BERG, S.L., polkovnik; VOROB'YEV, V.I., kapitan pervogo ranga; GIL'BO, O.M., kapitan pervogo ranga; ANANCHENKO, A.A.; BALAKSHINA, M.M.; BANNIKOV, B.S., kapitan vtorogo ranga; BAKHTINA, G.F.; BERENSHTAM, N.V.; BUTYRINA, N.Ya.; VOROB'YEV, V.I., kapitan pervogo ranga; GASS, I.P.; GINEYSH, N.S.; GLADIN, D.F., polkovnik; GOLOVANOVA, L.G., kand. ist. nauk; GOLUBEVA, Z.D., kand. filol. nauk; GONCHAROVA, A.I.; ZANADVOROVA, R.N.; IVANOVA, N.G.; KARAMZIN, G.B.; KOVAL'CHUK, A.S.; KRONIDOVA, V.A.; LITOVA, Ye.I.; MOLCHANOVA, T.I.; OKUN', L.S.; POCHEBUT, A.N.; RAYTSES, V.I.; SAVINOVA, G.N.; SENICHKINA, T.I.; SKRYNNIKOV, R.G., kand. ist. nauk; FURAYEVA, I.I.; CHIZHOVA, N.N.; YASINSKAYA, L.F.; GLADIN, D.F., polkovnik; LABETSKIY, Ye.F., podpolkovnik; LEBEDEV, S.M., kapitan pervogo ranga; ORDYNSKIY, N.I., kapitan pervogo ranga; NADVODSKIY, V.Ye., podpolkovnik; DEMIN, L.A., inzh.-kontr-admiral, glav. red.; FRUMKIN, N.S., polkovnik, zam. otv. red.; LEVCHENKO, G.I., admiral, red.; BAKHTINA, G.F., tekhn. red.

[Naval atlas] Morskoi atlas. n.p. Izd. Glavnogo Shtaba Voenno-Morskogo Flota. Vol.3. [Naval history] Voenno-istoricheskii. Pt.1. [Text for the maps] Opisaniia k kartam. 1959. xxii, 1942 p. (MIRA 15:5)

1. Russia (1923- U.S.S.R.) Ministerstvo oborony. (Naval history)

BALAKSHINA, M. S.:

BALAKSHINA, M. S.: "Rectoromanoscopy as a method of diagnosing bacillar dysentery in children." Second Moscow State Medical Inst imeni I. V. Stalin. Moscow, 1956. (Dissertations for the Degree of Candidate in Medical Sciences).

SO: Knizhnaya Letopis' No. 22, 1956

KOZHIN, Sergey Pavlovich; BALAKSHINA, M.S., red.; BALDINA, N.F., tekhn. red.

[Work experience of a school doctor]Iz opyta raboty shkol'nogo vracha. Moskva, Medgiz, 1962. 122 p. (MIRA 15:11)
(SCHOOL PHYSICIANS)

BALAKSHINA, V.L., SARADZHA, M.D.

Disorders of the higher nervous function in dogs in jaundice. Trudy Inst. fiziol. 3:77-81 '54. (MLRA 8:2)

1. Laboratoriya kortiko-vistseral'noy patologii. Zaveduyushchiy I.T.Kurtsin.

(JAUNDICE, experimental,
higher nervous funct. in)
(CENTRAL NERVOUS SYSTEM, in various diseases,
exper.jaundice, higher nervous funct. changes)

BALAKSHINA, V.L.

Functional characteristics of the urinary apparatus in pathological conditions of the higher nervous function. Trudy Inst. fiziol. 3: 463-473 '54. (MLRA 8:2)

1. Laboratoriya kortiko-visteeral'noy patologii. Zaveduyushchii I.T.Kurtsin.
(KIDNEYS, physiology,
eff. of conditioned reflex disord.)
(REFLEX, CONDITIONED,
disord., eff. on kidney funct.)

BALAKSHINA, V.L.

BALAKSHINA, V.L.; OBUKHOVA, M.A.

New modification fo the method of investigation of the urinary tract. Trudy Inst. fiziol. 3:474-479 '54. (MLRA 8:2)

1. Laboratoriya kortiko-vistseral'noy patologii, zaveduyushchiy I.T.Kurtsin.

(URINARY TRACT, surgery
isolation of ureters with preserv. of bladder for investigation of urinary tract)

USSR/Human and Animal Physiology. Nervous System. T
Higher Nervous System. Behavior.

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93650.

Author : Dolakshina, V.L.
Inst : AS USSR
Title : Action of Urine-Secreting Apparatus as a Result of Counteraction of Exteroceptive and Interoceptive Conditioned Reflexes.

Orig Pub: V sb.: Probl. fiziol. tsentr. nervn. sistemy. M.-L., AN SSSR, 1957, 55-61.

Abstract: Experimental neurosis in dogs as a result of interference of interoceptive and exteroceptive conditioned reflexes was accompanied by persistent polyuria and a disturbance of the filtration-reabsorption function. According to the amount of creatinine in the urine

Card : 1/2

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93650.

after water loading the reabsorption rate was lower than the filtration rate: in comparison with the normal the increase in filtration was 9-fold, and in reabsorption it was only 5 - 6-fold. These processes were adjusted by administration of 0.02 g of luminol once every twenty-four hours for 5 -6 days, and diuresis decreased, approaching the original level. Application of diuretic agents in one of the dogs at the height of polyuria provoked a second collapse of UM as a result of interoceptive signaling from the pathologically altered organ. -- A.N. Rybinovskaya.

BALAKSHINA, V.L.

Ratio of conditioned to unconditioned reflexes in the kidney activity of dogs in a neurotic state. Trudy Inst.fiziol. 8: 223-227 '59. (MIRA 13:5)

1. Laboratoriya kortiko-visteeral'noy patologii (zaveduyushchiy - I.T. Kurtsin) Instituta fiziologii im I.P. Pavlova AN SSSR.
(KIDNEYS) (REFLEXES)

ZALESSKAYA, L.S., kand.arkh.; ALEKSANDROVA, V.D., arkh.; SHKVARIKOV, V.A., red.; DYURNBAUM, N.S., red. [deceased]; KOLESNIKOV, A.I., red.; DOMSHLAK, I.P., red.; BALAKSHINA, Ye.S., arkhitektor, red.; FRIDBERG, G.V., inzh., red.; BRUSINA, L.N., tekhn.red.

[Manual for architects] Spravochnik arkhitektora. Red.V.A. Shkvarikov i dr. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. Vol.3., pt.2. [Landscaping of cities] Ozelenenie gorodov. Sost. L.S.Zalesskaia i V.D.Aleksandrova. 1960. 463 p. (MIRA 13:9)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut gradostroitel'stva i rayonnoy planirovki.
(Landscape gardening)

BALAKSHIY, P., mekhanik.

[redacted]

Using air-pressure for oil discharge from tanks. Avt.transp. 35 no.6:32 Je '57. (MIRA 10:7)

(Tank trucks)

BALAKSHIY, Ya.G.

Bringing floodlands in the Supoy Valley under cultivation. Mekh. sil'. hosp. 8 no.9:11-12 S '57. (MLRA 10:9)

1. Direktor Pidstavkivs'koy Lugo-meliorativnoy stantsii, Cherkas'koy oblasti.

(Supoy Valley--Agriculture)

BALAKSTIN, B. S.

According to Izvestiya, Acad. Nauk SSSR (OTN) 12, (1888-91) 1953, the following was read at the seminar of the Laboratory of Machine and Instrument Precision, Institute of Machine Science, Academy of Sciences, USSR in 1952 and the first half of 1953.

B.S. BALAKSTIN read a paper - "Methods of analysis of the basing and working out of theoretical schemes for the basing of wheels of ball and roller bearings."

SO: Gt Brit, Min of Defence, DSI Trans #38. May 54, Unclas.

BALALAYEV, G.A., inzh., red.; NEMIROVSKIY, B.S., inzh., red.; BOGATYKH, Ya.D., inzh., red.; BOROZNIN, A.A., inzh., red.; STRASHNYKH, V.P., red.izd-va; NAUMOVA, G.D., tekhn. red.

[Construction specifications and regulations] Stroitel'nye normy i pravila. Pt.3. Sec.V. ch.10.[Heat insulation; regulations for production and acceptance of work] Teploizoliatsiia; pravila proizvodstva i priemki rabot (SNiP III-V. 10-62). 1963. 14 p. (MIRA 16:12)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosudarstvennyy komitet po delam stroitel'stva SSSR (for Balalayev). Mezhduvedomstvennaya komissiya po peresmotru Stroitel'nykh norm i pravil (for Nemirovskiy, Bogatykh).

(Insulation (Heat))—Standards)

BALALAYEV, G. A.

Ca

8

Preventing corrosion in production. G. A. Balalaev. *J. Chem. Ind.* (U. S. S. R.) 18, No. 15 16, 55 6(1941); cf. *C. A.* 36, 4410[9].—Methods for protecting app. from corrosive liquids are discussed. H. M. Leicester

MOSKVIN, V.M., prof., doktor tekhn.nauk; PLUNGYANSKAYA, M.N., kand.tekhn. nauk; BALALAYEV, G.A., insh., red.; MEDVEDEV, V.M., kand.tekhn. nauk, red.; KHAVIN, B.N., red.izd-va; ML'KINA, N.M., tekhn.red.

[Instructions for protecting reinforced concrete and masonry work by using varnish, paint, and water-repellent coatings] Instruktsiia po zashchite zhelezobetona i kamennoi kladki lakokrasochnymi i gidrofobiziruiushchimi pokrytiiami. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 58 p. (MIRA 13:3)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Moskvin).
(Protective coatings)

BALALAYEV, G.A., inzh., red.; KHAVIN, B.N., red.izd-va; BOROVNEV, N.K., tekhn.red.

[Instructions for protecting concrete structures of electrolysis shops against corrosion caused by stray currents; SN 65-59. Approved by the State Construction Committee of the Council of Ministers of the U.S.S.R. on September 2, 1959] Ukazaniia po zashchite zhelezobetonnykh konstruktsii elektroliznykh tsekhov ot korrozii, vyzyvaemoi bluzhdaiushchimi tokami; SN 65-59. Utverzhdeny Gos.komitetom Soveta Ministrov SSSR po delam stroitel'stva 2 sentiabria 1959 g. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 22 p. (MIRA 13:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
(Reinforced concrete construction--Corrosion)

BALALAYEV, German Aleksandrovich; VOLODIN, V.Ye., nauchnyy red.; GUKVICH, E.A., red.izd-va; KUDAKOVA, N.I., tekhn.red.

[Protecting construction elements and apparatus from corrosion] Zashchita stroitel'nykh konstruktsii i apparatury ot korrozii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 351 p. (MIRA 13:7)

(Corrosion and anticorrosives)

BALALAYEV, G.A., inzh., red.; STROSHNYKH, V.P., red. izd-va; MIKHEYEVA, A.A., tekhn. red.

[Technical specifications SN 205-62 for conducting and inspecting rubberizing] Tekhnicheskie ukazaniia na proizvodstvo i priemku gummirovochnykh rabot (SN 205-62). Moskva, Gosstroiizdat, 1962. 26 p. (MIRA 15:7)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.

(Rubber coatings)

BALALAYEV, G.A.; DERESHKEVICH, Yu.V.; PROTASOVITSKAYA, Ye.A., inzh., nauchnyy red.; VDOVENKO, Z.I., red. izd-va; RODIONOVA, V.M., tekhn. red.

[Corrosion prevention operations] Proizvodstvo antikorrosiinykh rabot. Moskva, Gosstroiizdat, 1962. 231 p. (MIRA 15:7)
(Corrosion and anticorrosives)

ALEKSEYEV, S.N.; ANTIPIN, V.A.; ARTAMONOV, V.S.; BALALAYEV, G.A., inzh.; VOLODIN, V.Ye.; GOL'DENBERG, N.L.; GORDIA, B.S.; GOFEN, D.A.; GRISHIN, M.Ye.; DERESHKEVICH, Yu.V.; DORONENKOV, I.M.; KLINOV, I.Ya., doktor tekhn. nauk, prof.; LEYRIKH, V.E.; LUTONIN, N.V.; MOLOKANOV, A.V., dots.; NOGIN, A.Ya.; PAKHOMOV, N.M.; PROTOSAVITSKAYA, Ye.A.; ROMOV, I.V.; CHAPLITSKIY, L.A.; TSEYTLIN, A.G.; STRAV'YE, P.K.; MOSHCHANSKIY, N.A., doktor tekhn. nauk, prof., red.; PEREVALYUK, M.V., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Corrosion protection in the construction of industrial buildings] Zashchita ot korrozii v promyshlennom stroitel'stve. Moskva, Gosstroiizdat, 1963. 406 p. (MIRA 16:12)

(Corrosion and anticorrosives)
(Industrial buildings)

BALALAYEV, G.A., inzh., red.; SAVVINA, Yu.A., kand. tekhn. nauk, red.;

[Instructions for planning anticorrosive protection of structural elements of industrial buildings producing aggressive media] Ukazaniia po proektirovaniiu antikorrozionnoi zashchity stroitel'nykh konstruktsii promyshlennykh zdanii v proizvodstvakh s agressivnymi sredami (SN 262-63). Moskva, Stroiizdat, 1964. 89 p. (MIRA 17:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosstroy SSSR (for Balalayev). 3. Nauchno-issledovatel'skiy institut betona i zhelezobetona Gosstroya SSSR (for Savvina).

BALALAYEV, German Aleksandrovich; PRITULA, V.A., nauchn. red.; MIKHAL'CHUK, Z.V., red.

[Carrying out acid-resistant work] Proizvodstvo kislotoupornykh rabot. Moskva, Vysshaia shkola, 1964. 325 p. (MIRA 18:3)

BALAIAYEV, Gorman Aleksandrovich

[Protecting structural elements and chemical apparatus from corrosion] Zashchita stroitel'nykh konstruktsii i khimicheskikh apparatov ot korrozii. 2. izd., perer. Moskva, Stroiizdat, 1965. 372

STOPICHEV, S.G., kand. tekhn. nauk (Khabarovsk); [redacted], S.V., inzh. (Khabarovsk); RODYK, V.V., inzh. (Khabarovsk)

Using the electronic digital computer for the computation of plans for making up trains. Zhel. dor. transp. 45 no.3:74-76 Mr '63. (MIRA 16:6)

(Railroads—Making up trains)
(Ural computer)

BALALAYEV, S.V., inzh. (Khabarovsk)

Urgent problems concerning the distribution of classification yards. Zhel. dor. transp. 47 no. 11:33-37 N '65
(MIRA 19:1)

S/056/62/043/006/008/067
B184/B102

AUTHORS: Balalayev, V. A., Dzhelepov, B. S., Medvedev, A. I., Meshter, A., Ochevatkin, I. F.

TITLE: Refinement of the information on the $0^+ \longrightarrow 0^+$ transition in Ce^{140}

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 6(12), 1962, 2019-2020

TEXT: The Pr^{140} conversion electron spectrum was measured with a high-resolution β-spectrometer. As a result, more accurate data on the $0^+ \longrightarrow 0^+$ transition in Ce^{140} were obtained: energy: 1902 ± 3 kev, $(K/L)_{1902} = 7.40 \pm 0.34$. These values are well consistent with those obtained in earlier measurements and with the theoretical results. $M/L = 0.27 \pm 0.03$; $(K+L+M)_{1597}/\beta^+ \sim 1\%$; $(K+L+M)_{1902}/\beta^+ \sim 0.1\%$. There are 1 figure and 1 table.

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Card 2/2

BALALAYEV, V.A.; DZHELEPOV, B.S.; MEDVEDEV, A.I.; UCHEVATKIN, I.F.

Conversion electrons emitted by Lu^{173}, Lu^{174} in the energy range 540-1450 Kev. Izv.AN SSSR.Ser.fiz. 27 no.2:200-203 F '63. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I.Mendeleyeva.

(Internal conversion (Nuclear physics))
(Lutetium isotopes)

BALALAYEV, V. A.; VOINOVA, N. A.; DZHELEPOV, B. S.; MESHTER, A.; UCHEVATKIN, I. F.; SHESTOPALOVA, S. A.

"New Data on Conversion and the End-point Energies of Beta Spectra in the Decay of Ta^{182}."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

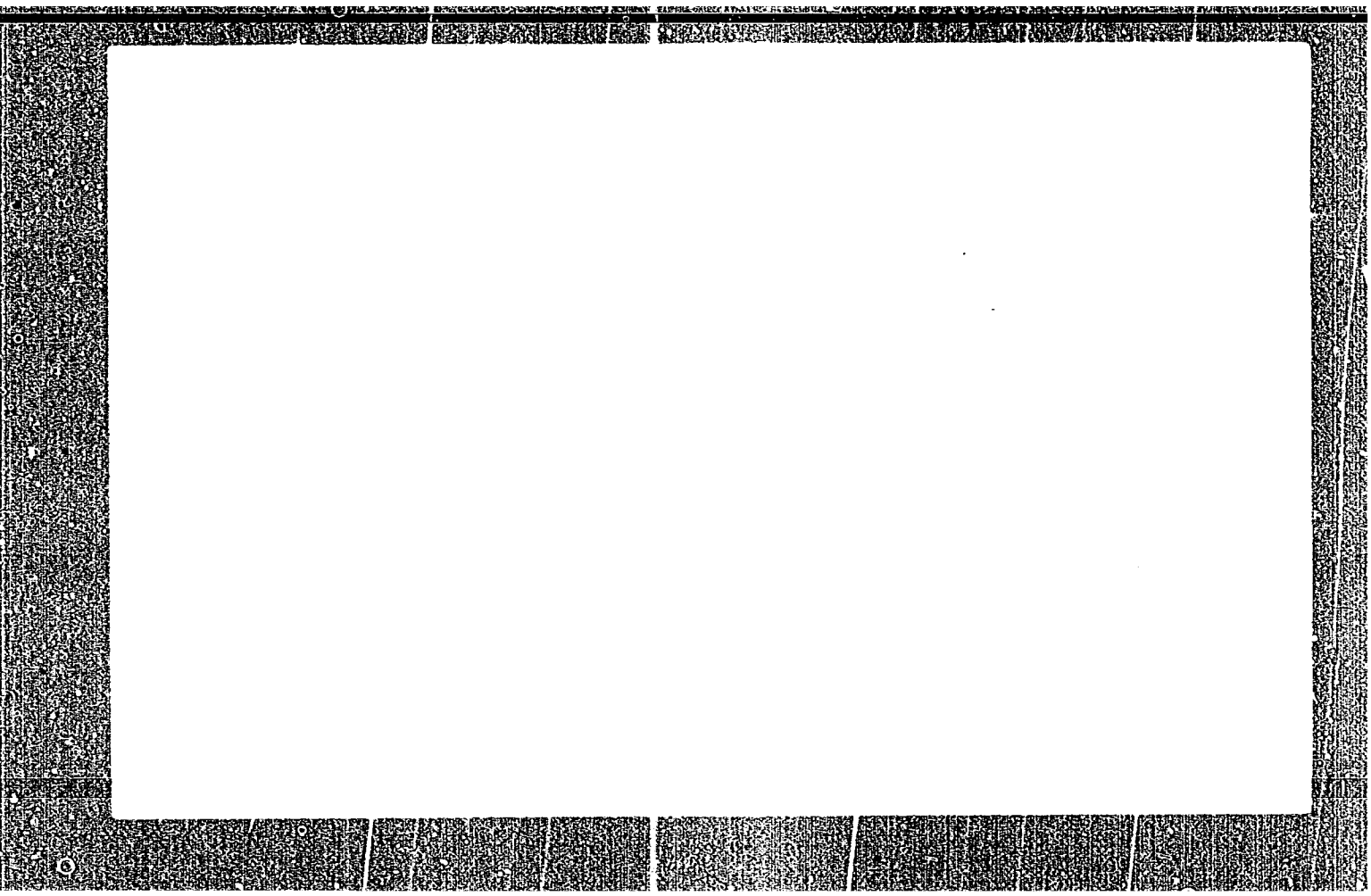
VNIIM, FTI (All-Union Sci Res Inst Metrology, Physico Technical Inst)

BALALAYEV, V. A.; DZHELEPOV, B. S.; MEDVEDEV, A. I.; MESHTEV, A.; PRIKHODTSEVA, V. P.; UCHEVATKIN, I. F.

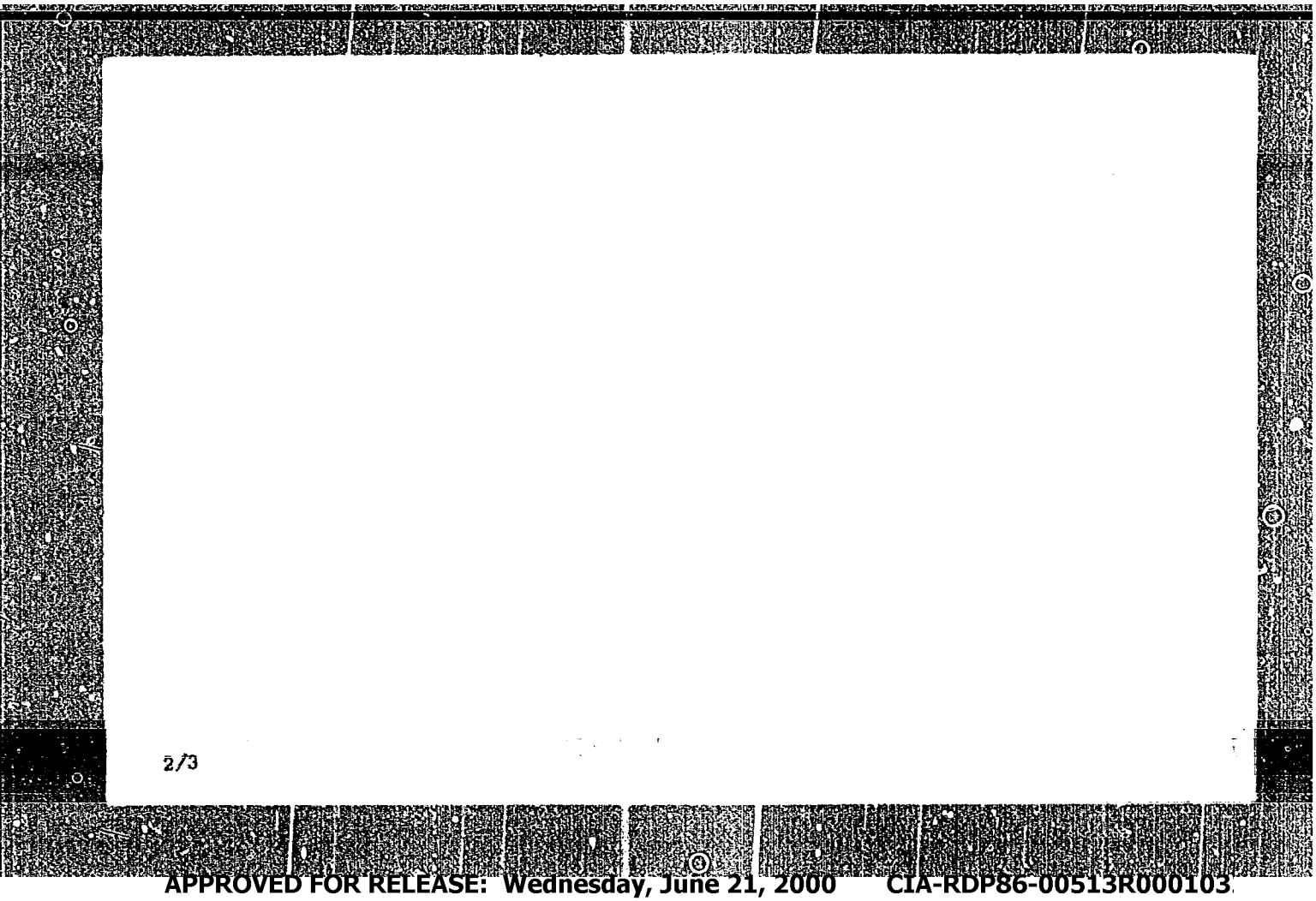
"Concerning the Decay of La^{140}."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

VNIIM, Radiyevyy Inst (All-Union Sci Res Inst of Metrology; Radium Inst)



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103



ACCESSION NR: AP4040073

ACCESSION NR: AP4031176 S/0056/64/046/004/1478/1478

AUTHOR: Balalayev, V. A.; Dzhelepov, B. S.; Medvedev, A. I.; Meshter, A.; Uchevatkin, I. F.

TITLE: Half-lives of ground and isomeric states of Lu-174

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1478

TOPIC TAGS: lutecium, half life, isomeric transition, conversion electron spectrum

ABSTRACT: Following an earlier measurement of the conversion electron spectrum of $Lu^{173,174}$ (Izv. AN SSSR ser. fiz. v. 27, 200, 1963), the measurements were repeated of the 994 and 1243 keV tranbitions in Lu^{174} with the same source. In the 340 days elapsed between the two series of measurements, the 1243-keV K-line intensity had hardly changed (half-life greater than 800 days), but the 994 keV K-line intensity had decreased with a half-life of 150 ± 40 days. To determine which of the half-lives corresponds to the ground state and which to the isomeric state, the half-life of the L-line intensity of the 59.1 and 67.1 keV transitions was estimated and found to be less than 200 days, which disagrees with the data of O. D. Kovrigin and G. D. Laty*shev (Spektrometer s dvoynoy fokusirovkoy, Izd. AN Kaz. SSR, Alma-Ata,

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ACCESSION NR: AP4031176

1962, pp 35--41) who estimated it to be 1300 days. The results of the investigations lead to the following conclusions: (1) the ground state of Lu^{174} decays with a half-life of 1300 days; (2) the isomeric state of Lu^{174} decays with a half-life of 140 days; (3) the 1243-keV transition is excited from the ground state; (4) the 994-keV transition is excited from the isomeric state. "The authors are grateful to S. A. Shestopalova for a discussion of the measurement results."

ASSOCIATION: Vsesoyuzny*y institut metrologii im. D. I. Mende-eyeva (All-Union Institute of Metrology)

SUBMITTED: 26Jul63 DATE ACQ: 07May64 ENCL: 00

SUB CODE: MP NR REF SOV: 003 OTHER: 002

Card 2/2

BALALAYEV, V.A.; DZHELEPOV, B.S.; MESHTER, A.; SHESTOPALOVA, S.A.

Spectrum of conversion electrons from Eu^{146} in the energy range of 750 -- 1550 Kev. Izv. AN SSSR. Ser. fiz. 29 no.7:1112-1120 Jl '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I.Mendeleyeva.

PALALAYEV, V.A.; DZHELEPOV, B.S.; MEDVEDEV, A.I.; NOMEROTKIN, I.F.; SHESTOPALOVA S.A.

Recent data on Ce^{135} decay. Izv. AN SSSR. Ser. fiz. 29 no.12: 2204-2224 D '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva.

BALALAYEV, V.A.; DZHELEPOV, B.S.; MEDVEDEV, A.I.; MESHTER, A.; PRIKHODTSEVA, V.P.; UCHEVATKIN, I.F.

Recent data on the spectrum of conversion electrons from La^{140}. Izv. AN SSSR. Ser. fiz. 29 no.12:2250-2254 D '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva i Radiyevyy institut im. V.G. Khlopina AN SSSR.

BALALAYEV, V.A.; VOINOVA, N.A.; DZHELEPOV, B.S.; MOSKVIN, L.N.; SHESTOPALOVA, S.A.

On the β-decay of Ta^{182} with an energy above 600 Kev. Izv. AN SSSR. Ser.fiz. 30 no.1:126-131 Ja '66.

(MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I.Mendeleyeva i Fiziko-tekhnicheskiy institut im. A.F. Ioffe AN SSSR.

L 25761-66 JD/JG

ACC NR. AP6016393 SOURCE CODE: UR/0048/65/029/007/1112/1120

AUTHOR: Balalayev, V. A.; Dzhelepov, B. S.; Meshter, A.; Shestopalova, S. A.

ORG: All-Union Scientific Research Institute of Metrology im. D. I. Mendeleyev (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii)

TITLE: Conversion electron spectrum of Eu sup 146 in the energy range 750-1550 kev

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 7, 1965, 1112-1120

TOPIC TAGS: europium, electron spectrum

ABSTRACT: This article is a complete presentation of results from an experiment reported on earlier in part at the VII Congress at Dubna in 1964. A segment of the spectrum of Eu^{146} conversion electrons was studied in the energy range from 750 to 1550 kev. The article is primarily made up of graphs and tables representing the data from the experiment with a brief description of the setup and some discussion of the results. It was concluded that a) all the conversion lines observed by other researchers were observed in the present experiment; b) 25 new transitions were discovered; c) all the transition energies in this range were more precisely determined. The authors thank Zh. T. Zhelev for his assistance in the receipt of the sources; L. N. Moskvin for the cleansing of the preparations; and I. F. Uchevatkin, V. D. Vitman, A. I. Medvedev and L. A. Shalayeva for their assistance with the measurements. Orig. art. has: 8 figures and 1 table. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 001

Card 1/1 CC

L 07155-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP7001027 SOURCE CODE: UR/0048/66/030/001/0126/0131

AUTHOR: Balalayev, V. A.; Voinova, N. A.; Dzhelepov, B. S.; Moskvin, L. N. and Shestopalova, S. A. 46 13

ORG: All-Union Scientific Research Institute of Metrology im. D. I. Mendeleyev (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii); Physicotechnical Institute im. A. F. Ioffe AN SSSR (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Beta decay of ta sup 182 with energy above 600 kev (Paper presented at the 2nd All-Union Symposium on the Physics of thin Ferromagnetic Films; Irkutsk, 10-15 July 1964)

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 1, 1966, 126-131

TOPIC TAGS: radioactive decay, tantalum, beta radiation

ABSTRACT: In a previous paper the authors were the first to discover a continuous background in the 820-kev region for the beta decay of ta sup 182. This prompted a continuation of the work to investigate the hard beta radiation in the 1500-kev region of a stronger Ta sup 182 source. Results are plotted in curves, tabulated, and compared with results of other authors. The authors thank A. Meshter, If. F. Uchevatkin, and A. I. Medvedev for assistance in the taking of the measurements. I. F. Uchevatkin also took part in the operation and discussions of the original experimental data. The authors further thank G. M. Bukat for setting up the program for the electronic calculating machine. Orig. art. has: 3 figures and 2 tables.

Card 1/1 [JPRS; 35,435] SUB CODE: 18 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 003

L 31407-66 EWT(m)
ACC NR: AP6022573 SOURCE CODE: UR/0048/66/030/003/0413/0415 36

AUTHOR: Balalayev, V. A.; Dzhelepov, B. S.; Medvedev, A. I.; Uchevatkin, I. F. B
Shestopalova, S. A.

ORG: All-Union Scientific Research Institute of Metrology im. D. I. Mendeleyev (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii)

TITLE: New data on the spectrum of conversion electrons for the strongest transitions in Yb sup 170 19

SOURCE: AN SSSR. Izvestiya fizicheskaya, v. 30, no. 3, 1966, 413-415

TOPIC TAGS: ytterbium, transition radiation, conversion electron spectrum, spectral line, electron energy level

ABSTRACT: The availability of a new higher-energy source made it possible to study conversion electrons having energies above 3150 kev. The reference used was the K-conversion line of the transition 2955.2 kev. The spectrum from 2880 to 3150 kev was remeasured to confirm those made above 3150, inasmuch as the spectrum is complex and the K, L, and M lines of the various transitions overlap. Results of measurements above 3150 kev, given in a table, are essentially new. Six new transitions were found: 3224, 3245, 3263, 3287, 3302 and 3325. The latter is suggested as possibly the strongest transition in the spectrum. The authors thank K. Ya. Gromov and Zh. T. Zheleva for providing the sources. Orig. art. has: 1 figure and 1 table. [JPRS]
SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003
Card 1/1

80198

18.8200

S/129/60/000/04/009/020
E073/E535

AUTHOR: Balalayev, Yu. F., Engineer

TITLE: Structural Changes and Strength of the Steel in the Case of High Frequency Cyclic Loading

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, No 4, pp 41-45 + 1 plate (USSR)

ABSTRACT: For investigating the fatigue strength, the kinetic heating due to internal dissipation of energy and physico-chemical processes in steels during cyclic tension-compression loading with a frequency of 17 to 20 kc/sec, the author developed a resonance system, a sketch of which is shown in Fig 1. This consisted of the cylindrical specimen 4, which was rigidly connected via a sleeve 3 to the axis symmetrical intermediate piece 2 which in turn was brazed onto the magnetostriction vibrator 1 (a 50 x 50 mm packet of nickel sheets 0.2 mm thick). The theoretical investigation of the rod as an elastic oscillation system was based on solving the equations for longitudinal oscillations. For the case of steady state

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E073/E535

Structural Changes and Strength of the Steel in the Case of High Frequency Cyclic Loading

sinusoidal oscillations, the following equation applies:

$$\epsilon = -A \frac{\omega}{a} \sin \frac{\omega}{a} x \sin \omega t \qquad (1)$$

where ϵ is the relative elongation, ω the circular frequency, a the speed of sound in the material of the specimen, A is the oscillation amplitude in microns. For steel the maximum stress is: $\sigma_{max} = + 0.0257fA$ kg/mm^2, f, oscillation frequency in kc/sec. In addition to a sketch of the resonance system, Fig 1 also shows the distribution of the oscillation amplitudes along the elements of the system and the longitudinal stresses of the specimen. The micro-specimens from the end parts of the rod can be used as reference specimens for studying the influence of alternating stresses on the physical and chemical processes in the material in the centre of the specimen where maximum stresses occur. The features of the

Card 2/4 oscillation processes in the axis symmetrical rod with

Structural Changes and Strength of the Steel in the Case of High Frequency Cyclic Loading

variable cross-section are such that as a result of these the amplitude of the stresses in the specimen are considerably increased; in this respect exponential and catenoidal shapes are most effective. For ratios of the maximum to the minimum diameter of 50/8 it was possible to obtain in 5 mm diameter specimens amplitude stresses up to 50 kg/mm^2. The electric power in the magnetostriction element did not exceed 3 kVA. The resonance length of the intermediate piece was 160 mm. Results are described which were obtained for various materials: Fig 2 shows the fatigue curves for Steel 15 and for commercial iron; Fig 3 shows the temperature distribution along a specimen of Steel 25; the table on p 44 gives the results of measurements of the temperature of the central part of specimens of various materials at the instant of failure for a loading frequency of 17 to 18 kc/sec and a maximum stress amplitude of 10 to 25 kg/mm^2.

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Structural Changes and Strength of the Steel in the Case of High Frequency Cyclic Loading

Fig 4 (plate) shows microstructure photographs of commercial iron in the zone of heating and of fracture of the specimens; Fig 5 shows the microstructure of steel U8A in the zone of heating and failure in a specimen; Fig 6 shows the microstructure of a 30KhGSA steel specimen with "pronounced" grain boundaries; Fig 7 shows the microstructure of Steel 25 after heating followed by quenching in water. The results obtained indicate that the here described resonance system permits investigation of processes taking place in steels during high frequency cyclic loading, and heating of the specimens up to 1000°C and more as a result of internal dissipation of the oscillation energy. The here described method of high frequency loading of specimens permits determining the locations of active Frank-Reed sources and to study the dynamics of dislocations.
There are 7 figures, 1 table and 5 Soviet references. 4

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S/032/60/026/05/40/063
B010/B008

AUTHOR: Balalayev, Yu. F.

TITLE: Appliance for the Excitation of Cyclic Stresses in Test Samples With a Frequency of 16-20 Kilocycles

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 5, pp. 617-619

TEXT: A resonance system with a magnetostriction exciter and valve generator with electric oscillations up to a capacity of 3 kva was designed for investigations of the physico-chemical processes in metal alloys at cyclic tension-compression loads with a frequency of 16-20 kilocycles. The peculiarities of the oscillation processes in an intermediate rod with stepwise varied diameter were used for increasing the amplitude of the stresses in the samples (Ref. 1). For standing sinusoidal oscillations, the stresses in the sample may be described by the following equation: $\sigma = -\sqrt{E\varphi}\omega A \sin \frac{\omega}{a} x \sin\omega t$ (E = modulus of elasticity, φ = density of the material, A = amplitude of the oscillations of the sample end, ω = angular frequency of the oscillations, a = sound velocity

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in the material of the sample, x = coordinate measured from the sample mounting). It appears from the block scheme of the generator (Fig. 1) that the current of a ZG-10 generator is amplified by a capacity amplifier (GU-80 valves) and a two-cycle scheme is used. A description of the block scheme is given and resonance curves (Fig. 2) are obtained with steel samples of various length. The attenuation can be determined from the change of the active and reactive resistance of the oscillation of the vibrator and consequently from the amperage and voltage of the generator. Oscillograms of the change of amperage and voltage of the exciter at a change of the frequency of the generator recorded with an MPO-2 oscilloscope are given (Fig. 3). There are 3 figures and 2 Soviet references.

30637
S/032/61/027/011/004/016
B116/B102

18 9200

AUTHOR: Balalayev, Yu. F.

TITLE: Ultrasonic detection of dislocations

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 11, 1961, 1362-1363

TEXT: For the purpose of detecting dislocations in microstructures it is recommended that the metal in question be subjected to high-amplitude ultrasonic vibrations. This method has been elaborated on the basis of the theory developed by K. Lücke and A. Granato (Ref. 3) for the internal friction of metals. On local heating round dislocations, impurities undergo supersaturation and dislocations become "decorated". This is due to the fact that in the case of ultrasonic vibrations, the rate of evolution of local heat near dislocations may exceed the rate of heat withdrawal. Commercial-grade iron (0.04% C, 0.07% Mn, 0.03% Si, 0.035% S, and 0.019% P) and Y8A (U8A) steel were used in the experiments. Ultrasonic vibrations were generated by a device previously described by the author (Yu. F. Balalayev. Zavodskaya laboratoriya, 26, 5 (1960)). The samples were subjected to ultrasonic vibrations of certain frequencies at maximum

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30037
S/032/61/027/011/004/016
B116/B102

Ultrasonic detection of dislocations

tension amplitudes. It is shown that ultrasonic treatment brings about a "decoration" of dislocations. Microstructures treated with various etching agents exhibit the same features. N. F. Mott stated in Ref. 7 that dislocations accumulate in consolidated metals. This assumption was confirmed by ultrasonic treatment of the microstructure of cold-hardened, completely deformed commercial iron. It is noted that dislocations blocked by finely dispersed particles of the second phase or by "clouds" of impurities cannot be detected by ultrasonic treatment. There are 2 figures and 7 references: 3 Soviet-bloc and 4 non-Soviet-bloc. The 4 references to the English-language publications read as follows: C. S. Suits, J. R. Low. Acta metallurgica, 5 (1957); Ref. 3: K. Lücke, A. Granato. Dislocations and Mech. properties Crystals (1957); C. E. Morris. Metal Progress, 56, 693 (1949); Ref. 7: N. F. Mott. Phil Mag., 43, 1151 (1952).

Card 2/2

ACCESSION NR: AP4009380 S/0126/63/016/006/0872/0876

AUTHOR: Balalayev, Yu. F.; Bokshteyn, S. Z.

TITLE: Ultrasonic high-temperature heating and its use for thermal treatment in studies of metals and alloys

SOURCE: Fizika metallov i metallovedeniye, v. 16, no. 6, 1963, 872-876

TOPIC TAGS: ultrasound, ultrasonic heating, ultrasonic high temperature heating, metal heat treatment, alloy heat treatment, steel, martensite, 30KhGSA steel, heat conduction, aluminum, iron

ABSTRACT: The authors used a new ultrasonic heating technique for the thermal treatment of metallic rods in order to study the condition and behavior of the granules, the processes of recrystallization, and the martensitic and other transformations in the solid phase. Longitudinal waves with a frequency of 18-27 kilocycles/sec and a stress amplitude somewhat lower than the fatigue limit of the material were produced by a compound resonance system with a magnetostrictive stimulator and energy concentrator as described in a previous paper (Balalayev, Yu. F. Zavodskaya laboratoriya, 1960, No. 5). As shown by the example of a steel specimen heated to the burning stage by internal friction with elastic vibrations having a frequency of about 20 kilocycles/sec and a stress amplitude of 3-15

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ACCESSION NR: AP4009380

kg/mm^2, only the central part of the sample attains a high temperature since the stress along its axis changes according to the sinusoidal law. In the established method of heating to temperatures above the critical point for phase transformations, the thermal losses from the surface of the sample are equal to its internal potential. As the result of the sinusoidal distribution of stresses and the cooling effect at the extremities of the sample, a temperature gradient appears resulting in a gradation of structures corresponding to different heating temperatures in the same sample. At a definite stage, one observes a rapid local increase in temperature and the destruction of the sample, the rapid development of fissures being accompanied locally by a bright luminescence along the path of propagation. Studies have shown that samples made of technical iron and steels, as well as technical grades of aluminum, heat rapidly in the annealed state. Weak hardening increases the tendency of samples to heat rapidly and to form fissures. Strongly hardened samples do not heat easily; for their heating internal friction is preferred, temperatures above 1000C being attained by ultrasound. A mathematical treatment is given for the active potential of loss at the expense of the viscosity component of the internal friction, as well as for the overheating temperature, using A. G. Spektor's formulae. Such an analysis is made possible by the fact that the statistical model of a double-component system with resilient limits and elastic granules coincides with the model of a heterogeneous conductor. In both cases, the statistical model can be represent-

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ACCESSION NR: AP4009380

ed by a plate whose two opposite surfaces emanate heat. In this particular case, the distance between the two parallel surfaces is considered to be equal to the average size of the granules. Studies using the ultrasonic technique showed that the main characteristic of this method is the phenomenon of microfocal superheating of the viscous regions, resulting in a specific effect on the microstructure of the steel. Intensive relaxation with a high frequency and amplitude of vibrations sometimes provokes such rapid heat loss that the recrystallization becomes insignificant; in some other cases, the local overheating of viscous components provokes local recrystallization. An investigation of samples of 30 KhGSA steel, hardened in water after ultrasonic heating, showed a different martensitic pickling at the boundaries of the granules than in the body proper, which can be explained by overheating at the boundaries. Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: Voronezhskiy politekhnicheskiy institut (Voronezh Polytechnical Institute)

SUBMITTED: 26Feb63 DATE ACQ: 03Feb64 ENCL: 00

SUB CODE: ML NO REF SOV: 008 OTHER: 001

Card 3/3

PALALAYEV, Yu.F.

Dependence of the structure of commercial-grade iron on ultrasonic, high-temperature heating. Metalloved. i term. obr. met. no.1:48-49 Ja '64. (MIRA 17:3)

1. Voronezhskiy politekhnicheskiy institut.

ACCESSION NR: AT4040415 S/0000/64/000/000/0113/0116

AUTHOR: Balalayev, Yu. F.; Bokshteyn, S. Z.

TITLE: Behavior of the grain boundaries in iron during ultrasonic high-temperature heating

SOURCE: Protsessy* diffuzii, struktura i svoystva metallov (Diffusion processes, structure and properties of metals); sbornik statey. Moscow, Izd-vo Mashinostroyeniye, 1964, 113-116

TOPIC TAGS: iron, iron grain boundary, iron microstructure, grain boundary, ultrasonic heating

ABSTRACT: In view of the wide use of hot recrystallization during the production of austenitic steel, the authors investigated the behavior of the grain boundaries during ultrasonic recrystallization of iron containing 0.04% C, 0.07% Mn, 0.03% Si, 0.035% S, and 0.015% P. In order to obtain a homogeneous fine-grained structure, the specimens were annealed at 950C for 1 hour, and were then subjected to ultrasonic vibrations at 19.5 kilocycles/sec., resulting in a temperature of more than 1000C at the node. Cuts for micrographic investigation were made axially through the specimens, and the cold worked surface layers were removed by electropolishing, followed by etching to reveal the microstructure. The microstructure

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ACCESSION NR: AT4040415

was investigated at various distances from the zone of minimum temperature in the direction of increasing temperature. Analysis of the photomicrographs obtained showed that an increase in ultrasonic heating temperature is accompanied by an increase in pitting along the original grain boundaries after etching. This pitting, which is not observed after electrical heating, is explained by internal friction caused by defects at the grain boundaries. The relaxation spheres detected by ultrasonic heating do not overlap, and relaxation proceeds in each sphere independently. In the zone of heating above 910C, boundaries of new grains appear indicating the absence of relaxation processes and the small accumulation of elements causing chemical non-homogeneity between the boundaries and the grains at these places. In the zone of higher temperature, etching pits along the original grain boundaries become less pronounced, and new grains become coarser and more distinct. In the zone close to the site of specimen failure, only remainders of the original grain boundaries are present, and new grain boundaries show signs of grain loosening. In the zone immediately adjacent to the site of failure, crack formation is observed; failure of the specimen takes place along new grain boundaries formed in the process of grain transformation. The authors conclude that traces of the original imperfect grain boundaries remain after transformation, but gradually disappear with a further increase in temperature. Orig. art. has: 6 photomicrographs.

Card 2/3

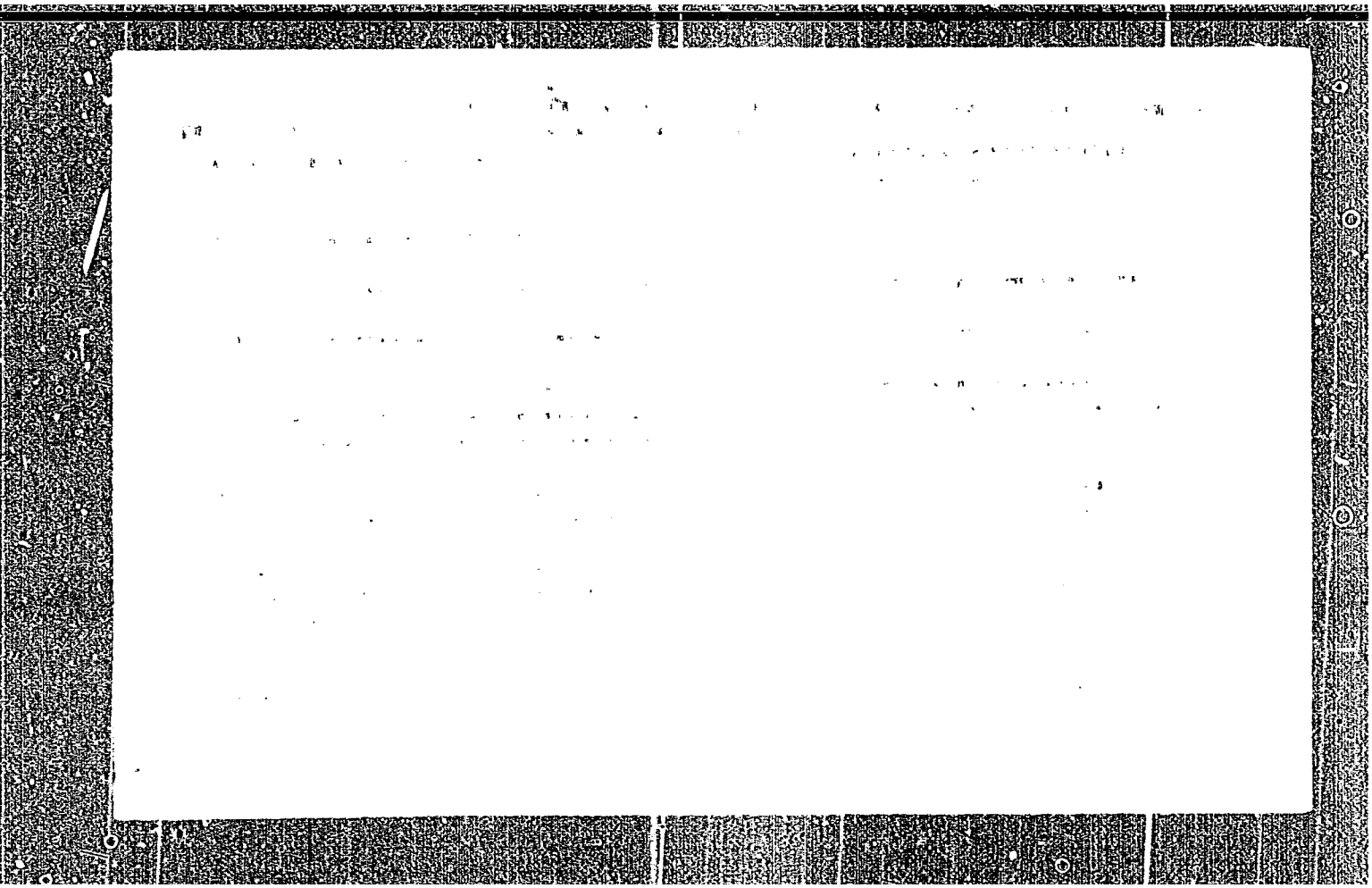
ACCESSION NR: AT4040415

ASSOCIATION: none

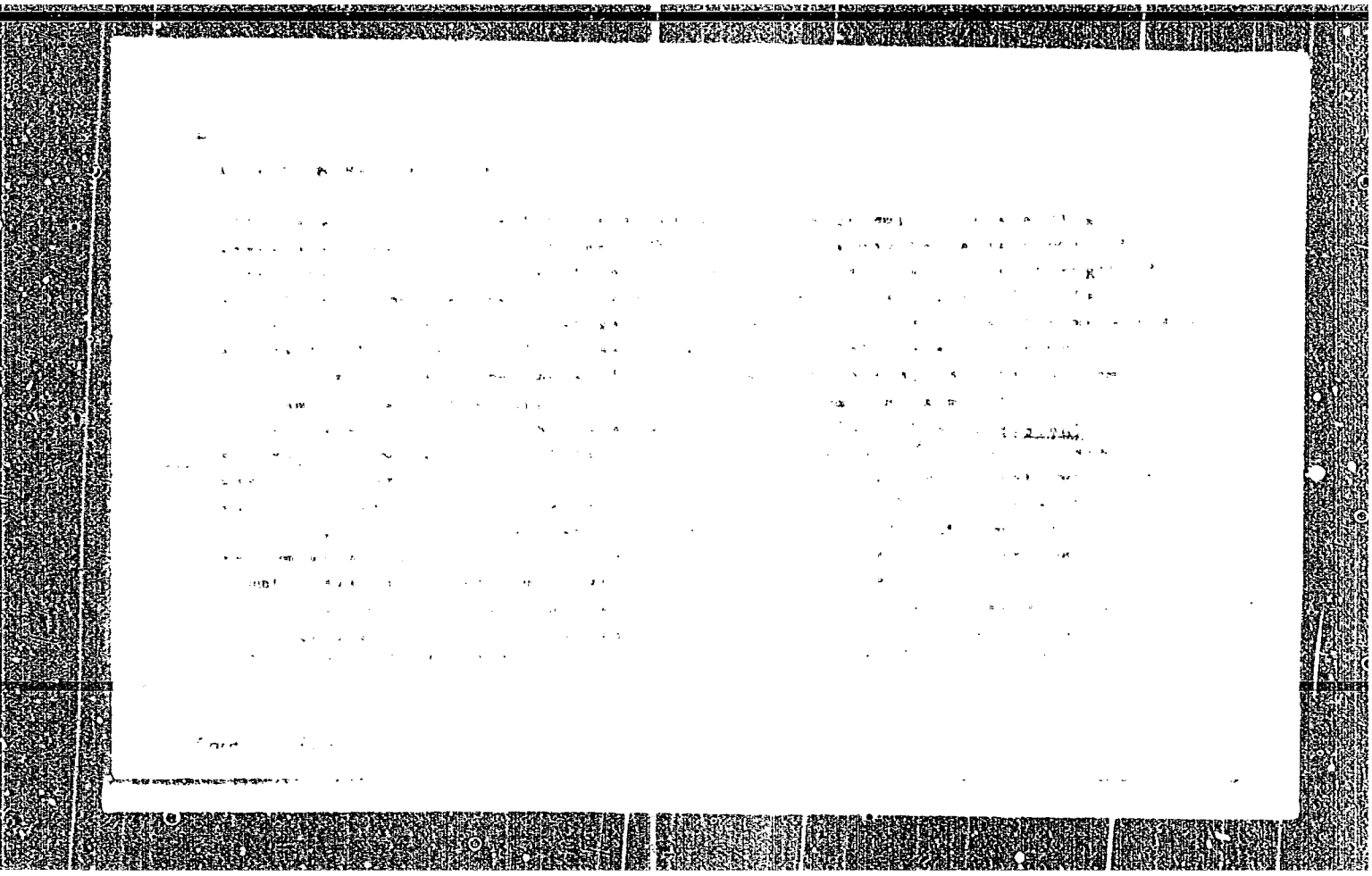
SUBMITTED: 09Dec63 DATE ACQ: 28May64 ENCL: 00

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

Card 3/3



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103



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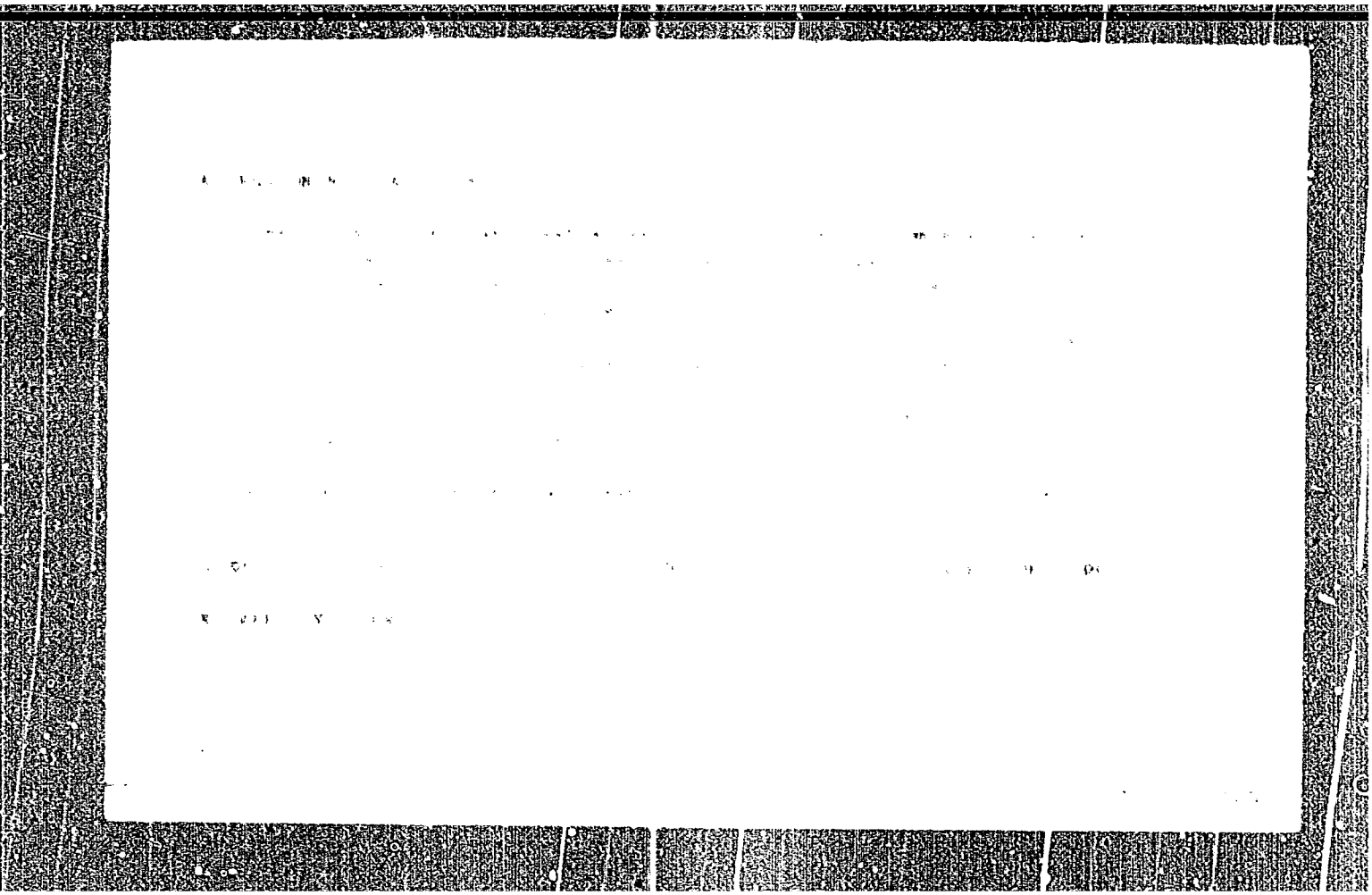

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

L 41621-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6013357 SOURCE CODE: UR/0370/66/000/002/0058/0060

AUTHOR: Balalayev, Yu. F. (Voronezh); Postnikov, V. S. (Voronezh)

ORG: none

TITLE: Ultrasonic heating of metals

SOURCE: AN SSSR. Izvestiya. Metally, no. 2, 1966, 58-60

TOPIC TAGS: ultrasonic vibration, metal grain structure, metal heat treatment

ABSTRACT: An experiment is described which confirmed the overheating of grain boundaries as compared to the body of the metal in 1Kh18N9T steel acted upon by ultrasonic vibrations. The induced microstructural changes were followed by means of high-temperature metallography on cylindrical specimens with highly polished walls. The microstructure resulting from selective oxidation showed the heating caused by the ultrasound to be inhomogeneous and indicated an "overheating" of the grain boundaries due to viscous slip along these boundaries and to processes of microplastic grain-boundary deformation. The migration of boundaries took place in both unannealed specimens and specimens thoroughly preannealed at temperatures above the heating temperature associated with the ultrasonic effect. Loosening of the boundaries may be due to the coagulation of vacancies formed as a result of the movement and interaction of dislocations during cyclic deformation. It is concluded that ultrasonic heating is a convenient method which makes it possible to change the state of a metal in a short

Card 1/2 UDC: 669-151

L 41621-66
ACC NR: AP6013357

period of time, and to follow the changes taking place in a metal placed in an alternating mechanical field by means of metallography and other techniques. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: 10Oct64/ ORIG REF: 005

Card 2/2 hs

ZAKHAROVA, G.N.; MALAYEVA, L.P.

Treatment of obliterating endarteritis with hydrogen sulfide baths of the Saratov Sokolovogorskiy Spring. Vop. kur., fizioter. i lech. fiz. kul't. 28 no.4:310-312 Jl-Ag '63. (MIRA 17:9)

1. Iz kafedry gospital'noy khirurgii (ispolnyayushchiy obyazannosti zaveduyushchego - dotsent G.N. Zakharova) Saratovskogo meditsinskogo instituta i Saratovskoy Sokolovogorskoy vodolechebnitsy (glavnyy vrach B.I. Kirkorov).

BALALAYEVA, N M.

E-5

USSR/Virology - Rickettsias.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67005

Author : Balalaeva, N.M., Zubor, L.P.
Inst :
Title : The Study of the Biological Properties of Rickettsia Mooseri After Prolonged Cultivation in the Organism of Body Lice. Communication II. The Oxidation Property of Rickettsia Mooseri in the Presence of Glutamic Acid.

Orig Pub : Zh. mikrobiol., epidemiol, i immunobiologii, 1957, No 8, 14-16.

Abstract : Fermentative activity (FA) of R. mooseri (oxygen uptake) cultivated in the organism of body lice was studied and was compared with that of R. prowazekii under the same conditions of cultuvation. The study was made according to Warburg's manometric method (the technique is described). It was shown that R. mooseri and R. prowazekii were consuming oxygen when glutamic acid served as the

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Abs Jour : Ref Zhur - Biol., No 15, 1958, 67005

oxidation substrate. Control experiments with uninfected lice produced negative results. To compare the oxidation FA of the R. mooseri with that of R. prowazekii, a count was made on the number of rickettsias that had been stained according to Morozov's method: in 0.01 ml of suspension distributed on 2 cm^2. surface area of a dish. The ratio of oxygen consumed (in μ l [microliters]) to the average rickettsias count was considered as the intensity index for FA of rickettsias. It was established that in the first passages, the oxidation FA for R. mooseri differed from that for the R. prowazekii. However when the number of passages increased, the FA for R. mooseri approached the FA for R. prowazekii, and in a number of instances, exceeded it.

Card 2/2

SOV/84-58-11-47/58

AUTHOR: Balalov, S., Commander of Instruction and Training Unit

TITLE: Use of Simulators in Pilot Training (Ispol'zovat' trenazhery v obuchenii pilotov)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 11, p 34 (USSR)

ABSTRACT: The author refers to the privilege extended to pilots of light aircraft in special purpose aviation units to fly at night under difficult meteorological conditions. Since this entailed considerable cost and an increase in training personnel, it was proposed to use simulators already produced by GVF in 1957 to train crews of Li-2 and An-2 planes. The experiment produced satisfactory results and a special training program was developed for pilots training on any level.

Card 1/1

[redacted]

[illegible] a betatron

SOURCE: Pribory* i tekhnika eksperimenta [illegible] 4 1963, 24-27

TOPIC TAGS: betatron, electron energy regulation, electron-energy stabilization

ABSTRACT: A system is described which is intended for the regulation and stabilization of the maximum energy of the spectrum in a 35 Mev betatron. A block diagram and a simplified connection diagram of the electronic stabilizing system are shown. System operation, instability causes, and remedies are considered. End-window counters of β^+-activity of Cu^{62} were used in testing the system. It was found that the energy instability, at the 12.6-Mev point, did not exceed ± 10 kev for several days and ± 25 kev for several

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ACCESSION NR AP3 4982

months "In conclusion, we wish to thank O. V. Bogdankevich for his usef advice, and B. P. Levkin and Yu. I. Sorokin for their assistance in the wo Orig. art. has: 3 figures and 7 formulas.

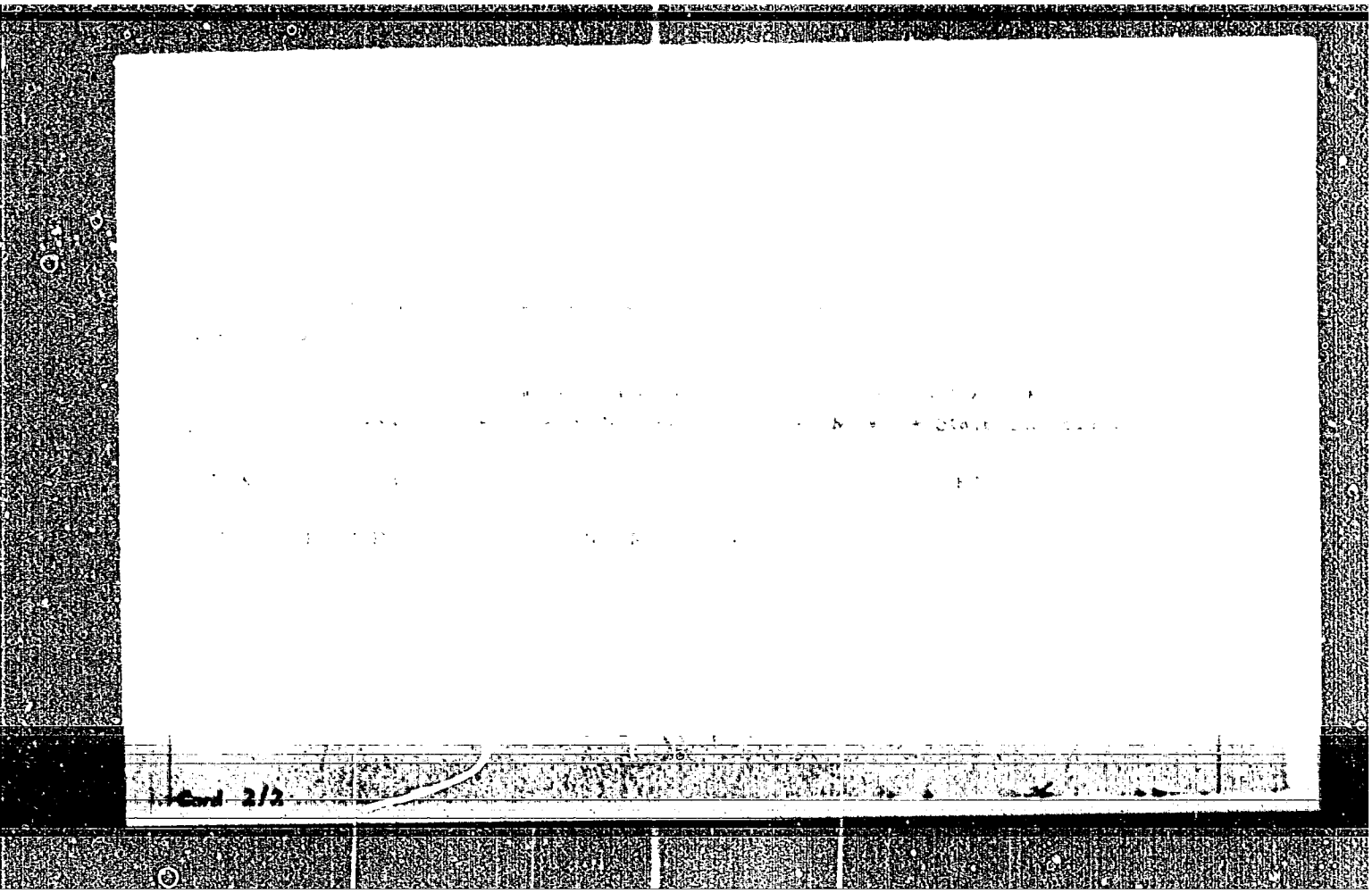
ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki MGU (Scientific-Research Institute of Nuclear Physics, Moscow State University)

SUBMITTED: 15Aug62 DATE ACQ: 28Aug63 ENCL: 00

SUB CODE: NS NO REF SOV: 003 OTHER: 003

Card 2/2

betatron to 160—180 microsec within the working energy range. The effect found



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

ACCESSION NR: AP4033640 S/0188/64/000/002/0085/0087

AUTHOR: Balamatov, N. N.; Ishkhanov, B. S.; Shevchenko, V. G.; Yur'yev, B. A.

