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USSR/Weeds and Their Control. N.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 68477

Author : Berezovskiy, M.Ya., Semenova, N.K.

Inst : Moscow Agricultural Academy imeni K.A. Timiryazev

Title : The Possibility of Applying Alpha-chlor-N, N-diallylacetamide Against Bearded Oat in Corn Sowings (Preliminary Report).

Orig Pub : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957, No 28, 78-82.

Abstract : Using the pot method, tests were made of alpha-chlor-N,N--diethylacetamide (X) and alpha-chlor-N,N-diallylacetamide (Y). Y has a heightened herbicidal effect against bearded oat in the seed-germination phase. The toxicity of both X and Y is significantly lower when used in corn sowings. The most important condition of herbicide

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USSR/Weeds and Their Control. N.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 68477

effectiveness is the regulation of its penetration into the soil to a necessary depth in order to ensure direct contact of the herbicide, in a spedivid concentration, with the seed of weeds in the germination phase. It is hypothesized that derivative alpha-chloracetamides depress several sulfhydryl respiratory ferments and hinder acidifying phosphorylation. In plants which are resistant to X and Y the herbicides are rendered inactive by being transformed into amino-acids, required by the plant organisms. -- L.D. Stonov.

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Country : USSR
CATEGORY : Weeds and Weed Control

ABS. JOUR. : RZBiol., No. 12, 1958, No. 53955

AUTHOR : Berezovskiy, M.Ya.; Semenova, N.K.
INST. : Moscow Agricultural Academy
TITLE : o-N-Naphthylphthalamic Acid as a Herbicide in Squash Cultures

ORIG. PUB. : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957, vyp. 28, 349-354

ABSTRACT : o-N-naphthylphthalamic acid (I) suppressed carrots in a dosage of 5 kg/ha. (applied for four days after the appearance of shoots). In 1955 on loamy sand soil at Gor'kiy Sovkhoz near Moscow I in doses of 4 and 8 kg/ha. at the active outset was used on cucumbers till the appearance of germination. I did not harm the crop even in heightened dosages. The optimum dose is 4-5 kg/ha. of active substance. --L.D. Stonov

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

Berezovskiy, M. Yu.

COUNTRY : USSR
CATEGORY : Seeds and Seed Control

ABS. JOUR. : RZhBiol., No. 21 1958, No. [illegible]

AUTHOR : Berezovskiy, M. Ya.
INST. : Moscow Agricultural Academy imeni K.A.Timiryazev
TITLE : The Pre-Sprouting Use of Herbicides

ORIG. PUB. : [illegible] Akad. im. K.A.Timiryazeva, [illegible], No. 31, [illegible]

ABSTRACT : [illegible] herbicides to be applied before sprouting, [illegible] was made of derivatives of carbamino acids. Good results in the control of annual weeds in vegetable crops were given by isopropylphenylcarbamate and isopropyl-3-chlorphenylcarbamate. The method of application of the preparation is of no great importance. It is only necessary that the superficial toxic layers be [illegible] and that they not be subjected to subsequent mechanical processing. In 1954, in experiments on the soykaz [illegible] Morskiy below Moscow, dusting of the soil in the daytime on the day of planting carrots with a pre-ara-

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1958, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : tion of IPC in the form of various powders, and sprinkling of the soil with an aqueous suspension of one or another dose of the herbicide (15 kg of active substance per hectare), gave good results in all cases. For control of bearded oat and wheatgrass, the herbicide must be placed into the soil itself, and even then good results are not always obtained. Herbicides with no residual action, or only weak residual action, such as the salts of dinitrophenol and dinitrocresol, mineral oil, sulfuric acid, and others, are recommended for

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1958, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : Preliminary elimination of [illegible] weeds of crops [illegible] sensitive to herbicides, such as [illegible] beets, cotton, [illegible] bearded oats. Post-[illegible] herbicides with residual action, such as 2,4-D and other phenoxy-compounds, pentachlorophenol, [illegible], and others, [illegible] also be used in some cases prior to the [illegible] of the shoots. The article presents [illegible] effectiveness of these herbicides in the control of fodder and of weeds of maize. -- [illegible]

CARD: 3/3

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

USSR / Plant Physiology. Mineral Nutrition I-2

Abs Jour : Ref Zhur - Biol., No 22, 1958, No 99925

leaves. This retarding of the admission of P was expressed more strongly than the suppression of the formation of the organic substance, which resulted in the decrease of P content per dry-mass unit, especially in the younger parts of the plant. The plants processed with 2.4-D through the introduction of the latter into soil, retained in their roots up to 24% of the P^{32} introduced into the soil; the plants subjected to sprinkling with 2.4-D retained only 9.1% of the P introduced into the soil. The derangement of the entry of P into plants owing to the action of 2.4-D is of a temporary nature. -- B. A. Rudenko.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M.YA.

AUTHOR BEREZOVSKY M.Ya., KUROCHKINA V.F. PA - 3376

TITLE The Influence of 2,4-dichlorphenoxiacetic Acid Upon Phosphorus Transformations in Plants.
(Vliyaniye 2,4-dikhlorfenoksiuksusnoy kisloty na prevrashcheniye soyedineniy fosfora v rastenii, -Russian)

PERIODICAL Doklady Akademii Nauk SSSR,1957,Vol 113,Nr 2,pp 458-461 (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT As the authors have previously shown,the physiologically active substances of the Auxin-type in relatively high concentrations interrupt the normal absorption and accumulation of the elements of meineral food by the plant.In opposition to the opinion of other scientists the authors demonstrated that the varying character of the interruption of phosphorus distribution according to the absorption ways of the 2.4-D(=2.4-dichlorophenoxi-acetic acid) and the reversibility of this process cannot be explained by anatomical modifications of the ducts.The present paper deals with the following problem, it is possible that the modificatiion process of the phosphorus transformation is of a more general kind and that,above all,its takes place in the early synthesis phases of the organic phosphorus compounds, the intermediate products,however,do not give clear enough evidence of this transformation because of their variability.The experiments were carried out with young plants of sunflowers in a greenhouse.They were either sprinkled with the aqueous solution of the sodium salt of 2.4-D above grond or the earth was watered with it.3 days after the treatment with 2.4-D,marked phosphorus P^{32} was introduced into the grond as phosphorus-acid sodium.The experiments confirmed the high inhibitory effect of the 2.4-

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The Influence of 2,4-dichlorphenoxiacetic Acid Upon Phosphorus PA - 3376
Transformations in Plants.

D on the absorption of the marked phosphorus by the plants.The results obtained lead to the following conclusions:2,4-D as a physiologically active substance in toxic concentrations suppresses the absorption and transformation of the phosphorus compounds in those plants which are sensitive to this acid.The interrupting influence is temporary and is later more or less overcome by the plant.A strong correlation [illegible]stion and probably even a direct causative dependence of the modification of the phosphorus absorption and -distribution in the plant on the interruption and transformation intensity of the phosphorus compounds becomes noticeable.The strongest effect of 2,4-D can be noticed in the case of intermediate products of the phosphorus transformation,possibly in consequence of the suppression of the syntheses in the initial phases of the phophorolysis.The interruption process is also extended to the synthesis of more complicated phosphorus compounds-of the nucleoproteins and phosphatides.This is one of the direct causes of the suppression of new formations of protoplasmatic structures and of the interruption of growth and a number of other physiological processes. (3 schedules,2 citations from Slavic publications).

