ARBUZOV, A. Ye.,(Acad)

(BA-AI My '53:469)

USSR/Chemistry - Organophosphorus Compounds 21 May 52

"Some Complex Compounds of Complete Phosphorous Acid Esters With Copper, Silver and Gold Salts," Acad A. Ye. Arbuzov, V. M. Zoroastrova, Sci Res Chem Inst imeni A. M. Butlerov, Kazan State U imeni V. I. Lenin

"Dok Ak Nauk SSSR" Vol LXXXIV, No 3, pp 503-506

A. Ye. Arbuzov indicated that the reaction of complete esters of phosphorous acid with cuprous salts resulted in complex compds like $CuX\text{-}P(OR)_3$ and $CuX\text{-}2P(OR)_3$. These same esters also reacted with

225T1

silver halide, producing complex compds like $AgX\text{-}P(OR)_3$. $CuX\text{-}P(OR)_3$ and similar complex compds were found to have a triple mol wt. On the other hand, the mol wts of compds like $CuX\text{-}2P(OR)_3$ were not detd. The complex compds, however, resulting from the reaction of phosphorous acid esters with silver halide also produced a triple mol. Finally, the action of triphenylphosphite on $AuCl\text{-}PCl_3$ brought forth the complex compd, $(C_6H_5O)_3P\text{-}AuCl$.

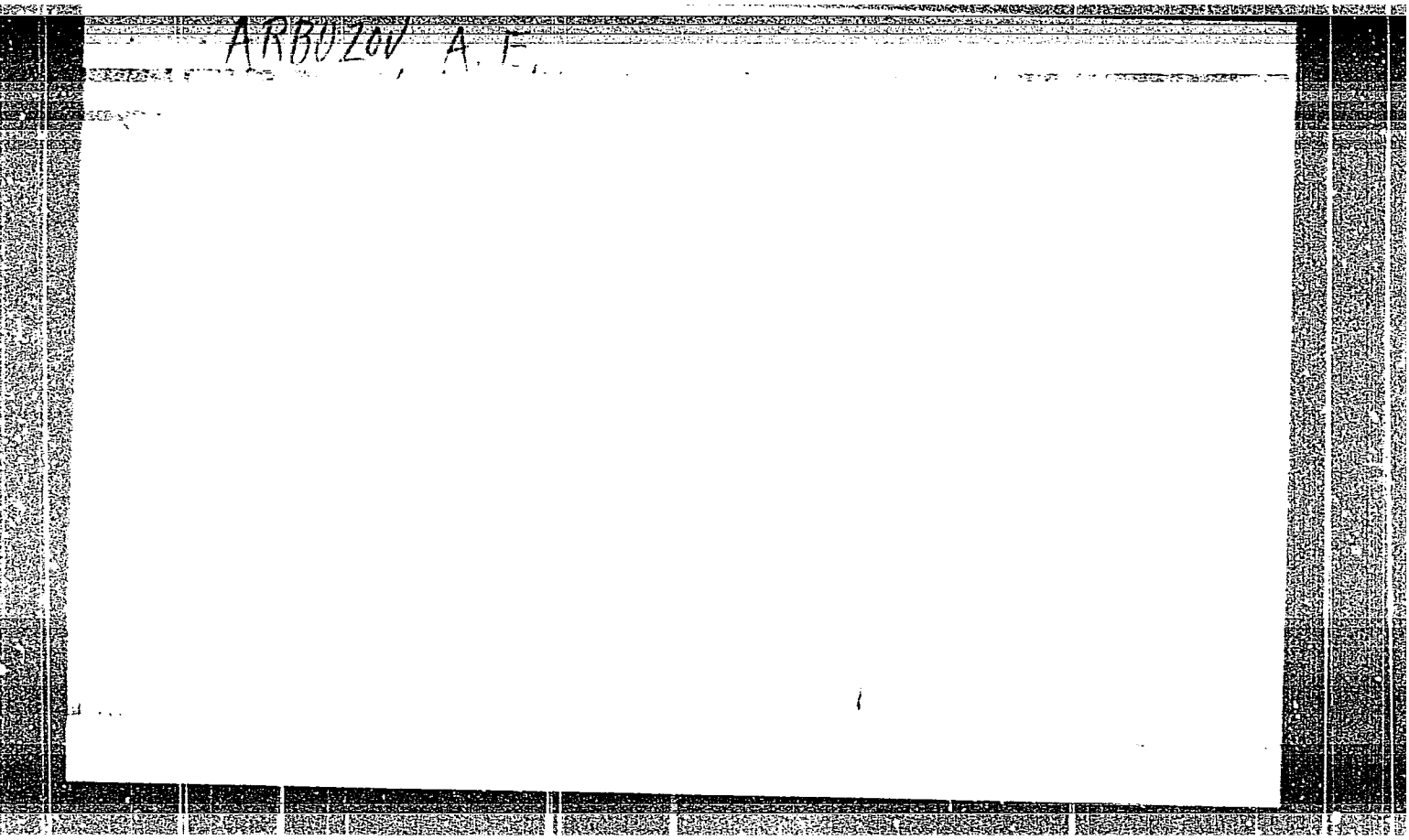
225T1

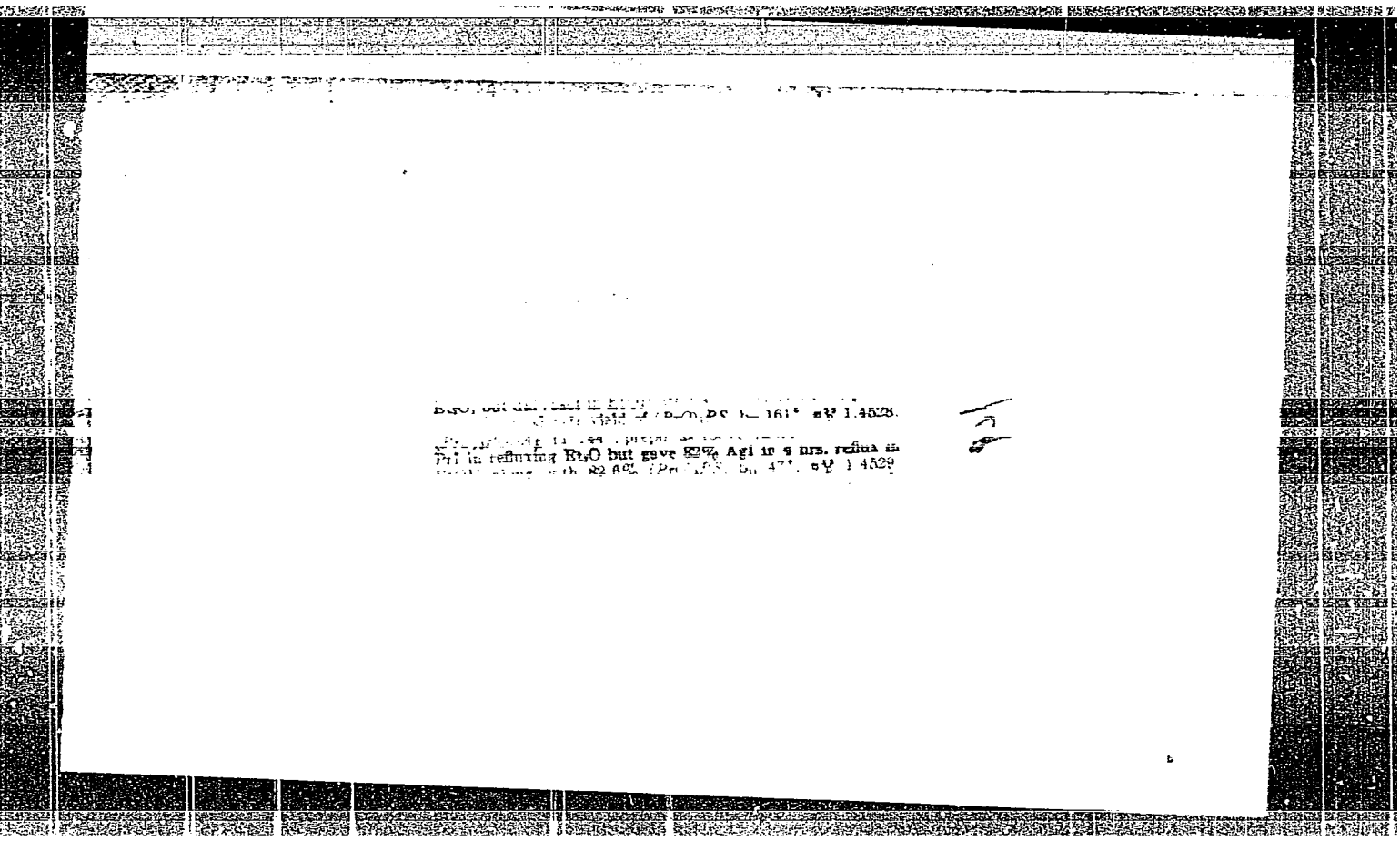
ARBUZOV, A.Ye., akademik; KAZANSKIY, B.A., akademik; PETROV, A.D., chlen-korrespondent AN SSSR; NIKITIN, N.I., chlen-korrespondent AN SSSR; FIGUROVSKIY, N.A., professor, otvetstvennyy redaktor; POGODIN, S.A., professor; ZVYAGINTSEV, O.Ye., professor; YEVTEYKVA, P.M., uchenyy sekretar'.

[Materials on the history of Soviet chemistry; reports given at the 2nd All-Union Conference on the History of Soviet Chemistry, 21-26 April 1951] Materialy po istorii otechestvennoi khimii; sbornik dokladov na vtorom Vsesoiuznom soveshchanii po istorii otechestvennoi khimii, 21-26 aprelia 1951 g. Moskva, Izd-vo Akademii nauk SSSR, 1953. 318 p. (MLRA 7:4)
(Chemistry--History)

ARBUZOV, A.Ye.; VALITOVA, F.G.

Studying the phosphorus containing products of the reaction producing free radicals by the method of A.E.Arbuzov, and B.A.Arbuzov. Soob.o nauch.rab.chl.VKHO no.2:21 '53. (MIRA 10:10)
(Phosphorus) (Radicals (Chemistry))





Pri in refluxing Et_2O but gave 82% AgI in 9 hrs. reflux in

PETROV, A.A.; ARBUZOV, A.E., akademik.; PORFIR'YEVA, Yu.I.

Order of addition of alkylhypohalogenides to vinylacetylene homologs. Dokl.AN SSSR 90 no.4:561-564 Je '53. (MLRA 6:5)

1. Akademiya Nauk SSSR (for Arbuzov). (Halogenides) (Vinylacetylene)

PUDOVIK, A.N.; LEBEDEVA, N.M.; ARBUZOV, A.Ye., akademik.

Reaction of addition and condensation of phosphonoacetone and phosphonoacetic ester. Dokl.AN SSSR 90 no.5:799-802 Je '53. (MLRA 6:5)

1. Khimicheskiy institut im. A.Ye. Arbuzova Kazanskogo filiala Akademii nauk SSSR (for Pudovik, Lebedeva). 2. Akademiya nauk SSSR (for Arbuzov).
(Phosphonium compounds)

BARDYSHEV, I.I.; ARBUZOV, A.Ye., akademik.

Properties of sylvestrene. Dokl. AN SSSR 90 no.6:1035-1037 Je '53.
(MLRA 6:6)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut (for Bardyshev). 2. Akademiya nauk SSSR (for Arbuzov).
(Sylvestrene)

RAZUMOV, A.I.; MUKHACHEVA, O.A.; ARBUZOV, A.Ye., akademik.

Simplest esters of the diethylphosphinic acid. Dokl. AN SSSR 91 no.2:271-272 Jl '53. (MLRA 6:6)

1. Kazanskiy khimiko-tekhnologicheskiy institut im. S.M.Kirova. 2. Akademiya nauk SSSR (for Arbuzov). (Esters) (Phosphinic acids)

KAMAY, G.I'm.; KUKHTIN, V A. ARBUZOV, A.Ye., akademik.

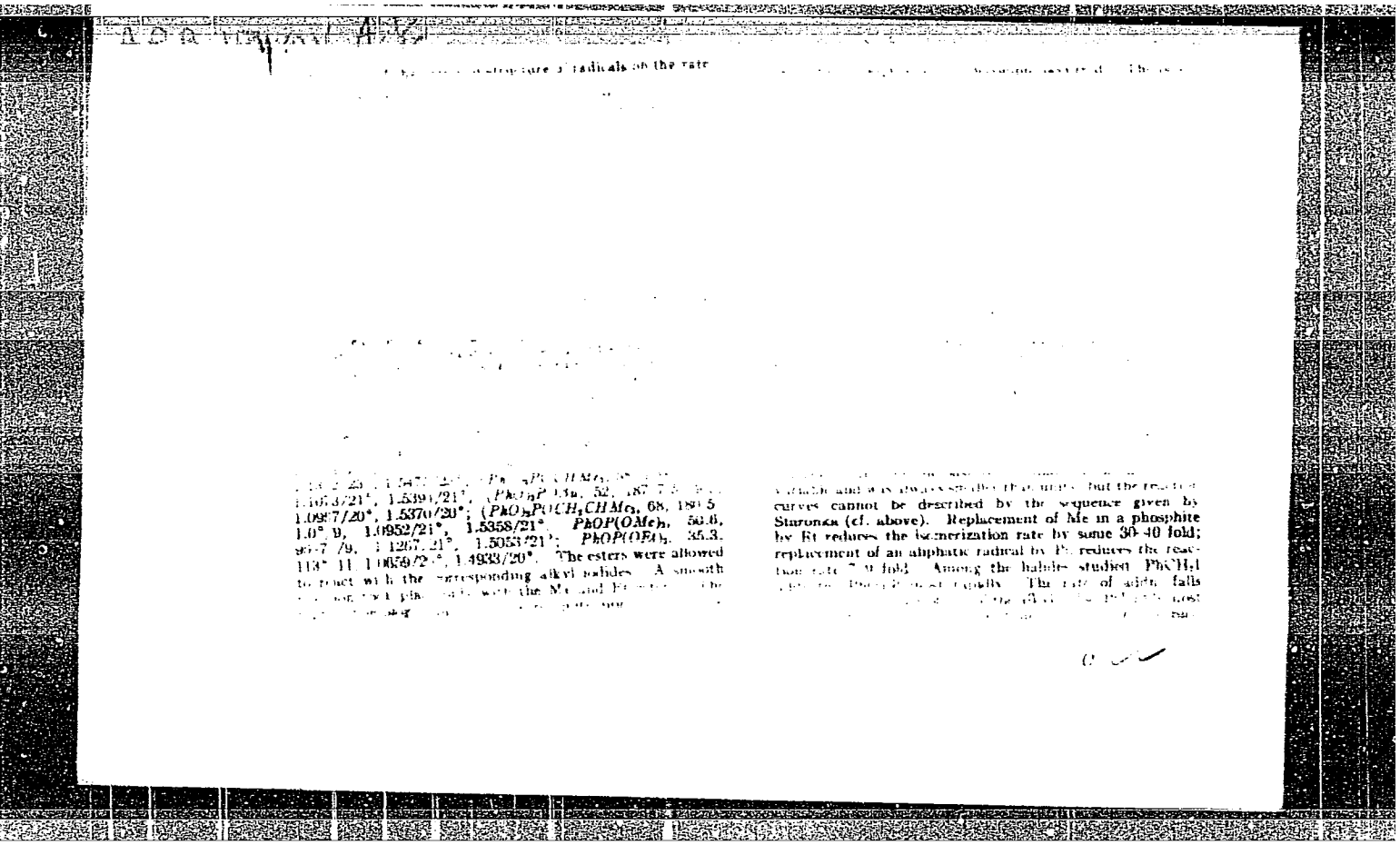
Reaction of the interaction of neutral and acid esters of phosphorus acid, with esters of halide substituted aliphatic acids. Dokl.AN SSSR 91 no.4:837-839 Ag '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Arbuzov). 2. Kazanskiy khimiko-tekhnologicheskiy institut im. S.M.Kirova (for Kamay and Kukhtin).
(Esters) (Phosphorus organic compounds)

ABRAMOV, V.; KARP, G.; ARBUZOV, A.Ye., akademik.

