TRONOV, B.V.; AKSENENKO, V.M.

Expansion of the carbon skeleton of molecules during the interaction of iodides with halo organic compounds. Zhur.ob.khim.26 no.5:1393-1397 My '56. (MLRA 9:9)

1.Tomskiy politekhnicheskiy institut.
(Iodides) (Carbon compounds)

IKONOV, B.V.

TRONOV, B.V.

USSR/Physical Chemistry, Thermodynamics, Thermochemistry, Equilibriums, Phys-Chem. Anal. Phase-Transitions. B-8

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22340.

Author : B. V. Tronov, N. D. Strelnikova.
Inst : Not given
Title : Study of nitrile complex formation reaction with other organic compounds.

Orig Pub : Izv. Tomskogo politekhn. in-ta, 1956, 83, 98-101.

Abstract : By earlier electrochemical method (Tronov B.V., Kulev L.P. Izv Tomskogo politekhn. in-ta, 1948, 64, 3-87) were explored 13 binary systems in toluene solutions at 20-22° (electrodes were of sodium and platinum). One of binary system components was benzonitrile or isovalero-nitrile; the second comprised isovaleric or benzoic acids, phenol, normal butyl alcohol, isoamyl, triisoamyl boric ester, acetone, nitromethane, ortho-nitrotoluene, pyridine, benzamide. Almost in all systems an increase of electromotive force was noticed which indicates the presence of a complex formation. An electron-acceptor type of a complex formation is prevalent with the nitriles.

Card 1/1

TRONOV, B.V.

Methods of studying the interaction of atoms in molecules.
Trudy TGU 145:97-114 '57. (MIRA 12:3)

1. Kafedra organicheskoy khimii Tomskogo gosudarstvennogo universiteta imeni V.V. Kuybysheva.
(Molecules) (Atoms) (Chemistry, Physical and theoretical)

TRONOV, B.V.; NOVIKOV, A.N., red.; MORDOVINA, L.G., tekhn.red.

[Theoretical bases of organic chemistry] Teoreticheskie osnovy organicheskoi khimii. Tomsk, Izd-vo Tomskogo univ., 1958. 258 p. (MIRA 12:9)

(Chemistry, Organic)

5(3)

AUTHORS: Tronov, B. V., Morozova, V. M. SOV/153-58-6-7/22

TITLE: Complexes of the Nitrocompounds With Phenolates (Kompleksy nitrosoyedineniy s fenolyatami)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 6, pp 39 - 41 (USSR)

ABSTRACT: The authors carried out experiments with nitrobenzene, p-nitrotoluene, and m-dinitrobenzene on the one hand, and with phenol-, p-cresol-, as well as with α-naphthol- and β-naphthol-sodium salts on the other hand. As all of the resulting complexes are colored, the investigation was made by means of colorimetric analysis. Absolute ethanol was used as a solvent. The 11 binary systems investigated, of the substances mentioned in the title, are shown in table (no numbers given, p 40). Figure (no numbers given, p 40) presents a comparison between the coloring intensities of the above mentioned compounds. The results of all these experiments fully bear out the assumption that the phenolate molecule, as a complex, can attach itself only to a nitro-group. This also proves the correctness of the previously (Refs 1, 2) derived

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Complexes of the Nitrocompounds With Phenolates SOV/153-58-6-7/22

structure formula (Patterns p 39) of the complexes mentioned in the title. Dinitrobenzene reacts with phenolates also in an equimolar ratio. This phenomenon can apparently be explained by the fact that the anion (with a negative charge) formed after the attachment of the phenolate ion bars the approach of another phenolate ion. The coloring intensities of the resulting complexes probably also depend on the composition and structures of the nitro-compounds. The qualitative comparison (comparison of solution concentrations) shows the coloring intensity to be significantly increased by the 2nd nitro-group. On the other hand, the methyl-group in a p-position rendered less active the nitro-group. Among the phenols, p-cresol was least active; the naphthols were most active of all. α-naphthol had a stronger effect than β-naphthol. There are 1 figure, 1 table, and 5 references, 4 of which are Soviet.

ASSOCIATION: Kafedra organicheskoy khimii; Tomskiy politekhnicheskiy institut (Chair of Organic Chemistry; Tomsk Polytechnical Institute)

SUBMITTED: November 4, 1957

Card 2/2

TRONOV, B.V.; PENTEGOVA, V.A.; LISINA, A.I.

Tar acids in resins from Siberian larch. Trudy Khim.-met. inst. Sib. otd. AN SSSR no. 13:27-35 '59. (MIRA 14:1)
(Wood tar) (Larch)

5(3)

AUTHORS: Tronov, B. V., Bardamova, M. I. SOV/153-2-1-7/25

TITLE: On the Complex Formation of Organo-halogen Compounds With Amines (O kompleksoobrazovanii galogenoorganicheskikh soyedineniy s aminami)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 1, pp 34-40 (USSR)

ABSTRACT: The further development of the theory of Butlerov-Markovnikov concerning the mutual influence of atoms in molecules today is to be regarded as one of the most important problems of organic chemistry. For this purpose it is necessary to utilize the material of synthetic chemistry as well as the various methods of physical and physico-chemical investigations. This mutual influence in the molecule is immediately disclosed by the distribution of electron density on which the electronic kind of reactivity of the whole molecule and of its individual parts is dependent. The simplest reactions proceeding in one single phase are best suited for the corresponding investigations. This is particularly the case with complex formations. The most favorable reagents for the electronic kind are substances with distinctly marked electron sources or electron acceptors. Amines belong to the first group and acids

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(carboxylic- and sulphonic acids) to the second one. For the purpose of studying the afore-mentioned subject the authors investigated fifteen systems by thermal analysis. These were binary systems comprising p-dichloro benzene, p-dibromo benzene, p-diiodo benzene, on the one hand, and α- and β-naphthylamine, diphenylamine, benzidine, and p-toluidine in various combinations, on the other hand. 31 systems were investigated electrochemically (method described in reference 3). In this connection methylene chloride and -iodide, chloroform, bromoform, carbon tetrachloride, ethylene tetrachloride, dichloroethane, bromo-, chloro- and iodobenzene as well as α-bromonaphthalene were used as halogen derivatives. n-butyl amine, pyridine, aniline, and dimethyl aniline were used as amines. The apparatus and methods employed in both investigations are then described. Results of the thermal analysis (experiments Nr 12, 14, 15) are listed in figure 1. Figures 2 and 3 contain curves of variations of the values denoted "electromotive force". Table 1 gives the results of the electrochemical investigations. A special paragraph deals with the reaction products of the complex compounds under review with sodium. In all, forty complex compounds were found which for the

On the Complex Formation of Organo-halogen Compounds With Amines SOV/153-2-1-7/25

major part were synthesized for the first time. In rather all systems an interaction of the components occurs as well as the formation of complex compounds. Aromatic amines form unstable complexes with dihalogen benzenes (thermal analysis). In most cases organic iodides were the most active, bromides ranged second, whereas chlorides exhibited the lowest activity. In the interaction with amines, which are distinctly marked electron sources, halogen derivatives proved to be electron acceptors. Aromatic halogens substituted at the nucleus do not readily enter reaction with bases, alcoholates, amines, salts, etc, whereas the halogen easily passes from them to metals. This behavior is a specific feature of aromatic halogen compounds. From among all three halogens iodide can be polymerized most strongly. In some cases a large number of amine molecules were affiliated to one single molecule of the halogen derivative. The structure of these complexes remains yet to be explained. There are 3 figures, 1 table, and 4 references, 2 of which are Soviet.

ASSOCIATION: Tomskiy politekhnicheskiy institut; Kafedra organicheskoy khimii (Tomsk Polytechnic Institute, Chair of Organic Chemistry)

SUBMITTED: October 30, 1957

Card 3/3

5.3610
~~5(3)~~

67341
S/153/59/002/06/012/029
B115/B000

AUTHORS: Tronov, B. V., Ryzhova, G. L.

TITLE: Complex Formation of the Ethanol Amines With Different Organic Compounds

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 6, pp 886 - 890 (USSR)

ABSTRACT: In this paper, the formation of mono- and triethanol amine complexes with compounds representing different groups of organic compounds (nitrophenols, quinones, alcohols, phenols (cresols), carboxylic acids, nitrobenzene, and amines) is investigated. The paper by Migal' and collaborators (Refs 1,2) is mentioned by the authors. The formation of both sufficiently stable and unstable complexes of the nitrophenols and quinones was detected colorimetrically, and, for the remaining complexes, by means of the highly sensitive electrochemical method developed by Tronov and Kulev (Refs 3, 4). Results obtained indicate that, in the case of both the ethanol amines studied, the electron-donor reactivity prevails. The stronger complex-forming tendency was shown by the monoethanol amine. The complexes of triethanol amine were

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Complex Formation of the Ethanol Amines With Different Organic Compounds

S/153/59/002/06/012/029
B115/B000

detected only colorimetrically, and were colored less intensely. The order of activity for complex formation was: nitrophenols and quinones, simple phenols (m-cresol). From the alcohols, only methanol and butanol reacted, while the compound representing the group of simple ethers (dioxane) gave no reaction at all. Carboxylic acids showed a low capacity to form complexes with ethanol amine, the acetic and caproic acids being more active than the butyric and isovaleric acids. The result obtained with nitrobenzene was indefinite and indicated a weak interaction. Triethanol amine did not react with quinoline at all, while aniline (because of the hydrogen atoms in the amino group) showed a somewhat higher activity, and with pyridine, a sharp maximum was obtained, which may be attributed to the rather high positive charge (0.18) on the γ-carbon of the pyridine ring (Ref 5). The strong polarizability of the pyridine molecule may be important in this case, too. The formation of complexes of ethanol amine with 2,4- and 2,6-dinitrophenols, 2,6-dichloro-, dibromo-, and diiodo-4-nitrophenols, quinone, tetrachloroquinone, and tetrabromoquinone is described, and the com-

4

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67841

Complex Formation of the Ethanol Amines With Different Organic Compounds

S/153/59/002/06/012/029
B115/B000

position of the complexes as well as their nitrogen content given. Finally, the colors of some complexes of monoethanol amine with several nitrophenols and quinones, their molar compositions, and their melting points are given (Table 1). Thirteen systems were investigated colorimetrically using the FEK-M photoelectric colorimeter, and the results represented in the form of diagrams (Figs 1 and 2). The results of the colorimetric investigations of the formation of complexes of ethanol amines with nitrophenols and quinones are given in table 2. The results obtained by electrochemical investigations with a device described by the authors, are given in figures 3 and 4. There are 4 figures, 2 tables, and 6 Soviet references.

ASSOCIATION: Tomskiy gosudarstvennyy universitet imeni V. V. Kuybysheva, kafedra organicheskoy khimii (Tomsk State University imeni V. V. Kuybyshev, Chair of Organic Chemistry)

SUBMITTED: July 4, 1958

Card 3/3

TRONOV, B.V.; RYZHOVA, G.L.

