"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

ACCESSION NR: AP4042971

sirable. Orig.art.has: 3 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00

SUB CODE: NP NR REF SOV: 004 OTHER: 008

3/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 5089-66 EWT(m)/EPF(n)-2/EWA(h)
ACCESSION NR: AT5024118

UR/3136/65/000/885/0001/0012

AUTHOR: Groshev, L. V.; Demidov, A. M.; Shadiyev, N.

28
B+1

TITLE: De-excitation of nickel nuclei after the capture of a thermal neutron

19

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-885, 1965, Vysvechivaniye yader nikelya posle zakhvata teplovogo neytrona, 1-12

TOPIC TAGS: gamma transition, gamma neutron reaction, nickel, nucleus, thermal neutron, neutron capture

ABSTRACT: A description is given of an experiment in which a magnetic Compton spectrometer is used to measure the spectrum of gamma-rays nascent during the capture of thermal neutrons by nickel nuclei. A diagram is presented showing the gamma-transitions of the nuclei Ni^{59}, Ni^{61}, and Ni^{63}. A comparison of the proton yield in the (d,p) reaction is made with the matrix elements of the gamma-transitions from the initial state. The capture mechanism of the thermal neutrons in these nuclei is discussed. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR (State Committee for the Utilization of Atomic Energy SSSR); Institut atomnoy energii im. I. V. Kurchatova (Institute of Atomic Energy)

Card 1/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 5089-66
ACCESSION NR: AT5024118

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NO REF SOV: 002 OTHER: 008

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.M.

Conference on experimental methods used in research reactor control. Atom. energ. 18 no.4:432-434 Ap '65. (MIRA 18:4)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

GROSHEV, L.V.; DEMIDOV, A.M.; SHADIYEV, N.

Spectrum of gamma rays originating in the capture of thermal neutrons by palladium. Izv. AN SSSR. Ser. fiz. 29 no.5:760-765 My '65.

Spectrum of gamma rays originating in the capture of thermal neutrons by gold. Ibid.:766-771 (MIRA 18:5)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 54785-65 EWT(m) Peb DIAAP

ACCESSION NR: AP5013994 UR/0048/65/029/005/0772/0781

AUTHOR: Groshev, L.V.; Demidov, A.M.; Ivanov, V.A.; Lutsenko, V.N.; Pelekhov, V.I.; Shadiyev, N.

TITLE: Levels of erbium 168 excited by neutron capture [Report, 15th Annual Conference on Nuclear Spectroscopy and the Structure of the Atomic Nucleus held in Minsk, 25 Jan-2 Feb 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.5, 1965, 772-781

TOPIC TAGS: gamma ray spectrum, neutron capture, erbium, internal conversion

ABSTRACT: The gamma rays between 0.5 and 8 MeV from the $Er^{167}(n,\gamma)$-Er^{168} reaction were investigated with a magnetic Compton spectrometer with a resolution of 0.3% for gamma ray energies above 2 MeV. The spectrometer has been described elsewhere (L.V.Groshev, A.M.Demidov, V.N.Lutsenko and A.F.Malov, Izv.AN SSSR, Ser.fiz.24, 791, 1960). The

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 54785-65

ACCESSION NR: AP5013994

sample was Er_2O_3 with the natural isotopic composition, to which Er^{167} contributes 90% of the slow neutron capture cross section. Possible origins of the gamma rays are discussed and it is concluded that those with energies above 5760 keV but not between 6185 and 6242 keV can be confidently assigned to Er^{168}. Nineteen such gamma rays are tabulated; there are also tabulated 13 gamma rays with energies between 5000 and 5760 keV of which the origin is in doubt and 23 with energies below 1400 keV which are ascribed to Er^{168}. The estimated errors of the energy measurements range from 2 to 8 keV. The measured relative intensities were converted to absolute intensities by normalizing the total radiated energy to the neutron binding energy. Conversion electron measurements are presented for 21 transitions with energies below 1400 keV. The conversion electron measurements for transitions with energies below 1000 keV were taken from earlier work (V.A.Ivanov and V.I.Pelekhov,Izv.AN SSSR,Ser.fiz.26,1480,1962) and those for higher energy transitions were measured with the same technique. Conversion coefficients were obtained for 19 of the transitions and multipolarities were assigned. A level and transition dia-

Card 2/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 54785-65

ACCESSION NR: AP5013994

gram encompassing 19 levels below 1996 keV and 47 transitions was derived for Er^{168}. This diagram and the reasons for some of the spin and parity assignments are discussed in considerable detail. The energy of the level into which the neutron is captured was found to be 7766 ± 4 keV. Orig.art.has: 8 figures and 6 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 005 OTHER: 007

Card 3/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 21132-66 EWT(m)/EWP(t) DIAAP/IJP(c) JD/JG
ACC NR: AP6011986

SOURCE CODE: UR/0048/65/029/005/0760/0765

AUTHOR: Groshev, L V.; Demidov, A. M.; Shadiyev, N.

ORG: none

37
B

19

TITLE: Gamma ray spectrum produced by capturing thermal neutrons using palladium 27
[The paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and Atomic Nuclear Structure held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 5, 1965, 760-765

TOPIC TAGS: thermal neutron, palladium, gamma ray, gamma spectrum, isotope

ABSTRACT: Current literature has no data on the gamma radiation spectrum produced by the reaction $(n\gamma)$ of thermal neutrons for palladium isotopes. This is due to the facts that the identification of γ-lines is made difficult because of some other isotopes being present and the capture cross-section of thermal neutrons is unknown. The energy spectrum of palladium gamma radiation above 4.5 MeV is given. A table of energies and intensities of gamma radiation, gamma transition schemes, and the nucleus and levels scheme for the Pd^{106} nucleus are also given. Orig. art. has: 3 figures and 2 tables. [JPRS]

SUB CODE: 20, 18 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 005

Card 1/1 dda

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 21133-66 EWT(m)/EPF(n)-2/EWP(t) DIAAP/IJP(c) JD/WW/JG

ACC NR: AP6011987 SOURCE CODE: UR/0048/65/029/005/0766/0771

AUTHOR: Groshev, L. V.; Demidov, A. M.; Shadiyev, N.

ORG: none

37

B

19

TITLE: Gamma ray spectrum produced by capturing thermal neutrons using gold [The paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and Atomic Nuclear Structure held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 5, 1965, 766-771

TOPIC TAGS: gamma ray, gamma spectrum, gold, thermal neutron, spectrometer

ABSTRACT: Odd-odd heavy nuclei belong to the least studied catogory of nuclei. This is due to the fact that only seldom may they be excited during a radioactive decay, and as they are unstable, they may not be used in inelastic processes. The reactions (dp) and (nγ) served as a study of levels of odd-odd nuclei with a relatively good resolution.

This article describes the results of reaction $Au^{197}(n\gamma)Au^{198}$. The gamma ray spectrum was measured between 3.5-7.7 MeV by a magnetic Compton spectrometer whose resolution was 0.3%. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 004

Card 1/1 ULR

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 29669-66 EWT(m)/ETC(f)/EWP(t)/ETI IJP(c) RDW/JD
ACC NR: AT6012688 SOURCE CODE: UR/3136/65/000/966/0001/0016

40
B+1

AUTHOR: Groshev, L. V.; Demidov, A. M.; Shadiyev, N.

