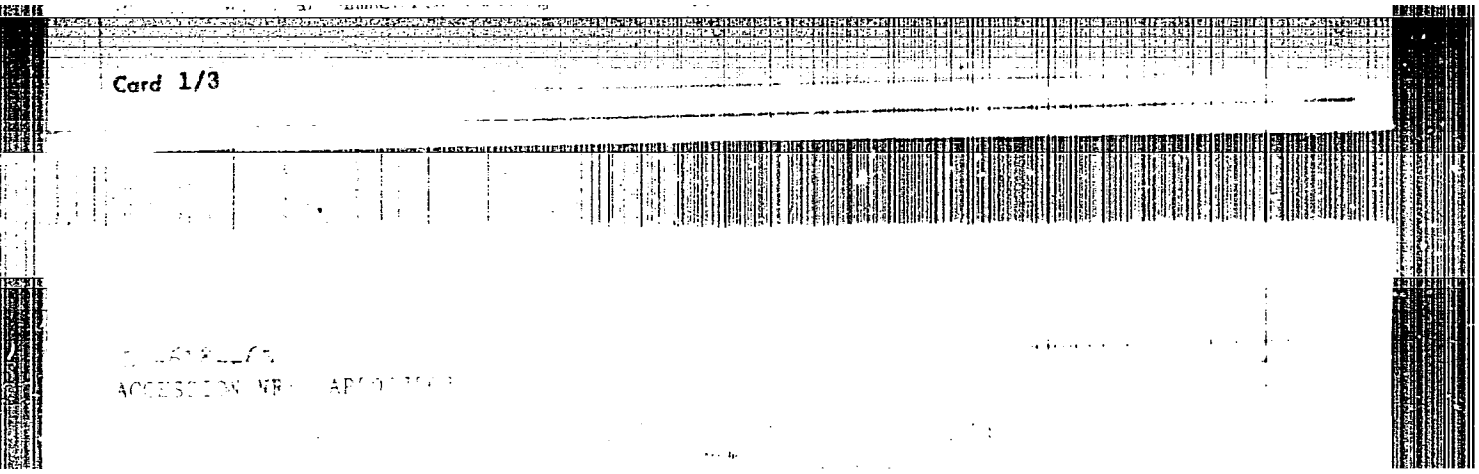
SOURCE: AN SSSR. Doklady, v. 160, no. 5, 1965, 1079-1082

[illegible]amidine, tautomerism, resonance, polyphosphonitrile, organic dye, heterocyclic compound, azacyclic compound

[illegible] wide resonance system in the chromophore

[illegible] ammonium nitrogen in the benzthiazole ring,



L 46184-65
ACCESSION NR: AP5007563

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

SUBMITTED: [illegible] ENCL: 00 SUB CODE: OC

NO REF SOV: 006 OTHER: 007

Card

TSVETKOV, Ye. N.; KEMIN, G.K.; LOBANOV, D.I.; KAPTSCHNIK, M.I., akademik

Correlation of the dissociation constants of carboxylic acids RCOOH and Taft's σ-constants with the nuclear quadrupole resonance frequencies of halogens in RHal-type compounds. Dokl. AN SSSR 161 no.5:1102-1105 Ap '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 28840-66 EWI(m)/EWP(j) RM

ACC NR: AP6018654 SOURCE CODE: UR/0020/65/162/002/0339/0342

AUTHOR: Kabachnik, M. I. (Academician); Medved', T. Ya.; Matrosov, Yu. I.

ORG: Institute of Organoelemental Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)

TITLE: Potassium and sodium salts of bis-diphenylphosphinyl-methane, and their reactions with aldehydes

SOURCE: AN SSSR. Doklady, v. 162, no. 2, 1965, 339-342

TOPIC TAGS: potassium compound, sodium compound, organic salt, aldehyde, chemical reaction, IR spectrum

ABSTRACT: The authors had at their disposal bis-diphenylphosphinyl-methane (the dioxide of tetraphenylmethylenediphosphine), which they call "dioxide" and they investigated its ability to form sodium and potassium derivatives, separated the derivatives in analytically pure form, studied their infrared spectra, and their reactions with aldehydes. The changes in the infrared spectrum of dioxide when it forms salts corresponds to that of bid-dialkylphosphoryl-methane, diethylphosphorylacetone, and acetylacetone when they form salts. Reactions of dioxide salts with aldehydes was investigated with the potassium salt. They result in the formation of oxides of phosphines, containing beta-substituted vinyl groups, and the potassium salt of diphenylphosphinic acid. The reaction occurs both with aromatic and with aliphatic aldehydes. G. F. Dmitriyev assisted with the experiment. Orig. art. has: 1 figure, 4 formulas, and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 26Jan65 / ORIG REF: 003 / OTH REF: 007

Card 1/1 nc

L 58273-65 EWT(1)/EWA(j)/EWT(n)/EWA(b)-2 RM/RO

ACCESSION NR: AP5018747 UR/0020/65/163/002/0365/0368

AUTHOR: Braytkin, A. P.; Brik, I. L.; Volkova, R. I.; Godovikov, N. N.; Teplov, N. Ya.; Kabachnik, M. I. (Academician)

TITLE: Anticholinesterase properties of O,O-diethyl S-(2-arylmethylamino)-ethyl thiophosphates and their methylsulfonium methyl sulfates

SOURCE: AN SSSR. Doklady, v. 163, no. 2, 1965, 365-368

TOPIC TAGS: nerve gas, chemical warfare agent, cholinesterase inhibitor, anticholinesterase activity, thiophosphate ester

ABSTRACT: One of the most effective ways to increase the activity of organophosphorus cholinesterase inhibitors is to introduce an onium group in their structure at the same distance from the phosphoryl group as the distance between the carbonyl carbon and the quaternary nitrogen in acetylcholine. Previous work showed that the sharp increase in anticholinesterase activity observed on transition from sulfides $CH_3(C_2H_5O)P(O)SCH_2CH_2SC_2H_5$ to sulfonium compounds $[CH_3(C_2H_5O)P(O)SCH_2CH_2S(CH_3)C_2H_5]SO_4CH_3$ is due not to the inductive effect, but to the formation of an ionic bond between the inhibitor and the anionic center of cholinesterase. The effect of the magnitude of the effective onium charge on the anticholinesterase activity of the

Card 1/3

L 58973-65

ACCESSION NR: AP5018747

above compounds was investigated. The compounds investigated were O,O-diethyl S-(β-arylmethyl-amino)-ethyl thiophosphates $(C_2H_5O)_2P(O)SCH_2CH_2N(CH_3)C_6H_4R$, and their methylsulfonium methyl sulfates $[(C_2H_5O)_2P(O)SCH_2CH_2N(CH_3)_2C_6H_4R]SO_4CH_3$. Aryl substituents R of different electronegativities were used: CH_3, CL, OCH_3. Anticholinesterase activity was evaluated from the reaction rate constants of inhibitors with serum cholinesterase (acylcholine hydrolase) in M/50 phosphate buffer (pH 7.5) at 25C. The physical constants of the inhibitors and their reaction rate constants are given in tabular form. In compounds with a ternary N, the presence of aryl groups decreases anticholinesterase activity, presumably because of the lower ability of aromatic amines to form ammonium cations in aqueous solutions. On the other hand, compounds with a quaternary N and aryl groups show very strong activity. In addition to increasing the effective positive charge, the hydrophobic aryl radicals facilitate the sorption of the inhibitor on the enzyme surface. The existence of the positive charge appears to be the most important factor determining the high activity of such inhibitors. The nature of the substituents R, showing good linear correlation with the reaction rate, and the steric compatibility of the aryl group with the anionic site of the enzyme are of secondary importance. Orig. art. has: 2 tables and 1 figure. [VS]

Card 2/3

L 58973-65

ACCESSION NR: AP5018747

ASSOCIATION: Institut evolyutsionnoy fiziologii i biokhimii im. I. M. Sechenova Akademii nauk SSSR (Institute of Evolutionary Physiology and Biochemistry, Academy of Sciences, SSSR); Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Organoelemental Compounds, Academy of Sciences, SSSR)

SUBMITTED: 01Feb65 ENCL: 00 SUB CODE: CB, LS

NO REF SOV: 005 OTHER: 003 ATD PRESS: 4048

Card 3/3

MASTRYUKOVA, T.A.; SHIPOV, A.E.; ANALYAYEVA, V.V.; KUGUCHEVA, Ye.Ye.; KABACHNIK, M.I., akademik

Reactivity of ambident anions. Alkylation of sodium derivatives of acetoacetic ester and acetylacetone by diethyl chromium fluoborides. Dokl. AN SSSR 164 no.2:340-343 S '65.
(MIRA 18:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

KABACHNIK, M.I., akademik; GILYAROV, V.A.; YUSUPOV, M.M.

Stable salts of alkoxyaminophosphoniums with a delocalized onium charge. Dokl. AN SSSR 164 no.4:812-815 O '65. (MIRA 18:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 9829-66 EWT(1)/EWA(j)/EWT(m)/EWP(j)/EWA(b)-2 RO/RM

ACC NR: AF5026989 SOURCE CODE: UR/0020/65/164/005/1077/1080

AUTHOR: Sveshnikov, N. N.; Damir, N. A.; Kabachnik, M. I. (Academician)

ORG: VNIKI

ORG: All-Union Scientific Research Cinephoto Institute (Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut)

TITLE: The action of phosgene on 1-alkyl-1,2-dihydro-2-quinolones and some reactions of the compounds formed

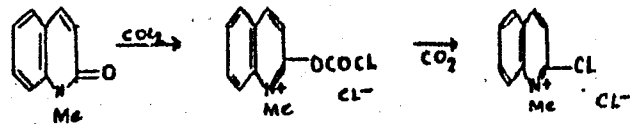
SOURCE: AN SSSR. Doklady, v. 164, no. 5, 1965, 1077-1080

TOPIC TAGS: phosgene, organic salt, quantitative analysis

ABSTRACT: Bredereck and Bredereck (Chem. Ber. 94, 2278, 1961) have obtained from $COCl_2$ and 1-methyl-1,2-dihydro-2-quinolone (I) a crystalline substance which they called an adduct. The authors of this paper have undertaken to study this reaction and other reactions of a similar type. When 12.4 g. $COCl_2$ in 22 ml. toluene was added to 8.65 g. (I) in 25 ml. benzene at room temperature, an exothermic reaction

1/4 UDC: 547.831.8

occurred with evolution of CO_2 and formation of 10.68 g 2-chlorquinoline MeCl (II), m. 130-135 C. The reaction apparently follows the scheme given below and the "adduct" is in fact a quaternary salt of 2-chlorquinoline (III). Similarly



(I) (II)

synthesized were 2-chloro-6-methylquinoline-(II) MeCl, m. 150-153 C, 100% yield, and 2-chloro-6-methoxyquinoline-EtCl, m. 175-80 C, 96%. The Cl atom in these compounds is highly mobile and can be easily replaced. Thus, 0.42 g (II) in 3 ml MeOH treated with 0.16 g NaHS in 0.5 ml MeOH (or 0.5 g $Na_2S_2O_3$ in 3 ml) gave yellow 1-methyl-1,2-dihydro-2-quinolinethione, m. 116-117 C, 75.6 and 86%, respectively. Analogously prepared were 1,6-dimethyl-m. 129-130 C, (75 and 89.5%) and 1-ethyl-6-methoxy-1,2-dihydro-2-quinolinethione, m. 90-91 C, 72.7 and 85%.

