

YEROKHINA, A. A.

3(2)130(1) **PHASE I BOOK EXPLOITATION** SOW/2029
Akademicheskoye izdatel'stvo SSSR, Pechatnyy Institut im. V. V. Dokuchaeva

Pechatnyy Institut im. V. V. Dokuchaeva
Izdatel'stvo SSSR, Pechatnyy Institut im. V. V. Dokuchaeva
1959, 176 pages, 7,000 copies printed. Errata slip inserted.

Author: Ms. I. V. Turin, Academician, I. P. Gerasimov, Academician,
M. S. Ivanova, Professor, and V. A. Masin, Candidate of Sciences;
Editor: Publishing House: V. Ya. Muraviev; Book: Ms. I. P. Kur'ain.

PURPOSE: This book is intended for students and practitioners of
soil science and land utilization. It will also be of interest
to geographers and cartographers engaged in soil surveying and
mapping projects.

CONTENTS: This work on soil surveying was prepared by a group of
scientists of the Department of Soil Geography and Cartography
of the Pechnomy Institut AN SSSR (Soil Institute, AS USSR).
The book discusses the methods used in soil surveying and
cartography. The basic aims of all operations is to raise
agricultural productivity and introduce soil and land utilization.
The book includes representative maps and examples of the forms
and reports to be used by the soil scientist. No personalities
are mentioned. There are 46 Soviet references.

Soil Surveying (Cont.)

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PART II

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~~YEROKHINA~~ Aleksandra Alekseyevna; IVANOVA, Ye.N., prof., doktor
sel'skokhoz.nauk, otv.res.; ANTSILOVICH, M.Ye., red.izd-va;
RYLINA, Yu.V., tekhn.red.

[Soils of Orenburg Province] Pochvy Orenburgskoi oblasti.
Moskva, Izd-vo Akad.nauk SSSR. 1959. 162 p. (MIRA 12:9)
(Orenburg Province--Soils)

YEROKHINA, A.A.

"Soils of Japan" [in Japanese] by Iyutaka Kamoshita. Reviewed
by A.A.Yerokhina. Pochvovedenie no.5:96-99 My '59.

(MIRA 12:8)

(Japan--Soils)

(Kamoshita, Iyutaka)

DOSKACE, A.G.; IVANOVA, Ye.N.; YEROKHINA, A.A.

Problems of differentiating minor and medium topographic
features. Pochvovedenie no.12:59-68 D '59.
(MIRA 13:4)

1. Pochvennyy institut im. V.V.Dokuchayeva Akademii nauk SSSR,
i Institut geografii Akademii nauk SSSR.
(Topography)

YEROKHINA, A.A.

Report on the International Conference on Mapping East
European Soils. Pochvovedenie no.12:110-111 D '59.
(MIRA 13:4)
(Europe, Eastern--Soils--Maps)

FEDOROVICH, B.A., prof., doktor geograf.nauk, otv.red.; ZYKOV, D.A., akademik, agronom-rasteniyevod, red.; IVANOVA, Ye.N., prof., doktor sel'skokhoz.nauk, red.; KALININA, A.V., kand.biolog.nauk, red.; LAVRENKO, Ye.M., red.; KUSHNEV, S.L., kand.geogra.nauk, red..
Prinimali uchastiye: YEROKHINA, A.A., pochvoved; IVANOVA, Ye.N., pochvoved; ROZOV, M.M., pochvoved; ZATENATSKAYA, M.P., gidrogeolog; KARPEKINA, L.S., red.isd-va; SMIRNOVA, A.V., tekhn.red.

[Division of northern Kazakhstan into natural regions; Kustanay Province, North Kazakhstan Province, Kokchetav Province, Akmolinsk Province, and Pavlodar Province] Prirodnoe raionirovanie Severnogo Kazakhstana; Kustanaiskaya, Severo-Kazakhstanskaya, Kokchetavskaya, Akmolinskaya i Pavlodarskaya oblasti. Moskva, 1960. 468 p.

(MIRA 13:7)

1. Akademiya nauk SSSR. Sovet po izucheniyu proizvoditel'nykh sil.
2. Institut geografii AN SSSR (for Fedorovich).
3. AN Kazakhskoy SSR; Sovet po izucheniyu proizvoditel'nykh sil (SOPS) AN Kazakhskoy SSR (for Zykov).
4. Chlen-korrespondent AN SSSR (for Lavrenko).
5. Pochvennyy institut im. V.V.Dokuchayeva AN SSSR (for Yerokhina, Ivanova, Rozov).
6. Sovet po izucheniyu proizvoditel'nykh sil AN SSSR (for Zatenatskaya).

(Kazakhstan--Physical geography)

IVANOVA, Ye.N.; ROZOV, N.N.; YEROKHINA, A.A.; NOGINA, N.A.; NOSIN, V.A.;
UFIMTSEVA, K.A.; Primali uchastiye: IVANOVA, Ye.N.; ROZOVYY, N.N.;
BUDINA, L.P.; VISHNEVSKAYA, I.V.; GERASIMOV, I.P.; KARAVAYEV, N.N.;
KOSHELEVA, I.T.; NAUMOV, Ye.M.; SEMINA, Ye.V.; SOKOLOV, I.A.;
SOKOLOVA, T.A.; TARCUL'YAN, V.O.

New materials on general geography and soil classification of the
polar and boreal belts of Siberia. Pochvovedenie no.11:7-23 II
'61. (MIRA 14:12)

(Siberia, Northern--Soils--Classification)
(Siberia, Northern--Geography)

LIKHANOV, B.N.; KHAUSTOVA, M.N.; YEROKHINA, A.A.; MARKOV, F.G.; SPIZHARSKIY, T.N.; DODIN, A.L.; KHIL'TOVA, V.Ya.; CHEREPNIN, L.M.; GROMOV, L.V., kand. geol.-mineral. nauk; SHCHERBACHEV, V.D.; SHUTYY, M.Ye.; NEM-CHINOV, V.S., akad., red.; NEKRASOV, N.N., red.; PUSTOVALOV, L.V., red.; ZUBKOV, A.I., kand. ekon. nauk, red.; KAVUN, T.K., red. izd-va; SUSHKOVA, L.A., tekhn. red.

[Natural conditions of Krasnoyarsk Territory] Prirodnye uslovia Krasnoyarskogo kraia. Moskva, Izd-vo Akad. nauk SSSR, 1961. 248 p.

(MIRA 14:7)

1. Krasnoyarskaya kompleksnaya ekspeditziya. 2. Institut geografii AN SSSR (for Likhanov, Khaustova). 3. Pochvennyy institut im. V.V. Dokuchayeva AN SSSR (for Yerokhina). 4. Nauchno-issledovatel'skiy institut geologii Arktiki Ministerstva geologii i okhrany neдр SSSR (for Markov). 5. Vsesoyuznyy geologicheskii institut Ministerstva geologii i okhrany neдр SSSR (for Spizharskiy, Dodin). 6. Laboratoriya geologii dokembriya AN SSSR (for Khil'tova). 7. Krasnoyarskiy pedagogicheskii institut Ministerstva prosveshcheniya RSFSR (for Cherepnin). 8. Sovet po izucheniyu proizvoditel'nykh sil pri Prezidiume AN SSSR (for Gromov, Likhanov, Khaustova, Yerokhina, Shcherbachev, Shutyy). 9. Chlen-korrespondent AN SSSR (for Nekrasov, Pustovalov)

(Krasnoyarsk Territory--Natural history)

GERASIMOV, I.P.; YEROKHINA, A.A.

International Conference on Soils in New Zealand and excursions in
the country. Pochvovedenie no.4:29-44 Ap '63. (MIRA 16:5)

1. Pochvennyy institut imeni V.V.Dokuchayeva.
(Soil science--Congresses)
(New Zealand--Soils)

GERASIMOV, I.P., akademik, glav. red.; SOKOLOV, A.V., red.;
LETUNOV, P.A., red.; YEROKHINA, A.A., red.

[Fertility and melioration of soils in the U.S.S.R.; reports
for the Eighth International Congress of Soil Scientists]
Plodородie i melioratsiia pochv SSSR; doklady k VIII Mezhdunarodnomu kongressu pochvovedov. Moskva, Izd-vo "Nauka,"
1964. 233 p. (MIRA 17:5)

1. Vsesoyuznoye obshchestvo pochvovedov. 2. Prezident Vsesoyuznogo obshchestva pochvovedov (for Gerasimov).

GERASIMOV, I.P., akademik, otv. red.; ZONN, S.V., prof., doktor
sel'khoz. nauk, otv. red.; YEROKHINA, A.A. red.

[Genesis, classification, and mapping of soils in the
U.S.S.R.; reports at the 8th International Congress of
Soil Scientists] Genezis, klassifikatsiia i kartografiia
pochv SSSR; doklady k VIII Mezhdunarodnomu kongressu
pochvovedov. Moskva, Nauka, 1964. 164 p.

(MIRA 17:11)

1. Vsesoyuznoye obshchestvo pochvovedov.

GERASIMOV, I.P., akademik, glav. red.; RODE, A.A., red.; ANTIFOV-KARATAYEV, I.N., red.; KONONOVA, M.M., red.; MISHUSTIN, Ye.N., red.; GORBUNOV, N.I., red.; YEROKHINA, A.A., red.

[Physics, chemistry, biology and mineralogy of the soils of the U.S.S.R.; report at the Eighth International Congress of Soil Scientists] Fizika, khimija, biologija i mineralogija pochv SSSR; doklady k VIII Mezhdunarodnomu kongressu pochvovedov. Moskva, Nauka, 1964. 393 p.

