AKKERBERG, I.I., kand.med.nauk; BLINOVA, E.A.; VIDOMENKO, A.N.; YURGENSON, I.A. [Jürgenson, I.], kand.biologicheskikh nauk; YANES, Kh.Ya. [Jänes, H.]

Hygienic determination of air pollution in a shale industry region. Gig.i san. 25 no.8:5-7 Ag '60. (MIRA 13:11)

1. Iz Instituta eksperimental'noy i klinicheskoy meditsiny Akademii nauk Estonskoy SSR.
(AIR--POLLUTION) (SULFUR DIOXIDE)

AKKERMAN, A.F.

MATYSHEV, G.D.

PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii, Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960. 449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. M. Asrumasheva, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Ka[illegible] Ye. [illegible] Lebanov, Candidate of Physics and Mathematics; A. I. Mal'tsagova, Candidate of Medical Sciences; D. Nishanov, Candidate of [illegible] Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. M. Tsfanin,

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Transactions of the Tashkent (Cont.) SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

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instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION IN ENGINEERING AND GEOLOGY

Transactions of the Tashkent (Cont.) SOV/5410

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35165
S/707/60/003/000/007/013
B125/B102

26.2246

AUTHORS: Akkerman, A. F., Kaipov, D. K.

TITLE: Calculation of γ-quantum transmission through matter by the Monte Carlo method

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut yadernoy fiziki. Trudy. v. 3, 1960. Vzaimodeystviye vysokoenergichnykh chastits s atomnymi yadrami, 106-114

TEXT: The calculation of the transmission of γ-quanta through matter by the Monte Carlo method is reduced to finding the single statistically independent elementary interactions with the atoms of the medium by "selection" (rozygrysh) from the distributions of the site of interaction, from the type of process (Compton scattering or photoeffect), from the energy after scattering and from the azimuthal angle. On the path r, the γ-quantum interacts with the probability $P_1 = 1-e^{-\mu r}$ (1). The absorption coefficient $\mu = \sigma_{total} \cdot n = (z\,\sigma_k + \sigma_\phi)n$ depends on the chemical composition of the absorber and on the energy of the incident γ-quantum.

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Calculation of γ-quantum...

σ_k is the total cross section of Compton scattering per electron, σ_ϕ is the photoeffect cross section and n the number of atoms per 1 cm^3 of matter. σ_k and σ_ϕ were calculated for 0.040 Mev - 1.25 Mev according to A. I. Akhiyezer and V. B. Berestetskiy (Kvantovaya elektrodinamika. M., GITTL, 1953). At $r < 20$ cm, interaction took place within the absorber. The probabilities for a resulting photoeffect or Compton effect are given by $P_z = \sigma_\phi/(z\,\sigma_k + \sigma_\phi)$ (4) and $1 - P_2$, respectively. A γ-quantum of the energy α_o will have the energy e/α after scattering with the probability

$$P_3 = \int_{\alpha}^{\alpha_o} (d\sigma/d\alpha)\cdot d\alpha \Big/ \int_{\alpha_{min}}^{\alpha_o} (d\sigma/d\alpha)\cdot d\alpha \quad (7),$$

where $d\sigma/d\alpha$ denotes the differential cross section of Compton scattering. The scattering angle is $\cos\omega = 1 - \frac{\alpha_o - \alpha}{\alpha_o \alpha}$. The probability of scattering about the azimuthal angle λ is $P_4 = \chi/360^o$ in the case of isotropic scattering. The coordinates of

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S/707/60/003/000/009/013
B125/B102

AUTHORS: Akkerman, A. F., Gusika, P. L., Kaipov, D. K.

TITLE: γ-radiation applied to the detection of heavy element doping in a medium with small atomic number

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut yadernoy fiziki. Trudy. v. 3, 1960. Vzaimodeystviye vysokoenergichnykh chastits s atomnymi yadrami, 124-130

TEXT: Possibilities are discussed of detecting heavy elements in ore-bearing rocks by a variant of the Monte Carlo method developed by the authors (Trudy Instituta yadernoy fiziki Akademii nauk Kazakhskoy SSR) for calculating the transmission of radiation through matter. 200 125-Mev γ-quanta ($E \approx 2.447\ m_0c^2$) incident perpendicularly on two types of specimen, 10 cm thick, composed of a homogeneous aluminum lead mixture, one with a lead content of 5 and the other with one of 10 percent in weight, were studied by the authors. In addition, a "selection" of the partner (i.e. of the aluminum or the lead atom) was introduced into the calculating scheme. The probability for interaction with the aluminum

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γ-radiation applied to the...

atoms in the mixture is given by $P = \sigma_{Al} \cdot N_{Al} / (\sigma_{Al} \cdot N_{Al} + \sigma_{Pb} \cdot N_{Pb})$, where σ_{Al} and σ_{Pb} are the total cross sections of the interactions with the aluminum and lead atoms; N_{Al} and N_{Pb} are the numbers of Al and Pb atoms per cm^3 of the mixture. The results of the calculations are shown with others in Fig. 3 and Fig. 5. Photoabsorption occurs practically only on lead. With increasing lead concentration, the maxima of photoabsorption are shifted toward higher energies. At the same time the whole energy distribution changes. The share of the heavy element in the mixture becomes noticeable in certain sections of the spectrum of both forward and backscattered radiation and can be determined experimentally. This confirms the ideas of selective core sampling by γ-rays. In the range of relatively high concentrations the method of selective core sampling is of low efficiency owing to the small difference of the spectra of scattered radiation at a lead content of 5 % and 10 %. With increasing concentration of the heavy element doping, selective core sampling passes to impervious core sampling. Selective core sampling by γ-rays can be employed if the lead doping is less than 5 %, impervious core sampling if it is more than 5 %. The

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percentage of dopings in ore-bearing rocks cannot be evaluated precisely since the data hitherto available are insufficient. The ore content could, however, be estimated from the ratio of intensities in a definite section of the spectrum and from the shift of the maximum of photoabsorption on the energy scale. The doping percentage can be evaluated by selective core sampling with the use of a luminescence spectrometer. Ye. Akkoshkarov and F. A. Tulinova are thanked for their assistance in carrying out the calculations. There are 7 figures, 1 table, and 5 references: 4 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: C. C. Horton Rep. A.E.R. ERS/L3, 1953.

Legend to Fig. 3: Energy spectra of photoabsorbed γ-quanta: 1 - Al + 5% Pb; 2 - Al + 10 % Pb.

Legend to Fig. 5: Spectra of forward scattered γ-quanta for a mixture: 1 - Al + 5 % Pb; 2 - Al + 10 % Pb.

20160

S/031/60/000/012/003/003
A161/033

24.6720(1482, 1138, 1158)

AUTHORS: Akkerman, A.F.; Kaipov, D.K.; Shubnyy, Yu.K.

TITLE: Resonance Scattering of γ-Rays on Ni^{60}

PDRIODICAL: Vestnik Akademii nauk Kazakhskoy SSR, 1960, No. 12, pp. 36 - 44

TEXT: The lifetime and spin of the first excitation state of Ni^{60} have been measured using the γ-rays resonance scattering method. The measuring results are given and the ways are indicated to raise the accuracy of the resonance scattering cross section determination, as well as for the possible study of beta decay. The increase of incident γ-rays energy to resonance energy was achieved by utilizing the nuclear recoil in preciding beta decay and gamma radiation. The Co^{60} decay system is considered (Fig. 1) and the energy of emitted γ_2 quantum calculated by the formula

$$\cos\alpha + E_o \frac{V_z}{c} \quad (3)$$ where V - is

$$E + E_o - \frac{E_o^2}{2Mc^2} + E_o \frac{V}{c} \cos\theta + E_o \frac{V_\gamma}{c}$$

recoil nucleus velocity from β-radiation, directed at θ angle to the escape direction of the γ_2 - quantum; V - the velocity of the recoil nucleus from γ_1 - quantum; V_z - the projection of thermal motion velocity on the γ_2 direction;

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S/031/60/000/012/003/003
A161/A033

