L 00726-67
ACC NR: AP6022849

of 6000 km. The oil cooling system and measuring equipment are described and a diagram is given showing points of measurement. The oil temperature was measured by thermocouples mounted in the oil lines entering and leaving the engine. The readings were recorded by an automatic potentiometer. Provision was made for controlling the flow of water and oil through the cooling system and for controlling and monitoring the oil pressure. Results for the MZMA-408 engine operating at 2200 rpm show an increase in heat transfer to the lubricating oil from 1250 Kcal/hr under idling conditions to 1500 Kcal/hr under full load, i. e. 20%. The corresponding increase in fuel consumption was from 2.0 kg/hr under idling conditions to 6.4 kg/hr under full load. The relative heat transfer, i. e. the ratio between the heat transferred to the oil and the total heat generated during fuel combustion, is reduced from 0.06 under idling conditions to 0.02 under full load. The relative heat transfer for the ZIL-130 engine varies from 0.012 to 0.024. Thus the experimental results show that 1.2-2.5% of the heat generated during fuel combustion is transferred to the oil in automobile engines under load. A reduction from full load to idling conditions increases this heat transfer to 4-6%. This indicates that most of the heat transferred to the oil is due to friction. About 80% of the heat from gases in the combustion chamber is transferred to the cooling system, and only 20% is dissipated into the lubricating oil. This component represents only 20-25% of the total heat transferred to the oil. Orig. art. has: 2 figures, 1 table.

SUB CODE: 13, 21/ SUBM DATE: none/ ORIG REF: 005

Card 2/2 afs

YERSHOV, V.V.

KATSNEL'SON, R.S.; YERSHOV, V.V.

Studying the microflora of virgin and cultivated soils in the Karelian A.S.S.R. Report No.1: Microbiological characteristics of soils in the Karelian A.S.S.R. [with summary in English]. Mikrobiologiia 26 no.4:468-476 Jl-Ag '57. (MIRA 10:12)

1. Institut biologii Karel'skogo filiala AN SSSR.
(SOIL, microbiology,
virgin & cultivated soils in Karelian ASSR (Rus))

KATSNEL'SON, R.S.; YERSHOV, V.V.

Studying the microflora of virgin and cultivated soils of the Karelian A.S.S.R. Report No.2: Biological activity of soils in the Karelian A.S.S.R. [with summary in English]. Mikrobiologiia 27 no.1:82-88 Ja-F '58. (MIRA 11:4)

1. Institut biologii Karel'skogo filiala AN SSSR.
(KARELIA--SOILS--BACTERIOLOGY) (ENZYMES)

TYAGNY-RYADNO, M.G.; VIZIR, A.P.; YERSHOV, V.V.; SIN'KOVSKAYA, N.A.;
Prinimala uchastiye: FILIMONOVA, N.A.

Microbiocenosis of the soils of main forest types in the "Kivach" Preserve. Trudy Kar.fil.AN SSSR no.34:93-112 '62. (MIRA 16:1)

(Kondopoga District—Soil micro-organisms)
(Kondopoga District—Forest soils)

YERSHOV, V.V.

Distribution of ammonifiers in soils of main forest types in the "Kivach" Preserve. Trudy Kar.fil.AN SSSR no.34:147-154 '62. (MIRA 16:1)

(Kondopoga District--Soils--Bacteriology)
(Ammonification)

YERSHOV, V.V., kand.tekhn.nauk; SHVETS, V.V., inzh.

Development mining with a large diameter borehole. Gor.zhur. no. 12:61-62 D 63. (MIRA 17:3)

1. Institut gornogo dela im. A.A.Skochinskogo.

ACCESSION NR: AP4043415

incompressible in the direction of the normal, and that the temperature varies linearly along the thickness of the layer. The Kirchhoff-Love hypothesis of preservation of normals is applied to the faces, and the Neyt (?) hypothesis of "straight sections" to the core. A basic system of differential equations for six unknown displacement components with boundary conditions is derived by using Lagrange's variational principle. Orig. art. has: 35 formulas.

ASSOCIATION: None

SUBMITTED: 27Feb64 AID PRESS: 3088 ENCL: 00

SUB CODE: AS NO REF SOV: 002 OTHER: 000

Card 2/2

ACCESSION NR: AP4043415 S/0147/64/000/003/0019/0028

AUTHOR: Yershov, V. V.

TITLE: Equations for sandwich plates of variable thickness

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 3, 1964, 19-28

TOPIC TAGS: sandwich plate, variable thickness sandwich plate, sandwich plate bending, sandwich plate buckling

ABSTRACT: Sandwich plates with a core layer of variable thickness and face layers each of which has a different but constant thickness are discussed. The flexure and buckling, under normal loading, of a rectangular plate with core and faces made of orthotropic materials are analyzed by conventional variational methods taking account of the compressibility of the core. The law of core-thickness variation is arbitrary but there is no initial curvature in the middle surface. It is assumed that the normal component of the core deflection varies linearly over its thickness, that the material of the faces is

Card 1/2

L 29342-66 EWP(j)/EWT(m)/T IJP(c) RM
ACC NR: AP6018595

SOURCE CODE: UR/0379/66/002/002/0240/0246

AUTHOR: Pokhodenko, V. D.; Khizhnyy, V. A.; Yershov, V. V.; Nikiforov, G. A.

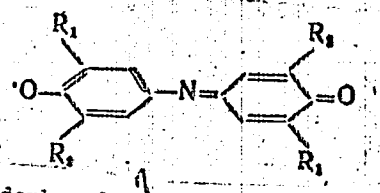
ORG: Institute of Physical Chemistry im. L. V. Pisarzhevskiy, AN UkrSSR, Kiev (Institut fizicheskoy khimii AN UkrSSR)

TITLE: EPR spectra and behavior of substituted indophenoxy radicals

SOURCE: Teoreticheskaya i eksperimental'naya khimiya, v. 2, no. 2, 1966, 240-246

TOPIC TAGS: hindered phenol, oxidation inhibitor, electron paramagnetic resonance

ABSTRACT: A study has been made of the EPR spectra and the structure of substituted (with CH_3, iso-C_3H_7, tert-C_4H_9, tert-C_5H_{11}, cyclohexyl) indophenoxy radicals



formed on oxidation of the indophenols. It is noted that hindered phenols are widely used as oxidation inhibitors for polymers. It was found that the impaired electron

Card 1/2

L 29342-66
ACC NR: AP6018595

reacts with the nitrogen and with the ortho and meta hydrogens of both benzene rings. The reaction of indophenols with benzoyl peroxide to form indophenoxy radicals was of the first order with respect to indophenol. The annihilation of indophenoxy radicals in benzene was a second-order reaction with respect to the radical. From the values of rate constants of the annihilation of radicals having different substituents, data were obtained on their stability. This stability dropped sharply on going from radicals with o-tert-alkyl substituents to radicals with less-branched groups. Orig. art. has: 7 figures and 2 tables. [SM]

SUB CODE: 07, 20 SUBM DATE: 19Jun65/ ORIG REF: 006/ OTH REF: 013/. ATD PRESS: 5109

Card 2/2

KUDRIN, A.N.; KOST, A.N.; YERSHOV, V.V.; TROSHINA, A.Ye.; POLYAKOVA, N.B.; USPENSKIY, V.A.; TERENT'YEV, P.B.; YAKOVLEVA, I.A.

Pharmacology of new β-dialkylamino ketones. Farm. i toks. 25 no.4: 437-444 Jl-Ag '62. (MIRA 17:10)

1. Kafedra farmakologii (zav. - prof. A.N. Kudrin) Ryazanskogo meditsinskogo instituta imeni Pavlova i laboratoriya spetsial'nogo organicheskogo sinteza (zav. - chlen-korrespondent AN SSSR A.P. Terent'yev) Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.

LEVINA, R.Ya.; YERSHOV, V.V.; SHABAROV, Yu.S.

Synthesis of hydrocarbons. Part 41. Diisobutylacetylene and diisoamyl acetylene. Zhur.ob.khim. 23 no.7:1124-1128 Jl '53. (MLRA 6:7)
(Acetylene derivatives)

KOST, A.N.; YERSHOV, V.V.

Reactions of hydrazine derivatives. Part 3. 3-aryl-pyrazolines. Vest.Mosk. un.10 no.12:115-117 D '55. (MLRA 9:5)

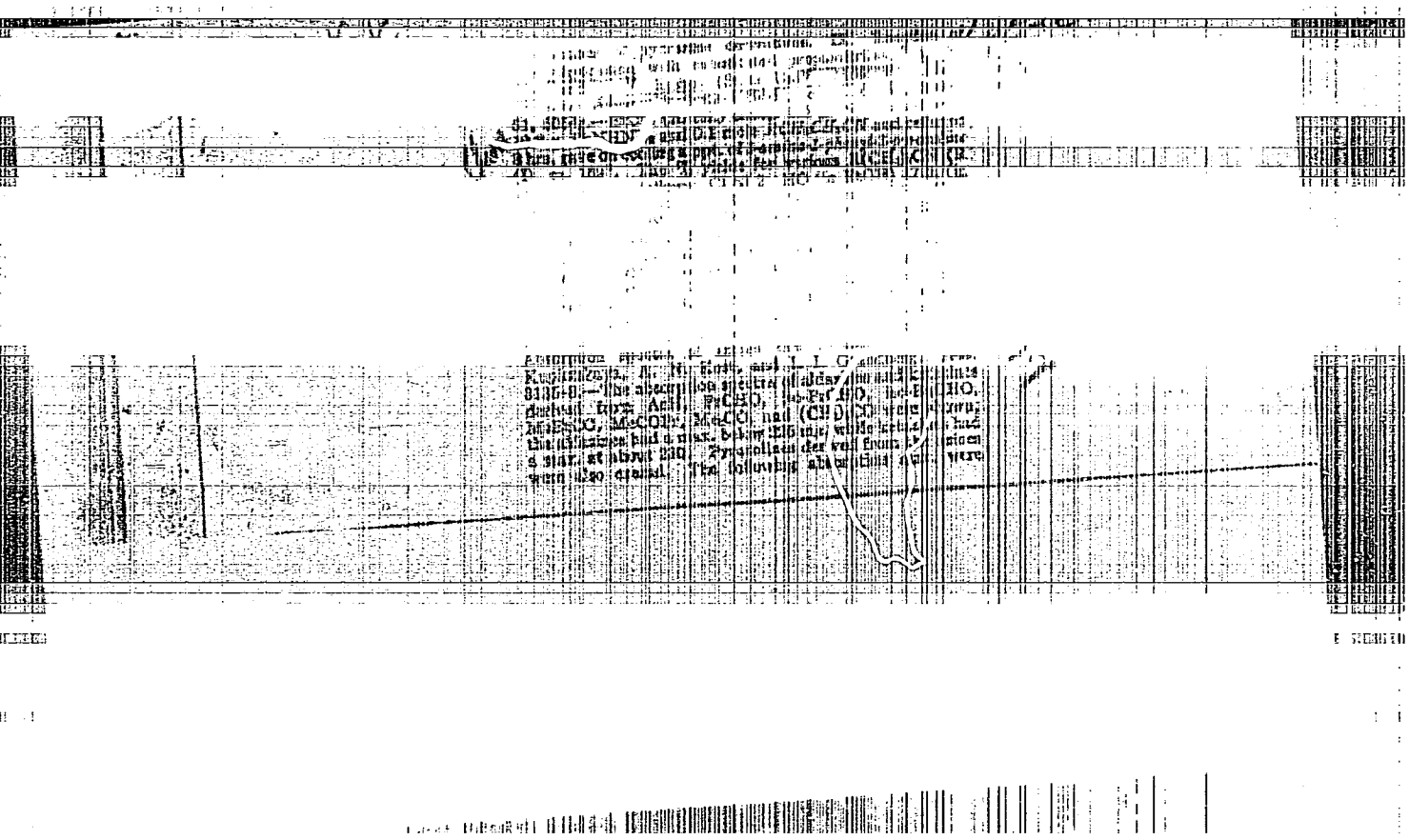
1. Kafedra organicheskoy khimii.
(Hydrazine) (Pyrazoline)

