ACCESSION NR: AT4037526

factors. The study is part of an experimental series on the castability of heat resistant alloys. The improved spiral probe (length 1300 mm, trapezoidal cross section 22 mm^2) held deviations to ±6%. The vacuum suction method employed a sampling tube with inside ϕ=3 mm at 250 to 300 mm Hg and held deviations to ± 3%. Flowability increased with temperature for all tested alloys, curves were slightly convex and illustrate gradual decrease in the effect of temperature as superheating increased. Flowability decreased as content of C increased from 0.12 to 0.35%; it increased as Ni content rose to 60%, then dipped for 80% Ni. The increase is especially sharp for the initial 20% Ni. Flowability was lower in comparable carbon steels than in the named heat resistant basic systems. Alloying element admixtures decreased it in the latter (at 5% across the series Al, W, Co, Mo, Nb and Ti; at 10% in the order W, Co, Al, Mo; Nb and Ti not considered). All commercial alloys exhibited lesser flowability than the basic systems, the property deteriorating across series EI612, LA3, Khl, Kh32, 111, No. 300, No. 6 and No. 3, but surpassed the comparable carbon steels. An argon atmosphere lessens the flowability of Ni-based alloys and does not affect Fe-based alloys which do not contain Ti or Al. Orig. art. has: 12 figures.

Card 2/3

ACCESSION NR: AT4037526

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnical Institute)

SUBMITTED: 00 DATE ACQ: 04Jun64 ENCL: 00

SUB CODE: MM NQ REF SOV: 010 OTHER: 004

Card 3/3

ACCESSION NR: AT4037531 S/2563/63/000/224/0142/0152

AUTHOR: Gruzny*kh, I. V.; Kochkareva, G. P.

TITLE: Resistance to crack formation in heat resistant alloys

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 224, 1963. Liteyny*ye svoystva zharoprochny*kh splavov (Castability of heat-resistant alloys), 142-152

TOPIC TAGS: castability, heat resistant alloy, iron based alloy, nickel based alloy, austenitic steel, high alloy steel, Nichrome alloy, alloy composition, hot crack formation, hot crack resistance, solidification interval, flowability, alloy crystal size

ABSTRACT: Special equipment was developed (illustrated) to determine the minimum loads causing hot cracks to develop in samples of basic systems and commercial alloys (see Nekhendzi Yu. A., p. 9-23, this same book, for all compositions). The measurements were carried out as part of an experimental series on castability of heat resistant alloys and are charted against the liquidus-solidus range, flowability and crystal size for the

Card 1/3

ACCESSION NR: AT4037531

various compositions. Resistance to cracking drops sharply as nickel is added, from P_{cr}= 600 kg for 12/20/0 to below 200 kg for 12/20/80. The decrease is especially sharp for the initial 20% Ni (P_{cr} ~ 360 kg). Corresponding figures for 35/20/0 to 25/20/80 were above 700 to below 300 kg, with around 380 kg at 35/20/20. Tendency to resist formation of hot cracks is better for 0.35 than for 0.12%C and deteriorates when 1 to 3% or less Mo W, Al or Ti is added. The effect is most pronounced for W and weakest for Mo. Resistance increases as more alloying element is added, especially so for Al and Ti. Up to 5% Co did not produce a significant effect; larger concentrations produced somewhat lower resistance. Alloys 111, Khl and LA3 (P_{cr}=300 to 350 kg) have lower resistance and alloy Kh32 (above 450 kg) has much higher resistance than the corresponding base system 35/20/20. Alloy EI612 (about 350 kg) was better than the corresponding 12/20/40 (300 kg), alloys No. 3 and No. 6 (300 to 350 kg) were better than the corresponding 12/20/80 (150 kg), and alloy No. 300 (400 kg) was better than the corresponding 35/20/80 (250 kg). No castability property of the alloys, except for the coefficient of linear shrinkage in the liquidus-solidus range, was found to be directly related to an alloy's resistance to formation of hot cracks. Orig. art. has: 7 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im.M.I. Kalinina (Leningrad Polytechnical Institute)

Card 2/3

ACCESSION NR: AT4037531

SUBMITTED: 00 DATE ACQ: 04Jun64 ENCL: 00

SUB CODE: MM NO REF SOV: 012 OTHER: 003

Card 3/3

GRUZOV, L.N.

Effect of plankton on the feeding migrations of herring in the Norwegian Sea in 1959. Trudy BaltNIRO no.7:38-49 '61.
(MIRA 15:2)

(Norwegian Sea--Herring) (Norwegian Sea--Plankton)

TP
767
.S8

Gruzov, S. G.

Proizvodstvo Atsetilena Dlya Gazo-Plamennoy Obrabotki Metallov /Production of Acetylene for Flame Treatment of Metals, by/ I.I. Strizhevskiy (l) S. G. Gruzov. Moskva, Mashgiz, 1958.

87 p. Illus., Diagrs., Tables.

At Head of Title: Moscow. Vsesoyuznyy Nauchno-Issle-Dovatel'skiy Institut Avtogennoy Obrabotki Metallov. Spravochnyye Materialy Po Gazoplamennoy Obrabotke Metallov, Vyp. 14.

GRUZOV, V.L.; MAMEDOV, V.M.; RUDAKOV, V.V.

Use of servo correctors in amplidyne automatic control systems.
Sbor.rab.po vop.elektromekh. no.7:147-157 '62.
(MIRA 16:1)

(Rotating amplifiers) (Automatic control)

GRUZOV, Vladimir Leonidovich; NOVIKOVA, Galina Ivanovna; KOVCHIN, S.A., red.

[Transistorized frequency converters for automated a.c. drives] Poluprovodnikovye preobrazovateli chastoty dlia avtomatizirovannykh elektroprivodov peremennogo toka. Leningrad, 1964. 24 p. (MIRA 18:3)

GRUZOV, Ye.N.

Molpadicola orientalis, gen. n., sp. n. (family Paedopharopodidae), a new endoparasitic mollusk [with summary in English]. Zool. zhur. 36 no.6:852-863 Je '57. (MLRA 10:8)

1. Kafedra zoologii bespozvonochnykh Leningradskogo gosudarstvennogo universiteta.
(Okhotsk, Sea of--Gastropoda) (Parasites--Holothurians)

GRUZOV, Ye.N.

New deep-water starfish Asterodes djakonovi sp.N. (Brisingidae) from the Okhotsk Sea. Zool. zhur. 43 no.9:1394-1396 '64. (MIRA 17:11)

1. Zoologicheskiy institut AN SSSR, Leningrad.

SKARLATO, O.A.; GOLIKOV, A.N.; GRUZOV, Ye.N.

The role of diving in hydrobiological research. Okeanologiia 4 no.4: 707-719 '64. (MIRA 17:10)

1. Zoologicheskiy institut AN SSSR, Leningrad.

GRUZOV, Ye.N.

Organization of the endoparasitic mollusk Asterophila japonica Randall et Heath. Report No.1. Organization of an adult species. Zool.zhur. 44 no.8:1152-1164 '65.
(MIRA 18:11)

1. Zoologicheskiy institut AN SSSR, Leningrad.

GRUZOVA, M.N.

New data concerning the development of Hydra vulgaris (Pall).Dokl. AN SSSR 109 no.3:670-672 Jl '56. (MLRA 9:10)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova. Predstavleno akademikom Ye. N. Pavlovskim.
(HYDROMEDUSAE) (EMBRYOLOGY--HYDROZOA)

ALEKSANDROV, V.Ya.; GRUZOVA, M.N.

Microscopic structure of the nuclei of the epidermis cells of the bulbs of Allium cepa L. TSitologiia 2 no.4:389-395 Jl-Ag '60. (MIRA 13:9)

1. Laboratoriya tsitologii i tsitoekologii Botanicheskogo instituta i Laboratoriya morfologii kletki Instituta tsitologii AN SSSR.
(PLANT CELLS AND TISSUES) (ONIONS)

GRUZOVA, M. N.

"Comparative Morphological Study of Karyospheres during the Oogenesis of Some Insects." pp. 26

Institute of Cytology AS USSR Laboratory of Cell Morphology

II Nauchnaya Konferentsuya Instituta Tsitologii AN SSSR. Tezisy Dokladov (Second Scientific Conference of the Institute of Cytology of the Academy of Sciences USSR, Abstracts of Reports), Leningrad, 1962 88 pp.

JPRS 20,634

GRUZOVA, M.N.

Karyosphere formation in the oogenesis of Panorpa. TSitologiia 4 no.2:150-159 Mr-Ap '62. (MIRA 15:8)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR, Leningrad.
(OOGENESIS) (SCORPION FLIES) (KARYOKINESIS)

GANDILINA, L.Sh., kand.med.nauk; [illegible], M.N., kand.biol.nauk

Important problems in cybernetics; session in Leningrad. Vest.AN SSSR 35 no.8:98-100 Ag '65. (MIRA 18:8)

GAISINA, L.Sh.; GRUZOVA, M.N.

