FIALKOV, B.S., inzh.

Conditions of stability in drawing loose materials. Izv. vys. ucheb. zav.; gor. zhur. 5 no.3:24-26 '62. (MIRA 15:7)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova. Rekomendovana kafedroy metallurgii chuguna Ural'skogo politekhnicheskogo instituta.

(Mining engineering)

LYTKIN, V.I.; LYTKIN, K.I.; LITVIN, G.Ye., inzh., retsenzent; FIALKOV, B.S., inzh., red.; KOLOSOVA, E.L., inzh., ved. red.; DUGINA, N.A., tekhn. red.

[Conversion of machinery plant furnaces to natural gas] Perevod pechei mashinostroitel'nykh zavodov na prirodnyi gaz. Moskva, Mashgiz, 1963. 119 p. (MIRA 16:9)
(Furnaces) (Machinery industry)

FIALKOV, B.S.; GRUZINOV, V.K.; MIKRYUKOV, B.N.

Automatic control of combustion zones in blast furnaces. Stal' 23 nc. 7:586-588 Jl '63. (MIRA 16;9)

1. Ural'skiy politekhnicheskiy institut.
(Blast furnaces--Combustion)(Automatic control)

ONITSEVICH, Ye.P., insh.; FIALKOV, D.D., insh.

Mechanizing the installation of large stained-glass panels. Transp.stroi. 14 no.12:25-27 D '64. (MIRA 19:1)

RUSAKOV, K.I., inzh.; SYCHEV, Yu.I., inzh.; FIALKOV, D.D., inzh.

Diamond tool for finishing and facing work. Transp.stroi. 15 no.10:30-31 O '65. (MIRA 18:12)

FIALKOV, D.N. (Omsk).

Death of fish in salt-water lakes. Priroda 42 no.8:112-113 Ag '53.
(MLRA 6:7)
(Fishes)

FLINT, D.Y.

History of the formation of the present-day relief of the southern part of Western Siberia. Izv. Gos. otd. Geog. ob-va no.2:17-22 '57. (MIRA 12:7)

(Siberia, Western--Physical geography)

BIALKOV, D. N.

(Cand. Tech. Sci., Chief Geological Research Expedition of Omsk)

"The Qualitative Characteristic of Vertical Motions of the Earth's Crust in the Steppe Region on the River Irtysh".

report presented at the XII Scientific and Technical Conference, Novosibirsk Inst. of Engineers of Geodesy, Aerial Photography, and Cartography, 15-22 Feb. 58. (Geodeziya i Kartografiya, '58, 4, 79-80)

AUTHORS: Fialkov, D.N. and Platonenko, M.A. SOV-132-58-8-6/16

TITLE: Photogrammetric Method of Detailed Geological Mapping (Fotogrammetricheskiy spozob detal'nogo geologicheskogo kartirovaniya)

PERIODICAL: Razvedka i okhrana nedr, 1958, Nr 8, pp 21 - 25 (USSR)

ABSTRACT: As aerial photography is now widely used for prospecting for mineral deposits, the authors propose the photogrammetric method of detailed geological mapping to replace the antiquated method of geological surveying. As a rule, the topographic map is established with the help of aerial photography and the necessary connection of the identification mark of the aerial photography with the reference of the map. Observing definite conditions, all elements discovered by the photograph can be fixed on the map with great precision. There is 1 map and 2 diagrams and 1 graph.

ASSOCIATION: Omskaya kompleksnaya ekspeditsiya (The Omsk Joint Expedition)

1. Minerals--USSR 2. Minerals--Sources 3. Mapping--Applications
4. Aerial photography--Applications

Card 1/1

FIALKOV, D.N.

Selecting the scale of topographic maps for use in mineral prospecting. Razved. i okh. nedr 26 no.10:15-17 O '60. (MIRA 13:11)

1. Omskaya geologicheskaya ekspeditsiya.
(Prospecting--Maps, topographic)

FIALKOV, D.N.

The necessity of substituting the scale 1:2,500 for 1:2,000 in surveying. Geod. i kart. no. 11:54-55 N '60. (MIRA 13:12)
(Map scales)

S/035/61/000/007/021/021
A001/A101

3,4000

AUTHOR: Fialkov, D.N.

TITLE: The application of geodetic methods to studying movements of the Earth's crust in Western Siberia

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 7, 1961, 27, abstract 7G193 ("Tr. Sibirsk. n.-i. in-ta geol., geofiz. i mineral'n. syr'ya", 1961, no. 7, 94 - 100)

TEXT: The author considers the methods and results of studying movements of the Earth's crust in Western Siberia by using the data of repeated geodetic, topographic and cartographic works. Elevations along the Chelyabinsk-Achinsk line obtained from the levelling in 1912 were compared with data of later repetitions of levelling; it has been concluded that a slight rising took place in the Petropavlovsk region and a more considerable one took place in the region of Barabinsk. In order to study a presumed horizontal displacement of loose strata northwards, results of repeated astronomical latitude determinations in Western Siberia were used. It turned out that the latitudes of all astronomical stations located on loose ground increased during the decades past. Although this in-

Card 1/2

FIALKOV, D.N.

Results of the conference of Siberian topographers.
Geol. i geofiz. no.8:133-134 '62. (MIRA 15:10)
(Siberia—Topographical surveying—Congresses)

S/270/63/000/001/020/024
A001/A101

AUTHOR: Fialkov, D. N.

TITLE: The effect of relief and peculiarities in the Earth's crust structure on deflection of plumb line in the southern part of the Siberian plain

PERIODICAL: Referativnyy zhurnal, Geodeziya, no. 1, 1963, 39, abstract 1.52.258 ("Tr. Omskogo s.-kh. in-ta", 1962, v. 47, no. 2, 59 - 64)

TEXT: The effect of local forms of the relief of the southern part of the Siberian plain, dischargeless troughs, causes a difference of plumb line deflections at points located at opposite slopes, amounting to ~0".2. The effect of the visible topographic masses of the Altay and Urals is larger than the observed plumb line deflections, i.e., these masses are isostatically compensated. The lower part of the region is built up of crystalline rocks of ~50 km thickness. The upper part is represented by sedimentary rocks of 2.45 density and enormous thickness. Near Omsk a reference bore-hole detected a Paleozoic foundation of 2.75 density at a depth of 2,938 m. If Omsk rested upon a crystalline founda-