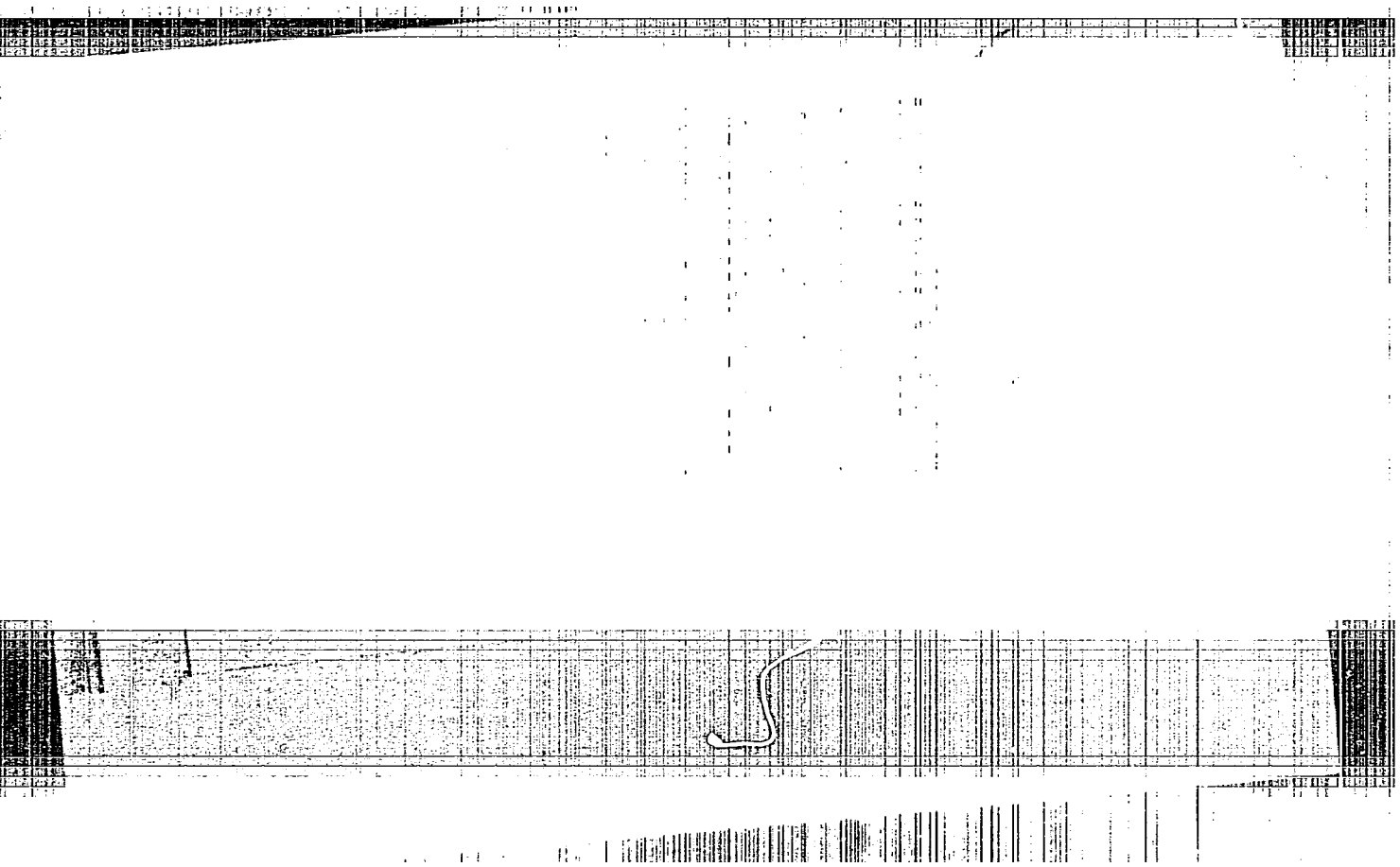
YERSHOV, V.V.

TERENT'YEV, A.P.; KOST, A.N.; SALTYKOVA, Yu.V.; YERSHOV, V.V.

Synthesis with help of acrylic acid nitril. Part 29: Cyanoethylation of some ketones. Zhur. ob. khim. 26 no.10:2925-2928 O '56. (MIRA 11:3)

1. Moskovskiy Gosudarstvennyy universitet.
(Ethylation) (Ketones)





YERSHOV, V.V. Cand Chem Sci -- (diss) "Reactions of active amino groups in the synthesis of pyrazolines". Mos, 1957. 8 pp 22 cm (Mos State Univ im M.V. Lomonosov), 100 copies (KL, 10-57, 102)

-1-

BEREZIN, M.M.; TIKHOMIROV, S.M. (g. Vladimir); NIKOLAYEV, S.D.; GRITSYUK, I.P., KNYAZEV, P.V. (g. Shakhty Kamenskoy oblasti); BOCHAROV, V.S.; YERSHOV, V.V.; SHUMILOV, D.

Useful advice. Fiz. v shkole 17 no.3:62-64 My-Je '57.
(MLRA 10:6)

1. Gorodskoy institut usovershenstvovaniya uchiteley, g. Moskva (for Berezin). 2. Klyuchevskaya semiletnyaya shkola Sasovskogo rayona Ryazanskoy oblasti (for Nikolayev). 3. 27-ya shkola, g. Kherson (for Gritsyuk). 4. Dokshukinskaya srednyaya shkola Kabardinskoy ASSR (for Bocharov). 5. 48-ya shkola, g. Chelyabinsk (for Yershov). 6. Gorodskoy institut usovershenstvovaniya uchiteley, g. Chelyabinsk (for Shumilov).

(Physics--Experiments)

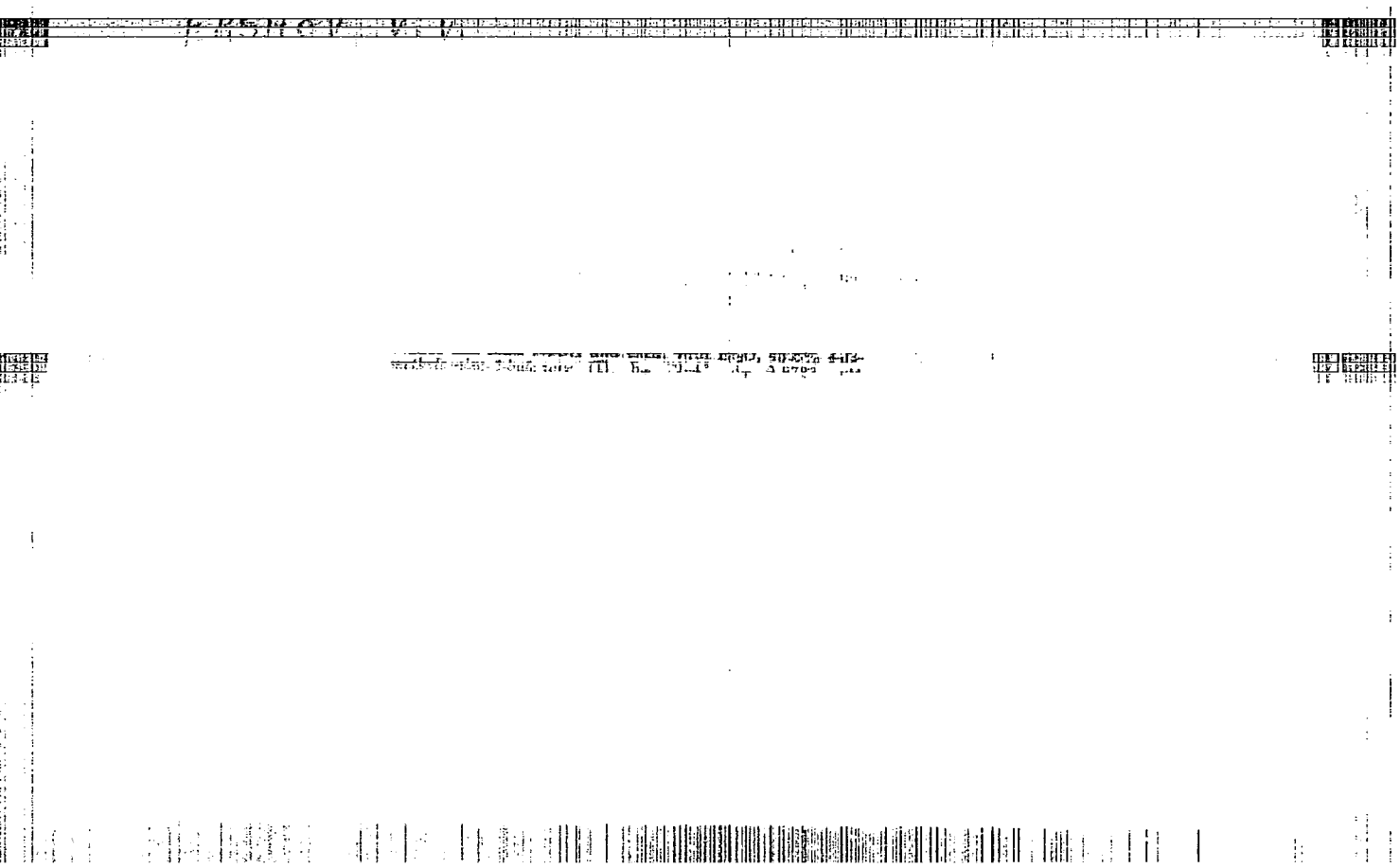
AUTHORS: Yershov, V. V.; Kost, A. N.; Terentyev, A. P.

TITLE: Reactions of Hydrazine Derivatives. Part 12. Reaction of Beta-Dialkylamino-ketones with hydrazines (Reaktsii proizvodnykh gidrazina. XII. Vzaimodeystviye beta-dialkilaminoketonov s gidrazinom)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 1, pp. 258-261 (U.S.S.R.)

