its use in organic chemistry. Usp. khim./No. 1, 1952 21

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified

ROGINSKAYA, E. V.

1 2

/ Lithium aluminum hydride and its application in organic chemistry. E. V. Roginskaya. *Uspekhi Khim.* 21, 3-39 (1952).—Review with 138 references and tables of compds. prepd. by means of $LiAlH_4$. G. M. Kosolapoff

ROGINSKAYA, Ye. Y.

Wood Tar

Chemical composition of the acidic part of gas-generating wood tar,
Bum. prom. 28 No. 4, 1953

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

KUZNETSOV, S.G.; ROGINSKAYA, Ye.V.

Rate of acetylation of some cholinergic substances containing a hydroxyl group. Zhur.ob.khim. 31 no.10:3360-3366 O '61. (MIRA 14:10)

1. Institut toksikologii Akademii meditsinskikh nauk SSSR, Leningrad.
(Parasympanthomimetic substances) (Acetylation)

KUZNETSOV, S.G.; ROGINSKAYA, Ye.V.

Comparative investigation of the rates of hydrolysis of cholinergic aminoalkyl esters and thioesters. Zhur.ob.khim. 32 no.6:2026-2029 Je '62. (MIRA 15:6)

1. Institut toksikologii Akademii meditsinskikh nauk SSSR.
(Esters) (Choline) (Hydrolysis)

KUZNETSOV, S.G.; ROGINSKAYA, Ye.V.

Rate of N-alkylation of some cholinergic substances containing a tertiary amino group. Zhur. ob. khim. 33 no.5:1570-1573 My '63. (MIRA 16:6)

(Parasympathomimetic substances)
(Amino group) (Alkylation)

ACC NR: AP6025928 SOURCE CODE: UR/0301/66/012/004/0373/0376

AUTHOR: Roginskaya, Ye. V.; Shchekoldina, V. I.

ORG: Laboratory for Drug Synthesis and Laboratory of Pharmacology, Institute of Toxicology, Leningrad (Laboratoriya sinteza lekarstvennykh preparatov i laboratoriya farmakologii Instituta toksikologii)

TITLE: On the possibility of the participation of metals in the reactivation of cholinesterose inhibited by organophosphorus compounds

SOURCE: Voprosy meditsinskoy khimii, v. 12, no. 4, 1966, 373-376

TOPIC TAGS: cholinesterase inhibition, inhibited cholinesterase reactivation, metal compeet, monoisonitrosoacetone, armin, ORGANIC OXIME COMPOUND, CHOLINESTERASE

ABSTRACT: According to published theories, cholinesterase inhibited by organophosphorus compounds may be reactivated with various nucleophillic reagents which diphosphorylate the inhibited cholinesterase by attacking the P atom of the phosphoryl group. Since only some nucleophillic reagents (hydroxamic acids and oximes) dephosphorylate inhibited cholinesterase and since the dephosphorylation occurs under mild physiological conditions, it was suggested that the nucleophillic attack of oximes on the P atom is facilitated by the presence of metals, which form coordination bonds with phosphoryl oxygen and thus weaken the P—O bond. This was confirmed by the following experiments. Cholinesterase in blood sera and brains of cats was treated with EDTA to remove

Card 1/3 UDC: 612.015.14:577.153.9-064:615.778.31.015.36

ACC NR: AP6025928

metal ions and then desalted. The cholinesterase in the control and in the desalted samples was inactivated by the addition of armin (ethyl p-nitrophenyl ethylphosphonate), then reactivated with mono-iso-nitrosoacetone. The degree of the cholineasterase inhibition was established by determining the rate constant K_1 of the hydrolysis of acetylcholine catalyzed by the initial, inhibited, and reactivated cholinesterase. The results showed that K_1 for the sera from which metals were removed was practically equal to zero, while K_1 for the control sera was 7 min^{-1}. This indicates that in the absence of metal ions the reactivation of inhibited cholinesterase with mono-iso-nitrosoacetone (MINA) does not take place, which proves the participation of metal ions in the reactivation of inhibited cholinesterase. To determine which metals participate in the reactivation process, various metals normally present in sera and Co and Ni were added to specimens from which metals were removed and K_1 was determined after deactivation and reactivation of the cholinesterase. The results are shown in Table 1.

