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Ca

PROCESSES AND PROPERTIES INDEX

10

Conversion of camphene into the acetic and formic acid esters of isoborneol. V. B. Tishchenko and G. A. Rudakov. *J. Applied Chem. U. S. S. R.* 7, 369-72(1934).—The reaction of the formation of acetic and formic acid esters of isoborneol is reversible, and most nearly complete at low temps. The esterification of camphene with HCO_2H, carried out at 15°, proceeds 10-15 times as rapidly as that of AcOH. The esterification of camphene with 80% AcOH and 80% HCO_2H is much slower than with stronger acids, and results in a lower yield of the ester. The smallest amts. of polymerization products during the esterification are observed in the esterification with HCO_2H. The procedure is described. A. A. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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26

The composition of the Russian commerical turpentine from Pinus silvestris. G. A. Rudakov and G. A. Artamonov. *Lesokhim. Prom.* 5, No. 11, 11-16(1946).

Two samples of turpentine obtained from a rosin soap, and one sample extd. with gasoline from tar and sepd. from solvent by distg., contained α-pinene 58.6, 58.0 and 55.1%, Δ³-carene 23.7, 19.6 and 26.3%; terpene alc. 5.47, 2.78 and 1.65% (as $C_{10}H_{17}OH$), resp. The sample obtained by gasoline extn. also contained 4.7% of gasoline. Data are tabulated. Seven references.

A. A. Podgorny

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

Vapor pressure of certain terpenes. G. A. Rudakov and S. Ya. Korotov. *J. Applied Chem.* (U.S.S.R.) 10, 312-18(in French 318)(1937). The vapor pressures of α-pinene, Δ₃-carene (both from the turpentine of *Pinus silvestris*), camphene (from isoborneol), limonene (from Siam *latifolium* oil) and dipentene (from α-terpineol) at b. p. at 25 or 50 (at mm.), and that of isobornyl acetate and formate at 25-200 mm. are tabulated. The data satisfy a linear equation (for the above pressure limits) $\log p = (A/T) + B$, where T is abs. temp., and A and B are consts., having the following values: for α-pinene −2111 and 7.810; Δ₃-carene −2248 and 7.940; camphene −2418 and 7.788; limonene −2280 and 7.983; dipentene −2280 and 7.984; isobornyl formate −2504 and 8.602; and acetate −2590 and 8.512. The Sventoslavskii ebulliscope was used.

A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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3RD AND 4TH ORDERS

B, C

a-1

Vapour-liquid equilibria of certain binary mixtures of terpenes. G. A. RUDAKOV and S. J. KOROTOV (J. Appl. Chem. Russ., 1937, 10, 319—326). —B.p. and vapour composition are given for the systems camphene-*iso*bornyl acetate, -*iso*bornyl formate, -Δ^3-carene, *iso*borneol-*iso*bornyl acetate and formate, α-pinene-Δ^3-carene and -dipentene at 100 mm.

R. T.

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1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

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ca

10

Catalytic transformations of terpenes. I. Catalytic transformation of dipentene under the influence of activated clay. G. A. Rudakov. *J. Gen. Chem.* (U. S. S. R.) 10, 1673-81(1940).—Dipentene (I) (550 g.) was refluxed with stirring with 0.5% clay (2.8 g.) at 170° for 1 hr., filtered and fractionated *in vacuo* and the following fractions studied: Fraction 3, $b_{10.5}$ 175.5°, d_4^{20} 0.8451, n_D^{20} 1.4745, MR_D 45.27 (yield 5.56%). Fraction 11, $b_{10.5}$ 185.0°, d_4^{20} 0.8531, n_D^{20} 1.4851, MR_D 45.54 (yield 4.55%). Fraction 13 (residue) d_4^{20} 0.932, n_D^{20} 1.5162 (yield 12.9%). The phys. consts. indicate that I is isomerized into terpinolene (II) and II into α-terpinene. Other products formed are *p*-cymene, Δ⁸-*p*-menthene and polyterpenes. S. K.

Leningrad Sci. Res. Wood Pulp Chem. Inst., and

All-Union Inst. for the Hydrolytic and Sulfite-Alcoholic Industry

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

AUTHOR INDEX

1ST AND 2ND LETTER

3RD AND 4TH ORDERS

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

PROCESSES AND PROPERTIES INDEX

Bornyl chloride and its isomers. G. A. Rudakov and I. G. Eroshevskii. *J. Gen. Chem.* (U. S. S. R.) 10, 1958-60 (1940).—The product isolated by Lyubomilov, Rutovskii and Sheremet'eva (*C. A.* 34, 3718[1]) from the cleavage products of the liquid chlorides which were obtained by the action of HCl on pinene and which they did not identify is shown to be α-fenchene. B. Z. Kamich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.

Riddle of the Chelyabinsk graben. IUn.tekh. 8 no.11:29 N '63. (MIRA 16:12)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.

New ring vulcanizer. Avt.transp. 40 no.2:22-23 F '62. (MIRA 15:2)

1. Glavnyy mekhanik Kirovskogo Glavtoupravleniya.
(Vulcanization--Equipment and supplies)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.

Continuous production of formic ester of isoborneol from camphene. Gidroliz. i lesokhim. prom. 11 no.6:10-11 '58. (MIRA 11:10)

1.TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Isoborneol) (Camphene)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G. A.

Catalytic transformations of terpenes. VI. Catalytic isomerization of α-pinene into β-pinene. G. A. Rudakov and M. M. Shestaeva. *Zhur. Obshchei Khim.* 25, 621-31 (1955); *J. Gen. Chem. U.S.S.R.* 25, 597-600(1955)(Engl. translation); cf. *C.A.* 49, 5390c.—Isomerization of *d*-α-pinene by contact with titanic acid in liquid phase at 160° (cf. *C.A.* 49, 10895c) gave an isomerizate contg. 32% pinene. Fractionation of combined products from several runs yielded: camphene, α-pinene, α-terpinene, limonene, and β-pinene. The latter, identified best by rotary dispersion at 470 mμ, apparently forms as a result of a dynamic equil. between the 2 isomers. At 160°, the equil. const. K is 0.015-0.018, in favor of the α-isomer. G. M. Kosolapoff

CH

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RUDAKOV, G. A.

Catalytic transformations of terpenes. VII. Preparation of optically pure α-pinene from β-pinene. G. A. Rudakov and M. M. Shestaeva. *Zhur. Obshchei Khim.* ~~26, 2357~~-61(1956); cf. *C.A.* 49, 10805*c*; 50, 3322*i*.—β-Pinene isolated from *Picea excelsa* turpentine by very careful distn. was isomerized by heating with pure BzOH 20 hrs. at 125° in the presence of hydroquinone. The resulting α-pinene after careful fractionation was obtained in optically pure state, $[\alpha]^{19}$ 50.0° ± 0.5°. G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.

Mechanism of heterogeneous catalytic isomerization of hydrocarbons on acid catalysts. III. Mechanism of racemization of camphene on titanic acid. G. A. Rudakov and M. M. Shestaeva. *Zhur. Obshchei Khim.* 26, 2420-33 (1956); *C.A.* 41, 114*a*; 50, 5579*c*.—On heating with titanic acid to 100-60° some 40% of camphene is racemized apparently through reversible transformation of camphene and tricyclene, while some 60% is isomerized through steric rearrangement of the carbonium ion formed from camphene. The latter course follows the mechanism of Nametkin rearrangement (N. and Bryusov, *J. Russ. Phys.-Chem. Soc.* 60, 265(1928)). The course of the reaction was followed by optical activity and freezing curves of fractions obtained from the reaction mixt. The retardation of Nametkin rearrangement at 100° observed by Roberts and Yancey (*C.A.* 48, 9974*b*) was not confirmed in this work.