Physicochemical study of complex formation reactions of amino phenols and amino alcohols. Izv. Sib. otd. AN SSSR no. 10:77-83 '60. (MIRA 13:12)

1. Tomskiy gosudarstvennyy universitet.
(Complex compounds) (Phenols) (Alcohols)

S/153/60/003/003/020/036/XX
B016/B058

AUTHORS: Tronov, B. V., Terekhova, O. A.

TITLE: Complexes of Some Polyheterocyclic Amines With Nitro-phenol Halides

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 3, pp. 466 - 468

TEXT: The authors report on their studies of the complex formation of two isomeric (2,2'- and 4,4'-) dipyridyls, two (2,3'- and 6,6'-) diquinoyls as well as o-phenanthroline with mono- and dihalogen derivatives of p-nitro-phenol. They obtained crystalline complex compounds for all 12 systems formed, which they divide into three groups: 1) colorless or almost colorless complexes. To these belong complexes of 2-chloro- and 2-bromo-4-nitro-phenol, in which the nitrogen of the amine is linked with the hydrogen of the phenyl-hydroxyl: $O_2NC_6H_3ClOH...NC_5H_4-C_5H_4N...HOClC_6H_3NO_2$. 2) Lemon-yellow complexes, to

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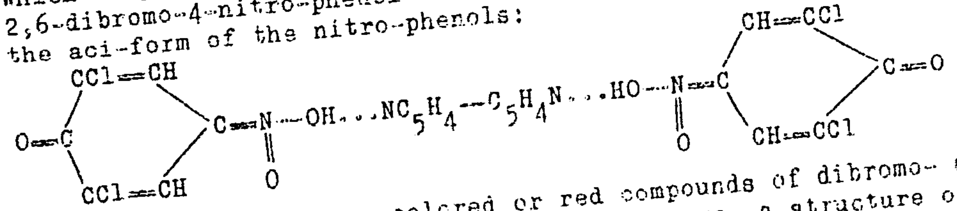
Complexes of Some Polyheterocyclic Amines
With Nitro-phenol Halides

S/153/60/003/003/020/036/XX
B016/B058

which complexes of 2,6-dichloro-4-nitro-phenol and some complexes of 2,6-dibromo-4-nitro-phenol belong, which apparently are derived from the aci-form of the nitro-phenols:



3) The brightest orange-colored or red compounds of dibromo- and di-iodo-nitro-phenol have, as the authors presume, a structure of amino-nitro complexes. At an amine excess (amine:phenol = 2:1), the yellow dipyridyl complex grows red. The initial substances were used in ratios 2:1, 1:1, and 1:2. With the exception of the above mentioned case of 4,4'-dipyridyl and 2,6-dibromo-4-nitro-phenol, composition and properties of the complexes developed were independent from the quantitative relation of the two components. The authors mention papers by R. D. Glukhovskaya and N. A. Ugol'nikov (Refs. 3,4). The following students participated in the experimental part of the study:

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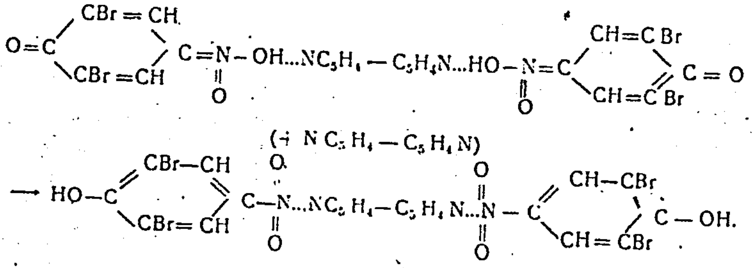
Complexes of Some Polyheterocyclic Amines With Nitro-phenol Halides

S/153/60/003/003/020/036/XX
B016/B058

L. M. Gerasimova, A. A. Pleskachevskaya, T. F. Baskova, and Z. K. Misiukova. There are 5 references: 4 Soviet and 1 German.

ASSOCIATION: Tomskiy gosudarstvennyy universitet im. V.V. Kuybysheva; Kafedra organicheskoy khimii (Tomsk State University imeni V.V. Kuybyshev; Chair of Organic Chemistry)

SUBMITTED: July 15, 1958



CT 1960, № 3
p. 467

Card 3/3

S/153/60/003/004/036/040/XX
B020/B054

AUTHORS: Tronov, B. V., Syrneva, N. V.

TITLE: Complexes of Aminobenzoic Acids and Their Salts With Meta-dinitro Benzene

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 4, pp. 752 - 753

TEXT: The authors studied the complex formation of the following amino acids of the benzene series: ortho-, meta-, and p-aminobenzoic acid with meta-dinitro benzene; the latter is distinguished by a high electron-acceptor activity. The colorimetric investigation was conducted in alcoholic solution, since both dinitro benzene and aminobenzoic acids are soluble in alcohol, whereas simple, saturated amino acids are insoluble in alcohol. In all three systems, the color is considerably intensified, the maximum exactly or almost exactly lying at a molar ratio of 1:1, which indicates that only one nitro group participates in the complex formation. This is confirmed by the circumstance that sodium salts of amino

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Complexes of Aminobenzoic Acids and Their Salts With Meta-dinitro Benzene

S/153/60/003/004/036/040/XX
B020/B054

acids, in which the formation of a hydrogen bond is impossible, also showed a color intensification in systems with dinitro benzene, the maximum lying at a ratio of 1:1. Crystalline complexes with dinitro benzene were obtained from ortho- and para-aminobenzoic acids. The optical density was measured at 19°C by an ФЭК-М (FEK-M) photoelectric colorimeter. Measurement results are given in Figs. 1 and 2. There are 2 figures and 1 Soviet reference.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S. M. Kirova (Tomsk Polytechnic Institute imeni S. M. Kirov). Tomskiy meditsinskiy institut, kafedra organicheskoy khimii (Tomsk Medical Institute, Department of Organic Chemistry)

SUBMITTED: July 15, 1958

Card 2/2

TRONOV, B.V.; NOVIKOV, A.N.

Halogenation of aromatic hydrocarbons and their derivatives in the presence of a nitrating mixture. Izv.vys. ucheb. zav; khim. i khim. tekh. 3 no. 5:872-875 '60. (MIRA 13:12)

1. Tomskiy politekhnicheskiy institut imeni S.M.Kirova. Kafedra organicheskoy khimii.
(Hydrocarbons) (Halogenation)

TRONOV, B.V.; DOBRONRAVOVA, Z.A.

Obtaining "lignin acids" from hydrolytic lignin. Gidroliz.i lesokhim.prom. 13 no.4:3-4 '60. (MIRA 13:7)

1. Tomskiy politekhnicheskiy institut.
(Lignin) (Wood—Chemistry)

5.3610

78296
SOV/79-30-3-50/69

AUTHORS: Tronov, B. V., Bortovoy, I. M., Potekhina, L. I.

TITLE: Complex Formation of Amines With Different Organic Compounds. I. Complexes of Benzidine and Naphthlamines With Some Halogenated Phenols

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp 982-985 (USSR)

ABSTRACT: Complex formation of benzidine, α-naphthylamine, and β-naphthylamine with halogenated phenols was studied. The complexes, shown in Table 1, were obtained by simple addition of the components in a suitable solvent (usually benzene).

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Complex Formation of Amines With Different Organic Compounds. I.

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Key to Table 1: (a) Nr; (b) amines; (c) phenols; (d) molecular composition of complexes; (e) mp; (f) benzidine.

(a)	(b)	(c)	(d)	(e)
1	(f)	4-ClC_6H_4OH	1 : 2	122—123°
2	(f)	4-BrC_6H_4OH	1 : 2	123—124
3	(f)	4-JC_6H_4OH	1 : 2	149—150
4	$\alpha\text{-C}_{10}H_7NH_2$	4-ClC_6H_4OH	1 : 1	40—41
5	$\alpha\text{-C}_{10}H_7NH_2$	4-BrC_6H_4OH	1 : 1	52—53.5
6	$\alpha\text{-C}_{10}H_7NH_2$	4-JC_6H_4OH	1 : 1	61—62
7	$\beta\text{-C}_{10}H_7NH_2$	4-ClC_6H_4OH	1 : 1	70—71
8	$\beta\text{-C}_{10}H_7NH_2$	4-BrC_6H_4OH	1 : 1	71—73
9	$\beta\text{-C}_{10}H_7NH_2$	4-JC_6H_4OH	1 : 1	88—89

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Complex Formation of Amines With Different Organic Compounds. I.

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The complexes obtained were tested for their bactericidal action according to suspension method, using B. Coli. Twenty min in 1:90 phenol was taken as standard. Results are given in Table 2.

Table 2. Bactericidal action of complex compounds and their components on B. coli. (a) Nr; (b) compounds tested; (c) compound concentration (%); (d) bactericidal action at exposure (in min); (e) benzidine + 4-chlorophenol; (f) benzidine + 4-bromophenol; (g) benzidine + iodophenol; (h) α-naphthylamine + 4-chlorophenol; (i) α-naphthylamine + bromophenol; (j) α-naphthylamine + 4-iodophenol; (k) β-naphthylamine + 4-chlorophenol; (m) β-naphthylamine + bromophenol; (n) β-naphthylamine + 4-iodophenol; (p) benzidine; (r) α-naphthylamine; (s) β-naphthylamine; (t) 4-chlorophenol; (u) 4-bromophenol; (v) 4-iodophenol.

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Complex Formation of Amines With Different Organic Compounds

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(a)	(b)	(c)	(d)	
			20	40
1	(e)	0.5	—	+
2	(f)	0.295	—	+
3	(g)	0.248	—	—
4	(h)	0.483	+	+
5	(i)	0.314	+	+
6	(j)	0.414	±	+
7	(k)	0.258	—	+
8	(m)	0.283	±	+
9	(n)	0.411	±	+
	(p)	0.43	—	—
	(r)	0.5	±	+
	(s)	0.493	—	—
	(t)	0.518	+	+
	(u)	0.513	—	+
	(v)	0.284	±	+

Note: (+) lack of B. coli growth (i.e.) positive bactericidal action); (-) growth of B. coli; (±) growth at first repetition and lack of growth at second repetition.

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Complex Formation of Amines With Different Organic Compounds. I.

78296
SOV/79-30-3-50/69

Some of the experiments were conducted with the participation of M. A. Kuchmar. There are 2 tables; and 7 references, 1 U.S., 6 Soviet. The U.S. reference is: O. Rahn, Injury and Death of Bacteria by Chemical Agents (1945).

ASSOCIATION: Tomsk State University (Tomskiy gosudarstvennyy universitet)

SUBMITTED: May 12, 1959

Card 5/5

TRONOV, B.V.; NALETOVA, G.P.

