YUGOSLAVIA/Microbiology - Medical and Veterinary Microbiology F-6

Abs Jour : Ref Zhur-Biologiya, No 1, 1958, 509

Abstract : Vaccines best results were obtained with vaccine III; vaccine II was found to be satisfactory, while vaccine I provided least protection. Vaccines V and VI provided good results approaching those of control. Poor results were obtained by the use of vaccines IV, VII, and VIII.

Card 3/3

YUGOSLAVIA / Microbiology. Microorganisms Pathogenic to Humans and Animals F-3

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 33790

Author : Benkovich, Khid-Mardich
Inst : Not given
Title : Sensitivity of Nutrient Media Used to Determine Sterility.

Orig Pub : Farmac. glasnik, 1956, No 5, 183-189

Abstract : A study was conducted on sensitivity of nutrient media used for checking sterility. For aerobes broths were tested prepared from infusions of veal, beef, horseflesh and placenta. The broths were infected by Escherichia coli and incubated at 35° for a period of 3 days. Anaerobes (Clostridium oedematiens) were inoculated on beef broth with vaseline oil, with thioglycollate and resazurin, or thioglycollate, resazurin and beef. They were incubated for

Card 1/2

YUGOSLAVIA / Microbiology. Microorganisms Pathogenic to Humans and Animals. F-3

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 33790

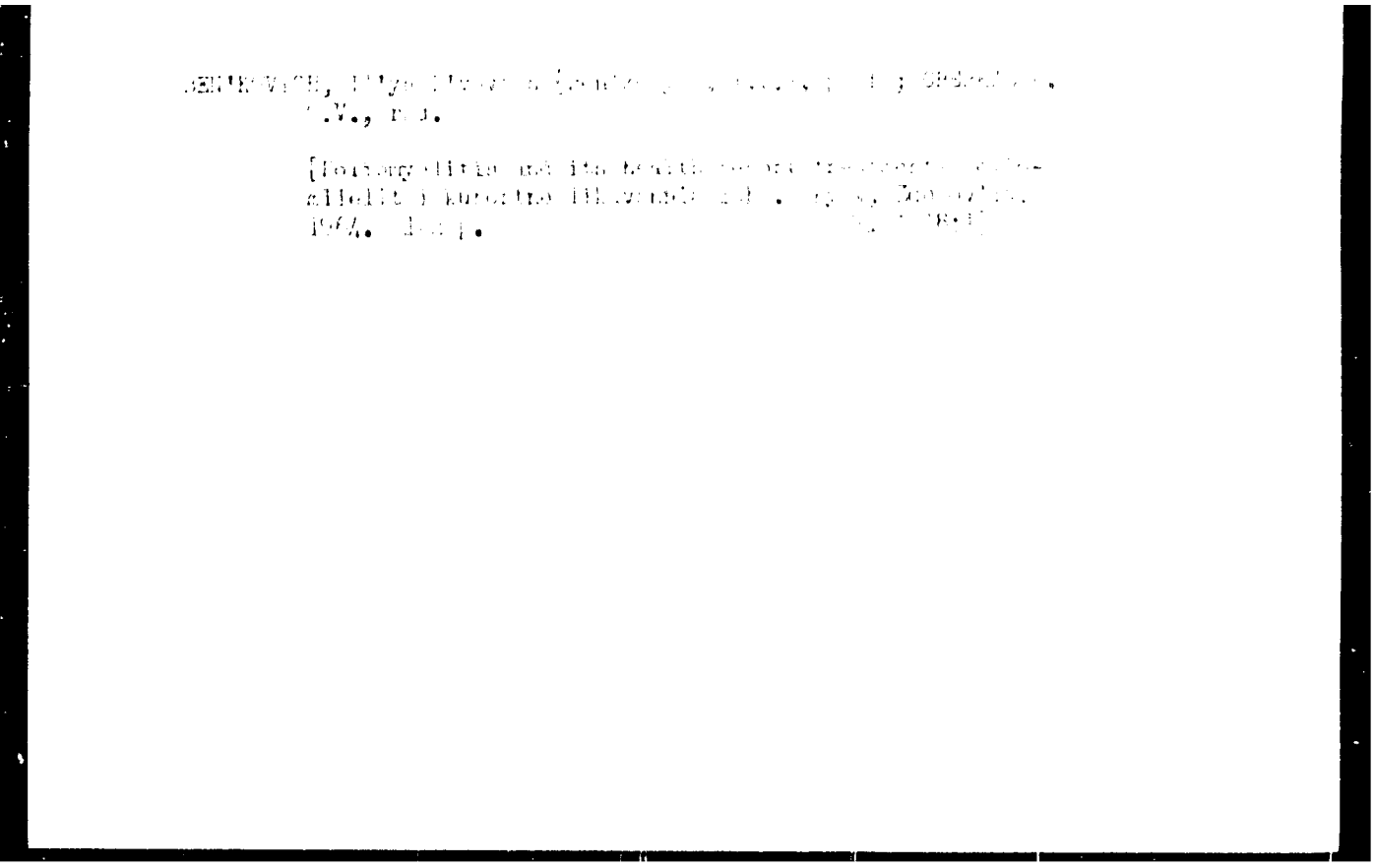
Abstract : 1 day at 35°. The most sensitive for aerobes was found to be a broth prepared from veal; the least sensitive, broth from placenta. The least favorable for anaerobe multiplication was a meat broth with vaseline oil or a broth of thioglycollate and resazurin. For yeast fungi (Monilia albicans) the Saburo medium was best.

Card 2/2

BENKOVICH, I.L., prof.

Post-traumatic hydrocephalus in the light of pneumoencephalographic finding. Khirurgiia, Sofia 13 no.6:587-589 '60.

1. Meditsinski institut, Lugansk. Klinika po nervni bolesti. Direktor: prof. I.L.Benkovich.
(HYDROCEPHALUS radiogr)
(BRAIN wds & inj)

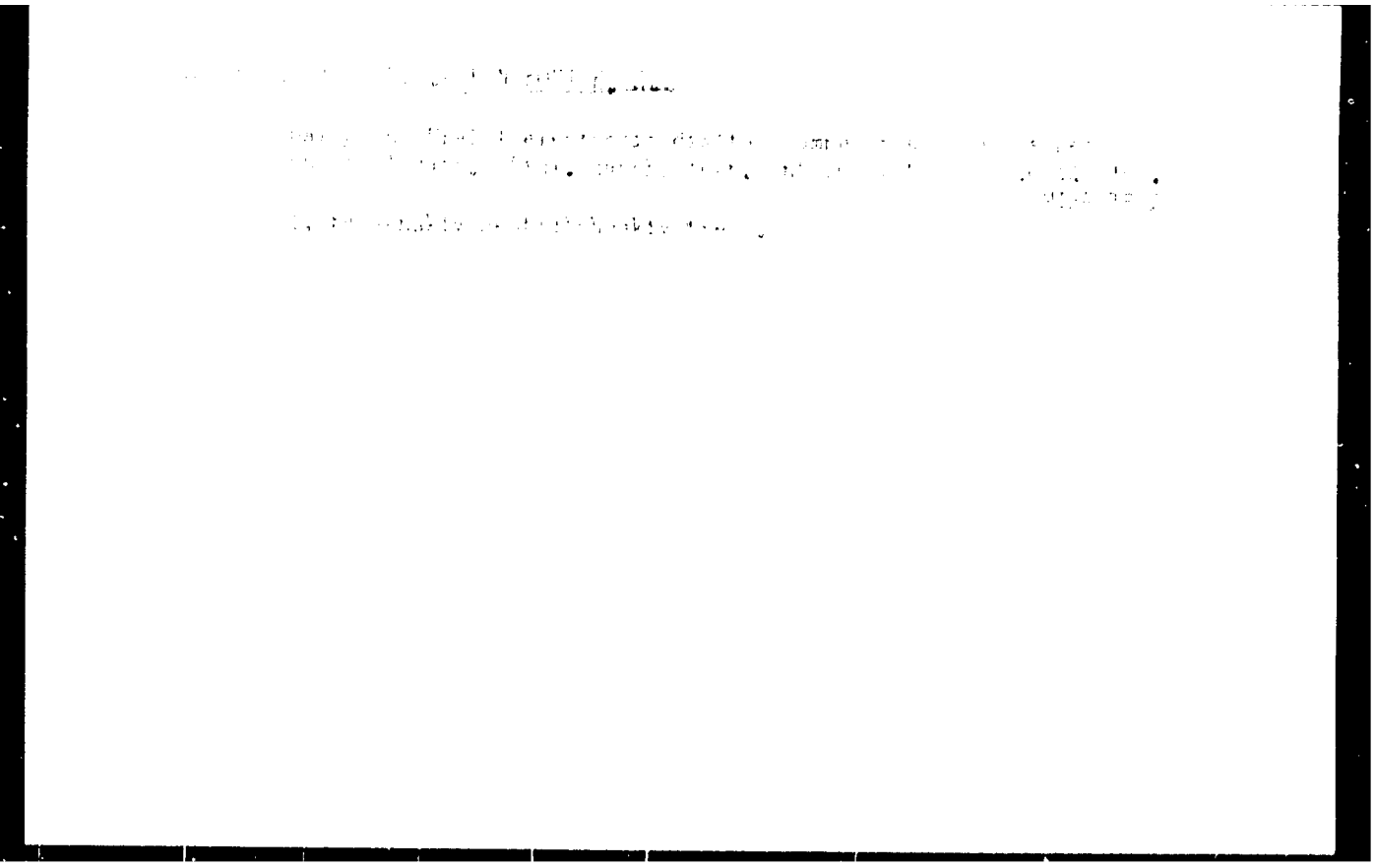


[redacted]

[illegible], I.I.

Adiposogenital dystrophy and diabetes insipidus following cerebrocranial injury. Probl. endok. i gorm. 10 no.4: [illegible] Ag '64. (MERA 18:6)

1. Klinika nervnykh bolezney (dir.- prof. I.L. Ben'kovich) Kuybyshevskogo meditsinskogo instituta.



24.1300

S/058/62/000/004/069/160
A058/A101

AUTHORS: Skobelev, O. P., Bykhovskiy, Yu. R., Pavenichnikov, Yu. V., Benkovich, Yu. I.

