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Determination of lanthanum... S/032/62/028/006/013/025
B101/B138

Ce_2O_3 does not affect Y determination. A laboratory assistant is able to analyze 10 - 15 samples three times each during one shift.

ASSOCIATION: Kirgizskiy gosudarstvennyy universitet (Kirgiz State University)

Card 2/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BELYAYEV, V.P.; KALINACHENKO, V.R.; KUZ'MIN, N.M.; YAKIMENKO, L.M.; ARS[illegible], V.M.; RUBENCHIK, Yu.I.; SHEVKUN, I.G.; SHKLOVER, L.P.; BURAVLEV, Yu.M.; PEREPELKINA, M.A.; USTINOVA, V.I.; NEUYMINA, G.P.; ENGEL'SHT, V.S.; TRAPITSYN, N.F.; BULANOV, Yu.A.

Exchange of experience. Zav.lab. 28 no.6:685-687 '62. (MIRA 15:5)

1. Khimicheskiy zavod imeni Voykova (for Shklover). 2. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov (for Buravlev, Perepelkina, Ustinova, Neuymina). 3. Kirgizskiy gosudarstvennyy universitet (for Engel'sht, Trapitsyn, Bulanov). (Spectrum analysis)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

ZAYCHIK, Isay Yur'yevich, inzh.; USOV, Sergey Nikolayevich, inzh.; CHISTYAKOV N.I., doktor tekhn. nauk, prof., retsenzent; BULANOV, Yu.A., prepodavatel', inzh., retsenzent; BRAMMER, Yu.A., kand. tekhn. nauk, nauch. red.; BASAVINA, Ye.V., red.

[Textbook on amplifying and radio receiving devices] Zadachnik po usilitel'nym i radiopriemnym ustroistvam. Moskva, Vysshaia shkola, 1965. 315 p. (MIRA 18:11)

1. Moskovskiy elektrotekhnicheskiy institut svyazi (for Chistyakov). 2. Moskovskiy tekhnikum avtomatiki i telemekhaniki (for Bulanov).

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

ACCESSION NR: AP4042620 S/0096/64/000/008/0054/0057

AUTHOR: Gulyayev, V. N. (Candidate of technical sciences); Tseytlin, V. Z. (Candidate of technical sciences); Ryabova, L. I. (Engineer); Talov, N. P. (Engineer); Bulanov, Yu. P. (Engineer)

TITLE: Effect of the duration of heating on the structure and properties of chromium-manganese-nickel steels

SOURCE: Teploenergetika, no. 8, 1964, 54-57

TOPIC TAGS: chromium manganese nickel steel, austenitic heat resistant steel, low nickel steel, austenitic steel, steel aging, steel corrosion, austenitic steel steam pipeline, OKh14N3G11AB steel, OKh18N5G12AB steel, 1Kh14N3G14T steel, 1Kh18N9T steel

ABSTRACT: In a search for substitutes for 1Kh18N9T (AISI321) steel in high-temperature steam service, the structure, phase composition, mechanical properties, and susceptibility to intergranular corrosion of three heat-resistant, stainless, low-nickel steels have been investigated after aging at 500, 550, and 650C for up to 2000 hr. Induction-melted ingots of the OKh14N3G11AB steel, OKh18N5G12AB steel,

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ACCESSION NR: AP4042620

and 1Kh14N3G14T steel were forged and air cooled from 1050C. In the 20—650C temperature range, the strength of the new steels in the initial state was equal to or higher than that of 1Kh18N9T steel. The room-temperature ductility of all the steels except OKh18N5G12AB was higher than that of 1Kh18N9T steel. At room temperature, OKh14N3G11AB steel had a notch toughness of 14—19 kgm/cm^2, OKh18N5G12AB steel, of 7—13 kgm/cm^2, and 1Kh14N3G14T steel, of 26—32 kgm/cm^2. Aging of Cr-Mn-Ni steels at 500C or higher produced diffusional decomposition of the supersaturated solid-solution austenite with the precipitation of chromium and manganese carbides and nitrides, predominantly along the grain boundaries. The diffusional decomposition of austenite of nitrogen-containing Cr-Mn-Ni steels induces hot brittleness in them, particularly in OKh18N5G12AB steel, whose notch toughness dropped to 2—4 kgm/cm^2 after 2000-hr aging at 650C. The steels became susceptible to intergranular corrosion after about 100-hr aging at 500C; however, the corrosion resistance gradually increased after about 1000-hr aging. In general, the investigated steels should not be used at temperatures higher than 460—470C when the operating conditions might promote intergranular corrosion by water and/or steam. In the absence of such a medium, an operating

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ACCESSION NR: AP4042620

temperature as high as 500C can be permitted, with no changes occurring in the structure or mechanical properties. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: VTI; TsNIIChM

SUBMITTED: 00 ATD PRESS: 3083 ENCL: 00

SUB CODE: MM NO REF SOV: 004 OTHER: 000

Card 3/3

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

ACCESSION NR: AP4040987

S/0279/64/000/003/0145/0147

AUTHORS: Gulyayev, V. N. (Chelyabinsk); Bulanov, Yu. P. (Chelyabinsk)

TITLE: Phases of Ti_nNi_mC in steels 1Kh18N12T and 1Kh18N9T

SOURCE: AN SSSR. Izvestiya. Metallurgiya i gornoye delo, no. 3, 1964, 145-147

TOPIC TAGS: steel, titanium, nickel, carbon, grain structure, phase property, sigma phase/ RKD x ray camera, 1Kh18N12T steel, 1Kh18N9T steel

ABSTRACT: With the aim of determining the causes of damage of straight tubes made of steels 1Kh18N12T and 1Kh18N9T and of overcoming the discrepancies encountered in the behavior of tubes with fine grain structure, the authors conducted a study of the phase properties of the tube metals after keeping them for 10 000 to 15 000 hours at a temperature between 600 and 615C. The phase properties were studied by means of electrochemical separation of the phases and subsequent chemical and radiographic analyses. For the differentiation of the phase components, anode dissolution was used in two component electrolytes. For strong acids 250 ml HCl + 150 ml H_2O + 5 g oxalic acid was used at a surface current of 0.03-0.05 amp/cm^2. For weak acids, 200 ml HCl + 1000 ml H_2O + 5 g oxalic acid or 350 g KCl + 950 ml

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ACCESSION NR: AP4040987

H_2O + 50 ml HCl was used at 1 amp/cm^2. The radiographic analysis was performed by the x-ray method using an RKD camera. The results of the dependence of the residual deformation due to creep on the appearing phases showed the role of Ti_nNi_mC. For a residual deformation of 0.1-1.56%, the phases observed were TiC, $Me_{23}C_6$ and the sigma phase. For a residual deformation of 2.5-3.13%, Ti_nNi_mC was also observed. For 2.5-12.56%, only TiC, sigma, and Ti_nNi_mC phases were present. The authors thank the scientific collaborator comrade L. N. Rastorguyev of Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys) for his help in carrying out this work. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 20May63

SUB CODE: MM

NO REF SOV: 007

ENCL: 00

OTHER: 001

Card 2/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

L 15735-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(k)/EWP(b) Pf-4 ASD(m)-3
MJW/JD/HW

ACCESSION NR: AP4047992 S/0096/64/000/011/0068/0071

AUTHORS: Gulyayev, V. N. (Candidate of technical sciences); Bulanov, Yu. P. (Engineer)

TITLE: Failure of steam superheat pipes made from steels 1Kh18N12T and 1Kh18N9T

SOURCE: Teploenergetika, vol. 11, no. 11, 1964, 68-71

TOPIC TAGS: steel pipe failure, nickel steel, titanium steel, steam pipe/1Kh18N12T steel, 1Kh18N9T steel, EI 257 steel

ABSTRACT: In order to determine the cause (or causes) of a number of failures in steam superheat pipes and elbows (made of Kh18N12T and 1Kh18N9T steels) at an operating temperature of 610C, 23 damaged and undamaged pipes (32 mm diameter, 5.5 mm wall) were investigated after 11 126-15 505 hours of operation. The physical properties (impact strength, elongation, tensile strength) as well as grain size and contents of different phases were investigated with the following conclusions: 1) the properties of the pipe materials, which satisfy the requirements of technical specifications ChMTU 2884-51, sometimes do not correspond to the properties of the material which was used in the experiments on which the original recommendation of steel 1Kh18N12T (1Kh18N9T) for this application was based; 2) failure can occur

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L 15735-65
ACCESSION NR: AP4047992

even though the requirements of technical specifications ChMTU-2884-51 are satisfied and even though the operating pressures and temperatures do not exceed the design values. A major reason for these failures is the separation of the Ti_nNi_mC phase; 3) structural instability in pipes made from the above steels is caused by small grain size (7, 8 units and smaller on the grain size scale); 4) pipes made of 1Kh18N12T steel offer no advantages over pipes made of 1Kh18N9T and thus represent a useless waste of valuable Ni; 5) during repairs, pipes made of 1Kh18N9T should be used after inspection of grain size (4-6 units), and should have carbon and titanium content just sufficient to produce TiC; 6) in view of the detrimental effect of Ti_nNi_mC, the necessity of alloying with titanium should be reviewed. Orig. art. has: 3 figures.

ASSOCIATION: VoF VTI

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 007

OTHER: 001

Card 2/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

L 10302-67 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AP7003103 SOURCE CODE: UR/0096/66/000/006/0042/0043

AUTHOR: Krutasova, Ye. I. (Candidate of technical sciences); Venkova, L. F. (Engineer); Bulanov, Yu. P. (Engineer)

ORG: none

TITLE: Structure and properties of tube metal made of 12Kh2MFSR steel after long aging

SOURCE: Teploenergetika, no. 6, 1966, 42-43

TOPIC TAGS: metal tube, steel microstructure

ABSTRACT: Results are presented from an investigation of the change in properties of 12Kh2MFSR tube steel after long aging at high temperatures under laboratory and usage conditions in units with ultrahigh steam parameters. Photographs of the microstructure of the metal are presented. Investigation showed that after aging up to 10,000 hr at 620°C, a new phase is separated at the boundaries of the ferrite grains which apparently increases the resistance of the steel to the action of high temperatures. At 620°C in an atmosphere of air and fuel gases, scale formation proceeds rapidly on this steel. Orig. art. has: 5 figures and 2 tables. [JPRS: 37,415]

SUB CODE: 13, 11 / SUBM DATE: none

Card 1/1 UDC: 621.772.4.620.183.001.45

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, A. I.

