Instruments for ....

Izv. AN SSSR, seriya geofiz., no. 3, 1959) and a pulsation microthermometer incorporating a 20 μ platinum or tungsten wire thermometer and ensuring automatic measurement of the mean temperature of air (L.P. Tsvang - Izv. AN SSSR, seriya geofiz., no. 8, 1960). The second set of instruments, which are concerned with the analysis of these measurements, includes a low-frequency analyser for the measurement of frequency spectra and a "correlometer" which is used to determine correlation functions of two random quantities and the variance of a random quantity from the mean.
There are 9 figures.

Card 2/2

MORDUKHOVICH, M.I.

An acoustic thermometer. Trudy Inst.fiz.atm. no.4:30-80 '62.
(MIRA 15:12)
(Thermometers) (Sound—Apparatus)

L 42894-66 EWT(1) GW

ACC NR: AP6030078 SOURCE CODE: UR/0362/66/002/008/0786/0803

41
B

AUTHOR: Mordukhovich, M. I.; Tsvang, L. R.

ORG: Institute of the Physics of the Atmosphere, Academy of Sciences SSSR (Akademiya nauk SSSR. Institut fiziki atmosfery)

TITLE: Direct measurements of turbulent fluxes at two heights in the surface boundary layer of the atmosphere

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 8, 1966, 786-803

TOPIC TAGS: atmospheric temperature, ~~boundary layer~~, surface boundary layer, atmospheric turbulence, ~~turbulent heat flux~~, ~~wind stress~~, ~~acoustic~~ anemometer, microthermometer, atmospheric wind field

ABSTRACT: The 1964 Aerophysical Expedition of the Institute of the Physics of the Atmosphere, Academy of Sciences USSR, carried out experiments in a 600 x 900-m grassy steppe area near Tsimlyansk to determine the validity of the hypothesis that in the surface boundary layer of the atmosphere the turbulent heat flux and shearing stress τ are constant with height when the atmospheric layer is stationary and horizontally homogeneous, without vertical radiational flux divergences. Special equipment used in the study consisted of a single set of instruments (two acoustic anemometers and a pulse-time microthermometer) installed laterally on a mast at heights of 1 and 4 m above the ground. An underground shelter located 5 m west of the mast housed the pulsation recording equipment and the observer. Pulsed measurements (direct measure-

Card 1/2 UDC: 551.551.8

L 42894-66

ACC NR: AP6030078 O

ments of q and τ, and the dispersions of the vertical and horizontal components of wind speed and of temperature--δ_w^2, δ_u^2, δ_τ^2), were supplemented by measurements of the mean temperature and wind-speed profiles determined from a 12-m mast erected 70 m away from the other mast. Instrument calibrations and tests of the frequency characteristics of the apparatus indicated that turbulent heat fluxes and stresses at both heights could be measured without significant distortion and that $\Delta q/q$ and $\Delta\tau/\tau$ measurements considerably exceeded any possible procedural errors. Data collected during the study also made it possible to determine a number of universal relationships and to compute the values of several universal constants simultaneously. Notable variations with height were definitely detected; they were attributed to horizontal inhomogeneities in the mean wind and temperature fields. Orig. art. has: 12 figures, 8 formulas, and 2 tables. [ER]

SUB CODE: 04/ SUBM DATE: 21Mar66/ ORIG REF: 010/ OTH REF: 005/ ATD PRESS: 5068

Card 2/2

L 02963-67 EWT(1) IJP(c) WW/GW

ACC NR: AP6032076 SOURCE CODE: UR/0362/66/002/009/0987/0988

AUTHOR: Mordukhovich, M. I.; Pletov, A. G.

ORG: Institute of Physics of the Atmosphere, Academy of Sciences SSSR (Institut fiziki atmosfery, Akademiya nauk SSSR)

TITLE: A check on the limits of applicability of the local acoustic method of measuring air temperature and methods of increasing its accuracy

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 9, 1966, 987-988

TOPIC TAGS: atmospheric sounding, acoustic measurement, air temperature, temperature instrument

ABSTRACT: This article represents a continuation of an earlier work (Akusticheskiy pribor dlya izmereniya temperatury vozdukha i skorosti vetra, Izd. GosINTI no. 18-64-350/10, 1964 and others describing the principle of the local acoustic method of air-temperature measurement and a sonic thermometer based on this principle, developed at the Institute of the Physics of the Atmosphere, Academy of Sciences USSR. The authors discuss means of raising the operating ceiling of the local acoustic method and eliminating various shortcomings of the method and of the sonic thermometer. The latter are connected essentially with the fact that the properties of the acoustic converters used in the device depend on air pressure and temperature, which vary over a wide range when the device is used to sound the free atmosphere. The basic im-

Card 1/2 UDC: 551.508.29

L 02968-67
ACC NR: AP6032076 O

provement proposed is to receive the sound propagating from one emitter,, situated at the center of the device, by two pairs of microphones with perpendicular but uneven bases. If the phase field of the radiation is axially symmetrical it is shown that the effect of the properties of the individual acoustic converters can be eliminated. The feasibility of such a scheme was tested at pressures 760 — 3 mm Hg and temperatures +30 to -60C. The results showed that the phase shift introduced by the converters depends only on the pressure, and not on the temperature, at pressures down to 150 mm Hg (this is equivalent to an error of 5°), while at temperatures below -15° the phase shift depends weakly both on the pressure and on the temperature. Other arrangements of the microphone pairs and the possibility of using alternate switching of the microphone pairs to the microphone amplifiers of the sonic thermometers are also discussed. Orig. art. has: 1 formula

SUB CODE: 20 04/ SUBM DATE: 14Jan64/ ORIG REF: 005/ ATD PRESS: 5099

Card 2/2 LC

MORDUKHOVICH, Meyer Matveyevich; KONEV, Boris Fedorovich; STEPANOV, Yu.A., doktor tekhn.nauk, retsenzent; LYAKHOV, M.I., kand.tekhn.nauk, retsenzent; ARKHANGEL'SKIY, V.M., kand.tekhn.nauk, red.; MAKHIMSON, V.A., red.izd-va; EL'KIND, V.D., tekhn.red.

[Fuel equipment of motor vehicles] Toplivnaia apparatura avtomobil'nykh dvigatelei. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 254 p. (MIRA 13:12)
(Motor vehicles--Fuel systems)

NASTENKO, N.N.; BOROSHOK, L.A.; GRUNAYER, A.A.; MORDUKHOVICH, M.M.
kand. tekhn. nauk, retsenzent

[Regulators of tractor and combine engines; design, and calculations and testing] Reguliatory traktornykh i kombainovykh dvigatelei; proektirovanie, raschet i ispytanie. Moskva, Mashinostroenie, 1965. 250 p. (MIRA 18:4)

MORDUKHOVICH, M.V.

Determining the production costs of combined heat and chemical processing of oil shales. Trudy LIHI no.5:85-110 '50. (MLRA 9:8)
(Oil shales)

BOKII, Orest Borisovich, dotsent; MOROZOV, Aleksandr Ivanovich, dotsent; MORDUKHOVICH, Mikhail Vladimirovich, dotsent; CHETYRKIN, M.I., otvetstvennyy redaktor; SMIRNOV, V.V., otvetstvennyy redaktor; MIKHAYEV, G.F., redaktor izdatel'stva; KOROVENKOVA, Z.A., tekhnicheskiy redaktor; ALADOVA, Ye.L., tekhnicheskiy redaktor

[Organization and planning of work in auxiliary sectors and plants of mines] Organizatsiia i planirovanie raboty vspomogatel'nykh uchastkov i tsekhov shakhty. Moskva, Ugletekhizdat, 1956. 310 p. (MLRA 9:12)
(Coal mines and mining)

MORDUKHOVICH, MIKHAIL VLADIMIROVICH

BOKIY, Orest Borisovich, doktsent, kandidat tekhnicheskikh nauk; MOROZOV, Aleksandr Ivanovich, dotsent, kandidat tekhnicheskikh nauk; MORDUKHOVICH, Mikhail Vladimirovich, dotsent, kandidat ekonomicheskikh nauk; BRO, Oddaly Grigor'yevich, dotsent, kandidat ekonomicheskikh nauk; LERNER, B.I., otvetstvennyy redaktor; SEREBRYANYY, A.G., otvetstvennyy redaktor; FRYTEL'MAN, M.G., redaktor izdatel'stva; DOROVA, G.V., redaktor izdatel'stva; MADRINSKAYA, A.A., tekhnicheskiy redaktor

[Planning in coal mines] Planirovanie na ugol'noi shakhte. Moskva, Ugletekhizdat, 1957. 317 p. (MLRA 10:8)

1. Kafedra ekonomiki i organizatsii gornoy promyshlennosti Leningradskogo ordenov Lenina i Trudovogo Krasnogo Znameni Gornogo instituta imeni G.V.Plekhanova (zav. kafedroy O.B.Bokiy) (for Morozov, Mordukhovich, Bro)
(Coal mines and mining)

MORDUKHOVICH, N.G.; BELYAYEV, M.M.; MOZHAYSKAYA, L.Ya.; NIKOLENKO, V.I.; BAGNYUK, V.S.

Use of "KF-9" plastics and their modifications in small high-frequency switches. Plast.massy no.12:54-57 '63. (MIRA 17:2)

L 30299-65 EWT(1)/EWA(h) Peb CG/MLK

ACCESSION NR: AT4047627 S/0000/64/000/000/0239/0250

AUTHOR: Mordukhovich, N. G.; Barshteyn, N. P. B

TITLE: Investigation of new contact systems used in developing miniature high-frequency switches

SOURCE: Vsesoyuznoye soveshchaniye po elektricheskim kontaktam i [illegible] materialam, 3d, Moscow, 1962. Elektricheskiye kontakty* (Electric [illegible]ody* soveshchaniya. Moscow, Izd-vo Energiya, 1964, 239-250

TOPIC TAGS: HF switch, wafer switch, miniature switch

ABSTRACT: Conventional knife-type contacts used in h-f wafer switches are criticized for their high and unstable resistance and early wear. Four new designs of a miniature wafer switch, in which the fixed contacts are electrically closed by a roller, are discussed. Experimental models of the new switches were tested with currents of 50, 150, 250, 350 ma, contact pressures of 10, 25, [illegible] 90 gr, at 18, 80, 120, 150C, and under tropical humidity conditions. [illegible]dc resistance was measured by the voltmeter-ammeter method with

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L 10429-65
ACCESSION NR: AT4047627

250 v, 50 and 300 ma d-c and with 12 v, 180 ma, at 28 Mc; the resistance was measured after 0, 1, 3, 5, 10, 15, 20, 25, 30 thousand operations. It was found that: (1) The contact resistance varies with the number of operations in the same fashion for all contact materials; (2) After 5,000 operations, the contact resistance of design I was twice as high as that of design II; (3) Minimum contact resistance and maximum stability were shown by designs I and II whose fixed [illegible] were made from L-62 brass electroplated by 10 microns of silver and [illegible] of rhodium, and whose roller was made from SrNM-2-20 bronze. [illegible] 10,000 operations, design I showed greater wear than did design II. [illegible] the above investigation, a new miniature wafer switch was designed, it [illegible] stability and 1/4 to 1/5 contact resistance as compared to older [illegible] new designs, see Enclosure 1. Orig. art. has: 11 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 13Jul64 ENCL: 01

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

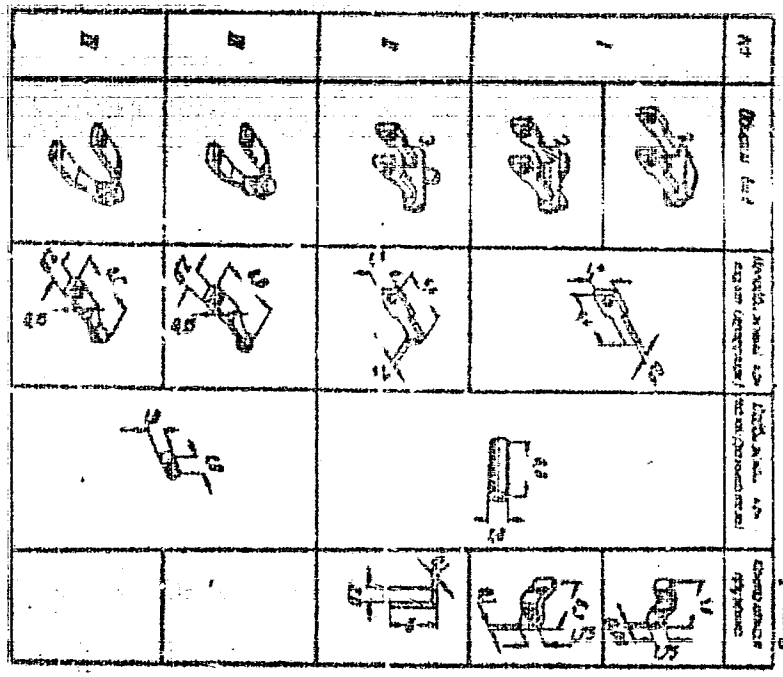
Card 2/3

L 10829-65

ACCESSION NR: AT4047627

ENCLOSURE: 1

Appearance Fixed contact Movable contact Spring



Card 5/5

MORDUKHOVICH, R.G., insh.; BARANOV, V.V., insh.

Mining operations in new coal mine development projects during 1959. Shakht.stroi. 4 no.7:11-13 Jl '60.
(MIRA 13:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut podzemshakhtostroy.
(Coal mines and mining) (Shaft sinking)

MORDUKHOVICH, R.G., inzh.

Reserves for increasing the speed of constructing vertical shafts. Shakht. stroi. 7 no.2:3-5 F '63. (MIRA 16:3)

1. TSentral'nyy nauchno-issledovatel'skiy in proyektno-konstruktorskiy institut podzemnogo shakhtnogo stroitel'stva.
(Donets Basin—Shaft sinking)

MORDUKHOVICH, R.G., inzh.

Lightening the weight of shaft equipment is a problem of great economic importance. Shakht.stroi. 8 no.1:2-4 Ja '64. (MIRA

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva.

MORDUKHOVICH, R.G., inzh.

Some results of the operation of equipment complexes in the sinking of vertical mine shafts. Shakht. stroi. 8 no.8-9 S '64. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva.

MORDUKHOVICH, R.G., gornyy inzh.

Shaft sinking in the Krivoy Rog Basin with the help of KS-2m complexes. Gor. zhur. no.5:28-30 My '65. (MIRA 18:5)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva, Moskva.

GORBACHEVA, A.I.; MOLDUKHOVICH, R.G.

Technical and economic indices of high-speed ventilation shaft sinking at the "IUzhnaia-Ventiliatsionnaia" Mine with the help of the KS-2m unit. Trudy TSNIIPodzemshakhtstroia no.3:4-12 '64. (MIRA 18:9)

MORDUKHOVICH, R.V.

Increasing labor productivity and reducing investments and operating expenses in the coke industry. Koks i khim. no.8: 53-56 '60. (MIRA 13:8)

1. Giprokoks.
(Coke industry)

MORDUKHOVICH, R.V.

Complete mechanization and automation of coal-cleaning plants. Koks i khim. no. 5:16-20 '61. (MIRA 14:4)

1. Giprokoks.
(Coal preparation) (Automatic control)

MORDUKHOVICH, R.V.; TSOGLIN, M.E.

Coal stores in coke chemical enterprises. Koks i khim. no.1: 15-18 '62. (MIRA 15:2)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy koksokhimicheskoy promyshlennosti (for Mordukhovich).
2. Gosudarstvennoye izdatel'stvo literatury po metallurgii (for TSoglin).

(Coal--Storage)

MORDUKHOVICH, R.V.; SHVARTSMAN, I.Ya.

Increasing the capacity of existing coke oven batteries in connection with their reconstruction in an important factor in the development of the coal chemical industry. Koks i khim. no.12:18-21 '62. (MIRA 16:1)

1. Gosudarstvennyy institut po proyktirovaniyu predpriyatiy koksokhimicheskoy promyshlennosti.
(Coke ovens) (Coke industry)

DOROGOBID, G.M.; MORDUKHOVICH, R.V.

New equipment for the coke and coal chemicals production in the Magnitogorsk Metallurgical Combine. Koks i khim. no.6:53-56 '63. (MIRA 16:9)

1. Magnitogorskiy metallurgicheskiy kombinat (for Dorogobid).
2. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy koksokhimicheskoy promyshlennosti (for Mordukhovich).
(Magnitogorsk--Coke industry--Equipment and supplies)

1. MARARICHEV, I. Z.; MORDUKHOVSKIY, M. I.; PETROV, A. YA. Engs.
2. USSR (600)
4. Milling Machinery
7. Increasing the productivity of the ball drum mill 232/300. Elk. Sta. 23 no. 9, 1952.

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

VOROB'YEV, A.A.; VASIL'YEV, N.N.; PATRIKEYEV, G.T.; ZYBIN, V.D.; KORNEV, I.S.; ANAN'YEVA, Ye.P.; Prinimali uchastiye: ANDRUSHCHUK, S.M.; IGONINA, Yu.S.; SEMELEV, V.M.; NORDVEGVA, A.A.; NIKOLAYENKO, Yu.P.; MAKAROVA, V.A.; CHERNOVA, Yu.S.; POYARKOVA, M.A.

Study of botulin anatoxins. Report No.1: Botulin anatoxin type A. Zhur. mikrobiol., epid. i immun. 32 no.9:31-36 S '61. (MIRA 15:2)
(CLOSTRIDIUM BOTULINUM) (TOXINS AND ANTITOXINS)

VOROB'YEV, A.A.; VASIL'YEV, K.N.; YEMICHEV, V.M.; PATRIKEYEV, G.T.; SHEVELEV, V.M.; ZYBIN, V.D.; KONNEV, I.S.; ANAN'YEVA, Ye.P. Prinimali uchastiye: ANDROSHCHUK, S.K.; NIKOLAYENKO, Yu.P.; MAKAROVA, V.A.; CHERNOVA, Yu.S.; POYARKOVA, M.A.; ISCHENKA, Yu.A.; MORDUYEVA, A.A.

Study of botulin anatoxins. Report No.2: Botulin anatoxin type B. Zhur.mikrobiol., epid. i immun. 32 no.10:68-72 O '61. (MIRA 14:10)
(CLOSTRIDIUM BOTULINUM) (TOXINS AND ANTITOXINS)

VOROB'YEV, A.A.; VASIL'YEV, N.N.; SAMORODOV, L.M.; VORONTSOV, I.V.; PATRIKEYEV, G.T.; MAKARENKO, M.M.; [illegible] uchastiye: ANDROSHCHUK, S.M.; ZYBIN, V.D.; KORNEV, I.S.; NIKOLAYENKO, Yu.P.; CHERNOVA, V.A.; IGONINA, Yu.A.; MOPDUYEVA, A.A.

Study of botulin anatoxins. Report No.4: Botulin anatoxin type E. Zhur. mikrobiol., epid. i immun. 33 no.1:72-79 Ja '62. (MIRA 15:3)

(CLOSTRIDIUM BOTULINUM) (TOXINS AND ANTITOXINS)

VOROB'YEV, A.A.; KOROBOV, A.M.; POYARKOVA, M.A.; KORNEV, I.S.; ANDROSHCHUK, S.M.; prinimali uchastiye: MORLUYEVA, A.A.; IGONINA, Yu.A.; CHERNOVA, Yu.S.; NIKOLAYENKO, Yu.P.; MARAPOVA, V.A.

Method for preparing sorbed tetanus anatoxin from a purified and concentrated toxin. Zhur.mikrobiol., epid.i immun. 33 no.8:107-112 Ag '62. (MIRA 15:10)

(TOXINS AND ANTITOXINS) (TETANUS)

KORNIEV, I.S.; YENICHEV, V.M.; MORDUYEVA, A.A.; IGONINA, Yu.A.; PATRIKEYEV, G.T.; ANDROSHCHUK, S.M.; ZYBIN, V.D.; SHISHULINA, L.M.

Culture media other than meat extracts for the preparation of A and B botulin exotoxins. Vak. i syv. no.1:3-11 '63. (MIRA 18:8)

USSR/Geology - Clays, With Ammonites Sep/Oct 49
Ammonites

"Age of the So-Called 'Horizon of Clays With Ammonites' in the Aptian Layer of Kislovodsk Bayum," T. A. Mordvilko, 2 pp

"Iz Ak Nauk SSSR, Ser Geol" No 5

Criticizes article by A. G. Khalilov, "Fauna of 'Horizon of Clays With Ammonites' in the Aptian Layer of Kislovodsk Bayum" in "Dok Ak Nauk, Azerbaydzhan SSR," Vol I, No 2, 1945. Mordvilko, who has done extensive stratigraphic work in this region, states that this level does not contain a

3/50T35

USSR/Geology - Clays, With Ammonites Sep/Oct 49
(Contd)

single form of fauna which would establish the Upper Aptian age of the level, as maintained in the article. In his opinion, Khalilov's article was not worth printing.

3/50T35

MORDVILKO, T. A.

PA 3/50T35

MORDVILKO, T. A.

MORDVILKO, T.A.

Principal horizons with pelecypod fauna in cross sections of the Lower Cretaceous of Mangyshlak. Trudy VNIGRI no.73:337-351 '53. (MLRA 7:7)

(Mangyshlak Peninsula--Lamellibranchiata, Fossil)
(Lamellibranchiata, Fossil--Mangyshlak Peninsula)

15-1957-3-2626

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3, p 12 (USSR)

AUTHOR: Mordvilko, T.A.

TITLE: The Unified Stratigraphic Scheme of the Lower Cretaceous Rocks of the Northern Caucasus and Ciscaucasus (Unifitsirovannaya skhema stratigrafii nizhnemelovykh otlozheniy Severnogo Kavkaza i Predkavkaz'ya)

PERIODICAL: V sb.: Tr.Vses. soveshchaniya po razrabotke unifitsir. skhemy stratigr. mezozoyskikh otlozheniy Rus. platformy. Leningrad, 1956, pp 37-56.

ABSTRACT: Two detailed stratigraphic outlines of the Lower Cretaceous rocks are given in tabular form, one for the northern slope of the Large Caucasus -- from the Belaya River to Groznenskaya oblast' -- and central Ciscaucasia, and the other for the southeastern Large Caucasus and Ciscaucasia (Dagestan, Groznenskaya oblast' and the Trans-Kuma Plain). The zones

Card 1/2

The Unified Stratigraphic Scheme (Cont.)

with characteristic cephalopods and great numbers of pelecypods are listed in separate columns. The author's work includes not only all existing data from the literature but personal observations and identifications as well, including examination of drill cores. Besides the tables, notes and explanations are given in support of the subdivisions of the stages, substages, and zones in the outline. The author states his opinion on the restriction of some groups of fossil species to definite facies, on the connections between the Caucasus Lower Cretaceous basins and the neighboring seas, on the peculiarities in the habitats of some guide species, and on other pertinent problems.

Card 2/2

V. P. R.

MORDVILKO, Tat'yana Aleksandrovna; RENGARTEN, V.P., otv.red.; CHIZHOV, A.A., red.izd-va; BLEYKH, M.Yu., tekhn.red.

[Lower Cretaceous sediments in Ciscaucasia and the Northern Caucasus] Nizhnemelovye otlozheniia Severnogo Kavkaza i Predkavkaz'ia. Moskva, Izd-vo Akad.nauk SSSR, 1960. 238 p. (MIRA 13:5)

1. Chlen-korrespondent AN SSSR (for Rengarten).
(Caucasus, Northern--Geology, Stratigraphic)

MORDVILKO, Tat'yana Aleksandrovna; RENGARTEN, V.P., otv. red.; CHIZHOV, A.A., red.izd-va; AREF'YEVA, G.P., tekhn. red.

[Lower Cretaceous sediments in southeastern regions of Ciscaucasia and the Northern Caucasus] Nizhnemelovye otlozheniia iugovostochnykh raionov Severnogo Kavkaza i Predkavkaz'ia. Moskva, Izd-vo Akad. nauk SSSR. Pt.2. 1962. 294 p. (MIRA 15:5)

1. Chlen-korrespondent Akademii nauk SSSR (for Rengarten).
(Caucasus, Northern—Geology, Stratigraphic)

NORDVIN, L.N.

Determining the economic effectiveness of group drilling. Izv. vys. ucheb. zav.; neft' i gaz no.1:171-179 '58. (MIRA 11:8)

1.Moskovskiy neftyanoy institut im. akad. I.M. Gubkina.
(Oil well drilling)

TKACHENKO, A.I.; MORDVIN, L.N.

Groznyy workers are using three-blade bits. Neftianik 3 no.4:9-10 Ap '58. (MIRA 11:5)

(Groznyy Province--Boring machinery)

SOV/93-58-8-5/15

AUTHOR: Tagiyev, E. I.; Dunayev, F. F.; Tomashpol'skiy, L. M.; Sereda, N. G.; and Mordvin, L. N.

TITLE: Increased Efficiency Resulting From the Drilling of Clusters of Multiple Oil Wells Through Level Type Formations (K voprosu ob effektivnosti sploshnogo razburivaniya mestorozhdeniy ravninnogo tipa kustami mnogostvol'nykh skvazhin)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 8, pp. 16-23 (USSR)

ABSTRACT: The All-Union conference on dual well drilling and inclined well operation, called by the Gosplan of the USSR, started in January and continued through February 1958. The conference noted that the extension of multiple well drilling in the Soviet Union is of great importance since this type of well completion will reduce capital investment and the consumption of metal and labor. Slepyan, Milovidov, Shandin, Ovanesov, and Mezhlumov, representing the Councils of the National Economy of the Bashkir ASSR, Azerbaydzhan SSR, Kuybyshev Oblast, and Stalingrad Oblast reported that they are

Card 1/3

preparing for expansion of the multiple well drilling method in their respective regions. The authors state that the increased importance of multiple well drilling calls for a more thorough analysis of the problems raised by M. G. Osipov and A. A. Kortatstsi in their article published in Neftyanoye khozyaystvo, 1957, Nr 8. The authors also note that the effect of multiple well drilling through level type formations had been studied at the Moskovskiy neftyanoy institut im. akad. I. M. Gubkina (Moscow Petroleum Institute im. Acad. I. M. Gubkin) by V. P. Banatov, G. I. Zhukova, L. G. Kasatkina, and N. L. Kolyubakin under the guidance of E. I. Tagiyev and F. F. Dunayev. Drilling data provided by the 'Al'met'yevburneft' and Tatburneft' of the Tatar ASSR show that the multiple well drilling method produces better results than the vertical well drilling method (Tables 1-3). Fig. 1 presents a well distribution scheme for multiple well drilling at the Yuzhno-Romashkino oilfield of the Tatar ASSR. This scheme will be used for oil well drilling during the Sixth Five Year Plan. Tables 4-6 show that the drilling of multiple

Increased Efficiency Resulting (Cont.)

wells according to this scheme of well distribution will lead to a reduction in capital investment and to a desirable decrease in time and labor consumption. The authors conclude that: 1) drilling clusters of dual wells through level type formations will reduce capital investment, labor and metal consumption, 2) the accumulated data on dual well drilling and on the operation of clusters of inclined wells a level type formations make it possible to recommend an expansion of this type of drilling, and 3) wide application of dual well drilling depends on the development of special drilling and operating equipment, and on the solution of individual technological problems. There are 6 tables and 1 figure.

1. Petroleum--Production 2. Well drilling--Costs

Card 3/3

MORDVIN, M., starshiy master

Jobs subject to automation. Prof.-tekh. obr. 17 no. 11:8-9 N '60. (MIRA 13:12)

1. Gornopromyshlennoye uchilishche No. 1, Kirgizskaya SSR.
(Kyzyl-Kiya--Mining engineering--Study and teaching)

MORDVIN, M.I.

Geologic and economic problems of the petroleum industry in the works of Academician I.M. Gubkin. Trudy VNIGNI no.6:145-154 '55. (MLRA 9:11)

(Petroleum geology)
(Gubkin, Ivan Mikhailovich, 1871-1939)

ZAKHAROV, Ye.V.; MORDVIN, N.I.

Geological and economic evaluation of the basic results of prospecting operations for oil in the countries of the Middle East. Neftegaz. geol. o geofiz. no.8:58-64 '63. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut, Moskva.

MORDVIN, N.I.

Economic problems in the works of academician I.M. Gubkin.
Trudy VNIGNI no.40:211-215 '64. (MIRA 17:6)

MOROVKIN, A. K.

"Comparative Evaluation of Methods of Treating Postnatal Mastitis," Senior Sci. Collaborator, Moscow Oblast Sci. Res. Inst. Obstetrics & Gynecology, -c1949-. Akusher. i Ginekol., No. 5, 1949.

VAL'KOV, B.G.; MORDVINKIN, G.I.; VAL'KOVA, Ye.R.

Observations on the preservation of tularemia infection in the natural microfocus. Sbor. nauch. rab. Elist. protivochum. sta. no. 1:239-244 '59. (MIRA 13:10)
(WEST KAZAKHSTAN PROVINCE—TULAREMIA)

MORDVINKIN, N.A.; KOROLEV, A.N.

Forty years of the railroad car industry. Zhel.dor.transp. 39 no.11:46-50 N '57. (MIRA 10:10)

1.Glavnyy inzh. Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Mordvinkin). 2. Zamestitel' glavnogo inzhenera Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Korolev).
(Railroads--Cars)

MORDVINKIN, Nikolay Aleksandrovich; FILIMONOV, Nikolay Yevdokimovich; BRAYLOVSKIY, N.G., red.; BOBROVA, Ye.N., tekhn.red.

[Manual for railroad car inspectors] Rukovodstvo osmotrshchika vagonov. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 270 p. (MIRA 12:2)

1. Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya. (Railroads--Cars)

KORDVINKIN, M.A., inzh.; POPOV, A.I., inzh.; ARSHINOV, I.M., inzh., red.; KHITROV, P.I., tekhn.red.

[Manual for foremen and brigade leaders on the repair of railroad cars] Rukovodstvo masteru i brigadiru po remontu vagonov. Izd.2., perer. i dop. Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 521 p. (MIRA 12:5)
(Railroads--Cars--Maintenance and repair)

MORDVINKIN, N.A., insh.

Wider use of six-axle gondola cars. Zhel.-dor.transp. 43 no.9:43-48 S '61. (MIRA 14:8)
(Railroads--Freight cars)

SHADUR, Leonid Abramovich, doktor tekhn. nauk, prof.; CHELNOKOV, Ivan Ivanovich, doktor tekhn. nauk, prof.; NIKOL'SKIY, Lev Nikolayevich, doktor tekhn. nauk, prof.; KAZANSKIY, Georgiy Alekseyevich, kand. tekhn.nauk; KOGAN, Liber Ayzikovich, kand. tekhn. nauk; DEVYATKOV, Vladimir Fedorovich, kand. tekhn. nauk; CHIRKIN, Viktor Vasil'yevich, kand. tekhn. nauk; MORDVINKIN, N.A., inzh., retsenzent; BELYAYEVSKIY, N.G., red.; MEDVEDEVA, M.A., tekhn. red.

[Designs of railroad cars] Konstruktsii vagonov. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1962. 415 p. (MIRA 15:4)
(Railroads—Cars—Design and construction)

MORDVINKIN, Nikolay Aleksandrovich; ALEKSEYEV, V.D., retsenzent; ANISIMOV, P.S., retsenzent; SARANTSEV, Yu.S., red.; MEDVEDEVA, M.A., tekhn. red.

[Inspection and repair of cars in trains] Osmotr i remont vagonov v poezdakh. Moskva, Transzheldorizdat, 1963. 245 p. (MIRA 16:5)

(Railroads—Cars—Maintenance and repair)

MORDVINKINA, T.M.

Excretory function following gastric resection. Ter.arkh. 22 no.6: 64-67 Nov-Dec 50. (CIML 20:5)

1. Of the Hospital Surgical Clinic (Director—Honored Worker in Science Prof.A.V.Smirnov), Leningrad Sanitary-Hygienic Medical Institute, Leningrad.

KORDVINKINA, T.N., kandidat meditsinskikh nauk.

Transpleural resection of the esophagus and stomach in cancer in a case of active pulmonary tuberculosis. Khirurgiia no.10:79-80 O '53. (MLRA 6:11)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (direktor - professor S.V. Geynats) Leningradskogo meditsinskogo pediatricheskogo instituta.
(Esophagus--Cancer) (Stomach--Cancer) (Tuberculosis)

MORDVINKINA, T. N.

Excerpta Medica Sec 9 Surgery Vol. 8/12 Dec 1954

8241. MORDVINKINA T. N. *Pathogenesis and clinical features of dermoid cysts and teratomas in the anterior mediastinum (Russian text) VESTN. KHIR. 1953, 73/6 (47-49) Illus. 3

A teratoma was removed from the anterior mediastinum of a 21-year-old female. At histological examination part of it was found to consist of thymus tissue. This finding corroborates the opinion of some authors who think teratoma to be of branchiogenic origin. Szabolcs - Szombathely (IX, 5, 16)

MORDVINKINA, T.N.

Secretory function of the stomach in gastric and duodenal ulcers. Trudy LSGMI 20:74-81 '54. (MLRA 10:8)

1. Gospital'naya khirurgicheskaya klinika Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, zav. klinikoy - zasl. deyatel' nauki, prof. A.V.Smirnov)
(PEPTIC ULCER, physiology,
gastric secretion)
(GASTRIC JUICE,
secretion in peptic ulcer)

MORDVINKINA, T.N.

Remote and immediate changes in postoperative gastric secretion in peptic ulcer and its relation to the type of surgery. Trudy LSGMI 20:177-183 '54. (MLRA 10:8)

1. Klinika gospital'noy khirurgii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, zav. klinikoy - zasl. deyatel' nauki, prof. A.V.Smirnov.
(GASTRIC JUICE,
secretion, postop. in peptic ulcer)
(PEPTIC ULCER, surgery,
postop. gastric secretion)

EXCERPTA MEDICA Sec.9 Vol.11/4 Surgery April 57

1076. MORDVINKINA T.N. *Polyposis of the stomach (Russian text) VESTN.KHIR. 1955, 75/1 (11-14)

Report of 25 patients with gastric polyps observed by the author during 1950-1953. Clinical and diagnostic aspects are discussed. Since malignant changes of the tissue were present in more than 2/3 of the cases, early diagnosis and radical operation (gastric resection, not gastrotomy and extirpation of the polyps) are called for. In multiple polyps, the entire stomach should be removed. (IX, 5, 16)

MORDVINKINA, T.N., kandidat meditsinskikh nauk (Leningrad, 25, Nevskiy pr. [redacted], 264)

Clinical aspects of periarteritis nodosa. Nov.khir.arkh. no.1: 72-73 Ja-F '57. (MLRA 10:6)

1. Kafedra obshchey khirurgii (zav. - prof. I.Ye.Matsuyev) Ryazanskogo meditsinskogo instituta.
(ARTERIES--DISEASES)

MORDVINKINA, T.N., kandidat meditsinskikh nauk (Leningrad, Nevskiy pr., [redacted])

[Recurrent perforations of gastric and duodenal ulcer [with summary in English, p.158] Vest.khir. 78 no.2:53-55 F '57. (MLRA 10:3)

1. Iz fakul'tetskoykhirurgicheskoy kliniki (zaveduyushchiy - professor V.A.Zhmur) Ryazanskogo meditsinskogo instituta im. akademika I.P.Pavlova.

(PEPTIC ULCER, perf.
recur. (Rus))

MORDYUKIM, [redacted] kandidat meditsinskikh nauk (Leningrad, Nevskiy p:., d.194, kv. 264)

Foreign bodies simulating tumors of the omentum. Vest.khir. 78 no.6: 123-126 Je '57. (MLRA 10:8)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.A.Zhmur) Ryazanskogo meditsinskogo instituta im. AKAD. I.P.Pavlova

(OMENTUM, foreign bodies simulating tumors)

KORDYUKOVA, T.N., kand.med.nauk (Leningrad, Nevskiy pr., d.104, kv.264)

Gastric excretory function in cancer and following resection of esophageal cancer [with summary in English]. Vest.khir. 79 no.8: 30-35 Ag '57. (MIRA 10:10)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. A.V.Smirnov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta i fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. S.V.Gaynata) Leningradskogo pediatricheskogo meditsinskogo instituta.

(STOMACH, physiol.
excretory funct. in stomach cancer & after resection of esophageal cancer)
(ESOPHAGUS, neoplasms,
surg., postop. gastric excretory funct.)

MORDVINKINA, T.N., kand.med.nauk

Venous changes following intravenous injections and blood transfusions. Trudy LSGMI 59:139-153 '60. (MIRA 14:9)

1. Klinika obshchey khirurgii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. klinikoy - prof. I.M.Tal'man).
(BLOOD--TRANSFUSION) (INJECTIONS, INTRAVENOUS)
(VEINS)

MORDVINKINA, T.N., kand.med.nauk

Experimental data on venous changes following intravenous use of some medicinal substances. Trudy LSGMI 59:154-159 '60.
(MIRA 14:9)

1. Klinika obshchey khirurgii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. klinikoy - prof. I.M.Tal'man).
(VEINS) (INJECTIONS, INTRAVENOUS)

MORDVINKINA, T.N., kand.med.nauk

Periarteritis nodosa. Vest.khir. 85 no.9:87-94 S '60.
(MIRA 13:11)

1. Iz kliniki obshchey khirurgii (zav. - prof. I.M. Tal'man) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(ARTERIES—DISEASES)

1. A. G. MORDVINOV

2. USSR (600)

4. Apartment Houses - Moscow

7. 26-story hotel and apartment house building on Dorogomilovskaia Quay. Gor.khoz. Mosk. 23 no. 7. 1949.

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

[redacted], A.[redacted]

President USSR Academy of Architecture. (1950)

"Tall Buildings In The Capital", Pravda, 1950

Current Digest of the Soviet Press, Vol 2, No. 21, 1950, page 25. (In [redacted] Library)

[illegible], A[G]

"[illegible] Soviet Agent [illegible] Nazi," p. 12, ([illegible], Vol. [illegible], No. [illegible], [illegible] 1958, Budapest, Hungary)

Source: Monthly List of East European Accessions, (LC), LC, Vol. 3, No. 12, Dec. 1958, Uncl.

[illegible], A. [G]

"Accelerated [illegible] Fabric and Belt for Architectural Planners, Dr. [illegible]," p. 13, ([illegible], Vol. [illegible], No. 4, June 1[illegible], Abstract, Summary)

SO: Monthly List of [illegible], (UMLS), LC, Vol. 3, No. 12, Dec. 19[illegible], Uncl.

L 45750-65 EWT(1)/EEC(t) LHB

ACCESSION NR: AP5004408 S/0056/65/048/001/0343/0344

22
2

AUTHORS: Zababakhin, Ye. I.; Mordvinov, B. P.

TITLE: Example of stationary unbounded cumulation

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 1, 1965, 342-344

TOPIC TAGS: shock wave, energy cumulation, stationary cumulation, Maxwell equation, electromagnetic shock wave

ABSTRACT: The authors find an example of a phenomenon in which unbounded cumulation of energy is realized in stationary fashion in the case of a converging conical shock wave of an electromagnetic field. The solution of Maxwell's equations for this case shows that they coincide with the equations describing a nonstationary cylindrical field wave, which one of the authors (Zababakhin, with M. N. Nechayev, ZhETF, v. 33, 442, 1957) considered previously, except for different

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ACCESSION NR: AP5004408

expressions for the field components. As in the former case, the amplitude of the wave reflected from the axis remains unbounded at a finite distance from the axis. The solution described pertains to the case of ideal symmetry and zero front width. Even slight violation of these conditions destroys the effect of unbounded cumulation. Orig. has: 7 equations and 1 figure.

SUBMITTED: 14Jul64 ENCL: 00 SUB CODE: ME, EM

NR REF SOV: 002 OTHER: 001

2/2

ZABABAKHIN, Ye.I.; MERZHINOV, B.P.

An example of stationary [illegible] correlation. Zhur. eksp. i teor. fiz. 48 no.1:342-[illegible] Ja '65. (MIRA 18:4)

MORDVINOV, D.S., dotsent

Using the methods of the theory of graphs in investigating geometrical structures. Izv. vys. ucheb. zav.; mashinostr. no.3:111-118 '65. (MIRA 18:6)

1. Omskiy politekhnicheskiy institut.

MORDVINOV, I., kontr-admiral

Party Committee and scientific work at the academy. Kommun. Vooruzh. Sil 3 no.18:26-32 S '63. (MIRA 16:10)

1. Sekretar' partiynogo komiteta Voyenno-morskoy ordena Lenina akademii.

(Naval education)

MORDVINOV, I.I., kontr-admiral

Invention and innovation is a party matter. Mor. sbor. 48
no.7:51-56 Jl '65. (MIRA 18:8)

MORDVINOV, K.A.

We shall fulfill the seven-year plan ahead of time. Put' i put.khoz. 5 no.12:9 D '61. (MIRA 15:1)

1. Glavnyy inzh. shpalopropitochnogo zavoda, g. Riga. (Riga--Railroads--Ties)

MORDVINOV, N.

What was gained by the liquidation of the Divisions of Workers' Supply. Sov.torg. 33 no.7:32-33 Jl '60. (MIRA 13:7)

1. Nachal'nik otdela organizatsii oblastnogo upravleniya torgovli, g.Gorniy.
(Gorkiy Province--Retail trade)

NECHAYEVA, N. T.; MORDVINOV, N. A.

Forecast of the yield of ephemeral forage plants in the desert pastures of Turkmenistan based on the depth of moisture penetration in soil. Izv. AN Turk. SSSR. Ser. biol. nauk no. 6:15-18 '63. (MIRA 17:5)

1. Institut botaniki AN Turkmenskoy SSSR i Upravleniye gidrometeosluzhby Turkmenkoy SSSR.

AFRIKANTOV, I.I.; MORDVINOV, N.M.; NOVIKOV, P.D.; POLOGIKH, B.G.; SLEDZIUK, A.K.; KHLOPKIN, N.S.; TSAREV, N.M.

Exploitation of the atomic plant on the "Lenin" icebreaker. Atom. energ. 17 no.5:349-359 N '64. (MIRA 17:12)

MORDVINOV, A.

Fleet Commander Mikhail Petrovich Lazarev; on the hundred and sixtieth anniversary of his birth. Vympel 11 no.22:14-35 N '48. (MLRA 12:9)

(Lazarev, Mikhail Petrovich, 1788-1851)

MORDVINOV, RostislavNikolaevich

V'YUNENKO, Nikolay Petrovich, kapitan 1 ranga; MORDVINOV, Rostislav Nikolayevich, kapitan 1 ranga; TARASOV, I.A., redaktor; IGNATKOVICH, G.M., redaktor; MEDNIKOVA, A.N., tekhnicheskiy redaktor

[Flotillas in the Great Patriotic War; a brief military and historical sketch] Voennye flotilii v Velikoi Otechestvennoi voine; kratkii voenno-istoricheskii ocherk. Moskva, Voen.izd-vo M-va obor. SSSR, 1957. 270 p. (MLRA 10:9)
(World War, 1939-1945--Naval operations)

ACHKASOV, V.I., kand. ist. nauk, kapitan 1' ranga; VASOV, A.V., kand. voyenno-morskikh nauk kapitan 2 ranga; BOL'SHAKOV, N.V., kapitan 1 ranga zapasa; GEL'FOND, G.M., dots., kand. voyenno-morskikh nauk kapitan 1 ranga; MORDVINOV, R.N., kand. voyenno-morskikh nauk kapitan 1 ranga zapasa; NOSYREV, V.N., podpolkovnik; SUMIN, A.I., kand. ist. nauk kapitan 1 ranga; PITERSKIY, N.A., kand. voyenno-morskikh nauk kontr-admiral zapasa, otv. red.; KARASEV, A.Ye., red. kapitan 1 ranga zapasa

[Battle history of the Soviet Navy] Boevoi put' Sovetskogo Voenno-Morskogo Flota. Moskva, Voenizdat, 1964. 620 p. (MIRA 17:7)

MORDVINOV, V., podpolkovnik meditsinskoy sluzhby

Radiation sickness. Voen. znan. 39 no.11:23-24 N '63.
(MIRA 17:2)

MORDVINOV, V.S.

PHASE I BOOK EXPLOITATION SOV/6215

Yegorov, Pavel Timofeyevich, Ivan Alekseyevich Shlyakhov, Terentiy Vasil'yevich Dolbnin (Deceased), and Viktor Stepanovich Mordvinov

Grazhdanskaya oborona (Civil Defense). Moscow, Gosizdat "Vysshaya shkola," 1962. 363 p. 40,000 copies printed.

Ed.: A. P. Martynov; Tech. Ed.: L. L. Yezhova.

PURPOSE: The book is intended as a textbook on civil defense for use in schools of higher education.

COVERAGE: The book includes necessary information on modern means of aerial attack, data on ordinary aerial bombs, and data on chemical, biological, and radiological (CBR) weapons taken from the literature of non-Soviet bloc countries. The problems of organizing civil defense are dealt with, and the steps to be taken in towns and other populated areas in order to reduce the danger of destruction of population and economic targets are discussed. Reconnaissance to determine extent and location of

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destruction, and the conduct of emergency repair operations, first aid, and CBR decontamination are also treated. Problems associated with the organization of command and the coordination of action in an area of massive destruction are also considered. Four authors contributed to the writing of the book: Chs. I, II, III, VI, VII, VIII, VX, VXII, and VXIII were written by P. T. Yegorov; Chs. IV, IX, X, XI, and XIII by I. A. Shlyakhov; Chs. V, XIV, XVI, and XIX by T. V. Dolbnin; and Ch. XX by V. S. Mordvinov. In addition, Mordvinov collaborated with the authors of Chs. V, XIV, XVI, and XIX. There are 24 references, all Soviet (including 3 translations from English).

TABLE OF CONTENTS:

NORDVINOV, Yu. B.; KRUGLOV, A. I.; and ZOLOTYKH, B. N.;

"Mechanical Type Discharge Machines for Feeding Electrospark Installations and Their Characteristics," Electroiskrovaya obrabotka metallov (Electrospark Machining of Metals), Moscow, Izd-vo AN SSSR, 1957. page 133.

According to the article an increase in machining rate by the electrospark machining method may be achieved by the two following methods: 1) by pulse frequency 2) by increasing pulse energy. Since previous investigations have shown that the quality of a machined surface is inversely proportional to pulse energy, increase in energy will result in the reduction of surface quality. Thus this is not a practical method for increasing the rate of machining. On the other hand, an increase in pulse frequency does not affect surface quality, but can not be achieved in a system having condenser-charging circuit. As a result it was necessary to develop new types of pulse generators. A detailed description and an experimental investigation of such pulse generators are presented. It is stated that the maximum machining rate achieved by use of a new machine generator during the process of producing holes at the full load was between 5000 and 5500 mm3/min., and the use of MIG-3A and MIG-3B electrospark generators increases the rate of machining steel and hard alloys from 2-3 times more than the estimated rate when using a condenser-charging system.

83193
S/056/60/039/002/030/044
B006/B056

24.6600

AUTHORS: Mordvinov, Yu. P., Firsov, O. B.

TITLE: The Inelastic Collision Cross Sections for Atoms and Ions as Dependent on Their Velocities in the Case of Pseudo-intersection of the Levels

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 2(8), pp. 427-431

TEXT: The present paper gives a theoretical investigation of the inelastic collision cross sections for atoms and ions as dependent on their velocities in the case of pseudo-intersection of the levels of the system of colliding particles. Here, it is assumed that the nuclei of the colliding particles move in the classical sense rectilinearly and uniformly, and that $v \ll e^2/\hbar$. The eigenvalues of the electron-energy functions E_n are functions of the nuclear coordinates R, and the curves $E_n(R)$ and $E_{n'}(R)$ may, in general, intersect. ($R = |\vec{R}_a - \vec{R}_b|$, $\dot{\vec{R}} = \vec{v}$). If $E_n - E_{n'}$ does not

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The Inelastic Collision Cross Sections for Atoms and Ions as Dependent on Their Velocities in the Case of Pseudo-intersection of the Levels

change the sign, when passing through the point $R = R_0$, the behavior of $E_n(R)$ and $E_{n'}(R)$ is described as pseudo-intersection of the levels. In the case of low-velocity collisions, (n,n') transitions occur practically only near intersection- or pseudo-intersection points of the levels E_n and $E_{n'}$. L. D. Landau and C. Zener (Refs. 1, 2) developed a theory of these transitions, which, however, the authors of the present paper consider to be incomplete. They show in the present paper that the cross section of such transitions as a function of the velocity v generally has two peaks. For slow inelastic collisions in the case of pseudo-intersection of the levels, only the transition between the two terms near the intersection point $(R = R_0)$ need be taken into account. The time dependence of the electron wave functions is taken into account in terms of the radius vectors of the nuclei. The perturbation matrix element in the Landau - Zener formula includes both the ordinary steady separation of the levels and a term that takes the time dependence of the electron wave

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The Inelastic Collision Cross Sections for Atoms and Ions as Dependent on Their Velocities in the Case of Pseudo-intersection of the Levels

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B006/B056

functions into account. Figu. 1 and 2 show $\sigma/\pi R_0^2 = f(v/v_0)$ for special cases. The conditions as to when the curves have two peaks, as well as some problems connected with the relative and absolute position of the peaks are discussed. Ye. M. Lifshits is mentioned. There are 2 figures and 4 references: 2 Soviet and 2 British.

SUBMITTED: March 17, 1960

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L 24618-65 EPF(c)/EPA(w)-2/EWT(1)/EEC(t)/T/EWA(m)-2 Pr-4/Psb-10 IJP(c) WW
ACCESSION NR: AP5004386 S/0056/65/048/001/0133/0137

AUTHOR: Mordvinov, Yu. P.; Smirnov, B. M.

TITLE: Diffusion and mobility of ions in their parent gas

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 1, 1965, 133-137

TOPIC TAGS: ionization, ion diffusion, ion mobility, inert gas, charge exchange

ABSTRACT: The diffusion and mobility of the ions of an inert gas in the parent gas are calculated with account taken of resonance charge exchange and plerization capture of the pions by the atoms. Unlike in earlier work, the calculations are based on knowledge of the exact values of the resonance charge exchange cross section, with account taken of the dependence of the resonance charge exchange cross section of the ions with parent atoms on the elastic scattering and on the polarization capture of the ions; the latter factor is of considerable importance at low collision velocities. The calculations show that the diffusion and mobility of the ions in the parent gas are determined essentially by the resonance

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ACCESSION NR: AP5004386

charge exchange of the ions even at low temperatures. The results obtained for the mobility of the ions at room temperatures are in good agreement with experiment. Summaries of the results are listed in Tables I and II of the enclosure. The authors thank O. B. Firsov for valuable discussions and interest in the work. Orig. art. has: 11 formulas and 2 tables.

ASSOCIATION: None

SUBMITTED: 14Mar63 ENCL: 02 SUB CODE: NP, GP

NR REF SOV: 006 OTHER: 011

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I. 24659-65
ACCESSION NR: AP5004386

ENCLOSURE: 01

Average cross section, 10^{-16} cm^2

Gas	lg E, °K						
	2	2,5	3	3,5	4	5	6
H	94	70	64 78	46 68	43 61	33 47	27 34
He	46	34	27 40	25 42	20 28	17 23	11 22
Ne	66	48	34 54	28 43	24 44	18 34	12 28
Ar	108	82	67 96	56 90	40 83	38 73	28 63
Kr	132	101	83 119	72 111	63 104	50 93	38 79
Xe	143	108	89 140	75 134	65 126	50 112	37 98

Note: Upper line for each element - present data, lower line - data by others

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ACCESSION NR: AP5004386

ENCLOSURE: 02

0

Mobility, $cm^2/V.sec$

Gas	T = 77° K	T = 111° K	T = 300° K
He	15,1 13,5 [11] 13,8 [12]	12,2 12,1 [11] 11,1 [11]	10,9 10,8[11], 9,6 [13] 10,5[14], 10,7 [14]
Ne	6,1 5,2 [11,13]	4,3 4,5 [11,13]	3,9 4,2 [11,13], 4,0 [13] 4,1 [14]
Ar	1,92 2,2 [11] 1,88 [13]	1,66 1,95 [11]	1,41 1,6 [11,14] 1,63 [13], 1,38 [14]
Kr			0,8 0,9 [13] 0,9—0,95 [17]
Xe			0,56 0,58 [13]

Notes: Upper line for each element - present data, lower lines - data by others

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L 1367-66 EWT(1)/EWT(m)/EWA(d)/T/EEA(w)-2/EWA(m)-2 IJP(c) AT

ACCESSION NR: AP5020237 UR/0188/65/000/004/0036/0043
539.184

AUTHOR: Nordvinov, Yu. P. 44,55

TITLE: Electron transitions between energy surfaces during chemical reactions 21,99,55

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 4, 1965, 36-43

TOPIC TAGS: electron transition, chemical kinetics

ABSTRACT: The author studies transitions of electrons between energy surfaces of systems consisting of many atoms at low energies. Various cases of intersecting and converging surfaces are examined. The transition probabilities are determined for the intersection cases using the Landau-Zener formula. For the case of converging surfaces, the probabilities are found from adiabatic perturbation theory. The concept of the cross section of the process is introduced. The author shows the effect of these transitions on the kinetics of chemical reactions (relationship between activation energy and temperature). "In conclusion, I am deeply grateful to O. B. Firsov for constant assistance with the work." Orig. art. has: 2 figures, 11 formulas.

Card 1/2

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ASSOCIATION: Kafedra teoreticheskoy fiziki Moskovskogo gosudarstvennogo universiteta (Department of Theoretical Physics, Moscow State University)

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Card 2/2 dg

ZOLOTYKH, B.N.; MORDVINOV, Yu.V.; KHUDLOV, A.I.

Power pulse generators used for feeding electric-spark machining units and their characteristics. Trudy TSNIL-ELEKTROM no.1:133-158 '57. (MIRA 11:12)
(Electric cutting machinery) (Electric generators)

MORDVINOV, Yu. V., inzhener.

Commutatorless pulse generator for supplying power to electric spark machines. Vest. elektroprom. 28 no.1:64-68 Ja '57. (MLRA 10:4)

1. Nauchno-issledovatel'skiy institut Ministerstva elektrotekhnicheskoy promyshlennosti.
(Electric spark) (Electric generators)