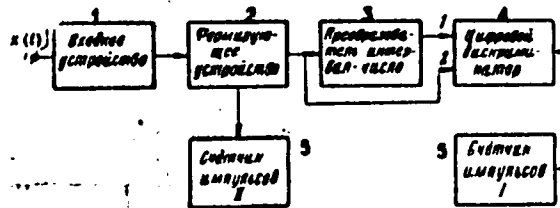


L 29305-66

ACC NR: AP6012343

Fig. 1. Diagram of analyzer.
 1 - Input unit, 2 - shaping unit,
 3 - time/digital converter,
 4 - digital discriminator,
 5 - pulse counter.



a maximum counting rate of 20 Mcs, the measurement error due to errors in discreteness does not exceed 5%. The author thanks V. I. Tikhonov and A. P. Yanovtsev for valuable advice. Orig. art. has: 5 figures and 4 formulas.

SUB CODE: 09/ SUBM DATE: 06Jul64/ ORIG REF: 007/ OTH REF: 004

Card 2/2 BK

1607-01 EWT(1)

ACC NR: AP6030621

SOURCE CODE: UR/6413/66/000/016/0110/0110

7
13

INVENTOR: Mirskiy, G. Ya.

ORG: none

TITLE: Digital discriminator for analyzing functional and density probability distribution of random processes. Class 42, No. 185119 [announced by Order of Lenin and Order of Suvorov Military Engineering Academy imeni F. E. Dzerzhinskiy (Voyennaya ordena Lenina i ordena Suvorova inzhenernaya akademiya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 110

TOPIC TAGS: digital discriminator, probability distribution function, probability density function, scaling circuit, coincidence circuit

ABSTRACT: The proposed digital discriminator for analyzing functional and density probability distribution of random processes consists of a scaling circuit, keys for the initial level input, delay lines and a coincidence circuit. To improve discriminator accuracy and analysis-level stability, it contains a readout trigger and a switch

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UDC: 681.142.07

ACC NR: AP6030621

for setting the analysis-level system, whose stationary contacts are connected to the outputs of the scaling circuit triggers, while its moving contact is connected to input "1" of the readout trigger. The readout trigger output is connected to the output terminal through the first coincidence circuit. The second input of the latter is connected through the delay line with the "0" input of the readout trigger and with the output of the second coincidence circuit. [Translation] [DW]

SUB CODE: 09/ SUBM DATE: 14Mar64/

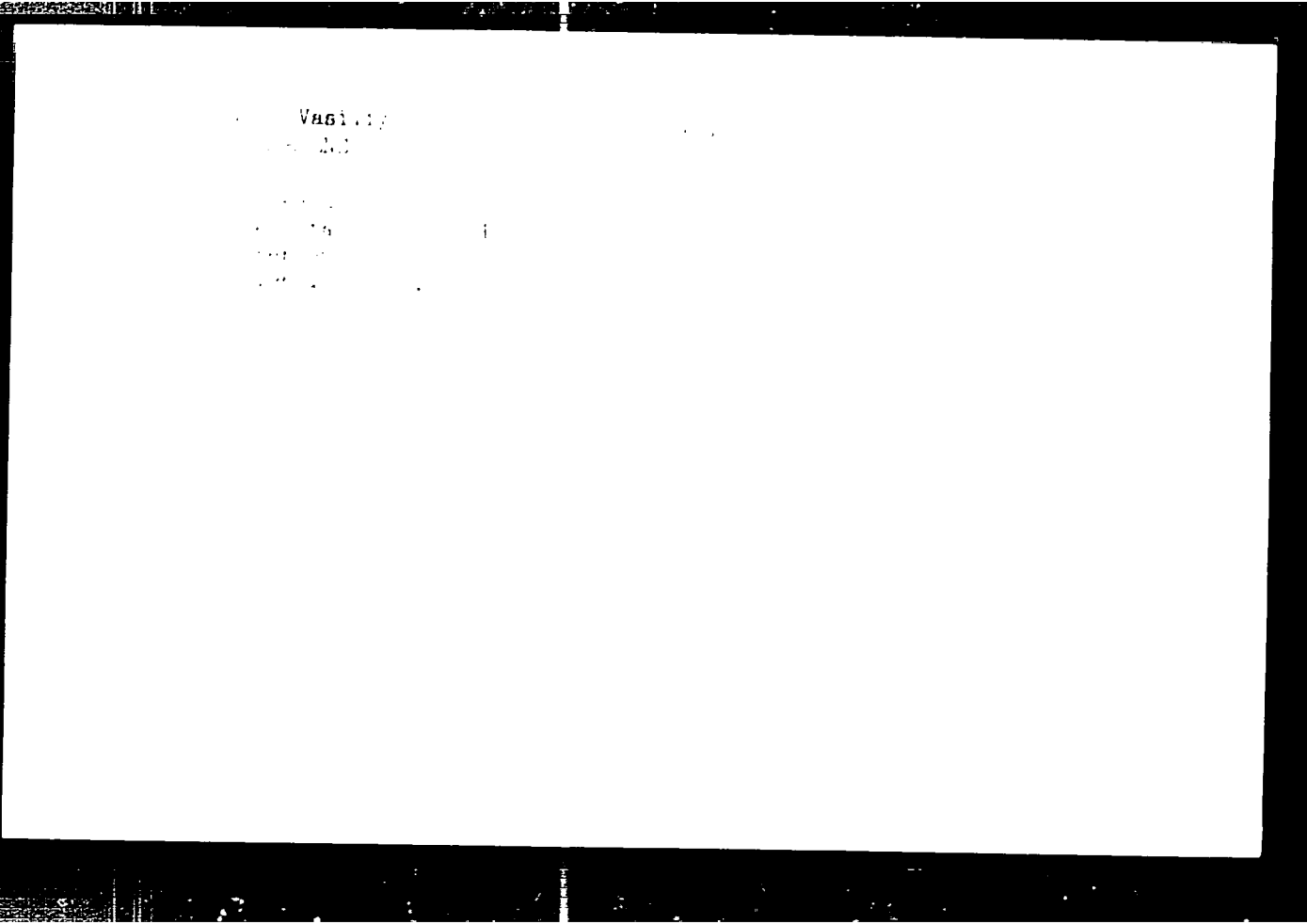
Card 2/2 *hd*

Министр иностранных дел СССР, А. А. Громыко, Москва, 1958 г.

Министр иностранных дел СССР, А. А. Громыко, Москва, 1958 г.

MIRSKIY, Grigoriy Yakovlevich; NIKOLIN, S.M., red.

[Measurement of time intervals] Izmerenie vremennykh intervalov. Moskva, Izd-vo "Energia," 1961. 11 p. Massovaya radiobiblioteka, no. 41) (MIRA 171)



3/124/62/000/005/025/048
0251/2308

0 3100
AUTHOR: Mirskiy, I.

TITLE: Temperature distribution in the profile of a wing with constant heat supply

PERIODICAL: Izvestiya Akad. Nauk SSSR, Mekhanika, no. 5, 1962, 37, abstract 5563. (7 ab. Probl. vysokikh temperatur v aviats. konstruktivn. M., Izd-vo in. lit., 1961, 467 - 477)

TEXT: The problem is solved of the distribution of temperature in a straight wing with camber profile under constant heat supply on unit length of the contour of cross-section in unit time. The flow of heat in the direction of the wing-span is ignored. It is accepted that the thermo-physical parameters of the wing are constant and that the temperature at the initial instant of time is the same for all points of the wing. Since the ratio of the thickness of the profile to its chord is taken as approximately 7 % the triangular part of the profile is replaced by a sector of a circle, and the solution of the problem is carried out in polar coordinates. By mak-
Card 1/2

Temperature distribution in a ...

3/124/82/000/005/025/048
1251/0558

ing use of the method of separating the variables the author obtains a solution in the form of a double series, whose terms are functions of the trigonometric, Bessel and exponential types. On carrying out the calculation, it was shown that if the second infinite series is missing from the solution, then the magnitude of the error will lie in the permissible range. A number of auxiliary terms were calculated which can be used for numerical computations, and also a series of numerical calculations is propounded to determine the temperatures for different values of the parameters of the problem. For the numerical calculation up to 15 terms of the series were taken. [Abstractor's note: Complete translation].

