ZVORYKIN, V.N.

Typological characteristics of the higher nervous activity of dogs during changes in the barometric pressure. Funk. org. v usl. im. gaz. sredy 3:156-162 '64. (MIRA 17:11)

ZVORYKIN, V.N.; KORESHKOV, A.A.; MAL'KOV, P.A.

Reflex influences from the mechanoreceptors of the gastrointestinal tract on breathing and the cardiovascular system during barometric pressure drops. Funk. org. v usl. izm. gaz. sredy 3:242-251 '64. (MIRA 17:11)

Certain peculiarities of proximal subcortex of the acoustic analysor; comparative anatomical study in mammals. Arkh. anat., Moskva 29 no.2: 10-17 Mar-Apr 1952. (CIML 23:2)

1. Of the Scientific-Research Institute of the Brain (Director — S. A. Sarkisov, Active Member of the Academy of Medical Sciences USSR), Ministry of Public Health USSR.

1. ZVORYKIN, V. P.

2. USSR (600)

4. Embryology, Human

7. Problem of shifting of the courpus geniculatum mediale in the course of its development, Arkhiv. anat. gist. i embr., 29, No. 4, 1952.

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

Nervous System

A. I. Tyshetskiy and the discovery of the excitability of the central nervous system. Zhur. nevr. i psikh. 52, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 Uncl.

ZVORYKIN, V.P.; SHKOL'NIK-YARROS, Ye.G.

Numerical data on the relationship of the peripheral part of the visual analysor to cerebral ends of the analysors in a number of vertebrates. Arkh. anat., Moskva 30 no.5:43-47 Sept-Oct 1953. (CIML 25:4)

1. Of the Institute of the Brain (Director -- Prof. S. A. Sarkisov, Active Member AMS USSR), Ministry of Public Health USSR.

ZVORYKIN, V.P.

Corpus geniculatum internum and acuity of hearing. Arkh.anat.gist.i embr. 31 no.1:22-35 Ja-Mr '54. (MLRA 7:4)

1. Iz Instituta mozga Ministerstva zdravookhraneniya SSSR (direktor - deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor S.A. Sarkisov).

(Optic thalamus) (Hearing)

Card 1/1 Pub 154-17/19

Author : Zvorykin, V. P.

Title : Towards the question of the discovery of the excitability of the central nervous system

Periodical : Zhur. vys. nerv. deyat. 5, 292-298, Mar-Apr 1955

Abstract : Presents data supporting the view that priority for discovery of the excitability of the C. N. S. is due to the 19th-century Russian physician, A. I. Tyshetskiy, Photograph. Eleven references, all USSR (5 since 1940).

Institution : Institute of the Brain of the Academy of Medical Sciences USSR

Submitted :

ZVORYKIN, V.P. (Moskva, V.B.Mogil'tsevskiy per., d. 8, kv.3)

Cytoarchitectonic characteristics of the ganglion isthmi and its displacement in the brain stem in frog and in certain reptiles. Arkh.anat.gist.i embr. 33 no.3:15-18 Jl-S '56. (MIRA 12:11)

1. Iz instituta mozga AMN SSSR (dir. deystv. chl. AMN SSSR prof.S.A.Sarkisov)

(BRAIN, anatomy and histology,
ganglion isthmi in frogs & reptiles (Rus))
(REPTILES,
ganglion isthmi in (Rus))
(FROGS,
same)

USSR / Human and Animal Morphology, Normal and Pathological. Nervous System. Central Nervous System. S-2

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 83634

Author : Zvorykin, V. P.
Inst : Not given
Title : Morphological Bases of Differences in Auditory Acuity in the Dog and the Monkey.

Orig Pub : Uspekhi sovrem. biol. 1957, 44, No 3, 349-361.

Abstract : In a series of microscopic sections, stained with cresyl-violet, a study was made of the subcortical auricular formations in the dog (D), brain weight 95 g., and in the Mangoby monkey (M), brain weight 95 g. The total volume of all subcortical formations proved to be significantly greater in D than in M. The results of the measurements (in mm3) were: auditory tubercle - in D, 4.01, in M, 0.53; ventral auditory nucleus: in D, 8.19, in M, 2.58; superior olivary body:

Card 1/2

AUTHORS: Zvorykin, V.P. and Glezer, I.I., Scientific Workers of the Brain Research Institute of the Academy of Medical Sciences of the USSR

25-2-11/43

TITLE: An Erroneous Hypothesis (Oshibochnaya gipoteza)

PERIODICAL: Nauka i Zhizn', 1958, # 2, p 42-44 (USSR)

ABSTRACT: In this article the author strongly criticizes and refutes the hypothesis advanced by the Polish anthropologist, A. Vertsinskiy, who believes that urbanization will result into physiological degeneration.

There is one sketch.

ASSOCIATION: Brain Research Institute of the Academy of Medical Sciences of the USSR (Institut mozga Akademii meditsinskikh nauk SSSR)

AVAILABLE: Library of Congress

Card 1/1

Institutskaya ul., d.13, kv. 14).

Conference of the Brain Institute of the Academy of Medical Sciences of the U.S.S.R. devoted to problems in the structure and function of the reticular formation and its place in the analysor system. Arkh.anat.,gist. i embr. 35 no.5:121-124 S-O '58 (MIRA 11:12)
(SPINAL CORD)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

"Morfologicheskaya perestroyka slukhovogo znalizatora, svyazannaya s sukheniem diapazona vosprinimayemykh zvukov u primatov."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

ZAVOLOKIN, V.I. (Moskva, D-284, Begovaya ul., 11, kv.188)

Morphological bases for the unequal role of the auditory and optical analyzers in the behavior of dogs and monkeys. Arkh. anat. gist. i embr. 41 no.7:28-37 Jl '61. (MIRA 15:2)

1. Laboratoriya tsitoarkhitektoniki (zav. - zasluzhennyy deyatel' nauki, prof. Ye.P.Kononova) Instituta mozga AMN SSSR.
(VISION) (HEARING) (CEREBRAL CORTEX)

ZVORYKINA, K.P. (Moskva, Begovaya ul, 11, kv.188)

Biomorphological comparison of the systems of subcoritcal formation of visual and auditory analyzer in dogs. Arkh.anat.gist.i embr. 38 no.4:22-33 Ap '60. (MIRA 14:5)

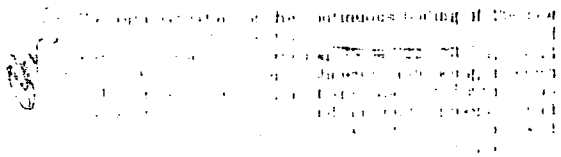
1. Laboratoriya tsitoarkhtektoniki (zav. - zasluzhennyy deyatel' nauki doktor meditsinskikh nauk prof. Ye.P.Konohova) Instituta mozga AMN SSSR.

(BRAIN--LOCALIZATION OF FUNCTIONS)
(VISION)
(HEARING)

"The Reaction of the Bladder and Intestines to Hypoxia of the Organism," Voprosy fiziol. interots., No. 1, pp 37-49, 1952.

Summary of report -D 356476

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"



ZVORYKIN, V.V.; DVORTSIN, M.M.

Increasing the operative efficiency of the PKS and KSA dryers. Kons. i ov.prom. 18 no.4:13-15 Ap '63. (MIRA 16:3)

1. Upravleniye "Kiyevenergonaladka".
(Drying apparatus)

YUDITSKIY, D. G.; ZVORYKIN, V. V.; ANPILOV, G. D.

Steam expenditure in the production of alcohol from molasses and in the processing of baker's yeast. Spirt. prom. 28 no.6: 29-33 '62. (MIRA 16:1)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti im. Mikoyana (for Yuditskiy). 2. Upravleniye "Kiyevenergonaladka" (for Zvorykin, Anpilov).

(Distilling industries--Costs)

ZVORYKIN, V.V.; ANPILOV, G.D.

Steam, air and water consumption in the Plakhtyanka and Nemeshayev plants of antibiotic feeds. Spirt. prom. 28 no.6:25-29 '62. (MIRA 16:10)

1. Kiyevenergonaladka.

ZVORYKIN, V.V.

Automatic control of continuous cooking of raw materials. Spirt. prom. 22 no.2:19-21 '56. (MLRA 9:8)

1. Kiyevskoye upravleniye Orgprodenergo.
(Distilling industries--Equipment and supplies)
(Automatic control)

Oak

Differences in the development of vegetation in stands of early and late form of oak.
Dokl. AN SSSR 83 no. 1, 1952

MLRA , Library of Congress, August, 1952, UNCLASSIFIED.

Oak

Differences in the development of vegetation in stands of early and late form of oak. Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 1952, Uncl.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

2. USSR (600)

4. Oak

7. Differences in the development of vegetation in plantation of early and late oaks. Dokl. AN SSSR 84 No. 1, 1952. rcd. 28 Feb. 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

"Forestry and Forest Typology Importance of Underbrush in the Oak Forests of the Northwestern Caucasus." Sub 30 May 51, Inst of Forestry, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Mechanism of copper dissolution in hydrochloric acid. Trudy
Ir khim.i khim.tekh. no.1:32-35 '64.

Mechanism of silver dissolution in hydrochloric acid.
Ibid.:36-39

(MIRA 18:12)

1. Submitted September 23, 1963.

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

Author : Zvorykina, K. V.

Inst : Forestry Institute AS USSR

Title : Some Biological Peculiarities of the Field Maple (Acer campestre L.)

Orig Pub: Tr. In-ta lesa. AN SSSR, 1957, 33, 132-145

Abstract: These studies were conducted in the Borisogleb forest range (Tellerman Experimental Forest). Here maple enters the III stage where its height, depending on the conditions, reaches from 7 to 15 meters. It is distinguished by good development when it grows in oak groves. The possibility of maple propagation by cuttings or by the shoots on

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

the stump under given tree growing conditions is noted. Depending on the advanced age of the tree stand, the character of maple growth and its tole in the composition of the tree stand and in the composition of the young trees near a wood is determined by light conditions. The dominating position passes completely to the chief forest forming varieties and the field maple is driven back to the lower tier and to young trees on the edge of the woods where the number of its skeletal axis reaches 42 thousand per hectare. This process is connected with maintenance felling. Particularly after these fellings the number of shoots is increased. The presence of a large number of maple trees under a canopy (resulting in a flat crown, short life span, early arrest of

12

USSR / [illegible] Forest Biology and Typology. K-2

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

the growth in height in the majority of skeletal axes) characterizes it as edge of the woods variety. However, under favorable conditions the growth of individual skeletal axes of the maple in the III and even II height level area may occur. The feasibility of the field maple being part of the wood-margin trees and the main height level area is emphasized. -- V. V. Protopopov

Card 3/3

Effect of tree and shrub species regenerated by sprouts on the development of oak stands. Trudy Inst. lesa 33:119-131 '57.
(MIRA 10:10)

(Reforestation) (Oak)

ZVORYKINA L. V.

Biological characteristics of the common maple (Acer campestre L.)
Trudy Inst. lesa 33:132-145 '57. (MIRA 10:10)
(Maple)

BIOLOGY: Plant ecology

I

II Associated with Institute of Forestry

III

IV *Coauthor with I N Yelagin "Supplies of Litter in Certain Types of Broad-Leaf Forests of the Foothills of the Northwestern Caucasus"

Coauthor with I N Yelagin "Illumination Under the Canopy of Certain Types of Broad-Leaf Forests (Northwest Caucasus)"

✓DAN 49-66-4/713-16

✓"

✓DAN 49-66-4/713-16

✓DAN 49-64-5/715-18

✓DAN 49-66-4/713-16

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

Oak

"Differences in the development of vegetation in stands of early and late form of oak." Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 1952, Uncl.

Association of early and late oak types with the relief elements.
Izv. Vses. geog. ob-va 97 no.3:287-290 My-Je '65.
(MIRA 18:8)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

SANNIKOV, G.P., kand. sel'skokhoz. nauk; ZVORYKINA, L.B., aspirantka

Early spring aerial chemical spraying of shrubs. Zemledelie 27 no.4:75-77 Ap '65. (MIRA 18:4)

1. Severnyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.

MIROFOL'SKAYA, Nina Konstantinovna; ZVORYKINA, L.N., red.

[Safety manual for operation of road machinery and equipment] Pamiatka po tekhnike bezopasnosti pri rabote na dorozhno-stroitel'nykh mashinakh i mekhanizmakh. Moskva, Stroiizdat, 1964. 32 p. (MIRA 17:8)

BOLOBAN, Nikolay Aleksandrovich, kand. tekhn. nauk; ZVORYKINA, L.N., red.

[Safety manual for operators of tower cranes] Pamiatka po tekhnike bezopasnosti dlia mashinista bashennogo krana. Izd.2., perer. i ispr. Moskva, Stroiizdat, 1964. 38 p. (MIRA 17:7)

GUSHCHIN, Vitaliy Ivanovich; ZVORYKINA, L.N., red.

[Safety manual for operators of equipment for churn drilling] Pamiatka po tekhnike bezopasnosti dlia mashinista stanka udarno-kanatnogo bureniia. Moskva, Stroiizdat, 1964. 28 p.
(MIRA 17:6)

BONDAR', Yevgeniy Petrovich, inzh.; ZVORYKINA, L.N., red.