Type of reactivity of the hydroxyl group in alcohols. Izv.vys.ucheb. zav.; khim.i khim.tekh. 4 no.1:162-164 '61. (MIRA 14:6)

1. Tomskiy politekhnicheskiy institut imeni S.M.Kirova, kafedra organicheskiy khimii.
(Alcohols) (Hydroxyl group)

TRONOV, B.V.; LEBEDEV, A.K.

Synthesis of nitro derivatives of biphenyl. Zhur.VKHO 6 no.1:109-110 '61. (MIRA 14:3)

1. Tomskiy gosudarstvennyy universitet im.
(Biphenyl)

time. The system [illegible] great interest because of

RYZHOVA, G.L.; RUBTSOVA, T.A.; TRONOV, B.V.

Donor-acceptor interaction and electronic absorption spectra. Part 1: Complex formation of mononitrophenols. Zhur. ob. khim. 35 no.3:429-435 Mr '65. (MIRA 18:4)

1. Tomskiy gosudarstvennyy universitet im. V.V. Kuybysheva.

TRONOV, B.V.; BORTOVOY, I.M.; MOSKALENKO, N.P.

Complexes of naphthoquinones with phenols. Zhur. ob. khim. 33 no.5:1639-1641 My '63. (MIRA 16:6)

1. Tomskiy gosudarstvennyy universitet imeni V.V. Kuybysheva.
(Naphthoquinone) (Phenols)

TRONOV, B.V.; PERSHINA, L.A.; MOROZOVA, V.M.; KOVALENOK, A.V.;
GALOCHKIN, A.I.

Thiophosphate derivatives of hydrolytic lignin and their insecticidal effect. Gidroliz. i lesokhim. prom. 14 no.5:10-11 '61.
(MIRA 16:7)

1. Tomskiy politekhnicheskiy institut.
(Lignin) (Insecticides)

LEL'CHUK, Kh.A.; TRONOV, B.V.

Kinetic study of the nitration of some aromatic compounds in a nitrobenzene solution. Izv.TPI 111:12-15 '61. (MIRA 16:9)
(Aromatic compounds) (Nitration)

TRONOV, B.V.; SYRNEVA, N.V.

Complexes of aminobenzoic acids and their salts with dinitrobenzenes. Izv.TPI 111:3-5 '61. (MIRA 16:9)
(Benzoic acid) (Nitrobenzene)

TRONOV, B.V.; LEL'CHUK, Kh.A.

Kinetics of nitrobenzene nitration by 100% nitric acid and the study of the system by other methods of physicochemical analysis. Izv.TPI 111: 6-11 '61. (MIRA 16:9)

(Nitrobenzene) (Nitration)

1. TRONOV, M. V.

2. USSR (600)

4. Altai Mountains - Glaciers

7. Analysis of the physicogeographical conditions of the present glaciation of the Altai Mountains. Izv. Vses. geog. ob-va 79, no. 2, 1947.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

TRONOV, M. V.

USSR/Geography Sep/Oct 48
Glaciation

"Stability of Glaciers," M. V. Tronov, 12 pp

"Iz v-s Geograf Obshch" Vol LXXX, No 5

PA 26/49T46

This field of study is relatively new and there are many problems which, however, are being eliminated. Treats subject under: necessity for thorough understanding of stability of nonstability of glaciers, various factors to be considered when determining stability of glaciers, nonstability of glaciers and the general process of ice accumulation, stability of small glaciers,

26/49T46

USSR/Geography (Contd) Sep/Oct 48

and the action of microclimate. Data gathered from glaciers of the Altay range.

26/49T46

TRONOV, M. V.

TRONOV, M. V. Sovremennoe oledenenie Altaia. (Vsesoiuznyi geograficheskii s"ezd. 2d, Leningrad, 1947, v. 1st, 1948. p. 286-297.) DLC: G56.V8 1947

So: LC, Soviet Geography, Part II, 1951/Unclassified

TRONOV, M. V.

TRONOV, M. V. Ocherki oledeneniia Altaia. (Geograficheskoe obshchestvo SSSR. Zapiski, nov. seriia, v. 9, Moscow, 1949, p. - 1-373.).

SO: LC, Soviet Geography, Part II, 1951/Unclassified.

1. TRONOV, M. V.

2. USSR (600)

4. Geology and Geography

7. Outline of the Glasiation of the Altai Mountains, Tronov, M. V.(Records of the All Union Geographical Society, New Series, Volume 9, Moscow, Geography Press). Reviewed by Grigorev, A. A., Sov. Kniga, No. 4, 1950.

9. [redacted] Report U-3081, 16 Jan 1953, Unclassified.

TRONOV, M. V.

y

Tronov, M. V.

Hinosphere and the snowline

Bull. of the All Union Geographical Society
No. 4, 1950, p.472

From: Bull. of the R. Trans. Service, Vol. 2, Oct. 1951

TRONOV, MIKHAIL VLADIMIROVICH

TRONOV, Mikhail Vladimirovich; KALESNIK,S.V., redaktor.

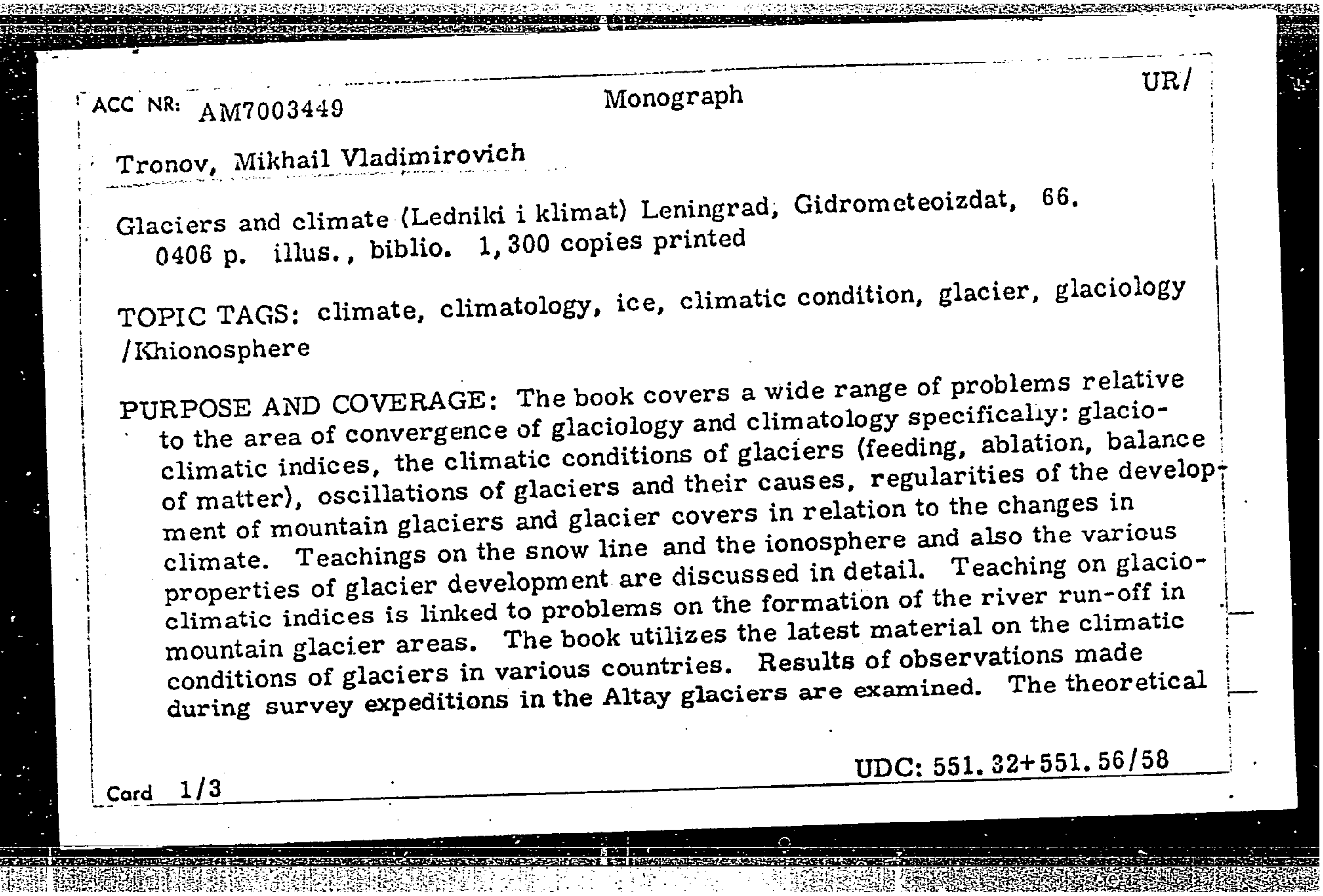
[Problems of mountain glaciology] Voprosy gornoi gliatsiologii.
Otvetstvennyi red. S.V.Kalesnik. Moskva, Geografgiz, 1954.
(Glaciers) (MLRA 8:10)

TRONOV, M.V.

Inertia of conservation of glaciers. Geog.sbor. 4:5-19 '54.
(Glaciers) (MLRA 7:9)

TRONOV, Mikhail Vladimirovich; KALESNIK, S.V., redaktor; PERVAKOV, I.L., redaktor; KOSHELEVA, S.M., tekhnicheskiy redaktor.

Problems in mountain glaciation. Zap.Vses.geog.ob-va 15:3-276 '54.
(Glaciers) (MLRA 8:4)



ACC NR: AM7003449 Monograph UR/

Tronov, Mikhail Vladimirovich

Glaciers and climate (Ledniki i klimat) Leningrad, Gidrometeoizdat, 66.
0406 p. illus., biblio. 1,300 copies printed

TOPIC TAGS: climate, climatology, ice, climatic condition, glacier, glaciology /Khionosphere

PURPOSE AND COVERAGE: The book covers a wide range of problems relative to the area of convergence of glaciology and climatology specifically: glacio-climatic indices, the climatic conditions of glaciers (feeding, ablation, balance of matter), oscillations of glaciers and their causes, regularities of the development of mountain glaciers and glacier covers in relation to the changes in climate. Teachings on the snow line and the ionosphere and also the various properties of glacier development are discussed in detail. Teaching on glacio-climatic indices is linked to problems on the formation of the river run-off in mountain glacier areas. The book utilizes the latest material on the climatic conditions of glaciers in various countries. Results of observations made during survey expeditions in the Altay glaciers are examined. The theoretical

UDC: 551.32+551.56/58

Card 1/3

ACC NR: AM7003449

concepts of the author relative to the problem of the development of glacier in interaction with the climate are systematized in this work and brought up to date on the basis of comparison with former works of the author. The book is intended for teachers and students of the senior courses of geographic departments of universities, hydrometeorological institutes and for all specialists in mountain and arctic areas, and in areas of ancient glaciation. The author expresses his gratitude to the collective of glaciologists of the Tomsk University. Joint multiyear work in the Altay glaciological expeditions of the Tomsk University has not only always provided more new material on the glaciation of the Altay, but has likewise complemented the theoretical deductions and program trends in the field of glacioclimatology. The author expresses his great indebtedness to S. V. Kalesnik, corresponding member of the AN SSSR, for a series of valuable comments and advice.

