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CIA-RDP86-00513R001857810014-6"

Uchevatkin, I.F.

48-7-14/21

AUTHORS: Uchevatkin, I.F., Shestopalova, S.A.

TITLE: New Lines in the Spectrum of RaC (O novykh liniyakh v spektre RaC)

PERIODICAL: Izvestiya Akad. Nauk SSSR, Ser. Fiz., 1957, Vol. 21, Nr 7, pp. 1002 - 1003 (USSR)

ABSTRACT: In the article by Dzhelepov and Shestopalova it was pointed out that behind the RaC  $\gamma$ -line of 2450 keV approximately to the energy of 2700 keV a coincidence was observed which surpasses the background and which could not be explained by the influence of a neighbor line. The authors decided to investigate this section of the spectrum on the "elotron" under the conditions of increased light intensity. The cellophane target was replaced by one of beryllium of 330  $\mu$  thickness and the slots in front of the counters were enlarged to double of their former height and width (as compared to the standard dimensions). This increased the luminosity 30-fold and decreased the dissolving power 2,2-fold. For the purpose of studying the form of the spectral line of the device under this conditions the  $\gamma$ -lines 2614 keV of ThC" and 2758 keV of Na<sup>24</sup> were carefully investigated. In the investigation of the RaC spectrum behind the line 2450 keV a

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New Lines in the Spectrum of RaC

systematic considerable surpassing of the effect over the background up to the energy of 3200 keV was discovered; in this range of the spectrum the background amounted to  $\sim 10\%$  of the effect. A decrease in the background was obtained by replacing the lead collimator by one of tungsten filled in with lead, where an amplifier with  $\tau \sim 10^{-6}$  sec. was used. The measurement results of the RaC spectrum are given on the figure and explained in detail. There are 1 figure and 4 references.

ASSOCIATION: All-Union Scientific Research Institute for Metrology imeni D.I. Mendeleev  
(Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleeva)

AVAILABLE: Library of Congress

Card 2/2

UCHEVATKIN, I.  
DZHELEPOV, B., SHESTOPALOVA, S. and UCHEVATKIN, I.

"On the 2450-3400 keV Region of the RaC Gamma Spectrum," Nuclear Physics,  
Vol. 5, No. 3, Feb 1958. North Holland Publ. Co., Amsterdam.

D.I. Mendeleev Research Inst. of Metrology, Leningrad.

Abst: Five new RaC  $\gamma$ -lines are reported of higher energy than those known heretofore.

UCHEVATKIN, I. F.

DZHELEPOV, B. S. and ZHUKOVSKIY, N. N. (V. G. Khlopin Radium Institute, UBSR Acad. Sci. Leningrad) SHESTOPALOVA, S. A. and UCHEVATKIN, I. F. (D. I. Mendeleyev Research Institute of Metrology, Leningrad.

"Gamma-Ray Spectrum of Radium in Equilibrium with its Decay Products," Nuclear Physics, v. 8<sub>3</sub>(1958) (North-Holland Publishing Co., Amsterdam) pp. 250-264.

Abstract: Results are described of an investigation of the radium gamma-spectrum in equilibrium with its decay products, based on recoil electron measurements in the energy range 150-2530 keV. Forth-four gamma-lines have been observed, and ~~XXXX~~ their relative intensities and the number of quanta per disintegration determined.

SOV/48-22-7-17/26

AUTHORS: Dzhelepov, B. S., Zhukovskiy, N. N., Uchevatkin, I. E.,  
Shestopalova, S. A.

TITLE: New Data on the Relative Intensities of the  $\gamma$ -Lines of Ra  
in Equilibrium With Its Decay Products (Novyye dannyye ob  
otnositel'nykh intensivnostyakh  $\gamma$ -liniy Ra, nakhodyashchegosya  
v ravnovesii s produktami raspada)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958,  
Vol. 22, Nr 7, pp. 841-847 (USSR)

ABSTRACT: In order to examine and precise the data from reference 1  
on the relative intensities in the spectrum of the  $\gamma$ -radiation  
of radium C this spectrum was again investigated in the  
"elotron" of the Radium Institute (Ref 2). 2 grams of radium  
in the compound  $\text{RaBr}_2$  served as a source of  $\gamma$ -radiation.  
The shape of the source was identical with that one used  
in reference 1. The results are as follows: 1) Range from  
 $\sim 150$  to  $630$  keV: This section of the spectrum up to the line  
at  $609$  keV was investigated for the first time by means of  
the recoil electrons. Apart from the well known lines of  
radium B at  $241,9$ ,  $295,2$  and  $352,0$  keV a pronounced excess

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SOV/48-22-7-17/26

New Data on the Relative Intensities of the  $\gamma$ -Lines of Ra in Equilibrium  
With Its Decay Products

of recoil electrons was observed near the line at 295,5 keV. The decomposition showed that the excess maximum is located at 285 keV. Between the intensive lines at 352 and 609 keV a number of less intensive  $\gamma$ -lines is found. It seems as if some of them correspond with not identified lines from reference 3, that is to say with Nr 68, 70, 77, 78 and 79. If these lines are considered to be K-conversion electrons of radium C, energy values of 386,8, 388,9, 466,7, 471,2 and 484,6 keV are obtained.

2) Range from 630 to 1810 keV: The line at  $666 \pm 7$  keV is clearly visible, the lines at  $703,2$  and  $721 \pm 7$  keV appear. The line at 652,4 keV was not found. Apart from the line at 768,7 keV three lines exist in the high energy range: 787,1, 806,3 and  $837,8$  keV. The following new  $\gamma$ -lines were found:  $885 \pm 10$ ,  $960 \pm 5$  and  $1050 \pm 10$  keV. The line at  $1541 \pm 5$  keV was clearly marked. A noticeable broadening of the line at 1764,4 keV and the existence of the lines at 1783,8 and 1790,7 keV (Ref 1) was not ascertained.