[Safety manual for assembling reinforced concrete elements] Pamiatka po tekhnike bezopasnosti dlia montazhnika zhelezobetonnykh konstruktsii. Izd.2., ispr. i dop. Moskva, Stroiizdat, 1964. 31 p.
(MIRA 17:6)

KLOCHANOV, Petr Nikolayevich; EYDINOV, Yuriy Solomonovich; ODINOKOV, S.D., kand. tekhn. nauk, nauchn. red.; ZVORYKINA, L.N., red.

[Painting, glazing, and facing operations] Maliarnye, stekol'nye i oblitsovochnye raboty. Moskva, Stroiizdat, 1964. 313 p. (MIRA 18:2)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

B[illegible]ARAYEVSKIY, Nikolay Pavlovich; ZV RYKINA, L.N., red.

[Safety manual for workers assembling mining [illegible]uipment] Pamiatka po tekhnike bezopasnosti dlia rabochikh po montazhu gornorudnogo oborudovaniia. Moskva, Stroiizdat, 1964. 29 p. (MIRA 17:9)

ALEKHOVICH, Arkadiy Il'ich; ZVORYKINA, L.N., red.

[Safety manual for the assembler of tower cranes construction] Pamiatka po tekhnike bezopasnosti dlia montazhnika stroitel'nykh bashennykh kranov. Izd.2., perer. i dop. Moskva, Stroiizdat, 1964. 46 p.
(MIRA 17:6)

BOLOBAN, Nikolay Aleksandrovich; BELEVICH, Vladimir Borisovich; VELIKOTSKIY, Aleksandr Nikolayevich; MACHABELI, Shota Levanovich; RUFFEL', N.A., nauchn. red.; ZVORYKINA, L.N., red.; MIKHEYEVA, A.A., tekhn. red.

[Assembling precast concrete structures] Montazh sbornykh zhelezobetonnykh konstruktsii. [By] N.A.Boloban. i dr. Moskva, Gosstroiizdat, 1963. 344 p. (MIRA 16:10)
(Precast concrete construction)

RAZVENOVICH, S.G., inzh.; SKVORTSOV, A.P., inzh.; YAKOBSON, Ya.M., nauchn. red.; ZVORYKINA, L.N., red.; BOROVNEV, N.K., tekhn. red.

[Preparation of formwork in industrial construction] Opalubochnye raboty v promyshlennom stroitel'stve. Moskva, Gosstroiizdat, 1963. 311 p. (MIRA 16:11)
(Concrete construction--Formwork)

KLIMOV, V.P.; MARICHEV, V.I.; RUBINCHIK, A.M.; EYLER, S.A., nauchn. red.; ZVORYKINA, L.N., red.; BOROVNEV, N.K., tekhn. red.

[Construction of cofferdams and caissons] Stroitel'stvo opusknykh kolodtsev i kessonov. Moskva, Gosstroiizdat, 1963. 247 p. (MIRA 17:1)

(Cofferdams) (Caissons)

KARPENKOV, Vasiliy Maksimovich; ZVORYKINA, L.N., red.; MIKHEYEVA, A.A., tekhn. red.

[Safety manual for blasters (in open areas)] Pamiatka po tekhnike bezopasnosti dlia vzryvnika (na otkrytykh rabotakh) Izd.w., perer.i dop. Moskva, Gosstroiizdat, 1963. 29 p.

(Blasting—Safety measures) (MIRA 16:9)

[illegible] Mikhaylovich, kand. med. nauk; ZVORYKINA, L.N., red.

[Industrial hygiene in a cement factory] Gigiena truda na tsementnom zavode. Moskva, Stroiizdat, 1964. 46 p. (MIRA 17:5)

DZHALALYAN, Eduard Setrakovich; ZVORYKINA, L.N., red.; TARKHOVA, K.Ye., tekhn. red.

[Rigger-signalman's safety manual] Pamiatka po tekhnike bezopasnosti dlia takelazhnika-signal'shchika. Izd.2., ispr. i dop. Moskva, Gosstroiizdat, 1963. 45 p. (MIRA 17:3)

MAKHLIN, I.S.; ZVORYKINA, L.N., red.; TARKHOVA, K.Ye., tekhn. red.

[Safety manual for stonecutters] Pamiatka po tekhnike bezopasnosti dlia rezchika kamnia. Moskva, Gosstroiizdat, 1963. 37 p. (MIRA 16:9)

(Stone cutting—Safety measures)

One way to metallize Seignette's salt. Trudy LKI no.28:199-201 '59. (MIRA 15:5)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta. (Rochelle salt) (Metal spraying)

ACC NR: AP6018056 (A) SOURCE CODE: UR/0020/66/168/003/0564/0566

AUTHOR: Myasnikov, L. L.; Zvorykina, R. A.

ORG: Leningrad Shipbuilding Institute (Leningradskiy korablestroitel'nyy institut) B

TITLE: Magnetoacoustic effect in aluminum alloys

SOURCE: AN SSSR. Doklady, v. 168, no. 3, 1966, 564-566

TOPIC TAGS: aluminum alloy, magnetoacoustic effect, acoustic absorption, torsional vibration, acoustic resonance, solid solution, grain structure

ABSTRACT: To check on the hitherto uninvestigated increase of the phase velocity and increase of absorption of torsional sound waves in alloys, the authors prepared aluminum alloys with different contents of iron impurity - of the order of tenths and hundredths of one per cent. Plates of equal dimensions were tested (130 x 7.5 x 2 mm), fastened precisely at the vibration node, tuned to odd harmonics, and excited by resonance with torsional oscillations from X-cut Rochelle salt crystals. The resonance curve was plotted by producing beats from two sound generators with a constant frequency difference of 50 cps. When a constant magnetic field was applied, the resonant frequency was different from that without a field. The relative change of phase velocity was determined from the change in the resonant frequency, and the damping of the torsional oscillations was estimated from the relative logarithmic decrement of the oscillation with and without the field. The results show that the magnetoacoustic effect depends on the grain dimensions, density, chemical composition, and other fac-

Card 1/2

UDC: 548.0: 535

tors which have not yet been investigated. The magnetoacoustic effect was used to determine the limit of solubility of the solid solution during non-equilibrium dynamic solidification. The results obtained by the authors for the solubility of silicon in aluminum (0.48%) differed from the results published in the handbook, but was closer to the theoretical value. This report was presented by Academician B. P. Konstantinov 9 September 1965. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 11, 20/ SUBM DATE: 03Sep65/ ORIG REF: 003/ OTH REF: 001

ZVORYKINA, V.

Students' experiments on the use of antibiotics in poultry farming. Politekh. obuch. no.8:86 Ag '59. (MIRA 12:10)

1.Kuybyshevskiy oblastnoy institut usovershenstvovaniya uchiteley. (Poultry breeding) (Antibiotics)

Syntheses of β-amino acids. IV. β-Aminopelargonic acid and its derivatives. V. M. Rodionov and V. A. Zvorykina. *Bull. acad. sci. U. R. S. S., Classe sci. chim.* 1943, 216-32 (English summary); cf. *C. A.* 28, 2716.—$CH_2(CO_2Et)_2$ is better sapond. by refluxing with concd. HCl than by using alkali. $CH_2(CO_2H)_2$ (I) and $MeCH(NH_2)OH$ in abs. EtOH give a yellow oil which with HCl gives 17% of the very hygroscopic *β-aminobutyric acid-HCl*, m. 100.5-10.5°. I, n-$C_6H_{13}CHO$ and alc. NH_3 give 30% *β-aminopelargonic acid* (II), m. 205-5.5°; *HCl salt*, m. 135.5-6°. By-products are 37% β-nonenoic acid, γ-amyl-γ-butyrolactone and a neutral oil. II and BzCl give 84% *β-benzamidopelargonic acid* (III), m. 129.5-31°. With $ClCO_2Et$, II forms 70% of the corresponding *urethan* (IV), m. 80°. II and KCNO give 70% of the *β-ureido deriv.* (V), m. 127-8°. When V is boiled with HCl, ring closure occurs, giving a mixt. of *6-hexyl-2,6-dioxohexahydropyrimidine* (VI), m. 186-7°, and hexyldihydropyrimidine. VI can be sepd. by crystn. from EtOH. III and $SOCl_2$ at 70-80° give the acid chloride which is treated with NH_3 in Et_2O to give 41% of the *amide* (VII) of III, m. 185-6°, and 33% *2-phenyl-4-hexyl-6-oxotetrahydropyrimidine* (VIII), m. 74-5°. Boiling VIII with HCl regenerates III, while boiling it with KOH gives VII and some II. The best yield of VIII is obtained by running the reaction at 75-85°. Vacuum distn. of VII causes its decompn. to a nonenoic acid whose amide m. 123-7°. IV and $SOCl_2$ give an acid chloride which with NH_3 forms only the normal *amide* (IX), m. 168°. No ring closure occurs. β-Phenyl-β-benzamidopropionic acid (X) with $SOCl_2$ and NH_3 at 75-85° gives *2,6-diphenyl-oxotetrahydropyrimidine* (XI), m. 129-31°, so this reaction is probably general. Saponn. of XI gives the amide of X. The Hofmann reaction with VII gives BzOH, *6-hexylglyoxalidone* (XII), m. 113-14°, and *1-benzoyl-5-hexylglyoxalidone*, m. 112-13°. Under the same conditions, IX gives XII and its *urethan*, m. 109-11°.

H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

STOLYARIKOVA, N.M.; DEVYATNIN, V.A.

Comparison of the iodate and indophenol tests for determining Ascorbic acid in industrial prepartions. Trudy VNIVI 5:196-200 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.
(ASCORBIC ACID) (INDOPHENOL) (IODATES)

ZVORYKINA, V.B. [deceased]; STOL'NIKOVA, N.M.; Devyatnin, V.A.

A study of the reaction of furfurole with aniline and its use in making a qualitative evaluation of vitamin preparations. Trudy VNIVI 5:200-204 '54. (MLRA 9:3)

1. Khimiko-analiticheskava laboratoriya.
(ASCORBIC) (FURALDEHIDE) (ANILINE)

The electrolysis of aromatic carboxylic acids. VI. The electrolysis of opianic acid. V. M. Rodionov and V. K. Zvorykina. *J. Gen. Chem.* (U. S. S. R.) 7, 2633-6 (in French 2636)(1937); cf. *C. A.* 31, 6116[8]. It had been shown (*C. A.* 29, 7829[1]) that electrolysis of opianic acid gives meconine (I) and a mixt. of α- and β-bimeconyls. Na-Hg reduction gives I and some α-bimeconyl. When a mixt. of α- and β-bimeconyls is reduced with Na-Hg or by electrolysis, half the mixt. is unchanged, and 25-30% of *meconyldimethoxybenzyl-o-carboxylic acid*, m. 173-4°, is formed. Thus, bimeconyl is not an intermediate in the formation of I. H. M. L.

Acylation reactions. V. M. Rodionov and V. K. Zvorykina. *Doklady Akad. Nauk S.S.S.R.* 57, 583-6 (1947); *Chem. Zentr.* (Russian Zone Ed.) 1948, II, 955.—Attempts to prep. 2-phenyl-4-hexyl-6-oxotetrahydropyrimidine by the action of Ac_2O on β-benzamidopelargonamide yielded *2-methyl-4-hexyl-6-oxotetrahydropyrimidine*, $C_6H_{11}CH.N:CMe.NH.CO.CH_3$ (I). Therefore the action of Ac_2O on other acyl compds. was investigated. Boiling Bz_2NHPh with Ac_2O and treating the reaction product with boiling water yielded *acetanilide*. $PhCH_2CONHPh$ treated in like manner yielded $AcNHPh$. The following esters were prepd. by heating the corresponding *acylaminopelargonic acids* with alc. and H_2SO_4. *Et β-acetamidopelargonate* (II), thin needles from petr. ether, m. 49-50°, b_6 174-5°. *β-Benzamido analog* (III), fine needles from ether-petr. ether, m. 62°, b_6 218-19°. Treating III with Ac_2O and proceeding as above yielded II. *β-(Phenylacetamido)pelargonic acid* (IV), obtained from the amino acid with $PhCH_2COCl$ in 10% KOH at 0-5°, needles from ether-petr. ether or from aq. alc., m. 102-3°, readily sol. in Et_2O. Treatment of IV with $SOCl_2$ at 40° and then with NH_3 yielded the *amide* (V), needles from alc., m. 182°. Heating V with Ac_2O yielded I, m. 88°. M. G. Moore