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Ch. 2. The snow line and the "Khionosphere" -- 76
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Card 2/3

ACC NR: AM7003449

Ch. 4. Changes and shifts of glaciers -- 263
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SUB CODE: 04, 08/ SUBM DATE: 28May66/ ORIG REF: 210/ OTH REF: 096

Card 3/3

TRONOV, M.V.

Some problems of special topics in glaciological research. (MIRA 18:8)
Geog. sbor. no.17:3-17 '64.

TRONOV, M.V.; GRIGOR, G.G., prof., red.; OSOVSKIY, A.T., tekhn. red.

[The problem of glacier development] Problema razvitiia lednikov. Tomsk, Izd-vo Tomskogo univ., 1960. 113 p. (MIRA 14:8)
(Glaciers)

TRONOV, M.V.; BUNTIN, A.P., prof., otv.red.; GRIGOR, G.G., prof., red.toma; VOLKOV, B.V., tekhn.red.

[Relationship between climate and glaciation] Voprosy sviazi mezhdu klimatom i oledeneniem. Tomsk, Izd-vo Tomskogo univ., 1956. 201 p. (MIRA 14:2)

1. Rektor Tomskogo gosudarstvennogo universitet im. V.V.Kuybysheva (for Buntin).

(Glaciology)

TRONOV, M.V.,prof.

Climate and development of glaciers. Osn.metod.ukaz.po gliats.
issl. no.15:5-20 '57. (MIRA 12:1)
(Glaciers)

TRONOV, M.V.

Main problems in galcial climatology and glacier development.
Trudy TGU 147:5-21 '57. (MIRA 16:5)

1. Kafedra klimatologii Tomskogo gosudarstvennogo universiteta imeni Kuybysheva.
(Glaciology) (Climatology)

TRONOV, N. P.

1950. (Card 2, 50-31141)

1. Domestic engineering.
2. Building - Russia.
I. Lisitsyn, S. N., jt. au.

TRONOV, N. P.

The industrialization and mechanization of work in the field of heat supply, heating, ventilation, interior water pipe lines and sewerage Moskva, Gos. izd-vo stroit. Lit-ry, 1950. 222 p. (50-31141)

S/847/62/000/000/003/003
B144/B186

AUTHORS: Tronova, I. N., Tikhomirova, Ye. A., Shlyagin, K. N.

TITLE: Obtaining promethium^{149} without a carrier

PERIODICAL: Metody polucheniya radioaktivnykh preparatov; sbornik statey (Methods of producing radioactive preparations; collection of articles). Moscow, Gosatomizdat, 1962. 170 p. illus., biblio 147 - 160

TEXT: Ion exchange chromatography was used to isolate carrier-free Pm^{149} from Nd_2O_3 irradiated with slow neutrons. The initial material was Nd_2O_3 tagged with Nd^{147} and Pm^{147}. Dry КУ-2 (KU-2) cationite resin (100-150 mesh) was kept standing for 24 hrs with distilled water and then purified from organic and Fe impurities by washing it with NaOH, distilled H_2O and 3 N HCl. Subsequently it was transformed into the ammonium form by washing it for 30-40 min. with a solution of 15% $NH_4Cl + NH_3$. The Cl ions were removed by H_2O and a 0.04 M $NdCl_3$ solution ($pH \approx 2$) which contained Pm^{147} and Nd^{147} as indicators was passed through the 50-cm resin layer. Ethylene diamine tetraacetic acid (I) or nitrile triacetic acid (II) as complex-forming substances were used for elution; the separation was checked radiometrically. Optimum results were obtained at a throughput rate of 0.3 and 1 ml/cm^2·min. A 0.5% solution of II with a pH of 5.7 - 6.5 should be given preference, because in this case no precipitate is formed on the resin; the Pm^{147} yield was ~90%. Separation by a 0.5% solution of I (pH 3.6) is also very efficient but the reaction is very sensitive to pH fluctuations, resulting in precipitation of I on the resin. The resulting complex compound formed by Pm and II was separated chromatographically in a column filled with KU-2 resin in the H$^+$-form by acidification with concentrated HCl to pH ≈2. The Pm^{149} adsorption was 98-100%. The Cl$^-$ and II anions were removed by washing with distilled H_2O. NH_4^+ ions were washed out with 0.5 N HCl and Pm^{3+} ions with 2 - 3 N HCl. Conclusions based on the elution curve (Fig. 3) and on determination of the radioactivity by β-radiation absorption and assaying of the decay: (1) the main portion of the radioactivity corresponds to Pm^{149} (first peak). (2) Impurities up to 2% Nd^{147}, 0.3% Pm^{147}, and Pm^{151} were found to be present.

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B144/B186

Obtaining promethium^{149}...

(3) The dry residue in the Pm^{149} preparation was 1 mg/mcu. (4) The second peak corresponds to Nd^{147} without radioactive impurities. There are 7 figures and 4 tables.

Fig. 3. Curve of elution of Nd_2O_3, irradiated with slow neutrons, using II as eluent. Cationite KU-2 in the NH_4^+-form; size of the resin particles 100 - 150 mesh.
Legend: (a) activity, $\times 10^7$ pulse/min; (b) volume, ml.

√

Card 3/4

TRONOVA, O.S. (Odessa)

Comparative evaluation of the functional state of the capillaries in gingivitis and paradentosis in children and youths. Probl. stom. 6:57-60 '62. (MIRA 16:3)

(GUMS--DISEASES) (GUMS--BLOOD SUPPLY)

TROSHCHENKO, V.T.

Heterogeneity of deformations taking place in polycrystals.
Fiz.met.i metalloved. 15 no.3:410-418 Mr '63. (MIRA 16:4)

1. Institut metallokermaiki i spetsial'nykh splavov AN UkrSSR.
(Metal crystals) (Deformations (Mechanics))

TRONOVA, O. S.

TRONOVA, O. S.: "The interconnection between experimentally disordered stomach walls and changes in the mouth area of cats." Odessa State U imeni I. I. Mechnikov. Odessa, 1956. (Dissertation for the Degree of Candidate in Biological Sciences).

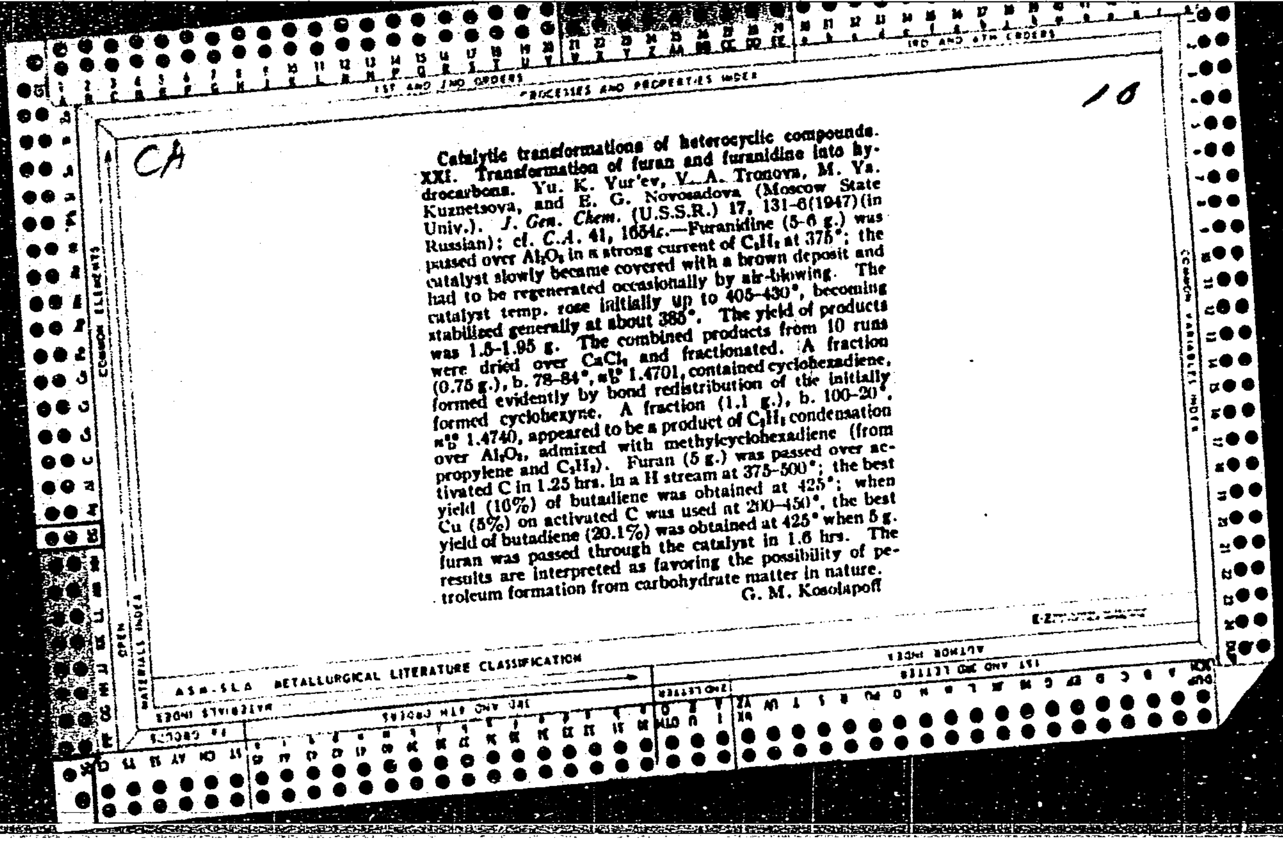
Source: Knizhnaya letopis' No. 28 1956 Moscow

NIKITIN, S.A., professor; TRONOVA, O.S., nauchnyy sotrudnik

Materials on the comparative pathology of the jaws and teeth structure. Stomatologiia 35 no.3:3-8 My-Je '56. (MIRA 9:9)

1. Iz patofiziologicheskogo otdela Odesskogo nauchno-issledovatel'skogo stomatologicheskogo instituta (dir.-starshiy nauchnyy sotrudnik M.N.Kukhareva)

(PATHOLOGY, COMPARATIVE)
(TEETH--DISEASES)
(MOUTH--DISEASES)



CA

10

Catalytic transformations of heterocyclic compounds. XXI. Transformation of furan and furanidine into hydrocarbons. Yu. K. Yur'ev, V. A. Tronova, M. Ya. Kuznetsova, and E. G. Novosadova (Moscow State Univ.). *J. Gen. Chem.* (U.S.S.R.) 17, 131-6(1947)(in Russian); cf. *C.A.* 41, 1664c.—Furanidine (5-6 g.) was passed over Al_2O_3 in a strong current of C_2H_2 at 375°; the catalyst slowly became covered with a brown deposit and had to be regenerated occasionally by air-blowing. The catalyst temp. rose initially up to 405-430°, becoming stabilized generally at about 385°. The yield of products was 1.5-1.95 g. The combined products from 10 runs were dried over $CaCl_2$ and fractionated. A fraction (0.75 g.), b. 78-84°, n_D^{20} 1.4701, contained cyclohexadiene, formed evidently by bond redistribution of the initially formed cyclohexyne. A fraction (1.1 g.), b. 100-20°, n_D^{20} 1.4740, appeared to be a product of C_2H_2 condensation over Al_2O_3, admixed with methylcyclohexadiene (from propylene and C_2H_2). Furan (5 g.) was passed over activated C in 1.25 hrs. in a H stream at 375-500°; the best yield (10%) of butadiene was obtained at 425°; when Cu (5%) on activated C was used at 200-450°, the best yield of butadiene (20.1%) was obtained at 425° when 5 g. furan was passed through the catalyst in 1.6 hrs. The results are interpreted as favoring the possibility of petroleum formation from carbohydrate matter in nature.

