GUDKOV, S.F.; FEDULOVA, V.P.

Incomplete oxidation of methane - propane mixtures. Gaz.prom. no.10:32-29 O '57. (MIRA 10:10)
(Oxidation) (Propane) (Methane)

ANISONYAN, A.A.; GUDKOV, S.F.; IVANOV, A.K.; YENIKOLOPYAN, N.S.; MARKEVICH, A.M.; NALBANDYAN, A.B.

Results of the operation of an experimental apparatus for the manufacture of formalin from natural gas. Trudy VNIIGAZ no.3:130-142 '58. (MIRA 11:8)
(Natural gas) (Formaldehyde)

GUDKOV, S.F.

Studying the production of formaldehyde by means of incomplete oxidation of natural gas by oxygen. Trudy VNIIGAZ no.3:143-151 '58. (MIRA 11:8)
(Formaldehyde) (Natural gas)

SOV/137-58-8-17377

Translation from: Referativnyy zhurnal, Metallurgiya 1958 Nr 8 p 169 (USSR)

AUTHORS: Gudkov, S.F., Sidorov, A.P.

TITLE: Corrosion of Metals by Products of the Incomplete Oxidation of Natural Gas by Atmospheric Oxygen in the Presence of Oxides of Nitrogen (Korroziya metallov produktami nepolnogo okisleniya prirodnogo gaza kislorodom vozdukha v prisutstvii okislov azota)

PERIODICAL: Tr. Vses. n.-i. in-t prirodn. gazov, 1958 Nr 3 (11), pp 161-169

ABSTRACT: The corrosion of a number of metals was investigated under the working conditions of an installation for the production of formaldehyde. It is demonstrated that 1Kh18N9T and Kh23N18 steels exhibit a high corrosion resistance. The 1Kh18N9T steel cannot be recommended for the construction of heaters and the reactors owing to its negative effect on the yield and quality of the products of the reaction. The same steel can be used for apparatus and piping working at a low temperature. Kh23N18 steel is recommended for apparatus and piping working in an aggressive medium at high temperature. G.K.

Card 1/1

1. Metals--Corrosion 2. Natural gas--Corrosive effects
3. Nitrogen oxides--Properties

SOV/65-58-10-1/15

AUTHOR: Gudkov, S. F.

TITLE: Preparation of Formaldehyde by Incomplete Oxidation of Natural Gas with Industrial Oxygen (Polucheniye formal'degida nepolnym okisleniyem prirodnogo gaza tekhnicheskim kislorodom)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 10, pp 1 - 6 (USSR)

ABSTRACT: Experiments were carried out on the dependence of the yield of formaldehyde and the composition of the reaction products on the basic parameters of the oxidation process of methane with oxygen in undiluted mixtures. Results were compared with data obtained during the incomplete oxidation of natural gas with air. The experiments were carried out in a continuous plant, and the method used was the one described by S. F. Gudkov (Ref.4). The reactor consisted of a quartz tube with a 14 mm internal diameter and a 100 mm heating zone. The temperature of the oven was kept constant with the aid of an electron millivolt meter (accuracy $\pm 1^{\circ}C$). Natural gas from Saratov, 99% pure oxygen and nitrogen oxide were used during the experiments. The quantity of formed formaldehyde is determined by titrating the solutions. After absorption the end product is analysed for its

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Preparation of Formaldehyde by Incomplete Oxidation of Natural Gas With Industrial Oxygen

CO_2, CO and O_2 content. Mixtures containing varying amounts of nitrogen oxides were tested. The experiments were carried out at temperatures between 600 and 700°C. The oxygen content in the initial methane-oxygen mixture constituted 13.8% and 0.2% by weight of nitrogen oxides was added. The rate of supply of the mixture was altered from 1.2 to 3.2 litre/minute which corresponds to a change in the residence time from 0.04 to 0.12 seconds. Results are given in Fig.1. Data shows that with increasing temperature the content in formaldehyde and also the content in carbon monoxide increases. At low temperatures (up to 640°C) and at a low residence time (up to 0.8 seconds) approximately equal amounts of formaldehyde and carbon monoxide are formed. When the temperature is increased the concentration of formaldehyde remains substantially constant, but the CO-concentration increases rapidly. The yield of the oxygen-containing compounds is determined by the ratio of the concentration of hydrocarbons and of oxygen in the initial mixture. The dependence of the yield of

Preparation of Formaldehyde by Incomplete Oxidation of Natural Gas With Industrial Oxygen

formaldehyde and the composition of the end product from the methane:oxygen ratio was investigated on mixtures in which this ratio varied between 5.4 to 25.0. The experiments were carried out at 660±1°C; the velocity of the gas mixture equalled 1.2 litre/minute and the content of nitrogen oxide equalled 0.2% (Figure 2). Linear increases were observed during the first stages of raising the concentration of oxygen in the initial mixture; the CO content in the end product increases simultaneously. For instance, a change in the oxygen content from 9 to 15% causes the alteration in the CH_2O:CO ratio from 1:1 to 1:4. The conversion coefficient of methane decreases in this case from 0.45 to 0.20. Variations in the yield of formaldehyde and carbon monoxide due to changing the amount of homogeneous catalyst in the mixture are shown in a graph (Figure 3). These tests were carried out at 640°C on a mixture containing 86.2% methane and 13.8% oxygen. The values obtained during these experiments formed the basis for finding the optimal quantity of nitrogen oxides required for obtaining maximum yields of formaldehyde.

Preparation of Formaldehyde by Incomplete Oxidation of Natural Gas With Industrial Oxygen

They were found to be 0.25 to 0.30% instead of 0.12 to 0.15% when using air. The dependence of the yield of formaldehyde and of the composition of the end product on the reaction temperature are given in Table 1. It was found that the yield was 2.1 to 2.3 times bigger during a one-cycle process than when oxidising methane with air. The optimum reaction temperature is decreased to 30 - 40°C when using oxygen, and the ratio CH_2O:H_2O in the reaction gas is 1.7 to 2.0 times higher. The conversion of methane can be improved when using circulation and further experiments were carried out when circulating methane during the process 6, 9, 12 and 18 times (Fig.4). Yields were increased when increasing the number of recirculations. Advantages in using oxygen instead of air during the oxidation process consist in the following: the content of formaldehyde in the reaction gas increases by 2 to 2.3 times during the continuous process and 1.5 to 1.9 times when using circulation; the coefficient of conversion of methane and oxygen increases by 20 to 40%; the ratio of CH_2O and H_2O in the end product increases 1.7 to 2.0 times, and the heat

Preparation of Formaldehyde by Incomplete Oxidation of Natural Gas With Industrial Oxygen

value of the gas is raised by more than 100% (even when no inert diluent such as nitrogen is present). Optimum process parameters are given. Under the given conditions, the maximum yield of formaldehyde during the continuous process equalled 1.9 to 2.1%; when the gas was recirculated six times the yield amounted to 6.5 to 7.5%. The experimental work was carried out with the co-operation of Engineers V. P. Fedulov and L. I. Kryuchkov. There are 4 Figures, 1 Table and 5 References: 1 English and 4 Soviet.

