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KHMEL'NITSKIY, L. I.

USSR/Chemistry - Reduction

Card : 1/1

Authors : Yuryev, Yu. K., and Khmel'nitskiy, L. I.

Title : Catalytic reduction of nitrobenzene under the effect of hydrocarbons and alcohols

Periodical : Zhur. Ob. Khim., 24, Ed. 6, 994 - 998, June 1954

Abstract : The reaction of nitrobenzene with n-butane and butene mixtures at 450 - 550°, as well as with n-butyl alcohol at 450°, in the presence of chromium oxide deposited on aluminum oxide is described. The nitrobenzene becomes partially reduced into aniline and partially reverts in unchanged form. The formation of diphenyl, as result of ammonia cleavage from aniline under the effect of hydrogen in the presence of the oxidizing agent, is explained. Experiments showed that nitrobenzene prevents hydrogen attachment to the phenyl radical and stabilization takes place only in diphenyl. Eighteen references: 1-USSR, 17-USA, English and German. Table.

Institution : The State University, Moscow

Submitted : January 28, 1954

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KHMELNITSKIY L.I.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

AUTHORS: Novikov, S. S., Khmel'nitskiy, L. I., Lebedev, O. V. SOV/79-28-8-64/66

TITLE: Decomposition Reactions of N_2O_4 With Organic Compounds (Vzaimodeystviye N_2O_4 s organicheskimi soyedineniyami) I. Investigation of the Conditions for the Reaction of N_2O_4 With Benzaldoxime; Combination of the Products and the Reaction Equation (I.Izucheniye usloviy reaktsii N_2O_4 s benzal'doksimom, sostav produktov i uravneniye reaktsii)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol.28, Nr 8, pp. 2296 - 2302 (USSR)

ABSTRACT: Investigated were the influence of the molar ratio, the concentration, the method of mixing the reagents, and the nature of the solvent upon the course of the reaction between N_2O_4 and benzaldoxime under cooling with ice. In considering all these factors the highest phenyldinitromethane yield obtained was 43% of the theoretical yield. All the combinations of the products of the reaction between N_2O_4 and benzaldoxime which form under various conditions were determined qualitatively and quantitatively. It was

Card 1/3

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Decomposition Reactions of N_2O_4 With Organic Compounds. SOV/79-28-8-64/66
I. Investigation of the Conditions for the Reaction of N_2O_4 With Benzaldoxime; Combination of the Products and the Reaction Equation

found that nitrogen is produced in this reaction. Equations were proposed which indicate the formation of phenyldinitromethane and benzaldehyde by the reaction of N_2O_4 with the sodium salt of benzaldoxime. The experimental results are given in table 1, and the following conclusions can be drawn from them: with about a 1:1 ratio of N_2O_4 to benzaldehyde in the solvent only phenyldinitromethane and benzaldehyde are formed; with a 0,5:1 ratio of these reagents in the solvent the main product is 3,4-diphenyl furoxan (46%), while lesser amounts of phenyldinitromethane (4%) and benzaldehyde (9%) also form. By carrying out the reaction without solvent the aldehyde is formed almost quantitatively (93%). Figures 1 and 2 indicate the dependence of the yield of phenyldinitromethane upon the factors indicated here. There are 3 figures, 2 tables, and 11 references, 3 of which are Soviet.

Card 2/3

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Decomposition Reactions of N_2O_4 With Organic Compounds. SOV/79-28-8-64/66
I. Investigation of the Conditions for the Reaction of N_2O_4 With Benzaldoxime; Combination of the Products and the Reaction Equation

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

SUBMITTED: December 31, 1957

Card 3/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

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KHMELNITSKIY, L. E.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

AUTHORS: Khmel'nitskiy, L. I., Novikov, S. S., Lebedev, O. V. SOV/79-28-8-65/66

TITLE: The Decomposition Reactions of Nitrogen Dioxide With Organic Compounds (Vzaimodeystviye N_2O_4 s organicheskimi soyedineniyami) II. The Reaction of N_2O_4 With Aci-Phenylnitromethane and Its Salts (II. Reaktsiya N_2O_4 s atsi-fenilnitrometanom i yego sol'yu)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2303 - 2304 (USSR)

ABSTRACT: In the course of investigations on the decomposition reaction between nitrogen dioxide and benzaldoxime and its salts, which leads to the formation of phenyldinitromethane, the authors found it necessary to study more closely the reaction between N_2O_4 and aci-phenylnitromethane and its salts. In the literature the statement is made without further data that "the aci form of phenylnitromethane enters into reaction especially easily with nitrogen dioxide" (Ref 1). The experiments of the authors showed that, analogous to other aliphatic-aromatic compounds (Ref 1), the reaction of N_2O_4

Card 1/3

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with aci-phenylnitromethane and its salt produces the expected phenyldinitromethane:

$$CH_6H_5CH = NOONa \xrightarrow{N_2O_4} C_6H_5CH(NO_2)_2 \xleftarrow{N_2O_4} C_6H_5CH = NOOH$$

The maximum yield of phenyldinitromethane was 44,5% based on the aci-phenylnitromethane, and 28% based on the salt. The reaction went in solution, and although it resembled externally the reaction between nitrogen dioxide and benzaldoxime and its salts, it required much less heating than this reaction. The results and the conditions of the experiment with aci-phenylnitromethane are indicated in table 1, while those for the sodium salt of phenylnitromethane are given in table 2. There are 2 tables and 2 references, which are Soviet.

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

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

The Decomposition Reactions of Nitrogen Dioxide With Organic Compounds. II. The Reaction of N_2O_4 With Aci-Phenylnitromethane and Its Salts SOV/79-28-8-65/66

SUBMITTED: December 31, 1957

Card 3/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

AUTHORS: Novikov, S. S., Lebedev, O. V., Khmel'nitskiy, L. I., Yegorov, Yu. P.

SOV/79-28-8-66/66

TITLE: Decomposition Reactions of Nitrogen Dioxide and Organic Compounds (Vzaimodeystviye N_2O_4 s organicheskimi soyedineniyami) III. Decomposition Reaction of N_2O_4 With Salts of the Aliphatic Nitro Compounds (III. Vzaimodeystviye N_2O_4 s solyami alifaticheskikh nitrosoyedineniy)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2305 - 2307 (USSR)

ABSTRACT: In contrast to the reactions of the aromatic oximes and the arylnitromethane salts with N_2O_4 producing dinitro compounds, the reaction of the aliphatic oximes with nitrogen dioxide produces nitrosonitro compounds. Thus, for example, acetoxin and N_2O_4 react to form propylpseudonitrole (Ref 3) $(CH_3)_2C(NO)(NO_2)$. Analogous to the course of the reaction between the oximes and the nitro compounds of the aromatic series, it is to be expected that the aliphatic series would react in the same way, i.e. that the salts of the aliphatic nitro compounds must react with N_2O_4 to give nitrosonitro

Card 1/3

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Decomposition Reactions of Nitrogen Dioxide and Organic Compounds. III. Decomposition Reaction of N_2O_4 With Salts of the Aliphatic Nitro Compounds SOV/79-28-8-66/66

compounds. In the work reported in this paper this hypothesis was tested using the alkali salts of the following compounds: 2-nitropropane; ethylnitroacetate; and 1,1-dinitroethane. Thus propylpseudonitrile was obtained by the reaction between the sodium salt of 2-nitropropane and N_2O_4 (reaction diagram 4). In the reaction of the sodium salt of nitroacetate with N_2O_4 the ethyl ester of nitrooximeacetic acid was formed (Diagram 2). In the reaction between the potassium salt of 1,1-dinitroethane and N_2O_4 ethylnitrolic acid was produced; in this reaction a labile intermediate product, a nitroso compound, formed (Diagram 3). Contrary to expectation, only the nitromalonic acid ester separated out quantitatively in the reaction between N_2O_4 and the potassium salt of nitromalonic acid ester. Spectral analysis showed that this anomaly resulted from the fact that the potassium formed the salt not at the nitro group, but at the carbonyl group. There are 4 references, 1 of which is Soviet.