ASSOCIATION Moscow Agricultural Academy "K.A.Timiryazev"
PRESENTED BY KURSANOV A.L.,Member of the Academy
SUBMITTED 27.3.1956
AVAILABLE Library of Congress
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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M.Ya., kand.sel'skokhozyaystvennykh nauk

Herbicides and their prospective use. Zashch.rast.ot vred. i bol. 3 no.2:28-31 Mr-Ap '58. (MIRA 11:4)
(Herbicides)

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BEREZOVSKIY, M., kand. sel'skokhoz. nauk

Apply chemicals in weed control. Nauka i pered. op. v sel'khoz. 9 no.7:39-42 Jl '59. (MIRA 12:11)
(Herbicides) (Weed control)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M.Ya., kand.sel'skokhoz.nauk

Simazine, a herbicide for corn fields. Zashch. rast. ot vred. i bol. 5 no.4:34-36 Ap '60. (MIRA 13:9)
(Triazine) (Corn (Maize))

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M.Ya., kand.sel'skokhoz.nauk

Comparative studies on simazine and atrazine. Zashch.rast.ot vred.i bol. 5 no.7:28-29 Jl '60. (MIRA 16:1)
(Herbicides) (Triazine)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M.Ya., kand.sel'skokhozyaystvennykh nauk

Agricultural specifications for machines applying herbicides to soils. Zemledelie 24 no.10:31-37 O '62. (MIRA 15:11)

1. Moskovskaya sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva.

(Herbicides)
(Spraying and dusting equipment)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M.Ya., kand.sel'skokhoz.nauk; ABRAMOVA, K.A., aspirantka; MAKODZEBA, I.A., kand.sel'skokhoz.nauk; SHAMKIY, I.F., aspirant

Controlling Acroptilon picris. Zashch. rast. ot vred. i bol. 8 no.9:45-47 S '63. (MIRA 16:10)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya im. Timiryazeva (for Berezovskiy, Abramova). 2. Vsesoyuznyy institut kukuruzy, Dnepropetrovsk.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M. Ya., kand. sel'skokhoz. nauk

Aerosol generator in small volume sprinkling. Zashch. rast. ot vred. i bol. 9 no.6:22-24 '64 (MIRA 17:7)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, M.Ya., starshiy nauchnyy sotrudnik, kand. sel'skokhoz. nauk;
ABRAMOVA, K.A., aspirantka

Herbicidal characteristics of 2,3,6-trichlorobenzoic acid and its toxic effect on the Acroptilon picris. Izv. TSKHA no.1:149-162 '64. (MIRA 17:4)

1. Pochvenno-agronomicheskaya stantsiya Moskovskoy ordena Lenina sel'skokhozyaystvennoy akademii imeni Timiryazeva.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BERETOVSKIY, M.Ya., starshiy nauchnyy sotrudnik, kand. sel'skokhoz. nauk

Zonal characteristics of the use of herbicides in the Virgin Territory. Izv. TSKHA no.2:65-76 '64. (MIRA 17:12)

1. Pochvenno-agronomicheskaya stantsiya Moskovskoy ordena Lenina sel'skokhozyaystvennoy akademii imeni K.A. Timiryazeva.

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BEREZOVSKIY, M.Ya., kand. sel'skokhoz. nauk

Use of herbicides in the Virgin Territory. Zemledelie 26 no.12:39-41 D '64. (MIRA 18:4)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva.

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BEREZOVSKIY, N.

How we conduct a motion picture festival of agricultural films. Kinomekhanik no.12:3-5 D '53. (MLRA 6:12)

1. Zaveduyushchiy kinoset'yu Noginskogo raykomdela kul'tury.
(Motion pictures in agriculture)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, N.I.

Shelterbelt planting on state farms in the Rostov province
Les i step', no. 4, April 1952

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16 (1)

SOV/21-59-8-2/26

AUTHOR: Berezovs'kyy, M. I. (Berezovskiy, N. I.)

TITLE: On the Transformation of Differential Operators

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1959, Nr 8, pp 819 - 823 (USSR)

ABSTRACT: In this article the author gives necessary and sufficient conditions which determine the main part (in Laurent's sense) of the kernel of the contour-integral transformation formula

$$g(x) = f(x) + \int_C K(x, w) f(w) dw, \qquad (3)$$

of the differential operator $M = \frac{d^n}{dw^n}$ into a differential operator

Card 1/2

$$L = \frac{d^n}{dx^n} + p_{n-2}(x)\frac{d^{n-2}}{dx^{n-2}} + p_{n-3}(x)\frac{d^{n-3}}{dx^{n-3}} + \ldots + p_1(x)\frac{d}{dx} + p_0(x) - \qquad (1)$$

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SOV/21-59-8-2/26

On the Transformation of Differential Operators

with continuous coefficients. The author conveys his gratitude to M. K. Fage for all the valuable instructions and advice which he received when preparing this work. There are 3 Soviet references.

ASSOCIATION: Chernivetskiy gosudarstvennyy universitet (Chernovtsy State University)

PRESENTED: By B. V. Gnedenko, Member, AS Ukr/SSR

SUBMITTED: February 17, 1959

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VALITSKIY, Yu.N.; BEREZOVSKIY, N.I.

First Abelian theorem for certain functional series. Vop. mat. fiz. i teor. funk. no.1:12-17 '64. (MIRA 18:2)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, P.P.

Healing of bronchial stump by obturation with a muscle pedicle flap. Khirurgiia 34 no.3:96-99 Mr '58. (MIRA 12:1)

1. Iz kupavinskoy poselkovoy bol'nitsy (glavnyy vrach P.P. Berezovskiy) 1-y khirurgicheskoy kliniki Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta im. M. F. Vladimirskogo (dir. - dots. N. I. Makhov)

(PNEUMONECTOMY, exper.
closure of bronchial stump by application of musc. pedicle flap in dogs (Rus))

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, P.P.

New apparatus for artificial respiration. Khirurgiia 35 no.8:135-137 Ag '59. (MIRA 13:12)

(RESPIRATORS)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, P. P., Cand Med Sci -- "Plastic surgery of the bronchial stump in lobectomy and pneumonectomy by the occlusion method ~~of occlusion with~~ by means of an intercostal pleuromuscular flap on the ~~crue~~ pedicle. (Experimental study)." Mos, 1961. (Min of Health RSFSR. Mos Med Stomatological Inst) (KL, 8-61, 259)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, P.P. (Moskovskaya obl., Noginskiy rayon, pos.Kupavna, ul. Chernyshevskogo,d.9,kv.2)

Plastic surgery of the bronchial stump in pulmonary resection; experimental study. Grud.khir. 2 no.2:64-68 Mr-Ap'60. (MIRA 16:7)

1. Iz Kupavinskoy bol'nitsy (glavnyy vrach P.P.Berezovskiy) i pervoy khirurgicheskoy kliniki Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta (zav.-dotsent N.I. Makhov).

