BARDYSHEV, I. I.

USSR.

Composition of turpentine from oleoresin of Abies sachalinensis. I. I. Bardyshev and M. V. Gusakova. *Zhur. Prikl. Khim.* 27, 1305–8 (1954); cf. *C.A.* 48, 3700*h*.—The turpentine derived from *A. sachalinensis* gave after fractionation the following constituents: *dl* + *l*-α-pinene, *dl* + *l*-camphene, *l*-β-pinene, *l*-β-phellandrene, *l* + *d*,*l*-bornyl acetate, sesquiterpenes, and high-boiling components of unidentified nature. G. M. Kosolapoff

Central Sci-Res. Wood Chem. Inst.

BARDYSHEV, I. I.

2782. **Method for the rapid quantitative determination of total pinenes in mixtures of terpenes.** I. I. Bardyshev, O. I. Chernyayeva and Z. N. Litvinova. *Gidrolizmaya i Lesokhim. Prom.*, 1956, (2), 16–17; *Ref. Zhur., Khim.*, 1955, (19), Abstr. No. 43,342.—A thermometric method is described, based on the measurement of the temp. of isomerisation, polymerisation and partial etherification reactions of the isomerisation products of α- (I) and β-pinenes (II) by the action of H_2SO_4 in acetic acid medium. Of the three terpene hydrocarbons of turpentine, only I and II give a change of temp. under the reaction conditions described. The total amount of heat evolved is proportional to the content of I and II. The sample soln. (10 ml) and a mixture of 100 per cent. acetic acid and 50 per cent. H_2SO_4 (10:1 by vol.) (10 ml) are mixed in a test-tube in a Dewar flask at 25° ± 0·1° C. The apparatus is kept in a regulated water bath. At first the temp. drops by 0·2° to 0·3° C because of the soln. effect. Increase of temp. of the reaction, Δt, is calculated by subtracting the min. temp. from the max. temp. reached, and then the content of I is determined by a calibration curve made from an artificial mixture of pure I dissolved in turpentine

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BARDYSHEV, I.I., CHERNYAYEVA, O.I. ...

(from which **I** and **II** have been completely distilled off). The standard deviation in the determination of Δt is $\pm 0{\cdot}13$ per cent., equiv. to $\pm 0{\cdot}5$ per cent. of **I**. The max. temp. is reached for turpentines in 3 to 6 min., and for distilled residues in 30 min. The distilled residues are therefore diluted with pure **I** (1:1 by wt.). The described method gives a provisional content of **I**, for turpentines contain **II** also, the Δt of which is higher. To determine the actual content of **I** plus **II**, subtract 1·5 per cent. (experimental correction calculated on a max. content of 8 per cent. of **II** in oil of *Pinus sylvestris*) from the result obtained. Camphene does not interfere.

C. D. KOFKIN

2/2

BARDYSHEV, I.I.

USSR/Chemistry

Card 1/1 Pub. 22 - 18/51

Authors : Bardyshev, I. I.

Title : The presence of p-cymene in soft resin turpentine derived from an ordinary pine (Pinus Silvestris)

Periodical : Dok. AN SSSR 101/2, 263-264, Mar 11, 1955

Abstract : The discovery of cymene ($C_{10}H_{14}$) in soft resin turpentine obtained from ordinary pine (Pinus Silvestris) is announced. The origin of the cymene in pine resin is explained. The physico-chemical properties of the cymene are tabulated. Seven references: 5 USSR, 1 Polish and 1 English (1935-1954). Table; graph.

Institution : Central Scientific Research Forest-Chemical Institute

Presented by: Academician B. A. Arbuzov, October 6, 1954

USSR/Chemical Technology. Chemical Products and Their Application -- Wood chemistry products. Cellulose and its manufacture. Paper, I-23

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6247

Author: Bardyshev, I. I., Tikhova, L. K., Cherches, Kh. A.

Institution: Academy of Sciences Belorussian SSR

Title: Composition of Turpentine from Siberian larch

Original Publication: Vestsi AN BSSR, Ser. fiz.-tekhn. n., Izv. AN BSSR, ser. fiz.-tekhn. n., 1956, No 1, 125-126

Abstract: Turpentine from Siberian larch has been found to contain l-alpha-pinene, l-beta-pinene and d-delta3-carene, that is the same components which are found in turpentine from Daurskaya larch.

Card 1/1

Bardyshev, I. I.

Preparation and properties of colophony from the rosin of common larch. I. I. Bardyshev and Kh. Cherches. *Vestsi Akad. Navuk Belorus. S.S.R., Ser. Fiz.-Tekh. Navuk* 1956, No. 2, 141–5.—Tapped larch trees exuded from May to Sept. 500–1000 g. rosin (I)/tree. The I, contg. 12.5% turpentine (II), was dissolved in Et_2O, the soln. was filtered through a Buchner funnel, heated on a water bath to remove Et_2O, steam distd. to remove II, and the residual mass was then cooked for a while at 165° with the final 15 min. at 15 mm. Hg to give 70% yield of the larch colophony (III). Another III prepn. was made by dissolving I in II to the I concn. of 35%, adding 50 g. NaCl and 200 ml. superphosphate ext./kg. I (the P ext. was made by dissolving 40 g. superphosphate in 200 ml. H_2O at 50° and filtering off the liquid phase), steam-melting the obtained mixt. for 30 min., removing wastes by filtering, decanting the supernatant formed when the melted mixt. stood at 90° for 8 hrs., and removing II by steam distn. at 170°; yield 75% III. The III prepns. were of the following characteristics: acid no. 149 and 147, sapon. no. 9.9 and 10, softening temp. 68 and 65°, and moisture 0.2 and 0.2, ash 0.03 and 0.04, nonsapong. fraction 18.2 and 17.2, and mech. impurities 0.04 and 0.08% for the 1st and 2nd prepn., resp. Pine III differs from the larch III prepns. only by its greater acid no. (160–166) and its smaller nonsapong. fraction (7.5–10.5%). 18 references.

E. Wierbicki

Bardyshev, I. I.

4008

Production of esters of rosin acids and glycerol. I. I. Bardyshev, A. F. Erilane, and A. E. Meltikova (Wood Chem. Plant, Kiev). *Gidrolis. i Lesokhim. Prom.* 9, No. 2, 12(1956).—Glycerol-rosin acid esters were prepd. by heating 1:1 (I), 1:1.25 (II), and 1:1.5 (III) reaction mixts. of rosin acids-glycerol at 230–5° in a glass app. The progress of reaction was followed by the detn. of acid no. of the mixt. III reacted completely in 2, II in 3.5, and I in 7 hrs. The unreacted glycerol was easily removed by vacuum distn.

T. Jurecic

BARDYSHEV, I.I., professor.

Prospects of broadening the raw material supply for rosin and turpentine production. Gidroliz.i lesokhim.prom. 9 no.5:24-25 '56. (MLRA 9:11)

1. Belorusskiy lesotekhnicheskiy institut.
(Turpentine) (Gums and resins)

BARDYSHEV, I.I.

Abietic acid, a primary acid from Picea excelsa rosin. I. I. Bardyshev and Kh. A. Cherches. *Zhur. Priklad. Khim.* 29, 1888-9(1956).—Extn. of the rosin with Me_2CO resulted in direct isolation of abietic acid (I) which was characterized, thus, as a primary constituent of the rosin. I is isolated as bornylamine salt. G. M. Kosolapoff

BARDYSHEV, I. I.

Abietic acid—the primary resin acid of Pinus silvestris. I. I. Bardyshev and L. I. Ukhova. *Doklady Akad. Nauk S.S.S.R.* 106, 89-90(1956).—Abietic acid is not a secondary product but a primary substance existing as such in the exudate of the tree. This was shown by direct crystn. from EtOH of 1.1 kg. of rosin acids from fresh rosin. The 2nd fraction, amounting to 10% of the total, was neutralized with bornylamine in Et_2O yielding a ppt. of bornylamine salt of levopimaric acid, after the sepn. of which a 2nd fraction (10 g.) was obtained consisting mainly of bornylamine abietate, m. 161.5-2°, which decompd. with boric acid gave the abietic acid, m. 173-4.5°, $[\alpha]_D$ −108.7° (EtOH); the ultraviolet spectrum confirmed the identification. The acid formed regular large crystals, a photograph of which is shown; it is claimed that the specimen was more pure than previously described ones. G. M. Kosolapoff

USSR/Chemical Technology - Chemical Products and Their Application. Wood Chemistry Products. Hydrolysis Industry I-9

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2664

Author : Cherches, Kh.N., Bardyshaw, I.I.

