"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

TKACHEVA, R.E.; OROROD NEVA, V.I.; DUBOVSKAYA, M.V.; MARKOVA, Ye.I.; GRIGOR'YEV, N.P.; POPOVA, A.I.; ROZIN, M.S.; OPALEV, A.F. Prinimali uchastiye: ANTONOVA, L.N.; MALAYEV, A.A.; KIRILLOVA, L.D.; SOKOLOVSKAYA, Ye.Ya., red.izd-va; BYKHOVER, N.A., red.; GUROVA, O.A., tekhn. red.

[Concise handbook on the mineral resources of capitalist countries; Asia] Kratkii spravochnik po mineral'nym resursam kapitalisticheskikh stran; Aziia. Pod red. N.A.Bykhovera, M.V.Dubovskoi i A.F.Opaleva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1961. 124 p. (MIRA 15:2)
(Asia—Mines and mineral resources)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

TKACHEVA, R.E.; OGORODNEVA, V.I.; DUBOVSKAYA, M.V.; MARKOVA, Ye.I.; GRIGOR'YEV, N.P.; POPOVA, A.I.; ROZIN, M.S.; OPALEV, A.F.; Prinimali uchastiye: ANTONOVA, L.N.; MALAYEV, A.A.; BYKHOVER, N.A., red.; MAKEYEV, V.I., red. izd-va; GUROVA, O.A., tekhn. red.

[Concise handbook on mineral resources in capitalist countries; America] Kratkii spravochnik po mineral'nym resursam kapitalisticheskikh stran; Amerika. Pod red. N.A.Bykhovera, M.V.Dubovskoi i A.F.Opaleva. Moskva, Gosgeoltekhizdat, 1961. 154 p. (MIRA 15:6)

1. Russia (1923- U.S.S.R.) Vsesoyuznyy geologicheskiy fond. (America--Mines and mineral resources)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

TKACHEVA, R.E.; OGORODNEVA, V.I.; DUBOVSKAYA, M.V.; MARKOVA, Ye.I.; GRIGOR'YEV, N.P.; POPOVA, A.I.; ROZIN, M.S.; OPALEV, A.I.; KIRILLOVA, L.D.[translator]; BYKHOVER, N.A., red.; SOKOLOVSKAYA, Ye.Ya., red. izd-va; BYKOVA, V.B., tekhn. red.

[Brief manual on the mineral resources of capitalist countries; Europe]Kratkii spravochnik po mineral'nym resursam kapitalisticheskikh stran; Evropa. Pod red. N.A.Bykhovera, M.V.Dubovskoi i A.F.Opaleva. Moskva, Gosgeoltekhizdat, 1962. 118 p. (MIRA 15:8)

1. Russia (1923- U.S.S.R.)Vsesoyuznyy geologicheskiy fond. (Europe, Western--Mines and mineral resources--Handbooks, manuals, etc.)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

TKACHEVA, R.E.; OGORODNEVA, V.I.; DUBOVSKAYA, M.V.; MARKOVA, Ye.I.; GRIGOR'YEV, N.P.; POPOVA, A.I.; ROZIN, M.S.; OPALEV, A.F.; Prinimali uchastiye: ANTONOVA, L.N.; MALAYEV, A.A.; BYKHOVER, N.A., red.; NEKHODTSEV, N.A., red.; PANOVA, A.I., red.izd-va; IVANOVA, A.G., tekhn. red.

[Brief manual on the mineral resources of capitalist countries; Africa, Australia and Oceania]Kratkii spravochnik po mineral'nym resursam kapitalisticheskikh stran; Afrika, Avstraliia i Okraniia. Moskva, Gosgeoltekhizdat, 1962. 197 p. (MIRA 16:3)

1. Russia (1923- U.S.S.R.)Vsesoyuznyy geologicheskiy fond.
(Africa--Mines and mineral resources)
(Australia--Mines and mineral resources)
(Oceania--Mines and mineral resources)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye.L.

Materials on the biology of the migratory barbel Barbus brachycephalus K. of the Aral Sea. Sbor. rab. po ikht. i gidrobiol. no.3:154-170 '61. (MIRA 15:1)

1. Iz Aral'skogo ikhtiologicheskogo otdeleniya Instituta ikhtiologii i rybnogo khozyaystva AN Kazakhskoy SSR.
(Aral Sea--Barbel (Fish))

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye.I.

Some data on the distribution of new inhabitants of the Caspian Sea in the Aral Sea. Biul.MOIP.Otd.biol. 67 no.5:130-132 S-O '62. (MIRA 15:10)

(ARAL SEA--GOBIES)
(ARAL SEA--ATHERINIDAE)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

TER-KARAPETYAN, M.A.; MARKOVA, Ye.N.

Vitamin B requirements of some representatives of yeasts of the genus Candida. Izv. AN Arm. SSR. Biol. nauki 16 no.5 [illegible] (MIRA 17:6)

1. Armyanskiy nauchno-issledovatel'skiy institut zhivotnovodstva i veterinarii i Institut mikrobiologii AN Armyanskoy SSR.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

USSR/Chemistry - Polymers Jan 52

"Polymerization-Depolymerization. VII. Structure of the Tetramer of Isobutylene," Ya. M. Slobodin, Ye. M. Markova

"Zhur Obshch Khim" Vol XXII, No 1, pp 102-105

Investigation by Raman spectra of products of polymerization of isobutene in presence of H_2SO_4 disclosed presence of following tetramers: (a) 2, 4, 4, 6, 6, 8, 8-heptamethylnonene-1, the chief product (presence of isomers with different Me group distribution is possible); (b) 2,2,6,6-tetramethyl-4-neopentylheptene-3 (only approx 10% of tetramer

207T20

USSR/Chemistry - Polymers (Contd) Jan 52

content, contrary to scheme of F. Whitmore). No 2,4,4,6,6,8,8-heptamethylnonene-2 (present according to Whitmore) was detected.

207T20

MARKOVA, Ye. M.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye. N.

O patogeneze Pozdnikh Travmaticheskikh Psikhozov s pozitsiy Ucheniya o patofiziologii vysshey nervnoy deyatel'nosti. p. 25

Osobennosti Vliyaniya Dobavochnykh Patolennykh Faktorov na Techeniye i iskhod pozdnikh Travmaticheskikh psikhozov. p. 52

Transformatsiya Sindromov v Techeniye Pozdnikh Petsidiviruyushchikh travmaticheskikh psikhozov. p. 65

with M. A. Frolova, " Znacheniye Lyamblioza v Etiologii Nekotorykh Psikhicheskikh Zabolevaniy," p. 259

Psikhiatricheskaya klinika i problemy patologii vysshey nervnoy deyatel'nosti. Sbornik trudov Kafedry psikhiatrii., Leningrad. 1957. vol. 2.

resp. ed. I.F. SLUCHEVSKIY.

Chair of Psychiatry.
Leningrad State Inst. Advanced Training of Physicians.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

USSR/Human and Animal Physiology - The Nervous System. T

Abs Jour : Ref Zhur Biol., No 3, 1959, 13270

Author : Markova, Ye.N.
Inst :
Title : Pathogenesis of Late Traumatic Psychoses from the Point of View of the Patho-Physiological Concept of Higher Nervous Activity.

Orig Pub : V. sb.: Psikhiatr. klinika i probl. patol. vyssh. nervn. deyat-sti. Vyp. 2, L., 1957, 25-51

Abstract : Patients with late traumatic psychoses (LTP) were divided into two groups. In the 1st group extracranial trauma, which accompanied contusion, led to the formation of a stable disabled point in the brain cortex, wich was the basis for the appearance of a focus of pathological inertia of the stimulatory process on a background of weakness of the cortical cells conditioned by contusion. Whatever new stimulus, which was

Card 1/2

connected to the disabled point and was overpowering for the brain cortex, provoked in it prohibitory inhibition, which determined the appearance of LTP. In the 2nd group LTP arose under the influence of a [illegible] (unexpected psychic shock, intoxication, abuse of alcohol) acting on the mechanism of the secondary impact on the weakended nervous system. --

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Card 2/2

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye.N., otv. red.; AVERBUKH, Ye.S., red.; BLINOV, N.I., red.; BONDAREV, N.I., red.; BORZUNOVA, A.S., red.; ZENEVICH, G.V., red.; KNUKHIN, S.S., red.; MYASISHCHEV, V.N., red.; PERVOMAYSKIY, B.Ya., red.; POVORINSKIY, Yu.A., red.; POLIKARPOV, S.N., red.; SIBIRKIN, N.V., red.; FEDOTOV, D.D., red.; CHISTOVICH, A.S., red.; ZACHEPITSKIY, R.A., red.

[Problems of psychiatry; anniversary collection of articles dedicated to the 60th birthday of Professor Izmail Fedorovich Sluchevskii] Problemy psikhiatrii; iubileinyi sbornik, posviashchennyi 60-letiiu so dnia rozhdeniia professora Izmaila Fedorovicha Sluchevskogo. Leningrad, Meditsina, 1964. 434 p. (MIRA 17:12)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye. V.

"Chronaxy of the Neuromuscular System in Disturbances of the Activity of the Parathyroid Glands." Cand Biol Sci, Khar'kov State U, Khar'kov, 1953. (RZhBiol, No. 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KAPLAN, P.M., professor, DEYNEKA, G.K.; MARKOVA, Ye.V.; TUKUBINER, N.M. (Khar'kov)

Interoceptive effects of the parathyroid glands. Probl. endokr. i gorm. 1 no.2:57-67 Mr-Ap '55. (MLRA 8:10)

1. Iz otdela elektrofiziologii (rukovoditel' prof. P.M. Kaplan) Ukrainskogo instituta eksperimental'noy endokrinologii (dir.- kandidat meditsinskikh nauk S.V.Maksimov)

(PARATHYROID GLAND, physiology, interoceptive, eff.)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KAPLAN, P. M., MARKOVA, Ye. V., TURBINER, N. M.