ABSTRACT: The reaction of hydrazine derivatives was extended to a number of alkyl-aryl ketones for the purpose of investigating its rules and to obtain pyrazolones which cannot be obtained by any other method. This reaction was found to be easily adaptable for beta-amino-propiophenones which have various substituents in the nucleus and in the alpha-carbon atom in the side chain. In this case the reaction with hydrazine resulted in the formation of 3-aryl-4-alkylpyrazolines. The presence of alkyl- or alkoxy groups in the nucleus was not seen to affect the reaction process, the yields were high and decreased somewhat only in the presence of branching. The pyrazolines obtained from the hydrazine reaction, when exposed

Card 1/2



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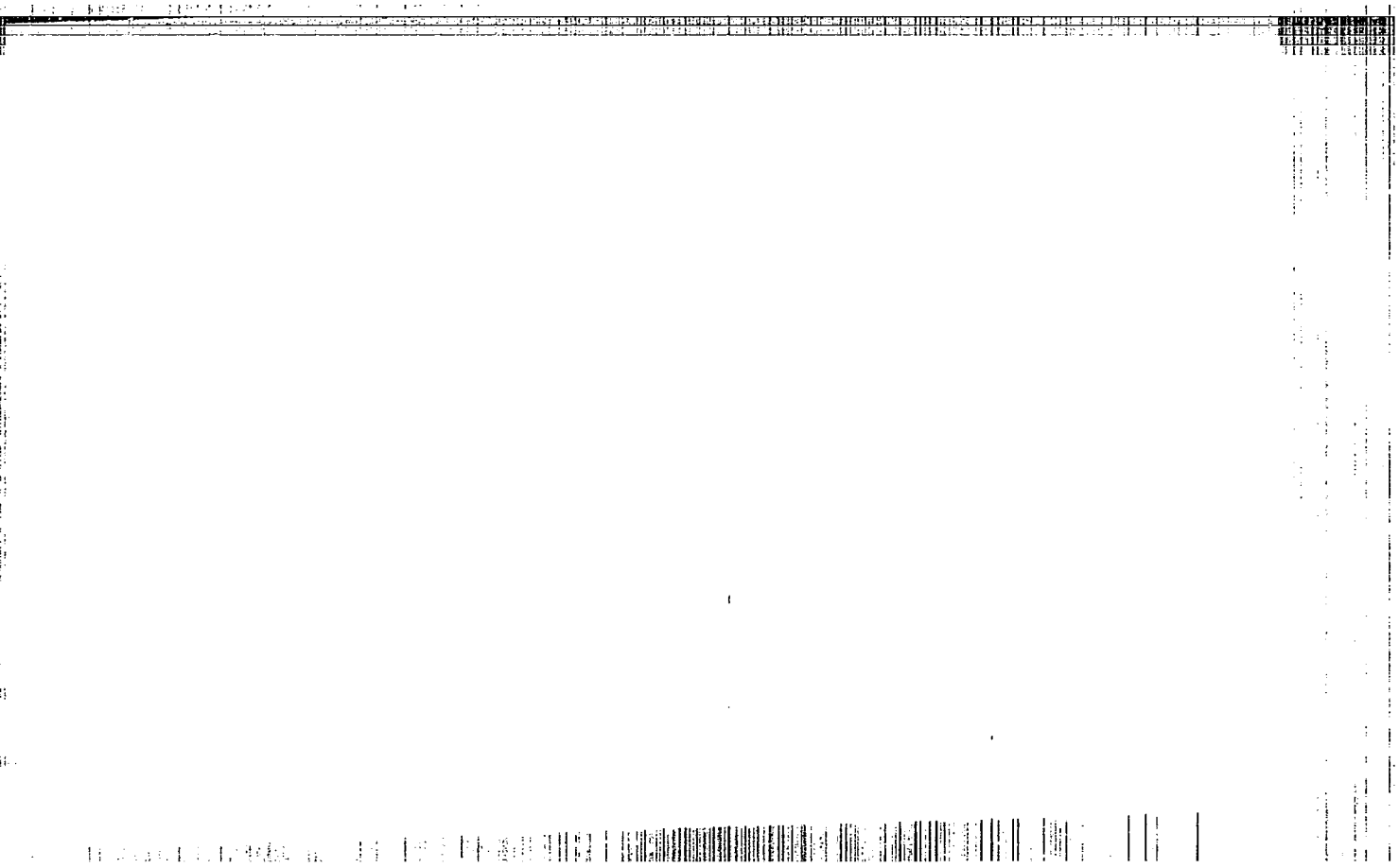

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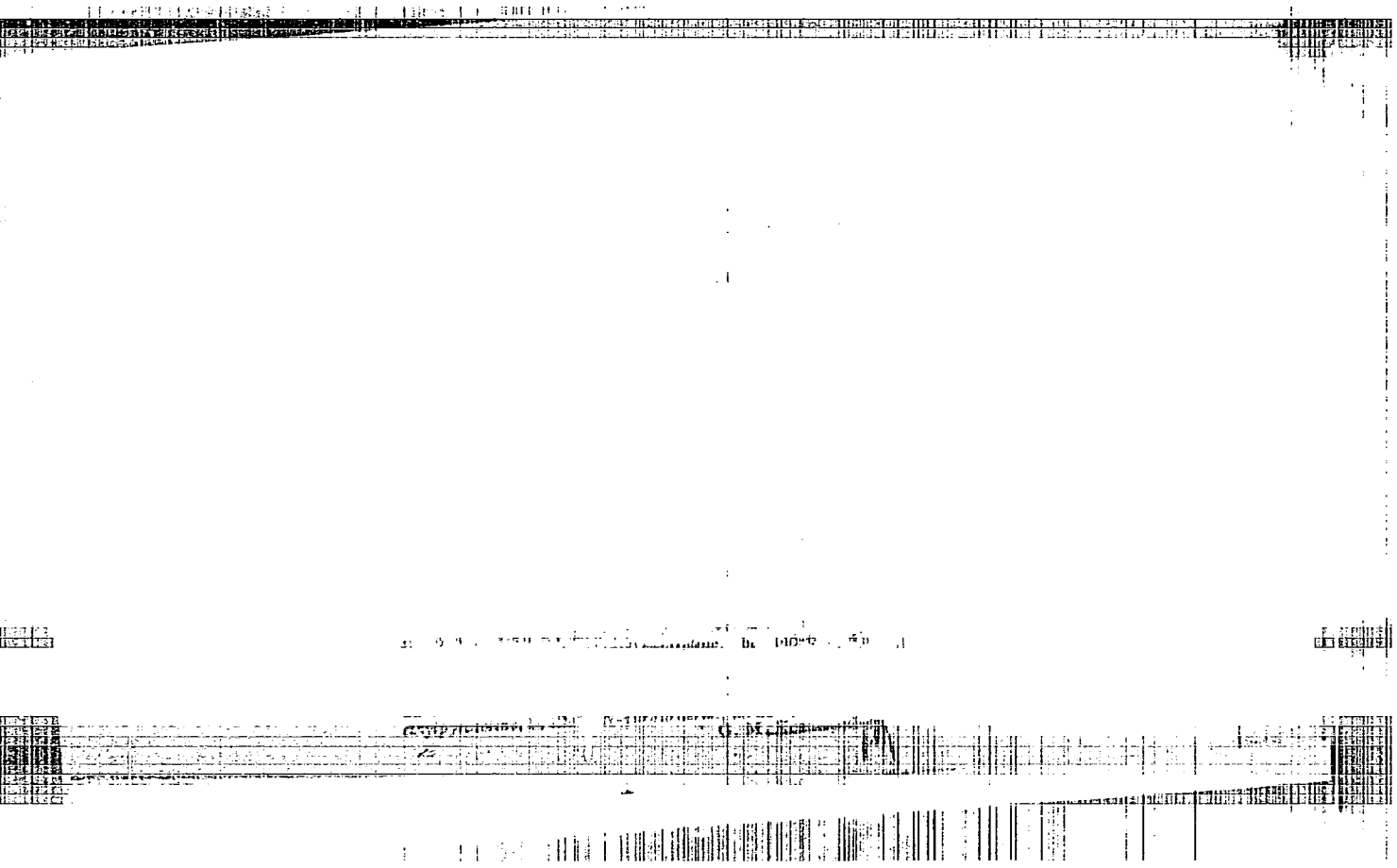

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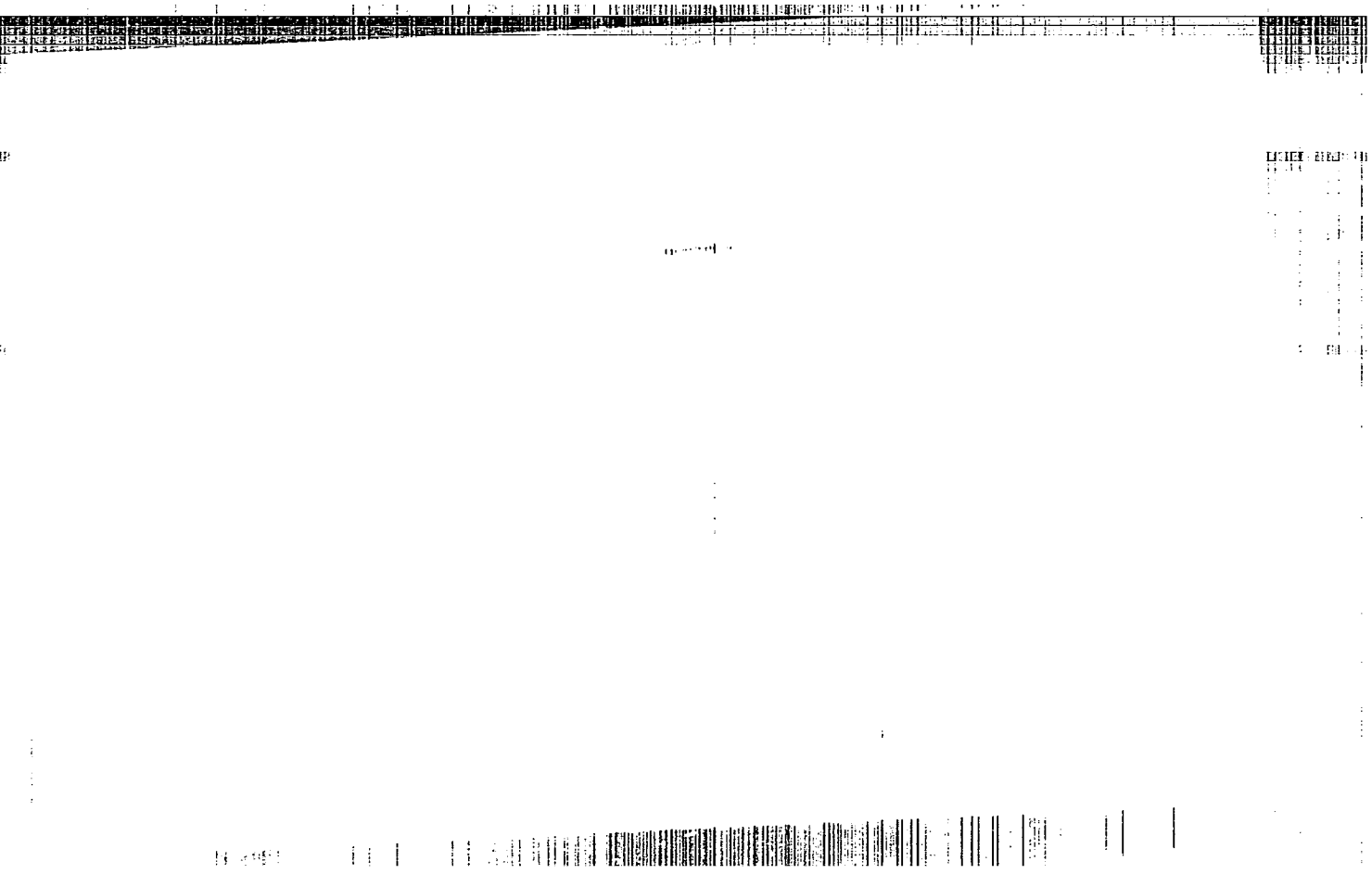

PA - 2714

AUTHOR: YERSHOV,V.V., KOST,A.N., YEVREINOVA,E.B.

TITLE: The Splitting of Pyrazoline Rings by the Acylation. (Rasshchepleniye pirazolinovogo kol'tsa pri atsilirovanii, Russian)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 813 - 816 (U.S.S.R.)