Mechanism of the Arbuzov rearrangement. Dokl.AN SSSR 91 no.5:1095-1098 Ag '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Arbuzov). 2. Kazanskiy khimiko-tekhnologicheskiy institut im. S.M.Kirova. (Isomerism) (Esters)



but has a long induction period. The effect of the isomerization product on the rate of [illegible] was [illegible] $P(OMe)_3$ [illegible] an equimolar mixt. of the phosphite and MeI was added $MeP(O)(OMe)_2$ [illegible] the reaction was run at 64.5°. Without [illegible] reaction was 25% complete in 48 min., [illegible] in 130 min., and 100% in 315 min.; with 0.2 mole phosphonate added it was 25% complete in 39 min., 50% in 71 min., 75% in 110 min., and 100% in 240 min.; with 0.5 mole phosphonate added the reaction was 25% complete in 34 min., 50% in 67 min., 75% in 107 min., and 100% in 230 min.; with 1 mole phosphonate the reaction was 25% complete in 32 min., 50% in 62 min., 75% in 105 min., and 100% in 240 min. Thus a small autocatalytic effect might be active, although the alteration of the reaction medium can be the active factor. G. M. Kosolapoff

KAMAY, Gil'm; KHISMATULLINA, L.; ARBUZOV, A.Ye., akademik.

Separation of asymmetric tetracovalent phosphonium compounds into optically active components. Dokl.AN SSSR 92 no.1:69-71 S '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Arbuzov). 2. Khimicheskiy institut im. A.Ye. Arbuzova Kazanskogo filiala Akademii nauk SSSR (for Kamay and Khismatullina).
(Phosphonium compounds)

YURZHENKO, T.I.; PUCHIN, V.A.; GRIGOR'YEVA, K.S.; ARBUZOV, A.E., akademik.

Peculiarities of the initiating action of tertiary hydrogen peroxides during emulsion polymerization. Dokl.AN SSSR 92 no.1:97-100 S '53. (MLRA 6:8)

1. Akademiya nauk SSSR (for Arbuzov). 2. L'vovskiy politekhnicheskiy institut (for Yurzhenko, Puchin and Grigor'yeva).
(Polymers and polymerization) (Peroxides)

PUDOVIK, A.N.; ARBUZOV, A.Ye., akademik.

Synthesis of amino phosphinic and amino thiophosphinic esters. Dokl.AN SSSR 92 no.4:773-776 O '53. (MLRA 6:9)

1. Akademiya nauk SSSR (for Arbuzov). 2. Khimicheskiy institut im. A.Ye.Arbuzova Kazanskogo filiala Akademii nauk SSSR (for Pudovik).
(Esters) (Aminophosphinic acid)

ARBUZOV, A.Ye., laureat Stalinskoy premii.

[A.M.Butlerov, great Russian chemist] A.M.Butlerov - velikii russkii khimik. Moskva, Izd-vo "Znanie," 1954. 36 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 3 no.5) (MLRA 7:5)
(Butlerov, Aleksandr Mikhailovich, 1828-1886)

AREUZOV, A. Ye., otvetstvennyy redaktor; SERGIYENKO, S.R., professor, otvetstvennyy redaktor; LOKTEV, S.M., redaktor; SIMKINA, Ye.N., tekhnicheskiy redaktor.

[Academician Sergei Vasil'evich Lebedev; for his eightieth birthday] Akademik Sergei Vasil'evich Lebedev; k vos'midesiatiletiiu so dnia rozhdeniia. Moskva, Izd-vo Akademii nauk SSSR, 1954. 263 p.(MLRA 7:11)

1. Akademiya nauk SSSR.
(Lebedev, Sergei Vasil'evich, 1874-1934)

ARBUZOV, A. E.

USSR/ Chemistry — Isomerization

Card : 1/1

Authors : Arbuzov, A. E., and Nesterov, L. V.

Title : Size and structure of radicals and their effect on the rate of isomerization of phosphorous acid esters

Periodical : Izv. AN SSSR, Otd. Khim. Nauk., 3, 427 - 435, May - June 1954

Abstract : Data are presented regarding the rate of isomerization of new mixed phosphorous acid esters (phosphites), the addition of alkyl iodides to triphenyl phosphite, thermal decomposition of addition products and the rate of all mentioned conversions. It was established that the products obtained from phosphite isomerization actually accelerate the isomerization process thus changing the isomerization reaction into an autocatalytic reaction. The effect of size and structure of radicals on the rate of isomerization is explained. Eleven references: 5 USSR, 2 USA, 1 German, 2 Polish, 1 French. Tables.

Institution : The S. M. Kirov Chem-Technological Institute, Kazan

Submitted : June 19, 1953

ARBUZOV, A. E.

USSR/Chemistry

Card : 1/1

Authors : Arbuzov, A. E., Academician, and Razumova, N. A.

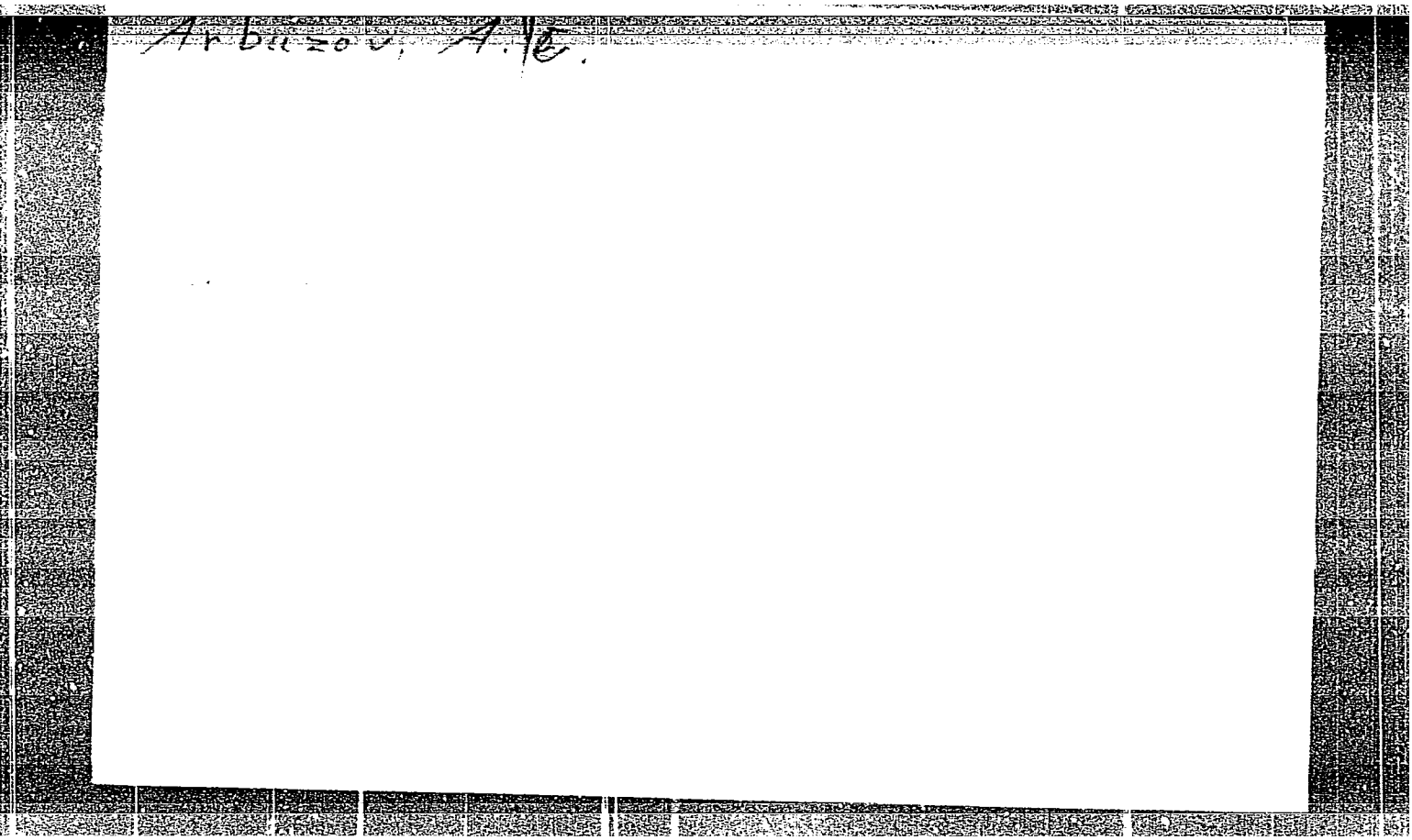
Title : About esters of propyleneglycolphosphorous acid and their conversions

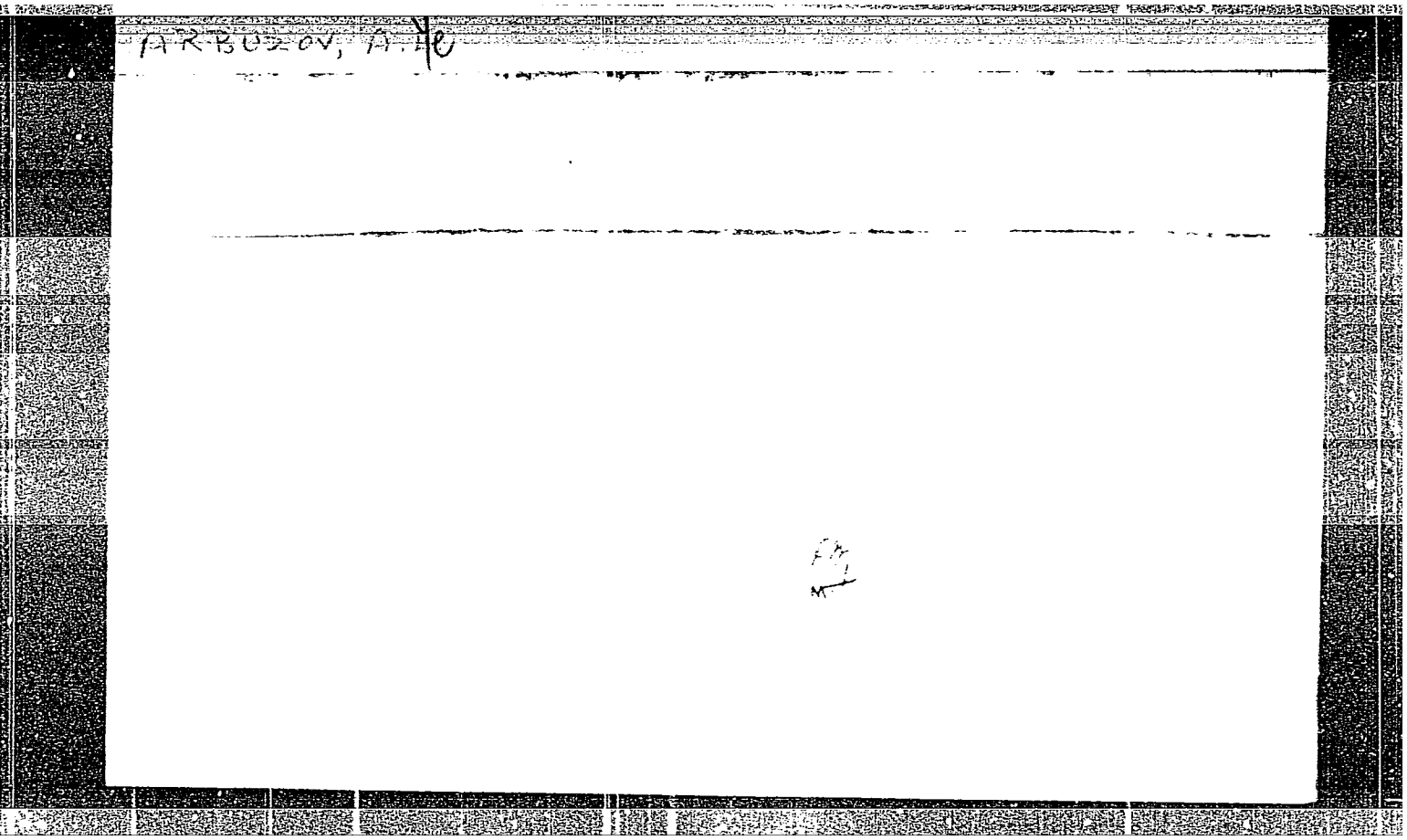
Periodical : Dokl. AN SSSR, 97, Ed. 3., 445 - 448, July 21, 1954

