

L 11349-65 FSF(h)/FSS-2/EWT(1)/FS(v)-3/FCG/ENG(v) Po-4/Pe-5/Pq-4/Pae-2/
Pl-4 TT/GW

ACCESSION NR: AT4046060

S/2531/64/000/166/0189/0202

AUTHOR: Musayelyan, Sh. A.; Chekirds, A. Z.

TITLE: Numerical interpretation of cloud data transmitted by meteorological satellites

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 166, 1964. Voprosy* interpretatsii danny*kh meteorologicheskikh sputnikov (Problems in the interpretation of data of meteorological satellites), 189-202

TOPIC TAGS: vertical air current, cloud distribution, meteorological satellite cloud data

ABSTRACT: A mathematical method is proposed for determining the field of vertical currents from cloud distribution data obtained from meteorological satellites. The method is based on the premise that the decisive factor in the formation of clouds is the presence of vertically rising currents, and that in the presence of descending currents, no new clouds are formed and those already in existence start to

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ACCESSION NR: AT4046060

break up. The accuracy of the results obtained with the proposed method depends not only on the validity of the method but also on the quality and quantity of the initial data used to compute the basic values of the coefficients of linear relationships. Orig. art. has: 13 figures and 9 formulas.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00

ATD PRESS: 3118

ENCL: 00

SUB CODE: ES

NO REF SOV: 001

OTHER: 000

Card 2/2

L 874345 FSF(h)/FSS-2/EWT(1)/FS(v)-3/EWG(v)/FCG Po-4/Pe-5/Pq-4/Pae-2/PI-4
ESD(si)/ESD(t)/AFETR/AFTG(a)/ESD(gs) TT/GW

ACCESSION NR: AT4046061

S/2531/64/000/166/0203/0213

AUTHOR: Musayelyan, Sh. A.

TITLE: Problems in the numerical interpretation of cloud data transmitted by artificial earth satellites ¹² B

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 166, 1964. Voprosy* interpretatsii dannykh meteorologicheskikh sputnikov (Problems in the interpretation of data of meteorological satellites), 203-213

TOPIC TAGS: meteorological satellite, geopotential field determination, cloud data transmission, satellite transmitted cloud data, vertical current distribution, cloud distribution

ABSTRACT: Using American data transmitted by Tiros I for cloud patterns and movements over the Pacific Ocean and North America, the author presents a mathematical analysis of the possibility of determining the geopotential field from the distribution of vertical currents. The mathematical derivations are based on the existence of a definite correlation between cloud fields and vertical currents. The

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ACCESSION NR: AT4046061

problem is so programmed that the geopotential field is determined directly from the original cloud data fed into the computer. Results obtained in determining a geopotential field from the Tiros I photographic data on cloud vortices are compared and analyzed with those obtained through the use of surface pressure charts depicting atmospheric front systems. Orig. art. has: 7 figures and 18 formulas.

ASSOCIATION: Leningradskaya glavnyaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00

ATD PRESS: 3113

ENCLOS: 00

SUB CODE: ES

NO REF SOV: 009

OTHER: 003

Card 2/2

L 2846-66 FSS-2/EWT(1)/FCC GW

ACCESSION NR: AP5021278

UR/0020/65/163/005/1134/1137

AUTHOR: Musayelyan, Sh. A.

TITLE: Some aspects of interpreting and using data on cloudiness obtained from meteorological satellites

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1134-1137

TOPIC TAGS: meteorology, weather forecasting, artificial satellite, cloud/
Tiros 7 artificial satellite

ABSTRACT: Analysis of many cloud photographs from Tiros satellites has shown that the photographs may be successfully used for refining synoptic analysis of weather charts, especially in regions where weather stations are few or absent. The author used the method proposed earlier by Sh. A. Musayelyan and A. Z. Chekirda (Tr. Glavn. geofis. obs., vol. 166, 1964) for determining the vertical component of vortical velocities from cloud data. If the horizontal components of the wind are known at any level for some period of time, it is possible to compute the corresponding vortical velocities. The Fourier coefficients of cloud fields are linearly related to vortical velocities as proposed in the above reference. The

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ACCESSION NR: AP5021278

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coefficients of regression in this relation were determined from actual data on cloudiness for 15-hour periods on successive days and from corresponding data on geostrophic winds. For testing the computation, the author took data from orbits of Tiros-7 and plotted cloud fields over Europe and western Asia. Charts of actual geostrophic winds and of winds computed from the cloud data (at 500 mb) were prepared. A comparison of the two shows good agreement. The average absolute error is 40 m over the entire chart, and the maximum error is 130 m. Computations show that the geopotentials obtained at the anticyclonic centers on the computed charts are lower than actual values. For geostrophic winds and winds thus computed from cloud data, the greatest divergence of values and wind directions is found in regions of weak winds or in regions where the pressure field as computed from cloud data proves to be displaced from the actual position. Best agreement is in regions of strong winds. "The computations were made by N. S. Khasisova at the EVN Mirovoy meteorologicheskij tsentr (World Meteorological Center)." Orig. art. has: 2 figures and 16 formulas.

44-55

ASSOCIATION: Mirovoy meteorologicheskij tsentr (World Meteorological Center)

SUBMITTED: 12Jan65

ENCL: 00

44, 55

SUB CODE: ES, SV

NO REF SOV: 003

OTHER: 002

Card 2/2 SVK

MUSAYELYAN, S.M.

Significance of hydroelectric forecasts for streamflow regulation in power engineering as exemplified by the Novosibirsk Hydroelectric Power Station. Izv. AN Arm. SSR. Ser. tekhn. nauk 14 no.5:61-66 '61. (MIRA 15:1)

(Novosibirsk Hydroelectric Power Station)

MUSAYELIAN, S.M., aspirant

Evaluation of methodology for hydrological forecasts and justification
of its use in estimating the flow of water to hydroelectric power stations.
Trudy MEI no.35:165-178 '61. (MIRA 15:12)
(Hydroelectric power stations)

MUSAYELYAN, S.M.

Significance of hydrological forecasts in hydraulic power engineering (exemplified by the Kama Hydroelectric Power Station). Meteor. i gidrol. no.2:37-40 F '62.

(MIRA 15:2)

(Kama Hydroelectric Power Station--Hydrometeorology)

MISAYELIAN, S.M., inzh.

Effect of the errors of hydrologic forecasts on the performance of
a hydrolic power station in a consolidated electric utility system.
Izv. vys. ucheb. zav.; energ. 5 no.9:103-107 S '62. (MIRA 15:10)

1. Moskovskiy ordena Lenina energeticheskiy institut. Predstavlena
kafedroy gidroenergetiki.
(Hydroelectric power stations) (Interconnected electric utility systems)

MUSAYELIAN, S.M., inzh.

Principal requirements from hydrological forecasts with long-
range water power regulation of the hydroelectric power stations.
Elek.sta. 33 no.12:33-36 D '62. (MIRA 16:2)
(Hydroelectric power stations) (Water power)

25865

S/O20/61/139/004/025/025

B103/B220

27.1220 also 1565

AUTHORS: Musayelyan, S. S., and Sytinskiy, I. A.

TITLE: Effect of total X-radiation on the level of γ -aminobutyric acid in the brain

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 4, 1961, 994 - 995

TEXT: This paper was read at the session of the sektsiya biokhimii Leningradskogo obshchestva fiziologov, biokhimikov i farmakologov im. I. M. Sechenova (Section of Biochemistry of the Leningrad Society of Physiologists, Biochemists, and Pharmacologists imeni I. M. Sechenov) on November 17, 1960. The authors studied the level of γ -aminobutyric acid (GABA) in the brain of white rats treated totally with X-ray doses of 400, 800, and 1000 r. The conversion of GABA is important for estimating the effect of nervous regulation in radiation disease. An ~~PJM~~-3 (RUM-3) apparatus was used. The animals irradiated were frozen totally in liquid oxygen 2, 3, 4, 6, 8, 9, 10, and 11 days after exposure. The cerebral tissue was treated according to E. Roberts, S. Frankel (J. Biol. Chem., 187, 55 (1950)). GABA was determined quantitatively by chromatography on paper. The system: n-butyl alcohol - acetic acid - water (4 : 1 : 5)
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S/020/61/139/004/025/025
B103/B220

Effect of total...

served as flow medium. Extracts from cerebral tissue were plotted together with standard solutions of GABA of different concentrations on the same chromatogram. Professor E. Roberts, Duarte, California, is thanked for supplying the GABA preparation. The optical density of the solution of the copper ninhydrine complex of GABA was determined at 512 m μ with an $Ca-4$ (SF-4) spectrophotometer. Results show that individual variations of the GABA content in cerebral hemispheres of non-exposed rats are insignificant: 16.2 - 20.4 mg-%, average of 12 tests: 18.9 \pm 1.28 mg-%. Table 1 shows the GABA level in the brain of irradiated rats. It is presumed that the effect of the dose of 800 r is due to the inhibited state of the central nervous system, which attains its maximum on the third or fourth day. Possibly, this is connected with the increased content of GABA in the cerebral tissue. It was proved (Kh. S. Koshtoyants, T. M. Turpayeva, D. Ye. Ryvkina, Sessiya AN SSSR po mirnomu ispol'zovaniyu atomnoy energii (Session of the AS USSR on the peaceful use of atomic energy) Zased. otdel. biol. nauk, 1955, p. 289) that glycolysis is intensified due to ionizing radiation, i. e., simultaneously with the obstruction of oxygen utilization by the cerebral tissue, and the start of hypoxia. These processes may reduce the pH-value of the cerebral

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S/020/61/139/004/025/025
B103/B220

Effect of total...

tissue. This, however, increases the activity of decarboxylase of glutamic acid in the brain, and favors the accumulation of GABA. It is suggested in this connection that the increase of the GABA content in the brain caused by total X-radiation represents a defensive reaction favoring the development of the inhibition of the central nervous system. There are 1 table and 10 references: 5 Soviet-bloc and 5 non-Soviet-bloc. The two most important references to English-language publications read as follows: K. F. Killam, *Federat. Proc.*, 17, 1018 (1958); K. A. C. Elliott, H. H. Jasper, *Physiol. Rev.*, 39, 383 (1959). A third one is given in the body of the abstract.

