S/058/63/000/003/066/104
A059/A101

AUTHORS: Demishev, G. K., Razumovskaya, I. V.

TITLE: The problem of the theoretical strength of solids

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 52, abstract 3E346 ("Steklo. Byul. Gos. n.-i. in-ta stekla", 1962, no. 2 (115), 30 - 36)

TEXT: The term "theoretical strength" is considered which is understood as the maximum quasi-elastic force in the uniform deformation of an ideal solid free from defects in the absence of heat fluctuations. The destruction process in the case considered represents a dissociation and differs from the real destruction process with the formation of new free surfaces of rupture. The binomial formula for the potential energy of a particle, $U(r) = -A/r^m + B/r^n$ is examined which is correct for any type of chemical bond. The quasi-elastic force F, the equilibrium distance r_0 between the particles, and the distance between particles which corresponds to the maximum force are calculated. The elongation of the bond (or the deformation of the homogeneous body) at break,

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The problem of the theoretical strength of solids

$\Delta r/r_o = [n+1/(m+1)] - 1$, is compared (for small deformations) with $FN = E\Delta r/r_o$ where F is the external force allotted to one bond, N the number of bonds per 1 cm^2 of the unstretched body perpendicular to stretch, and E is Young's modulus. The relation $\sigma_{max} = aE_o$ was obtained for the theoretical strength where $a = [1/(n+1)] \cdot [(m+1)/(m-1)]^{(m+1)/(n-m)}$. The coefficient a is independent of the form of uniform deformation and the direction of stretch. For NaCl assuming $m = 1$, $n = 10$, $a = 0.6$, and for metals, $a = 0.15$ was obtained. The concept of the theoretical strength for real composite materials and the ways of taking into account the redistribution of bonds in deformation and the presence of structural defects were considered. Elongation at break depends on the nature of the bonds and can vary between 50 and 10%.

L. Mirkin

[Abstracter's note: Complete translation]

Card 2/2

L 15176-63 EWT(1)/EWP(q)/EWT(m)/BDS/ES(s)-2 AFFTC/ASD/ESD-3/SSD
Pt-4/Pq-4 WH
ACCESSION NR: AR3003334 S/0058/63/000/005/E012/E012

73

SOURCE: RZh. Fizika, Abs. 5E72

AUTHOR: Brekhovskikh, S. M.; Demishev, G. K.; Butovich, L. N.

TITLE: Change of elastic and dielectric properties of glass induced by gamma irradiation

CITED SOURCE: Steklo. Byul. Gos. n.-i. in-ta stekla, no. 3(116), 1962, 14-17

TOPIC TAGS: gamma irradiation, glass, elastic property, dielectric property,

TRANSLATION: When glass is irradiated with gamma rays, an increase is observed in the modulus of longitudinal elasticity E and in the shear modulus μ. This can be attributed to the healing of the defects of the glass structure by the diffusion of the modifier atoms. Annealing has a similar influence on the change in the elastic parameters. The tangent of the angle of the dielectric losses and the dielectric constant also increase during the irradiation process. This is probably connected, like the coloring of the specimens upon irradiation, with ionization processes in the glass. O. Mazurin

DATE ACQ: 17Jun63 SUB CODE: PH ENCL: 00
Card 1/1

DEMISHEV, G.K.; BUTOVICH, I.N.; KOLBASNIKOVA, A.I.; GALDINA, N.M.

Gammagraphic control of internal defects in fused refractories. Ogneupory 27 no.6:288-292 '62. (MIRA 15:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut stekla.
(Gamma rays--Industrial applications)
(Refractory materials--Defects)

ZELENEV, Yu.V.; BARTENEV, G.M.; DEMISHEV, G.K.

Determination of the dynamic characteristics of polymers by the resonance method. Zav.lab. 29 no.7:868-872 '63. (MIRA 16:8)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im. Lenina.
(Polymers—Testing)

DEMISHEV, G. K.

"Concerning heterodynamism of silicate glass."

"Structure of glass and its structural stresses."

reports submitted for 4th All-Union Conf on Structure of Glass, Leningrad, 16-21 Mar 64.

L 20711-65 EPF(c)/EPF(n)-2/EWG(j)/EWP(j)/EWA(h)/EWT(m)/EWP(b)/EWP(e)/EWA(l)
Pc-4/Pq-4/Pr-4/Pu-4/Peb GG/RM/WH

ACCESSION NR: AR3010294 S/0081/63/000/012/0475/0475

SOURCE: RZh. Khimiya, Abs. 12M100

AUTHOR: Brekhovskikh, S. M.; Demishev, G. K.; Bulovich, L. N.

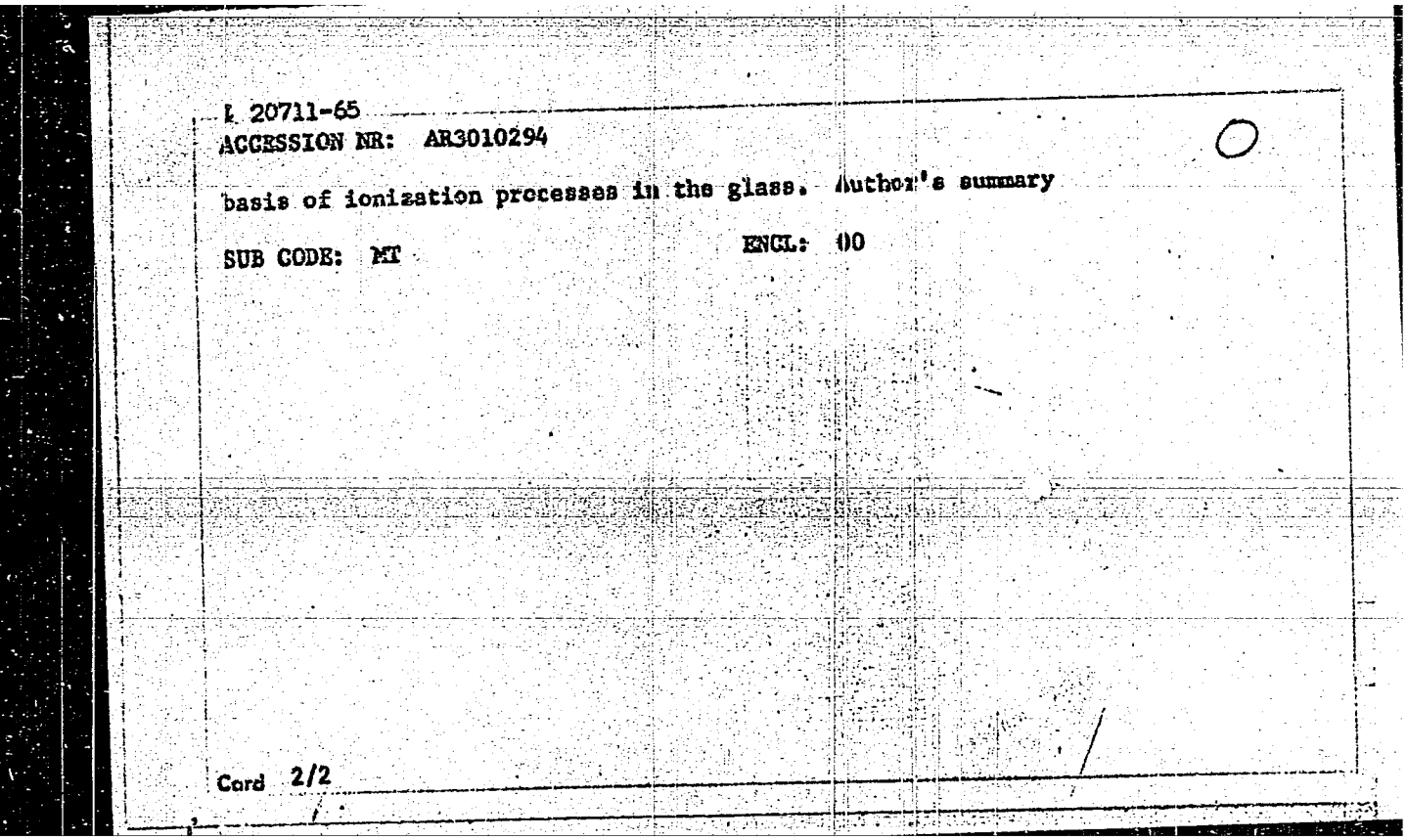
TITLE: Changes in the elastic and dielectric properties of glass under the influence of gamma radiation

CITED SOURCE: Steklo. Byul. Gos. n.-i. in-ta stekla, no. 3 (116), 1962, 14-17

TOPIC TAGS: glass elastic property, glass dielectric property, glass annealing, glass irradiation, Gamma radiation, glass ionization, crystal defect healing

TRANSLATION: Vertically drawn out window glass was irradiated with γ rays and then studied for changes in its elastic and dielectric parameters, which were found to increase with increasing doses of radiation. The curve representing the modulus of longitudinal elasticity reached saturation at a dose of 10^6 r. The authors suggest that this phenomenon is caused by the healing of structural defects due to diffusion of the atoms of the modifier, and by internal rotation around the single bonds. They note the similarity between the effects of γ-radiation and annealing on the elastic parameters of glass. The phenomenon of discoloration and the increase in the dielectric parameters are explained on the

Card 1/2



L 20711-65
ACCESSION NR: AR3010294

basis of ionization processes in the glass. Author's summary

SUB CODE: MT ENCL: 00

Card 2/2

L 60901-65 EWP(e)/EWT(m)/EWP(i)/EWP(b) WH
ACCESSION NR: AR5017397 UR/0081/65/000/010/M013/M013

15
B

SOURCE: Ref. zh. Khimiya, Abs. 10M107

AUTHOR: Demishev, G. K. 44

TITLE: Structural shift-formation in glass upon heating and cooling

CITED SOURCE: Steklo. Inform. materialy Gos. n.-i. in-ta stekla, no. 3, 1964, 25-34

44

TOPIC TAGS: glass, glass processing, glass annealing

15,44

TRANSLATION: Glass is viewed as an uninterrupted continuum consisting of an aggregate of mutually interacting structural complexes; this interaction is accomplished through areas of weakened boundary bonds. Sodium-boronsilicate glass and photoglass were investigated. Samples were tested with a dilatometer and a ultrasonic device; for heating or cooling at a rate of 3-6° per minute the thermal expansion, resonance frequency, and damping decrement were determined. It was established that the process of change of volume upon heating or cooling glass is explained not only by changes in the interatomic distances but also by the shift formation at the boundaries of individual structural groupings; the latter process occurs intermittently

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L 60901-65
ACCESSION NR: AR5017397

from coupling to coupling. The intermittent nature of the process of changing volume facilitates the occurrence of structural stresses which are not subject to fritting. The atoms of the modifier, upon interacting with the atoms of the glass-forming body, form rather large structural groupings; the formation of the latter is accompanied by the breaking of the bonds at the boundary of the interacting complexes. There is a bibliography of seven titles. V. Reznik

SUB CODE: MT ENCL: 00

Card 2/2

DEMICHEV, K. S.