Resonance Scattering of γ-Rays on Ni^{60}

α - the angle between the escape directions of γ_1 and γ_2 quanta. (The thermal motion effect is not taken into account in the further calculations). Considering that the deceleration time in gases at atmospheric pressure is of the order 10^{-10} - 10^{-9} sec, the relation between the excited level lifetime τ_γ and the resonance scattering cross section σ_{cp} is determined by the formula $\tau_\gamma = \frac{2J^* + 1}{2J_o + 1} \cdot \frac{2.53}{E_o^2 \cdot \sigma_{cp}} \cdot \frac{N(E_p)}{N}$, where $\frac{N(E_p)}{N}$ is the γ-quanta fraction in the incident beam in the 1 ev range at energy $E = E_{res}$ that is determined from the "microspectrum" of the incident radiation; σ_{cp} - the resonance scattering cross section; J_o - normal state spin of nucleus; J^* - excited state spin. The scintillation spectrometer used for γ- quanta recording is illustrated (Fig. 4). The source was $CoCl_2$ of 2mCu activity. The ampule with dryed $CoCl_2$ was evacuated to 10^{-2} mm Hg, sealed and placed into a steel container which was heated to 1050°C, so that all $CoCl_2$ turned into gas. A lead block 70 mm in diameter and 200 mm length protected the detector from direct hits of γ-quanta, and it recorded quanta scattered from a round nickel scatterer; γ-radiation was detected by a NaI (Tl) crystal of 30 mm diameter and 40 mm height, connected to an ФЭУ-29 (FEU-29). The lifetime calculated with the formula (5) for 1330 kev level for Ni^{60} was $\tau_\gamma = (1.24 \pm 0.28) \cdot 10^{-12}$ sec, or about 5 times shorter of single-particle transi-

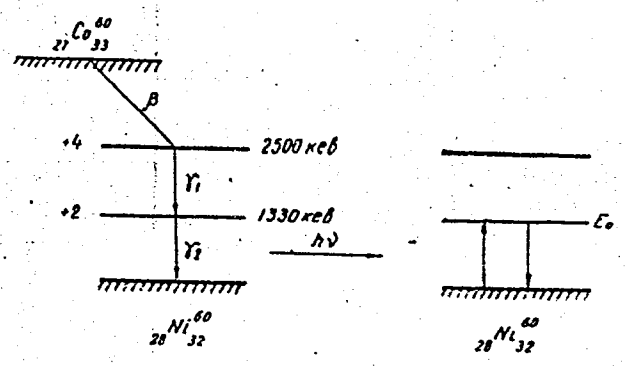
S/031/60/000/012/003/003
A161/A033

...sonance Scattering of γ-Rays on Ni^{60}

tion lifetime (Ref. 2) (Adler, A. Bohr, T. Huus, B. Mottelson, A. Winther. Rev. Mod. Phys., 28, 432 (1956). The first excitation level spin of Ni^{60} was determined to be equal 2. The formula is only roughly approximate, and though the lifetime determined in the experiment tallies with the data of (Ref. 5) (F.R. Metzger. Phys. Rev. 103, 983, 1956) the lifetime determination accuracy is ~20%, as in (Ref. 5). Student-diplomant E. Vil'kovskiy of the Kazakhskaya SSR State University participated in the calculations. There are 7 figures and 9 references of which 7 are Soviet and 2 English.

Figure 1:

Excitation of the Ni^{60} nucleus by quanta



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22616
S/089/61/010/004/019/027
B102/B205

26.2246

AUTHORS: Akkerman, A. F., Kaipov, D. K.

TITLE: Monte Carlo calculation of the passage of gamma rays from a plane oriented Cs^{137} source through aluminum under conditions corresponding to barrier geometry

PERIODICAL: Atomnaya energiya, v. 10, no. 4, 1961, 391-392

TEXT: The method of polynomial expansion by L. Spencer and U. Fano (Res. Nat. Bur. Standards, 46, 446 (1951)) is extensively used to solve the transport equation for gamma quanta. The very difficult computations can be simplified by a straightforward relation suggested by Roys et al. (Phys. Rev. 95, 911 (1954)) for the growth factor:

$$B = A_1 \exp(-\alpha_1 \mu_0 z) + A_2 \exp(-\alpha_2 \mu_0 z) \quad (1),$$

where μ_0 symbolizes the linear attentuation factor of gamma radiation in matter. However, experiments have shown that growth factors calculated from Eq. (1) were much greater than the actual values. This finding is related to the fact that the theory is based on the assumption of an

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infinitely large scattering medium (energy flux from all sides), whereas barrier geometry is employed in practice (energy flux from one side). The influence of the geometry is the greater the weaker the source, viz., the greater the penetration depth of radiation. The Monte Carlo method has now been used to verify what has been said above and to obtain suitable relations for the growth factors. A study has been made of the passage of gamma rays from a plane Cs^{137} source through aluminum under conditions corresponding to barrier geometry. The source was oriented such that the angle of incidence was zero. The method of calculation was chosen according to Ref. 7. The great advantage of this method is its high degree of accuracy (9.5 % in this case). Agreement with the experiment was found to be good. The energy growth factor proved to be virtually a linear function of the penetration depth z. Fig. 3 shows the dose growth factor B_D as calculated from the formula

$$B_D = \left[\sum_{i=1}^{20} \mu_e(E_i)I(E_i)\right] \Big/ \left[\mu_e(E_o)I(E_o)\right] + 1,$$

where $\mu_e(E_i)$ indicates the absorption coefficient of gamma quanta of energy

Mon e Carlo calculation...

E_i in air, $I(E_i)$ the energy flux of scattered radiation in the i-th interval after passing through a material layer of thickness z, $I(E_o)$ the energy flux of non-scattered radiation at the same depth. It is seen that the growth factor calculated from Eq. (1) (curve 2) differs considerably from the experimental values, whilst the one calculated from the formula given here (curve 1) agrees well with the experiment. N. S. Shteyn, K. B. Yakovlev, and Yu. G. Kosyak are thanked for assistance. There are 4 figures and 11 references: 7 Soviet-bloc and 4 non-Soviet-bloc. The three references to English-language publications read as follows: Ref. 7: M. Berger. J. Res. Nat. Bur. Standards, 55, 343, (1955); Ref. 9: F. Perkins. J. Appl. Phys. 26, 1372 (1955); Ref. 10: F. Kirn et al. Radiology, 63, 94 (1955).

SUBMITTED: October 17, 1960

Card 3/4

22616

AKKERMAN, A.F.; KAIPOV, D.K.; SHUBNYY, Yu.K.

Resonant scattering of gamma rays on Te^{124} nuclei. Zhur. eksp. i teor. fiz. 40 no.4:1031-1032 Ap '61. (MIRA 14:7)

1. Institut yadernoy fiziki AN Kazakhskoy SSR.
(Gamma rays--Scattering) (Tellurium--Isotopes)

S/707/62/005/000/010/014
D290/D308

AUTHORS: Akkerman, A.F., Vil'kovitskiy, E.Ya. and Kaipov, D.K.

TITLE: Doppler broadening of γ-line in gases

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut yadernoy fiziki. Trudy, v. 5. Alma-Ata, 1962. Fizika chastits vysokikh energiy. Struktura yadra, 128-134

TEXT: The authors studied the effect of various factors on the γ-ray microspectra of gaseous sources; these effects are important in resonant scattering experiments with γ-rays. The structure of the microspectrum depends on the Doppler energy shifts of the γ-quanta due to recoils from previous nuclear processes. The authors calculated the separate effects for a preceding β-disintegration, K-capture, and γ-transition, and then combined the results by means of probability theory to find the total effect for two typical disintegration schemes; the method can be applied to more complex and to branched disintegration schemes. The method was used to calculate the microspectrum of the β-decay of ^{60}Co to ^{60}Ni. The auth-

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ors also studied the effect of thermal motion, chemical shifts, and atomic collisions on the microspectrum. The Doppler shift due to thermal motion was calculated assuming a Maxwellian velocity distribution for the gas molecules; the effect was only appreciable at the edges of the spectrum even at 1500°C. The chemical shift effect is difficult to calculate except in the simplest cases; a rough approximation is given by subtracting the energy of the shift from the recoil energy. The effect of atomic collisions was calculated on the assumption that association is negligible in the gas; that the molecular interactions are elastic, isotropic in the center-of-mass system, and their cross-section is independent of energy; and that the preceding γ-transitions have much shorter lifetimes than the resonant level. The resonant scattering cross-section for ^{74}Ge was calculated as a function of the density of the ^{74}As source; the results agree well with experiment. There are 5 figures.

S/056/62/043/004/021/061
B102/B180

AUTHORS: Akkerman, A. F., Vil'koviskiy, E. Ya., Kaipov, D. K., Chekanov, V. N.

