KALASHNIK, I.A., doktor veterin.nauk; DOROGAYA, Z.I., veterinarnyy vrach.

Influence of tissue extracts on the reactivity of animal organisms. Veterinariia 36 no.6:57-60 Je '59. (MIRA 12:10)

1. Khar'kovskiy veterinarnyy institut.
(Tissue extracts)

KALASHNIK, I. A., PEREDERA, B. Ya., BOZHKOV, V. I. and DOROGAYA, Z. I.

" Conserved blood of animals in the biogen stimulator during hog fattening."

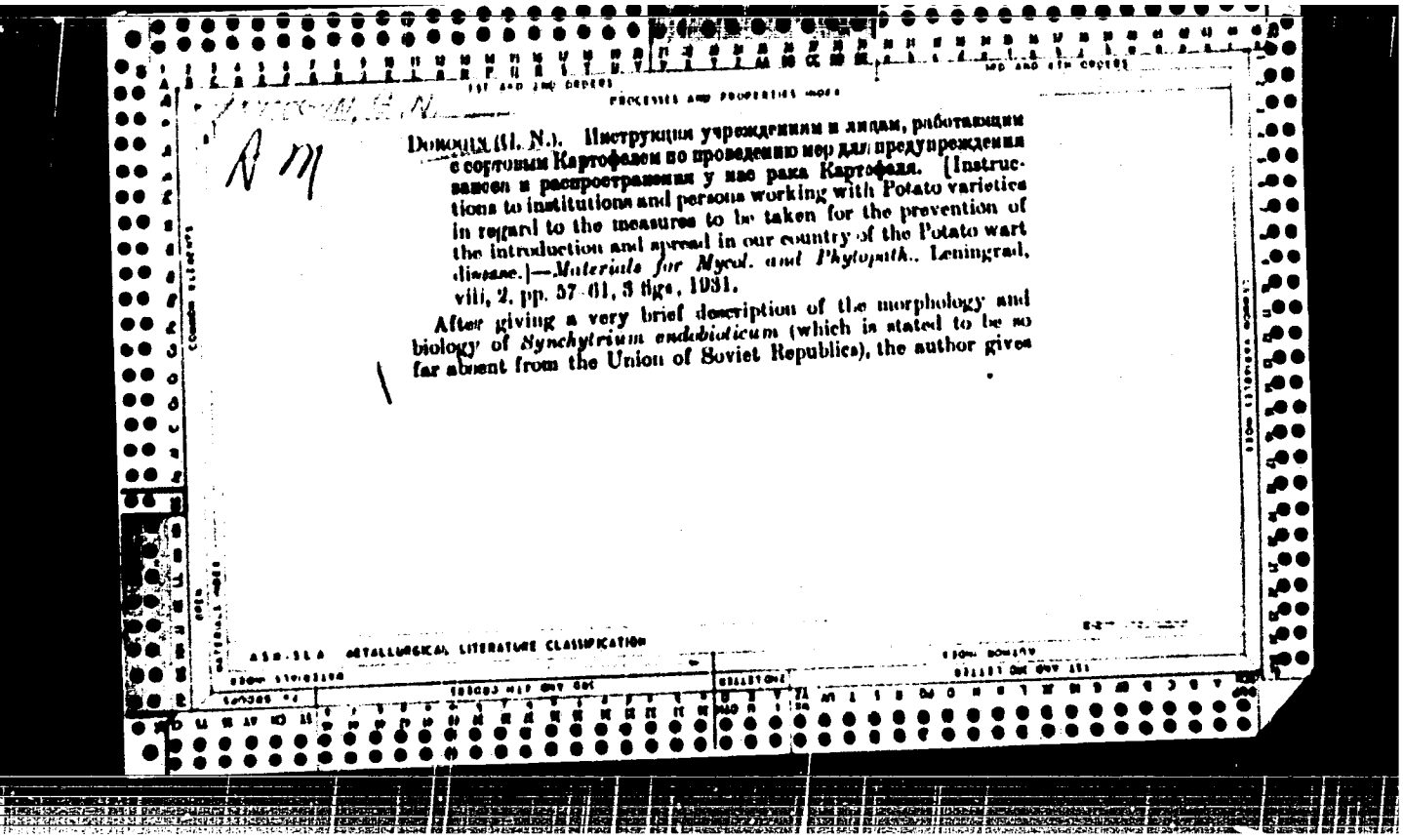
Veterinariya Vol. 37, No. 3, 1960, p. 30

Dorogaya - Vet. Dr.
Kharkov Vet. Inst.

KALASHNIK, I.A., doktor veter.nauk; PEREDERA, B.Ya., kand.veter.nauk;
BOZHKO, V.I., kand.veter. nauk; DOROGAYA, Z.I., veterinarnyy vrach

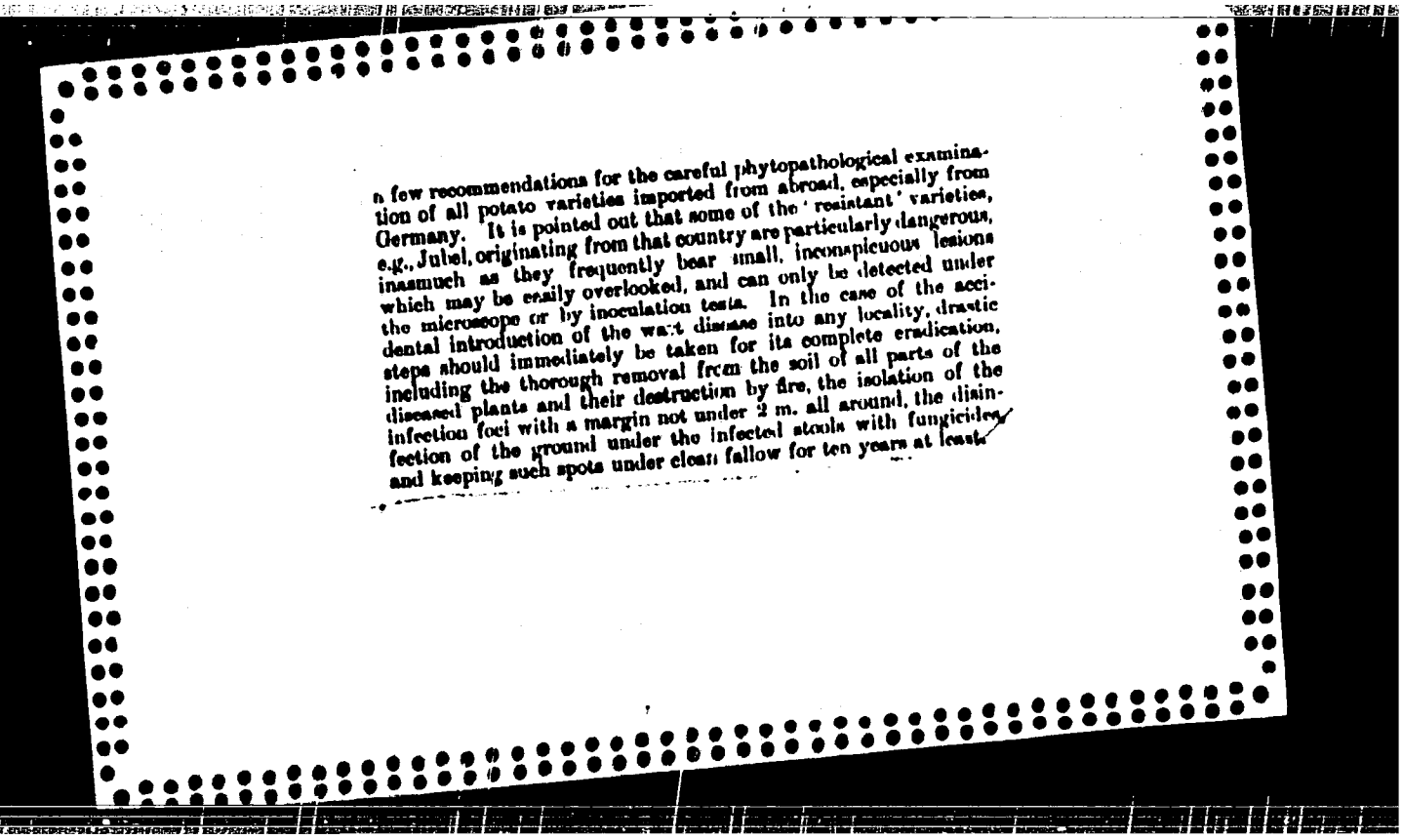
Conserved animal blood is a biogenic stimulator in swine fattening.
Veterinariia 37 no.3:70-72 Mr '60. (MIRA 16:6)

1. Khar'kovskiy veterinarnyy institut.
(Blood as food or medicine)
(Swine--Feeding and feeding stuffs)



Dobrozrakova (N. N.). Инструкция учреждениям и лицам, работающим с сортовым Картофелем по проведению мер для предупреждения завоза и распространения у нас рака Картофеля. [Instructions to institutions and persons working with Potato varieties in regard to the measures to be taken for the prevention of the introduction and spread in our country of the Potato wart disease.]—*Materials for Mycol. and Phytopath.*, Leningrad, viii, 2, pp. 57–61, 3 figs., 1931.

After giving a very brief description of the morphology and biology of *Synchytrium endobioticum* (which is stated to be so far absent from the Union of Soviet Republics), the author gives



a few recommendations for the careful phytopathological examination of all potato varieties imported from abroad, especially from Germany. It is pointed out that some of the 'resistant' varieties, e.g., Juliel, originating from that country are particularly dangerous, inasmuch as they frequently bear small, inconspicuous lesions which may be easily overlooked, and can only be detected under the microscope or by inoculation tests. In the case of the accidental introduction of the wart disease into any locality, drastic steps should immediately be taken for its complete eradication, including the thorough removal from the soil of all parts of the diseased plants and their destruction by fire, the isolation of the infection foci with a margin not under 2 m. all around, the disinfection of the ground under the infected stools with fungicides, and keeping such spots under clean fallow for ten years at least.

DOROGIN, P. YA

AID P - 320

Subject : USSR/Engineering

Card : 1/1

Author : Dorogin, P. Ya.