ASSOCIATION: Institut fiziologii im. I. P. Pavlova Akademii nauk SSSR.
(Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR)

PRESENTED: March 25, 1961 by V. N. Chernigovskiy, Academician

SUBMITTED: March 17, 1961

Card 3/4

MUSAYELIAN, S.S.

Content of γ -aminobutyric acid in brain tissues in the state
of convulsions. Nerv. sist. (Leningrad) 2 no.3:17-20 '62.
(MIRA 17:7)

1. Laboratoriya biokhimi i nervnoy sistemy Instituta fiziologii
AN SSSR i laboratoriyakhimii belka Leningradskogo universiteta.

ACCESSION NR: AT3013137

S/3018/63/000/000/0175/0180

AUTHOR: Musayelyan, S. S.

TITLE: Effect of hypoxia on gamma-amino butyric acid content in the brain

SOURCE: Tret'ya Vsesoyuznaya konferentsiya po biokhimi i nervnoy sistemy*. Sbornik dokladov. Yerevan, 1963, 175-180.

TOPIC TAGS: gamma aminobutyric acid, hypoxia, anoxia, chromatographic method, brain tissue, gamma aminobutyric acid level, convulsive state

ABSTRACT: In the first of two experimental series anoxia was induced in rats by keeping the heads of decapitated animals at room temperature for periods of 0.5, 1, 5, 6, 10, and 30 min. In the second series hypoxia was induced in rats by subcutaneous injection of sodium nitrate (15 mg/ 100 g). Then the animals were frozen in liquid oxygen. Brain tissue extracts were prepared according to Robert's method. Gamma aminobutyric acid levels were determined by chromatography. For the animals with induced anoxia, 5 min after

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ACCESSION NR: AT3013137

decapitation gamma aminobutyric acid level increases by an average of 50% in the brain tissue and remains at this level. In the brain tissue of animals with induced hypoxia gamma aminobutyric acid increases by an average of 30%. Though various explanations have been offered in the literature, the mechanisms of these increases are not clear. With a definite relation established between gamma aminobutyric acid levels and hypoxia, it is possible that the high gamma aminobutyric acid level found in the brain tissues of convulsive patients may be the result of hypoxia. Orig. art. has: 2 tables.

ASSOCIATION: Institut fiziologii imeni I. P. Pavlova AN SSSR,
Leningrad (Physiology Institute AN SSSR)

SUBMITTED: 00

DATE ACQ: 28Oct63

ENCL: 00

SUB CODE: AM

NO REF SOV: 012

OTHER: 016

Card 2/2

LEMIN, S.M., MURZELYAN, D.S., KARAPETIAN, V.I., OSIPOVA, E.N., AKHCHAN,
.....

Participation of γ -aminobutyric acid in the metabolism of
glutamic and aspartic acids, alanine and glutamine and in
neutralization of ammonia in the brain tissue. *Vop. V. khim.*
no. 1:15-59. 1964. (MIRA 1964)

1. Institut Khimii AN Arm. SSR.

POPOV, S.A.; KAMINSKIY, M.Ye.; PERESITSKIY, M.L.; HAYERMAN, M.S.;
SMIRNOVA, I.S.; MUSAYELYAN, Ye.K.; SIL'VESTROV, V.D. [deceased];
KULIKOV, A.V.; NESMELOV, A.F., kand.tekhn.nauk, red.; IVANOVA,
N.A., red.izd-va; GORDEYEVA, L.P., tekhn.red.

[Dressing grinding wheels with diamond and diamond-substitute
tools] Pravka shlifoval'nykh krugov almaznymi instrumentami i
sameniteliami almazov. Pod red. A.F.Nesmelova. Moskva, Gos.
nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1960. 101 p.
(MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut almaznogo
instrumenta i protsessov almaznoy obrabotki. 2. Gosudarstvennyy
nauchno-issledovatel'skiy institut almaznogo instrumenta i
protsessov almaznoy obrabotki (for all except Nesmelov, Ivanova,
Gordeyeva).
(Grinding wheels) (Diamonds, Industrial)

KOVALENKO, P.N.; MUSAYELYANTS, L.N.

Combined electrochemical method for determining copper,
arsenic, cadmium, and indium in a zinc electrolyte. Ukr.
khim. zhur. 30 no.7:753-757 '64. (MIRA 18:1)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

MUSAYELYANTS, R.N., inzh.

Safety nets. Bezop.truda v prom. 2 no.5:28 My '58. (MIRA 11:4)
(Oil well drilling, Submarine--Safety measures)

MUSAYELYANTS, R.N.
AUTHOR: Musayelyants, R.N., Engineer 92-58-3-4/32

TITLE: Manufacturing and Use of Wire Ropes (Proizvodstvo i ekspluatatsiya talevykh kanatov)

PERIODICAL: Neftyanik, 1958, Nr 3, pp 4-6 (USSR)

ABSTRACT: Wire ropes is an important link of drilling rig tools. Most wire ropes used in oil well drilling are 3/4-1 1/4 in. in diameter and are either of the compound structure type (Fig. 1) specified in GOST IV-2462-50, or of the conventional type specified in GOST 3070-46, 3070-55. The selection of the right wire rope, its diameter, structure and proper lubrication are very important for its performance and service life. The proper handling of wire rope before and during its installation is also of great importance. The Baku Wire Rope Manufacturing Plant considerably improved the structure of rope by twisting

Card 1/2

Manufacturing and Use of Wire Ropes

92-58-3-4/32

separately the strands with the aid of a rope-twisting machine (Fig. 2). This makes the rope more flexible and extends its service life. Recent studies and practice have indicated that the twisting pitch of the wire rope should be increased. At present the pitch is usually 7.5 times greater than the rope diameter. Proper twisting procedure reduces chances of a rupture and increases the durability of the rope. With the increasing depth of oil wells the question of the strength of the rope becomes extremely important. The rope strength can be ensured by improving the quality of the strands of which the rope is made and by the increase of their number. The rope is tested for rupture, bending and torsion by defect-detecting instruments in accordance with the established procedure which should be strictly followed. In most cases the rupture of the rope during lowering or hoisting operation is due to improper handling. Therefore it would be desirable to work out and issue instructions indicating how to choose the rope suitable for any specific operation.

ASSOCIATION:VNIITB

AVAILABLE: Library of Congress
Card 2/2

MUSAYELYANTS, R.N.

Calculating casing lines used in major repairs of wells. Izv.vys.
ucheb.zav.; neft' i gaz. no.7:111-117 '58. (MIRA 11:11)

1. Azerbaydzhanskiy industrial'nyy institut im. M. Azisbekova.
(Oil wells--Repairing)

MUSA YELIANTS, R.M.

Value of the dynamic coefficient of the pulley system when
freeing stuck pipes. Azerb.neft.khoz. 37 no.10:40-42 0 '58.
(MIRA 12:2)

(Hoisting machinery)

MUSAYELYANTS, R.N., Cand Tech Sci — (disc) "Methods of calculation of dynamic ~~efforts~~ ^{stresses} ~~that~~ ^{load} permit safe performance ⁿ during the release of clamped pump-compressor ~~lines~~ pipes." Baku, 1959. 14 pp (Min of Higher Education USSR. Azerbaydzhan Order of Labor Red Banner Inst of Petroleum and Chemistry in M. Azizbekov). 150 copies (XI,40-59, 104)

MUSAYELYANTS, R.N.; KABANOV, V.I.

Mechanization of work in changing casing lines. Trudy VNIITB
no.13:30-35 '60. (MIRA 14:12)

(Oil well casing)

MUSAYELYANTS, R.N.; SYSOYEV, Yu.D.; SULTANOV, D.K., red.; ZEYNALOVA, T.,
red. izd-va; NASIROV, N., tekhn. red.

[Safety measures in operating drilling pumps] Tekhnika bez-
opasnosti pri ekspluatatsii burovyykh nashosov. Baku, Azernesh,
1961. 68 p. (MIRA 15:7)
(Oil well pumps--Safety measures)

MUSAYELIANTS, R.N., kand. tekhn. nauk

Specification of two articles in safety regulations. Bezop.
truda v prom. 7 no.4:24-26 Ap '63. (MIRA 16:4)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy institut
po tekhnike bezopasnosti.
(Oil fields--Safety regulations)

GAMALISYEV, I.Ye.; Geology

Geological and geophysical investigations of the
western Uzbekistan and the Kuznechiklik
Kuznechiklik (V. I. Kuznetsov, 1958, no. 3:46-50, 1958).

I. Institut geologii i geofiziki AN SSSR.

MUSAYEV, A.A.

Concept of the underground water cycle [in Azerbaijani with
summary in Russian]. Dokl. AN Azerb. SSR 13 no.1:49-52 '57. (MIRA 10:4)
(Kura Lowland--Water, Underground)

MUSAYEV, A. A.

Regularities of ground water level fluctuation in the Shirvan
Steppe [in Azerbaijani with summary in Russian]. Dokl. AN
Azerb.SSR 13 no.3:297-303 '57. (MIRA 10:7)
(Shirvan Steppe--Water, Underground)

MUSAYEV, A.A.

Hydrogeological regions of the Shirvan Steppe [in Azerbaijani with
summary in Russian]. Dokl. AN Azerb. SSR 14 no.5:385-389 '58.
(MIRA 11:5)

1. Institut geologii AN AzerSSR.
(Kura Lowland--Water, Underground)

SULEYMANOV, D.M.; MUSAYEV, A.A.