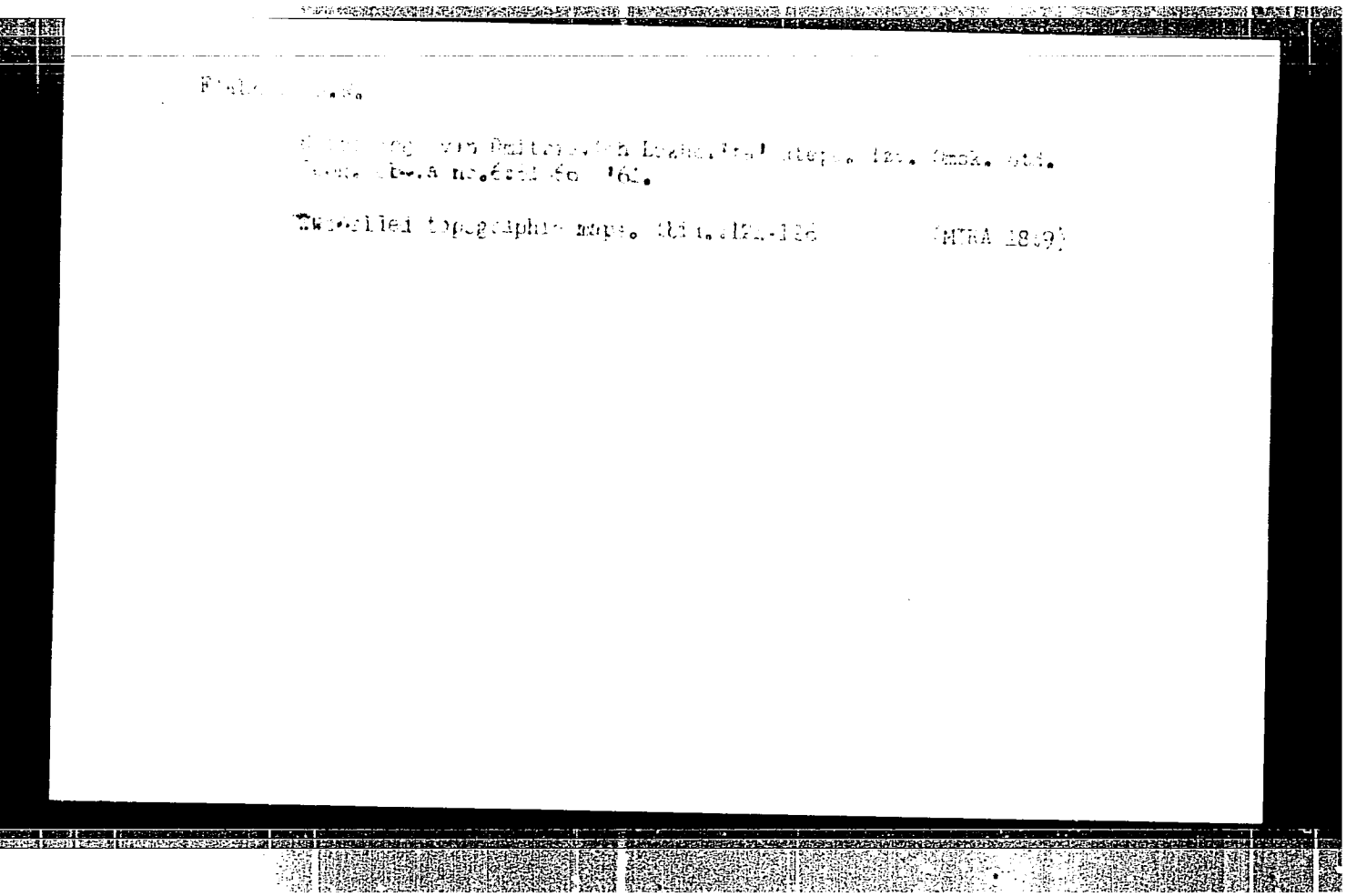
Card 1/2

tion, it would be possible to observe 3-km high mountains toward Kazakhstan, and sloping 900-m mountains were located toward Novosibirsk. To determine the effect on plumb line deflections in the meridian plane of the visible relief in the 300-km radius and of the crystalline foundation relief, the author used the "Scheme of isolines for the bottom of platform Meso-Cenozoic sediments in the Western-Siberian plain", composed in 1958 by the Siberian Scientific-Research Institute of Geology, Geophysics and Mineralized Raw Materials". The observations were conducted at 39 astronomical points of triangulation, located in the region of the triangle Omsk-Pavlodar-Novosibirsk. The correlation coefficient $k = 41\%$ between the calculated and astronomo-geodetic deflections indicates, in the author's opinion, an almost complete absence of relationship between them. The k-value is equal to 78% only for the points gravitating towards the Altay spurs. For the points on the plain $k = 6\%$. The author holds that the main effect on plumb line deflections in the region investigated is exerted by the abyssal structure of the Earth's crust. The layout of the astronomical points is shown in a schematic diagram.

[Abstracter's note: Complete translation]

M. Kogan

Card 2/2



ACC NR: AT6012277 SOURCE CODE: UR/3197/65/000/002/0309/0314

35
B+1

AUTHOR: Fialkov, D. N.

ORG: Omsk Geological Expedition (Omskaya geologicheskaya ekspeditsiya)

TITLE: Authenticity of the vertical movements of the earth's crust in western Siberia

SOURCE: AN EstSSR. Institut fiziki i astronomii. Sovremennyye dvizheniya zemnoy kory. Recent crustal movements, no. 2, 1965, 309-314

TOPIC TAGS: geodetic ~~leveling~~ survey, ~~crustal deformation~~, epeirogeny, ~~repeated leveling~~ earth crust

ABSTRACT: Results of repeated leveling carried out on the Chelyabinsk-Achinsk (1903, 1911—1944, 1945), Novosibirsk-Semipalatinsk (1932—1955), Kurgan-Irgiz (1941—1953), and Omsk—Pavlodar (1921—1941) lines were used to study the vertical movements of the earth's crust in the west Siberian lowland. The differences in relative elevations, measured in the forward and backward directions, determined while leveling the Chelyabinsk-Achinsk line (intervals up to 8 yr between leveling in the different directions) were also used as basic data. A relative uplift of the order of 20 mm/yr was detected; the largest uplift occurred in the southeastern part of the lowland. It was noted that analyses of

ACC NR: AT6011155

the data from a third leveling of the Chelyabinsk-Kurgan line (1953—1954) showed the same direction of movement but not the same magnitudes. Orig. art. has: 2 figures and 2 tables. [ER]

SUB CODE: 08/ SUBM DATE: none

Card 2/2

FIALKOV, L.B.

Method for X-ray diagnosis of spondylolysis and spondylolisthesis. Ortop., travm.i protez. 23 no.5:78-79 My '62. (MIRA 15:11)

1. Iz kafedry rentgenologii (zav. - prof. A.Ye. Rubasheva) Kiyevskogo instituta usovershenstvovaniya vrachey i sanatoriya im. 1 Maya Vsesoyuznogo tsentral'nogo Soveta professional'nykh soyuzov.

(SPINE—DISEASES) (SPINE—RADIOGRAPHY)

FIALKOV, L.B. (Kiyev 25, Desyatinnaya ul., d.5, kv.6)

Case of multiple calcifications of the nucleus pulposus of the thoracic vertebrae. Ortop., travm. i protez. 25 no.9:62-63 S '64. (MIRA 18:4)

1. Iz Nevrologicheskogo sanatoriya imeni 1-go Maya, Kiyev.

PIALKOV, M. A. kand. yurid. nauk.

For the right relations between wholesale and retail organizations. (MIRA 11:4)
Sov. torg. no.4:9-13 Ap '58.
(Wholesale trade) (Retail trade)

ALIPOV, V.N.; SADIKOV, I.N.; FIALKOV, M.A.; ISHKOVA, A.K., red.; BABICHEVA, V.V., tekhn.red.

[Transportation and the delivery of goods; collection of regulations] Transport i perevozki v torgovle; sbornik normativnykh materialov. Moskva, Gos.izd-vo torg.lit-ry, 1959. 621 p. (MIRA 12:12)

(Delivery of goods (Law))

FIALKOV, M.A.; GLAZUNOVA, V.V., red.; MAMONTOVA, N.N., tekhn.red.

[Agencies of state trade administration in the U.S.S.R. and their improvement] Organy gosudarstvennogo upravleniia torgovlei v SSSR i ikh sovershenstvovanie. Moskva, Gos.izd-vo torg.lit-ry, 1960. 139 p. (MIRA 14:1)
(Russia—Commerce)

FIAIKOV, M.A. kand.yuridicheskikh nauk

Give unremitting attention to commercial agreements. Sov. torg. 33 no.2:3-6 F '60. (MIRA 13:5)
(Wholesale trade)

FIALKOV, M.N., inzh.

Calculation of the dynamic modes of operation of synchronous stepping motors. Elektrotekhnika 35 no.9:54-57 S '64.
(MIRA 17:11)

FIALKOV, S.B., inzh.

Assembly line techniques in the manufacture of auxiliary boiler equipment in a factory. Energ. stroi. no.38:84-87 '64.
(MIRA 17:10)

1. Khar'kovskiy kotel'no-mekhanicheskiy zavod tresta "Teploenergomontazh."

MIKHNEVICH, G.V. (Moskva); FIALKOV, V.M. (Moskva)

Effect of damping circuits on the dynamic characteristics of an automatically controlled electric power system. Elektrichestvo no.4:10-15 Ap '64. (MIRA 17:4)

MIKHNEVICH, G.V. (Moskva); FIALKOV, V.M. (Moskva)

Automatic control of compensating units in electric power systems.
Izv. AN SSSR.Energ. i transp. no.3:31-42 My-Je '65.
(MIRA 18:12)

1. Submitted March 12, 1965.

MIKHNEVICH, G.V. (Moskva); FIALKOV, V.M. (Moskva)

System for the automatic control of regulated reactors.
Elektrichestvo no.12:66-71 D '65.
(MIRA 18:12)

FIALKOV, Yu.; OSTROMOUKHOV, M.

Method of calculating technically based standards for unit-operation processes. Sots. trud 5 no.6:74-78 Je '60. (MIRA 13:11)
(Dyes and dyeing--Production standards)

FIALKOV, Yu., kand.khim.nauk

Riddles of ultrapure substances. Znan. ta pratsia no.1:14-15 Ja '62. (MIRA 15:1)

(Chemicals)

FIALKOV, Yu., kand.khim.nauk

Third way. Znan.ta pratsia no.9:12-14 S '62. (MIRA 15:11)
(Radiochemistry)

FIALKOV, Yu., kand.khim.nauk

One hundred question marks. Znan. ta pratsia no.3:13-14 Mr '63. (MIRA 16:10)

FIALKOV, Yu., kand. khimicheskikh nauk

Effect of purity. Znan.-sila 38 no.4:22-24 Ap '63.
(MIRA 16:8)

FEDORENKO, N.; POGOSTIN, S.; FIALKOV, Yu.

Ways to increase labor productivity in the chemical industry. Vop. ekon. no.1:10-16 Ja '63. (MIRA 16:2)

1. Chlen-korrespondent AN SSSR (for Fedorenko).
(Chemical industries—Labor productivity)

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61493

Author: Khaskin, I. G., Yagupol'skiy, L. M., Fialkov, Yu. A., Yakovleva, V. Ya., Vishnevskaya, G. I.