TITLE: Resonance scattering method of measuring the lifetime of the 4^+ level (1282 kev) of the Cd^{114} nucleus

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 4(10), 1962, 1268 - 1271

TEXT: The dependence of the resonance scattering cross section on the source density was investigated with six $InCl_3$ vapor specimens in quartz ampoules enclosed in stainless steel containers, with heating from 500 to 800°C to vary the density. Each ampoule had an In^{114} activity of 10 millicuries. That the whole $CdCl_3$ molecule undergoes the recoil due to gamma emission in the K-capture, without any destruction of bonds, was confirmed by a special self-absorption experiment. $q = \frac{ndgh^2c^2\Gamma}{4[\pi(\Delta_n^2+\Delta_p^2)]^{1/2}E_0^2}$. (2). The relative weakening of the resonance effect as a result of additional

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scattering in a thin resonance absorber, was measured. Γ is the level width, which is independent of the state of the source molecule, n the number of atoms per cm^3 Cd, d the mean effective scatterer thickness, Δ_n, Δ_p are the Doppler widths due to the thermal motion of the absorber and scatterer atoms respectively, E_0 is the transition energy and g the spin factor. From $\Gamma = (4.26 \pm 1.47) \cdot 10^{-8}$ ev the mean lifetime of the 557-kev 2^+ level of the Cd^{114} nucleus was calculated as $\tau_1 = (1.53 \pm 0.53) \cdot 10^{-11}$ sec. τ_2 the lifetime of the 1282-kev 4^+ level was calculated from the experimental curves $P(E_p) = \varphi[\tau_2, \lambda(\rho, d)]$, where P is the number of γ-quanta per ev near E_p, λ is the mean free path of the $InCl_3$ molecules in a medium of density ρ and collision parameter d: $\tau_2 = (7.5^{+1.2}_{-2.6}) \cdot 10^{-12}$ sec. The theoretical τ_2 values are highly dependent on the model used, but are always below $7.5 \cdot 10^{-12}$ sec. A model which takes account of nucleon pair interaction and collective interaction with the surface (Phys. Rev. 114, 1116, 1959) gives the best approach. There are 3 figures.

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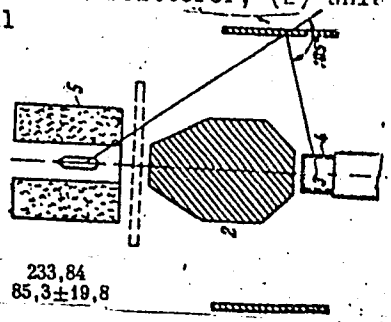
Resonance scattering method ...

S/056/62/043/004/021/061
B102/B180

ASSOCIATION: Institut yadernoy fiziki Akademii nauk Kazakhskoy SSR (Institute of Nuclear Physics of the Academy of Sciences of the Kazakhskaya SSR)

SUBMITTED: May 29, 1962

Fig. 2. Experimental arrangement. (1) Cylindrical scatterer, (2) shielding lead cone, (3) detector, a NaI(Tl) crystal with ФЭУ-11(FEU-11) photomultiplier, whose pulses were fed to an АЗ-1(AZ-1) single-channel pulse-height analyzer; (4) 1.5 mm Pb shield; (5) furnace with source.



ρ, mg/cm³	3,85	9,57	21,22	24,55	63,71	233,84
σ, mb	216±22,3	232,6±21	224±21,4	210,9±27,6	168±18,5	85,3±19,8

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AKKERMAN, A.F.; VIL'KOVISKIY, E.Ya.; CHEKANOV, V.N.

Use of the method of gamma-quantum resonance scattering in determining the lifetime of the second excited state of nuclei. Izv. AN Kazakh. SSR. Ser. fiz.-mat. nauk no. 2:19-30 '63. (MIRA 17:6)

L 17861-63 EWT(m)/BDS AFFTC/ASD

ACCESSION NR: AP3003686 S/0048/63/027/007/0862/0864

AUTHOR: Akkerman, A.F.; Kochetkov, V.L.; Chekanov, V.N.

TITLE: Lifotime of the 880 keV 2 sup + state of Ti sup 46 /Report of the Thirteenth Annual Conference on Nuclear Spectroscopy held in Kiev from 25 January to 2 February 1963/

SOURCE: AN SSSR Izv.Seriya fizicheskaya, v.27, no.7, 1963, 862-864

TOPIC TAGS: lifetime level, resonance scattering, Mossbauer effect, Ti sup 46

ABSTRACT: The lifetime of the 880 keV 2^+ level of Ti^{46} has been measured by the method of Coulomb excitation by G.M.Temmer and N.P.Heydenburg (Phys.Rev.,104, 967 1956) and D.Andreyev, A.Grinberg, K.Erokhina and I.Lemberg (Nuc.Phys.,19, 400, 1960) but the results of these groups are conflicting. Accordingly, in the present work the lifotime of this state was measured by the method of resonance scattering of gamma-rays, which is known to be a reliable procedure for measuring lifetimes and in addition yields supplementary information. Resonance conditions in the rarified gaseous state can be realized if the γ-line is Doppler broadened by a preceding β-transition with end-point energy 360 keV and 1120 keV γ-rays. The source

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L 17861-63
ACCESSION NR: AP3003686

was prepared of $ScCl_3$ obtained by chlorination of Sc_2O_3, for $ScCl_3$ is the only scandium compound volatilized at under 1000°C. The measurements were carried out on a two-channel semiautomatic set-up using flat, 30 x 30 cm Ti and Fe scatterers 1.2 and 0.8 cm thick, respectively. The γ-rays were detected by scintillation spectrometers with NaI(Tl) crystals viewed by FEU-11 photomultipliers coupled to single-channel analyzers. The spectrometer resolution was about 12%. Measurements were carried out while heating the source from 20° (solid - no effect) to 1050° (gas - appreciable scattering effect). Calculations based on the experimental microspectrum yield $T = (5.45 \pm 1.45) \times 10^{-12}$ sec, which is in agreement with the result of Andreyev et al. Comparison of this T with the lifetime calculated on the basis of the single-particle model indicates that the 880 keV transition is a speeded up transition with F ≈ 10. "In conclusion, we thank S.N.Titov for assistance in the work." Orig.art.has: 1 formula, 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: NS NO REF SOV: 004 OTHER: 003

Card 2/2

L 17860-63 EWT(m)/BDS AFFTC/ASD

ACCESSION NR: AP3003687 S/0048/63/027/007/0865/0865

AUTHOR: Akkerman,A.F.; Kochetkov,V.L.; Chekanov,V.N.; Oslopovskikh,G.V. Suvorov,V.A.; Shtol'ts,A.K.

TITLE: Lifetime of the first excited state of Ti^{48} /Report of the Thirteenth Annual Conference on Nuclear Spectroscopy held in Kiev from 25 January to 2 February 1963/

SOURCE: AN SSSR Izv. Seriya fizicheskaya, v.27, no.7, 1963, 865

TOPIC TAGS: lifetime level, resonance scattering, Mossbauer effect Ti^{48}

ABSTRACT: The lifetime of the 990 keV 2^+ state of Ti^{48} has been determined by the method of Coulomb excitation as 9.7×10^{-12} sec and 4.2×10^{-12} sec, respectively, by G.M.Temmer and N.P.Heydenburg (Phys.Rev.,104, 967, 1956) and D.Andreyev and others (Nuc.Phys.,19, 400, 1960) and by the method of resonance scattering by V.Knapp (Proc.Phys.Soc.,A70, 194, 1957) who obtained $T = 4.2 \times 10^{-12}$ sec. But Knapp did not take into account the possible influence of molecular bonds, although the density of his source was such that this influence could be significant. Hence the authors carried out resonanance absorption experiments aimed at determining the lifetime of the 990 keV state of Ti^{48}. The source was V^{48} produced by deuteron

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ACCESSION NR: AP3003687

bombardment in the internal beam of the Sverdlovsk Polytechnic Institute cyclotron of natural Ti and then converted to VCl_3. The 400°C reaction temperature employed prevented chlorination of the Sc^{46}, which was also present in the target. Measurements on the double scintillation spectrometer set-up with Ti and Fe scatterers yielded a value of 0.072 ± 0.022 for the attenuation factor R. Calculations based on this value yield (9.47 ± 2.89) x 10^{-5} eV for the level width and, finally, T = (4.92 ± 1.52) x 10^{-12} sec for the lifetime of the 2^+ state. Orig. art. has: 1 formula.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: NS NO REF SOV: 002 OTHER: 003

Card 2/2

AKKERMAN, A.F.; KOCHETKOV, V.L.; CHEKANOV, V.A.; SUVOROV, V.V.; SHTOL'TS, A.K.

Liftime of the 4+(2310 Kev.) level in Ti^{48}. Zhur. eksp. i teor. fiz. 45 no.6:1778-1783 D '63. (MIRA 17:2)

1. Institut yadernoy fiziki AN Kazakhskoy SSR.

ACCESSION NR: AR4032169 S/0058/64/000/002/V011/V011

SOURCE: Ref. zh. Fiz., Abs. 2V84

AUTHORS: Akkerman, A. F.; Vil'koviskiy, E. Ya.; Chekanov, V. N.

