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USSR/Chemistry - Ketene, Acetylation Jun 51

"Acetylation With Ketene," A. A. Ponomarev, Yu. B. Isaev, Chair of Org Chem, Saratov State U imeni N. G. Chernyshevskiy

"Zhur Obshch Khim" Vol XXI, No 6, pp 1045-1050

Primary heptyl and secondary octyl alcs were acetylated with ketene in the presence of $KHSO_4$. Yield of acetates of these alcs with use of this catalyst is 80% of theoretical, and 65.5 and 45%, resp, without the catalyst. Upon addn of small quantity of aqueous soln of $KHSO_4$, lower aliphatic alcs (propyl, butyl) are acetylated by ketene with

186T23

USSR/Chemistry - Ketene, Acetylation (Contd) Jun 51

high yield (up to 87%). In acetylation of furyl alc by ketene, furyl acetate yield of 76.5% of theoretical is attained upon addn of small quantity of urea. Acid additives ($KHSO_4$, H_2SO_4) are not suitable for acetylation of furyl alc, because they give rise to heavy resin formation.

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PONOMAREV, A. A.

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Condensation of cyclohexene oxide with diethanolamine and morpholine. A. A. Ponomarev and R. N. Sablina (N. G. Chernyshevskii State Univ., Saratov). *Zhur. Prikl. Khim.* (J. Applied Chem.) 24, 1140-2(1951).—Heating 9.8 g. *cyclohexene oxide* (I) with 10.5 g. diethanolamine 2.5 hrs. at 125° and briefly at 150°, yields 19.6 g. *2-[bis(2-hydroxyethyl)amino]cyclohexanol*, bₚ 207-8°, m. 47-8°; *HCl salt*, m. 124-5°; Dragendorff's reagent gives a red ppt., m. 155-8° (cf. Mousseron and Combes, *C.A.* 41, 5462g). Heating 9.8 g. I with 8.7 g. morpholine 7 hrs. at 120-5° and 7 hrs. at 130-40° with a drop of AcOH gave 78% *4-(2-hydroxycyclohexyl)morpholine*, bₚ 145-7°, m. 36-7°; *HCl salt*, m. 218-19°; Dragendorff reagent gives a red ppt., m 173-81°; mixing with Cd acetate yields characteristic tablet-like crystals insol. in the usual solvents. G. M. K.

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PONOMAREV, A. A.

C3.R

ZELENKOVA, V. V., and
PONOMAREV, A. A.

Date: Sept. 10, 1952

Title: K voprosu ob asimmetricheskom sinteze spiranov i tetragidrofuranovykh spirtov.

Source: Doklady Akademii Nauk 87, 3, 1952, pp. 423-426.

Note: Presented by the member of the Academy of Sciences A. N. Nesmeyanov on Sept. 12, 1952.

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USSR/Chemistry - Ketene Apr 52

"The Use of Ketene as Acetylating Agent. III. Acetates of Di-and Triethanolamines;" A. A. Ponomarev, Yu. B. Isayev, Chair of Org Chem, Saratov State U imeni N. G. Chernyshevskiy

"Zhur Obshch Khim" Vol XXII, No 4, pp 652-654

Diethanolamine was acetylated with ketene under various conditions. A mixt of products of various stages of acetylation is obtained. It is difficult to sep the components of the mixt. Triethanolamine was acetylated by ketene, both without

224T44

catalyst and with sodium acetate catalyst. Triethanolamine triacetate is formed with a yield of 90 and 93.8% of the theoretical yield.

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PONOMAREV, A.A.

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PONOMAREV, A. A., ISAYEV, YU. B.

Ketene

Use of ketene as an acetylating agent 3. Acetates of di- and triethanolamines. Zhur. ob. khim. 22 (84), no. 4, 1952.

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

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A. A.

Chemical Abst.
Vol. 48 No. 5
Mar. 10, 1954
Organic Chemistry

Use of ketene as an acetylation reagent. III. Acetates of di- and [redacted]amines. A. A. Ponomarev and Yu. B. Issev (N. G. Chernyshevskii State Univ., Saratov). J. Gen. Chem. U.S.S.R. 22, 715-17(1952)(Engl. translation). See C.A. 47, 2695a. H. L. H.

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POMOMAREV, A. A.

Chem Abs.

V. 48 25 Jan 54

Organic Chem

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2

Asymmetric synthesis of spiranes and tetrahydrofuran alcohols. A. A. Pomomarev and V. V. Zelenkova. *Doklady Akad. Nauk S.S.S.R.* 87, 423-6(1952).—Hydrogenation of furan alcs. over a Ni catalyst on optically active quartz was investigated. The catalyst was prepd. by pptn. of basic Ni carbonate on quartz, followed by reduction at 300-20° with H. The starting materials obtained in optically inactive state by hydrogenation over a Cu chromite catalyst at 120° and 90-120 atm. of H were: *3-(2-furyl)-1-propanol* (I), b_{12} 98-100°, n^{20}_{D} 1.4752 (from furanacrolein); *3-(2-furyl)-2-butanol* (II), b_{12} 126-9°, n^{20}_{D} 1.4748 (from furylacetone). Hydrogenation of I and II over the above named catalyst at 120° and an initial H pressure of 135-50 atm., and distn. of the products gave 71.5% *1,6-dioxaspiro[4.4]nonane*, b_{12} 83-4°, b_{10} 81-2°, n^{20}_{D} 1.4464-1.4465, and 48.2% (yields calcd. on the basis of catalyzate). *3-(Tetrahydro-2-furyl)-1-propanol*, b_{12} 139-44°, b_{10} 141-4°, n^{20}_{D} 1.4580-1.4595, from I. From II were obtained 85-7% *3-(tetrahydro-2-furyl)-2-butanol*, b_{14} 128-30°, b_{10} 131-3°, n^{20}_{D} 1.4542-1.4570, and 48% *2-methyl-1,6-dioxaspiro[4.4]nonane*, b_{12} 77-8°, b_{10} 79-81°, n^{20}_{D} 1.4410-1.4415. The spiro deriv. obtained from I over *l*-quartz catalyst showed (−)-rotation (0.03-0.06°), while that made over *d*-quartz showed (+)-rotation (0.04-0.06°). Similarly tetrahydrofurylpropanol from *l*-quartz gave −0.04°, while that from *d*-quartz gave 0.01° rotation. The spiro deriv. from II over *l*-quartz gave −0.02° rotation, that from *d*-quartz +0.02°; the corresponding tetrahydrofurylbutanols gave resp. 0.03° rotation from the *l*-quartz, and −0.04° from *d*-quartz. Thus asym. synthesis can be achieved at high temp. and pressure. G. M. Kosolapoff

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PONOMAREV, A. A.

4 Chem

(3)

Structure of 1,6-dioxaspirononanes. A. A. Ponomarev V. A. Afanas'ev, and N. T. Kurochkin. *Doklady Akad. Nauk S.S.S.R.* 87, 983-6(1952); cf. Burdick and Adkins, *C.A.* 28, 4055[6]; Farlow, *et al.*, *C.A.* 29, 775[1].—Condensation of AcH with 5-methylfurfural gave 28% 3-(2-methyl-5-furyl)-2-propenal, b_4 98–100°. This hydrogenated over Cu chromite catalyst at 120° and 120–35 atm. in EtOH gave 75% *3-(2-methyl-5-furyl)-1-propanol*, b_4 97–9°, n_D^{20} 1.4775, d_{20} 1.0322, which, hydrogenated over Ni-kieselguhr at 150 atm. and 120° in EtOH, gave 2 products: *3-(2-methyl-5-tetrahydrofuryl)-1-propanol*, b_{16} 111–13°, n_D^{20} 1.4635, d_{20} 0.9972, and *2-methyl-1,6-dioxaspiro[4.4]nonane*, b_{767} 162–4°, n_D^{20} 1.4412, d_{20} 0.9920, n_D^{20} 1.4428 (15.6% yield) (cf. Alexander, *et al.*, *C.A.* 46, 1535e). Me_2CO and 5-methylfurfural gave *4-(2-methyl-5-furyl)-3-buten-2-one*, b_4 105.5–7.0°, m. 35–6°. This hydrogenated over Cu chromite at 88–95 atm. and 120° in EtOH gave 80.5% *4-(2-methyl-5-furyl)-2-butanol*, b_{35} 136.5–8.0°, n_D^{20} 1.4760, d_{20} 1.000, which hydrogenated over Ni-kieselguhr at 130–40 atm. and 120° gave: 73.6% *4-(2-methyl-5-tetrahydrofuryl)-2-butanol*, b_{16} 134–6°, n_D^{20} 1.4542, d_{20} 0.9574, and 3.1% *2,7-dimethyl-1,6-dioxaspiro[4.4]nonane*, b. 167–9°, n_D^{20} 1.4389, d_{20} 0.9594, which gives a positive Tollen test. These results indicate that the hydrogenation of furan aldehydes leads to tetrahydrofuran alcs. which on further hydrogenation either yield satd. furan alcs. or the spiro derivs. Thus, hydrogenation of furfurylideneacetone and 3-(2-methyl-5-furyl)-2-propenal should yield 2-methyl-1,6-dioxaspiro[4.4]nonane, along with the satd. furan alcs., confirming the identity of the 2 five-atom rings in such compds. which is possible only in spiro derivs.

G. M. Kosolapoff

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PONOMAREV, A. A. and ZELENKOVA, V. V.