ASSOCIATION: NIIgaz

GUDKOV, S.F.

Analysis of the operation of a reaction vessel for incomplete oxidation of methane under adiabatic conditions. Trudy VNIIGAZ no.6:98-110 '59. (MIRA 12:10)
(Methane) (Oxidation)

GUDKOV, S.F.; FEDULOVA, V.P.

Oxidation of methane-propane mixtures by atmospheric oxygen in the presence of nitrogen oxides. Trudy VNIIGAZ no.6:111-116 '59. (MIRA 12:10)

(Hydrocarbons) (Formaldehyde)

GUDILOV, N.F.

Mechanism of the incomplete oxidation of methane in the presence of nitrogen oxides. Trudy VNIIGAZ no.6:117-124 '59.
(MIRA 12:10)

(Methane) (Nitrogen oxides)

GUDKOV, S.F.

Studying the process of the incomplete oxidation of methane and propane by the cold and hot tube method. Trudy VNIIGAZ no.6:125-136 '59. (MIRA 12:10)
(Methane) (Propane) (Oxidation)

AUTHOR: Gudkov, S.F. SOV/[illegible]-32-2-18/56

TITLE: The Problem of the Mechanism of Incomplete Methane Oxidation in the Presence of Nitrogen Oxides (K voprosu o mekhanizme nepolnogo okisleniya metana v prisutstvii okislov azota)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2, pp 342-346 (USSR)

ABSTRACT: If methane is oxidized, the output of formaldehyde is below the thermodynamically possible value. The role of the nitrogen oxides during incomplete methane oxidation is investigated here. The concentration of these oxides changes with the temperature (Figure 1) as well as the ratio of their components NO and NO_2. The absolute concentration of the nitrogen oxides in the air stream does not change with temperature, whereas in the methane stream it drops (Figures 2 and 3). It has been shown that NO_2 has an accelerating influence on the reaction, not NO, as presumed earlier [Ref. 3]. The formaldehyde concentration in the final gas mixture is the higher, the higher the concen-

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The Problem of the Mechanism of Incomplete Methane Oxidation in the Presence of Nitrogen Oxides

tration of the nitrogen oxides in the initial mixtures. There are 5 graphs and 6 references, 4 of which are Soviet and 2 English.

SUBMITTED: August 5, 1957

GUDKOV, Sergey Filippovich; KLEYMENOVA, K.F., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Processing of hydrocarbons obtained from natural and casing-head gases] Pererabotka uglevodorodov prirodnykh i poputnykh gazov. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 173 p. (MIRA 13:5)

(Gas, Natural)

GUDKOV, S.F.

Incomplete oxidation of ethane and propane in electrical charges.
Trudy VNIIGAZ no.12:133-142 '61. (MIRA 15:1)
(Ethanes) (Propane) (Oxidation)

GUDKOV, S.F.

Study of the effect of a wall surface on the incomplete methane oxidation. Trudy VNIIGAZ no.12:125-132 '61. (MIRA 15:1)
(Methane) (Oxidation)

GUDKOV, S.F.; IVANOV, A.K.; KORNILOV, V.F.; LUR'YE, B.I.; NALBANDYAN, A.B.; RUDENKO, P.S.

Plant test of the direct production of formaldehyde from natural gas. Gaz. prom. 8 no.4:35-39 '63.
(MIRA 17:10)

GUDKOV, S.F.

Using tail gases in obtaining formaldehyde from natural gas. Gaz. prom. 8 no.9:44-46 S '63. (MIRA 17:8)

GUDKOV, S. I.

Effect of thermal treatment on the mechanical proper- ties of stainless chromium steels at temperatures below S. I. Gudkov and V. K. Tselikov. *Metalloved. i Termich.* Obrabotka (Moscow: Metallurgizdat) 1954, No. 1, 61-72; *Referat. Zhur., Khim.* 1955, No. 8161.—The tested st... contained approx. 13% Cr. Hardening from ...0° in wa- ter or oil, followed by annealing up to 400°, imparted to the steel a higher impact strength to lower temps. than the ordi- nary hardening followed by anneal at higher temps. By using this method of hardening and annealing the range of use of steels 1Cr13 and 2Cr13 can be appreciably widened. ... Hau...

L 59275-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWF(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,

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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

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L 63014-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(d) Pad
IJP(c) MJW/JD/HW
ACCESSION NR: AT5016474 UR/2800/65/000/009/0186/0191

AUTHOR: Gudkov, S. I., (Engineer)

TITLE: Mechanical properties of Cr and Cr-Ni stainless steels at low temperatures

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya. Trudy, no. 9, 1965. Apparaty i mashiny kislorodnykh ustanovok (Apparatus and machines of oxygen plants), 186-191

TOPIC TAGS: cryogenics, chromium steel, chromium nickel steel, stainless steel, steel cryogenic property, steel mechanical property

ABSTRACT: Four chromium steels (1Kh13, 2Kh13, 3Kh13 and 4Kh13; about 13% Cr; 0.15 to 0.44%C) and three austenitic stainless steels (Kh18N9, 2Kh18N9, Kh18N9T; Cr=18.1 to 19.2%; Ni=9.23 to 10.05%) were tested for their cryogenic properties at 20 to -196C. The samples were either untreated or heat-treated (water quenching from 1050-1070C and tempering at 550C for Cr steel, quenching from 1100C and air cooling for the Cr-Ni steels). The results indicate that tensile strength, yield point and hardness of Cr steels increase as the temperature drops, ductility and plasticity deteriorate, and the mechanical properties are governed to a greater extent by temperature than by the content of carbon. The

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Gudkov, T. I.

7320 AEC-tr-3273

62. THE STUDY OF VOLUME AND GRAIN BOUNDARY DIFFUSION IN METALS BY THE AUTORADIOGRAPHIC METHOD. S. Z. Kekshtein, S. T. Kishkin, L. M. Moroz, and T. I. Gudkov. Translated by S. J. Rothman from Doklady Akad. Nauk S.S.S.R. 102. 73-5(1955). 7p.

The interactions in the solid solution of tin in iron on the one hand, and tin in nickel on the other hand, are different. In the second case the atoms move preeminently along the grain boundaries. In the first case the main mass of the tin atoms moves frontally into the mass of the grain. This difference can probably be explained on the basis of the difference of the surface properties of these elements. In any case, the difference between the surface energies between nickel and tin at a temperature near the melting point is greater than the difference between the surface energies of iron and tin. However this explanation is insufficient, as the difference in the structure of the lattice and of the grain boundary also has great importance. The difference in the characters of the diffusions can hardly be explained by the difference in mutual solubilities, as the solubility of tin in nickel is hardly greater than in iron. (auth)

(3)

GUDKOV, V.

Trade servicing of workers in the Arctic. Sov. torg. no.2:40-43 F '58.
(MIRA 11:1)

1. Nachal'nik Glavtorgmortransa Ministerstva morskogo flota.
(Arctic regions--Retail trade)
(Arctic regions--Restaurants, lunchrooms, etc.)