(BRONCHI—SURGERY)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, P.P. (Moskovskaya oblast', p/o Kupavna, ul. Chernyshevskogo 9)

Mechanism of the cutting of the sutures on the bronchial stump following pneumonectomy and lobectomy. Grud. khir. 2 no.4:62-68 Jl-Ag '60. (MIRA 15:6)

1. Iz Kupavinskoy bol'nitsy Noginskogo rayona Moskovskoy oblasti.

(LUNGS--SURGERY)
(SATURES)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, S.I., inzh.

Gas balance at metallurgical plants and means of counteracting a shortage of gas. Trudy NTO chern. met. 20:366-382 '60.

(MIRA 13:10)

1. Leningradskiy filial Giprometa.
(Metallurgical plants) (Gas, Natural)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

SKOROKHODOV, Aleksey Gavrilovich; BEREZOVSKIY, Semen Mikhaylovich; LOBOK, Abram Yakovlevich; TSYRUL'NIKOV, A.I., redaktor; AVRUTSKAYA, R.F., redaktor; BEKKER, O.G., tekhnicheskiy redaktor.

[Secondary ferrous metals] Vtorichnye chernye metally; spravochnik. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 336 p. [Microfilm] (MLRA 8:1)
(Scrap metal)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

Berezovskiy, S. M.

PHASE I BOOK EXPLOITATION 955

Pisarevskaya, Klara Isidorovna; Chumichev, Aleksey Grigor'yevich; and Berezovskiy, Semen Mikhaylovich, Deceased

Ekspluatatsiya oborudovaniya diya razdelki metallicheskogo loma (Operation of Equipment Used for the Preparation of Scrap Metal) Moscow, Metallurgizdat, 1958. 251 p. 3,000 copies printed.

Ed.: Gurvits, A.I.; Ed. of Publishing House: Lanovskaya, M.R.; Tech. Ed.: Bekker, O.G.

PURPOSE: This book is intended for skilled workers, engineers, and technicians employed at scrap-preparation depots, scrap drops, and scrap shops, as well as at plants reprocessing secondary ferrous metals. The book may also be useful to students at metallurgical tekhnicums.

COVERAGE: Descriptions are given of equipment for processing iron and steel scrap, together with instructions for the operation and maintenance of the equipment, performance data, and information on

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technological processes. In addition, systems of organizing scrap-preparation operations are described. The authors express their thanks to P.V.Matveyev, Engineer, for his assistance in preparing the book. There are 8 references, all Soviet.

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Operation of Equipment (Cont.) 955

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

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APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.

Achievements of a leading automobile transport office.
Avt. transp. 34 no.6:36 Je '56. (MLRA 9:9)

1. Glavnyy inzhener ATK.
(Krasnodar--Transportation, Automotive)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V. [Berezovs'kyi, V.], inzh.

New designs of heating devices. Bud.mat.i konstr. 4 no.4:50-55 Jl-Ag '62. (MIRA 15:8)

(Heating--Equipment and supplies)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.

Results of time study. Sov.shakht. 11 no.4:18-19 Ap '62. (MIRA 15:3)

(Donets Basin--Time study)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

SHAVKUNOV, A.V., inzh.; AKSENOV, N.A., inzh.: MUGORMAN, Yu. N., inzh.; KOLCHINSKIY, V.I., inzh.; Prinimali uchastiye: KORNEYEVA, M.P., inzh; CHERNOV, V.I., inzh.; MARKAROV, S.Ye., inzh.; SAYMUKOVA, Ye.P., inzh; LUKASH, B.K., starshiy master; TITOV, S.A., svarshchik; BEREZOVSKIY, V.A.

Welding titanium alloys in chambers with a controlled atmosphere. Svar. proizv. no.4:24-25 Ap'61. (MIRA 14:3)
(Titanium alloys- Welding) (Proctective atmospheres)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.A.

Case of acute adaline poisoning. Vrach.delo no.7:749 Jl '59.
(MIRA 12:12)

1. Lutskaya gorodskaya detskaya bol'nitsa.
(CARBROMAL--TOXICOLOGY)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.A.

Peculiarities of the arterial oscillogram in myopathies. Vrach.delo no.5:479-481 My '60. (MIRA 13:11)

1. Nevrologicheskoye otdeleniye (zav. - L.S.Gittik) Volynskoy oblastnoy bol'nitsy.
(OSCILLOGRAPHY)
(MUSCLES--DISEASES)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.A. [Berezovs'kyi, V.A.]; ZEMLYANSKIY, S.V. [Zemlians'kyi, S.V.]

Temperature variations in the gastric mucosa caused by acetylcholine, adrenaline, and monadrenaline. Fiziol. zhur. [Ukr.] 7 no.2:235-242 Mr-Ap '61. (MIRA 14:4)

1. Laboratory of the Physiology of Digestion of the A.A.Bogomoletz Institute of Physiology of the Academy of Sciences of the Ukrainian S.S.R., Kiev, and the Department of General and Experimental Pathology of Warsaw Pathology of Warsaw Medical Academy.
(BODY TEMPERATURE) (STOMACH)
(NERVOUS SYSTEM, AUTONOMIC)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.A. [Berezovs'kyi, V.IA.]

Short-term local fluctuations of the temperature of the cerebral cortex in dogs and their relations to the regional blood circulation. Fiziol.zhur.[Ukr.] 9 no.1:90-95 Ja-F '63.

(MIRA 18:5)

1. Laboratoriya fiziologii pishchevareniya Institut fiziologii im. A.A.Bogomol'tsa AN UkrSSR, Kiyev.

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BEREZOVSKIY, V.A. [Berezovs'kyi, V.IA.]

Polarographic method of determining the oxygen pressure in tissues. Fiziol. zhur. [Ukr.] 9 no.4:559-561 Jl-Ag '63. (MIRA 17:10)

1. Laboratoriya fiziologii pishchevareniya Instituta fiziologii im. Bogomol'tsa AN UkrSSR, Kiyev.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.A. [Berezovs'kyi, V.A.]

Oxygen pressure, temperature and infrared irradiation in the brain of dogs under anesthesia. Fiziol. zhur. [Ukr.] 10 no.2: 259-262 Mr-Ap '64. (MIRA 18:7)

1. Institut fiziologii im. Bogomol'tsa AN UkrSSR, Kiyev.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.A.

Heat production in the tissues of the central nervous system as an index of its functional state. Fiziol. zhur. 49 no.2: 192-200 F'64 (MIRA 17:3)

1. Institut fiziologii imeni A.A. Bogomol'tsa AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

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MANSHILIN, V.V.; MANAKOV, N.Kh.; AGAFONOV, A.V.; VASILENKO, V.P.; MASLOV, I.Ya.; KNYAZEV, V.S.; Prinimali uchastiye: BELOUSOVA, I.V.; BEREZOVSKIY, V.D.; BOL'SHAKOVA, K.A.; YEMEL'YANOV, A.A.; ZEFIROVA, Ye.G.; NEMETS, L.L.; OKINSHEVICH, N.A.; RYABOV, V.M.; STEPANENKO, I.A.; STOLYARENKO, Ye.G.; SOLOTSINSKIY, S.Ye.; KHRAMOV, A.Ye.; CHELOGUZOVA, Ye.F.