TITLE: Measurement of ultrasonic power

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 36, abstract 4G300 (V sb. "Prom. primeneniye ul'trazvuka, Kuybyshevsk. aviats. in-t". Kuybyshev, 1961, 57-71)

TEXT: For measuring ultrasonic power on the basis of the oscillation amplitude of the surface of a vibrator, the authors developed an instrument containing a HF-inductive pickup in which the variation of the Q-factor with oscillations is used. Graduation is carried out in static displacements and is maintained up to 50 kc. The power was also measured by means of an ultrasonic device with a thermal detector based on the measurement method involving the heating rate of the absorber at the start of irradiation. The authors made a time-constant selection for the differentiating circuit of this instrument. For visualization of ultrasonic fields and for quantitative evaluation of the power at any point, the method of film-photometry was used.
[Abstracter's note: Complete translation]
Card 1/1

S/194/62/000/004/053/105
D295/D308

AUTHORS: Skobelev, O. P., Bykhovskiy, Yu. R., Pshenichnikov, Yu. V. and Benkovich, Yu. L.

TITLE: The measurement of ultrasonic power

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-5-29t (V sb. Prom. primeneniye ul'trazvuka. Kuybyshevsk. aviats. in-t. Kuybyshev, 1961, 57-71)

TEXT: Three methods for the measurement of ultrasonic-radiation power or intensity are suggested and the apparatus used in the measurements is described. Since the radiation intensity in a plane wave in the absence of cavitation in the medium, is proportional to the square of the amplitude of the displacement of the surface of the radiator, an instrument has been devised that measures ultrasonic intensity on the basis of measurements of the amplitude of the oscillations. The latter is measured by means of an inductive pickup placed at a determined distance from the sur-

Card 1/3

S/194/62/000/004/053/105
D295/D308

The measurement of ...

face of the vibrator. In the presence of oscillations of the surface of the radiator, eddy currents arise in the coil of the pickup and its Q-factor varies. At the same time, the resonant frequency of the circuit (of which the pickup coil is a component part) varies, and changes the impedance of the circuit, which is determined by means of a frequency discriminator. The circuit is fed from a stabilized generator working at a frequency of 6 Mc/s. When the surface of the radiator oscillates, an alternating voltage appears at the output of the discriminator, and is recorded by a valve voltmeter. The calibration of the instrument is carried out by displacing the vibrator according to static method. The MAG-2 (IAV-2) instrument can work over a frequency range up to 50 kc/s. A thermo-acoustical method for the measurement of ultrasonic intensity is considered. The authors think that the most convenient method is the measurement of the rate of heating of a thermally non-insulated absorber at the beginning of irradiation, since in this case it is possible to calibrate the instrument by calculation. The pickup is a thermistor covered by a layer of organic-glass absorber, and a second thermistor serves for

Card 2/3

The measurement of ...

S/194/62/000/004/053/105
D295/D308

compensating the temperature of the liquid. The construction of two pickups is described. The thermistors are connected to the arms of a d.c. measuring bridge. The unbalance voltage of the bridge is differentiated, amplified and applied to a recording device; there is an electronic voltmeter at the output. The IAM-2(IAM-2) instrument is designed for operation in the frequency band of magnetostriction vibrators. Information is given as to the possibility of using a photo-diffusion method (with the subsequent photometry of sound-irradiated films) for estimating the distribution of ultrasonic field intensity. [Abstracter's note: Complete translation.]

Card 3/3

BEN'KOVICH, Yu. P. (Engr.)

"Determining Electroacoustic Efficient of Ultrasonic Emitters"

report presented at the 13th Scientific Technical Conference of the Kuybyshev Aviation Institute, March 1959.

[redacted], I.; [redacted], T.

Pneumatic transportation in the flour mills. p. 20
Lekha promishlenost Vol. 7, No. 5, 19[redacted]. Sofiia, Bulgaria

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 10, Oct. 58

USSR / Soil Science. Organic Fertilizers. J

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95757.

Author : Bon'kovskiy, B. F.
Inst : Kharkov University - Khorson Agricultural Institute.
Title : Economic Effectiveness of Humic Fertilizers and Perspectives for Their Use in the Southern Ukrainian SSR.

Orig Pub: V. sb.: Gominovye udobreniya, Khar'kov, Khar'kovsk. un-t, 1957, 359-365.

Abstract: Tests conducted by the Khorson Agricultural Institute since 1948 show that humic fertilizers are very effective with application in small doses under various crops; their effectiveness increases on sandy soils with irrigation. Application of

Card 1/2

USSR / Soil Science. Organic Fertilizers.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95757.

Abstract: humophos in a dose of 8 c/ha costs 50-55 rubles and gives significantly greater effect than the application of 10 t/ha of humus (taking into account the cost of hauling the fertilizers). -- O. P. Mikhaylova.

Card 2/2

Fuel Abstracts

Source Abstracts & Abstracts

FJ

3432. ELECTRIC CONDUCTIVITY OF CONCENTRATED PETROLEUM EMULSIONS. Ben'kovskii, B.G. (Kolloid. Zh. (Colloid J.), 1952, vol. 14, 10-14, abstr. in Chem. Abstr. 1952, vol. 46, 4773.)

Fuel Abstracts

Sera Properties & Treatment

3433. MECHANISM OF FORMATION OF PETROLEUM EMULSIONS.
Ben'kovskii, B.G. and Zavorokhin, N.D. (Kolloid Zh. (Colloid J.), 1952 vol. 14, 15-19, abstr. in Chem. Abstr., 1952, vol. 46, 4773, 4774).

BEN'KOVSKIY, D., inzhener.

Repair of steering mechanisms. Mor. flot 7 no.4:21-25 Ap '47.
(Steering gear) (MLRA 9:6)

KOROBTSOV, I., dotsent; [redacted], dotsent; GAL'PER-KOGAN, G., prepodavatel'; KNYAZEV, L., inzhener.

More widespread use of progressive practices in the repair of ships. Mor.flot 16 no.11:16-19 N '56. (MIRA 10:1)

1. Odesskiy institut inzhenerov morskogo flota (for Knyazev)
(Ships--Maintenance and repair)

BENKOVSKIY, D.D.

KOROBTSOV, Ivan Maksimovich; BENKOVSKIY, Dmitriy Dmitriyevich; ULITSKIY, Leonid Vladimirovich; GAL'VER, Grigoriy Gedeonovich; TSYMARNYY, A.K., red.; SERKO, G.S., red. izd-vo; LAVRENOVA, N.B., tekhn. red.

[Problems in the organization and technology of ship repairing] Voprosy organizatsii i tekhnologii sudoremonta. Moskva, Izd-vo "Morskoi transport," 1958. 101 p. (MIRA 11:7)
(Ships--Maintenance and repair)

ITSKOVICH, Yuriy Leonidovich. Prinimali uchastiye: PERLIN, A.I., inzh.; KAZIMIRSKIY, B.O., inzh.; BEN'KOVSKIY, D.D., dots.; TURKEL'TAUB, G.M., nauchnyy sotr.; POLYAKOV, G.I., inzh., retsenzent; ANTONOV, S.I., inzh., nauchnyy red.; LAPINA, Z.D., red. izd-va.; TIKHONOVA, Ye.A., tekhn. red.

[The technology of the repair and installation of marine electric systems] Tekhnologiia sudovykh elektroremontnykh i elektromontazhnykh rabot. Moskva, Izd-vo "Morskoi transport," 1961. 273 p. (MIRA 14:10)
(Ships—Electric equipment) (Ships—Maintenance and repair)

BEN'KOVSKIY, Dmitriy Dmitriyevich, dotsent, kand. tekhn. nauk; GAL'VER, Grigoriy Gedeonovich; KOROBTSOV, Ivan Maksimovich; ORGANEZOV, Genrikh Artashesovich; TSIMARNYY, A.K., red.; REUT, N.I., red. izd-va; LAVRENOVA, N.B., tekhn. red.

[Technology of ship repairs] Tekhnologiia sudoremonta. Pod obshchei red. D.D.Ben'kovskogo. Moskva, Izd-vo "Morskoi transport," 1961. 559 p. (MIRA 14:6)
(Ships—Maintenance and repair)

EWP(c)/EWP(h)/EWT(d)/ETC(m)-6/EWP(1)

ACC NR: AM6000297 Monograph UR/

Ben'kovskiy, Dmitriy Dmitriyevich; Gal'yer Grigoriy Gedeonovich; Korobtsov, Ivan Maksimovich; Terk, David Pavlovich

Organization and planning of production in ship repair enterprises (Organizatsiya i planirovaniye proizvodstva na sudoremontnykh predpriyatiyakh) Moscow, Izd-vo "Transport", 1965. 289 p. biblio. Errata slip inserted. 2500 copies printed. Textbook for higher educational institutions of the Ministry of the Merchant Marine of the U.S.S.R.

TOPIC TAGS: shipbuilding engineering, marine engineering, cost estimate, ship repair

PURPOSE AND COVERAGE: This book is intended for use as a textbook for students in higher educational institutions of the Ministry of the Merchant Marine and is recommended as a handbook for engineers and technicians in ship-repair facilities. In the book, principles underlying the organization and planning of merchant-ship repairs and the administrative structure of repair facilities are discussed along with the organization of production technology, auxiliary ships, and maintenance departments. The organization of labor, production quotas, and salaries are reviewed, as are engineering, economic, and operations planning and cost accounting. Problems relating to the classification and frequency of repairs, the planning and organization of repairs in the year, and coordination between customer and yard are presented in the light of the existing status of the repairs to merchant ships.

Card 1/3 UDC: 629.128.008(075.8)

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ACC NR: AM6000297

TABLE OF CONTENTS: (Abridged):