GUIKOV, V.D., inzh.

Using precast reinforced concrete construction elements in building refrigerating plants. Mont.i spets.rab.v stroi. 22 no.8:18-21 Ag '60. (MIRA 13:8)

1. Kotel'nikovskoye Stroitel'no-montazhnoye upravleniye tresta Ukhtomskstroy.

(Precast concrete construction)
(Refrigeration and refrigerating machinery)

GUD[illegible]V, V. F. (Chief) -- "Solution of the Problem of Joining Belts by Vulcanization by Mechanical Means." Sub 19 Jan 52, Moscow Order of Labor Red Banner Mechanical Engineering Institute imeni Bauman (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vechernaya Moskva, January-December 1952

GUDKOV, V.I.

Farm accidents and their prevention in sectors served by a local hospital [with summary in English, p.160]. Vest.khir. 78 no.2: 99-103 F '57. (MLRA 10:3)

1. Iz sosnovskoy uchastkovoy bol'nitsy Omskoy oblasti (glavnyy vrach - I.P.Gudkov, nauchnyy rukovoditel' - professor A.I.Manuylov)
(AGRICULTURE
accid. inj., prev. & regional hosp. policy in Russia (Rus))
(WOUNDS AND INJURIES
farm inj., prev. & regional hosp. policy in Russia (Rus))
(ACCIDENTS
farm accid. inj., prev. & regional hosp. policy in Russia (Rus))

MAKOKHA, N.S.; GUDKOV, V.I.

Case of late secondary hemorrhage in a patient with rupture of the kidney. Urologiia 25 no.6:49-50 '59. (MIRA 13:12)
(KIDNEYS--RUPTURE) (HEMATURIA)

GUDKOV, V.I.

Surgical treatment of closed injuries of the inferior surface of the liver. Vest.khir. no.8:90-91 '61. (MIRA 15:3)

1. Iz Kalachinskoy rayonnoy bol'nitsy (gl. vrach - M.T. Siganov, nauchn. rukovoditel' - prof. A.I. Manuylov) Omskoy oblasti.
(LIVER--WOUNDS AND INJURIES)

GUDKOV, V.M.

Lesser cuckoo (Cuculus poliocephalus Lath.) in the Kurile Islands. Ornitologiia no.2:198 '59. (MIRA 14:7)
(Iturup Island--Cuckoos)

GUDKOV, V.M.

Realtion in the distribution of sooplankton, sea birds, and whalebone whales. Turdy Inst. okean. 58:298-313 '62. (MIRA 15:12)
(Bearing Sea--Whales) (Bearing Sea--Water birds)(Bearing Sea--Zooplankton)

GUDKOV, V.M.

Characteristics of the pigmentation of sperm whales in the Far Eastern waters. Trudy Inst. okean. 71:207-222 '63.
(MIRA 16:11)

RYZHOV, Petr Aleksandrovich. Prinimali uchastiye: BUKRINSKIY, V.A., kand. tekhn.nauk, dots.; GUDKOV, V.M., kand.tekhn.nauk, dots.; RUDAKOV, M.L., doktor tekhn.nauk, prof.; SHEYKO, V.G., inzh.; BYSTRIGIN, N.M., inzh.; TROFIMOV, A.A., prof., retsenzent; OGLOBLIN, D.N., prof., retsenzent; SLAVOROSOV, A.Kh., red.izd-va; BOLDYREVA, Z.A., tekhn. red.; EPPEL', N.Ya., tekhn. red.; SHITOVA, A.S., tekhn. red.

[Geometry of mineral deposits] Geometriia nedr. Izd.3., perer. i dop. Moskva, Izd-vo "Nedra," 1964. 500 p.
(MIRA 17:3)

Dissertation: "On the Problem of Numerical Description of [illegible] Deposits of Kitay."
Cand Tech Sci, Moscow Mining Inst imeni I. V. Stalin, 3 Jun 54.
Vechernyaya Moskva, Moscow, 25 May 54

SO: SUM 284, 26 Nov 1954

GUDKOV, V.M., aspirant.

Taking into account samples differentiating sharply by their high content of component. Nauch. trudy MGI no.12:114-120 '54. (MLRA 10:2)

(Ores--Sampling and estimation)

GUDKOV, V.M., kand.tekhn.nauk; KHEYFETS, O.S., gornyy inzh.

Reliability of quality graphs plotted on the basis of sampling development openings. Nauch. trudy MGI no.18:167-181 '57. (MIRA 11:9)

(Ores--Sampling and estimation)

GUDKOV, V.M.

RYZHOV, Petr Aleksandrovich, prof., doktor tekhn.nauk; BUKRINSKIY, Viktor Aleksandrovich, dotsent, kand.tekhn.nauk; GUDKOV, Valentin Mikhaylovich, kand.tekhn.nauk; KROTOV, Gavriil Alekseyevich, dotsent, kand.tekhn.nauk; LYUBMAN, Izrail' Borisovich, assistent; RUDAKOV, Mikhail Lazarevich, prof., doktor; PIKULIN, A.P., kand. tekhn.nauk, retsenzent; BUTKEVICH, T.V., red.; PARTSEVSKIY, V.N., red.izd-va; BEKKER, O.G., tekhn.red.

[Mine surveying] Marksheiderskoe delo. Pod nauchnoi red. P.A. Ryzhova. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1958. 463 p. (MIRA 12:1)
(Mine surveying)

SOV/154-58-4-4/22

AUTHORS: Gudkov, V. M., Candidate of Technical Sciences
Belyayev, B. I., Candidate of Technical Sciences

TITLE: Determining the Lack of Alignment in the Testing of Horizontal Displacement of Foundations of Water Power Structures (Opredeleniye otkloneniy tochek ot stvora pri izuchenii gorizontal'nykh smeshcheniy osnovaniy gidrotekhnicheskikh sooruzheniy)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aero fotos"yemka, 1958, Nr 1, pp 35-40 (USSR)

ABSTRACT: In recent years a great number of water power structures have been built on soft ground. One of the best methods for testing the stability of the individual parts of the structures in the horizontal plane is the study of horizontal displacement by means of range observations. The method of such observations was suggested by the Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (MIIGAiK) (Moscow Engineering Institute of Geodesy, Aerophotography and Cartography). For stability test in the structures of hydro-electric power stations a range line is used. This

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Determining the Lack of Alignment in the Testing of Horizontal Displacement of Foundations of Water Power Structures

line consists of a series of fixed range points. The end points of the range line serve as bases and are included in the triangulation net. The range line is checked at regular intervals. The main task is to determine the displacements of range points in a direction normal to the range line. There are such ranges in the Tsimlyanskiy and Kuybyshevskiy hydroelectric power systems. They were fitted with stations of special design. The stations were worked out in the MIIGAiK under the direction of M. S. Murav'yev. M. S Murav'yev developed a method of range observation by means of moveable stations. This method was applied in the construction of the Tsymlyansk hydro-electric power station. The author suggests a system of range-observations according to two patterns: survey of half a range and survey of a quarter of a range. At the same time the shortcomings of this method are discussed. For the same purpose, Professor A. I. Durnev proposed the method of eyepiece micrometry. But this micrometer too, has its shortcomings.