Card 2/2

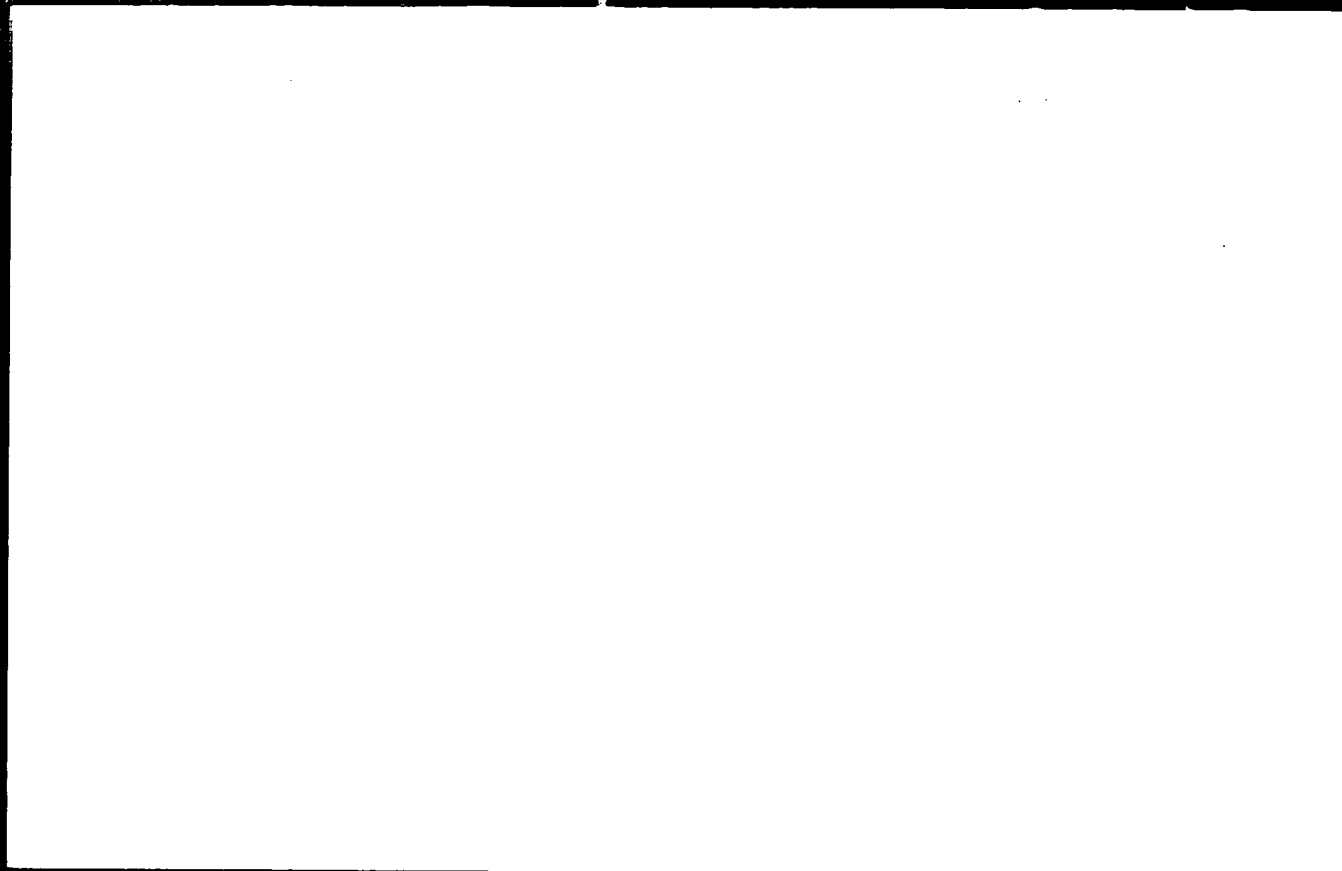
MIRSKIY, I.I.

Strengthen the friendship between workers of the Lugansk locomotive industry and the collective of the Yasinovataya repair shop.
Elek. i tepl. tiaga 4 no.5:3 My '60. (MIRA 13:7)

1. Zamestitel' nachal'nika depo Yasinovataya Donetskoy dorogi.
(Lugansk--Diesel locomotives)
(Yasinovataya--Railroads--Repair shops)

"APPROVED FOR RELEASE: 06/14/2000

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134610006-9"

MIRSKLY, L. I.

Med

1927. Interpretation of electrocardiograms of animals on basis of nervous system. L. I. Mirskij Trud. Yaroslavl. univ. Inst., 1955, 2: 82-84; *Revol. Zh. Biol.*, 1955, Abstr. No. 86721. - A detailed description is given of e.o.g. obtained on chicken embryos and young animals (chicks, kids, calves, piglets, puppies) in different stages of development. An attempt is made to interpret the data in connection with the peculiarities of development of the nervous system. (Russian)

E. IVANOV

MIRSKIY, L.M.

6.1 ✓ A study of the influence of high-melting elements on the autodiffusion of iron by using the radioactive isotopes. S. Z. Bokshtein, V. A. Kazakova, S. T. Kishkin, and L. M. Mirskiy. *Izvst. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 1958, No. 12, 18-27.—The autodiffusion of Fe in Fe-Ni alloy (around 25% Ni) was studied after the addn. of a third alloying element (Mo, Nb, Ti, or V) by electroplating a 3-4 μ -thick layer of Fe⁵⁹ from a sulfate soln. upon an alloy plate 20 X 9 X 7 mm. in size, fastening 2 such plated strips with their active faces adjoining, enclosing them in quartz tubes, evacuating to a 10^{-4} mm. vacuum, and annealing at 1000, 1100, 1150, and 1200°. After each heat-treatment, thin layers were machined off along the active surfaces to a thickness controlled by sensitive micrometers and by microweighing. A low concn. of the third alloying elements was found sufficient to repress the iron polymorphic transformations: thus, with only 0.5% Ti only the α -Fe crystal lattice could be observed over the whole annealing temp. range. A table is given of the relation of the autodiffusion coeff. D and the concns. of the third element. Ni and V addns. lower the diffusional mobility of Fe and reduce the values of D and the autodiffusion energy. Mo, Nb, and Ti lower the Fe mobility, but raise the value of D and greatly increase the diffusion heat. It is concluded that the addn. of the last three alloying elements results in strengthening the at. bond energy, in accordance with the higher recrystn. temp. and the tensile strength of the alloys. W. M. S.

②

Reference: [illegible]
 Date: [illegible]
 Author: [illegible]
 Title: [illegible]

Subject: [illegible]

Abstract: [illegible]

Word: [illegible]

MIRSKY, L.M.

18

6
1-452C

The structure effect of alloys on the diffusion process. J. Mirsky. *Izv. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 1956, No. 11, 40-61. The qual. and quant. relations between the mechanism of the process and the diffusion parameters in the Ni-Ni₃W system were studied by observing the boundary displacement towards the mobile component in a Ni-Ni₃W-Ni system at 850, 930, 1050, and 1400°. The samples were tested without any previous homogenizing annealing (A), and after such annealing (B). In case A a porosity is observed only on one side of the Ni-Ni₃W contact, whereas in B, after 6 hrs. of annealing, porosity is formed on both sides. A relation was evident between diffusion and creep, which causes differences and the formations of new dislocations. The interat. bonding strength in Ni₃W is high, and this was confirmed by the high diffusion activation energy of Ni (100,000 cal./g. atom) and W (110,000 cal./g. atom), which explains its high heat resistance. The compd. is an important structural constituent in alloys and in solid solns. that break down on cooling. The data on the distribution of the components were studied radiographically, by adding W¹⁸² to Ni₃W. Sufficient exptl. information on self-diffusion and heterodiffusion is as yet unavailable for solving of problems of atom migration in the crystal lattice, and the need of accumulating data on the diffusion mechanism is stressed.

W. M. Sternberg.

fr
any

MIRSKIY, Lev Mecheslavovich; LAGOVSKAYA, M.S., red.; ORESHKINA, V.I.,
tekh.red.

[Processes of diffusion in alloys] Protsesty diffuzii v
splavakh. Gos.izd-vo obor.promyshl., 1959. 121 p.

(MIRA 12:8)

(Alloys--Metallography)

(Diffusion)

BOKSHEYN, S.Z.; KISHKIN, S.T.; NIKISHOV, A.S.; POLYAK, E.V.; SOLOV'YEVA, G.G.;
Prinimali uchastiye: ARZHAKOV, V.M.; BULANOV, A.V.; VERTYUKOVA, L.G.;
KORABLEVA; MIRSKIY, L.M.; PODVOYSKAYA, O.N.; SAZONOVA, T.N.;
SOLONINA, O.P.; TITARENKO, I.I.; RINK, L.P.; KOZLOVA, M.N.;
YERMOLOVA, M.I.; MOROZ, L.M.

Aging of plastically deformed alloys. Metalloved. i term. obr.
met. no.5:40-44 My '63. (MIRA 16:5)
(Heat-resistant alloys--Hardening) (Deformations (Mechanics))

ACCESSION NR: AT4040416

S/0000/64/000/000/0117/0132

AUTHOR: Bokshteyn, S. Z. ; Yemel'yanova, T. A. ; Kishkin, S. T. ; Mirskiy, L. M.

TITLE: Structural characteristics and diffusion mobility in titanium alloys in various phase states

SOURCE: Protsessy* diffuzii, struktura i svoystva metallov (Diffusion processes, structure and properties of metals); sbornik statey. Moscow, Izd-vo Mashinostroyeniye, 1964, 117-132

TOPIC TAGS: titanium, titanium alloy, titanium manganese alloy, alloy VT3-1, alloy VT15, diffusion mobility, carbon diffusion, nickel diffusion, molybdenum diffusion, alloy structure, martensite

ABSTRACT: Previous investigations have indicated that, during autodiffusion and diffusion of various elements in metal alloys, displacements of the atoms occur mainly along the grain boundaries. However, during diffusion of iron, chromium, and tin in titanium under certain conditions, a predominantly intragranular and non-uniform diffusion has been observed. In this connection, the authors experimented with titanium alloys VT3-1, VT15 and Ti + 3.83% Mn the structural characteristics occurring during B-

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ACCESSION NR: AT4040416

transformation, as well as to compare the diffusional permeability of titanium-base alloys in various phase states. The results of radiographic and microscopic studies showed that in the process of $\beta \rightarrow \alpha$ transformation according to martensitic kinetics, substantial disruption of the crystalline structure occurs at the α' limit, producing changes which remain stable on subsequent heating and provide ways of increasing the diffusional mobility. A study of the distribution of carbon and nickel in the alloys led to the following conclusions: a) during diffusion in the β region of titanium-manganese alloys, carbon is distributing uniformly along the grain boundaries without perceptible segregation; b) during continuous cooling of this alloy from the β region, a rapid displacement of carbon atoms occurs toward the α' limit; c) after isothermal transformation of the β phase and formation of equiaxial α plus retained β , a uniform intragranular distribution of carbon takes place, whereby carbon diffuses preferably into the α phase; d) during diffusion of nickel into the ω phase of the VT3-1 alloy, concentrations of atoms occur on the boundaries of the acicular formations of this phase. Only after prolonged annealing at a subcritical temperature, when the polyhedric α phase is formed, does diffusion proceed preferably along the grain boundaries. However, even in this case, some non-uniform intragranular diffusion still takes place. A comparison of the diffusional permeability in titanium-base alloys in various phase states led to the conclusion that: a) the mobility of molybdenum during diffusion in the β phase of VT 15 alloy is lower than during diffusion in the heterophasic

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ACCESSION NR: AT4040416

region of this alloy; b) the diffusional permeability of the equiaxial α phase in VT3-1 alloy is lower than the diffusional permeability of the acicular α phase. Recrystallization of the α phase in VT3-1 alloy thus leads to an increase in the diffusional mobility of the atoms. Orig. art. has: 10 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 09Dec63

DATE ACQ: 28May64

ENCL: 00

SUB CODE: MM

NO REF SOV: 005

OTHER: 001

Card

3/3

ACCESSION NR: AT4040421

S/000/64/000/000/0177/0182

AUTHOR: Dokshteyn, S. Z.; Glazunov, S. G.; Yemel'yanova, T. A.;
Kabanov, Yu. N.; Kishkin, S. T.; Mirskiy, L. N.