To determine the degree of reactivation with MINA of inhibited cholinesterase in vivo, white mice were poisoned with armin (0.5 mg/kg height of the animal) and MINA (30 mg/kg) was

administered as the antitoxin. The results are shown in Table 2.

Activity of cholinesterase in the cured animals was determined one hour after the oxime was administered. Results on the effect of metals in the experiments with white mice are given in Fig. 1, which showed that Mg and Ni intensify the reactivating action of MINA, while Cu and Ca have no effect on the MINA activity. The effect of EDTA on the reactivating activity of MINA is shown in Fig. 2. [WA-50; CBE No. 12]

SUB CODE: 07/ SUBM DATE: 30Dec64/ ORIG REF: 001/ OTH REF: 008/

MIRONOV, V.P.; KRASHKEVICH, K.V.; KRIVTSOVA, Ye.N.; KUL'KOVA, T.A.; ROGINSKAYA, Ye.Ya.

Laboratory investigation of the action of some repellents on the mature tick Dermacentor pictus Herm. Vest. Mosk. un. Ser. 6: Biol., pochv. 16 no.1:26-31 Ja-F '61. (MIRA 14:4)

1. Kafedra spetsial'noy podgotovki Moskovskogo universiteta.
(INSECT BAITS AND REPELLENTS) (TICKS)

VENEVTSEV, Yu. N.; ZHDANOV, G. S.; ROGINSKAYA, Yu. Ye.; FEDULOV, S. A.; IVANOVA, V. V.; CHKALOVA, V. V.; VISKOV, A. S.; KAPYSHEV, A. G. BONDARENKO, V. S.; LADYZHINSKIY, P. B.

Some solid solutions on the basis of the ferroelectric-antiferromagnetic $BiFeO_3$. Izv. AN SSSR. Ser. fiz. 28 no. 4: 683-690 Ap '64. (MIRA 17:5)

ACCESSION NR: AP4030644 S/0048/64/028/004/0683/0690

AUTHOR: Venevtsev, Yu.N.; Zhdanov, G.S.; Roginskaya, Yu.Ye.; Fedulov, S.A.; Ivanova, V.V.; Chkalova, V.V.; Viskov, A.S.; Kapy*shev, A.G.; Bondarenko, V.S.; Lady*zhinskiy, P.B.

TITLE: Investigation of some solid solutions based on the ferroelectric-ferromagnet bismuth ferrite /Report, Symposium on Ferromagnetism and Ferroelectricity held in Leningrad 30 May to 5 June 1963/

SOURCE: AN SSSR. Izv. Ser.fiz., v.28, no.4, 1964, 683-690

TOPIC TAGS: ferromagnetism, ferroelectricity, bismuth ferrite, bismuth ferrite solid solution

ABSTRACT: By investigating solid solutions of $Bi_2O_3 \cdot Fe_2O_3$ in $PbTiO_3$, some of the authors, together with others, were able to show the existence of the compound $BiFeO_3$ with the perovskite structure and strong ferroelectric properties. This work is reviewed, and later investigations are reported of the electric and magnetic properties of solid solutions containing $BiFeO_3$. The solutions discussed are the two-component systems in which one component is $BiFeO_3$ and the other is $LaFeO_3$, $LaCrO_3$,