G. M. Kosolapoff

10

eA

Behavior of furan and furanidine with metallic sulfides and amides. XXIX. Yu. K. Yur'ev and V. A. Tronova (Moscow State Univ.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 258-8(1951); cf. *Uchenye Zapiski Moscov. Gosudarst. Univ.* 79, 160(1945); *C.A.* 45, 5680b.—Furan and furanidine heated with sulfides or amides of metals do not exchange their O for S or NH. Thus, pyrites, FeS_2, FeS, Al_2S_3, at 325-600° fail to yield any S-heterocycles from either O-heterocycles, which are recovered (28-92% recoveries, depending on conditions used); the decompn. products were not studied. However, passage of furanidine in the presence of 2 parts steam at 300-400° over Al_2S_3 gave up to 32.5% *thiophane*, b_{756} 119-20°, n_D^{20} 1.5050, d_4^{20} 0.9990. Furan (at 1..°) or furanidine (at 400°) passed over Mg amide gave a *trace* of *pyrrole* (qual. test) or *pyrrolidine*, resp. **Reaction of methyl pyromucate with aniline. XXX** Yu. K. Yur'ev and E. G. Vendel'shtein. *Ibid.* 259-64.—Passage of 8 g. *Me 2-furoate*, b_{11} 59-61°, n_D^{20} 1.4873, d_4^{20} 1.1783, and 24 g. $PhNH_2$ over Al_2O_3 in a N stream at 475° gave 14 g. $PhNH_2$ and 1.5 g. (17%) *1-phenylpyrrole* (I), m. 58°. At 400° the yield is 35%, while at 350° 22% is obtained, along with about 8% furan if a 1:2 molar ratio of $PhNH_2$ is used. Heating 1 g. ester with 2.7 g. $PhNH_2$ and 0.3 g. activated Al_2O_3 in a sealed tube 8 hrs. to 350° gave 0.2 g. I, but at 310°, 87.5% *2-furananilide*, m. 123°, was obtained; at 270° as at 250°, the yield was 68.5%. Refluxing 10 g. ester, 27 g. $PhNH_2$, and 1 g. Al_2O_3 15 hrs. at 190° gave $PhNH_2$, a trace of I, and 51% 2-furananilide if Al_2O_3 is omitted no reaction occurs. Passage of 10 g. ester over Al_2O_3 in a N atm. at 350° gave CO_2, 0.0 g. furan, and 4 g. unchanged ester; the ester is unchanged on passage over glass in a N atm. at 350° (a trace of CO_2 forms). Furan and $PhNH_2$ passed over Al_2O_3 in a N atm. at 400° gave 21% I; hence the MeO_2C group in position 2 facilitates replacement of the nuclear O. **Reaction of methyl tetrahydropyromucate with aniline. XXXI.** *Ibid.* 264-7.—Passage of Me 2-furoate in a H atm. over Pd-asbestos at 160° gave 78% *Me tetrahydro-2-furoate*, b_{756} 179.5-80.5°, n_D^{20} 1.4371, d_4^{20} 1.1080. This (10 g.) and 27 g. $PhNH_2$ passed in a N atm. over Al_2O_3 at 300° gave CO_2, 14 g. $PhNH_2$, and 1.5 g. *1-phenylpyrrolidine*, b_4 101.5°, n_D^{20} 1.5840, d_4^{20} 1.0164, *picrate*, m. 116°. Passage of the ester at 300° over Al_2O_3 in a N atm. gave CO_2, propene, and MeOH. Hydrolysis of the ester with 2 *N* NaOH 4 hrs. at reflux gave 76% *free acid*, a sirupy microcryst. mass; this heated to 270-80° begins to lose CO_2, which occurs freely at 300-5°, yielding *furanidine*, b_{756} 65°, n_D^{20} 1.4088, d_4^{20} 0.8800. G. M. K.

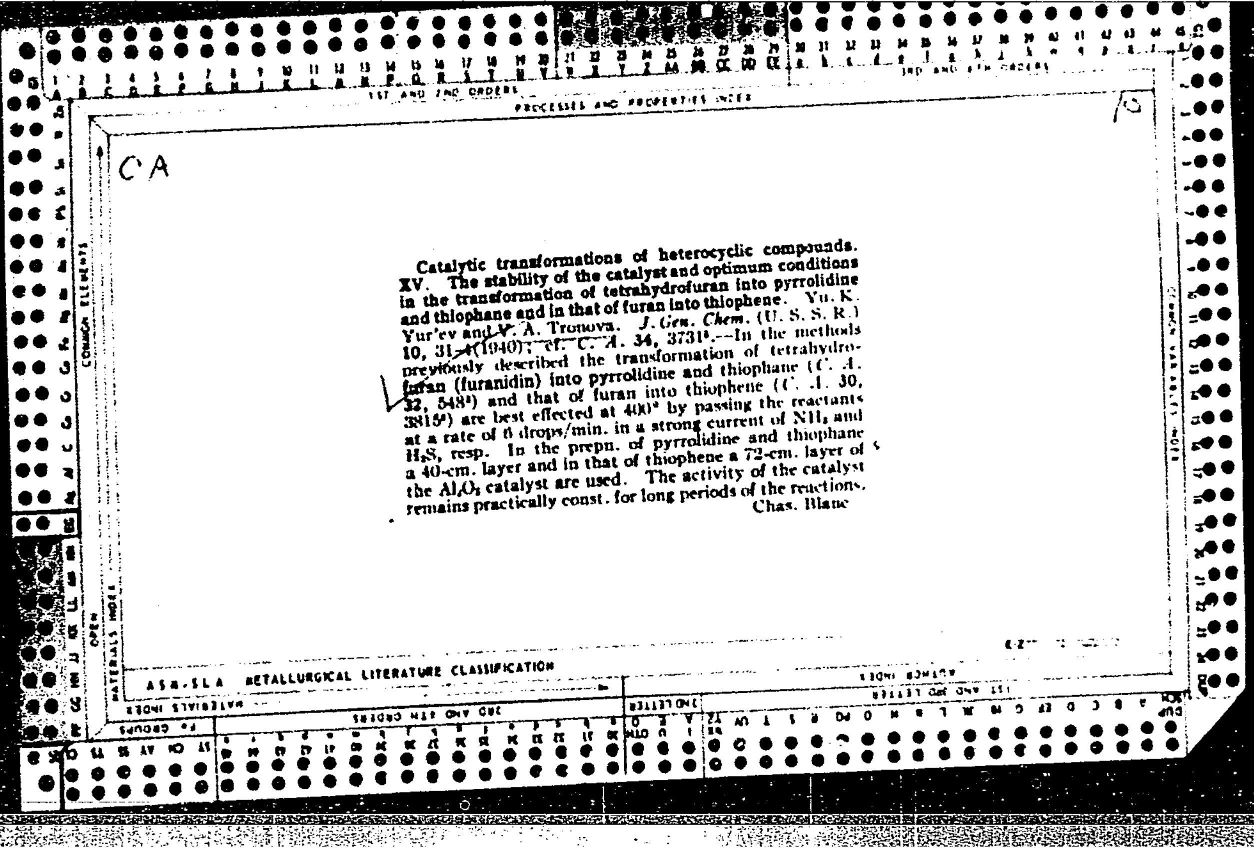
1951

Chem A

10

Chromium oxide on aluminum oxide as a catalyst in transformation of heterocycles. XXXII. Yu. K. Yur'ev and V. A. Tronova (Moscow State Univ.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 742-9(1951); cf. *Bull. Moscow State Univ.* 79, 135, 146(1945); C.A. 41, 1653i; 45, 7563h.—The optimum temp. of transformation of *furanidine* (I) into *pyrrolidine* (II) or *thiophane* (III) lies below that of similar reactions over Al_2O_3 alone, but the yields of II and III are severely reduced. In the presence of Cr_2O_3 the formation of II from I at 350-500° is accompanied by dehydrogenation, forming pyrrole, best at 400°; *carbazole* (IV) also forms best at 500°. The latter probably forms from pyrrole and either butadiene or furan arising from I, which dehydrogenates over $Cr_2O_3.Al_2O_3$ at 500°. Passage of I over the catalyst (9.5-33.5% Cr_2O_3) in a NH_3 stream at 300-500° at 6-7 drops/min. readily gave II, pyrrole, and carbazole; the formation of II appears even at 300° with all catalysts, but as the temp. is raised to 500° the amt. of II declines rapidly to 0, while the yield of carbazole rises with increased temp., and that of pyrrole is best at about 400°. The best catalyst compn. is in the higher range of Cr_2O_3 concn. (20-33%). The max. yield of II is but 17% at 300-50° (with Al_2O_3 alone it reaches 30.5% at 350° and 46.5% at 400°). Pure II b_{760} 85.5-6.6°, n_D^{20} 1.4431, d_4^{20} 0.8585; *picrate*, m. 111-12° (from EtOH). Pure pyrrole b_{760} 130-1°, n_D^{20} 1.5060, d_4^{20} 0.9502. Pure carbazole m. 238°. Passage of I over the catalyst in a H_2S stream gave best results in the formation of III (78%) at 300°, which were still below the results with Al_2O_3 alone. Pure III, b_{760} 119.5-20.0°, n_D^{20} 1.5050, d_4^{20} 0.9959. Passage of 30 g. I over the catalyst (22.5% Cr_2O_3) at 8 drops/min. at 600° gave 11.5 g. condensate and 14.1 l. gas (0.4% O_2, 0.25% CO, 11% CO_2, 23% olefins, 6% dienes, 50% H_2); the liquid condensate gave *furan*, b. 28-32°, n_D^{20} 1.4185. G. M. Kosolapoff