Achievements in the field of hydrogeology and engineering geology
in the Azerbaijan S.S.R. during the Soviet regime. *Izv. AN. Azerb.*
SSR. Ser. geol.-geog. nauk no.2:69-81 '60. (MIRA 13:10)
(Azerbaijan--Water, Underground)
(Azerbaijan--Engineering geology)

MUSAYEV, A.A.

Formation of underground water conditions in the Shirvan Steppe.
Trudy Inst.geol. AN Azerb. SSR 21:90-110 '61. (MIRA 14:11)
(Kura Lowland--Water, Underground)

KHAMRABAYEV, I.Kh.; MUSAYEV, A.; LIKHOYDOV, G.G.

Chromium mineralization in ultrabasites of the Tandy massif.
Uzb.geol.zhur. 6 no.4:87-90 '62. (MIRA 15:9)

1. Institut geologii AN UzSSR.
(Tien Shan--Chromium)
(Tien Shan--Ultrabasites)

MUCAYEV, A. A.

Actual velocity of the underground flow in the Karabakh Stepe,
Izv. AN Azerb. SSR. Ser. geol.-geog. nauk i nefti no. 4-57-65 1963.
MIRA 1970

MUSAYEV, A.A.; PANAKHOV, A.M.

Zoning of underground waters in the Akstafachay-Indzhachay interfluve.
Trudy Inst. geol. AN Azerb. SSR 23:67-77 '64. (MIRA 18:7)

MUSAYEV, A.I.

Combined treatment of lumbosacral radiculitis at the Tashminvody
Health Resort. Trudy Uz. gos. nauch.-issl. inst. kur. i fizioter.
no.15:219-228 '59. (MIRA 14:9)
(NERVES, SPINAL--DISEASES) (MINERAL WATERS)

MUSAYEV, A.I.

Studying the formation of strawberry runners under conditions
prevailing in Apsheron. Trudy Inst. gen. i sel. AN Azerb. SSR
1:95-99 '59. (MIRA 13:3)
(Apsheron Peninsula--Strawberries)

MUSAYEV, A. I. Cand Biol Sci -- "Study of the biological peculiarities of
varieties
~~species~~ of strawberries in Apsheron." Baku, 1960. (Acad Sci AzSSR. Inst of
Genetics and Selection. Azerbaydzhan State Univ im S. M. Kirov). (KL, 1-61, 183)

ABDULLAYEV, I.K.; MUSAYEV, A.I.

A new variety of large fruit strawberry of the Apsheron Peninsula.
Dokl. AN Azerb. SSR 20 no.5:53-56 '64. (MIRA 17:2)

1. Institut genetiki i selektsii AN AzSSR.

KHAMRABAYEV, I.Kh., doktor geol.-miner. nauk; RADZHABOV, F.Sh.;
GOR'KOVY, O.P.; SALOV, P.I.; KOZYREV, V.V.; PETROV, V.M.;
USMANOV, F.A.; ISAMUKHAMEDOV, I.M., doktor geol.-min. nauk;
KUSTARNIKOVA, A.A.; BORISOV, O.M.; RAKHMATULLAYEV, Kh.R.;
MUSAYEV, A.M.; SVIRIDENKO, A.F.; SULTAN-UIZ-DAG; GOLOVIN,
Ye.M., kand. geol.-miner. nauk; VIS'NEVSKIY, Ya.S., kand.
geol.-miner. nauk, red.; NURATDINOVA, M.d., red.; ASTAKHOV,
A.N., red.

[Petrography of Uzbekistan] Petrografiia Uzbekistana.
Tashkent, Izd-vo "Nauka" UzSSR. Book 1. 1964. 445 p.
(MIRA 18:1)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut geologii
i geofiziki.

MUSAYEV, A.M., gornyy inzh.; PUSTOVALOV, A.I., gornyy inzh.; TORDIKH, I.I.,
gornyy inzh.

Purification of polluted mine air with a multistage cyclone. Ser.
zhur. no.7:64-69 JI '64. (U.S.S.R.)

1. Zyrjanovskiy svintsovyy kombinat.

MISAYEV, A.M., gornyy inzh.

Efficient design for the mouth of ore chutes. Gor. zhur. no.5:
68 My '63. (MIRA 16:5)

1. Rudnik im. XXII s"yezda Kommunisticheskoy partii Sovetskogo
Soyusa, g. Zyryanovsk.
(Ore handling--Equipment and supplies)

MUSAYEV, A.N.

Structure of the Veshnalinskoye ore zone. Izv. AN Azerb. SSR, Ser.
geol.-geog.nauk no.1:57-66 '65. (MIRA 1818)

USSR/Cultivated Plants. Technical Plants. Oil and Sugar Bearing Plants.

Abs Jour : Ref Zhur-Biol., No 15, 1958, 63258

Author : Musayev, D. A.
Inst : University of Central Asia.
Title : The Problem of Overcoming the Difficulties of Hybridizing Genetically Remote Forms and Selecting Soviet Fine-Fiber Cotton Strains.

Orig Pub : Tr. Sredno-az. un-ta, 1956, No 79, 7-49

Abstract : Experiments were carried out with the wild species, *Gossipium Thurberi* Tod, as well as with the following *G. barbadense* L. variants: asp. *cubarbadense* and asp. *vitifolium*. Preliminary vegetative rapprochement improves the hybridizing ability of the species if grafting.

Card : 1/4

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USSR/Cultivated Plants. Technical Plants. Oil and H
Sugar Bearing Plants.

Abs Jour : Ref Zhur-Biol., No 15, 1958, 63258

ted pollinations also increase their fertility, especially if the pollination is performed with a pollen mixture from intermediaries. Fertility of hybrids increases under the following conditions: 1. ringing of the branches or of the main stalk; 2. deep pinch-molding of the plants, subsequently preserving them for a second year; 3. substitution of a mentor (especially when combined with repeated pollination) in the case of comparative biomorphological analysis of F_1 hybrids of genetically remote crossbreedings as compared with the parental forms. Analysis of F_2 and F_3 hybrids has demonstrated an increase in²the

Card : 3/4

105

MUSAYEV, E. YU.

MUSAYEV, E. YU.-- "The Effect of Darydag Arsenic Water and Arsenic Solutions on the Internal Organs of Animals." Min Higher Education USSR. Azerbaydzhan State U imeni S. M. Kirov. Chair of Genetics and Darwinism. Baku, 1955. (Dissertation for the Degree of Candidate in Biological Sciences)

SO: Knizhnaya letopis', No 1, 1956, pp 102-122, 124

MUSHYEV, E. YU.

KOLESNIKOV, N.M.; ~~MUSAYEV, F. V.~~

Argyrophilic substance of the spleen in different farm and
laboratory animals. Uch. zap. AGU no.9:65-67 '56. (MIRA 10:4)
(Spleen)

COUNTRY : USSR Q
CATEGORY : Farm Animals. Poultry
ABS. JOUR. : RZBiol., No. 13, 1958, No. 59627
AUTHOR : Akhundov, M. E.; Musayev, E. Yu.
INST. : Azerbaydzhan University
TITLE : On the Histology of the Skin of the Neck in
Barenecked Hens
ORIG. PUB. : Elmi eserler. Azerb. univ., Uch. zap. azerb.
un-t, 1957, No 6, 73-77
ABSTRACT : The skin of the mental and occipital regions
was studied histologically in the Leghorns,
Barenecked hens and their crosses. In the
Barenecked hens, numerous fatty cells are
found, which apparently play a role in ther-
moregulation, and which are absent in the
Leghorns. In the crossbreds, a certain amount
of fatty cells is also found and, according
to some authors, glands are met with which
CARD: 1/2

Q - 74

MUSAYEV, E. Yu.

Effect of the Darydag arsenic water and arsenic solution on the
internal organs of animals. Uch. zap. AGU. Biol. ser. no.4:11-18
'59. (MDA 15:5)

(ARSENIC--PHYSIOLOGICAL EFFECT)

MUSAYEV, E.Yu.; AKHUND-ZADE, A.I.

Effect of a growth promoting substance of petroleum origin on the growth and development of chicks from 30-60 days old. Dokl. AN Azerb. SSR 20 no.1:69-73 '64. (MIRA 17:4)

1. Azerbaydzhanskiy gosudarstvennyy universitet im. S.M.Kirova. Predstavleno akademikom AN AzerSSR F.A.Melikovym.

MUSAEV, F

AUTHOR: MUSAEV, F. PA - 2272
TITLE: In the Atomic Energy Pavilion of the All Soviet Industrial Fair (Department for Nuclear Raw Materials), Russian.
PERIODICAL: Atomnaia Energiia, 1957, Vol 2, Nr 2, pp 192 - 195 (U.S.S.R.)
received: 3 / 1957 Reviewed: 4 / 1957

ABSTRACT: A rich collection of uranium minerals and uranium ores is exhibited in this department. Furthermore apparatus for the search for and the production of uranium ores as well as for their analysis in the laboratory and in the open air are on show. The methods used for the production of radioactive ores can be subdivided into γ -recording and emanation-recording. γ -recording is carried out with a special radiometric apparatus according to different methods. Some of the apparatus now industrially produced are on show on the fair. A difference is made between aerogram-recording, γ -recording from a car, and γ -recording on foot. For aerogram recording the geophysical station ASGM-25 of the factory "Geologorazvedka" (geological prospecting) is used. This station serves for the simultaneous and quick search for ores and their deposits by making use of the radioactive and chemical characteristics of these deposits. The station is fitted to planes of the AN-2 type or to helicopters of the MI-4 type.

Card 1/3 γ -recording by car is carried out by means of the γ -radiometer

PA - 2272

In the Atomic Energy Pavilion of the All Soviet Industrial Fair. SG-14 which is also produced by the "Geologorazvedka" factory, For this apparatus GAZ-67 and GAZ-69 cars are best suited as they are adapted for cross-country driving and have good steering qualities.