Problem of perennial cereals. Sel i sem. 19 no 6, 1952.

ZHIGACH, K.F.; ADEL', I.B.; MUKHIN, L.K.; DEMISHEV, V.N.; GONCHAROV, N.N.

Oil-base drilling fluids for revealing the productive strata and for drilling under complex conditions. Neft.khoz.34 no.8:9-14 Ag '56. (MLRA 9:10)
(Oil well drilling fluids)

DEMISHEV, V. N. Cand Tech Sci -- (diss) "~~Exploitation~~ Development of ~~prescribing~~ formulae [illegible] and technology of washing solution on a petroleum basis [illegible] for ~~the purpose of~~ drilling under complicated conditions, and the opening of productive horizons." Mos, 1957. 20 pp. (Min of Higher Education USSR. Mos Order of Labor Red Banner Petroleum Inst im Academician I.M. Gubkin.) 110 copies.

(KL, 8-58, 105)

DEMISHEV, V. N.

Zhigach, K. F., L. K. Mukhin, and V. N. Demishev.
"Physico-chemical Basis in the Preparation of Anhydrous Solutions"

Problems of Petroleum Production and Petroleum Engineering, Moscow, Neftyanoy institut, Gostpptekhizdat, 1957, 393pp. (Trudy vyp. 20)
This book is a collection of articles written by professors and faculty members of the Petroleum Inst. im I. M. Gubkin.

Demishev, V. N.

11(4) PHASE I BOOK EXPLOITATION SOV/2124

Mezhvuzovskoye soveshchaniye po voprosam novoy tekhniki v neftyanoy promyshlennosti. Moscow, 1956

Razvedka i razrabotka neftyanykh i gazovykh mestorozhdeniy; materialy soveshchaniya, tom. 1 (Prospecting and Development of Oil and Gas Deposits; Papers of the Inter-Vuz Conference on New Techniques in the Petroleum Industry, Vol 1) Moscow, Gostoptekhizdat, 1958. 311 p. Errata slip inserted. 4,500 copies printed.

Eds.: I. M. Muray'yev, Professor, Doctor of Technical Sciences, and V. N. Dakhnov, Professor, Doctor of Geological and Mineralogical Sciences; Editorial Board: K. F. Zhigach, Professor (Resp. Ed.), I. M. Muray'yev, Professor, V. I. Yegorov, Candidate of Economical Sciences, M. M. Charygin, Professor, F. F. Dunayev, Professor, M. I. Chernozhukov, Professor, G. M. Panchenkov, Professor, V. N. Dakhnov, Professor, Doctor of Geological and Mineralogical Sciences, M. S. Nametkin, Doctor of Chemical Sciences, N. A. Almazov, Docent, V. M. Vinogradov, Candidate of Technical Sciences, V. I. Bityukov, Candidate of Technical Sciences, E. I. Tagiyev, and V. M. Ourevich; Technical Sciences, E. I. Tagiyev; Tech. Ed.: E. A. Mukhina. Executive Ed.: M. F. Dobrynina.

PURPOSE: The book is intended for engineers and scientific personnel working in the petroleum industry and vtuzes. It may also serve as a textbook for advanced students of petroleum vtuzes.

COVERAGE: The book contains articles written by staff members of the Moscow, Groznyy, and Ufa Petroleum Institutes, the Kuybyshev and Azerbaydzhan Industrial Institutes, the UNII (Ufa Scientific Research Institute), VNIIburneft (All-Union Scientific Research Institute of Oil Drilling), KBNP (Design Office of Petroleum Instrument Making), the Bashneft Association (Bashkiriya Petroleum), the Bashneft Association (Bashkiriya Petroleum). These papers, read at the Mezhvuzy (Inter-Vuz) Scientific Conference, deal with new techniques in the petroleum industry introduced since 1956. Emphasis is given to the importance of efficient drilling, geophysical prospecting, working of oil and gas deposits, and the use of new devices employed in oil and gas exploitation. There are 52 references: 44 Soviet, and 8 English.

Zhigach, K. F., L. K. Mukhin, V. N. Demishev, and M. M. Goncharov [Moscow Petroleum Institute]. Petroleum-Base Drilling Fluids 92

The authors state that petroleum-base drilling fluids are being used to open productive horizons to maintain the penetration rate at the bottom-hole zone, and to increase the well output. The use of petroleum-base drilling fluids is particularly efficient for opening formations with high permeability and low pressure, where the absorption of a large amount of mud by the productive formation may prove dangerous. Petroleum-base drilling fluids also prove useful in opening formations with low permeability, particularly where the formation contains swelling clay. Petroleum-base drilling fluids produce good results in drilling under complex geological conditions and in drilling deep and directional wells.

Shigach, K. F., I. K. Mukhin, and V. M. Demidnyk [Moscow Petroleum Institute]. Specification of Petroleum-Base Drilling Fluids 101

The authors describe the formula of petroleum-base drilling fluids developed at the laboratories of the MNI Imeni Gubkina (Moscow Petroleum Institute im. Gubkin) and VNIIburmash (All-Union Scientific Research Institute for Petroleum Drilling), and also cites foreign formulae and methods for controlling parameters during the operation.

Zhigach, K. F. and K. F. Paus. Drilling Mud for Opening up Productive Formations 112

The authors state that drilling mud had been used almost exclusively for many years. The development of new techniques called, however, for the use of drilling fluids that would speed up and allow drilling under difficult geological conditions, deeper penetration without reducing the penetrability at the bottom-hole. Drill practices in eastern regions and experimental surveys established that rocks are better crushed when drilling fluids or gases with low specific gravity and viscosity are used. In eastern fields, water is being substituted for clayey fluids and may soon be replaced in drilling by air and gas.

Zhigach, K. F., and S. Z. Zarbov. Use of Powdery Clay in Drilling 118

The authors report on recent tests made in the production of powdery clay and its application in drilling. They refer specifically to the production of powdery clay from Bashkiriya and Tatariya clay, manufactured at local plants.

Dakhnov, V. N. [Moscow Petroleum Institute]. Geophysical Methods for Studying Reservoir Properties and Oil Saturation of Rocks 125

The author stresses the need for more thorough prospecting of carbonaceous profiles previously neglected. The industrial importance of carbonaceous profiles of Bashkirskaya SSR may be judged by the results of extensive prospecting and geophysical studies of the Devonian horizons undertaken in the last 10 years. They confirmed the presence of oil and gas-bearing horizons in other strata.

Latyshova, M. G. and V. M. Dobrynin. [Moscow Petroleum Institute]. Method of Induced Polarization and Its Importance in the Study of Oil and Gas Wells 130

The authors stress the importance of studying the reservoir properties of productive horizons on the basis of geophysical data, without coring. Of particular interest is the method of induced polarization developed in the past few years by members of the MNI chair in industrial geophysics; it determines the specific surface and permeability of sandy reservoirs. The method of induced polarization, actually proposed long ago, remained purely academic because the phenomena of induced polarization had originally been misinterpreted. The method was later used extensively in modified form in the coal industry, and helped in establishing the presence of coal layers. Systematic studies of this method were initiated in 1948 by the MNI chair of industrial geophysics. Laboratory tests established that induced polarization of rocks may, under specific conditions, reach considerable dimensions. The studies revealed another alternative on the nature of induced polarization of porous rocks. The principal cause of the emission of potentials induced by polarization in porous rocks, when saturated with an electrolyte solution, is the deformation of the dual electrical layer present on the surface of rock grain in the polarized electrical field.

Conclusions:

1. Induced polarization assists in making a fractional breakdown of well cuts and classifies reservoirs of the lowest, medium and highest permeability; it also distinguishes clays of greater and lesser degrees of sandy content.
2. Induced polarization allows an appraisal of the degree of permeability of sandy reservoirs in situations, placing it thereby among the most interesting methods of geophysical studies of oil and gas wells.

DEMISHEV, V. N., ZHIGACH, K. F., REBINDER, P. A., SERB-SERBINA, N. N., AMET, I. B., MUKHIN, L. K., FINKELSHTEYN, N. A. (SECTION II)

"Physico-Chemical and Technological Investigation of Mud Fluids Used for Drilling Wells."

Report submitted at the Fifth World Petroleum Congress, 30 May - 5 June 1959. New York.

DEMISHEV, V.N.; MUKHIN, L.K.

