

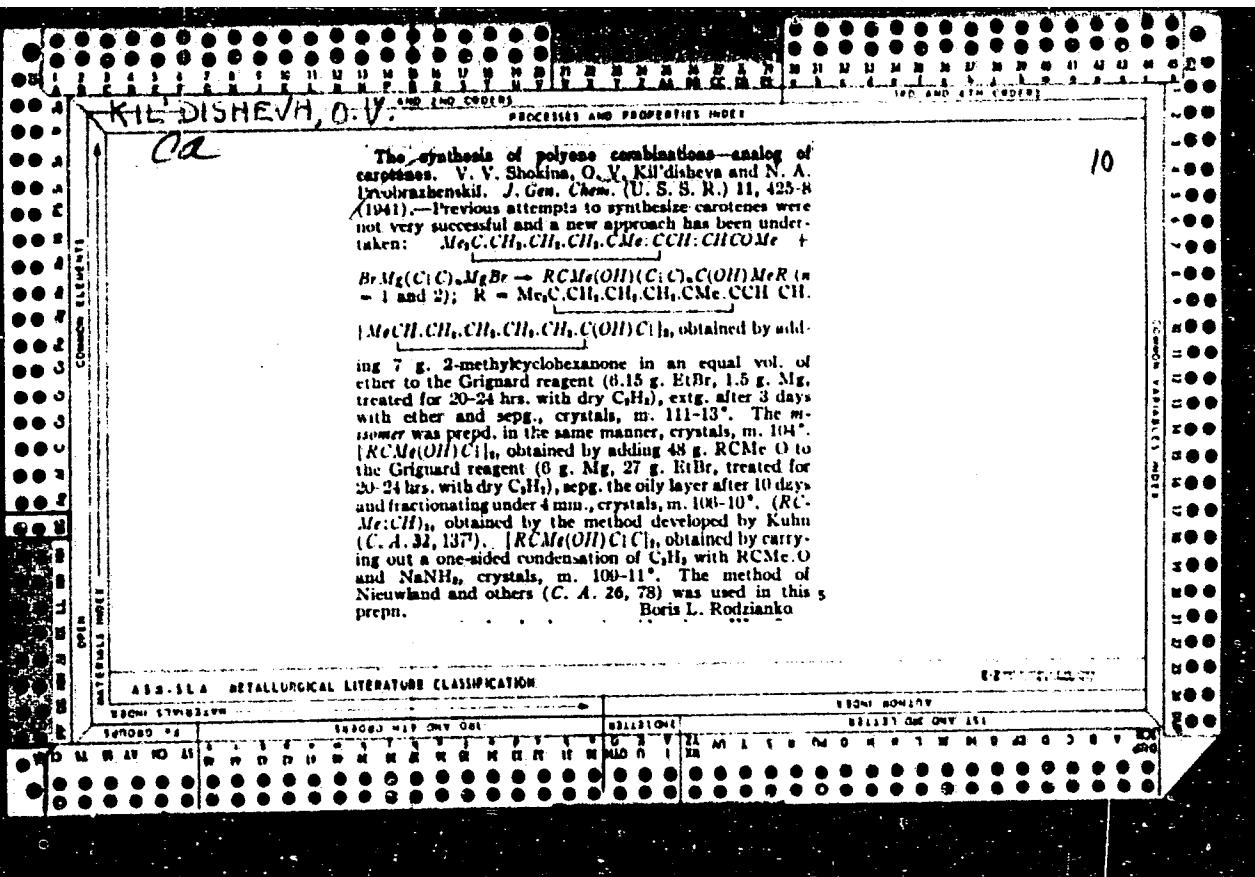
KIL'DISHEV, G.; OVSIYENKO, V.

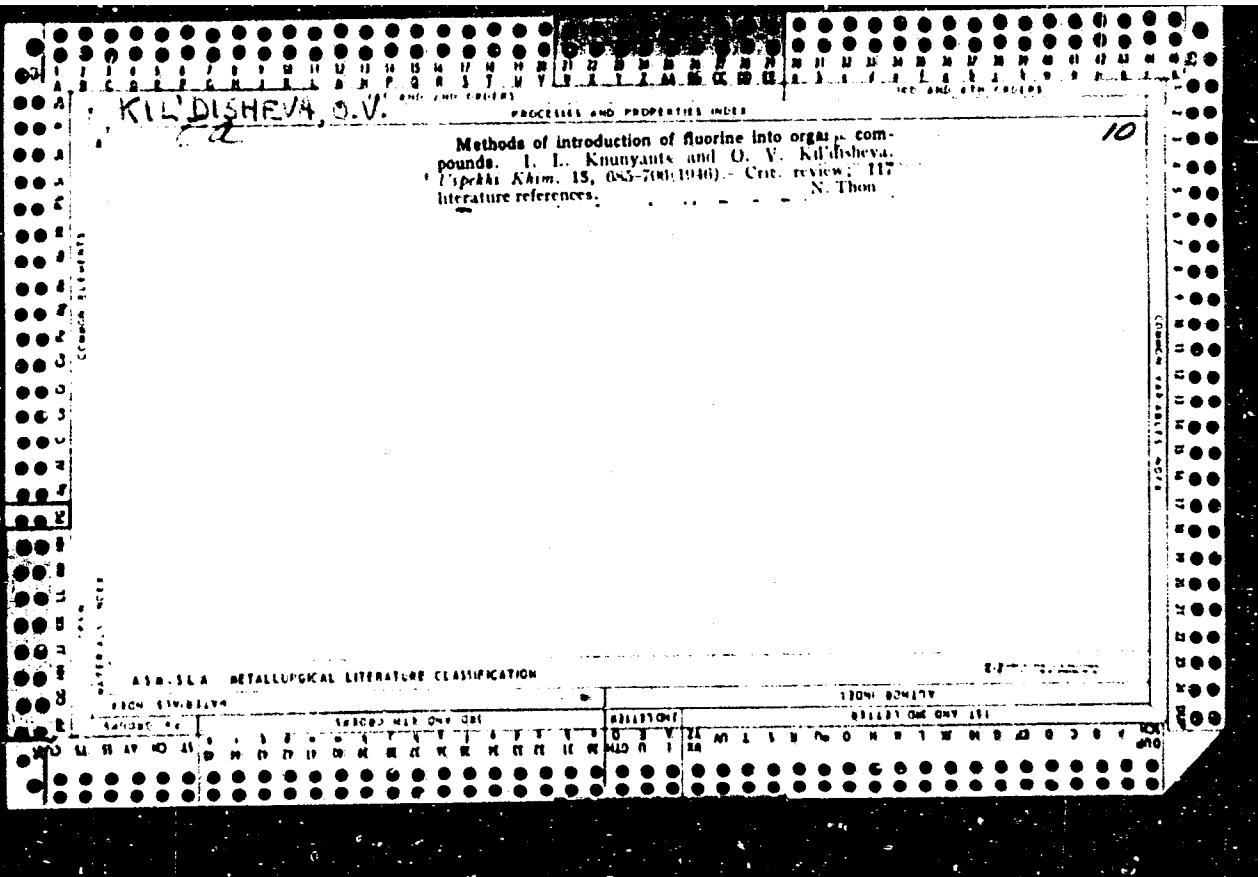
"Adjusting and calculation of distribution series" by A. I.
Bzhov. Vop. ekon. no.12:114-117 D '62. (MIRA 16:1)

(Mathematical statistics)

ZEL'D SHNEIDER, I.P., KUNYAKTS, I.L. and PETROW, I.P.

Reaction of Aliphatic Oxides with Hydrogen Fluoride, Communication I, Journal
Obozr. Khim., Vol. 14, No. 1, 1949, pp 95-100.





KIL'DISHEVA, O. V.

PA 60M

USSR/Chemistry - Hydrofluoric Acid Jul 1987
Chemistry - Organic Compounds

"Interaction of Aliphatic Oxides and Hydrogen Fluoride," I. L. Knunyants, *Osn. Mek. Akad. Nauk SSSR*, 1987, No. 2, p. 12; O. V. Kil'disheva, E. G. Bikhovskaya, *Izdat. Akad. Nauk SSSR*, 4 pp.

"Dok. Akad. Nauk SSSR, Nova Ser." Vol. LVII, No. 1

Describes new reaction in separation of aliphatic oxides by hydrogen fluoride which produced poly-fluorhydrin and discusses spontaneous change of atoms of chlorine into fluoride

Reaction of aliphatic oxides with hydrogen fluoride.
 I. I. Knunyants, O. V. Kil'dieva, and I. P. Petrov.
Zhur. Obshch. Khim. (J. Gen. Chem.) 19, 98-100 (1949).—Dry HF under a variety of conditions reacts with ethylene oxide (I) to give chains of polyethylene glycols, with minute amts. of polyethylene fluorohydriin content. F was successfully introduced by the use of Et₂O as solvent. To 300 ml. Et₂O in a steel autoclave was added 20 g. dry HF and 20 g. I, and after 6 hrs. at 100°, the mix. was neutralized, giving a range of products from which were isolated 40% HOCH₂CH₂F, b. 102-4°, d₄²⁰ 1.101, n_D²⁰ 1.304; (1-naphthylarachin, m. 125-7°), 37 g. HOCH₂CH₂OH, and 21 g. HOCH₂CHOCH₂CH₂F, b. 172-4°, d₄²⁰ 1.1150, n_D²⁰ 1.4130. A similar procedure was used in the following preps. 1-Fluoro-2-propanol (86% from propylene oxide), b. 107-8°, d₄²⁰ 1.1214, n_D²⁰ 1.3822 (1-naphthylarachin, m. 81-3°); 1,3-Difluoro-2-propanol (40% from epichlorohydrin), b. 58°, d₄²⁰ 1.2443, n_D²⁰ 1.380. 1-Fluoro-2-methyl-2-propanol (unstated yield from isobutylene oxide; by-product, tetramethylidicane), b. 85°, d₄²⁰ 1.0610, n_D²⁰ 1.3913. Epifluorohydrin, b. 85-8.4°, d₄²⁰ 1.000, n_D²⁰ 1.373, was obtained in 76% yield by adding powd. KOH over 30 min. to 40 g. (FCH₂)₂CHOH in 150 ml. Et₂O and refluxing 3 hrs. with stirring. (ClCH₂)(FCH₂)₂CHOH (50 g.) and 75 g. Na₂CrO₇ in 43 ml. H₂O slowly treated with 100 g. H₂SO₄ in 23 ml. H₂O, and stirred 15-17 hrs. gave 1-chloro-3-fluoro-2-propanone, b. 141.8-3.5°, d₄²⁰ 1.206, n_D²⁰ 1.4235 (semicarbazone, m. 111-12°). Heating 40 g. FCH₂CH₂OH and 10 g. I 54 hrs. at 170-80° gave an unstated yield of HOCH₂CH₂OCH₂CH₂F. II. I. L. Knunyants, O. V. Kil'dieva, and B. Bykovskaya. *Ibid.* 101-13 (1949).—Conversion of ClCH₂CH₂OH to FCH₂CH₂OH by KF goes in 2 steps, with initial formation of ethylene oxide, which then acts with the resulting HF; the "alk." properties of KF are very pronounced in dehydrochlorination reactions in general. Refluxing

80.5 g. ClCH₂CH₂OH and 118 g. KF gave 40 g. (90%) ethylene oxide. Heating 118 g. KF and 81 g. ClCH₂CH₂OH in an autoclave 4-5 hrs. at 100-10° gave 30% FCH₂CH₂OH, b. 101-3° (I). I (19.2 g.) and 49 g. trioxymethylene were satd. with HCl at 0° with agitation and let stand 24 hrs.; the lower layer gave 60% (CH₂OCH₂CH₂F, b. 43-3°, d₄²⁰ 1.100, n_D²⁰ 1.4120). SOCl₂ (21.4 g.) added to 20 g. HOCH₂CH₂OCH₂CH₂F in 30 ml. C₆H₆ and 14.4 g. pyridine with cooling, then heated on a steam bath until the SO₂ flow ceased, gave 24% ClCH₂CH₂OCH₂CH₂F, b. 143-7°, d₄²⁰ 1.137, n_D²⁰ 1.4-1.50. Addn. of 4.7 g. PbOH to 1.18 g. Na in 30 ml. MeOH, then 11 g. 4-MeC₆H₄SO₂CH₂CH₂F, and heating 4 hrs. on a steam bath gave 4 g. PNOCH₂CH₂F, plated, m. 30.5°, b. 88-90°. I (30 g.) and 4.6 g. trioxymethylene were satd. with HCl at 0° and let stand 72 hrs. gave 50% CH₂OCH₂CH₂F, b. 102-4°, d₄²⁰ 1.1302, n_D²⁰ 1.3800. Addn. of 14.2 g. AsCl₃ to 40 g. I and 15.9 g. dry CuSO₄ and 17 days' standing gave 20% MeCH(OCH₂CH₂F)₂, b. 80°, d₄²⁰ 1.0914, n_D²⁰ 1.3038. I (20 g.) and 22 g. NaCN in 40 ml. water at -3° to 0° were treated with 25 ml. concd. HCl; the upper layer gave 40% 2-fluoroethyl nitrite, b. 65-8°, d₄²⁰ 1.1409, n_D²⁰ 1.3572. I (32 g.) and 43.5 g. pyridine in 80 ml. Et₂O were treated in 3 hrs. at 5-6° with 22.9 g. PCl₅, let stand 2 hrs., and filtered; the filtrate gave an unstated yield of (FCH₂CH₂O)₂P, b. 114-16°, d₄²⁰ 1.283, n_D²⁰ 1.417 (acts as a depresant on the central nervous system). I (23 g.) added to 54 g. POCl₃ at 20-22°, stirred 5 hrs., and blown with CO₂ gave 35.4% FCH₂CH₂POCl₃, b. 100-7°, d₄²⁰ 1.5367, n_D²⁰ 1.4400. POCl₃ (21.2 g.) in 20 ml. C₆H₆ below 30° added to 20 g. I and 39.3 g. pyridine in 40 ml. C₆H₆ and

stirred 1 hr. at 55° gave 60% ($FCH_2CH_2O_2PO$, b.p. 100°, d₄²⁰ 1.265, n_D²⁰ 1.404). I (0.4 g.) added to 25 g. SO_2Cl_2 at 35-40°, warmed to 60°, and air-blown to remove HCl gave 12% ($FCH_2CH_2O_2S$)₂O₂(I), b.p. 81-3°, and 62% $FCH_2CH_2OSO_2Cl$, b.p. 70-80°, d₄²⁰ 1.4970, n_D²⁰ 1.4198. The use of equimolar aqts. of reagents and warming 24 hrs. to 60-70° gave an unstated yield of ($FCH_2CH_2O_2S$)₂O₂, b.p. 82-1°, d₄²⁰ 1.3191, n_D²⁰ 1.4040. I (1 mole) and 1 mole 4-Me₂C₆H₅SO₂Cl were treated with agitation at 6-10° with 30% NaOH until permanently alk., stirred 8-10 hrs., filtered, and washed, giving 85-85% 4-Me₂C₆H₅SO₂CH₂CH₂F (II), b.p. 174-5°, d₄²⁰ 1.290, n_D²⁰ 1.5110. Bu₄NH (7.7 g.) and 20 g. II heated in a sealed tube 3 hrs. to 100°, cooled, and treated with NaOH gave ($FCH_2CH_2O_2S$)₂O₂, b.p. 107-13°, d₄²⁰ 0.8775, n_D²⁰ 1.4040; *picrate*, m.p. 134-4° (from EtOH). PhMgBr (from 15.7 g. PhBr) in Et₂O and 21.9 g. II in 60 ml. Et₂O let stand overnight, and refluxed 3 hrs. gave 30% $FACH_2CH_2F$, b.p. 157-0°, b.p. 57-60°, d₄²⁰ 1.064, n_D²⁰ 1.4965. I (20 g.) added to 90 g. COCl at -5° to 0°, and let stand 24 hrs. gave 81% FCH_2CH_2OCOCl , b.p. 129-31°, d₄²⁰ 1.3020, n_D²⁰ 1.4120 (skin irradiated); this (6.2 g.) and 3.2 g. I, after 24 hrs. at 140-60°, gave 45% ($FCH_2CH_2O_2CO$, b.p. 95-8°, d₄²⁰ 1.2832, n_D²⁰ 1.3940). I (15 g.) in 50 g. water, treated simultaneously in small portions with 20 g. KMnO₄ and 30 ml. 10% NaOH, filtered, neutralized with H_2SO_4 , evaporated, and distd. with H_2SO_4 , gave FCH_2CO_2H , b.p. 150-63° (after repeated drying with CuSO₄) (yield under 10%). The Na salt of the above, heated with 1/2 mole PCl₅ to 140-50°, gave FCH_2CO_2I , b.p. 73-5°, d₄²⁰ 1.3813, n_D²⁰ 1.4040.