Inst : Academy of Sciences Belorussian SSR

Title : Isolation of Abietic Acid from a Mixture of Isomerized Resin Acids of the Oleoresin of Common Spruce.

Orig Pub : Izv. AN BSSR, Ser. fiz.-tekhn. n., 1957, No 1, 23-27

Abstract : Abietic acid (I) has been isolated in a sufficiently high degree of purity by recrystallization of bornylamine abietate. The latter was obtained from isomerized resin acids of spruce oleoresin. It is shown that pure preparations of I are most conveniently stored in the form of bornylamine salt. I kept in the form of this salt for 15 years did not change its initial properties. A study has been

Card 1/2

USSR/Chemical Technology - Chemical Products and Their Application. Wood Chemistry Products. Hydrolysis Industry I-9

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2664

made of the ultraviolet absorption spectrum of bornylamine abietate, and the spectrum of abietic acid was confirmed.

Card 2/2

BARDYSHEV, I.I., prof.

Development of rosin and turpentine production in the U.S.S.R.
Shor.nauch.trud.BLTI no.10:112-122 '57. (MIRA 11:12)
(Turpentine industry)

Bardyshev, I. I.

Neoabietic acid—a primary acid of Pinus silvestris resin.

I. I. Bardyshev, V. V. Kokhomskaya, and L. I. Ukhova. *Doklady Akad. Nauk S.S.S.R.* 112, 653–4(1957); cf. Harris and Sanderson, *C.A.* 42, 3384i.—Filtration of the soft resin from *P. silvestris* gave cryst. rosin acids, converted to Na salts which with boric acid yielded 2 fractions of acids with $[\alpha]_D$ −83° and −63°, resp. The latter fraction with maleic anhydride gave a residue of rosin acids with $[\alpha]_D$ 52°, converted to Et_2NH salts which on fractional crystn. from Me$_2$CO and treatment with boric acid gave *neoabietic acid*, m. 178–80°, $[\alpha]_D$ 172°. A 2nd specimen of the acid, m. 177.5–9°, $[\alpha]_D$ 176°, was obtained from the same fraction without pretreatment with maleic anhydride, merely by fractional crystn. of the *Et_2NH salts;* the pure salt of neoabietic acid, m. 154–7°, $[\alpha]_D$ 121°.

G. M. Kosolapoff.

Institut Khimii Akademii nauk BSSR.

BARDYSHEV, I. I.

AUTHORS: Bardyshev, I. I., and Cherches, Kh. A. 20-6-18/42

TITLE: Dehydroabietic Acid and Palustric Acid, as Components of the Spruce Resin From Picea excelsa Link (Degidroabiyetinovaya i palyustrovaya kisloty-sostavnyye chasti zhivitsy yeli obyknovennoy (Picea excelsa Link)).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 6, pp. 959-960 (USSR).

ABSTRACT: Hitherto levu-pinar-, dextro-pinar ("pimarovaya") and α-sapin-acid have been found (reference 1) within the acid component of the spruce resin (Picea excelsa), whilst the existence of abietic acid has been mentioned first only just (reference 2). In the submitted investigation it has been proved that the dehydroabietic acid and the palustric acid also exist in the resin of this tree. The latter acid has been observed in the resin of the pitch pine (Pinus palustris) and of the pine (Pinus silvestris), whilst the dehydroabietic acid has been observed in the pitch pine (references 3-5).
Experimental part: The resin has been obtained in Belorussia from the standing stock of pine-woods and the resin acids have been obtained from fresh resin by crystallization out of alcohol. The isolation methods, exploitation and coefficients of the specific absorption of both acids mentioned in the title (figures 1 and 2) af-

Card 1/2

Dehydroabietic Acid and Palustric Acid, as Components of the Spruce Resin From Picea excelsa Link. 20-6-18/42

ter the reaction with and without maleic aldehyde are recorded. There are 2 figures, and 5 references, 3 of which are Slavic.

ASSOCIATION: Institute for Chemistry AN, Belorussian SSR (Institut khimii Akademii nauk BSSR).

PRESENTED: June 7, 1957, by B. A. Arbuzov, Academician.

SUBMITTED: June 2, 1957.

AVAILABLE: Library of Congress.

Card 2/2

Bandyshev, I.I.

AUTHORS: Baturev, M. I., Bardyshev, I. I., Latvey-va, A.D 62-2-17/21

TITLE: The Spectra of the Combination Dispersion of the Light of Some Hydrocarbons (Spektry kombinatsionnogo rasseyaniya sveta nekotorykh uglevodorodov).

Periodical: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 2, pp. 232-233 (USSR).

ABSTRACT: The investigated terpenic hydrocarbons belong to the compounds of the meta-series silvestrene-isosilvestrene-silvetor, inclusive For their physical constants see table 1. The spectra of the combination dispersion of these compounds were taken on a three-prism spectrograph (NCh-51). The nature of the two double bonds in the investigated compounds may be very well determined in the given optical data. In silvestrene the double bonds are far distant from each other; it may therefore be assumed that no interaction takes place between them and that they are independent. In isosilvestrene the double bonds are by one C—C member closer to each other than in silvestrene In the latter the ethylene-substituent is in a -position, in isosilvestrene, however, in an -position (in relation to the double bond of the ring). In silvetor, in lone the double bonds

Card 1/2

The Spectra of the Combination Dispersion of the Light
of Some Hydrocarbons. 12-2-17/22

are still closer to each other and an intensive interaction takes place. The fact that one of the two double bonds is outside the ring and the other one inside the ring causes the complicated nature of interaction of the double bonds, as in silvoterpinolene, butadiene-1,3 and similar systems. There are 1 table and 1 reference.

ASSOCIATION: Institute for Fossil Fuels AN USSR (Institut goryuchikh iskopayemykh Akademii nauk SSSR) and Belorussian Wood-Technical Institute imeni S.M. Kirov (Belorusskiy lesotekhnicheskiy institut imeni S.M. Kirova).

SUBMITTED: September 18, 1957

AVAILABLE: Library of Congress

1. Terpenes-Spectra 2. Hydrocarbons-Spectra 3. Terpenic hydrocarbons-Spectra 4. Terpenic hydrocarbons-Exchange reactions

Card 2/2

BARDYSHEV, I.I.; CHERCHES, Kh.A.; KAMYSHNYY, A.A.; KOLOSKO, S.I.; VOLKOVA, N.Ye.

Commercial production of colophony from spruce oleoresin. Gidroliz. i lesokhim. prom. 11 no.1:22-23 '58. (MIRA 11:2)

1.Institut khimii AN BSSR (for Bardyshev, Cherches) 2.Borisovskiy lesokhimicheskiy zavod (for Kamyshnyy) 3.Upravleniye lesnoy promyshlennosti Belorusskogo sovnarkhoza (for Kolosko) 4.Dobrushskaya bumazhnaya fabrika (for Volkova).

(Gums and resins)
(Spruce)

SOKOLOV, A.G.; BARDYSHEV, I.I.

Composition of the acid part of colophony from oleoresin of the Scotch pine. Gidroliz. i lesokhim. prom. 11 no.2:5-7 '58.
(MIRA 11:3)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Tar acids--Analysis) (Oleoresins--Analysis)

BARDY

AUTHORS: Bardyshev, I. I., Kokhomskaya, V. V. 79-2-57/64

TITLE: Resinic Acids (Smolyanyye kisloty). I. On the Nature of α-Sapinic Acid (I. O prirode α-sapinovoy kisloty).

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 2, pp. 538-542 (USSR)

ABSTRACT: The α-sapinic acid was first isolated from pinus maritima Mill by Dupont & Dubourg (ref. 1). The works by V. N. Krestinskiy et al.(ref.5), V. M. Akulovich (ref. 6), D. V. Tishchenko et al. (ref. 7) and B. A. Arbuzov (ref. 8) dealt with the first investigations of their structural formulae and properties. It could be concluded that the majority of the authors regard α-sapinic acid to be a single compound. The present investigations, however, proved that these hypotheses were wrong and that α-sapinic acid is a mixture of levo-pimaric acid, palustrinic acid, neo-abietic acid, abietic acid, and dextro pimaric acid. The individual compounds were isolated by gradual treatment with bornyl amine, boric acid or diethylamine and fractional crystallization. Ultraviolet absorption spectra were recorded and the various specific data of the individual acids were stated. The palustrinic acid was isolated for the first time. There are 5 figures, 1 table, 13 references, 9 of which are Slavic.