3) Range from 1780 to 2530 keV: Apart from the known

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SOV/48-22-7-17/26

New Data on the Relative Intensities of the  $\gamma$ -Lines of Ra in Equilibrium  
With Its Decay Products

1848,5 keV-line an electron excess with a maximum near 1860 keV was discovered. This excess can be explained by the presence of the 1862,3 keV line (Ref 1). The existence of the 1900 keV line (Ref 1) was proved. An excess of recoil electrons exists in the range of 2016,7 and 2090 keV. Their intensity is smaller by about a factor of 3 than that given in reference 1.

For the purpose of determining the relative intensities the area of each component, reduced to equal  $H_0$  intervals, was measured. Then corrections were added. The corrections took into account the efficiency of the counters for electrons of different energies, the self-absorption in the source, the wall absorption, and the spectral sensitivity of the apparatus. It was assumed that the intensity of the lines is proportional to these areas. The results show a good agreement. The intensity of the individual strong lines agree within limits of 7 - 10 %. The Graduate students F. A. Predovskiy (LPI) and N. A. Voinova (LGU) assisted in the measurements. There are 4 figures, 1 table, and 6 ref-

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New Data on the Relative Intensities of the  $\gamma$ -Lines of Ra in Equilibrium  
With Its Decay Products

SOV/48-22-7-17/26

ferences, 2 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii  
im. D. I. Mendeleyeva  
(All Union Scientific Research Institute of Metrology imeni  
D. I. Mendeleev)  
Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR  
(Radium Institute imeni V. G. Khlopin, AS USSR)

Card 4/4

УЧЕВА [KIN], I. F.

24(5)24(7)  
ABSTRACT:

TITLE:

SYNOPSIS:

ABSTRACT:

Card 1/3

Deblepov, B. S., Yezlyanov, B. A., 507/48-23-7-10/31  
Kobayashi, T. S., Podyaikin, V. E., Ushvatkin, I. F.,  
Shostakovskiy, S. A.  
On the Hard Part of the  $\gamma$ -Spectrum of Radium Found in the  
Equilibrium With the Products of the Decay of  $^{226}\text{Ra}$  (300-2600 keV)  
(O sbestizny sbestizny  $\gamma$ -spettra radia, nachoditsoya v  
ravnovesii s produktami raspada ( $^{226}\text{Ra}$  300-2600 keV))  
Investiya Akademi nauk SSSR. Seriya fizicheskaya, 1959,  
Vol 23, Nr 7, pp 932-934 (USSR)

At the beginning, the transition  $\text{RaC} \rightarrow \text{RaC}'$  and further  
the transition  $\text{RaC}' \rightarrow \text{RaD}$ , are indicated as the fundamental  
of the hard  $\gamma$ -radiation, and figure 1 shows a branching  
of the  $\gamma$ -radiation of the radium family. The energy  
levels of these transitions are investigated, and a number of  
previous papers is indicated in the present paper. A  
 $\gamma$ -dosimeter of the HIFI LPH was used for the measuring the  
hard  $\gamma$ -rays. Two series of measurements were carried out. In  
the first series, the range of from 3,070 keV to 5,600 keV  
was investigated. The results of these measurements are shown  
in diagram (Fig 2). In the second series, the range of from

3,070 keV to 5,600 keV was investigated. The results were  
compiled in a diagram (Fig 3). The line with  $\text{RaC}'$  3,070 keV  
was practically not measured in the first series, and was  
absolutely not measured in the second series. The diagrams  
show the existence of  $\gamma$ -lines with the energy of increase  
5,000-5,200 keV. The second diagram at 5,000-5,600 keV, and  
in the electron output in the transition  $\text{RaC}' \rightarrow \text{RaD}$  according  
to figure 1. For the  $\gamma$ -lines  $\text{RaC}' \rightarrow \text{RaC}$  and  $\text{RaC}' \rightarrow \text{RaD}$   
the energy of the  $\gamma$ -lines with the energy of about  
3,000 keV, and finally it is ascertained that lines with an  
energy of more than 3,900 keV could not be detected. The  
authors thank O. V. Chubinsky for the supply of experimental  
data. There are 3 figures and 9 references, 5 of which are  
Soviet.

Card 2/3

ABSTRACT:

Yessoyunuy mancho-Islandavet'-sily Institut Atomnaya En.  
B. I. Mandolyeva (All-Union Scientific Research Institute  
of Metrology Issue 9, I. Mandolyev), Sverdlovskiy Gos. uni-  
versitet Im. A. A. Zhukova (Leningrad State University Issue  
A. A. Zhukov)

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21 (8)

AUTHORS: Dzhelepov, B. S., ~~Ushaytkin, J. P.~~, SOV/56-37-3-44/62  
Shestopalova, S. A.

TITLE:  $0^+ - 0^+$ -Transition in the Decay  $\text{Pr}^{140} \rightarrow \text{Ce}^{140}$

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,  
Vol 37, Nr 3(9), pp 857 - 859 (USSR)

ABSTRACT: In an earlier paper it has already been stated that the  $\text{Ce}^{140}$ -nucleus has an excited state of the type  $0^+$  with an excitation energy of 1902 kev. This state occurs in  $\text{La}^{140}$  decay. The ground state and the excited states of  $\text{Ce}^{140}$  may occur also in electron capture and in the  $\beta^+$ -decay of  $\text{Pr}^{140}$ . Figure 1 shows the scheme of the possible transitions to the lower excited states of  $\text{Ce}^{140}$ . In the present "Letter to the Editor" the authors endeavor to show that the 1902 kev level of  $\text{Ce}^{140}$  is not excited by the decay of  $\text{Pr}^{140}$ ; as the ground state of  $\text{Pr}^{140}$  is of the type  $1^+$ , it may be expected that this state occurs in the case of permitted  $\beta$ -decays and in electron cap-

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$0^+ - 0^+$ -Transition in the Decay  $\text{Pr}^{140} \rightarrow \text{Ce}^{140}$ 

