"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGELSON, L. D.

I. N. Nazarov, G. P. Verkholetova and L. D. Bergelson, Derivatives of acetylene. LXXXII. Dimerization and structure of dimers of 2-metoxi-1,3-buta-drene and 2-formoxi-1,3-butadiene. P. 511.

Investigated is the thermic dimerization of 2-metoxi-1,3 butadrene and 2-formoxi-1, 3-butadiene and determined the structure of the obtained dimers as para displaced metoxi-and formoxi-vinyl-cyclohexenes.

Inst. of Organic Chemistry of the
Acad. of Sci. USSR
November 10, 1947

SO: Bulletin of the U.S.S.R. Academy of Sciences (Chemistry Series)
Izvestia Akad. Nauk, S.S.S.R., No. 5, 1948.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Bergel'son, L. D. Cand Chem Sci

Dissertation: "Synthesis of Compounds Related to Steroids."

28 April 49

Inst of Organic Chemistry, Acad Sci USSR

SO Vecheryaya Moskva
Sum 71

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D.

USSR/Chemistry - Acetylene Jul/Aug 49
Chemistry - Androstane

"Acetylene Derivatives, No 94, Synthesis of Polycyclic Compounds Related to Steriods: III, Complete Synthesis of Compounds With Androstane Skeletons and Their Structural Isomers With Methylcyclopentane Rings B," I. N. Nazarov, L. D. Bergel'son, I. I. Shmonina, L. N. Terekhova, Inst of Org Chem, Acad Sci USSR, 4 pp

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 4

Reviews results of 5 years of experiments in subject field in tabular and formulary detail. Submitted 20 Mar 48.

63/49T4

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

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CA

10

Syntheses of steroid hormones. I. N. Nazarov and L. D. Bergel'son.—*Uspekhi Khim.* 19, 88-124(1950).—A critical review; 98 references. N. Thon

1957

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

BC

A-2-4

Derivatives of acetylene. CVIII. Synthesis of polycyclic compounds related to steroids. V. Total synthesis of a stereoisomer of 15-methylandrost-8(9)ene-3 : 17 dione. I. N. Nazarov and L. D. Bergelson (*J. gen. Chem. USSR*, 1950, **20**, 648—661 [U.S. transl. [illegible]]). A stereoisomer of 15-methylandrost-8(9)ene-3 : 17 dione is synthesised in six stereospecific stages starting from $CH_3C(OMe)CH:CH_2$ and 1-methylcyclohex-6-en-2-one; diene addition of these (excess of ketone is essential) gives *cis*-1-keto-6-methoxy-9-methyl-Δ^9-octahydronaphthalene (25%), condensation of which with C_2H_2 proceeds smoothly in presence of *tert*-$C_4H_{11}OK$ at −70° to 1-hydroxy-6-methoxy-9-methyl-1-ethinyl-Δ^9-octahydronaphthalene (80%). Hydrolysis of the enol ether and semihydrogenation over Pd of the acetylene linking thence yield (nearly quant.) 1-hydroxy-6-keto-9-methyl-1-vinyldecahydronaphthalene, dehydrated by $KHSO_4$ at high temp. to the dienone (70%), a most useful starting material for steroid syntheses, which on diene addition with 1 : 3-dimethylcyclopent-2-en-4-one affords the named 15-methylandrost-8(9)-ene-3 : 7-dione (40%), not hydrogenated over Pt AcOH. Since diene addition gives only *cis* compounds the steroid corresponds to 14-isopregnane (rings A/B and C/D with *cis*-fusion). The acetylenic enol ether (see above) on semihydrogenation gives 1-hydroxy-6-methoxy-9-methyl-1-vinyl-Δ^9-octahydronaphthalene, which on attempted dehydration over $KHSO_4$ or P_2O_5 unexpectedly isomerises to 6-keto-1-methoxy-9-methyl-1-vinyldecahydronaphthalene; this isomerisation is a general reaction (cf. also following abstract).

Diene condensation of $CH_3C(OMe)CH:CH_2$ (I), b.p. 74·8—75·5°, n_D^{20} 1·4438 (prepared by heating over $KHSO_4$ the $OMe \cdot CH_2 \cdot CMe(OMe)_2$ obtained from $CH_3CH \cdot C(CH$ and MeOH), with 1-methylcyclohex-6-en-2-one (II), b.p. 65—67°/16 mm., n_D^{20} 1·4812 (prep. from 1-methylcyclohexan-2-one to be published), is carried out under different conditions in a CO_2 atm.; optimum yield is obtained from I (7 g.) and II (20 g.) at 190° (4 hr.); when besides unchanged II (14·5 g.) and the dimer of I (5 g.) there is obtained *cis*-1-*keto*-6-*methoxy*-9-*methyl*-Δ^9-*octahydronaphthalene*, $C_{12}H_{18}O_2$ (III) (2 g.), b.p. 102°/0·14 mm., n_D^{20} 1·5092 (*semicarbazone*, $C_{13}H_{21}O_2N_3$, m.p. 204°). Hydrogenation (Pd/Et_2O) of III gives 1-keto-6-methoxy, b.p. 125—128°/5 mm., n_D^{20} 1·5030 (*semicarbazone*, $C_{13}H_{23}O_2N_3$, m.p. 209·5°) and hydrolysis of II with 3% HCl at room temp. (3 hr.) yields 1 : 6-*diketo*-**9-methyldecahydronaphthalene**, $C_{11}H_{16}O_2$, m.p. 57°, b.p. 152°/3 mm. (*disemicarbazone*, $C_{13}H_{22}O_2N_6$, m.p. 221°—222° (decomp.)). Condensation of III in Et_2O at −70° with C_2H_2 in presence of $CH_3Bu^{t}OK$ affords **1-hydroxy-6-methoxy-9-methyl**-1-*ethinyloctahydronaphthalene*, $C_{14}H_{20}O_2$ (IV), b.p. 114—116°/0·07 mm., n_D^{20} 1·5248, hydrogenated over a Pt catalyst to 1-*ethyloctahydronaphthalene*, $C_{14}H_{24}O_2$, b.p. 104—108°/0·1 mm., n_D^{20} 1·5146. The last named is hydrolysed by 3% HCl at room temp. (1 hr.) to 1-*hydroxy*-6-*keto*-9-*methyl*-1-*ethyldecahydronaphthalene*, $C_{12}H_{22}O_2$ (V), m.p. 102°, *semicarbazone*, $C_{13}H_{23}O_2N_3$, m.p. 226°—228° (decomp.). Similar hydrolysis of IV affords 1-*hydroxy*-6-*keto*-9-*methyl*-1-*ethinyldecahydronaphthalene*, $C_{12}H_{18}O_2$ (VI) (70%), m.p. 158°, *semicarbazone*, $C_{13}H_{21}O_2N_3$, m.p. 232° (decomp.), and an *isomer* of V (~15%), b.p. 134°/137°/0·5 mm.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Hydrogenation (Pt EtOH) of **VI** gives **V**. Hydrogenation (Pd Et_2O) of **IV** until 1 mol. of H_2 is absorbed yields 1-*hydroxy*-6-*methoxy*-9-*methyl*-1-*vinylotahydronaphthalene*, $C_{13}H_{22}O_2$ (**VII**) (95%), b.p. 113–115°/0.02 mm., n_D^{20} 1.5198, hydrolysed by 3% HCl to 1-*hydroxy*-6-*keto*-9-*methyl*-1-*vinyldecahydronaphthalene*, $C_{13}H_{20}O_2$ (**VIII**) (75%), b.p. 131–135°/0.3 mm., n_D^{20} 1.5141 (2,4-*dinitrophenylhydrazone*, $C_{19}H_{24}O_5N_4$, m.p. 131°), also obtained by semi-hydrogenation (Pd EtOH) of **VI**. Attempted dehydration of **VII** over P_2O_5 in $COMe_2$ at 80° (20 min.), with p-C_6H_4Me-SO_3H at 110–115° (40 min.), or with anhyd. $KHSO_4$ at 120–160 mm. (30 min.) yields in each case **6-keto-2-methoxy-9-methyl**-1-*vinyldecahydronaphthalene*, $C_{13}H_{22}O_2$, b.p. 94–97°/0.02 mm., n_D^{20} 1.5010 (2,4-*dinitrophenylhydrazone*, $C_{19}H_{24}O_5N_4$, m.p. 137–138°), hydrogenated (Pt EtOH) to 1-*ethyldecahydronaphthalene*, $C_{12}H_{24}O_2$, b.p. 97–100°/0.15 mm., n_D^{20} 1.4943. Attempted dehydration of **VII** by forming the K salt in xylene at 125° (2 hr.), adding anhyd. H_2S (dropwise) and then Et_2O, boiling, and finally heating the mixture with MeI for 2 hr. gives a substance, b.p. 124–128°/2 mm., n_D^{20} 1.5260, which does not react with $(CH_3CO)_2O$. Dehydration of **VIII**, however, proceeds with $KHSO_4$ at 160°/60 mm. (30 min.) and yields 6-keto-9-methyl-1-vinyl-$\Delta^{1,9}$-octahydronaphthalene (**IX**), (b.p. 100–102°/0.1 mm., n_D^{20} 1.5302 [*semicarbazone*, $C_{14}H_{21}ON_3$, m.p. 226–227° (decomp.)]). **IX** reacts exothermically with $(CH_3CO)_2O$, the adduct, formed after heating at 120° for 2 hr., is a viscous semicryst. mass, hydrolysed by 5% HCl at 80° (20 min.) to 7-*keto*-13-*methyldodecahydrophenanthrene*-1:2-*dicarboxylic acid*, $C_{15}H_{22}O_5$, m.p. 202° [*semicarbazone*, $C_{16}H_{25}O_5N_3$, m.p. 238–239° (decomp.)]. Diene reaction of **IX** (2.2 g.) with 1:3-dimethylcyclopent-2-en-4-one (2.2 g.), b.p. 53–54°/10 mm., n_D^{20} 1.4661, at 200–205° (6 hr.) in presence of traces of pyrogallol affords 15-*methylandrost*-8(9)-*ene*-3:17-*dione*, $C_{20}H_{30}O_2$ (1.2 g.), m.p. 163° (*mono-semicarbazone*, $C_{21}H_{33}O_2N_3$, m.p. 219–221°), which on attempted hydrogenation (PtO_2-dioxan) at 100° does not absorb H_2.