(II) (1.07 g) in 2 ml. H_2O treated with a solution of 0.62 g $NaHSO_3$ and 0.2 g NaOH in 3 ml H_2O gave 1-methyl-2-sulfoquinoliniumbetaine, m. 236-237 C (decomp.), 74.5%. Also prepared were 1,6-dimethyl-(m. 285-287 C decomp.), 74.5%, and 1-ethyl-6-methoxy-2-sulfoquinoliniumbetaine, m. 228-230 C, 64.5%. Heating 0.42 g (II) 10 min. with 1.2 g anhydrous KI in 4 ml. boiling glacial AcOH gave 2-iodoquinoline-MeI, m. 207-207.5 C, 70%; the homologous-EtI m. 200.5-202 C and its methoxy derivative 221-222 C, 61 and 62%, resp. (II) in $CHCl_3$ reacted with $PhNH_2$ at room temperature to give 1-methyl-2-phenylimino-1,2-dihydroquinoline, bright yellow, m. 73-74 C. Heated with NH_2OH in anhydrous MeOH, (II) formed the oxime of I, m. 179-180 C and with $N_2H_4.H_2O$ at 15-20 C, an azine, bright red, m. 257-258 C, 72.5%. With an excess of PhOH in the presence of NEt_3 in 10 min. at 100 C with subsequent addition of $NaClO_4$, (II) yielded 2-phenoxyquinoline methyl perchlorate, m. 148-149 C, 63%. A mixture of 0.23 g (III)-EtCl (IV) and 0.3 g quinaldine-EtI treated with 0.1 g MeONa in anhydrous MeOH gave 1,1'-diethyl-2,2'-quinocyanine iodide, dark red, 269-270 C, 44.1%. Similarly, II gave 1-methyl-3-ethyl-2-quinothiacyanine iodide, orange-red, m. 259-260 C, 44.6%. A mixture of 0.23 (IV) and 0.16 g ethylrhodanin in 1 ml anhydrous MeOH treated with 1 ml MeONa solution gave 3-ethyl-5-(1'-ethyldihydro-2'-quinolylidene)-azo thiazolidine-2-thione-4-one, dark red, m. 195-196 C, 60%. Condensation of (II) with malonadinitrile by heating

L 9829-66

ACC NR: AP5026989

for 5-10 min. in MeOH in the presence of NEt_3 gave 1-methyl-2-α,α-dicyanomethylene-1,2-dihydroquinoline, m. 261-2 C, bright yellow, 66.6%. Heating a suspension of (II) in tetralin at 150-180 C caused a strong evolution of MeCl and the remaining solution yields pure (III). Orig. art. has: 3 formulas.

SUB CODE: 07/ SUBM DATE: 20Mar64/ NR REF SOV: 005/ OTHER: 017

HW
4/4

KABACHNIK, M.I., akademik; DYATLOVA, N.M.; MEDVED', T.Yu.; MENYNTSEV, V.V.; RUDOMINO, M.V.

Polynuclear beryllium complexonates. Dokl. AN SSSR 164 no.6:1311-1314 O '65. (MIRA 18:10)

1. Institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv i Institut elementoorganicheskikh soyedineniy AN SSSR.

L 26574-66 EWT(m)/EWP(j) RM
ACC NR: AP6016975 SOURCE CODE: UR/0020/65/165/003/0578/0581

AUTHOR: Nikolayev, A. V. (Corresponding member AN SSSR); Gribanova, I. N.; Yakovleva, N. I.; Durasov, V. B.; Khol'kina, I. D.; Mironova, Z. N.; Tsvetkov, Ye. N.; Kabachnik, M. I. (Academician)

ORG: Institute of Heteroorganic Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR); Institute of Inorganic Chemistry, Siberian Department, AN SSSR (Institut neorganicheskoy khimii Siberskogo otdeleniya AN SSSR)

TITLE: Correlation of the extraction capacity of organophosphorus extraction reagents with the sigma constants of the substituents on the phosphorus atom

SOURCE: AN SSSR. Doklady, v. 165, no. 3, 1965, 578-581

TOPIC TAGS: organic phosphorus compound, uranyl nitrate, plutonium, alkylphosphine oxide, distribution coefficient, phosphinic acid

ABSTRACT: The article presents preliminary results on the correlation of the extraction capacity of neutral organophosphorus extraction reagents with their structure. The sigma constant, which Nikolayev et al. derived from the ionization constants of phosphorus acids in 1956, using the Hammett equation, was used to characterize the influence of substituents. The presence of a linear relationship between the effective extraction constants and sums of the sigma constants was demonstrated with a correlation coefficient of 0.994. The correlation of the sigma constants with the distribution coefficients was studied for the extraction of uranyl nitrate and plutonium (IV and VI) nitrate

Card 1/2 UDC: 541.49

L 26574-66

ACC NR: AP6016975

by organophosphorus compounds (approximately 30 extraction reagents) under various conditions. A linear relationship was found to exist between the logarithm of the distribution coefficients and sums of the sigma constants of the substituents on the phosphorus atom, obeyed by esters of phosphoric, mono- and dialkylphosphinic acids, trialkylphosphine oxides, and dialkyl phosphites. The linear relationship found was better satisfied by the distribution coefficients in extraction from neutral and moderately acidic solutions. Chiefly compounds containing isopropyl and isobutyl radicals in the ester groups or at the phosphorus atom satisfactorily obey the linear relationship. A linear relationship is also obeyed by the maximum values of the distribution coefficients for each extraction reagent. The distribution coefficients determined in extraction experiments are functions of several variables, including the constants of complex formation, salt formation (in acid media), hydration constants, and particular distribution coefficients of the substances participating in the equilibrium. From the fact that the logarithms of the distribution coefficients are linear functions of the sum of the sigma constants of the substituents, it follows that the particular distribution coefficients obey the Hammett equation in the cases considered. The correlations of the distribution coefficients of uranyl and plutonium nitrates for organophosphorus extraction reagents with the values of the sum of the sigma constants of the substituents on the phosphorus atom are tabulated for 24 extraction systems. Orig. art. has: 1 figure and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 07Jun65 / ORIG REF: 017 / OTH REF: 011

Card 2/2

KABACHNIK, M.I., akademik; IOFFE, S.T.

Application of correlation equations to keto-enol equilibrium. Dokl. AN SSSR 165 no.5:1085-1087 D '65. (MIRA 19:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. Submitted July 1, 1965.

GORDOVKOV, N.N.; TEPLOV, N.Ye.; KABACHNIK, M.I.

Synthesis of O-ethyl-S-(β-aryloxyethyl)ethylmorphosphinates. Izv.AN SSSR. Ser.khim. no.1:164-166 '66. (MIRA 19:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. Submitted May 17, 1965.

L 31362-66 EWP(j)/EWT(m)/T RM

ACC NR: AP6021102 SOURCE CODE: UR/0062/66/000/002/0367/0368

AUTHOR: Kabachnik, M. I.; Medved', T. Ya.; Polikarpov, Yu. M. 35 B

ORG: Institute of Organoelemental Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy)

TITLE: Oxides of beta-aminosubstituted vinylphosphines

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 2, 1966, 367-368

TOPIC TAGS: organic oxide, organic synthetic process, ozonide

ABSTRACT: Continuing the study of oxides of alpha, beta-unsaturated phosphines, the authors synthesized oxides of phosphines containing a dialkylamino group in the beta-position of the vinyl radical and investigated some of their properties. The oxide of beta-diethylaminovinyldiphenylphosphine was obtained by the authors by dehydrochlorination of the addition product of diethylamine to the oxide of alpha-chlorovinyldiphenylphosphine. When this compound was subjected to ozonization, and the ozonide to decomposition with water, formaldehyde was not detected. The following compounds were prepared: oxide of alpha-chloro-beta-diethylaminoethyldiphenylphospine; oxide of beta-diethylaminovinyldiphenylphosphine; dioxide of tetraphenyl-diethylaminoethylenediphosphine; oxide of beta-dimethylaminovinylphosphine; and dioxide of tetraphenyldimethylaminoethylenediphosphine. [JPRS]

SUB CODE: 07 / SUBM DATE: 14Jul65 / ORIG REF: 001 / OTH REF: 001

Card 1/1 CC UDC: 542.91 + 661.718.1

L 31363-66 EWP(j)/EWT(m)/T RM

ACC NR: AP6021103 SOURCE CODE: UR/0062/66/000/002/0368/0370

AUTHOR: Kabachnik, M. I.; Medved', T. Ya.; Polikarpov, Yu. M.

ORG: Institute of Organoelemental Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy)

TITLE: Oxide of alpha-methyl-beta-chlorovinyldiphenylphosphine

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 2, 1966, 368-370

TOPIC TAGS: organic oxide, chlorine, chlorinated organic compound, substituent, reaction mechanism, vinyl chloride, organic phosphorus compound

ABSTRACT: It is known that the chlorine atom in beta-chlorovinylketone in contrast to the low-activity chlorine in vinylchloride shows high lability and is capable of being substituted in numerous reactions by other groups with the formation of beta-substituted vinylketones (ketovinylation reaction). The presence of a positive charge induced on the beta-carbon atom facilitates nucleophilic attack and increases the replaceability of the halogenide atom, which by its nature approximates the halogenide in the halogenoanhydrides of carboxylic acids. When heated with alcohol in the presence of an alkali, the oxide of alpha-methyl-beta-chlorovinyldiphenylphosphine undergoes replacement of its chlorine atom by an alkoxy group with the formation of a vinyl-ester; this oxide does not react with tertiary amines, sodium iodide, or potassium cyanide even under severe conditions. [JPRS]

SUB CODE: 07 / SUBM DATE: 14Jul65 / ORIG REF: 003 / OTH REF: 001

Card 1/1

ACC NR: AP6032977 SOURCE CODE: UR/0379/66/002/004/0458/0463

AUTHOR: Tsvetkov, Ye. N.; Lobanov, D. I.; Kabachnik, M. I.