ORG: State Committee on the Use of Atomic Energy SSSR, Institute of Atomic Energy im. I. V. Kurchatov, Moscow (Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR, Institute atomnoy energii)

TITLE: Spectrum of γ rays 19 produced upon capture of thermal neutrons in tellurium

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 966, 1965. Spektr gamma-luchey, voznikayushchikh pri zakhvate teplovykh neytronov v tellure, 1-16 27

TOPIC TAGS: tellurium, Gamma spectrum, thermal neutron, neutron capture, radioactive decay scheme

ABSTRACT: The authors measured the γ ray spectra produced by the capture of thermal neutrons in a natural mixture of tellurium isotopes. The measurements were made with a magnetic Compton spectrometer with resolution 0.3% in the energy interval 4.5 - 9.5 Mev. The spectrometer was described by the authors earlier (Izv. AN SSSR ser. fizich. v. 24, 791, 1960). The energies and the intensities of the γ lines were determined from the known values of the binding energies for the individual isotopes and the level excitation energies, using a procedure de-

Card 1/2

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 29669-66
ACC NR: AT6012688

veloped by the authors earlier (Izv. AN SSSR ser. fiz. v. 29, 760, 1965). The capture cross sections for the individual tellurium isotopes, obtained from various sources, were also used in the calculations. The various spectral lines and their relation to the individual isotopes are discussed. γ transition schemes are presented for Te^{125} and a complete level scheme is presented for Te^{124}. The binding energy of the neutron of this isotope is found to be 9410 ± 5 kev. The decay of the initial states of the isotopes Te^{124}, Cd^{114}, and Sn^{118} is discussed and the results compared with the published data. Orig. art. has: 3 figures and 4 tables.

SUB CODE: 18/ SUBM DATE: 00 ORIG REF: 005/ OTH REF: 014

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 04101-67 EWT(m)

ACC NR: AT6031141 SOURCE CODE: UR/3136/66/000/037/0001/0012

28

B+1

AUTHOR: Groshev, L. V.; Demidov, A. M.

ORG: none

19

TITLE: One characteristic of the capture of thermal neutrons by nuclei

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-1037, 1966. Ob odnoy osobennosti zakhvata teplovykh neytronov yadrami, 1-12

TOPIC TAGS: neutron, neutron capture, thermal neutron, thermal neutron capture, nuclear capture, nuclear neutron capture, gamma transition

ABSTRACT: Attention is drawn to the fact that in some nuclei (Fe^{57}, Ni^{63}, Zn^{65}) the γ-transition from the initial state (arising in the process of thermal neutron capture) to levels with a low degree of particle singularity (determined from derived neutron widths in the reaction d, p), proceeds very intensely; and conversely, transition from the initial state to levels with a high degree of particle singularity proceeds weakly or not at all. This phenomenon cannot be explained either within the framework of a simple picture of the direct capture of neutrons or from the point of view of the formation of a complex compound nucleus. The authors show that the

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 04101-67

ACC NR: AT6031141

phenomenon may be explained, if it is assumed that in the process of neutron capture a pair of nucleons is activated from the skeleton of the target nucleus. This assumption approaches the concept recently developed by Feshbach and others on the mechanism of neutron capture through doorways. A summary is given of diagrams comparing derived neutron level widths, and matrix elements of γ-transitions from the initial state of these levels, for nuclei with A = 25 - 67. Orig. art. has: 3 figures. [SP]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 022/

kh

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 29281-66 --EWT(m)

ACC NR: AP6019331 SOURCE CODE: UR/0367/66/003/003/0444/0448

AUTHOR: Groshev, L. V.; Demidov, A. M.; Shadiyev, N.

ORG: none

36
B

TITLE: De-excitation of Ni nuclei after thermal neutron capture

SOURCE: Yadernaya fizika, v. 3, no. 3, 1966, 444-448

19

TOPIC TAGS: thermal neutron, neutron capture, nickel, gamma spectrum, gamma transition, isotope

ABSTRACT: Schemes of γ-transitions in the Ni^{59}, Ni^{61}, and Ni^{63} nuclei are constructed on the basis of data obtained by measuring γ-ray spectra from (n,γ)-reactions on Ni isotopes. The proton yields in the (d, p)-reaction are compared with the γ-transition matrix elements from the initial state. The mechanism of thermal neutron capture in these nuclei is discussed. Orig. art. has: 2 figures and 3 tables. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 20, 18 / SUBM DATE: 04Jun65 / ORIG REF: 002 / OTH REF: 008

Card 1/1 dc

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

ACC NR: AP7008883 SOURCE CODE: UR/0367/66/004/004/0785/0790

AUTHOR: Groshev, L. V.; Demidov, A. M.
ORG: none

TITLE: Specific feature of thermal neutron capture by nuclei

SOURCE: Yadernaya fizika, v. 4, no. 4, 1966, 785-790
TOPIC TAGS: thermal neutron, neutron capture, nucleon
SUB CODE: 20

ABSTRACT: It is noted that very intensive γ-transitions from the capturing state, produced in the capture of thermal neutrons, to levels with a low degree of "single-particality," determined from the reduced neutron widths in (d, p)-reactions, exist in certain nuclei (Fe^{57}, Ni^{63}, Zn^{65}). On the other hand, transitions from the capturing state to levels with a high degree of single-particality are weak or not observed at all. This feature can not be understood in terms of the simple direct neutron capture mechanism, or from the point of view of the creation of a complex compound nucleus. It is shown that the effect can be explained if it is assumed that a nucleon pair in the core of the target nucleus is excited during the neutron capture. This assumption is related to the notions on the mechanism of neutron capture through "doorway" states, recently developed by Feshbach et al. A list of diagrams is given, comparing the reduced neutron level widths and matrix elements for γ-transitions from the ground state to these levels, for nuclei with A = 25 - 67. Orig. art. has: 3 figures. [Based on authors' Eng. abst.] [JPRS: 39,658]

Card 1/1 UDC: none

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.N.

BELYAKOV, F.Ye.; BABIN, B.N.; BAL', V.; BOROVKOV, P.N.; VOYEVODIN, I.N.; GUREVICH, G.M.; GORBUNOVA, P.I.; KOUNOV, A.S.; KALANTAROVA, M.V.; KASHIRSKIY, A.Ya.; KAZANCHEYEV, Ye.N.; LEKSUTKIN, A.F.; LETICHEVSKIY, M.A.; LOPATIN, S.Z.; MIRSKIY, V.N.; PODSEVALOV, V.N.; SUBBOTINA, V.P.; TANASIYCHUK, N.P.; FEDOTOV, S.D.; FISENKO, K.N.; EL'KIND, I.G.; BOVIN, S.S.; VASIL'YEV, L.T.; DRINKOV, V.D.; DALECHIN, N.I.; DADAGOV, I.A.; YERMOSHINA, V.I.; ZHUKOV, I.V.; ZIMIN, D.A.; IVANNIKOV, A.Ya.; KOVALEV, M.K.; LUGAKOVSKIY, N.L.; NALEVSKIY, A.F.; SEREZHNIKOV, V.K.; SEMIGLASOV, M.D.; SOKOLOV, A.V.; STEPANOV, V.I.; SAKHARIN, G.S.; SAVENKO, P.A.; SOLODOV, V.P.; UMEROV, Sh.Kh.; CHIKINDAS, G.S.; SHCHERBUKHINA, S.N.; DYNKIN, G.Z.; LYSOV, V.S.; OSHEROVICH, A.N.; ROKITSINSKIY, E.V.; BRASLAVSKIY, M.S.; RUDENKO, I.A.; ZHUKOBORSKIY, M.S.; ZHDANOV, I.Ye.; SUSLIN, V.A.; BRUS, A.Ye.; VOLYNSKIY, S.A.; KLYUYEV, V.A.; ISTRATOV, A.G.; TIKHOMIROV, I.F.; BUTYRIN, Ya.N.; VOLYNSKIY, S.A.; MINEYEV, M.F.; MAL'TSEV, V.I.; VIDETSKIY, A.F., kand.tekhn.nauk, glavnyy red.; DEMIDOV, A.N., red.; KRAVETS, A.L., red.; KLIMOVA, Z.I., tekhn.red.

[Industrial Astrakhan] Promyshlennaia Astrakhan'. Astrakhan', Izd-vo gazety "Volga," 1959. 318 p. (MIRA 12:11)

1. Astrakhan (Province) Ekonomicheskiy administrativnyy rayon. (Astrakhan Province--Economic conditions)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, ALEKSANDR PETROVICH

DEMIDOV, ALEKSANDR PETROVICH. Ekonomicheskie ocherki khlopkovodstva, khlopkovoi torgovli i promyshlennosti v Turkestane. Moskva, Izd. TSentr. upravleniia pechati VSNKh-SSSR, 1926. 248 p. (Biblioteka khlopkovogo dela kn. 3.) (Gladvnyi khlopkovyi komitet) "Ukazatel' literatury": p (246)-248. DLC: SB251.R9B5 kn.3. CSt-H CtY (1st ed.) DA (1st ed.)