Besides, a great number of different radiometers for γ -recording on foot are shown, e.g. the explosion-proof radiometer UR-4M which can also be used in mines underground. This radiometer uses gas discharge counters of the STS-8 or the STS-1 type. The measuring range of this radiometer is from 0,015 to 10 milliroentgen/hour and can be used for temperatures of from -20° C to $+50^{\circ}$ C. The probing casing is of the telescope system, which renders extension of the handle from 1,14 to 1,74 m possible. The RP-1 radiometers have a hermetically tight casing which can be immersed into water during operation. With these instruments the radiation is shown both by a sound indicator and also visually at the same time. The portable acoustic radiometers PRS and the radiometer SG-42 with scintillation counter are also to be mentioned. The different variations of these radiometers differ by the form of the probe and the measuring range. In the SG-42 radiometer scintillation counters are used which are more sensitive to γ -radiation than gas discharge counters. Besides, they have a relatively short resolving time.

Card 2/3

PA - 2272

In the Atomic Energy Pavilion of The All Soviet Industrial Fair.
One stand shows the γ -carrotage of drill holes.

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress.

Card 3/3

MUSAYEV, F.

89-10-24/36

AUTHOR: Musayev, F.
TITLE: The All-Union Industrial Fair (Na vsesoyuznoi promyshlennoy vystavke)

PERIODICAL
ABSTRACT

Atomnaya Energiya, 1957, Vol. 3, Nr 10, pp. 358-362 (USSR)

1. Department: The atomic nucleus and its measurement.
The following devices were shown:

- a) a 24 channel analyser which can be connected to an electron switch as well as to a β -spectrometer.
- b) Stepping-down devices B-2-BK-3, PS-10⁴, PS-10⁶.
- c) Stepping-down device with a decimal indicator which operates with an annular trochotron. Resolving time 0,2 μ s.
- d) Neutron counting device C -3, with the help of which slow neutrons can be counted.
- e) The device "Yablonya" which permits measuring of coincidences and anti-coincidences. The resolving time for coincidences is between 2.10⁻⁶ and 10⁻⁷ seconds.
- f) Bi-radiation impulse oscillograph DJO-56. The time of rotation can be changed from 5 μ s up to 2/ms.
- g) Electronic micro stop watch.

2. Department: Reactor materials.

- a) Details produced from uranium in form of rods, tubes, bands, foils, wires, are displaced. Characteristics of the uranium used: Specific weight 18,9-19,1 g/cm³, melting temperature at 1130^o C,

Card 1/2

The All-Union Industrial Fair.

89-10-24/36

maximum stress 35-140 kg/mm².

b) Details produced from beryllium are also displayed. The specific weight is 1,85 g/cm³, melting temperature 1285°C, strength 60-130 kg/mm².

c) Tubes of various diameters, wires and casting made from zirconium are shown. The specific weight amounts to 6,4 g/cm³ and melting temperature is about 1860°C.

d) A large number of details produced from non-metallic material are shown. There are 7 figures.

AVAILABLE Library of Congress.

Card 2/2

AUTHOR: Musayev, F.

89-12-16/29

TITLE: News in the Pavilion "Peaceful Application of Atomic Energy" of the All-Union Industrial Exhibition (Novoye v pavil'one "Ispol'zovaniye atomnoy energii v mirnykh tselyakh" Vsesoyuznoy promyshlennoy vystavki).

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, Nr 12, pp. 558-560 (USSR)

ABSTRACT: In 1956 the exhibits were presented to the visitor partly renovated or in an improved construction respectively. In the department "atomic raw materials" a whole aerogeophysical station (ASG-38) is shown. It consists of an aerogammarameter, which indicates the presence of uranium and thorium. A scintillation analyzer makes it possible to indicate the relative as well as the absolute content of uranium and thorium on the spot. In the department "reactor materials" new and very detailed tables on the properties of these materials can be seen. In the field of radiation protection the electrical filter EF-2 has to be mentioned: the α - and β -active aerosols are collected in it with an effectivity of 85 to 95 %. By this instrument concentrations up to 10^{-15} C/l can be demonstrated.

CARD 1/2

News in the Pavilion "Peaceful Application of Atomic Energy" 89-12-16/29
of the **All-Union** Industrial Exhibition

Moreover the universal scintillation dosimeter has to be mentioned, and the radiometer RN-3: By this meter neutron fluxes of fast and thermal neutrons in the energy area of 0.5 to 14 MeV can be measured.

Portable neutron dosimeter RN-4.

Portable α -radiometer RAP-1, which registers 50 to 100000 decays/min.cm².

In the pavilion of atoms this year 2 new departments "Science and Technology" and "Isotope Production" have been inaugurated.

Here the instrument I.VP-64 has to be mentioned by which the humidity of the soil can be determined immediately on the spot. Also the gas-consumption meter RGR-1 (Ru¹⁰⁶) is new.

From the department "Application of the Radioactive Isotopes" the β -therapeutics instrument GUT-Co-400 and the model of a 25 MeV betatron for medical purposes is worthwhile mentioning. There are 5 figures.

AVAILABLE: Library of Congress.

CARD 2/2

KULIYEV, R.Sh.; SAMEDOVA, F.I.; MUSAYEV, G.T.; CHIKAREVA, N.I.; ARYLOV, L.P.

Effect of some factors of adsorption refining on the quality of
transformer oil from petroleum of the Neftiyanje Kamni Field.
Azerb.khim.zhur. no.6:61-66 '61. (MIRA 15:5)
(Insulating oils) (Petroleum--Refining)

KULIYEV, R.Sh.; SAMEDOVA, G.I.; MUSAYEV, G.T.; CHIKAREVA, N.I.;
KRYLOV, L.P.

Obtaining transformer oils from the Siazan' petroleum by
adsorption refining. Azerb.neft.khoz. 40 no.12:44-45 D '61.
(MIRA 15:8)

(Siazan' region--Insulating oils) (Adsorption)

L 33260-65 EPT(m)/EPP(c)/T Pr-l DJ

S/0316/64/000/005/0003/0009

ACCESSION NR: AP5005516

AUTHOR: Kuliyev, R. Sh.; Musayev, G. T.

20
B

TITLE: The effect of the solvent used in deparaffination on the yield and quality of aviation

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 5, 1964, 3-9

TOPIC TAGS: contact purification, petroleum concentrate lubricant MK-22, petroleum refining, deparaffination solvent, ternary ketone, aviation oil, lubricant filtration, deparaffination temperature/lubricant MK-22

ABSTRACT: Lubricant MK-22 is produced from a concentrate of selected Surakhan petroleum by acidic contact purification. Deparaffination of the purified concentrate is usually carried out in a petroleum solution at -40 C, but improvements in purification and deparaffination technology are still being sought. The present work attempted to determine the comparative effect of the petroleum solvent and a ternary solvent containing ketone, benzene and toluene on yield and quality of the lubricant. Methyleneethylketone and acetone were tried as ketone sources. An initial experimental study of the effect of prior detarring by liquid propane on yield and quality of the lubricant was also conducted. The latter was produced in the laboratory from the concentrate, and various deparaffination temperatures were tested. It was shown that the same amount of methyleneethylketone

1/2

L 33260-65

ACCESSION NR: AP5005516

contained in the ternary system gave a considerably higher yield of deparaffinated lubricant compared to acetone, and that a decrease of acetone in this system would increase the yield of the lubricant better than 2.5 fold. The optimal amount of acetone in the mixture was found to be 20%, that of methylethylketone, 30%. Filtration proceeded faster in the presence of methylethylketone. A 3-fold volume of solvent was found to be optimal. Under these conditions, deparaffination conducted at -25 C yielded a lubricant with satisfactory thermal hardening properties. Substitution of a ternary system of selective solvents for the usual petroleum did not significantly affect yield and quality of the lubricant. However, deparaffination may be conducted at -25C instead of the usual -40 to 42 C and the filtrability of the cooled solution is considerably improved. Orig. art. has: 6 tables.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 001

ENCL: 00

OTHER: 000

SUB CODE: FP

2/2

L3759

S/081/62/000/023/082/120
B144/B18611.0140
AUTHORS:Kuliyev, R. Sh., Musayev, G. T., Airapetova, E. K.

TITLE:

A comparison of the properties and stability of oils obtained from Eastern sour crude and Baku crude

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 23, 1962, 594, abstract 23M207 (Azerb. khim. zh., no. 2, 1962, 31 - 39 [Summary in Azerb.]

TEXT: For the comparative study two similar diesel oils A-11 (D-11) were taken, one (I) from Baku petroleum and the other (II) from Eastern petroleum, with the following characteristics, respectively:

d_{4}^{20} 0.9092 and 0.8904, viscosity 12.4 and 10.8 cst/100°C, viscosity index 58 and 89; cokability 0.31 and 0.35; sulfur content 0.24 and 1.14%, pour point -18 and -20°C. Both petroleum were separated into the following groups (fractions) of hydrocarbons (for the groups mentioned from I and from II, respectively, the following are enumerated: the yield in %, n_D^{20} , d_{4}^{20} , molecular weight, viscosity in cst/100°C, viscosity index, the

A comparison of the ...

S/081/62/000/023/082/120

B144/B186

mean number of rings in the molecule, the number of C atoms in the side chains): naphthene-methane hydrocarbons (NM) with a specific dispersion up to 103; 66 and 56.7; 1.4839 and 1.4737; 0.8860 and 0.8589; 412 and 435; 9.72 and 8.07; 80 and 108; 2.48 and 1.68; 19 and 25; aromatic tops with a specific dispersion of 104 - 124: 11.5 and 12.5; 1.4950 and 1.4990; 0.9037 and 0.8995; 408 and 491; 12.15 and 14.40, 57 and 82; 2.48 and 1.60; 19 and 31; aromatic medium HC with a specific dispersion of 124 - 160: 9.5 and 15.5; 1.5198 and 1.5181; 0.9385 and 0.9293; 400 and 460; 14.30 and 14.19; 10 and 47; 1.96 and 2.07; 21 and 26; aromatic HC with a specific dispersion of >160: 10.0 and 12.6; 1.5578 and 1.5412; 0.9906 and 0.9683; 390 and 447; 40.10 and 28.90; -140 and -3; 2.75 and 2.6; 17 and 21; tarry substances: 2.5 and 2.0; -, -; 0.9962 and 0.9770; 540 and 612; - -; - -; - -. I, II, the hydrocarbon groups separated from them and mixtures of NM with individual groups of HC were oxidized by the method of the VTI at 130°C in the Butkov bomb. The oxidation of NM from I yielded less acids and more residue than that of NM from II, but the aromatic HC groups from I yielded more acids and less residue than the similar groups from II. Addition of individual groups of aromatic HC to NM (the mixtures corresponded to the content of the HC groups in the oil) markedly increased the Card 2/3

43760

A comparison of the ...

