

The Condensation of Alkyl Benzenes With Halide Derivatives of Isobutylene. 20-3-22/59

parated neither by fractionating nor by freezing out. With other methods of separation it was possible to isolate terephthalic acid only. From the results of oxidation can be assumed that the m-isomers are formed in very small quantities. Furthermore it was found that from a chloro-alkylation of an equimolar mixture of benzene and cumene by metallylchloride β -chloro-tertiary-butylbenzene and β -chloro-tertiary-butyl-kumol are formed in about the same quantities. From the reactions of the condensation of benzene and tertiary butylbenzene with isokrotlybromide no substantial yields could be obtained. In the condensation reaction of benzene with β -chloro-2-chloromethyl-propene-1 the main substance of the latter remains unchanged. From 8-6% of 1,3-dichloro-2 methyl-2-phenylpropane are formed. All β -chloro(or bromo-)tertiary butylalkylbenzenes easily and with good yields form magnesium-organic compounds, which again can be successfully used in the reaction of Grignard.-An experimental part with the usual data follows. There are 2 tables, 12 references, 1 of which is Slavic.

ASSOCIATION: Institute for Organic Chemistry imeni N.D.Zelinskiy AN USSR (Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk SSSR)
SUBMITTED: June 28, 1957
AVAILABLE: Library of Congress
Card 2/2

NIKISHIN, G. I.

G. I. Nikishin, A. D. retrov, S. I. Sadykh-zade, "The behavior of Various Dichloroalkanes and Dichloroalkenes."

Report presented at the Second All-Union Conference on the Chemistry and Practical Application of Silicon-Organic Compounds held in Leningrad from 25-27 September 1958.

Zhurnal prikladnoy khimii, 1959, nr 1, pp 238-240 (USSR)

5(3)

AUTHOR:

Nikishin, G. I.

SOV/62-59-6-32/36

TITLE:

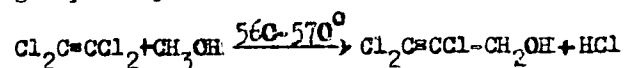
The Reaction of Methylalcohol With Polychloroethylenes
(Reaktsiya metilovogo spirta s polikhloretilenami)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959,
Nr 6, pp 1134 - 1135 (USSR)

ABSTRACT:

The reactions of methylalcohol with preservation of the OH-group are hardly known. (Urry (Ref 1) is referred to in this connection). The present paper describes the reaction discovered by the author of tetrachloroethylene with methyl-alcohol in a continuously working apparatus. At 560-570° one hydrogen atom of the methyl group is split off and substituted by a perchlorovinylradical:



In an analogous way trichloro- and dichloroethylene react with methylalcohol. The existence of the OH-group and the double bond was checked with the infrared spectrum. The compound mentioned first readily reacts with acrylonitrile, the yield being adequate. This reaction leads to a β -cyanoethyl ester. Also with chloro-acetyl, reaction occurs easily. In the experimental part, the

Card 1/2

The Reaction of Methylalcohol With Polychloroethylenes

SOV/62-59-6-32/36

synthesis methods are described in detail. There are
3 references, 1 of which is Soviet.

ASSOCIATION:

Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy
of the Academy of Sciences, USSR)

SUBMITTED:

December 19, 1958

Card 2/2

NEVOLIN, F.V., kand. tekhn. nauk; KRAL'-OSIKINA, G.A.; PETROV, A.D.;
NIKISHIN, G.I., kand. khim. nauk; VOROB'YEV, V.D.

Surface activity and cleaning action of dialkylbenzenesulfonates.
Masl.-zhir. prom. 25 no.7:32-36 '59. (MIRA 12:12)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for Nevolin,
Kral'-Osikina). 2.Chlen-korrespondent AN SSSR (for Petrov). 3.AN SSSR
(for Petrov, Nikishin, Vorob'yev).
(Benzenesulfonic acid) (Surface active agents)

5(3)

AUTHORS:

SOV/20-128-3-29/58
Gramenitskaya, V. N., Nikishin, G. I., Petrov, A. D.,
Corresponding Member, AS USSR

TITLE:

Condensation of Tertiary Halogen Alcohols With Benzene Under
the Action of Sulphuric Acid

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 3, pp 540-542
(USSR)

ABSTRACT:

The authors did not succeed in applying the reaction of halogen alkylation to some dichloro-olefines. Also a condensation of the latter with benzene in the presence of H_2SO_4 was not possible (Ref 2). The present investigation studies the halogen alkylation of benzene with tertiary halogen alcohols by several examples. Table 1 shows the reaction conditions, the structure of the alcohols, the quantitative ratio of the reactants, and the yields. Table 2 indicates the properties of the condensation products. The authors did not succeed in carrying out the condensation of 1-chloropropanol-2 with benzene into 1-chloro-2-phenyl propane, even within 6 hours and with the participation of 90% H_2SO_4 and the substances mentioned. In the homologous series of the tertiary monochloro-alcohols, the authors succeeded in obtaining chloro-alkylation products only with

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SOV/20-128-3-29/58

Condensation of Tertiary Halogen Alcohols With Benzene Under the Action of Sulphuric Acid

$\text{ClCH}_2\text{C}(\text{CH}_3)_2\text{OH}$ and $\text{ClCH}_2\text{CH}_2\text{CH}_2\text{C}(\text{CH}_3)_2\text{OH}$. The authors ascertained that the best yields are obtained by use of 90% H_2SO_4 .

Both weaker and stronger concentrations reduce the yields. There are 2 tables and 9 references, 2 of which are Soviet.

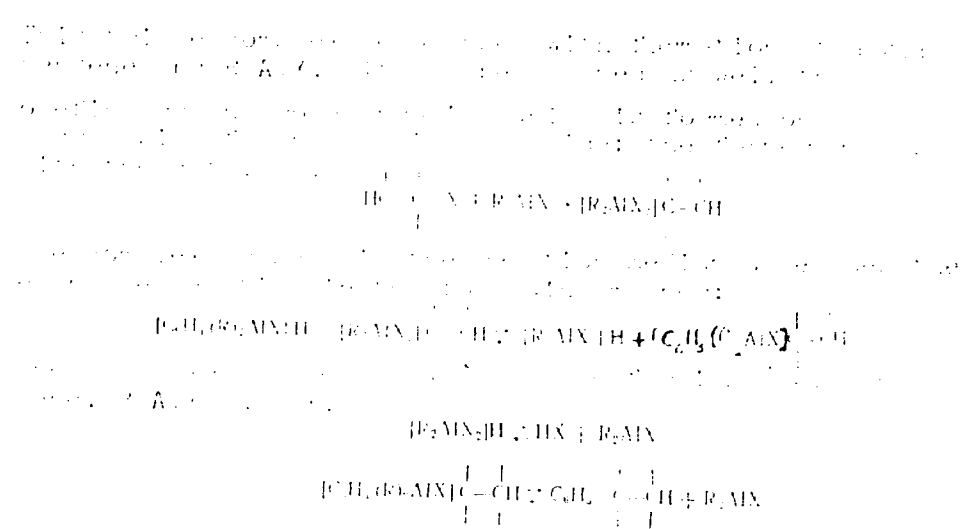
ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR
(Institute of Organic Chemistry of the Academy of Sciences, USSR)

SUBMITTED: June 8, 1959

Card 2/2

Allyl alcohol of Acetyl...
C₂H₅...
(C₂H₅)₂...