Device for studying flow properties of drilling fluids in static and dynamic conditions. Trudy MINKHiGP no.35:181-186 '61. (MIRA 14:11)

(Oil well drilling fluids)

L 8076-66 EWT(m)/EPF(c)/T/EWP(t)/EWP(b) IJP(c) JD/WE

ACC NR: AP5026461 SOURCE CODE: UR/0204/65/005/005/0741/0746

AUTHOR: Chertkov, Ya. V.; Spirkin, V. G.; Demishev, V. N.

ORG: Moscow Institute for the Petrochemical and Gas Industry im. I. M. Gubkina (Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti)

TITLE: Use of sulfuric acid for extracting organic sulfur compounds from petroleum fractions

SOURCE: Neftekhimiya, v. 5, no. 5, 1965, 741-746

TOPIC TAGS: petroleum, petroleum refining, petroleum product, organic sulfur compound, solvent extraction

ABSTRACT: Optimum laboratory conditions were worked out for the selective extraction of sulfur compound from Arlansk petroleum fractions boiling in the 150-325 C range and containing 1.57 wt.% of sulfur. About 70% of the sulfur compounds were recovered without significantly changing their composition by extracting with aqueous sulfuric acid solutions. A two-stage treatment of the crude with 86% aqueous sulfuric acid at room temperature, atmospheric pressure, and extractant: crude ratio= 1:5 removed half of the initial sulfur compounds. Additional sulfur compounds were extracted with 91% aqueous sulfuric acid, extractant:crude =1:5.

Card 1/2 UDC:665.547.93;546.226-325;542.61

L 8076-66
ACC NR: AP5026461 0

The sulfur compounds and resins were almost completely removed from the extract by dilution, the resins were precipitated and the decanted solution was treated for two hours with fuller's earth. The sulfuric acid was regenerated. The isolated sulfur compounds, containing over 14 wt. % sulfur consisted almost entirely of sulfides. They can be readily vacuum or steam distilled; the distillates are colorless or yellowish transparent liquids. Orig. art. has: 2 tables, 2 figures and 1 equation

SUB CODE:OC,GC/ SUBM DATE: 10Nov64/ ORIG REF: 017/ OTH REF: 006

Card 2/2 PW

L 22697-66 EWT(m)/T DJ/WE
ACC NR: AP6007938 SOURCE CODE: UR/0318/66/000/001/0012/0014

AUTHOR: Chertkov, Ya. B.; Spirkin, V. G.; Demishev, V. N.

ORG: MINKhiGP

TITLE: High grade [jet] fuel fractions from Arlan crude oil

SOURCE: Neftepererabotka i neftekhimiya, no. 1, 1966, 12-14

TOPIC TAGS: jet fuel, desulfurization, solvent extraction/TS-1 jet fuel, T-1 jet fuel, Arlan crude oil

ABSTRACT: Solvent extraction with 86 and 91% aqueous sulfuric acid solutions in 1/5 solvent/feed ratio at 15—20C and atmospheric pressure has been used to produce jet fuel components from the 150—325C sour crude-oil fraction from Arlan fields. It is noted that because Arlan crudes are sour, straight-run fuel fractions from such crudes do not meet GOST specifications as to sulfur level. The 150—325C fraction contained 1.57% total sulfur (traces, 0.0004%, of mercaptan sulfur) and 7.9% of silica-gel-absorbable resins. The idea of the solvent extraction method was to remove sulfur compounds—new raw materials for petrochemical usage—without decomposing them, while preserving the composition of the hydrocarbon portion. Sulfide concentrates containing 9.3—13.4% total sulfur were produced. After removal of sulfides the solvent was fully regenerated. From the desulfurized raffinate, straight atmospheric distillation followed by alkaline and water washes produced fractions which exceeded most require-

Card 1/2 UDC: 665.63—4.(470.52)

L 22697-66
ACC NR: AP6007938

ments of GOST 10227-62 specifications for TS-1 and T-1 fuels. Their viscosity characteristic was very favorable, which should ensure satisfactory atomization and good flow and antiwear properties. Anticarbon-forming and combustion properties were also expected to be good. Only the freezing point was unsatisfactory (minus 50C for the 150—260C fraction and minus 40C for the 150—280C fraction) so that the distillates are not suitable as commercial fuels but only as components of such. Their availability, however, increases potential reserves of motor and jet fuels in the USSR. Orig. art. has: 1 table. [SM]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 004/ ATD PRESS: 4216

Card 2/2

L 45887-66 EWT(m)/EWP(j)/T WE/RM

ACC NR: AP6023962 (A) SOURCE CODE: UR/0204/66/006/002/0309/0311

AUTHOR: Chertkov, Ya. B.; Spirkin, V. G.; Damishev, V. N.

ORG: Moscow Institute of Petrochemical and Gas Industry im. Gubkin (Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti)

TITLE: Characteristics of stable sulfur compounds of middle fractions of Arlan petroleum

SOURCE: Neftekhimiya, v. 6, no. 2, 1966, 309-311

TOPIC TAGS: organic sulfur compound, aromatic hydrocarbon, petroleum product

ABSTRACT: It had been shown earlier that when thiophene, its homologs, and benzothiophene derivatives, all belonging to the group of "residual" or "undeterminable" sulfur compounds (as opposed to mercaptans, sulfides, and disulfides), are introduced into jet fuels, the properties of the latter are not lowered. In the present study, sulfides were completely removed from the 150-325° fraction of high-sulfur Arlan petroleum by selective extraction with 86-91% sulfuric acid, and the sulfur content of the fraction thus dropped from 1.57 to 0.5 wt. %. After the removal of sulfides, the fraction displayed a high thermal-oxidative stability. The residual sulfur compounds present in the fraction were then extracted with 92 and 93% sulfuric acid. These compounds, containing about 30% of the total sulfur originally present in the fraction, had no negative effect on the thermal stability or corrosion activity of hydrocarbon

UDC: 665.547.93(470.52)

Card 1/2

L 45887-66

ACC NR: AP6023962

fuels on heating to 150°. One-half of the residual sulfur compounds became sulfonated and were extracted with 92-93% H_2SO_4; the remaining ones did not undergo sulfonation. The sulfonated sulfur compounds were regenerated by hydrolytic cleavage. The ultimate composition of the compounds obtained consisted of a mixture of alkyl- and cycloalkyl aromatic derivatives of thiophene, in particular, benzothiophenes, with a small admixture of thiophene homologs. Orig. art. has: 1 figure and 1 table.

SUB CODE: 07,11/ SUBM DATE: 06Jul65/ ORIG REF: 005

Card 2/2 LC

L 31116-66 EWT(d)/EWT(1) GW/BC

ACC NR: AP6007687 (A) SOURCE CODE: UR/0413/66/000/003/0067/0068

AUTHORS: Demushkin, A. I.; Bol'shakov, V. D.; Klyushin, Ye. B.

ORG: none

TITLE: Electronic-optical method for determining distances. Class 42, No. 178507 [announced by Moscow Engineering Institute of Geodesy, Aerial Photography, and Cartography (Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii)]

SOURCE: Izobreteniya promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 67-68

TOPIC TAGS: distance measurement, optic method, photoelectric method, light source

ABSTRACT: This Author Certificate presents an electronic-optical method for determining distances by measuring the modulation frequency of a light source producing a light beam traversing the measured distance. To utilize high-power light sources amenable to continuous modulation, the modulating voltage is obtained from a photoelectronic converter sensing the light beam coming from the distance.

SUB CODE: 08, 20/ SUBM DATE: 10Mar64

Card 1/1 UDC: 528.517

USSR/Zooparasitology - Parasitical Worms. General Problems. G-3

Abs Jour : Ref Zhur - Biol., No 16, 1958, 72296

Author : Demishko, P.M.

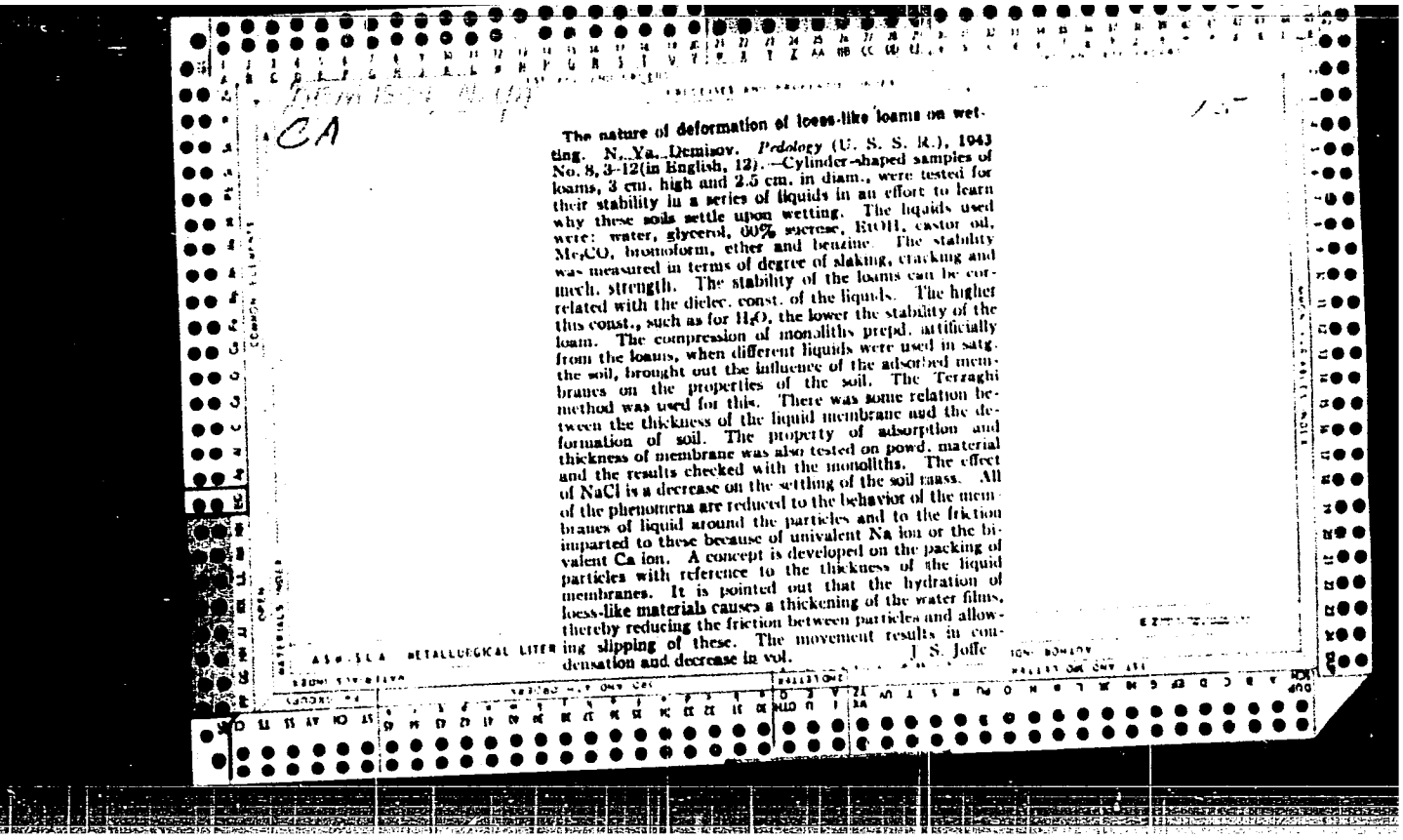
Inst : Kiev Veterinary Institute.