P. S. Gentile

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BERGEL'SON, L. D.

I. N. Nazarov, L. N. Terekhova, and L. D. Bergel'son - "Acetylene derivatives. 109. Synthesis of polycyclic compounds related to the sterols. VI. Complete synthesis of the isomer of 15-methylandrosten-3. 17-dione with methylcyclopentane ring B." (p. 661)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1950, Vol. 20, No.4.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D.

USSR/Chemistry - Sterane Derivatives Sep/Oct 52

"Stereochemistry of Steroids," I. N. Nazarov, L. D. Bergel'son, Moscow

"Uspekh Khim" Vol XXI, No 5, pp 566-614

X Reviews work on the subject. Cites almost exclusively foreign publications: only 5 references out of 217 are Russian.

214T30

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D. and NAZAROV, I. N.

"Acetylene Derivatives. 133. Synthesis of Polycyclic Compounds Related to Steroids. 10. Diene Condensation of 2-Methoxy-1, 3-Butadiene with Δ1-cyclohexane-6-one," Zhur. Obshch. Khim., 22, No.3, 1952

Inst. Org. Chem., AS USSR

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D.

USSR/Chemistry - Synthesis

Card 1/1 : Pub. 40 - 16/22

Authors : Nazarov, I. N.; Bergel'son, L. D.; Torgov, I. V.; and Ananchenko, S. N.

Title : Synthesis of steroid compounds and their substances. Part 17.- Derivation of alpha, beta-unsaturated cyclic ketones. Δ^1-cyclenones.

Periodical : Izv. AN SSSR. Otd. khim. nauk 5, 889-900, Sep-Oct 1953

Abstract : A method for the derivation of alpha, beta-unsaturated cyclic ketones, based on the bromination of saturated cyclic [illegible] and consequent separation of the hydrogen bromide, is described. [illegible] of the method are explained. Employing the new method the authors obtained 1-methyl- Δ^1-cyclohexane-o-one, [illegible] Δ^1-[illegible] Δ^1-[illegible]hexenone and Δ^1-cyclopentenone. [illegible] methylcyclohexanone and o-methylcyclopentanone [illegible] the tertiary and not to the secondary carbon atom as stated by other authors. Twenty-two references: [illegible] (1901-1950). Table.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

Institution : Academy of Sciences USSR, Institute of Organic Chemistry

Submitted : April 29, 1952

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D.

USSR/Chemistry - Cortisone Sep 53

"The Chemistry of Cortisone," I.N. Nazarov, L.D. Bergel'son

Usp Khim, Vol 22, No 9, pp 1064-1113.

Discusses in detail the chemistry of cortisone on the basis of foreign work: the bibliography consisting of 141 items does not contain a single Russian reference.

268T14

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

NAZAROV, I.N.; BERGEL'SON, L.D.; RODIONOV, V.M., akademik, redaktor, [deceased]; KISELEVA, Z.A., tekhnicheskiy redaktor

[Chemistry of steroid hormones] Khimiia steroidnykh gormonov. Moskva, Izd-vo Akad. nauk SSSR, 1955. 752 p. (MLRA 8:6)
(Hormones)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D.

"Iotsich Reaction" a chapter from the book Reactions and Methods of Investigation of Organic Compounds, Vol. 4., publ. by State Sci. Tech. Publ. House for Chem. Lit., Moscow, 1956. p. 7-158

(Iotsich reaction) (acetylene compounds)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

AUTHORS: Nazarov, I. N. and Bergel'son, L. D. (Moscow)

TITLE: Stereochemistry of Simple Cyclohexane Derivatives (Stereokhimiya prosteyshikh proizvodnykh tsiklogeksana)

PERIODICAL: Uspekhi Khimii, 1957, Vol 26, Nr 1, pp 3-44 (U.S.S.R.)

ABSTRACT: Numerous references are presented showing that, at a normal temperature, cyclohexane exists in a more symmetrical chair-like form in which the distance between the carbon atoms is 1.54 Å and the valent angles remain almost tetrahedral. In compounds with free rotation of C - C bonds the zigzag trans-orientation of the carbon atoms corresponds to minimum potential energy. The greater stability of the chair-like form of cyclohexane was confirmed by calculating the distance between hydrogen atoms (13). The analogous condition of the bath-tub like cyclohexane molecule indicates that the minimum distance between the hydrogen atoms is only 1.83 Å (8); therefore, such form is considered energetically less favorable. Employing the principle of least deviation of valent angles it is possible to prepare two cyclohexene models "half-chair" and "half-tub" which correspond to the chair- and tub-like forms of cyclohexane. According to thermodynamic calculation (25), the form of the half-chair is more stable than the half-tub.

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Stereochemistry of Simple Cyclohexane Derivatives

The energy difference of both forms is approximately only one-half as much as for cyclohexane and constitutes only 2.7 kcal/mol. The concepts of equatorial and axial bonds and their energy differences are explained. A study of models of monosubstituted cyclohexanes and cyclohexenes showed their ring system to be rigid without experiencing any thermal oscillations of atoms. None of the monosubstituted cyclohexane or cyclohexene derivatives was separated in form of stereoisomers, because the axial and equatorial forms are easily interchangeable. Cyclohexane derivatives possess a high inertness only during bimolecular substitution reaction. The inertness of cyclohexane derivatives is explained by the steric hindrances due to nonuniform structure of the ring. The stereochemistry of radical addition reactions of various cyclohexane derivatives is discussed.