SO: LC, Soviet Geography, Part 1, 1951, Uncl.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A. R., Engineer

"Investigation of the Operation of a Roller Mill in the Process of Grain Grinding." Sub 23 Apr 47, Moscow Technological Inst of Food Industry

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

Card Tech. Sci.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A. R.

Roller milling machinery. Moskva, Gos. izd-vo tekhn. i ekon. lit-ry po voprosam zagotovok, 1948. 239 p.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A. R.

Demidov, A. R. - "The design of individual electrical conductors for rolling machinery", Trudy Vsesoyuz. nauch.-issled. in-ta zerna i producktov ego pererabotki, Issue 18, 1949, p. 85-93.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A., kandidat tekhnicheskikh nauk; DEMIN, G., inzhener.

Sieve performance in grain cleaners. Muk.-elev.prom. 20 no.1: 8-10 Ja '54. (MLRA 7:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov ego pererabotki.
(Grain--Cleaning)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.

ALONZOV, G.; BULATOV, A.; DEMIDOV [redacted] kandidat tekhnicheskikh nauk.

System of receiving, cleaning and drying grain grown on new lands. Muk.-elev.prom. 20 no.12:4-8 D '54. (MLRA 8:3)

1. Gosudarstvennaya inspektsiya po kachestvu sel'skokhozyaystvennykh produktov Ministerstva zagotovok SSSR (for Alonzov).
2. Sverdlovskaya normativno-issledovatel'skaya stantsiya Zagotzerno (for Bulatov). 3.Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov ego pererabotki (for Demidov).
(Grain handling machinery)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

Demidov, M.

DEMIDOV, [illegible] kandidat tekhnicheskikh nauk; LUTKIN, N., kandidat tekhnicheskikh nauk; DEMIN, G., kandidat tekhnicheskikh nauk; MALIS, A., kandidat tekhnicheskikh nauk; PETRENKO, A., inzhener; GERLAKH, L., inzhener; FROLOV, N., inzhener.

Mobile grain-drying unit. Muk.-elev.prom.22 no.12:3-5 D '56. (MLRA 10:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov ego pererabotki (for Demidov, Lutkin, Demin, Malis and Petrenko). 2. Altayskaya kontora Zagotzerno (for Gerlakh). 3. Tekhnicheskiy otdel Ministerstva khleboproduktov SSSR (for Frolov).

(Grain--Drying)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.R., kandidat tekhnicheskikh nauk; LUTKIN, N.I., kandidat tekhnicheskikh nauk; DEMIN, G.S., kandidat tekhnicheskikh nauk; PETRENKO, A.A., inzhener.

ZA-40 grain cleaning unit. Sel'khozmashina no.10:22-25 O '57. (MIRA 10:9)

(Grain--Cleaning)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.

MAMBISH, I., kandidat tekhnicheskikh nauk; DEMIDOV, A., kandidat tekhnicheskikh nauk.

Use of machinery in taking grain samples from a truck bed. Muk.-elev.prom. 23 no.3:9-11 Mr '57. (MLRA 10:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.
(Grain--Analysis)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A., inzh.; DEMIN, G., inzh.; LUTKIN, N., inzh.; MORGUN, A., inzh.

Adjustment and regulation of the ZA-40 grain cleaning machine. Muk-elev. prom. 24 no.6:17-19 Je '58. (MIRA 11:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki (for Demidov, Demin, Lutkin). 2.Gor'kovskiy mashinostroitel'nyy zavod (for Morgun).
(Grain--Cleaning)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

MORGUN, A., inzh.; DEMIDOV, A., kand. tekhn. nauk.

Eccentric vibrators for machines with reciprocating vibrations of screen bodies. Muk.-elev. prom. 24 no.12:12-15 D '58. (MIRA 12:1)

1.Gor'kovskiy mashinostroitel'nyy zavod imeni Vorob'yeva (for Morgun). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov ego pererabotki (for Demidov).
(Grain-handling machinery) (Vibrators)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A., kand. tekhn. nauk

Evaluating the grain cleaning efficiency of sorting machines. Muk-elev. prom. 25 no.5:26-27 My '59. (MIRA 12:8)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.

(Grain--Cleaning)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

GERNET, M.M., doktor tekhn.nauk,prof.; DIKIS, M.Ya., doktor tekhn.nauk, prof.; LUK'YANOV, V.V., doktor tekhn.nauk,prof.[deceased]: POPOV, V.I., doktor tekhn.nauk,prof.; SOKOLOV, A.Ya.,doktor tekhn.nauk,prof.; SOKOLOV,V.I.,doktor tekhn.nauk,prof.; SURKOV,V.D.,doktor tekh.nauk,prof.; BARANOVSKIY, N.V., kand.tekhn.nauk,dots.; BROYDO, B.Ye., kand.tekhn. nauk, dots.; BUZYKIN, N.A., kand.tekhn.nauk, dots.; GOROSHENKO, M.K., kand.tekhn.nauk, dots.; GORTINSKIY, V.V., kand.tekhn.nauk, dots.; GREBENYUK, S.M., kand.tekhn.nauk, dots.; GUS'KOV, K.P., kand.tekhn. nauk, dots.; DEMIDOV, A.R., kand.tekhn.nauk, dots.; ZHISLIN, Ya.M., kand.tekhn.nauk, dots.; KARPIN, Ye.B., kand.tekhn.nauk, dots.; KOSITSYN, I.A., kand. tekhn.nauk, dots. [deceased]; GEYSHTOR, V.S., kand.tekhn.nauk, dots.; MARSHALKIN, G.A., kand.tekhn.nauk, dots.; MOLDAVSKIY, G.Ye., kand.tekhn.nauk, dots.; ODESSKIY, D.A., kand. tekhn.nauk, dots.; PELEYEV, A.I., kand.tekhn.nauk, dots.; RUB, D.M., kand.tekhn.nauk, dots.; SKOBLO, D.I., kand.tekhn.nauk, dots.; SHUVALOV, V.N., kand.tekhn.nauk, dots.; KHMEL'NITSKAYA, A.Z., red.; SOKOLOVA, I.A., tekhn. red.

[Principles of the design and construction of machinery and apparatus for the food industries] Osnovy rascheta i konstruirovaniia mashin i apparatov pishchevykh proizvodstv. Moskva, Pishchepromizdat, 1960. 741 p. (MIRA 14:12)

(Food industry—Equipment and supplies)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

MALIS, Avram Yakovlevich; DEMIDOV, Aleksey Romanovich; KOZHUKHOVSKIY, I.Ye., kand. tekhn.nauk, retsenzent; ZHURAVLEVA, M.N., red. izd-va; CHERNOVA, Z.I., tekhn. red.; GORDEYEVA, L.P., tekhn. red.

[Machines for grain cleaning by the aerodynamic method] Mashiny dlia ochistki zerna vozdushnym potokom. Moskva, Mashgiz, 1962. 175 p. (MIRA 16:8)

(Grain--Cleaning)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

KUPRITS, Ya.N., prof. doktor tekhn. nauk; DEMIDOV, P.G., prof.; DEMIDOV, A.R., prof. doktor tekhn. nauk; GINZBURG, M.Ye., kand. tekhn. nauk, dots.; DROGALIN, K.V., kand. tekhn. nauk; NAUMOV, I.A., kand. tekhn. nauk; TSETSINOVSKIY, V.M., kand. tekhn. nauk; TRUNOV, A.F., inzh., retsenzent; KLEYMAN, L.M., red.