Card 2/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

Decomposition Reactions of Nitrogen Dioxide and Organic Compounds. III. Decomposition Reaction of N_2O_4 With Salts of the Aliphatic Nitro Compounds SOV/79-28-8-66/66

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

SUBMITTED: December 31, 1957

Card 3/3

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84853

S/062/60/000/010/006/018
B015/B064

111360

AUTHORS: Novikov, S. S., Khmel'nitskiy, L. I., and Lebedev, O. V.

TITLE: Reaction of N_2O_4 With Organic Compounds. Information 4. Conversion of the Nitromethyl Group Into the Trinitromethyl Group

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 10, pp. 1783-1786

TEXT: The authors showed by experiments that a reaction of m-nitrobenzonitrolic acid with an N_2O_4 excess (in dichloro ethane at 50-60°C) yields m-nitrophenyl trinitromethane (86% yield). Herefrom it is concluded that aryl nitrolic acids are formed as intermediate products in the formation of aryl trinitromethanes from salts of aryl nitromethanes under the action of N_2O_4. On this basis it was possible to establish reaction conditions that permit an essential increase in the yield of aryl trinitromethanes obtained from aryl nitromethane salts. The method is based on the addition of N_2O_4 in two portions: The first portion

Card 1/3

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Reaction of N_2O_4 With Organic Compounds. Information 4. Conversion of the Nitromethyl Group Into the Trinitromethyl Group

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B015/B064

is added under conditions warranting a maximum yield of nitrolic acid, and the second portion is added under the optimum conditions for the conversion of nitrolic acid to aryl trinitromethane. Thus, a 58-60% yield of m-nitrophenyl trinitromethane could be attained, and the p-nitrophenyl trinitromethane hitherto not described could be obtained. The latter can be converted, under the action of an alcoholic leaching solution, into p-nitrophenyl dinitromethane which has hitherto been unknown. The conversion of the nitromethyl group into the trinitromethyl group can also be assumed to take place under the formation of the dinitromethyl group (intermediate stage). In the present investigation, also the salt of m-nitrophenyl dinitromethane was found to give derivatives of trinitromethyl. A formation of the aci-form of aryl dinitromethane as an intermediate stage in the formation reaction of the trinitromethyl derivative from the nitromethyl derivative could not be established, while in the normal form the aryl dinitromethanes do not react with N_2O_4. The individual methods of synthesis are described.

Card 2/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

S/062/60/000/011/009/016
B013/B078

AUTHORS: Khmel'nitskiy, L. I., Novikov, S. S., Lebedev, O. V.

TITLE: Reaction of N_2O_4 With Organic Compounds. 5. Aryl Nitrolic Acids, Preparation of Aryl Nitro Methanes From Them, Single-stage Synthesis of Aryl Nitro Methanes From Aryl Aldoximes

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 11, pp. 2019 - 2025

TEXT: The investigation of aryl nitrolic acids as well as of the methods of preparation of aryl nitro methanes is continued in this paper. A new method of preparation of aryl nitrolic acids through the action of N_2O_4 on aryl nitro methane salts has been found. It was shown that aryl nitrolic acids may exist in two types which differ according to their physical and some chemical properties. The formation of one or the other type as well as both types simultaneously depends on the method of preparation. These phenomena were thoroughly investigated in the case of p-nitro

Card 1/4

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Reaction of N_2O_4 With Organic Compounds. S/062/60/000/011/009/016
5. Aryl Nitrolic Acids, Preparation of Aryl B013/B078
Nitro Methanes From Them, Single-stage Synthesis of Aryl Nitro Methanes From Aryl Aldoximes

benznitrolic acid. Type (I) is a pale-yellow substance with a melting point at 60°-61°C (under decomposition). It is easily soluble in alkalis and alkali carbonate solutions. (I) forms, when acidifying a solution of p-nitrophenyl nitro methane potassium salt and -nitrate with oxalic acid. Type (II) is an almost colorless crystalline substance with a melting point at 52°-53°C. In alkalis or alkali carbonate solutions it is immediately converted into a high meltable product without passing into solution. It forms under the action of N_2O_4 upon a suspension of p-nitrophenyl nitro methane potassium salt in ether. By the action of 0.5 M N_2O_4 upon the ether solution of p-nitro benzaldoxime there forms an almost inseparable mixture from both forms. When applying the first mentioned two methods, m-nitro benznitrolic acid will only be obtained in type (I). From the oxime it will be separated like p-chloro benznitrolic acid as a mixture of both forms. With a repeated recrystallization of the mixture of (I) and (II) of p-chloro benznitrolic acid one

Card 2/4

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

Reaction of N_2O_4 With Organic Compounds. S/062/60/000/011/009/016
B013/B078

5. Aryl Nitrolic Acids, Preparation of Aryl Nitro Methanes From Them, Single-stage Synthesis of Aryl Nitro Methanes From Aryl Aldoximes

obtains type (II) with a melting point at 78°-79°C. Type (I) was obtained by acidification of the alkaline mixture solution after this had been filtered off from the decomposition products of (II). o-nitro benzaldoxime with N_2O_4 gives rise to type (I) only. The existence of two types of aryl nitrolic acids can be explained by syn-anti-isomerism. Melting points of the obtained aryl nitrolic acids and their benzoyl derivatives are mentioned in the table. The conversion of nitrolic acid into aryl nitro methane in the presence of N_2O_4 was investigated with p-chloro-, o-nitro-, and p-nitro benznitrolic acids. p-chloro- and p-nitro benznitrolic acids (I and II) with N_2O_4 give rise to respective aryl nitro methanes in good yields. o-nitrophenyl trinitro methane could not be obtained by the action of N_2O_4 upon o-nitro benznitrolic acid. Based on findings, the method of a single-stage synthesis of aryl nitro methanes from aryl aldoximes was developed. It consists in adding N_2O_4 twice.

Card 3/4

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

Reaction of N_2O_4 With Organic Compounds. S/062/60/000/011/009/016
5. Aryl Nitrolic Acids, Preparation of Aryl B013/B078
Nitro Methanes From Them, Single-stage Synthesis of Aryl
Nitro Methanes From Aryl Aldoximes

The first portion is added under the condition that it guarantees the maximum yield of nitrolic acid. The addition of the second portion takes place under the optimum conditions for the conversion of nitrolic acid into aryl nitro methane. There are 1 table and 6 references: 3 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: May 27, 1959

Card 4/4

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.I.; NOVIKOV, S.S.; LEBEDEV, OV.