Institution: None

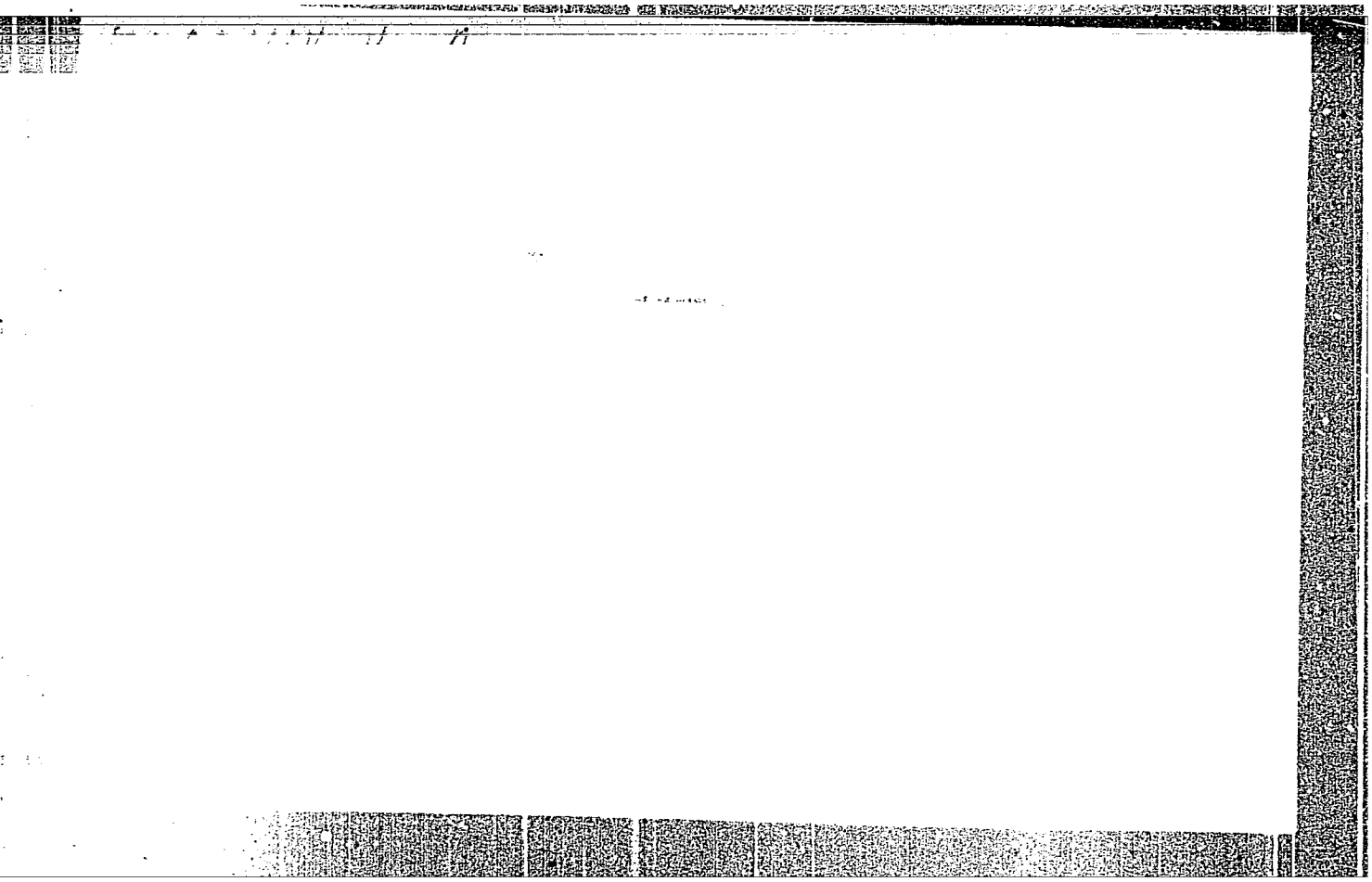
Title: On Preparation of 2-amino-1-p-nitro-phenylethanol

Original Periodical: Med. prom-st' SSSR, 1955, No 2, 30-32

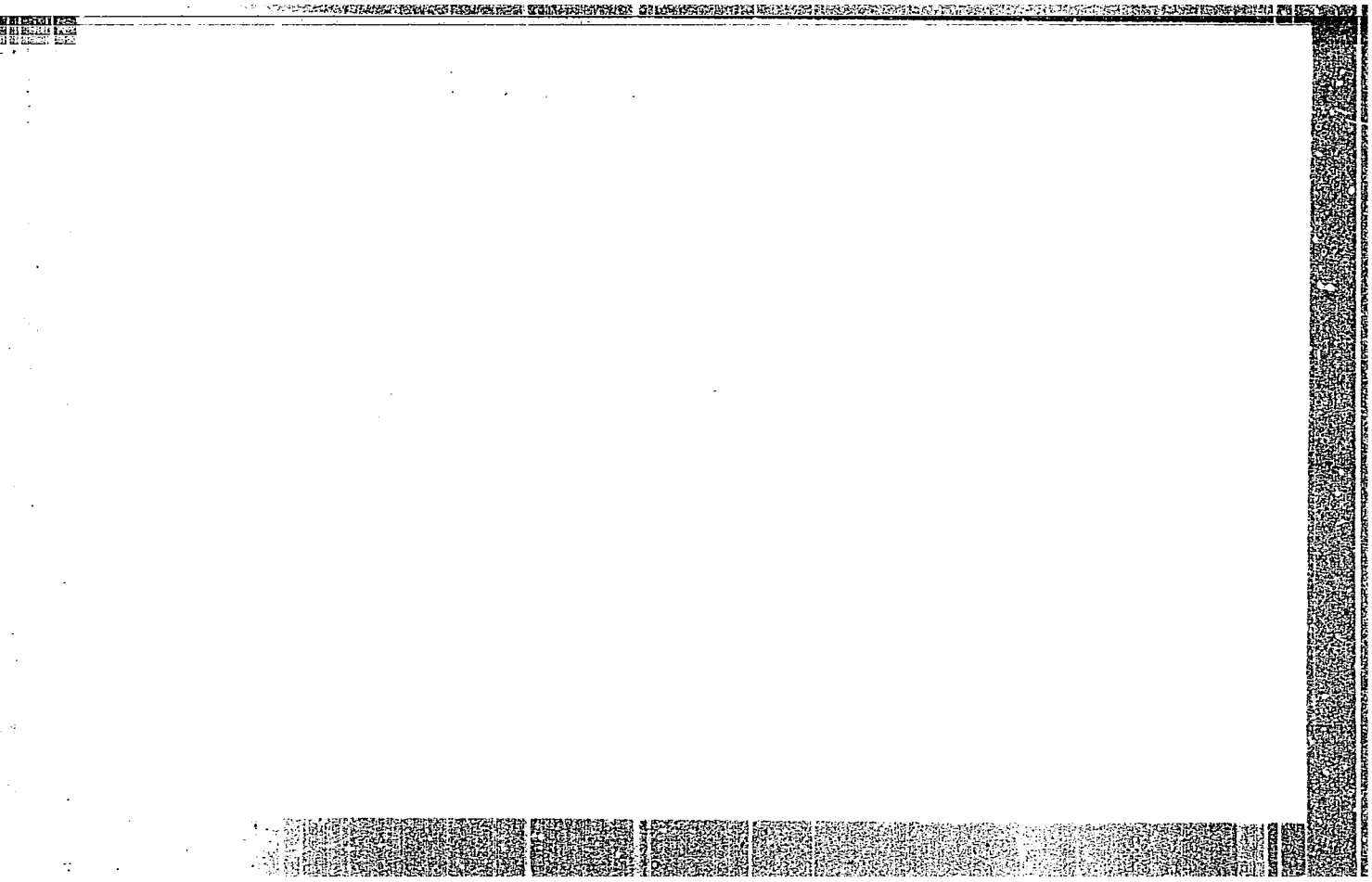
Abstract: 2-amino-1-p-nitrophenylethanol (I) is obtained by simultaneous saponification and amination of the acetate of p-nitrophenyl-chloromethylcarbinol (II) with aqueous-methanol NH_3. 0.3 mol I 520 ml 26% NH_3 and 500 ml CH_3OH are heated in an autoclave (55°, 1.5 od m, 1.5 hours with stirring), boiled down in a flask to 1/3 of initial volume, cooled (40-50°) acidified with 27 g 80% CH_3COOH + 15 ml water. To the solution are added (after removal of tarry material) 45 ml 40% NaOH (15-18°) to an alkaline reaction, I is filtered off, washed with ice water, pressed; yield 82.5% (on the basis of II), MP 133-134° (from alcohol).

Card 1/1

M. V. Lomonosov, Chem Pharm Plant, Kiev



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010011-0"



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010011-0"

SOV/79-29-9-60/76

5(3)

AUTHORS: Yagupol'skiy, L. M., Fialkov, Yu. A.