ORG: Institute of Organometallic Compounds, Moscow (Institut elementoorganicheskikh soyedineniy)

TITLE: Study of the electronic influence of the diphenylphosphino group

SOURCE: Teoreticheskaya i eksperimental'naya khimiya, v. 2, no. 4, 1966, 458-463

TOPIC TAGS: substituent, conjugate bond system, dissociation constant, benzoic acid

ABSTRACT: In order to determine the nature of the electron-acceptor effect of the diphenylphosphino group and elucidate the role of p-π conjugation in the overall influence of the substituent, the authors determined Hammett's constant σ_m of diphenylphosphino and certain other related groups. To this end, meta-substituted benzoic acids containing diphenylphosphino, diphenylamino, diphenylphosphinyl and thiophosphinyl groups were synthesized, and their ionization constants pK_a were measured. It was found that the diphenylphosphino group is not only an electron acceptor, but also a meta-orienting substituent having an unshared electron pair. This is probably due to two causes: (1) lack or weakness of the effect of p-π conjugation and (2) substantial role of the electron-acceptor effect, which is probably due to d_π-p_π conjugation. The diphenylphosphinyl and diphenylthiophosphinyl groups are strong meta-orientants

Card 1/2

Card 2/2

ACC NR: AP6030554 SOURCE CODE: UR/0413/66/000/016/0032/0032

INVENTOR: Kabachnik, M. I.; Nikolayev, A. V.; Mironova, Z. N.; Tsvetkov, Ye. N.

ORG: none

TITLE: Preparation of dialkyl(acetoxymethyl)phosphines. Class 12, No. 184848. [announced by Institute of Heteroorganic Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 32

TOPIC TAGS: dialkyl acetoxymethylphosphine, triacetoxyphosphine, alkyl halide, ACETONE, ORGANIC PHOSPHORUS COMPOUND

ABSTRACT: In the proposed method, dialkyl(acetoxymethyl)phosphines are obtained by successive treatment of triacetoxyphosphine with an alkyl halide and aqueous triethylamine, or sodium carbonate solution, or NaOH with subsequent treatment of the alkyldi(acetoxymethyl)phosphine formed with the above products. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 20May65/

Card 1/1 UDC: 547.419.1.07

ACC NR: AP6032587 SOURCE CODE: UR/0062/66/000/008/1365/1370

AUTHOR: Kabachnik, M. I.; Medved', T. Ya.

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

TITLE: Some properties of amides of chloroethylphosphorous, β-chloroethylphosphonic and vinylphosphonic acids

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1966, 1365-1370

TOPIC TAGS: amide, organic phosphorus compound

ABSTRACT: One of the most interesting properties of β-chloroethyl esters of acids of trivalent phosphorus is their ability to undergo an intramolecular Arbuzov rearrangement and convert into corresponding derivatives of pentavalent phosphorus. The article describes cases where this rearrangement of esters containing a haloalkyl function in the molecule takes place under mild conditions. This was found to occur in β-chloroethylphosphorous diamides. O-(β-Chloroethyl)-N,N-tetraalkyldiamidophosphites (I), obtained by the reaction of β-chloroethyldichlorophosphite with dimethyl- and diethylamines, are unstable compounds:

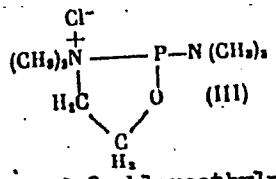
$$Cl_2POC_2H_4Cl \xrightarrow{R_2NH} \underset{(I)}{ClC_2H_4OP(NR_2)_2} \rightarrow \underset{(II)}{ClC_2H_4P(NR_2)_2} \quad (O)$$

R = CH_3, C_2H_5

Card 1/2 UDC: 542.952.1+661.718.1

ACC NR: AP6032587

Thus, tetramethyl derivatives during vacuum distillation at ~80°C partially isomerize into β-chloroethylphosphonic diamide (II) (R = CH_3). When large portions of O-(β-chloroethyl)-N,N-tetramethyldiamidophosphite are distilled, a third isomer (in addition to (I) and (II)) is formed which melts at 110°C. A series of conversions have shown that (III) is formed by the alkylation of nitrogen by the β-chloroethyl group and has the structure



(III)

It is shown that the isomerization of β-chloroethylphosphorous amides into β-chloroethylphosphonic amides occurs under milder conditions than in all cases of rearrangement of β-chloroethyl esters of trivalent phosphorus acids described thus far. The ease of the intramolecular Arbuzov rearrangement of β-chloroethylphosphorous amides indicates an enhanced nucleophilicity of the trivalent phosphorus atom in these compounds.

SUB CODE: 07/ SUBM DATE: 27Mar64/ ORIG REF: 006/ OTH REF: 002

Card 2/2

L 31272-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6022796 SOURCE CODE: UR/0079/66/036/002/0274/0282

AUTHOR: Gilyarov, V. A.; Tsvetkov, Ye. E.; Kabachnik, M. I.

ORG: Institute of Heteroorganic Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)

TITLE: Imides of phosphorus acids. VIII. N-acylimidophosphates and -phosphinates and N-acylamidophosphates and -phosphinates

SOURCE: Zhurnal obshchey khimii, v. 36, no. 2, 1966, 274-282

TOPIC TAGS: organic phosphorus compound, chemical synthesis, dissociation constant, organic amide, molecular structure, IR spectrum, azide, imide

ABSTRACT: A series of new azidophosphates and azidophosphinates was produced by the reaction of chlorophosphates and chlorophosphinates with triethylammonium azide. N-Acylimidophosphates and -phosphinates were synthesized by reaction of acyl azides with esters of phosphorous and phosphinous acids, and then dealkylated with hydrogen chloride to the corresponding N-acylamidophosphates and -phosphinates. The concentration dissociation constants of a number of N-acylamidophosphates were determined, and it was concluded on the basis of the Bronsted rule that these substances possess an amide, not an imidol structure. Infrared spectra of the products were also studied and will be published separately. Orig. art. has: 1 figure and 4 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 10Nov64 / ORIG REF: 014 / OTH REF: 008

Card 1/1 UDC: 546.185

L 31273-66 EWT(m)/EWP(j)/T EM

ACC NR: AT6027797 SOURCE CODE: UR/0079/66/036/002/0282/0289

AUTHOR: Gilyarov, V. A.; Kabachnik, M. I.

ORG: Institute of Heteroorganic Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)

TITLE: N,N'-diarylphosphamidines and some of their properties

SOURCE: Zhurnal obshchey khimii, v. 36, no. 2, 1966, 282-289

TOPIC TAGS: organic phosphorus compound, chemical synthesis, organic amide, reaction mechanism, substituent

ABSTRACT: A series of diethylphosphoryl-N,N'-diarylamidines and diethylphosphinyl-N,N'-diarylamidines were synthesized. The diethylphosphoryl-N,N'-diarylamidines were synthesized from diethyl chlorophosphite and arylamines through intermediate O,O-diethyl-N-amidophosphites (some of which were synthesized for the first time). In the synthesis of diethylphosphinyl-N,N'-diarylamidines, the intermediate N-phenylamidodiethylphosphinite was produced by transamination from N-diethylamidodiethylphosphinate and aniline. The pronounced nucleophilic character of the phosphamidines was noted. A method of synthesizing O-alkyl-N,N'-diaryldiamidophosphates with various substituents in the amido groups was found. Orig. art. has: 5 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 24Feb65 / ORIG REF: 008 / OTH REF: 005

Card 1/1 UDC: 546.183:547.398.5

L 10350-67 EWP(j)/EWT(m) RM

ACC NR: AP7003107 SOURCE CODE: UR/0079/66/036/007/1226/1230

28

AUTHOR: Kazimirchik, I. V.; Bebikh, G. F.; Denisov, F. S.; Kabachnik, M. I.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Synthesis of amides of pyrocatecholphosphorous acid

SOURCE: Zhurnal obshchey khimii, v. 36, no. 7, 1966, 1226-1230

TOPIC TAGS: organic synthetic process, organic phosphorus compound, secondary amine

ABSTRACT: Stable cyclic amidophosphites were synthesized by the reaction of pyrocatechol chlorophosphite with aromatic amines. The reaction with primary or secondary aromatic amines in the presence of triethylamine proceeded readily with slight heating in 75-80% yields. The amidophosphites obtained were capable of adding sulfur and reacting with phenylazide, yielding the corresponding bis-thionephosphate and N-phenyl-amidophosphate. The amides obtained were tested as inhibitors of ozone, light, and thermal aging of rubbers based on natural rubber. The duration of resistance of the rubbers to ozone and light aging was found to be increased by 100-150% in the presence of amides of pyrocatechol-phosphorous acid. The synthesized amides were also inhibitors of thermal aging of the rubbers, permitting them to retain their physicomechanical properties for longer periods. The authors thank M. A. Osipkov for carrying out the research inhibiting activities. Orig. art. has: 3 tables. [JPRS: 38,970]

SUB CODE: 07 / SUBM DATE: 26Jun65 / ORIG REF: 003

UDC: 547.565.2:546.183.325:546.171.1

Card 1/1 mb

0935 2063

ACC NR: AP7010711 SOURCE CODE: UR/0020/66/170/005/1103/1106

AUTHOR: Yakovleva, Ye. A.; Tsvetkov, Ye. N.; Lobanov, D. I.; Kabachnik, M. I. (Academician); Shatenshteyn, A. I.

ORG: Physico-Chemical Institute im. L. Ya. Karpov (Fiziko-khimicheskiy institut); Institute of Hetero-Organic Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)

TITLE: Protophilic deuterium exchange of some organic compounds of trivalent phosphorus

SOURCE: AN SSSR. Doklady, v. 170, no. 5, 1966, 1103-1106

TOPIC TAGS: deuterium compound, deuterium, organic phosphorus compound, organic nitrogen compound

SUB CODE: 07

ABSTRACT: The authors consider electron effects in organic compounds of trivalent phosphorus, particularly the quantitative aspects of comparable electron effects of substituents in phosphorus and nitrogen compounds of similar structure. The rate of isotopic hydrogen exchange with a 0.8 *N* solution of *tert*-C_4H_9OK is measured in mixtures of various volumes of diglim and deuterated tertiary butanol at 180°C or with a 0.02 *N* solution of potassium amide in deuterated liquid ammonia at 0 or 25°C in several organic compounds.

UDC: 547.341

Card 1/2

ACC NR: AP7010711

The resultant data show a probability that the smaller differences in exchange rates of aromatic and aliphatic CH bonds in methyldiphenylphosphine than in methyldiphenylamine may be attributed to the higher mobility of hydrogen in the aliphatic CH bonds due to *d*-orbital conjugation, and the increase in mobility of hydrogen in the CH bonds in the ortho position due to the additional inductive effect of the second phenyl radical. This work should serve as a basis for more detailed studies on the kinetics of deuterium removal from substances containing deuterium at a definite position in the molecule. We thank M. I. ARSHINOVA and R. M. GORBATOVA for assistance in this work. Orig. art. has: 2 figures and 2 tables. [JPRS: 40,351]

Card 2/2

L 2453-66 EWT(m) DIAAP
ACCESSION NR: AP5024332 UR/0367/65/002/002/0232/0235

AUTHOR: Grishanova, S. I.; Kabachnik, N. M.