"Unconditioned and Conditioned Reflex Asymmetry As An Index of Interoception of the Suprarenals."

Theses of the Proceedings of the Annual Scientific Sessions 23-26 March 1959 (All-Union Institute of Experimental Endocrinology)

From the Department of Electrophysiology (Head--Professor P.M. Kaplan) of the Ukrainian Institute of Experimental Endocrinology (Director--S. V. Maksimov, Candidate of Medical Sciences)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye.V.

Changes in the subordinating influences of the higher divisions of the central nervous system during disorders in the activity of parathyroid glands. Sbor. nauch. trud. Ukr. nauch.-issl. eksper. endok. 15:165-171 '59. (MIRA 14:11)
(PARATHYROID GLANDS) (CHRONAXIA)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KAPLAN, P.M.; MARKOVA, Ye.V.; TURUBINER, N.M.

Interoceptive influences of parathyroid glands. Sbor. nauch. trud. Ukr. nauch.-issl. inst. eksper. endok. 15:172-183 '59. (MIRA 14:11)

(PARATHYROID GLANDS) (RECEPTORS (NEUROLOGY))

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KAPLAN, P.M.; MARKOVA, Ye.V.; TURUBINER, N.M.

Effect of splenectomy on calcium concentration in blood serum. Fiziol.zhur. 45 no.8:1009-1014 Ag '59. (MIRA 12:11)

1. Ukrainskiy institut eksperimental'noy endokrinologii, Khar'kov.

(SPLEEN, surgery)
(CALCIUM, blood)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

VOL'TER, B.V.; MARKOVA, Ye.V.

Study of ethylene polymerization by the multiple correlation method. Khim.prom. no.4:262-264 Ap '61. (MIRA 14:4)

(Ethylene) (Polymerization)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

AGANIN, I.Kh.; MARKOVA, Ye.V.; ZVYAGINTSEVA, V.I.

Determination of optimum conditions for chemical processes by the use of methods of mathematical statistics. Khim.prom. no.12:843-849 D '61. (MIRA 15:1)

(Chemical reaction—Conditions and laws)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

AKISHINA, N.I.; MARKOVA, Ye.V.

State of the electric activity of the brain during various influences on the thyroid gland. Trudy Ukr. nauch.-issl. inst. eksper. endok. 19:155-165 '64. (MIRA 18:7)

1. Iz otdela elektrofiziologii Ukrainskogo instituta eksperimental'noy endokrinologii.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye.V.

Seminar on the methodology of mathematical description of chemical and metallurgical processes. Zav. lab. 30 no.1: 124 '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye.V.; SLOBODCHIKOVA, R.I.; VEKSLER, M.A.; ZELINSKIY, Yu.G.

Optimization of the process of synthesizing a sulfanilamide compound by the method of multifactor experimental planning. Zav. lab. 30 no.10:1251-1253 '64. (MIRA 18:4)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Ye.V.

First All-Union conference on planning experiments. Khim. prom. 41 no.2:70-71 F '65. (MIRA 18:4)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, YU. V.

USSR/Chemistry- Arsine
Chemistry- Ethylene Oxide

Feb 1948

"Reaction of Ethylene Oxide W ith Arsine," G. I. B raz, A. Ya. Berlin, Yu. V. Markova, All-Union Sci Res Chemicopharmaceutical Inst imeni S. Ordshonikidze, Moscow, 3½pp

"Zhur Obshch Khim" Vol XVIII (LXXX) , No 2 p. 316

Studies of interaction of ethylene oxide and hydrogen arsenide (arsine), diphenylarsine, and phenylarsine. During action of thioline chloride on products of reaction of ethylene oxide and diphenylarsine or phenylarsine, only known arylchlorasine products were obtained.

Submitted 20 Dec 1946

Pa 68T35

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

PROCESSES AND PROPERTIES INDEX

10

Alkaryl derivatives of acetoacetic ester. A. Ya. Berlin and Yu. V. Markova. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 18, 1791-4(1948). $AcCH_2CO_2Et$ (I, (100 g.) was treated with 17.7 g. Na wire in 1 l. Et_2O, and, after warming 7 hrs. until the Na dissolved, 59.5 g. $PhCH_2COCl$ in Et_2O was added dropwise, the pptd. Na deriv. washed with Et_2O and decompd. with AcOH, and the crude ester shaken 1 hr. with 1.33 l. 0.5% NH_4OH to yield 13.3%, $PhCH_2COCH_2CO_2Et$ (II), b_5 143-6°. The Na deriv. of I (from 54 g. I) treated as above with 35 g. $PhCH_2CH_2COCl$ in Et_2O gave 10% $PhCH_2CH_2COCH_2CO_2Et$, b_5 160-3°, d_4^{20} 1.0932. Similarly $Ph(CH_2)_3COCl$ gave 10.7% $PhCH_2CH_2CH_2COCH_2CO_2Et$, b_5 168-72°, d_4^{20} 1.0860, while $Ph(CH_2)_4COCl$ gave 10.5% $Ph(CH_2)_5COCH_2CO_2Et$, b_5 170-4°, d_4^{20} 1.0782. II (4 g.) in Et_2O with EtONa (from 0.44 g. Na), treated with 2.4 g. $PhCH_2Cl$, heated 2 hrs., hydrolyzed by H_2O, and the org. layer, after concn., heated 2 hrs. with 20% alc. KOH, gave $PhCH_2COCH_2CH_2Ph$, b_5 173-5°, semicarbazone m. 120-30°. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, IN. V.

A. Ia. Berlin and In. V. Markova, Fatty aromatic γ-derivatives of acetoacetic ester. p. 1791

A series of β-keto esters derivatives of acetoacetic ester were synthesized and their properties studied.

The Ordzhonikidze, All Union Scientific Research Inst. of Pharmaceutical Chemistry Moscow, September 22, 1947

SO: Journal of General Chemistry (USSR) 23, (80) No. 10 (1948):

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Yu. V.

USSR/Chemistry - Esters Acetic Acid [illegible]

"Aliphatic Aromatic Gamma-Derivatives of Acetoacetic Esters," A. Ya. [illegible], Yu. V. Markova, All-Union Sci Res Chemicopharm Inst imeni Orzhonikidze, [illegible], 3½ pp

"Zhur Obshch Khim" Vol XVIII, No 1

Prepared ethyl ester of gamma-benzylacetoacetic acid by reaction of ethyl acetoacetate (I) with metallic Na, reaction of Na derivative with [illegible] chloride to form ethyl ester of gamma-benzyl-alpha-acetylacetic acid, [illegible] cleavage of acetyl group with NH_4 [illegible]. Prepared ganna-beta-phenylethyl, [illegible] gamma-(gamma-phenylpropyl) derivatives of I, in an analogous manner. Submitted 29 Sep 47.

PA 2/50T46

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

/1

Derivatives of zingherone. IV. A. Ya. Berlin and Yu. V. Mashova. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 10, 1567-70(1949); cf. C. A. 43, 3392k; 44, 1058f. A-dn of 0.72 g. Na in 80 ml. EtOH to 8 g. $PhCH_2COCH_2CO_2Et$ in 70 ml. EtOH, followed by 10 g. 4,3-$BzO(MeO)C_6H_3CH_2Cl$ in 200 ml. C_6H_6, stirring at reflux temp. 6 hrs., concn., diln. with H_2O, heating the oil with 30 ml. 30% alc. KOH 3 hrs. on a steam bath, cooling, and acidification with HCl, and refluxing 1 hr., gave 2 g. *4-hydroxy-3-methoxyphenethyl benzyl ketone*, $b_{0.5}$ 190-3°, m. 48-9° (from Et_2O-ligroin); *2,4-dinitrophenylhydrazone*, m. 134° (from EtOH); the ketone is almost tasteless. $PhCH_2CH_2COCH_2CO_2Et$ similarly gave *4-hydroxy-3-methoxyphenethyl phenethyl ketone*, $b_{0.5}$ 190-3°, m. 39-40°; *2,4-dinitrophenylhydrazone*, m. 130°; this ketone had a strong burning taste. $PhCH_2CH_2CH_2COCH_2CO_2Et$ similarly gave a low yield of *4-hydroxy-3-methoxyphenethyl 3-phenylpropyl ketone*, b_1 208-10°, m. 54-5° (from Et_2O-ligroin); *2,4-dinitrophenylhydrazone*, m. 128-9° (from EtOH). Similarly, $Ph(CH_2)_4COCH_2CO_2Et$ gave *4-hydroxy-3-methoxyphenethyl 4-phenylbutyl ketone*, b_2 212-14°; *2,4-dinitrophenylhydrazone*, m. 138° (from EtOH). The 2 latter ketones have a *burning taste* similar to that of zingherone.

G. M. Kosolapoff

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, YU. V.

USSR/Chemistry - Zingerone Synthesis Aug 49

"Zingerone Derivatives, IV," A. Ya. Berlin, Yu. V. Markova, All-Union Sci Res Chemicophar Inst imeni Ordzhonikidze, Moscow 3½ pp

"Zhur Obshch Khim" Vol XIX, no 8

Synthesized series of ketones (HO CH_3O) $C_6H_3CH_2CH_2$ $CO(CH_2)nC_6H_5$(with n equal to 1,2,3, and 4) by condensation of benzoylvanillylchloride with appropriate gamma-substituted derivatives of an acetoacetic ester followed by saponification and decarboxylation. Submitted 13 May 48.

PA 149T38

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA YU. V. 238T34

USSR/Chemistry - Synthetic Drugs Nov 52

"Synthesis of Homologues of p-Aminosalicylic Acid," M. N. Shchukina, Yu. V. Markova and A. M. Pozharskaya, All-Union Sci-Res Chem-Pharm Inst imeni S. Ordzhonikidze, Moscow

"Zhur Obshch Khim" Vol 22, No 11, pp 2019-2021

Synthesized homologues of p-aminosalicyclic acid in order to explain the effect of a side chain on the anti-tubercular activity. Through a series of intermediate products, prepared 2-hydroxy-4-amino-5-methylbenzoic acid from 2-amino-4-nitro-toluene, and 2-hydroxy-4-amino-6-methylbenzoic acid from 3-hydroxy-5-nitro-toluene.