TITLE: 2-Trifluoromethyl Naphthalene and Its Derivatives

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 3082-3086 (USSR)

ABSTRACT: The trifluoromethyl derivatives of naphthalene have hitherto not been investigated. The synthesis of 1-trifluoromethyl naphthalene briefly mentioned in an American patent (Ref 1) is very insufficiently described, i.e. no constants and no exact course of synthesis, both of the final product and of 1-trichloromethyl naphthalene as initial product are given. The trichloromethyl derivatives of naphthalene are difficultly accessible (Ref 2). In the experiment made by A. N. Nesmeyanov and co-workers (Ref 3) to obtain α-trichloromethyl naphthalene by thermal decomposition of the copper oxide salt of trichloroacetic acid in an excess amount of naphthalene it could not be separated. For this reason the o-chlorotrichloromethyl derivatives of naphthalene which were obtained from the corresponding oxynaphthoic acids with PCl_5 were used as initial products for the synthesis of the trifluoromethyl compounds of the naphthalene series. From the three o-oxynaphthoic

Card 1/4

2-Trifluoromethyl Naphthalene and Its Derivatives

acids, R. Wolffenstein (Ref 4) succeeded in transforming only 1-oxy-2-naphthoic acid into 1-chloro-2-trichloromethyl naphthalene; the yield is not specified. The remaining acids could be identified only in the form of the corresponding o-chloronaphthoic acids. The authors repeated Wdffenstein's experiments. They succeeded in synthesizing 1-chloro-2-trichloromethyl naphthalene from 1-oxy-2-naphthoic acid in a yield of 35%. The replacement of chlorine by fluorine in 1-chloro-2-trichloromethyl naphthalene with SbF_3 in the presence of $SbCl_5$ and without the latter gave no positive results. The fluorination of 1-chloro-2-trifluoromethyl naphthalene succeeded only in solvents. In chlorobenzene a yield of 90% of 1-chloro-2-trifluoromethyl naphthalene was obtained. 1-chloro-2-trifluoromethyl naphthalene was transformed, on heating with copper cyanide in the presence of pyridine, into the nitrile of 2-trifluoromethyl-1-naphthoic acid from which the amide was obtained. This amide yielded,

2-Trifluoromethyl Naphthalene and Its Derivatives

according to the scheme described, 1-amino-2-trifluoromethyl naphthalene via 2-trifluoromethyl-1-naphthoic acid according to Hofmann. In the Hofmann reaction, which proceeds smoothly, the forming 1-amino-2-trifluoromethyl naphthalene hydrolyzes on heating in alkaline medium. For this reason the amine had to be removed by distillation from the reaction zone already at the moment of the formation. Thus, the otherwise low yield could be increased to 61%. By this method the instability of the trifluoro methyl group in 1-amino-2-trifluoromethyl naphthalene towards aqueous alkali lyes was found (Ref 7). From the amine (VI) and α-naphthylamine (Ref 8) the dyestuffs (A) were obtained by diazotization and coupling with dimethyl aniline. As may be seen from the table the introduction of the trifluoromethyl group in molecule of the dyestuff (A) shifts its absorption maximum in the direction of the short waves in neutral as well as in acid solutions. There are 1 table and 9 references, 1 of which is Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR (Institute of Organic Chemistry of the Academy of Sciences

SOV/79-29-9-60/76

2-Trifluoromethyl Naphthalene and Its Derivatives

of the Ukrainskaya SSR)

SUBMITTED: July 18, 1958

Card 4/4

S/079/60/030/04/55/080
B001/B002

5.3600

AUTHORS: Yagupol'skiy, L. M., Fialkov, Yu. A.

TITLE: 1-Phenyl-2-trifluoromethylethylene Phenyltrifluoromethylacetylene and Their Derivatives

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1291-1294

TEXT: The authors synthesized the vinylene homolog of benzotrifluoride (I) and the corresponding acetylene compound (II): $C_6H_5CH = CH\text{-}CF_3$ (I), $C_6H_5C \equiv C\text{-}CF_3$ (II). The initial product used was 1-phenyl-2-trichloromethylethylene (III) which was obtained by adding trichlorobromo methane to styrene, and separating hydrogen bromide (Refs. 1,2). Most successful was the substitution of chlorine by fluorine in compound (III) by means of antimony trifluoride in dioxane, by which (I) was obtained in good yields. 1-phenyl-2-trifluoromethylethylene (I) easily forms addition compounds with chlorine and bromium, and develops two diastereoisomers which cannot be dissolved by vacuum distillation. Compound (I) does not enter into the dienesynthesis, and according to Prilezhayev it does not develop an oxide

Card 1/3

if benzene hydroperoxide is added. Compound (II) was synthesized according to the following scheme:

$$C_6H_5CH(Br)-CH(Br)CF_3 \xrightarrow{N(C_2H_5)_3} C_6H_5CH{=}CBrCF_3 \xrightarrow{KOH} (II)$$

(IV) (V) (Refs. 4,5)

In phenyltrifluoromethylacetylene the trifluoromethyl group is stable against alkali liquor, since good yields of compound (II) are obtained from (V) by action of melted KOH at 230°. Phenyltrifluoromethylacetylene easily forms addition compounds with 2 bromium atoms; further additions do not take place. Four atoms of chlorine form an addition compound with (II). Unlike bis-(trifluoromethyl)-acetylene (Ref. 6),(II) does not form addition compounds with acetic acid. All liquid compounds obtained are described in the table. The absorption maxima and extinctions of (I) and (II) in alcohol were determined. A similar shift of the absorption maximum towards shorter waves was found in the comparison between ultraviolet spectra of styrene and phenylacetylene (Ref. 9). There are 1 table and 9 references, 1 of which is Soviet.

1-Phenyl-2-trifluoromethylethylene, Phenyltrifluoromethylacetylene and Their Derivatives

S/079/60/030/04/55/080
B001/B002

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR (Institute of Organic Chemistry of the Academy of Sciences, Ukrainskaya SSR)

SUBMITTED: March 17, 1959

Card 3/3

VISHNEVSKAYA, G.O.; GORBUNOVA, A.S.; ZHELOBENKO, V.A.; FIALKOV, Yu.A.; SHEVCHENKO, O.I.; YAGUPOL'SKIY, L.M.

Synthesis of the preparation bilignost. Med. prom. 14 no.9:25-30 S '60. (MIRA 13:9)

1. Kiyevskiy khimiko-farmatsevticheskiy zavod im. M.V. Lomonosova.
(ADIPIC ACID)

YAGUPOL'SKIY, L.M.; FIALKOV, Yu.A.

Derivatives of a vinylene homolog of benzotrifluoride. Zhur. ob. khim. 31 no. 11:3586-3593 N '61. (MIRA 14:11)

1. Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR.
(Toluene)

FIALKOV, Yu., kand.khim.nauk

Prominent chemist. Znan. ta pratsia no.8:15 Ag '61.
(MIRA 14:8)
(Butlerov, Aleksandr Mikhailovich, 1828-1886)

YAGUPOL'SKIY, L.M.; FIALKOV, Yu.A.; YUFA, P.A.

2-Trifluoromethylnaphthalene and its derivatives. Zhur.ob. khim. 31 no.12:3962-3970 D '61. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.
(Naphthalene)

YAGUPOL'SKIY, L. M.; FIALKOV, Yu. A.

Saponification of nitric esters, derivatives of p-nitrophenylmethylcarbinol. Zhur. ob. khim. 33 no.1:309-314 '63. (MIRA 16:1)

1. Institut organicheskoy khimii AN UkrSSR.

(Nitric acid) (Methanol) (Saponification)

BYSTROV, V.F.; YAGUPOL'SKIY, L.M.; STEPANYANTS, A.U.; FIALKOV, Yu.A.

6 -Constants of substituents with a trifluoromethyl group. Dokl. AN SSSR 153 no.6:1321-1324 D '63. (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N. Kondrat'yevym.

YAGUPOL'SKIY, L.M.; BYSTROV, V.F.; STEPANYANTS, A.U.; FIALKOV, Y.A.

Effect of the substituents with a trifluoromethyl group on the reactivity of aromatic compounds. Zhur. ob. khim. 34 no.11: 3682-3690 N '64 (MIRA 18:1)

1. Institut organicheskoy khimii AN UkrSSR i Institut khimicheskoy fiziki AN SSSR.

KULIK, V.F.; YEGOROV, Yu.P.; PANTELEYMONOV, A.G.; FIALKOV, Yu.A.; YAGUPOL'SKIY, L.M.

Electronic interaction and infrared spectra of para-derivatives of benzene $X - C_6H_4 - Y - CF_3$. Teoret. i eksper. khim. 1 no.2:171-178 Mr-Ap '65. (MIRA 18:7)

1. Institut khimii vysokomolekulyarnykh soyedineniy AN UkrSSR, Kiyev i Institut organicheskoy khimii AN UkrSSR, Kiyev.

LOBOV, V.P.; YAGUPOL'SKIY, L.M.; [illegible], V.I., FIALKOV, Yu.A.