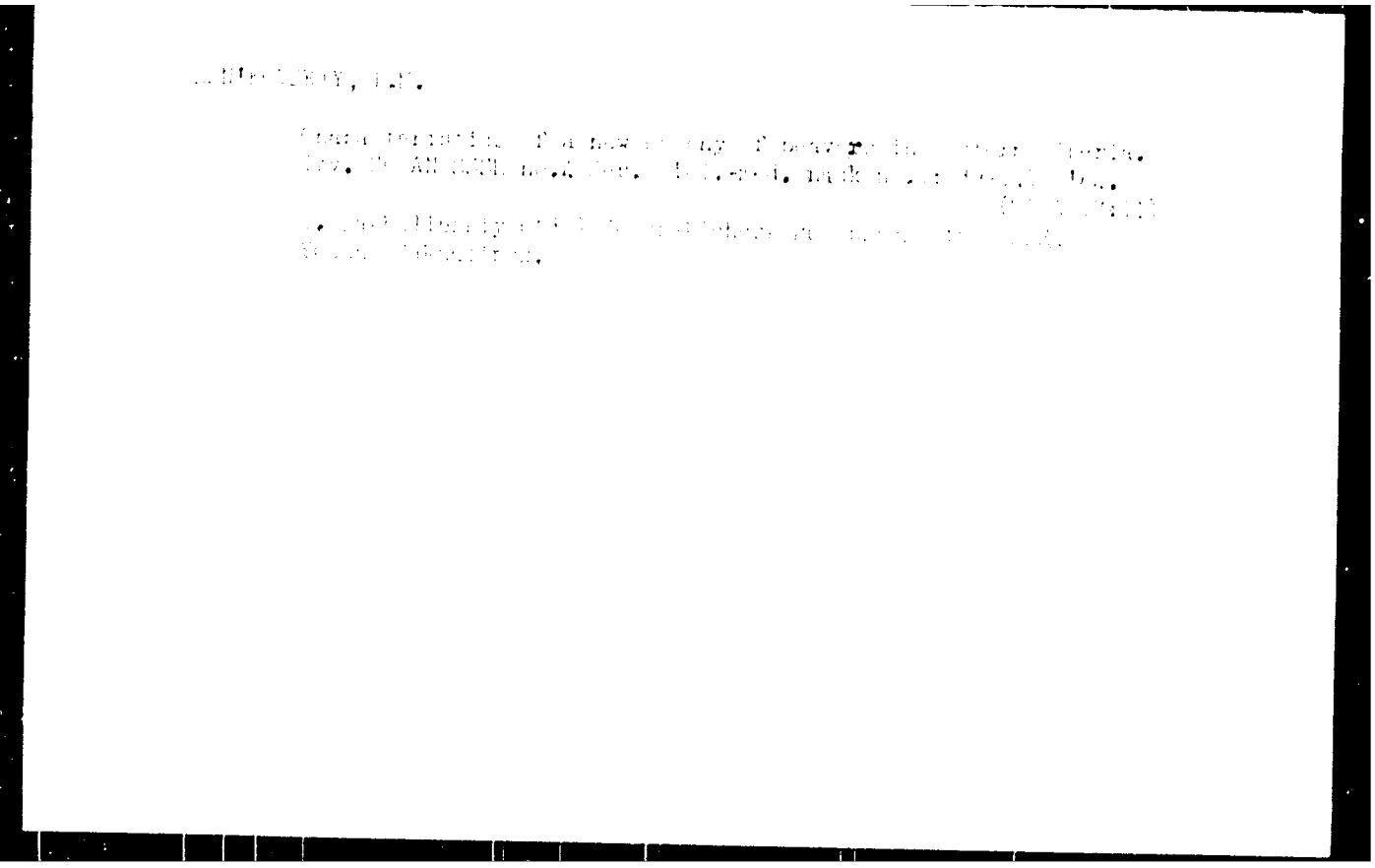
Card 2/3

L 27214-66

ACC NR: AM6000297

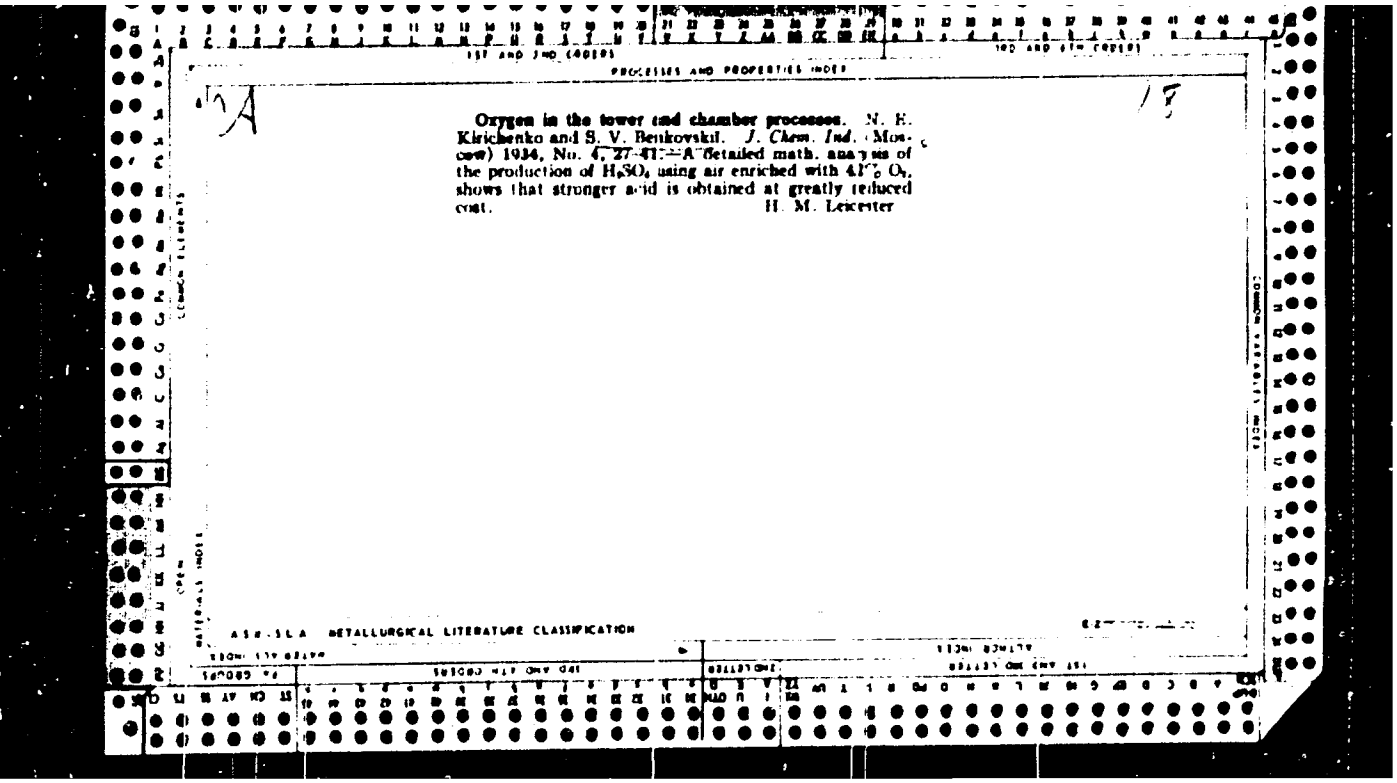
SUB CODE: 13, 14/ SUBM DATE: 17Jun65/ ORIG REF: 020/

Card 3/3



TERENT'YEV, Vasiliy Stepanovich; TSALYUK, Matus Borisovich; BENYAKOVSKIY, M.A., retsenzent; PONOMAREV, V.A., red.; FARSHAYT, Ye.D., red.; SKOROBOGACHEVA, A.P., red. izd-va; TURKINA, Ye.D., tekhn. red.

[Thin sheet finishing mills] Ad"iustazh tonkolistovykh stanov; otdelochnye mashiny. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 344 p. (MIRA 15:2)
(Rolling mills--Equipment and supplies)



PROCESSES AND PROPERTIES INDEX

17A

Oxygen in the tower and chamber processes. N. E. Kirichenko and S. V. Benkovskii. *J. Chem. Ind.* (Moscow) 1934, No. 4, 27–41.—A detailed math. analysis of the production of H_2SO_4 using air enriched with 41% O_2, shows that stronger acid is obtained at greatly reduced cost. H. M. Leicester

17

A 51.5 LA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Ca

Nitric acid. N. E. Kirichenko and S. V. Ben'kovskii. Russ. 46,551, April 30, 1936. Nitrous gases are atomized with nitric acid mixed in an injector.

1C

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

BC B-I-8

Calculation of mechanism of the process of oxidation of sulphur dioxide in the chamber process. K. [illegible] and S. [illegible] (Ukrain. Chem. J., [illegible], 11, [illegible]).—Polemical against Tishcenko ([illegible]). R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000200020006-1"

CA

1Y

Mechanism of absorption of nitrogen oxides. S. [illegible] Kirichenko and S. [illegible] [illegible] Zhur. [illegible] 11, 304 [illegible] of acidified [illegible] ordinary air in absorption towers brings about increased concn. of NO_2 at the expense of NO, consequently, increased intensity of the process. A method of calcn. of accelerated rate of oxidation. 11 tables and 5 figures accompany the text.

J. G. Tolpin

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

The loss of nitric acid in the chamber and tower sulfuric acid processes. S. Ya. Ben'kovskii. J. Chem. Ind. (Moscow) 13, 330-8(1936). The factors causing loss of HNO_3 are noted and tables are given from which the size of this loss can be detd. under working conditions.

H. M. Leicester

PROCESSES AND PROPERTIES INDEX

Obtaining sodium hydroxide and sulfuric acid from mirabilite. I. M. Boguslavskii, S. V. Ben'kovskii and V. E. Sanchuk. *J. Chem. Ind.* (U. S. S. R.) 13, 1467-73 (1936).—Na_2SO_4 is reduced to Na_2S with C. A 6-7 N soln. of this Na_2S is treated with 20% excess of CuO to give 90% NaOH and 10% $Na_2S_2O_3$ and Na_2CO_3. The CuS is ignited at 850° to regenerate CuO and give SO_2. During evapn. of the NaOH soln., the $Na_2S_2O_3$ splits into Na_2S and Na_2SO_3.