Received: 6 / 1957 Reviewed: 7 / 1957

ABSTRACT: The pyracolines, which lack a substitutent on the nitrogen atom can, under the influence of the anhydrides of acids or of chlorine, be transformed into corresponding N-acyliracoline. However, acylation is sometimes anomalous. It was found to be possible to direct reaction between benzoyl chloride and pyracoline, according to their conditions, either in the direction of a complete disruption of the pyrocoline ring with formation of dibenzoyl hydrazine or in the direction of a normal benzoylation. If pyracoline is introduced into the abundance of benzoyl chloride in the presence of water alkali, dibenzoyl hydrazine alone is produced. In the case of an inverse order of mixtures or of a complete lack of water, benzoyl-pyracoline alone is produced. In the case of acetone azine the reaction is the same. By the splitting of acetone azine, acetone is produced, which is identified as a semicarbazole whereas from pyracoline mesitylene oxide was produced, which was also transformed into semicarbazole. The ability of pyracoline to disrupt the CN binding corresponds to the analogous properties of its structural

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Card 1/2

74-27-4-3/8

AUTHORS: Kost, A.N., Yershov, V.V. (Moscow)

TITLE: Synthesis and Properties of Pyrazolines (Sintez i svoystva pirazolinov)

PERIODICAL: Uspekhi Khimii, 1958, Vol. 27, Nr 4, pp. 431-458 (USSR)

ABSTRACT: During recent years cyclic hydrazine derivatives have been subjected to a particularly intense investigation. This includes also the Δ^1-pyrazolines with binary binding between the nitrogen atoms as well as the not substituted Δ^2-pyrazolines with binary binding between nitrogen- and carbon atoms, and 1-substituted Δ^2-pyrazolines. The present report deals especially with nitrogen-substituted Δ^2-pyrazolines: The methods of synthetization, the reaction of hydrazines with unsaturated α, β-aldehydes and ketones, as β, γ, - or γ, δ-unsaturated aldehydes and ketones under the influence of hydrazine produce only hydrazones and azines. The report further deals with the reaction of hydrazines with β-substituted ketones, with the reaction of hydrazines with β-halide ketones, the reaction of hydrazines with β-aminoketones (in which connection it must be pointed out that recently various β-aminoketones, owing to the further development of the

Card 1/3

Synthesis and Properties of Pyrazolines

74-27-4-3/8

Mannich reaction (reaktsiya Mannikha) have been counted among the easily accessible compounds). Mention is made of the works by Nisbets (Ref 92), Babayan and Gambaryan (Ref 99), as well as by Kost and Yershov. There follows a description of a compound of aliphatic diazocompounds with pyrazolines which are formed (by a binary carbon-carbon linkage); furthermore, a description is given of the reduction of nitrogen-containing compounds. The following chapter deals with the production of pyrazolines from nitryls (action of aryl hydrazines upon unsaturated nitryls). There follows a description of the properties of pyrazolines: of their oxidation, reduction, alkylation, azylation and arylation. Moreover, the decomposition of pyrazolines is discussed (reaction according to Kizhner). In conclusion the report deals with pyrazoline-substituted compounds: 4-bromopyrazoline easily separates the bromine-hydrogen molecule (during boiling of the sodium acetate solution), so that pyrazoles with a good yield are obtained. Further possibilities are mentioned as e.g. that 5-nitropyrazolines separate nitrogenous acid, on which occasion pyrazoles are formed under the effect of hydrochloric acid; it is further said that in 5-bromine-5-nitropyrazolines nitropyrazol and in acid media bromopyrazol are formed under alkaline action. Further methods of obtaining

Card 2/3

74-27-4-3/8

Synthesis and Properties of Pyrazolines

pyrazoline derivatives are described as e.g. from 3-nitropyrazolines, 5-oxypyrazolines, 4-aminopyrazolines in cis form, 3-pyrazoline carboxylic acids. In conclusion a short survey is given of the physiological effect produced by pyrazolines: A number of 1,5-diaryl-3-dialkylaminoethyl-pyrazolines have analgesic properties; 1-phenyl-3-aminopyrazoline retards the growth of tubercles (in dilution 1 : 1 million). The application of pyrazolines and their derivatives in practice has hitherto not had the attention it deserves. There are 227 references, 50 of which are Soviet.

1. Hydrazine---Synthesis

Card 3/3

KOST, A.N.; PERSHIN, G.N.; YERSHOV, V.V.; MILOVANOVA, S.N.; YEVREINOVA, E.B.

Reactions of hydrazine derivatives. Part 23: 1-acylpyrazolines and their action on pathogenic micro-organisms. Vest.Mosk.un. Ser.mat., mekh., astron., fiz., khim. 14 no.1:211-216 '59. (MIRA 13:8)

1. Kafedra organicheskoy khimii i Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S. Ordzhonikidze.
(Pyrazoline) (Micro-organisms, Pathogenic)

SOV/79-29-2-29/71

AUTHORS: Kost, A. N., Konnova, Yu. V., Yershov, V. V., Rukhadze, Ye. G.

TITLE: Reactions of Hydrazine Derivatives (Reaktsii proizvodnykh gidrazina). XXII. 3-Amino-1-aryl Pyrazolines and Their Salicylal Derivatives (XXII. 3-Amino-1-arilpirazoliny i ikh salitsilal'nyye proizvodnyye)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 498 - 502 (USSR)

ABSTRACT: It was demonstrated that 3-amino-1-phenyl pyrazoline (I), which was synthesized by the authors already earlier, disposes, like some other hydrazine derivatives, of a bactericidal activity, that is to say, it inhibits the growth of the bacilli of human tuberculosis. For this reason the authors synthesized according to Duffin and Kendall (Ref 2) several 3-amino-1-phenyl pyrazolines by reaction of $\alpha\beta$-unsaturated nitriles with aryl hydrazines according to the scheme mentioned. On the basis of some reactions the affiliation of the unsaturated nitrile apparently takes place in the first stage of reaction, while cyclization occurs afterwards.

Card 1/3

Reactions of Hydrazine Derivatives. XXII. 3-Amino-1-aryl Pyrazolines and Their Salicylal Derivatives SOV/79-29-2-23/71

Only small amounts of unstable aminopyrazolines resulted from the synthesis of Duffin and Kendall (Ref 2), which was carried out strictly according to specifications. Hence it follows that it is more favorable not to carry out the reaction in ethyl alcohol but in the higher boiling butyl alcohol. Accordingly, sodium butylate instead of sodium ethylate was used as catalyst. These modifications of reaction permitted an increase in the yield of aminopyrazolines by 20-40% (50-80% of the theoretical one): 3-amino-1-n-tolyl pyrazoline (VI) was obtained by reaction of β-dimethyl-amino propionitrile with n-tolyl hydrazine. The most intense activity against bacilli was exhibited by 1-phenyl-3-aminopyrazoline (I). The 3-aminopyrazolines synthesized readily enter reaction with salicyl—5-bromo salicyl aldehyde and 2-oxy naphthoic aldehyde under formation of bright-colored salicyl amines. Their absorption spectra are given in the figure. Almost all salicyl aminopyrazolines offer precipitations or a green coloration with salts of trivalent iron; many of them produce characteristic precipitations with the salts

Card 2/3

Reactions of Hydrazine Derivatives. XXII. 3-Amino-1-aryl Pyrazolines and Their Salicylal Derivatives SOV/79-29-2-39/71

Cu^{+2}, Ni^{+2}, Co^{+2}, Zn^{+2}, Pb^{+2}, Be^{+2}. There are 3 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: December 16, 1957

Card 3/3

KOST, A.N.; KUDRIN, A.N.; TERENT'YEV, P.B.; YERSHOV, V.V.

Hexamethylenimine ketones, a new class of local anesthetics. Vest. Mosk.un.Ser. 2: Khim. 15 no.3:66-69 My-Je '60. (MIRA 13:8)

1. Kafedra organicheskoy khimii i kafedra farmakologii Ryazanskogo meditsinskogo instituta.
(Ketones) (Hexamethylenimine) (Anesthetics)

DOROGOCHINSKIY, A.Z.; NAKHAPETYAN, L.A.; LAVRENT'YEV, V.Y.; BOYKOVA, Ye.P.; KOST, A.N.; YERSHOV, V.V.

Antioxidant properties of some derivatives of pyrazoline. Izv. vys.ucheb.zav.; neft'i gaz 3 no.3:69-71 '60. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova i Groznenskiy nauchno-issledovatel'skiy neftyanoy institut.
(Pyrazoline)

YERSHOV, V.V.

86165

53610 2209, 1373, 1153

S/152/60/000/003/002/005
B023/B060

AUTHORS: Dzemchinskiy, A. Z., Nakharotyan, L. A., Lavrent'yev, V.I., Boyteva, Ye. P., Kost, A. N., Yershov, V. V.

TITLE: Antioxidizing Properties of Some Pyrazoline Derivatives

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1960, No. 3, pp. 69-71

TEXT: In the authors' opinion, the stability of motor fuels to oxidation is a most important problem. They therefore studied the antioxidizing properties of some pyrazoline derivatives in their capacity as inhibitors. The authors first obtained numerous pyrazolines having no substituents in position 1, and then such having different substituents in this position. The following compounds were synthesized as possible inhibitors: 1-phenyl carbamido-3-phenyl-4-ethyl-1-carbamido-3-phenyl pyrazoline, 1-phenyl carbamido-3-phenyl pyrazoline, 1-phenyl thio-pyrazoline, 1-thiocarbamido-3,5,5-trimethyl pyrazoline, 1-phenyl thiocarbamido-3-methyl-carbamido-3,5,5-trimethyl pyrazoline, 1-phenyl thiocarbamido-3,5-diphenyl 5,5-pentamethylene pyrazoline, 1-phenyl thiocarbamido-3,5-diphenyl pyrazoline, 1,3,5-triphenyl pyrazoline, 3-amino-1-phenyl pyrazoline.

Card 1/3

Derivatives of phenyl thiocarbamides of various pyrazolines were obtained by the action of phenyl isothiocyanate upon these pyrazolines (Ref. 5). In a similar manner, the following compounds were obtained from the corresponding pyrazolines: 1-carbamido-3-phenyl pyrazoline and 1-phenyl carbamido-3-phenyl-4-ethyl pyrazoline (Ref. 2). 3-amino-1-phenyl pyrazoline was synthesized from acrylonitrile and phenyl hydrazine (Ref. 6). 1,3,5-triphenyl pyrazoline was obtained by interaction of benzal aceto-phenone and phenyl hydrazine (Ref. 7). The efficiency of the preparations examined was estimated by comparing their inhibiting effect with the effect of para-oxy diphenyl amine, which was taken as a standard, as well as with the effect of 2,6-ditertiary butyl-4-methyl phenol. Two samples of motor fuels A and B were taken, the properties of which are given in Table 1. Sample A was prepared by intermixing equal amounts of fresh distillate of thermocracking and of the benzene-ligroin fraction. Sample B was prepared by intermixing the same amounts in a ratio of 30 : 70. Both samples were inhibited by various additions on the day of their preparation. The additions were allowed to dissolve in the motor fuels by being added as benzene solutions. Benzene was taken in an amount of ~ 0.1% of the fuel volume. The effect of stability of samples A and B

Card 2/3

was examined first. For this purpose the authors studied the inhibited motor fuel for its stability to oxidation by determining the induction period on the basis of ГОСТ 4039-48 (GOST 4039-48) within 6 h. The content of potential resins in the motor fuel was determined next. Results show that some pyrazoline derivative samples have a considerable inhibiting effect. The best results were yielded by the use of 1-phenyl thio-carbamido-3,5,5-trimethyl pyrazoline. In the sample inhibited with this substance, the resin formation appeared only after two months, while resins in a noninhibited sample increased with uninterrupted intensity throughout the whole storage time. There are 3 tables and 7 references: 5 Soviet, 1 US, and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov) GroNII (Groznyy Petroleum Institute)

SUBMITTED: September 3, 1959

Card 3/3

77878
SOV/79-30-2-29/78

AUTHORS: Kost, A. N., Sumlnov, S. I., Yershov, V. V.

TITLE: Reactions of Hydrazine Derivatives. XXVIII. Cyanoethylation of Pyrazolines With Acrylonitriles

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp 468-501 (USSR)

ABSTRACT: The reaction between acrylonitrile and pyrazoline in the presence of an aqueous solution of NH_4Cl was studied. The above reaction involves the H at N_1.

Card 1/4

77878
SOV/79-30-2-29/78

AUTHORS: Kost, A. N., Suminov, S. I., Yershov, V. V.

TITLE: Reactions of Hydrazine Derivatives. XXVIII. Cyanoethylation of Pyrazolines With Acrylonitriles

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp 498-501 (USSR)

ABSTRACT: The reaction between acrylonitrile and pyrazoline in the presence of an aqueous solution of NH_4Cl was studied. The above reaction involves the H at N_1.

