FAT'KIN, N. P.

Fat'kin, N. P. "Fractures of the fibula in horses," Trudy Alma-At. vet.-zootekhn. in-Ta, Vol. V, 1948, p. 228-29

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, NO. 13, 1949)

FATKIN, N. F.

Fat'kin, N. F. "Treatment and prevention of eczematous affections (malanders) in horses on the rear surface of the hobble," Trudy Alma-At. vet.-zootekhn. in-ta, Vol. V, 1948, p. 230-32

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

FAT'KIN, N. F. AND ISAEV, S. G., Lecturers.
"Anesthetization of Penis in Bull."

SO: Veterinariia 25 (3), 1948, p 24.

FATKIN, P. F., Engineer

"Achievements of the Work of the Scientific and Technical Session on the Modernization of Equipment" Stanki i Instrument, 12, No 1, 1941.

Report U-1503, 4 Oct. 1951

MILLER, Edmund Ernestovich; UNGERMAN, Aleksandr Ivanovich; FATKIN, Petr Fedorovich; ANDRIANOV, D.P., prof., retsenzent; STRELOV, P.A., ekonomist, retsenzent; METT, G.Ya., dotsent, red.; SALYANSKIY, A.A., red.izd-va; CHERNOVA, Z.I., tekhn.red.; DOBRITSYNA, R.I., tekhn.red.

[Economic structure, organization, and planning of a machinery plant] Ekonomika, organizatsiia i planirovanie mashinostroitel'nogo predpriiatiia. Izd.2., dop. i ispr. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 374 p. (MIRA 12:12)
(Machinery industry)

KAZNEVSKIY, V., inzh.; MERKULOV, I., inzh.; FATKIN, Yu., inzh.

Screen of a photon engine. Av.i kosm. 45 no.2:14-21 F '63. (MIRA 16:2)

(Space vehicles--Nuclear power plants)

ACC NR: AP7002687 SOURCE CODE: UR/0424/66/000/006/0003/0010

AUTHOR: Tokarev, V. V. (Moscow); Fatkin, Yu. M. (Moscow)

ORG: none

TITLE: The game approach to the selection of the optimum parameters of a dynamic system

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 6, 1966, 3-10

TOPIC TAGS: game theory, spacecraft payload, continuous function, guidance system

ABSTRACT: The problem is formulated in terms of the theory of antagonistic games. The given parameters are the range boundaries of possible maneuvers. It was attempted to find the parameters of a dynamic system such that it is optimum in a certain sense with respect to the indicated range of the maneuvers. The game takes place between the Designer and Nature. The state of the controlled object (or dynamic system) is defined by a system of conventional differential equations. A maneuver is defined by a set of boundary values of phase coordinates and time (T). The entirety of these values is denoted vectorially. The "quality" criterion for the performance of a maneuver is the finite value of a phase coordinate x_0,

$$x_0(T) = \text{extremum}$$

Card 1/3

ACC NR: AP7002687

In the course of the game, the Designer selects his moves so as to minimize his loss; Nature plays so as to maximize the Designer's loss with every move of the Designer. The game problem is applied to an ideal engine with limited power for the delivery of the maximum payload into space. The payload (which is a functional), is plotted in terms of a trade-off function. Several variants are considered, including: a) the parameters of the maneuvers set by Nature are not known by the Designer, and b) the parameters of the maneuvers attempted by Nature are in an interval that is known to the Designer. The game value and the optimum strategies of the Designer and Nature are evaluated. The relations between the optimum values of the parameters are illustrated in the following table

$\Delta\Phi$	0.8			0.6						0.2						
Φ_0	0.01	0.1	0.19	0.01	0.1	0.2	0.4	0.5	0.59	0.01	0.1	0.2	0.4	0.6	0.7	0.79
Φ_1	0.81	0.9	0.99	0.41	0.5	0.6	0.8	0.9	0.99	0.21	0.3	0.4	0.6	0.8	0.9	0.99
Φ^*	0.31	0.34	0.38	0.01	0.20	0.28	0.4	0.5	0.59	0.01	0.1	0.2	0.4	0.6	0.7	0.79
Φ^{**}	0.81	0.9	0.99	0.29	0.5	0.6	0.8	0.9	0.99	0.21	0.26	0.28	0.6	0.8	0.9	0.99
ν^*	0.84	0.82	0.98	0.63	0.55	0.6	0.7	0.8	0.97	0.62	0.65	0.6	0.59	0.64	0.78	0.99
ν^{**}	0.16	0.18	0.02	0.37	0.45	0.4	0.3	0.2	0.03	0.38	0.35	0.4	0.41	0.36	0.22	0.01

where ϕ^*, ϕ^{**} are the parameters of the maneuvers which are favorable for Nature;

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ACC NR: AP7002697

ΔG_w^A is the game value; G_x^A is the unique (or singular) optimum strategy of the Designer; $\Delta\phi = \phi_1 - \phi_0$. The loss is measured in units or multiples of payload. Orig. art. has: 32 formulas, 5 figures, 1 table.

SUB CODE: 12,13,22/ SUBM DATE: 02Apr66/ ORIG REF: 006

Card 3/3

L 6093h-65 ARG/EWT(d)/FBD/EWT(l)/FRO/EWP(m)/EWT(m)/EWG(s)-2/FA/EWP(c)/EWP(h)/
FCS(k)/ETC(m) Pn-h/Pd-1/Ps-h/Pw-h WW
ACCESSION NR: AP5016268 UR/0258/65/005/003/0531/0536
531.353

55
B

AUTHORS: Tokarev, V. V. (Moscow); Fatkin, Yu. M. (Moscow)

TITLE: Accumulator of working fluid in the problems of motion optimization with finite power

SOURCE: Inzhenernyy zhurnal, v. 5, no. 3, 1965, 531-536

TOPIC TAGS: atmosphere, maneuvering load, air scoop, orbital trajectory, compressible air, optimum process, flow rate

ABSTRACT: The following problem is presented: given the sum of times required to fulfill a two-phase maneuver T, the time for fulfilling the basic maneuver is determined by the difference between these times and the accumulation time T_v. It is required to obtain the maximum payload G_{Π} for a given initial weight G_0. The orbit for the accumulator is assumed to be circular and in a constant density atmosphere. The weight of the vehicle between the start of the exoatmospheric maneuver and its termination is defined by

$$\frac{1}{G}\left|\begin{matrix} G_0 \\ G_0+G_{\Pi}\end{matrix}\right. = \frac{1}{G_v}\frac{\alpha}{2g}\int_{T_0}^{T} a^2\,dt,$$

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ACCESSION NR: AP5016268

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and the working fluid supply is expressed by

$$G_{\text{ж}} = gq\left(\frac{2}{C_x}V - 1\right)T_0.$$

This leads to the following equations for the flow rate through the vehicle

$$q = \frac{\Phi}{\alpha v_0^2 V^2}\left(1 + \sqrt{1 + \frac{2\alpha v_0^2}{g\Phi}\frac{V^2}{T_0\left(\frac{2}{C_x}V - 1\right)}}\right)$$

and the payload, by

$$G_{\text{п}} = 1 - G_{\text{ж}} = 1 - \frac{\Phi}{2}\left(1 + \sqrt{1 + \frac{2\alpha v_0^2}{g\Phi}\frac{V^2}{T_0\left(\frac{2}{C_x}V - 1\right)}}\right).$$

To calculate an optimum payload, a special case is selected where Φ is expressed through

$$\Phi = \frac{\Phi_0}{(1 - T_0)}, \quad \Phi_0 = \frac{\alpha}{2g}\frac{\Delta v^2}{T}.$$

The corresponding $G_{\text{п}}$ max yields

$$(G_{\text{п}})_{\max} = \frac{4 + \varkappa^2}{4\varkappa}, \text{ при } \Phi_0 = \left(\frac{2 - \varkappa}{2 + \varkappa}\right)^2.$$

L 60934-65

ACCESSION NR: AP5016268

A more accurate expression is derived for G_{Π} by including the energy and weight of the scooped-up air mass. This gives the modified expression

$$C_x(V, \Phi, T_0) = \left(1 - \frac{\Phi}{2}\frac{1 + \frac{4k}{C_x v_0^2}\left(1 + \frac{\gamma}{ak}\right)\frac{1}{V}}{1 + \frac{4k}{C_x v_0^2}\frac{1}{V}}\right)\left(1 + \sqrt{1 + \frac{2av_0^2}{6\Phi T_0}\frac{V^2\left(1 + \frac{4k}{C_x v_0^2}\frac{1}{V}\right)}{\left(\frac{2}{C_x}V - 1\right)}}\right).$$

Various numerical examples are given and the results are shown graphically as T_V and G_{Π} versus $\bar{\Phi}_0$. Orig. art. has: 22 equations and 4 figures.

ASSOCIATION: none

SUBMITTED: 22Dec64 ENCL: 00 SUB CODE: SV, ME

NO REF SOV: 001 OTHER: 004

dm

Card 3/3

TROFIMENKO, T.D., dotsent; SULEYMENOV, A.A., kandidat meditsinskikh nauk; FAT'KIN, Yu.N., subordinator

Disinfection of the surgeon's hands and sterilization of instruments with diocide. Zdrav.Kazakh. 16 no.8:21-23 '56. (MLRA 10:1)
(DISINFECTION AND DISINFECTANTS)

TROFIMENKO, T.D., dots.; SULEYMENOV, A.A., kand.med.nauk; FAT'KIN, Yu.N.

Problem of treating the surgeon's hands and of sterilizing surgical instruments with diocide. Khim. i med. no.10:52-54 '59.
(MIRA 13:2)

1. Iz kliniki obshchey khirurgii (dir. - deystvitel'nyy chlen AN Kazakhskoy SSR prof. A.N. Syzganov) Kazakhskogo meditsinskogo instituta.