Therefore, in order to reduce the scope of out-door work and to simplify range observations, another method of range measure-

Determining the Lack of Alignment in the Testing of Horizontal Displacement of Foundations of Water Power Structures

ments was recommended. This method can be applied to ranges with MIIGAiK-type marks and sighting signs. According to this method the measuring procedure comprises the consecutive determination of the deviation of every single mark (range point) from the range between two neighboring points. This method permits the determination of the deviation of the points from the range even if there are obstacles in the line from A to B. As sights are taken on shorter distances this method requires a shorter time of out-door observations than the method of moveable marks. The scope of calculations however is larger in this method. There are 4 figures and 1 reference, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gornyy institut (Moscow Mining Institute)

16.6200

22593
S/044/60/000/010/017/021
C111/C333

AUTHOR: Gudkov, V.M.

TITLE: On the applicability of the formulas of mathematical statistics to the estimation of the results of prospecting

PERIODICAL: Referativnyy zhurnal, Matematika, no. 10, 1960, 141, abstract 11945.(Nauchn.tr.Mosk.gorn.in-ta,1959,sb.25, 3-30)

TEXT: The author considers questions of the application of mathematical statistical methods (theory of errors) for determining the distribution of the metal content in ore deposits. On the basis of the treatment of experimental data it is concluded that the ore deposits often represent different statistical sets in the statistical sense. A formula for the estimation of the medium metal content is derived; the formula considers the physical specialities and the distribution of single metals in different ore deposits. For the estimation of the errors arising by the finiteness of the number of prospecting samples it is assumed that the probability distribution of the medium sampling values is approximately normal, which deteriorates the exactness of the estimations, especially for small samples.
Note of the reviewer: The formula (1) on page 8 contains an error:

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On the applicability of the...

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C111/C333
22593

e^{-a} must stand instead of e^{-x}.

[Abstracter's note: Complete translation.]

Card 2/2

GUDKOV, V.M., dots.; BELYAYEV, B.I., kand.tekhn.nauk

Placing of mine plumbs during orientation through one vertical shaft with calculation of the effect of an air current. Izv.vys. ucheb.zav.; gor.zhur. no.2:57-60 '60. (MIRA 14:5)

1. Moskovskiy gornyy institut.
(Mining engineering)

RYZHOV, P. A., prof.; GUDKOV, V. M., dotsent

Some features of the distribution of metals in ore deposits. Izv. vys. ucheb. zav.; gor. zhur. no.10:74-77 '61. (MIRA 15:10)

1. Moskovskiy gornyy institut imeni I. V. Stalina. Rekomendovana kafedroy marksheyderskogo dela.

(Ore deposits)

BORSHCH-KOMPANEYETS, V. I., inzh.; GUDKOV, V. M., inzh.;
D'YAKOVSKIY, V. B., inzh.

Effect of some factors on the stability of untouched blocks of ore. Izv. vys. ucheb. zav.; gor. zhur. no.10:78-84 '61. (MIRA 15:10)

1. Moskovskiy gornyy institut imeni I. V. Stalina. Rekomendovana kafedroy marksheyderskogo dela.

(Mining engineering)

GUDKOV, V.M.

Accuracy of contouring lenses and thinning layers in prospecting for oil and gas fields. Trudy VNII no.36:74-79 '62. (MIRA 15:11)
(Gas, Natural--Geology) (Petroleum geology)

GUDKOV, V.M., inzh.-tekhnolog

Efficient method for checking the oil system of type M753 diesel locomotive. Elek. i tepl.tiaga no.8:24 Ag '63. (MIRA 16:9)

1. Depo Tashkent.

(Diesel locomotives--Fuel systems)

NAUMOV, I.V., kandidat tekhnicheskikh nauk; GUDKOV, V.N., inzhener.

Lightweight pairs of wheels for higher speeds. Vest. TSNII MPS 15 no.4:32-34 D '56. (MLRA 10:2)

(Car wheels)

VINOGRADOV, Georgiy Petrovich; GUDKOV, Vadim Nikolayevich; NAUMOV, Ivan Varfolomeyevich; BESHKENADZE, V.B., kandidat tekhnicheskikh nauk, redaktor.

[Investigation of the strength of parts for railroad car wheels] Issledovanie prochnosti elementov vagonnykh kolesnykh par. Moskva, 1957. 74 p. (Moskva. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy no.132). (MLRA 10:8)

1. Direktor Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta (for Ivanov).
(Car axles)

NAUMOV, I.V., kand.tekhn.nauk; GUDKOV, V.N., inzh.

Ways to reduce the weight of railroad car wheels. Vest.TSNII MPS 18 no.6:16-19 S '59. (MIRA 13:2)
(Car wheels)

GUDKOV,V.P.

Growing grapes and strawberries in greenhouses. Biul.Glav.bot.sada no.21:90-94 '55. (MIRA 8:12)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR.
(Grapes) (Strawberries)

GUDKOV, V.P., agronom Adler.

Using luminescent lamps in greenhouses. Priroda 45 no.5:91-92 My '56. (MLRA 9:8)
(Black Sea region--Greenhouses)
(Plants, Effect of light on)

Gudkov, V. S.

(21.3)

1400. TRANSIENT PROCESSES IN DRIVES WITH MECHANICAL DIFFERENTIAL GEARS. V. S. Gudkov. Elektrichestvo, 1950, No. 10, 48-53. In Russian.

The kinematic conditions of operation of such a drive are considered for aiding and opposing sense of the motor operation, and for reversing from high-speed rotation of one of the motors on no-load. It is found that this type of two-motor drive with mechanical differential may, for theoretical purposes, be replaced by an equivalent single-motor drive for which the static and dynamic characteristics are derived. It is concluded that the use of this type of drive is advantageous where the driven mechanism is possessed of a comparatively small flywheel moment. The relative flywheel moment on the driven shaft should be less than unity and then the time constant of the transient processes of a system with mechanical differential gear will be smaller than that of a normal single-motor drive.

H. F. Kraus

GUDKOV, V.P.

Greenhouse culture of the cocoa tree in the subtropics. Izv. AN SSSR. Ser. biol. no. 4:562-573 Jl-Ag '60. (MIRA 13:8)

1. Opornyy punkt Glavnogo botanicheskogo sada Akademii nauk SSSR, g.Gagra.
(GAGRA REGION--COCOA) (GREENHOUSE PLANTS)

GUDKOV, Ya.

Grain table. Kolkh. proiz. 12, No 6, 1952.

1. GUDKOV, Ya.N.
2. USSR (600)
4. Agricultural Machinery
7. Sorting of seeds, Sel. i sem. 20 no. 5, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, APRIL 1953. Unclassified.

GUDKOV, Ya.N.