Five tables; there are 238 references, of which 4 are Slavic.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE:

Card 2/2

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

AUTHORS: Bergel'son, L. D., Badenkova, L. P. SOV/62-58-6-32/37

TITLE: The Behavior of Diastereoisomers in SN2 Reactions (Povedeniye diastereoizomerov pri reaktsiyakh SN2)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 793-794 (USSR)

ABSTRACT: The authors of the present report already showed that the reaction of bromohydrine of the type (I) with sodium-thiophenolate RCHBr - CH(OH)R (I) + $C_6H_5SNa \rightarrow RCH(SC_6H_5)$ - CH(OH)R + NaBr in methanol develops according to the SN2 mechanism and threo- and erythroisomers enter into reaction at different velocities. At 34° the following relation of half-period reactions of erythro- and threoforms exists: For 2-bromine-1,2-diphenyl-ethanol ($R=C_6H_5$) - 2; for 3-bromine-1,4-diazetoxybutanol-2 ($R=CH_3COO$) - 1,4; for 3-bromobuthanol-2 ($R=CH_3$)- 1,2. Thus, threo-isomers react more rapidly than erythro compounds; the difference in the velocity of reaction grows with the volume of the substituent. The dibromides RCHBr-CHBrR behave accordingly. There is 1

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

The Behavior of Diastereoisomers in SN2 Reactions

SOV/62-58-6-32/37

reference.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D. Zelinskiy, AS USSR)

SUBMITTED: April, 1, 1958

1. Cyclic compounds--Chemical reactions 2. Chemical reactions --Velocity

Card 2/2

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

5(3) SOV/62-58-11-13/26

AUTHORS: Nazarov, I. N., Bergel'son, L. D., Gunar, V. I.

TITLE: Acetylene Derivatives (Proizvodnyye atsetilena) Communication 191. Preparation of Acids From Tertiary Acetylene Alcohols (Soobshcheniye 191. Polucheniye kislot iz tretichnykh atsetilenovykh spirtov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 11, pp 1354-1360 (USSR)

ABSTRACT: Recently it was demonstrated that cis-dibromo-vinyl carbinols (I) easily cleave off dehydrates and hydrogen bromide while forming unstable 1-bromo-vinyl acetylenes (III). When boiled with alkali they produce α,β- or β,γ-unsaturated acids (Ref 1). In this paper a method of producing unsaturated acids is described which is based on the mentioned reactions. To increase the yield in substituted dibromo butadienes (II) dehydration of dibromo-vinyl carbinols (I) were investigated under the action of heat and various dehydrating agents. Optimum results were obtained in boiling with dibromo-vinyl carbinols in petroleum ether with phosphoric anhydride (in the case of cis-dibromo-vinyl dimethyl carbinol) or with

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

SOV/62-58-11-13/26

Acetylene Derivatives.
Communication 191. Preparation of Acids From Tertiary Acetylene Alcohols

p-toluene sulfo acid (in the case of cis-dibromo-vinyl cyclohexanol). If bromination of acetylene alcohols is carried out in petroleum ether dehydration can take place without separation of brominated alcohols (I). Substituted dibromo butadienes (II) and especially vinyl acetylene bromides (III) are unstable. They partly decompose and saponify in the course of distillation. For this reason it is expedient to carry out further processes of dehydrobromination and of alkali hydrolysis in a single stage without separation of bromine derivatives (II) and (III). Under these conditions the transformation of acetylene alcohols into unsaturated acids can be carried out in a great number of cases in sufficient yield (Table 1). The constants of all known acids agree well with the data from publications. There are 1 table and 15 references, 1 of which is Soviet.

Card 2/3

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

SOV/62-58-11-13/26

Acetylene Derivatives.
Communication 191. Preparation of Acids From Tertiary Acetylene Alcohols

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: March 27, 1957

Card 3/3

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

5(3) SOV/30-58-12-38/46

AUTHORS: Gonikberg, M. G., Doctor of Chemical Sciences, Bergel'son, L. D., Candidate of Chemical Sciences

TITLE: Conformal Representations in Organic Chemistry (Konformatsionnyye predstavleniya v organicheskoy khimii) Conference in Moscow (Soveshchaniye v Moskve)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 12, pp 94 - 96 (USSR)

ABSTRACT: The conference took place from September 30 to October 2 dealing with the problems: "The Theory of Chemical Structure, Kinetics and Capacity of Reaction", as well as "The Synthesis and Study of Biologically Important Natural Compounds". The conference was convoked by the Uchenyye sovety pri Otdelenii khimicheskikh nauk (the Scientific Councils at the Department of Chemical Sciences) as well as by the Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D.Zelinskiy AS USSR). About

Card 1/5

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

SOV/30-58-12-38/46

Conformal Representations in Organic Chemistry.
Conference in Moscow

300 persons took part in the work of the conference. In his opening speech B. A.Kazanskiy said that it was necessary for the exact description of an organic molecule to know its structure following Butlerov's theory, as well as to know its formation and conformity. In addition the following lectures were given: V.F.Kucherov, V.M.Andreyev reported on new examples of the successful application of the principles of conformal analysis for proof of the formation of stereoisomers. V.F.Kucherov, N. Ya.Grigor'yeva, G.M. Segal', V.M.Andreyev worked out stereospecific reactions of the "epoxylation", of the hydroxylation, of the lactonization , of the cyclohexene derivatives and octaline derivatives, which allow a new approach to the synthesis of the stereoids. E.A.Mistryukov, N.I.Shvetsov, D.V.Sokolov, G.S.Litvinenko, K.I. Khludnev on the synthesis of anesthetics. A.A.Akhrem , A.V.Kamernitskiy, G.V.Aleksandrova, I.N. Nazarov (deceased) gave some information on the conformal analysis of organic reactions.

Card 2/5

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Conformal Representations in Organic Chemistry. SOV/30-58-12-38/46
Conference in Moscow

L.D.Bergel'son, L.P.Badenkova on new examples of the influence of the conformities upon the reactivity of stereoisomers.
Yu.T.Struchkov on the influence of the interaction of the non-valence-bound atoms upon molecular geometry.
A.I.Kitaygorodskiy on the importance of the theoretical determination tensions which are produced by the interaction of the non-valence-bound atoms, for chemical kinetics.
A.L.Liberman, B.A.Kazanskiy gave new experimental data on physical properties of dialkyl cyclanes.
M.V.Vol'kenshteyn, O.B.Ptitsyn, T.M.Birshteyn, Yu.A. Sharonov reported on the relation between the conformities of polymeric molecules and measurements of polymer chains and other physical properties.
Yu.A.Pentin gave new data concerning the connection between conformities of molecules and the phenomenon of crystallization.

Card 3/5 L.N.Mayants spoke about the problem of the application

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Conformal Representations in Organic Chemistry. Conference in Moscow

SOV/3o-58-12-38/46

of the theory of characteristic frequencies for the purpose of investigating conformities.
M.M.Sushchinskiy compared the experimental values with the results obtained by calculating the oscillation frequencies of various conformities.
V.M.Tatevskiy, Yu.A.Pentin, Ye.G.Treshchova, Kh. Kesler, Yu.G.Populov spoke about the results obtained by the investigation of the infrared spectra of a number of alkanes and alkenes.
V.M.Tatevskiy and his coauthors recommended a calculation scheme for the determination of the difference in the energy of various conformities.
Yu.A.Pentin gave information concerning the spectral determination of the energy-differences of various conformities of alkyl halides.
A.I.Kitaygorodskiy recommended that energy stability be considered to be the sum of energies of the deformation of the valence angle from its "normal" value and of the pressure energy of the not valence-dependent atoms. He further gave a definition of the

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Conformal Representations in Organic Chemistry. Conference in Moscow SOV/3o-58-12-38/46

conception of "conformity".
A.L.Liberman, V.F.Kucherov, L.D.Bergel'son, A.V. Kamernitskiy, M.V.Vol'kenshteyn, V.M.Tatevskiy took part in the discussion.
B.A.Kazanskiy closed the conference and stressed its positive importance.