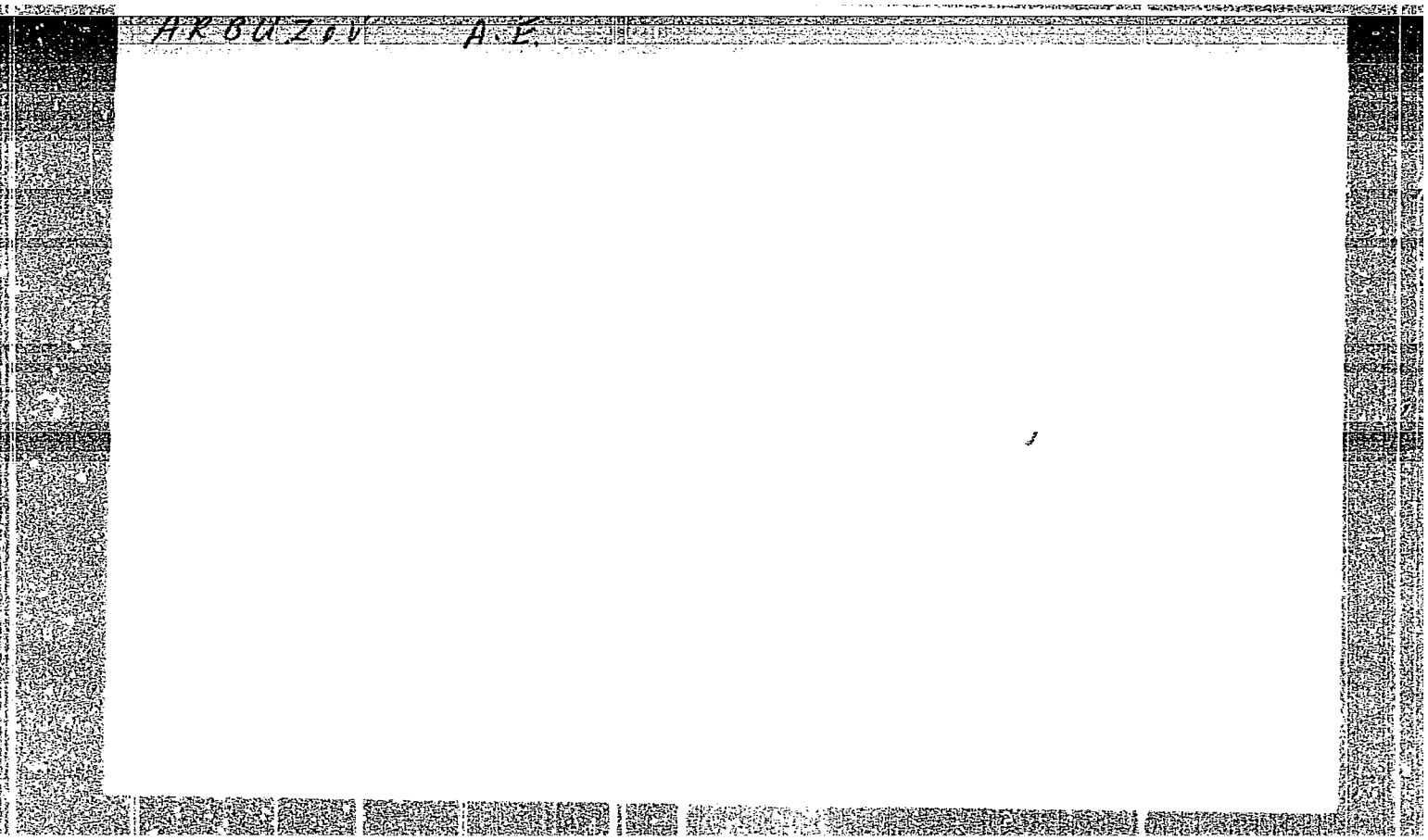
Abstract : The experimental results obtained during the synthesis and conversion of esters of propyleneglycolphosphorous acid, are described. The factors affecting the regrouping of radicals and the reaction process, are explained. The structure and constants of the compounds, synthesized by the radical regrouping method, are given in table. Seven references: 6-USSR and 1-USA. Tables.

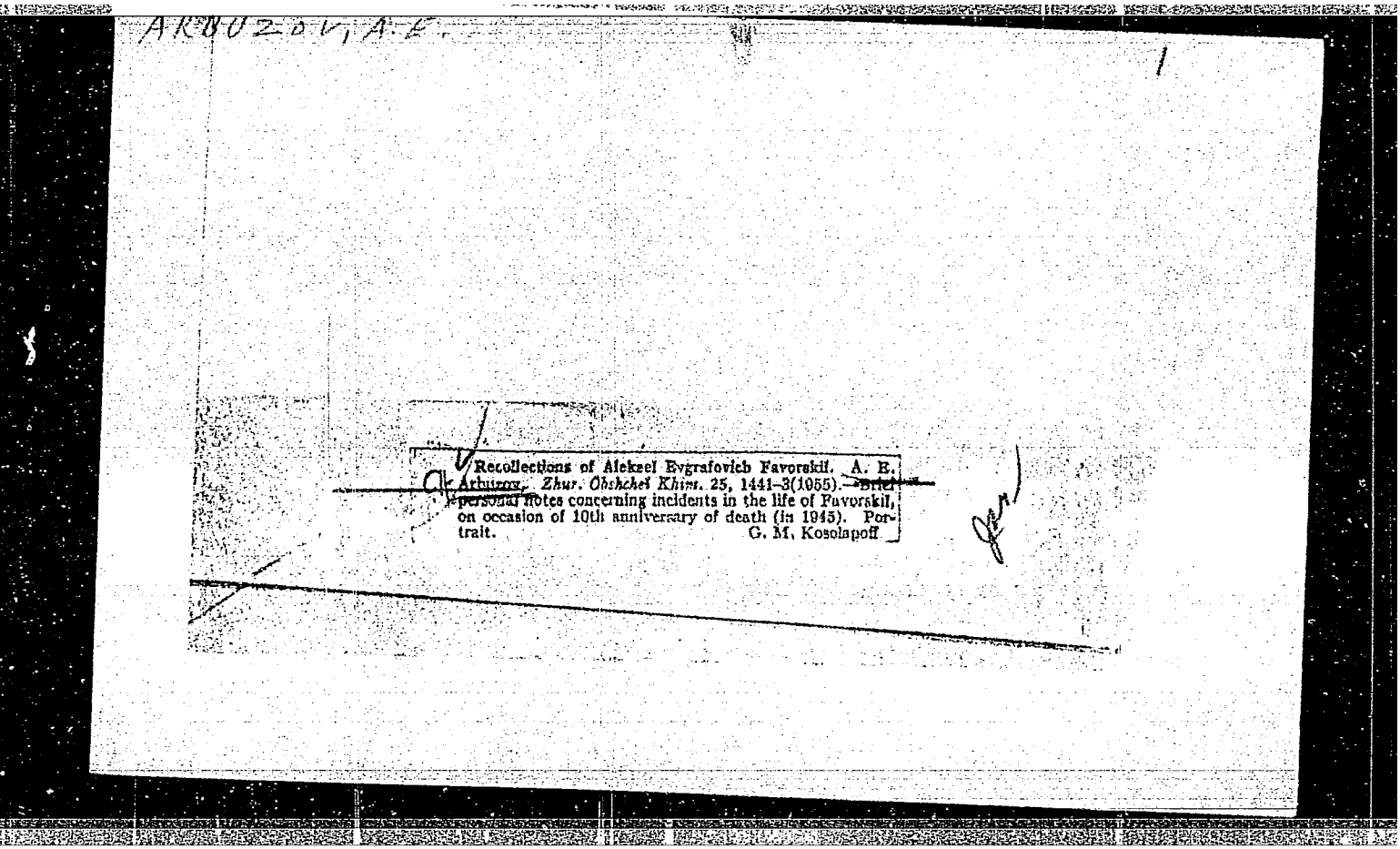
Institution : The S. M. Kirov Chemical-Technological Institute, Kazan

Submitted : May 20, 1954









AK8025, A.E.

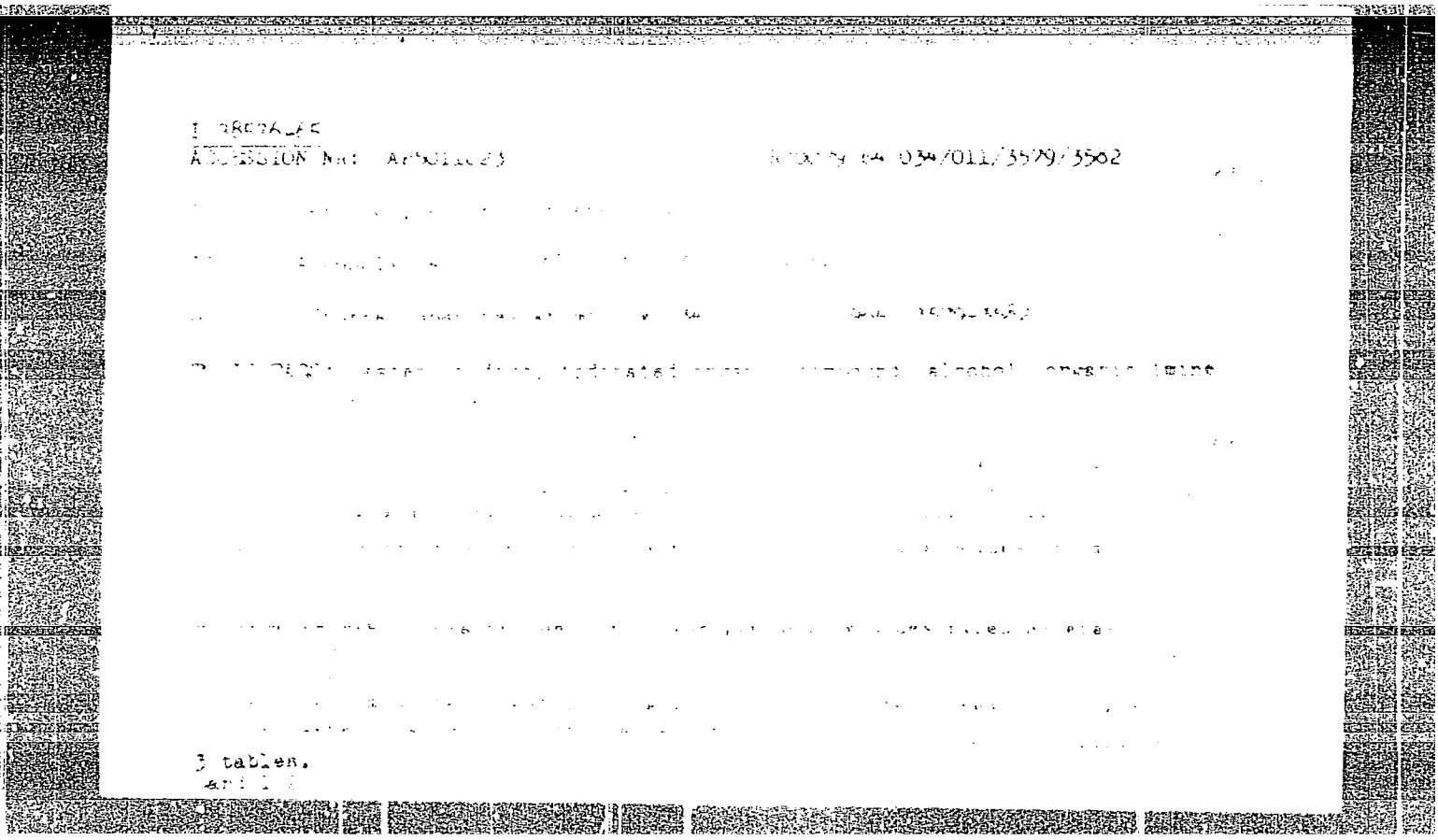
1

Recollections of Alekeel Evgrafovich Favorskii. A. E. Arbuzov. *Zhur. Obshchei Khim.* 25, 1441–3(1955). Brief personal notes concerning incidents in the life of Favorskii, on occasion of 10th anniversary of death (in 1945). Portrait. G. M. Kosolapoff

BLUDOROV, A.P.; KIRSANOV, N.V.; DISTANOV, U.G.; TUZOVA, L.S.; ARBUZOV, A.Ye., akademik, redaktor.; MIROPOL'SKIY, L.M., redaktor; SHAPOVALOVA, G.E., redaktor; PAVLOVSKIY, A.A., tekhnicheskiy redaktor.

[Tertiary coal-bearing deposits of the central and southern regions of Bashkiria] Tretichnye uglenosnye otlozheniia tsentral'nykh i iuzhnykh raionov Bashkirii. Moskva, Izd-vo Akademii nauk SSSR, 1956. 138 p. (Akademiia nauk SSSR. Kazanskii filial, Kazan. Geologicheskii institut. Trudy, no.3)

(Bashkiria--Coal geology) (MLRA 9:10)