TITLE: M1 excitation in the Be^9 nucleus

SOURCE: Yadernaya fizika, v. 2, no. 2, 1965, 232-235

TOPIC TAGS: beryllium, excited nucleus, nuclear shell model, inelastic scattering, electron scattering

ABSTRACT: The authors calculate the probability of M1 transitions from the ground state in the Be^9 nucleus ($I^\pi = 3/2^-$) to the $5/2^-$ and $1/2^-$ levels with energies in the 2.4 Mev region for the case of inelastic 180° scattering of electrons. The calculations are based on the nuclear shell theory. The contribution of the form factor for the M1 transition to the total form factor is evaluated for various scattering angles and initial energies. "The authors are sincerely grateful to V. V. Balashov for stimulating interest in the work and for useful consultation." Orig. art. has: 2 figures, 3 formulas, 1 table.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta

Card 1/2

L 2453-66

ACCESSION NR: AP5024332

(Institute of Nuclear Physics, Moscow State University)

SUBMITTED: 30Mar65 ENCL: 00 SUB CODE: NP

NO REF SOV: 002 OTHER: 004

BVK

Card 2/2

DOBRICH, Adal'bert [Dobrić, Adalbert]; ALIKHODZHICH, Asim [translator]; PISAREV, I.Yu., prof., red.; KABACHNIK, Ya.I., red.; LATYSHEV, A.I., red.; VINOGRADOVA, V.A., tekhn.red.

[Industrial statistics] Promyshlennaia statistika. Pod red. I.IU.Pisareva. Moskva, Gos.stat.izd-vo, 1959. 291 p. (MIRA 13:3)

(Industrial statistics)

ALESHINA, F.; KABACHNIK, Ya.; KUZNETSOVA, N.; VASIL'YEVA, V.; BALASHOVA, M.; NEMCHINOVA, I.

Several results of an experimental study of budgets of workers' families. Biul.nauch.inform.: trud i zar. plata 3 no.12:24-48 '60. (MIRA 14:3)

(Home economics--Accounting)

KABACIK, D.

COUNTRY	:	POLAND
CATEGORY	:	General and Specialized Zoology, Insects. Biology and Ecology.
	:	[illegible], No. 3, 1972, No. [illegible]
AUTHOR	:	Kabacik, D.
INST.	:	[illegible]
TITLE	:	From the Observations on the Ground Beetles of Pine Forest.
ORIG. PUB.	:	Kabacik, D.
ABSTRACT	:	Results of 3-year collections with the aid of traps and observations on two common forest ground beetles: Carabus arcensis and Pterostichus niger. Beetles of the former species were encountered only on the surface of the ground and those of the latter - in the ground. The greatest activity in the beetles of the former species was noted from May until the beginning of July and in dry and sunny places - in August. The greatest activity of the latter species was observed from July until October. The response of both species to the bait varied a great deal. A numerical decrease in the populations is observed at the edges of the forest. — From the author's resume

Card: 1/1

L 32845-66 EWT(m)
ACC NR: AP6024125 SOURCE CODE: PO/0022/65/000/011/0327/0334

AUTHOR: Kabacik, Tadeusz (Master engineer) 36 B

ORG: Department of Teletransmission Systems, Polytechnic Institute, Wroclaw (Katedra Urzadzen Teletransmisyjnych, Politechnika)

TITLE: Single-track telephone repeater with intermittently switched-on amplifier

SOURCE: Przeglad telekomunikacyjny, no. 11, 1965, 327-334

TOPIC TAGS: telephone equipment, audio amplifier, circuit design

ABSTRACT: The article analyzes the operation of a single-track telephone repeater with a single amplifier which is alternately switched on in either direction, i.e. in whichever direction the voice-carrying current flows. A block diagram of the system, the waveform of the voltages involved in the process of transmission are considered here; load matching conditions are derived on the basis of equivalent circuit parameters and, furthermore, amplitude- as well as phase-distortions in the amplifier circuit are discussed. Orig. art. has: 16 figures and 40 formulas. [JPRS]

SUB CODE: 09, 17 / SUBM DATE: none

LS
Card 1/1 UDC: 621.395.64

0912 1702

KABACINIK, M.I.

Isomeric problems. Analele chimie 18 no.1:3-28 Ja-Mr '63.

KABACNIC, M.K.

RUMANIA/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26881.

Author : Kabacinik, M.K.
Inst :
Title : New Ways of Practical Application of Elemento-Organic Compounds.

Orig Pub: An. Rom.-Sov. Ser. Chim., 1956, 10, No. 3, 71 - 83.

Abstract: Translation. See RZhKhim, 1956, 47029.

Card 1/1

KABADOV, A.

Kabadov, A.; Popov, K. Computing the short circuit of currents in electric systems. p.5. ELEKTROENERGIIA, Sofiya. Vol. 6, no. 5, May 1955.

SO: Monthly List of the East European Accessions, (EEAL), LC. Vol. 4, no. 10, Oct. 1955. Uncl.

KABAI, Imre

Cogwheels made of synthetic materials. Gep 12 no. 4:140-146 Ap 60.

KABAI, Imre

Cogwheels made of synthetic materials. Gep 12 no.4:140-146 Ap '60.

ZSARY, A. (Budapest, Xi.,Muegyetem rakpart 3); KABAI, I.
(Budapest, XI.,Muegyetem rakpart 3)

Endurance test on cogwheels. Periodica polytechn eng 7
no.4:299-321 '63.

1. Lehrstuhl fur Maschinenelemente der Technischen Universitat, Budapest. Vorgelegt von Prof. Dr. I. Voros.

KABAI, Imre, kutatomernok; ZSARY, Arpad, docens

Fatigue testing methods and values of wheel root fatigue in steel toothed wheels. Gep 16 no.12:461-473 D '64.

1. Scientific Research Institute of Automobile Transportation, Budapest (for Kabai). 2. Chair of Mechanics and Machine Elements of the Technical University of Building and Transportation, Budapest (for Zsary).

KABAI, Janos

Structural investigation of ferric hydroxide gels prepared at various temperature. (To be contd.) Magy kem folyoir 66 no. 3:108-112 Mr '60.

1. Eotvos Lorand Tudomanyegyetem Kolloidkemiai es Kolloidtechnologiai Intezete, Budapest.

KABAI, Janos

Structural investigation of ferric hydroxide gels prepared at various temperatures. II. Magy kem folyoir 66 no.8:326-331 Ag '60.

1. Eotvos Lorand Tudomanyegyetem Kolloidkemiai es Kolloid-technologiai Intezete, Budapest.

KABAI, Janos

Effect of freezing on the peptizableness of ferric hydroxide gels produced at different grades of temperature. Magy kem folyoir 67 no.8:367-369 Ag '61.

1.Eotvos Lorand Tudomanvegyetem Kolloid-kemiai es Kolloidtechnologiai Tanszeke, Budapest.

KABAI, Janos

Solubility rate of iron (III)-hydroxide gels prepared at various temperatures. Magy kem folyoir 70 no. 4:165-171 Ap '64.

1. Department of Colloid Chemistry and Colloid Technology, Lorand Eotvos University.

KABAI, Janosne (Budapest)

Oxidative cracking of the Hungarian lignite tar oils. Kem tud kozl MTA 16 no.1:127 '61.

1. Nehezvegyipari Kutato Intezet, Budapest.

(Cracking process) (Lignite) (Tar)

KABAILIENE, M.

GEOGRAPHY & GEOLOGY

MOKSLINIAI PRANESIMAI.

KABAILIENE, M.: Alleröd and pre-Alleröd periods in Lithuania in the light of palinological investigations of the Nopaitis peat-bog deposits. p. 105

Vol. 6, 1958

Monthly List of East European Accessions (EEAI) LC Vol. 8, No 3
March 1959, Unclass.

KABAILIENE, M.

GEOGRAPHY & GEOLOGY

MOKSLINIAI PRANESIMAI.

KABAILIENE, M. Some new data about the Allerod deposits of Gabiauriskis. p. 5.

Vol. 8, 1958.

Monthly List of East European Accession (EEAI) LC V 1. 8, No.3
March 1959, Unclass.

KABAIVANOV, V.; ALAMINOV, H. [Alaminov, Kh.]

On joint polycondensation of cyanuric acid, phenol and formaldehyde in acid medium. Doklady BAN 17 no.7:625-628 '64.

1. Submitted by Corresponding Member B. Kourtev [Kurtev,B.].

KABAIVANOV, VI.

BULGARY/Organic Chemistry - Synthetic Organic Chemistry. G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46634

Author : VI. Kabaivanov, M. Mikhaylov, L. Bozveliev

Inst : Institute of Chemistry and Technology.

Title : Separation of Methylvinylketone at Its Preparation of Acetone and Formaldehide.

Orig Pub : Godishnik Khim.-tekhnol. in-t, 1954, 1, 13-20

Abstract : The mixture of 4 moles of acetone and 1 mole of CH_2O (40%-ual solution) is brought to pH from 8 to 9 with 1 n. NaOH and left to season 4.5 hours at 25 to 32°; it is neutralized with HCl, acetone is distilled off at the temperature up to 90°, after which the rest is distilled with $ZnCl_2$ (1% of ZnCl per initial acetone) at 150 to 160° and at 180° in the end. The distillate is fractionated in a column, the fraction with the

Card 1/2

Card 2/2

BULGARIA/Chemical Technology - Chemical Products and Their Application - Industrial Organic Synthesis. H-15

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8875

the treatment of the C the yield of I was increased from 7 to 22.2%. A study was made of the effect of the content of water and CH_3CHO on the yield of I.

Card 2/2

BULGARIA/Chemical Technology. Chemical Products and Their Applications. Industrial Organic Synthesis. H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20388

Author : Kabaivanov, Vl., Mikhaylov, M.
Inst :
Title : Obtaining of Acetonecyanohydrin.