Card 5/5

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

5(3) SOV/62-58-12-22/22

AUTHOR: Bergel'son, L. D.

TITLE: Radical Addition of Hydrogen Bromide to 1-Bromo Acetylenes (Radikal'noye pri soyedineniye bromistogo vodoroda k 1-bromatsetilenam)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 12, pp 1499-1500 (USSR)

ABSTRACT: In his letter to the editor the author states that: Recently it was shown that a radical hydrobromination of substituted vinyl bromides takes place according to the scheme of a trans-addition (Refs 1 and 2). In carrying out this reaction in the acetylene series we obtained completely different results. The photochemical hydrobromination of methyl bromo acetylene (I) and tert. butyl bromo acetylene (II) $RC\equiv CBr + HBr \rightarrow RCBr=CHBr$ takes place stereospecifically and leads to products of the cis-addition of hydrogen bromide, i.e. to the trans-dibromo olefins. The reaction was carried out under irradiation from a mercury quartz lamp at -75° without solvent, or in pentane. A similar hydrobromination of (II) led to the formation of tert. butyl dibromo ethylene (III). In special experiments it was

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

SOV/62-58-12-22/22

Radical Addition of Hydrogen Bromide to 1-Bromo Acetylenes

found that the cis-(III) does not isomerize during the reaction. For this reason the photochemical hydrobromination of bromo acetylenes represents a radical reaction of the cis-addition. There are 2 references.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry, imeni N. D. Zelinskiy, Academy of Sciences, USSR)

SUBMITTED: August 19, 1958

Card 2/2

USCOMM-DC-60982

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

AUTHOR: Bergel'son, L. D. (Moscow) SOV/74-27-7-2/7

TITLE: The Conformity and Reactivity of Acyclic Diastereoisomers (Konformatsii i reaktsionnaya sposobnost' atsiklicheskikh diastereoizomerov)

PERIODICAL: Uspekhi khimii, 1958, Vol. 27, Nr 7, pp. 817 - 844 (USSR)

ABSTRACT: In the beginning it is mentioned that the initial attempts of a thermodynamic calculation of organic molecules by means of statistical mechanics yielded satisfactory results only in the case of rigid molecules. When the C-C bonds, however, are free rotate these methods are not successful. After a further exposition of new findings in this field the author deals with the estimation of the relative stability of unbound substituents. In a special section the problem of the binding of the conformity and of the transition state is discussed. The conception of reaction conformity is explained; being that conformity which approaches closest the transition state. The author investigates next the separation reactions. In this section the trans-separation is discussed; viz. bimolecular reactions of the type E 2 as there are: separation of the elements HX,

Card 1/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

The Conformity and Reactivity of Acyclic Diastereo-isomers SOV/74-27-7-2/7

separation of the halogens from the adjacent di-halogens derivatives as well as other reactions of trans-separation. Then the author discusses the cis-separation. The investigation of the products discovered in the cleavage of xanthogenate (according to Chugayev) showed that all these reactions take place according to the scheme of cis-separation. In the pyrolysis of the erythro- and threo-2-deutero-1,2-diphenyl ethanol-acetates mainly 2 factors are effective: 1) The tendency of the initial substances to react in a less difficult conformity, and 2) The strong tendency of deuterium to participate in the process of separation. Finally the author discusses the reactions of the substitution in a special chapter. There are 3 tables and 71 references, 2 of which are Soviet.

1. Organic compounds--Isomerism 2. Stereochemistry

Card 2/2

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D. (IOKh AS USSR, Moscow)

L. D. Bergel'son and L. P. Badenkova, "Conformation of Acyclic Stereoisomers and Their Behavior During the SN2 Reactions."

report presented at the Symposium on Concepts of Conformation in Organic Chemistry which took place in Moscow at the IOKh AN SSSR (Institute of Organic Chemistry, AS USSR) from September 30 to October 2, 1958.

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1959, No. 3, 561-564.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

AUTHORS: Nazarov, I. N. (Deceased), Bergel'son, L. D., Badenkova, L. P., Lopatin, B. V. 79-28-5-37

TITLE: Derivatives of Acetylene (Proizvodnyye atsetilena). 192. Hydrogenation Stereochemistry of Acetylero glycols (192. Stereokhimiya gidrirovaniya atsetilenovykh glikoley)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5, pp. 1132-1143 (USSR)

ABSTRACT: It is known that the catalytic hydrogenation of acetylene compounds mainly leads to the cis-ethylenes (Reference 1). It was, however, noticed several times that besides these also transisomers form; the quantities of which apparently depend on the nature of the acetylene compound, on the catalyst and the hydrogenation conditions (References 2 - 14). In connection with the stereochemical investigations of the addition reactions to the triple bonds carried out by the authors it was of interest to determine exactly the amounts of the transolefines which form in the catalytic hydrogenation of disubstituted acetylenes, and to check if an isomerization of the cis-ethylenes

Card 1/3

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Derivatives of Acetylene. 79-28-5-3/69
192. Hydrogenation Stereochemistry of Acetyleneglycol

takes place on the conditions of hydrogenation. Tetramethylbutindiol (2,5 - dimethylhexine - 3 - diol - 2,5) and butindiol were used as objects of investigation. Butindiol and 2,5 - dimethylhexine - 3 - diol - 2,5 (tetramethylbutindiol in hydrogenation convert through $Pd/CaCO_3$ into mixtures consisting of stereo-isomeric ethyleneglycols which have 1o-2o% transforms. In the hydrogenation of butindioldiacetate 3o-4o% transisomers form. The formation of the transform is probably not caused by the isomerization of the cis-olefines, but by the participation of the free radicals in the hydrogenation process. It is proved by a considerable polymerization occurring parallel in the hydrogenation of butindiol and of its acetate. Cis- and trans-tetramethylbutenediols represent a stable crystalline complex in which the glycoisomers are connected with one another by the hydrogen bond. In unpolar solvents this complex is practically not dissociated. An analogous complex is supplied by the trans-tetramethylbutenediol with tetramethylbutindiol. Tetramethylbutenediol hydrogenizes quicker through palla-

Card 2/3

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Derivatives of Acetylene. 79-28-5-3/69
192. Hydrogenation Stereochemistry of Acetyleneglycol

dium as catalyst than does tetramethylbutenediol, while the butindiol absorbs hydrogen more slowly than butenediol.
There are 5 figures, 1 table and 34 references, 9 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii AN - SSSR (Institute for Organic Chemistry, AS USSR)

SUBMITTED: July 27, 1957

Card 3/3

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.

Application of ultrasound to conformational analysis. Akust.zhur. 5 no.4:391-402 '59. (MIRA 14:6)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR, Moskva.
(Ultrasonic waves) (Conformational analysis)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

S/062/60/000/006/018/025/XX
B020/B060

AUTHOR: Bergel'son, L. D.

