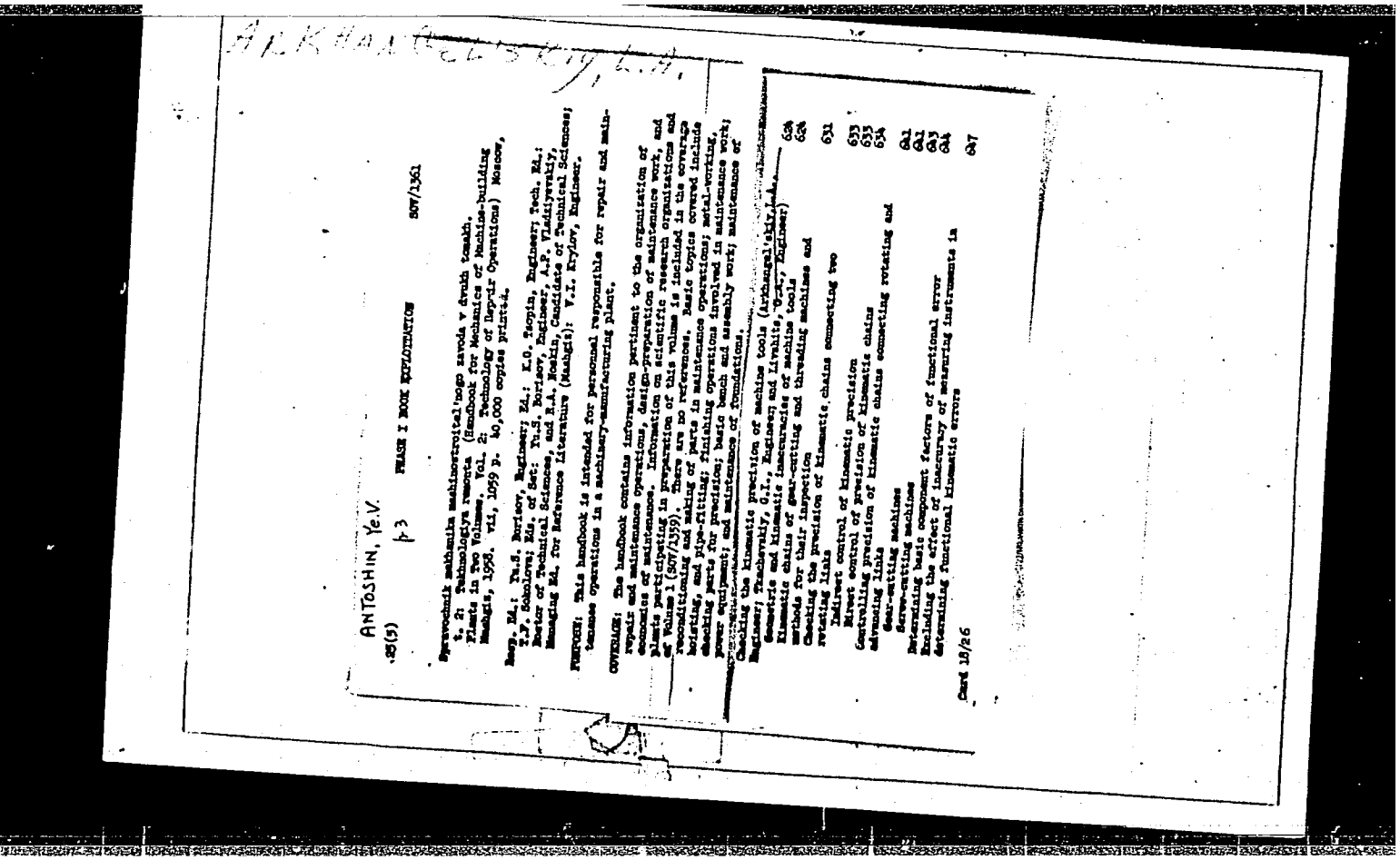

ALKHAZOV, G.A.

ANTOSHIN, Ye.V.

.85(5) P3 PHASE I BOOK EXPLOITATION SOV/3361

Spravochnik mekhanika mashinostroitel'nogo zavoda v dvukh tomakh.
t. 2: Tekhnologiya remonta (Handbook for Mechanics of Machine-building Plants in Two Volumes, Vol. 2: Technology of Repair Operations) Moscow, Mashgiz, 1958. 911, 1059 p. 40,000 copies printed.

Resp. Ed.: Th.S. Borisov, Engineer; Ed.: K.O. Sapin, Engineer; Tech. Ed.: I.P. Sokolova; Ed. of Lit.: Yu.S. Borisov, Engineer, A.P. Vladimirskiy; Editor of Technical Sciences, and R.A. Rodin, Candidate of Technical Sciences; Managing Ed. for Reference Literature (Mashgiz): V.I. Krylov, Engineer.

PURPOSE: This handbook is intended for personnel responsible for repair and maintenance operations in a machinery-manufacturing plant.

COVERAGE: The handbook contains information pertinent to the organization of repair and maintenance operations, design-preparation of maintenance work, and economics of maintenance. Information on scientific research organizations and plants participating in preparation of this volume is included in the coverage of Volume 1 (SOV/3359). There are no references. Basic topics covered include reconditioning and making of parts in maintenance operations; metal-working; hoisting, and pipe-fitting; finishing operations involved in maintenance work; checking parts for precision; basic bench and assembly work; maintenance of power equipment; and maintenance of foundations.

Checking the kinematic precision of machine tools (Arkhangel'skiy, A.A., Engineer; Tkachenkiy, G.I., Engineer; and Livshits, G.A., Engineer) 626
Geometric and kinematic inaccuracies of machine tools 626
Kinematic chains of gear-cutting machine tools 626
Methods for their inspection 626
Checking the precision of kinematic chains connecting two rotating links 631
Indirect control of kinematic precision 633
Direct control of precision of kinematic chains 633
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Advancing links 634
Gear-cutting machines 641
Screw-cutting machines 642
Determining basic component factors of functional error 643
Evaluating the effect of inaccuracy of measuring instruments in determining functional kinematic errors 644
Card 18/26 647

ARKHANGEL'SKIY, L.A.

AUTHOR: Arkhangel'skiy, L.A., Engineer 28-58-1-13/34

TITLE: Precision Requirements for Turbine Gear Drives (Tochnostnyye trebovaniya k turbinnym zubchatym peredacham)

PERIODICAL: Standartizatsiya, 1958, # 1, pp 36-39 (USSR)

ABSTRACT: TsNIITMASh has completed a project for a "GOST"-standard for the "Technical Requirements for Steam and Gas Turbine Gear Drives". This standard will regulate the following: parameters of gear cutting machines and tools; materials and heat treatment; the precision of blanks and assembly; inspection methods; parameters of lapping stands; and the positioning of blanks on machines. The project establishes gear drive accuracy classes "A", "B", "V", and "G", in sequence of decreasing accuracy. "A" corresponds to the British standard "BS 1807-52". "B" corresponds to the old top-accuracy class "3" of the existing "GOST 1643-56", and has not as yet been put into use by the industry. The "A"-class is introduced in the project for the following reasons: major turbine drive producers of the USSR believe that the "3"-class must be maintained for drives already in production; higher accuracy requirements are to be expected in the immediate future, and TsNIITMASh has succeeded in

Card 1/2

'Precision Requirements for Turbine Gear Drives 28-58-1-13/34

obtaining "A"-accuracy in lapping. "A"-class drives are recommended for main ship drives with wide-range speed control and unlimited life, in particular, for cases where the lack of vibration and noise is required. Applications of the lower accuracy classes are also indicated. The author believes that spur gears and narrow helical and herringbone gears should be avoided, and recommends measures (in gear cutting) for making the drives work smoothly. This projected "GOST"-standard has been sent to the Committee of Standards for approval.

ASSOCIATION: TsNIITMASh

AVAILABLE: Library of Congress

Card 2/2

ARKHANGEL'SKIY, L. A., Cand Tech Sci -- (diss) "Research into the precision of gears on the basis of the functional representation of their errors." Moscow, 1960. 15 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin and Order of Labor Red Banner Technical College im N. E. Bauman); 200 copies; price not given; (KL, 50-60/2, 133)

ARKHANGEL'SKIY, L.I.

Use of wood waste at the enterprises of Ivano-Frankovsk Province.
Bum. i der. prom. no.1:47-49 Ja-Mr '65.

(MIRA 18:10)

ARKHANGEL'SKIY, L.I.

Over-all mechanization of the assembly and installation of aerial skidders. Bum.i der.prom. no.1:47-49 Ja-Mr '62. (MIRA 15:5)

1. Stanislavskiy sovet narodnogo khozyaystva.
(Lumbering--Machinery)

ARKHANGEL'SKIY, L.I. [Arkhanhel's'kyi, L.I.]

Pine-needle vitamin meal as additive for cattle feeds. Khar. prom. no.1:79 Ja-Mr '62. (MIRA 15:8)

1. Stanislavskiy sovet narodnogo khozyaystva.
(Feeds) (Vitamins)

ARKHANGEL'SKIY, L.K.; VOYEVODINA, A.A.; MATEROVA, Ye.A.