Study of Furan Compounds. II. Selective Hydrogenation of 1-(α-Furyl)- Hexadiene- 1, 3 - one 5 and 1-(α-Furyl)-Hexene -1- one- 3, page 1115, Sbornik statey po obshchey khimii (Collection of Papers on General Chemistry), Vol II, Moscow-Leningrad, 1953, pages 1680-1686.

Saratov State U imeni N. G. Chernyshev

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PONOMAREV, A. A.

USSR

Furan compounds. II. Selective hydrogenation of 1-(α-furyl)-1,3-hexadien-5-one and 1-(α-furyl)-1-hexen-3-one. A. A. Ponomarev and V. V. Zelenkova (N. G. Chernyshevskii State Univ., Saratov). *Sbornik Statei (Obshchei) Khim.* 2, 1115-19(1953); cf. *C.A.* 48, 663c.—Hydrogenation of 4.8 g. 1-(α-furyl)-1,3-hexadien-5-one, b_4 146-7°, in 30 ml. EtOH over 0.5 g. Pd-C (0.012 g. Pd) with absorption of 2 moles H gave 51.9% *1-(α-furyl)-5-hexanone*, b_4 110-12°, n_D^{20} 1.4750; *semicarbazone*, m. 119-20°; similar reaction over Pt gave a product, b_3 142-52°, in 46% yield. Hydrogenation over Raney Ni at unstated pressure and temp. gave, after uptake of 2 moles H, 65.4% same product. If the hydrogenation is run with Raney Ni at room temp. until 2.8 moles H are taken up, the product, 51.9%, is *1-(α-furyl)-5-hexanol*; also obtained in 35.6% yield on hydrogenation over Cu-chromite catalyst at 60 atm. and 200°; the alc. b_4 109-11°, n_D^{20} 1.4691. Hydrogenation until 4.3 moles H are taken up over Pt catalyst in presence of $FeSO_4$ or until 3 moles H are taken up over Pd catalyst gave 52-9% *1-(α-tetrahydrofuryl)-5-hexanone*, b_3 136-41°, b_{15} 132-42°, n_D^{20} 1.4653-1.4598, n_D^{20} 1.4578, d_4 0.9823; *semicarbazone*, m. 113-14°. Hydrogenation over Raney Ni until 5.2 moles H are used up at 100 atm. and 200° gave 53.5% *1-(α-tetrahydrofuryl)-5-hexanol*, b_{11} 136-8°, n_D^{20} 1.4581 (*acetate*, b_4 122-4°), along with 23.9% *1,4,9-decanetriol*, b_3 103-90°), 297-9°, n_D^{20} 1.4728 (*triacetate*, b_3 103-90°). Condensation of furfural with MeCOPr gave 70.8% *1-(α-furyl)-1-hexen-3-one*, b_{11} 137°; *semicarbazone*, m. 143.5-4°. This in EtOH hydrogenated over Cu-chromite at 93 atm. H at 120° until 1.94 moles H was taken up, gave 64.3% *1-(α-furyl)-3-hexanol*, b_3 110-12°, n_D^{20} 1.4717. Hydrogenation over Pt in EtOH in presence of $FeSO_4$ until 3 moles H were taken up, gave 79.4% *1-(α-tetrahydrofuryl)-3-hexanone*, b_4 108-10°,

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PONOMAREV, A. A.

n_D^{20} 1.4493; *2,4-dinitrophenylhydrazone*, m. 181-3°. Hydrogenation over Ni on kieselguhr at 148 atm. H and 120° gave, after uptake of unstated amount of H, 69.8% *1-(α-tetrahydrofuryl)-3-hexanol*, b_{11} 128-8°, n_D^{20} 1.4564, from the 1-(α-furyl)-3-hexanol. Hydrogenation of the furylhexenone over Raney Ni at 70 atm. H at 200° gave 37.7% same product, b_1 110-20°, n_D^{20} 1.4537. G. M. K.

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PONOMAREV, A. A.

7

C.A. V-48 Jan 10, 1954 Fats, fatty oils Waxes & Detergents

The utilization of volatile wastes in the manufacture of hydroxypolymerized drying oil from the vegetable oils. A. A. Ponomarev (N. G. Chernyshevskii State Univ., Saratov). *Maslobobno-Zhirovaya Prom.* 18, No. 7, 24 (1953).—A process is described for the fractionation of distillates into aldehydes, alcs., fatty acids, etc., by means of steam and fractional vacuum distn. A hydrogenation procedure is also given. Vladmir N. Krukovsky

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; AFANAS'YEV, V.A.; KUROCHKIN, N.I.

Study of furan compounds. Part 3. Structure of 1,6-dioxaspiro-(4,4)-nonanes and the mechanism of their formation. Zhur.ob.khim. 23 no.8:1426-1430 Ag '53. (MLRA 6 8)

1. Kafedra organicheskoy khimii Saratovskogo Gosudarstvennogo universiteta im. N.G.Chernyshevskogo.
(Oxaspirononanes)
(CA 47 no.22:12344 '53)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.

Furan compounds. IV. Asymmetric synthesis of spirans and tetrahydrofuran alcohols. A. A. Ponomarev and V. V. Zelenkova (N. G. Chernyshevskii State Univ., Saratov). Zhur. Obshchei Khim. 23, 1843-7(1953); cf. C.A. 47, 12344c.—Hydrogenation of various furan alcs. over a catalyst of Ni deposited by reduction of basic Ni carbonate with H on optically active quartz powder resulted in products with detectable optical activity, thus confirming [illegible] of 1,6-dioxaspirononane. Hydrogena- [illegible] propanol gave,

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quartz [illegible] −0.04°, resp. (cf. Terent'ev, [illegible] G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.

Furan compounds. V. Preparation and properties of 3-(2-methyl-5-furyl)-2-propenal and some other derivatives of 5-methylfurfural. A. A. Ponomarev and M. D. Lipanova (N. G. Chernyshevskii State Univ., Saratov). *Zhur. Obshchei Khim.* 23, 1719-25(1953); cf. *C.A.* 48, 10722i.—5-Methylfurfural, b_{12} 75-6°, (50 g.) in 450 ml. 10% NaOH treated with 80 g. AcH in 150 ml. H_2O over 2.5 hrs. at room temp. and the mixt. stirred 1 hr. longer, neutralized with AcOH, and extd. with Et_2O yielded 67.1% 3-(2-methyl-5-furyl)-[illegible] 100-2°, n_D^{20} 1.6089, [illegible] semicar-[illegible]

A_2^0, the org. layer sepd., and the C_6H_6 exts. of the aq. layer combined with the original org. layer and distd. gave 27% 3-(2-methyl-5-furyl)-2-propenol, b_{11} 125°, n_D^{20} 1.5561, d_{20} 1.088; heated with Ac_2O and NaOAc it gave the *acetate*, b_3 107-9°, n_D^{20} 1.5221, d_{20} 1.0738; *phenylurethan*, m. 100°. To 5 g. 5-methylfurfural and 1.9 g. cyclopentanone in 20 ml. 60% EtOH was slowly added 0.3 ml. 10% NaOH, yielding in a short time an orange ppt., consisting of 5.6 g. 2,5-bis(5-methylfurfurylidene)cyclopentanone (II), m. 131-2° (from EtOH). Similarly cyclohexanone gave the corresponding bright yellow *cyclohexanone deriv.* (III), m. [illegible] EtOH). Similar condensation of I with cyclopentanone gave [illegible] 2,5-bis(3-(2-methyl-5-furyl)-2-propenylidene)cyclopentanone (IV). [illegible] cyclohexanone gave the [illegible] exaltation [illegible]

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III, violet, green, changing to blue-green, blue. Similar condensation products of cyclopentanone with furfural gave, resp.: blue, yellow changing to green; with 3-(2-furyl)-2-propenal, blue-green, blue; the cyclohexanone analogs gave: violet, yellow changing to green; blue, blue.

G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, N. A.

Reaction of 1,6-dioxaspiro[4.4]nonanes with organomagnesium compounds. A. A. Ponomarev. *Doklady Akad. Nauk S.S.S.R.* 92, 975-5(1953); cf. *C.A.* 48, 173i, 663d.—To BuMgBr (0.2 mole) was added 0.1 mole 1,6-dioxaspiro[4.4]nonane in Bu_2O, the mixt. being refluxed 0.5-1 hr. longer, kept overnight and treated with aq. NH_4Cl; distn. gave 26.4% *2-butyl-2-(1-hydroxy-3-propyl)furanidine*, b_3 128-9°, n^{20}_D 1.4619, d_{20} 0.9565. Similarly, iso-AmMgBr gave 19.5% *2-isoamyl analog*, b_3 135-6°, n^{20}_D 1.4621, d_{20} 0.9444, while $PhCH_2MgCl$ gave 28.6% *2-benzyl analog*, b_3 162-4°, n^{20}_D 1.5304, d_{20} 1.0619. Similar reaction of BuMgBr with 2-methyl-1,6-dioxaspiro[4.4]nonane gave 20.75% *2-butyl-2-(2-hydroxy-4-butyl)furanidine*, b_3 129-31°, n^{20}_D 1.4568, d_{20} 0.9377; *iso-AmMgBr* gave 16.9% *isoamyl analog*, b_3 134-6°, n^{20}_D 1.4604, d_{20} 0.9389, with either order of mixing the reagents; $PhCH_2MgCl$ gave 25.49% *2-benzyl-2-(2-hydroxy-4-butyl)furanidine*, b_3 143-4°, n^{20}_D 1.5218, d_{20} 1.0396, when the spiro compd. was slowly treated with RMgX; the reverse addn. gave 27.14% yield. The detn. of initial rates of esterification of the benzyl derivs. run according to Menshutkin [*Ann.* 195, 334(1879) and *C.A.* 4, 318] showed that the percentage of ester in the 1st case (non-methylated substance) is 43.4%, in the 2nd case it was 31.1%, indicating a primary alc. in the 1st case and a secondary alc. in the 2nd instance. Thus in the 2-Me deriv. the reaction occurs with cleavage at the acetal link of the spirane in the Me-bearing ring. G. M. Kosolapoff

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PONOMAREV, A. A.