(SURGERY, ASEPTIC AND ANTISEPTIC)
(SURGICAL INSTRUMENTS AND APPARATUS--STERILIZATION)
(DIOCIDE)

FAT'KIN, Yu.N.

Changes in the biological characteristics of transplantable malignant tumors under the effect of snake venom. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 8:132-135 '62.

Study of the complement activity of blood serum in rabbits with Brown-Pearce carcinoma. Ibid.:136-139

FAT'KIN, Yu.N.

Effect of snake venom on the properties of malignant tumors.
Vest.AN Kazakh.SSR 18 no.5:84-85 My 862.
(MIRA 17:10)

14(1) SOV/67-59-5-7/30

AUTHORS: Martyushov, B. I., Engineer, Fatkina, A. M., Engineer

TITLE: Mechanical Properties of Textolite and Getinax at Low Temperatures

PERIODICAL: Kislorod, 1959, Nr 5, pp 26 - 28 (USSR)

ABSTRACT: The above materials (tissue- and paperlike stratified materials) have a low heat conduction coefficient, and gain more and more in importance owing to their mechanical properties in the production of details of low-temperature apparatus. The mechanical properties of these substances at low temperatures are not yet known. The Laboratory of Metal Investigations of the VNIIKIMASh, therefore, made investigations of the substances at low and normal temperatures. Textolite of the PT(GOST 5-52) type, and getinax of the V(GOST 2718-54)type were tested according to the method GOST 4670-49. The samples were given a special form in examinations for elasticity which made them break in the middle (Fig 1). The investigation results are compiled in table 1. Examinations for compression were made on prismatic samples; data are given in table 2. Hence it appears that both substances have better mechanical properties at low temperatures. Textolite, for instance, proved

Card 1/2

to be considerably more solid at a tension test at low temperatures whereas getinax was more stable in a compression test. Textolite did not solidify to such an extent as getinax. The following was found in investigations of the substances at their cleavage along stratification: textolite showed cracks at random while getinax exactly broke into halves, or into few flat plates (Table 3). Further, the resistance to shock was determined. Both materials proved to be equally stable against shock (Table 4). At low temperatures, the resistance to shock decreased more in the case of textolite than of getinax (Fig 3). The hardness of the stratified material was determined according to the method by NIIPLASTMASS. Both materials reached, at a temperature of -196°, the double degree of hardness (Table 5) in contrast to that attained at room temperature. There are 3 figures and 5 tables.

L 59275-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JD

ACCESSION NR: AT5016070 UR/2776/65/000/039/0228/0232

AUTHOR: Gulyayev, A. P.; Fatkina, A. M.; Gudkov, S. I.

TITLE: Effect of heat treatment on the cold brittleness of 06N3 steel

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 39, 1965, Spetsial'nyye stali i splavy (Special steels and alloys), 228-232

TOPIC TAGS: alloy steel, heat treatment, embrittlement, metallographic examination, martensitic transformation, impact testing, metal mechanical property, low temperature research

ABSTRACT: The effect of low temperatures on the brittle behavior of 06N3 steel was studied, by varying the structure and using impact transition results as a criterion of brittleness. Four heats were made by two separate melting processes, using an electric furnace and a converter. Plates of 5 and 10 mm thickness were heat treated by quenching and tempering. Mechanical properties were determined for room temperature and -183°C, as a function of tempering temperature. Microstructures of the steel are given for the normalized and tempered conditions. In the normalized state,

Card 1/2

L 59275-65

ACCESSION NR: AT5016070

the structure consists of ferrite with some pearlite at the grain boundaries. After quenching the structure is typically martensitic, and tempering above 600°C results in reformation of ferrite with carbide distributions around grain boundaries. A series of impact transition curves (down to -183°C) are shown for tempering in the 300-660°C range. Besides these, curves are plotted for the percentage of brittle fracture in the impact samples. Cold brittleness in the steels tested depends on heat treatment, the highest transition temperature (worst condition) occurring for the normalized state. The lowest transition temperature occurs for samples quenched and tempered at 500-640°C. For these two states, the remaining mechanical properties at room temperature are identical. Orig. art. has: 5 figures, 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 2/2

EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6035951 (A) SOURCE CODE: UR/0129/66/000/010/0034/0039

AUTHOR: Gulyayev, A. P.; Fatkina, A. M.

ORG: TSNIICHERMET

TITLE: Effect of nickel on the mechanical properties and nil-ductility transition temperature of low-carbon steels

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1966, 34-39 and appropriate insert facing p. 33

TOPIC TAGS: cryogenic steel, nickel steel, low carbon steel, ~~steel~~ metal property, ~~nil-ductility transition, nil-ductility transition temperature~~

ABSTRACT: Since chromium-nickel stainless steels suitable for cryogenic applications are very expensive, an attempt has been made to determine what nickel content would ensure a sufficiently low temperature of transition to brittle behavior (NDT temperature). Several heats of a low-carbon steel (0.02—0.05% carbon) containing from 0.12 to 9.1% nickel were tested. It was found that at contents of up to 5—7%, every 1% nickel lowers the NDT temperature by 20C. Further increases in nickel content have little or no effect on NDT temperature. Nickel also improves the strength characteristics. For instance, with nickel content increased from 0 to 9%, the yield strength increased from 30 to 60 kg/mm^2 at +20C, and from 75 to 100 kg/mm^2 at -196C. The notch toughness was found to be satisfactory (8 kgm/cm^2) with a nickel

Card 1/2 UDC: 620.17:669.15'24-194.536.43

L 09996-67

ACC NR: AP6035951

content of at least 6%. Therefore, the use of steel with 9% nickel is justified only in cases where the notch toughness of steel with 6% nickel is insufficient. The first experimental heats of steels containing 6 and 9% nickel melted and processed by the Volgograd Krasnyy Oktyabr' Plant are being tested under operational conditions. ON6A steel (0.06% max carbon, 6—7% nickel, 0.45—0.60% manganese, 0.17—0.37% silicon, 0.02% max sulfur, and 0.02% max phosphorus) has the following guaranteed minimum values of mechanical properties: yield strength 45—47 kg/mm^2, tensile strength 50—55 kg/mm^2, elongation 30—32%, reduction of area 70—75%, notch toughness 20 kgm/cm^2, and NDT temperature -180C. ON9A steel (0.06% max carbon, 8.5—9.5% nickel, 0.45—0.60% manganese, 0.17—0.37% silicon, 0.02% max sulfur, and 0.02% max phosphorus) has the following guaranteed minimum values of mechanical properties: yield strength 58—60 kg/mm^2, tensile strength 65—68 kg/mm^2, elongation 28—30%, reduction of area 70—80%, notch toughness 25 kgm/cm^2, and NDT temperature -180C. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 006/ ATD PRESS: 5105

Card 2/2

ACC NR: AP7002576 (A,N) SOURCE CODE: UR/0413/66/000/023/0073/0073

INVENTOR: Fatkina, A. M.; Gulyayev, A. P.; Ul'yanin, Ye. A.; Tyurin, Ye. I.

ORG: none

TITLE: Nickel steel. Class 40, No. 189152 [announced by the All-Union Scientific-Research Institute of Oxygen Machine Building Industry (Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 73

TOPIC TAGS: nickel steel, LOW TEMPERATURE METAL, MECHANICAL PROPERTY

ABSTRACT:

This Author Certificate introduces a nickel steel with improved mechanical properties at subzero temperatures containing 0.06% max carbon, 0.45 to 0.60% manganese, 0.17—0.37% silicon, and 6.0—6.5% nickel.

SUB CODE: 11/ SUBM DATE: 14Sep65/ ATD PRESS: 5113

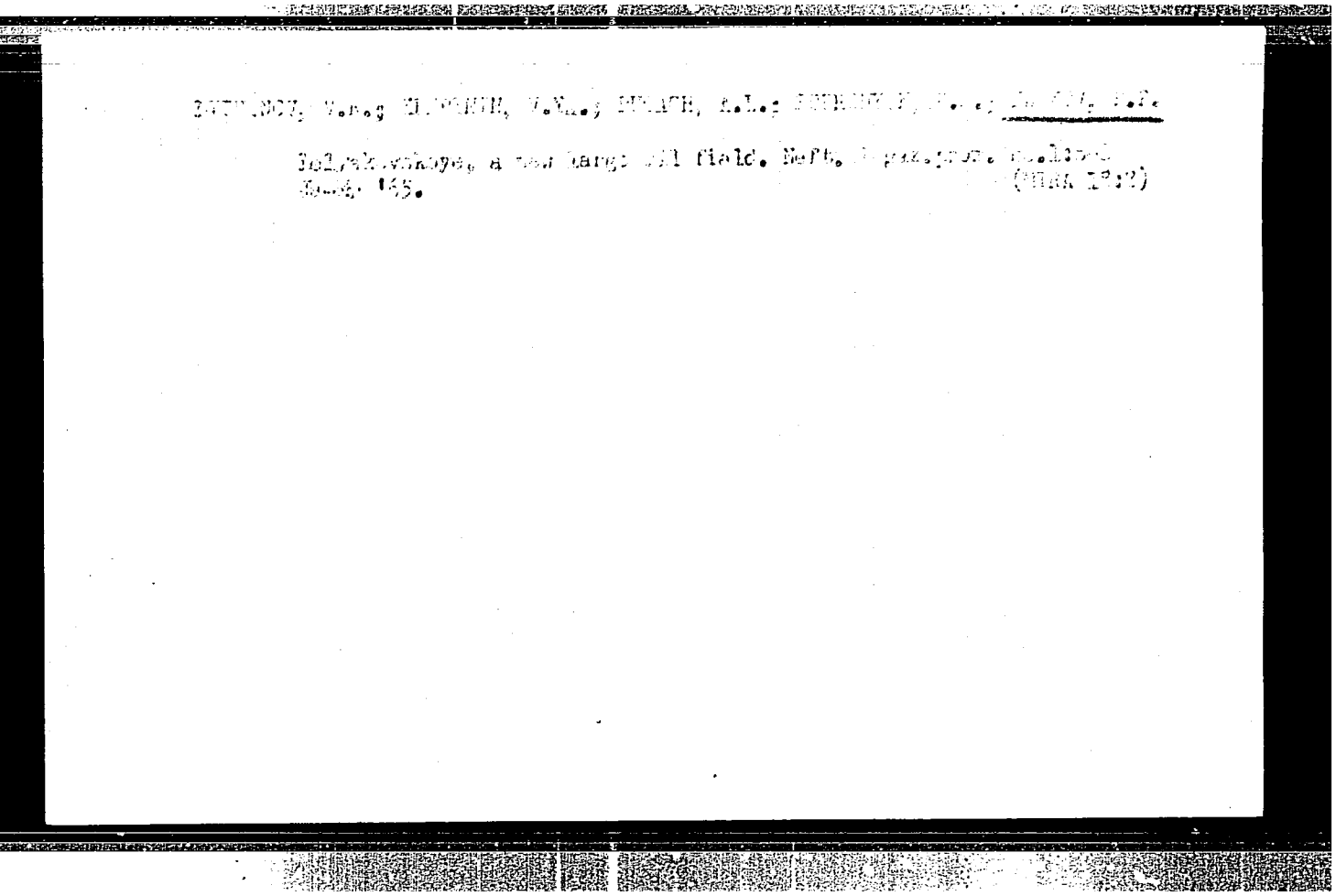
Card 1/1 UDC: 669.14.018.41:669.15'24-194