Interaction of ion exchange resins with water. Vest LGU 16 no.22: 102-110 '61. (MIRA 14:11)

(Ion exchange resins) (Water vapor)

L 27144-66 EWT(m)/ETC(f)/EWG(m)/EWP(j)/T/ETC(m)-6 DS/WW/RM

ACC NR: AP6017110 SOURCE CODE: UR/0054/65/000/003/0074/0082

AUTHOR: Arkhangel'skiy, L. K.; Materova, Ye. A.; Kisel'gof, G. V. 41 B

ORG: none

TITLE: Study of ion-exchange equilibrium. Exchange of ions on sulfocation-exchange resins with varying divinylbehzene content

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 3, 1965, 74-82

TOPIC TAGS: ion exchange resin, ion exchange

ABSTRACT: The number of studies containing data on ion-exchange equilibrium for singly charged ions is very large, and somewhat less than large for the exchange of doubly charged and diversely charged ions. Available data permits several qualitative conclusions of the effect on ion-exchange equilibrium of the nature of the exchanged ions and the divinylbenzene (DVB) content present. However, a qualitative explanation of ion-exchange regularities can be equally satisfactory from the point of view of several models. More information can be anticipated through evaluation of data on ion-exchange equilibrium quantitatively. The present study examines ion-exchange equilibrium in the systems HCl -

Card 1/2

UDC: 541.123

L 27144-66

ACC NR: AP6017110

LiCl, HCl - TlCl, HCl - $MgJC_2$, and HCl - $BaCl_2$. Selection of the system is governed by the desire to study the effect on ion-exchange equilibrium both of the value of the charge of one of the replaced... In order to study the effect of the amount of crosslinking bonds on ion-exchange equilibrium, experiments were conducted with three samples of the KU-2 sulfo-cation-exchange resin, containing different amounts of DVB. It was concluded that variation in the value of the equilibrium coefficients with change in ion-exchange resin content within the limits of the simplest presuppositions are accounted for by different factors for ion-exchange resins with a low and those with a high DVB content. In order to elucidate the minimum on the curve describing the equilibrium coefficient versus composition, characteristic for exchange of Mg^{2+}-H^+ on a cation-exchange resin containing 8% DVB, it must be assumed that the non-uniformity of the established ion with respect to bonding energies with the counterion cannot exist in an ion-exchange resin with a low DVB content and appears with an increase in the DVB content. Then, curves with a minimum can be viewed transitional, from functions characteristic of ion-exchange resins with energetically equivalent fixed ions, to functions characteristic of ion-exchange resins containing fixed ions which differ in bonding energy. Orig. art. has: 3 figures, 4 formulas, and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 12Apr65 / ORIG REF: 009 / OTH REF: 021

Card 2/2

L 27125-66 EWT(m)/ETC(f)/EWG(m) RM/DS

ACC NR: AP6017111 SOURCE CODE: UR/0054/65/000/003/0083/0089

AUTHOR: Arkhangel'skiy, L. K.; Materova, Ye. A.; Kisel'gof, G. V. 31 B

ORG: none

TITLE: Methods of calculating activity coefficients for ion-exchange resin components

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 3, 1965, 83-89

TOPIC TAGS: ion exchange resin, ion exchange

ABSTRACT: A method of calculating the activity coefficients of ion-exchange resins containing single charged counterions. In the calculations the following assumptions were made:

1) the nonexchange absorption of electrolytes on diluted water solutions can be neglected;
2) water-saturated ion-exchange resin containing two kinds of counterions can be regarded as a bicomponent system.

Relationships affording calculation of activity coefficients for ionexchange resins containing singly charged counterions can be readily derived for the case when the ion-exchange resin contains polycharged counterions. Comparison of calculation results for

Card 1/2 UDC: 541.121:536.7

L 27125-66

ACC NR: AP6017111

a different method of selecting ion-exchange components was made of the KU-2 sulfo-cation exchange resin containing 8% DVB on the system HCl - $MgCl_2$. In calculating activity coefficients two goals can be aimed at 1) Systematization of information on the appearance of interactions in the ion-exchange resin phase. In this case, a system in which the interactions are most fully suggestive of interactions in the ion-exchange resin is selected in preference over others. From this point of view, both the standard systems examined in the study must be regarded as unsuccessful: their properties differ too much from the properties of actual ion-exchange resins. It would be useful, for example, to have standard systems in which the chemical potentials of components as functions of their concentration would take into account electrostatic interactions in the ion-exchange resin, into a Debye approximation. Orig. art. has: 26 formulas and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 12Apr65 / ORIG REF: 001 / OTH REF: 006

Card 2/2

ARKHANGEL'SKIY, L.K.; MATEROVA, Ye.A.; KISEL'GOF, G.V.

Ion exchange equilibrium. Ion exchange on sulfonated cationites with various divinylbenzene content. Vest. LGU 20 no.16:74-82 '65.

Methods of calculating the activity coefficients of components in ion exchangers. Ibid.:83-89 (MIRA 18:9)

ARKHANGEL'SKIY, L.N., inzh.

Automatic control of piston compressors. Sbor. trud. Inst. gor. dela AN URSR no.12:93-97 '61. (MIRA 15:11)
(Air compressors) (Automatic control)

ARKHANGEL'SKIY, L.N.

Expediency of pneumatic systems. Ugol' Ukr. 6 no.8:47 Ag '62. (MIRA 15:11)
(Donets Basin--Mining engineering)
(Compressors)

ARKHANGEL'SKIY, L.N., inzh.; IMSHENETSKIY, A.M., inzh.; TEMERTI, G.F., inzh.

Automatic control of compressor stations. Ugol' Ukr. 7 no.7: 33-35 Jl '63. (MIRA 16:8)

1. Institut gornogo dela AN UkrSSR (for Arkhangel'skiy).
2. Trest Donetskpromavtomatika (for Imshenetskiy, Temerti).
(Air compressors) (Automatic control)

ARKHANGEL'SKIY, L.V.

Radiation and decay scheme of lanthanum-140. L. V. Arkhangel'skii, B. S. Dzhelepov, N. N. Zhukovskii, V. P. Prikhodtseva, and Yu. V. Khol'nov. *Bull. Acad. Sci. U.S.S.R., Phys. Ser.* 19, 228–40 (1955) (Eng. translation).—See *C.A.* 50, 1430a. B. M. B.

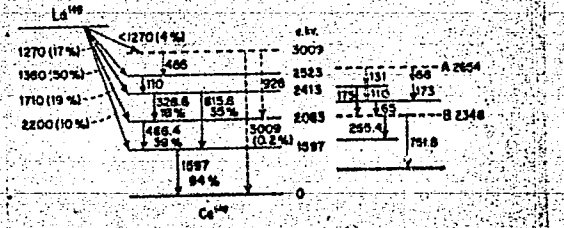
ARKHANGEL'SKIY, L.V., inzh.; LOKSHIN, L.V., inzh.; IL'IN, G.I., inzh.

Redesigning the PK-2 transmitter. Vest. sviazi 19 no.11:7-10 N '59. (MIRA 13:8)

1. Oktyabr' peredayushchiy radiotsentr.
(Radio--Transmitters and transmission)

ARKHANGEL'SKII, L. V.

γ-Radiation and decay scheme of lanthanum-140. L. V. Arkhangel'skii, B. S. Dzhelepov, N. N. Zhukovskii, V. P. Prikhodtseva, and Yu. V. Khol'nov. *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 19, 251–70(1955).—The γ-ray spectrum of La_2O_3 irradiated by neutrons was investigated with a nitron γ-spectrometer (cf. *C.A.* 49, 5143c). The energy and the relative intensities are 335 (0.19), 432 (0.41), 822 (0.37), 918 (0.12), 1597 (1.00), 2535 (0.033), >2700 e.kv. (<0.002). The half-life of decay is 40 hrs. From all data a decay scheme is derived.



The conversion coeffs. and the abs. intensities of γ-transitions are calcd. The properties and the decay of the radioactive isobars Xe^{140}, Cs^{140}, Ba^{140}, Pr^{140}, and Nd^{140} are discussed. A diagram is drawn on a unitary energetic scale of the levels and transitions in these atoms. The particularly dense packing of Ce^{140} is attributed to the presence of a completed 82 neutron shell (magic no.). S. Pakawer

(4)