Orig Pub : On the Resistance of Intestinal Trichinellas to the Influence on Them of Positive and Negatives Temperatures.

Orig Pub : Tr. Kiyevsk. vet. in-t, 1957, 13, 135-138.

Abstract : Proceeding from the proposition previously proved by the author as to the possibility of the infection of animals with intestinal trichinellas (IT), the survival rate was studied of IT in the infested intestines at temperatures from 2 to 18° and from 0 to -4° during 1-15 days. The resistance of IT is not great: in 30 rats there only 2, IT at positive temperatures, 1 in 12 at 0°; IT at -4° could not survive.

Card 1/1



CA

The nature of deformation of loess-like loams on wetting. N. Ya. Demisov. *Pedology* (U. S. S. R.), 1943 No. 8, 3-12(in English, 12).—Cylinder-shaped samples of loams, 3 cm. high and 2.5 cm. in diam., were tested for their stability in a series of liquids in an effort to learn why these soils settle upon wetting. The liquids used were: water, glycerol, 60% sucrose, EtOH, castor oil, Me_2CO, bromoform, ether and benzine. The stability was measured in terms of degree of slaking, cracking and mech. strength. The stability of the loams can be correlated with the dielec. const. of the liquids. The higher this const., such as for H_2O, the lower the stability of the loam. The compression of monoliths prepd. artificially from the loams, when different liquids were used in satg. the soil, brought out the influence of the adsorbed membranes on the properties of the soil. The Terzaghi method was used for this. There was some relation between the thickness of the liquid membrane and the deformation of soil. The property of adsorption and thickness of membrane was also tested on powd. material and the results checked with the monoliths. The effect of NaCl is a decrease on the settling of the soil mass. All of the phenomena are reduced to the behavior of the membranes of liquid around the particles and to the friction imparted to these because of univalent Na ion or the bivalent Ca ion. A concept is developed on the packing of particles with reference to the thickness of the liquid membranes. It is pointed out that the hydration of loess-like materials causes a thickening of the water films, thereby reducing the friction between particles and allowing slipping of these. The movement results in condensation and decrease in vol. J. S. Joffe

DEMITEYEV, A.A.

Starting from a nut. Izobr. i rats. no.8:7 Ag '61. (MIRA 14:9)

1. Nachal'nik upravleniya Goskomiteta po avtomatizatsii i mashinostroyeniyu pri Sovete Ministrov SSSR.
(Technological innovations)

Demitrescu, A. ; Fruchter, S. ; Bolgiu, O.

Notes on serpentines in the Southern Banat and the possibilities of their utilization. p. 391.

Academia Republicii Populare Romine. STUDII SI CERCETARI DE METALURGUE. Bucuresti, Rumania. Vol. 4, No. 3, 1959.

Monthly List of East European Accessions (EEAL) LC Vol. 9, No. 2, January 1960

Uncl.

DEMITRESCU, Catalina

(32)

(158)

Bucharest, Farmacia, Vol X, No 3, Mar 1962

1. "Problems of Pharmacy at the Fifth International Congress of Biochemistry, Moscow 10-16 August 1961," Farm D. SRDELEANU, Department of Biochemistry (Catedra de Biochimie), Medico-Pharmaceutical Institute (I.M.F.), Cluj; pp 129-138.

2. "Contributions to the Manufacturing and Valuation of Chamazulen in Our Country," Farm Dr G. SPECH, Laboratory and Distillery of Plants of the NIVEA Factory (Laboratorul si Distileria de Plante a Fabricii NIVEA), Brasov; pp 139-148.

3. "New Ointment Bases for Magistral and Standard Preparations," Prof C. IOPESCU, Farm V. STANESCU, Farm Marieta [illegible], Farm Dumitra [illegible], Farm Raisa [illegible], Farm Letitia LORENT, Farm Nadejda PISLARASU and Farm Cornelia FICA, Laboratory of Gallenic Pharmacy (Laboratorul de Farmacie Galenica) of the Department of Pharmacy (al Facultatii de Farmacie), Bucharest; pp 149-157.

4. "Chromatographic Study of the Alkaloids of [illegible] Aconitum Species in the Rumanian People's Republic," Farm Engr O. CONTZ, Farm Marcela GHEORGHIU and Dr Al. IONESCU, Institute for the State Control of Drugs and Pharmaceutical Investigations (Institutul pentru Controlul de Stat al Medicamentului si Cercetari Farmaceutice); English summary; pp 159-167.

5. "On the Antituberculous Activity of Certain New Hydrazid Substitutes of the α-Benzoylaminocinnamic Series (Note II)," Prof A. [illegible], Conf P. GHEORGHIU, Dr Viorica BRATU, Dr V. STROESCU, Dr Em. MANOLESCU, Prof M. VANGHELOVICI, Chemist Catalina DEMITRESCU, Dr P. [illegible], Dr A. ROTA and Chemist Ritta SCHWARTZ. Work performed at the Laboratory of Pharmacology (Laboratorul de Farmacologie) of the Medico-Pharmaceutic Institute (al Institutului Medico-Farmaceutic), Bucharest; pp 169-174.

6. "Electrophoregram Determinator (DDEP)," Colonel Farm Dr C. APREOTESEI, Central Military Hospital (Spitalul Militar Central); pp 175-176.

7. "New Data Concerning the Organization of the Botanical Gardens in Bucharest," C. BERCUS and V. [illegible]; pp 177-184.

— 1/1 —

DENJEN, GY.

Denjen, Gy.
"The Scientific Society [illegible] instrument of social criticism." p. 33.
(Magyar Textiltechnika. No. 2, Feb. 1953, Budapest.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Uncl.

DEMJEN, GY.

DEMJEN, GY. Our main task is to raise the technical level of the textile industry. p. 321

No. 9, Sept. 1955.
MAGYAR TEXTILTECHNIKA.
TECHNOLOGY
Budapest,

So: East European Accession, Vol. 5, No. 5, May 1956

DEMJEN, I. 1948

(Res. Labs. Chinoin Chem. & Pharmaceut. Works Ltd. Ujpest, Hungary.)

"Investigations Relating to the Synthesis of Patulin."

Jour. of the Chemical Society 1948 (Sept.) pp. 1295-1299
Abst: Exc. Med. 11, Vol. 11, No. 10. p. 1360

DEMJEN, Istvan, dr.

Free skin transplantation in treatment of fresh skin defects due to injuries or surgery. Magy. sebeszet 7 no.5:321-330 Oct 54.

1. A Bratislavai Plasztikai Sebeszeti Klinika kozlemenye.
Igazgato: demjen, Istvan dr.
(SKIN TRANSPLANTATION
free skin grafts)

BOCZKO, Miklos, dr.; DEMJEN, Jozsef, dr.

Catamnestic studies on syphilis in Szabolcs-Szatmar county. Borgyogy. vener. szemle 33 no.1:28-37 Feb 57.

1. A Szabolcs-Szatmar megyei Bor-, Nemibeteggondozo Intezet (vezeto orvos: Demjen, Jozsef, dr.) es a nagykalloi megyei Elme es Ideggyogyintezet (igazgato: Bencze, Jozsef, dr.) kozlemenye.
(SYPHILLIS, statist.
catamnestic data (Hun))

DEMJEN, Jozsef; FIRTKO, Janos

Flow of the conductor liquid in the homogeneous external magnetic field among coaxial cylinders. Magy fiz folyoir 12 no.3:255-259 '64.

1. Chair of Physics, Technical University of Heavy Industry, Miskolc.

DEMJEN S.

Ulohy plastickeho chirurga. [Tasks of plastic surgeon] Sloven lekar 12:7 July 50 p. 377-9.

1. Of the Plastic Surgery Department of the Surgical Clinic of Slovak University.
CLML Vol. 20, No. 2 Feb 1951

DEMJEN, S.