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Syntheses in the pyrimidine series. V. M. Rodionov and V. K. Zvorykina. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1948, 330-40; cf. *C.A.* 38, 1473[1].—Conditions were established for the formation of amides and tetrahydropyrimidines by the interaction of acylated 2-amino acids and $SOCl_2$, followed by treatment with dry NH_3; at 40-5° with the theoretical amt. of $SOCl_2$ good yields of amides are obtained; at 75-85° with excess $SOCl_2$ are obtained the tetrahydropyrimidines. The reaction appears to be general in character and is easiest with BzNH acids. Expts. on the cyclization of amides of acylated amino acids by hot Ac_2O showed that benzoylated aminopelargonic acid gives not a Ph deriv. of tetrahydropyrimidine, but a Me deriv., i.e. the Bz group is replaced by Ac; such transacylation gives quant. yields of AcNHPh from BzNHPh and PhOAc. *β-Aminopelargonic acid* (10 g.) in 120 cc. 10% NaOH was treated dropwise with 10.1 cc. Ac_2O at 5-10°, let stand 1 hr., and acidified with HCl to Congo red, giving 75% *Ac deriv.*, m. 101-2° (from dil. EtOH). This (9 g.) with the theoretical amt. of $SOCl_2$, heated to 40-5°, the residual $SOCl_2$ removed *in vacuo*, and the residue in benzene or Et_2O treated with dry NH_3, gave 81% *β-acetamidopelargonamide*, needles, m. 170°. This (1.7 g.), boiled 3 hrs. with 10 cc. Ac_2O, the excess Ac_2O removed *in vacuo*, and the residue boiled 0.5 hr. with 25 cc. H_2O and cooled, gave 75% *2-methyl-4-hexyl-6-oxotetrahydropyrimidine* (I), needles, m. 88° (from Et_2O-petr. ether, after washing with 5% NaOH); hydrolysis of this by 5% NaOH gave β-acetamidopelargonic acid, m. 101°. Boiling 5 g. β-benzamidopelargonamide (II) 4 hrs. with 40 cc. Ac_2O and treatment as above gave 1.7 g. [illegible] EtOH (from the alk. wash) and 90% I. II (1 g.), boiled 3 hrs. with 5 cc. BzCl, washed with cold dil. NaOH, and the Et_2O soln. of the residue washed with dil. NaOH and evapd., gave 0.53 g. pure (and 0.21 g. crude) *2-phenyl-4-hexyl-6-oxotetrahydropyrimidine*, m. 74° (from Et_2O-petr. ether). Refluxing 12.8 g. β-carbethoxyamino-pelargonamide 8 hrs. with 80 ml. Ac_2O, removal of the excess Ac_2O, boiling the residue 0.5 hr. with 75 ml. H_2O, and soln. in Et_2O gave 2.1 g. starting material and 2.5 g. corresponding acid (insol. in Et_2O), while distn. of the Et_2O ext. gave 4.8 g. *oil*, $b_?$ 171-6°, n^{20}_D 1.4550, d_4^{20} 0.9828; the latter (1.1 g.) boiled with 25 g. 50% NaOH gave 0.3 g. β-aminopelargonic acid (from NaOH soln. by faint acidification by HCl) and 0.1 g. *(β-aminononanoyl)carbamic acid*, m. 128° (by further acidification with AcOH); this established the structure of the above-described oil as *1-acetyl-2-ethoxy-4-hexyl-6-oxotetrahydropyrimidine*. The following derivs. were prepd. by the $SOCl_2$-NH_3 procedure as detailed above: $C_6H_{13}CH(NHBz)CH_2CO_2H$ gave either 80% $C_6H_{13}CH(NHBz)CH_2CONH_2$ (80%), needles, m. 186° (from EtOH), or *2-phenyl-4-hexyl-6-oxotetrahydropyrimidine* (84%), needles, m. 74-5° (from dil. EtOH); $C_6H_{13}CH(NHAc)CH_2CO_2H$ gave only the *amide*, m. 172°; $C_6H_{13}CH(NHCO_2Et)CH_2CO_2H$ also gave only the *amide*, m. 158° (from MeOH), 82%. $PhCH(NHBz)CH_2CO_2H$ gave either 95% $PhCH(NHBz)CH_2CONH_2$, m. 240°, needles (from EtOH), or 80% *2-phenyl-4-phenyl-6-oxotetrahydropyrimidine*, needles, m. 135° (from EtOH); the corresponding Ac compd. gave only the amide, m. 225° (from EtOH), in 93% yield; $PhCH(NHCO_2Et)CH_2CO_2H$ also gave only the amide (91%), needles, m. 193° (from EtOH); $MeCH(NHBz)CH_2CO_2H$ gave either 80.7% amide, needles, m. 204-5° (from benzene), or 70.6% *2-phenyl-4-methyl-6-oxotetrahydropyrimidine*, needles, m. 120-20.5° (from benzene). G. M. Kosolapoff

Chemical Tech. Inst. [illegible]

Transformation of amides of β-alkyl(aryl)-β-carbethoxyaminopropionic acids into β-ureido acids. V. M. Rodionov and V. K. Zvorykina. *Doklady Akad. Nauk S.S.S.R.* 65, 853–5(1940).—Heating 2 g. $C_5H_{11}CH(NHCO_2Et)CH_2CONH_2$ with 25 ml. 5% KOH 1 hr. and acidification give 80% *β-ureidopelargonic acid*; if 0.5 g. of the amide and 5 ml. EtONa soln. in EtOH are let stand 3 days, dilu. gives 0.2 g. unchanged amide, while acidification gives a little hexyldihydrouracil, with further acidification giving 0.16 g. *β-ureidopelargonic acid*, m. 127–8°. Heating 1 g. $PhCH(NHCO_2Et)CH_2CONH_2$ with 20 ml. 5% NaOH 40 min. and acidification gave 80% *β-phenyl-β-ureidopropionic acid*, m. 190–1°; this is formed also by boiling 4-phenyl-2,6-diketohexahydropyrimidine with 5% NaOH and acidification. $2\text{-}C_{10}H_7\text{-}CH(NH_2)CO_2H$ treated in 15 ml. 10% KOH with 0.6 ml. $ClCO_2Et$ gave the *N-carbethoxy deriv.*, m. 147–8°, on acidification; heating 1.2 g. of this and 0.6 ml. $SOCl_2$ 3 hrs. at 40–5°, evapg. the $SOCl_2$ and treating with NH_3 in Et_2O gave 90% of the corresponding *amide*, m. 224° (from EtOH), which (0.3 g.) warmed with 5% NaOH gave 0.21 g. (77%) *β-ureido-2-naphthalenepropionic acid*, m. 197° (decompn.), on acidification. G. M. K.

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The Hofmann reaction. III. Reaction of acylated amides of β-aminopelargonic acid with alkaline hypobromites. V. M. Rodionov and V. K. Zvorykina. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1950, 608-20; cf. C.A. 43, 255g. The Hofmann reaction with acylated amides of β-aminopelargonic acid proceeds through the formation of acylated 2-(acylamino)octyl isocyanates and in a side reaction yields substituted hydantoins. Thus a route from β-amino to α-amino acids is opened. The possible explanations of the results are discussed in the light of previous work (cf. Karrer and Schlosser, C.A. 17, 2116). Treatment of 7 ml. Br, 25.15 g. KOH, and 175 ml. H₂O at -10° with 12.5 g. $C_6H_{13}CH(NHCO_2Et)CH_2CONH_2$, m. 158°, and heating the soln. on a steam bath to 55° (spontaneous heating to 65°) gave on cooling and extn. with Et₂O, 3.3 g. *3-carbethoxy-4-hexyl-2-imidazolidone* (I), m. 82-3°, 1 g. unreacted amide, and 0.12 g. *5-hexylhydantoin* (II), m. 117°; on acidification of the aq. soln.); some 2 g. uncrystallizable oil was also isolated. If the initial reaction temp. reaches 76°, the same products are formed, along with a solid, m. 121-2°. Hydrolysis of II with boiling 5% KOH gave α-ureidocaprylic acid (III), decomp. 167°, and α-aminocaprylic acid (IV), decomp. 245-50°. Heating IV (0.3 g.) 4 hrs. with 0.3 g. KCNO in 6 ml. H₂O gave, on acidification, 90% III, decomp. 167°, as above, while III heated 0.5 hr. with 25% HCl gave 90% II, also obtained (0.07 g.) from 1 g. 4-hexyl-2-imidazolidone (V) with 0.81 ml. Br in 20 ml. H₂O. If the original Hofmann reaction mixt. (from 18.85 g. amide) is rapidly cooled after the temp. reaches 65° there are obtained: 1.7 g. V, 3.6 g. I, 0.75 g. II, 4.0 g. neutral oil, and 3.7 g. liquid acids; the latter were sepd. into 0.7 g. enanthic acid, 0.01 g. III, 0.02 g. II, and traces of IV. The neutral oil yielded 1.2 g. V, 0.015 g. β-(carbethoxyamino)pelargonic acid, some HCN, and a solid, m. 121-2°, which is also obtained among the products of hydrolysis of I with aq. KOH, and which is given the provisional formula, $C_6H_{13}CH$-$(NHCO_2Et)CH_2NHCON \cdot C(:O) \cdot NH \cdot CH(C_6H_{13})CH_2C_6H_{13}$. $C_6H_{13}CH(NHAc)CH_2CONH_2$ (VI) with 3.1 ml. Br in 72 g. KOH and 72 ml. H₂O similarly gave after rapid cooling, when 65° was attained by the soln., 0.07-1.20 g. V, 1.05-1.5 g. *3-Ac deriv.* (VII) of V, m. 73°, and 0.78-0.95 g. initial VI; heating VII with aq. KOH gave V, m. 114°. Similar reaction with the *3-Bz deriv.* (VIII) of VI gave *3-benzoyl-4-hexyl-2-imidazolidone* (IX), m. 116-17°, some V, BzOH, a trace of II, and appreciable amts. of a unknown substance, m. 250°, contg. C, H, O, and N. Alk. hydrolysis of the IX gave unknown neutral products, but acidic hydrolysis gave *1-hexylethylenediamine*, isolated as the *di-HCl salt*, whose *N,N'-dicarbethoxy deriv.*, m. 86°. Urea with Me-(CH₂)₅COCl in Et₂O gave 60% *1-enanthylurea*, m. 106-1°. This (8.8 g.) added with cooling at -10° to 2.8 ml. Br in 8.5 g. NaOH and 50 ml. H₂O, stirred 3 hrs., and warmed to 50° (no spontaneous reaction) gave 3.7 g. oil, largely b. 193-5° (30% yield of pure product), identified as *5-hexyl-1,3,5-oxadiazine-2,3(H)-one*; some 27% enanthic acid was also isolated. G. M. Kosolapoff

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Carbazide Acids

General method of obtaining B-semi-carbazide acids. Dokl. AN SSSR, 85, No. 3, 1952

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

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

β-Aminocapric acid and its transformations. V. M. Rodionov, V. K. Zvorykina, and N. E. Kuznetsova[illegible] Zhur. Obshchei Khim. 23, 1954 [illegible] HCl at [illegible]

ZVORYKINA, V.K.

The work of Academician V.M.Rodionov in the field of -amino acids.
Soob.o nauch.rab.chl.VKHO no.4:5-21 '54. (MIRA 10:10)
(Amino acids)

RODIONOV, V.M. [deceased]; ZAYKINA, V.I.

Preparation and reactions of certain derivatives of β-ureidopelargonic acid. Izv.AN SSSR.Otd.khim.nauk no.3:332-335 Mr '56. (MLRA 9:8)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Nonanoic acid)

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E-2

USSR/Organic Chemistry - Synthetic Organic Chemistry

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4405

Author : Rodionov, V.M., Zvorykina, V.K.
Title : Syntheses of Pyrimidine Series. II. Conversion of Diastereoisomeric Gamma-Ethyl-Beta-Aminocaprylic Acids to Substituted Tetra- and Hexahydropyrimidines.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 4, 1165-1169

Abstract : Isomeric gamma-ethyl-beta-ureidocaprylic acids (Ia,b) are obtained from the two diastereoisomeric gamma-ethyl-beta-aminocaprylic acids (IIa,b) by three procedures: a) heating of II with KCNO; b) heating of amides of N-carbethoxy-derivatives of II with alkali; c) saponification of 4-(1'-ethylpentyl)-2,6-dioxohexahydropyrimidines (IIIa,b). By boiling with HCl (acid) I are converted to III. Action of $SOCl_2$ followed by NH_3 on N-benzoyl derivatives of IIa,b, gives 2-phenyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (IVa,b).

Card 1/3

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4409

Heating of diastereoisomeric amides of gamma-ethyl-beta-(N-acetylamino)-caprylic acids (Va,b) with $(CH_3CO)_2O$ gives 2-methyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (VIa,b). From 12 g N-carbethoxy-IIa (prepared in usual manner from IIa, yield 74%, MP 60-61° (from petroleum ether)) by heating with 5 ml $SOCl_2$ at 40° for 3 hours, driving off excess $SOCl_2$ in vacuum, adding 500 ml ether and saturating with NH_3, is obtained the amide of N-carbethoxy-IIa, yield 68%, MP 146° (from water). Analogously from N-carbethoxy-IIb (prepared from IIb, yield 70%, MP 63-64° (from alcohol-petroleum ether)), is prepared amide of N-carbethoxy-IIb, yield 70.6%, MP 144° (from water). 1 g of the amide thus obtained, in 20 ml 10% solution of NaOH, boiled until dissolved, acidified to get Ia, yield 86%, MP 142° (from water) or Ib, yield 0.85 g, MP 169° (from alcohol), respectively. On heating IIa,b with solution of KCNO the yield of I is 85 and 76%,

respectively. I boiled with 12% solution HCl, for 3 hours; yield of IIIa 67%, MP 152° (from water); yield of IIIb 80%, MP 145-146° (from water). 5 g N-benzoyl-II heated with 3.75 ml $SOCl_2$ at 75-80° for 3 hours, $SOCl_2$ driven off, added ether and saturated with NH_3; yield of IVa 44.8%, MP 125° (from aqueous alcohol); yield of IVb 62%, MP 123° (from aqueous alcohol). To mixture of II and 10% solution NaOH added $(CH_3CO)_2O$; yield of N-acetyl-IIa 81-3%, MP 118° (from water); yield of N-acetyl-IIb 78.8%, MP 117° (from water). By action of $SOCl_2$ and NH_3 on the latter there are obtained Va, yield 89.3%, MP 195° (from alcohol), and Vb, yield 77.6%, MP 175° (from alcohol). Mixture of 1.5 g V and 30 ml $(CH_3CO)_2O$ boiled 4 hours, $(CH_3CO)_2O$ driven off; yield of VIa 76%, MP 92° (from aqueous alcohol); yield of VIb 70%, MP 86-87° (from ether).