SOV/56-37-3-44/62

ture. For this purpose, an  $\text{Nd}^{140} + \text{Pr}^{140}$  preparation in equilibrium was investigated in a  $\beta$ -spectrometer with triple focusing. The counters were filled with argon + 15% alcohol (pressure 100 torr). Figure 2a shows the K conversion line (1902 keV) and figure 2b - the Curie diagram for the end of the  $\beta$ -spectrum of  $\text{Pr}^{140}$ . The results obtained are supplemented by those obtained by other authors (Refs 4-7). The ratio  $e^-/\beta^+$  was determined as being 0.2%. The number of  $e^-$  (1902) is determined in consideration of the fact that K- and L-captures in the case of the permitted decay to the ground state amount to about 47%. Herefrom the number of conversion electrons is determined as amounting to 0.1% per decay. Thus, the  $\text{Ce}^{140}(0^+)$  1902 keV level is far more frequently excited in the decay of  $\text{Pr}^{140}$  than in the decay of  $\text{La}^{140}$  (according to references 1,7: 0.013%). Actually, the  $\text{Ce}^{140}$  1902 keV level occurs both in  $e^-$ -capture and in the  $\beta^+$ -decay of  $\text{Pr}^{140}$ .  $ft = 2:10^6$  is found

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$0^+ - 0^+$ -Transition in the Decay  $\text{Pr}^{140} \rightarrow \text{Ce}^{140}$

SOV/56-37-3-44/62

for permitted transitions. There are 2 figures and 7 references,  
6 of which are Soviet.

ASSOCIATION: Vsesoyuznyy institut metrologii (All-Union Metrology Institute)

SUBMITTED: May 16, 1959

Card 3/3

DZHELEPOV, B.S.; UCHEVATKIN, I.F.; SHESTOPALOVA, S.A.

Spectrum of conversion electrons of neutron deficient isotopes of lutetium in the energy region of 1000-3500 kev. *Izv.AN SSSR Ser. fiz.* 24 no.7:802-806 J1 '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleyeva.  
(Lutecium--Isotopes)

DZHELEPOV, B.S.; VOYKHANSKIY, M.Ye.; MEDVEDEV, A.I.; UCHEVATKIN, I.F.

On the nature of the 531.8 Kev. level of  $\text{Er}^{167}$ .  
Dokl. AN SSSR 146 no.4:789-792 0 '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut  
metrologii im. D.I. Mendeleyeva. 2. Chlen-korrespondent  
AN SSSR (for Dzhelepov).

(Erbium)  
(Quantum theory)

34167

3/048/62/026/002/001/032  
B104/B102

24.6200

AUTHORS: Izhelepov, B. S., Medvedev, A. I., Ucheyatkin, I. F., and Shestopalova, S. A.

TITLE: Spectrum of conversion electrons of the lutecium fraction with energies exceeding 1000 kev

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 2, 1962, 162-181

TEXT: The lutecium fraction was separated from a Ta target irradiated with 660-Mev protons for 2-4 hr. A new  $\beta$ -spectrometer with double focusing was used to study the spectrum in the 1020-3200 kev interval. Owing to the finite source thickness, the line half-widths were found to range between 0.22 and 0.29%. Lines of Lu<sup>169</sup> (34 hr), Lu<sup>170</sup> (2 days), Lu<sup>172</sup> (6.7 days), and Lu<sup>174</sup> were detected. The decay energies of the isotopes Yb<sup>169</sup>, Lu<sup>171</sup>, and Lu<sup>174</sup>, contained in the preparation, were smaller than 1 Mev. The energies of lines were determined with the aid of

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S/048/62/026/002/001/032

B104/B102

Spectrum of conversion ...

the known lines of Lu<sup>172</sup> (K909.9, K and L 1095) and Lu<sup>170</sup> (K1453.3, K1483.0, and K2039.0). The error of energy determinations lies between 0.3 and 0.2%. The Lu<sup>172</sup> spectrum (Table 1) was studied in the 1020-1970 keV interval, 22-25 days after separation. After this period, the activity of Lu<sup>170</sup> had practically vanished. Two days after separation, the spectrum of Lu<sup>169</sup> + Lu<sup>170</sup> was measured in the 1040-3200 keV interval through a period of six or seven days. The broad maximum between the known lines K1452 and K1481 is ascribed to transitions possessing energies of 1465 and 1469 keV. The very broad maximum between the two known L lines of the 1452 and 1481 keV transitions is ascribed to K lines of weak transitions with 1515.0 and 1517.4 keV. A new conversion line with an electron energy of 1550 keV is considered to be a K conversion line of 1611 keV transition. Other newly detected lines are: K1636, K1660, K1680, K1692, and K1709. The K1860 line is attributed to Lu<sup>169</sup>. Nine very intense lines of Lu<sup>170</sup> have been detected which belong to transitions

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S/O48/62/026/002/001/032  
B104/B102

Spectrum of conversion ...

of 2655, 2684, 2700, 2740, 2775, 2836, 2872, 2930, and 2955 kev. Z. Playner et al. (Materialy III Soveshchaniya po neytrondefitsitnym izotopam, 1, 23; 32, Dubna, 1960) is mentioned. The authors thank the Board of Directors of the OIYaI and K. Ya. Gromov for supplying the sources, I. A. Pavlova, K. M. Shperling, V. D. Vitman, and A. A. Karan for assistance with measurements. There are 17 figures, 3 tables, and 11 references: Soviet and 5 non-Soviet. The four most recent references to English-language publications read as follows: Harmatz B., Handley T. H., Mihelich J. W., Phys. Rev., 119, 1345 (1960); Mihelich J. W., Harmatz B., Handley T. H., Phys. Rev., 123, 1758 (1961); Wilson R., Pool M., Phys. Rev., 119, 1067 (1960); Harmatz B., Handley T., Mihelich J., Phys. Rev., 114, 1082 (1959).

Table 1. Conversion electrons of Lu<sup>172</sup>. Legend: (1) Consecutive number; (2) present paper; (3) conversion electron energy, kev; (4) relative intensity; (5) identification; (6) energy in kev.

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S/C56/62/043/006/008/067  
B184/B102

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

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

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

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

Card 1/2

Refinement of the information...

S/056/62/043/006/008/C67  
B184/B102

ASSOCIATION: Vsesoyuznyy institut metrologii (All-Union Institute of Metrology)

SUBMITTED: June 30, 1961

Card 2/2

ACCESSION NR: AR4032163

S/0058/64/000/002/A029/A029

SOURCE: Ref. zh. Fiz., Abs. 2A268

AUTHOR: Uchevatkin, I. E.