S/081/62/000/023/082/120
B144/B186

stability of NM (to oxidation), the heavier HC producing a greater increase in stability. When aromatic HC from II were added to NM from I, the mixtures obtained were more stable than on addition of aromatic HC from I. In oxydation by the VTI method, addition of heavy aromatic HC from II to NM from I thus reduced the acid number of the oxidized oil from 29.7 to 0.19 and the residue percentage from 17.5 to 0.05, while addition of heavy aromatic HC from I resulted in a reduction to 1.15 and 0.32, respectively. When the quantity of heavy aromatic HC added to mixtures of NM with other aromatic HC was increased, the stability of the mixtures improved. Addition of tarry substances to mixtures of NM with aromatic HC reduced the antioxidant effect of the latter. On the basis of their studies, the authors recommend the production of stable diesel oils by selective purification, leaving in the selectively purified oil a considerable part of heavy aromatic HC and tarry substances and subsequently separating the latter by acid after purification of the oil. [Abstracter's note: Complete translation.]

Card 3/3

S/065/62/000/004/002/004
E075/E136

AUTHORS: Kuliyeu, R.Sh., Dreyzin, M.M., Yusayev, G.T.,
Chikareva, N.I., and Krylov, L.P.

TITLE: Production of electrical oils from Baku crudes by
the method of adsorptional refining

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.4, 1962,
15-21

TEXT: The authors describe a method for the production of
transformer oils by the method of adsorptional refining. The
experiments with a continuous adsorptional refining were carried
out in a laboratory apparatus designed by VNII NP. Granulated
alumino-silicate catalyst was used as the adsorbent and a
benzine fraction (b.pt. 100-150 °C) containing 4.8% aromatic
hydrocarbons, used as a solvent. Transformer oil distillates
were diluted with 1.2 parts by weight of the solvent. Using
this method it was shown that the yield of the refined product
was 90-92% in place of 80-82% for an acid-alkaline refining
process. The transformer oils after the adsorptional refining
are more stable than the acid refined oils. The distillates
Card 1/2

Production of electrical oils ...

S/065/62/000/004/002/004
E075/E136

from the highly asphaltic Neftyanyye Kamni crude yielded high quality transformer oils after the adsorptional refining. Thus the method permits the utilization of a wider range of crudes for the production of electrical oils. It was found that the refining capacity of the alumino silicates can be modified by the temperature of the process and the addition of benzene (15%) to the solvent. It was shown that transformer oils with low pour points can be obtained by adding a pour point depressant (0.05-0.1%) (depressant AzNII) to the distillate prior to its adsorptional refining treatment. There are 6 tables.

ASSOCIATION: INKhP AN Azerb. SSR
(INKhP AS Azerb. SSR)

1

Card 2/2

S/081/63/000/003/020/036
B144/B186

AUTHORS: Kulihev, R. Sh., Samedova, F. I., Chikareva, N. I.,
~~Muzayev, G. T.~~, Krylov, L. P.

TITLE: Production of residual diesel engine oil from Neftyanyye
Kamni crude oil by adsorption refining

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 509, abstract
3P200 (Azerb. неф. kh-vo, no. 7, 1962, 34-37)

TEXT: A process has been worked out for obtaining a residual diesel engine oil with high anticorrosive and antioxydant properties from Neftyanyye Kamni petroleum by adsorption refining; it is shown to be possible to obtain such an oil by two alternative methods, with outputs in relation to the crude oil of 33.7 and 27.8%, respectively; a) by refining deasphalted mazout; b) by refining a compound consisting of deasphalted tar and motor oil-10 distillate. It is shown that the oil obtained by direct refining of deasphalted mazout somewhat surpasses in its physicochemical properties and stability the oil produced on the tar basis; moreover, considerably less adsorbent (200% ground aluminosilicate catalyst instead of 300% in relation to the crude) is needed
Card 1/2

Production of residual diesel engine ...

S/081/63/000/003/020/036
B144/B186

for refining deasphalted mazout. The possibility is established of reducing the pour point of the diesel engine oil by adding a depressor (e. g., AZNII depressor in a quantity of 0.5%) to the crude before adsorption refining. A qualitative comparison of the oils obtained by various refining methods has shown that the oil refined by adsorption considerably surpasses the solvent-refined oil as to color, corrosiveness, and cokability. The oil obtained by solvent-contact treatment has, however, better viscosity and temperature properties than the adsorption-refined oil, which is due to the high content of aromatic hydrocarbons with a negative viscosity index in the oils obtained by adsorption refining. [Abstracter's note: Complete translation.]

Card 2/2

KULIYEV, R.Sh.; KEVERKOVA, I.S.; MUSAYEV, G.T.; AYRAPETOVA, E.K.

Production of transformer oil from a mixture of Baku paraffinic
petroleum. Azerb.khim.zhur. no.4:63-65 '63. (MIRA 17:2)

L 17697-63

EPP(c)/EMT(m)/BDS AFFTC/APGC Pr-h DJ

ACCESSION NR: AP3004218

S/0065/63/000/OCT/0006/0012

64
62AUTHORS: Kuliyev, B. Sh.; Sadykhova, B. A.; Musayev, G. T.

TITLE: Production of motor oils by destructive hydrogenation of diesel oil distillate and raffinate

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 7, 1963, 6-12

TOPIC TAGS: destructive hydrogenation, hydrocracking, motor oil, engine oil, catalyst, aluminum, cobalt, molybdenum, molybdenum disulfide, viscosity, viscosity index

ABSTRACT: A detailed study of the destructive hydrogenation of distilled and refined diesel oil was carried out in order to determine the conditions for obtaining high-quality engine oils. The hydrogenations were done in a pilot plant with an output of 2 kg/hour for a charge of 2 liters of commercial molybdenum disulfide or aluminum-cobalt-molybdenum catalyst and a constant input of 300 liters/hour of hydrogen at 325-425C, 50-250 atm. and a feed of 0.5-1.0 m³/m³ of catalyst. The best process conditions are 410 or 425C and 150 atm. for distilled oil and 375 or 415C and 100 atm. for refined oil. The products were distilled in vacuum and the fractions boiling up to 340C were discarded, yielding light-colored

Card 1/2

L 17697-63

ACCESSION NR: AP3004218

oils with a viscosity of 6.0-7.7 cc at 100C and high viscosity index surpassing commercial AS-6 oil. Molybdenum disulfide catalyst gives the highest quality product. This may be blended with lubricating oil residuals to give high quality automotive and diesel engine oils. Orig. art. has 7 tables.

ASSOCIATION: INKhP AN Azerb SSR (INKhP AN AzSSR)

SUBMITTED: 00

DATE ACQ: 08Aug63

ENCL: 00

SUB CODE: FL, CH

NO REF SOV: 006

OTHER: 000

Card 2/2

KULIYEV, R.Sh.; SHAKHNOVICH, M.I.; SAMEDOVA, F.I.; MUSAYEV, G.T.;
CHIKAREVA, N.I.; Primali uchastiye: ALIYEVA, A.; ALIYEVA, V.;
KATKOVA, O.; BESSONOVA, Ye.; KURILINA, A.

Improving the quality of transformer oil from Buzovna crude
oil. Khim. i tekh. topl. i masel 8 no.10:16-22 0 '63.

(MIRA 16:11)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.

L 18948-65 EWT(m)/EPP(c)/T Pr-4 AFETR DJ

ACCESSION NR: AP4049429

S/0316/64/000/003/0021/0027

AUTHOR: Kuliyev, R. Sh., Musayev, G. T.

TITLE: Production and comparison of the properties of differently refined aviation oils

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 3, 1964, 21-27

TOPIC TAGS: lubricating oil, Surakhani crude, aviation oil, deasphaltization, deparaffinization, phenol refining, acid refining/ oil MS-20, oil MK-22, oil MS-22

ABSTRACT: The quality of aviation oil MK-22 was successfully improved by replacing acid purification of Surakhani crude with its deasphaltization to 1.0-1.1% coke, deparaffinization by refining with 200% and 500% phenol, and selective solution in a methylethyl ketonebenzene-toluene mixture, preferably containing 30% methylethyl ketone and used in the ratios of 3:1 and 4:1 for 200% and 500% phenol-refined fractions, respectively. A lower concentration leads to gelling on cooling. This dilution produces a maximum (72.6%) yield of oil with the necessary solidification temperature. The color is brought to No. 7 by treating these fractions with 14 and 10% bleaching clay at 340-350C. The MS-20 oil produced by 500% phenol refining misses the specifications by the coke residue being 0.38% (above the maximum of 0.30%). The MS-22 oil produced by 200% phenol refining meets them, being identical with the MS-22 oil made by

Card 1/2

L 18918-65

ACCESSION NR: AP4049429

refining with 12% sulfuric acid and 24% clay. Refining with 500% phenol sharply reduces the yield of oil. Orig. art. has: 2 figures and 5 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: FP

NO REF SOV: 006

OTHER: 000

Card 2/2

KULIYEV, R.Sn.; MUSAYEV, G.S.