G. M. Kosolapoff

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Central Sci. Res. Inst Wood Chemistry

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RUDAKOV, G.A., YEROSHEVSKIY, Y.G.

USSR

"The Problem of the Study of Bornylchloride and its Isomers"Zhur. obshch. khim., No. 22 1940. All-Union Scientific-Research Institute of the Hydrolysis and Sulfite-Alcohol Industry Received 27 May 1940.
Report, U-1612, 3 Jan. 1952.

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1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

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Cd

10

The catalytic transformation of terpenes. II. Transformation of Δ^3-carene under the influence of activated clay. G. A. Rudakov and G. A. Artamonov. *J. Gen. Chem.* (U.S.S.R.) 15, 75-85(1945)(English summary); cf. *C.A.* 39, 3245[5].—Δ^3-Carene (I) (350 g.) was refluxed with stirring with 0.5% activated clay (2.8 g.) at 170° for 1 hr., filtered, and fractionated *in vacuo*, yielding dipentene and, in very small amt., sylvestrene. The dipentene underwent a further catalytic transformation previously described. Simultaneously with isomerization, polymerization was observed, yielding products hardly different from the dipentene obtained under similar conditions. Therefore, the polymers formed should be considered the products of polymerization of monocyclic terpenes, more likely of α-terpinene, which has a conjugated system of double bonds, but not the product of polymerization of I.

The phys. properties of I obtained from *Pinus sylvestris* and a considerable change in its optical properties after its partial isomerization disclosed an admixt. of other hydrocarbons, probably β-Δ^3-carene. The latter probably was transformed by isomerization into dipentene. A. A. P.

Leningrad Sci. Res. Inst. Wood Pulp Chemistry

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

10

Catalytic transformations of terpenes. III. Catalytic transformations of camphene in the presence of activated clays. G. A. Rudakov and L. I. Gulyaeva. *J. Gen. Chem.* (U.S.S.R.) 16, 251-60(1946); cf. *C.A.* 40, 2131[8].—Heating of camphene with activated clay results in the formation of polyterpenes and of volatile hydrocarbons which are close in mol. wt. to camphene and borneol. The rate of transformations is much less than that presented by similar transformations of pinene, carene, and dipentene. The main reaction product consists of polyterpenes of which about 75% is dimeric in nature. The volatile products are very complex and contain cyclic hydrocarbons (C_8H_{16}), cymene, probably menthene, and various unknown substances, which result from ring cleavage and other deep-seated transformations. The discovery of a small amt. of borneol among the reaction products indicates the probability of the formation of its aluminosilicate ester as an intermediate on the catalyst surface, thus confirming the reaction mechanism proposed by Tishchenko and Rudakov (*C.A.* 28, 405[9]). Camphene was heated in 50-100-g. lots with activated clay with stirring for 1-4 hrs. at 180° with 0.5-20% catalyst. The amt. of transformed product did not become appreciable until at least 5% catalyst was used. The max. amt. of polymer formed (74.5%) was obtained with 10% catalyst heated for 3.5 hrs. The *dimer*, which constitutes most of the polymers, b_{16} 195-7°, d_4^{20} 0.9457, n_D^{20} 1.5002. **IV. Catalytic transformations of α-pinene in the presence of activated clays.** G. A. Rudakov. *Ibid.* 261-76.—A study of the transformations of α-pinene caused by heating at 120-80° with activated clay was made. It was shown that the esterifiable hydrocarbons resulting from these catalytic transformations consist of camphene and fenchenes. The latter reaches a max. of about 10%. The max. transformation observed gave 50-5% camphene, 5-6% fenchenes, 30-40% monocyclic terpenes, and 5-10% polymeric matter. At this point of max. transformation both pinene and methylsantene are absent. The amt. of esterifiable hydrocarbons drops off fairly rapidly due to the further reaction of fenchenes (polymer formation). The polymers obtained are mainly dimers of monocyclic terpenes, thus showing that the rate of polymerization of dipentene is somewhat higher than that of pinene. It is shown that camphene polymerizes 10-20 times slower than the monocyclic terpenes.

G. M. Kosolapoff

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Central Sci. Res. Inst. Wood Pulp Chem.

Irreversible catalysis and catalytic dehydrogenation of some hydrocarbons on activated carbon. G. A. Rudakov, N. P. Borisova, O. A. Emel'yanova, I. G. Eroshevskii, N. F. Komshilov, A. N. Makarova, N. M. Merlis, and Z. S. Khomenko. *Zhur. Priklad. Khim.* (J. Applied Chem.) 22, 180-98(1949). Pure dipentene (I), passed at 110-50° over water-vapor activated charcoal, reacts in the main according to $3C_{10}H_{16} \rightarrow C_{10}H_{20}$ (*p*-menthane) (II) + $2C_{10}H_{14}$ (*p*-cymene) (III); the reaction thus takes place at a considerably higher temp. than on Pd (130°) and on Ni (280°). No reaction occurs on crushed quartz at 420°. Δ_3-Carene (IV), on activated C at 410-30°, reacts according to the same equation as I, with the same products; i.e., the 3-membered ring is opened up along with dehydrogenation-hydrogenation; here, again, the temp. of the reaction is considerably higher than in the analogous reaction of carane on Pd asbestos (160-70°). α-Pinene (V), at 350° and 420° on activated C, is completely isomerized into allocimene (VI) which, in turn, is cyclized into a mixt. of α- and β-pyronene. Some V is converted into I but this is not further converted into II + III, evidently owing to the poisoning effect of the polymerization products of the pyronenes. At higher temps., from 500° up, the monocyclic terpenes undergo, to an increasing degree, dehydrogenation with evolution of H_2, and at 600° they are completely dehydrogenated to aromatic hydrocarbons. This is accompanied by partial splitting off of side chains, thus, considerable amts. of PhMe appear along with III. Side reactions involving ring openings are not significant if the time of contact is not too long; thus, at 450, 550, and 600°, losses due to ring opening do not exceed 1, 4, and 8%, resp. Dehydrogenation of II on activated C requires a temp. of 550-600°, i.e. about 250-300° higher than on Pd or Ni, and relatively long times of stay in the hot zone, of the order of 1 min.; under these conditions, one finds, along with the main products of dehydrogenation, III and, probably, *p*-methyl-α-methylstyrene, also considerable amts. of products of side reactions, C_6H_6, PhMe, light cycloparaffins, and alkylation products, $C_6H_4Me_2$ and $C_6H_3Me_3$. Products of reactions involving ring opening attain 20-28%. On crushed quartz, at 550-600°, II also undergoes pyrolysis, but considerably more slowly than on activated C, and the yield of aromatic hydrocarbons is much lower.

N. Thon

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G. A.

Physical properties of camphene. G. A. Rudakov and M. M. Shestaeva. *Zhur. Obshchei Khim.* 26, 2362-4(1956).—Specimens of camphene derived from *Abies sibirica*, from isoborneol, or by isomerization of α-pinene were shown to have identical properties after careful purification consisting of thorough fractional distn. Cooling curves of the material substantiate the claim of identity. The pure camphene, boiled at 158.5°, melted at 48.5°, and had n_D^{20} 1.4564, and d_4^{20} 0.8421. G. M. Kosolapoff

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RUDAKOV, G.A.