Card 1/4

5. [illegible]ns of Hydrazine Derivatives. XXVIII. 77878
SOV/79-30-2-29/78

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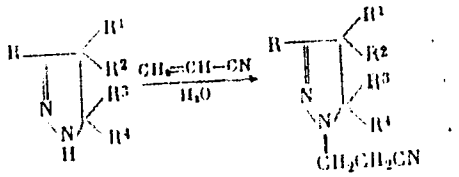


(I) $R = R^2 = R^4 = CH_3$; $R^1 = R^3 = H$.
(II) $R^1 = R^3 = H$; $R^2 = CH_3$; $R = R^4 = C_2H_5$.
(III) $R = R^2 = R^4 = H$; $R^1 = C_2H_5$; $R^3 = C_2H_5$.
(IV) $R = R^2 = H$; $R^1 = R^3 = CH_3$; $R^4 = iso\text{-}C_3H_7$.
(V) $R = R^2 = R^4 = H$; $R^1 = R^3 = CH_3$; $R^4 = C_6H_5CH_2$.
(VI) $R = R^2 = R^3 = R^4 = H$; $R^1 = C_2H_5$.
(VII) $R = C_2H_5$; $R^1 = R^2 = R^3 = R^4 = H$.

There are 8 references, 7 Soviet, 1 German.

ASSOCIATION: Moscow State University (Moskovskiy gosudarstvennyy universitet)

SUBMITTED: February 12, 1959

Card 2/4

Reactions of Hydrazine Derivatives. XXVIII. 77878
SOV/79-30-2-29/78

The obtained products and their properties are given below:

Obtained Product	bp/mm pr.	Yield in %	n_D^{20}	d_4^{20}
1-(β-cyanoethyl)-3,5,5-trimethyl pyrazoline (I)	120-121°/10	71.5	1.4735	0.9689
1-(β-cyanoethyl)-5-methyl-3,5-diethylpyrazoline (II)	116-119°/3	14	1.4753	0.9586
1-(β-cyanoethyl-4-ethyl-5-propylpyrazoline (III)	121-122°/3	74.1	1.4743	0.9567
1-(β-cyanoethyl)-4,4-dimethyl-5-isopropylpyrazoline (IV)	118-119°/6	59.3	1.4702	0.9422
1-(β-cyanoethyl)-4-isopropyl-5-isobutylpyrazoline (V)	127-130°/3	63.8	1.4703	0.9274

Card 3/4

Reactions of Hydrazine Derivatives. XXVIII.

77878
SOV/79-30-2-29/78

1-(β-cyanoethyl)-5-phenyl-pyrazoline (VI)	175-180/8	54.8	-	-
1-(β-cyanoethyl)-3-phenyl-pyrazoline (VII)	195-205/4	70.4	"	-

Card 4/4

Yershov, V. V.

S/079/60/030/007/012/020
B001/B067

AUTHORS: Kost, A. N., Suminov, S. I., Sagitullin, R. S., Yershov, V. V.

TITLE: Reactions of Hydrazine Derivatives.XXIX.Cyanoethylation of Pyrazolones

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2286 - 2291

TEXT: The cyanoethylation of the pyrazolones has hitherto not been described; there are even indications (Ref. 1) that 1-phenyl-3-methyl pyrazolone does not react with acrylic nitrile. The present experiments however, show that pyrazolones readily add acrylic nitrile in the presence of alkali lyes. To render the determination of the structure easier (addition to the hydroxyl group or methylene group in position 4) pyrazolones were synthesized with a β-cyanoethyl group in position 1 or 4. For synthesizing 1-(β-cyanoethyl)-pyrazolones-5 the reaction of β-hydrazine propionitrile was made with esters of β-ketonic acids. A German and an American patent indicate that 3-methyl-1-(β-cyanoethyl)-pyrazolone-5

Card 1/3

and 3-phenyl-1-(β-cyanoethyl)-pyrazolone-5 may be obtained by this method (Refs. 2,3). According to the data of the present paper the reaction of β-hydrazine propionitrile with the esters of various β-ketonic acids in alcohol, under short boiling, leads to the corresponding 1-(β-cyanoethyl)-3,4-dialkyl-pyrazolones-5 (65-95% yield) (Scheme 1). The synthesis of pyrazolones with the β-cyanoethyl group in position 4 was based on monocyanoethylated acetoacetic ester and the corresponding hydrazines (Scheme 2). According to data by W. Krohs (Ref. 4) 3-methyl-pyrazolone-5 was reacted with β-chloro propionitrile in alkaline medium under conditions which permit a full enolization of pyrazolone (an equivalent amount of sodium in tertiary butyl alcohol) with the formation of two products (X) and (XI) which were separated by fractional crystallization. These compounds had the same empirical formula which corresponds to the monocyanoethylated product. With iron chloride they did not produce the violet color characteristic of the enol form. They differed, however, by their melting points and the solubility in water. A test melting of a mixture of the two products showed no temperature depression. Compounds (X) and (XI) show the same infrared spectra whose lines are characteristic of C≡N and C = N (in the ring) whereas the lines of the

carbonyl group are lacking. On the basis of these and further studies the structure of the β-cyanoethyl ethers of 3-methyl-5-oxypyrazole could be ascribed to compounds (X) and (XI), and their difference could be explained by the presence of crystalline modifications (Scheme 3). There are 7 references: 2 Soviet, 2 US, and 3 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: July 15, 1959

TERENT'YEV, A.P.; VIKTOROVA, Ye.A.; YESEL'SON, B.M.; KOST, A.N.; YERSHOV, V.V.

Inner-complex compounds as contact insecticides. Zhur.ob. khim. 30 no.7:2422-2427 Jl '60. (MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet.
(Complex compounds) (Insecticides)

YERSHOV, V.V.

S/079/60/030/008/002/008
BC04/B064

AUTHORS: Kost, A. N., Terent'yev, A. P., Yershov, V. V.

TITLE: Addition of Aromatic Amines and Phenyl Hydrazine to 2-Methyl-5-vinyl Pyridine

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 8, pp. 2556 - 2562

TEXT: 2-methyl-5-vinyl pyridine reacts when heated with aniline in the presence of metallic sodium under the formation of 2-methyl-5-(β-phenylaminoethyl)-pyridine (I): $H_3C-C_5H_3N-CH=CH_2 + H_2NC_6H_5 \rightarrow H_3C-C_5H_3N-CH_2CH_2NHC_6H_5$. Similar reactions occur with ethyl aniline, o-, m-, and p-toluidine, α- and β-naphthylamine. A decrease in the product yield in the addition with p-components reacting more easily. A lower yield in the addition with p-naphthyl amine. It was not possible to isolate the reaction product with p-phenylene diamine. While basicity of the amino group reduces the capability of addition. The

Card 1/4

diphenyl amine, o-nitroaniline, indole, acetamide, and phthalimide react with α-vinyl pyridine. no reaction took place with the β-vinyl pyridine used by the authors. For did a reaction take place with acetic ester, ethanol, butanol, phenol, and sodium bisulfite. A hydroxide with a high boiling point, 2,5-bis[β-(2-methylpyridyl-5)-ethyl]-p-toluidine (structural formula 2) was obtained with p-toluidine. Its structure could be proved a) by the lacking of carrying out acetylation. The experimental part lists synthesis of the following compounds: 2-methyl-5-(β-phenyl aminoethyl)-pyridine; 2-methyl-5-(β-acetyl-2-phenyl aminoethyl)-pyridine; 2-methyl-5-(2-phenyl aminoethyl)-pyridine; 2-methyl-5-(β-benzoyl-2-phenyl aminoethyl)-pyridine; 2-methyl-5-(β-ethyl-2-phenyl aminoethyl)-pyridine; 2-methyl-5-(2-o-anisylamino ethyl)-pyridine; 2-methyl-5-(2-o-tolylamino ethyl)-pyridine; 2-methyl-5-(β-naphthylamino ethyl)-pyridine; 2-methyl-5-(β-phenyl amino)-ethyl-pyridine; 2-methyl-5-(β-phenyl amino-2-phenyl aminoethyl)-pyridine; 2-methyl-5-(β-ethyl-2-phenyl aminoethyl)-pyridine; 2-methyl-5-[2-(N-p-nitrophenyl-N-ethyl amino)-ethyl]-pyridine; 2-methyl-5-(β-naphthyl aminoethyl)-pyridine; 2-methyl-5-(1',2',3',4'-tetrahydro-2'-β-naphthyl aminoethyl)-pyridine; 2-methyl-5-[2-(2-methyl pyridyl-5)-ethyl]-1',2',3',4'-tetrahydroethyl)-pyridine; N-[2-(2-methyl pyridyl-5)-ethyl]-carbazole. The majority of the substances synthesized are highly viscous oils. Experiments made at the Kafedra farmakologii Minskogo meditsinskogo instituta (Chair of Pharmacology of the Minsk Medical Institute) led to the finding that peritoneal injection of the chlorides of these compounds in mice leads to the excitation of the parasympathetic nervous system (muscarine and nicotine effect). The toxicity (LD_{100}) is between 300 and 500 mg/kg live weight. Nitroso groups in para position increase the toxicity by its five-fold. Iodomethylates are more toxic than hydrochlorides. There are 4 non-Soviet references.

Card 3/4

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: July 15, 1959

ZHIRYAKOV, Viktor Georgiyevich; YERSHOV, V.V., red.; SHPAK, Ye.G., tekhn. red.

[Organic chemistry] Organicheskaia khimiia. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 380 p. (MIRA 15:1)

(Chemistry, Organic)

YERSHOV, V.V.; VOLOD'KIN, A.A.

4-Bromo-2,6-di-tert. butylcyclohexadien-2,4-one. Izv.AN SSSR Otd.khim.nauk no.4:730 Ap '62. (MIRA 15:4)

1. Institut khimicheskoy fiziki AN SSSR.
(Cyclohexadienone)

YERSHOV, V.V.; VOLOD'KIN, A.A.

Hindered phenols. Report No.4: Mannich reaction in the 2,6-dialkylphenol series. Izv.AN SSSR.Otd.khim.nauk no.7:1290-1292 Jl '62. (MIRA 15:7)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenol) (Mannich reaction)

VOLOD'KIN, A.A.; YERSHOV, V.V.

Hindered phenols. Report No.5: Quinobenzilic rearrangement of quinobromic compounds. Izv.AN SSSR.Otd.khim.nauk no.7:1292-1295 Jl '62. (MIRA 15:7)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenols) (Rearrangements (Chemistry))

YERSHOV, V.V.; VOLOD'KIN, A.A.; BOLDIN, A.A.

Sterically hindered phenols. Report No.2: Synthesis of 2,6-di-tert.amyl- and 2-tert.butyl-6-tert.amylphenols. Izv.AN SSSR.Otd.khim.nauk no.6:1105-1107 '62. (MIRA 15:8)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenol) (Steric hindrance)

VOLOD'KIN, A.A.; YERSHOV, V.V.

Sterically hindered phenols. Report No.3: Phenol-dienone rearrangement in the bromination of 2,4,6-trialkylphenols. Izv.AN SSSR.-Otd.khim.nauk no.6:1108-1111 '62. (MIRA 15:8)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenol) (Bromination) (Rearrangements (Chemistry))

VOLOD'KIN, A.A.; YERSHOV, V.V.

Sterically hindered phenols. Report No.1: Synthesis of some 3,5-ditert-butyl-4-oxybenzylamines. Izv. AN SSSR Otd. khim.nauk no.2:342-345 F '62. (MIRA 15:2)

1. Institut khimicheskoy fiziki AN SSSR.
(Benzylamine)

NIKIFOROV, G.A.; DYUMAYEV, K.M.; VOLOD'KIN, A.A.; YERSHOV, V.V.