Title : Stock protective barrier for mast type hoists

Periodical : Sbor. mat. o nov. tekh. v stroi., 3, 14-15, 1954

Abstract : Movable protective barriers for mast type hoists are described. They are of two types: one tubular, the other, a fence of wooden boards. 2 graphs show details.

Institution : None

Submitted : No date

DORODNIN, V. I.

DORODNIN, V. I.: "Hydroelectric power station aggregates as generators of reactive power." Min Higher Education USSR. Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov. Moscow, 1956
(Dissertation for the Degree of Candidate in Technical Sciences)

So: Knizhnaya Letopis', No, 18, 1956

DOROGININ, V.I., kand. tekhn. nauk

Use of the generators of hydroelectric power stations as synchronous compensators. Elek. sta. 34 no.7:43-46 Jl '63. (MIRA 16:8)

TELEZHENKO, V.P.; GONSHENIN, Yu.V.; DOROGINITSKAYA, L.M.

Dynamic characteristics of seismic recordings in the case of wedge-shaped layers based on modeling data. Trudy SNIIGGIMS no.27:95-121 '62. (MIRA 16:9)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya.
(West Siberian Plain—Seismic prospecting)

DOROGINITSKAYA, L.M.; TELKZHENKO, V.P.; FROLOVA, L. A.

Experimental study of the reflection coefficient and propagation velocities of elastic waves in fluid-saturated porous media. Trudy SNIIGGIMS no. 30:98-110 '64 (MIRA 19:1)

DOROKHOD, A. S.

The Distribution of tension of an orthotropic plate with a circular opening with pure shear. "Inzhinernyy Sbornik" By Acad my of Science of the USSR, Department of Sciences, Institute of Mechanics.
1955.

DOROGOHED,A.S. (Leningrad)

Pure shear-induced stress distribution in an orthotropic plate with a circular aperture. Inzh.sbor. no.21:113-119 '55.
(Strains and stresses) (MLRA 8:11)

DOROGOCHID, G.M.,

4

3621. EVENING OUT THE PROPERTIES OF COALS IN THE STOCKYARD OF A BY-PRODUCT COKING PLANT. Feldbrin, M.G., Dorogochid, G.M., Krol, V.I. and Baev, N.E. (Stal (Steel, Moscow), 1955, (2), 103-106). This is an account of a full scale study of the effects of bedding and mixing on the constancy of properties, mainly ash content, of coal charges proceeding to coke ovens making blast furnace coke. Stockyard bedding was found to be most effective and the provision of adequate space in all new plants is urged. Where part of the coal does not pass through the bedding system it is suggested that this should be mixed in constant proportion from separate bunkers. [illegible]

Vostochnyy N.-i ugle-khimicheskiy institut i Magnitorskiy kombinat.

DOROGOBID, G.M.

AFONIN, K.B.; BURTSEV, K.I.; BYSTROV, S.N.; VINETS, G.B.; VODNEV, G.G.; VORONIN, A.S.; GEVLICH, A.S.; GRYAZNOV, N.S.; GUDIM, A.F.; GUSYATINSKIY, M.A.; DVORIN, S.S.; DIDENKO, V.Ye.; DMITRIYEV, M.M.; DONDE, M.M.; DOROGOBID, G.M.; ZHDANOV, G.I.; ZAGORUL'KO, A.I.; ZELENETSKIY, A.G.; IVASHCHENKO, Ya.N.; KAFTAN, S.I.; KVASHA, A.S.; KIRGYEV, A.D.; KLISHEVSKIY, G.S.; KOZYREV, V.P.; KOLOBOV, V.N.; LGALOV, K.I.; LEYTES, V.A.; LERNER, B.Z.; LOBODA, N.S.; LUBINETS, I.A.; MANDRYKIN, I.I.; MUSTAFIN, F.A.; NEMIROVSKIY, N.Kh.; NEFEDOV, V.A.; OBUKHOVSKIY, Ya.M.; PERTSEV, M.A.; PETROV, I.D.; PODOROZHANSKIY, M.O.; POPOV, A.P.; RAK, A.I.; REVYAKIN, A.A.; ROZHKOV, A.P.; ROZENGAUZ, D.A.; SAZONOV, S.A.; SIGALOV, M.B.; STOMAKHIN, Ya.B.; TARASOV, S.A.; FILIPPOV, B.S.; FRIDMAN, N.K.; FRISHBERG, V.D.; KHAR'KOVSKIY, K.V.; KHOLOPTSEV, V.P.; TSAREV, M.N.; TSOGLIN, M.E.; CHERNYY, I.I. CHERTOK, V.T.; SHELKOV, A.K.

Samuil Berisovich Bamme. Koks i khim. no.6:64 '56. (MLRA 9:10)
(Bamme, Samuil Berisovich, 1910-1956)

DOROGOBID, G.M

18(5) PHASE I BOOK EXPLOITATION SOV/1247

Dostizheniya domenshchikov Magnitogorskogo metallurgicheskogo kombinata (Achievements of Blast Furnace Operators of the Magnitogorsk Metallurgical Combine) Moscow, Metallurgizdat, 1957. 279 p. 3,000 copies printed.

Ed.: Bannykh, A.I., Professor; Ed of Publishing House: Yablonskaya, L.V.; Tech. Ed.: Attopovich, M.K.

PURPOSE: This book is intended for engineers, foundry foremen, and personnel in research institutes. It may also be useful to students and others interested in foundry practice.

COVERAGE: This book deals with achievements of the foundries of the Magnitogorsk Metallurgical Combine. The processes of preparing the charge, melting and pouring are described. Improvements in foundry methods and the theory behind these improvements are presented with numerous graphs and illustrations. The book is the combined effort of the following authors: Foreword: Bannykh, A.M. (editor); Introduction, parts 1 and 2: Bannykh, A.M.; part 3 by

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Achievements of Blast Furnace Operators (cont.) SOV/1247

Stefanovich, M.A.; Chapter I, part 1 by Dorogobid, G.M.; part 2 by Shitov, I.S.; part 3 by Yakobson, A.P.; Chapter II, part 1, 2, and 3 by Galatonov, A.L.; part 4 by Bannykh, A.M. and Nayasov, A.G.; Chapter III, Galatobov, A.L. and Golchin, V.I.; Chapter IV, parts 1,2,3,4,5 and 6 by Galatonov, A.L.; part 7 by Stefanovich, M.A.; Chapter V by Stefanovich, M.A.; Chapter VI by Babarykin, N.N.; Chapter VII by Shastin, V.A.; Chapter VIII by Gornostayev, V.K. There are 51 references, of which 43 are Soviet, and 8 are English.

TABLE OF CONTENTS:

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Achievements of Blast Furnace Operators (Cont.) SOV/1247

AVAILABLE: Library of Congress

GO/ksv
3-10-59

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SOV/68-59-6-7/25

AUTHORS: Varshavskiy, T.P., Dorogobid, G.M., Seppar, A.M. and Shevchenko, N.S.

TITLE: Smokeless Charging of Coke Ovens (Bezdymnaya zagruzka koksovykh pechey)

PERIODICAL: Koks i Khimiya, 1959, Nr 6, pp 24-31 (USSR)

ABSTRACT: In 1955 VUKhIN developed a method of smokeless charging of coke ovens with two collecting mains. The basic deficiency of the method was a decrease in the weight of the charge and an increase in the ash content of tar due to carry over of the coal dust during steam injection. In 1957-58 VUKhIN in co-operation with the Magnitogorsk Metallurgical Combine investigated various methods of charging ovens in order to improve the technology of charging. The main attention was directed towards decreasing the amount of dust carried over into the collecting mains. The characteristic features of the methods tested are shown in Table 1 and the dependence of concentration of dust in the gas in ascension pipes on the moisture content and the content of particles below 50 μ in the blend in Fig 1. The best results were obtained when charging was carried out in two stages:

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Smokeless Charging of Coke Ovens SOV/68-59-6-7/25

first through two outside holes simultaneously or in turn charging 12.9 tons (without levelling) and then after 15 - 25 minutes, through the middle hole (3.3 t) and levelling. Under these conditions the carry over of dust into the collecting mains was the lowest (9.85 - 11.8 kg/oven). The method can be used at a moisture content up to 7.5% and with the injection of steam according to the VUKhIN-MMK scheme (Fig 6). The use of vibrating filter screens for the removal of suspended matter from tar was tested with satisfactory results (no details) and will be incorporated into the operation practice on the MMK plant. Continuation of the work on the smokeless charging of coal blends with a moisture content above 7.5% is recommended.

Card 2/2

There are 6 figures, 5 tables .

ASSOCIATION: Magnitogorskiy Metallurgicheskiy Kombinat (Magnitogorsk Metallurgical Combine) ([illegible], Seppar and [illegible]); and VUKhIN ([illegible]).

DOROGOBID, G.M.

Coke chemical engineers of Magnitka are striving for technical progress. Koks i khim. no.9:3-8 '61. (MIRA 15:1)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Magnitogorsk--Coke industry)

KROL', V.L.; DOROGOBID, G.M.; PRAZDNIKOVA, V.A.

Effect of the addition of mazut on the quality of coking products.
Koks i khim. no.9:12-16 '61. (MIRA 15:1)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Magnitogorsk--Coke industry--By-products) (Mazut)

DOROGOBID, G.M.; MORDUKHOVICH, R.V.