307...



Alkylation of Aromatic Hydrocarbons With
Cyclohexene in the presence of
(C₂H₅)₂AlBr; C₂H₅AlBr₂

1400
3079-100-117

In comparison with aluminum chloride, ethylaluminum
bromides are more active catalysts used for alkylation
of aromatic hydrocarbons with cyclohexene. Alkylation
of benzene, toluene, o-xylene, and p-xylene with
cyclohexene in the presence of the above catalyst
yielded the following compounds: cyclohexylbenzene,
bp 102-103°/1 mm, n_D²⁰ 1.488; dicyclohexylbenzene,
bp 140-141°/1 mm, n_D²⁰ 1.548; cyclohexyltoluene, bp
107-108°/1 mm, n_D²⁰ 1.515; dicyclohexyltoluene,
bp 154-155°/1 mm, n_D²⁰ 1.578; cyclohexyl-o-xylene,
bp 101-102°/1 mm, n_D²⁰ 1.515; dicyclohexyl-o-xylene,
bp 144-145°/1 mm, n_D²⁰ 1.578; cyclohexyl-p-xylene,
bp 104-105°/1 mm, n_D²⁰ 1.515; dicyclohexyl-p-xylene,
bp 155-156°/1 mm, n_D²⁰ 1.578.

Card 3/4

Alkylation of Aromatic Nitrocompounds With
Cyclonhexene in the Presence of
 $(C_2H_5)_2AlBr \cdot C_2H_5AlBr$

401
SOVETSKAYA

(3 mm), η_D^{20} 1.4513; monofluorexyl-*o*-xylene, bp 100-110°

(1 mm). The yields of monofluorexyl derivatives in the case of *o*-, *m*-, *p*-xylene and toluene decreased, and the yields of di- and polyfluorexyl derivatives increased. There are 4 tables and 1 reference cited. Soviet, 1 German, 1 U.S. The U.S. reference is: Beery, T. M.; Kell, E. R., *J. Am. Chem. Soc.*, 61, 2151 (1939).

ASSOCIATION: K. Parkov, E. Gerasimov, University, E. Gerasimov, *Universitet, Moskva, K. Parkov, 1937*

SUBMITTED: December 1937

Card 1 - 4

PETROV, A.D.; NIKISHIN, G.I., kand.khim.nauk; OGIBIN, Yu.N.; NEVOLIN, F.G.,
kand.tekhn.nauk; TIPISOVA, T.G.

Surface active properties and cleansing capacity of solutions of
sodium salts of branched, saturated fatty acids. Masl.-zhir.prom.
26 no.8:12-15 Ag '60. (MIRA 13:8)

1. Chlen-korrespondent AN SSSR (for Petrov). 2. Institut
organicheskoy khimii AN SSSR (for Petrov, Nikishin, Ogibin).
3. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for
Nevolin, Tipisova).
(Surface active agents) (Acids, Fatty)

5.3400, 5.3700

78268
SOV/79-30-3-22/69

AUTHORS: Petrov, A. D., Nikishin, G. I., Gramenitskaya, V. N.,
Nevolin, F. V., Kral'-Osikina, G. A.

TITLE: Synthesis and Properties of Acid Salts and Salts of
Alkyl Sulfates Containing Alkylaromatic Hydrophobic
Radicals

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp
845-849 (USSR)

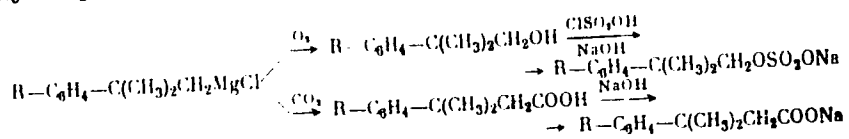
ABSTRACT: This work was devoted to synthesis and study of the
surface-active properties of sodium salts prepared
from acids and sulfate esters. The following compounds
of two types were synthesized: $R-C_6H_4-C(CH_3)_2-CH_2X$
and $(CH_3)_2C_6H_3C(CH_3)_2CHX$, where $X = COONa$ and $-OSO_2ONa$.
The following reactions were used for synthesis of salts:

Card 1/6

Synthesis and Properties of Acid Salts
and Salts of Alkyl Sulfates Containing
Alkylaromatic Hydrophobic Radicals

78268

SOV/79-30-3-22/69



The properties of the obtained alcohols and acids are shown in Table 1. The prepared salts and their surface-active properties are shown in Table 2. The above salts containing benzene rings in their alkyl chains were synthesized for the first time. It was established that introduction of a benzene ring decreases the detergent properties of salts. There are 2 tables; and 5 references, 2 Soviet, 2 German, 1 U.S. The U.S. reference is: Weisgerber, C. A., Shabica, A. S., J. Am. Chem. Soc., 65, 1469 (1943).

ASSOCIATION:

Institute of Organic Chemistry of the Academy of
Sciences of the USSR and All-Union Scientific Research
Institute of Fats (Institut organicheskly khimii

Card 2/6

Synthesis and Properties of Acid Salts
and Salts of Alkyl Sulfates Containing
Alkylaromatic Hydrophobic Radicals

75268

307/79-30-3-22/69

Table 1. (1) No of compound; (2) formula of com-
pound; (3) yield (%); (4) temperature; (5) bp
(pressure in mm); (6) mp; (7) found; (8) calculated.

Table on card 4/6

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79268 SOV/79-30-3-22/63

1	2	3	4		7	8
			5	6		
(I)	$C_{10}H_{13}(CH_3)_2CH_2OH$	68	115-117 ^o 120		0.9969 1.5257	46.23 46.57
(II)	$CH_3C_9H_{17}C(CH_3)_2CH_2OH$	64	117-117 ^o 122		0.9817 1.5228	51.06 51.22
(III)	$C_{12}H_{17}C_6H_4C(CH_3)_2CH_2OH$	73.7	119-121 ^o 116		0.9792 1.5182	55.75 55.88
(IV)	$(CH_3)_2CHC_6H_4C(CH_3)_2CH_2OH$	60		70-71		- -
(V)	2,4-(CH ₃) ₂ C ₆ H ₃ C(CH ₃) ₂ CH ₂ OH	55	90-102 ^o 102		0.9853 1.5312	55.99 55.88
(VI)	3,4-(CH ₂) ₂ C ₆ H ₃ C(CH ₃) ₂ CH ₂ OH	65	118-119 ^o 111		1.0284 1.5500	63.29 63.11
(VII)	$C_9H_{13}C(CH_3)_2CH_2COOH$	63		58-59		- -
(VIII)	$CH_3C_9H_{17}C(CH_3)_2CH_2COOH$	65		73.5-75.5		- -
(IX)	$C_{12}H_{17}C_6H_4C(CH_3)_2CH_2COOH$	65		72-73		- -
(X)	$(CH_3)_2CHC_6H_4C(CH_3)_2CH_2COOH$	68		60-61		- -
(XI)	<i>n</i> -(CH ₃) ₂ C ₆ H ₃ C(CH ₃) ₂ CH ₂ COOH	77		11-		- -
(XII)	3,4-(CH ₂) ₂ C ₆ H ₃ C(CH ₃) ₂ CH ₂ COOH	67		88		- -
(XIII)	2,4-(CH ₃) ₂ C ₆ H ₃ C(CH ₃) ₂ CH ₂ COOH	60		10-		- -