(MIRA 17:9)

1. Vsesoyuznoye obshchestvo pochvovedov. 2. Prezident Vsesoyuznogo obshchestva pochvovedov (for Gerasimov). 3. Pochvennyy institut im. V.V.Dokuchayeva, Moskva (for Antipov-Karatayev, Gorbunov). 4. Institut mikrobiologii AN SSSR, Moskva (for Mishustin).

YEROKHINA, A.A.; SOKOLOVA, F.A.

Problems of genesis and geography in the new system. Pochvovedenie no.6s23 Je'64 (MIRA 17e7)

BELEVTSSEV, G.A.; GAVRILENKO, N.G.; GRINENKO, I.M.; KOROSTIK, P.O.;
KOTEL'NIKOV, I.V.; KRASAVTSEV, N.I., kand. tekhn. nauk;
MISHCHENKO, N.M.; POPOV, N.H., kand. tekhn. nauk; SEMIK, I.P.,
kand. tekhn. nauk; TOTSKIY, G.P., kand. tekhn. nauk; SHESTOPALOV,
I.I.; Primalni uchastiye: SOLDATKIN, A.I.; SOLOMKO, V.P.;
SOLOMATIN, A.M.; BOLOTSKIY, D.V.; ZAPROZHETS, N.P.;
BESSCHASTNIY, A.Ye.; SHVETS, N.Kh.; LIKHUNIN, S.D.; SHUMSKIY, I.B.;
VAS'KOVICH, N.A.; YEROKHINA, A.I.; GELYUKH, B.A.

Desulfuration of pig iron in a fast-revolving and continuous
drum. Met. i gornorud. prom. no.413-5 JL-Ag '65. (MIRA 18:10)

YEROKHINA, I.G.; ZHARIKOVA, G.S.

Rheography in facial pain syndromes. Sov.med. 28 no.11:116-122
N 165. (MIHA 18:12)

1. Kafedra nervnykh bolezney (zav. - prof. N.K. Bogolepov) II
Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

BOGOLEPOV, N.K.; YEROKHINA, L.G.

Pain hyperkinesias in trigeminal neuralgia. Zhur.nevr. i psikh.
66 no.1:9-17 '66. (MIRA 19:1)

1. Kafedra nervnykh bolezney (zaveduyushchiy -- prof. N.K.
Bogolepov) II Moskovskogo meditsinskogo instituta im. Pirogova.
Submitted September 18, 1965.

KAN'KOVSKIY, Ye.N.; DMITRIYENKO, S. V.; PECHENNIKOVA, T.I. Prinsipali
uchastnye: YEROKHINA, I.N., Starshiy Inzh.

Structure of phenol-formaldehyde resins subjected to thermal
treatment. Plast.massy no.10:13-16 '64. (MIRA 17:10)

YEROKHINA, K. I.
ALKHASOV, D. G., ANDREYEV, D. S., GAL'PERIN, L. N., GRINBERG, A. P., GUSINSKIY, G. H.
LEMBERG, Y. Kh. and YEROKHINA, K. I.

Physical Technical Inst. Acad. Sci. USSR

"Coulomb Excitation of Nuclei (review lecture)

paper submitted at the A-U Conf. on Nuclear Reaction in Low and Medium Energy
Physics, Moscow, 19-27 Nov 57.

YEROKHINA, K. I.

AUTHORS: Alkhozov, D. G., Andreyev, D. S., 56-6-6/47
Yerokhina, K. I., Lemberg, I. Kh.

TITLE: The Coulomb Excitation of Separated Tin Isotopes
(Kulonovskoye vozvuzhdeniye razdelennykh izotopov
olova).

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957,
Vol. 33, Nr 6, pp. 1347-1358 (USSR)

ABSTRACT: A 14,5 MeV α -beam coming from a cyclotron is focused
by a system of quadrupol lenses in an aluminum tube and
thus impinges upon a target, where Coulomb excitation takes
place. The γ -quanta liberated on this occasion are
measured in a well screened γ -scintillation spectrometer.
Between the crystal and the target the following γ -absorbers
are connected:

400 μ Cu; 1.3 mm Al; 100 μ mica; 1 mm MgO; 50 μ Pb

and 1.5 mm air.

The following measuring and computation results were
obtained:

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The Coulomb Excitation of Separated Tin Isotopes

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isotope	ΔE in MeV ^x)	$\frac{B(E2)}{e^2} \cdot 10^4$ in cm ⁴	$\tau \cdot 10^{13}$ in sec.
Sn ¹¹²	1,26	0,18	7,2
Sn ¹¹⁴	1,30	0,20	5,5
Sn ¹¹⁶	1,29	0,19	6,0
Sn ¹¹⁸	1,22	0,19	8,0
Sn ¹²⁰	1,18	0,17	10,5
Sn ¹²²	1,15	0,15	13,5
Sn ¹²⁴	1,13	0,14	15,9
Sn ¹¹⁵	-xx)	-	-
Sn ¹¹⁷	{ 0,865	{ 0,025	-
	{ 1,03	{ 0,09	-
Sn ¹¹⁹	0,907	0,11	-

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The Coulomb Excitation of Separated Tin Isotopes

56-6-6/47

x) Corresponds to the energy of the γ -quantum which goes directly to the basic state.

xx) Between 0,75 up to 1,75 MeV no γ -quanta were found.

There are 7 figures, 1 table, and 19 references, 4 of which are Slavic.

ASSOCIATION: Leningrad Physico-Technical Institute AN USSR
(Leningradskiy fiziko-tekhnicheskij institut Akademii nauk SSSR).

SUBMITTED: June 3, 1957 (initially) and October 5, 1957 (after revision)

AVAILABLE: Library of Congress

Card 3/3

24(3)

AUTHORS:

Alkhazov, D. G., Grinberg, A. P.,
Yerokhina, K. I., Lemberg, I. Kh.

SOV/56-35-4-46/52
Gusinakiy, G.M.,

TITLE:

The Coulomb Excitation of Aluminum (Kulonovskoye vozvuzhdeniye
alyuminiya)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 4, pp 1055-1056 (USSR)

ABSTRACT:

The authors investigated the Coulomb (Kulon) excitation of Al^{27} -nuclei by means of heavy ions which were accelerated in a cyclotron. The ions concerned were 15.9 MeV triple-charged nitrogen ions and triple-charged 10.1 MeV oxygen ions. The γ -radiation occurring during the bombardment of the aluminum was investigated by means of a scintillation- γ -spectrometer with a NaJ(Tl) crystal. The investigation method employed and calculation of the values $B(E2)_{\uparrow}$, i.e. of the reduced probability of a quadrupole transition of a nucleus from the ground state to an excited state has already been described in earlier papers. A diagram shows the γ -radiation spectrum which was produced by a Coulomb excitation of aluminum by

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The Coulomb Excitation of Aluminum

SOV/56-35-4-46/52

nitrogen ions. Two lines with $E = 0.84$ and with 1.01 MeV respectively are observed. The relative intensity of the γ -cascade transition $0.84 + 0.17$ MeV amounts to not more than 4% of the direct transition to the ground level. An attempt to excite the two aforementioned Al^{27} levels by means of nitrogen ions (which were accelerated to 25 MeV) was without success because of the sharp increase of the γ -radiation background (which is due to nuclear reactions). The results obtained when using nitrogen- and oxygen-ions agree well with one another. The values of $B(E2)$ for the levels with $\Delta E = 0.84$ and 1.01 MeV amount to 0.0019 and $0.0031e^{2 \cdot 10^{-48}} \text{ cm}^4$ respectively. The partial lives of the levels with $\Delta E = 1.01$ MeV and $\Delta E = 0.84$ MeV amount to $1.7 \cdot 10^{-11}$ sec and $3.7 \cdot 10^{-11}$ sec respectively. There are 1 figure and 6 references, 2 of which are Soviet.

ASSOCIATION: Leningradskiy fiziko-tehnicheskij institut Akademii nauk SSSR (Leningrad Physico-Technical Institute of the Academy of Sciences USSR)

Card 2/3

21(8)
AUTHORS:

Alkhazov, D. G., Grinberg, A. P.,
Yerokhina, K. I., Lemberg, I. Kh.

SOV/56-35-4-47/52
Gusinskiy, G. M.,

TITLE:

The ~~lifetime~~ of the First Excited Level of Mg^{24} (Vremya zhizni
pervogo vzbuzhdennogo urovnya Mg^{24})

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 4, pp 1056-1058 (USSR)

ABSTRACT:

The investigation of the Coulomb (Kulon) excitation of the
nuclear level makes it possible to calculate its life. For
the transition of even-even nuclei from the ground state
with spin 0 to the first excited level with spin 2 it holds
that

$$1/\tau = 2.46 \cdot 10^{-3} (\Delta E)^5 B(E2)^\uparrow$$

Here ΔE denotes the level energy in keV, and $B(E2)^\uparrow$ the
reduced probability of the aforementioned transition. Here
 $e^2 \cdot 10^{-48} \text{ cm}^4$ serves as a measuring unit of $B(E2)$. In the
present paper triple-charged nitrogen- and oxygen ions with
energies of 15.9 and 18.1 MeV respectively, and also quadruple-
charged nitrogen ions with 25.6 and 36 MeV are used. Investi-

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the
The Lifetime of/ First Excited Level of Mg^{24}

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gations are rendered difficult by a permanent parasitic line of 1.37 MeV (which is thus in agreement with the line under investigation). A diagram shows the spectrum obtained by the bombardment of natural magnesium with 15.9 MeV nitrogen ions. According to estimates made by the authors, the maximum error committed when determining the area of the parasitic peak amounts to not more than $\pm 5\%$ of the peak under investigation. The mean value of $B(E2)_{\uparrow}$, which was determined by 6 different experiments, amounts to $0.054 e^2 \cdot 10^{-48} \text{ cm}^4$, from which it follows that $\tau = (1.5 \pm 0.4) \cdot 10^{-12} \text{ sec}$. In conclusion, a short report is given on results obtained by other authors. There are 1 figure and 3 references, 2 of which are Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskij institut Akademii nauk SSSR
(Leningrad Physico-Technical Institute of the Academy of Sciences USSR)

SUBMITTED: July 9, 1958

Card 2/2

SOV/56-35-6-2/44

24(5)
AUTHORS:

Alkhazov, D. G., Grinberg, A. P., Guginskiy, G. M., Yerokhina, K.I.,
Lemberg, I. Kh.