New equipment for the coke and coal chemicals production in the Magnitogorsk Metallurgical Combine. Koks i khim. no.6:53-56 '63. (MIRA 16:9)

1. Magnitogorskiy metallurgicheskiy kombinat (for Dorogobid).
2. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy koksokhimicheskoy promyshlennosti (for Mordukhovich).
(Magnitogorsk--Coke industry--Equipment and supplies)

PROCESSES AND PROPERTIES INDEX

CO

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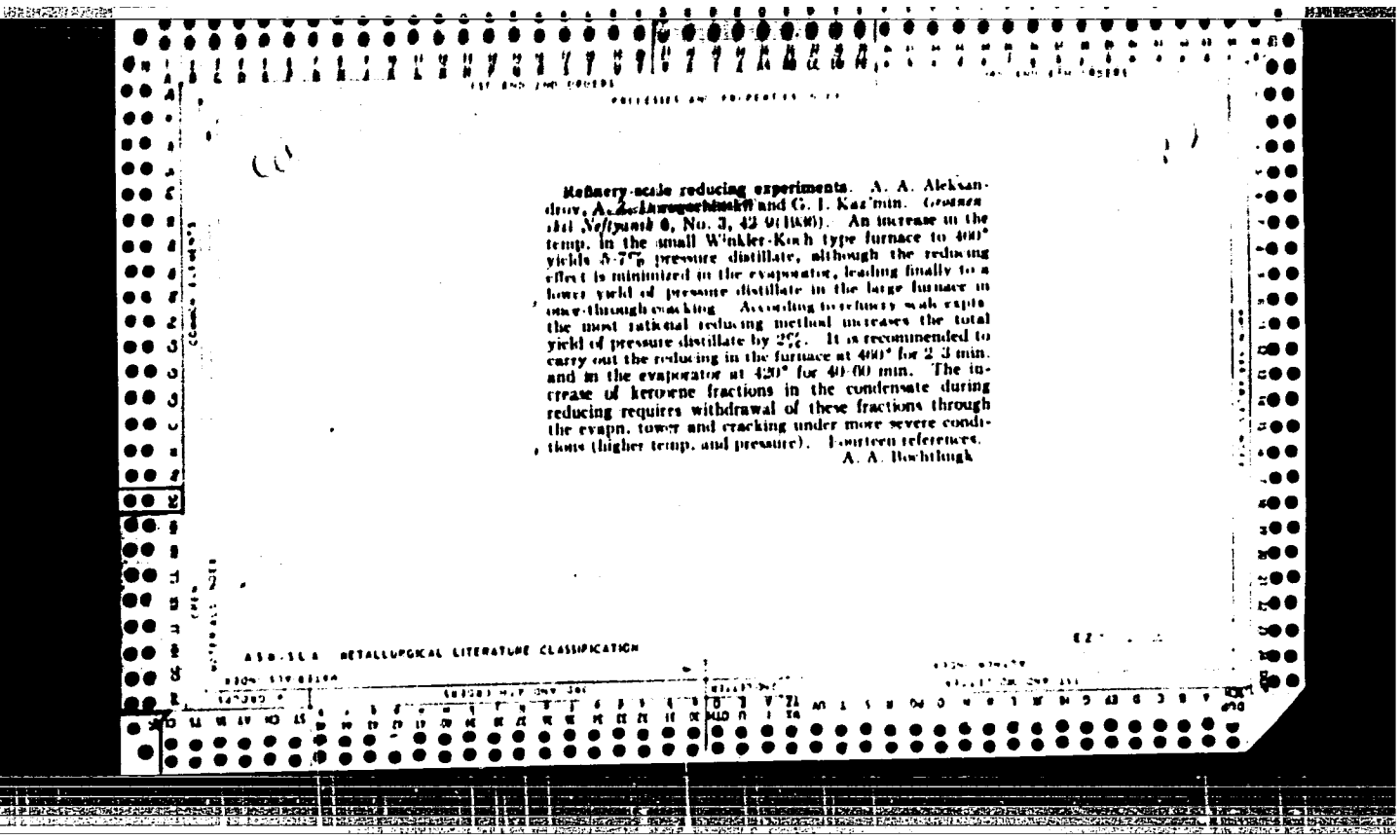
The heat of the cracking reaction. Kh. K. Kevorkov, A. Z. Dzhanguchinskii and G. I. Koz'min. *Azerbaidzhanskoe Neftyanoe Khoz.* 1936, No. 1, 74 9. - The Cragoe equation for the calcn. of the heat value cannot be used with sufficient accuracy for the detn. of the heat of reaction. The heat of reaction is affected by the yield of the pressure distillate, the ratio of the gas yield to the yield of the pressure distillate and the polymerization of the hydrocarbons. In the calcn. of "reducing" furnaces, as well as of those for liquid phase cracking, the heat of reaction of the pressure distillate, i. e., 310 kg./cal., can be used with sufficient accuracy, but not the value of 500 kg./cal. or higher usually accepted in making calcns. Nine references. A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Refinery-scale reducing experiments. A. A. Aleksandrov, A. [illegible] and G. I. Kaz'min. *Gazovaya Prom. Neftyanik* 8, No. 3, 42-9(1948). An increase in the temp. in the small Winkler-Koch type furnace to 400° yields 5-7% pressure distillate, although the reducing effect is minimized in the evaporator, leading finally to a lower yield of pressure distillate in the large furnace in once-through cracking. According to refinery scale experiments the most rational reducing method increases the total yield of pressure distillate by 2%. It is recommended to carry out the reducing in the furnace at 400° for 2-3 min. and in the evaporator at 420° for 40-60 min. The increase of kerosene fractions in the condensate during reducing requires withdrawal of these fractions through the evapn. tower and cracking under more severe conditions (higher temp. and pressure). Fourteen references.
A. A. Berlinguk

A50-51A METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

CA

22

New method for determining the gasoline potential for cracking masut oils. B. K. Amerik and A. S. [illegible]chinskii. *Neftyanoe Prom.* 22, No. 7, 91 (1941); *Chem. Zentr.* 1943, I, 354.—The gasoline potential (I) of the sample is the yield of cracked gasoline of end point 230°, when 1% carboids are obtained and the viscosity of the residue is 80°B at 50°. I is detd. from exptl. data by means of previously obtained curves. The data are obtained by the following new method: In 2 parallel tests, of 150 g. each, masut is cracked in lab. autoclaves at 3 atm. and 425° within 40 and 60 min. The sp. gr. of the distillate, and the viscosity and the carboid content of the residue are detd. The I with end point 225° varies for different masuts from 20.5 to 43%. A. K. Esterer

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

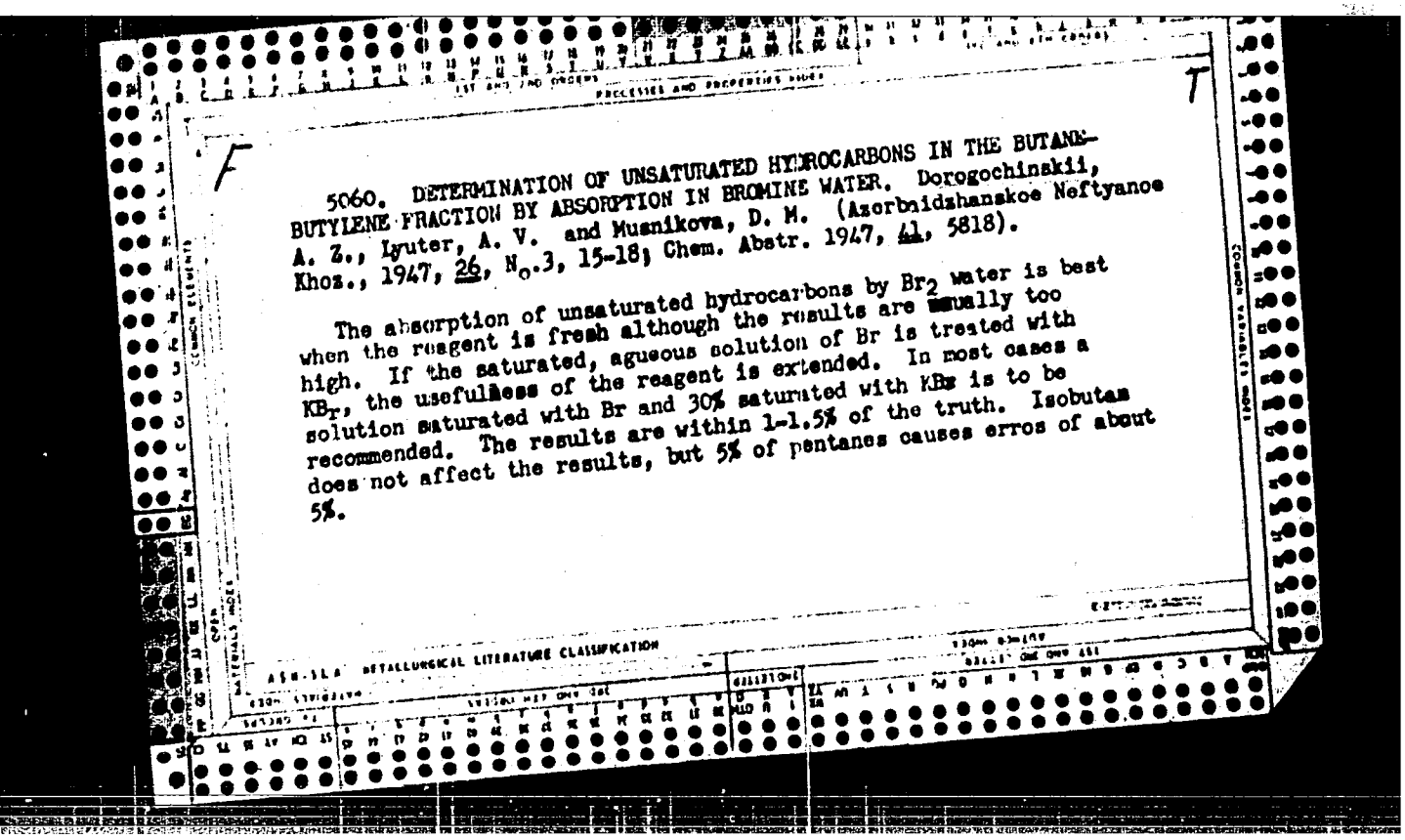
CA

72

PROCESSES AND PROPERTIES INDEX

Efficiency of the cracking units in Grozny. A. S. Ibragimbekli. *Neftyanoe Prom.* 22, No. 4, 97–104(1937); (*Khim. Referat. Zhur.* 1938, 1, 354). The efficiency is detd. by the gasoline-potential (I) of Amerik and Ibragimbekli (preceding abstr.). If the properties of the mazut oils which have a I of 29.6–44.8% are not taken into consideration, the raw material is not sufficiently utilized. A. K. F.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



5060. DETERMINATION OF UNSATURATED HYDROCARBONS IN THE BUTANE-BUTYLENE FRACTION BY ABSORPTION IN BROMINE WATER. Dorogochinskii, A. Z., Lyuter, A. V. and Musnikova, D. M. (Azerbaidzhanskoe Neftyanoe Khoz., 1947, 26, No.3, 15-18; Chem. Abstr. 1947, 41, 5818).