Effect of the solvent used for dewaxing on the yield and quality
of MK-22 aviation oil. Azerb. khim. zhurn. no.5:3-9 '64.
(MISA 28:3)

KULIYEV, R.Sh.; KANUNOV, F.I.; KUDAYEV, F.I.; SHAKHMEV, M.I.; LITSHINSKY, R.I.;
MUSAYEV, D.T.

Functional properties of transformer oil produced from natural
petroleum. Neftokhimiya, no. 4:3-11, 1965.

1. kakhunov, f.i.; kudayev, f.i.; shakhmev, m.i.; litshinsky, r.i.;
teplobiznes, no. 4:3-11, 1965.

L 22689-66 EWT(m)/T DJ

ACC NR: AP6006932

(N)

SOURCE CODE: UR/0316/65/000/006/0007/0009

AUTHOR: Kuliyev, R. Sh.; Kevorkova, I. S.; Musayev, G. T.

ORG: INKhP AzerbSSR

TITLE: Response of transformer oils to antioxidant additives

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 6, 1965, 7-9

TOPIC TAGS: antioxidant additive, transformer oil

ABSTRACT: The authors studied the response to antioxidant additives of transformer oils obtained from a series of Baku crudes by acid-alkaline and adsorption refining methods. The antioxidant additives tested were p-hydroxydiphenyls, ionol, and AzNII-11. The stability of the transformer oils toward the additives was determined. Adsorption-refined oil was found to have the best response to the inhibitors. While the addition of 0.1% ionol to transformer oil obtained from Buzovna petroleum by refining with 8% acid decreased the deposit by a factor of 4 and the acid number by a factor of 6-7, the addition of the same amount of ionol to oil obtained from the same crude by adsorption refining decreased the deposit by a factor

Handwritten notes: 42, B, and some illegible scribbles.

Card 1/2

Handwritten number: 2

L 22689-66

ACC NR: AP6006932

of 18, and the acid number by a factor of 26. The better response of the adsorption-refined oil is attributed to its small content of tars. It also contains much less aromatic hydrocarbons, particularly polycyclic ones, than does oil produced by acid-alkaline refining. The transformer oils obtained from various crudes displayed the best response to ionol. Orig. art. has: 2 tabs. D

SUB CODE: 07/

21/

SUBM DATE: 27Nov64/

ORIG REF: 000/

OTH REF: 000

Card 2/2 *fw*

L 06465-67 EWT(m) DJ

ACC NR: AP6029339

(A)

SOURCE CODE: UR/0316/66/000/002/0077/0080

AUTHOR: Kuliyev, R. Sh.; Musayev, G. T.; Ayrapetova, E. K.; Antonova, K. I.28
13ORG: INKhP AN AzerbSSR

TITLE: Effect of various hydrocarbon groups of D-8 diesel oil on its low-temperature properties

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 2, 1966, 77-80

TOPIC TAGS: lubricant viscosity, lubricating oil, AROMATIC HYDROCARBON

ABSTRACT: The effect of various groups of hydrocarbons on the viscosity of D-8 diesel oil (SU machine oil) was studied at low temperatures. The groups were separated from the SU distillate chromatographically on ASK silica gel. The viscosity and solidification points of the aromatic hydrocarbons increase with their cyclic character. It was found that the removal of all tars and approximately 30-40% of heavy aromatic hydrocarbons from the distillate of SU machine oil gives the required content of the various hydrocarbon groups in the oil, so that the desired viscosity is obtained at -20°C. In order to obtain this hydrocarbon composition in the oil, the distillate of SU machine oil must be subjected to a more thorough purification. The viscosity of D-8 diesel oil at low temperatures can also be improved by decreasing its viscosity at 100°C: when the viscosity is decreased from 8.4 to 7.5 cS at 100°C, the corresponding viscos-

Card 1/2

L 06465-67

ACC NR: AF6029339

ity at -21°C drops from 44.8 to 21 thousand cS. Orig. art. has: 4 tables. 0

SUB CODE: 11/ SUBM DATE: 30Jul65/ ORIG REF: 001

Card 2/2 MRE

ACC NR: AP6035577 (AN) SOURCE CODE: UR/0065/66/000/011/0022/0024

AUTHOR: Kuliyev, R. Sh. ; Samedova, F. I. ; Musayev, G. T. ; Bagirzade, T. M. ;
Ayrapetova, E. K. ; Ashrafov, A. A.

ORG: INKhP AN AzerbSSR

TITLE: Expanding the raw materials stock for aircraft lubricants

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 11, 1966, 22-24

TOPIC TAGS: lubricant, oil, oil refining, aircraft lubricant, aviation oil,
lubricating oil

ABSTRACT: The possibility of adding oil found on the Peschanny Island in
Azerbaijan to the raw material stock (the Surankhanskaya and Karachukhurskaya
crude oils) to obtain aviation oils is discussed. A concentrate of a mixture of
these three crude oils deasphaltized with propane; the lubricating oil is then obtain-
ed by the acid-contact, selective, or adsorption refining methods. The adsorption
method was found to be the most effective. The oil produced by this method of
refining possesses high antioxidation and anticorrosion properties due to the lower
tar content. The yield is 10.9% of the total of crude oil. The deparaffinization of

Card 1/2

UDC: 665.521.5

ACC NR: AP6035577

the raffinate obtained from a concentrate of the above-mentioned crude oils is made with a solution of acetone, benzene, and toluene.

[SP]

SUB CODE: 11/SUBM DATE: none/

Card 2/2

KULIYEV, R.Sh.; SAMEDOVA, F.I.; MUSAYEV, G.T.; ANTONOVA, K.T.; CHIKAREVA, N.T.

Obtaining transformer oil from distillates of Surakhani selected crude oil and Karachukhur and Siazan petroleum. Nef-teper. i neftekhim. no.48-11*63 (MIRA 17:7)

1. Institut neftekhimicheskikh protsessov, Baku.

MUSAYEV, I. A.

✓
1254

1254. CHEMICAL COMPOSITION OF BENZENE FROM THERMAL CRACKING.
Tonchay, A. V., Musayev, I. A., Ismailbekov, S. Kh., Kislinskiy, A. B. and
Gullern, G. D. (Bull. Technol. Replicat. (Chem. Technol. Fuel, Moscow), Dec.
1956, (12), 1-4). Tables are given of the characteristics, yields and
boiling points of the individual fractions of benzene obtained from thermal
cracking. Graphs of iodine number and distillation temperature for the
fractions are presented. (L).

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MUSAYEV, I.A.

2138. INDIVIDUAL PARAFFINIC AND PENTAMETHYLENIC HYDROCARBONS IN THE GASOLINE FRACTION OF MIRENBAEVSK PETROLEUM. MUSAYEV, I.A., RISLINSKI, A.N. and GALLBERG, G.L. (Khim. Tekhnol. Topliva (Chem. Technol. Fuel, Moscow), 1956, (3), B-10; abstr. in Chem. Abstr., 1956, vol. 50, 13412, 13413). The results are given of a quantitative analysis of the gasoline fraction boiling up to 150°, by a chemico-spectral method. Cat.

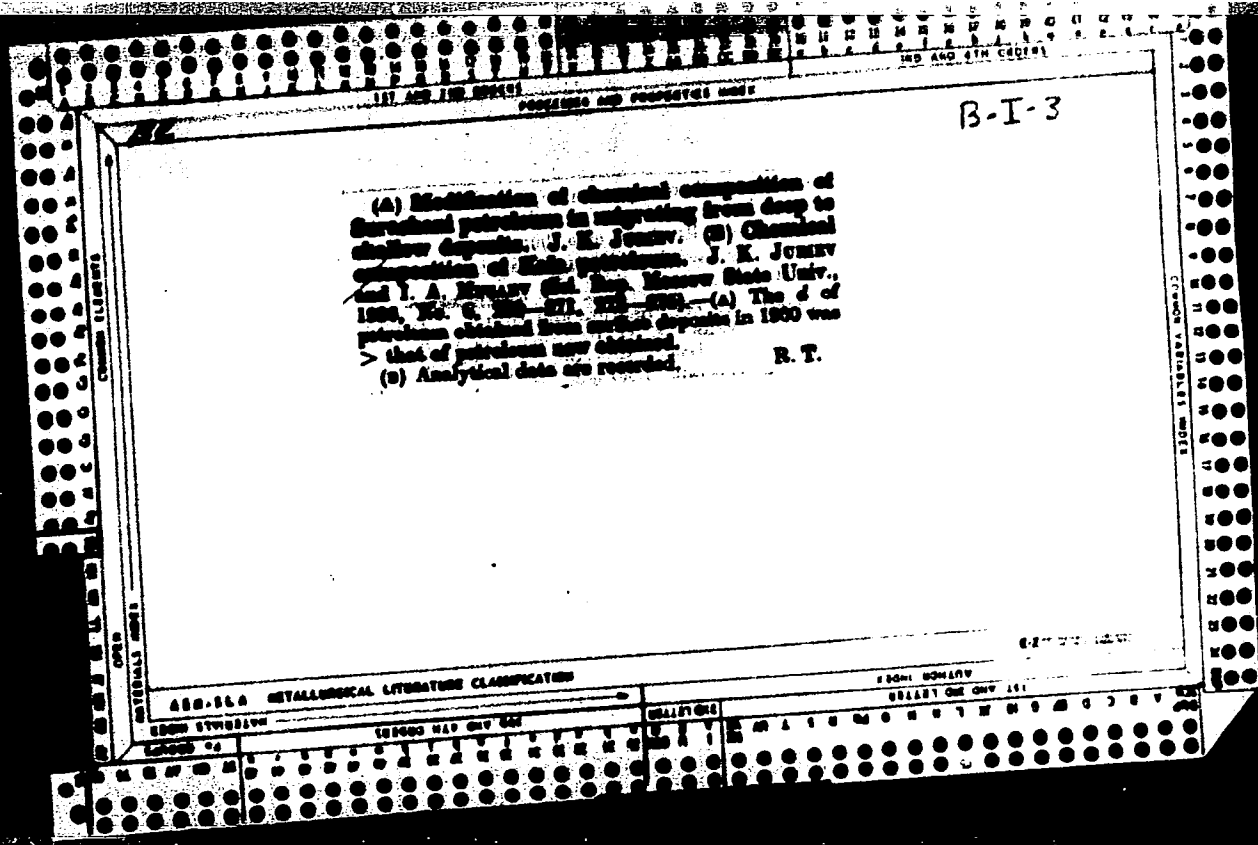
John *PM*
LFTI

MUSAYEV, I. A.