TITLE: Use of the method of resonance scattering of Gamma rays to determine the lifetimes of the second excited states of nuclei

CITED SOURCE: Izv. AN KazSSR. Ser. fiz.-matem. n., vy*p. 2, 1963, Yadern. fiz., 19-30

TOPIC TAGS: second excited state, state lifetime, Gamma resonance scattering, recoil nucleus, recoil nucleus deceleration, differential cross section

TRANSLATION: It is shown in the paper that the lifetimes of the second-excited states of some nuclei can be determined by investigating experimentally the dependence of the cross section of reso-

Card 1/2

L 25733-65 EWT(m) DIAAP

ACCESSION NR: AP5004907 S/0030/65/000/001/0013/0018

AUTHOR: Akkerman, A. F.; Kochetkov, V. L.; Chekanov, V. N.

TITLE: Investigation of slowing down of slow atoms in gases by the gamma-ray

SOURCE: Chimia, experimental'noy [illegible], no. 1, 1965, 13-18

TOPIC TAGS: gamma ray resonance, gamma ray scattering, resonance scattering, [illegible]

ABSTRACT: The cross section for resonant scattering of [illegible] keV gamma rays by V^{51} nuclei was investigated as a function of the density of a gaseous CrO_2Cl_2 source. [illegible] of scattering material. The mean scattering angle was [illegible]. A NaI(Tl) crystal together with a photomultiplier was used as a detector. The experimental density

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L 28733-65

ACCESSION NR: AP[illegible]

[illegible] agreed satisfactorily with the theoretical prediction based on the elastic-collision model. The collision [illegible] with those of [illegible] E. Comparison of [illegible] (< 150 eV) [illegible] and 3 tables.

[illegible] Institute of [illegible], Academy of [illegible]

SUBMITTED: 12May64 ENCL: 00 SUB CODE: NP

NR REF SOV: 007 OTHER: 009

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L 28733-66

ACCESSION NR: AP5004367

ENCLOSURE: 01

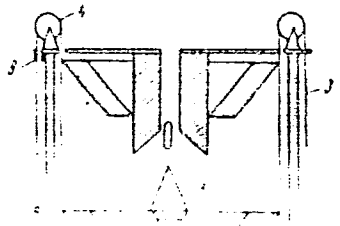

Fig. 1. Diagram of experimental

Card 3/3

GERSHENTSVIT, R.S.; AKKERMAN, B.D.

Studying the oxidation resistance of fat bases enriched with vitamin F. Trudy Len. khim.-farm. inst. 12:173-178 '61.
(MIRA 15:3)

1. Kafedra analiticheskoy khimii Leningradskogo khimiko-farmatsevticheskogo instituta Ministerstva zdravookhraneniya RSFSR i kafedra obshchey khimii Leningradskogo obshchevoyskovogo komandnogo uchilishcha imeni Kirova.

(OILS AND FATS) (MATERIA MEDICA)
(VITAMINS--F)

AKKERMAN, B.I.

Method of examining the pharynx in children. Fel'd. i akush. 28 no.8:46-48 Ag'63 (MIRA 16:12)

1. Rayonny pediatr, selo kaushany, Moldavskoy SSR.

AKKERMAN, B.Z.

Significance of the anoxemia dosage test in the diagnosis of coronary insufficiency. Kaz.med.zhur. no.5:14-18 S-O '62.
(MIRA 16:4)

1. 1-ya kafedra terapii (zav. - prof. L.M.Rakhlin) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni V.I.Lenina.

(CORONARY HEART DISEASE) (ANOXEMIA)

GINZBURG, M.L.; GOROKHOV, P.K.; GEYLER, L.B., prof., doktor tekhn.nauk; SHISHKIN, S.V.; AKKERMAN, D.A., red.; GAVRILOV, S.S., tekhn.red.

[German-Russian electric engineering dictionary] Nemetsko-russkii elektrotekhnicheskii slovar'. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 1066 p. (MIRA 12:2)
(German language--Dictionaries--Russian)
(Electric engineering--Dictionaries)

YAKOVLEV, Boris Yevgen'yevich; ZVYAGEL'SKIY, M.M., red.; AKKERMAN, D.A., red.; ROGOVSKAYA, Ye.R., red.; KRYUCHKOVA, V.N., tekhn.red.

[Czech-Russian radio engineering dictionary] Cheshsko-russkii radiotekhnicheskii slovar'. Pod red. M.M.Zviagel'skogo. Moskva, Glav.red.inostr.nauchno-tekhn.slovarei Fizmatgiza, 1960. 364 p. (MIRA 14:4)
(Radio--Dictionaries)
(Czech language--Dictionaries--Russian language)

GOROKHOV, Petr Kuz'mich; AKKERMAN, D.A., red.; PLAKSHE, L.Yu., tekhn. red.

[Russian-German radio engineering dictionary] Russko-nemetskii radiotekhnicheskii slovar'. Moskva, Glav. red. inostr. nauchno-tekhn. slovarei Fizmatgiza, 1961. 390 p. (MIRA 14:9)
(Russian language—Dictionaries—German language)
(Radio—Dictionaries)

GRABOV, Isaak Naumovich; AKKERMAN, D.A., red.; BARANOV, A.M., red.; BOGOMOLOV, B.A., red.; GUSEV, N.P., red.; MURONETS, I.I., red.; POGREBNAYA, L.L., red.; KRYUCHKOVA, V.N., tekhn. red.

[German-Russian dictionary on welding] Nemetsko-russkii slovar' po svarke. Moskva, Glav.red.inostr. nauchno-tekhn.slovarei Fizmatgiza, 1962. 246 p. (MIRA 15:7)
(German language—Dictionaries—Russian)
(Welding—Dictionaries)

STENDER, G.M.; AKKERMAN, D.A., red.; KOROBKOVA, N.I., tekhn. red.

[German-Russian dictionary on cement, concrete and reinforced concrete]Nemetsko-russkii slovar' po tsementu, betonu i zhelezobetonu. Moskva, Gosstroiizdat, 1962. 377 p. (MIRA 15:12)
(German language--Dictionaries--Russian)
(Building materials--Dictionaries)

GINZBURG, M.L.; GOROKHOV, P.K.; GEYLER, L.B., prof., doktor tekhn. nauk; SHISHKIN, S.V.; AKKERMAN, D.A., red.; PLAKSHE, L.Yu., tekhn. red.

[German-Russian electrical engineering dictionary] Nemetsko-russkii elektrotekhnicheskii slovar. Izd.2., stereotipnoe. Moskva, Fizmatgiz, 1962. 1089 p. (MIRA 15:10)
(Electric engineering--Dictionaries)
(German language--Dictionaries--Russian)

MALASHKO, V.I.; AKKERMAN, A.N.

Hepatolenticular degeneration. Zdrav.Belor. 5 no.6:33-36 Je '59. (MIRA 12:9)

1. Iz kliniki nervnykh bolezney (zaveduyushchiy - prof.M.A. Khazanov) Minskogo meditsinskogo instituta.
(HEPATOLENTICULAR DEGENERATION)

BARBASOV, A., polkovnik; AKKERMAN, B., dotsent

We raise the ideological standard of general studies. Komm.Vooruzh. Sil 1 no.5:67-69 D '60. (MIRA 14:8)

1. Sekretar' partbyuro upravleniya Leningradskogo vysshego obshchevoyskovogo komandnogo uchilishcha imeni S.M.Kirova (for Barbasov). 2. Sekretar' partorganizatsii obshchenauchnykh kafedr Leningradskogo uchilishcha im. Kirova (for Akkerman).
(Military education)

AKKERMAN, B.D.

Studying the effect of antioxidants on butter. Izv.vys.ucheb. zav.; pishch.tekh. no.2:51-56 '59. (MIRA 12:8)

1. Leningradskoye vyshcheye obshchevoyskovoye komandnoye uchilishche imeni S.M.Kirova.
(Antioxidants) (Butter)

AKKERMAN, B.Z.

21020 Akkerman, B.Z. Khronaksimetriya pri eksperimental'nykh perelomakl Trudy in-ta (Kazansk nauch-issled in-t ortopedii i vosstanovit khirurgii) t-lll, 1949, s. 319-20.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

MOLCHANOV, L.N .; MAKAROVA, V.I.; AKKERMAN, B.Z.