Fungicidal properties of the substitutes of benzotrichloride and benzilidene chloride. Prikl. biokhim. i mikrobiol. 1 no.3:355-357 My-Je '65. (MIRA 18:7)

1. Institut organicheskoy khimii AN UkrSSR.

ACC NR: AP6029834 (A) SOURCE CODE: UR/0073/66/032/008/0849/0852

AUTHOR: Yagupol'skiy, L. M.; Pavlenko, N. G.; Solodushonkov, S. N.; Fialkov, Yu. A.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Nitro derivatives of benzotrichloride

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 8, 1966, 849-852

TOPIC TAGS: organic nitro compound, halogenated organic compound, mixed halogenated organic compound

ABSTRACT: An attempt was made to find new methods of preparing nitro derivatives of benzotrichloride. Nitration of benzotrichloride was carried out by using pure nitric acid and nitrating mixtures of various compositions. With HNO_3 alone, taken in amounts of 10-30 moles per mole of benzotrichloride, even at -20°C a considerable hydrolysis of the trichloromethyl group takes place, and the yield of the products, a mixture of isomeric nitrobenzotrichlorides, does not exceed 30%. The optimum nitrating mixture consists of 25% HNO_3 and 75% H_2SO_4 (by weight), 3 moles of HNO_3 being taken for 1 mole of benzotrichloride. The yield of isomeric nitrobenzotrichlorides then exceeds 90%, and the isomers consist of 16.8% ortho-, 20.7% para- and 62.5% metanitro derivatives. Fluorination of p-nitro-α,α,α-dichlorobromotoluene with antimony trifluoride and anhydrous HF produced p-nitrobenzotrifluoride in good yield. The substitution of fluorine

Card 1/2 UDC: 547.539.232.3

ACC NR: AP6029834

for chlorine and bromine in p-nitro-α,α,α-dichlorobromotoluene by means of HF proceeds with much more difficulty than in benzotrichloride; this is because the presence of the electronegative substituent in the benzotrichloride molecule hinders the halogen exchange.

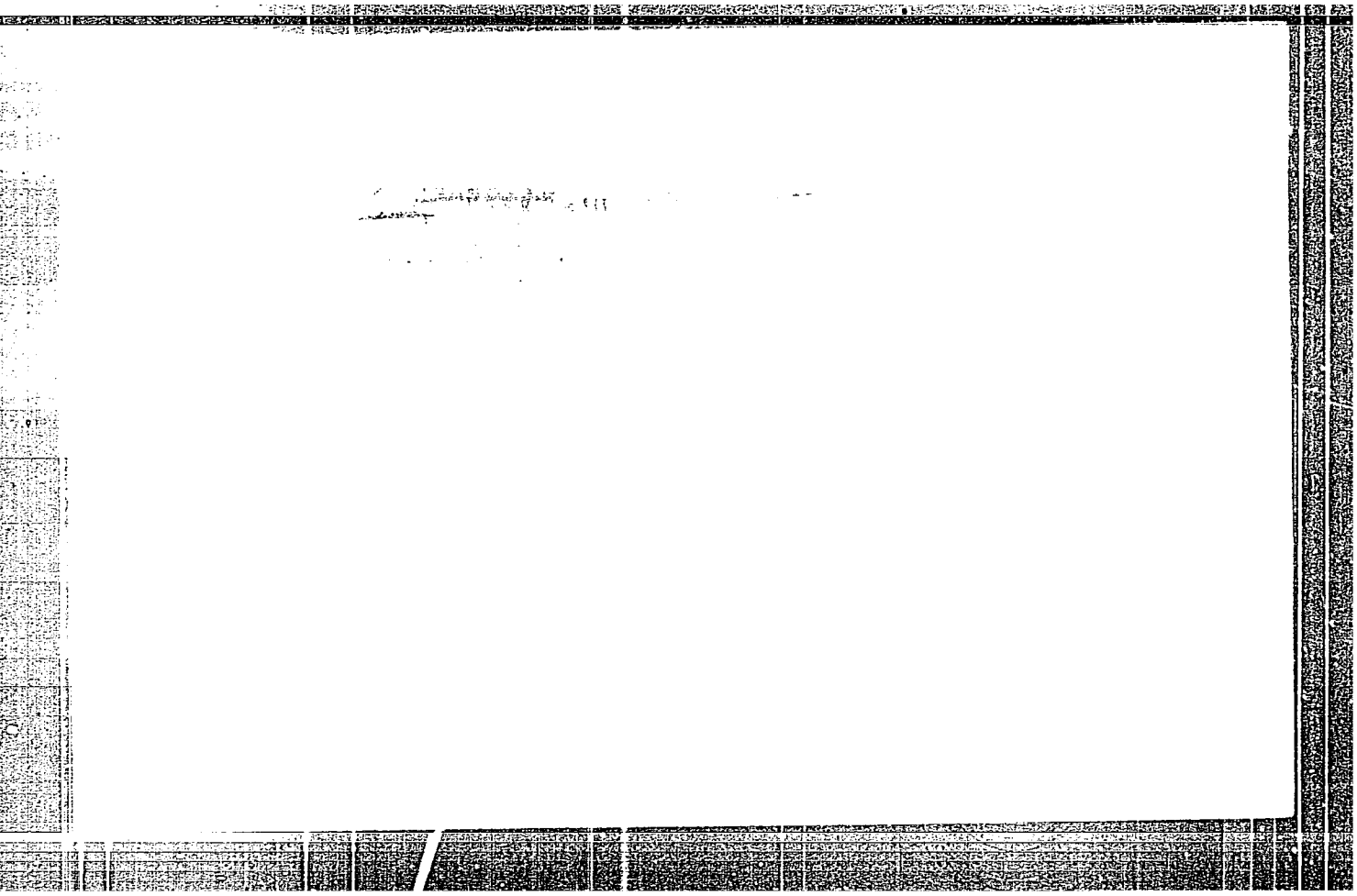
SUB CODE: 07/ SUBM DATE: 04Feb55/ OTH REF: 013

Card 2/2

YAGUPOL'SKIY, L.M.; FIALKOV, Yu.A.

Vinylene homolog of benzotrifluoride. Part 3: Polarization of a double bond in the derivatives of 1-phenyl-2-trifluoromethylethylene. Zhur. ob. khim. 35 no.6:1088-1091 Je '65. (MIRA 18:6)

1. Institut organicheskoy khimii AN UkrSSR.



FIALKOV, Yu.M.; POGOSTIN, S.Z., kand.ekonom.nauk

Rate of increase of labor productivity in the chemical industry and factors which determine it. Zhur.VKHO 9 no.1:34-41 '64. (MIRA 17:3)

FIALKOV, Yu.M.

Establishment of wage scales for labor in chemical industries. Khim. prom. no.5:390-393 My '64. (MIRA 17:9)

USSR/Inorganic Chemistry. Complex Compounds. C

Abs Jour : Referat. Zhurnal Khimiya, No 6, 1957, 18874

Author : V.L. Pavlov, Yu.Ya. Fialkov.
Inst : -
Title : Study of Interchange Reactions of Iodine in Systems Containing Iodine Chloride Using the Method of Marked Atoms.

Orig Pub : Zh. Obshch. Khimii, 1956, 26, No 6, 1531-1534.

Abstract : Using I^{131} as a radioactive indicator, the interchange reaction of ICl with I_2, IO_3^- and IO_4^- in 0.4 of n. HCl at 18° was studied. When the interchange reaction between ICl and I_2 was studied, I_2 was marked and the components were separated by the extraction of I_2 with chloroform; and when the interchange reaction between ICl and KIO_3 or $NaIO_4$ was studied, marked ICl was used and ICl was extracted by ether. It was shown that in the system I_2 - JCl the complete interchange took place less than in 5 min. (separa-

Card 1/2 -36-

Kiev State Univ.

FIALKOV, Yu. Ya.

USSR/ Inorganic Chemistry. Complex Compounds C.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11436

Author : Pavlov V.L., Fialkov Yu. Ya.
Title : On Hypotriioditic Acid

Orig Pub : Zh. obshch. khimii, 1956, 26, No 6, 1534-1540

Abstract : Half-exchange period of 0.0012 M HIO_3 and 0.0006 M solution of iodine in 5N H_2SO_4 is of 460 hours at 18°; the process is not catalyzed by Mn^{2+} ions. Under the same conditions exchange between iodine and electropositive iodine of a solution of hypotriioditic acid I_3OH (I) (Scrabal A., Buchta F., Chem. Ztg., 1907, 33, 1193) is completed within 4-5 minutes. This confirms that the solution under study contains [sic]

Kiev State Univ.

1/1

FIALKOV, Yu.YA., Cand Master Chem Sci—(diss) "The viscosity of dual systems containing silicon tetrachloride or germanium." Kiev, 1957, 16 pp, (Min Higher Educ UkrSSR. Kiev Polytechnical Inst. Dept of Gen'l Chemistry), 100 copies.

(KL, No 40, 1957, 90)

FIALKOV, Yu. YA.

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions. B-8

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 414

Author : V.V. Udovenko, Yu.Ya. Fialkov.
Inst : -
Title : Viscosity of Systems Germanium Tetrachloride - Ethers and Esters.