TITLE: An apparatus for measurement of the cross sections and angular distributions of the products of photonuclear reactions

SOURCE: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 2, 1964, 85-87

TOPIC TAGS: physics, photonuclear reaction, betatron, bremsstrahlung, gamma radiation, gamma quantum

ABSTRACT: In order to compute the cross sections of photonuclear reactions with a sufficient degree of accuracy when working with bremsstrahlung gamma radiation of betatrons it is necessary that yield curves be measured with exceptionally high accuracy. Errors in experimental determinations are caused by the statistical error in determining the yields of nuclear reaction products, error in determination of the energy of electrons in the betatron, drift of the instrument determining the intensity of the flux of gamma quanta and the error associated with the instability of the recording instrument in time. Most of these errors have been eliminated or decreased by use of an apparatus already described in the literature

Card 1/3

ACCESSION NR: AP4033640

(O. V. Bogdankevich, Atomnaya energiya, 12, No. 3, 199, 1962). An apparatus of a similar type now has been constructed for simultaneous measurement of the yield of photoprotons at three angles. The descriptive text is accompanied by a block diagram of the apparatus; there are two synchronously operating units: a unit for regulating and stabilizing electron energy and a recording unit. The apparatus was checked by measurement of the yield of photoprotons from zirconium. The recording was for angles of 90^0, $90^{0'}$ and 150^0 relative to the beam of gamma quanta. The results are shown in Fig. 1 of the Enclosure. "The authors wish to thank O. V. Bogdankevich, I. M. Kapitonov, I. M. Piskarev and N. G. Vodyanov for valuable advice and assistance". Orig. art. has: 3 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki (Scientific Research Institute of Nuclear Physics)

SUBMITTED: 18Aug63 DATE ACQ: 30Apr64 ENCL: 01

SUB CODE: NP NO REF SOV: 004 OTHER: 002

Card 2/3

ACCESSION NR: AP4033640

ENCLOSURE: 01

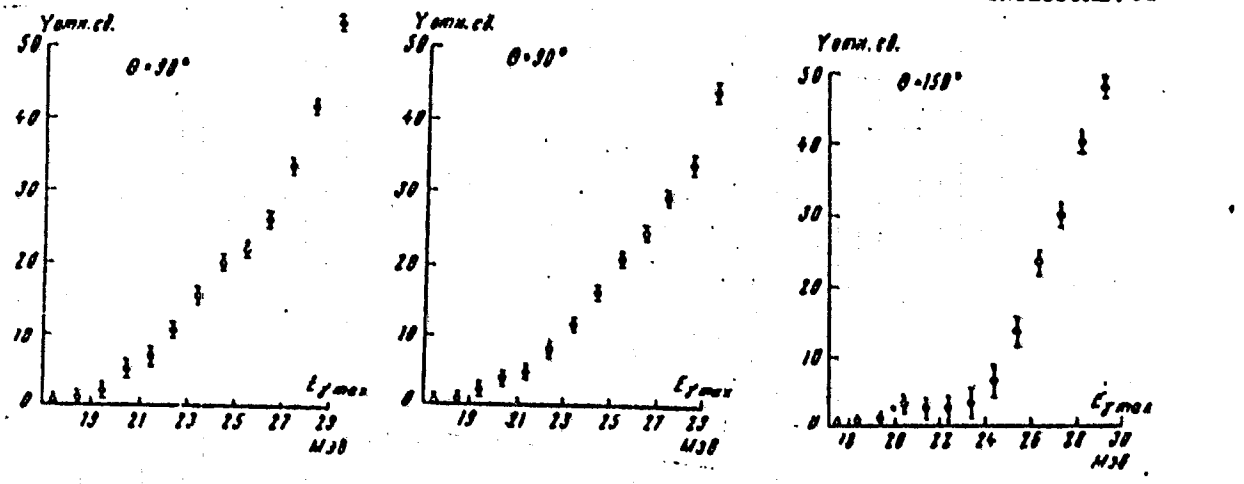


Fig. 1. Yield of photoprotons from the reaction, measured at angles 90^0, 90^0, and 150^0.

отн. ед. = relative units МэВ = Mev

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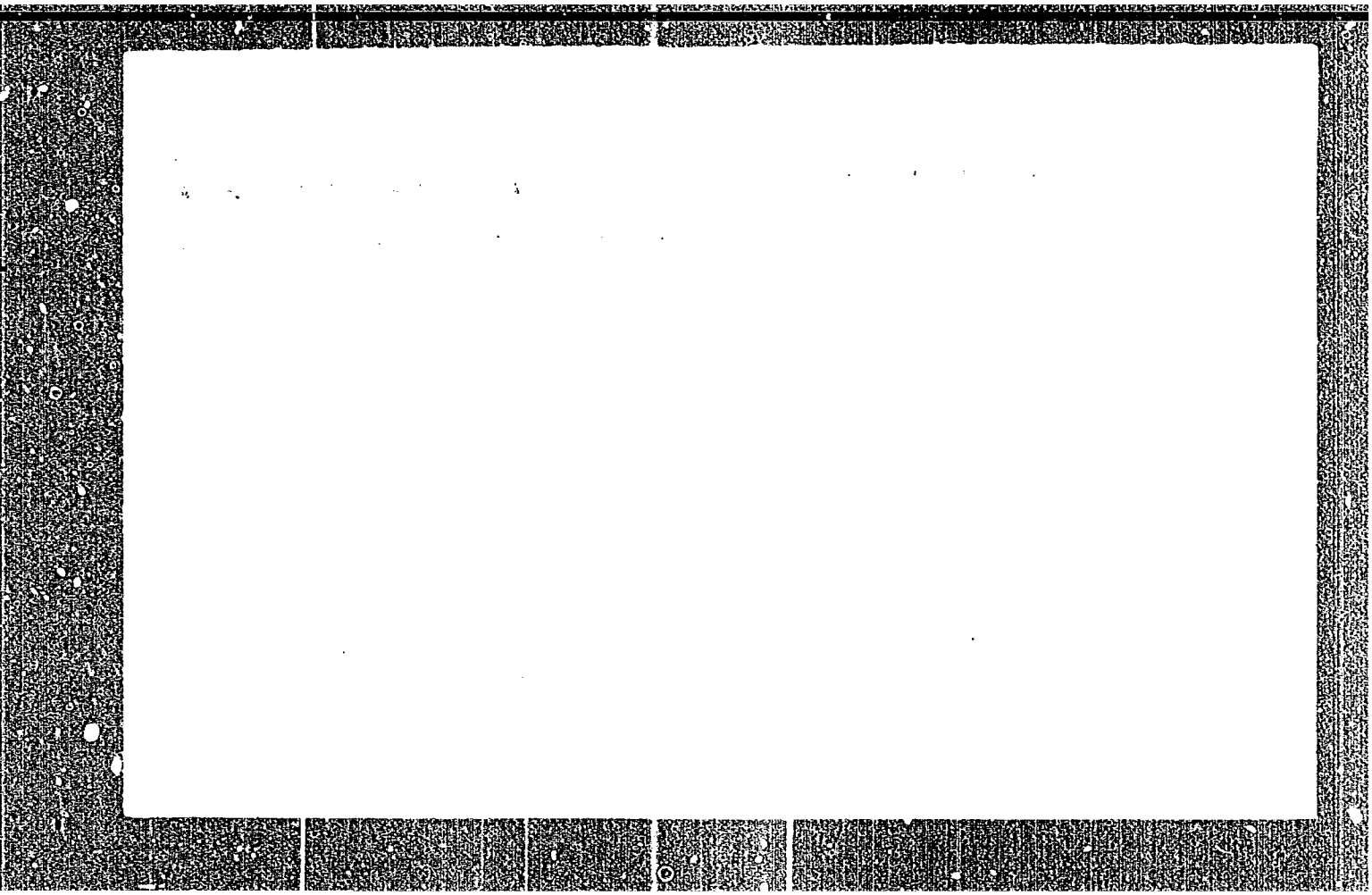

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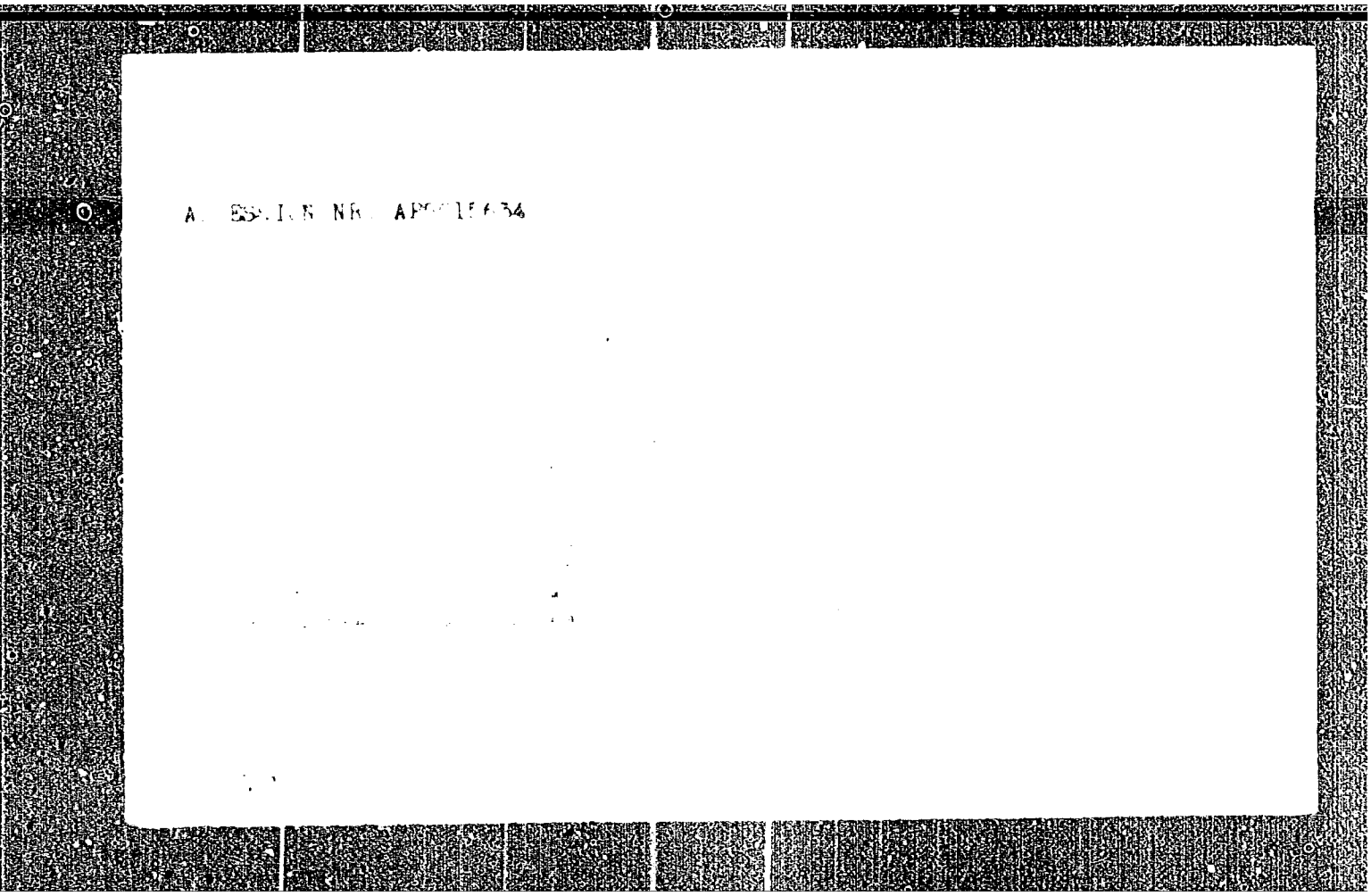
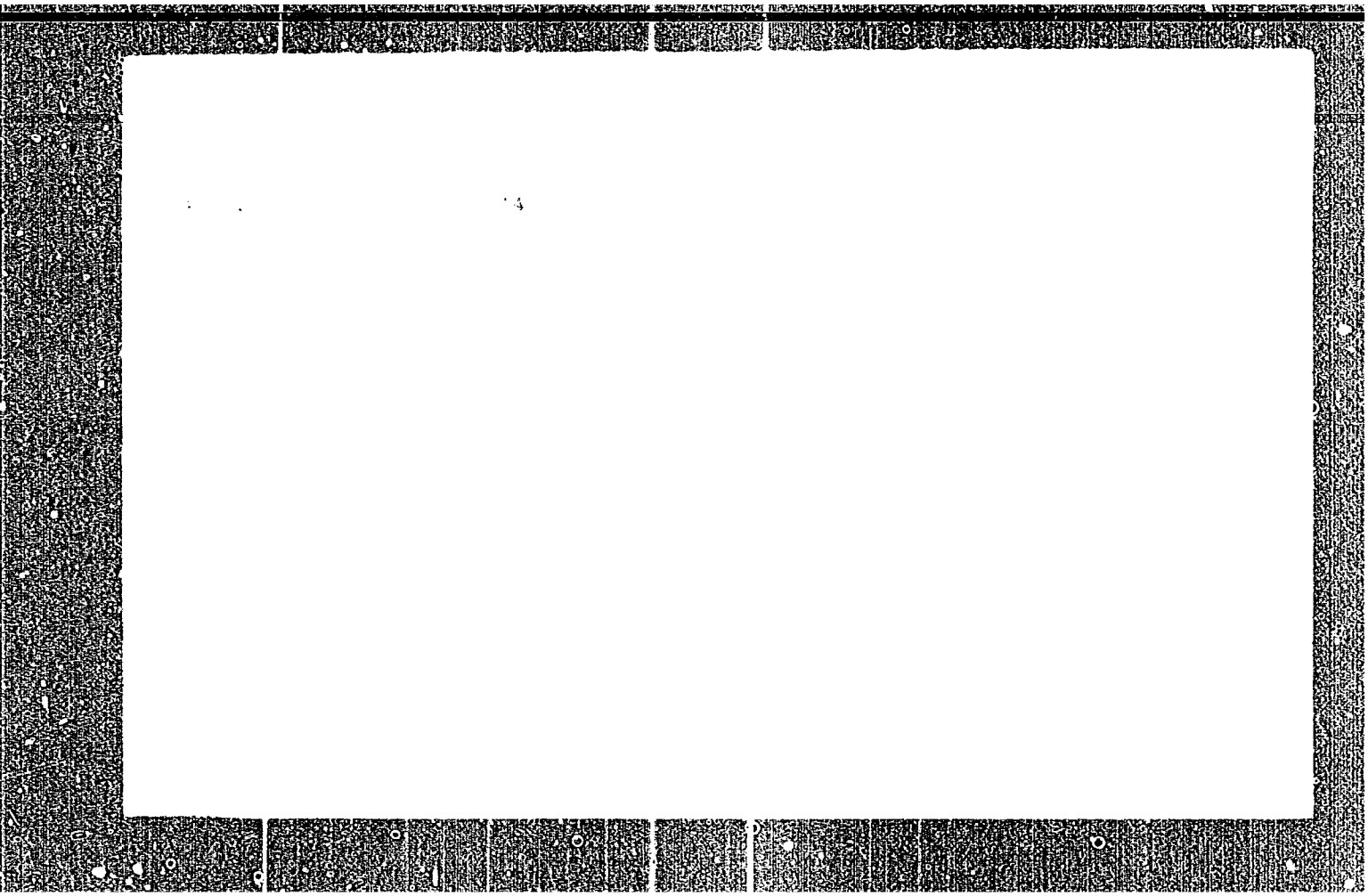




APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

Studies of the chloro-glycemic equilibrium in ulcerous disease. I. Nițulescu, Gh. Tudoranu, [illegible] Bălănuș, C. Pavelescu, and B. Brml [illegible]. *Filiala Iași, Studii cercetări științ.* 3 [illegible] The variations of the chloro-glycemic [illegible] 24 patients with ulcers in whom artificial [illegible] induced. In 23 cases the chloride content [illegible] with the increase of glucose in the blood. An inverse [illegible] found in diabetic persons. It was concluded that ulcerous disease involves the whole organism. B. Merdinger

SERGEYEV, A.A., red.; ANPILOGOV, I.M., red.; ASSONOV, V.A., red.; BABAYANTS, N.A., red.; BABOKIN, I.A., red.; BALAMUTOV, A.D., red.; BOGOROD-SKIY, M.N., red.; BOLOMENKO, D.N., red.; BUCHNEV, V.K., red.; VAKHMINTSEV, G.S., red.; VORONKOV, A.K., red.; GARKALENKO, K.I., red.; GORBATOV, P.Ye., red.; GOLOVLEV, V.Ya., red.; DOKUCHAYEV, M.M., red.; DUBNOV, L.V., red.; YEVTEYEV, A.D., red.; YEREMENKO, Ye.K., red.; ZENIN, N.I., red.; KRIVONOGOV, K.K., red.; KUPALOV-YAROPOLK, I.K., red.; MATSYUK, V.G., red.; NIKOLAYEV, S.I., red.; ONISHCHUK, K.N., red.; PETROV, K.P., red.; PILYUGIN, B.A., red.; PLATONOVA, A.A., red.; POLESIN, Ya.L., red.; POKROVSKIY, L.A., red.; POMETUN, D.Ye., red.; POLYUSHKIN, A.Kh., red.; REYKHER, V.P., red.; SEDOV, N.A., red.; SIDORENKO, I.T., red.; FIDKLEV, A.A., red.; CHAKHMAKHCHEV, A.G., red.; CHERNODUROV, M.Ya., red.; SHUMAKOV, A.A., red.; YARE-MENKO, N.Ye., red.; PARTSEVSKIY, V.N., red.izd-va; ATTOPOVICH, M.K., tekhn.red.

[Standard safety regulations for blasting operations] Edinye pravila bezopasnosti pri vzryvnykh rabotakh. Izd.2. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1958. 318 p. (MIRA 13:1)

1. Russia (1923- U.S.S.R.) Komitet po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i gornomu nadzoru.
(Mining engineering--Safety measures)

BALAMUTOV, A.D., insh.; RAKOV, P.P., insh.

New equipment and techniques for the petroleum industry during the seven-year plan. Bezop. truda v prom. 3 no.6:3-5 Je '59. (MIRA 12:10)

(Oil fields--Equipment and supplies)

BALAMUTOV, G.

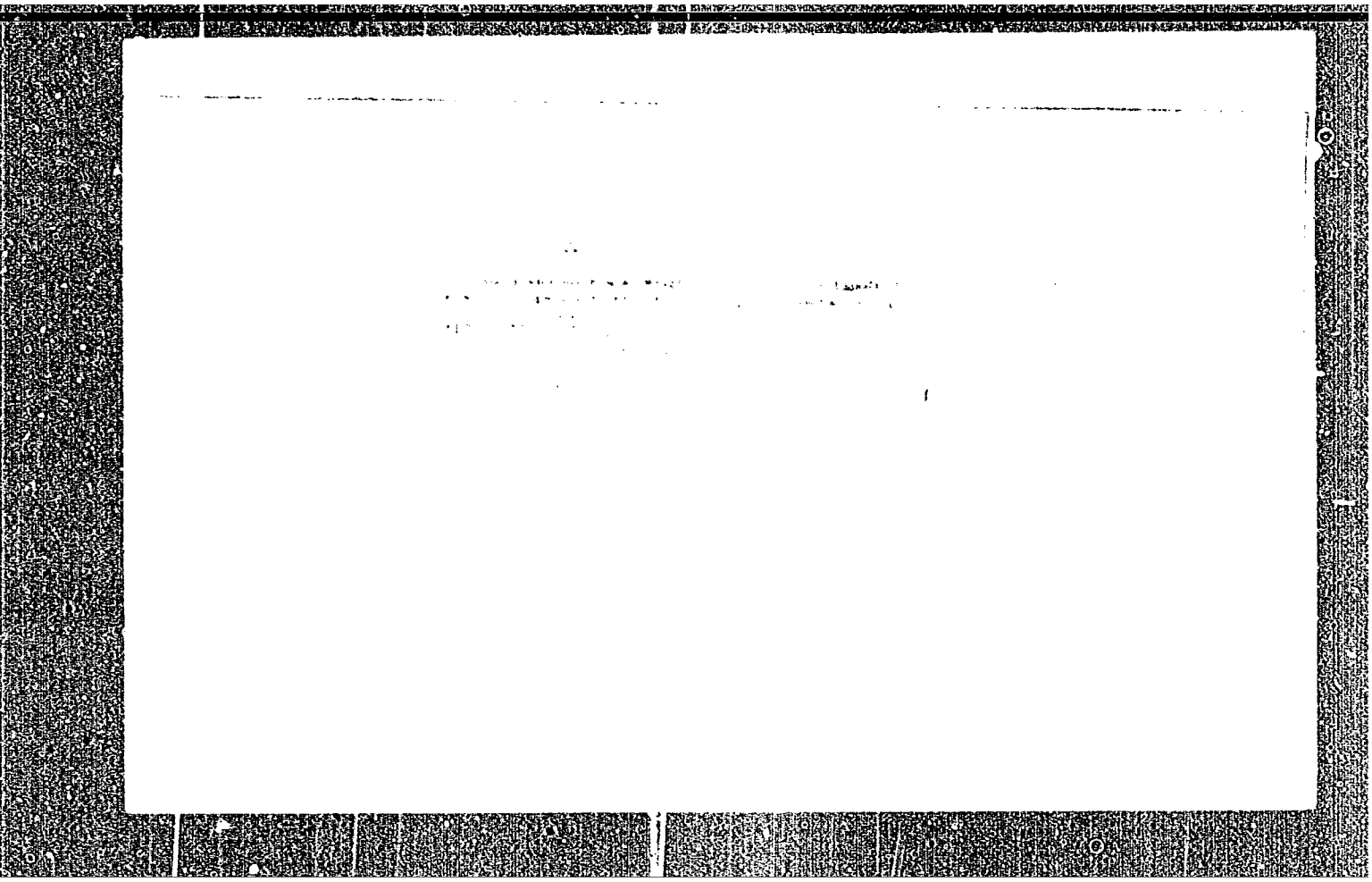
Training personnel for the financial system. Fin. SSSR 22 no.3: 21-27 Mr '61. (MIRA 14:7)

1. Chlen kollegii Ministerstva finansov SSSR.
(Finance--Study and teaching)

BALAMUTOVA, E. A.

BALAMUTOVA, E. A. : "Experimental determination of the density of vapors and the molecular weight of certain polyatomic liquids." Min Higher Education USSR. Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science.)

Knizhnaya letopis', No. 31, 1956. Moscow.



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

AUTHOR: Balamutova, E. A. SOV/32-24-1o-23/7o

TITLE: The Determination of Density and Molecular Weight of Vapors Over a Wide Range of Temperatures (Opredeleniye plotnosti i molekulyarnogo vesa parov v shirokom intervale temperatur)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 1o, pp 123o - 1231 (USSR)

ABSTRACT: For these investigations in temperature ranges up to 500° and at pressures of 50 mm Hg to 1,5 atmospheres a method of hydrostatic taring was worked out which employs a device with a quartz-spring-balance. By means of the test device and measurement of the density of the vapor the dependence of the pressure of the saturated vapor on the temperature can be investigated. The device is shown in a figure, which illustrates that the current control is performed by an autotransformer of the type LATR-1. The experiments showed that quartz spirals of wires of a diameter of 0,2-0,3 mm, a diameter of the turns of 1,8-2 cm, and a number of turns of 33-40 are the most suitable conditions.

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The Determination of Density and Molecular Weight of Vapors Over a Wide Range of Temperatures

SOV/32-24-10-23/70

Usually quartz balances were used for density determinations at temperatures of 100° (Refs 1-4). To judge the described method experiments were made with air, steam, and vapor of n-heptane, the densities of which are all known exactly. Determinations were also carried out with silicon , a carbon fluoride fluid, and multi-component fluids like gasoline and the kerosene T-1 fraction. There are 1 figure and 7 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

Card 2/2

S/076/60/034/008/007/014
B015/B054

AUTHORS: Shakhparonov, M. I., Balamutova, E. A., Lel'chuk, S. L., Mikheyev, Ye. P., Shutova, L. V., Grushkova, L. F. and Martynova, M. Ye. (Moscow)

TITLE: Investigation of Pressure and Density of the Vapor in Systems Containing Organosilicon Compounds. I. The System Benzene - Methyl-dichlorosilane - Methyl-phenyl Dichlorosilane

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 8, pp. 1734-1740

TEXT: The authors determined pressure and density of the vapor of a number of halogen alkyl silanes and -aryl silanes since these substances readily react with water vapor or metals, dissolve in lubricants, and easily polymerize. In the present paper, they report on the system benzene - methyl-dichlorosilane - methyl-phenyl dichlorosilane. The experimental arrangement (Fig. 1) described in Ref. 2 is based on the

Investigation of Pressure and Density of the Vapor in Systems Containing Organosilicon Compounds. I. The System Benzene - Methyl-dichlorosilane - Methyl-phenyl Dichlorosilane

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principle of hydrostatic weighing, and is thoroughly explained. The apparatus includes a quartz balance which is installed in a glass balloon in a thermostat. In another thermostat there is the evaporator connected with an Hg manometer. Balloon and evaporator are joined by a thermally insulated, heated pipe. A quartz ball is suspended from the quartz spiral of the balance; as the vapor of the substance investigated enters the balloon, the quartz ball loses in weight, and the vapor density can be determined from the decrease in length of the spiral. The method of operation, the calibration of the instrument, and an estimation of the errors of measurement are indicated. The latter are about 1% in the pressure-, and about ± 2.5% in the density determination. The molecular weight of the liquid vapors was calculated by the Mendeleyev-Clapeyron equation, and compared with data of publications (Table 1); pressure and density values of methyl-dichlorosilane and methyl-phenyl dichlorosilane, as well as their solutions, are given in Table 2. The results show that the vapors represent associate complexes. The Trouton

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Investigation of Pressure and Density of the Vapor in Systems Containing Organosilicon Compounds. I. The System Benzene - Methyl-dichlorosilane - Methyl-phenyl Dichlorosilane

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constant for the vapors was calculated, and given in Tables 2 and 3. It is found that at 40° - 100°C the vapor composition of the solutions benzene - methyl-dichlorosilane - methyl-phenyl dichlorosilane is practically equal to the vapor of the corresponding binary mixture benzene - methyl-dichlorosilane. The heats of vaporization and the entropies were calculated. There are 5 figures, 3 tables, and 4 references: 3 Soviet and 1 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: October 30, 1958

Card 3/3

84245

11.2219
5.3700 also 2209

S/076/60/034/009/003/022
B015/B056

AUTHORS: Balamutova, E. A., Shukhparonov, M. I., Lel'chuk, S. L., Lomov, A. L., Mal'kova, G. N., Martynova, M. Ye., and Glushkova, L. F.