Orig Pub : Godishnik Khim. tekhnol. in-t, 1956 (1957), No 1, 43-46

Abstract : While obtaining acetonecyanohydrin (I) by the effect of HCN on an aqueous solution of acetone (II), at the moment of isolation, a yield of 77-78 percent of the product is obtained with a boiling point of 78-82°. A variant of this method is

Card : 1/4

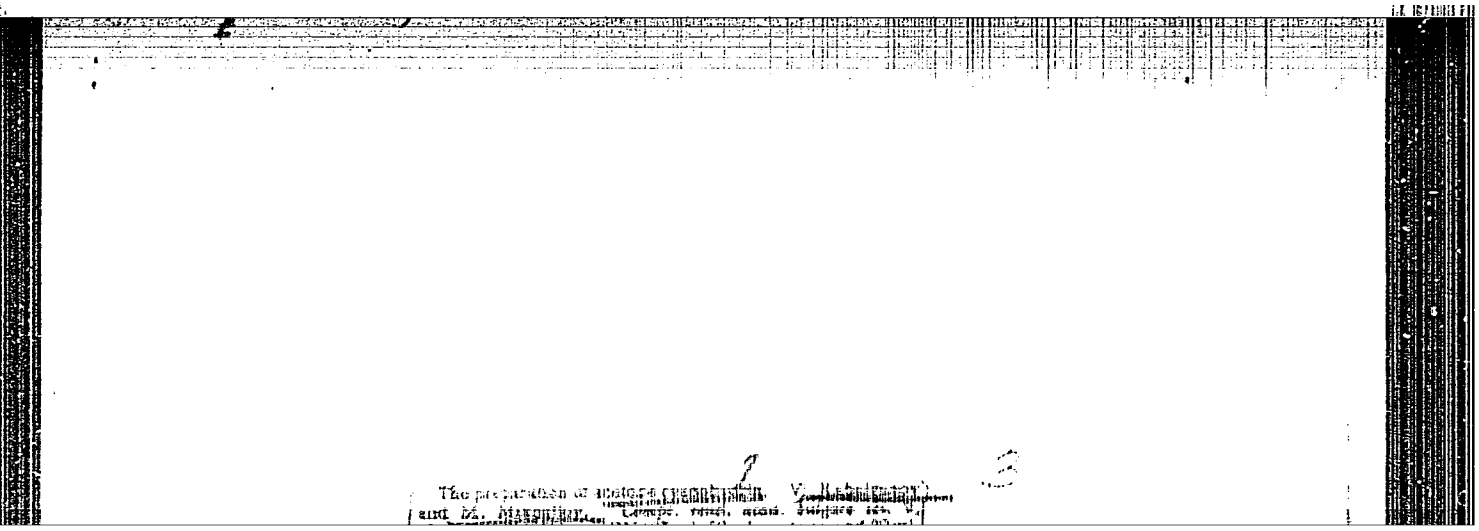
H-5-6

COUNTRY : Bulgaria H-31
CATEGORY : Chemical Technology. Chemical Products and Their Applications--Caoutchouc, natural and synthetic.*
ABS. JOUR. : RZKhim., No. 21 1959, No. 76904

AUTHOR : Kabaivanov, V., Mkhaylov, M., and Karanova, Kh.
INST. : Chemical Engineering Institute (Sofia)
TITLE : On the Amination of Chlorinated Rubber

ORIG. PUB. : Godishnik Khim.-Tekhnol Inst, 1956 (1957), No 1, 55-65
ABSTRACT : The authors have investigated the effect of temperature on the heterogenous amination of chlorinated rubber with an aqueous solution of NH_3 under pressure at temperatures of 95-145°. Aminochlorinated rubber of maximum N content and maximum ion exchange capacity is obtained at 125°. Using the quantity C_3, the degree of substitution of a given group or atom in the chain, the following concepts were derived: D, the availability of the amino groups for ion exchange; ϕ_n, a

CARD: 1/3 * Rubber.



BULGARIA / Chemical Technology. Chemical Products and Their Application. Plastics. H-29

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 3019.

Author : Kabaivanov, V., Mikhaylov, M., Pangarova, P.
Inst : --
Title : Urea-Formaldehyde Foam Plastics With an Increased Strength.

Orig Pub: Godishnik Khim.-tekhnol. in-t, 1956, (1957), No 1, 47-53.

Abstract: A method for preparing urea-formaldehyde foam plastic (P) was worked out. The method is based on the application of combined foaming — mechanical in the presence of an emulgator, laurol (I), and on the decomposition of a porophore, $(NH_4)_2CO_3$ (II). A resin for P is prepared as follows (in grams): formalin 37.7% - 100,

Card 2/2

KABAIVANOV, V.

BULGARIA/Synthetic Polymers, Plastics. H.

Abs Jour : Ref Zhur - Khimiya, No 19, 1958, 65989

Author : Kabaivanov Vladimir
Inst : -
Title : Use of Plastics in a New Technique.

Orig Pub : Priroda (Bulg.), 1957, 6, No 4, 38-44.

Abstract : Schemes are given for the extraction of modern plastics from coal, oil and wood. Comparative data are cited on the stability of several types of plastics with metals, and examples of plastic products for machine and automobile construction, electric engineering and aircraft construction, as well as for daily use and in medicine.

Card 1/1

KABAIVANOV, Vl.; MIKHAYLOV, M.

Preparation of acetone cyanohydrin (α -oxyisobutyronitryl) from acetone and sodium cyanide. Dokl. AN SSSR 117 no.2:234-236 N '57. (MIRA 11:3)

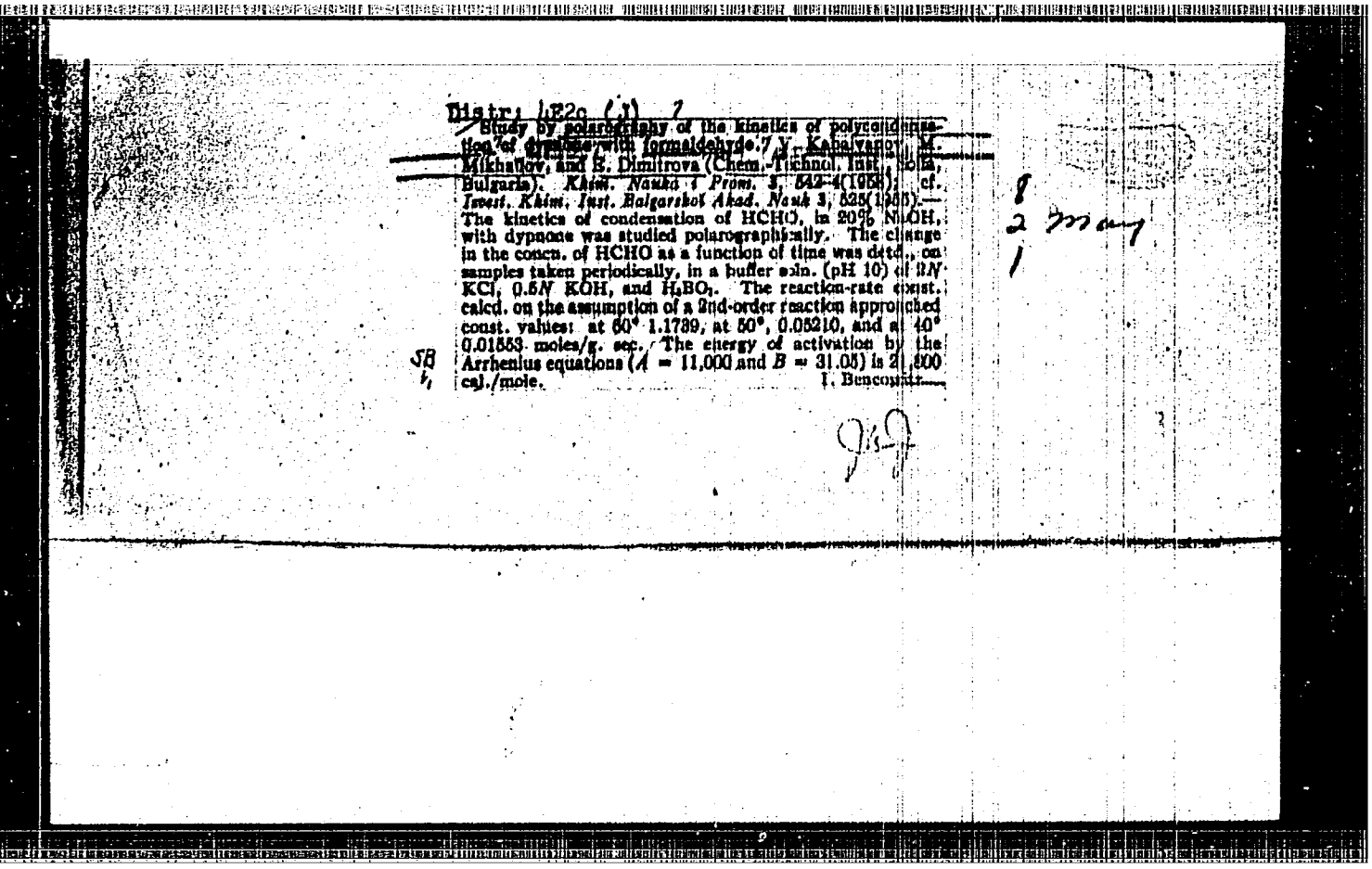
1. Sofiyskiy khimiko-tekhnologicheskiy institut Sofiya, Bolgariya. Predstavleno akademikom I.N. Nazarovym.

(Acetoacetonitrile)

Distr: 4E2c(1)/4E3d

α-Hydroxyisobutyronitrile. V. Kubalyanov and M. Michailov (Inst. Chem. Technol., Sofia, Bulgaria). *Chem. Stosowana* 2, 130–2(1958)(German summary).—Kolb-Stormont's method [*Org. Syntheses Collective Vol.* 2, 7(1943)] was modified by replacing H_2O with MeOH as solvent. The process gave purer α-hydroxyisobutyronitrile (I), bp 81–2°, with a yield higher by 20%; extn. with Et_2O, drying with $NaHSO_3$, and vacuum distn. of I are avoided. Heating 94% KCN (67 g.), acetone (II) (90 ml.), and MeOH (90 ml.) for 15 min. at 20–30° in 3-necked flask with stirrer, thermometer, and dropper, adding dropwise 54 ml. H_2O-free H_2SO_4 and 45 ml. MeOH for 2.5 hrs. at 20–30° with vigorous stirring (200–300 r.p.m.), stirring for another half hr., filtering off *in vacuo* the ppt. contg. $KOSO_2OCH_3$ and $KHSO_4$, washing 3 times with 10 ml. MeOH, distilling II and MeOH from the filtrate (pH 3–4), then distilling the residue at 18 mm. Hg, and collecting the 81–2° fraction yielded 78.2 g. I, n_D^{20} 1.4048.

A. Szafranski



Distr: IIB2c (1) 7

Study by polarography of the kinetics of polycondensation of cyanide with formaldehyde. V. Kabalvanov, M. Mikhailov, and E. Dimitrova (Chem.-Technol. Inst., Sofia, Bulgaria). *Khim. Nauka i Prom.* 3, 842-4(1958); cf. *Invest. Khim. Inst. Bulgarskot Akad. Nauk* 3, 825(1955).—The kinetics of condensation of HCHO, in 20% NaOH, with dypnone was studied polarographically. The change in the concn. of HCHO as a function of time was detd., on samples taken periodically, in a buffer soln. (pH 10) of 2*N* KCl, 0.5*N* KOH, and H_3BO_3. The reaction-rate const. calcd. on the assumption of a 2nd-order reaction approached const. values: at 60° 1.1739, at 50°, 0.05210, and at 40° 0.01553 moles/g. sec. The energy of activation by the Arrhenius equations (A = 11,000 and B = 31.05) is 21,000 cal./mole.