FATKIYEV, M.

Achievements of road constructors in Sterlitamak. Avt. dor. 25 no.10:30 O '62. (MIRA 15:10)

1. Nachal'nik Sterlitamakskogo dorozhno-stroitel'nogo upravleniya.

(Sterlitamak--Road construction)



FAT'KOV, V.

Renovation of the S-251 mortar pump. Stroitel' no.5:21 My '58.
(MIRA 11:6)

(Mortar) (Pumping machinery)

PATKOVA, J.

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: Geological Survey National Enterprise (Geologicky pruzkum, narodni podnik), Pribram

Source: Prague, Vestnik Ustredniho Ustavu Geologickeho, Vol XXXVI, No 5, 1961, pp 339-342.

Data: "Stratigraphic Division of the Metamorphic Complex of the Middle Part of the Krusne hory Mountains (Erzgebirge)."

Authors: DISTANOV, E.
PATKOVA, J.
ZUKOVA, V.

GPO 981643

SEMENOV, P.P.; SHEKHOVTSOVA, V.N.; LUK'YANOV, D.P.; ZHAROV, A.V.; SENDEROVICH, M.G.; FATKULBAYANOVA, M.B.

Effectiveness of penicillin and streptomycin in the treatment of acute uncomplicated gonorrhea in males. Vest. derm. i ven. 38 no.3:68-70 Mr '64. (MIRA 18:4)

1. Otdel gonorei (zav. - P.P.Semenov) Ufimskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir. P.N.Shishkin) i gorodskoy venerologicheskiy dispanser (glavnyy vrach S.M.Rutes).

FATKULIN, K.

Experience in storing lupine seeds. Muk.-elev. prom. 26 no. 12:19-20 D '60. (MIRA 13:12)

1. Direktor Novozybkovskogo khlebopriyemnogo punkta.
(Lupine--Storage)

FATKULIN, K.

Building plan for lupine-processing plants. Muk.-elev. prom. 27 no.5:27-28 My '61. (MIRA 14:6)

1. Direktor Novozybkovskogo khlebopriyemnogo punkta Bryanskoy oblasti.

(Lupine)

FATKULIN, K.

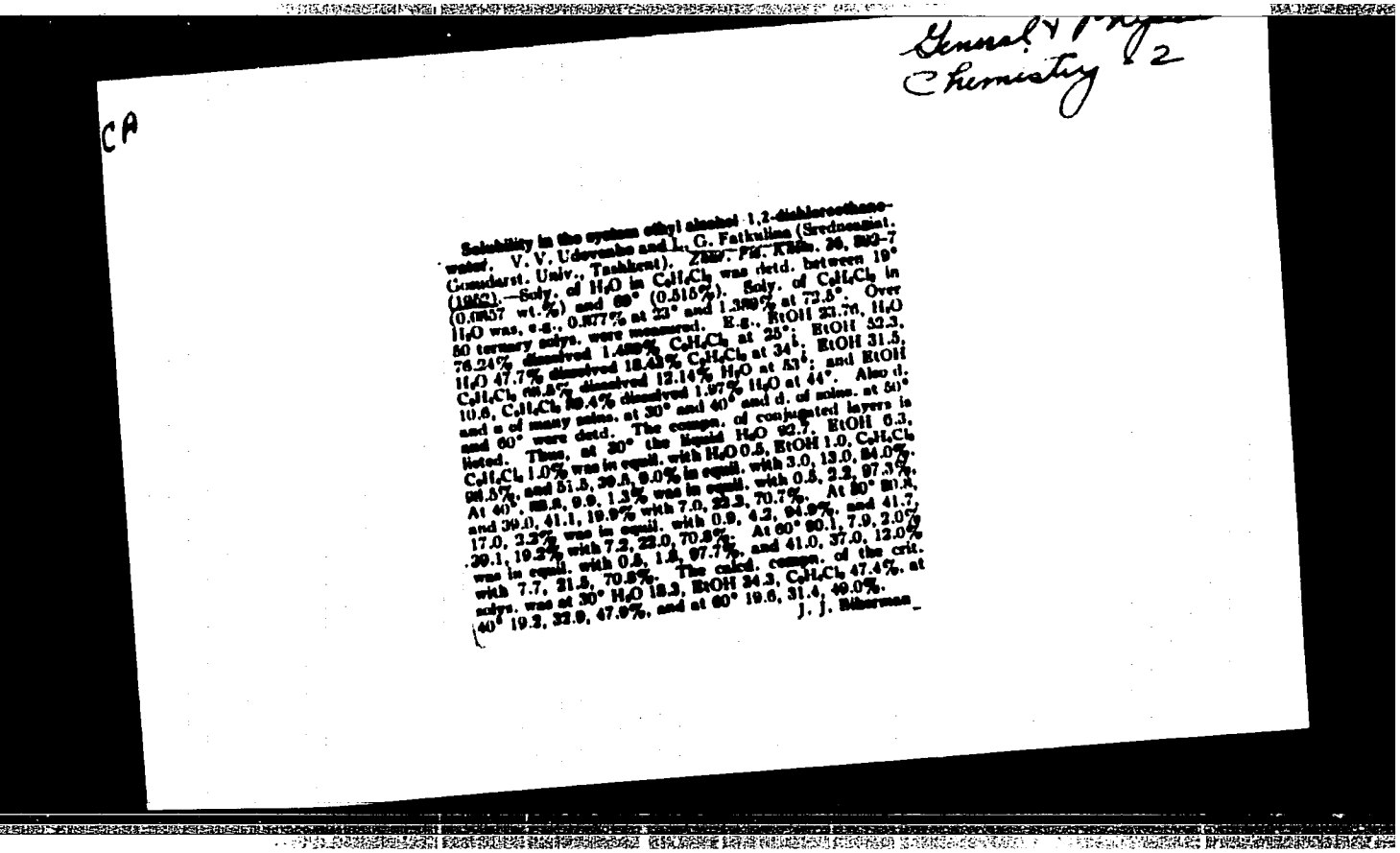
The present system for increasing the qualification of workers should be revised. Muk.-elev. prom. 28 no.5:31 My '62. (MIRA 15:5)

1. Direktor Novozybkovskogo khlebopriyemnogo punkta Bryanskoy oblasti.

(Agricultural workers--Education and training)
(Grain elevators)

BUBLICHENKO, N.L., ROGOTSKAYA, L.N., FATKULIN, R.M.

Considering problems of geotectonic and the organic world. Vest.AN Kazakh.SSR 16 no.4:81 Ap '60. (MIRA 13:7)
(Geology, Structural) (Biology)



General & Inorganic Chemistry 12

CA

Solubility in the system ethyl alcohol–1,2-dichloroethane–water. V. V. Udovenko and L. G. Fatkullina (Sredneaziat. Gosudarst. Univ., Tashkent). Zhur. Fiz. Khim. 36, 802–7 (1962).—Soly. of H_2O in $C_2H_4Cl_2$ was detd. between 19° (0.0857 wt.%) and 69° (0.515%). Soly. of $C_2H_4Cl_2$ in H_2O was, e.g., 0.877% at 23° and 1.389% at 72.5°. Over 80 ternary soln. were measured. E.g., EtOH 23.76, H_2O 76.24% dissolved 1.489% $C_2H_4Cl_2$ at 25°; EtOH 52.3, H_2O 47.7% dissolved 18.43% $C_2H_4Cl_2$ at 34°; EtOH 31.5, $C_2H_4Cl_2$ 68.5% dissolved 12.14% H_2O at 44°. Also d. 10.6, $C_2H_4Cl_2$ 89.4% dissolved 1.97% H_2O at 44°. Also d. and n of many solns. at 30° and 40° and d. of solns. at 54° and 60° were detd. The compn. of conjugated layers is listed. Thus, at 30° the liquid H_2O 92.7, EtOH 6.3, $C_2H_4Cl_2$ 1.0% was in equil. with H_2O 0.5, EtOH 1.0, $C_2H_4Cl_2$ 98.5%, and 51.5, 39.5, 9.0% in equil. with 3.0, 13.0, 84.0%. At 40°, 88.8, 9.9, 1.3% was in equil. with 0.8, 2.2, 97.0%, and 39.0, 41.1, 19.9% with 7.0, 23.3, 70.7%. At 50° 81.8, 17.0, 2.2% was in equil. with 0.9, 4.2, 94.9%, and 41.7, 39.1, 19.2% with 7.2, 22.0, 70.8%. At 60° 80.1, 7.9, 2.0% was in equil. with 0.8, 1.8, 97.7%, and 41.0, 37.0, 12.0% with 7.7, 21.5, 70.8%. The calcd. compn. of the crit. soln. was at 30° H_2O 18.3, EtOH 34.3, $C_2H_4Cl_2$ 47.4%, at 40° 19.2, 32.9, 47.9%, and at 60° 19.6, 31.4, 49.0%.