Card 1/2

Sci. Chem. Inst. AS Estonian

Bardyshev I. I.

79-2-39/64

AUTHORS: Bardyshev, I. I., Ukhova, L. I.

TITLE: Resinic Acids (Smolyanyye kisloty). II. On the Nature of β-Sapinic Acid (II. O prirode β-sapinovoy kisloty).

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 2, pp. 341-345 (USSR)

ABSTRACT: According to Dupont (ref. 1) the resin of pinus maritima Mill consists of the following acids: α-sapinic acid (49 %), β-sapinic acid (21 %), levo pimaric acid (21 %), and dextro primaric acid (9 %). Krestinskiy (ref. 2) observed α-sapinic acid (55 %), levo primaric acid (30 %), dextro primaric acid (10 %), and β-sapinic acid (5 %) in pinus silvestris L. Neither the structural formula nor the problem of uniformity of β-sapinic acid could be solved. The present work showed that β-sapinic acid obtained by the Krestinskiy method consists of 60% levo primaric acid as well as of neo-abietic and abietic acid. There exists the possibility of an admixture of small quantities of other resinic acids. The isolation of the above acids was carried out by means of bornyl amine, boric acid, diethyl amine or maleic anhydride

Card 1/2

Resinic Acids.
II. On the Nature of β-Sapinic Acid 79-2-58/64

according to the usual methods. They were verified by elementary analysis and ultraviolet absorption spectra. The specific data are given.
There are 3 figures, and 4 references, 3 of which are Slavic.

ASSOCIATION: Chemical Institute AS Belorussian SSR (Institut khimii Akademii nauk Belorusskoy SSR).

SUBMITTED: January 14, 1957

AVAILABLE: Library of Congress

Card 2/2

BARDYSHEV, I.I.; CHERCHES, Kh.A.; UKHOVA, L.I.

New synthesis of levopimaric acid from a mixture of resinous acids. (MIRA 11:4)
Zhur. prikl. khim. 31 no.3:512-514 Mr '58.
(Levopimaric acid) (Gums and resins)

BARDYSHEV, I.I.; CHERCHES, Kh.A.

Resin acids of Crimean pine resins (Pinus pallasiana Lamb.).
Zhur. prikl. khim. 31 no.7:1122-1124 Jl '58. (MIRA 11:9)
(Resin acids)

BARDYSHEV, I.I.; CHERCHES, Kh.A.

Neoabietic acid - primary acid of an ordinary pine soft resin (Picea Excelsa Link.). Zhur. prikl. khim. 31 no.8:1276-1277 Ag '58. (MIRA 11:10)

1.Institut khimii AN BSSR.
(Gums and resins) (Neoabietic acid)

BARDYSHEV, I.I.; ROMAN, L.V.

Investigation of the composition of turpentine and properties of rosin from the resin of the pine (Pinus pithyusa var-Stankewiczii Suk., Pinus stankewiczii Fom.). Zhur.prikl.khim. 31 no.11:1762-1765 N '58. (MIRA 12:2)

1. Belorusskiy lesotekhnicheskiy institut imeni S.M. Kirova.
(Gusm and resins) (Turpentine)

AUTHOR: Zenkevich, I. G., Cherches, Kh. A.

TITLE: Isodextropimaric Acid, a Component of Crystal Resinic Acids from Pinus Sibirica (Rupr.) Mayr (Izodekstropimarovaya kislota - komponent smolyanykh kislot zhivitsy Kedra sibirskogo Pinus sibirica (Rupr.) Mayr)

PERIODICAL: Doklady akademii nauk SSSR, 1958, Vol. 120, Nr 5, Pp. [illegible] (U.S.S.R.)

ABSTRACT: Systematic work was carried out by A. V. Shkatelov (Ref 1) and B. Arbuzov (Ref 2) on the resinolic acids of the [illegible] li of conifers. Several acids were found (Refs 3-7), [illegible] isopimaric acid which have hitherto been assumed to be the main ingredients of the acid part of the resin of Pinus silvestris and of Picea excelsa turned out to be not [illegible] viduel acids, but a mixture of acids like levopimaric-, abietinic-, neoabietinic-, palusteric-, and dextropimaric acid (Ref 8). The acid mentioned in the title (VII) differs from the dextropimaric acid (VI) merely by a deviating position of the substituents in C7. It was separated first from the resin of the American Pinus palustris (Ref [illegible]) In the resinous of the conifers of the U.S.S.R. it has hitherto not been

Card [illegible]

[illegible]aric acid, a Component of [illegible] Resinolic Acids From Pinus [illegible]

Found By means of the present paper was proved that the acid mentioned in the title forms beside the abietic acid an ingredient of the acid part of the resin of Pinus [illegible] There are [illegible] and [illegible] references, [illegible] of which are [illegible]

[illegible] Institut Khimii Akademii nauk [illegible] (Institute of Chemistry, [illegible] Kazakhstan SSR)

[illegible] [illegible] by [illegible] [illegible]bunov, Member [illegible] Academy [illegible] Sciences, [illegible]

[illegible] December [illegible]

1. Acids--Sources 2. Acids--Separation 3. Pinus Sibirica --Processing

Card [illegible]

BARDYSHEV, I.I.; YEFIMENKO, V.I.

Isomerization of terpenes in the presence of resin acids. Isomerization transformations of 3-carene. Dokl. AN BSSR 3 no.4:150-153 Ap '59. (MIRA 12:10)

1.Predstavleno akademikom AN BSSR B.V. Yerofeyevym.
(Carene) (Isomerization)

BARDYSHEV, I.I.; OSIPENKO, I.F.

Composition of hydrolytic turpentine. Gidroliz.i lesokhim.prom. 12 no.2:9-11 '59. (MIRA 12:3)

1. Belorusskiy lesotekhnicheskiy institut.
(Turpentine)

BARDYSHEV, I.I.; UKHOVA, L.I.

Resin acids of the oleoresin of the Siberian larch. Sbor. nauch. rab. Inst. fiz.-org. khim. AN BSSR no. 7:89-95 '59. (MIRA 14:4)
(Resin acids) (Larch)

BARDYSHEV, I.I.; CHERCHES, Kh.A.

Chemical composition of the essential oil of the common spruce. Sbor. nauch. rab. Inst. fiz.-org. khim. AN BSSR no. 7:96-102 '59. (MIRA 14:4)

(Essences and essential oils) (Spruce)

BARDYSHEV, I.I.; YEFIMENKO, V.I.

Isomerization conversions of terpenes in the presence of resin acids. Isomerization conversions of β-pinene. Sbor. nauch. rab. Inst. fiz.-org. khim. AN BSSR no. 7:188-191 '59.

(MIRA 14:4)

(Pinene)

7(3), 5(4), 24(7) SOV/48-23-10-18/39

AUTHORS: Borisevich, N. A., Makarevich, N. I., Prima, A. M., Bardyshev, I. I., Cherches, Ye. A.

TITLE: Identification of Resin Acids by Means of Their Infrared Spectra

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 10, pp 1219-1221 (USSR)

ABSTRACT: Coniferous resins, which essentially contain terpene hydrocarbons and resin acids, have many industrial uses. As the chemical analysis and the separation of the individual acids causes considerable difficulties in a mixture of pure resin acids, the infrared spectroscopic analysis of these substances is of particularly great importance. Hitherto, however, not many resin acids have been investigated in this way. In the present paper the authors give the results obtained by investigating four such resin acids, the structural formulas are mentioned: abietic acid (I), levopimaric acid (II), dextropimaric acid (III), and dehydroabietic acid (IV). Solutions of these acids in CCl_4 as well as pressed samples of acid + potassium bromide were investigated by means of a IKS-11-type

Card 1/2

Identification of Resin Acids by Means of Their Infrared Spectra

spectrometer. The spectra of the solution and the pressed sample show practically no difference whatever. The spectra obtained are shown by four diagrams. Their particular features are discussed. Within the range of the valence oscillations of the groups CH, CH_2, and CH_3 the spectra of I, II, and IV are very similar, and only III deviates, which is due to the existence of the group $-CH=CH_2$. The frequency of the bands corresponding to the groups C=O and COH (1685 and 1282 cm^{-1}) depends only to a small extent on the structure of the remaining acid molecule; the intensity of these bands, however, differs considerably according to the individual acids. Within the range of the double bond C=C a band was found at 1544 cm^{-1} in I, II, and IV, and one was found in III at 1631 cm^{-1} as well as one at 1409 cm^{-1}. In IV the band (1502 cm^{-1}), which is characteristic of the benzene ring, was found. A number of intense bands was also found in the range 800-1100 cm^{-1}: 893 (I), 1007 and 1024 (II), 821 (IV) and 905 cm^{-1}(III). There are 1 figure and 1 Soviet reference.