Orig Pub : Zh. neorgan. khimii, 1957, 2, No 2, 434-438

Abstract : The viscosity and density of binary systems composed by germanium tetrachloride (I) with ethyl acetate (II), anisole (III), dioxane (IV), diethyl ether (V) and dimemethylsulfide (VI) were measured. The systems I - II and I - III were studied at 20, 30 and 40°, the system I -IV was studied at 25 and 40°, and the systems I - V and I - VI were studied at 20°. All the operations of preparing the solutions and carrying out the measurements were done under airtight conditions. Viscosity was measured

Card 1/2

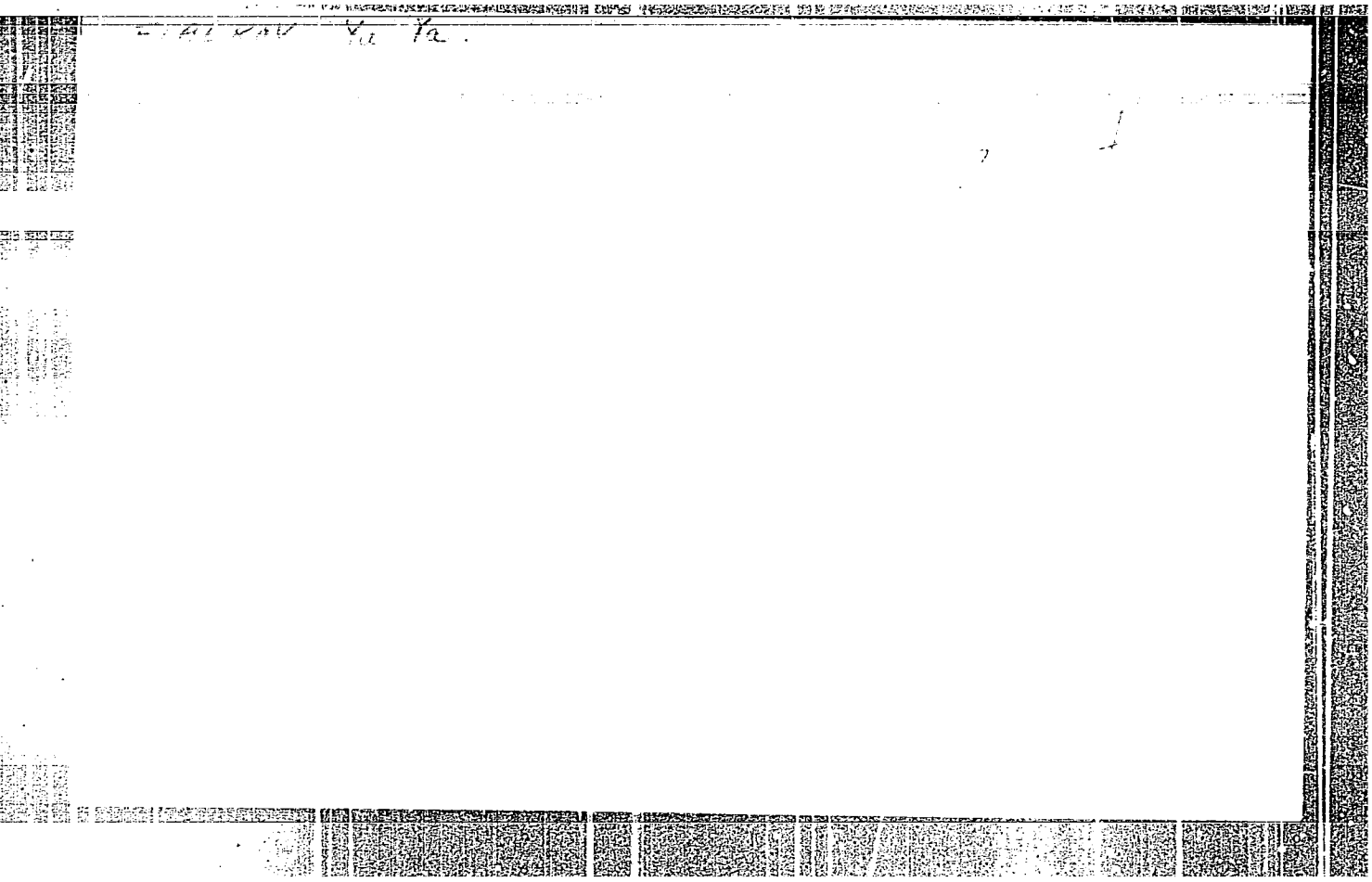
Work carried out at Kiev Polytech Inst.

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions. B-8

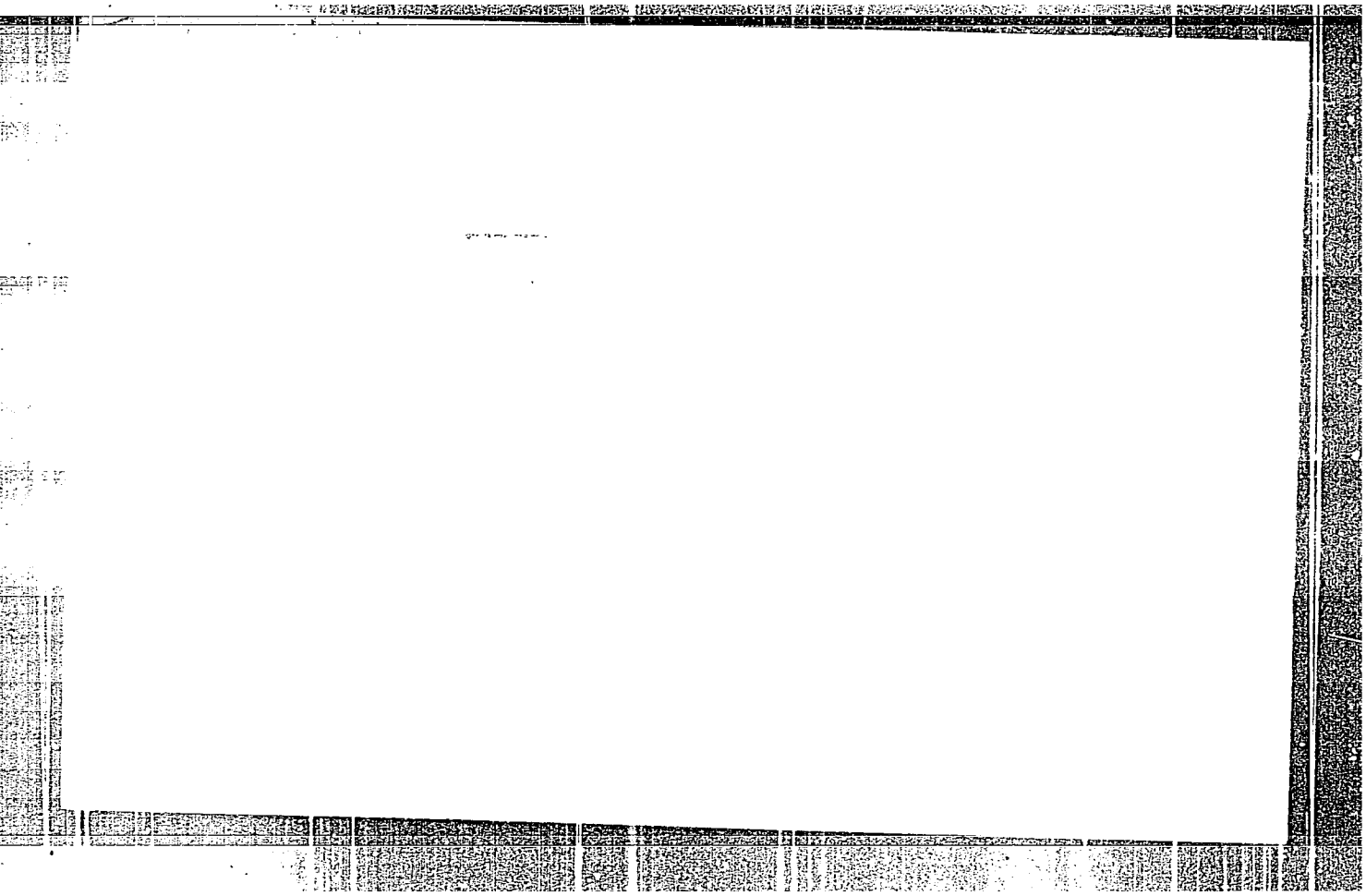
Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 414

in a closed viscosimeter for volatile liquids described earlier (Toropov A.P., Zh. prikl. khimii, 1939, 12, 1744). The viscosity isotherms of the studied systems are convex with reference to the composition axis, which indicates the absence of a chemical interaction between the components. The authors connect the absence of interaction with an increase of the screening of the central atom in I.

Card 2/2



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010011-0"



APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413010011-0"

UDOVENKO, V.V.; FIALKOV, Yu.Ya.

Dielectric constants of systems with silicon tetrachloride and germanium tetrachloride. Zhur.neorg.khim. 2 no.9:2126-2128 S '57. (MIRA 10:12)

1.Kiyevskiy politekhnicheskiy institut.
(Silicon chlorides) (Germanium chlorides)
(Dielectric constants)

PAVLOV, V.L.; FIALKOV, Yu.Ya. [Fialkov, IU.IA.]