Engineering development of a new system of catalytic cracking in a fluidized bed. Khim.i tekh.topl.i masel 7 no.6:41-50 Je '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Cracking process)
(Fluidization)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

MANSHILIN, V.V.; AGAFONOV, A.V.; MANAKOV, N.Kh.; VASILENKO, V.P.; MASLOV, I.Ya.; KNYAZEV, V.S.; STEPANENKO, I.A.; Prinimali uchastiye: VAYL', Yu.K.; NEMETS, L.L.; BELOUSOVA, I.V.; STOLYARENKO, Ye.G.; YEMEL'YANOV, A.A.; RYABOV, V.M.; BEREZOVSKIY, V.D.; ZEFIROVA, Ye.G.; CHELOGUZOVA, Ye.F.; SOLOTSINSKIY, S.Ye.; BOL'SHAKOVA, K.A.; KHRAMOV, A.Ye.

Catalytic cracking of raw heavy distillates on a microspheric catalyst of Troshkovskiy clay. Khim. i tekh. topl. i masel. 8 no.3:1-6 Mr '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Cracking process) (Catalysts)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.G.

Mixed grass sytem for meadows
Sov. agron 10 no18, 1952

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

1. BEREZOVSKIY, V.G.

2. USSR (600)

4. Grpahite

7. Nitrogen side-dressing for grass mixtures, Sov.agron 11 no. 4, 1953.

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

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

USSR/Cultivated Plants - Commercial. Oil-Bearing Sugar-Bearing.

Abs Jour : Ref Zhur Biol., No 18, 1958, 82423

Author : Berezovskiy, V.G.
Inst : -
Title : Influence of Biennial Grass Mixture on the Cotton Yield.

Orig Pub : Vestn. s.-kh. nauki, 1957, No 7, 121-123

Abstract : In the experiments of Ak-Kavakskaya Experiment Station, a grass mixture of alfalfa and loosely clustering grasses (orchard grass, Italian ryegrass, Meadow fescue) was more effective than a pure alfalfa sowing, and is recommended for those establishments where conditions are present for obtaining a high yield of grasses. The yield of cotton wool on the layer of the grass mixture was 4 centners/ha more than on the layer of grasses, and on the turned layer - 3 centners/ha more.

Card 1/1

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

COUNTRY : USSR M-6
CATEGORY :

ABS. JOUR. : RZBiol., No. 19, 1958, No. 87099

AUTHOR : Berezovskiy, V. G.
INST. : Tashkent Agricultural Institute
TITLE : The Role of Alfalfa-Cereal Grass Mixtures in Farm Technology on Their Biennial Use.

ORIG. PUB. : Avtoref. dis. kand. s.-kh. n., Tashkentsk. s.-kh. in-t, Tashkent, 1958.
ABSTRACT : No abstract.

CARD: 1/1

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V. G., Cand Agr Sci — (diss) "Role of alfalfa-cereal grass mixtures during a two-year period of use ~~in agricultural engineering when used for a two-year period~~."

Tashkent, 1958. 19 pp (Min of Higher Education USSR, Tashkent Agr Inst), 150 copies (KL, 18-58, 100)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

M

COUNTRY : USSR
CATEGORY : CULTIVATED PLANTS. Fodder Grasses and Roots.

ABS. JOUR. : RZH BIOLOGIYA, NO. 4, 1959, No. 15608

AUTHOR : Berezovskiy, V.G.
INST. :

TITLE : For High Crop Yields of Alfalfa

ORIG. PUB. : V sb.: Khlopkovodstvo v SSSR. M., Sel'khozgiz, 1958, 453-459

ABSTRACT : In the cotton-alfalfa crop rotations in Central Asia, with good farming methods, alfalfa improves the soil and creates favorable conditions for the growth of the cotton crop yield. With good care at leading kolkhozes, hay crops of 60 to 100 c/h are reaped in the first year of grass life, and 120 to 160 c/h and more in the second year. The kolkhoz imeni Stalin of Tashkent oblast produced an alfalfa hay crop of 88 to 95 c/h, while

CARD: 1/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.I.; KANTOR, R.I.; MATUSEVICH, M.A.

Characteristics of building products made of phosphoanhydrite cement. Stroi. mat. 10 no.2:30-32 F '64.

(MIRA 17:6)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.I., inzh.; NIKUL'SHIN, K.Ye.

New design for the double ball-bearing and rotating devices of cranes. Mont. i spets. rab. v stroi. 23 no.12:20 D '61. (MIRA 15:2)

1. TSentral'noye konstruktorskoye byuro Upravleniya mekhanizatsii.
(Ball bearings)
(Cranes, derricks, etc.)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

CHERNYY, I.L. (Minsk); BEREZOVSKIY, V.I. (Minsk)

Advantage of kilning lime in rotary kilns. Stroi. mat. 9 no.6:9 Je '63. (MIRA 17:8)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

OKOROKOV, A.A., otv. red.; MARKIN, A.M., otv. red.;
BEREZOVSKIY, V.I., red.; DOLGUSHIN, N.I., red.;
KIRILLOV, I.Ye., red.; MIKHAYLOV, G.N., red.;
NEVZOROV, L.A., red.; NIKOLAYEVSKIY, G.M., red.;
ROZHDESTVENSKIY, V.A., red.; USHAKOV, P.N., red.;
KHODOV, M.P., red.; SHARONOV, M.S., red.

[Regulations for the design and safe operation of load-lifting cranes] Pravila ustroistva i bezopasnoi ekspluatatsii gruzopod"emnykh kranov. Moskva, Nedra, 1965. 127 p. (MIRA 18:7)

1. Russia (1917- R.S.F.S.R.) Gosudarstvennyy komitet po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i gornomu nadzoru.

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DEMIDOVICH, Boris Konstantinovich; KHANTIL', Vera Ivanovna;
BEREZOVSKIY, Viktor Il'ich; [illegible], M., red.;
VAN'KUK, L., r

[Improvement of the technology of lime production in rotary kilns] Sovershenstvovanie tekhnologii proizvodstva izvesti vo vrashchaiushchikhsia pechakh. Minsk, Izd-vo "Belarus'," 1964. 34 p. (MIRA 18:6)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.M.; TUL'CHINSKAYA, L.S.

Rearrangement of triazenes. Part 1: Rearrangement of asymmetric triazenes in aminoazo compounds. Zhur.ob.khim. 31 no.8:2774-2779 Ag '61. (MIRA 14:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.
(Triazene) (Azo compounds)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

IOFINOV, S.A.; BEREZOVSKIY, V.L.

Maneuvreability of wheeled tractor and agricultural machinery units. Trakt.i sel'khozmash. no.1:8-12 Ja '60. (MIRA 13:4)

1. Leningradskiy sel'skokhozyaystvennyy institut.
(Tractors) (Agricultural machinery)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V. M.