TITLE: Thermomechanical treatment of titanium alloys with β -structure

SOURCE: *Protsessy* diffuzii, struktura i svoystva metallov* (Diffusion processes, structure, and properties of metals); sbornik statey. Moscow, Izd-vo Mashinostroyeniye, 1964, 177-182

TOPIC TAGS: titanium alloy, beta structure, mechanical property, thermomechanical treatment, thermomechanical treatment effect

ABSTRACT: The effect of thermomechanical treatment on the mechanical properties of β -titanium alloys VT15 (3.76% Al, 7.80 Mo, 10.7% Cr) and V-120 (US alloy, 3.1% Al, 11.6% Cr, 12.6% V) were investigated. Alloy specimens were held at 760C for 30 minutes, then rolled with a reduction of either 10 or 45% and immediately quenched (high temperature thermomechanical treatment, HTMT) or they were cooled at 350C, held for 2-3 minutes, rolled with a reduction of 10 or 40%, and

Card 1/2

ACCESSION NR: AT4040421

immediately quenched. In both cases, quenching was followed by aging at 450C for 25 or 50 hr. The mechanical properties of differently treated alloys are shown in Table 1 of the Enclosure. In stress rupture tests (apparently at 400C) under a stress of 100 kg/mm², the VT15 alloy had a rupture life of 13.5-15.0 hr, elongation of 17.2-19.0%, and a reduction of area of 49.0-51.5% after HTMT. The V-120 alloy similarly treated had a rupture life of 97-100 hr. Orig. art. has: 3 figures and 4 tables.

SUBMITTED: 09Dec63

ATD PRESS: 3049

ENCL: 01

SUB CODE: MM

NO REF SOV: 000

OTHER: 001

Card 2/3

I 11202-65 EWP(m)/EWP(t)/EWP(k)/EWP(b)/EWA(s) LJP(s) SD/HW
ACC NR: AP5026361 SOURCE CODE: UR/0370/65/000/005/0139/0142

AUTHOR: Bokahteyn, S. Z. (Moscow); Kishkin, S. T. (Moscow); Mirskiy, L. M. (Moscow);
Javadze, F. N. (Moscow); Kherodinashvili, Z. Sh. (Moscow)
44,55 44,55 64 B

ORG: none

TITLE: Diffusivity and heat resistance of titanium alloys after thermal and thermo-
mechanical working
44,55, 27

SOURCE: AN SSSR. Izvestiya. Metally, no. 5, 1965, 139-142

TOPIC TAGS: titanium alloy, carbon alloy, solid mechanical property, metal aging, metalworking, metal diffusion, metal heat treatment, metal forming, thermal aging, thermomechanical working of VTZ-1 titanium alloy on carbon diffusivity in alloys and alloy strength was investigated. The standard thermal treatment consisted of heating to 870°C, followed by soaking at 870°C for 1 hour, cooling to 650°C and soaking at 650°C for one hour and air cooling to room temperature. Thermomechanical working consisted of deformation of 30 x 30 x 65 mm alloy samples at 870°C (60% deformation per hammer strike) and instantaneous quenching in water. This was followed by aging for 5 hours at 550°C. For short and long lasting mechanical strength tests, thermally and thermomechanically worked alloy samples were reduced to 5 mm in diameter. Carbon diffusivity tests were made on 10 x 10 x 20 mm alloy samples. Orig. art. has: 2 figures.

Card 1/3

*Probably BT3-1, 4

UDC: 669.295.5-157.9

L 11202-66

ACC NR: AF8026301

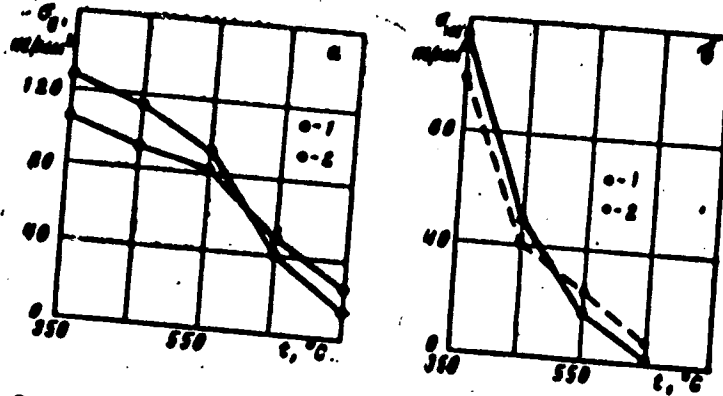


Fig. 1. Effect of temperature on short-lasting strength σ_s and 100-hour linear strength σ_{100} of VTZ-1 alloys after thermomechanical working, (1); After standard thermal working (2).

Card 2/3

ACC NR: ²⁶AP5026361

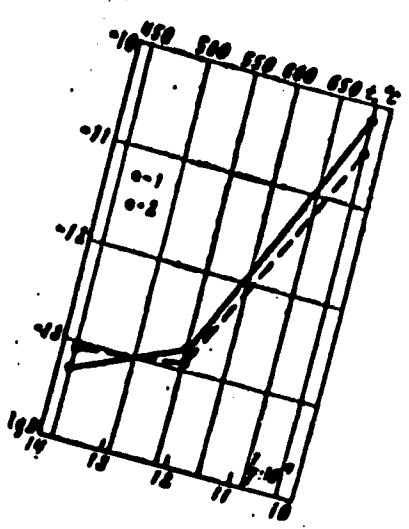


Fig. 2. Temperature dependence of the logarithm of the diffusion coefficient in * VTZ-1 alloy after thermomechanical working (1); after standard thermal working (2).

SUB CODE: 11/

SUBM DATE: 06May65/

ORIG REF: 005/

OTH REF: 000

Card 3/3

00513R00113461

L 01209-67 EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) LJP(c) JD/HW

ACC NR: AP6032458

SOURCE CODE: UR/0129/66/000/009/0042/0045

AUTHOR: Vishnyakov, Ya. D.; Ivanov, A. N.; Mirskiy, L. M.; Kherodinashvili, Z. Sh. ⁵⁷₅₆ORG: Institute of Steel and Alloys, Moscow (Moskovskiy institut stali i splavov)TITLE: Effect of high-temperature thermomechanical treatment on the fine structure and mechanical properties of titanium alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 9, 1966, 42-45

TOPIC TAGS: titanium alloy, thermomechanical ^{treatment} ~~treatment~~, alloy thermomechanical treatment, alloy, ~~fine structure~~, ~~VT3-1~~ mechanical property/VT3-1 alloy, VT15 alloy

ABSTRACT: VT3-1 titanium alloy (2.4% Mo, 1.6% Cr, 5.9% Al, 0.5% Fe, 0.2% Si) and VT15 titanium alloy (7.8% Mo, 11.0% Cr, 3.2% Al, 0.2% F, 0.1% Si) were subjected to high-temperature thermomechanical treatment (HTMT) — deformation at 900—1000 and 800—900C, respectively, followed by rapid (200C/sec) cooling. Specimens were strained either by tension (VT3-1 alloy) or by upsetting (VT15 alloy). HTMT increased the strength and ductility of the alloys. For example, the VT3-1 alloy strength increased from 115 kg/mm² after conventional heat treatment to 142 kg/mm² after HTMT at 900C with a reduction of 26%. Higher reductions brought about no additional effect. Aging at 500C for 5 hr increased the strength of conventionally and thermomechanically treated alloy to 125 and 160 kg/mm² at an elongation of 12 and 15%, respectively. With the HTMT in the β -region (1000C), the strengthening effect was

Card 1/2

UDC: 620.17:669.295:621.789

L 01209-67

ACC NR: AP6032458

still higher because only α' -phase was formed. With increasing deformation in HTMT, the size of the coherent dispersion regions decreased and the lattice microdeformations increased in both alloys. Subsequent tempering at 550C for 2 hr brought about no changes in the fine structure, which indicated a thermally stable configuration of the lattice defects formed with deformation and subsequent phase transformation. Also, no grain growth occurred in thermomechanically treated alloys reheated up to 900C; this ensures preservation of the advantages of HTMT at elevated temperatures. However, at temperatures above 600C, because of a higher diffusion in the structure with defects, the thermomechanically treated VT3-1 alloy softens more rapidly than conventionally heat treated alloy. Orig. art. has: 2 figures and 3 tables. (MS)

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 005/ ATD PRESS: 5097

Card 2/2 blg

KOKIN, M., inzh.; MIR KIY, M., arkhitektor

Some results of the research work carried out by the Special
Architecture and Design Bureau during 1957. Biul. tekhn. inform.
SAKB no.1/2:72-80 '58. (ME 11:0)

(Building research)

MIRSKIY, Mark Borisovich

[In the name of life; on the Academician N.N.Burdenko] Vo imia
zhizni; ob akademike N.N.Burdenko. Moskva, Gospolitizdat, 1960.
93 p. (MIRA 14:7)
(Burdenko, Nikolai Nilovich, 1876-1946)

MIRSKIY, Mark Borisovich; GUDKOVA, N., red.; KLIMOVA, T., tekhn.
red.

[Physician and Bolshevik] Vrach-bol'shevik. Moskva, Gospolit-
izdat, 1962. 46 p. (MIRA 15:6)
(SOLOV'EV, ZINOVII PETROVICH 1876-1928)

MIKHIY, Mark Borisovich, KRYUKOVA, S.N. ; red.; HAZAROVA, A.S.
tekhn. red.