ARKHANGEL'SKIY, M. A., DOCENT

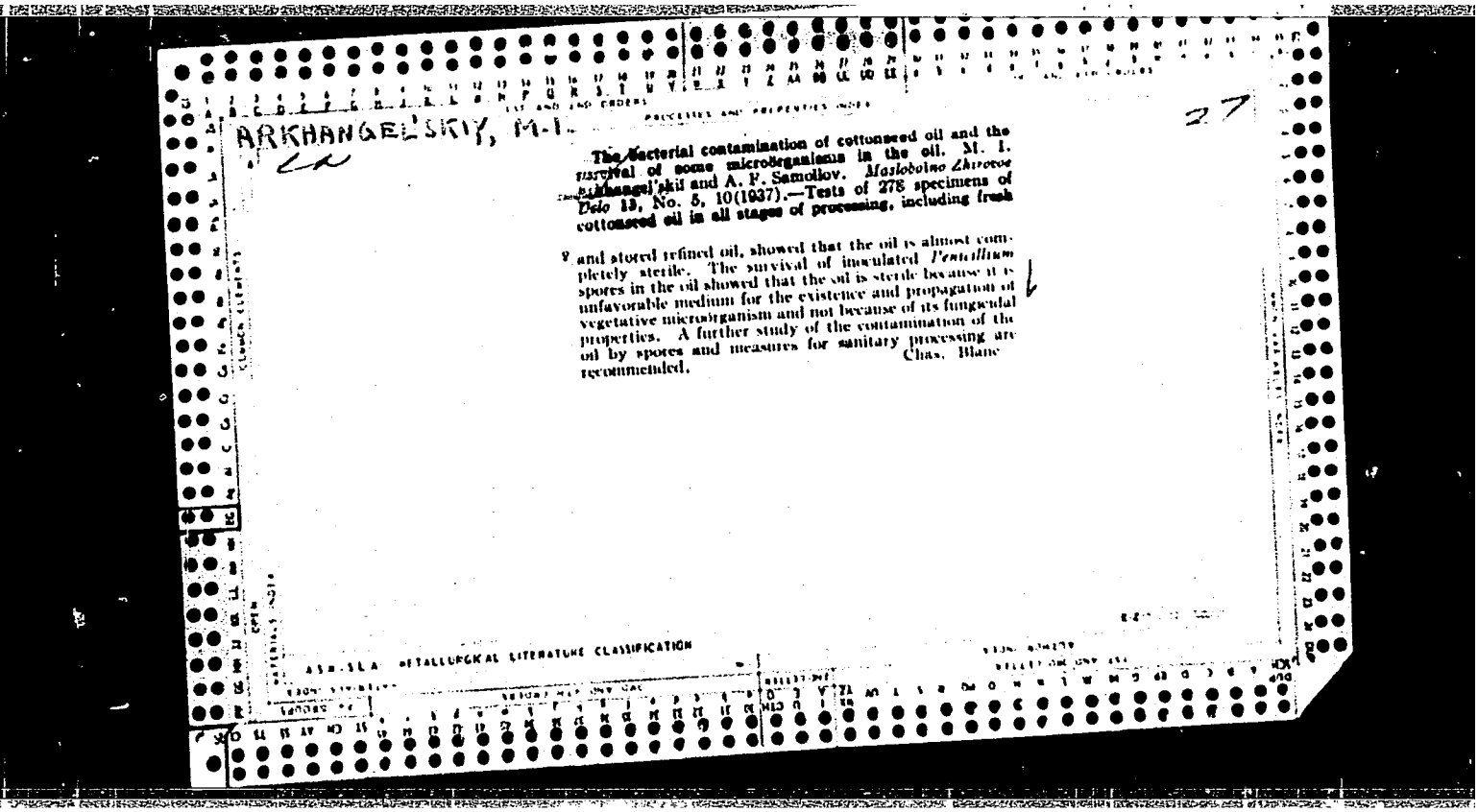
USSR/Engineering Drying Currents, High-Frequency May 49

"Review of I. P. Berdinskikh's Book, 'Kiln Drying and Bonding of Ligneous Materials in a Field of High-Frequency Currects,'" B. M. Tareyev, Dr Tech Sci, Netushil, Cand Tech Sci, Docent M. A. Arkhangel'skiy, Engr, E. P. Parim, Engr, 1 p

"Elektrichestvo" No 5

Does not indorse material in this book, which consists of three main parts: generators (electronic tubes, gaseous rectifiers, etc.), drying, and bonding. Points out numerous deficiencies in author's analysis of his subject and lists examples of glaring errors in text. Published by Gostekhizdat Ukraine, 1948, 120 pp, price 5 rubles.

PA 55/49T50



ARKHANGEL'SKIY, M-I-

The bacterial contamination of cottonseed oil and the survival of some microörganisms in the oil. M. I. Arkhangel'skii and A. F. Samollov. *Masloboino Zhirovoe Delo* 13, No. 5, 10(1937).—Tests of 278 specimens of cottonseed oil in all stages of processing, including fresh and stored refined oil, showed that the oil is almost completely sterile. The survival of inoculated *Penicillium* spores in the oil showed that the oil is sterile because it is unfavorable medium for the existence and propagation of vegetative microörganism and not because of its fungicidal properties. A further study of the contamination of the oil by spores and measures for sanitary processing are recommended.

Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

ARKHANGEL'SKIY M. I.

USSR/Medicine - Bacteriology Jul 1947
Medicine - Bacteria, Culture Media

"The Methodology of the Account of Microbes in Accelerated Cultivation in Semi-liquid Medium," M. I. Arkhangel'skiy, ½p

"Gigiyena i Sanitariya" Vol XII, No 7

Brief account of bacteriological research on culture media.

17T51

ARKHANGEL'SKIY, MIKHAIL MIKHAYLOVICH

DECEASED

SEE ILC

Geophysics

PHASE I BOOK EXPLOITATION SOV/4903

Arkhangel'skiy, Mikhail Mikhaylovich, Dmitriy Ivanovich Dzhincharadze, and Arkadiy Stepanovich Kuris'ko

Raschet tonnel'nykh obdelok (Calculation of Tunnel Linings) Moscow, Transzheldorizdat, 1960. 344 p. 3,000 copies printed.

Ed.: P. M. Zelevich, Engineer; Tech. Ed.: Ye. N. Bobrova; Ed. (title page): M. I. Dandurov, Professor, Corresponding Member, Academy of Construction and Architecture USSR.

PURPOSE: This book is intended for students in transportation and other departments of Soviet schools of higher education.

COVERAGE: The book presents problems in the calculation of tunnel linings for insuring economical construction. The authors discuss loads acting on the tunnel lining, calculation of concrete linings by methods developed by S. S. Davydov and Metrogiprotrans (State Subway Design, Planning, and Research Institute), and construction and calculation methods for block lining. Detailed

Card 1/8

examples for the calculation of different types of linings are given. Ch. I (except Secs. 4 and 8) and Sec. 17 of Ch. III were written by Docent M. M. Arkhangel'skiy. Chs. II, III, (except Sec. 17), and IV and Secs. 4 and 8 of Ch. I were written by A. S. Kuris'ko. Ch. V was written by Candidate of Technical Sciences D. I. Dzhincharadze. The following personalities are mentioned as having contributed to this field: O. Ye. Bugayeva, whose design method is included in the book, G. G. Zurabov, Academician B. G. Galerkin, Professor S. S. Davydov, and S. A. Orlov, Candidate of Technical Sciences. There are no references.

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Calculation (Cont.)

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Card 3/8

1. ARKHANGEL'SKIY, M. M.

2. USSR (600)

4. Dynamics of a Particle

7. Theories of the dispersion of a concentration of suspended particles in a turbulent stream. Izv.AN SSSR Otd.tekh.nauk, no. 12, 1952.

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

ARKHANGEL'SKIY, MM

USSR/Geophysics

Card : 1/1

Author : Arkhangel'skiy, M. M.

Title : Certain experimental data on the weakening of light in dispersion medium with large suspensions

Periodical : Dokl. AN SSSR, 97, Ed. 1, 73 - 76, July 1954

Abstract : Experimental data are presented regarding the weakening coefficients of suspensions prepared from calibrated quartz sand with grain diameters ranging from 70 to 170 μ. The data are applicable to instances of mono-di- and tri-component suspensions. The relation between the light weakening coefficient and the number (concentration) of suspended homogeneous particles, dimensions of particles in a homogeneous suspension and the number of particles in di- and tri-component suspension, was investigated and the results are given in graphs. Seven USSR references. Table, graphs.

Institution : The M. V. Lomonosov State University, Moscow

Presented by : Academician, V. V. Shuleykin, April 23, 1954

ARKHANGEL'SKIY, M.M.

10(4); 21(5); 24(8) PHASE I BOOK EXPLOITATION SOV/2457

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke. 2d, Moscow, 1957

Teplotekhnika i gidrodinamika; trudy konferentsii, tom. 4 (Heat Engineering and Hydrodynamics; Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science, Vol 4) Moscow, Gosenergoizdat, 1958. 88 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR, and USSR. Glavnoye upravleniye po ispol'zovaniyu atomnoy energii.

Eds.: N. A. Styrikovich (Resp. Ed.), G. Ye. Kholodovskiy, and M. S. Fomichev; Ed. of Publ. House: L. M. Sinel'nikova; Tech. Ed.: M. I. Borunov.

PURPOSE: This collection of articles is intended for scientists and laboratory workers concerned with the use of radioactive and stable isotopes.

COVERAGE: This collection of papers deals with the application of radioactive and stable isotopes as measuring tools in various types of scientific investigation. No personalities are mentioned. References are given after some of the articles.