Late results of surgical treatment of wounds of the heart. Sov. med. 22 no.12:8-12 D '58. (MIRA 12:1)

1. Iz kafedry khirurgii i neotlozhnoy khirurgii (zav. - prof. P. V. Kravchenko) Kazanskogo gosudarstvennogo instituta usovershenstvovaniya vrachey na baze 5-y gorodskoy bol'nitsy (glavnyy vrach M. Ya. Liss).
(HEART, wds. & inj.
surg., remote results (Rus))

AKKERMAN, F.M., inzh.

Standardization and normalization of explosionproof electrical equipment. Elektrotekhnika 34 no.12:54-55 D '63. (MIRA 17:1)

RIBAS, Yuriy Mikhaylovich [deceased]; AKKERMAN, Fridrikh Markovich; PYATETSKIY, Grigoriy Yuzefovich; ARNOPOLIN, Aleksandr Grigor'yevich; STESHENKO, N.N., red.

[Explosionproof electrical equipment for the petroleum, gas, and chemical industries; a handbook-catalog] Vzryvozashchishchennoe elektrooborudovanie dlia neftianoi, gazovoi i khimicheskoi promyshlennosti; spravochnik-katalog. Moskva, Nedra, 1964. 158 p. (MIRA 17:12)

KHORUNZHIY, Valentin Alekseyevich; RIBAS, Yuriy Mikhaylovich [deceased]; AKKERMAN, Fridrikh Markovich; ARNOPOLIN, Aleksandr Grigor'yevich; PYATETSKIY, Grigoriy Yuzefovich; OZERNOY, M.I., prof., retsenzent

[Explosionproof, electrical mine equipment; a handbook] Rudnichnoe vzryvobezopasnoe elektrooborudovanie; spravochnik. Moskva, Nedra, 1964. 289 p. (MIRA 17:12)

AKKERMAN, F.M., inzh.; PYATETSKIY, G.Yu., inzh.; RYBKO, B.P., inzh.

Standardization of current conducting binding posts of explosion-proof electrical equipment. Elektrotekhnika 35 no.2:16-17 F '64. (MIRA 17:3)

AKKERMAN, G.L., aspirant; GAVRILENKOV, A.V., assistent

Analytical method for laying out a line of a given grade. Trudy MIIT no.181:62-71 '64. (MIRA 18:1)

AKKERMAN, G.L.; KHOREV, G.N.

X-ray diagnosis of acute pancreatitis. Sov. med. 28 no.10: 86-89 O '65. (MIRA 18:11)

1. Kafedra gospital'noy khirurgii (zav.- doktor med. nauk G.N. Zakharova) lechebnogo fakul'teta Saratovskogo meditsinskogo instituta i rentgenologicheskoye otdeleniye (zav. M.Ya. Yampol'skaya) klinicheskoy bol'nitsy No.1, Saratov.

KASIM-ZADE, M.S.; AKKERMAN, I.D.

Experimental study of the effectiveness of an electrokinetic transformer operating on direct current. Izv. AN Azerb. SSR. Ser.fiz.-mat. i tekh.nauk no.5:91-96 '61. (MIRA 15:2)
(Electric transformers)

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B

netic field assures good noiseproofing and sensitivity while simplifying the measuring circuit. Operation of the transducer can be governed by the mass of the

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ACCESSION NR: AP5011744

...id, the flexibility of the diaphragm, or the resistance of the liquid to friction. In the last case, the frequency characteristic is uniform ...

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ACCESSION NR: AP5011744

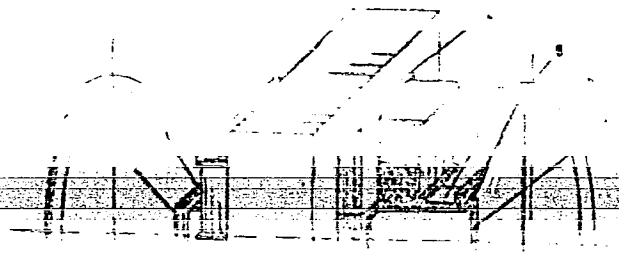


Fig. 1. Magnetohydrodynamic

rectangular cross section; 2 - tube made from insulating material; 3 - electrodes;

sheet.

RIBAS, Yuriy Mikhaylovich [deceased]; AKKERMAN, Fridrikh Markovich; PYATETSKIY, Grigoriy Yuzefovich; ARNOPOLIN, Aleksandr Grigor'yevich; STESHENKO, N.N., red.

[Explosionproof electrical equipment for the petroleum, gas, and chemical industries] Vzryvozashchishchennoe elektrooborudovanie dlia neftianoi, gazovoi i khimicheskoi promyshlennosti; spravochnik-katalog. Moskva, Nedra, 1964. 158 p. (MIRA 18:1)

AKKERMAN, G.L., aspirant

Selecting the optimum route in the planned range of variations with the aid of electronic digital computers. Trudy MIIT no.181:43-61 '64. (MIRA 18:1)

FLEYSHMAN, N.F. (L'vov); ROZENTAL', Yu.G. [Rozental', IU.H. (L'vov);
MARKOVSKAYA, Ye.V. [Markovs'ka, E.V.] (L'vov); ARKERMAN, I.A. (L'vov)

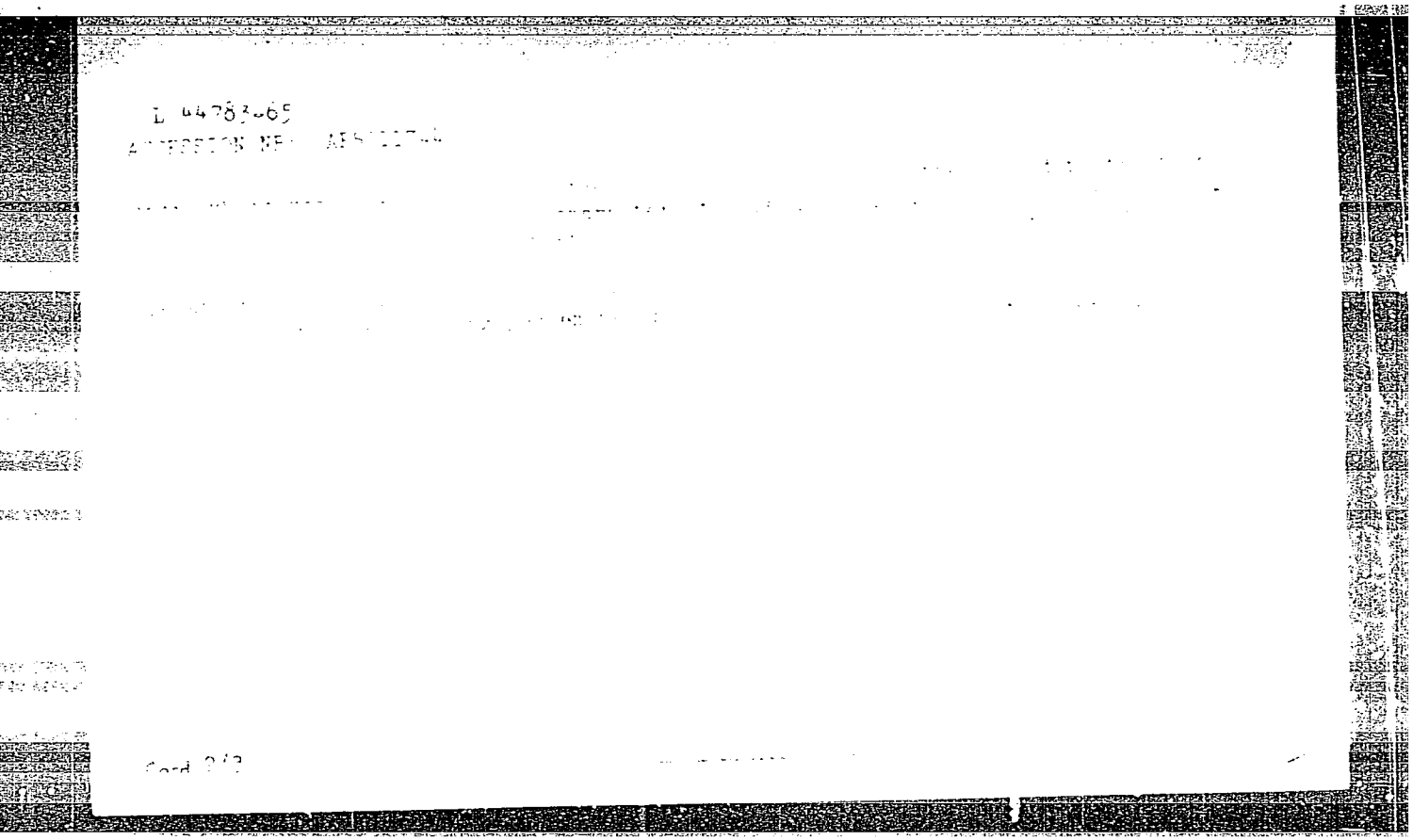
Stresses caused by a local deflection in hoists of motor and electric loaders. Prikl. mekh. 10 no.5:535-546 '64.
(MIRA 17:10)

1. L'vovskiy gosudarstvennyy universitet.

AUTHOR: Akkerman, I. D.