I. Bencowitz

SB
4/

KABAIVANOV, VL

Distr: 4E2c(j)/4E3b

4
1-Bagian 8)
2

Potentiometric method for the quantitative determination of chlorine in poly(vinyl chloride) and in externally plasticized mixtures of poly(vinyl chloride) with other components not containing chlorine. Vl. Kabaivanov, I. Bozveliev, and D. Georgieva. *Khim. i Ind.* (Sofia) 31, 165-70 (1959).—Potentiometric analysis for Cl in pure poly(vinyl chloride) (I) gave an abs. error of 0.016%. When I is mixed with compds. not contg. Cl, such as dioctyl phthalate, tritolyl phosphate, and lead stearate, the abs. error was 0.028%, due in part to the higher thermal stability.

Y. Himelblum

KABAIVANOV, Vl.; NATOV, M.; GERDZHIKOVA, Sv.

Synthesis of ethyl alumenum sesquibromide and polyethylene in carbon dioxide atmosphere. Godishnik khim tekh 6 no.1:29-35 '59 (Publ. '60.)

41370
S/081/62/000/018/059/059
B168/B186

5.3400

AUTHORS: Kabaivanov, Vl., Matov, M.

TITLE: The reaction of p,p'-dioxydiphenyldimethylmethane with thionyl chloride

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 18, 1962, 615, abstract 18R84 (Godishnik Khim.-tekhnol. in-t, v. 6, no. 1, 1959(1960), 37 - 43 [Bulg.; Summaries in Rus. and Ger.])

TEXT: The reaction of 4,4'-$HOC_6H_4C(CH_3)_2C_6H_4OH$- (I) with $SOCl_2$ was studied with a view to producing polysulfite of the type $H-[O-C_6H_4C(CH_3)_2C_6H_4CSO-]_x-R$. However, no proper resinous products were obtained with direct action of $SOCl_2$ on I at ~20°C or at elevated temperature, in the air or in an inert atmosphere, with or without solvents or in the presence of catalysts ($ZnCl_2$, $AlCl_2$, $TiCl_4$). Reaction of an alkaline solution of I with $SOCl_2$ produces NaCl, I and SO_2. Under the action of $SOCl_2$ on a sodium derivative of I(II) in C_6H_6 the reaction proceeds by the mechanism of heterophase poly-

Card 1/2

S/081/62/000/022/064/088
B166/B144

AUTHORS: Kabaivanov, Vl., Ts"rnorechki, O., Kuzova, L.

TITLE: Compatibility of nitrocellulose and acetylcellulose in the presence of certain plasticizers and resins

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 490, abstract 22P100 (Izv. N.-i. in-t kinematogr. i radio, v. 2, 1959-1960(1961),167-174 Bul.; summaries in Russ. and French])

TEXT: Viscometer measurements prove that nitrocellulose (NC) with 11.8 % N and acetylcellulose (AC) with 49.5 % bound CH_3COOH are incompatible with one another. Tricresyl phosphate and epoxy and glyptal resins are shown to improve considerably the compatibility of NC with AC; in this respect dibutyl phthalate is less effective. [Abstracter's note: Complete translation.]

Card 1/1

KABAIVANOV, Vl.; MATOV, M.

Obtaining the terpene phenols under the catalytic action of sulfuric acid. Godishnik khim tekh 7 no.1/2:185-193 '60 [publ. '61].

KABAIVANOV, Vl.; NATOV, M.

Obtaining 100% resins from terpene phenols. Godishnik khim tekh 7 no.1/2:195-202 '60 [publ. '61].

NATOV, M.; IVANOV, Vl.; MIKHAILOV, M.

Obtaining trioxan. Godishnik khim tekh 7 no.1/2:203-212 '60 [publ. '61].

KALAIVANOV, Vl.; TSURNORECHKI, O.

Compatibility of the polyvinyl chloride and polyvinyl acetate in the presence of a third component. Godishnik khim tekh 7 no.1/2:213-222 '60 [publ. '61].

KABAIVANOV, Vl.; NATOV, M.

On interaction of P, P' - dioxidediphenyl dimethylmethane with thionine chloride. Godishnik khim tekh 6 no.1:37-43 '59 (Publ. '60)

S/081/63/000/003/030/036
B144/B186

AUTHORS: Kabaivanov, Vl., Natov, M.

TITLE: Production of 100% resins from terpene phenols

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 591, abstract 3T61 (Godishnik Khim.-tekhnol. in-t, v. 7, nos. 1-2, 1960 (1961), 195-202 [Bulg; summaries in Russ. and Eng.])

TEXT: The polycondensation of certain terpene phenols with formaldehyde (I) was studied. It was established that this process is similar to the polycondensation of phenol with I and can take place with an alkaline as well as an acid catalyst; with the latter, higher-molecular and higher-melting resins are obtained. The resin synthesized from bornyl phenol (II) and I is thermoplastic; that synthesized from a mixture of II, bornyl-ester phenol and I is thermoreactive. Both types of resin are oil-soluble. The optimum method of obtaining terpene-phenol resins is as follows: 230 g terpene phenol, 150 ml 30% formalin and 2.5% of 37%HCl (acid) are boiled for 2 hrs; after drying in vacuo the yield of resin is 260 - 265 g (after washing out the catalyst 245 - 250 g). [Abstracter's note: Complete translation.]

Card 1/1

S/081/63/000/003/028/036
B144/B186

AUTHORS: Kabaivanov, Vl., Ts"rnorechki, O.

TITLE: Compatibility of polyvinyl chloride with polyvinyl acetate in the presence of a third component

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 589, abstract 3T45 (Godishnik Khim.-tekhnol. in-t, v. 7, nos. 1-2, 1960 (1961), 213-222 [Bulg.; summaries in Russ. and Eng.])

TEXT: It has been established as a result of studying the compatibility of polyvinyl chloride [(PVC), molecular weight 40 000] with polyvinyl acetate [(PVA), molecular weight 30 700] in the presence of dibutyl phthalate (I) and glyptal resin [(GR), molecular weight 1430] that GR and particularly I improve the compatibility of PVC and PVA. The tensile strength-versus-composition (PVC - PVA) curve shows deviations from the monotonic course occurring in the case of PVC:PVA ratios of 70:30 and 40:60, which is explained by the mutual plasticizing effect of the two polymers. [Abstracter's note: Complete translation.]

Card 1/1

KARAIVANOV, Vl.; GEORGIEVA,M.; NATOV,M.

Preparation of stable melamineformaldehyde resin solutions.
Khim i industriia 35 no.5:170-172 '63.

KABAIVANOV, Vladimir, prof.

Development of the plastics industry according to the general perspective. Khim i industriia 36 no. 2:41-42 '64.

1. Head, Chair of Plastics Technologyat the Chemical and Technological Institute, Sofia.

KABAIVANOV, Vl.; ALAMINOV, Khr.

Thermal resistance of cyanuric-phenol-formaldehyde resins. Khim i industriia 36 no.10:362-366 '64.

1. Chemical and Technological Institute, Sofia. Submitted March 31, 1964.

ACC NR: AP5028418 SOURCE CODE: BU/0011/65/018/001/0027/0030

AUTHOR: Kabaivanov, V.; Alamanov, H.

ORG: Chemico-Technological Institute, Darvenitza Sofia; Chemical Industry Research Institute, Sofia

TITLE: Hardening of thermoplastic cyanuric phenol-formaldehyde resins

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 27-30

TOPIC TAGS: synthetic material, resin, solid mechanical property

ABSTRACT: [English article] The method and kinetics of cyanuric phenol-formaldehyde resin production has been described in detail in previous communications (Godishnik, KhTI, XI, 1963, No 2; Compt. rend. Acad. bulg. Sci., 17, 1964, No 7, 625). In order to assess the mechanical properties of this new type of resins it is necessary above all to determine the temperature ranges of their transfer from one physical state to another. The thermomechanical method is particularly suitable for the investigation of cyanuric phenol-formaldehyde resins which in the process of hardening undergo major structural and chemical changes, rendering impossible the employment of the ordinary methods of organic chemistry. The present paper, whose experimental part was carried out at the NIIPM (Scientific-Research Institute of Plastics), Moscow, presents the results of investigations of the mechanical

Card 1/2

L 4424-66

ACC NR: AP5028418

properties of thermoplastic cyanuric phenol-formaldehyde resins in the process of hardening with hexamethyltetramine in a wide temperature interval. The purpose of the investigation was to shed light on the mechanism of their hardening. The appearance of the curves obtained indicate that thermoplastic cyanuric phenol-formaldehyde resins undergo practically no changes up to 210 °C. An insignificant deformation was observed at a higher temperature. The specimens remained completely preserved at 300 °C. Considerable deformation is observed in the case of specimens of thermoplastic phenol-formaldehyde resins above 100 °C, the specimen carbonizing completely and becoming destroyed at 300 °C. The data adduced show that the cyanuric phenol-formaldehyde resin obtained stands up much better to heat than the ordinary novolacs (phenol-formaldehyde resins). The work was submitted by B. Kourtev, Corresponding Member, 28 Aug 64. Acknowledgements are due to L. A. Igonin et coll. for their kind assistance in carrying out the experimental work at NIIPM in Moscow. Orig. art. has: 4 figures. [JPRS]

SUB CODE: MT, OC / SUBM DATE: 28Aug64 / ORIG REF: 002 / SOV REF: 006

Card 2/2

L 13820-66 EWT(m)/EWP(t)/T/ETC(m)-6 WW/RM

ACC NR: AP6002476 (A) SOURCE CODE: UR/0191/66/000/001/0019/0021

AUTHORS: Kabaivanov, Vl.; Alaminov, Khr.