TITLE: Stereochemistry of Triple-bond Addition Reactions. Communication 5. Stereochemistry of the Bromination of Disubstituted Acetylenes

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 6, pp. 1066-1072

TEXT: Previous papers (Refs. 1,2) have dealt with the stereochemistry of the bromination of monosubstituted acetylenes under different conditions. The steric directivity of the reaction was found to depend on its mechanism: in ionic reactions the addition proceeds chiefly according to the trans-scheme, and in the photochemical bromination in unpolar solutions, also cis-dibromolefins are formed, the number of which depends on the volume of the substituent R. The disubstituted acetylenes: tolan, butynediol, its diacetate, 2,5-dimethyl hexyne-3-diol-2,5 (tetramethyl butynediol), and acetylene dicarboxylic acid, which were

Card 1/4

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Stereochemistry of Triple-bond Addition Reactions. Communication 5. Stereochemistry of the Bromination of Disubstituted Acetylenes

S/062/60/000/006/018/025/XX
B020/B060

yielded by the investigation of the stereochemistry of bromination, are described here. Cis-derivatives were obtained by the photochemical bromination of butynediol and tetramethyl butynediol; in the same way also butynediol diacetate yielded cis-dibromides, while tolan yielded chiefly trans-addition products. The steric directivity of the ionic direction was studied by performing the bromination of butynediol and tetramethyl butynediol in acetic acid in the dark. 4-bromo tetrahydrofuranone-3 was obtained in this process. Unlike acetylene glycols, acetylene dicarboxylic acid yields, on bromination in acetic acid, a dibromo fumaric acid - dibromo maleic acid mixture with a 75% trans-isomer content. As contrasting with the mentioned acetylenes, butynediol is brominated in dimethyl formamide, giving rise to a cis-bromide besides a product possibly containing a trans-form. Trans-tetramethyl butynediol and dibromo fumaric acid could not be isomerized with illumination and at room temperature in the presence of bromine traces which shows that these trans-dibromo olefins do not rearrange into cis-isomers with photochemical

Card 2/4

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Stereochemistry of Triple-bond Addition Reactions. Communication 5. Stereochemistry of the Bromination of Disubstituted Acetylenes

S/062/60/000/006/018/025/XX
B020/B060

bromination. As may be seen from the Table, the tendency toward forming cis-bromides with photochemical bromination is found to diminish in the series of disubstituted acetylenes with rising volume of the substituent R. The volume of the substituent has a specific effect upon the directivity of the photochemical bromination of disubstituted acetylenes, which is opposed to that found in monosubstituted acetylenes. Bromination was performed under the conditions described in Ref. 1. The infrared spectra of cis-2,3-dibromo butene-2-diol-1,4 and of cis- and trans-3,4-dibromo-2,5-dimethyl hexene-3-diol-2,5 are shown in Fig. 1. They were taken and interpreted by B. V. Lopatin. Fig. 2 shows the infrared spectrum of 4-bromo tetrahydrofuranone-3. There are 2 figures, 1 table, and 6 references: 3 Soviet, 1 French, 1 US, and 1 British.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

Card 3/4

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Stereochemistry of Triple-bond Addition Reactions. Communication 5. Stereochemistry of the Bromination of Disubstituted Acetylenes

S/062/60/000/006/018/025/XX
B020/B060

SUBMITTED: October 17, 1958

Card 4/4

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

S/062/60/000/006/024/025/XX
B020/B060

AUTHORS: Bergel'son, L. D. and Badenkova, L. P.

TITLE: Stereochemistry of Triple-bond Addition Reactions. Communication 6. Comparative Study of Steric Directivity in the Bromination of Disubstituted Acetylenes and Olefins

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 6, pp. 1073-1079

TEXT: In continuation of previous investigations (Refs. 1, 2) the authors compared the directivity in the bromination of disubstituted acetylenes and their ethylene analogs in ionic and radical reactions. While the trans-addition of bromine to olefins in ionic reactions in polar solvents without illumination is sufficiently known, the stereochemistry of the photochemical addition of bromine to a double bond has not been studied systematically. This was therefore the first aim of the work under consideration. Since many aliphatic olefins are transformed into geometrical isomers in photochemical bromination, cyclohexene was the

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Stereochemistry of Triple-bond Addition Reactions. Communication 6. Comparative Study of Steric Directivity in the Bromination of Disubstituted Acetylenes and Olefins

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B020/B060

first to be examined. It was found that the stereochemistry of the reactions can be also studied on the cis- and trans-forms of butene-2-diol-1,4, of 1,4-diacetoxy butene-2, and of 2,5-dimethyl hexene-3-diol-2,5 (tetramethyl butenediol), as these compounds are isomerized only little under the conditions of photochemical bromination. The trans-addition product was in each case the principal product of the photochemical reaction. The relative reaction rates of potassium iodide with diastereoisomeric dibromides obtained by photochemical bromination are indicated in Table 1, and it may be seen from them that cis-ethylenes in a photochemical bromination chiefly give rise to dl-dibromides, and trans-ethylenes give rise chiefly to meso-isomers. Trans-addition products are generally produced in the photochemical bromination of butenediol, its diacetate, and the tetramethyl butenediol in unpolar solvents, while their acetylene analogs yield chiefly cis-dibromides. The differences observed in the behavior of acetylenes and corresponding olefins are explained by the fact that, under the same conditions, they can react according to

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

Stereochemistry of Triple-bond Addition Reactions. Communication 6. Comparative Study of Steric Directivity in the Bromination of Disubstituted Acetylenes and Olefins

S/062/60/000/006/024/025/XX
B020/B060

different mechanisms. Thus, e.g., under the same conditions, 1,4-diacetoxy butyne is brominated by the chain mechanism, while the respective olefin is brominated by a non-chain mechanism. It may be seen from Table 2 that not only steric directivity, but also the bromination mechanism is dependent on the structure of the acetylene compound. A clear evidence of this is obtained when comparing the bromination of butynediol and tetramethyl butynediol in dimethyl formamide. The Raman spectra were taken by V. M. Medvedeva. There are 2 tables and 16 references; 6 Soviet, 5 US, 1 British, 2 German, and 2 French.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: October 17, 1958

Card 3/3

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; MOLOTKOVSKIY, Yul.G.; SHEMYAKIN, M.M.

Synthesis of macrocyclic diacetylenic lactones. Izv.AN SSSR. Otd.khim.nauk no.6:1139 Jl '60. (MIRA 13:7)

1. Institut khimii prirodnykh soyedineniy Akademii nauk SSSR.
(Lactones) (Acetylene compounds)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; SHEMYAKIN, M.M.

New method of synthesizing unsaturated acids. Izv. AN SSSR Otd. khim. nauk no.10:1900 O '60. (MIRA 13:10)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Unsaturated compounds) (Acids, Organic)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

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68349

S/076/60/034/01/044/044
B004/B007

AUTHORS: Mayranovskiy, S. G., Bergel'son, L. D.

TITLE: The Reduction of the Geometric Isomers of Some Derivatives of 1,2-Dibromoethylene on the Dropping Mercury Electrode

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 1, pp 236 - 237 (USSR)

ABSTRACT: The authors give a report on the polarographic investigation of cis- and trans-isomers of the following compounds: 1-(1'-oxycyclohexyl)-1,2-dibromoethylene, 3-oxy-1,2-dibromo-3-methylbutene-1, and 2,5-dioxy-3,4-dibromo-2,5-dimethylhexene. The polarograms were recorded in a 60% methanol solution at 25° and a background of LiBr or $(C_2H_5)_4NBr$ according to a method described in reference 2. The polarograms of all investigated substances showed a single reduction stage with a diffusion limiting current. With a similar concentration of the depolarizer the waves of the cis- and trans-isomers have the same height. The half-wave potentials of the trans-isomers are more positive than those of the cis-isomers. An electrolytic

Card 1/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

68349

The Reduction of the Geometric Isomers of Some Derivatives of 1,2-Dibromoethylene on the Dropping Mercury Electrode

S/076/60/034/01/044/044
B004/B007

micro-Coulomb measurement showed for the trans-isomer of the hexene derivative that two electrons participate in the process on the electrode. Herefrom the authors draw the conclusion that the bromine atoms are split off and that the corresponding acetylene derivatives are formed. There are 3 Soviet references.