Card 1/3

ACCESSION NR: AP4030644

$PbTiO_3$, $BaTiO_3$, $PbZrO_3$, $LaAlO_3$, or $SrSnO_3$. Of these solutes, two are ferromagnetic, two are ferroelectric, one is antiferroelectric and two are perovskites with normal magnetic and electric properties. Phase diagrams are given for the $PbTiO_3$, $LaCrO_3$, and $BaTiO_3$ solutions. Curves of magnetization versus temperature are given for various compositions of the $LaCrO_3$ and $PbZrO_3$ solutions, and curves of dielectric constant versus temperature for the $LaAlO_3$, $PbZrO_3$ and $BaTiO_3$ solutions. The Neel point is plotted against composition for all the solutions except those containing $SrSnO_3$, which could not be obtained as a single phase. Extrapolation of the Curie points of the $LaAlO_3$ and $PbZrO_3$ solutions to zero concentration confirmed the high ferroelectric Curie point (about 850°C) of $BiFeO_3$. The weak ferromagnetic properties of $BiFeO_3$ persisted in solutions containing high concentrations of materials without peculiar magnetic properties. Particularly interesting is the concentration dependence of the spontaneous magnetization of the $LaCrO_3$ solutions; the magnetization increased discontinuously as the system crossed the boundary from the ferroelectric to the antiferroelectric state. The $LaFeO_3$ solutions are said to have behaved similarly, but as these solutions have been discussed in detail elsewhere (Yu.B.Boginskaya, Yu. N.Venevtsev, G.S.Zhdanov and S.A.Fedulov, Kristallografiya,8,1963), the data are not given. An anomaly in the Mossbauer spectrum of the $SrSnO_3$ solutions that was pre-

Card 2/3

ACCESSION NR: AP4030644

viously ascribed to a ferroelectric transition (Fam Zui Khiyen, A.S.Viskov, V.C. Shpinel' and Yu.N.Venevtsev, Zhur.eksp.i teor.fiz.,44,1963) is now believed to be due to antiferromagnetic ordering. Orig.art.has: 10 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: EM NR REF SOV: 016 OTHER: 006

Card 3/3

ROGINSKA'YA, Yu. Ye.

"Investigation of some solid solutions based on the ferroelectric-antiferromagnetic FiFeO."

report presented at the Symposium on Phase Transitions in Solids, 6th General Assembly, Intl. Union of Crystallography, Rome, Italy, 16-18 Sep 1963.

(Karpov Institute of Physical Chemistry, Moscow, USSR)

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"Investigation of some solid solutions based on the ferroelectric-antiferromagnetic $BiFeO_3$."

report submitted for 6th Gen Assembly, Intl Union of Crystallography, Rome, 9 Sep 63.

Karpov Inst of Physical Chemistry, Moscow.

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AUTHORS: Roginskaya, Yu. Ye., Venevtsev, Yu. N., Zhdanov, G. S.

TITLE: The coexistence of antiferromagnetic and special dielectric properties in the system $BiFeO_3$-$LaFeO_3$

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 4, 1963, 1418 - 1420

TEXT: The system $BiFeO_3$-$LaFeO_3$ was analyzed with regard to magnetization and phase composition. The first component is a ferroelectric-antiferromagnetic, the second an antiferromagnetic with weak ferromagnetism. An X ray-structural analysis at room temperature showed that in the whole concentration range a continuous series of solid solutions of perovskite-type structure is formed. They belong to four modifications (ranges given in mol% $LaFeO_3$): rhombohedral (up to 18.8), pseudo-monoclinic I (18.8 - 55), pseudo-monoclinic II (55 - 73), and pseudo-monoclinic III (above 73). The magnetic measurements were made according to the Farady method in fields up to 8 koe and in the temperature range 20 - 500°C. Compositions with 12.5, 15, and 17.5% $LaFeO_3$ and all pseudo-monoclinic modifications showed

The coexistence of antiferromagnetic...

spontaneous magnetization and are assumed to be antiferromagnetics with weak ferromagnetism. At the limit of the p-m I modification the spontaneous magnetization increases in jumps, and with further $LaFeO_3$ addition - linearly. The temperature dependence of the dielectric constant was also measured for several samples. The results were finally used to construct a phase diagram. Its characteristic features are: ferroelectric properties with weak ferromagnetism up to 18.8% $LaFeO_3$; antiferroelectric with weak ferromagnetism from 18.8 - 55%; coexistence of electric and magnetic ordering; the jump in spontaneous magnetization coincides with the transition from ferroelectric to antiferroelectric, at the phase transition point at 18.8% $LaFeO_3$. Results of more detailed investigations will be published in the Journal "Kristallografiya". There are 2 figures.