USSR

Catalytic transformations of terpenes. V. Catalytic transformations of 3-carene over metatitanic acid. G. A. Rudakov and A. T. Marchevskii. *Sbornik Statei Obshchei Khimii* 2, 1432-15(1953); cf. *C.A.* 31, 4554[6]; 41, 1146.—Heating 3-carene with metatitanic acid leads to isomerization into *4-carene*, b. 167.5-8°, d_{20} 0.8617, n_D^{20} 1.4747, $[\alpha]_D$ 89.37°. Probably a similar isomerization takes place with other acidic catalysts. The formation of 4-carene was confirmed by oxidation of this to *1,1-dimethyl-2-(γ-oxobutyl)-cyclopropane-3-carboxylic acid*, d_{20} 1.058, n_D^{20} 1.4730, $[\alpha]_D$ 29.9°, which oxidized with NaOBr to *3-carboxy-2,2-dimethylcyclopropanepropionic acid*, m. 103-3.5°, $[\alpha]_D$ 29°. Hydrogenation of 4-carene over Pt black gave carane. The original mixt. besides 4-carene, contained some dipentene, *l*-limonene, terpinolene, α-terpinene and meta-substituted hydrocarbons, including apparently *1-methyl-3-isopropylidene-1-cyclohexene* (sylveterpinolene). Pure *3-carene* has been isolated from *Pinus sylvestris* turpentine in only a few cases in the past (many refs. cited) and the degree of purity is best judged by optical activity. A pure specimen has d_{20} 0.8644, n_D^{20} 1.4722, $[\alpha]_D$ 17.7°. G. M. Kosolapoff

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Rudakov, G.

4

Dispersion and caking of various forms of ammonium nitrate (in middle Asia). A. Abdumutalov, G. Rudakov, and I. Chumachenko. *Khlopkovodstvo* 4, No. [illegible]).—NH_4NO_3 (I) in granulated form, alone or mixed with superphosphates, is superior with regards to caking and ease of dispersion to I currently produced in small crystals. A spherical granule with a smooth surface and with a diam. of 5 mm. is preferred. Elisabeth Barabash

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Rudakov, G.A.

USSR/Chemistry - Catalysts

Card 1/1 Pub. 151 - 29/38

Authors : Rudakov, G. A., and Khomenko, Z. S.

Title : The nature of catalysts used for isomerization and polymerization of hydrocarbons. Part 1.- Cause for catalytic activity of titanic acid

Periodical : Zhur. ob. khim. 24/2, 337-343, Feb 1954

Abstract : The catalytic activity of titanic acid in the isomerization of pinene was compared with that of aluminum silicate catalysts. The activity of the titanic catalyst was found to be due mainly to its acid properties. The derivation of active titanic acid through electro-dialysis with sodium salt proves that the activity of the Ti-catalyst is caused mostly by the characteristics of the titanic acid and not by the presence of adsorbed acids or basic salts. The high catalytic activity and plainly expressed acidity make titanic acid closely related to aluminum silicates and not to its closest analogues - silicic acid and aqueous Al_2O_3. Fourteen references: 12-USSR; 1-USA and 1-English (1891-1953). Tables; graphs.

Institution : Central Scientific Research Forest-Chemical Institute

Submitted : July 6, 1953

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G. A.

USSR.

The nature of catalysts used in isomerization and polymerization of hydrocarbons. I. The cause of catalytic activity of titanic acid. G. A. Rudakov and Z. S. Khomenko. *J. Gen. Chem. U.S.S.R.* 24, 345-9(1954)(Engl. translation).—See *C.A.* 49, 4583g. H. L. H.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G. A.

USSR/ Chemistry - Catalytic isomerization

Card 1/1 : Pub. 151 - 31/37

Authors : Rudakov, G. A.; Khomenko, Z. S.; and Shestayeva, M. M.

Title : Mechanism of heterogeneous catalytic hydrocarbon isomerization over acid catalysts. Part 1.-

Periodical : Zhur. ob. khim. 24/3, 549-557, Mar 1954

Abstract : The mechanism of reaction between pinene, camphene and limonene with catalysts resulting in their isomerization (titanic acid and activated lime) was investigated. It was observed that all three hydrocarbons tested isomerize rapidly and two of them racemize when heated with titanic acid. Camphene and limonene formed during catalytic isomerization of pinene over activated lime (125°) and over titanic acid (135-160°) will not react with above mentioned catalysts until the pinene concentration in the reaction mixture is reduced to 25-35%. It was found that the isomerization reaction takes place only on the surface of the catalyst and does not penetrate into the volume. Seventeen references: 9-USSR; 2-USA; 2-German and 4-English (1891-1953). Tables; graphs.

Institution : Central Scientific Research Forest Chemical Institute

Submitted : July 21, 1953

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

~~RUDAKOV, G.A.~~

RUDAKOV, G.A.

5

USSR

Mechanism of heterogeneous catalytic isomerization of hydrocarbons on acidic catalysts. I. Mechanism of reaction of pinene, camphene, and limonene with catalysts which caused their isomerization—titanic acid and activated clay. G. A. Rudakov, Z. S. Khomenko, and M. M. Shestakova. [illegible] U.S.S.R. 24, [illegible] (Engl. translation).—See C.I. 49, 6186d. H. L. H.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G. A.

USSR/ Chemistry Synthesis methods

Card : 1/1 Pub. 151 - 30/33

Authors : Rudakov, G. A., Shestaeva, M. M., Marchevskiy, A. T., and Khomenko, Z. S.

Title : Mechanism of heterogeneous catalytic isomerization of hydrocarbons over acid catalysts. Part 2.- Formation of terpinolene and terpinenes during catalytic isomerization of pinene and limonene over titanic acid.

Periodical : Zhur. ob. khim. 24/8, 1452 - 1457, August 1954

Abstract : The ionic scheme of formation of terpinolenes and terpinenes, as result of catalytic isomerization of pinene and limonene over a titanic acid catalyst, is explained. Direct conversion of pinene and limonene into alpha-terpinene, without the formation of terpinolene as an intermediate product, was established. The increase of the alpha-terpinene content in monocyclic terpenes, after reducing the pinene content in the solution and its effect on the formation of alpha-terpinenes from terpinolene, are explained. Ten references: 5 USSR; 3 USA; 1 German and 1 English (1899 - 1954). Table; graph.

Institution : Central Scientific-Research Wood Pulp Chemical Institute

Submitted : January 13, 1954

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV,G.A.; KHOMENKO,Z.S.; ARBINA,T.F.

Continuous method for producing isoborneol ethyl acetate from campnene. Gidroliz. i lesokhim. prom. 8 no.2:3-4 '55. (MLRA 8:10)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut (Isoborneol) (Camphene)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.; SHESTAYEVA, M.M.

Catalytic conversions of terpenes. Part 6. Catalytic isomerization of α-pinene into β-pinene. Zhur.ob.khim. 25 no.3:627-631 Mr '55. (MLRA 8:7)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Isomers and isomerization) (Pinene)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

Rudakov, G.A.