Scars and keloids. Bratisl. lek. listy 30:Suppl. 5:3-29 1950.
(CIML 20:1)

1. Surgical Clinic of Prof. Carski in Bratislava. 2. Clinic of Plastic Surgery of Prof. Burian in Prague.

DEMJEN, S.

Treatment of burns. Sloven. lekar. 13 no. 9:384-390 Sept 1951.
(CLML 23:3)

1. Of the Department for Plastic Surgery of the Second Surgical Clinic of Slovak University in Bratislava.

DEMJEN, S.

Treatment of cutaneous damages by free skin transplantation. Lek. Obzor 2 no.2:101-106 1953. (CLML 24:5)

DEMJEN, S., doc. MUDr

Treatment of fresh defects of the skin by free skin transplantation. Rozhl.chir. 33 no.1:11-17 Jan 54.

1. Z kliniky plastickej chirurgie v Bratislave prednosta Doc. MUDr S.Demjen. Predneseno zkracene na pracovni schuzi chir. sekce lekar. spolecnosti J.E.Purkyne dne 8.listopadu 1952.

(SKIN TRANSPLANTATION, in various diseases, fresh skin inj.)
(WOUNDS AND INJURIES, skin, skin transpl. in fresh inj.)
(SKIN, wounds and injuries, surg., skin transpl. in fresh inj.)

DEMJEN, S.

Rhinoplastika. Acta chir. orthop. traum. cech. 25 no.5:363-368 Sept 58.

1. Klinika plastickej chirurgie Komenskeho univerzity v Bratislave, prednosta doc. dr. Stefan Demjen.
(NOSE, surg.
plastic (Cz))

KLAUBER, Ernest; DEMJEN, Stefan; SIRACKY, Jan

Plastic surgical therapy of cutaneous lesions following radiotherapy of vulvar carcinoma. Neoplasma, Bratisl. 6 no.1:21-26 1959.

1. Onkologisches Forschungsinstitut, Bratislava, Klinik fur Plastische Chirurgie der Medizinischen Fakultat der Komensky Universitat, Bratislava. Dr. E. Klauber und Mitarb., Bratislava, ul. Cs. armady 17.
(VULVA, neoplasms,
radiother., plastic repair of perivulvar radiation inj. (Ger))
(RADIOTHERAPY, in var. dis.
cancer of vulva, plastic repair of perivulvar radiation inj. (Ger))

DEMJEN, S.; SIMUN, L.; DOLEZAL, B.

Sabattini's operation. Rozhl. chir. 38 no.4:275-280 Apr 59.

1. Z Kliniky plastickej a rekonstrukcnej chirurgie LFUK v Bratislave, prednosta doc. dr. Stefan Demjen. Adresa autorov: Bratislava, Partizanska ul. 1.

(LIPS, surg.
plastic, Sabattin's technic (Cz))

DEMJEN, S.

The surgical treatment of granulating wounds following deep burns, using thick-split skin grafts. Acta chir. plast. 3 no.2:126-130 '61.

1. Clinic of Plastic Surgery, Comenius University, Bratislava (Czechoslovakia) Director: Doc. S. Demjen, M.D.

(SKIN TRANSPLANTATION) (BURNS surgery)

DEMJEN, S.

Flap operations for unilateral hare-lip. Acta chir. plast. 5 no.1: 23-34 '63.

1. Clinic of Plastic Surgery, Medical Faculty, Comenius University, Bratislava (Czechoslovakia) Director: Doc. S. Demjen, M.D.
(HARELIP) (SURGERY OPERATIVE)

DEMJEN, S.; MARCINKOVA, V.

Klippel-Feil syndrome and cleft palate. Acta chir. plast. (Prah
7 no.4:297-302 '65.

1. Department of Plastic Surgery, Medical Faculty, Comenius University, Bratislava, Czechoslovakia (Director: Prof. Stefan Demj
M.D.).

KOVACS, Miklos, dr.,; DEMJEN, Vilmos, dr.

Giant echinococcal cyst of the lung simulating a tumor.
Tuberk. kerdesei 7 no.6:38-39 Dec 54.

1. A Budapesti Orvostudomanyi Egyetem Tudegyogyaszati klinikajanak (igazgato: Kovats Ferenc dr. egyetemi tanar) kozlemenye.
(LUNGS, diseases
echinococcosis, giant cyst simulating tumor (Hun))
(ECHINOCOCCOSIS,
lungs, giant cyst simulating tumor (Hun))

Demjen, Z.

1471. Borenkey, A. D., Csuper, I., Dempkay, T., Demjen, Z., and Juhasz, I.: The electronic, controlling and automatic error-detecting system of an isothermal crystallurgical device (in Hungarian), Mérés és Automatika 4, 10, 304-310, Oct. 1936.

Authors deal with the electronic circuits and their function in the automatic isothermal crystallurgical apparatus constructed by them. They explain the principles of the automatic observation of the disturbances of the apparatus and describe the devices already realized, automatically eliminating some often-occurring defects.

From authors' summary

Demjen, Z.

✓ Geiger-Müller counters with cathodes consisting of tin dioxide and silicon dioxide. E. Juhász and Z. Demjén (Polytech. Univ., Budapest, Hung.). *Periodica Polytech.* 2, 265–8(1958)(in German).—SnO_2–SiO_2 cathodes are not attacked by halogens and are, therefore, especially suitable for counters contg. halogen as extinction gas. A series of counters contg. Br was produced and tested. The plateau length does not vary with the Br concn., the plateau steepness having a min. The relative sensitivity increases strongly with decreasing Br concn. Counters with a suitable Br concn. are highly sufficient for chem. purposes.
Kurt Mann

DEMJEN, Z.; JUHASZ, E.

Chemical problems of the structure of halogen-filled Geiger-Muller counters for chemical measurements. In German. p. 269.

PERIODICA POLYTECHNICA. CHEMICAL ENGINEERING. (Budapesti Muszaki Egyetem.) Budapest, Hungary. Vol. 2, no. 4, 1958.

Monthly list of East European Accessions (EEAI) LC, vol. 8, no. 7 July 1959.

Uncl.

NAGY, L.Gy. (Budapest, XI., Budafoki ut 8); BODNAR, J. (Budapest, XI., Budafoki ut 8); [illegible]JEN, Z. (Budapest, XI., Budafoki ut 8); SANDOR, J. (Budapest, XI., Budafoki ut 8); SZEKRENYESY, T. (Budapest, XI., Budafoki ut 8)

Neutron activation investigation of impurities of high purity gallium. Periodica polytechn chem 7 no.2:147-167 '63.

1. Department for Physical Chemistry, Polytechnical University, Budapest.

Radiobiology

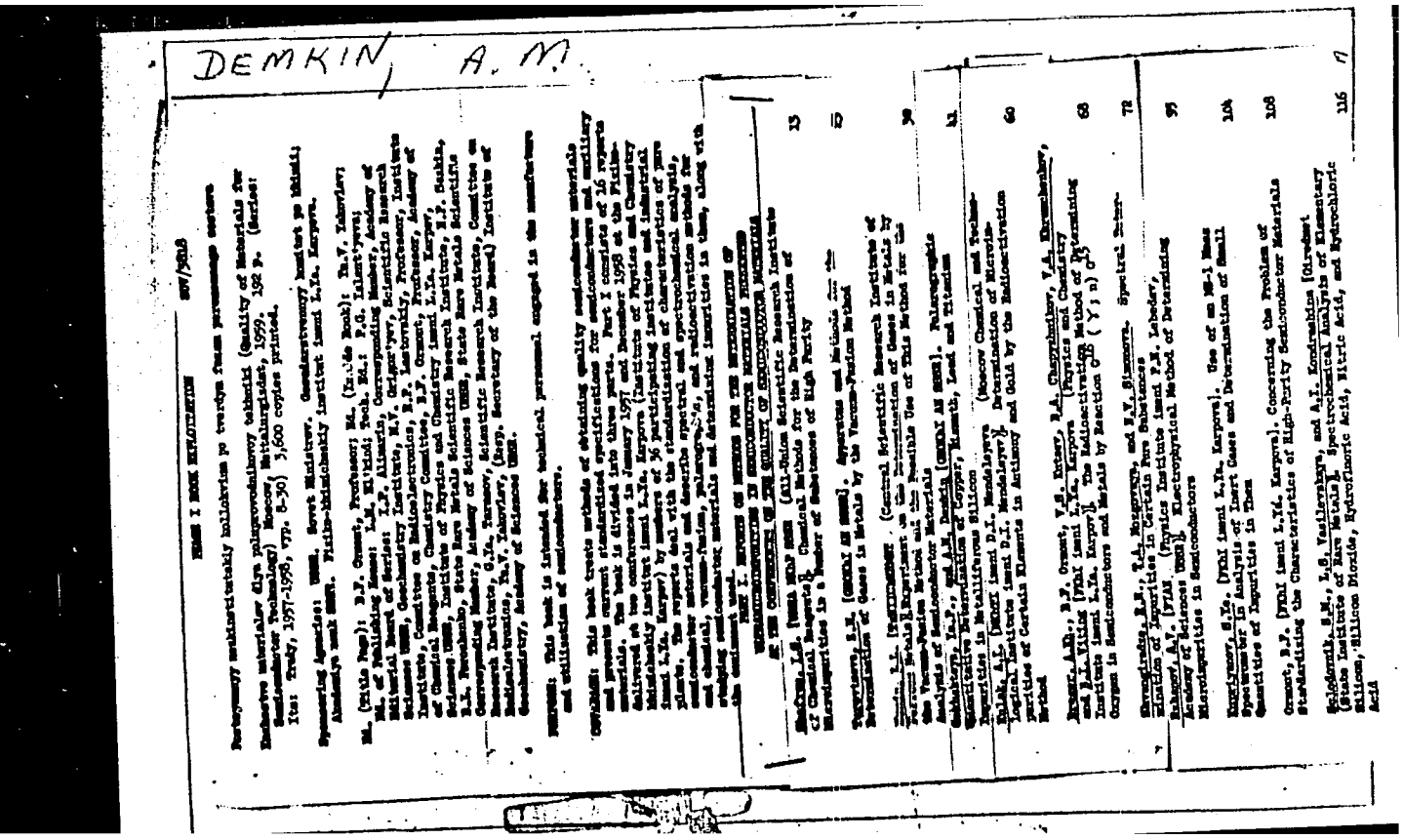
HUNGARY

DEMJEN, Zoltan Geza, Dr., of the Department for Physical Chemistry at the Polytechnical University [original-language version not given] in Budapest.