d. HgP_4 (34 g.), 18 g. KF, and 20 g. $FCH_2CH_2OCOCH_2I$, heated 5 hrs. to 135°, gave 24.5% $FCH_2CO_2CH_2CH_2F$, b.p. 78-80°, d₄²⁰ 1.2962, n_D²⁰ 1.3980. Addn. of 6.7 g. I to 10 g. ICl_2COCl and warming 3 hrs. to 100° gave 30%. - $FCH_2CH_2OCOCH_2Cl$, b.p. 83-5°, d₄²⁰ 1.4005, n_D²⁰ 1.3900 (irradiated); $BrCH_2COBr$ similarly gave 30% $FCH_2CH_2OCOCH_2Br$, b.p. 87-90°, d₄²⁰ 1.698, n_D²⁰ 1.4530. I (11 g.) and 40 g. ICl_2COCl heated on a water bath gave 40.5% $ICl_2CO_2CH_2CH_2F$, b.p. 99-100°, d₄²⁰ 1.991, n_D²⁰ 1.5141. (laccinol); AcCl similarly gave 52% FCH_2CH_2OCOMe , b. 115-16°, d₄²⁰ 1.000, n_D²⁰ 1.392. Addn. of 51.4 g. ICl_2COCl to 20 g. FCH_2CH_2OH and warming to 40-5° gave 80% $ICl_2CO_2CH(CH_2F)Me$, b.p. 100-4°, d₄²⁰ 1.7801, n_D²⁰ 1.4918 (skin irradiated). This (30 g.), 41 g. HgP_4 , and 16 g. KF, after 6 hrs. at 100° and 2 hrs. at 140°, gave 40% $FCH_2CO_2CH(CH_2F)Me$, b. 100-8°, d₄²⁰ 1.292, n_D²⁰ 1.396. Addn. of 38.6 g. ICl_2COCl to 21 g. ($FCH_2)_2CHOCH_2I$, b. 113-15°, d₄²⁰ 1.907, n_D²⁰ 1.518 (irradiated). This (41 g.) heated 6 hrs. to 100° with 50 g. HgP_4 mixed with 50 g. KF gave 18% ($FCH_2)_2CHO_2COCl$, b. 121°, d₄²⁰ 1.414, n_D²⁰ 1.4205.
G. M. Kosolapoff

58/49T31

USSR/Chemistry - Hydrogen Fluoride
Chemistry - Fluorine Compounds

Jan 49

"Interactivity of Aliphatic Oxides With Hydrogen Fluoride, II," I. L. Khunyants, O. V. Kil'disheva, I. P. Petrov, Inst of Org Chem, Acad Sci USSR, Moscow, 13 pp

"Zhur Obshch Khim" Vol XIX, No 1

Fluorohydri ns may be formed by direct substitution of Cl in two steps, first involving quantitative formation of ethylene oxide from ethylene chlorohydrin under the action of KF. Then, upon elimination of HCl from the chlorohydri ns, HF is

58/49T31

USSR/Chemistry - Hydrogen Fluoride (Contd) Jan 49

converted into KCl, liberating HF, which reacts according to $\text{HF} + \text{KF} \rightarrow \text{H}_2\text{O}$. Under pressure this reaction gives a 35 - 40% theoretical yield of ethylene fluorohydrin. In addition, fluorine-substituted acetals, acids, ethers, etc., were prepared, and a list of 38 fluorine compounds with their physical constants and methods of preparation is given. Fluorohydri ns reacted with acid halides, including those of phosphoric, nitrous and sulfonic acids, giving 2-fluoroethyl esters. Esters of sulfonic acids are characterized by a pronounced alkylating ability. Phenol, diethylamine, etc., were fluoroethylated. Submitted 10 May 47.

58/49T31

KIL'DISHEVA, O.V.

✓ Transformations of mercapto carboxy acids. VII. Transformations of 2,3-dihalo-2-acylaminoacrylic acids. (Acyl-*o*-phenylhydrazic acids). O. V. Kil'disheva, M. G. Lin'kova, and I. L. Kurnyanova (N. D. Zelinskii Inst. Org. Chem. Acad. Sci. U.S.S.R., Moscow). *Izv. Akad. Nauk S.S.R., Otdel. Khim. Nauk* 1955, 462-61; *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1955, 409-10 (Engl. translation); *C.A.* 50, 4914d.—The action of H₂O over a wide pH range converts dihaloacylaminoacrylic acids into (acyl)phenylhydrazic acids through intermediate 2-phenyl-4-hydroy-4-carboxyazolinones. Treatment of 4.5 g. BrCH₂CBn(NHCOCH₂Ph)CO₂H (I) with 3.1 g. NaHCO₃ in 50 ml. H₂O and acidification to pH 1.5 with HCl gave a ppt. of 24% BrCH₂CO(OH)NHCOCH₂PhCO₂H, m. 106-6°; evapn. of the mother liquor and extrn. with BuO gave 17% (*o*-phenylacetyl)phenylhydrazine hydrochloride, m. 57-8° (from CHCl₃), giving a red color with FeCl₃ (3,4-dinitrophenylhydrazine, m. 105-70°, identical with an authentic specimen). The acid forms a sparingly sol. Na salt. Similarly, BrCH₂CBn(NHBz)CO₂H (II) yielded 44.2% BrCH₂CO(OH)(NHBz)CO₂H, m. 92-3°, and a moderate amt. of *o*-benzylacetylphenylhydrazine, m. 108-70° (from CHCl₃) (3,4-dinitrophenylhydrazine, m. 108-73°), which, heated with FeCl₃ in 0.5*N* NaOH, gave BuOH. The mother liquor yielded BrCH₂C(NHBz)CO₂H, m. 124°, as well as some BrCH₂CO(OH)(NHBz)CO₂H, m. 90° and 114°, whose structure is uncertain; this yields a 2,4-dinitrophenylhydrazine, m. 108-70°, identical with that from BrOCH₂COCO₂H. Keeping ClCH₂C(OMe)(NHBz)CO₂Me with MeONa-MeOH 3 hrs. gave the *Mesomer*, m. 56° (HCl salt, m. 110°), of *o*-phenyl-*o*-methyl-3-oxazoline-2-carboxylic acid (III); 2*N* NaOH in MeOH similarly gave

the *Na* salt of III, sol. in EtOH and H₂O; acidification yielded BrOCH₂COCO₂H. 3,3-Dimethylcysteine (IV) (0.3 g.), 0.16 g. NaHCO₃, 5 ml. H₂O, and 0.6 g. BrCH₂CO(OH)(NHCOCH₂Ph)CO₂H-kept 12 hrs. gave a ppt. of *cysteine-Na* salt of 5,5-dimethyl-3-(phenylacetylmercapto)-3,4-thiamidine dicarboxylic acid (V); free V, decomp. 106-7° (from dil. Me₂CO) (pure, decomp. 107-8°). The same result was obtained with I and 3 moles NaHCO₃. V with CH₂N₂ gave apparently 3,3-Me₂ 5,5-dimethyl-3-(phenylacetylmercapto)-3,4-thiamidine dicarboxylate, m. 101-2° (from Bu₂NH) (1.9 g.), 20 ml. H₂O, and 4.3 g. II kept 12 hrs. gave 80.8% dicarboxylic acid, decomp. 105-6° (from dil. Me₂CO), identified as the 3-BuOCH₂ analog of V (from dil. Me₂CO); a low yield of this also formed from IV and II in aq. NaHCO₃, along with a fair yield of BrOCH₂COCO₂H hydrate, isolated as the *Na* salt; the dicarboxylic acid cleaved with Li₂Cl₄ gave the same 3,4-dinitrophenylhydrazine, m. 107-8°, of BrOCH₂COCO₂H as described above. This with activated Al in 80% EtOH gave 28% alanine, with traces of serine and *O*-benzylserine, detected chromatographically. Similar reduction of the 2,4-dinitrophenylhydrazone of PhCH₂COCH₂COCO₂H gave serine, alanine, and *O*-(phenylacetyl)serine (chromatographic estn.); the 2,4-dinitrophenylhydrazones of iBuOCH₂COCO₂H gave serine and alanine (chromatographic estn.), while *O*-benzylserine gave only serine after the reduction. VIII. Alkylation and acylation of cysteine and dimethylcysteine by the derivatives of 2-acylamino-3-halopropionic acids. I. L. Kurnyanova and V. V. Shokina. *Izv. Akad. Nauk S.S.R., Otdel. Khim. Nauk* 1955, 419-71; *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1955, 409-10 (Engl. translation).—Keeping 20.5 g. PhCH₂CONHCl; (CH₂)₃CO₂H overnight in 70 ml.

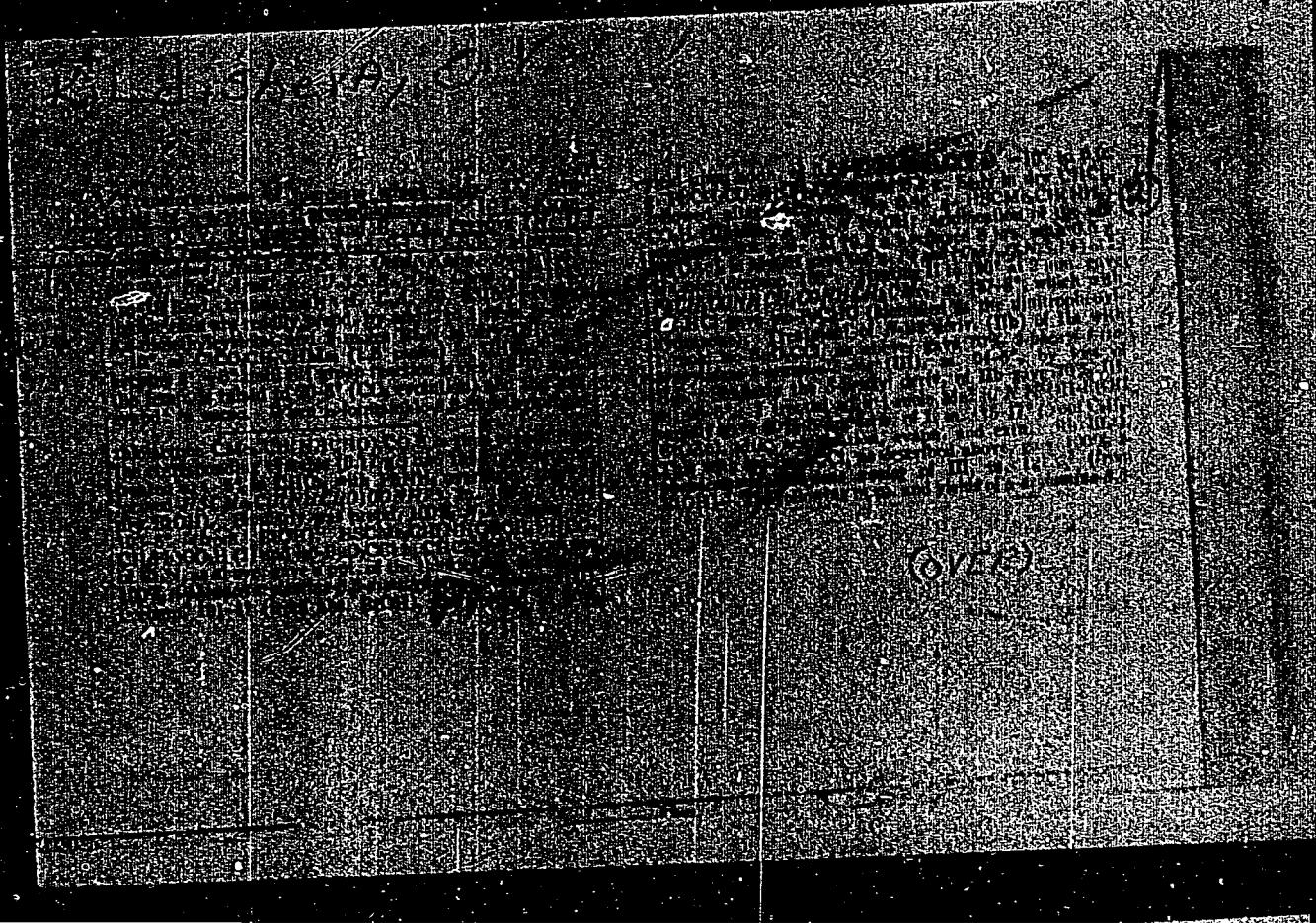
O. V. Kil' desheva
 AcOH conte. 18% HBr, followed by dil. with ice H_2O , gave 90% $BrCH_2CH(NHCO_2CH_2PA)CO_2H$ (I), m. 163° (from $BtOC_6H_5$), which loses HBr in warm H_2O , $NaHCO_3$, $AgNO_3$, or pyridine. Treatment with CH_3NO_2 gave 74.7% M_e ester, m. 87-9°. Refluxing the free acid with H_2O conte. a little HBr 3 hrs. gave $PhCH_2CO_2H$ and 78.6% series, decomp. 230°. I warmed with Ac_2O and evapd. in vacuo gave after extn. with Et_2O and evapn. of the ext. 1-methyl-3- $benzoyl-2-pyrrolidone$, m. 120-31° (cf. Chemistry of Penicillin, 1949, pp. 704-5 (Comforth, C.A. 43, 3127a)), which is an irritant to mucous membranes. Cysteine (0.12 g.) in 2 ml. dil. $NaOH$ treated with 0.20 g. I with gradual addn. of $NaOH$ to maintain the soln. basic, and the mixt. evapd. the following day, and reduced with 20% HCl 3 hrs. yielded $PhCH_2CO_2H$; the filtrate evapd. and treated with $NaOAc$ gave 50% $HO_2CCH(NH_2)CH_2SCH_2CH(NH_2)CO_2H$, decomp. 260°. Similar reaction with dimethylcysteine gave 5,5-dimethyl-2-fatty-4-hydroxy-5-oxo-4- ω -carboxylic acid, m. 141-3°, and HCl -inol. (N -dimethyl-5,5-dimethylcysteine, m. 120-30°, as well as some serine). Dry HBr passed into 4 ml. AcOH conte. 2 g. $BtNHCO_2CH_2CO_2H$ and the mixt. quenched in ice after 1 hr. yielded 60% $BrCH_2CH(NH_2)CO_2H$, decomp. 130-7° (from $BtOC_6H_5$). CH_3NO_2 gave the M_e ester, m. 116-17° (cf. Fry, C.A. 44, 7240). Refluxing this with very dil. HBr 2 hrs. gave 75% o -benzylserine, m. 150°; refluxing with 20% HCl gave serine. Dry HCl passed into a dry dioxane soln. of the unsatd. acid gave $(CH_2CH(NH_2)CO_2H)NH_2Bz$, m. 143-4°.