TITLE: Magnetic Beta spectrometer with double focusing at 180 degrees

CITED SOURCE: Tr. in-tov Kom-ta standartov, mer i izmerit. priborov pri Sov. Min. SSSR, vy\*p. 69 (129), 1962, 95-107

TOPIC TAGS: Beta spectrometer, magnetic Beta spectrometer, double focusing Beta spectrometer, 180 degree spectrometer, low background spectrometer

TRANSLATION: A magnetic  $\beta$  spectrometer with double focusing of the electron beam at 180° has been constructed. The magnetic field has been produced by an electromagnet with pole-piece area 320 x 320 mm

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ACCESSION NR: AR4032163

and a gap of 143 mm between the poles. The electron beam from the source is focused, after being turned through 180°, onto the first slot, behind which a thin-wall gas-discharge counter is located, and then makes another 180° turn and is focused again on a slot, behind which two other counters are located. All the counters are connected for coincidence. The radius of curvature of the trajectory between the first and second foci is approximately half the radius between the source and the first slot, this being accomplished by locally decreasing the gap between the magnet poles with the aid of iron shims. The transmission of the instrument is determined experimentally. It is established that approximately 0.2% of the total electrons of given energy pass through the first slot, and upon registration of the triple coincidences the transmission amounts to 0.1%; the corresponding resolution is 0.75%. With the transmission reduced to 0.05%, a resolution of 0.5% was obtained on the conversion line of ThB with  $E_{\gamma} = 2614.4$  kV for a 0.5 x 14 mm source. The

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ACCESSION NR: AR4032163

main advantages of the new instrument is the low background. Approximately one coincidence was obtained in five hours from a Cs<sup>137</sup> source of activity 60  $\mu$ Ci at zero magnetic field. This property of the spectrometer makes it possible to use it to investigate low-intensity hard conversion electrons, spectra accompanying the intense positron radiation, etc.

DATE ACQ: 31Mar64

SUB CODE: PH, SD

ENCL: 00

Card 3/3

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

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

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

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



S/048/63/027/002/007/023  
B104/B180

AUTHORS: Dzhelepov, B. S., Medvedev, A. I., Uchevatkin, I. F.,  
and Shestopalova, S. A.

TITLE: The conversion electron spectrum of the cerium fraction

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,  
v. 27, no. 2, 1963, 204-210

TEXT: The conversion electron spectrum of 12 quite thin samples of the first cerium fraction was investigated in the energy range 210-1000 keV by means of a double focusing magnetic  $\beta$ -spectrometer ( $180^\circ$ ). Most of the 42 lines of the complicated spectrum (Table 1) could be identified by measuring their intensity decay period. The half-life of  $Ce^{135}$  is  $17.0 \pm 0.2$  hours. There are 6 figures and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut  
metrologii im. D. I. Mendeleyeva (All-Union  
Scientific Research Institute of Metrology imeni  
D. I. Mendeleev)

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S/048/63/027/002/007/023  
B104/B160

The conversion electron ...

Table 1. Energies and relative intensities of the conversion electrons.  
Legend: (2)  $E_e$ , keV; (3) Relative intensities; (4)  $T_{1/2}$ , hours;

(5) Identification; (6) Isotope.

1	2	3	4	5	6
1	199	6 ± 1	—	L205	Ce <sup>135</sup>
2	212,8*	100	35 ± 2	K252	Ce <sup>137</sup>
3	226,1*	100	17 ± 1	K265	Ce <sup>135</sup>
4	247	36,7 ± 1,5	—	L252	Ce <sup>137</sup>
5	252	12,1 ± 0,7	—	M252	Ce <sup>137</sup>
6	259	11,9 ± 1,5	—	L265	Ce <sup>135</sup>
7	260	39 ± 2	—	K299	Ce <sup>135</sup>
8	264	3,4 ± 0,4	—	M265	Ce <sup>135</sup>
9	293	7,6 ± 0,5	16,5 ± 1,0	L299	Ce <sup>135</sup>
10	298	2,2 ± 0,2	—	M299	Ce <sup>135</sup>
11	340	2,00 ± 0,15	16 ± 2	K379	Ce <sup>135</sup>
12	347	—	20 ± 1	K386	?
13	358	0,90 ± 0,08	16,5 ± 1,5	K397	Ce <sup>135</sup>
14	(364)	—	—	?	?
15	373	0,6 ± 0,2	—	L379	Ce <sup>135</sup>
16	380	—	—	L386	?
17	391	0,4 ± 0,2	—	L397	Ce <sup>135</sup>
18	(400)	—	—	—	?
19	407	0,6 ± 0,2	СЛОЖНЫЙ 8 → 30	K446	Ce <sup>137</sup>

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S/048/63/027/002/007/023  
B104/B180

The conversion electron ...

1	2	3	4	5	6
20	(414)	—	—	?	?
21	(420)	—	—	?	?
22	(427)	—	—	?	?
23	(435)	—	—	?	?
24	443	—	24±1	K481	Ce <sup>136</sup>
25	478	7.2 ± 0.4	18±1	K517	Ce <sup>135</sup>
26	511	1.2 ± 0.2	—	L517	Ce <sup>135</sup>
27	532	4.8 ± 0.5	17.0 ± 0.8	K571	Ce <sup>135</sup>
28	537	2.4 ± 0.3	—	K576	Ce <sup>135</sup>
29	567, 24°	100	Сложный 17→74	K604, 65	La <sup>134</sup>
30	567	8.6 ± 1.0	—	K606	Ce <sup>135</sup>
31	598	16.0 ± 1.5	—	L604, 65	La <sup>134</sup>
32	599	1.1 ± 0.3	Сложный (17→74)	L606	Ce <sup>136</sup>
33	625	—	20±1	K664	?
34	658	—	—	L664	?
35	677	—	—	K716	?
36	743	2.48 ± 0.15	17.0 ± 0.4	K782	Ce <sup>135</sup>
37	776	0.20 ± 0.04	17.5 ± 1.5	L782	Ce <sup>135</sup>
38	788	1.1 ± 0.3	17.1 ± 1.5	K827	Ce <sup>135</sup>
39	821	0.24 ± 0.04	~17	L827	Ce <sup>135</sup>
40	830	0.65 ± 0.07	17.3 ± 1.0	K869	Ce <sup>135</sup>
41	863	0.47 ± 0.10	17.7 ± 0.8	K902	Ce <sup>135</sup>
42	896	0.08 ± 0.03	—	(L+M)902	Ce <sup>135</sup>