RODIONOV, Vladimir Mikhaylovich, akademik [deceased]; ZVORYKINA, V.K., sostavitel'; KISELEVA, V.V., sostavitel'; FEDOROVA, A.M., [translator]; KNUNYANTS, I.L., akademik, otv.red.; SHEMYAKIN, M.M., akademik, otv.red.; SHVETSOV, Yu.B., red.izd.; POLENOVA, T.P., tekhn.red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad. nauk SSSR, 1958. 792 p. (MIRA 12:2)
(Chemistry, Organic)

AUTHORS: Gol'dfarb, Ya. L., Zvorykina, V. K. SOV/62-58-6-15/37

TITLE: Investigation of the N-Oxides of Some Heterocyclic Bases (Izucheniye N-okisey nekotorykh geterotsiklicheskikh osnovaniy) Communication I. On the Production and Properties of Nicotine Oxides (Soobshcheniye 1. O poluchenii i svoystvakh N-okisey nikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 748-755 (USSR)

ABSTRACT: Three types of oxides can be produced from nicotine: Pl-N-oxide, Py-N-oxide, Py,Pl-N-dioxide. Most papers on nicotine oxidation deal with the compounds of the first type. The authors begin by mentioning the papers by Pinner and Wolfenstein (Vol'fenshteyn) (Ref 1) Auerbach (Auerbakh) and Wolfenstein (Ref 2), Weil (Veyl') (Ref 4), Hains (Khayns) and Eisner (Eyzner) (Ref 5) and other authors. The present paper deals with the investigation of the reaction of the oxidation of nicotine H_2O_2, on which occasion all three N-oxides were obtained in form of crystals. Of these, nicotine-Pl-Py-dioxide and nicotine-Py-N-oxide have as yet not been described in

Investigation of the N-Oxides of Some Heterocyclic Bases. Communication I. On the Production and Properties of Nicotine Oxides

SOV/62-58-6-15/37

published works. Pl-Py-dioxide was obtained as a crystal hydrate (with 2 water molecules and a water-free base), as monopicrate, dichlorohydrate, and mercury complex. For the Py-monoxide of nicotine a crystal base, dichlorohydrate, dipicrate, and a mercury derivative were obtained. For nicotine-Pl-N-oxide, which had already been obtained by Pinner (under the name of "Oxynicotine") the authors obtained a hitherto not described chlorohydrate; the water-free base was separated. There are 11 references, 1 of which is Soviet.

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

SUBMITTED: December 13, 1956

1. Nicotine oxides—Production 2. Nicotine oxides—Properties

AUTHORS: Zvorykina, V. K., Alashev, F. D., Gol'dfarb, Ya. L. 62-58-6-29/37

TITLE: The Production of N-Oxides of N-Methylanabasine (Polucheniye N-okisey N-metilanabazina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 788 - 790 (USSR)

ABSTRACT: Continuing the investigation of the N-oxides of bi-tertiary cyclic bases (Refs 1,2), the authors carried out the oxidation (by means of hydrogen peroxide) of N-methylanabasine. Bases of the N-oxides of N-methylanabasine which had hitherto not been described in published works, viz. N,N'-dioxide, Py-N-oxide, and Pi-N-oxide, as well as the picrates and hydrochlorides of these oxides were obtained. The structure of the N-oxides of N-methylanabasine was determined by reduction by means of zinc and hydrochloric acid in N-methylanabasine (and was identified as a di-picrate). There are 4 references, 2 of which are Soviet.

Card 1/2

The Production of N-Oxides of N-Methylanabasine SOV/62-58-6-29/37

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

SUBMITTED: January 29, 1958

1. Nitrogen oxides--Production 2. Cyclic compounds--Oxidation

Card 2/2

AUTHORS: Gol'dfarb, Ya. L., ~~Zvorykina, V. I.~~ SOV/62-58-7-21/36

TITLE: The Production of the N-Oxides of α- and α'-Aminonicotine (Polucheniye N-okisey α- i α'-aminonikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, pp. 900-903 (USSR)

ABSTRACT: In previous articles the authors described the N-oxides of nicotine (Ref 1) and N-methylanabasin. The investigations in the field of the nicotines are continued by the description of the production of various N-oxides of the benzoyl-α'-aminonicotine given in this paper. Furthermore (in the saponification of the latter by means of hydrochloric acid) they dealt with the production of the N-oxides of the corresponding α'-aminonicotines. Analogous to the N-oxides of the α-amino- and acyl amino piperidine (described by Adams and Miyano, Ref 5, Kartitskiy, Ref 6) Pi,Py-dioxides and Py-monoxide are amphoteric compounds which dissolve only in caustic alkali and mineral acids.

Card 1/2

SOV/62-58-7-11/26

The Production of the N-Oxides of α- and α'-Aminonicotine

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

SUBMITTED: February 28,-1958

Card 1/1

AUTHORS: Zvorykina, V. K., Neyland, O. Ya. SOV/62-58-9-13/26

TITLE: Concerning Several Conversion Products of the Diastereoisomers of γ-Ethyl-β-N-Carbethoxyaminocaprylic Acid (O nekotorykh produktakh prevrashcheniya diastereoizomernykh γ-etil-β-N-karbetoksiaminokaprilovykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 9, pp 1099 - 1103 (USSR)

ABSTRACT: In the previous papers the authors reported the preparation of two diastereoisomers of γ-ethyl-β-aminocaprylic acid, which were referred to as A_1 and A_2 in these papers. Also prepared were several derivatives and transformation products (Refs 1-3). In testing these compounds biologically it was found that several of them (especially isomer A_2) had bacteriostatic properties. The authors were therefore interested in carrying out further, similar investigations to test the chemical and biological properties of these compounds. To do this, however, it was necessary that the molecular configurations be maintained and that substitution take place at the

functional groups. Therefore the authors prepared diastereoisomers (A_1 and A_2) of γ-ethyl-β-(ω-phenylureido) caprylic acid, γ-ethyl-β-semicarbazidocaprylic acid, and 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine. For the synthesis of these compounds the reactions discovered by Rodionov and Zvorykina (Ref 4) were used. In addition to these reactions (in order to compare the yields) the isomers of these compounds were prepared by the method of Longfield and Stieglitz (Longfel'd and Shtiglits) (Ref 8), by reacting phenyl isocyanate with γ-ethyl-β-aminocaprylic acid (Ref 3), and by the hydrolysis of 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine (Ref 4), respectively. There are 8 references, 7 of which are Soviet.

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

SUBMITTED: February 2, 1957

GOL'DFARB, Ya.L.; ALASHEV, F.D.; ZVORYKINA, V.K. [deceased]

Preparation of anabasine Py-N-oxide. Izv. AN SSSR Ser. khim. no.12:2241-2242 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

GOL'DFARB, Ya. L.; ALASHEV, F. D.; ZVORYKINA, V. K.

Oxidation of anabasine by hydrogen peroxide. Izv. AN SSSR Otd. khim. nauk no.12:2209-2216 D '62. (MIRA 16:1)

1. Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

(Anabasine) (Hydrogen peroxide)

SHKURINA, T.N.; ALASHEV, F.D.; ZVORYKINA, V.K.; GOL'DFARB, Ya.L.

Ultraviolet absorption spectra of some pyridine and nicotine derivatives. Report No.4: Absorption spectra of N-oxides of nicotine and N-methylanabasine. Izv.AN SSSR.Otd.khim.nauk no.6:1119-1123 Jl '60. (MIRA 13:7)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.
(Pyridine) (Piperidine)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

MAYRANOVSKIY, S.G.; BARASHKOVA, N.V.; ALASHEV, F.D.; ZVORYKINA, V.K.

Polarographic study of N-oxides of anabasine and N-methylanabasine. Izv.AN SSSR Otd.khim.nauk no.5:938-940 My '60. (MIRA 13:6)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Anabasine)

DEVYATNIN, V.A.; ZVORYKINA, V. [deceased]; STOL[illegible]KOVA, N.M.

Vitaminization of vegetable oils. Trudy VNIVI 5:193-195 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.
(OILS AND FATS) (VITAMINS)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

DEVYATNIN, V.A.; ZVORYKINA, V.V. [deceased]; STOL'NIKOVA, N.M.

Effect of moisture on the decomposition of vitamins C and B_1 in preparations. Trudy VNIVI 5:42-46 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.
(ASCORBIC ACID) (THIAMINE)

IOSIKOVA, V.M.; KRAVCHINA, L.N.; ZVORYKINA, V.V.

Study of the stability of vitamins in the polyvitaminic dragee. (MIRA 13:7)
Trudy VNIVI 6:131-136 '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Khimiko-analiticheskaya laboratoriya.
(VITAMINS)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5

ZVORYKINA, V.

1891 Comparison of results of determining ascorbic acid in industrial preparations by the iodate and indophenol methods. V. A. Devyatnin, V. V. Zvorykina and M. M. Sitnikova [illegible] 1954 [illegible] 100 *Referativnyi* [illegible] 40 494. The error in the determination of ascorbic acid by the dichlorophenolindophenol method is 0·57 to 0·64 per cent, and that by the iodate method is 0·04 to 0·18 per cent. The latter method is recommended for determinations of ascorbic acid in [illegible] and in tablets as well as in crystal products. [illegible]

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USSR

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5

USSR

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

Chemical analysis of vitamin B_1 in industry. [illegible] M. [illegible]kova, [illegible] Zverykina, and [illegible] N. Chesalina. *Trudy* [illegible] *Nauch. Issledovatel.* [illegible] 4, 230-6 [illegible]
B. S. Levine

KUTEPOV, O.S.; ZVORYKINA, Ye.K.

Short-cut method for calculating the production norms of workers, and the coefficient of output and operative efficiency of the weaving equipment. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.3: 3-14 '62. (MIRA 17:10)

1. Leningradskiy tekstil'nyy institut imeni Kirova.

FRIDMAN, I., inzhener; ZVOZSKOV, B., inzhener.

An automatic truck tilter. Avt.transp. 33 no.3:33 Mr '55.
(Motor trucks) (MLRA 8:5)

IL'IN, M.I.; ZVOSKOVA, N.S., starshiy agronom; LEYN, Z.Ya.; ZVYAGINTSEVA, Ye.I.; MARINICH, P.Ye., red.; ZABORSKIY, N.I., red.; PECHENKIN, I.V., tekhn. red.

[New corn hybrids Bukovine 3 and Bukovina 2; results of stale crop variety tests] Novye gibridy kukuruzy Bukovinskii 3 i Bukovinskii 2; rezul'taty gosudarstvennogo sortoispytaniia. Moskva, Izd-vo M-va sel'. khoz. SSSR, 1960. 45 p. (MIRA 14:8)

1. Russia(1923- U.S.S.R.) Gosudarstvennaya komissiya po sortoispytaniyu sel'skokhozyaystvennykh kul'tur. 2. Zaveduyushchaya khimicheskoy laboratoriyey Gosudarstvennoy komissii po sortoispytaniyu sel'skokhozyaystvennykh kul'tur pri Ministerstve sel'skogo khozyaystva SSSR (for Leyn). 3. Zamestitel' predsedatelya Gosudarstvennoy komissii po sortoispytaniyu sel'skokhozyaystvennykh kul'tur pri Ministerstve sel'skogo khozyaystva SSSR (for Marinich).

(Corn (Maize)—Varieties)

ZVOSKOVA, N.S.; LAPPO, A.A.

Survey of the achievements of master corn growers. Zemledelie 6 no.12: 37-41 D '58. (MIRA 11:12)

(Corn (Maize))

ZVOSKOVA, N.S.

Examples of displays from the corn exhibit. Zemledelie 6 no.3:95 Mr '58. (MIRA 11:4)

(Corn (Maize))

ZVUKOV, N. M., inzh.

Tracks in Czechoslovakian open-pit mines. Ugol' 38 no.4:56-57 Ap '63. (MIRA 16:4)

(Czechoslovakia—Mine railroads—Track)

ZVUKOV, N.M., inzh.

Railroad tracks in the metallurgical and machinery plants of Czechoslovakia. Zhel.dor.transp. 44 no.8:88-93 Ag '62. (MIRA 15:8)

(Czechoslovakia--Industrial railroads)

ZAKATALOV, Ye.V., inzh.; BELYKH, K.D., inzh.; ZVUKOV, N.M., inzh.; SKVORTSOV, O.S., inzh.; NETUSOV, V.P., inzh.; AL'BREKHT, V.G., doktor tekhn. nauk, prof., red.; PETROVA, V.L., red.; USENKO, L.A., tekhn. red.