Dissertation: "Investigation in the Field of Furfuran Aldehydes and Ketones and Their Derivatives." Dr Chem Sci, Moscow Order of Lenin State U imeni M. V. Lomonosov, 4 Jun 54. Vechernyaya Moskva, Moscow, 25 May 54.

SO: SUM 284, 26 Nov 1954

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PONOMAREV, A. A.

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Theory of analytically active groups. L. M. Kul'berg, A. A. Ponomarev, and N. I. Davydova (State Univ., Saratov). Zhur. Anal. Khim. 9, 85-95(1954).—Analytically active groups are defined as groups of atoms which do not affect the mechanism of the reaction essentially but influence the nature of the reaction product and thereby affect the sensitivity of the reaction. Groups of atoms which det. the mechanism of the reaction are referred to as analytically functional. In color tests the polarity of the end product affects the intensity of the color; the latter increasing with increased polarity. Thus, an auxochrome is an analytically active group. Since a metal is usually an auxochrome, the introduction of another auxochrome of suitable sign into the reagent mol. should affect the sensitivity of the reaction. This was tested on 17 derivs. of rhodanine: 5-benzylidenerhodanine; 5-(*p*-diethylamino-, 5-(*p*-dimethylamino-, 5-(*o*-, 5-(*m*-, and 5-(*p*-hydroxybenzylidene)rhodanine; 5-(2-hydroxynaphthylmethylene)rhodanine; 5-(*p*-methoxybenzylidene)rhodanine; 5-furfurylidenerhodanine; 5-[bis(*p*-dimethylaminophenyl)ethylidene]rhodanine; 5-[bis(*p*-dimethylaminophenyl)vinylidene]rhodanine; 5-pyrrolylmethylenerhodanine, m. 228-30°; 5-[3-(2-furyl)allylidene]rhodanine, m. 205°; 5-[5-(2-furyl)-2,4-pentadienylidene]rhodanine, m. 200° with decompn.; 5-cinnamylidenerhodanine, m. 193°; 5-cyclopentylidenerhodanine, m. 218-19°; and 5-(*p*-isopropylbenzylidene)-rhodanine. These 17 compds. were tested with Ag^{+}, Pd^{++}, Au^{3+}, Cu^{+}, Hg^{+}, Hg^{++}, Pt^{4+}, and Os^{3+}. In each the sensitivity of the reagent increased with increasing dipole moment of the substituting group. The sensitivity increased also with the length of the chain. However, an increase in the number of vinylene groups also intensifies the color of the reagent and, therefore, the sensitivity of the reagent may decline somewhat because of masking. The position of the substituted group in the benzene ring depended on the sign of the moment. An addnl. auxochrome increased the intensity of the reagent's color and because of it decreased its sensitivity. The more basic the ring connected with rhodanine the greater is the sensitivity of the reagent. Of the compds. studied the most sensitive was one contg. the pyrrole ring. Derivs. of benzene, pentacyclomethylene, and furan differed slightly in their sensitivity. Analysis of the behavior of Pd, Au, Cu, Ag, and Hg^{++} (Os, Pt, and Hg^{+} are not included in this analysis because the reaction mechanism for the Os and Pt is not clear, and because of the nature of the polarizing interaction of Hg^{+}) shows that the sensitivity of similar reagents changes with polarity. M. Hosch

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PONOMAREV, A.A.

USSR

Theory of analytically active groups. L. M. Kul'berg, A. A. Ponomarev, and N. I. Davydova. *J. Anal. Chem. U.S.S.R.* 9, 97-100(1954)(Engl. translation).—See *C.A.* 48, 6916e. H. L. H.

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PONOMAREV, A. A.

USSR

Furan compounds. VI. Furan and tetrahydrofuran amino alcohols from furfural and β(α-furyl)acrolein. A. A. Ponomarev, V. Pletneva, V. Sedavkina, and L. Barskaya. ~~(N. G. Chernyshevskii State Univ., Saratov.)~~ Zhur. Obshchei Khim. 24, 718-25(1954); cf. C.A. 48, 13677i. To 27 g. furfural was added in 3 hrs. 17.7 g. $H_2NCH_2CH_2OH$ and after 0.5 hr. at 60-70° the mixt. yielded 70.3% N-furfurylidenaminoethanol, b_2 150°, d_2 1.1524, n_D^{20} 1.5511; running the reaction under N raises the yield to 82%; the product also, b_{10} 114°, b_1 123-4°. Hydrogenation of this in dioxane over Cu-chromite catalyst at 119-15° under 70 atm. H gave 71% furfurylaminoethanol (I), b_1 115-16°, d_2 1.1184, n_D^{20} 1.5032; the use of Pt catalyst at atm. pressure gave 43% yield of the same product, b_1 113-16°, d_2 1.1120, n_D^{20} 1.5028; over Ni on kieselguhr the yield is 40% and the product, b_1 123°, d_2 1.1110, n_D^{20} 1.5024. This (8 g.) heated in autoclave with 30 g. Ac_2O 1 hr. at 200-20° gave 94% N-acetofurfurylaminoethanol acetate, $C_{11}H_{15}O_3N$, b_{10} 157°, d_2 1.1014, n_D^{20} 1.4897. I hydrogenated in dioxane over Ni on kieselguhr at 120-40° at 94 atm. H gave 73.1% tetrahydrofurfurylaminoethanol, b_2 142-3°, d_2 1.0780, n_D^{20} 1.4921. Over Raney Ni at 150-60° and 120 atm. H the yield is 48% and the product, b_1 123-4°, d_2 1.0076, n_D^{20} 1.4812; it gives brown ppt. with Cu^{++} and violet with Mn^{++}. Heating this in autoclave with Ac_2O and $ZnCl_2$ 1.5 hr. at 170° gave N-acetotetrahydrofurfurylaminoethanol

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A.A. PONOMAREV

acetate, b_{3-4} 153°, d_{20} 1.128, n_D^{20} 1.4780; purer specimen, b_{1-4} 149.5-50°, d_{20} 1.1379, n_D^{20} 1.4792. To 36.5 g. furylacrolein in 30 ml. dry EtOH was added in 2 hrs. 18.4 g. $H_2NCH_2CH_2OH$; after 0.5 hr. at 50° there was obtained 91% *2-$C_4H_3OCH:CHCH:NCH_2CH_2OH$*, b_4 153-6°, d_{20} 1.1194, n_D^{20} 1.6190; this hydrogenated in EtOH over Raney Ni at 140-60° and 100 atm. II gave 41.5% *2-[3-(α-furyl)-propylamino]ethanol* (II), b_{1-4} 134-5°, d_{20} 1.0503, n_D^{20} 1.4970; this heated with Ac_2O and $ZnCl_2$ 3 hrs. at 200° gave *N-Ac* deriv. of the *acetate* ester, b_1 165-9°, d_{20} 1.1100, n_D^{20} 1.4872. If the hydrogenation is run in dioxane over Raney Ni at 170° and 125 atm. there was obtained II, b_{1-4} 114-16°, and *2-bis[3-(α-furyl)propyl]aminoethanol*, b_{1-4} 172-4°, d_{20} 1.1370, n_D^{20} 1.5492.

G. M. Kosolapoff

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PONOMAREV, A. A.

USSR • Furan compounds. VI. Furan and tetrahydrofuran amino alcohols from furfural and β-(α-furyl)acrolein. A. A. Ponomarev, V. Pletneva, V. Sedavkina, and L. Barskaya. J. Gen. Chem. U.S.S.R. 24, 727-32(1954) (Engl. translation).—See C.A. 49, 6422g. H. L. H.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A. A.

USSR/ Chemistry - Catalytic hydrogenation

Card 1/1 Pub. 22 - 20/49

Authors : Balandin, A. A. Academician, and Ponomarev, A. A.

Title : Selective hydrogenation of furan compounds

Periodical : Dok. AN SSSR 100/5, 917-920, Feb 11, 1955

Abstract : Experimental and theoretical data are given regarding the sequence of furan hydrogenation reaction over a Ni catalyst. A law is quoted according to which the furan hydrogenation reaction is divided into specific series according to its difficulties. The reaction sequence over Pt, Fe, Cu catalysts was found to be entirely different. The products obtained through hydrogenation of furan compounds are tabulated. Nine references: 6 USSR and 2 USA (1937-1954). Tables, graph.

Institution : The M. V. Lomonosov State University Moscow and the N. G. Chernishevskiy State University, Saratov.

Submitted : October 8, 1954

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PONOMAREV, A.A.

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61529

Author: Ponomarev, A. A., Til', Z. V.