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Synthesis and Properties of Acid Salts
and Salts of Alkyl Sulfates Containing
Alkylaromatic Hydrophobic Radicals

78268
SOV/79-30-3-22/69

Table 2. (1) Structure of salt; (2) detergent
properties (salt concentration, 0.25%); (3) surface
tension (dynes/cm) at concentration (in %).

1	2	3			
		0.5	0.25	0.125	0.063
$C_6H_5C(CH_3)_2CH_2COONa$	3.5	71.1	72.5	72.8	72.8
$CH_3C_6H_4C(CH_3)_2CH_2COONa$	3.0	57.3	62.4	68.8	71.5
$C_2H_5C_6H_4C(CH_3)_2CH_2COONa$	3.0	59.6	62.5	67.2	70.2
$C_6H_5C(CH_3)_2CH_2COONa$	3.7	45.9	51.9	56.8	62.2
$(CH_3)_2CHC_6H_4C(CH_3)_2CH_2COONa$	2.6	63.5	66.8	70.8	71.1
$2,4-(CH_3)_2C_6H_3C(CH_3)_2CH_2COONa$	2.6	40.6	43.0	53.2	54.5
$C_6H_5C(CH_3)_2CH_2OSO_2ONa$	2.4	40.6	43.0	53.2	54.5
$CH_3C_6H_4C(CH_3)_2CH_2OSO_2ONa$	3.2	72.8	72.8	72.8	72.8
$C_2H_5C_6H_4C(CH_3)_2CH_2OSO_2ONa$	3.0	60.5	65.5	69.8	71.1
$(CH_3)_2CHC_6H_4C(CH_3)_2CH_2OSO_2ONa$	3.4	57.8	64.8	69.8	71.1
Жесткая вода	2.7	—	—	—	—
n.- $CH_3(CH_2)_8COONa$	—	32.6	44.5	63.6	70.9
n.- $CH_3(CH_2)_{10}COONa$	—	25.5	38.0	57.8	—
n.- $CH_3(CH_2)_{12}COONa$	—	34.9	37.5	46.7	—
n.- $CH_3(CH_2)_{10}CH_2OSO_3Na$	—	39.1	36.7	—	44

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NIKISHIN, G.I.; OGIBIN, Yu.N.; PETROV, A.D.

Synthesis of branched acids of the $C_nH_{2n-1}COOH$ series,
having the composition $C_{12}-C_{16}$. Zhur.ob.khim. 30 no.7:
2148-2153 JI '60. (MIRA 13:7)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Acids, Organic) (Pentene)

86498

S/079/60/030/011/003/026
B001/B066

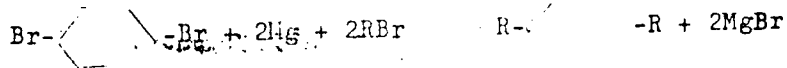
11.1210

AUTHORS: Nikishin, G. I., Vorob'yev, V. D., and Lubuzh, Ye. D.

TITLE: Physical Properties of 1,4-Dialkyl Cyclohexanes

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 11,
pp. 3548-3554

TEXT: The authors synthesized in a previous study (Ref. 1) 1,4-dialkyl benzenes according to the scheme



(R - normal alkyl radicals $\text{C}_4 - \text{C}_9$). They hydrogenated in the present study p-dialkyl benzenes, and studied some physical properties of the resultant 1,4-dialkyl cyclohexanes hitherto unknown. Hydrogenation was conducted in a rotating autoclave at 210-230°C, at an initial pressure of 110-130 atm, by means of a nickel catalyst; their separation was carried out chromatographically. After purification on a column filled with

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86498

Physical Properties of 1,4-Dialkyl
Cyclohexanes

S/079/60/030/011/003/026
B001/B066

silica gel, the resultant dihexyl-, diheptyl-, dioctyl-, and dinonyl cyclohexanes were recrystallized from alcohol. The melting points of dihexyl- and diheptyl cyclohexanes were determined at a constant temperature of 0-2°C (Table 1). This table also compares the properties of the resultant octyl- and dodecyl cyclohexanes with those of the monoalkyl cyclohexanes corresponding to them with respect to the molecular weight. The physical constants of 1,4-dialkyl cyclohexanes (with normal radicals) approximately agree with those of the monoalkyl cyclohexanes corresponding to them as to molecular weight. Diagram 1 shows the direct proportional ratio between the melting point, D_4^{20} , n_D^{20} , and the number of carbon atoms in the alkyl radical of 1,4-dialkyl cyclohexanes. The mean exaltation value of the molecular refraction (ΔMR_D) is +0.10. The viscosity values are given in Table 2 (Ref. 2). Diagram 2 gives the logarithm of the viscosity as a function of temperature. Diagram 3 illustrates the dependence of the logarithm of viscosity of 1,4-dialkyl cyclohexanes on the number of carbon atoms in the alkyl radical. Diagram 4 shows the dependence of the molar extinction coefficient ϵ of the 2925 cm^{-1} band in their molecules on the number of CH_2 groups. The infrared spectra

X

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86498

Physical Properties of 1,4-Dialkyl
Cyclohexanes

S/079/60/030/011/003/026
B001/B066

of all compounds show intense bands at 1375 and 1450 cm^{-1} corresponding to the deformation vibrations of the CH_3 and CH_2 groups. In the spectrum of diisooamyl cyclohexane, the 1375 cm^{-1} band is split into two bands (1350 and 1385 cm^{-1}), which is indicative of branching. There are 5 figures, 3 tables, and 10 references: 3 Soviet, 2 US, 1 German, 5 British, and 1 French.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR
(Institute of Organic Chemistry of the Academy of Sciences
USSR)

SUBMITTED: January 2, 1960

Card 3/3

5.3200(A)

67893

~~5(3)~~

AUTHORS: Nikishin, G.I., Vorob'yev, V.D., S/020/60/130/06/021/059
Petrov, A.D., Corresponding B011/B015
Member AS USSR

TITLE: Free-radical¹ Addition of Alkylbenzenes¹ to α -Olefines¹

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 6, pp 1256-1259
(USSR)