[Mechanization of the repair and maintenance of normal and narrowgauge railroad tracks of industrial enterprises] Mekhanizatsiia remonta i soderzhaniia zheleznodorozhnykh putei normal'noi i uzkoi kolei promyshlennykh prepriiatii. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1962. 63 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.225). (MIRA 15:5)

1. Nachal'nik sluzhby puti zavoda chernoy metallurg im. Dzerzhinskogo (for Belykh).
(Railroads, Industrial--Maintenance and repair)

KOTEL'NIKOVA, A.V.; ZVYAGIL'SKAYA, R.A.

Adenosinetriphosphatase activity in mitochondria of Endomyces magnusii yeasts. Biokhimiia 29 no.4:662-672 Jl-Ag '64.
(MIRA 18:6)

1. Institut biokhimii imeni Bakha AN SSSR, Moskva.

ZVYAGIL'SKAYA, R.A.; KOTEL'NIKOVA, A.V.

Study of the oxidation of different substrates and coupled phosphorylation in subcellular preparations from Endomyces magnusii yeasts. Biokhimiia 29 no. 1:65-70 Ja-F '64. (MIRA 18:12)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.
Submitted April 12, 1963.

ZVYAGIL'SKAYA, R.A.; KOTEL'NIKOVA, A.V.

Effectiveness of oxidative phosphorylation in yeast mitochondria.
Dokl. AN SSSR 164 no.2:448-450 S '65. (MIRA 18:9)

1. Institut biokhimii im. A.N. Bakha AN SSSR. Submitted
October 28, 1964.

ZVORYKIN, V.N.

Typological characteristics of the higher nervous activity of dogs during changes in the barometric pressure. Funk. org. v usl. im. gaz. sredy 3:156-162 '64. (MIRA 17:11)

ZVORYKIN, V.N.; KORESHKOV, A.A.; MAL'KOV, P.A.

Reflex influences from the mechanoreceptors of the gastrointestinal tract on breathing and the cardiovascular system during barometric pressure drops. Funk. org. v usl. izm. gaz. sredy 3:242-251 '64. (MIRA 17:11)

Certain peculiarities of proximal subcortex of the acoustic analysor; comparative anatomical study in mammals. Arkh. anat., Moskva 29 no.2: 10-17 Mar-Apr 1952. (CIML 23:2)

1. Of the Scientific-Research Institute of the Brain (Director — S. A. Sarkisov, Active Member of the Academy of Medical Sciences USSR), Ministry of Public Health USSR.

1. ZVORYKIN, V. P.

2. USSR (600)

4. Embryology, Human

7. Problem of shifting of the courpus geniculatum mediale in the course of its development, Arkhiv. anat. gist. i embr., 29, No. 4, 1952.

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

Nervous System

A. I. Tyshetskiy and the discovery of the excitability of the central nervous system. Zhur. nevr. i psikh. 52, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 Uncl.

ZVORYKIN, V.P.; SHKOL'NIK-YARROS, Ye.G.

Numerical data on the relationship of the peripheral part of the visual analysor to cerebral ends of the analysors in a number of vertebrates. Arkh. anat., Moskva 30 no.5:43-47 Sept-Oct 1953. (CIML 25:4)

1. Of the Institute of the Brain (Director -- Prof. S. A. Sarkisov, Active Member AMS USSR), Ministry of Public Health USSR.

ZVORYKIN, V.P.

Corpus geniculatum internum and acuity of hearing. Arkh.anat.gist.i embr. 31 no.1:22-35 Ja-Mr '54. (MLRA 7:4)

1. Iz Instituta mozga Ministerstva zdravookhraneniya SSSR (direktor - deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor S.A. Sarkisov).

(Optic thalamus) (Hearing)

Card 1/1 Pub 154-17/19

Author : Zvorykin, V. P.

Title : Towards the question of the discovery of the excitability of the central nervous system

Periodical : Zhur. vys. nerv. deyat. 5, 292-298, Mar-Apr 1955

Abstract : Presents data supporting the view that priority for discovery of the excitability of the C. N. S. is due to the 19th-century Russian physician, A. I. Tyshetskiy, Photograph. Eleven references, all USSR (5 since 1940).

Institution : Institute of the Brain of the Academy of Medical Sciences USSR

Submitted :

ZVORYKIN, V.P. (Moskva, V.B.Mogil'tsevskiy per., d. 8, kv.3)

Cytoarchitectonic characteristics of the ganglion isthmi and its displacement in the brain stem in frog and in certain reptiles. Arkh.anat.gist.i embr. 33 no.3:15-18 Jl-S '56. (MIRA 12:11)

1. Iz instituta mozga AMN SSSR (dir. deystv. chl. AMN SSSR prof.S.A.Sarkisov)

(BRAIN, anatomy and histology,
ganglion isthmi in frogs & reptiles (Rus))
(REPTILES,
ganglion isthmi in (Rus))
(FROGS,
same)

USSR / Human and Animal Morphology, Normal and Pathological. Nervous System. Central Nervous System. S-2

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 83634

Author : Zvorykin, V. P.
Inst : Not given
Title : Morphological Bases of Differences in Auditory Acuity in the Dog and the Monkey.

Orig Pub : Uspekhi sovrem. biol. 1957, 44, No 3, 349-361.

Abstract : In a series of microscopic sections, stained with cresyl-violet, a study was made of the subcortical auricular formations in the dog (D), brain weight 95 g., and in the Mangoby monkey (M), brain weight 95 g. The total volume of all subcortical formations proved to be significantly greater in D than in M. The results of the measurements (in mm3) were: auditory tubercle - in D, 4.01, in M, 0.53; ventral auditory nucleus: in D, 8.19, in M, 2.58; superior olivary body:

Card 1/2

AUTHORS: Zvorykin, V.P. and Glezer, I.I., Scientific Workers of the Brain Research Institute of the Academy of Medical Sciences of the USSR

25-2-11/43

TITLE: An Erroneous Hypothesis (Oshibochnaya gipoteza)

PERIODICAL: Nauka i Zhizn', 1958, # 2, p 42-44 (USSR)

ABSTRACT: In this article the author strongly criticizes and refutes the hypothesis advanced by the Polish anthropologist, A. Vertsinskiy, who believes that urbanization will result into physiological degeneration.

There is one sketch.

ASSOCIATION: Brain Research Institute of the Academy of Medical Sciences of the USSR (Institut mozga Akademii meditsinskikh nauk SSSR)

AVAILABLE: Library of Congress

Card 1/1

Institutskaya ul., d.13, kv. 14).

Conference of the Brain Institute of the Academy of Medical Sciences of the U.S.S.R. devoted to problems in the structure and function of the reticular formation and its place in the analysor system. Arkh.anat.,gist. i embr. 35 no.5:121-124 S-O '58 (MIRA 11:12)
(SPINAL CORD)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

"Morfologicheskaya perestroyka slukhovogo znalizatora, svyazannaya s sukheniem diapazona vosprinimayemykh zvukov u primatov."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

ZAVOLOKIN, V.I. (Moskva, D-284, Begovaya ul., 11, kv.188)

Morphological bases for the unequal role of the auditory and optical analyzers in the behavior of dogs and monkeys. Arkh. anat. gist. i embr. 41 no.7:28-37 Jl '61. (MIRA 15:2)

1. Laboratoriya tsitoarkhitektoniki (zav. - zasluzhennyy deyatel' nauki, prof. Ye.P.Kononova) Instituta mozga AMN SSSR.
(VISION) (HEARING) (CEREBRAL CORTEX)

ZVORYKINA, K.P. (Moskva, Begovaya ul, 11, kv.188)

Biomorphological comparison of the systems of subcoritcal formation of visual and auditory analyzer in dogs. Arkh.anat.gist.i embr. 38 no.4:22-33 Ap '60. (MIRA 14:5)

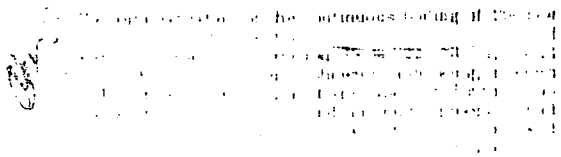
1. Laboratoriya tsitoarkhtektoniki (zav. - zasluzhennyy deyatel' nauki doktor meditsinskikh nauk prof. Ye.P.Konohova) Instituta mozga AMN SSSR.

(BRAIN--LOCALIZATION OF FUNCTIONS)
(VISION)
(HEARING)

"The Reaction of the Bladder and Intestines to Hypoxia of the Organism," Voprosy fiziol. interots., No. 1, pp 37-49, 1952.

Summary of report -D 356476

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"



ZVORYKIN, V.V.; DVORTSIN, M.M.

Increasing the operative efficiency of the PKS and KSA dryers. Kons. i ov.prom. 18 no.4:13-15 Ap '63. (MIRA 16:3)

1. Upravleniye "Kiyevenergonaladka".
(Drying apparatus)

YUDITSKIY, D. G.; ZVORYKIN, V. V.; ANPILOV, G. D.

Steam expenditure in the production of alcohol from molasses and in the processing of baker's yeast. Spirt. prom. 28 no.6: 29-33 '62. (MIRA 16:1)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti im. Mikoyana (for Yuditskiy). 2. Upravleniye "Kiyevenergonaladka" (for Zvorykin, Anpilov).

(Distilling industries--Costs)

ZVORYKIN, V.V.; ANPILOV, G.D.

Steam, air and water consumption in the Plakhtyanka and Nemeshayev plants of antibiotic feeds. Spirt. prom. 28 no.6:25-29 '62. (MIRA 16:10)

1. Kiyevenergonaladka.

ZVORYKIN, V.V.

Automatic control of continuous cooking of raw materials. Spirt. prom. 22 no.2:19-21 '56. (MLRA 9:8)

1. Kiyevskoye upravleniye Orgprodenergo.
(Distilling industries--Equipment and supplies)
(Automatic control)

Oak

Differences in the development of vegetation in stands of early and late form of oak.
Dokl. AN SSSR 83 no. 1, 1952

MLRA , Library of Congress, August, 1952, UNCLASSIFIED.

Oak

Differences in the development of vegetation in stands of early and late form of oak. Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 1952, Uncl.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

2. USSR (600)

4. Oak

7. Differences in the development of vegetation in plantation of early and late oaks. Dokl. AN SSSR 84 No. 1, 1952. rcd. 28 Feb. 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

"Forestry and Forest Typology Importance of Underbrush in the Oak Forests of the Northwestern Caucasus." Sub 30 May 51, Inst of Forestry, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Mechanism of copper dissolution in hydrochloric acid. Trudy
Ir khim.i khim.tekh. no.1:32-35 '64.

Mechanism of silver dissolution in hydrochloric acid.
Ibid.:36-39

(MIRA 18:12)

1. Submitted September 23, 1963.

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

Author : Zvorykina, K. V.

Inst : Forestry Institute AS USSR

Title : Some Biological Peculiarities of the Field Maple (Acer campestre L.)

Orig Pub: Tr. In-ta lesa. AN SSSR, 1957, 33, 132-145

Abstract: These studies were conducted in the Borisogleb forest range (Tellerman Experimental Forest). Here maple enters the III stage where its height, depending on the conditions, reaches from 7 to 15 meters. It is distinguished by good development when it grows in oak groves. The possibility of maple propagation by cuttings or by the shoots on

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

the stump under given tree growing conditions is noted. Depending on the advanced age of the tree stand, the character of maple growth and its tole in the composition of the tree stand and in the composition of the young trees near a wood is determined by light conditions. The dominating position passes completely to the chief forest forming varieties and the field maple is driven back to the lower tier and to young trees on the edge of the woods where the number of its skeletal axis reaches 42 thousand per hectare. This process is connected with maintenance felling. Particularly after these fellings the number of shoots is increased. The presence of a large number of maple trees under a canopy (resulting in a flat crown, short life span, early arrest of

12

USSR / [illegible] Forest Biology and Typology. K-2

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

the growth in height in the majority of skeletal axes) characterizes it as edge of the woods variety. However, under favorable conditions the growth of individual skeletal axes of the maple in the III and even II height level area may occur. The feasibility of the field maple being part of the wood-margin trees and the main height level area is emphasized. -- V. V. Protopopov

Card 3/3

Effect of tree and shrub species regenerated by sprouts on the development of oak stands. Trudy Inst. lesa 33:119-131 '57.
(MIRA 10:10)

(Reforestation) (Oak)

ZVORYKINA L. V.

Biological characteristics of the common maple (Acer campestre L.)
Trudy Inst. lesa 33:132-145 '57. (MIRA 10:10)
(Maple)

BIOLOGY: Plant ecology

I

II Associated with Institute of Forestry

III

IV *Coauthor with I N Yelagin "Supplies of Litter in Certain Types of Broad-Leaf Forests of the Foothills of the Northwestern Caucasus"

Coauthor with I N Yelagin "Illumination Under the Canopy of Certain Types of Broad-Leaf Forests (Northwest Caucasus)"

✓DAN 49-66-4/713-16

✓"

✓DAN 49-66-4/713-16

✓DAN 49-64-5/715-18

✓DAN 49-66-4/713-16

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

Oak

"Differences in the development of vegetation in stands of early and late form of oak." Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 1952, Uncl.

Association of early and late oak types with the relief elements.
Izv. Vses. geog. ob-va 97 no.3:287-290 My-Je '65.
(MIRA 18:8)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

SANNIKOV, G.P., kand. sel'skokhoz. nauk; ZVORYKINA, L.B., aspirantka

Early spring aerial chemical spraying of shrubs. Zemledelie 27 no.4:75-77 Ap '65. (MIRA 18:4)

1. Severnyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.

MIROFOL'SKAYA, Nina Konstantinovna; ZVORYKINA, L.N., red.