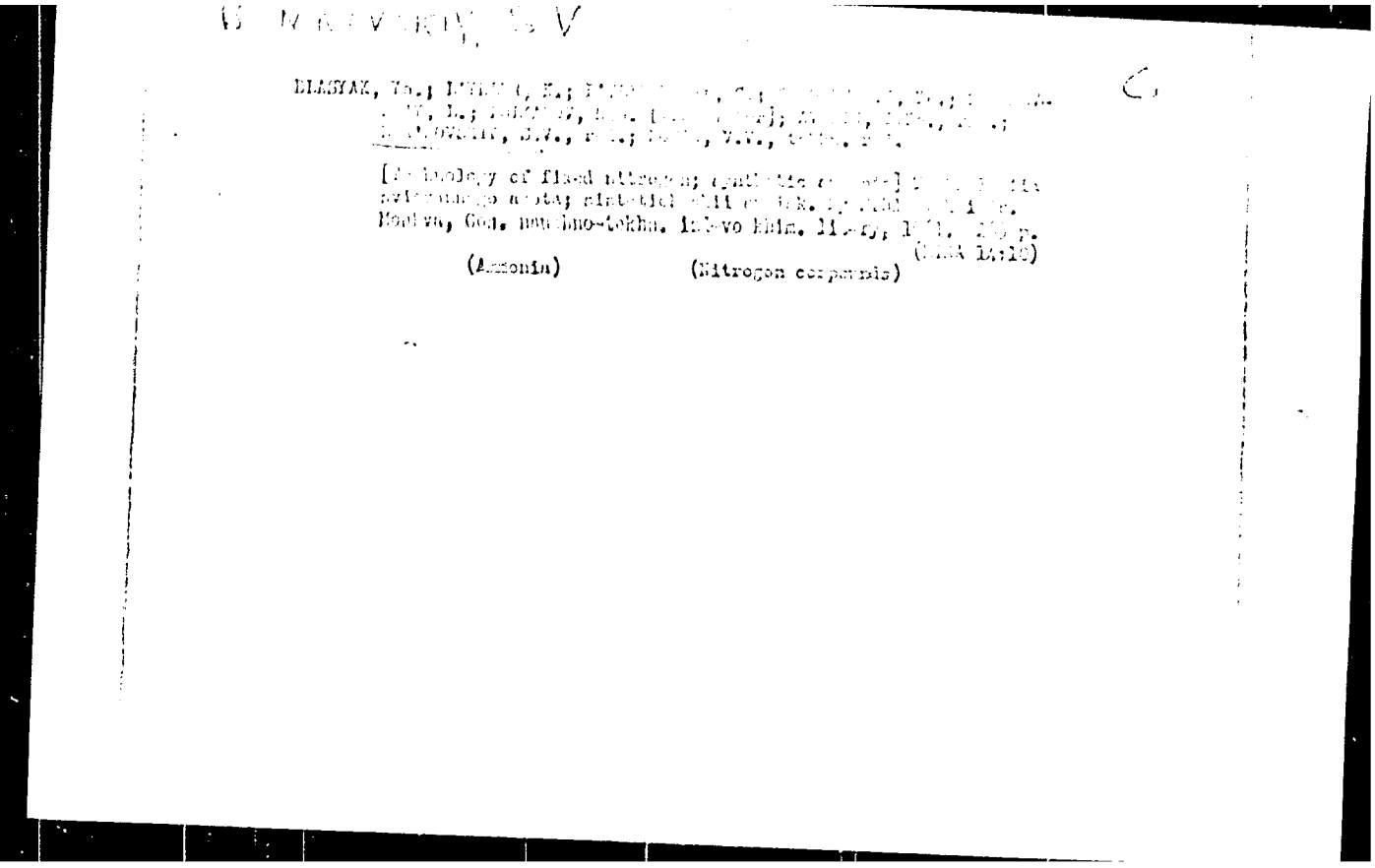
H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

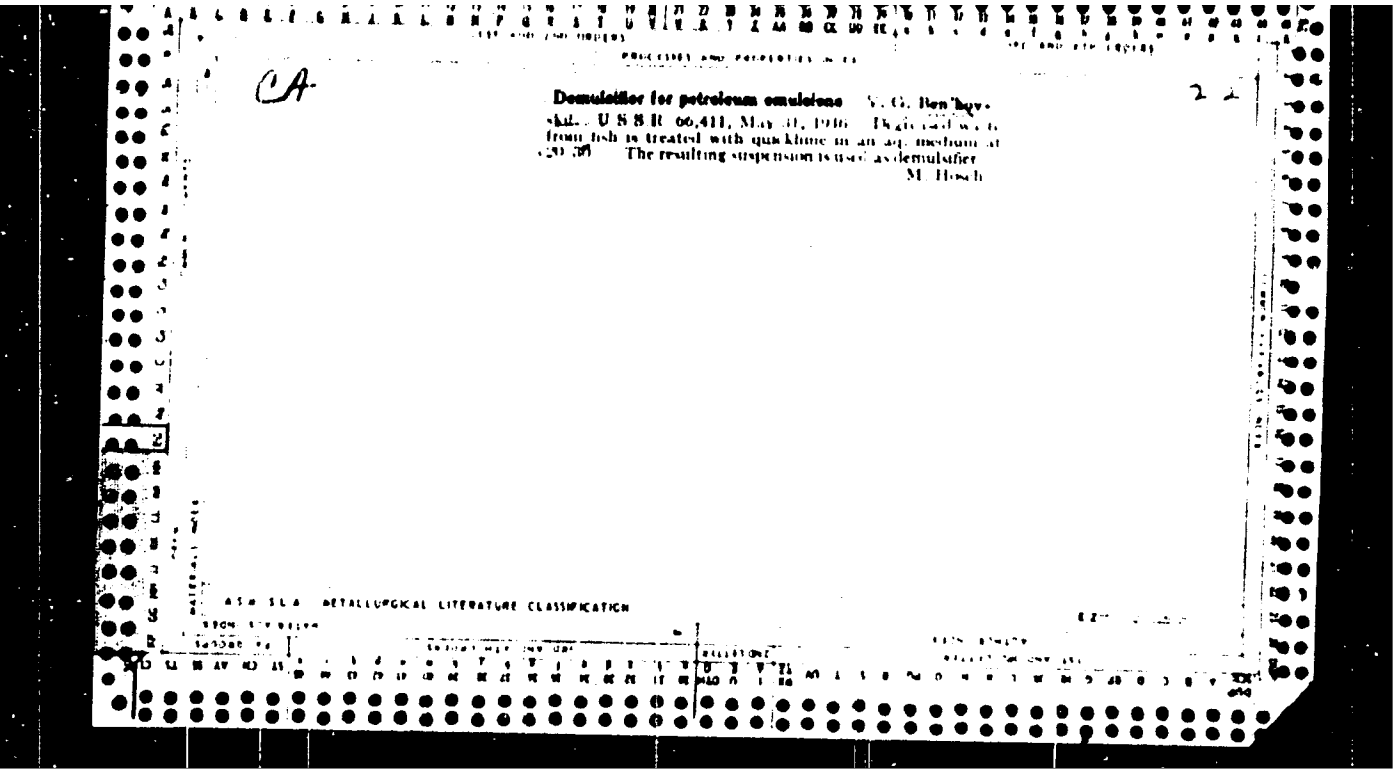
BLASYAK, Ye.; LAYDLER, K.; PAVLIKOVSKIY, S.; SOBOLEVSKIY, Ya.; SOBOLEVSKIY, L.; POLYAKOV, N.N. [translator]; AVTSIN, I.Ye., red.; BEN'KOVSKIY, S.V., red.; KOGAN, V.V., tekhn. red.

[Technology of fixed nitrogen; synthetic ammonia] Tekhnologiia sviazannogo azota; sinteticheskii ammiak. By E.Blasiak i dr. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 263 p. (MIRA 14:10)

(Ammonia) (Nitrogen compounds)



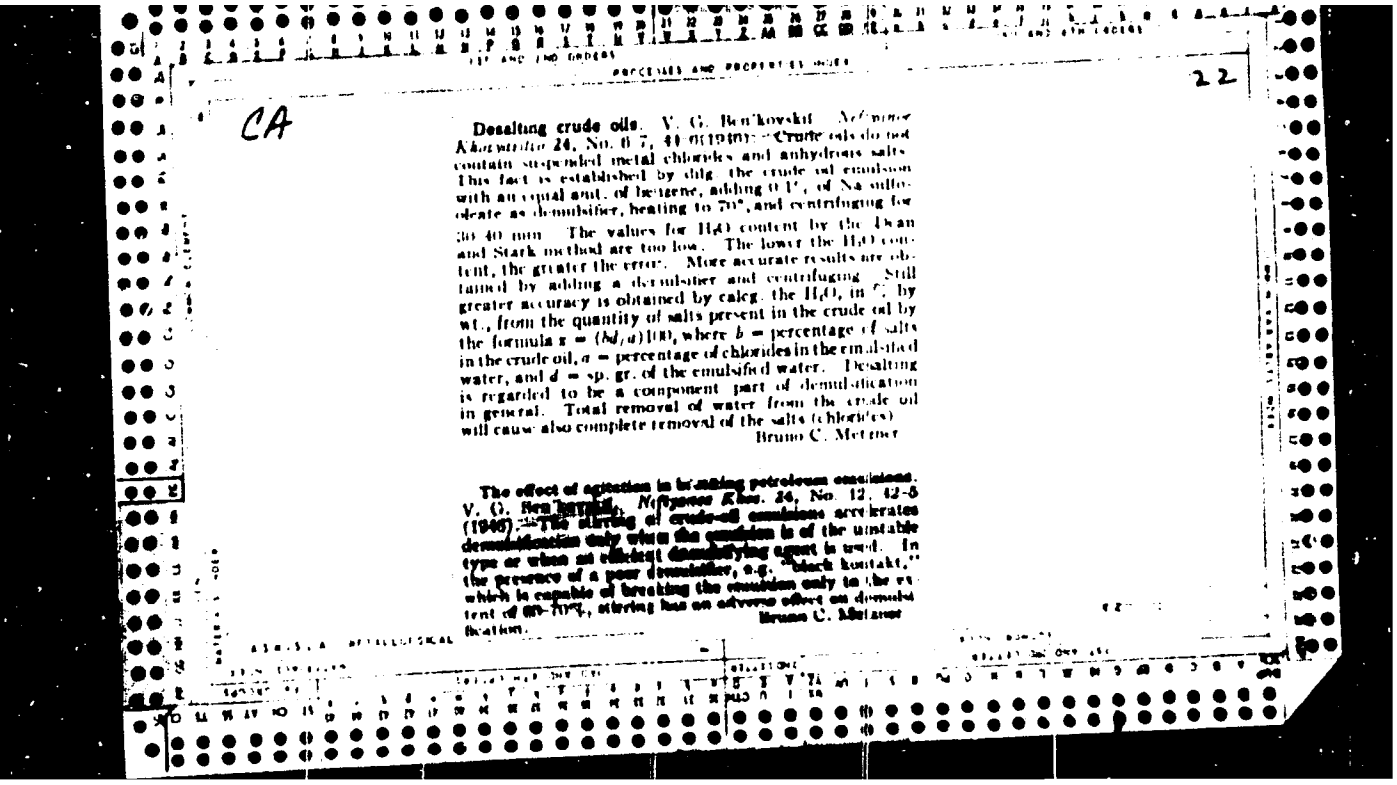
(Ammonia) (Nitrogen compounds)



CA

Demulsifier for petroleum emulsions V. G. Ben'kov. Russ. U S S R 66,411, May 31, 1946. [illegible] from fish is treated with quicklime in an aq. medium at [illegible] The resulting suspension is used as demulsifier.
M. Hosch

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

22

Desalting crude oils. V. G. Berkovskii. *Neftyanoe Khozyaistvo* 24, No. 6-7, 40-6(1946).—Crude oils do not contain suspended metal chlorides and anhydrous salts. This fact is established by dilg. the crude oil emulsion with an equal amt. of benzene, adding 0.1% of Na oleate as demulsifier, heating to 70°, and centrifuging for 30-40 min. The values for H_2O content by the Dean and Stark method are too low. The lower the H_2O content, the greater the error. More accurate results are obtained by adding a demulsifier and centrifuging. Still greater accuracy is obtained by calcg. the H_2O, in % by wt., from the quantity of salts present in the crude oil by the formula $x = (bd/a)100$, where b = percentage of salts in the crude oil, a = percentage of chlorides in the emulsified water, and d = sp. gr. of the emulsified water. Desalting is regarded to be a component part of demulsification in general. Total removal of water from the crude oil will cause also complete removal of the salts (chlorides).