Similarly was prep'd. $\text{CICH}_2\text{CH}(\text{CO}_2\text{H})\text{NHCOCH}_2\text{Ph}$, m. 174-6° (from EtOAc). Heating 10 g. phenacetinic acid and 30 ml. AcO 6-10 min. at 80°/40 mm., and evap'd. to residue at 90-90°, gave 44.6% phenacetinic anhydride, m. 118-17°. This (1.84 g.) added to 0.73 g. dimethylcysteine in 6 ml. H_2O and 0.4 g. NaOH at 10°, and the mixt. shaken 6-10 min. and acidified with HCl gave a ppt. which recrystd. from H_2O yielded 50% N -(phenacetinyl)- α -methylcysteine, m. 142-4°. This treated in 3 N NaOH with $\text{CH}_3\text{CH}_2\text{CO}_2\text{H}$ 1 hr. at 0° gave $\text{HO}_2\text{C}(\text{NHCOCH}_2\text{NHCOCH}_2\text{Ph})\text{CMs}-\text{SCH}_2\text{CO}_2\text{H}$, decomp. 90-100° (from EtOAc - EtO). MeC_6H_5 contg. a trace of HCl with 2-phenyl-4-methyl-1-benzalido-2-oxazolin-5-one (III), m. 163°, gave $\text{MeC}(\text{NHBS})_2\text{CO}_2\text{Me}$, m. 167-8°. 1.6 g. of the free acid treated with 3 g. SOCl_2 and the SO_2 -evap'd. gave 1.4 g. $\text{H}_2\text{NCH}_2\text{CO}_2\text{H}$, decomp. 80°, hydrolyzed to the initial acid with hot 0.1*N* NaOH II (1 g.) added to 0.5 g. dimethylcysteine in 18 ml. 0.5*N* NaOH and kept 3 hrs. at 80°, gave, after filtration and acidification with HCl , 80% $\text{MeC}(\text{SH})\text{CH}(\text{NHCOCH}_2\text{NHBS})_2\text{Me}$, m. 203-4° (from aq. EtOAc). Heating 3.4 g. $\text{MeC}(\text{NHCOCH}_2\text{NHBS})_2\text{Me}$ and 12 ml. AcO 2 hrs. on steam bath gave 70% 2-benzyl-4-methyl-4-(phenacetamido)-2-oxazolin-5-one, m. 169-70° (from EtOAc). This heated with dimethylcysteine in 3 N NaOH 0.5 hr. at 80° gave, after filtration and acidification with HCl , 40% N -(2-bis(phenacetamido)propanyl)- α -methylcysteine, $\text{HO}_2\text{C}(\text{NHCO}(\text{NHCOCH}_2\text{NHBS})_2\text{Me})\text{CMs}-\text{SH}$, m. 187-9° (from 50% EtOAc). Q.M.

G. M. C. 1999

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9

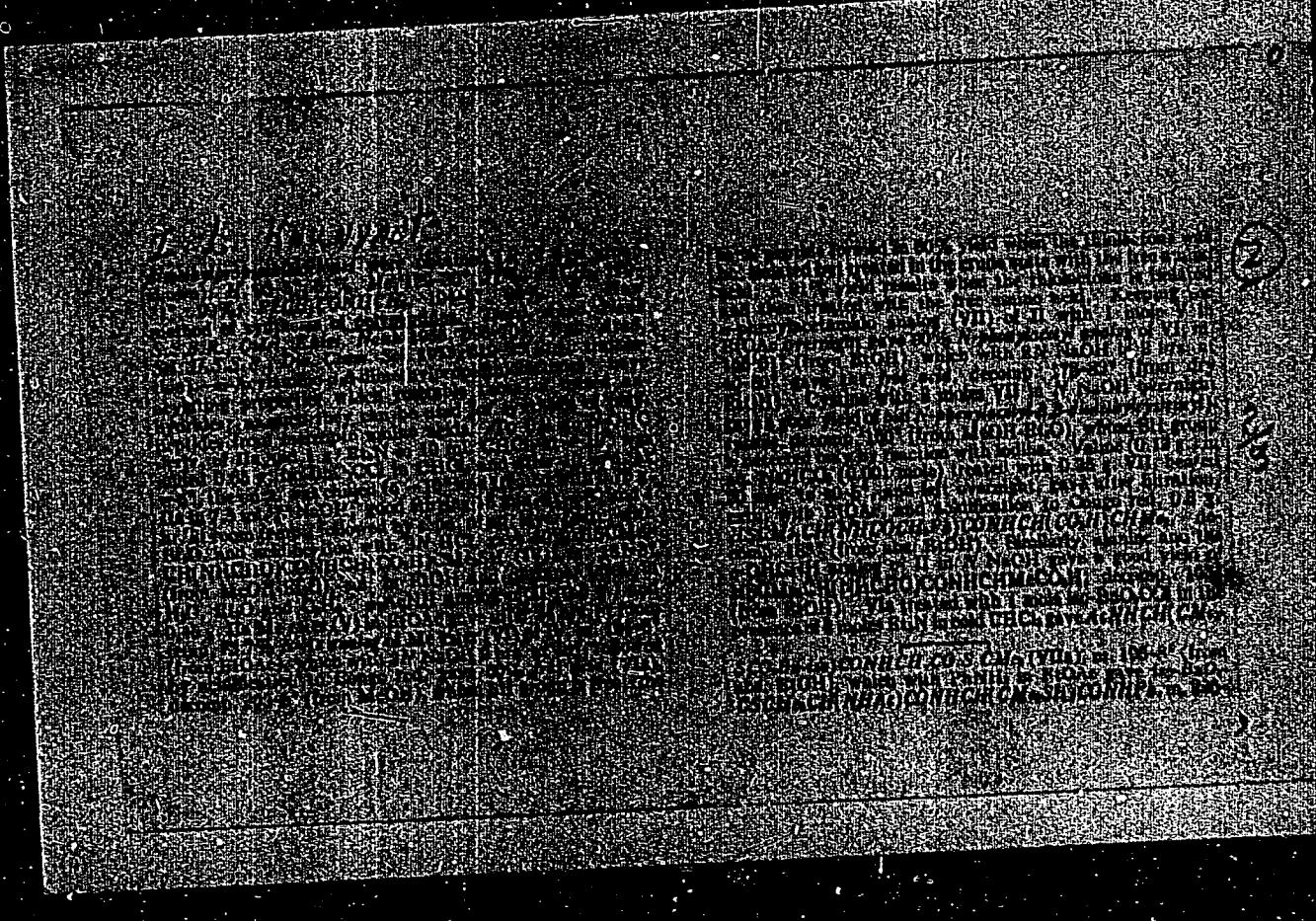


APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9

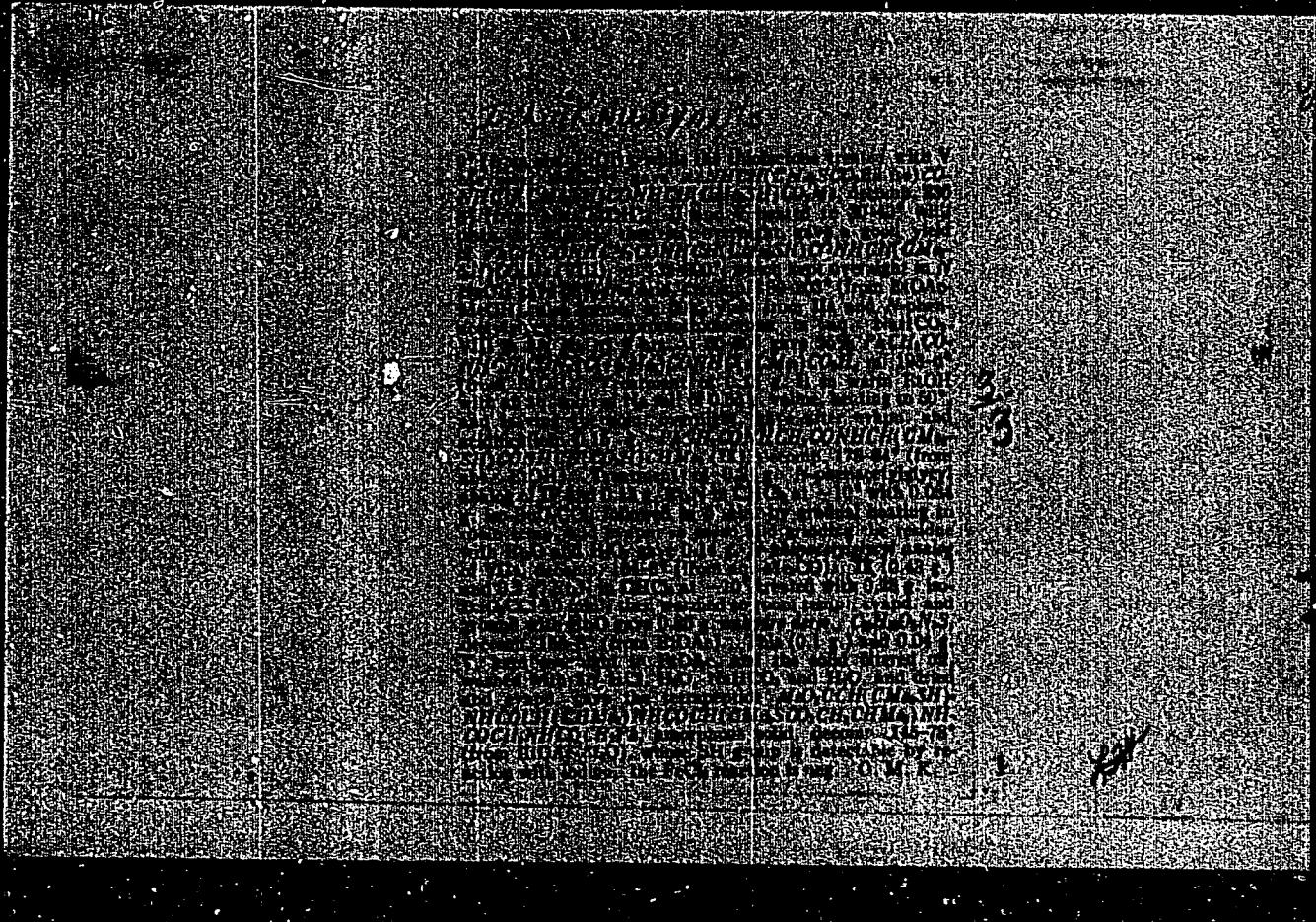


APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

Kil'dishera, O. V.

USSR/ Chemistry - Conversions

Card 1/1 Pub. 40 - 10/27

Authors : Knunyants, I. L.; Kil'dishera, O. V.; and Lin'kova, M. G.

Title : Conversions of mercaptoamino acids. Part 3. Acylation and alkylation of dimethylcysteine

Periodical : Izv. AN SSSR. Otd. khim. nauk 1, 71-77, Jan-Feb 1955

Abstract : The derivation of various N-acrylic derivatives of dimethylcysteine containing Br, Cl and methoxyl in the acyl radical is described. It is shown that the above mentioned derivatives cyclize as a result of the intra-molecular attachment of the mercapto group of dimethylcysteine in place of the multiple bond of the acrylic radical forming 1-thia-5-aza-cyclo-heptanone-3. The results obtained from the reaction of dimethylcysteine with unsaturated acids and their derivatives, are explained. One USSR reference (1955).

Institution : Acad. of Sc., USSR, The N. D. Zelinskiy Inst. of Org. Chem.

Submitted : April 9, 1954

KIL'DISHEVA, O.V.

USSR/ Chemistry - Biochemistry

Card 1/1 Pub. 40 - 10/26

Authors : Kil'disheva, O. V.; Rasteykene, L. P.; and Knumyants, I. L.

Title : Conversions of mercaptoamino acids. Part 4. Alpha, beta-dihalogeno-alpha-acyl aminopropionic acids

Periodical : Izv. AN SSSR, Otd. khim. nauk 2, 260 - 270, Mar-Apr 1955

Abstract : A study of the halogenation reaction of alpha-acylaminoacrylic acids showed that they combine easily with Cl and Br forming sufficient quantities of alpha, beta-dihalogeno-alpha-acylaminoacrylic acids. The most favorable conditions for the halogenation were found to be room temperature, with 10% Cl or Br solutions in dry chloroform or carbon tetrachloride media. Alpha, beta-dihalogeno-alpha-acylaminoacrylic acid was found insoluble in CHCl₃, but well soluble in ether. Thirty references: 21 USA, 6 German, 1 Swiss and 2 English (1930-1954). Tables.

Institution : Acad. of Sc., USSR, The N. D. Zelinsky Inst. of Organ. Chem.

Submitted : April 9, 1954

KIL'DISHEVA, O.V.

User/ Chemistry - Biochemistry

Card 1/1 Pub. 40 - 11/26

Authors : Kil'disheva, O. V.; Lin'kova, M. G.; and Knunyants, I. L.

Title : Conversions of mercaptoamino acids. Part 5. Beta-halogeno-alpha-oxy-alphaacylaminopropionic acids and their derivatives

Periodical : Izv. AN SSSR. Otd. khim. nauk 2, 271 - 281, Mar-Apr 1955

Abstract : It was established experimentally that alpha, beta-dihalogeno-alpha-acly-aminopropionic acids easily exchange the halogen atom oriented in alpha-position into oxy, alkoxy, acetoxy and other groupings. It is shown that alpha-oxy-, alpha-alkoxy-beta-halogeno-alpha-phenacylaminopropionic acids in the presence of acetic anhydride convert easily into 2-benzyl - 4 - halogenomethyleneoxazolones. The product obtained from the reaction of beta-chloro-alpha-benzoylaminio-alpha-oxypropionic acid with acetic anhydride is described. One USSR reference (1955). Table.

Institution : Acad. of Sc., USSR, The N. D. Zelinskiy Inst. of Organ. Chem.

Submitted : April 9, 1954

KIL'DISHEVA, O.V.

USSR/ Chemistry - Biochemistry

Card 1/1 Pub. 40 - 12/26

Authors : Kil'disheva, O. V.; Lin'kova, M. G.; and Knunyants, I. L.

Title : Conversions of mercaptoamino acids. Part 6. Beta-halogeno-alpha-acylamino acrylic acids and their derivatives

Periodical : Izv. AN SSSR. Otd. khim. nauk 2, 282 - 288, Mar-Apr 1955

Abstract : It is shown that thermal cleavage of hydrogen halide from alpha, beta-dihalogeno-alpha-acylaminopropionic acid results in the formation of beta-halogeno-alpha-acylaminocrylic acid. The product obtained from the reaction of the acrylic acid with acetic anhydride is described. The derivation of the first representative of unsaturated internal anhydrides of carboxyamino acid - internal anhydride of alpha-carboxyamino-beta-bromacrylic acid - during the reaction of beta-bromo-alpha-carbobenzoyloxyaminoacrylic acid with dehydrating agents is discussed. Six references: 4 USA and 2 USSR (1947-1955). Tables.

Institution : Acad. of Sc., USSR, The N. D. Zelinskiy Ins. of Organ. Chem.

Submitted : April 9, 1954

XIL'DISHEVA,O.V.

LIN'KOVA,M.G.; XIL'DISHEVA,O.V.; KNUYANTS,I.L.

β -thiolactones. Izv.AN SSSR. Otd.khim.nauk no.3:569-570
My-Je '55. (MIRA 8:9)

1. Institut elementoorganicheskikh soyedineniy Akademii nauk
SSSR (Thiolactones)

Kil'disheva, O.V.