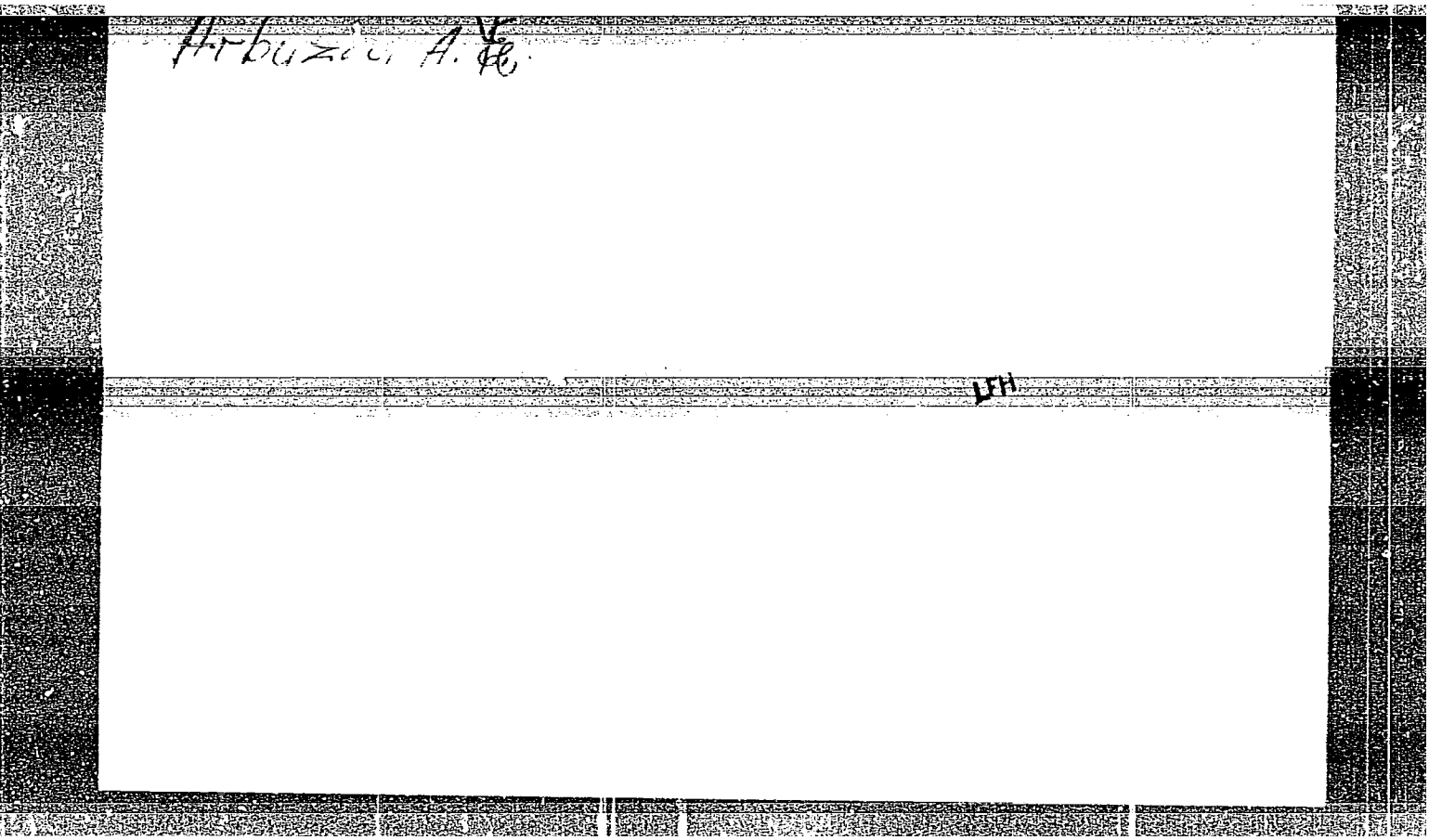


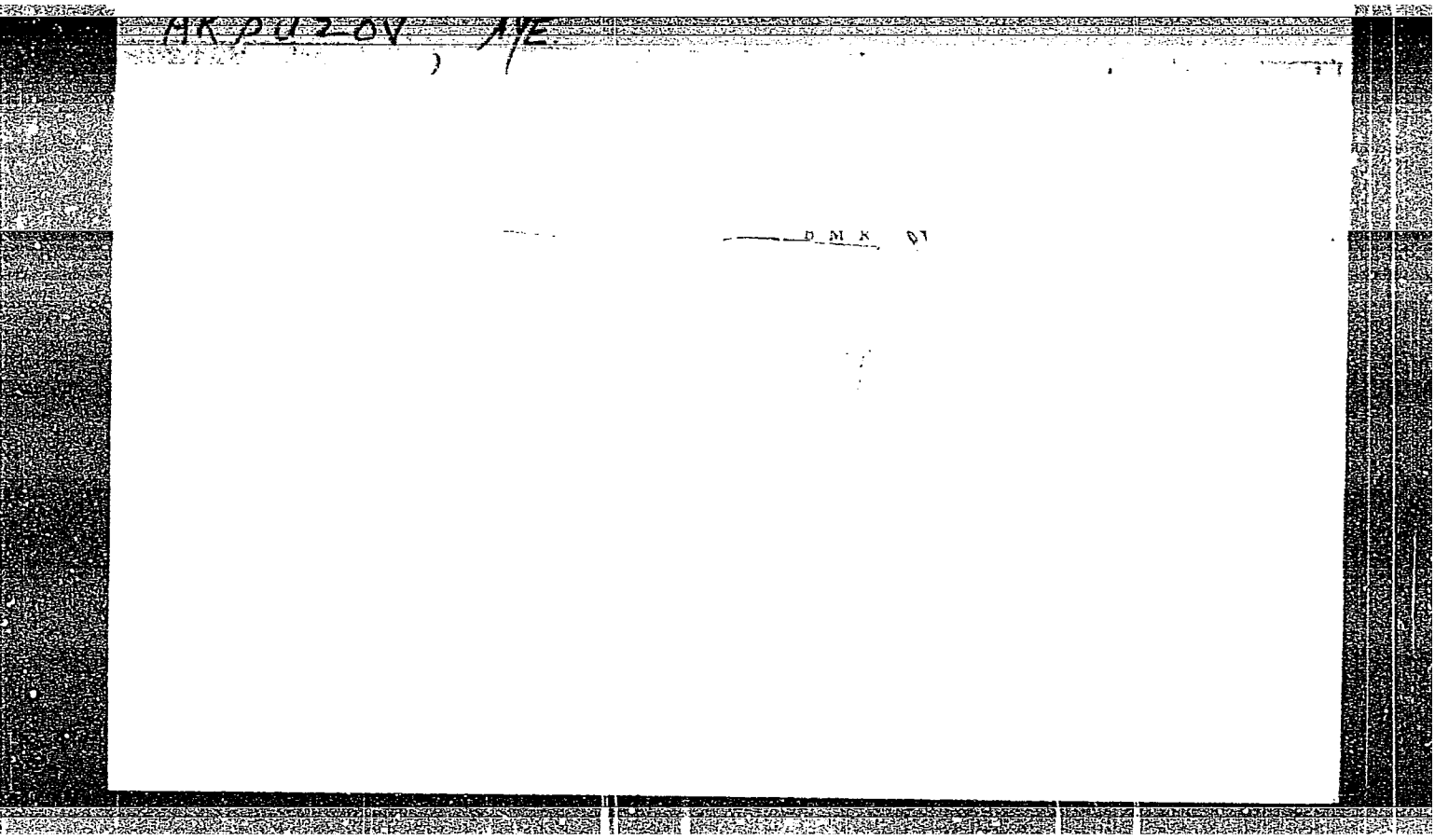
3 tables.

ACCESSION NR: AP5011023

SUBMITTED: 17Jul63 ENCL: 00 SUB CODE: OC, GC

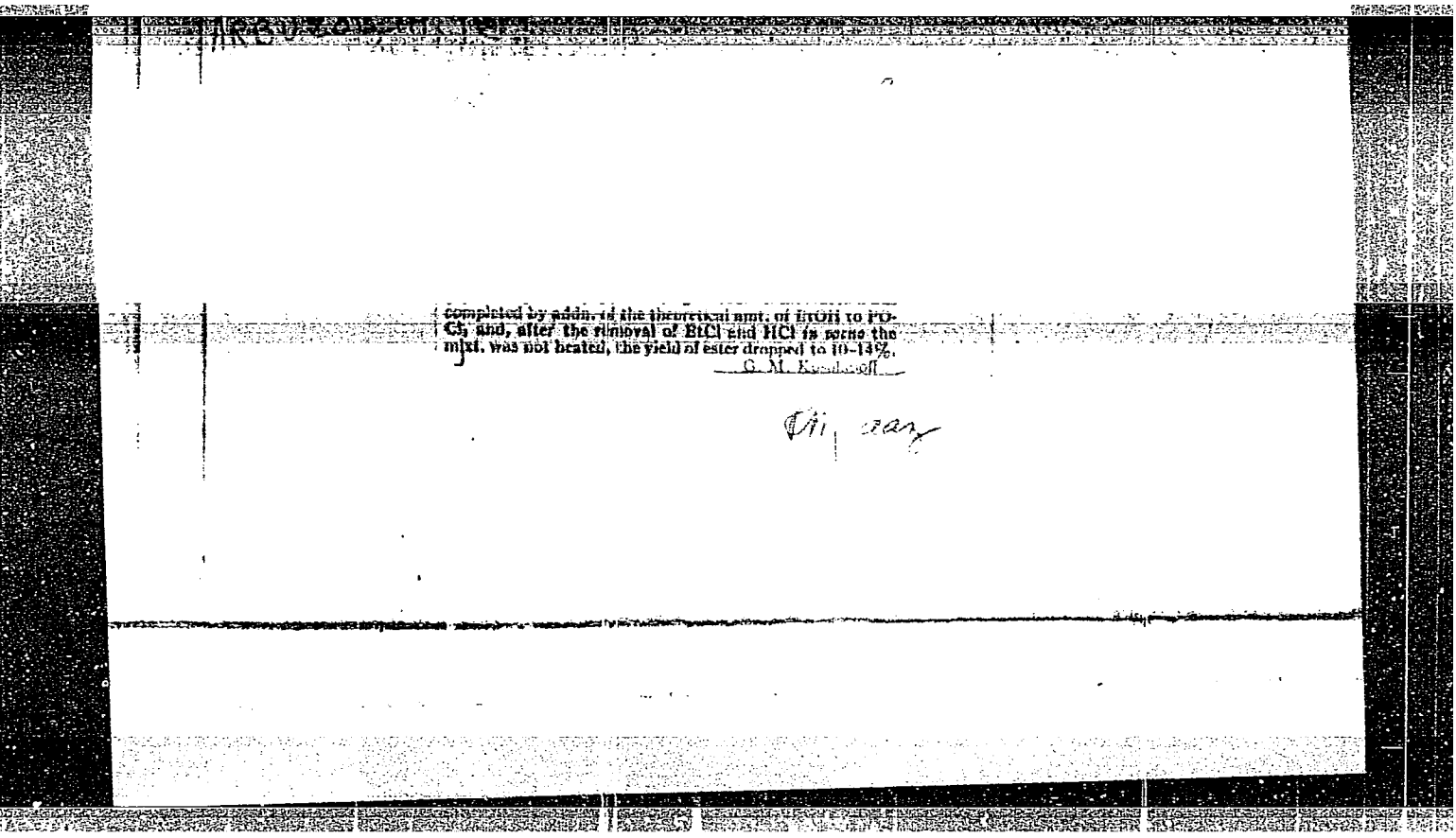
NO REF SOV: 002 OTHER: 003 JPRS





ARBUZOV, A.Ye., akademik.

A.M.Butlerov, the great Russian chemist; on the 70th anniversary of his death. Khim.nauka i prom. 1 no.3:345-351 '56. (MLRA 9:9)
(Butlerov, Aleksandr Mikhailovich, 1828-1886)



completed by addn. of the theoretical amt. of EtOH to $PO-Cl_3$ and, after the removal of EtCl and HCl in some the mixt. was not heated, the yield of ester dropped to 10-14%.

G. M. Kosolapoff

Oil, 12a

ARBUZOV, A.E. and RAZUMOVA, N.A.

Properties and Reactions of Alkyl and Aryl Propylene Phosphites. Communication 1. Addition Reactions.

Iz. Ak Nauk, SSSR. Otdel, Khim Nauk, No. 2, 1956, pp 179

Translation 564938C

ARBUZOV, A.Ye., RAZUMOVA, N.A.

Properties and conversions of propyleneglycolphosphorous acid esters. Part 1. Addition reactions. Izv.AN SSSR Otd. khim. nauk no.2:187-192 F '56. (MLRA 9:7)

1.Kazanskiy khimiko-tekhnologicheskiy institut imeni S.M.Kirova.
(Phosphorous acid)

ARBUZOV, A. Ye.

USSR/ Organic Chemistry - Synthetic organic chemistry E-2

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11795

Author : Arbuzov A.Ye., Valitova F.G.
Inst : Department of Chemical Sciences, Academy of Sciences USSR
Title : On Pyrocatechol Esters of Pyrophosphorous Acid

Orig Pub : Izv. AN SSSR, Otd. khim. n., 1956, No 6, 681-683

Abstract : On reaction of pyrocatechol chlorophosphite $C_6H_4O_2PCl$ (I) or $C_6H_4O_2PBr$ with $(C_2H_5O)_2PONa$ (II) there are obtained the pyrophosphites $C_6H_4O_2POP(OC_2H_5)_2$ (III) and $(C_6H_4O_2P)_2O$ (IV). With CuCl, CuBr and CuI III forms resins while IV yields solid addition products which could not be purified. From $(C_2H_5O)_2PSONa$ and I was obtained $C_6H_4O_2POPS(OC_2H_5)_2$ (V).

To II (from 27 g $(C_2H_5O)_2POH$ and 4.1 g Na in 250 ml ether) are added 32 g I and the mixture is heated for 1 hour, yield of III 13.7%,

Card 1/2

USSR/ Organic Chemistry - Synthetic organic chemistry E-2

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11795

BP 115-116°/1 mm, $n^{20}D$ 1.4800, d_4^{20} 1.1816. Yield of IV 14.8%, BP 170-172°/1 mm, $n^{20}D$ 1.5502, d_4^{20} 1.3107. On saponification of IV at 140° is obtained pyrocatechol (VI). On heating 1 g III and 1.17 g (C_6H_5) CBr (170-175°) and saponification with HCl acid there are obtained $(C_6H_5)_3CPO(OH)_2$ and VI. Yield of V (in benzene) 10.6%, BP 145-147°/ mm, $n^{20}D$ 1.5229, d_4^{20} 1.2846.

Card 2/2

ARBUZOV, A.Ye., akademik, otvetstvennyy redaktor; KATRENKO, D.A., redaktor izdatel'stva; AUZAN, N.I., tekhnicheskiy redaktor

[The chemistry and use of phosphorus organic compounds; proceedings of the first conference] Khimiia i primenenie fosfororganicheskikh soedinenii; trudy pervoy konferentsii, 8-10 dekabria 1955 g. Moskva, 1957. 526 p. (MLRA 10:3)

1. Akademiya nauk SSSR. Kazanskiy filial.
(Phosphorus organic compounds)

ARB"UZOV, A. E.

ARBUZOV, A. E.