Bruno C. Mettner

The effect of agitation in breaking petroleum emulsions. V. G. Berkovskii. *Neftyanoe Khoz.* 24, No. 12, 42-5 (1946).—The stirring of crude-oil emulsions accelerates demulsification only when the emulsion is of the unstable type or when an efficient demulsifying agent is used. In the presence of a poor demulsifier, e.g., "kleck kontakt," which is capable of breaking the emulsion only to the extent of 60-70%, stirring has an adverse effect on demulsification.

Bruno C. Mettner

BENKOVSKIY, V. G.

PA 59/49T98

USSR/Petroleum Jul 48
Petroleum Industry

"Refractometric Determination of Oil Losses From Evaporation," V. G. Benkovskiy, 3 pp

"Neft Khoz" No 7

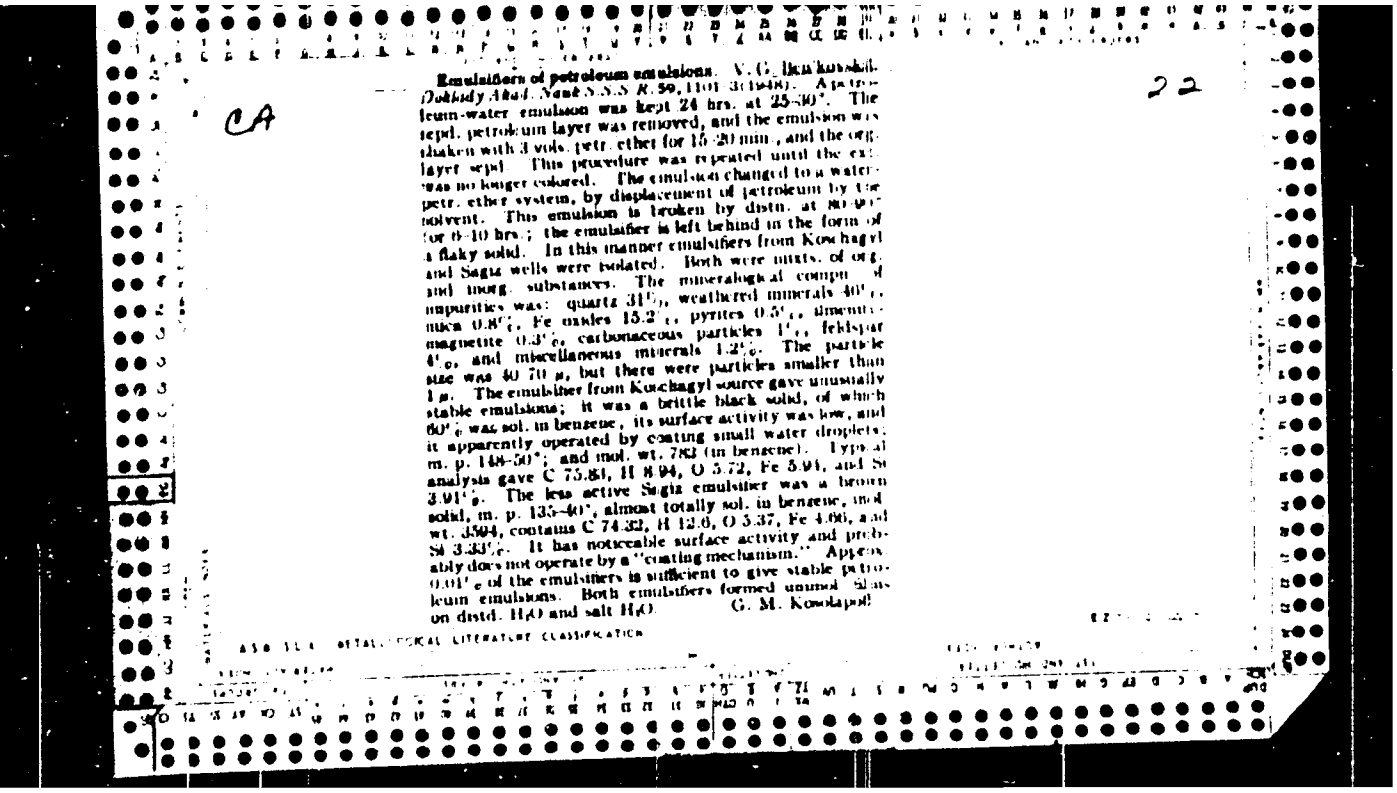
Describes new method to determine oil losses worked out by Cen Res Lab of Kazakhstanneft' using a fraction indicator. Analyzes problem by considering that petroleum consists of two components: heavy petroleum after evaporation losses, and evaporated products. Develops formula to calculate losses. Describes in detail method using refractometer. Greater accuracy and

59/49T98

USSR/Petroleum (Contd) Jul 48

speed with more economical use of materials distinguishes this method from others.

59/49T98



CA

22

Emulsifiers of petroleum emulsions. V. G. Ikan kovskii. *Doklady Akad. Nauk S.S.S.R.* 59, 1101 3(1948). A petroleum-water emulsion was kept 24 hrs. at 25–30°. The sepd. petroleum layer was removed, and the emulsion was shaken with 3 vols. petr. ether for 15–20 min., and the org. layer sepd. This procedure was repeated until the ext. was no longer colored. The emulsion changed to a water-petr. ether system, by displacement of petroleum by the solvent. This emulsion is broken by distn. at 80–90° for 6–10 hrs.; the emulsifier is left behind in the form of a flaky solid. In this manner emulsifiers from Koschagyl and Sagiz wells were isolated. Both were mixts. of org. and inorg. substances. The mineralogical composition of impurities was: quartz 31%, weathered minerals 40%, mica 0.8%, Fe oxides 15.2%, pyrites 0.5%, ilmenite-magnetite 0.3%, carbonaceous particles 1%, feldspar 4%, and miscellaneous minerals 1.2%. The particle size was 40–70 μ, but there were particles smaller than 1 μ. The emulsifier from Koschagyl source gave unusually stable emulsions; it was a brittle black solid, of which 60% was sol. in benzene, its surface activity was low, and it apparently operated by coating small water droplets; m. p. 148–50°; and mol. wt. 782 (in benzene). Typical analysis gave C 75.81, H 8.94, O 5.72, Fe 5.91, and S 3.91%. The less active Sagiz emulsifier was a brown solid, m. p. 135–40°, almost totally sol. in benzene, mol. wt. 3504, contains C 74.32, H 12.6, O 5.37, Fe 4.66, and S 3.33%. It has noticeable surface activity and probably does not operate by a "coating mechanism." Approx. 0.01% of the emulsifiers is sufficient to give stable petroleum emulsions. Both emulsifiers formed unimol. films on distd. H_2O and salt H_2O. G. M. Kosolapoff

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

The structure of concentrated emulsions of water in petroleum and of suspensions of clay in water. V. G. Berkovskii. *Izvest. Akad. Nauk Kazakh. S.S.R. No. 111, Ser. Khim.* No. 4, 20-6(1951).—Dilatometric study of H_2O-petroleum emulsions and clay-H_2O suspensions showed that "holes" exist between particles of the dispersed phase and the vol. of the system increases during emulsification. Concd. emulsions must be regarded as 4-phase systems (liquid, emulsifier, vapor, liquid). Linear dependence of summary vol. of the "holes" on concn. of the dispersed phase exists.

G. M. Kosolapoff

6-4-54

BEN'KOVSKIY, V. G.

USSR/Chemistry - Petroleum Nov/Dec 51

"Natural Emulsifiers of Concentrated Petroleum Emulsions," V. G. Ben'kovskiy, R. A. Pilyavskaya, Ural-Emb Sci Res Base, Acad Sci Kazakh SSR

"Kolloid Zhur" Vol XIII, No 6, pp 401-407

Developed methods for sepn of emulsifiers from crude petroleum-water emulsions from oil wells. Detd compn of emulsifiers (asphaltenes naphthemic acids metal — organic and silicon — organic compds) in different cases and discussed relation between surface activity of emulsifier and stability of emulsion. Proceeding from physicochem properties of emulsions, 1987G

USSR/ Chemistry - Petroleum (Contd) Nov/Dec 51

Proposes general course of physicochem destruction of petroleum emulsions.

1987G

BEN'KOVSKIY, V. G.

USSR/Chemistry - Petroleum Jan 52

"Electrical Conductivity of Concentrated Petroleum Emulsions," V. G. Ben'kovskiy, Ural-Emba Sci Res Base, Acad Sci Kazakh SSR

"Kolloid Zhur" Vol XIV, No 1, pp 10-14

Studies on elec cond of petroleum emulsions of (a) high asphaltic, (b) high paraffinic, and (c) low asphaltic and low paraffinic petroleums with oil-well waters. Regardless of type of petroleum, sp elec cond increases in parallel with increase of H_2O content in emulsion and

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USSR/Chemistry - Petroleum (Contd) Jan 52

depends on concn of electrolytes in aq phase. On aging of emulsion, sp elec cond decreases especially sharply in presence of large amts of H_2O, being practically independent of H_2O concn in "old" emulsions.

20376

22

CA

The mechanism of formation of petroleum emulsions
V. G. Ben'kovskii and N. D. Zavaroikina. Kolloid Zhur.
14, 13-16 (1952); cf. preceding abstr. Contrary to Dvoret-

skaya (C. A. 40, 2174a) the type of emulsion (oil in water or
water in oil) is independent of the material of the vessel
but the nature of this material affects the time t of emulsifi-
cation. Three samples of crude oil (resinous, paraffinic,
and mixed) were agitated with H_2O or aq. NaCl by an Fe
piston in an Fe vessel (A) or a glass piston in a glass vessel
(B). In all instances, save one, water-in-oil emulsions
formed. The t was greater in B than in A (e.g., 17 min.
against 6 min.) because glass is wetted by H_2O and tends to
give first oil-in-water emulsions. The t increased with the
ratio H_2O:oil and, in A, rose linearly with the concn. of
NaCl. Addn. of Ca or Mg salts to NaCl lowered t, pre-
sumably because of formation of Ca or Mg naphthenates.
The t of bore water in crude oil was almost independent of
the electrolyte concn. in the water (in A). In this system,
t at 0° and 60° was greater than at 20°; presumably [illegible] too
great at low temp. and the emulsifier is desorbed at high
temp. Purified transformed oil and distd. H_2O gave first
an oil-in-water emulsion (in both A and B) which on con-
tinuous agitation became a mixt. of both types. J. J. B.

BENKOVSKY, V. G.