J. J. Bikerman

UDOVENKO, V. V., FATKULINA, L. G.

Chemical Apparatus.

Apparatus for determination of pressure and composition of saturated vapor of layer-forming liquid systems. Zhur. fiz. khim. 26, no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952 Unclassified.

UDOVENKO, V. V., FATKULINA, L. G.

Phase Rule and Equilibrium.

Vapor pressure of ternary systems. Part 1. System ethyl alcohol - 1, 2 - dichloroethanebenzene. Zhur. fiz. khim. 26 no. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 Unclassified.

1. UDOVENKO, V. V.; PATKULINA, L. G.

2. USSR (600)

4. Systems (Chemistry)

7. Vapor pressure of ternary systems. Part 2. System ethyl alcohol-1,2-dichloroethane water. Zhur. fiz. khim. 26 no. 10, 1952.

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

FATKULINA, L. G.

FA 242T3

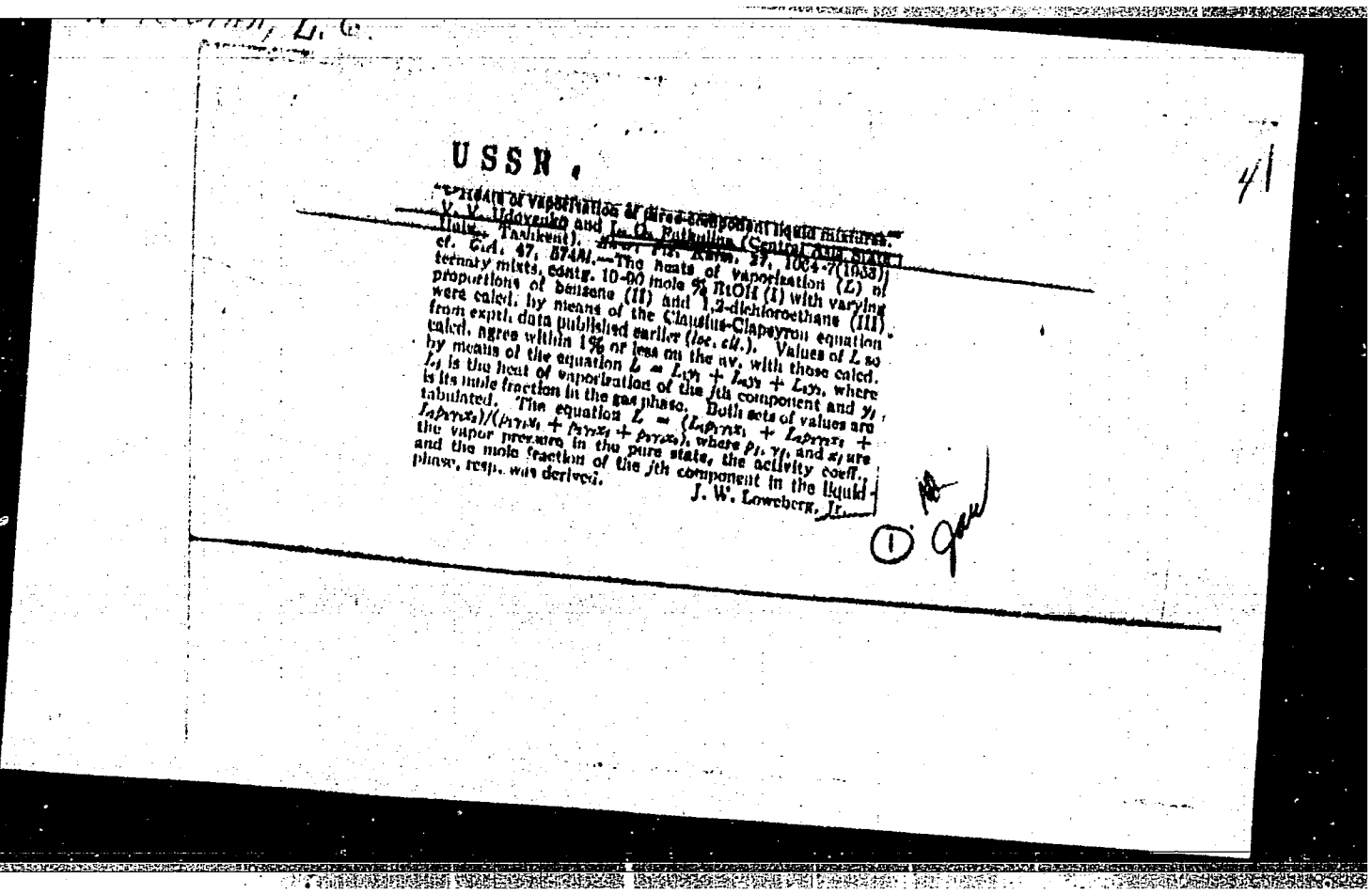
USSR/Chemistry - Ternary Systems Nov 52

"The Equilibrium of Liquid-Liquid in a Ternary System," V. V. Udovenko and L. G. Fatkulina, Cent-Asian State U, Tashkent

"Zhur Fiz Khim" Vol 26, No 11, pp 1569-1572

The authors examined the eq of L. A. Rotinyan and showed that in the case of a paraboloidal curve of sepn in ternary systems, the nodes can be parallel to the side of the triangle when the liquid phases are in equil. On the basis of the above-mentioned eq, the authors concluded that the critical point of mutual soly in ternary systems can also be located at the vertex of the binodal curve of sepn.

242T3



USSR

41

"Heats of vaporization of three-component liquid mixtures." V. V. Udovenko and Ia. G. Fatkulina (Central Asia State Univ., Tashkent). Zhur. Fiz. Khim., 27, 1063-7(1953); cf. C.A. 47, 8744i.—The heats of vaporization (L) of ternary mixts. contg. 10-90 mole % EtOH (I) with varying proportions of benzene (II) and 1,2-dichloroethane (III) were calcd. by means of the Clausius-Clapeyron equation from exptl. data published earlier (loc. cit.). Values of L so calcd. agree within 1% or less on the av. with those calcd. by means of the equation $L = L_1x_1 + L_2x_2 + L_3x_3$, where L_i is the heat of vaporization of the ith component and x_i is its mole fraction in the gas phase. Both sets of values are tabulated. The equation $L = (L_1p_1x_1 + L_2p_2x_2 + L_3p_3x_3)/(p_1x_1 + p_2x_2 + p_3x_3)$, where p_i, γ_i, and x_i are the vapor pressure in the pure state, the activity coeff., and the mole fraction of the ith component in the liquid phase, resp., was derived.

J. W. Lowberry, Jr.

RAKHIMOV, Kh.R.; FATKULINA, L.G.

Viscosity of the pyridine - water - carbon tetrachloride system.
Uzb.khim.zhur. no.6:29-33 '58. (MIRA 12:2)

1. Sredneaziatskiy gosudarstvennyy universitet im. V.I.Lenina.
(Pyridine) (Carbon tetrachloride) (Viscosity)

RUSTAMOV, Kh.R.; FATKULINA, L.G.; NABIKHODZHAYEV, S.N.

Catalytic property of bifunctional cationites. Uzb.khim.zhur. no.1:39-42 '59. (MIRA 12:6)

1. Sredneaziatskiy politekhnicheskiy institut.
(Ion exchange) (Catalysts)

RUSTAMOV, Kh.R.; FATKULINA, L.G.; AGZAMOV, K.A.

Effect of solvents on the catalytic activity of the KU-1 cation exchanger. Uzb.khim.zhur. no.2:32-33 '61. (MIRA 14:10)

1. Sredneaziatskiy politekhnicheskiy institut.
(Ion exchange resins) (Catalysis) (Solvents)

RUSTAMOV, Kh.R.; FATKULINA, L.G.; AGZAMOV, K.A.

Some problems involved in cation exchange catalysis. Uzb.khim. zhur. no.4:32-35 '61. (MIRA 14:8)

1. Srednеaziatskiy politekhnicheskiy institut.
(Catalysis) (Ion exchange)

FATKULINA, N.P.

Science based atheistic training in biology lessons. Biol. v shkole no.4:8-10 Jl-Ag '63. (MIRA 16:9)

1. Srednyaya shkola No.2, stantsiya Chelyabinsk Yuzhno-Ural'skoy zheleznoy dorogi.

(Biology--Study and teaching)
(Atheism--Study and teaching)

FATKULINA, Z.

Experimental procedure for issuing credit to consumer cooperatives to finance the turnover of goods. Den.i kred. 21 no.4:40-45 Ap '63. (MIRA 16:4)
(Cooperative societies) (Banks and banking)

FATKULIYEV, Sh.; BUYANOVSKIY, N.I., konsul'tant, laureat Stalinskoy premii; KORNILOVA, M.I., redaktor; KUZ'MIN, D.G., redaktor.