Card 2/2

BARDYSHEV, I.I.; CHERCHES, Kh.A.; KOVTUNENKO, Z.Yu.; KOKHANSKAYA, Zh.F.

Chromatographic analysis of resin acids in crude turpentine from Scotch pine (Pinus silvestris L.). Dokl.AN BSSR 4 no.10:421-423 '60. (MIRA 13:9)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Resin acids)

S/080/60/033/04/23/045

AUTHORS: Bardyshev, I.I., Cherches, Kh.A., Kokhanskaya, Zh.F.

TITLE: On the Nature of Resin Acids and the Properties of Colophony From Soft Resin of Pinus Massoniana

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 4, pp 884 - 890

TEXT: The chemical composition of the resin acids of Pinus Massiniana growing in China was investigated. In the production of colophony and turpentine materials China hold the third place behind the USA and the USSR. Pinus Massoniana is the main source of these materials. The analysis has shown that the soft resin contained 18% of turpentine, 9% of neutral oils which are distilled very difficultly with live steam, 73% of acidic fractions and insignificant quantities of dirt and water. The following resin acids were discovered: levopimaric 22%, abietic 20%, neoabietic and "palyustrovaya" 25%, dextropimaric 20%, dehydro- and dihydroabietic 3 - 4% and 9 - 10% fatty acids. The physico-chemical characteristics are shown in a table. The properties of a laboratory sample of colophony correspond to the requirements of the State Standard for high-quality colophony from soft resin. Thanks are expressed to the head of the department of

Card 1/2

S/080/60/033/04/23/045

On the Nature of Resin Acids and the Properties of Colophony From Soft Resin of Pinus Massoniana

chemistry of the Pekinskiy lesnoy institut (Peking Wood Institute)for supplying soft resin for investigation.
There are: 7 graphs, 2 tables and 22 references, 20 of which are Soviet and 2 American.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR (Institute of Physical-Organic Chemistry of the AS BSSR)

SUBMITTED: June 5, 1959

Card 2/2

CHERCHES, Kh.A.; BARDYSHEV, I.I.; TKACHENKO, O.T.

Resin acids of the oleoresin of the spruce Picea ajanensis Fisch.
Zhur.prikl.khim. 33 no.10:2381-2384 O '60. (MIRA 14:5)
(Resin acids) (Spruce)

RUDAKOV, Georgiy Aleksandrovich; BARDYSHEV, I.I., red.; KHLYNICH, 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)

BARDYSHEV, I.I.; SKRIGAN, A.I.; ROMAN, L.V.; KOST'YANOVA, S.S.

Chemical composition of dry-distilled turpentine obtained from pine stumps which remained in peat deposits for a thousand years. Zhur. prikl. khim. 34 no.2:440-445 F '61. (MIRA 14:2)

1. Belorusskiy lesotekhnicheskiy institut imeni S.M.Kirova i Institut fiziko-organicheskoy khimii AN BSSR.
(Turpentine)

BARDYSHEV, I.I.; CHERCHES, Kh.A.; KOKHANSKAYA, Zh.F.

Nature of tar acids from resins of the Siberian pine (Pinus sibirica Rupr. Mayr.). Zhur. prikl. khim. 34 no.5:1147-1151 My '61. (MIRA 16:8)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Tar acids) (Pine)

BARDYSHEV, I.I.; TKACHENKO, O.T.; CHERCHES, Kh.A.

Resin acids. Part 4: Chemical composition of resin obtained from pine (Pinus silvestris) oleoresin. Zhur.ob.khim. 32 no.3:999-1001 Mr '62. (MIRA 15:3)

1. Institut fiziko-organicheskoy khimii AN Belorusskoy SSR.
(Resin acids)

CHERCHES, Kh.A.; BARDYSHEV, I.I.; REKUNOVA, E.A.

Chemical composition of ethereal oil from common pine (Pinus silvestris). Zhur.prikl.khim. 35 no.1:209-212 Ja '62. (MIRA 15:1)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Essences and essential oils)

PRIMA, A.M.; MAKAREVICH, N.I.; CHERCHES, Kh.A.; BARDYSHEV, I.I.

Study of the molecular association of resin acids by infared spectroscopy methods. Izv. AN SSSR.Ser.fiz. 26 no.10:1313-1316 O '62. (MIRA 15:10)

1. Institut fiziki AN BSSR i Institut fiziko-organicheskoy khimii AN BSSR.
(Resin acids--Spectra) (Molecular association)

PRIMA, A.M.; MAKAREVICH, N.I.; BARDYSHEV, I.I.; CHERCHES, Kh.A.

Infrared spectra of resin acids. Zhur. fiz. khim. 36 no.3:620-624 Mr '62. (MIRA 17:8)

1. Institut fiziki AN BSSR i Institut fiziko-organicheskoy khimii AN BSSR.

LAZAREV, M.Ya., BARDYSHEV, I.I.

White resin for the cable industry. Standartizatsiia 27 no.12: 31-34 D '63. (MIRA 17:4)

BARDYSHEV, I.I.; TKACHENKO, G.T.

Isomerization of tar acids from oleoresins in the production of resins. Gidroliz. i lesokhim.prom. 16 no.8:6-9 '63. (MIRA 17:1)

1. Institut fiziko-organicheskoy khimii AN BSSR.

BARDYSHEV, I.I.; CHERCHES, Kh.A.; MEYERS, [illegible]

Quantitative analysis of resin [illegible]. Zhur.fiz.khim. 18 no.7: 895-899 Jl '63. (MIRA 16:11)

1. Institute of Physico-Organic [illegible]istry, Academy of Sciences, Byelorussian S.S.R., Minsk.

BARDYSHEV, I.I. [Bardyshau, I.I.]; CHERCHES, Kh.A. [Cherchas, Kh.A.]; MEYARSON, L.A.

Resin acids. Vestsi AN BSSR.Ser.fiz.-tekh.nav. no.1:56-63 '62. (MIRA 16:9)

(Resin acids)

BARDYSHEV, I.I.; YEFIMENKO, V.I.; ERILANE, A.F.; NAUMOVA, N.I.

Continuous esterification of rosin. Gidroliz. i lesokhim.prom. 17 no.2:20-21 '64. (MIRA 17:4)

1. Institut fizicheskoy i organicheskoy khimii AN Belorusskoy SSR (for Bardyshev). 2. Kiyevskiy lesokhimicheskiy kombinat (for Yefimenko, Erilane, Naumova).

BARDYSHEV, I.I.; KOKHANSKAYA, Zh.F.; BOBROVNITSKAYA, G.V.; KLIMOV, V.I.