ABSTRACT: The authors undertook to investigate the synthesis of alkyl-aromatic hydrocarbons suitable for the production of surface-active substances of the alkylbenzene-sulfonate type. The free-radical addition and telomerization was intended to serve this purpose. The authors found that it is possible to add toluene, ethylbenzene, cumene, p-xylene, and α -methylnaphthalene to α -olefines at 150-160° under the action of tertiary butyl peroxide. The reaction products form in a yield of 10-15% calculated with respect to the olefine used. Table 1 shows the amounts of the components used and of peroxide, furthermore yields and properties of the addition products. Besides the addition there exists obviously a competitive reaction - the substitution of the α -hydrogen atom in the olefines by the

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67893

Free-radical Addition of Alkylbenzenes to
 α -Olefines

S/O20/60/130,06,021,059
B011/B015

and the products with a low boiling point. The content of the fractions of CH_2 - and CH_3 -groups was determined by means of infrared spectra. The mean error of measurement amounted to $\sim 3\%$. Ye.D. Lubuzh carried out the measurements. There are 2 tables and 4 references, 1 of which is Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences, USSR)

SUBMITTED: November 4, 1959

Card 3/3

5.3300

80002

AUTHORS: Petrov, A. D., Corresponding Member S/020/60/131/05/032/069
AS USSR, Nikishin, G. I., Somov, G. V. B011/B117₁

TITLE: High-temperature Condensation of Tetrachloroethylene With Aromatic Hydrocarbons and Olefines

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 5, pp 1098-1101 (USSR)

TEXT: The authors describe in their paper a new method to synthesize chlorohydrocarbons containing a trichlorovinyl group. The method is based on the reaction of hydrocarbons with tetrachloroethylene in an empty quartz tube (continuous system) at 550-590° (see assumed scheme). It became thereby apparent that the formation of trichloro allyl alcohol (from tetrachloroethylene with methanol at 570°, reference 3) is due to a reaction of more general importance. When a mixture of benzene and tetrachloroethylene was passed through the quartz tube, trichlorovinyl benzene (yield 14.4% with respect to the substances used, 55% with respect to benzene used up) was formed. Part of the benzene was converted to give diphenyl. The reaction of benzene with trichloroethylene proceeds analogously, and leads to dichlorovinyl benzene. When tetrachloroethylene is reacted with alkyl benzenes (toluene, ethyl benzene, isopropyl benzene and p-ethylol), the trichlorovinyl group enters the alkyl radical only, with the hydrogen atom of the benzene ring not being substituted in these cases. Table 1

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80002

High-temperature Condensation of Tetrachloroethylene
With Aromatic Hydrocarbons and Olefines

S/O20/60/131/05/032/069
B011/B117

shows the experimental conditions and the yields of condensation products of tetra- and trichloroethylene with benzene, alkyl benzenes, propylene and isobutylene. The trichlorovinyl radical is substituted for hydrogen in the reaction of tetrachloroethylene with ethyl and isopropyl benzene not only at the α -, but also at the β -carbon atom of the side chain. When tetrachloroethylene is reacted with propylene and isobutylene,¹ the methyl group reacts so that dienes with the position 1,4 of the multiple bonds can result (see scheme). The final position of the double bond in the hydrocarbon part of the molecule of 1,1,2-trichloropentadiene-1,4 was confirmed by the Raman spectrum. The yields of $\text{Cl}_2\text{C}=\text{CCl}-\text{CH}_2-\text{C}(\text{CH}_3)=\text{CH}_2$ were 55-65%, that of $\text{Cl}_2\text{C}=\text{CCl}-\text{CH}_2-\text{CH}=\text{CH}_2$ 45-60% with respect to tetrachloroethylene consumed. The authors made an unsuccessful attempt to obtain $\text{Cl}_2\text{C}=\text{CCl}-\text{CH}=\text{CH}_2$ by reacting $\text{Cl}_2\text{C}=\text{CCl}_2$ with ethylene under analogous conditions. After the separation of the substances used from the reaction mass, a solid or resinous residue remains. In all experiments, coke and soot formed in the reaction tube. Table 2 gives the characteristics of the condensation products. There are 2 tables and 4 references, 1 of which is Soviet.

Card 2/3

80002

High-temperature Condensation of Tetrachloroethylene
With Aromatic Hydrocarbons and Olefines

S/020/60/131/05/032/069
B011/B117

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk
SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the
Academy of Sciences, USSR) 4

SUBMITTED: October 19, 1959

Card 3/3

S/661/61/000/006/011/081
D205/D302

AUTHORS: Nikishin, G. I., Petrov, A. D. and Sadykh-Zade, S. I.
TITLE: Behavior of dichloroalkanes and dichloroalkenes in the conditions of direct synthesis
SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedeny; trudy konferentsii, no. 6, Doklady, diskussii resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len., 1958. Leningrad. Izd-vo AN SSSR. 1961, 71-72

TEXT: A discussion of the lecture in no. 1, p. 68, of the Proceedings of this Conference, in which A. L. Klebanskiy (VNIISK, Leningrad), Yu. K. Yur'yev (MGU), V. F. Mironov (IOKh, AN SSSR, Moscow) and B. I. Sokolov (Angarsk) took part. The main theme of the discussion was the extension of the synthesis performed by the authors, in which a 5-membered heterocyclic compound containing Si and a multiple bond was prepared - a silicon analogue of thiophen. V. F. Mironov has stated that his attempts in this direction

Card 1/2

ALEYNIKOV, N.A.; NIKISHIN, G.I.; OGIBIN, Yu.N.; PETROV, A.D.

Surface-active properties of branched aliphatic acids.
Neftekhimia 1 no.3:418-426 My-Je '61. (MIRA 16:11)

1. Kol'skiy filial AN SSSR i Institut organicheskoy khimii
AN SSSR imeni N.D. Zelinskogo.

NIKISHIN, G.I.; VOROB'YEV, V.D.; PETROV, A.D.

Free-radical addition of primary alcohols to α -olefins. Izv.AN
SSSR.Otd.khim.nauk no.5:882-886 My '61. (MIRA 14:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Alcohols) (Olefins) (Radicals (Chemistry))

NIKISHIN, G.I.; OGIBIN, Yu.N.; PETROV, A.D.

Free radical addition of esters of dicarboxylic acids to α -olefins, and the synthesis of esters of α -alkyldicarboxylic acids. Izv. AN SSSR. Otd.khim.nauk no.7:1326-1330 J1 '61.

(MIRA 14:7)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Esters) (Olefins)

NIKISHIN, G.I.; OGIBIN, Yu.N.; PETROV, A.D.

Free radical addition of carboxylic acids to α -olefins.

Izv. AN SSSR. Otd.khim.nauk no.8:1487-1495 &g '61.

(MIRA 14:8)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Radicals (Chemistry))
(Acids, Organic)
(Olefins)

NIKISHIN, G.I.; SOMOV, G.V.; PETROV, A.D.

Free radical addition of cyclopentanone and cyclohexanone to
α-olefins and allyl ethers. Izv.AN SSSR.Otd khim.nauk no.11:
2065-2071 N '61. (MIRA 14:11)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Cyclopentanone) (Cyclohexanone) (Olefins)

NIKISHIN, G.I.; VOROB'YEV, V.D.; PETROV, A.D.