USSR/Physics - Coercive Force Aug 52

"Problem of Determining the Coercive Force of Non-uniformly Magnetized Samples," A. I. Bulanova, M. N. Mikhnevich, V. B. Perets.

"Zhur Tekh Fiz" Vol 22, No 8, pp 1325-1333

Ballistic methods were applied to measurements of coercive force of nonuniformly magnetized cylindrical samples. Compares exptl mental and theoretical results. States that choice of the correct method of measurement is dictated by conditions and purpose. Indebted to Prof R. I. Yanus. Received 28 Jun 50.

226T99

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 3, p. 158 (USSR) 112-3-6146

AUTHOR: Bulanova, A.I., Veksler, A.Z., Rudnyy, N.M.

TITLE: Investigation of the Wattmeter Method of Measuring Losses in Simultaneous Magnetization of Electric Steel by Static and Dynamic Fields (Issledovaniye vattmetrovogo metoda izmereniya poter'pri odnovremennom namagnichivanii elektrotekhnicheskoy stali postoyannym i peremennym polyami)

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1956, Nr 29 (89), pp. 127-138

ABSTRACT: By using the wattmeter method in investigating installations for determining losses in double magnetization, using individual feed circuits for the sample under test and a common winding for direct and alternating currents, it was established that the common winding gave the smallest errors in measuring losses. The variable component of field intensity is measured by a special electrodynamic ammeter with a compensating winding, through which passes

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, A.I.

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215

Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleyeva

Referaty nauchno-issledovatel'skikh rabot; sbornik No. 2 (Scientific Research Abstracts; Collection of Articles, Nr 2) Moscow, Standartgiz, 1958. 139 p. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, mer i izmeritel'nykh priborov.

Ed.: S. V. Reshetina; Tech. Ed.: M. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers, and engineers engaged in developing standards, measures, and gages for the various industries.

COVERAGE: The volume contains 128 reports on standards of measurement and control. The reports were prepared by scientists of institutes of the Komitet standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR (Commission on Standards, Measures, and Measuring Instruments under the USSR Council of Ministers). The participating institutes are: VNIIM - Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni D.I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D.I. Mendeleyev) in Leningrad; Sverdlovsk branch of this institute; VNIIK - Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta standartov, mer i izmeritel'nykh priborov (All-Union Scientific Research Institute of the Commission on Standards, Measures, and Measuring Instruments), created from MGIMIP - Moskovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Moscow State Institute of Measures and Measuring Instruments) October 1, 1955; VNIIFTRI - Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy (All-Union Scientific Research Institute of Physicotechnical and Radio-engineering Measurements) in Moscow; KhGIMIP - Khar'kovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Khar'kov State Institute of Measures and Measuring Instruments); and NGIMIP - Novosibirskiy gosudarstvenyy institut mer i izmeritel'nykh priborov (Novosibirsk State Institute of Measures and Measuring Instruments). No personalities are mentioned. There are no references.

(cont.) SOV/2215

Rudnyy, N.M., and A.I. Bulanova (Sverdlovsk Branch of VNIIM). Dividing Losses Between Hysteresis and Eddy Currents in Electrical Steel 105

Rudnyy, N.M., A.I. Bulanova, and A.Z. Veksler (Sverdlovsk Branch of VNIIM). Studying the Effect of the Scattering Current on Errors in Measuring Losses and on the Main Magnetization Curve 106

Optical Measurements and Photometry (Romanova, M.F., Editor, Professor)

Strakun, G.I. (VNIIM). Studying Lenses for Checking Diopter Meters 107

Strakun, G.I. (VNIIM). Effect of Aberrations of Objective Lenses Used to Photograph Interference Patterns on the Distribution of Illumination over the Images of Rings of Equal Inclination 107

Strakun, G.I. (VNIIM). Requirements of Optical Systems Used to Photograph Rings of Equal Inclination, and Principles for Calculating a System Satisfying These Requirements 109

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, A.I.

and Voltmeters at High Frequencies 97

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Rumyantsev, A.S., and Ye. P. Dubovik (VNIIM), and A.A. Chukhlantsev (Sverdlovsk Branch of VNIIM). Developing Methods and Standard Apparatus for Testing Direct-Current Transformers Type I-58 Under Operating Conditions at 70 Kiloamperes 102

Lizogub, M.S., V.I. Zingerman, and Ye. Ye. Bogatyrev (KhGIMIP). Developing and Studying Apparatus for Measuring Magnetic Fields by the Nuclear Magnetic Resonance Method 102

Rudnyy, N.M., A.Z. Veksler, and A.I. Bulanova (Sverdlovsk Branch of VNIIM). Method of Measuring Hysteresis Losses and Eddy Currents in Double Magnetization 104

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86876

24.2200(1134,1158,1160)

S/105/61/000/001/003/007
B012/B059

AUTHORS: Rudnyy, N. M., Veksler, A. Z., and Bulanova, A. I.

TITLE: Measurement of the Losses in Ferromagnetic Materials Simultaneously Magnetized by Fields of Various Frequencies

PERIODICAL: Elektrichestvo, 1961, No. 1, pp. 48-51

TEXT: In the present paper the method of loss measuring which was worked out by the authors is given for the most general case of a combined magnetization where the frequencies of the various field components are not multiple and not zero. It is shown that the method chosen in the case of combined magnetization for loss measurement should guarantee the measurement of the mean power, whereas the measuring instrument should be sufficiently inert not to respond to fluctuations of the measured quantity. The conditions on which losses can be measured may be given in various ways. The most expedient ones are: 1) frequencies f_1, f_2 etc. and the amplitudes B_{m1}, B_{m2} etc. of the respective components of magnetic induction are given;

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Measurement of the Losses in Ferromagnetic Materials Simultaneously Magnetized by Fields of Various Frequencies

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E012/B059

2) f_1 and f_2 (or f_1 and f_2-f_1), highest and mean field strength amplitude, and mean value of the induction amplitude are given. The first way is more universal, the second one, however, the most agreeable in the case of magnetization by means of a modulated current. The device for loss measurement in the case of combined magnetization is based on the method of watt-meter operation. Fig. 2 illustrates the basic layout of this device. The low-frequency voltage component (up to 200 cps) can be measured by means of this instrument. A phase-sensitive voltmeter with two valves (Fig. 3) is used for measuring the voltage components of higher frequency. The device described here was used for measuring the losses in the cases of combined and of ordinary magnetization. It was found that the errors in loss measuring in the case of combined magnetization are greater than the errors in loss measurement by means of the watt-meter method in the case of raised frequencies and ordinary magnetization (Ref. 3). They amount to ± 5%. They are due to errors in the measurement of the secondary voltage by means of the phase-sensitive voltmeter.

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Measurement of the Losses in Ferromagnetic Materials Simultaneously Magnetized by Fields of Various Frequencies

S/105/61/000/001/003/007
B012/B059

There are 4 figures and 3 references: 2 Soviet.

ASSOCIATION: Sverdlovskiy filial nauchno-issledovatel'skogo instituta metrologii im. Mendeleyeva (Sverdlovsk branch of the Scientific Research Institute of Metrology imeni Mendeleyev)

SUBMITTED: February 2, 1960

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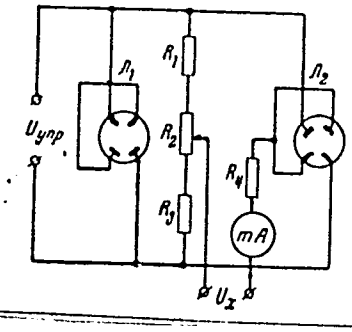

Fig. 3

Legend to Fig. 2: Basic diagram of the device for loss measuring with simultaneous magnetization by means of fields of various frequencies. 1) Sound generator, 2) sound generator, 3) amplifier, 4) phase shifter, 5) phase shifter, 6) phase-sensitive voltmeter, 7) voltmeter, 8) wattmeter, 9) amplifier, 10) wattmeter, 11) voltmeter, 12) investigated

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sample, 13) lever switch.

Legend to Fig. 3: Connection of the phase-sensitive voltmeter for 10 volts. R_1 = 6 kiloohms, R_2 = 0.5 kiloohms, R_3 = 6 kiloohms, R_4 = 1210 ohms, 1) control voltage.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

VEKSLER, A.Z.; BULANOVA, A.I.; FALALEYEVA, T.N.

Effect of inhomogeneous magnetization. Nov.nauch.-issl.rab.po.met. VNIIM no.5:17-19 '64. (MIRA 18:3)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, [illegible] I.; VEKSLER, A.Z.

Dependence of the magnetic path length on the field intensity (experimental study). Nov.nauch.-issl.rab.po metr. VNIIM no.5:21-25 '64. (MIRA 18:3)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

RAFANOVA, R.Ya.; BULANOVA, A.V.

Studying chemical composition of an essential oil prepared from fresh and dried patchouli. Trudy VNIISNDV no.2:76-77 '54.

(MLRA 10:7)

(Essences and essential oils) (Patchouli)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, A.V.

RAFANOVA, R.Ya.; BULANOVA, A.V.

Patchouli oil obtained from distillation water. Trudy VNIISNDV no.2:77-78 '54. (MLRA 10:7)
(Essences and essential oils) (Patchouli)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

RAFANOVA, R.Ya.; BULANOVA, A.V.

Artificial drying of patchouli. Trudy VNIISNDV no.2:156-158 '54. (MLRA 10:7)

(Patchouli)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

RAFANOVA, R.Ya.; BULANOVA, A.V.

Clonal lavender oil. Trudy VNIISNDV no.4:93-98 '58.
(MIRA 12:5)

(Lavender oil)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

RAFANOVA, R.Ya.; BULANOVA, A.V.

Chromatographic method for recovering linalyl acetate from essential oils of muscatel sage and lavender. Trudy VNIISNDV no.4:98-100 '58. (MIRA 12:5)
(Essences and essential oils)
(Linaloöl)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, A.V.; RAFANOVA, R.Ya.

Composition and chemical transformations of Russian patchouli oil. Trudy VNIISNDV no.4:100-104 '58. (MIRA 12:5)
(Essences and essential oils)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

GUSEVA, K.A.; RAFANOVA, R.Ya., kand.khim.nauk; BULANOVA, A.V.; VIREZUB, S.I.