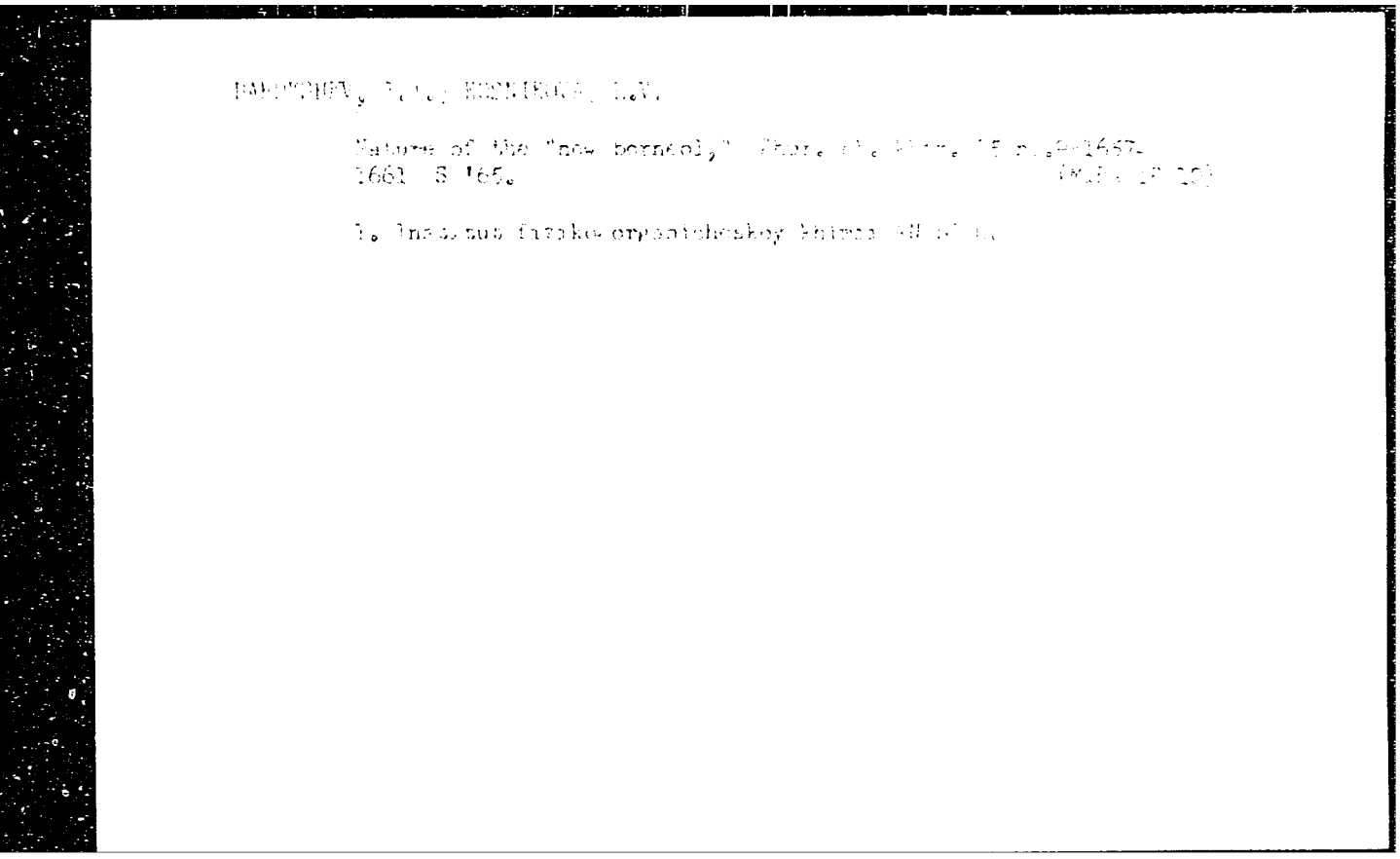
Isomerization of Δ^3-carene to isolimonene. Zhur. obshch. khim. 34 no.9:3120-3124 S '64. (MIRA 17:11)

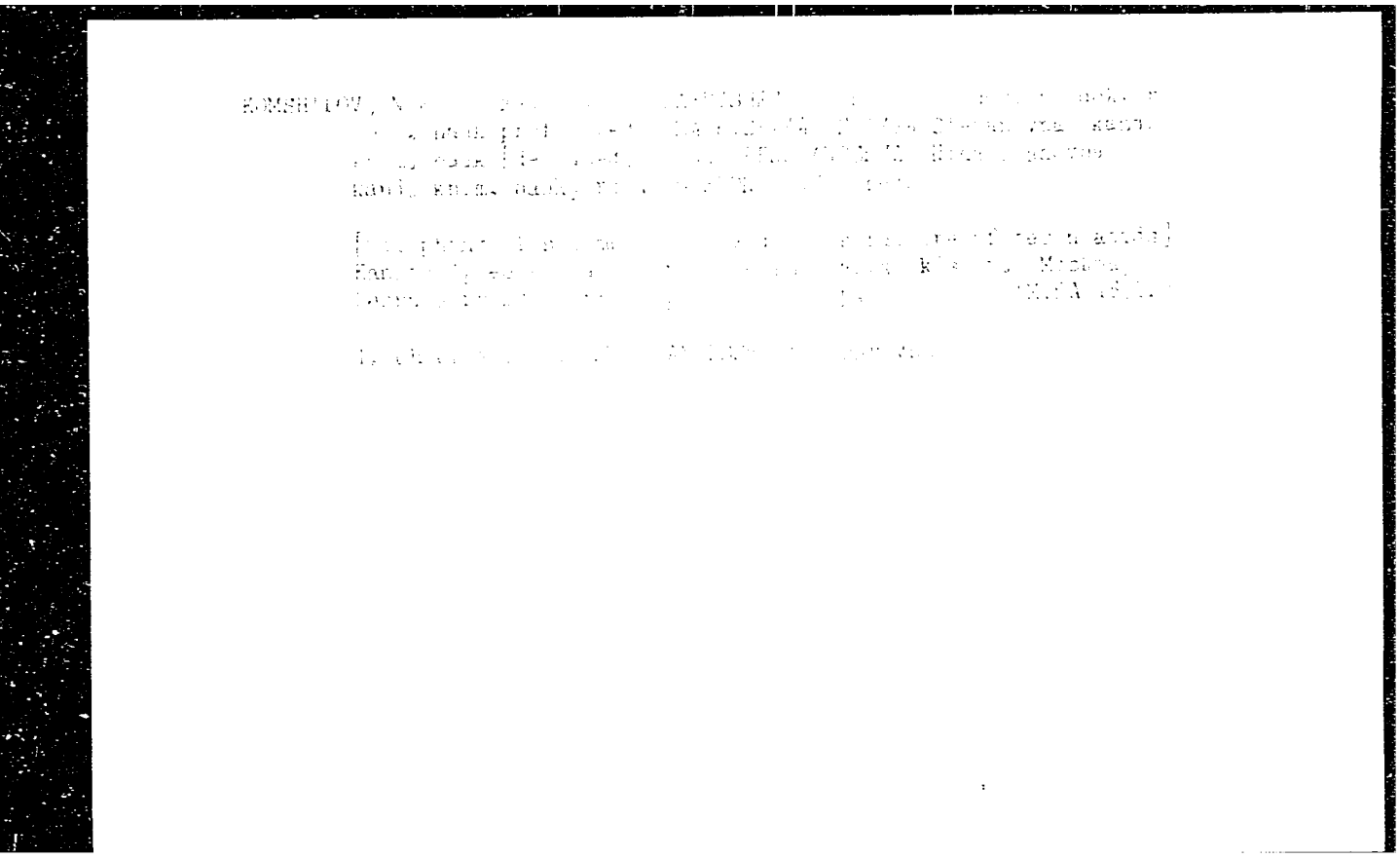
1. Institut fiziko-organicheskoy khimii AN Belorusskoy SSR.

BARDYSHEV, I.I.; CHERCHES, Kh.A.; AKINCHITS, Ye.A.; BULGAKOV, A.N.

Quantitative composition of the tar acids of pine and fir oleoresin. Gidroliz. i lesokhim. 18 no.2:10-11 '65. (MIRA 18:5)