[How to build up a child's health]Kak ukrepit' zdorov'e re-
benka. Moskva, Izd-vo "Znanie," 1962 47 p. (Narodnyi uni-
versitet kul'tury: Fakul'tet zdorov'ia, no.5) (MIRA 1962)
(CHILDREN: CARE AND HYGIENE)

MIRSKIY, M.B., aspirant

Role of the party and soviet press in the founding of public
health service and the organization of the People's Commis-
sariat of Public Health in the R.S.F.S.R. Zdrav Ros. Feder.
7 no.6 8-11 Je '63. (MIRA 1' 1)

MIRSKIY, M.B. (Moskva)

First Soviet medical newspaper. Sov.zdrav. 22 no.4:18-23 '63.
(MIRA 16:4)

(JOURNALISM, MEDICAL)

MIRSKIY, M.B.

Bolshevik press in the struggle for the people's health
(February-October, 1917). Sovet. med. 26 no.5:152-154, My'63
(MIRA 17:1)

1. Iz Instituta organizatsii zdravookhraneniya i istorii me-
ditsiny imeni N.A. Semashko (dir. - kand. med. nauk P.I.
Kal'yu) Ministerstva zdravookhraneniya SSSR.

MINSKIY, H.B.

Newspaper "Pravda" in the campaign for the health of the people.
rel'd. 1 akush. 28 no.4:3-6 Ap'63. (MLA 16:8)

1. Iz Instituta organizatsii zdravookhraneniya i istorii meditsiny imeni N.A. Semashko.
(JOURNALISM, MEDICAL) (PUBLIC HEALTH)

MIRSKIY, M.B.

Feldsher journals on the eve of and following the victory of
the Great October Socialist Revolution. Fel'd. i akush. 28
no.11:45-51 N°63 (MIRA 16:12)

1. Iz Instituta organizatsii zdravookhraneniya i istorii
meditsiny imeni N.A.Semashko.

"APPROVED FOR RELEASE: 06/14/2000

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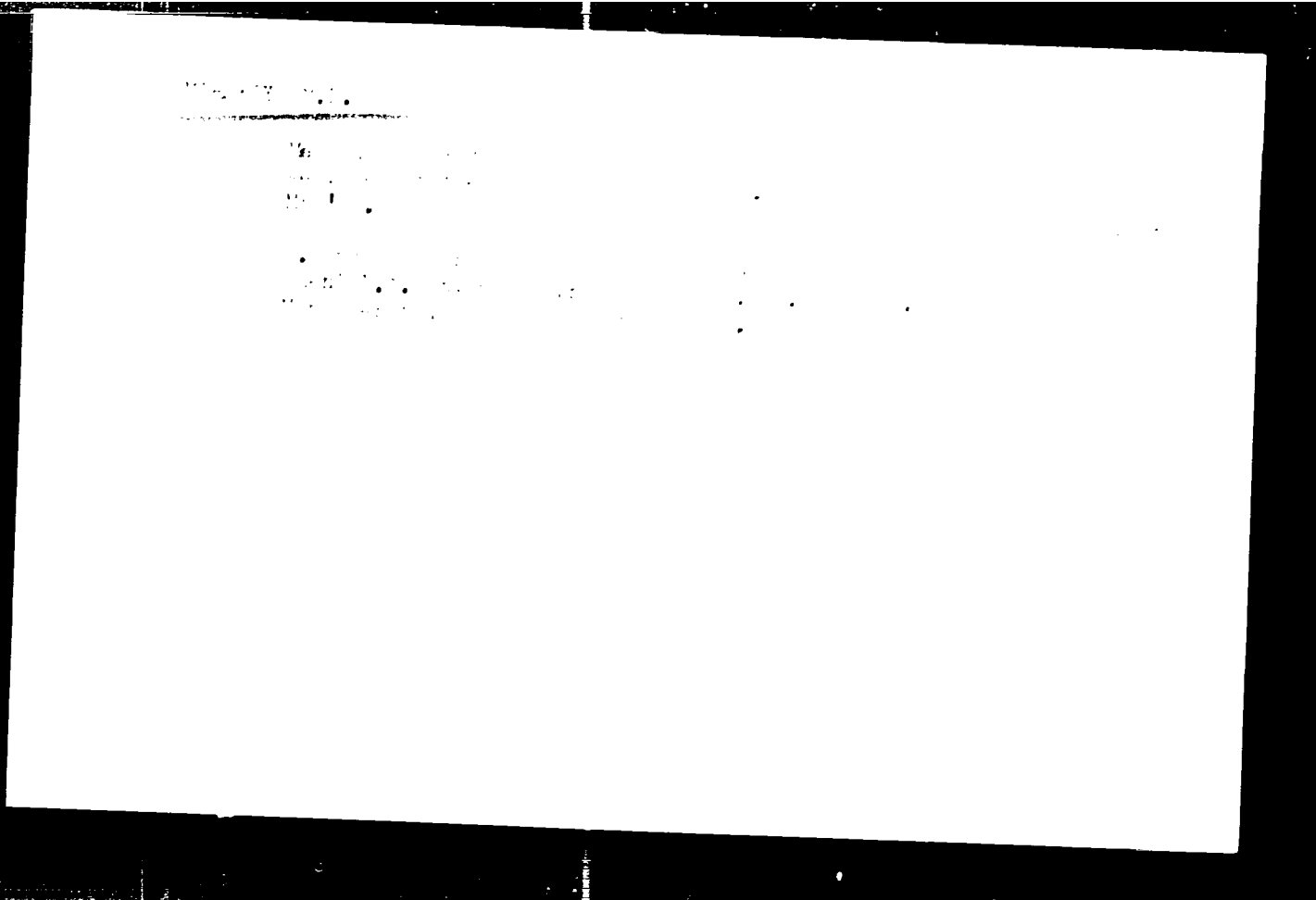
APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134610006-9"

MIESKIY, M.B.

Role of medical publications in the control of illness during
the first years of the Soviet regime. *Trudy Vsesoyuznogo nauchnogo
tsentra epidemiologii i immunologii*, 41, no. 2, 1964, pp. 1-10.

1. Institut organizatsii zdoravookhraneniya i issledovaniy
imeni Semashko Ministerstva zdoravookhraneniya SSSR, Moscow.



MIRSKIY, M.B.

Bolshevik press ... of ... in September
1917. Apt. delo ... MIRA 177,

Mirskiy, M. G.

7744 Sposoby Bor'by S Vodyancy Krysoy-Vreditel'em Sel'skogo Khozyaystva i
Istochnikom Tulyaremii. Novosibirsk, Kn. Izd., 1954, 40 S. 175m.
(Zap.-Sit. Filial Akad. Nauk S.S.S.R. S.-Vh. Propagandy Novosit.
Obl. UPR. Sel'skogo Khozyaystva). 2.000 ekz. P. Ts.-Sost. "kazany
Na Oborote Tit. I. - (55-394) I 632.69.32 (57.1 4614.449

S'. Knizhnaya Letopis', Vol. 7, 1955

GRANOVSKIY, B.S., inzh.; MIRSKIY, M.I., inzh.

Multirope suspension of mining equipment. Shakht. stroi.
no.6:17-19 '58.

(Shaft sinking) (Mine hoisting) (Winches)

(MIRA 11:6)

SURYANU, P.D.; MEDRYA, B.A.; POPA, M.I.; MIRSKIY, P.D.

Case of toxic liver dystrophy terminated by nodular hyperplasia.
Ark. pat. 23 no. 1:84-85 '61. (MIRA 14:1)
(HEPATITIS, INFECTIOUS)

MIKHAYLOVA, Z.M.; MIRSKIY, R.V.; YARUSH, M.A., A.A.

Determination of bivalent and trivalent iron in difficultly decomposed rocks. Zhurnal. khim. 18 no.7:256-258 J1 13.

(MIRA 16:11)
1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti.

MIKHAYLOVA, Z.M.; MIRSKIY, R.V.; YARUSHKINA, A.A.

Determination of the forms of iron in difficultly decomposable
rocks containing pyrites. Zav.lab. 30 no.4:407-408 '64.

(MIRA 17:4)

1. Kuybyshevskiy gosudarstvennyy nauchno-issledovatel'skiy
institut neftyanoy promyshlennosti.

KOTEL'NIKOV, V.M., kand.tekhn.nauk; CHENTSOVA, K.I., kand.tekhn.nauk;
ZYBIN, Yu.P., doktor tekhn.nauk; KOCHETKOVA, T.S.; ZAKATOVA, N.D.,
kand.tekhn.nauk; GUBAREV, A.S., kand.tekhn.nauk; SHVETSOVA, T.P.,
insh.; VOROB'YEVA, A.A., kand.tekhn.nauk; MIRSKIY, V.I., insh.;
NISNEVICH, Ye.A., kand.tekhn.nauk; GOL'DSHEYN, A.V., insh.;
KALASHNIKOVA, T.A., insh.; SHUSTOROVICH, M.L., kand.tekhn.nauk;
MOREKHODOV, G.A., insh.; ZAKHAROV, S.R., retsenzent; BLAGOVESTOV,
B.K., retsenzent; STRONGINA, O.P., retsenzent; SHMIDT, M.I., re-
tsenzent; ZUYEV, V.T., retsenzent; KOSAREV, M.I., retsenzent;
STEPANOV, I.S., retsenzent; RAMM, S.N., retsenzent; PEVZNER, B.M.,
retsenzent; VEYNBERG, I.A., retsenzent; TURBIN, A.S., retsenzent,
SMIRNOVA, Ye.V., retsenzent; BUGOSLAVSKAYA, L.A., retsenzent;
GAMOVA, A.S., retsenzent; KHANIN, N.M., retsenzent; MURVANIDZE,
D.S., red.; PLEMYANNIKOV, M.N., red.; GRACHEVA, A.V., red.; MEDVEDEV,
L.Ya., tekhn.red.