Interaction between N_2O_4 and organic compounds. Report No.6: Arylnitronitrosomethanes and mechanism of the reaction between N_2O_4 and aromatic compounds containing an acinitro or isonitroso group in the side chain. Izv.AN SSSR Otd.khim.nauk no.3:477-482 Mr '61. (MIRA 14:4)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Methane) (Nitrogen oxide)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.I.; LEBEDEV, O.V.; SLOVETSKIY, V.I.; NOVIKOV, S.S.

Reactions of N_2O_4 with organic compounds. Report No. 7: Syn-anti isomerism of aryl nitrolic acids. Izv.AN SSSR Otd.khim.nauk no.4: 678-683 Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Nitrogen oxide) (Nitrolic acid)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.I.; NOVIKOVA, T.S.; NOVIKOV, S.S.

Oxidation of aromatic amines by trifluoroperacetic acid.
Izv.AN SSSR.Otd.khim.nauk no.3:516-517 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Amines) (Peroxyacetic acid)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

NOVIKOV, S.S.; KHMEL'NITSKIY, L.I.; NOVIKOVA, T.S.

New methods of nitration by a mixture of nitric acid and acetic anhydride. Izv. AN SSSR Ser. khim. no.1:103-110 '65.

(MIRA 18:2)

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

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

SOLOV'YEV, V.N.; KONYAYEV, G.A.; NOVIKOV, S.S.; KHMEL'NITSKIY, L.I.; NOVIKOVA, T.S.

Antimicrobial activity of nitrofurans with simple substitutes. Farm. i toks. 29 no.3:316-320 My-Je '65. (MIRA 18:8)

1. Otdel khimioterapii (zav. - prof. A.M. Chernykh) i otdel po vyyavleniyu fiziologicheskikh aktivnykh veshchestv (zav. - kand. med. nauk Yu.I. Vikhlyayev) Instituta farmakologii i khimioterapii AMN SSSR i otdel organicheskogo sinteza (zav. - prof. S.S. Novikov) Instituta organicheskoy khimii imeni N.D. Zelinskogo AN SSSR, Moskva.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

ACC NR: AP6030569 SOURCE CODE: UR/0413/66/000/016/0035/0036

INVENTOR: Lebedev, O. V.; Yepishina, L. V.; Sevost'yanova, V. V.; Novikova, T. S.; Khmel'nitskiy, L. I.; Novikov, S. S.

ORG: none

TITLE: Preparation of 2-nitro derivatives of imidazole. Class 12, No. 184868 [announced by Institute of Organic Chemistry im. N. D. Zelinskiy (Institut organicheskoy khimii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 35-36

TOPIC TAGS: imidazole nitro derivative, methylformylimidazole oxime, nitrogen tetroxide, imide, organic nitro compound, organic oxime

ABSTRACT: In the proposed method, 2-nitro derivatives of imidazole are prepared by treatment of 4-methyl-5-formylimidazole oxime with nitrogen tetroxide at 2—3°C in absolute acetonitrile with further heating at ~70°C and isolation of the product by known methods.

[WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 24Mar65/

Card 1/1 UDC: 547.781.5.07

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

15-57-10-14885

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 256 (USSR)

AUTHORS: Samoylovskiy, M. B., Ivanov, P. S., Khmel'nitskiy, L. Ya.

TITLE: Composite Mine Supports From Centrifugally-Cast Elements (Sbornaya krep' iz tsentrifugirovannykh elementov)

PERIODICAL: Shakhtnoye str-vo, 1957, Nr 1, pp 24-26

ABSTRACT: For reinforcing the principal mine workings (horizontal and inclined), supports of reinforced concrete are used, made of general-purpose fluted slabs by the VNIIOMShS (?). Such supports, having industrialized the reinforcing process, have shortened the working time and dispersal time of materials and have increased the productive labor of gallery and stope operations. The use of the centrifuge in producing support plates called for a change in the construction of supports

Card 1/2

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15-57-10-14885

Composite Mine Supports From Centrifugally-Cast (Cont.)

from the general-purpose fluted slabs to shells. The casting-forms of the shells are made from general-purpose elements of the shell supports, being part of a thin cylinder with walls 40 mm thick having a round attached insert and a basal bearing plate (shoe). The attached insert of the elements of the support secures favorable conditions for working. The technology of manufacturing the thin-shell supports is described briefly. For the manufacture of these supports and the attached inserts, brand 400 concrete is used; brand 200 is used for the basal plate. Typical sections for the reinforced concrete supports made of the elements of the thin-shell members were designed by the VNIIMShS , in cooperation with the Yuzhgiproshakht (The Southern State Institute for the Design and Planning of Mine Construction in the Coal Industry).

Card 2/2

V. V. Zhukov

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.Ya., inzh.; IVANOV, P.S., inzh.

Some problems of designing and using sectional reinforced-concrete elements of mine support. Krepl. gor. vyr. ugol'. shakht no. 1:75-89 '57. (MIRA 11:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii shakhtnogo stroitel'stva..
(Mine timbering)
(Reinforced concrete construction)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.Ya., inzh.; IVANOV, P.S., inzh.; KONAREVA, V.F., inzh.; DUDKO, V.P., inzh.

Prestressed-reinforced UPP slab supports made by concreting machinery. Kropl. gor. vyr. ugol' shakht no. 1:163-167 '57. (MIRA 11:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii shakhtnogo stroitel'stva.
(Mine timbering)
(Reinforced concrete construction)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

ZHUROV, E.M., inzh.; KHMEL'NITSKIY, L.Ya., inzh.

Sectional reinforced concrete linings for inclined shafts. Krepl. gor. vyr. ugol'. shakht no. 1:188-202 '57. (MIRA 11:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii shakhtnogo stroitel'stva.
(Shaft sinking)
(Mine timbering)
(Reinforced concrete constructions)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.Ya.; BONDARENKO, V.M.; IVANOV, P.S.; DUDKO, V.P.

Universal reinforced concrete element. Gor. zhur. no.10:31 O '58. (MIRA 11:10)

(Reinforced concrete construction--Patents)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

AKOL'ZIN, L.Ye.; BOROZDOV, I.A.; BEDILO, V.Ye.; TERESHKIN, F.N. Prinimali uchastiye: BELYAYEV, F.R.; BEREZHNOY, N.V.; BUBYR', V.A.; VARSHAVSKIY, I.N.; DUDKO, V.P.; YERSHOV, V.S.; DUGIN, Ye.V.; DUKALOV, M.F.; IVANOV, P.S.; KONAREVA, V.F.; MONIN, M.I.; MOGILKO, A.P.; PANCHENKO, A.I.; POKALYUKOV, S.N.; PRIKHOD'KO, N.D.; RUBIN, I.A.; SIDORENKO, P.A.; TYUTYUNIK, Ya.I.; KHMEL'NITSKIY, L.Ya.; BONDAR', V.I.; KRIVTSOV, A.T.; LOKSHIN, V.D.; SOFIYENKO, N.P.; RABINKOVA, L.K., red.izd-va; BOLDYREVA, Z.A., tekhn.red.