General session of the Department of Biochemistry, Biophysics and Chemistry of Physiologically Active Substances of the Academy of Sciences of the U.S.S.R. dedicated to the activities of the Scientific Council on Problems of Cytology and the Second Coordination Conference on Cytology. Tsitologiia 7 no.5:692-695 S-O '65. (MIRA 18:12)

FALKIEWICZOWA, Stanislawa; GRUZOWSKI, Konstanty

Rotatory epilepsy. Neurol. neurochir. psychiat. pol. 12 no.6:839-846 '62.

1. Z Kliniki Neurologicznej AM we Wroclawiu Kierownik: prof. dr R. Arend.

(EPILEPSY)

RUMANIA/Laboratory Equipment. Instrumentation. F

Abs Jour: Ref Zhur-Khim., No 8, 1959, 27241.

Author : Gruzsnicki, F.
Inst :
Title : Radiation Pyrometers.

Orig Pub: Metrol apl, 5, No 4, 173-178, 191-192 (1958) (in Rumanian with German, English, French, and Russian summaries).

Abstract: A popular review. -- A. Sarakhov

Card : 1/1

RUMANIA/Atomic and Molecular Physics - Heat.

Abs Jour : Ref Zhur Fizika, No 4, 1960, 8365

Author : Gruzsnicki, Filip
Inst :
Title : Measurement of Temperature with Thermistors

Orig Pub : Metrol. apl. 1959, 6, No 2, 65-70, 95, 96

Abstract : The latest developments in the field of temperature measurements are described. The theoretical part deals with the basic elements of the operation of thermistors and their characteristics, while the applied part deals with methods of manufacturing and using thermistors. Many circuits and wiring diagrams are given, with which it is possible to use thermistors of various types for the measurement of temperatures with varying accuracies from ± 5 to ± 0.001° C.

Card 1/1

GRUZSNICZKI, F., fiz.; ISPASOIU, C., fiz.

Error evaluation in the process of graduating the standardized temperature measuring devices in Rumania. Metrologia apl 8 no.1:21-27 Ja-Mr '61.

S/058/63/000/001/008/120
A062/A101

AUTHOR: Gruzsnieczki, F.

TITLE: High precision calibration of glass thermometers

PERIODICAL: Referativnyy zhurnal, Fizika, no. 1, 1963, 18, abstract 1 A187 ("Metrol. apl." 1962, 9, no. 2, 49 - 58, Rumanian; summaries in Russian, English, German)

TEXT: Some problems connected with a precise verification of liquid-in--glass thermometers by comparison with a platinum resistance thermometer are considered. There are described: a method of resistance measurement with the aid of a direct current compensator; thermostats: pentane, water, oil, salt; a device for photographing liquid-in-glass thermometer indications; an inversion switch. Numerical examples are given of: 1) calculation of the temperature by successive approximations on indications of a resistance thermometer; 2) evaluation of the calibration errors.

B. Filipchuk

[Abstracter's note: Complete translation]

Card 1/1

GRUZSNICZKI, F., fiz.; ISPASOIU, Gh., fiz.

Analysis of some measuring apparatus for temperatures, analytical quantities and laboratory measurement glass containers, produced in Rumania. Metrologia apl 9 no.3:129-135 My-Je '62.

GRUZSNICZKI, F., fiz.; VEZEANU, P., ing.

Temperature measurement of liquid steel with the aid of rhodium and platinum alloy thermocouples. Metrologia apl 9 no.5:207-211 S-O '62.

GRUZSNICZKI FILIP

RUMANIA/Atomic and Molecular Physics - Heat D-4

Abs Jour : Ref Zhur - Fizika, No 3, 1958, No 5715

Author : Gruzsniczki Filip
Inst : Not Given
Title : Equipment for Reproducing the International Temperature Scale

Orig Pub : Metrol. apl., 1957, No 6, 35-41

Abstract : Description of instruments used in the Institute of Metrology (Bucharest, Rumania) for establishing the following reference points: melting point of ice, triple point of H_2O, boiling points of H_2O, S, and O_2, and hardening point of gold and silver.

Card : 1/1

A procedure is described for calibrating a standard Pt-Rh -- Pt thermocouple at the points of hardening of silver and gold. The values of the thermal emf are indicated to be $E_{Ag} = 9132$ microvolts, $E_{Au} = 10320$ microvolts. The precision of temperature measurements in the principal interval is estimated to be $\pm$ 0.02°C, and outside the basic interval to be $\pm$ 0.05°C.

Card : 1/1

GRUZSNICKI, F., fiz.

Methods and incandescent lamp installations used to check optical pyrometers. Metrologia apl 10 no.2:65-73 F '63.

GRUZSNICZKI, F., fiz.; GHEORGHIU, A., fiz.

Gas theromometer, a basic gauge for transmission of the temperature unit. Metrologia apl 11 no. 1: 19-23 Ja '64.

GRYADA, F.

Self-service in all establishments of the territory. Obshchestv. pit. no.5:11 My '58. (MIRA 11:4)

1. Nachal'nik otdela obshchestvennogo pitaniya Upravleniya torgovli Primorskogo kraya.
(Maritime territory--Restaurants, lunchrooms, etc.)

KALININ, S.,master-povar,; YEPIKHINA, A., instruktor-kulinar,; ANDRIANOVA, S.; KUZNETSOV, F.; SIZOV, V., master-povar,; GRYADA, P.

Advice to the cook. Obshchestv. pit. no. 8:13-15 Ag '58.
(MIRA 11:8)

1. Nachal'nik otdela obshchestvennogo pitaniya Primorskogo krayevogo upravleniya torgovli (for Gryada).
(Cookery)

GRYADA, F.

Work according to a clear graph. Obshchestv.pit. no.7:30 Jl '60. (MIRA 13:8)

1. Nachal'nik otdela obshchestvennogo pitaniya upravleniya torgovli Primorskogo kraya.
(Vladivostok--Restaurants, lunchrooms, etc.)

L 09382-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6033773 SOURCE CODE: UR/0058/66/000/007/A050/A050 25

AUTHOR: Dovgoshey, N. I.; Chepur, D. V.; Gryadil', I. A.; Nikolyuk, R. G.; Yatskovich, I. I.

TITLE: Microrelief and structure of thin films of cadmium sulfide and cadmium selenide

SOURCE: Ref. zh. Fizika, Abs. 7A426

REF SOURCE: Sb. Tezisy dokl. k XIX Nauchn. konferentsii. Uzhgorodsk. un-t, 1965. Ser. fiz. Uzhgorod, 1965, 25-29

TOPIC TAGS: cadmium selenide, cadmium sulfide, thermal spraying, cadmium film

ABSTRACT: CdS_x and $CdSe_{1-x}$ films were obtained by thermal spraying under vacuum (10^{-4} mm) on cold glass backings and glass backings heated to 120, 200, 250, and 300C. Cadmium sulfide and cadmium selenide powders mixed in a specific ratio served as the source material. The films consisted of small crystals of fine crystals of a substitutional solid solution of $CdS_x \cdot CdSe_{1-x}$. It was found that the films have a hexagonal grain orientation with an axis [0001] perpendicular to the backing. The non-correspondence of the source material composition and the

Card 1/2

L 09382-67

ACC NR: AR6033773

films was shown. P. Agalaradze, abstracter. [Translation of abstract]

SUB CODE: 07, 11/

Card 2/2 mla

L 09381-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6033772 SOURCE CODE: UR/0058/66/000/007/A050/A050

AUTHOR: Dovgoshey, N. I.; Chepur, D. V.; Gryadil', I. A.

22

TITLE: Effect of the temperature of the glass backing on structure of thin films of cadmium selenide and sulfide

SOURCE: Ref. zh. Fizika, Abs. 7A425

REF SOURCE: Sb. Tezisy dokl. k XIX Nauchn. konferentsii. Uzhgorodsk. un-t, 1965. Ser. fiz. Uzhgorod, 1965, 30-34

TOPIC TAGS: cadmium selenide, cadmium sulfide, cadmium film, film orientation

ABSTRACT: CdSe and CdS films were obtained by thermal spraying of the respective compounds on cold glass backings and on glass backings heated to 60 to 400C. All CdS films were shown to be grain-oriented. With t_n = 60C, the fine crystals of the films are of a hexagonal modification with an axis [0001], perpendicular to the backing. With t_n = 100—200C, a cubic CdS modification appears with an axis [111] perpendicular to the backing. The CdSe films are likewise grain-oriented. When t_n = 60—100C, the hexagon axis [0001] is perpendicular to the backing plane. The

Card 1/2

L 09381-67

ACC NR: AR6033772 O

CdSe cubic phase appears when $t_n > 150C$. P. Agalaradze, abstracter. [Translation of abstract]

SUB CODE: 11, 07/

Card 2/2 mla

L 10111-67 FSS-2/EWT(l)/EWP(t)/EWT(m)/ETI IJP(c) SOURCE CODE: UR/0413/66/000/015/0043/0043

ACC NR: AP6029881

AUTHORS: Tomashevskiy, F. F.; Lamedman, E. M.; Aksel'rod, Sh. S.; Gryadinskaya, V. P.; Dubnova, A. L.; Rozovskiy, V. M.; Basharina, Yu. I.