[Shoemaker's handbook] Spravochnik obuvshchika. Vol.1. Moskva,
Gos.nauchno-tekhn.isd-vo lit-ry po legkoi promyshl. 1958. 540 p.
(MIRA 12:4)

1.Gosudarstvennaya Ordena Lenina i Ordena Trudovogo Krasnogo Znameni
obuvnaya fabrika "Skorokhod" imeni Ya.Kalinina (for Zakharov, Blago-
vestov, Strongina, Shmidt, Zuyev, Kosarev, Stepanov, Ramm, Pevzner,
Veynberg, Turbin, Smirnova, Bugoslavskaya, Gamova, Khanin).
(Shoe manufacture)

BELYAKOV, P.Ye.; BABIN, B.M.; BAL', V.; BOROVKOV, P.N.; VOYEVODIN, I.K.;
 GUREVICH, L.M.; KORBINOVA, P.I.; KONNOV, A.S.; KALANTAROVA, M.V.;
 KASHIRSKIY, A.Ye.; KAZANCHEV, Ye.N.; LEKSUTKIN, A.F.; LETI-
 CHEVSKIY, M.A.; LOPATIN, S.Z.; MIRSKIY, V.M.; PODSEVALOV, V.N.;
 SUBBOTINA, V.P.; TAMASIYCHUK, N.P.; ~~PE~~DOTOV, S.D.; PISENKO, K.N.;
 EL'KIND, I.G.; BOVIN, S.S.; VASIL'YEV, I.T.; DRINKOV, V.D.; DALE-
 CHIN, N.I.; DADAROV, I.A.; YERMOSHINA, V.I.; ZHUKOV, I.V.; ZIMIN,
 D.A.; IVANNIKOV, A.Ye.; KOVALEV, M.K.; LUGAKOVSKIY, N.L.; MALEVSKIY,
 A.F.; SEREZHIKOV, V.K.; SEMIGLASOV, M.D.; SOKOLOV, A.V.; STEPANOV,
 V.I.; SAKHARIN, G.S.; SAVENKO, P.A.; SOLODOV, V.P.; UMEROV, Sh.Kh.;
 CHIKINDAS, G.S.; SHCHERBUKHINA, S.N.; DYNKIN, G.Z.; LYSOV, V.S.;
 OSHEROVICH, A.N.; ROKITSINSKIY, E.V.; BRASLAVSKIY, M.S.; RUDENKO,
 I.A.; ZHUKOBORSKIY, M.S.; ZHDANOV, I.Ye.; SUSLIN, V.A.; BRUS, A.Ye.;
 VOLYNSKIY, S.A.; KLYUYEV, V.A.; ISTRATOV, A.G.; TIKHOMIROV, I.F.;
 BUTYRIN, Ye.N.; VOLYNSKIY, S.A.; MINEYEV, M.F.; MAL'TSEV, V.I.;
 VIDETSKIY, A.F., kand. tekhn. nauk, glavnyy red.; DEMIDOV, A.N., red.;
 KRAVETS, A.L., red.; KLIMOVA, Z.I., techn.red.

[Industrial Astrakhan] Promyshlennaya Astrakhan'. Astrakhan',
 Izd-vo gazety "Volga," 1959. 318 p. (MIRA 12:11)

1. Astrakhan (Province) Ekonomicheskiy administrativnyy rayon.
 (Astrakhan Province--Economic conditions)

MAR'YANKOV, Nester Timofeyevich; MIRSKIY, V.V., otvetstvennyy red.;
LOMILINA, L.N., tekhn. red.; SABITOV, A., tekhn. red.

[Automatic drainage of coal mines] Avtomatizatsiia vodootliva na
ugol'nykh shakhtakh. Moskva, Ugletekhnizdat, 1958. 75 p.
(Mine drainage) (MIRA 11:10)

AUTHOR: Mirskiy, Ya.V.

TITLE: The Mechanism of Drying of Gelatized Alkylsilicate
Cracking Catalysts (Mekhanizm sukhaniya gelyatsirovannykh
silykatnykh katalizatorov krekkinga)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Gazov, 1985, No. 1, p. 10-12,
19 refs. (USSR).

ABSTRACT: The mechanism of drying of gelatized alkylsilicate catalysts is discussed. Drying is divided into two stages. In the first period, evaporation of about 50% of the water content of hydrogel takes place and is accompanied with a decrease in volume equal to the volume of evaporated water. This is explained by the ability of micells, from which the skeleton of hydrogel is formed to colloidal-chemical interaction with intermediate liquid. Due to this interaction, the evaporation of inter-micell moisture leads to the shrinkage of the skeleton of hydrogel in such a manner that all spaces between micells remain filled with water. With loss of water, the particles forming the skeleton of hydrogel form additional linkages due to which they lose the ability to colloidal-chemical interaction with intermicell moisture and therefore, further shrinkage of hydrogel cannot take place. This point is the beginning of the second stage in the drying process.

Card 1/2

The Mechanism of Drying of Pelletised Alumina-silicate Gels.
Abstracts.

The actual moisture content of hydrogel at which the transition from the first to the second drying stage takes place depends on conditions of "ageing" of hydrogel before drying. The mechanism of the second stage of drying of pellets is considered on the basis of the velocity of capillary penetration of moisture and the velocity of diffusion of vapour in the porous structure of pellets. The mechanism of the appearance of stresses in the hydrogel pellets during cracking is also discussed. There are 3 figures, 2 tables and 1 Slavic reference.

ASSOCIATION: GrozNII

AVAILABLE: Library of Congress
Card 2/2

Mirsky, Ye. V.

✓ Electron-microscope study of the structure of aluminosilicate hydrogels with replicas. Ye. V. Mirskii (Sci. Research Institute of Acad. Gromy). *Kolloidnyi Zh.* 19, 600-7 (1957).
 — Cellulose nitrate replicas of $Al_2O_3 \cdot SiO_2$ catalysts were shadowed with Au; then the micellar structure of the gel and the contraction of the gel skeleton on drying could be seen in an electron microscope. J. J. Bikerman

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The first part of the report is devoted to a description of the
situation in the country, and the second part to a description of the
situation in the city.

The report is written in a style which is both clear and concise.
It is a good example of a report which is both informative and
easy to read.

11 (2, 4)

PHASE I BOOK EXPLOITATION

SOV/2213

Groznyy. *Beftyamoy nauchno-issledovatel'skiy institut khimii i tekhnologii pererabotki nefli i gasa* (Chemistry and Technology of Petroleum and Gas Refining Processes). Moscow, Gosstoptekhnizdat, 1959. 278 p. (Series: Its Trudy, vyp. 4) 2,500 copies printed.

Executive Ed.: Y. D. Yefremov; Tech. Ed.: A. J. Polosina; Editorial Board: A. Z. Dorogochinakiy (Chairman), B. K. Amerik, G. I. Kas'gin, E. R. Kasakin, V. I. Lavrent'yev, Ye. S. Lavchenko, and M. D. Litvinov (Deputy Chairman).

PURPOSE: This book is intended for petroleum engineers and technicians in scientific research institutes, planning organizations, and refineries.

COVERAGE: This collection of technical papers on oil and gas refining were originally discussed at the petroleum refining section of the Third Grozny Scientific-Technical Congress in 1954. The articles have been published to help further the development of the petroleum

refining industry and petrochemical industry in the Chechen-Ingush ASSR. The history and significance of the petroleum refining industry in the Grozny region is outlined by A. Dorogochinakiy. Significant attention is given to the interdependence of refining and petrochemicals in modern engine demands research in fuel and lubricating oil properties. The increased use of jet aircraft makes the production of high octane aviation gasoline less important than the production of the new type of fuel, aviation kerosene, the yield of which requires a quite different refinery run. Since crude recovered at the Karabulak-Achulki fields represent a valuable raw material for manufacturing lubricating oil and paraffin wax, their properties have been thoroughly investigated and results of analysis reviewed. The re-equipment of the fuel producing line of refineries at Grozny has been carried out on the basis of findings obtained from tests and pilot plant operation and a scheme for the new refinery is outlined. The authors also conducted the low octane gasoline produced at Grozny Tests were also conducted to ascertain the advisability of applying the destructive distillation of residues, which yields solar fractions badly needed for catalytic cracking unit as feed stock. Catalytic cracking units of the 45-100 type were first put on stream in the

Groznyy refineries in 1952, and since that time continuous efforts have been made to boost their processing capacity, and improve the regeneration of catalysts. The authors make a number of suggestions as to how the throughput of the above units might be increased. The production of different types of treated and test catalysts, the contamination of catalysts and their reactivation are discussed. The operation of a contact coating reactor, its design, and products yielded by contact coating units are described. The authors also deal with the manufacture of lubricating oils, paraffin, and other products. The authors also discuss the production of light products and the authors state that in recent years extensive studies were made on the chemical conversion of petroleum products, and particularly of gases. As a result, a number of gas fractionators and compressors were built and installed to produce phenol and acetone from propylene and benzene, to synthesize ethyl alcohol and oxidize paraffinic hydrocarbons. An article is devoted to problems of automating various processes and developing the "state" control and safe instruments. The book contains numerous tables with the characteristics of different petroleum products obtained from refinery processing units of oil plants and petrochemical refinery sections. Each article is accompanied by references.

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of the
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accompanied by references, see also Bibliography in
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rnikov. The Reason Why Alumino-Silicate Catalysts Lose Their
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Chemistry and Technology (Cont.) SOV/7213

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AVAILABLE: Library of Congress 265

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TRAD 8-33-59

EMMANILOVA, Ye.M.; MIRSKIY, Yu.V.; STAROSTIN, I.I.; MEZHLUMOVA, A.I.;
BUNIN, K.P.; MIZYAKOV, D.I.

Experimental industrial preparation of catalysts from Askan clay
by acid activation. Trudy GrozNII no.4:82-90 '59.

(Askanite) (Catalysts) (MIRA 12:9)

MIRSKIY, Ya.V.; MITROFANOV, M.G.

Molecular sieves, a new kind of adsorbents. Khim.i tekhn. topl.i masel
5 no.10:16-21 O '60. (MIRA 13:10)

1. Grogenskiy nauchno-issledovatel'skiy neftyanoy institut.
(Petroleum--Refining)
(Adsorbents)

S/081/61/000/013/015/028
B110/B205

AUTHORS: Levchenko, Ye. S., Ponomareva, Ye. A., Nesmeyanova, T. S.,
Mirskiy, Ya. V.