[Drilling rapidly and economically] Burit' bystro i deshevo. [Moskva] Profizdat, 1953. 27 p. (MLRA 7:3)

1. Nachal'nik uchastka Buzovninskoy kontory bureniya ob"yedineniya "Azneft'" (for Fatkuliyev). 2. Zamestitel' nachal'nika tekhnologicheskogo otdela Galvburnefti Ministerstva neftyanoy promyshlennosti(for Buyanovskiy). (Petroleum--Well boring)

EFROS, D.A. [deceased]; FATKULLIN, A.Kh.; LANITINA, A.A.

Model for studying the oil flooding process in a thick layer. Nauch.-tekh. sbor. po dob. nefti no.15:26-31 '61. (MIRA 15:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Oil field flooding)

FATKULLIN, A.Kh.; LANITINA, A.A.

Oil yield when using the flooding method. Nauch.-tekh. sbor. po dob. nefti no.16:24-30 '62. (MIRA 15:9)
(Oil field flooding)

FATKULLIN, A.Kh.; LANITINA, A.A.

Experimental study of the displacement of the water-oil contact during flooding. Neft. khoz. 39 no.11:41-46 N '61. (MIRA 14:12)
(Oil field flooding)

KURBANOV, A.K. (Moskva); FATKULLIN, A.Kh. (Moskva)

Percolation of a two-liquid mixture. PMTF no.1:160-162 Ja-F '62. (MIRA 15:4)

(Percolation) (Fluid dynamics)

FATKULLIN, A.Kh.

Comparison of certain theoretical solutions of the problem of water-oil contact displacement with experimental data. Nauch.-tekh. sbor. po dob. nefti no.17:22-28 '62. (MIRA 17:8)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut.

14-57-7-14962

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7, p 124 (USSR)

AUTHOR: Fatkullin, A. Sh.

TITLE: Chernozems of the Bugul'ma Plateau (Chernozemy Bugul'minskogo Syrta)

PERIODICAL: Uch. zap. Kazansk. un-ta, 1956, Vol 116, Nr 9, pp 3-59

ABSTRACT: The author describes the physical and geographical characteristics of the region and its soils. The soil-forming rocks have a high calcium carbonate and magnesium carbonate content, a mechanical composition of clay particles, and frequently changing lithology. Soil cover is characterized by a substantial variability brought about by different degrees of leaching, by a variable carbonate content, by the presence of bedrock fragments in the soil

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Chernozems of the Bugul'ma Plateau (Cont.)

cross section, and by an uneven humus content. The arid climate, the complex orohydrographic system and the interaction between the highly carbonaceous soil-forming rocks and the grass cover combine to produce chernozems. The ordinary thin chernozem is the most common, but a thin leached chernozem is found in the valleys. Carbonaceous chernozems are found in a few areas. All these chernozems are found in a few areas. All these chernozems have a high humus content and freely change from one type to another . The author has divided the soils into subgroups on the basis of their crop producing characteristics. A bibliography of 43 titles is included.

A. G. T.

Card 2/2

FATKULLIN, A.Sh.

Some data on the characteristics of soils influenced by the local reservoir on the Sheshma River, Tatar A. S. S. R. Nauch. dokl. vys. shkoly; biol. nauki no.1:189-192 '62. (MIRA 15:3)

1. Rekomendovana kafedroy pochvovedeniya Kazanskogo gosudarstvennogo universiteta im. V.I. Ul'yanova-Lenina.
(SHESHMA VALLEY--SOILS)

FATKULLIN, F.Kh.

Public health system of the Tatar A.S.S.R. on the 42nd anniversary of the October revolution. Kaz.med.zhur. 40 no.5:3-5 S-O '59. (MIRA 13:7)

1. Zamestitel' ministra zdravookhraneniya Tatarskoy ASSR.
(TATAR A.S.S.R.—PUBLIC HEALTH)

FATKULLIN, F.Kh.

Development of the public health network in the oil fields of the Tatar A.S.S.R. Kaz. med. zhur. 41 no.3:3-6 My-Je '60. (MIRA 13:9)

1. Zamestitel' ministra zdravookhraneniya Tatarskoy ASSR.
(TATAR A.S.S.R.--PETROLEUM WORKERS--MEDICAL CARE)

FATKULLIN, F.Kh.

Medical control of sports in the Tatar A.S.S.R. Zdrav. Ros. Feder. 5 no.7:16-20 Jl '61. (MIRA 14:7)

1. Zamestitel' ministra zdravookhraneniya Tatarskoy ASSR.
(TARAR A.S.S.R.--SPORTS--HYGIENIC ASPECTS)

FATKULLIN, F.Kh.

Problems of tuberculosis control in the Tatar ASSR. Kaz.med. zhur. no.2:3-7 Mr-Ap'63 (MIRA 16:11)

1. Zamestitel' ministra zdravookhraneniya Tatarskoy ASSR.

M

USSR/Cultivated Plants - Fodders.

Abs Jour : Ref Zhur Biol., No 18, 1958, 82392

Author : Fatkullin, Kh.
Inst : -
Title : On the Causes of the Lowering of Alfalfa Seed Yield.

Orig Pub : S. kh. Bashkirii, 1957, No 8, 15-18
Bashkortostan auyl khuzhalyfy 1957, No 8, 14-18

Abstract : In the field trials of 1948-1950 in the arid part of Bashkiriya, the chief reason for the lowering of alfalfa seed yield is an insufficiency of soil moisture during the stage of budding to full blossoming. A complex of agricultural measures is recommended for obtaining a high and stable yield of the seeds: burning the stubble in spring, spraying with DDT preparation (at the rate of 20 milograms/ha) during the period of budding, top dressing with fertilizers (10 tons/ha of manure, 3 centners/ha of P_c and 1 centners/ha of K_k), supplementary,

Card 1/2

FATKULLIN, KH. N.

524. Vozdelyvaniye mnogoletnikh trav v bashkirii. Ufa. Bashkir. Kn. izd., 1954. 68s. s ill. 20cm. 3.000 eks. 85k. —
633.2/3 (47.83)

SO: Knizhnaya Letopis, Vol. 1, 1955

RUBACHEV, Georgiy Nikolayevich; FATKULLIN, Mukhtar Khurmatovich; KHANANYAN, Melik Maiorovich; PLYUSNINA, Ol'ga Pavlovna; KOVALEVA, A.A., redaktor; POLOSINA, A.S., tekhnicheskiy redaktor.

[Advanced practice in using submerged electric pumps] Peredovoi opyt primeneniia pogrushnykh elektronasosov. Moskva, Gos.naucho-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1956. 52 p. (MLRA 9:4)
(Petroleum--Pumping)

FATKULLIN, M.N.

Lunar daily variations of the magnetic field based on observations of the Kazan Observatory. Geomag. i aer. 2 no.4:746-748 Jl-Ag '62.
(MIRA 15:10)

1. Kazanskiy gosudarstvennyy universitet, Kazanskaya magnitnaya observatoriya.
(Magnetism, Terrestrial—Diurnal variation)

ACCESSION NR: AP4001830 S/0203/63/003/006/1065/1072

AUTHOR: Fatkullin, M. N.

TITLE: The nature of irregular fluctuations in diurnal magnetic variations

SOURCE: Geomagnetizm i aeronomiya, v. 3, no. 6, 1963, 1065-1072

TOPIC TAGS: geophysics, geomagnetism, magnetic variation, diurnal magentic variation, diurnal magnetic variation fluctuation, Earth magnetic field, ionospheric magnetic variation, magnetic variation measurement, magnetic variation computation, E layer magnetic variation, F layer magnetic variation, magnetic variation irregular fluctuation

ABSTRACT: The problem of irregularity effects of the E-layer structure on S_q-variation has been discussed analytically. Maxwell's electromagnetic equations are written for an E and H field of the current density and H_0 of terrestrial magnetic field. The plasma is assumed quasineutral and anisotropic and the field fluctuations are given by

$$\Delta H = -\frac{4\pi}{c}((\operatorname{grad}\sigma_\perp \times E^\perp) + (\operatorname{grad}\sigma_H \times (h \times E^\perp)) + \\ + \sigma_\perp (H_0 \operatorname{grad} v - H_0 \operatorname{div} v) + \sigma_H [H_0 \operatorname{rot} v - (\operatorname{grad}(h \times v) \times H_0)]). \quad (1).$$

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ACCESSION NR: AP4001830

It is shown that irregular changes in the terrestrial magnetic field are created by local variations in upper atmosphere conductivity. The differential equation above is cast into a general Poisson form and integrated for the case of an isotropic conductivity with an exponential variation in the nonhomogeneity of space. It is shown that this nonhomogeneity in the lower atmosphere gives rise to an irregularity which departs by a magnitude of 5-7 gauss from the smooth diurnal curve. Calculations are extended to the anisotropic conductivity, and it is shown that the fluctuation magnitude in the horizontal component of the S_q-field variation reaches 10-13 gauss. "The author thanks N. P. Ben'kova, Yu. V. Kushnerevskiy and K. G. Ivanov for their advice and help." Orig. art. has: 21 equations and 2 figures.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery* i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation AN SSSR)

SUBMITTED: 13May63 DATE ACQ: 17Dec63 ENCL: 00

SUB CODE: AS NO REF SOV: 007 OTHER: 008

Card 2/2

ACCESSION NR: AP4013145 S/0203/64/004/001/0115/0123

AUTHOR: Fatkullin, M. N.