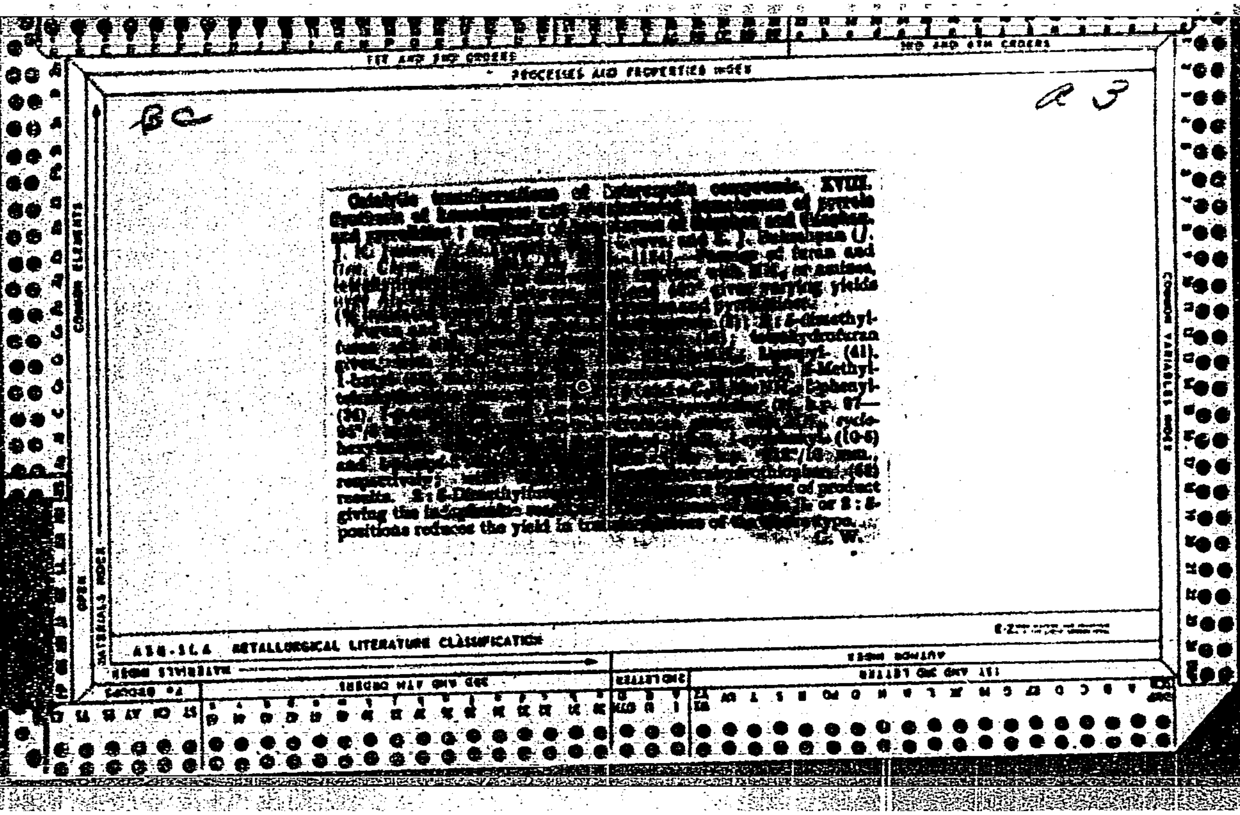
1951



CA

10

Catalytic transformations of heterocyclic compounds.
XV. The stability of the catalyst and optimum conditions
in the transformation of tetrahydrofuran into pyrrolidine
and thiophane and in that of furan into thiophene. Yu. K.
Yur'ev and V. A. Tronova. *J. Gen. Chem.* (U. S. S. R.)
10, 31-4~~(1940); cf. C. A.~~ 34, 3731⁸.—In the methods
previously described the transformation of tetrahydro-
furan (furanidin) into pyrrolidine and thiophane (*C. A.*
32, 548⁴) and that of furan into thiophene (*C. A.* 30,
3815⁹) are best effected at 400° by passing the reactants
at a rate of 6 drops/min. in a strong current of NH_3 and
H_2S, resp. In the prepn. of pyrrolidine and thiophane
a 40-cm. layer and in that of thiophene a 72-cm. layer of
the Al_2O_3 catalyst are used. The activity of the catalyst
remains practically const. for long periods of the reactions.
Chas. Blanc



BC

A 3

Catalytic transformations of heterocyclic compounds. XVIII. Synthesis of [illegible] of pyrrole and pyrrolidine [illegible] and thiophen. [illegible] and E. [illegible]. [illegible] (J. [illegible] (114) [illegible] of furan and [illegible] with NH3 or amines, [illegible] give varying yields [illegible] and pyrrolidines. [illegible] (31); 2 : 5-dimethyl- [illegible] tetrahydrofuran [illegible] benzyl- (41), given [illegible] 1-benzyl [illegible] 2-Methyl- [illegible] diphenyl- [illegible] b.p. 97— (36) [illegible] cyclo- [illegible] ((0-5) [illegible] /10 mm., and [illegible] thiophen (68) respectively [illegible] of product results. 2 : 5-Dimethyl[illegible] or 2 : 5- giving the [illegible] positions reduces the yield in [illegible] of the [illegible] type.

G. W.

TRONOVA, V.A.

AUTHORS: Topchiyeva, K. V., Pletyushkina, A. I., 79-28 3-14/61
Tronova, V. A.

TITLE: The Reaction of Allyl Benzene on Catalysts of Aluminum Silicates (Prevrashcheniye allilbenzola na alyumosilikatnykh katalizatorakh)
II. The Structure and the Mechanism of the Dimer Formation
(Stroyeniye i mekhanizm obrazovaniya dimera)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 631-634

ABSTRACT: In this work the results of an investigation of the reaction kinetics of allyl benzene in the liquid phase above aluminum oxide- and aluminum silicate catalysts of various composition are presented. The authors showed that at the contact of allyl benzene with aluminum oxide only one isomerization reaction takes place which proceeds parallel with a regrouping of the double bond in the side chain (Refs 1,2). Above aluminum silicates the reaction takes place much more complicatedly, the initial products consisting of a dimer and a polymer of propenylbenzene. At the same time the abrupt difference between the course of the kinetic

Card 1/3

The Reaction of Allyl Benzene on Catalysts of Aluminum Silicates 79-28-3-14/61
II. The Structure and the Mechanism of the Dimer Formation

curves above catalysts consisting of 16 % Al_2O_3 and 84 % SiO_2 as well as of 30 % Al_2O_3 and 70 % SiO_2, and the course of the kinetic curve above catalysts having a greater percentage of aluminum oxide: 50 % Al_2O_3 and 50 % SiO_2, 80 % Al_2O_3 and 20 % SiO_2 was noticed. This great difference in the action of the catalysts in the mentioned reactions is based on a change of concentration of the active centers as well as on the different rôle they play in isomerization-, dimerization- and polymerization reactions. In the present work proofs are mentioned for the structure and the mechanism of the formation of the dimers of allyl benzene. In the contact of the allyl benzene with aluminum silicate catalysts one dimer, the 2,5-diphenylhexene-2, was isolated and characterized. The scheme of the synthesis of the 2,5-diphenylhexene-2 above the catalyst by formation of a carbonium ion is shown.

Card 2/3

The Reaction of Allyl Benzene on Catalysts of Aluminum Silicates
II. The Structure and the Mechanism of the Dimer Formation 79-28 3-14/61

There are 10 references, 5 of which are Soviet

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: January 28, 1957

Card 3/3

TRONOVA, V. A.

"XXIX. The reactivity of furan and tetrahydrofuran with metallic sulphides, and amides." by Yu. K. Yur'ev and V. A. Tronova. (p. 256)

SO: Journal of General Chemistry (Zhurnal Obshchoi Khimii) 1951, Volume 21, No. 2

Tronova, V. A.

"Transformations catalytiques des composes heterocycliques. XVIII. Synthese de certains homologues et homologues N-substitues du pyrrole et de la pyrrolidine; synthese des homologues du thiophene et du thiophane." by J. K. Jouriev, V. A. Tronova, N. A. Lvova and Z. J. Boukspan. (p 1128)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1941, vol 11, No. 13

TRONCVA, V. A.

Yuriev, Y. K., Tronova, V. A., Kuznetzova, M. J., and Novosadova, E. G. "Catalytic Transformations of Heterocyclic Compounds. XXI. The Transformation of Furan and Furanidine into Hydrocarbons." (p. 136)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1947, Vol. 17, No. 1

TRONOVA, V. A.

"XXXII. Chromium oxide on alumina as a catalyst in transformations of heterocycles (tetrahydrofuran)." by Yu. K. Yur'ev and V. A. Tronova (p.742)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Volume 21, No. 4

TRONOVA, V. A.
YU. K. YUREV, ZhOKh 11, 344-8, 1941

Yur'yev, Yu. K.; Tronova, V. A.

"The Catalytic Conversions of Heterocyclical Compounds" Part XV. "The Life of the Catalytic Agent in the Reactions of the Conversion of Furanidine into Pyrrolidine and Thiophane. The Optimum Conditions for the Conversion of Furane into Thiophene", Zhur. Obshch. Khim., 10, No. 1, 1940. Laboratory of Organic Chemistry imeni Academician N. D. Zelinskiy of the Moscow State University Received 29 July 1939.

Report U-1526, 24 Oct 51.

Yur'yev, Yu. K.; TRONOVA, V. A.

"The Catalytic Conversions of Heterocyclical Compounds" Part XV. "The Life of the Catalytic Agent in the Reactions of the Conversion of Furanidine into Pyrrolidine and Thiophane. The Optimum Conditions for the Conversion of Furance into Thiophene", Zhur. Obshch. Khim., 10, No. 1, 1940. Laboratory of Organic Chemistry imeni Accademician N. D. Zelinskiy of the Moscow State University. Received 29 July 1939

FDD Report U-1526, 24 Oct 51.

TRONOV, V.M., agronom po zashchite rasteniy

Recent developments in vacuum fumigation. Zashch. rast. ot vred. i bol. 6 no.11:44-46 N '61. (MIRA 16:4)

(Fumigation)

TRONOV, V.N.