Institution: None

Title: Synthesis and Dehydration of Tertiary Furan Alcohols

Original Periodical: Nauchn. yezhegodnik za 1954 g., Saratovskiy un-t, Saratov, 1955, 497-500

Abstract: By interaction of 2-acetylfuran or 1-(α-furyl)-alkanones-3 or -5 with Mg-alkyl halides have been synthesized the tertiary furan alcohols: $C_4H_3O - (CH_2)_nCOH(CH_3)R$ (I) (listing n, R, yield in %, BP in °C, n^{20}, d_4^{20}: 0, C_6H_5 (Ia), 50, 112-116°/2, 1.5558, 1.1220; 0, C_4H_9, 59, 64-71/2.5, 1.4706, 0.9843; 0, iso-C_5H_{11}, 43, 81-82.5/2.5, 1.4679, 0.9648; 0, CH_2C[redacted] 58, 123-124/3, 1.5340, 1.081; 2, C_2H_5, 72, 81-83/2, 1.4787, 0.9942; 2, C_4H_9, 63, 114-116/3.5, 1.4746, 0.9683; 2, [redacted]$_5H_{11}$, 55, 130-132/7, 1.4730, 0.9[redacted]75; 4, CH_3, 64, 96-98/2.5, 1.4731, 0.9974. I, in which n = 0, were dehydrated

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PONOMAREV, A.A.; TIL', Z.V.

Study of furan compounds. Part 8: Selective hydration of the ethylene bond of α,β-unsaturated furan aldehydes and ketones in the presence of Raney's nickel catalyst. Zhur. ob. khim. 27 no.4:1075-1078 Ap '57. (MLRA 10:8)

1. Saratovskiy gosudarstvennyy universitet.
(Furan)

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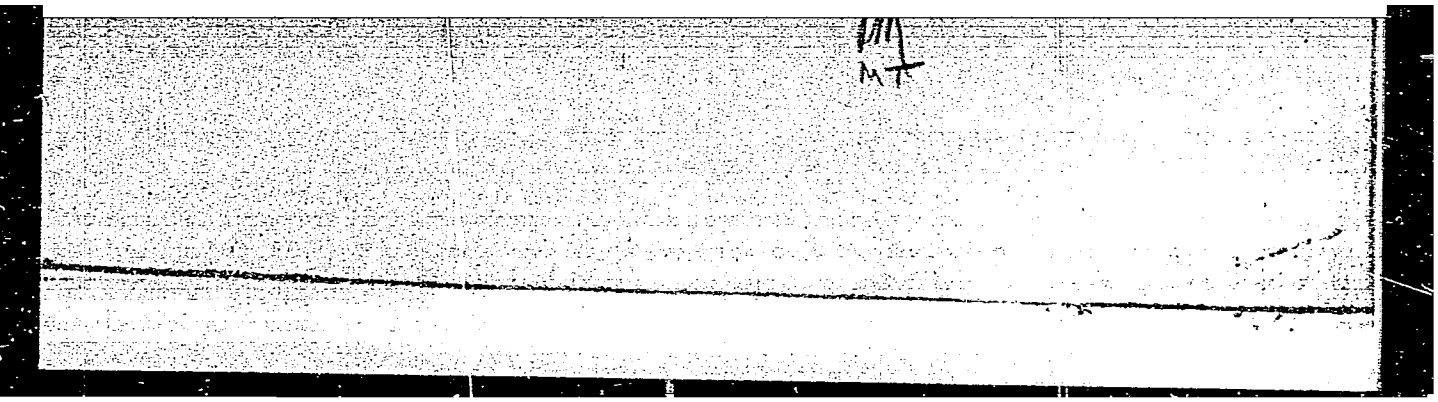

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PONOMAREV, A.A.

TIL', Z.V.; MARKUSHINA, I.; SAPUNAR, K.; PONOMAREV, A.A.

Study of furan compounds. Part 7: Two-stage hydration of furfurylidene ketones. Zhur. ob. khim. 27 no.1:110-117 Ja '57. (MLRA 10:6)

1. Saratovskiy gosudarstvennyy universitet.
(Furaldehyde)

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PONOMAREV, A. A.

Distr: 4E4j/4E3d/4E2c(j)

Furan compounds. VIII. Selective hydrogenation of the ethylene bond in α,β-unsaturated aldehydes and ketones of furan in the presence of Raney nickel. A. A. Ponomarev and Z. V. Til (State Univ., Saratov). Zhur. Obshchey Khimii 27, 1075-8(1957); cf. C.A. 51, 12877a.

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NaOH, b.

A. A. Ponomarev + Z. V. Til

IX. Synthesis and hydrogenation of tertiary -furyl-alkanols. A. A. Ponomarev, Z. V. Til, A. D. Peshekhonova, and V. P. Reshetov. *Ibid.* 1369-74.—Reaction of Gri-

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O.CH₂.CH₂.CH₂.C.CH₂.CH₂.CMe₂R.O, and II, with various

, R were obtained in the indicated yields after fractionation. I (*R* shown): *Et*, b_{18} 102-4°, 1.4443, 0.9614 (23.7%); *Pr*, b_{18} 84-6°, 1.4466, 0.9499 (16%); *Bu*, b_{18} 99-101°, 1.4490, 0.9399 (41.3%); *iso-Bu*, b_{18} 90-3°, 1.4470, 0.9340 (14.3%); *iso-Am*, b_{18} 107.5-9.5°, 1.4483, 0.9304 (35%). II (*R* shown): *Et*, $b_{5.5}$ 114-15°, 1.4608, 0.9629 (68.9%); *Pr*, b_{18} 129-31°, 1.4622, 0.9551 (76%); *Bu*, $b_{5.5}$ 115-17°, b_5 124-6°, 1.4604, 0.9467 (35%); *iso-Bu*, b_{18} 130-2°, 1.4612, 0.9431 (67.4%); *iso-Am*, b_5 135-7°, 1.4610, 0.9327 (48%).

G. M. Kosolapoff

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68947

SOV/81-59-24-88478

15.8600

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 24, p 582 (USSR)

AUTHORS: Benediktova, A.A., Ponomarev, A.A.

TITLE: Materials on the Problem of Utilization of Tetrahydrofuran Substances as Plasticizer of High-Polymers

PERIODICAL: V sb.: Vopr. ispol'zovaniya pentozansoderzhashchego syr'ya. Riga, AS LatvSSR, 1958, pp 341 - 349

ABSTRACT: A large group of tetrahydrofuran substances (THF) was investigated, which differed in molecular weight and in the structure of the side chain, in order to discover the most suitable among them for utilization as plasticizers of high polymers (HP), and the effect of structural peculiarities of THF on their properties was investigated. The swelling capacity and the solubility of HP in THF and the change of the frost-resistance, the electric insulation and the mechanical properties of HP films under the effect of THF additions in various quantities were determined. The most important physical-mechanical properties of various THF (alcohols with alkyl and aryl radicals, ethers and esters, and compounds with two tetrahydrofuran rings) were presented, as well as the changes in

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Materials on the Problem of Utilization of Tetrahydrofuran Substances as Plasticizer of High-Polymers

the tensile strength and tensile lengthening of films of perchlorovinylic resin, acetobutyrate- and ethyl-cellulose containing additions of various quantities of THF and conventional plasticizers. It has been established that among THF, especially among some alcohols and their esters, a large group of compounds can be singled out which can be used as plasticizers of HP, and the dominating majority of THF are good high-boiling solvents for many HP.

N. Gardenin

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5 (3)

AUTHORS: Ponomarev, A. A., Markushina, I. A. SOV/20-126-1-27/62

TITLE: Synthesis of 1,6-Dioxaspiro-(4,4)-nonene-3 Derivatives in the Electrolytic Alkoxylation of γ-Furyl-alkanols (Sintez proizvodnykh 1,6-dioksaspiro-(4,4)-nonena-3 pri elektroliticheskom alkoksilirovanii γ-furilalkanolov)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 99 - 102 (USSR)

ABSTRACT: The synthesis of the substance mentioned first in the title can be carried out by various methods (Refs 1-8). The mechanism of this reaction was described (Refs 5,7). The present paper deals with the formation of cyclic systems of the similar type in the case of the process mentioned in the title. This reaction was detected in 1952 (Ref 9). It consists in the electrolysis of a furan compound solution in the corresponding alcohol with an addition of a small quantity of ammonium bromide in the electrolyte at temperatures below 0°. The reaction mechanism has not been yet definitely explained. The authors completed the construction of the electrolyzer of Clauson-Kaas (Refs 9,10) above all by the substitution of the platinum anode by a coal anode.