An application of the reaction of diene synthesis with maleic anhydride. G. A. Rudakov and M. M. Shestaeva. *Zhur. Priklad. Khim.* ~~28, 1199~~-1204(1955).—Maleic anhydride (I) does not react at room temp. with pinene, camphene, 3- and 4-carenes, limonene, and β-phellandrene and does not alter their optical activity. Since under these conditions myrcene and α-terpinene react with I quantitatively and the resulting adducts can be easily removed by washing with aq. NaOH, this reaction can be used for the quant. detn. of the content of the 2 latter compounds in mixed terpenes by detn. of the change of optical activity after such a treatment. Terpinolene does not interfere. A 5-ml. sample is treated with 1 g. I for each 10% of diene present and the mixture kept until color disappearance is complete, after which the NaOH washing is performed. Usually 3-5 days are needed. The reaction can be also run in Et_2O soln. α-Phellandrene can be sepd. from mixts. in the same way.

G. M. Kosolapoff

Chem

Central Sci. Res. Inst. Wood Chem.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

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RUDAKOV, G.A.

4

Continuous production of isoborneol acetate from camphene. G. A. Rudakov, Z. S. Khomenko, and T. F. Arbina. Gidrolis. Prisokhim. Prom. 8, No. 2, 3-4(1955).—C.H. Isoborneol acetate (I) was made by the reaction of camphene (II) and glacial AcOH (III) in the presence of cation exchange resins bearing sulfonic groups (IV); 2% water was permissible in III, and a higher diln. was prevented by the addn. of 100% AcOH. The type of IV was of the utmost importance, and under the favorable conditions the yield was 89%. Esterification of II with HCO_2H under the same conditions was sluggish owing to the greater amt. of water in HCO_2H. T. Iureric

2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

G H RUDAKOV

Dist: 4E4j

Acetic and formic esters of isoborneol. G. A. Rudakov, Z. S. Khomenko, and T. B. Achlaa. U.S.S.R. 102,445, Mar. 25, 1956. The esters are obtained by treating camphene with an excess of a highly concd org. acid in the presence of a catalyst insol. in the reacting substances. As catalyst can be used cation exchange resins or sulfonated coal. After the completion of the reaction the excess acid is driven off. Cf. *C.A.* 50, 4852*f*. M. Hosch

5

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

Rudakov, G. A.

RUDAKOV, G.A.; SHESTAYEVA, M.M.

Catalytic transformations of terpenes. Part 7: Preparation of optically pure α-pinene from β-pinene. Zhur. ob. khim. 26 no.8:2357-2361 Ag '56. (MLRA 10:11)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Pinene)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.; SHESTAYEVA, M.M.

Physical properties of camphene. Zhur. ob. khim. 26 no.8:2362-2364 Ag '56. (MLRA 10:11)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Camphene)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.; KALINOVSKAYA, Ye.A.

Equilibrium between liquid and vapor in binary solutions of camphene - acetic acid and isobornyl acetate - acetic acid. Gidroliz. i lesokhim. prom. 10 no.2:8-10 '57. (MLRA 10:5)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Camphene) (Acetic acid) (Acetates)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.; SHESTAYEVA, M.M.

Separation of camphene form pinene solutions with retention of its optical activity. Zhur.prikl.khim. 30 no.1:169-173 Ja '57. (MLRA 10:5)

1.TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Camphene--Optical properties)
(Pinene)

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RUDAKOV, G.A.

PHASE I BOOK EXPLOITATION SOV/4579

Konferentsiya po razvitiyu proizvoditel'nykh sil Vostochnoy Sibiri, 1958. Khimicheskaya sektsiya

Khimicheskaya promyshlennost'; trudy konferentsii (Chemical Industry; Transactions of the Conference on the Development of Production Forces in Eastern Siberia) Moscow, Izd-vo AN SSSR, 1960. 202 p. (Series: Razvitiye proizvoditel'nykh sil Vostochnoy Sibiri) Errata slip inserted. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Sovet po izucheniyu proizvoditel'nykh sil. Sibirskoye otdeleniye.

Editorial Board: I.P. Bardin (Deceased) Chief Ed., Academician; M.A. Lavrent'yev, Academician; S.I. Vol'fkovich, Academician, V.I. Dikushin, Academician; V.S. Nemchinov, Academician; V.I. Veyts, Corresponding Member, Academy of Sciences USSR; O.D. Levitskiy, Corresponding Member, AS USSR; N.N. Nekrasov, Corresponding Member, AS USSR; L.V. Pustovalov, Corresponding Member, AS USSR; T.S. Khachaturov, Corresponding Member, AS USSR; N.F. Rostovtsev, Academician, VASKhNIL; A.N. Popov, Corresponding Member, Academy of Building and Architecture USSR; L. Ye. Grafov, Deputy Chairman, Gosplan RSFSR; A.D. Gashev, Member, Gosplan RSFSR; A. Ye. Probst, Professor; V.F. Vasyutin, Professor; V.A. Krotov, Professor; P.V. Vasil'yev, Doctor of Economic Sciences; G.I. Lyudogovskiy, Candidate of Technical Sciences; P.A. Letunov, Candidate of Geological and Mineralogical Sciences; and M.G. Shkal'nikov, Candidate of Economic Sciences; Editorial Board of this volume: S.I. Vol'fkovich (Resp. Ed.); G.V. Uvarov, Deputy Chairman, State Committee on Chemistry, Council of Ministers USSR; and V.P. Komarov, Docent; Ed. of Publishing House: A.L. Bankvitser; Tech. Ed.: V.V. Bruzgul'.

PURPOSE: This book is intended for chemical engineers and economic planners concerned with the industrial development of Eastern Siberia.

COVERAGE: This volume is one of a series of 13 containing the Transactions of the Conference on the Development of the Productive Forces in Eastern Siberia. The Conference took place in August 1958. The volume contains summaries of 20 reports presented at the meetings of the Chemical Section of the Conference, brief summaries of pertinent discussions, and the text of resolutions taken by the Chemical Section. The reports deal with the possibilities of developing chemical industries in Eastern Siberia capable of producing artificial fibers, acetylene, plastics, synthetic detergents, synthetic rubber, mineral fertilizers, sulfuric acid, nitrogen, soda, chlorine, etc. No personalities are mentioned. There are no references.

SOV/4579

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Rudakov, G.A. [Professor, TsNILKhI (Central Wood-Chemical Scientific Research Institute)] 190

III. RESOLUTIONS OF THE CHEMICAL SECTION OF THE CONFERENCE 192

AVAILABLE: Library of Congress (HD9656.R92K5,1958)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.; SHESTAYEV, ...

Operation of continuous turpentine distillation columns at the Neyvo-Rudyanka Wood Chemistry Plant. Gidroliz. i lesokhim. prom. 11 no.1:6-8 '58. (MIRA 11:2)

1.TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Neyvo-Rudyanka--Turpentine)
(Distillation apparatus)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.