ASSOCIATION: Akademiya nauk SSSR Institut organicheskoy khimii im. N. D. Zelinskogo (Academy of Sciences, USSR Institute of Organic Chemistry imeni N. D. Zelinskiy)

SUBMITTED: March 29, 1959

Card 2/2

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGELSON, L. D., VAVER, V. A., SHEMYAKIN, M. M. (USSR).

"A New Way of Fatty Acid Synthesis."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

SHEMYAKIN, Mikhail Mikhaylovich; KHOKHLOV, Aleksandr Stepanovich; KOLOSOV, Mikhail Nikolayevich; BERGEL'SON, Lev Davydovich; ANTONOV, Vladimir Konstantinovich; SHVETSOV, Yu.B., red. izd-va; DOROKHINA, I.N., tekhn. red.

[Chemistry of antibiotics] Khimiia antibiotikov. Izd.3., perer. i dop. Moskva, Izd-vo Akad. nauk SSSR. Vol.1. 1961. pp.1-774. Vol.2. 1961. pp. 780-1550. (MIRA 14:8)
(ANTIBIOTICS)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, Ye.V.; SHEMYAKIN, M.M.

Intramolecular trans-acetalization accompanied by the formation of 1,3-dioxanes. Izv. AN SSSR. Otd. khim. nauk no.2:358-359 F '61. (MIRA 14:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Dioxane) (Acetals)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; SHEMYAKIN, M.M.

Effect of the solvent on the steric course of the Wittig reaction.
Izv.AN SSSR Otd.khim.nauk no.4:729-730 Ap '61. (MIRA 14:4)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Chemical reaction)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; MOLOTKOVSKIY, Yul.G.; ILYUKHINA, L.I.

New synthetic method for the preparation of macrocyclic ketones.
Izv.AN SSSR.Otd.khim.nauk no.11:2099-2100 N '61. (MIRA 14:11)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Ketones)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; LEVITOV, M.M.; MOLOTKOVSKIY, Yu.G.; SAZYKIN, Yu.O.; SHEMYAKIN, M.M.

Synthesis and study of the antimicrobial action of the simplest analogues of macrolide antibiotics. Antibiotiki 6 no.7:581-585 Jl '61. (MIRA 15:6)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(ANTIBIOTICS)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; VORONKOVA, V.V.

Detection of α-glycol groupings in thin-layer chromatography on silica gel. Dokl. AN SSSR 141 no.1:84-86 N '61. (MIRA 14:11)

1. Institut khimii prirodnykh soyedineniy AN SSSR. Predstavleno akademikom M.M.Shemyakinym.
(Glycols)
(Chromatographic analysis)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; BOLOTKOVSKIY, Yul.G.

Tri- and tetraacetylenic macrocyclic lactones. Izv.AN SSSR. Otd.khim.nauk no.3:539-540 Mr '62. (MIRA 15:3)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Acetylene compounds) (Lactones)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; SOLODOVNIK, V.D.; SHEMYAKIN, M.M.

New synthesis of α- and β-eleostearic acids. Izv.AN SSSR.Otd. khim.nauk no.7:1315 Jl '62. (MIRA 15:7)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Eleostearic acid)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; MOLOTKOVSKIY, Yul.G.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Part 1: Synthesis of diactylenic and diene macrocyclic lactones. Zhur. ob. khim. 32 no.1:58-64 Ja '62. (MIRA 15:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Lactones)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; KOVTUN, V.Yu.; SENYAVINA, L.B.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Part 2: Stereospecific method for synthesizing natural unsaturated fatty acids with the aid of Wittig reaction. Zhur.ob.khim. 32 no.6:1802-1807 Je '62. (MIRA 15:6)

(Acids, Fatty) (Wittig reaction) (Unsaturated compounds)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; BEZZUBOV, A.A.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Part 3: Using Wittig reaction for the synthesis of higher fatty acids with a branched chain. Zhur.ob.khim. 32 no.6:1807-1811 Je '62. (MIRA 15:6)
(Acids, Fatty) (Wittig reaction)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M., akademik

Mechanism and steric course of the Wittig reaction as affected by external factors. Dokl. AN SSSR 143 no.1:111-114 Mr '62. (MIRA 15:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Wittig reaction)
(Stereochemistry)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

DYATLOVITSKAYA, E.V.; VORONKOVA, V.V.; BERGEL'SON, L.D.

Thin-layer chromatography of polyhydroxy compounds on cellulose. Dokl.AN SSSR 145 no.2:325-327 Jl '62. (MIRA 15:7)

1. Institut khimii prirodnykh soyedineniy AN SSSR. Predstavlena akademikom M.M.Shemyakinym.
(Carbohydrates) (Chromatographic analysis)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D.

Dissertation defended for the degree of Doctor of Chemical Sciences at the Institute of Chemistry of Natural Products in 1962:

"Investigations in the Field of Unsaturated Fatty Acids and Macrocyclic Lactones."

Vest. Akad. Nauk SSSR. No. 4, Moscow, pages 119-145

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; TIKHI, M. [Tichy, M.]; VORONKIVA, V.V.

Unsaturated acids and macrocyclic lactones. Report No.4: Diastereoisomeric 2,3-dihydroxy-2-methylpentanoic acids and their clevage to antipodes. Izv.AN SSSR.Otd.khim.nauk no.9:1612-1617 S '62. (MIRA 15:10)

1. Institut khimii prirodnykh soyedineniy AN SSSR. 2. Sotrudnik Instituta organicheskoy khimii i biokhimii Chekhoslovatskoy Akademii nauk (for Tikhi).
(Valeric acid) (Sterochemistry) (Antibiotics)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; BATRAKOV, S.G.; GRIGORYAN, A.N.

Unsaturated acids and macrocyclic lactones. Report No.5: Stereospecific synthesis of acetylenic α,ω-glycols. Izv.AN SSSR.Otd.khim.nauk no.9:1617-1626 S '62. (MIRA 15:10)

1. Institut khimii priordnykh soyedineniy AN SSSR.
(Glycols) (Antibiotics)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; SHEMYAKIN, M.M.

New method of syntehesizing cis-cis-diene-methane systems.
Izv. AN SSSR.Otd.khim.nauk no.10:1894-1895 O '62. (MIRA 15:10)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Methane) (Butadiene)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L. D.; MOLOTKOVSKIY, Yul. G.

Unsaturated acids and macrocyclic lactones. Report No. 6: Tri- and tetraacetylene macrocyclic lactones and corresponding polyenes. Izv. AN SSSR. Otd. khim. nauk no.1:105-112 '63. (MIRA 16:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

(Lactones) (Unsaturated compounds)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

RYABOVA, I.D.; GRIGORYAN, A.N.; BERGEL'SON, L.D.

Antimicrobial properties of some acetylenic keto acids and their methyl ethers. Antibiotiki 8 no.3:224-228 Mr'63 (MIRA 17:4)

1. Laboratoriya biologicheskikh ispytaniy (zav. G.L.Zhdanov) laboratoriya khimii antibiotikov (zav. - akademik M.M. Shemyakin) Instituta khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; SHEMYAKIN, M.M.

Total synthesis of kamlolenic acid. Izv.AN SSSR.Otd.khim.nauk no.2:388 F '63. (MIRA 16:4)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Kamlolenic acid)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Report No.7: Synthesis of unsaturated ω-hydroxy acids. Izv.AN SSSR.Otd. khim.nauk no.3:506-509 Mr '63. (MIRA 16:4)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Acids, Fatty) (Unsaturated compounds)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; GRIGORYAN, A.N.; PLUGINA, L.A.