USSR/Chemistry - Dyes, Triphenylmethane May 1947
Chemistry - Pyridine

"Pyridine Analogues of Di- and Triphenyl Methane Dyes and Their Color," I. L. Knunyants, Corr Mem; V. M. Berezovskiy, Inst Org Chem, Acad Sci, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVI, No 6

Research designed to give final clarification of capacity of pyridine analogues of triphenyl methane dyes for forming coloring substances.

PA 58T7

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKII, B. M.

Knuniants, I. I., Berezovskii, B. M., " Dyes of the di-and tri-pryridil-methane series." (p. 767)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1948, Volume 18, No. 4

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V. M.

"The Chemistry of Flavins," Uspekhi Khim., 18, No. 6, 1949.

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CA

Synthetic preparation of vitamin B_2 (riboflavin). V. M. Berezovskii, V. A. Kurdyukova, and N. A. Preobrazhenskii (Vsesoyuz. Nauch.-Issledovatel. Vitamin. Inst.). *Zhur. Prikład. Khim.* (J. Applied Chem.) 22, 827-32 (1949).—Heating 8 g. 3,4-$Me_2C_6H_3NH_2$, 10 g. D-arabinose, 0.5 g. $BzOH$, and 3 ml. H_2O 6 min. on a steam bath, followed by hydrogenation in 95% EtOH over Pt catalyst (0.5 g.) at room temp. (600 ml. H used), and steam distn. to remove unused xylidine, gave 13% *3,4-dimethylphenyl-D-ribosamine*, m. 141-2° (from EtOH). This (2 g.) treated in 200 ml. H_2O, acidified with a little AcOH, at 70°, then cooled to 20° and added to PhN_2SO_3H (from 0.8 g. $PhNH_2$), 1.05 g. H_2SO_4, and 8 g. ice, with $NaNO_2$), followed after 20 min. with enough 10% NaOH to form a ppt., gave on standing overnight 80% *1-(D-ribitylamino)-4-phenylazo-3,4-dimethylbenzene*, red needles, m. 171-2.5° (from BuOH). This (1.2 g.), 0.71 g. barbituric acid, 9 ml. dioxane, and 1.7 ml. AcOH refluxed 5 hrs. gave 81% *riboflavin* purified by soln. in warm 24% HCl, treatment with a little H_2O_2, filtration and diln. with 6 vols. H_2O; the yield of pure product, decomp. 282°, was 88%.

G. M. Kosolapoff

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CA

10

Synthesis of 3,4-dimethyl-1-aminobenzene. V. M. Berezovskii, V. A. Kurdyukova, and N. A. Preobrazhenskii (Vsesoyuz. Nauch.-Issledovatel. Vitamin. Inst.). *Zhur. Prikład. Khim.* (J. Applied Chem.) 22, 533-7 (1949).—Addn. of a crystal of iodine and 42 g. o-BrC$_6$H$_4$Me in 125 ml. Et$_2$O to 8 g. Mg and 15 g. o-BrC$_6$H$_4$Me in 25 ml. Et$_2$O, followed by refluxing for 1 hr., cooling, addn. over 1.5-2.0 hrs. of 100 g. Me$_2$SO$_4$ in 80 ml. Et$_2$O, standing overnight, and treatment with 10% HCl, gave 45% *o-xylene*, b. 139-42°; the Wurtz reaction with MeI and BrC$_6$H$_4$Me gave a 32% yield. Bromination of the product in the cold gave 72% *4-bromo o-xylene*, b. 204-12°; amination according to Ullmann (cf. Wisansky and Anshacher, *C.A.* 35, 7380[2]) at 195° and 75 atm. gave 79% *3,4-dimethyl-1-aminobenzene*. An alternate route was as follows: 500 g. camphor and 3.7 kg. concd. H$_2$SO$_4$ stirred 1.5 hrs. at 105-10°, treated with 5 l. cold H$_2$O, and extd. with C$_6$H$_6$, gave 60 g. crude *3,4-dimethylacetobenzone*, b. 240-53°, which was converted to the *oxime*, m. 86-6.5° (from EtOH), in 30-g. yield (over-all, 6% from camphor). This (30 g.) in 45 ml. AcOH and 30 ml. Ac$_2$O, satd. in the cold with HCl and kept 1 hr. at 60-70° and 24 hrs. at room temp., gave *3,4-dimethylacetanilide*, which on refluxing with concd. HCl or 15% H$_2$SO$_4$ gave 89% 3,4-dimethyl-1-aminobenzene, b. 110-18°, m. 49-51°.

G. M. Kosolapoff

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Ascorbic acid. Lactonization and enolization of 2-keto-L-gulonic acid and its derivatives. V. M. Berezovskii and L. I. Strel'chunas. *Zhur. Prikkl. Khim.* (J. Applied Chem.) **22**, 1113-15(1949).—Conversions of 2-keto-L-gulonic acid into ascorbic acid in alk. media are complex or give poor yields. Direct conversion with HCl or HBr at 120° takes but 3-4 min. (cf. C.A. **41**, 6025a). Heating in aq. soln. in the presence of HCl to 60-80° (cf. C.A. **33**, 6830[9]) gave only a 13% yield, as did HCl in AcOH (cf. U.S. 2,185,383, C.A. **34**, 3024[9]), heating the diacetone deriv. 45 hrs. with EtOH and concd. HCl (Slobodin and Basova, C.A. **41**, 2395a) also gave poor yields; heating 12 hrs. with 2 parts EtOH and 0.08 part HCl gave a 50% yield. Heating the diacetone deriv. in inert solvents in acid media gives up to 78% yield. Heating 2-keto-L-gulonic acid, its Me ester, or diacetone deriv. (cf. Elger, C.A. **34**, 1823[9]) in $(CH_2Cl)_2$ contg. HCl 55 hrs. at 60° gave a 70% yield when 94% EtOH was present. The best yields (81%) were obtained with EtOH and $CHCl_3$, $(CH_2Cl)_2$, C_6H_6, or CCl_4, all giving azeotropes b. below 70° so that the H_2O could be readily distil. off in this manner in 12 hrs. The amt. of HCl catalyst need not be over 10%, as further increase fails to improve the yield significantly. G. M. Kosolapoff

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CA

Preparation of D-arabinose. V. M. Berezovskii and V. A. Kurdyukova. *Zhur. Prikkl. Khim.* (J. Applied Chem.) 22, 1116-17(1949). Addn. of 3.5 g. $Fe_2(SO_4)_3 \cdot 9H_2O$ in 30 ml. H_2O and 5 g. $Ba(OAc)_2 \cdot H_2O$ in 30 ml. H_2O to 200 g. Ca D-gluconate in 2 l. H_2O at 85°, followed by addn. over 3 hrs. of 200 ml. 30% H_2O_2 dild. with 1 l. H_2O, filtration, concn. *in vacuo* to 200 ml., addn. of 1.2 l. MeOH and 800 ml. Me_2CO, filtration, evapn. *in vacuo*, and addn. of 100 ml. MeOH, gave 44% D-*arabinose*, m. 155-6°. Ca D-mannonate similarly gives a 34% yield. The best yields are obtained with 0.03 mole catalyst and 2.0 moles O_2.