Role of inventors and efficiency promoters in developing the agricultural machinery industry. Sel'khozmashina no.11:8-9 N '57. (MIRA 10:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.

(Agricultural machinery industry)

GUDKOV, Ya.N.

High-duty friction flaxseed-cleaning machines. Biul.tekh.-ekon.inform. no.7:62-64 '58. (MIRA 11:9)
(Flaxseed) (Seeds--Cleaning)

GUDKOV, Ya.N.

The LOS-0,8 modernized flaxseed-cleaning machine. Biul.tekh.-ekon. inform. no.7:64-65 '58. (MIRA 11:9)
(Flaxseed) (Seeds--Cleaning)

SAKHAROV, P.P., prof.; GUDKOVA, Yu.I., kand. biolog. nauk; [illegible], V.M.; KUDRINA, G.A. (Moskva)

Current status of the theory of bacterial allergy. Arkh. pat. no.1: 3-12 '64. (MIRA 17:11)

1. Iz allergicheskoy laboratorii Nauchno-issledovatel'skogo instituta ukha, gorla i nosa Ministerstva zdravookhraneniya RSFSR.

GUDKOV, Yu.A., inzh.

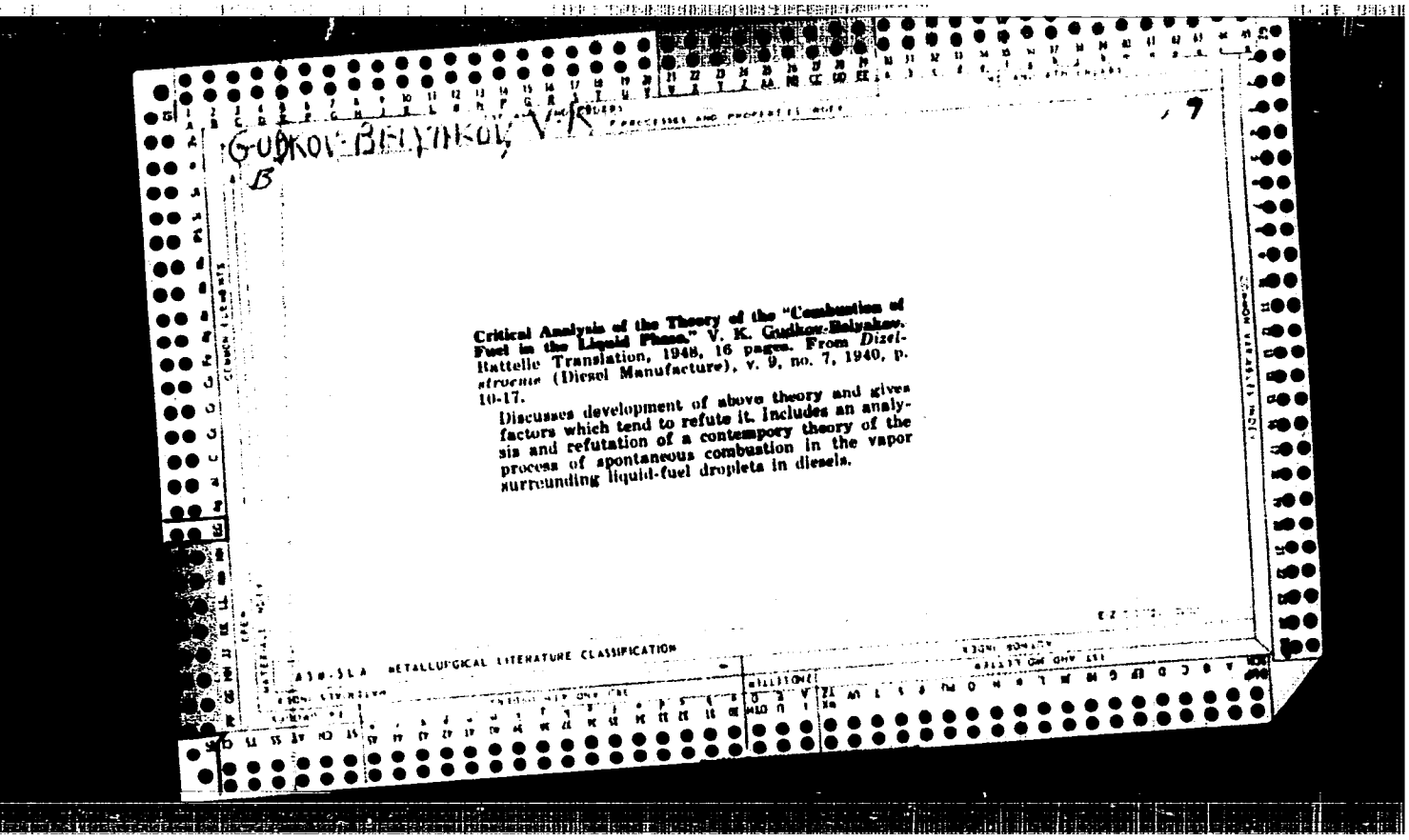
"Gantry cranes" by N.I. Erofeev. Reviewed by IU.A. Gudkov.
Mekh. i avtom. proizv. 17 no.5:56 My '63. (MIRA 16:6)

(Cranes, derricks, etc.)
(Erofeev, N.I.)

GUDKOV, Yu.Ye.

Use of isolation transformers for the protection of networks. Elek.i tepl.tiaga. 4 no.6:20-21 Je '60. (MIRA 13:8)

1. Nachal'nik tyagovoy podstantsii Marianovka, Omskoy dorogi.
(Electric transformers) (Electric substations)



GUDKOV-BELYAKOV, V.K.

B

7

Critical Analysis of the Theory of the "Combustion of Fuel in the Liquid Phase." V. K. Gudkov-Belyakov. Battelle Translation, 1948, 16 pages. From *Dizelstroenie* (Diesel Manufacture), v. 9, no. 7, 1940, p. 10-17.

Discusses development of above theory and gives factors which tend to refute it. Includes an analysis and refutation of a contempory theory of the process of spontaneous combustion in the vapor surrounding liquid-fuel droplets in diesels.

A36-SLA METALLURGICAL LITERATURE CLASSIFICATION

GUDKOVA.

Inadequacies of the calculation in the canning industry. Miasn. ind.SSSR 30 no.2:34-35 '59. (MIRA 13:4)

1. Orskiy myasokonservnyy kombinat.
(Canning industry--Costs)

Gudkova, A. A.

18(7) PHASE I BOOK EXPLOITATION SOV/3355

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, t. IV (Studies on Heat-resistant Alloys, vol. 4), Moscow, Izd-vo AN SSSR, 1959. 400 p. Errata slip inserted. 2,200 copies printed.

Ed. of Publishing House: V. A. Klimov; Tech. Ed.: A. P. Guseva; Editorial Board: I. P. Bardin, Academician; G. V. Kurdyumov, Academician; N. V. Ageyev, Corresponding Member, USSR Academy of Sciences; I. A. Oding, I. M. Pavlov, and I. F. Zudin, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgists concerned with the structural metallurgy of alloys.