TITLE: Electrical conductivity of the upper atmosphere. 1. Middle latitudes

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 1, 1964, 115-123

TOPIC TAGS: electrical conductivity, upper atmosphere, anisotropy, E, F2, E layer, F2 layer, anisotropic conductivity, Hall conductivity, transverse conductivity, longitudinal conductivity, effect conductivity

ABSTRACT: The author has analyzed the height distribution of the various coefficients of anisotropic conductivity in the upper atmosphere. Determination of these coefficients for various models of the upper atmosphere has shown that the longitudinal component, the transverse component, the Hall component, and the effective conductivity (depending on the model) change between wide limits (tenfold and more), especially above about 130-140 km. All models show a similar increase in the longitudinal component with height, but the rate becomes much slower at higher altitudes. Above 350-400 km the increase becomes very slight. The transverse component decreases with height, but not uniformly, exhibiting two unsymmet-

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ACCESSION NR: AP4013145

rical maximums in the E and F2 zones and a minimum at about 250 km. The Hall conductivity reaches a maximum at about 100 km and then decreases to a height of about 200 km. The height of the Hall maximum in the E zone is independent of the model of the upper atmosphere used. Any evaluation of Hall conductivity above 180 km is unreliable. The effective conductivity also reaches a maximum at about 100-110 km and then decreases to a height of about 200 km. The unreliability of determination above 200 km is related to the indeterminacy of the Hall component. "The author thanks N. P. Ben'kova for guidance in the work and V. P. Vinnikova for programming the problem." Orig. art. has: 6 figures, 3 tables, and 1 formula.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery* i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves AN SSSR)

SUBMITTED: 07Jun63 DATE ACQ: 02Mar64 ENCL: 00

SUB CODE: AS, PH NO REF SOV: 010 OTHER: 017

Card 2/2

FATKULLIN, M.N.

Heating of the ionosphere by current systems. Geomag. i aer. 3 no.4:767-768 Jl-Ag '63. (MIRA 16:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

ACCESSION NR: AP4031634 S/0203/64/004/002/0295/0300

AUTHOR: Fatkullin, M. N.

TITLE: Electrical conductivity of the upper atmosphere

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 2, 1964, 295-300

TOPIC TAGS: electrical conductivity, upper atmosphere, ionosphere, vertical atmospheric sounding

ABSTRACT: This is a continuation of the author's previous work (Elektroprovodnost' verkhney atmosfery* I. Sredniye shiroty*. Geomagn. i aeronomiya, 1963, 3, No. 1, 115). The author has examined the height distribution of anisotropic conductivity of the ionosphere at a low latitude (Puerto Rico). He used data on vertical sounding in the ionosphere from J. W. Wright and L. A. Fine (Mean electron density variations of the quiet ionosphere. I - March 1959, Nat. Bur. standards Techn. Note, 1960, No. 40-1) and computed $\sigma_{\parallel}$, $\sigma_{\perp}$, σ, and σ_{eff} for nine different models of the upper atmosphere (as described in his previous work). He discusses the diurnal changes in conductivity anisotropy at low latitudes during the equinoxes.

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ACCESSION NR: AP4031634

The results of his calculations show that the diurnal changes in $\sigma_{\parallel}$, $\sigma_{\perp}$, σ, and σ_{eff} are asymmetrical relative to local noon. "The author thanks N. P. Ben'kova for guidance in the work." Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery* i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, the Ionosphere, and Propagation of Radio Waves AN SSSR)

SUBMITTED: 07Jun63 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: ES NO REF SOV: 001 OTHER: 002

Card 2/2

FATKULLIN, M.N.; FEL'DSHTEYN, Ya.I.

Quiet solar diurnal variation of the geomagnetic field during IGY.
Part 1: Relations between S_q-variations and the ionospheric parameters.
Geomag. i aer. 5 no.2:312-321 Mr-Ap '65. (MIRA 18:7)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

L 53764-65 EWT(1)/EWG(v)/FCC/EEC-4/EEC(t)/EWA(h) Po-4/Pe-5/Pq-4/Pae-2/Peb/Pi-4

ACCESSION NR: AP5014104 GW UR/0203/65/005/003/0435/0441
550.388.2

AUTHOR: Fatkullin, M. N.

TITLE: On the correlation between the E_s and the electrodynamic conditions in the ionosphere in middle and low latitudes

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 3, 1965, 435-441

TOPIC TAGS: E_s appearance probability, geomagnetic field, ionospheric plasma, ionospheric current, magnetic equator

ABSTRACT: The dependence of the appearance probability of the E_s layer in the daytime upon the geomagnetic field is connected with processes within the ionospheric plasma and the geomagnetic field there. Currents may be created in an undisturbed ionosphere only in the basic E-layer where a force is developed which tries to rearrange the charges. An interrelation between the E_s-layer and the S_q currents is evidenced by the formation of the E_s-layer and the irregular fluctuation of S_q variations. A graph represents the correlation between the probability of the appearance of E_s and the value of the S_q variations. In middle latitudes S_q variations are characterized by the geomagnetic H and D variations and E_s by the c, h, l, and f types; the c type predominates in the daytime. A table in the original article

Card 1/2

L 53764-65

ACCESSION NR: AP5014104

shows the correlation coefficients between the probability of E_s appearance and the S_q variations of the vector of the total geomagnetic field. The sporadic E_s-layer is connected with S_q currents in the ionosphere, and the probability of the appearance of E_s depends upon S_q variations of the vector of the total magnetic field. At the magnetic equator, the q type of E_s-layer predominates in the daytime, which reflects and absorbs electromagnetic waves. Orig. art. has: 3 tables, 3 figures, and 12 formulas. [EG]

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves, AN SSSR)

SUBMITTED: 29Jun64 ENCL: 00 SUB CODE: ES

NO REF SOV: 007 OTHER: 014 ATD PRESS: 4019

BAB

Card 2/2

L 29265-66 EWT(1)/FCC GW SOURCE CODE: UR/0203/65/005/004/0735/0739

ACC NR: AP6019298

AUTHOR: Fatkullin, M. N.; Fel'dshteyn, Ya. I.

ORG: Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Quiet solar-diurnal variations of the geomagnetic field in the IGY period. II. Noncyclic variations on magnetically quiet days. Seasonal changes of field values in the nighttime hours

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 735-739

TOPIC TAGS: diurnal variation, geomagnetic field

ABSTRACT: A study has been made of noncyclic (N_c) variations of the elements of the geomagnetic field on magnetically quiet days for three seasons of the IGY. Also discussed is the variability of near-midnight levels of the magnetic field components. Data were used for middle- and low-latitude magnetic observatories. The noncyclic variations were determined for the three elements D, H, Z for winter, summer and the equinox. In the D and Z components N_c are small and there are no systematic changes of these elements giving any particular pattern on a planetary scale. These components therefore are not discussed. The planetary distribution of N_c in the H component in winter is shown in a map (Fig. 1). The N_c field has maximum values near the equator, decreasing northward and southward from the equator. The direction of the vectors is approximately perpendicular to the geomagnetic parallels. In the first approximation it is shown that N_c on magnetically quiet days reveals an axial symmetry. The axial symmetry in the distribution of N_c is disrupted by small values

UDC: 550.385.4

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L 29265-66

ACC NR: AP6019298

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N_c in the Pacific Ocean. Fig. 2 is a map confirming this finding. Axial symmetry, however, is the most distinguishing characteristic of N_c. Orig. art. has: 4 figures and 1 table. [JPRS]

SUB CODE: 04, 08 / SUBM DATE: 05Aug64 / ORIG REF: 003 / OTH REF: 003

Card 2/2 CC

L 29122-66 EWT(1)/FCC GW

ACC NR: AP6018866 SOURCE CODE: UR/0203/65/005/005/0858/0867

AUTHOR: Fatkullin, M. N.; Fel'dshteyn, Ya. I.

ORG: Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Quiet solar-diurnal variations in the IGY period. III. Principal characteristics of the planetary distribution of S sub q variations in the middle and low latitudes

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 5, 1965, 858-867

TOPIC TAGS: geomagnetic field, diurnal variation

ABSTRACT: This is Part III of a paper by the same authors (see Geomagnetizm i Aeronomiya, 5, nos. 2 and 4, 1965). This part gives some results of investigation of quiet solar-diurnal variations of the geomagnetic field in the middle and low latitudes on the basis of IGY data. In particular, the authors have determined the coordinates of the foci of S_q current systems and the equatorial electrojet at different UT. They also discuss the selection of a coordinate system applicable for an analytical representation of the planetary distribution of S_q variations. It follows from an analysis of the morphology of S_q variations that the field of S_q variations possesses neither geographic nor geomagnetic symmetry. The authors have constructed the isolines of S_q variations and briefly discuss the principal types of such isolines. Also considered is the problem of the relation between the equatorial electrojet and S_q current systems. The authors express thanks to N. M. Rudnevaya and I. V. Merkusheva for their help in processing the materials of the observations. Orig. art. has: 4 figures and 4 tables.

[AUTHOR]

SUB CODE: 08 / SUBM DATE: 05Aug64 / ORIG REF: 007 / OTH REF: 017

Card 1/1 UDC: 550.385

FATKULLIN, O. Kh.; OYKS, G. N.; ANSHELES, I. I.

Testing on a test stand the method of circulating vacuuming of liquid steel. Izv. vys.ucheb.zav.; chern.met.7 no. 5:53-57 '64. (MIRA 17:5)

1. Moskovskiy institut stali i splavov.

L 21136-65 EPA(s)-2/EWT(m)/EWP(b)/T/EWA(d)/EWP(e)/EWP(t) ASD(m)-3/AS(mp)-2
WH/JD
ACCESSION NR: AP4045655 S/0133/64/000/009/0805/0808

AUTHOR: Oyks, G. N.; Matevosyan, P. A.; Ansheles, I. I.; Fatkullin, O. Kh.; Selivanov, V. M.; Shury*gin, G. D.; Sivkov, S. S.; Fedan, A. T.