Individual paraffin and naphthene hydrocarbons from the gasoline fraction of Nefitdag crude oil. A. V. Topchik, D. Gal'pern, I. A. Musayev, A. N. Kislukhin, and S. V. Kuznetsov. Doklady Akad. Nauk S.S.S.R. 103, 1035-8 (1961). Fractionation, followed by spectroscopic examination, hydrogenation over Pt-C and dearomatization, were the methods employed for identification of individual hydrocarbons. The following compds. in the aunts. (%) given were found: methane 0.19, ethane 0.12, propane 1.06, butane 0.65, 2-methylpropane 1.43, pentane 2.69, 2-methylbutane 2.6, 2,2-dimethylpropane 0.71, hexane 3.31, 2-methylpentane 2.3, 3-methylpentane 1.66, 2,2-dimethylbutane 0.18, 2,3-dimethylbutane 0.71, heptane 2.28, 2-methylhexane 1.69, 3-methylhexane 1.91, 3-ethylpentane 0.11, 2,2-dimethylpentane 0.21, 2,3-dimethylpentane 0.13, 3,3-dimethylpentane 0.21, 2,4-dimethylpentane 0.42, 2,2,3-trimethylbutane 0.14, 2,2,4-trimethylpentane 0.04, 3-methylheptane 0.46, 4-methylheptane 1.63, 2,2-dimethylhexane 0.17, 2,3-isomer 0.33, 2,6-isomer 0.19, 3,3-isomer trace, 2-methyl-2-ethylhexane 0.25, 3,4-dimethylhexane 0.5, 2,2,3-trimethylhexane 0.12, 2,2,4-trimethylhexane 0.1, 2,3,3-trimethylhexane 0.19, 2,3,4-isomer 0.15, traces of: nonane, 2,2,4,4-tetramethylheptanes, 2- and 4-ethylheptanes, 2,2,2,3,3,3-hexamethylheptanes, 2,2,3,3-tetramethylheptanes, 2,2,3,3-tetramethylheptanes, 2,2,3,3-tetramethylheptanes, 2,2,3,3-tetramethylheptanes, 2,2,3,3-tetramethylheptanes, 2,2,3,3-tetramethylheptanes, 2,2,3,3-tetramethylheptanes. The following cyclic compds. were

found in the percentages given: cyclopentane 1.22, methylcyclopentane 0.18, ethylcyclopentane 0.57, 1,1-dimethylcyclopentane 0.84, trans-1,2-dimethylcyclopentane 2.12, cis-1,3-dimethylcyclopentane 2.18, trans isomer 1.01, 1,1-trimethylcyclopentane 0.44, 1,1,3-trimethylcyclopentane 0.39, cis-trans-cis-1,2,3-trimethylcyclopentane 1.73, cis-cis-trans-1,2,3-trimethylcyclopentane 0.38, cis-cis-trans-1,2,4-trimethylcyclopentane 1.44, 1-methyl-1-ethylcyclopentane 0.17, trans-1-methyl-2-ethylcyclopentane 1.14, cis isomer 0.1, 1,1-methyl-2-ethylcyclopentane 0.17, isopropylcyclopentane 0.37, traces of: propylcyclopentane, cis-trans-cis-1,2,4-trimethylcyclopentane and the cis-cis-trans isomer, trans-1-methyl-2-propylcyclopentane and the cis isomer, cis-cis-cis-1,2,3-trimethylcyclopentane, cis-trans-cis-1,2,3-trimethylcyclopentane, trans-1,2-dimethylcyclopentane and the cis isomer, isobutylcyclopentane, cyclohexane 4.97, methylcyclohexane 10.45, ethylcyclohexane 2.37, 1,1-dimethylcyclohexane 1.16, trans-1,2-dimethylcyclohexane 0.57 and the cis isomer 0.27, trans-1,3-dimethylcyclohexane 1.59 and the cis isomer 2.22, trans-1,4-dimethylcyclohexane 1.39 and the cis isomer 1.33, trans-1-methyl-2-ethylcyclohexane 0.21, trans-1-methyl-3-ethylcyclohexane 0.34 and the cis isomer 0.33, 1-methyl-4-ethylcyclohexane 0.35, 1,1,3-trimethylcyclohexane 2.41, 1,2,3-trimethylcyclohexane 0.17 and an isomer b, 146°, 0.74, the 1,2,4-trimethyl isomer b, 149°, mp 1.4290, and an isomer b, 140°, mp 1.4311, together 0.74; another isomer b, 143°, mp 1.4333, 0.25, 1,3,5-trimethylcyclohexane, b, 139-40°, 0.27, a trace of 1,2,5-trimethylcyclohexane, b, 148°. About 15% fenchene appears to be present. G. M. Keselapoff

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157 AND 170 ORDERS PROCESSED AND PROPERTIES INDEX 170 AND 171 ORDERS

ca 21

Kos-Chagyl petroleum. II. N. D. Zelnitski, I. A. Muscovy and G. D. Hal'pern. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. chim.* 1937, 467-78 in German 470. *U. S. A. J.* 31, 5549. Kos-Chagyl benzine-lignin fractions, b. 120.5°, 180.5° and 240.5° were passed at 115° over Pt on activated C (Pakkendorf and Leder Pakkendorf, C 4 28, 6700) in a weak H current. The tentative results indicate that the thorough aromatization of petroleum fractions is the result not only of the dehydrogenation of hexahydroaromatic hydrocarbons, but that to a considerable degree of the cyclization and dehydrogenation of the paraffin hydrocarbons present in the mixt. The catalyst poisoned with S is completely reactivated in a strong H current in the presence of cyclohexane at 315-20°. The process of catalytic dehydrogenation can be used as an analytical method for detg. the ratio of the hexahydroaromatic hydrocarbons to other paraffins in the mixt. The work is being continued. Chas. Blau.

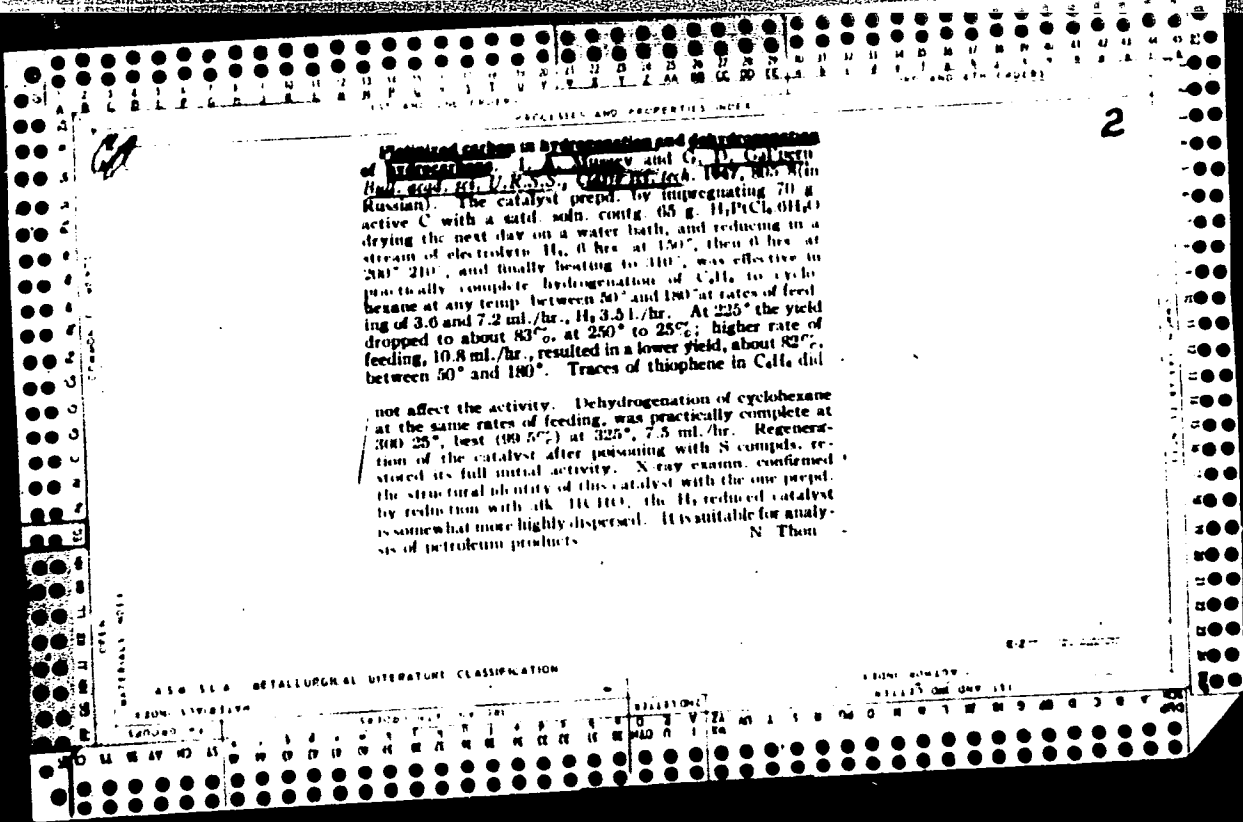
ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

MEDELEV, I. N. Cand. Chem. Sci.

Dissertation: "Analysis of Petroleum Products for Cyclic Compounds."
Inst of Mineral Fuels, Acad Sci USSR, 27 Mar 47.

SO: Vechernyaya Moskva, Mar, 1947 (Project #17836)



MUSAYEV, I. A.