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AP4010293

9/0048/64/028/001/0064/0071

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

TITLE: Measurement of the conversion coefficient of the 1095.0 keV transition in the decay of  $\text{Lu}^{172}$ . Calculation on the constants that determine the probabilities for transitions between  $K = 3^+$  and  $K = 0^+$  bands. Report, Thirteenth Annual Conference on Nuclear Spectroscopy held in Kiev, 25 Jan to 2 Feb 1963

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.1, 1964, 64-71

TOPIC TAGS: conversion coefficient, multipole order, rotational band, lutetium 172, quadrupole moment, interband transition, spin factor, state mixing

ABSTRACT: Transition between the levels of different rotational bands form a distinctive class and hence are of interest in investigating nuclear structure. The 1095.0 and 913.8 keV transitions accompanying the decay of  $\text{Lu}^{172}$  are among the most intense transitions evinced in the decay of this nucleus and they take place between the  $I^\pi = 3^+$  level of the  $K = 3^+$  band and the  $2^+$  and  $4^+$  levels of the  $K = 0$  rotational band.  $\Delta I = 1$  (no) allows of M1 and E2 transitions; on the other hand, change of  $K$  by 3 units forbids both types of transitions, although not to the same

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AP4010293

degree. Hence it is of interest to know the multipole order of these transitions. Accordingly, the first part of this work was devoted to determining the multipole order of the 1095.0 keV transition. To this end the K shell conversion coefficient was measured by comparison with the  $\gamma$ -ray intensities and internal conversion electron abundances for the available  $\text{Lu}^{172}$  source with the corresponding values for  $\text{Co}^{60}$  and  $\text{Sc}^{46}$ , in which there are known to occur pure E2 transitions with close energies (1332 keV and 1118 keV, respectively). The  $\gamma$ -rays were measured by means of the two-fold focusing VNIIM  $\beta$ -spectrometer described by S. Shestopalova (Izv. AN SSSR, Ser. fiz. 25, 1302, 1961; Nucl. Instr. and Meth. 17, 94, 1962). The values obtained for  $\alpha_K$  for the 1095.0 keV transition were  $(2.8 \pm 0.4) \times 10^{-3}$  from the comparative experiments with  $\text{Co}^{60}$  and  $(2.67 \pm 0.15) \times 10^{-3}$  from the experiments with  $\text{Sc}^{46}$ . Comparison of the weighted mean of these values with the theoretical  $\alpha_K$  coefficients indicates that the transition may be pure E2, although the possibility of a mixture of E2 + M1 with up to 12% M1 is not precluded. This new information on the 1095.0 keV transition provides the basis for returning to the question of calculating the constant that determines the transition probabilities between the  $K = 3^+$  and  $K = 0^+$  rotational bands in  $\text{Yb}^{172}$ . This question was considered earlier by two of the authors (B. Dzhelepov and V. Mikhaylov, Izv. AN SSSR, Ser. fiz. 27, 267, 1963), but at that time the necessary experimental data were not available. In the present paper the

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AP4010288 .

calculations are carried out in more detail and the constants entering into the expressions for the transition probability are re-evaluated. On the basis of these, certain inferences are drawn regarding the probabilities and multipole orders of analogous transitions. In the concluding section the concept of "admixture quadrupole moments" is introduced and the values of these parameters for  $Yb^{172}$  are evaluated. "We take this opportunity to express our gratitude to A.Meshter, V.A.Balalyev, L.I.Shalayeva for assistance in the measurements, graduate student of Leningrad University A.S.Lenin for help in the measurements and processing the results, and N.M. Anton'yeva and V.B.Smirnov for making available the scintillation spectrometer for the measurements." Orig.art.has: 14 formulas, 4 tables and 1 figure.

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

SUBMITTED: 00

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: NS

NR REF SOV: 005

OTHER: 006

Card 3/3

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

"Concerning the Decay of La<sup>140</sup>."

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

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

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

"New Data on Conversion and the End-point Energies of Beta Spectra in the  
Decay of Ta<sup>182</sup>."

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

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



DZHELEPOV, B. S.; MEDVEDEV, A. I.; UCHEVATKIN, I. F.; SHESTOPALOVA, C. A.

"New Data on the Spectrum of Conversion Electrons of Lu<sup>169,170</sup> in the Energy Interval 1040-3250 keV."

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

VNIIM (All Union Sci Res Inst Metrology)

ACCESSION NR: AP4031176

S/0056/64/046/004/1478/1478

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

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

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

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

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

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ACCESSION NR: AP4031176

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

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

SUBMITTED: 26Jul63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: MP

NR REF SOV: 003

OTHER: 002

Card 2/2

BALALAYEV, V.A.; DZHIFLEPOV, B.S.; MEDVEDEV, A.I.; MOSEVATKIN, I.P.;  
SHESTOPALOVA S.A.

Recent data on  $^{135}\text{Ce}$  decay. Izv. AN SSSR. Ser. fiz. 29 no.12:  
2204-2224 D 165. (MIRA 19:1)

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

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

Recent data on the spectrum of conversion electrons from  $\text{La}^{140}$ .  
Izv. AN SSSR. Ser. fiz. 29 no.12:2250-2254 D '65;

(MIRA 19:1)

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

DZHELEPOV, B.S.; MOSKVIN, L.N.; TISHKIN, P.A.; UCHEVATKIN, I.F.; SHISHILOV,  
I.A.