2. Bartolomey, G.G., Ya.G. Vinokur, V.A. Kolokol'tsev, and V.I. Petukhov. Use of Gamma Rays for Studying the Process of Diffusion 9

3. Rutaladze, S.S., and V.M. Markvicheva. Use of Gammaradioscopy for Studying the Hydrodynamics of a Multifluid System 12

4. Pleteavkin, P.G., and M.A. Shapkin. Method of "Tagged" Atoms for Investigating Water and Steam Content in Surface Boiling of a Fluid 16

5. Rudyavtsev, V.S. Determining the Specific Surface Area of Quartz and Cement Powders by the Sorption Method With the Use of "Tagged" Atoms 20

6. Moskvin, V.M., and I.I. Kurbatova. Use of Radioactive Isotope for Studying Sulfate Corrosion of Concrete 28

7. Tertovich, N.A., V.I. Fernovskiy, and V.A. Lukin. Methods for Determining the Density and Moisture Content of Soils With the Aid of Radioactive Emulsions 33

8. Polozova, L.G., and A.F. Reyzman. Study of the Processes of Moisture Transfer in Building Materials by Means of Gammaradioscopy 38

9. Styrikovich, M.A., I.Kh. Khaymullin, and L. K. Khokhlov. Use of Radioactive Isotopes For Investigating the Solubility of Salts in Water Vapor at High Pressures 41

10. Sterman, L.S., A.Ya. Antonov, and A.V. Surnov. Investigation of the Characteristics of Vapor at a Pressure of 185 abs. atm, With the Aid of Radioactive Isotopes 46

11. Dobrovolskiy, V.A. Use of Radioactive Isotopes for Observing the Motion of the Molten Glass Mass in Glass Furnace Tanks 52

12. Rashinskiy, V.V. Use of Radioactive Isotopes in Studying the Filtration of Fluids Through Porous Media 57

13. Izrailevskaya, D.I., and A.Ya. Fraulin. Radioisotope Methods for Investigating Flow Processes of Fluids in a Porous Medium 62

14. Borts, M.A., L.S. Zarubin, V.S. Kaminskiy, and L.L. Koresk. Investigation of the Hydrodynamics of a Fluid in the Conical Rotor of a Settling Centrifuge With the Aid of Radioactive Isotopes 67

15. Volarovich, M.P., M.Ya. Churayev, and B.Ya. Minkov. Investigations of the Motion of Water in Peat Under Laboratory and Field Conditions With the Use of Radioactive Isotopes 72

16. Arkhangel'skiy, M.M. Use of Radioactive Isotopes for Investigating Suspensions of River Silt 78

17. Yarnik, A.I., and A.S. Shubin. Use of Radioactive Isotopes for Investigating the Mechanism of the Drying Process 85

ARKHANGEL'SKIY, M.M.; VOLKOV, R.A.

Jet flow of a viscous liquid in a gravitational field. Uch. zap. MOPI 92:93-103 '60. (MIRA 14:9)

(Hydrodynamics)

ARKHANGEL'SKIY, M.M.; VOLKOV, R.A.

One exact solution of linearized Navier-Stokes equations. Uch. zap. MOPI 92:105-110 '60. (MIRA 14:9)
(Differential equations, Linear)

ARKHANGEL'SKIY, Mikhail Mikhaylovich; PAVLENKO, A.A., dots., retsénzent; BESSONOV, I.I., dots., retsenzent; CHEBOTAREVA, A.V., red.; KARPOVA, T.V., tekhn. red.

[Course in physics; mechanics] Kurs fiziki; mekhanika. Moskva, Gos. uchebno-pedagog.izd-vo M-va prosv. RSFSR, 1961. 407 p. (MIRA 15:2)

1. Moskovskiy gosudarstvennyy universitet (for Pavlenko).
2. Kirovskiy pedagogicheskiy institut (for Bessonov).
(Mechanics)

ARKHANGEL'SKIY, Mikhail Mikhaylovich; SHEBALIN, Oleg Dmitriyevich; KROSHKIN, M.G., nauchnyy red.; FAYNBOYM, I.B., red.; ATROSHCHENKO, L.Ye., tekhn. red.

[Mysteries of the earth are revealed in space] Tainy Zemli raskryvaiutsia v kosmose. Moskva, Izd-vo "Znanie," 1963. 45 p. (Novoe v zhizni, nauke, tekhnike. IX Seriia: Fizika i khimiia, no.11) (MIRA 16:7)
(Geodetic satellites) (Meteorological satellites)
(Astronautics in navigation)

L 33174-66 EWT(1)/EWP(m)/T-2 IJP(c)

ACC NR: AR6016237 SOURCE CODE: UR/0058/65/000/011/E102/E102

AUTHOR: Arkhangel'skiy, M. M.; Volkov, R. A.

TITLE: On the magnetohydrodynamic theory of the electric conductivity of metals

SOURCE: Ref. zh. Fizika, Abs. 11E791

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 241-244

TOPIC TAGS: magnetohydrodynamics, electric conduction, current density, superconductivity, electric field

ABSTRACT: To calculate the electric conductivity of metals in a strong magnetic field, the equations of magnetohydrodynamics are used. Under certain simplifying assumptions, these equations are integrated in two particular cases: infinite strip of finite thickness, and infinitely cylindrical conductor of specified radius. The magnetic-field and electric-current distribution over the thickness of the plate and over the radius of the cylinder obtained in this manner are quite complicated, so that only the differential connection between the current density and the electric field intensity can be established (the electric conductivity coefficient depends on the coordinates). In the limiting case of an infinitesimally thin plate and and infinitesimally narrow cylinder, Ohm's law is satisfied. A qualitative explanation of the destruction of superconductivity of metals by a magnetic field is presented on the basis of inclusion of magnetohydrodynamic effects. G. Kvintsel'. [Translation of abstract]

SUB CODE: 20

Card 1/1 mc

ARKHANGEL'SKIY, Mikhail Mikhaylovich; KLIMONTOVICH, V.L., red.

[Physics course; mechanics] Kurs fiziki; mekhanika. Izd- 2., ispr. i dop. Moskva, Prosveshchenie, 1965. 447 p. (MIRA 18:8)

L 10753-67 EWT(l)/EWP(m)/EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6016450 (N) SOURCE CODE: UR/0124/65/000/012/B002/B002

56

AUTHOR: Arkhangel'skiy, M. M.; Volkov, R. A.

TITLE: On the magnetohydrodynamic theory of electrical conductivity in metals

SOURCE: Ref. zh. Mekhanika, Abs. 12B7

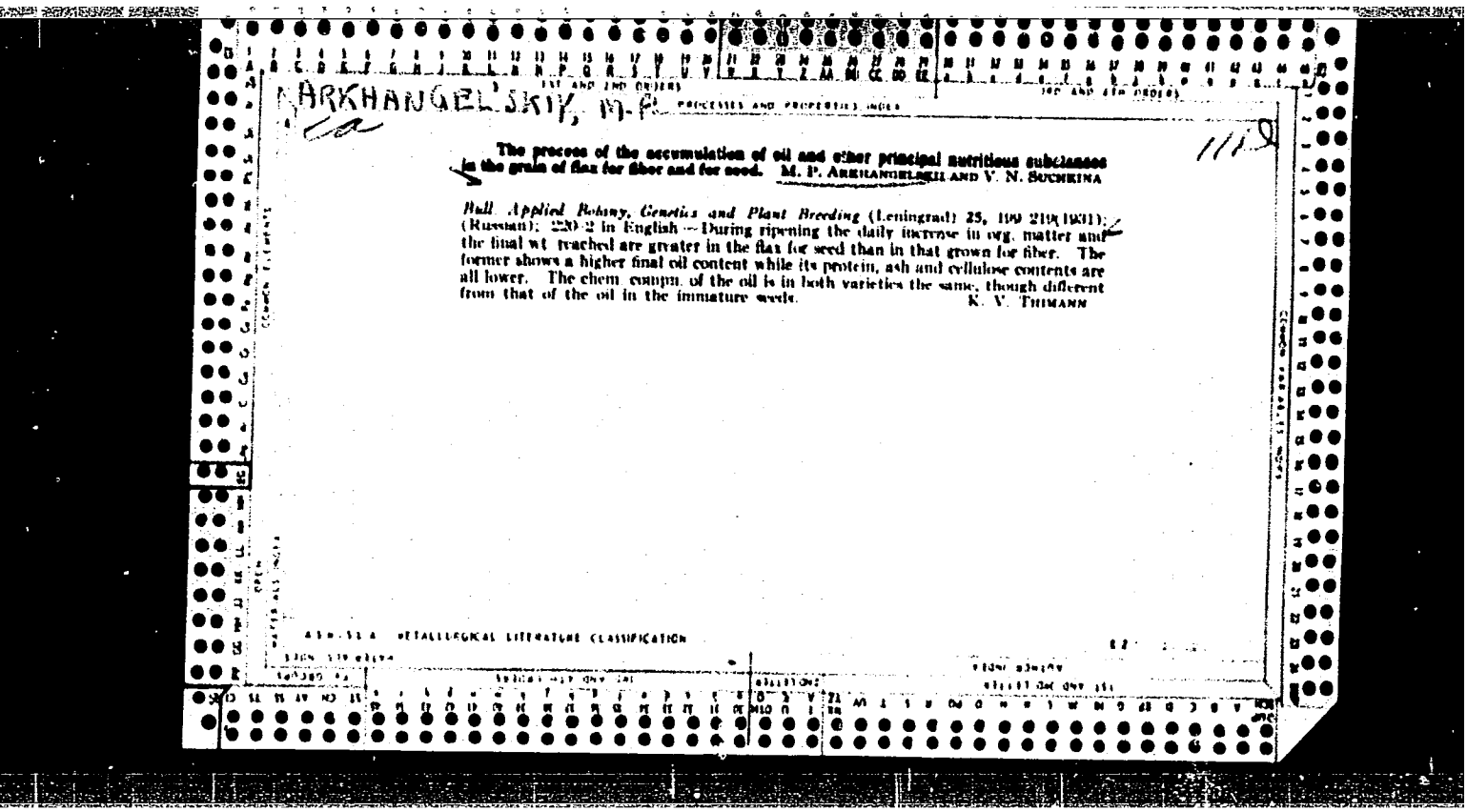
REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 241-244