ORG: none

TITLE: Investigation of the simultaneous polycondensation of cyanuric acid, phenol, and formaldehyde

SOURCE: Plasticheskiye massy, no. 1, 1966, 19-21

TOPIC TAGS: polymer, polycondensation, polymerization catalyst, phenol, formaldehyde

ABSTRACT: The properties of polycondensates obtained by the simultaneous polycondensation of cyanuric acid, phenol, and formaldehyde in the presence of hydrochloric acid were investigated to extend the work on the polycondensates of cyanuric acid and formaldehyde described by the authors (Sbid., KhTI, 2, 11, 1964). The dependence of the rate of formaldehyde condensation, the change in acidity during the process of polycondensation on the catalyst concentration (HCl), and the temperature dependence of the deformation of the synthesized polymers were determined. The physico-mechanical properties of the polymers are compared with those of cellulose and wood meal. The experimental results are presented in tables and graphs (see Fig. 1). It is concluded that the resins obtained from the

Card 1/2 UDC: 678.632'32'21

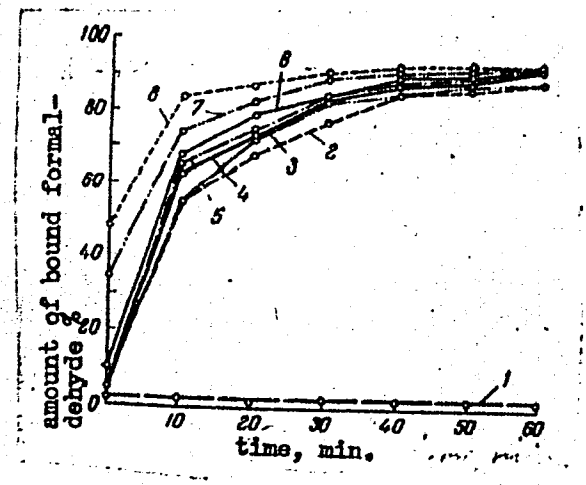


Fig. 1. Rate of condensation of formaldehyde at different catalyst concentrations. Amount of HCl %: 1 - no catalyst; 2 - 0.18; 3 - 0.35; 4 - 0.67; 5 - 1.00; 6 - 1.7; 7 - 4.5; 8 - 10.8.

polycondensation of cyanuric acid--phenol-formaldehyde possess a sufficient thermal stability to be useful up to a temperature of 200--250C. The authors thank L. A. Igonin, V. V. Kovriga, B. M. Kovarskaya, and I. F. Kanayeva (Moscow) for their participation in the experimental work. Orig. art. has: 1 table and 5 graphs.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 010/

Card 2/2

L 42993-66 EWP(j)/T LJP(c) BM

ACC NR: AP6031802 SOURCE CODE: BU/0011/65/018/009/0821/0824

AUTHOR: Kabaivanov, V.; Mateva, R.; Natov, M. 41

ORG: Chemico-Technological Institute, Sofia-Darvenitsa B

TITLE: Production of polyformaldehyde from trioxane under catalytic action of organoaluminum compounds

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 821-824

TOPIC TAGS: chemical production, formaldehyde, trioxane, organoaluminum compound, polymerization, monomer, chemical purity, polymer chemical, molecular weight

ABSTRACT: The widespread and general utilization of polyformaldehyde encounters only one major obstacle: the difficulties connected with the purification of the initial monomer and with the polymerization process. In recent years the symmetrical cyclic trimer of formaldehyde, trioxane, has therefore come to be increasingly used as the initial monomer. This approach has the shortcoming that the moisture found in trioxane effects the molecular weight and the properties of the final polymer. In order to bind the trioxane moisture chemically and then to produce polymerization, the authors used as driers organoaluminum compounds of the AlR_3, AlR_2X, $AlR_{1,5}X_{1,5}$, and $AlRX_2$ type in which R is the alkyl radical and X = Cl, Br. These compounds are known to react vigorously with water, making a rapid and complete drying of trioxane possible. The paper describes proofs for the catalytic activity of organoaluminum compounds, gives probable mechanisms for the action of the catalyst, and gives a detailed description of the general experimental procedures, nitrogen purification, and the polymerization process proper. This paper was presented by Corresponding Member BAN B. Kourtev on 27 May 1965. Orig. art. has: 2 tables. [Orig. art. in Eng.] [JPRS: 34,518]

SUB CODE: 07 / SUBM DATE: 27May65 / ORIG REF: 002 / SOV REF: 002 / OTH REF: 011

Card 1/1

0919 0548

L 42995-66 EWP(j)/T LIP(c) BM

ACC NR: AP6031803 SOURCE CODE: BU/0011/65/018/009/0825/0828

AUTHOR: Kabaivanov, V.; Natov, M.

36
B

ORG: Chemico-Technological Institute, Sofia-Darvenitsa

TITLE: Effect of polymers' molecular weight on the phase state of their binary mixture

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 825-828

TOPIC TAGS: molecular weight, amorphous polymer, crystalline polymer, acrylic acid, formic acid, macromolecule, electron microscopy, electron diffraction, x ray diffraction study

ABSTRACT: The easiest way of modifying polymers is to mix them. One of the factors which plays a major role in determining the proper properties of polymers and polymer mixtures is their phase state. Consequently, the authors investigated a number of mixtures containing one crystallizing and one amorphous polymer. It was established that the molecular weight of the components strongly affects the phase state of their mixtures. The authors present also the dependence of the phase state of mixtures consisting of polycapronamide and polyacrylic acid obtained at 40° from their solution in 85-p. c. formic acid. Graphs show that when the molecular weight of the polycapronamide increases, it crystallizes less readily and amorphous mixtures

Card 1/2

0919 0549

KARAIVANSKI, Iacho, d-r.; SLAVKOV, Ilia, d-r.; SAVOV, Din'o, d-r.; STANCEV, Stoian, d-r.

Hemorrhagic septicemia in carps in Bulgaria. Izv.mikrob.inst., Sofia 5:257-266 1954.

1. Ot N. I. V. Kh. K. Institut - Sofia.
(PSEUDOMONAS INFECTION,
punctata, hemorrh. septicemia in carps - (Bul))
(FISH,
carps, hemmorrh. septicemia - (Bul))

KABAIVANSKI, Lacho

KABAIVANSKI, Iacho, d-r.; SLAVKOV, Ilia, d-r.; SAVOV, Din'o, d-r.; STANOEV, Stoian, d-r.

Intestinal form of furunculosis in trout in Bulgaria. Izv.mikrob. inst., Sofia 5:267-275 1954.

1. Ot N. I. V. Kh. K. Institut - Sofiia.
(FISH,
trout, intestinal furunculosis)
(FURUNCULOSIS,
intestinal in trout)
(INTESTINES, diseases,
furunculosis in trout)

KABAJ, V.

Something on the preparation of welds and on welds themselves. p.75

VARILNA TEHNIKA. (Drustvo za varilno tehniko LRS in Zavod za varjenje LRS Ljubljana, Yugoslavia. Vol7, no.3/4, 1958

Monthly List of East European Accessions Index (EEAI) LC, Vol8, no.11
Nov. 1959
Uncl.

KABAJ, Vinko (Ljubljana)

Construction of the welded scroll case of the Francis turbine for the hydroelectric power plant in Split. Var tehn 10 no.3:85-88 '61.

1. Tehnolog za varjenje v TZ Litostroj, [Ljubljana]

(Welding) (Turbines)

NECHAYEV, S.Ye.; KABAK, A., red.; BELOUSOVA, L., tekhn.red.

[Struggle of the Moldavian party organization for the development of stockbreeding] Partiinaia organizatsiia Moldavii v bor'be za pod"em zhivotnovodstva. Kishinev, Gos.izd-vo "Kartia Moldovenieske," 1960. 88 p. (MIRA 13:11)
(Moldavia--Stock and stockbreeding)

YELFIMOV, A.G., kand. ekon. nauk, dots.; DZHURINSKIY, N.; KABAK, A., otv. za vypusk; MILYAN, N., tekhn. red.

[Specialization and cooperation in industry in the Moldavian S.S.R.]Spetsializatsiia i kooperirovanie v promyshlennosti Moldavskoi SSR. Pod red. A.G.Elfimova. Kishinev, Kartia moldoveniaske, 1962. 164 p. (MIRA 16:3)
(Moldavia—Industrial organization)

ENDOCRINOLOGY

HUNGARY/USSR

KURCZ, Mihaly, and KABAK, J.M., Laboratory of Endocrinology, National Lomonosov University, Moscow [Original-language version not given].

"Prolactin Content of Rat Hypophysis After Destruction of Middle Part of Hypothalamus"

Budapest, Kiserletes Orvostudomany, Vol 18, No 6, 1966; pp 561-565.

Abstract: After isolated destruction of the ventromedial nucleus of the hypothalamus the uterus was traumatized, in order to release the deciduoma reaction, and the prolactin content of the hypophysis was determined. In the genital cycle of the damaged animals the diestrus phase was prolonged, but the deciduoma reaction was not positive. The weight of the hypophysis significantly increased after the operation. Both the concentration and the absolute weight of the prolactin in the hypophysis was increased. On the basis of these results and of previous data the authors believe that those nervous structures which are responsible for the inhibition of the prolactin secretion of the hypophysis are either present in the ventromedial nucleus, or the paths connecting the "centers" inhibiting the prolactin production and the hypophysis pass through the ventromedial nucleus. 14 References, 7 of which Eastern.
Manuscript received 28 Jul 65.

1/1

KABAK, K.S.

USSR/Pharmacology. Toxicology. Various Preparations. V-9

Abs Jour : Ref Zhur-Biol., No 6, 1958, 28209

Author : Kabak K. S.

Inst : Not given.

Title : Changes in the Periperal Nervous System of the Cutis Produced by some Theraputic Ointments.

Orig Pub : Vrachevn. delo, 1957, No 2, 137-142.

Abstract : Changes in the peripheral nervous system of the cutis of the upper lip developed by the rubbing of white murcury, Wilkinsons and sulphur ointments for periods of 7, 15, and 30 days were studied in 27 dogs. Biopsies were conducted 24 hours after the final application. The greatest modifications were found in the nerve fibers which innervated

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Chair of Histology & Embryology
Kiev Med. Inst.

Card 2/2

AUTHORS: Polyakova, N. M., Kabak, K. S. SOV/20-122-2-30/42

TITLE: On the Albumin of ~~Peripheral Nerves~~ (Ob al'bumine perifericheskikh nervov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 2, pp 275 - 277 (USSR)

ABSTRACT: In the course of their investigations of proteins from different sections of the nerve system by means of electrophoresis on paper (Ref 1) the authors found, that the peripheral nerves contain a considerable amount of proteins the electrophoric mobility of which is equal to the blood-serum albumin. Furthermore, such proteins are found which move towards the cathode in the case of electrophoresis. The content of these two kinds of proteins differentiates the peripheral nerves from the brain and the spinal marrow. First of all it had to be clarified whether the said albumin does not come from the lymph. The authors were able to prove that a considerable amount of albumin in the nervus ischiaticus does not come from the lymph present in the nerve trunk. Further it had to be proved that the said albumin is not

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part of the connective tissue. Figure 2 shows the electrophoretic graphs of the proteins in the nervus ischiaticus of horned cattle. As can be seen albumins are present not only in the extracts of the connective tissue of the nerve but to the same extent in the extracts from isolated nerve fiber fasciculi. This content was nearly the same and varied between 20 and 25% of the total content of soluble proteins. The albumin moving towards the cathode in the case of electrophoresis is characteristic of the nerve fibers. There is no protein in the connective tissue (Fig 2). The albumin of the nerve resembles the blood serum albumin. There are 2 figures and 3 references, 2 of which are Soviet.