238T34

(CA 47 no.18:9299 '53)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, YU. V. 11 Aug 53

USSR/Chemistry - Pharmaceuticals, Isotopes

"The Synthesis of Physiologically Active Compounds Tagged with S^{35}," Yu.V. Markova, A.M. Pozharskaya, V.I. Maymind, T.F. Zhukova, N.A. Koselapova, and M.N. Shchukina, All-Union Sci-Res Chemicopharm Inst im S. Ordzhonikidze

DAN SSSR, Vol 91, No 5, pp 1129-1132, 1953.

Starting with the $BaS^{35}O_4$, prepd a number of physiol active compds such as sulfamide drugs, thiobarbiturates, sulfonal, thiosemicarbazones, the spasmolyticthiphen (hydrochloride of diphenylthioacetic acid ester of dicthylaminoethanol), vitamin B^1, antibiotics, natural thioamino acids, CS_2 and H_2S, all tagged with S^{35}. An insert is included giving the general scheme for the prepn of the above compds. Presented by Acad V.M. Rodionov 9 May 53.

266T9

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOYA, Yu. V.

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A new method of synthesis of *p*-aminobenzoic acid labeled with carbon-14 and the preparation of labeled anesthetics anesthesine, Novocaine, and cocaine. Yu. V. Markova, L. N. Zenkova, and M. N. Shchukina (S. Ordzhonikidze All-Union Sci. Research Chem.-Pharm. Inst., Moscow). *Zhur. Obshchei Khim.* 25, 1383-7(1955).—*p*-$C^{14}H_3C^{14}O_2H$ (I) was prepd. in 75% yield by the reaction of BuLi with *p*-BrC_6H_4Cl, followed by treatment with $C^{14}O_2$ at −70° under N. A detailed description of the app. and the procedure is given. I heated in autoclave to 138-40° 4 hrs. with 28% NH_4OH in the presence of Cu_2Cl_2 gave 70.4% *p*-$H_2NC_6H_4$-$C^{14}O_2H$ (II), m. 185°. Refluxing II.HCl with EtOH and 4-5% dry HCl 4 hrs. gave 73.6% of labeled anesthesine (III), m. 90-1°. III heated with $Et_2NCH_2CH_2OH$ in the presence of $Et_2NCH_2CH_2ONa$ catalyst in vacuo to 80-5° yielded 42.5% of labeled Novocaine (HCl salt, m. 156°). Heating $PhC^{14}OCl$ with ecgonine Me ether in C_6H_6 6 hrs. at reflux gave labeled cocaine, isolated as HCl salt, m. 192°. Also in *J. Gen. Chem. U.S.S.R.* 25, 1329-32(1955)(Engl. transaction). G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

Markova, Yu. V.

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Synthesis of mercapto amino compounds. I. Synthesis of 11-amino-10-hydroxyundecanoic acid and related compounds. Yu. V. Markova, K. K. Kuz'mina, and M. N. Shchukina (S. Ordzhonikidze All Union Chem. Pharm. Sci.-Research Inst., Moscow). *Zhur. Obshchei Khim.* 27, 1270-3(1957).—Oxidation of 24.8 g. Me 10-undecenoate in $CHCl_3$ with BzO_2H overnight at 0° gave 67.9% *Me 10,11-epoxyundecanoate* (I), b_{25} 168-74°. Similarly, *1-benzoyl-1-decene* gave 76.7% corresponding *oxide*, m. 37°, b_{15} 225-31°. This with Et_2O-HCl in 2 hrs. gave *1-chloro-2-hydroxy-10-benzoyldecane*, m. 62-4°. Similarly, I gave 100% *Me 11-chloro-10-hydroxyundecanoate*, b_{25} 200-2°, m. 38-41°, whose *free acid* in 1 day in 25% NH_4OH gave 90% *11-amino-10-hydroxyundecanoic acid*, m. 199-200°; *HCl salt*, m. 127-8°; *HBr salt*, m. 119-21°. Heating 1-benzoyl-1-decene oxide with 33% NH_4OH in an ampul 8 hrs. at 150° gave a little *bis(10-benzoyl-2-hydroxydecyl)amine*, m. 116-18°. Heating 1-chloro-2-hydroxy-10-benzoyldecane with 33% NH_4OH as above gave a low yield of the above secondary amine, but similar reaction with 18% alc. $MeNH_2$ gave a little *1-methylamino-2-hydroxy-10-benzoyldecane*, m. 78-80.5°. II. Synthesis of 11-amino-10-mercaptoundecanoic acid and related compounds. *Ibid.* 1274-6.—Heating 11-amino-10-hydroxyundecanoic acid HCl salt (10 g.) and 30 ml. $SOCl_2$, finally at 50-60°, gave 86% *11-amino-10-chloroundecanoyl chloride HCl salt*, decomp. 117.5-19.5°, which refluxed in abs. EtOH 8 hrs. gave 63% Et *11-amino-10-chloroundecanoate HCl salt*, m. 133-5° (EtOH). This (2 g.) in 15 ml. H_2O

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MARKOVA, K. V. KOZMINA, K. K. and

was treated with 0.5 g. CS_2 and 2.5 ml. 22% NaOH, yielding 75% *2-mercapto-5-(8-carbethoxyoctyl)thiazoline* (I), m. 56.5–7.5° (aq. EtOH). Similarly was prepd. the *8-carboxyoctyl analog*, m. 139–41°, which required merely the use of a larger amt. of 22% NaOH. I (3 g.) and 50 ml. concd. HCl in a sealed tube 5 hrs. at 150° gave 50% *11-amino-10-mercaptoundecanoic acid HCl salt*, m. 139–42° (EtOH). Shaking 2.14 g. Me 10-undecenoate oxide with 1.54 g. $HSCH_2CH_2NH_2$ in H_2O 50 hrs. gave 10% $MeO_2C(CH_2)_8CH(OH)CH_2SCH_2CH_2NHCH_2CH(OH)(CH_2)_8CO_2Me$, m. 68–73°. Similar reaction using 10-benzoyl-1-decene oxide gave a low yield of $Bz(CH_2)_8CH(OH)CH_2SCH_2CH_2NHCH_2CH(OH)(CH_2)_8Bz$, m. 92–4° (EtOH). O. M. Kosolapoff

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APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Yu.V.

MARKOVA, Yu.V.; KUZ'MINA, K.K.; SHCHUKINA, M.N.

Synthesis of mercapto amino compounds. Part 2: Synthesis of 11-amino-10-mercapto hendecanoic acid and related compounds. Zhur.ob.khim. 27 no.5:1274-1276 My '57. (MLRA 10:8)

1.Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Hendecanoic acid) (Mercapto compounds)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

AUTHORS: Markova, Yu. V., Zenkova, L. N., Shchukina, M. N.

SOV/79-28-7-18/64

TITLE: The Synthesis of Mercapto Amino Compounds(Sintez merkaptoamino-soyedineniy) III. The Synthesis of 3-Mercapto-4-Amino-2-Methyl-butane and of 5-Amino-1-Mercapto Pentane (III. Sintez 3-merkapto-4-amino-2-metilbutana i 5-amino-1-merkaptopentana)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 7, pp 1811 - 1815 (USSR)

ABSTRACT: The homologs of β-mercapto ethylamine of the type R-CH(SH)-CH_2 have hitherto been little described. For this reason it was of interest to the authors to investigate the influence exerted by the length and the character of the alkyl chain as well as the positions of the functional groups, and to synthetize a number of these compounds. They synthetized for the first time the chlorine hydrate of 3-mercapto-4-amino-2-methylbutane, the chlorine hydrate of 5-amino-1-mercapto pentane and its acetyl derivative (see schemes 1 and 2). Already after this work had been completed a paper was published (Ref 3) by Langendorf in which the problems of interest to the authors of the present

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The Synthesis of Mercapto Amino Compounds. III. The Synthesis of 3-Mercapto-4-Amino-2-Methylbutane and of 5-Amino-1-Mercapto Pentane SOV/79-28-7-18/64

paper were explained to some extent. In the present paper it was shown that in the hydrolysis of N-benzoyl-5-amino-1-mercapto pentane with hydrochloric acid a partial oxidation of this compound into the corresponding disulfide takes place beside the formation of the chlorine hydrate of 5-amino-1-mercapto pentane. As final product of the oxidation hydrolysis of the chlorine hydrate of N-benzoyl-5-amino-1-isothiuronium pentane the dichlorine hydrate of 5-amino-1-isothiuronium pentane was obtained which did not further hydrolize when heated with alkali liquor. In the oxidation of N-benzoyl-5-amino-1-mercapto pentane with an iodine alcohol solution a bis(N-benzoyl-5-aminopentyl)-disulfide was obtained. A convenient synthesis of N-benzoyl-5-amino-1-chloro pentane (in a yield of 63%) was elaborated. There are 10 references, 1 of which is Soviet.

Card 2/3

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

The Synthesis of Mercapto Amino Compounds. III. The Synthesis of 3-Mercapto-4-Amino-2-Methylbutane and of 5-Amino-1-Mercapto Pentane SOV/79-28-7-18/64

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze (All-Union Institute of Scientific Chemical and Pharmaceutical Research imeni S Ordzhonikidze)

SUBMITTED: June 27, 1957

1. Butanethiols--Synthesis 2. Pentanethiols--Synthesis

Card 3/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Yu.V.; ZHUKOVA, T.F.; SHCHUKINA, M.N.

Synthesis of S^{35}-carbon disulfide. Khim.i med. no.11:26-29 '59. (MIRA 13:6)

(CARBON DISULPHIDE)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Yu.V.; ZENKOVA, L.N.; SHCHUKINA, M.N.

Synthesis of S^{35}-thiamine. Khim.i med. no.11:29-34 '59. (MIRA 13:6)

(THIAMINE)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Yu.V.; KUZ'MINA, K.K.; SHCHUKINA, M.N.