TITLE: Investigation of the Pressure and Density of Vapor in Systems Containing Organosilicon Compounds. II. The Systems: Methyldichlorosilane - Methyltrichlorosilane - Methylphenyldichlorosilane, and Methylphenyldichlorosilane - Methylchlorophenyldichlorosilane - Methyldichlorophenyldichlorosilane

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 1916-1919

TEXT: The working method and the measuring technique of the investigations mentioned in the title have already been described in a previous paper (Ref. 1). The pressure and density of the saturated vapor phase over the systems mentioned in the title were measured in a broad concentration and temperature range. The constants of the Antoine equations,

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Investigation of the Pressure and Density of Vapor in Systems Containing Organosilicon Compounds. II. The Systems: Methyldichlorosilane - Methyltrichlorosilane - Methylphenyldichlorosilane, and Methylphenyldichlorosilane - Methylchlorophenyldichlorosilane - Methyldichlorophenyldichlorosilane

S/076/60/034/009/003/022
B015/B056

as well as the values of the evaporation heats and evaporation entropies for the individual components (Table 1), and the two- and three-component solutions at normal boiling temperature were calculated (Table 2). The values obtained show that the vapors of methyltrichlorosilane and methylchlorophenyldichlorosilane contain associated molecules, whereas the vapors of methyldichlorophenyldichlorosilane do not associate. At 100°C and about 900 torr, the vapor (in equilibrium) over a solution of 50 mole% CH_3SiHCl_2 + 50 mole% CH_3SiCl_3 consists nearly entirely of methyldichlorosilane. At temperatures from 40° to 100°C, the vapor composition of the three-component solutions CH_3SiHCl_2 - CH_3SiCl_3 - $CH_3C_6H_5SiCl_2$ is slightly different from that of the binary system CH_3SiHCl_2 - CH_3SiCl_3 at the same molar ratio of the latter components. Calculations carried

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Investigation of the Pressure and Density of Vapor in Systems Containing Organosilicon Compounds. II. The Systems: Methyldichlorosilane - Methyltrichlorosilane - Methylphenyldichlorosilane, and Methylphenyldichlorosilane - Methylchlorophenyldichlorosilane - Methyldichlorophenyldichlorosilane

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out on the basis of the Antoine equation show that above 100°C no change in the $CH_3C_6H_5SiCl_2$ content in the vapor phase takes place, i.e., the content remains low with the exception of solutions in which the molar ratio of $CH_3C_6H_5SiCl_2$ is near unity. There are 2 figures, 2 tables, and 2 references: 1 Soviet and 1 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: October 30, 1958

Card 3/3

S/076/60/034/010/001/022
B015/B064

AUTHORS: Balamutova, E. A., Shakhparonov, M. I., Lel'chuk, S. L., Lomov, A. L., Mikheyev, Ye. P., Martynova, M. Ye., and Glushkova, L. F.

TITLE: Investigation of the Vapor Pressure and Density in Systems Containing Organo-silicon Compounds. III. The Systems Dimethyldichlorosilane - Methylchloromethyldichlorosilane and Trimethylchlorosilane - Dimethylchloromethylchlorosilane - Dimethyl Dichloromethylchlorosilane

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 10, pp. 2156-2159

TEXT: Pressure and density of the saturated vapor of the systems $(CH_3)_2SiCl_2$ - $CH_3CH_2ClSiCl_2$ - $CH_3CHCl_2SiCl_2$ and $(CH_3)_3SiCl$ - $(CH_3)_2CH_2ClSiCl$ - $(CH_3)_2CHCl_2SiCl$ were investigated in the wide range

Investigation of the Vapor Pressure and Density in Systems Containing Organo - - silicon Compounds. III. The Systems Dimethyldichlorosilane - Methylchloromethyldichlorosilane and Trimethylchlorosilane - Dimethylchloromethylchlorosilane - Dimethyl Dichloromethylchlorosilane

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B015/B064

of concentration and for temperatures of from 0° to 150°C. The same method of measurement was used as in a previous paper (Ref. 1), and pressure and density of the individual components were determined. The curves obtained on the temperature dependence of pressure and density show that pressure and density of the systems investigated rise exponentially with temperature. Table 1 gives the values of the refractive indices, the density, the boiling points of the components at 760 mm Hg, the molecular weight of vapor at this pressure, the values of the constants of the Antoine equation as well as the values of the evaporation heat and evaporation entropy at the normal boiling point.

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B015/B064

Table 1

1 Вещество	n_D^{20}	d_4^{20}	2 Т. кип. при 760 мм	3 M пара при 760 мм	4 M теор	A	B	C	ΔH	ΔS
$(CH_3)_2SiCl_2$	1,4052	1,0715	70,1	129,0	129,0	9,572	3110	345	7450	21,7
$CH_2CH_2ClSiCl_3$	1,4494	1,2832	119,5	171,0	163,6	6,930	1265	194	9150	22,6
$CH_2CHCl_2SiCl_3$	1,4690	1,4107	149,0	198,2	198,0	6,306	123,0	203	7940	18,8
$(CH_3)_3SiCl$	1,3888	0,8581	57,7	112,3	108,65	7,0096	1184	229	7560	22,8
$(CH_3)_2CH_2ClSiCl$	1,4372	1,0844	114,9	152	143,1	9,035	2635	314	8460	21,8

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Table 2

Таблица 2

Solution Раствор	n_D^{20}	d_4^{20}	A	B	C	ΔH	ΔS	T. кип. °C
50% $(CH_3)_2SiCl_2$ + 50% $CH_3CH_2ClSiCl_2$	1,4309	1,1842	5,826	732	159	6960	19,2	89,4
50% $(CH_3)_2SiCl_2$ + 50% $CH_3CHCl_2SiCl_2$	1,4450	1,252	6,535	1130	216	7250	19,8	93,5
50% $CH_3CH_2ClSiCl_2$ + + 50% $CH_3CHCl_2SiCl_2$	1,4619	1,344	7,054	1435	124	10800	26,8	130,9
33% $(CH_3)_2SiCl_2$ + 33% $CH_3CH_2ClSiCl_2$ + + 34% $CH_3CHCl_2SiCl_2$	1,4469	1,2079	—	—	—	9500	25,2	103,0
50% $(CH_3)_2SiCl$ + 50% $(CH_3)_2$ × ×$CH_3ClSiCl$	4,4158	0,6197	14,763	10350	810	7540	21,4	78,8
50% $(CH_3)_2SiCl$ + 50% $(CH_3)_2$ × × $CHCl_2SiCl$	1,4304	1,05121	6,923	1426	264	830	18,9	88,5
50% $(CH_3)_2CH_2ClSiCl$ + 50% $(CH_3)_2$ × × $CHCl_2SiCl$	—	1,1583	—	—	—	5480	13,8	124,0
33% $CHCl_2(CH_3)_2SiCl$ + 34% $(CH_3)_2$ × × $SiCl$ + 33% $CH_3CH_2ClSiCl$	1,4321	1,0070	—	—	—	7600	19,9	108,0

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Table 2 (continued) Таблица 2 (продолжение)

Solution Раствор	M	$x'_{(CH_3)_2SiCl_2}$	$x'_{CH_3CH_2ClSiCl_2}$	$x'_{(CH_3)_3SiCl}$	$x'_{(CH_3)_2CH_2ClSiCl}$
50% $(CH_3)_2SiCl_2$+50% $CH_3CH_2ClSiCl_2$	142,3	0,68	0,32	—	—
50% $(CH_3)_2SiCl_2$+50% $CH_3CHCl_2SiCl_2$	139,7	0,845	—	—	—
50% $CH_3CH_2ClSiCl_2$+ +50% $CH_3CHCl_2SiCl_2$	180,0	—	0,605	—	—
33% $(CH_3)_2SiCl_2$+33% $CH_3CH_2ClSiCl_2$+ +34% $CH_3CHCl_2SiCl_2$	142,5	0,70	0,18	—	—
50% $(CH_3)_3SiCl$+50% $(CH_3)_2$× ×$CH_2ClSiCl$	113,0	—	—	0,90	0,10
50% $(CH_3)_3SiCl$+50% $(CH_3)_2$× ×$CHCl_2SiCl$	114,0	—	—	—	—
50% $(CH_3)_2CH_2ClSiCl$ + 50% $(CH_3)_2$× ×$CHCl_2SiCl$	147,5	—	—	—	0,860
33% $CHCl_2(CH_3)_2SiCl$ + 34% $(CH_3)_3$× ×SiCl+33 $CH_3CH_2ClSiCl$	135,6	—	—	≈0,855	≈0,132

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B015/B064

Legend to Tables 1, 2: In Table 1, 1 denotes the substance, 2 = boiling point at 760 mm Hg, 3= molecular weight M at 760 mm Hg, 3 = M theoretical. 1 = boiling point in °C in Table 2. There are 4 figures, 2 tables and 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: October 30, 1959

Card 6/6

27665

S/535/61/000/132/011/012
E030/E484

11.0100

AUTHOR: Balamutova, E.A., Candidate of Technical Sciences

TITLE: Experimental determination of the vapour density and molecular weight of gasoline Б-70 (B-70) and kerosene T-1

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no.132. 1961. 123-143. Teplofizicheskiye svoystva nekotorykh aviatsionnykh topliv v zhidkom i gazoobraznom sostoyanii.

TEXT: An orthodox apparatus of considerable accuracy has been developed which enables vapour densities to be determined at any temperature below the melting point of quartz and hence for molecular weights to be calculated. The molecular weight data are accurate for most substances but the method is particularly useful when the normal cryoscopic or ebullioscopic methods fail or are inaccurate, due to lack of suitable solvent or corrosivity of the liquid. The apparatus consists of a hollow quartz ball, weight 0.5 to 0.9 g and volume 35 to 50 cm^3, suspended from a quartz spiral of 33 - 40 turns of 1.8 - 2.0 turn diameter fibre, of diameter 0.2 to 0.3 mm. The extension of the ball is measured

Card 1/3

Experimental determination ...

over the required temperature range with the ball in vacuo, and then with the ball in an atmosphere of the required vapour. Hooke's law is strictly obeyed. The system will measure 0.01 mg changes in load and, using Archimedes' principle, densities can be obtained accurate to one part in 10^6. Errors due to adsorption of gas on the quartz cause at most 0.001 mg loading and can be neglected. The apparatus was tested with n-heptane and gave an accuracy of 0.16% agreement with best previous data. Data were then obtained for the three cuts of B-70 and T-1. Molecular weights M were obtained from the formula:

$$M = \frac{\gamma_2 R T_2}{p}$$

where γ_2 was the vapour density. The values so obtained were plotted for all cuts against M as determined by an accurate ebullioscopic method and gave a scatter of only 0.5%, while cryoscopically obtained values deviated by 5%. M.I.Shakhparonov and I.V.Rozhkov are mentioned in the article for their contributions in this field. There are 10 figures, 7 tables and

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27865

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Experimental determination ... E030/E484

17 references: 9 Soviet and 8 non-Soviet. The four most recent references to English language publications read as follows:
Ref.11: Hartley A.R., Henry T.H. and Whytlow-Gray, R.G. Trans Faraday Soc., v.35, 1939, p.1452-1461;
Ref.12. Marx J.W. and Sivertsen J.M., J. of the Appl. Phys., v.24, No.1, 1953, p.81-87;
Ref.13: Mills I.W., Hirschler A.E. and Kurtz S.S., Ind.and Eng. Chem., 38, 1946, p.442-450.
Ref.17: Wagner G.H., Grant C., Bailey G.C. and Eversole W.C., Ind. and Eng. Chem. Annal. Ed., v.14, 1941, p.131.

Card 3/3

BALAKUTOVA, M.P. (Leningrad)

Changes in the cerebrospinal fluid in closed cerebrocranial injuries. Vop.neirokhir. 23 no.4:26-28 Jl-Ag '59. (MIRA 12:10)

1. Leningradskiy nauchno-issledovatel'skiy neyrokhirurgicheskiy institut imeni prof.A.L.Polenova.

(BRAIN, wds. & inj.
cerebrocranial closed inj. CSF dynamics (Rus))
(CEREBROSPINAL FLUID, in var. dis.
cerebrocranial closed inj. (Rus))