Unsaturated acids and macrocyclic lactones. Report No. 8: Synthesis of acetylenic keto acids. Izv.AN SSSR.Otd.khim.nauk no.3:509-516 Mr '63. (MIRA 16:4)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Acids, Organic) (Acetylene compounds)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; SOLODOVNIK, V.D.; DYATLOVITSKAYA, E.V.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Report No.9: Preparation of conjugated polyene fatty acids via Wittig reaction, and the synthesis of α-eleostearic acid. Izv. AN SSSR. Otd.khim. nauk no.4:683-687 Ap '63. (MIRA 16:3)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Acids, Fatty) (Eleostearic acid)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; VORONKOVA, V.V.

Thin-layer chromatography of isomeric monounsaturated fatty acids. Izv.AN SSSR Otd.khim.nauk no.5:954-955 My '63. (MIRA 16:8)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(No subject headings)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M.

Stereochemistry and the mechanism of Wittig reaction. Izv. AN SSSR. Otd.khim.nauk no.6:1053-1063 Je '63. (MIRA 16:7)

1. Institut khimii prirody soyedineniy AN SSSR.
(Stereochemistry) (Wittig reaction)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M.

Intramolecular acylation of phosphorylides and a new way of synthesizing α-substituted cyclopentanones. Izv. AN SSSR. Otd.khim.nauk no.6:1134-1136 Je '63. (MIRA 16:7)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Cyclopentanone)
(Phosphorus organic compounds)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; VORONKOVA, V.V.

Descending thin-layer chromatography of polyhydroxy compounds.
Dokl. AN SSSR 149 no.6:1319-1321 Ap '63. (MIRA 16:7)

1. Institut khimii prirodnykh soyedineniy AN SSSR. Predstavleno akademikom M.M.Shemyakinym.
(Hydroxy compounds) (Chromatographic analysis)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; BATRAKOV, S.G.

Unsaturated acids and macrocyclic lactones. Report No.10: Synthesis of β-hydroxy-α,α'γ-trimethylpimelic lactone. Izv. AN SSSR. Ser.khim. no.7:1259-1267 Jl '63. (MIRA 16:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Pimelic acid) (Lactones)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Report No.11: Total synthesis of cis-8-hexadecenoic, cis-11-hexadecenoic (palmitvaccenic), cis-7-octadecenoic, and cis-9-hexacosanoic acids. Izv.AN SSSR. Ser.khim. no.8:1417-1421 Ag '63. (MIRA 16:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Hexadecenoic acid) (Octadecenoic acid) (Hexacosanoic acid)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

GRESHNYKH, K. P.; DYATLOVITSKAYA, E. V.; BERGEL'SON, L. D.

Fatty acids of soil yeasts. Izv AN SSSR Ser Khim no. 4:752-755 Ap '64. (MIRA 17:5)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; MOLOTKOVSKIY, Yu.I. G.

Unsaturated acids and macrocyclic lactones. Report No. 12: Synthesis of macrocyclic β-hydroxylactones. Izv. AN. SSSR. Ser.khim. no. 5:860-863 My '64. (MIRA 17:6)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

VAVER, V.A.; PROKAZOVA, N.V.; BERGEL'SON, L.D.

New types of neutral lipids. Izv.AN SSSR.Ser.khim. no.2:392 F '64. (MIRA 17:3)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

RYABOVA, I. D.; MOLOTKOVSKIY, Yu. G.; BERGEL'SON, L. D.

"Investigation of antimicrobial properties of unsaturated macrocyclic lactones."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Inst for Chemistry of Natural Compounds, AS USSR, Moscow.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; PROKAZOVA, N.V.

New types of neutral lipids. Dokl. AN SSSR 157 no.1:122-124 Jl '64 (MIRA 17:8)

1. Institut khimii prirodnykh soyedineniy AN SSSR. Predstavleno akademikom M.M. Shemyakinym.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; VAVER, V.A.; BEZZUBOV, A.A.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Report No.13: New synthetic path for obtaining the divinylethane system. Izv. AN SSSR. Ser. khim. no.8:1453-1456 Ag '64. (MIRA 17:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BATRAKOV, S.G.; BERGEL'SON, L.D.

Unsaturated acids and macrocyclic lactones. Report No.14: Configuration of meso-2,4-dimethylpentane-1,3,5,-triol and of the asymmetric center C(3) in erythromycin and oleandomycin. Izv.AN SSSR.Ser.khim. no.9:1640-1648 S '64. (MIRA 17:10)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Report No.15: Total synthesis of α- and β-kamlolenic acids. Izv. AN SSSR Ser. khim. no.11:2003-2007 N '64 (MIRA 18:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; DYATLOVITSKAYA, E.V.; VORONKOVA, V.V.

Chemistry of lipids. Report No.2: Th n-layer chromatography of isomeric monounsaturated fatty acids. Izv. AN SSSR Ser. khim. no.1:46-51 '65. (MIRA 18:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BATRAKOV, S.G.; BERGEL'SON, L.D.

Selective reduction of dicarboxylic acid monoesters. Izv. AN SSSR Ser. khim. no.2:369-370 '65. (MIRA 18:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D.; BATRAKOV, S.G.

Unsaturated acids and macrocyclic lactones. Report No.16: Synthesis of compounds related to methymicine. Izv. AN SSSR. Ser. khim. no.5: 818-825 '65. (MIRA 18:5)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

BERGEL'SON, L.D., doktor khim. nauk

Recent developments in the chemistry of lipids. Vest. AN SSSR 35 no.9:57-61 '65. (MIRA 18:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

VAVER, V.A.; PROKAZOVA, N.V.; USHAKOV, A.N.; POPKOVA, G.A.; BERGELSON, L.D.

Chemistry of lipids. Report No.5. Dihydric alcohol derivatives as new kinds of neutral lipids. Khim. prirod. soed. no.6:401-409 '65. (MIRA 19:1)

1. Institut khimii prirodnykh soyedineniy AN SSSR. Submitted June 21, 1965.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

DYATLOVITSKAYA, E.V.; GRESHNYKH, K.P.; BERGEL'SON, L.D.

Chemistry of lipids. Report No. 4. Lipids of yeast grown on normal alkanes. Prikl. biokhim. i mikrobiol. 1 no. 6:613-616 N-D '65. (MIRA 18:12)

1. Institut khimii prirodnykh soyedineniy AN SSSR. Submitted May 4, 1965.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

DYATLOVITSKAYA, E.V.; VORONKOVA, V.V.; BERGEL'SON, L.D.

Chemistry of lipids. Report No.3: Complete structural analysis of fatty acid mixtures by thin-layer chromatography. Izv. AN SSSR. Ser. khim. no.11:1960-1967 '65. (MIRA 18:11)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

ACC NR: AP6017361 SOURCE CODE: UR/0062/66/000/003/0499/0505

AUTHOR: Bergel'son, L. D.; Solodovnik, V. D.; Shemyakin, M. M.

ORG: Institute of Chemistry of Natural Compounds, AN SSSR (Institut khimii prirodnykh soyedinenniy AN SSSR)

TITLE: Stereoregulated synthesis of unsaturated compounds. Report 9. Stereochemistry of the reaction between aldehydes and beta, gamma-unsaturated triphenylphosphorylides

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 499-505

TOPIC TAGS: organic synthetic process, aldehyde, stereochemistry, halide, organic phosphorus compound, IR spectrum

ABSTRACT: The effect of the polarity of the medium and the nature of the halide ions on the steric trend of the carbonyl-olefinization reaction was studied with the aid of beta,gamma-unsaturated triphenylphosphorylides. Conditions which permit the utilization of the carbonyl-olefinization reaction for the stereo-directed synthesis of trans,trans- and trans,cis-dienes were established. The authors express their gratitude to L. B. Senyavina who performed the IR-spectra. Orig. art. has: 3 formulas and 1 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 18Oct63 / ORIG REF: 006 / OTH REF: 012

Card 1/1

UDC: 542.91+541.63

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

L 26541-66 EWT(m) RM

ACC NR: AP6017362

SOURCE CODE: UR/0062/66/000/003/0506/0511

AUTHOR: Bergel'son, L. D.; Vaver, V. A.; Barsukov, L. I.; Shemyakin, M. M.