Synthesis of S^{35}-merkamin. Khim.i med. no.11:39-42 '59.
(MIRA 13:6)

(ETHANETHIOL)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MAHKOVA, Yu.V.; ZHENKOVA, L.N.; SHCHUKINA, M.N.

New method for the synthesis of C^{14}-paraaminobenzoic acid and obtaining C^{14}-anesthesin, novocaine, and cocaine. Khim.i med. no.11:53-59 '59. (MIRA 13:6)
(BENZOIC ACID) (ANESTHETICS)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Yu.V.; ZENKOVA, L.N.; SHCHUKINA, M.N.

Synthesis of barbiturates labeled with C^{14} and S^{35}. Khim.i med. no.11:60-68 '59. (MIRA 13:6)

(BARBITURATES)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

5.3400

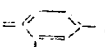
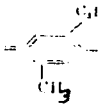
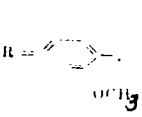
AUTHOR: Markova, Ya. V., Kuz'mina, K. K.

TITLE: Synthesis of Esters of 9-Hendecenoic Acid and Some of Its Derivatives

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, No 3, pp 1037-1039 (USSR)

ABSTRACT: A series of esters was prepared by condensation of 9-hendecenoic acid with corresponding substituted phenols.

$CH_2{=}CH(CH_2)_8COOR$;

(I) R = , (II) R =  , (III) R =  , (IV) R =  .

$C_6H_5OCH_2CHOH(CH_2)_8COOCH_3$
(V)

(I) is formed at room temperature, (II) and (IV) at

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Synthesis of Esters of 9-Hendecenoic Acid and Some of Its Derivatives

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at 160°, and (III) at 200°. The following data are given: (II) 60%, bp 175° (0.3 mm), n_D^{20} 1.4[illegible]02, d_{20}^{20} 0.9713; (III) 50%, bp 208-210° (3 mm), n_D^{20} 1.4885, n_{20}^{20} 0.9473; (IV) 55%, bp 187-18[illegible]° (4.5 mm). It was found that on condensation of 9-hendecenoic acid with phenol and PCl_5, water as well as lactone is formed. The methyl ester of 11-phenoxy-10-hydroxyhendecanoic acid was also obtained. There are 5 references, 2 Swiss, 1 German, 2 Soviet.

ASSOCIATION: S. Ordzhonikidze All Union Scientific-Research Institute of Pharmaceutical Chemistry (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonekidze)

SUBMITTED: December 26, 1958

Card 2/2

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

5.3610

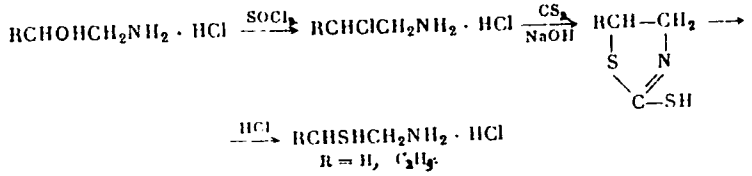
78307
SOV/79-30-3-61/69

AUTHORS: Markova, Yu. V., Kuz'mina, K. K., Shchukina, M. N.

TITLE: Synthesis of Mercaptoamino Compounds. IV. Synthesis of β-Mercaptoethylamine and 1-Amino-2-mercaptobutane

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp 1039-1043 (USSR)

ABSTRACT: This paper describes synthesis of β-mercaptoethylamine and 1-amino-2-mercaptobutane according to the scheme used previously for synthesis of 3-mercapto-4-amino-2-methylbutane (Yu. V. Markova, L. N. Zenkova, M. N. Shchukina, ZhOKh, 28, 1811 (1958)):



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Synthesis of Mercaptoamino Compounds. IV

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β-Mercaptoethylamine hydrochloride (I) was obtained (42%, based on the initial ethylamine) as follows: a mixture of 2-mercaptothiazoline and HCl (20% solution) was boiled for 50 hours on an oil bath; the mixture was evaporated under vacuum and dissolved in absolute alcohol; the alcoholic solution, to which charcoal had been added, was warmed and filtered; absolute ether was added to the filtrate and left to stand for 24 hr. The precipitate was removed by filtration. I has mp 67-69°; 2-mercapto-1-aminobutane hydrochloride (II) was obtained (50%) by the same method as I; it has mp 134-138°. There are 10 references, 1 U.S., 5 German, 2 Swiss, 2 Soviet. The U.S. reference is: R. H. Haal, F. Wright, J. Am. Chem. Soc., 73, 2215 (1951).

ASSOCIATION: S. Ordzhonekidze All-Union Chemical-Pharmaceutical Scientific Research Institute (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze)

SUBMITTED: December 27, 1958

Card 2/2

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KUZ'MINA, K.K.; OSTROUMOVA, N.G.; MARKOVA, Yu.V.; SHCHUKINA, M.N.

Thiazoline and thiazolidine series. Part 1: Alkylation of 2-aminothiazoline. Zhur.ob.khim. 32 no.10:3215-3219 O '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Thiazoline) (Alkylation)

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KUZ'MINA, K.K.; OSTROUMOVA, N.G.; MARKOVA, Yu.V.; SHCHUKINA, M.N.

Thiazoline and thiazolidine series. Part 2: Acylation of 2-aminothiazoline and the reduction of acyl derivatives. Zhur.ob.khim. 32 no.10:3390-3393 O '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Thiazoline) (Acylation)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KUZ'MINA, K.K.; OSTROUMOVA, N.G.; MAREOVA, Yu.V.; SHCHUKINA, M.N.

Thiazoline and thiazolidine series. Part 3: Synthesis of 3-alkyl-2-thiazolidones. Zhur. ob. khim. 34 no. 3:987-988 Mr '64. (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Yu.V.; KUZ'MINA, K.K.; PERESLENI, Ye.M.; SHCHUKINA, M.N.

Thiazoline and thiazolidine series. Part 5. Synthesis of 2-imino-3-phenacylthiazolidines and their conversion to imidazo (2,1-b)thiazolidines. Zhur. org. khim. 1 no.8:1475-1479 Ag '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni Ordzhonikidze.

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19-1

METYŠ, R; MAŘKOVÁ, Z.

Czechoslovakia

Internal Medicine and X-Ray Chair of the Institute for Pre-School Physicians -- Prague (Interní a rentgenologická katedra Ústavu pro doškolování lékařů -- Praha); Director: O. ŠMAHEL, Docent Dr. Sc., and J. SLANINA, Dr; Research Institute of Experimental Therapy -- Prague (Výzkumný ústav experimentální terapie -- Praha); Director: O. ŠMAHEL, Docent Dr. Sc. - (for all)

Prague, Rozhledy v tuberkulóse, No 10, 1962, pp 723-726

"Carcinoma Arising from Lung Scars."

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

SCHUCK, O.; CHOLINSKY, K.; MARKOVA, Z.; Laboratorni spoluprace: ZLOCHOVA, A.; ZELENKOVA, I.; BAMBASOVA, Z.

Excretion of osmotically active cells in the course of maximum water diuresis in man. Cas. lek. cesk. 103 no.46:1265-1270 13 N '64.

1. Vyzkumny ustav experimentalni terapie v Praze, (reditel prof. dr. O. Smahel, DrSc.) a Interni katedra Ustavu pro doskolovani lekaru v Praze (vedoucí prof. dr. O. Smahel, DrSc.).

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

SCHUCK, O.; CHOLINSKY, K.; MARKOVA, Z.; STRIBRNA, J.

The effect of aminophylline on the renal elimination of water and of osmotically active substances during water diuresis. Cas. lek. cesk. 104 no.30:805-808 23 Jl '65.

1. Vyzkumny ustav experimentalni terapie a interni katedra Ustavu pro doskolovani lekaru v Praze (reditel prof. dr. O. Smahel, DrSc.).

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

STRIBRNA, J.; SCHUCK, O.; CHOLINSKY, K.; MARKOVA, Z.; ROSOL, Z.

The effect of polythiazide on the renal elimination of water and on osmotically active substances during water diuresis. Cas. lek. cesk. 104 no.30:809-812 23 Jl '65.

1. Vyzkumny ustav experimentalni terapie a interni katedra Ustavu pro doskolovani lekaru v Praze (reditel prof. dr. O. Smahel, DrSc.) a Ustav klinicke fyziologie lekarske fakulty hygienicke Karlovy University v Praze (reditel prof. dr. J. Skladal).

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z. A.

51-6-19/26

AUTHOR: Markova, Z. A.

TITLE: Application of the Infrared Spectroscopy to the Study of Adsorption of Certain Olefines on Aluminium Silicate Catalyst. (Primeneniye infrakrasnoy spektroskopii k izucheniyu adsorbtsii nekotorykh olefinov na alyumosilikatnom katalizatore.)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.II, Nr.6, pp. 814-816. (USSR)

ABSTRACT: This paper is part of the work on polymerisation of isobutylene using aluminium silicate catalyst. The author used the apparatus shown in Fig.1. The sample studied (marked 1 in Fig.1) was in the form of a layer of powdered aluminium silicate on a mica plate. The sample was hung on a quartz spring 2 and could be raised to the level of windows 3 or lowered into a furnace 4. An infrared spectrograph was placed at one of the windows. Transmission of a cleaned sample and a sample with olefine molecules adsorbed on it was measured. These measurements were made in the 3 μ

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

Application of the Infrared Spectroscopy to the Study of Adsorption of Certain Olefines on Aluminium Silicate Catalyst.

region. Samples were cleaned by heating in vacuo for 8-10 hours at 250 - 300°C. An olefine whose adsorption was studied was admitted into the vessel at room temperature; fall of pressure in the vessel and appearance of an absorption band at 2950 cm^{-1} (for isobutylene) indicated that isobutylene was polymerised but ethylene was not. From the absorption spectra of these two olefines certain conclusions could be made about the interaction of these olefines with the catalyst surface. It is concluded that activation of the isobutylene molecules was due to the interaction of its $-CH_3$ and $=CH_2$ groups with the catalyst surface. There are 3 figures and 2 references, both of which are Slavic.