TITLE: Magnetohydrodynamic transducer

TOPIC TAGS: magnetohydrodynamic transducer, transducer, pressure transducer, mechanical displacement transducer, electromagnetic induction transducer



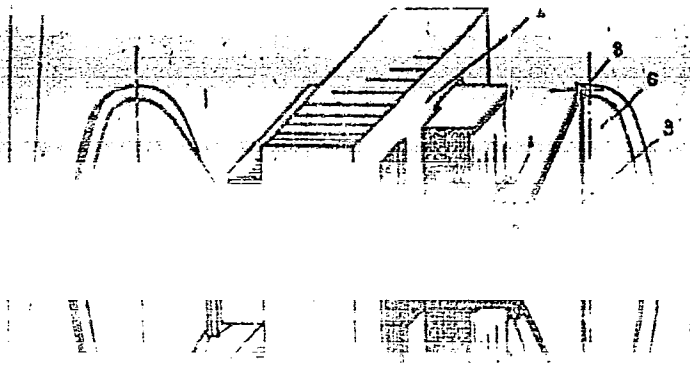


Fig. 1. Magnetohydrodynamic transducer

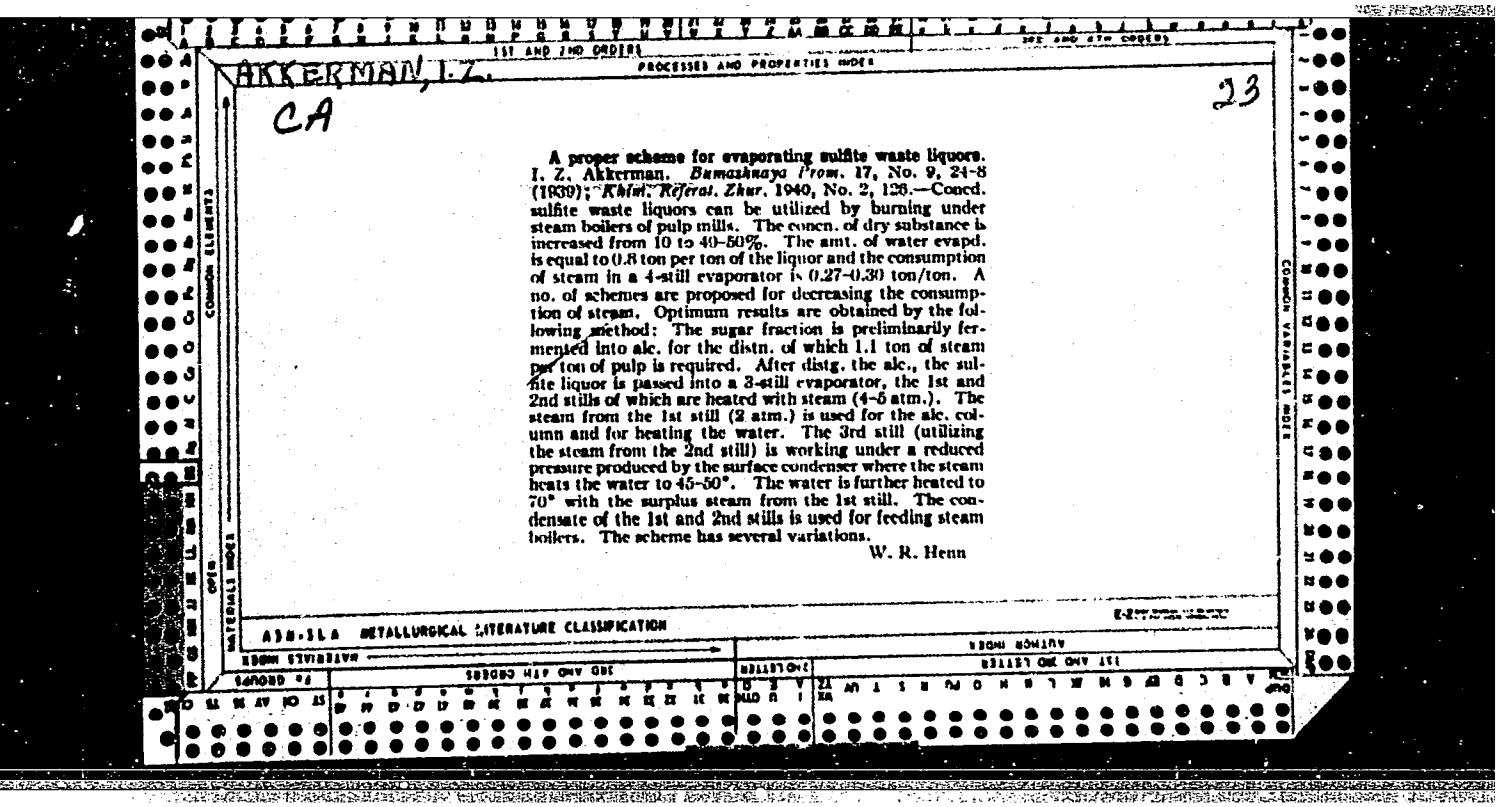
1 - Metal tube with circular or [illegible] cross section;

[illegible] fusers, 6 - diaphragm, 7 - metal [illegible] 8 - sealing

Card 3/3

AKKERMAN, I.I. (Khar'kov)

New type of occlusor. Stomatologiia 42 no.4:100 Jl-Ag '63
(MIRA 17:4)



AKKERMAN, I. Z.

CA

23

A proper scheme for evaporating sulfite waste liquors. I. Z. Akkerman. *Bumazhnaya Prom.* 17, No. 9, 24–8 (1939); *Khim. Referat. Zhur.* 1940, No. 2, 126.—Concd. sulfite waste liquors can be utilized by burning under steam boilers of pulp mills. The concn. of dry substance is increased from 10 to 40–50%. The amt. of water evapd. is equal to 0.8 ton per ton of the liquor and the consumption of steam in a 4-still evaporator is 0.27–0.30 ton/ton. A no. of schemes are proposed for decreasing the consumption of steam. Optimum results are obtained by the following method: The sugar fraction is preliminarily fermented into alc. for the distn. of which 1.1 ton of steam per ton of pulp is required. After distg. the alc., the sulfite liquor is passed into a 3-still evaporator, the 1st and 2nd stills of which are heated with steam (4–5 atm.). The steam from the 1st still (2 atm.) is used for the alc. column and for heating the water. The 3rd still (utilizing the steam from the 2nd still) is working under a reduced pressure produced by the surface condenser where the steam heats the water to 45–50°. The water is further heated to 70° with the surplus steam from the 1st still. The condensate of the 1st and 2nd stills is used for feeding steam boilers. The scheme has several variations.

W. R. Henn

Two-stage distillation of alcohol-containing solutions

Abstract: USSR [illegible]

state operate at different pressures [illegible]

AKKERMAN, I.Z.; ZAYTSEV, B.M.; CHEREMUKHIN, I.K.; MOROZOV, Ye.F.

Designed capacity of a vacuum refrigerating installation.
Gidroliz. i lesokhim. prom. 9 no.8:27 '56. (MLRA 10:2)

(Refrigeration and refrigerating machinery)

MAKSIMENKO, N.S.; GLADNEVA, A.P.; PAVLOV, S.V.; AKKERMAN, I.Z.; KOLOSOVA, A.Ya.; EPSHTEYN, Ya.V.

Mastering the processing of new raw materials at the Krasnodar Hydrolysis Plant. Gidroliz. i lesokhim. prom. 11 no.6:12-16 '58. (MIRA 11:10)

(Krasnodar--Hydrolysis)

AKKERMAN, I.Z.

Problems of the recovery of furfurole from vapors of spontaneously evaporating hydrolyzate and its neutralized fraction. Gidroliz.i lesokhim.prom. 12 no.3:30-32 '59. (MIRA 12:6)

1. Giprogidroliz.
(Furaldehyde) (Hydrolysis) (Distillation, Fractional)

AKKERMAN, I.Z.

Theory of the fractional distillation of a binary mixture of partially soluble components(furfural - water and others). Gidroliz i lesokhim.prom. 12 no.4:14-16 '59. (MIRA 12:8)

1. Gosudarstvennyy institut po proyektirovaniyu gidrolizuykh zavodov.
(Distillation, Fractional)

AKKERMAN, I.Z.; GORSKIN, S.V.