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Synthesis of 1.6-Dioxaspiro-(4.4)-nonene-3 Derivatives in the Electrolytic Alkoxylation of γ-Furyl-alkanols SOV/20-126-1-27/62

The yield of the dialkoxy-dihydrofuran compounds was on the whole not smaller (Table 1) than that of platinum in this modernized apparatus. Some other substances were for the first time methoxylized in this apparatus. The authors' assumption that an intramolecular reaction with a cyclization takes place in the present case (see scheme) was fully confirmed by experiment. The corresponding dimethoxy derivative of the compound mentioned first in the title was obtained as the main product of the electrolysis of the 1-(α-furyl)-propanol-3.1-(α-furyl)--butanol-3.1-(α-furyl)-5-methyl-hexanol-3 as well as of the tertiary alcohol 1-(α-furyl)-methylpentanol-3 in a methanol solution with a yield of 53-76% of the theoretical one. These yields are much higher than in all other cases of the formation of 1.6-dioxaspiro-(4.4)-nonane and its homologues in the case of the hydrogenation of the corresponding furan alcohols. The properties and the analysis results of the 4 derivatives obtained by the aforesaid method are shown in table 2. The assumed structure was as well experimentally confirmed. I. S. Monakhova assisted in the experimental part. Table 3 gives the

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Sythesis of 1.6-Dioxaspiro-(4.4)-nonene-3 Derivatives in the Electrolytic Alkoxylation of γ-Furyl-alkanols

SOV/20-126-1-27/62

physical constants and the analyses of the 2-methoxy-1.6--dioxaspiro-(4.4)-nonane. There are 3 tables and 11 references, 4 of which are Soviet.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet im. N. G. Chernyshevskogo (Saratov State University imeni N. G. Chernyshevskiy)

PRESENTED: January 17, 1959, by A. A. Balandin, Academician

SUBMITTED: January 14, 1959

Card 3/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A., Cand Agr Sci --(diss) "Evaluation of collection of winter wheat ~~upon correct~~ under [illegible] and estuary irrigation under conditions of Stalingrad Zavolzh'ye. (Water regimes and draught-resistance of plants)." Stavropol', Book Publishing House, 1959. 20 pp (Stavropol' Agr Inst), 150 copies (KL,31-51,115)

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B011/B005

AUTHORS: Ponomarev, A. A., Maslennikova, N. P., Alakina, N. V., Krivenko, A.P.

TITLE: Synthesis and Some Catalytic Transformations of Primary Furan Amines

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 131, No. 6, pp. 1355 - 1358

TEXT: The authors thoroughly studied one of the ways of synthesizing primary furan amines: the reductive amination of saturated and unsaturated aldehydes and ketones in the presence of ammonia. They succeeded in establishing that the following is achieved by hydrogenation under pressure in ammoniacal-alcoholic solution in the presence of Raney nickel: not only α-β-mono-unsaturated furan ketones but also diene ketones can be easily transformed into corresponding primary furan amines (yields up to 86%, and 84%, respectively, of the theoretical yields). Also saturated furan ketones (acetyl furan) with a carbonyl group in position 1 on the furan ring are smoothly transformed into primary furan amines. No hydrogenation of the furan ring occurs. This showed the general character of this reaction leading to primary amines with a position of the amino group 1, 3, and 5 in the side chain in good yields (see Scheme). Table 1 shows the most important properties and analyses of the amines produced. It also lists some physical constants of the

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80091

Synthesis and Some Catalytic Transformations of Primary Furan Amines

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N-acetyl derivatives of these amines. These derivatives are easily formed from the amines under action of acetic anhydride (yields up to 94%). Table 2 shows properties of tetrahydrofuran amines and their N-acetyl derivatives. They are formed from the N-acetyl derivatives of furan amines by hydrogenation in dioxane, and can be saponified. The presence of the furan-, or tetrahydrofuran ring, respectively, and of the amino group was confirmed by UV and IR spectra recorded by A. D. Peshekhonova. Furan- and tetrahydrofuran amines were further used by the authors for synthesizing pyrrolysidine- and dihydrodipyrrol derivatives. These nitrogen heterocycles are contained in many alkaloids. The following substances were used for these experiments of intramolecular cyclization: 1-(α-furyl)-3-aminopropane, 1-(α-furyl)-3-aminobutane, 2-furfurylaminocyclohexane, and 1-(α-tetrahydrofuryl)-2-aminobutane. Pure aluminum oxide, and an aluminum oxide activated with thorium dioxide (formula and preparation by Yu. K. Yur'yev), were used as catalysts. Cyclization proceeded according to the scheme indicated. The yields in dihydrodipyrrols attained 32%, those in pyrrolysidine 50% of the theoretical yields (Table 3). The investigations are being continued. There are 3 tables and 3 references.

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PHASE I BOOK EXPLOITATION SOV/5541

Ponomarev, Aleksandr Aleksandrovich, Professor

Sintezy i reaktsii furanovykh veshchestv (Synthesis and Reactions of Furan Substances) [Saratov] Izd-vo Saratovskogo univ., 1960. 242 p. 6,000 copies printed.

Ed.: Zhuk, A. A.; Tech. Ed.: Alekseyev, P. Z.

PURPOSE: This book is intended for organic chemists studying the furan compounds and interested in practical applications.

COVERAGE: The book deals with the chemistry, synthesis, and reactions of furan substances. Methods for the synthesis of furans and for carrying out the reactions of furan substances are described in detail. The material contains 200 examples for the production of furan compounds tested at the laboratory of the Saratovskiy gosudarstvennyy universitet (Saratov State University). The importance of furfural and other furan compounds as raw material for the manufacture of plastics, high polymers, and intermediate products for organic synthesis is stressed. Ch. 12 was written in

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, Aleksandr Aleksandrovich, prof.; ZHUK, A.A., red.; ALEKSEYEV, P.Z., tekhn.red.

[Syntheses and reactions of furan compounds] Sintezy i reaktsii furanovykh veshchestv. Saratov, Izd-vo Saratovskogo univ., 1960. 242 p. (MIRA 14:4)
(Furan)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SEDAVKINA, V.A.

Furan compounds. Part 14: Synthesis of γ-keto carboxylic acids and γ-lactones from furylalkylcarbinols. Zhur. ob. khim. 31 no. 3:984-989 Mr '61. (MIRA 14:3)

1. Saratovskiy gosudarstvennyy universitet.
(Acids, Organic) (Lactones)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; MARKUSHINA, I.A.

Furan compounds. Part 13: Formation of derivatives of 1,6-dioxaspiro [4.4] non-3-one during the electrolytic methoxylation of γ-furyl alkanols. Zhur. ob. khim. 31 no. 2:554-560 F '61. (MIRA 14:2)

1. Saratovskiy gosudarstvennyy universitet.
(Dioxaspirononene)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; LIPANOVA, M.S.

Furan compounds. Part 16: Synthesis of acetaminopyromucic acid and some of its derivatives. Zhur. ob. khim. 31 no.3:970-973 Mr '61. (MIRA 14:3)

1. Saratovskiy gosudarstvennyy universitet.
(Furoic acid)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, ~~A.A.;~~ MASLENNIKOVA, P.P.; KRIVEN'KO, A.P.

Furan compounds. Part 15: Reductive amination of saturated and unsaturated furan ketones. Zhur. ob. khim. 31 no.3:958-964 Mr '61. (MIRA 14:3)

1. Saratovskiy gosudarstvennyy universitet.
(Amination) (Ketones)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SKVORTSOV, I.M.

Furan compounds. Part 17: Synthesis of 1,2-dihydroxydipyrroles and pyrrolizidines by the intramolecular catalytic dehydration of furan and tetrahydrofuran amines. Zhur. ob. khim. 32 no.1:97-101 Ja '62. (MIRA 15:2)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo.
(Pyrrole) (Pyrrolizine) (Furan)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SEDAVKINA, V.A.

Synthesis of ketocarboxylic acids and √-lactones from furyl-alkylcarbinols. Uch.zap. SGU 75:37-41 '62. (MIRA 17:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

TIL', Z.V.; PONOMAREV, A.A.

Syntheses based on tertiary α-furylalkanols. Uch. zap. SGU 75: 41-44 '62.

Interaction of tertiary α-tetrahydrofurylalkanols with acetic anhydride. Ibid.:49-51 (MIRA 17:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SEDAVKINA, V.A.

Furan compounds. Part 19: Synthesis of 6-alkyl-3-pyridazinones and 6-alkyl-3-pyridazones based on furfurole. Zhur.ob.khim. 32 no.8:2540-2544 Ag '62. (MIRA 15:9)

1. Saratovskiy gosudarstvennyy universitet imeni N.G. Chernyshevskogo.
(Pyridazinone)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; LIPANOVA, M.D.

Furan compounds. Part 18: Some functional derivatives of 5-halo-substituted furfurole and β-(2-furyl)-acrolein. Zhur.ob.khim. 32 no.8:2535-2540 Ag '62. (MIRA 15:9)

1. Saratovskiy gosudarstvennyy universitet imeni N.G. Chernyshevskogo.
(Fyraldehyde) (Furanacrolein)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; LIPANOVA, M.D.

Furan compounds. Part 20: Condensation of some derivatives of furfurole and β-(2-furyl)-acrolein with aminotriazoles. Zhur.-ob.khim. 32 no.9:2974-2981 S '62. (MIRA 15:9)

1. Saratovskiy gosudarstvennyy universitet imeni N.G. Chernyshevskogo.
(Furaldehyde) (Acrolein) (Triazole)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; CHEGOLYA, A.S.

Use of ruthenium catalysts in the hydrogenation of furan compounds. Dokl.AN SSSR 145 no.4:812-814 Ag '62. (MIRA 15:7)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo. Predstavleno akademikom A.A.Balandinym.
(Catalysts, Ruthenium) (Furan) (Hydrogenation)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

BENEDIKTOVA, A.A.; PONOMAREV, A.A.

Frost resistance of higher polymer films with the addition of plasticizers of the tetrahydrofuran series. Uch.zap. SGU 75:44-49 '62. (MIRA 17:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.

Some data on diene synthesis in the furan series. Uch.zap. SGU 75:51-53 '62. (MIRA 17:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; LIPANOVA, M.D.