[Safety manual for operation of road machinery and equipment] Pamiatka po tekhnike bezopasnosti pri rabote na dorozhno-stroitel'nykh mashinakh i mekhanizmakh. Moskva, Stroiizdat, 1964. 32 p. (MIRA 17:8)

BOLOBAN, Nikolay Aleksandrovich, kand. tekhn. nauk; ZVORYKINA, L.N., red.

[Safety manual for operators of tower cranes] Pamiatka po tekhnike bezopasnosti dlia mashinista bashennogo krana. Izd.2., perer. i ispr. Moskva, Stroiizdat, 1964. 38 p. (MIRA 17:7)

GUSHCHIN, Vitaliy Ivanovich; ZVORYKINA, L.N., red.

[Safety manual for operators of equipment for churn drilling] Pamiatka po tekhnike bezopasnosti dlia mashinista stanka udarno-kanatnogo bureniia. Moskva, Stroiizdat, 1964. 28 p.
(MIRA 17:6)

BONDAR', Yevgeniy Petrovich, inzh.; ZVORYKINA, L.N., red.

[Safety manual for assembling reinforced concrete elements] Pamiatka po tekhnike bezopasnosti dlia montazhnika zhelezobetonnykh konstruktsii. Izd.2., ispr. i dop. Moskva, Stroiizdat, 1964. 31 p.
(MIRA 17:6)

KLOCHANOV, Petr Nikolayevich; EYDINOV, Yuriy Solomonovich; ODINOKOV, S.D., kand. tekhn. nauk, nauchn. red.; ZVORYKINA, L.N., red.

[Painting, glazing, and facing operations] Maliarnye, stekol'nye i oblitsovochnye raboty. Moskva, Stroiizdat, 1964. 313 p. (MIRA 18:2)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

B[illegible]ARAYEVSKIY, Nikolay Pavlovich; ZV RYKINA, L.N., red.

[Safety manual for workers assembling mining [illegible]uipment] Pamiatka po tekhnike bezopasnosti dlia rabochikh po montazhu gornorudnogo oborudovaniia. Moskva, Stroiizdat, 1964. 29 p. (MIRA 17:9)

ALEKHOVICH, Arkadiy Il'ich; ZVORYKINA, L.N., red.

[Safety manual for the assembler of tower cranes construction] Pamiatka po tekhnike bezopasnosti dlia montazhnika stroitel'nykh bashennykh kranov. Izd.2., perer. i dop. Moskva, Stroiizdat, 1964. 46 p.
(MIRA 17:6)

BOLOBAN, Nikolay Aleksandrovich; BELEVICH, Vladimir Borisovich; VELIKOTSKIY, Aleksandr Nikolayevich; MACHABELI, Shota Levanovich; RUFFEL', N.A., nauchn. red.; ZVORYKINA, L.N., red.; MIKHEYEVA, A.A., tekhn. red.

[Assembling precast concrete structures] Montazh sbornykh zhelezobetonnykh konstruktsii. [By] N.A.Boloban. i dr. Moskva, Gosstroiizdat, 1963. 344 p. (MIRA 16:10)
(Precast concrete construction)

RAZVENOVICH, S.G., inzh.; SKVORTSOV, A.P., inzh.; YAKOBSON, Ya.M., nauchn. red.; ZVORYKINA, L.N., red.; BOROVNEV, N.K., tekhn. red.

[Preparation of formwork in industrial construction] Opalubochnye raboty v promyshlennom stroitel'stve. Moskva, Gosstroiizdat, 1963. 311 p. (MIRA 16:11)
(Concrete construction--Formwork)

KLIMOV, V.P.; MARICHEV, V.I.; RUBINCHIK, A.M.; EYLER, S.A., nauchn. red.; ZVORYKINA, L.N., red.; BOROVNEV, N.K., tekhn. red.

[Construction of cofferdams and caissons] Stroitel'stvo opusknykh kolodtsev i kessonov. Moskva, Gosstroiizdat, 1963. 247 p. (MIRA 17:1)

(Cofferdams) (Caissons)

KARPENKOV, Vasiliy Maksimovich; ZVORYKINA, L.N., red.; MIKHEYEVA, A.A., tekhn. red.

[Safety manual for blasters (in open areas)] Pamiatka po tekhnike bezopasnosti dlia vzryvnika (na otkrytykh rabotakh) Izd.w., perer.i dop. Moskva, Gosstroiizdat, 1963. 29 p. (MIRA 16:9)

(Blasting--Safety measures)

[illegible] Mikhaylovich, kand. med. nauk; ZVORYKINA, L.N., red.

[Industrial hygiene in a cement factory] Gigiena truda na tsementnom zavode. Moskva, Stroiizdat, 1964. 46 p. (MIRA 17:5)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

DZHALALYAN, Eduard Setrakovich; ZVORYKINA, L.N., red.; TARKHOVA, K.Ye., tekhn. red.

[Rigger-signalman's safety manual] Pamiatka po tekhnike bezopasnosti dlia takelazhnika-signal'shchika. Izd.2., ispr. i dop. Moskva, Gosstroiizdat, 1963. 45 p. (MIRA 17:3)

MAKHLIN, I.S.; ZVORYKINA, L.N., red.; TARKHOVA, K.Ye., tekhn. red.

[Safety manual for stonecutters] Pamiatka po tekhnike bezopasnosti dlia rezchika kamnia. Moskva, Gosstroiizdat, 1963. 37 p. (MIRA 16:9)

(Stone cutting—Safety measures)

One way to metallize Seignette's salt. Trudy LKI no.28:199-201 '59. (MIRA 15:5)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta. (Rochelle salt) (Metal spraying)

ACC NR: AP6018056 (A) SOURCE CODE: UR/0020/66/168/003/0564/0566

AUTHOR: Myasnikov, L. L.; Zvorykina, R. A.

ORG: Leningrad Shipbuilding Institute (Leningradskiy korablestroitel'nyy institut) B

TITLE: Magnetoacoustic effect in aluminum alloys

SOURCE: AN SSSR. Doklady, v. 168, no. 3, 1966, 564-566

TOPIC TAGS: aluminum alloy, magnetoacoustic effect, acoustic absorption, torsional vibration, acoustic resonance, solid solution, grain structure

ABSTRACT: To check on the hitherto uninvestigated increase of the phase velocity and increase of absorption of torsional sound waves in alloys, the authors prepared aluminum alloys with different contents of iron impurity - of the order of tenths and hundredths of one per cent. Plates of equal dimensions were tested (130 x 7.5 x 2 mm), fastened precisely at the vibration node, tuned to odd harmonics, and excited by resonance with torsional oscillations from X-cut Rochelle salt crystals. The resonance curve was plotted by producing beats from two sound generators with a constant frequency difference of 50 cps. When a constant magnetic field was applied, the resonant frequency was different from that without a field. The relative change of phase velocity was determined from the change in the resonant frequency, and the damping of the torsional oscillations was estimated from the relative logarithmic decrement of the oscillation with and without the field. The results show that the magnetoacoustic effect depends on the grain dimensions, density, chemical composition, and other fac-

Card 1/2

UDC: 548.0: 535

tors which have not yet been investigated. The magnetoacoustic effect was used to determine the limit of solubility of the solid solution during non-equilibrium dynamic solidification. The results obtained by the authors for the solubility of silicon in aluminum (0.48%) differed from the results published in the handbook, but was closer to the theoretical value. This report was presented by Academician B. P. Konstantinov 9 September 1965. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 11, 20/ SUBM DATE: 03Sep65/ ORIG REF: 003/ OTH REF: 001

ZVORYKINA, V.

Students' experiments on the use of antibiotics in poultry farming. Politekh. obuch. no.8:86 Ag '59. (MIRA 12:10)

1.Kuybyshevskiy oblastnoy institut usovershenstvovaniya uchiteley. (Poultry breeding) (Antibiotics)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

Syntheses of β-amino acids. IV. β-Aminopelargonic acid and its derivatives. V. M. Rodionov and V. A. Zvorykina. *Bull. acad. sci. U. R. S. S., Classe sci. chim.* 1943, 216-32(English summary); cf. *C. A.* 28, 2710.—$CH_2(CO_2Et)_2$ is better sapond. by refluxing with concd. HCl than by using alkali. $CH_2(CO_2H)_2$ (I) and MeCH(NH$_2$)OH in abs. EtOH give a yellow oil which with HCl gives 17% of the very hygroscopic *β-aminobutyric acid-HCl*, m. 100.5-10.5°. I, *n*-C_6H_{13}CHO and alc. NH_3 give 30% *β-aminopelargonic acid* (II), m. 205-5.5°; *HCl salt*, m. 135.5 6°. By-products are 37% β-nonenoic acid, γ-amyl-γ-butyrolactone and a neutral oil. II and BzCl give 84% *β-benzamidopelargonic acid* (III), m. 129.5-31°. With $ClCO_2Et$, II forms 70% of the corresponding *urethan* (IV), m. 80°. II and KCNO give 70% of the *β-ureido deriv.* (V), m. 127-8°. When V is boiled with HCl, ring closure occurs, giving a mixt. of *4-hexyl-2,6-dioxohexahydropyrimidine* (VI), m. 186-7°, and hexyldihydropyrimidine. VI can be sepd. by crystn. from EtOH. III and $SOCl_2$ at 70-80° give the acid chloride which is treated with NH_3 in Et_2O to give 41% of the *amide* (VII) of III, m. 185-6°, and 33% *2-phenyl-4-hexyl-6-oxotetrahydropyrimidine* (VIII), m. 74-5°. Boiling VIII with HCl regenerates III, while boiling it with KOH gives VII and some II. The best yield of VIII is obtained by running the reaction at 75-85°. Vacuum distn. of VII causes its decompn. to a nonenoic acid whose amide m. 123-7°. IV and $SOCl_2$ give an acid chloride which with NH_3 forms only the normal *amide* (IX), m. 158°. No ring closure occurs. β-Phenyl-β-benzamidopropionic acid (X) with $SOCl_2$ and NH_3 at 75-85° gives *2,6-diphenyl-oxotetrahydropyrimidine* (XI), m. 129-31°, so this reaction is probably general. Sapon. of XI gives the amide of X. The Hofmann reaction with VII gives BzOH, *5-hexylglyoxalidone* (XII), m. 113-14°, and *1-benzoyl-5-hexylglyoxalidone*, m. 112-13°. Under the same conditions, IX gives XII and its *urethan*, m. 109-11°.

H. M. Leicester

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

STOLYARIKOVA, N.M.; DEVYATNIN, V.A.

Comparison of the iodate and indophenol tests for determining Ascorbic acid in industrial prepartions. Trudy VNIVI 5:196-200 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.
(ASCORBIC ACID) (INDOPHENOL) (IODATES)

ZVORYKINA, V.B. [deceased]; STOL'NIKOVA, N.M.; Devyatnin, V.A.

A study of the reaction of furfurole with aniline and its use in making a qualitative evaluation of vitamin preparations. Trudy VNIVI 5:200-204 '54. (MLRA 9:3)

1. Khimiko-analiticheskava laboratoriya.
(ASCORBIC) (FURALDEHIDE) (ANILINE)

The electrolysis of aromatic carboxylic acids. VI. The electrolysis of opianic acid. V. M. Rodionov and V. K. Zvorykina. *J. Gen. Chem.* (U. S. S. R.) 7, 2633-6 (in French 2636)(1937); cf. *C. A.* 31, 6116[8]. It had been shown (*C. A.* 29, 7829[1]) that electrolysis of opianic acid gives meconine (I) and a mixt. of α- and β-bimeconyls. Na-Hg reduction gives I and some α-bimeconyl. When a mixt. of α- and β-bimeconyls is reduced with Na-Hg or by electrolysis, half the mixt. is unchanged, and 25-30% of *meconyldimethoxybenzyl-o-carboxylic acid*, m. 173-4°, is formed. Thus, bimeconyl is not an intermediate in the formation of I. H. M. L.