COVERAGE: This is a collection of specialized studies of various problems in the structural metallurgy of heat-resistant alloys. Some are concerned with theoretical principles, some with descriptions of new equipment and methods, others with properties of various materials. Various phenomena occurring under specified conditions are studied and reported on. For details, see Table of Contents. The articles are accompanied by a number of references, both Soviet and non-Soviet.

Studies (Cont.) SOV/3355

Card 6/12

GUDKOVA, A.S.

USSR/Chemical Technology - Chemical Products and Their Application. Pesticides. I-4

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2314

Author : Sazonov, P.V., Bogdarina, A.A., Gudkova, A .S.

Inst : All-Union Institute of Plant Protection

Title : Biological Activity of Aqueous Solutions of DDT and HCCH.

Orig Pub : Tr. Vses. in-ta zashchity rast., 1956, No 7, 128-132

Abstract : A study was made of the solubility in waterof technical DDT and hexachloro-cyclohexane, and of the biological activity of the aqueous solutions of these preparations. Solubility of DDT is less than $1 \cdot 10^{-4}$%; kinetics of solubility of HCCH at 20° (listing solubility in %, duration of stirring in hours): $2.8 \cdot 10^{-5}$, 2; $4 \cdot 10^{-4}$, 4; $7.6 \cdot 10^{-4}$, 6; $9.3 \cdot 10^{-4}$, 8; $1.52 \cdot 10^{-3}$, 12; $2.5 \cdot 10^{-3}$, 24; $3.18 \cdot 10^{-3}$, 36. HCCH at a concentration of

Card 1/2

NESMEYANOV, A.N.; REUTOV, O.A.; GUDKOVA, A.S.

Some reactions of methyl β,β'-dichlorovinyl ketone. Izv. AN SSSR, Otd. khim. nauk no.2:260-264 F '61. (MIRA 14:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Ketone)

CHIKHACHEVA, YU.N., GUDKOVA, A.S.

Organophosphorus insecticides of intra plant action as a means of protecting the young growth of grain crops from pests.

Khimiya i Primeneniye Fosfororganicheskikh Soyedineniy (Chemistry and application of organophosphorus compounds) A. YE. ARBUZOV, Ed. Publ. by Kazan Affil. Acad. Sci. USSR, Moscow 1962, 632 pp.

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of Organophosphorus Compounds.

REUTOV, O.A.; GUDKOVA, A.S.; ALEYNIKOVA, M.Ya.; KHARITONOVA, M.L.

Complexes of azines with copper semihalide. Izv.AN SSSR.Otd. khim.nauk no.3:538-539 Mr '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova i Institut elementoorganicheskikh soyedineniy AN SSSR.
(Copper organic compounds) (Azines)

GUDKOVA, A.S.; REUTOV, O.A.; ALEYNIKOVA, M.Ya.; KHARITONOVA, M.L.

Synthesis of complexes of aldazines and ketazines with copper semihalide. Dokl. AN SSSR 143 no.5:1098-1100 Ap '62. (MIRA 15:4)

1. Moskovskiy gosudarstvenny, universitet im. M.V.Lomonosova.
2. Chlen-korrespondent AN SSSR (for Reutov).
(Azines) (Copper halides)

GUDKOVA, A.S.; REUTOV, O.A.

Interaction of hydrazones and azines with salts. Report No.3: Interaction of hydrazones of aliphatic aldehydes and ketones with cupric salts. Izv.AN SSSR.Otd.khim.nauk no.7:1203-1208 Jl '62. (MIRA 15:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova i Institut elementoorganicheskikh soyedineniy AN SSSR.
(Hydrazones) (Copper salts)

GUDKOVA, A.S.

Some reactions of methyl-β,β-dichlorovinyl ketone. Report No.2: Reactions with sodium phenolate and thiophenolate. Izv.AN SSSR. Otd.khim.nauk no.7:1248-1254 Jl '62. (MIRA 15:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Ketone) (Phenoxides)

GUDKOVA, A.S.; REUTOV, O.A.; ALEYNIKOVA, M.Ya.

Interaction of hydrazones and azines with metal salts. Report No.4: Interaction of aldehyde and ketone azines with bivalent copper salts. Izv.AN SSSR.Otd.khim.nauk no.8:1382-1387 Ag '62. (MIRA 15:8)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova i Institut elementoorganicheskikh soyedineniy AN SSSR.
(Azines) (Copper salts)

GUDKOVA, A.S.; ALEYNIKOVA, M.Ya.; KHARITONOVA, M.L.; REUTOV, O.A.

Complexes of azines and hydrazones with mercury halides. Izv. AN SSSR.Otd.khim.nauk no.8:1496 Ag '62. (MIRA 15:8)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova i Institut elementoorganicheskikh soyedineniy AN SSSR.
(Azines) (Hydrazones) (Mercury halides)

BUYANOVA, N. Ye.; GUDKOVA, G.B.; KARNAUKHOV, A.P.

Determination of the specific area of solids by the argon thermal desorption method. Kin. i kat. 6 no. 6:1085-1091 N-D '65
(MIRA 19:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR. Submitted June 7, 1965.

Dissertation: "Evaluation of the Accuracy of Measurement of the Length of Lines in Underground Surveying Operations." Cand Tech Sci, Moscow Mining Inst Imeni I. V. Stalin, 3 Jun 54. Vechernyaya Moskva, Moscow, 25 May 54.

SO: SUM 284, 26 Nov 1954

GUDKOVA, I. A.

"Study of Accuracy of Linear and Angular Theodolite Measurements". Nauch. tr. Mosk. gorn. in-ta, No. 12, pp 81-91, 1954.

Accuracy of theodolite operations carried out a Near Moscow coal mines are studied. Horizontal angles were measured by TG-1 and TG-3 theodolites and the instruments were adjusted on plumb lines. Analysis of 100 closed polygons resulted in finding the least square error in angular measurements to be $\pm 39.2"$. The use of plumb lines for adjustment was found inadequate, due to air motion. (RZhAstr, No. 1, 1956)

SO: Sum No 884, 9 Apr 1956

GUDKOVA, I.A., kand.tekhn.nauk

Evaluating the accuracy of direct length measurement for underground traverse lines. Nauch. trudy MGI no.18:183-205 '57. (MIRA 11:9)
(Mine surveying)

GUDKOVA, I.A., kand.tekhn.nauk

First graduate geodetic engineers in the Albanian People's Republic. Izv. vys. ucheb. zav.; geod. i aerof. no.5:153 '60.(MIRA 13:12)
(Albania--Surveying--Study and teaching)

GUDKOVA, I.A., kand.tekhn.nauk

Simplest solution for the problem of bordering on a plumb bob alignment by means of a connecting quadrangle. Gor. zhur. no.12: 51 D '60. (MIRA 13:12)

1. Moskovskiy gornyy institut.
(Mine surveying)

KOCHETKOV, N.K.; KHORLIN, A.Ya.; VAS'KOVSKIY, V.Ye.; GUDKOVA, I.P.