TOPIC TAGS: magnetohydrodynamics, electric conductivity, strong magnetic field, superconductivity

ABSTRACT: Magnetohydrodynamic equations are used for calculating the electrical conductivity of metals in a strong magnetic field. Various simplifying assumptions are made in integration of these equations in two special cases: an infinite strip of finite thickness and an infinite cylindrical wire of a given radius. The resultant distribution of the magnetic field and density of the electric current with respect to the thickness of the plate and radius of the cylinder has a rather complex form so that it is possible to establish only a differential relationship between the current density and the strength of the electric field (the coefficient of electrical conductivity depends on the coordinates). The limiting cases of an infinitely thin plate and an infinitely narrow cylinder conform to Ohm's law. Consideration is given to magnetohydrodynamic effects as a basis for a qualitative explanation of the phenomenon of destruction of the superconductivity of metals by a magnetic field. Bibliography of 5 titles. G. F. Kventsel'. [Translation of abstract]

SUB CODE: 20

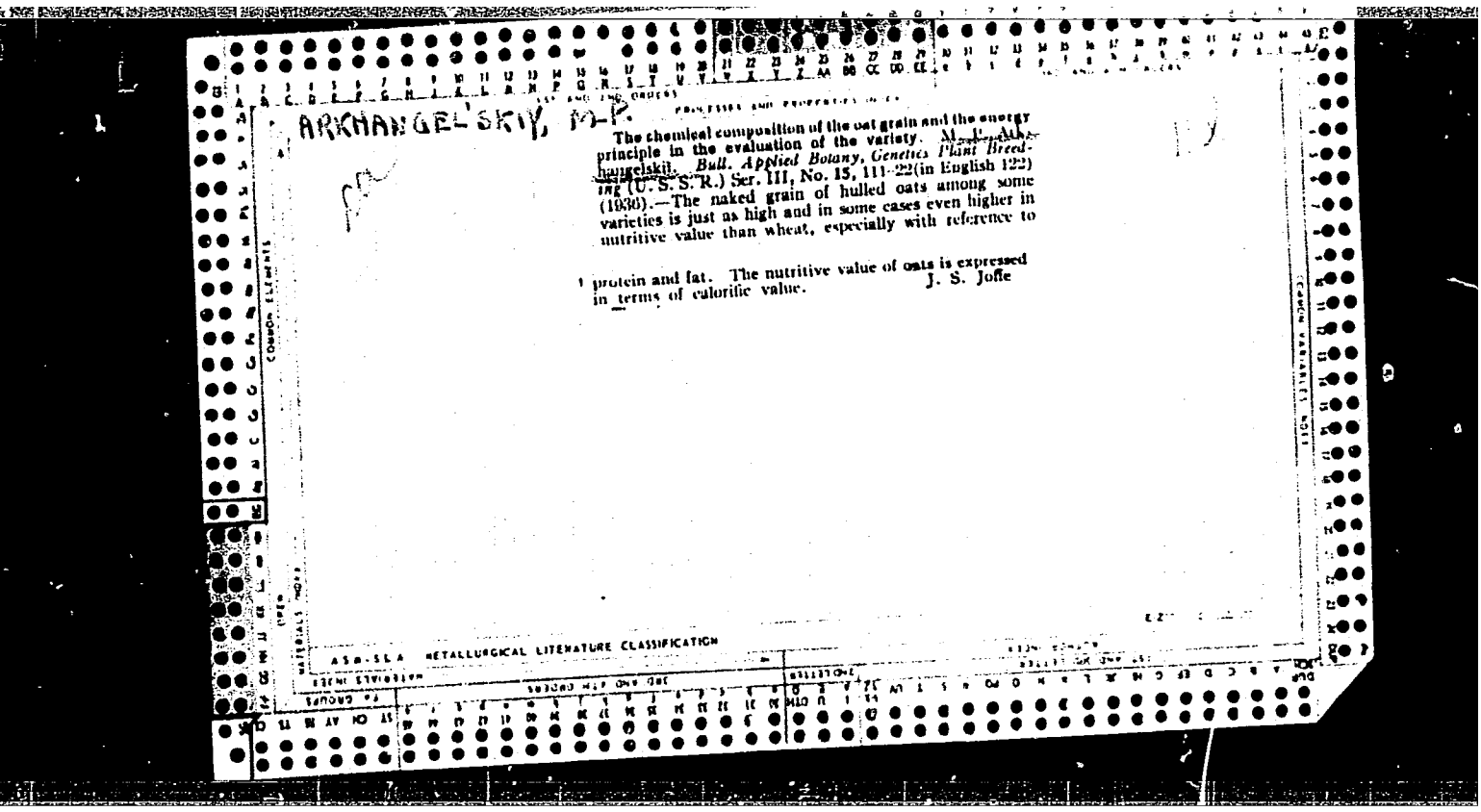
Card 1/1



ARKHANGEL'SKIY, M.P.

The process of the accumulation of oil and other principal nutritious substances in the grain of flax for fiber and for seed. M. P. ARKHANGELSKII AND V. N. SUCHKINA

Bull. Applied Botany, Genetics and Plant Breeding (Leningrad) 25, 199-219(1931); (Russian); 220-2 in English.—During ripening the daily increase in org. matter and the final wt reached are greater in the flax for seed than in that grown for fiber. The former shows a higher final oil content while its protein, ash and cellulose contents are all lower. The chem. compn. of the oil is in both varieties the same, though different from that of the oil in the immature seeds. K. V. THIMANN



ARKHANGEL'SKIY, M-P.

The chemical composition of the oat grain and the energy principle in the evaluation of the variety. M. P. Arkhangelskii. *Bull. Applied Botany, Genetics Plant Breeding* (U. S. S. R.) Ser. III, No. 15, 111-22(in English 122) (1930).—The naked grain of hulled oats among some varieties is just as high and in some cases even higher in nutritive value than wheat, especially with reference to protein and fat. The nutritive value of oats is expressed in terms of caloritic value. J. S. Joffe

ARKHANGEL'SKIY, M. P.

21873 ARKHANGEL'SKIY, M. P. Opyt sravnitel'nogo izucheniya transpiratsionnogo. koefitsiyenta lyallemantsii, perilly i l'na maslichnogo. Trudy Krasnodarsk. in-ta pishch. prom-sti, vyp. 7, 1949, s. 7-13. - Bibliogr: 10 nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

Arkhangelskiy, M.P.

USSR / Cultivated Plants. Technical. Oleaginous. Sugar-Bearing L-5

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22794

Author : Arkhangelskiy, M.P.

Inst : Not given

Title : Biological Characteristics of Lallemantia (Lallemantia iberica Fisch. et Mey).

Orig Pub : V sb.: 8-ya nauch. konferentsiya 18-20 marta 1954 g., Kiev, Selkhozgiz USSR, 1955, 21-24

Abstract : The work enumerates the biological characteristics of lallemantia, which were studied by vegetational and field experiments under Krasnodar conditions during 1938-1941 and 1947-1948. The experiments proved that lallemantia may be cultivated on different soils: podzol, chernozem and saline.

Card : 1/2

USSR / Cultivated Plants. Technical. Oleaginous. Sugar-Bearing L-5

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22794

Abstract : Its yield is increased considerably by use of mineral and organic fertilizers. Varieties of Iberian lallemantia behave like typical summer cultivations, but its sprouts may winter over when sown before the winter. The vegetative period lasts from 60 to 92 days. When a sufficient supply of soil moisture and nitrogenous fertilizers are present, its yield is high. The comparative tests of lallemantia at 8 testing sectors of Kiev, Kirovograd, Vinnits, Khmelnits and Sumsk regions showed that a yield of lallemantia oil up to 459 kg/hectare is possible.

Card : 2/2

ARKHANGELSKIY, M. S.

"Certain Reflex Changes During Delayed Sequelae of Spinal Cord Trauma." Cand Med Sci, Saratov State Medical Inst, Min Higher Education RSFSR, Saratov, 1955. (KL, No 18, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

~~Card~~ Arkhangel'skiy, M. Ye.

46-3-2/15

AUTHORS: Arkhangel'skiy, M.Ye., Afanas'yev, V.Ya.