ORG: none

TITLE: Nonlamellar negative electrode of an alkaline iron-nickel battery. Class 21, No. 184300 [announced by plant "Leninskaya Iskra" (Zavod "Leninskaya Iskra")]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 43

TOPIC TAGS: electrode, battery, potassium compound, iron, nickel

ABSTRACT: This Author Certificate presents a nonlamellar negative electrode of an alkaline iron-nickel battery. After reducing the iron oxides free of impurities, the electrode contains 40--70% of metallic iron in its active volume. To simplify the technique of its preparation by eliminating the operation of fusing, the potassium base is added to iron oxides before their reduction. Specific weight of the potassium base is 1.40--1.48 g/cm^3, and its amount is 0.5--5%.

SUB CODE: 10/ SUBM DATE: 10Sep65

Card 1/1 bjp

UDC: 621.355.8.035.222

GRYADUNOV, A.I.

Modern assortment of ointment bases according to various pharmacopoeias. Apt.delo 6 no.4:52-55 Jl-Ag '57. (MLRA 10:9)

1. Iz kafedry tekhnologii lekarstvennykh i galenovykh preparatov (zav. - dotsent A.S.Prozorovskiy) Moskovskogo farmatsevticheskogo instituta Ministerstva zdravookhraneniya RSFSR.
(OINTMENTS)

GRYADUNOVA, G.P.; PROZOROVSKIY, A.S.

Some possibilities for expanding the assortment of ointment emulsion bases and methods for analyzing ointments. Apt.delo 6 no.5:35-41 S-O '57. (MIRA 10:11)

1. Iz kafedry tekhnologii lekarstvennykh form i galenovykh preparatov (zav. - dotsent A.S.Prozorovskiy) Moskovskogo farmatsevticheskogo instituta.
(OINTMENTS) (OLEIC ACID)

GRYADUNOVA, O.P.

Evaluation of the rheological properties of ointments. Apt. delo 8 no.4:56-63 Jl-Ag '59. (MIRA 12:10)

1. Iz kafedry tekhnologii lekarstvennykh form i galenovykh preparatov (zav. - dotsent A.S.Prozorovskiy) Moskovskogo farmatsevticheskogo instituta.
(OINTMENTS) (RHEOLOGY)

GRYADUNOVA, G.P.

Data on the rheological properties of ointments. Apt.delo 8 no.6: 18-24 N-D '59. (MIRA 13:4)

1. Iz kafedry tekhnologii lekarstv i galenovykh preparatov, zav. dotsent A.S. Prozorovskiy, Moskovskogo farmatsevticheskogo instituta.

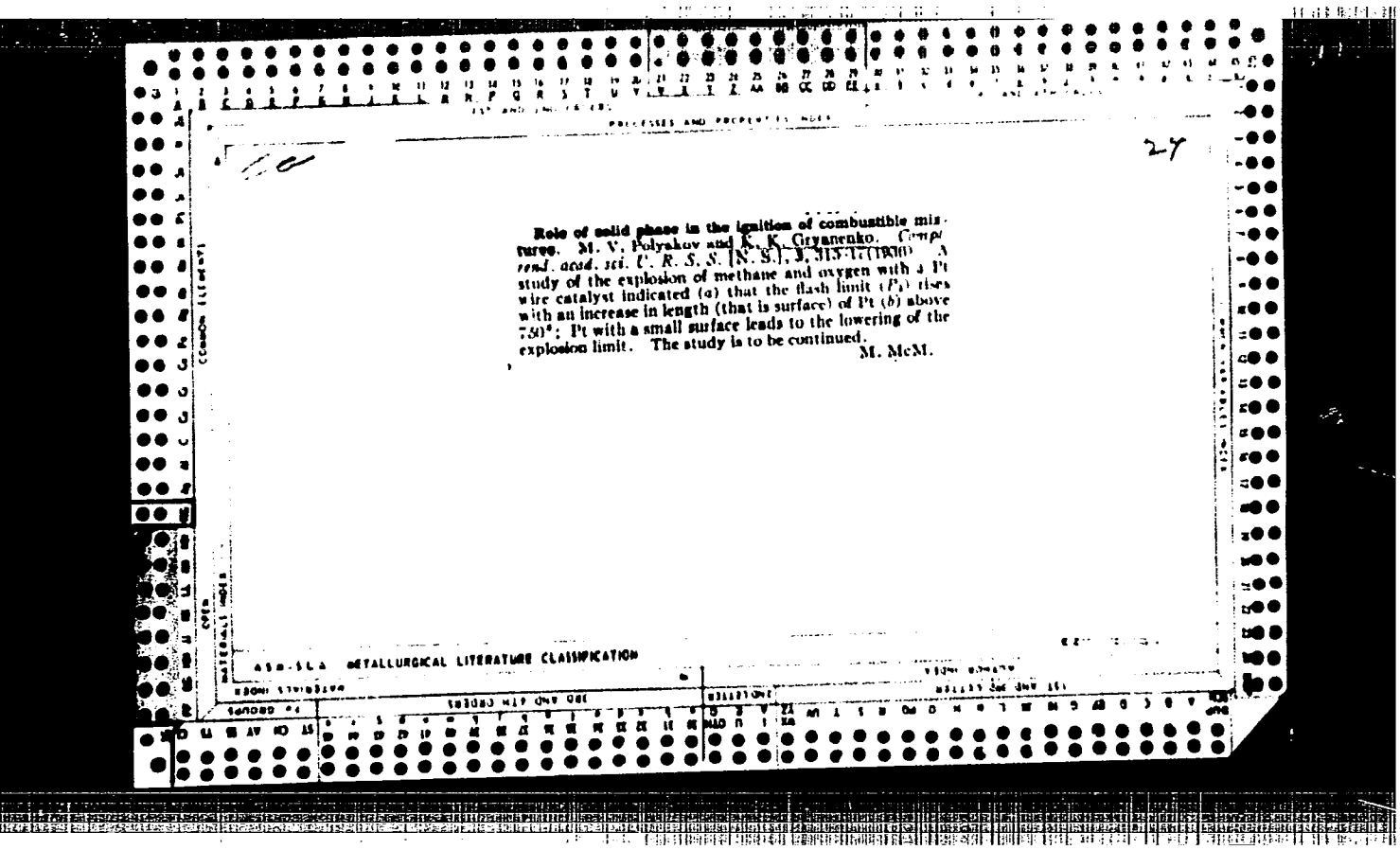
(RHEOLOGY) (OINTMENTS)

GRYAKALO, A.

A hundred and fifty thousand rubles of long-term loans. Sov. profsoiuzy 7 no.20:48 O '59. (MIRA 12:12)
(Poltava Province--Mutual benefit associations)

BOBROV, B.S. (Ryazan'); GRYAZNOV, A.L. (Ryazan'); GRYAKALOV, V.A. (Ryazan'); SAL'NIKOV, V.Ya. (Ryazan'); UDALOV, V.F. (Ryazan'); FROLIN, M.I. (Ryazan'); SHKHALAKHOV, Yu.Sh. (Ryazan')

System for the automatic control of distributed objects using operating lines of automatic telephone exchanges as communication channels. Avtom. i telem. 24 no.11:1593-1596 N '63. (MIRA 16:12)



Role of solid phase in the ignition of combustible mixtures. M. V. Polyakov and K. K. Gryanenko. *Compt. rend. acad. sci. U. R. S. S.* [N. S.], 3, 315-17 (1930). A study of the explosion of methane and oxygen with a Pt wire catalyst indicated (*a*) that the flash limit (P_0) rises with an increase in length (that is surface) of Pt (*b*) above 750°; Pt with a small surface leads to the lowering of the explosion limit. The study is to be continued.

M. McM.

Influence of the solid phase on the thermal inflammation of $CH_4 + 2O_2$ mixtures. M. V. Polyakov and K. K. Gryazenko.—*J. Phys. Chem.* (U. S. S. R.) **8**, 550-75 (1936); cf. preceding abstr.—At 700–850° on Pt catalysts, the explosion of $CH_4 + 2O_2$ is shown to be a hetero-homogeneous catalyzed reaction. The period of induction and the lower limit depend upon the surface of the catalyst. **Hetero-homogeneous catalysis of $C_2H_6 + O_2$ mixtures.** M. V. Polyakov and F. M. Valnahtein. *Ibid.* 576-83.—Exptl. data are given showing that the C_2H_6-O_2 oxidation is a hetero-homogeneous catalyzed reaction, depending for its propagation upon the intermediate formation of H_2O_2, just as in the case of H_2-O_2 combustion. **Hetero-homogeneous catalysis of $CH_4 + O_2$ mixtures.** M. V. Polyakov, P. M. Stadnik and I. R. Neimark. *Ibid.* 584-6.—CH_4 oxidation falls into the general scheme of hetero-homogeneous oxidation catalysis. The org. peroxide formed during the reaction, in agreement with the Bach-Engler-Egerton theory, is not a primary but an intermediate product of reaction. F. H. Rathmann

Ca

Σ 4

Influence of the solid phase on the thermal ignition of the mixture $CH_4 + 2O_2$. M. V. Polyakov and K. K. Geyuncnko. *Acta Physicochim. U. R. S. S.* 6, 587-608 (1937) (in English).—See C. A. 31, 2436[4,6]. M. W. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GRYANENKO, K.K.