Coincidences of conversion electrons in  $Ce^{135}$  decay. Izv. AN SSSR.  
Ser. fiz. 29 no.12:2264-2270 D '65. (MIRA 19:1)

1. Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo  
gosudarstvennogo universiteta im. A.A. Zhdanova i Vsesoyuznyy  
nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva.

L 26656-66 ENT(m) DIAAP

ACC NR: AP6017117

SOURCE CODE: UR/0048/65/029/012/2205/2224

AUTHOR: Balalayer, V. A.; Dzhalepov, B. S.; Medvedev, A. I.; Uchevatkin, I. F.; ~~Shestopalova, S. A.~~ 50ORG: All Union Scientific Research Institute of Metrology, im. D. I. Mendeleev ~~(Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii)~~ BTITLE: New data on Ce sup 135 decay [This paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and the Structure of the Atomic Nucleus, held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 12, 1965, 2205-2224

TOPIC TAGS: radioactive decay, cerium, electron spectrum, electron energy, radioisotope, gamma spectrum, electron transition

ABSTRACT: To verify the electron transitions of <sup>135</sup>Ce having energies of 87 ± 1 and 120 ± 1 keV, a new study was made of the conversion electron spectra of the isotope in the electron energy range from 42 to 85 keV. Earlier studies had included energies up to 2660 keV, but since the energy of <sup>135</sup>Ce decay can reach 28000 keV, this study was extended from 2660 to 3090 keV. The results obtained are compared with those of K. Takahashi, et al., J. Phys. Soc. Japan, Vol. 19, No. 11, p 2014 (1964) in a table, and a systematic discrepancy is noted: the Japanese energy measurements are consistently lower (ranging from 0.3 to 2.7%) than those obtained in this paper.

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L 26656-66

ACC NR: AP6017117

In the remainder of the paper the authors treat the relative intensities in the gamma-ray spectrum of  $Ce^{135}$ , determine the multipolarity of the transitions in  $La^{135}$ , plot curves for the photoelectron spectrum of  $Ce^{135}$ , tabulate transition intensities for the decay of  $Ce^{135}$ , tabulate transition intensities for the decay of  $Ce^{135} \rightarrow La^{135}$ , calculate 35 energy coincidences among the transitions between the excited states of  $La^{135}$ , discuss the decay scheme of  $Ce^{135}$ , and analyze the balance of intensities over the levels of  $La^{135}$ . The authors thank Ye. Ye. Bondar, A. Meshter, and L. I. Shalayer for assistance in making the measurements; K. Ya. Gromov and Zh. T. Zhelev for supplying the sources; N. A. Lebedev for the chromatographic separations of fractions; L. K. Pekar for useful discussions, and N. N. Kolesnikov for calculating the mass difference of the nuclei  $Ce^{135} \rightarrow La^{135}$ . Orig. art. has: 4 figures and 6 tables. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 014 / OTH REF: 002

Card 2/2 *RV*



L 26652-66 EWT(1)/EWT(m) DIAAP/IJP(c) JD/JG/AT

ACC NR: AP6017121

SOURCE CODE: UR/0048/65/029/012/2264/2270

AUTHOR: Dzhelapov, B. S.; Moskvyn, L. N.; Tishkin, P. A.; Uchevatkin, I. F.; Shishelov, I. A. 60  
BORG: Scientific Research Physics Institute, Leningrad State University im. A. A. Zhdanov (Nauchno-issledovatel'skiy fizicheskii institut Leningradskogo gosudarstvennogo universiteta); All-Union Scientific Research Institute of Metrology im. D. I. Mendeleev (Vsesoyuznyi nauchno-issledovatel'skiy institut metrologii)TITLE: Coincidence of conversion electrons in  $^{135}\text{Ce}$  decay <sup>27</sup> This paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and the Structure of the Atomic Nucleus, held in Minsk from 25 January to 2 February 1965.

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 12, 1965, 2264-2270

TOPIC TAGS: cerium, lanthanum, spectrometer, tantalum, proton, conversion electron spectrum

ABSTRACT: The reported work was carried out to verify the scheme of excited levels of  $\text{La}^{135}$ . The spectrum of the conversion electrons was obtained with the duplexed toroidal beta spectrometer of the Leningrad State University. The  $\text{Ce}^{135}$  sample was obtained from a tantalum target irradiated by 660 Mev protons for 5 to 10 hours. Results appear to be definitive for the locations of transitions with energies of 88.4 and 118.0 keV in the upper part of the decay scheme. The authors thank K. Ya. Gromov and Zh. T. Zhelev for supplying the preparations and N. A. Lebedev for the chromatographic separation of the fractions. Orig. art. has: 4 figures. JRS  
Card 1/1 SUB CODE: 20 / SUBM DATE: none / ORIG REF: 010 / OTH REF: 001

L 31407-66 EWT(m)  
ACC NR: AP6022573

SOURCE CODE: UR/0048/66/030/003/0413/0415 36

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

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

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

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

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

ABSTRACT: The availability of a new higher-energy source made it possible to study conversion electrons having energies above 3150 kev. The reference used was the K-conversion line of the transition 2955.2 kev. The spectrum from 2880 to 3150 kev was remeasured to confirm those made above 3150, inasmuch as the spectrum is complex and the K, L, and M lines of the various transitions overlap. Results of measurements above 3150 kev, given in a table, are essentially new. Six new transitions were found: 3224, 3245, 3263, 3287, 3302 and 3325. The latter is suggested as possibly the strongest transition in the spectrum. The authors thank K. Ya. Gromov and Zh. T. Zheleva

for providing the sources. Orig. art. has: 1 figure and 1 table. [JPRS]  
SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003  
Card 1/1 CC

L. 00233-57 EST(m)/EST(t)/SER IJP(c) JD/JG  
 ACC NR: AP7002796 SOURCE CODE: UR/0048/66/030/003/1314/1321

AUTHOR: Balalayev, V. A.; Dzheleпов, B. S.; Medvedev, A. I.; ~~Uchevatkin, I. F.~~  
 Shestopalova, S. A. 23

ORG: All-Union Scientific Research Institute of Metrology im. D. I. Mendeleev  
 (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii) 21