"Dependence of Dead Times in Geiger-Mueller Tubes upon Bromine Concentration"

Budapest, Periodica Polytechnica, Chemical Engineering, Vol 10, No 2, 1966, pp 217-227.

Abstract: [English article] The dead-times of halogen-quenched Geiger-Mueller tubes were examined. The manufacture of the tubes prepared for testing, and the method of measurement was described. The dead times obtained were presented as a function of bromine concentration. It was found that the dead-time of the Geiger-Mueller tube decreases with increasing bromine content. This phenomenon has been interpreted in terms of theoretical considerations. It was recommended that halogen-quenched Geiger-Mueller tubes be used at voltages 40-50 V above the starting voltage and at bromime tensions of 1-3 mm. mercury pressure in order to obtain minimum dead time values. 4 references to Western publications. (Manuscript received 24 Jan 1966).
1/1



DEMKIN, A. M.

5(2) SOV/32-25-9-6/53

AUTHORS: Gokhshteyn, Ya. P., Genkina, L. A., Demkin, A. M.

TITLE: Determination of Niobium in Tantalum Niobium Alloys According to the Method of Oscillographic Polarography

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 9, pp 1042-1046 (USSR)

ABSTRACT: No distinct waves for niobium (I) in sulphuric medium on the curves "current - potential" can be obtained with the photo-recording polarograph according to Heyrovsky'. For this reason an oscillographic polarograph GEOKhI (Ref 7) was used for quantitative (I)-determinations in the presence of larger quantities of tantalum (II) and impurities of iron and titanium. The potentials of the peak φ_p and half peak $\varphi_{p/2}$ are given with respect to the saturated calomel electrode. The potential difference between a $\varphi_{cathode}$ and a $\varphi_{auxiliary\ cathode}$ was measured by means of an electron scheme, specially constructed for the measurement of the equilibrium electromotive force. The experiments were carried out with different sulphuric acid concentrations (23n, 15n, 10n, and 5n H_2SO_4), and

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Determination of Niobium in Tantalum Niobium Alloys According to the Method of Oscillographic Polarography

the oscillograms obtained were plotted (Figs 1-3). (I)-Solution was not used for the analysis since it is unstable in 5n H_2SO_4. Preliminary experiments showed that dissolved oxygen does not disturb the (I)-determination. Results of experiments on the dependence of the maximum current for (I) on the (I)-concentration (Table 1) show that with low (I)-concentration the current appears approximately as a linear function of the (I)-concentration. With higher (I)-concentrations a deviation from this proportionality can be observed in 15n and 10n H_2SO_4, which may, however, be weakened by a shorter waiting time. The influence of (II) upon the maximum current of (I) in the electrolysis of Nb^{5+}-solutions was investigated. It was found that only a slight influence is exerted upon the first cathode wave of (I) as well as upon anode polarization, as may be seen from data on the dependence of maximum current for (I) on the (I)-concentration with an excess of (II) (20 : 1 = Ta : Nb) (Table 2). It was also ascertained that a 50fold excess of

Determination of Niobium in Tantalum Niobium Alloys According to the Method of Oscillographic Polarography

titanium, as well as impurities of iron, exert no influence upon the (I)-current in H_2SO_4-solutions. A course of analysis is given, where in 23n H_2SO_4 the computation takes place from the first cathode wave, or the anode wave, and in 15n and 10n H_2SO_4 from the anode wave of (I). Mechanical mixtures of (I) and (II) as well as alloys were investigated according to the method described, along with 3 other methods. The results were compared (Table 3). There are 2 figures, 3 tables, and 9 references, 7 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii Akademii nauk SSSR i Moskovskiy elektrolampovyy zavod (Institute of Geochemistry and Analytical Chemistry of the Academy of Sciences, USSR, and Moscow Electric Bulb Factory)

S/076/60/034/010/014/022
B015/B064

AUTHORS: Gokhshteyn, Ya. P., Genkina, L. A., and Demkin, A. M.

TITLE: Kinetics of Cathode and Anode Polarization for Solutions of Niobium in Various Media

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 10, pp. 2308-2314

TEXT: The mechanism of niobium reduction and the oxidation of its electrolysis products on a dropping mercury electrode was studied in sulfuric acid (5, 10, 15, and 23 N) and in a weakly acid medium to which Trilon B (pH = 3-3.2) or citric acid (pH = 1) were added as complex formers. The investigations were carried out by means of an oscillographic polarograph which had been supplied by the institute mentioned under "Association". Figs. 1-8 give the anode and cathode waves obtained. Data on the effect of the rate of potential change upon the maximum current I of niobium indicate that the reduction of Nb (V) on the electrode proceeds irreversibly. In the 23 N H_2SO_4 solution, niobium is stepwise reduced,

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and the oscillogram shows two waves. The anode and cathode currents of niobium are directly proportional to the niobium concentration. A comparison between two cathode waves of niobium shows that the reduction proceeds in the following two stages: $Nb(V) \longrightarrow Nb(IV) \longrightarrow Nb(III)$. The velocity constants of the direct electrodic process and the reversible process, as well as the free activation energies of niobium were calculated from Matsuda's equation (Ref. 6) for the first stage of reduction Nb(V) in 23 N H_2SO_4. From the oscillograms it may be seen that the H_2SO_4 concentration exerts a noticeable influence upon the reduction of Nb(V). In 23 N H_2SO_4, niobium obviously forms a complex ion with sulfuric acid. From the values on the influence of the rate of potential change upon the peak potential and the I-value in the 0.1 M Trilon B solution it may be seen that the complex ion of Nb(V) in Trilon B is irreversibly reduced on the dropping mercury electrode. The oscillograms of anode polarization obtained in citric acid solutions show a peak at φ_P = -0.981 v and a half peak at $\varphi_{P/2}$ = -1.098 v with I = 5.04 μa, which means that the anodic process is reversible. Since for the cathode wave φ_P = - 1.041 v and is,

therefore, by 0.060 v more negative than φ_p of the anodic process, the authors assume that Nb(V) is quasi-reversibly reduced in citric acid. The reduction kinetics of Nb in the citrate medium will be discussed in detail in the next paper. [Abstracter's note: The constants and activation energies are not listed since the Table contains printing errors.] There are 8 figures, 3 tables, and 10 references: 6 Soviet, 2 British, 1 German, and 1 US.

ASSOCIATION: Akademiya nauk SSSR Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences of the USSR). Moskovskiy elektrolampovyy zavod (Moscow Plant for Electric Lamps)

SUBMITTED: January 31, 1959

00043-66 EWT(m)/EWP(b)/EWP(t) IJP(c) JD UR/0075/65/020/008/0864/0867
ACCESSION NR: AP5023715 543.253

43
40
B

AUTHOR: Demkin, A. M.; Gokhshteyn, Ya. P. 44,55

TITLE: Use of an instrument with automatic reproduction and removal of stationary mercury 27,44,55

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 8, 1965, 864-867

TOPIC TAGS: germanium, gallium, cadmium, lead, copper, indium, trace analysis, polarographic analysis 27 27 27 27

ABSTRACT: The paper reports the results obtained in amalgam polarography with an EYa-1 cell (including a needle valve) in which the formation of the new mercury drop and removal of the preceding one is accomplished automatically on command from an oscillographic polarograph. The two instruments were used to determine microimpurities in metals of high purity. Differential anodic oscillograms of 1×10^{-5} M solutions of cadmium and lead in 1 N HCl and of cadmium and indium in 1 N HCl (Cd:In = 5:1) after accumulation showed an excellent reproducibility and a linear dependence of the current on the indium concentration. Copper (6.5×10^{-6}%), lead (1.4×10^{-5}%) and indium (2×10^{-6}%) were thus determined in gallium.

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L 00043-66

ACCESSION NR: AP5023715

Lead (4×10^{-6}%) and copper (3×10^{-6}%) were determined in germanium. Orig. art. has: 4 figures.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. L. Vernadskogo AN SSSR, Moscow (Institute of Geochemistry and Analytical Chemistry, AN SSSR)

SUBMITTED: 25Apr63 ENCL: 00 SUB CODE: GC 44,55

NO REF SOV: 002 OTHER: 006

Card 2/2

DEMKIN, A.M.; GOKHSHTEYN, Ya.P.

Use of an apparatus with the automatic reproduction and removal of stationary mercury microelectrodes for the determination of ultrasmall amounts of substances. Zhur. anal. khim. 20 no.8:864-867 '65. (MIRA 18:10)

1. Institut geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo AN SSSR, Moskva.

DEMKIN, A.N., gornyy inzh.-elektromekhanik

Experience of using blocking systems in the cab of electric locomotive. Ugol' 36 no.6:38-39 Je '61. (MIRA 14:7)

1. Kombinat Kizelugol'.
(Electric locomotives)

L 17192-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG
ACCESSION NR: AR3004188 S/0081/63/000/009/0153/0153

SOURCE: RZh. Khimiya, Abs. 9G97

57

AUTHOR: Golikshteyn, Ya. P.; Genkina, L. A.; Denkin, A. M.