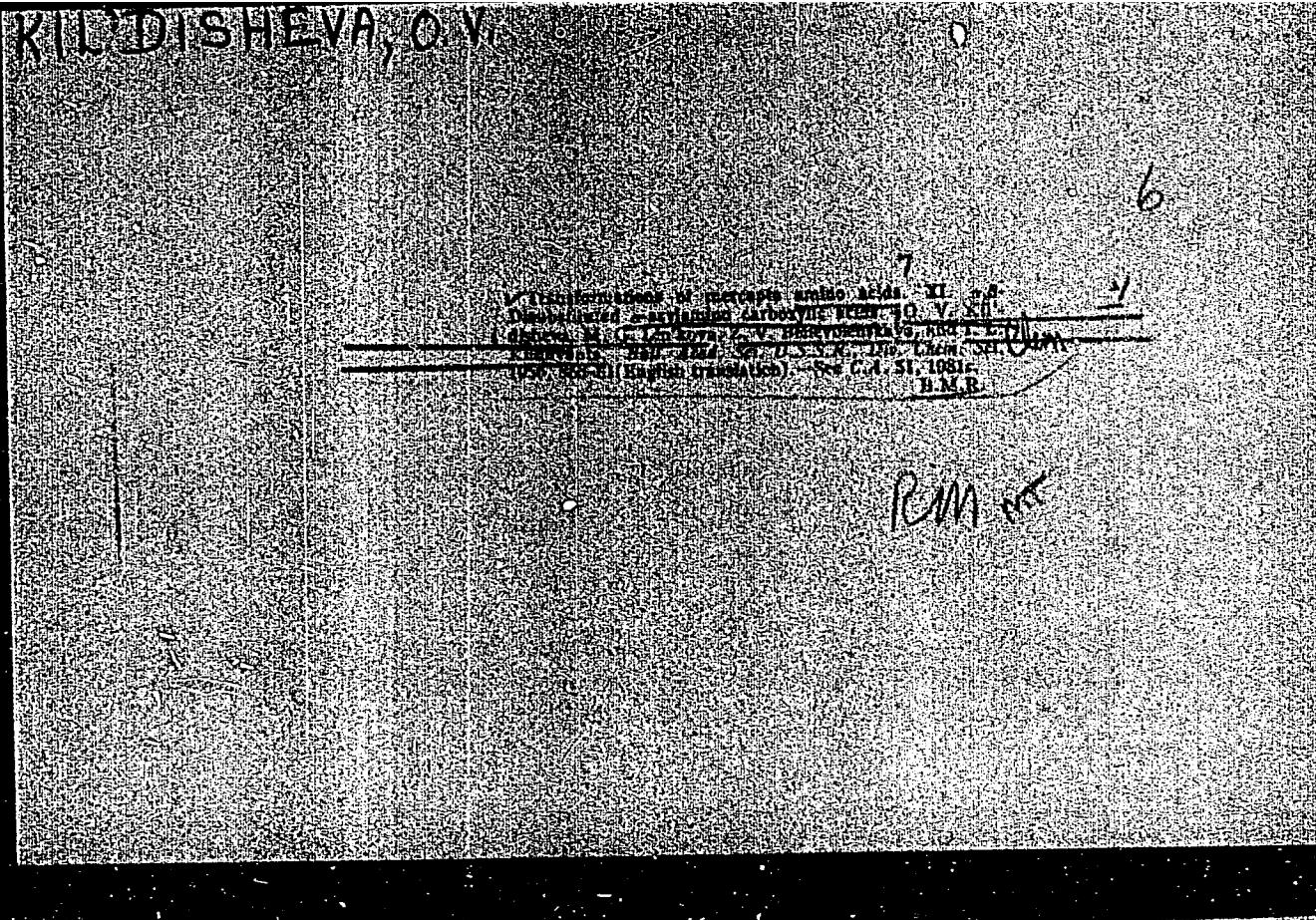
KNUNYANTS, I.L.; KIL'DISHEVA, O.V.; PEROVA, Ye.Ya.

Conversion of mercaptoamine acids. Report no.10. New method for
the synthesis of polypeptides. Izv.AN SSSR, Otd.khim.nauk no.4:
696-704 Jl-Ag '55. (MLRA 9:1)

I.Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii
nauk SSSR.
(Peptides) (Amine acids)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9

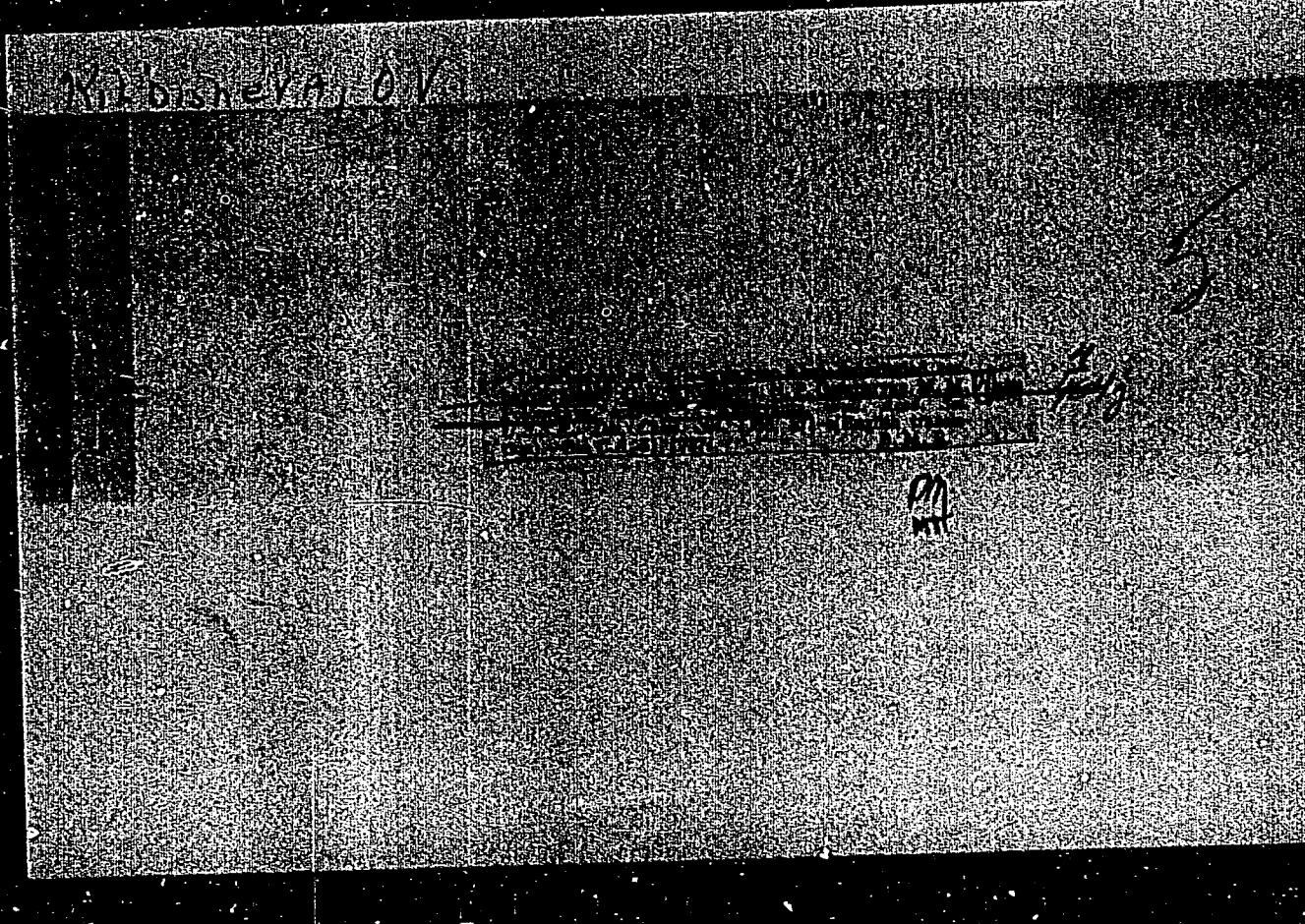


APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

KIL'DISHEVA, O.V.; LIN'KOVA, M.G.; HENNOVOLENSKAYA, I.L.

~~Conversions of mercapto amino acids. Part 11. α,β -disubstituted-~~
~~- ω -acylaminocarboxylic acids. Izv.AN SSSR Otd.khim.nauk no.7:834-~~
842 J1 '56. (MLRA 9:10)

1.Institut elementoorganicheskikh soedineniy Akademii nauk SSSR.
(Acids, Fatty)

Kil'disheva, O. V.

USSR/Organic Chemistry, Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya No 6, 1957, 19069

Author : Kil'disheva, O. V., Gambaryan N.P., Tolonskaya M.M.,
Khunyantz I.L.

Inst :
Title : Problem of Decarboxylation of -acylamino - -halido-
substituted Carbonic Acids.

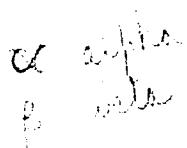
Orig Pub: Izv. AN SSSR, Otd. Khim. N., 1956, No 7, 850-854.

Abstract: α, β -Dichloro- α -benzoylaminovaleric acid (I) and
 α -oxy- β -chloro- α -benzoylaminovaleric acid (II) by
heating with $(CH_3CO)_2O$ or at the action of ketene
(III) form 2-phenyl-4-acetoxy-4-(2-chloroisopropyl)-
oxazolone (IV). It is shown that II at the action
of a solution $NaHCO_3$ is easily transformed into iso-
butyrylbenzimidide (V), apparently, through the formation
stage of β -lactone. Eleven g. of α -benzoylamino β, β' -

Card : 1/3

Card : 2/3

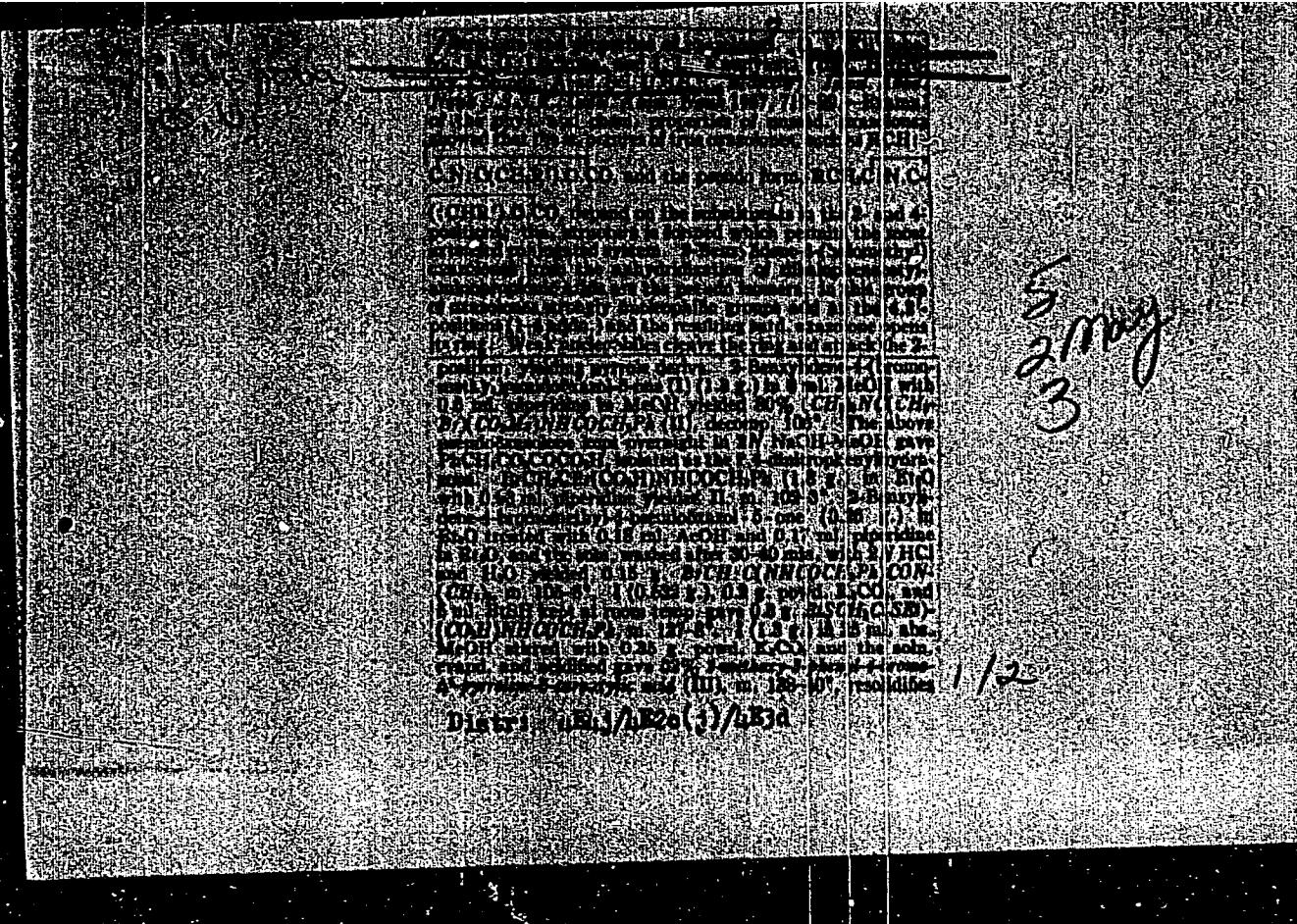
KIL'DISHEVA, O.V., Doc Chem Sci -- (diss) " α,β -disubstituted-
- α -aminocarboxylic acids". Mos, 1957, 19 pp (Acad Sci USSR,
Inst of Element-Organic Compounds), 100 copies. (KL, 1-58, 114)