Isolating sclareol and obtaining products from it having the odor of amber. Masl.-zhir.prom. 25 no.3:29-30 '59. (MIRA 12:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh i natural'nykh dushistykh veshchestv.
(Sclareol) (Perfumes, Synthetic)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BAG, A.A.; BLIZNYAK, N.V.; BULANOVA, A.V.; KUSTOVA, S.D.; CHERKAYEV, V.G.

Odorous substances from sclareol. Report No.2: Possibility for converting the lactone 1,1, 6, 10-tetramethyl-6-oxy-5-methylene-carboxydecalin into 1, 1, 6, 10-tetramethyl-6-oxy-5 (β-oxy)-ethyldecalin by catalytic hydrogenation. Trudy VNIISNDV no.5: 14-16 '61. (MIRA 14:10)

(Odorous substances) (Naphthalene)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, F.G.

Fauna and ecology of gadflies (Diptera, Tabanidae) in the Udmurt A.S.S.R. Med.paraz.i paraz.bol. no.1:36-38 '62. (MIRA 15:5)

1. Iz kafedry biologii Izhevskogo meditsinskogo instituta.
(UDMURT A.S.S.R.—HORSEFLIES)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, F. G.

Horseflies in the Udmurt A.S.S.R. Zool. zhur. 42 no.4:627-628 '63. (MIRA 16:7)

1. Department of Biology, Izhevsk Medical High School.
(Udmurt A.S.S.R.--Horseflies)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, G.V.

Pseudotuberculosis in rodents in a large city. Tez.i dokl.konf.Irk. gos.nauch.-issl.protivochum.inst. no.1:9-10 '55. (MIRA 11:3)
(RODENTIA--DISEASES AND PESTS) (LUNGS--DISEASES)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, G.V.

Some epidemiological and clinical peculiarities of plague in its natural marmot foci in Bayan Khongor District of the Mongolian People's Republic. Izv.Irk.gos.nauch.-issl.protivochum. inst. 20:77-85 '59. (MIRA 13:7)
(BAYAN KHONGOR DISTRICT (MONGOLIA)--PLAGUE)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

NEVEL'SON, M.I.; NIKITIN, A.I.; YANISHEVSKIY, V.V.; BOYKO, G.G.; KUZNETSOV, N.I.; BULANOVA, I.A.; GORSHKOV, V.I.; KATSMAN, I.A.; KUKAYEVA, YE.V.; RYZHOVA, V.V.; TUROBOVA, V.I.; CHEREDEYEVA, Ye.M.; KOSHELKIN, M.V.

Development of highly efficient ventilator models ORGRES operating according to a 0.68-161° system for electric power plants. Prom. energ. 18 no.7:8-9 Jl '63. (MIRA 16:9)

(Electric power plants--Electric equipment)
(Fans, Electric)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

L 16916-65 EWT(m) DIAAP

ACCESSION NR: AP4047846 S/0186/64/006/005/0621/0623

AUTHOR: Bulanova, I. D.; Vorob'yev, A. M.

B

TITLE: Extraction of protactinium from hydrochloric acid solutions by tributylphosphate

14

SOURCE: Radiokhimiya, v. 6, no. 5, 1964, 621-623

TOPIC TAGS: protactinium extraction, tributylphosphate, protactinium solvation

ABSTRACT: The authors call attention to the fact that, together with the higher alcohols and certain ketones, tributylphosphate (TBP) is an effective solvent for protactinium. The purpose of the present article was to determine, experimentally, the composition of a protactinium complex extracted from hydrochloric acid solutions by means of TBP. The experimental technique employed is not described in this paper. The results of the study are presented in tabular and graph form. The authors found that at $[H^+]$ and $[Cl^-]$ concentrations from 2 to 6 M and $\mu = 5-6$, protactinium was extracted into the organic phase in the form of $HPaOCl_4$, solvated by 2 molecules of TBP. Orig. art. has: 3 tables and 4 figures.

Card 1/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

L 16916-65

ACCESSION NR: AP4047846

ASSOCIATION: None

SUBMITTED: 01Feb64

ENCL: 00

SUB CODE: IC, GC

NO REF SOV: 002

OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

ACCESSION NR: AP4047847 S/0186/64/006/005/0623/0626

B

AUTHOR: Bulanova, I.D.; Vorob'yev, A. M.

TITLE: Extraction of protactinium from hydrochloric acid solutions by methylisobutyl ketone.

SOURCE: Radiokhimiya, v. 6, no. 5, 1964, 623-626

TOPIC TAGS: protactinium extraction, methylisobutyl ketone, thorium decay

ABSTRACT: While it is known that the most effective extracting agents for protactinium are the higher alcohols and certain ketones, a number of problems remain to be solved in this area, there being, in particular, no consensus with respect to the composition of the extracted complexes. There are, moreover, no available data in the technical literature regarding the solvation of protactinium compounds by methylisobutyl ketone. The authors therefore studied protactinium extraction from hydrochloric acid solutions by methylisobutyl ketone and investigated the extracted complexes. The protactinium-233 was derived from 2 g of metallic thorium irradiated for 2 days in a reactor with a stream of thermal neutrons (10^{11} neutrons/cm^2·sec); the irradiated thorium was then dissolved in hydrochloric acid, with the protactinium-233 being isolated by extraction methods. The isotope

Card 1/3

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ACCESSION NR: AP4047847

obtained by the techniques described in the paper was sufficient for 5 months' work, with the protactinium subjected to supplementary purification as it decayed. The initial concentration of Pa in the aqueous phase was 10^{-12} M, with equilibrium achieved after 2-5 minutes by open-tube shaking at room temperature. Phase separation after equilibrium was accelerated by centrifugation. The method for determining the isotope content is described in detail in the article. The Pa distribution factor was calculated as the ratio of the measured protactinium concentrations (activity per unit volume in the organic and aqueous phases). A full discussion of the results of the experiments conducted by the authors is given in the article; they may be summarized as follows: 1. The data obtained confirm the effectiveness of methylisobutyl ketone as a solvent for the quantitative extraction of Pa 233 from hydrochloric acid solutions. 2. With $[H^+]$ and $[Cl^-]$ concentrations of from 2 to 6 M and $\mu = 5-6$, protactinium is extracted into the organic phase in the form of H_2PaOCl_5. Orig. art. has: 3 tables and 4 figures.

Card 2/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

ACCESSION NR: AP4047847

ASSOCIATION: None

SUBMITTED: 01Feb64

ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 001

OTHER: 004

Card 3/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

MASLENNIKOV, K.N., nauchnyy sotrudnik; ZAYTSEVA, Ye.V., nauchnyy sotrudnik; KANTER, D.TS., nauchnyy sotrudnik; OBUKHOVA, R.N., nauchnyy sotrudnik; BULANOVA, I.G., nauchnyy sotrudnik; GORDEYEV, N.A.; SURNINA, N.M.

"Xylital 0-15" preparation for the avivage of viscose staple fibers produced by the cotton spinning method. Tekst.prom. 24 no.1: 40-43 Ja '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (for Maslennikov, Zaytseva, Kanter, Obukhova, Bulanova). 2. Glavnyy inzh. Yakhromskoy pryadil'no-tkatskoy fabriki (for Gordeyev). 3. Zaveduyushchiy proizvodstvennoy laboratoriyey Yakhromskoy pryadil'no-tkatskoy fabriki (for Surnina).

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, I.V.

KASHINTSEVA, N.S.; GIL'GUT, Ye.A.; BULANOVA, I.V.

Study of tetanus toxins and anatoxins grown on casein media. Zhur. mikrobiol.epid. i immun. 28 no.4:10-14 Ap '57. (MLRA 10:10)

1. Iz Institute epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR.

(TETANUS
anatoxins & toxins grown on casein medium. qualities)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

USSR / Microbiology. Anaerobic Bacilli. F-6

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72199.

Author : Kashintseva, N. S.; Gil'gut, Ye. A.; Bulanova, I. V.

Inst : Not given.

Title : Concentrated Purified Tetanus Anatoxin and Its Immunological Properties.

Orig Pub: Zh. mikrobiol., epidemiol. i immunobiologii, 1957, No 10, 89-94.

Abstract: No abstract.

Card 1/1

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, K. N.; Gassovsky, L. N.; Shvarts, Z. M.

The State Optical Inst (G.O.A.) Leningrad, Min Defense USSR

"Dependence of light dams of the eye on the size of colour sources of light"

SOURCE: Doklady Akademii Nauk, Vol 58, No 6, 1947

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, K. R.

Spectral sensitivity of the central part of the retina. K. R. Bulanova (C. R. Acad. Sci. U.R.S.S., 1953, 91, 1333—1336).—Absolute thresholds for a 1′ test field in the dark-adapted eye were determined at λ 435, 546, 579, and 700 mμ. and locations 7′, 15′, 22′, 37′, 1° 15′, 2° 30′, 5°, and 10° from the foveal centre.

G. S. BRINDLEY.

RH
10-12-54

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, K. N.

USSR/Physics - Light Threshold, Eye 1 Nov 53

"The Light Thresholds in the Foveal Portion of the Retina," K. N. Bulanova

DAN SSSR, Vol 93, No 1, pp 29-30

Purpose is to det the nature of the light thresholds (i.e. the light-perception at threshold) and to measure them quantitatively in the fovea. Notes that the existence or non-existence of an achromatic threshold in the fovea is still in doubt (N. I. Pinegin, Probl Fiziol Optiki (Problems of Physiological Optics), No 8 (1953); K. N. Bulanova,

275T91

ibid.). Cites related study of L. N. Gassovskiy, K. N. Bulanova, Z. M. Shvarts (DAN, 58, No 6, 1947). Presented by Acad A. N. Terenin 3 Sep 53.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

USSR/ Medicine - Biophysics

Card 1/1 : Pub. 22 - 9/41

Authors : Bulanova, K. N., and Luizov, A. V.

Title : Threshold duration of blacking-out a point source of light

Periodical : Dok. AN SSSR 98/2, 205-206, Sep 11, 1954

Abstract : Experiments with the threshold duration of the blacking-out of a periodical point-light source with respect to its brightness and the duration of sparks are described. Two references (1949 and 1953). Table.

Institution : ...

Presented by : Academician A. N. Terenin, April 12, 1954

Translation D-177062, 29 Nov 54

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, K.N.; LUIZOV, A.V.