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

SUBMITTED: January 29, 1963

L 14282-63 EWT(1)/EWP(q)/EWT(m)/BDS/EEC(b)-2/ES(s)-2 AFFTC/ASD/ESD-3/
SSD Pt-4 GG/JD/HW-2/IJP(C)
ACCESSION NR: AP3004098 S/0070/63/008/004/0610/0616 86 77

AUTHOR: Roginskaya, Yu. Ye.; Venevtsev, Yu. N.; Fedulov, S. A.; Zhdanov, G. S.

TITLE: X-ray investigation and study of magnetic and electrical properties of the $BiFeO_3$-$LaFeO_3$ system

SOURCE: Kristallografiya, v. 8, no. 4, 1963, 610-616

TOPIC TAGS: ferromagnet, antiferromagnet, weak ferromagnet, ferroelectric, antiferroelectric, bismuth orthoferrite, bismuth ferrate (III), lanthanum orthoferrite, lanthanum ferrate (III), lead zirconate, bismuth orthoferrite-lanthanum orthoferrite system, lead titanate-lanthanum orthoferrite system, bismuth orthoferrite-lanthanum aluminate system, solid solution, distorted perovskite structure

ABSTRACT: The $BiFeO_3$-$LaFeO_3$ system of solid solutions has been studied in order to establish the mechanism controlling the properties of compounds such as $BiFeO_3$, which possess ferroelectric properties combined with antiferromagnetic properties. Samples of $BiFeO_3$-$LaFeO_3$ were prepared from reagent-grade Bi_2O_3, La_2O_3, and Fe_2O_3 and were fired first at 800—1000C for 1.5 hr and then at 850—1300C for 1.5 hr. X-ray photographs were taken with an RKU-114 camera and FeK_α x-ray. The unit-cell

Card 1/54

parameters were determined by a method previously described (Zavodsk. laboratoriya, 27, 1113, 1961). The x-ray phase analysis revealed the existence of a continuous solid solution over the entire composition range. Plots of the parameters versus $LaFeO_3$ content in the sample indicated four crystalline modifications of the solid solution: one rhombohedral, in the 0—18.8 mol% $LaFeO_3$ range, and three pseudomonoclinic, PM I, PM II, and PM III, in the 18.8—55, 55—73, and 73—100 mol% $LaFeO_3$ ranges, respectively. When $LaFeO_3$ content is increased, a sharp discontinuity in the parameters is noted on transitions between modifications, together with a decrease in volume of the unit-cell. Weak superstructural lines on x-ray diagrams of the PM I samples show the similarity of this structure to that of $PbZrO_3$, which is antiferroelectric. Magnetic measurements were carried out by the Faraday method with equipment developed by NIFKhI. The similarity between the curves of magnetization versus temperature in the 0—600C range, and the presence of spontaneous magnetization (σ_0) at room temperature over the entire composition range made it possible to conclude that all samples were antiferromagnetic. The evolution of σ_0 with the composition may be seen from Fig. 1 of the Enclosure. The dielectric constant (ε) was measured with an MPP-300 bridge, and the temperature dependence of conductivity, with a YOLU-1,

L 14282-63
ACCESSION NR: AP3004098

voltmeter.[0] The maximum conductivity was found in samples with 40 and 50% $LaFeO_3$. One of the two breaks on each of the curves of conductivity versus temperature coincided with the Neel temperature (T_N). The peaks on the curves of ε versus temperature, together with the x-ray data, establish the anomalous dielectric properties of samples in the 25—45% $LaFeO_3$ range. The ε of samples with more than 45% $LaFeO_3$ increases continuously with increasing temperature. It is concluded that the rhombohedral modification (with less than 18.8 mol% $LaFeO_3$) is ferroelectric because of the presence of peaks on the ε versus t curves in the rhombohedral region of the $BiFeO_3$-$LaFeO_3$ system, although the peaks were absent in that region in the system studied. The phase diagram of the system, shown in Fig. 1, was established on the basis of all the data considered. The T_C line represents the ferroelectric Curie points and the T_N line, the Neel temperature. Two regions of the diagram are of particular interest, that of compositions up to 18.8 mol% $LaFeO_3$, which combine ferroelectric with antiferromagnetic properties, and that of compositions in the 18.8—55 mol% $LaFeO_3$ range, which combine antiferroelectric with weak ferromagnetic properties. Coincidence of the transition between the two regions with the discontinuity of σ_0 is considered proof of a definite interconnection between the special electrical and magnetic properties

Card 3/5

L 14282-63
ACCESSION NR: AP3004098

4

of a given solid solution. Both properties are dependent upon the same factor, the atomic configuration. "The authors express thanks to A. S. Borovik-Romanov, N. M. Kreynes, and V. I. Smirnova for their valuable advice and remarks." Orig. art. has: 5 figures.