1. Institut fiziko-organicheskoy khimii AN BSSR.

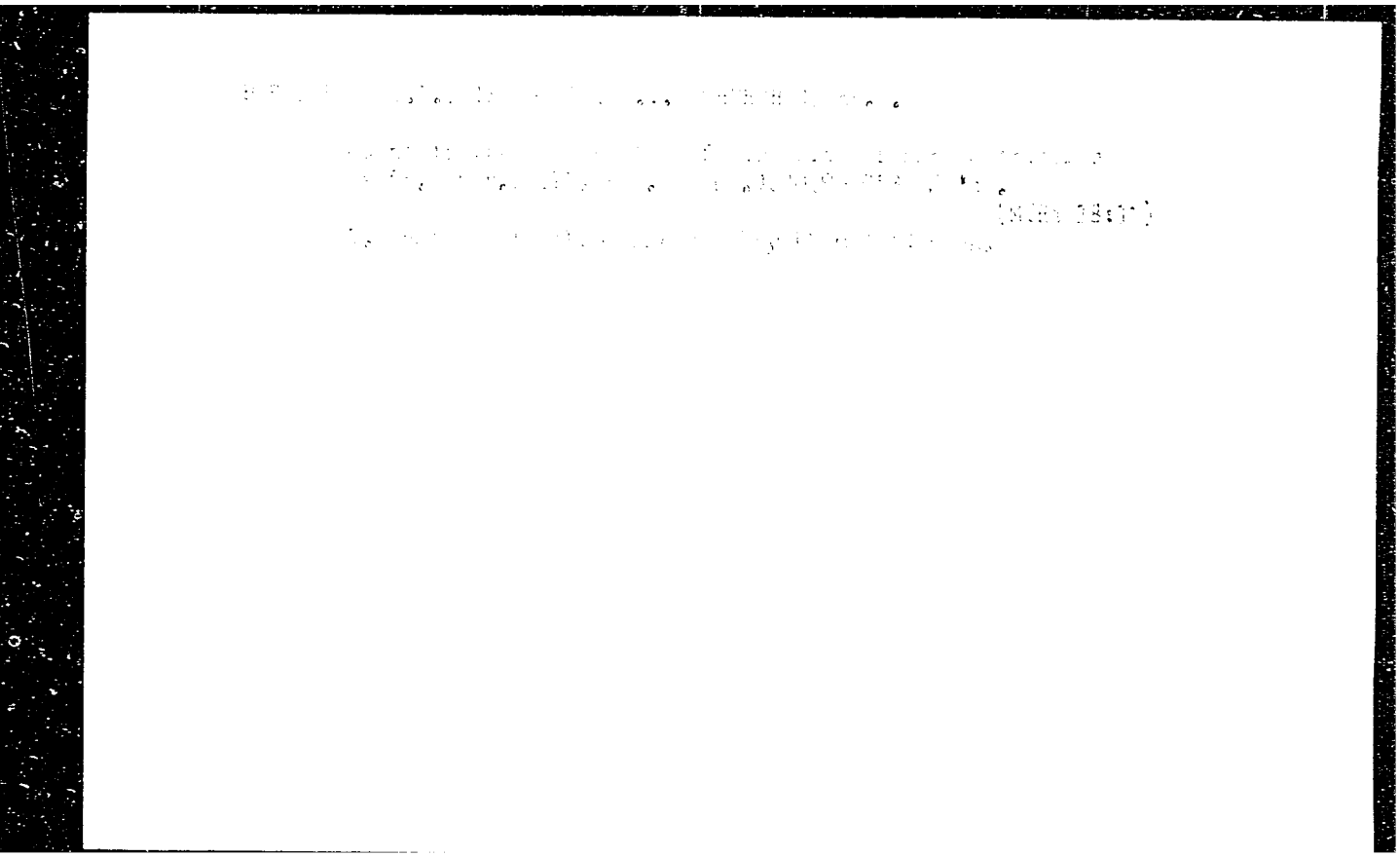




BARDYSHEV, I.I.; MANUKOV, E.N.

Nature of hydrocarbons obtained in the cleavage of HCl from liquid Δ^3-carene hydrochlorides. Zhur. org. khim. 1 no.8: 1426-1430 Ag '65. (MIRA 18:11)

1. Institut fiziko-organicheskoy khimii AN Belorusskoy SSR.



CHERKHES, Kh.A.; BARDYSHEV, I.I.; BULGAKOV, A.N.; AKINCHIS, Ye.A.

Composition of resin oils of oleoresin from Aleppo and Crimean pines and their hydrides. Zhur.prikl.khim. 38 no.11:2624-2627 N '65.

(MIRA 18:12)

1. Submitted October 16, 1963.

L 24520-66 EWT(1)/T JK

ACC NR: AP6009527 (N) SOURCE CODE: UR/0413/66/000/005/0049/0049

INVENTOR: Bardyshev, I. I.; Rysev, M. A.; Shint, A. A.; Kanykina, T. D.; Parmon, A. I.; Geller, A. A.

ORG: none

TITLE: Method of stabilization of sticky material [announced by the Institute of Physical and Organic Chemistry AN BSSR (Institut fiziko-organicheskoy khimii AN BSSR)] Class 22, No. 179407

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 49

TOPIC TAGS: insect control, stabilization

ABSTRACT: An Author Certificate has been issued for a method of stabilizing sticky material containing colophony for insect control. To increase the stability of the material, the colophony is modified at 170 to 300C with 0.5--2% zinc chloride. [NT]

SUB CODE: 11, 07/ SUBM DATE: 22Jan65/

Card 1/1 BLG UDC: 547.914.2-171:632-952

YERMOLENKO, N.F., akademik; BARDYSHEV, I.I.

M.V. Lomonosov, eminent Russian scientist. Inz.-fiz. zhur. 4 no.12:4-10 D '61. (MIRA 14:11)

1. Akademiya nauk BSSR (for Yermolenko). 2. Chlen-korrespondent AN BSSR (for Bardyshev).
(Lomonosov, Mikhail Vasil'evich, 1711-1765)

ACC NR: AP7000968 SOURCE CODE: UR/0416/66/000/012/0085/0087

AUTHOR: Filatov, A. (Engineer); Tetter, V. (Engineer, Lieutenant colonel); Bardyshev, O. (Engineer, Captain)

ORG: none

TITLE: Trucks for combined operating modes [Trucks equipped to operate from rails or unpaved roads]

SOURCE: Tyl i snabzheniye sovetskikh voorushennykh sil, no. 12, 1966, 85-87

TOPIC TAGS: special purpose truck, motor vehicle, railway construction, railway transportation, railway engineering

ABSTRACT: This article states that for the fast restoration of rail service, railway construction and maintenance troops are supplied with modern equipment, such as trucks and truck-cranes capable of operating on unpaved roads and on rails. Specially designed equipment makes it possible to quickly adapt motor vehicles for operation on railroads of any gauge. The K-162, K-104, and K-52 truck-cranes

Card 1/2

ACC NR: AP7000968

Table. 1. Truck and truck-crane operating chracteristics

Characteristics	Trucks					Truck-cranes	
	GAZ-69	UAZ-450	GAZ-63	KrAZ-219	KrAZ-257	K-52	K-104
Load capacity, ton							
on unpaved roads . . .	0.4	0.55	1.65	12.0	12.0	—	—
on rails	0.5	0.75	2.0	12.0	12.0	—	—
Speed on rails, km/hr .	60	60	50	40	45	30	35
Weight of mounted equipment, kg	167	180	270	1000	1000	1380	1650
Maximum weight of train, ton							
on station tracks. . .	—	—	120	450	600	—	—
on a run with a grade up to 8%	—	—	60	275	450	—	—

handle different types of work and can operate from unpaved roads and from rails. A table is given which lists the operating characteristics of various trucks and truck-cranes under different conditions (see Table 1). Orig. art. has: 3 figures and 1 table.

[WS]

SUB CODE: 13/ SUBM DATE: none/ ATD PRESS: 5109

Card 2/2

BARDYSHEV, O.A.

Mechanization of the working of slopes. Avt.dor. 28 no.8:19-20 Ag '65. (MIRA 18:11)

BARDYSHEV, O.A., inzh.

Increasing the reliability of the E-652 excavator. Mekh. stroi. 20 no.4:16 Ap '63. (MIRA 16:3)
(Excavating machinery)

BARDYSHEV, O.A., inzh.

Operating self-propelled D357G scrapers on heavy ground. Mekh. stroi. 20 no.9:19-20 S '63. (MIRA 16:10)

(Scrapers)

BARDYSHEV, Ye., inzh.

Portable hydrometer made in the German Democratic Republic.
Muk.-elev. prom. 24 no.7:31 Jl '58. (MIRA 11:10)
(Hydrometer)

KARPYSHEVA, K. V.

Kardyshev, I. I. and Kardysheva, K. V., On the nature of the l-constituent of Pinus oleoresin turpentines. p. 1475.

The levo-rotating fraction of Russian oleoresin turpentines which is distilled after Δ^3 - carene and called "l-terpine" by V. N. Krestinskii is a mixture of l-limonene (largest part) dipentene and hydrocarbon, the nature of which has not yet been established.

The Central Scientific Res. Inst. of Forest Chemistry.
Received 29, 1947.

SO: Journal of General Chemistry (USSR) 1, (1) No. 7 (1947)

BRIKMEVA, K.

Tishchenko, V., Brikmeva, K. and Nosova, N., The chemical composition of acids obtained in arboreal-fuel gas generators. p. 97

In gas generators fed arboreal waste there is obtained a precipitate resin and weak acids. Very little was known up to now about the chemical composition of the acids. In it were found volatile fatty acids and "soluble resin". What substances were contained in this "resin" was not known and therefore they could not be used. Up to now, the acid water had been discarded. The authors have analyzed this acid water chemically.

The Central Chemical Scientific Research Institute of Forestry.
January 3, 1948

SO: Journal of Applied Chemistry (USSR) 21, No. 9 (1948)

35006. BAGDYSHEVA, K. V. AND BAGDYSHEV, I. I.

O prirode 1 - komponenta otechestvennykh zhivichnykh skipidarov. Trudy TSNIILKhI (Tsentr. nauch.-issled. lesokhim in-t), vyp. 8, 1948, s 45-51. - Bibliogr: 7 iazv.