TITLE:

Coulomb Excitation of High-Energy Nuclear Levels in Even Tungsten
Isotopes (Kulonovskoye vozbuzhdeniye yadernykh urovney s bol'shoy
energiyey v chetnykh isotopakh vol'frama)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35,
Nr 6, pp 1325-1334 (USSR)

ABSTRACT:

In their introduction the authors deal in detail with investigations
carried out in this field by other authors (Refs 1-3, 6-11). The
authors themselves already determined even-even nuclei with 15 Mev
 α -particles and excited states with energies of up to 1.5 Mev
(Refs 4,5). Peker (Ref 11) set up schemes of excited levels on the
basis of a generalized nuclear model for W^{184} and W^{186} according
to data obtained from references 9 and 10. Herefrom it follows
that the levels of W^{184} with $\Delta E = 900$ kev and that of W^{186} with
 $\Delta E = 750$ kev are vibration levels (2^+). In the present paper the
authors used the following energies for their investigations for
the excitation of α -particles: 8.3, 10.2, 13.1 and 14.5 Mev. The
particles were accelerated in a cyclotron. The target substance

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Coulomb Excitation of High-Energy Nuclear Levels in Even Tungsten Isotopes

consisted of natural tungsten and of samples (lead bases) which were enriched with W^{182} , W^{184} , and W^{186} . The results obtained by the investigations are shown by a number of diagrams and tables. Figure 1 shows the spectrum emitted by natural tungsten at Coulomb excitations ($E_{\alpha} = 14.5$ Mev), and figure 2 shows the same for the last high-energy lines. The extrema of the curves correspond to the following lines: 511, 610, 730, 900, 1120, and 1220 kev. The line $\Delta E = 790$ kev does not occur here, but the γ -spectrum for W^{184} ($E_{\alpha} = 13.1$ Mev) shows weak but distinct maxima for $\Delta E = 790$ and 900 kev; figure 4 shows the same for W^{186} ($E_{\alpha} = 14.5$ Mev) 511 kev (intensive line), 610 and 730 (weak lines). The existence of the following excited levels was determined: W^{182} : 1.22 Mev, W^{184} : 0.90 Mev, W^{186} : 0.73 Mev. The reduced transition probabilities to the ground state $B(E2)$ calculated for each of these levels were found to be 0.051, 0.038 and 0.040 respectively (in units of $e^2 \cdot 10^{-48} \text{ cm}^4$). The assumption that these levels belong to the vibration type is discussed. The author finally thanks B.L. Birbrair,

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SOV/56-35-6-2/44

Coulomb Excitation of High-Energy Nuclear Levels in Even Tungsten Isotopes

L. K. Peker, and L. A. Sliy for discussing results.- There are 5 figures, 2 tables, and 15 references, 5 of which are Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskii institut Akademii nauk SSSR
(Leningrad Physico-Technical Institute of the Academy of Sciences,
USSR)

SUBMITTED: May 26, 1958

Card 3/3

21(7)
AUTHORS:SOV/48-23-2-11/20
Alkhazov, D. G., Grinberg, A. P., Yerokhina, K. I., Lemberg, I. Kh.

TITLE:

Coulomb Excitation of Nuclear Levels in Spherical Even-even
Nuclei (Kulonovskoye vozbuzhdeniye yadernykh urovney v sferi-
cheskikh chetno-chetnykh yadrakh)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol 23, Nr 2, pp 223-224 (USSR)

ABSTRACT:

The present paper contains results obtained in the investigation of Coulomb excitation of the first level of Si, Ti, Cr; Fe, Ni and Zr isotopes. The targets enriched with such isotopes were bombarded with triple- and quadruple-charged nitrogen ions which had been accelerated to 15.9-35 Mev in the cyclotron. The experimental procedure was given in a previous paper (Refs 1, 2). The authors calculated the stopping power dE/dqx of the investigated elements for N by recalculating the range-energy curves for α -particles according to Longchamp (Ref 3). The stopping power was also determined from the range-energy curve for N ions in Ni according to data on investigation of stopping power in Ni. The measurement results are listed in a table which also contains the probability of transitions and the life-time τ of the excited states as determined by the method of Coulomb excitation. In paper (Ref 8)

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SOV/48-23-2-11/20

Coulomb Excitation of Nuclear Levels in Spherical Even-even Nuclei

the authors assumed a systematic increase of value r determined by Coulomb method with respect to the values r determined by resonance scattering. This assumption does not agree with the results obtained here. There are 1 table and 9 references, 3 of which are Soviet.

Card 2/2

24.6500, 24.6600,
24.6700, 16.8100

76965
SOV/56-37-6-5/55

AUTHORS:

Alkhazov, D. G., Grinberg, A. P., Gusinskiy,
G. M., Erokhina, K. I., Lemberg, I. Kh.

TITLE:

Coulomb Excitation of Odd A-Nuclei by Heavy Ions

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki,
1959, Vol 37, Nr 6, pp 1530-1542 (USSR)

ABSTRACT:

High-lying levels in some light nuclei (Al^{27} , Sc^{45} , V^{51} , Nb^{93}), which because of background could not previously be observed when protons or α -particles were used, have now been excited by using "heavy" ions as bombarding particles. The "heavy" ions were $N^{14}; 3+$, $N^{14}; 4+$, $O^{16}; 3+$, $Ne^{20}; 4+$, and $Ne^{22}; 4+$ at energy levels from 16 to 36 mev. The γ -radiation formed during the bombardment of the target with ions was registered with the aid of a scintillation spectrometer (cf. D. G. Alkhazov, D. S. Andreev, K. I. Erokhina, I. Kh. Lemberg, Zhur. eksp. i teoret. fiz., 33, 1347, 1958). The calibration of the

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2

Coulomb Excitation of Odd A-Nuclei by Heavy Ions 76965
SOV/56-37-6-5/55

spectrograph was done according to the γ -lines of Hg²⁰³ (279.5 kev), Cs¹³⁷ (661 kev), Zn⁶⁵ (1,120 kev), and Co⁶⁰ (1,170 and 1,332 kev). The reduced probability of the excitation was calculated with the aid of the following equation:

$$B(E2) \uparrow = 0,555 \cdot 10^{-10} \frac{Z_1 S_t (1 + a_r) M Z_2^2 dI/dx}{\eta_c^2 \omega_{\gamma}^4 \mu^2} \left\{ \int_0^{E_{max}} (E - \Delta E)^2 \xi(E) dE \right\}^{-1} \quad (1)$$

(where Z_1 is the ion charge in the beam outside the cyclotron; α_t is the total coefficient of internal conversion; S_f is the number of γ -quanta registered at the peak of the total energy; M is the molecular weight of the substance comprising the target; Z_2 is the nuclear charge of the atom under investigation (i.e., in the target); $dE/d\rho x$ are the specific losses of the ion energy in the target (in mev/(mg/cm²)); η is the relative content of a given isotope

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Coulomb Excitation of Odd A-Nuclei by Heavy Ions ⁷⁶⁹⁶⁵
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in the element under investigation; ϵ_f is the ratio of the number of γ -quanta registered at the peak of the total energy to the total number of γ -quanta falling on NaI(Tl) crystal; ω is the relative solid angle; A_γ is the portion of γ -quanta passing through the target and absorbed by the medium between the target and the crystal (0.3 mm Cu, 1.3 mm Al, 1 mm MgO, 0.05 mm Pb, and 0.05 mm mica); μ is the reduced mass; n is the number of atoms of the element under investigation in the target; E is the collision energy; ΔE is the energy of the excited level; $f_2(\xi)$ is function of coulomb excitation; ξ is parameter that is defined by the relation

$$\xi = 0.1575 Z_1 Z_2 \sqrt{\mu} (1/\sqrt{E - \Delta E} - 1/\sqrt{E});$$

and Z_1 is the nuclear charge of the bombarding particle). The analysis showed that some of the γ -lines observed

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Coulomb Excitation of Odd A-Nuclei by Heavy Ions 76965
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in previous investigations, in which chromium was irradiated with protons or α -particles, are not due to coulomb excitation of the corresponding levels in chromium. It was shown that lines associated with nuclear levels owing to the α -excitation (Rb^{87} ,

Sn^{117} , Sn^{119}) are actually emitted as a result of coulomb excitation. The partial lifetimes $\tau(E2)$ of the excited levels were determined to lie between

10^{-7} and 10^{-12} sec. A. B. Girshin made contributions in the course of this work. There is 1 table; 6 graphs; and 31 references, 8 Soviet, 1 Dutch, 1 Swiss, 2 French, 19 U.S. The 5 most recent U.S. references are: F. K. McGowan, P. H. Stelson. Phys. Rev., 109, 901, 1958; E. Almqvist, D. A. Bromley, H. E. Gove, A. S. Litherland, Bull. Amer. Phys. Soc., 2, 178, (D7), 1957; C. P. Swann, W. C. Porter, J. Frankl. Inst., 261, 371, 1956. M. A. Rothman, D. M. Van Patter, V. S. Dubey, W. C. Porter, C. E. Mandeville. Phys. Rev., 107, 1551, 1957; R. M. Sinclair. Phys. Rev., 107, 1306, 1957.