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

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SUB CODE: PH NO REF SOV: 018 OTHER: 007

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L 34891-65 EWG(j)/EWT(l)/EWT(m)/EPF(c)/EPR/T/EWP(t)/EWP(b)/EWA(h) Pr-4/Ps-4/
Pt-10 IJP(c) JD/JG/GG

ACCESSION NR: AF5005274 S/0181/65/007/002/0400/0406

AUTHOR: Roginskaya, Yu. Ye.; Venevtsev, Yu. N.

TITLE: Investigation of solid solutions in the $BiFeO_3$-$LaCrO_3$ system

SOURCE: Fizika tverdogo tela, v. 7, no. 2, 1965, 400-406

TOPIC TAGS: solid solution, magnetic property, antiferromagnetism, bismuth compound, lanthanum compound, dielectric property, magnetic property

ABSTRACT: The purpose of the investigation was to establish the character of the dielectric and magnetic properties of solid solutions based on this system, to determine the regions in which these properties are possessed by the solid solution

atures of the two annealings was 2--3 hours. The x-ray and magnetic measurement

Card 1/2

L 34891-65

ACCESSION NR: AP5005274

2

procedures were essentially the same as in an earlier investigation by the authors (Kristallografiya, v. 8, 610, 1963) of the $BiFeO_3$-$LaFeO_3$ system. The results have shown that a continuous series of solid solutions is produced, existing at room

and remarks." Orig. art. has: 6 figures.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova, Moscow (Scientific Reasearch Physicochemical Institute)

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Card 2/2

L 22121-66 EWT(l)/EWT(m)/EWP(w)/EPF(n)-2/T/EWP(t) IJP(c) JD/JG/GG

ACC NR: AP6004921 SOURCE CODE: UR/0056/66/050/001/0069/0075

AUTHOR: Roginskaya, Yu. Ye.; Tomashpol'skiy, Yu. Ya.; Venevtsev, Yu. N.; Petrov, V. M.; Zhdanov, G. S.

ORG: Physicochemical Institute im. L. Ya. Karpov (Fiziko-khimicheskiy institut)

TITLE: On the character of dielectric and magnetic properties of $BiFeO_3$

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. v. 50, no. 1, 1966, 69-75

TOPIC TAGS: bismuth compound, ferroelectric material, dielectric property, solid solution, Curie point, Neel temperature, magnetic property

ABSTRACT: This is a continuation of earlier work by the authors on $BiFeO_3$ (ZhETF v. 46, 1921, 1964). In view of the contradictory reports on the properties of $BiFeO_3$, especially with respect to its ferroelectric properties, the authors analyze the published data and in addition carried out a more detailed investigation of the dielectric properties and the structure of $BiFeO_3$ in a broad range of temperatures, as well as of solid solutions of this substance with $PbFe_{1/2}Nb_{1/2}O_3$. Particular attention is paid to the 400--500C region, and to the solid solution. The polycrystalline samples for the investigation were prepared by the usual ceramic techniques. The dielectric constant and the loss angle were measured at

Card 1/2

L 22121-66

ACC NR: AP6004921

300 Mcs by the coaxial-line method. Other specific properties of $BiFeO_3$ in addition to the large internal fields and large spontaneous polarization, were a high Curie temperature (850C), and the absence of nonlinear properties at room temperature. An analysis of all the published data and the present results shows that in spite of the fact that the spontaneous electric polarization of $BiFeO_3$ is very high, so that no dielectric hysteresis loops could be obtained, this substance is ferroelectric. Various reasons for this conclusion are discussed. An analysis of the magnetic properties below the Neel temperature (370C) also shows that $BiFeO_3$ has compensated ferromagnetism in addition to ferroelectricity. Orig. art. has: 5 figures.