TITLE: An Investigation of the Photodiffusion Method of Visualisation of Ultrasonic Fields (Issledovaniye fotodiffuzionnogo metoda vizualizatsii ul'trazvukovykh poley)

PERIODICAL: Akusticheskiy Zhurnal, 1957, Vol.III, Nr 3, pp.214-219 (and 1 plate) (USSR)

ABSTRACT: The photographic method of visualising ultrasonic fields was first proposed by Torikai and Negishi in 1955 (Ref.2). The present paper gives a description of the experiments which were carried out in an attempt to photograph the "cross-section" of the field of a radiator. The film was placed in a special cassette, having thin rubber walls and containing a Kodak D-19 developer. The film was placed with its plane perpendicular to the direction of propagation of the sound and was exposed for up to about 120 sec. The blackening of the film D(t) was plotted as a function of exposure, t^2, at a frequency of 2 Mc/s and an intensity of 0.23 W/cm^2 and a distance of 4 cm from the radiator. The temperature of the developer was about 21°C. The blackening of the film was measured on a densitometer and a microphotometer. The quantity ΔD which is defined as the

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An Investigation of the Photodiffusion Method of Visualisation of Ultrasonic Fields.

difference between the blackening of the image and the background is plotted as a function of exposure and different concentrations of the developer in Fig.7. Curves of the functions $\Delta D(t)$ can be used to choose the optimum conditions for obtaining maximum contrast in the given range of intensities. At lower concentrations of the developer and a corresponding increase in the exposure time, the contrast of the image increases considerably (i.e., ΔD increases). Various other quantitative details are given. Intensities of 0.25 to 0.3 W/cm^2 at a frequency of 2 Mc/s should be photographed with exposure times between 60 and 90 sec and developer concentrations between 0.33 and 0.2. For fields less than 0.1 W/cm^2 the maximum concentration should be used and exposure times less than 40 sec. Photography of fields greater than 0.3 W/cm^2 should be carried out with a developer concentration between 0.33 and 0.2 and exposure time less than 60 sec, the exposure being smaller the greater the intensity. The threshold sensitivity was found to be about 0.05 W/cm^2. For some reason old photographic papers (3 to 10 years old) were found to have a somewhat lower threshold of sensitivity. The resolving

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An Investigation of the Photodiffusion Method of Visualisation of Ultrasonic Fields.

power of the photodiffusion method is determined by two factors: the transverse diffusion of the developer into the photo-layer and the presence of constant flow due to sonic wind. The second factor is the more important and can only be determined experimentally. L.D.Rozenberg is thanked for his help and advice. There are 8 figures, no tables and 2 references, 1 Russian and 1 English.

ASSOCIATION: Institute of Acoustics, Academy of Sciences USSR, Moscow (Akusticheskiy Institut AN SSSR, Moskva)

SUBMITTED: February 19, 1957.

AVAILABLE: Library of Congress.

Card 3/3

ARKHANGEL'SKIY, M.YE.

GUSEV, V.D.; ARKHANGEL'SKIY, M.Ye.

Experimental investigation of the fine structure of the ionosphere. Vest.Mosk.un.Ser.mat.,mekh., astron., fiz.,khim. 12 no.2:75-83 '57. (MIRA 10:12)

1.Kafedra rasprostraneniya, izlucheniya i kanalizatsii elektromagnitnykh voln Moskovskogo universiteta.
(Ionosphere)

SOV/46-5-3-

AUTHOR: 23(5), 24(1) Arkhangel'skiy, M.Ye.

TITLE: On the Effect of Scund on the Process of Diffusion from a Liquid into a Gel (O deystvii zvuka na protsess diffuzii iz zhidkosti v gel')

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 3, pp 363-364 (USSR)

ABSTRACT: Photographic development is determined primarily by the rate of diffusion into the gelatin layer (Ref 1). It can be accelerated by the action of an acoustic field (Ref 2). The present paper discusses the mechanism of this acceleration. Tarnóczy (Refs 3 and 4) suggested that the action of an field may act by mechanical mixing (acoustic wind), local heating, cavitation, sound pressure and its gradient or by radiation pressure. To the factors listed by Tarnóczy, the author adds the acoustic vibration due to adiabatic compression and the expansion of the emulsion layer. The effect of each of these factors was studied experimentally by excluding a particular factor as far as possible and measuring the percentage change in the density of blackening produced then by the developed emulsion. The author found that the main factor which accelerates development in an ultrasonic field is the sound pressure. The factor second in importance

Card 1/2

On the Effect of Sound on the Process of Diffusion from a Liquid into a Gel

was the local rise of temperature. The diffusion of the developer into the emulsion is accelerated as follows; the sound pressure during one half-period helps the liquid to penetrate the gel and expands "pores" in the gel. The developer is then bound to the gel by adsorption or other forces and does not flow out during the following half-period of the applied acoustic field. There are 1 figure and 7 references, 3 of which are Soviet, 1 translation from English into Russian, 2 Hungarian and 1 German.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Acoustics Institute, Ac. Sc. USSR, Moscow)

SUBMITTED: May 16, 1959

Card 2/2

80849
S/046/60/006/02/04/019
B014/B014

24.1800

AUTHOR: Arkhangel'skiy, M. Ye.

TITLE: The Accelerating Effect of Sound on the Development of a Photoemulsion

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 2, pp. 180-186

TEXT: In the introduction, the author refers to the method of visual observation of ultrasonic fields which has been suggested by himself and V. Ya. Afanas'yev (Ref. 6). Fig. 1 shows two pictures of standing ultrasonic waves. The present paper reports on further experiments made to clarify the acceleration of this process. The experiments were made with Hungarian copying paper at 3 Mc/s. The method applied is described in Ref. 6. In a detailed investigation the author studied the dependence of the blackening on the time of development at different ultrasonic intensities and the effect of local heating on the blackening (Fig. 2). The acceleration of the development was found to depend on the variation of sound pressure and not on sound intensity. From this the author concludes that the accelerating effect of sound is related to a decrease

Card 1/2

85746

S/046/60/006/003/013/017/XX
B013/B063

24.2514

AUTHORS: Arkhangel'skiy, M. Ye., Pinus, G. N.

TITLE: Investigation of the Effect of Ultrasonic Vibrations on the Diffusion of an Electrolyte in Gelatin Gel

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 3, pp. 278-283

TEXT: This paper deals with the effect of ultrasonic waves upon the diffusion of the colored electrolyte ($CuSO_4$) in gelatin gel. The authors studied ultrasonic waves of low intensity (0.2 - 0.4 w/cm^2) in the frequency range from 500 kilocycles to 9 megacycles. They intended to confirm the hypothesis that the diffusion of the electrolyte can be accelerated by exposing the entire diffusion system to ultrasonic waves. Besides, they aimed at determining the factor characterizing the specific effect of the sound field upon the process of acceleration. The block diagram of the experimental arrangement is shown in Fig. 1. The diffusion front was examined under a microscope and by means of an eyepiece micrometer of the type AM-9-2 (AM-9-2) (total magnification: 57-fold). The sound intensity was measured with a point receiver of titanium, which was con-

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Investigation of the Effect of Ultrasonic Vibrations on the Diffusion of an Electrolyte in Gelatin Gel

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B013/B063

nected to the oscilloscope (12) by means of an amplifier (13). A concentrated solution of blue vitriol prepared at 20°C served as a diffusing substance. Fig. 2 shows some microphotographs of blue vitriol diffusion in gelatin gel, which were taken during two examinations of different length (a - 200 sec; b - 500 sec). At the beginning of the experimental series, the authors found that the experimental results varied under equal conditions. A two-month observation of the experimental conditions has shown (Fig. 3) that the distance covered by the diffusion front depends on the relative moisture and the atmospheric pressure. To reduce these effects, the results of 8-10 measurements were statistically averaged. The ultrasonic vibrations in the frequency range examined were found to accelerate the diffusion of the electrolyte in gelatin gel with 75% water by 15%. The specific factor responsible for the acceleration of diffusion is a variable sound pressure which effects 60% of the increase of the path of the diffusion front obtained by exposing gelatin gel to ultrasonic waves. The remaining 40% goes to the "sound wind" (14%) and to the heating of the sample within the ultrasonic field (25%). The values obtained correspond to the values found by Tamas and Tarnoczy (Ref. 2) for the

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Investigation of the Effect of Ultrasonic Vibrations on the Diffusion of an Electrolyte in Gelatin Gel

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B013/B063

acceleration of diffusion of the electrolyte with a cellophane foil under the action of ultrasonic waves (Figs. 5-7). The authors thank L. D. Rozenberg for his interest in this work. There are 7 figures and 8 references: 6 Soviet, 1 German, and 1 Hungarian.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva
(Institute of Acoustics AS USSR, Moscow)

SUBMITTED: April 14, 1960

Card 3/3

S/046/62/008/001/004/018
B125/B102

5.4700

AUTHOR: Arkhangel'skiy, M. Ye.