Acylation reactions. V. M. Rodionov and V. K. Zvorykina. *Doklady Akad. Nauk S.S.S.R.* 57, 583-6 (1947); *Chem. Zentr.* (Russian Zone Ed.) 1948, II, 955.—Attempts to prep. 2-phenyl-4-hexyl-6-oxotetrahydropyrimidine by the action of Ac_2O on β-benzamidopelargonamide yielded *2-methyl-4-hexyl-6-oxotetrahydropyrimidine*, $C_6H_{11}CH.N:CMe.NH.CO.CH_3$ (I). Therefore the action of Ac_2O on other acyl compds. was investigated. Boiling Bz_2NHPh with Ac_2O and treating the reaction product with boiling water yielded *acetanilide*. $PhCH_2CONHPh$ treated in like manner yielded $AcNHPh$. The following esters were prepd. by heating the corresponding *acylaminopelargonic acids* with alc. and H_2SO_4. *Et β-acetamidopelargonate* (II), thin needles from petr. ether, m. 49-50°, b_6 174-5°. *β-Benzamido analog* (III), fine needles from ether-petr. ether, m. 62°, b_6 218-19°. Treating III with Ac_2O and proceeding as above yielded II. *β-(Phenylacetamido)pelargonic acid* (IV), obtained from the amino acid with $PhCH_2COCl$ in 10% KOH at 0-5°, needles from ether-petr. ether or from aq. alc., m. 102-3°, readily sol. in Et_2O. Treatment of IV with $SOCl_2$ at 40° and then with NH_3 yielded the *amide* (V), needles from alc., m. 182°. Heating V with Ac_2O yielded I, m. 88°. M. G. Moore

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Syntheses in the pyrimidine series. V. M. Rodionov and V. K. Zvorykina. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1948, 330-40; cf. *C.A.* 38, 1473[1].—Conditions were established for the formation of amides and tetrahydropyrimidines by the interaction of acylated 2-amino acids and $SOCl_2$, followed by treatment with dry NH_3; at 40-5° with the theoretical amt. of $SOCl_2$ good yields of amides are obtained; at 75-85° with excess $SOCl_2$ are obtained the tetrahydropyrimidines. The reaction appears to be general in character and is easiest with BzNH acids. Expts. on the cyclization of amides of acylated amino acids by hot Ac_2O showed that benzoylated aminopelargonic acid gives not a Ph deriv. of tetrahydropyrimidine, but a Me deriv., i.e. the Bz group is replaced by Ac; such transacylation gives quant. yields of AcNHPh from BzNHPh and PhOAc. *β-Aminopelargonic acid* (10 g.) in 120 cc. 10% NaOH was treated dropwise with 10.1 cc. Ac_2O at 5-10°, let stand 1 hr., and acidified with HCl to Congo red, giving 75% *Ac deriv.*, m. 101-2° (from dil. EtOH). This (9 g.) with the theoretical amt. of $SOCl_2$, heated to 40-5°, the residual $SOCl_2$ removed *in vacuo*, and the residue in benzene or Et_2O treated with dry NH_3, gave 81% *β-acetamidopelargonamide*, needles, m. 170°.

This (1.7 g.), boiled 3 hrs. with 10 cc. Ac_2O, the excess Ac_2O removed *in vacuo*, and the residue boiled 0.5 hr. with 25 cc. H_2O and cooled, gave 75% *2-methyl-4-hexyl-6-oxotetrahydropyrimidine* (I), needles, m. 88° (from Et_2O-petr. ether, after washing with 5% NaOH); hydrolysis of this by 5% NaOH gave β-acetamidopelargonic acid, m. 101°. Boiling 5 g. β-benzamidopelargonamide (II) 4 hrs. with 40 cc. Ac_2O and treatment as above gave 1.7 g. ... EtOH (from the alk. wash) and 90% I. II (1 g.), boiled 3 hrs. with 5 cc. BzCl, washed with cold dil. NaOH, and the Et_2O soln. of the residue washed with dil. NaOH and evapd., gave 0.53 g. pure (and 0.21 g. crude) *2-phenyl-4-hexyl-6-oxotetrahydropyrimidine*, m. 74° (from Et_2O-petr. ether). Refluxing 12.8 g. β-carbethoxyaminopelargonamide 8 hrs. with 80 ml. Ac_2O, removal of the excess Ac_2O, boiling the residue 0.5 hr. with 75 ml. H_2O, and soln. in Et_2O gave 2.1 g. starting material and 2.5 g. corresponding acid (insol. in Et_2O), while distn. of the Et_2O ext. gave 4.8 g. *oil*, b_2 171-6°, n^{20}_D 1.4559, d^{20}_4 0.9838; the latter (1.1 g.) boiled with 25 g. 30% NaOH gave 0.3 g. β-aminopelargonic acid (from NaOH soln. by faint acidification by HCl) and 0.1 g. *(β-aminononanoyl)carbamic acid*, m. 128° (by further acidification with AcOH); this established the structure of the above-described oil as *1-acetyl-2-ethoxy-4-hexyl-6-oxotetrahydropyrimidine*. The following derivs. were prepd. by the $SOCl_2$-NH_3 procedure as detailed above: $C_6H_{13}CH(NHBz)CH_2CO_2H$ gave either 80% $C_6H_{13}CH(NHBz)CH_2CONH_2$ (80%), needles, m. 186° (from EtOH), or *2-phenyl-4-hexyl-6-oxotetrahydropyrimidine* (81%), needles, m. 74-5° (from dil. EtOH); $C_6H_{13}CH(NHAc)CH_2CO_2H$ gave only the *amide*, m. 172°; $C_6H_{13}CH(NHCO_2Et)CH_2CO_2H$ also gave only the *amide*, m. 158° (from MeOH), 82%. $PhCH(NHBz)CH_2CO_2H$ gave either 95% $PhCH(NHBz)CH_2CONH_2$, m. 240°, needles (from EtOH), or 80% *2-phenyl-4-phenyl-6-oxotetrahydropyrimidine*, needles, m. 135° (from EtOH); the corresponding Ac compd. gave only the amide, m. 225° (from EtOH), in 93% yield; $PhCH(NHCO_2Et)CH_2CO_2H$ also gave only the amide (91%), needles, m. 193° (from EtOH); $MeCH(NHBz)CH_2CO_2H$ gave either 80.7% amide, needles, m. 204-5° (from benzene), or 70.6% *2-phenyl-4-methyl-6-oxotetrahydropyrimidine*, needles, m. 120-20.5° (from benzene). G. M. Kosolapoff

Chimico-Tech. Inst. im. Mendeleev

Transformation of amides of β-alkyl(aryl)-β-carbethoxyaminopropionic acids into β-ureido acids. V. M. Rodionov and V. K. Zvorykina. *Doklady Akad. Nauk S.S.S.R.* 65, 853–5(1940).—Heating 2 g. $C_5H_{11}CH(NHCO_2Et)CH_2CONH_2$ with 25 ml. 5% KOH 1 hr. and acidification give 80% *β-ureidopelargonic acid*; if 0.5 g. of the amide and 5 ml. EtONa soln. in EtOH are let stand 3 days, dilu. gives 0.2 g. unchanged amide, while acidification gives a little hexyldihydrouracil, with further acidification giving 0.16 g. *β-ureidopelargonic acid*, m. 127–8°. Heating 1 g. $PhCH(NHCO_2Et)CH_2CONH_2$ with 20 ml. 5% NaOH 40 min. and acidification gave 80% *β-phenyl-β-ureidopropionic acid*, m. 190–1°; this is formed also by boiling 4-phenyl-2,6-diketohexahydropyrimidine with 5% NaOH and acidification. $2\text{-}C_{10}H_7\text{-}CH(NH_2)CO_2H$ treated in 15 ml. 10% KOH with 0.6 ml. $ClCO_2Et$ gave the *N-carbethoxy deriv.*, m. 147–8°, on acidification; heating 1.2 g. of this and 0.6 ml. $SOCl_2$ 3 hrs. at 40–5°, evapg. the $SOCl_2$ and treating with NH_3 in Et_2O gave 90% of the corresponding *amide*, m. 224° (from EtOH), which (0.3 g.) warmed with 5% NaOH gave 0.21 g. (77%) *β-ureido-2-naphthalenepropionic acid*, m. 197° (decompn.), on acidification. G. M. K.

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The Hofmann reaction. III. Reaction of acylated amides of δ-aminopelargonic acid with alkaline hypobromites. V. M. Rodionov and V. K. Zvorykina. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1950, 608-20; cf. C.A. 43, 255g.—The Hofmann reaction with acylated amides of δ-aminopelargonic acid proceeds through the formation of acylated 2-(acylaminoalkyl) isocyanates and in a side reaction yields substituted hydantoins. Thus a route from δ-amino to α-amino acids is opened. The possible explanations of the results are discussed in the light of previous work (cf. Karrer and Schlosser, C.A. 17, 2116). Treatment of 7 ml. Br, 25.15 g. KOH, and 175 ml. H_2O at −10° with 12.5 g. $C_6H_{13}CH(NHCO_2Et)CH_2CONH_2$, m. 158°, and heating the soln. on a steam bath to 55° (spontaneous heating to 65°) gave on cooling and extn. with Et_2O, 3.5 g. *3-carbethoxy-4-hexyl-2-imidazolidone* (I), m. 82-3°, 1 g. unreacted amide, and 0.12 g. *5-hexylhydantoin* (II), m. 117° (on acidification of the aq. soln.); some 2 g. uncrystallizable oil was also isolated. If the initial reaction temp. reaches 76°, the same products are formed, along with a solid, m. 121-2°. Hydrolysis of II with boiling 5% KOH gave α-ureidocaprylic acid (III), decomp. 167°, and α-amino-caprylic acid (IV), decomp. 245-50°. Heating IV (0.3 g.) 4 hrs. with 0.3 g. KCNO in 6 ml. H_2O gave, on acidification, 0.06 g. III, decomp. 167°, as above, while III heated 0.5 hr. with 25% HCl gave 90% II, also obtained (0.07 g.) from 1 g. 4-hexyl-2-imidazolidone (V) with 0.81 ml. Br in 20 ml. H_2O. If the original Hofmann reaction mixt. (from 18.85 g. amide) is rapidly cooled after the temp. reaches 65° there are obtained: 1.7 g. V, 3.0 g. I, 0.75 g. II, 4.0 g. neutral oil, and 3.7 g. liquid acids; the latter were sepd. into 0.7 g. enanthic acid, 0.01 g. III, 0.02 g. II, and traces of IV. The neutral oil yielded 1.2 g. V, 0.015 g. β-(carbethoxyamino)pelargonic acid, some HCN, and a solid, m. 121-2°, which is also obtained among the products of hydrolysis of I with aq. KOH, and which is given the provisional formula, $C_6H_{13}CH$-

(NHCO₂Et)CH₂NHCON C(:O) NH CH(C₆H₁₃) CH₂ C₆H₁₃

$CH(NHAc)CH_2CONH_2$ (VI) with 3.1 ml. Br in 72 g. KOH and 72 ml. H_2O similarly gave after rapid cooling, when 65° was attained by the soln., 0.07-1.20 g. V, 1.05-1.5 g. 3-Ac deriv. (VII) of V, m. 73°, and 0.78-0.95 g. unreacted VI; heating VII with aq. KOH gave V, m. 114°. Similar reaction with the 3-Bz deriv. (VIII) of VI gave 3-benzoyl-4-hexyl-2-imidazolidone (IX), m. 110-17°, some V, BzOH, traces of II, and appreciable amts. of a unknown substance, m. 230°, contg. C, H, O, and N. Alk. hydrolysis of IX gave unknown neutral products, but acidic hydrolysis gave 1-hexylethylenediamine, isolated as the di-HCl salt, whose N,N'-dicarbethoxy deriv., m. 86°. [illegible] with Me- (CH₂)₅COCl in Et₂O gave 60% [illegible]enanthylurea, m. 100-1°. This (8.8 g.) added with cooling at −10° to 2.8 ml. Br in 8.5 g. NaOH and 50 ml. H_2O, stirred 3 hrs., and warmed to 50° (no spontaneous reaction) gave 3.7 g. oil, largely b₁₂ 181-5° (30% yield of pure product), identified as *5-hexyl-1,3,4-oxadiazole-2(3H)-one*; some 27% enanthic acid was also isolated. G. M. Kosolapoff

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Carbazide Acids

General method of obtaining B-semi-carbazide acids. Dokl. AN SSSR, 85, No. 3, 1952

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

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β-Aminocapric acid and its transformations. V. M. Rodionov, V. K. Zvorykina, and N. E. Kuznetsova. [illegible] Zhur. Obshchei Khim. 23, 1954 [illegible]

ZVORYKINA, V.K.

The work of Academician V.M.Rodionov in the field of -amino acids.
Soob.o nauch.rab.chl.VKHO no.4:5-21 '54. (MIRA 10:10)
(Amino acids)

RODIONOV, V.M. [deceased]; ZAYKINA, V.I.

Preparation and reactions of certain derivatives of β-ureidopelargonic acid. Izv.AN SSSR.Otd.khim.nauk no.3:332-335 Mr '56. (MLRA 9:8)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Nonanoic acid)

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USSR/Organic Chemistry - Synthetic Organic Chemistry

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4405

Author : Rodionov, V.M., Zvorykina, V.K.
Title : Syntheses of Pyrimidine Series. II. Conversion of Diastereoisomeric Gamma-Ethyl-Beta-Aminocaprylic Acids to Substituted Tetra- and Hexahydropyrimidines.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 4, 1165-1169

Abstract : Isomeric gamma-ethyl-beta-ureidocaprylic acids (Ia,b) are obtained from the two diastereoisomeric gamma-ethyl-beta-aminocaprylic acids (IIa,b) by three procedures: a) heating of II with KCNO; b) heating of amides of N-carbethoxy-derivatives of II with alkali; c) saponification of 4-(1'-ethylpentyl)-2,6-dioxohexahydropyrimidines (IIIa,b). By boiling with HCl (acid) I are converted to III. Action of $SOCl_2$ followed by NH_3 on N-benzoyl derivatives of IIa,b, gives 2-phenyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (IVa,b).