Iodine exchange reactions between compounds of various oxidation levels. Nauk.zap.Kyiv.un. 16 no.15:71-78 '57. (MIRA 11:11)
(Iodine compounds)

AUTHORS: Udovenko, V. V., Fialkov, Yu. Ya. 79-28-3-54/61

TITLE: The Viscosity of Binary Systems With a Substitution Reaction (Vyazkost' dvoynykh sistem s obmennym vzaimodeystviyem)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 814-818 (USSR)

ABSTRACT: The viscosity diagrams of binary systems are to a great extent systematized at present and are often used for the explanation of the occurring processes. When systems with chemical reactions are considered the present classification (Ref. 1) provides diagram types for such systems in which chemical reactions take place with a decrease of the molecular number, e. g. in the system water-chloral, or for systems in which the molecular number does not change, e. g. in the system acetic anhydride-water. Such systems have been little investigated. Therefore N. A. Trifonov suggested such model systems as, among other, diethyl-water, systems conducive to visualization of the type of the diagram of viscosity when only

Card 1/3

one chemical compound without a decrease of the molecular number is formed. It must be noted that in the system acetic anhydride-water the number of molecules remains the same after the chemical reaction had taken place as two molecules of acetic acid are formed from the molecules of this anhydride and water. The reaction leading to the formation of a chemical compound is not the only possible one for reactions where the molecular number remains unchanged. Not less frequent is the substitution reaction where the final products are two chemical compounds. Systems of this kind are of great interest for the theory of physical and chemical analysis; they have, however, not been investigated by any chemical scientist with respect to the viscosity method. Below, data on the viscosity of systems are mentioned in which one component is silicontetrachloride and the other one of the following compounds: methylal (dimethoxymethane), acetal (1,1-diethoxyethane) and acetic anhydride. According to the methods of viscosity and density the binary systems silicontetrachloride-methylal at 20 and 30°C, silicontetrachloride-acetal at 20, 30 and 40°C and silicontetrachloride-acetic acid anhydride in benzene

The Viscosity of Binary Systems With a Substitution Reaction

as indifferent medium at 20°C were investigated. The authors found that in the reaction of silicontetrachloride with methylal the final products are: dichlorodimethoxysilane and chlorodimethylether, and with acetal: dichloroethoxysilane and chlorodiethylether. This reaction represents a new method of the synthesis of dichlorodialkoxysilane which differs from the existing ones by its good yield and by the purity of the products. There are 1 figure, 3 tables and 5 references, 4 of which are Soviet.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnical Institute)

SUBMITTED: March 3, 1957.

Card 3/3

SOV/79-29-5-7/75

5(2)
AUTHOR: Fialkov, Yu. Ya.

TITLE: On Experimental Errors in Some Papers Dealing With the Investigation of Tetrachlorides of Elements of the 4th Group (Ob eksperimental'nykh oshibkakh v nekotorykh rabotakh po izucheniyu tetrakhloridov elementov 4 gruppy)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1442 - 1446 (USSR)

ABSTRACT: The present paper is a criticism of some papers dealing with the investigation of tetrachlorides of the elements of the 4th group. The most characteristic property of tetrachlorides of elements of the 4th group is their extremely pronounced tendency towards hydrolysis. For this reason very careful consideration must be given to the fact that all substances used in this work are thoroughly dried. In addition to this such conditions must be provided for that a penetration of moisture into the reagent containers is made impossible. The occurrence of minute quantities of hydroxides of the elements under review and of hydrochloride are apt to deform physical and physico-chemical properties of the solutions and the compounds formed in such a way that in-

Card 1/2

On Experimental Errors in Some Papers Dealing With the Investigation of Tetrachlorides of Elements of the 4th Group SOV/79-29-5-7/75

accurate or entirely wrong results are obtained. This applies to the papers by Yu. N. Vol'nov (Ref 1), Yu. N. Vol'nov, P. M. Glezer and I. Ya. Rivkina (Ref 4), W. R. Trost (Ref 5) and F. Wertiporoch and B. Altman (Ref 7). There the inexact and wrong results are mainly due to the penetration of moisture into the solutions investigated. There are 9 references, 5 of which are Soviet.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnic Institute)

SUBMITTED: May 4, 1958

Card 2/2

FIALKOV, Yu.Ya., kand.khim.nauk

In the light of radioactivity. Nauka i zhyttia 10 no. 10:13-16 O '60.
(MIRA 14:4)
(Radioactivity)

UDOVENKO, V.V.; FIALKOV, Yu.Ya.

Hexachlorogermanates of alkali metals. Zhur.neorg.khim. 5 no.7:1502-1504 Jl '60. (MIRA 13:7)

1. Kiyevskiy politekhnicheskiy institut.
(Alkali metal germanates)

FIALKOV, Yu.Ya.

Reactions of iodine exchange in systems containing iodine trichloride. Zhur.neorg.khim. 5 no.7:1567-1571 Jl '60. (MIRA 13:7)

1. Kiyevskiy politekhnicheskiy institut. Laboratoriya radiokhimii.
(Iodine) (Iodine chloride)

S/078/60/005/007/036/043/XX
B004/B060

AUTHOR: Fialkov, Yu. Ya.

TITLE: Study of the Reactions of Iodine Exchange in Systems Containing Iodine Trichloride

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 7, pp. 1567-1571

TEXT: A short literature survey of iodine exchange reactions shows that among all binary systems those with I^{3+} and the iodide - periodate system are the only ones left unconsidered so far. The author attempted to fill this gap and to acquire a better knowledge of rate and mode of iodine exchange in homogeneous binary systems. The article under consideration deals with a study of the iodine exchange in the systems ICl_3 - ICl; ICl_3 - IO_3^-, and ICl_3 - IO_4^- by means of tagging ICl_3 with I^{131}. 1) ICl_3 - ICl system. The hydrochloric acid solutions of ICl_3 were prepared in accordance with F. Ye. Kagan (Ref. 11) by interaction of KI and KIO_3 in 0.8 N HCl. ICl_3

was tagged with I^{131} by adding radioactive INa to IK. The solution of ICl in HCl was prepared by A. I. Gengrinovich's method (Ref. 12). [Abstracter's Note: This method is not described here]. ICl was separated from ICl_3 out of the mixture of their hydrochloric acid solutions by means of an excess of concentrated NaOH (reactions: $3ICl + 6NaOH = 2NaI + NaIO_3 + NaCl + 3H_2O$ and $3ICl_3 + 12NaOH = NaI + 2NaIO_3 + 9NaCl + 6H_2O$). NaI was separated from $NaIO_3$ by means of a method described by K. B. Zaborenko, M. B. Neyman, and V. I. Samsonova (Ref. 13) making use of $AgNO_3$. The precipitates were checked for their activity by a Geiger-Müller counter. The result is shown in Table 1.

№ опыта	Активность в имп/мин. AgJ, полученного из:	
	JCl_3	JCl
1	1916	1876
2	1813	1779
3	1494	1501

Study of the Reactions of Iodine Exchange in Systems Containing Iodine Trichloride

S/078/60/005/007/036/043/XX
B004/B060

2) ICl_3 - IO_3^- system. The author examined aqueous solutions of ICl_3, which was tagged with I^{131}, intermixed with KIO_3, and stored in a thermostat at 20°C for differently long periods. The IO_3^- was precipitated by means of $Ba(NO_3)_2$. the precipitated $Ba(IO_3)_2$ was reduced to BaI_2 by means of acidified Na_2SO_3, and precipitated by means of $AgNO_3$. After separation of $Ba(IO_3)_2$, the ICl_3 was extracted with ether, mixed with aqueous Na_2SO_3 solution, added to the aqueous $NaNO_2$ layer, the resulting I_2 being extracted by means of chloroform and, for separating from chlorine, again treated with Na_2SO_3 solution, while the iodine was precipitated from the aqueous layer by means of $AgNO_3$. Table 2 shows the result.

Card 3/5

Study of the Reactions of Iodine Exchange in Systems Containing Iodine Trichloride

S/078/60/005/007/036/043/XX
B004/B060

№ опыта	Время обмена, часы	Активность в импульсах AgJ, полученного из:	
		JCl_3	KJO_4
1	0,75	842	8
2	1,25	788	5
3	72,0	1375	12
4	122,0	1206	10

3) The ICl_3 - $NaIO_4$ system was studied in a similar manner. 4) NaI - $NaIO_4$ system. In this system, NaI was tagged, the reaction taking place in 0.1 N NaOH. The components were separated by the method described in Ref. 13 by allowing $AgIO_4$ to dissolve in concentrated NH_3. The following results were obtained: 1) In the ICl_3 - ICl system, a complete exchange took place over a period shorter than the time of treatment of the mixture (3 min). This is explained by tautomerism between $I^{3+}[Cl_3^-]$ and $I(Cl_2)Cl^-$. 2) No iodine exchange was observed in the three other systems. Results

Card 4/5

confirm the conclusions drawn by the authors of Ref. 9 to the effect that an exchange takes place only with reversible chemical interaction. The author mentions V. L. Pavlov and a study conducted jointly with V. P. Tolstikov. There are 4 tables and 16 references: 10 Soviet, 2 US, 3 French, and 1 German.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut, Laboratoriya radiokhimii (Kiyev Polytechnic Institute, Laboratory of Radiochemistry)

SUBMITTED: March 20, 1959

Legend to Table 1: Exchange in the ICl_3 - ICl system a) No. of experiment, b) activity in imp/min of AgI, obtained from:
Legend to Table 2: Exchange in the ICl_3 - KIO_3 system a) No. of experiment, b) duration of exchange, hours, c) activity in imp/min of AgCl, obtained from:

S/079/60/030/012/001/027
B001/B064

AUTHOR: Fialkov, Yu. Ya.