SUBMITTED: December 29, 1956.

AVAILABLE: Library of Congress.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

5(4) SOV/20-121-4-[illegible]

AUTHORS: Roginskiy, S. Z. Corresponding Member, Academy of Sciences USSR, Yanovskiy, M. I., Zhabrova, G. L., [illegible] L. Kadenatsi, B. M., Markova, Z. A.

TITLE: A Catalytic Synthesis of Unsaturated Hydrocarbons of the Series C_4, Labelled by the Radioactive Carbon C^{14}, With the Use of Vapor Phase Distributive X-Ray Chromatography (Kataliticheskiy sintez nepredel'nykh uglevodorodov ryada C_4, mechennykh radiouglerodom C^{14}, s ispol'zovaniyem parofaznoy raspredelitel'noy radiokhromatografii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 4, pp 674-677 (USSR)

ABSTRACT: This paper reports on the results of the production of labelled unsaturated hydrocarbons on the basis of ethyl alcohol labelled by C^{14}. It is a peculiarity of this method that all the labelled molecules are produced simultaneously by the same catalytic process which develops under the influence of S. V. Lebedev's catalyst for the synthesis of divinyl.

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SOV/20-121-4 [illegible]/54

A Catalytic Synthesis of Unsaturated Hydrocarbons of the Series C_4, Labelled by the Radioactive Carbon C^{14}, With the Use of Vapor Phase Distributive X-Ray Chromatography

This paper discusses a special case of the general principle of the synthesis of labelled molecules. This principle consists of the carrying out of a group synthesis (which gives a mixture of some substances with an unusual isotopic composition) and of the subsequent application of physical and chemical separation methods. Especially interesting is the separation of the labelled hydrocarbons of the C_4 series with various degrees of saturation and with various structural isomeric shapes. Such hydrocarbons are butaliene (divinyl), α-butylene, β-butylene (cis-variant), β-butylene (trans variant). The catalytic synthesis was carried out by means of S. V. Lebedev's catalyst at 390°. A labelled ethyl alcohol $C^{14}H_3C^{14}H_2OH$ with the specific radioactivity 0.724 Curie/mol was used for the synthesis. The chromatographic separation of the marked gaseous labelled products is then discussed. A figure shows a typical chromatogram of the mixture of the gaseous radioactive products of the synthesis of divinyl from

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SOV/20-121-4 [illegible]

A Catalytic Synthesis of Unsaturated Hydrocarbons of the Series C_4 Labelled by the Radioactive Carbon C^{14}, With the Use of Vapor Phase Distributive X-Ray Chromatography

the labelled alcohol ($C_2^{14}H_5OH$). According to this chromato gram, the main gaseous product is divinyl (81,3 %). The per centage of butylene is not higher than 4.7 %. The composition of the products may be changed by a heat treatment of the catalyst. The specific activities of the hydrocarbons have approximately the same values. In order to identify the ir dividual fractions, their infrared absorption spectra were taken; they are shown by a figure. The combination of chroma tography with rectification, extraction and with a counter-flow distribution is very promising. These methods are very productive and may be used for the preliminary group separa-tion of a mixture into some fractions with a subsequent ex traction of the individual components. The catalytic exper-iment takes 1 hour and the chromatographic separation 2 - 2,5 hours. There are 4 figures and 9 references 7 of which are Soviet.

Card 3/4

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SOV/20-121-4-28/54

A Catalytic Synthesis of Unsaturated Hydrocarbons of the Series C_4 Labeled by the Radioactive Carbon C^{14}, With the Use of Vapor Phase Distributive X-Ray Chromatography

ASSOCIATION: Institute fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, AS USSR)

SUBMITTED: April 16, 1958

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

S/076/61/035/004/007/018
B106/B201

AUTHORS: Markova, Z.A., and Andrianova, T.I.

TITLE: Structure of an aluminosilicate catalyst

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 4, 1961, 809 - 811

TEXT: The authors of the present paper used infrared absorption spectra to clarify the problem as to whether a synthetically produced aluminosilicate catalyst represents a mechanical mixture of aqueous oxides Al_2O_3 and SiO_2, or whether the technique of its preparation may lead to the formation of a new structure with polymorphous replacement of a determined number of Si^{4+} ions by Al^{3+} ions. Synthetically prepared aluminosilicate and the respective initial products were examined for this purpose. SiO_2 gel was prepared from a 15% solution of Na_2SiO_3 by precipitation with 10% hydrochloric acid; Al_2O_3 gel was obtained from a 15% solution of $Al_2(SO_4)_3$ by precipitation with 10% ammonia solution. The gels were care-

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fully washed and then divided into two parts. One part was dried, annealed at 500°C, and analyzed, as well as used for producing a mechanical mixture of the two oxides. The second part of gels was, after washing, mixed at determined ratios, and then annealed at 500°C. Aluminosilicate specimens with 10, 20, 30, and 50 percents by weight of Al_2O_3 were obtained in this manner. An ИКС-12 (IKS-12) infrared spectrograph was used for the measurements. Results obtained: All of the four examined aluminosilicate specimens gave similar spectrograms. The spectrum of the mechanical mixture of Al_2O_3 and SiO_2 was composed additively of the spectra of the two oxides. The spectrum of aluminosilicates, by contrast, was not composed additively of the spectra of SiO_2 and Al_2O_3. The aluminosilicate produced is therefore no mechanical mixture of the two oxides. The spectrograms obtained were also compared with the spectrograms of natural silicates. The aluminosilicate catalyst produced by the authors could thus be shown to have a structure resembling that of montmorillonite: a certain number of Si^{4+} ions is isomorphically replaced by Al^{3+} ions, and,

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at the same time, a small number of Al^{3+} ions appears in AlO_6 octahedrons. As was expected, the spectrum of the mechanical mixture of SiO_2 and Al_2O_3 presented a great similarity with the spectrum of caolinite, which, however, due to the crystalline nature of caolinite, exhibits a fine structure, while the spectrum of the mechanical SiO_2 and Al_2O_3 mixture is blurred. The method used in the present investigation is of great interest for the study of technical aluminosilicate catalysts. S.Z. Roginskiy, Corresponding Member of the AS USSR, is thanked for interest displayed. There are 3 figures and 9 references: 3 Soviet-bloc and 6 non-Soviet-bloc. The three most recent references to English language publications read as follows: Thomas J. Gray, J. Phys. Chem., 61, 1341, 1957; W. D. Keller, J. H. Spotts, D. Z. Biggs, Analit. Chem., 24, 1253, 1952; J. M. Hunt, D. S. Turner, Analit. Chem., 25, 1169, 1953.

ASSOCIATION: Akademiya nauk SSSR Institut fizicheskoy khimii (Academy of Sciences USSR Institute of Physical Chemistry)

SUBMITTED: July 16, 1959

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B106/B201

Structure of an aluminosilicate ...

Fig. 1: Comparison of the spectrum of aluminosilicate with the spectrum of a mechanical mixture:
1) spectrum of Al_2O_3 gel (layer thickness of specimen: 0,20 mg/cm^2);
2) spectrum of SiO_2 gel (0,20 mg/cm^2);
3) spectrum of mechanical mixture 0,20 mg/cm^2 SiO_2+0,20 mg/cm^2 Al_2O_3;
4) aluminosilicate spectrum with 50% Al_2O_3 content. a) % passage.

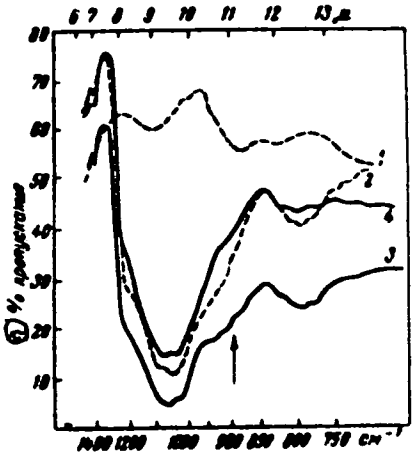

Рис. 1

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

BRESLER, V.Ye.; MARKOVA, Z.A.

Use of cis-1,4 butadiene rubber for tread rubbers. Kauch. i rez. 22 no.9:47-49 S '63. (MIRA 16:11)

1. Leningradskiy shinnyy zavod.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KRYLOV, O. V.; KUSHNEREV, M. Ya.; [illegible]INA, Ye. A.; MARKOVA, Z. A.

"Elementary mechanism of heterogeneous catalytic polymerization of ethylene oxide."

report submitted to 3rd Intl Cong on Catalysis, Amsterdam, 20-25 Jul 64.

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L 8855-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EWP(j)/T/EWA(h)/EWA(1) Pc-4/Pr-4/
Peb/Pu-4 ESD(t)/BSD/ESD(gs)/RAEM(a)/AS(mp)-2/SSD/APGC(b)/APWL GG/BM

ACCESSION NR: AP4009157 S/0190/64/006/001/0131/0134

AUTHORS: Markova, Z. A.; Yershov, B. G.; Bakh, N. A.

TITLE: Structural change of polyethylene after radiation and heat treatment

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 1, 1964, 131-134

TOPIC TAGS: polyethylene, irradiation, infrared spectroscopy, aromatic compound, conjugate bond

ABSTRACT: The structural changes in polyethylene subjected to gamma, n-irradiation under vacuum followed by 2-hour oxidation in air at 265C and pyrolysis under vacuum at 320 to 820C have been investigated with infrared spectroscopy. IR absorption spectra were recorded and analyzed during the various steps of radiation and heat treatment described above. A new, possibly three-dimensional, structure was observed to form in polyethylene as a result of such heat treatment, represented on carbonyl and aromatic compound bases with large coupling bonds C = C and C = O. Orig. art. has: 2 formulas and 1 figure.

