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BASIN, Ya.B. REEL #59

to

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Ya.B., podpolkovnik meditsinskoy sluzhby

Metal nails for osteosynthesis of hollow bone fractures. Voen.med. zhur. no.12:49-50 D '56. (MIRA 10:3)
(FRACTURES, surg.
osteosynthesis of hollow bone fract.)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

KAIPOV, R.L.; ZIV, D.M.; LEYPUNSKAYA, D.I.; SAVOSIN, S.I.; FEDOROV, V.V.; FRADKIN, G.M.; SHIMELEVICH, Yu.S.; BASIN, Ya.N.; KUKHARENKO, N.K.; SMESTAKOV, B.I.

Use of Ac - Be neutron sources in industrial geophysics. Atom energ. 16 no.3:269-270 Mr '64. (MIRA 17:3)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

KUKHARENKO, N.K.; BASIN, Ya.N.

Determining the porosity of strata from neutron-gamma well logs. Trudy VNII no.29:195-206 '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki.
(Oil well logging, Radiation)

All-Union Sci. Res. Inst. of Nuclear Geophysics & Geochemistry, (VNIIAGG)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BERMAN, L.B.; BASIN, Ya.N.; NEYMAN, V.S.

Using neutron gamma logging in creating and operating underground gas reservoirs. Neftegaz. geol. i geofiz. no.7:50-53 '64.

Estimating the gas saturation factor from the data of neutron-gamma logging. Ibid.:53-57 (MIRA 17:8)

1. Spetsgeofizika.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Ya.N.; BERMAN, L.B.; NEYMAN, V.S.

Possible ways to identify porous and fractured limestones using commercial geophysical methods. Prikl. geofiz. no.39:153-166 '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Ya. N.

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PHASE I BOOK EXPLOITATION SOV/5592

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniy v narodnom khozyaystve SSSR. Riga, 1960.

Radioaktivnyye izotopy i yadernyye izlucheniya v narodnom khozyaystve SSSR; trudy Vsesoyuznogo soveshchaniya 12 - 16 aprelya 1960 g. g. Riga, v 4 tomakh. t. 4: Poiski, razvedka i razrabotka poleznykh iskopayemykh (Radioactive Isotopes and Nuclear Radiation in the National Economy of the USSR; Transactions on the Symposium Held in Riga, April 12 - 16, 1960, in 4 volumes. v. 4: Prospecting, Surveying, and Mining of Mineral Deposits) Moscow, Gostoptekhizdat, 1961. 284 p. 3,640 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR. Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii

Eds. (Title page): N. A. Petrov, L. I. Petrenko, and P. S. Savitskiy; ed. of this volume: M. A. Speranskiy; Scientific ed.: M. A. Speranskiy; Executive Eds.: N. N. Kuz'mina and A. G. Ionel';

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Radioactive Isotopes and Nuclear (Cont.) SOV/5592

Tech. Ed.: A. S. Polosina.

PURPOSE : The book is intended for engineers and technicians dealing with the problems involved in the application of radioactive isotopes and nuclear radiation.

COVERAGE: This collection of 39 articles is Vol. 4 of the Transactions of the All-Union Conference of the Introduction of Radioactive Isotopes and Nuclear Reactions in the National Economy of the USSR. The Conference was called by the Gosudarstvennyy nauchno-tekhnicheskiy komitet Sovet Ministrov SSSR (State Scientific-Technical Committee of the Council of Ministers of the USSR), Academy of Sciences USSR, Gosplan SSSR (State Planning Committee of the Council of Ministers of the USSR), Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers of the USSR for Automation and Machine Building), and the Council of Ministers of the Latvian SSR. The reports summarized in this publication deal with the advantages, prospects, and

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development of radioactive methods used in prospecting, surveying, and mining of ores. Individual reports present the results of the latest scientific research on the development and improvement of the theory, methodology, and technology of radiometric investigations. Application of radioactive methods in the field of engineering geology, hydrology, and the control of ore enrichment processes is analyzed. No personalities are mentioned. There are no references.

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Flerov, G. N., B. G. Yerozolimskiy, D. F. Bespalov, L. R. Voytsik, D. I. Leypunskaya, A. T. Lopovok, and Yu. S. Shimelevich. New Small-Size Sources of Neutrons 62

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Korzhev, A. A. Investigation of Boreholes by Methods Based on the Use of Radioactive Isotopes 80

Guberman, Sh. A., V. V. Larionov, and A. I. Kholin. Possibilities of Evaluating the Porosity of Rocks on the Basis of Data Obtained by Radiometry of Boreholes 86

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

S/081/61/000/022/047/076
B101/B147

AUTHORS: Basin, Ya. N., Makarov, R. A.

TITLE: Device for measuring the weight by volume of concrete products

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 312, abstract 22K324 (Sb. "Radioaktivn. izotopy i yadern. izlucheniya v nar. kh-ve SSSR, v. 2, M., Gostoptekhizdat, 1961, 41 - 42)

TEXT: The construction of the ИОВ-2(IOV-2) apparatus is described. This apparatus is used for determining the weight by volume of structural elements consisting of homogeneous material both during their production and assembly and after completed construction. The apparatus operates on the principle of measuring scattered gamma radiation of a weakly active source (up to 10 mg-equ Co^{60}). [Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

KOMAROV, S.G.; PETROSYAN, L.G.; PER'KOV, N.A.; FEL'DMAN, I.I.; DUNCHENKO, I.A.; KORZHEV, A.A.; SOKHRANOV, N.N.; CHUKIN, V.T.; BASIN, Ya.N.; KARGOV, F.A.; MUKHER, A.A.; FEDOROVA, L.N., red.; BYKOVA, V.V., tekhn. red.

[Technical instructions on conducting geophysical explorations in boreholes] Tekhnicheskaia instruktsiia po provedeniiu geofizicheskikh issledovanii v skvazhinakh. Moskva, Gosgeoltekhizdat, 1963. 297 p. (MIRA 17:2)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy geologicheskiy komitet. No.2. Kollektiv rabotnikov sektora promyslovoy geofiziki Vsesoyuznogo nauchno-issledovatel'skogo instituta geofizicheskikh metodov razvedki (for Komarov, Petrosyan, Per'kov, Fel'dman, Dunchenko, Korzhev, Sokhranov, Chukin, Basin). 3. Sotrudniki Otdela geofiziki Gosudarstvennogo geologicheskogo komiteta SSSR (for Kargov). 4. Glavnoye upravleniye geologii i okhrany nedr pri Sovete Ministrov RSFSR (for Mukher).

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KUKHARENKO, N.K.; BASIN, Ya.N.; BAL'VAS, Yu.P.; TYUKAYEV, Yu.V.

New type of models of porous strata for neutron logging. Atom. energ. 15 no.4:338-339 O '63. (MIRA 16:10)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

KUKHARENKO, N.K.; BASIN, Ya.N.

Characteristics of TRK-type instruments for radioactive logging of wells. Razved. i prom. geofiz. no.47:92-96 '63. (MIRA 16:8)
(Oil well logging, Radiation--Equipment and supplies)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

KUKHARENKO, N.K.; BASIN, Ya.N.

Study of RK-60L instruments for radioactive logging. Razved. i prom. geofiz. no.47:106-112 '63. (MIRA 16:8)
(Logging (Geology)--Equipment and supplies)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Ya.N.

Introducing corrections for the nonlinearity of apparatus to the date of radioactive logging. Geofiz.razv. no.14:134-139 '63.

Determining the dose of irradiation from radioactive sources in neutron and gamma-gamma logging. Ibid.:139-143

(MIRA 17:3)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Ya.N.; MAKAROV, R.A.; SELEZNEV, N.V.

Selecting optimum parameters of radioisotope devices used in thermophysical investigations. Inzh.-fiz. zhur. 8 no.2:257-262 F '65. (MIRA 18:5)

1. Institut stroitel'noy fiziki, Moskva.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

SOV/81-59-12-43034

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 12, p 308 (USSR)

AUTHORS: Levin, D.I., Basin, Ye.V.

TITLE: A Sonic Method for Determining the Elasticity Module of Ceramic Materials in the Plastic State

PERIODICAL: Tr. Gos. n.-i. keram. in-ta, 1958, Nr 1, pp 92-97

ABSTRACT: A dynamic method has been described for determining the elasticity module, based on the measurement of the frequencies of the natural oscillations of the tested sample. The determination of the resonance frequency of the sample is carried out on an installation consisting of a "ZG-10" generator of audio frequency oscillations, an exciter of mechanical oscillations; a receiver of mechanical oscillations, an "EO-7" oscillograph, and a test panel, on which the exciter, the receiver and the supports of the sample are mounted. A diagram of the installation, the compositions of the porcelain masses and the curves of the dependence of the elasticity module on the humidity are given.

Card 1/1

G. Gerashchenko

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

KEVIN, D.I.; BASIN, Ye.V.

Measuring the degree of whiteness [with summary in English].
Insh.-fiz.zhur. 1 no.8:108-112 Ag '58. (MIRA 11:8)

1.Gosudarstvennyy keramicheskiy institut, Leningrad.
(Colorimetry)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Ye.V.; LEVIN, D.I.

Investigating the relation of the elasticity modulus of porcelain bodies to temperature. Trudy GIKI no.1:68-84 '60. (MIRA 16:1)

(Ceramics) (Elasticity)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Ye.V.; LEVIN, D.I.

Effect of quartz on the dependence of the modulus of elasticity of ceramic materials on the temperature. Zhur. prikl. khim. 34 no.5:1157-1158 My '61. (MIRA 16:8)

(Ceramic materials)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASIN, Yu.B., inzh.

Tractor-mounted "Original-Saxonia" planter. Trakt.i sel'khozmash. 31 no.2:46-47 F '61. (MIRA 14:7)
(Germany, East—Planters (Agricultural machinery))

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29603

S/120/61/000/004/012/034
E192/E382

9.6000 (1089,1159)

AUTHORS: Yakovlev, K.A., Pankrushina, D.K. and Basin, Yu.G.

TITLE: A pulse-power measuring instrument

PERIODICAL: Pribory i tekhnika eksperimenta, no. 4, 1961, pp. 89 - 91

TEXT: A block diagram of the instrument is shown in Fig. 1. The signals from pick-ups 1 and 2, which are proportional to the current and voltage amplitude (in the right phase) are applied to the voltage dividers 3 and 4. The latter are used for attenuating the signals to the required level necessary for the operation of the converter 5. When the input signals are applied to the converter, a constant amplitude pulse is obtained at its output, the pulse being proportional to the instantaneous active power across the measured load. The peak value of the pulse is recorded by the memory device 6 and is measured by the DC vacuum tube voltmeter 7. The correcting network 8 is employed for the correction of the measurement error of the converter. A calibration generator 9 is used for checking the instrument

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29603
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A pulse-power measuring instrument E192/E382

during its operation. The electrical circuit of the pick-ups is such as to give a satisfactory amplitude and phase response over the frequency range from 0.8 to 8 Mc/s. The current and voltage ranges for the pick-ups are 50 - 2 100 A and 1 - 15 kV, respectively. The feeders for the pick-ups are in the form of screened cables, type РК-50 (RK-50), 8 m long. The current pick-up (Fig. 2) is in the form of a toroidal coil situated in an electromagnetic screen. The mean diameter of the coil is 150 mm and the cross-section of its winding is 6 cm^2, the number of turns being 70. The coil resistance is R_1 = 20 ohm and the natural resonance frequency of the coil is 15 Mc/s. The voltage pick-up (Fig. 3) is mounted on the toroidal screen of the current pick-up. Its transfer coefficient is 0.01. The quantity $\omega_H C_2 \rho = 3$, which eliminates the frequency-phase errors of the pick-ups. The converter of the instrument is based on a pentode type ГК-71 (GK-71) and the high-frequency pulses from the dividers are applied to the

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S/120/61/000/004/012/034

A pulse-power measuring instrument E192/E382

first and the third grids of this tube. The biasing voltage and the signal amplitudes are chosen so that the operating point of the pentode does not emerge from the linear region of its static characteristics $i_a(u_{g1})$ and $i_a(u_{g3})$. The magnitude of the DC component at the anode of the converter is therefore proportional to the active power $I_H U_H \cos \varphi$ at the load; the increment of the anode voltage level is therefore used as the useful signal. All the high-frequency components of the anode voltage are eliminated by a low-frequency filter having a cut-off frequency of 400 kc/s. During the operation of the converter, a negative video pulse is obtained at the output of its anode filter. The polarity of the pulse is changed by a phase inverter and this is applied to the cathode followers which drive three storage diodes. The parameters of the storage diodes are chosen in such a way that the charge on the capacitance of the last storage cell, which corresponds to the peak value of the pulse, remains constant for about 2-3 sec. The voltage across this storage capacitance is measured by the

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

29503

S/120/61/000/004/012/034
E192/E382

A pulse-power measuring instrument

valve voltmeter. The calibration generator produces single, amplitude-calibrated video pulses of both polarities; the negative pulse is used to test the storage circuit while the positive pulse is employed to check the converter. The instrument is supplied from the mains via a ferroresonance stabiliser. For the mains changes of ± 10 - 15% the change in the instrument reading does not exceed 1%. The instrument does not require recalibration when any of its tubes are replaced since its reading is not changed thereby by more than 2 - 3%. The authors thank N.G. Kovalenko, V.N. Goncharov and V.P. Bezruka for taking part in designing the preliminary models of the instrument. There are 4 figures.

SUBMITTED: November 2, 1960

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

L 11377-63 BDS

S/120/63/000/002/016/041 45

AUTHOR: Yakovlev, K. A., Basin, Yu. G., Kovalenko, N. G., and Panova, T. I.

TITLE: Two-channel oscillator

PERIODICAL: Pribory i tekhnika eksperimenta, March-April 1963, v. 8, no. 2, 69-72

TEXT: The article describes an oscillator for radiofrequency spectroscopy by means of the method of magnetic resonance in molecular beams; the oscillator has two separate oscillating high-frequency fields. The oscillating magnetic fields appear between parallel sections of two current-carrying tuned circuits; the oscillator generates a sinusiodal current with effective values between 5 and 20-25 amp. The minimum frequency deviation over the variation range 0.2-10 kc/min is ± 50 kc. The phase shift of currents in the tuned circuits is set between 0 and 360°; the phase can be shifted by 180° with a frequency of 220cps. The frequency stability of the oscillator is at least $0.8 \cdot 10^{-4}$

ASSOCIATION: Physico-technical Institute

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

PRESNYAKOV, A.A.; CHERVYAKOVA, V.V.; NOVIKOV, A.V.; BASINA, A.N.

Possibility of hot rolling LS63-1 brass. Tsvet. met. 35 no.1: 78-80 Ja '62. (MIRA 16:7)

(Rolling (Metalwork)) (Brass)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

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L 6790-65 EWT(d)/EEC(k)-2/EEC-4 Pg-4/Pk-4/Pl-4/Po-4/Pq-4 AFWL/SSD/RAEM(t)

ACCESSION NR: AP4044678 S/0120/64/000/004/0111/0116

73
70

AUTHOR: Yakovlev, K. A.; Basin, Yu. G.; Pankrushina, D. K.; Kovalenko, N. G.; Bezruk, V. P.

TITLE: Universal through-power meter (wattmeter)

SOURCE: Pribory* i tekhnika eksperimenta, no. 4, 1964, 111-116

TOPIC TAGS: wattmeter, power meter, RF power meter, electronic power meter

ABSTRACT: Intended for high-speed power measurements, such as those employed in r-f field-plasma experimentation, the instrument is based on a multigrid converter tube which yields the IU cosφ function. To reduce the error due to nonlinearity of the working parts of the tube anode-grid characteristics, the phase of one of the r-f grid voltages is periodically (with a constant frequency 50 or 200 kc) shifted by 180°. A functional block diagram and simplified

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[illegible] has been developed in two versions: for 0.2–2 Mc range and for 1–10 Mc range. Rated peak currents are 50–1,000 amp; peak voltages, 2–20 kv. Frequency spectrum of the measurand power: 0–15 kc in the first version and 0–60 kc in the second. After excluding a "frequency error" by using a correction table, the over-all error remains within 10%. "The authors wish to thank V. N. Goncharova for her extensive work in building an experimental lot of the instruments, and V. G. Petriashvili for his/her help in preparing the technical documentation." Orig. art. has: 4 figures and 4 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut GKAE SSSR (Physico-Technical Institute, GKAE SSSR)

SUBMITTED: 28Aug63

SUB CODE: EC NO REF SOV: 004 ENCL: 00 OTHER: 000

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

AUTHORS: Basina, A. S., Baskova, K. A., Dzhelepov, B. S., Dolgoborodova, M. A. SOV/48-22-8-11/20

TITLE: Investigation of the Angular Distribution of γ-Quanta in the Annihilation of Positrons in Liquid Hydrogen and Helium (Issledovaniye uglovogo raspredeleniya γ-kvantov pri annigilyatsii pozitronov v zhidkom vodorode i gelii)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958, Vol. 22, Nr 8, pp. 968-975 (USSR)

ABSTRACT: On the basis of the evidence available, it is impossible to clarify completely the mechanism of positron annihilation in condensed media. It was found that the annihilation mechanism is different, at least to a certain extent, in metals and in amorphous media. As a rule in metals the annihilation process of positrons takes place only on free electrons. The number of positrons is reduced exponentially with time. The average life (in all metals) is $1,5 \cdot 10^{-10}$ sec. In amorphous substances, however, two components become visible in the decay curves which correspond to differing annihilation mechanisms with decay periods of $\sim 10^{-11}$ and $\sim 10^{-9}$ sec and

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Investigation of the Angular Distribution of γ-Quanta in the Annihilation of Positrons in Liquid Hydrogen and Helium SOV/48-22-8-11/2[illegible]

which differ for different substances. This is attempted to be explained by assuming the formation of positronium in the amorphous media. In this paper the angular distribution of the annihilation quanta in liquid hydrogen and helium was investigated. The measuring method and the principal lay-out of the plant do not differ basically from those used in the earlier work (Ref 9). The curves of the angular distribution for both substances are given in figure 5. As can be seen from it the shape of these curves differs from that of the curves for aluminium. The angular distribution curve for aluminium agrees with that obtained by Green (Grin) and Stewart (Stvuart) (Ref 10) and by Lang, De Benedetti and Smoluchowski (Ref 11). It is attempted to explain this curve shape by the formation of positronium in hydrogen and helium by positrons with a sufficiently high energy. Observed cases of an emission of γ-quanta at wide angles (at $\theta > 1^{\circ}$) is apparently caused by not completely slowed-down positrons, as no electrons with such an energy can be found in hydrogen or helium which would correspond to the great emission angles

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observed. The smaller number of such cases observed in aluminium appears to be of a somewhat peculiar significance. The curve of the angular distribution for helium is wider than that for hydrogen, which fact is connected with the higher velocity of the electrons in helium. The experimental curves of angular distribution of γ-quanta differ from those computed by Chzhan Li (Ref 5), (Figs 5,6). The spectrum of the center-of-mass energy of the annihilating pairs can be constructed from the curve of the angular distribution of the γ-quanta. As a result of the computations energy spectra of the positron annihilation in liquid hydrogen and helium were obtained (Figure 7). As regards the spectrum for aluminium, which is also given in figure 7, no judgment can be passed on it, as the curve was constructed from six points only. The authors express their gratitude to the Director of the Institute of Physical Problems, AS USSR, imeni S.I. Vavilov, P.L. Kapitsa and A.I. Shal'nikov. There are 7 figures, 1 table, and 11 references, 2 of which are Soviet.

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Investigation of the Angular Distribution of γ-Quanta in the Annihilation of Positrons in Liquid Hydrogen and Helium SOV/48-22-8-11/20

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A.A. Zhdanova (Scientific Research Institute of Physics at the Leningrad State University imeni A.A. Zhdanov)

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B019/B056

24.6720

AUTHORS: Basina, A. S., Dzhelepov, B. S., and Chikhladze, V. A.

TITLE: The Lu^{167} + Yb^{167} Conversion Electron Spectrum

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 807-810

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place in Moscow from January 19 to 27, 1960. The lutecium fraction, which had been obtained by chromatographic separation of rare earths, was investigated with a lens spectrometer having a resolution of 2%. The rare earths were spallation products of Ta. The source was produced by the evaporation of lutecium lactate on an Al backing; its diameter was not greater than 4 mm. The Ta targets were bombarded with fast protons on the proton-synchrotron of OIYaI for 15 to 30 minutes. The fraction was separated 1 hour and 50 minutes after exposure. 50 minutes later, the conversion spectrum was studied. It was the purpose of the present work to investigate the conversion electron spectrum of

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The Lu^{167} + Yb^{167} Conversion Electron Spectrum

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Lu^{167} + Yb^{167} within the energy range from 30 to 340 kev. Within this energy range there are lines that are formed by the decay of $Lu^{167} \rightarrow Yb^{167} \rightarrow Tu^{167} \rightarrow Er^{167}$. The experimental spectrum of Lu^{167}+Yb^{167}, recorded one hour after separation, is shown in Fig. 1. In the conversion electron spectrum, a number of very bright lines having the half-life of 55±5 minutes were found to exist 1 to 6 hours after separation. After these lines had vanished, 208 kev γ-transition lines could be observed, which are formed in the decay of Tu^{167}. The energies and the relative intensities of the conversion lines for $Lu^{167} \rightarrow Yb^{167}$ and $Yb^{167} \rightarrow Tu^{167}$ decays are given in Tables 1 and 2. The intensity of the Lu^{167} K-239 line is 35-55% of that of the Yb^{167} L-106 line. In Table 3, unidentified conversion lines of (Lu^{167} + Yb^{167}) are given, which did not appear in the paper by Mihelich et al. (Ref. 7). P. M. Aron, A. V. Kalyamin et al. (Ref. 4), K. Ya. Gromov and I. S. Dneprovskiy (Ref. 8) are mentioned. There are 1 figure, 3 tables, and 8 references: 6 Soviet and 2 US.

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The $Lu^{167} \rightarrow Yb^{167}$ Conversion Electron Spectrum

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B019/B056

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova (Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov). Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

Таблица 3

Неидентифицированные конверсионные электроны ($Lu^{167} + Yb^{167}$), отсутствующие в работе [7]

E_{e^-}, keV	T, мин	Интенсивность по нашим данным
68,9	56±15	50±10
76,0	100±40	30±15
169,0	60±15	30±15

Таблица 1

Конверсионные электроны, возникающие при распаде $Lu^{167} \rightarrow Yb^{167}$

E_{e^-}, keV	E_γ, keV	T, мин	Интенсивность		Идентификация
			по нашим данным	по [7]	
151,6	212,9	58±5	42±6	46	K-213
176,6	238	56±5	100	100	K-239
216,4	277,7	65±15	19±5	16	K-278
228	238	65±15	17±4	19	L-239
339,5	400,8	56±5	10±2	10	K-401

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Таблица 2

Конверсионные электроны, возникающие при распаде $Yb^{167} \rightarrow Tu^{167}$

E_{e^-}, keV	E_γ, keV	T, мин	Интенсивность		Идентификация
			по нашим данным	по [7]	
46,7	106,0	56±5	340±70	370	K-106
53,5	112,8	55±5	190±40	155	K-113
57,6	116,9	—	25±5	22	K-116
60,8	63	—	19±6	24	M-62*
95,7	105,8	55±5	100	100	L-106
103,6	105,9	56±5	58±9	50	M-106 и L-113
108	117	—	16±7	23	L-116
116,5	175,6	53±5	16±5	11	K-176
122,3	131,4	55±5	14±5	13	L-132

* Здесь также K-122 Lu^{167}.

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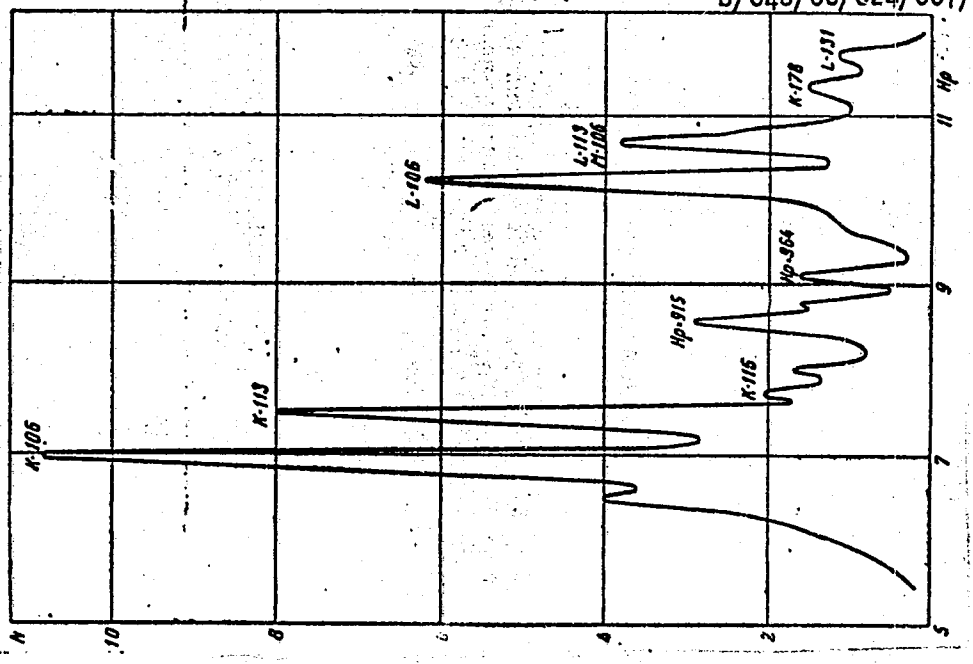

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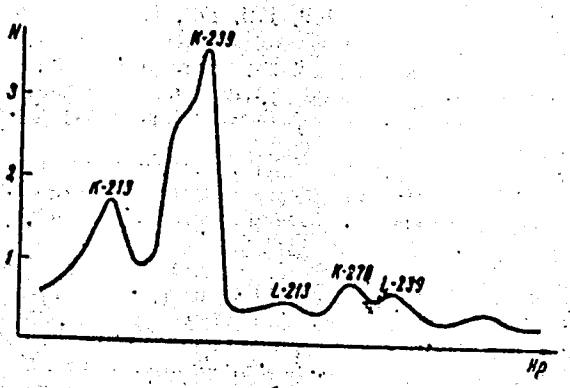

Рис. 1

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05501

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B019/B056

24.6720

AUTHORS: Barina, A. S., Gromov, K. Ya., and Dzhelepov, B. S.