[Types of mine cross section] Tipovye sechenii gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.4. [Cross section of mines supported by a sectional reinforced-concrete lining of URP-11 panels for 1-, 2- and 3-ton railroad cars] Sechenii vyrabotok, zakreplennykh sbornoi zhelezobetonnoi krep'iu iz plit URP-II, dlia 1-, 2- i 3-tonnykh vagonetok. 1960. 278 p. (MIRA 13:12)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakhti.
(Mine timbering)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.Ye.; STETSYUK, V.A., inzh.

Use of hollow blocks in deep-sea mooring installation. Transp. stroi. 15 no.9:20-22 S '65. (MIRA 18:11)

1. Chernomorniiproyekt (for Stetsyuk).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

S/094/61/000/001/006/007
E073/E335

AUTHOR: Khmel'nitskiy, L.Z.

TITLE: Problems of Economics of Electrical Energy in Electric Steel Smelting

PERIODICAL: Promyshlennaya energetika, 1961, No. 1, pp. 55 - 57

TEXT: The Energosbyt of Sverdlovenergo, jointly with the Ural'skiy Dom tekhniki (Ural House of Engineering), held a course on rational utilisation of electricity in electric steel smelting in February, 1960. Personnel of the Sverdlov, Chelyabinsk and Permsk sovnarkhoz participated in these courses.
Candidate of Technical Sciences Docent A.I. Kholodov of the Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute) imeni S.M. Kirova dealt in detail with the slag formation in acidic electric furnaces in his paper on "Physical and Chemical Bases of the Acidic Process of Electric Smelting of Steel".

Card 1/5

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

S/094/61/000/001/006/007
E073/E335

Problems of Economics of Electrical Energy in Electric Steel Smelting

The Steel Metallurgy Department of UPI commenced the study of the physical and chemical properties of acidic slag, paying particular attention to the solubility of SiO_2 in steel-smelting slag, the fusion temperature, viscosity and activity of oxides in it.

A.I. Kholodov pointed out the great economy of smelting in electric furnaces with acidic lining and the necessity for a changeover for a large number of steels from basic furnaces to acidic ones.

L.A. Volkova, Senior Engineer of the steel laboratory of Uralmashzavod, lectured on using oxygen blast in electric steel smelting.

The electrometallurgists, V.K. Balbyshev, Ya.M. Dolginov and N.T. Khochunskiy, lectured on experience gained with accelerated smelting in acidic and basic electric furnaces.

Card 2/5

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

S/094/61/000/001/006/007
E073/E335

Problems of Economics of Electrical Energy in Electric Steel Smelting

The Sverdlov Works (Chief Foreman N.T. Khochunskiy) carried out a great deal of work on modernisation of a 5-ton furnace, as a result of which its capacity increased to 7 to 7.5 tons.
On the initiative of S.Ya. Barin a new method of lining walls of electric smelting furnaces with a plastic mass was developed. As a result of using it, the active volume of a 6.3-ton furnace increased by 2 to 2.5 m^3 so that the average weight of the heat could be increased to 7.3 tons. Details of applying this lining are given. Great economies were achieved by using this lining.
Candidate of Technical Sciences M.V. Belyayev gave a review of existing types of automatic control of arc steel smelting furnaces.
Candidates of Technical Sciences Docent M.G. Rezin and Engineer Ya.I. Drobinin presented an interesting lecture
Card 3/5

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

S/094/61/000/001/006/007
E073/E335

Problems of Economics of Electrical Energy in Electric Steel Smelting

on the electromagnetic mixer to be installed in the electric furnaces of the Verkh-Isetsk Works. This electromagnetic mixer is based on the same principle as the operation of an asynchronous motor. However, the jacket under the bottom of the furnace must be made of nonmagnetic steel. As a result of using such a method of mixing, the duration of the smelting can be reduced to 10-15 min and an electricity saving of one million kWh can be achieved.
Various methods of standardising the specific consumption of electricity were discussed.
Candidate of Technical Sciences A.I. Kholodov, in his paper on rational operation of electric arc furnaces, drew attention to the importance of correct choice of the transformer rating. Replacement of a 2500 kVA transformer of an 8-ton furnace by a 3500 kVA transformer enabled increasing the average loading of the furnace by 12 tons and reducing the power consumption

Card 4/5

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHAEL'NITSKIY, L.Z.

Conference on the economy and establishment of norms of electric power distribution in Sverdlovsk. Prom.energ. 16 no.7:55-56 Jl '61. (MIRA 14:1)

(Sverdlovsk Province--Electric power distribution)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, L.Z.

Seminar on the efficient use of electric power in metal rolling. Prom. energ. 18 no.9:46-47 S '63. (MIRA 16:10)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHELMITSKIY, M. and A. RYBAKOV

"Questions without Answer"

Meditsinskiy Rabotnik, 86-1414, 21 Oct 1955, pl Uncl

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHVEL'NITSKIY, M.

New process for cracking heavy petroleum residues (from "Petroleum Engineer," July, 1955). Azerb.neft.khoz. 35 no.4:28 Ap '56. (MLRA 9:10)

(Cracking process)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, M.O. [Khmel'nyts'kyi, M.O.]; SHEVCHENKO, V.N.

Milking parlor in a summer camp. Mekh. sil'. hosp. 14 no.7:22 Jl '63. (MIRA 17:2)

1. Glavnyy inzh. Donetskogo tresta molochnykh sovkhozov (for Khmel'nitskiy). 2. Glavnyy inzh. zovkhoza "Kermenchik" (for Shevchenko).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

H

KHMEL'NITSKIY, M.V.

25970 Khmel'nitskiy, M.V. O Primenenii Standartnykh Stal'nykh Zubov Pri Mostovidnom Protezirovanii. Sbornik Nauch. Rabot Lecheb. Uchrezhdeniy Mosk. Voyen. Okr. Gor'Kiy, 1948, S. 357.
Sm Takzhe No. 25996

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

SOLOVKOV, A.K.; BEZRYADNOV, A.A.; KHMEL'NITSKIY, M.Z.

Durability of the crown after 944 smeltings. Metallurg 10 no.10:20-21 O '65. (MIRA 18:10)

1. Ashinskiy metallurgicheskiy zavod.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, N.L.

Attachment for machining ball tracks of turning gear rings. (MIRA 14:3)
Stan. i instr. 32 no.4:39-40 Ap '61.
(Lathes—Attachments)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, N.L.

Attachment for machining ball tracks. Mashinostroitel' no.12:22 D '61. (MIRA 14:12)

(Lathes--Attachments)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

SANDOMIRSKIY, D.M.; PIL'MENSHTEYN, I.D.; KHMEL'NITSKAYA, N.Ye.

Gelation of latex by means of finely dispersed suspensions. Kauch. i rez. 20 no.7:5-8 Jl '61. (MIRA 14:6)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova. (Latex) (Suspensions (Chemistry))

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K.

KHMEL'NITSKIY, O.K.; EL'KIN, M.A.

Tumors of arterio-venous anastomoses. Vest.ven.i derm. no.2:56-57 Mr-Ap '54. (MLRA 7:4)

1. Iz kafedry patologicheskoy anatomii Leningradskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey.
(Arteries--Tumors) (Veins--Tumors)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K. (Leningrad)

Solitary neurinomas in the abdominal cavity. Arkh.pat. 16 no.1:64-71 Ja-Mr '54. (MLRA 7:5)

1. Iz kafedry patologicheskoy anatomii (zaveduyushchiy - professor P.V.Sipovskiy) Leningradskogo instituta usovershenstvovaniya vrachey im. Kirova (direktor - professor N.N.Mishnik). (Abdomen--Tumors)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K.