Free-radical addition of alcohols to acrylic acid and its methyl ester. Synthesis of γ -lactones. Dokl. AN SSSR 136 no.2:360-363 '61. (MIRA 14:1)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR. 2. Chlen-korrespondent AN SSSR (for Petrov)/
(Acrylic acid) (Radicals (Chemistry))
(Lactones)

NIKISHIN, G.I.; SOMOV, G.V.; PETROV, A.D.

Synthesis of 1, 14-tetradecanedicarboxylic and 1.15-pentadecane-
dicarboxylic acids. Dokl.AN SSSR 136 no.5:1099-1101 F '61.
(MIRA 14:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. 2. Chlen-
korrespondent AN SSSR (for Petrov).
(Acids, Organic)

PETROV, A.D.; TRAPEZNIKOV, A.A.; NIKISHIN, G.I.; OGAREV, V.A.

Alcohols and the properties of their monomolecular layers in
protecting reservoir water from evaporation. Dokl.AN SSSR 138
no.6:1395-1398 Je '61. (MIRA 14:6)

1. Institut organicheskoy khimii AN SSSR i Institut fizicheskoy
khimii AN SSSR. 2. Chlen-korrespondent AN SSSR (for Petrov).
(Alcohols) (Water-storage) (Evaporation)

NIKISHIN, G. I., OGIBIN, Yu. N., and PETROV, Aleksandr D.,

" Synthesis and surface-active properties of branched aliphatic acids and hydroxyacids"

Report to be submitted for the Sixth Congress, Intl. Society for Fat Research, London, England, 9-13 Apr 62

Institute of Organic Chemistry imeni N. D. Zelinskiy, Academy of Sciences

31269

3/262/12/107/21
B117/B191

15 1200 2209 1436

AUTHORS: Nikishin, G. I., Somov, G. V., Wang Shun-fu, and others

TITLE: Free radical addition of butyrolactone to unsaturated compounds

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 1, 1962, 146 - 151

TEXT: The reaction of γ -butyrolactone with unsaturated compounds in the presence of tert-butyl peroxide was studied. The purpose of the study was to find a convenient method of synthesizing α -alkyl- γ -butyrolactones. When using tert-butyl peroxide as initiator, γ -butyrolactone was found to add to α -olefins while forming α -alkyl- γ -butyrolactones. Under optimum conditions for this reaction, the dependence of the yield of α -alkyl- γ -butyrolactone on the molar ratio of lactone to olefin was studied. An increase of this ratio from 5:1 to 40:1 under optimum experimental conditions (155 - 160°C, 5 hrs) and at a constant peroxide concentration related to the olefin increases the yield of the α -alkyl- γ -butyrolactone.

Card 1/3

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S/O 2/52/005/001/000 011
B111/B101

Free radical addition of

increase is observable between 5 : 1 and 20 : 1. An increase of the molar ratio of olefin to peroxide from 1 : 0.05 to 1 : 0.1 increases the yield considerably, and with further increase to 1 : 0.5 it remains practically constant. Long chained compounds were obtained at a lower peroxide consumption. At a peroxide consumption of 5% the yield of a lactone butyrolactone per decene was 51% and per peroxide 100%. At higher peroxide consumption the amount of high boiling residue probably owing to the dimerization of radicals. The structure of the resulting products was confirmed by the synthesis of a lactone from α - and γ -hexyl γ -lactones. The good agreement between our and published data suggests that γ -butyrolactone has a carbonyl group neighboring the carbonyl group. It is stated that the yield of 1 : 1 adduct increases as the boiling point of the olefin tends to extend the range of application of the addition of a radical to a double bond. The condensation of lactone with unsaturated lactone was studied: vinyl buty. ester, allyl lactate. Similar results were obtained with the first compound. With the second the yield of 1 : 1 adducts was comparable to that of a highly substituted

Card 2/3

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S/062/62/000/001/008/015
R117/R101

Free radical addition of ...

There are 2 figures, 3 tables, and 7 references: 6 Soviet, and 1 non-Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry im. N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: July 14, 1961

✓

Card 3/3

NIKISHIN, G.I.; VOROB'YEV, V.D.

Free radical addition of primary alcohols to unsaturated alcohols.
Izv. AN SSSR. Otd.khim.nauk no.5:892-897 My '62. (MIRA 15:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Radicals (Chemistry)) (Alcohols)

NIKISHIN, G.I.; VOROB'YEV, V.D.

Synthesis of γ -nonalactone and γ -undecalactone. Izv. AN SSSR. Otd.
khim.nauk no.10:1874-1876 0 '62. (MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Lactones)

NEVOLIN, F.V., kand.tekhn.nauk; TIPISEVA, T.G., inzh.; POLYAKOVA, V.A., inzh.;
SEMENOVA, A.M., inzh.; NIKISHIN, G.I., kand.khim.nauk;
PETROV, A.D.

Surface-active properties and washability of solutions
of sodium salts of the normal and branched fatty acids.
Masl.-zhir.prom. 28 no.7:15-22 JI '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov
(for Nevolin, Tipiseva, Polyakova, Semenova). 2. Institut
organicheskoy khimii AN SSSR (for Nikishin, Petrov).
3. Chlen-korrespondent AN SSSR (for Petrov).
(Acids, Fatty)
(Surface-active agents)

ALBIN IACV, N.A.; ZHA. INOVA, T. P.; NIKISHIN, G. I.; OGIBIN, Ye. M.;
SITFOV, A. D.

Flotation properties of monocarboxylic acids of the $C_{12}H_{24}O_4$
series of the $C_{12}H_{24}O_4$ composition. *Zhuryprik' khim.*
35 no. 5 1108-1115 (1968). (MI) 15-5

1. Kollekiy zhurnal AN SSSR i Institut organicheskoy khimii,
Ireni V. D. Zolotarevskogo AN SSSR
(Acids, Organic)
(Flotation)

NIKISHIN, G.I.

Surface-active substances. Priroda 51 no.1:37-42 1972.

(MIRA 1:1)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR, Moskva.
(Surface-active agents)

NIKISHIN, G.I.; SOMOV, G.V.; PETROV, A.D.

Synthesis of dihydroambrettolite. Dokl. AN SSSR 144, no. 3: 574-
580 My '62. (MIRA 15:5)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
2. Chlen-korrespondent AN SSSR (for Petrov).
(Ambrettolic acid)

NIKISHIN, G.I.; MUSTAFAYEV, R.I.; PETROV, A.D.

Free radical addition of chloroacetic acid and its methyl ester
to α -olefins. Izv. AN SSSR. Otd. khim. nauk no. 2: 359-364 F '63.
(MIRA 1614)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Radical (Chemistry)) (Acetic acid) (Olefins)

OGIBIN, Yu.N.; NIKISHIN, G.I.; PETROV, A.D.