Determining methyl bromide fumes in the air. Zashch. rast. ot vred. i bol. 5 no. 8:41 Ag '60. (MIRA 13:12)
(Bromomethane)

MARKIN, A.K., kand.sel'skokhoz.nauk; TRONOV, V.N., agronom-entomolog

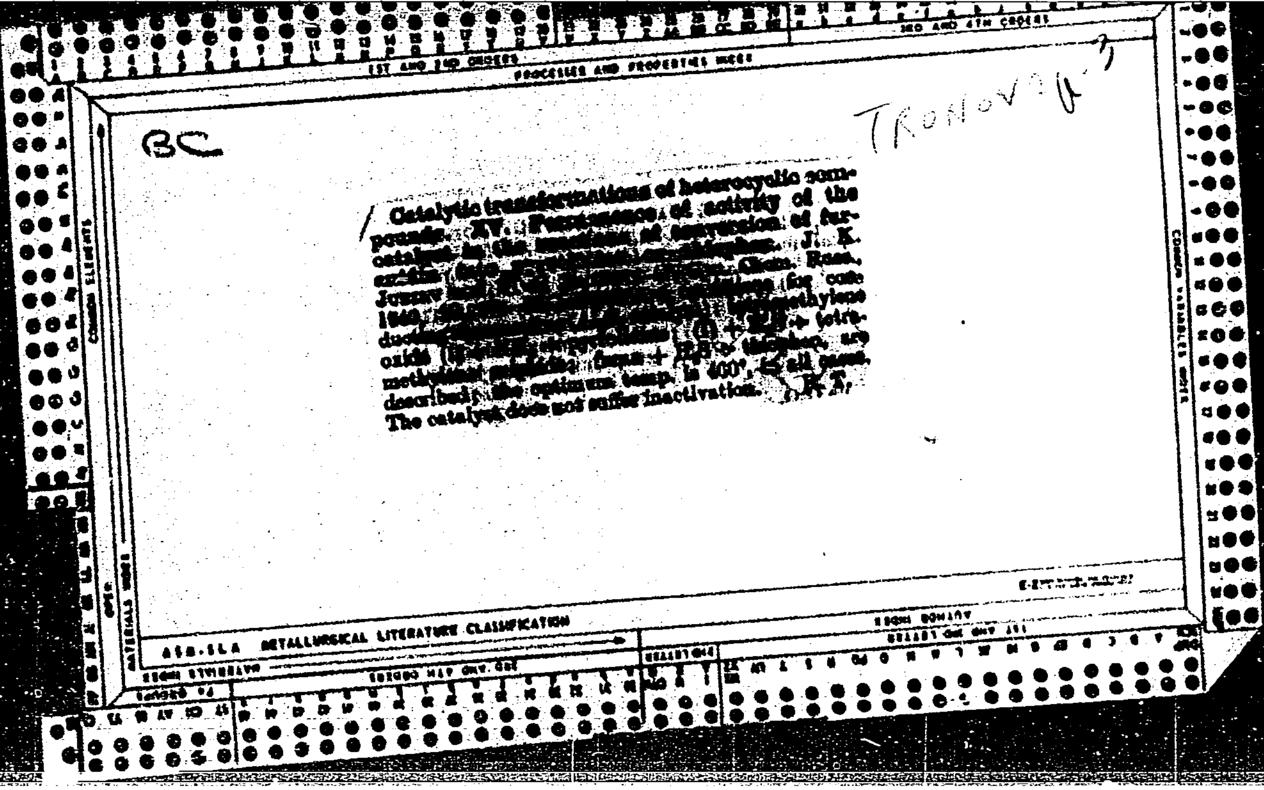
Tent from synthetic film for fumigation purposes. Zashch.rast. ot vred.i bol. 5 no.7:41-43 Jl '60. (MIRA 16:1)

1. TSentral'naya laboratoriya po karantinu rasteniy Ministerstva sel'skogo khozyaystva SSSR.
(Fumigation—Equipment and supplies)

KORABLINOV, N.S.; SUCHKOV, B.M.; TRONOV, V.P.

Paraffin troubles and the efficiency of paraffin bits. Neftepromdelo no.6:15-19 '63. (MIRA 16:10)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut.
(Paraffins)



BC

TRONOV, B. ?

Catalytic transformations of heterocyclic compounds. XV. Permanence of activity of the catalyst in the reaction of conversion of fur- [illegible] J. K. [illegible] Chem. Russ. January [illegible] (for cata [illegible] 1949, [illegible] ethylene [illegible] → tetra- [illegible] oxide [illegible] + H_2S → thiophene, are methylated [illegible] furan + H_2S [illegible] described; the optimum temp. is 400°, in all cases. The catalyst does not suffer inactivation. K. T.

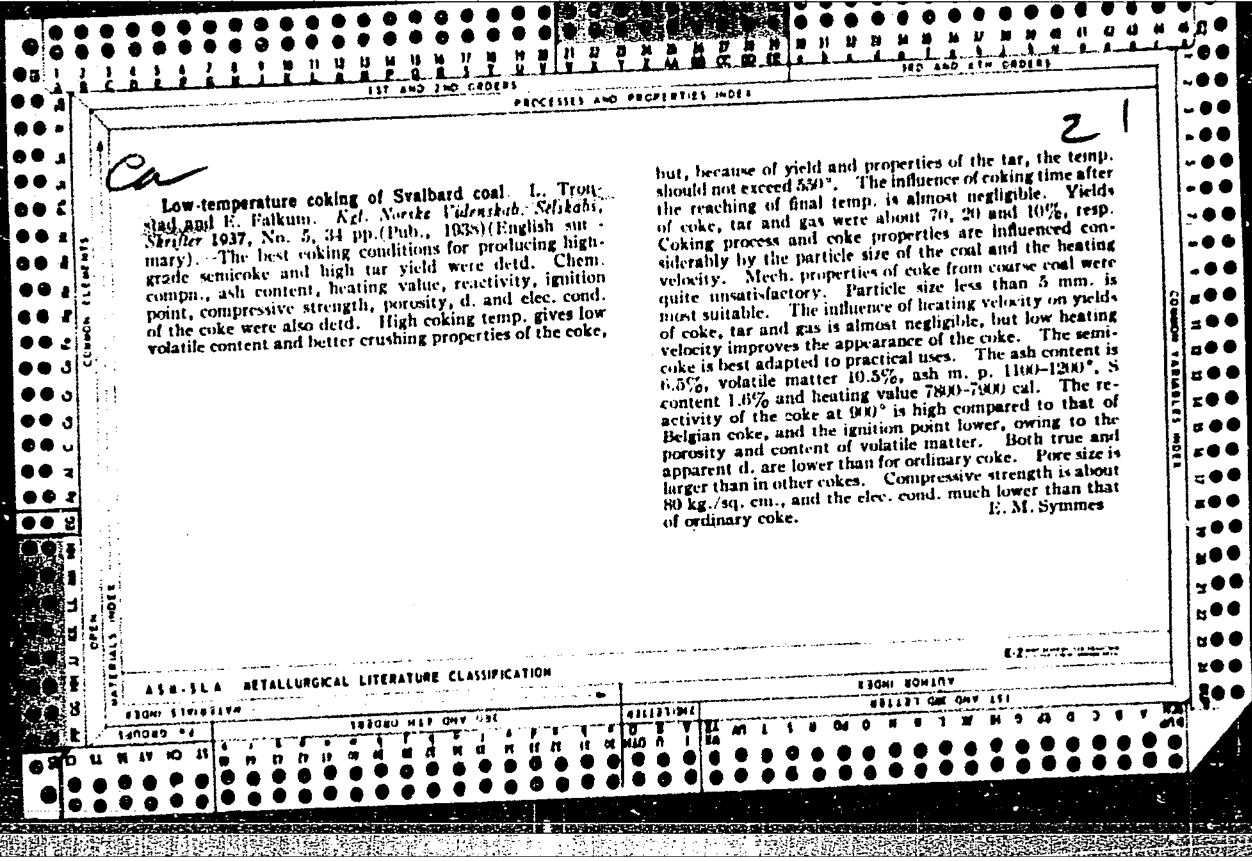
1. TRONSKAYA, M.L.

2. USSR (600)

4. Heine, Heinrich, 1797-1856

7. Heine in the estimation of the revolutionary democratic critics, Uch.zap.Len.un. no. 158, 1952.

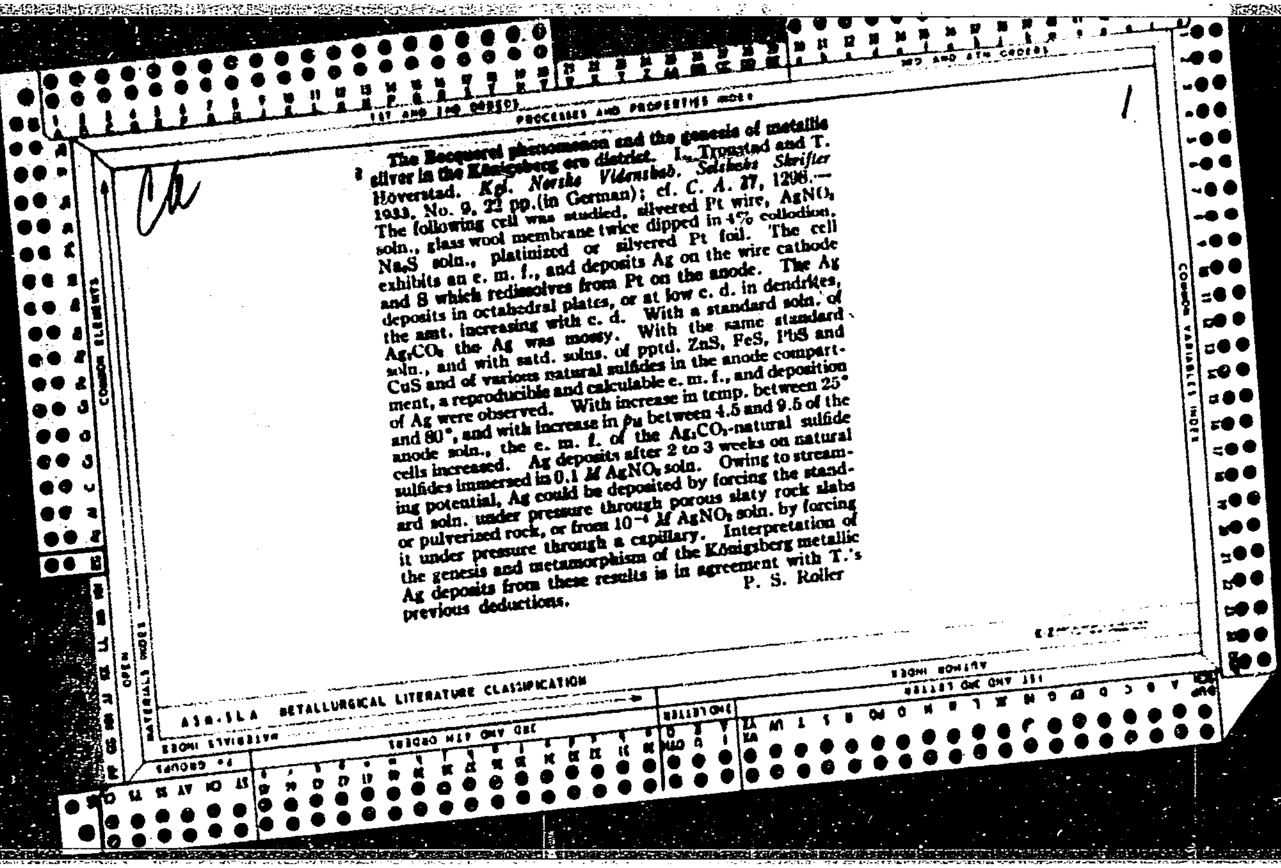
9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953. Unclassified.