Sulfur and selenium analogs of tetraethyl pyrophosphate

A. E. Arbuzov

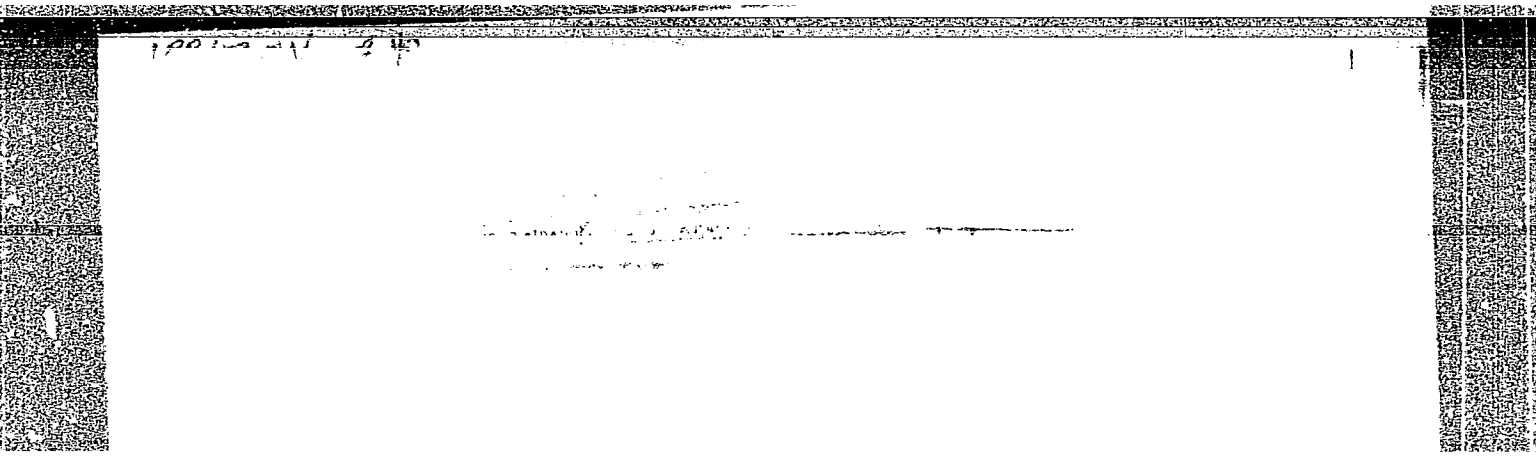
ARBUZOV, A. [illegible] ACADEMICIAN

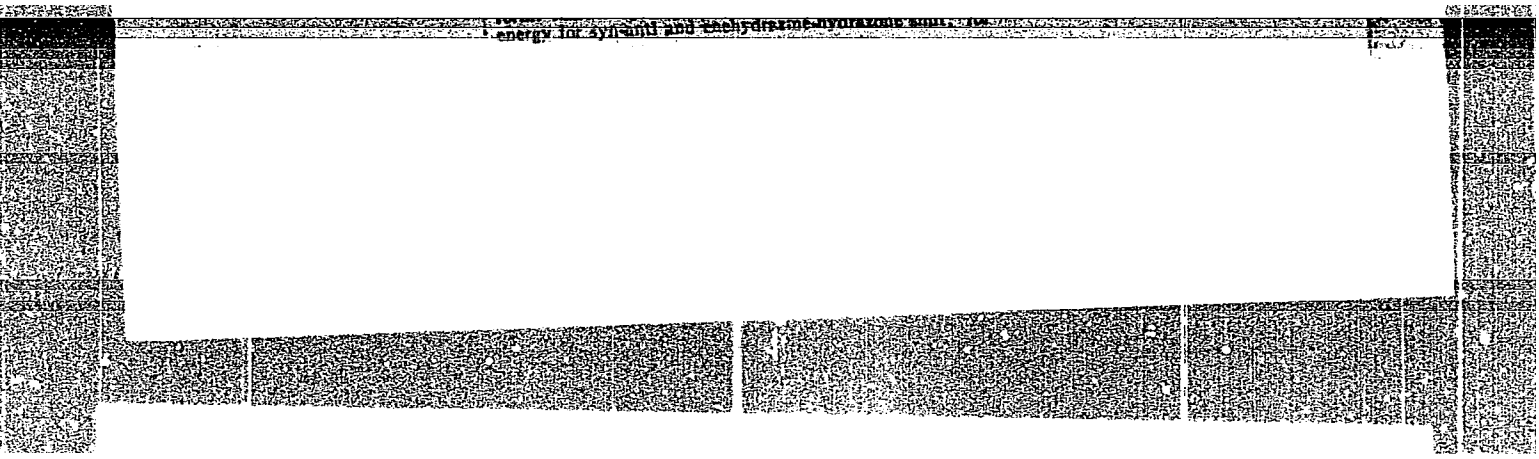
"In One Day the Future has Become the Present," The Soviet Artificial Earth Satellite, 1957 , p. 30.

FIGUROVSKIY, Nikolay Aleksandrovich; SOLOV'YEV, Yuriy Ivanovich; ARBUZOV, A.Ye., akademik, otvetstvennyy red.; TSUKERMAN, A.M., red. izd-va; SIMKINA, Ye.N., tekhn.red.

[Nikolai Nikolaevich Zinin; a biography] Nikolai Nikolaevich Zinin; biograficheskii ocherk. Moskva, Izd-vo Akad.nauk SSSR, 1957. 215 p. (MIRA 11:2)

(Zinin, Nikolai Nikolaevich, 1812-1880)

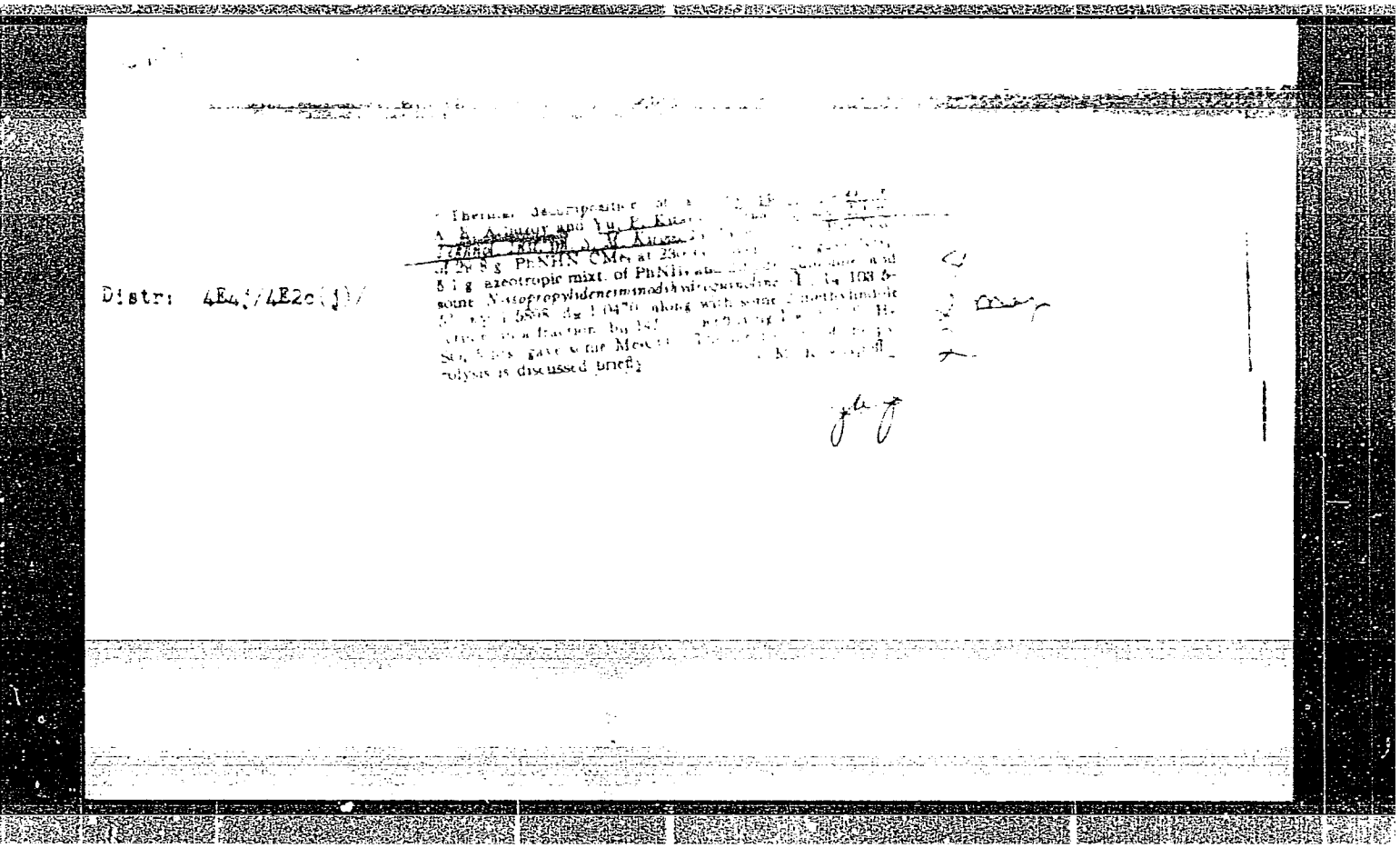




LANDSBERG, G.S., [deceased], akademik; LEBEDEV, A.A., akademik; RONKI, VASKO [Ronchi, Vasco]; ARBUZOV, A.Ye.; TOLSTOY, N.A.; VINTER, A.V., akademik; BARDIN , I.P., akademik.

Recollections about Sergei Ivanovich Vavilov. Trudy Inst.ist. est.i tekh. 17:137-153 '57. (MLRA 10:7)

1. Direktor Natsional'nogo opticheskogo instituta, Archetri (Florentsiya) (for Ronki).
(Vavilov, Sergei Ivanovich, 1891-1951)



Distr: 4E4; 4E2c(1)

ARBUZOV, A. E.

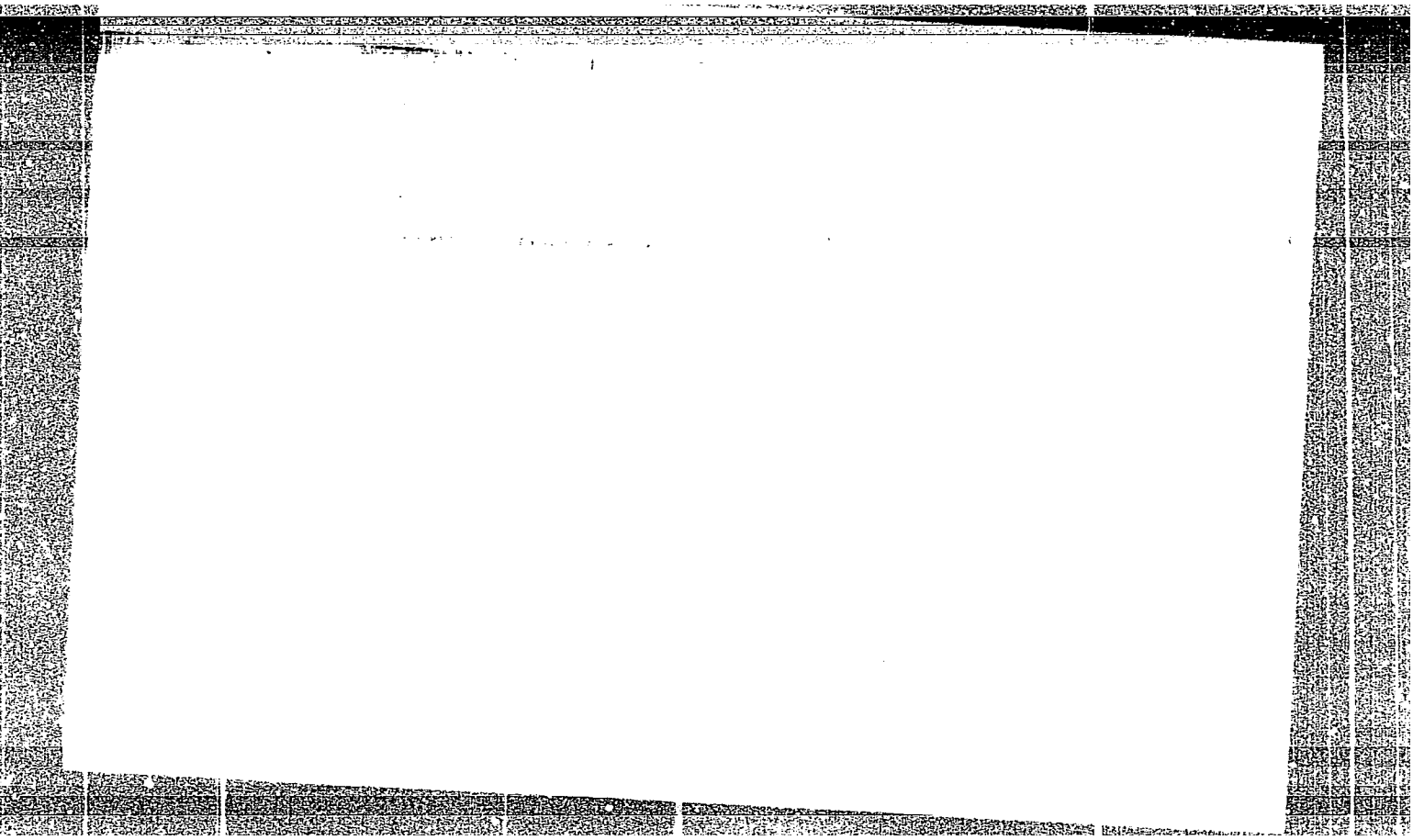
7

Distr: 4E4j/4E2c(j)

Reaction of transhydrazonation. A. E. Arbuzov and Yu. P. Kitaev. *Trudy Kazan. Khim. Tekhnol. Inst. im. S.M. Kirova* 23, 60-4(1957). Refluxing PhNHN:CMe$_2$ (I) (8 g.) with 10 g. 2,4-$(O_2N)_2C_6H_3NHNH_2$ in 100 ml. AcOH 25 min. gave on cooling [illegible] C_6H_3NHN:CMe$_2$, m. 125-4.5°. Refluxing 7.4 g. I with 5.5 g. BzH in 50 ml. AcOH 0.5 hr. gave after removal of part of the AcOH, cooling, and diln. with H_2O 7.6 g. PhNHN:CHPh, m. 153°. Thus arylhydrazones are capable [illegible] [illegible] [illegible] exchange reaction rather than [illegible] Pausacker, *Nature* 163, 602 (1949). [illegible] M. Kosolapoff

A. P. Arbuzov and Yu. P. [illegible] *Zhur Obshchei Khim.* 27, 2325-[illegible]

C.A. 51, 14005*f*.—The mechanism of the Fischer indole synthesis is discussed at length with numerous references. The [illegible] mechanism involves the formation of PhNH-



APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000101920002-6"

ARBUZOV, A.Ye.; KITAYEV, Yu.P.