TITLE: The Diagram "Composition - Property" as a Function of the Chemical Interaction in Binary, Liquid Systems. I. Diagrams of Viscosity

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12, pp. 3860-3865

TEXT: This study is based on the theory that the diagram "composition - property" in binary liquid systems is due to chemical interaction. The problem is viscosimetrically studied. The author assumed that in the case of the viscosity diagrams of binary liquid systems, the degree of chemical interaction must reach the maximum, at least qualitatively, with respect to the viscosity value. One of the methods of studying the effect of the degree of chemical interaction upon the kind of the viscosity diagram, is based on a comparison of several systems in which one and the same component reacts with a number of other components whose activity with respect

to the former was determined by independent methods. Some of these components along with data from publications are listed. As far as the system "acetic acid and acids at 25°C" is concerned, it is shown that a visible relation of the maximum value of viscosity to the degree of chemical interaction cannot be established in the binary system. This was ascribed to the effect of viscosity of the second component upon the maximum viscosity. Data on the viscosities of the systems "perchloric acid - acids at 50°C" are presented. The second components are arranged in accordance with the reduction of their acidity. Since perchloric acid is a particularly strong acid, all second components in the above system are bases according to M. I. Usanovich (Refs. 16-19). The form of the isothermal lines of viscosity changes with the degree of interaction. The viscosity of the systems "nicotine - acids at 75°C" is given. The acids are arranged such that in this series the degree of chemical interaction is bound to decrease from formic to stearic acid. Thus, it was shown that the relative viscosity maximum in binary systems having one component in common depends directly on the degree of chemical interaction. The qualitative

The Diagram "Composition - Property" as a Function of the Chemical Interaction in Binary, Liquid Systems. I. Diagrams of Viscosity

S/079/60/030/012/001/027
B001/B064

change of the degree of interaction is revealed by the change of the relative viscosity maximum. N. S. Kurnakov, N. N. Stepanov, and Ye. Ye. Cherkashin are mentioned. There are 5 tables and 26 references: 24 Soviet and 2 German.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnic Institute)

SUBMITTED: January 11, 1960

Card 3/3

FIALKOV, Yu.Ya.

Conditions of exchange reactions between iodine compounds of different degrees of oxidation in aqueous solutions. Izv. vys. uchob. zav.; khim. i khim. tekh. 4 no. 2:314-315 '61. (MIRA 14:5)

1. Kiyevskiy politekhnicheskiy institut. Laboratoriya radiokhimii.
(Iodine compounds) (Oxidation)

FIALKOV, Yu.Ya.; ZHIKHAREV, V.S.

Physicochemical analysis of the system phenol-acetic anhydride.
Zhur. ob. khim. 31 no.3: 699-706 Mr '61. (MIRA 14:3)
(Phenol) (Acetic anhydride)

FIALKOV, Yu.Ya.

Nature of S-shaped viscosity diagrams of binary systems. Dokl. AN SSSR 138 no.1:133-135 My-Je '61. (MIRA 14:4)

1. Kiyevskiy politekhnicheskiy institut. Predstavleno akademikom I.V.Tananayevym.
(Viscosity) (Systems (Chemistry))

FIALKOV, Yu.Ya.; TARASENKO, Yu.A.

Exchange of iodine in the system I_2 - I_2O_5. Zhur.neorg.khim. 7 no.5:1132-1136 My '62. (MIRA 15:7)

1. Kiyevskiy politekhnicheskiy institut, laboratoriya radiokhimii.
(Iodine) (Iodine oxide)

FIALKOV, Yu. Ya.

Classification of viscosity isotherms of binary system. with chemical interaction. Ukr. khim. zhur. 28 no.5:543-550 '62. (MIRA 15:10)

1. Kiyevskiy politekhnicheskiy institut.

(Systems(Chemistry)) (Viscosity)

FIALKOV, Yu. Ya.; ZHIKHAREV, V. S.

Physiochemical analysis of the system pyrosulfuric acid - acetic acid. Zhur. ob. khim. 33 no.1:3-9 '63. (MIRA 16:1)

1. Kiyevskiy politekhnicheskiy institut.

(Pyrosulfuric acid) (Acetic acid)

FIALKOV, Yu. Ya.; ZHIKHAREV, V. S.

Physicochemical analysis of the system Pyrosulfuric acid - monochloroacetic acid. Zhur. ob. khim. 33 no.1:9-15 '63. (MIRA 16:1)

1. Kiyevskiy politekhnicheskiy institut.

(Pyrosulfuric acid) (Acetic acid)

KUDRA, O.K.; FIALKOV, Yu.Ya.; ZHITOMIRSKIY, A.N.

Radioisotopic method for determining the transfer numbers in secondary systems and individual electrolytes. Zhur. neorg. khim. 8 no.7:1737-1741 Jl '63. (MIRA 16:7)

1. Kiyevskiy politekhnicheskiy institut i Institut khimii AN Tadzhikskoy SSR.
(Radioisotopes)
(Ions---Migration and velocity)

KUDRA, O.K.; FIALKOV, Yu.Ya.; ZHITOMIRSKIY, A.N.

Transfer numbers in the system sulfuric acid - acetic acid.
Zhur. neorg. khim. 8 no.7:1742-1748 Jl '63. (MIRA 16:7)

1. Kiyevskiy politekhnicheskiy institut i Institut khimii AN Tadzhikskoy SSR.
(Sulfuric acid) (Acetic acid)
(Ions—Migration and velocity)

FIALKOV, Yu.Ya.; FENERLI, G.N.

Physicochemical analysis of binary systems with exchange interaction. Zhur.neorg.khim. 8 no.9:2168-2177 S '63. (MIRA 16:10)

1. Kiyevskiy politekhnicheskiy institut.

FIALKOV, Yu.Ya.

Volumetric properties of binary liquid systems with noninteracting components. Ukr.khim.zhur. 29 no.6:576-582 '63. (MIRA 16:9)

1. Kiyevskiy politekhnicheskiy institut.
(Systems (Chemistry)) (Liquids)

FIALKOV, Yu.Ya.; ZHIKHAREV, V.S.

Physicochemical analysis of some binary systems containing trifluoroacetic acid. Zhur.ob.khim. 33 no.12:3789-3795 D '63. (MIRA 17:3)

1. Kiyevskiy politekhnicheskiy institut.

L 18320-63 EWT(m)/BDS RH
ACCESSION NR: AP3004972 S/0076/63/037/008/1745/1749

54
51

AUTHOR: Fialkov, Yu. Ya.

TITLE: Calculation of viscosity isotherms of binary systems with non-interacting components. I.

SOURCE: Zhurnal fiz. khimii, v. 37, no. 8, 1963, 1745-1749

TOPIC TAGS: binary system, real system, viscosity isotherm, isotherm, non-interacting component

ABSTRACT: Present equations for the calculation of viscosity of binary systems with non-interacting components are based on the assumption that the viscosity of the system is a function of the viscosities of the components and concentration of one of the components. Since actual binary systems do not follow the concept of ideality, the derived equations cover either small groups of systems or a limited range of concentrations in one system. A large number of real systems was examined by the author in order to find a general expression for the viscosity of a

Card 1/3

L 18320-63

ACCESSION NR: AP3004972

binary system. In order to determine the deviation of a real system from the ideal, the following equation was used:

$$\eta_{add} = x_1(\eta_1 - \eta_2) + \eta_2$$

where x_1 is concentration of one component in mole fraction. Since the curvature of the viscosity isotherms increases with an increase of the difference between the viscosities of the components, this factor was used in finding the general expression for viscosity in binary systems. It was found that

$\frac{\eta_{exp}}{\eta_{cal}} = L$ expresses a better system than $(\eta_1 - \eta_2)$, and that the nature of the isotherm curves depends upon $\eta_1/\eta_2 = S$, and, further, that the value of L decreases regularly with an increase in S. Therefore, these criteria were used in formulation of the method of calculation of the viscosity in a binary system. "Author expresses his thanks to G. I Yanchuk

Card 2/3

L 18320-63 2

ACCESSION NR: AP3004972

for help in the calculations and to M. M Pokhil for help in approximation of the curves." Orig. art. has: 1 figure, 5 equations and 3 tables.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiev polytechnical institute)

SUBMITTED: 02Jan61 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: PH, CH NO REF SOV: 006 OTHER: 002

Card 3/3