ASSOCIATION: Institut elektrokhimii AN SSSR (Electrochemical Institute AN SSSR)

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ACCESSION NR: AP4009157

SUBMITTED: 07Sep62 ENCL: 00

SUB CODE: OC, NP NO REF SOV: 003 OTHER: 001

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

KRYLOV, O.V.; MARKOVA, Z.A.; TRET'YAKOV, I.I.; FOKINA, Ye.A.

Mechanism of adsorption and isotope exchange of CO_2 on MgO and $Mg(OH)_2$. Kin. i kat. 6 no.1:128-136 Ja-F '65. (MIRA 18:6)

1. Institut khimicheskoy fiziki AN SSSR.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

RUFOV, Yu.N.; MARKOVA, Z.A.

Formation of metallic nickel in the thermal decomposition of nickel carbonate. Kin. i kat. 6 no.4:731-732 Jl-Ag '65. [illegible]

1. Institut khimicheskoy fiziki AN SSSR.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

L 61052-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5016500 UR/0190/65/007/006/0984/0991

66.095.264+678.55

AUTHORS: Krylov, O. V.; Kushnerev, M. Ya.; Markova, Z. A.; Fokina, Ye. A.

TITLE: Mechanism of the heterogeneous catalytic polymerization of ethylene oxide

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 6, 1965, 984-991

TOPIC TAGS: polymer, resin, ethylene oxide, heterogeneous catalysis, reaction mechanism

ABSTRACT: The investigation was carried out with the view of establishing criteria for the selection of ethylene oxide polymerization catalysts. The work is an extension of the work of O. V. Krylov, Ye. A. Fokina (Sb. Kataliticheskiye reaktsii v zhidkoy faze, Izd. AN. KazSSR, Alma-Ata, 1963, str. 389). Experiments were performed at 25C. The experimental results are summarized in Fig. 1 on the Enclosure. A reaction mechanism for the reaction is proposed. Orig. art. has: 4 graphs, 1 equation, and 3 illustrations.

ASSOCIATION: Institut khimicheskoy fiziki, AN SSSR (Institute for Chemical Physics, AN SSSR)

Card 1/3

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L 61052-65

ACCESSION NR: AP5016500

SUBMITTED: 26Jun64 ENCL: 01 SUB CODE: OC,GC

NO REF SOV: 008 OTHER: 006

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ACCESSION NR: AP5016500 ENCLOSURE: 01

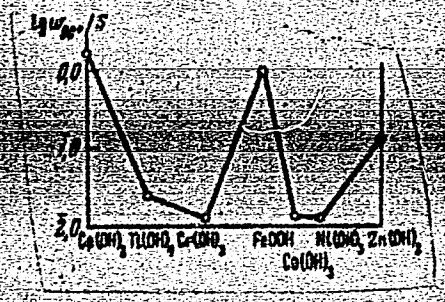

Fig. 1. Change in the specific catalytic activity of IV period metal hydroxides

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10

CA MARKOVA, Z.D

The reaction of some anils with maleic anhydride. B. I. Ardashev and Z. D. Markova. J. Gen. Chem. U.S.S.R. 21, 1645-7(1951)(Engl. translation). See C.A. 46, 5005g. B. R.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z. G.

5

Utilization of waste products from [illegible] Z. G. Markova and A. V. Krasilova (Wood Chem. Com. M.T. [illegible] Gidroliz. i. Lesokhim. Prom. 8, No. 3, 24 (1955).—The MeOH fraction of the hydrolytic and sulfite-alcohol plants, contg. 80% MeOH, is dild. with H_2O to 20-25%, neutralized with NaOH, and left to settle. Floating oils and sediment are removed, and the purified mass is introduced at the middle of a fractionation column. Ether-aldehyde fraction (I) is collected at the top, middle-boiling MeOH mixts. are led off in vapor phase from the middle of the column. After cooling, ketones separate, and MeOH is collected in a dephlegmator. I is composed of 35-45% aldehydes, 35-50% MeOH, and 4-8% ketones. Its utilization has been limited owing to high toxicity, but it can serve as a source for MeCHO resins, MeOH, and a solvent.

T. Jurecic

(1)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z.G.; KRASILOVA, A.V.

Anticorrosive protection of equipment. Gidroliz. i lesokhim. prom. 9 no.8:26 '56. (MLRA 10:2)

1. Vetluzhskiy lesokhimicheskiy kombinat.
(Corrosion and anticorrosives)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z.G.

Improving the production of antioxidants. Gidroliz. i lesokhim. prom. 10 no.2:21-22 '57. (MLRA 10:5)

1. Vetlushskiy lesokhimicheskiy kombinat.
(Antioxidants) (Wood tar)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z. S.

"Microflora of cold-water ret ing of fl x," Mikrobiologiya, 7 No 1, p 38, 1936.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z. S.

"Granulobacter pectinovorum and the microorganisms that decompose the layers of volatile fatty acids," Tr. Vses. Inst. Mikrobiol. [Transactions of All-Union Institute of Microbiology], 7, No 1, p 75, 1936.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z. S. and KRUTIKOVA, L. I.

"A new causal agent of pectin fermentation," Mikrobiologiya, 7, 1, P 80, 1938.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

25

CA

A new agent for anaerobic cold-water retting of flax. A. C. Markova. *Microbiology* (U. S. S. R.) 9, 464-70 (in English, 470) (1940). - *B. felinum* (I) is active in early retting at 10-20°. From later rettings, at 10-15°, *Clostridium* (II) was isolated as the retting agent. It differs from I and *Granulobacter pectinovorum* in that it has a lower temp. optimum. The use of II as a starter in cold-water retting accelerates the process up to 75% but does not improve the quality of the long fiber. T. Laanes

All Inst. Agricul Microbiol, Leningrad

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

25

Cd

The role of Bacillus felsineus and Granulobacter pectinovorum in anaerobic flax retting. I. Z. S. Markova. *Microbiology* (U. S. S. R.) 9, 824-32(in English, 833) (1940); cf. *C. A.* 35, 4212[illegible].—*B. felsineus* is widely distributed on Russian flax. During heat-retting of flax it is present in large nos., increasing during the process and slightly decreasing toward the end. It is concluded that in heat-retting *B. felsineus* is the main agent, while *Granulobacter* has a significance only in the initial stage of retting. II. A. L. Bychkovskaya. *Ibid.* 834-44(in English, 844).—Examn. of 35 *Granulobacter pectinovorum* strains shows that, in contrast to *B. felsineus*, all of them require neutralizers (chalk) to ret flax. T. L.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS

COMMON VARIABLES INDEX

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

1. MARKOVA, Z.S.

2. USSR (600)

7. "The Effect of Saccharomyces ellipsoideus upon the Growth and Activity of Clostridium felsineum", Trudy Vsesoyuzn. Nauch.-Issled. In-ta S.-Kh. Mikrobiologii (Works of the All-Union Science-Research Institute of Agricultural Microbiology), Vol 11, No 2, 1951, pp 12-19.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

1. MARKOVA, Z.S.

2. USSR (600)

7. "Working Out a Method of Introducing Yeasts in the Utilization of Clostridium felsineum as a Ferment for Improving the Retting of Flax", Trudy Vsesoyuzn. Nauch.-Issled. In-ta S.-Kh. Mikrobiologii (Works of the All-Union Science-Research Institute of Agricultural Microbiology), Vol 11, No 2, 1951, pp 20-26.

9. Mikrobiologiya, Vol XXI, Issuel, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z. S.

"New Pectin-Decomposing Microorganisms in the Cold-Water Retting of Flax". Tr Vses N-I In-ta S-kh Mikrobiologii, No. 12, 2 pp 74-79, 1953.

New pectin-decomposing microorganisms (Clostridium pskovianum, etc.), which have an optimum temperature of action at 25°, were isolated in the cold-water retting of flax. They are encountered in huge numbers on retted stalks of flax, and apparently play an important role in the decomposition of pectin in later rettings. They are moresensitive to an acid reaction of the medium than pectin-decomposing microorganism with higher optimum temperatures. It is therefore recommended to use neutralizing substances in later (September) rettings. Utilization of bicarbonate of soda in laboratory conditions of 10-15° speeds up the process of rettings by 59 - 65%. In industrial conditions the soda can be replaced with ash. (RZhBiol, No. 10, 1955)

SO: Sum No 884, 9 Apr 1956

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

SELIBER, G.L., professor; KATANSKAYA, G.A.; MAKAROVA, M.M.; LAZAREVA, N.M.; NORKINA, S.P.; SHKLYAR, M.S.; MARKOVA, Z.S.

The section "Bacteria" in the book by N.M.Verzilin "Principles of the methods of teaching botany". Reviewed by G.L.Seliber and others. Est. v shkole no.4:89-91 Jl-Ag '56. (MIRA 9:9)

1.Yestestvenno-nauchnyy institut imeni P.F.Lesgafta (for Seliber, Katanskaya).2.Institut sel'skokhozyaystvennoy mikrobiologii Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Makarova, Lazareva, Norkina, Shklyar, Markova.
(Bacteria) (Verzilin, N.M.)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

USSR / Microbiology. General Problems. Method and Technique of Investigation. F-1

Abs Jour: Ref Zhur-Biol., 1958, No 17, 76584.

Author : Markova, Z. S.
Inst : Not given.
Title : Selection of a Nutritive Medium for Cultivation of Clostridium Felsineum in Reactors.

Orig Pub: Byul. nauchno-tekhn. inform. po c.-kh. mikrobiol., 1957, No 3, 30-33.

Abstract: For the mass extraction of a culture of Cl. felsineum with a high content of spores, a synthetic medium is recommended which contains technical grade lactose, peptone, mineral salts and a supporting substance that pierces the whole mass of the medium. With the presence of the supporting substance - such as filtered papered, glass vat,

Card 1/2

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

DUDAREV, Ye.I.; MARKOVA, Z.S.

Large-scale laboratory experiments in the retting of the flax bast fiber with a bacterial starter. Trudy Vses. inst. sel'khoz. mikrobiol. no.14:296-302 '58. (MIRA 15:4)
(Flax) (Retting)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVA, Z.S.; KRONGAUZ, Ye.A.; SHMYREVA, T.V.; GANDMAN, M.G.; BUDNITSKAYA, Z.S.