Some furan derivatives of 1-amino-1,3,4-triazole. Uch.zap SGU 75:35-37 '62. (MIRA 17:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SKVORTSOV, I.M.

Catalytic synthesis of 7-azaoctahydropyrrocolines. Dokl.AN SSSR 148 no.4:860-862 F '63. (MIRA 16:4)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo. Predstavleno akademikom A.A.Balandinym.
(Indolizine)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SKVORTSOV, I.M.; MASLENNIKOVA, N.P.

Furan compounds. Part 21: Synthesis of some diamines of the furan and tetrahydrofuran series. Zhur.ob.khim. 33 no.4:1130-1135 Ap '63. (MIRA 16:5)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo.
(Amines) (Furan)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

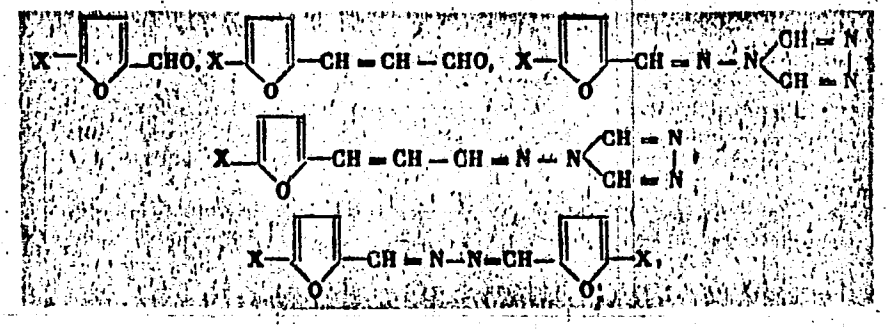
S/048/63/027/001/021/043
B106/B101

AUTHORS: Peshekhonova, A. D., Ponomarev, A. A., and Lipanova, M.D.

TITLE: Ultraviolet absorption spectra of some 2,5-substituted furans

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 1, 1963, 58-61

TEXT: This is a study on the ultraviolet absorption spectra of dioxane solutions of the following 2,5-substituted furans:



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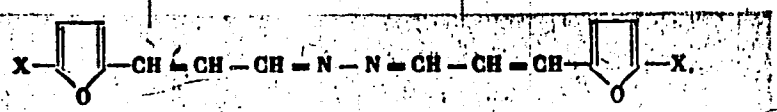
"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7



X = H, CH_3, Cl, Br, J, NO_2.

The authors' institute was the first to synthesize such furans. The ultraviolet spectra of solutions of these compounds (except for those with X = NO_2) show one intensive absorption band with λ_{max} = 270-380 mμ, as dependent on the substituents in position 5 of the furan ring. Its intensity, however, is almost independent of the substituents, log ε = 4.5±0.3. The azines of furfurole show a second absorption maximum at 250-280 mμ, the difference Δλ between the maxima being 82-84 mμ, and the azines of furyl acrolein have an absorption maximum at 365-396 mμ, Δλ ~ 14-16 mμ. Substitution of CH_3, Cl, Br, or I for hydrogen in position 5 of the furan ring causes a bathochromic shift of absorption bands almost without a hyperchromic effect. This shift being 10-11 mμ for Cl and 20-25 mμ for I increases in the sequence Cl < CH_3 ≤ Br < I, and

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is practically independent of the type substituent in position 2. Introduction of a nitro group into the furan ring causes a considerable bathochromic shift of the second absorption maximum, $\Delta\lambda \sim 40$ mμ. Lengthening of the conjugate system causes a bathochromic shift of 35-45 mμ. Owing to the different effects of C=O, C=N, and C=C double bonds on the absorption maximum it is impossible to set up a general law for the position of absorption maxima as dependent on the total number of double bonds, without considering their nature. The condensation product of 5-nitrofurfurole with 1-amino-1,3,4-triazole exists in two forms, the azomethine and the hydrated form, whose melting points, solubilities, and biological activities differ considerably. The azomethine form, 1-(5-nitrofurfurylideneamino)-1,3,4-triazole, is more active. The spectrum of the hydrated form corresponds to that of 5-nitrofurfurole. Therefore, a molecular combination of 5-nitrofurfurole with aminotriazole is assumed. The same result was obtained for the condensation product of 5-nitrofurfurole with 2,5-dimethyl-1-amino-1,3,4-triazole. There are 3 figures and 1 table.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

Ultraviolet absorption spectra of ... S/048/63/027/001/021/043
B106/B101

ASSOCIATION: Kafedra organicheskoy khimii Saratovskogo gos. universiteta im. N.G. Chernyshevskogo (Department of Organic Chemistry of the Saratov State University imeni N.G. Chernyshevskiy)

Card 4/4

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PESHEKHONOVA, A. D.; PONOMAREV, A. A.; LIPANOVA, M. D.

Ultraviolet absorption spectra of certain 2,5-substituted furans. Izv. AN SSSR. Ser. fiz. 27 no.1:58-61 Ja '63. (MIRA 16:1)

1. Kafedra organicheskoy khimii Saratovskogo gosudarstvennogo universiteta im. N. G. Chernyshevskogo.

(Furan—Spectra)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SEDAVKINA, V.A.; TIL', Z.V.

Furan compounds. Part 22: Influence of the structure of α-furyl alkanols on the reaction orientation during their catalytic hydrogenation. Zhur.ob.khim. 33 no.4:1303-1309 Ap '63. (MIRA 16:5)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo.
(Furfuryl alcohol) (Hydrogenation)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; KRIVEN'KO, A.P.; NORITSINA, M.V.

Furan compounds. Part 22: Hydrogenation of primary furan amines in the presence of Raney nickel. Zhur.ob.khim. 33 no.6:1778-1783 Je '63. (MIRA 16:7)

1. Saratovskiy gosudarstvennyy universitet imeni N.G. Chernyshevskogo.

(Furan) (Hydrogenation)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; TIL', Z.V.

Furan compounds. Part 27: Synthesis of some 2-(2'-furyl)-1,3,4-oxadiazoles and furoylhydrazones. Zhur.ob.khim. 33 no.7:2368-2372 Jl '63. (MIRA 16:8)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo.
(Oxadiazole) (Hydrazones)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; TIL', Z.V.; SEDAVKINA, V.A.

Furan compounds. Part 25: Dehydration of furan and tetrahydrofuran alcohols and synthesis of furyl- and tetrahydrofuryl alkanes. Zhur. ob.khim. 33 no.12:3951-3954 D '63. (MIRA 17:3)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; CHERKESOVA, L.V.

Furan compounds. Part 24: Synthesis of 5-(5'-nitro-2'-furyl) pyrazoles. Zhur.ob.khim. 33 no.12:3946-3950 D '63. (MIRA 17:3)

1. Saratovskiy gosudarstgennyy universitet imeni Chernyshevskogo.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; MARKUSHINA, I.A.

Furan compounds. Part 26: Synthesis of compounds of 1,6,8-trioxa-dispiro-(4,1,4,2)tridecane by the electrolytic alkoxylation of α,α'-furan-3-dialkanols. Zhur.ob.khim. 33 no.12:3955-3961 D '63. (MIRA 17:3)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; SKVORTSOV, I.M.; ASTAKHOVA, L.N.

Certain substitution reactions in the 1,2-dihydropyrrolizine series. Dokl. AN SSSR 155 no. 4:861-864 Ap '64. (MIRA 17:5)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo. Predstavleno akademikom A.A.Balandinym.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A. A.; NORITSINA, M. V.; KRIVEN'KO, A. P.

Catalytic synthesis of α-pyrrolidyl- and α-octahydroindolyl 3-alkanols. Dokl. AN SSSR 156 no. 1:102-105 My '64. (MIRA 17:5)

1. Saratovskiy gosudarstvennyy universitet im. N. G. Chernyshevskogo. Predstavleno akademikom A. A. Balandinym.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; CHEGOLYA, A.S.; SMIRNOVA, N.S.

Liquid-phase hydrogenation of some uninuclear aromatic compounds in the presence of ruthenium catalysts. Dokl. AN SSSR 163 no.2:379-382 Jl '65. (MIRA 18:7)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo. Submitted November 9, 1964.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

L 00016-66 EWT(m)/EWA(m)-2 IJP(c)
ACCESSION NR: AP5021368

UR/0120/65/000/004/0219/0221
621.384.633

AUTHOR: Krasnov, N. N.; Mozhin, A. N.; Ognev, A. A.; Ponomarev, A. A.

TITLE: Vertical displacements of the cyclotron beam due to the noncoincidence of the magnetic and electric planes

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 219-221

TOPIC TAGS: cyclotron, cyclotron frequency, cyclotron magnet

ABSTRACT: During the tuning of the 1.5-m FEI cyclotron the authors observed a vertical displacement of the cyclotron beam due to the noncoincidence of the magnetic and electric planes (the magnetic plane is represented by the surface with $H_R = 0$). The theoretical discussion presented in this paper shows that a small displacement of the mean magnetic plane relative to the electrical plane leads to a substantial vertical displacement of the beam which takes place at radii at which the particle crosses the accelerating gap at negative phase values of the voltage across the Ds. A comparison of the calculations with the experimental results shows that it is difficult at small radii to link the particle loss with plane noncoincidences since at those places the drop in the magnetic field is not very large and, consequently, it is hard to determine the position of the magnetic

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

SMIRNOVA, N.S.; CHEGOLYA, A.S.; PONOMAREV, A.A.