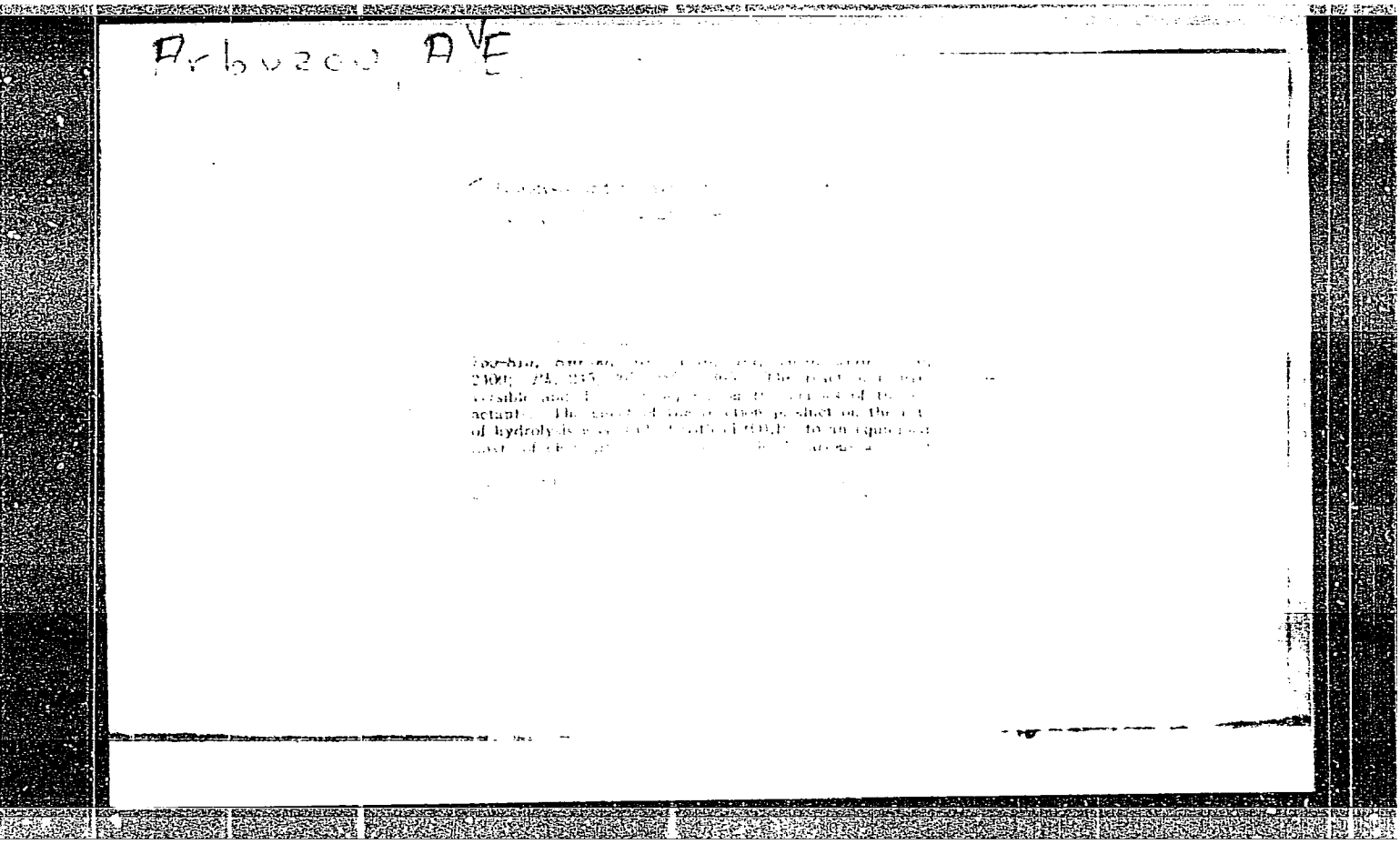
Synthesis of heterocyclic compounds on the basis of E. Fischer's reaction. Part 2: Abnormal course of E. Fischer's reaction. Zhur. ob. khim. 27 no.9:2341-2354 S '57. (MIRA 11:3)

1.Kazanskiy khimiko-tekhnologicheskiy institut.
(Chemical reaction--Mechanism)

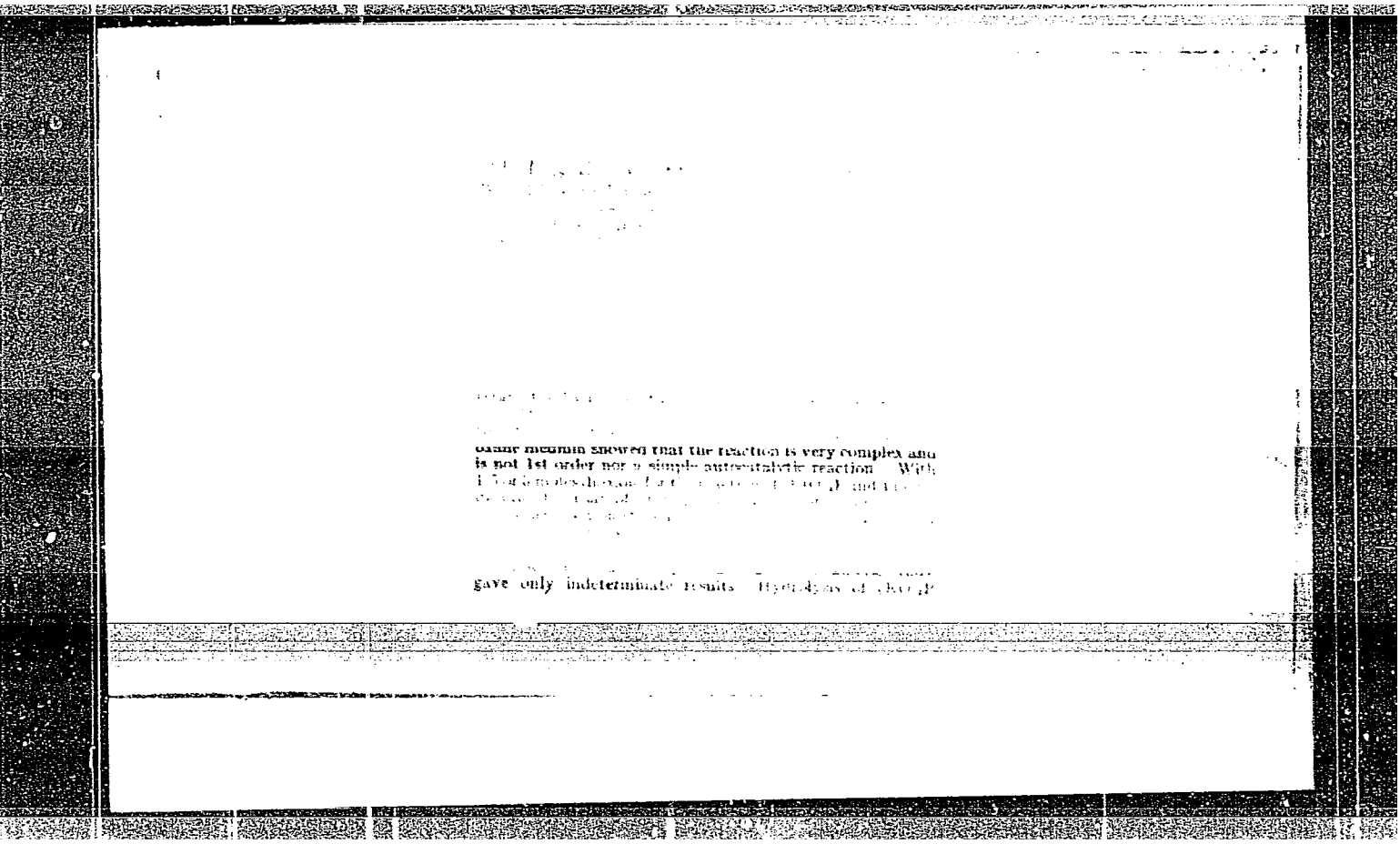
ARBUZOV, A.Ye.; VALITOVA, F.G.

Obtaining the free radical α,α-diphenyl-β-trinitrophenylhydrazyl. Zhur. ob. khim. 27 no.9:2354-2356 S '57. (MIRA 11:3)

1.Khimicheskiy institut Kazanskogo filiala AN SSSR.
(Hydrazyl) (Chemistry, Organic--Synthesis)

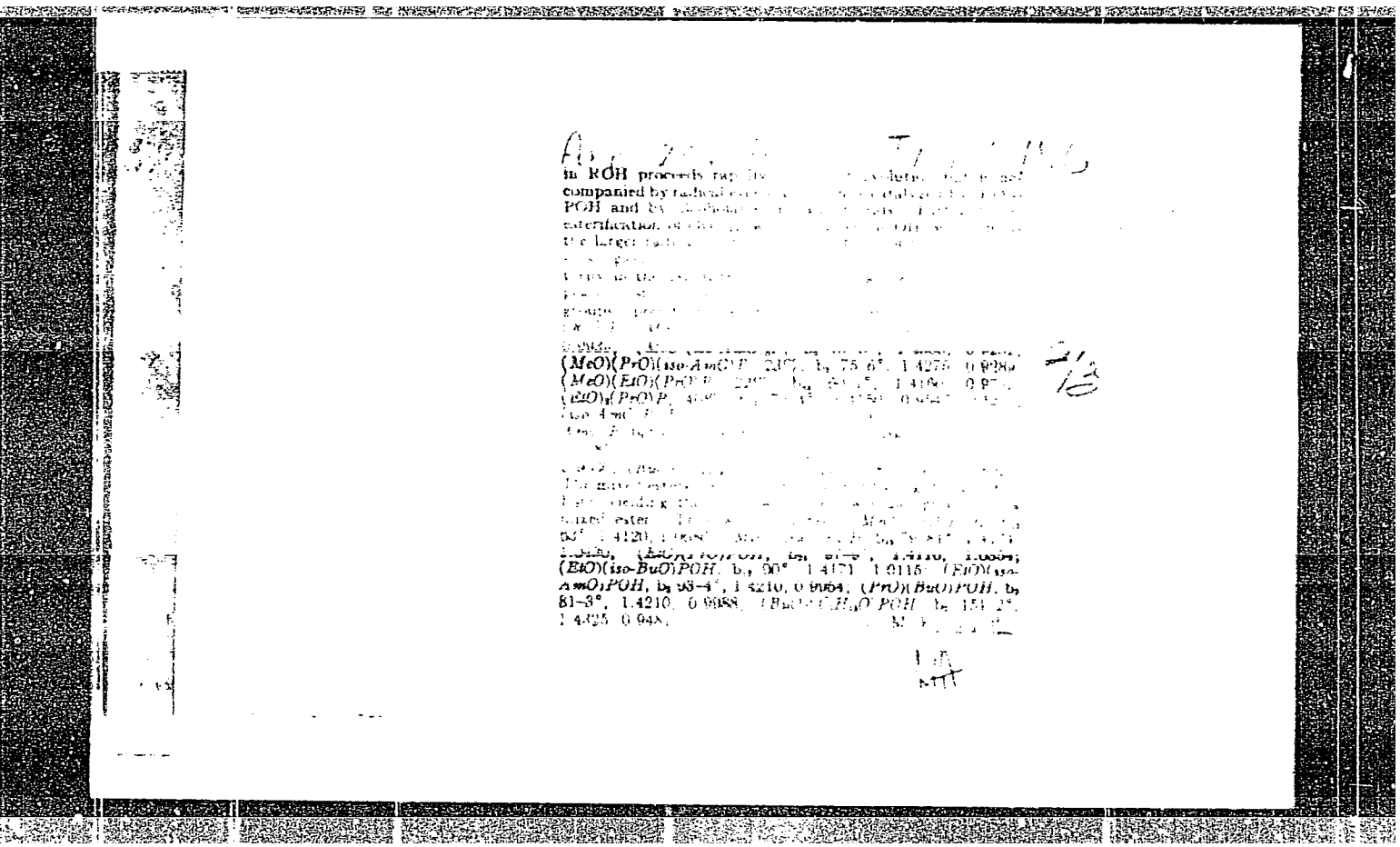


Archive AVE



oxane medium showed that the reaction is very complex and
is not 1st order nor a simple autocatalytic reaction. With

gave only indeterminate results.



AUTHOR AKBUZOV A.Ye., Member of the Academy, KITAYEV Yu.P. PA - 3148

TITLE A Polarographic Study of the Tautomerism And Geometrical Isomerism of Some Arylhydrazones.
(Izucheniye tautomerii i geometricheskoy izomerii nekotorykh arilgidrazonov polyarograficheskim metodom. -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 3, pp 577 -580 (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT As it is known that tautomeric forms and stereoisomers regenerate at different potentials on a mercury-drop electrode, the polarographic method was chosen in the present case, by means of which the modifications taking place on the occasion of the dissolution of arylhydrazones in alcohol were controlled. Polarograms were recorded during storage in the dark of the methanol solutions of phenyl hydrazones of acetone, of methyl ethyl ketone, of methyl isopropylketone, of cyclohexanon, of acetophenon, of n- cholrine acetophenon, of vinegar- and benzone aldehydes. A borate buffer with P_H = 7,2 was used. The concentration of the solutions investigated was ~0,6 - 1,2.10^{-3} mol. There follows the description of the deiphering of the polarograms. By means of polarography it was found that the forms of the phenylhydrazone of acetaldehyde are not stereoisomers but tautomers. The substance with the melting point at 57° which is obtained by the interaction of the component in ether in the cold or from the second form by treatment with a SO_2 alcohol solution is an antiisomer-phenylhydrazone, whilst the substance with the melting point at 98 - 101° was found to be a 2-phenylhydrazone ethylene. Besides, two isomers of phenylhydrazone nebzoe+aldehyde

Card 1/2

AUTHOR: ARBUZOV,A.YE. Member of the Academy of Science, PA - 2742
KITAYEV,YU.P.

TITLE: On the Mechanism and Abnormal Course of E.FISCHER'S Reaction.
(O mekhanizme reaktsii E.Fishera i anormal'nom protekanii yaye,Russian)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 807-810 (U.S.S.R.)
Received: 6 / 1957 Reviewed: 7 / 1957

ABSTRACT: The authors showed previously that the arylhydrazones may exist in the three tautomeric forms. The polargraphic activity of all three forms proves the existence of conjunctions of bindings in their molecules. This paper is intended to show the nature of the intermediary effect of bindings in the enhydrazine form. The molecules of these compounds contain two double bindings which are separated by nitrogen atoms, i.e. there exist two groups with πp-comjugations in each of them. In so far as arylhydrazone compounds are of a basic nature, their state is considerably influenced by the acid medium. Thus, hydrazine of the one group may bring about a 1,4 connection of an acid according to a $\pi\sigma$-conjugated system. By this a more basic hydrazine is produced, which becomes an anion. In this connection the effect produced by catalyzers in FISCHER'S reaction becomes understandable. They shift the tautomeric equilibrium in the direction of enhydrazine and activate the bindings. The most characteristic feature of 1,4-conjugated systems is their ability of entering into reactions of the Dien

Card 1/2

ARBUZOV, A. YE.

AUTHORS: Arbuzov, A. Ye., Academician, 20-6-18/48
and Sazonova, N. N.

TITLE: The Interaction of the Intermediate Products of Arbuzov's Rearrangement with Amines (Vzaimodeystviye promezhutochnykh produktov arbuzovskoy peregruppirovki s aminami).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 115, Nr 6, pp. 1119-1121 (USSR).

ABSTRACT: In 1905 the first author discovered a rearrangement which later on was given the name "Arbuzov's rearrangement". Its general scheme is given. The intermediate complexes of phosphites behave differently according to the fact whether they contain an aliphatic or an aromatic radical. In the case of aliphatic radicals the complex is unstable; in the case of aromatic radicals, however, the complex can be isolated in an analytically pure form. The above-mentioned intermediate products are substances capable of reaction. They show an energetic interaction with water and various alcohols. A reaction scheme of the intermediate complexes with alcohols (according to Landauer and Ridon) is give. As far as the first phase of this reaction, according to all probability, takes place at the expense of the active hydrogen of the alcohol, a similar reaction might be expected with other substances containing active hydrogen. Instead of alcohol the

Card 1/3

performed. From that it could be concluded that the methyl group

Card 2/3 in product no. 1 is connected with phosphorus. Iodine is here pre-

The Interaction of the Intermediate Products of Arbuzov's Rearrangement with Amines.

sent as ion. Only ba this structure the non-occurring reaction according to schemes (1) and (2) can be explained. The scheme of the formation of the products no. 1-4, suggested here, is confirmed by a number of works by other authors concerning the isomerization of amidophosphites by haloidalkyls in contrast to the isomerization of diamidophosphites. In this latter case a normally isomerized product, a non-distillable mass and a dialkylamine salt develop. There are 3 tables and 6 Slavic references.