Free radical addition of aliphatic carboxylic acids to
dialkyldialylsilanes. Izv. AN SSSR Ser.khim. no.10:1816-1820
O '63. (MIRA 17:3)

1. Institut organicheskoy khimii im. N.I.Zelinskogo AN SSSR.

8

NIKISHIN, G.I.; MUSTAFAYEV, R.I.; PETROV, A.D.

Free radical addition of N-alkyl acetamides to methyl acrylate.
Dokl. AN SSSR 152 no.4:879-881 O '63. (MIRA 16:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
2. Chlen-korrespondent AN SSSR (for Petrov).

NIKISHIN, G.I.; MUSTAFAYEV, R.I.

Free-radical addition of N-ethylacetamide to unsaturated compounds. Dokl.
AN SSSR 158 no.5:1127-1129 O '64. (MIRA 17:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. Predstavleno
akademikom B.A.Kazanskim.

OGIBIN, Yu.N.; NIKISHIN, G.I.

Course of the free radical addition of methylene diacetate to
 α -olefins. Izv. AN SSSR Ser. khim. no.2:378-380 '65.

(MIRA 18:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

NIKISHIN, G.I.; SOMOV, G.V.

Relative reactivity of cyclopentanone, cyclohexanone, and alkyl-
cyclohexanones in the reaction of radical addition to α -olefins.
Izv. AN SSSR. Ser. khim. no.5:876-882 '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

NIKISHIN, G.I.; MUSTAFAYEV, R.I.

Free radical addition of 2-pyrrolidone to β -olefins. Izv.
AN SSSR. Ser. khim. no.10:1843-1847 O '64. (MIRA 17:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

OGIBIN, Yu.N.; NIKICHIN, G."

Composition of the radical addition product of benzyl aceto-
acetate to 1-hexene. Izv. AN SSSR, Ser. khim. no. 10, 2223-2223
'65. (MIRA 18:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
Submitted April 26, 1965.

APPROVED FOR RELEASE: 07/13/2001

APPROVED FOR RELEASE: 07/13/2001

L 02139-67 EWT(m)/EWP(j) RM
ACC NR: AP6035962

REF ID: A662/66/000/004/0700/0707

AUTHOR: Ozibin, Yu. N., Chistyakov, S. Ye., Alvyrtov, P. A., and Nikishin, G. I.

ORG: Institute of Organic Chemistry in L. D. Solov'ev, AN SSSR (Institut
organicheskoy khimii AN SSSR); Kol'skiy Section, AN SSSR (Kol'skiy filial AN SSSR)

"Synthesis of Carboxylic Acids Containing Cycloalkyl and Phenyl
Groups, by Free Radical Addition Reaction"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No
4, 1966, pp 700-707

Abstract: This work is devoted to the study of the synthesis and
flotation properties of carboxylic acids. Newly obtained data
mainly concern the question of the effect of the structural
characteristics of unsaturated hydrocarbons on their capacities
to yield addition products in 1:1 ratio with carboxylic acids.
The reactions were conducted at atmospheric pressure in the
presence of ter-butyl peroxide. Reaction conditions, ratios of
reagents and peroxide, 1:1 adduct yields, yields of the higher
boiling substances (residues), and the adduct properties are
presented. The radical addition reaction of carboxylic acids to
omega-phenylalkenes-1 is accompanied by "benzyl cleavage" of the
kinetic chain resulting in 1:1 adducts with a lower yield than

Card 1/2

NIKISHIN, G.N.; OGIBIN, Yu.N.; PETROV, A.D.

Free-radical addition of carboxylic acids to vinyl acetate and allyl acetate. Dokl.AN SSSR 138 no.2:393-396 My '61. (MIRA 14:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR.
2. Chlen-korrespondent AN SSSR (for Petrov).
(Vinyl acetate) (Methacrylic acid) (Acids, Organic)

SHEYKHON, F.D.; NIKISHIN, G.V.

Change in the functional condition of peripheral nerves and muscles in the formation of dominance in the spinal cord. Report No.1: Influence of cerebrospinal dominance on the parameters of excitability in nerve and muscle. Biul. eksp. biol. i med. 50 no.10:16-23 0 '60.
(MIRA 14:5)

1. Iz elektrofiziologicheskoy laboratorii (zav. - doktor biologicheskikh nauk O.V.Verzilova) Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AMN SSSR V.N.Chernigovskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.

(NERVOUS SYSTEM) (MUSCLES) (ELECTROPHYSIOLOGY)

BABSKIY, Ye.B.; IVANOV, V.S.; NIKISHIN, G.V.

Use of cardiocyclography in physiological and clinical investigations. Kardiologiya 2 no.6:77-81 N-D'62. (MIRA 17:8)

1. Iz laboratorii klinicheskoy fiziologii (zav. - akademik AN UkrSSR Ye.B. Babskiy) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

1. NIKISHIN, I. I
2. USSR (600)
4. Main Turkmen Canal Region - Agriculture
7. Problems in the development of agriculture in the region of the Main Turkmen Canal, *Khlopkovodstvo*, 3, no. 1, 1953.

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

STRENGTH, C.

The care of fruit orchards. Part 2. Proseva, 1954. 128 p. (1954).
1954. 128 p.

4 16 1957

GRACHEV, V.I.; brigadir-sadovod; NIKISHIN, K.G., dotsent; PAVLOVA, L.I.,
assistent; PETROV, N.P., redaktor; CHUNAYEVA, Z.V., tekhnicheskiy
redaktor.

[Growing strawberries on the Stalin Collective Farm] Vyrashchi-
vanie zemliani v kolkhoze imeni Stalina. Moskva, Gos.izd-vo
sel'khoz.lit-ry, 1957. 42 p. (MIRA 10:11)

1. Kolkhoz imeni Stalina, Lushskogo rayona Leningradskoy oblasti
(for Grachev). 2. Leningradskiy sel'skokhozyaystvennyy institut
(for Nikishin). 3. Kafedra plodovodstva Leningradskogo sel'sko-
khozyaystvennogo instituta (for Pavlova).
(Strawberries)

VORONINA, Aleksandra Ivanovna, kand. sel'khoz. nauk; GLEBOVA,
Yekaterina Il'inichna, kand. sel'khoz. nauk; KALASHNIKOVA,
Nina Ivanovna, kand. sel'khoz. nauk; NEVZOROV, Fedor Yefimovich;
NIKISHIN, Konstantin Georgiyevich, kand. sel'khoz. nauk;
ZHUCHKOV, N.G., prof., red.; IVASHKINA, L.A., red.; BAANOVA,
L.G., tekhn. red.

[Fruit culture with the fundamentals of landscape gardening]
Plodovodstvo s osnovami dekorativnogo sadovodstva. [By] A.I.
Voronina i dr. Leningrad, Sel'khozizdat, 1962. 526 p.