Triterpene saponins. Report No.16: Structure of araloside C. Izv. AN Izv. AN SSSR. Ser. khim. no.7:1214-1222 '65. (MIRA 18:7)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

GUDKOVA, K.V.; TAGANOV, K.I.; SHLEPKOVA, Z.I.

New possibilities for the spectral analysis of metals and alloys using a preliminary dosage by contact-spark discharge. Trudy po khim.i khim. tekh. no.1:26-30 '63. (MIRA 17:12)

S/138/62/000/004/007/008
A051/A126

15.9200

AUTHORS: Lukomskaya, A.I.; Gudkova, L.F.; Merezhannyy, S.B.; Orlovskiy, P.N.; Reznikovskiy, M.M.

TITLE: Measurements of the sliding of rubber mixes on metal under various conditions

PERIODICAL: Kauchuk i rezina, no. 4, 1962, 21 - 25

TEXT: The Mooney type shifting viscosimeter with a biconical rotor was used for studying the sliding phenomenon of rubber mixes on metal. The mathematical analysis for calculating the characteristics of sliding, introduced by Mooney, was applied, and the similarity of the two laws: viscose flow and external sliding of rubbers and rubber mixes was taken into account. Thus, methods for measuring the friction of rubber mixes against metal were developed: a) on a biconical shifting viscosimeter, working under stable conditions of a given rotational speed and pressure in the given tested material, using a smooth and a rough rotor; b) on a special device for determining the friction coefficient, working under non-stationary conditions of the given shifting load, sliding rate and rate of application of the normal load. The coincidence of the friction co-

Measurements of the sliding of rubber mixes on ....

efficients of rubber mixes, determined under various testing conditions, is proven. It is shown that rubber mixes can also be characterized by the same elevated temperatures, at which adhering of the former to metal is greater than cohesion. In this case, a cohesion destruction of the tested materials is noted during testing and the results of the friction test correspond qualitatively to data obtained when testing for adhesion and maximum flow in expansion. Obtained experimental data show the possibility for measuring the sliding of rubber mixes along metal under various conditions, and a connection between the condition indices. A mathematical analysis is given. There are 4 figures and 3 tables. The reference to the most recent English-language publication reads as follows: M. Mooney, International Rubber Conference, Washington, November 8 - 13, 1959.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

S/138/62/000/009/001/002
A051/A126

AUTHORS: Gudkova, L.F., Lukomskaya, A.I., Reznikovskiy, M.M.

TITLE: Effect of testing conditions on the extent of elastic recovery of rubber mixtures

PERIODICAL: Kauchuk i rezina, no. 9, 1962, 17 - 21

TEXT: Conditions of deformation have an effect on the extent of elastic recovery of material after deformation. A simple mechanical model of elastic-viscous material, representing springs connected in series, was used to illustrate this effect. The complete deformation of shear γ was found to be:

$$\gamma = \gamma_2 + \gamma_3, \quad (1)$$

where γ_2 is the elastic deformation and γ_3 the viscous deformation. The modulus parameters G (of the spring) and η_3 (Voygt-element viscosity) were found to increase to the same degree with an increase in the filler content. η, the viscosity of the medium, increases more sharply. The shear tension was calculated from formula:

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Effect of testing conditions on the extent of ....

$$\tau = G\gamma_2 + \eta \frac{d\gamma_2}{dt} = \eta_3 \frac{d\gamma_3}{dt}, \qquad (2)$$

where γ_2 and γ_3 are the elastic and viscous deformations, respectively. Under compression and expansion, at a constant volume during deformation, deformation ε and tension σ are determined by a relation similar to (2). The elastic deformation γ_2 is:

$$\gamma_2 = \frac{\eta_3}{G} \times B \left(1 - e^{-\frac{G}{\eta_3 + \eta} t}\right), \qquad (3)$$

under conditions of a given rate of shear deformation $d\gamma/dt = B = \text{const.}$ reached on a shear plastomer, under non-stationary conditions. When using the Williams-type plastomer under a given compressive load F, at standard duration of compression and recovery and at above-mentioned changes of parameters G, η and η_3, the elastic recovery depends little on the filler content. Using Mooney-type shear plastomers at a given rate of deformation, the elastic recovery drops with an increase in the filler content. Computed data on the nature

Card 2/3

Effect of testing conditions on the extent of ....

of elastic recovery changes, according to filler content and depending on the testing conditions, were found to coincide with experimental findings from tests on plastomers of the Williams and Mooney types. The data obtained also show the importance of the selected testing conditions for determining the plasto-elastic properties. There are 3 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

Card 3/3

L 25262-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 WW/RM

ACCESSION NR: AP5002923 S/0138/65/000/001/0033/0036

AUTHOR: Torner, R.V.; Gudkova, L.F.

TITLE: Rotary viscometer RV-2

SOURCE: Kauchuk i rezina, no. 1, 1965, 33-36

TOPIC TAGS: rotary viscometer, viscometer design, viscosity measurement, synthetic rubber, polybutadiene rubber, butadiene styrene rubber, natural rubber

ABSTRACT: A rotary viscometer operating at constant shear rate has been developed to permit evaluation of rheological polymer properties at a selected degree of structural deterioration and steady state flow, independent determination of elastic and relaxation parameters, and higher theoretical accuracy of experimental results. The apparatus, as shown in Fig. 1 of the Enclosure, consists basically of the viscometric unit, dynamometric system with recording device, the pneumatic press, drive, and a liquid thermostat. The casing 2 is movable relative to the rotor in the axial direction, permitting variation of the operating length of the rotor and automatically eliminating errors due to frictional or torsional effects. The measured viscous resistance is shown not to be dependon this variable under experimental conditions. Typical logarithmic time-stress plots are presented for polybutadiene rubber (Taktin 1200), natural rubber, and butadiene-styrene rubber

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L 25262-65

ACCESSION NR: AP5002923

Europren 1500, at 40-120C, and the method for calculating plastic and elastic deformations is described. Relaxation can be measured after disconnecting the drive clutch and operating the brake mechanism at a selected moment of accumulated stress. Orig. art. has: 1 table, 2 formulas and 6 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Tire industry scientific research institute)