- 9 -

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9

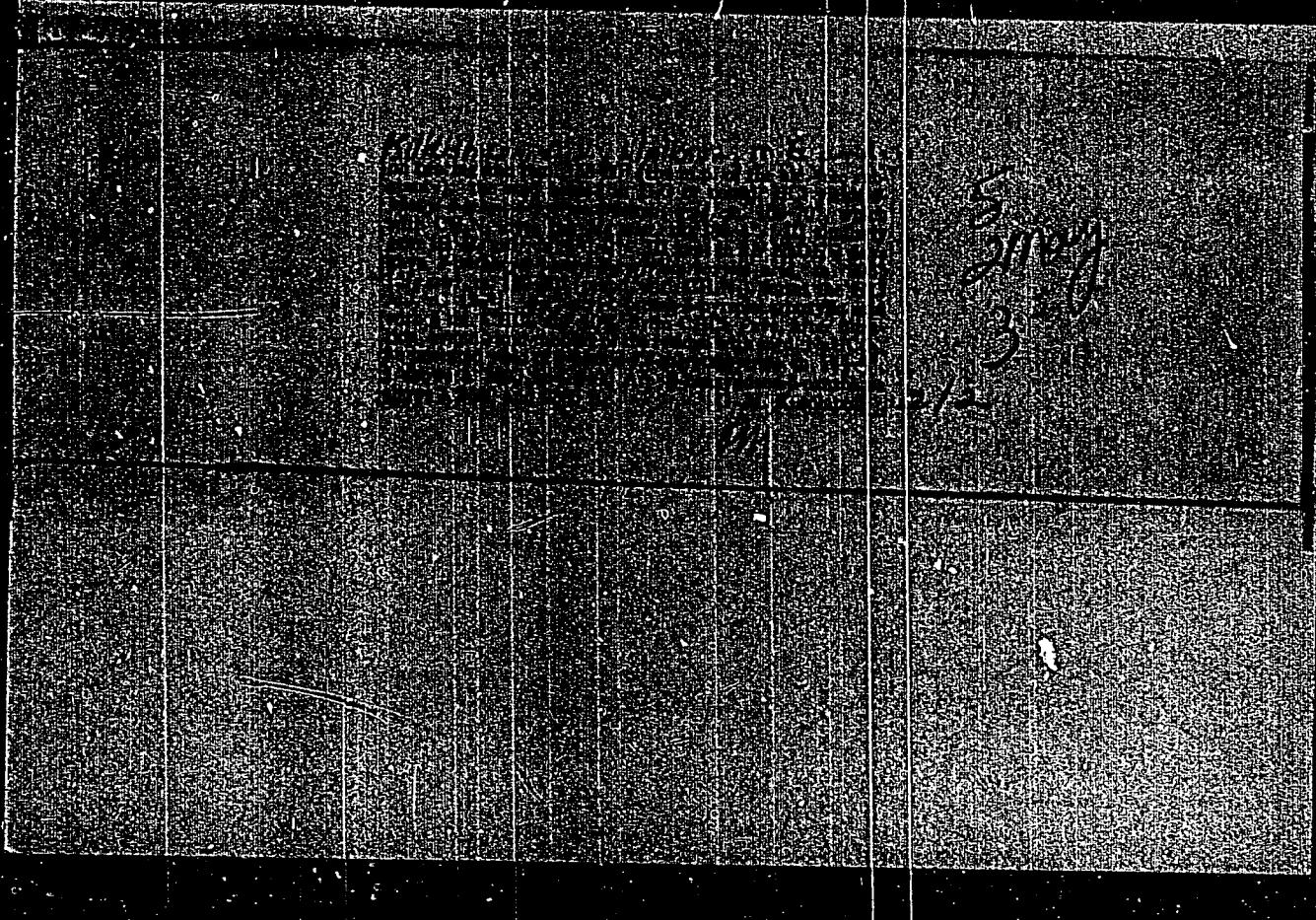


APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9

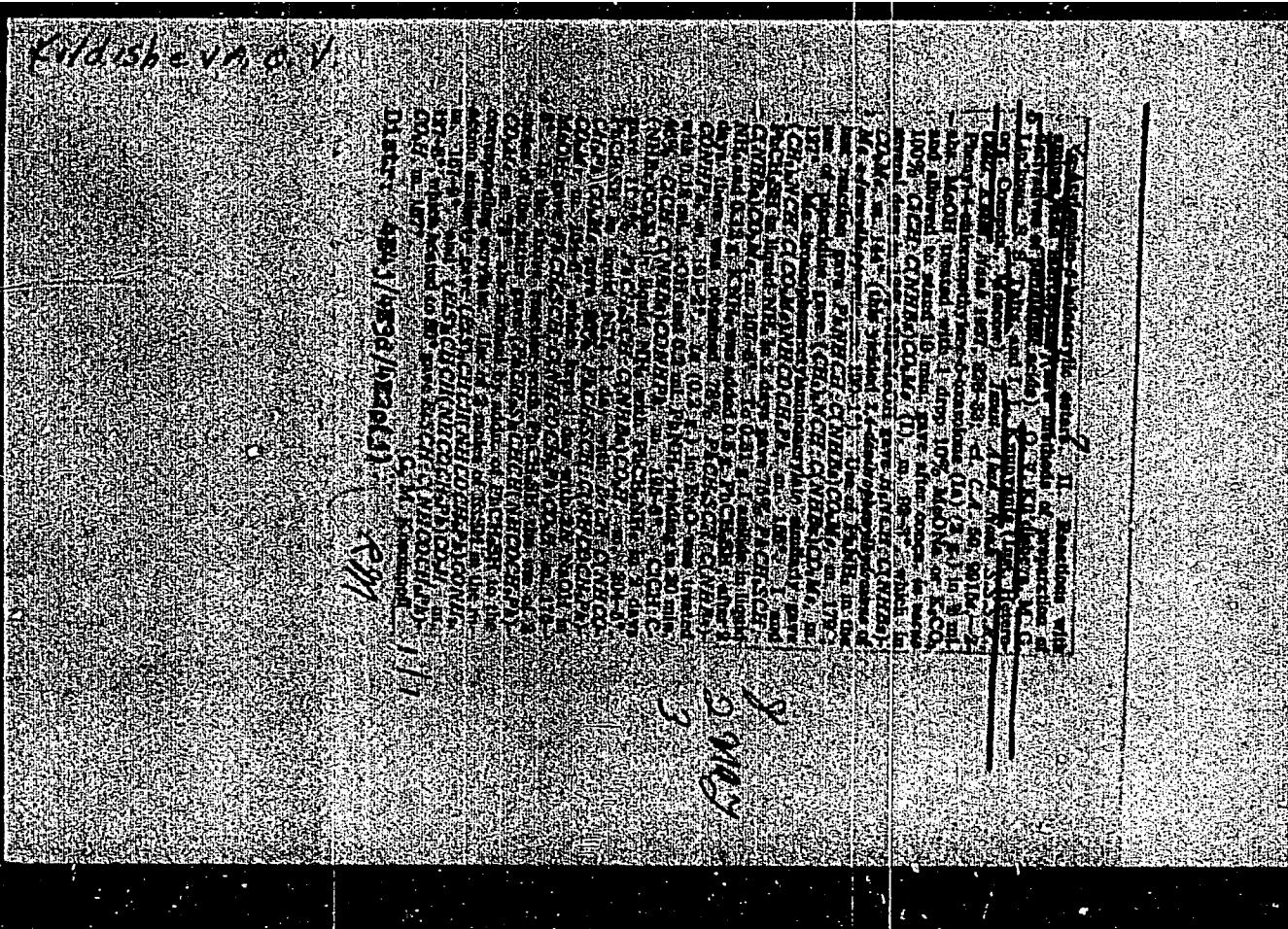


APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

KNUNYANTS, I.L.; PERVOVA, Ye.Ya.; LIN'KOVA, M.G.; KIL'DISHEVA, O.V.

β -Thiolactones, their polycondensation and polymerization. Khim.
nauka i prom. 3 no.2:278-279. '58. (MIRA 11:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Lactones)

5(3)

AUTHORS: Kill'disheva, O., V., Lin'kova, M. G., SOV/62-58-11-12/26
Savosina, V. M., Knunyants, I. L.

TITLE: α, β -Disubstituted α -Acylamino Carboxylic Acids
(α, β -Dizameshchennyye α -atsilaminokarbonovyye kisloty)
Communication II. A New Method of Forming
Oxazole-4-Carboxylic Acids (Soobshcheniye 2. Novyy sposob
obrazovaniya oksazol-4-karbonovykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1958, Nr 11, pp 1348-1353 (USSR)

ABSTRACT: It has been communicated (Ref 1) that α, β -dihalogen- α -acylamino propionic acids easily react with water, alcohols, and amines and that they form α -substituted α -acylamino- β -halogen carboxylic acids (I). Further investigations have demonstrated that α, β -dihalogen- α -acylamino propionic acids easily react with mercaptans and according to the halogen (chlorine or bromine) mono- or dialkthio acids are obtained. In this paper a new reaction for the formation of oxazole carboxylic acids from α -acylamino- β -halogen acrylic acids is demonstrated.
Card 1/3 α -substituted α -acylamino- β -halogen propionic acids

α,β -Disubstituted α -Acylamino Carboxylic Acids. SOV/62-58-11-12/26
Communication II. A New Method of Forming
 α -Oxazole-4-Carboxylic Acids

transform into oxazoline carboxylic acids under the action of alkali. They form according to the conditions either acyloxy-pyroracemic acids or oxazole carboxylic acids. The mechanism of formation of acyloxy pyroracemic acid from α -substituted α -acylamino- β -halogen carboxylic acids has been described already earlier (Ref 3). In this paper a mechanism of formation of oxazole carboxylic acids from α -acylamino- β -halogen acrylic acids was suggested. It was shown that the formation of oxazole carboxylic acid from α -substituted α -acylamino- β -halogen propionic acids takes place over a stage of formation of 2-aryl (or alkaryl)-4-substituted oxazoline-4-carboxylic acids without preceding transition into the corresponding α -acylamino- β -halogen acrylic acids. There are 7 references, 3 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR
(Institute of Elemental-organic Compounds of the Academy of Sciences, USSR)

Card 2/3

5(3)

SCV/62-58-12-9/22

AUTHORS:

Kil'disheva, O. V., Shokina, V. V., Knunyants, I. L.

TITLE:

α,β -Disubstituted α -Acylamino Carboxylic Acids (α,β -Dizameshchennyye α -atsilaminokarbonovyye kislcty) Communication 3: α,α -Diacylamino- β -Halogen Propionic Acids (Scobshcheniye 3. α,α -Diatsilamino- β -galcidopropionovyye kislcty)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 12, pp 1461-1467 (USSR)

ABSTRACT:

Some time ago it was proved (Ref 1) that α,β -dihalogen- α -acyl-amino propionic acids (I) easily react with water, alcohols, amines and mercaptans, forming the corresponding α -substituted α -acylamino- β -halogen carboxylic acids (II). Unsuccessful attempts were made to obtain the α,α -diacylamino- β -halogen propionic acids (III), where X = NHCOR, by a reaction of α,β -dihalogen- α -acylamine propionic acids with the corresponding amides. Further investigations showed, however, that α,α -diacylamino- β -halogen propionic acids can easily be obtained by the condensation of halogen pyrrolacemic acids with the corresponding nitriles in the presence of concentrated sulfuric acid in much the same way as in the production of α,α -diacyl-

Card 1/2

SOV/62-58-12-9/22

α,β -Disubstituted α -Acylamino Carboxylic Acids. Communication 3: α,α -Diacyl- α -amino- β -Halogen Propionic Acids

amino carboxylic acids (Ref 2). According to this method the α,α -diacylamino- β -halogen propionic acids mentioned in table 1 were obtained. The dehydration of α,α -diacylamino- β -halogen propionic acids on heating led to the saturated oxazolones (VII) (Table 2). The oxazolones obtained were usually crystallized from acetic anhydride as stable, colorless, crystalline compounds. On the action of methyl alcohol on 2-methyl-4-acetylaminoc-4-chloro-methyl oxazolone-5 in the absence of moisture, the new α -amino- α -acetylaminoc- β -chloro propionic acid (VIII) with the melting point 135° was easily formed. There are 2 tables and 7 references, 3 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR
(Institute of Elementorganic Compounds, Academy of Sciences,
USSR)

SUBMITTED: March 29, 1957

Card 2/2

20-119-1-22/52

AUTHORS: Golubeva, N. Ye., Kil'disheva, O. V., Knunyants, I. L.,
Member of Academy of Sciences

TITLE: Cancerolytic Peptides (Kantseroliticheskiye peptidy)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1,
pp. 83 - 86 (USSR)

ABSTRACT: Cancerolytic, sarcolysin-containing dipeptides (table 1) were produced by condensation of the N-formyl-derivative of p-di-(β -ethyl chloride)-amino-DL-phenylalanin (sarcolysin) with ethers of various amino acids. By the interaction of the sarcolysin-ethyl-ether with p-di(β -ethyl chloride)-amino-phenyl-acetic-acid the ethyl ether of p-di-(β -ethyl chloride)-aminophenacetyl-sarcolysin was obtained. Further p-di-(β -ethyl chloride)-aminophenacetyl- and γ -[p-di-(β -ethyl chloride)-amino γ -phenylbutyryl-derivates of various amino acids were produced whose general formula is given (table 2). By the interaction of p-di-(β -ethyl chloride)-aminophenyl-acetic-acid and γ /p-di-(β -ethyl chloride)-amino/phenylbutyric-

Card 1/3

20-119-1-22/52

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000722520013-9"
Cancerolytic Peptides

acid with anilin in the presence of 1,3-dicyclo-hexyl-carbo-diimide the corresponding anilides were obtained; it is true that in the case of the interaction of these acids with 2-methyl-5-ethoxymethylene-6-amino-pyrimidin or with p-di-(β -ethyl chloride)-aminophenyl-acetic-acid with cyclohexal-amine only N-acyl-derivatives of 1,3-dicyclohexyl-urea were isolated. Preliminary samples on the cancerolytic action of the sarcolysin-containing peptides were performed in the Institute for Experimental Pathology and Cancer Therapy of the Academy of Medical Sciences of the USSR (Institut eksperimental'noy patologii i terapii raka Akademii meditsinskikh nauk SSSR). It became evident that the sarcolysin-peptides possess marked properties close to those of sarcolysin which act against tumors and which at the same time are not toxic and have a high selectivity of the action upon some tumors. Finally the general method of production of sarcolysin-containing peptides and that of the individual peptides is given in a kind of experimental part.

Card 2/3

KNUNYANTS, I.L.; GOLUBEVA, N.E.; KIL'DISHEVA, O.V. (Moskva)

Principles underlying the production of specific carcinolytic
preparations. Usp. soov. biol. no.2:167-173 S-0 '60.
(MIRA 13:11)
(CYTOTOXIC DRUGS)

KNUNYANTS, I.L., Akademik; GOLUBEVA, N.Ye.; KIL'DISHREVA, O.V.

Cancerolytic peptides of directional activity. Dokl.AN SSSR 132
no.4:836-838 Je '60. (MIRA 13:5)
(Peptides)

KARPAVICHUS, K.I.; GOLUBEVA, N.Ye.; KIL'DISHEVA, O.V.; KNUNYANTS, I.L.

Cancerolytic peptides having specific action. Report No.2:
p-Di-(chloroethyl)amino-D,L-phenylalanyl-D,L-valine. Izv.
AN SSSR. Otd.khim.nauk no.7:1297-1299 Jl '61. (MIRA 14:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Valine)

KARPAVICHUS, K.I.; GOLUBEVA, N.Ye.; KIL'DISHEVA, O.V.; KNUNYANTS, I.L.

Cancerolytic peptides having specific action. Report No.3:
N-[p-di(2-chloroethyl)-aminophenacetyl] and N-(p-di(2-chloroethyl)
-aminophenylbutyl] amino acids. Izv. AN SSSR. Otd.khim.nauk
no.7:1299-1303 Jl '61. (MIRA 14:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Amino acids)

KNUNYANTS, I.L., akademik; KIL'DISHEVA, O.V.; GOLUBEVA, N.Ye.;
ZURABYAN, S.

Diethyleneimidophosphoryl and diethyleneimidothiophosphoryl
derivatives of amino acids and peptides. Dokl. AN SSSR
142 no.2:370-373 Ja '62. (MIRA 15:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Amino acids)
(Peptides)
(Phosphorus organic compounds)

KNUNYANTS, I.L.; GOLUBEVA, N.Ye.; KARPAVICHUS, K.I.; KIL'DISHEVA, O.V.

Cancerolytic peptides having specific action. Zhur. VKB 7 no.2:
238 '62. (MIRA 15:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Peptides) (Cytotoxic drugs)

KNUNYANTS, I.L.; KARPAVICHUS, K.I. [Karpavicius, K.I.]; KIL'DISHEVA, O.V.

Cancerolytic peptides with specific action. Report No.4: New derivatives of sarcolysine and their use for the synthesis of peptides with different position of sarcolysisne in the peptide chain. Izv.AN SSSR.Otd.khim.nauk no.6:1024-1031 '62.

(MIRA 15:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Peptides) (Sarcolysine)

KIL'DISHEVA, O.V.

GOFMAN, A.; FREY, A.I.; RUTSHMANN, I.; OTT, Kh.; SHEMYAKIN, M.M.; KISHFALUDI, L.; KOCHETKOV, N.K.; DEREVITSKAYA, V.A.; PROKOF'YEV, M.A.; SHABAROVA, Z.A.; FILIPPOVA, L.A.; SHANKMAN, S.; KHAYGA, S.; LIV, F.; ROBERTS, M.Ye.; GAVRILOV, N.I.; AKIMOVA, L.N.; KHLUDOVA, M.S.; MAKSIMOV, V.I.; IZELIN, B.M.; SHEPPARD, R.K.; SHKODINSKAYA, Ye.N.; VASINA, O.S.; BERLIN, A.Ya.; SOF'INA, Z.P.; LARIONOV, L.F.; KNUNYANTS, I.L.; GOLUHEVA, N.Ye.; KARPAVICHUS, K.I.; KIL'DISHEVA, O.V.; MEDZIGRADSKIY, K.; KAFTAR, M.; LEV, M.; KORENSKI, F.; BUASSONA, R.A.; GUTTMAN, St.; KHOYGENIN, R.L.; ZHAKENO, P.A.; BAZHUS, S.; LENARD, K.; DUAL'SKI, S.; SHREDER, Ye.; SHMIKHEN, R.; KHOKHLOV, A.S.