ORG: Institute of Chemistry of Natural Compounds, AN SSSR (Institut khimii prirodnykh soyedineniy AN SSSR)

TITLE: Stereoregulated synthesis of unsaturated compounds. Report 10. Stereochemistry of the reactions between aldehydes and phosphonate- and phosphinoxide-carbanions

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 506-511

TOPIC TAGS: stereochemistry, organic synthetic process, aldehyde, organic phosphorus compound

ABSTRACT: The reaction between phosphonate- and phosphinoxide-carbanions with aromatic and aliphatic aldehydes leads selectively to the trans-olefins. The steric trend of the reaction does not depend on the polarity of the medium. Orig. art. has: 5 figures and 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 05Nov63 / ORIG REF: 008 / OTH REF: 009

Card 1/1

UDC: 541.64 / 542.97

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910013-1

137-58-4-6805

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 70 (USSR)

AUTHORS: Bergel'son, L. P., Tsarenko, L. V.

TITLE: A Radioactive-isotope Study of the Process of Washing a Gold-bearing Solution by Means of Filtration, and the Formulation of Recommendations for Reduction of Losses of Dissolved Gold (Izucheniye protsessa otmyvki zolotosoderzhashchego rastvora pri fil'tratsii s primeneniyem radioaktivnykh izotopov i razrabotke rekommendatsiy po snizheniyu poter' rastvorennogo zolota)

PERIODICAL: Tr. n.-i. gornorazved. in-ta "Nigrizoloto", 1957, Nr 22, pp 158-159

ABSTRACT: Dissolved Au is practically completely washed out (up to 95%) by 0.75-1 m^3 washing solution per ton of dry material, the cake thickness being 6-8 mm and the Au concentration 1-1.5 g/m^3 solution. A 5% impairment of the process of washing dissolved Au by filtering is observed when xanthogenate is added. "Nigrizoloto" found, under laboratory conditions, an optimal procedure for washing Au and developed a method of performing radio-isotope analysis. The laboratory data were confirmed with industrial pulp, and the result is that an optimum regime for the filtering and washing of dissolved Au has been established. G.S.

Card 1/1

1. Gold--Processes 2. Radioactive isotopes--Applications

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137-58-4-6391

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 9 (USSR)

AUTHOR: Bergel'son, L. P.

TITLE: An Investigation of the Ores of the Baley Deposit (Southern Field) for the Purpose of Finding a Practicable System of Beneficiation [Issledovaniye rud Baleyskogo mestorozhdeniya (Yuzhnoye pole) s tsel'yu izyskaniya ratsional'noy skhemy obogashcheniya]

PERIODICAL: Tr. N.-i. gornorazved. in-ta "Nigrizoloto," 1957, Nr 24, pp 103-105

ABSTRACT: The specimen of ore from the south field assayed 3 g/t Au and 0.7 g/t Ag in 1 percent sulfides, and quartz. Pulsator jigging, flotation and hydrocyclone beneficiation, amalgamation, and cyanidation were tested under laboratory conditions. The results of the investigation permit recommendation of an effective system of beneficiation, employing flotation as the major process of treatment. The same system of treatment is recommended for mixtures of ores from the northern and southern areas.

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A. Sh.

1. Ores--Processes 2. Flotation--Test methods 3. Flotation --Test results

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S/137/61/000/011/042/123
A060/A101

AUTHORS: Bergel'son, L. P., Kritskaya, N. V., Martynova, Z. K.

TITLE: Technological study of the poly-metallic ore of one of the Ural deposits

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 9, abstract 11G66 ("Tr. Tsentr. n.-i. gornorazved. in-ta", 1960, no. 39, 43 - 44)

TEXT: The poly-metallic ore from one of the Ural deposits was tested for concentration. In view of the fact that Zn, Fe, Cd (besides the Au and Ag) may be of some interest, the tests were carried out in the direction of obtaining methods of extracting the indicated elements. First the ore under test was subjected to gravitational concentration on a jigging machine and a concentration platform to separate out from the technological process the unyielding ore and the free Au and Ag. The gravitational concentrate was subjected to amalgamation, and the residues of the amalgamation may be utilized as a pyrite concentrate containing up to 40% Fe and 50% S. The main technological process of treating this ore turned out to be the collective flotation, to which the residues of the jigging, and a mixture of the jigging residues with the residues of the concentra-

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tion platform were subjected, and whose optimal grain size was 0.15 mm. The collective concentrate was subjected to selective flotation with separation of Zn and FeS_2 concentrates. The silver and gold are extracted in basic concentrates and from the flotation residues by the cyaniding process.

A. Shmeleva

[Abstracter's note: Complete translation]

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BERGEL'SON, M.B. [Berhel'son, M.B.] (g.Rovno)

Hygienic evaluation of the degree of distribution of visual anomalies among schoolchildren. Ped., akush. i gin. 23 no.6:25-26 '61.

(VISION) (MIRA 15:4)

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ACC NR: AP6025654

SOURCE CODE: UR/0413/66/000/013/0107/0107

INVENTOR: Gitis, E. I.; Bergel'son, M. N.

ORG: None

TITLE: An arithmetic unit for performing the operations of addition and subtraction in self-checking cyclic code. Class 42, No. 183484

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 107

TOPIC TAGS: arithmetic unit, cyclic coding, flip flop circuit

ABSTRACT: This Author's Certificate introduces an arithmetic unit for performing the operations of addition and subtraction in self-checking cyclic code. The device contains flip-flop registers for the first and second numbers with recording and set circuits, a circuit for cyclic carry, determination of the resultant sign and digital network overflow check, and circuits for monitoring progress of the operations. To simplify the device and increase its speed, each i-th digital place except the flip-flops of the registers for the first and second numbers contains two modulo 2 adders, a circuit for carry to the following i+1-th digit and a diode. The direct (inverse) outputs of the flip-flops for the first and second numbers are connected to the first direct (inverse) inputs of the first and second adders respectively. Connected to the second direct (inverse) inputs of the first and second adders respectively are

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ACC NR: AP6025654

the direct (inverse) ouputs of the first and second adders for the preceding i-1-th digit. The inputs of the carry circuit are connected to the direct outputs of the adders for the given circuit and to the carry output of the preceding i-1-th digit which is also connected to the counter input of the flip-flop for the first number of the given i-th digit, and through the first delay line to the counter input of the flip-flop for the second number of the following i+1-th digit. The direct outputs of the adders for the most significant digit are connected to the first inputs of the first and second monitor circuits. The second inputs of these monitor circuits are connected to the sign digits of the first and second numbers respectively. These inputs are connected together with the carry output for the most significant digit to the circuit for determination of the resultant sign, overflow check and cyclic carry. The cyclic carry output of this circuit is connected through the second and third delay lines to the counter inputs of the flip-flops for the first and second digits of the second number and to the first input of the first collector circuit respectively. The second input of this collector circuit is connected to the control signal source, while the output is connected to the inverse inputs of the adders for the most significant digit. The outputs of the second adder are connected through the second collector circuit and the fourth delay line to the reset terminals of all flip-flops in the register for the second number and to the first inputs of the diodes for all digits. connected to the second inputs of these diodes are the direct outputs of the corresponding flip-flops in the register for the second number. The diode outputs are connected to the counter inputs of the corresponding flip-flops in

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