Results of investigations in the field of isomeric conversions of terpenes. Sbor.trud. TSNIILKHI no.13:107-114 '59. (MIRA 13:10)
(Terpene)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

SOV/63-4-2-24/39

5(0)

AUTHOR: Rudakov, G.A., Professor

TITLE: Competition for the Best Works in Chemistry and Chemical Technology

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 2, pp 271-273 (USSR)

ABSTRACT: The Presidium of the Central Board of the All-Union Chemical Society awarded the prizes for the best works in chemistry and chemical technology. The first prize was not awarded. Second prizes of 3,000 rubles each were awarded to N.K. Kochetkov, R.M. Khomutov, M.Ya. Karpeyskiy (Moscow, Institut farmakologii i khimioterapii - Institute of Pharmacology and Chemotherapy) for the work: "Synthesis of Cycloserin" which is a new antibiotic; to M.G. Valyashko (Leningrad, Vsesoyuznyy institut galurgii - All-Union Institute of Halurgy) for the work: "Geochemistry of Bromine in the Processes of Halogenesis and the Use of the Bromine Content as a Genetic and Prospecting Criterium"; to A.I. Rozlovskiy (Moscow, Institut khimicheskogo mashinostroyeniya - Institute of Chemical Machine Building) for the work: "Kinetics of the Dark Reaction of a Hydrogen Chloride Mixture"; to B.M. Gorelik, M.Ye. Mayzel', N.A. Parshina, I.N. Popov, V.S. Rybina (Moscow, Institut rezinovoy promyshlen-

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SOV/63-4-2-24/39

Competition for the Best Works in Chemistry and Chemical Technology

nosti - Institute of the Rubber Industry) for the work: "The Development of a Method, Apparatus and Technological Process for High-Temperature Infrared Vulcanization of Rubber Fabrics". Third prizes of 2,000 rubles were awarded to G.A. Khabarin, S.P. Venediktov, S.V. Kochetkov, A.Ya. Gorenburgov, B.V. Shishkin, V.Ye. Morashkin (Vladimir, Chemical Plant) for the work: "On the Complex Automation of the Workshop for Acetic Acid Regeneration"; to T.M. Selezneva (Moscow, Dorkhimzavod) for the works: "The Application of Paper Chromatography in the Control of the Production of I-, Gamma-and ASh-Acids"; "The Application of Surface-Active Substances in the Production of I-, Gamma- and ASh-Acids as Foam Eliminators and as Substances Facilitating the Separation of Products in Well Filterable Form"; "The Application of Auxiliary Substances in the Production of I- and Gamma-Acids"; to V.I. Yur'yev, S.S. Pozin, G.M. Skurikhina (Leningrad, Lesotekhnicheskaya akademiya imeni Kirova - Wood-Technical Academy imeni Kirov) for the work: "Exchange-Adsorption and Electrokinetic Properties of Cellulose and Some of Its Derivatives"; to N.A. Fermor, A.B. Peyzner, L.P. Raspopova (Leningrad, VNIISK) for the work: "A Method for the Preparation of a Special Synthetic Latex SKS-50 Suitable for the Insulation of Cable Products and Conditions for Applying it onto the Wires"; to A.G. Pozdeyeva (Sverdlovsk, Uglekhimi-

Card 2/3

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SOV/63-4-2-24/39

Competition for the Best Works in Chemistry and Chemical Technology

cheskiy institut - Coal-Chemical Institute), A.G. Stromberg, T.M. Markacheva (Tomsk, Politekhnicheskiy institut - Polytechnical Institute) for the work: "The Application of the Polarographic Method for the Analysis of Products of the Coke-Chemical Production"; to I.I. Lazovskiy, N.S. Gryaznov, M.G. Fel'dbrin (Sverdlovsk, Uglekhimicheskiy institut - Coal-Chemical Institute) for the work: "Development of a New Technology for Preparing Coal for Coking". A total of 26 fourth prizes were awarded.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.

Terpenes as a basic material for industrial synthesis. Gidroliz. i lesokhim.prom. 12 no.1:4-6 '59. (MIRA 12:2)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.

(Terpenes)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

5 (3)

AUTHORS: Rudakov, G. A., Shestayeva, M. M. SOV/79-29-6-62/72

TITLE: Investigation of the Nature of Catalysts Used in Isomerization and Polymerization of Hydrocarbons (Issledovaniye prirody katalizatorov, primenyayemykh dlya izomerizatsii i polimerizatsii uglevodorodov). II. On the Catalytic Properties of Silicic Acid (II. O kataliticheskikh svoystvakh kremnevoy kisloty)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 2062 - 2068 (USSR)

ABSTRACT: According to modern conceptions the considerably acid character of aluminum silicates, titanic acid, and other solid catalysts determines their catalytic activity in isomerization and polymerization of hydrocarbons. The silicic acid is only weakly acid. Therefore a very low catalytic activity of silica gels, especially under low or moderately high temperatures, should be expected. The data found in publications are contradictory and do not confirm the expected properties. In isomerization of α-pinenes at 100°, silica gel without aluminum does not act as a catalyst at all, and at 155° only very slowly. If an 0.1%-aluminum oxide is precipitated on the surface of such a gel the

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

Investigation of the Nature of Catalysts Used in Isomerization and Polymerization of Hydrocarbons. II. On the Catalytic Properties of Silicic Acid SOV/79-29-6-62/72

catalytic activity at 155° rises 1300 times and is equal to the catalytic activity of loam. In such cases the Soviet industry uses 1% aluminum oxide (occasionally 10%), so that the α-pinene is isomerized even at +20°. These facts explain the easy isomerization of α-pinenes and other unsaturated hydrocarbons under the influence of silica gels, observed by some scientists, and confirm the theory of aluminum silicate catalysis of V. Ye. Tishchenko and G. A. Rudakov. The experimental results published in the paper at hand, show that silica gel without aluminum may be used for the chromatographic separation of unsaturated hydrocarbons. If technical gel, containing 1% aluminum oxide, is used, the alumino silicate must be previously neutralized. It is yet unknown what effect this neutralization exercises upon the separation properties. The two tables show the properties of analyzed gels and for comparison used active loams, produced by the "Voskresenskiy khimkombinat" (Voskresensk Chemical Kombinat). The diagram shows the catalytic isomerization rate of α-pinenes using various catalysts.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

Investigation of the Nature of Catalysts Used in Isomerization and Polymerization of Hydrocarbons. II. On the Catalytic Properties of Silicic Acid SOV/79-29-6-62/72

There are 1 figure, 2 tables, and 22 references, 18 of which are Soviet.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut (Central Scientific Chemical Research Institute for Forestry)

SUBMITTED: May 29, 1958

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

5 (3)

AUTHORS: Rudakov, G. A., Shestayeva, M. M. SOV/79-29-6-70/72

TITLE: On Catalytic Transformations of Terpenes (O kataliticheskikh prevrashcheniyakh terpenov). VIII. Isomerization Changes of Terpinolene in the Presence of Titanic Acid (VIII. Izomerizatsionnyye prevrashcheniya terpinolena v prisutstvii titanovoy kisloty)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 2096 - 2100 (USSR)

ABSTRACT: The isomerization changes of monocyclic terpenes in the presence of acids are usually considered as an irreversible process, which starts from dipentene (I) and passes through terpinolene (II) to α-terpenene (III) and γ-terpenene (IV). A more detailed analysis makes this conception improbable. When acids affect (II), one must expect a simultaneous formation of ions of the carbonium (V) and (VI), or of the corresponding ethers of the α-terpineole and terpinene-4-ole, if the C-atoms 4 and 8 of terpinolene are equivalent in double bond. When the proton of (V) splits, the formation of an equilibrium mixture of 75% of dipentene (I) and of 25% of terpinolene (II) (Ref 1) is to be expected. When the proton of (VI) splits, an equilibrium

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On Catalytic Transformations of Terpenes. VIII. Isomerization Changes of Terpinolene in the Presence of Titanic Acid SOV/79-29-6-70/72

mixture of hydrocarbons (III), (IV) and (II) should result. According to these conceptions, when heating the above named monocyclic terpenes with titanic acid, an equilibrium mixture consisting of (I), (II), (III) and (IV) is to be expected. (scheme 1). The present study should ascertain whether the reciprocal transformations (I)$\rightleftarrows$(II) really take place, the reversible transformation (II)$\rightleftarrows$(III) or (IV), not being taken provisionally into consideration. For this purpose the products of the catalytic changes of terpinolene (II), in presence of titanic acid at a temperature of 135°, were analyzed. In addition to the compounds (II), (III) and (IV) 10% of dipentenes (I) have also been found, which confirms the presence of the reversible transformations (I)$\rightleftarrows$(II). Δ^3-p-menthene and p-cymol have likewise been found. When the optically active limonene is subjected to the action of the catalyst then the presently proved reversible transformations lead to its racemization (scheme 2). In opposition to the hitherto existing admission, the racemization of limonene has, - due to the