Results of the Fourth European Symposium on the chemistry of peptides. Abstracts of reports. Zhur. VKHO 7 no.4:468-476 '62. (MIRA 15:8)

1. Aktsionernoje obshchestvo "Sandos", Basel', Shveytsariya (for Gofman, Frey, Ott, Rutshmann). 2. Farmatsevticheskaya fabrika "O.Rikhter", Budapest, Vengriya (for Kishfaludi, Korenski, Dualski). 3. Institut khimii prirodnnykh soyedineniy AN SSSR, Moskva (for Kochetkov, Derevitskaya, Shemyakin, Khokhlov). 4. Laboratoriya khimii belka Moskovskogo gosudarstvennogo universiteta (for Prokof'yev, Shabarova, Filippova, Gavrilov, Akimova, Khludova). 5. Fond meditsinskikh issledovaniy, Pasadena, Kaliforniya, Sev.Soyed.Shtaty Ameriki (for Shankman, Khayga, Liv, Roberts). 6. Laboratoriya khimii belka Instituta organicheskoy
(Continued on next card)

Gofman, A.,—(Continued) Card 2.

khimii AN SSSR, Moskva (for Maksimov). 7. Aktsionernoje obshchestvo "TSiba", Bazel', Shveytsariya (for Izelin).
8. Liverpul'skiy universitet, Angliya (for Sheppard). 9. Institut eksperimental'noy i klinicheskoy onkolofii AMN SSSR, Moskva (for Shkodinskaya, Vasina, Berlin, Sof'ina, Larionov). 10. Institut elementoorganicheskikh soyedineniy AN SSSR, Moskva (for Knunyants, Golubeva, Karpavichus, Kil'disheva). 11. Institut organicheskoy khimii Budapestskogo universiteta, Vengriya (for Medzigradskiy, Kaftar, Lev). 12. Farmatsevticheskiy otdel Aktsionernogo obshchestva "Sandos", Bazel', Shveytsariya (for Buassona, Guttman, Khogenin, Zhakeno, Rutshmann). 13. Issledovatel'skiy institut farmatsevticheskoy promyshlennosti, Budapest, Vengriya (for Bazhus, Lenard). 14. Aktsionernoje obshchestvo "Shering", Zapadnyy Berlin (for Shreder, Shmikhen).
(Peptides--Congresses)

KNUNYANTS, I.L.; GOLUBEVA, N.E.; KARPAVICHYUS, K.I.; KIL'DISHEVA, O.V.

Cancerolytic peptides of directed action. Coll Cz Chem 27 no.9:
2253-2254 S '62.

1. Institute of Organoelementary compounds, Academy of Sciences of
the U.S.S.R., Moscow (for Golubeva and Kil'disheva).

KAZ'MINA, N.B.; KIL'DISHEVA, G.V.; KNUNYANTS, I.L.

Cancerolytic peptides of specific action. Report No.5: Some amino acids and peptides containing a N-di-(β -chloroethyl)aminophosphoryl group. Izv.AN SSSR. Ser.khim. no.1:117-131 Ja '64. (MIRA 17:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

KAZ'MINA, N. B.; KIL'DISHEVA, O. V.; KNUNYANTS, I. L.

Acylation of serine, cystine, and cystamine with p-d i
(2-chloroethyl) aminophenylalkanic acid chlorides. Izv AN
SSSR Ser Khim no. 4:755-756 Ap '64. (MIRA 17:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ZURABYAN, S.E.; RASTEYKENE, L.P.; KIL'DISHEVA, O.V.; KNUNYANTS, I.L.

N α -acyl derivatives of arginine containing α -di(2-chloroethyl) amino group. Izv. AN SSSR. Ser. khim. no.10:1899-1901 O '64.
(MIRA 17:12)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

DAGENE, M.I. [Dagine, M.]; RASTEYKENE, L.P. [Rasteikiene, L.];
KIL'DISHEVA, O.V.; KNUNYANTS, I.L.

N α -acyl derivatives of histidine bearing α -(2-chloroethyl)
amino group. Izv. AN SSSR. Ser. khim. no.5:917-919 '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i Institut
khimii i khimicheskoy tekhnologii AN Litovskoy SSR.

ARTICLE 1. THE UNITED STATES OF AMERICA

Diclofenac enhanced the salts of β -amylase activity in the rat brain and the mechanism may be due to the effect of enhanced β -amylase activity on the breakdown of starch.

Все эти элементы органических соединений...

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

ACC NR: AP6024023

SOURCE CODE: UR/0062/66/000/006/1115/1116

AUTHOR: Knunyants, I. L.; Puzerauskas, A. P.; Kil'disheva, O. V.;
Pervova, Ye. Ya.

ORG: Institute of Heteroorganic Compounds, Academy of Sciences, SSSR
(Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR)

TITLE: Symmetrical diethyl di-p-nitrophenyl 1,2-ethylenediphosphonate

SOURCE: AN SSSR, Izv. Ser khim, no. 6, 1966, 1115-1116

TOPIC TAGS: antitumorogenic compound, alkynitrophenyl diphosphonate,
ORGANIC SYNTHETIC PROCESS, ETHYLENE, DIPHENYL COMPOUND,
CYCLIC GROUP

ABSTRACT:

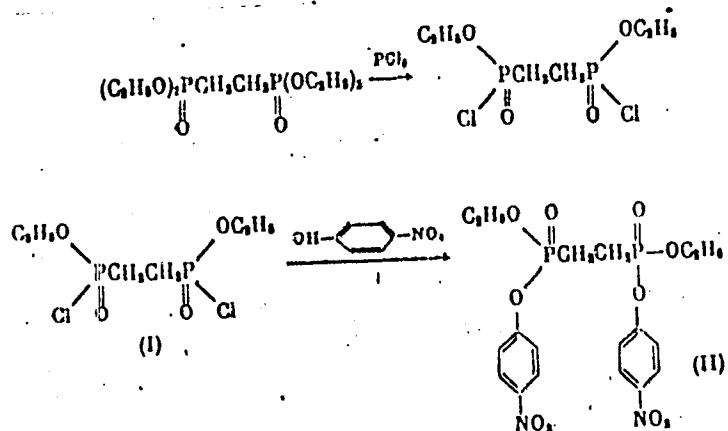
Previous studies showed that some bisethyleneimines possess antitumorogenic properties; in this connection, preparation of symmetrical diethyl di-p-nitrophenyl 1,2-ethylenediphosphonate (II) was studied. At 68–70°C, tetraethyl 1,2-ethylenediphosphonate reacts with PCl_5 to form chloride I, which reacts with p-nitrophenol in the presence of triethylamine at -10°C to yield (72%) II, mp 96–104°C:

Card 1/3

UDC: 542.95+661.718.1

ACC NR: AP6024023

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000722520013-9"



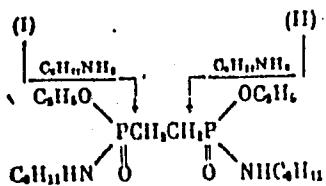
II is a bifunctional phosphorylating agent. The reaction of I and II with cyclohexylamine yields symmetrical diethyl dicyclohexylamido-1,2-ethylenediphosphonate, mp 211–214°C:

Card 2/3

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9

ACC NR: AP6024023



[W.A. 50; CBE No. 10]

SUB CODE: 07 / SUPM DATE: 28Jan66 / ORIG REF: 001 /

Card 3/3

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

Kil'disheva, YE.V.

USSR/Chemistry - Reaction

Card 1/1 Pub. 151 - 4/36

Authors : Boreskov, G. K.; Illarionov, V. V.; Ozerov, R. P.; and Kil'disheva, E. V.

Title : Chemical reactions in $V_2O_5-K_2SO_4$ and $V_2O_5-K_2S_2O_7$ systems

Periodical : Zhur. ob. khim. 24/1, 23-29, Jan 1954

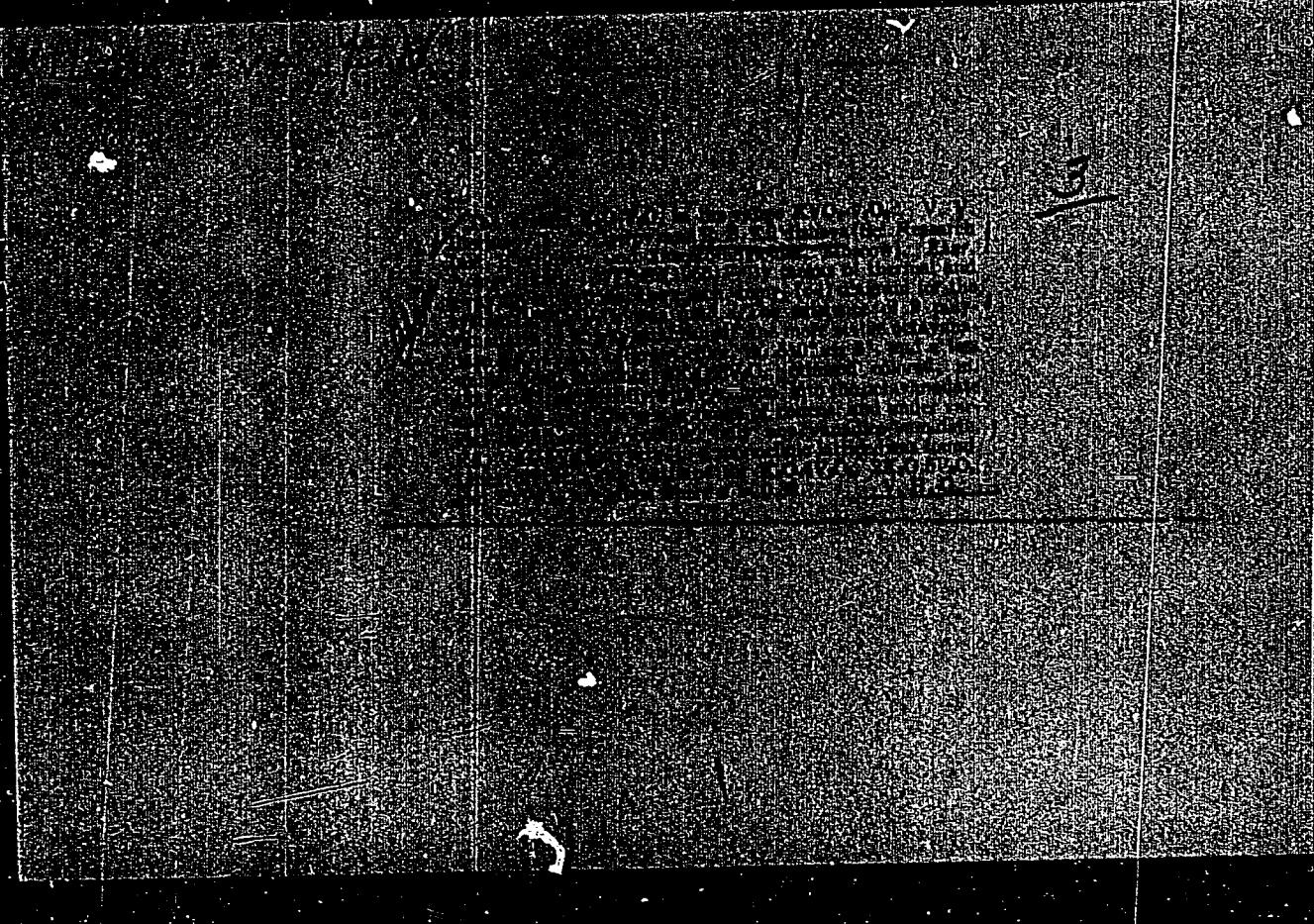
Abstract : Thermographic and x-ray investigations of $V_2O_5-K_2SO_4$ and $V_2O_5-K_2S_2O_7$ systems were carried out to determine their reaction characteristics. The formation, in the first of the two systems, of a compound close in its composition to $V_2O_5 \cdot K_2SO_4$ with a melting point of about 500° was discovered. The eutectic point between this compound and K_2SO_4 was established at below 430° which corresponds to an approximate V_2O_5 content of 0.4 mol/fractions. The fusions with larger pyrosulfate contents in the second of the investigated systems were found to have low melting points and easily convert into glass when subjected to cooling. An exothermal effect during the heating of this system was observed at 275° and this is explained by the formation of a $V_2O_5 \cdot K_2S_2O_7$ compound. Eleven references: 3-USSR; 4-German; 2-Italian and 1-Scandinavian (1905-1950). Tables; graphs. Also 1-English reference.

Institution : Scientific Institute of Fertilizers and Insecticides

Submitted : May 26, 1953

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9

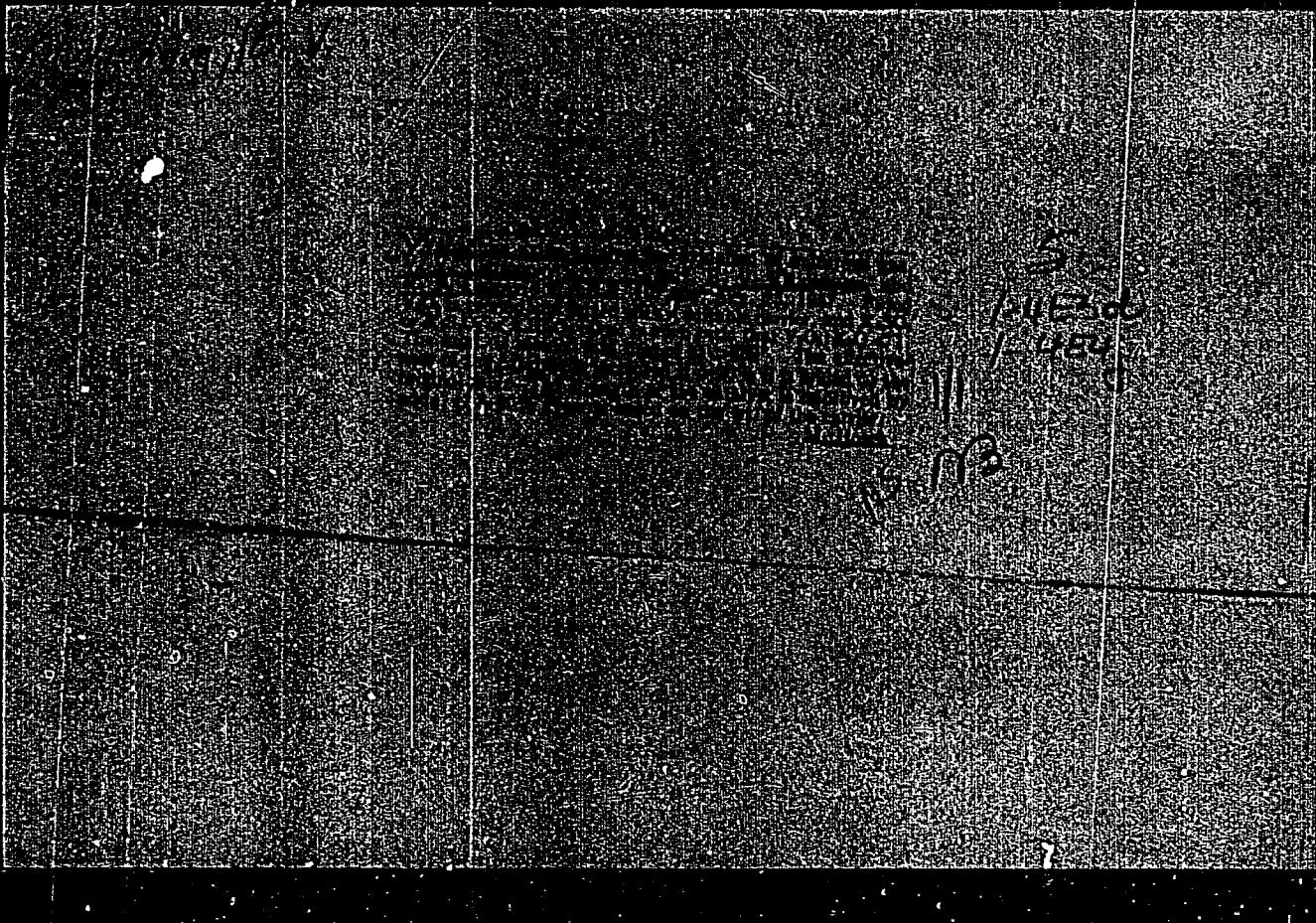


APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

Kil'disheva, Ye. V.