ASSOCIATION: Institut biokhimii Akademii nauk USSR (Institute of Biochemistry, AS UkrSSR) Kiyevskiy meditsinskiy institut (Kiyev Medical Institute)

PRESENTED: May 5, 1958, by A.V.Palladin, Member, Academy of Sciences, USSR

KABAK, K.S., assistent

Changes in the peripheral nervous system of the skin in microsporosis. Vest.derm. i ven. 33 no.3:34-40 My-Je '59.
(MIRA 12:9)

1. Iz kafedry gistologii i embriologii (zav. - zasluzhennyy deyatel' nauki, chlen-korrespondent AMN SSSR prof.N.I.Zazybin) Kiyevskogo meditsinskogo instituta.

(RINGWORM, physiol.
peripheral NS of skin (Rus))
(SKIN, innerv.
peripheral, in ringworm (Rus))
(NERVES, PERIPHERAL, physiol.
skin, in ringworm (Rus))

KABAK, K.S.; KARUPU, B.Ya.; KUL'CHINSKIY, K.I.; LEV, I.D.; MAZHUGA, P.M.; MANZIY, S.F.

Survey of work of the Sixth All-Union Congress of Anatomists, Histologists and Embryologists. Arkh.anat.gist. i embr. 36 no.2:95-127 F '59. (MIRA 12:4)

(ANATOMY--CONGRESSES)

KABAK, K.S.

On the reactive properties of the peripheral nervous system of the skin. Dop.AN URSR no.2:218-223 '60. (MIRA 13:6)

1. Kiyevskiy meditsinskiy institut. Predstavleno akademikom AN USSR V.G.Kas'yanenko [V.H.Kas'ianenko].
(SKIN--NERVOUS SYSTEM)

KABAK, K.S. (Kiyev, Brest-Litovskoye shosse, d.82); KOLOMIYTSEV, A.K. (Kiyev, Brest-Litovskoye shosse, d.82); OSAULENKO, V.Ya. (Kiyev, Brest-Litovskoye shosse, d.82); CHERNOV, O.V. (Kiyev, Brest-Litovskoye shosse, d.82)

Reaction of the peripheral nerves of the skin to synthetic suture material. Nov. khir. arkh. no.5:92-95 S-O '60. (MIRA 14:12)

1. Kafedra gistologii i embriologii (zav. - zasluzhennyy deyatel' nauki, chlen-korrespondent AN SSSR prof. N.I.Zanybin) Kiyevskogo meditsinskogo instituta.

(SKIN--INNERVATION) (SUTURES)

KONTSEVICH, I.A.; KABAK, K.S.

Reactive changes in the vagus nerves in strangulation. Sud.-med. ekspert. 6 no.4:10-16 O-D'63 (MIRA 16:12)

1. Kafedra sudebnoy meditsiny (zav. - prof. Yu.S.Sapozhnikov) i kafedra gistologii i embriologii (zav.-prof. N.I.Zazybin) Kiyevskogo meditsinskogo instituta.

KABAK, K.S.; KOLOMIYTSEV, A.K.

Innervation of initial sections of the lymphatic system. Arkh. anat., gist. i embr. 46 no.2:70-75 F '64. (MIRA 17:12)

1. Kafedra gistologii i embriologii (zav. - zasluzhennyy deyatel' nauki chlen-korrespondent AMN SSSR prof. N.I.Zazybin) Kiyevskogo meditsinskogo instituta. Adres avtora: Kiyev, Brest-Litobskoye shosse, 22. Morfologicheskiy korpus, kafedra gistologii i embriologii Kiyevskogo meditsinskogo instituta.

KABAK, S. YA.

AID Nr. 987-10 11 June

MODULE ASSEMBLIES (USSR)

Gendelev, D. L., S. Ya. Kabak, and S. M. Shil'dkret. Priborostroyeniye, no. 4, Apr 1963, 20-21. S/119/63/000/004/007/010

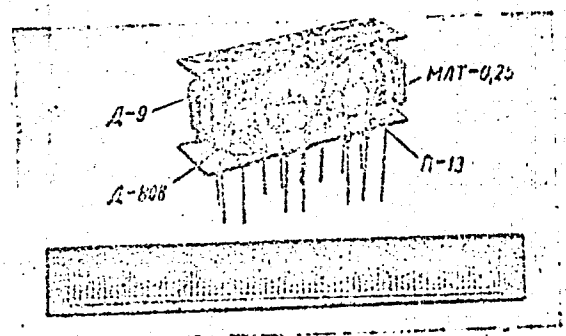

Fig. 1 - Converter-stabilizer module assembly

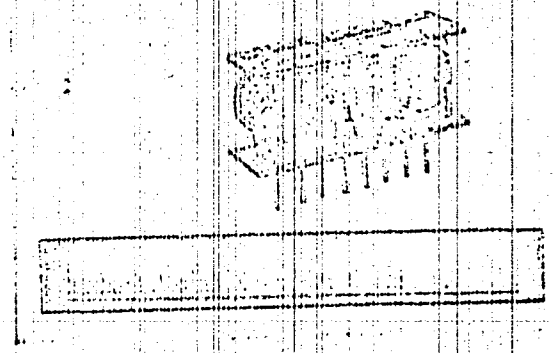

Fig. 2 - Modulator and demodulator module assembly

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AID Nr. 987-10 11 June

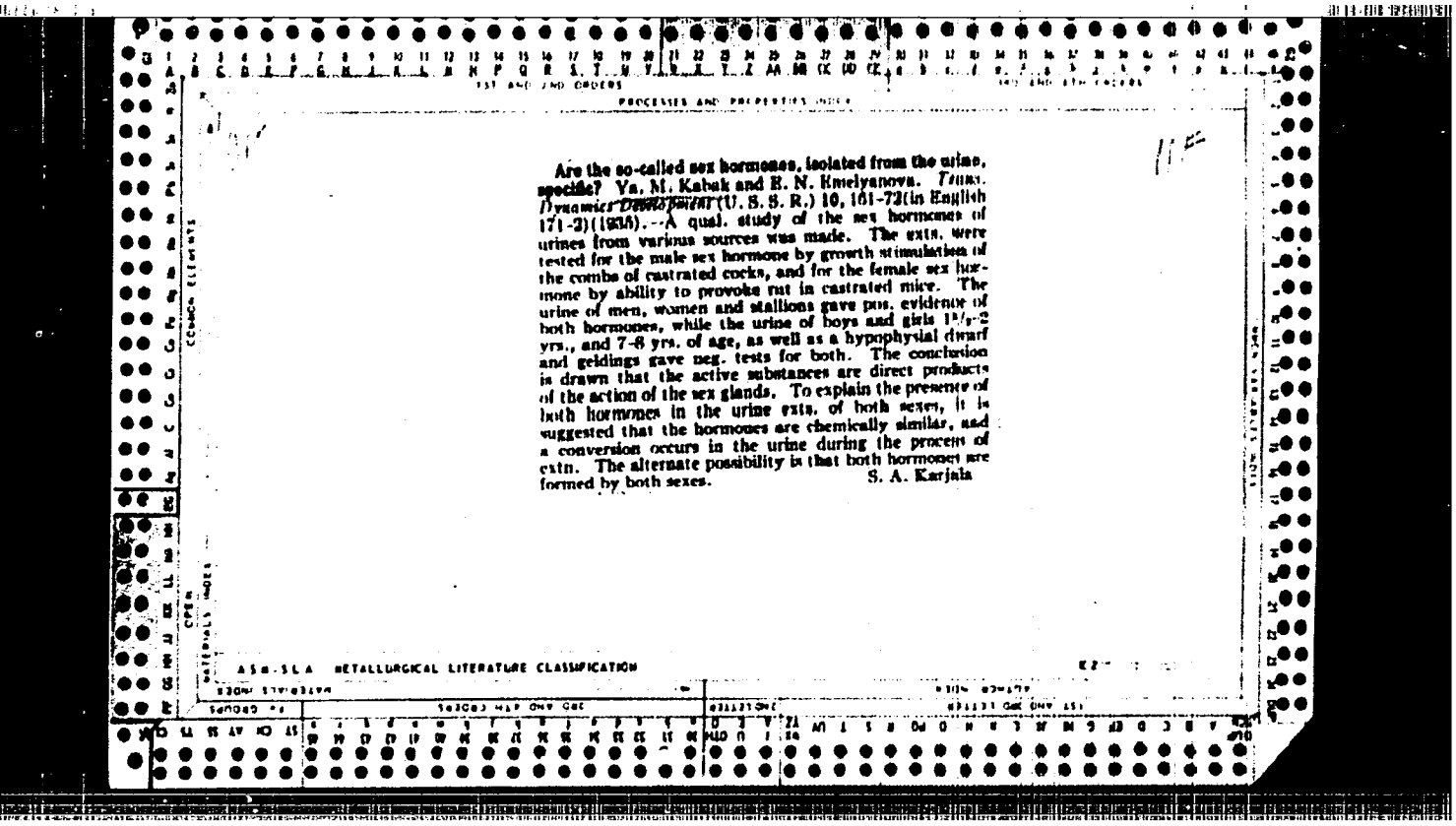
MODULE ASSEMBLIES [Cont'd] S/119/63/000/004/007/010

The utilization of miniature semifinished products for the construction of modular assemblies would result in an increase of assembly compactness from 1.5–2 elements to 4–5 elements per cm^3. Fig. 1 shows a converter-stabilizer containing two Д-9 diodes, two Д-808 diodes, five П-13 transistors, and eight МЛТ-0.25 resistors. Fig. 2 shows the modular assembly of a modulator and demodulator containing two Д-808 diodes, four П-13 transistors, and three МЛТ-0.25 resistors. Both functional blocks are simple to build and adjust. Each has two printed plates which differ from those of the other in the design of their printed circuits. [DW]

Card 2/2

GENDELEV, D.L.; KABAK, S.Ya.; SHIL'DKRET, S.M.

Modulus or micromodulus? Priborostroenie no.4:20-21 Ap '63.
(Electronic apparatus and appliances)



Are the so-called sex hormones, isolated from the urine, specific? Va. M. Kabak and E. N. Kmelyanova. *Trans. Dynamics Development* (U. S. S. R.) 10, 161-72(in English 171-3)(1938).--A qual. study of the sex hormones of urines from various sources was made. The extn. were tested for the male sex hormone by growth stimulation of the combs of castrated cocks, and for the female sex hormone by ability to provoke rut in castrated mice. The urine of men, women and stallions gave pos. evidence of both hormones, while the urine of boys and girls 1½-2 yrs., and 7-8 yrs. of age, as well as a hypophysial dwarf and geldings gave neg. tests for both. The conclusion is drawn that the active substances are direct products of the action of the sex glands. To explain the presence of both hormones in the urine extn. of both sexes, it is suggested that the hormones are chemically similar, and a conversion occurs in the urine during the process of extn. The alternate possibility is that both hormones are formed by both sexes.

S. A. Karjala