The absorption of unsaturated hydrocarbons by Br_2 water is best when the reagent is fresh although the results are usually too high. If the saturated, aqueous solution of Br is treated with KBr, the usefulness of the reagent is extended. In most cases a solution saturated with Br and 30% saturated with KBr is to be recommended. The results are within 1-1.5% of the truth. Isobutan does not affect the results, but 5% of pentanes causes erros of about 5%.

DOROGOCHINSKIY, A.Z.; MEL'NIKOVA, N.P.; SHAKHZADOVA, I.A.

Deuterium-hydrogen exchange of some hydrocarbons on alumino silicate catalysts in cracking. Probl. kin. i kat. 9:162-167 '57. (MIRA 11:3)
(Catalysts) (Hydrogen--Isotopes) (Cracking process)

DOA[illegible] 89-4-5-15/26

AUTHORS: Votlokhin, B. Z., Dorogochinskiy, A. Z., Mel'nikova, N. P.

TITLE: A Radiometric Method of Control of Interfaces Between Different Varieties of Petroleum Products Pumped Through A Single Pipeline (Radiometricheskiy metod kontrolya posledovatel'nykh perekachek razlichnykh sortov nefteproduktov po odnomu magistral'nomu truboprovodu)

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 5, pp. 475 - 477 (USSR)

ABSTRACT: If the oil transport from the fields to the place of shipment is carried out by way of a single pipeline and if, for example, gasoline, crude oil and diesel oil are sent through in direct succession it is especially important to know the interfaces between the transported products. If the time of arrival of one product at the place of shipment is exactly known a very economic working can be achieved by due regulation of the branch lines to the various reservoirs.

In the GrozNII the following method has been elaborated: At the same time when at the starting point of the

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89-4-5-15/26

A Radiometric Method of Control of Interfaces Between Different Varieties of Petroleum Products Pumped Through a Single Pipeline

pipeline another oil product is sent through, a radio-active liquid is added to this oil. At the place of arrival, i.e. at the pumping stations, it is recorded when the maximum intensity is reached. This is then the sign for the due and economic switching over.
This method has been tried at a 886 km long pipeline and proved to be very successfull.
Triphenylstibine which contains radio-active Sb^{124}, served as indicator. There are 2 figures.

SUBMITTED: August 1, 1957

AVAILABLE: Library of Congress

1. Radioactive substances—Applications 2. Pipelines—Operation

Card 2/2

5(3)

AUTHORS: Kozorezov, Yu. I., Dorogochinskiy, A. Z. SOV/2o-123-5-24/5o

TITLE: Alkylation of Toluene by C_{1o} Olefines in the Presence of Sulphuric Acid (Sernokislotnoye alkilirovaniye toluola olefinami C_{1o})

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 5, pp 857 - 859 (USSR)

ABSTRACT: In the production of the most commonly used synthetic detergents- the alkyl-aryl sulfonates - benzene, as a possible deficient item, should be replaced by other aromatic hydrocarbons, in particular by toluene. No informations has been published on the effects of various factors on the intensity of the course of the reaction of the toluene alkylation by C_{1o} olefines in the presence of sulfuric acid. Of late it has been proved that high-molecular olefines (preponderantly C_{1o}) can be obtained from the polymerization with phosphoric acid of the amylenes from the C_5 fraction of thermal cracking. Therefore, in the present paper the reaction mentioned in the title was studied with the polymerization products of the pentane-amylene

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fraction. Chemically pure sulfuric acid was used as a catalyst. A description of the laboratory equipment used is given. Numerous experiments with the fraction of the amylene dimers (boiling point 125 - 175°) and for the purpose of an explanation of the effect exerted by the following factors were conducted: a) concentration of the initial acid, b) duration and temperature of the reaction, c) molar ratio of the olefines with regard to toluene, and d) relation of the acid to the hydrocarbons. The results are summarized in table 1. Thus, the following optimum conditions could be indicated, which secure the highest possible yield of alkyl products; concentration of the initial acid 95 - 97 per cent by weight calculated for monohydrate; temperature 10 - 15°, duration of the reaction 30 - 40 minutes, molar ratio of olefines to toluene 1:4 - 1:6, proportion by volume of the acid to the hydrocarbons 0.12. Under these conditions, the yield of the alkyl product amounts to 140 - 143 per cent by weight calculated for the initial olefines. The formerly (Refs 5-8) dreaded significant depolymerization of the initial olefines by acids has turned out to be much lower (12-13 per cent by weight). It was proved

moreover that the yield of the amyl toluene fraction is affected only by the concentration of the initial acid and by the temperature of the reaction (Table 1). Figure 1 shows the distillation curve of an alkyl product. Constants of the products obtained are given. There are 1 figure, 1 table, and 12 references, 1 of which is Soviet.

ASSOCIATION: Groznenskiy neftyanoy nauchno-issledovatel'skiy institut (Groznyy Scientific Research Institute for Petroleum)

4 PRESENTED: July 23, 1958, by B. A. Kazanskiy, Academician

SUBMITTED: July 20, 1958

DOROGOCHINSKIY A. Z.

СИНТЕЗ И СВОЙСТВА НАФТЕНОВЫХ УГЛЕВОДОРОДОВ
С ДЛИННОЙ БОКОВОЙ ЦЕПЬЮ

[illegible]

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.

DOROGOCHINSKIY, A. Z.

СОЧЕТАНИЕ ХРОМАТОГРАФИЧЕСКОЙ АДСОРБЦИИ
С ИЗБИРАТЕЛЬНЫМ ГИДРИРОВАНИЕМ ПРИ АНАЛИЗЕ
ДИСТИЛЛЯТОВ ВТОРИЧНОГО ПРОИСХОЖДЕНИЯ

[redacted]

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, 15 March 1959.

KOZOREZOV, Yu.I.; DOROGOCHINSKIY, A.Z.

Sulfuric acid alkylation of toluene by diisobutylene. Izv. vys. ucheb. zav.; neft' i gaz 2 no.5:49-54 '59. (MIRA 12:8)

1.Groznenskiy neftyanoy institut i Groznenskiy nauchno-issledovatel'skiy institut.

(Alkylation) (Toluene)

KOZOREZOV, Yu.I.; DOROGOCHINSKIY, A.Z.

Sulfuric acid alkylation of toluene by C_{12} olefins. Izv. vys. ucheb. zav.; neft' i gaz 2 no.8:45-49 '59. (MIRA 12:11)

1.Groznenskiy neftyanoy institut; Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.
(Toluene) (Alkylation)

DOROGOCHINSKIY, A.Z.

Contribution of Groznyi petroleum workers to the development of the petroleum refining industry. Trudy GrozNII no.4:5-16 '59. (MIRA 12:9)

(Groznyi--Petroleum--Refining)

DOROGOCHINSKIY, A.Z.

Ways for the further development of the petrochemicals industry in Groznyi. Trudy GrozNII no.4:203-217 '59. (MIRA 12:9)
(Groznyi--Petroleum chemicals)

VOTLOKHIN, B.Z.; DOROGOCHINSKIY, A.Z.; MEL'NIKOVA, N.P.

Use of radioactive indicators for checking consecutive pumping over of petroleum products in main pipelines. Trudy GrozNII no.4: 253-265 '59. (MIRA 12:9)
(Petroleum--Pipelines) (Radioactive tracers)

5.1100

[illegible]

AUTHORS: Dorogochinskiy, A. Z., Mel'nikova, N. P., Svetozarova, O. I.

TITLE: Chromatographic Separation of Broad Fractions of Petroleum Products of Secondary Origin

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, Nr 2, pp 19-[illegible] (USSR)

ABSTRACT: The use and applicability limits of the sulfuric acid- and cryoscopic methods for the determination of total contents of aromatic and unsaturated hydrocarbons are cited, and the possible causes of incorrect determinations reviewed. The chromatographic method, thus far employed for separation of light fractions (50 to 300° C distillates), was tested on artificially prepared mixtures. Then employed for the separation of broad fractions of secondary origin hydrocarbon mixtures. The obtained fractions were examined both separately and combined

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Chromatographic Separation of Broad Fractions of Petroleum Products of Secondary Origin

SOV/[illegible]-58-2-4/15

as to their refraction indices, density, iodine number and composition. Fine-grain silica gel, 100 to 200 mesh, was used as adsorbent and ethyl alcohol as desorbent. Filtration rate was 15 milliliter per hour. Separation loss did not exceed 3%. The fractionation of artificial mixtures of four different compositions revealed that: (1) the first fractions consist of only paraffins or naphthenes; (2) the second fractions contain paraffins, naphthenes, and unsaturated hydrocarbons; (3) the third fractions contain 85 to 95% of unsaturated hydrocarbons; and (4) the composition by fractions after adsorption separation satisfactorily coincides with that of the original mixture. A pressed distillate of thermal cracking of lubricating oil from Brazny was selected as the secondary petroleum product for separation of broad fractions by the chromatographic method. The properties of the distillate were: density $\rho_4^{20} = 0.775$; distillation range ge = 50 to [illegible]°C, molecular weight = 130; iodine number = 64, [illegible] number = 2 %. Repeated separation procedures produced identical

Card 2/4

Chromatographic Separation of Broad Fractions of Petroleum Products of Secondary Origin

results; deviations did not exceed 1%. The conclusion states that chromatographic separation of fractions permits an accurate determination of the content of aromatic and unsaturated hydrocarbons, separately or combined. There are 4 tables; and 16 references, 10 Soviet, 6 U.S. The recent U.S. references are: Melpolder, F., et al, Ind. Eng. Chem., 1142, 1952; Criddle, D., Le Tourneau, R., Anal. Chem., 23, 1629, 1951; Fink, D., Lewis, R., Weiss, F., Anal. Chem., 22, 850, 1950; Clark, A., Andrews, A., Fleming, H. W., Ind. Eng. Chem., 7, 1527, 1949; Jonston, H., Appleby, W., Baker, M., Anal. Chem, 20, 805, 1948.