Ca

2 1

Low-temperature coking of Svalbard coal. L. Tront-
stad and E. Falkum. *Kgl. Norske Videnskab. Selskabs,*
Skrifter 1937, No. 5, 34 pp. (Pub., 1938) (English sum-
mary).—The best coking conditions for producing high-
grade semicoke and high tar yield were detd. Chem.
compn., ash content, heating value, reactivity, ignition
point, compressive strength, porosity, d. and elec. cond.
of the coke were also detd. High coking temp. gives low
volatile content and better crushing properties of the coke,
but, because of yield and properties of the tar, the temp.
should not exceed 550°. The influence of coking time after
the reaching of final temp. is almost negligible. Yields
of coke, tar and gas were about 70, 20 and 10%, resp.
Coking process and coke properties are influenced con-
siderably by the particle size of the coal and the heating
velocity. Mech. properties of coke from course coal were
quite unsatisfactory. Particle size less than 5 mm. is
most suitable. The influence of heating velocity on yields
of coke, tar and gas is almost negligible, but low heating
velocity improves the appearance of the coke. The semi-
coke is best adapted to practical uses. The ash content is
6.5%, volatile matter 10.5%, ash m. p. 1100-1200°, S
content 1.6% and heating value 7800-7900 cal. The re-
activity of the coke at 900° is high compared to that of
Belgian coke, and the ignition point lower, owing to the
porosity and content of volatile matter. Both true and
apparent d. are lower than for ordinary coke. Pore size is
larger than in other cokes. Compressive strength is about
80 kg./sq. cm., and the elec. cond. much lower than that
of ordinary coke.
E. M. Symmes



Ca

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3 **The Becquerel phenomenon and the genesis of metallic silver in the Königsberg ore district.** I. Tronstad and T. Hoverstad. *Kgl. Norske Videnskab. Selskabs Skrifter* 1933, No. 9, 22 pp.(in German); cf. *C. A.* 27, 1296.—The following cell was studied, silvered Pt wire, $AgNO_3$ soln., glass wool membrane twice dipped in 4% collodion, Na_2S soln., platinized or silvered Pt foil. The cell exhibits an e. m. f., and deposits Ag on the wire cathode and S which redissolves from Pt on the anode. The Ag deposits in octahedral plates, or at low c. d. in dendrites, the amt. increasing with c. d. With a standard soln. of Ag_2CO_3 the Ag was mossy. With the same standard soln., and with satd. solns. of pptd. ZnS, FeS, PbS and CuS and of various natural sulfides in the anode compartment, a reproducible and calculable e. m. f., and deposition of Ag were observed. With increase in temp. between 25° and 80°, and with increase in p_H between 4.5 and 9.5 of the anode soln., the e. m. f. of the Ag_2CO_3-natural sulfide cells increased. Ag deposits after 2 to 3 weeks on natural sulfides immersed in 0.1 *M* $AgNO_3$ soln. Owing to streaming potential, Ag could be deposited by forcing the standard soln. under pressure through porous slaty rock slabs or pulverized rock, or from 10^{-4} *M* $AgNO_3$ soln. by forcing it under pressure through a capillary. Interpretation of the genesis and metamorphism of the Königsberg metallic Ag deposits from these results is in agreement with T.'s previous deductions.

P. S. Roller

TRONSVA, M.YA.

26949: TRONSVA, M.YA., KURNAKOV, N.N.-Issledovanie sistemy marganets-nikel? Doklady akad. nauk SSSR, Novaya seriya, T. LXVIII No.I, 1949 s. 73-76 Bibliogr: 18 nazb.

SO: Letopis'Zhurnal'nykh Statey, Vol. 36, 1949.

POLAND / Chemical Technology. Chemical Products and Their Application. Chemical Processing of Solid Fossil Fuels. H

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 43668.

Author : Tront G.
Inst : Not given.
Title : The Type of Ovens Used for Semi-Coking of Peat.

Orig Pub: Torf, 1958, 3, No 2, 23-31.

Abstract: For the purpose of developing commercial production of semi-coke from peat, the demand for which in the PNR (for the production of activated charcoal in the processing of CS_2) reaches 7000 tons/anum, and for the selection of the optimum system of ovens, a comparative analysis is presented herein that covers various types of commercial and semi-

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POLAND / Chemical Technology. Chemical Products and Their Application. Chemical Processing of Solid Fossil Fuels.

H

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 43668.

Abstract: lined with refractory and is equipped with external heating. Gases effluent from the oven are directed into the heat exchange channels where they are burned with air. The flow of gases and of air is achieved by means of draft created by a stack. The oven is composed of two sections that measure 8300 x 3000 x 400 mm and capable of accommodating 19.92 m^3 of peat. The oven is designed for 24 tons/day capacity of peat having approx. 30% water content and for the production of 6.7 tons of semi-coke. The second oven is a modification of the Sventoslavskiy's type. For the purpose of reducing the investment cost the oven is not equipped with the

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TRONT, G.

Fuels

662.731

Polish Technical Abst.
No. 4, 1953
Chemistry and
Chemical Technology

2456
Cieckiewicz E., Tront G. Experiments on Low-
Temperature Carbonisation of Peat.
Doswiadczenia nad polkoksowaniem torfu. (Prace
Inst. T rf. No. 4), E'blag, 1952, Inst. Torf.,
20 pp., 2 figs., 3 tabs.
Low-temperature carbonisation of peat, at temperatures
of from 500° to 600° C, in continuous and intermittent
type externally heated vertical retorts. The greatest
quantities of tar were obtained with pieces of peat
from 1 to 2 cm. Ther higher the temperature, the
higher is the gas yield and the lower the semi-
coke yield. The gas obtained at temperatures above
400°C consisted of approximately 70% of CH_4, H_2
and N_2. The calorific value of average quality
gas amounted to approximately 3300 calories per
cubic metre. The semi-coke obtained was, by reason
of its low mechanical strength, unsuitable for
metallurgical purposes.

POLAND / Chemical Technology. Processing of Solid Fossil Fuels. H-22

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 79014.

Author : Rychly J., Tront, G.
Inst : Not given.
Title : The Dry Distillation of a Polish Surface Turf in Semi-Industrial Units of Various Types.

Orig Pub: Koks, smola, gaz, 1957, 2, No 5, 173-180.

Abstract: The experimental semi-carbonization of surface turf in a tunnel, in retort ovens and Swentoslawski's oven is described. On the basis of the results obtained, it is suggested that one should use in industry the Swentoslawski's unit or retort ovens depending on the required quality of semi-coke.

Card 1/1

TRONTSKIY, V.N.

I-6

Category : USSR/Radiophysics - Radio-wave Propagation. Ionosphere

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4569

Author : Trontskiy, V.N.
Title : Propagation of UHF Waves Far Beyond the Horizon.

Orig Pub : Radiotekhnika, 1956, 11, No. 5, 3-20

Abstract : The problem of long-distance propagation of UHF in the troposphere is considered under the assumption that this phenomenon is caused by scattering by irregularities in the dielectric constant ε of the air, the regularities being both of turbulent and of stratified nature, and with the irregularities forming a rough surface, from which the radio waves are reflected, in the case of small angles of glancing incidence, as if from a layer that is not continuous in a horizontal direction. The author starts out with the premise that the two-thirds law is valid for the pulsations of the humidity and of the dielectric constant, and assumes that the formation of the field beyong the limits of the direct visibility is due only to those layers, whose point of reflection lies in the region of direct visibility. This field is determined as $E = \Phi E_0$ where E_0 is the field in free space, and Φ is

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I-6

Category : USSR/Radiophysics - Radio-wave Propagation. Ionosphere

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4569

the coefficient of reflection. With this, an expression obtained earlier by the author (Referat. Zh. Fizika, 1956, 29380) is used for the coefficient of reflection from a layer of symmetrical form. The expression obtained for the average value of the field intensity of UHF waves beyond the horizon is

$$\bar{E} = 0.68\, F_0^{1/2}\, R_{eq}^{11/6}\, \lambda^{1/3}\, R^{-4/3}\, (1-q)^{-11/6}\, E_0 \quad (1)$$

where $F_0 \sim \overline{\Delta\varepsilon^2}$, R_{eg} is the earth's equivalent radius, $q = (R_1 + R_2)/R$, R is the distance from the point of radiation to the point of observation, and R_1 and R_2 are the distances to the horizon from the transmitting and from the receiving antennas respectively. The values of field intensity calculated from this equation as functions of the distance R are compared with the experimental data obtained by various investigators for λ = 7-8 cm, 70 -- 80 cm and 3, 5 -- 7 and 1 -- 7 meters. The experimental points thus obtained agree with the theoretical ones, thus confirming the dependence of E on both R and λ. The author investigates briefly the problem of the stability of the field intensity, of the distortion of the signal, and of the dependence of the field

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I-6

Category : USSR/Radiophysics - Radio-wave Propagation. Ionosphere

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4569

intensity on the height of the antennas, i.e., on ρ. The dependence of E on ρ, obtained in equation (1), is also confirmed experimentally. The appendix treats the problem of the validity of the two-thirds law for tropospheric irregularities and gives a summary of the experimental data on the irregularities in ε, obtained by various investigators. Bibliography, 31 titles.

Card : 3/3

GOL'BIN, Ya.A.; TRONYAK, D.M.

There should be a constant increase in the productivity of labor and equipment. Leg.prom. 15 no.9:16-17 S '55. (MLRA 9:1)
(Russia--Manufactures)

SOV-127-58-8-19/27

AUTHORS: Tronza, I.S. and Afanas'yev, M.M., Engineers

TITLE: Guide Pulleys for Shaft Elevators (Rolikovyye napravlyayushchiye dlya klet'yevogo pod"yëma)

PERIODICAL: Gornyy zhurnal, 1958, Nr 8, pp 70-71 (USSR)

ABSTRACT: The authors advise the replacement of slide bars (skol'zyashchiye napravlyayushchiye) in mine shaft elevators by guide pulleys. This will prevent deterioration of different parts of the elevating mechanism and cage, which wear out very often when slide bars are used. A detailed description of the pulleys is given. There are 7 diagrams.

1. Mines--Equipment

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