G. M. Kosolapoff

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CA

25

Dyes of di- and tripyridylmethane series. IV. Monopyridine analogs of diphenylmethane derivatives. V. M. Berezovskii. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 1983-9(1951); cf. *ibid.* 20, 1187(1950); *C.A.* 45, 4106.—Monopyridine analogs of diphenylmethane dyes that carry 2 *p*-auxochromes possess color. 2-Aminopyridine reacts with CH_2O in the presence of reducing agents by condensation to a trimethylenetriamine deriv., which is reduced to dimethylaminopyridine, and the latter finally condenses with CH_2O through a pyridylcarbinol structure to yield bis(2-dimethylamino-5-pyridyl)methane. Refluxing 1000 g. HCO_2H (d. 1.2), 470 g. 2-aminopyridine, and 2400 ml. formalin 16 hrs., steam distn. of CH_2O, neutralization with NaOH, further steam distn., extn. of the distillate with C_6H_6, and refluxing of the concd. ext. with Ac_2O 1 hr. gave 2.8 g. *2-dimethylaminopyridine*, b_{16} 88°. The aq. mixt. remaining from the steam distn. gave on extn. with C_6H_6 320 g. *bis(2-dimethylamino-5-pyridyl)methane*, m. 84-5°, b_5 206-8°, as well as a number of minor fractions, including 7 g. *(2-dimethylamino-5-pyridyl)carbinol*, m. 45.5° (from Et_2O-petr. ether), *picrate*, decompg. 165° (from EtOH), and a small amount of *bis(2-pyridylmethylamino)methane*, m. 139-40°, b_5 205-21° (from ligroine). Refluxing 1 g. 2-dimethylamino-5-pyridylcarbinol with 1.7 g. 2-dimethylaminopyridine and 4 g. HCO_2H 7 hrs. gave after dilu., neutralization, and steam distn., a residue of 77% *bis(2-dimethylamino-5-pyridyl)methane*. Similar reaction with Ph-NMe_2 in place of 2-dimethylaminopyridine gave 94% *(2-dimethylamino-5-pyridyl)(p-dimethylaminophenyl)methane*, m. 82° (from petr. ether); *picrate*, yellow, m. 199° (from EtOH). Heating this (2.5 g.) and 0.7 g. S 6 hrs. at 170-5° at 5-10 mm. gave much H_2S and upon addn. of 5 ml. EtOAc to cooled soln. a ppt. of 41% *(2-dimethylamino-5-pyridyl)(p-dimethylaminophenyl) thioketone*, red, m. 187-9° (from EtOH), giving yellow color in H_2SO_4 and brown-red in HCl. Refluxing the thioketone with 10% HCl 45 min., filtration, and treatment with NaOH gave 33% *(2-dimethylamino-5-pyridyl)(p-dimethylaminophenyl) ketone*, yellow, m. 164-5° (from EtOH); *picrate*, m. 180-2° (from Me_2CO-EtOH). The ketone treated with 3% Na-Hg in EtOH for 3 hrs. at reflux, filtered, and dild. with H_2O after concn. gave *(2-dimethylamino-5-pyridyl)(p-dimethylaminophenyl)carbinol*, m. 124° (from EtOH-Et_2O), colorless prisms, giving blue-violet color in HCl and green-blue in AcOH; *picrate*, yellow-green, m. 147° (decompn.). G. M. Kosolapoff

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CA

Mechanism of transformation of diacetone 2-keto-L-gulonic acid into ascorbic acid. V. M. Berezovskii and I. I. Strel'chunas. *Zhur. Obshchei Khim.* [J. Gen. Chem.] 20, 2072-5(1950).—The reaction appears to proceed as follows. under the influence of a strong acid in an inert solvent and EtOH the diacetone-2-keto-L-gulonic acid (I) undergoes hydrolysis with simultaneous esterification of the CO_2H; the product loses EtOH, forming a γ-lactone, which by enol-keto shift forms L-ascorbic acid (II). Heating 20 g. I (cryst. monohydrate), 40 ml. $(CH_2Cl)_2$, and 15 ml. 7% HCl in dry MeOH 1 hr. at 60-5° gave, after standing overnight, 83% *Me 2-keto-L-gulonate*, m. 153-5° (crude), m. 156-7° (from MeOH). The best conversion to II takes place by heating 30 g. I 18 hrs. in 40 ml. $(CH_2Cl)_2$ and 6 ml. 96% EtOH contg. 18% HCl, yielding 81-2% II of 98-9% purity. Distn. of the soln. gives 52% Me_2CO. The use of various alcs. varies the yields as follows, under anhyd. conditions or in the presence of 0.3 mole H_2O, resp.: MeOH 73 and 73, EtOH 78 and 82, PrOH 67-78 and 81.8, BuOH 60-70 and 81.5, iso-BuOH 50-68 and 82, iso-AmOH 57-68 and 77.5%. A curve of the rate of formation with MeOH is presented; it shows a rapid rise of II during the 1st 7 hrs., followed by an almost flat curve of very slow rise even at 28 hrs. HCl is 3-4 times as effective as H_2SO_4. An increase of temp. by 10° speeds the reaction by a factor of nearly 3.

G. M. Kosolapoff

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USSR/Chemistry - Chloromethylation, Vitamin B_2 — Jun 51

"Chloromethylation and Subsequent Reduction of Aromatic Nitro-Compounds," V. M. Berezovskiy, V. A. Kurdyukova, N. A. Preobrazhenskiy, All-Union Sci Res Vitamin Inst

"Zhur Obshch Khim" Vol XXI, No 6, pp 1163-1166

n-Nitrotoluene treated with dichloromethyl ether and chlorosulfonic acid or low concn of fuming H_2SO_4 is converted into 2-chloromethyl-4-nitrotoluene (II) with high yield of latter. Under more rigid conditions, 2,6-bis-chloromethyl-4-nitrotoluene is formed. Mechanism of the

186T28

USSR/Chemistry - Chloromethylation, Vitamin B_2 (Contd) — Jun 51

secondary reaction which leads to formation of di-(2-methyl-5-nitrophenyl)-methane is demonstrated. Hydrogenation of chloromethyl derivs obtained, in presence of Pt or Ni catalysts, yielded corr dechlorinated amines. II can be reduced (with Ni catalyst) to 1,2,4-xylidine, which is important starting material in the synthesis of riboflavin. II is highly toxic and irritating when applied to the skin, but introduction of 2d CH_2Cl group eliminates toxicity almost completely.

186T28

BEREZOVSKIY, V. M.