Non-germinating properties of the spores in a Bac. megatherium var. phosphaticum culture. Mikrobiologiia 31 no.1:103-110 Ja-F '62. (MIRA 15:3)

1. Moskovskogo otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta sel'skokhozyaystvennoy mikrobiologii.
(BACILLUS MEGATHERIUM)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

MARKOVAC, Pepica, A.

V Synthesis of bis(β-chloroethyl)amides and bisethylenimides of some dicarboxylic acids. D. Flid and A. Markovac (Inst. Prod. "Plin," Zagreb, Yugoslavia). *Arhiv Kem.* 36, 239-42(1964)(in English).—Ethylenimine (0.9 g.) (I) in 10 ml. $CHCl_3$ was added during 0.5 hr. with cooling and stirring to a soln. of 1.8 g. $(CH_2:CHCOCl)_2$ in 15 ml. $CHCl_3$, stirred 0.5 hr. more, and the crystals filtered off and washed with 40 ml. $CHCl_3$ to give 2.7 g. $(CH_2:CHCONHCH_2CH_2Cl)_2$, m. 222° (decompn.); analytical sample, m. 228-9° (decomp.) (from 50% EtOH). Similarly bis(β-chloroethyl)amides of following acids were prepd. (m.p. and % yield of amides given): dihydromuconic (II), 146-7°, 97; $(HO_2CCH_2C_6H_4)_2O$ (III), 181-2°, 80; $(p\text{-}HO_2CCH_2C_6H_4)_2O$ (IV), 192-2.5°, 85; all crystd. from iso-PrOH. A soln. of 1.8 g. $(CHCH_2COCl)_2$ in 15 ml. Et_2O was dropped with stirring to a soln. of 0.86 g. I and 2.2 g. Et_3N in 20 ml. Et_2O at 0 to −5°, the mixt. stirred an addnl. 45 min. at 0°, the sepd. $Et_3N.HCl$ filtered off, washed with 10 ml. Et_2O, the Et_2O soln. evapd. *in vacuo* to yield 1.7 g. $(CHCH_2CON.CH_2CH_2)_2$, m. 59° (from Et_2O), polymerizes on standing. By the same procedure bisethylenimides of following acids were prepd. (m.p., solvent for crystn. and % yield of imides given): muconic (V), 110°, iso-PrOH, 71; III, 59°, Et_2O, 89; and IV oil, —, 67. For V C_6H_6 was used instead of Et_2O. E. Gulak

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~~S. PRAIC, A. M.~~

MARKOVAC-PRPIC, A

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E. Gušťak.

crude I (R = CH:C.CO.O.CPh:N) (II), m. 254-5°; analytical sample, m. 265-6° (decompn.) (from C_6H_6). II (1.4 g.), refluxed with 0.22 g. NaOH in 15 ml. 70% EtOH, neutralized with 5% HCl, and cooled yielded 1.4 g. I [R = CH:C(CO₂H)NHBz] (III), m. 243°; analytical sample, m. 250-1° (from H_2O-EtOH 1:3). II (2 g.) in 150 ml. anhyd. EtOH and 10 ml. concd. H_2SO_4 refluxed 30 min., 80 ml. EtOH discd. off, the residue poured into 500 ml. H_2O, the mixt. extd. with four 100-ml. portions of Et_2O, and the exts. dried and evapd. left 1.6 g. I [R = CH:C(CO₂Et)NHBz] (IV), m. 145-50°; analytical sample, m. 153-4.5° (from C_6H_6-Et_2O). IV (0.75 g.), 4.65 ml. HI (d. 1.7), and 1 g. red P refluxed 1.5 hrs., filtered hot, the filtrate evapd. in vacuo, addn. of 10 cc. H_2O and evapn. in vacuo repeated 3 times, the residue dissolved in 20 ml. H_2O, extd. with Et_2O, filtered, and boiled, neutralized with hot NaOAc soln., cooled, and the crystals filtered off and washed with H_2O, EtOH, and Et_2O, gave 0.3 g. I [R = CH₂CH(CO₂H)NH₂] (V), did not melt up to 300° and gave a pos. ninhydrin test. V was prepd. also by a similar treatment of II or III with a yield of 59.5% and 54.5%, resp. V.2HCl, decomp. 300° (from EtOH-Et_2O, 2:1); di-Bz deriv. of V, m. 229-3° (from EtOH).

E. Gušťak

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Markovac-Prpic, A.

Synthesis of β-alethine and analogs. D. Fiel and A. Markovac-Prpic (Phys. Zagreb, Yugoslavia). *Arhiv Hem.* 27, 211-13(1957)(in English).—A soln. of 6.5 g. *o*-C_6H_4(CO)$_2$NCH$_2$CH$_2$COCl in 130 ml. C_6H_6 was added dropwise with stirring to a cooled mixt. of 1.22 g. ethylenimine (I), 2.88 g. Et_3N, and 50 ml. C_6H_6 during 0.5 hr., $Et_3N.HCl$ filtered off, washed with C_6H_6, the C_6H_6 evapd. *in vacuo* and the residue crystd. from 20 ml. EtOH to give 5.5 g. *o*-C_6H_4(CO)$_2$NCH$_2$CH$_2$COR (Ia) (R = 1-aziridinyl throughout the abstr.), m. 101-5° (from EtOH). Similarly prepd. were: *o*-C_6H_4(CO)$_2$NCH$_2$COR (II), yield, m. 116° (from EtOH); *o*-C_6H_4(CO)$_2$NCH(CH$_3$OMe)COR (III), m. 100-1° (from EtOH). A soln. of 2.5 g. Ia in 150 ml. abs. EtOH was added dropwise with stirring and cooling to 150 ml. abs. EtOH, passing simultaneously dry H_2S through the soln. during 3-4 hrs.; the mixt. kept overnight in an icebox and evapd. *in vacuo*, and the residue suspended in 100 ml. abs. EtOH, oxidized with air, evapd., and crystd. from 50% AcOH to yield 1.5 g. [*o*-C_6H_4(CO)$_2$NCH$_2$CH$_2$CONHCH$_2$CH$_2$S]$_2$ (IV), m. 185-90°; analytical sample, m. 211° (from 50% AcOH). Similarly prepd. were: [*o*-C_6H_4(CO)$_2$NCH$_2$CONHCH$_2$CH$_2$S]$_2$ (V) from II, m. 174-5° (from EtOH); [*o*-C_6H_4(CO)$_2$NCH(CH$_3$OMe)CONHCH$_2$CH$_2$S]$_2$ (VI) from III, m. 137-8° (from EtOH). V (2.03 g.) was refluxed 1 hr. with 22 ml. 0.5*N*-$N_2H_4.H_2O$ soln. in abs. EtOH, evapd. *in vacuo*, 10 ml. H_2O added, acidified with AcOH, the sepd. phthaloylhydrazine filtered off and washed with 10 ml. H_2O, the aq. soln. evapd. *in vacuo*; the residue (1.8 g. oil) dissolved in 40 ml. abs. EtOH, and a soln. of 1.1 g. anhyd. $(CO_2H)_2$ in 40 ml. abs. EtOH added and left 1 hr. to yield the dioxalate of [$H_2NCH_2CH_2CONHCH_2CH_2S$]$_2$, m. 184-5° (from EtOH-$H_2O$ 5:1). Similarly prepd. were: the dioxalate of [$H_2NCH_2CH_2CONHCH_2CH_2S$]$_2$ from IV, m. 91-3° (from EtOH-H_2O 5:1); the dioxalate of [MeOCH$_2$CH(NH$_2$)CONHCH$_2$CH$_2$S]$_2$ from VI, an oil. E. Custak

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MARKOVAC-PRPIC, A.

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2 pg (NA)

Synthesis of 4-octene-2,7-diene from 1,8-bisdiazo-4-octene-2,7-diene. D. Fleš, V. Tomašić, and A. Markovac-Prpić ("Pliva," Zagreb, Yugoslavia). *Croat. Chem. Acta* 30, 65-72(1958)(in English).—A soln. of 3.5 g. ($N_2CHCOCH_2CH:)_2$ (I) in 60 ml. EtOAc was treated in cold with 30 ml. 10% HCl, the aq. layer sepd., extd. twice with each 10 ml. EtOAc, the exts. washed with satd. $NaHCO_3$ soln., dried, and evapd. *in vacuo* to give 3.7 g. ($ClCH_2COCH_2CH:)_2$ (II), m. 95-7° (EtOH). I (2 g.) in 100 ml. Et_2O was satd. with dry HCl in cold, the soln. neutralized with Na_2CO_3, the Et_2O layer sepd., dried, evapd. *in vacuo*, the residue crystd. from 7 ml. EtOH, the cryst. product dissolved in 4 ml. 1:1 C_6H_6-petr. ether, decolorized with C, 1 ml. petr. ether added, the cryst. product discarded and the filtrate cooled to −5° to give 0.15 g. $ClCH_2COCH_2CHClCH_2CH_2COCH_2Cl$. II (1 g.), 2.5 g. Zn powder, and 50 ml. 80% AcOH was heated 0.5 hr. at 60-70°, the mixt. dild. with 40 ml. H_2O, neutralized with Na_2CO_3, extd. with six 20 ml. portions Et_2O, the exts. dried, evapd., and the residue distd. to give 0.49 g. ($AcCH_2CH:)_2$, $b_{0.45}$ 65-75°, m. 34-6°.

E. Gušek

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MARKOVAC-PRPIC, A

YUGOSLAVIA/Organic Chemistry - Naturally Occuring Substances and Their Synthetic Analogs E-3

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4569

Author : Fles, D., Markovac-Prpic, A.

Title : Application of the Arndt-Eistert Synthesis to the Preparation of Dipeptides of Beta Amino Acids.