SUB CODE: 20,07/ SUBM DATE: 17Aug65/ ORIG REF: 022/ OTH REF: 002

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ROGINSKAYA, Yu.Ye.; VENEVTSEV, Yu.N.

Structure and magnetic properties of solid solutions in the system $BiFeO_3$ - $LaCrO_3$. Fiz. tver. tela 7 no.2:400-406 F '65. (MIRA 18:8)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni Karpova, Moskva.

ROGINSKAYA, Yu.Ye.; VENEVTSEV, Yu.N.; ZHDANOV, G.S.

Structure and magnetic properties of ferroelectric solid solutions in the system Pb_2CoWO_6 -- $CdMnO_3$. Izv. AN SSSR. Ser. fiz. 29 no.6: 1022-1025 Je '65. (MIRA 18:6)

ROGINSKAYA, Yu.Ye.; VENEVTSEV, Yu.N.

Structure and dielectric properties of Pb_2CdWO_6. Kristallografiia 10 no.3:341-345 My-Je '65. (MIRA 18:7)

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

ROGINSKAYA, Yu.Ya.; VEDENTSEV, Yu.N.; ZHDANOV, G.S.

New ferromagnetic substances. Zhur. eksp. i teor. fiz. 48 no.5: 1224-1232 My '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy fiziko-khimicheskoy institut imeni L. Ya. Karpova, Moskva.

L 57573-65
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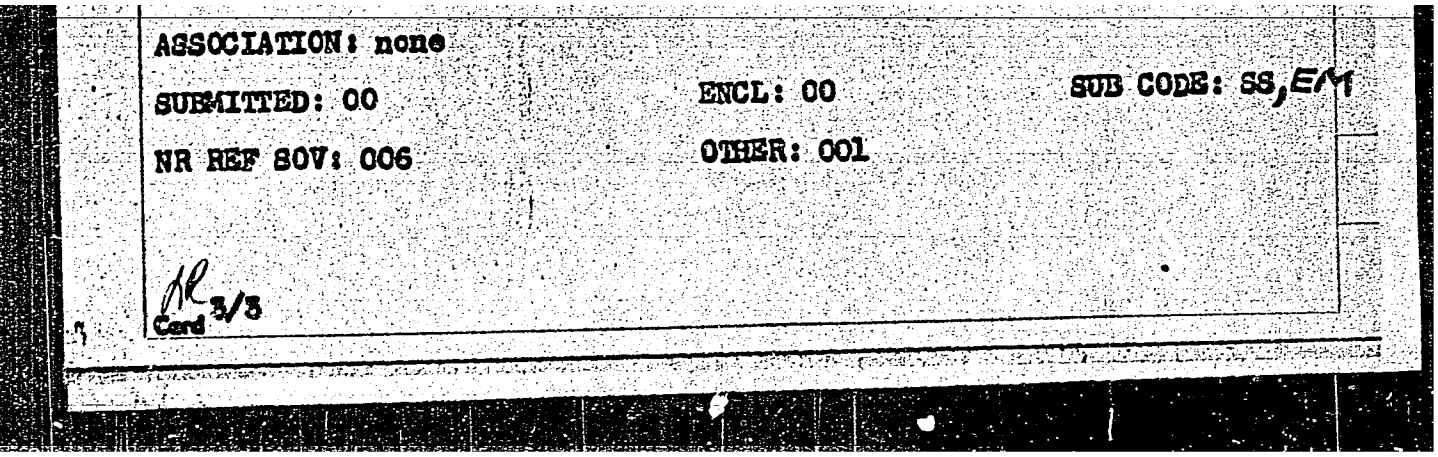
concentrations of $CdMnO_3$ (referred to $\frac{1}{2}(Pb_2CdMO_6)$) up to 65%. A transformation from one pseudomonoclinic modification to another occurred

L 57573-65
ACCESSION NR: AP5016146

gauss cm^3/g at -175°C. The curve giving the dielectric constant as a function of temperature had a sharp bend at the magnetic Curie point, indicating an interaction between the coexisting magnetic and elec-



ASSOCIATION: none

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