Theories of the causes of death in cases of extensive thermal burns. Dokl.AN Tadzh.SSR no.14:51-57 '55. (MLRA 9:9)

1.Kafedra patologicheskoy anatomii Leningradskogo instituta usovershenstvovaniya vrachey imeni S.M.Kirova. Predstavlena Institutom zoologii i parazitologii imeni akademika Pavlovskogo AN Tadzhikskoy SSR. (BURNS AND SCALDS)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K.

GIRGOLAV, S.S., professor; BLINOV, N.I., professor; BALAKINA, V.S., professor; KHMEL'NITSKIY, O.K., kandidat meditsinskikh nauk; BRIGENNIK, Ye.V., kandidat meditsinskikh nauk; BOYKO, E.K., kandidat meditsinskikh nauk; BYSTROVA, V.V., kandidat meditsinskikh nauk; VLASOVA, Z.A., kandidat meditsinskikh nauk; ANTIPINA, A.N., nauchnyy sotrudnik

Petr Vasil'evich Sipovskii. Arkh.pat. 18 no.8:131-132 '56. (MIRA 10:2)

1. Deystvitel'nyy chlen AMN SSSR (for Girgolav). 2. Direktor Instituta usovershenstvovaniya vrachey imeni S.M.Kirova (for Blinov). 3. Direktor Nauchno-issledovatel'skogo instituta travmatologii i ortopedii (for Balakina)
(SIPOVSKII, PETR VASIL'EVICH)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K., dotsent

Gastric fistula in a patient with tuberculous spondy.itis. Probl. tub. 34 no.6 supplement:42 N-D '56. (MLRA 10:2)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.V.Sipovskiy) Leningradskogo gosudarstvennogo instituta usovershenstvovaniya vrachey imeni Kirova.
(VERTEBRAE--TUBERCULOSIS) (FISTULA)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K.

KHMEL'NITSKIY, O.K., dotsent (Leningrad, Muchnoy per., d.1, kv.57);
EL'KIN, M.A., kand.med.nauk

Glomus tumors [with summary in English]. Vest.khir. 79 no.8:81-86 Ag '57. (MIRA 10:10)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.V.Sipovskiy) Leningradskogo gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey im. S.M.Kirova i bol'nitsy Leningradskogo zavoda "Bol'shevik" (nach. meditsinsko-sanitarnoy chasti - V.A.Tvaradze)
(GLOMANGIOMA
clin. aspects, pathol. & management)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

CHISTOVICH, A.N., prof.; KHMEL'NITSKIY, O.K., dotsent

Work of the Leningrad Pathoanatomical Society in 1956. Arkh. pat. 20 no.11:90-93 '58. (MIRA 12:8)

1. Predsedatel' Leningradskogo obshchestva patologoanatomov (for Chistovich). 2. Sekretar' Leningradskogo obshchestva patoloanatomov (for Khmel'nitskiy).
(PATHOANATOMICAL SOCIETIES)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

CHISTOVICH, A.N., prof.; KHMEL'NITSKIY, O.K., dots.

Work of the Leningrad Society of Pathoanatomists in 1957. Arkh. pat. 21 no.1:78-83 '59. (MIRA 12:1)

1. Predsedatel' Leningradskogo obshchestva patologoanatomov (for Chistovich). 2. Sekretar' Leningradskogo obshchestva patologoanatomov (for Khmel'nitskiy).
(LENINGRAD--PATHOANATOMICAL SOCIETIES)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K. (Leningrad)

Pathological anatomical changes in vesceral candidiasis. Arkh. pat. no.3:20-27 '62. (MIRA 15:3)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.V. Sipovskiy) i kafedry mikrobiologii (zav. - zasluzhennyy deyatel' nauki prof. P.N. Kashkin) Leningradskogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M. Kirova.
(MONILIASIS)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, Oleg Konstantinovich; KOKUSHINA, T.M., red.; BUGROVA, T.I., tekhn. red.

[Pathomorphogenesis of visceral candidiasis] Patomorfogenez vistseral'nogo kandidoza. Leningrad, Medgiz, 1963. 100 p. (MIRA 16:11)

(MONILIASIS)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, O.K., dotsent (Leningrad)

Visceral mycoses in man. Arkh. pat. 24 no.9:3-12 '62. (MIRA 17:4)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.V. Sipovskiy) i kafedry mikrobiologii (zav. - zasluzhenny deyatel' nauki prof. P.N. Kashkin) Leningradskogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M. Kirova (dir. - dotsent S.N. Polikarpov).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, P.Kh., ordinator

Result of treatment of scleroderma with lidase. Vest.derm. i ven. 32 no.4:66-68 Jl-Ag '58 (MIRA 11:10)

(SCLERODERMA, ther.
hyalnronidase prep. (Rus))
(HYALURONIDASE, ther.
scleroderma (Rus))

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMELINITSKIY, R.A.

МАСС-СПЕКТРОМЕТРИЧЕСКИЙ МЕТОД
ОПРЕДЕЛЕНИЯ СТРУКТУРНО-ГРУППОВОГО СОСТАВА
БЕНЗИНОВ

А. А. Неделкова, Н. Н. Зимина, Р. А. Хмельницкий

VIII Mendeleyev Congress for General and Applied Chemistry in Section of Chemistry and Chemical Technology of Fuels, publ. by Acad. Sci. USSR, Moscow 1959

abstracts of reports scheduled to be presented at above mentioned congress, Moscow, 13 March 1959.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

SOV/20-127-2-42/70

5(4)

AUTHORS: Polyakova, A. A., Zimina, K. I., Petrov, A. A., Khmel'nitskiy, R. A.

TITLE: Mass Spectra and Structure of Vinyl Acetylene Hydrocarbons

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 2, pp 386-388 (USSR)

ABSTRACT: Investigations of relations existing between physical properties influencing structure and reactivity supply data for infrared spectra (Ref 2), Raman spectra (Ref 3), and dipole moments (Ref 4). Results obtained from investigations with the MS-1 mass spectrograph are reported here. The mass spectra of vinyl acetyl and of its three monomethyl derivatives were taken. Results are specified in table 1. Maximum intensity is exhibited by the molecular ion. The most intense split ions are produced by the rupture of the C-H bond. Split ions produced by the rupture of the C-C bond are not typical of these compounds. Unlike piperylene and isoprene, the introduction of a methyl radical decreases but little the stability of the molecular ion. The normal chain isomers differ from isopropyl acetylene by a greater intensity of the peak 63 ($C_5H_3^+$-Ion) .

Card 1/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

Mass Spectra and Structure of Vinyl Acetylene Hydrocarbons SOV/20-127-2-42/70

A striking fact is that the greatest stability is exhibited by those split ions which have conjugate bonds. It would be interesting to compare these properties with data concerning the kinetics of the ion reactions of vinyl acetylenes. Unfortunately, there are no such data available in publications. There are 1 table and 6 references, 5 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-Union Scientific Research Institute for Petroleum and Gas Refining and Production of Synthetic Liquid Fuels)

PRESENTED: March 26, 1959, by B. A. Arbuzov, Academician

SUBMITTED: March 21, 1959

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

5.3300

78291
SOV/79-30-3-35/69

AUTHORS: Polyakova, A. A., Zimina, K. A., Petrov, A. A., Khmel'nitskiy, R. A.