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Coulomb Excitation of Odd A-Nuclei by Heavy Ions 76965
SOV/56-37-6-5/55

ASSOCIATION: Leningrad Phys.-Tech. Inst. Acad. Sciences USSR
(Leningradskiy fiziko-tekhnicheskij institut, Akademii
nauk SSSR)

SUBMITTED: July 2, 1959

Card 5/5

S/048/60/024/012/005/011
B019/B056

AUTHORS: Andreyev, D. S., Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Cascade Excitation of the Second Rotational Levels in Separated Tungsten Isotopes

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 12, pp. 1470-1473.

TEXT: The present paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which was held in Moscow from January 19 to January 27, 1960. By means of Coulomb excitation it was hitherto possible to excite even-even nuclei to the first rotational level. The excitation to the second rotational level was not possible. Protons and α -particles were used for excitation. In the introduction, the authors discuss several results obtained by earlier papers. The experiments described here were carried out by means of quadruply-charged Ne²⁰⁺ ions having an energy of 27.8 Mev, and by means of quadruply-charged N²⁰⁺ ions with an energy of 36 Mev. Four metallic tungsten targets were investigated, of which the

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Cascade Excitation of the Second Rotational Levels in Separated Tungsten Isotopes

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first consisted of 87.6% W^{182} , the second of 90.1% W^{183} , the third of 91.3% W^{184} , and the fourth of 96% W^{185} . The γ -spectrum, which was emitted during the bombardment of the targets with heavy ions, was investigated by the author by means of a scintillation γ -spectrometer. The photo-multiplier pulses were amplified and recorded with a 63-channel amplitude analyzer, which had been developed by LETI. From the experimental results represented in diagrams and a detailed discussion, the authors became convinced that the γ -lines with the energies of 230 keV, 250 keV and 275 keV, which they had observed, represent the result of a double Coulomb excitation of states with the energies of 330, 360 and 400 keV in W^{182} , W^{184} and W^{186} . Similar results obtained by Newton et al. (Ref. 6) are mentioned. There are 3 figures, 1 table, and 6 references: 2 Soviet, 2 French, and 2 US. ✓

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk SSSR (Institute of Physics and Technology of the Academy of Sciences USSR)

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5/048/60/024/012/007/011
B019/B056AUTHORS: Andreyev, D. S., Yerokhina, K. I., and Lemberg, I. Kh.TITLE: The Coulomb Excitation of the Ne^{21} NucleusPERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 12, pp. 1478-1479

TEXT: The present paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which was held in Moscow from January 19 to January 27, 1960. Report is given in the present paper on the results obtained by experiments, in which the first level of Ne^{21} was excited. The γ -emission of graphite, aluminum, and molybdenum targets was studied during their bombardment with Ne^{21} ions, whose energy was 24.2 Mev. In all cases a γ -line with 0.35 Mev was found. The authors arrive at the conclusion that these lines, which are known already from previous papers, are not the result of a nuclear reaction but of a Coulomb excitation of Ne^{21} . From publications it is known that the quantum characteristics for the Ne^{21} -ground state are $3/2^+$, and for the first excited state $3/2^+$ or $5/2^+$. Thus, Card 1/2

The Coulomb Excitation of the Ne^{21} Nucleus

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the authors obtained $0.025 \cdot 10^{-48} \text{e}^2 \text{cm}^4$ or $0.017 \cdot 10^{-48} \text{e}^2 \text{cm}^4$ for the probability $B(E2)$ of a transition from the ground state to the first excited state. For the partial lifetime of the first excited state one thus obtains $6.3 \cdot 10^{-10}$ sec or $9.2 \cdot 10^{-10}$ sec. The authors thank A.B.Girshin for the faultless operation of the cyclotron. There are 1 figure and 8 references: 3 Soviet, 4 US, and 1 Danish. ✓

ASSOCIATION: Fiziko-tehnicheskii institut Akademii nauk SSSR (Institute of Physics and Technology of the Academy of Sciences USSR)

Card 2/2

81786

B/032/60/026/07/15/055
B015/B068

5.5230

AUTHORS: Yerokhina, K. I., Lemberg, I. Kh., Makashova, I. Ye.,
Malliov, I. K., Obukhov, A. P.

TITLE: Determination of Microimpurities in Silicon From the
 γ -Spectra of Their Radioactive Isotopes

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 7, pp. 821-827

TEXT: A method of radioactivation analysis is described, with γ -radiation of the impurities in silicon applied in the production of semi-conductors being studied. The sample is activated in the neutron flux of a reactor. Work was performed in a flux of thermal neutrons with $9 \cdot 10^{12}$ neutrons \cdot cm⁻² \cdot sec⁻¹. As the sample in the reactor is exposed to the action of fast neutrons in addition to slow ones, these nuclear transformations have also to be considered (Table 1). Since the major part of isotopes formed from Si is short-lived, only γ -radiation of Si³¹ must be considered in measurements. From the remaining neutron-activated elements,

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81706

Determination of Microimpurities in Silicon From S/032/60/026/07/15/055
the γ -Spectra of Their Radioactive Isotopes B015/B068

about 50 isotopes with measurable γ -radiation form. In the present case, 17 elements (Table 2) were simultaneously determined with a scintillation-gamma-spectrometer (with an $\Phi\text{BY-C}$ (FEU-S) photoelectron multiplier) provided with a NaI (Tl) crystal. The unit was calibrated against known γ -spectral lines. The results obtained by analysis of two silicon samples are given in Table 3. Maximum sensitivity is (Table 4)

10^{-11} g for Au, 10^{-10} g for Ni, Mn, Cu, As, and Sb, and $5 \cdot 10^{-6}$ g for Sn. There are 2 figures, 4 tables, and 6 references: 2 Soviet, 3 American, and 1 British. LH

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk SSSR (Institute of Physics and Technology of the Academy of Sciences USSR)

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89247

S/048/61/025/001/013/031
B029/B060

24.6520 (1138, 1139, 1160)

AUTHORS: Andreyev, D. S., Grinberg, A. P., Yerokhina, K. I.,
Lemberg, I. Kh.

TITLE: Coulomb excitation of the nuclear levels of P^{31} , S^{33} , Mn^{55} ,
and Pr^{141} by means of Ne^{20} ions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25,
no. 1, 1961, 70-76

TEXT: The measurements were made by means of a scintillation spectrometer with a NaI-Tl crystal (40 mm in diameter, 40 mm in height) and by means of a photomultiplier of the type $\Phi 3Y-11$ (FEU-11). The electronics consisted of a pre-amplifier, a cathode follower, an overchargeable amplifier and an AMA-2 (AMA-2) 63-channel pulse height analyzer connected in parallel and an AM 100-1 (AI 100-1) 100-channel pulse height analyzer. Method of measurement, apparatus, and course of the calculation of the reduced transition probability $B(E2)$ have already been

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X

S/O48/61/025/001/013/031
B029/B060

Coulomb excitation of the nuclear levels...

described in three previous papers (Refs. 1-3). In the case of nitrogen ions the errors are below 15%, but they may attain from 20 to 25% for neon ions. The following was observed when measuring the energy of beam particles by means of deflection in a magnetic field: After deflection, the beam is split into several components corresponding to different charges of the accelerated ions. The change of the ions falling into the beam catcher causes the change of the ratio current strength / number of beam particles in the beam, which means that it influences the accuracy of calculation of the Coulomb excitation cross section. In the experiments concerned, the bombarding particles were quadruple-charged Ne²⁰ ions with energies of 23.2 and 27.8 Mev. The amperage of the ion beam measured on the target was $\sim 1 \cdot 10^{-8}$ a. The measurement results are given in the attached Table. $R_0 = 1.2 \cdot 10^{-13} A^{1/3}$ cm was set. Figs. 1, 2, 3, 4 show the instrumental γ -spectra taken with Ne²⁰ ions. The following notes are added concerning the individual elements: P³¹; The Coulomb excitation of the level with $\Delta E = 1.26$ Mev of P³¹ was examined with the aid of ions Ne²⁰ with an energy of 27.8 Mev. The target was pressed from a red phosphorus powder. The spectrum contains a gamma line with

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Coulomb excitation of the nuclear levels...

$E = 1.63$ Mev arising by Coulomb excitation of the level with $\Delta E = 1.63$ Mev in Ne^{20} . The value of $B(E2)_{\uparrow}$ for the 1.26-Mev level of P^{31} amounted to $0.011 \cdot 10^{-48} \text{ e}^2 \text{ cm}^4$. The spins of the two states of P^{31} are known:

$I_0 = 1/2^+$ $I_f = 3/2^+$. S^{33} : In the work under consideration, S^{33} was

excited by quadruple-charged Ne^{20} ions with an energy of 23.2 Mev. The gamma spectrum found contains a line with the energy 0.83 ± 0.01 Mev. Ln^{55} :

The Ln^{55} was likewise excited by quadruple-charged Ne^{20} ions with 23.2 Mev. This spectrum contains gamma lines with energies of 0.85 and 0.98 Mev. Pr^{141} : Fig. 4 shows the spectrum of gamma rays resulting on the

irradiation of praseodymium oxide with quadruple-charged Ne^{20} ions (0.8 Mev). The lifetime of the state with $\Delta E = 0.142$ Mev amounts to $2 \cdot 10^{-9}$ sec, and its partial lifetime is $4.3 \cdot 10^{-7}$ sec. The article under

consideration is the reproduction of a lecture delivered at the 10th Conference on Nuclear Spectroscopy, which took place in Moscow from January 19 to 27, 1960. There are 4 figures, 1 table, and 24 references: 17 Soviet-bloc and 17 non-Soviet-bloc.

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Coulomb excitation of the nuclear levels...

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk SSSR (Institute of Physics and Technology, Academy of Sciences USSR)

Ядро	$\Delta E, \text{MeV}$	$\Delta E^*, \text{MeV}$	$\frac{B(E2) \uparrow}{e^2 \times 10^{18}, \text{cm}^4}$	$\tau(E2), \text{сек}$	$\tau, \text{сек}$	$\tau^*, \text{сек}$	F
P^{31}	$1,28 \pm 0,02$	1,284 [5]	0,011	$4,8 \cdot 10^{-12}$	$1,0 \cdot 10^{-12}$	—	0,1
S^{32}	$0,83 \pm 0,01$	$0,844 \pm 0,008$ [6] $0,839 \pm 0,005$ [7]	0,0010	$5,2 \cdot 10^{-11}$	$\leq 5,2 \cdot 10^{-11}$	—	1,0
Mn^{55}	$0,93 \pm 0,01$	0,983 [8]	0,012	$(5-13) \cdot 10^{-12}$	—	—	$4,0-5$
P^{31+1}	$0,142 \pm 0,003$	0,142 [9]	0,0036	$4,3 \cdot 10^{-7}$	—	$2 \cdot 10^{-8}$ [10,11]	4,3

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Coulomb excitation of the nuclear levels...

Legend to the Table: ΔE , level energy measured in the experiments, ΔE^* , level energy according to results from other papers, $B(E2)_{\uparrow}$, reduced probability of the electric quadrupole excitation of the level, $\tau(E2)$, partial lifetime of the level relative to the electric quadrupole transition of the nucleus into the ground state, τ , total lifetime of the level, τ^* , lifetime of the level according to data from other papers, F , ratio between value of $B(E2)_{\uparrow}$ measured in the experiments and value $B(E2)_{\text{single particle}}$ calculated on the basis of the single-particle approximation.

Legend to the Figures: Instrumental γ -spectra, obtained in the case of Coulomb excitation with quadruple-charged Ne^{20} ions of phosphorus at 27.8 Mev (Fig. 1), of S^{33} at 23.2 Mev (Fig. 2); of Mn at 23.2 Mev (Fig. 3)- a without, b with lead filter, 1.25 mm thick; of Pr at 27.8 Mev (Fig. 4).

X

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89247

S/048/51/025/001/013/031
B029/B060

Coulomb excitation of the nuclear levels...

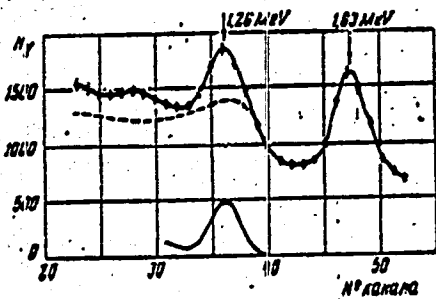


Fig. 1
Рис. 1. Аппаратурный спектр γ -лучей, полученных при кулоновском возбуждении фосфора четырехрядными ионами Ne^{10+} .

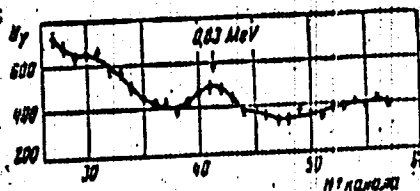


Fig. 2

Рис. 2. Аппаратурный спектр γ -лучей, полученных при кулоновском возбуждении Se четырехрядными ионами Ne^{10+} с энергией 23.2 MeV.

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Coulomb excitation of the nuclear levels...

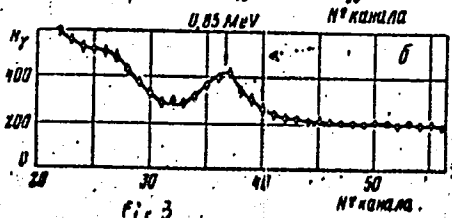
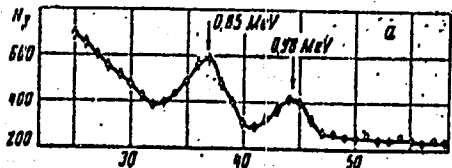


Fig 3

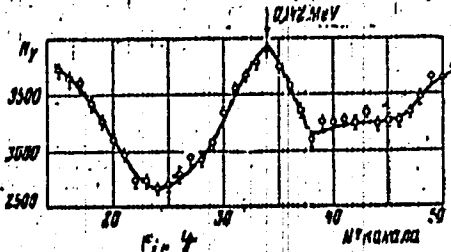


Fig 4

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24.6300

26439

S/O48/61/025/007/001/005
B108/B209

AUTHORS: Andreyev, D. S., Vasil'yev, V. D., Gusinskiy, G. M.,
Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Study of the Coulomb excitation of nuclear levels with the
aid of accelerated multiply charged ions

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25,
no. 7, 1961, 832 - 847

TEXT: This paper was read at the XI Annual Conference on Nuclear Spectroscopy in Riga, January 25 - February 2, 1961. The purpose of the studies was to improve the results of earlier work (Ref. 1: Andreyev, D.S. et al., Nucl. Phys., 19, 400 (1960); Ref. 2: Alkhazov, D. G., et al., Zh. eksperim. i teor. fiz., 37, 1530 (1959)) by the method of reference levels (Ref. 1) which consists in measuring the excitation cross section of a reference level before and after measuring the excitation cross section of the level to be investigated. The following nuclear levels were used as reference levels: 0.44 Mev of Na^{23} ($B(E2)_{\uparrow} = 0.11 \cdot 10^{-48} \text{ e}^2 \text{ cm}^4$) for studying Li and B; 1.19 Mev of Ni^{62} ($B(E2)_{\uparrow} = 0.085 \cdot 10^{-48} \text{ e}^2 \text{ cm}^4$) for

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Study of the Coulomb...

studying Co; 0.76 Mev of Se^{76} ($B(E2)\uparrow = 0.42 \cdot 10^{-48} \text{ e}^2 \text{ cm}^4$) for studying Mg, Ca, and Se; 1.15 Mev of $\text{Sn}^{122}\uparrow$ ($B(E2)\uparrow = 0.26 \cdot 10^{-48} \text{ e}^2 \text{ cm}^4$) for studying In, Sb, and Ce; 1.60 Mev of Ce^{140} ($\tau = 1.1 \cdot 10^{-13} \text{ sec}$) for studying the even Sn isotopes and Ba^{138} ; 0.16 Mev of Tl^{47} ($B(E2)\uparrow = 0.040 \cdot 10^{-48} \text{ e}^2 \text{ cm}^4$) for studying Sn^{117} . The excitation probability, $B(E2)\uparrow$, was determined with an error of 15 - 20%. Tables 1 and 2 contain the results of measurements. In all these studies, the authors made use of the broadening of the energy band of multiply charged ions accelerated in the cyclotron at the FTI (Institute of Physics and Technology). Ne ions having 16 - 18 Mev were used for studying the nuclear levels of light elements such as Li and B, and were also successfully applied to exciting higher levels in light and medium elements (Mg^{25} , Mg^{26} , Ca^{44} , Co^{59} , In^{115} , and Sb). 52.5-Mev ions of N were able to excite the levels with energies of 1.4 - 1.6 Mev of heavier nuclei (Ba^{138} and Ce^{140}). The nuclear levels of even-even isotopes were chiefly examined to complete the data on even-even nuclei and to compare results (Ref. 16: Kisslinger, Card 2/6

26439

S/O48/61/025/007/001/005
B108/B209

Study of the Coulomb...

L. S., Sorønsen, R. A., Dansk. Mat.-Fys. Medd., 32, No. 9 (1960)
(cf. Table 3). There are 16 figures, 3 tables, and 42 references:
7 Soviet-bloc and 31 non-Soviet-bloc.

Table 1. Coulomb excitation of levels (spin 2^+) in even-even nuclei.

Legend: (1) Isotope, (2) level energy, Mev, (3) excitation probability,
(4) level lifetime, 10^{-13} sec, (5) ratio of $B(E2)_{\uparrow}$ to the same quantity
as estimated for a one-particle model (the nuclear radius in the calculations
was assumed to be $R_0 = 1.2 \cdot 10^{-13} A^{1/3}$ cm).

Table 2. Coulomb excitation of levels in nuclei with odd A and in odd-
odd B^{10} nuclei.

Legend: (1), (2), (3) see Table 1, (6) nuclear spin in ground state,
(7) nuclear spin in excited state, (8) partial lifetime of the level
relatively to the electric quadrupole transition, sec.

Legend to Table 3: (1) Nucleus, (2) calculated value of $B(E2)$ as taken
from Ref. 16, (3) experimental value of $B(E2)$.

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S/048/62/026/002/006/032
B101/B102

AUTHORS: Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Coulomb excitation of nuclear levels of copper, germanium, molybdenum, and palladium isotopes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 2, 1962, 205-211

TEXT: The Coulomb excitation of Cu^{63} , Cu^{65} , Ge^{70} , Ge^{72} , Mo^{94} , Mo^{96} , Mo^{98} , Mo^{100} , Pd^{104} , Pd^{106} , Pd^{108} , and Pd^{110} was studied by means of quadruply-charged 36-Mev nitrogen ions. The energy of incident particles was 97 % of the barrier energy for Cu, 98 % for Ge, 78 % for Mo, and 74 % for Pd. The reference levels were those of Se^{78} ($\Delta E = 0.615$ Mev, $B(E2)\uparrow = 0.36 \cdot 10^{-48} e^2 cm^4$ and Ni^{60} ($\Delta E = 1.33$ Mev, $B(E2)\uparrow = 0.11 \cdot 10^{-48} e^2 cm^4$). With Cu^{63} , the 0.67-, 0.96-, 1.33-, and 0.37-Mev gamma lines were observed. The first three lines correspond to Coulomb excitation of the first three levels and to the transitions to the ground state. The 0.37-Mev line corresponds to the transition from the 1.33-Mev level over the 0.96-Mev level to the ground

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Coulomb excitation of nuclear levels...

S/048/62/026/002/006/032
B101/B102

state. With Cu⁶³, the 0.78-, 1.11-, and 1.48-Mev lines were produced by Coulomb excitation of the first three levels. In addition, lines corresponding to ~320- and 370-kev gamma quanta were emitted as a result of successive transitions from the 1.48-Mev level over the 1.11-Mev level, and from there over the 0.77-Mev level. In examining Coulomb excitation of Ge, both native Ge and Ge enriched in Ge⁷⁶ up to 76% were used as targets. The Coulomb excitation of even isotopes of Mo and Pd was examined for the first time. The results are collected in the following table:

	$\Delta E, \text{Mev}$	$\frac{B(E2)\uparrow}{e^2} \cdot 10^{48}$ cm ⁴	$\tau(E2), \text{sec};$	τ, sec	δ^2	K	$\frac{B(E2)\uparrow}{e^2} \cdot 10^{48}$ cm ⁴ ✓
Cu ⁶³	0.67	0.013	$2.3 \cdot 10^{-11}$		0.013		0.026
Cu ⁶³	0.96	0.038	$3.8 \cdot 10^{-12}$		0.23	0.007	0.025
Cu ⁶³	1.33	0.053	$7.0 \cdot 10^{-13}$	$6.4 \cdot 10^{-13}$		0.10	0.027
Cu ⁶⁵	0.78	0.010	$1.4 \cdot 10^{-11}$		0.017		0.020
Cu ⁶⁵	1.11	0.028	$2.5 \cdot 10^{-12}$			0.06	0.019

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B101/B102

Coulomb excitation of nuclear levels...

$\Delta E, \text{Mev}$	$\frac{B(E2)\uparrow}{e^2 \text{ cm}^4} \cdot 10^{48}$	$\tau(E2), \text{sec};$	τ, sec	δ^2	K	$\frac{B(E2)\uparrow}{e^2 \text{ cm}^4} \cdot 10^{48}$
Cu ⁶⁵ 1.48	0.034	$6.6 \cdot 10^{-13}$	$5.8 \cdot 10^{-13}$		0.13	0.017
Ge ⁷⁰ 1.02	0.18					
Ge ⁷² 0.84	0.21					
Ge ⁷⁴ 0.59	0.30					
Ge ⁷⁶ 0.56	0.28					
Mo ⁹⁴ 0.87	0.23					
Mo ⁹⁶ 0.78	0.24					
Mo ⁹⁸ 0.78	0.26					
Mo ¹⁰⁰ 0.53	0.63					
Pd ¹⁰⁴ 0.56	0.61					
Pd ¹⁰⁶ 0.51	0.61					
Pd ¹⁰⁸ 0.43	0.82					
Pd ¹¹⁰ 0.37	0.78					
Card 3/4						



Coulomb excitation of nuclear levels...

S/048/62/026/002/006/032
B101/B102

There are 5 figures, 3 tables, and 17 references: 1 Soviet and 16 non-Soviet. The four most recent references to English-language publications read as follows: Cumming, J. B., Popile, N. T., Phys. Rev., 122, 1267 (1961); Cumming, J. B., Schwarzschild, A., Sunyar, A. W., Portile, N. T., Phys. Rev., 120, 2128 (1960); Jambunathan, R., Gunye, M. R., Sarat, B., Phys. Rev., 120, 1839 (1960); Booth, E. C., Bull. Amer. Phys. Soc., 5, 239 (1960). ✓

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

Card 4/4

24.6300

L0093

S/048/62/026/008/004/028
B163/B104

AUTHORS: Vasil'yev, V. D., Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Investigation of Coulomb excitation of levels in the nuclei
Fe⁵⁷, Ge⁷³, Rh¹⁰³, Pd¹⁰⁵, In¹¹³, In¹¹⁵, and Sn¹¹⁵

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,
no. 8, 1962, 992 - 997

TEXT: The nuclei listed in the title were bombarded by N¹⁴⁺⁴⁺ ions with
energies of 30 Mev in the case of Fe⁵⁷, 36 Mev in that of Ge⁷³ and 42 Mev
in all others. A number of nuclear levels not yet studied by Coulomb
excitation were found and their reduced upward transition probabilities
B(E2), parities, spin limits and partial life times $\tau(E2)$ were determined.
The error of the B(E2) values is of the order of 20 to 30%. The results
are given in the table. There are 6 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskii institut im. A. F. Ioffe Akademii nauk
SSSR (Physicotechnical Institute imeni A. F. Ioffe of the
Academy of Sciences USSR)

~~Classification~~

24.6300

40094

S/048/62/026/008/005/028
B163/B104

AUTHORS:

Vasil'yev, V. D., Gangrekiy, Yu. P., Yerokhina, K. I., and
Lemberg, I. Kh.

TITLE:

Investigation of the Coulomb excitation of the second level
 2^{+} of Pd^{104}

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,
no. 8, 1962, 997 - 999

TEXT: Experimental investigation of the second level 2^{+} of the Pd^{104}
nucleus at 1.34 Mev by bombardment with $N^{14}4^{+}$ ions with an energy of 42Mev.
The γ -background is so low, and the first-state energy 0.56 Mev so much
different from that of the cascade quanta (0.78 Mev), that a direct measure-
ment of the γ -spectra can be evaluated. The reduced transition probability
 $B(E2)_{0 \rightarrow 2^{+}}$ was calculated from the theoretical expression by Alder et al.
(Rev. Mod. Phys., 28, 432, (1956)) for the cascade excitation cross sec-
tion to be $0.015 \cdot 10^{-48} e^2 cm^4$. This value coincides with the theoretical
Card 1/2

Investigation of the Coulomb ...

S/048/62/026/008/005/028
B163/B104

estimation according to Weisskopf (one-particle model). The lifetime calculated from $B(E2)_{0 \rightarrow 2}$ is $5.8 \cdot 10^{-12}$ sec. The error is about 35%. There is 4 figures.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. P. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. P. Ioffe of the Academy of Sciences USSR)

Card 2/2

L0095

S/048/62/026/008/006/028
B163/B104

24.6300

AUTHORS: Vasil'yev, V. D., Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Lifetime of the first level of Ti^{50} PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,
no. 8, 1962, 999 - 1001

TEXT: An isotopically enriched target with 50% Ti^{50} was Coulomb-excited with 30 Mev $N^{14;3+}$ ions. For the level at 1.58 Mev the reduced upward transition probability $B(E2)_{\uparrow}$ was determined as $0.040 e^2 \cdot 10^{-48} cm^4$ and the lifetime of this state as $1.03 \cdot 10^{-12}$ sec. For a correct evaluation of the area below the 1.58 Mev peak, it was compared with the areas of the 1.19 Mev peak of Ni^{62} and of the 0.615 Mev peak of Se^{78} . The results are compared with those for Ti^{46} and Ti^{48} (Andreyev et al., Nucl. Phys., 19, 400 (1960)). With increasing number of neutrons the excitation energy increases from 0.89 to 1.50, and $B(E2)$ decreases from 0.083 to 0.040. There are 2 figures and 1 table.

Card-1/1

The energies of the first ...

S/O19/63/027/102/001/023
B104/2180

agreement is worse in the case of Zn, Zr, Ho and Pt. The theoretical results reflect general tendencies observed experimentally, particularly the increasing σ_{2+} on approaching the outside of the shell with the

ALKHAZOV, D.G.; YEROKHINA, K.I.; LEMBERG, I.Kh.

Rotational nature of the 2.2 Mev. level in Al^{27} . Izv. AN SSSR.
Ser.fiz. 27 no.2:211-215 F '63. (MIRA 16:2)

(Quantum theory) (Aluminum)

ALKHAZOV, D.G.; YEROKHINA, K.I.; LEMBERG, I.Kh.

Coulomb excitation of levels in odd nuclei C 135 ← 173.
Izv. AN SSSR. Ser. fiz. 27 no.11:1363-1376 N '63.

(MIRA 16:11)

ALBAZOV, G.; YEROKHINA, K. I.; LEMBERG, I. Kh.; UDRALOV, Yu. I.

"Investigations of Coulomb-Excitations of Nuclei of Odd-A with the Help of Ions of Nitrogen with Energies from 35 to 52 MeV."

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

FTI (Physico Technical Inst)

ALKHAZOV, D.G.; YEROKHINA, K.I.; LEMBERG, I.Kh.

Schemes of levels in La¹³⁹ and Pr¹⁴¹. Izv. AN SSSR Ser. fiz. 29
no.1:139-143 Ja '65. (MIRA 18:2)

YEROKHINA, K.I.; LEMBERG, I.Kh.; NABIEHVRISHVILI, V.A.

Coulomb excitation of the levels Gd¹⁵⁵, Dy¹⁶¹, and Tb¹⁷¹. Izv. AN
SSSR. Ser. fiz. 29 no.7:1103-1106 J1 '65. (MIRA 18:7)

GUSINSKIY, G.M.; YEROKHINA, E.I.; LEVITSKIY, I.Kh.

Lifetime of the 1046 Mev. level of Ar⁴⁰. Izv. AN SSSR, Ser. Fiz. Mat. Nauk, 1965, No. 5, p. 794-795. (MIRA 18:12)

1. Fiziko-tekhnicheskiy institut im. A.P.Ieffe AN SSSR.

L 25742-66 ENT(m) DLAP JD/JQ

ACE NR: AP6016391

SOURCE CODE: UR/OOLB/65/029/007/1103/1106

AUTHOR: Yerokhina, K. I.; Lemberg, I. Kh.; Nabichvishvili, V. A. 34
B

ORG: none

TITLE: Coulomb excitation of the levels of ¹⁵⁵Gd, ¹⁶¹Dy, and ¹⁷¹Yb 27

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 7, 1965, 1103-1106

TOPIC TAGS: ytterbium, dysprosium, gadolinium, coincidence counting, inelastic scattering, Coulomb excitation

ABSTRACT: This article is a further analysis of results from an experiment in which the coincidences of γ -quanta with inelasti-

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001962830003-9

of the investigated levels of ...
1 table. [JPRS]
SUB CODE: 20 / SUBM DATE: none / ORIG REF: 005
Card 1/1 *PK*

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001962830003-9"

L 26683-66 EWT(m) DIAAP JD/JH

ACC NR: AF6016097

SEARCH CODE: 01/0367/03/002/005/0794/0795

AUTHOR: Gusinskiy, G.M.—Gusinski, G. M.; Yerochina, K.I.—Erokhina, K.I.; Lemberg, I.Kh

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Lifetime of the 1.46 mev level of Ar sup 40

SOURCE: Yadernaya fizika, v. 2, no. 5, 1965, 794-795

5.2
B

TOPIC TAGS: argon, electron transition, Coulomb excitation, aluminum, even even nucleus

ABSTRACT: The probability of the electric quadrupole transition of B(E2) from the ground state of Ar⁴⁰ to the first excited level has been determined by investigating the Coulomb excitation of

1 - 1006 Z 0021-010 -- secondary: orig. art. next 1 figure has 1 formula. /JPRS/

SUB CODE: 20 / SUBM DATE: 15May65 / ORIG REF: 002 / OTH REF: 002

Card 1/1 BLG

2

YEROKHINA, L.A.

KHARLAMOVA, K.S.; YEROKHINA, L.A.; LAVOCHKIN, M.P., redaktor; DUNINA,
A.N., redaktor; ~~YEROKHINA, L.A.~~; tekhnicheskiy redaktor

[Moscow street directory; based on data as of April 30, 1955]
Spravochnik ulits Moskvy; po sostoyaniyu na 30 aprelya 1955 g.
[Moskva] 1955. 452 p. (MLRA 8:7)

1. Moskovskaya gorodskaya spravochno-informatsionnaya kontora
"Mosgorispravka," Moscow. Upravleniya predpriyatiy kommunal'nogo
obsluzhivaniya Mosgorispolkoma.
(Moscow--Streets)

YEROKHINA, L. G.

"Itching Sensation During Organic Afflictions of the Nervous System."
Cand Med Sci, Second Moscow Med Inst, Moscow, 1953. (RZhBiol No 6, 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

EXCEPITA MEDICA Sec.13 Vol.12/3 Dermato-Venereology Mar58

YEROKHINA, L. G.

607. PRURITAL PARAESTHESIA, ACCOMPANYING FOCAL DISTURBANCES OF THE NERVOUS SYSTEM (Russian text) - Erochina L. G. - ZH. NEVROPAT. PSIKHIAT. (Mosk.) 1956, 56/7 (543-547)

The effect of s. c. injections (1:10,000) of histamine was observed in 168 patients with different focal disturbances of the nervous system. Spontaneous pruritus may originate when the skin analyzer has been disturbed. Prurital paraesthesia may be an early symptom of a focal nervous disease. Paraesthesias may become manifest in the zones of disturbed sensitivity in connection with an illness of the analyzer. It may also take the form of pains in the Zacharin-Head zones when some inner organs are afflicted with a disease. Prurital paraesthesia may prove to be a useful help in the diagnoses of nervous illnesses.

Hádlik - Brno (VIII, 13)

YEROKHINA, L.G.

YEROKHINA, L.G., kand.med.nauk (Moskva)

Diagnosis of pterygopalatine neuralgia. *Klin.med.* 35 no.9:98-100
'57. (MIRA 10:11)

1. Is: kliniki nervnykh bolezney (dir. - prof. I.N.Filimonov) II
Moskovskogo meditsinskogo instituta.

(PALATE, dis.

pterygopalatine neuralgia, diag.)

(NEURALGIA, diag.

pterygopalatine, neuralgia)

YEROKHINA, L.(.), kand.med.nauk

~~Itching sensations in organic affections of the nervous system,~~
Vrach.delo no.10:1043-1045 0 '58 (MIRA 11:11)

1. Klinika nervnykh bolezney Vtorogo moskovskogo meditsinskogo
instituta (nauchnyy rukovoditel' deystv. chlen ANU SSSR, prof.
A.M. (brinshteyn).

(NERVOUS SYSTEM--DISEASES)
(PRURITUS)

YEROKHINA, L.G., kand.med.nauk., OGURTSOVA, A.S., dots., MOGIIMVCHIK, N.P.(Moskva)

Neurological syndrome in disorders of blood circulation in the aorta.
Klin.med. 36 no.9:30-35 8'58 (MIRA 11:10)

1. Iz kliniki nervnykh bolezney (dir. --chlen-korrespondent AMN SSSR
prof. I.N. Filimonov) II Moskovskogo meditsinskogo instituta,
nervnogo otdeleniya Gorodskoy klinicheskoy bol'nitsy imeni N.I.
Pirogova (glavnyy vrach - zasluzhennyy vrach RSFSR L.D. Chernyshev).
(AORTA, dis.

causing neurol. synd. (Rus))

(NERVOUS SYSTEM, dis.

caused by aortic dis. (Rus))

BOGOLEPOV, N.K. (Moskva, Kutuzovskiy prospekt, d.10, kv.100); BUSALOV,
A.A.; YEROKHINA, L.G.; SUVOROVA, T.A.

Pathogenesis of achalasia of the cardia (preliminary report on
some changes in the nervous system). Grud. khir., 2 no.6:83-91
N-D '60. (MIRA 14:1)

1. Iz kliniki nervnykh blyzney i kliniki fakul'tetskoy khirurgii
II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.
(STOMACH—DISEASES) (NERVOUS SYSTEM)

BOGOLEPOV, Nikolay Kirillovich, prof.; RASVOROVA, Anna Andrianovna,
dotsept; YEROKHINA, L.G., red.; SEMCHILO, K.K., tekhn.red.

[Vascular diseases of the brain and their prevention]
Sogidistye zavolevaniia golovnogo mozga i ikh profilaktika.
Izd., 2., dop. i perer. Moskva, Gos. izd-vo med. lit-ry Medgiz,
1960. 98 p. (MIRA 14:4)

(BRAIN--DISEASES)

YEROKHINA, L.G.

Pathogenesis of neuralgia of the trigeminal nerve; review of the literature. Zhur. nerv. i psikh. 60 no. 2:248-253 '60.

(MIRA 14:4)

(NEURALGIA, TRIGEMINAL)

YEROKHINA, L.G., kand.med.nauk; POLYKOVSKAYA, I.D. (Moskva)

Significance of lesions of the stellate ganglion in the early
diagnosis of Pancoast's tumor. Klin.med. 39 no.4:108-111 '61.
(MIRA 14:4)

1. Iz kliniki nervnykh bolezney (zav. - prof. N.K. Bogolepov)
II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.
(LUNGS--TUMORS)

YEROKHINA, L.G.; SAVCHENKO, M.S.

Diadynamic currents in the diagnosis and treatment of facial pain syndromes. Zbur. nevr. i psikh. 61 no.12:1813-1818 '61.
(MIRA 15:7)

1. Klinika nervnykh bolezney II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova (sav. kafedroy - prof. N.K. Bogolepov) i kafedra fizioterapii II Moskovskogo meditsinskogo instituta imeni Pirogova (sav. - kafedroy - prof. Ye.I. Pasynkov).
(ELECTRODIAGNOSIS) (ELECTROTHERAPEUTICS)
(NEURALGIA, FACIAL)

BOGOLEPOV, N.K., prof.; YEROKHINA, L.G., kand.med.nauk (Moskva)

Epileptiform syndrome in myocardial infarcts. Vrach.delo
no.12:8-12 D '62. (MIRA 15'12)
(HEART--INFARCTION) (EPILEPSY)

YEROKHINA, L.G. and KOMAROV, B.D. (Moskva G-48, Komsomol'skiy prospekt,
d.36, kv.107)

Neurologic complications in plastic surgery on aortic co-
arctation. Grud.khir. 4 no.6:33-37 N-D'68 (MIRA 16:10)

1. Iz kliniki nervnykh bolszney (zav. - prof. N.K.Bogolepov)
i kliniki fakul'tetskoy khirurgii (zav. - akademik A.N.
Bakulev) II Moskovskogo meditsinskogo instituta.