ASSOCIATION: Groznyy Petroleum Scientific Research Institute (GrozNNI)

Card 3/4

Chromatographic Separation of Broad Fractions of Petroleum Products of Secondary Origin

77544
SOV/65-60-2-4/15

Table 4. Properties of the fractions, separated by the chromatographic method from the pressed distillate, before and after selective hydrogenation.

FRACTION	YIELD OF FRACTIONS, %	DENSITY d_4^{20}		REFRACTION INDEX n_D^{20}		IODINE NO, g IODINE PER 100 g PRODUCT		CONCENTRATION OF UNSATURATED HYDROCARBONS ACCORDING TO IODINE NO BEFORE HYDROGENATION, %	TOTAL CONTENT OF AROMATIC AND UNSATURATED HYDROCARBONS AFTER HYDROGENATION, %
		BEFORE HYDROGENATION	AFTER HYDROGENATION	BEFORE HYDROGENATION	AFTER HYDROGENATION	BEFORE HYDROGENATION	AFTER HYDROGENATION		
1st (PARAFFIN-NAPHTHENE	41,4	0,7505	—	1,4290	—	0	—	0	0
2nd (PARAFFIN-NAPHTHENE, OLEFIN)	7,6	0,7787	0,7741	1,4290	1,4315	68	0	34,6	0
3rd (OLEFIN)	18,6	0,7887	0,7748	1,4360	1,4330	184	0	94,2	2,5
4th (OLEFIN + AROMATIC)	9,5	0,8438	0,8108	1,4580	1,4550	166,5	0	85,6	30,0
5th (AROMATIC)	16,3	0,9197	0,8826	1,5200	1,5020	49,0	0	25,0	80,0

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KAZANSKIY, B.A.; DOROGOCHINSKIY, A.Z.; ROZENGART, M.I.; LYUTER, A.V.; MITROFANOV, M.G.

Aromatization of narrow hexane fractions of Groznyi gasoline on an alumina-chromic oxide catalyst. Kin.i kat. 1 no.2:294-299 Jl-Ag '60. (MIRA 13:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR i Groznenskiy nauchno-issledovatel'skiy neftyanoy institut.
(Aromatization)
(Hexane)

86146

5.3610 2209, 1375, 1153

S/152/60/000/003/002/003
B023/B060

AUTHORS: Dorogochinskiy, A. Z., Nakhapetyan, L. A., Lavrent'yev, V.I., Boykova, Ye. P., Kost, A. N., Yershov, V. V

TITLE: Antioxidizing Properties of Some Pyrazoline Derivatives

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1960, No. 3, pp. 69-71

TEXT: In the authors' opinion, the stability of motor fuels to oxidation is a most important problem. They therefore studied the antioxidizing properties of some pyrazoline derivatives in their capacity as inhibitors. The authors first obtained numerous pyrazolines having no substituents in position 1, and then such having different substituents in this position. The following compounds were synthesized as possible inhibitors: 1-carbamido-3-phenyl pyrazoline, 1-phenyl carbamido-3-phenyl-4-ethyl-pyrazoline, 1-thiocarbamido-3,5,5-trimethyl pyrazoline, 1-phenyl thio-carbamido-3,5,5-trimethyl pyrazoline, 1-phenyl thiocarbamido-3-methyl-5,5-pentamethylene pyrazoline, 1-phenyl thiocarbamido-3,5-diphenyl pyrazoline, 1,3,5-triphenyl pyrazoline, 3-amino-1-phenyl pyrazoline.

Card 1/3

Antioxidizing Properties of Some Pyrazoline Derivatives

S/152/60/000/004/002/003
B023/B060

Derivatives of phenyl thiocarbamides of various pyrazolines were obtained by the action of phenyl isothiocyanate upon these pyrazolines (Ref. 5). In a similar manner, the following compounds were obtained from the corresponding pyrazolines: 1-carbamido-3-phenyl pyrazoline and 1-phenyl carbamido-3-phenyl-4-ethyl pyrazoline (Ref. 2). 3-amino-1-phenyl pyrazoline was synthesized from acrylonitrile and phenyl hydrazine (Ref. 6). 1,3,5-triphenyl pyrazoline was obtained by interaction of benzal acetophenone and phenyl hydrazine (Ref. 7). The efficiency of the preparations examined was estimated by comparing their inhibiting effect with the effect of para-oxy diphenyl amine, which was taken as a standard, as well as with the effect of 2,6-ditertiary butyl-4-methyl phenol. Two samples of motor fuels A and B were taken, the properties of which are given in Table 1. Sample A was prepared by intermixing equal amounts of fresh distillate of thermocracking and of the benzene-ligroin fraction. Sample B was prepared by intermixing the same amounts in a ratio of 30 : 70. Both samples were inhibited by various additions on the day of their preparation. The additions were allowed to dissolve in the motor fuels by being added as benzene solutions. Benzene was taken in an amount of ~ 0.1% of the fuel volume. The effect of stability of samples A and B

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86146

Antioxidizing Properties of Some Pyrazoline Derivatives

S/152/60/000/003/002/003
B023/B060

was examined first. For this purpose the authors studied the inhibited motor fuel for its stability to oxidation by determining the induction period on the basis of ГОСТ 4039-48 (GOST 4039-48) within 6 h. The content of potential resins in the motor fuel was determined next. Results show that some pyrazoline derivative samples have a considerable inhibiting effect. The best results were yielded by the use of 1-phenyl thiocarbamido-3,5,5-trimethyl pyrazoline. In the sample inhibited with this substance, the resin formation appeared only after two months, while resins in a noninhibited sample increased with uninterrupted intensity throughout the whole storage time. There are 3 tables and 7 references: 5 Soviet, 1 US, and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov) GrozNII (Groznyy Petroleum Institute)

SUBMITTED: September 3, 1959

Card 3/3

KOZOBEZOV, Yu.I.; DOROGOCHINSKIY, A.Z.

Alkylation of toluene by C_{10} olefins in the presence of sulfuric acid. Khim.i tekh.topl.i masel 5 no.5:36-41 My '60. (MIRA 13:7)

1. Groznenskiy nauchno-issledovatel'skiy neftyanoy institut.
(Toluene) (Olefins) (Alkylation)

5.3300

6899g

AUTHORS: Dorogochinskiy, A. Z., Lavrent'yev, V. I., Lyuter, A. V., Mel'nikova, N. P., Kupriyanov, V. A.

S/020/60/131/02/045/071
B011/B011

TITLE: Synthesis and Properties of Naphthenic Hydrocarbons With a Long Side Chain

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 2, pp 367 - 370 (USSR)

ABSTRACT: The authors wanted to work out a general method and conditions for the synthesis of technical fractions of the substances mentioned in the title, as well as the study of the properties of these fractions. Propylene, butylene, amylene, hexylene, and heptylene were used for the purpose. As a result of the experiments conducted at the authors' institute, a 3-stage scheme of synthesis was suggested: 1) synthesis of olefins with a given number of C-atoms, or polymerization, respectively. A dehydrated pentane-amylene fraction from thermal cracking, purified from the sulphur compounds, was utilized. The catalyst was phosphoric acid on kieselgur. Olefins with ramified structure were obtained in this connection. The highest yield of isodecenes occurred at 170-180°, pressure of 50-60 atm, volume rate 3-4 h^{-1}. Amylenes

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Synthesis and Properties of Naphthenic Hydrocarbons With a Long Side Chain

68998
S/020/60/131/02/045/071
B011/B011

were transformed to 70%. A concentrate boiling between 120 and 185° was obtained from the polymerizate (yield 85-90%). Table 1 shows the resulting (mostly ramified) structures of isodecenes. Table 2 shows their physico-chemical properties (the raw material was fraction 6 of the thermal cracking and benzene). Isomerization and hydro-dehydro polymerization of the olefins were ascertained as side reactions. 2nd stage: alkylation. Aromatic hydrocarbons (benzene, toluene) were alkylated by means of the isodecenes produced (Refs 3-5). The best conditions were: 97% H_2SO_4, reaction time 2 hours, ratio benzene:isodecene = 5:1. Temperature 10-20°. The alkylate amounted to 140% by weight of olefins or 90% of the theoretical yield. A fraction boiling between 180° and 350° was obtained from the alkylate as a concentrate of isodecyl benzenes (85% of the alkylate). It chiefly consisted of mono-substituted derivatives of benzene (Table 2). On using aluminum chloride as catalyst the yield was higher and attained 97-98%. Disproportionation occurred as side reaction. 3rd stage: hydrogenation. The alkylate concentrate was hydrogenated on 2 catalysts: a) nickel catalyst. The optimum conditions were: pressure 7 atm, molar ratio hydrogen:alkylate = 2.8:1; 150-200°.

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Volume rate 0.2 h^{-1}; b) nickel-tungsten catalyst. Optimum conditions: pressure in the reaction zone 200 atm; molar ratio hydrogen-alkylate = 64:1; 300°; volume rate 0.5 h^{-1}. To prevent a temperature increase on the latter catalyst, the alkylate was diluted with gasoline distillate (fraction 80-120°) of the trade-mark "Kalosha" in a ratio of 1:2. Destruction was recorded as a side reaction. The desired naphthene fraction was obtained from the hydrogenation product by rectification. It boils out between 180° and 350°. Its yield attained 90% of the aromatic hydrocarbons contained in the alkylate (Table 2). The range of the fluctuation of properties in dependence on procedure and raw materials is shown in table 3. Data obtained show that the scheme described here leads to naphthene hydrocarbons with a long side chain, high density, high caloricity, and a low freezing temperature. The following names are mentioned: Ye. G. Vol'pova, L. A. Potolovskiy, I. F. Blagovidov, L. I. Kostikin, Yu. A. Gol'dshtein, Yu. I. Kozorezov, A. Z. Dorogochinskiy, and K. I. Zimina. There are 3 tables and 6 Soviet references.