Orig Pub : Croat. chem. acta, 1956, 28, No 1, 73-76

Abstract : On rearrangement of diazomethyl-N-phthaloylaminoalkylketones (I) in the presence of esters of alpha amino acids are formed esters of dipeptides containing residues of alpha- and beta amino acids:

$C_6H_4(CO)_2NCHRCOCHN_2$ I + $NH_2CHRCOOR'' \rightarrow C_6H_4(CO)_2$-

$NCHRCH_2CONHCHR'COOR'' + N_2$. 1.2 g I (R = H), 1.5 ml ethyl

ester of L-alanine and 6 ml dioxane are heated at 60° and there is added a freshly prepared suspension of Ag_2O

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YUGOSLAVIA/Organic Chemistry - Natirally Occuring Substances and Their Synthetic Analogs E-3

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4569

in dioxane, after 10 minutes the filtrate is evaporated. Yield of ethyl ester of N-phthaloyl-beta-alanyl-L-alanime is 53.9%, MP 150-151° (from ethyl acetate + petroleum ether), $[\alpha]^{19}_{D}$ -1.5 ± 0.15° (c 10.3; in dioxane) Analogously from I (R = H) and methyl ester of glycine (II) is obtained the methyl ester of N-phthaloyl-beta-alanylglycine, yield 47.8%, MP 162-162.5° (from ethyl acetate); from I (R = H) and ethyl ester of O-methyl-DL-serine (III) was obtained the ethyl ester of N-phthaloyl-beta-alanyl-O-methyl-DL-serine; yield 59.8%, MP 152-153° (from ethyl acetate); from I (R = CH_3) and II was obtained the methyl ester of DL-N-phthaloyl-beta-aminobutyrylglycine, yield 28.5%, mp 119-120° (from benzene-petroleum ether); from I (R = CH_3) and III was obtained DL-N-phthaloyl-beta-amino-butyryl-O-methyl-DL-serine, yield 15.4%, MP 125-126° (from ethyl

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MARKOVAC-PRPIC, A.

The correlation of configuration of optically active norpseudoephedrine and alanine. D. Fles and A. Markovac-Prpić (Pharm. Chem. Works, Zagreb, Yugoslavia). *Croat. Chem. Acta* 29, 183-7(1957)(in English).—D-MeCHRCOCl [R = o-$C_6H_4(CO)_2N$ throughout this abstr.] (5 g.) in 20 ml. C_6H_6 added with stirring to 30 ml. C_6H_6 and 7.03 g. $AlCl_3$ at 70° at such a rate as to maintain const. refluxing, the mixt. refluxed 3 hrs., cooled, and treated with 30 g. ice and 4 ml. concd. HCl, the aq. layer extd. with C_6H_6, the ext. washed with H_2O, followed by $NaHCO_3$ soln., dried over $MgSO_4$, and evapd. *in vacuo* gave 8.5 g. residue, which crystd. from EtOH yielded 5.4 g. D-PhCOCHRMe (I), m. 81-2° (75% EtOH), $[\alpha]^{19}_D$ 165.5° (*c* 1.44, EtOH); 2,4-dinitrophenylhydrazone, m. 210-12° (EtOH). Similarly was prepd. L-I, m. 81-2°, $[\alpha]^{19}_D$ −160.5° (*c* 2.0, EtOH). D-I (3.5 g.), 7 g. $(iso\text{-}PrO)_3Al$, and 70 ml. abs. iso-PrOH refluxed 5 hrs. with the removal of the theoretical amt. of Me_2CO, the iso-PrOH removed *in vacuo*, the residue hydrolyzed with 45 g. $[CH(OH)CO_2H]_2$ in 120 ml. H_2O in the presence of 20 ml. C_6H_6, the aq. layer extd. with C_6H_6, the combined C_6H_6 solns. dried and evapd. *in vacuo*, and the residue (3.3 g.) recrystd. from 7 ml. EtOH gave 2.1 g. D-*threo*-PhCH(OH)-CHRMe (II), m. 159-60° (EtOH), $[\alpha]^{19}_D$ −111.3° (*c* 0.93, C_6H_6). Similarly was prepd. L-II, m. 156-7°, $[\alpha]^{19}_D$ 108° (*c* 1.22, C_6H_6). A mixt. of L-II and D-II m. 130-2°. D-II (1.44 g.) refluxed 2 hrs. with 14 ml. EtOH and 14 ml. $N_2H_4.H_2O$ in EtOH, the solvent removed *in vacuo*, the residue treated for 10 min. at 50° with 25 ml. 10% HCl, kept 1 hr. at room temp., the phthalyl hydrazide filtered off, the filtrate evapd. *in vacuo* (bath below 50°), and the residue (1.44 g.) crystd. from 5 ml. EtOH and 16 ml. Et_2O gave 0.82 g. D-*threo*-norephedrine hydrochloride (III), m. 178-9° (1:2 EtOH-Et_2O), $[\alpha]^{19}_D$ −42.9° (*c* 1.825, H_2O). Similarly was prepd. L-III, m. 175-6°, $[\alpha]^{19}_D$ 42.1° (*c* 2.35, H_2O). A mixt. of L-III and D-III gave the same spot on paper chromatography for R_f 0.78 (4:1:5 BuOH-HOAc-H_2O) as the authentic DL-III, m. 168-9° (undepressed with DL-III, but strongly depressed with DL-*erythro*-norephedrine hydrochloride).

D. Fles

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032510016-2

YUGOSLAVIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4610.

Author : Fles, D., Temasic, V., and ~~Markovac-Prpic~~, A.
Inst :

Title : Synthesis of Octene-4-dione-2,7 from 1,8-bis-(diazo)-octene-4-dione-2,7

Orig Pub: Croat Chem Acta, 30, No 1, 69-72 (1958) (in English with a Serbo-Croat summary)

Abstract: Octene-4-dione-2,7 (I) has been prepared by the following series of reactions: $N_2CHCOCH_2CH{=}CHCH_2COCHN_2$ (II) $\longrightarrow$ $ClCH_2COCH_2CH{=}CHCH_2COCH_2Cl$ (III) $\longrightarrow$ (I). The starting II is synthesized from the acid chloride of dihydromuconic acid by a previously described method (C. Grundmann, Liebigs Ann Chem, 524, 31 (1936)). Preparation: 3.5 gms II in 60 ml ethyl

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MARKOVAC, PRPIC, A.

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Studies in the propiothiolactone series. II. Preparation of DL-succinimido- and L-α-(β-toluenesulfonamido)-β-propiothiolactone. D. Fleš, A. Markovac-Prpić, V. Tomašić, and M. Milohnoja ("Pliva", Pharm. Chem. Works, Zagreb, Yugoslavia). *Croat. Chem. Acta* 30, 167-71(1958); cf. *C.A.* 53, 4152*e* (in English).—A mixt. of 4 g. L-$PhCH_2SCH_2CH(NH_2)CO_2H$ and 2 g. succinic anhydride heated to 180°, the heating disconnected, the inside temp. kept at 160-70° for 20 min., treated with 5 ml. EtOAc, 100 ml. C_6H_6 and 30 ml. petr. ether, kept overnight in a refrigerator, the ppt. removed, the solvent evapd., and the residue crystd. from C_6H_6 gave 1.2 g. of racemic $PhCH_2SCH_2CH(CO_2H)R$ (R = succinimido throughout) (I), m. 129-30°. I (2 g.) refluxed 1 hr. with 20 ml. $SOCl_2$, excess $SOCl_2$ removed *in vacuo*, the residue dissolved in 10 ml. C_6H_6, impurities pptd. with 20 ml. petr. ether, decanted and the solvent evapd. to give 2 g. $PhCH_2SCH_2CH(COCl)R$ (II), needles, m. 73-5° (C_6H_6-petr. ether). A soln. of 2 g. II in 250 ml. C_6H_6 was added to 5.6 g. $AlBr_3$ in 50 ml. C_6H_6, the mixt. kept 1 hr. at 20°, hydrolyzed with 30 g. ice and 6 ml. concd. HCl, the aq. layer extd. twice with 20 ml. C_6H_6, the C_6H_6 layers washed with H_2O, dried, evapd., triturated with petr. ether (0.47 g. Ph_2CH_2 recovered from petr. ether solns.) and the residue crystd. from 2:1 EtOAc-petr. ether to yield 0.71 g. CH_2.-S.CO.CHR (III), m. 96-7°. Similar treatment of L-$PhCH_2SCH_2CH(COCl)NHSO_2C_6H_4Me$-*p* gave 67% L-$CH_2$.S.CO.CHNH$SO_2C_6H_4Me$-*p* (IV), m. 101-2° ($C_6H_6$-petr. ether), $[\alpha]_D^{20}$ −5.2° (*c* 6.285, dioxane). This hydrolyzed with AcOH and HI gave 49.5% L-cystine. IV (0.2 g.) in 15 ml. C_6H_6 treated with 10 ml. 5% $NaHCO_3$ gave a white ppt., which was washed with H_2O and extd. with C_6H_6 to give 0.15 g. of a white powder, m. 175-80° (decompn.), sol. in $HCONMe_2$, probably a linear polymer, which upon hydrolysis with AcOH and HI gave L-cystine. A mixt. of 0.5 g. IV, 0.49 g. $H_2NCH_2CO_2Me$, and 4 ml. dioxane kept overnight at room temp., the solvent evapd. *in vacuo*, the residue dissolved in 50 ml. EtOAc, washed with 50 ml. H_2O, dried ($MgSO_4$) and the EtOAc evapd. *in vacuo* to give 0.4 g. L-$[MeO_2CCH_2NHCOCH(NHSO_2C_6H_4Me\text{-}p)CH_2S]_2$, m. 177-8.5° (EtOAc), $[\alpha]_D^{20}$ 47.5° (*c* 1.82, dioxane). Infrared absorption spectra of III and IV are recorded. The carbonyl band in propiothiolactone system seems to appear between 1760 and 1780 cm.$^{-1}$, and $C_{(lactone)}$ −N stretching vibration near 1000 cm.$^{-1}$

D. Fleš

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