Influence of certain factors on the visibility of flashlights in navigation. Dokl. AN SSSR 109 no.3:511-514 Jl '56. (MLRA 9:10)

1.Predstavleno akademikom A.N. Tereninym.
(OPTICS, PHYSIOLOGICAL)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

612.843.613

2

2897. EFFECT OF SOME FACTORS ON THE VISIBILITY OF FLASH LIGHTS. K.N.Bulanova and A.V.Luizov.

Dokl. Akad. Nauk SSSR, Vol. 109, No. 3, 511-14 (1956). In Russian.

It was found that the length of period T of short periodic flashes has no effect on the relationship between the threshold brightness of the flash and its duration, at least within the T range 1-5 sec. For all background brightness values investigated the dependence of the threshold brightness quantity y and the duration of the flash τ is $y = a\tau + b$ ($y = E\tau$, i.e. the product of brightness and the duration at the visibility threshold). The parameters a and b depend almost exclusively on background brightness (and very little on the colour).

F.Lachman

Med

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

LUIZOV, A.V.; BULANOVA, K.H.

Effective brilliance depending on background brightness. Svetotekhnika 3 no.7:17-19 Jl '57. (MLRA 10:8)

1.Gosudarstvennyy opticheskiy institut.
(Photometry)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

LUIZOV, A.V., kand.fiz.-mat. nauk; BULANOVA, K.N., inzh.

Threshold brilliance depending on dimensions of the source and flash duration. Svetotekhnika 4 no.10:17-20 O '58. (MIRA 11:10)

1.Gosudarstvennyy opticheskiy institut.
(Light)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

LUIZOV, A.V., kand.fiz.-mat.nauk; BULANOVA, K.N., inzh.

Threshold difference in the brillance of consecutive flashes. Svetotekhnika 5 no.7:22-25 Jl '59. (MIRA 12:9)
(Lightships)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

MIKHALEVSKAYA, Ye.S.; VOLKOV, O.S.; BULANOVA, L.P.; BERKOVICH, T.M.

Effect of the water-cement factor on the kinetics of cement and asbestos cement hydration. Trudy NIIAsbesttsementa no.15:31-37 '62. (MIRA 16:7)

(Cement) (Asbestos cement)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BERKOVICH, T.M.; ISAYEVA, O.A.; BULANOVA, L.P.; LYAPINA, R.V.

Capillary water saturation of asbestos cement and its effect on the reinforcing properties of chrysotile-asbestos fibers. Trudy NIIAsbesttsementa no.19:3-20 '65.

(MIRA 18:9)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BURCHAK, G.P., dots.; BULANOVA, N.F., assistent; ZYLEV, B.V., dots.; PRAVDIN, Zh.L., dots.; KUROVA, A.V., red.

[Methods manual on the solution of problems in theoretical mechanics; dynamics] Metodicheskoe posobie po resheniiu zadach teoreticheskoi mekhaniki; dinamika. Moskva, Mosk. in-t inzhenerov zhel-dor. transp., 1962. 163 p. (MIRA 18:8)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, N.K.

BULANOVA, N.K.; KERTSMAN, L.I.; PLISETSKAYA, M.A.; SOKHOR, N.M.

Medical and sanitary services for industrial workers of Leningrad District in Moscow. Zdrav.Ros.Feder. 1 no.6:11-15 Je '57. (MLRA 10:8)

1. Iz sanitarno-epidemiologicheskoy stantsii Leningradskogo rayona Moskvy

(MOSCOW--INDUSTRIAL HYGIENE)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, N.K.; PLISETSKAYA, M.A. (Moskva)

Improvement of working conditions on the vibrating conveyer section. Gig.truda i prof.zab. 3 no.4:42-44 Jl-Ag '59. (MIRA 12:11)

1. Sanitarno-epidemiologicheskaya stantsiya Leningradskogo rayona.

(CLOCKMAKING AND WATCHMAKING--HYGIENIC ASPECTS)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.

Ca

1195

The effect of blood transfusion on the blood gases in traumatic shock. G. V. Dervir, O. N. Bulanova, and A. G. Stepanenko. *Klin. Med.* (U.S.S.R.) 21, No. 9, 51-60(1943).—Expts. on dogs are reported. After traumatic shock an oxygen deficiency is produced in the venous blood. This causes a shift in the acid-base system, with the appearance of acid substances in the blood, and a lowering of the alk. reserve. The transfusion of massive doses of blood gradually restores a normal balance of the gases and a normal condition of the acid-base system.

S. Gottlieb

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.

BULANOVA, O.N. (Moscow); DERVIZ, G.V., professor, zaveduyushchiy.

Activity of catalase in the blood in leukemias. Klin.med. 31 no.8:46-51 Ag '53. (MLRA 6:11)

1. Biokhimicheskaya laboratoriya TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi.
(Leukemia) (Oxidases) (Blood)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.

Organic acids of blood of animals in the stage of dying from loss of blood and in the consequent restoration of life functions of the organism. O. N. Bulanova (Acad. Med. Sci. U.S.S.R., Moscow). *Biokhimiya* 19, 599-8(1954).—Dogs were subjected to pantopon-ether narcosis and exsanguinated from the femoral artery. Following a given period of "crit. death" they were brought to life by the method of Negovskii. Arterial blood samples were taken under normal conditions, under narcosis, and at various stages of crit. dying and life restoration. Analyses were made at once and also 20 min., 1, 1½, 3, 24, and 48 hrs. later. The org. acids of plasma were detd. electrometrically; lactic acid was detd. by the method of Friedman, *et al.* Increase in the amt. of org. acid becomes evident when the loss of blood is approx. 50%. The increased org.-acid content of the blood plasma persists during the period of clinical death and at the initiation of revivification, regardless of the restoration of the blood circulation and of the application of artificial respiration. The content of org. acids in the blood plasma begins to recede only at the time natural respiration sets in, reaching the normal level about 3 hrs after life restoration. In the majority of expts. the quantity of org. acids in the blood is detd. by the duration of deep hypoxia. Under normal conditions lactic acid constitutes 20% of the org. acids of the blood. During the state of agony it reaches 37%. The quantity of X-acids in the blood plasma markedly increases as the state of hypoxia grows in intensity and exceeds the normal level by 85% at the time independent respiration is restored. B. S. Levine

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.

Twentieth anniversary of the Laboratory of Experimental Physiology of Resuscitation of the Academy of Medical Sciences of the U.S.S.R. Vest.AMN SSSR 12 no.2:79-83 '57. (MIRA 10:10)
(RESUSCITATION)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.; KISELEVA, K.S. (Moskva)

Effect of sodium bicarbonate on the restoration of vital functions after clinical death caused by blood loss. Pat. fiziol. i eksp.terap. 3 no.2:59-67 Mr-Ap '59. (MIRA 12:6)

1. Iz laboratorii eksperimental'noy fiziologii po ozhivleniyu organizma (zav. - prof.V.A.Negovskiy) AMN SSSR.
(CARBONATES, eff.
sodium bicarbonate, on restoration of vital funct. after clin. death induced by desanguination in dogs (Rus))
(RESUSCITATION
eff. of sodium bicarbonate after clin. death induced by desanguination in dogs (Rus))

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.; ZAKS, I.O. (Moskva)

Hypoxia and acid-base equilibrium in prolonged artificial circulation produced by direct heart massage. Pat. fiziol. i eksp. terap. 6 no.6:17-22 N-D'62 (MIRA 17:3)

1. Iz laboratorii eksperimental'noy fiziologii po ozhivleniyu organizma (zav. - prof. V.A. Negovskiy) AMN SSSR.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.; ZAKS, I.O. (Moskva)

Blood substitution and oxidation of the intermediate products of metabolism in resuscitation after clinical death. Pat. fiziol. i eksp. terap. 7 no.4:40-45 Jl-Ag '63. (MIRA 17:9)

1. Iz laboratorii eksperimental'noy fiziologii po ozhivleniyu organizma (zav.- prof. V.A. Negovskiy) AMN SSSR.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.

Hypoxia and acid-base equilibrium in dying from loss of blood under conditions of deep hypothermia and in the subsequent restoration of vital functions following a two-hour clinical death. Pat. fiziol. i eksp. terap. 9 no.2:26-30 Mr-Ap '65. (MIRA 18:5)

1. Laboratoriya eksperimental'noy fiziologii po ozhivleniyu organizma (zav. - prof. V.A.Negovskiy) AMN SSSR, Moskva.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, O.N.; ZAKS, I.O.

Acid-base equilibrium in the organism in dying from hemorrhage and in subsequent restoration of life functions. Pat. fiziol. i eksp. terap. 9 no.5:84-86 S-O '65. (MIRA 19:1)

1. Laboratoriya eksperimental'noy fiziologii po ozhivleniyu organizma (zav. - prof. V.A. Negovskiy) AMN SSSR, Moskva. Submitted September 18, 1963.

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BULANOVA, S.I.; SMULEVICH, V.B.; SHERMAN, A.Sh.

Role of a dispensary for tuberculosis control in the detection of lung cancer. Vop. onk. 11 no.3:85-89 '65.

(MIRA 18:6)

1. Iz protivotuberkuleznogo dispansera No.11 Moskvy (glavnyy vrach - kand. med. nauk A.Sh. Sherman) i 1-go khirurgicheskogo otdeleniya (zav. - doktor med. nauk B.Ye. Peterson) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin).

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5 (4)

AUTHORS: Kazanskiy, B. A., Landsberg, G.S. (Deceased), SOV/62-59-9-15/40
Aleksanyan, V. T., Bulanova, T. A.,
Liberman, A. L., Mikhaylova, Ye. A., Plate, A. F., Sterin, Kh.Ye.,
Ukholin, S. A.

TITLE: Investigation of the Composition of the Fraction With a Boiling Point Between 150 and 250° of the Emba Crude Petroleum

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 9, pp 1612 - 1622 (USSR)

ABSTRACT: An attempt is being made to apply the combined investigation method for benzines (Ref 1) to the investigation of the petroleum fraction with a boiling point between 150 and 250° of the Emba crude petroleum. The petroleum investigated came from the Koschagylskoye deposit. It was proved that this fraction contains 12.6% of aromatic and 13.0% of hexahydroaromatic hydrocarbons. In the aromatic fraction 29 different hydrocarbons were identified. The quantitative division in groups of the aromatic hydrocarbons boiling in this range was carried out with characterization of the arrangement of the side-chains on the benzene ring or the corresponding cyclohexane ring and that for the multicyclic according to the arrangement of the rings. By this method

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Investigation of the Composition of the Fraction With a Boiling Point Between 150 and 250° of the Emba Crude Petroleum SOV/62-59-9-15/40

the authors succeeded in establishing the composition of the aromatic compounds up to 70% and that of the hydroaromatic compounds up to 46%. In the paraffin-naphthene part of the fraction the presence of naphthene with two different substituents in the same carbon atom of the cyclohexane could be established (mixed substitution). The limiting into narrower fractions was possible at the paraffin-naphthenes by investigating the specific gravities, the refractive index and the aniline point of these fractions. In figures 1 and 2 the paraffin-naphthene fractions are identified and tables 1-6 contain the results of the analysis. Table 7 gives the results of the distillation of the paraffin-cyclopentane fraction of the Ligroin applying the coefficient proposed by P. S. Maslov (Ref 11). There are 2 figures, 7 tables, and 11 references, 10 of which are Soviet.