78-3-32/35

AUTHORS: Illarionov, V. V., Ozerov, R. P. and
Kil'disheva, Ye. V.

TITLE: Phase Diagram of V₂O₅-K₂O in the Region K₂O₅ - KV₃.
(O Diagramme sostoyaniya V₂O₅ - K₂O v oblasti
K₂O₅ - KV₃)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1957, Vol.II, Nr.3,
p. 701. (USSR)

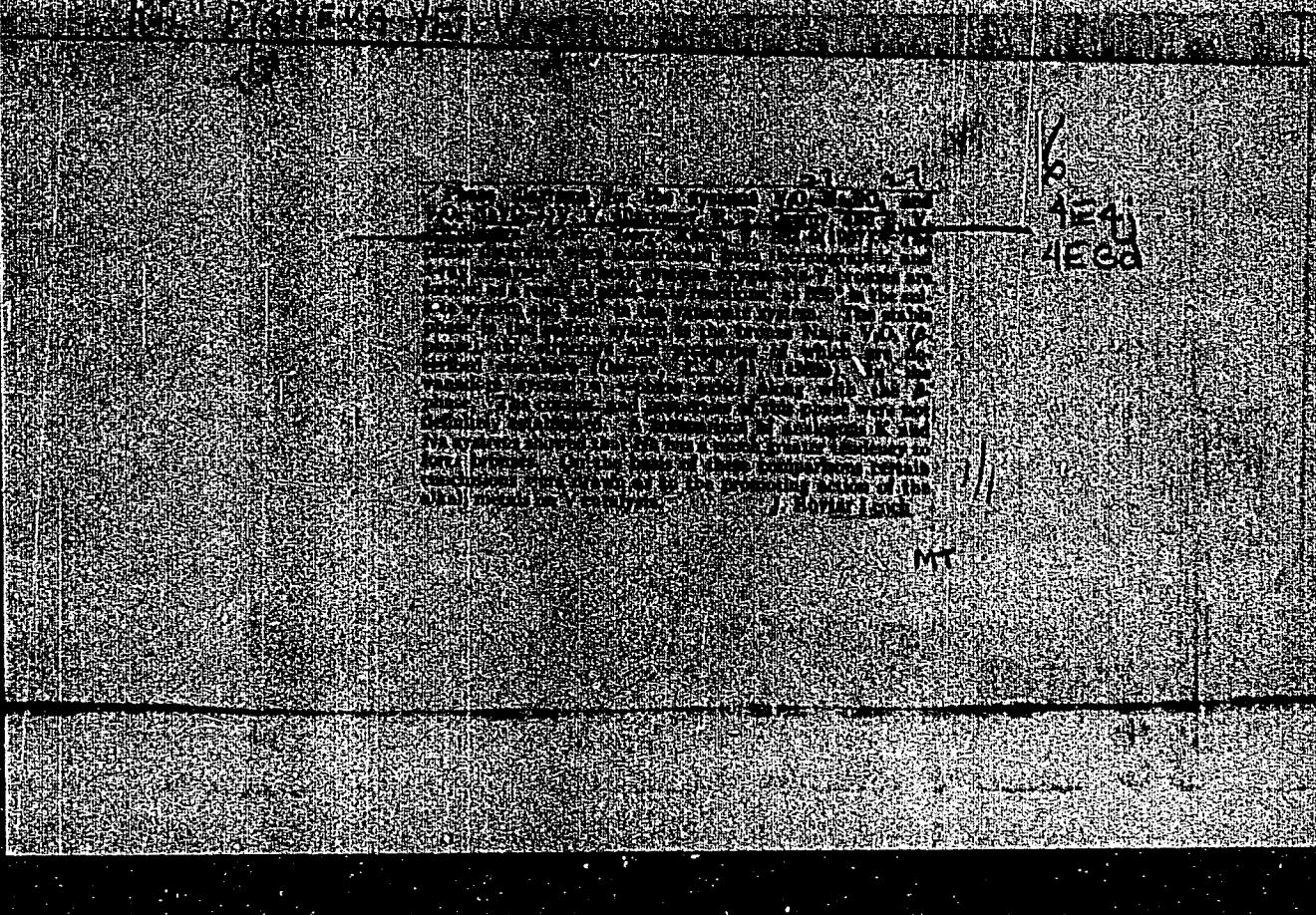
ABSTRACT: Differences and similarities between the authors' communication on this system and other relevant data are briefly discussed, with special reference to an article by F. Holzberg, A. Reisman, M. Berry and M. Berkenblit. There are 4 references, 1 of which is Slavic.

SUBMITTED: November 26, 1956.

AVAILABLE: Library of Congress.
Card 1/1

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

S/078/60/005/012/012/016
B017/B064

AUTHORS: Illarionov, V. V., Ozerov, R. P., Kil'disheva, Ye. V.

TITLE: The Phase Diagram of the System V_2O_5 - KPO_3

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 12,
pp. 2802-2803

TEXT: The section of the three-component phase diagram of the system V_2O_5 - K_2O - P_2O_5 along the KPO_3 - V_2O_5 line was investigated. The system was thermographically investigated as well as by X-ray analysis, and on the basis of the results obtained the phase diagram was drawn. The formation of the two compounds $KPO_3 \cdot V_2O_5$ (I) and $4KPO_3 \cdot V_2O_5$ (II) was found in the reaction of the solid phases KPO_3 and V_2O_5 at $300^\circ C$ and $380^\circ C$. The first compound is brown, and melts at $350^\circ C$. The melt of this compound becomes vitreous when cooling down. The second compound is light-green, and melts at $846^\circ C$. In contrast to the former, this compound shows no tendency to vitrification. The X-ray pictures of these compounds are compiled in a table. There are 1 figure, 1 table, and 5 Soviet references.

Card 1/2

The Phase Diagram of the System $V_2O_5 - KPO_3$ S/078/60/005/012/012/016
B017/B064

SUBMITTED: August 28, 1958

Card 2/2

ILLARIONOV, V.V.; SOKLAKOV, A.I.; KIL'DISHEVA, Ye.V.

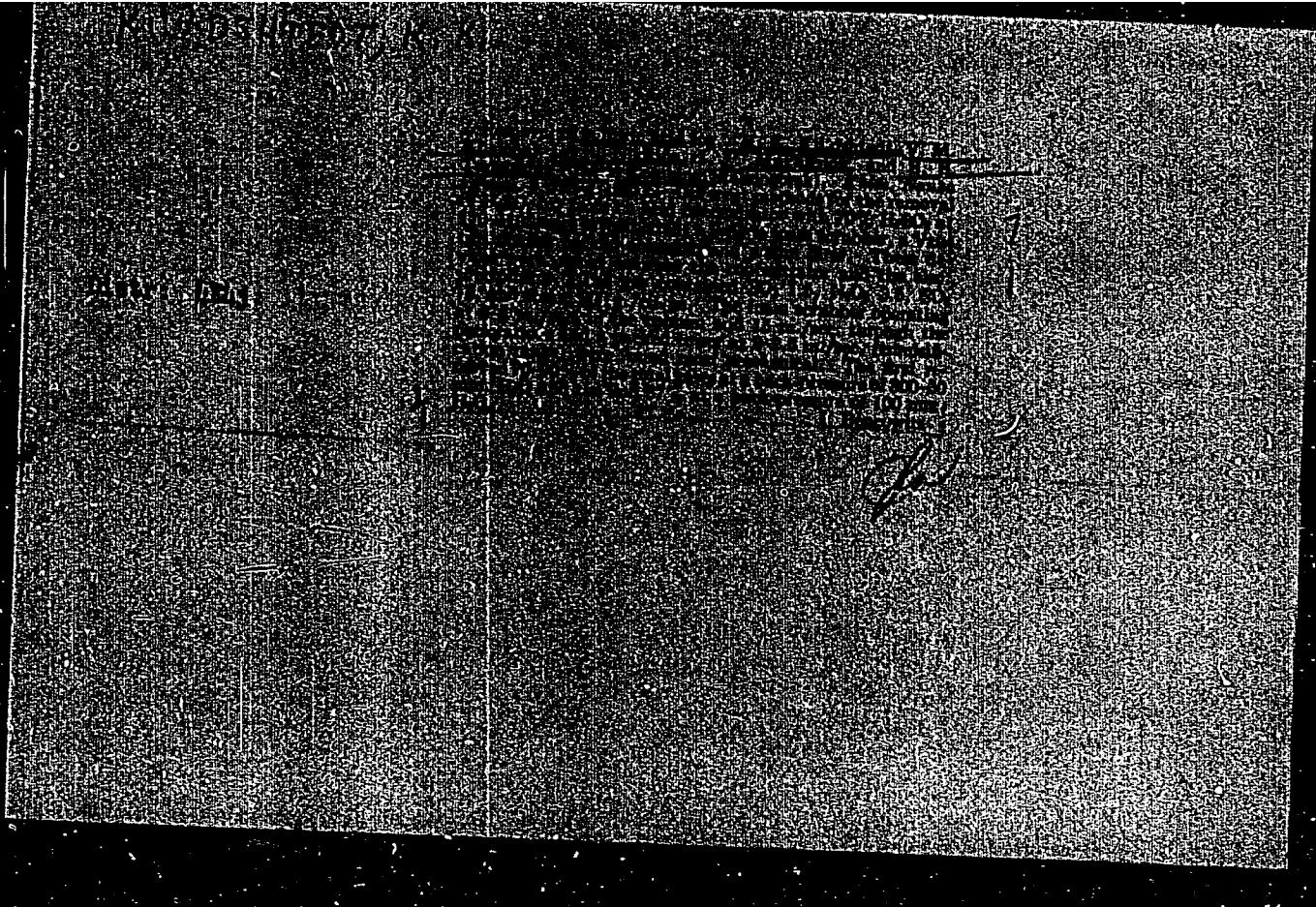
Phase diagrams of the systems V_2O_5 - K_3PO_4 and V_2O_5 - $K_4P_2O_7$.
Zhur.neorg.khim. 6:1355-1360 Je '61. (MIRA 14:11)

1. Nauchnyy institut udobreniy i insektofungisidov im. Ya.V.
Samoylova.

(Systems (Chemistry))

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722520013-9"

MANTUROVA, I.M.; KIL'DYAYEVA, V.P., kand.biologicheskikh nauk

Virus diseases of potatoes in the Far North. Zashch. rast.
ot vred. i bol. 7 no.1:35-36 '62. (MIRA 15:6)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva
Kraynego Severa, g. Noril'sk, Krasnoyarskogo kraya.
(Russia, Northern--Potatoes--Diseases and pests)
(Virus diseases of plants)

ACC NR: AN7011025

SOURCE CODE: UR/9003/66/000/150/0003/0003

AUTHOR: Kildysh, M. V. (President, AN SSSR, Academician AN SSSR);
Afanas'yev, G. D. (Chief scientific secretary Presidium AN SSSR,
Corresponding member AN SSSR)

ORG: none

TITLE: New elections in the academy of sciences SSSR

SOURCE: Izvestiya, no. 156, 5 Jul 66, p. 3, col. 1-5

TOPIC TAGS: scientific personnel, scientific organization

ABSTRACT:

On 13 April 1966, the Academy of Sciences USSR announced that it would consider nominations for election of new members. In response to the announcement, various scientific and educational institutes nominated 247 candidates for full membership (academician) and 491 for corresponding membership. Of these, 46 were elected to full membership and 76 were elected to corresponding membership. The names and affiliations of the new members are listed below:

I. Full Members

Division of Mathematics. A. N. Tikhonov

Division of General and Applied Physics. N. G. Basov, L. F. Vereshchagin,
S. V. Vonsovskiy, V. L. Ginzburg, A. M. Prokhorov

Card 1/5

ACC NR: AN7011025

Division of Nuclear Physics. M. A. Markov, A. B. Migdal

Division of the Physical and Technical Problems of Energetics. V. I. Popkov

Division of Earth Sciences. V. V. Menner, M. A. Sadovskiy, A. V. Sidorenko

Division of Mechanics and Control Processes. V. P. Barmin, P. D. Grushin,
V. P. Mishin, V. V. Novozhilov, N. A. Pilyugin, M. K. Angel'

Division of General and Technical Chemistry. I. V. Petryanov-Sokolov,
G. A. Razuvayev, N. M. Emanuel'

Division of the Physical Chemistry and Technology of Inorganic Materials.
I. P. Alimarin, S. T. Kishkin, A. M. Samarin

Division of the Biochemistry, Biophysics, and Chemistry of Physiologically
Active Compounds. N. D. Iyerusalimskiy, Ya. V. Peyve, G. M. Frank

Division of Physiology. P. K. Anokhin, Ye. M. Kreps, V. V. Parin,
S. V. Petrovskiy

Division of General Biology. B. L. Astaurov, N. P. Dubinin

Division of History. A. A. Guber

Card 2/5

ACC NR: A7011025

Division of Philosophy and Law. B. M. Kedrov

Division of Economics. A. M. Rumyantsev, T. S. Khachaturov

Division of Literature and Language. V. M. Zhirmunskiy, M. B. Khrapchenko

Siberian Division. G. K. Boreskov, N. N. Vorozhtsov, A. B. Zhukov, Yu. A. Kuznetsov, L. A. Melent'yev, A. V. Nikolayev, V. V. Struminskiy

II. Corresponding Members

Division of Mathematics. N. P. Buslenko, V. Ya. Kozlov, S. P. Nivikov, Yu. V. Prokhorov, A. A. Samarskiy

Division of General and Applied Physics. L. D. Bakhrakh, A. F. Bogomolev, V. S. Borovik-Romanov, L. A. Vaynshteyn, L. P. Gor'kov, Ye. M. Lifshits, R. V. Khokhlov, I. S. Shklovskiy

Division of Nuclear Physics. V. P. Dzhelepov, L. B. Okun', Ye. L. Feynberg, L. P. Feoktistov, A. Ye. Chudakov

Card 3/5

ACC NR: ANGEL1025

Division of the Physical and Technical Problems of Energetics. N. S. Lidorenko

Division of Earth Sciences. Yu. D. Bulanzhe, P. N. Kropotkin, V. V. Rzhevskiy, A. B. Ronov, Ye. F. Savarenkiy, Ye. M. Sergeyev, A. I. Tugarinov, V. Ye. Khain

Division of Mechanics and Control Processes. G. S. Byushgens, S. V. Vallander, S. S. Lavrov, N. N. Moiseyev, I. F. Obraztsov, G. S. Pospelov, V. S. Pugachev, B. V. Raushenbakh, G. P. Svishchev

Division of General and Technical Chemistry. N. S. Yenikolopov, Ya. M. Kolotyrkin, A. A. Petrov, A. S. Sadykov

Division of the Physical Chemistry and Technology of Inorganic Materials. R. S. Ambartsumyan, V. V. Kafarov, B. N. Laskorin, Ye. N. Savitskiy

Division of the Biochemistry, Biophysics, and Chemistry of Physiologically Active Compounds. M. V. Vol'kenshteyn, M. N. Kolosov, M. A. Prokof'yev, L. S. Spirin, A. A. Shlyk

Division of Physiology. O. G. Gazenko, P. G. Kostyuk, A. M. Ugolev

Division of General Biology. A. P. Andriyashev, M. S. Gilyarov, A. L. Takhtadzhyan, S. S. Shvarts

Card 4/5

ACC APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000722520013-9"

Division of History. Yu. V. Bromley, Ya. S. Grosul, Yu. A. Polyakov, V. L. Yanin

Division of Philosophy and Law. G. A. Aksenenok, D. A. Kerimov, T. I. Oyberman

Division of Economics. V. A. Vinogradov, A. G. Mileykovskiy, T. V. Ryabushkin, V. G. Solodovnikov, T. T. Timofeyev

Division of Literature and Language. M. N. Bogolyubov, D. F. Markov

Siberian Division. A. A. Borovkov, G. S. Gorshkov, M. I. Kargapolov, N. N. Puzyrev, M. G. Slin'ko, V. P. Solonenko, L. V. Tauson, N. N. Yanenko

ATD Press: 5012-F

SUB CODE: 05 / SUBM DATE: none

Card 5/5

KIL'DYUSHEV, M.M.; SIBGATULLIN, Kh.A.