Inhibitors of free radical reactions. Report No.3: Formylation of 2,6-dialkylphenols. Izv. AN SSSR.Otd.khim.nauk no.10:1836-1838 O '62. (MIRA 15:10)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenol) (Formylation) (Benzaldehyde)

YERSHOV, V.V.; VOLOD'KIN, A.A.; NIKIFOROV, G.A.; DYMAYEV, K.M.

Sterically hindered phenols. Report No.6: Bromination of 2,6-dialkyl-p-cresols and 3,5-dialkyl-4-hydroxybenzyl bromides. Izv. AN SSSR.Otd.khim.nauk no.10:1839-1843 O '62. (MIRA 15:10)

1. Institut khimicheskoy fiziki AN SSSR.
(Cresol) (Bromination) (Rearrangements (Chemistry))

YERSHOV, V.V.; VOLOD'KIN, A.A.

Sterically hindered phenols. Report No.7: Mechanism of the formation of bromoquinone compounds. Izv.AN SSSR. Otd.khim. nauk no.11:2015-2022 N '62. (MIRA 15:12)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenol) (Bromination) (Steric hindrance)

VOLOD'KIN, A.A.; YERSHOV, V.V.

Sterically hindered phenols. Report No.8: Formation of cyclohexadienones in the bromination of 2,6-dialkylphenols. Izv. AN SSSR. Otd.khim.nauk no.11:2022-2026 N '62. (MIRA 15:12)

1. Institut khimicheskoy fiziki AN SSSR.
(Cyclohexadienone) (Phenol) (Bromination)

YERSHOV, V.V.; VOLOD'KIN, A.A.

Sterically hindered phenols. Report No.9: Effect of acid reagents on bromoquinone compounds. Izv. AN SSSR. Otd.khim.nauk no.11:2026-2031 N '62. (MIRA 15:12)

1. Institut khimicheskoy fiziki AN SSSR.
(QUINONE) (HYDROBROMIC ACID)

BOGDANOV, G. N.; YERSHOV, V. V.

Sterically hindered phenols. Report No. 10: Oxidation of phenols by lead tetraacetate. Izv. AN SSSR Otd. khim. nauk no.12:2145-2150 D '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Phenols) (Oxidation) (Steric hindrance)

YERSHOV, V. V.; VOLOD'KIN, A. A.

Sterically hindered phenols. Report No. 11: Action of bromine on 2,6-dialkyl-4-ethylphenols. Izv. AN SSSR Otd. khim. nauk no.12:2150-2154 D '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Phenol) (Bromine) (Steric hindrance)

KUDRIN, A.N.; KOST, A.N.; YERSHOV, V.V.

Amino ketones intensifying trophic processes in the organism. Vest. Mosk. un. Ser. 6: Biol., pochv. 17 no.3:26-32 My-Je '62. (MIRA 15:6)

1. Kafedra organicheskoy khimii Moskovskogo universiteta i Ryazanskiy meditsinskiy institut imeni I.P. Pavlova.
(KETONES—PHYSIOLOGICAL EFFECT)

SHARPENAKH, Anatoliy Ernestovich; YERSHOV, V.V., red.; ALAVERDOV, Ya.G., red.izd-va; MURASHOVA, V.A., tekhn. red.

[Organic chemistry] Organicheskaia khimiia; dlia studentov meditsinskikh institutov. Moskva, Vysshaia shkola, 1963. 337 p. (MIRA 17:2)

VOLOD'KIN, A. A.; YERSHOV, V. V.

Sterically hindered phenols. Report No. 12: Dibromodialkylcyclohexadienones. Izv. AN SSSR, Otd. khim. nauk no.1:152-157 '63. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Phenol) (Cyclohexadienone)
(Steric hindrance)

YERSHOV, V. V.; BOGDANOV, G. N.; VOLOD'KIN, A. A.

Sterically hindered phenols. Report No. 13: Reaction of 2,6-di-tert-butybenzoquinone with organomagnesium compounds. Izv. AN SSSR, Otd. khim. nauk no.1:157-161 '63. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Benzoquinone) (Magnesium organic compounds)
(Steric hindrance)

YERSHOV, V.V.; VOLOD'KIN, A.A.

Sterically hindered phenols. Report No. 14: Effect of p-substituents in 2,6-di-tert-butylphenols on the formation of bromocyclohexadienones. Izv.AN SSSR Otd.khim.nauk no.5:893-899 My '63. (MIRA 16:8)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenol) (Cyclohexadienone) (Substitution (Chemistry))

L 12726-63 EPF(c)/EWT(m)/BDS Pr-4 RM/WW

ACCESSION NR: AP3002290 S/0062/63/000/006/1084/1088

AUTHOR: Bogdanov, G. N.; Yershov, V. V.

TITLE: Sterically-hindered phenols. Report 15. Synthesis of para-substituted 2,6-di-tertiary butyl phenols

SOURCE: AN SSSR. Izv. Otdeleniya khimicheskikh nauk, no. 6, 1963, 1084-1088

TOPIC TAGS: sterically-hindered phenols, antioxidant, synthesis

ABSTRACT: A method for synthesizing 2,6-di-tertiary butyl-4-substituted phenols, based on reduction of the appropriate phenol with lithium aluminum hydride, was worked out. Thus, 2,6-di-tertiary butyl-4-methyl-; -4-ethyl-; -4-o-tolyl-; -4-p-tolyl-; -4-anisyl-; and -4-Alpha-naphthyl- phenols were prepared. Their antioxidant effectiveness was found to be about 3/4 that of ionol. "The authors express thanks to N. M. Emanuel for constant interest in the work and process of execution." Orig. art. has: 1 table, 1 figure, and 1 formula.

ASSOCIATION: Institut khimicheskoy fiziki, Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

Card 1/2

BOGDANOV, G.N.; YERSHOV, V.V.

New stable phenoxy radicals. Izv.AN SSSR.Ser.khim. no.8:1516-1518 Ag '63. (MIRA 16:9)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenoxy group)

YERSHOV, V.V.; ZLOBINA, G.A.

Formation of nitrocyclohexadienones by the nitration of 2,4,6-trialkyl phenols. Izv. AN SSSR. Ser.khim. no.9:1667-1669 S '63. (MIRA 16:9)

1. Institut khimicheskoy fiziki AN SSSR.
(Cyclohexadienone) (Phenol) (Nitration)

YERSHOV, V.V.; ZLOBINA, G.A.

4-Chloro-2,6-ditert-butylorthoquinonitrol. Izv. AN SSSR. Ser. khim. no.12:2235-2236 D '63. (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; VOLOD'KIN, A.A.; BOGDANOV, G.N.

Phenol-diene regroupment in the reactions of phenols. Usp.khim. 32 no.2:154-194 F '63. (MIRA 16:4)

1. Institut khimicheskoy fiziki AN SSSR.
(Phenols) (Cyclohexadienone)

YERSHOV, V.V.; ZLOBINA, G.A.; NIKIFOROV, G.A.

Nitration and nitrosation of 2,6-dialkylphenols. Izv. AN SSSR Ser.khim. no.10:1877-1880 O '63. (MIRA 17:3)

1. Institut khimicheskoy fiziki AN SSSR.

NIKIFOROV, G.A.; YERSHOV, V.V.

Dakin reaction in the 4-hydroxy-3,5-dialkylbenzaldehyde series.
Izv.AN SSSR. Ser.khim. no.1:176-179 Ja '64. (MIRA 17:4)

1. Institut khimicheskoy fiziki AN SSSR.

NIKIFOROV, G.A.; YERSHOV, V.V.

Phenol-dienone conversions during the formation of 4-hydroxy-3, 5-dialkylbenzaldehyde salts. Izv.AN SSSR.Ser.khim. no.2:293-300 F '64. (MIRA 17:3)

1. Institut khimicheskoy fiziki AN SSSR.

ZLOBINA, G.A.; YERSHOV, V.V.

Action of nitric acid on 4-bromo-2,6-dialkylphenols. Izv.AN SSSR. Ser.khim. no.2:371-373 F '64. (MIRA 17:3)

1. Institut khimicheskoy fiziki AN SSSR.

BELOSTOTSKAYA, I. S.; YERSHOV, V. V.

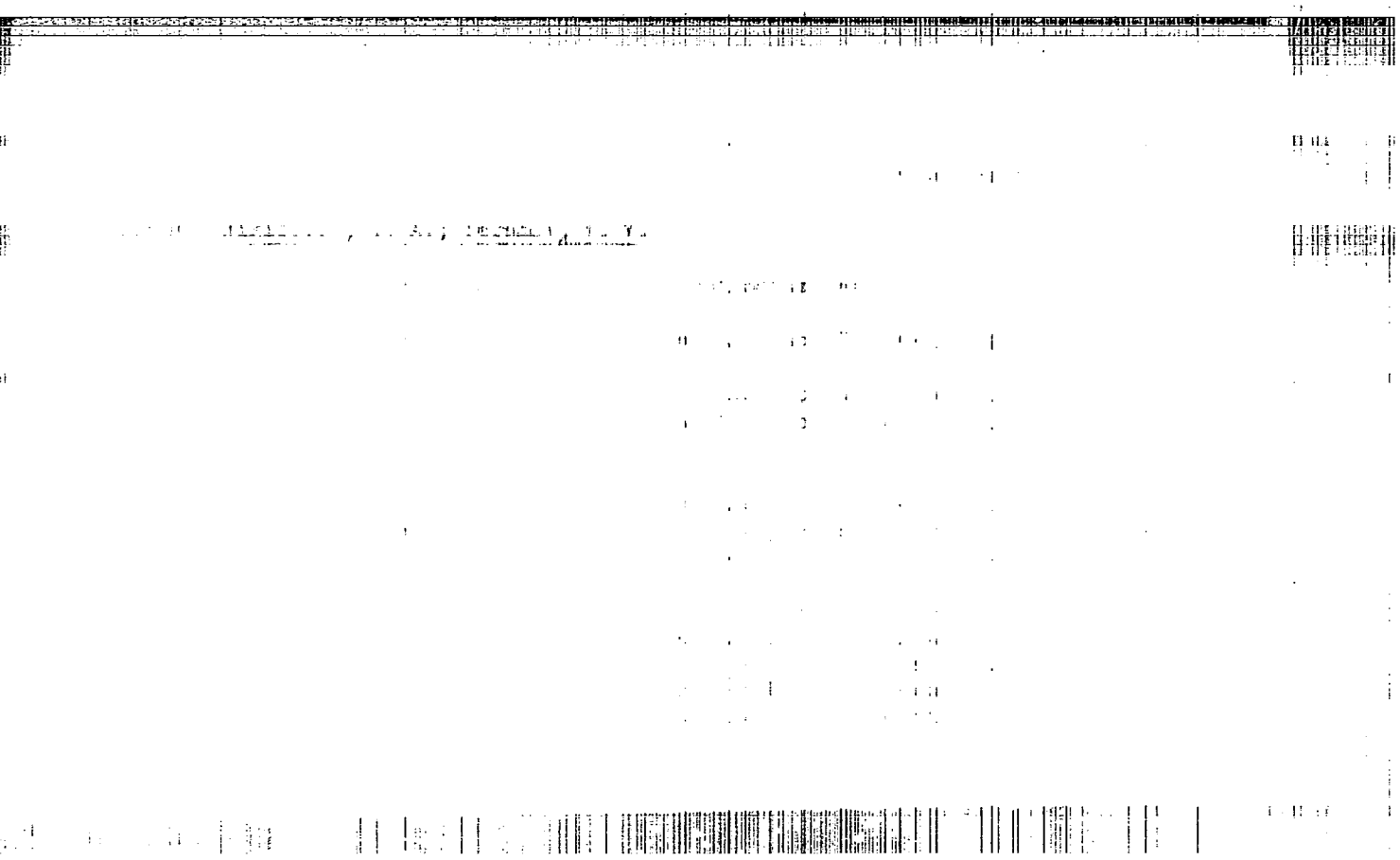
Synthesis of 4-aminoalkyl-2,6-di-tert-butylphenols. Izv AN SSSR Ser Khim no. 4:765-767 Ap '64. (MIRA 17:5)

1. Institut khimicheskoy fiziki AN SSSR.

BYSTROV, V.F.; YERSHOV, V.V.; LEZINA, V.P.