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On Catalytic Transformations of Terpenes. VIII. Isomerization Changes of Terpinolene in the Presence of Titanic Acid SOV/79-29-6-70/72

reversible transformations (I)$\rightleftarrows$(II), the advantage over the racemization, due to the rearrangement on account of the double bond in the ring, even in a homogeneous medium. The transformation of the limonene into terpinolene is consequently a reversible reaction and apparently the principal cause of the racemization of limonene when heating with acid catalysts, especially if solid catalysts of the type of titanic acid, which are insoluble in limonene, are used. There are 2 figures and 9 references, 6 of which are Soviet.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut (Central Scientific Chemical Research Institute for Forestry)

SUBMITTED: April 7, 1958

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

KALINOVSKAYA, Ye.A.; RUDAKOV, G.A.

Studies in the field of the saponification of borneol and isoborneol esters. Report No.1: Kinetics of the alkali saponification of borneol and isoborneol esters in alcohol-water solutions. Gidroliz.i lesokhim.prom. 13 no.4:1-3 '60. (MIRA 13:7)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR.
(Borneol) (Isoborneol) (Saponification)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, Georgiy Aleksandrovich; BARDYSHEV, I.I., red.; KHIVRICH, Ye.D., red. izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Chemistry and technology of camphor] Khimiia i tekhnologiia kamfary. Moskva, Goslesbumizdat, 1961. 223 p. (MIRA 15:1)

1. Chlen-korrespondent Akademii nauk Belorusskoy SSR (for Bardyshev).
(CAMPHOR)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

MARGOLIN, D.L.; RUDAKOV, G.A., prof.

Results of the contest for the best works of the Central Administration of the D.I.Mendeleev All-Union Chemical Society in 1959. Zhur.VKHO 6 no.1:102-107 '61. (MIRA 14:3)
(Chemistry, Technical—Competitions)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G. A.

" The use of optical activity of terpenes for ascertaing some reaction mechanisms."

report submitted for the IUPAC 2nd International Symposium on the Chemistry of Natural Products, Prague, Czech., 27 Aug - 2 Sep 62

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

SIDOROV, R.I.; BABOSHIN, B.K.; RUDAKOV, G.A.

Investigating the composition of hydrocarbon terpene mixtures by the method of gas-liquid chromatography. Report No. 1: Studying conditions of the partition of terpenes. Gidroliz. i lesokhim. prom. 16 no.2:12-14 '63. (MIRA 16:6)

1. Institut nefte-i uglekhimicheskogo sinteza Sibirskogo otdeleniya AN SSSR.
(Terpenes)
(Chromatographic analysis)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

BABOSHIN, B.K.; SIDOROV, R.I.; RUDAKOV, G.A.; NIKOLAYEVA, Z.K.; IVANOVA, L.S.

Investigating the composition of terpene carbohydrate mixtures by the method of gas-liquid chromatography. Gidroliz. i lesokhim. prom. 16 no.4:14-15 '63. (MIRA 16:7)

1. Institut nefte- i uglekhimicheskogo sinteza Sibirskogo otdeleniya AN SSSR.
(Gas chromatography) (Terpenes—Analysis)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.; KALINOVSKAYA, Ye.A.

Catalytic conversions of terpenes. Part 10: Heats of isomerization of camphene to tricyclene and Wagner rearrangement during the conversion of camphene hydrate to isoborneol. Zhur. org. khim. 1 no.7:1199-1205 Jl '65. (MIRA 18:11)

1. Institut nefte- i uglekhimicheskogo sinteza Irkutskogo gosudarstvennogo universiteta.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

IVANOVA, L.S.; RUDAKOV, G.A.

Influence of the porous structure of catalysts on the acidic heterogeneous isomerization of α-pinene. Dokl. AN SSSR 163 no.1:113-115 Jl '65. (MIRA 18:7)

1. Institut nefte- i uglekhimicheskogo sinteza Irkutskogo gosudarstvennogo universiteta im. A.A.Zhdanova. Submitted December 9, 1964.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.A.; SHESTAYEVA, M.M.; IVANOVA, L.S.

Influence of the carriers on the course of the acid catalytic isomerization of pinene. Dokl. AN SSSR 162 no.6:1320-1322 Je '65. (MIRA 18:7)

1. Institut nefte- i uglekhimicheskogo sinteza Irkutskogo gosudarstvennogo universiteta im. A.A.Zhdanova. Submitted December 9, 1964.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RULAKOV, G. F.

(Agricultural machinery and implements for the mechanization of field work)

Moskva, Trudrezervizdat, 1953. 221 p. (54-17621)

S760.R9R8

1. Agricultural machinery.
2. Agricultural implements

I. Urnevskii, M. A. jt. au.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

Rudakov, G. F.

Sel'skokhozyaystvennyye Mashiny I Orudiya Dlya Mekhanizatsii Polevodstva
/Agricultural Machines and Tools For The Mechanization of Soil Cultivation,
By/ G. F. Rudakov I M. A. Urayevskiy. Moskva, Trudrezervizdat, 1953
221 p. Illus.
"Literatury": p. 219 - [220]

N/5
7231
.R92

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

ELDANOV, G. F., (ENGINEER)

Agricultural Machinery - Testing

Work of the state machine-testing stations. Sel'Khozmashina no. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1953, Uncl.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUSAKOV, G.K., kand.sel'khoz. nauk; VARENITSA, Ye.T., doktor biolog. nauk, red.; PISAREV, V.Ye., doktor sel'khoz. nauk, red.; BENEVOL'SKIY, S.A., kand. sel'khoz. nauk, red.; RUDAKOV, G.F., laureat Stalinskoy premii, inzh., red.; DOBROKHOTOV, G.N., kand. sel'khoz. nauk, red.; RUMYANTSEV, A.T., red.; ROSSOSHANSKAYA, V.A., red.; PEVZNER, V.I., tekhn. red.

[Handbook for agronomists of the non-Chernozem Zone] Spravochnik agronoma nechernozemnoi polosy. Moskva, Gos. izd-vo sel'khoz. lit-ry. Vol.1. 1960. 687 p. (MIRA 14:7)

(Agriculture)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G. I.

Oak

Renewing oak stand by sowing acorns in a mature forest.
Les. khoz. 6 no. 2, 1953

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

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.M., inzhener; SERGIYENKO, V.A., inzhener.

Dynamometric device for testing the operating parts of cultivators and drills. Sel'khozmashina no.1:21-23 Ja '55. (MLRA 8:3)

1. Sredne-Aziatskiy n.-i. institut mekhanizatsii i elektrofikatsii oroshayemogo zemledeliya (SAIME).
(Dynamometer)(Agricultural machinery--Testing)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

KOSOV, A.P.; MAGAY, L.I.; NIKULIN, B.K.; PAK, M.S.; RUDAKOV, G.M.; SAYFI, E.Kh.; SERGIYENKO, V.A.; SOKOLOV, F.A.; SPIRIDONOV, P.V.; SHPOLYANSKIY, D.M.; TIKHONOVA, I., red.