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Catalytic hydrogenation of esters of aldonic acids in the presence of aromatic amines V. M. Berezovskii and V. A. Kurdyukova. *Doklady Akad. Nauk S.S.S.R.* **70**, 839-42 (1951). — Treatment of 280 g. Ca D-arabonate pentahydrate in H_2O with 77 g. $(CO_2H)_2$, concn. of the filtrate, and addn. of Me_2CO gave 70% *D-arabono-γ-lactone*, m. 96-7°, which, heated 0.5 hr. with MeOH and a small amt. of H_2SO_4 gave *Me D-arabonate*, m. 137-9°. Hydrogenation of this (9 g.) in the presence of 6.2 g. 3,4-xylidine in EtOH over Pt oxide in a little H_2O made alk. with KOH for 24 hrs. at 120-148 atm. and 75° gave 38% *3,4-xylyl-D-arabinamine*, m. 140-1°, and some *d-arabono-3,4-xylidide*, m. 204-5° (from 50% EtOH) (authentic sample made by heating the lactone with 3,4-xylidine in EtOH). Refluxing 1 g. D-arabinose 20 min. with 0.8 g. 3,4-xylidine in EtOH gave 77% *3,4-xylidine N-D-arabinofuranoside*, m. 128-9°, which, hydrogenated over Raney Ni in EtOH at 42 atm. and 60° 1.5 hrs. gave 73% *3,4-xylyl-D-arabinamine*. The latter also formed on hydrogenation over Pt black of an equimolar mixt. of D-arabono-γ-lactone and 3,4-xylidine at 60-100° and 110-150 atm. for 7-30 hrs. with or without added alkalies; the use of MeOH gives poorer yields. At 100° the anilide formation predominates, while 75° gave best yields of arabinamine.

G. M. Kosolapoff

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BEREZOVSKIY, V.M.

(3)
Chem

Chem Abs V48
1-25-54
Organic Chemistry

Tetraacetyl-D-arabonic acid. V. M. Berezovskii. *Akad. Nauk S.S.S.R., Inst. Obs. Khimii, Sintezy Org. Soedinenii, Sbornik* 2, 121-2(1952).—Ca arabonate (25 g.) and 75 g. Ac_2O are heated with stirring to 50-5° and are gradually treated with 75 g. 20-5% HCl in Ac_2O. Exothermic reaction sets in after addn. of 0.75 of the soln.; this must be controlled by external cooling, but the cooling should not be below 55°. When complete soln. is attained the rest of HCl-Ac_2O is added and the mixt. heated 1 hr. to 70-80°. The soln. is evapd. *in vacuo* on a water bath and the residue kept at 50° under vacuum 1 hr. The sirup is rubbed successively with 25-40 ml.-portions of ice H_2O, until a solid ppt. forms, and the mixt. is allowed to stand overnight in a cold place. Filtration yields 50% *tetraacetyl-D-arabonic acid*, m. 135-6° (from 60 g. AcOH) (cf. Robbins and Upson, *C.A.* 34, 6225[9]).

G. M. Kosolapoff

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BEREZOVSKIY, V.M.

Aviation Med

1

C. A. V-48
Jan 10, 1954
Nutrition

Chemistry of vitamins of group B. V. M. Berezovskii. *Uspekhi Khim.* 21, 40-68(1952).—Review with 129 references.
G. M. Kosolapoff

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BEREZOVSKIY, V.M.

[illegible] dark [illegible] [illegible] with $CaCO_3$ gave 87% [illegible] [illegible] This [illegible] H_2O and [illegible] [illegible]

[illegible] m. 105-[illegible]; this in [illegible] boiling H_2O treated with BzH and BzOH and heated 1 hr.

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BERSAOVSKIY, V. M.

Conversions and Synthesis of Carbohydrates. VIII. Studies on Oxidation of Aldoses, page 944.
Sbornik statey po obshchey khimii (Collection of Papers on General Chemistry), Vol II, Moscow-Leningrad, 1953, pages 1680-1686.

All-Union Sci Res Vitamin Institute

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Chemical studies in the field of vitamin B_1 V. M. Bere-

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BEREZOVSKIY, V. M.

Chemistry of pteridines. V. M. Berezovskii. *Uspekhi Khim.* 22, 191-232(1953).—Review with 181 references.
G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKII, V. M.

"Electrolytic reduction of haloalkysubstituted aromatic nitro compounds". Berezovskii, V. M. and Varkov, V. S. (p. 100)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii). 1953, Volume 23, No. 1.

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BEREZOVSKIY, V. M.

USSR/Chemistry

Card 1/1

Authors : Berezovskiy, V. M.; [illegible]

Title : [illegible] and synthesis of [illegible] 1-lyxoflavines.

Periodical : Zhur. Obshchei Khim. 24, Ed. 4, [illegible]

Abstract : The authors synthesized l-lyxose from diacetone-2-keto-l-gulonic acid [illegible] a series of conversions. Primerization [illegible] carried out in form of cadmium binary [illegible] converted into l-lyxose by lactonization and electrolytic [illegible] a mercury cathode. The d- and l-lyxoflavines were synthesized [illegible] densation of lyxose with 3, 4-dimethyl [illegible] [illegible] azo-dye with [illegible] [illegible] Chemical formulas.

Institution : All-Union Scientific Research Vitamin Institute.

Submitted : August 7, 1953

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DEREZDVSKIY,

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.M.; RODIONOVA, Ye.P.

Conversion and synthesis of carbohydrates. Part 14. Steric hindrance in the azo compounding of arylglucamines. Zhur.ob.khim. 26 no.3: 745-750 Mr '56. (MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.
(Glucamine) (Azo compounds) (Steric hindrance)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

BEREZOVSKIY, V.M.; SOBOLEV, Yu.P.

Reduction of D-ribono-γ-lactone to D-ribose with a sodium amalgam. Khim.nauk i prom. 3 no.5:677-678 '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitminnyy institut.
(Aldoses) (Lactones)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204910005-0

AUTHOR: Berezovskiy, V. M. (Moscow) 74-27-5-2/6

TITLE: Achievements of Vitamin Chemistry (Uspekhi khimii vitaminov)

PERIODICAL: Uspekhi Khimii, 1958, Vol. 27, Nr 5, pp. 551 - 588 (USSR)

ABSTRACT: In the introduction the author shortly emphasizes the achievements of chemistry in the field of the investigation of vitamins made during the last 10 years, as well as the discovery of new vitamins and the determination of their structure. The present paper illustrates the fundamental achievements in the investigation of vitamins during the last ten years. - Section 1: New data on the structure, stereoisometry and synthesis of vitamins. This section reports on the synthesis of ascorbic acid, pantothenic acid, the synthesis of retinol (rosin oil). Further the structure of the vitamine A-aldehyde is discussed. The author thoroughly deals with the synthesis of carotinoid provitamins, the β-carotene which is changed into vitamin A in the body, further with the successes of organic chemistry in the field of polyene compounds. The method of synthesis of β-carotene according to Isler's method (Reference 91) is emphasized. In a special section the author reports on the calcium ferrol in

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products of the photoisomerization of ergosterol. The next section is devoted to the synthesis of nicotinic acid. Then follow additional data on the synthesis of pyridoxine. The author reports in detail on new works in the field of the thiamine synthesis, further on the synthesis of pteroylglutamic acid. Section 2 of the report is devoted to the nucleotides and coenzymes - the highest form of vitamin: pyrodoxal-5-phosphate of codecarboxylase, the thiaminphosphoric ester (of cocarboxylase) on the coenzyme A and pantothein. Then the author goes over to the synthesis of nicotinamidic coenzymes. Finally the synthesis of flavin-coenzymes is discussed. There are 248 references, 48 of which are Soviet.

1. Vitamins--Synthesis

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BEREZOVSKIY, V.M.

79-1-57/63

AUTHORS: Berezovskiy, V. M., Sobolov, Yu. P.