21 May 52

R/Chemistry - Petroleum

"Spontaneous Dispersion of Water in Petroleum," V. G. Benkovsky, Ural-Emba Sci Res Base of Acad Sci Kazakh SSR

"Dok Ak Nauk SSSR" Vol LXXXIV, No 3, pp 531-533

The introduction of a large amt of demulsifier (0.5%) into a petroleum emulsion often leads to the development of a new, highly dispersed emulsion with from 3% to 7% of water in petroleum. This spontaneous emulsification was investigated by observing the interaction of a drop of water mixed with 2-3 drops of petroleum, with the use of a microscope and

225T9

microphotography. The rapid splitting and continuous re-splitting of the drop of water is reported, resulting, in 10 min, in a complex emulsion, with the dispersion of the water in the petroleum. According to J. W. McBain and T. M. Woo, spontaneous emulsification results, chiefly, from the collision of mols during the process of diffusion. It was found, by experimentation, that large quantities of chem reagents should not be used, since they lower the surface tension at the water-petroleum boundery. Presented by Acad P. A. Rebinder 27 Mar 52.

225T

1. BEN'KOVSKIY, V. G.

2. USSR (600)

4. Dispersion

7. Disperion of water in an electric field. Koll.zhur., 15, no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

DEN KOVSKIY, V. G.

3

USSR

Magnitude of the electrokinetic potential and the sign of the charge of the dispersed phase in petroleum emulsions. V. G. Den'kovskii. *Izvest. Akad. Nauk Kirgiz. S.S.R., Ser. Khim.*, No. 5, 113–21(1955)(in Russian).—Natural and prepd. emulsions were studied by electrophoresis after they were dild. with the dispersing petroleum phase. The emulsifiers were a mixt. of org. and inorg. (sand or clay) components (*C.A.* 46, 17856). In the natural emulsions the dispersed phase consisted of alk. and alk.-earth aq. solns. with a pH of 6.6 to 7.6. In the prepd. emulsions the aq. solns. ranged from pH = 0 to 13.0. The electrokinetic potential of the dispersed aq. phase in natural petroleum emulsions was pos. and varied only slightly from 0.014 v. for poorly stable emulsions to 0.020–0.028 v. for very stable emulsions. The inorg. component of the emulsifier was neg. to the petroleum phase. Typical potential differences were 0.118 and 0.127 v. for sand and 0.302 v. for clay particles. The electrokinetic potentials of artificial emulsions of aq. solns. in petroleum were positively charged and independent of pH. Stable emulsions in paraffin oil showed zero or neg. electrokinetic potentials. It was concluded that the electrokinetic potential of petroleum emulsions is not a measure of their stability. B. D. Mich

BEN'KOVSKIY, V.G.; BOGOSLOVSKAYA, T.M.; DRIZO, Ye.A.

Some causes for the breakdown of anticorrosive bituminous coating.
Trudy Inst. nefti AN Kazakh. SSR no.1:65-75 '56. (MLRA 10:4)
(Corrosion and anticorrosives)

BEN'KOVSKIY, V.G.

Viscosity of petroleum emulsions. Izv.AN Kazakh.SSR.Ser.khim. no.9:8-12 '56. (Viscosity) (Petroleum) (MIRA 9:7)

BEN'KOVSKIY, V. G.

Category: USSR / Physical Chemistry - Surface Phenomena. Adsorption. Chromatography. Ion exchange. B-13

Author : Zavorokhina N. A., Ben'kovskiy V. G.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 30193

Inst : not given
Title : Adsorption of Carboxymethyl Cellulose on Clays

Orig Pub: Kolloid. zh., 1956, 18, No 5, 536-539

Abstract: A study of adsorption (A) of carboxymethyl cellulose (I) at natural and at dialyzed clays of the Emba fields, and also of the effects of NaCl, $MgCl_2$ and $CaCl_2$ (at concentration of 0.1 - 4 N) on A of I by these clays. It is shown that magnitude of A of I at natural clay is considerably greater than that at the dialyzed, and that the nature of A at all the investigated dialyzed clays and at natural Makatskaya clay is sharply altered under the influence of water. With increasing concentration of $CaCl_2$ and $MgCl_2$ the value of A passes through a maximum, while in the case of NaCl it undergoes

Card : 1/2 -10-

Category: USSR / Physical Chemistry - Surface phenomena. Adsorption. Chromatography. Ion exchange. F-13

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30193

monotonous increase. The stabilizing action of I in flushing solutions used in drilling of petroleum wells is due, according to the authors, not only to adsorbed protective layers, but also to the formation of highly viscous solutions in which the water is bound by macromolecules of I.

Card : 2/2-

BERN'KOVSKIY, Vasiliy Grigor'yevich, doktor tekhnicheskikh nauk, professor; FAYNBOYM, I.B., redaktor; GUBIN, M.I., tekhnicheskiy redaktor

[Use of radioactive radiation in the petroleum industry] Ispol'zovanie radioaktivnykh izluchenii v neftianoi promyshlennosti. Moskva, Izd-vo "Znanie," 1957. 20 p. (Vsesoyuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.4, no.13) (MLRA 10:8)
(Radioisotopes--Industrial applications)
(Petroleum engineering)

BELKOVSKIY, V. G.

"The Utilization of Radioactive Radiations in the Petroleum Industry", (Ispolzovaniye Radioaktivnikh Izlucheniy v Neftyanoy Promyshlennosti), Series IV, No. 13, Moscow: The Znanie" Publishing House, 1957, 24 pp.

KEN'KOVSKIY, V.G.; KAGANSKAYA, K.A.; SUKHAREV, S.S.

Stabilization of clay solutions by dextrin. Izv.AN Kazakh.S.S.R. Ser.khim. no.1:76-82 '57. (MLRA 10:5)
(Clay) (Dextrin)

SOV/81-59-16-58514

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, pp 411-412 (USSR)

AUTHOR: Ben'kovskiy, V.G.

TITLE: On Some New Methods for Separating Resinous Substances

PERIODICAL: V sb.: Sostav i svoystva vysokomolekulyar. chasti nefti. Moscow, AN SSSR, 1958, pp 258-265

ABSTRACT: It has been proposed to use the methods of electrochemistry and colloidal chemistry for the separation of resinous substances: electrophoresis, electrodialysis, high-voltage electrolysis, thermodiffusion and the method of molecular compounds. For carrying out the work by the mentioned methods it is recommended to apply an X-ray installation for 220 kv (RUT-200-2) without the X-ray tube, instead of which an electrophoretic vessel is installed. The maximum current strength is 20 μa. Another installation is a self-excitation high-voltage electrostatic generator for 300 kv with a current output of up to 160 μa. The circuit of the generator is given.

Yu.Kogan.

Card 1/1

ZAVOROKHINA, N.A., BEN'KOVSKIY, V.G.

Mechanism of stabilization of clay suspensions by sodium salt of carboxymethylcellulose. Trudy Inst.nefti AN Kazakh. SSR 2:53-60 '58. (MIRA 11:8)

(Oil well drilling fluids)
(Cellulose)

SUKHAREV, S.S., KAGANSKAYA, K.A., BEN'KOVSKIY, V.G.

Stabilization of drilling muds by a seaweed reagent. Trudy Inst. nefti AN Kazakh. SSR 2:61-71 '58. (MIRA 11:8)
(Seaweed)
(Oil well drilling fluids)

SUKHAREV, S.S., BEN'KOVSKIY, V.G.

Coagulation of sodium humates solution by sodium chloride. Trudy Inst. nefti AN Kazakh. SSR 2:72-76 '58. (MIRA 11:8)
(Humates)
(Seaweed)
(Oil well drilling fluids)

BOGOSLOVSKAYA, T.M., DRIZO, Ye.A., BEN'KOVSKIY, V.G.

Selection of a local mineral filler for bituminous anticorrosive coatings. Trudy Inst. nefti AN Kazakh. SSR 2:84-92 '58.
(MIRA 11:8)

(Protective coatings)
(Bitumen)

BOGOSLOVSKAYA, T.M., DRIZO, Ye.A., BEN'KOVSKIY, V.G.

Effect of oxygen on the physical properties of bitumen and bituminous putties. Trudy Inst. nefti AN Kazakh. SSR 2:93-99 '58. (MIRA 11:8)
(Putty)
(Bitumen)
(Oxygen)

AUTHOR: Zaverokhina, N.A., Pen'kovskiy, V.I. SOV-69-56-4-7/18

TITLE: The Problem of the Mechanism of Clay Suspension Stabilization by an Algae Extract (K voprosu o mekhanizme stabilizatsii glinistykh suspenziy ekstraktom iz vodorosley)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 476-482 (USSR)

ABSTRACT: The speed and the quality of oil well drilling is greatly influenced by the washing liquid. These liquids are clay suspensions in water. The water and clay on oil fields often contains large quantities of electrolytes which cause coagulation in the suspensions. Protective colloids are therefore used, e.g. starch and its derivatives, humic substances of lignite and peat, waste products of paper production, carboxymethyl cellulose, etc. In recent years, an algae extract has been used as stabilizer (Ref. 1), but its mechanism of stabilization is not yet completely investigated. The extract consists mainly of sodium alginate and fucoidin. In the article, the influence of the different components on the colloidal properties of clay suspensions and their stabilizing agent are studied. For this purpose, algin acid and fucoidin were extracted from Fucus vesiculosus and aqueous solutions of their sodium salts were prepared. As adsorbents, clays from

Card 1/4

The problem of the Mechanism of Clay Suspension Stabilization by an Algae Extract

Mukat, Novobogatinskoye and Kul'sary were used. Their chemical composition is given in reference . Figures 1 and 2 show that the adsorption of sodium alginate and fucoidin on dialyzed clays is considerably less than on natural ones. This is explained by the fact that the water-soluble salts which are present in natural clays in quantities of up to 6.5 % are removed during dialysis, which increases the adsorption ability. The influence of the chlorides of sodium and magnesium on the adsorption is shown in Figures 3 and 4. The adsorption of sodium alginate increases with the concentration of sodium chloride in the solution. With the increase of the magnesium chloride concentration it reaches a maximum. The adsorption of fucoidin reaches a maximum with the increase of the concentration of the chlorides of magnesium and sodium. The increasing adsorption values may be explained by surface desalting, by the dispersion of the clay particles induced by sodium chloride, by the ion exchange between the magnesium ions and ions from the ionogenic complex of the clays, etc. The dependence of the viscosity of the aqueous solutions of sodium alginate and fucoidin on their con-

Card 2/3

The Problem of the Mechanism of Clay Suspension Stabilization by an Algae Extract

centration in the solution is shown in Figure 5. The viscosity of the sodium alginate solution is 7.5 times greater than that of the fucoidin solution. In Table 1, the properties of clay suspensions stabilized by fucoidin, sodium alginate, and the mixture of both are shown. The stabilizing effect of the algae extract is caused by the formation of surface adsorption films of fucoidin preserving the clay particles from coagulation, and by the development of structural-mechanical properties in the suspension due to sodium alginate. The stability of the suspension against electrolytic coagulation is greater in the presence of sodium alginate than in the presence of fucoidin. Clay suspensions stabilized by a basic algae extract are also completely stable in the presence of sodium chloride (Table 2).