TITLE: Study of the hydrocarbon composition of Ozek-Suat petroleum

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 13, 1961, 524, abstract
13M279 (Tr. Groznensk. neft. n.-i. in-t, 1960, vyp. 7,
162 - 172)

TEXT: As a result of this investigation, the composition of the gasoline of Ozek-Suat petroleum was clarified to 91.9%. It was found to contain 43 hydrocarbons. The gasoline is characterized by a high content of paraffins (54.2%), most of which have a normal structure or are slightly branched with a methyl substituent (14%). In addition, it has a high content of cyclohexane hydrocarbons (24.5%). It was found that n-pentane, n-hexane, n-heptane, n-octane, n-nonane, and methyl cyclohexane are contained in the gasoline (initial boiling point, 150°C); in maximum amounts of 6 - 9%. [Abstracter's note: Complete translation.]

Card 1/1

Z/011/61/018/005/008/015
EO30/E512

110123

AUTHORS Levchenko, Ye S., Ponomareva, Ye A., Nesmeyanova, I
and Mirskiy, Ya V

TITLE Chemical composition of gasoline from Ozek-Suat crudes

PERIODICAL Chemie a chemicka technologie. Prehled technicke a
hospodarske literatury, v 18, no 5, 1961, p 226
abstract Ch61-3128 (Khimiya i tekhnologiya topliv
i masel, no 8, 1960, 9-11)

TEXT: A complete hydrocarbon analysis has been conducted
on the straight-run gasoline (final boiling-point 150°C) from
Ozek-Suat crude, which is noted for its high content (17.5%) of
solid paraffins, and high pour point (52°C). The fraction was from
a pilot distillation unit with 100 theoretical plates. Qualitative
and quantitative analyses of the fractions up to 133°C were
performed with an ISP-51 spectrometer. The fraction between
133-150°C was investigated by catalytic dehydrogenation of the
six-membered naphthenes and separation of the resultant aromatics
over ASM silica gel. The secondary aromatics were qualitatively
analysed by spectrometer, and calculated with respect to the

Card 1/2

Chemical composition of

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EO30/E512

corresponding cyclohexane hydrocarbons. The mixture of cyclohexanes and isoparaffins were similarly analysed after further distillation on a 40 plate laboratory column. The data show that the gasoline contains 54.2% paraffins, 35.6% being straight chain, 14.0% with one tertiary carbon atom, 4.2% with two, and 0.4% with a quaternary carbon atom. There is a high (24.5%) content of cyclohexane-hydrocarbons, predominantly methylcyclohexane (8.0%). There is a 5.3% cyclopentane fraction, predominantly methylcyclopentane (1.96%). The aromatic content is 7.9%, made up of 3.5% xylenes (2.06% meta, 0.74% para, 0.68% ortho), 2.5% toluene, 1.3% ethyl benzene, and 0.6% benzene.

1 figure, 3 references

Abstractor's Note: This is an abstract of the original Russian paper and not a translation of the very brief Czech-language abstract.

Card 2/2

5(4)

AUTHOR:

Mirskiy, Ya. V.

SOV/20-130-1-32/69

TITLE:

Vapor Adsorption on Crystalline Adsorbent-molecular Sieves

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 1, pp 115-116 (USSR)

ABSTRACT:

The author refers to foreign papers on molecular sieves i.e. adsorbents with pore diameters of few Å. He produced such mineral molecular sieves and reports on the properties of the molecular sieves type 102 and 202. Their composition, however, is not given. The X-ray photographic data are mentioned and in figure 1 the isothermal lines of the vapor adsorption of water, methanol, n-hexane, isooctane (2,2,4-trimethylpentane), and benzene are shown. Both sieves have distinct selective adsorption properties. The adsorption isothermal lines correspond, with respect to their shape, to the Langmuir isothermal lines. High adsorption values were attained at low relative pressure. The adsorption is reversible. On the basis of data for methanol adsorption a specific surface of 1,000 m² is calculated according to the Langmuir equation. These data show that the molecular sieve type 102 corresponds to the molecular sieve 4 Å and type 202

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Vapor Adsorption on Crystalline
Adsorbent-molecular Sieves

SOV/20-130-1-32/69

to the molecular sieve 5 Å of Messrs Linde. With respect to their crystal structure, however, the sieves of the author differ from the Linde sieves. Finally it is mentioned that the author thanks M. G. Mitrofanov for cooperation in the paper. There are 1 figure and 9 references, 1 of which is Soviet. ✓

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

PRESENTED: August 2, 1959 by M. M. Dubinin, Academician

SUBMITTED: August 2, 1959

Card 2/2

LEVCHENKO, Ye.S.; PONOMAREVA, Ye.A.; NESMEYANOVA, T.S.; MIRSKIY, Ye.V.

Hydrocarbon content of gasoline from Anastasiyevka crudes. Khim. i
tekh, topl. i masel 6 no. 3:10-13 Mr '61. (MIRA 14:3,
(Gasoline) (Hydrocarbons--Analysis)

MIRSKIY, Ya., izobretatel' (g.Groznyy)

Clogged molecules. Izobr. 1 rats. no.9:9 1961. (MIRA 14:2.
(Zeolites)

5/28/62, 200/005, 200/11
B'56/B'18

Author: [illegible], [illegible], [illegible], [illegible], [illegible]

Title: The production of synthetic zeolites as molecular sieves

Reference: Reference journal, Khimiya, no. 5, 1962, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Text: It has been established that zeolites with high adsorption capacities and "molecular sieve" characteristics can be obtained if the synthetic zeolite samples are crystallized at 75 - 100°C for a period of 10 hours to several days. The most convenient method of the synthesis is to maximize the adsorption of Na⁺ ions into a unit cell of the zeolite. Such zeolites are produced by the crystallization of a mixture of compositions of $x - 0.4 \text{ Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot n \text{ SiO}_2$ with values of n = 1, 2, 3, 4. Type I zeolite is formed; this in Na-form is a 4A "molecular sieve", and in Ca-form a 5A "molecular sieve". At values of n between 2.1 and 2.2 a type II zeolite is formed, which in Ca-form is similar to phonzeite. The synthetic zeolites have high adsorption capacities and selectivities. Cont. 1/2

3/10/1960, 205 (out 11)
810/310

The ... of ...

... for the ... ratios of ... and ...
... zeolite in ... can ...
... An important feature of the Ca-form zeolite is its ...
... of normal structure to ...
... are not absorbed. ...
... note: Complete translation.

0 1 1 2

S/076/61/035/002/015/015
B107/B220

AUTHORS: Mirskiy, Ya. V. and Mitrofanov, M. G. (Groznyy)

TITLE: Separation of hydrocarbon mixtures by means of a molecular sieve

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 2, 1961, 460

TEXT: The separation of n-HC (hydrocarbons) from mixtures with iso-HC and cyclic HC is often very difficult. Recently widespread interest has been shown in the problem as to whether molecular sieves are suitable for separating petroleum fractions (Refs. 1-3). For separating n-paraffins from benzene fractions the authors used a molecular sieve made at their own institute. Such a molecular sieve adsorbs n-paraffins in dehydrated state, whereas iso-paraffins and cyclic HC are not adsorbed. The adsorbing capacity at 20°C is indicated in a table for the different substances. Chemically, this molecular sieve is the Ca form of an artificial zeolite. The separating capacity of the sieve was tested with mixtures of n-heptane with toluene and methyl cyclohexane. The change in the composition of the mixture could be easily determined from the value of the refractive index. The
Card 1/3

Separation of hydrocarbon ...

S/076/61/018/012/013/015
B107/B220

mixtures were separated in both liquid and gaseous phase. In the first case, a small volume of the liquid mixture was added to the adsorbent, and the refractive index of the mixture was determined from the contact with the adsorbent. In the second case, the gaseous mixture was passed over the layer of the molecular sieve in a glass tube at 120°C. Previously, the adsorbent had been dried at 350°C and simultaneously evacuated. When passing the gas mixture through the adsorbing layer, the nonadsorbed part was collected in a receiver cooled by dry ice. Once adsorption was completed, the sorption tube was evacuated at 120°C; then the temperature was raised to 350°C and, thus, the n-heptane desorbed. For the separation of n-hexane, the hexane fraction of a directly fractionated benzine was used as basic material; besides n-hexane, this fraction contained methyl cyclopentane, 2-methyl pentane, 3-methyl pentane, and benzene. The hexane fraction was passed through the adsorbing layer for 15 minutes at a volume rate of 0.55; the subsequent temperature increase and desorption were effected in the same way as for n-heptane. Under these conditions, n-hexane was almost completely separated from the mixture. The desorbed n-hexane showed a purity of 97-98%.

Card 2/3

S/076/61/035/002/015/015
B107/B220

Separation of hydrocarbon ...

Table:

adsorbed matter

adsorption volume of pores, cm³/g

n-C₆H₁₄

0.24

iso-C₈H₁₈

0.02

C₆H₆

0.02

H₂O

0.30

CH₃OH

0.28

- Ref.: 1. R. D. Schwartz, D. J. Brasseaux, *Analyt. Chem.*, 29, 1022, 1957;
 2. B. J. Mair, M. Shamalengar, *Analyt. Chem.*, 30, 276, 1958;
 3. G. R. Brown and oth., *Oil and Gas J.*, 47, 149, 1959.

[Abstracter's note: This is a full translation from the original.] There are 1 table and 3 non-Soviet-bloc references.

ASSOCIATION: Groznenskiy neftyanoy nauchno-issledovatel'skiy institut
(Groznyy Petroleum-Scientific Research Institute)
December 29, 1959

SUBMITTED:
Card 3/3

3, 1960/61/144
P. 1/8/44

AUTHORS: Mirskiy, G. I. and V. A. ...

TITLE: Synthesis of artificial zeolites of amorphous form of wear-resistant, moisture-resistant

PERIODICAL: Akademiya Nauk SSSR ...