TITLE: Mass Spectra of Vinylalkylacetylenes

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp 912-918 (USSR)

ABSTRACT: The mass spectra of the following vinylalkylacetylenes were studied: pent-1-en-3-yne, hex-1-en-3-yne, and dec-1-en-3-yne The results of this work are given in Table A. The stability of the ion molecule decreases and that of ion fragments increases with the increase of alkyl radical. Among ion fragments formed with the rupture of C — C bond the following types of ions predominate: $C_nH_{2n-3}^+$, $C_nH_{2n-5}^+$, $C_nH_{2n-7}^+$, and $C_nH_{2n-4}^+$. A rupture of bond to a conjugated system is characteristic for higher vinylalkylacetylenes. Carbon-carbon bond (to conjugated system) is less stable to electron bombardment. The ions of the type $C_nH_{2n-4}^+$

Card 1/4

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

Mass Spectra of Vinylalkylacetylenes

78281
SOV/79-30-3-35/69

can originate as a result of rearrangement processes related to hydrogen migration. For $C_5H_6^+$ it will be

$$CH_3-CH_2-CH_2-CH_2-C\equiv C-CH=CH_2 \longrightarrow$$
$$\longrightarrow CH_3-CH=CH_2 + [CH_3-C\equiv C-CH=CH_2]^+$$

There is 1 table; and 5 references, 3 Soviet, 1 German, 1 U.S. The U.S. reference is: American Petroleum Institute Research, Project 44, Mass-Spectral data, N. Y.

SUBMITTED: March 28, 1959

Card 2/4

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

Table A. Mass spectra of vinylalkylacetylenes 78281 SOV/79-30-3-35/69

MASS AND COMPOSITION OF FRAGMENT	ION INTENSITY				
	$HC{\equiv}C{-}CH{=}CH_2$	$CH_3{-}C{\equiv}C{-}CH{=}CH_2$	$C_2H_5{-}C{\equiv}C{-}CH{=}CH_2$	$C_3H_7{-}C{\equiv}C{-}CH{=}CH_2$	$C_4H_9{-}C{\equiv}C{-}CH{=}CH_2$
12 C^+	1.5	0.9	—	—	—
13 CH^+	1.3	—	—	—	—
14 CH_2^+	1.2	—	—	—	—
15 CH_3^+	0.4	2.0	15.3	9.3	—
25 C_2H^+	3.6	1.6	1.4	—	—
26 $C_2H_2^+$	11.0	3.8	18.1	7.8	—
27 $C_2H_3^+$	2.9	8.3	52.6	78.2	—
28 $C_2H_4^+$	0.5	—	—	—	—
36 C_3	1.5	1.7		—	
37 C_3H^+	5.1	9.5	4.1	—	5.4
38 $C_3H_2^+$	2.2	17.0	9.1	9.7	0.1
39 $C_3H_3^+$	0.8	91.5	59.6	100.0	48.5
40 $C_3H_4^+$	0.6	—	—	23.7	12.2
41 $C_3H_5^+$	—	1.8	15.0	67.3	63.8
42 $C_3H_6^+$	—	—	1.1	3.0	9.4
43 $C_3H_7^+$	—	1.0	1.5	33.3	48.8
48 C_4^+	2.8	—	—	—	—
49 C_4H^+	13.0	4.0	2	—	—
50 $C_4H_2^+$	41.9	10.0	20.6	12.5	7.0
51 $C_4H_3^+$	50.2	17.0	27.7	27.6	19.4
52 $C_4H_4^+$	100.0	—	27.0	16.3	13.2
53 $C_4H_5^+$	4.4	—	16.4	14.8	16.9
54 $C_4H_6^+$	—	—	5.5	2.4	3.7
55 $C_4H_7^+$	—	—	2.9	3.3	23.1
56 $C_4H_8^+$		—	2.0	3.6	6.7
57 $C_4H_9^+$		—	0.7	—	4.0

Card 3/4

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(Table A cont'd)

78281 SOV/79-30-3-35/69

	$C\equiv C-CH=$	$C_2H_5-C\equiv C-CH$	$C_3H_7-C\equiv C-CH=CH_2$	$C_6H_5-C\equiv C-CH=CH_2$
60 C_5^+	—	0.4	—	—
61 C_5H^+	12.0	3.6	6.4	2.9
62 $C_5H_2^+$	15.0	8.7	21.4	12.6
63 $C_5H_3^+$	21.9	18.5	7.5	3.1
64 $C_5H_4^+$	—	4.5	56.6	35.9
65 $C_5H_5^+$	38.0	42.8	58.4	28.7
66 $C_5H_6^+$	100.0	2.0	15.7	29.6
67 $C_5H_7^+$	—	0.6	—	4.5
68 $C_5H_8^+$	—	—	—	—
75 $C_6H_3^+$	—	5.4	83.2	45.3
77 $C_6H_5^+$		68.1	23.4	13.9
78 $C_6H_6^+$	—	18.5	85.4	100.0
79 $C_6H_7^+$	—	100.0	18.1	32.7
80 $C_6H_8^+$	—	83.2	—	5.4
81 $C_6H_9^+$		4.6	38.0	36.8
91 $C_7H_7^+$	—	—	—	3.4
92 $C_7H_8^+$	—	—	64.7	38.6
93 $C_7H_9^+$	—	—	—	5.8
94 $C_7H_{10}^+$	—	—	—	6.7
95 $C_7H_{11}^+$	—	—	—	2.7
105 $C_8H_9^+$	—	—	—	4.0
106 $C_8H_{10}^+$	—	—	—	43.9
107 C_8H_{11}	—	—	22.5	7.2
108 C_8H_{12}	—	—	—	9.9
121 $C_{10}H$	—	—	—	1.9
136 $C_{10}H_{16}$	—	—		

Card 4/4

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

S/079/60/030/04/47/080
B001/B002

AUTHORS: Zimina, K. I., Polykova, A. A., Khmel'nitskiy, R. A., Obolentsev, R. D.

TITLE: Mass-spectrometric Investigation of Some Homologs of Thiophane

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1264-1268

TEXT: Only a small number of reports on the mass spectra of sulfur compounds had been hitherto published. Detailed investigations were only carried out with respect to a series of thiophenes, whose spectroscopic data were, as expected, similar to those of alkyl benzenes (Ref. 2). In the present paper the results of mass-spectrometric investigations of homologous α-alkylthiophanes exhibiting radicals of normal structure (C_1 - C_6) were described. The spectrometric investigation by means of the already earlier (Ref. 3) modified mass spectrometer MC-1 (MS-1) is described in detail. The distribution of the mass intensities in the spectra, the values of the relative sensitivity, and the dependence of these values on

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

Mass-spectrometric Investigation of Some Homologs of Thiophane S/079/60/030/04/47/080 B001/B002

the molecular weight were determined. The complete ionization was computed. It was shown that an identification of the structures, and a qualitative analysis of α-alkylthiophane mixtures is possible. The accuracy of the quantitative analysis of the mixtures is relatively 10 - 15%. The data given, are partly provided by the Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti (All-Union Scientific Research Institute of Petroleum Industry). There are 3 figures, 2 tables, and 5 references, 1 of which are Soviet.