Chemical shift of the hydroxyl signal of ortho-alkylsubstituted phenols. Opt. i spektr. 17 no.4:538-544 O '64.

(MIRA 17:12)



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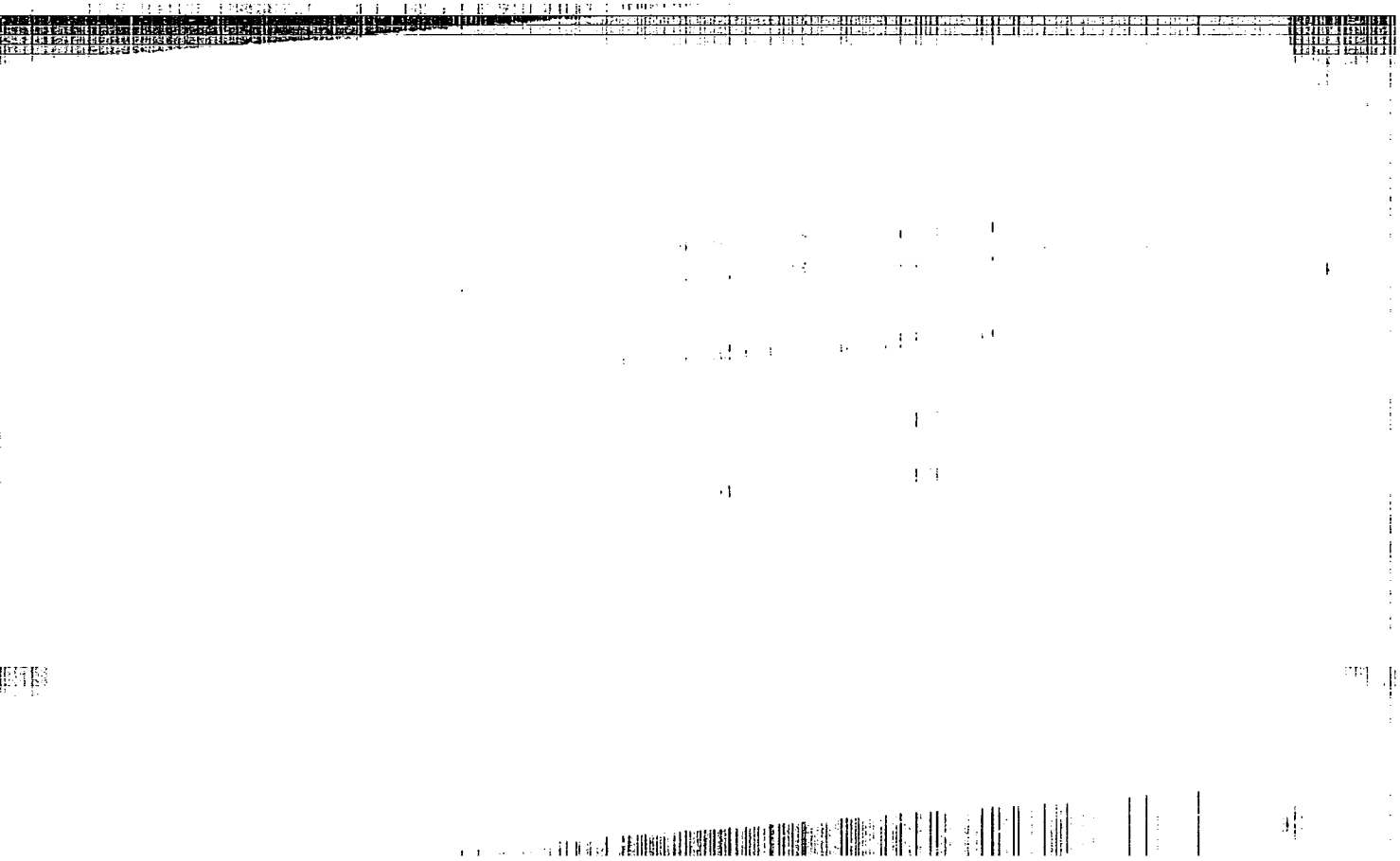

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YERSHOV, V.V.; ZLOBINA, G.A.

Electrophilic reaction of nitrous acid with 2,4,6-trisubstituted phenols. Izv. AN SSSR Ser. khim. no.11:2082-2084 N '64
(MIRA 18:1)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; ZLOBINA, G.A.

Radical interaction between alkyl nitrites and 2,4,6-trisubstituted phenols. Izv. AN SSSR Ser. khim. no.12:2235-2237 D '64 (MIRA 18:1)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; NIKIFOROV, G.A.

Effect of the steric hindrance of phenol hydroxyl on the equilibrium between hydroxyphenyl diazonium salts and quinone diazides. Dokl. AN SSSR 158 no.6:1362-1364 O '64. (MIRA 17:12)

1. Institut Khimicheskoy fiziki AN SSSR. Predstavlena akademikom V.N. Kondrat'yevym.

ZLOBINA, G.A.; YERSHOV, V.V.

Effect of the nature of substituents in 2,4,6-trisubstituted phenols on the reaction with nitric acid. Izv.AN SSSR.Ser.khim. no.9:1666-1675 S '64. (MIRA 17:10)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; VOLOD'KIN, A.A.

Spontaneous rearrangement of orthoquinobromic compounds. Izv. AN SSSR Ser. khim. no.2:336-342 '65. (MIRA 18:2)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; BELOSTOTSKAYA, I.S.

Synthesis of hydroxyphenylacetic acids of the series of hindered phenols. Izv. AN SSSR Ser. khim. no.2:376-378 '65. (MIRA 18:2)

1. Institut khimicheskoy fiziki AN SSSR.

NIKIFOROV, G.A.; YERSHOV, V.V.

Radical deamination of 4-amino-2,6-dialkylphenols. Izv. AN SSSR. Ser. khim. no.6:1097-1100 '65. (MIRA 18:6)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; ZLOBINA, G.A.

Oxidation of 4-methyl-2,6-di-tert-butylphenol by pernitrous acid. Izv. AN SSSR. Ser. khim. no.7:1269-1271 '65. (MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; BELOSTOTSKAYA, I.S.

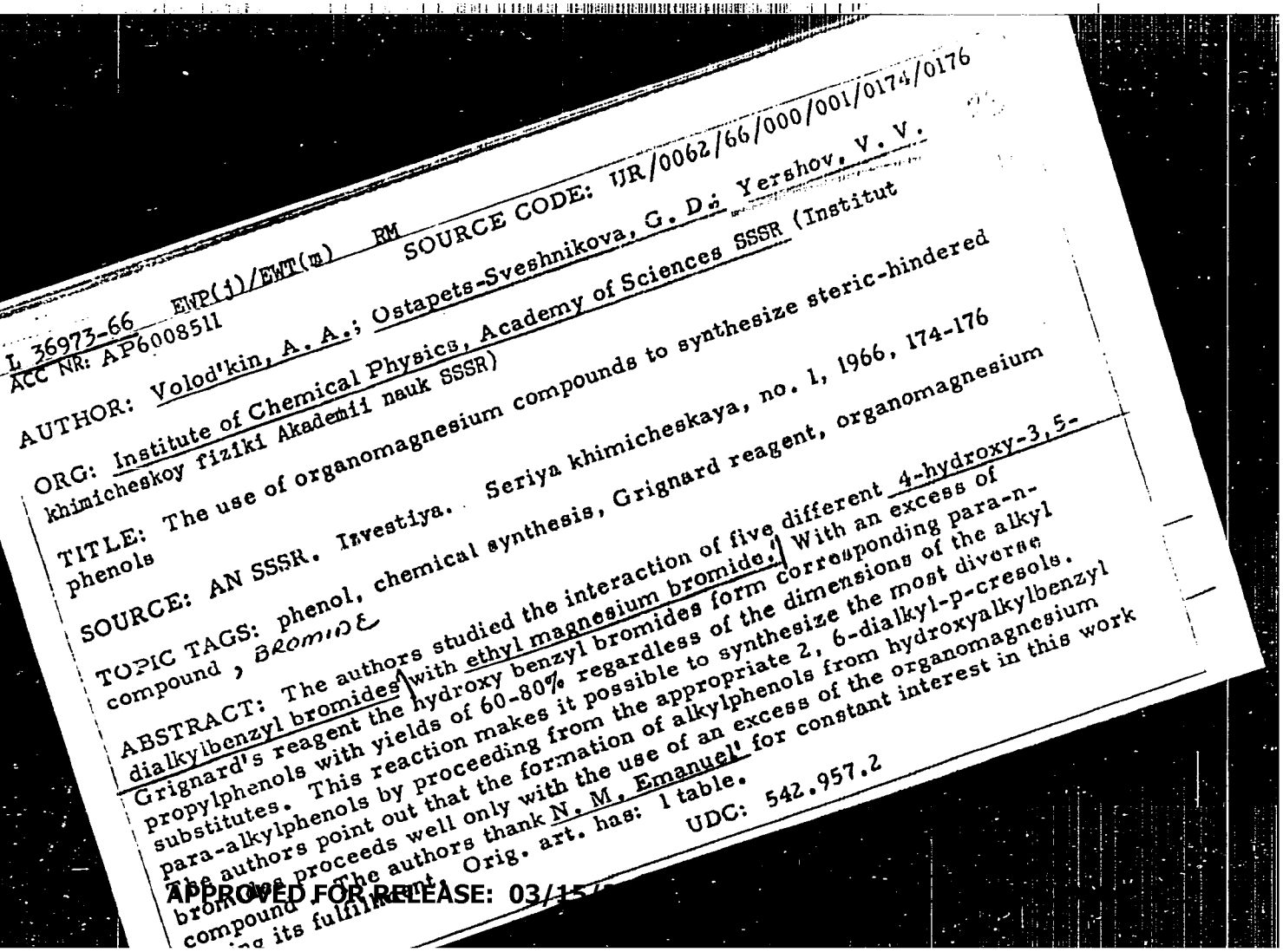
Di-tert-butylspirocyclodienones. Izv. AN SSSR. Ser. khim. no.7:1301-1303 '65. (MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; ZLOBINA, G.A.

Reaction of 2,4,4,6-trialkylphenols with peroxide acids. Izv. AN SSSR. Ser. khim. no.9:1675-1677 '65. (MIRA 18:9)

1. Institut khimicheskoy fiziki AN SSSR.



L 36973-66 ENP(j)/EWT(m) RM SOURCE CODE: UR/0062/66/000/001/0174/0176
ACC NR: AP6008511

AUTHOR: Volod'kin, A. A.; Ostapets-Sveshnikova, G. D.; Yershov, V. V.

ORG: Institute of Chemical Physics, Academy of Sciences SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: The use of organomagnesium compounds to synthesize steric-hindered phenols

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1966, 174-176

TOPIC TAGS: phenol, chemical synthesis, Grignard reagent, organomagnesium compound, BROMIDE

ABSTRACT: The authors studied the interaction of five different 4-hydroxy-3,5-dialkylbenzyl bromides with ethyl magnesium bromide. With an excess of Grignard's reagent the hydroxy benzyl bromides form corresponding para-n-propylphenols with yields of 60-80% regardless of the dimensions of the alkyl substitutes. This reaction makes it possible to synthesize the most diverse para-alkylphenols by proceeding from the appropriate 2, 6-dialkyl-p-cresols. The authors point out that the formation of alkylphenols from hydroxyalkylbenzyl bromides proceeds well only with the use of an excess of the organomagnesium compound. The authors thank N. M. Emanuel' for constant interest in this work ing its fulfillment. Orig. art. has: 1 table.