Hydrogenation of some aromatic acids and their derivatives on ruthenium catalysts. Zhur. org. khim. 1 no.8:1422-1425 Ag '65. (MIRA 18:11)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

L 16174-66 EWT(m)/EWP(j)/T WW/JW/WE/RM

ACC NR: AP5025348 SOURCE CODE: UR/0366/65/001/010/1868/1871

AUTHOR: Chegolya, A. S.; Smirnova, N. S.; Zhizdyuk, B. I.; Ryzhenko, L. M.; Golub, G. I.; Ponomarev, A. A.

ORG: Saratov State University im. N. G. Chernyshev (Saratovskiy gosudarstvennyy universitet)

TITLE: Hydrogenation of aromatic amines on ruthenium catalysts

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 10, 1965, 1868-1871

TOPIC TAGS: hydrogenation, aromatic nitro compound, primary aromatic amine, catalysis, aniline, ruthenium

ABSTRACT: Aniline and m- and p-phenylenediamine (I) were hydrogenated in liquid phase on Ru catalysts at 100-170C to give cyclohexane analogs. All of the Ru catalysts tested gave satisfactory results, however, the rate of hydrogenation decreased in the order RuO_2 > Ru-C > Ru-silica gel. The presence of an additional

Card 1/2 UDC: 542.541 : 547.551/3 : 546.96

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L 16174-66

ACC NR: AP5025348

amino or nitro group on the aromatic ring slowed down the reaction. Hydrogenation of I at 80 atm. H pressure occurred faster in polar solvents (H_2O, MeOH) than in solvents of lower polarity (EtOH, PrOH, n-amyl alcohol, or dioxane). In a typical experiment, the catalyst was placed in a rotating autoclave, the aromatic amine added in a 3-10-fold amount of solvent, the autoclave pressurized with electrolytic H to 110 atm. and heated in an electric oven. After the H absorption was finished, the catalyst was filtered off, the solvent eliminated, and the residue distilled in vacuo. The hydrogenation of I is highly stereospecific and yields almost exclusively trans-1,4-diaminocyclohexane. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07 / SUBM DATE: 09Nov64/ ORIG REF: 007/ OTH REF: 005

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

L 14177-66 EWT(d)/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(l) IJP(c)

ACC NR: AP6011253 (N) SOURCE CODE: UR/0413/66/000/006/0094/0094

JD/HM

63
B

INVENTOR: Davidenko, V. F.; Kochetov, A. A.; Lashkevich, R. I.; Ponomarev, A. A.; Taran, Yu. M.

ORG: none

TITLE: Device for automatic ultrasonic quality control of welds. Class 42, No. 179979 [announced by the Electric Welding Institute im. Ye. O. Paton (Institut elektrosvarki)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 94

TOPIC TAGS: ultrasonic quality control, welding, ultrasonic inspection, ultrasonic equipment, servosystem, quality control

ABSTRACT: This Author Certificate introduces a device for ultrasonic inspection of welds containing an ultrasonic probe and a color marker. For greater productivity, the device is equipped with an optical servosystem which uses as a reference line the surface of a cylindrical amplifier with photometric properties different from

Card 1/2 UDC: 620.179.16.05

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

L 44177-66

ACC NR: AP6011253

those of the material welded (see Fig. 1). Orig. art. has: 1 figure. [LD]

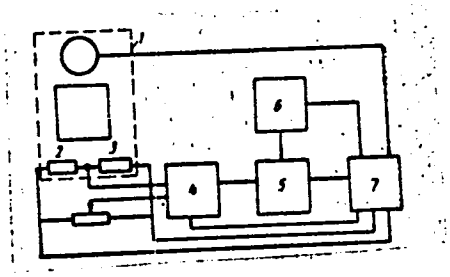

Fig. 1. Device for automatic ultrasonic inspection of welds. 1—sensor; 2 and 3—photoresistance; 4 and 5—amplifiers; 6—servomotor; 7—power source

SUB CODE: 13,20/ SUBM DATE: 13Jan64/

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; REBRINA, N.P.

Factors influencing the killing by accumulated water and smothering of winter wheat in the Moscow region. Fiziol.rast. 12 no.4:693-701 Jl-Ag '65. (MIRA 18:12)

1. Moskovskoye otdeleniye Vsesoyuznogo instituta rasteniyevodstva, Moskovskaya oblast', Mikhnevo. Submitted October 19, 1964.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.

Conference on ultrasonic testing. Avtom. svar. 17 no.7:93 Jl '64. (MIRA 17:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

ASTAKHOVA, L.N.; SKVORTSOV, I.M.; PONOMAREV, A.A.

1-Azabicycles. Part 2: Position of certain groups introduced in some substitution reactions in 1,2-dihydropyrrolizines. Zhur. ob. khim. 34 no.7:2410-2412 Jl '64 (MIRA 17:8)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

86741

26.1640

S/120/60/000/006/016/045
E032/E314

AUTHORS: ~~Ponomarev, A.A.~~, Khlebnikov, G.I. and Gavrilov, K.A.

TITLE: A Method for Controlling the Electrodeposition of α-active Isotopes

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 6, pp. 58 - 60

TEXT: A simple method of continuous control of the electrodeposition of α-active isotopes, which involves the use of standard scintillation counters and standard electronics, is described. The apparatus is shown schematically in Fig. 1. The cathode 2, on which the active substance is deposited, was in the form of a nickel foil, 1.5 to 5 μ thick. The area of the target was 5 x 10 mm^2. The material is deposited from the electrolyte 1 and the α-particles transmitted by the cathode produced scintillations in the ZnS phosphor 4. The scintillations reached the photomultiplier through the light pipe 5 and the output of the photomultiplier was

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E032/E314

A Method for Controlling the Electrodeposition of α-active Isotopes

recorded by a "standard block ПС-10 000 (PS-10 000)". The thickness of the cathode was chosen so that it would transmit α-particles and to ensure that the scintillations would give rise to photomultiplier pulses much greater than the dark current. The electrolytic device, which is attached to the apparatus, was of the type described by Yakovlev et al (Ref. 13). The above apparatus was used to investigate the effect of:

a) the concentration of the electrolyte (0.1 - 1 mol /litre);

b) the current density at the cathode (10 - 300 mA/cm^2) and

c) concentration of the deposited substance (20 - 100 μg/cm^2) on the amount and quality of the deposit in the case of the electrodeposition of Pu^{239} from a water solution of H_2CO_2 and NH_4CO_2H. The results obtained are summarised in Figs. 2 and 3. Fig. 2 shows the dependence of the amount of plutonium

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produced (%) as a function of the concentration of the electrolyte (mol/litre). The points marked 1 refer to the present method and the points marked 2 refer to the direct α-particle counting after electrolysis. Fig. 4 shows the dependence of the amount of plutonium deposited on the cathode current density and Curve 3 shows the counting rate as a function of time for C = 0.25 mol/litre and I_k = 150 mA/cm^2. It was found that the best plutonium deposits were obtained with a concentration of 0.25 mol/litre and a current density at the cathode of 100-200 mA/cm^2. Under these conditions, an 80-90% yield of plutonium was achieved. With small modifications the apparatus can also be used to investigate the deposition of α-active specimens by vacuum and electrostatic methods. Acknowledgments are expressed to G.N. Olerov for valuable advice and suggestions and to V.A. Druin for assistance in the present work.

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A Method for Controlling the Electrodeposition of α-active Isotopes

There are 4 figures and 13 references: 7 Soviet, 6 English.

SUBMITTED: September 29, 1959

Card 4/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.; KHLEBNIKOV, G.I.; GAVRILOV, K.A.

Control method in the study of the electrodeposition of alpha radioactive isotopes. Prib. i tekh. eksp. no.6:58-60 N-D '60. (MIRA 13:12)

(Electroplating) (Radioisotopes) (Plutonium)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

SOV/137-57-6-9894

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 82 (USSR)

AUTHOR: Ponomarev, A.A.

TITLE: Rehabilitation of Worn Shaft Splines by Pressworking (Vosstanovleniye iznoshennykh shlitsev na valakh davleniyem)

PERIODICAL: Remont avtomobiley. Moscow, Avtotransizdat, 1956, Nr 1, pp 101-127

ABSTRACT: Shaft splines worn down $\geq$1 mm are rebuilt by cold shaping of the metal by a roller of V-section on hydraulic presses, planers, and slotters, the metal from the center of the spline being extruded in the direction of the worn surfaces. After reclamation, the parts are subjected to machining and heat treatment if they have been tempered to reduce hardness before deformation. Next follows the final polishing or sizing. Economic calculations demonstrate the desirability of introducing this method. The method of analysis of the splines for fatigue strength is calculated, and the major principles of the process of indenting the tool and the principal technological parameters of this process are described.

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PONOMAREV. A.A.

42593. Tsirkulyarnoye Telegrafirovaniye Na Dal'nikh Svyazyakh, Oborudovannykh Apparatam Bodo. Trudy Tomskogo Elektromekhan. In-ta Inzhl Zh.-d Transporta, T. XIII, 1948, S 87-95--Bibliogr: 5 Nazv.

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PONOMAREV, A.A.

SEREGIN, A.A.; KOSTIKOV, V.U.; PONOMAREV, A.A.; SHEVCHUK, R.M.