TITLE: Change in the diffusion coefficient of a heterogeneous system under the action of ultrasonics

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 1, 1962, 49 - 55

TEXT: The author studied microscopically the changes in a diffusion system in an ultrasonic field which accelerates the diffusion of an electrolyte (concentrated solution of copper sulfate solution) into a gelatine gel. The diffusion equation $\partial C/\partial t = D(\partial^2 C/\partial S^2)$ (1) is approximately solved by $C_2 \approx (C_o/2)\left[1 - \psi(S/2\sqrt{D_2 \cdot t})\right]$ (3) by taking account of the initial conditions $C_1 = C_o$ for $S \leqslant 0$ and $t = 0$; $C_2 = 0$ for $S > 0$ and $t = 0$, and also of the boundary condition $D_1 (\partial C_1/\partial S) = D_2(\partial C_2/\partial S)$ for $S = 0$ and $t > 0$ if the concentration of the diffusing substance depends only slightly on D_1. C_1 and C_2 are copper vitriol concentrations in the solution and in the gel respectively; D_1 and D_2 are the diffusion

Card 1/3

Change in the diffusion...

coefficients in the solution and in the gel, respectively. Besides $C_1/C_2 = k$ where $t \to \infty$. (3) also holds in an ultrasonic field if influence exerted by sound pressure and acoustic field on diffusion is negligible. $S = 2\sqrt{D_2 \cdot t} \cdot \psi^*(C_o - 2C_{gel})$ (4) follows from (3) where ψ^* is the inverse functional dependence with respect to ψ. The experimental dependence S(t) is well described by (4). When the gel sample is directly subjected to ultrasonic irradiation diffusion is accelerated in the same way as when the sample is irradiated from the side of the diffusing medium. This acceleration is determined by the change of the temperature dependent diffusion coefficient $D_2 = D_1 e^{-U/RT}$ (5) where U is the activation energy of the diffusion in kcal/mole. $S = 2\sqrt{D_1 \cdot t} \cdot \psi^*(C_o - 2C_{gel}) \cdot e^{-U/2RT}$ (6) follows from (4) with (5) where the temperature dependence is determined practically exclusively by $e^{-U/2RT}$. The experimental temperature dependence of the path S covered by the diffusion front is well described by (6). A similar result is obtained from the experimental dependence of S on the intensity of the sonic oscillations at the frequency of 2

Card 2/3

ARKHANGEL'SKIY, M.Ye.

Conversion of ultrasonic surface vibrations into the rotary forward motion of a body. Akust. zhur. 9 no.3:275-278 '63. (MIRA 16:8)

1. Akusticheskiy institut AN SSSR, Moskva.
(Ultrasonic waves) (Disks, Rotating)

ARKHANGEL'SKIY, M.Ye.

Sonosensitivity characteristics of some photographic materials.
Akust. zhur. 9 no.1:1-4 '63. (MIRA 16:5)

1. Akusticheskiy institut AN SSSR, Moskva.
(Photographic sensitometry)

ACCESSION NR: AP3005628 S/0046/63/009/003/0376/0378

AUTHOR: Arkhangel'skiy, M. Ye.

TITLE: The effect of ultrasonic waves on exposed and unexposed photosensitive layers

SOURCE: Akusticheskiy zhurnal, v. 9, no. 3, 1963, 376-378

TOPIC TAGS: ultrasonic waves, photosensitive layers, diapositive film, photographic process

ABSTRACT: Ultrasonic energy may affect the photographic process either by speeding up the physicochemical processes during wet development of the photographic material or by creating a latent image. The author has experimented on the effect of ultrasonic frequencies of 3 megacycles on the development of unexposed diapositive film in No. 44 developer (V. P. Mikulin. Fotoretsepturnyy spravochnik dlya fotolyubiteley. M., Iskusstvo, 1958). During irradiation of unexposed film in water or in the developing solution by very intense ultrasonic energy, so that cavitation occurs, a latent photographic image may actually appear because of ultrasonic luminescence, even for very short periods of exposure to sound (on the order of several minutes). When the same photographic materials are acted on by ultrasonic energies having

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ACCESSION NR: AP3005628

intensities below the cavitation threshold, an image may be obtained in the developer only after a considerable length of exposure to the sound (tens of minutes). This "latent image" is the result of speeding up the fogging process in the photosensitive layer when it is in the ultrasonic field. Without this, the process is noticeably slowed down. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moscow (Acoustical Institute AN SSSR)

SUBMITTED: 28Sep62 DATE ACQ: 27Aug63 ENCL: 00

SUB CODE: PH NO REF SOV: 003 OTHER: 004

Card 2/2

ARKHANGEL'SKIY, M.Ye.

Effect of softening of a photosensitive layer in the direct visualization method. Akust. zhur. 9 no.4:481-482 '63. (MIRA 17:3)

1. Akusticheskiy institut AN SSSR, Moskva.

ACCESSION NR: AP4025735 S/0046/64/010/001/0111/0112

AUTHORS: Arkhangel'skiy, N. Ye.; Sergeyeva, K. Ya.

TITLE: Role of ultrasonic cavitation in reducing hydraulic fluid viscosity

SOURCE: Akusticheskiy zhurnal, v. 10, no. 1, 1964, 111-112

TOPIC TAGS: ultrasonic cavitation, hydraulic fluid, viscosity, low-molecular polymer, depolymerization, erosion, cavitational erosion, ultrasonic concentrator

ABSTRACT: The authors give experimental results of determining the role of cavitation in the drop in viscosity of hydraulic fluid under the influence of ultrasound. A volume of the hydraulic fluid AMG-10 of about 30 cm^3 is exposed to sound for 60 minutes at a frequency of 500 kilohertz in the focus of a spherical concentrator for certain stress values corresponding to various amounts of intensity, according to the scheme shown in Fig. 1 on the Enclosure. The container 1 whose bottom is a thin sound-penetrable film 2, is filled with the fluid 3 and placed in an ultrasonic concentrator 4 so that the focus of the latter coincides with the center of the fluid. Before and after sound exposure, a Penkevich viscosimeter is used to measure the viscosity in centi-Stokes to within ± 3%. In

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ACCESSION NR: AP4025735

another figure, the authors show the curve of cavitational erosion. If a hydraulic fluid which has no polymer thickener in its composition is exposed to sound, no decrease in viscosity is detected. Fall in the viscosity of hydraulic fluids may not necessarily entail decrease in the molecular weight of the polymer. "In conclusion the authors express their gratitude to M. G. Sirotyuk for supplying the setup for the experiment." Orig. art. has: 2 figures.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moscow (Acoustical Institute, AN SSSR)

SUBMITTED: 24Apr63 DATE ACQ: 10Apr64 ENCL: 01

SUB CODE: AI, PH NO REF SOV: 002 OTHER: 004

Card 2/3

ACCESSION NR: AP3005617 S/0046/63/009/003/0275/0278

AUTHOR: Arkhangel'skiy, M. Ye.

TITLE: Transformation of ultrasonic surface oscillations into rotational and translational motion of a body

SOURCE: Akusticheskiy zhurnal, v. 9, no. 3, 1963, 275-278

TOPIC TAGS: translational motion, metallic disk, stepped concentrator, ultrasonic machine 4770, stability, microscope MG, flexural oscillation, mechanical contact

ABSTRACT: The phenomenon has been studied where a metallic disk interacts with the surface edge of an ultrasonically oscillating, stepped concentrator. A brass disk is freely positioned on a stepped concentrator which is subjected to longitudinal oscillations at 17.7 Kc frequency by an ultrasonic machine, model 4770. The stability of the disk along the concentrator surface is then observed. Three different rotations and/or translations are observed on the disk, depending on its initial position relative to the concentrator shoulder. Using an MG microscope (265 time magnification), the oscillations of the concentrator surface edge are observed and found to be longitudinal and flexural in nature. A flexural oscillation wave velocity of 1030 m/sec is observed on a 0.4 cm steel rod. An experimental study of the contact point between the disk and the concentrator indicates the

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ACCESSION NR: AP3005617

necessity of a continuous mechanical contact between those two surfaces to ensure translation-rotation conversion of the concentrator rod oscillational motion to the disk itself. Orig. art. has: 4 figures.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moscow (Acoustics Institute AN SSSR)

SUBMITTED: 12Mar63 DATE ACQ: 27Aug63 ENCL: 00

SUB CODE: GP NO REF SOV: 003 OTHER: 001

Card 2/2

90-58-5-7/10

AUTHORS: Arkhangel'skiy, N.; Babayev, M.; Gladkov, M.; Yel'yashevich, Z.; Kamyshko, A.; Kuzyatin, G.; Kuliyev, S.; Movsesov, N.; Popov, A.; Portnoy, T.; Riznik, A.; Serova, Ye.; Tarasov, A.; Tulin, V.; Shishkin, O.; Shkol'nikov, B.; Shturman, L.; Chesnokov, V.; Efendizade, A.

TITLE: Candidate of Technical Sciences K.N. Kulizade (Kandidat tekhnicheskikh nauk K.N. Kulizade) The 50th Anniversary of His Birthday and the 25th Anniversary of His Scientific, Engineering, and Teaching Activity (K 50-letiyu so dnya rozhdeniya i 25-letiyu nauchnoy, inzhenernoy i pedagogicheskoy deyatel'nosti)

PERIODICAL: Energeticheskiy Byulleten', 1958, Nr 5, pp 23-24 (USSR)

ABSTRACT: This is a short biography written on K.N. Kulizade, Candidate of Technical Sciences and well-known Russian author of more than 40 articles and monographies. The titles of some of his books are: "Electric Current Supply in Oil Fields", "Protective Grounding of Electric Installations in Oil Fields", "Electric Equipment for the Drilling of Oil Wells", "Increase of the Power Factor in Oil Fields", "Economy of Electric Energy and Norming of Electric Current

Card 1/2

90-58-5-7/10

Candidate of Technical Sciences K.N. Kulizade. The 50th Anniversary of His Birthday and the 25th Anniversary of His Scientific, Engineering, and Teaching Activity

Consumption in Oil Fields".
There is 1 figure.

AVAILABLE: Library of Congress

Card 2/2 1. Biographies-Kulizade, K.N.