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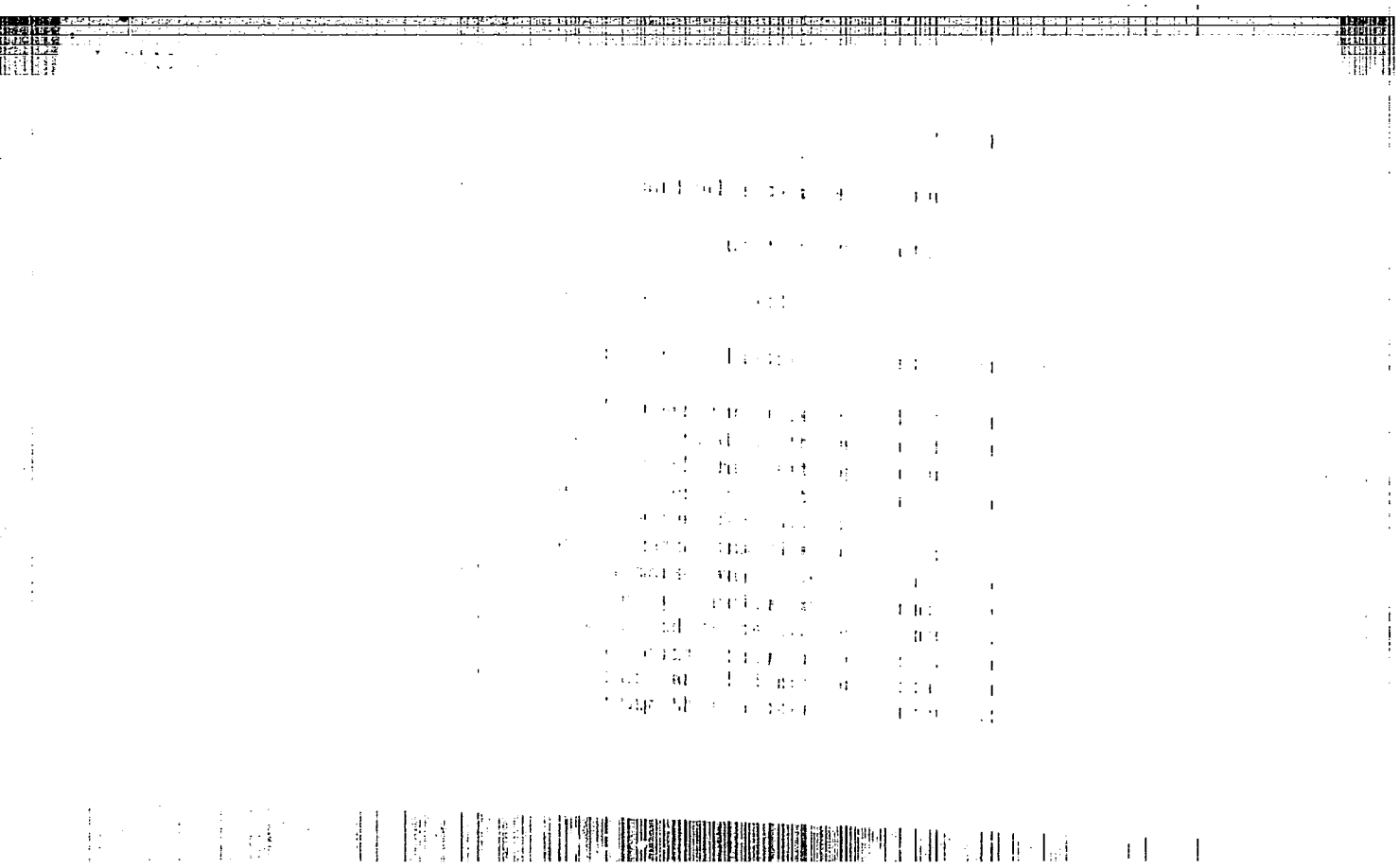

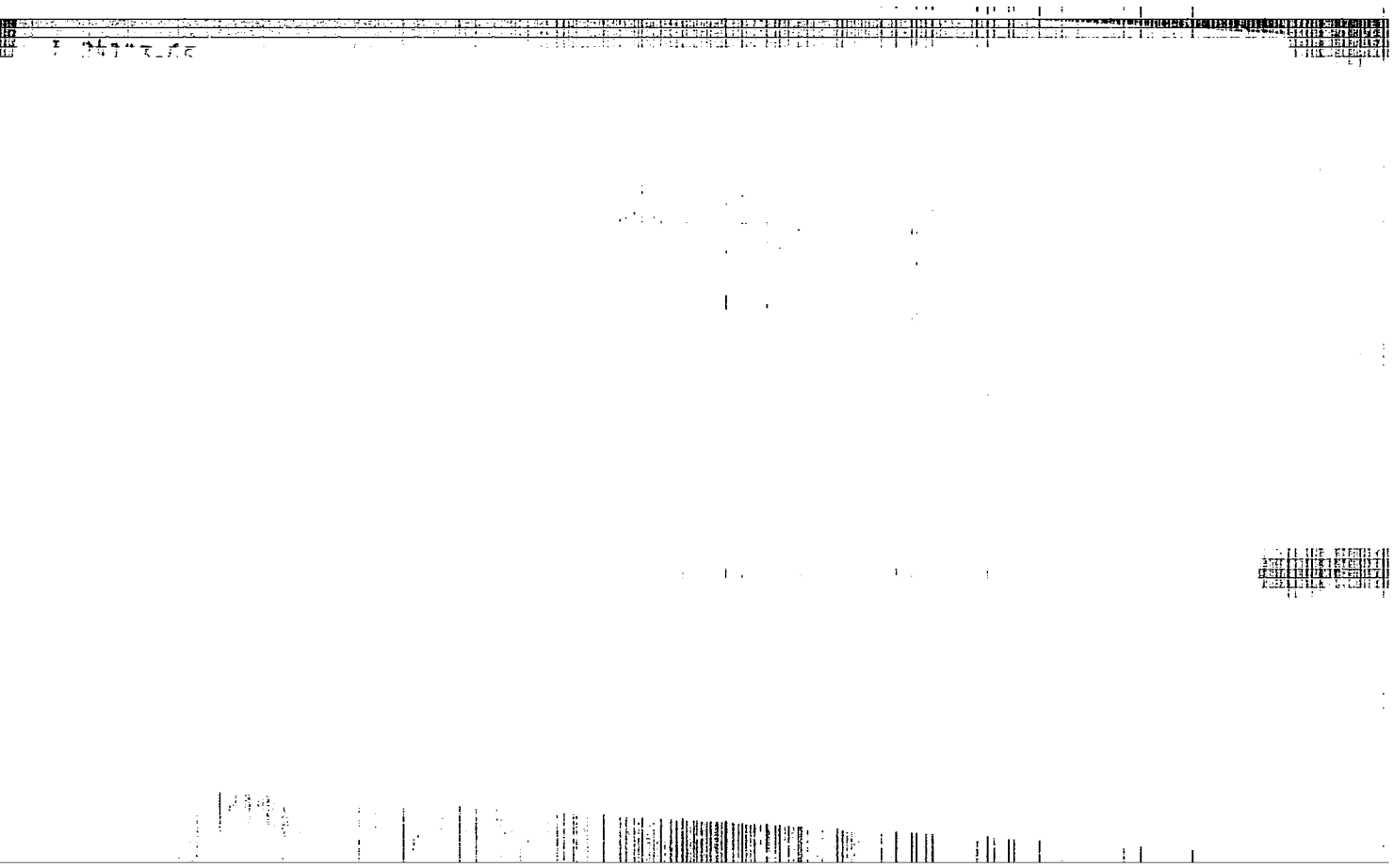

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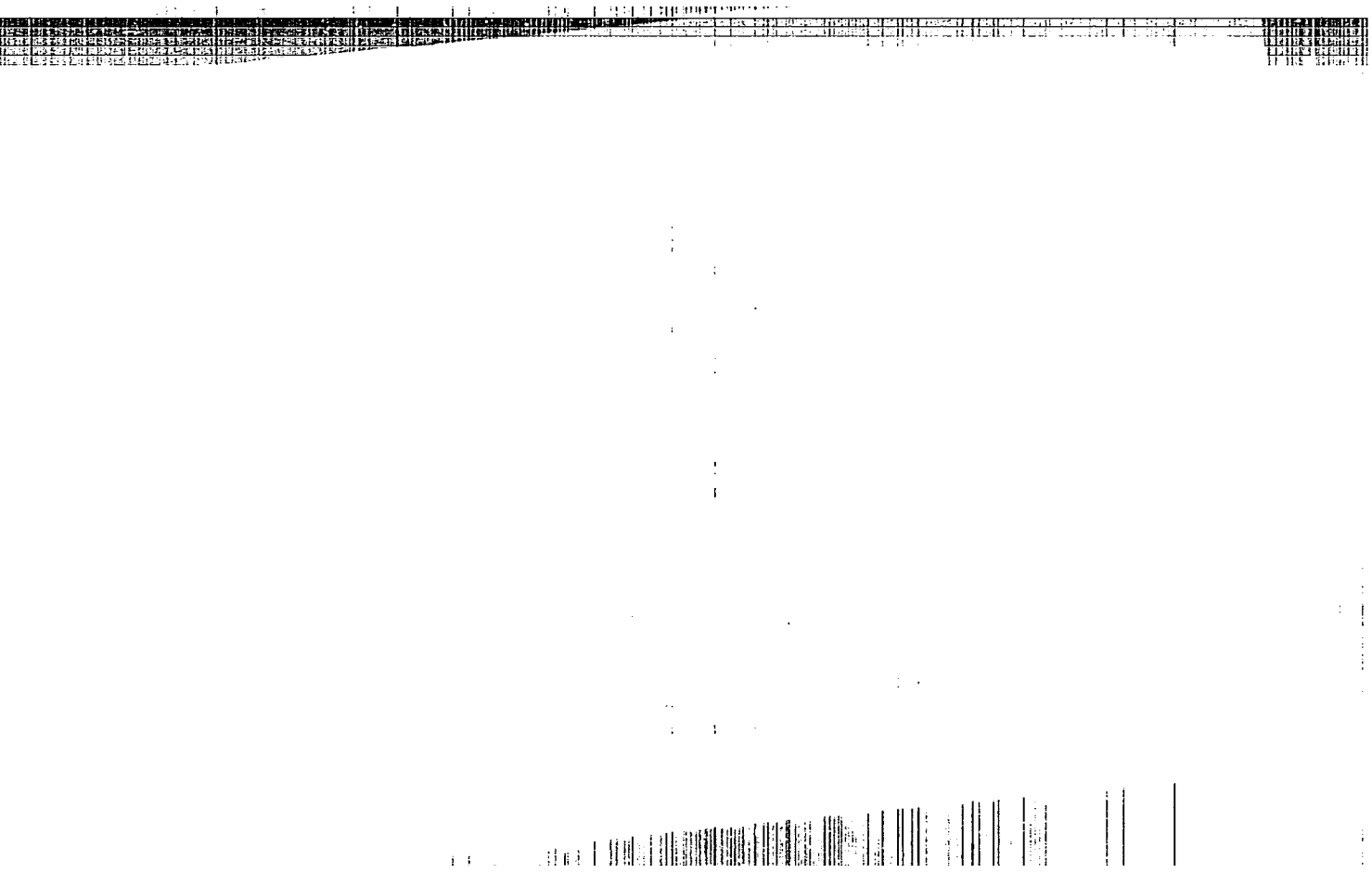

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