TITLE: Results of vacuum casting ball-bearing steel by different methods

SOURCE: Stal', 24, no. 9, 1964, 805-808

TOPIC TAGS: vacuum casting, ball bearing steel, degassing alumina rich brick lining

ABSTRACT: A new method involving vacuum casting by gas circulation was developed by the authors in collaboration with B. S. Petrov, M. N. Kul'kova, Ye. N. Ponomarev, Yu. I. Ponomareva, R. M. Zimina, V. I. Fedorov and K. V. Belyakov. The new production process was compared to the method employed at Krasnyy Oktyabr' Plant comprising vacuum casting in the ladle which was found to be ineffective in the treatment of 20 to 30 ton charges. Therefore, the plant metallurgists tried out degassing of the steel in the jet as well as circulation vacuum casting. The specimens were adequately degassed with the

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L 21136-65
ACCESSION NR: AP4045655

steel giving up gas at a rate of 200 to 300 1/min. Hydrogen contents decreased from 43 to 54%. In the process of vacuum casting steel in the ladle, the specimens displayed greater amounts of oxide and sulfide inclusions than in circulation vacuum casting or vacuum casting during reladling. The greatest number of globular inclusion was identified in specimens produced by vacuum casting in the ladle. The appearance of this defect is attributed to the increased contact of lightweight melts with chamotte refractories. The authors give preference to circulation vacuum casting despite globule formation and suggest that the use of alumina-rich brick for the lining of the vacuum chamber through which argon is blown and for the sleeve coil lining would substantially improve this process. However, it still remains to be tested on a mass production scale and with heavy weight melts. Orig. art. has: 3 figures and 2 tables

ASSOCIATION: None
SUBMITTED: 00
NR REF SOV: 003

ENCL: 00
OTHER: 002

SUB CODE: MM

Card 2/2

FATKULLIN, O.Kh.; CHUKHLOV, V.I.; OYKS, G.N.; ANSHELES, I.I.; SIVKOV, S.S.; FEDAN, A.T.; FEDOROV, V.I.; DANILIN, V.I.

Deoxidizing ball-bearing steel with vacuum treatment by ferroaluminum. Metallurg 10 no.12:20-22 D '65. (MIRA 18:12)

1. Zavod "Krasnyy Oktyabr'" i Moskovskiy institut stali i splavov.

L 10452-67 EWT(m)/EWP(t)/ETI IJP(c) JD/DJ
ACC NR: AP6022507 SOURCE CODE: UR/0133/66/000/004/0327/0328

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AUTHORS: Oyks, G. N.; Matevosyan, P. A.; Ansheles, I. I.; Fatkullin, O. Kh.; Selivanov, V. M.; Petrov, B. S.; Sivkov, S. S.; Fedorov, V. I.

ORG: none

TITLE: Experimental smelting of ball-bearing steel by using a refusing method employing a new technology

SOURCE: Stal', no. 4, 1966, 327-328

TOPIC TAGS: alloy steel, ball bearing steel, metallurgic research / ShKh15 alloy steel

ABSTRACT: A new technology for smelting ball-bearing steel employing a refusing method was developed. This method is based on the results of an earlier investigation by G. N. Oyks, P. A. Matevosyan, I. I. Ansheles, i dr. (Novaya tekhnologiya vyplavki sharikopodshipnikovoy stali, Metallurgizdat, 1962). The salient points of the new technology are: 1) the furnace charge consists of 100% ball-bearing steel scrap; 2) to insure desulfonation, the slag is reduced with pulverized coke only; 3) the oxygen concentration is maintained by additions of red hot bauxite. After the above three steps, the steel is evacuated and poured in the usual way. A comparison of the new method with older ones is presented (see Fig. 1). It is concluded that the new method yields ball-bearing steel of higher quality.

UDC: 669.187.2

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L 10452-67

ACC NR: AP6022507

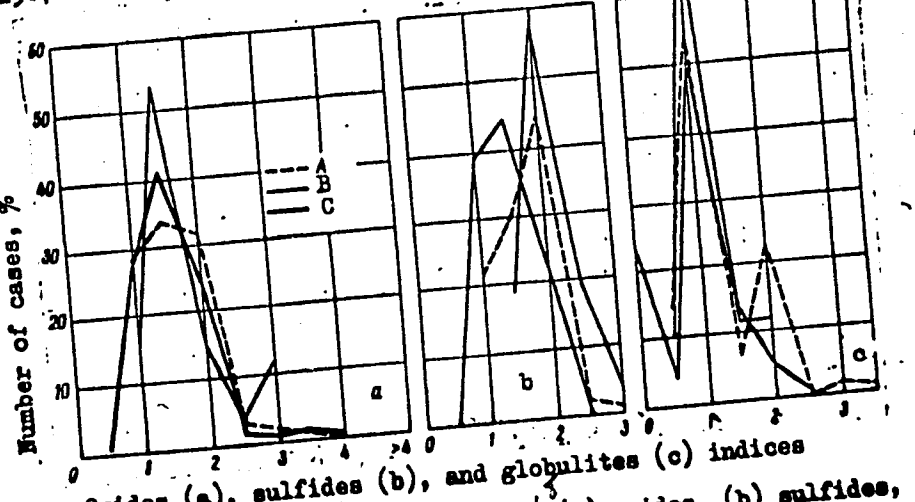

Fig. 1. Comparison of impurities in steel ShKh15 (a) oxides, (b) sulfides, and (c) globulites obtained by evacuation under usual slags (A) and slags of increased oxidative power (B - smelting with oxidation agent, C - smelting according to the new refusing method).

Orig. art. has: 2 tables and 2 graphs.

Card 2/2 SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001

FATKULLIN, Z.S.; KOZERITSKIY, G.I., inzh.

Constructing large-panel houses. Transp.stroi. 9 no.9:
26-28 S '59. (MIRA 13:2)

1. Nachal'nik tresta Ufimtransstroya (for Fatkullin).
(Apartment houses)
(Precast concrete construction)

L 18397-65 EWP(k)/EWT(m)/EWP(b)/T/EWA(d)/EWP(t) Pf-4 IJP(c)/ASD(m)-3/
ASD(f)-2 MJW/JD/HW
ACCESSION NR: AP5000946 S/0136/64/000/012/0080/0083

AUTHOR: Bernshteyn, M. L.; Yelagina, L. A.; Fatkullina, L. P.

TITLE: Thermomechanical treatment of VT3-1, VT8, and VT14 titanium alloys

SOURCE: Tsvetnyye metally, no. 12, 1964, 80-83

TOPIC TAGS: titanium, titanium alloy, alloy thermomechanical treatment, VT3-1 titanium alloy, VT14 titanium alloy, VT8 titanium alloy

ABSTRACT: The effect of thermomechanical treatment (TMT) on the structure and properties of VT3-1 (5.25% Al, 1.8% Mo, 1.81% Cr), VT14 (4.10% Al, 2.76% Mo, 1.27% V), and VT8 (6.37% Al and 3.08% Mo) titanium alloys has been studied. Alloy specimens of various height were upset at temperatures of the α+β- or β-range to a height of 14 mm, water or air quenched, and aged at 480—590C, depending on the alloy. It was found that deformation of VT3-1 alloy at lower temperatures of the α+β-range (780C) increases strength, and that deformation at upper temperatures of the α+β-range (850C) increases substantially both strength and ductility. Deformation at temperatures of the β-range does not affect

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L 18397-65
ACCESSION NR: AP5000946

strength, but increases ductility in proportion to increasing reduction. The same was found to occur in the VT14 and VT8 alloys. The best combination of mechanical properties was achieved with deformation at upper temperatures of the α+β-range (850C for VT3 and VT14 alloys, and 920C for VT8 alloy) and reductions of 40—70%. TMT improves considerably the tensile strength, endurance strength, and rupture life of all the alloys tested. The beneficial effect of TMT extends, however, only up to 500—550C. The increase in strength of two-phase titanium alloys induced by TMT is explained by strain hardening (which is preserved by rapid cooling) and its beneficial effect on the β-phase decomposition. Orig. art. has: 3 tables and 3 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3154

Card 2/2

L 52706-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) Pf-4
IJP(c) MJW/JD/HW
ACCESSION NR: AP5013156 UR/0129/65/000/005/0035/0038
669.295:669.78:539.37

AUTHOR: Bernshteyn, M. L.; Yelagina, L. A.; Fatkullina, L. P.; Semenova, N. M.

TITLE: Effect of high-temperature thermomechanical treatment on titanium alloy fine structure

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1965, 35-38, and bottom half of insert facing p. 41

TOPIC TAGS: thermomechanical treatment, high temperature thermomechanical treatment, titanium alloy, titanium alloy thermomechanical treatment/VT3-1 alloy, VT8 alloy, VT14 alloy

ABSTRACT: The effect of high-temperature thermomechanical treatment (HTTMT) on the structure and phase composition of titanium alloys has been studied. The VT3-1, VT14, and VT8 titanium alloys deformed at 850, 920, and 850C, respectively, with reductions up to 70% were water quenched and then aged at 500C for 5 hr, 590C for 2 hr, and 480C for 12 hr, respectively. It was found that HTTMT at temperatures of the α+β-region stimulates the formation of a considerable quantity of α-phase. The higher the reduction the finer is the structure. The increase of

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L 52706-65
ACCESSION NR: AP5013156

the reduction increases the density of defects in both phases α and β. It is believed that the increase in strength resulting from thermomechanical treatment at temperatures of the α+β-region is due to the decomposition of the β-solid solution occurring under the effect of deformation. With the increasing reduction in HTTMT at temperatures of the β-region, the density of defects in the residual β-phase rises, while in the α-phase it remains unchanged. Deformation at temperatures of the α+β-region lowers the temperature of transformation, while deformation in the β-region has no effect on this temperature. Orig. art. has: 4 figures and 2 tables. [ND]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 001 OTHER: 000 ATD PRESS: 4012

OK
Card 2/2

GOL'DBERG, D.O.; KREYN, S.E.; AKIMOV, V.S.; ABRAMOVICH, S. Sh.; YEVDOKIMOV, O.P.; FATKULLINA, N.S.; KULINICHEVA, M.A.