SUBMITTED: 00 ENCL: 01 SUB CODE: MT

NO REF SOV: 002 OTHER: 002

Card 2/3

L 25262-65

ACCESSION NR: AP5002923

ENCLOSURE: 01

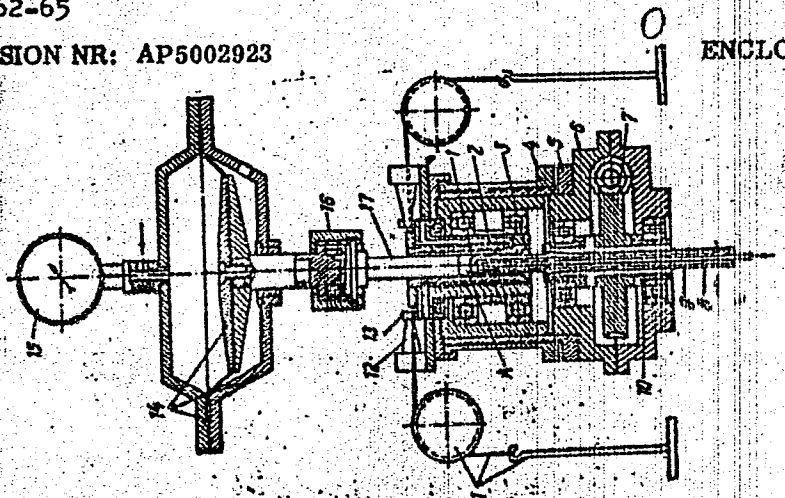

Fig. 1. Basic scheme of the RV-2 viscometer: 1 - cylindrical rotor; 3 - casing; 3 - exchangeable insert; 4 - guide nut; 5 - shell; 6 - casing; 7 - drive gear; 8 - inlet line; 9 - outlet line; 10 - thermoinsulating bushing; 11 - calibrating device; 12 - dynamometer springs; 13 - support; 14 - membrane-pneumatic press; 15 - manometer; 16 - bayonet joint; 17 - piston.

Card 3/3

TOPCHIEV, A.V., kand.tekhn.nauk; GULKOVA, L.P., kand.tekhn.nauk

Theoretical principles of the methods of processing of polymers.
Zhur. VKHO 10 no.2:122-132 '65. (MIRA 18:6)

TORNER, R.V.; GUDKOVA, L.F.

Temperature-time superposition of flow curves as a method for expanding the experimental possibilities in testing the rheological properties of rubber and rubber compounds. Kauch. i rez. 24 no.10:37-39 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

TORNER, R.V.; SUTIN, R.Ya.; GUDKOVA, L.F.

Method of determining the capacity of extruders operating under near isometric conditions. Kauch. i rez. 24 no.11:22-25 '65.
(MIRA 19:1)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i Nauchno-issledovatel'skiy konstruktorsko-tekhnologicheskiy institut shinnoy promyshlennosti, Omsk.

L 3[illegible] EWT(l)/EWP(m)/EWT(m)/EWP(t)/T IJP(c) WW/RM/JWD

ACC NR: AP6024706 SOURCE CODE: UR/0374/66/000/001/0116/0122

AUTHOR: Torner, R. V.; Gudkova, L. F. 73

ORG: Scientific Research Institute of the Tire Industry, Moscow (Nauchno-issledovatel'skiy institut shinnoy promyshlennosti)

TITLE: Volumetric rate of flow in a flat convergent forced stream of incompressible fluid with anomalous viscosity

SOURCE: Mekhanika polimerov, no. 1, 1966, 116-122

TOPIC TAGS: fluid flow, fluid viscosity, incompressible fluid, forced flow, flow rate, rheologic property, rubber

ABSTRACT: The authors consider plane convergent flow of an incompressible fluid with anomalous viscosity whose rheological properties are described by a power law. A reduction in the useful cross section of the stream causes a back pressure which results in a counterflow at the input section in the region of the stream adjacent to a stationary wall. By analogy with plan-parallel flow of a fluid with anomalous viscosity, an equation is derived for calculating the volumetric rate of flow through a unit width of the flat confluent stream. Results of a test on the extrusion of a rubber compound on a natural rubber base with a conical-core extruder were in good agreement with theory. The experimental part of the work was carried out by R. Ya. Sutin. Orig. art. has: 4 figures, 18 formulas, and 1 table. [JPRS: 35,895]

SUB CODE: 20, 11 / SUBM DATE: 24May65 / ORIG REF: 005 / OTH REF: 001

Card 1/1 UDC: 678:41.71.8.532.555

L 53766-65 EWT(m)/EWG(m)/EWP(j) Pc-4 RWH/RM

ACCESSION NR: AP5012829 UR/0360/65/000/001/0094/0096

AUTHOR: Savenko, O. D.; Gudkova, L. P.; Shostak, F. T.

TITLE: Structure of ion-exchange membranes based on a polyvinylchloride film

SOURCE: AN KazSSR. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1965, 94-96

TOPIC TAGS: ion exchange membrane, polyvinylchloride membrane

ABSTRACT: The article reports some preliminary results of a study of the crystallinity of "Ankalit K-5" ion exchange membranes and describes changes in the crystallinity of intermediate products during synthesis. A URS-70 instrument was used for x-ray structural analysis. Debye powder patterns were taken of the initial polyvinylchloride film, of the film after the polymerization of sorbed styrene, and of the sulfonated air-dried cation-exchange membrane in the H^+ form. Contrary to expectations, an increase in crystallinity was observed during impregnation of the initial film with styrene and its subsequent conversion into polystyrene in the presence of benzoyl peroxide. When the polymer is sulfonated in the presence of the catalyst (Ag_2SO_4), its crystallinity increases. The crystallinity of the finished membrane may be due either to the introduction of a sulfo group into the benzene

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L 53766-65

ACCESSION NR: AP5012829

ring, which occupies the ortho or para position, or to the presence of traces of the catalyst. Thus, the structure of the "Ankalit-5" membrane consists of two phases, one amorphous, the other crystalline. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 27Jun64 ENCL: 00 SUB CODE: GC, OC

NO REF SOV: 005 OTHER: 001

BAB

Card 2/2

L 04223-67 EWT(1)/EWT(m) GW

ACC NR: AR6031858 SOURCE CODE: UR/0058/66/000/006/V049/V049

AUTHOR: Gudkova, L. Ya.; Degtyarev, S. F.; Kukhtevich, V. I.; Zolotukhin, V. G.

TITLE: Scattered-neutrons field at the interface of earth and water with air

SOURCE: Ref. zh. Fizika, Abs. 6V405

REF SOURCE: Byul Inform. tsentra po yadern. dannym, vyp. 2, 1965, 346-382

TOPIC TAGS: scattered neutron field, earth air boundary, water air boundary, neutron flux, neutron dose rate, spatial variable, initial neutron energy

ABSTRACT: The basic characteristics of the scattered-neutrons field at the interface of earth and water with air have been investigated by both calculation and experimental methods. The dependence of flux and dose rate on spatial variables and on initial neutron energy was studied. A modification of the Monte-Carlo method, known as the method of the local calculation of the flux, was used for computation, and it was assumed that earth is a mixture of dry sand SiO_2 with a density of 1.7 g/cm^3 and contains 10 wt % water. The case of water was

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ACC NR: AR6031858

investigated separately. In the method of calculation consideration was given to all the known interaction processes between neutrons and the nuclei of the substance in the energy range of 1 ev—10 Mev. The results are presented in numerous graphs and tables. [Translation of abstract]

SUB CODE: 18, 20/

Card 2/2

ROZENFEL'D, L.M.; GUDKOVA, M.K.

Field device for determining thermal characteristics fo frozen soil and the snow cover. Sbor.trud.po agron. fiz. no.5:126-133 '52. (MIRA 11:7)
(Soil temperature--Measurement) (Frozen ground)