(MIRA 15:10)

(Fruit culture)

(Landscape gardening)

KARNAUKHOV, Ivan Frol'nyevich, dots.; KLUKID, Vasilyy Kirillovich,
prof.; VELESOL, Konstantin Nikolayevich, dots.; BILDAENKO,
Nikolay Vasilyevich, dots.; MILICHIN, Konstantin
Georgiyevich, dots.; LANGE, K.F., kandi. sel'khoz. nauk, dots.
retsensent; MELIKI, M.F., kandi. sel'khoz. nauk, dots.,
retsensent; NOVIKOV, A.A., kandi. sel'khoz. nauk, dots.,
retsensent; NOSILKO, I.I., st. prepod., retsensent; SAFRONOVA,
G.G., st. prepod., retsensent; YEFIMOV, A.I., ed.

[Fundamentals of agriculture: Osnovy sel'khoz. flori. i faun. i
3. perer. izd. Moskva, Prolsvetizdat, 1975. 127 p.

(MIRA 131)

1. Kuybyshevskiy pedagogicheskiy Institut (for Lange, Merkurov).
2. Orlovskiy pedagogicheskiy Institut (for Novikov, Nosilko,
Safronova).

NIKICHOV, I. I.

Connection between parameters of the structural and morphologic
cells of trigonal carbonates. Geol. i geofiz. no. 4 194-197 1965.
MTEFA 18 8
1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.

NIKISHIN, M.

Problems of preparing equipment for use. Muk.-elev.prom. 22 no.4:
29 Ap '56. (MLBA 9:8)

1. Zamestitel' nachal'nika Smolenskogo upravleniya GIK.
(Smolensk Province--Grain elevators)

NIKISHIN, K.YE., dotsent; KHAVKIN, T.N., kand.med.nauk

Brochogenic cancer and tuberculosis. Med.zhur.Uzb. no.6:21-26
Je '58. (MIRA 13:6)

1. Iz kafedry rentgenologii i meditsinskoy radiologii (zav. -
prof. D.M. Abdurasulov) Tashkentskogo instituta usovershenst-
vovaniya vrachey i iz Okruzhnoy patologoanatomicheskoy labora-
torii (nach. - T.N. Khavkin).
(LUNGS--CANCER) (TUBERCULOSIS)

NIKISHIN, K.Ye., dotsent

X-ray examination of Highmore's antrum. Med.zhur.Uzb. no.12:
46-50 D '58. (MIRA 13:7)

1. Iz kafedry rentgenologii i meditsinskoy radiologii (zavedu-
yushchiy - prof. D.M. Abdurasulov) Tashkentskogo gosudarstven-
nogo instituta usovershenstvovaniya vrachey.
(NOSE, ACCESSORY SINUSES OF--RADIOGRAPHY)

ADAMOV, N.T.; NIKISHIN, K.Ye., kand. med. nauk.; SHUMAKOV, F.K.

Diagnostic value of spot roentgenography in pulmonary tuberculosis.

Vest. rent. i rad. 33 no.6:19-22 N-0 '58.

(MIRA 12:1)

(TUBERCULOSIS, PULMONARY, diag.

aimed x-ray (Rus))

ABDURASULOV, D.M.; KALMYKOV, B.N.; NIKISHIN, K.Ye.

Importance of radiographic investigation in the detection of precancerous conditions of the stomach. Izv.AN Uz.SSR.Ser. med. no.3:21-28 '59. (MIRA 12:8)

1. Nauchno-issledovatel'skiy institut rentgenologii, rentgenologii, radiologii i onkologii Minzdrava SSSR.
(STOMACH--CANCER) (STOMACH--RADIOGRAPHY)

NIKISHIN, K.Ye., polkovnik meditsinskoy sluzhby, dotsent; KHAVKIN, T.N.,
podpolkovnik meditsinskoy sluzhby, kand.med.nauk

Early diagnosis of bronchogenic cancer. Voen.-med.zhur. no.12:20-24
'59. (MIRA 14:1)

(BRONCHI--CANCER)

ABDURASULOV, D.M., prof.; NIKISHIN, K.Ye., dotsent

Possibilities and prospects of the tomographic method of study.
Med. zhur. Uzb. no.10:3-9 '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy institut rentgenologii, radiologii i onkologii Ministerstva zdravookhraneniya UzSSR i kafedra rentgenologii i meditsinskoy radiologii Tashkentskogo instituta usovershenstvovaniya vrachey.

(DIAGNOSIS, RADIOSCOPIC)

ABDURASULOV, D.M., prof.; NIKISHIN, K.Yo., dotsent; MUSHENKOVA, N.F., kand.
med.nauk

Tomography of the heart and large vessels. Med. zhur. Uzb. no.11:
20-24 N '61. (MIRA 15:2)

1. Iz kafedry rentgenologii i meditsinskoy radiologii (zav. - prof.
D.M.Abdurasulov) Tashkentskogo gosudarstvennogo instituta usovershen-
stvovaniya vrachey.
(HEART__RADIOGRAPHY) (BLOOD VESSELS__RADIOGRAPHY)

ABDURASULOV, D.M.; NIKISHIN, K.Ye.

[Tomography of the normal skeleton. Manual for physicians] Tomografiia normal'nogo kostnogo skeleta. Fosobie dlia prakticheskikh vrachei. Tashkent, Meditsina, 1964. 209 p. (MIKA 18:2)

L 21195-66 EWT(m)/ETC(f)/EWG(m)/EWP(j)/T/EWP(t) IJP(c) DS/JD/WN/JN/GS/RM
ACC NR: AT6004607 SOURCE CODE: UR/0000/65/000/000/0083/0089

AUTHOR: Borodin, P. M.; Nikitin, M. K.; Sventitskiy, Ye. N.

ORG: none

TITLE: Use of the nuclear magnetic resonance method for studying the structure of
an electrolyte in ion exchange resins 1

SOURCE: Leningrad. Universitet. Yadernyy magnitnyy rezonans (Nuclear magnetic reso-
nance). no. 1, 1965, 83-89

TOPIC TAGS: ion exchange resin, nuclear magnetic resonance, electrolyte, NMR spec-
troscopy, hydrofluoric acid

ABSTRACT: The authors studied AV-17 anion and KU-2 cation exchange resins saturat-
ed with hydrofluoric (HF) and trifluoroacetic (CF₃COOH) acids of various concentra-
tions. Measurements of chemical displacements in F¹⁹ signals were used as a basis
for studying the properties of the ion exchange resins and also the structure of
the electrolyte absorbed by the resins. Curves are given showing the chemical dis-
placements in the resonance signal as a function of HF concentration in cation, an-
ion and copolymer resins. These curves are compared with that for the chemical dis-

Card 1/2

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ACC NR: AT6004607

placement of H^{19} in HF as a function of concentration in the free state. The curve for the cation behaves identically to that for the free acid which indicates a small, although noticeable, interaction between the electrolyte and the lattice of the resin. The coincidence between the curves for the free acid and the electrolyte absorbed by the copolymer indicates that the lattice of the copolymer has less effect on the state of the electrolyte than that of the ion exchange resins. Experiments with trifluoroacetic acid showed a single narrow resonance line for acid absorbed by the resin although the fluorine may exist in various states: as the CF_3COO^- ion, the CF_3COOH molecule, the CF_3COO^- gegenion and also in molecular associations. The curve for chemical displacement as a function of acid concentration for the cation exchange resin lies above that for the anion exchange resin. The curve for the copolymer lies above all the others, especially in the region of weak acid solutions. The experimental data indicate considerable interaction between the electrolyte and ion exchange resins. If the electrolyte is hydrofluoric or trifluoroacetic acid, the fluorine is absorbed by the cation exchange resin. Both ion exchange and non-ion exchange absorption takes place in the case of anion exchange resins. The single narrow line for an electrolyte absorbed by a resin indicates intense exchange of fluorine nuclei between various nonequivalent states. Orig. art. has: 3 figures.