Relation between the physicochemical properties and performance characteristics of residual oils from sulfur-bearing crudes and the depth of phenol extraction. Trudy Bash NII NP no.3:69-81 '60. (MIRA 14:4)

(Lubrication and lubricants—Testing)
(Petroleum—Refining)

GOL'DBERG, D.O.; SADCHIKOVA, M.F.; FATKULLINA, N.S.

Effect of the depth of phenol extraction on the chemical content and physicochemical properties of transformer oils from sulfur-bearing crudes. Trudy Bash NII NP no.3:82-90 '60. (MIRA 14:4)
(Insulating oils)
(Petroleum--Refining)

ABRAMOVICH, S.Sh.; VIPPER, A.B.; GOL'DBERG, D.O. KREYN, S.E.; KULINICHEVA, M.A.; FATKULLINA, N.S.

Influence of the depth of phenol purification on the group chemical composition and properties of viscous distillate oil from sour crude. Trudy Bash NIINP no.5:259-272 '62. (MIRA 17:10)

S/152/63/000/001/002/002
B126/B186

AUTHORS: Imayev, M. G., Sharipov, A. Kh., Fatkullina, N. S., Maksimova, G. N.

TITLE: Vapor-phase oxidation to phthalic anhydride of phenol extracts from treatment of oil fractions

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 1, 1963, 61 - 64

TEXT: Phenol extracts, waste products after treatment of oil fractions, were oxidized by atmospheric oxygen to phthalic anhydride over an industrial vanadium-potassium sulfate catalyst. Three extracts were used, one of which contained about 20.3% by weight of monocyclic, 37.8% of bicyclic and 20% of polycyclic aromatics, and the two others each about 18.6%, 26% and 35% by weight of the above aromatics, respectively. The following optimum conditions were established: oxidation temperature 380 - 390°C, ratio of air to raw material 245 : 123 g/g, volume velocity 2000 - 2500 h^{-1}. The yield of phthalic anhydride obtained from the first extract was 28.9% by weight, from the second extract 22% and from the third 20%. To reduce coke deposition on the catalyst due to a tar content of about 3 to 5% in the phenol extracts,

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SHARIPOV, A.Kh.; GOLOVANENKO, B.I.; IOFFE, I.I.; BORSHCHENKO, V.P.; FATKULLINA, N.S.

Obtaining phthalic anhydride by oxidizing a petroleum naphthaline fraction. Nefteper. i neftekhim. no.8:22-23 '64. (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov, Leningrad, i Nauchno-issledovatel'skiy institut neftekhimicheskikh proizvodstv, Ufa.

L 19372-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5015461 UR/0318/64/000/008/0022/0023

AUTHOR: Sharipov, A. Kh.; Golovanenko, B. I.; Ioffe, I.I.; Borshchenko, V.P.; Fatkullina, N.S.

TITLE: Preparation of phthalic anhydride by oxidation of the naphthalene fraction of crude oils

SOURCE: Neftepererabotka i neftekhimiya, no. 8, 1964, 22-23

TOPIC TAGS: crude petroleum, naphthalene, oxidation

Abstract: Noting that in the USA the amount of crude-oil naphthalene is almost as large as that produced from coke, the authors describe their studies of the vapor-phase catalutic oxidation of the crude-oil naphthalene fraction yielding phthalic anhydride. They show that, relative to the naphthalene content, the phthalic-anhydride yield may reach 94% of the theoretical. However, this is achieved at the cost of a catalyst-productivity decrease of 15-20%. Orig. art. has 2 tables.

ASSOCIATION: VNIIneftekhim, Leningrad; NIIneftekhim, Ufa

SUBMITTED: 00 ENCL: 00 SUB CODE: FD, OC

NO REF SOV: 002 OTHER: 002 JPRS

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L 32901-66

ACC NR: AP6023832 (N) SOURCE CODE: UR/0399/66/000/003/0079/0083

AUTHOR: Tselibeyev, B. A.; Yashish, I. L.; Brusilovskaya, M. I.; Fatkullina, Z. I.; Okunev, V. N.

ORG: Central Scientific Institute of Forensic Psychiatry im. Serbskiy /headed by Docent G. B. Morozov/ (Tsentral'nyy nauchno-issledovatel'skiy institut sudebnoy psikhiatrii); Clinical Order of Lenin Hospital im. S. P. Botkin /headed by Docent Yu. G. Antonov/, Moscow (Klinicheskaya ordena Lenina bol'nitsa)

TITLE: Psychic disturbances in burns

SOURCE: Sovetskaya meditsina, no. 3, 1966, 79-83

TOPIC TAGS: injury, psychoneurotic disorder, psychiatry

ABSTRACT: The authors observed four cases of psychoses associated with burns. In three patients, soon after the burns, brief amental-depressive states developed, and in one -- a severe psychic state was observed followed by a depressive-paranoid syndrome. It was found that in all three patients of the first group, 3 days after receiving the burns, when shock symptoms had passed, but intoxication, development of suppurative pus, and insomnia due to pain continued, states of psychomotor excitation developed with disorientation in space and time, and with large numbers of visual and auditory hallucinations and periodic confusion of mental processes. Psychic disturbances were noted

Card 1/2 UDC: 616.5-001.17-06:616.89-02:616-001.17

L 32901-66

ACC NR: AP6023832

for several days and were accompanied by total amnesia characteristics of amental and severe delirium states. It is charactoristic that the psychoses developed not during the shock period, but in the initial period of shock infection; as is known, traumatic and postoperative psychoses also emerge, usually several days after the injury or operation. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 002

Card 2/2

FATNITSKIY, L.A., inzh.

Calculations in the rearrangement of switches. Trudy NIIZHT no.31:272-278 '62. (MIRA 16:9)

FATNITSKIY, L.A.; DANOVSKIY, L.M., kand. tekhn. nauk, dots., red.

[Calculations in the respiking of switches for a different gauge; textbook for students of the Novosibirsk Institute of Railroad Transportation Engineers] Raschety pri pereshivke strelochnykh perevodov na druguiu koleiu; uchebnoe posobie dlia studentov NIIZhTa. Novosibirsk, 1964. 45 p. (MIRA 18:8)

1. Novosibirsk. Institut inzhenerov zheleznodorozhnogo transporta.

L 04966-67 EWP(e) WH
ACC NR: AP6027491 (A) SOURCE CODE: PO/0015/66/000/005/0130/0132

AUTHOR: Fator, Jaroslav

ORG: Institute of Electrotechnical Ceramics, Hradec Karlove, CSRS (Instytut Ceramiki Elektrotechnicznej)

TITLE: Cristobalite as a fourth component of porcelain

SOURCE: Szklo i ceramika, no. 5, 1966, 130-132

TOPIC TAGS: silica, porcelain, QUARTZ CRYSTAL

ABSTRACT: In the last ten years, increasing interest has been shown in porcelain containing cristobalite as a fourth component in addition to the two other crystalline phases - quartz and mullite - and amorphous glass. The transformations by which cristobalite is formed in this porcelain and the factors affecting them are discussed. The main factor is the degree of comminution of the initial quartz crystals. Research being done in Japan, the Soviet Union, and East Germany in this field is reviewed. Work done at the Institute of Electrotechnical Ceramics (Instytut Ceramiki Elektrotechnicznej) in Hradec Kralove has confirmed the existence of a problem reported earlier by other authors: as a result of failure to maintain constant conditions of milling and firing, deviations of the coefficient of thermal expansion have appeared. To remedy this situation, a raw material (shale with a high SiO_2 content) has been found

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ACC NR: AP6027491

which insures the uniformity of fine milling thanks to the uniform size of its crystals. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: none

Card 2/2 ldh

FATOV, N. A.

Device for checking parameters of the steering screw. Avt. prom. 28 no.6:33-34 Je '62. (MIRA 16:4)

1. Moskovskiy avtozavod imeni Likhacheva.

(Automobiles—Steering gear)

SOV/110-59-9-17/22

AUTHOR: Fatova, L.V. (Engineer)

TITLE: The Economic Benefits of Technical Advances in the Construction of Cables and Conductors

PERIODICAL: Vestnik elektropromyshlennosti,1959,Nr 9,pp 62-66 (USSR)

ABSTRACT: It is important to study how the great development of the cable industry that is required by the Seven Year Plan can be achieved at the lowest possible cost. A very high proportion of the cost of cables is cost of materials and it is, therefore, desirable to consider how new cable-manufacturing materials will affect costs. The economic advantages of using aluminium for conductors and sheathing in place of copper and lead are discussed in general terms at some length. Existing experience of the manufacture of aluminium cables shows that the new equipment required has a very short pay-off time and that considerable economy in manufacturing and installation costs accrues from the use of aluminium. The replacement of rubber, cable paper, and oil-based varnish by plastics and synthetic resins can both improve the quality of the cables and cut their costs. In certain types of cables, lead sheathing has been replaced by polyvinyl chloride. Fully plastic insulation is used in cables for ships and for telephone cables. The use of

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The Economic Benefits of Technical Advances in the Construction of Cables and Conductors

plastics greatly simplifies the manufacture of communications cables and the capital cost of the manufacturing plant required is lower. At present, polyvinyl chloride and polyethylene are expensive and so their use does not always lead to a reduction in cost. It is to be expected that the cost of these materials will fall considerably as the chemical industry is developed. Moreover, it is important to free textiles such as cotton for other purposes, and if the use of lead can be avoided the very heavy capital investment required to increase lead output would be avoided. Winding wires with paper and fibrous insulation are being replaced by the wires insulated with synthetic resins. The resins are more heat-resistant and form a less bulky insulation, giving a better space factor when winding machines. The demand for cables for very high voltages is increasing. The latest types of 110 and 220 kV cables are installed in oil-filled pipes. These cables have the advantage over normal oil-filled cables that they employ no lead and do not call for the complicated equipment required during the laying of