Bleaching properties of Poltava clays. Bent. gliny Ukr. no.2: 141-147 '58. (MIRA 12:12)

1.Poltavskiy pedagogicheskiy institut.
(Poltava--Clay)

GRYANENKO, K.K.

Sorptive and bleaching capacities of Nikopol' cation substituted clays. Bent.gliny Ukr. no.3:62-67 '59. (MIRA 12:12)

1. Poltavskiy pedagogicheskiy institut.
(Nikopol' region (Ukraine)--Clay)

GRYANENKO, K.K.; TITARENKO, N.Kh.

Physicochemical characteristics of drilling muds from Poltava clays. Ukr. khim. zhur. 29 no.4:383-387 '63. (MIRA 16:6)

1. Poltavskiy pedagogicheskiy institut.
(Poltava Province—Clay)
(Drilling fluids)

Gryanko, L.P.

25(2) PHASE I BOOK EXPLOITATION SOV/2779

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Leningradskoye oblastnoye pravleniye

Gidrodinamicheskiye peredachi (Hydrodynamic Transmissions) Moscow, Mashgiz, 1959. 285 p. (Series: Its: Trudy, vyp. 52) 3,000 copies printed.

Ed.: V.P. Gur'yev, Candidate of Technical Sciences, Docent; Tech. Ed.: L.V. Shchetinina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Division, Mashgiz): Ye.P. Naumov, Engineer.

PURPOSE: This book is intended for engineering and technical personnel in the field of hydraulic transmission. It may also be used as a textbook for students of higher technical schools.

COVERAGE: The book is a collection of 20 papers read at the first conference on hydrodynamic transmissions held in Leningrad from 9-11 December, 1957, at which problems of calculation, design, production and operation of hydraulic clutches and hydraulic converters widely used in industry were discussed.

Card 4/5

GRYANKO, L.P.; CHASOVSKOY, V.P.

Some problems in the terminology of hydrodynamic transmissions.
[Izd.] LONITOMASH 52:207-216 '59. (MIRA 12:12)
(Oil hydraulic machinery)

GRYANKO, L.P., inzh.

Study of the operating conditions of a hydraulic torque converter with a centrifugal turbine. Izv. vys. ucheb. zav.; energ. 4 no.3:98-105 Mr '61. (MIRA 14:3)

1. Leningradskiy politekhnicheskiy institut imeni M. I. Kalinina.
(Hydraulic turbines)

GRYANKO, L.P., inzh.

Investigation of the effect of the outflow edges of the suction blade of a hydraulic torque converter on the nature of the flow in the circulatory cycle. Izv.vys.ucheb.zav.; energ. 4 no.4:103-108 Ap '61. (MIRA 14:5)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina.
(Hydraulic machinery)

GRYANKO, L.P., inzh.

Experimental study of the flow in the circulation circle of a hydraulic torque converter with a centrifugal Francis-type turbine. Izv. vys. ucheb. zav.; energ. 5 no.1:111-118 Ja '62. (MIRA 15:2)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina.
(Hydraulic turbines)

GRYANKO, L.P.

Experimental investigation of the effect of mutual angular position of blade profiles on the flow structure in the circulation cycle of a hydraulic transformer with a centrifugal turbine. Trudy LPI no.215:183-195 '61. (MIRA 14:11)
(Hydraulic machinery)

GRYANKO, L.P., inzh.

Some results of the analysis of the circulatory flow in the hydraulic torque converter of a centrifugal Francis-type turbine. Izv.vys.ucheb.zav.; energ. 5 no.5:111-118 My '62. (MIRA 15:5)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina. Predstavlena kafedroy gidravlicheskikh mashin.
(Hydraulic turbines)

GRYANKO, L.P.; PYLEV, I.M.

Selection of the first approximation for flow parameters in interwheel gaps of the hydraulic torque converter with axial turbine. Trudy LPI no.246:77-85 '65. (MIRA 18:6)

CR[illegible] [illegible]

[illegible] method for [illegible] velocities in the blading of a hydraulic torque converter. [illegible]gomashinostroenie 11 no.[illegible]8-[illegible] [illegible]. (MIRA 18:6)

GRYASNOVA, G.S. [Hriaznova, G.S.]

Screw-type machine. Leh. prom. no.2:36-37 Ap-Je '64 (MIRA 17:7)

GRYAZBOY, A. I.

PHASE I BOOK EXPLOITATION SOV/5135

Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova

100 let so dnya rozhdeniya A.S. Popova; yubileynaya sessiya (One Hundredth Anniversary of the Birth of A.S. Popov; Anniversary Session) [Moscow] Izd-vo AN SSSR, 1960. 312 p. Errata slip inserted. 2,800 copies printed.

Sponsoring Agency: Akademiya SSSR.

Chief Ed.: A.L. Mints, Academician; Editorial Board: G.D. Burdun, A.R. Vol'pert, I. Ye. Goron, L. I. Gutenmakher, I.I. Grodnev, N.D. Devyatkov, L.A. Zhekulin, S.I. Kataşev, M.S. Neyman, V.I. Siforov, and N.I. Chistyakov; Ed. of Publishing House: L.V. Gessen; Tech. Ed.: S.G. Markovich.

PURPOSE: This collection of reports is intended for scientists and technicians working in radio engineering and telecommunications.

COVERAGE: The reports included in this collection were submitted at the scientific meeting held in 1959 by the Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im.A.S. Popova (Scientific and Technical Society of Radio

Card 1/7

Engineering and Telecommunication imeni A.S. Popov) in commemoration of the 100th anniversary of A.S. Popov's birth. Only 89 of the more than 300 reports submitted at the meeting are included. The remainder are published in the periodicals of the AS USSR, State Committees, the Ministry of Communications, and the Society imeni A.S. Popov. The book contains the reports read at plenary sessions by A.F. Shokalin, Academician, A.A. Pistol'kors, Corresponding Member, AS USSR, and E.I. Adirovich and L.I. Gutenmakher, Professors, as well as those selected as the most interesting given in the following sections by their respective chairmen: Theory of Information, Antenna Systems, Receiving Devices, Wire Communications, Television, Electronics, Radio Measurements, General Radio Engineering, Transmitting Devices, Radio Wave Propagation, Electron Microscopy, Radio Broadcasting, Electroacoustics and Sound Recording, Electronic Computer Engineering, and SHF Ferrite Devices. These chairmen were on the Editorial Board which prepared the papers for publication. References accompany most of the reports.

One Hundredth Anniversary (Cont.) SOV/5135

Card 6/7

SOV/137-58-8-16715

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 69 (USSR)

AUTHOR: Gryazev, A.P.

TITLE: Improving the Electrical Conditions in Wet-process Electrostatic Precipitators at the H_2SO_4 Plant of the Ust'-Kamenogorsk Lead-zinc Kombinat (Uluchsheniye elektricheskogo rezhima mokrykh elektrofil'trov na sernokislotnom zavode Ust'-Kamenogorskogo svintsovotsinkovogo kombinata)

PERIODICAL: Sb. materialov po pyleulavlivaniyu v tsvetn. metallurgii. Moscow, Metallurgizdat, 1957, pp 157-159

ABSTRACT: A communication is presented on the measures taken to improve electrical conditions in plate-type wet-process electrostatic precipitators (EP) for removing H_2SO_4 fog, As, and Se from the gases in the contact method of H_2SO_4 production. 1) The EP substation was placed under the management of the H_2SO_4 plant, making for improved servicing of the substation; 2) heating of the EP quartz transfer insulators to a temperature of 130-170°C; 3) switching the resistors to 2 ohm resistance, removing them from the control panels, and connection of paired resistors working in parallel to reduce overheating

Card 1/2

Improving the Electrical Conditions in Wet-process Electrostatic (cont.)

of the coils. As a result of these measures, the electrical conditions in the EP were improved considerably, and the unit current was increased to 0.105-0.110 milliamps per running meter of active corona-discharge electrode length. With normal EP function, the H_2SO_4 fog contents comes to 0.005 g/nm^3. A test is made of a self-recording instrument to determine the fog contents in the purified gases by a photometric method developed by the VNIITsvetMet.

G.G.

1. Electrostatic precipitators—Design
2. Electrostatic precipitators—Electrical properties

Card 2/2

GARTMAN, V.A.; GRYAZEV, A.T.; KIRILLOV, G.A.; KOGAN, S.M., redaktor; RAKHMATULLIN, F., tekhnicheskiy redaktor

[Centralized drying and cleaning of raw cotton at procurement stations] Opyt tsentralizovannoi sushki i ochistki khlopka-syrtsa na zagotovitel'nykh punktakh. Tashkent, Gos.izd-vo UzSSR, 1956. 39 p. (MLRA 10:6)
(Cotton)

L 31320-66 EEC(k)-2/EWT(1)/EWA(h)

ACC NR: AP5026508 SOURCE CODE: UR/0286/65/000/019/0039/0039

AUTHORS: Gryazev, G. V.; Anfilov, V. Ye.; Shevchenko, T. G.; Stepanov, Yu. N. 10 B

ORG: none

TITLE: A generator-vector meter for determining the amplitude-phase frequency characteristics of quadripoles. Class 21, No. 175127

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 39

TOPIC TAGS: vector study, phase characteristic, damping factor

ABSTRACT: This Author Certificate presents a genrator-vector meter for determining the amplitude-phase frequency characteristics (AFCHKH) of quadripoles. The device contains an infralow frequency generator (for producing two 90° phase-shifted voltages) and a ferrodynamic system vector meter. It is designed to make possible the use of the device for determining the AFCHKH in the lower part of the infralow frequencies by measuring the instantaneous values of the amplitude and phase of the signals. The vector meter is provided with a sliding system which has a small moment of inertia and a large opposing moment. The vector meter is also provided with an air damper with a small damping coefficient, and with flat extensions for insuring two-dimensional freedom of the sliding system and for producing the opposing moment. In order to broaden the working range in the upper part of the infralow frequencies by means of measuring the average values of the amplitude and phase of the signals, the vector

Card 1/2 UDC: 621.317.757

L 31320-66
ACC NR: AP5026508

meter is provided with a sliding system which has a large moment of inertia and a small opposing moment. The vector meter in this case is provided with a fluid damper having a large damping coefficient.

SUB CODE: 09/ SUBM DATE: 15Feb64

Card 2/2

STUKOV, M., inzh.; GRYAZEV, I., agronom

Near future of the district. Sel'. stroi. 16 no.6:20 Je '61.
(MIRA 14:7)
(Dubrovnitskiy District--Regional planning)

GRYAZEV, I.I.

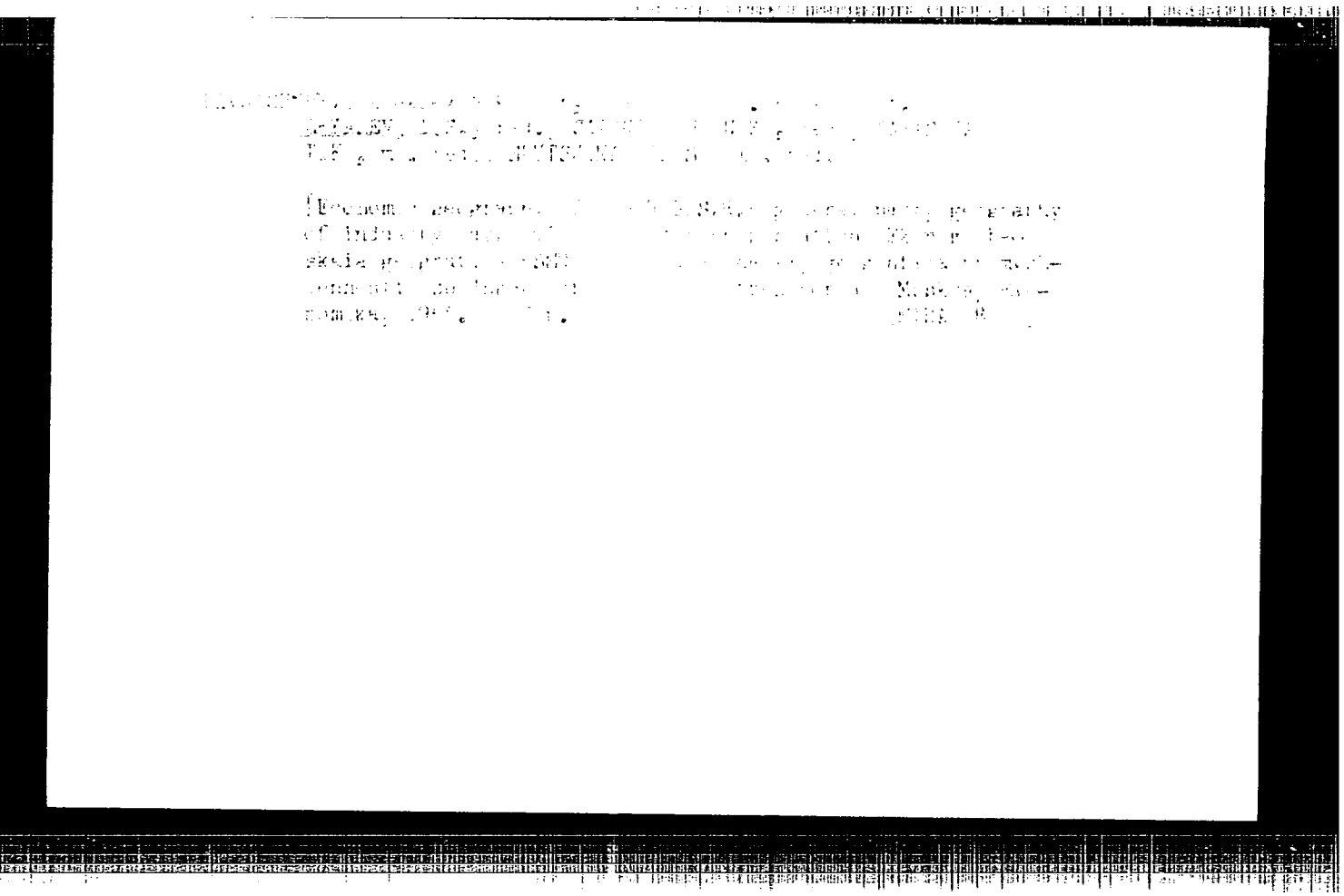
Let us reduce to a minimum the losses in crop yields. Zashch. rast. ot vred. i bol. 8 no.3:7-8 Mr '63. (MIRA 17:1)

1. Nachal'nik Ul'yanovskoy stantsii zashchity rasteniy.

GESHTOVT, Yu.N., aspirant; MAKAROV, V.S.; YEPANESHENKOV, I.B.; DAYNICHENKO, G.S., aspirant; GRYAZEV, I.I.

Economic effectiveness of the use of herbicides. Zashch. rast. ot vred. i bol. 9 no.2:9-11, 32 '64.
(MIRA 17:6)

1. Kishinevskiy sel'skokhozyaystvennyy institut (for Daynichenko). 2. Nachal'nik Ul'yanovskoy stantsii zashchity rasteniy (for Grazev). 3. Severnyy filial Kazakhskogo instituta zashchity rasteniy, Kokchetav (for Geshtovt). 4. Starshiy agronom po zashchite rasteniy Nerchinskogo proizvodstvennogo upravleniya, Chitinskaya obl. (for Makrov). 5. Glavnyy agronom po zashchite rasteniy Gorodetskogo proizvodstvennogo upravleniya, Gor'kovskaya obl. (for Yepaneshenkov).



GRYAZEV, M.; SVETLOPOLYANSKIY, V., prepodavatel'

Pneumatic vibrating tie tempers. Mekh.-kom.khoz. 10 no.3: 28-29 '60. (MIRA 13:7)

1. Nachal'nik Upravleniya tramvaynogo khozyaystva g.Stalingrada (for Gryazev). 2. Stalingradskiy institut inzhenerov gorodskogo khozyaystva (for Svetlopolyanskiy).
(Railroads--Ties)

GRYAZEV, M. (g. Stalingrad); SVETLOPOLYANSKIY, V. (g. Stalingrad); MIKHEYEV, N. (g. Stalingrad)

Pneumatic track lifter. Zhil.-kom.khoz. 10 no.9:26-27 '60. (MIRA 13:9)

(Street railways--Track)

GRYAZEV, M., brigadir

Great power. Sov.shakht. 10 no.10:42 O '61. (MIRA 14:12)

1. Shakhta "Severnaya" tresta Kemerovougol'.
(Trade unions)
(Coal mines and mining)

12300

S/125/60/000/010/010/015
A161/A133

AUTHORS: Svetlopolyanskiy, V.I., Gryazev, M.I., Svetlopolyanskaya, T.P.

TITLE: Nonferrous Hard-Facing of Ferrous Metals by the Electro-Slag Process

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 10, pp. 64-66

TEXT: The Stalingrad Mining Engineering Institute has developed a new technique for the hard-facing of steel and cast iron with copper and bronze. The essence of the method is illustrated in Fig.1. The surface to be hard-faced may have any shape. It has to be surrounded by common molding materials and flux has to be filled into the mold. Flux of the АН-348 (AN-348A) type was used by the Institute, in a 30-50 mm deep layer. The work surface was carefully cleaned, and a single-phase СТЭ-24 (STE-24) welding transformer with a РСТЭ-24 (RSTE-24) current regulator was employed. The arc is excited between the electrode and the work surface to melt the slag, the arc burns several seconds, and a stable electro-slag process begins. Copper was fused onto steel with 300 amp and 25 volt current, and a hard-facing speed of 6 mm/sec. The layer being built-up forms from the melting copper electrode and fusing

Card 1/5

Nonferrous Hard-Facing of Ferrous Metals by the Electro-Slag Process

base metal. The joint is stable and without pores or cavities. The hard-facing quality is very high, due to the molten slag layer shielding the liquid copper from the air. The process is quiet without splatter. The welding current can be calculated using the formula $I_{w} = (1.25 \div 8)F$, where I_{w} is the welding current in amp., and F the electrode cross section area, in mm^2. When building up copper on cast iron, a copper sheet or fine copper chips were put under the slag layer, and a 16 mm diameter carbon electrode is used (for coating 20 x 40 mm specimens); the welding current was 250 amp, 25 volt, and the welding speed 4 mm/sec. The hardness of the built-up layer was $H_B = 114$ kg/mm^2. [p 04(5-5-5 (Br.OTsS 5-5-5) bronze was fused by a 16 mm diameter graphite electrode and either bronze strip or bronze chips were put under the slag; a welding current of 300 amp and 25 volt, and a melting speed of 5 mm/sec were used. It was found that the fusion depth may be increased by raising the current, reducing the cross section area of the electrode (melting or not), and slowing down the melting process. Hard-facings of any depth may be produced, and the joint is of high quality. The process makes possible an unlimited economy of nonferrous metals. The described

S/125/60/000/010/010/015
A161/A133

Nonferrous Hard-Facing of Ferrous Metals by the Electro-Slag Process

technology has been introduced at the Stalingrad Street Car Administration, for the repair of bearings, hard-facing of copper onto steel conductors, and repairing defects on cast iron and steel parts. There are 5 figures and 4 Soviet-bloc references.

ASSOCIATION: Stalingradskiy institut inzhenerov gornogo khozyaystva (Stalingrad Mining Engineering Institute)

SUBMITTED: May 5, 1960

X

Card 3/5

SVETLOPOLYANSKIY, V.I.; GRYAZEV, M.I.

Electric slag hard facing of cutters. Avtom. svar. 18 no.4: 57-58 Ap '65. (MIRA 18:6)

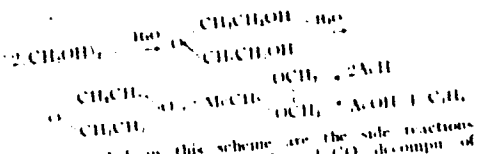
1. Volgogradskiy institut inzhenerov gorodskogo khozyaystva (for Svetlopolyanskiy). 2. Volgogradskoye tramvaynoye upravleniye (for Gryazev).

CA

Dealkylation of isopropylbenzene on an aluminosilicate catalyst. R. D. Obolentsev and N. N. Gryazev (Chem. Research Inst., N. G. Chernyshev State Univ., Saratov). *Doklady Akad. Nauk S.S.S.R.* 73, 121-4(1950).—In a flow system at 350° (space velocities 0.5-4.0 l./l. catalyst/hr.), 400° (1.0-12.0), and 450° (1.0-15.0), iso-PrPh (I) yields gaseous products consisting mainly of C_3H_6 with some admixt. of C_3H_8; at 350°, there is also some amt. of CH_4, increasing with the contact time τ (up to 4.4 vol. %); at 400-50°, the gas includes also small amts. of H_2, C_2H_4, C_2H_6, C_4H_8, and C_4H_{10}. By fractionation, liquid products contain essentially C_6H_6, and a fraction b. 180-210° identified (by oxidation with $KMnO_4$) as mainly a mixt. of 1,3-(iso-Pr)$_2C_6H_4$ and 1,4-(iso-Pr)$_2C_6H_4$ in the ratio 1:2. Consequently, the main reaction (*a*) I → C_6H_6 + C_3H_6 is accompanied by a dismutation reaction (*b*) 2 I → C_6H_6 + (iso-Pr)$_2C_6H_4$. The extent of (*b*) decreases with the temp. and with τ. The highest amt. of C_6H_6 produced by reaction (*b*) was 20% of the total C_6H_6 (at 350°), the lowest to 2% (at 450°). The rate of the dealkylation is not describable by any classic kinetic equation, but can be described by $\ln[D/(D - x)] = a\tau^b$, where D = max. degree of dealkylation, in %, at the given temp.; x = observed degree of dealkylation; τ = contact time in sec. The parameters a and b are related to the rate w by $w = (100 - \xi)ab\tau^{b-1}$, where ξ = degree of dealkylation at the time τ expressed in % of the max. dealkylation D at the given temp. Exptl. numerical values of D, a, and b, are, at 350°, 33, 0.463, and 0.725; at 400°, 42, 4.0, and 1.205; at 450°, 50, 40.4, and 2.36. Curves of w as a function of τ at 400 and 450° have a distinct max., very sharp at 450°. At 350°, the apparent order of the reaction is close to bimol. ($b \sim 0.63$). The temp. dependence of a and b is expressible by $a = 376 \times 10^{11} e^{-[illegible]/RT}$, $b = 3085 e^{-[illegible]/RT}$. Insofar as the concept of a branched-chain mechanism is applicable under conditions of heterogeneous catalysis, the disappearance of the active intermediate would be a 1st order reaction at 450°, essentially of the 2nd order at 400°, and of the 2nd or at least partly of the 3rd order at 350°. N. Thon

CA

Reactions of ethylene glycol, diethylene glycol, dioxane, and diethylene glycol acetal on an aluminosilicate catalyst. R. D. Obolentsev and N. N. Grvazev (Stratov State Univ.). *Doklady Akad. Nauk S.S.S.R.* **73**, 319-22 (1950).—The following are the material balances (temp., wt. % gas, catalyzate, coke) obtained in flow runs at 1 l. catalyst (synthetic Al silicate) hr.: Ethylene glycol (I) 300°, 1.7, 97.1, 1.2; 400°, 3.4, 90.0, 5.3; diethylene glycol (II) 250°, 0.3, 98.4, 1.4; 300°, 2.1, 92.3, 5.0; 350°, 4.8, 90.7, 5.5; 400°, 6.3, 88.0, 5.7; dioxane (III) 300°, 3.0, 94.1, 2.5; 400°, 30.8, 51.2, 18.0; ethylene acetal (IV) 350°, 10.2, 54.0, 29.8. Yields of the products (in the order H, H_2O, III, IV, C_2H_4, AcOH, AcH, H_2, CO, CH_4, CO_2) in moles/100 moles initial compd., were: I (300°) 2.5, 70.0, 40.0, 4.5, 2.5, 0.2, 22.3, 2.0, 0.3, 0.2, 0.1; (400°) 2.3, 76.5, 51.7, 11.4, 6.5, 0.8, 14.4, 1.5, 1.2, 0.8, 0.7; II (250°) —, 39.0, 6.7, 13.5, 0.3, 0.1, 12.0, 2.2, —, —, 0.3; (300°) —, 49.9, 11.9, 11.0, 4.5, 2.0, 27.7, 0.3, —, —, 1.4; (350°) —, 88.2, 32.2, 6.5, 10.0, 2.3, 35.0, 0.2, 0.1, 0.4, 0.4; (400°) —, 78.8, 18.5, 10.2, 15.5, 4.1, 17.5, 0.01, 0.4, 0.4, 0.2; III (300°) —, —, —, 19.5, 9.5, 8.0, 7.2, 2.5, 3.8, 2.5, 0.2; IV (350°) —, —, —, 19.8, —, 30.4, 12.4, 23.0, 1.1, 1.0, 7.6, 4.9. The data substantiate the reaction scheme



Not included in this scheme are the side reactions of decompn. of AcH into CH_4 and CO, decompn. of HCOH, disproportionation of H_2, etc. The proportions of III and IV obtained from I and II vary with the temp. In contrast to Yur'ev, Novitskii and Kukharskaya (cf. C.A. **44**, 1020b), no III was found in the products of II at 200°, only small amts. of AcH. N. Thon

CA

Kinetics of dealkylation of isopropylbenzene on an aluminosilicate catalyst R. D. Obolentsev and N. N. Gryazev (Saratov State Univ.). *Zhur. Obshchei Khim.* 21, 900-8 (1951).—Material balances (gas, catalyzate, coke, residue, and losses) are given for the reaction of iso-PrPh at 300, 350, 400, and 450° on a com. catalyst activated at 480–500° in air passing at 200–300 l./l. catalyst/hr. and then flushed with N_2 at space velocities s ranging from 0.125 to 15 l./l. catalyst/hr. At const. s, the amt. of liquid products decreases and the amt. of gas increases with increasing temp. At 400 and 450°, at high contact times (s from 0.5 to 2.0 l./l. catalyst/hr.), the yield of gas is practically const., ~ 14.5 and ~ 20 wt. %, resp.; this is evidence of attainment of max. degree of conversion at the given temp. Coke formation varies between 2 and 3.8%, decreasing with increasing s (e.g., from 3.5 to 0.2% at s increasing from 0.5 to 4.0, at 350°), fastest at lower temps. Selected data of the gas compn. (vol. % C_nH_{2n}, C_nH_{2n}, Σ C_nH_{2n}, s) are, at 300° (s = 0.125) 57.0, 43.0, 57.0, C_nH_{2n}, Σ C_nH_{2n}, s) are, at 300° (s = 0.125) 57.0, 43.0, 57.0, 43.0, (s = 0.5) 75.0, 25.0, 75.0, 25.0; at 350° (s = 0.5) 88.0, 7.6, 88.0, 12.0, (s = 2.0) 95.0, 3.0, 95.0, 5.0; at 400° (s = 0.5) 86.5, 6.0, 86.8, 9.2, (s = 2.0) 92.5, 2.9, 93.5, 4.8, (s = 12.0) 94.2, 1.3, 94.2, 4.2; at 450° (s = 0.5) 84.0, 4.5, 86.8, 11.2, (s = 2.0) 94.5, 1.9, 95.6, 3.1, (s = 15.0) 93.7, 2.0, 95.7, 4.3. There are minor amts. of H_2, CH_4, C_2H_6, C_2H_4, etc., but the amt. of CH_4 is occasionally significant (e.g. 6% at 450°, s = 0.5), particularly at low s. At 450° there is up to 1% isobutylene. The formation of satd. hydrocarbons is attributed to disproportionation of H_2 which, at s = 0.5, is most intense at 300°. Rectification of the liquid catalysts gave fractions corresponding to the b.ps. of C_6H_6, iso-PrPh, and a fraction b. 193–210°; the consts. of the latter fraction are close to those of the diisopropylbenzenes. By oxidation with HNO_3, the ratio of 1,3- and 1,4-(iso-Pr)$_2C_6H_4$ is 1:2. The amt. of C_6H_6 in the catalyzate is somewhat in excess of the amt. expected from simple dealkylation, and this excess is attributed to the dismutation 2 iso-PrPh = C_6H_6 + (iso-Pr)$_2C_6H_4$, which has a tendency to increase with decreasing temp. The dismutation accompanies the dealkylation iso-PrPh = C_3H_6 + C_6H_6. In the low-temp. range of 350–400°, the extent of the dismutation increases with increasing contact time. With the temp. rising to 450°, the curve of the extent of dismutation as a function of the contact time passes through a max. With the C_6H_6 formed by dismutation deducted, the amts. of C_3H_6 and C_6H_6 correspond to each other. The kinetics of the dealkylation are described by the Kazeev equation $\ln[D/(D - M)] = a\tau^b$, where D = max. degree of conversion (%) at the given temp., M = actual degree of conversion, τ = conventional contact time; the rate is $\omega = (10) - \xi)\ ab\tau^{b-1}$, where $\xi = 10)\ M/D$. The contact time τ, instead of being calcd. by $\tau = Q_{s0} \times 273 \times 3600/Q_M(2 + \alpha)T_p$ (where Q_p = vol. of the reaction zone, η = fraction of free space of the catalyst vol. = 0.335 for the catalyst used, Q_M = vol (S.T.P.) of hydrocarbon vapor passed per hr., α = degree of conversion, T_p = temp. of the reaction zone) was conventionally taken as $\tau = 1/s$; with this definition the values of D, b, a, are, at 350°, 33, 0.703, 1.02; at 400°, 42, 1.275, 12.5; at 450°, 56, 2.08, 167. At 400° and 450° (but

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Saratov State U. in N.G. Chernyshev

not at 350°), w as a function of r passes through a max., and there $(1/s)_{max.} = [(b-1)/ab]^{1/b}$. At 350°, the value of $b = 0.703$ is close to $b \sim 0.63$, characteristic of a bimol. reaction. The temp. dependence of a and b is expressed by $a = 376 \times 10^{41} \times e^{-[illegible]/RT}$ and $b = 3685 \times e^{-[illegible]/RT}$. The values of b are increased only slightly with the use of a r defined by the above equation (instead of the conventional definition $r = 1-s$), $b = 0.725$, 1.295, 2.38, at 350, 400, 450°, resp., but the values of a are strongly decreased, 0.463, 4.0, 40.4.

CA

Kinetics of dealkylation of isopropylbenzene on an alumo-silicate catalyst. R. D. Obolentsev and N. N. Gryazev. *J. Gen. Chem. U.S.S.R.* 21, 943–50(1951)(Engl. translation).—See *C.A.* 46, 324. B. R.

191T37

USSR/Chemistry - Liquid Fuels Sep 51
Synthetic Elastomers

"Conversion of Olefinic Hydrocarbons in the Presence of Metal Silicate Catalysts. III. Conversion of Certain Unsaturated Hydrocarbons With a Quaternary Carbon Atom on an Aluminosilicate Catalyst," P. D. Obolentsev, N. N. Gryazev, Sci Res Inst Chem, Saratov State U imeni N. G. Chernyshevskiy

"Zhur Obshch Khim" Vol XXI, No 9, pp 1588-1602

Investigated for the 1st time conversion of 3,3-dimethylbutene-1 (I), 4,4-dimethylpentene-1 (II), 191T37

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2,3,3-trimethylbutene (III) over aluminosilicate catalyst at 300-450°C. Basic forms of conversion were disproportionation of H, polymerization, isomerization, coke-formation. Decompn of I, III, and very probably 2,4,4-trimethylpentene-2 (hydrocarbons of the type $(CH_3)_3C-CR=CR_2$, where R = H or CH_3) is explained by intermediate formation of 4-membered rings according to scheme proposed by S. V. Lebedev for depolymerization of decene.

191T37

GRYAZEV, N. N. ..

—, N.N.

320. CATALYTIC REFINING OF GASOLINES FROM THERMAL CRACKING OVER VOLGA
MARLS. Gryazev, N.N. and Kuvshinova, N.I. (Nauch. Ezhegod. Saratov. Univ.
(Sci. Ann. Saratov Univ.), 1954 (Publ. 1955), 568, 569; abstr. in Ref. Zh.
Khim. (Ref. J. Chem., Moscow), 1956, (20), 66041). Many marls from the right
bank of the Volga were found to have greater catalytic activity than Zikeev clay.
Olefins and diolefins over Volga marls at 200°C and above underwent
polymerization, depolymerization, isomerization and partial redistribution of
hydrogen.

Gryazev, N.N.

315. REGENERATION OF CERTAIN MINERAL OILS WITH LOCAL MARLS. Gryazev, N.N. and [illegible] (Moscow, [illegible] Dept. [illegible] Univ.). 1954 [illegible] 1955), [illegible] (Ref. J. Chem., Moscow), 1956, (20), [illegible]). Experiments are recorded on catalytic refining and filtration by percolation of [illegible], transformer and diesel oils with local marls. The marls were more active than [illegible] and some were as active as Zikeev clay.

GRYAZEV, N.N., kandidat khimicheskikh nauk; RAKHOVSKAYA, S.M., inzhener; TRAKHTMAN, B.N., inzhener.

Volga region diatomities as adsorbents for continuous recovery of transformer oil. Elek.sta. 25 no.12:33-34 D '54.(MLRA 7:12)
(Diatomaceous earth) (Insulating oils)

GRYAZNV, N.N.; KUVSHINOVA, N.I.; TARKHANOVA, L.A.

Depolymerizing action of the Volsk kieselguhr. Zhur.prikl.khim. 29 no.6:841-847 Je '56. (MLRA 9:9)

1.Nauchno-issledovatel'skiy institut khimii pri Saratovskom gosudarstvennom universitete.
(Diisobutylene) (Volsk--Kieselguhr)

GRYAZEV, N. N.

Depolymerizing activity of Volga kiesolguhr. N. N. Gryazev, N. I. Kuvshinova, and L. A. Tarkhanova. *Zhur. Prikl. Khim. U.S.S.R.* 29, 913–18(1956)(English translation).—See *C.A.* 50, 17251*f*.

B. M. R.

Gryazev, N. N.

Chem 3

Activation of some bleaching earths of the Volga region. N. N. Gryazev, S. M. Rakhovskaya, and L. P. Shishkova (N. G. Chernyshevskii State Univ., Saratov). *Zhur. Prikład. Khim.* 29, 1006–17(1956); cf. preceding abstr.—The relative effectiveness of bleaching earths from 4 regions of the Saratov province activated with NH_3 was tested with transformer and turbine oils by the change in the acid no. and their increasing clearness compared with that of H_2O. The activity of earths with a pH of the alkali levels was not affected by treatment with NH_3, whereas the activity of earth no. 108 with a pH in the acid level was appreciably increased. Activated with an aq. soln. of NH_4OH the activity of no. 108 increased abruptly after the absorption of 1–2% NH_3; the pH increased from 5.25 to 9.2 after the absorption of only 0.47 wt. % of NH_3. Further satn. with NH_3 decreased the activity somewhat. This was ascribed to the simultaneous absorption of H_2O with the NH_3. With dry NH_3 the activity increased abruptly with 0.21% NH_3 and the acid no. dropped from 0.107 to 0.030. Good results were obtained when 0.45% NH_3 was absorbed. Further satn. with NH_3 (complete satn. with 1.73% NH_3) did not decrease the activity. Different methods of activation increased the activity in the following order: $Al_2O_3.nH_2O$ < HCl < NH_4OH up to 0.5% NH_3 adsorbed < dry NH_3 up to 0.45% NH_3 absorbed. Activation of the earth with H_2SO_4 did not lower the acid no. of the oil but increased its clarity. Activation with $Al_2O_3.nH_2O$ was made by treating the earth with a 10% $Al_2(SO_4)_3$ soln. for 24 hrs. and then with concd. NH_4OH for 2 hrs.; after washing free of SO_4^{--} it was dried at 200°.

I. Bencowitz

GRYAZEV, N.N.; RAKHOVSKAYA, S.M.; SHULEPOVA, L.P.

Activation of bleaching earths of the Volga region. Zhur.prikl. khim. 29 no.7:1006-1017 Jl '57. (MIRA 10:10)

1.Nauchno-issledovatel'skiy institut khimii pri Saratovskom gosudarstvennom universitete im. N.G. Chernyshevskogo.
(Volga Valley--Bleaching agents)

AUTHOR: Gryazev, N. N.

20-1-34/58

TITLE: The Influence of the Association of Organic Acids on Their Adsorption From Non-Polar Solvents (Vliyaniye assotsiatsii organicheskikh kislot na adsorbtsiyu iz nepolyarnykh rastvoriteley)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 1, pp. 121-124 (USSR)

ABSTRACT: The present work studies the influence of the association of some organic acids on the character of their adsorption from cetane and α-methylnaphtalene with natural and artificial adsorbents. As adsorbent one of the most active mold boxes from the Wolga area and an industrial silica-gel sample of the KCK brand were selected. The activity of these samples had been studied already earlier. The constants of cetane and α-methanaphtalene are given. The adsorption experiments were carried out at a temperature of 60° and in some cases at 20° . Two diagrams show the isothermal lines of the adsorption of formic acid from cetane. Because of the limited solubility of the formic acid-cetane system the isotherm has the characteristic S-shape. Another diagram shows the isotherms of the adsorption of acetic acid from cetane in mold box n. 120 as well as on silica-gel KCK.

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AUTHOR: Gryazev, N. N.,

20-2-32/60

TITLE: The Adsorption From Three-Component-Solutions (Adsorbtsiya iz trekhkomponentnykh rastvorov)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 2, pp. 317-320 (USSR)

ABSTRACT: The author ascertained the isothermal curves of the adsoption of ternary stystems in a large interval of concentrations and he constructed the spatial isothermal curves of the adsoption of these systems. This work gives the results on the adsorption from a three-component systm (acetic acid -lauric acid - cetane). A highly active adsorbent was used. The adsorption experiments were performed according to the method, which was usually employed in the Laboratory for Adsorption of the State University of Moscow (Laboratoriya adsobtsiya MGU). Much attention was paid on the analyses of the three-component mixtures. The author elaborated a special method for the analysis of the above mentioned ternary mixtures, whereby the different solubility of the components of the mixture in water was used. This method shortly is described here. A diagram illustrates the spatial isothermal curve of the adsorption of acetic acid from the ternary mixture of

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acetic acid with lauric acid and cetane. In certain plane the isothermal curve of the adsorption of acetic acid from cetane (if lauric acid is not present) is existing. The presence of lauric acid influences very much the degree of adsorption and also the form of the isothermal curves. In case of the adsorption of only CH_3COOH from cetane (or also if small quantities of $C_{11}H_{23}COOH$ are present), the isothermal curves have an S-like character. In case of high values of C_3 (obviously the concentrationof $C_{11}H_{23}COOH$) the system examined here becomes soluble unlimitedly and the isothermal curve passes (if C_3 = const) through a maximum. On occasion of increasing equilibrium-concentrations of the lauric acid the adsorption decreases, and this particularly quickly, if $C_3 \sim$ 100-200 mM/1. Another diagram illustrates the adsorption of both acids from the ternary mixture. The general character of the isothermal curves of adsorption qualitatively remains the same, as it is given in the diagrma, if C_2 = const or C_3 = const. The alternate restriction of the adsorption of all components influences the intensity as well as the character of the isothermal curves of adsorption. There are 3 figures, and 5 references, 4 of which are Slavic.

The Adsorption from Three-Component-Solutions

20-2-32/60

ASSOCIATION: State University imeni M.V. Lomonosov, Moscow (Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova)

PRESENTED: July 1, 1957, by M.M. Dubinin, Member of the Acedemy

SUBMITTED: June 29, 1957

AVAILABLE: Library of Congress

Card 3/3

GRYAZEV, N. N., Doc Chem Sci (diss) -- "Modeling the processes of purifying certain petroleum products using bleaching earth from the Volga region". Moscow, 1959. 29 pp (Moscow State U im M. V. Lomonosov), 150 copies (KL, No 25, 1959, 127)

SOV/76-33-7-20/40

5(4)
AUTHORS: Gryazev, N. N., Kiselev, A. V.

TITLE: Adsorption Isothermal Lines From Three-component Solutions

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 7, pp 1581-1593 (USSR)

ABSTRACT: The development of adsorption chromatography of multi-component mixtures requires investigation of the adsorption equilibrium, i.e. of the adsorption isothermal lines (AI) of the components of such mixtures. The (AI) of the following liquid three-component solutions were investigated in this case: cetane (I) + acetic acid (II) + lauric acid (III), (I) + (II) + palmitic acid (IV) and (I) + (II) + α-methyl naphthalene (V). The authors chose these mixtures because (I) and (IV) serve the purpose of modeling the adsorptive regeneration of mineral oils; on the other hand, (II) is soluble in (I) to a certain extent, while (III) and (IV) are perfectly soluble in (I), and because the influence exercised by a variation of the solubility of the three-component solutions upon their adsorption can be investigated. One of the most active sedimentation rocks with a

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Adsorption Isothermal Lines From Three-component Solutions SOV/76-33-7-30/40

high silica content, called "opok" (Nr 120 from the area round the village of Kamennyy Yar, Stalingrad oblast') and an industrial KSK-4 silica gel were used as adsorbents. The characteristic values of the mixture components applied are given. Adsorption experiments were made by a method devised by the Laboratoriya adsorbtsii Moskovskogo universiteta (Laboratory for Adsorption of Moscow University)(Ref 15). An ITR-2 interferometer and an IRF-22 refractometer were used for analyzing the binary systems. The method of analysis of the three-component solutions and the evaluation of the results obtained are described. Three-dimensional diagrams illustrate the resultant (AI). The authors found that additions of the third component to the binary mixture decrease the adsorption of the components and change the course of the (AI). A change in the solubility of the components from limited into unlimited solubility effects a variation of the S-shaped isothermal lines into lines with a

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maximum. The component that is better adsorbed from the binary mixture is also better adsorbed from the three-component mixture. The absolute (AI) of the components of the systems under discussion are similar for each of the two employed adsorbents. There are 13 figures and 18 references, 15 of which are Soviet.

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

SUBMITTED: January 9, 1958

ORYAZEV, N.N.; RAKHOVSKAYA, S.M.

Processes of the adsorption refining of mineral oils. Khim.i tekh.topl.i masel 5 no. 11:23-29 N '60. (MIRA 13:11)

1. Saratovskiy avtomobil'no dorozhnyy institut i Nauchno-issledovatel'skiy institut khimii pri Saratovskom universitete im. N.G. Chernyshevskogo.
(Mineral oils) (Adsorption)

GRYAZEV, N.N.; KUVSHINOVA, N.I.

Transformations of 2,4-dimethyl-1,3-pentadiene in the presence of aluminosilicates. Uch.zap. SGU 75:71-72 '62. (MIRA 17:3)

RAKHOVSKAYA, S.M.; GRYAZEV, N.N.

Sorption of organic acids by Volga gaize. Uch.zap. SGU 75:125-128 '62. (MIRA 17:3)

L 42107-65 EPF(c)/EWT(m)/T Pr-4 WE

ACCESSION NR: AT5008634 S/2933/64/007/004/0200/0204

AUTHORS: Gikht, B. M.; Gryazev, N. N.; Karyakin, V. Ya.; Larinov, I. V.; Myakushina, S. M.; Perfilova, V. P.; Orlov, S. I.; Shchitikov, V. K. 28 27 B+1

TITLE: Dependence of adsorptive catalytic desulfurization of diesel fuel on a catalyst surface

SOURCE: AN SSSR. Bashkirskiy filial. Khimiya seraorganicheskikh soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh, v. 7, 1964, 200-204

TOPIC TAGS: desulfurization, catalyst, adsorption, diesel fuel, surface active agent, sulfur, hydrocarbon/ silica gel, KSM silica gel

ABSTRACT: The relative activities of various catalytic agents and adsorbents in adsorptive-catalytic purification of diesel fuels from organic sulfur compounds were studied experimentally. The specific adsorption surfaces and their pore sizes were determined by the adsorption isotherms of various hydrocarbons and organic acids. The adsorbent-catalysts were mostly alumosilicates, an alumogel, a silica gel, and bauxite. For synthetic as well as natural alumosilicates, the specific desulfurization rate remained constant. The specific activity of bauxite was high, but that of the alumogel and the silica gel were low. It was shown that

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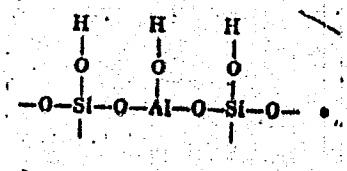
ACCESSION NR: AT5008634

the major role played by the alumosilicate catalysts in diesel fuel desulfurization could be attributed to the complex



During desulfurization, coke and other organic sulfur compounds were deposited on the surface of the catalyst and reduced the effective catalytic area. This requires special regeneration of the contaminated surfaces. Orig. art. has: 2 tables, 1 figure, and 1 formula.

ASSOCIATION: Saratovskiy politekhnicheskiy institut, Saratovskiy neftepererabatyvayushchiy zavod im. S. M. Kirova (Saratov Polytechnic Institute, Saratov Petroleum Refining Plant)

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

NO REF SOV: 013 OTHER: 000

Card 2/2 cc