SUB CODE: 07,20,11/

SUBM DATE: 03Nov65/

ORIG REF: 003/ OTH REF: 003

Card 2/2 *dda*

NIKISHIN, N.G.

care of a fruit-bearing orchard. Ukhod za plomonosia-
stehim sadom. Izd. 5., 1964. i dop. Leningrad, Kolos,
1964. 175 p. (MIRA 18:11)

NIKISHIN, T. (Teguchin, Novosibirskaya oblast'); LEVITSKIY, G.(L'vov);
SVISTUNOV, A.(Chelyabinsk); DOL'NIKOV, I.(Vladimir).

They fulfill their duty. Posh.delo 3 no.2:24 F '57.

(MIRA 10:4)

(Fire prevention)

NIKISHIN, V.A.; TITKOV, N.I.; KORZHUYEV, A.S.

Determining the setting time of cement slurry by means of electric resistance and temperature. Trudy Inst.nefti 11:73-84 '58.

(MIRA 11:12)

(Portland cement)

TITKOV, H.I.; KORZHIYEV, A.S.; NIKISHIN, V.A.; SMOLYANINOV, V.G.

Using electric current for strengthening rocks in well walls.
Trudy Inst.nefti 11:85-110 '58. (MIRA 11:12)
(Rocks) (Electric currents)

NIKISHIN V A

14(5)

PHASE I BOOK EXPLOITATION

SOV/2641

Titkov, Nikolay Iosafovich, Aleksandr Sergeyeovich Korzhuyev, Vladimir Georgiyevich Smolyaninov, Vladimir Aleksandrovich Nikishin, and Anna Yakovlevna Neretina

Elektrokhimicheskiy metod zakrepleniya neustoychivyykh gornyykh porod (Electrochemical Method for Consolidation of Unstable Rocks) Moscow, Gostoptek-hizdat, 1959. 77 p. (Series: Novaya tekhnika neftyanoy promyshlennosti) Errata slip inserted. 2,000 copies printed.

Ed.: M.A. Geyman; Exec. Ed.: N.D. Dubrovina; Tech. Ed.: A.S. Polosina.

PURPOSE: This book is intended for engineers and technicians of the petroleum and mining industry, for constructors of railroads, highways, and hydraulic systems, and for scientists concerned with the problem of consolidating unstable soft rock formation.

COVERAGE: The book presents scientific principles of the electrochemical method applied in order to consolidate unstable soft rocks, and reviews results of laboratory and field tests conducted to appraise the practicability of

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this method. Results of tests made by the Petroleum Institute of the Academy of Sciences, USSR, indicate that this promising method may find a wide application in petroleum and natural gas production. It may result in the elimination of metallic casing pipes inasmuch as the use of direct current combined with the application of special solutions (electrolytes) can consolidate argillaceous and other rocks to the extent which will make the further reinforcement of borehole walls unnecessary. It has been ascertained that electrochemical consolidation of walls of wells drilled in clayey formations can be applied to wells in process of drilling as well as to wells already in production. The book contains a detailed analysis of tests made under different geological conditions in the Patarinskaya ASSR, illustrates results of these tests in numerous tables, shows the composition of solutions used, and describes the laboratory and field equipment with the aid of which the experiments were carried out. The method under review can be successfully used in coal and ore mining, and in the construction of ventilation shafts, of hydraulic and irrigation systems, etc. The authors thank Academician P.A. Rebinder, Senior Scientific Assistant N.N. Serb-Serbina, and Professor V.P. Petrov for their valuable comments. They also thank members of the Petroleum Institute of the Academy

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of Sciences V.Ye. Bykov, Ye.G. Getts, S.N. Yelovikova, N.I. Maksimova,
and A.S. Chuplov. There are 5 references: 3 Soviet and 2 German.

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Stabilizing clays in well walls by the electrochemical
method. Neft.khoz. 37 no.3:38-40 Mr '59. (MIRA 12:5)
(Clay)

15-57-10-14443

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p 178 (USSR)

AUTHOR: Nikishin, V. I.

TITLE: Conditions of Oil Formation at the Samarskaya Luka and
in the Adjoining Kuybyshev Region of the Volga (Usloviya
formirovaniya neftyanykh zalezhey Samarskoy luki i
smeznykh rayonov Kuybyshevskogo Povolzh'ya)

PERIODICAL: V sb.: Neftegazonosnost' Uralo-Volzhs. obl. Moscow,
AN SSSR, 1956, pp 31-48

ABSTRACT: The principal pattern of present-day distribution of
oil in the Devonian and Carboniferous rocks of the
Samarskaya Luka is examined. The author shows that
the most promising area for oil exploration in these
rocks is along the eastern extension of the Zhigulevsk
fault, both within the Samarskaya Luka and on the left
bank of the Volga. The belt between the Samarskaya
Luka and the Kinel'-Cherkassy region, the eastern part

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with N. I. Titkov, A. S. Korzhuyev, and V. G. Smolyaninov "Application of Electric Current for Strengthening the Core of Oil Wells"

with N. I. Titkov and A. S. Korzhuyev "Method for Determining the Cement Slurry Hardening Time by Electrical Resistance and Temperature"

Transactions of the Petroleum Institute, Acad. Sci. USSR, v. 11, Oil Field Industry, Moscow, Izd-vo AN SSSR, 1966. 346pp.

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[Using electrochemical methods for stabilizing unstable rocks]
Elektrokhimicheskii metod zakrepleniia neustoichivyykh gornykh porod. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1959. 77 p. (MIRA 12:5)
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127-128 *Jl-Ag '62.* (MIRA 16:5)
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4 no.1:158-167 1964. (MIRA 17:4)

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nauk prof. A.S.Zenin) Kuybyshevskogo meditsinskogo instituta.

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USSR/ Electronics - Communications

Card 1/1 Pub. 133 - 4/23

Authors : Morozov, A. P., Senior Engineer of the Leningrad Long-Distance Telephone Station, and Nikishina, A. V., Engineer

Title : Application of a volume range narrowing and widening system in long-distance channels

Periodical : Vest. svyazi 11, page 9, Nov 1954

Abstract : A system employed for changing the volume range of audio-frequency signals, so that weak sounds will not be lost through interfering background noises, and loud sounds will not overload any part of the radio broadcasting, is described. The method of inserting the volume-range changer system in the channel, the zero-point orientation of the system; its tuning and checking the accuracy of its operation is described. One USSR reference (1953). Diagrams.

Institution:

Submitted: