L 23104-66

ACC NR: AP6007068

perpendicular to the conducting plane, but if the direction of motion of the charged particle is neither perpendicular nor parallel to the direction in which the plane conducts, the radiation reaction has a nonvanishing component perpendicular to the direction of motion of the particle. Orig. art. has: 20 formulas.

SUB CODE: 20 SUBM DATE: 03May65 ORIG. REF: 002 OTH REF: 003

Card 2/2 ULP

L 26057-66 EWT(1)/EWA(h)

ACC NR: AP5022799 SOURCE CODE: UR/0141/65/008/004/0760/0767

AUTHOR: Barsukov, K. A.; Bolotovskiy, B. M. 52 B

ORG: Moscow State Pedagogical Institute im. V. I. Lenin (Moskovskiy gosu. darstvennyy pedagogicheskiy institut)

TITLE: Oscillator radiation in nonhomogeneous and nonstationary medium

SOURCE: IVUZ. Radiofizika, v. 8, no. 4, 1965, 760-767

TOPIC TAGS: oscillator theory, laser radiation, travelling wave, frequency multiplication, electromagnetic wave, charged particle

ABSTRACT: Studies of nonstationary and nonhomogeneous media were related to uses of nonstationary media for frequency multiplication and parametric amplification. This initiated interest in a strong electromagnetic wave (for example, laser radiation) which in passing through the medium changes its properties: the medium becomes periodically nonstationary and nonhomogeneous. The radiation of a charged particle moving in nonhomogeneous and nonstationary medium has been investigated. The process of radiation in such a medium involves the energy and impulse being transferred to the medium. It is interesting to investigate the

Card 1/2 UDC: 530.1

L 26057-66

ACC NR: AP5022799

radiation of those systems which possess degrees of freedom also moving in a nonhomogeneous and nonstationary medium. The radiation of a point oscillator moving with a constant velocity in a medium whose properties were modulated by the travelling wave law are examined. As an example, the radiation of a stationary electric oscillator has been considered. A previous study was related to locating the transverse field of radiation of a moving oscillator. It is not difficult to see that the longitudinal field is determined by the same method.
Orig. art. has: 32 formulas.
SUB CODE: 20 / SUBM DATE: 06Nov64/ ORIG REF: 007/ OTH REF: 000

Card 2/2

L 33415-66 EWT(1)
ACC NR: AP6015300 (A, N) SOURCE CODE: UR/0057/66/036/005/0800/0805

AUTHOR: Barsukov, K. A.; Naryshkina, L. G.

ORG: Moscow State Pedagogical Institute im V.I.Lenin (Moskovskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: On the Vavilov-Cerenkov effect for surface waves

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 5, 1966, 800-805

TOPIC TAGS: Cerenkov effect, Cerenkov radiation, surface wave, dielectric layer, dielectric constant, isotropic plasma, charged particle

ABSTRACT: The authors discuss surface waves induced on the infinite plane interface between a dielectric and the vacuum by a charged particle moving with constant velocity parallel to the boundary. Surface waves can propagate on such a boundary only if the dielectric constant of the dielectric is negative. When this is the case surface waves are excited by the charged particle regardless of its velocity. The case is discussed in detail of the boundary between the vacuum and a plasma whose dielectric constant is $1 - f_0^2/f(f - iF)$, where f_0 is the plasma frequency, f is the wave frequency, and F is the effective collision frequency. Formulas are derived for the energy and spectrum of the induced surface waves. When the velocity of the charged particle is very low the frequencies of the induced waves are concentrated

Card 1/2

UDC: 538.567

L 33415-66
ACC NR: AP6015300

near the value $f_o/2^{1/2}$, where they are strongly absorbed and cannot be observed; the induced waves become observable only when the velocity of the charged particle is large compared with $2.4c(F/f_o)^{1/2}$, where c is the velocity of light. The conclusion of A.G.Sitenko and V.S.Tkalich (ZhtF, 29, 1074, 1959) that the charged particle loses energy by polarization radiation at certain discrete frequencies is shown to be incorrect, and the mathematical error that led these authors to this incorrect conclusion is pointed out. Orig. art. has: 24 formulas.

SUB CODE: 20/ SUBM DATE: 15Mar65/ ORIG REF: 006/ OTH REF: 002

Card 2/2

BARSUKOV, K. M. and SNEGIREV, M. M.

1952 "Locating the Point of Damage in Underground Cables," Rab. energ., 2, No.7,

1. [illegible], [illegible]. M., S[illegible]IREV, [illegible]

2. USSR (60[illegible])

4. Electric Cables - Testing

7. Detector of defects of cable. Rum. Prom. 27, 1952.

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

BARSUKOV, K.M.

Semiautomatic proportioning of hypochlorite solution. Bum. prom. 36 no.12:19 D '61. (MIRA 15:1)

1. Krasnokamskaya bumazhnaya fabrika Upravleniya proizvodstvom gosudarstvennykh znakov, monet i ordenov.
(Hypochlorites)
(Papermaking machinery)

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M., akademik

Mechanism and steric course of the Wittig reaction as affected by external factors. Dokl. AN SSSR 143 no.1:111-114 Mr '62. (MIRA 15:2)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Wittig reaction)
(Stereochemistry)

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M.

Stereochemistry and the mechanism of Wittig reaction. Izv. AN SSSR. Otd.khim.nauk no.6:1053-1063 Je '63. (MIRA 16:7)

1. Institut khimii prirody soyedineniy AN SSSR.
(Stereochemistry) (Wittig reaction)

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M.

Intramolecular acylation of phosphorylides and a new way of synthesizing α-substituted cyclopentanones. Izv. AN SSSR. Otd.khim.nauk no.6:1134-1136 Je '63. (MIRA 16:7)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Cyclopentanone)
(Phosphorus organic compounds)

BERGEL'SON, L.D.; VAVER, V.A.; BARSUKOV, L.I.; SHEMYAKIN, M.M.

Unsaturated acids and macrocyclic lactones. Report No.11: Total synthesis of cis-8-hexadecenoic, cis-11-hexadecenoic (palmitvaccenic), cis-7-octadecenoic, and cis-9-hexacosanoic acids. Izv.AN SSSR. Ser.khim. no.8:1417-1421 Ag '63. (MIRA 16:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Hexadecenoic acid) (Octadecenoic acid) (Hexacosanoic acid)

L 26541-66 EWT(m) · RM

ACC NR: AP6017362 SOURCE CODE: UR/0062/66/000/003/0506/0511

AUTHOR: Bergel'son, L. D.; Vaver, V. A.; Barsukov, L. I.; Shemyakin, M. M.

ORG: Institute of Chemistry of Natural Compounds, AN SSSR (Institut khimii prirodnykh soyedineniy AN SSSR)

TITLE: Stereoregulated synthesis of unsaturated compounds. Report 10. Stereochemistry of the reactions between aldehydes and phosphonate- and phosphinoxide-carbanions

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 506-511

TOPIC TAGS: stereochemistry, organic synthetic process, aldehyde, organic phosphorus compound

ABSTRACT: The reaction between phosphonate- and phosphinoxide-carbanions with aromatic and aliphatic aldehydes leads selectively to the trans-olefins. The steric trend of the reaction does not depend on the polarity of the medium. Orig. art. has: 5 figures and 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 05Nov63 / ORIG REF: 008 / OTH REF: 009

Card 1/1 CC

UDC: 541.64+542.91

BARSUKOV, L. N.

USSR/Soil Science
Colloids

Apr 1948

"Soil as a Colloidal System," L. N. Barsukov, All-Union Inst Fertilizers, Agr Tech and Agr Soil Studies imeni Gedroyts, 11 pp

"Pochvoved" No 4

Colloidal-chemical system of soil studies has received much attention in last ten years. Book known as "The Soil - A Dispersion System" released some 30 years ago by Vigner was first indication that soil was a colloidal system. Explains 'dispersoidological' point of view of studying soil.

69T102

LYSENKO, T. D.

Lysenko, T. D. "Historical landmark in the development of biological sciences," (From the Report of the August meeting of the All-Union Academy of Agricultural Science imeni Lenin), Izvestiia, 1949, No. 1, p. 3-6

SO: U-3264, 16 April 53, (Letopis 'Zhurnal'nykh Statey, No. 4, 1949).

CA BARSUKOV, L. N.

15

The role of frost in the annual cycle of the structural condition of the soil L. N. Barsukov and Z. I. Bokhareva. *Pedology* (U.S.S.R.) 1950, No. 1, 21-8. Samples of garden soil containing 21.4% H₂O were subjected to several systems of freezing: (1) frozen once for 7 days, (2) frozen twice, with a 7-day interval after the first freezing, and the second freezing period lasting only 3 days, (3) frozen 3 times, with two 7-day intervals between. After freezing, the samples were dried at 85° and 105-110°. The moisture retained at these temperatures shows that the single freezing imparts a higher hydrophilic property to the soil and increases its active surface. The lowering of the f.p. after freezing the soil, 2 or 3 times, is explained on the basis of the colloid activity causing the release of electrolytes, such as exchange Ca, Al, [illegible]

BARSUKOV, L. N. (Cand Agr Sci)

USSR/Biology - Ultrasonics Sep/Oct 53

"Effects of High-Frequency Oscillations on Germination of Seeds and Development of Plants," L. N. Barsukov, Cand Agr Sci, and K. M. Zabavskaya

Agrobiol, No 5 (83), pp 80-85

Brief exposure (1-3 minutes) of seeds of cultivated plants to powerful mech oscillations of sonic frequency, has the same effect as exposure to ultrasonic oscillations, i.e. it accelerates germination, facilitates more rapid plant development and hastens

276T2

maturation. High-frequency oscillations are of particular value in the cultivation of crops whose seeds are characterized by retarded and imperfect germination and development. Illustrated by charts.

USSR/Cultivated Plants - Grains. M-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29659

Author : Barsukov, L.N.

Inst : The All-Union Institute for Fertilizers and Soil Science.

Title : Working the Soil for Summer Crops in the Non-Chernozem Soil Zone.

Orig Pub : Zemledeliya, 1957, No 2, 55-60.

Abstract : At the All-Union Scientific Research Institute for Fertilizers and Soil Science a number of variant soil working systems were studied. The basic method of soil preparation for summer crops remained the tilling system composed of shallow stubble plowing, early autumn tilling, early spring harrowing and pre-sowing cultivation. In different concrete cases it is practical to use other methods too.

Card 1/1

BARSUKOV, L.N., kand. sel'skokhozyaystvennykh nauk; ZARAVSKAYA, K.M., nauchnyy sotrudnik; IVANOVA, T.I., nauchnyy sotrudnik

Importance of turning over furrows. Zemledelie 7 no.11:67-71 N '59 (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut udobreniy i agropochvovedeniya.
(Plowing)

BARSUKOV, M.F.; YEMEL'YANOVA, Ye.V., redaktor; LEVONEVSKAYA, L.G., tekhnicheskiy redaktor

[K.F.Kriuchek's instruments, devices and methods of marking] Instrumenty, prisposobleniia i metody razmetki novatora K.F.Kriucheka. [Leningrad] Leningradskoe gazetno-zhurnal'noe i kn-vo, 1952. 37 p. [Microfilm] (MLRA 9:8)

(Marking devices)

BARSUKOV, M. F. Eng.

"Universal Apparatus for Marking Parts," Vest. mash, 32, No.2, 1952

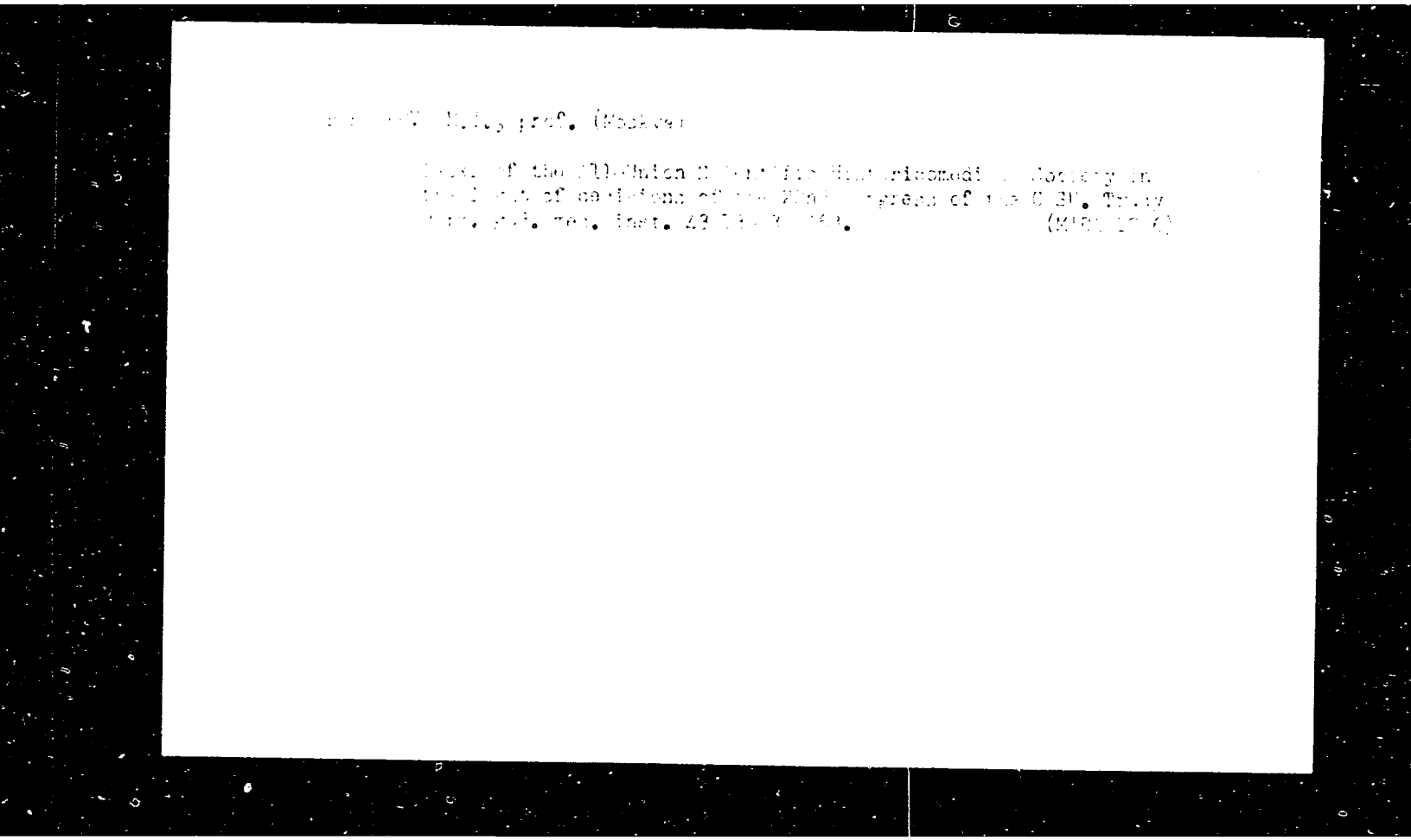
PAVLYUCHENKO, N.Ya.; BARSUKOV, M.F., red.

[Representing the roghness of part surfaces on drawings; manual on the drawing of working sketches in a course of mechanical drawing] Oboznachenie na chertezhakh sherokhovatosti poverkhnostei detalei; uchebnoe posobie k vypolneniiu rabochikh chertezhei detalei v kurse mashinostroitel'nogo cherchcniia. Leningrad, Leningr. tekhnologicheskii in-t, 1964. 48 p. (MIRA 18:7)

BARSUKOV, M.I., prof. [illegible]

[illegible] perspectives for the [illegible] of public health in a socialist society. [illegible] [illegible] [illegible] 535-536, [illegible] '61.

1. Predsed [illegible] Vsesvazove [illegible] [illegible] lekarstvi.



BARSUKOV, M.I., prof. (Moskva)

Problems in the study of the theory and history of medicine in the U.S.S.R. in the light of the decisions of the 21st Congress of the Communist Party of the Soviet Union. Sov.med. 23 no.7: 3-12 Jl '59. (MIRA 12:11)

(MEDICINE)
(HISTORY OF MEDICINE)
(COMMUNISM)

BARSUKOV, M.I., prof.; ASHURKOV, Ye.D.

Felix Bengeim, scientist, fighter, friend of the U.S.S.R.; obituary. Sov. zdrav. 19 no.11:89-90 '60. (MIRA 13:11)

1.Predsedatel' Vsesoyuznogo nauchnogo istoriko-meditsinskogo obshchestva (for Barsukov). 2. Predsedatel' Moskovskogo nauchnogo istoriko-meditsinskogo obshchestva (for Ashurkov).
(BENGEIM, FELIX, 1890-1960)

L 12384-65 ENP(e)/EPA(s)-2/EWT(m)/EPF(n)-2/EPA(w)-2/EPA(bb)-2/EWP(b) Pab-10/
ACCESSION NR: AP4048556 Pq-4/Pt-10/Pu-4 S/0286/64/000/019/0032/0032
WW/WH

AUTHOR: Kitaygorodskiy, I. I.; Bondarev, K. T.; Barsukov, M. I.; Lazorenko, V. I.; Minin, V. I.; Mitkevich, G. I.; Parvenkov, G. S.; Boyko, G. V.

TITLE: Method for manufacturing flat foam pyroceram products. Class 32, No. 165528

SOURCE: Byulleten' izobreteniy i tovarny*kh znakov, no. 19, 1964, 32

TOPIC TAGS: An Author Certificate has been issued for a method of manufacturing flat foam pyroceram (sitall) products based on glass made from slag. The glass is heat-treated in two stages in order to obtain a porous surface, while maintaining a nonporous subsurface. While the subsurface is being cooled, the surface is heated to 100—150C above the crystallization point to a viscosity not to exceed 400—500 poise, and maintained under these conditions for 10—30 minutes.

ASSOCIATION: none

Card 1/1

L 60951-65 EWT(1)/EWP(e)/EWT(m)/EPA(s)-2/EPF(c)/EWP(i)/EPA(w)-2/EWP(j)/
T/EWA(b)-2/EWP(b) Pc-4/Pq-4/Pr-4/Ps-7/Pt-4 IJP(c) WW/GG/RM/WH

ACCESSION NR: AP5013930 UR/0363/65/001/006/0943/0946
661.1:542.6

AUTHOR: Bondarev, K. T.; Barsukov, M. I.; Golius, T. Ye.; Minakov, V. A.; Min'ko, N. L.; Karlyuk, V. N.

TITLE: Effect of abrupt temperature changes on the structure and properties of certain pyroceramics

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 6, 1965, 943-946

TOPIC TAGS: pyroceramic, crystallized pyroceramic, glass structure, glass mechanical property

ABSTRACT: Samples of normally crystallized pyroceramics were subjected to additional multiple heating up to the maximum working temperature and were then cooled to the ambient temperature. To prevent mechanical failure, the rate of the thermal changes was chosen by allowing for the stress relaxation time in the material. The phase analysis was carried out with a URS-50I diffractometer. Structural changes were studied with an EM-5 electron microscope and MIM-8M metallographic microscope. It was found that a process of "final" crystallization lasting 2-3 days and changing into recrystallization

Card 1/2

L 60952-65

ACCESSION NR: AP5018930

6

takes place during the initial period of exposure to high temperatures; this process is associated with an increase in density and strength, and consolidation of structure. As a result, the original structure of pyroceramics changes appreciably, and their physico-mechanical properties decline. The pyroceramic structure is labile. At high temperatures, it tends to convert into a more stable state, which is coarsely crystalline. The rate of accumulative recrystallization reaches perceptible values when the pyroceramic is kept near the maximum temperature of pyroceramization of the initial glass. For this reason, the allowed temperature of long-term service of pyroceramics should be below their crystallization temperature. Orig. art. has: 4 figures.

ASSOCIATION: None

SUBMITTED: 11Feb65 ENCL: 00 SUB CODE: MT, TD

NO REF SOV: 001 OTHER: 000

dm

Card 2/2

BARSUKOV, M.M., dorozhnyy master po opytnym rabotam (g. Berdichev)

Using the filling method in straightening track laid on reinforced concrete ties. Put' i put. khoz. no. 8:11-12 Ag '58. (MIRA 11:8)

(Railroads--Track)

SERGIYENKO, V.V.; BARSUKOV, M.M.

Maintenance and repair of continuous tracks. Put' i put.khoz.5 no.2:17-20 F '61. (MIRA 14:3)

1. Nachal'nik Kazatinskoy distantsii puti, Yugo-Zapadnoy dorogi (for Sergiyenko). 2. Inzhener po opytnym rabotam, stantsiya Kazatin, Yugo-Zapadnoy dorogi (for Barsukov).

(Railroads--Maintenance and repair)

BEZRUKOV, A.M.; PRIBUD'KO, N.S.; BARSUKOV, M.M., inzh.

Our methods of maintenance of tracks of the new construction type. Put' i put.khoz. 6 no.11:21-22 '62. (MIRA 16:1)

1. Nachal'nik Kazatinskoy distantsii Yugo-Zapadnoy dorogi (for Bezrukov). 2. Zamestitel' nachal'nika Kazatinskoy distantsii Yugo-Zapadnoy dorogi (for Barsukov).
(Railroads—Maintenance and repair)

BEZRUKOV, A.N.; BELOV, N.A.; BARSUKOV, M.M., inzh.

Method for restoring the strength of dowels. Put' i put. khoz. 7 no.11:18 '63. (MIRA 16:12)

1. Nachal'nik Kazatinskoy distantsii puti Yugo-Zapadnoy dorogi (for Bezrukov). 2. Starshiy inzh. Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta Ministerstva putey soobshcheniya (for Belov). 3. Kazatinskaya distantsiya puti Yugo-Zapadnoy dorogi (for Barsukov).

BRAUDE, I.Ye., inzh., red.; BARSUKOV, M.N., red.; PETROV, S.P., tekhn.red.

[Materials of the 5th World Power Conference in Vienna] Materialy Piatoi mirovoi energeticheskoi konferentsii v Vene . Moskva, TSentr.biuro nauchno-tekhn.informatsii tiazhelogo mashinostroeniia. Vol.1. [Steam boilers] Parovye kotly. 1958. 284 p. (MIRA 13:1)

1. World Power Conference. 5th, Vienna, 1956. (Boilers)

BEZRUKOV, A.I.; BARSUKOV, M.M., inzh. po opytnym rabotam

Maintenance of tracks laid on reinforced concrete blocks. Put' i put.khoz. 9 no.4:9-12 '65. (MIRA 18:5)

1. Nachal'nik Kazatinskoy distantsii puti Yugo-Zapadnoy dorogi (for Bezrukov). 2. Kazatinskaya distantsiya puti Yugo-Zapadnoy dorogi (for Barsukov).

BARSUKOV, N.

Our rockets assault outer space. Znan.ta pratsia no.2:16-17 F '59. (MIRA 12:10)

(Rockets (Aeronautics))

BARSUKOV, N.

A continent of science; the antarctic in 1985. Znan.ta pratsia no.7:19-20 Jl '59. (MIRA 13:2)
(Antarctic regions)

BARSUKOV, N., inzh.

On the eve of our jump into space. Znan. ta pratsia no.5:2-4 My '60.
(MIRA 13:10)

(Astronautics)

BARSUKOV, Nikolay Aleksandrovich; PROBATOV, Aleksandr Nikolayevich; SHKBALIN, Oleg Dmitriyevich; GRINSHTEYN, I., red.; NIKOLAYEVA, T., tekhn.red.

[The Baltic Sea; a geographical essay] Baltiiskoe more; geograficheskii ocherk. Kaliningrad, Kaliningradskoe knizhnoe izd-vo, 1959. 92 p. (MIRA 12:8)
(Baltic Sea)

BARSUKOV, N.A., inzh.; TSVYATKO, A.V., inzh.

Machine for flanging conical bottoms of reservoirs. Suggested by N.A. Barsukov, A.V. TSviatko. Rats. i izobr. predl. v stroi. no.15:24-25 '60. (MIRA 13:9)

1. Nikolayevskiy zavod metallokonstruktsiy.
(Reservoirs)

[illegible], M.A.

Svetolechenie v veterinarnoi khirurgi-
cheskoi praktike (Light therapy in veterinary surgery)
Moskva, Sel'khozizdat, 1963. 117 p.

SO: Monthly List of Russian Accessions, Vol. 7, no. 5, August 1964.

BARSUKOV, N.A., dotsent.

Methods for irradiating animals with ultraviolet rays. Veterinariia 34 no.4:67-69 Ap '57. (MLRA 10:4)

1. Moskovskaya veterinarnaya akademiya.
(Ultraviolet rays--Therapeutic use) (Veterinary medicine)

BARSUKOV, M.A., dotsent

Treatment of wounds with lime tar. Veterinariia 36 no.10:45 O '59. (MIRA 13:1)

1. Moskovskaya veterinarnaya akademiya.
(Lime(Tre)--Therapeutic use)

BARSUKOV, N.A.

Linder tar in treating eczematous processes in animals. Uch.zap. IAGU No.6:41-44 '59. (MIRA 13:12)
(Linden) (Wood tar--Therapeutic use) (Eczema)

BARSUKOV, N.A.

Prophylactic ultraviolet irradiation of animals. Uch.zap. IAGU No.6:45-49 '59. (MIRA 13:12)
(Ultraviolet rays—Therapeutic use)

BARSUKOV, N.A.

Treating infected wounds with linden tar obtained from dry distillation. Uch.zap. IAGU no.6:51-54 '59. (MIRA 13:12)
(Wounds--Treatment) (Linden)
(Wood tar--Therapeutics use)

BARSUKOV, N.A.

Study of concentrations of white streptocide in dog tissues and blood following its administration by the electrophoretic methods. Farm. i toks. 24 no.5:594-599 S-O '61. (MIRA 14:10)

1. Yakutskiy gosudarstvennyy universitet (rektor - dotsent I.G.Popov).
(SULFONAMIDES) (ELECTROPHORESIS)

BARSUKOV, N.A., dotsent

Novocaine electrophoretic treatment of wounds. Veterinariia 38 no.1:56-57 Ja '61. (MIRA 15:4)

1. Yakutskiy gosudarstvennyy universitet.
(Wounds--Treatment) (Electrotherapeutics)
(Novocaine--Therapeutic use)

BARSUKOV, N.A., dotsent

Methods for the electrophoresis of norsulfazole. Veterinariia 38 no.7:69-70 Jl '61. (MIRA 16:8)

1. Yakutskiy gosudarstvennyy universitet.
(Sulfathiazole) (Electrophoresis)

BARSUKOV, N.A.

Studies on penicillin concentrations in dog tissues and blood after administration with the aid of electrophoresis. Antibiotiki 6 no.5:427-431 My '61. (MIRA 14:7)

1. Yakutskiy gosudarstvennyy universitet.
(PENICILLIN) (ELECTROPHORESIS)

BARSUKOV, N.A., dotsent

Studies on the passage of penicillin into the tissue from dressings soaked with its solution. Khirurgiia 37 no.4:109-111 '61. (MIRA 14:4)

1. Iz Yakutskogo gosudarstvennogo universiteta (rektor - dotsent I.G. Popov).

(PENICILLIN)

BARSUKOV, N. A. (Docent, Yakutsk State University)

"Experimental determination of the electrophoretic method of tetracyclines in purulent inflamation processes"...

Veterinariya, vol. 39, no. 8, August 1962 pp. 49

BARSUKOV, N.A., dotsent

Treatment of wounds by calcium electrophoresis. Khirurgiia 38 no.10:41-44 O '62. (MIRA 15:12)

1. Iz Yakutskogo gosudarstvennogo universiteta.
(CALCIUM) (WOUNDS—TREATMENT) (ELECTROPHORESIS)

BARSUKOV, N.A., dotsent; AL'PEROVICH, B.B. (Yakutsk)

Treatment of suppurative inflammatory diseases by a modified method of sulfanilamide preparation electrophoresis. Klin.med. 40 no.10:104-108 O '62. (MIRA 15:12)

1. Iz Yakutskogo gosudarstvennogo universiteta (rektor - dotsent I.G.Popov) i Yakutskoy gorodskoy bol'nitsy (glavnyy vrach N.N. Butakova).

(ELECTROPHORESIS) (SULFANILAMIDES) (SUPPURATION)

BARSUKOV, [illegible].A., dotsent

Experimental study of streptomycin electrophoresis in suppurative inflammatory diseases. Sov.med. 26 no.1:129-133 Ja '63. (MIRA 16:4)

1. Iz Yakutskogo universiteta (rektor - dotsent I.G.Popov).
(STREPTOMYCIN) (ELECTROPHORESIS) (SUPPURATION)

BARSUKOV, N.A.

Use of norsulfazole solutions in diluted hydrochloric acid for electrophoresis. Vop.kur., fizioter.i lech.fiz.kul't. 28 no.1:31-33 '63. (MIRA 16:4)

1. Iz Yakutskogo universiteta.
(ELECTROPHORESIS) (SULFATHIAZOLE)

BARSUKOV, N.A.

Novocaine electrophoresis in the treatment of experimental wounds. Vop.kur., fizioter. i lech. fiz. kul't. 27 no.4:304-307 Jl-Ag'62 (MIRA 16:11)

1. Iz Yakutskogo gosudarstvennogo universiteta.

BARSUKOV, N.A.

Distribution of antibiotics of the tetracycline group in the body under varying methods of administration. Antibiotiki 7 no.7:646-650 Jl'62. (MIRA 16:10)

1. Yakutskiy universitet.
(ANTIBIOTICS)

BARSUKOV, N.A.

Formation of a "skin depot of ions" during electrophoresis. Biul. eksp. biol. i med. 54 no.8:59-62 Ag '62. (MIRA 17:11)

1. Iz Yakutskogo gosudarstvennogo universiteta (rektor - dotsent I.G. Popov). Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.

BARSUKOV, N.A., dotsent (Tajytsjmylan Itybsjigindn 25mjv,2)

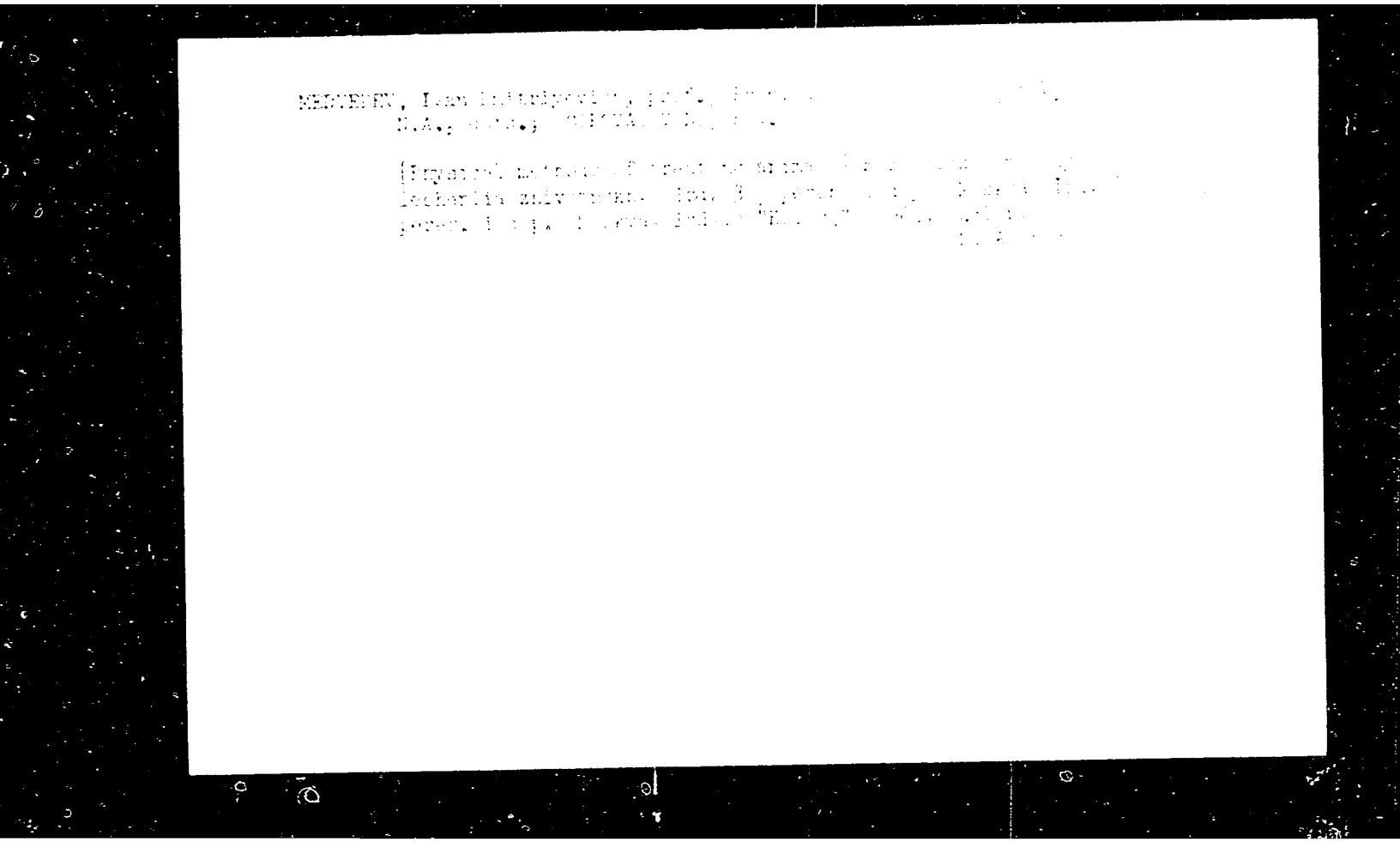
Methodology of biomycin electrophoresis in the treatment of suppurative inflammatory processes; experimental research. Ortop. travm. i protez. 24 no.2:51-54 F'63. (MIRA 16:10)

1. Iz Yakutskogo universiteta (rektor - dotsent I.G.Popov)

BARSUKOV, N.A.

Experimental study of penicillin electrophoresis. Vop. kur., fizioter. i lech. fiz. kul't. 28 no.4:326-331 Jl-Ag '63. (MIRA 17:9)

1. Iz Yakutskogo gosudarstvennogo universiteta.



BARSUKOV, N.A.

Ultraviolet ray penetratio[illegible] [illegible] [illegible] Nauch. dokl.vys. shkoly; biol.nauki no.4:[illegible]9-1[illegible] '65. (MIRA 18:10)

1. [illegible] kafedry [illegible] Yakutskogo gosudarstvennogo universiteta.

[illegible], N. I.

[illegible], N. I.: "Methods of multiplying grafted apples in Siberia." Author's abstract of a dissertation submitted at the Omsk Agricultureal Inst imeri S. M. Kirov. Omsk, 1956 (Dissertation for the Degree of Candidate of Agricultural Science)

So: Leninskaya Letopis', No. 18, 1956

BARSUKOV, N.I., kand.sel'skokhozyaystvennykh nauk; KIZYURIN, A.D., doktor sel'skokhozyaystvennykh nauk; BORINEVICH, V.A., kand.sel'skokhozyaystvennykh nauk; BORMUSOVA, S.N., agronom; VERMENICHEVA, M.D., kand. sel'skokhozyaystvennykh nauk; GASHELE, E.E., doktor biol. nauk; GOROKHOV, G.I., kand.sel'skokhozyaystvennykh nauk; GUBKIN, S.M., kand. veterinarnykh nauk; YELYKOVA, L.I., kand.sel'skokhozyaystvennykh nauk; KOTT, S.V., doktor biol. nauk; KOCHKINA, V.A., agronom; LARIN, A.Z., doktor biol.nauk; LEBEDEVA, Ye.M., agronom; MALAKHOVSKIY, A.Ya., doktor sel'skokhozyaystvennykh nauk; MAYBORODA, N.M., kand. sel'skokhozyaystvennykh nauk; MAYDANYUK, A.E., zootekhnik; OVSYANNIKOV, G.Ye., kand.sel'skokhozyaystvennykh nauk; PETROV, F.A., kand.biol.nauk; POGORELOV, P.F., agronom; POLKOSHNIKOV, M.G., dotsent; REMARD, G.K., kand. sel'skokhozyaystvennykh nauk; KUCHKIN, V.N., prof.; SADYRIN, M.M., kand.sel'skokhozyaystvennykh nauk; TOBOL'SKIY, V.YA., vetvrach; TYAZHEL'NIKOV, S.D., kand.sel'skokhozyaystvennykh nauk; UKHIN, I.I., kand.sel'skokhozyaystvennykh nauk; FEDOROV, G.V., kand.sel'skokhozyaystvennykh nauk; CHIRKOV, D.I., zootekhnik; TSINGOVATOV, V.A., prof.; SHVETSOVA, A.N., kand.sel'skokhozyaystvennykh nauk; SHEVLYAGIN, A.I., kand.sel'skokhozyaystvennykh nauk; SHMENOVSKIY, A.A., red.; GOLUBINSKAYA, Ye.S., red.; NECHAYEVA, Ye.G., red.; PERESYPKINA, Z.D., tekhnicheskiy red.

[Siberian agronomist's reference manual] Spravochnaia kniga agronoma Sibiri. Moskva, Gos. izd-vo sel'khoz. lit-ry, Vol.2. 1957. 839 p. (Siberia--Agriculture) (MIRA 11:3)

M

CATEGORY : [illegible]. Fruit. Berry. Nuciferous. [illegible]

ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11095

AUTHOR : [illegible]kov, N. I.

INST. : [illegible] Agricultural Institute

TITLE : [illegible] of the [illegible] Apple Trees [illegible]

ORIG. PUB. : [illegible] i formirovaniye [illegible] derev'yev. [illegible], 1957, 93-112

ABSTRACT : Experiments conducted by [illegible] Agricultural Institute during [illegible]-1956 showed that [illegible] varieties of semi-cultivated [illegible] trees root well upon [illegible] the stocks and [illegible] in the nursery [illegible] their reproduction by layering. [illegible] gives [illegible]% of root-taking [illegible], [illegible]ovskoye - [illegible]%, [illegible]'skoye No. 1 - 51%, [illegible]'skoye No. [illegible] - [illegible]. In the case of [illegible] of the root cuttings took root, in the case of [illegible]skoye - [illegible]%, [illegible] - [illegible]%, [illegible] - 93% and in the case of [illegible] - [illegible]%. The root cut-

CARD: 1/2

COUNTRY :
CATEGORY :

ABS. JOUR. : [illegible], No. [illegible] 1958, No. 11095

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : [illegible] of 10-12 cm in length rooted better than the small ones. Root cuttings from the root zone adjoining column rooted better than those from the peripheral zone of the root. [illegible] trees grown from root cuttings formed a powerful root system penetrating deeply into the soil. It is recommended to shape the crown of the own-rooted plant like that of a multiple-stem shrub. — I. K. Fortunatov

CARD: 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6413

Author : Barsukov, N.
Inst : Omsk Agricultural Institute
Title : Longevity of Rennet Orchards in Siberia

Orig Pub : S.-kh. Sibiri, 1958, No 2, 68-70

Abstract : Stem grafted rennet-apple orchards perish during their 14th - 15th year in Siberia. However, seedlings and rooted trees produced with cuttings or root scions (from rooted plants), live up to 60 years and are highly productive. This method of propagation, verified at the Omsk Agricultural Institute, is recommended.

Card 1/1

BARSUKOV, O.A., mladshiy nauchnyy sotrudnik.

Quantitative determination of porosity on the basis of the neutron-gamma-ray method. Trudy MNI no.15:196-213 '55. (MLRA 9:8)
(Porosity) (Oil well logging, Radiation)

15-57-1-994

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1, p 157 (USSR)

AUTHORS: Kholin, A. I., Kantor, S. A., Larionov, V. V., Barsukov, O. A.

TITLE: The Influence of the Size of Probe on the Results of Measurements by the Neutron Gamma Method (K voprosu o vliyanii razmera indikatora na rezul'taty izmereniy neytronnym gamma-metodom)

PERIODICAL: Tr. Mosk. neft. in-ta, 1955, Nr 15, pp 236-246.

ABSTRACT: In association with the ultimate size of a probe for gamma radiation during radiometric investigation of drill holes, the intensity of secondary gamma radiation I_{rec} is distinguished from the theoretical $I_{o\ rec}$, calculated on the assumption that the indicator is accurate, in the following relation:

$$I_{rec} = I_{o\ rec} \frac{2}{\mu a} \operatorname{sh}(\mu a/2),$$

Card 1/2

The Influence of the Size of Probe on the Results (Cont.)

where μ is a coefficient depending on the hydrogen content of the medium, a is the length of the probe, and sh is the hyperbolic sine. To determine quantitatively the porosity by intensity of secondary gamma radiation, it is expedient to use a probe of minimum length or to introduce a correction to the value of the recorded intensity for the length of the probe. Curves are supplied to show the relationship between the correction factor and the value of μa produced. The ultimate length of the probe leads to a distorted actual length of the sonde ($l_{act.}$) by the neutron gamma method, calculated from the computation of l between the source and the middle of the indicator. To obtain an approximate calculation of the actual length of the sonde, the following formula is recommended: $l_{act.} = pq/q - p \log q/p$, where p and q are the distances from the source of neutrons to the first and second ends of the indicator (counter).

Card 2/2

N. A. P.

BARSUKOV, O A

AID P - 3058

Subject : USSR/Geology

Card 1/2 Pub. 78 - 12/20

Authors : Dakhnov, V. N., A. I. Kholin and O. A. Barsukov

Title : Segregation of beds according to their oil-water saturation in cased oil-wells by the neutron-gamma method

Periodical : Neft. khoz., v. 33, no. 8, 50-56, Ag 1955

Abstract : In order to determine the line of demarcation in an cased oil well between the oil and water beds, the radioactivity logging method is suggested, whereby the natural radioactive emanations coming from the various beds around the drill hole are measured. Different types of beds have different types of radiation. Two types of radioactivity are measured, gamma and neutron. Different formations yield gamma rays in different degrees, whereas the neutron curve is primarily a measurement of the amount of fluid, gas or water, the neutrons reacting to the hydrogen

AID P - 3058

Neft. khoz., v. 33, no. 8, 50-56, Ag 1955

Card 2/2 Pub. 28 - 12/20

and chlorine content of the fluids. The hydrogen content of oil and water is approximately the same. However the chlorine content in the underground water is higher, and therefore the radioactivity in water sections of the drill hole is higher and their penetrating effect greater. The authors do not describe the radioactivity logging instrument used. With this method several cased oil wells have been logged and the results are shown in charts and tables.

Institution : None

Submitted : No date

BARSUKOV, O. A.

15-57-8-11545D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8, pp 209-210 (USSR)

AUTHOR: Barsukov, O. A.

TITLE: Use of Neutron Investigational Methods for Distinguishing Petroleum-Bearing Strata From Water-Bearing Strata (Primeneniye neytronnykh metodov issledovaniya dlya razdeleniya neftenosykh plastov ot vodonosnykh) Author's abstract of his dissertation for the degree of Candidate of Physical and Mathematical Sciences, presented to the Mosk. inzh.-fiz. in-t (Moscow Institute of Engineering and Physics), 1956.

ABSTRACT: The use of radioactivity logging to distinguish water-bearing and petroleum-bearing strata in cased wells is based on the differing content of chlorine in such strata. Chlorine is carried in solution by the formational water below the petroleum. Since chlorine has a large section of entrapment for fast neutrons, it is possible, in principle, to solve the posed problem by

Card 1/3

Use of Neutron Investigational Methods for Distinguishing (Cont.)

measuring the density of fast neutrons in the drill hole (method of neutron logging, designated as the NK method) or by measuring of the γ-radiation caused by bombardment by the neutrons (method of neutron gamma logging, designated as the NGK method). The presence of various disturbances often excludes the possibility of obtaining appreciable differences in measured values for the petroleum-bearing and water-bearing parts of the stratum. Hence the author used the revised methods of radioactivity logging to insure optimum conditions for the distinguishing of the petroleum from the water. The revised methods were checked under laboratory and field conditions. It was established that the indications given by the NK method were weaker at the water-bearing part of the stratum than at the petroleum-bearing part; the greatest difference in the indications of the NK method with respect to water and petroleum is obtained by use of an NK probing device 20 cm to 50 cm in size and the largest possible drill with an aluminum alloy case. With the NGK method, the indications with relation to the petroleum-bearing part are less pronounced than with relation to the water-bearing part. This is associated with the predominant effect produced by γ-radiation which originates from

Use of Neutron Investigational Methods for Distinguishing (Cont.)

entrapment of the fast neutrons by atoms of chlorine. When the NGK method is used in a 25 cm hole cased by a 15 cm casing, a sharp decrease in the difference of the indications for petroleum and water is observed, and even a change to the opposite sign of the effect may be noted. The latter fact is associated with the effect of the casing and is eliminated by isolating the apparatus by a screen of boron compounds. The use of an NGK probing device 20 to 30 cm long, as well as the use of an aluminum-boron alloy casing, considerably reduce the effect of the well casing and of the lithologic composition of the rock on the readings, so that the water-bearing strata will stand out very well on the charts. The possibility of distinguishing petroleum from water increases sharply with the use of the γ-spectroscope method. Here the best results are obtained by use of a probing device of small dimensions and by intercepting the γ-radiation with energy of less than 4 or 5 Mev.

N. A. Per'kov

ASSOCIATION: Mosk. inzh.-fiz. in-t (Moscow Institute of Engineering and Physics)

BARSUKOV, O. A.

"Physical Principles of the Use of Neutron Methods in the Surveying of Petroleum and Water Bearing Formations," Utilization of Radioactive Isotopes & Emanations in the Petroleum Industry (Symposium), Min. Petroleum Industry USSR. ;957.

Results of the Joint Session of the Technical Council of Min of the Petroluem Industry USSR and Soviet Sci. and Technecical Association, Moscow 14-19 Mar 1956.

BARSUKOV, O. A.

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. 1,500 copies printed.

Eds.: I. M. Murav'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. Murav'yev, Professor, A. A. Tikhomirov, Candidate of Economical Sciences, V. I. Yegorov, Candidate of Economical Sciences, M. M. Charygin, Professor, F. F. Dunayev, Professor, N. I. Chernozhukov, Professor, Ye. M. Kuzmak, Professor, I. A. Charnyy, Professor, G. M. Panchenkov, Professor, V. N. Dakhnov, Professor, Doctor of Geological and Mineralogical Sciences, N. S. Nametkin, Doctor of Chemical Sciences, N. A. Almazov, Docent, V. N. Vinogradov, Candidate of Technical Sciences, V. I. Biryukov, Candidate of Technical Sciences, E. I. Tagiyev, and V. M. Gurevich; Executive Ed.: N. P. Dobrynina; Tech. Ed.: E. A. Makhina.

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 UfNII (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). These papers, read at the Mezhvuzy (Inter-Vuz) Scientific Conference, deal with new techniques in the petroleum industry introduced since 1952. 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 N. N. 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.

Rabinkin, L. A. [Moscow Petroleum Institute]. Revision of the Seismic Method and the Grouping Methods 159
The author describes the seismic KMP method recently developed at the Institute's seismic laboratory with the aid of the VNII (All-Union Research Institute) of Geophysics and passed on to the petroleum industry. He mentions the results obtained in field and laboratory testing while using a basic modification of the KMP method.

Abdullayev, R. A. [Azerbaydzhan Industrial Institute]. Precise and Approximate Methods for Interpretation of Travel-Time Curves of Reflected Waves 175
The author records several approximate and precise analytical and graphic methods for determining effective speeds with the use of travel-time curves of reflected waves.

Datskevich, A. A. [KBNP - Design Office for Petroleum Instrument Making] — Equipment of Automatic-Geophysical Field Stations 196
The author states that his KBNP office cooperated with the design offices of the Neftepribor (Petroleum Instrument), Geofizika (Geophysics), and the Mytishchinskiy Instrument-Making Plants in manufacturing the largest assort of new industrial geophysical equipment in the petroleum industry. Because of the large demand by the industry the volume produced by the KBNP office was inadequate and production was doubled in 1957. The KBNP has an experimental plant, a model shop, and laboratories.

Dakhnov, V. N., and A. I. Kholin [Moscow Petroleum Institute]. On the Problem of Quantitative Evaluation of Residual Oil Saturation of a Reservoir Carried Out by Radioactive Methods 209
The authors state that the determination of the type of liquid saturating the formation encased in the well presents one of the major problems for advancing the technology of petroleum exploration. Constant observation of the movements and changes in water-oil contact in oil wells is essential, and the radiometric method, developed between 1953 and 1955 at Laboratory Nr 1 of the KNI (Moscow Petroleum Institute), which helps determine the type of liquid saturating the formation, answers the purpose.

Barakhov, O. A. [Moscow Petroleum Institute]. Some Theoretical Problems on Neutron Methods for Separating Oil-Bearing Formations from Water-bearing Formations 213
The author refers to the experiments conducted at the KNI and other organizations which contributed to the development of methods to separate oil-bearing from water-bearing formations; he describes several physical processes that take place during neutron study methods and presents pertinent evaluating calculations.

Charnyy, I. A. [Moscow Petroleum Institute]. One of the Integral Equations of the Filtration Theory and Some of Its Applications 230
The author gives a detailed description and graphic calculations of an integral equation of the filtration theory.

Belash, P. M. [Moscow Petroleum Institute]. On Equations Used for Determining Yields 248
The author shows the connection between differential equations of filtration and the equations of yields.

Pyzhachev, O. P. [Groznyy Petroleum Institute]. Determining Pressure of an Oil-Bearing Formation Having a Low Gas Saturation 257
The author reviews filtration in mixes liquid and gas phase formations and submits equations.

Bagdasarov, S. Kh. [Kuybyshev Industrial Institute]. The Role and Significance of A Hydraulic Seal in Exploitation of Oil Deposits 269
The author is opposed to the exploitation of new deposits with dissolved gas in petroleum production under prevailing techniques during the initial period, particularly when it is intended to correct the condition by secondary methods. This system has been responsible for depleting many old petroleum deposits (Baku, Groznyy, Krasnodar, etc.).

PHASE I BOOK EXPLOITATION 749

Barsukev, Oleg Aleksandrovich; Blinova, Nina Mikhaylevna; Vybornykh, Sergey Fedorovich; Gulin, Yuriy Aleksandrovich; Dakhnov, Vladimir Nikolayevich; Larionov, Vyacheslav Vasil'yevich; Kholin, Arkadiy Ivanovich

Radioaktivnyye metody issledovaniya neftyanykh i gazovykh skvazhin (Radioactive Methods for Exploring Oil and Gas Wells) Moscow, Gostoptekhizdat, 1958. 314 p. 5,000 copies printed.

Reviewers: Tarkhov, A.G., Doctor of Physical and Mathematical Sciences, Professor, Department of Ore Geophysics of the Sverdlovsk Mining Institute imeni V.V. Vakhrusheva; Executive Ed.: Shorokhova, L.I.; Tech. Ed.: Polosina, A.S.

PURPOSE: The book was authorized as a textbook by the Ministry of Higher Education for students of geological and geophysical sections at petroleum vuzes. It is also intended as a handbook for geologists and geophysicists dealing with the theory and techniques of modern radioactive methods of oil well exploration.

Card 1/10

COVERAGE: The authors stress the physical principles of radiometry of oil and gas wells, describe the operation of radiometric instruments and measuring procedures, and interpret the obtained data. In 1953, the authors working at the Laboratoriya Radioaktivnykh Metodov Issledovaniya Skvazhin (Laboratory of Radioactive Oil Well Logging) of the Moscow Petroleum Institute were the first to solve one of the most important problems, i.e., the use of radioactive methods to determine the location of oilfield water in cased wells. The authors developed the radioactive isotope method and the special modifications of neutron methods for well surveying which have been used extensively by industry since 1954 in the exploration of petroleum resources. A method using sodium activation to establish the location of oilfield water was developed in 1954 at the Petroleum Institute of the USSR Academy of Sciences. N.M. Bilnov wrote chapter I; V.N. Dakhnov, the introduction and chapters II, V, and VII; A.I. Kholin, chapter III; O.M. Arutinov, O.A. Barsukov, Ya. Ya. Gorskiy, and V.V. Larionov, chapter IV; V.V. Larionov and A.I. Kholin, chapter VI; Yu.A. Gulin and I.I. Fel'dman, chapter VII; O.A. Barsukov and K.A. Barsukov, chapter VIII; O.A. Barsukov, chapter IX; O.A. Barsukov and A.I. Kholin, chapter X; and S.F. Vybornykh, chapter XI. There are 66 references scattered through the book, 37 of which are Soviet, and the rest English. The book contains 21 tables and 146 drawings.

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IS/jmr
11-26-58

BARSUKOV, O.A.; AVZYANOV, V.S.

Space-energy distribution of neutrons in a borehole - stratum system.
Atom.energ. 10 no.5:478-486 My '61. (MIRA 14:5)
(Neutrons)

BARSUKOV, O.A.; AVZYANOV, V.S.

Metal - water shielding for point neutron sources. Atom. energ. 16 no.1:40-48 Ja '64. (MIRA 17:2)

L 27895-65 EWT(m)/EWA(d)/EWP(t)/EWT(b)/EWA(h) JD/WB

ACCESSION NR: AP4012264 S/0089/64/016/001/0040/0048 15 B

AUTHORS: Barsukov, O.A.; Avzyanov, V.S.

TITLE: Metal and water protection against neutron point sources 19

SOURCE: Atomnaya energiya, v.16, no.1, 1964, 40-48

TOPIC TAGS: Bolzman kinetic equation, Monte Carlo method, elimination cross section, resonence neutron, threshhold detector, 20 group approximation, beta radiation, gamma radiation, homogeneous medium, neutron point source, two layer medium, multilayer media

ABSTRACT: One of the two basic methods of determining the required neutron shielding is based on the phenomenological theory of the elimination cross section which provides an empirical estimate of a particular shielding. The other method is based on the Bolzman kinetic equation and statistical tests, and is also known as the Monte Carlo method. As both methods have their drawbacks, a third is suggested whereby the neutron flux is conditionally divided into two components: an unscattered part, described by the exponential law; and a scattered

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L 27895-65

ACCESSION NR: AP4012264

portion defined by a diffusion equation whose solution is simple and well known (G.I. Marchuk, Numerical Methods of Calculating Nuclear Reactors. Moscow, Atomizdat, 1958). In one of the experiments all the energy was divided into 20 groups, as the spectrum of the Po-Be-neutron source is highly complicated and covers an energy region of ~0.9-11 Mev in which the neutron cross sections are subject to considerable change. A study of the space-energy distribution of neutrons in multilayer media made it possible to follow the changing neutron spectrum in any multilayer system. It was also possible to follow the changing neutron energy spectrum originating from a point source in a homogeneous finite medium consisting of iron or water. A two-layer iron-and-water shielding was found to be more effective than a multilayer shielding where the overall thickness of the iron layer is the same. The results of these investigations were used to design a neutron container about half the size and weight of the standard plan installation and equally effective. Orig. art. has: 12 figures and 2 tables.

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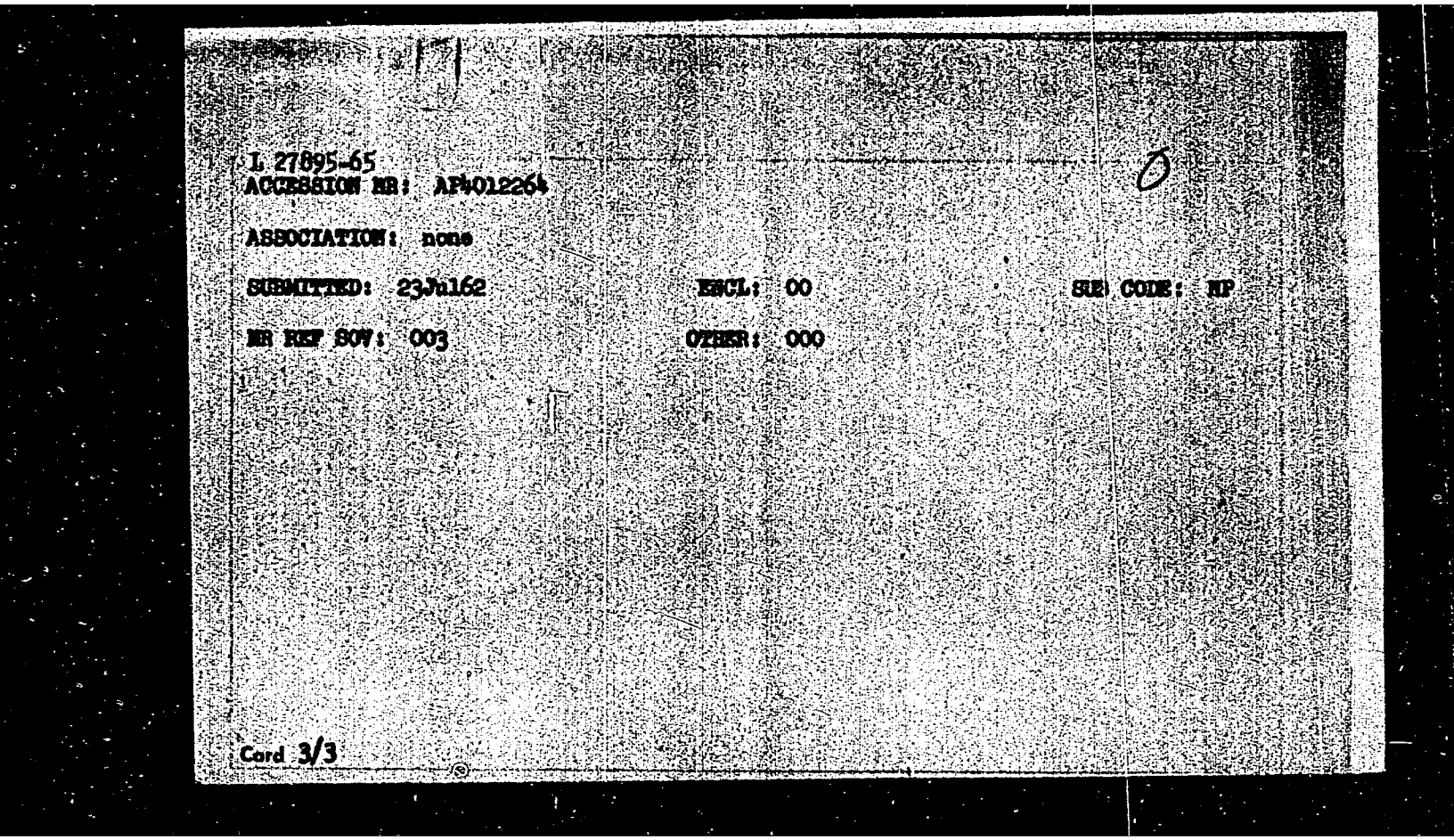

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ACCESSION NR: AP4012264

ASSOCIATION: none

SUBMITTED: 23Jul62 ENCL: 00 SUB CODE: NP

NR REF SOV: 003 OTHER: 000

Card 3/3

L 06451-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JR

ACC NR: AP6024539 SOURCE CODE: UR/0089/66/021/001/0027/0035

AUTHOR: Barsukov, O. A.; Avzyanov, V. S.; Ivanov, V. N. 50 B

ORG: none

TITLE: Study of spectra and doses produced in an iron-water shield by a monoenergetic neutron source

SOURCE: Atomnaya energiya, v. 21, no. 1, 1966, 27-35

TOPIC TAGS: reactor shielding, reactor neutron flux, radiation dosimetry

ABSTRACT: Results are presented of many-group calculations of the passage of neutrons emitted by monoenergetic sources through water (62 cm), iron (62 cm), and 10 cm of iron surrounded by 52 cm of water. The spectrum of the neutrons after passing through these shields is calculated in the 20-group diffusion-transport approximation, using a difference factorization method modified by the authors earlier (Atomnaya energiya v. 10, 478, 1961). The data on the various neutron parameters and the energy dependence of the microscopic cross sections were taken from various published sources. A detailed investigation was made of the high-energy region of the spectrum, and revealed certain signularities in the migration and slowing-down of the neutrons in the shields. Dose curves are plotted for neutrons with different energies on the basis of the computation data. The results also make it possible to determine the neutron distributions for sources with arbitrary spectra. It is concluded that the use of iron is not justified at all at energies below 1 Mev and that at energies near 10 Mev the

Card 1/2 UDC: 621.039.58: 539.125.5

L 06451-67

ACC NR: AP6024539

addition of iron reduces the neutron dose by one-half order of magnitude. Orig. art. has: 8 figures and 1 formula.

SUB CODE: 18/ SUBM DATE: 16Sept65/ ORIG REF: 007/ OTH REF: 002

Card 2/2

BARSUKOV, O.M.

Measurement errors of an elliptically polarized electromagnetic field. Izv. AN SSSR Ser.geofiz.no.2:226-231 '55. (MIRA 9:7)

1.Akademiya nauk SSSR, Geofizicheskiy institut.
(Magnetism, Terrestial)

BARSUKOV, O. M.

~~USSR~~/Physics of the Earth - Geophysical Prospecting, O-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36462

Author: Barsukov, O. M.

Institution: None

Title: Method of Calibrating Electric Prospecting Measuring Instruments

Original Periodical: Izv. AN SSSR, ser geofiz., 1956, No 1, 109-111

Abstract: Under field conditions, the calibration of instruments having a sufficiently high input resistance can be accomplished by alternately connecting known resistances k_1, k_2, k_3, ..., k_e, in parallel with the input of the instrument. The dependence of the readings n of the instrument on the voltage E is generally expressed by a polynomial, $E = k_0 + k_1 n + k_2 n^2 + \ldots + k_m n^m$, where the k's are the unknown constant coefficients. From Ohm's law we obtain an equation of the type $R/R_i + z = k_0 + k_1 n_i + k_2 n_i^2 + \ldots + k_m n_i^m + \varepsilon_i$, where n_i is the reading of the instrument when the resistance is connected, and ε_i is the deviation

Ca

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BARSUKOV, O.M.

A means of combined excitation of an alternating electromagnetic field. Izv.AN SSSR Ser.geofiz.no.12:1488-1494 '56. (MIRA 10:10)

1. AN SSSR, Geofizicheskiy institut.
(Electric fields)

49-3-13/16

AUTHOR: Barsukov, O. M.

TITLE: On the relation between the changes in amplitude and phase of the electric field and the elements of a magnetic polarisation ellipse. (O svyazi izmeneniya amplitudy i fazy elektricheskogo polya s elementami magnitnogo ellipsa polyarizatsii).

PERIODICAL: "Izvestiya Akademii Nauk, Seriya Geofizicheskaya" (Bulletin of the Ac.Sc., Geophysics Series), 1957, No.3, pp.404-405 (U.S.S.R.)

ABSTRACT: In electric prospecting for ore deposits a.c. currents are used for various purposes, including the study of the amplitude and the phase characteristics of the electromagnetic field. The effectiveness of individual methods of measurement depends on the general structure of the field, the composition of the rocks and of the ore substance, interference, method of excitation etc. Compensation methods of measurement eliminate some of the metering difficulties since they permit the measurement relatively simply and accurately of the ratios and phase differences of any two components of the field in one or two points. However, transition from these values to absolute ones involves numerical integration and considerable errors which outweigh the accuracy obtained in the measurements. Therefore, in

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