BARDYSHEVA, K. V.

Presence of Δ^3-carene in the turpentine of the common spruce (Picea excelsa).. I.I. Bardyshev, A. L. Piryatinskii, K. V. Bardysheva, and O.I. Chernyaeva, J. Applied Chem. U.S.S.R. 23, 895-9(1950) (Engl. translation) Russian pub., 847-52); cf. C.A. 44, 10177b--The properties and compn. of two samples of spruce turpentine were detd. Turpentine distd. from spruce gum contains in the portion distg. up to 200°, 33% l-α-pinene (I) (nitrosochloride, m. 103-5°), 37% l-β-pinene (converted to nopinic acid, m. 126°), 4% d-Δ^3-carene (nitrosate, m. 147°), 13% of a mixt. of dipentene (tetrabromide, m. 125-6°) and limonene, and high-boiling constituents. Turpentine obtained from relatively fresh spruce galipot contains 14% l-β-pinene, d-Δ^3-carene (b$_{744.4}$ 170-170.7° nitrosate m. 147°) 10% of a mixt. of dipentene and l-limonene, and higher-boiling constituents. The optical activity of I in the first sample was much lower than that of I in the second, which is a property of fresh gums. Richard J. Kadesch

BARDYSHEVA, K.

USSR/Chemistry - Turpentine Oct 52

"Properties and Composition of Turpentine From the Crimean Pine," I. Bardyshev and K. Bardysheva, Cen Sci-Res Inst of Wood Chem

Zhur Prik Khim, Vol 25, No 10, pp 1095-1098

While studying the properties of turpentine from a large number of trees of Pinus Palasiana Lamb, it was established that the properties of the turpentine vary noticeably from tree to tree. It was demonstrated that turpentine collected from a large number of trees of Pinus Palasiana Lamb grown in the Dneper area consisted basically of alpha-pinene and also

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contains camphene, beta-pinene. beta-myrcene. 1-limonene, oxygen compds, and other high-boiling components.

263T51

BARDYSHEVA, K.

PA 236T7

USSR/Chemistry - Turpentine Nov 52

"Composition of Turpentine From the Austrian Pine (Pinus Austriaca Höss, P. Laricio Ausrtiaca, P. Nigra LK.)," I. Bardyshev, K. Bardysheva, Cen Sci Res Wood Chem Inst

"Zhur Prik Khim" Vol 25, No 11, pp 1231-1233

While investigating the composition and properties of turpentine from the Austrian pine grown in the USSR, it was established that this turpentine contained alpha-pinene,

236T7

camphene, myrcene, and limonene. It was demonstrated that the properties of the turpentine varied from tree to tree.

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BARDYSHEVA, K.V.

Determining terpene alcohols in a pine flotation oil by the dehydration method. Gidroliz. i lesokhim.prom. 12 no.1:11-12 '59. (MIRA 12:2)

1. Belorusskiy gosudarstvennyy institut narodnogo khozyaystva im. V.V.Kuybysheva.
(Alcohols) (Terpenes)

KALISHEVSKAYA, T.M.; BARDYSHEVA, Ye.A.

Role of the vegetative nervous system in reflex humoral regulation of the physiological anticoagulating system in frogs. Biul. eksp.biol. i med. 55 no.1:3-6 Ja'63. (MIRA 16:7)

1. Iz laboratorii fiziologii i biokhimii svertyvaniya krovi i kafedry fiziologii zhivotnykh biolog-pchvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta. (Rukovoditeli - prof. B.A.Kudryashov i prof. M.G.Udel'nov) Predstavlena deystvitel'nym chlenom AMN SSSR S.Ye. Severinym.
(NERVOUS SYSTEM, AUTONOMIC) (FROGS)

Bardyug, P.A.

USSR/Morphology of Man and Animals - (Normal and Pathologic) S-5
Pathologic Anatomy.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12483

Author : Nechayevskaya, M.P., Denisova, N.Ya., Segal', M.S., Bardyug, P.A.

Inst :

Title : Experimental Changes in the Tissues and Organs caused by Cl. sordelii

Orig Pub : Sb. tr. Khar'kovsk. n.-i. in-ta vaktsin i syvorotok, 1955, 21, 113-116

Abstract : A study was made of the organs of 32 guinea pigs that died 2-3 days after an intravenous injection of a Cl.sordellii culture. There was a glassy edema in a section of the paw. The muscles were flabby and could be easily torn. A microscopic study of soft tissues from the thigh at the site of injection revealed a gas phlegmon. Among the viscera, the most essential changes occured in the cardiac muscle and

Card 1/2

BARDYUKOV, M. P.

BARDYUKOV, M. P.

AUTHOR: Podobedov, N. S., Docent

SOV/154-58-2-15 22

TITLE: Chronicle (Khronika) I

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1958, Nr 2, pp 107-109 (USSR)

ABSTRACT: More than 500 specialists participated in the scientific and technical conference on geodesy, aerophotography, and cartography held from October 24 to 28, 1957. The following persons spoke in the plenary sessions of the conference: A. N. Baranov, Head of the GUGK, on: "Soviet Geodesy, Aerophotography, and Cartography over the Past Forty Years." A. G. Nikolayev, Major-General of the Technical Troops: "The Part Played by Geodesy in the Defense of the USSR." Professor G. V. Romanovskiy, "The Present State and Perspective Development of Aerophotography in the USSR." Professor P. S. Zakatov: "The Present State and Fundamental Tasks of Geodetic Instruction in the USSR." Docent N. S. Podobedov: "Today's Topographical Maps and the Fundamental Problems and Ways of Perfecting the Maps." Yu. D. Bulanzhe, Doctor of Physical-Mathematical Sciences: "Soviet Participation in the International Geophysical Year." In the section on geodesy reports were given by the following persons: V. A.

Card 1/3

Velichko, Candidate of Technical Sciences, reported on "The Use of Light Locations for the Establishment of Geodetic Nets." S. V. Yeliseyev, Docent, spoke on "The Tasks and Present State of Production of Geodetical Instruments." Docent A. N. Kuznetsov reported on "The Present State and Possibilities of Development of Astronomy." Engineer V. I. Shillinger spoke on "The Present State and Possibilities for Development of Terrain Leveling Instruments." In the section on aerophotographical geodesy Professor M. D. Konshin gave a lecture on "The Determination of the Outer Orientation of Flying Elements, and Methods for Evaluating the Precision of the Instruments Used." Docent A. I. Shershen' reported on "The Basic Tasks of Further Developing Aerial Cameras." Engineer I. L. Kargopolov spoke on "The Rectification of Photogrammetrical Nets." L. M. Gol'dman, Candidate of Geographical Sciences, dealt with the problems of topographical deciphering of aerial photographs. In the section on cartography Docent P. A. Starostin spoke on "The Fundamental Problems of Mathematical Cartography." Professor Yu. V. Filippov discussed the achievements and prospects in the field of maps and atlantes in the USSR. P. K. Koldayev, Candidate of Technical Sciences, spoke on "Ways and Means for Perfecting the Stereo-

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scopic Reproduction of the Map Relief." Docent I. P. Zarutskaya spoke on "Cartographing Climatic Conditions in the USSR." M. P. Bardyukov, Candidate of Technical Sciences, reported on "Non-Argentiferous Photosensitive Layers and Transparent Bases in Cartography." Engineer B. A. Moraleva spoke on "The Application of Microfilm Photograms in Cartography."

Card 3/3

L 2647-66 EWT(d)/EWP(e)/EWT(m)/EPF(c)/EWP(i)/ETC/EWG(m)/EWP(v)/T/EWP(k)/EWP(h)/
ACC NR: AP5025997 EWP(b)/EWP(l) WW/DS/WH SOURCE CODE: UR/0294/65/003/005/0815/0815

AUTHOR: Zuykov, N. V.; Tsvetayev, A. A.; Bardyukov, M. Ye.