Card 1/3

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4409

Heating of diastereoisomeric amides of gamma-ethyl-beta-(N-acetylamino)-caprylic acids (Va,b) with $(CH_3CO)_2O$ gives 2-methyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (VIa,b). From 12 g N-carbethoxy-IIa (prepared in usual manner from IIa, yield 74%, MP 60-61° (from petroleum ether)) by heating with 5 ml $SOCl_2$ at 40° for 3 hours, driving off excess $SOCl_2$ in vacuum, adding 500 ml ether and saturating with NH_3, is obtained the amide of N-carbethoxy-IIa, yield 68%, MP 146° (from water). Analogously from N-carbethoxy-IIb (prepared from IIb, yield 70%, MP 63-64° (from alcohol-petroleum ether)), is prepared amide of N-carbethoxy-IIb, yield 70.6%, MP 144° (from water). 1 g of the amide thus obtained, in 20 ml 10% solution of NaOH, boiled until dissolved, acidified to get Ia, yield 86%, MP 142° (from water) or Ib, yield 0.85 g, MP 169° (from alcohol), respectively. On heating IIa,b with solution of KCNO the yield of I is 85 and 76%,

respectively. I boiled with 12% solution HCl, for 3 hours; yield of IIIa 67%, MP 152° (from water); yield of IIIb 80%, MP 145-146° (from water). 5 g N-benzoyl-II heated with 3.75 ml $SOCl_2$ at 75-80° for 3 hours, $SOCl_2$ driven off, added ether and saturated with NH_3; yield of IVa 44.8%, MP 125° (from aqueous alcohol); yield of IVb 62%, MP 123° (from aqueous alcohol). To mixture of II and 10% solution NaOH added $(CH_3CO)_2O$; yield of N-acetyl-IIa 81-3%, MP 118° (from water); yield of N-acetyl-IIb 78.8%, MP 117° (from water). By action of $SOCl_2$ and NH_3 on the latter there are obtained Va, yield 89.3%, MP 195° (from alcohol), and Vb, yield 77.6%, MP 175° (from alcohol). Mixture of 1.5 g V and 30 ml $(CH_3CO)_2O$ boiled 4 hours, $(CH_3CO)_2O$ driven off; yield of VIa 76%, MP 92° (from aqueous alcohol); yield of VIb 70%, MP 86-87° (from ether).

RODIONOV, Vladimir Mikhaylovich, akademik [deceased]; ZVORYKINA, V.K., sostavitel'; KISELEVA, V.V., sostavitel'; FEDOROVA, A.M., [translator]; KNUNYANTS, I.L., akademik, otv.red.; SHEMYAKIN, M.M., akademik, otv.red.; SHVETSOV, Yu.B., red.izd.; POLENOVA, T.P., tekhn.red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad. nauk SSSR, 1958. 792 p. (MIRA 12:2)
(Chemistry, Organic)

AUTHORS: Gol'dfarb, Ya. L., Zvorykina, V. K. SOV/62-58-6-15/37

TITLE: Investigation of the N-Oxides of Some Heterocyclic Bases (Izucheniye N-okisey nekotorykh geterotsiklicheskikh osnovaniy) Communication I. On the Production and Properties of Nicotine Oxides (Soobshcheniye 1. O poluchenii i svoystvakh N-okisey nikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 748-755 (USSR)

ABSTRACT: Three types of oxides can be produced from nicotine: Pl-N-oxide, Py-N-oxide, Py,Pl-N-dioxide. Most papers on nicotine oxidation deal with the compounds of the first type. The authors begin by mentioning the papers by Pinner and Wolfenstein (Vol'fenshteyn) (Ref 1) Auerbach (Auerbakh) and Wolfenstein (Ref 2), Weil (Veyl') (Ref 4), Hains (Khayns) and Eisner (Eyzner) (Ref 5) and other authors. The present paper deals with the investigation of the reaction of the oxidation of nicotine H_2O_2, on which occasion all three N-oxides were obtained in form of crystals. Of these, nicotine-Pl-Py-dioxide and nicotine-Py-N-oxide have as yet not been described in

Investigation of the N-Oxides of Some Heterocyclic Bases. Communication I. On the Production and Properties of Nicotine Oxides

SOV/62-58-6-15/37

published works. Pl-Py-dioxide was obtained as a crystal hydrate (with 2 water molecules and a water-free base), as monopicrate, dichlorohydrate, and mercury complex. For the Py-monoxide of nicotine a crystal base, dichlorohydrate, dipicrate, and a mercury derivative were obtained. For nicotine-Pl-N-oxide, which had already been obtained by Pinner (under the name of "Oxynicotine") the authors obtained a hitherto not described chlorohydrate; the water-free base was separated. There are 11 references, 1 of which is Soviet.

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

SUBMITTED: December 13, 1956

1. Nicotine oxides—Production 2. Nicotine oxides—Properties

AUTHORS: Zvorykina, V. K., Alashev, F. D., Gol'dfarb, Ya. L. 62-58-6-29/37

TITLE: The Production of N-Oxides of N-Methylanabasine (Polucheniye N-okisey N-metilanabazina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 788 - 790 (USSR)

ABSTRACT: Continuing the investigation of the N-oxides of bi-tertiary cyclic bases (Refs 1,2), the authors carried out the oxidation (by means of hydrogen peroxide) of N-methylanabasine. Bases of the N-oxides of N-methylanabasine which had hitherto not been described in published works, viz. N,N'-dioxide, Py-N-oxide, and Pi-N-oxide, as well as the picrates and hydrochlorides of these oxides were obtained. The structure of the N-oxides of N-methylanabasine was determined by reduction by means of zinc and hydrochloric acid in N-methylanabasine (and was identified as a di-picrate). There are 4 references, 2 of which are Soviet.

Card 1/2

The Production of N-Oxides of N-Methylanabasine SOV/62-58-6-29/37

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

SUBMITTED: January 29, 1958

1. Nitrogen oxides--Production 2. Cyclic compounds--Oxidation

Card 2/2

AUTHORS: Gol'dfarb, Ya. L., ~~Zvorykina, V. I.~~ SOV/62-58-7-21/36

TITLE: The Production of the N-Oxides of α- and α'-Aminonicotine (Polucheniye N-okisey α- i α'-aminonikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, pp. 900-903 (USSR)

ABSTRACT: In previous articles the authors described the N-oxides of nicotine (Ref 1) and N-methylanabasin. The investigations in the field of the nicotines are continued by the description of the production of various N-oxides of the benzoyl-α'-aminonicotine given in this paper. Furthermore (in the saponification of the latter by means of hydrochloric acid) they dealt with the production of the N-oxides of the corresponding α'-aminonicotines. Analogous to the N-oxides of the α-amino- and acyl amino piperidine (described by Adams and Miyano, Ref 5, Kartitskiy, Ref 6) Pi,Py-dioxides and Py-monoxide are amphoteric compounds which dissolve only in caustic alkali and mineral acids.

Card 1/2

SOV/62-58-7-11/26

The Production of the N-Oxides of α- and α'-Aminonicotine

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

SUBMITTED: February 28,-1958

Card 1/1

AUTHORS: Zvorykina, V. K., Neyland, O. Ya. SOV/62-58-9-13/26

TITLE: Concerning Several Conversion Products of the Diastereoisomers of γ-Ethyl-β-N-Carbethoxyaminocaprylic Acid (O nekotorykh produktakh prevrashcheniya diastereoizomernykh γ-etil-β-N-karbetoksiaminokaprilovykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 9, pp 1099 - 1103 (USSR)

ABSTRACT: In the previous papers the authors reported the preparation of two diastereoisomers of γ-ethyl-β-aminocaprylic acid, which were referred to as A_1 and A_2 in these papers. Also prepared were several derivatives and transformation products (Refs 1-3). In testing these compounds biologically it was found that several of them (especially isomer A_2) had bacteriostatic properties. The authors were therefore interested in carrying out further, similar investigations to test the chemical and biological properties of these compounds. To do this, however, it was necessary that the molecular configurations be maintained and that substitution take place at the

functional groups. Therefore the authors prepared diastereoisomers (A_1 and A_2) of γ-ethyl-β-(ω-phenylureido) caprylic acid, γ-ethyl-β-semicarbazidocaprylic acid, and 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine. For the synthesis of these compounds the reactions discovered by Rodionov and Zvorykina (Ref 4) were used. In addition to these reactions (in order to compare the yields) the isomers of these compounds were prepared by the method of Longfield and Stieglitz (Longfel'd and Shtiglits) (Ref 8), by reacting phenyl isocyanate with γ-ethyl-β-aminocaprylic acid (Ref 3), and by the hydrolysis of 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine (Ref 4), respectively. There are 8 references, 7 of which are Soviet.

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

SUBMITTED: February 2, 1957

GOL'DFARB, Ya.L.; ALASHEV, F.D.; ZVORYKINA, V.K. [deceased]

Preparation of anabasine Py-N-oxide. Izv. AN SSSR Ser. khim. no.12:2241-2242 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

GOL'DFARB, Ya. L.; ALASHEV, F. D.; ZVORYKINA, V. K.

Oxidation of anabasine by hydrogen peroxide. Izv. AN SSSR Otd. khim. nauk no.12:2209-2216 D '62. (MIRA 16:1)

1. Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

(Anabasine) (Hydrogen peroxide)

SHKURINA, T.N.; ALASHEV, F.D.; ZVORYKINA, V.K.; GOL'DFARB, Ya.L.

Ultraviolet absorption spectra of some pyridine and nicotine derivatives. Report No.4: Absorption spectra of N-oxides of nicotine and N-methylanabasine. Izv.AN SSSR.Otd.khim.nauk no.6:1119-1123 Jl '60. (MIRA 13:7)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.
(Pyridine) (Piperidine)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

MAYRANOVSKIY, S.G.; BARASHKOVA, N.V.; ALASHEV, F.D.; ZVORYKINA, V.K.

Polarographic study of N-oxides of anabasine and N-methylanabasine. Izv.AN SSSR Otd.khim.nauk no.5:938-940 My '60. (MIRA 13:6)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Anabasine)

DEVYATNIN, V.A.; ZVORYKINA, V.V. [deceased]; STOLYPKOVA, N.M.

Vitaminization of vegetable oils. Trudy VNIVI 5:193-195 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.
(OILS AND FATS) (VITAMINS)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

DEVYATNIN, V.A.; ZVORYKINA, V.V. [deceased]; STOL'NIKOVA, N.M.

Effect of moisture on the decomposition of vitamins C and B_1 in preparations. Trudy VNIVI 5:42-46 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.
(ASCORBIC ACID) (THIAMINE)

IOSIKOVA, V.M.; KRAVCHINA, L.N.; ZVORYKINA, V.V.

Study of the stability of vitamins in the polyvitaminic dragee. (MIRA 13:7)
Trudy VNIVI 6:131-136 '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut. Khimiko-analiticheskaya laboratoriya.
(VITAMINS)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5

ZVORYKINA, V.

1891 **Comparison of results of determining ascorbic acid in industrial preparations by the iodate and indophenol methods.** V. A. Devyatnin, V. V. Zvorykina and M. M. Sitnikova. [illegible] 1954, [illegible] 100. [illegible] 40 104. The error in the determination of ascorbic acid by the dichlorophenolindophenol method is 0·57 to 0·64 per cent, and that by the iodate method is 0·04 to 0·18 per cent. The latter method is recommended for determinations of ascorbic acid in [illegible]ns and in tablets as well as crystalline products. G. S. Sm[illegible]

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KUTEPOV, O.S.; ZVORYKINA, Ye.K.

Short-cut method for calculating the production norms of workers, and the coefficient of output and operative efficiency of the weaving equipment. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.3: 3-14 '62. (MIRA 17:10)

1. Leningradskiy tekstil'nyy institut imeni Kirova.

FRIDMAN, I., inzhener; ZVOZSKOV, B., inzhener.

An automatic truck tilter. Avt.transp. 33 no.3:33 Mr '55.
(Motor trucks) (MLRA 8:5)

IL'IN, M.I.; ZVOSKOVA, N.S., starshiy agronom; LEYN, Z.Ya.; ZVYAGINTSEVA, Ye.I.; MARINICH, P.Ye., red.; ZABORSKIY, N.I., red.; PECHENKIN, I.V., tekhn. red.

[New corn hybrids Bukovine 3 and Bukovina 2; results of stale crop variety tests] Novye gibridy kukuruzy Bukovinskii 3 i Bukovinskii 2; rezul'taty gosudarstvennogo sortoispytaniia. Moskva, Izd-vo M-va sel'. khoz. SSSR, 1960. 45 p. (MIRA 14:8)

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(Corn (Maize)—Varieties)

ZVOSKOVA, N.S.; LAPPO, A.A.

Survey of the achievements of master corn growers. Zemledelie 6 no.12: 37-41 D '58. (MIRA 11:12)

(Corn (Maize))

ZVOSKOVA, N.S.

Examples of displays from the corn exhibit. Zemledelie 6 no.3:95 Mr '58. (MIRA 11:4)

(Corn (Maize))

ZVUKOV, N. M., inzh.

Tracks in Czechoslovakian open-pit mines. Ugol' 38 no.4:56-57 Ap '63. (MIRA 16:4)

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ZVUKOV, N.M., inzh.

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Adenosinetriphosphatase activity in mitochondria of Endomyces magnusii yeasts. Biokhimiia 29 no.4:662-672 Jl-Ag '64.
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Study of the oxidation of different substrates and coupled phosphorylation in subcellular preparations from Endomyces magnusii yeasts. Biokhimiia 29 no. 1:65-70 Ja-F '64. (MIRA 18:12)

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