TITLE: Multipole order of the transition with 1095-kev energy in  $\text{Yb}^{172}$  19

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 8, 1966, 1314-1321

TOPIC TAGS: radioactive decay, lutetium

ABSTRACT: In recent years this matter has been the subject of sharp discussion. Stautberg et al. (Phys. Rev., 130, 1901 (1963)) claim that the multipole order of the transition with 1095-kev energy in  $\text{Yb}^{172}$  is  $M1 + 5\% E2$ , whereas Guenther et al. (Nucl. Phys., 61, 65 (1965)) conclude that it is  $M1 + 5\% E3 + 0.2\% E2$ ; both these findings diametrically contradict the authors' earlier findings (Dzheleпов et al. Izv. AN SSSR, Ser. Fiz., 28, 64 (1964)) that the multipole order of this transition is either  $E + 2 (5-5^{+7})\% M1$  or  $E1 + (15+1)\% E2$ . To clarify this matter a new method of investigation was adopted: a  $\text{Lu}^{171} + \text{Lu}^{172}$  preparation was employed, since one of the transitions occurring in  $\text{Yb}^{171}$  during the decay of  $\text{Lu}^{171}$  has a known multipole order (with reference to the 740-kev transition). The results obtained were found to be in virtual agreement with the earlier findings of the authors:

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0425-1683

L 09233-67

ACC NR: AP7002796

K1095 =  $(2.5 \pm 0.4) 10^{-3}$ . It is not yet clear why Stautberg et al. and Guenther et al. drew other conclusions from their measurements of angular correlation, but there cannot be any doubt as to the quantity K1095. Orig. art. has: 2 figures 1 formula and 3 tables. [JPRS: 39,040]

SUB CODE: 18,20 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 006

Can. 2/2

UCHEVATKIN, P. I.

UCHEVATKIN, P. I. "The principal problems of science in the further improvement of cotton growing," (Report at the session of the Academy of Sciences, Uzbek, SSR, 26 January 1949), UzSSR, 1949, No. 1, p. 21-32

SO: U-5240, 17, Dec. 53, (Letopis 'zhurnal 'nykh Statey, No. 25, 1949).

UCHEVATKINA, I.S.

PHASE I BOOK EXPLOITATION

SOV/4643

Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy fiziki oblakov i aktivnykh vozdeystviy (Problems in the Physics of Clouds and Active Modification) Leningrad, Gidrometeoizdat, 1960. 93 p. (Series: Its: Trudy, vyp. 104) 1,000 copies printed.

Sponsoring Agencies: Glavnaya geofizicheskaya observatoriya imeni A.I. Voyeykova; Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): N.S. Shishkin, Doctor of Physics and Mathematics; Ed. (Inside book): L.P. Zhdanova; Tech. Ed.: A.N. Sergeyev.

PURPOSE: This collection of articles is intended for scientific workers in meteorology and for graduate students in hydrometeorological institutes.

COVERAGE: This issue of the Transactions of the Main Geophysical Observatory contains articles dealing with problems of cloud formation and microstructure, and with methods of active modification of clouds and fog. Instruments used in cloud investigation are described, and the use of electronic computers for the

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Problems in the Physics of Clouds (Cont.)

SOV/4643

solution of problems in the physics of precipitation formation is discussed. No personalities are mentioned. References follow each article.

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"APPROVED FOR RELEASE: 04/03/2001

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APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001857810014-6"



ASSOCIATION OF ...

E 8917-65

ENCLOSURE: 01

CARD 1

CARD 4/4

UCHIK, G. V.

"On the Theory of Fatigue of Metals ", by G. V. Uchik

Further information is contained in A-40877, IUTAM Colloquium on Fatigue, 1955, Stockholm  
25-27 May 1955.

UCHITEL', B.I.

Periparietal strangulation of the stomach in a parietal peritoneal pocket. Zdrav. Kazakh. 22 no.2:71-72 '62. (MIRA 15:4)

1. Iz khirurgicheskogo otdeleniya gorodskoy bol'nitsy No.5  
g.Karagandy (glavnyy vrach - N.D.Lapshin).  
(HERNIA) (STOMACH---DISEASES)

UCHITEL', D.A.; KHAMIDULIN, N.M. (Moskva)

Dynamic tests for a building. Stroi. mekh. i rasch. soor. <sup>3</sup>  
no. 5:41-45 '61. (MIRA 14:10)  
(Structural frames--Testing) (Textile factories)

UCHITEL', I.Ya.; KHASMAN, E.I.; KARNOZ, G.V.

Role of endogenic pyrogen in immunogenesis. Report No.1:  
Effect of endogenic pyrogen on the formation of antibodies  
and the intensity of protein synthesis in the body. Zhur.  
mikrobiol., epid. i immun. 42 no.10:3-7 O '65.

(MIRA 18:11)

1. Institut epidemiologii i mikrobiologii imeni Gamalei  
AMN SSSR, Moskva. Submitted September 3, 1964.

UCHTEL', I. Ya. and KLIMENTOVA, A. A.

"Problemy Reaktivnosti Uchenii Infeltsii i Immyunitete  
(Problems of Reactivity in the Theory of Infection and  
Immunity), Medgiz, 1950, pp 197-198.



UCHITEL', I.Ya.

Effect of protective inhibition (therapeutic sleep) on the development  
of certain infections. Vest. khir. 71 no.2:71 1951. (CIML 20:8)

UCHITEL', I.Ya.

Effect of sleep produced by medication upon the production of  
specific antibodies. Zhur.mikrobiol.epid.i immun. no.4:80 Ap '54.  
(MIRA 7:5)

1. Iz Instituta khirurgii im. Vishnevskogo Akademii meditsinskih  
nauk SSSR. (Sleep) (Antigens and antibodies)

UCHITEL', I.Ya.; KONIKOVA, A.S.

Some data on antibody formation. *Biul. eksp. biol. i med.* 40 no.12:  
35-39 D '55. (MLRA 9:3)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir.-chlen-  
korrespondent AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR, Moskva.  
(ANTIGENS AND ANTIBODIES,  
antibody form)

UCHITEL', I.Ya., KRYMSKIY, L.D.