Removal of scale from evaporating units. Gidroliz. i lesokhim. prom. 14 no.3:20-22 '61. (MIRA 14:4)

1. Giprobum (for Akkerman). 2. Slokskiy tsellyulozno-bumazhnyy kombinat (for Gorskin).
(Sloka—Evaporating appliances)

AKKERMAN, I.Z., inzh.

Problems in designing high-capacity rectification apparatuses.
Khim.mash. no.4:11-12 Jl-Ag '62. (MIRA 15:7)
(Distillation apparatus)

AKKERMAN, I.Z.

Design methods for multistage vacuum-evaporating systems. Khim. prom. no.4:294-300 Ap '62. (MIRA 15:5)
(Evaporating appliances)

AKKERMAN, I.Z.

Methodology for designing multiple-stage vacuum evaporating systems taking the temperature depression and heat dehydration into consideration. Khim. prom. no.2:110-117 F '64.
(MIRA 17:9)

AKKERMAN, L.G., student VI kursa

Increase of the total content of neutral 17-ketosteroids in the urine in weak labor activity. Sbor.nauch.trud.Kaf.akush. i gin. 1 LMI no.2:130-136'61. (MIRA 16:7)
(STEROIDS) (LABOR, COMPLICATED)
(URINE—ANALYSIS AND PATHOLOGY)

AKKERMAN, L.I.

Changes in the fetal heartbeat during the first stage of labor; phonocardiographic study. Akush. i gin. 39 no.4:95-99 Jl-Ag'63 (MIRA 16:12)

1. Iz akusherskogo otdeleniya (zav. - prof. Ya.S.Klenitskiy) i laboratorii normal'noy i patologicheskoy fiziologii (zav. - prof. N.L.Garmasheva) Instituta akusherstva i ginekologii (dir. prof. M.A. Petrov-Maslakov) AMN SSSR.

STATNAYA, I.N., inzh.; AKKERMAN, M.Yu., inzh.

First oil extraction plant in Moldavia. Masl.-zhir.prom 26 no.10: 28 O '60. (MIRA 13:10)

1. Bel'tskiy maslookstraksionyy zavod.
(Moldavia--Oil industries--Equipment and supplies)

KARBELASHVILI, L.A., prof.; GEKHTMAN, G.N., prof.; AKKERMAN, N.G. [translator]; ASATIANI, M.M., tekhred.

[Economic geography of the Georgian S.S.R.; textbook for the ninth grade of the secondary school] Ekonomicheskaia geografiia Gruzinskoi SSR; uchebnik dlia IX klassa srednei shkoly. Izd.3., perer. Tbilisi, Gos.izd-vo uchebno-pedagog.lit-ry "TSODNA," 1960. 151 p. (MIRA 13:11)
(Georgia--Economic geography)

AKKERMAN R.

Operativnye vmeshatel'stva na glazakh s pochti absolutnoi glaukomoi. /Surgery in almost absolute glaucoma/ Vest. oft. 29:5 Sept-Oct 50 p. 33-8.

1. Of the Moscow Eye Clinical Hospital (Head Physician and Scientific Director — Prof. M. L. Krasnov).
CIML Vol. 20, No. 2 Feb 1951

AKKERMAN, R. B

16(1) PHASE I BOOK EXPLOITATION SOV/2217

Akademiya nauk SSSR. Matematicheskiy institut imeni V. A. Steklova

Raboty po priblizhennomu analizu (Works on Approximate Analysis) Moscow, AN SSSR, 1959. 391 p. (Its: Trudy, tom. 53) Errata slip inserted. 2,200 copies printed.

Ed.: L. V. Kantorovich, Corresponding Member, USSR Academy of Sciences, Professor; Resp. Ed.: I. G. Petrovskiy, Academician; Deputy Resp. Ed.: S. M. Nikol'skiy, Professor; Ed of Publishing House: N. K. Zaychik; Tech. Ed.: R. A. Arons.

PURPOSE: This book is intended for professional mathematicians interested in approximation methods.

COVERAGE: The book contains a collection of works in the field of approximate computations completed at the Leningrad Branch of the Mathematics Institute imeni V. A. Steklov of the Academy of Sciences, USSR, from 1953 to 1958. All the works contained in this book are published in full for the first time. The theoretical study of approximation methods conceptually related to the

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application of methods of functional analysis has a significant place in the book. In addition, the book contains groups of works on the following subjects: 1) approximate methods of solving the boundary value problems of mathematical physics, 2) numerical methods in the theory of functions, 3) numerical methods of linear algebra, and 4) numerical computation of an indefinite integral. The editor thanks the following people: V. I. Krylov, V. N. Faddeyova, and V. P. Il'in, scientific workers at the Institute, for editing the articles; Ye. A. Meynik, T. P. Akimova, K. Ya. Alfer'yeva and G. A. Gaber, workers at the Institute's laboratory, for computing the tables; Professor S. M. Lozinskiy for his critical review of many of the works; A. A. Dorodnitsinyy and his colleagues for reviewing the works published; Professors D. K. Faddeyev and Yu. Ye. Alenitsyn for final review of the book.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

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11-10-59

AKKERMAN, R.B.

Markov-type quadrature formulas. Trudy mat. inst. 53:5-15 '59. (MIRA 12:9)
(Calculus, Integral)

AKKERMAN, V. M.

"Experimental Electroshock," Nevroparol. i Psikhiat., 17, No.4, 1948

Psychiatric Clinic, Belorussian Med. Inst.

Akkerman, V.I.

USSR/General Division. History. Classics. Personnel. A-2

Abs Jour: Ref. Zhur. Biologiia, No 4, 1958, 14143

Author : Akkerman V.I.
Inst :
Title : Towards the Exploitation of the Lofty Legacy of I.M. Sechenov in Psychiatry.

Orig Pub: Zdravookhr. Belorussii, 1955, No 11, 33-38.

Abstract: No abstract.

Card : 1/1 -18-

AKKERMAN, V.I. (Minsk)

The Pavlovian concept of psychasthenia and schizophrenia. Zhur. nevr. i psikh. 62 no.4:565-572 '62. (MIRA 15:5)
(SCHIZOPHRENIA) (NEUROSES)
(PAVLOV, IVAN PETROVICH, 1849-1936)

AKKERMAN, V.I. (Minsk)

Problem of unrecognized schizophrenia. Trudy Gos. nauch.-issl. inst. psikh. 40:162-166 '63 (MIRA 17:7)

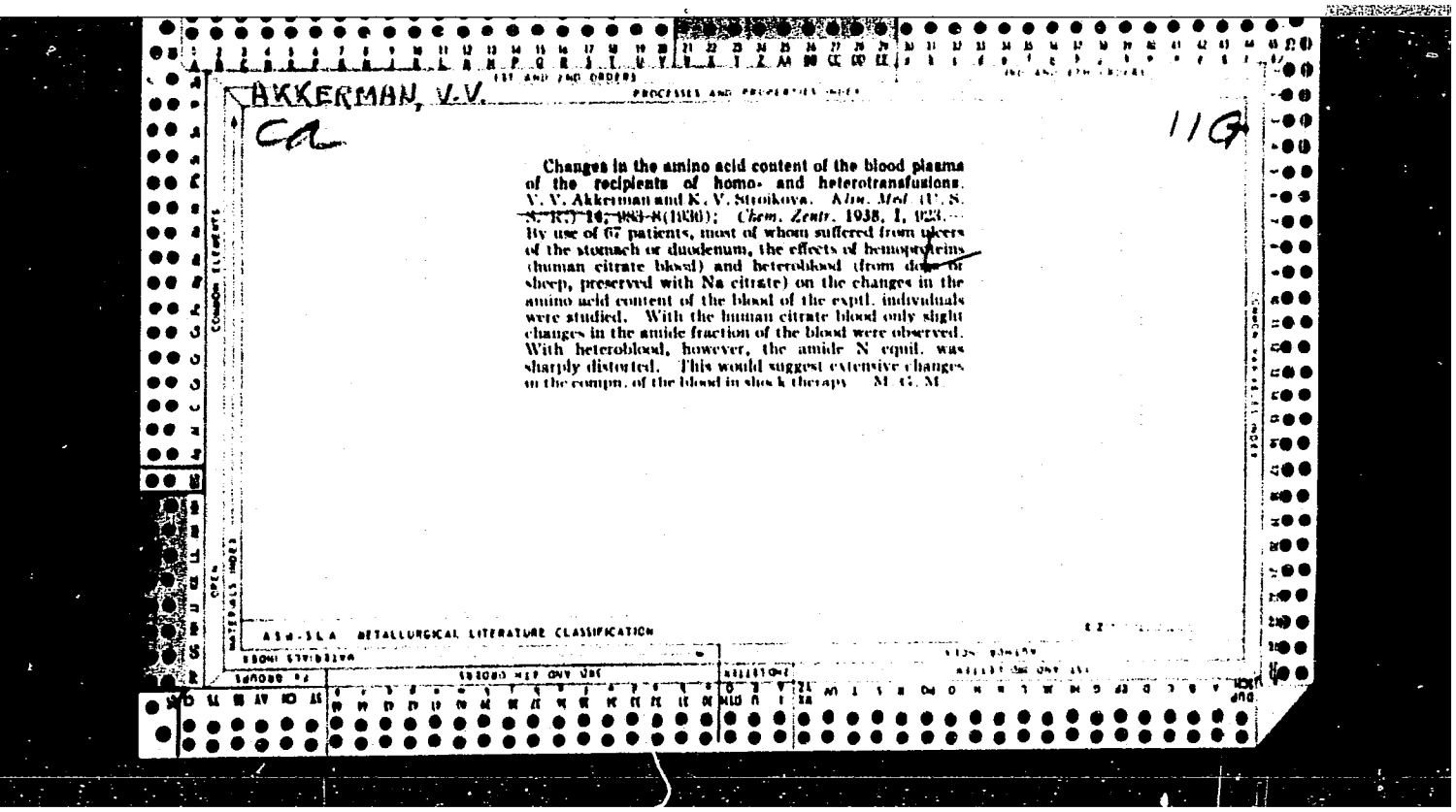
BATYUK, V.P.; PALIYENKO, M.Ya.; AKKERMAN, V.P.