TITLE: The Conversion Electron Spectrum of the Dysprosium Fraction

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 811-816

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. The investigations described here were carried out by means of a β-spectrometer having a resolution of roughly 1.9%. The dysprosium fraction was chromatographically separated from rare earths. The rare earths had been obtained by irradiation of a Ta-target (15-20 minutes) with fast protons. Separation of the dysprosium fraction took place 2 hours after the irradiation of the target. Measurements began roughly 1 hour after the fraction separation. The preparation was produced by previous evaporation of dysprosium lactate and following transfer of the activity by means of a weak acetic solution upon an Al foil. The source had a diameter of 3 mm.

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85581

The Conversion Electron Spectrum of the Dysprosium Fraction

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The emission of the following isotopes was observed: Dy^{152}, Dy^{153}, Dy^{155}, and Dy^{157}. Dy^{154} and Dy^{159} were not observed. During the first 30 hours, the conversion electron spectrum was measured continuously, and in the course of the following days it was measured once in each case. In this spectrum lines having the halflife of 6, 8 - 11, and roughly 20 hours, as well as several days were observed. Besides it was found that the intensity of a number of lines at first grew with a period of 2.5 hours, after which it decreased within a period of roughly 20 hours. The known data make it possible to assign the halflife of 8-11 hours to the Dy^{155}- and Dy^{157}-isotopes, and the longer periods to the Tb-daughter activities. The assignment of the halflives of roughly 6, 2.5, and 20 hours is further discussed. On the basis of known data, the spectra of Dy^{157} and Dy^{155} are discussed, and it was found that the L-82 and M-82-lines do not belong to Dy^{157}, and that no lines could be observed that might be assigned to Dy^{154} or Tb^{154}. Furthermore, the authors were able to prove that Dy^{153} was present in the preparation under investigation. In Table 1 the values for the conversion electrons of Dy^{153} are given. In the first column,

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The Conversion Electron Spectrum of the Dysprosium Fraction

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the energy of the conversion electrons, in the second the energies of γ-transitions, in the third the periods, in the fourth the relative intensities, and in the fifth column the identifications are given. From those lines whose intensity at first grows with a period of 2.5 hours, after which it falls, the authors conclude that the following decay exists: $Dy^{152} \xrightarrow[2.5\ h]{} Tb^{152} \xrightarrow[20\ h]{} Gd^{152}$. Thus, the three Tb^{151}, Tb^{152}, and Tb^{154} probably exist with a halflife of 18 hours. In Table 2, the values of the conversion electrons of Tb^{152} are given together. In the first column, the energies of the conversion electrons, in the second the energy of the γ-transitions, in the third the relative intensities, and in column four the identifications are given. The results obtained indicate the $Tb^{152} \longrightarrow Gd^{152}$ decay scheme shown in Fig. 3. N. M. Anton'yeva, A. A. Bashilov, A. N. Dobronravova, I. N. Rogachev, and I. Zvol'skiy are mentioned. The authors thank V. A. Morozov and G. A. Mironov for their help in measurements, and also I. A. Yutlandov and V. A. Khalkin for carrying out chemical work. There are 3 figures, 2 tables, and 15 references: 9 Soviet, and 6 US.

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The Conversion Electron Spectrum of the Dysprosium Fraction

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ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut, Leningradskogo gos. universiteta im. A. A. Zhdanova (Physical Scientific Research Institute of Leningrad State University imeni A. A. Zhdanov). Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

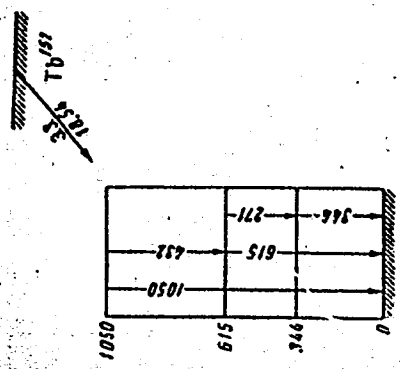

Рис. 3. Схема распада $Tb^{155} \rightarrow Gd^{155}$

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Таблица 1

Конверсионные электроны Dy^{155}

E_{e^-}, keV 1)	E_γ, keV 2)	T, час 3)	Относит. интенсивн. (эксп.) 4)	Идентификация 5)
28,8	80,8	7±2		K-81
47,4	99,4	7,5±1,0	200±60	K-99
72,8	81,1	8,5±1,5	200±60	L-81
79,9	81,9	8,5±1,5	70±20	M-81
90,7	99,4	8±2	50±15	L-99
95,7	97,7	8±2	40±10	M-99 и
138,4	147			K-147?
191,9	244	6±1	25±6	L-147?
203,1	255	6±1	40±6	K-244
237,4	245	5±1	100	K-255
246,8	255	3±2	4±2	L-244
		6±1	13±3	L-255

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Таблица 2

Конверсионные электроны Tb^{155}

E_{e^-}	E_γ	Относит. интенсивн. (эксп.)	Идентификация
203,7	344	100	K-344*
338,2	344	30±3	L-344*
362	412	4±2	K-412
382	432	23±5	K-432*
404	412	Очч. слаб.	L-412
425	433	4±2	L-432
536	586	8±2	K-586*
565	615	40±5	K-615*
609	617	7±2	L-615
1000	1050	Очч. слаб.	K-1050?

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85582

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24.6720

AUTHORS: Basina, A. S. and Morozov, V. A.

TITLE: The 106-kev Transition in the Tu^{167}_{79} Nucleus

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, p. 817

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place at Moscow from January 19 to January 27, 1960. Using data obtained by Mihelich et al. (Ref. 1), the authors estimate the intensities of the transition in percents of decay for the 106-kev transitions of the $5/2^+$ level to the $3/2^+$ level (E2 + M1). The lutetium fraction was chromatographically separated from rare earths. The rare earths were obtained by the spallation of Ta. The daughter ytterbium was also separated. The conversion electron spectrum was investigated in a β-spectrometer having a resolution of roughly 1,9%. The separation of ytterbium took place 1 hour after separation of the lutetium fraction, i.e., about three hours after irradiation of the Ta-target. Thus, the preparation mainly contained Yb^{167}_{79} (according to measurements carried out

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85582

The 106-kev Transition in the Tu^{167} Nucleus

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by the authors, this isotope has a lifetime of 19±0.5 minutes), which is formed from Lu^{167}-decay (lifetime 55 minutes). An intensive L-106 line had formerly been observed by Basina et al. (Ref. 3) in the conversion spectrum. Also, the relative intensities of the Yb^{167} L-106-lines and of the Tu^{167} K-208 lines (Ref. 4) had been measured earlier. Using data given by K. Ya. Gromov on the 208-kev transition of Er^{167}, it is possible to calculate the intensity of the transitions in percents per decay for the 106-kev transition of Yb^{167}. The calculation was carried out by assuming that the last transition is a pure M1-transition. For the 106-kev transition of Tu^{167}, it yielded a value of 59% per decay. The analogous transition ($5/2^+ \longrightarrow 3/2^+$) in Tu^{169} (109 kev) amounts to 58% per decay. The authors thank K. Ya. Gromov for letting them have the data, and I. A. Yutlandov and B. A. Khalkin for the chemical part of the work performed. There are 5 references: 4 Soviet and 1 US.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR (Radium Institute imeni V. G. Khlopin of the Academy of Sciences, USSR)

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BASINA, A.S.; GROMOV, K.Ya.; DZHELEPOV, B.S.; MOROZOV, V.A.

Spectrum of the conversion electrons of the holmium fraction in the reaction Ta + p. Izv. AN SSSR. Ser. fiz. 25 no.2:194-198 F '61. (MIRA 14:3)

(Holmium--Isotopes)
(Tantalum)
(Nuclear reactions)

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L 2743-66 EWT(m)/EWP(t)/EWP(b) DIAAP/IJP(c) JD/JG

ACCESSION NR: AP5024328 UR/0367/65/002/002/0204/0210

AUTHOR: Basina, A. S.; Bedike, I.; Gromov, K. Ya.; Dzhelepov, B. S.; Morozov, V. A.; Novgorodov, A. F.

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29
B

TITLE: γ-Rays from Tu^{164}. The 0^+-level in Er^{164}

79

SOURCE: Yadernaya fizika, v. 2, no. 2, 1965, 204-210

71

TOPIC TAGS: thulium, erbium, radioisotope, gamma ray, radioactive decay scheme

ABSTRACT: The coefficients of internal conversion are found for several transitions in Er^{164} by comparison of the experimentally determined relative intensities of γ-rays from Tu^{164} with the intensities of conversion lines given in the literature. The method of isotope separation is briefly described. A γ-scintillation spectrometer with a 40 × 40 mm thallium-activated sodium iodide crystal was used for measuring the γ-spectrum. The measurements were begun approximately six minutes after separation of the Tu. The spectrum was graphically analyzed to determine the relative intensities of the γ-rays. The results are tabulated for energies from 500 to 2500 kev and compared with data in the literature on the spectrum of conversion electrons in this energy region. The decay scheme for Tu^{164} is

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briefly discussed (see fig. 1 of the Enclosure). The experiment shows that the multipole order of the 773 kev transition is $E2$ with possibly a slight admixture of $M1$ (no more than 20% $M1$). It is assumed that the 1248 kev transition belongs to the 0^+-0^+ category. In this case, the 1157 kev transition from the 1248 kev level to the first excitation level of the ground state rotational band should be an $E2$ transition. It is found that the γ-vibrational level (2^+) in Er^{164} has an energy of 862 kev. The 0^+ level observed at 1248 kev may be the first level in the β--vibrational band in Er^{164}. This value agrees well with the theoretically calculated value of ~1.3 Mev. Orig. art. has: 3 figures, 3 tables.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research); Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 12Mar65 ENCL: 01 SUB CODE: NP

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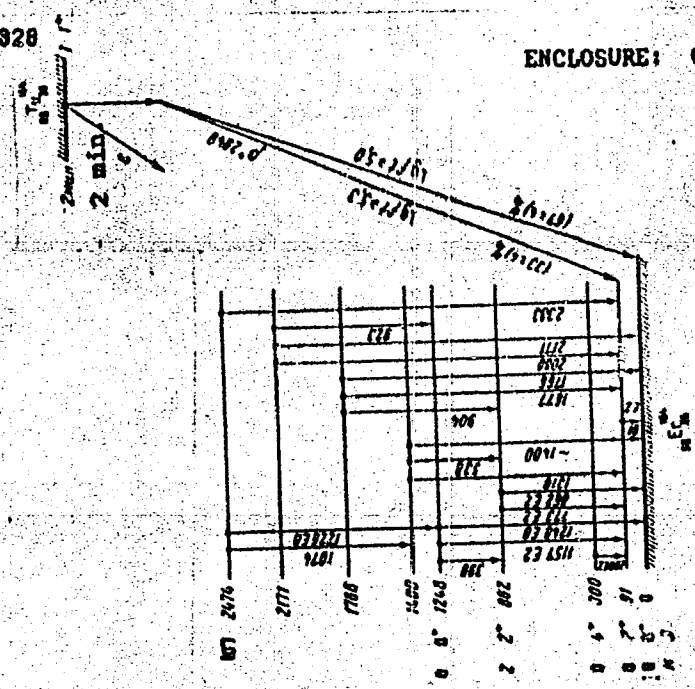

Fig. 1. Tu^{164} decay scheme.

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BASINA, A. S.; BEDIKE, T.; GROMOV, K. Ya.; DZHELEPOV, B. S.; LEBEDEV, N. A.; MOROZOV, V. A. NOVGORODOV, A. F.

"Concerning the Decay of Pr^{138}."

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

OIYaI (Joint Inst Nuclear Res)

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L 39835-66 EWT(m) GD-2

ACC NR: AP6018850 SOURCE CODE: UR/0367/65/002/006/0966/0973

AUTHOR: Basina, A. S.; Bedika, T.; Gromov, K. Ya.; Dzhelepov, B. S.; Lebedev, N. A.; Morozov, V. A.; Novgorodov, A. F.

ORG: Joint Institute of Nuclear Studies (Ob"yedinennyy institut yadernykh issledovaniy); Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Decay of Pr sup 138 [This paper was given at the 14th Annual Conference on Nuclear Spectroscopy, Tbilisi, February 1964.]

SOURCE: Yadernaya fizika, v. 2, no. 6, 1965, 966-973

TOPIC TAGS: radioactive decay, praseodymium, gamma spectrum, conversion electron spectrum, cerium

ABSTRACT: The γ-spectrum, $\gamma\gamma$- and $\beta^+\gamma$ - coincidence spectra, and the conversion electron spectra of prascodymium samples obtained from Ta, Tb, and Er irradiated with 660 Mev protons were measured. The relative intensities of the γ- transitions with energies of 303, 789, and 1047 kev, observed in the γ-spectrum of Pr^{138}, were determined and tabulated. The $\gamma\gamma$-coincidence experiments give evidence of a cascade of transitions having the energies of 303-1047-789 kev. Measured $\beta^+\gamma$- coincidences did not confirm the existence of the β^+ decay of Pr^{138} to the 1840 kev level. The conversion electron transitions of 303 ± 1 and 789 ± 3 kev were investigated

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BASINA, E. T. PA47175

USSR/Medicine - Eye Diseases Jan/Feb 1948

Medicine - Penicillin

"Experiments in the Use of Penicillin in Certain Ocular Diseases," E. T. Basina, Kirgiz Med Inst, 1½ pp

"Vest Ortalmol" Vol XXVII, No 1

Gives number of case histories comparing effect of penicillin with that of other types of therapy when treating diseases of the eye. Advises intraocular use of penicillin in many cases.

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APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASINA, I.P.

Use of optical pyrometry in measuring flame temperature in a reverberatory copper smelter. Izv.AN Kazakh.SSR.Ser.energ. no.4/5: 90-108 '54. (MLRA 9:5)

(Pyrometry) (Flame) (Smelting furnaces)

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BASINA, I.P.

✓3521. COMBUSTION AND SEPARATION OF FUEL PARTICLES IN A CYCLONE FURNACE. Basina, I.P. and Tonkonogii, A.V. (Teploenergetika (Heat Pwr Engn, Moscow), May 1955, 17-21). The time for the separation of particles in a cyclone furnace is calculated, in a wide range of sizes. Comparison of separation time with combustion time shows that only the fine fractions burn in suspension; the majority of particles burn in the layer of slag on the combustion chamber wall. (L).

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Inst. Power Engineering, AN Kazakh SSR

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PHASE I BOOK EXPLOITATION SOV/5290

Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956

Trudy Soveshchaniya po prikladnoy gazovoy dinamike, g. Alma-Ata, 23-26 oktyabrya 1956 g. (Transactions of the Conference on Applied Gas Dynamics, Held in Alma-Ata, 23-26 October 1956) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1959. 253 p. Errata slip inserted. 900 copies printed.

Sponsoring Agency: Akademiya nauk Kazakhskoy SSR. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

Editorial Board: Resp. Ed.: L.A. Vulis; V.P. Kashkarov; T.P. Leont'yeva and B.P. Ustimenko. Ed.: V.V. Aleksandriyskiy. Tech. Ed.: Z.P. Rorokina.

PURPOSE: This book is intended for personnel of scientific research institutes and industrial engineers in the field of applied fluid mechanics, and may be of interest to students of advanced courses in the field.

Transactions of the Conference (Cont.) SOV/5290

COVERAGE: The book consists of the transcriptions of 31 papers read at the conference on gas dynamics which was convened under the initiative of the Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova (Kazakh State University imeni S.M. Kirov) and the Institut energetiki Akademii nauk Kazakhskoy SSR (Institute of Power Engineering of the Academy of Sciences Kazakhskaya SSR) and held October 23-26, 1956. Three branches of applied gas dynamics were discussed, namely: jet flow of liquids and gases, aerodynamics of furnace processes, and the outflow of liquids. The practical significance of the "Transactions" of the conference consists in the adaptation of theory to methods of technical computation and measuring methods related to i[illegible] al furnaces and other industrial processes in which aerodynamic phenomena play a predominant role. Eight papers read at the Conference are not included in this collection for various reasons. The authors of the missing papers are: L.D. L'vov (Thermal and Aerodynamic Characteristics of Pulverized Coal Flame Burners) and A.A. Goleyevskiy (Outlines and Physical Models of the Jet Motion Mechanics of Fluids), N.I. Akatnov, Ye. P. Bogdanov, S.V. Bukhman, T.K. Mironenko, A.B. Reznyakov, and G.V. Yakubov. L.G. Loytsyanskiy is mentioned as being in charge of a department of the Kazakh State University, and I.D. Malyukov, Candidate of Physical and Mathematical Sciences, Docent, as a member of the same university. References are found at the end of

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BASINA, I.P.

TONKONOGIY, A.V.; BASINA, I.P.

Burning some Kazakh coals in a cyclone furnace. Izv. AN Kazakh.SSR.Ser.energ. no.10:103-113 '56. (MLRA 9:12)

(Combustion) (Furnaces) (Kazakhstan--Coal)

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SOV/137-59-3-5476

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 77 (USSR)

AUTHORS: Basina, I. P., Tonkonogiy, A. V.

TITLE: Cyclone-smelting Method (Tsiklonnyy metod plavki)

PERIODICAL: V sb.: Materialy Soveshchaniya po vopr. raboty pechey tsvetn. metallurgii i razvitiya pirometallurg. protsessov. Moscow, 1957, pp 130-143

ABSTRACT: A description is given of the principle of cyclone smelting (CS) for concentrates. As a result of theoretical investigations it was found that the process of combustion of solid fuel in a cyclone chamber takes place practically along the wall of the chamber where the charge mixture is melted, also. Comparative data are adduced which characterize different smelting methods, namely, the reverberatory, the fluidized-bed, and the CS method. The advantages of CS are set forth. The layout and a description are adduced of an enlarged installation (10-ton charge per day) for CS, which is operating in the Energetics Institute, Academy of Sciences, Kazakh SSR, and where experiments on smelting of Cu, Cu-Zn, and multimetal concentrates were carried out. The procedure graphs and results of the

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SOV/137-59-3-5476

Cyclone-smelting Method

experiments are adduced, which show that CS can be carried out to produce Cu matte of different composition, including a very rich (up to white) matte. In CS of bulk concentrates Cu is melted while Pb (>99%) and Zn (up to 89%) are sublimated.

Yu. O.

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SOV/137-59-1-94

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 13 (USSR)

AUTHOR: Basina, I. P.

TITLE: On Methods for Measuring Flame Temperature in Smelting Furnaces (O metodakh izmereniya temperatury plameni v plavil'nykh pechakh)

PERIODICAL: V sb.: Issled. fiz. osnov rabochego protsessa topok i pechey. Alma-Ata, AN KazSSR, 1957, pp 297-310

ABSTRACT: The author examines different methods for measuring flame temperature (contact and radiation) applicable under the working conditions of reverberatory furnaces of copper-smelting plants. Radiation methods are analyzed in detail and their fundamental equations are adduced. The author points out the significance of the character of the temperature distribution through the cross section of the flame jet, the effect of knocking-out of the gases in the sighting line, methods for avoiding and accounting for errors. Analysis of various methods is adduced, their applicability in the operation of copper-smelting furnaces is pointed out, and the following fundamental conclusions are given: 1) the best results are obtained by using the color-pyrometry method; 2) the brightness-pyrometry

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On Methods for Measuring Flame Temperature in Smelting Furnaces

method gives fair results when automatic photoelectric pyrometers and sighting devices with air-jet ventilation are used; 3) the total-radiation method requires periodic rechecking with the optical or color pyrometers; 4) the thermoelectric method is unreliable owing to the absence of ... thermoelectrode materials which are stable under the conditions prevailing in the working space of a smelting furnace.

M. L.

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SOV/137-59-1-70

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 9 (USSR)

AUTHORS: Tonkonogiy, A. V., Basina, I. P.

TITLE: On the Combustion and Separation of Fuel Particles in a Cyclone Fire Chamber (O gorenii i separatsii chastits topliva v tsiklonnoy topke)

PERIODICAL: V sb.: Issled. fiz. osnov rabochego protsessa topok i pechey. Alma-Ata, AN KazSSR, 1957, pp 407-419

ABSTRACT: The separation time for particles of 10 - 150 μ size in a 0.8-m diam chamber for different rates of gas flow was calculated from the general equation for the motion of a particle in a cyclone chamber, solved by the method of finite differences. The separation time is correlated with the burning time of coal particles to CO_2, and it is shown that within a cyclone only the 25 - 50 μ size particles burn depending upon the speed of the flowing gas. Owing to the high temperatures in the cyclone burners the volatile matters separate from the fuel intensively and their combustion occurs in the chamber space, whereas the coke residue of the particles burns in the slag film on the chamber wall. The conclusion thus drawn is compared with experimental data.

G. G.

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SOV/112-59-5-8520

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 17 (USSR)

AUTHOR: Tonkonogiy, A. V., and Basina, I. P.

TITLE: Burning High-Ash Coals in a Cyclone Furnace

PERIODICAL: V sb.: Issled. fiz. osnov rabochego protsessa topok i pechey. Alma-Ata, AN Kazakhskoy SSR, 1957, pp 447-456

ABSTRACT: Institut energetiki (Institute of Power Engineering), AS Kazakhskaya SSR, investigated the combustion of some Kazakhstan coals having various ash contents and ash fusibilities; horizontal cyclone experimental furnaces were used. In addition, combustion was investigated of artificially ballast-laden fuel in slanted and vertical cyclones; the ballast-to-fuel ratio (reduced to the reference fuel terms) could be brought up to 4:1. The following conclusions are drawn from the experiments: (1) coals with various ash contents can be successfully burned in a cyclone furnace; the temperature characteristic of the coal is important; low-fusible-ash coals burn easily, high-fusible-ash coals

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Burning High-Ash Coals in a Cyclone Furnace

can be burned with a highly preheated air; (2) ash fusibility affects not only the reliability of the molten-slag tapping; the liquid slag film on the cyclone walls is no less important, it ensures stable and vigorous burning; (3) with a vertical cyclone, the liquid slag spreads uniformly around the furnace walls and is reliably removed from the chamber; this also permits essential simplification in the furnace design; (4) the experiments with burning of highly ballast-laden fuel show the feasibility of using the cyclone principle not only for power furnaces but also for process furnaces.

S.M.Sh.

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BASINA, I.P

AUTHOR: Tonkogiy, A.V., Basina, I.P. and Vdovenko, M.I. 283

TITLE: A cyclonic pyrometallurgical process. (Tsikonnyy pirometallurgicheskiy protsess.)

PERIODICAL: "Tsvetnye Metally" (Non-ferrous Metals), 1957, No. 1, pp. 30 - 42, (U.S.S.R.)

ABSTRACT: In this article a cyclonic smelting method, characterised by high process intensity and metallurgical efficiency is described. Theoretical investigation of conditions in cyclone combustors have confirmed that the combustion process occurs mainly on the walls of the cyclone. On the basis of preliminary experiments and theoretical studies a pilot plant scale installation, used for the cyclonic smelting of copper and copper-zinc concentrates, was constructed. The diameter of the cyclone was 430 mm, its height 780 mm and the diameter of the opening in the flat bottom of the cyclone was 170 mm. The cyclone was placed over a large settling chamber (1 130 x 1 600 mm and 1 100 mm high) into which both the liquid and gaseous products of the cyclone passed. From the settling chamber the gases pass via a heat exchanger and extractor fan to a stack, the heat exchanger serving to pre-heat combustion air. The charge was fed directly into the cyclone by a screw feeder. Liquid fuel was used, supplied at 4 atm. pressure through a centrifugal jet. The rate of smelting the charge was about 300 kg per hour, the corresponding fuel rate being about 80 kg per hour and the excess air factor being either 1.05 or

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1.18. A temperature of about 1 400 °C was obtained in the settling chamber. The pressure drop through the cyclone was about 40 mm mercury.

The utilisation of smelting space in the cyclonic installation was several times higher than in reverberatory copper smelting furnaces or in fluidised-state reactors. This confirms theoretical expectations of higher relative gas/particle velocities in the cyclone. The fact that roasting and melting occur simultaneously in the cyclone reactor enables fuel consumption for production of the metal to be greatly reduced; with high air-pre-heat and high sulphide content in the charge carbonaceous fuel can be dispensed with altogether. The degree of de-sulphurisation in the cyclone can be easily controlled over a wide range by altering the quantity of air admitted to the cyclone.

It is expected that under industrial conditions the exit gases from the cyclone will contain 9-12% sulphur dioxide, which would enable them to be used for sulphuric acid manufacture. The cyclonic method could be used for treating multi-component concentrates with the separate extraction of valuable components into the melt and sublimate.

From the preliminary experiments, the dust content of the gases directly after the settling chamber is 2.0-5.0 g/m^3. Since no special grinding or drying of the charge is required for cyclonic smelting, preparation equipment can be simplified.

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The whole cyclonic smelting operation lends itself to automation and, compared with reverberatory furnaces, secures the production of richer mattes and increased converter productivity.

There are 8 figures and 11 references, 7 of which are Russian.
The work was carried out at the Energetics Institute of the Academy of Sciences of the Kazakhstan S.S.R.

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SOV/137-58-8-16665

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 61 (USSR)

AUTHORS: Tonkonogiy, A.V., Basina, I.P., Kurmangaliyev, M.R.

TITLE: Experimental Installation for Cyclone Smelting (Opytnaya ustanovka dlya tsiklonnoy plavki)

PERIODICAL: Izv. AN KazSSR. Ser. energ., 1957, Nr 1 (12), pp 85-98

ABSTRACT: This is a description of an experimental plant for cyclone smelting of comminuted ores and concentrates at the Power Institute, Academy of Sciences, Kazakh Soviet Socialist Republic. The major component of the installation is a cylindrical cyclone chamber (CC) 430 mm in diameter and 780 mm high, capable of handling up to 10 t charge per day, lined with chemically-bonded magnesite chrome to a thickness equal to one-half the length of a brick and cooled by an external water jacket. Under the CC and separated therefrom by a partition (of closely fitted 25-mm diameter tubes smeared with magnesite chrome) with a hole 170 mm in diameter, there is a settling chamber (SC) 1830 mm long and 1130 wide, lined with magnesite chrome. Air from a heater is delivered tangentially into the upper portion of the CC. An aperture for charging by

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Experimental Installation for Cyclone Smelting

a worm feed is provided in the cover of the CC, along with a tangential jet for the burning of pulverized coal and another for liquid fuel used to heat the CC (to a wall temperature of 600-800°C in 45-60 min). A heavy-oil jet is used to preheat the SC to 1300-1350° for 8-10 hours. In smelting Cu concentrates, the temperature of the walls of the CC rises to 1000-1200°, and that of its interior to 1600° and more. The temperature of the SC is held at 1250-1350°. Charging is continuous, except for the slag-tapping period. Gases from the SC pass through an air heater and proceed to the smokestack via a fan. A portion of the hot air is directed to the pulverized-coal nozzle. When used to smelt Cu concentrates, this equipment functioned steadily at a rate of 350-450 kg charge per hour, but when Cu-Zn and polymetallic concentrates were smelted, the air heater became clogged with dust (chiefly ZnO and PbO).

Ye.Z.

1. Ores--Processing 2. Industrial plants--Design 3. Industrial plants--Equipment 4. Industrial plants--Performance

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BASINA, I.P

BASINA, I.P.; BUDON, V.D.; VDOVENKO, M.I.; ONAYEV, I.A.; TONKONOGIY, A.V.; SERGIYENKO, V.Ya.

Cyclone smelting of polymetallic concentrates. Vest. AN Kazakh. SSR 13 no.8:76-82 Ag '57. (MLRA 10:9)

1. Akademiya nauk Kazakhskoy SSR (for Basina, Budon, Vdovenko, Onayev, Tonkonogiy). 2. Chimkentskiy svintsovyy zavod (for Sergiyenko).

(Smelting)

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BASINA, I. P., TONKONOGIY, A. V.,

"On the Combustion and Separation of Fuel Particles in a Cyclonic Furnace," Aerodynamic and Heat Transfer Problems in Boiler and Furnace Processes; A Collection of Articles, Moscow, Gosenergoizdat, Moscow, 1958. 329 p.

Purpose: The book is intended for engineers and combustion specialists concerned with the design and operation of heating equipment and it is also for scientific workers and students of vtuzes.

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BASINA, I.P.

20(2) PHASE I BOOK EXPLOITATION SOV/2071

Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956

Trudy (Transactions of the Conference on Applied Gas Dynamics) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1959. 235 p. Errata slip inserted. 600 copies.

Sponsoring Agency: Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

Ed.: V.V. Aleksandriyskiy; Tech. Ed.: Z.P. Rorokina; Editorial Board: L.A. Vulis (Resp. Ed.), V.P. Kashkarov, T.P. Leont'yeva, and B.P. Ustimenko.

PURPOSE: This book should be of interest to scientists and engineers working on problems of applied gas dynamics and may be of use to students.

COVERAGE: This book presents reports and brief summaries of the discussions which took place at the Conference on Applied Gas Dynamics in Alma-Ata in October 1956. The conference was subdivided into three areas of applied gas dynamics: jet flows of fluids and gases, the aerodynamics of heating processes, and the discharge of a fluid. The practical value of the "Transactions of the Conference" consists in the development of theory, methods of technical calculation and methods for systematic measurement applied to heating, furnace, and other industrial processes for which, in most cases, aerodynamic phenomena are decisive factors.

Volkov, Ye.V. Some Problems in the Aerodynamics of a Two-phase Flow in a Cyclone Furnace 142

Tonkonogiy, A.V., and I.P. Basina. On the Working Process in a Cyclone Chamber 152

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TONKONOGIY, A.V.; BASINA, I.P.; VDOVENKO, M.I.; KURMANGALIYEV, M.R.

New method of metal extraction from sublimates. Izv. AN Kazakh. SSR. Ser.energ. no.1:110-114 '59. (MIRA 12:11)
(Nonferrous metals--Metallurgy)

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BASINA, I.P.; VDOVENKO, M.I.; KURMANGALIYEV, M.R.; REZNYAKOV, A.B.; TONKONOGIY, A.V.

Iron ore treatment flow sheet with the use of the cyclone method. Izv. AN Kazakh. SSR. Ser.energ. no.2:97-101 '59. (MIRA 12:7)

(Iron ores) (Separators (Machines))

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D251/D301

U.N35

AUTHORS: Basina, I.P. and Dzhunusov, K.G.

TITLE: On the combustion of carbon on the walls of a combustion chamber

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 10, 1961, 86, abstract 10 B612 (KazSSR Rylym Akad. Khabarlary, Izv. AN KazSSR, Ser. energ., 1960, no. 1 (17), 30-37)

TEXT: A rough estimation is carried out of the thermal stress of a combustion chamber according to a scheme which assumes that the combustion of the bulk of the coke particles takes place on the walls of the chamber. The stress obtained coincides satisfactorily with actual conditions. The experimental investigation of a suggested model of combustion was begun, and the combustion of a carbon cylinder in relation to the velocity of a circulatory stream was investigated. The combustion was controlled according

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On the combustion of carbon...

to the composition of the gases and according to the loss in weight of the cylinder. The dependence of the speed of combustion of the carbon on the velocity of the stream, the structure of the cylinder walls and the geometrical parameters of the chamber is obtained. It is shown that the process of combustion takes place in the diffusion region. [Abstracter's note: Complete translation]

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BASINA, I.P.; VDOVENKO, M.I.; KURMANGALIYEV, M.R.

Principal results of the studies of cyclone processes of smelting and sublimation. Trudy Inst. energ. AN Kazakh. SSR 2:261-273 '60. (MIRA 15:1)

(Smelting) (Furnaces) (Copper)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

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TONKONOGIY, A.V., kand.tekhn.nauk; BASINA, I.P., kand.tekhn.nauk

Cyclone metallurgical process. Izv.vys.ucheb.zav.; energ. 3 no.3:101-109 Mr '60. (MIRA 13:3)

1. Institut energetiki AN KazSSR.
(Metallurgical furnaces)

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BASINA, I.P.; YUGAY, O.I.

Calculation of the motion of burning particles in a twisted stream. Izv.AN Kazakh. SSR. Ser.tekh.i khim.[redacted]
(MIRA 17:4)

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BASINA, I.P.

Nature of the burning out of the carbon cylinder wall in case of a cyclonic movement of the gas. Izv. AN Kazakh. SSR. Ser. tekh. i khim. nauk no.2:107-110 '63. (MIRA 17:2)

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REZNYAKOV, A.B.; BASINA, I.P., kand. tekhn. nauk; KURMANGALIYEV, M.R., kand. tekhn. nauk

Combustion of a mixture of Ekibastuz coal with other coal types in a cyclone combustion chamber with liquid cinder removal. Vest. AN Kazakh SSR 22 no.8:58-62 Ag '65. (MIRA 18:9)

1. Chlen-korrespondent AN Kazakhskoy SSR (for Reznyakov).

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

97. **Research Proves Beta and Gamma Globulins Most Toxic in Heterogenous Blood Transfusion**

"The Significance of Specific Components of Blood in Determining Hemodynamic Disturbances During Heterogenous Blood Transfusion Shock," by Kh. Ya. Basina, Vestsi Akademii Nauk Belaruskay SSR, Seryya Biyalagichnyx Navuk, No 4, 1956, pp 139-152 (Belorussian)

A total of 259 experiments were conducted on dogs in an effort to explain the etiology and pathogenesis of heterogenous blood transfusion shock.

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Experimental results proved that the most toxic components during the development of shock were the heterogenous beta and gamma globulins and the heterogenous blood erythrocytes, and the least toxic, the heterogenous albumin fraction.

The author believes that the onset of phasic disturbances of blood pressure due to heterogenous blood transfusion is due to the fact that, at various stages in the interaction of heterogenous and homogenous blood, toxic substances possessing incompatible properties are formed. These toxic products are formed during the early stage of the interaction and are neutralized later.

Infected homogenous blood administered to healthy experimental animals caused milder hemodynamic disturbances than heterogenous blood and some of its fractions.

Perfusion experiments using heterogenous blood and its fractions indicate that the initial stage of heterohemotransfusion symptoms is the effect of the products of the interaction of heterogenous blood and heterogenous fractions with homogenous blood during vascular reception.

The initial condition of the animal as a whole and the condition of the nervous system, and especially its depressor phase, have great significance on the severity of shock. (U)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASINA, KH. YA. Doc Cand Med Sci -- (diss) " Importance of the various ~~individual~~ blood components ~~in~~ the emergence ~~appearance~~ of hemodynamic dis~~orders~~turbances during heterotransfusional shock." Minsk, 1957. 22 pp 22 cm. (Minsk State Medical Inst), 200 copies

(KL, 21-57, 105)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

PRILUTSKIY, S.A., dotsent; BASINA, Kh.Ya.

Some peculiarities of the course of mechanical asphyxia and possibilities of resuscitation. Zdrav. Bel. 5 no.5:29-31 My '59. (MIRA 12:8)
(ASPHYXIA)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

PUDNIK, F.P.; MARGOLIN, L.Ya., redaktor; BASINA, M.A., retsenzent; PASTUSHENOK, T.B., retsenzent; DROKHANOVA, Ye. N., redaktor; MEL'NIKOVA, N.V., tekhnicheskiy redaktor.

[Custom tailering of men's suits and coats] Individual'nyi poshiv verkhnego mushskogo plat'ia. Moskva, Ges. izd-vo mestnoi promyshl. RSFSR, 1955. 342 p. (MLRA 9:6)
(Tailering)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

PHASE I BOOK EXPLOITATION SOV/4402

Zhdanov, A. I., Ye. A. Levanova, N. S. Basina, G. N. Sergeyeva, and R. P. Khromova

Rukovodstvo po opredeleniyu stoimosti i ekonomicheskoy effektivnosti modernizatsii metallorezhushchikh stankov; rukovodyashchiye materialy (Manual on Determining Cost and Economic Effectiveness of the Modernization of Metal-Cutting Machine Tools; Guide Materials) Moscow, Mashgiz, 1958. 52 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov.

Ed.: A. Ye. Prokopovich; Tech. Ed.: A. F. Uvarova; Managing Ed. for Literature on Metalworking and Tool Making: R. D. Beyzel'man, Engineer.

PURPOSE: This handbook is intended for personnel of chief-mechanic sections and design sections of machine-tool plants.

Card 1/4

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

COVERAGE: The handbook contains information on costs and economic effectiveness of the modernization of metal-cutting machine tools. Tables of cutting standards for cutters, drills, milling cutters, gear cutters, and grinding wheels are presented. Several machine-tool plants are mentioned in the text. No personalities are mentioned. There are no references.

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Ch. I. Methods of Determining the Economic Effectiveness of the Modernization of Metal-Cutting Machine Tools 5

Ch. II. Methods of Determining the Cost of the Modernization of Metal-Cutting Machine Tools 8

Ch. III. Methods of Determining the Relative Cost of Parts Manufacture (Performance of the Operation) 11

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASINA, N.S.

New design of a flusher for large bedpans. Sbor. trud. NIIST no.11:191-199 '62 (MIRA 18:1)

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BASINA S.

LEVIN, Isidor Markovich; BASINA, S., red.; SMIRNOV, G., tekhn.red.

[Planning work and wages in industrial enterprises] Planirovanie truda i zarabotnoi platy na promyshlennykh predpriiatiiakh. Moskva, Gos. izd-vo polit. lit-ry, 1958. 189 p. (MIRA 11:4)
(Wages) (Industrial management)

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DRABKINA, Yelizaveta Yakovlevna; BASINA, S., red.; MUKHIN, Yu., tekhn. red.

[Where robots replace people; notes on the intensification of labor and introduction of automotion in caputalist countries] Gde raboty vytesniaiut liudei; zametki ob intensifikatsii truda i vnedrenii avtomatiki v stranakh kapitala. Izd.2., dop. Moskva, Gos. izd-vo polit. lit-ry, 1961. 141 p. (MIRA 15:2)

(Technology and civilization)

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PETROCHENKO, Petr Fedorovich, kand.ekonom.nauk; BASINA, S., red.; KLIMOVA, T., tekhn.red.

[Establishing work norms in an enterprise] Kak normiruetsia trud na predpriiatii. Moskva, Gos.izd-vo polit.lit-ry, 1961. 62 p. (MIRA 15:4)

1. Zamestitel' direktora Nauchno-issledovatel'skogo instituta truda (for Petrochenko).
(Production standards)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5"

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BASINA, Yu. A.

"Investigation of Regeneration by the Method of Calculation of the Mitotic Coefficient," Byull. eksperim. biol. i med. (Bulletin of Experimental Biology and Medicine), 10, 1940.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASINA, YU. A.

PA 77T53

USSR/Medicine - Roentgen Rays May 1948
Medicine - Skin, Regeneration

"Is the Recovery of the Regenerative Faculty Possible in X-Rayed Axolotl Tissues?" E. Ye. Umanskiy and Yu. A. Basina, Inst Biol, Kharkov State U, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 4

Extremity of axolotl was subjected to X-ray dose of 7,000 Roentgen at 100 kv. Distance from anticathode to object 25 cm without filter. TR tube at 180 kv. This dose completely suppressed regenerative faculty of extremity and tail of axolotl. Some days later normal skin was grafted onto area, which was then

[redacted] 77T53

USSR/Medicine - Roentgen Rays (Contd) May 1948

amputated. Regeneration was assessed by counting mitoses in blasteme, X-rayed tissue, and transplanted skin. Tabulates results and concludes that it is not possible to restore X-rayed tissue by contact with sound tissue. Submitted 1 Mar 1948.

[redacted] 77T53

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203910001-5

BASINA, YU. A.

USSR/Biology - Nucleic Acids Jul/Aug 52

"Changes, Occurring During the Aging Process, in the Electro-Colloidal Characteristics of the Iso-Electric Point of the Protoplasm of Tissues of Rabbits, Under Various Methods of Rearing," V. N. Nikitin, Yu. A. Basina, T. A. Batozskaya, S. A. Braylovskaya, M. P. Volovik, A. V. Rudayeva, Khar'kov State U

Zhur Obshch Biol, Vol 12, No 4, pp 270-285

The biological role of nucleic acids and nucleoproteids is very great. The protoplasmic complex of a number of organs of exptl rabbits, raised on

265T3

a modified diet, revealed a change in iso-electric point to acidity. It may be considered as proven that changes in iso-electric point of protoplasmic complex take place during aging process of animal organism. Reproduction of intercellular matter in various tissues goes through the same biochemical aging evolution and reflects, in the main, the same regularity of ontogenesis as does the whole organism.

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BASINKEVICH, I.

Improve production by competition. Prom.koop. no.12:39-41 D '55.
(Irkutsk Province--Furniture industry)

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BASINKEVICH, I. R.

Moscow and Leningrad Lumbering and Paper Industry Publishing Houses, 1963. Der. prom. 12 no.2:2 of cover F '63. (MIRA 16:4)

(Bibliography—Wood-using industries)

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