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Investigation of the Composition of the Fraction With a Boiling Point Between 150 and 250° of the Emba Crude Petroleum SOV/62-59-9-15/40

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

SUBMITTED: January 4, 1958

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Thermal decomposition of lead formate and formic acid on metal lead surface. L. K. Freidlin and T. F. Bulanova. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. chim.* **1937**, 555-67 (in English 568). The products as well as the kinetics of the decompn. of Pb formate and HCOOH on Pb were studied. The theory of intermediate salt formation is supported by the similarity of products obtained from the decompn. of HCOOH on Pb and Pb formate on Pb. The catalytic effect of Pb on the decompn. of HCOOH is discussed. The absence of volatile liquid products during the decompn. of HCOOH on surfaces of metallic catalysts is explained by the action of the final products upon the intermediate salt. The results were treated according to Arrhenius' equation for first-order reactions giving the energy of activation. Below 255° the gaseous products of $(HCO_2)_2Pb$ decompn. changed in compn. About 284°, the gaseous compn. was const. and above this temp. range the evolution was so rapid as to invalidate observations. The av. value for the energy of activation from three curves is 20,000 cal./mol. $(HCO_2)_2Pb = PbO + CO_2 + CH_2O$ predominates at 240-90° at first, later $(HCO_2)_2Pb = Pb + 2CO_2 + H_2$ leads at all temps. because of the accumulation of Pb. This is shown by the decreasing value of CO_2/H_2 with 2 as the limit at 240°. Mannich and Geilmann found that $2CH_2O = HCOOCH_3$, which scheme is accepted. The catalytic decompn. of HCOOH was first studied by Sabatier and Maihe and later by Adkens and Nissen, who established the correlation between the method of prepn. of AlO_3 and $HCOOH = CO_2 + H_2$ or $HCOOH = CO + H_2O$. Adadoorov studied the decompn. of HCOOH on charcoal impregnated with PbO. The authors agree that exclusively dehydrogenation results with charcoal or PbO catalyst taken separately. PbO ppfd. on charcoal catalyzes dehydration mainly, and at 255-325° there is a fourfold increase; 327° marks the peak of this tendency, while the m. p. of Pb is 325°. Solid and molten Pb cause $HCOOH = CO_2 + H_2$, for which data obtained by passing HCOOH over powd. Pb yield 32,000 cal./mol. as the energy of activation. A film of Pb formate upon Pb is deemed significant as a catalyst. Sergius Kobernick

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

Esterification of alcohols by catalytic dehydrogenation. D. N. Vaskevich and T. F. Bulanova. *J. Gen. Chem.* (U. S. S. R.) 8, 1091-7 (in English, 1097) (1938).—MeOH, EtOH, iso-BuOH and iso-AmOH were dehydrogenated at atm. pressure and 270-80° by passing mixts. of 2 alcs. in all the possible combinations at the rate of 12-15 ml./hr. over the catalyst Cu-Mn (3.5:1) activated with Ag. The latter was prepd. by treating the nitrates with aq. NaOH, drying the washed ppt. at 105° and activating in EtOH at 300°. After the dehydrogenation for 40 hrs., the catalyst showed no signs of deactivation. The preliminary results in the analysis of the catalyzates indicate the presence of 30% esters, considerable unaltered alcs., some aldehydes and practically no acids. The general trend of the reaction is toward the formation of fewer esterification products than is theoretically possible and the acidic radical contains the smaller no. of C atoms. Thus, a mixt. of MeOH and iso-AmOH gave chiefly iso-Am formate and some Me isovalerate instead of the 4 theoretically possible esters, while iso-BuOH with iso-AmOH formed practically only iso-Am isobutyrate. MeOH with iso-BuOH gave iso-Bu formate and a little Me isobutyrate. The investigation is being continued. Twenty references. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES

CA

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Reaction of sodium amide with aromatic ketones in the molten state. L. Kh. Freidlin and T. F. Bulanova. *J. Gen. Chem.* (U. S. S. R.) 9, 299-303(1939).—Analogous to the reaction between $NaNH_2$ (I) and salts of org. acids the aromatic ketones with I in the molten state undergo cleavage of the CO group to give $NaHCN_2$ (II), the corresponding hydrocarbons and probably NaOH, according to the equation: $RCOR' + 2NaNH_2 \rightarrow NaHCN_2 + NaOH + RH + R'H$. In addn., considerable C as well as small amts. of HCN, NaCN, dicyanodiamide and NH_3 are formed, probably due to secondary processes. The reaction, strongly exothermic, proceeds vigorously in all cases at temps. below 150° and for the diketones is often very violent. Benzophenone, benzil and benzoin with I at 95-110° give C_6H_6, II and NH_3. Fluorenone and phenanthrenequinone give Ph_2 in addn. to other products. Anthraquinone with I gives a brown, amorphous product, not investigated. John Livak

Lab. Organic Catalysis, Inst. Org. Chem., AS USSR

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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[redacted]

Bulanova, T. F.

Bazhulin, P. A., Sterin, Kh. E., Bulanova, T. F., Solovova, O. P. CA: 42-6238/i
Turova-Pollak, M. B. and Kazanskiy, B. A.
(P. N. Lebedev Phys. Inst. and Inst. Org. Chem., Acad. Sci. USSR, Moscow and Moscow State Univ.)
Izvest. Akad. Nauk SSR Otdel, Khim. Nauk 1946, No. 1, 7-18
Optical investigation of hydrocarbons. IV. Raman spectra of cycloparaffins.

[redacted]

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

Catalytic hydrogenation of cyclopentane hydrocarbons with ring opening. VI. Hydrogenation of cyclopentane in the presence of platinized carbon. B. A. Kazanskii and T. F. Bulanova (Inst. Org. Chem. Acad. Sci. U.S.S.R., Moscow). *Bull. acad. sci. U.R.S.S., Classe sci. chim.* 1947, 29–40(in Russian); cf. *C.A.* 29, 7950°; 33, 9293°; 37, 3058°.—(1) The catalyst (40 ml.), having an activity characterized by complete hydrogenation of C_6H_6 at a space velocity v of 0.3 and 80% dehydrogenation of cyclohexane at 300° and the same v, was active in the hydrogenation of cyclopentane (I) only when virgin; under these conditions, at 225° and v = 0.1, the initial activity corresponded to 44.5% hydrogenation of I (equiv. to 1.18 g. C_5H_{10}/hr.) but fell in subsequent runs, reaching a const. activity of about 0.1 g. C_5H_{10}/hr. after about 9 hrs. Catalysts previously tested with C_6H_6 or with cyclohexane were inactive in the hydrogenation of I at 200° and v = 0.1. (2) The catalyzate obtained at 200° (in several runs of 1.5–2 hrs. each) was fractionated into b_{760} 35.9, 36–49, 49°, and residue, in the amts. 70.5, 6.3, 10.6, and 3.6%; the 1st and the 3rd fractions were shown to consist of pure C_5H_{10} and I, resp. The gas was H_2, 97–98% satd. hydrocarbons 3–2%; hence, cracking products are practically absent. The rates of formation of C_5H_{10} at a feeding rate of 2.24 g. I/hr., outgoing gas equiv. to 1 l./hr., at 225, 237, 250, 262, and 275°, were 0.11, 0.34, 0.68, 1.37, and 2.00 g./hr., resp.; at 262°, the yield of C_5H_{10} was practically independent of the rate of feeding (2.24–7.00 g./hr.); at 275°, with I fed at 2.24, 5.01, 5.59, 6.10 g./hr., the yields of C_5H_{10} were 2.00, 3.27, 3.04, 3.05, 3.11 g./hr., i.e., a rate of 2 g./hr. is insufficient for full utilization of all the active centers of the catalyst; at 200°, 8.5–0.5 g. I/hr., the yield of C_5H_{10} was about 7 g./hr. The apparent activation energy of the reaction is about 35 kcal./mole. (3) Under the same conditions, C_5H_{10} suffers no change over the same catalyst. (4) For purposes of analysis of mixts. of I and C_5H_{10}, n_D^{20}, d_4^{20}, aniline points, and sp. vols. were detd.; selected points: I 80.83, 73.40, 57.43, 40.28, 13.94%, n_D^{20} 1.4015, 1.3934, 1.3853, 1.3778, 1.3654, d_4^{20} 0.7323, 0.7117, 0.6917, 0.6712, 0.6434; aniline point 21.7, 31.3, 40.1, 50.0, 53.5°. VII. **Hydrogenation of methylcyclopentane in the presence of platinized carbon and of nickel on aluminum oxide.** B. A. Kazanskii and Z. A. Rumyantseva. *Ibid.* 183–90. (1) With 16 ml. of a platinized C catalyst (20% Pt, reduced with H_2 up to 310°), having an activity characterized by 89% hydrogenation of C_6H_6 at 150° and v = 0.22 and by 43% hydrogenation of cyclopentane at 275°, v = 0.1, the catalyzate obtained in hydrogenation of methylcyclopentane (II) at 200°, v = 0.18, outgoing gas 2 l./hr., contained 40–41% paraffin hydrocarbons of which 2-methylpentane was 64%, 3-methylpentane 20%, and hexane 11%; this catalyzate was fractionated into b_{760} 59.0–9.5, 59.5–60.5, 60.5–2.8, 62.8–4.0, 64.0–8.8, 68.8–70.9, 70.9–1.5, 71.5–1.75°, in the amts. 1.13, 17.56, 13.97, 3.37, 3.40, 12.96, 3.39, 35.87%; residue and losses 2.29%; fractions 1–4 were almost 100% paraffins, fractions 7 and 8 almost all II, fraction 5 contained about 70% paraffins, fraction 6, 15%. The catalyzate obtained at 300–3° was fractionated into b_{760} 55.0–9.5, 59.5–60.5, 60.5–2.4, 62.4–3.0, 63.0–8.0, 68.0–9.1, in the amts. 4.70, 49.74, 10.76, 5.75, 10.30, 8.90%; residue and losses 3.85%; the 1st 5 fractions consist almost entirely of