SUBMITTED: April 29, 1957.

AVAILABLE: Library of Congress.

Card 3/3

ARBUZOV, A.Ye.

5(3) PHASE I BOOK EXPLOITATION SOV/1589

Akademiya nauk SSSR.

Khimiya bol'shikh molekul; sbornik statey (Chemistry of Large Molecules; Collection of Articles) Moscow, Izd-vo AN SSSR, 1958. 299 p. (Series: Akademiya nauk SSSR. Nauchno-populyarnaya seriya) 30,000 copies printed.

Compiler: G.V. Sklovskiy; Resp. Ed.: A.V. Topchiyev, Academician; Ed. of Publishing House: V.A. Boyarskiy; Tech. Ed.: I.N. Guseva.

PURPOSE: This book is intended for a wide circle of readers including those who have had no training in chemistry. It can also serve as a manual for propagandists, teachers, and journalists.

Card 1/8

PART I

CHEMISTRY AND THE PROGRESS OF SOCIALIST SCIENCES AND TECHNOLOGY

Chemistry of Large Molecules SOV/1589

AVAILABLE: Library of Congress

TM/jmr
6-1-59

Card 8/8

ARBUZOV, A. Ye.

"The Problem of Proper Assignment of Scientific Staff."

report presented at the session of the Presidium of the Council for Co-ordination of Scientific Work of the Academies of Sciences of Union Republics and Branches (on Development of Researches on Highly Molecular Compounds) 21 June 1958. (Vest. Ak Nauk SSSR, 1958, No. 9, pp. 101-104)

[redacted]C

Chairman of the Kazan' Branch of AS USSR

AUTHORS: Arbuzov, A. Ye., Razumova, N. A.

SOV/62-58-9-7/26

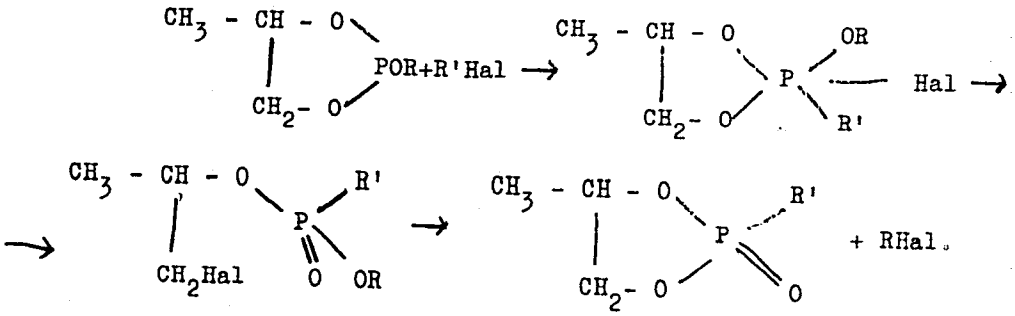
TITLE: The Esters of Propyleneglycol Phosphorous Acid and Their Transformation Reactions (Ob efirakh propilenglikol'-fosforistoy kisloty i ikh prevrashcheniyakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 9, pp 1061 - 1069 (USSR)

ABSTRACT: The properties of the alkyl and aryl cyclic esters of phosphorous acid are different from those of the corresponding open-chain esters by their group rearrangements. The chemical behavior of the cyclic esters of phosphorous acid is described in detail in various papers by Arbuzov and others (Refs 2-5). As previous papers by the authors of this paper and by other authors have shown (Refs 2-5, 7-9), the cyclic esters can react in two different ways. To explain this reaction and the reaction of the open-chain esters with alkyl halides the authors carried out various experiments. They studied the reaction between the cyclic esters of propyleneglycol phosphorous acid and alkyl halides (group rearrangements according to Arbuzov).

Card 1/4

Two kinds of compounds were found to be formed in this reaction: cyclic propyleneglycol esters of alkyl phosphinic acids and halogen esters of alkyl phosphinic acids (with open chain). As a result of the study on this rearrangement process the following mechanism was suggested:



It was further found that this process can be stopped with the step in which the halogen ester of the alkyl

phosphinic acid is formed. This depends, however, upon the temperature at which the experiment is carried out. It is not entirely out of the question that the group rearrangement of the alkyl cyclic esters may take place in some cases in two parallel ways: either according to the diagram given, which is accepted for the trialkyl ester of phosphorous acid, or through intermediate steps involving the opening of the ring. There are 4 tables and 10 references, 9 of which are Soviet.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut im.S.M.Kirova (Kazan' Chemical Technological Institute imeni S.M.Kirov)

SUBMITTED: January 29, 1957

SEMENOV, N.N., akademik; ARBUZOV, A.Ye., akademik; MAMEDALIYEV, Yu.G.; KARGIN, V.A., akademik; TITOV, N.G., doktor khim.nauk; OBOLENTSEV, R.D., doktor khim.nauk; IMSHENETSKIY, A.A.; SISAKYAN, N.M.

Discussion of the report. Vest. AN SSSR 28 no.8:19-26 Ag '58. (MIRA 11:9)

1. Chlen-korrespondent AN SSSR (for Mamedaliyev, Imshenetskiy, Sisakyan).

(Chemistry, Organic--Synthesis)

KUZNETSOV, Vladimir Ivanovich; ARBUZOV, A.Ye., akademik, otv.red.; POVAROV, L.S., red.izd-va; ASTAF'YEVA, G.A., tekhn.red.

[Development of studies in the U.S.S.R. in the field of the polymerization of unsaturated compounds; on the 100th anniversary of the birth of A.E.Favorskii] Razvitie issledovanii polimerizatsii nepredel'nykh soedinenii v SSSR; k 100-letiiu so dnia rozhdeniia A.E.Favorskogo. Moskva, Izd-vo Akad. nauk SSSR, 1959. 274 p. (MIRA 13:1)
(Polymerization) (Unsaturated compounds)

5(3) SOV/62-59-1-5/38

AUTHORS: Arbuzov, A. Ye., Krasil'nikova, Ye. A.

TITLE: On the Effect of Triarylmethyl Halides on the Silver Salts of Dialkyl Phosphites (O deystvii galoidnykh triarilmetilov na serebryanyye soli dialkilfosforistykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 1, pp 30 - 34 (USSR)

ABSTRACT: In the investigation of the reaction of triphenyl-methyl chloride and triphenyl-methyl bromide with silver dialkyl phosphite A. Ye. Arbuzov (Ref 1) found in 1939 that the reaction takes place as a rule in two different directions, depending on the nature of the halogen. I. The reaction with triphenyl-methyl chloride takes place according to the scheme:

$$(RO)_2POAg + ClC(C_6H_5)_3 \rightarrow AgCl + (RO)_2POC(C_6H_5)_3 \quad (1)$$

R= CH_3; C_2H_5; n-C_3H_7; i-C_3H_7; i-C_4H_9.

II. The reaction with triphenyl bromide takes place to the

Card 1/4

scheme:

$$(RO)_2POAg + BrC(C_6H_5)_3 \rightarrow AgBr + (RO)P^{O}-C(C_6H_5)_3 \quad (2)$$

$R=CH_3$; C_2H_5; $n\text{-}C_3H_7$; $i\text{-}C_4H_9$.

In the present paper the behavior of silver dialkyl phosphites with other secondary radicals was investigated. The reactions with chlorine and bromine derivatives on the one hand and with the triarylmethyl halides substituted in the nucleus on the other hand have shown that silver di-secondary-butyl phosphite reacts according to equation (1)(Table 1). Thus, salts of acids containing secondary radicals react in another way than those containing primary radicals. The substituent (chlorine) in the aromatic nucleus of the halogen derivative apparently does not change the reaction course. It is quite different with the reaction of silver dialkyl phosphites which contain primary radicals, such as silver diethyl phosphite and silver diisobutyl phosphite. The

course of reaction depends on the structure of the aromatic radicals of the halogen derivatives (Table 2). In the presence of the chlorine substituent in the aromatic nucleus of the halogen derivative the reaction takes place both for chlorine- and bromine tritans according to scheme (1) and forms mixed esters of the phosphite. If the substituent in the nucleus is a methyl radical, the reaction takes place according to scheme (2), i.e. diesters of the alkylphosphinic acid are formed as derivatives of 5-valent phosphorus. It is most difficult to investigate the reaction course according to scheme (1) because the separation of the reaction product is very complicated. Complex compounds of triethyl phosphite and some others with silver haloids were already earlier obtained (Refs 2 and 3). By adding silver dimethyl phosphite to the molten triphenyl methane the dimethyl ester of triphenyl-methyl phosphinic acid was obtained. A number of experiments were carried out in order to investigate the effect of temperature and the solvent upon the reaction course. The experiments were performed in sealed tubes in

benzene solution without heating. It was found that the reaction without heating has the same effect as on heating. By use of ether instead of benzene the reaction took the same direction. There are 3 tables and 11 references, 7 of which are Soviet.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut (Kazan' Institute of Chemical Technology)

SUBMITTED: April 29, 1957

5(3)

SOV/62-59-1-6/38

AUTHORS: Arbuzov, A. Ye., Abramov, V. S.

TITLE: The Problem of the Effect of Halogen-Substituted Ethers on the Salts of Dialkyl Phosphites (K voprosu o deystvii galoidozameshchennykh prostykh efirov na soli dialkilfosforistykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 1, pp 35 - 40 (USSR)

ABSTRACT: The experimental investigations carried out by the authors have shown that the monochloro-methyl ether reacts regularly with sodium diethyl phosphite and forms ethyl ethers of the methoxy-methyl phosphinic acid. Sodium dimethyl phosphite reacts with monochloro- and monobromo-methyl ether in a similar way as sodium diethyl phosphite and yields the methyl ester of the methoxy-methyl phosphinic acid. In the distillation of reaction products of the bromo-methyl ether with sodium dialkyl phosphite a reaction takes place without separation of the sodium bromide formed in the reaction in which salts of acid esters of the methoxy-methyl phosphinic acid are formed. Monobromo-methyl ether reacts with silver

Card 1/3

dialkyl phosphites in the same way as with sodium salts and forms corresponding esters of the methoxy-methyl phosphinic acid. The reaction in benzene takes place with a preliminary dissolution of silver salt and apparently forms an adduct of the halogen-substituted ether at silver dialkyl phosphite. In the reaction of chloro-methyl ether with silver dialkyl phosphites the silver salt is equally dissolved and an adduct is presumably formed. On heating the product obtained separates silver chloride and apparently mixed esters of the phosphite. They are disproportionated in the distillation and yield phosphites which contain the same radicals as the silver salts. By the influence of triphenyl methane upon adducts of the chloro-methyl ethers at silver diethyl phosphite the triphenyl-methyl phosphinic acid is formed after saponification. The same reaction with the adduct of the bromo-methyl ether at silver diethyl phosphite, however, yields triphenyl carbinol. This indicates a different course of both reactions. There are 12 references, 10 of which are Soviet.

The Problem of the Effect of Halogen-Substituted Ethers on the Salts of Dialkyl Phosphites SOV/62-59-1-6/38

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut (Kazan' Institute of Chemical Technology)

SUBMITTED: April 29, 1957

Card 3/3

5(3) SOV/62-59-1-31/38

AUTHORS: Arbuzov, A. Ye., Imayev, M. G.

TITLE: On the Preparation of Diphenyl Phosphite (O poluchenii difenilfosfita)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 1, pp 171 - 171 (USSR)

ABSTRACT: In the present communication a simple method of synthesizing diphenyl phosphite is suggested. There are 2 references in publications available (Refs 1 and 2). Recently (Ref 3) diphenyl phosphite was obtained by careful saponification of the chloric acid anhydride of diphenyl phosphite by an equivalent quantity of water in ether according to the following equation:
$(C_6H_5O)_2PCl+H_2O \longrightarrow (C_6H_5O)_2POH+HCl$. The authors investigated the saponification reaction of triphenyl phosphite, and stated that this reaction may be applied for the synthesis of diphenyl phosphite which so far has been very difficult to produce. Diphenyl phosphite was obtained in a quantitative yield (as compared to the raw product) by saponification of triphenyl phosphite with an equivalent quantity of water

Card 1/2

On the Preparation of Diphenyl Phosphite

SOV/62-59-1-31/38

and by subsequent removal of phenol in vacuum: $(C_6H_5O)_3P+H_2O \rightarrow (C_6H_5O)_2POH+C_6H_5OH$. Diphenyl phosphite synthesized in this way may be used for purposes of synthesis without further purification. There are 3 references, 1 of which is Soviet.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut im. S. M. Kirova (Kazan' Institute of Chemical Technology imeni S. M. Kirov)

SUBMITTED: June 16, 1958

Card 2/2

5 (3, 4)

AUTHORS: Arbuzov, A. Ye., Academician, Valitova, F. G., Garif'yanov, N. S., Kozyrev, B. M.

SOV/20-126-4-23/62

TITLE: Paramagnetic Resonance of α,α-Diphenyl-β-picryl-hydrazyl Obtained From Different Solvents (O paramagnitnom rezonanse α,α-difenil-β-pikrilgidrazila, poluchennogo iz razlichnykh rastvoriteley)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 774-776 (USSR)

ABSTRACT: The data given by various authors on the width of the line of the paramagnetic resonance of the compound (DPhPH) mentioned in the title, vary considerably: from $\sim$1 to $\sim$6 Oersted. In order to explain this fact, the first author suggested to deal with the subject mentioned in the title. DPhPH was produced according to the method described in reference 3 which differs from the Goldschmidt method (Ref 4). The solvents used were: benzene, toluene, xylene (isomeric mixture), pyridene, bromoform, carbon tetrachloride, chloroform and carbon disulfide. For the method of measuring the resonance see reference 5. The values of the width of the lines of the paramagnetic absorption $(\Delta H)_{1/2}$ mentioned in the title, show

that the nature of the solvent has a considerable influence on the width of the line. Naturally this leads to the conclusion that the molecules of the solvent form part of the crystalline lattice of the DPhPH (Refs 6-9). In no case however, there is a guarantee that the experimenter dealt with chemically pure compounds. The data of table 1 show that the solvents used here, are divided into two groups, according to their influence on the width of the line: a. compounds of the cyclic type, b. compounds containing no cycles. In DPhPH specimens of the group a. a narrowing of the absorption line takes place, in consequence of cooling and of an increase of their frequency. Group b. in such cases shows a widening of this line. On the whole it may be said that the specimens of group a. despite of their broader lines, are more magnetically isotropic than the specimens of group b. All this has to be considered as something more or less provisional. The observed dependences can only be explained after further investigation. Furthermore both DPhPH groups show a different influence of the atmospheric oxygen on the breadth of line. On the whole widening of the line by means of O_2 is reversible.