ORG: Moscow Power Engineering Institute (Moskovskiy energeticheskiy institut)

TITLE: Thermocouple for measuring temperatures up to 2500K

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 5, 1965, 815

TOPIC TAGS: thermocouple, temperature measurement, graphite carbon thermocouple

ABSTRACT: A graphite-carbon thermocouple (see Fig. 1) for measuring temperatures from 1200 to 2900K in a carbonized media of inert gas has been developed at the Moscow Power Engineering Institute. In order to remove the air from the space between the external and internal electrodes during heating, several holes, 1.5 mm in diameter, were made in the graphite bushing. The thermocouple's emf vs temperature curve obtained during three consecutive heatings up to temperatures of 3000K indicates noticeable variations in the emf at temperatures up to 2300—2500K; further heating to 2900—3000K produced no effects. The thermocouple can thus be used for prolonged

Card 1/3 UDC: 536.531

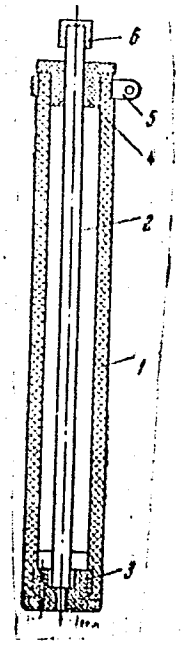

Fig. 1. Diagram of the thermocouple

1 - External graphite electrode; 2 - internal carbon electrode; 3 - graphite bushing; 4 - ceramic electric-insulating sleeve; 5 - copper clamp; 6 - copper contact spring.

L 2647-66
ACC NR: AP5025997

measurements of temperature in an inert-gas media in the 2300—2500K range. It is also capable of withstanding short periods at up to 3000K. Orig. art. has: 2 figures. [AV]

SUB CODE: TD/ SUBM DATE: 31Mar65/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4124

Card 3/3

BARDZICKA, Bogumila; KRAUZE, Anna

Colorimetric determination of boron in plants with the application of the quinalizarin reaction. Chem anal 5 no.5:791-795 '60.
(EEAI 10:9)

1. Department of Agricultural Chemistry, School of Agriculture, Olsztyn. Head of Department: Prof. dr. M. Koter.

(Boron) (Plants) (Colorimetry) (Quinalizarin)

BARDZICKA, Bogumila

[illegible], Mieczysław, prof. dr; [illegible], Anna, dr; [illegible], Bogumila, mgr.

Department of Agricultural Chemistry, School of Agriculture (Katedra Chemii Rolniczej Wyższej Szkoły Rolniczej), Olsztyn - (for all).

Warsaw, Chemia analityczna, No 6, November-December 1965, pp 1247-1251.

"Determination of the available zinc in soil, in extracts of 1 N potassium chloride and 0.1 N hydrochloric acid, using dithizone in toluene."

POLAND/Acoustics - Ultrasonics J-4

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 6570

Author : Wawrzyszek Wiktor, Bardzicki Norbert, Bozek Ewald
Inst : General Chemical Department, Poland
Title : Chemical Relations Occurring in Ultrasonic Field

Orig Pub : Proc. II conf. ultrason., 1956, Warszawa, PWN, 1957, 95-98

Abstract : The author lists briefly the chemical actions of ultrasound. Results are given on the sounding (frequency 500 kcs, intensity w/cm^2) of aqueous solutions of KI (concentrations from 0.01 to 1.0 normal): 1. The effectiveness of sounding depends on the shape and material of the vessel. 2. After five minutes of sounding, the quantity of liberated I_2 is within the limits of the errors of analytical determination. 3. The amount of liberated I_2 is not proportional to the concentration of the solution, and the maximum concentration of I_2 is liberated in 8.3-9 percent solutions. 4. For the occurrence of oxidation of KI, it is necessary that oxygen be present. The hydrogen and CO_2 inhibit the sonic oxidation of KI. 5.

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POLAND/Acoustics - Ultrasonics J-4

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 6570

The presence of organic compounds with low vapor tension (naphthalene or nitrobenzol) do not stop the oxidation of KI, which is not observed in the presence of lightly-volatile compounds (chloroform, acetone, CS_2). 6. Chemically pure water, saturated with oxygen, and sounded for 15 minutes, retains its ability of liberating I_2 from a solution of KI for 24 hours. 7. Under identical conditions, sounding of solutions of KCl and KBr leads to a liberation of a smaller amount of halide compared with a solution of KI. 8. There exists an optimum height of sounded liquid, at which a maximum chemical action of ultrasound is observed. 9. Sounding of 0.2 N solution of sodium sulfide, to which powdered sulfur is added, leads to production of thiosulfate. 10. Soudning of solutions of ascorbic acid accelerates their loss of activity. Bibliography, 16 titles. -- B.B. Kudryavtsev

Card : 2/2

FOLTYNOWICZ, Wiktor; BRONIKOWSKI, Kazimierz; WROCZYNSKI, Marian; TATARKIEWICZ, Janina; BARDZIK, Janusz

Preliminary evaluation of fluothane anesthesia. Pol. przegl. chir. 35 no.10/11:1052-1053 '63.

1. Z II Kliniki Chirurgicznej w Gdansku Kierownik: prof. dr K. Debicki.
(HALOTHANE) (ANESTHESIA, INHALATION)

BARDZINSKI, St.; KWIATON, Zb.; SIWICKI, St.

Experiment in mineral fertilizing of sugar beets adjusted to the amount of precipitation in the vegetative period of the beets. Rocz nauk roln rosl 87 no.4:717-740 '63.

BARDZO, V.I., kand.tekhn.nauk

Deformation of nonrigid pavements during freezing and thawing.
Trudy MADI no.22:117-125 '58. (MIRA 12:4)
(Roads--Frost damage)

L 15275-66 EWT(1)/EWP(1) IJP(c) AT
ACC NR: AP5028293 SOURCE CODE: UR/0022/65/018/005/0090/0096

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TITLE: Radiation from a stream of electrons moving parallel to a metal grid located on the edge of a uniaxial crystal of finite thickness 21,44,55

SOURCE: AN ArmSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, v. 18, no. 5, 1965, 90-96

TOPIC TAGS: particle physics, electron radiation, dielectric material, electron beam

ABSTRACT: The authors give a strict solution for the problem of radiation from a beam of electrons moving above the surface of an anisotropic dielectric of finite thickness with a grating. It is assumed that a grid made up of metal bands is applied to one of the surfaces of a plane-parallel layer of anisotropic dielectric

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material (a uniaxial crystal) with a given permeability. A formula is derived in the form of a Fourier series for the proper electromagnetic field of the electron beam. Conditions are determined under which radiation takes place in the crystal and in free space. Orig. art. has: 22 formulas.

SUB CODE: 20/ SUBM DATE: 15Feb65/ ORIG REF: 004/ OTH REF: 001

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L 25526-66 EWT(1)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) GG/AT

ACC NR: AP6011410 SOURCE CODE: UR/0057/66/036/003/0571/0573

AUTHOR: Baregamyan, V.A.

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TITLE: Diffraction of electromagnetic waves by a metallic grating mounted above an infinite plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 2, 1966, 571-573

TOPIC TAGS: plasma diagnostics, plasma electromagnetic wave, electromagnetic wave diffraction, diffraction grating

ABSTRACT: The author calculates the diffraction of plane polarized electromagnetic waves normally incident from vacuum onto an infinite plane grating of identical equally spaced perfectly conducting strips mounted parallel to and at a finite distance from the plane boundary of a semi-infinite plasma. The space between the plasma and the grating is assumed to be filled with a dielectric material characterized by a scalar dielectric constant. The incident wave is resolved into its circularly polarized components and the amplitudes are expanded in Fourier series with the period of the grating. The boundary conditions lead to a Riemann-Hilbert problem that has been solved by Z.S.Agranovich, V.A.Marchenko, and

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V.P.Shestopalov (ZhTF, 32,4,1962). With the aid of this solution and related results given by V.D.Shafranov (Sb."Voprosy teorii plazmy", vyp. 3, Gosatomizdat,1963), equations are derived for the reflection coefficients for the two circularly polarized components. One can employ these equations to calculate the charged particle density in the plasma from measured reflection coefficients. Orig. art. has: 14 formulas.

SUB CODE: 20 SUBM DATE: 08Jul65 ORIG. REF: 004

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"Technika Poszukiwan, no. 1, 1962." Reviewed by B. Barej. Przegl geol 10 no. 4/5:256-257. Ap-My '62.

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"Rudy i Metale Nieżelazne, no. 3, 1962." Reviewed by B. Barej.
Przegl mech 10 no. 4 [illegible]. Ap-My '62.

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World problems concerning raw oil. Przegl geol 10 no. 4/5:261-262. Ap-My '62

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Crude oil and gas problems in the United Nations Organization. Przegl geol 10 no.11:624-625 N '62.

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The year 1962 in the petroleum industry. Przegl geol 10 no.8:439-440 Ag '62.