TITLE: The Electrolytic Reduction of 2,4-Diamino-5-Isonitroso-6--Oxypyrimidine (Elektroliticheskoye vosstanovleniye 2,4-diamino-5-izonitrozo-6-oksipirimidina)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol.28,Nr 1,pp.261-264(USSR)

ABSTRACT: The reactions of the chemical and catalytic reduction of the nitroso group of pyridine compounds have been sufficiently well determined in publications, especially for 2,4-diamino--5-isonitrosi-6-oxypyrimidine (references 1, 2) which is of importance for the synthesis of pholic acid. But the electrolytic reduction method of nitroso pyrimidines has been little investigated. Among few works in this domain especially the electrolytic reduction of 3-methyl-4-amino-5-isonitroso-2,6--dioxypyrimidine on a lead cathode in 60% sulfuric acid has to be taken not of (reference 3). In the present paper the electrolytic reduction of 2,4-diamino-5-isonitroso-6-oxypyrimidine (formula I) in an acid and an alkaline medium was investigated; the yield of 2,4,5-triamino-6-oxypyrimidine (II)

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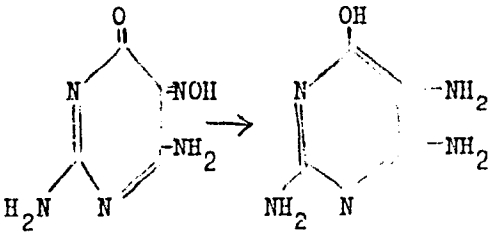
The Electrolytic Reduction of 2,4-Diamino-5-Isonitroso-6-Oxypyrimidine

amounted to 77 - 80 %:



(I) (II)

The reduction of the aromatic nitroso compounds usually takes place with high yields (93-97%). It was shown that in the electrolytic reduction of 2,4-diamino-5-isonitroso-6-oxypyrimidine in an acid medium the cathode material exerts an influence upon the yield of compound (II), which is not observed in an alkaline medium. There are 2 figures, 3 tables, and 7 references, 4 of which are Slavic.

ASSOCIATION: All-Union Scientific Institute for Vitamin Research (Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut)

SUBMITTED: January 10, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Chemistry 2. Pyridine compounds-Chemical reactions

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79-28-4-42/60

AUTHORS: Berezovskiy, V. M., Rodionova, Ye. P.

TITLE: Synthesis of 5,6,7-Trimethyl Isoalloxazines (Sintez 5,6,7-trimetilizoalloksazinov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol.28, Nr 4, pp1046-1049 (USSR)

ABSTRACT: The authors showed already before (Ref 1) that a methyl group in the ortho position to the azo group in 3,4,5-trimethylphenyl-2-phenylazo-1-d-glucosamines, the initial products for the synthesis of isoalloxazines, causes steric "hindrance" in reactions and a strong deposition of the absorption band in the ultraviolet range. Therefore it was interesting to ascertain how the presence of methyl groups in position 5,6 and 7 at isoalloxazine compounds acts upon their spectrum. These positions of the methyl group correspond with the structure of riboflavine (position 6 and 7) as well as with the structure of one of the strongest antivitamins - the isoriboflavine (position 5 and 6) (Ref 2). As the steric isomerism of the pentite side chain in 3,4-dimethylphenyl-1-d-glucosamines has influence upon their reactivity (Ref 3), the authors tried to ascertain the influence of such a iso-

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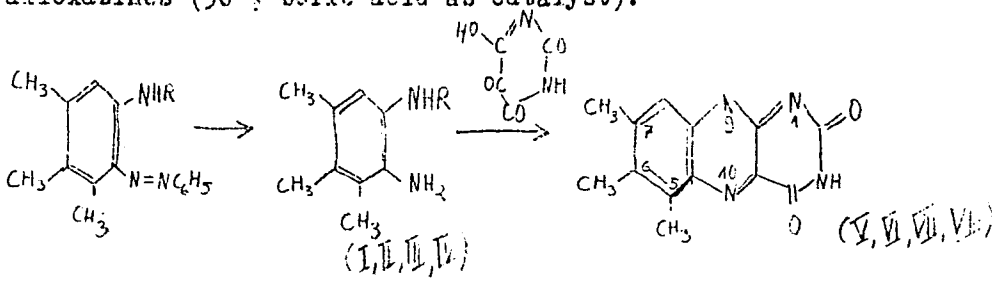
Synthesis of 5,6,7-Trimethyl Isoalloxazines

merism in 3,4,5-trimethylphenyl-2-amino-1-d-glucosamines (formulae I - IV). For this purpose 5,6,7-trimethylisoalloxazines (V - VIII) with tetraoxyalkyl substituents in position 9 were produced, which correspond in the configuration of the hydroxyl groups with all 4 possible pentite rests (d-ribite, d-arabite, d-xylite, d-lyxite). The corresponding 3,4,5-trimethyl-2-phenylazo-1-d-glucosamines were converted by catalytic hydration into the compounds of the formulae I-IV, which with alloxane were condensed to isoalloxazines (50°, boric acid as catalyst):



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79-28-4-42/60

Synthesis of 5,6,7-Trimethyl Isoalloxazines

R... pentiterest: d-ribite (I, V), d-arabite (II, VI), d-xylite (II, VII), and d-lyxite (IV, VIII).
Isoriboflavine (Ref 4) was produced of 3,4-dimethylphenyl-2-phenylazo-1-d-ribitylamine by reduction of the phenylazo group and subsequent condensation with alloxane.
The introduction of a methyl group in peri position to nitrogen causes a strong diminution of the absorption intensity up to 60-70 % in the visible range. Besides the deposition of the third absorption maximum in the ultraviolet range to 10 mμ for isoalloxazines with methyl groups in the position 5 and 6 and to 22 mμ for derivatives with methyl groups in the positions 5, 6 and 7 of the isoalloxazine core takes place. These both phenomena base upon steric hindrances. On that occasion the nitrogen lifted out of the ring plane and simultaneously the plane arrangement of the conjugate system

$-\underset{10}{N}=\underset{1}{C}-\overset{|}{C}=\underset{4}{N}-$, into which comes the chromophoric azomethin group

$-N=C<$, is disturbed.
Furthermore, results that the introduction of a methyl group in peri position to the heteroatom of the nitrogen (thus in

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Synthesis of 5,6,7-Trimethyl Isoalloxazines

position 5) causes a sharp diminution of the fluorescence, which is characteristic for the flavines. This means that the observed conjugate system, which is coplanar with the plane of the molecule, is responsible for the ability of the flavine to fluorescence. The intensity of the fluorescence depends on the degree of the coplanar position of the conjugate system with the plane of the molecule core. For the 5,6-dimethyl-9-(1-d-ribityl)-isoalloxazine (riboflavine) and the 5,6,7-dimethyl-9-(1-d-ribityl)-isoalloxazine (formula V) the absorption spectra were taken in the infrared range (with participation of L. V. Luk'yanova).
In an experimental part the production of aminoglucosamines and isoalloxazines is exactly described. There are 3 figures, 3 tables, and 4 references, 2 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut (All-Union Scientific Research Institute for Vitamins)

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