Synthesis and Properties of Naphthenic Hydrocarbons With a Long Side Chain

68999
S/020/60/131/02/045/071
B011/B011

ASSOCIATION: Groznenskiy neftyanoy nauchno-issledovatel'skiy institut (Groznyy Scientific Research Institute of Petroleum)

PRESENTED: November 28, 1959, by B. A. Kazanskiy, Academician

SUBMITTED: November 25, 1959

Card 4/4

S/081/61/000/021/060/094
B138/B101

AUTHORS: Gonikberg, M. G., Dorogochinskiy, A. Z., Mitrofanov, M. G., Gavrilova, A. Ye., Kupriyanov, V. A., Mikhaylovskiy, V. K., Vovk, L. M.

TITLE: Homogenous demethylation of toluene. Basic characteristics of the process at 750 to 790°C

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 319, abstract 21L34 (Neftekhimiya, v. 1, no. 1, 1961, 46 - 53)

TEXT: The homogenous demethylation of toluene (I) in a flow system is studied at temperatures of 750 to 790°C and pressures of $\leq$ 40 at. At a volumetric feed rate of 5 to 7 hr^{-1} the conversion of I into C_6H_6 is as much as 75 to 80 % in one run and the C_6H_6 yield is 90 mole%, calculated from the amount of I which has undergone reaction. By rectifying the products of the reaction in a column with a theoretical efficiency of 20

Card 1/2

Homogenous demethylation of toluene...

plates, very high purity C_6H_6 is produced, and a small quantity of a mixture of high boiling-point aromatic hydrocarbons containing ≥ 50 % diphenyl. The possibility is discussed, of using the bimolecular reaction equation to provide an approximate description of the kinetic laws governing this process. [Abstracter's note: Complete translation.]

Card 2/2

DOROGOCHINSKIY, A.Z.; GONIKBERG, M.G.; MITROFANOV, M.G.; KUPRIYANOV, V.A.; VOVK, L.M.

Homogenous demethylation of toluene. Report No. 2. Experiments with gas cycling. Neftekhimiia 1 no.4:501-504 Jl-Ag '61. (MIRA 16:11)

1. Groznenskiy neftyanoy nauchno-issledovatel'skiy institut i Institut organicheskoy khimii AN SSSR imeni N.D. Zelinskogo.

KAZANSKIY, B.A.; DOROGOCHINSKIY, A.Z.; ROZENGART, M.I.; LYUTER, A.V.; MITROFANOV, M.G.

Effect of the feed rate on the process of aromatization of n-hexane over an aluminum-chromium catalyst. Kin. i kat. 2 no.2:258-262 Mr-Ap '61. (MIRA 14:6)

1. Institut organicheskoy khimii AN SSSR imeni N. D. Zelinskogo i Gorznenskiy neftyanoy nauchno-issledovatel'skiy institut.
(Hexane)
(Aromatization)

S/081/62/000/006/099/117
B162/B101

AUTHORS: Dorogochinskiy, A. Z., Bashilov, A. A., Chertoryzhskiy, A. V., Arutyunova, O. L., Krechetova, P. I., Shestak, N. P.

TITLE: The problem of the choice of solvent for polymerization of ethylene into polyethylene at low pressure

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 614, abstract 6P35 (Tr. Groznensk. neft. in-t, v. 3, sb. 25, 1961, 17-29)

TEXT: An investigation is made of the possibility of using extraction benzine as a solvent for ethylene when polymerizing it into polyethylene at low pressure. It is shown that the following are suitable: an extraction benzine fraction evaporating at 65-90°C with an aromatic hydrocarbon content of 3.8% before de-aromatization and of 0.7% after de-aromatization, or a fraction evaporating at 75-95°C in the case of which de-aromatization is not needed (aromatic hydrocarbon concentration 0.7%). It is shown that the presence of aromatic hydrocarbons has no effect on the polymerisation process, but impairs the regenerability of the solvent. [Abstracter's note: Complete translation.]

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S/153/61/004/001/007/009
B110/B203

AUTHORS: Kozorezov, Yu.I., Dorogochinskiy, A.Z.

TITLE: Intensity of the reaction of polyalkylation in the sulfuric acid alkylation of toluene with high-molecular olefins

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, v. 4, no. 1, 1961, 133 - 137

TEXT: In the alkylation of aromatics, especially toluene, with low-molecular olefins, undesired polysubstituted derivatives are formed in part, the formation of which is reduced by excess toluene. The tendency to polyalkylation decreases with increasing molecular weight. Few publications, however, deal with the intensity of toluene polyalkylations with high-molecular olefins. In the present paper, the authors study polyalkylations in sulfuric acid toluene alkylation with isodecenes separated in distillation from the polymerization products of the pentane amylene fraction of thermal cracking with phosphoric acid catalyst. The authors used: toluene with bromine number = 0, the isodecene fraction between 125 and 175°C, with molecular weight = 134; bromine number = 120, and chemically

Card 1/8

pure H_2SO_4 as a catalyst. The method described by the authors (Ref. 6: Yu.I. Kozorezov, A.Z. Dorogochinskiy: Dokl. AN. SSSR, 123, 857 (1959)) was used for the production. Table 1 shows that in the toluene alkylation with isodecenes yields of more than 80% of monodecyl toluenes (fraction 220-300°C) are obtained which only slightly decrease with decreasing molar ratio toluene/olefins. A decrease in the ratio from 4-7 to 1 increases the yield of residue boiling above 300°C only from 2-3 to 5.5% by weight. The decrease in densities and refractive indices shows that the aromatic fraction does not increase to the same extent. An increase of the bromine number and the aniline point indicate an increase in side reactions of olefin polymerizations. A decrease of the molar ratio from 7 to 1 reduced the fraction of aromatics from 95 to 83 % by weight. Here, a proper excess of toluene should reduce the undesired olefin polymerizations to a minimum. The isodecyl fraction between 220 and 300°C was oxidized in an oscillating steel autoclave with 5% HNO_3 at 200°C for 2 hr. Terephthalic acid, identified as methyl ester, was formed in a 60% yield. The absence of o-phthalic acid established with resorcin suggested a p-structure of the original decyl toluenes. H_2SO_4 as a catalyst does not

permit formation of m-isomers. Orthoisomerism is sterically impossible due to the isodecene structure. In the isodecene fraction obtained with H_3PO_4 (120-180°C), compounds with tertiary C at the double bond ($RR'C=CH_2$ and RR' = CHR") are prevailing. The aromatic compound adds to this tertiary C in the presence of H_2SO_4. The introduction of the tertiary C atom into the ortho-position of toluene is already difficult in the case of simple isobutylene. Therefore, the alkylation of p-xylene with isodecene is also difficult; it yields 55% unsaturated olefin polymers and only 19.5% aromatics (after silica gel adsorption). In the alkylation of o-xylene, however, a 98% yield of alkyl xylene with aromatic hydrocarbons was obtained, corresponding to 161% by weight of the initial olefins. The alkylation of p-xylene with n-nonene and n-octene produced yields near those of o-xylene (Table 2). Thus, the o-alkylation is facilitated with decreasing branching of the olefin molecules and absence of the tertiary C atom at the double bond. There are 2 tables and 14 references: 9 Soviet-bloc and 5 non-Soviet-bloc. The reference to the English language publication reads as follows: Ref. 10. B.Friedman et. al. J. Amer. Chem. Soc. 79, 1465 (1957)

Card 3/8

Intensity of the reaction of ... S/153/61/004/001/007/009
B110/B203

ASSOCIATION: Groznenskiy neftyanoy institut, Kafedra tekhnologii nefti i gaza (Groznyy Petroleum Institute, Department of Petroleum and Gas Technology), Groznenskiy neftyanoy nauchno-issledovatel'skiy institut (Groznyy Petroleum Scientific Research Institute)

SUBMITTED: June 1, 1959

№ опыта	Мольное отношение толуол / олефины	Выход алкилтолуола, вес. % от олефинов	d_4^{20}	n_D^{20}
33	0,5:1	90,2	0,8520	1,4793
34	1:1	121,5	0,8626	1,4860
35	2:1	133,7	0,8680	1,4895
36	4:1	139,9	0,8715	1,4916
14	7:1	143,0	0,8730	1,4920
32	10:1	145,8	0,8738	1,4929

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4) Свойства алкилтолуола: 5) фракция выше 175°C — 6) бромное число	7) анилиновая точка (макс.), °C	8) фракционный состав, вес %: 175–220°	220–300°	9) выше 300°	10) потери	11) фракция 175–220°C: d_4^{20}	n_D^{20}	12) фракция 220–300°C: d_4^{20}	n_D^{20}	13) фракция выше 300°C: d_4^{20}	n_D^{20}
12,4	48,0	13,8	76,0	9,2	1,0	0,8444	1,4790	0,8518	1,4796	0,8606	1,4780
8,8	31,0	13,1	80,4	5,5	1,0	0,8516	1,4836	0,8641	1,4865	0,8750	1,4845
8,7	22,5	12,9	80,5	5,4	1,2	0,8616	1,4884	0,8686	1,4897	0,8822	1,4915
4,6	18,0	12,1	84,4	2,4	1,1	0,8623	1,4906	0,8716	1,4915	0,9000	1,4930
4,0	15,0	13,3	82,9	2,0	1,8	0,8666	1,4920	0,8746	1,4921	0,9010	1,4950
2,9	13,5	12,7	83,3	2,0	2,0	0,8667	1,4923	0,8746	1,4927	0,9014	1,4970

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Legend to Table 1: Sulfuric acid alkylation of toluene with isodecene (H_2SO_4 concentration 96% by weight, referred to monohydrate; temperature 10°C, reaction time 60 min; volume ratio acid/hydrocarbons C,12). (1) Test number, (2) molar ratio toluene/olefins, (3) alkyl toluene yield, % by weight of olefins, (4) alkyl toluene properties, (5) fraction above 175°C, (6) bromine number, (7) aniline point, (8) fraction composition, (9) above 300°C, (10) losses, (11) fraction 175-220°C, (12) fraction 220-300°C, (13) fraction above 300°C.