Effect of hypothermia on allergic processes [with summary in English]  
Exper.khir. 1 no.3:19-24 My-Je '56 (MIRA 11:10)

1. Iz instituta khirurgii imeni A.V. Vishnevskogo (dir. - chlen-  
korespondent AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR.

(HYPOTHERMIA, eff.

inhib. of Arthus & Schwarzman phenomena in rabbits (Rus))

(ALLERGY,

Arthus & Schwarzman phenomena in rabbits, inhib. with  
hypothermia (Rus))

S

Country : USSR  
Category: Human and Animal Morphology (Normal and Pathological)  
Pathological Anatomy.

Abs Jour: RZhBiol., No 2, 1959, No 7655

Author : Krynskiy, L.D.; Uchitel', I. Ya.

Inst : -  
Title : Morphologic Changes of Internal Organs in Hypothermia.

Orig Pub: Eksperim. Khirurgiya, 1956, No 6, 31-40

Abstract: It was shown on 58 rabbits (the duration of hypothermia 4 and 24 hours) that prolonged hypothermia induces the development of fatty degeneration of the liver, kidneys and myocardium. These changes are more sharply expressed in cases of combination of hypothermia with ganglio-blocking and somifacient means.

Card : 1/2

S-47

Country : USSR

S

Category: Human and Animal Morphology (Normal and Pathological).  
Pathological Anatomy.

Abs Jour: RZhBiol., No 2, 1959, No 7655

The appearance of the changes is connected with  
hypoxia of the tissues. -- A.M. Vikhart

Card : 2/2

UCHITEL', I. Ya. (Moskva).

Use of radioactive tracers in immunology. Usp. sevr. biol. 43 no.2:  
180-198 Mr-Apr '57. (MLRA 10:6)

(RADIOACTIVE TRACERS) (ANTIGENS AND ANTIBODIES)

UCHITEL', I.YA.

UCHITEL', I.Ya.; KONIKOVA, A.S.

Comparing the formation of antigens and nonspecific proteins in the body [with summary in English]. Biul. eksp. biol. i med. 44 no.7: 85-89 J1 '57. (MIRA 10:12)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR, Moskva. Prestavlena deystvitel'nyy chlenom AMN SSSR prof. P.F.Zirodovskim.

(ANTIGEN ANTIBODY REACTION,

antigen form., comparison with vorm of non-specific proteins (Rus))

(PROTEINS, metabolism,

non-specific protein form., comarison with anitgen form. (Rus))



KRYMSKIY, L.D., PERCHIKOVA, G.Ye., UCHITEL', I.Ya.

Result of reproduction of experimental rheumocarditis [with summary  
in English]. Eksper.khir. 3 no.4:44-49 JI-Ag '58 (MIRA 11:9)

1. Iz Instituta knirurgii imeni A.V. Vishenevskogo (dir. - deystvitel'  
nyy chlen AMN SSSR prof. A.A. Vishenevskiy) i Instituta terapii  
(dir. - deystvitel'nyy chlen AMN SSSR prof. A.L. Myasnikov) AMN SSSR.  
(RHEUMATIC HEART DISEASE, exper  
significance of autoantibodies in pathogen. in rabbits  
(Rus))

UCHITEL', I.Ya.; KONIKOVA, A.S.

Antibody formation in hypothermia. Zhur. mikrobiol. epid. i immn. 29  
no.10:77-82, 0 '58. (MIRA 11:12)

1. Iz Instituta khirurgii imeni Vishnevskogo AMN SSSR.  
(ANTIBODIES,  
form., eff. of hypothermia ( Rus ))  
(HYPOTHERMIA, eff.  
on antibody form. (Rus))

UCHITEL', I.Ya.

Experimental therapy of rabies and vaccinia encephalitis in rabbits.  
Vop.virus 3 no.3:172-173 My-Je '58 (MIRA 11:7)

1. Institut khirurgii imeni A.V. Vishnevskogo AMN SSSR, Moskva.  
(RABIES, therapy  
exper. trial on rabbits (Rus))  
(ENCEPHALITIS, etiology & pathogenesis  
vaccinia encephalitis, exper. ther. in rabbits (Rus))

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G.G., kand.tekhn.nauk, retsenzent; BULAVA, M.M., dots., retsenzent;  
DRANNIKOV, A.M., doktor geol.-mineralog.nauk, retsenzent; KIRICHKO,  
I.M., dotsent, retsenzent; POBEGAYLO, I.M., inzh., retsenzent;  
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I 5185-66 EWT(L)/ESA(h) GW  
ACC NR: AT6000090

SOURCE CODE: UR/2619/64/000/035/00...

AUTHOR: Tokmakov, V. A.; Uchitel', Yu. Ya.  
44.55 44.55

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B+1

ORG: Institute of Physics of the Earth im. O.Yu. Shmidt, AN SSSR (Institut fiziki zemli AN SSSR)  
44.55

TITLE: Calculation of the magnification of the K-001 vibration meter and an experimental computation check

SOURCE: AN SSSR. Institut fiziki zemli. Trudy, no. 35, 1964, 95-102

TOPIC TAGS: vibration measurement, seismologic instrument, seismography, galvanometer  
12.44.55 12.44.55 26

ABSTRACT: Difficulties encountered in experimentally calibrating the K-001 vibration meter are described. Magnification calculations and methods used at the Institute of Physics of the Earth to perform this task are discussed (photograph of K-001, schematics for electrical circuit, and determination of natural frequency of M-002 galvanometers are given). Orig. art. has: 18 formulas, 4 figures, 1 table. /FSB: v. 1, no 5/

SUB CODE: ES / SUBM DATE: none / ORIG REF: 007

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... and ... from pure solvent to ...  
... and ... were studied. ... at  
... was studied to 27.5 wt. %. The ... of the cond.  
at 50° ... through a max. at 19.9 ... (8.8 mol. %) of  
... of ... at 50° ... and ...  
... and ...  
... show an inflection ... corresponding to a ...  
... potential of 13.20V ... occurs between  
... and ... (across ...). Electrolysis of ... yields a  
... of ...

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