(AORTA SURGERY)

(SURGERY—COMPLICATIONS AND SEQUELAE)

YEROKHINA, L.G., dotsent; MALKOVA, Ye.V., ordinator (Moskva)

Postherpetic trigeminal neuralgia. Klin. med. 41 no. 9&45-49
S'63 (MIRA 17&3)

1. Iz kliniki nervnykh bolezney (zav. = prof. N.K. Bogolepov)
II Moskovskogo meditsinskogo instituta.

YEROKHINA, L.G.

Pathogenic, clinical and prognostic significance of trigger zones
in typical neuralgia of the trigeminal nerve. Zhur. nevr. i psikh.
64 no.11:1648-1652 '64. (MIRA 18:6)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. N.K. Bogolepov)
II Moskovskogo meditsinskogo instituta im. N.I. Pirogova.

YEROKHINA, I.G.; ALMAZOVA, I.G.

Treatment of eosinophilic granulomas of the cranial vault. Sov. med.
28 no.3:115-118 Mr '65. (MIRA 18:10)

1. Kafedra nervnykh bolezney (zav. - prof. N.K. Bogolepov) II Moskov-
skogo meditsinskogo instituta imeni N.I. Pirogova.

^
IERUSALIMSKIY, N.D.; ANISIMOVA, S.A.; YEROKHINA, L.I.

Full-valued synthetic medium for acetone-ethanol bacteria. Trudy
Inst. Mikrobiol., Akad. Nauk S.S.S.R. No.2, 114-20 '52, (MIRA 5:12)
(CA 47 no.15:7591 '53)

1. Moscow State Univ.

YEROKHINA, L. I.

USSR / Microbiology. General Microbiology. Treatise of External Agents. Infection.

Abstr Jour: Izv. Akad. Nauk SSSR, No 2, 1959, 5419.

Author: Prokof'yeva-Nel'ovskaya, A. A.; Yermolova, S. I.; Yermolova, G. I.; Yermolova, L. I.

Instit: Inst. of Microbiology, Acad. Sci. USSR, Moscow, U.S.S.R.

Title: Creation of Radiation Mutants in Actinomyces (Actinomyces globisporus streptomycin Kraus.)

Orig Pub: Izv. AN SSSR. Ser. Biol., 1958, No 2, 103-101.

Abstract: Cytological and cultural characteristics, as well as antibiotic activity of four strains of A. globisporus streptomycin and 50 mutants of this species, obtained with the aid of ultrahigh doses of ultraviolet rays (10,000-15,000 erg/cm²) with intermediate photoactivation, were studied. The ultraviolet radiation caused

Card 1/2

Abstract: the formation of mutants with hereditary changes of nucleoprotein components of the cell. The mutants exhibited different characteristics, mainly in the development, structure of nuclear elements, character of their division and their content of RNA. 5 types of radiation mutants most frequently encountered in a producer of streptomycin under the influence of ultraviolet radiation were isolated. 21 microphotographs and a scheme of the development of mutants of the 5 isolated types are given. -- L. V. Kats.

Card 2/2

*Lab of Radiation Genetics, Inst. Biophys. AS USSR
and All. Inst. Antibiotics*

21(0): 17(0)

TABLE I BOOK EXCERPTS 09/2008

International Conference on the Peaceful Uses of Atomic Energy, 22. Geneva, 1958
Being proceedings, including radiobiology, radioclimatology and radiation protection
(Report of Soviet Scientists, Radiobiology and Radiation Protection)
Moscow, U.S.S.R., 1959. 489 p. 6,000 copies printed. (Series: Foreign
Language Documentation, bibliography for atomic 1958, scientific activity, world
index, no. 5)

Report No. 1. A.P. Zaslavskiy, Corresponding member, USSR Academy of Medical
Sciences; M.I. E.L. Khromov; S.M. M.I. Ivanov.
Physics. This book is intended for physicians, scientists, and engineers
as well as for students and residents of various state radiobiology and
radiation protection schools.

Summary: This is Volume 3 of a 6-volume set of reports delivered by Soviet
scientists at the second International Conference on the Peaceful Uses of
Atomic Energy, held on September 1-15, 1958 in Geneva. Volume 3, entitled
"Reports of the Institute of Medical Sciences U.S.S.R. Leningrad and V.I.
Laboratory. The reports cover problems of the biological effects of ionizing
radiation, adverse consequences of radiation in small doses, genetic effects
of radiation, treatment of radiation sickness, uses of radioclimatology
in medical and biological research, uses of cosmic energy for atmospheric
and hydrographic purposes, and absorption of cosmic radiation particles
during flights by planes, and their storage in plants and foodstuffs.
References covering each report.

Reports of Soviet Scientists (Cont.)

Okolob, L.V. and D.V. Zhilinskaya. The Peaceful Uses of Atomic Energy, and
Other Practical Problems and Their Solution in the USSR (Report No. 5211) 517

Shelton, J.D. Radiation of the Ionosphere: Report on Benefits and the Problem
of Interference (Report No. 5078) 578

Shapiro, S.G. and H.L. Jassby-Lima. Synoptic Report of Particle Radiation
in Field of Heavy Ion Colls (Report No. 5076) 585

Alimov, A.S., S.G. Gerasim, S.D. Galimov, I.K. Khokhlov, V.G. Shchegolov,
B.I. Zhukov, O.G. Zolotarev, J.D. Kuznetsov, M.K. Kuznetsov, A. Kuznetsov,
M.I. Gerasimov, and L.V. Zhilinskaya. Genetic Effects of Radiation and the
Question of Interference from Cosmic Radiation (Report No. 5093) 595

ANNEXES: Library of Congress (LC70-133)

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ML/ps
1-5-60

YEROKHINA, L.I.

ALIKHANYAN, S.I.; YEROKHINA, L.I.

Utilization of photoreactivation in the ultraviolet method of breeding organisms producing antibiotics, Antibiotiki, 4 no.2:14-18 Mr-Apr '59
(MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

(STREPTOMYCES

use of photoreactivity in ultraviolet selection of organisms producing antibiotics (Ser))

(ACTINOMYCES

same)

(ULTRAVIOLET RAYS

same)

YEROKHINA, L.I.

Use of ultraviolet rays in the selection of strains producing streptomycin. Trudy Inst. mikrobiol. no.10:169-173 '61.

(MIRA 14:7)

(ACTINOMYCES) (ULTRAVIOLET RAYS---PHYSIOLOGICAL EFFECT)
(STREPTOMYCIN)

YEROKHINA, L.I.; ALIKHANYAN, S.I.

Use of visible light in studying the kinetics of mutagenesis.
Radiobiologia 1 no.5:792-795 '61. (MIRA 14:11)

1. Institut atomnoy energii imeni I.V.Kurchatova AN SSSR, Moskva.
(ULTRAVIOLET LIGHT—PHYSIOLOGICAL EFFECT)
(VARIATION (BIOLOGY))

PROKOF'YEVA-EEL'GOVSKAYA, A.A.; MIKHAILOVA, G.R.; YEROKHINA, L.I.

Cytological study of the effect of ultraviolet rays and photo-
reactivation of the spores of *Actinomyces olivaceus*. Izv. AN SSSR
Ser. biol. 26 no.1:93-100 Ja-I' '61. (MIRA 14:3)

1. Institute of Biological Physics, Academy of Sciences of the
U.S.S.R., All-Union Research Institute of Antibiotics.
(ACTINOMYCES) (ULTRAVIOLET RAYS—PHYSIOLOGICAL EFFECT)

YEROKHINA, L. I.

Dissertation defended at the Institute of Microbiology
for the academic degree of Candidate of Biological Sciences:

"Variability of Actinomycetes -- Streptomycin Producers -- Induced
by Ultraviolet Rays."

Vestnik Akad Nauk, No. 4, 1963, pp. 119-145

YEROKHINA, L. I.; ALIKHANYAN, S. I.

"The production of mitants of actinomyces rimosus, synthetizing substances different from oxytetracycline."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Inst Atomic Energy Im I. V. Kurchatov, Moscow.

YEROKHINA, L.I.; IL'INA, T.S.; KAMENEVA, S.V.; KRYLOV, V.N.;
LOMOVSKAYA, N.D.; MINDLIN, S.Z.; NIKIFOROV, V.N.; SOKOLOVA,
Ye.V.; SUKHODOLETS, I.V.; ZAKHAROV, I.A.; INGE-VECHTOMOV,
S.G.; KVITKO, K.V.; KRIVISSKIY, A.S.; KARASEVICH, Yu.N.;
ENGEL'GARDT, V.A., akademik, glav. red.; ALIKHANYAN, S.I.,
prof., red.; IL'INA, T.S., red.

[Genetics and variation of micro-organisms] Genetika i se-
lektsiia mikro-organizmov. Moskva, Nauka, 1964. 302 p.
(MIRA 17:9)

1. Institut atomnoy energii imeni I.V.Kurchatova (for
Yerokhina, Il'ina, Kameneva, Krylov, Lomovskaya, Mindlin,
Nikiforov, Sokolova, Sukhodolets). 2. Kafedra genetiki Le-
ningradskogo gosudarstvennogo universiteta (for Zakharov,
Inge-Vechtomov, Kvitko). 3. Institut radiatsionnoy i fiziko-
khimicheskoy biologii (for Krivisskiy). 4. Institut mikro-
biologii AN SSSR (for Karasevich).

YEROKHINA, L.I.

Study and characteristics of *Actinomyces rimosus* mutants
synthesizing substances differing from hydroxytetracycline.
Genetika no.5:61-64 N '65. (MIRA 19:1)

1. Institut atomnoy energii imeni I.V. Kurchatova, Moskva.
Submitted April 26, 1965.