PA 45/49T14

USSR/Chemistry - Refractometry
Chemistry - Analysis of Hydrocarbon Mixtures

Apr 49

"General Bases of Refractometric Elementary (Rings) Analysis of Saturated Hydrocarbons," G. D. Gal'perin, I. A. Musayev, Petroleum Inst, Acad Sci USSR, 10 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 4

Percent of hydrogen in mixtures of saturated hydrocarbons may be calculated accurately by specific refraction. Whether or not a saturated hydrocarbon (or mixtures of them) belongs to "middle" homologous group may be determined accurately by specific refraction and average molecular weight. Membership

45/49T14

USSR/Chemistry - Refractometry (Contd)

Apr 49

of a hydrocarbon in a homologous series or its mixture in the "middle" homologous series is best determined by number of rings in molecule. Disallows Vlugter's a priori solution of the problem on adaptability of one or another "standard" polymeric homologous series to analysis of petroleum fractions. Submitted by Acad S. S. Nametkin. 29 Jan 48.

45/49T14

MUSAYEV I A

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746. RING ANALYSIS OF PETROLEUM PRODUCTS. Musayev, I. A. and Gal'pern, G. D. (Dokl. Acad. Sci. U.S.S.R., Div. Tech. Sci., 1949, No 7, 1106-1115).

A crit. discussion of the determination of hydrocarbon groups in high-mol. wt products. Sp. dispersion (F and C lines of H₂) is taken as an indication of the complete hydrogenation of the material. Values $> 50 \cdot 10^{-4}$ indicate that aromatic hydrocarbons may still be present. A nomogram is given relating sp. ref. to mol. wt (50-700) for ten hydrocarbon types, curves also relate an. pt of paraffin-naphthene mixtures to mol. wt sp. ref., and H₂ content. Estimation of the average no. of naphthene rings, aromatic rings, and paraffin chains can be made from a knowledge of d_4^{20} , n_D^{20} , mol. wt, and an. pt of the hydrogenated oil and of the an. pt prior to hydrogenation. The usual value of 0.85 is taken for multiplying the difference in an. pt before and after hydrogenation in order to calculate aromatic rings, although evidence has been obtained that in certain

COMMON ELEMENTS

MATERIALS INDEX

ASB-314 METALLURGICAL LITERATURE CLASSIFICATION

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|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

W. A. M. W.

PA - 2/1, 1923

USDA/Chemistry - Petroleum
Chemistry - Catalysis

May 49

"Catalytic Conversion of Pentamethylene Hydrocarbons Under Hydrogen Pressure," I. A. Maslov, *ibid.* 3 3/4 pp

"Dok Ak Nauk SSSR" Vol LXVI, No 3

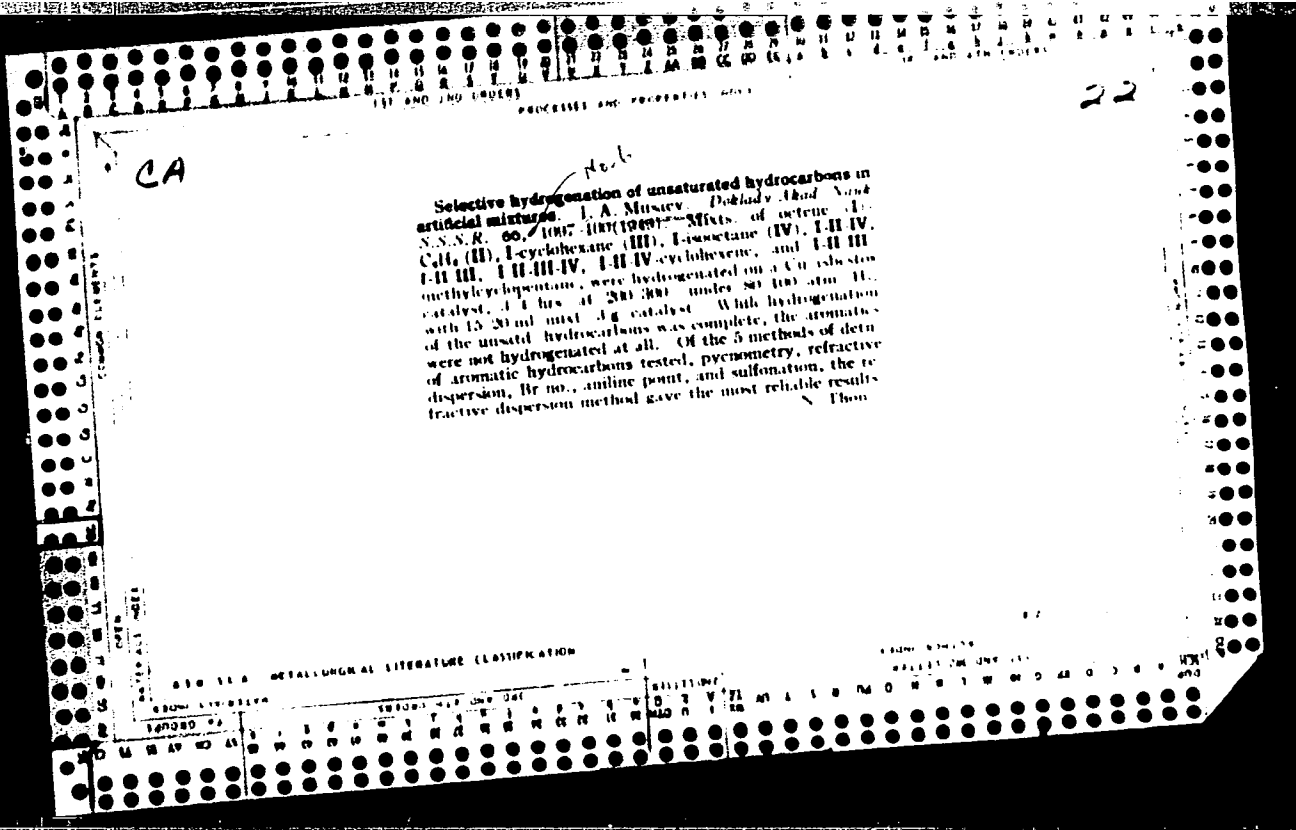
Experiments show a break in the five-member ring of cyclopentamethylene at temperatures above 400° and an initial hydrogen pressure of 120 atm using $H_2Al_2O_3$ as a catalyst. Gives basic products of conversion and decomposition. Notes a certain amount of aromatic hydrocarbons in the 40-71°

USDA/Chemistry - Petroleum (Contd)

92/19723
May 49

Fraction. Conversion into paraffin hydrocarbons with the same number of carbon atoms can occur at lower oxygen pressures. Submitted by April 8. S. Maslov, 12 Mar 49.

92/19723



MUSAYEV, I. H.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Petroleum, Lubricants, and Asphalt

~~Analysis of hydrogenation of aromatic hydrocarbons~~
 Musayev and G. D. Galperin, *Trudy Gosnaukhizh. Inst. Neft. S.S.S.R.*, No. 2, 244-54 (1950).—Hydrogenation in an analytical unit designed by the authors with N. D. Zelinskii's Ni + Al₂O₃ catalyst (*C.A.* 18, 2885) at 100-120 atm. and 200-300° converts the following aromatic hydrocarbons into the corresponding hydroaromatic compds. phenylhexane, phenyldecane, diphenylhexane, methylpropyl-1,2-benzofabene, cyclohexyldiphenylmethane, dicyclohexylbenzene, 1-(methylcyclohexyl)naphthalene, 1,4-dimethyl-2,5-dicyclophenylbenzene, diphenylfulvene, triphenylmethane, tricyclohexylbenzene, fluorene, acenaphthene, anthracene, phenanthrene. Neither isomerization nor closing nor rupture of the 5- and 6-membered rings in any of the compds. was indicated by physicochem. measurements, and in particular by the agreement between exptl. and theoretical specific refractions of the products. A "cuprated asbestos" catalyst (*C.A.* 33, 8563¹) was found to hydrogenate selectively at 100-120 atm. and 200-300° all aliphatic and alicyclic bonds, without attacking aromatic rings. The study of kerosene-oil fractions of Yuruk kos-chagyl naphtha. *Ibid.* 255-63.—The application of the above method to a petroleum fraction, mol. wt. 185-633, and a refractometric analysis of the products proved the no. of rings to increase gradually from 1 to 3. Practically no hydrocarbons with strongly stressed bonds (e.g., of the type of triphenylmethyl) were found after hydrogenation, and the more accurate, simple, and rapid refractometric analysis is preferable to the combustion detn. of C and H. W. M. Sternberg

WMS
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Methylcyclopentane from cyclohexanol. I. A. Musayev

and V. V. Shchekin *Doklady Akad. Nauk SSSR* **74**, 733 (1959). Cracking of cyclohexanol on a Houdry-type dimmosilicate catalyst at 400°, 0.71 l. catalyst/hr., for 60 min., gave 78.6% hydrocarbons, 17.4% H₂O, and 4.0% gas, tar, and losses. Compn. of the hydrocarbons: fraction b < 75°, 57.7%; b > 75°, 42.0%, for the fraction b < 75°, beginning to b 67°, mol. wt. 113.1, d 0.7518, unsatd. 19.9%. Very close results were obtained at 375° in 75 min. With cyclohexene as the initial reactant, at 340°, 1.2 l. catalyst/hr., 50 min., the yield of hydrocarbons was 94.5%, fraction b < 75°, 57.1%, b > 75°, 42.9%, in the lower boiling fraction (68-75°, unsatd. 24.0%). Hydrogenation of the product from cyclohexanol on Pt on C at 120° gave pure methylcyclopentane, the yield with respect to cyclohexanol is approx. 45%, and with respect to cyclohexene, approx. 50%. This process is considerably cheaper than either the production of methylcyclopentane from adipic acid or by hydrogenation of C₆H₈ under pressure on MoS₂.

N. Thon

1951