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paraffins, fractions 6 and 7 contain about 50% paraffins; thus, the total catalyzate contains 93% paraffins of which 2-methylpentane is 68%, 3-methylpentane 20%, hexane 12%. The gas evolved at 300–303° was H_2 96.9, CH_4 3.2, O_2 0.4, N_2 1.4%. The catalyzate obtained at 317–320° consisted on the average of 75–77% paraffins but the paraffin content attained 100% in individual capts. The corresponding fractions of the 200, 300–3, and 317–20° catalyzates were united and refractionated, giving b_{760} 52.0–9.5° (8.32%), b_{760} 59.5–9.8 (38.24), b_{760} 61.0–2.75 (13.76), b_{760} 62.5–4.0 (13.12), b_{760} 65.0–8.8 (6.40), b_{760} 68.8–71.4 (11.68), b_{760} 71.4–1.7 (7.52), residue 0.96%; by the phys. consts., the paraffins consist of 2-methylpentane 67%, 3-methylpentane 22%, hexane 11%. The residue contained 2% C_6H_6 (0.05% of the total catalyzate). By the Raman spectra, the compn. is 72, 20, and 8%, and the contents of the sep. fractions 2, 3, 4, 5 + 6, and 7: 2-methylpentane, 100, 90, 23, 0, and 0%; 3-methylpentane, 0, 40, 77, 0, and 0%; hexane, 0, 0, 0, 30, and 10%; II, 0, 0, 0, 70, and 90%. (2) With a Ni catalyst on Al_2O_3, characterized by 100% hydrogenation of C_6H_6 at 150° and v = 0.19 and by 77% dehydrogenation of cyclohexane to C_6H_6 at 290° and v = 0.19, II undergoes much cracking. At 240°, the gaseous products constitute 40% of the II introduced. At 280°, v = 0.15, the amt. of II cracked dropped from 46.6 to 33.0% in 4 consecutive runs, decreasing with progressing poisoning of the catalyst. Typical compn. of the gas: H_2 67.5, paraffin hydrocarbons 32.5%. The collected catalyzate, n_D^{20} 1.3980 (increasing from 1.3970 to 1.4098 in 4 consecutive runs), d_4^{20} 0.7089, aniline point 44.7°, was fractionated into b_{760} 27.4–69.5° (34.74%), 69.5–72.0° (57.90), residue 1.60%, losses 3.00%; by the phys. consts., it contains 35% paraffins; the residue contains C_6H_6. At 280°, v = 0.15, cracking attained 60%; n_D^{20} of the catalyzate 1.4040. (3) With the same Ni catalyst, 3-methylpentane at 200°, v = 0.15, gave 42% catalyzate, b_{760} 24.0–62.8°, n_D^{20} 1.3783, d_4^{20} 0.6070, aniline point 67.1°; the gas was H_2 47.9, satd. hydrocarbons

dimethylpentane and I, with the latter predominating (50–60% of the fraction). Thus, the main reaction consists in ring opening at the 3,4- or the 4,5-bond. The gas consists of 95.6% H_2 and 4.4% satd. hydrocarbons, i.e., cracking is insignificant. (2) 1,3-Dimethylcyclopentane (II), at 305°, vol. rate 0.27, gave a catalyzate contg. 55–60% paraffins, gas 97.7% H_2, 2% CH_4, at 275°, vol. rate 0.2, the catalyzate contained only 25% paraffins. The liquid obtained at 305° was fractionated under 756 mm. into b. 71.5–80.0° (16.1%), 80.0–81.0° (6.0%), 81.0–9.2° (12.5%), 89.2–91.2° (57.1%), residue (6.0%); judging by the d., refraction, and aniline point, the 1st fraction consists almost entirely of paraffins, the 2nd and 3rd entirely, the 4th approx. 60% 2,4-dimethylpentane predominates in the 1st and 2nd fraction and constitutes about 50% of the 3rd; the 1st fraction contains a small amt. of C_6H_6, the residue about 17% PhMe (1% of the total catalyzate). By Raman line photometry, over 50% of the mixed 1st, 2nd, and 3rd fraction are 2,4-dimethylpentane, not over 10% 2-methylhexane, and not over 10% 3-methylhexane; the 4th fraction consists of about 50% unreacted II, 25% 2-methylhexane, and 25% 3-methylhexane. Ring opening evidently takes place at the 4,5-bond. (3) At 200°, under identical conditions, the ratio of the nos. of moles of cyclopentane, methylcyclopentane, I, and II opened in 1 hr. are approx. 1:2:0.7:0.2:0.1. Thus, disubstituted cyclopentanes are opened more slowly than the monosubstituted compd., and II reacts more slowly than I owing to the presence of 4 "passive" bonds (1–2, 2–3, 3–4, 1–5) as against only 3 in I (1–2, 2–3, 1–5). IX. Hydrogenation of 1,1-dimethylcyclopentane over platinized carbon. *Ibid.* 183-93. (1) 1,1-Dimethylcyclopentane (III) was synthesized with a higher yield than could be obtained by methods hitherto described: 85 g. 5,5-dimethyl-1,3-cyclopentanedione (IV), in 1000 ml. 95% EtOH, was hydrogenated in the presence of 17 g. Raney Ni, under an initial pressure

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CONTINUATION

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of H_2 of 75-80 atm., with gradual heating up to 180°; the pressure rose up to 140°; from 140° to 180°, it fell rapidly down to 10-20 atm. After cooling, the H_2 pressure was again increased to 70-80 atm. and the autoclave was heated again to 180° for a total 6-8 hrs. after which no more H_2 was absorbed. Distn. of the product gave 50-53 g. (64-68% of the theory) 1,1-dimethyl-3-cyclohexanol. This was allowed to drop into 180 ml. HNO_3 (d. 1.4), 80 ml. H_2O, and 0.2 g. NH_4VO_3, at 55-60°; the mixt. was then heated until cessation of evolution of N oxides, and evapd. to a sirup which on cooling gave a cryst. mass; the mixt. of α,α- and β,β-dimethyladipic acids (recrystd. from H_2O and dried over H_2SO_4) was heated with 2% $Th(OH)_4$ to 280-90°; from 220 g. of the acids, 97.5 g. of a mixt. of 2,2- and 3,3-dimethylcyclopentanones was obtained, with a yield of 69% after redistn. at 145-8° (743 mm.). The ketones were converted into 85.1 g. hydrazones (yield, 77.6% after redistn. at 126-30° at 65 mm.). The hydrazones were decompd. by heating with fused KOH and platinized C; fractionation of the hydrocarbons gave 49.9 g. III; final yield (with respect to IV) 17.8% of theory. (2) Hydrogenation of III under the same conditions as before, with an excess of H_2 (1.5 l. H_2 outgoing per hr.), at 200°, vol. rate 0.20-0.30, gave a catalyzate estd. to contain 60% paraffins and fractionated, under 752.5 mm., into b. 78.7-9.25° (30.4%), 79.25-87.5° (62.1%), residue 3.7%, losses 3.7%. From the phys. consts., the 1st fraction is entirely 2,2-dimethylpentane; the 2nd fraction contains about 40% paraffins which Raman photometry shows to consist of approx. equal amts. of 2,2- (20%) and 3,3-dimethylpentane (20%); thus, the total paraffins obtained consist of about 77% 2,2- and about 23% 3,3-dimethylpentane. The catalyzate obtained at 297-300°, vol. rate 0.21, contained about 80% paraffins; it was fractionated (under 743.5 mm.) into b. 77.2-8.9° (37.4%), 79.0-92.8° (52.2%), residue 5.2%, losses 5.2%; the 1st fraction is, again, almost all 2,2-dimethylpentane, the 2nd fraction contains 75-80% paraffins which, by Raman photometry, consist of nearly equal amts. of 2,2- (32%) and 3,3-dimethylpentane (38%); the total proportions of 2,2- and 3,3-isomers are thus very nearly the same (74 and 26%, resp.) as at 200°. The balance of the 2nd fractions (59 and 30%, at 200° and 300°, resp.) is unreacted III. (3) The rate of hydrogenation of III is very nearly the same as that of the monosubstituted methylcyclohexane. Ring opening takes place exclusively at the 2,3-, 3,4-, and 4,5-bonds, to the extent of 36-8%, 24-8%, and 36-8%, resp.; III undergoes absolutely no ring opening at the 1,2- and 1,5-bonds, in contrast to methylcyclopentane where this type of ring opening does take place to some extent.

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BULANOV, T. F.

USSR/Chemistry - Cyclopentane
Chemistry - Hydrogenation, Catalytic

Jul/Aug 48

"Catalytic Hydrogenation of Cyclopentane-Type Hydrocarbons With Resulting Cleavage of the Cycle," B. A. Kazanskiy, T. F. Bylanov, Inst Org Chem, Acad SciUSSR, 5½ pp

"Ia Ak NaukSSSR, Otdel Khim Nauk" No 4

Cyclopentane is partially hydrogenated with ring cleavage by hydrogen evolved during the simultaneous dehydrogenation of cyclohexane, at 275° and 300° in the presence of platinized carbon. Submitted 3 Dec 1947.

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BULANOVA, T. F.

USSR/Chemistry - Cyclopentane, Hydrogenation of Sep 48
Chemistry - Catalysts, Palladium

"The Hydrogenation of Cyclopentane With Nickel and Paladium Catalysts," Acad B. A. Kazanskiy, T. F. Bulanova, 4 pp

"Dok Ak Nauk SSSR" Vol LXII, No 1

PA 35/49T11

Discusses differences in action of platinized carbon and nickel as catalysts for hydrogenation, based on previously established data. Experiments on hydrogenation of cyclopentane over nickel on kieselguhr and over palladium, and on destructive hydrogenation

35/49T11

[redacted]

USSR/Chemistry - Cyclopentane, Hydrogenation of (Contd) Sep 48

of normal pentane over nickel on kieselguhr, led authors to conclude that platinized carbon exerts a specific action in the sense that hydrogen is added only to two neighboring carbon atoms, whereupon splitting occurs without any side reactions. Submitted 6 Jul 48.