Paramagnetic Resonance of α,α-Diphenyl-β-picryl-hydrazyl Obtained From Different Solvents SOV/20-126-4-23/62

Finally experiments of the authors are described in which one solvent (chloroform) was replaced by another (benzene). The crystals developed by chloroform, showed wider lines after they had been recrystallized with benzene. With a reverse sequence of the solvents used, the crystals maintained the line of a benzene specimen. Thus it seems that the affinity of benzene and DPhPH is stronger than that of chloroform. If DPhPH is used as a standard for defining the number of paramagnetic centres in different substances, it has to be done very carefully. Only a DPhPH preparation from a certain solvent may be used. In the case of a DPhPH synthesis from other solvents, the exact details of the experiment have to be given, or the experimenter will get various results. There are 1 table and 13 references, 3 of which are Soviet.

Card 3/4

Paramagnetic Resonance of α,α-Diphenyl-β-picryl-hydrazyl Obtained From Different Solvents

SOV/20-126-4-23/62

ASSOCIATION: Fiziko-tekhnicheskiy institut Kazanskogo filiala Akademii nauk SSSR (Institute of Physics and Technology of the Kazan' Branch of the Academy of Sciences, USSR)
Khimicheskiy institut Kazanskogo filiala Akademii nauk SSSR (Institute of Chemistry of the Kazan' Branch of the Academy of Sciences, USSR)

SUBMITTED: May 13, 1959

Card 4/4

ARBuzov, A.Ye.

5(3),5(4)

SOV/20-127-4-25/60

AUTHORS: Kitayev, Yu. P., Budnikov, G. K., Arbuzov, A. Ye., Academician

TITLE: Polarographic Investigation of the Tautomerism of Some Semi- and Thiosemicarbazones in Solutions

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 4, pp 818-821 (USSR)

ABSTRACT: As the problem of the structure and tautomerism of semi- and thiosemicarbazones has not yet been fully solved, the authors started with this article a systematic investigation of the structure and behavior of the representatives of this type of compounds. At first, the polarographic method was used. The semi- and thiosemicarbazones of acetone, methyl-ethyl ketone, acetaldehyde, propionaldehyde, cyclopentane, benzaldehyde, and acetophenone as well as the thiosemicarbazone of para- and isopropylbenzaldehyde were investigated by means of an LP-55 polarograph (Heyrovskiy system) with photographic recording of polarograms. The polarograms were recorded for buffer solutions of the above compounds with the pH-values 5.7, 7.3, 9.3 at 20°, and a molar concentration of the semi- and thiosemicarbazones of 5.10^{-4}-5.10^{-3}. A family of curves was obtained for every

Card 1/3

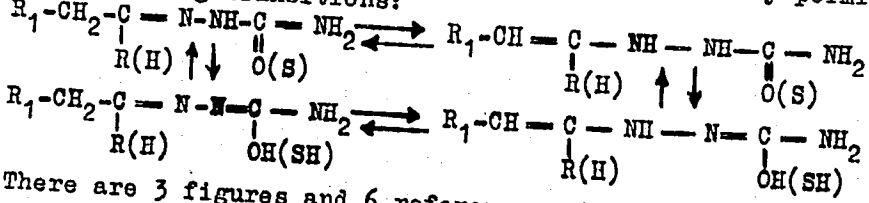
solution with a certain pH-value. The polarograms show the high similarity in the behavior and, consequently, in the structures of the individual compounds. Certain rules for the polarograms of the aliphatic aldehydes and ketones as well as of the alicyclic ketones of semi- and thiosemicarbazones were found in the change of polarograms (Fig 1); the waves with an $E_{1/2} \sim -1.4$ to -1.55 v first become smaller with the time, grow again, and finally disappear completely. The aliphatic and alicyclic oxo-compounds had - as they occur in two tautomeric forms - two waves at $E_{1/2} \sim -1.5$ v and $E_{1/2} \sim -1.1$ v. Comparative polarograms of the aqueous alcohol solutions of S-methylthiosemicarbazone were recorded which also show the two waves corresponding to the two tautomeric forms ($E_{1/2} \sim -0.8$ and ~ -1.15 v). An analysis of the polarograms led to the following results: All compounds investigated had an ensemi- and enthiosemicarbazone structure in aqueous and aqueous-alcoholic solutions. There is no transition of the double bond from the azomethin group into the carbonyl group.

Polarographic Investigation of the Tautomerism of Some Semi- and Thiosemicarbazones in Solutions

SOV/20-127-4-25/60

The polarograms of the benzalsemi- and acetophenonethiosemicarbazones again showed only one wave ($E_{1/2} \sim -1.15$)(Fig 3).

In the general case, the polarograms pointed to 4 possible tautomers of the semi- and thiosemicarbazones. They permit the following transitions:



There are 3 figures and 6 references, 4 of which are Soviet.

ASSOCIATION: Khimicheskiy institut im. A. Ye. Arbuzova Kazanskogo filiala Akademii nauk SSSR (Chemical Institute of the Kazan' Branch of the Academy of Sciences, USSR)

SUBMITTED: May 21, 1959

Card 3/3

5(4). SOV/20-127-5-30/58

AUTHORS: Kitayev, Yu. P., Budnikov, G. K., Arbuzov, A. Ye., Academician

TITLE: The Polarographic Investigation of the Stereoisomeric Transformation of Some Semi- and Thiosemicarbazones in Solutions

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1041-1043 (USSR)

ABSTRACT: The authors point out that the stereoisomerism of semi- and thiosemicarbazones has not yet been sufficiently well investigated, and that there are many discrepancies in published data (Refs 2-4). Investigations were carried out of the semi- and thiosemicarbazones of methyl ketone, diethyl ketone, cyclopentanone, cyclohexanone, benzaldehyde, acetophenone, and thiosemicarbazone of p-isopropylbenzaldehyde in a 20% solution of methanol in water with pH = 5.7 under irradiation with ultraviolet light. The measurements were carried out by means of the photorecording polarograph LR-55. In the case of alicyclic aldehydes and ketones the stereoisomeric transformation of the corresponding semi- and thiosemicarbazones occurs easily. Under irradiation by ultraviolet light the polarogram shows a new wave with positive $E_{1/2}$. An exception is formed by the thiosemi-

Card 1/3

The Polarographic Investigation of the Stereoisomeric Transformation of Some Semi- and Thiosemicarbazones in Solutions

carbazone of cyclopentanone, which decays by irradiation. The production of the second wave, the height of which increases with the duration of the irradiation, is explained by the production of a labile form. In the case of cyclic derivatives isomerism is based on the cis- and trans-form with respect to the ring. In aromatic derivatives stereoisomerism may be explained by the group $R_1 \diagdown C{=}N{=}$, $R(H)\diagup$.

Table 1 gives the measured potentials of the semiwaves of the stereoisomers and the transformation energies. Even though the polarographical data alone do not suffice for the purpose of explaining the structure of stereoisomers, they may, in conjunction with chemical and physical methods, nevertheless make a valuable contribution. The labile forms found will as a rule be the cis- (or syn-) forms, though there are exceptions. Therefore a further investigation of the structure of these stereoisomers is necessary. There are 2 figures, 1 table and 9 references, 7 of which are Soviet.

SOV/20-127-5-30/58

The Polarographic Investigation of the Stereoisomeric Transformation of Some Semi- and Thiosemicarbazones in Solutions

ASSOCIATION: Khimicheskiy institut im. A. Ye. Arbuzova Kazanskogo filiala Akademii nauk SSSR (Chemical Institute imeni A. Ye. Arbuzov of the Kazan' Branch of the Academy of Sciences, USSR)

SUBMITTED: May 22, 1959

Card 3/3

KITAYEV, Yu.P.; ARBUZOV, A.Ye.

Study of tautomerism and geometric isomerism of nitrogen-containing derivatives of carbonyl compounds. Report No.2: Polarographic study of transformations of phenylhydrazones of some aldehydes and fatty aromatic ketones in methanol. Izv.AN SSSR Otd.khim.nauk no.8:1405-1411 Ag '60. (MIRA 15:5)

1. Khimicheskiy institut im. A.Ye.Arbuzova, Kazanskiy filial AN SSSR.
(Hydrazones) (Polarography) (Isomerism)

ARBUZOV, Aleksandr Yerminingel'dovich; GUS'KOVA, O.M., tekhn. red.;

[A.M.Butlerov, the great Russian chemist; anniversary of the theory of chemical structure] A.M.Butlerov velikii russkii khimik; k 100-letiiu teorii khimicheskogo stroeniia. Moskva, Izd-vo Akad.nauk SSSR, 1961. 42 p. (MIRA 15:1)
(Butlerov, Aleksandr Mikhailovich, 1828-1886)
(Chemical structure)

ARBUZOV, A.Ye., akad.; VAVILOV, S.I., akad.; VOL'FKOVICH, S.I., akad.; KOCHINA, P.Ya., akad.; LANDSBERG, G.S., akad.; LEYBENZON, L.S., akad.; PORAY-KOSHITS, A.Ye., akad.; SMIRNOV, V.I., akad.; FESENKOV, V.G., akad.; CHERNYAYEV, V.I., akad.; KAPUSTINSKIY, A.F.; KORSHAK, V.V.; KRAVKOV, S.V.; NIKIFOROV, P.M.; PETROV, A.D.; PREDVODITELEV, A.S.; FRISH, S.E.; CHETAYEV, N.G.; CHMUTOV, V.K.; SHOSTAKOVSKIY, M.F.; KUZNETSOV, I.V., red.; MIKULINSKIY, S.R., red.; MURASHOVA, N.Ya., tekhn.red.

[Men of Russian science; essays on prominent persons in natural science and technology: Mathematics, mechanics, astronomy, physics, chemistry] Liudi russkoi nauki; ocherki o vydaiushchikhsia deiateliakh estestvoznaniia i tekhniki: matematika, mekhanika, astronomiia, fizika, khimiia. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 599 p. (MIRA 14:10)

1. Chleny-korrespondenty AN SSSR (for Kapustinskiy, Korshak, Kravkov, Nikiforov, Petrov, Predvoditelev, Frish, Chetayev, Chmutov, Shostakovskiy). (Scientists)

KUZNETSOV, Vladimir Ivanovich; ARBUZOV, A.Ye., akademik, otv. red.; POVAROV, L.S., red. izd-va; GUSEVA, A.P., tekhn. red.; MAKOGONOVA, I.A., tekhn. red.

[Origin and development of the chemistry of alicyclic compounds] Vozniknovenie khimii alitsiklicheskikh soedinenii. Moskva, Izd-vo Akad. nauk SSSR, 1961. 185 p. (MIRA 14:11)
(Alicyclic compounds)

BERG, Lev Germanovich; ARBUZOV, A.Ye., akademik, otv. red.; YEGOROV, N.G., red. izd-va; ASTAF'YEVA, G.A., tekhn. red.

[Introduction to thermography] Vvedenie v termografiiu. Moskva, Izd-vo Akad. nauk SSSR, 1961. 367 p. (MIRA 14:11)
(Thermal analysis)

KITAYEV, Yu.P.; BUDNIKOV, G.K.; ARBUZOV, A.Ye.

Study of tautomerism and geometric isomerism of nitrogen- containing derivatives of carbonyl compounds. Report No.3: Polarographic study of some semi- and thiosemicarbazones in water-alcohol solutions. Izv. AN SSSR.Otd.khim.nauk no.5:824-831 My '61. (MIRA 14:5)

1. Khimicheskiy institut im. A.Ye.Arbuzova Kazanskogo filiala Akademii nauk SSSR.

(Semicarbzaones) (Polarography)

KITAYEV, Yu.P.; BUDNIKOV, G.K.; ARBUZOV, A.Ye.

Tautomerism and geometrical isomerism of nitrogen-containing carbonyl compounds. Report No.4: Polarographic study of transformations of some semi- and thiosemicarbazones in water - alcohol solutions. Izv. AN SSSR. Otd.khim.nauk no.7: 1222-1227 Jl '61. (MIRA 14:7)

1. Khimicheskiy institut im. A.Ye. Arbuzova Kazanskogo filiala Akademii nauk SSSR.

(Semicarbazones)

KITAYEV, Yu.P.; BUDNIKOV, G.K.; ARBUZOV, A.Ye.

Study of tautomerism and geometrical isomerism of nitrogen-containing derivatives of carbonyl compounds. Report No.5: Polarographic study of semi- and thiosemicarbazones of aromatic aldehydes. Izv.AN SSSR.Otd.khim.nauk no.10:1772-1780 O '61. (MIRA 14:10)

1. Khimicheskiy institut im. A.Ye.Arbuzova Kazanskogo filiala AN SSSR.

(Semicarbazones) (Polarography)

ARBUZOV, A.Ye., akademik

What is going to happen to the sky? This problem worries the scientists today. Tekh.mol. 29 no.4:24-25 Ap '61. (MIRA 14:5)
(Photosynthesis) (Air—Pollution)

ARBUZOV, A.Ye., akademik

A.M.Butlerov, a great Russian chemist. Zhur.ob.khim. 31 no.9:2797-2811 S '61. (MIRA 14:9)
(Butlerov, Aleksandr Mikhailovich, 1828-1886)

ARBUZOV, A. Ye., akademik

A great Russian chemist; one hundred years of A.M. Butlerov's theory of the chemical structure. Priroda 50 no.9:11-23 S '61. (MIRA 14:8)

(Butlerov, Aleksandr Mikhailovich, 1828-1886)
(Chemistry, Organic)

KITAYEV, Yu.P.; BUDNIKOV, G.K.; TROYEPOL'SKAYA, T.V.; ARBUZOV, A. Ye., akademik

Quantitative evaluation of the effect of substituents on the polarographic reduction of certain azomethine compounds. Dokl. AN SSSR 137 no.4:862-865 Ap '61. (MIRA 14:3)

1. Khimicheskiy institut im.A. Ye. Arbuzova Kazanskogo filiala AN SSSR.

(Schiff bases) (Hammett equation)

ARBUZOV, A.Ye., akademik; [illegible], V.Ye.

Some new imidoether derivatives. Dokl. AN SSSR 141 no.1:81-83 N '61. (MIRA 14:11)

1. Kazanskiy khimiko-tekhnologicheskiy institut im. S.M. Kirova.
(Ethers)
(Chemistry)