TITLE: Determination of niobium in tantalum-niobium alloys using oscillographic polarography

21 21

CITED SOURCE: Teoriya i praktika polyarogr. analiza, Kishinev, Shtiintsa, 1962, 34-39

TOPIC TAGS: niobium, niobium-tantalum alloy, tantalum, oscillographic polarography, cathode wave, titanium, iron, quantitative analysis

TRANSLATION: An oscillographic method was developed for determining Nb in Ta-Nb alloys against a background of 23 N H_2SO_4. Against this background, Nb forms two waves at -0.579 (with respect to saturated calomel electrode) and -0.770 V ($E_{1/2}$ -0.470 and -0.712 V, respectively), due to the irreversible reduction Nb (+5) → Nb (+4) and Nb (+4) → Nb (+3). In the case of anode polarization, one 2-electron wave was detected at -0.384 V ($E_{1/2}$ -0.429 V). The reduction current

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L 17192-63
ACCESSION NR: AR3004183

for Nb is proportional to its concentration in the range 5-800 γ/ml. The current of the first cathode wave is proportional to Nb concentration in the presence of a 20-fold excess of Ta; the second wave is distorted in the presence of a 10-fold excess of Ta. A 40-fold excess of Ti and Fe does not interfere with the determination of Nb. To determine Nb, 0.1 gram of the alloy is dissolved in a mixture of HF + H_2SO_4 with heating in an air muffle; an acidity of 23 N with respect to H_2SO_4 is created, and the mixture is polarographed. The relative error of the method is ~5% at an Nb content up to 30%; absolute error ~2% at a Nb content up to 80%. Duration of analysis ~one hour. G. Prokhorova.

DATE ACQ: 19Jun63 SUB CODE: CH ENCL: 00

Card 2/2

DEMKIN, A. P.; PRIMACHENKO, M. A.

Hemp

Hemp growers of the Novgorod-Seversk Region., Sov. agron., 10, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952 xxxx, Uncl.

DEMIN, A. P.

5.5 centners of timothy seed per hectare in summer sowing. Sov. agron. 10 No 6, 1952.

DERKIH, A., [illegible], S.

High yields of hemp. Kolkh, proizv. 12, No 7, 1952.

1. DEMKIN, AP.; ASTAKHOVA, A. V.

2. USSR (600)

4. Hemp

7. Organize hemp seed culture along ne lines. Sel. i sem. 19 no. 12 1952.

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

M-4

USSR / Cultivated Plants. Fodders.

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25088

Author : Demkin, A. P., Tselik, V. Z.
Inst : Not given
Title : Planting Clover in the Polessk Rayons of Ukrainia

Orig Pub: Zemledeliye, 1957, No 4, 72-73

Abstract: The Glukhovskiy Dvukosnyy, a local clover variety, has long been renowned in Glukhovskiy Rayon of Sumskaya Oblast'. In the past 12 years a drastic drop in clover output has been noted 6 times. The hay yield was reduced to 10 centners per ha. The chief reason for this reduction is its deterioration as a population. Its seeds start to be used in its first year, hence by 1947 already there were 40% summer forms in the Glukhovskiy clover. A systematic seed raising project is required to remove

Card 1/2

M

Country : USSR
Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 11, 1958, No 48876

Author : Denkin, A.P.
Inst : Sci. Res. Inst. of Fiber Crops
Title : Density of Planting and the Corn Yield in the Poles'ye Regions of the Ukraine.

Orig Pub: Kukuruza, 1957, No 5, 41-45

Abstract: The work was carried out by the Scientific Research Institute of Fiber Crops. The early variety - Voronezhskaya 76 - was found to be the most productive. Even sprouting takes place in sowings at the depth of 5-6 cm with the soil temperature of 11°. A good crop of

Card : 1/2

Country : USSR
Category: Cultivated Plants. Grains.

M

Abs Jour: RZhBiol., No 11, 1958, No 48876

grain was obtained by growing 2 plants to a pocket. The heavier sowing produced a high yield of green stuff.

Card : 2/2

DEMKIN, A.P., kandidat sel'skokhoziaistvennykh nauk.

Depth of [illegible]rector tillage of interrows and the hemp yield when different fertilizers are used. Dokl.Akad.sel'khoz. 22 no.8:35-39 '57. (MLRA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lubyannykh kul'tur. Predstavlena akademikom I.V.Yakushkinym.
(Tillage) (Hemp)

USSR / Cultivated Plants. Commercial. Oil Bearing. M-5
Sugar Bearing.

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25149

Author : Demkin, A.P.
Inst : All-Union S.R I. for Fiber Crops
Title : The Creation of a Seed Base of the Southern Hemp Varieties in the Central Hemp Raising Zone.

Orig Pub: Vses. n.-i. in-ta lub. kul'tur, 1957, vyp. 22, 148-156

Abstract: No abstract.

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DEMKIN, A.P., kand.sel'skokhozyaystvennykh nauk

Effect of growing conditions on the yield and quality of southern hemp varieties. Dokl. Akad. sel'khoz. 23 no.10:25-30 '58. (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lubyanukh kul'tur. Predstavlena akademikom I.V. Yakushkinym.
(Hemp--Varieties)

TIMONIN, M.A., kand. tekhn. nauk; SENCHENKO, G.I., kand. sel'-khoz. nauk; ARINSHTEYN, A.I., kand. sel'khoz. nauk; GORSHKOV, P.A., doktor sel'khoz. nauk; ZHUKOV, M.S., kand. sel'khoz. nauk; DEMKIN, A.P., kand. sel'khoz. nauk; KRASHENINNIKOV, N.A., kand. sel'khoz. nauk; GORODNIY, N.G., doktor sel'khoz.nauk; REPYAKH, I.I., nauchn. sotr.; PIL'NIK, V.I., kand. sel'khoz.nauk; KHANIN, M.D., kand. sel'khoz. nauk; TSELIK, V.Z., st. nauchn. sotr.[deceased]; KOZINETS, N.I., nauchn. sotr.; ZHALNINA, L.S., nauchn. sotr.; LYASHENKO, S.N., kand. sel'khoz. nauk; GONCHAROV, G.I., inzh.; BUYANOV, V.I., inzh.; RUDNIKOV, V.N., st. nauchn. sotr.; BLOKHINA, V.V., red.; PROKOF'YEVA, A.N., tekhn.red.; SOKOLOVA,N.N., tekhn.red.

[Hemp] Konoplia. Moskva, Sel'khozizdat, 1963. 462 p. (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lubyanykh kul'tur (for all except Blokhina, Prokof'yeva, Sokolova).
(Hemp)

USSR/Human and Animal Morphology (Normal and Pathological) S-3
Peripheral Nervous System

Abs Jour : Ref Zhur - Biol., No 12, 1958, No 55073

Author : Lyubomudrov A.P., Denkin, B.F.
Inst : Georgian Academy of Sciences Institute of Experimental Morphology.
Title : The Morphology of Spinal Gnaglions in the Experiment of Separating Carotid and Vertebral Arteries.

Orig Pub : Tr. In-t eksperim. morfol. AN GruzSSR, 1957, 6, 23-25

Abstract : Under a complete narcosis both general carotid and vertebral arteries were tied and cut in 10 dogs. The curviving animals were dilled within the periods of 24 hours to 15½ months and their cervical and thoracic spinal ganglions were examined histologically 30 minutes after death. Already within the first 24 hours after the vessels were separated, changes in the ganglions were observed (chromatolysis), which became more pronounced after 3 days (a sharp displacement of cell nuclei). Thus, the here observed changes of the nerve cells represent

Card : 1/2

Abs Jour : Ref Zhur - Biol., No 12, 1958, No 55073

morphological components of compensation of disrupted functions which developed because the blood supply in the cervical and spinal artery mains was interrupted.

DEMKIN, B.F.

USSR / Human and Animal Physiology. Growth Physiology. T

Abs Jour : Ref Zhur - Biol., No 15, 1958, No. 69724

Author : Domkiv, B. F.
Inst : L'vov University
Title : Age Sensitivity of Animals to Oxygen Deficit

Orig Pub : Dopovidi ta povidomleniya, L'vivs'k. un-t., 1957, Vol 7, No 3, 100-102

Abstract : In 11 puppies (two to eight months) and in seven adult dogs hypoxia of the brain was induced by bilateral ligation of the common carotid and vertebral arteries. Studies were made histologically of preparations of the cerebral cortex. In the majority of puppies the damage was considerably more severe than in the adult animals. -- M. F. Chepelyugina

Card 1/1

DEMKIN, Nikolay Nikolayevich; GAVRILOV, I.N., red.; AZOVKIN, N.G., tekhn.red.

[Proskov'ia Kovrova, a Russian peasant woman] Praskov'ia Kovrova - russkaia krest'ianka. Riazan', Riazanskoe knizhnoe izd-vo, 1959. 31 p. (MIRA 14:2)
(Kovrova, Praskov'ia Nikolaevna)

DEMKIN, N.B.

3(2) PHASE I BOOK EXPLOITATION

Akademiya nauk SSSR. Institut mashinovedeniya

Trudy, tom 1: Vtoraya nauchno-tekhnicheskaya konferentsiya aspirantov i mladshikh nauchnykh sotrudnikov (Transactions of the Institute of Machine Science, Academy of Sciences, USSR, Vol 1: Second Scientific and Technical Conference of Aspirants and Junior Scientific Workers) Moscow, 1959. 182 p. Errata slip inserted. 1,000 copies printed.