ARKHANGEL'SKIY, N. (Kuybyshev)

Account for labor expenditures more accurately. Sots. trud 8 no.2:108-111 F '63. (MIRA 16:2)
(Kuybyshev Province--Building materials industry--Accounting)

28(2) PHASE I BOOK EXPLOITATION SOV/3325

Arkhangel'skiy, Nikolay Alekseyevich, and Boris Il'ich Zaytsev

Avtomaticheskiye tsifrovyye mashiny (Digital Computers) Moscow, Gos. izd-vo fiziko-matematicheskoy lit-ry, 1958. 125 p. (Series: Populyarnyye lektsii po matematike, vyp. 28) 50,000 copies printed.

Ed.: A.A. Konoplyankin; Tech. Ed.: Ye.A. Yermakova.

PURPOSE: The booklet is intended for secondary school students and for the general reader interested in computers.

COVERAGE: The authors discuss in layman's terms new high-speed computing techniques and their possible utilization in solving difficult scientific porblems, and in the automatic control of industrial and other processes. The authors outline the fundamentals of design of electronic digital computers and of programming operations. The book is illustrated with several drawings and photographs. The Appendix gives technical specifications of 18 Soviet and non-Soviet computers including the BESM, Strela, M-2, Ural, and the STsM. The authors thank Professor A.A. Lyapunov. No references are given.

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1. Logical unit 43
2. Arithmetic unit 51
3. Storage unit 56
4. Input and output units 77
5. Control of working order 80

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1. Instructions 84
2. Programming problems for digital computers 88
3. Problem procedure for programming and solution with the digital computer 101

Ch. V. Non-arithmetical Uses
1. General considerations. Computer for playing chess 110
2. Cybernetics and electronic digital computers 115

Appendix 120

AVAILABLE: Library of Congress

Card 3/3 JP/jb
3-1-60

ARKHANGEL'SKIY, N.A.

Automatische Ziffernrechenmaschinen, von N.A. Arkhangel'skiy und B.I. Zaytsev. Berlin, DVW, 1960.
130 p. diagrs., tables.
Translated from the Russian "Avtomaticheskiye tsifrovyye mashiny," Moscow, 1958.

ARKHANGEL'SKIY, N. A. DECEASED 1963?3

COMMERCIAL PRODUCTS (c 1962)

AF'KHANGEL'SKIY, N.D.

Intrathoracic wound of the thoracic duct. Sov.med. 21 Supplement: 23 '57. (MIRA 11:2)

1. Iz Glavnogo voyennogo gospitalya imeni akad. N.N.Burdenko
(THORACIC DUCT--WOUNDS AND INJURIES)

[illegible] N., N.F.; ARKHANGEL'SKIY, N.I., otv. red.

[Geology and the history of the development of the eastern slope of the Southern Urals; Brody-Chelyabinsk Lower Paleozoic synclinorium.] Geologicheskoe stroenie i istoriia razvitiia vostochnogo sklona Iuzhnogo Urala; Brodinsko-Chelyabinskii nizhnepaleozoiskii sinklinorii. Sverdlovsk, 1965. 168 p. (Akademiia nauk SSSR. Ural'skii filial, Sverdlovsk. Institut geologii. Trudy, no.73)

(MIRA 18:8)

ARKHANGEL'SKIY, N.I.

35961 maastrikhtskiy yarus na vostoch nom sklone srednego urala.
zapiski ural'skogo geol. O-va, vyp. 2, 1948, S. 65-70.
bibliogr: 12 nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

ARKHANGEL'SKIY, N.I.

Stratigraphy and tectonics of Mesozoic and Lower Cenozoic deposits of the easthern edge of the Urals in the Serov-Ivdel' region. Trudy Gor.-geol.inst. no.22:34-63 '53. (MLRA 7:3)
(Serov region--Geology, Stratigraphic)
(Geology, Stratigraphic--Serov region)
(Ivdel' region--Geology, Stratigraphic)
(Geology, Stratigraphic--Ivdel' region)

ARKHANGEL'SKIY, N.I.

Post-Paleozoic tectonics of the eastern slope of the Urals and the trans-Ural region. Izv.AN SSSR. Ser.geol. 20 no.3:36-47 My-Je '55.
(Ural mountain region--Geology, Structural) (MLRA 8:9)

ARKHANGEL'SKIY, N.I.

Mesozoic stratigraphy of the eastern slope of the Urals. Trudy Gor.-geol. inst. UFAN SSSR no.51:47-59 '60. (MIRA 13:9)

(Ural Mountains--Geology, Stratigraphic)

ARKHANGEL'SKIY, N.I.

Basic problems of the geology of Mesozoic formations on the eastern slope of the Urals. Trudy Gor.geol.inst.UFAN SSSR no.6:3-22 '60. (MIRA 14:10)

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1. Shakhtspetsstroy, trust. (Electricity in mining) (Mining machinery)

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PA 1/49T102

ARKHANGEL'SKIY, N. K.

USSR/Petroleum
Drills, Oil Well
Clutches

Apr 48

"Electromagnetic Slip Clutches and Their Use in Drilling Machines," N. K. Arkhangel'skiy, Eastern Power Eng Petroleum Adm, 5 pp

"Energet Byul" No 4

Describes principle and construction of three main types of electromagnetic slip clutches. Gives detailed account of Dynamatic clutch used for drilling oil wells.

1/49T102

ARKHANGEL 'SKIY, N. K.

PA 196T55

USSR/Electricity - Motors, Induction Sep 51

"Concerning G. I. Shturman's Article 'Open Squirrel Cages in Squirrel-Cages Induction Motors'," N. K. Arkhangel'skiy, A. A. Minin, K. A. Chefranov, Engineers, "Glavenergoneft'"; G. V. Molchanov, Engr "Griproneftemash"

"Elektrichestvo" No 9, pp 81, 82

The 1st group, from "Glavenergoneft'," state that Shturman's method is quite unsatisfactory and cite expts conducted by Sinel'nikov and Zemlyanyy in the All-Union Elec Eng Inst, in

196T55

USSR/Electricity - Motors, Induction (Contd) Sep 51

which slotting of the end rings, reduced the efficiency of the motors tested by 4.5-5% and the power factor by 17-19%, while increasing the starting torque by only 5-30%. Molchanov gives examples of successful application of Shturman's method.

196T55

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Automatic regulation of mobile electric power plants. Energ.biul. no.10:10-14 O '53. (MLRA 6:10)

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ARKHANGEL'SKIY, N.K.

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(Oil well drilling--Equipment and supplies)

ARKHANGELSKIY, M.K., inzhener, redaktor; NIKITENKO, A.A., vedushchiy redaktor; MUKHINA, E.A., tekhnicheskiy redaktor.

[Drilling with electric drills on drill pipes; materials of a a session of the Scientific and Technical Council] Burenie elektroburom na trubakh; materialy sessii Nauchno-tekhnicheskogo soveta. Moskva, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry, 1957. 79 p. [Microfilm] (MLRA 10:4)

1. Russia (1923- U.S.S.R.) Ministerstvo neftianoy promyshlennosti. Nauchno-tekhnicheskiy sovet.
(Oil well drilling)

ARKHANGEL'SKIY, N.K.; YEVSTIGNEYEV, K.N.

Experimental industrial drilling using an electric drill with drill column. Neft. khoz. 35 no.8:13-19 Ag '57. (MIRA 10:11)
(Oil well drilling)

8(5), 11(4)

SOV/112-59-3-5020

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 103 (USSR)

AUTHOR: Arkhangel'skiy, N. K.

TITLE: The First Experience With Drilling by an Electric Drill Supplied Over a "Two-Wire Ground-Return" Circuit
(Pervyy opyt bureniya elektroburom pri pitanii po skheme "DPZ")

PERIODICAL: Novosti neft. tekhn. Neftepromysl. delo, 1958, Nr 1, pp 3-5

ABSTRACT: In the "two-wire ground-return" (2WGR) circuit, the electric-drill immersible motor is supplied with 3-phase AC by a 2-conductor cable; the third conductor is replaced by the drill-pipe column which permits using a smaller-size two-conductor cable instead of a three-conductor. Drilling of Nr 1377 (Tuymaza), a 1,708-m deep hole by electric drill supplied over a 2WGR circuit, was completed in September, 1957. Preparations for the experimental drilling included a special investigation into the safety of the 2WGR scheme for the drilling crew. Tests staged in 1956 at an experimental hole in Baku showed that the electric drilling installation supplied over a 2WGR

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The First Experience With Drilling by an Electric Drill Supplied Over a "Two-. . . .

circuit can be considered safe for the drilling-crew personnel if the requirements conventional to any electrical installation are observed. Experimental drilling of Nr 1377 hole showed that, despite the worn-out drill and supply cables and despite a comparatively high voltage on the submersible motor (1,650 v and higher), no detrimental influence of the 2WGR scheme upon the motor insulation or cable insulation was detected. A certain current asymmetry in the individual phases was observed within the limits of tolerable voltage asymmetry in the supply lines. To accumulate further experience with electric drill supplied over a 2WRG circuit and to determine more accurate actual phase load asymmetry, electric drilling of the second hole, Nr 1391, was begun. Experimental samples of 2-conductor cables for supplying the drill manufactured by the "Ukrkabel'" Kiyev Plant will be tested, as well as some actual 2WRG-scheme parameters; this is necessary for developing methods of asymmetry compensation.

L.G.S.

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