[Overall mechanization and cultivation practices for cotton crops] Kompleksnaia mekhanizatsiia i agrotekhnika khlopchatnika. Tashkent, Gos.izd-vo Uzbekskoi SSR, 1964. 407 p. (MIRA 17:11)

1. Sredneaziatskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva. 2. Sredneaziatskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (for all except Tikhonova).

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

[illegible]

[illegible], [illegible]: "Investigation of the fertilizer spreaders of combination cation [illegible]." Min Higher Education USSR. Tashkent Inst of Engineers of Irrigation and Mechanization of Agriculture. Tashkent, 1956. (Dissertation for the Degree of Candidate in Technical Science.)

Knizhnaya letopis', No. 30, 1956. Moscow.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, Grigoriy Mikhaylovich; IBRAIMOV, Rustem Ibraimovich; TSAY, Grigoriy Yakovlevich; TIKHONOVA, I., red.; ABBASOVA, T., tekhn.red.

[Mechanization of ambary hemp growing] Mekhanizatsiia vozdelyvaniia kenafa. Tashkent, Gosizdat UzSSR, 1963. 37 p. (MIRA 17:1)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Physical aspect of gas manifestation in the "Udachnaya" volcanic pipe. Neftegaz.geol. i geofiz. no.3:14-16 '65. (MIRA 18:8)

1. Trest "Tyumen'neftegaz".

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Using surfactants to reduce losses in the storage of petroleum products. Transp. i khran. nefti i nefteprod. no.4:26-29 '64 (MIRA 17:7)

1. Nauchno-issledovatel'skiy institut po transportu i khraneniyu nefti i nefteproduktov.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Dependence of the oil yield of the reservoir rocks of the Tuymazy oil field on their permeability and the velocity of the oil flow. Nauch.-tekh.sbor.po dob.nefti no. 18:61-65 '62. (MIRA 17:6)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Relationship between the porosimetric characteristics of reservoir rocks in the Tuymazy field and physicochemical parameters of petroleums. Neft. khoz. 38 no.11:11-13 N '60. (MIRA 14:4)
(Tuymazy region—Oil sands—Permeability)
(Porosity)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Laboratory investigations of the adsorption of surface-active substances. Nefteprom. delo no.9:11-13 '63. (MIRA 17:4)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.; BABALYAN, G.A.

Effect of surface-active agents on the emersion rate of liquid-hydrocarbon drops in water. Izv.vys.ucheb.zav.; neft' i gaz 6 no. 12:45-50 '63. (MIRA 17:5)

1. Bashkirskiy gosudarstvennyy universitet i Ufimskiy neftyanoy nauchno-issledovatel'skiy institut.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Change with the depth of bedding in the specific weight of oils of the Bibi-Eybat oil field. Azerb. neft. khoz. 40 no.10:13-14 O '61. (MIRA 15:3)

(Apsheron Peninsula--Petroleum--Analysis)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Connection between the geothermal gradient and the composition of oil. Geol. nefti i gaza 5 no.12:53-54 D '61. (MIRA 14:11)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut.
(Earth temperature)
(Petroleum--Analysis)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

[illegible], G.V.

Determination of phase-contact surface in the simultaneous pumping of viscous petroleum products with solutions of surface-active substances. Transp. i khran. nefti no.5:19-20 '63. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut po transportu i khraneniyu nefti i neftoproduktov.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V.

Paragenesis of sulfur and asphaltic-resin in Devonian and Carboniferous petroleums of the Volga-Ural region. Geol. nefti i gaza 4 no.11:15-17 N '60. (MIRA 13:11)

1. Ufimskiy neftyanoy nauchno-issledovatel'skiy institut.
(Bituminous materials) (Sulfur)
(Vodga-Ural region--Petroleum)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V., ing.

On the regional parameters of crude oils. Petrol si gaze 12 no.6: 246-248 Je '61.

1. Ufa, U.R.S.S.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, G.V., ing.

Qualitative regional differentiation of crude oils from different petroleum districts as connected with crude oil recovery problems. Petrol si gaze 14 no.2:57-59 F '63.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOW, G.W. [Rudakov, G.V.] (Ufa, ZSSR)

Problems of using surface active substances in methods of secondary utilization of petroleum deposits. Nafta Pol 19 no.7:161-163 Jl '63.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

L 13330-63 EWT(1)/EWT(m)/BDS AFFTC/AMD/ASD AR/K

ACCESSION NR: AP3003926 S/0205/63/003/004/0518/0522

56

AUTHOR: Leonov, B. V.; Lomova, M. A.; Rudakov, I. A.

19

TITLE: Relation of radiosensitivity of rats with antioxidation activity of bone marrow and nonesterified fatty acid content in their blood while in a stress condition

SOURCE: Radiobiologiya, v. 3, no. 4, 1963, 518-522

TOPIC TAGS: antioxidation, bone marrow, nonesterification, fatty acid, stress reaction, radiosensitivity

ABSTRACT: Experiments were performed to determine changes in antioxidation activity of bone marrow and the NEFA (nonesterified fatty acid) content of the blood during a condition of stress and to compare them with changes in radiosensitivity of the organism during the same period. Female white rats were used for the experiment. Group I was exposed to irradiation but not subjected to stress. Groups II and III were subjected to stress produced by a 2-mamp electric current of 2-sec duration given at 2-min intervals. Group II animals were irradiated immediately after one hr of exposure to electric stress. Group III animals were subjected to irradiation 24 hr after exposure to electric stress for

Card 1/2

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ACCESSION NR: AP3003926

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3 hr. In all cases irradiation was produced by Co^{60} using EGO-2 equipment in 700-r doses at the rate of 260 r/min. A stress condition was found to lower the antioxidation activity of bone marrow, increase the NEFA content of the blood, and increase the radiosensitivity of rats. It is conjectured that owing to mobilization of fats from fat deposits antioxidizing agents are used up more rapidly in a stress condition and that one of the mechanisms responsible for an increase in radiosensitivity of animals in a state of stress may be the oxidation of mobilized lipides. Orig. art. has: 3 tables.

ASSOCIATION: none

SUBMITTED: 10Sep62 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AM NO REF SOV: 010 OTHER: 014

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, I.A.; GORIZONTOV, P.D., prof., nauchnyy rukovoditel' raboty

Comparison of two methods of studying the mitotic activity of bone marrow. Lab. delo no.1:28-29 '64. (MIRA 17:4)

1. Deystvitel'nyy chlen AMN SSSR (for Gorizontov).

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

SBITNEVA, M.F.; BALYKIEVA, T.V.; RUDAKOV, I.A.; GORIZONTOV, P.D., prof., nauchnyy rukovoditel'

Indices of blood and bone marrow and splenic imprints in white rats under normal conditions. Biul.eksp.biol.i med. 57 no.5:112-116 My '64. (MIRA 18:2)

1. Deystvitel'nyy chlen AMN SSSR (for Gorizontov). Submitted May 2, 1963.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

GORIZONTOV, P.D.; RUDAKOV, I.A. (Moskva)

Effect of stress on radiosensitivity in rats and the effectiveness of the radiation-protective action of mercamine. Pat. fiziol. i eksp. terap. no.2:17-22 '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

MARKOV, V.N.; RUDAKOV, I.A. (Moskva)

Description of an electrical stimulator for inducing various pathological states in rats. Pat. fiziol. i eksp. terap. 7 no.2:76-78 Mr-Ap'63. (MIRA 16:10)

1. Nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. P.D.Gorizontov.
(ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

BALUDA, V.P.; LYSOGOROV, N.V.; KHNYCHEV, S.S.: ISHMUKHAMETOVA, D.N.; RUKAZENKOVA, Zh.N.; GORLANOVA, T.A.; RUDAKOV, I.A.; SUSANYAN, T.A.