Resp. Ed.: A.K. Dyachkov, Doctor of Technical Sciences, Professor; Tech. Ed.: B.K. Shorin.

PURPOSE: This book is intended for technical personnel engaged in the design of machines and mechanisms.

COVERAGE: This collection of scientific papers, presented at a conference held July 2-3, 1958 deals with the theory of machine and mechanisms, strength of machine parts, friction and wear in machines, and machine-building technology.

DEMKIN, N.B., aspirant

Elastic contacting of rough surfaces. Izv.vys.ucheb.zav.; mashinostr. no.6:44-51 '59. (MIRA 13:5)

1. Institut mashinovedeniya AN SSSR.
(Friction) (Surfaces(Technology))

DEMKIN, N. B., Cand Tech Sci -- (diss) "Research into the actual contact area for rough surfaces." Moscow, 1960. 14 pp; (Academy of Sciences USSR, Inst of Machine Practices); 150 copies; price not given; (KL, 21-60, 123)

DEMKIN, N.B.

PHASE I BOOK EXPLOITATION SOV/3948

Akademiya nauk SSSR. Institut mashinovedeniya

Treniye i iznos v mashinakh; sbornik XIV (Friction and Wear in Machinery; Collection of Articles, no. 14) Moscow, Izd-vo AN SSSR, 1960. 333 p. Errata slip inserted. 3,000 copies printed.

Resp. Ed.: M. M. Khrushchov, Doctor of Technical Sciences, Professor; Ed. of Publishing House: V. A. Giryayeva; Tech. Ed.: G. A. Astaf'yeva; Editorial Board: Ye. M. Gut'yar, Doctor of Technical Sciences, Professor; A. K. D'yachkov, Doctor of Technical Sciences, Professor; I. V. Kragel'skiy, Doctor of Technical Sciences, Professor; A. D. Kuritsyna, Candidate of Technical Sciences; L. Yu. Pruzhanskiy, Candidate of Technical Sciences; and M. M. Khrushchov, Doctor of Technical Sciences, Professor.

PURPOSE: The book is intended for scientific research workers and designers in the machine industry.

COVERAGE: The recent works of Soviet scientists on the subject of friction and wear in machinery are presented. Problems discussed include abrasive wear, the real

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area of contact surface, wear resistance and antifriction properties of some bronze and brass materials, the effect of hot jets of gases on surface layers of steel, and seizure and movements of journals in bearings. Brief biographical sketches and bibliographies of the works of Ye. M. Shvetsova, V. F. Lorents, and L. V. Yelin are presented. Bibliographies on friction, wear, and lubrication for 1956 and 1957 compiled by Ye. O. Vil'dt are also presented. References accompany several of the articles.

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VK/pw/fal
9-26-60

SHLYKOV, Yu.P., kand.tekhn.nauk; GANIN, Ye.A., inzh.; DEMKIN, N.B., inzh.

Investigation of contact heat exchange. Teploenergetika 7 no.6: 72-76 Je '60. (MIRA 13:8)
(Heat--Transmission)

S/030/60/000/011/012/026
B021/B056

AUTHORS: Kragel'skiy, I. V., Demkin, N. B.

TITLE: Investigation of the Deformations in the Contact Zone of Solids

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, No. 11, pp. 85-87

TEXT: In the present paper the contact between two solids is investigated, which takes place also in the case of smooth bodies only at individual points. The total surface of these points is smaller by a multiple than the area of the surfaces which are in contact. When a load is increased, the number of contact areas increases, and the two surfaces approach each other. This slight approach, which amounts to microns and/or fragments of microns, is of great importance for the purpose of solving a number of tasks in modern technical engineering. Under the action of the load, the air-play decreases, and the contact surface grows. These two factors determine the thermal conductivity of contact, which in this way depends not only on the properties of the material, but also on pressure and the geometry of the surfaces. On the basis of the approximation quantity,

it is possible to determine the actual contact surfaces, which is of considerable importance for calculating the frictional force, the wear, and the electric conductivity. Fig. 1 shows the scheme of a curve of surface contact on the basis of the profileograms of the longitudinal- and transverse roughness. This curve makes it possible to determine the correlation between the volume of the materials and the air in the contact layer. At the Laboratory for Friction and Friction Materials of the Institut mashinovedeniya Akademii nauk SSSR (Institute of the Sciences of Machines of the Academy of Sciences USSR) an optical-mechanical device for experimental measurements of the approach of surfaces when being pressed together was designed (Fig. 2). Fig. 3 shows some dependences of the approach of the load, which were obtained by means of the aforementioned device. Such curves make it possible to judge the influence of the surface roughness of the mechanical properties of the material and other parameters upon the rigidity of contact as well as the actual surface contact. On the basis of these curves, the working technique and the nature of the materials to be used may be selected. There are 3 figures.

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AUTHORS: Kragel'skiy, I.V., and Demkin, N.B.

TITLE: Determination of true contact areas

SOURCE: Akademiya nauk SSSR. Institut mashinovedeniya. Treniye i iznos v mashinakh, v. 14, 1960, 37 - 62

TEXT: In this study the effect of roughness and unevenness of surfaces on true contact area is analyzed. New formulas taking into account contacting areas of perfectly smooth surfaces and real surfaces of given geometrical parameters, also physical properties of materials and loads are deduced. The basic formulas are:

$$\eta_1 = \frac{q}{C\sigma_s} + \frac{2{,}7\,(1-\mu^2)^2\, b^{\frac{1}{\nu}}\, \nu r C^{\,1+\frac{1}{\nu}}\, \sigma_s^{\,1+\frac{1}{\nu}}\, q^{\,1-\frac{1}{\nu}}}{h_{max} E^2}. \qquad (6)$$

($\eta_1 = A_r/A_c$, A_r - true contact area, A_c - contour contact area, q - pressure, σ_s - yield strength, E - modulus of elasticity, μ - Poisson coefficient, h_{max} - max. height of protrusions, r - radius of

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Determination of true contact areas

rounded tips of protrusions, b and ν - constants, C - coefficient of proportionality);

$$\eta_1 = \left[\frac{2{,}35\,(1-\mu^2)b^{1/\nu}r^{1/\nu}q}{2^{1/\nu}Kh_{max}^{1/\nu}E}\right]^{\frac{2\nu}{2\nu+1}}, \qquad (7)$$

(K - coefficient depending on ν); and

$$\eta_1 = \left[\frac{b^{\beta/\nu}r^{\beta}q}{2^{\beta}Kh_m^{\beta}H_y}\right]^{\frac{\nu}{\nu+\beta}}, \qquad (8)$$

(β - empirical coefficient characterizing cold hardening of material, H_y - empirical coefficient characterizing plastic deformation of material, K - coefficient depending on ν and β). For experimentally finding the true contact area an optical method was selected. The procedure is described and the apparatus illustrated. It was concluded that: 1) Mechanical characteristics of the contacting materials as well as the surface geometry have an influence on the true contact area. 2) To find the contact area Eq. (6) can be used in cases of plastic and elastic-and-plastic contacts, Eq. (7) for

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elastic contacts, and Eq. (8) for plastic contacts with stiffening. There are 15 figures, 3 tables and 23 references: 14 Soviet-bloc and 9 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: J.F. Archard, Proc. Roy. Soc. no. 1233, v. 243, 1957; p. 190; J.F. Archard and W. Hirst, Proc. Roy. Soc., no. 1206, v.236, 1956, p. 397; J. Holliday, Proc. Inst. of Mech. Eng., no. 38, v. 169, 1955, p. 777; J. Dyson, and W. Hirst Proc. Phys. Soc., no. 412, v. 67, 1954, p. 309.

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KRAGEL'SKIY, I.V.; DEMKIN, N.B.

Effect of the roughness and properties of a metarial on the active area of contacts and connections of surfaces. Trudy Sem.po kach.poverkh. no.5:163-169 '61. (MIRA 15:10)
(Surfaces (Technology))

DEMKIN, Nikolay Borisovich; KRAGEL'SKIY, I.V., doktor tekhn. nauk, prof., otv. red.; KUDASHEVA, I.G., red. izd-va; TEKHOMIROVA, S.G., tekhn. red.

[Actual contact area of hard surfaces] Fakticheskaia ploshchad' kasaniia tverdykh poverkhnostei. Moskva, Izd-vo Akad.nauk SSSR, 1962. 108 p. (MIRA 15:1)
(Surfaces (Technology))

KRAGEL'SKIY, Igor' Viktorovich, doktor tekhn. nauk, prof. Prinimali uchastiye: TROYANOVSKAYA, G.I., kand. tekhn. nauk; DEMKIN, N.B., kand. tekhn. nauk; KOSTERIN, Yu.I., kand. tekhn. nauk; KUDINOV, V.A., kand. tekhn. nauk; GARKUNOV, V.I., inzh., red.; BYSTRITSKAYA, V.V., red. izd-va; TIKHANOV, A.Ya., tekhn. red.; SOKOLOVA, T.F., tekhn. red.

[Friction and wear] Trenie i iznos. Moskva, Mashgiz, 1962. 382 p. (MIRA 15:3)

(Friction) (Mechanical wear)
(Lubrication and lubricants)

DEMKIN, N.B., kand.tekhn.nauk, dotsent

Effective contact surface during static loading and starting. Izv.vys.ucheb.zav.; mashinostr. no.4:133-137 '62. (MIRA 15:7)

1. Kalininskiy torfyanoy institut.
(Surfaces (Technology))

KRAGEL'SKIY, I.V., doktor tekhn. nauk, prof.; DEMKIN, N.B., kand. tekhn. nauk; SIDORENKO, G.B., inzh.

Formulas for calculating the area of actual contact. Vest. mashinostr. 43 no.10:9-13 O '63. (MIRA 16:11)