Professor Pavel Andreevich Azbukin; on his 75th birthday and 50th anniversary of scientific and pedagogical work. Avtom.elem. i svias' no.7:40-41 Jl '57. (MLRA 10:8)

1.Nachal'nik Tomskogo elektromekhanicheskogo instituta inzhenerov zheleznodorozhnogo transporta (for Seregin) 2. Sotrudniki Tomskogo elektromekhanicheskogo instituta inzhenerov zheleznodorozhnogo transporta (for Kostinov, Ponomarev, Shevchuk)
(Azbukin, Pavel Andreevich, 1882-)

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VOLKOV, Vladimir Mikhaylovich; NOVIKOV, Vasiliy Aleksandrovich; POMOMAREV, Aleksandr Arkad'yevich; NIKOL'SKIY, V.A., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Wire communication systems on railroads] Provodnaia sviaz' na zheleznodorozhnom transporte. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1960. 255 p. (MIRA 13:12)

(Railroads--Communication systems)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, A.A.

DUBNITSKIY, Vladimir Stepanovich, inzhener; ZAMURA, Viktor Grigor'yevich, inzhener; PAVLOVICH, Yevgeniy Stanislavovich, inzhener; PONOMAREV, A.A., inzhener, redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor

[Experiences in organizing locomotive repairing (Taiga depot of the Tomsk Railroad)] Opyt organizatsii remonta parovozov (depo Taiga Tomskoi dorogi). Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 42 p. (MIRA 10:7)

(Locomotives--Maintenance and repair)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

L 11199-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP6002913 SOURCE CODE: UR/0286/65/000/024/0074/0074

INVENTOR: Shindauletova, A. T.; Ponomarev, A. D.

31

B

ORG: none

TITLE: Electrolytic method of gallium extraction. Class 40, No. 177084 [announced by the Institute of Chemistry and Metallurgy, AN KazakhSSR (Khimiko-metallurgicheskiy institut AN Kazakhskoy SSR)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 74

TOPIC TAGS: gallium, gallium extraction, electrolytic extraction

ABSTRACT: This Author Certificate introduces a method for electrolytic extraction of gallium from recurring aluminate-gallate solutions of aluminum production. To improve working conditions and increase the yield, gallium is extracted from the solutions at 70C and a cathode current density of 1500 a/cm^2, using a liquid gallium-zinc (5% zinc) cathode. [AZ]

SUB CODE: 11/ SUBM DATE: 01Aug64/ ATD PRESS: 4192

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

VASIL'YEV, P.V., prof., doktor ekon. nauk; PONOMAREV, A.D.; SOLDATOV, A.G., kand. sel'khoz. nauk; MOTOVILOV, G.P., doktor sel'khoz. nauk; NEVZOROV, N.V., kand. ekon. nauk; LOSITSKIY, K.B., kand. sel'khoz. nauk; RODIONOV, A.Ya., kand. sel'khoz. nauk: CHARKINA, A.P., kand. sel'khoz. nauk; LUTSEVICH, A.A., kand. sel'khoz. nauk; KOZHEVNIKOV, M.G., dots.; ALEKSEYEV, P.V., kand. sel'khoz. nauk; ZORIN, A.V., aspirant; BARANOV, N.I., kand. sel'khoz.nauk [deceased]; NAUMENKO, I.M., prof., doktor sel'khoz.nauk; IL'IN, A.I., kand.sel'khoz. nauk; MOISEYENKO,F.P., kand. biol. nauk; ZAKHAROV, V.K., prof., doktor sel'-khoz. nauk; GECHIS, Yu.P., starshiy nauchnyy sotr.; BUTENAS, Yu.P., kand. sel'khoz. nauk; BUBLIS, K.A., aspirant; KALNIN'SH, A.Ya., kand. sel'khoz. nauk; ZVIYEDRIS, A.I., kand. sel'khoz. nauk; SUKACHEV, V.N., akad. red.; ZHUKOV, A.B., prof., red.; PRAVDIN, L.F., prof., red.; MAKAROVA, L.V., red. izd-va; LOBANKOVA, R.Ye., tekhn. red.

[Problems of increasing forest productivity in four volumes] Problemy povysheniia produktivnosti lesov v chetyrekh tomakh. Moskva, Goslesbumizdat. Vol.4.[Economic problems of increasing forest productivity and accelerating ripening and cutting ages]Ekonomicheskie voprosy povysheniia produktivnosti lesov, vozrasty spelosti i vozrasty rubok. 1961. 253 p. (MIRA 15:1)

1. Akademiya nauk SSSR. Institut lesa. 2. Nachal'nik Glavnoy inspektsii po lesnomu khozyaystvu i polezashchitnomu lesorazvedeniyu Ministerstva sel'skogo khozyaystva SSSR (for Ponomarev).

(Forests and forestry—Economic aspects)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

NAUMENKO, Ivan Matveyevich; PONOMAREV, Aleksandr Dmitriyevich;
KAZAKOVA, Ye.D., red.; BALLOD, A.I., tekhn.red.

[In the forests of Sweden and Norway] V lesakh Shvetsii i Norvegii. Moskva, Gos.izd-vo sel'khoz.lit-ry, zhurnalov i plakatov, 1961. 102 p. (MIRA 14:12)
(Sweden--Forests and forestry)
(Norway--Forests and forestry)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

Ponomarev, A.D

J-3

USSR/Forestry. Forestry and Forest Cultivation.

Abs Jour: Referat Zh-Biol., No 6, 1957, 22566

Author : Rutkovskiy, V.I., Fonomarev, A.D.
Inst : o
Title : The Effect of Coal Seam Removal on the Forest Plantation Conditions of Tula Forest Reservations.

Orig Pub: Lesnoe kh-vo, 1956, No 5, 21-26

Abstract: It was established that the mining of the coal seams on the Tula forest reservations destructively affects the growth and development of forest plantations. On mining the seams, wide troughs are formed, and low areas are inundated. Forests in inundated districts are bound to perish. Even worse consequences are observed in mining on steep slopes. Here, cracks are formed, the soil slides off, trees bend and plantations appear as "drunken" forests. Considering the special value of Tula reservations for forestry, the author believes that coal

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

PONOMAREV, Aleksandr Dmitriyevich; GROSHEV, B.I., red.; FILIMONOVA, A.I., red.izd-va; SHIBKOVA, R.Ye., tekhn.red.

[Organization of forestry and forest management in the U.S.S.R.] Organizatsiia lesnogo khoziaistva i lesoupravleniia v SSSR. Moskva, Goslesbumizdat, 1961. 47 p. (MIRA 16:2)
(Forest management)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

GEDYK, Pavel Konstantinovich; dotsent; PONOMAREV, Aleksandr Filippovich; PROZOR, A.S., inzh., retsenzent; DUGINA, N.A., tekhn.red.

[Lubrication of equipment; manual for operators] Smazka oborudovaniia; uchebnoe posobie dlia rabochikh. Sverdlovsk, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 191 p. (MIRA 12:8)

(Lubrication and lubricants)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110020-7

ANTIPIN, V.I.; BUDANOV, N.D.; KOTLUKOV, V.A.; LEYBOSHITS, A.M.; PROKHOROV, S.P., kand.geol.-miner.nauk; SIRMAN, A.P.; FALOVSKIY, A.A.; SHTEYN, M.A.; BASKOV, Ye.A.; BOGATKOV, Ye.A.; GANEYEVA, M.M.; ZARUBINSKIY, Ya.I.; IL'INA, Ye.V.; KATSIYAYEV, S.K.; KOMPANIYETS, N.G.; NELYUBOV, L.P.; PONOMAREV, A.I.; REZNICHENKO, V.T.; RULEV, N.A.; TSELIGOROVA, A.I.; ALSTER, R.K.; SHVETSOV, P.F.; VYKHODTSEV, A.P.; KOTOVA, A.I.; KASHKOVSKIY, G.N.; LOSEV, F.I.; ROMANOVSKAYA, L.I.; PROKHOROV, S.P.; MATVEYEV, A.K., dots., retsenzent; CHEL'TSOV, M.I., inzh., retsenzent; KUDASHOV, A.I., otv. red.; PETRYAKOVA, Ye.P., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[State of flooding and conditions for the exploitation of coal-bearing areas in the U.S.S.R.] Obvodnennost' i usloviia ekspluatatsii mestorozhdenii ugol'nykh raionov. Pod nauchn. red. S.P.Prokhorova. Moskva, Gosgortekhizdat, 1962. 243 p. (MIRA 15:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii. 2. Kafedra geologii i geokhimii goryuchikh iskopayemykh Moskovskogo Gosudarstvennogo universiteta (for Matveyev).
(Coal geology) (Mine water)

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D204/D307

AUTHORS: Ponomarev, A. I., Klebanskiy, A. L., Larionova, Yu. A. and Bogdanova, V. V.

TITLE: The preparation of p-cyanophenylmethyldiethoxysilane

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 1, 1963, 316

TEXT: p-Bromophenylmethyldiethoxysilane (I) was obtained by reacting methylchlorodiethoxysilane with p-BrC_6H_4MgBr. The Br in I was then replaced with a nitrile group to give p-cyanophenylmethyldiethoxysilane (b.p. 111 - 112°C/3 mm Hg, n_D^{20} = 1.5032, d_4^{20} = 1.2058, MR_D = 57.69), in 45 - 50% yield. [Abstracter's note: Essentially complete translation.]

SUBMITTED: August 8, 1962

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