Blood coagulation and its fibrinolytic activity in acute radiation sickness. Vest. AMN SSSR 20 no.9:70-74 '65. (MIRA 18:11)

1. Institut meditsinskoy radiologii AMN SSSR, Obninsk.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

L 16778-66 EWT(m)
ACC NR: AP6001322 SOURCE CODE: UR/0248/65/000/009/0070/0074

AUTHOR: Baluda, V. P.; Lysogorov, N. V.; Khnychev, S. S.; Ishmukhametova, D. N.; Rukazenkova, Zh. N.; Gorlanova, T. A.; Rudakov, I. A.; Susanyan, T. A.

ORG: Institute of Medical Radiology AMN SSSR, Obninsk (Institut meditsinskoy radiologii AMN SSSR)

TITLE: Blood coagulation and fibrinolytic activity in acute radiation sickness

SOURCE: AMN SSSR. Vestnik, no. 9, 1965, 70-74

TOPIC TAGS: radiation sickness, blood, coagulation, hematology

ABSTRACT: The hemorrhagic syndrome is considered the gravest manifestation of acute radiation sickness and to a great extent determines its degree, duration and outcome. However, despite numerous investigations of the factors responsible for hemorrhage in this disease, the pathogenesis of this phenomenon has not been elucidated. The authors have investigated the functional conditions of coagulation and of the fibrinolytic system of the blood in acute radiation sickness produced by gamma-radiation with Co^{60}. 256 "August" strain rats were irradiated with

UDC: 617-001.28-036.11-07:[616.151.5+616.153.962.4]

Card 1/3

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

L 16778-66

ACC NR: AP6001322

600 rad each. Four phases were discernible during the course of the disease: Phase I--primary reaction (1-2 days following irradiation), II--hidden (3-6 days), III--peak (7-15 days), IV--recovery (20-30 days). Detailed descriptions are presented of the physical appearance and behavior of the animals during the four phases as well as of the changes found in the cellular composition of the blood, bone marrow and spleen. The following changes in the clotting system of the blood were observed following irradiation: initial decrease (phase I) followed by an increase in the coagulation time, reduced tolerance of plasma to heparin, diminished prothrombin activity, increased thrombin time and fibrinogen concentration, first an increase (phase I) then a decrease (Phase III) in thrombin concentration, reduced thermal stability, the emergence of fibrinogen B, reduced fibrinase and increased fibrinolytic activity, diminished platelet count and delayed retraction of the clot. The electron microscope showed disturbances in the fibrin fibers such as rupture and vacuolization. It is evident that the hemorrhagic syndrome appears in the first phase only 24 hours after irradiation as indicated by the presence of blood in the feces at that time. It can therefore be concluded that in acute radiation sickness damage to the blood vessel walls first occurs in the gastrointestinal tract and only later spreads to the vessels of the skin. Also responsible for the hemorrha-

Card 2/3

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L 16778-66

ACC NR: AP6001322

O

·gic syndrome is the disordered coagulation of the blood which in itself can cause alterations in the vascular walls and produce bleeding in addition to its more obvious effects. Orig. art. has: 1 table.

SUB CODE: 06/ SUBM DATE: 05Jun65/ ORIG REF: 008/ OTH REF: 017

Card 3/3 mc

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, I.F.

Volatile substances of clematis. Biokhimiya '51, 16, 435-440. (MLRA 4:10)
(BA -AIII My '53:731)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, I.I.

[Great opening theme] Bol'shoi sapev. Rostov-na-Donu, Rostovskoe kn-vo, 1953. 27 p. (MLRA 9:11)
(Rostov Province--Agriculture)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

S/272/63/000/002/006/009
E032/E114

AUTHOR: Rudakov, I.L.

TITLE: Instrument for the microphotometry of X-ray films

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk, Metrologiya i izmeritel'naya tekhnika, no.2, 1963, 117, abstract 2.32.776. (Zap. Voronezhsk. s.-kh. in-ta, v.17, no.2, 1962, 267-269)

TEXT: A microphotometer for the determination of low-intensity light fluxes is described. It was developed in the Kafedra patologii i terapii domashnykh zhivotnykh (Department of Pathology and Therapeutics of Domestic Animals) of the Voronezhskiy s.-kh. institut (Voronezh Agricultural Institute). In this instrument the photocurrent is used to charge a capacitor which is then discharged through a neon MH-3 (MN-3) lamp. The latter discharges only at a particular voltage across its electrodes. Light from the source (2.5 V, 0.28 A lamp) passes through a diaphragm having an aperture of 1 mm^2, which is followed by the X-ray film. It is finally intercepted by a photocell and ejects electrons from the photocathode. These electrons are then stored on a 500-1000 μF

Card 1/2

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capacitor until the striking potential of the neon lamp is reached. This cycle of operations continues until the intensity of the light beam is reduced to zero. The measurements are taken in the form of the number of pulses per given time interval. The instrument is not inferior in accuracy to the Mф-2 (MF-2) microphotometer and with minor modifications can also be used for the photometry of electropherograms.

[Abstractor's note: Complete translation.]

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

VASIL'YEV, Ye.A.; DROBYAZIN, V.N.; RUDAKOV, I.N.

Potentials for the economizing of nonferrous alloys in pipe rolling plants. Stal' 24 no.10:947-948 O '64. (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

CHURAKOV, M.M.; RUDAKOV, I.P.; KHLEBNIKOV, A.Ye.

Hydrogen behavior during the smelting of steel for shaped casting. Izv. vys. ucheb. zav.; chern. met. 6 no.11:47-53 '63. (MIRA 17:3)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, Kh.

More widely generalize and spread the experience of innovators.
Prom.koop. no.6:59-60 Je'55. (MLRA 8:11)
(Ukraine--Efficiency, Industrial)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

CA

Problems in agricultural microbiology and the teachings of Vil'yams. K. L. Rudakov. *Mikrobiologiya* 18, 290-98(1949). — A book by Vil'yams on soil science (*Pochvovedenie*, Moscow, 1948) is critically reviewed with respect to humification, chem. compn. of humus, and the influence of humus and microorganisms in plant nutrition. The current state of research in these fields is discussed as related to Vil'yams' teachings. Julian F. Smith

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, K.S.

"Use of Daylight in Shops With a Conveyer System of Production," Thesis for degree of Cand. Technical Sci. Sub Apr. 49, Moscow Order of Labor Red Banner, Engineering Construction Inst imeni V.V. Kuybyshev.

Summary 92, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949, From Vechernyaya Moskva, Jan-Dec 1949.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, L., arkh.

Nonconstructural housing construction. Zhil.stroi. no.7:10-11 '56. (MIRA 12:6)

(Lipetsk--apartment houses)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, L. F.

Avtomobil' GAZ-51. [Automobile GAZ-51]. Moskva, Mashgiz, 1950. 238 p.

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

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, L. F.

Avtomobil' GAZ-63.
Moscow, Voennoe Izdatel'stvo Voennogo Ministerstva Soyuza SSR, 1950.
pp. 319, illus., diags., tabs.; 23 x 15; green boards.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001445910010-6

RUDAKOV, L. F.

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