SUBMITTED: March 28, 1959

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

S/079/60/030/009/018/022/XX
B001/B066

AUTHORS: Polyakova, A. A., Zimina, K. I., Petrov, A. A., and Khmel'nitskiy, R. A.

TITLE: Mass Spectra and Structure of Some Allene Hydrocarbons

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 9, pp. 2977 - 2983

TEXT: Following the articles of Refs. 1 - 3 on the interaction of molecules of unsaturated compounds with electrons and on the correlation between their structure and their mass spectra, the authors investigated the mass spectra of some allenes (2,3- and 3,4-dienes) on a MC-1 (MS-1) mass spectrograph in order to determine the effect of the position of the double bonds upon the main formation of these or those ions in the electron collision, as well as to compare these data with the characteristic mass spectroscopic properties of other hydrocarbons. Ions formed by cleavage of the C-C bonds

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predominate in the mass spectra of the allenes. Ions formed by dissociation of the C - H bonds are less intense. There are two maxima for the ions $C_3H_x^+$ and $C_5H_x^+$ on the distribution curve of ion intensities in allenes, like in the 1,3-dienes. In addition to the general rules mentioned, the mass spectra of two allene types (2,3- and 3,4-dienes) are characterized by some peculiarities which are dependent on the structure. The mass spectra of six allene hydrocarbons are described: octadiene-2,3, octadiene-3,4, 7-methyl octadiene-2,3, 7-methyl octadiene 3,4, 7,7-dimethyl octadiene-3,4, and decadiene-3,4. In the spectra of all 3,4-dienes, except 7,7-dimethyl octadiene-3,4, the peak 67 of the mass shows the maximum intensity, and in the spectra of the 2,3-dienes, the peak 68 of the mass. In the case of 7,7-dimethyl octadiene, the peak assigned to the ion $C_4H_9^+$ shows the maximum intensity. The second maximum corresponds in all cases to the ions $C_3H_x^+$. An attempt is made to explain the origin of the most intense ions with respect to their structure. To confirm the formation

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Mass Spectra and Structure of Some Allene Hydrocarbons

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B001/B066

mechanism assumed for the split ions, the ionization curves and potentials were investigated. Sensitivity and complete ionization of all allenes studied were determined, and the degree of ionization was found to be dependent on the hydrocarbon structure. There are 3 figures, 2 tables, and 9 references: 5 Soviet and 4 US.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza
Leningradskiy tekhnologicheskiy institut imeni Lensoveta
(All-Union Scientific Research Institute for the Processing of Oil and Gas)
(Leningrad Technological Institute imeni Lensovet)

SUBMITTED: September 12, 1959

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B016/B060

AUTHORS: Polyakova, A. A., Zimina, K. I., Petrov, A. A., and Khmel'nitskiy, R. A.

TITLE: Mass Spectra and Structure of Silicon-containing Vinyl Acetylenes

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4, pp. 833 - 835

TEXT: The authors have previously proved (Ref. 1), by studying mass spectra of vinyl acetylene and its analogs, the interdependence between the intensities of the molecular ion and some split-off ions, on the one hand, and the structure of the hydrocarbons, on the other. The present work was conducted to examine the mass spectra of four enin-silicon hydrocarbons: 1-trimethyl--silyl-buten-3-ine-1 (I), 1-trimethyl-silyl-3-methyl-buten-3-ine-1 (II), 1-trimethyl-silyl-penten-3-ine-1 (III), and 1-triethyl-silyl-buten-3-ine-1 (IV). In contrast with vinyl acetylene hydrocarbons, the process of dissociative ionization of their silicon-containing derivatives is exclusively selective (Table 1). Under the action of an electronic impact, the molecule

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of (I) mainly undergoes the dissociation of a single methyl radical. While the molecular ion with mass 124 has the highest intensity, 48% of the total ion current falls to the ion with mass 109. The further dissociation gives rise to silicon-containing ions with masses 93, 83, 81, 79, 69, 55, and intensities from 3 to 15%. This dissociation takes place by the successive splitting off of CH-, CH_2-, or CH_3 groups. There can be no doubt about the presence of silicon in these ions. The dissociation of the two closest--related homologs of (I), namely, (II) and (III), proceeds along a similar pattern. In both these homologs, the most resistant ions were found to be those with mass 123 which result from the splitting of the methyl radical from the molecular ion. In the case of (II) and (III), the further dissociation is even less distinctly marked than in the case of (I). 68 - 71% of the total intensity of ions falls to ions with mass 123. $(CH_3)_3Si^+$ ions with mass 73 are the most intensive in the spectrum of the saturated analog of (I), viz., trimethyl butyl silane. The splitting-off of methyl groups takes place to a much lower extent. The ions representing this direction of dissociation in the spectrum are $(CH_3)_2$ Si^+H ions with mass 59. The remaining ions in the spectrum of trimethyl butyl silane have a very low

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

KHMEL'NITSKIY, R. A.

Cand Chem Sci - (diss) "Mass-spectrometric method of analyzing gasolines." Moscow, 1961. 16 pp; (Academy of Sciences USSR, Inst of Petrochemical Synthesis); number of copies not given; price not given; bibliography at end of text; (KL, 6-61 sup, 200)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

ZIMINA, K.I.; OBOLENTSEV, R.D.; POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.

Mass-spectra of some thiophane homologs. Khim.sera i azotorg.soed. sod. v neft.i nefteprod. 3:81-92 '60. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke neft'i i gaza i poluchaniyu iskusstvennogo zhidkogo topliva.
(Thiophene--Spectra)

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31545
S/081/61/000/022/001/076
B102/B108

AUTHORS: Zimina, K. I., Obolentsev, R. D., Polyakova, A. A., Khmel'nitskiy, R. A.

TITLE: Mass spectra of some homologs of thiophane

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 12-13, abstract 22B72 (Sb. "Khimiya sera-i azotorgan. soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh", Ufa, v. 3, 1960, 81-92

TEXT: The mass spectra of α-alkyl thiophanes with radicals of normal structure from C_1 to C_6 were studied by means of an MC-1 (MS-1) mass spectrometer. Total ionization caused by 70-ev electrons was studied as dependent on the molecular weight of the substance investigated: It is shown that the total quantity of molecules and fragmentary ions increases linearly with increasing molecular weight. The total ionization value measured for thiophenes makes it possible to carry out an analysis of the structural groups of heterocyclic compounds. The ionization potentials of thiophanes were determined approximately. They were found to decrease

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Mass spectra of some homologs ... S/081/61/000/022/001/076
B102/B108

(from 9.5 ev for C_1 to 8 ev for C_6) with increasing length of the chain of the alkyl radical. The mass spectra of the alkyl thiophanes were all characterized by the presence of an intense peak at the mass 87 which permits identifying these compounds. [Abstracter's note: Complete translation.]

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POLYAKOVA, A.A.; ZIMINA, K.I.; PETROV, A.A.; KHMEL'NITSKIY, R.A.