There are 5 diagrams, 2 tables, and 11 references, 10 of which are Soviet, 2 English, 1 French, and 1 German.

Card 3/4

SOV-68-58-4-7/18

The Problem of the Mechanism of Clay Suspension Stabilization by an Algae Extract

AUTHOR: Institut nefti AN Kaz. SSR, A. Bur'yev (Petroleum Institute of the Academy of Sciences of the Kazakh SSR, A. Bur'yev)

SUBMITTED: June 10, 1957

1. Algae--Applications 2. Clays--Stabilization

Card 4/4

ZAVOROKHINA, N.A.; BEN'KOVSKIY, V.G.

Adsorption of sodium humates on clays. Trudy Inst.nefti AN Kazakh.SSR 3:143-148 '59. (MIRA 13:1)
(Humates) (Adsorption)

FILATOVA, M.A.; NEKRASOVA, R.P.; BEN'KOVSKIY, V.G.

Problem in locating spots where "dry" salts and water emulsions are forming. Khim.i tekh.topl.i masel 5 no.12:28-31 D '60.
(MIRA 13:12)

1. Institut khimii nefti i prirodnykh soley AN KazSSR.
(Petroleum--Desalting)

BEN'KOVSKIY, V.G.; BOGOSLOVSKAYA, T.M.; DRIZO, Ye.A.

Effect of water and electrolyte solutions on poly(vinyl chloride) anti-corrosion coatings. Trudy Inst. nefti AN Kazakh.SSR 156-167 '61. (MIRA 16:4)

(Pipelines—Corrosion) (Vinyl polymers) (Protective coatings)

S/081/62/000/005/052/112
B156/B108

AUTHORS: Ben'kovskiy, V. G., Pogoslovskaya, T. M., Drizo, Ye. A.

TITLE: Effect of water and solutions of electrolytes on anti-corrosion polyvinyl chloride coatings

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 367, abstract 5I246 (Tr. In-ta nefti. AN KazSSR, v. 4, 1961, 155 - 167)

TEXT: The best possible formula and technique for preparing polyvinyl chloride masticated rubber have been developed; this substance has high resistance to chemical, electrochemical and bacterial factors, and its permeability to water and ions is low; it is practically insoluble in ground waters and in 10% aqueous solutions of NaCl and Na_2SO_4. It is pointed out that the water-resistance of the masticated rubber specimens tested exceed that of the grade IV bitumen or bitumen with mineral filler used to protect underground metal structures from corrosion. [Abstracter's note: Complete translation.]

Card 1/1

S/081/62/000/005/053/112
B156/B108

AUTHORS: Ben'kovskiy, V. G., Bogoslovskaya, T. M., Drize, Ye. A.

TITLE: The effects of some destructive agents on corrosion insulation made of polyvinyl chloride

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 367, abstract 5I247 (Tr. In-ta nefti. AN KazSSR, v. 4, 1961, 148 - 154)

TEXT: It has been found that polyvinyl chloride masticated rubbers are very resistant to O_2 and Cl_2 in the active state. It is pointed out that after polyvinyl chloride masticated rubbers have been kept for 200 days in gasolene, up to 15% of substances, obviously mostly plasticizers, is extracted from them. The masticated rubbers merely lose their elasticity, this scarcely affecting the properties of insulating coatings. Laboratory and field tests have shown that there is no danger of polyvinyl chloride masticated rubbers being damaged by rodents. [Abstracter's note: Complete translation.]

Card 1/1

BEN'KOVSKIY, V.G.; GAFAROVA, N.A.; DZHANAKHMETOVA, Zh.K.; FAKHRUTDINOVA, D.I.; FILATOVA, M.A.

Obtaining surface-active agents from petroleum products. Trudy Inst. nefti AN Kazakh.SSR 4:179-186 '61. (MIRA 16:4)
(Petroleum products) (Surface-active agents)

FILATOVA, M.A.; NEKRASOVA, R.P.; BEN'KOVSKIY, V.G.

Organic chlorides in petroleum fractions. Neftekhimiia 1 no.3:350-352 My-Je '61. (MIRA 16:11)

1. Institut khimii nefti i prirodnykh soley AN KazSSR.

SOURCE: AN SSSR. Vestnik, no. 7, 1963, 50-50

TOPIC TAGS: Ion exchange resin, sulfonation, petroleum pitch, petroleum residue, mazut, ion exchange capacity, cationite , sulfuric acid, oleum .

ABSTRACT: An improved method for the production of cationites was obtained on the basis of sulfonation work conducted at the Institut khimii nefti e prirodny*kh soley Akademii nauk Kazakhskoy SSR (Institute of Petrochemistry and Natural Salts, Academy of Sciences, Kazakh SSR). It consists in sulfonation of pitchy petroleum residues with 95% sulfuric acid at a 1:1.8 ratio by weight, for a 4-hr period at 60-70C. After the fluid part has been removed, the sulfonation is continued by fuming sulfuric acid at a 1:2 ratio for another 3-4 hours at 95-100C. As a result, the dynamic exchange capacity of the cationite is increased by 40-50%. Experiments with heavy pitch residues of various origins showed that the residues from cracking produce resins of higher ion exchange capacity, especially where

Card 1/2

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: CH NO REF SOV: 000 OTHER: 000

Card 2/2

AID Nr. 983-11 5 June

SURFACE TENSION OF NORMAL ALKANES AT 173-273°K (USSR)

Ben'kovskiy, V. G., T. M. Bogoslovskaya, L. D. Kiyko, and M. Kh. Nauruzov. Neftekhimiya, v. 3, no. 2, Mar-Apr 1963, 173-176.
S/204/63/003/002/001/006

This study was carried out at the Institute of the Chemistry of Petroleum and Natural Salts, Academy of Sciences Kazakh SSR, because of recent interest in the properties of hydrocarbons at low temperatures and because of a lack of data on the surface tension (σ) of C_7 alkanes and their homologues below 273.16°K. The surface tension of pure n-alkane samples was measured by the capillary-rise method and by the bubble-pressure method with the Sugden apparatus as modified by Quayle. On the basis of the experimental data, an empirical formula was derived for the temperature dependence of surface tension:

$$\sigma_T = M(a - bT),$$

Card 1/2

AID Nr. 983-11 5 June

SURFACE TENSION OF NORMAL ALKANES [Cont'd] S/204/63/003/002/001/006

where M is the molecular weight, a and b are constants, and T is temperature in °K. This formula is valid not only for alkanes, but also for alkenes, alkynes, arenes, and cyclic hydrocarbons at temperatures from the melting point to the boiling point. The temperature coefficient of surface tension for normal alkanes varies from 0.08 to 0.12. There were no anomalies near the melting point. The parachor values diminished at low temperatures. The parachor temperature coefficient was 0.03 for hexane and 0.05 for octane and decane. [EDW]

Card 2/2

L 13326-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS Ps-4/Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3002771 S/0214/63/003/003/0310/0313

72
71

AUTHOR: Ben'kovskiy, V. G.; Bogoslovskaya, T. M.; Kiyko, L. D.; Naurusov, M. Kh.

TITLE: Index of refraction of normal alkanes at low temperatures

SOURCE: Neftekhimiya, v. 3, no. 3, 1963, 310-313

TOPIC TAGS: refraction index, normal alkane, IRF-22 refractometer, hexane, heptane, octane, nonane, decane, undecane, normal alkane refraction index

ABSTRACT: The measurement of the index of refraction at low temperatures presents a great difficulty. The condensation of moisture on the prisms hinders the measurement. The use of special plastics, as suggested by others, proved to be a failure in this experiment at a temperature below 243K. A new and simple method has been proposed in determining refractive indexes at low temperatures with an IRF-22 refractometer. The refractometer was hermetically sealed inside a methyl-

following normal alkanes were measured: hexane, heptane, octane, nonane, decane,

Card 1/2

L 13326-63
ACCESSION NR: AP3002771

and undecane. Measurements were carried out at temperatures ranging from 293K to crystallization temperature. Dependent refractive index has been confirmed for normal alkanes up to their crystallization temperature. It has been shown that, with a decrease in temperatures, the molecular refraction of normal alkanes decreases uniformly up to their crystallization temperature. Orig. art. has: 3 tables.

ASSOCIATION: Institut khimii nefti i prirodnykh soley AN Kaz.SSR (Institute of Petroleum Chemistry and Natural Salts, AN Kaz.SSR)

SUBMITTED: 18Aug62 DATE ACQ: 23Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 005 OTHER: 003

GAFAROVA, N.A.; DZHANAKHMETOVA, Zh.K.; NOGERBEKOV, B.Yu.; BEN'KOVSKIY, V.G.

Surface-active substances from the petroleum products of the Gur'ev Petroleum Refinery. Khim. i tekh. topl. i masel 8 no.6: 30-33 Je '63. (MIRA 16:6)

1. Institut khimii nefti AN KazSSR.
(Gur'ev(Gur'ev Province)--Petroleum refineries)
(Surface-active agents)

BEN'KOVSKIY, V.G.; BOGOSLOVSKAYA, T.M.; DRIZO, Ye.A.

Ion-exchange resins from heavy residues of petroleum refining.
Vest. AN SSSR 33 no.7:56-58 Jl '63. (MIRA 16:8)
(Ion exchange resins) (Petroleum products)

BEN'KOVSKIY, V.G.

Instability of a water drop suspended in a hydrocarbon medium occurring in an electric field. Khim. i tekh.topl. i masel 9 no.2:27-29 F '64. (MIRA 17:4)

1. Institut khimii nefti i prirodnykh soley AN Kazakhskoy SSR.

SHERGILOV, N.V.; MARDANENKO, V.P.; FILATOVA, M.A.; BEN'KOVSKIY, V.G.

Overalkalinity of kerosine-gas oil distillates. Khim. i tekh. topl. i masel 7 no.10:36-41 O'62 (MIRA 17:7)

ACCESSION NR: AT4042417 S/0000/63/000/000/0029/0033

AUTHOR: Ben'kovskiy, V. G.; Bogoslovskaya, T. M.; Drizo, Ye. A.