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Intensity of the reaction of ...

S/153/61/004/001/007/009
B110/B203

Table 2

1 №№ опытов	2 Ароматический компонент	3 Олефиновый углеводород	4 Выход алкилксилола, вес % 5 от олефинов	6 от теории	7 Свойства алкилксилола d_4^{20}	n_D^{20}	8 бромное число	9 анилиновая точка (смеш.), °C	Содержание ароматических углеводородов, вес %
51	1 пара-Ксилол	3 изо-Децен	81,3	—	0,8300	1,4685	38,1	71,8	19,5
53	2 орто-Ксилол	3 изо-Децен	161,0	—	0,8810	1,5002	1,3	16,6	98,0
78	1 пара-Ксилол	4 н-Нонен	147,1	80,0	0,8651	1,4880	3,4	—	95,0
161	1 пара-Ксилол	5 н-Октен	162,0	83,0	0,8682	1,4890	3,2	11,8	96,0
166	2 орто-Ксилол	4 н-Нонен	162,0	88,0	0,8749	1,4972	0,7	17,8	99,0

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Legend to Table 2: Sulfuric acid alkylation of xylenes with olefins (H_2SO_4 concentration = 96% by weight; 10°C; 60 min; molar ratio xylene/ /olefins = 7; volume ratio acid/hydrocarbons = 0,12). (1) Test number, (2) aromatic component, (3) olefin, (4) alkyl xylene yield, % by weight, (5) referred to olefins, (6) of the theory, (7) alkyl xylene properties, (8) bromine number, (9) aniline point, (10) content of aromatics, % by weight, (11) p-xylene, (12) o-xylene, (13) isodecene, (14) n-nonene, (15) n-octene.

Card 8/8

DOROGOCHINSKIY, A.Z.; MEL'NIKOVA, N.P.

Deuterium exchange of some hydrocarbons of the aromatic and naphthene series on an aluminosilicate cracking catalyst. Zhur.VKHO 6 no.1:118-119 '61. (MIRA 14:3)

1. Groznenskiy nauchno-issledovatel'skiy neftyanoy institut. (Hydrocarbons) (Deuterium)

S/065/61/000/006/001/001
E073/E335

AUTHOR: Dorogochinskiy, A.Z.

TITLE: On the Seventieth Birthday of Academician B.A. Kazanskiy

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 6, p.67

TEXT: B.A. Kazanskiy was seventy on April 25, 1961. He graduated at Moscow State University in 1918 and subsequently worked in the Chair of Organic and Analytical Chemistry. He has worked for over forty years at Moscow University. He became Docent in 1930 and in 1935 Professor and Head of the Laboratory for Catalytic Synthesis of the Institut organicheskoy khimi Akademii Nauk SSSR (Institute of Organic Chemistry of the AS USSR). In 1945, B.A. Kazanskiy became Assistant Head and then Head of the Chair for Oil Chemistry at Moscow State University. In 1943 he was elected Corresponding Member and in 1946 Full Member of the AS USSR. In 1954 he became Director of the Institute of Organic Chemistry of the AS USSR im. N.D. Zelinskiy. Under his guidance, many investigations

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S/065/61/000/006/001/001
E073/E335

were carried out on a multitude of hydrocarbons and their catalytic transformations. Kazanskiy was the first to discover and study the reaction of hydrogenolysis of quintinary naphthalene hydrocarbons and their transformation into paraffin hydrocarbons. Jointly with other Soviet scientists he discovered and studied the dehydrocyclisation reactions of paraffin hydrocarbons and aromatic hydrocarbons. Under the guidance of Kazanskiy a large number of active catalysts were developed. During the last twenty years he carried out major investigations of catalytic hydration of mono- and poly- unsaturated hydrocarbons and of dehydration of paraffins in olefins. He and his team studied the properties and developed methods of synthesis of hydrocarbons with three and four chain cycles and cycles in which the number of carbon atoms exceeds six. He has written over 300 papers and was the chief editor of a number of classical publications in chemistry (journals, etc.). Kazanskiy initiated and participated in numerous

On the Seventieth Birthday ....

S/065/61/000/006/001/001
E073/E335

chemical congresses and meetings. He was awarded the Order of Lenin, the Red Banner of Labour, the Stalin Prize and many others. There is 1 photograph.

Card 3/3

S/081/62/000/001/060/067
B162/B101

AUTHORS: Sapon, M. F., Dorogochinskiy, A. Z.

TITLE: Thermal stability of distillates of various origins

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 449, abstract 1M182 (Tr. Groznensk. neft. n.-i. in-t, no. 11, 1961, 38 - 52)

TEXT: The 50°C thermal stability of 150-200°C, 200-250°C, 250-300°C and 300-350°C fractions separated from a non-sulfur Groznyy paraffin-base petroleum mixture, an Eastern sulfur petroleum mixture and from the mazut thermal cracking products of these types of petroleum on semi-industrial GrozNII apparatuses with columns having 28 theoretical plates, was investigated on an ЛСА(LSA) apparatus. The thermal stability was evaluated from the quantity of residue and resin in the fractions after oxidation. The catalytic action of metals (electrolytic copper, 12ХНЗА(12KhNZA) steel and ББ-24 (VB-24) bronze) on the oxidation process was demonstrated. It is shown that for narrow rectified and cracking fractions of non-sulfur and sulfur petroleum the principles determining the quantity of residue forming during oxidation cannot be explained by the content of unsaturated hydro-

Card 1/2

Thermal stability of...

S/081/62/000/001/060/067
B162/B101

carbons, resins or sulfur compounds in the initial fractions. The magnitude of the resin content in the oxidized fractions is greatly affected by the quantity of resinous substances contained in the fractions, the oxidation temperature and the catalytic action of the metals. Sulfur compounds stimulate resin formation. [Abstracter's note: Complete translation.]

Card 2/2

3M888
S/081/62/000/003/067/090
B149/B101

11.0132

AUTHORS: Dorogochinskiy, A. Z., Mel'nikova, N. P., Svetozarova, O. I., Shumovskaya, V. A.

TITLE: Effect of the degree of selected hydrogenation of unsaturated hydrocarbons in thermocracking distillate on its thermostability

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 435, abstract 3M152 (Tr. Groznensk. neft. n.-i. in-t no. 11, 1961, 53 - 57)

TEXT: The effect of the group composition of hydrocarbons on the thermal stability of the distillate from thermocracking, boiling out at 80 - 260°C (obtained from the mazout of Groznenskiy paraffin-based mixed petroleum), after selective hydrogenation to different degrees of the unsaturated hydrocarbons (original content in the distillate: 36.4%) was investigated. It was shown that the decrease of the fuel thermal stability depended on the presence of diolefins and aromatic hydrocarbons with unsaturated side chains. Mild hydrogenation (up to 16%) of the unsaturated hydrocarbons from the distillate resulted in a fuel with satisfactory thermal stability.

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Effect of the degree ...

S/081/62/000/003/067/090
B149/B101

[Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/002/085/107
B157/B110

5.3300

AUTHORS: Dorogochinskiy, A. Z., Mel'nikova, N. P., Shakhzadova, I. A., Gontar', L. Ya.

TITLE: A study of the reaction of isotope exchange of certain aromatic and naphthenic hydrocarbons on a deuterated aluminosilicate cracking catalyst

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 489, abstract 2M229 (Tr. Groznensk. neft. n.-i. in-t, no. 11, 1961, 246 - 252)

TEXT: The deuterium exchange of aromatic and naphthenic hydrocarbons of varying structure on an industrial aluminosilicate cracking catalyst has been investigated in a flow-through type plant in the vapor phase at 150° - 200°C and atmospheric pressure; volume flow rate 0.10 - 0.15 hr^{-1}. For comparison, the hydrogen exchange was studied between certain aromatic hydrocarbons and tritium oxide in the presence of the same catalyst specimen. It was shown that the capacity of alkyl derivatives of benzene to undergo hydrogen exchange on a deuterated catalyst increases with the length of the side chain of the hydrocarbon; the presence in the side

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A study of the reaction of... S/081/62/000/002/085/107
B157/B110

chain of a tertiary C atom (isopropyl benzene) increases the depth of deuterium-hydrogen exchange. Naphthenic hydrocarbons will undergo isotopic exchange readily only when a tertiary C atom is present in the molecule (methyl cyclohexane, ethyl cyclohexane, isopropyl cyclohexane). [Abstracter's note: Complete translation.]

Card 2/2

S/065/62/000/004/001/004
E075/E136

AUTHORS: Gonikberg, M.G., Dorogochinskiy, A.Z., Mitrofanov, M.G., Gavrilova, A.Ye., Dronin, A.P., Kupriyanov, V.A., Makar'yev, S.V., Zamanov, V.V., and Vovk, L.M.

TITLE: A process of thermal dealkylation of aromatic hydrocarbons

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.4, 1962, 11-15

TEXT: As a result of investigations carried out in the years 1953-1960 in IOKh AN SSSR and GrozNII, a technological scheme was developed for an industrial process of thermal dealkylation of monocyclic aromatics such as toluene and methyl-naphthalenes. A pilot plant for the process producing 30 000 tons of benzene per annum consists of a small number of simple units. It contains a tubular furnace of only 3 mil. cal/hour capacity. The main production indices for the plant are as follows: reactor pressure 50 atm; maximum temperature 790 °C; separator temperature 35 °C;

pressure in benzene column 0.1-0.3 kg/cm2; temperature in benzene column, top 87 °C, bottom 130 °C; pressure in the recycle stock separation column 0.1-0.3 kg/cm2; temperature in the recycle stock separation column, top 260°, bottom 304 °C; molar ratio hydrogen/feedstock 4:1; space velocity of feed 4.0 h-1; consumption of hydrogen 2.1% wt of feedstock; yield of benzene 78.7% wt of toluene. It was calculated that high grade benzene produced by the process from petroleum derived toluene is considerably cheaper than that obtained currently in the coking industry. It was established that thermal demethylation of methyl naphthalenes (700 °C, 50 atm) gives naphthalene with a yield of ca.50% wt of feedstock after one cycle. The most suitable raw materials for the process are aromatic products obtained during reforming, pyrolysis and catalytic cracking processes. It is expected that the dealkylation process will constitute an important source of benzene and naphthalene for the Soviet petro-chemical industry.
There are 1 figure and 1 table.