TEXT: The authors synthesized artificial zeolites with high adsorptive capacity. The present paper describes the synthesis of mechanically stable, powdered adsorbent consisting of 20-30 micrometer particles by atomization drying of a suspension of 10-20 micrometer powdered zeolite and highly plastic finely dispersed clay (Al₂O₃ clay 10-30%) is necessary for obtaining wear-resistant adsorbent zeolites. Mechanical strength is reduced by too small addition of adsorptive capacity is lowered by too large addition. The material dried with H₂O until it can be dried by atomization. The material obtained at 500-650°C has better moisture resistance and higher strength.

Card 1/1

17 RSR 14
128

PHASE I BOOK EXPLOITATION

SOV/6246

Soveshchaniye po tseolitam. 1st, Leningrad, 1961.

Sinteticheskiye tseolity; polucheniye, issledovaniye i primeneniye
(Synthetic Zeolites: Production, Investigation, and Use). Mos-
cow, Izd-vo AN SSSR, 1962. 286 p. (Series: Its: Doklady)
Errata slip inserted. 2500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh
nauk. Komisiya po tseolitam.

Resp. Eds.: M. M. Dubinin, Academician and V. V. Serpinskiy, Doctor
of Chemical Sciences; Ed.: Ye. G. Zhukovskaya; Tech. Ed.: S. P.
Golub'.

PURPOSE: This book is intended for scientists and engineers engaged
in the production of synthetic zeolites (molecular sieves), and
for chemists in general.

Card 1/12

Synthetic Zeolites: (Cont.)

SOV/6246

COVERAGE: The book is a collection of reports presented at the First Conference on Zeolites, held in Leningrad 16 through 19 March 1961 at the Leningrad Technological Institute imeni Lensovet, and is purportedly the first monograph on this subject. The reports are grouped into 3 subject areas: 1) theoretical problems of adsorption on various types of zeolites and methods for their investigation, 2) the production of zeolites, and 3) application of zeolites. No personalities are mentioned. References follow individual articles.

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S/081/62/000/021/031/069
B149/B101

AUTHORS: ~~MIRSKIY, Ya. V.~~, Mitrofanov, M. G., Bolotov, L. T.,
Meznlumova, A. I., Bunin, K. F., Dul'skaya, V. N.,
Mel'nik, A. N.

TITLE: Preparation of experimental samples of molecular sieves under industrial conditions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 319, abstract 21K106 (Novosti nef. i gaz. tekhn. Neftepererabotka i neftekhimiya, no. 2, 1962, 13 - 15)

TEXT: Molecular sieves are prepared in the following way: a crushed silicate chunk is cooked in an autoclave with live steam, transferred to a collector, diluted with steam condensate, cooled and transferred to a container; whereupon sufficient condensate is added to make a working solution, which is left to settle. The clean solution is pumped into another container. A strong alkali solution is transferred from the montegus into a mixer which has a paddle and heater, followed by the condensate and $Al(OH)_3$; the mixture is heated for 3 hours with stirring.

After this the Na-aluminate solution is transferred to a collector from
Card 1/2

Preparation of experimental samples...

S/081/62/000/021/011/069
B149/B101

which the strong solution can be taken to a vessel where it can be diluted with condensate to a working concentration. The latter solution is pumped through a rotameter and led into a jet mixer together with the Na-silicate solution. The mixture then passes into a continuously working paddle mixer where the gel is formed as a thin pulp. This pulp is transferred to the mixer in which the aluminate solution was previously prepared. The pulp is heated in the mixer until the gel crystallizes. The mass is then transferred into the collectors which previously contained the aluminate and the zeolite is washed by 2 - 3 decantations, then filtered and washed in a filter-press. The cake is divided into two parts, one of which undergoes preliminary drying in a chamber dryer and is transferred on to crusher-roll mill while the other is transferred directly to the mill. There the zeolite is mixed with clay into a mass which is made into tablets, and the latter are dried, calcined and sieved from crumbs in a drum sieve. Part of the zeolite is treated with CaCl_2 to prepare a selective adsorbent for separating paraffine fractions. The weight of 1 m³ of sodium zeolite is 0.13, and its sorption capacity for water is 0.25 cm³/g. 5 references. Abstracter's notes: Complete translation.

Card 2/2

SHESTAK, N. P.; CHERTOMIZHSKIY, A. V.; MIRSKIY, Ya. V.; MITROFANOV,
M. G.; DEMENKOV, I. A.

Adsorption properties of synthetic zeolites-molecular sieves
and their use in the advanced-stage dehydration of monomers.
Neftekhimia 2 no.4:512-518 J1-Ag '62.

(MIRA 15:10)

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

(Zeolites) (Monomers)

LEVCHENKO, Ye.S.; PONOMAREVA, Ye.A.; NESMEYANOVA, T.S.; MIRSKIY, Ya.V.

Individual hydrocarbon composition of the Zamankul petroleum
gasoline fraction. Khim.i tekhnol. masl 7 no.5:34-37 My
'62. (MIRA 15:11)

1. Groznenskiy nauchno-issledovatel'skiy neftyanoy institut.
(Zamankul region--Petroleum) (Hydrocarbons)

5/065/62/000/008/001/003
E075/E135

AUTHORS: Aristov, B.G., Kiselev, A.V., Mirskiy, Ya.V.,
Pavlova, L.F., and Petrova, R.S.

TITLE: Adsorption from vapours and from solutions on
molecular sieves

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.8, 1962,
7-12

TEXT: Results are given of the investigation of adsorption of
vapours of H₂O, N₂, Kr, n-hexane, benzene and isooctane, and also
adsorption from liquid solutions of n-hexane, benzene and
crystals of zeolites of the 4A and 5A type. The adsorption
isotherms of vapours of H₂O, N₂, Kr and n-hexane on porous
rise steeply at first and rapidly reach the saturation stage.
The adsorption of benzene and isooctane remains very small. The
adsorption isotherm of n-hexane from solution in benzene was
measured on the 5A sieve. The filling of the pores with n-hexane
begins at practically negligible concentrations of n-hexane and
subsequently only some additional packing of adsorbed molecules
takes place. The maximum value for the full packing is reached at
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Adsorption from vapours and from ...

S/065/62/000/008/001/003
E075/E135

the equilibrium concentration of n-hexane of about 0.2, this value being similar to that pertaining to the adsorption of n-hexane from vapour. The quantity of adsorbed molecules in one pore in the 5A sieve crystals is not great and is 2.6-2.7 for n-hexane. Molecular sieve 5A adsorbs Kr at -196°C only on the external surface of the grains. Nitrogen at -196°C penetrates markedly into the pores of the sieve 4A, but the speed of adsorption is very small and equilibrium is therefore not obtained. There are 4 figures and 1 table.

ASSOCIATION: Institut fizicheskoy khimii; MGU im. M.V.Lomonosova;
GrozNII
(Institute of Physical Chemistry; MGU imeni
M.V. Lomonosov; GrozNII)

Card 2/2

MITROFANOV, M.G.; MIKSKIY, Ya.V.; KUROGUCHINSKIY, A.Z.; DRONIN, A.P.
MAKAR'YEV, S.V.; LUGOVY, I.I.

Selecting the best arrangement for separating gasoline fractions
in molecular sieves. Trudy GrozNII no. 15:84-92 '63.
(MIRA 17:6

ACCESSION NR: AT 4016001

S/2625/63/000/015/0165/0175

AUTHOR: Mirskiy, Ya. V.; Mitrofanov, M. G.; Popkov, B. M.; Ruchko, L. F.; Bolotov, L. T.; Mezhlumova, A. I.

TITLE: Development of the technology for the industrial preparation of molecular sieves

SOURCE: Grozny*y. Neftyanoy nauchno-issledovatel'skiy institut. Trudy*, no. 15, 1963. Tekhnologiya pererabotki nefli i gaza. Neftekhimiya (Technology of processing petroleum and gas. Petroleum chemistry), 165-175

TOPIC TAGS: adsorbent, zeolite, molecular sieve, hydrogel, aluminosilicate

ABSTRACT: The characteristics and industrial production of adsorbent synthetic zeolites having good molecular-sieve properties have been investigated, using microgranular sodium zeolite with cubic crystals of 0.1 to several microns on a side. The results show that the properties of zeolites are affected by the following factors: method of preparation and composition of the hydrogel, temperature and duration of crystallization, concentration of the gel-forming solutions, stirring of the hydrogel, ion-exchange conditions, washing of the crystals, and granulation and hardening of the zeolites. Zeolites of the structural type designated as Type I (Type A in the West) are of great interest. A
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ACCESSION NR: AT 4016001

study of the adsorptive properties of sodium and calcium zeolites showed that the adsorptive properties of zeolites crystallized from hydrogels of the same composition, but by different methods, are very similar. The best method of preparation is to mix solutions of sodium aluminate and sodium silicate. A stable Type I zeolite can be made from hydrogels for which the molar ratio $\text{SiO}_2:\text{Al}_2\text{O}_3$ is < 2 . When this ratio approaches 3, a zeolite of Type II results. Hydrogels crystallize at a satisfactory rate at 75-100C. The effect on the crystal size of the concentration of gel-forming solution and the stirring rate (2 hours at 90C) and the effect of the crystallization time on the adsorptive properties and crystal size of zeolites (crystallization without stirring at 90C) were also investigated and the data tabulated. A new apparatus for preparing zeolites is described in detail and illustrated. In the preparation of the test samples, the yield was 68-74% of the theoretical. These zeolites with their pronounced molecular sieve properties, obtained under industrial conditions, made it possible to crystallize large amounts of aluminosilica hydrogels in large-sized apparatus. Orig. art. has: 1 figure and 6 tables.

ASSOCIATION: Neftyanoy nauchno-issledovatel'skiy institut, Grozny*y (Petroleum Scientific Research Institute)

Card 2/3

ACCESSION NR: AT4016001

SUBMITTED: 00

DATE ACQ: 31Jan64

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SUB CODE: FP, IC

NO REF SOV: 010

OTHER: 001

Card 3/3

ACCESSION NR: AT4016005

S/2625/63/000/015/0333/0343

AUTHOR: Levchenko, Ye. S.; Ponomareva, Ye. A.; Nesmeyanova, T. S.; Mirskiy, Ya. V.; Zamesova, S. P.