35/49T11

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Catalytic hydrogenation of cyclopentane hydrocarbons aniline points. At 275°, space velocity 0.2–0.4, total with ring opening. X. Hydrogenation of cyclopentane amt. of mixt. passed 17.3 g., the mixts. 1:1, 5:3, and 3:1 gave, resp., 2.87, 2.61, and 3.86 g. C_6H_{12}/hr., i.e. with the hydrogen set free in simultaneous dehydrogena- 3:1 gave, resp., 2.87, 2.61, and 3.86 g. C_6H_{12}/hr., i.e. tion of cyclohexane. B. A. Kazanskii and T. P. Bulanova. a degree of conversion of I to C_6H_{12} of, resp., 34.0, 25.9, *Izvest. Akad. Nauk. S.S.S.R., Otdel. Khim. Nauk* 1948, and 31.5%; the amts. of H_2 evolved were, resp., 1300, 400–11; cf. *C.A.* 42, 4535*h*.—Mixts. of cyclopentane (I) 1300, and 915 ml./hr.; the degree of dehydrogenation of and cyclohexane (II) in the molar ratios 1:3, 1:1, 5:3, II was 81–100%. Under the same conditions, pure I 3:1, and 6:1, of which 3:1 corresponds to the stoichio- with excess H_2 gave C_6H_{12} 4.22 g./hr., conversion 64.5%; metric ratio $3C_6H_{12} + C_6H_{12} = 3C_6H_6 + C_6H_{12}$, the 1st the 6:1 mixt., passed in a stream of H_2, gave C_6H_{12} 5.40 3 ratios to an excess, and the 5th to a deficit of II, were g./hr., conversion 30.3%. At 300°, gave C_6H_{12} 5.40 allowed to react, without carrier gas, on platinized C 1:1, 5:3, and 3:1 gave, resp., 3010, 3380, 3100, and 1500 (20% Pt) at 275 and 300°. In all mixts., part of the I ml. H_2/hr., 0.55, 1.88, 2.58, and 3.38 g. C_6H_{12} hr., con- was hydrogenated to C_6H_6 by the H_2 evolved in the de- version 37.0, 44.0, 48.0, and 43.6%; degree of dehydro- hydrogenation of II; the amt. of C_6H_{12} formed per hr. genation of II nearly 100%. Mixt. 6:1, in a stream of increases with increasing amt. of I in the mixt. Runs H_2, gave C_6H_{12} 0.55 g./hr., conversion 37%. Pure I, were made in tubes of 10 mm. diam. with 40 ml. catalyst in a stream of H_2, gave, at the outset, C_6H_{12} 9.55 g./hr., reduced in H_2 at up to 300°, tested in the hydrogenation 53.0%; after the runs with the 5 mixts., I gave only 5.90 of C_6H_6 at 150°, 15–18 ml./hr. for 5 hrs., then in the de- g. C_6H_{12}/hr., 43.5%. This indicates that, in the long run, hydrogenation of II at 275°, 10–12 ml./hr. for 5 hrs., the catalyst suffers poisoning with regard to hydrogena- then flushed with pure N_2 at the temp. of the intended tion of I although its activity with regard to dehydro- expt. to remove traces of H_2; that such traces actually genation of II is preserved. remain adsorbed, was demonstrated by conversion of I N. Thon into C_6H_{12} in the absence of external H_2, attaining 0.2 g./- hr. at 300°. 8 ml./hr. Catalyzates from mixts. I + II were fractionated into b. 30–49° and >49°; in the 1st fraction, C_6H_{12} was detd. by the refractive index and the

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

Bulanova, T. F. Cand Chem Sci

Dissertation: "Catalytic Hydrogenation of Cyclopentane."

9 June 49

Inst of Organic Chemistry, Acad Sci USSR

SO Vecheryaya Moskva
Sum 71

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

[redacted]

Bulanova, T. F.

Bazhulin, P. A., Ukholin, S. A., Bulanova, T. F., Koperina, A. V. CA: 44-1331/e
Plate, A. F. and Kazanskiy, B. A.
Izvest. Akad. Nauk SSSR, Otdel Khim. Nauk 1949, 481-6
Optical investigation of hydrocarbons. V. Raman spectra of some napthenes and nonanes.

[redacted]

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, T. F.

Determination of individual hydrocargon composition of gasolines b the combined method. II. Two gasolines from petroleum of Kazanbulak origin. B. A. Kazanskiy, A. F. Plat., Ye. A. Mikhailova. A. L. Liberman, M. I. Batuyev, T. F. Bulanova, and G. A. Tarasova, (N. D. Zelinskiy Inst. Org. Che., Acad. Sci. U.S.S.R., Moscow). Izvest. Adas. Nauk S.S.S.R., Otdel. Khim. Nauk 1954, 266-77; cf. C.A. 45, 7342a. -- Two specimens of gasoline from Kazanbulak area wer examd. by the combined optical-distn. method. Infractions b. under 150° over 70 hydrocarbonswere identified, thus accounting for 40-50% of the total compn. It is shown that despite the close origin of the specimens geographically, considerabel differences in compn. are found. III. Surakhan gasolines. B. A. Kazanskiy, G. S. Landsberg, A. F. Plate, A. L. Liberman, Ye. A. Mikhaylova, F. A. Bazhulin, M. I. Batuyev, S. A. Ukholin, T. F. Bulanova, and G. A. Tarasova. Ibid. 278-91. --Two specimens of Surakhan gasolines were examd. by the combined method. In both some 47 hydroearbons were identified, accounting for 77-84% of the total compn. Distn. curves and distn:, data are cited.

G. M. Kosolapoff

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, T. F.

U S S R .

Determination of individual hydrocarbons in gasolines by the combined method. VI. Karachukhur gasoline. B. A. Kazanskiy, G. S. Landsberg, A. F. Plate, A. L. Liberman, Ye. A. Mikhaylova, Kh. Ye. Steyn, T. F. Bulanova, G. A. Tarasova, and V. T. Aleksayan (N. D. Zelinskiy Inst., Org. Chem. Acad. Sci. U.S.S.R., Moscow). Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk, 1954, 1053-66; cf. C. A. 45, 7342b. ---The combination of distn. chromatography, and Raman spectroscopy applied to a sample of Karachukhur gasoline (150° end point) was successful in identifying 85.14% of the hydrocarbon compn., showing the presence of 63 hydrocarbons. The gasoline contained 16.37% aromatic, and approx. equal amts. of aliphatic and naphthenic hydrocarbons; about 40% of the paraffins are normal alkanes. The ratio of cyclopentane dervs. to cyclohexane derivs. is 0.44.

G. M. Kosolapoff

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, T. F.

USSR/ Physics - Spectral analysis

Card 1/1 Pub. 43 - 36/62

Authors : Kazanskiy, B. A.; Landsberg, G. S.; Aleksanyan, V. T.; Bulanova, T. F.; Liberman, A. L.; Mikhaylova, Ye. A.; Plate, A. F.; Sterin, Kh. Ye.; and Ukholin, S. A.

Title : Analysis of aromatic ligroin parts by the combined diffusion spectra

Periodical : Izv. AN SSSR. Ser. fiz. 18/6, 704-706, Nov-Dec 1954

Abstract : Brief report is presented on the method and some results obtained during individual and close-group analysis of primary and secondary aromatics of ligroin. Analysis of results obtained showed that the basic ligroin (taken from the Embensk Petroleum Source) contained alkyl substitutes of benzene and cyclohexane with short term substituting radicals. Three references: 1 USA and 2 USSR (1947-1953). Tables.

Institution : Acad. of Sc., USSR., The N. D. Zelinskiy Inst. of Organ. Chem. and the Commission on Spectroscopy

Submitted : .....

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, T. F.

Catalytic transformations of *n*-heptane and *n*-octane in the presence of platinised charcoal. B. A. Kazanskii, A. L. Liberman, T. F. Bulanova, V. T. Aleksanyan and Kh. E. Stepin (*Dokl. Akad. Nauk SSSR*, 1951, 80, 77–80).—*n*-Heptane and *n*-octane are passed at 300° at different rates over platinised charcoal containing 20% Pt or 20% Pt and 2% Fe, and the products of the reaction are analysed. The products contain 10–11% of alicyclic, <2% of unsaturated, and 1–5% of aromatic hydrocarbons. A certain amount of aliphatic branched-chain isomers is also formed but the bulk of the hydrocarbon passes unchanged through the catalyst.

S. K. Lachowicz.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

LANDSBERG, Grigoriy Samuilovich, akademik [deceased]; KAZANSKIY, Boris Aleksandrovich, akademik; BAZHULIN, P.A., doktor fiziko-matemat. nauk; BULANOVA, T.F.; LIBERMAN, A.L., MIKHAYLOVA, Ye.A.; PLATE, A.F.; STERIN, Kh.Ue.; SUSHCHINSKIY, M.M.; TARASOVA, G.A.; UKHOLIN, S.A.; BRUSOV, I.I., red.izd-va; KASHINA, P.S., tekhn.red.

[Determination of the individual hydrocarbon composition of straight-run gasolines by the combined method] Opredelenie individual'nogo uglevodorodnogo sostava benzinov priamoi gonki kombinirovannym metodom. Moskva, Izd-vo Akad.nauk SSSR, 1959. 362 p. (MIRA 12:8)

(Gasoline)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

S/020/62/147/005/021/032
B106/B186

AUTHORS: Eydus, Ya. T., Bulanova, T. F., Sergeyeva, N. S.

TITLE: Zirconium and titanium dioxides - promoters of the cobalt catalyst in the synthesis of higher hydrocarbons from carbon monoxide and hydrogen

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 5, 1962, 1105 - 1107

TEXT: The activating effect of ZrO_2 and TiO_2 on a cobalt-kieselguhr (1:1) catalyst was studied for the synthesis of higher hydrocarbons from CO and H_2. All experiments were made in a continuous flow system at atmospheric pressure and various temperatures (20 - 30 hrs reaction time at each temperature). The initial gas mixture contained CO and H_2 at a ratio of 1:2. Fig. 1 shows the results obtained. It has been found that catalysts containing 18% TiO_2 or ZrO_2 are more active than the known catalyst with 18% ThO_2. At optimum reaction temperatures (195°C - 210°C) of the catalyst activated with 18% TiO_2, not merely low hydrocarbons of the type C_2-C_4 are

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formed but higher hydrocarbons (from C_5 upward) at the volume ratio 0.6:1 (gasoline : oil) as compared with 18 : 1 at the optimum reaction temperature (210°C) of the non-activated catalyst, and 0.9:1 gasoline - oil ratios obtained with the catalyst activated by 18% ThO_2. There are 1 figure and 1 table. The English-language reference is: S. Kodama, Sci. pap. Inst. Phys. Chem. Res., 14, 253 (1930).