Use of the granular by-products of the chemical industries in weed control. Plast.massy no.2:1-2 '61. (MIRA 14:2)
(Chemical industries—By-products) (Weed control)

IVASHCHENKO, Ya.N.; AKKERMAN, V.P.; MOSHCHITSKIY, S.D.

Diaryl esters of oxalic acid. Zhur.ob.khim. 33 no.12:3829-3831 D '63. (MIRA 17:3)

1. Ukrainskiy institut fiziologii rasteniy AN UkrSSR.



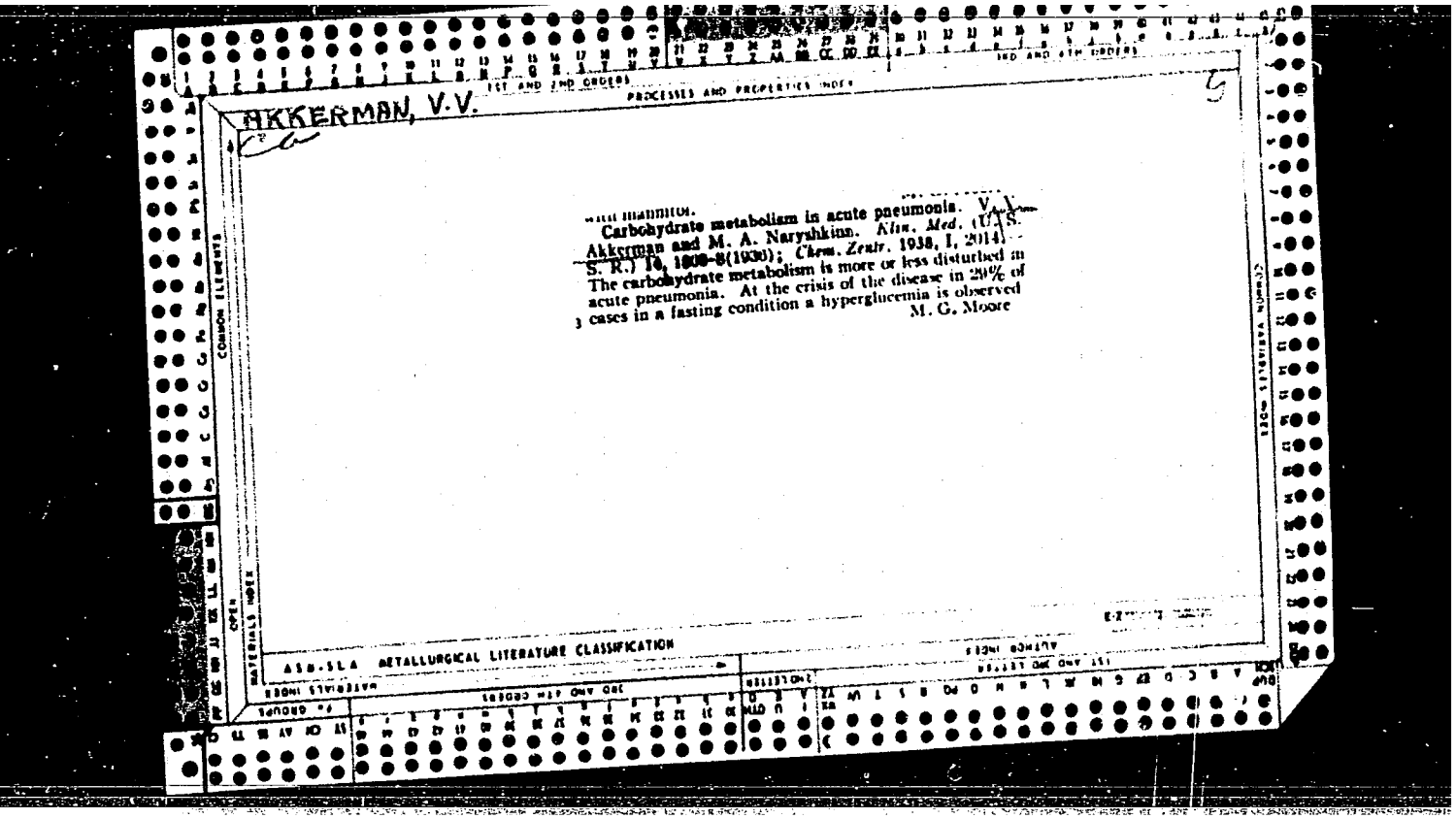
AKKERMAN, V.V.

CA

11G

Changes in the amino acid content of the blood plasma of the recipients of homo- and heterotransfusions. V. V. Akkerman and K. V. Stroikova. *Klin. Med.* (U. S. S. R.) 16, 983-8(1938); *Chem. Zentr.* 1938, I, 923.—By use of 67 patients, most of whom suffered from ulcers of the stomach or duodenum, the effects of hemoplegrins (human citrate blood) and heteroblood (from dogs or sheep, preserved with Na citrate) on the changes in the amino acid content of the blood of the exptl. individuals were studied. With the human citrate blood only slight changes in the amide fraction of the blood were observed. With heteroblood, however, the amide N equil. was sharply distorted. This would suggest extensive changes in the compn. of the blood in shock therapy. M. G. M.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



AKKERMAN, Viktor Viktorovich

(Leningrad Sci Res Inst of Blood Transfusions of the Ministry of Health USSR) - Academic degree of Doctor of Medical Sciences, based on his defense, 24 December 1954, in the Council of the Leningrad State Order of Lenin Inst for Advanced Training of Physicians imeni Kirov, of his dissertation entitled: "Observations on the Effectiveness of Blood Transfusions in Cases of Experimental Tuberculosis in Rabbits."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 1, 7 Jan 56, Byulleten' MVO SSSR, Uncl. JPRS/NY-548

AKKERMAN, V.V., starshiy nauchnyy sotrudnik

Study of the unconditioned vascular reflexes in anemias in connection with treatment. Akt.vop.perel.krovi no.4:187-188 '55. (MIRA 13:1)

1. Rukovoditel' - chlen-korrespondent AMN SSSR, prof. I.R. Petrov.
(ANEMIA)

AKKERMAN, V.V., starshiy nauchnyy sotrudnik; ALEKSANDROVA, N.M., nauchnyy sotrudnik

Influence of blood transfusion on liver function in secondary anemias of varying etiology. Akt.vop.perel.krovi no.4:189-190 '55.
(MIRA 13:1)

1. Gematologicheskaya klinika Leningradskogo instituta perelivaniya krovi (zav. klinikoy - prof. S.I. Sherman)
(BLOOD--TRANSFUSION) (LIVER) (ANEMIA)

AKKERMAN, V.V., starshiy nauchnyy sotrudnik; ALEKSANDROVA, N.M., nauchnyy sotrudnik; PESHKOVA, L.Ya., nauchnyy sotrudnik

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(LEUKEMIA, blood in
proteins (Rus))
(MYELOMA, PLASMA CELL, blood in.
same (Rus))

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