TITLE: Investigation of the hydrocarbon composition of gasolines distilled directly from North Caucasian petroleum

SOURCE: Groznyy. Neftyanoy nauchno-issledovatel'skiy institut. Trudy*, no. 15, 1963. Tekhnologiya pererabotki nefli i gaza. Neftekhiymiya (Technology of processing petroleum and gas. Petroleum chemistry), 333-343

TOPIC TAGS: petroleum, gasoline, hydrocarbon composition, North Caucasian petroleum

ABSTRACT: The authors have compared the chemical composition and physical properties of Ozek-Suat (Stavropol' kray), Karabulak and Zamankul (Chechen-Ingush ASSR) and Anastasiev (Krasnodar kray) petroleum and have carried out a detailed study of the hydrocarbon composition of gasolines from these sources. Tables are presented showing the content of each hydrocarbon, as well as the totals for the paraffin, cyclopentan, cyclohexan and aromatic series and the distribution by molecular weight within each series. The data show that gasolines obtained from paraffinic crude oils from the Ozek-Suat, Karabulak and Zamankul regions are

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ACCESSION NR: AT4016005

characterized by a high content of straight-chain paraffinic hydrocarbons; this is most pronounced for the Ozek-Suat gasoline. For the Ozek-Suat and Zamankul gasolines, the high cyclohexane content, a fifth of their total composition, is also characteristic. Karabulak gasoline is characterized by a lower content of hydrocarbons of this group, but the largest amount of aromatic hydrocarbons. Zamankul gasoline is the least aromatic. Gasoline from Anastasiev petroleum, in contrast to gasolines from paraffinic crude oils, is characterized by (a) a predominant amount of cyclohexane derivatives, (b) the almost complete absence of straight-chain paraffinic hydrocarbons, (c) a very low content of aromatic hydrocarbons and (d) a high content of isoparaffins of highly branched structure. Orig. art. has: 6 tables.

ASSOCIATION: Neftyanoy nauchno-issledovatel'skiy institut, Groznyy (Petroleum Scientific Research Institute)

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OTHER: 000

Card 2/2

L 54556-65 EWT(m)/T
ACCESSION NR: AP5016715

UR/0286/65/000/010/0017/0017

AUTHORS: Mirekiv, Ya. V.; Mitrofanov, M. G.; Papkov, B. M.; Bolotov, L. T.

19
8

Ruchko, L. P.

TITLE: A method for obtaining synthetic zeolites of type X. Class 12, No. 170912

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 17

TOPIC TAGS: zeolite, synthetic zeolite, aluminum, silicon, crystallization

ABSTRACT: This Author Certificate presents a method for obtaining synthetic zeolites of type X by hydrothermal crystallization of aluminum-silicon gel in an alkaline medium at a temperature of 95-100C. To improve the adsorption properties of the obtained zeolites, an excessive amount of alkali is introduced into the aluminum-silicon gel, while heating up to 95-100C is accomplished with live steam and is accompanied by mechanical mixing. Next, water heated to the same temperature is added in such an amount that the molar ratio H₂O : Na₂O in the hydrogel is equal to 38 : 45.

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

Card 1/2

L 54556-65
ACCESSION NR: AP9016715
SUBMITTED: 27Apr64
NO REF SOV: 000
ENCL: 00
OTHER: 000
SUB CODE: 00

Card 2/2

DEV HENKO, Ye. G. KONIMAREVA, Ye. G. NEMOVANOV, T. G. ... 1943.

Hydrocarbon ...
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166.

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L 27892-66 EWT(m)/T

ACC NR: AP5024962

SOURCE CODE: UR/0286/65/000/016/0024/0024

AUTHORS: Mirskiy, Ya. V.; Golovko, V. G.; Papkov, B. M.; Ruchko, L. F.

9
B.

ORG: none

TITLE: A method for obtaining granular synthetic zeolites¹ of Type A. Class 12, No. 173719 [announced by Groznyy Petroleum Scientific Research Institute (Groznsenskiy neftyanoy nauchno-issledovatel'skiy institut)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 24

TOPIC TAGS: zeolite, aluminosilica gel

ABSTRACT: This Author Certificate presents a method for obtaining granular synthetic zeolites of type A by crystallization of aluminosilica gel. To produce mechanically strong zeolites without using a binder, aluminosilica gel with a water content of 29-39% is subjected to granulation, and the resulting granules are heated at a temperature of 90-150C.

SUB CODE: MT, GC/

SUBM DATE: 27Apr64/

ORIG REF: 000/

OTH REF: 000

UDC: 661.183.6 66.099.2

Card 1/1

So

AL'TGAUZEN, A. P., inzh.; MIRSNIY, Yu. A., inzh.

New electric heating equipment. Vest elektroprom. 32 no. 1:
62-67 C '61. (Electric furnaces) MIRA 14:

MIRSKIY, Yu.A.; KOLTSA, N.T.

Compartment-type furnaces for chemical and heat treatment. Metalloved.
I term. obr. met. no.9:R-9 S '64. (VIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy inatitut elektrottermicheskogo
oborudovaniya i institut "Teploproyekt".

MIRSKIY, Zinoviy Yakovlevich; VADEYEV, O., red.; MUKHIN, Yu.

[Rumania of our days] Rumynia nashikh dni. Moskva, 1959. 111 p. (MIRA 12:11)
izd-vo polit.lit-ry, 1959. 111 p.
(Rumania--Economic conditions)

S/079/63/033/001/023/023
D204/D307

AUTHORS: Shostakovskiy, M. F., Vleasov, V. M. and Mirskov, R.G.

TITLE: Synthesis of the acetylenic esters of organotin

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 1, 1963, 324

TEXT: Compounds $\text{Et}_3\text{SnORC}\equiv\text{CH}$ (where $\text{R}=\text{CH}_3$, $(\text{CH}_2)_2$, $\text{CH}(\text{CH}_3)_2$, or $\text{C}(\text{CH}_3)_3$) were obtained by: (a) treating $\text{BrMgC}\equiv\text{CROMgBr}$ (obtained from EtMgBr and butyn-1-ol-4) with triethylchlorostannane, heating for 8 hours at 100°C , cooling and adding water to the reaction mixture. The organic layer was separated, dried, the solvent (ether) was evaporated and the products were fractionated; (b) heating acetylenic alcohols (pretreated with Na) with Et_3SnCl on a water bath. The compounds, whose structure was confirmed by ir spectroscopy, did not react with vinyl esters with the formation of acetals.

Card 1/2

Synthesis of the ...

S/079/63/033/001/023/023
D204/D307

ASSOCIATION: Irkutskiy institut organicheskoy khimii Sibirskogo
otdeleniya Akademii nauk SSSR (Irkutsk Institute of
Organic Chemistry of the Siberian Branch of the
Academy of Sciences, USSR)

SUBMITTED: August 30, 1952 [Sic]

Card 2/2

SHOSTAKOVSKIY, M.F.; VLASOV, V.M.; MIRSNOV, R.G.

Synthesis of organotin acetylenic acetals. Zhur. ot. khim. 33
no. 6: 2076 Je '63. (MIRA 1:7)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya
AN SSSR.

(Tin organic compounds) (Acetal) (Acetylene compounds)

ACCESSION NR: AP403450)

S/0079/64/034/004/1354/1355

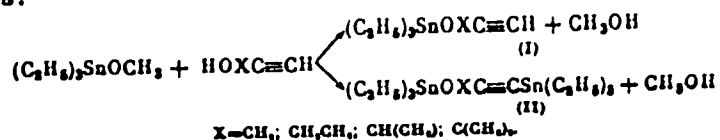
AUTHOR: Shostakovskiy, M. F.; Vlasov, V. M.; Mirskov, R. G.

TITLE: Reaction of triethylmethoxystannane with acetylenic alcohols

SOURCE: Zhurnal obshchey khimii, v. 34, no. 4, 1964, 1354-1355

TOPIC TAGS: triethylmethoxystannane acetylenic alcohol reaction, tin containing acetylenic ether, disproportionation, reaction condition, reactant ratio, acetylenic alcohol, triethylmethoxystannane, stannane

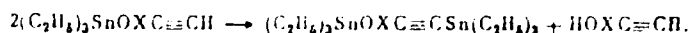
ABSTRACT: Reaction of triethylmethoxystannane with primary, secondary or tertiary acetylenic alcohols containing an acetylenic hydrogen results in the formation of tin-containing acetylenic ethers of two types, depending on reaction conditions and reactant ratios:



Card 1/3

ACCESSION NR: AP4034569

Type I compounds are formed in 80-90% yield by reacting triethylmethoxystannane with a 2-4 fold excess of acetylenic alcohol at -10 C or at room temperature for 30 minutes; 10-20% of type II compounds are also formed. Type II compounds are formed in 80% yield when a 1:1 or 1:2 ratio of stannane:alcohol is heated to 100-110 C for 3-5 hours, or on prolonged stirring at room temperature. On prolonged standing or heating the type I compounds are disproportionated according to the equation:



The following compounds were synthesized and characterized: 3-triethylstannoxypropyn-1, 3-triethylstannoxy-1-triethylstannylpropyn-1, 4-triethylstannoxybutyn-1, 4-triethylstannoxy-1-triethylstannylbutyn-1, 3-triethylstannoxy-3-methylpropyn-1, 3-triethylstannoxy-1-triethylstannyl-3-methylpropyn-1, 3-triethylstannoxy-3,3-dimethylpropyn-1, and 3-triethylstannoxy-1-triethylstannyl-3,3-dimethylpropyn-1. Orig. art. has: 2 equations.

ASSOCIATION: Irkutsk Institute of Organic Chemistry, Siberian Division, Akademiya Nauk SSSR (Irkutsk Institute of Organic Chemistry, Siberian Division,

Card 2/3