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

PRESENTED: August 3, 1962, by B. A. Kazanskiy, Academician

SUBMITTED: July 12, 1962

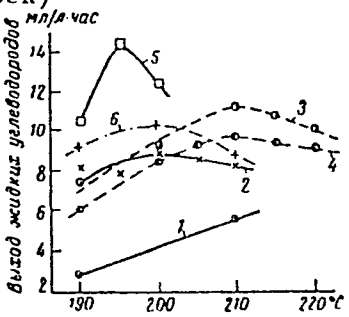

Fig. 1. Activation of Co-kieselguhr (1:1) catalyst. Legend: Ordinate: liquid hydrocarbon yield, ml/l·hr; (1) catalyst without promoter; (2) 12% ZrO_2; (3) 18% ZrO_2; (4) 24% ZrO_2; (5) 18% TiO_2; (6) 18% ThO_2 (for comparison).

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, T.F.; EYDUS, Ya.T.; SERGEYEVA, N.S.; KHUDYAKOV, Yu.T.

Directed catalytic synthesis of solid paraffins from carbon monoxide and hydrogen. Dokl. AN SSSR 153 no.1:101-103 N '63. (MIRA 17:1)

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

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

ACCESSION NR: AP4024404 S/0204/64/004/001/0061/0067

AUTHOR: Eydus, Ya. T.; Bulanova, T. F.; Sergeyeva, N. S.

TITLE: The promoting effect of zirconium dioxide on the cobalt catalyst in the synthesis of higher hydrocarbons from carbon monoxide and hydrogen at atmospheric pressure.

SOURCE: Neftekhimiya, v. 4, no. 1, 1964, 61-67

TOPIC TAGS: hydrocarbon synthesis, oxo synthesis, cobalt catalyst, zirconium dioxide, thorium dioxide, promoter, gasoline synthesis, hydrocarbon oil synthesis

ABSTRACT: The promoting effect of ZrO_2 on the cobalt catalyst on a kieselguhr carrier in the synthesis of higher hydrocarbons from CO and H_2 at atmospheric pressure was investigated in view of its similarity to ThO_2, a known promoter. Of the preliminary catalysts investigated (Co-kieselguhr, Co-kieselguhr with ZrO_2 and Co-MgO-kieselguhr with ZrO_2), the latter, containing MgO proved most active. At 200-240 C after 300 hours operation without regeneration it still yielded 70 gm/m^3 of hydrocarbons. Catalysts with various component ratios were examined; the most active found was $100Co:6ZrO_2:10MgO:200$ kieselguhr. The yield varied

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ACCESSION NR: AP4024404

depending on the length of time the catalyst was used, e.g., after the first 15 hours after catalyst preparation, at 190 C for 170 hours, the yield of higher hydrocarbons was 111-125 gm/m^3 with gasoline/oil ratio of 0.55; during the next 400 hours, the yield was 93.3 with 0.9 ratio. A similar catalyst prepared with ThO_2 promotor instead of ZrO_2 yielded, after the first 20 hours, 105 gm/m^3 of product with gasoline/oil ratio of 0.45. Orig. art. has: 4 tables and 1 figure.

ASSOCIATION: Institut organicheskoy khimii AN SSSR im. N. D. Zelinskogo (Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 08Jan63 DATE ACQ: 17Apr64 ENCL: 00

SUB CODE: GC NO REF SOV: 004 OTHER: 006

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

ROZENGART, M.I.; BULANOVA, T.F.

Problem of the regeneration of alumina-chromia catalysts for dehydrocyclization. Zhur. prikl. khim. 37 no.2:383-388 F '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

L 26484-65 EPF(c)/EWT(m)/T Pr-4 RM

ACCESSION NR: AP5010563 UR/0204/64/004/005/0763/0766

25
B

AUTHOR: Bulanova, T. F.; Eydus, Ya. T.; Sergeyeva, N. S.

TITLE: Promoting action of titanium dioxide on a cobalt catalyst in the reaction of synthesis of higher hydrocarbons at atmospheric pressure from carbon monoxide and hydrogen

SOURCE: Neftekhimiya, v. 4, no. 5, 1964, 763-766

TOPIC TAGS: catalysis, titanium, inorganic oxide, cobalt, hydrocarbon, organic synthetic process

Abstract: Titanium dioxide, like thorium dioxide and zirconium dioxide, was found to have a promoting action on Co-kieselguhr and Co-MgO-kieselguhr catalysts in the reaction of formation of liquid hydrocarbons from carbon monoxide and hydrogen at atmospheric pressure. Catalysts simultaneously containing TiO_2 and MgO were more active than a catalyst containing only TiO_2. Just as in the case of promotion by ZrO_2, a catalyst containing 100 Co:6 TiO_2: 10 MgO:200 kieselguhr proved to be optimum. Orig. art. has 2 tables.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR (Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 07Oct63 ENCL: 00 SUB CODE: OC, GC
NO REF SOV: 005 OTHER: 001 JPRS

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

L 33999-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM
ACCESSION NR: AP5006079 S/0204/65/005/001/0068/0075

29
26
B

AUTHOR: Eydus, Ya. T.; Bulanova, T. F.; Muzovskaya, O. A.; Sergeyeva, N. S.

TITLE: Catalytic synthesis of high-molecular hydrocarbons from carbon monoxide and hydrogen in the presence of Co-MgO-kieselguhr catalysts, activated with zirconium or titanium dioxide

SOURCE: Neftekhimiya, v. 5, no. 1, 1965, 68-75

TOPIC TAGS: hydrocarbon synthesis, catalytic hydrogenation, carbon monoxide, hydrogen exchange, cobalt catalyst, magnesium oxide, kieselguhr, zirconium dioxide, titanium dioxide, paraffin synthesis

ABSTRACT: The authors studied the formation of solid paraffins by Fischer-Tropsch synthesis on zirconium- or titanium dioxide activated cobalt-magnesium oxide-kieselguhr catalysts. Catalysts having the composition 200 parts kieselguhr/100 parts Co/6-10 parts ZrO_2 or TiO_2/6-10 parts MgO were obtained by precipitation of nitrates on the kieselguhr support, reduced at 400C and 1 atm. H_2 pressure, and used as catalysts at 10 atm., 100 hr^{-1} flow rate and a 1:2 ratio of carbon monoxide to H_2, as well as in non-continuous tests and at atmospheric pressure. Synthesis

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L 33999-65

ACCESSION NR: AP5006079

at atmospheric pressure gave primarily liquid hydrocarbons, as did synthesis on thorium-activated catalysts, while synthesis at 10 atm. gave, after a development period of 3-8 days, 100-110 g/m^3 of solid paraffin waxes which contained 20-30% liquid and 70-75% solid hydrocarbons; 15-20% of the solid fraction had melting points of 106-116C. Liquid and solid reaction products were fractionated and the physical and chemical characteristics of individual fractions are given. Orig. art. has: 5 tables, 1 figure and 1 formula.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo, AN SSSR (Organic chemistry institute, AN SSSR); Tsentral'naya laboratoriya Redkinskogo opytnogo zavoda (Central laboratory, Redkinsk experimental plant); Komiteta khimicheskoy promyshlennosti pri Gosplane SSSR (Chemical industry committee, State planning commission, SSSR)

SUBMITTED: 28Jan64 ENCL: 00 SUB CODE: OC

NO REF SOV: 012 OTHER: 009

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, V.A.; KHOLODILOV, V.V.

Some examples of the interpretation of cementograms. Neft. khoz. 43 no.2:26-30 F '65. (MIRA 18:4)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

BULANOVA, V.A.; KHOLODILOV, V.V.

Using caliper logging in the solution of certain geological problems. Geol. nefti i gaza 8 no.11:35-37 N '64.

(MIRA 17:12)

1. Volgogradneftegeofizika.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307420010-4

L 21825-65 EPA/EPF(c)/EPF(n)-2/EPR/EPA(s)-2/EWT(m)/EWP(b)/EWP(t) Pr-4/Pt-10/
Pu-4/Paa-4 SSD(a)/IJP(c) WW/JWD/JD
ACCESSION NR: AP5001756 S/0153/64/007/005/0862/0863

AUTHOR: Shidlovskiy, A. A.; Shmagin, L. F.; Bulanova, V. V.

TITLE: "Burning of" ammonium perchlorate under atmospheric pressure

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 7, no. 5, 1964, 862-863

TOPIC TAGS: ammonium perchlorate, catalyst, ammonium perchlorate decomposition, ammonium perchlorate burning

ABSTRACT: The catalytic effect of Cu_2O, Cu_2Cl_2, CuO, $CuCO_3$, MnO_2, $MnCO_3$, $MnCl_2 \cdot 4H_2O$, Co_2O_3, ZnO, Fe_2O_3, NiO, Ni_2O_3, Cr_2O_3, Cu, Cr_2O_4, CdO, or MgO on the thermal decomposition and burning of ammonium perchlorate has been studied at atmospheric pressure. The experiments were conducted with technical-grade NH_4ClO_4 sifted through a no. 61 sieve and containing 5% of the ground pure catalysts. The mixtures were burned at 20 and 100C in glass tubes. At 20C, NH_4ClO_4 burns in the presence of Cu_2O, CuO, Cu_2Cl_2, MnO_2, or $MnCO_3$, and at 100C

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ACCESSION NR: AP5001756

in the presence of $CuCO_3$, $MnCl_2 \cdot 4H_2O$, Co_2O_3 or ZnO. The highest burning velocity and highest thermal coefficient of the burning velocity (0.60—0.80 mm/sec at 20C and 1.40—2.08 mm/sec at 100C) are exhibited by mixtures containing copper compounds. Mixtures with Fe_2O_3, NiO, Ni_2O_3, Cr_2O_3, Cu, Cr_2O_4, CdO as MgO do not burn under the above conditions. Orig. art. has: 1 table.

ASSOCIATION: Moskovskiy institut khimicheskogo mashinostroyeniya (Moscow Institute of Chemical Machinery)

SUBMITTED: 03Apr64 ENCL: 00 SUB CODE: GC, FP

NO REF SOV: 009 OTHER: 004 ATD PRESS: 3166

Card 2/2

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