TITLE: Preparation and properties of cation exchange resins from petroleum and petroleum products

SOURCE: Respublikanskoye nauchno-tekhnicheskoye soveshchaniye po ionnomu obmenu. Alma-Ata, 1962. Teoriya i praktika ionnogo obmena (Theory and practice of ion exchange); trudy* soveshchaniya. Alma-Ata, Izd-vo AN KazSSR, 1963, 29-33

TOPIC TAGS: petroleum, petroleum product, ion exchange resin, cation exchange resin, rubber, copolymerization, polymer strength, tar, thermal cracking residue, sulfuration

ABSTRACT: Following an extensive review of recent Soviet work on the subject, the authors describe their attempts to enhance the mechanical strength and chemical stability of available cation exchangers by using a mixture of tarry thermal-cracking residues with minced rubber wastes (used inner tubes, tires, etc.) as the material for the synthesis. A mixture of 10 or 20% rubber with cracking residues was heated at 250-260C for 1.5-2 hrs. and sulfurated with sulfuric acid; 6 hrs. treatment with 100% H_2SO_4 at 80-100C was found to be optimal, yielding cation exchangers of satisfactory quality which are fairly stable in water up to 80C

Card 1/2

ACCESSION NR: AT4042417

During sulfuration of petroleum products, it is advisable to maintain a high concentration of the sulfurating agent while gradually increasing the temperature up to 100C. The feasibility of obtaining cation exchange resins by direct sulfuration of tarry crude oil was proved. The cation exchangers discussed are sufficiently alkali-resistant to be used at pH 8-11. Orig. art. has: 1 figure.

ASSOCIATION: Institut khimii nefti i prirodnykh soley AN KazSSR (Institute of Petroleum and Natural Salt Chemistry, AN KazSSR)

SUBMITTED: 13Nov63

ENCL: 00

SUB CODE: FP, OC

NO REF SOV: 010

OTHER: 000

Card 1/2

MARCHENKO, V.V.; BERTKOVSKIY, V.G.

Methodology for the separation and analysis of the natural emulsifiers of water and petroleum. Khim. i tekh. topl. i masel 10 no.7:41-45 Jl '65. (MIRA 18:9)

1. Institut khimii nefti i prirodnykh soley AN KazSSR.

L 41251-66 EWT(m)/EPF(c)/T/EWP(t)/EWP(b) LIP(c) JD/JG/WE

ACC NR: AP5024949 UR/0065/65/000/010/0029/0031

655.53:546.881:547.54

AUTHOR: Kotova, A. V.; Yemel'yanova, S. V.; Ben'kovskiy, V. G.

TITLE: Removal of vanadium from petroleum and petroleum products by aqueous solutions of sulfonic acids

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 10, 1965, 29-31

TOPIC TAGS: vanadium, vanadium compound, petroleum refining, petroleum product, metal extracting

ABSTRACT: Aqueous solutions of p-toluenesulfonic, o-sulfobenzoic, and sulfanic acid were used to extract vanadium from several types of petroleum and petroleum products (kerosene-gas oil fraction and diesel fuel). The optimum concentration of the extracting solutions and the number of extractions were determined for each type. To elucidate the nature of the vanadium compounds present in the petroleum and petroleum products, the presence of the vanadium-porphyrin complex was investigated by spectrophotometric analysis of alcohol extracts in the 400-750 mμ range. When this complex was present, the extraction of vanadium was lower than in its absence. It is thought that the side chains of the porphyrins, which are relatively high-molecular compounds and are present in some of the types of petroleum studied, interfere with the extraction of vanadium by aqueous solutions of organic acids. When the porphyrins are absent, vanadium is assumed to be present in the form of salts of organic acids, and is therefore easy to extract in this manner. Orig. art. has: 3 tables.

Card 1/2

L 4151-66
ACC NR: AP5024949

ASSOCIATION: Institut khimii nefti i prirodnykh soley AN Kazakh. SSR (Institute of Petroleum Chemistry and Chemistry of Natural Salts, AN Kazakh. SSR)

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

NO REF SOV: 005 OTHER: 004

Card 2/2

BEN'KOVSKIY, V.Ya., inzhener (Kuybyshev)

Experience in growing tree shelter belts. Zhel.dor.transp. 37 no.5: 78-79 My '56. (MLRA 9:8)
(Railroads--Snow protection and removal)

KOCHERGIN, S.V.; GORYUSHKIN, F.F., dorozhnyy master; BORISENKO, D.G., brigadir; GRINEVICHUS, E.A. [Grinevicus, E.]; KURS, V.G., brigadir; SELIONOV, S.I.; BEN'KOVSKIY, V.Ya.; PIRIYEV, A.M.

Letters to the editor. Put' i put.khoz. 7 no.2:36-37 '63. (MIRA 16:2)

1. Zamestitel' nachal'nika Rossoshanskoy distantsii Yugo-Vostochnoy dorogi (for Kochergin). 2. Stantsiya Kubinovo, Moskovskoy dorogi (for Goryushkin). 3. Stantsiya Kshanitsa, Moskovskoy dorogi (for Borisenko). 4. Starshiy dorozhnyy master, stantsiya Klaypeda, Litovskoy dorogi (for Grinevichus). 5. Stantsiya Cheremkhovo, Vostochno-Sibirskoy dorogi (for Kurs). 6. Zamestitel' nachal'nika distantsii, Manzovka, Dal'nevostochnoy dorogi (for Selionov). 7. Nachal'nik otdela zashchitnykh lesonasazhdeniy sluzhby puti, g.Kuybyshev (for Ben'kovskiy). 8. Zamestitel' nachal'nika distantsii, Khachmas, Azerbaydzhanskoy dorogi (for Piriyev).

(Railroads--Track)

BENKSTERN, T. V.

19844 BENKSTERN, T. V., Fosfornyye soyedineniya i fermentnyye sistemy setchatki. Biokhimiya, 1949, Vyp. 3, s. 238-48. —Bibliogr: 9 Nazv.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, MOSKVA, 1949.

BENKOVSKIY, G., komandir korablya.

Flight to saudi Arabia. Grazhd.av. 13 no.2:34-36 F '56.
(MLRA 9:5)

(Aeronautics--Flights)

BENKUNSKIY, G., komandir korablya.

Flight into a thundersterm. Grazhd.av.13 no.6:10-12 Je '56.
(Airplanes--Piloting) (MIRA 9:9)

BIELUZAŃSKI, Zdzisław, mgr inż., adiunkt

Remarks on certain applications of the Work Study System.
Przegl mech 22 no. 19 10 O: 603-606 1-63.

1. Instytut Organizacji Przemysłu Maszynowego, Warszawa.

KHATSET, I.E.; BENNER, D.P.; BURSHTEYN, I.M.; TUROVSKIY, B.I., red.; NEMCHENKO, I.Ye., tekhn.red.

[Rights and duties of people building their own dwellings] Prava i obiazannosti individual'nykh zastroishchikov. Kiev, Gos.izd-vo lit-ry po stroit. i arkhit.USSR, 1958. 158 p. (MIRA 12:8)

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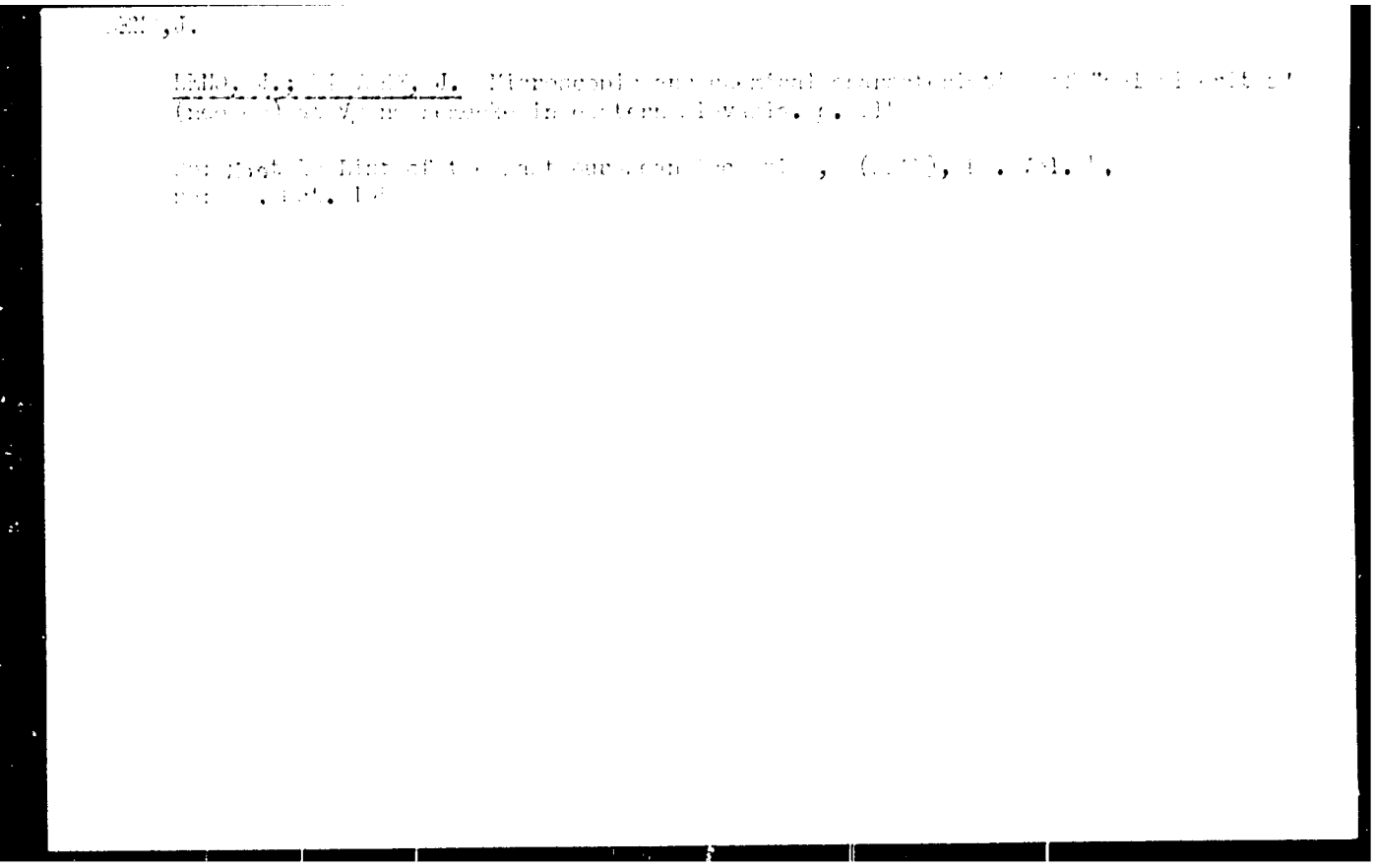
Michael Fleischer



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