Card 2/2

S/204/62/002/004/003/019
E071/E433

AUTHORS: Kazanskiy, B.A., Dorogochinskiy, A.Z., Sterligov, O.D., Lyuter, A.V., Dmitriyevskiy, M.L., Nazarov, P.S.

TITLE: Dehydrogenation of isopentane into isoamylenes on an alumochromopotassium catalyst

PERIODICAL: Neftekhimiya, v.2, no.4, 1962, 448-456

TEXT: A systematic study of the process of dehydrogenation of isopentane into isoamylenes under conditions of a stationary and moving layer of granulated catalyst K-544 was carried out on experimental installations of Groz NII. Tests on the stationary layer were carried out on a laboratory and an enlarged installation. The reactors with a stationary layer of the catalyst were of the capacity of 40 and 500 cm^3 respectively. Tests in the moving layer were made in a co-current continuous pilot plant with a reactor (4 litres) and a regenerator (4.7 litres). The volume of the catalyst - 35 litres, throughput - about 100 litres/day, the velocity of circulation of the catalyst - up to 16 litres/hour. The analyses of the reaction products were made by chromatographic and other chemical methods. The influence of the temperature, volume velocity and rate of recirculation of

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the catalyst on the main parameters of the process as well as the behaviour of the catalyst were studied. It was found that the catalyst had a good and stable activity. During an operating period of 1100 hours in a stationary layer and 400 hours in a moving layer its activity remained practically unchanged. Under the optimum condition of the process (temperature - 540°C and volume velocity - 1 hour^{-1}) the yield of isoamylenes amounted to 30 to 31 wt.% calculated on raw material (98.6% of isopentane) with a total yield of unsaturated hydrocarbons C_5 of 34 to 38 wt.%. The catalyst has a satisfactory strength and good regeneration characteristics. The velocity of burning out of coke from the most inaccessible layers of catalyst K-544 amounted to 20 litres/litre of catalyst per hour, in comparison with that for aluminosilicate catalysts of 13 to 16 litres/litre of catalyst per hour. There are 6 figures and 5 tables.

ASSOCIATION: Institut organicheskoy khimii AN SSSR
im. N.D.Zelinskogo (The Institute of Organic
Chemistry AS USSR imeni N.D.Zelinskiy) GrozNII

KAZANSKIY, B.A.; DOROCHINSKIY, A.Z.; ROZENGART, M.I.; TYUN'KINA, N.I.; KUZNETSOVA, I.M.; LYUTER, A.V.; MITROFANOV, M.T.

Aromatization of mixtures of n. hexane with 2-methylpentane, with 3-methylpentane or methylcyclopentane. Izv.AN SSSR.Otd. khim.nauk no.7:1308-1309 Jl '62. (MIRA 15:7)

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

41636

S/080/62/035/009/010/014
D204/D307

4.0170

AUTHORS: Dorogochinskiy, A.Z., Viktorova, Ye.A., Shuykin, N.I., Boykova, Ye.P., and Malin, A.G.

TITLE: The effect of cycloalkenyl phenols on the stability of a fuel containing unsaturated hydrocarbons

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 9, 1962, 2060 - 2064

TEXT: The stabilizing effects of: A) 3-methyl-4-(cyclopenten-2-yl); B) 3-methyl-6-(cyclopenten-2-yl); C) 4-methyl-2-(cyclopenten-2-yl); D) 2-(cyclohexen-2-yl); and E) 4-(cyclohexen-2-yl)-phenols were investigated, on a fuel containing ~15 % of unsaturated hydrocarbons, over a period of 5 months, at 50 ± 0.5°C. Five samples of fuel were tested with the above additives (50 mg per 100 ml fuel), two additional samples were respectively treated with 10 g/100 ml of p-hydroxydiphenylamine and 50 mg/100 ml of inhibitor ФЧ-16 (FCh-16), and one sample was kept as a blank. Each sample also contained steel wire (with a surface area of 20 cm^2 per liter of fuel) and was open to air via a capillary. Every month the samples were tested for tar

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content and stability to heat (1 hour at 150°C). It was found that B and C inhibited tar formation, similarly to antioxidants p-hydroxydiphenylamine and FCh-16. The formation of sediments at 150°C was impeded by B and D. The additive B thus exhibits a twofold action. There are 3 tables.

SUBMITTED: May 30, 1961

Card 2/2

DOROGOCHINSKIY, Akiviy Zinov'yevich; LYUTER, Aleksandr Valentinovich; VOL'POVA, Yevgeniya Grigor'yevna; REKHVIASHVILI, Antonina Nikolayevna; KOLESNIKOV, F.M., red.; KUZ'MENKOVA, N.T., tekhn. red.

[Oil gases in the Chechen-Ingush and other economic regions of the Northern Caucasus]Neftianye gazy Checheno-Ingushskogo i drugikh ekonomicheskikh raionov Severnogo Kavkaza. Groznyi Checheno-Ingushskoe knizhnoe izd-vo, 1960. 259 p.
(MIRA 16:3)
(Caucasus, Northern—Gas, Natural)

DOROGOCHINSKIY, A.Z.

KAZANSKII, B.A., DOROGOCHINSKII, A.Z., ALIYEV, V.S., KASIMOVA, A.P.

Catalytic dehydrogenation of hydrocarbons.

Report presented at the 12th Conference on high molecular weight compounds, devoted to monomers, Baku, 3-7 April 62

DOROGOCHINSKIY, A.Z.;

Work of the collective of the Grozny Petroleum Scientific Research Institute in the development of new technological processes in oil refining and petroleum chemistry. Trudy GrozNII no. 15:3-15 '63. (MIRA 17:5)

MITROFANOV, M.G.; MIRSKIY, Ya.V.; DOROGOCHINSKIY, A.Z.; DRONIN, A.P.
MAKAR'YEV, S.V.; LUGOVOY, B.I.

Selecting the best arrangement for separating gasoline fractions in molecular sieves. Trudy GrozNII no. 15:84-92 '63.
(MIRA 17:5)

KAZANSKIY, B.A.; DOROGOCHINSKIY, A.Z.; SHERLIGOV, O.D.; LYUTER, A.V.; DMITRIYEVSKIY, M.L.; NAZAROVA, M.P.; REKHVIASHVILI, A.N.

Studying the dehydrogenation of isopentane on K-544 and K-5 finely divided catalysts. Trudy GrozNII no. 15:241-253 '63. (MIRA 17:5)

KAZANSKIY, B.A.; DOROGOCHINSKIY, A.Z.; ROZENGART, M.I.; LYUTER, A.V.; MITROFANOV, M.G.; BRESHCHENKO, Ye.M.; KALITA, L.A.; GOL'DSHTEYN, Yu.A.; AFANAS'YEV, A.I.; MAKAR'YEV, S.V.; ZAMANOV, V.V.

Dehydrocyclization of normal hexane. Trudy GrozNII no. 15: 254-264 '63. (MIRA 16:5)

KONOPLEV, V.P.; DOROGOCHINSKIY, A.Z.; MITROFANOV, M.G.

Alkylizing toluene with propylene in the presence of aluminum chloride and polyalkyl toluenes. Trudy GrozNII no. 15:271-273 '63.

Initiating the oxidation of cymenes in the liquid phase. Ibid.:274-277 (MIRA 17:5)

KUPRIYANOV, V.A.; DOROGOCHINSKIY, A.Z.; MEL'NIKOVA, N.P.

Studying the hydrogenation of fractions of industrial isodecyl benzene on a nickel catalyst. Trudy GrozNII no. 15:278-293 '63. (MIRA 17:5)

GONIKBERG, M.G.; DOROGOCHINSKIY, A.Z.; GAVRILOVA, A.Ye.; KOMARENKOVA, R.A.; MITROFANOV, M.G.; KUPRIYANOV, V.A.

Determination of the naphthalene and alkyl naphthalene content of stocks and dealkylation products. Neftekhimiia 3 no.6:916-921 N-D '63. (MIRA 17:3)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo i Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.

KAZANSKIY, B.A.; DOROGOCHINSKIY, A.Z.; ROZENGART, M.I.; GITIS, K.M.; LYUTER, A.V.; MITROFANOV, M.G.

Effect of the length of an alumina-chromia-potassium catalyst layer on the aromatization of n-heptane. Kin.i kat. 4 no.2:315-318 Mr-Ap '63. (MIRA 16:5)

1. Institut organicheskoy khimii AN SSSR imeni N.D.Zelinskogo i Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.
(Heptane) (Aromatization) (Catalysts)

KAZANSKIY, B.A.; DOROGOCHINSKIY, A.Z.; ROZENGART, M.I.; KUZNETSOVA, Z.F.; LYUTER, A.V.; MITROFANOV, M.G.

Changes in alumina-chromia catalysts during the aromatization of n-hexane. Kin.i kat. 4 no.5:768-772 S-O '63. (MIRA 16:12)

1. Institut organicheskoy khimii AN SSSR imeni N.D.Zelinskogo i Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.

DOROGOCHINSKIY, A.Z.; ZHAVORONKOV, M.N.

Outstanding discovery (On the occasion of the 60th anniversary of the development by K.V.Kharichkov of the cold method for petroleum fractionation). Khim. i tekh. topl. i masel 9 no.3: 71-72 Mr '64 (MIRA 17:7)

DOROGOCHINSKIY, A.Z.

Contribution of Groznyy workers to the development of the petroleum refining and petrochemical industries of the Soviet Union. Khim i tekh. topl. i masel 9 no.11:19-23 N '64 (MIRA 18:1)

PIVOVAROVA, G.A.; DOROGOCHINSKIY, A.Z.

Studying the regularities in the drainage of C_3 fractions on molecular sieves. Izv. vys. ucheb. zav.; neft' i gaz 8 no.4: 53-56 '65. (MIRA 18:5)

1. Groznenskiy neftyanoy institut.