Perforation of the stomach by a second ulcer after suturing the first.
Kaz. med. zhur. no.6:57 N-D '61. (MIA 15:2)

1. Shugurovskaya bol'nitsa (glavnnyy vrach - Kh.A. Sibgatullin)
Leninogorskogo rayona Tatarskoy ASSR.
(STOMACH--ULCERS)

KIL'DYUSHHEVSKIY, B. F.

Physics-Study and Teaching

Development of the thinking of students in physics classes. B.F. Kil'dyushevskiy. Fiz.
v shkole no. 5, 1952

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

KIL'DYUSHEVSKIY, I.D.

Pollen in the arctic atmosphere. Bot. zhur. 40 no. 6: 857-860
N-D '55. (MIRA 9:4)
(Arctic regions--Pollen)

KIL'DYUSHCHEVSKIY, I.D.

Mosses of the Polar Urals. Trudy Bot.inst.Ser.2 no.11:313-332 '56.
(Ural Mountain region--Mosses) (MLRA 10:2)

KIL'DYUSHEVSKIY, I.D.

Development of some species of the flora of Malyy Yamal under
the snow. Bot. zhur. 41 no.11:1641-1646 N '56. (MLRA 10:1)

1. Botanicheskiy institut imeni V.L. Komarova Akademii nauk SSSR,
Leningrad.

(Yamal-Nenets National Area--Plants--Frost resistance)
(Snow)

KIL'DYUSHEVSKIY, I.D.

Conference on Alpine flora and vegetation. Bot.zhur. 43 no.10:
1519-1523 0 '58. (MIRA 11:11)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.
(Alpine flora--Congresses)

KIL'DYUSHEVSKIY, I.D.

Recent data on the relation between the vegetation of tundras and
the Alpine mountain belt. Bort. zhur. 44 no.2:235-239 F '59.
(MIRA 12:6)

(Alpine flora) (Tundras)

KIL'DYUSHEVSKIY, I.D.

Some structural features of vegetation on the eastern slope of the
subarctic Urals. Bot. zhur. 44 no.7:929-942 Jl '59.
(MIRA 12:12)

1.Botanicheskiy institut im. V.L. Komarova AN SSSR, Leningrad.
(Ural Mountains--Phytogeography)

POSTNIKOV, Ivan Matveyevich; KIM, K.I., red.; ZHITNIKOVA, O.S.,
tekhn.red.

[Electric machinery; brief course] Elektricheskie mashiny;
kratkiy kurs. Moskva, Gos.energ.izd-vo, 1960. 324 p.
(MIRA 14:4)
(Electric machinery)

KIL'DYUSHEVSKIY, I.D.

Formation of vegetation in the southeastern part of the Verkhoyansk Range under different environmental conditions. Probl. bot. 5:62-71 '60. (MIRA 13:10)

1. Botanicheskiy institut AN SSSR, Leningrad.
(Tomponskiy District--Mountain ecology)

KIL'DYUSHEVSKIY, I.D.

Some results of research in the North; a conference on the problems of research, utilization and protection of the vegetative cover of the Far North of the U.S.S.R. Bot. zhur. 47 no.7:1067-1070 Jl '62. (MIRA 15:9)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad. (Russia, Northern—Botanical research—Congresses)

CHILD LANGUAGE.

Biology of *Leptothrix*, derivatives of *T* and *U* now in the U.S.A.
Prof. Dr. H. L. T. 194.

1. *Botryococcus braunii* Lemmermann, *Arch. für Bot.* 1903, p. 105.
most likely a synonym of *Sphaerotilus* Sevral, Linné ex Willd.

KEL'DYUSHhevskiy, I.D.

Compiling a field guide to mosses and liverworts. Bot. zhur. 49 no. 11
1964-1967 N 64. (MIRA 18:1)

1. Botanicheskiy institut imeni V.I.Komarova AN SSSR, Leningrad.

KILEEV, A. G.

35525. Razvitiye Grudnoy Khirurgii Na Ukrayine. V SB: Voprosy Grudnoy
Khirurgii. T. III. F., 1949, c. 18-21.

Letinis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

KILEMYI

"Bibliography of the Hungarian geology and related sciences in 1952."
(FOLDTANI KOZLONY. BULLETIN OF THE HUNGARIAN GEOLOGICAL SOCIETY, Vol. 83, No. 1/3,
Jan/Mar. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.

ADAM, Oszkar; KILONYI, Eva

Determination of approximate velocity functions by means of
refraction travel time curves. Geofiz kozl 12 no.3/4:67-78
'64.

KILENYI, I.

Bibliography of Hungarian geology and related sciences in 1954, p. 260,
FOLDTANI KOZLONY, BULLETIN OF THE HUNGARIAN GEOLOGICAL SOCIETY, (Magyar
Foldtani Tarsulat) Budapest, Vol. 85, No. 2, Apr./June, 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1955

NEKRASOV, G., gornyy dispatcher; KILEPU, A.; DEMINA, A.

Miners and their lodging house. Sov.shakht. 10 no.8:34-35
Ag '61. (MIRA 14:8)

1. Shakhta No.8 kombinata Primorskugol' (for Nekrasov).
2. Komendant obshcheshchitiya shakhtoprokhodcheskogo upravleniya No.2, Popasnyanskiy rayon, Luganskaya oblast' (for Demina).
3. Mashinist vodoootliva shakty imeni Stalina v Luganskoy oblast (for Kilepu).

(Coal miners)

KILER, K.

New type of a circulating pump for an all-glass apparatus. p.849.

CHEMICKE LISTY (Cheskoslovenska akademie ved. Cheskaslovenske
spotlcnost chemicks) Praha, Czechoslovakia. Vol.53, No.8, Aug. 1959.

Monthly List of East European Acquisitions (EEAI) LC, Vol.9, No.1, Jan. 1960

Uncl.

KILER, Mirko, strojar

Regulating the Sulzer single-tube steam boiler installation
with supercritical steam pressure. Pogon 2 no.11/12:179-186
N-D '61.

ZELEPUKHA, Sof'ya Ivanovna; KILEROG, N.M. [Kilieroh, N.M.], red.;
BEREZOVSKAYA, D.N. [Berezovs'ka, D.N.], tekhn. red.

[Antimicrobial properties of edible plants] Antymikrobnii
vlastyvosti istivnykh roslyn. Kyiv, Vyd-vo AN URSR, 1963.
51 p. (MIRA 17:3)

KOLCHYNSKIY, Il'ya Grigor'yevich[Kolchyns'kyi, I.H.]; KILEROG, N.M.
[Kilieroh, N.M.], red.; DAKHNO, Yu.M., tekhn. red.

[Observatories in space]Observatorii v Kosmosi. Kyiv, Vydr-
vo Akad. nauk URSR, 1962. 46 p. (MIRA 16:3)
(Outer space--Exploration)

NEKRYACH, Yevgeniy Fedorovich; KILEROG, N.M. [Kileroh, N.M.], red.
Izd-va; DAKHNO, Yu.B., tekhn. red.

[Polymers in technology and everyday life] Polimery v tekhnicheskikh i povedeniiakh zhizni. Kyiv, Vyd-vo Akad. nauk URSR, 1962. 63 p.
(Polymers)

PIDOPLICHKO, Ivan Grigor'yevich[Pidoplichko, I.H.]; RASHBA, Yelena Yakovlevna[Rashba, O.IA.]; KILEROG, N.M.[Kilerch, N.M.], red.

[Origin and development of life on the earth] Pokhodzhennia i rozvytok zhyttia na zemli. Kyiv, Naukova dumka, 1964. 73 p. (MIRA 18:2)

KILESSO, A., YUDOKIMOV, D., KURPAKOVA, V.,
BRYNTSEV, P., GUSEV, F., MIKOLAYEVSKIY, YU.
KAZANSKIY, N., SOKATIN, V.

KILESSO, A., YUDOKIMOV, D., KURPAKOVA, V.,
BRYNTSEV, P., GUSEV, F., MIKOLAYEVSKIY, YU.
KAZANSKIY, N., SOKATIN, V.

Nesterov, V. G.

Foremost forester of the country. Ies i.
ste 14 no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

KILESSO, A. I.

Sovremennye desantnye sida. [Modern landing crafts]. Moskva, Upr. voen.-morskogo
izd-va NKVMF Soluza SSR, 1945. 117 p. (Biblioteka ofitsera)

NN NNC

DLC: V895.K5

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress,
Reference Department, Washington, 1952, Unclassified.

KILESSO, A.

Powerful icebreaker-barges. Moskey Fleet (Merchant Fleet). Issues Nos. 5 and 6, 1945.

KILESSO, Avksentiy Illich; MOROZOVSKIY, N.G., kentr-admiral, redakter;
MISHKEVICH, G.I., redakter; KONTOROVICH, A.I., tekhnicheskiy
redakter.

[Auxiliary vessels of the imperialist powers] Vspomogatel'nyi flot
imperialisticheskikh gesudarstv. Pod redakcij N.G. Merezhevskogo. Lenin-
grad, Gos. sziuznee izd-vo sudostreit. promyshl., 1955. 503 p.
(Ships) (MLRA 9:5)

L. Z. Kolesnikov, 1957, Moscow
KILESSO, Avkseniy Il'ich; VASIL'YEV, I.V., red.; ZUDINA, M.P., tekhn.red.

[Ships and vessels of the navy] Korabli i suda voenno-morskogo flota.
Moskva, Voen.izd-vo M-va oror. SSSR, 1957. 193 p. (MIRA 11:2)
(Ships) (Russia--Navy)

KILESSO, A.I.; KUZ'MINA, V.S., red.; KISINA, Ye.I., tekhn.red.

[Equipment for raising and lowering fishing boats] Ustroistva
dlia pod'ema i spiska na vodu malykh rybolovnykh sudov. Moskva,
Pishchepromizdat, 1957. 154 p. (MIRA 11:2)
(Fishing boats)

KILESSO, A.I.; FARAMAZYAN, R.A.; KONONYUK, B.Z.; MARTINSEN, Z.A.;
ANDREYEV, Yu.V.; SLAVIN, S.V.; RUSETSKIY, S.B.; GLUSHKOV,
V.P., otv. red.; PLISKINA, Ye.M., red.; TIKHOMIROVA, S.G.,
tekhn. red.

[The shipbuilding industry of capitalist countries] Sudostroitel'naya promyshlennost' kapitalisticheskikh stran.
Moskva, Izd-vo AN SSSR, 1963. 471 p. (MIRA 16:10)

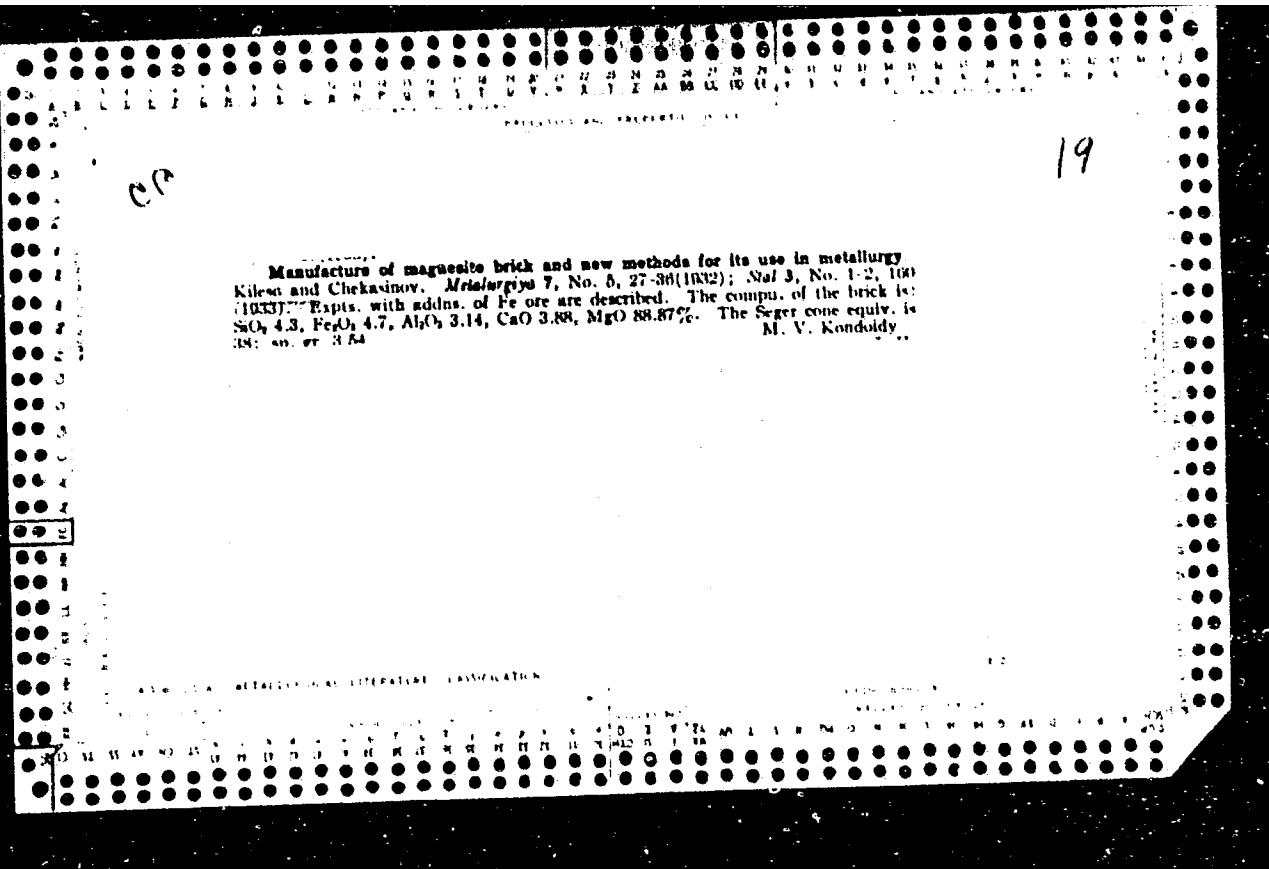
1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezh-

dunarodnykh otnosheniy.

(Shipbuilding)

KIRILOV, Avksentiy Il'ich; KRAZOVITSKIY, A.N., inzh., retsenzent;
YEVDOROV, N.I., nauchn. red.; LOMONOSOV, F.K., red.

[Modern machine shop ships] Sovremennye suda-masterskie.
Leningrad, "Sudostroenie," 1964. 249 p. (MIRA 17:8)



C

KILESO AND CHEKASINOV. Ogneuporno i Metallurgii. Gosudarst.
Nauch.-Tekh. Izdatelstvo Chernoi i Tsvetnoi Metallurgii, Moscow,
1933. p. 81-108.--A detailed analysis of various magnesite and
chrome-magnesite bricks manufactured in U. S. S. R. and abroad.
The results are shown in tables and curves.

ABR 514 METALLURGICAL LITERATURE CLASSIFICATION

BOOK NUMBER	SEARCHED	INDEXED	FILED	COLLECTED	STANDARD INDEX	STANDARD NUMBER
123456789	W W W W W	D D D D D	R R R R R	H H H H H	W W W W W	1 2 3 4 5