[Technology of grain processing; flour, groats and mixed feed industries] Tekhnologiia pererabotki zerna; mukomol'noe, krupianoe i kombikormovoe proizvodstvo. Moskva, Kolos, 1965. 504 p. (MIRA 18:12)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.V.; PAPIN, S.A.

Conveyor belt drier for fireclay articles. Ogneupory 26 no.5:222-225 '61. (MIRA 14:6)

1. Vnukovskiy ogneupornyy zavod.
(Conveying machinery)
(Refractory materials)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.V.

Cd

118

PROCESSES AND PROPERTIES INDEX

Apparatus for the determination of the alkaline reserve of blood. A. V. Demidov. *Lab. Prakt.* (U. S. S. R.) 1939, *Sammelband*, 58-60; *Chem. Zentr.* 1940, I, 700. CO_2 liberated by H_2SO_4 from blood plasma is detd. in an eudiometer. Good agreement was found with values obtained by the Van Slyke method. H. E. Wirth

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV , A.

"How to handle ethylated benzene and antifreeze." A.A. Vyshivkina. Reviewed by A. Demidov. Lab.delo no.4:32 Jy-Ag '55. (MLRA 8:8)
(Anti-freeze solutions) (Benzine) (Vysivkina, A.A.)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

SUCHKOV, A.V.; DEMIDOV, A.T.

Development of gastric and duodenal ulcer in chronic nonspecific diseases of the lungs. Sov. med. 28 no.3:90-94 Mr '65.

(MIRA 18:10)

1. Filial Gospital'noy terapevticheskoy kliniki I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova na baze 67-y Gorodskoy bol'nitsy (rukovoditel' - prof. B.B.Kogan, glavnyy vrach P.S.Petrushko).

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A. V.

27

3

Determination of carbon monoxide in air by means of indicator tubes. L. A. Mirkhov and A. V. Demidov (Lab. Delc. 1957, 3 No. 1, 46—50).—The preparation of CO indicator tubes containing $PdSO_4$, stabilized with $(NH_4)_2SO_4$ and $(NH_4)_2MoO_4$, on a silica-gel carrier is described. Air is passed at a rate of 60 ml. per min. for 30 sec. and the colour is compared with a series of standard tints on paper corresponding to the concn. range of 0·005—1 mg. of CO per litre.

G. S. SMITH.

1/1
MT

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.V.

DZEDZICHEK, V.P.; DEMIDOV, A.V.

Apparatus for a quantitative determination of carbon monoxide, carbon dioxide, and gaseous components of liquid fuel (hydrocarbons) in the air. Lab.delo 3 no.4:46-51 Jl-Ag '57. (MLRA 10:8)
(AIR--ANALYSIS)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

Determination of the moisture in the air by means of an indicator tube. A. V. Semidov and E. A. Mokhov. Gi-[illegible] i Sanit. 22, No. 11, 64-6(1957).—Mix 1 g. silica gel with 2 ml. 5% $ZnCl_2$ soln., 4 ml. 1% $MnSO_4$, and 2.5 ml. [illegible]% malachite green soln. Dry until it is orange and place it in a tube. Air drawn through the tube turns it green. Match the color with a standard. The amt. of air drawn through is an inverse measure of humidity. The tube is reusable.

John Howe Scott

MT

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.V.; MOKHOV, L.A.; MALYSHKIN, B.Ye.

Rapid method of quantitative determination of fuel vapors in the air with tube indicators. Lab.delo 5 no.5:39-41 S-O '59. (MIRA 12:12)

(INDICATORS AND TEST PAPERS) (LIQUID FUELS)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, Aleksandr Valentinovich; MOKHOV, Lev Aleksandrovich; BERDNIKOV, A.I., red.; MIRONOVA, A.M., tekhn. red.

[Accelerated methods for the determination of injurious gaseous and volatile substances in the air] Uskorennye metody opredeleniia v vozdukhe vrednykh gazoobraznykh i paroobraznykh veshchestv. Moskva, Medgiz, 1962. 146 p. (MIRA 15:7)

(Air--Analysis)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, Aleksandr Valentinovich

Uskorennyye metody opredeleniya v vozukhe verdnykh gazoobraznykh i paroobraznykh veschestv (by) A.V. Demidov (1) L.A. Mokhov. Moskva, Medgiz, 1962.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.Ya., kand.med.nauk

Arthroplasty of the hip joint in Bekhterev's disease. Ortop., travm.i protez. 22 no.3:14-18 '61. (MIRA 14:4)

1. Iz Saratovskogo nauchno-issledovatel'skogo instituta travmatologii i ortopedii (dir. - dotsent Ya.N. Rodin).
(HIP JOINT--SURGERY)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, A.Ya., dotsent (Saratov, ul.Chernyshevskogo, 148)

Late results of arthroplasty of the hip joint in the sequelae of tuberculous coxitis. Ortop., travm.i protez. 24 no.9:24-27 S '63. (MIRA 17:4)

1. Iz Saratovskogo instituta travmatologii i ortopedii (dir. - dotsent Ya.N.Rodin).

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

FILIPPOV, L.K., inzh.; DEMIDOV, A.Ye., inzh.

Improving the skidding control circuit on TE3 diesel locomotives.
Elek.i tepl.tiaga 5 no.11:15-16 N '61. (MIRA 14:11)
(Diesel locomotives)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B., kapitan 2 ranga, kand.filosofskikh nauk

A welfare state for capitalists. Komm.Vooruzh.Sil 1 no.18: 83-85 S '61. (MIRA 14:9)

(Economic conditions)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B., kapitan 1-go ranga, kand.filosofskikh nauk

Decisive factor in the creative development of military science. Komm.Vooruzh.Sil 2 no.9:16-26 My '62. (MIRA 15:5)
(Military art and science) (Stalin, Iosif, 1879-1953)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B., kapitan 1-go ranga, kand. filosofskikh nauk

International teaching of communists. Komm. Vooruzh. Sil 46 no.7:11-19 Ap '65. (MIRA 18:5)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B. A.

S/056/60/039/01/09/029
B006/B070

AUTHORS: Demidov, B. A., Fanchenko, S. D.

VC

TITLE: The Observation of Relativistic Charged Particles in the Luminescence Chamber 19

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 1 (7), pp. 64-66

TEXT: The recording of particles by means of luminescence chamber and some related works (Ye. K. Zavoyskiy and others) are briefly mentioned in the introduction. Then the authors report on their observations of singly charged particles with minimum ionization in a luminescence chamber and the determination of the density of their tracks. Fig. 1 schematically shows the arrangement when an NaI(Tl) crystal of 7 cm diameter and ~1 cm thickness was used. Fig. 2 shows photographs of some of the tracks out of a total of 1000 photographs. For the determination of the track density of the muons of cosmic radiation, special experiments were made with a three-counter telescope set in coincidence. These counters are denoted in Fig. 1 by K_1, K_2 and K_3. Between K_1 and K_3

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

The Observation of Relativistic Charged Particles in the Luminescence Chamber

S/056/60/039/01/09/029
B006/B070

there was a lead absorber of 115 g/cm^2. Some details of the experimental arrangement and measuring processes are given. In conclusion, the authors thank Ye. K. Zavoyskiy for advice and discussions, and L. S. Danelyan and V. V. Skiyarevskiy for the preparation of the crystals. There are 2 figures and 7 references: 6 Soviet and 1 CERN.

SUBMITTED: March 17, 1960

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

S/120/62/000/001/023/061
E140/E463

AUTHORS: Demidov, B.A., Ivanov, G.A., Fanchenko, S.D.

TITLE: Fanchenko multi-stage electron-optical image-converter pulse control circuits

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1962, 102-107

TEXT: Two operating modes are available for a multi-stage electron-optical image converter - with leading synchronization and with lagging. These instruments are used for studies of luminescent chambers, arcs, arc counters, plasma physics, etc. For leading synchronization a linear time base 0.1 to 15 μs and symmetrical pulse generator for compensation of the electrostatic shutter (0.2 μs exposure time) are available. For lagging synchronization two types of synchronization pulse selection are available, with artificial insensitive time (0.1 to 10 sec). Output is to a photographic apparatus shifting the film forward one frame for each operation of the image converter shutter. The time resolution of the system is of the order of 10^{-10} sec. The artificial insensitive time is useful in examination of randomly occurring events. Vacuum tube circuits are used throughout.

Card 1/2

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

Fanchenko multi-stage ...

S/120/62/000/001/023/061
E140/E463

There are 6 figures.

SUBMITTED: May 17, 1961

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

S/056/62/042/005/050/050
B108/B138

AUTHORS: Demidov, B. A., Skachkov, Yu. F., Fanchenko, S. D.

TITLE: Re. S. I. Andreyev's and M. P. Vanyukov's comment on the paper "Widening of the channel of powerful miniature sparks"

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 5, 1962, 1427-1429

TEXT: Criticism levelled by S. I. Andreyev and M. P. Vanyukov (ZhETF, 42, 309, 1962) at a paper by the authors (ZhETF, 40, 385, 1961) is denied. The present authors had observed hydrodynamic widening of spark channels. On the basis of the results of R. F. Saxe (Brit. J. Appl. Phys., 7, 336, 1956), Andreyev and Vanyukov had asserted that the authors had only seen streamers by the observation slit. Here it is shown that such a thing was not possible since the duration of streamers is considerably less than the time resolution of the experiment. There are 2 figures.

SUBMITTED: January 22, 1962

Card 1/1

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B.A.; SKACHKOV, Yu.F.; FANCHENKO, S.D.

In connection with S.I.Andreev and M.P.Vaniukov's remarks on the article "Widening of the channel of powerful miniature sparks." Zhur. eksp. i teor. fiz. 42 no.5:1427-1429 My '62. (MIRA 15:9)

(Electric sparks) (Andreev, S.I.) (Vaniukov, M.P.)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

ACCESSION NR: AP4019212 S/0056/64/046/002/0497/0500

AUTHORS: Fanchenko, S. D.; Demidov, B. A.; Yelagin, N. I.; Ryutov, D. D.

TITLE: Energy absorption due to sausage instability of a plasma in a toroidal system

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 497-500

TOPIC TAGS: plasma, toroidal plasma, plasma instability, plasma resistance, anomalous plasma resistance, active plasma resistance, sausage instability, two stream instability, collisionless plasma

ABSTRACT: A toroidal plasma installation is described, intended to test the feasibility of using sausage instability for the dissipation of the energy of the external electric field in a collisionless plasma of toroidal configuration. Comparison of the plasma current and field oscillograms has shown that the plasma resistance is purely active, which leads to an anomalously high electron colli-

Card 1/~~3~~ 2

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

ACCESSION NR: AP4019212

sion frequency in the plasma (10^9 vs. the theoretically expected 10^6 cps); this in turn can be attributed only to the occurrence of sausage instability. From the active character of the plasma it is also possible to calculate that the high frequency field delivers an energy of 3 keV per particle to the plasma. "The authors are grateful to Ye. K. Zavoyskiy, Ye. P. Velikhov, and L. I. Rudakov for valuable advice and discussions, and also to A. Ye. Bazhenov and M. K. Volodin for help with preparing and adjusting the equipment." Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: None

SUBMITTED: 05Aug63 DATE ACQ: 27Mar64 ENCL: 01

SUB CODE: PH NO REF SOV: 005 OTHER: 004

Card 2/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 31753-65 EWT(1)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EWA(m)-2 Pz-6/Ps-4/Pab-10/Pi-4
IJP(c) AT

ACCESSION NR: AP5006492 S/0056/65/048/002/0454/0463

AUTHOR: Demidov, B. A.; Yelagin, N. I.; Ryutov, D. D.; Fanchenko, S. D.

63
B

TITLE: Anomalous resistance and microwave radiation of a plasma in a strong electric field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 2, 1965, 454-463

TOPIC TAGS: plasma, plasma wave, plasma oscillation, plasma resistance, plasma microwave, plasma microwave radiation, anomalous plasma resistance

ABSTRACT: A theoretical and experimental investigation is made of the phenomenon of the anomalous resistance of a plasma in a strong electric field parallel to the containing magnetic field. This phenomenon has been ascribed to bunching instabilities which appear at certain current and thermal velocities of the electrons. The density of the plasma considered was 10^{11} to 10^{12} cm^{-3}, and the amplitude of the high-frequency electric field was in the 10 to 100 v/cm range. With the thermal velocity of the ions small in comparison with the phase velocities of the waves, the absorption of waves by the ions was kept at a minimum. Since the fast waves could not be contained in a discharge chamber only 3 cm in diameter with a longitudinal magnetic field of about 3 kG, the dissipated energy depended on the ratio

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ACCESSION NR: AP5006492

of the absorption of the waves by the electrons and the escape of waves beyond the chamber walls. The analysis showed that, when the absorption of waves by the chamber walls exceeds the absorption by plasma, an anomalous resistance of collisionless plasma should be observed. The dependence of the discharge current on the electric field intensity was essentially linear (in the 10--70 v/cm range) and at higher field intensities agreed with the theoretical findings concerning the anomalous resistance. The transverse velocities of the electrons reached an energy of about 10^3 ev; those of the ions attained 10^2 ev. The relatively high energy of the electrons is explained by the absorption of Langmuir waves, while the lower ion energy is attributed to the escape of the faster ions resulting from the small chamber dimensions and the low intensity of the containing magnetic field. The experiments confirmed plasma microwaves as the cause of the anomalous resistance. The radiation, detected by a horn antenna placed near the discharge chamber, reached 10 mw. It displayed a deep modulation by the double current frequency in the plasma, with intensity maxima coinciding in time with the current peaks. The microwave signal was strongent during the second half-period. The frequency spectrum of the microwaves covered wavelengths from 3.5 to 7 cm and more. Measurements were also conducted to establish the character of the decrease of the microwave signal with radial distance from the discharge chamber. The electric field intensity was varied from a minimum up to the point of saturation of the current

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 31753-65
ACCESSION NR: AP5006492

and signal. The usual square root law was found to apply only to the case of high field strength. At low field values, the decrease in signal was better described by an exponential law. Orig. art. has: 8 figures and 15 formulas. [FP]

ASSOCIATION: none

SUBMITTED: 13Jul64 ENCL: 00 SUB CODE: ME

NO REF SOV: 008 OTHER: 001 ATD PRESS: 3199

Card 3/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 1123-66 EWT(1)/EWA(h)

ACCESSION NR: AP5016392 UR/0120/65/000/003/0177/0182
621.383.8

AUTHOR: Demidov, B. A.; Smolkin, G. Ye.; Sotnikov, V. M.; Sofiyev, G. N.; Fanchenko, S. D.

TITLE: Internal-noise spectrum and gain dispersion of multistage image-converter tubes

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1965, 177-182

TOPIC TAGS: image converter

ABSTRACT: To eliminate the fringe effect in measuring the internal-noise spectrum, a special method was used which permitted opening the input of a multichannel differential analyzer only for the pulses whose images did not extend beyond the isolated area on the type 95 image-tube screen. It was found that: (1) The noise distribution is exponential (curves supplied) and (2) The gain dispersion of an image-converter tube operating on the principle of optical contact between the luminescent screen and the adjacent photocathode is described by a Poisson-type distribution of the output pulses. "The authors wish to thank Ye. K. Zavoyskiy for discussing the work; L. Z. Dzhilavyan for carrying out preliminary

Card 1/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 1123-66

ACCESSION NR: AP5016392

4

measurements, N. M. Butslov for lending image tubes, Yu. L. Sokolov for lending optical instruments, and A. A. Mitin for his assistance in aligning the analyzer." Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Institut atomnoy energii GKAE, Moscow (Institute of Atomic Energy, GKAE)

SUBMITTED: 22Apr64 ENCL: 00 SUB CODE: EC

NO REF SOV: 013 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

BOLOTIN, V.F.; DEMIDOV, B.A.; ZAVOYSKIY, Ye.K.; SKACHKOV, Yu.F.; SMOLKIN, G.Ye.; FANCHENKO, S.D.

Further development of the method of electron optical chronography and its application for the physical analysis of plasma. Usp.nauch. fot. 9:175-183 '64. (MIRA 18:11)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 39662-66 EPF(n)-2/SEC(k)-2/EWT(1)/ETC(f)/EWG(m) IJP(c) AT/GD-2

ACC NR: AT6001404 SOURCE CODE: UR/3180/64/009/000/0175/0183

AUTHOR: Bolotin, V. F.; Demidov, B. A.; Zavoyskiy, Ye. K.; Skachkova, Yu. F.; Smolkin, G. Ye.; Fanchenko, S. D.

ORG: none

TITLE: Further development of the electrooptical chronographic method and its application to physical plasma investigations

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 175-183 and insert facing page 169

TOPIC TAGS: time measurement, electric discharge, electrooptic image intensifier, plasma diagnostics

ABSTRACT: It was established earlier that the multistage electrooptic converter invented by Prof. M. M. Butslov has a limiting brightness amplification coefficient which allows it to register single photons. Theoretical discussions showed that similar setups can have a resolving time down to 10^{-14} sec and some spark radiation scanning experiments achieved a resolution of $3 \cdot 10^{-12}$. This led to the use of similar devices in electrooptical chronography. This article surveys the principles of operation of electrooptical devices and the results of plasma investigations using electrooptical chronography. The authors cover 1) the methodology of electrooptical chronography, including power feeding and synchronization of multistage electrooptical converters and time scanning of converted images; and 2) physical

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ACC NR: AT6001404

studies of the plasma including processes in spark discharge plasmas (circuit and block diagrams of setups for time scanning, spark channel widening velocity data), use of electrooptical chronography for the study of HF-field interaction with plasma (block diagram of a device for the study of plasma luminosity during magnetoacoustic resonance), and a brief discussion of special features of electrooptical investigation of plasmas. A resonator for the scanning systems was proposed by R. V. Chikin of the Butslov laboratory. Orig. art. has: 11 figures and 1 table.

SUB CODE: 14, 20 / SUBM DATE: none / ORIG REF: 015

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 12051-66 EWT(1)/ETC(F)/EPF(n)-2/EWG(m) IJP(c) GG/AT

ACC NR: AP6002654 SOURCE CODE: UR/0386/65/002/012/0533/0537

AUTHOR: Demidov, B. A.; Fanchenko, S. D.

ORG: none

TITLE: Search for Raman scattering of electromagnetic waves in the microwave band with the aid of a turbulent plasma

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 12, 1965, 533-537

TOPIC TAGS: Raman scattering, microwave plasma, turbulent plasma, plasma electromagnetic wave

ABSTRACT: Since the theory of Raman scattering of electromagnetic waves by the electronic oscillations of a bounded plasma predicts that the Raman-scattering signal can yield very valuable information on the level of the turbulent oscillations, the authors have undertaken a search for scattering, accompanied by a change in frequency, of electromagnetic waves from an external source. The plasma was produced in a toroidal installation described elsewhere (ZhETF v. 48, 459, 1965). A diagram of the experiment is shown in Fig. 1. Radio signals at wavelength $\lambda = 3$ cm, generated by magnetron M, were beamed by the transmitting antenna at a plasma with density $n \sim 10^{11}$--10^{12} cm^{-3}, heated to $T_e = 10^2$--10^3 ev by a current that experi-

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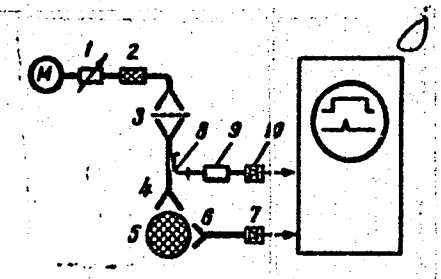

Fig. 1. Diagram of installation. 1 - Attenuator, 2 - ferrite decoupler, 3 - filter, 4 - transmitting antenna, 5 - plasma, 6 - receiving antenna, 6,7 - waveguide, 7 - receiving detector head, 8 - directional coupler, 9 - attenuator, 10 - control detector head.

enced an anomalous active resistance and was accompanied by intense microwave noise with $\lambda > 3.5$ cm. Under these conditions the detector head recorded a signal of 10^{-5} w power, correlated in time with the current. The experiments made it possible to establish that when radio emission with $\lambda_0 = 3$ cm from an external source is incident on a turbulent plasma, Raman scattering in which the frequency change is of the order of ω_{pe} is apparently observed, in accord with the theoretical estimate (A. A. Ivanov and D. D. Ryutov, ZhETF v. 48, 1366, 1965). This is evidence of the high level of the electronic oscillations. Intense maxima were observed in the intrinsic radiation of the plasma in the region $\lambda > 3.5$ cm at frequencies close to ω_{pe}, and a much weaker maximum in the interval $\lambda = 1.5$--2 cm where the frequency $2\omega_{pe}$ is situated. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 28Oct65/ ORIG REF: 007/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B.A.; YELAGIN, N.I.; RYUTOV, D.D.; FANCHENKO, S.D.

Anomalous resistance and superhigh-frequency radiation from a plasma in a strong electric field. Zhur. eksp. i teor. fiz. 48 no.2:454-463 F '65. (MIRA 18:11)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B.A.; FANCHENKO, S.D.

Search for Raman scattering of electromagnetic waves in the superhigh-frequency range on a turbulent plasma. Pis'. v red. Zhur. eksper. i teoret. fiz. 2 no.12:533-537 D '65. (MIRA 19:1)

1. Submitted Oct. 28, 1965.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 02285-67 EWT(1)/EWT(m)/T IJP(c) AT

ACC NR: AP6025238 SOURCE CODE: UR/0057/66/036/007/1166/1167

AUTHOR: Demidov, B.A.; Fanchenko, S.D.

ORG: none

53
51
B

TITLE: On the investigation of the x radiation from a plasma by means of a scintillation counter

19 21

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 7, 1166-1167

TOPIC TAGS: plasma radiation, x radiation, scintillation counter, phosphorescence

ABSTRACT: In recording the x radiation from the decaying plasma in a toroidal machine with a scintillation counter the authors observed an intense pulse of about one microsecond duration followed by a series of weak short pulses lasting for some 600 microseconds. This effect was observed with CsI, NaI (Te), and stilbene scintillators. U. Grossman-Doerth and J. Junker (Nuclear fusion, Suppl, p.3, 1007,1962) have observed a similar effect and have ascribed the weak pulses to prolonged emission of soft x rays by the decaying plasma. To test this explanation the authors repeated their experiments under such conditions that the magnetic field was cut off after about 100 microsec and found that the weak pulses continued unaltered after the field was cut off. The authors conclude, therefore, that the weak pulses are not due to soft x radiation from the plasma and suggest that they are due to the slow component of the

Card 1/2 UDC: 533.9

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 02285-67

ACC NR: AP6025238

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phosphorescence of the scintillator excited by the very intense initial pulse. The authors thank Ye.K.Zavoyskiy and V.K.Voytovetskiy for valuable discussions.

SUB CODE: 20/ SUBM DATE: 30Aug65/ ORIG. REF: 002/ OTH REF: 006

Card 2/2 vmb

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

L 06972-67 EWT(1) IJP(c) GG/AT

ACC NR: AP6021529 SOURCE CODE: UR/0089/66/020/006/0516/0518

70
64
B

AUTHOR: Demidov, B. A.; Fanchenko, S. D.

ORG: none

TITLE: Estimate of the degree of turbulence of a plasma from the intrinsic radiation and Raman scattering of the electromagnetic waves in the microwave band

SOURCE: Atomnaya energiya, v. 20, no. 6, 1966, 516-518

TOPIC TAGS: plasma, turbulence, plasma radiation, Raman scattering, microwave plasma, electromagnetic wave

ABSTRACT: The authors use an effect observed by them earlier (Pis'ma ZhETF v. 2, 533, 1965), namely Raman scattering of electromagnetic waves by electronic oscillations of a turbulent plasma, to estimate the degree of turbulence of the plasma by means of apparatus described in the earlier paper as well as in ZhETF v. 48, 459, 1965. The energy density of the plasma oscillations in the turbulent plasma is determined by comparing the microwave radiation power from the plasma at double the plasma frequency with the power of a signal corresponding to the violet satellite due to Raman scattering by the plasma oscillations in the electromagnetic waves generated by a pulsed magnetron. A formula for determining the energy density from the experimental data is given, the differential spectra of the violet satellite and of the intrinsic radiation of the plasma are given for several electron densities, and an approximate estimate is obtained for the spectral widths. It is shown that a change in the frequency of the electromagnetic wave due to Raman scattering by the plasma is numerically equal

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ACC NR: AP6021529

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to the plasma frequency. The intrinsic radiation of the plasma is double the plasma frequency. The half-width of the spectrum of the violet-satellite frequency is approximately equal to one-quarter the plasma frequency. The authors thank Ye. K. Zavoyskiy for continuous interest, D. D. Ryutov for valuable discussion, and V. Ya. Balakhanov, P. I. Blinov, A. N. Karkhov, and L. L. Kozorovitskiy for supplying individual units of the measuring apparatus. Orig. art. has: 5 formulas and 1 figure.

SUB CODE: 20/ SUBM DATE: 01Feb66/ ORIG REF: 008/ OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B.S. (Voronezh, ul.Kutsygina, d.35, kv.47)

Nomenclature of the pulmonary segments. Vest. rent. i rad. 35 no. 4:53-55 Jl-Ag '60. (MIRA 14:2)

1. Iz kafedry normal'noy anatomii (zav. - doktor meditsinskikh nauk prof. N.I. Odnoralov) Voronezhskogo meditsinskogo instituta.
(LUNGS--RADIOGRAPHY)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B.S.

Segmental lung structure in fetuses, neonates and infants.
Pediatriia 41 no.9:66-69 S '62. (MIRA 15:12)

1. Iz kafedry normal'noy anatomii (zav. - prof. N.I.Odnoralov) Voronezhskogo meditsinskogo instituta.
(LUNGS) (EMBRYOLOGY, HUMAN)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, B. Ye

DEMIDOV, B.Ye., inshener; TUZOV, M.S., inshener, redaktor.

[Large-panelled scaffolding for laying walls; "tip-over pedestals" type] Krupnopanel'nye lesa-podmosti dlia kladki sten; variant "Oprokidyvaiushchikhsia tumb." Leningrad, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 41 p. (MIRA 7:8)

(Scaffolding)

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20450

9,3150 (1049, 1140, 1532)
24.2120 (1395, 1482, 1138)

S/056/61/040/002/001/047
B113/B214

AUTHORS: Demidov, B. A., Skachkov, Yu. F., Fanchenko, S. D.

TITLE: Expansion of a channel of very low intense sparks

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 2, 1961, 385-390

TEXT: It has been shown in earlier papers that the initial expansion of a spark channel is caused by a shock wave originating from the heating and ionization of the gas in the channel. In the present paper, it is also cleared up that the initial rate of expansion of a channel depends on the inductivity of the discharge circuit, which increases with increasing $(dI/dt)_0$. In the present paper, only the initial stages of expansion of a channel are studied for the case of a discharge circuit with large dI/dt in the following substances: oxygen and nitrogen (pressure up to 10 atm), deuterium (13 atm), and hydrogen (20 atm). In the discharge circuit, either a disk capacitor of capacitance 30 $\mu\mu$F was used when the period of characteristic oscillations was $2 \cdot 10^{-9}$ sec, or a coaxial capacitor of capacitance 6300 $\mu\mu$F. The full inductivity of the

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two discharge circuits was 3 and 7 cm, respectively. Unlike the other papers which were based on a fast photographic apparatus with rotating film or mirror and having a time resolution of up to $3 \cdot 10^{-8}$ sec, the expansion of the spark channel was observed here by electron-optical chronography insuring a time resolution of 10^{-10} sec. The photographs of the spark channel in the case of the disk capacitor showed a periodic change of the light in the spark channel, which is produced by the characteristic oscillations of the discharge circuit. In hydrogen, these alterations in luminosity were observed in the total interval of initial pressure (2÷20 atm), while in nitrogen they were clear only at pressures higher than 6 atm and not at all observed at pressures lower than 4 atm. Furthermore, many cases of branching of the channel and asymmetry of expansion of the channel were observed in nitrogen. The highest initial rate of expansion was observed in the first quarter of the period of characteristic oscillations of the discharge circuit, during which the expansion rate was observed to vary from one case to another, even for the same initial conditions of discharge. In nitrogen, the initial rate of expansion was observed to be up to $6 \cdot 10^{6}$ cm/sec, and the same was the

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case in oxygen; the highest rate of expansion in deuterium (13 atm) was $7 \cdot 10^6$ cm/sec, and in hydrogen $8 \cdot 10^6$ cm/sec. With the help of a coaxial capacitor, hydrogen and nitrogen were studied at pressures between 1 and 18 atm; the maximum rate of expansion in nitrogen was found to be $2.5 \cdot 10^6$ cm/sec, and that in hydrogen $6 \cdot 10^6$ cm/sec. From a comparison of the initial rates of expansion for the cases of disk and coaxial capacitors it was established that the rate depends on the quantity $(dI/dt)_0$. As in these experiments the shock waves were not recorded by the method of Teppler, it was not possible to observe experimentally the separation of the shock wave from the channel. There is no doubt, however, that the initial stage observed here precedes it. On the other hand, simple estimates show that in these experiments the current and the magnetic field of the plasma itself are insufficient for the pinch effect in the channel. Assuming complete ionization of the gas behind the front of the shock wave, the temperature in the front of the wave in hydrogen is given by

$$T_\phi^{\cdot} = 3{,}95\,(D/9 \cdot 10^6)^2 \left[1 - (9 \cdot 10^6/D)^2 + \sqrt{1 + \tfrac{2}{3}(9 \cdot 10^6/D)^2} \right], \quad (1$$

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B113/B214

Expansion of a channel...

where T_Φ is given in ev, and D is the velocity of the shock wave in cm/sec. According to (1), $T_\Phi = 3.5$ ev for $D = 8 \cdot 10^6$ cm/sec, and in the case of deuterium $T_\Phi = 8$ ev for $D = 7 \cdot 10^6$ cm/sec. The temperature and density in the channel (hydrogen) were calculated on the basis of the hydrodynamical theory of spark channels, whose fundamentals were developed by S. I. Drabkina and S. I. Braginskiy (Ref. 17: S. I. Braginskiy ZhEtF, 34, 1548, 1958). The results obtained were $T_K = 22$ ev and $n_K = 3 \cdot 10^{20}$ cm^{-3} (density in the channel). Ye. K. Zavoyskiy is thanked for advice and interest in the work, and S. I. Braginskiy and S. L. Mandel'shtam for discussions. V. S. Komel'kov, D. S. Parfenov, and N. S. Sukhodrev are mentioned. There are 4 figures, 1 table, and 17 references: 11 Soviet-bloc and 6 non-Soviet-bloc.

SUBMITTED: June 3, 1960

Card 4/4

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, D.

Linoleum made of waste materials. Stroi. mat. 4 no.1:12-13 Ja '58. (MIRA 11:2)

(Dzerzhinsk--Linoleum)
(Vinyl polymers)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, D.D.

[Basic problems of hydraulic methods in open-pit coal mining] Osnovnye voprosy gidromekhanizatsii na ugol'nykh kar'erakh. Moskva, Ugletekhizdat, 1953. 67 p. (MLRA 6:8)

(Coal mines and mining) (Hydraulic engineering)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, F.; KAMENSKIY, V.

A duty, high and noble. Voen. Znan. 41 no.5:43 My '65. (MIRA 18:5)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, F.

DEMIDOV, F.

Increased activity. Voen.znan.33 no.11:14-15 N '57. (MIRA 10:12)

1. Zamestitel' predsedatelya Moskovskogo oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu. (Moscow Province--Military education)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

BAYEV, N.V.; BOBROV, Ye.G.; DEMIDOV, G.A.; DENISOV, A.D.; ZHUKOV, N.Ya.; LELEKOV, Yu.S.; POZDNYAKOV, I.M.; POLKOVNIKOV, B.M.; TRIBURT, I.I.; TYURIKOV, A.A.; SHESTAKOV, A.I., inzh.; PESKOVA, L.N., red.; KHITROVA, N.A., tekhn. red.

[Advanced technology on railroads] Peredovaia tekhnologiia na zheleznoi doroge. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 84 p. (MIRA 14:12)
(Railroads)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, G.A., mashinist-instruktor, Geroy Sotsialisticheskogo Truda, delegat XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuza

Dawn of a bright future. Elek.i tepl.tiaga 5 no.11:4 N '61. (MIRA 14:11)

1. Depo Petropavlovsk Transsibirskoy magistrali.
(Siberia--Railroads--Electrification)

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L 57811-65 EPR/EWA(c)/EWT(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t) Pe-4 IJP(c)
ACCESSION NR: AP5004799 JD S/0126/65/019/003/0477/0480
539.377

33
38
B

AUTHOR: Dudarev, Ye. F.; Panin, V. Ye.; Sidorova, T. S.; Demidov, G. I.

TITLE: The effect of temperature on resistance to deformation in Cu-Al solid solutions

27

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 3, 1965, 477-480

TOPIC TAGS: metal mechanical property, metal deformation, copper alloy, aluminum alloy

14

ABSTRACT: Alloys of copper with 1.1, 6.0, 10.5, 17.3 and 20.3 at % Al were examined for the following purposes: 1) to determine the effect of temperature on the resistance to deformation $\sigma = f(T)$ with gradual increase in the concentration of the solid solution; 2) to investigate curves for $\sigma = f(T)$ for various degrees of deformation, beginning at the yield point; 3) to determine the effect of grain boundaries on the temperature relationship $\sigma = f(T)$. Electropolished specimens of these alloys were tensile deformed in a vacuum at various temperatures at a rate of 1.32%/min. It was found that the temperature relationship $\sigma = f(T)$ depends strongly on the con-

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

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ACCESSION NR: AP5008709

3

centration of the solid solution. In dilute alloys of Cu-Al with 1.1 and 6.0% Al, σ decreases steadily with increase in temperature. However, at $T < 300°C$ an anomaly is observed in the rate function of the resistance to deformation, believed to be associated with substantial diffusion hardening processes. A detailed study of all the specimens indicated that there are actually two anomalies; a low temperature anomaly (at $T < 300°C$) and a high temperature anomaly (at $T > 300°C$). The effect of diffusion hardening processes on the curve $\sigma = f(T)$ was evaluated according to the yield point $\sigma\Delta$ which appears during deformation aging of a specimen under loading after deformation. It was found that only the low temperature anomaly was associated with diffusion hardening processes. It was also found that the grain boundaries in the alloys studied are enriched with atoms of the alloying element which substantially block their migration at moderate temperatures. At higher temperatures, migration of grain boundaries becomes possible. The activation of this process is believed to be determined by the diffusion mobility of Al atoms which make up the segregations along the grain boundaries. Orig. art. has: 2 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut (Siberian Physicotechnical Institute)

Card 2/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

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ACCESSION NR: AP5008799

SUBMITTED: 16Mar64 ENCL: 00 SUB CODE: MM

NO REF SOV: 006 OTHER: 001

Card 3/3

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DUDAREV, Ye.F.; PANIN, V.Ye.; SIDOROVA, T.S.; DEMIDOV, G.A.

Temperature dependence of resistance to deformation in Cu - Al solid solutions. Izv. vys. ucheb. zav.; fiz. 8 no.6:115-124 '65. (MIRA 19:1)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D. Kuznetsova. Submitted May 30, 1964.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

KALASHNIKOV, R.N. (Arkhangel'sk, prosp. Vinogradova, d.160, kv.7);
DEMIDOV, G.I.

Some physiological reactions observed in metal osteosynthesis.
Ort. travm. i protez. 23 no.10:31-34 O '62. (MIRA 17:10)

1. Iz kafedry operativnoy khirurgii (zav.- prof. S.I. Yelizarovskiy) Arkhangel'skogo meditsinskogo instituta.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, G. K.

DEMIDOV, G. K.- "Investigation of the Working Process of Flax-combing Mechanisms." Acad Sci Belorussian SSR, Division of Physical-Mathematical and Technical Sciences, Minsk, 1955 (Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, G.K.

Roofing slate and other goods from rubber industry wastes. Kauch.i rez. 19 no.4:45-47 Ap '60. (MIRA 13:12)

1. Yaroslavskiy shinnyy zavod.
(Rubber goods)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

DEMIDOV, G.K.

Improvement of an extruder equipped with a unit for manufacturing tire tubes. Kauch.i rez. 19 no.12:44-48 D '60. (MIRA 13:12)

1. Yaroslavskiy shinnyy zavod.
(Yaroslavl--Automobiles--Tires)

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2"

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DEMIDOV, G.K.; NIKANOROV, A.A.; Prinimali uchastiye: ROZINA, G.D.; ZHIVTSOVA, V.V.

New design of the extruder head. Kauch.i rez. 20 no.7:43-46 Jl '61. (MIRA 14:6)

1. Yaroslavskiy shinnyy zavod.
(Rubber machinery)

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PANICHEV, A.D.; KALASHNIKOV, A.P.; KUZ'MIN, Yu.S.; NOSOV, Yu.A.; DEMIDOV, G.K.

Setting of a continuous tread strip in extruding. Kauch. i rez. 20 no.8:40-44 Ag '61. (MIRA 14:8)

1. Yaroslavskiy tekhnologicheskiy institut i Yaroslavskiy shinnyy zavod.

(Tires, Rubber)

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KUZ'MINOV, A.I.; ROZINA, G.D.; DEMIDOV, G.K.; SOKOLOV, B.V.

New-type rim bands made by an improved method. Kauch. i rez. 20 no.10:42-45 O '61. (MIRA 14:12)

1. Yaroslavskiy shinnyy zavod.
(Tires, Rubber)

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LISOGURSKIY, I.Z.; SAKALOV, V.V.; DEMIDOV, G.K.; POLYAK, M.A.

Impregnation and rubberizing of cord at the Yaroslavl Tire Factory. Kauch. i rez. 20 no.11:55-57 N '61. (MIRA 15:1)

1. Yaroslavskiy shinnyy zavod.
(Yaroslavl—Tire fabrics)

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PANICHEV, A.D.; KALASHNIKOV, A.P.; KUZ'MIN, Yu.S.; DEMIDOV, G.K.; NOSOV, Yu.A.

Shrinkage of treads. Kauch. i rez. 20 no.12:48-49 D '61. (MIRA 15:1)

1. Yaroslavskiy tekhnologicheskiy institut i Yaroslavskiy shinnyy zavod.

(Yaroslavl—Tires, Rubber)

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DEMIDOV, G.K., inzh.; KALASHNIKOV, A.P.; PANICHEV, A.D., kand.tekhn.nauk

Quality and shrinkage of rayon tire cord. Tekst.prom. 21 no.5: 13-14 My '61. (MIRA 15:1)

(Tire fabrics) (Rayon)

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"APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000510020010-2

POLYAK, M.A.; GLIKMAN, L.Sh.; ZIMIN, I.A.; DEMIDOV, G.K.

Development and use of chafer fabrics with a new yarn structure in the manufacture of tires. Kauch. i rez. 22 no.10:50-52 O '63. (MIRA 16:11)

1. Yaroslavskiy tekhnologicheskiy institut i Yaroslavskiy shinnyy zavod.

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