Mass-spectra and structure of organic compounds. Part 5: Mass-spectra of enyne hydrocarbons with a tertiary butyl radical at multiple bonds. Izv. vys. ucheb. zav.; khim. i khim. tekh. 4 no. 2:321-324 '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pereabotke nefti i gaza i Leningradskiy tekhnologicheskiy institut im. Lensoveta. Kafedra organicheskoy khimii.
(Hydrocarbons—Spectra)

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KHMEL'NITSKIY, R.A.; ZIMINA, K.I.; POLYAKOVA, A.A.

Mass spectrum analysis of gasolines. Khim.i tekh.topl.i masel 6 no.6:55-60 Je '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Gasoline—Spectra)

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POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.

Certain regularities in mass spectra of monoolefins. Zhur.ob. khim. 31 no.12:4059-4060 D '61. (MIRA 15:2)
(Olefins)
(Mass spectrometry)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.

Mass spectrum analysis of five-membered and six-membered naphthene hydrocarbons in gasolines. Zhur.prikl.khim. 34 no.7:1569-1572 Jl '61. (MIRA 14:7)

(Hydrocarbons—Spectra) (Gasoline)

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POLAK, L.S.; KHMEL'NITSKIY, R.A.; CHERNYAK, N.Ya.

Mass spectra of some dodecane isomers. Neftekhimia 2 no.1:9-13 Ja-F '62. (MIRA 15:5)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Dodecane—Spectra)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.

Mass spectrometry method for determining paraffinic hydrocarbons of normal and branched structure. Khim.i tekh.topl.i masel 7 no.8:70-3 of cover Ag '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Paraffins) (Mass spectrometry)

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PELIPENKO, V.N.; KHMEL'NITSKIY, R.A.

The UKP-UEChM equipment for automatic control of cage hoists. Biul. tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.1: 10-11 '63. (MIRA 16:2)

(Mine hoisting) (Electronic control)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

L 12977-63 EWP(j)/EPF(c)/EWT(m)/BDS ASD Pc-4/Pr-4 RM/WW

ACCESSION NR: AT3002350 S/2513/63/013/000/0482/0490

AUTHOR: Khmel'nitskiy, R. A.; Polyakova, A. A.; Petrov, A. A.

64

TITLE: Mass-spectrometric analysis of silica-containing vinylacetylenes

SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy*, v. 13, 1963. Organicheskiy analiz, 482-490

TOPIC TAGS: spectrometry, silica, vinylacetylene, alkyl radical, vinyl radical

ABSTRACT: The study of mass-spectra of silica-containing vinylacetylenes showed that the process of their ionic dissociation is very selective. This results in the formation of a small group of characteristic ions which may be utilized in the identification and quantitative analysis of the alkylsilybutenenes. The investigated mass-spectra covered the following compounds: trimethylisopropenylacetylenylsilane, trimethylpropenylacetylenylsilane, triethylvinylacetylenylsilane, dimethylvinylacetylenylsilane and methylvinyldivinylacetylenylsilane. In all the investigated materials, the maximum peak was found at the silicon atom, after alkyl and vinyl radicals had separated from the silica atom. This fact allows the qualitative identification and the qualitative determination of the silica-containing vinylacetylynes in mixtures. Orig. art. has: 3 tables and 1 figure.

ASSN: All-Union Scientific-Research Inst. for Petroleum and Gas Refines and Synthesis of Liquid Fuel

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POLYAKOVA, A.A.; ZIMINA, K.I.; KHMEL'NITSKIY, R.A.

Mass spectrometric analysis of complex mixtures of hydrocarbons. Trudy Kom.anal.khim. 13:495-502 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrocarbons) (Mass spectrometry)

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POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 8: Mass spectra of some allene hydrocarbons with tert-butyl radicals. Zhur. ob. Khim. 33 no.8:2518-2525 Ag '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pereraboтke nefti i gaza i Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722110017-0

MIKHAYLOV, I.A.; POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; IZOTOVA, N.P.; MEDVEDEV, F.A.; CHERNYSHEVA, M.M.

Mass spectrometer investigation of the hydrocarbon composition of the paraffin-naphthene component of distillate lubricants. Khim. i tekh. topl. i masel 9 no.12:15-20 D '64. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu isskusstvennogo zhidkogo topliva.

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POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 9: Mass spectra and structure of C_6H_6 hydrocarbons (1,3- and 2,4-hexadien-3-yne). Zhur. ob. khim. 34 no. 5:1484-1487 My '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i Leningradskiy tekhnologicheskiy institut imeni Lenina.

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POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; PETROV, A.A.

Mass spectra and structure of organic compounds. Part 10: Mass spectra of nonconjugated 1,5-diyne hydrocarbons. Zhur. ob. khim. 34 no.10:3296-3300 O '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

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NO REF SOV: 000 OTHER: 000

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L 01047-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5013771 UR/0366/65/001/005/0818/0821
543.51 : 547.317

AUTHOR: Polyakova, A. A.; Khmel'nitskiy, R. A.; Petrov, A. A.

TITLE: Mass spectra and structure of organic compounds. XII. Mass spectra and structure of disubstituted diyne hydrocarbons

SOURCE. Zhurnal organicheskoy khimii, v. 1, no. 5, 1965, 818-821

TOPIC TAGS: hydrocarbon, mass spectrum, dissociation

ABSTRACT: The article is a continuation of a study on the relationship between the electron impact and mass spectra of highly unsaturated compounds. In this work the mass spectra of three 2,4-diyne hydrocarbons differing in the structure of the saturated radical at the triple bond system were investigated. hexadi-2,4-yne, 6-methylheptadi-2,4-yne and 6,6-dimethylheptadi-2,4-yne. It was found that significant differences exist in ionization of the compared homologs. In the mass spectrum of hexadi-2,4-yne and its asymmetrical isomer, the molecular ion peak is the greatest. The fraction of total current due to molecular ions is about 31%. In dissociative ionization of the second and third hydrocarbons, the dissociation of molecular ions begins to play a much greater role. It was shown that the main direction of dis-

Card 1/2

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sociative ionization is splitting of the methyl radical. Further dissociation proceeds by splitting CH_2 and C_2H_2. It was shown that dissociative ionization during electron impact of diacetylene molecules which contain branched radicals in the α-position to the multiple bond system is analogous to the dissociative ionization of 1,3-enynes and 1,3-dienes with the same radicals. At the same time processes take place which are characteristic of the dissociation of diacetylenes. "The 6-methylheptadi-2,4-yne and 6,6-dimethylheptadi-2,4-yne were synthesized by Yu. I. Porfir'yeva and Ye. S. Turbanova." Orig. art. has: 1 table, 1 figure.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza (All-Union Scientific Research Institute for Oil and Gas Refining); Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Institute of Technology)

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[illegible]

AUTHOR: Polyakova, A. A. Khmel'nitskiy, R. A.; Medvedev [illegible]

TITLE: [illegible] method for analyzing [illegible] characteristics [illegible]

SOURCE: [illegible] 1965, [illegible]

TOPIC TAGS: [illegible] petroleum [illegible] hydrocarbon [illegible] sensitivity [illegible]

ABSTRACT: An interpolation method was developed for calculating the relative sensitivity coefficients of [illegible] and higher alkanes [illegible] with [illegible] Sensitivity coefficients were calculated using the equation [illegible] average relative error. A published method [illegible]

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tion of C_{14}-Use n-alkane model mixtures from mass spectroscopic data with ± 3.3% average relative error. A published method for group analysis of hydrocarbons

Card 1/2

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